

2023 ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT

**ALABAMA POWER COMPANY
PLANT BARRY
ASH POND**

January 31, 2024

Prepared for

Alabama Power Company
Birmingham, Alabama

By

Southern Company Services
Earth Science and Environmental Engineering



CERTIFICATION STATEMENT

This *2023 Annual Groundwater Monitoring and Corrective Action Report, Alabama Power Company – Plant Barry Ash Pond* has been prepared in accordance with the United States Environmental Protection Agency’s coal combustion residual rule (40 CFR Part 257, Subpart D), ADEM Admin. Code Ch. 335-13-15, and Part E of ADEM Administrative Order No. 18-094-GW, under the supervision of a licensed professional engineer in the State of Alabama. As such, I certify that the information contained herein is true and accurate to the best of my knowledge.

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EXECUTIVE SUMMARY

In accordance with the United States Environmental Protection Agency (EPA) coal combustion residual (CCR) rule (40 CFR Part 257, Subpart D), the State of Alabama Department of Environmental Management (ADEM) Admin. Code Ch. 335-13-15, and ADEM Administrative Order (AO) No. 18-094-GW, this 2023 Annual Groundwater Monitoring and Corrective Action Report has been prepared to document semi-annual groundwater monitoring activities at the Alabama Power Company (APC) Plant Barry Ash Pond (Site) and to satisfy the requirements of 40 CFR § 257.90(e), ADEM Admin. Code r. 335-13-15-.06(1)(e), and Part E of AO 18-094-GW. Semi-annual monitoring and associated reporting for Plant Barry Ash Pond is performed in accordance with the monitoring requirements 40 CFR § 257.90 through § 257.98 and ADEM Admin. Code r. 335-13-15-.06(1) through r. 335-13-15-.06(9).

The CCR unit began the monitoring period in corrective action pursuant to 40 CFR § 257.98 and ADEM Admin. Code r. 335-13-15-.06(9). Statistically significant increases (SSI) of Appendix III constituents over background were identified in the results of the first detection monitoring event and assessment monitoring was initiated in January 2018. Statistically significant levels (SSL) of Appendix IV parameters above groundwater protection standards were identified while in assessment monitoring. Consequently, an assessment of corrective measures (ACM) was initiated on January 13, 2019, and completed on June 12, 2019, according to the requirements of 40 CFR § 257.96, ADEM Admin. Code r. 335-13-15-.06(7), and AO 18-094-GW. A public meeting to discuss the ACM was held on June 30, 2020.

Since the submittal of the ACM, extensive Site investigations have been performed to select effective corrective measures to address SSL above GWPS. A Groundwater Remedy Selection Report was prepared to meet the requirements of 40 CFR § 257.97, ADEM Admin. Code r. 335-13-15-.06(8), and Part C of AO No.18-094-GW and submitted to ADEM on October 29, 2021. Subsequently, within 90 days of remedy selection, a Corrective Action Groundwater Monitoring Program was developed and submitted to ADEM on January 27, 2022, for review.

The Corrective Action Groundwater Monitoring Program was prepared to meet 40 CFR § 257.98 and ADEM Admin. Code r. 335-13-15-.06(9) to detect potential downgradient changes in groundwater quality and assess the efficacy of the selected groundwater corrective action remedies. The Monitoring Program has been developed to meet the requirements of 40 CFR § 257.98(a)(1) and ADEM Admin. Code r. 335-

13-15-.06(9)(a)(1) and will supplement the ongoing CCR compliance groundwater monitoring currently being performed at the Site.

Statistical evaluation of assessment monitoring data identified SSL of Appendix IV parameters arsenic and cobalt during the first and second semi-annual monitoring events of 2023. The following summarizes results and activities conducted during the first and second semi-annual monitoring periods of 2023:

- Submitted the 2022 Annual Groundwater Monitoring and Corrective Action Report on January 31, 2023.
- Completed the Laboratory Treatability Studies for geochemical manipulation using injection, which was selected as one of the corrective measures described in the Groundwater Remedy Selection Report. The Laboratory Treatability Study Results for the Plant Barry Ash Pond is included as **Appendix F**. The laboratory treatability studies included the following tasks:
 - Sampling and characterization (analysis) of aquifer soil and groundwater.
 - Batch testing to evaluate removal of constituents of interest (COI), and selection of the optimum reagents and doses for column tests.
 - Column testing to evaluate removal of COI by mixing treatment reagents with site-specific impacted groundwater and applying to site-specific soils (aquifer solids) in columns. Appendix III and IV constituents were measured in the column effluents to determine the reduction of COI in groundwater, and to evaluate any unintended consequences of treatment (e.g., release of constituents from soils).
 - Selective sequential extraction of post-column (treated) soils to help determine the sequestration mechanisms and stability of the COIs and their host solids.
- Completed the first semi-annual groundwater sampling event between April 3, 2023 and April 24, 2023, and submitted the first 2023 Semi-Annual Groundwater Monitoring and Corrective Action Report to ADEM on July 31, 2023.
- Completed the second semi-annual groundwater sampling event between August 7, 2023 and August 16, 2023.
- Continued real-time collection and evaluation of groundwater data from multi-parameter monitoring instrumentation at select wells installed in January and February 2022 for evaluating groundwater conditions during closure activities and between sampling events.

The CCR unit concluded the monitoring period in corrective action and APC will continue implementation of the selected groundwater remedies identified in the Groundwater Remedy Selection Report and the Corrective Action Groundwater Monitoring Program submitted to ADEM. The following corrective action and monitoring-related activities are planned for the CCR unit:

- Prepare a preliminary design investigation field work plan in preparation for potentially implementing a geochemical injection pilot study, which was selected as one of the corrective measures described in the Groundwater Remedy Selection Report.
- Conduct the first semi-annual monitoring event in the spring of 2024 and submit the Semi-Annual Groundwater Monitoring and Corrective Action Report summarizing the findings to ADEM by July 31, 2024.

Pursuant to 40 CFR § 257.90(e)(6), a **Monitoring Period Summary Table** has been prepared to describe the status of groundwater monitoring and corrective action during the monitoring period for this report.

**Executive Summary Table.
Monitoring Period Summary
Plant Barry - Ash Pond**

Assessment Monitoring Initiated: January 15, 2018
 Monitoring Period: January 1 - December 31, 2023
 Beginning Status: Corrective Action
 Ending Status: Corrective Action

Statistical Analysis Results *

Appendix III SSIs

Parameter	Wells
Boron	BY-AP-MW-1, BY-AP-MW-9, BY-AP-MW-10, BY-AP-MW-16.
Calcium	BY-AP-MW-1, BY-AP-MW-4, BY-AP-MW-5, BY-AP-MW-6, BY-AP-MW-7, BY-AP-MW-9, BY-AP-MW-10, BY-AP-MW-11, BY-AP-MW-12, BY-AP-MW-13, BY-AP-MW-14, BY-AP-MW-15, BY-AP-MW-16.
Chloride	BY-AP-MW-1, BY-AP-MW-3, BY-AP-MW-4, BY-AP-MW-5, BY-AP-MW-7, BY-AP-MW-8, BY-AP-MW-9, BY-AP-MW-10, BY-AP-MW-11, BY-AP-MW-12, BY-AP-MW-13, BY-AP-MW-14, BY-AP-MW-15, BY-AP-MW-16.
Fluoride	BY-AP-MW-7, BY-AP-MW-15.
pH	BY-UP-MW-1, BY-AP-MW-3, BY-AP-MW-8.
Sulfate	BY-AP-MW-7, BY-AP-MW-8, BY-AP-MW-9, BY-AP-MW-10, BY-AP-MW-11, BY-AP-MW-12, BY-AP-MW-15, BY-AP-MW-16.
TDS	BY-AP-MW-1, BY-AP-MW-3, BY-AP-MW-4, BY-AP-MW-5, BY-AP-MW-7, BY-AP-MW-8, BY-AP-MW-9, BY-AP-MW-10, BY-AP-MW-11, BY-AP-MW-12, BY-AP-MW-13, BY-AP-MW-14, BY-AP-MW-15, BY-AP-MW-16.

Appendix IV SSLs

Parameter	Wells
Arsenic	BY-AP-MW-1, BY-AP-MW-5, BY-AP-MW-7, BY-AP-MW-8, BY-AP-MW-9, BY-AP-MW-10, BY-AP-MW-11, BY-AP-MW-12, BY-AP-MW-14, BY-AP-MW-15, BY-AP-MW-16.
Cobalt	BY-AP-MW-15.

* See the attached report for further details regarding statistical exceedances and alternate source demonstrations.

Assessment of Corrective Measures & Groundwater Remedy

Assessment of Corrective Measures

Date Initiated: January 13, 2019
 Date Complete: June 12, 2019
 Public Meeting Date: June 30, 2020

Groundwater Remedy

Remedy Selection Date: October 29, 2021
 Initiated During Period: Yes
 Ongoing During Period: Yes

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ABBREVIATIONS

ACM	Assessment of Corrective Measures
ADEM	Alabama Department of Environmental Management
AL	Alabama
APC	Alabama Power Company
APCEL	APC Environmental Laboratory
ASD	Alternate Source Demonstration
ASTM	Alabama Power Company Environmental Laboratory
BGS	below ground surface
CCR	Coal Combustion Residual
CEC	cation exchange capacity
CFR	Code of Federal Regulations
COC	chain of custody
COI	constituents of interest
CSM	conceptual site model
DO	dissolved oxygen
EPA	United States Environmental Protection Agency
ft	feet
GW	groundwater
GWPS	Groundwater Protection Standard(s)
LCL	Lower Confidence Limit(s)
m	meter
mg/L	milligram per liter
MNA	monitored natural attenuation
MSL	mean sea level
MW-	denotes "Monitoring Well"
NCDS	National Coal Data System
NELAP	National Environmental Laboratory Accreditation Program
NTU	nephelometric turbidity unit
ORP	oxidation reduction potential
pCi/L	picocuries per liter
PE	Professional Engineer
PG	Professional Geologist
PL	prediction limits
PQL	practical quantitation limit
PVC	polymerizing vinyl chloride
QA/QC	quality assurance/quality control
RL	reporting limit
RPD	relative percent difference

SEM	scanning electron microscopy
SM	Standard Method(s)
SSE	selective sequential extraction
SSI	statistically significant increases
SSL	statistically significant levels
TAL	Test America, Inc.
TOC	top of casing
TDS	total dissolved solids
USGS	Unites States Geological Survey
UTLs	Upper Tolerance Limits
XRD	X-ray diffraction
XRF	X-ray fluorecence

1.0 INTRODUCTION

In accordance with the United States Environmental Protection Agency (EPA) coal combustion residual (CCR) rule (40 CFR Part 257, Subpart D), the State of Alabama Department of Environmental Management (ADEM) Admin. Code Ch. 335-13-15, and ADEM Administrative Order (AO) No. 18-094-GW, this 2023 Annual Groundwater Monitoring and Corrective Action Report has been prepared to document groundwater monitoring activities at the Plant Barry Ash Pond. Semi-annual monitoring and associated reporting for Plant Barry Ash Pond is performed in accordance with the monitoring requirements in 40 CFR § 257.90 through § 257.98 and ADEM Admin. Code r. 335-13-15-.06(1) through r. 335-13-15-.06(9).

Semi-Annual Groundwater Monitoring and Corrective Action Reports include an update on groundwater delineation activities completed since the submittal of the Facility Plan for Groundwater Investigation (November 13, 2018) and corrective action activities completed since the submittal of the Corrective Action Groundwater Monitoring Program (January 27, 2022).

2.0 MONITORING PROGRAM STATUS

The site is currently in corrective action and APC will continue implementation of the selected groundwater remedies identified in the Groundwater Remedy Selection Report and the Corrective Action Groundwater Monitoring Program. In accordance with 40 CFR § 257.94(e) and ADEM Admin. Code r. 335-13-15-.06(5)(e), APC implemented assessment monitoring in January 2018. SSI of Appendix III and SSL of Appendix IV parameters were identified at the Plant Barry Ash Pond during sampling events conducted in 2018. Alternate Source Demonstrations (ASD) were not completed for all Appendix IV constituents exceeding the GWPS; therefore, pursuant to 40 CFR § 257.95(g)(3)(i) and ADEM Admin. Code r. 335-13-15-.06(6)(g)4.(i), APC completed an assessment of corrective measures (ACM) in accordance with 40 CFR § 257.96, ADEM Admin. Code r. 335-13-15-.06(7), and ADEM AO No. 18-094-GW. The ACM was completed June 12, 2019, and a public meeting was held to discuss the ACM on June 30, 2020.

A Groundwater Remedy Selection Report was prepared to meet the requirements of 40 CFR § 257.97, ADEM Admin. Code r. 335-13-15-.06(8), and Part C of AO No.18-094-GW and submitted to ADEM on October 29, 2021. Subsequently, within 90 days of remedy selection, a Corrective Action Groundwater Monitoring Program plan was developed and submitted to ADEM on January 27, 2022, for review.

The Corrective Action Groundwater Monitoring Program was prepared to meet 40 CFR § 257.98 and ADEM Admin. Code r. 335-13-15-.06(9) to detect potential downgradient changes in groundwater quality and assess the efficacy of the selected groundwater corrective action remedies. The Monitoring Program has been developed to meet the requirements of 40 CFR § 257.98(a)(1) and ADEM Admin. Code r. 335-13-15-.06(9)(a)(1) and will supplement the ongoing CCR compliance groundwater monitoring currently being performed at the Site.

In accordance with 40 CFR § 257.98 and ADEM Admin. Code r. 335-13-15-.06(9), APC will continue semi-annual monitoring, including all monitoring wells in the certified groundwater monitoring system and any well installed to characterize the horizontal and vertical extent of SSL. APC will continue implementation of the selected groundwater remedies identified in the Groundwater Remedy Selection Report and the Corrective Action Groundwater Monitoring Program submitted to ADEM.

3.0 SITE LOCATION AND DESCRIPTION

The Alabama Power Company (APC) James M. Barry Electric Generating Plant (Plant Barry) is in northeastern Mobile County, Alabama, approximately 23 miles north of Mobile, AL and 1 mile east of the city of Bucks, AL. The physical address is 15300 U.S. Highway 43 North, Bucks, Alabama 36512. Plant Barry lies in Section 36 of Township 1 North, Range 1 West, Sections 31 and 32 of Township 1 North, Range 1 East, Section 1 of Township 1 South, Range 1 West, and Sections 5 and 6 of Township 1 South, Range 1 East. Section/Township/Range data are based on visual inspection of USGS topographic quadrangle maps and GIS maps (USGS, 1980, 1982a, 1982b, 1983). The Ash Pond is located east-southeast of the main plant, between the Mobile River and Plant Barry barge canal. **Figure 1, Site Location Map,** depicts the location of the Plant and Ash Pond with respect to the surrounding area.

3.1 PHYSICAL SETTING

Plant Barry is located within the Southern Pine Hills and the Alluvial-deltaic Plain districts of the East Gulf Coastal Plain physiographic section. The Alluvial-deltaic Plain district is composed of alluvium and terrace deposits of the Mobile River delta and is characterized by very little topographical relief (Gillet et al., 2000). The Southern Pine Hills district is a southward sloping plain developed on Miocene Series clay, sand, and gravel deposits. The Southern Pine Hills district is dissected by surface water features, and near Plant Barry, displays gentle topographic relief (Davis, 1987). Local site elevations near the Ash Pond range from approximately 0 to 50 feet above mean seal level (MSL). The embankment elevations that form the perimeter of the Ash Pond reside between 26 and 20 feet MSL. **Figure 2, Site Topographic Map,** provides the topography of the Site.

3.2 SITE GEOLOGY AND HYDROGEOLOGY

The geology of the site is characterized by sedimentary deposits ranging in age from Tertiary to Quaternary. The Pliocene age Citronelle formation, while present regionally, was not encountered at the site. Sedimentary alluvial and terrace deposits of the Quaternary Period overlie largely unconsolidated Tertiary deposits in and adjacent to the flood plains of the Mobile River. At the site, Holocene age alluvial and low terrace deposits overlie undifferentiated Miocene Series sediments. Miocene Series sediments were primarily deposited in a regressive marine depositional environment. The Miocene Series is composed of fine to very coarse-grained sand with interbedded sandy clays, silts, and shell fragments (Walter and Kidd,

1979). Siliciclastic sediments of the Miocene Series are often micaceous and pyritic, and contain wood fragments, shell debris, and heavy minerals (Chandler et al., 1985). Alluvial, low terrace, and coastal deposits reflect estuarine, deltaic, lagoonal, and shoreface deposition in lowland areas from late Pleistocene to Holocene time. These deposits consist of fine to coarse sand, which can be rich in heavy detrital minerals (Hsu, 1960), silt, sandy clay, clay, and shell fragments (Chandler et al., 1985). **Figure 3, Site Geologic Map**, illustrates the surface geology at the site and neighboring areas. **Figure 4A, Geologic Cross-Section A-A'**, **Figure 4B, Geologic Cross-Section B-B'**, and **Figure 4C, Geologic Cross-Section C-C**, provide illustrations of well screen intervals with respect to stratigraphy and elevation at the Site.

Around the site, the uppermost stratigraphic layer varies from approximately 5 to 20 feet and is defined as fill material composed of sandy and silty lean clays that were placed during the construction of the Ash Pond. Beneath the fill material, generalized near-surface stratigraphy of the site, in descending order, consists of (Unit 1) an organic-rich fat clay to lean clay, (Unit 2) a sandy lean clay to clayey sand with interbedded silty sand, (Unit 3) a poorly graded sand with lenses of sandy lean clay and gravel, and (Unit 4) a pale greenish gray or blue, interbedded fat clay, lean clay, and silty sand. The stratigraphy of the site displays vertical and horizontal heterogeneity common with alluvial, low terrace, and coastal deposits.

- Unit 1 is described as a mottled gray to dark gray and red fat clay with some interlayered sandy lean clays. Unit 1 extends from the base of fill materials to elevations of approximately -10 to -25 feet mean sea level (MSL).
- Unit 2 consists of mottled light gray, brownish yellow, and red sandy lean clay with medium plasticity and trace amounts of interlayered sand. Lenses of clayey sands and silty sands are also present within this unit. Unit 2 extends from the base of the organic clay layer to elevations of approximately -30 to -40 feet MSL grading into sand of Unit 3.
- Unit 3 is described as a pale brown or light gray poorly graded sand with silt content. Fine gravel appears in the lower portion of Unit 3. Lenses of sandy clay and clayey sand are present in the upper portions of Unit 3 but are not prevalent.
- Unit 4 likely corresponds to the transition to Miocene Series sediments and is described as a pale greenish gray or blue, interbedded fat clay, lean clay, and silty sand. The top of Unit 4 generally appears between 90 and 120 feet below ground surface at the Site (-65 to -100 ft MSL) and select borings (BY-AP-MW-8V, BY-AP-MW-12V, BY-AP-MW-12VM, BY-AP-MW-15VM) indicate

a thickness of 10 to 20 feet. Unit 4 clays display a very low average hydraulic conductivity of 3.0×10^{-7} cm/s.

3.2.1 Uppermost Aquifer

The uppermost aquifer beneath the site generally corresponds to Unit 2 and 3 sands, which are part of the Watercourse Aquifer system. The Watercourse Aquifer system is bounded by low permeability Unit 1 and Unit 4. At the site, the Watercourse Aquifer generally consists of fine to medium grained sands with discrete gravelly, coarse sand and gravel. Clay beds and lenses are prevalent in Unit 2 especially to the west and south-southeast. Clay nodules, lenses, and stringers are present within Unit 3 but are not prevalent. Depth to the top of the Watercourse Aquifer generally ranges between 45 and 70 feet below ground surface (BGS). Groundwater recharge to the Watercourse Aquifer is largely accomplished by infiltration of precipitation and subsequent percolation down to the water table. Regionally, the Watercourse and Miocene-Pliocene Aquifers are considered to be hydraulically connected due to the discontinuous nature of clay aquitards. However, locally semi-confined to confined conditions may be present when a sufficient aquitard separates the aquifers or sand units.

3.2.2 Flow Interpretation

Groundwater flow at the site is a subdued replica of the natural topography where gravity is the dominant force driving flow. Groundwater flows from higher topographic elevations west of the Ash Pond to lower topographic elevations to the east. Groundwater elevations, potentiometric surfaces, and geologic cross-section indicate that the Watercourse Aquifer beneath the Site is not in communication with the discharge canal. Groundwater flow is accomplished by porous or Darcian flow mechanics through sands of the Watercourse Aquifer. Groundwater elevations fluctuate in response to rainfall and Mobile River stage. During seasonal flood events from rising river stages, groundwater flow direction temporarily changes and water flows from the river towards the aquifer, resulting in temporary groundwater level rise in the vicinity of the riverbanks.

Seasonal variations of 5 to 7 feet are typical at the Site. These fluctuations are consistent in monitoring wells across the Site. Potentiometric surface maps are referenced in **Section 4.0**.

3.3 GROUNDWATER MONITORING SYSTEM

Pursuant to 40 CFR § 257.91 and ADEM Admin. Code r. 335-13-15-.06(2), Plant Barry has installed a groundwater monitoring well network to monitor groundwater quality within the uppermost aquifer. The certified groundwater monitoring system for the Plant Barry Ash Pond is designed to monitor groundwater passing the waste boundary of the CCR unit. Wells were located to serve as upgradient or downgradient monitoring locations based on groundwater flow direction as determined by the potentiometric surface elevation contour maps.

Monitoring wells were screened in the Watercourse Aquifer. The Watercourse Aquifer is composed of Quaternary alluvial and low terrace deposits consisting of interbedded sand, gravel, and clay. The monitoring systems are designed to monitor water quality as groundwater flows laterally from south to north across the site. All groundwater monitoring wells were designed and constructed using “Design and Installation of Groundwater Monitoring Wells in Aquifers,” ASTM Subcommittee D18.21, as a guideline.

3.3.1 Monitoring Wells

Well locations at the site are designated as upgradient, downgradient, piezometer (water-level only), vertical delineation, and horizontal delineation. The following subsections provide a summary of well designations and if applicable, changes or modifications to the well network or designations. As described in the site Groundwater Monitoring Plan, modifications to the well network or designation must first be approved by ADEM. Monitoring well locations are presented on **Figure 5, Monitoring Well Location Map**, **Table 1a, Compliance Monitoring Well Network Details**, **Table 1b, Delineation Well Network Details**, and **Table 1c, Piezometer Well Network Details**, summarize the monitoring well construction details and design purpose for the Plant Barry Ash Pond.

3.3.1.1 Upgradient Wells

Data used to establish background water quality or selection of upgradient wells include: (1) review of groundwater elevation data and potentiometric surface contour maps to determine groundwater flow direction and (2) screening of Appendix III CCR indicator parameters (chiefly calcium, sulfate, and boron) for apparently elevated concentrations.

Historically, monitoring wells BY-AP-MW-2 through BY-AP-MW-4 have served as upgradient monitoring wells. These wells were selected as upgradient based on low concentrations of CCR indicator parameters and groundwater flow direction. Following discussions with ADEM, these wells were re-designated as compliance monitoring wells and not used for “background” purposes.

To establish a clear and distinct background, monitoring well locations BY-GSA-MW-1 through BY-GSA-MW-4 now serve as upgradient locations for the Ash Pond. Groundwater generally flows semi-radially across the Ash Pond from the southwest to northeast with a northerly and southerly flow component. Upgradient wells are located south of the Gypsum Pond as determined by water level monitoring and potentiometric surface maps constructed for the Site. This re-designation of well locations was detailed in the revised groundwater monitoring plan submitted to ADEM on April 15, 2020 and resubmitted on August 24, 2020. Upgradient wells BY-GSA-MW-1 through BY-GSA-MW-4 are now being labeled as BY-UP-MW-1 through BY-UP-MW-4 by field and lab personnel to distinguish as upgradient locations for both the Barry Gypsum Pond and Barry Ash Pond. **Table 1a** summarizes the monitoring well construction details and design purpose.

3.3.1.2 Downgradient Wells

Monitoring well locations BY-AP-MW-1 through BY-AP-MW-16 are used as downgradient compliance monitoring locations for the Ash Pond. Downgradient monitoring well details are included in **Table 1a**.

3.3.1.3 Delineation Wells

Pursuant to 40 CFR § 257.95(g)(1), ADEM Admin. Code r. 335-13-15-.06(6)(g)2., and AO 18-094-GW, additional delineation wells were installed to characterize the horizontal and vertical extent of GWPS exceedances identified during assessment monitoring. Two phases of field investigation since late 2018 explored potential impacts to groundwater. Phase I was conducted between December 2018 and December 2019. Seven vertical delineation wells (BY-AP-MW-1V, BY-AP-MW-5V, BY-AP-MW-7V, BY-AP-MW-8V, BY-AP-MW-10V, BY-AP-MW-12V, and BY-AP-MW-15V) and seven horizontal delineation wells (BY-AP-MW-17H, BY-AP-MW-18H, BY-AP-MW-19H, BY-AP-MW-20H, BY-AP-MW-22H, BY-AP-MW-23H, and BY-AP-MW-24H), were installed and sampled to assess the lateral extent of groundwater impact in the directions of groundwater flow away from the facility.

A Groundwater Investigation Report was submitted on December 15, 2019, summarizing Phase I groundwater investigation findings, and including a work plan for a Phase II investigation. Field work for Phase II was conducted between February 2020 and June 2020. Eight deep vertical delineation wells (BY-AP-MW-13V, BY-AP-MW-14V, BY-AP-MW-16V, BY-AP-MW-17V, BY-AP-MW-20V, BY-AP-MW-23V, and BY-AP-MW-25V) and one horizontal delineation well (BY-AP-MW-25H) were installed to complete delineation activities at the Site.

Additionally, two Type III (double-cased) deep vertical delineation well borings (BY-AP-MW-12VM and BY-AP-MW-15VM) were advanced to vertically delineate the low-permeability Unit 4 interbedded fat clay, lean clay, and silty sand. Boring logs indicate thicknesses of greater than 25 feet (BY-AP-MW-12VM) and 15 feet (BY-AP-MW-15VM) of Unit 4 clays and a very low average hydraulic conductivity of 3.0×10^{-7} cm/s. Subsequently, soil boring BY-AP-MW-12VM was abandoned prior to well installation and BY-AP-MW-15VM was installed as a water level-only piezometer.

All delineation wells are sampled semi-annually as part of the semi-annual assessment groundwater monitoring program. A semi-annual progress and groundwater delineation report summarizing findings was submitted to ADEM on September 30, 2020.

Unlike compliance wells, which are installed on top of the Ash Pond dike, many delineation wells are installed at the base of the dike and surrounding lower-lying areas. During the wet season or after rainy periods, some delineation wells can be either temporarily inaccessible for sampling or unsafe to sample. In that case, another sampling event will be attempted after a drying period or during the next semi-annual sampling event. Delineation wells are identified on **Figure 5** and detailed on **Table 1b**. All delineation wells are sampled semi-annually as part of the semi-annual assessment groundwater monitoring program.

3.3.1.4 Piezometers

Phase II delineation location BY-AP-MW-15VM is used as a water level-only piezometer. This location is separated from the Watercourse Aquifer (Unit 2/3 sands) by a lower confining layer (Unit 4) of sufficient thickness to justify water level-only monitoring at this location. BY-AP-MW-15VM encountered greater than 15 feet of clay and demonstrated a groundwater separation of 1.38 feet and 0.78 feet from paired Watercourse Aquifer well BY-AP-MW-15 during the first Phase II delineation sampling event conducted on June 15, 2020, and second semi-annual sampling event conducted on August 31, 2020. The groundwater

elevations observed in well BY-AP-MW-15VM also indicate an upward vertical gradient (i.e., groundwater flowing upwards), providing further support for a piezometer designation. **Table 1c** summarizes the water-level only piezometer construction details.

3.3.1.5 Monitoring Well Replacement and Abandonment

Monitoring well replacement or abandonment activities were not performed during the first or second 2023 semi-annual monitoring periods.

3.4 GROUNDWATER MONITORING HISTORY

In accordance with 40 CFR § 257.94(b), eight independent samples were collected from each background and downgradient well and analyzed for the constituents listed in Appendix III and IV prior to October 17, 2017. Background sampling was performed over the period of March 2016 to June 2017. Groundwater sampling for the first detection monitoring event after the background period was performed in September 2017.

Based on results of the 2017 Annual Groundwater and Corrective Action Monitoring Report, Alabama Power initiated an assessment monitoring program on January 15, 2018. Pursuant to 40 CFR § 257.95(a) and ADEM Admin. Code r. 335-13-15-.06(6)(a), monitoring wells were sampled for all Appendix IV parameters in January 2018, within 90 days of initiating the assessment monitoring program.

Statistical evaluations of 2018 assessment monitoring data identified SSL of Appendix IV constituents above the GWPS, and the Site entered Assessment of Corrective Measures. Pursuant to 40 CFR § 257.95(g)(1), ADEM Admin. Code r. 335-13-15-.06(6)(g)2., and AO 18-094-GW, additional monitoring wells (**Table 1b, Figure 5**) were installed to characterize the horizontal and vertical extent of GWPS exceedances identified during assessment monitoring in two phases of groundwater investigations between December 2018 and June 2020. These wells, along with the compliance monitoring well network, are sampled semi-annually. Delineation wells installed at the Site have been sampled concurrently with the compliance monitoring well network beginning with the second semi-annual sampling event in September 2020. However, occasionally, additional data collection has occurred independent of routine compliance sampling events to support continuing assessment activities at the site.

3.4.1 Available Monitoring Data

Laboratory analytical data is available for the groundwater monitoring history outlined in **Section 3.4**. Tabulated results for Appendix III and Appendix IV constituents by monitoring well are included in **Appendix A, Analytical Data Summary**.

3.4.2 Historical Groundwater Flow

Historical groundwater elevations and potentiometric surface maps show that groundwater flow patterns are consistent across monitoring events and as described in **Section 3.2.2**. As Ash Pond closure activities progress over the years and upon completion of closure, groundwater elevations will likely display variability representative of changing site hydrodynamics and eventually, a new set of equilibrium conditions. As this timeline progresses, groundwater elevations and trends will be qualitatively reviewed against this historical data set. Tables summarizing groundwater elevations from all groundwater monitoring events are included in **Appendix B, Historical Groundwater Elevations Summary**.

3.4.3 Monitoring Variances

The groundwater monitoring program at the Site is operating under a Variance granted by ADEM on April 15, 2019, to conform State monitoring requirements under the CCR rule to Federal requirements. The variance:

1. Retains boron as an Appendix III detection monitoring parameter and excludes it as an Appendix IV assessment monitoring parameter.
2. Authorizes the use of Federally-published GWPS of 0.006 milligrams per liter (mg/L) for cobalt; 0.015 mg/L for lead; 0.040 mg/L for lithium; and 0.100 mg/L for molybdenum in lieu of background where those levels are greater than background levels.

3.5 GROUNDWATER SAMPLING AND ANALYSIS

Site compliance wells are sampled semi-annually. The spacing between sampling events is sufficient to yield independent groundwater samples and a general representation of the different climatic or meteorological seasons that create a degree of natural variability in groundwater quality.

During routine semi-annual monitoring events, all compliance and delineation network wells are sampled and analyzed for Appendix III and Appendix IV constituents. The following subsections summarize the sequential steps and process for the sampling, handling and transport, and analysis of compliance-related groundwater samples at the site.

3.5.1 Groundwater Sample Collection

Prior to recording water levels and collecting samples, each well was opened and allowed to equilibrate to atmospheric pressure. Within a 24-hour period, depths to groundwater were measured to the nearest 0.01 foot with an electronic water level indicator, with depth referenced from the top of the inner PVC well casing. Groundwater elevations were calculated by subtracting the depth to groundwater from surveyed top-of-casing (TOC) elevations.

Groundwater samples were collected from monitoring wells using low-flow sampling procedures in accordance with 40 CFR § 257.93(a) and ADEM Admin. Code r. 335-13-15-.06(4)(a). All monitoring wells at Plant Barry are equipped with a dedicated pump. Monitoring wells were purged and sampled using low-flow sampling procedures. In this procedure, field water quality parameters (pH, turbidity, conductivity, and dissolved oxygen) are measured to determine stabilization and groundwater samples are collected when the following stabilization criteria are met:

- 0.2 standard units for pH.
- 5% for specific conductance.
- 0.2 mg/L or 10% for DO > 0.5 mg/l (whichever is greater).
- Turbidity measurements less than 10 NTU.
- Temperature and ORP – record only, no stabilization criteria.

During purging and sampling, an in situ Aqua Troll instrument was used to monitor and record field parameters. All downhole groundwater monitoring equipment was calibrated prior to sample collection per the manufacturer's specifications outlined in the Alabama Power Environmental Affairs (EA) Water and Field Group (WFG) Technical Standard Operating Procedure, dated December 14, 2021, prior to sample collection. Once stabilization was achieved, samples were collected and submitted to the laboratory

following standard chain-of-custody (COC) protocol. Field data recorded in support of groundwater sampling activities are included in **Appendix C, Laboratory and Field Records**.

3.5.2 Sample Preservation and Handling

Groundwater samples were collected in the designated size and type of laboratory-supplied containers required for specific parameters. Sample bottles were pre-preserved by the laboratory.

Where temperature control was required, samples were placed in an ice-packed cooler and cooled to less than 6 °C immediately after collection. Blue ice or other cooling packs were not used for cooling samples. An ice-packed cooler was on hand when samples were collected.

3.5.3 Chain of Custody

A COC record was used to track sample possession from the time of collection to the time of receipt at the laboratory. All samples were handled under strict COC procedures beginning in the field. COC records are included with the analytical laboratory reports included in **Appendix C**.

3.5.4 Laboratory Analysis

Laboratory analyses were performed by the APC Environmental Laboratory (APCEL) in Calera, Alabama and Pace Analytical Services, LLC (Pace) in Greensburg, Pennsylvania. Both APCEL and Pace are accredited by National Environmental Laboratory Accreditation Program (NELAP) and maintain a NELAP certification for all parameters analyzed. **Table 2, Parameters and Reporting Limits**, lists assessment monitoring constituents analyzed from site groundwater samples. Lab reports and COC records for the monitoring period are presented in **Appendix C**.

3.5.5 Monitoring Period Sampling Events Summary

As required by 40 CFR § 257.90(e) and ADEM Admin. Code r. 335-13-15-.06(1)(e), the following describes monitoring-related activities performed during the monitoring period. The first semi-annual monitoring event was conducted between April 3 and April 24, 2023.

Groundwater samples were analyzed for the full list of Appendix III and Appendix IV parameters during the monitoring event. Additionally, general chemistry and monitored natural attenuation monitoring parameters are sampled and analyzed for each monitoring event. These analytes have been incorporated for

continued evaluations of geochemical facies and their evolution over time. These analytes will also support geochemical modeling and evaluations associated with monitored natural attenuation. These parameters include:

- Calcium (filtered)
- Iron (total and dissolved)
- Silicon (total and dissolved)
- Silica (total and dissolved)
- Sodium (total and dissolved)
- Sulfide
- Potassium
- Aluminum (total and dissolved)
- Manganese
- Magnesium (total and filtered)
- Nitrate-Nitrite
- Total Alkalinity, Carbonate Alkalinity, Bicarbonate Alkalinity
- Total Organic Carbon.

All groundwater sampling activities were conducted by APC Field and Water Services. Pace Analytical Services performed the laboratory analyses of Radium-226 and Radium-228 (reported combined). APCEL performed the remaining Appendix III and Appendix IV analyses. Analytical data from the groundwater monitoring event are included as **Appendix C** in accordance with the requirements of 40 CFR § 257.90(e)(3) and ADEM Admin. Code r. 335-13-15-.06(1)(f)3.

4.0 GROUNDWATER ELEVATIONS

During the first semi-annual (April 2023) sampling event, a potentiometric surface map was not generated due to flood conditions and construction dewatering activities. In response, a comprehensive site-wide monitor well gauging event was conducted on June 11, 2023. During the June 2023 gauging event, groundwater elevations ranged from 6.03 to 0.89 feet NAVD88 from west (near Gypsum Pond) to east (Ash Pond). **Figure 6A, Potentiometric Surface Contour Map (June 11, 2023)**, depicts groundwater elevations and inferred groundwater flow direction during the June 2023 monitor well gauging event.

During the second semi-annual sampling event (August 2023) groundwater elevations ranged from 5.50 to 1.37 feet NAVD88 from west (near Gypsum Pond) to east (Ash Pond). **Figure 6B, Potentiometric Surface Contour Map (August 7, 2023)**, depicts groundwater elevations and inferred groundwater flow direction during the second semi-annual sampling event.

Many vertical delineations wells (denoted with a “V”) installed deeper within Unit 3 sands display groundwater elevations higher than the more shallow, paired location. This indicates some level of confining conditions between the two zones in some locales and indicates an upward vertical gradient in which deeper groundwater is flowing upwards towards more shallow intervals.

As shown on **Figures 6A and 6B**, groundwater flows from south to north across the Site, consistent with previous events. Tidal influences in river stage likely influence groundwater elevations, especially in closer proximity to the river. River stages varied from approximately 1.1 feet to 1.4 feet elevation during the June 11, 2023 gauging event and from approximately 1.5 feet to 1.93 feet elevation during the August 7, 2023 gauging event. River stages are reflected in groundwater elevations presented north and east of the Ash Pond. A convergence of flow from the north and south in the vicinity of well BY-AP-MW-14 is apparent, as presented on **Figures 6A and 6B**.

Recent groundwater elevation data have been tabulated and included in **Table 3, Groundwater Elevations**. All available historical groundwater elevation data recorded since 2016 has been tabulated and included in **Appendix B**.

4.1 GROUNDWATER FLOW VELOCITY CALCULATIONS

Groundwater flow rates at the site were calculated based on hydraulic gradients, hydraulic conductivity from aquifer pump test results, and an estimated effective porosity of the screened horizon. Slug testing provided horizontal hydraulic conductivities for the Watercourse Aquifer (Unit 3) between 2.1×10^{-2} cm/sec and 6.75×10^{-3} cm/sec with an average of 1.0×10^{-2} cm/sec at the Ash Pond. Long duration pump testing of the Watercourse Aquifer revealed an average hydraulic conductivity of 3.3×10^{-3} cm/sec. The pumping test hydraulic conductivity value of 3.3×10^{-3} cm/sec or 9.4 ft/day was used because the larger volume of aquifer allows averaging of small-scale heterogeneities, while slug tests are smaller in scale and could allow some results to skew an average. An effective porosity of 25% was used based on the default values for effective porosity recommended by EPA for a silty sand-type soil (U.S. USEPA, 1996). The hydraulic gradient was calculated between well pairs shown in **Appendix D, Horizontal Groundwater Flow Velocity Calculations**.

Horizontal flow velocity was calculated using the commonly used derivative of Darcy's Law:

$$V = \frac{K * i}{n_e}$$

Where:

V = Groundwater flow velocity $\left(\frac{feet}{day}\right)$

K = Average permeability of the aquifer $\left(\frac{feet}{day}\right)$

i = Horizontal hydraulic gradient

n_e = Effective porosity

Appendix D presents the estimated horizontal flow velocity calculated using groundwater elevation data from the first and second 2023 semi-annual sampling events.

5.0 EVALUATION OF GROUNDWATER QUALITY DATA

During each sampling event, quality assurance/quality control samples (QA/QC) were collected at a rate of one sample per every group of 10 well samples. These QA/QC samples include well duplicates, equipment blanks, and field blanks. Routine analyses of field QA/QC samples are a method for evaluating whether artificial bias could have been introduced into lab results by ways of sampling activities or equipment.

5.1 DATA VALIDATION – QUALITY ASSURANCE/QUALITY CONTROL

Analytical precision is measured through the calculation of the relative percent difference (RPD) of two data sets generated from a similar source. Here, a comparison of results between samples and field duplicate samples is used as measure of laboratory precision. Where field duplicates are collected, the RPD between the sample and duplicate sample is calculated as:

$$RPD = \frac{Conc1 - Conc2}{(Conc1 + Conc2)/2}$$

Where:

RPD = Relative Percent Difference (%)

Conc1 = Higher concentration of the sample or field duplicate

Conc2 = Lower concentration of the sample or field duplicate

Where RPD is below 20%, the difference is considered acceptable, and no further action is needed. Where an RPD is greater than 20%, further evaluation is required to attempt to determine the cause of the difference and potentially result in qualified data. **Table 4a, Relative Percent Difference (RPD) Calculations** provides the RPDs for sample and sample duplicates during the first semi-annual monitoring event of 2023. All RPDs were below 20% for the first and second 2023 semi-annual monitoring events.

Analytical data reviewed provided low-level or trace detections in field and/or equipment blanks during the monitoring period sampling event. **Table 4b, Field QC: Blank Detections**, provides a summary of low-level detections observed during the first and second 2023 semi-annual monitoring events. Each of these

detections was estimated concentrations, above the MDL but below the RL, and qualified in the laboratory analytical reports with “J flags.” However, if concentrations are detected above the MDL in field QC samples, original results on the (1) date of a blank detection and (2) with a value less than 5 times the field QC detection are flagged with a (+) U* and MDL/RL values modified based upon the blank concentration.

Validated flags do not have an impact on possible statistical analyses due to: (1) low-level concentrations flagged during validation and/or (2) constituents flagged are not Site COI. The extent of trace chromium detections in blanks can be explained by a low MDL value of 0.000203 mg/L.

5.2 STATISTICAL METHODOLOGY AND TESTS

Sanitas software is used to perform statistical analyses of Site data. Sanitas is a decision support software package that incorporates the statistical tests required of Subtitle C and D facilities by EPA regulations. The analysis complies with the federal rule for the Disposal of Coal Combustion Residuals from Electric Utilities (CCR Rule, 2015) as well as with the USEPA Unified Guidance (2009).

5.2.1 Appendix III Evaluation

Intrawell prediction limits, combined with a 1-of-2 verification strategy, are used for pH and sulfate to determine whether there has been a statistically significant increase (SSI) over background groundwater quality. Interwell prediction limits, combined with a 1-of-2 verification strategy, are used to evaluate boron, calcium, chloride, fluoride, and TDS. Intrawell prediction limits use screened historical data within a given well to establish limits for parameters at that well. The most recent sample from the same well is compared to its respective background to identify SSI over background. Interwell prediction limits pool upgradient well data to establish a background limit for an individual constituent. The most recent sample from each downgradient well is compared to the background limit to identify SSI.

Groundwater Stats Consulting demonstrated that these test methods were appropriate in the October 2017 Statistical Analysis Plan, which was updated in the September 2019 data screening evaluation and also included in the revised Statistical Analysis Plan (August 2020). Time series plots were used to screen proposed background data for suspected outliers, or extreme values that would result in limits that are not conservative from a regulatory perspective. Suspected outliers at all wells for Appendix III parameters are formally tested using Tukey’s box plot method and, when identified, flagged in the computer database.

According to the Unified Guidance, the following adjustments are considered part of the statistical analysis program:

- No statistical analyses are required on wells and analytes containing 100% non-detects (EPA Unified Guidance, 2009, Chapter 6).
- When data contain <15% non-detects in the background, simple substitution of one-half the reporting limit is used in the statistical analysis. The reporting limit used for non-detects is the practical quantitation limit (PQL) as reported by the laboratory.
- When data contain between 15% and 50% non-detects, the Kaplan-Meier non-detect adjustment is applied to the background data.
- Non-parametric prediction limits are used on data containing greater than 50% non-detects.

5.2.2 Appendix IV Evaluation

When in corrective action monitoring, Appendix IV constituents are sampled semi-annually, and concentrations are statistically compared to GWPS. Following the Unified Guidance, spatial variation for Appendix III parameters is tested using the ANOVA; this test is not prescribed for Appendix IV constituents. Unlike the statistical evaluation of Appendix III constituents (where single-sample results are compared to the statistical limit), Appendix IV analysis uses the pooled results from each downgradient well to develop a well-specific Confidence Interval that is compared to the statistical limit. The statistical limit is either the Interwell Tolerance Limit (i.e., background) calculated using the pool of all available upgradient well data (see Chapter 7 of the Unified Guidance), or an applicable groundwater protection standard such as the MCL. Appendix IV background data are screened for outliers and extreme trending patterns that would lead to artificially elevated statistical limits.

Parametric tolerance limits (UTL) were calculated using pooled upgradient well data for Appendix IV parameters with a target of 95% confidence and 95% coverage. The confidence and coverage levels for nonparametric tolerance limits are dependent upon the number of background samples. The UTLs were then used as the GWPS.

As described in 40 CFR §§ 257.95(h)(1)-(3) and the ADEM Variance the GWPS is:

- (1) The maximum contaminant level (MCL) established under 40 CFR §§ 141.62 and 141.66.

- (2) Where an MCL has not been established:
 - (i) Cobalt 0.006 mg/L.
 - (ii) Lead 0.015 mg/L.
 - (iii) Lithium 0.040 mg/L.
 - (iv) Molybdenum 0.100 mg/L.
- (3) Background levels for constituents where the background level is higher than the MCL or rule-specified GWPS.

In corrective action monitoring, when the Lower Confidence Limit (LCL), or the entire confidence interval, exceeds the GWPS as discussed in the USEPA Unified Guidance (2009), the result is recorded as an SSL. GWPS for Appendix IV constituents are updated on a biennial schedule. This schedule was initiated in 2019 with updates generally occurring after the second semi-annual sampling event of each biennial year. Data from upgradient wells collected in between updates may still be used to support ASDs if merited.

5.3 STATISTICAL EXCEEDANCES

Analytical data from the first and second 2023 semi-annual monitoring events were statistically analyzed in accordance with the professional engineer (PE)-certified Statistical Analysis Plan (October 2017 and revised in August 2020) by Groundwater Stats Consulting. Appendix III statistical analysis was performed to determine if constituents have returned to background levels. Appendix IV monitoring parameters were evaluated to determine if concentrations statistically exceeded the established groundwater protection standard.

5.3.1 Appendix III Constituents

Based on review of the Appendix III statistical analysis presented in **Appendix E, Statistical Analyses**, Appendix III constituents have not returned to background levels.

5.3.2 Appendix IV Constituents

Table 5, Summary of Background Levels and Groundwater Protection Standards, summarizes the background limit established at each monitoring well and the GWPS. A summary table of the statistical limits accompanies the prediction limits in **Appendix E**.

5.3.2.1 First Semi-Annual Groundwater Monitoring Event

Statistical analysis of Appendix IV data identified the following SSL over GWPS at the listed wells during the first 2023 semi-annual monitoring event:

- BY-AP-MW-1: Arsenic.
- BY-AP-MW-5: Arsenic.
- BY-AP-MW-7: Arsenic.
- BY-AP-MW-9: Arsenic.
- BY-AP-MW-10: Arsenic.
- BY-AP-MW-11: Arsenic.
- BY-AP-MW-12: Arsenic.
- BY-AP-MW-14: Arsenic.
- BY-AP-MW-15: Arsenic, Cobalt.
- BY-AP-MW-16: Arsenic.

Table 6, First Semi-Annual Monitoring Event Analytical Results Summary, provides a summary of all detected constituents for the first 2023 semi-annual monitoring event.

5.3.2.2 Delineation Wells

Analytical data derived from delineation wells are not statistically analyzed. A review of analytical data derived from delineation wells identified the following GWPS exceedances during the first 2023 semi-annual monitoring event:

- BY-AP-MW-12V: Arsenic.
- BY-AP-MW-15V: Arsenic, Cobalt.
- BY-AP-MW-16V: Cobalt.
- BY-AP-MW-17H: Arsenic.
- BY-AP-MW-17V: Cobalt, Combined Radium 226 + 228.
- BY-AP-MW-20H: Arsenic.
- BY-AP-MW-22H: Arsenic.
- BY-AP-MW-23V: Cobalt.

- BY-AP-MW-24H: Arsenic.

5.3.2.3 Second Semi-Annual Groundwater Monitoring Event

Statistical analysis of Appendix IV data identified the following SSL over GWPS at the listed wells during the second 2023 semi-annual monitoring event:

- BY-AP-MW-1: Arsenic.
- BY-AP-MW-5: Arsenic.
- BY-AP-MW-7: Arsenic.
- BY-AP-MW-9: Arsenic.
- BY-AP-MW-10: Arsenic.
- BY-AP-MW-11: Arsenic.
- BY-AP-MW-12: Arsenic.
- BY-AP-MW-13: Arsenic.
- BY-AP-MW-14: Arsenic.
- BY-AP-MW-15: Arsenic, Cobalt.
- BY-AP-MW-16: Arsenic.

Table 7, Second Semi-Annual Monitoring Event Analytical Results Summary, provides a summary of all detected constituents for the second 2023 semi-annual sampling event.

5.3.2.4 Delineation Wells

Analytical data derived from delineation wells are not statistically analyzed. A review of analytical data derived from delineation wells identified the following GWPS exceedances during the second 2023 semi-annual monitoring event:

- BY-AP-MW-12V: Arsenic.
- BY-AP-MW-15V: Arsenic, Cobalt.
- BY-AP-MW-17H: Arsenic.
- BY-AP-MW-17V: Cobalt.
- BY-AP-MW-20H: Arsenic.

- BY-AP-MW-20V: Arsenic, Cobalt.
- BY-AP-MW-22H: Arsenic.
- BY-AP-MW-23V: Cobalt.
- BY-AP-MW-24H: Arsenic.

The analytical result for combined radium 226 + 228 in well BY-AP-MW-17V on May 25, 2022, provided a result of 5.37 pCi/L. This result exceeded the GWPS, and upon an initial review of historical data, was notably different than the historical concentration range (Non-Detect – 2.94 pCi/L). Monitoring well BY-AP-MW-17V has exhibited increasing concentrations of combined radium 226 + 228 exceeding GWPS between May 2022 and April 2023 ranging from 5.37 pCi/L to 9.59 pCi/L. However, the combined radium 226 + 228 concentration in monitoring well BY-AP-MW-17V (3.64 pCi/) was below GWPS during the most recent sampling event conducted on August 8, 2023. Additionally, analytical results for combined radium 226 + 228 ranged from non-detect in two pore-water samples to 0.474 pCi/L in one pore water sample and has not been detected above GWPS in any other Site monitoring wells. Combined radium 226 + 228 concentrations in well BY-AP-MW-17V will be monitored for an increase that exceeds the GWPS during 2024 semi-annual sampling events.

6.0 GROUNDWATER ASSESSMENT

As required by Part E of the Order (AO 18-094-GW) and correspondence from ADEM (March 2021), this report provides an update on groundwater delineation activities completed since the submittal of the Facility Plan for Groundwater Investigation (November 13, 2018). The primary purpose of this plan and subsequent phases of work was to identify the horizontal and vertical extent of groundwater impacts defined by EPA Appendix IV groundwater protection standards.

A comprehensive groundwater delineation report summarizing findings was submitted to ADEM in September 2020. The conclusions and results presented indicate that groundwater delineation had been completed to a sufficient degree to define spatial extent of groundwater impacts and to inform a groundwater remedy selection plan.

6.1 CHRONOLOGY OF DELINEATION ACTIVITIES

Beginning in 2019, Semi-Annual Progress Reports had routinely been provided to ADEM in March and September. Alabama Power Company (APC) requested approval to combine information typically provided in the Semi-Annual Progress Reports with Semi-Annual Groundwater Monitoring and Corrective Action Reports on March 15, 2021. ADEM approved this approach and revised timeline for submittals on March 16, 2021. APC now provides ADEM with a discussion of delineation results and corrective action activities in each semi-annual groundwater monitoring and corrective action report (July; January) until released in writing.

6.1.1 Delineation Wells

Part B of the Order required the installation of additional wells as necessary to define the extent of groundwater impacts where Appendix IV constituents are identified at SSL above the GWPS. Using the conceptual site model (CSM) and analytical results as a guide, horizontal delineation wells were installed to assess lateral extent of groundwater impact in the direction of groundwater flow away from the facility to the Watercourse Aquifer within the Unit 2 and 3 sands. Vertical delineation wells were also installed at the base of the Watercourse Aquifer (Unit 3 sands), just above the Unit 4 clay, to assess vertical extent of groundwater impacts to the Watercourse Aquifer. The follow sections describe monitoring wells installed to delineate impacts to groundwater:

Phase I – Groundwater Investigation (December 2018 to December 2019)

Phase I was conducted between December 2018 and December 2019. **Table 1b** and **Figure 5** present details and locations of onsite delineation wells. The following summarizes all activities that were completed during Phase I of groundwater delineation at the Site:

- Installed six vertical delineation wells (BY-AP-MW-1V, BY-AP-MW-5V, BY-AP-MW-7V, BY-AP-MW-8V, BY-AP-MW-10V, and BY-AP-MW-12V), three horizontal delineation wells (BY-AP-MW-17H, BY-AP-MW-18H, and BY-AP-MW-24H), and three ash pore-water piezometers (BY-AP-PW-24, BY-AP-PW-25, and BY-AP-PW-26) between December 11, 2018 and January 4, 2019. The remaining scope of delineation well installations described in the Facility Plan could not be achieved at the time due to flooded or wet conditions and were installed in July 2019.
- Collected nine ash samples for waste characterization analyses.
- Developed the six vertical delineation wells and three horizontal delineation wells between December 20, 2018, and January 8, 2019. Horizontal delineation well BY-AP-MW-18H could not be developed until March 20, 2019, due to persistent flood conditions over low-lying areas.
- Collected samples from each delineation and characterization well, except BY-AP-MW-17H, between January 7, 2019, and March 21, 2019. BY-AP-MW-17H was sampled July 31, 2019.
- Submitted a preliminary Groundwater Investigation Technical Memo to ADEM on May 13, 2019. Submitted an Assessment of Corrective Measures for the Ash Pond to ADEM on July 11, 2019, as required by Part C of the Order.
- Installed the four remaining horizontal delineation wells (BY-AP-MW-19H, BY-AP-MW-20H, BY-AP-MW-22H, AND BY-AP-MW-23H) and one vertical delineation well (BY-AP-MW-15V) in July 2019. Previously proposed horizontal delineation well BY-AP-MW-21H located south of the Ash Pond and monitor well BY-AP-MW-14 had not been installed due to pervasive wet and unsafe conditions for drilling and therefore, could not be safely accessed to install as planned.
- Developed and sampled the four horizontal delineation wells and one vertical delineation well between July 28, 2019, and August 2, 2019.
- Submitted Groundwater Investigation Report on December 15, 2019, to ADEM summarizing Phase I groundwater investigation findings and including a work plan for a Phase II investigation.

- Provided ADEM with a response on December 30, 2019, for comments received from ADEM on November 14, 2019, regarding previously submitted CCR documents.
- Submitted the 2019 Annual Groundwater Monitoring and Corrective Action Report on January 31, 2020.

Phase II – Groundwater Investigation (February 2020 to June 2020)

Following a review of data gathered from the Phase I Investigation, additional groundwater investigation was proposed to ADEM in the Groundwater Investigation Report submitted December 15, 2019. The review of delineation results discussed in preceding sections indicated that an additional phase of investigation was warranted to complete delineation in certain areas of the Site. Phase II was conducted between February 2020 and June 2020. The following summarizes all activities that were completed during Phase II of groundwater delineation at the Site:

- Completed the semi-annual assessment groundwater sampling event between March 30, 2020, and April 1, 2020.
- Installed seven deep vertical delineation wells (BY-AP-MW-13V, BY-AP-MW-14V, BY-AP-MW-16V, BY-AP-MW-17V, BY-AP-MW-20V, BY-AP-MW-23V, and BY-AP-MW-25V) and one horizontal delineation well (BY-AP-MW-25H) between March 25, 2020, and April 13, 2020.
- Advanced two Type III (double-cased) deep vertical delineation well borings (BY-AP-MW-12VM, and BY-AP-MW-15VM,) between March 28, 2020, and April 23, 2020. BY-AP-MW-12VM was abandoned and BY-AP-MW-15VM was installed as a water level only piezometer.
- Developed eight delineation wells and one piezometer between May 4, 2020, and May 19, 2020. Partial development by airlifting was also employed while the drilling team was onsite in March 2020.
- Sampled the eight delineation wells between June 15, 2020, and June 17, 2020.

6.2 NATURE AND ESTIMATED QUANTITY OF RELEASE

Part B of the Order requires collecting data on the nature and estimated quantity of material released. To collect data regarding the nature of the source and estimated quantity of material released, leachability testing of nine ash samples and sampling of ash pore-water at three locations was conducted. Leachability

testing was conducted for EPA Resource and Recovery Act (RCRA) heavy metals, while ash pore-water was sampled for all EPA Appendix III and IV constituents. Groundwater quality data is compared to source water and leachate composition to provide a basis for evaluating the degree to which the source area has contributed constituents to groundwater.

6.3 DISCUSSION OF DELINEATION RESULTS

Two phases of delineation investigation have been completed at the site and the horizontal and vertical delineation of Appendix IV SSL arsenic and cobalt is largely complete. Additional delineation to define the horizontal extent of arsenic occurrences to the south of the Ash Pond is not practical, as the extent is constrained by surface waters. Sufficient data have been collected for the assessment of corrective measures and to develop a groundwater corrective action plan. Cross-sections and isoconcentration maps have been included to convey horizontal and vertical spatial distribution of arsenic and cobalt concentrations.

Lithium was identified at vertical delineation well BY-AP-MW-7V on January 9, 2019, during delineation efforts for arsenic and cobalt. However, during the nine subsequent sampling events, lithium in well BY-AP-MW-7V was not detected, indicating that the initial occurrence of lithium was likely the result of sampling or analytical error. An additional re-sample was collected on December 2, 2019, and the result for lithium was non-detect. Additional delineation is not required in the area of this delineation well at this time. Lithium was detected above GWPS in well BY-AP-MW-7 (0.0882 mg/L) one time during the first 2021 semi-annual groundwater sampling event but has remained below GWPS (0.04 mg/L) since. Additionally, a lithium concentration of 0.0484 mg/l was detected at vertical delineation well BY-AP-MW-13V slightly above the GWPS for the first time during the second 2021 semi-annual groundwater sampling event. Lithium concentration in delineation well BY-AP-MW-13V have remained below GWPS during the 2022 and 2023 semi-annual sampling events. Historically, lithium has been detected above GWPS one time in three site wells (BY-AP-MW-7V, BY-AP-MW-7, and BY-AP-MW-13V).

Analytical results from horizontal and vertical delineation wells identified concentrations above GWPS of EPA Appendix IV constituents: arsenic and cobalt during the first and second 2023 semi-annual monitoring events.

Figure 7A, Arsenic Isoconcentration Map (April 2023) and Figure 7C, Arsenic Isoconcentration Map (August 2023), illustrate the horizontal extent of arsenic impacts to groundwater from the first and second

2023 semi-annual sampling events. **Figure 8A, Arsenic Concentrations Along Geologic Cross Section A-A' (April 2023), Figure 8B, Arsenic Concentrations Along Geologic Cross Section B-B' (April 2023), Figure 8C, Arsenic Concentrations Along Geologic Cross Section A-A' (August 2023), and Figure 8D, Arsenic Concentrations Along Geologic Cross Section B-B' (August 2023),** illustrate the vertical extent of arsenic impacts to groundwater from the first and second 2023 semi-annual monitoring events.

Figure 7B, Cobalt Isoconcentration Map (April 2023) and Figure 7D, Cobalt Isoconcentration Map (August 2023), illustrate the horizontal extent of cobalt from the first and second 2023 semi-annual monitoring events. **Figure 9A, Cobalt Concentrations Along Geologic Cross Section A-A' (April 2023), Figure 9B, Cobalt Concentrations Along Geologic Cross Section A-A' (August 2023), and Figure 9C, Cobalt Concentrations Along Geologic Cross Section B-B' (August 2023),** illustrate the vertical extent of cobalt impacts to groundwater from the first and second 2023 semi-annual monitoring events.

Isoconcentration lines shown on **Figures 7A through 7D** are data-driven contours derived from the spatial distribution of constituent concentrations in the well network. When spatially distributed objects are correlated (i.e., objects close together with similar characteristics are compared), mathematical interpolation can be used to predict quantities between the objects. In this case, the Geostatistical Analyst tool within ArcGIS was used to interpolate constituent concentrations between well locations within the area where concentrations were above laboratory method detection limits.

In cases where concentrations decrease below the GWPS between well pairs, the extent of groundwater impacts is interpreted from the interpolated (predicted) data set. This takes into account the spatial pattern of decreasing concentrations observed in nearby wells.

The location and spacing of delineation wells are largely based upon the following goals and site factors:

1. Determine if impacts to groundwater could extend off-site in the direction of groundwater flow away from the facility.
2. Evaluate potential for vertical migration adjacent to compliance wells with SSL and within the context of site hydrogeology.
3. Address key data gaps between phases – working in from property line or off-site depending on gaps.

4. Ability to safely access locations with drill rig and supporting equipment.
5. Occurrence of groundwater and sufficient groundwater yield/recharge at locations.
6. Delineate extent of impacts and capture additional hydrogeologic data necessary to evaluate the feasibility of groundwater remediation technologies.

As shown on **Table 1b**, 22 delineation wells and 1 piezometer have been installed at the site to assess horizontal and vertical potential impacts.

Compliance (assessment) monitoring and delineation sampling events have shown elevated arsenic and cobalt in the Watercourse Aquifer beneath the Site. Arsenic is the most widely distributed of these constituents and this spatial distribution generally mimics the groundwater flow direction across the Site as shown on **Figures 6A** and **6B**. Groundwater flow can generally be described as from west to east across the site with bends to the north and southeast conforming to the shape of the Mobile River. A truly radial flow pattern is not evident at the site because the Ash Pond is directly underlain by a low permeability, organic clay (Unit 1) of sufficient thickness to form an aquitard between the Ash Pond and underlying Watercourse Aquifer. While piezometric data (groundwater elevations) presented on potentiometric surfaces are generally above the base of ash, this does not mean ash is in direct communication with the Watercourse Aquifer, because piezometric elevations (groundwater elevations) are representative of the potential head in wells tapping the aquifer and not the vertical elevation in which groundwater occurs. Beneath the Ash Pond, the Unit 1 clay physically and hydraulically separates ash pore water and Watercourse Aquifer groundwater and therefore, constituent migration occurs slowly across the Unit 1 clay and is driven by higher hydraulic heads (vertical gradient) in the Ash Pond relative to the underlying Watercourse Aquifer.

Horizontal delineation efforts at the site are restricted to a high degree by physical site conditions. Year-round wet conditions exist a short distance from the base of the Ash Pond dike in many areas around the Ash Pond. Except for areas to the far north of the pond, all other areas are inaccessible during the wet season and during the timeframe it takes to dry out post-wet season. Vertical delineation efforts largely focused near the base of the Unit 3 sand and above the Unit 4 clays.

6.3.1 Arsenic Delineation

The most recent 2023 semi-annual sampling results from 22 Phase I and Phase II delineation wells show that arsenic concentrations above the GWPS (0.01 mg/L) extend proximal to the river and include one horizontal delineation well to the north (BY-AP-MW-17H), one horizontal delineation well (BY-AP-MW-20H) and two vertical delineation wells (BY-AP-MW-12V and BY-AP-MW-20V) to the southeast, and two horizontal delineation wells (BY-AP-MW-22H and BY-AP-MW-24H) and one vertical delineation well (BY-AP-MW-15V) to the southwest of the Ash Pond in the direction of groundwater flow. In general, groundwater impacted by arsenic is distributed spatially into two lobes: (1) a smaller lobe that underlies the very northwestern corner of the Ash Pond and extends in the direction of groundwater flow north-northwest to the plant proper and (2) an eastern lobe that extends south and east of the Ash Pond.

These two lobes are separated by a north to north-northeast trending wedge of un-impacted groundwater between the western boundary (between wells MW-1 and MW-5) and the northern boundary (between well pair MW-17H/17V and well MW-18H) as shown on **Figures 7A** and **7C**. It is not understood exactly why this wedge exists, but wells within this area also display different geochemical facies than surrounding downgradient wells (calcium-chloride to sodium-chloride water vs calcium-magnesium bicarbonate to calcium-sodium bicarbonate water).

Arsenic concentrations over the GWPS did not extend to any of the vertical delineation wells (BY-AP-MW-5V, BY-AP-MW-7V, BY-AP-MW-8V, BY-AP-MW-17V, BY-AP-MW-23V, and BY-AP-MW-25V) and horizontal delineation well BY-AP-MW-23H, located to the north, northwest, or northeast of the Ash Pond. Horizontal delineation well BY-AP-MW-25H and vertical delineation well BY-AP-MW-25V were installed to define the extent of arsenic impacts to the west of BY-AP-MW-17H/V and northwest of BY-AP-MW-5 and have historically been non-detect (**Appendix A** and **Tables 6** and **7**). Arsenic concentrations over the GWPS did not extend to delineation wells BY-AP-MW-10V and BY-AP-MW-19H to the northeast, BY-AP-MW-13V and BY-AP-MW-14V to the southeast, or BY-AP-MW-16V, BY-AP-MW-1V, and BY-AP-MW-5V to the west.

Arsenic concentrations exceed the GWPS in horizontal delineation well BY-AP-MW-17H located at the property boundary (Mobile River) northwest of the Ash Pond. Arsenic concentrations exceed the GWPS in horizontal delineation wells BY-AP-MW-20H, BY-AP-MW-22H and BY-AP-MW-24H located southeast and southwest of the Ash Pond. To the southeast, south, and southwest of the Site, additional horizontal

delineation wells could not be installed proximal to the property boundary due to wet or unsafe access conditions.

Vertically, arsenic concentrations are delineated within the Unit 3 sands. Arsenic concentrations were detected above the GWPS in one well, BY-AP-MW-15V, southwest of the Ash Pond and one well, BY-AP-MW-12V, located along the southeast side of the Ash Pond.

Figure 8C depicts the most recent spatial extent of arsenic SSL along the “western dike.” The general spatial pattern matches the interpretation of groundwater flow at the Site. SSL are observed to the northwest along section A-A’ and near the middle of the Ash Pond dike extending southwest. These impacts are observed where groundwater elevation contours bend semi-radially to the northwest and southeast to conform to the geometry of the Mobile River and obliquely cross the western dike.

To the northwest, arsenic impacts to groundwater historically begin near well BY-AP-MW-5 and extend to delineation well BY-AP-MW-17H. Arsenic concentrations over the GWPS previously observed in the vicinity of BY-AP-MW-5 extend down to approximately -50 feet NAVD88 and are delineated vertically downward to base of Unit 3 as observed in BY-AP-MW-5V and BY-AP-MW-17V. To the southwest, arsenic impacts initially are confined to sands of Unit 2 near BY-AP-MW-1 but slope down to the base of Unit 3 near well BY-AP-MW-15V and are delineated vertically with the installation of BY-AP-MW-15VM.

Phase II delineation location BY-AP-MW-15VM was designated as a water-level only piezometer. This location appears separated from the Watercourse Aquifer (Unit 2/3 sands) by a lower confining layer (Unit 4) of sufficient thickness to justify water level-only monitoring. Boring log BY-AP-MW-15VM exhibits greater than 15 feet of the Unit 4 clays and recent groundwater elevation differences of 1.06 feet and 0.55 feet respectively from paired Watercourse Aquifer well BY-AP-MW-15 (**Figures 6A** and **6B**). The groundwater elevations observed in well BY-AP-MW-15VM indicate an upward vertical gradient (i.e., groundwater flowing upwards), providing further support for a piezometer designation.

Figure 8D depicts the most recent arsenic concentrations proximal to the eastern margin of the site following the same geometry as the Mobile River. **Figure 8D** shows that arsenic SSL in groundwater are generally contained within the Unit 3 sands with some possible limited impacts to the very base of Unit 2.

Arsenic impacts do not extend to the base of Unit 3 near BY-AP-MW-8V, BY-AP-MW-10V, BY-AP-MW-13V, or BY-AP-MW-14V.

The most recent arsenic concentrations that do extend down to the base of Unit 3 as shown on **Figures 8C** and **8D** are confined by Unit 4, which displays sufficient clay thickness and low hydraulic conductivity (ranging from 1.15×10^{-7} cm/sec to 3.76×10^{-8} cm/sec) to serve as a lower confining unit. A piezometer (BY-AP-MW-15VM) installed in Unit 5 sands (Miocene) also displays an upward hydraulic gradient that prohibits downward vertical migration.

6.3.2 Cobalt Delineation

The most recent 2023 semi-annual delineation wells sampling results show that cobalt concentrations above the GWPS (0.0157 mg/L) are limited to small, localized areas northwest (BY-AP-MW-17V), north (BY-AP-MW-23V), southeast (BY-AP-MW-20V), and southwest (BY-AP-MW-15V) of the Ash Pond. Compliance well BY-AP-MW-15, located along the southwest side of the Ash Pond, exhibited cobalt above the GWPS (**Figure 7B**).

Cobalt concentrations over the GWPS do not extend to BY-AP-MW-7/7V, BY-AP-MW-8/8V, BY-AP-MW-18H, and BY-AP-MW-25H/V to the north; BY-AP-MW-5/5V to the northwest and BY-AP-MW-1/1V to the west; BY-AP-MW-10/10V, BY-AP-MW-19H, and BY-AP-MW-12/12V to the east; BY-AP-MW-13/13V and BY-AP-MW-14/14V to the southeast; or BY-AP-MW-22H to the south of BY-AP-MW-15.

Vertically, cobalt concentrations above the GWPS are delineated within the Unit 3 sands and extend to the base of Unit 3 sands at vertical delineation wells BY-AP-MW-17V and BY-AP-MW-23V to the north of the ash pond and BY-AP-MW-15V and BY-AP-MW-20V along the southwest and southeast sides of the Ash Pond respectively.

No other vertical wells at the Site returned cobalt concentrations above the GWPS during the most recent monitoring event. Vertically, cobalt concentrations are delineated as defined by the previously discussed; thickness of the Unit 4 clay provides sufficient vertical separation between the Unit 3 aquifer and deeper Miocene sand units, permeameter testing values ranging from 1.15×10^{-7} cm/sec to 3.76×10^{-8} cm/sec, and calculated groundwater elevations indicating an upward vertical gradient.

Cobalt has effectively been delineated at the Site and was not detected in ash pore-water samples. This, combined with the isolated occurrences of cobalt over GWPS, indicates potential for a natural source either driven by minor changes in lithology or changes in geochemistry. As shown on **Figures 9A through 9C**, cobalt exceedances typically occur at greater depths within Unit 3 where the lithology can change (more gravel) and geochemistry changes to a more favorable environment for cobalt mobilization. Cobalt occurrences over the GWPS will be evaluated for an alternate source.

6.4 STATUS OF DELINEATION

A plan was executed to investigate potential impacts to groundwater at the Plant Barry ash pond. Two phases of delineation investigation have been completed at the site, and the horizontal and vertical delineation of Appendix IV SSL arsenic and cobalt is largely complete. Additional delineation to define the horizontal extent of arsenic occurrences to the south of the Ash Pond is not practical, as the extent is constrained by surface waters. Additional vertical delineation of Unit 4 clays confirmed thicknesses of greater than 20 feet, and vertical hydraulic conductivity (K_z) values ranging from 5.91×10^{-7} cm/sec to 2.16×10^{-8} cm/sec (1.7×10^{-3} ft/d to 6.1×10^{-5} ft/d) demonstrated that Unit 4 clays do display sufficiently low permeability to be considered confining.

6.5 GROUNDWATER REMEDY AND CORRECTIVE ACTION

An Assessment of Corrective Measures (ACM) for groundwater impacts was conducted and formally submitted to ADEM in June 2019. Additional data analyses and investigations conducted since the ACM culminated with a more detailed Groundwater Remedy Selection Report, submitted in October 2021, and a Corrective Action Groundwater Monitoring Program document submitted in January 2022.

Submittal	Submittal Date	Purpose
Assessment of Corrective Measures	06/2019	Initial evaluation of the feasibility, performance, and implementation of known and emerging groundwater remediation technologies against site conditions and factors.
Groundwater Remedy Selection Report	10/2021	Formal selection and detailed description of groundwater remedies selected for implementation at the site.
Corrective Action Groundwater Monitoring Program	01/2022	Plan document to describe process and program for implementation and monitoring of groundwater remedies selected at the site.

6.5.1 Groundwater Remedy Selection

The Groundwater Remedy Selection Report described the selected remedies for groundwater corrective actions at the site:

- Source control to include dewatering, consolidation, and capping of the Site.
- Geochemical manipulation by injection in areas of relatively high concentrations of COI to remove them from groundwater and immobilize them in situ.
- Monitored natural attenuation (MNA) over the entire Site.

Closure of the CCR Unit, including dewatering, consolidation, and capping, will greatly reduce source contributions to groundwater. Geochemical manipulation was selected because of its effectiveness, ease of implementation, versatility (ability to treat more than one COI with the same treatment solution), ability to implement in areas with limited working space, and no byproducts that would require further treatment or disposal. MNA was selected because substantial evidence indicates that it is currently occurring at the Site.

6.5.2 Corrective Action – Groundwater Monitoring Program

The Corrective Action Groundwater Monitoring Program describes early plans for implementation and monitoring of groundwater remedies described above. The Corrective Action Groundwater Monitoring Program will be performed at the Site in two stages.

- Stage 1 will include ongoing compliance monitoring, remedial effectiveness monitoring for geochemical manipulation (injection treatment) pilot studies, MNA performance monitoring, sentinel and clean-line monitoring (including surface water monitoring), and demonstration that Site conditions remain protective of potential human and ecological receptors. Prompt action will be taken should data or data trends indicate such actions are warranted.
- Stage 2 monitoring will be implemented upon Site closure, with the first 2 years of Stage 2 monitoring consisting of background data collection to serve as a baseline. Stage 2 monitoring will be composed of ongoing compliance monitoring, additional wells or sampling locations as needed to evaluate remedy effectiveness, additional MNA parameters as needed, mass and mass flux calculations, additional monitoring associated with permeation grouting (if implemented), re-

evaluation of natural attenuation processes and efficacy every 10 years, and demonstration that Site conditions remain protective of potential human and ecological receptors.

Stage 1

The initial phase of Stage 1 has implementation tasks associated with each selected groundwater remedy that serve as a foundation for the remainder of Stage 1 and Stage 2:

Selected Remedy	Implementation Task(s)
Monitored Natural Attenuation	<ol style="list-style-type: none"> 1. Implementation of expanded MNA sampling parameters. 2. Further assessment of MNA monitoring network.
Geochemical Injection	<ol style="list-style-type: none"> 1. Complete laboratory treatability studies to evaluate reagent composition, dosing, effectiveness, and sequencing for in situ groundwater treatment of constituents of interest (COI) by injection. Results from the treatability studies would be incorporated into an Underground Injection Control (UIC) permit application for the Site. 2. Implementation of geochemical injection pilot tests using data collected from the laboratory treatability studies and issuance of an UIC permit.
Source Control/Closure Activities	<ol style="list-style-type: none"> 1. Evaluation of geochemical changes in groundwater with respect to transient closure activities, such as excavation and de-watering. 2. Implementation of field data collection instruments and telemetry within key monitoring wells to further understand the nature of geochemical changes over time and with respect to closure activities and MNA/geochemical modelling.

Implementation of Monitored Natural Attenuation

MNA sampling parameters were added to the sampling plans and analyzed in the laboratory beginning with the May 2022 sampling event (**Tables 6 and 7**). These parameters, in addition to field parameters, Appendix

III, and Appendix IV parameters, are used to study the processes that govern or facilitate MNA, as well as changes in geochemical conditions. Parameters will be included in the site geochemical model.

Geochemical Injection Pilot Testing Program

Laboratory treatability studies are currently being conducted using Site aquifer media and impacted groundwater to evaluate reagent composition, dosing, effectiveness, and sequencing (if applicable) for in situ groundwater treatment of COIs by injection. Treatability tests include the following tasks and procedures prior to field implementation of an injection treatment pilot study:

- Selection and formulation of reagent solutions based on previous similar studies.
- Batch testing using multiple treatment solutions to determine the most effective formulations to carry forward to column testing.
- Column testing to better simulate field conditions, determine effectiveness, and evaluate potential release of COIs due to treatment (unintended consequences).
- Post-column testing, using selective sequential extraction, on treated soils to determine the long-term stability of the accumulated COIs.

Results from the treatability studies are included in **Appendix F**.

The tentative schedule for this initial foundation phase is:

- Aquifer solids (soils) and groundwater sample collection from the selected pilot test areas: first and second quarters of 2022 (complete).
- Laboratory batch and column testing, and selective sequential extraction of treated soil: fourth quarter 2022 to third quarter 2023 (complete).
- Pre-Design Investigation field work in pilot test study injection area locations (TBD).
- Underground Injection Permit application (TBD).
- Geochemical Injection Pilot Program: TBD, pending requisite documents and approvals supporting the injection program.

To facilitate further understanding of trends and correlating relationships, Aqua TROLL instrumentation is being used at select key Site observation and monitoring well locations for the near-continuous monitoring of field parameters. These additional data will allow for a better understanding of the degree of changes

driven by dewatering and construction closure activities, the response of site flow systems, and possible correlations or changes noted in semi-annual monitoring data.

Aqua TROLL instrumentation was installed during the first quarter of 2022 in previous dewatering pilot testing observation wells at these locations along the northeast and northwest sides of the ash pond in the areas where closure construction is occurring:

- PRW-E1
- APT-OB-ED1S
- APT-OB-ED2D
- APT-OB-ED5S
- APT-OB-WD1S
- APT-OB-WD1D
- APT-OB-WD3S
- APT-OB-WD3D

6.5.3 Groundwater Quality Changes and Trends

Important groundwater quality changes or trends have been noted in **Section 6.3**. The key findings include:

- Compliance monitoring well BY-AP-MW-8 exhibited arsenic concentrations below GWPS during the first and second 2023 semi-annual monitoring events. Arsenic concentrations have decreased from 0.0668 mg/L in October 2021 to 0.0024 mg/L in August 2023 and appear to be attributable to targeted closure construction dewatering efforts.
- Arsenic concentrations in horizontal delineation well BY-AP-MW-23H have remained below GWPS for the last five semi-annual monitoring events and have continued to decrease since the September 2020 sampling event.
- Arsenic concentrations have decreased in horizontal delineation well BY-AP-MW-18H to below GWPS during the last three semi-annual monitoring events in October 2022, April 2023, and August 2023.
- Vertical delineation well BY-AP-MW-13V exhibited an arsenic concentration below GWPS during the last three semi-annual monitoring events in October 2022, April 2023, and August 2023.

- Arsenic was not detected above GWPS in any vertical delineation wells located north, northeast, northwest, or west of the ash pond and levels above GWPS are limited to three vertical delineation wells, BY-AP-MW-12V and BY-AP-MW-20V to the southeast and BY-AP-MW-15V to the southwest of the ash pond.
- Cobalt concentrations in compliance monitoring well BY-AP-MW-7 have decreased to below GWPS during the last three semi-annual monitoring events in October 2022, April 2023, and August 2023.
- Cobalt concentrations in vertical delineation well BY-AP-MW-16V decreased to below GWPS (0.0149 mg/L) during the second 2023 monitoring event.
- Cobalt concentrations in compliance well BY-AP-MW-4 have remained below GWPS during the last five sampling events and have exhibited concentrations above GWPS in only two monitoring events historically.
- Cobalt concentrations were detected above GWPS in only one compliance well (BY-AP-MW-15) and four vertical delineation wells – BY-AP-MW-15V to the southwest, BY-AP-MW-20V to the southeast, and BY-AP-MW-17V and BY-AP-MW-23V to the north of the ash pond – during the second 2023 semi-annual monitoring event.
- Lithium concentrations were not detected in any monitoring wells above GWPS during the first or second 2023 monitoring events.
- Historically, lithium has been detected above GWPS one time in three Site wells: BY-AP-MW-7V (January 2019), BY-AP-MW-7 (May 2021), and BY-AP-MW-13V (October 2021).

Groundwater quality changes and trends are related to closure construction activities and will continue to be observed throughout the closure process. Many of the trends appear to be associated with ash pond closure activities, specifically the halt to sluicing and ash dewatering. Trends and groundwater quality changes will continue to be monitored throughout closure to evaluate assessment needs and to better inform groundwater remedy plans.

7.0 SUMMARY AND CONCLUSIONS

Statistical evaluations of groundwater analytical data collected during the first and second 2023 monitoring events identified SSL of Appendix IV constituents above the GWPS. To address previously identified SSL, a Groundwater Remedy Selection Report was prepared and submitted to ADEM on October 29, 2021 and a Corrective Action Groundwater Monitoring Program plan on January 27, 2022. The Corrective Action Groundwater Monitoring Program plan was prepared to detect potential downgradient changes in groundwater quality and assess the efficacy of the selected groundwater corrective action remedies. The Monitoring Program will supplement the ongoing CCR compliance groundwater monitoring currently being performed at the Site.

The following future actions will be taken or are recommended for the site:

- Prepare a preliminary design investigation field work plan in preparation for potentially implementing a geochemical injection pilot study, which was selected as one of the corrective measures described in the Groundwater Remedy Selection Report.
- Conduct the first semi-annual monitoring event in the spring of 2024 and submit the Semi-Annual Groundwater Monitoring and Corrective Action Report summarizing the findings to ADEM by July 31, 2024.

8.0 REFERENCES

- Alabama Department of Environmental Management (ADEM), 2018, Solid Waste Program, Division 13, ADEM Admin. Code r. 335-13-15.
- Alabama Power Company (APC) Environmental Affairs (EA) Water and Field Group (WFG), 2021, Technical Standard Operating Procedure.
- Anchor QEA, June 2019, Assessment of Corrective Measures Plant Barry Ash Pond.
- Anchor QEA, June 2021, Semi-Annual Remedy Selection and Design Progress Report Plant Greene County Ash Pond.
- Anchor QEA, October 2021, Remedy Selection Report Plant Barry Ash Pond.
- Anchor QEA, January 2022, Corrective Action Groundwater Monitoring Program Plant Barry Ash Pond.
- ASTM Standard D5092, 2004(2010)e1, Standard Practice for Design and Installation of Groundwater Monitoring Wells, ASTM International, West Conshohocken, PA, DOI 10.1520/D5092-04R10E01, www.astm.org.
- Chandler, R.V., Moore, J.D., and Gillet, B., 1985, Ground-water chemistry and salt-water encroachment, southern Baldwin County, Alabama: Alabama Geological Survey Bulletin 126, p. 166.
- Davis, M.E., 1987, Stratigraphic and Hydrogeologic Framework of the Alabama Coastal Plain, U.S. Geological Survey, Water-Resources Investigations Report 87-4112.
- Gillet, B., Raymond, D.E., Moore, J.D., and Tew, B.H., 2000, Hydrogeology and Vulnerability to Contamination of Major Aquifers in Alabama: Area 13, Geological Survey of Alabama.
- Hsu, K.J., 1960, Texture and mineralogy of the recent sands of the Gulf Coast, *Journal of Sedimentary Petrology*, vol. 30, p 380-403.
- USEPA. 2009. Statistical Analysis of Groundwater Monitoring Data at RCRA Facilities, Unified Guidance.
- USEPA. 2015. Federal Register. Volume 80. No. 74. Friday April 17, 2015. Part II. Environmental Protection Agency. *40 CFR Parts 257 and 261. Hazardous and Solid Waste Management System; Disposal of Coal Combustion Residuals from Electric Utilities; Final Rule*. [EPA-HQ-RCRA-2009-0640; FRL-9919-44-OSWER]. RIN-2050-AE81. April.
- United States Geological Survey (USGS), 1980 (Photorevised 1985), The Basin Alabama Quadrangle, 7.5 Minute Series Topographic Map.

United States Geological Survey (USGS), 1982a (Photorevised 1985), Creola Alabama Quadrangle, 7.5 Minute Series Topographic Map.

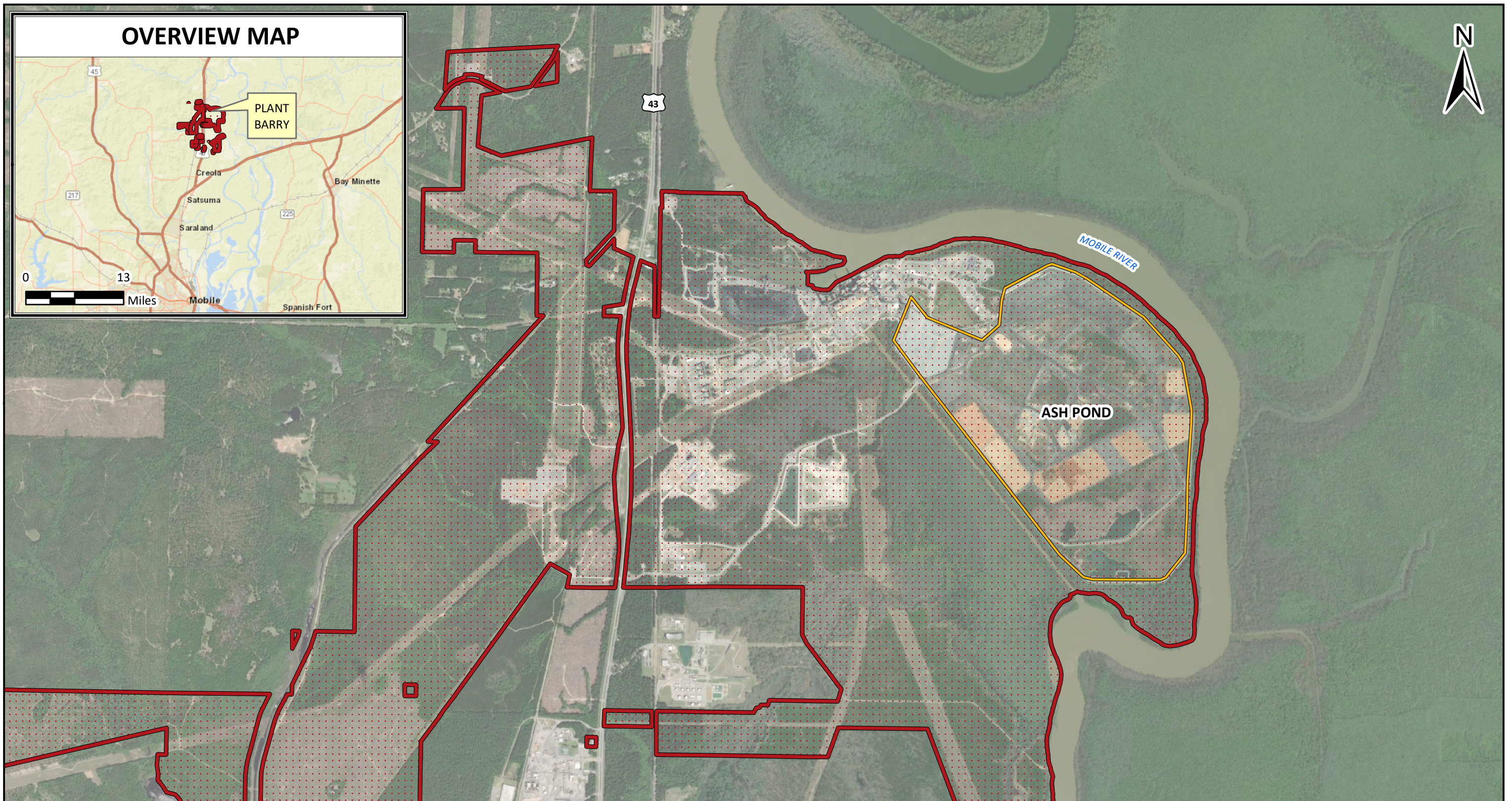
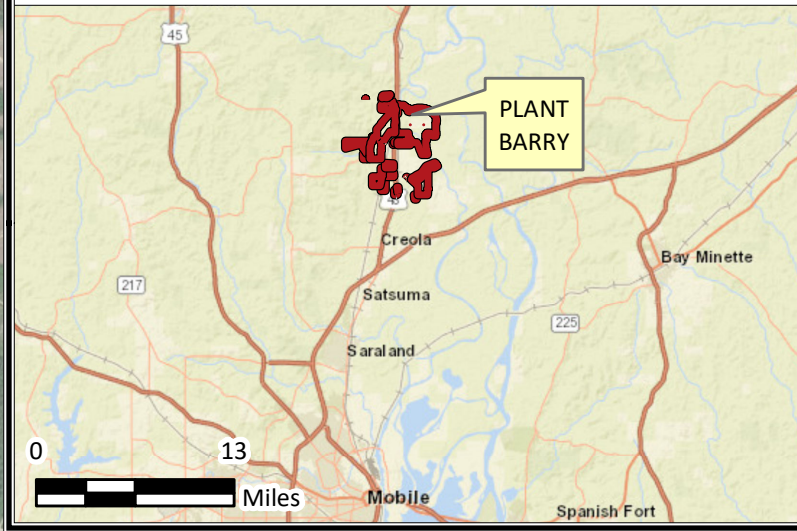
United States Geological Survey (USGS), 1982b, Mount Vernon Alabama Quadrangle, 7.5 Minute Series Topographic Map.

United States Geological Survey (USGS), 1983, Stiggins Lake Alabama Quadrangle, 7.5 Minute Series Topographic Map.

Walter, G.R., and Kidd, R.E., 1979, Ground-water management techniques for the control of salt-water encroachment in Gulf Coast aquifer, a summary report: Geological Survey of Alabama open-file report, p. 84.

Figures

OVERVIEW MAP



LEGEND

- Property Boundary (Approximate)
- Ash Pond Boundary



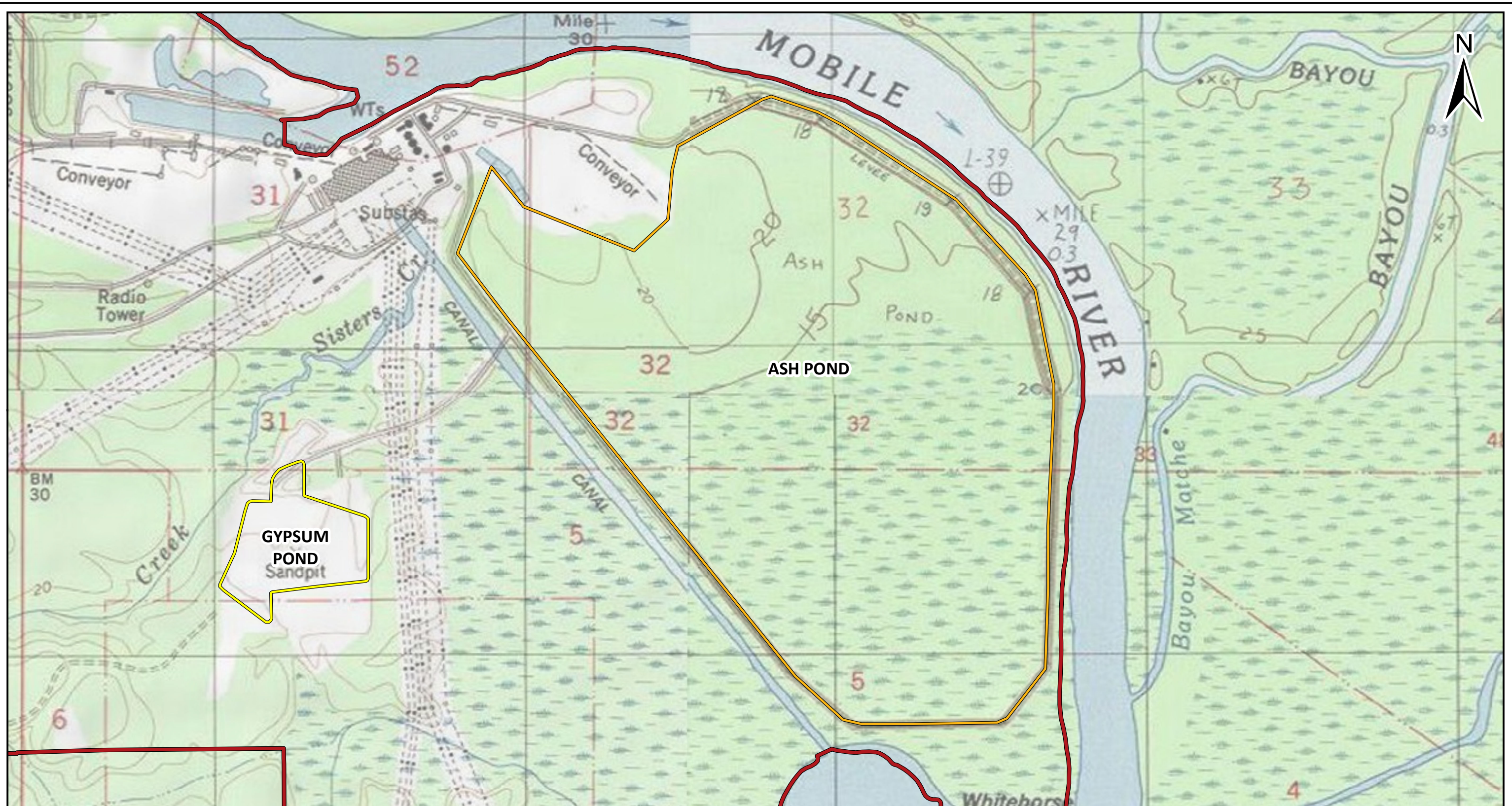
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 Base Map: Maxar Vivid Advanced, 10/21/2022

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DATE	10/18/2023
DRAWN BY	KWR
CHECKED BY	AWH

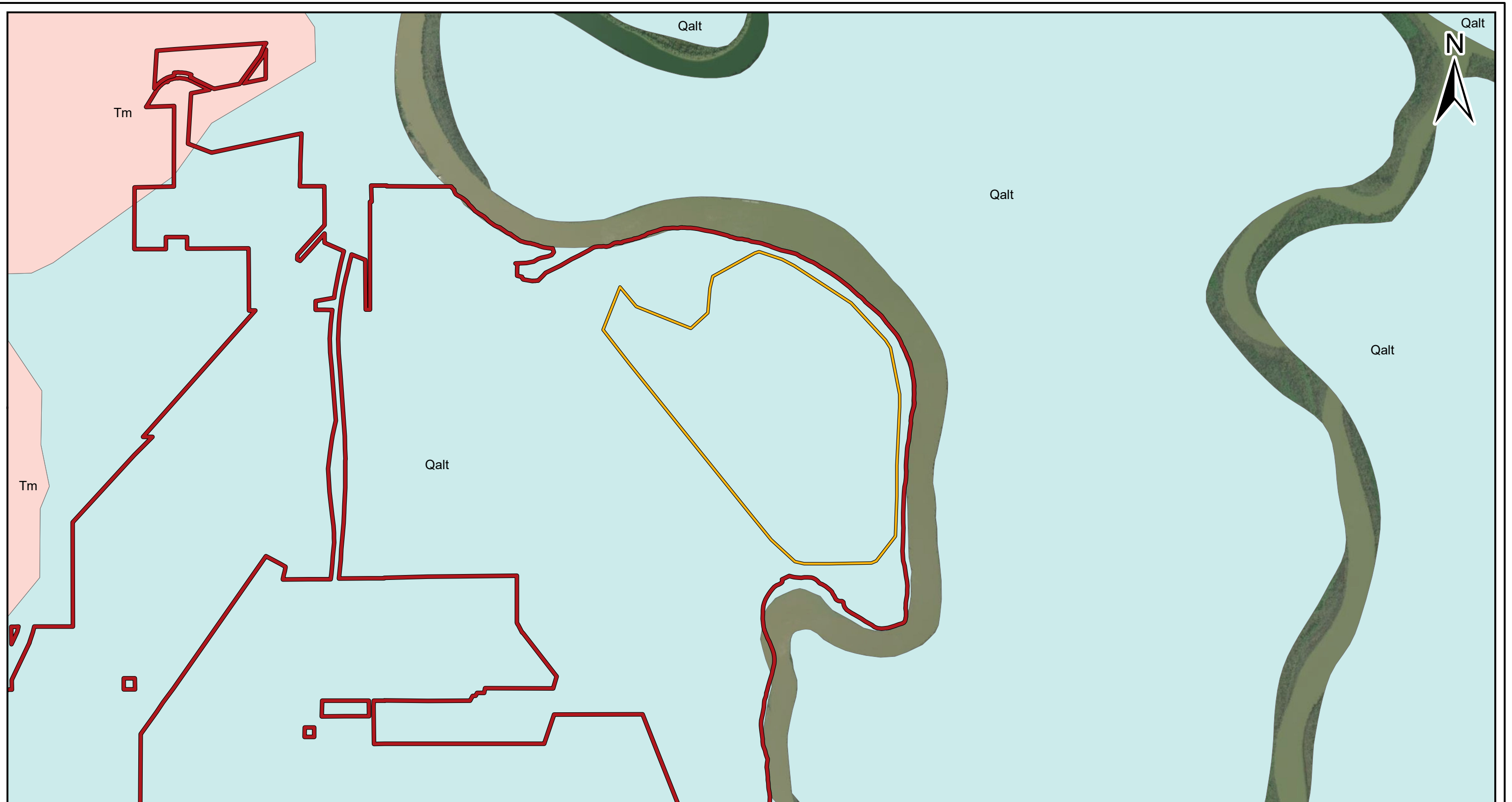
DRAWING TITLE:
**SITE LOCATION MAP
 PLANT BARRY ASH POND**

FIGURE NO.
FIGURE 1





LEGEND Ash Pond Boundary Gypsum Pond Boundary Property Boundary (Approximate)			SCALE 1:12,000		DRAWING TITLE: SITE TOPOGRAPHIC MAP PLANT BARRY ASH POND
	Projection: NAD 1983 State Plane Alabama West FIPS 0102 Feet Base Map: Creola, Alabama 1982 (Photorevised 1985); Mount Vernon, Alabama 1982; Stiggins Lake, Alabama Provisional Edition 1983; and The Basin, Alabama 1980 (Photorevised 1985) 7.5' U.S. Geological Survey Topographic Quadrangles		DATE 10/18/2023		
			DRAWN BY KWR		FIGURE NO. FIGURE 2
			CHECKED BY AWH		



LEGEND

- Ash Pond Boundary
- Property Boundary (Approximate)

Geologic Units

- Alluvial, coastal, and low terrace deposits (Qalt)
- Miocene Series undifferentiated (Tm)



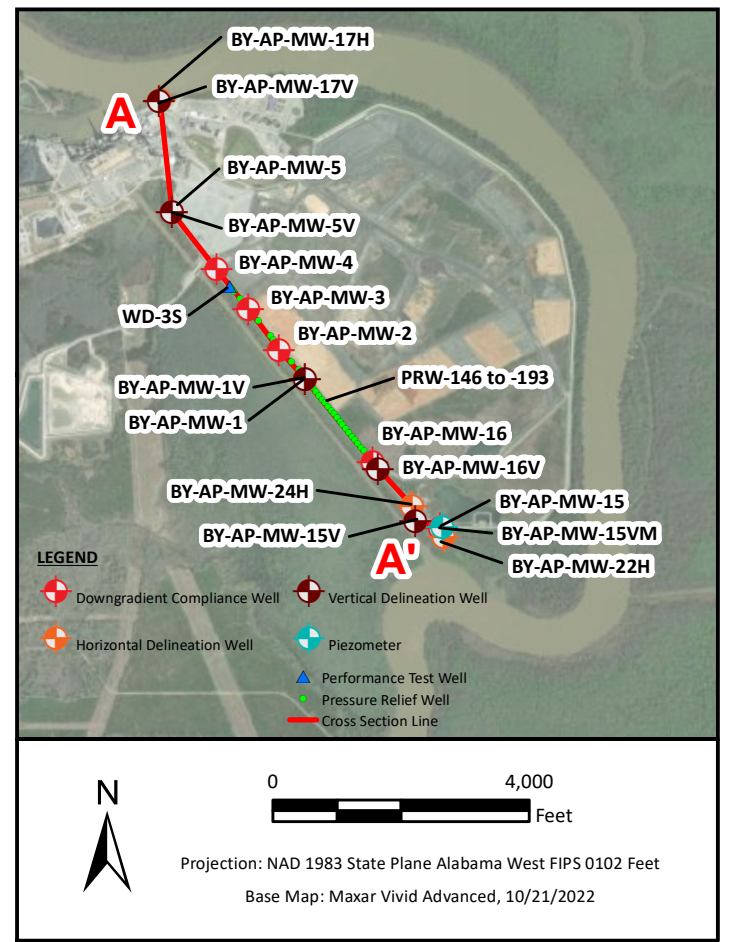
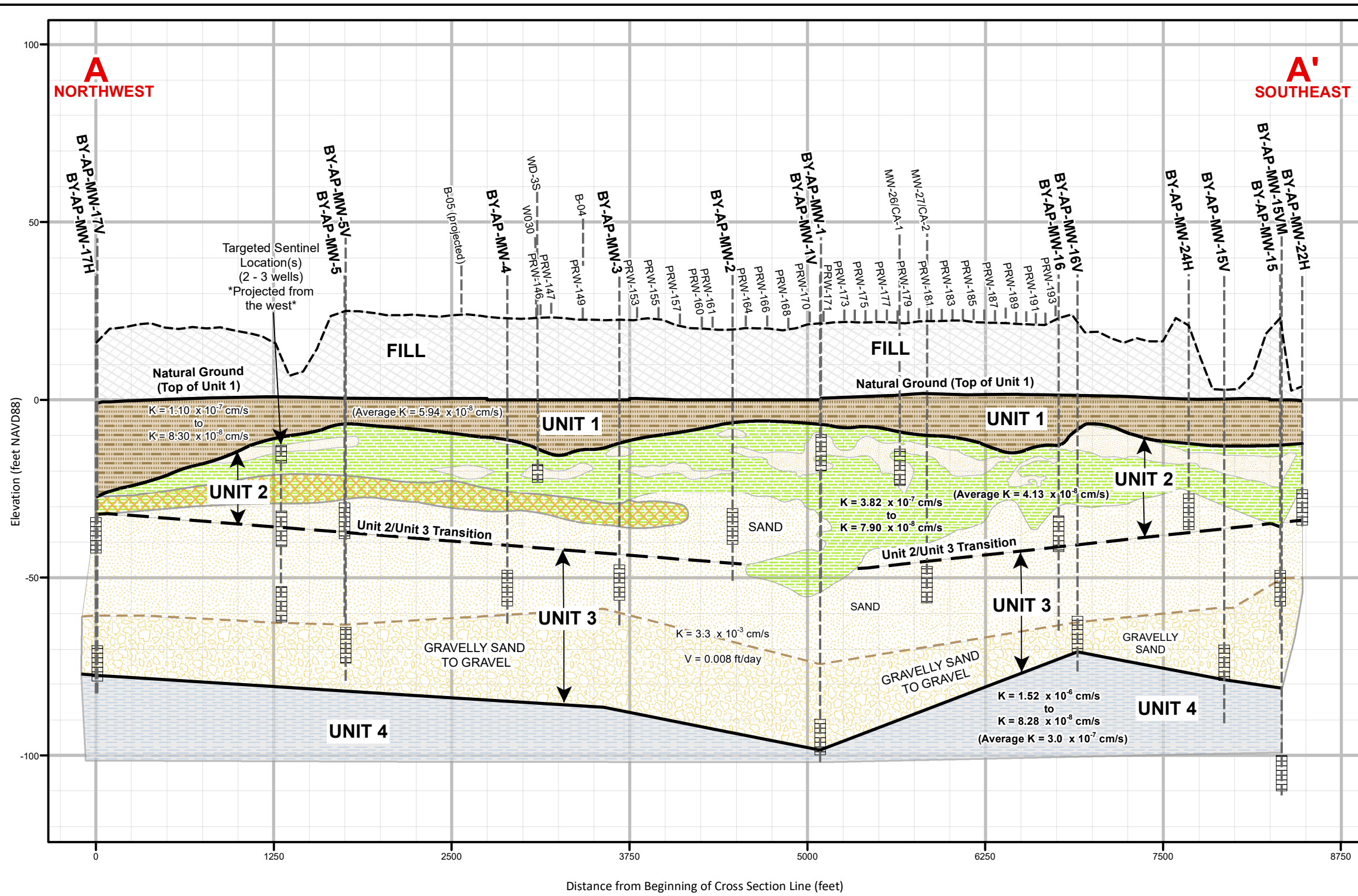
Projection: NAD 1983 State Plane Alabama West FIPS 0102 Feet
 Base Map: Maxar Vivid Advanced, 10/21/2022

SCALE	1:24,000
DATE	10/18/2023
DRAWN BY	KWR
CHECKED BY	AWH

DRAWING TITLE:
**SITE GEOLOGIC MAP
 PLANT BARRY ASH POND**

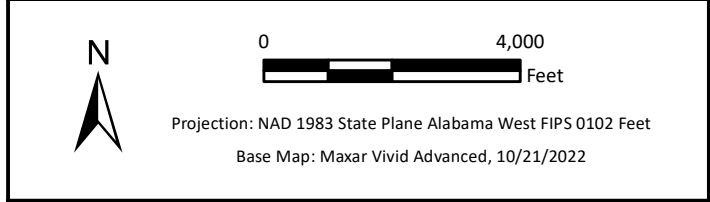
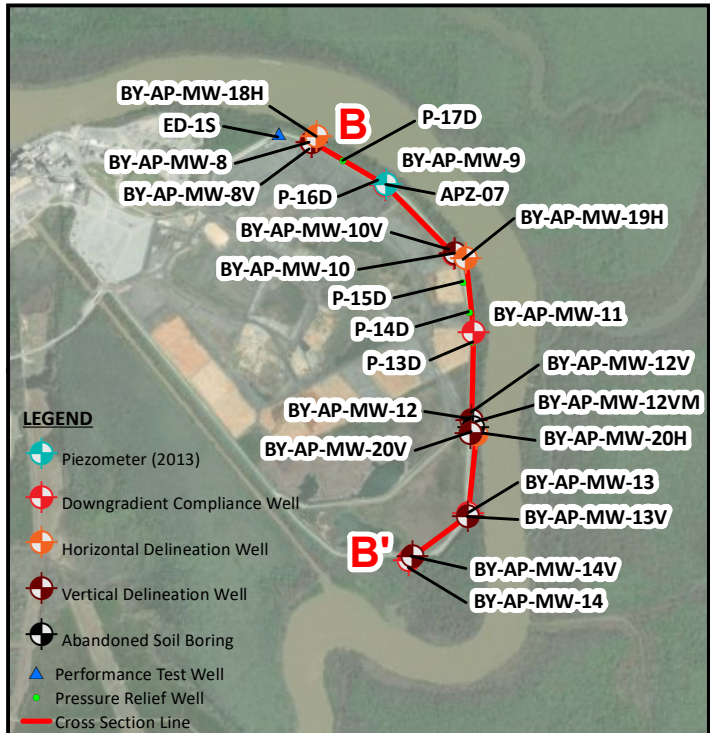
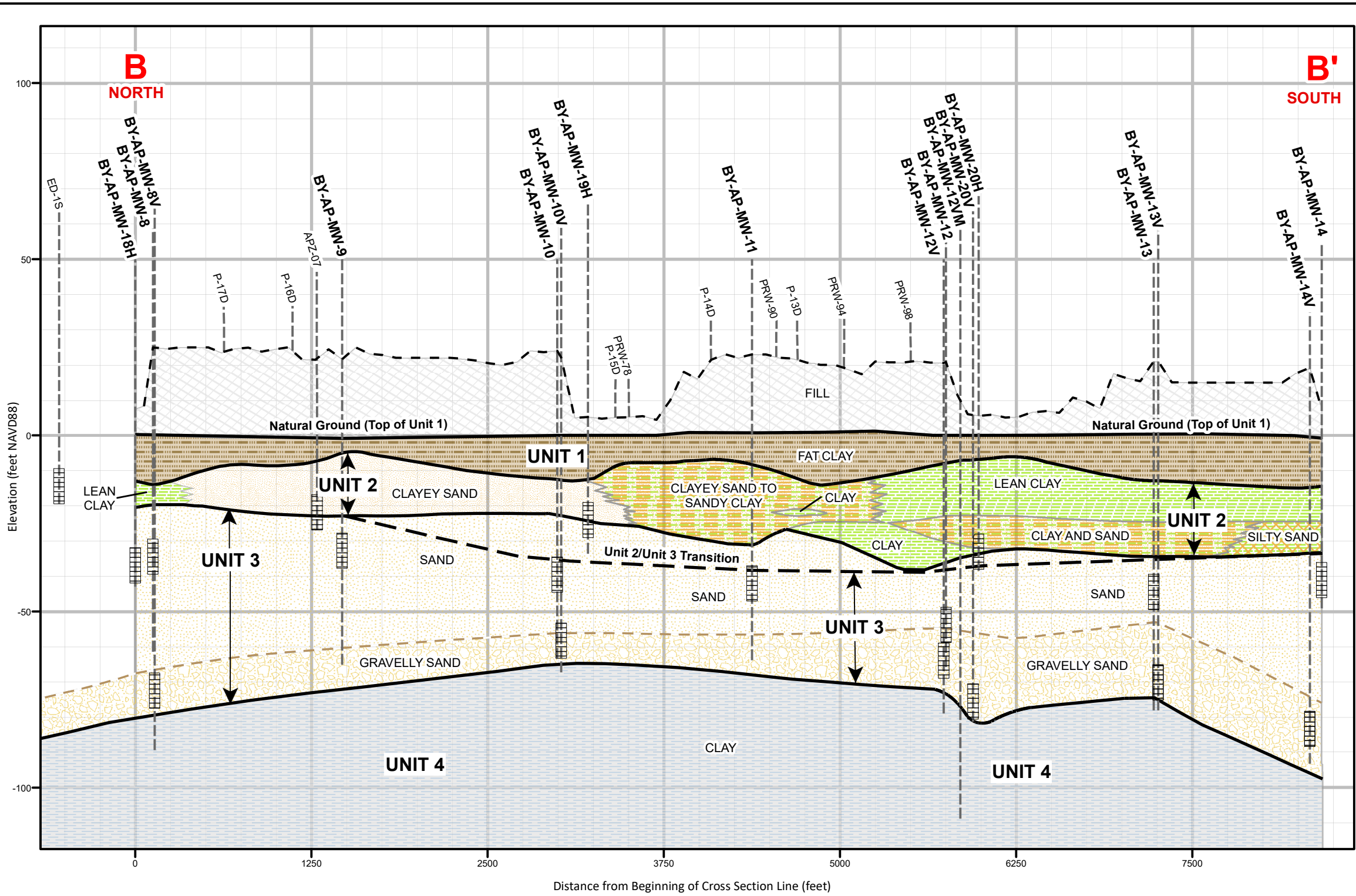
FIGURE NO.
FIGURE 3





- Notes:
1. Source of ground surface elevation data: Lidar
 2. NAVD88 indicates North American Vertical Datum of 1988.
 3. K indicates hydraulic conductivity.
 4. Units 1, 2, and 4 hydraulic conductivity calculated from Shelby tube permeameter testing on undisturbed soil samples.
 5. Unit 3 hydraulic conductivity calculated from long duration pumping test data.
 6. V indicates groundwater flow velocity.
 7. Vertical exaggeration: 25x.

LEGEND 	UNIT 1 Organic clay	UNIT 3 Sand Unit: Gradational sand where sands grade from silty or fine grained to medium sands or gravels.	SCALE As Shown	DRAWING TITLE GEOLOGIC CROSS SECTION A - A' PLANT BARRY ASH POND
	UNIT 2 Mixed Unit: Interbedded clay, silt, and thin silty sands grading downward to silt and clay. Upper sand and clay unit is discontinuous but, when existing, occurs typically between -11 and -22 ft MSL. Laterally, Unit 2 grades eastward into coarser materials. Unit 2 is interpreted to terminate near the base of the modern river thalweg (-37 to -48 ft MSL) and can include silty sands near the base.	UNIT 4 Lower Clay: Silty Clay to Sandy Clay.	DATE 10/25/2023	
			DRAWN BY KWR	
			CHECKED BY GFB	



Notes: 1. Source of ground surface elevation data: Lidar
 2. NAVD88 indicates North American Vertical Datum of 1988.
 3. Vertical exaggeration: 25x.

LEGEND

	Ground Surface Elevation
	Well Location
	Screen Interval
	Unit Boundary
	Transitional Unit Boundary
	Transition Within Unit
	Fill
	Fat Clay
	Lean Clay
	Clayey Sand to Sandy Clay, Clay and Sand
	Silty Sand
	Clayey Sand
	Sand
	Gravelly Sand
	Clay

UNIT 1 Organic clay

UNIT 2 Mixed Unit: Interbedded clay, silt, and thin silty sands grading downward to silt and clay. Upper sand and clay unit is discontinuous but, when existing, occurs typically between -11 and -22 ft MSL. Laterally, Unit 2 grades eastward into coarser materials. Unit 2 is interpreted to terminate near the base of the modern river thalweg (-37 to -48 ft MSL) and can include silty sands near the base.

UNIT 3 Sand Unit: Gradational sand where sands grade from silty or fine grained to medium sands or gravels.

UNIT 4 Lower Clay: Silty Clay to Sandy Clay.

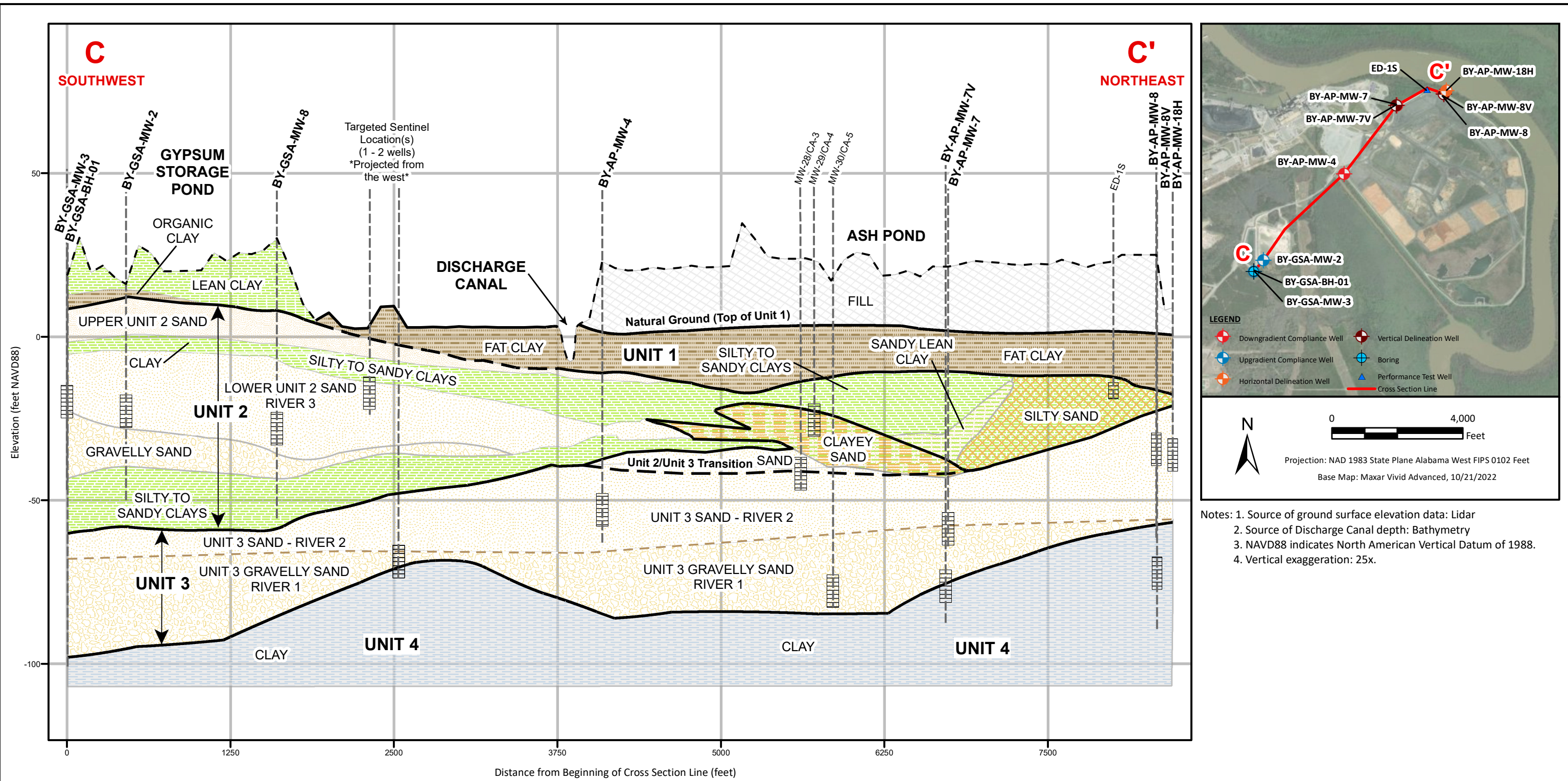
SCALE	As Shown
DATE	10/25/2023
DRAWN BY	KWR
CHECKED BY	GFB

DRAWING TITLE

GEOLOGIC CROSS SECTION B - B' PLANT BARRY ASH POND

FIGURE NO.

FIGURE 4B

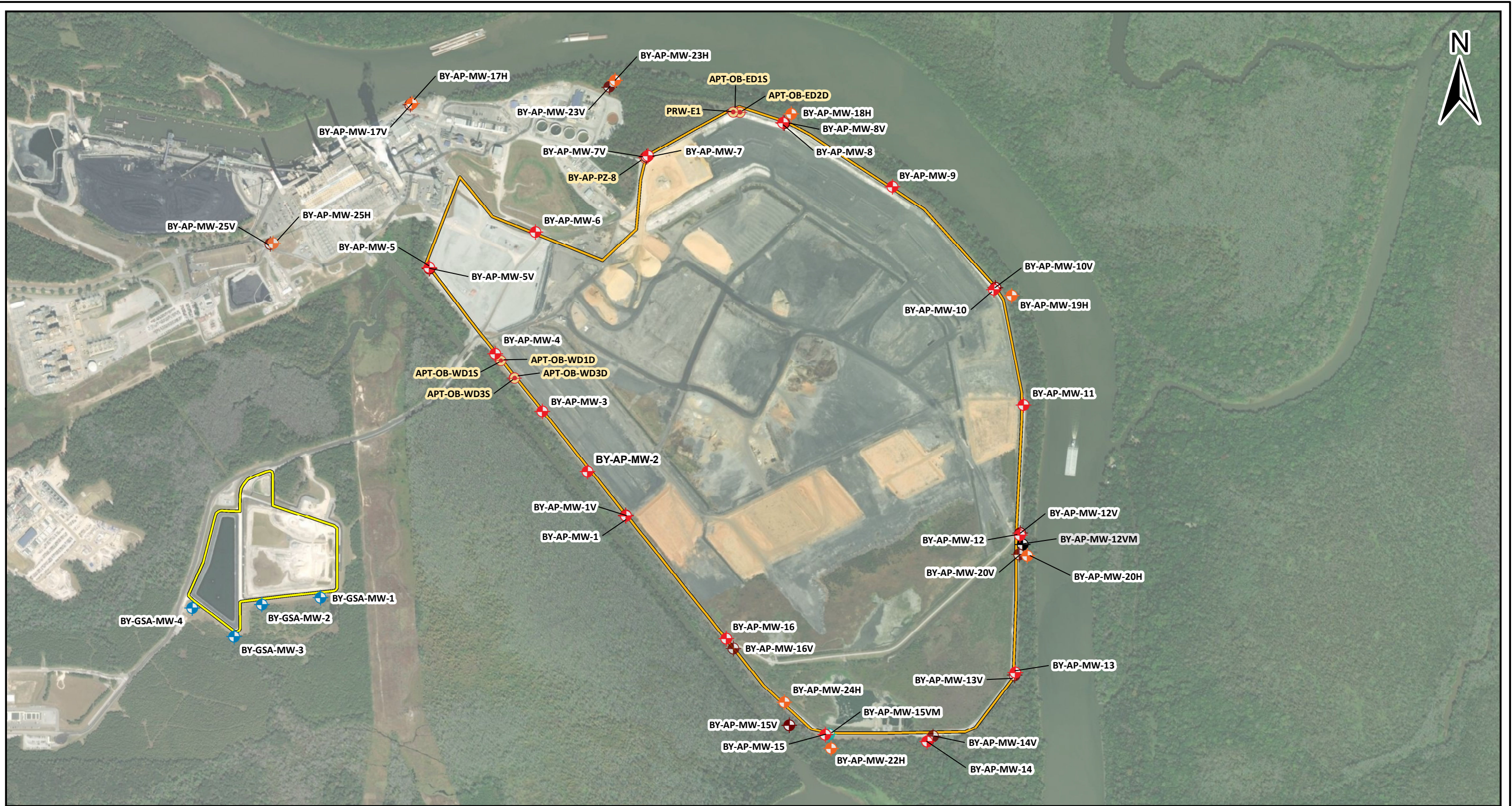


- Notes:
1. Source of ground surface elevation data: Lidar
 2. Source of Discharge Canal depth: Bathymetry
 3. NAVD88 indicates North American Vertical Datum of 1988.
 4. Vertical exaggeration: 25x.











LEGEND		Fill	Sandy Silt or Silty Sand	UNIT 1 Organic clay
Ground Surface Elevation	Organic Clay or Fat Clay	Upper Unit 2 Sand	Sand Unit: Gradational sand where sands grade from silty or fine grained to medium sands or gravels.	UNIT 2 Mixed Unit: Interbedded clay, silt, and thin silty sands grading downward to silt and clay. Upper sand and clay unit is discontinuous but, when existing, occurs typically between -11 and -22 ft MSL. Laterally, Unit 2 grades eastward into coarser materials. Unit 2 is interpreted to terminate near the base of the modern river thalweg (-37 to -48 ft MSL) and can include silty sands near the base.
Well Location	Silty to Sandy Clays	Lower Unit 2 Sand	UNIT 4 Lower Clay: Silty Clay to Sandy Clay.	
Screen Interval	Sandy Lean Clay	Gravelly Sand		
Transitional Unit Boundary	Clayey Sand	Clay		
Unit Boundary				
Transition Within Unit				

SCALE	As Shown
DATE	10/25/2023
DRAWN BY	KWR
CHECKED BY	GFB

DRAWING TITLE	
GEOLOGIC CROSS SECTION C - C' PLANT BARRY ASH POND	
FIGURE NO.	FIGURE 4C
Southern Company	




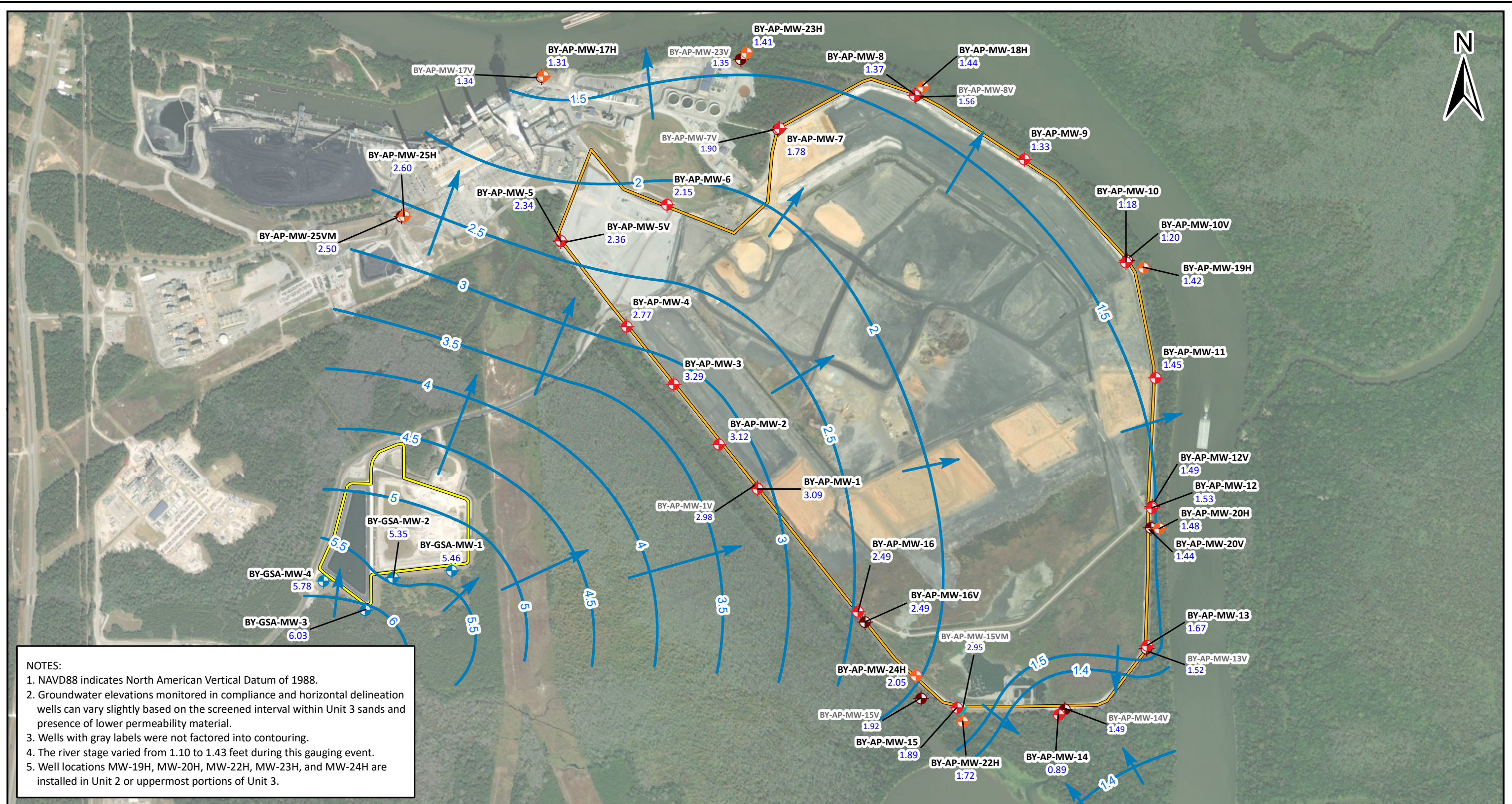
LEGEND

-  Downgradient Monitoring Well
-  Upgradient Monitoring Well
-  Horizontal Delineation Monitoring Well
-  Vertical Delineation Monitoring Well
-  Piezometer
-  Groundwater Field Parameters
-  Instrumentation Observation Well Locations
-  Abandoned Soil Boring
-  Ash Pond Boundary
-  Gypsum Pond Boundary



Projection: NAD 1983 State Plane Alabama West FIPS 0102 Feet
 Base Map: Maxar Vivid Advanced, 10/21/2022










SCALE	1:12,000	DRAWING TITLE: MONITORING WELL LOCATION MAP PLANT BARRY ASH POND
DATE	10/18/2023	
DRAWN BY	KWR	FIGURE NO. FIGURE 5
CHECKED BY	AWH	
		

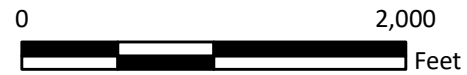


NOTES:


1. NAVD88 indicates North American Vertical Datum of 1988.
2. Groundwater elevations monitored in compliance and horizontal delineation wells can vary slightly based on the screened interval within Unit 3 sands and presence of lower permeability material.
3. Wells with gray labels were not factored into contouring.
4. The river stage varied from 1.10 to 1.43 feet during this gauging event.
5. Well locations MW-19H, MW-20H, MW-22H, MW-23H, and MW-24H are installed in Unit 2 or uppermost portions of Unit 3.

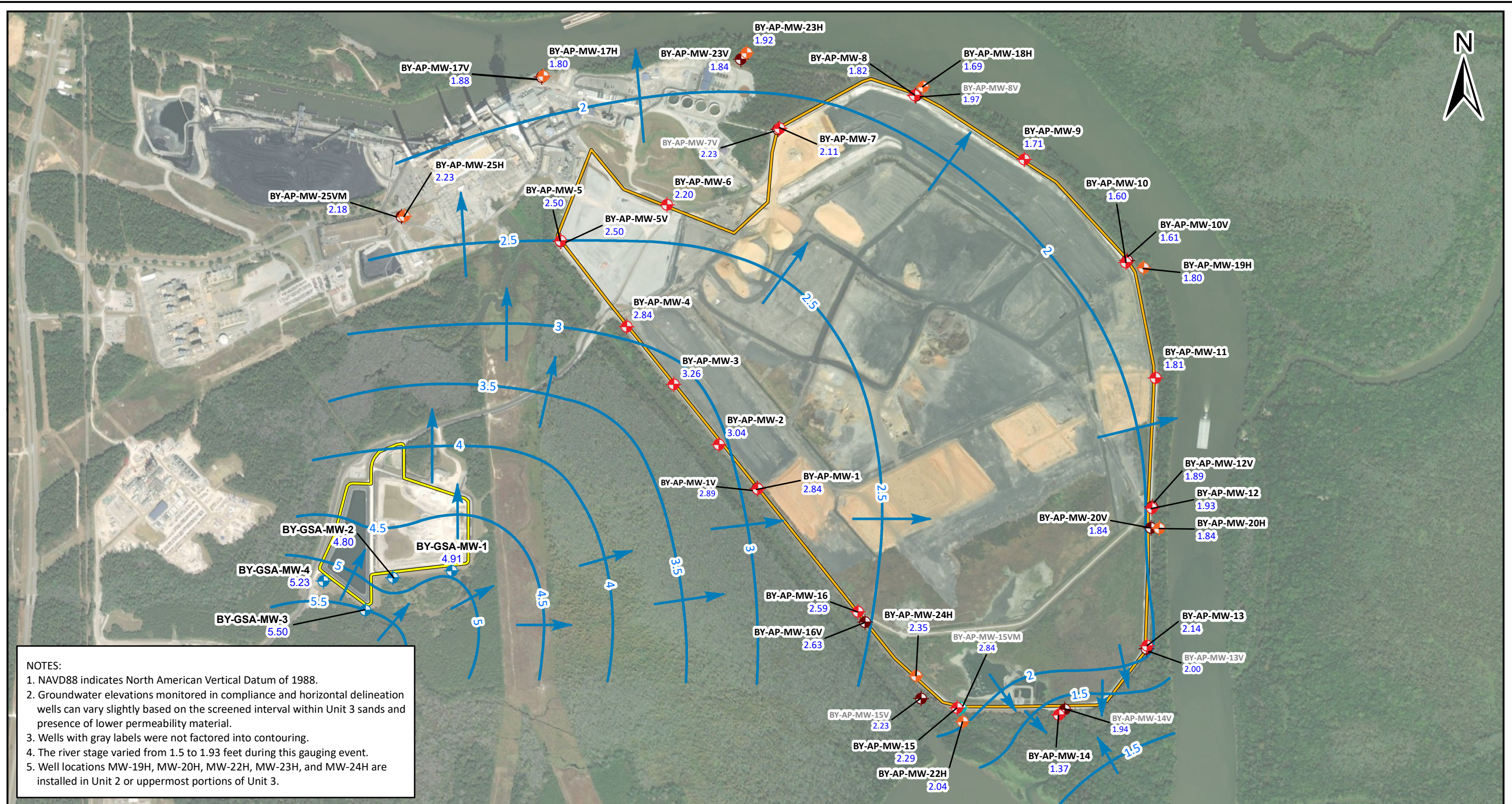
LEGEND

-  Downgradient Compliance Well
 -  Upgradient Compliance Well
 -  Horizontal Delineation Well
 -  Vertical Delineation Well
 -  Piezometer
 -  Potentiometric Surface Contour (ft NAVD88)
 -  Approximate Groundwater Flow Direction
 -  Ash Pond Boundary
 -  Gypsum Pond Boundary
- BY-AP-MW-1 Well ID
3.09 Groundwater Elevation (ft NAVD88)



Projection: NAD 1983 State Plane Alabama West FIPS 0102 Feet
Base Map: Maxar Vivid Advanced, 10/21/2022

SCALE	1:12000	DRAWING TITLE: POTENTIOMETRIC SURFACE CONTOUR MAP JUNE 11, 2023 PLANT BARRY ASH POND
DATE	11/1/2023	
DRAWN BY	KWR	FIGURE NO. FIGURE 6A
CHECKED BY	GFB	
		



NOTES:

1. NAVD88 indicates North American Vertical Datum of 1988.
2. Groundwater elevations monitored in compliance and horizontal delineation wells can vary slightly based on the screened interval within Unit 3 sands and presence of lower permeability material.
3. Wells with gray labels were not factored into contouring.
4. The river stage varied from 1.5 to 1.93 feet during this gauging event.
5. Well locations MW-19H, MW-20H, MW-22H, MW-23H, and MW-24H are installed in Unit 2 or uppermost portions of Unit 3.

LEGEND

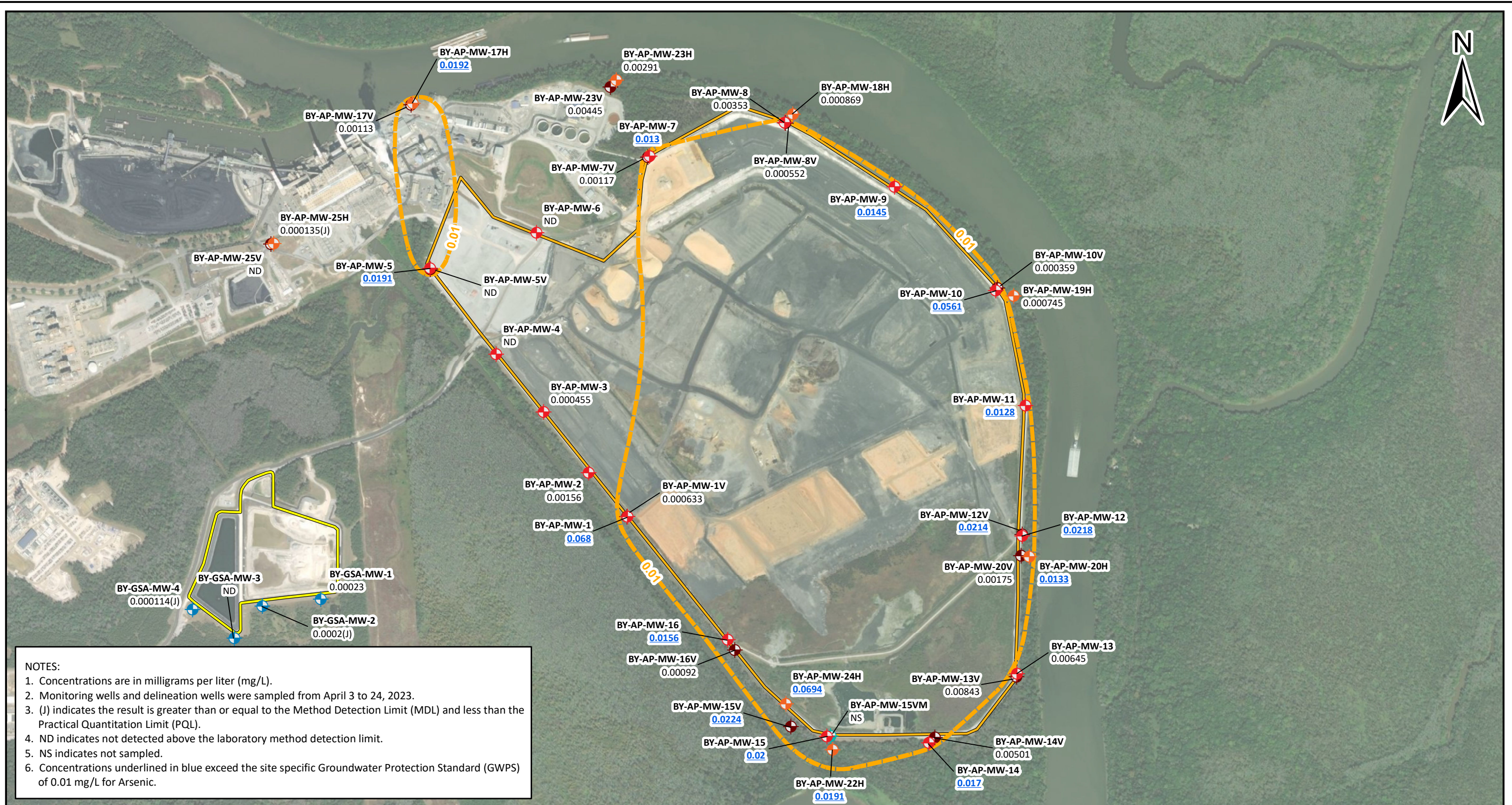
- Downgradient Compliance Well
 - Upgradient Compliance Well
 - Horizontal Delineation Well
 - Vertical Delineation Well
 - Piezometer
 - Potentiometric Surface Contour (ft NAVD88)
 - Approximate Groundwater Flow Direction
 - Ash Pond Boundary
 - Gypsum Pond Boundary
- BY-AP-MW-1 Well ID
2.84 Groundwater Elevation (ft NAVD88)



Projection: NAD 1983 State Plane Alabama West FIPS 0102 Feet
Base Map: Maxar Vivid Advanced, 10/21/2022

SCALE	1:12000	DRAWING TITLE: POTENTIOMETRIC SURFACE CONTOUR MAP AUGUST 7, 2023 PLANT BARRY ASH POND
DATE	11/1/2023	
DRAWN BY	KWR	FIGURE NO.
CHECKED BY	AWH	FIGURE 6B





NOTES:

1. Concentrations are in milligrams per liter (mg/L).
2. Monitoring wells and delineation wells were sampled from April 3 to 24, 2023.
3. (J) indicates the result is greater than or equal to the Method Detection Limit (MDL) and less than the Practical Quantitation Limit (PQL).
4. ND indicates not detected above the laboratory method detection limit.
5. NS indicates not sampled.
6. Concentrations underlined in blue exceed the site specific Groundwater Protection Standard (GWPS) of 0.01 mg/L for Arsenic.

LEGEND	
	Downgradient Compliance Well
	Upgradient Compliance Well
	Horizontal Delineation
	Vertical Delineation Well
	Piezometer
	Arsenic GWPS (mg/L)
	Ash Pond Boundary
	Gypsum Pond Boundary



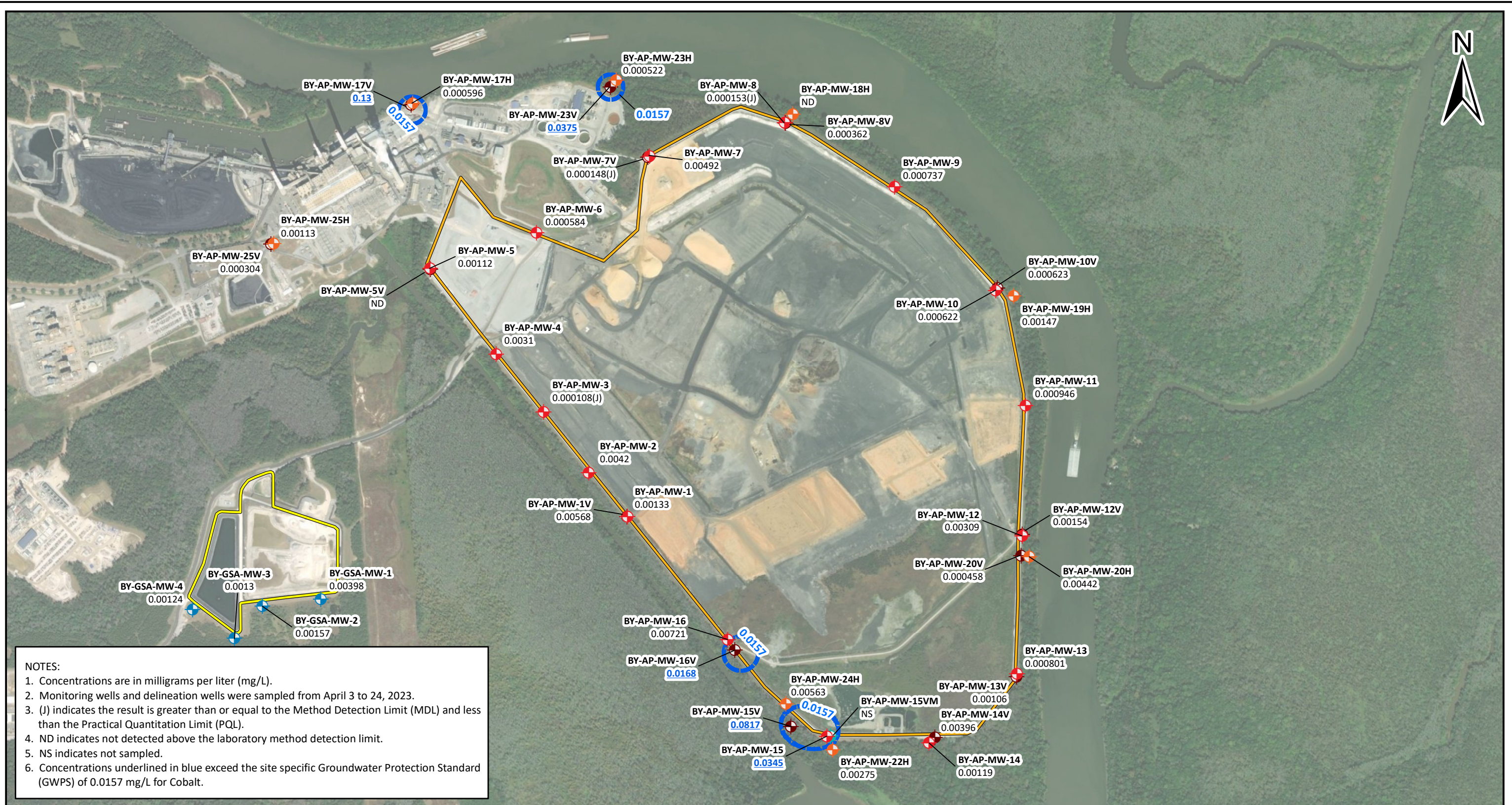
Projection: NAD 1983 State Plane Alabama West FIPS 0102 Feet
 Base Map: Maxar Vivid Advanced, 10/21/2022

SCALE	1:12,000
DATE	5/31/2023
DRAWN BY	KWR
CHECKED BY	GFB

DRAWING TITLE: **ARSENIC ISOCONCENTRATION MAP
 PLANT BARRY ASH POND**

FIGURE NO.
FIGURE 7A





NOTES:

1. Concentrations are in milligrams per liter (mg/L).
2. Monitoring wells and delineation wells were sampled from April 3 to 24, 2023.
3. (J) indicates the result is greater than or equal to the Method Detection Limit (MDL) and less than the Practical Quantitation Limit (PQL).
4. ND indicates not detected above the laboratory method detection limit.
5. NS indicates not sampled.
6. Concentrations underlined in blue exceed the site specific Groundwater Protection Standard (GWPS) of 0.0157 mg/L for Cobalt.

LEGEND

- Downgradient Compliance Well
- Upgradient Compliance Well
- Horizontal Delineation
- Vertical Delineation Well
- Piezometer
- Cobalt GWPS (mg/L)
- Ash Pond Boundary
- Gypsum Pond Boundary



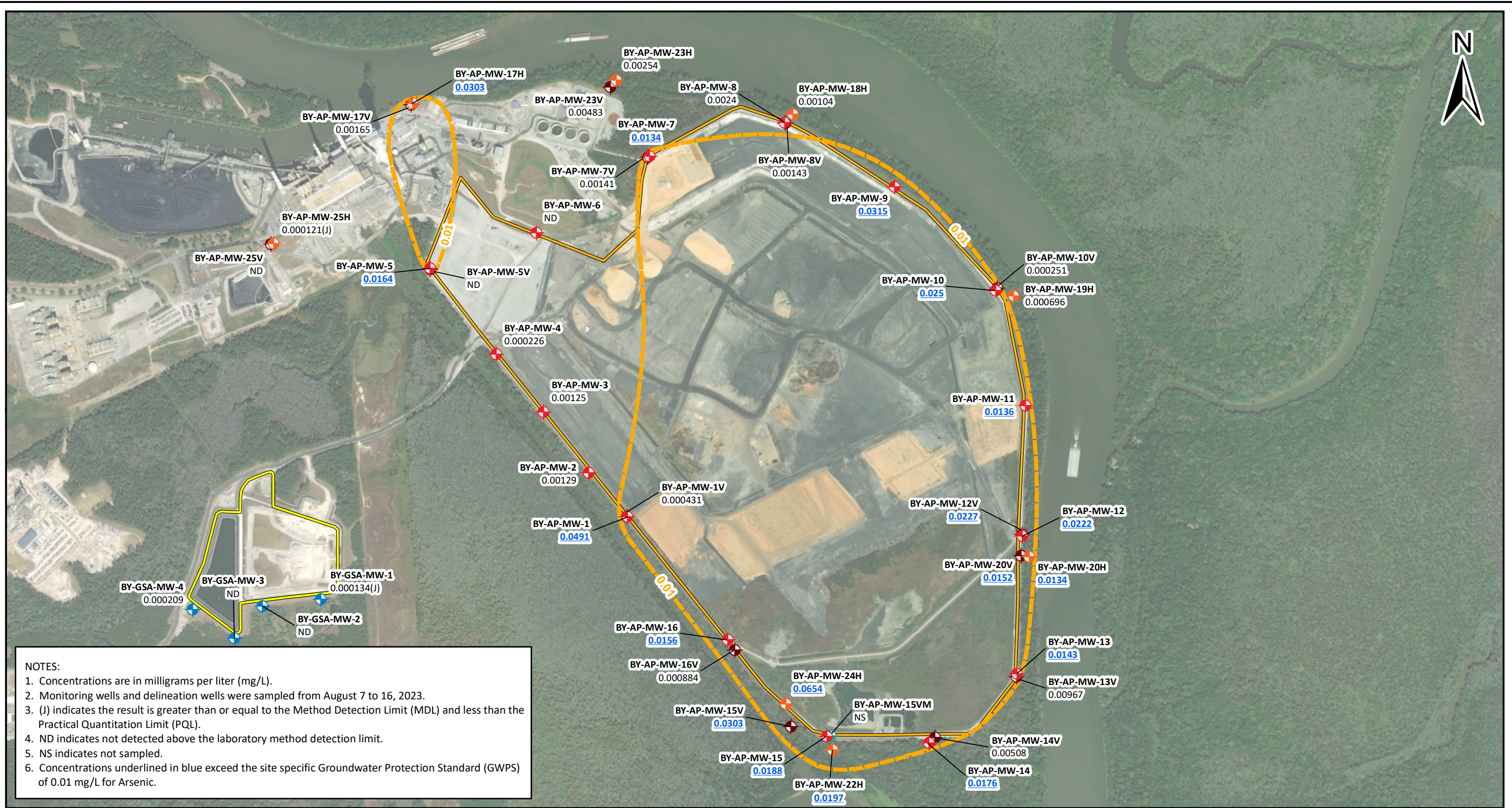
Projection: NAD 1983 State Plane Alabama West FIPS 0102 Feet
 Base Map: Maxar Vivid Advanced, 10/21/2022

SCALE	1:12,000
DATE	5/31/2023
DRAWN BY	KWR
CHECKED BY	GFB

DRAWING TITLE:
**COBALT ISOCONCENTRATION MAP
 PLANT BARRY ASH POND**

FIGURE NO.
FIGURE 7B





NOTES:

1. Concentrations are in milligrams per liter (mg/L).
2. Monitoring wells and delineation wells were sampled from August 7 to 16, 2023.
3. (J) indicates the result is greater than or equal to the Method Detection Limit (MDL) and less than the Practical Quantitation Limit (PQL).
4. ND indicates not detected above the laboratory method detection limit.
5. NS indicates not sampled.
6. Concentrations underlined in blue exceed the site specific Groundwater Protection Standard (GWPS) of 0.01 mg/L for Arsenic.

LEGEND	
	Downgradient Compliance Well
	Upgradient Compliance Well
	Horizontal Delineation
	Vertical Delineation Well
	Piezometer
	Arsenic GWPS (mg/L)
	Ash Pond Boundary
	Gypsum Pond Boundary



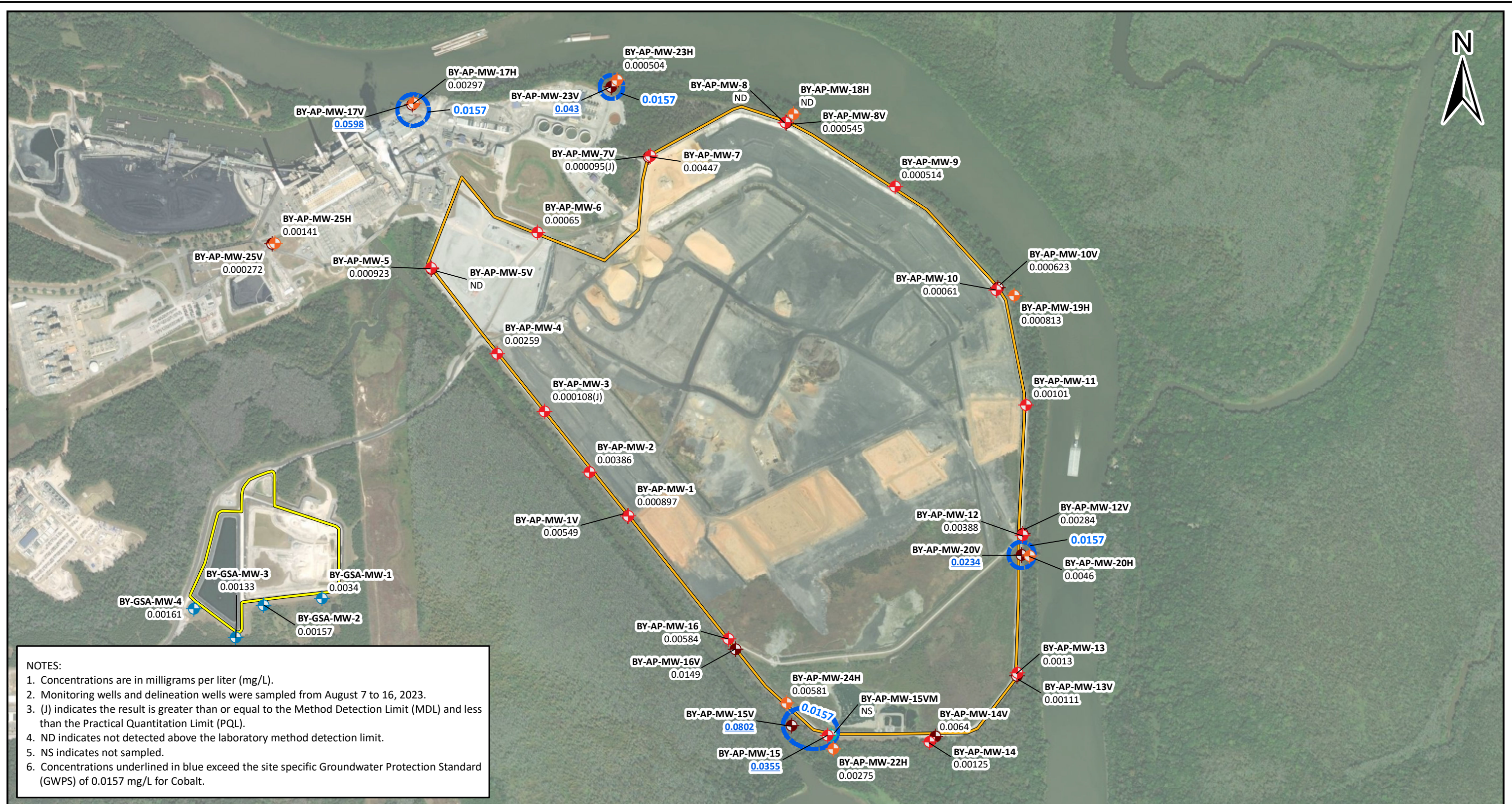
Projection: NAD 1983 State Plane Alabama West FIPS 0102 Feet
 Base Map: Maxar Vivid Advanced, 10/21/2022

SCALE	1:12,000
DATE	10/18/2023
DRAWN BY	KWR
CHECKED BY	AWH

DRAWING TITLE:
**ARSENIC ISOCONCENTRATION MAP
 PLANT BARRY ASH POND**

FIGURE NO.
FIGURE 7C





NOTES:

1. Concentrations are in milligrams per liter (mg/L).
2. Monitoring wells and delineation wells were sampled from August 7 to 16, 2023.
3. (J) indicates the result is greater than or equal to the Method Detection Limit (MDL) and less than the Practical Quantitation Limit (PQL).
4. ND indicates not detected above the laboratory method detection limit.
5. NS indicates not sampled.
6. Concentrations underlined in blue exceed the site specific Groundwater Protection Standard (GWPS) of 0.0157 mg/L for Cobalt.

LEGEND

- Downgradient Compliance Well
- Upgradient Compliance Well
- Horizontal Delineation
- Vertical Delineation Well
- Piezometer
- Cobalt GWPS (mg/L)
- Ash Pond Boundary
- Gypsum Pond Boundary



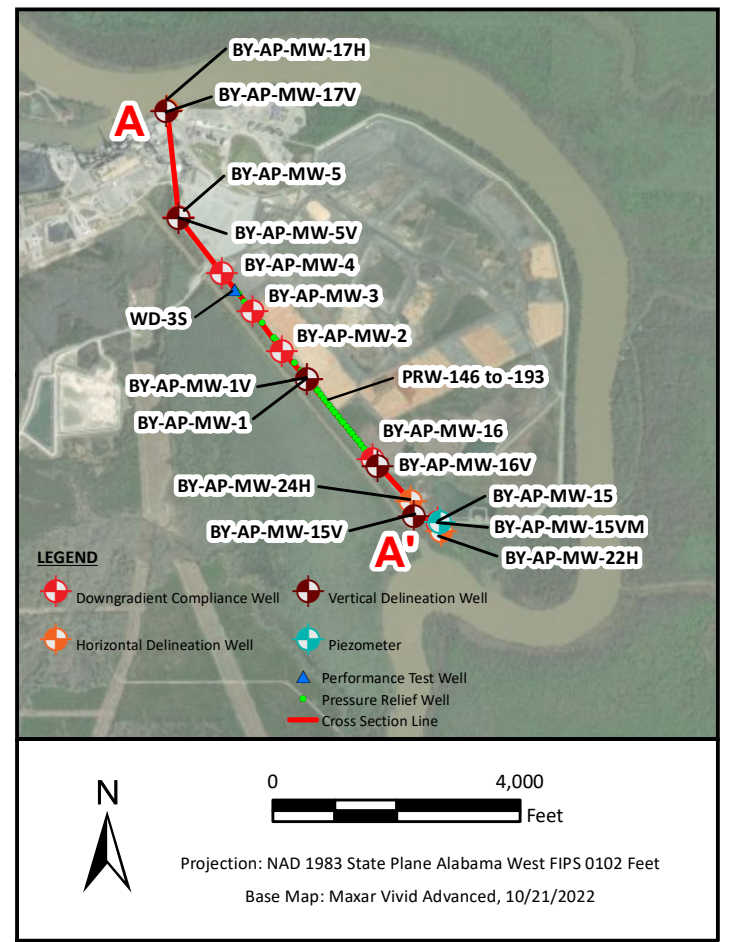
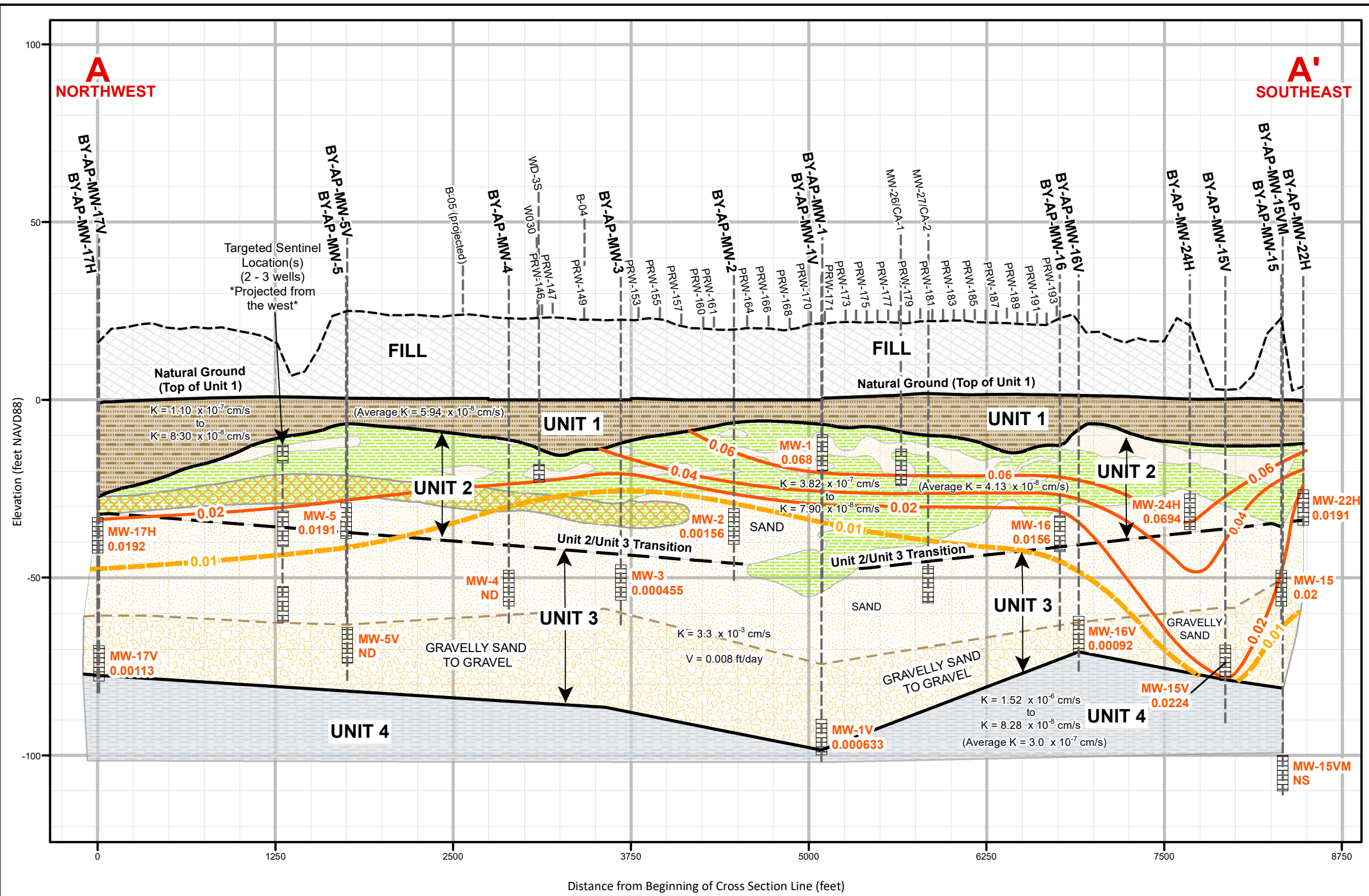
Projection: NAD 1983 State Plane Alabama West FIPS 0102 Feet
 Base Map: Maxar Vivid Advanced, 10/21/2022

SCALE	1:12,000
DATE	10/18/2023
DRAWN BY	KWR
CHECKED BY	AWH

DRAWING TITLE:
**COBALT ISOCONCENTRATION MAP
 PLANT BARRY ASH POND**

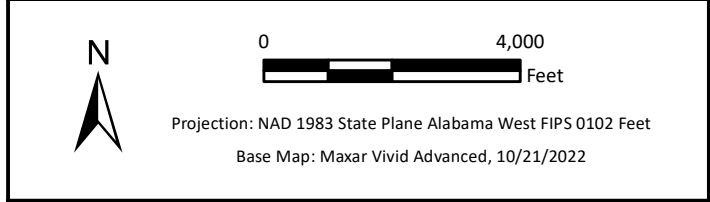
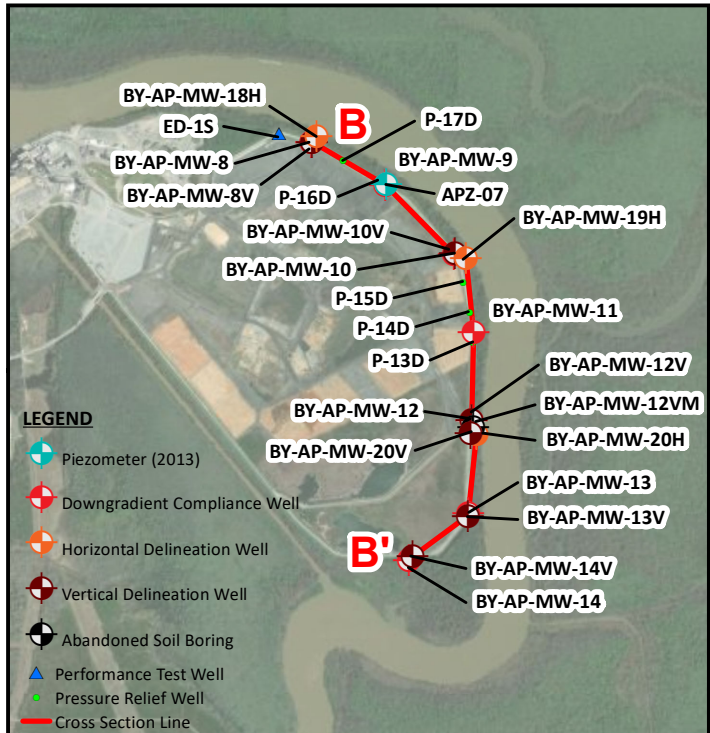
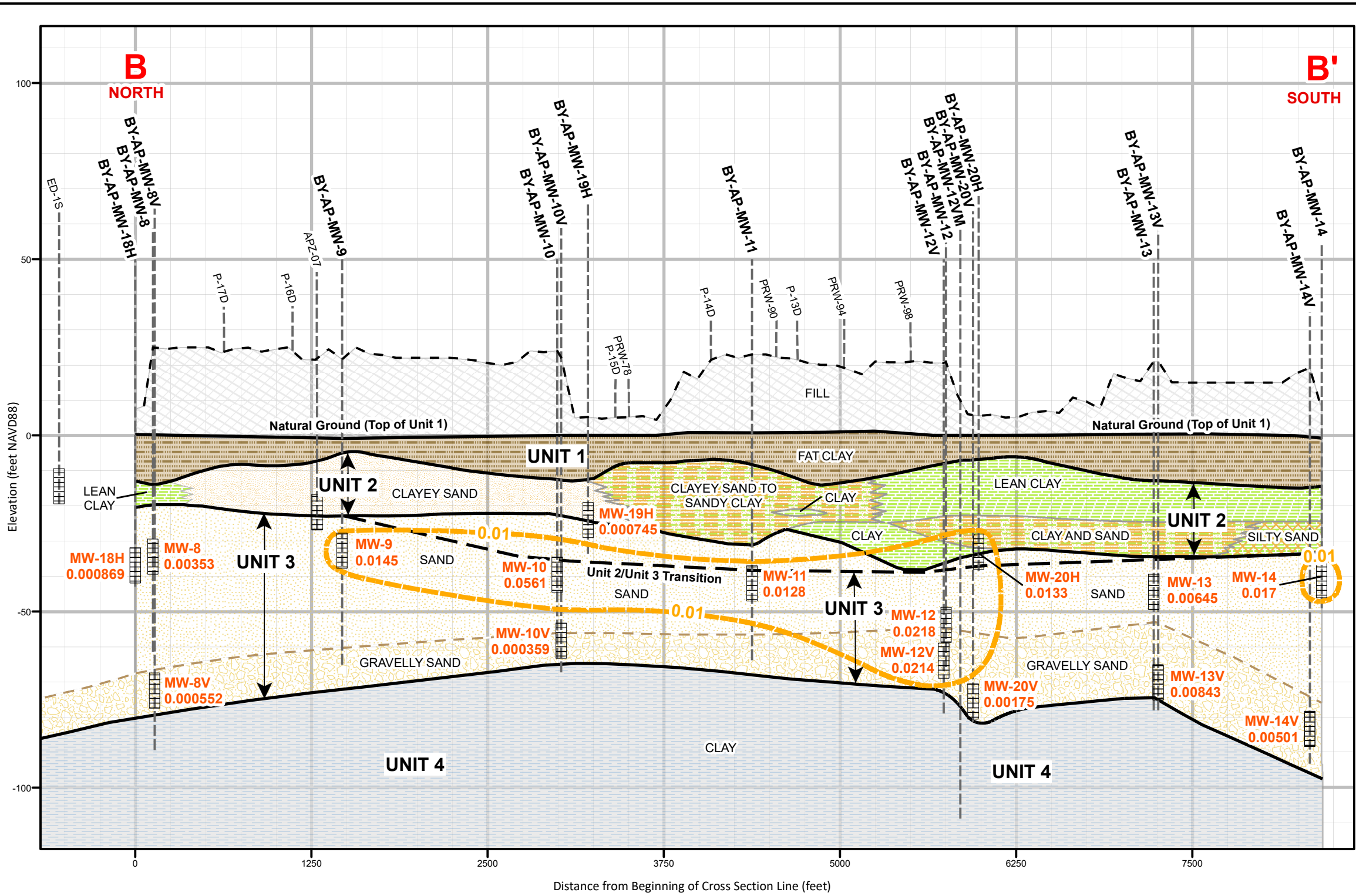
FIGURE NO.
FIGURE 7D





- Notes:
1. Source of ground surface elevation data: Lidar
 2. NAVD88 indicates North American Vertical Datum of 1988.
 3. Water samples were collected between April 3 and April 24, 2023.
 4. ND indicates not detected above the method detection limit.
 5. NS indicates not sampled.
 6. K indicates hydraulic conductivity.
 7. Units 1, 2, and 4 hydraulic conductivity calculated from Shelby tube permeameter testing on undisturbed soil samples.
 8. Unit 3 hydraulic conductivity calculated from long duration pumping test data.
 9. V indicates groundwater flow velocity.
 10. Vertical exaggeration: 25x.

LEGEND 	UNIT 1 Organic clay	UNIT 3 Sand Unit: Gradational sand where sands grade from silty or fine grained to medium sands or gravels.	SCALE As Shown	DRAWING TITLE ARSENIC CONCENTRATIONS ALONG GEOLOGIC CROSS SECTION A - A' PLANT BARRY ASH POND
	UNIT 2 Mixed Unit: Interbedded clay, silt, and thin silty sands grading downward to silt and clay. Upper sand and clay unit is discontinuous but, when existing, occurs typically between -11 and -22 ft MSL. Laterally, Unit 2 grades eastward into coarser materials. Unit 2 is interpreted to terminate near the base of the modern river thalweg (-37 to -48 ft MSL) and can include silty sands near the base.	UNIT 4 Lower Clay: Silty Clay to Sandy Clay.	DATE 11/1/2023	
	0.01 Arsenic GWPS (mg/L) 0.0192 Arsenic Concentration (mg/L)		DRAWN BY KWR	
			CHECKED BY GFB	



Notes: 1. Source of ground surface elevation data: Lidar
 2. NAVD88 indicates North American Vertical Datum of 1988.
 3. Water samples were collected between April 3 and April 24, 2023.
 4. Vertical exaggeration: 25x.

LEGEND

	Ground Surface Elevation		Fill
	Well Location		Fat Clay
	Screen Interval		Lean Clay
	Arsenic GWPS Isoconcentration Contour (mg/L)		Clayey Sand to Sandy Clay, Clay, Clay and Sand
	Unit Boundary		Silty Sand
	Transitional Unit Boundary		Clayey Sand
	Transition Within Unit		Sand
			Gravelly Sand
			Clay

UNIT 1 Organic clay

UNIT 2 Mixed Unit: Interbedded clay, silt, and thin silty sands grading downward to silt and clay. Upper sand and clay unit is discontinuous but, when existing, occurs typically between -11 and -22 ft MSL. Laterally, Unit 2 grades eastward into coarser materials. Unit 2 is interpreted to terminate near the base of the modern river thalweg (-37 to -48 ft MSL) and can include silty sands near the base.

UNIT 3 Sand Unit: Gradational sand where sands grade from silty or fine grained to medium sands or gravels.

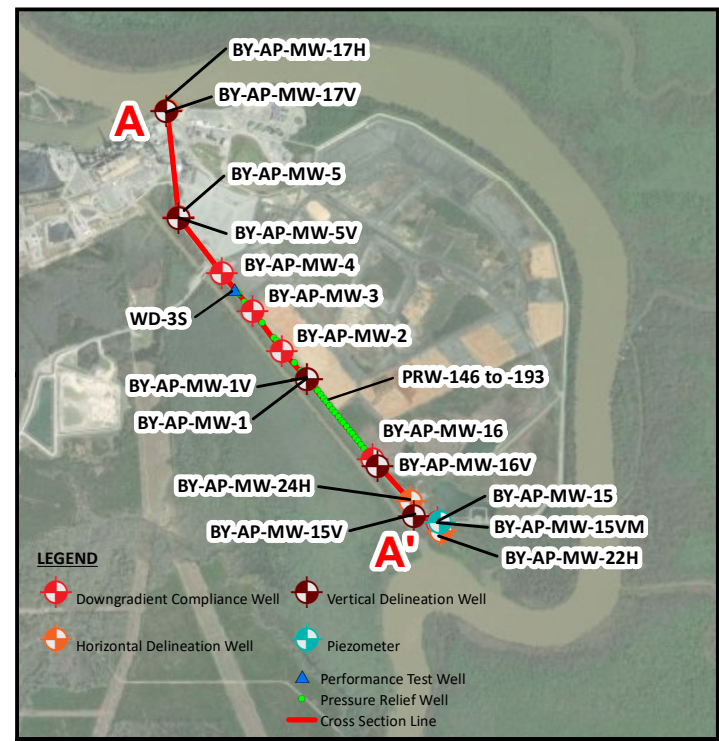
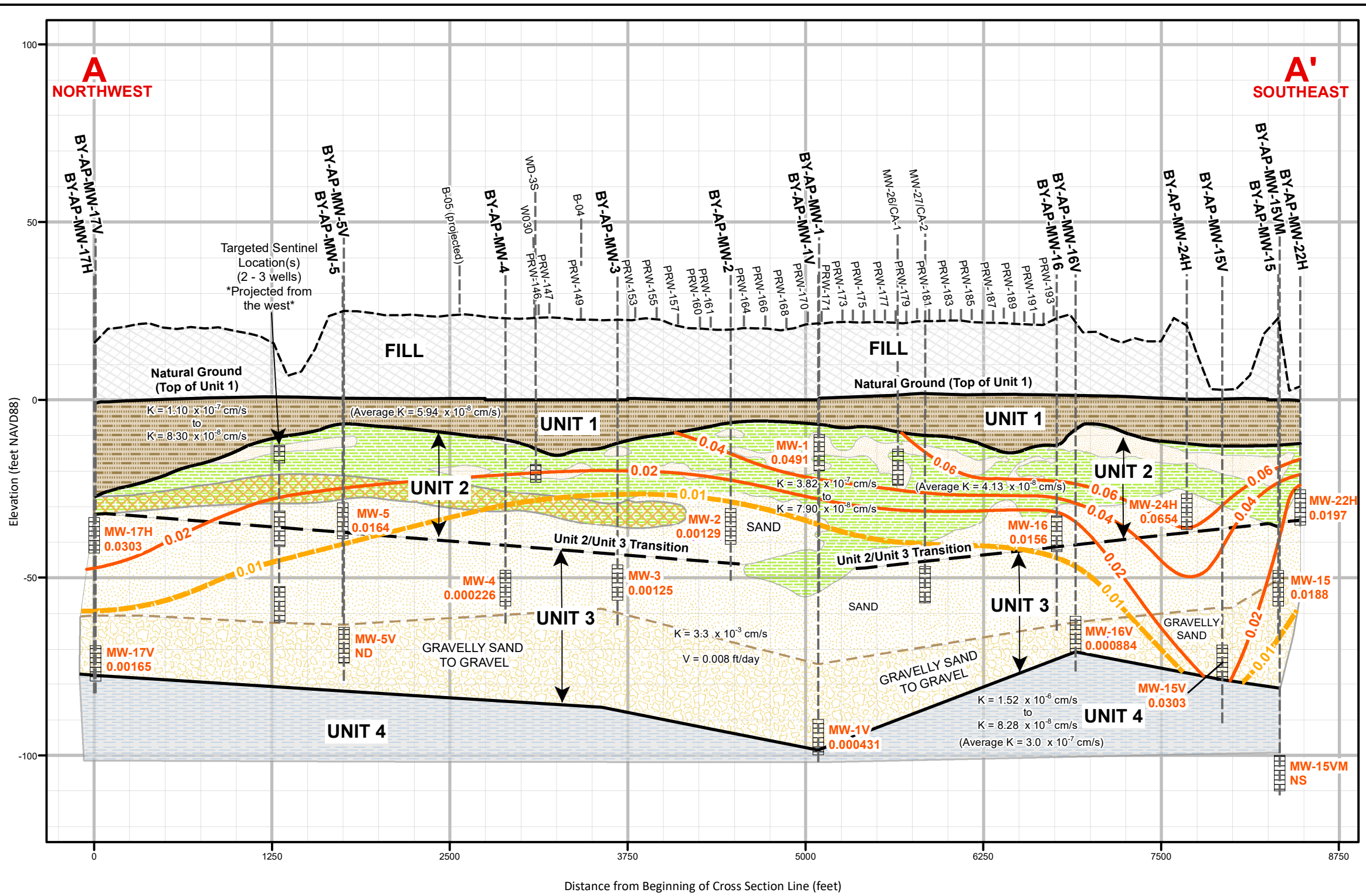
UNIT 4 Lower Clay: Silty Clay to Sandy Clay.

0.01 Arsenic GWPS (mg/L)
 0.0145 Arsenic Concentration (mg/L)

SCALE	As Shown
DATE	11/1/2023
DRAWN BY	KWR
CHECKED BY	GFB

DRAWING TITLE
ARSENIC CONCENTRATIONS ALONG GEOLOGIC CROSS SECTION B - B' PLANT BARRY ASH POND

FIGURE NO.
FIGURE 8B



Projection: NAD 1983 State Plane Alabama West FIPS 0102 Feet
Base Map: Maxar Vivid Advanced, 10/21/2022

- Notes:
1. Source of ground surface elevation data: Lidar
 2. NAVD88 indicates North American Vertical Datum of 1988.
 3. Water samples were collected between August 7 and August 9, 2023.
 4. ND indicates not detected above the laboratory method detection limit.
 5. NS indicates not sampled.
 6. K indicates hydraulic conductivity.
 7. Units 1, 2, and 4 hydraulic conductivity calculated from Shelby tube permeameter testing on undisturbed soil samples.
 8. Unit 3 hydraulic conductivity calculated from long duration pumping test data.
 9. V indicates groundwater flow velocity.
 10. Vertical exaggeration: 25x.

LEGEND

- Ground Surface Elevation
- Well Location
- Screen Interval
- Arsenic Isoconcentration Contour (mg/L)
- Arsenic GWPS Isoconcentration Contour (mg/L)
- Unit Boundary
- Transitional Unit Boundary
- Transition Within Unit

- Fill
- Organic Clay
- Lean to Fat Clays, Sandy Silts, and Clayey Sands
- Silty Sand
- Silt, Clay, and Clayey Sand
- Sand
- Gravelly Sand to Gravel
- Silty Clay to Sandy Clay

UNIT 1 Organic clay

UNIT 2 Mixed Unit: Interbedded clay, silt, and thin silty sands grading downward to silt and clay. Upper sand and clay unit is discontinuous but, when existing, occurs typically between -11 and -22 ft MSL. Laterally, Unit 2 grades eastward into coarser materials. Unit 2 is interpreted to terminate near the base of the modern river thalweg (-37 to -48 ft MSL) and can include silty sands near the base.

UNIT 3 Sand Unit: Gradational sand where sands grade from silty or fine grained to medium sands or gravels.

UNIT 4 Lower Clay: Silty Clay to Sandy Clay.

0.01 Arsenic GWPS (mg/L)
0.0303 Arsenic Concentration (mg/L)

SCALE: As Shown

DATE: 11/1/2023

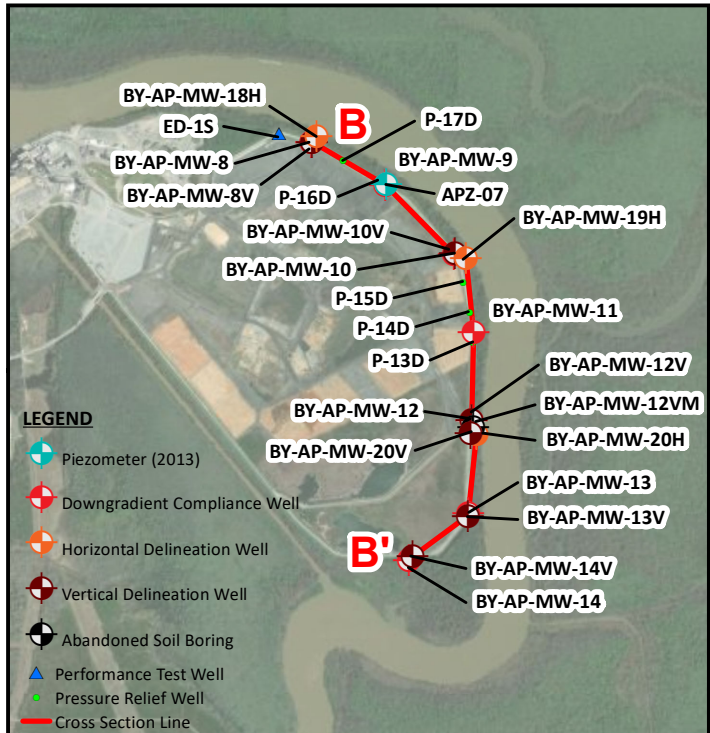
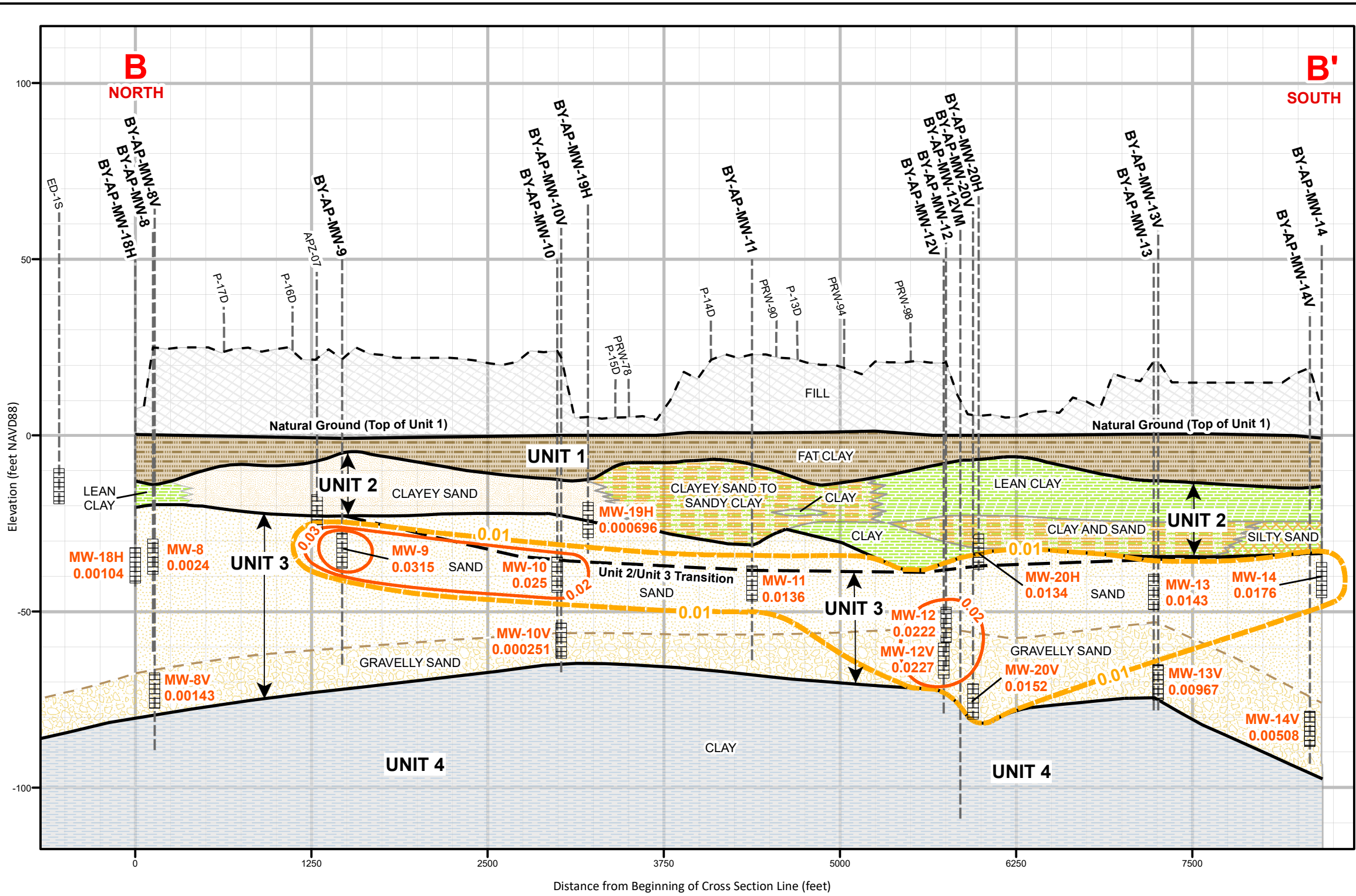
DRAWN BY: KWR

CHECKED BY: GFB

DRAWING TITLE: **ARSENIC CONCENTRATIONS ALONG GEOLOGIC CROSS SECTION A - A' PLANT BARRY ASH POND**

FIGURE NO.: **FIGURE 8C**

Southern Company



LEGEND

- Piezometer (2013)
- Downgradient Compliance Well
- Horizontal Delineation Well
- Vertical Delineation Well
- Abandoned Soil Boring
- Performance Test Well
- Pressure Relief Well
- Cross Section Line

0 4,000 Feet

Projection: NAD 1983 State Plane Alabama West FIPS 0102 Feet
Base Map: Maxar Vivid Advanced, 10/21/2022

Notes: 1. Source of ground surface elevation data: Lidar
 2. NAVD88 indicates North American Vertical Datum of 1988.
 3. Water samples were collected between August 7 and August 9, 2023.
 4. Vertical exaggeration: 25x.

LEGEND

- Ground Surface Elevation
- Well Location
- Screen Interval
- Arsenic Isoconcentration Contour (mg/L)
- Arsenic GWPS Isoconcentration Contour (mg/L)
- Unit Boundary
- Transitional Unit Boundary
- Transition Within Unit
- Fill
- Fat Clay
- Lean Clay
- Clayey Sand to Sandy Clay, Clay, and Sand
- Silty Sand
- Clayey Sand
- Sand
- Gravelly Sand
- Clay

UNIT 1 Organic clay

UNIT 2 Mixed Unit: Interbedded clay, silt, and thin silty sands grading downward to silt and clay. Upper sand and clay unit is discontinuous but, when existing, occurs typically between -11 and -22 ft MSL. Laterally, Unit 2 grades eastward into coarser materials. Unit 2 is interpreted to terminate near the base of the modern river thalweg (-37 to -48 ft MSL) and can include silty sands near the base.

UNIT 3 Sand Unit: Gradational sand where sands grade from silty or fine grained to medium sands or gravels.

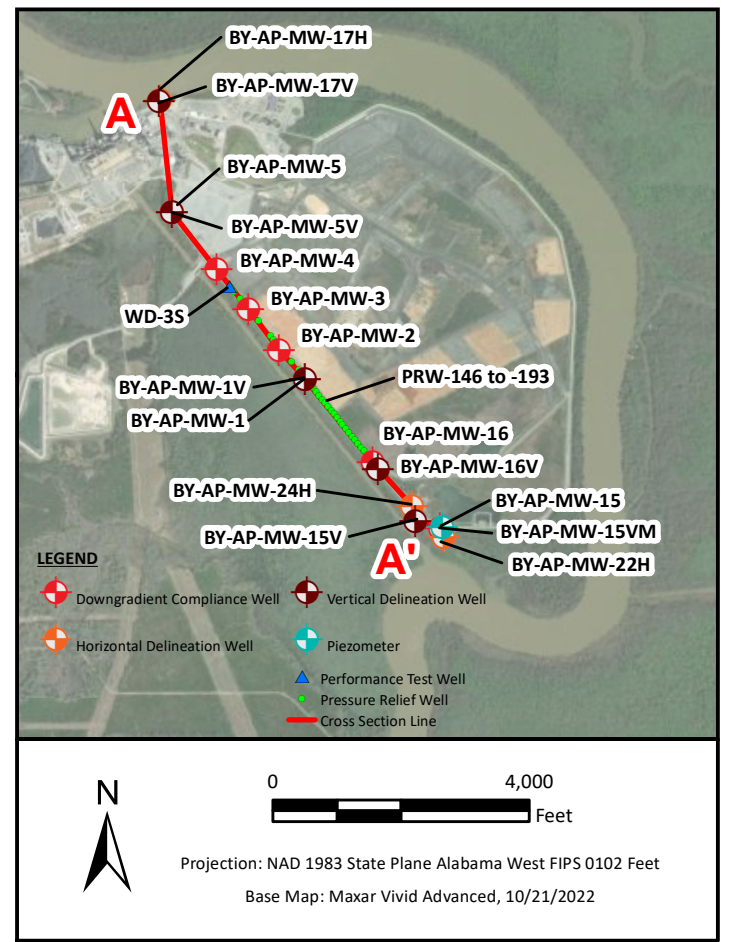
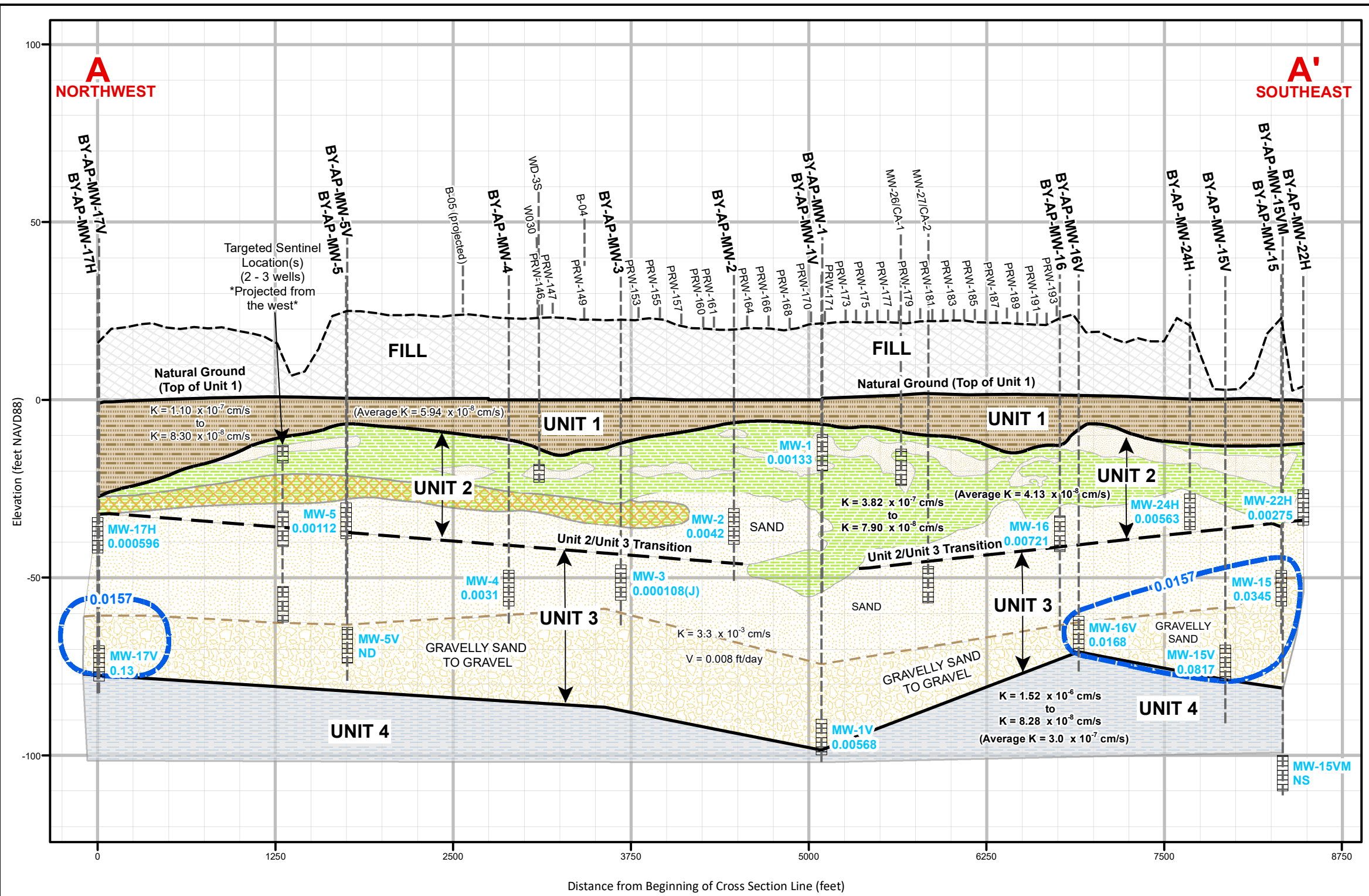
UNIT 4 Lower Clay: Silty Clay to Sandy Clay.

0.01 Arsenic GWPS (mg/L)
 0.0315 Arsenic Concentration (mg/L)

SCALE	As Shown
DATE	11/1/2023
DRAWN BY	KWR
CHECKED BY	GFB

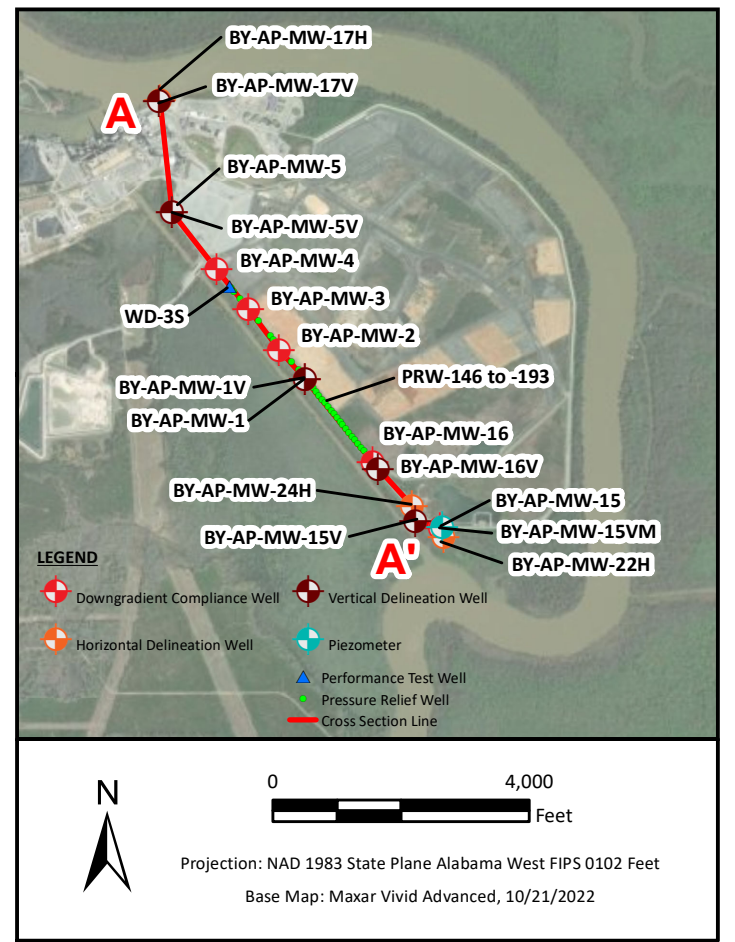
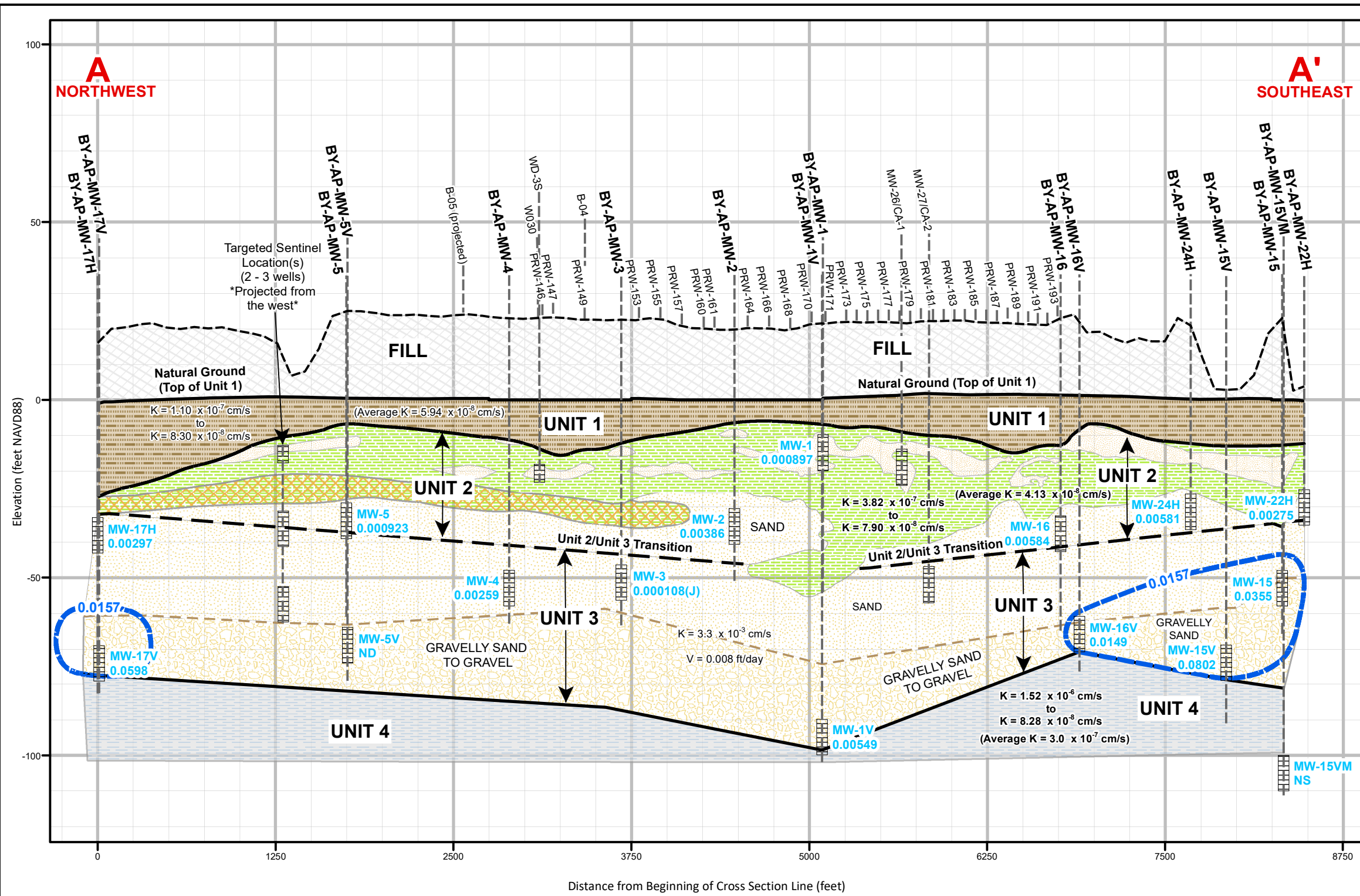
DRAWING TITLE
ARSENIC CONCENTRATIONS ALONG GEOLOGIC CROSS SECTION B - B' PLANT BARRY ASH POND

FIGURE NO.
FIGURE 8D



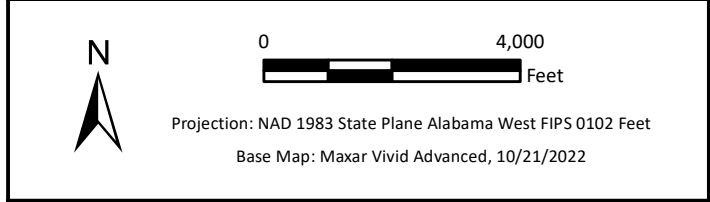
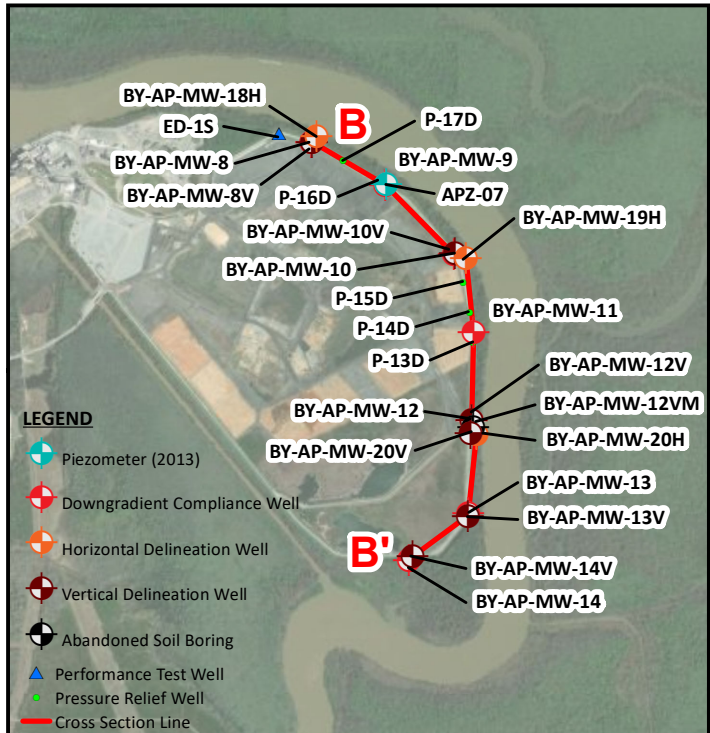
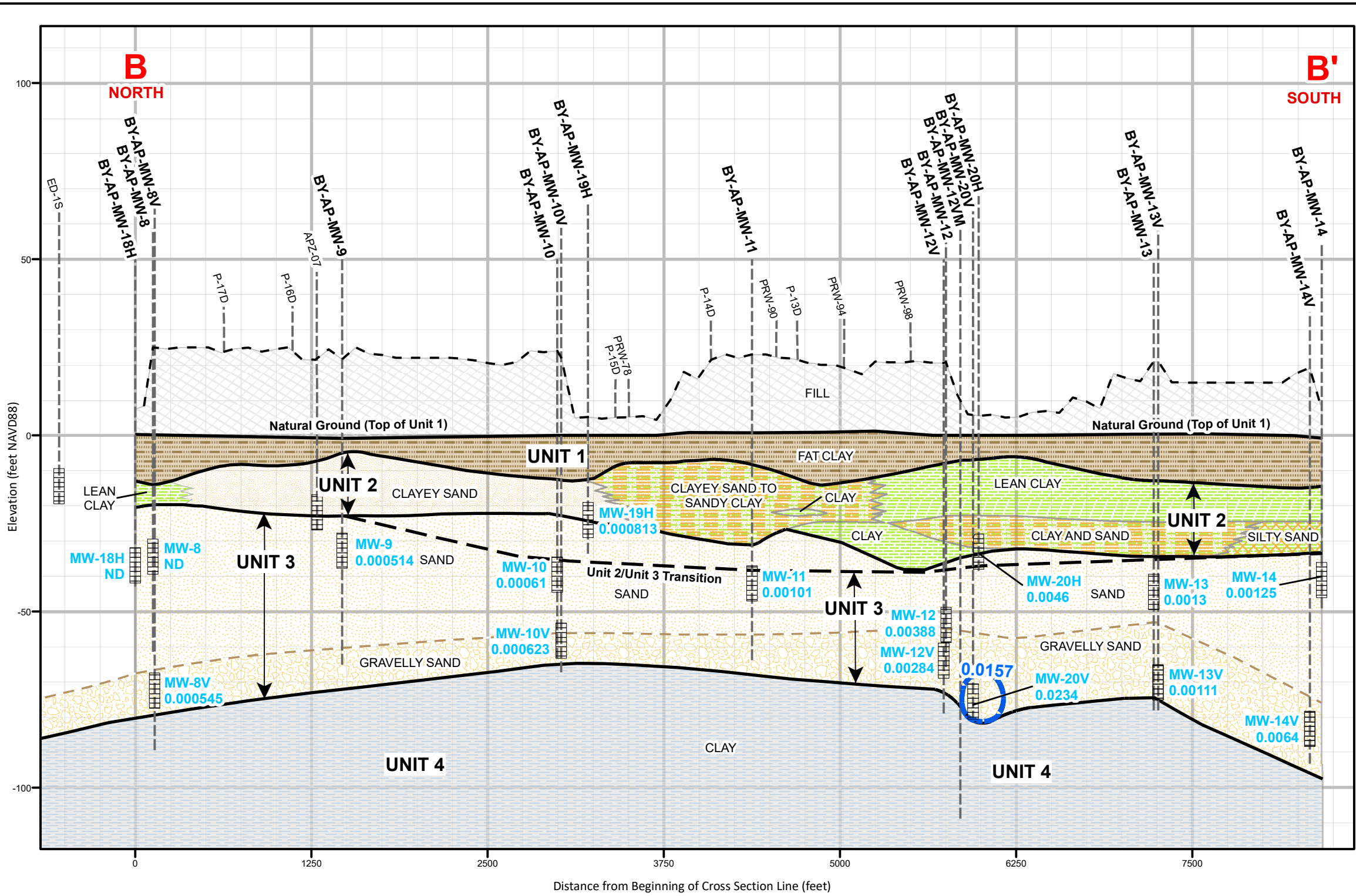
- Notes:**
- Source of ground surface elevation data: Lidar
 - NAVD88 indicates North American Vertical Datum of 1988.
 - Water samples were collected between April 3 and April 24, 2023.
 - ND indicates not detected above the method detection limit.
 - NS indicates not sampled.
 - K indicates hydraulic conductivity.
 - Units 1, 2, and 4 hydraulic conductivity calculated from Shelby tube permeameter testing on undisturbed soil samples.
 - Unit 3 hydraulic conductivity calculated from long duration pumping test data.
 - V indicates groundwater flow velocity.
 - Vertical exaggeration: 25x.

LEGEND 	UNIT 1 Organic clay	UNIT 3 Sand Unit: Gradational sand where sands grade from silty or fine grained to medium sands or gravels.	SCALE As Shown	DRAWING TITLE COBALT CONCENTRATIONS ALONG GEOLOGIC CROSS SECTION A - A' PLANT BARRY ASH POND		
	UNIT 2 Mixed Unit: Interbedded clay, silt, and thin silty sands grading downward to silt and clay. Upper sand and clay unit is discontinuous but, when existing, occurs typically between -11 and -22 ft MSL. Laterally, Unit 2 grades eastward into coarser materials. Unit 2 is interpreted to terminate near the base of the modern river thalweg (-37 to -48 ft MSL) and can include silty sands near the base.	UNIT 4 Lower Clay: Silty Clay to Sandy Clay.	DATE 11/1/2023	FIGURE NO. FIGURE 9A		
	0.0157 Cobalt GWPS (mg/L) 0.13 Cobalt Concentration (mg/L)	DRAWN BY KWR CHECKED BY GFB				



- Notes:**
- Source of ground surface elevation data: Lidar
 - NAVD88 indicates North American Vertical Datum of 1988.
 - Water samples were collected between August 7 and August 9, 2023.
 - ND indicates not detected above the method detection limit.
 - NS indicates not sampled.
 - K indicates hydraulic conductivity.
 - Units 1, 2, and 4 hydraulic conductivity calculated from Shelby tube permeameter testing on undisturbed soil samples.
 - Unit 3 hydraulic conductivity calculated from long duration pumping test data.
 - V indicates groundwater flow velocity.
 - Vertical exaggeration: 25x.

LEGEND 	UNIT 1 Organic clay	UNIT 3 Sand Unit: Gradational sand where sands grade from silty or fine grained to medium sands or gravels.	SCALE As Shown	DRAWING TITLE COBALT CONCENTRATIONS ALONG GEOLOGIC CROSS SECTION A - A' PLANT BARRY ASH POND		
	UNIT 2 Mixed Unit: Interbedded clay, silt, and thin silty sands grading downward to silt and clay. Upper sand and clay unit is discontinuous but, when existing, occurs typically between -11 and -22 ft MSL. Laterally, Unit 2 grades eastward into coarser materials. Unit 2 is interpreted to terminate near the base of the modern river thalweg (-37 to -48 ft MSL) and can include silty sands near the base.	UNIT 4 Lower Clay: Silty Clay to Sandy Clay.	DATE 11/1/2023	FIGURE NO.		
	0.0157 Cobalt GWPS (mg/L) 0.0598 Cobalt Concentration (mg/L)	DRAWN BY KWR CHECKED BY GFB	FIGURE 9B			



- Notes:
1. Source of ground surface elevation data: Lidar
 2. NAVD88 indicates North American Vertical Datum of 1988.
 3. Water samples were collected between August 7 and August 9, 2023.
 4. Vertical exaggeration: 25x.

LEGEND

	Ground Surface Elevation		Well Location
	Screen Interval		Cobalt GWPS Isoconcentration Contour (mg/L)
	Unit Boundary		Transitional Unit Boundary
	Transition Within Unit		Fill
			Fat Clay
			Lean Clay
			Clayey Sand to Sandy Clay, Clay, Clay and Sand
			Silty Sand
			Clayey Sand
			Sand
			Gravelly Sand
			Clay

UNIT 1 Organic clay

UNIT 2 Mixed Unit: Interbedded clay, silt, and thin silty sands grading downward to silt and clay. Upper sand and clay unit is discontinuous but, when existing, occurs typically between -11 and -22 ft MSL. Laterally, Unit 2 grades eastward into coarser materials. Unit 2 is interpreted to terminate near the base of the modern river thalweg (-37 to -48 ft MSL) and can include silty sands near the base.

UNIT 3 Sand Unit: Gradational sand where sands grade from silty or fine grained to medium sands or gravels.

UNIT 4 Lower Clay: Silty Clay to Sandy Clay.

0.0157 Cobalt GWPS (mg/L)

0.00061 Cobalt Concentration (mg/L)

SCALE	As Shown
DATE	11/1/2023
DRAWN BY	KWR
CHECKED BY	GFB

DRAWING TITLE

COBALT CONCENTRATIONS ALONG GEOLOGIC CROSS SECTION B - B' PLANT BARRY ASH POND

FIGURE NO.

FIGURE 9C

Tables



**Table 1a. - Compliance Monitoring Well Network Details
Plant Barry Ash Pond**

Well ID	Hydraulic Location	Geologic Unit	Latitude	Longitude	Ground Surface Elevation (ft NAVD)	Top Of Casing Elevation (ft NAVD)	Well Depth (ft BTOC)	Top Of Screen Elevation (ft NAVD)	Bottom Of Screen Elevation (ft NAVD)	Screen Length (ft)	Date Of Installation
WELL NETWORK											
BY-UP-MW-1	Upgradient	Unit 3: Middle Sands (Watercourse Aq)	30.99445	-88.01134	17.49	20.66	44.4	-13.23	-23.23	10	10/7/2015
BY-UP-MW-2	Upgradient	Unit 3: Middle Sands (Watercourse Aq)	30.99425	-88.01331	17.00	19.95	47.6	-17.23	-27.23	10	10/7/2015
BY-UP-MW-3	Upgradient	Unit 3: Middle Sands (Watercourse Aq)	30.9933	-88.01424	20.15	23.24	48.5	-14.89	-24.89	10	10/7/2015
BY-UP-MW-4	Upgradient	Unit 3: Middle Sands (Watercourse Aq)	30.99413	-88.01566	26.16	29.12	64.1	-24.54	-34.54	10	10/13/2015
BY-AP-MW-1	Downgradient	Unit 1-Unit 2 Transition	30.99687	-88.00104	22.91	25.80	46.1	-9.90	-19.90	10	10/7/2015
BY-AP-MW-2	Downgradient	Unit 3: Upper Sands (Watercourse Aq)	30.99815	-88.00234	21.10	23.89	65.4	-31.11	-41.11	10	10/7/2015
BY-AP-MW-3	Downgradient	Unit 3: Middle Sands (Watercourse Aq)	30.99989	-88.00388	23.60	26.61	83.2	-46.18	-56.18	10	10/7/2015
BY-AP-MW-4	Downgradient	Unit 3: Middle Sands (Watercourse Aq)	31.00156	-88.00548	24.05	26.97	84.9	-47.54	-57.54	10	10/7/2015
BY-AP-MW-5	Downgradient	Unit 3: Upper Sands (Watercourse Aq)	31.00405	-88.00772	25.97	28.93	69.0	-29.62	-39.62	10	10/7/2015
BY-AP-MW-6	Downgradient	Unit 3: Middle Sands (Watercourse Aq)	31.0051	-88.00414	23.78	26.69	88.5	-51.42	-61.42	10	10/7/2015
BY-AP-MW-7	Downgradient	Unit 3: Middle Sands (Watercourse Aq)	31.00734	-88.00035	25.78	25.47	89.5	-53.58	-63.58	10	10/7/2015
BY-AP-MW-8	Downgradient	Unit 3: Upper Sands (Watercourse Aq)	31.00832	-87.9958	25.44	25.11	64.8	-29.29	-39.29	10	10/7/2015
BY-AP-MW-9	Downgradient	Unit 3: Upper Sands (Watercourse Aq)	31.00647	-87.9921	21.91	24.39	62.7	-27.92	-37.92	10	10/7/2015

Notes:
 ft = feet; ft NAVD = elevation in feet, referenced to North American Vertical Datum; ft BTOC = depth, referenced in feet below top of casing
 (1) Coordinates have been transformed into WGS84 from NAD 27/83, State Plane, Alabama, feet.
 (2) Vertical elevations are in feet relative to the North American Vertical Datum (NAVD)1988.
 (3) Total well depth accounts for sump if data provided on well construction logs.



**Table 1a. - Compliance Monitoring Well Network Details
Plant Barry Ash Pond**

Well ID	Hydraulic Location	Geologic Unit	Latitude	Longitude	Ground Surface Elevation (ft NAVD)	Top Of Casing Elevation (ft NAVD)	Well Depth (ft BTOC)	Top Of Screen Elevation (ft NAVD)	Bottom Of Screen Elevation (ft NAVD)	Screen Length (ft)	Date Of Installation
WELL NETWORK											
BY-AP-MW-10	Downgradient	Unit 3: Upper Sands (Watercourse Aq)	31.00349	-87.98866	24.21	24.07	68.7	-34.18	-44.18	10	10/7/2015
BY-AP-MW-11	Downgradient	Unit 3: Upper Sands (Watercourse Aq)	31.00014	-87.98764	23.13	23.11	71.1	-37.60	-47.60	10	10/7/2015
BY-AP-MW-12	Downgradient	Unit 3: Middle Sands (Watercourse Aq)	30.99636	-87.98774	21.24	23.88	82.9	-48.65	-58.65	10	10/7/2015
BY-AP-MW-13	Downgradient	Unit 3: Upper Sands (Watercourse Aq)	30.99237	-87.98788	21.29	24.22	73.5	-38.89	-48.89	10	10/7/2015
BY-AP-MW-14	Downgradient	Unit 3: Upper Sands (Watercourse Aq)	30.99035	-87.99085	9.27	11.74	58.0	-35.88	-45.88	10	10/1/2013
BY-AP-MW-15	Downgradient	Unit 3: Middle Sands (Watercourse Aq)	30.99054	-87.99429	21.23	23.89	82.7	-48.39	-58.39	10	10/7/2015
BY-AP-MW-16	Downgradient	Unit 3: Middle Sands (Watercourse Aq)	30.99332	-87.99764	22.05	25.01	67.7	-32.31	-42.31	10	10/7/2015

Notes:
 ft = feet; ft NAVD = elevation in feet, referenced to North American Vertical Datum; ft BTOC = depth, referenced in feet below top of casing
 (1) Coordinates have been transformed into WGS84 from NAD 27/83, State Plane, Alabama, feet.
 (2) Vertical elevations are in feet relative to the North American Vertical Datum (NAVD)1988.
 (3) Total well depth accounts for sump if data provided on well construction logs.



**Table 1b. - Delineation Well Network Details
Plant Barry Ash Pond**

Well ID	Hydraulic Location	Geologic Unit	Latitude	Longitude	Ground Surface Elevation (ft NAVD)	Top Of Casing Elevation (ft NAVD)	Well Depth (ft BTOC)	Top Of Screen Elevation (ft NAVD)	Bottom Of Screen Elevation (ft NAVD)	Screen Length (ft)	Date Of Installation
WELL NETWORK											
BY-AP-MW-1V	Vertical Delineation	Unit 3: Lower Sands & Gravel (Watercourse Aq)	30.99688	-88.00105	23.13	26.23	126.5	-89.87	-99.87	10	12/18/2018
BY-AP-MW-5V	Vertical Delineation	Unit 3: Lower Sands & Gravel (Watercourse Aq)	31.00403	-88.00771	25.98	28.94	103.4	-64.02	-74.02	10	12/20/2018
BY-AP-MW-7V	Vertical Delineation	Unit 3: Lower Sands & Gravel (Watercourse Aq)	31.00731	-88.0004	25.62	25.06	106.7	-71.27	-81.27	10	12/12/2018
BY-AP-MW-8V	Vertical Delineation	Unit 3: Lower Sands & Gravel (Watercourse Aq)	31.0083	-87.99577	25.54	25.18	103.0	-67.41	-77.41	10	12/14/2018
BY-AP-MW-10V	Vertical Delineation	Unit 3: Lower Sands & Gravel (Watercourse Aq)	31.00355	-87.98861	22.76	25.39	89.0	-53.24	-63.24	10	12/16/2018
BY-AP-MW-12V	Vertical Delineation	Unit 3: Lower Sands & Gravel (Watercourse Aq)	30.99641	-87.98773	21.05	25.51	94.9	-58.95	-68.95	10	12/17/2018
BY-AP-MW-13V	Vertical Delineation	Unit 3: Lower Sands & Gravel (Watercourse Aq)	30.99228	-87.98791	21.89	24.65	100.8	-65.75	-75.75	10	4/9/2020
BY-AP-MW-14V	Vertical Delineation	Unit 3: Lower Sands & Gravel (Watercourse Aq)	30.9905	-87.99065	21.68	24.72	113.4	-78.18	-88.18	10	4/10/2020
BY-AP-MW-15V	Vertical Delineation	Unit 3: Lower Sands & Gravel (Watercourse Aq)	30.9908	-87.9955	4.05	7.03	86.3	-68.85	-78.85	10	7/23/2019

Notes:
 ft = feet; ft NAVD = elevation in feet, referenced to North American Vertical Datum; ft BTOC = depth, referenced in feet below top of casing
 (1) Coordinates have been transformed into WGS84 from NAD 27/83, State Plane, Alabama, feet.
 (2) Vertical elevations are in feet relative to the North American Vertical Datum (NAVD)1988.
 (3) Total well depth accounts for sump if data provided on well construction logs.



**Table 1b. - Delineation Well Network Details
Plant Barry Ash Pond**

Well ID	Hydraulic Location	Geologic Unit	Latitude	Longitude	Ground Surface Elevation (ft NAVD)	Top Of Casing Elevation (ft NAVD)	Well Depth (ft BTOC)	Top Of Screen Elevation (ft NAVD)	Bottom Of Screen Elevation (ft NAVD)	Screen Length (ft)	Date Of Installation
WELL NETWORK											
BY-AP-MW-16V	Vertical Delineation	Unit 3: Middle Sands (Watercourse Aq)	30.99302	-87.99739	23.61	23.65	95.2	-61.09	-71.09	10	4/11/2020
BY-AP-MW-17V	Vertical Delineation	Unit 3: Lower Sands & Gravel (Watercourse Aq)	31.00879	-88.00838	17.41	20.40	100.2	-69.25	-79.25	10	4/11/2020
BY-AP-MW-20V	Vertical Delineation	Unit 3: Lower Sands & Gravel (Watercourse Aq)	30.99579	-87.98777	21.94	24.91	105.7	-70.33	-80.33	10	4/10/2020
BY-AP-MW-23V	Vertical Delineation	Unit 3: Lower Sands & Gravel (Watercourse Aq)	31.00934	-88.00166	12.04	15.33	103.0	-77.14	-87.14	10	3/25/2020
BY-AP-MW-25V	Vertical Delineation	Unit 3: Lower Sands & Gravel (Watercourse Aq)	31.00473	-88.01308	20.90	23.81	112.9	-78.54	-88.54	10	4/14/2020
BY-AP-MW-17H	Horizontal Delineation	Unit 3: Upper Sands (Watercourse Aq)	31.00883	-88.00832	16.88	19.83	63.4	-33.12	-43.12	10	12/21/2018
BY-AP-MW-18H	Horizontal Delineation	Unit 3: Upper Sands (Watercourse Aq)	31.00856	-87.99552	7.08	10.30	52.6	-31.92	-41.92	10	7/18/2019
BY-AP-MW-19H	Horizontal Delineation	Unit 2: Mixed Sand and Clay	31.00332	-87.98806	6.39	9.40	38.4	-18.61	-28.61	10	7/18/2019
BY-AP-MW-20H	Horizontal Delineation	Unit 2: Mixed Sand and Clay	30.99577	-87.98749	6.51	9.40	47.4	-27.59	-37.59	10	7/18/2019
BY-AP-MW-22H	Horizontal Delineation	Unit 2: Mixed Sand and Clay	30.99014	-87.99409	4.73	7.85	43.1	-27.87	-37.87	10	7/24/2019
BY-AP-MW-23H	Horizontal Delineation	Unit 3: Upper Sands (Watercourse Aq)	31.00953	-88.00147	7.92	10.63	45.1	-24.08	-34.08	10	7/18/2019

Notes:
 ft = feet; ft NAVD = elevation in feet, referenced to North American Vertical Datum; ft BTOC = depth, referenced in feet below top of casing
 (1) Coordinates have been transformed into WGS84 from NAD 27/83, State Plane, Alabama, feet.
 (2) Vertical elevations are in feet relative to the North American Vertical Datum (NAVD)1988.
 (3) Total well depth accounts for sump if data provided on well construction logs.



**Table 1b. - Delineation Well Network Details
Plant Barry Ash Pond**

Well ID	Hydraulic Location	Geologic Unit	Latitude	Longitude	Ground Surface Elevation (ft NAVD)	Top Of Casing Elevation (ft NAVD)	Well Depth (ft BTOC)	Top Of Screen Elevation (ft NAVD)	Bottom Of Screen Elevation (ft NAVD)	Screen Length (ft)	Date Of Installation
WELL NETWORK											
BY-AP-MW-24H	Horizontal Delineation	Unit 2: Mixed Sand and Clay	30.99147	-87.99567	23.51	26.28	63.2	-26.49	-36.49	10	12/19/2018
BY-AP-MW-25H	Horizontal Delineation	Unit 3: Middle Sands (Watercourse Aq)	31.00474	-88.01299	20.89	23.82	80.4	-46.09	-56.09	10	4/13/2020

Notes:

ft = feet; ft NAVD = elevation in feet, referenced to North American Vertical Datum; ft BTOC = depth, referenced in feet below top of casing

(1) Coordinates have been transformed into WGS84 from NAD 27/83, State Plane, Alabama, feet.

(2) Vertical elevations are in feet relative to the North American Vertical Datum (NAVD)1988.

(3) Total well depth accounts for sump if data provided on well construction logs.



**Table 1c. - Piezometer Well Network Details
Plant Barry Ash Pond**

Well ID	Hydraulic Location	Geologic Unit	Latitude	Longitude	Ground Surface Elevation (ft NAVD)	Top Of Casing Elevation (ft NAVD)	Well Depth (ft BTOC)	Top Of Screen Elevation (ft NAVD)	Bottom Of Screen Elevation (ft NAVD)	Screen Length (ft)	Date Of Installation
WELL NETWORK											
BY-AP-MW-15VM	Piezometer	Unit 5: Sands (Interpreted Miocene)	30.99054	-87.99416	23.79	23.51	133.5	-99.52	-109.52	10	4/23/2020

Notes:
 ft = feet; ft NAVD = elevation in feet, referenced to North American Vertical Datum; ft BTOC = depth, referenced in feet below top of casing
 (1) Coordinates have been transformed into WGS84 from NAD 27/83, State Plane, Alabama, feet.
 (2) Vertical elevations are in feet relative to the North American Vertical Datum (NAVD)1988.
 (3) Total well depth accounts for sump if data provided on well construction logs.



Table 2. Parameters And Reporting Limits

Plant Barry Ash Pond
04/03/2023 - 08/16/2023

Appendix III Parameters			
Parameters	Analytical Methods	Reporting Limits	Units of Measure
Boron	EPA 200.7	0.1015	mg/L
Calcium	EPA 200.7	0.406-40.599998	mg/L
Chloride	SM4500Cl E	0.5-80	mg/L
Fluoride	SM4500F G 2017	0.125	mg/L
pH_Field	Field Sampling	NA	SU
Sulfate	SM4500SO4 E 2011	2-16	mg/L
TDS	NA	NA	mg/L
Appendix IV Parameters			
Parameters	Analytical Methods	Reporting Limits	Units of Measure
Antimony	EPA 200.8	0.001015	mg/L
Arsenic	EPA 200.8	0.000203	mg/L
Barium	EPA 200.8	0.001015	mg/L
Beryllium	EPA 200.8	0.001015	mg/L
Cadmium	EPA 200.8	0.000203	mg/L
Chromium	EPA 200.8	0.001015	mg/L
Cobalt	EPA 200.8	0.000203	mg/L
Fluoride	SM4500F G 2017	0.125	mg/L
Lead	EPA 200.8	0.000203	mg/L
Lithium	EPA 200.7	0.02	mg/L
Mercury	EPA 245.1	0.0005	mg/L
Molybdenum	EPA 200.7	0.01015	mg/L
Selenium	EPA 200.8	0.001015	mg/L
Thallium	EPA 200.8	0.000203	mg/L
Combined Radium 226 + 228	Total Radium Calculation	0.813-1.39	pCi/L

Notes:

1. Reporting Limit values can display range depending upon matrix interferences and dilution factors
2. pH is a field acquired parameter and does not have a laboratory method or reporting limit
3. Combined Radium 226 + 228 – product of radium-226 + radium-228; reporting limits presented are sum of radium 226, radium 228 reporting limits
4. EPA 200.7 – EPA methodology for the "Determination of Metals and Trace Elements in Water and Wastes by Inductively Coupled Plasma-Atomic Emission Spectrometry"
5. EPA 200.8 - EPA methodology for the "Determination of Metals and Trace Elements in Water and Wastes by Inductively Coupled Plasma-Mass Spectrometry (ICP-MS)"
6. SM 2320, 2540, 4500 – Standard Methods for Examination of Water and Wastewater.
7. Total Radium Calculation – Term used herein for EPA 9315 + EPA 9320
8. EPA 9315 – Used for Radium-226; SW-846: Alpha-Emitting Radium Isotopes, part of Test Methods for Evaluation Solid Waste, Physical/Chemical Methods
9. EPA 9320 – Used for Radium-228; SW-846: Alpha-Emitting Radium Isotopes, part of Test Methods for Evaluation Solid Waste, Physical/Chemical Methods



**Table 3.
Groundwater Elevations
Plant Barry Ash Pond**

Well Name	Top of Casing Elevation										
		3/30/2020	5/12/2020	6/15/2020	8/31/2020	5/24/2021	10/18/2021	5/23/2022	10/31/2022	6/11/2023	8/7/2023
BY-AP-MW-1	25.80	6.97	4.38	5.02	5.02	5.28	5.06	4.57	3.11	3.09	2.84
BY-AP-MW-2	23.89	6.53	3.55	3.81	3.84	3.96	3.63	3.57	3.61	3.12	3.04
BY-AP-MW-3	26.61	6.46	3.39	3.70	3.84	3.84	3.47	3.59	3.52	3.29	3.26
BY-AP-MW-4	26.97	6.21	3.06	3.39	3.60	3.57	3.15	3.31	3.03	2.77	2.84
BY-AP-MW-5	28.93	5.9	2.66	3.00	3.29	--	2.81	2.84	2.55	2.34	2.50
BY-AP-MW-6	26.69	6.1	2.51	2.85	3.30	3.04	2.64	2.60	2.47	2.15	2.20
BY-AP-MW-7	25.94	6.25	2.31	2.90	3.35	2.53	2.21	2.35	2.67	1.78	2.11
BY-AP-MW-8	28.45	5.89	1.53	2.41	3.21	2.35	4.96	2.16	1.94	1.37	1.82
BY-AP-MW-9	24.39	5.83	1.47	2.36	2.97	2.36	2.05	2.24	1.87	1.33	1.71
BY-AP-MW-10	26.89	4.96	1.58	2.46	3.11	2.17	1.89	1.95	1.58	1.18	1.60
BY-AP-MW-11	26.08	5.94	1.64	2.50	3.16	2.41	2.06	2.69	1.63	1.45	1.81
BY-AP-MW-12	23.88	6.02	1.52	2.31	2.95	2.48	2.13	2.63	1.72	1.53	1.93
BY-AP-MW-13	24.22	5.83	1.68	2.43	3.11	2.64	2.29	2.84	1.85	1.67	2.14
BY-AP-MW-14	11.74	5.04	0.97	1.77	1.96	1.89	1.56	1.71	1.25	0.89	1.37
BY-AP-MW-15	23.89	5.77	1.93	2.57	3.12	2.74	2.45	2.57	2.49	1.89	2.29
BY-AP-MW-16	25.01	6.08	2.35	3.83	3.45	3.22	2.92	3.06	3.03	2.49	2.59
BY-AP-MW-1V	26.23	7.34	3.69	3.61	3.72	3.72	3.43	3.40	3.28	2.98	2.89
BY-AP-MW-5V	28.94	5.88	2.63	3.00	3.32	--	2.79	2.83	2.62	2.36	2.50
BY-AP-MW-7V	25.54	6.03	2.15	2.68	3.13	2.51	2.21	2.34	2.56	1.90	2.23
BY-AP-MW-8V	28.25	5.74	1.44	2.23	2.82	2.41	2.07	2.38	2.17	1.56	1.97
BY-AP-MW-10V	25.39	5.65	1.23	2.17	2.78	2.21	1.93	2.20	1.59	1.20	1.61
BY-AP-MW-12V	25.51	7.83	3.53	4.33	5.00	4.53	4.19	4.63	3.74	3.55	3.95
BY-AP-MW-13V	24.65	--	1.48	2.23	2.93	2.47	2.57	2.62	1.69	1.52	2.00
BY-AP-MW-14V	24.72	--	2.13	2.26	2.88	2.41	2.09	2.22	1.79	1.49	1.94
BY-AP-MW-15V	7.03	--	2.17	2.71	3.23	2.83	2.52	2.55	2.49	1.92	2.23
BY-AP-MW-15VM	23.51	--	4.15	3.95	3.90	3.98	3.45	4.36	3.06	2.95	2.84
BY-AP-MW-16V	23.65	--	2.97	3.15	3.47	3.26	2.94	2.94	2.84	2.49	2.63
BY-AP-MW-17H	19.83	5.88	1.47	2.36	2.93	2.37	2.14	2.02	2.04	1.31	1.80
BY-AP-MW-17V	20.40	--	1.51	2.11	3.01	2.44	2.20	2.09	2.19	1.34	1.88
BY-AP-MW-18H	10.30	5.88	1.87	2.03	3.00	2.40	2.05	2.61	2.54	1.44	1.69
BY-AP-MW-19H	9.40	5.85	2.02	2.07	3.04	2.45	2.14	2.50	2.42	1.42	1.80
BY-AP-MW-20H	9.40	5.79	1.55	2.31	2.97	2.51	2.13	2.57	2.29	1.48	1.84
BY-AP-MW-20V	24.91	--	1.4	2.19	2.87	2.39	2.04	2.56	1.61	1.44	1.84
BY-AP-MW-22H	7.85	--	2.17	2.75	3.09	2.80	2.46	2.40	2.57	1.72	2.04
BY-AP-MW-23H	10.63	5.98	1.55	2.48	3.07	2.44	2.14	2.75	1.60	1.41	1.92
BY-AP-MW-23V	15.33	--	1.5	2.09	2.98	2.34	2.15	2.65	1.57	1.35	1.84
BY-AP-MW-24H	26.28	5.82	1.4	2.74	3.16	2.92	2.60	2.60	2.65	2.05	2.35
BY-AP-MW-25H	23.82	--	3.49	3.53	3.37	3.63	3.29	2.31	2.56	2.60	2.23
BY-AP-MW-25V	23.81	--	3.22	3.42	3.38	3.58	3.19	3.22	2.53	2.50	2.18

Well Name	Top of Casing Elevation										
		3/30/2020	9/8/2020	5/24/2021	10/18/2021	5/23/2022	10/31/2022	4/3/2023	6/11/2023	8/7/2023	
BY-GSA-MW-1 ³	20.66	8.38	5.31	7.13	6.64	6.17	5.04	7.31	5.46	4.91	
BY-GSA-MW-2 ³	19.95	8.05	5.16	6.80	6.4	6.03	5.00	7.25	5.35	4.80	
BY-GSA-MW-3 ³	23.24	8.54	5.83	7.49	7.19	6.75	5.79	7.80	6.03	5.50	
BY-GSA-MW-4 ³	29.12	8.20	5.53	6.99	6.68	6.37	5.53	7.74	5.78	5.23	

Notes:

1. ft. AMSL - feet above mean sea level
2. -- Not Measured
3. BY-GSA-MW-1 - BY-GSA-MW-4 designated as upgradient Ash Pond well locations.



Table 4a. Relative Percent Difference (RPD) Calculations

Plant Barry Ash Pond
04/03/2023 - 08/16/2023

BY-AP-MW-1				
Sample Date = 8/8/2023				
Analyte	Units	Original Result	Duplicate Result	RPD (%)
Boron	mg/L	1.36	1.37	0.73%
Calcium	mg/L	31	30.7	0.97%
Chloride	mg/L	20.9	21	0.48%
Sulfate	mg/L	3.92	3.83	2.32%
Arsenic	mg/L	0.0491	0.0468	4.80%
Barium	mg/L	0.258	0.247	4.36%
Chromium	mg/L	0.00374	0.00338	10.11%
Cobalt	mg/L	0.0009	0.00087	2.60%
BY-AP-MW-16				
Sample Date = 8/8/2023				
Analyte	Units	Original Result	Duplicate Result	RPD (%)
Boron	mg/L	2.45	2.45	0.00%
Calcium	mg/L	8.99	9.03	0.44%
Chloride	mg/L	21.3	20	6.30%
Sulfate	mg/L	31.6	26.9	16.07%
Arsenic	mg/L	0.0156	0.0159	1.91%
Barium	mg/L	0.0904	0.0888	1.79%
Chromium	mg/L	0.00169	0.00166	1.79%
Cobalt	mg/L	0.00584	0.00589	0.85%
BY-AP-MW-10				
Sample Date = 8/7/2023				
Analyte	Units	Original Result	Duplicate Result	RPD (%)
Boron	mg/L	1.68	1.68	0.00%
Calcium	mg/L	58.4	52	11.59%
Chloride	mg/L	23.5	23	2.15%
Sulfate	mg/L	17.8	19.9	11.14%
Arsenic	mg/L	0.025	0.0256	2.37%
Barium	mg/L	0.067	0.0675	0.74%
Cobalt	mg/L	0.00061	0.00064	5.11%
BY-UP-MW-4				
Sample Date = 4/12/2023				
Analyte	Units	Original Result	Duplicate Result	RPD (%)
Calcium	mg/L	1.76	1.76	0.00%
Chloride	mg/L	3.42	3.39	0.88%



Table 4a. Relative Percent Difference (RPD) Calculations

Plant Barry Ash Pond
04/03/2023 - 08/16/2023

BY-UP-MW-4				
Sample Date = 4/12/2023				
Analyte	Units	Original Result	Duplicate Result	RPD (%)
Sulfate	mg/L	5.93	5.92	0.17%
Barium	mg/L	0.116	0.117	0.86%
Chromium	mg/L	0.00128	0.00126	1.58%
Cobalt	mg/L	0.00127	0.00124	2.39%
Sample Date = 8/16/2023				
Analyte	Units	Original Result	Duplicate Result	RPD (%)
Calcium	mg/L	1.71	1.76	2.88%
Chloride	mg/L	3.12	3.22	3.16%
Sulfate	mg/L	7.05	6.51	7.97%
Arsenic	mg/L	0.00021	0.00023	7.82%
Barium	mg/L	0.121	0.122	0.82%
Chromium	mg/L	0.00158	0.00164	3.73%
Cobalt	mg/L	0.00161	0.00153	5.10%
BY-AP-MW-12V				
Sample Date = 4/4/2023				
Analyte	Units	Original Result	Duplicate Result	RPD (%)
Calcium	mg/L	20.3	20.4	0.49%
Chloride	mg/L	26.3	25.7	2.31%
Sulfate	mg/L	85.5	88.4	3.34%
Arsenic	mg/L	0.0214	0.0208	2.84%
Barium	mg/L	0.0978	0.0971	0.72%
Cobalt	mg/L	0.00154	0.00164	6.29%
BY-AP-MW-9				
Sample Date = 4/4/2023				
Analyte	Units	Original Result	Duplicate Result	RPD (%)
Boron	mg/L	1.65	1.65	0.00%
Calcium	mg/L	32.4	32.8	1.23%
Chloride	mg/L	18	18	0.00%
Sulfate	mg/L	25.3	24.2	4.44%
Arsenic	mg/L	0.0145	0.0147	1.37%
Barium	mg/L	0.128	0.126	1.58%
Cobalt	mg/L	0.00074	0.00072	1.92%



Table 4a. Relative Percent Difference (RPD) Calculations

Plant Barry Ash Pond
04/03/2023 - 08/16/2023

BY-AP-MW-24H				
Sample Date = 4/3/2023				
Analyte	Units	Original Result	Duplicate Result	RPD (%)
Boron	mg/L	0.381	0.378	0.79%
Calcium	mg/L	17.8	18.1	1.67%
Chloride	mg/L	45.5	46.3	1.74%
Fluoride	mg/L	0.175	0.182	3.92%
Sulfate	mg/L	94	112	17.48%
Arsenic	mg/L	0.0694	0.0696	0.29%
Barium	mg/L	0.235	0.23	2.15%
Cobalt	mg/L	0.00563	0.0056	0.53%
BY-AP-MW-25H				
Sample Date = 4/3/2023				
Analyte	Units	Original Result	Duplicate Result	RPD (%)
Calcium	mg/L	1.01	0.997	1.30%
Chloride	mg/L	5.52	5.54	0.36%
Sulfate	mg/L	4.48	4.48	0.00%
Barium	mg/L	0.0187	0.0193	3.16%
Chromium	mg/L	0.00106	0.00122	14.04%
Cobalt	mg/L	0.00113	0.00125	10.08%
Sample Date = 8/8/2023				
Analyte	Units	Original Result	Duplicate Result	RPD (%)
Calcium	mg/L	0.967	0.968	0.10%
Chloride	mg/L	5.99	6.06	1.16%
Sulfate	mg/L	4.88	5.13	5.00%
Barium	mg/L	0.021	0.0209	0.48%
Chromium	mg/L	0.00113	0.00119	5.17%
Cobalt	mg/L	0.00141	0.00142	0.71%

Notes:

1. The RPD calculations presented are for analyte pairs where original and duplicate results are valid, unqualified detections.
2. RPD calculation results less than or equal to 20% are considered acceptable.
3. Results greater than 20% are given data validation flags to indicate RPD criteria failure. Communication to sampling team and lab may be necessary to explore nature of RPD failure(s).



Table 4b. - Field QC: Blank Detections

Plant Barry Ash Pond
04/03/2023 - 08/16/2023

Parameters Detected Above MDL					
Sample Date	QC Location	Parameter	Blank Concentration	Units	MDL
08/16/2023	EB-1	Chromium	0.00022 J	mg/L	0.0002
08/09/2023	EB-1	Chromium	0.00025 J	mg/L	0.0002
08/09/2023	FB-4	Chromium	0.00034 J	mg/L	0.0002
08/07/2023	FB-1	Chromium	0.00024 J	mg/L	0.0002
04/12/2023	FB-1	Chromium	0.00032 J	mg/L	0.0002
04/04/2023	FB-1	Chromium	0.00023 J	mg/L	0.0002
04/03/2023	EB-1	Chromium	0.00025 J	mg/L	0.0002

Notes:

1. Lab qualifiers have been appended to result when applicable
2. MDL = Method Detection Limit
3. Only Appendix 4 Constituents were compared and validated. Radium data was not validated.
4. mg/L = milligrams per liter

Table 5. Summary of Background Levels and Groundwater Protection Standards

Plant Barry Ash Pond

Appendix IV Analytes			
Analyte	Units	Background	GWPS
Antimony	mg/L	0.001015	0.006
Arsenic	mg/L	0.0017	0.01
Barium	mg/L	0.183	2
Beryllium	mg/L	0.001015	0.004
Cadmium	mg/L	0.000203	0.005
Chromium	mg/L	0.00604	0.1
Cobalt	mg/L	0.0157	0.0157
Fluoride	mg/L	0.125	4
Lead	mg/L	0.00126	0.015
Lithium	mg/L	0.02	0.04
Mercury	mg/L	0.0005	0.002
Molybdenum	mg/L	0.01015	0.1
Selenium	mg/L	0.001015	0.05
Thallium	mg/L	0.000203	0.002
Combined Radium 226 + 228	pCi/L	3	5

Notes:

1. mg/L - Milligrams per liter
2. pCi/L - Picocuries per liter
3. Background concentrations/limits are used when determining the groundwater protection standard (GWPS) under 40 CFR §257.95(h) and ADEM Rule 335-13-15-.06(h).
4. GWPS are generally updated on a 2 year basis which began in the Fall of 2019 (Fall 2019, Fall 2021, etc).

Table 6. First Semi-Annual Monitoring Event

Analytical Results Summary
Plant Barry Ash Pond
04/03/2023 - 04/24/2023

Field Parameters								
Hydraulic Location	Well	Sample Date	Conductivity uS/cm	DO mg/L	ORP mv	pH_Field SU	Field Temperature C	Turbidity NTU
Upgradient	BY-UP-MW-1	04/12/2023	50.26	0.28	234.04	4.77	20.31	2.86
Upgradient	BY-UP-MW-2	04/12/2023	51.68	6.08	422.56	4.67	19.45	8.09
Upgradient	BY-UP-MW-3	04/12/2023	54.29	5.66	397.4	4.83	19.52	3.14
Upgradient	BY-UP-MW-4	04/12/2023	57.67	5.97	397.5	4.73	20.79	4.96
Downgradient	BY-AP-MW-1	04/03/2023	689.74	0.17	-55.85	5.78	21.61	4.85
Downgradient	BY-AP-MW-10	04/03/2023	644.19	0.17	-62.3	6.05	21.82	2.92
Downgradient	BY-AP-MW-11	04/04/2023	672.85	0.13	-78.42	6.27	21.31	4.71
Downgradient	BY-AP-MW-12	04/04/2023	584.5	0.17	-33.59	5.76	21.3	2
Downgradient	BY-AP-MW-13	04/04/2023	352.44	0.19	12.18	6.06	20.83	4.16
Downgradient	BY-AP-MW-14	04/05/2023	492.29	0.24	-25.06	5.93	21.7	1.88
Downgradient	BY-AP-MW-15	04/03/2023	592.6	0.02	-124.3	6.63	21.23	8.81
Downgradient	BY-AP-MW-16	04/05/2023	562.14	0.06	-31.36	5.83	21.91	4.09
Downgradient	BY-AP-MW-2	04/03/2023	46.42	0.53	138.69	4.88	21.66	1.38
Downgradient	BY-AP-MW-3	04/04/2023	59.36	1.02	137.72	5.31	22.13	1.69
Downgradient	BY-AP-MW-4	04/04/2023	121.44	0.17	339.03	4.55	22.88	3.02
Downgradient	BY-AP-MW-5	04/04/2023	259.08	0.12	-14.73	5.84	22.61	1.48
Downgradient	BY-AP-MW-6	04/04/2023	61.93	0.55	245.91	5.33	21.41	1.33
Downgradient	BY-AP-MW-7	04/03/2023	376.47	0.21	-66.15	6.53	21.16	1.03
Downgradient	BY-AP-MW-8	04/03/2023	154.48	0.12	-105.54	6.34	19.37	5.38
Downgradient	BY-AP-MW-9	04/04/2023	557.93	0.11	-79.64	6.15	21.55	3.66

Notes:

- "J" indicates the result was detected above the MDL but below the PQL
- "<" indicates the result was not detected above the MDL and is considered a non-detect.
- U - Radium data is a combination of radium isotopes 226 and 228. When results are reported below the MDC (Minimum Detectable Concentration), data is displayed with an accompanying U. The MDC varies depending upon the sample amount and elapsed time of the measurement.
- DO - Dissolved Oxygen, ORP - Oxidation Reduction Potential, TDS - Total Dissolved Solids.
- mg/L - milligrams per liter, mv - millivolts, NTU - nephelometric turbidity unit, C - celsius, SU - standard unit, uS/cm - microseimens per centimeter, pCi/L - picocuries per liter.
- NC = value not detected with alkalinity calculation

Table 6. First Semi-Annual Monitoring Event

Analytical Results Summary Plant Barry Ash Pond 04/03/2023 - 04/24/2023

Field Parameters								
Hydraulic Location	Well	Sample Date	Conductivity uS/cm	DO mg/L	ORP mv	pH_Field SU	Field Temperature C	Turbidity NTU
Vert. Delineation	BY-AP-MW-10V	04/03/2023	787.79	0.19	-106.12	6.38	21.47	0.95
Vert. Delineation	BY-AP-MW-12V	04/04/2023	615.08	0.16	-65.41	6.22	21.36	1.78
Vert. Delineation	BY-AP-MW-13V	04/04/2023	565.28	0.68	-48.09	6.24	21.02	3.69
Vert. Delineation	BY-AP-MW-14V	04/04/2023	912.46	0.07	-115.9	6.8	22.32	3.19
Vert. Delineation	BY-AP-MW-15V	04/24/2023	675.79	0.1	36.12	5.61	20.74	4.37
Vert. Delineation	BY-AP-MW-16V	04/04/2023	298.93	0.15	134.31	4.97	22.07	8.86
Vert. Delineation	BY-AP-MW-17V	04/04/2023	5004.48	0.13	35.18	6.48	22.09	3.38
Vert. Delineation	BY-AP-MW-1V	04/04/2023	410.3	0.11	122.38	5.69	22.74	1.4
Vert. Delineation	BY-AP-MW-20V	04/24/2023	283.31	0.2	-38.79	6.35	20.16	6.16
Vert. Delineation	BY-AP-MW-23V	04/04/2023	2583.92	0.08	-91.76	6.73	20.83	2.6
Vert. Delineation	BY-AP-MW-25V	04/03/2023	31.89	3.45	233.01	4.8	23.31	3.94
Vert. Delineation	BY-AP-MW-5V	04/04/2023	236.13	0.39	131.01	5.99	22.54	3.45
Vert. Delineation	BY-AP-MW-7V	04/03/2023	561.78	0.17	-184.77	7.67	21.47	1.94
Vert. Delineation	BY-AP-MW-8V	04/03/2023	1142.75	0.12	-67.82	6.5	21.45	5.17
Horiz. Delineation	BY-AP-MW-17H	04/04/2023	331.33	0.09	-48.7	6.25	22.18	8.7
Horiz. Delineation	BY-AP-MW-18H	04/05/2023	124.04	0.22	-79.95	6.15	18.15	4.13
Horiz. Delineation	BY-AP-MW-19H	04/24/2023	435.36	0.02	-75.26	6.35	20.04	0.9
Horiz. Delineation	BY-AP-MW-20H	04/24/2023	759.26	0.04	-69.55	6.16	19.83	1.8
Horiz. Delineation	BY-AP-MW-22H	04/24/2023	660.41	0.04	-94.71	6.46	20.02	0.91
Horiz. Delineation	BY-AP-MW-23H	04/04/2023	396.41	0.01	-75.8	5.94	20.14	3.24

Notes:

1. "J" indicates the result was detected above the MDL but below the PQL
2. "<" indicates the result was not detected above the MDL and is considered a non-detect.
3. U - Radium data is a combination of radium isotopes 226 and 228. When results are reported below the MDC (Minimum Detectable Concentration), data is displayed with an accompanying U. The MDC varies depending upon the sample amount and elapsed time of the measurement.
4. DO - Dissolved Oxygen, ORP - Oxidation Reduction Potential, TDS - Total Dissolved Solids.
5. mg/L - milligrams per liter, mv - millivolts, NTU - nephelometric turbidity unit, C - celsius, SU - standard unit, uS/cm - microseimens per centimeter, pCi/L - picocuries per liter.
6. NC = value not detected with alkalinity calculation

Table 6. First Semi-Annual Monitoring Event

Analytical Results Summary
Plant Barry Ash Pond
04/03/2023 - 04/24/2023

Field Parameters								
Hydraulic Location	Well	Sample Date	Conductivity uS/cm	DO mg/L	ORP mv	pH_Field SU	Field Temperature C	Turbidity NTU
Horiz. Delineation	BY-AP-MW-24H	04/03/2023	804.05	0.03	-75.45	6.08	21.89	7.19
Horiz. Delineation	BY-AP-MW-25H	04/03/2023	45.8	0.72	231.08	4.65	23.02	3.98

Notes:

1. "J" indicates the result was detected above the MDL but below the PQL
2. "<" indicates the result was not detected above the MDL and is considered a non-detect.
3. U - Radium data is a combination of radium isotopes 226 and 228. When results are reported below the MDC (Minimum Detectable Concentration), data is displayed with an accompanying U. The MDC varies depending upon the sample amount and elapsed time of the measurement.
4. DO - Dissolved Oxygen, ORP - Oxidation Reduction Potential, TDS - Total Dissolved Solids.
5. mg/L - milligrams per liter, mv - millivolts, NTU - nephelometric turbidity unit, C - celsius, SU - standard unit, uS/cm - microseimens per centimeter, pCi/L - picocuries per liter.
6. NC = value not detected with alkalinity calculation

Table 6. First Semi-Annual Monitoring Event

Analytical Results Summary
Plant Barry Ash Pond
04/03/2023 - 04/24/2023

EPA Appendix III Set								
Hydraulic Location	Well	Sample Date	Boron mg/L	Calcium mg/L	Chloride mg/L	Fluoride mg/L	pH_Field SU	Sulfate mg/L
Upgradient	BY-UP-MW-1	04/12/2023	0.0464 J	1.02	2.31	<0.06	4.77	11.8
Upgradient	BY-UP-MW-2	04/12/2023	<0.03	1.16	2.25	<0.06	4.67	8.54
Upgradient	BY-UP-MW-3	04/12/2023	<0.03	1.83	3.11	<0.06	4.83	7.59
Upgradient	BY-UP-MW-4	04/12/2023	<0.03	1.76	3.42	<0.06	4.73	5.93
Downgradient	BY-AP-MW-1	04/03/2023	2.04	36.9	23.7	0.0717 J	5.78	34.2
Downgradient	BY-AP-MW-10	04/03/2023	2.22	48.8	29.7	<0.06	6.05	15
Downgradient	BY-AP-MW-11	04/04/2023	0.0581 J	26.6	28.9	0.126	6.27	84.3
Downgradient	BY-AP-MW-12	04/04/2023	0.0629 J	23.3	25	0.081 J	5.76	39.6
Downgradient	BY-AP-MW-13	04/04/2023	0.0391 J	47.7	14.3	0.187	6.06	24.6
Downgradient	BY-AP-MW-14	04/05/2023	0.0587 J	9.78	47	0.127	5.93	112
Downgradient	BY-AP-MW-15	04/03/2023	0.0713 J	6.76	91.5	0.26	6.63	8.28
Downgradient	BY-AP-MW-16	04/05/2023	2.29	11.4	21.8	0.144	5.83	9.3
Downgradient	BY-AP-MW-2	04/03/2023	<0.03	1.79	7.35	<0.06	4.88	1.77 J
Downgradient	BY-AP-MW-3	04/04/2023	0.0468 J	1.29	9.66	<0.06	5.31	2.92
Downgradient	BY-AP-MW-4	04/04/2023	<0.03	3.36	32.4	<0.06	4.55	2.33
Downgradient	BY-AP-MW-5	04/04/2023	0.0381 J	8.36	17.2	0.0631 J	5.84	43.9
Downgradient	BY-AP-MW-6	04/04/2023	<0.03	1.94	7.81	<0.06	5.33	1.59 J
Downgradient	BY-AP-MW-7	04/03/2023	0.174	3.52	59.4	0.171	6.53	14.8
Downgradient	BY-AP-MW-8	04/03/2023	0.129	4.21	10.8	0.0706 J	6.34	32.1
Downgradient	BY-AP-MW-9	04/04/2023	1.65	32.4	18	0.0797 J	6.15	25.3
Vert. Delineation	BY-AP-MW-10V	04/03/2023	0.965	59.2	26.1	<0.06	6.38	13

Notes:

- "J" indicates the result was detected above the MDL but below the PQL
- "<" indicates the result was not detected above the MDL and is considered a non-detect.
- U - Radium data is a combination of radium isotopes 226 and 228. When results are reported below the MDC (Minimum Detectable Concentration), data is displayed with an accompanying U. The MDC varies depending upon the sample amount and elapsed time of the measurement.
- DO - Dissolved Oxygen, ORP - Oxidation Reduction Potential, TDS - Total Dissolved Solids.
- mg/L - milligrams per liter, mv - millivolts, NTU - nephelometric turbidity unit, C - celsius, SU - standard unit, uS/cm - microseimens per centimeter, pCi/L - picocuries per liter.
- NC = value not detected with alkalinity calculation

Table 6. First Semi-Annual Monitoring Event

Analytical Results Summary Plant Barry Ash Pond 04/03/2023 - 04/24/2023

EPA Appendix III Set								
Hydraulic Location	Well	Sample Date	Boron mg/L	Calcium mg/L	Chloride mg/L	Fluoride mg/L	pH_Field SU	Sulfate mg/L
Vert. Delineation	BY-AP-MW-12V	04/04/2023	0.0809 J	20.3	26.3	0.126	6.22	85.5
Vert. Delineation	BY-AP-MW-13V	04/04/2023	0.0745 J	14.4	52.1	0.0687 J	6.24	29.5
Vert. Delineation	BY-AP-MW-14V	04/04/2023	0.39	5.34	174	0.302	6.8	11.7
Vert. Delineation	BY-AP-MW-15V	04/24/2023	0.0423 J	9.13	192	<0.06	5.61	1.93 J
Vert. Delineation	BY-AP-MW-16V	04/04/2023	<0.03	2.35	55	<0.06	4.97	34
Vert. Delineation	BY-AP-MW-17V	04/04/2023	0.285	83.2	1540	0.108 J	6.48	59
Vert. Delineation	BY-AP-MW-1V	04/04/2023	0.0656 J	2.57	92.3	<0.06	5.69	19
Vert. Delineation	BY-AP-MW-20V	04/24/2023	<0.03	24.3	20.7	0.145	6.35	8.99
Vert. Delineation	BY-AP-MW-23V	04/04/2023	0.245	42.5	741	0.0682 J	6.73	32.9
Vert. Delineation	BY-AP-MW-25V	04/03/2023	<0.03	0.703	3.61	<0.06	4.8	2.28
Vert. Delineation	BY-AP-MW-5V	04/04/2023	0.0924 J	2.13	39.5	<0.06	5.99	4.84
Vert. Delineation	BY-AP-MW-7V	04/03/2023	0.293	1.43	85.8	0.418	7.67	5.29
Vert. Delineation	BY-AP-MW-8V	04/03/2023	0.245	8.95	279	0.212	6.5	21.7
Horiz. Delineation	BY-AP-MW-17H	04/04/2023	0.0474 J	10.4	17.6	0.176	6.25	17.2
Horiz. Delineation	BY-AP-MW-18H	04/05/2023	0.0377 J	4.89	6.46	0.0765 J	6.15	67
Horiz. Delineation	BY-AP-MW-19H	04/24/2023	0.876	28.5	15.2	0.083 J	6.35	38.7
Horiz. Delineation	BY-AP-MW-20H	04/24/2023	0.0573 J	28.1	37.6	0.0659 J	6.16	63.6
Horiz. Delineation	BY-AP-MW-22H	04/24/2023	0.0696 J	14.3	63.7	0.255	6.46	152
Horiz. Delineation	BY-AP-MW-23H	04/04/2023	0.0481 J	23.5	9.01	0.0744 J	5.94	15.2
Horiz. Delineation	BY-AP-MW-24H	04/03/2023	0.381	17.8	45.5	0.175	6.08	94
Horiz. Delineation	BY-AP-MW-25H	04/03/2023	<0.03	1.01	5.52	<0.06	4.65	4.48

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Table 6. First Semi-Annual Monitoring Event

Analytical Results Summary Plant Barry Ash Pond 04/03/2023 - 04/24/2023

EPA Appendix IV Set										
Hydraulic Location	Well	Sample Date	Antimony mg/L	Arsenic mg/L	Barium mg/L	Beryllium mg/L	Cadmium mg/L	Chromium mg/L	Cobalt mg/L	Fluoride mg/L
Upgradient	BY-UP-MW-1	04/12/2023	<0.00071	0.00023	0.082	<0.000406	<6.8e-005	0.000215 J	0.00398	<0.06
Upgradient	BY-UP-MW-2	04/12/2023	<0.00071	0.0002 J	0.138	0.000416 J	<6.8e-005	0.00152	0.00157	<0.06
Upgradient	BY-UP-MW-3	04/12/2023	<0.00071	<0.000112	0.0925	<0.000406	<6.8e-005	0.00138	0.0013	<0.06
Upgradient	BY-UP-MW-4	04/12/2023	<0.00071	0.000114 J	0.116	<0.000406	<6.8e-005	0.00128	0.00127	<0.06
Downgradient	BY-AP-MW-1	04/03/2023	<0.00071	0.068	0.226	<0.000406	<6.8e-005	0.00638	0.00133	0.0717 J
Downgradient	BY-AP-MW-10	04/03/2023	<0.00071	0.0561	0.0628	<0.000406	<6.8e-005	0.00066 J	0.000622	<0.06
Downgradient	BY-AP-MW-11	04/04/2023	<0.00071	0.0128	0.0699	<0.000406	<6.8e-005	0.00254	0.000946	0.126
Downgradient	BY-AP-MW-12	04/04/2023	<0.00071	0.0218	0.074	<0.000406	<6.8e-005	0.00351	0.00309	0.081 J
Downgradient	BY-AP-MW-13	04/04/2023	<0.00071	0.00645	0.0526	<0.000406	<6.8e-005	0.00286	0.000801	0.187
Downgradient	BY-AP-MW-14	04/05/2023	<0.00071	0.017	0.0594	<0.000406	<6.8e-005	0.00336	0.00119	0.127
Downgradient	BY-AP-MW-15	04/03/2023	<0.00071	0.02	0.081	<0.000406	<6.8e-005	0.000638 J	0.0345	0.26
Downgradient	BY-AP-MW-16	04/05/2023	<0.00071	0.0156	0.0852	<0.000406	<6.8e-005	0.00125	0.00721	0.144
Downgradient	BY-AP-MW-2	04/03/2023	<0.00071	0.00156	0.018	<0.000406	<6.8e-005	0.000877 J	0.0042	<0.06
Downgradient	BY-AP-MW-3	04/04/2023	<0.00071	0.000455	0.0271	<0.000406	<6.8e-005	0.00053 J	0.000108 J	<0.06
Downgradient	BY-AP-MW-4	04/04/2023	<0.00071	<0.000112	0.118	0.000432 J	8.96e-005 J	0.000444 J	0.0031	<0.06
Downgradient	BY-AP-MW-5	04/04/2023	<0.00071	0.0191	0.0842	<0.000406	<6.8e-005	0.000894 J	0.00112	0.0631 J
Downgradient	BY-AP-MW-6	04/04/2023	<0.00071	<0.000112	0.0275	<0.000406	<6.8e-005	0.000267 J	0.000584	<0.06
Downgradient	BY-AP-MW-7	04/03/2023	<0.00071	0.013	0.0288	<0.000406	<6.8e-005	0.000246 J	0.00492	0.171
Downgradient	BY-AP-MW-8	04/03/2023	<0.00071	0.00353	0.0223	<0.000406	<6.8e-005	0.00115	0.000153 J	0.0706 J

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Table 6. First Semi-Annual Monitoring Event

Analytical Results Summary Plant Barry Ash Pond 04/03/2023 - 04/24/2023

EPA Appendix IV Set									
Hydraulic Location	Well	Sample Date	Lead mg/L	Lithium mg/L	Mercury mg/L	Molybdenum mg/L	Selenium mg/L	Thallium mg/L	Combined Radium 226 + 228 pCi/L
Upgradient	BY-UP-MW-1	04/12/2023	7.57e-005 J	<0.007105	<0.0003	<0.005075	<0.000508	<6.8e-005	1.03 U
Upgradient	BY-UP-MW-2	04/12/2023	0.00014 J	<0.007105	<0.0003	<0.005075	0.000702 J	<6.8e-005	1.07
Upgradient	BY-UP-MW-3	04/12/2023	8.25e-005 J	<0.007105	<0.0003	<0.005075	<0.000508	<6.8e-005	1.28
Upgradient	BY-UP-MW-4	04/12/2023	8.65e-005 J	<0.007105	<0.0003	<0.005075	<0.000508	<6.8e-005	1.17
Downgradient	BY-AP-MW-1	04/03/2023	0.000122 J	<0.007105	<0.0003	<0.005075	<0.000508	<6.8e-005	1.84
Downgradient	BY-AP-MW-10	04/03/2023	<6.8e-005	<0.007105	<0.0003	<0.005075	<0.000508	<6.8e-005	0.75 U
Downgradient	BY-AP-MW-11	04/04/2023	6.9e-005 J	0.034	<0.0003	<0.005075	<0.000508	<6.8e-005	0.562 U
Downgradient	BY-AP-MW-12	04/04/2023	<6.8e-005	<0.007105	<0.0003	<0.005075	<0.000508	<6.8e-005	1.42
Downgradient	BY-AP-MW-13	04/04/2023	0.000101 J	<0.007105	<0.0003	0.0108	0.000664 J	<6.8e-005	0.885 U
Downgradient	BY-AP-MW-14	04/05/2023	0.00011 J	<0.007105	<0.0003	<0.005075	<0.000508	<6.8e-005	0.746 U
Downgradient	BY-AP-MW-15	04/03/2023	<6.8e-005	0.0189 J	<0.0003	<0.005075	<0.000508	<6.8e-005	1.63
Downgradient	BY-AP-MW-16	04/05/2023	<6.8e-005	<0.007105	<0.0003	<0.005075	<0.000508	<6.8e-005	1.5
Downgradient	BY-AP-MW-2	04/03/2023	<6.8e-005	<0.007105	<0.0003	<0.005075	<0.000508	<6.8e-005	0.24 U
Downgradient	BY-AP-MW-3	04/04/2023	<6.8e-005	<0.007105	<0.0003	<0.005075	<0.000508	<6.8e-005	0.479 U
Downgradient	BY-AP-MW-4	04/04/2023	8.51e-005 J	<0.007105	<0.0003	<0.005075	<0.000508	<6.8e-005	1.82
Downgradient	BY-AP-MW-5	04/04/2023	<6.8e-005	<0.007105	<0.0003	<0.005075	<0.000508	<6.8e-005	1.15
Downgradient	BY-AP-MW-6	04/04/2023	0.00183	<0.007105	<0.0003	<0.005075	<0.000508	<6.8e-005	1.33
Downgradient	BY-AP-MW-7	04/03/2023	<6.8e-005	<0.007105	<0.0003	<0.005075	<0.000508	<6.8e-005	0.49 U
Downgradient	BY-AP-MW-8	04/03/2023	<6.8e-005	<0.007105	<0.0003	<0.005075	<0.000508	<6.8e-005	1.21

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Table 6. First Semi-Annual Monitoring Event

Analytical Results Summary Plant Barry Ash Pond 04/03/2023 - 04/24/2023

EPA Appendix IV Set										
Hydraulic Location	Well	Sample Date	Antimony mg/L	Arsenic mg/L	Barium mg/L	Beryllium mg/L	Cadmium mg/L	Chromium mg/L	Cobalt mg/L	Fluoride mg/L
Downgradient	BY-AP-MW-9	04/04/2023	<0.00071	0.0145	0.128	<0.000406	<6.8e-005	0.00062 J	0.000737	0.0797 J
Vert. Delineation	BY-AP-MW-10V	04/03/2023	<0.00071	0.000359	0.189	<0.000406	<6.8e-005	0.000508 J	0.000623	<0.06
Vert. Delineation	BY-AP-MW-12V	04/04/2023	<0.00071	0.0214	0.0978	<0.000406	<6.8e-005	0.000978 J	0.00154	0.126
Vert. Delineation	BY-AP-MW-13V	04/04/2023	<0.00071	0.00843	0.106	<0.000406	<6.8e-005	0.00417	0.00106	0.0687 J
Vert. Delineation	BY-AP-MW-14V	04/04/2023	<0.00071	0.00501	0.0645	<0.000406	<6.8e-005	0.00049 J	0.00396	0.302
Vert. Delineation	BY-AP-MW-15V	04/24/2023	<0.00071	0.0224	0.164	<0.000406	0.000212	0.000278 J	0.0817	<0.06
Vert. Delineation	BY-AP-MW-16V	04/04/2023	<0.00071	0.00092	0.0618	<0.000406	<6.8e-005	0.00133	0.0168	<0.06
Vert. Delineation	BY-AP-MW-17V	04/04/2023	<0.00071	0.00113	1.11	<0.000406	0.000114 J	0.000244 J	0.13	0.108 J
Vert. Delineation	BY-AP-MW-1V	04/04/2023	<0.00071	0.000633	0.0564	<0.000406	<6.8e-005	0.000342 J	0.00568	<0.06
Vert. Delineation	BY-AP-MW-20V	04/24/2023	<0.00071	0.00175	0.0548	<0.000406	<6.8e-005	0.000721 J	0.000458	0.145
Vert. Delineation	BY-AP-MW-23V	04/04/2023	<0.00071	0.00445	0.262	<0.000406	<6.8e-005	0.000237 J	0.0375	0.0682 J
Vert. Delineation	BY-AP-MW-25V	04/03/2023	<0.00071	<0.000112	0.0105	<0.000406	<6.8e-005	0.0013	0.000304	<0.06
Vert. Delineation	BY-AP-MW-5V	04/04/2023	<0.00071	<0.000112	0.0465	<0.000406	<6.8e-005	0.000566 J	<6.8e-005	<0.06
Vert. Delineation	BY-AP-MW-7V	04/03/2023	<0.00071	0.00117	0.01	<0.000406	<6.8e-005	0.00059 J	0.000148 J	0.418
Vert. Delineation	BY-AP-MW-8V	04/03/2023	<0.00071	0.000552	0.139	<0.000406	<6.8e-005	0.000809 J	0.000362	0.212
Horiz. Delineation	BY-AP-MW-17H	04/04/2023	<0.00071	0.0192	0.125	<0.000406	<6.8e-005	0.00042 J	0.000596	0.176
Horiz. Delineation	BY-AP-MW-18H	04/05/2023	<0.00071	0.000869	0.0207	<0.000406	<6.8e-005	0.000484 J	<6.8e-005	0.0765 J
Horiz. Delineation	BY-AP-MW-19H	04/24/2023	<0.00071	0.000745	0.136	<0.000406	<6.8e-005	0.000396 J	0.00147	0.083 J
Horiz. Delineation	BY-AP-MW-20H	04/24/2023	<0.00071	0.0133	0.098	<0.000406	<6.8e-005	0.00253	0.00442	0.0659 J
Horiz. Delineation	BY-AP-MW-22H	04/24/2023	<0.00071	0.0191	0.209	<0.000406	<6.8e-005	0.000486 J	0.00275	0.255

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Plant Barry Ash Pond
04/03/2023 - 04/24/2023

EPA Appendix IV Set									
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Downgradient	BY-AP-MW-9	04/04/2023	<6.8e-005	<0.007105	<0.0003	<0.005075	<0.000508	<6.8e-005	1.05 U
Vert. Delineation	BY-AP-MW-10V	04/03/2023	<6.8e-005	<0.007105	<0.0003	<0.005075	<0.000508	<6.8e-005	1.24
Vert. Delineation	BY-AP-MW-12V	04/04/2023	<6.8e-005	<0.007105	<0.0003	<0.005075	<0.000508	<6.8e-005	1.48
Vert. Delineation	BY-AP-MW-13V	04/04/2023	<6.8e-005	0.0351	<0.0003	<0.005075	<0.000508	<6.8e-005	0.957 U
Vert. Delineation	BY-AP-MW-14V	04/04/2023	<6.8e-005	<0.007105	<0.0003	<0.005075	<0.000508	<6.8e-005	1.23 U
Vert. Delineation	BY-AP-MW-15V	04/24/2023	<6.8e-005	<0.007105	<0.0003	<0.005075	<0.000508	0.000107 J	2.02
Vert. Delineation	BY-AP-MW-16V	04/04/2023	0.000253	<0.007105	<0.0003	<0.005075	<0.000508	8.22e-005 J	1.07
Vert. Delineation	BY-AP-MW-17V	04/04/2023	<6.8e-005	<0.007105	<0.0003	<0.005075	<0.000508	0.000362	9.59
Vert. Delineation	BY-AP-MW-1V	04/04/2023	<6.8e-005	<0.007105	<0.0003	<0.005075	<0.000508	<6.8e-005	1.62
Vert. Delineation	BY-AP-MW-20V	04/24/2023	8.63e-005 J	<0.007105	<0.0003	<0.005075	<0.000508	<6.8e-005	0.605 U
Vert. Delineation	BY-AP-MW-23V	04/04/2023	<6.8e-005	<0.007105	<0.0003	<0.005075	<0.000508	<6.8e-005	1.91
Vert. Delineation	BY-AP-MW-25V	04/03/2023	<6.8e-005	<0.007105	<0.0003	<0.005075	<0.000508	<6.8e-005	1.32
Vert. Delineation	BY-AP-MW-5V	04/04/2023	<6.8e-005	<0.007105	<0.0003	<0.005075	<0.000508	<6.8e-005	1.13 U
Vert. Delineation	BY-AP-MW-7V	04/03/2023	0.000161 J	<0.007105	<0.0003	<0.005075	<0.000508	<6.8e-005	0.856 U
Vert. Delineation	BY-AP-MW-8V	04/03/2023	0.000158 J	0.00904 J	<0.0003	<0.005075	<0.000508	<6.8e-005	0.795 U
Horiz. Delineation	BY-AP-MW-17H	04/04/2023	7.57e-005 J	<0.007105	<0.0003	<0.005075	<0.000508	<6.8e-005	1.09 U
Horiz. Delineation	BY-AP-MW-18H	04/05/2023	<6.8e-005	<0.007105	<0.0003	<0.005075	<0.000508	<6.8e-005	0.675 U
Horiz. Delineation	BY-AP-MW-19H	04/24/2023	<6.8e-005	<0.007105	<0.0003	<0.005075	<0.000508	<6.8e-005	1.35
Horiz. Delineation	BY-AP-MW-20H	04/24/2023	<6.8e-005	<0.007105	<0.0003	<0.005075	<0.000508	<6.8e-005	1.17
Horiz. Delineation	BY-AP-MW-22H	04/24/2023	<6.8e-005	<0.007105	<0.0003	<0.005075	<0.000508	<6.8e-005	1 U

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Plant Barry Ash Pond
04/03/2023 - 04/24/2023**

EPA Appendix IV Set										
Hydraulic Location	Well	Sample Date	Antimony mg/L	Arsenic mg/L	Barium mg/L	Beryllium mg/L	Cadmium mg/L	Chromium mg/L	Cobalt mg/L	Fluoride mg/L
Horiz. Delineation	BY-AP-MW-23H	04/04/2023	<0.00071	0.00291	0.159	<0.000406	<6.8e-005	0.000406 J	0.000522	0.0744 J
Horiz. Delineation	BY-AP-MW-24H	04/03/2023	<0.00071	0.0694	0.235	<0.000406	<6.8e-005	0.000781 J	0.00563	0.175
Horiz. Delineation	BY-AP-MW-25H	04/03/2023	<0.00071	0.000135 J	0.0187	<0.000406	<6.8e-005	0.00106	0.00113	<0.06

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5. mg/L - milligrams per liter, mv - millivolts, NTU - nephelometric turbidity unit, C - celsius, SU - standard unit, uS/cm - microseimens per centimeter, pCi/L - picocuries per liter.
6. NC = value not detected with alkalinity calculation

Table 6. First Semi-Annual Monitoring Event

**Analytical Results Summary
Plant Barry Ash Pond
04/03/2023 - 04/24/2023**

EPA Appendix IV Set									
Hydraulic Location	Well	Sample Date	Lead mg/L	Lithium mg/L	Mercury mg/L	Molybdenum mg/L	Selenium mg/L	Thallium mg/L	Combined Radium 226 + 228 pCi/L
Horiz. Delineation	BY-AP-MW-23H	04/04/2023	<6.8e-005	<0.007105	<0.0003	<0.005075	<0.000508	<6.8e-005	0.92 U
Horiz. Delineation	BY-AP-MW-24H	04/03/2023	<6.8e-005	<0.007105	<0.0003	<0.005075	<0.000508	<6.8e-005	1.46
Horiz. Delineation	BY-AP-MW-25H	04/03/2023	<6.8e-005	<0.007105	<0.0003	<0.005075	<0.000508	<6.8e-005	0.724 U

Notes:

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4. DO - Dissolved Oxygen, ORP - Oxidation Reduction Potential, TDS - Total Dissolved Solids.
5. mg/L - milligrams per liter, mv - millivolts, NTU - nephelometric turbidity unit, C - celsius, SU - standard unit, uS/cm - microseimens per centimeter, pCi/L - picocuries per liter.
6. NC = value not detected with alkalinity calculation

Table 6. First Semi-Annual Monitoring Event

Analytical Results Summary Plant Barry Ash Pond 04/03/2023 - 04/24/2023

General Chemistry and MNA Parameters										
Hydraulic Location	Well	Sample Date	Sulfide mg/L	Chloride mg/L	Nitrate Nitrite mg/L as N	Sulfate mg/L	Aluminum mg/L	Calcium mg/L	Iron Total mg/L	Potassium mg/L
Upgradient	BY-UP-MW-1	04/12/2023	0	2.31	<0.2	11.8	0.0616	1.02	3.9	0.474 J
Upgradient	BY-UP-MW-2	04/12/2023	0	2.25	1.27	8.54	0.232	1.16	0.22	0.857
Upgradient	BY-UP-MW-3	04/12/2023	0	3.11	1.65	7.59	0.0764	1.83	0.0691	0.935
Upgradient	BY-UP-MW-4	04/12/2023	0	3.42	2.09	5.93	0.154	1.76	0.0726	0.944
Downgradient	BY-AP-MW-1	04/03/2023	0	23.7	0.245 J	34.2	0.157	36.9	110	2.11
Downgradient	BY-AP-MW-10	04/03/2023	0	29.7	0.23 J	15	<0.009135	48.8	70.7	1.7
Downgradient	BY-AP-MW-11	04/04/2023	0	28.9	0.227 J	84.3	0.0493 J	26.6	73.5	12.1
Downgradient	BY-AP-MW-12	04/04/2023	0	25	<0.2	39.6	0.0392 J	23.3	63.2	3
Downgradient	BY-AP-MW-13	04/04/2023	0	14.3	<0.2	24.6	0.0554	47.7	4.94	2.83
Downgradient	BY-AP-MW-14	04/05/2023	0	47	<0.2	112	0.215	9.78	32.4	2.46
Downgradient	BY-AP-MW-15	04/03/2023	0	91.5	0.228 J	8.28	<0.009135	6.76	99	4.8
Downgradient	BY-AP-MW-16	04/05/2023	--	21.8	0.212 J	9.3	0.0263 J	11.4	131	2.25
Downgradient	BY-AP-MW-2	04/03/2023	0	7.35	<0.2	1.77 J	0.0187 J	1.79	0.25	0.829
Downgradient	BY-AP-MW-3	04/04/2023	0	9.66	<0.2	2.92	0.0187 J	1.29	4.13	0.984
Downgradient	BY-AP-MW-4	04/04/2023	0	32.4	<0.2	2.33	0.0404 J	3.36	0.0235 J	1.93
Downgradient	BY-AP-MW-5	04/04/2023	0	17.2	<0.2	43.9	<0.009135	8.36	45.3	1.26
Downgradient	BY-AP-MW-6	04/04/2023	0	7.81	<0.2	1.59 J	<0.009135	1.94	0.0289 J	1.16
Downgradient	BY-AP-MW-7	04/03/2023	0	59.4	<0.2	14.8	<0.009135	3.52	8.37	1.81
Downgradient	BY-AP-MW-8	04/03/2023	0	10.8	<0.2	32.1	0.0369 J	4.21	12.4	0.546
Downgradient	BY-AP-MW-9	04/04/2023	0	18	0.297 J	25.3	<0.009135	32.4	91.2	1.77

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4. DO - Dissolved Oxygen, ORP - Oxidation Reduction Potential, TDS - Total Dissolved Solids.
5. mg/L - milligrams per liter, mv - millivolts, NTU - nephelometric turbidity unit, C - celsius, SU - standard unit, uS/cm - microseimens per centimeter, pCi/L - picocuries per liter.
6. NC = value not detected with alkalinity calculation

Table 6. First Semi-Annual Monitoring Event

Analytical Results Summary Plant Barry Ash Pond 04/03/2023 - 04/24/2023

General Chemistry and MNA Parameters										
Hydraulic Location	Well	Sample Date	Magnesium Total mg/L	Manganese Total mg/L	Sodium mg/L	Silica mg/L	Silicon mg/L	Carbon, Total Organic mg/L	Alkalinity Total as CaCO3 mg CaCO3/L	Carbonate Alkalinity as CaCO3 mg CaCO3/L
Upgradient	BY-UP-MW-1	04/12/2023	1.83	0.135	1.85	6.93	3.24	1.04 J	7.32	NC
Upgradient	BY-UP-MW-2	04/12/2023	2.21	0.0216	2.11	8.54	3.99	<1	2.96	NC
Upgradient	BY-UP-MW-3	04/12/2023	1.85	0.0189	2.91	8.56	4	<1	1	NC
Upgradient	BY-UP-MW-4	04/12/2023	1.94	0.0159	2.61	9.05	4.23	<1	1.2	NC
Downgradient	BY-AP-MW-1	04/03/2023	11.6	0.713	23.4	24	11.2	13.6	266	NC
Downgradient	BY-AP-MW-10	04/03/2023	14.4	1.18	23.6	25	11.7	11.4	234	NC
Downgradient	BY-AP-MW-11	04/04/2023	13.9	0.6	49.7	16.2	7.59	25.8	230	NC
Downgradient	BY-AP-MW-12	04/04/2023	17.4	0.661	39.8 J	16.5	7.7	20.5	204	NC
Downgradient	BY-AP-MW-13	04/04/2023	4.88	0.106	19.3	13.7	6.41	10.9	140	NC
Downgradient	BY-AP-MW-14	04/05/2023	6	0.285	76	20.1	9.39	17.2	166	NC
Downgradient	BY-AP-MW-15	04/03/2023	5.38	0.628	39	13	6.07	4.96	67.3	NC
Downgradient	BY-AP-MW-16	04/05/2023	6.61	0.582	25.7	25.3	11.8	9.27	223	NC
Downgradient	BY-AP-MW-2	04/03/2023	1.16	0.195	4.15	16.1	7.54	<1	10.2	NC
Downgradient	BY-AP-MW-3	04/04/2023	0.762	0.0279	5.42	15.3	7.16	<1	11.4	NC
Downgradient	BY-AP-MW-4	04/04/2023	2.82	0.0219	12	14.7	6.89	<1	2.04	NC
Downgradient	BY-AP-MW-5	04/04/2023	2.76	0.356	13.8	24.8	11.6	7.46	87.9	NC
Downgradient	BY-AP-MW-6	04/04/2023	1.32	0.00463	7.3	13.3	6.21	<1	15.8	NC
Downgradient	BY-AP-MW-7	04/03/2023	2.5	0.102	65.6	12.1	5.67	1.56 J	100	NC
Downgradient	BY-AP-MW-8	04/03/2023	1.54	0.211	18.4	13.6	6.36	4.99	25.1	NC
Downgradient	BY-AP-MW-9	04/04/2023	12	1.78	18.7	20.4	9.53	12.1	195	NC

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6. NC = value not detected with alkalinity calculation

Table 6. First Semi-Annual Monitoring Event

Analytical Results Summary
Plant Barry Ash Pond
04/03/2023 - 04/24/2023

General Chemistry and MNA Parameters			
Hydraulic Location	Well	Sample Date	Bicarbonate Alkalinity as CaCO ₃ mg CaCO ₃ /L
Upgradient	BY-UP-MW-1	04/12/2023	7.32
Upgradient	BY-UP-MW-2	04/12/2023	2.96
Upgradient	BY-UP-MW-3	04/12/2023	1
Upgradient	BY-UP-MW-4	04/12/2023	1.2
Downgradient	BY-AP-MW-1	04/03/2023	266
Downgradient	BY-AP-MW-10	04/03/2023	234
Downgradient	BY-AP-MW-11	04/04/2023	230
Downgradient	BY-AP-MW-12	04/04/2023	204
Downgradient	BY-AP-MW-13	04/04/2023	140
Downgradient	BY-AP-MW-14	04/05/2023	166
Downgradient	BY-AP-MW-15	04/03/2023	67.3
Downgradient	BY-AP-MW-16	04/05/2023	223
Downgradient	BY-AP-MW-2	04/03/2023	10.2
Downgradient	BY-AP-MW-3	04/04/2023	11.4
Downgradient	BY-AP-MW-4	04/04/2023	2.04
Downgradient	BY-AP-MW-5	04/04/2023	87.9
Downgradient	BY-AP-MW-6	04/04/2023	15.8
Downgradient	BY-AP-MW-7	04/03/2023	99.9
Downgradient	BY-AP-MW-8	04/03/2023	25.1
Downgradient	BY-AP-MW-9	04/04/2023	195

Notes:

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- DO - Dissolved Oxygen, ORP - Oxidation Reduction Potential, TDS - Total Dissolved Solids.
- mg/L - milligrams per liter, mv - millivolts, NTU - nephelometric turbidity unit, C - celsius, SU - standard unit, uS/cm - microseimens per centimeter, pCi/L - picocuries per liter.
- NC = value not detected with alkalinity calculation

Table 6. First Semi-Annual Monitoring Event

Analytical Results Summary
Plant Barry Ash Pond
04/03/2023 - 04/24/2023

General Chemistry and MNA Parameters										
Hydraulic Location	Well	Sample Date	Sulfide mg/L	Chloride mg/L	Nitrate Nitrite mg/L as N	Sulfate mg/L	Aluminum mg/L	Calcium mg/L	Iron Total mg/L	Potassium mg/L
Vert. Delineation	BY-AP-MW-10V	04/03/2023	0	26.1	0.239 J	13	<0.009135	59.2	101	2.31
Vert. Delineation	BY-AP-MW-12V	04/04/2023	0	26.3	0.256 J	85.5	<0.009135	20.3	84.4	2.68
Vert. Delineation	BY-AP-MW-13V	04/04/2023	0	52.1	<0.2	29.5	0.012 J	14.4	54.7	7.22
Vert. Delineation	BY-AP-MW-14V	04/04/2023	0	174	<0.2	11.7	0.0188 J	5.34	20.8	2.65
Vert. Delineation	BY-AP-MW-15V	04/24/2023	0	192	0.253 J	1.93 J	0.00946 J	9.13	43.1	3.16
Vert. Delineation	BY-AP-MW-16V	04/04/2023	0	55	<0.2	34	0.407	2.35	3.89	1.89
Vert. Delineation	BY-AP-MW-17V	04/04/2023	0	1540	<0.2	59	0.0392 J	83.2	0.452	17.1
Vert. Delineation	BY-AP-MW-1V	04/04/2023	0	92.3	<0.2	19	0.0253 J	2.57	0.304	2.12
Vert. Delineation	BY-AP-MW-20V	04/24/2023	0	20.7	<0.2	8.99	0.0356 J	24.3	2.06	7.67
Vert. Delineation	BY-AP-MW-23V	04/04/2023	0	741	<0.2	32.9	<0.009135	42.5	35.3	8.07
Vert. Delineation	BY-AP-MW-25V	04/03/2023	0	3.61	<0.2	2.28	0.0185 J	0.703	0.0467	0.786
Vert. Delineation	BY-AP-MW-5V	04/04/2023	0	39.5	<0.2	4.84	0.0102 J	2.13	0.246	1.77
Vert. Delineation	BY-AP-MW-7V	04/03/2023	0	85.8	<0.2	5.29	0.0394 J	1.43	1.18	1.02
Vert. Delineation	BY-AP-MW-8V	04/03/2023	0	279	<0.2	21.7	0.127	8.95	12.9	3.24
Horiz. Delineation	BY-AP-MW-17H	04/04/2023	0	17.6	<0.2	17.2	0.103	10.4	63.9	1.54
Horiz. Delineation	BY-AP-MW-18H	04/05/2023	0	6.46	<0.2	67	0.0441 J	4.89	14	0.351 J
Horiz. Delineation	BY-AP-MW-19H	04/24/2023	0	15.2	0.344	38.7	0.0117 J	28.5	70.2	1.41
Horiz. Delineation	BY-AP-MW-20H	04/24/2023	0	37.6	0.292 J	63.6	0.0187 J	28.1	54.5	3.27
Horiz. Delineation	BY-AP-MW-22H	04/24/2023	0	63.7	0.312	152	0.0195 J	14.3	67.7	1.98
Horiz. Delineation	BY-AP-MW-23H	04/04/2023	0	9.01	<0.2	15.2	0.0441 J	23.5	54.7	1.03

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Table 6. First Semi-Annual Monitoring Event

Analytical Results Summary Plant Barry Ash Pond 04/03/2023 - 04/24/2023

General Chemistry and MNA Parameters										
Hydraulic Location	Well	Sample Date	Magnesium Total mg/L	Manganese Total mg/L	Sodium mg/L	Silica mg/L	Silicon mg/L	Carbon, Total Organic mg/L	Alkalinity Total as CaCO3 mg CaCO3/L	Carbonate Alkalinity as CaCO3 mg CaCO3/L
Vert. Delineation	BY-AP-MW-10V	04/03/2023	12	0.813	26.8	29.5	13.8	11.2	271	NC
Vert. Delineation	BY-AP-MW-12V	04/04/2023	14.2	1.16	43.1	14.6	6.82	14.6	203	NC
Vert. Delineation	BY-AP-MW-13V	04/04/2023	6.35	0.766	62.7	14.7	6.85	17.3	148	NC
Vert. Delineation	BY-AP-MW-14V	04/04/2023	2.85	0.281	169	14.3	6.66	4.24	159	NC
Vert. Delineation	BY-AP-MW-15V	04/24/2023	6.12	1.16	76.1	17.1	8.01	<1	30.9	NC
Vert. Delineation	BY-AP-MW-16V	04/04/2023	2.06	0.186	50.9	13.6	6.36	<1	17.6	NC
Vert. Delineation	BY-AP-MW-17V	04/04/2023	72.5	4.7	755	11.5	5.39	1.54 J	202	NC
Vert. Delineation	BY-AP-MW-1V	04/04/2023	1.5	0.0802	78.6	13.1	6.1	<1	34.1	NC
Vert. Delineation	BY-AP-MW-20V	04/24/2023	4.81	0.304	24.4	8.26	3.86	3.38	112	NC
Vert. Delineation	BY-AP-MW-23V	04/04/2023	38.2	1.14	361	17	7.94	4.99	135	NC
Vert. Delineation	BY-AP-MW-25V	04/03/2023	0.399 J	0.00489	4.41	13.6	6.36	<1	8.08	NC
Vert. Delineation	BY-AP-MW-5V	04/04/2023	1.52	0.00193	44.9	12.6	5.88	<1	54	NC
Vert. Delineation	BY-AP-MW-7V	04/03/2023	0.282 J	0.0191	120	12.8	6	1.25 J	155	3.12
Vert. Delineation	BY-AP-MW-8V	04/03/2023	5.17	0.176	215	18	8.39	7.04	149	NC
Horiz. Delineation	BY-AP-MW-17H	04/04/2023	4.68	0.282	16.3	17.1	7.99	4.5	103	NC
Horiz. Delineation	BY-AP-MW-18H	04/05/2023	1.46	0.232	9.82	9.42	4.4	2.58	15.1	NC
Horiz. Delineation	BY-AP-MW-19H	04/24/2023	6.89	1.48	15.4	28.7	13.4	8.07	165	NC
Horiz. Delineation	BY-AP-MW-20H	04/24/2023	17.7	0.475	91	16.9	7.9	25.2	304	NC
Horiz. Delineation	BY-AP-MW-22H	04/24/2023	13.3	0.544	73.8	19.4	9.07	14.4	189	NC
Horiz. Delineation	BY-AP-MW-23H	04/04/2023	6.51	0.879	17.3	33	15.4	4.16	149	NC

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Analytical Results Summary
Plant Barry Ash Pond
04/03/2023 - 04/24/2023

General Chemistry and MNA Parameters			
Hydraulic Location	Well	Sample Date	Bicarbonate Alkalinity as CaCO ₃ mg CaCO ₃ /L
Vert. Delineation	BY-AP-MW-10V	04/03/2023	271
Vert. Delineation	BY-AP-MW-12V	04/04/2023	203
Vert. Delineation	BY-AP-MW-13V	04/04/2023	148
Vert. Delineation	BY-AP-MW-14V	04/04/2023	159
Vert. Delineation	BY-AP-MW-15V	04/24/2023	30.9
Vert. Delineation	BY-AP-MW-16V	04/04/2023	17.6
Vert. Delineation	BY-AP-MW-17V	04/04/2023	202
Vert. Delineation	BY-AP-MW-1V	04/04/2023	34.1
Vert. Delineation	BY-AP-MW-20V	04/24/2023	112
Vert. Delineation	BY-AP-MW-23V	04/04/2023	135
Vert. Delineation	BY-AP-MW-25V	04/03/2023	8.08
Vert. Delineation	BY-AP-MW-5V	04/04/2023	54
Vert. Delineation	BY-AP-MW-7V	04/03/2023	152
Vert. Delineation	BY-AP-MW-8V	04/03/2023	149
Horiz. Delineation	BY-AP-MW-17H	04/04/2023	103
Horiz. Delineation	BY-AP-MW-18H	04/05/2023	15.1
Horiz. Delineation	BY-AP-MW-19H	04/24/2023	165
Horiz. Delineation	BY-AP-MW-20H	04/24/2023	304
Horiz. Delineation	BY-AP-MW-22H	04/24/2023	189
Horiz. Delineation	BY-AP-MW-23H	04/04/2023	149

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Table 6. First Semi-Annual Monitoring Event

**Analytical Results Summary
Plant Barry Ash Pond
04/03/2023 - 04/24/2023**

General Chemistry and MNA Parameters										
Hydraulic Location	Well	Sample Date	Sulfide mg/L	Chloride mg/L	Nitrate Nitrite mg/L as N	Sulfate mg/L	Aluminum mg/L	Calcium mg/L	Iron Total mg/L	Potassium mg/L
Horiz. Delineation	BY-AP-MW-24H	04/03/2023	0	45.5	0.274 J	94	<0.009135	17.8	113	2.53
Horiz. Delineation	BY-AP-MW-25H	04/03/2023	0	5.52	<0.2	4.48	0.0114 J	1.01	0.0232 J	0.897

Notes:

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Table 6. First Semi-Annual Monitoring Event

Analytical Results Summary
Plant Barry Ash Pond
04/03/2023 - 04/24/2023

General Chemistry and MNA Parameters										
Hydraulic Location	Well	Sample Date	Magnesium Total mg/L	Manganese Total mg/L	Sodium mg/L	Silica mg/L	Silicon mg/L	Carbon, Total Organic mg/L	Alkalinity Total as CaCO ₃ mg CaCO ₃ /L	Carbonate Alkalinity as CaCO ₃ mg CaCO ₃ /L
Horiz. Delineation	BY-AP-MW-24H	04/03/2023	16.4	0.208	65.7	23.3	10.9	25.2	251	NC
Horiz. Delineation	BY-AP-MW-25H	04/03/2023	0.748	0.00292	5.81	15.9	7.45	<1	5.52	NC

Notes:

- "J" indicates the result was detected above the MDL but below the PQL
- "<" indicates the result was not detected above the MDL and is considered a non-detect.
- U - Radium data is a combination of radium isotopes 226 and 228. When results are reported below the MDC (Minimum Detectable Concentration), data is displayed with an accompanying U. The MDC varies depending upon the sample amount and elapsed time of the measurement.
- DO - Dissolved Oxygen, ORP - Oxidation Reduction Potential, TDS - Total Dissolved Solids.
- mg/L - milligrams per liter, mv - millivolts, NTU - nephelometric turbidity unit, C - celsius, SU - standard unit, uS/cm - microseimens per centimeter, pCi/L - picocuries per liter.
- NC = value not detected with alkalinity calculation

Table 6. First Semi-Annual Monitoring Event

Analytical Results Summary
Plant Barry Ash Pond
04/03/2023 - 04/24/2023

General Chemistry and MNA Parameters			
Hydraulic Location	Well	Sample Date	Bicarbonate Alkalinity as CaCO ₃ mg CaCO ₃ /L
Horiz. Delineation	BY-AP-MW-24H	04/03/2023	251
Horiz. Delineation	BY-AP-MW-25H	04/03/2023	5.52

Notes:

1. "J" indicates the result was detected above the MDL but below the PQL
2. "<" indicates the result was not detected above the MDL and is considered a non-detect.
3. U - Radium data is a combination of radium isotopes 226 and 228. When results are reported below the MDC (Minimum Detectable Concentration), data is displayed with an accompanying U. The MDC varies depending upon the sample amount and elapsed time of the measurement.
4. DO - Dissolved Oxygen, ORP - Oxidation Reduction Potential, TDS - Total Dissolved Solids.
5. mg/L - milligrams per liter, mv - millivolts, NTU - nephelometric turbidity unit, C - celsius, SU - standard unit, uS/cm - microseimens per centimeter, pCi/L - picocuries per liter.
6. NC = value not detected with alkalinity calculation

Table 7. Second Semi-Annual Monitoring Event

Analytical Results Summary
Plant Barry Ash Pond
08/07/2023 - 08/16/2023

Field Parameters								
Hydraulic Location	Well	Sample Date	Conductivity uS/cm	DO mg/L	ORP mv	pH_Field SU	Field Temperature C	Turbidity NTU
Upgradient	BY-UP-MW-1	08/16/2023	44.7	0.25	258.81	4.45	20.83	0.87
Upgradient	BY-UP-MW-2	08/16/2023	43.84	6.46	394.68	4.49	20.48	4.64
Upgradient	BY-UP-MW-3	08/16/2023	47.03	5.94	427.07	4.03	20.38	2.41
Upgradient	BY-UP-MW-4	08/16/2023	42.26	5.8	412.07	4.58	22.17	9.48
Downgradient	BY-AP-MW-1	08/08/2023	554.42	0.07	3.24	5.74	22.82	8.64
Downgradient	BY-AP-MW-10	08/07/2023	556.36	0.07	-79.8	6.27	22.61	2.41
Downgradient	BY-AP-MW-11	08/07/2023	595.25	0.06	-104.39	6.3	22.46	2.12
Downgradient	BY-AP-MW-12	08/08/2023	494.55	0.09	-42.82	6.07	22.91	8.12
Downgradient	BY-AP-MW-13	08/09/2023	401.89	0.2	12.84	5.76	21.88	3.21
Downgradient	BY-AP-MW-14	08/09/2023	489.78	0.14	-11.2	5.83	21.28	6.98
Downgradient	BY-AP-MW-15	08/08/2023	615.81	0.07	-103.1	6.6	23.82	2.05
Downgradient	BY-AP-MW-16	08/08/2023	547.77	0.04	13.09	5.39	22.85	6.36
Downgradient	BY-AP-MW-2	08/08/2023	41.78	0.09	173.6	4.91	23.64	2.01
Downgradient	BY-AP-MW-3	08/09/2023	92.74	1	88.65	5.45	23.04	2.94
Downgradient	BY-AP-MW-4	08/09/2023	125.05	1.34	166.2	4.55	23.48	5.96
Downgradient	BY-AP-MW-5	08/07/2023	202.3	0.1	-17.16	5.84	22.59	3.21
Downgradient	BY-AP-MW-6	08/09/2023	62.09	0.89	163.93	5.05	23.57	3.76
Downgradient	BY-AP-MW-7	08/07/2023	350.79	0.24	-64.83	6.67	23.02	1.9
Downgradient	BY-AP-MW-8	08/07/2023	128.71	0.11	-108.14	6.82	24.91	6.42
Downgradient	BY-AP-MW-9	08/07/2023	360.3	0.07	-63.83	6.13	23.25	1.95

Notes:

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- DO - Dissolved Oxygen, ORP - Oxidation Reduction Potential, TDS - Total Dissolved Solids.
- mg/L - milligrams per liter, mv - millivolts, NTU - nephelometric turbidity unit, C - celsius, SU - standard unit, uS/cm - microseimens per centimeter, pCi/L - picocuries per liter.
- NC = value not detected with alkalinity calculation

Table 7. Second Semi-Annual Monitoring Event

Analytical Results Summary Plant Barry Ash Pond 08/07/2023 - 08/16/2023

Field Parameters								
Hydraulic Location	Well	Sample Date	Conductivity uS/cm	DO mg/L	ORP mv	pH_Field SU	Field Temperature C	Turbidity NTU
Vert. Delineation	BY-AP-MW-10V	08/07/2023	697.63	0.13	-83.69	6.21	23.67	1.8
Vert. Delineation	BY-AP-MW-12V	08/08/2023	508.88	0.08	-53.86	6.25	22.56	7.24
Vert. Delineation	BY-AP-MW-13V	08/09/2023	551.57	0.22	-5.4	5.82	22.29	2.69
Vert. Delineation	BY-AP-MW-14V	08/09/2023	839.89	0.31	-98.16	6.75	22.75	2.04
Vert. Delineation	BY-AP-MW-15V	08/08/2023	688.47	0.03	0.35	5.71	21.69	9.86
Vert. Delineation	BY-AP-MW-16V	08/07/2023	278.5	0.15	128.49	5.25	23.48	7.71
Vert. Delineation	BY-AP-MW-17V	08/08/2023	2488.46	0.18	73.32	6.49	22.42	9.89
Vert. Delineation	BY-AP-MW-1V	08/09/2023	395.19	0.39	53.66	5.85	23.38	4.2
Vert. Delineation	BY-AP-MW-20V	08/08/2023	1517.99	0.09	-73.65	6.42	22.69	9.54
Vert. Delineation	BY-AP-MW-23V	08/08/2023	2499.73	0.2	-72.87	6.59	20.87	0.77
Vert. Delineation	BY-AP-MW-25V	08/08/2023	29.71	3.59	325.54	4.79	22.85	1.18
Vert. Delineation	BY-AP-MW-5V	08/07/2023	233.01	0.74	155.93	5.89	22.96	1.64
Vert. Delineation	BY-AP-MW-7V	08/07/2023	379.72	0.17	-133.73	7.94	24.62	6.18
Vert. Delineation	BY-AP-MW-8V	08/07/2023	279.38	0.16	-27.63	8.18	20.81	47.6
Horiz. Delineation	BY-AP-MW-17H	08/08/2023	394.88	0.13	-67.09	6.23	22.06	8.5
Horiz. Delineation	BY-AP-MW-18H	08/08/2023	118.35	0.21	-86.78	6.67	22.12	4.91
Horiz. Delineation	BY-AP-MW-19H	08/08/2023	501.06	0.16	-90.21	6.34	23.72	0.88
Horiz. Delineation	BY-AP-MW-20H	08/08/2023	668.57	0.14	-72.3	6.25	23.82	1.27
Horiz. Delineation	BY-AP-MW-22H	08/08/2023	656.79	0.08	-75.63	6.22	21.3	1.57
Horiz. Delineation	BY-AP-MW-23H	08/08/2023	375.94	0.12	-65.38	6.13	20.5	2.76

Notes:

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2. "<" indicates the result was not detected above the MDL and is considered a non-detect.
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4. DO - Dissolved Oxygen, ORP - Oxidation Reduction Potential, TDS - Total Dissolved Solids.
5. mg/L - milligrams per liter, mv - millivolts, NTU - nephelometric turbidity unit, C - celsius, SU - standard unit, uS/cm - microseimens per centimeter, pCi/L - picocuries per liter.
6. NC = value not detected with alkalinity calculation

Table 7. Second Semi-Annual Monitoring Event

Analytical Results Summary
Plant Barry Ash Pond
08/07/2023 - 08/16/2023

Field Parameters								
Hydraulic Location	Well	Sample Date	Conductivity uS/cm	DO mg/L	ORP mv	pH_Field SU	Field Temperature C	Turbidity NTU
Horiz. Delineation	BY-AP-MW-24H	08/08/2023	830.43	0.03	-68.19	5.99	23.19	7.22
Horiz. Delineation	BY-AP-MW-25H	08/08/2023	42.86	0.95	333.68	4.95	22.54	0.31

Notes:

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2. "<" indicates the result was not detected above the MDL and is considered a non-detect.
3. U - Radium data is a combination of radium isotopes 226 and 228. When results are reported below the MDC (Minimum Detectable Concentration), data is displayed with an accompanying U. The MDC varies depending upon the sample amount and elapsed time of the measurement.
4. DO - Dissolved Oxygen, ORP - Oxidation Reduction Potential, TDS - Total Dissolved Solids.
5. mg/L - milligrams per liter, mv - millivolts, NTU - nephelometric turbidity unit, C - celsius, SU - standard unit, uS/cm - microseimens per centimeter, pCi/L - picocuries per liter.
6. NC = value not detected with alkalinity calculation

Table 7. Second Semi-Annual Monitoring Event

Analytical Results Summary Plant Barry Ash Pond 08/07/2023 - 08/16/2023

EPA Appendix III Set								
Hydraulic Location	Well	Sample Date	Boron mg/L	Calcium mg/L	Chloride mg/L	Fluoride mg/L	pH_Field SU	Sulfate mg/L
Upgradient	BY-UP-MW-1	08/16/2023	0.0364 J	0.816	2.61	<0.06	4.45	9.38
Upgradient	BY-UP-MW-2	08/16/2023	<0.03	1.03	2.01	<0.06	4.49	8.28
Upgradient	BY-UP-MW-3	08/16/2023	<0.03	1.77	2.94	<0.06	4.03	7.26
Upgradient	BY-UP-MW-4	08/16/2023	<0.03	1.71	3.12	<0.06	4.58	7.05
Downgradient	BY-AP-MW-1	08/08/2023	1.36	31	20.9	0.0612 J	5.74	3.92
Downgradient	BY-AP-MW-10	08/07/2023	1.68	58.4	23.5	<0.06	6.27	17.8
Downgradient	BY-AP-MW-11	08/07/2023	0.0562 J	23.5	24	0.099 J	6.3	158
Downgradient	BY-AP-MW-12	08/08/2023	0.0641 J	21.9	22.3	0.0672 J	6.07	65.1
Downgradient	BY-AP-MW-13	08/09/2023	0.0538 J	18.2	40.5	0.0948 J	5.76	23.5
Downgradient	BY-AP-MW-14	08/09/2023	0.0724 J	11.6	47.1	0.0753 J	5.83	37.8
Downgradient	BY-AP-MW-15	08/08/2023	0.0792 J	6.85	90.2	0.172	6.6	10.6
Downgradient	BY-AP-MW-16	08/08/2023	2.45	8.99	21.3	0.0772 J	5.39	31.6
Downgradient	BY-AP-MW-2	08/08/2023	<0.03	1.59	7.04	0.0705 J	4.91	1.82 J
Downgradient	BY-AP-MW-3	08/09/2023	0.106	2.13	10.7	<0.06	5.45	3.04
Downgradient	BY-AP-MW-4	08/09/2023	<0.03	3.23	30.8	<0.06	4.55	2.28
Downgradient	BY-AP-MW-5	08/07/2023	0.0327 J	6.02	15.9	<0.06	5.84	17.6
Downgradient	BY-AP-MW-6	08/09/2023	<0.03	2.26	8.06	<0.06	5.05	1.61 J
Downgradient	BY-AP-MW-7	08/07/2023	0.174	3.21	48.4	0.162	6.67	25.9
Downgradient	BY-AP-MW-8	08/07/2023	0.0437 J	4.68	6.63	0.112 J	6.82	38.6
Downgradient	BY-AP-MW-9	08/07/2023	1.16	25.2	15.7	0.0808 J	6.13	30.4
Vert. Delineation	BY-AP-MW-10V	08/07/2023	0.958	85	24.1	<0.06	6.21	17.9

Notes:

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4. DO - Dissolved Oxygen, ORP - Oxidation Reduction Potential, TDS - Total Dissolved Solids.
5. mg/L - milligrams per liter, mv - millivolts, NTU - nephelometric turbidity unit, C - celsius, SU - standard unit, uS/cm - microseimens per centimeter, pCi/L - picocuries per liter.
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Table 7. Second Semi-Annual Monitoring Event

Analytical Results Summary Plant Barry Ash Pond 08/07/2023 - 08/16/2023

EPA Appendix III Set								
Hydraulic Location	Well	Sample Date	Boron mg/L	Calcium mg/L	Chloride mg/L	Fluoride mg/L	pH_Field SU	Sulfate mg/L
Vert. Delineation	BY-AP-MW-12V	08/08/2023	0.0777 J	19.7	22.8	0.0731 J	6.25	110
Vert. Delineation	BY-AP-MW-13V	08/09/2023	0.109	13.1	60	0.0755 J	5.82	34.1
Vert. Delineation	BY-AP-MW-14V	08/09/2023	0.399	6.47	158	0.27	6.75	36.3
Vert. Delineation	BY-AP-MW-15V	08/08/2023	0.0366 J	7.43	183	0.0634 J	5.71	3.44
Vert. Delineation	BY-AP-MW-16V	08/07/2023	<0.03	1.86	53.6	<0.06	5.25	30.5
Vert. Delineation	BY-AP-MW-17V	08/08/2023	0.194	60.9	725	0.109 J	6.49	59.7
Vert. Delineation	BY-AP-MW-1V	08/09/2023	0.0661 J	2.37	80	<0.06	5.85	20.3
Vert. Delineation	BY-AP-MW-20V	08/08/2023	0.148	29.1	400	0.0917 J	6.42	63.4
Vert. Delineation	BY-AP-MW-23V	08/08/2023	0.238	58.4	690	0.0635 J	6.59	35
Vert. Delineation	BY-AP-MW-25V	08/08/2023	<0.03	0.669	3.6	<0.06	4.79	2.47
Vert. Delineation	BY-AP-MW-5V	08/07/2023	0.0978 J	1.78	35.9	0.077 J	5.89	7.84
Vert. Delineation	BY-AP-MW-7V	08/07/2023	0.169	21.9	39.5	0.222	7.94	54.7
Vert. Delineation	BY-AP-MW-8V	08/07/2023	0.0907 J	20.4	22.7	0.316	8.18	50.7
Horiz. Delineation	BY-AP-MW-17H	08/08/2023	0.0614 J	10.2	18.2	0.137	6.23	14.4
Horiz. Delineation	BY-AP-MW-18H	08/08/2023	0.0442 J	4.75	5.79	0.0799 J	6.67	43.3
Horiz. Delineation	BY-AP-MW-19H	08/08/2023	1.23	30.7	16.9	<0.06	6.34	18.3
Horiz. Delineation	BY-AP-MW-20H	08/08/2023	0.0655 J	25.5	32.6	0.103 J	6.25	84.1
Horiz. Delineation	BY-AP-MW-22H	08/08/2023	0.0587 J	13.4	51.2	0.252	6.22	214
Horiz. Delineation	BY-AP-MW-23H	08/08/2023	0.0427 J	21.6	7.97	<0.06	6.13	14
Horiz. Delineation	BY-AP-MW-24H	08/08/2023	0.279	16	45.1	0.144	5.99	253
Horiz. Delineation	BY-AP-MW-25H	08/08/2023	<0.03	0.967	5.99	<0.06	4.95	4.88

Notes:

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5. mg/L - milligrams per liter, mv - millivolts, NTU - nephelometric turbidity unit, C - celsius, SU - standard unit, uS/cm - microseimens per centimeter, pCi/L - picocuries per liter.
6. NC = value not detected with alkalinity calculation

Table 7. Second Semi-Annual Monitoring Event

Analytical Results Summary Plant Barry Ash Pond 08/07/2023 - 08/16/2023

EPA Appendix IV Set										
Hydraulic Location	Well	Sample Date	Antimony mg/L	Arsenic mg/L	Barium mg/L	Beryllium mg/L	Cadmium mg/L	Chromium mg/L	Cobalt mg/L	Fluoride mg/L
Upgradient	BY-UP-MW-1	08/16/2023	<0.00071	0.000134 J	0.0689	<0.000406	<6.8e-005	0.000205 J	0.0034	<0.06
Upgradient	BY-UP-MW-2	08/16/2023	<0.00071	<0.000112	0.13	<0.000406	<6.8e-005	0.00111	0.00157	<0.06
Upgradient	BY-UP-MW-3	08/16/2023	<0.00071	<0.000112	0.0912	<0.000406	<6.8e-005	0.00126	0.00133	<0.06
Upgradient	BY-UP-MW-4	08/16/2023	<0.00071	0.000209	0.121	<0.000406	<6.8e-005	0.00158	0.00161	<0.06
Downgradient	BY-AP-MW-1	08/08/2023	<0.00071	0.0491	0.258	<0.000406	<6.8e-005	0.00374	0.000897	0.0612 J
Downgradient	BY-AP-MW-10	08/07/2023	<0.00071	0.025	0.067	<0.000406	<6.8e-005	0.000561 J	0.00061	<0.06
Downgradient	BY-AP-MW-11	08/07/2023	<0.00071	0.0136	0.0637	<0.000406	<6.8e-005	0.00232	0.00101	0.099 J
Downgradient	BY-AP-MW-12	08/08/2023	<0.00071	0.0222	0.086	<0.000406	<6.8e-005	0.00496	0.00388	0.0672 J
Downgradient	BY-AP-MW-13	08/09/2023	<0.00071	0.0143	0.061	<0.000406	<6.8e-005	0.00763	0.0013	0.0948 J
Downgradient	BY-AP-MW-14	08/09/2023	<0.00071	0.0176	0.0646	<0.000406	<6.8e-005	0.00347	0.00125	0.0753 J
Downgradient	BY-AP-MW-15	08/08/2023	<0.00071	0.0188	0.0822	<0.000406	<6.8e-005	0.000353 J	0.0355	0.172
Downgradient	BY-AP-MW-16	08/08/2023	<0.00071	0.0156	0.0904	<0.000406	<6.8e-005	0.00169	0.00584	0.0772 J
Downgradient	BY-AP-MW-2	08/08/2023	<0.00071	0.00129	0.0171	<0.000406	<6.8e-005	0.000301 J	0.00386	0.0705 J
Downgradient	BY-AP-MW-3	08/09/2023	<0.00071	0.00125	0.0351	<0.000406	<6.8e-005	0.000549 J	0.000108 J	<0.06
Downgradient	BY-AP-MW-4	08/09/2023	<0.00071	0.000226	0.115	<0.000406	0.000103 J	0.000854 J	0.00259	<0.06
Downgradient	BY-AP-MW-5	08/07/2023	<0.00071	0.0164	0.0707	<0.000406	<6.8e-005	0.000897 J	0.000923	<0.06
Downgradient	BY-AP-MW-6	08/09/2023	<0.00071	<0.000112	0.0288	<0.000406	<6.8e-005	0.00028 J	0.00065	<0.06
Downgradient	BY-AP-MW-7	08/07/2023	<0.00071	0.0134	0.0303	<0.000406	<6.8e-005	<0.000203	0.00447	0.162
Downgradient	BY-AP-MW-8	08/07/2023	<0.00071	0.0024	0.0215	<0.000406	<6.8e-005	0.000611 J	<6.8e-005	0.112 J

Notes:

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6. NC = value not detected with alkalinity calculation

Table 7. Second Semi-Annual Monitoring Event

Analytical Results Summary Plant Barry Ash Pond 08/07/2023 - 08/16/2023

EPA Appendix IV Set									
Hydraulic Location	Well	Sample Date	Lead mg/L	Lithium mg/L	Mercury mg/L	Molybdenum mg/L	Selenium mg/L	Thallium mg/L	Combined Radium 226 + 228 pCi/L
Upgradient	BY-UP-MW-1	08/16/2023	<6.8e-005	<0.007105	<0.0003	<0.005075	<0.000508	<6.8e-005	0.516 U
Upgradient	BY-UP-MW-2	08/16/2023	<6.8e-005	<0.007105	<0.0003	<0.005075	0.000614 J	<6.8e-005	0.389 U
Upgradient	BY-UP-MW-3	08/16/2023	<6.8e-005	<0.007105	<0.0003	<0.005075	<0.000508	<6.8e-005	1.1 U
Upgradient	BY-UP-MW-4	08/16/2023	0.000177 J	<0.007105	<0.0003	<0.005075	<0.000508	<6.8e-005	1.56
Downgradient	BY-AP-MW-1	08/08/2023	0.000206	<0.007105	<0.0003	<0.005075	<0.000508	<6.8e-005	1.6
Downgradient	BY-AP-MW-10	08/07/2023	<6.8e-005	<0.007105	<0.0003	<0.005075	<0.000508	<6.8e-005	1.34
Downgradient	BY-AP-MW-11	08/07/2023	<6.8e-005	0.0284	<0.0003	<0.005075	<0.000508	<6.8e-005	1.12
Downgradient	BY-AP-MW-12	08/08/2023	0.000572	<0.007105	<0.0003	<0.005075	<0.000508	<6.8e-005	1.21
Downgradient	BY-AP-MW-13	08/09/2023	7.98e-005 J	<0.007105	<0.0003	<0.005075	<0.000508	<6.8e-005	0.938 U
Downgradient	BY-AP-MW-14	08/09/2023	0.000229	<0.007105	<0.0003	<0.005075	<0.000508	<6.8e-005	0.709 U
Downgradient	BY-AP-MW-15	08/08/2023	<6.8e-005	0.0107 J	<0.0003	<0.005075	<0.000508	<6.8e-005	0.921 U
Downgradient	BY-AP-MW-16	08/08/2023	0.000206	<0.007105	<0.0003	<0.005075	<0.000508	<6.8e-005	1.23
Downgradient	BY-AP-MW-2	08/08/2023	<6.8e-005	<0.007105	<0.0003	<0.005075	<0.000508	<6.8e-005	0.497 U
Downgradient	BY-AP-MW-3	08/09/2023	<6.8e-005	<0.007105	<0.0003	<0.005075	<0.000508	<6.8e-005	0.203 U
Downgradient	BY-AP-MW-4	08/09/2023	0.000149 J	<0.007105	<0.0003	<0.005075	<0.000508	<6.8e-005	1.09 U
Downgradient	BY-AP-MW-5	08/07/2023	<6.8e-005	<0.007105	<0.0003	<0.005075	<0.000508	<6.8e-005	0.539 U
Downgradient	BY-AP-MW-6	08/09/2023	0.00149	<0.007105	<0.0003	<0.005075	<0.000508	<6.8e-005	0.212 U
Downgradient	BY-AP-MW-7	08/07/2023	<6.8e-005	<0.007105	<0.0003	<0.005075	<0.000508	<6.8e-005	0.826 U
Downgradient	BY-AP-MW-8	08/07/2023	8.06e-005 J	<0.007105	<0.0003	<0.005075	<0.000508	<6.8e-005	0.789 U

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6. NC = value not detected with alkalinity calculation

Table 7. Second Semi-Annual Monitoring Event

Analytical Results Summary Plant Barry Ash Pond 08/07/2023 - 08/16/2023

EPA Appendix IV Set										
Hydraulic Location	Well	Sample Date	Antimony mg/L	Arsenic mg/L	Barium mg/L	Beryllium mg/L	Cadmium mg/L	Chromium mg/L	Cobalt mg/L	Fluoride mg/L
Downgradient	BY-AP-MW-9	08/07/2023	<0.00071	0.0315	0.0829	<0.000406	<6.8e-005	0.000492 J	0.000514	0.0808 J
Vert. Delineation	BY-AP-MW-10V	08/07/2023	<0.00071	0.000251	0.166	<0.000406	<6.8e-005	0.000434 J	0.000623	<0.06
Vert. Delineation	BY-AP-MW-12V	08/08/2023	<0.00071	0.0227	0.0976	<0.000406	<6.8e-005	0.00105	0.00284	0.0731 J
Vert. Delineation	BY-AP-MW-13V	08/09/2023	<0.00071	0.00967	0.109	<0.000406	<6.8e-005	0.00368	0.00111	0.0755 J
Vert. Delineation	BY-AP-MW-14V	08/09/2023	<0.00071	0.00508	0.0704	<0.000406	<6.8e-005	0.000723 J	0.0064	0.27
Vert. Delineation	BY-AP-MW-15V	08/08/2023	<0.00071	0.0303	0.159	<0.000406	0.000218	0.000298 J	0.0802	0.0634 J
Vert. Delineation	BY-AP-MW-16V	08/07/2023	<0.00071	0.000884	0.0564	<0.000406	9.17e-005 J	0.000891 J	0.0149	<0.06
Vert. Delineation	BY-AP-MW-17V	08/08/2023	<0.00071	0.00165	0.645	<0.000406	0.000144 J	0.00175	0.0598	0.109 J
Vert. Delineation	BY-AP-MW-1V	08/09/2023	<0.00071	0.000431	0.0464	<0.000406	7.07e-005 J	0.000413 J	0.00549	<0.06
Vert. Delineation	BY-AP-MW-20V	08/08/2023	<0.00071	0.0152	0.275	<0.000406	<6.8e-005	0.00107	0.0234	0.0917 J
Vert. Delineation	BY-AP-MW-23V	08/08/2023	<0.00071	0.00483	0.289	<0.000406	<6.8e-005	0.000325 J	0.043	0.0635 J
Vert. Delineation	BY-AP-MW-25V	08/08/2023	<0.00071	<0.000112	0.012	<0.000406	<6.8e-005	0.00128	0.000272	<0.06
Vert. Delineation	BY-AP-MW-5V	08/07/2023	<0.00071	<0.000112	0.0433	<0.000406	<6.8e-005	0.000763 J	<6.8e-005	0.077 J
Vert. Delineation	BY-AP-MW-7V	08/07/2023	0.000744 J	0.00141	0.0583	<0.000406	<6.8e-005	0.00027 J	9.47e-005 J	0.222
Vert. Delineation	BY-AP-MW-8V	08/07/2023	<0.00071	0.00143	0.0322	<0.000406	7.47e-005 J	0.00276	0.000545	0.316
Horiz. Delineation	BY-AP-MW-17H	08/08/2023	<0.00071	0.0303	0.123	<0.000406	<6.8e-005	0.000419 J	0.00297	0.137
Horiz. Delineation	BY-AP-MW-18H	08/08/2023	<0.00071	0.00104	0.0233	<0.000406	<6.8e-005	0.000382 J	<6.8e-005	0.0799 J
Horiz. Delineation	BY-AP-MW-19H	08/08/2023	<0.00071	0.000696	0.156	<0.000406	<6.8e-005	0.000325 J	0.000813	<0.06
Horiz. Delineation	BY-AP-MW-20H	08/08/2023	<0.00071	0.0134	0.0938	<0.000406	<6.8e-005	0.00263	0.0046	0.103 J
Horiz. Delineation	BY-AP-MW-22H	08/08/2023	<0.00071	0.0197	0.21	<0.000406	<6.8e-005	0.00061 J	0.00275	0.252

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Table 7. Second Semi-Annual Monitoring Event

Analytical Results Summary
Plant Barry Ash Pond
08/07/2023 - 08/16/2023

EPA Appendix IV Set									
Hydraulic Location	Well	Sample Date	Lead mg/L	Lithium mg/L	Mercury mg/L	Molybdenum mg/L	Selenium mg/L	Thallium mg/L	Combined Radium 226 + 228 pCi/L
Downgradient	BY-AP-MW-9	08/07/2023	<6.8e-005	<0.007105	<0.0003	<0.005075	<0.000508	<6.8e-005	0.578 U
Vert. Delineation	BY-AP-MW-10V	08/07/2023	<6.8e-005	<0.007105	<0.0003	<0.005075	<0.000508	<6.8e-005	1.63
Vert. Delineation	BY-AP-MW-12V	08/08/2023	0.000124 J	<0.007105	<0.0003	<0.005075	<0.000508	<6.8e-005	0.422 U
Vert. Delineation	BY-AP-MW-13V	08/09/2023	<6.8e-005	0.00949 J	<0.0003	<0.005075	<0.000508	<6.8e-005	1.3
Vert. Delineation	BY-AP-MW-14V	08/09/2023	<6.8e-005	<0.007105	<0.0003	<0.005075	<0.000508	<6.8e-005	0.58 U
Vert. Delineation	BY-AP-MW-15V	08/08/2023	0.000303	<0.007105	<0.0003	<0.005075	<0.000508	0.000114 J	2.05
Vert. Delineation	BY-AP-MW-16V	08/07/2023	0.000174 J	<0.007105	<0.0003	<0.005075	<0.000508	7.58e-005 J	0.678 U
Vert. Delineation	BY-AP-MW-17V	08/08/2023	0.000305	<0.007105	<0.0003	0.00662 J	<0.000508	0.000166 J	3.64
Vert. Delineation	BY-AP-MW-1V	08/09/2023	<6.8e-005	<0.007105	<0.0003	<0.005075	<0.000508	<6.8e-005	0.576 U
Vert. Delineation	BY-AP-MW-20V	08/08/2023	0.000429	<0.007105	<0.0003	<0.005075	<0.000508	<6.8e-005	3.45
Vert. Delineation	BY-AP-MW-23V	08/08/2023	<6.8e-005	<0.007105	<0.0003	<0.005075	<0.000508	<6.8e-005	1.9
Vert. Delineation	BY-AP-MW-25V	08/08/2023	<6.8e-005	<0.007105	<0.0003	<0.005075	<0.000508	<6.8e-005	0.737 U
Vert. Delineation	BY-AP-MW-5V	08/07/2023	<6.8e-005	<0.007105	<0.0003	<0.005075	<0.000508	<6.8e-005	0.198 U
Vert. Delineation	BY-AP-MW-7V	08/07/2023	0.000131 J	0.00775 J	<0.0003	0.00832 J	0.00096 J	<6.8e-005	0.164 U
Vert. Delineation	BY-AP-MW-8V	08/07/2023	0.0016	<0.007105	<0.0003	<0.005075	0.00281	<6.8e-005	0.796 U
Horiz. Delineation	BY-AP-MW-17H	08/08/2023	7.4e-005 J	<0.007105	<0.0003	<0.005075	<0.000508	<6.8e-005	0.898 U
Horiz. Delineation	BY-AP-MW-18H	08/08/2023	<6.8e-005	<0.007105	<0.0003	<0.005075	<0.000508	<6.8e-005	0.262 U
Horiz. Delineation	BY-AP-MW-19H	08/08/2023	<6.8e-005	<0.007105	<0.0003	<0.005075	<0.000508	<6.8e-005	0.636 U
Horiz. Delineation	BY-AP-MW-20H	08/08/2023	0.000116 J	<0.007105	<0.0003	<0.005075	<0.000508	<6.8e-005	1.25
Horiz. Delineation	BY-AP-MW-22H	08/08/2023	<6.8e-005	<0.007105	<0.0003	<0.005075	<0.000508	<6.8e-005	0.648 U

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Table 7. Second Semi-Annual Monitoring Event

Analytical Results Summary Plant Barry Ash Pond 08/07/2023 - 08/16/2023

EPA Appendix IV Set										
Hydraulic Location	Well	Sample Date	Antimony mg/L	Arsenic mg/L	Barium mg/L	Beryllium mg/L	Cadmium mg/L	Chromium mg/L	Cobalt mg/L	Fluoride mg/L
Horiz. Delineation	BY-AP-MW-23H	08/08/2023	<0.00071	0.00254	0.165	<0.000406	<6.8e-005	0.000383 J	0.000504	<0.06
Horiz. Delineation	BY-AP-MW-24H	08/08/2023	<0.00071	0.0654	0.256	<0.000406	<6.8e-005	0.000914 J	0.00581	0.144
Horiz. Delineation	BY-AP-MW-25H	08/08/2023	<0.00071	0.000121 J	0.021	<0.000406	<6.8e-005	0.00113	0.00141	<0.06

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Table 7. Second Semi-Annual Monitoring Event

**Analytical Results Summary
Plant Barry Ash Pond
08/07/2023 - 08/16/2023**

EPA Appendix IV Set									
Hydraulic Location	Well	Sample Date	Lead mg/L	Lithium mg/L	Mercury mg/L	Molybdenum mg/L	Selenium mg/L	Thallium mg/L	Combined Radium 226 + 228 pCi/L
Horiz. Delineation	BY-AP-MW-23H	08/08/2023	<6.8e-005	<0.007105	<0.0003	<0.005075	<0.000508	<6.8e-005	0.864 U
Horiz. Delineation	BY-AP-MW-24H	08/08/2023	<6.8e-005	<0.007105	<0.0003	<0.005075	<0.000508	<6.8e-005	1.23
Horiz. Delineation	BY-AP-MW-25H	08/08/2023	<6.8e-005	<0.007105	<0.0003	<0.005075	<0.000508	<6.8e-005	0.401 U

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Analytical Results Summary Plant Barry Ash Pond 08/07/2023 - 08/16/2023

General Chemistry and MNA Parameters										
Hydraulic Location	Well	Sample Date	Chloride mg/L	Nitrate Nitrite mg/L as N	Sulfate mg/L	Aluminum mg/L	Calcium mg/L	Iron Total mg/L	Potassium mg/L	Magnesium Total mg/L
Upgradient	BY-UP-MW-1	08/16/2023	2.61	<0.2	9.38	0.0498 J	0.816	2.52	0.457 J	1.51
Upgradient	BY-UP-MW-2	08/16/2023	2.01	1.11	8.28	0.125	1.03	0.0763	0.839	2.07
Upgradient	BY-UP-MW-3	08/16/2023	2.94	1.45	7.26	0.0342 J	1.77	0.0142 J	0.908	1.83
Upgradient	BY-UP-MW-4	08/16/2023	3.12	2.05	7.05	0.322	1.71	0.195	0.987	1.96
Downgradient	BY-AP-MW-1	08/08/2023	20.9	<0.2	3.92	0.237	31	122	2.09	10.7
Downgradient	BY-AP-MW-10	08/07/2023	23.5	<0.2	17.8	<0.009135	58.4	73.7	1.74	12.7
Downgradient	BY-AP-MW-11	08/07/2023	24	<0.2	158	0.0422 J	23.5	82	10.5	14.1
Downgradient	BY-AP-MW-12	08/08/2023	22.3	<0.2	65.1	0.278	21.9	60.1	3.09	18.1
Downgradient	BY-AP-MW-13	08/09/2023	40.5	<0.2	23.5	0.0787	18.2	33.2	2.1	6.62
Downgradient	BY-AP-MW-14	08/09/2023	47.1	<0.2	37.8	0.242	11.6	34.6	2.43	6.57
Downgradient	BY-AP-MW-15	08/08/2023	90.2	<0.2	10.6	0.0117 J	6.85	112	4.38	5.73
Downgradient	BY-AP-MW-16	08/08/2023	21.3	<0.2	31.6	0.23	8.99	140	2.29	6.24
Downgradient	BY-AP-MW-2	08/08/2023	7.04	<0.2	1.82 J	0.0447 J	1.59	0.217	0.798	1.14
Downgradient	BY-AP-MW-3	08/09/2023	10.7	<0.2	3.04	0.0133 J	2.13	12	0.967	0.977
Downgradient	BY-AP-MW-4	08/09/2023	30.8	<0.2	2.28	0.131	3.23	0.121	1.9	2.73
Downgradient	BY-AP-MW-5	08/07/2023	15.9	<0.2	17.6	0.0354 J	6.02	40.1	1.18	2.2
Downgradient	BY-AP-MW-6	08/09/2023	8.06	0.385	1.61 J	<0.009135	2.26	0.0197 J	1.14	1.38
Downgradient	BY-AP-MW-7	08/07/2023	48.4	<0.2	25.9	<0.009135	3.21	8.03	2.84	2.41
Downgradient	BY-AP-MW-8	08/07/2023	6.63	<0.2	38.6	0.0441 J	4.68	14.9	0.525	2.04
Downgradient	BY-AP-MW-9	08/07/2023	15.7	<0.2	30.4	<0.009135	25.2	52.7	0.841	7.69

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Table 7. Second Semi-Annual Monitoring Event

Analytical Results Summary Plant Barry Ash Pond 08/07/2023 - 08/16/2023

General Chemistry and MNA Parameters										
Hydraulic Location	Well	Sample Date	Manganese Total mg/L	Sodium mg/L	Silica mg/L	Silicon mg/L	Carbon, Total Organic mg/L	Alkalinity Total as CaCO3 mg CaCO3/L	Carbonate Alkalinity as CaCO3 mg CaCO3/L	Bicarbonate Alkalinity as CaCO3 mg CaCO3/L
Upgradient	BY-UP-MW-1	08/16/2023	0.109	2.43	7.06	3.3	1.29 J	3.92	NC	3.92
Upgradient	BY-UP-MW-2	08/16/2023	0.0203	2.17	8.35	3.9	<1	0.694	NC	NC
Upgradient	BY-UP-MW-3	08/16/2023	0.0174	2.87	8.35	3.9	<1	0.979	NC	NC
Upgradient	BY-UP-MW-4	08/16/2023	0.0174	2.65	9.01	4.21	<1	0.898	NC	NC
Downgradient	BY-AP-MW-1	08/08/2023	0.95	27.7	25.5	11.9	12.8	233	0.0978	233
Downgradient	BY-AP-MW-10	08/07/2023	0.733	26.2	26.5	12.4	8.22	239	NC	239
Downgradient	BY-AP-MW-11	08/07/2023	0.617	55.1	16.2	7.58	26.4	245	NC	245
Downgradient	BY-AP-MW-12	08/08/2023	0.705	45.4	16.6	7.77	20.4	219	NC	219
Downgradient	BY-AP-MW-13	08/09/2023	0.446	52.1	16.7	7.81	25.3	143	NC	143
Downgradient	BY-AP-MW-14	08/09/2023	0.298	77.9	21.8	10.2	16.8	171	NC	171
Downgradient	BY-AP-MW-15	08/08/2023	0.677	44.3	13.3	6.2	4.9	68.5	NC	68.5
Downgradient	BY-AP-MW-16	08/08/2023	0.427	27.6	26.1	12.2	8.6	230	NC	230
Downgradient	BY-AP-MW-2	08/08/2023	0.179	4.76	16.5	7.7	<1	11.2	NC	11.2
Downgradient	BY-AP-MW-3	08/09/2023	0.0615	6.13	17.2	8.04	1.81 J	15.7	NC	15.7
Downgradient	BY-AP-MW-4	08/09/2023	0.0192	12.7	15.1	7.06	<1	1.65	NC	1.65
Downgradient	BY-AP-MW-5	08/07/2023	0.282	13.7	24.4	11.4	6.19	76.4	NC	76.4
Downgradient	BY-AP-MW-6	08/09/2023	0.00476	7.34	14.2	6.64	1.24 J	14.9	NC	14.9
Downgradient	BY-AP-MW-7	08/07/2023	0.0902	73.9	12.1	5.65	1.77 J	105	NC	105
Downgradient	BY-AP-MW-8	08/07/2023	0.197	12.5	11.1	5.2	3.07	22.2	NC	22.2
Downgradient	BY-AP-MW-9	08/07/2023	1.21	14.3	21.4	10	5.22	138	NC	138

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4. DO - Dissolved Oxygen, ORP - Oxidation Reduction Potential, TDS - Total Dissolved Solids.
5. mg/L - milligrams per liter, mv - millivolts, NTU - nephelometric turbidity unit, C - celsius, SU - standard unit, uS/cm - microseimens per centimeter, pCi/L - picocuries per liter.
6. NC = value not detected with alkalinity calculation

Table 7. Second Semi-Annual Monitoring Event

**Analytical Results Summary
Plant Barry Ash Pond
08/07/2023 - 08/16/2023**

General Chemistry and MNA Parameters			
Hydraulic Location	Well	Sample Date	Sulfide mg/L
Upgradient	BY-UP-MW-1	08/16/2023	0
Upgradient	BY-UP-MW-2	08/16/2023	0
Upgradient	BY-UP-MW-3	08/16/2023	0
Upgradient	BY-UP-MW-4	08/16/2023	0
Downgradient	BY-AP-MW-1	08/08/2023	0
Downgradient	BY-AP-MW-10	08/07/2023	0
Downgradient	BY-AP-MW-11	08/07/2023	0
Downgradient	BY-AP-MW-12	08/08/2023	0
Downgradient	BY-AP-MW-13	08/09/2023	0
Downgradient	BY-AP-MW-14	08/09/2023	0
Downgradient	BY-AP-MW-15	08/08/2023	0
Downgradient	BY-AP-MW-16	08/08/2023	--
Downgradient	BY-AP-MW-2	08/08/2023	0
Downgradient	BY-AP-MW-3	08/09/2023	0
Downgradient	BY-AP-MW-4	08/09/2023	0
Downgradient	BY-AP-MW-5	08/07/2023	0
Downgradient	BY-AP-MW-6	08/09/2023	0
Downgradient	BY-AP-MW-7	08/07/2023	0
Downgradient	BY-AP-MW-8	08/07/2023	0
Downgradient	BY-AP-MW-9	08/07/2023	0

Notes:

1. "J" indicates the result was detected above the MDL but below the PQL
2. "<" indicates the result was not detected above the MDL and is considered a non-detect.
3. U - Radium data is a combination of radium isotopes 226 and 228. When results are reported below the MDC (Minimum Detectable Concentration), data is displayed with an accompanying U. The MDC varies depending upon the sample amount and elapsed time of the measurement.
4. DO - Dissolved Oxygen, ORP - Oxidation Reduction Potential, TDS - Total Dissolved Solids.
5. mg/L - milligrams per liter, mv - millivolts, NTU - nephelometric turbidity unit, C - celsius, SU - standard unit, uS/cm - microseimens per centimeter, pCi/L - picocuries per liter.
6. NC = value not detected with alkalinity calculation

Table 7. Second Semi-Annual Monitoring Event

Analytical Results Summary Plant Barry Ash Pond 08/07/2023 - 08/16/2023

General Chemistry and MNA Parameters										
Hydraulic Location	Well	Sample Date	Chloride mg/L	Nitrate Nitrite mg/L as N	Sulfate mg/L	Aluminum mg/L	Calcium mg/L	Iron Total mg/L	Potassium mg/L	Magnesium Total mg/L
Vert. Delineation	BY-AP-MW-10V	08/07/2023	24.1	<0.2	17.9	<0.009135	85	102	2.43	12.4
Vert. Delineation	BY-AP-MW-12V	08/08/2023	22.8	<0.2	110	0.089	19.7	85	2.52	15
Vert. Delineation	BY-AP-MW-13V	08/09/2023	60	<0.2	34.1	0.0717	13.1	50.7	3.28	7.21
Vert. Delineation	BY-AP-MW-14V	08/09/2023	158	<0.2	36.3	0.0544	6.47	26.4	2.55	3.3
Vert. Delineation	BY-AP-MW-15V	08/08/2023	183	<0.2	3.44	0.0655	7.43	52.2	3.26	5.45
Vert. Delineation	BY-AP-MW-16V	08/07/2023	53.6	<0.2	30.5	0.245	1.86	3.97	1.74	1.86
Vert. Delineation	BY-AP-MW-17V	08/08/2023	725	<0.2	59.7	0.389	60.9	0.808	8.23	38.7
Vert. Delineation	BY-AP-MW-1V	08/09/2023	80	<0.2	20.3	0.0266 J	2.37	0.489	1.95	1.35
Vert. Delineation	BY-AP-MW-20V	08/08/2023	400	<0.2	63.4	0.466	29.1	105	4.94	29.2
Vert. Delineation	BY-AP-MW-23V	08/08/2023	690	<0.2	35	<0.009135	58.4	38.8	8.12	38.7
Vert. Delineation	BY-AP-MW-25V	08/08/2023	3.6	<0.2	2.47	0.0142 J	0.669	0.0449	0.828	0.382 J
Vert. Delineation	BY-AP-MW-5V	08/07/2023	35.9	<0.2	7.84	0.00958 J	1.78	0.138	1.74	1.38
Vert. Delineation	BY-AP-MW-7V	08/07/2023	39.5	0.453	54.7	0.078	21.9	0.288	5.83	7.76
Vert. Delineation	BY-AP-MW-8V	08/07/2023	22.7	<0.2	50.7	0.717	20.4	0.756	2.49	4.79
Horiz. Delineation	BY-AP-MW-17H	08/08/2023	18.2	<0.2	14.4	0.0981	10.2	83.6	1.4	5.24
Horiz. Delineation	BY-AP-MW-18H	08/08/2023	5.79	<0.2	43.3	0.0297 J	4.75	17.9	0.606	1.77
Horiz. Delineation	BY-AP-MW-19H	08/08/2023	16.9	<0.2	18.3	<0.009135	30.7	123	1.19	8.9
Horiz. Delineation	BY-AP-MW-20H	08/08/2023	32.6	<0.2	84.1	0.115	25.5	56.8	3.39	17.7
Horiz. Delineation	BY-AP-MW-22H	08/08/2023	51.2	<0.2	214	0.0166 J	13.4	75.4	2.19	13.5
Horiz. Delineation	BY-AP-MW-23H	08/08/2023	7.97	<0.2	14	0.0207 J	21.6	51.1	1.03	6.51

Notes:

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2. "<" indicates the result was not detected above the MDL and is considered a non-detect.
3. U - Radium data is a combination of radium isotopes 226 and 228. When results are reported below the MDC (Minimum Detectable Concentration), data is displayed with an accompanying U. The MDC varies depending upon the sample amount and elapsed time of the measurement.
4. DO - Dissolved Oxygen, ORP - Oxidation Reduction Potential, TDS - Total Dissolved Solids.
5. mg/L - milligrams per liter, mv - millivolts, NTU - nephelometric turbidity unit, C - celsius, SU - standard unit, uS/cm - microseimens per centimeter, pCi/L - picocuries per liter.
6. NC = value not detected with alkalinity calculation

Table 7. Second Semi-Annual Monitoring Event

Analytical Results Summary Plant Barry Ash Pond 08/07/2023 - 08/16/2023

General Chemistry and MNA Parameters										
Hydraulic Location	Well	Sample Date	Manganese Total mg/L	Sodium mg/L	Silica mg/L	Silicon mg/L	Carbon, Total Organic mg/L	Alkalinity Total as CaCO3 mg CaCO3/L	Carbonate Alkalinity as CaCO3 mg CaCO3/L	Bicarbonate Alkalinity as CaCO3 mg CaCO3/L
Vert. Delineation	BY-AP-MW-10V	08/07/2023	0.77	30.2	29.1	13.6	10.7	292	NC	292
Vert. Delineation	BY-AP-MW-12V	08/08/2023	1.18	48.9	14.2	6.65	15.8	213	NC	213
Vert. Delineation	BY-AP-MW-13V	08/09/2023	0.796	75.7	15.4	7.21	17.3	151	NC	151
Vert. Delineation	BY-AP-MW-14V	08/09/2023	0.35	165	15.1	7.06	4.17	154	NC	154
Vert. Delineation	BY-AP-MW-15V	08/08/2023	1.08	89.1	17.1	7.99	<1	20.7	NC	20.7
Vert. Delineation	BY-AP-MW-16V	08/07/2023	0.159	54.8	13.2	6.16	<1	24.1	NC	24.1
Vert. Delineation	BY-AP-MW-17V	08/08/2023	2.04	564	12	5.61	<1	109	NC	109
Vert. Delineation	BY-AP-MW-1V	08/09/2023	0.073	79.3	14.1	6.57	<1	36.8	NC	36.8
Vert. Delineation	BY-AP-MW-20V	08/08/2023	2.66	240	13.8	6.47	8.8	153	NC	153
Vert. Delineation	BY-AP-MW-23V	08/08/2023	1.75	398	16.8	7.85	5.14	134	NC	134
Vert. Delineation	BY-AP-MW-25V	08/08/2023	0.00478	4.97	13.6	6.37	<1	8.55	NC	8.55
Vert. Delineation	BY-AP-MW-5V	08/07/2023	0.00159	55.3	11.7	5.49	<1	63	NC	62.9
Vert. Delineation	BY-AP-MW-7V	08/07/2023	0.0101	53.1	6.76	3.16	1.46 J	90.9	1.63	89.2
Vert. Delineation	BY-AP-MW-8V	08/07/2023	0.012	43.8	11.5	5.37	2.9	78.5	1.23	77.2
Horiz. Delineation	BY-AP-MW-17H	08/08/2023	0.342	20.1	13.8	6.45	6.22	119	NC	119
Horiz. Delineation	BY-AP-MW-18H	08/08/2023	0.257	7.39	9.35	4.37	2.65	16.5	NC	16.5
Horiz. Delineation	BY-AP-MW-19H	08/08/2023	1.8	19.4	33	15.4	9.47	207	NC	207
Horiz. Delineation	BY-AP-MW-20H	08/08/2023	0.472	105	16.8	7.85	29.2	312	NC	312
Horiz. Delineation	BY-AP-MW-22H	08/08/2023	0.494	78.2	19.3	9.01	17.6	182	NC	182
Horiz. Delineation	BY-AP-MW-23H	08/08/2023	0.876	18.9	32.7	15.3	5.1	156	NC	156

Notes:

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5. mg/L - milligrams per liter, mv - millivolts, NTU - nephelometric turbidity unit, C - celsius, SU - standard unit, uS/cm - microseimens per centimeter, pCi/L - picocuries per liter.
6. NC = value not detected with alkalinity calculation

Table 7. Second Semi-Annual Monitoring Event

Analytical Results Summary
Plant Barry Ash Pond
08/07/2023 - 08/16/2023

General Chemistry and MNA Parameters			
Hydraulic Location	Well	Sample Date	Sulfide mg/L
Vert. Delineation	BY-AP-MW-10V	08/07/2023	0
Vert. Delineation	BY-AP-MW-12V	08/08/2023	0
Vert. Delineation	BY-AP-MW-13V	08/09/2023	0
Vert. Delineation	BY-AP-MW-14V	08/09/2023	0
Vert. Delineation	BY-AP-MW-15V	08/08/2023	0
Vert. Delineation	BY-AP-MW-16V	08/07/2023	0
Vert. Delineation	BY-AP-MW-17V	08/08/2023	0
Vert. Delineation	BY-AP-MW-1V	08/09/2023	0
Vert. Delineation	BY-AP-MW-20V	08/08/2023	0
Vert. Delineation	BY-AP-MW-23V	08/08/2023	0
Vert. Delineation	BY-AP-MW-25V	08/08/2023	0
Vert. Delineation	BY-AP-MW-5V	08/07/2023	0
Vert. Delineation	BY-AP-MW-7V	08/07/2023	0
Vert. Delineation	BY-AP-MW-8V	08/07/2023	0
Horiz. Delineation	BY-AP-MW-17H	08/08/2023	0
Horiz. Delineation	BY-AP-MW-18H	08/08/2023	0
Horiz. Delineation	BY-AP-MW-19H	08/08/2023	0
Horiz. Delineation	BY-AP-MW-20H	08/08/2023	0
Horiz. Delineation	BY-AP-MW-22H	08/08/2023	0
Horiz. Delineation	BY-AP-MW-23H	08/08/2023	0

Notes:

- "J" indicates the result was detected above the MDL but below the PQL
- "<" indicates the result was not detected above the MDL and is considered a non-detect.
- U - Radium data is a combination of radium isotopes 226 and 228. When results are reported below the MDC (Minimum Detectable Concentration), data is displayed with an accompanying U. The MDC varies depending upon the sample amount and elapsed time of the measurement.
- DO - Dissolved Oxygen, ORP - Oxidation Reduction Potential, TDS - Total Dissolved Solids.
- mg/L - milligrams per liter, mv - millivolts, NTU - nephelometric turbidity unit, C - celsius, SU - standard unit, uS/cm - microseimens per centimeter, pCi/L - picocuries per liter.
- NC = value not detected with alkalinity calculation

Table 7. Second Semi-Annual Monitoring Event

**Analytical Results Summary
Plant Barry Ash Pond
08/07/2023 - 08/16/2023**

General Chemistry and MNA Parameters										
Hydraulic Location	Well	Sample Date	Chloride mg/L	Nitrate Nitrite mg/L as N	Sulfate mg/L	Aluminum mg/L	Calcium mg/L	Iron Total mg/L	Potassium mg/L	Magnesium Total mg/L
Horiz. Delineation	BY-AP-MW-24H	08/08/2023	45.1	<0.2	253	0.0528	16	118	2.59	16.5
Horiz. Delineation	BY-AP-MW-25H	08/08/2023	5.99	<0.2	4.88	0.0109 J	0.967	0.0224 J	0.976	0.792

Notes:

1. "J" indicates the result was detected above the MDL but below the PQL
2. "<" indicates the result was not detected above the MDL and is considered a non-detect.
3. U - Radium data is a combination of radium isotopes 226 and 228. When results are reported below the MDC (Minimum Detectable Concentration), data is displayed with an accompanying U. The MDC varies depending upon the sample amount and elapsed time of the measurement.
4. DO - Dissolved Oxygen, ORP - Oxidation Reduction Potential, TDS - Total Dissolved Solids.
5. mg/L - milligrams per liter, mv - millivolts, NTU - nephelometric turbidity unit, C - celsius, SU - standard unit, uS/cm - microseimens per centimeter, pCi/L - picocuries per liter.
6. NC = value not detected with alkalinity calculation

Table 7. Second Semi-Annual Monitoring Event

Analytical Results Summary Plant Barry Ash Pond 08/07/2023 - 08/16/2023

General Chemistry and MNA Parameters										
Hydraulic Location	Well	Sample Date	Manganese Total mg/L	Sodium mg/L	Silica mg/L	Silicon mg/L	Carbon, Total Organic mg/L	Alkalinity Total as CaCO3 mg CaCO3/L	Carbonate Alkalinity as CaCO3 mg CaCO3/L	Bicarbonate Alkalinity as CaCO3 mg CaCO3/L
Horiz. Delineation	BY-AP-MW-24H	08/08/2023	0.256	87.9	23.5	11	28.8	244	NC	244
Horiz. Delineation	BY-AP-MW-25H	08/08/2023	0.00357	6.54	15.9	7.45	<1	6.96	NC	6.95

Notes:

1. "J" indicates the result was detected above the MDL but below the PQL
2. "<" indicates the result was not detected above the MDL and is considered a non-detect.
3. U - Radium data is a combination of radium isotopes 226 and 228. When results are reported below the MDC (Minimum Detectable Concentration), data is displayed with an accompanying U. The MDC varies depending upon the sample amount and elapsed time of the measurement.
4. DO - Dissolved Oxygen, ORP - Oxidation Reduction Potential, TDS - Total Dissolved Solids.
5. mg/L - milligrams per liter, mv - millivolts, NTU - nephelometric turbidity unit, C - celsius, SU - standard unit, uS/cm - microseimens per centimeter, pCi/L - picocuries per liter.
6. NC = value not detected with alkalinity calculation

Table 7. Second Semi-Annual Monitoring Event

Analytical Results Summary
Plant Barry Ash Pond
08/07/2023 - 08/16/2023

General Chemistry and MNA Parameters			
Hydraulic Location	Well	Sample Date	Sulfide mg/L
Horiz. Delineation	BY-AP-MW-24H	08/08/2023	0
Horiz. Delineation	BY-AP-MW-25H	08/08/2023	0

Notes:

1. "J" indicates the result was detected above the MDL but below the PQL
2. "<" indicates the result was not detected above the MDL and is considered a non-detect.
3. U - Radium data is a combination of radium isotopes 226 and 228. When results are reported below the MDC (Minimum Detectable Concentration), data is displayed with an accompanying U. The MDC varies depending upon the sample amount and elapsed time of the measurement.
4. DO - Dissolved Oxygen, ORP - Oxidation Reduction Potential, TDS - Total Dissolved Solids.
5. mg/L - milligrams per liter, mv - millivolts, NTU - nephelometric turbidity unit, C - celsius, SU - standard unit, uS/cm - microseimens per centimeter, pCi/L - picocuries per liter.
6. NC = value not detected with alkalinity calculation

Appendix A



ANALYTICAL DATA SUMMARY
Ash Pond (02/23/2016 - 08/16/2023)
APC Plant Barry
Mobile County Alabama

Analyte	Units	BY-AP-MW-1									
		03/02/2016	04/19/2016	06/08/2016	08/31/2016	10/19/2016	01/31/2017	03/21/2017	05/02/2017	06/06/2017	09/13/2017
Appendix III											
Boron	mg/L	2.03	2.2	1.61	1.55	1.59	1.84	--	1.73	1.56	1.87
Calcium	mg/L	46.5	49	33.5	34.2	35.1	38.5	--	35.1	32.4	40.5
Chloride	mg/L	2.18	9.01	21	21	21.4	--	25	26	27	24
Fluoride	mg/L	0.03 J	0.052 J	0.069 J	0.043 J	<0.01	--	0.04 J	0.05 J	0.049 J	0.06 J
pH_Field	SU	5.78	5.8	5.83	5.85	5.87	5.83	5.83	5.73	5.83	5.91
Sulfate	mg/L	0.31 J	0.335 J	0.556 J	<0.3	<0.3	--	5	6	<1.4	4.7 J
TDS	mg/L	426	442	461	456	444	422	--	442	433	456
Appendix IV											
Antimony	mg/L	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	0.000687 J	--	<0.0006	<0.0006	--
Arsenic	mg/L	0.076	0.0973	0.0605	0.0687	0.0701	0.0669	--	0.0672	0.0527	--
Barium	mg/L	0.219	0.201	0.274	0.296	0.281	0.211	--	0.29	0.25	--
Beryllium	mg/L	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	--	<0.0006	<0.0006	--
Cadmium	mg/L	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	--	<0.0002	<0.0002	--
Chromium	mg/L	0.00591 J	0.0077 J	0.00264 J	0.00246 J	0.00248 J	0.00556 J	--	0.00269 J	0.00295 J	--
Cobalt	mg/L	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	--	<0.002	<0.002	--
Combined Radium 226 + 228	pCi/L	1 U	3.0268	1.59	2.19	--	1.23	--	1.62	1.24	--
Fluoride	mg/L	0.03 J	0.052 J	0.069 J	0.043 J	<0.01	--	0.04 J	0.05 J	0.049 J	0.06 J
Lead	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.001	--
Lithium	mg/L	<0.1	<0.01	<0.01	<0.01	<0.01	<0.01	--	<0.01	<0.01	--
Mercury	mg/L	<0.00025	<0.00025	<0.00025	<0.00025	<0.00025	<0.00025	--	<0.00025	<0.00025	--
Molybdenum	mg/L	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	--	<0.002	<0.002	--
Selenium	mg/L	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	--	<0.002	<0.002	--
Thallium	mg/L	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	--	<0.0002	<0.0002	--

Notes:

1. mg/L - Milligrams per Liter
2. pCi/L - picocuries per Liter
3. J - Result is an estimated value. The result is greater than or equal to the Method Detection Limit (MDL) and less than the Practical Quantita



ANALYTICAL DATA SUMMARY
Ash Pond (02/23/2016 - 08/16/2023)
APC Plant Barry
Mobile County Alabama

Analyte	Units	BY-AP-MW-1									
		01/24/2018	05/01/2018	11/28/2018	05/29/2019	10/01/2019	03/30/2020	09/01/2020	05/12/2021	05/18/2021	11/01/2021
Appendix III											
Boron	mg/L	--	1.81	1.8	1.75	1.91	1.77	2.11	--	1.99	2.02
Calcium	mg/L	--	39.7	35.8	33.4	36.7	33.7	40.5	--	39.5	37.7
Chloride	mg/L	--	25	26	27.6	24.6	24.9	25.7	--	25.1	26.2
Fluoride	mg/L	0.05 J	0.05 J	<0.032	0.0858 J	0.0744 J	0.0726 J	0.194	--	0.0884 J	0.181
pH_Field	SU	5.9	5.83	5.82	5.82	5.47	5.79	5.89	--	5.86	6.01
Sulfate	mg/L	--	<1.4	4.1 J	5.75	7.82	28.4	23.1	--	16.5	10.9
TDS	mg/L	--	416	408	403	430	419	454	--	450	451
Appendix IV											
Antimony	mg/L	<0.0006	<0.0006	<0.0008	<0.0008	<0.0008	<0.0008	<0.0008	--	<0.000507	<0.000508
Arsenic	mg/L	0.07	0.0777	0.0677	0.0555	0.0635	0.0557	0.0811	--	0.0687	0.0694
Barium	mg/L	0.289	0.28	0.271	0.29	0.293	0.279	0.33	--	0.339	0.322
Beryllium	mg/L	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	--	<0.000406	<0.000406
Cadmium	mg/L	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	--	<6.8e-005	<6.8e-005
Chromium	mg/L	0.00278 J	0.00435 J	0.0036 J	0.00223 J	0.00236 J	0.00415 J	0.00242 J	--	0.00294	0.00244
Cobalt	mg/L	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	--	0.000996	0.000928
Combined Radium 226 + 228	pCi/L	1.96 U	1.6	1.48	2.25	2.84	2.31	1.3	0.639 U	2.99	2.22
Fluoride	mg/L	0.05 J	0.05 J	<0.032	0.0858 J	0.0744 J	0.0726 J	0.194	--	0.0884 J	0.181
Lead	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	--	<6.8e-005	<6.8e-005
Lithium	mg/L	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	--	<0.007105	<0.007105
Mercury	mg/L	<0.00025	<0.00025	<0.00025	<0.0003	<0.0003	<0.0003	<0.0003	--	<0.0003	<0.0003
Molybdenum	mg/L	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	--	0.000106 J	9.01e-005 J
Selenium	mg/L	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	--	<0.000507	<0.000508
Thallium	mg/L	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	--	<6.8e-005	<6.8e-005

Notes:

1. mg/L - Milligrams per Liter
2. pCi/L - picocuries per Liter
3. J - Result is an estimated value. The result is greater than or equal to the Method Detection Limit (MDL) and less than the Practical Quantita



ANALYTICAL DATA SUMMARY
Ash Pond (02/23/2016 - 08/16/2023)
APC Plant Barry
Mobile County Alabama

Analyte	Units	BY-AP-MW-1				BY-UP-MW-1					
		05/24/2022	11/02/2022	04/03/2023	08/08/2023	02/23/2016	04/19/2016	06/06/2016	08/30/2016	10/18/2016	01/31/2017
Appendix III											
Boron	mg/L	2.08	1.92	2.04	1.37	0.0212 J	<0.02	<0.02	<0.02	<0.02	<0.02
Calcium	mg/L	43.9	38.9	36.9	30.7	1.28	1.19	1.19	1.11	1.04	1.19
Chloride	mg/L	28.7	25.1	23.7	21	3.59	2.89	3.12	3.91	3.9	--
Fluoride	mg/L	0.0801 J	0.0665 J	0.0717 J	0.0612 J	0.03 J	0.023 J	0.062 J	0.053 J	0.042 J	--
pH_Field	SU	5.44	5.56	5.78	5.74	4.62	4.74	4.65	4.64	4.74	4.54
Sulfate	mg/L	21	12.1	34.2	3.92	8.59	8.27	8.66	9.74	10.2	--
TDS	mg/L	409	404	400	394	26.7	--	32.7	33.3	27.3	32
Appendix IV											
Antimony	mg/L	<0.000508	<0.000508	<0.00071	<0.00071	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	0.000925 J
Arsenic	mg/L	0.0767	0.0682	0.068	0.0491	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Barium	mg/L	0.343	0.279	0.226	0.247	0.117	0.099	0.107	0.106	0.102	0.0944
Beryllium	mg/L	<0.000406	<0.000406	<0.000406	<0.000406	<0.0006	<0.0006	0.000612 J	<0.0006	<0.0006	<0.0006
Cadmium	mg/L	<6.8e-005	<6.8e-005	<6.8e-005	<6.8e-005	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Chromium	mg/L	0.00238	0.00371	0.00638	0.00338	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Cobalt	mg/L	0.000914	0.00102	0.00133	0.000874	0.0035 J	0.0038 J	0.00427 J	0.00348 J	0.00338 J	0.00308 J
Combined Radium 226 + 228	pCi/L	2.12	1.96	1.84	1.6	2.8971 U	1 U	0.841	1.74	1.47	0.952
Fluoride	mg/L	0.0801 J	0.0665 J	0.0717 J	0.0612 J	0.03 J	0.023 J	0.062 J	0.053 J	0.042 J	--
Lead	mg/L	<6.8e-005	9.22e-005 J	0.000122 J	0.00017 J	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Lithium	mg/L	<0.007105	<0.007105	<0.007105	<0.007105	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Mercury	mg/L	<0.0003	<0.0003	<0.0003	<0.0003	<0.00025	<0.00025	<0.00025	<0.00025	<0.00025	<0.00025
Molybdenum	mg/L	<0.000102	<0.000102	<0.005075	<0.005075	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Selenium	mg/L	<0.000508	<0.000508	<0.000508	<0.000508	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Thallium	mg/L	<6.8e-005	<6.8e-005	<6.8e-005	<6.8e-005	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002

Notes:

1. mg/L - Milligrams per Liter
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3. J - Result is an estimated value. The result is greater than or equal to the Method Detection Limit (MDL) and less than the Practical Quantita



ANALYTICAL DATA SUMMARY
Ash Pond (02/23/2016 - 08/16/2023)
APC Plant Barry
Mobile County Alabama

Analyte	Units	BY-UP-MW-1									
		03/20/2017	05/02/2017	06/06/2017	09/13/2017	01/23/2018	05/02/2018	11/27/2018	05/29/2019	10/02/2019	03/31/2020
Appendix III											
Boron	mg/L	--	<0.02	<0.02	<0.02	--	0.0362 J	0.11	0.188	0.097 J	0.157
Calcium	mg/L	--	1.05	0.978	1.14	--	1.64	2.01	1.85	1.55	1.96
Chloride	mg/L	3.5	3.5	3.1	4	--	9.9	4.7	5.48	3.65	3.17
Fluoride	mg/L	<0.032	0.04 J	0.1	0.04 J	<0.032	0.04 J	<0.032	0.0502 J	<0.05	<0.06
pH_Field	SU	4.67	4.79	4.76	4.81	4.79	4.62	4.73	4.65	4.57	4.64
Sulfate	mg/L	8.3	6.6	7.6	8.4	--	5.9	22	23.3	17.5	24.3
TDS	mg/L	--	31.3	35.3	36.7	--	34	50.7	58	46	53.3
Appendix IV											
Antimony	mg/L	--	<0.0006	<0.0006	--	<0.0006	<0.0006	<0.0008	<0.0008	<0.0008	<0.0008
Arsenic	mg/L	--	<0.001	<0.001	--	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Barium	mg/L	--	0.0868	0.0799	--	0.0884	0.137	0.157	0.166	0.129	0.176
Beryllium	mg/L	--	0.00069 J	<0.0006	--	<0.0006	<0.0006	0.000856 J	<0.0006	<0.0006	<0.0006
Cadmium	mg/L	--	<0.0002	<0.0002	--	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003
Chromium	mg/L	--	<0.002	<0.002	--	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Cobalt	mg/L	--	0.00314 J	0.0036 J	--	0.00586 J	0.00702 J	0.0157	0.0109	0.0129	0.0123
Combined Radium 226 + 228	pCi/L	--	0.768	1.04	--	0.513 U	0.916	1.37	1.57	0.905	1.77
Fluoride	mg/L	<0.032	0.04 J	0.1	0.04 J	<0.032	0.04 J	<0.032	0.0502 J	<0.05	<0.06
Lead	mg/L	--	<0.001	<0.001	--	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Lithium	mg/L	--	<0.01	<0.01	--	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Mercury	mg/L	--	<0.00025	<0.00025	--	<0.00025	<0.00025	<0.00025	<0.0003	<0.0003	<0.0003
Molybdenum	mg/L	--	<0.002	<0.002	--	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Selenium	mg/L	--	<0.002	<0.002	--	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Thallium	mg/L	--	<0.0002	<0.0002	--	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002

Notes:

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3. J - Result is an estimated value. The result is greater than or equal to the Method Detection Limit (MDL) and less than the Practical Quantita



ANALYTICAL DATA SUMMARY
Ash Pond (02/23/2016 - 08/16/2023)
APC Plant Barry
Mobile County Alabama

Analyte	Units	BY-UP-MW-1							BY-AP-MW-2		
		09/09/2020	05/12/2021	10/19/2021	05/31/2022	11/01/2022	04/12/2023	08/16/2023	03/02/2016	04/19/2016	06/08/2016
Appendix III											
Boron	mg/L	0.0999 J	0.0841 J	0.0708 J	0.0567 J	0.0501 J	0.0464 J	0.0364 J	<0.02	<0.02	<0.02
Calcium	mg/L	1.43	1.34	1.17	1.14	1.01	1.02	0.816	3.86	3.22	3.17
Chloride	mg/L	2.92	2.18	2.37	1.93	2.37	2.31	2.61	6.08	6.2	6.2
Fluoride	mg/L	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	0.04 J	0.038 J	0.067 J
pH_Field	SU	4.65	4.74	4.67	3.89	4.6	4.77	4.45	6.08	5.92	5.9
Sulfate	mg/L	16.5	16.3	15.5	12.8	11.3	11.8	9.38	3.3	2.68	1.1
TDS	mg/L	42	40.7	40	32	33.3	--	29.3	42	51.3	46.7
Appendix IV											
Antimony	mg/L	<0.0008	<0.000507	<0.000508	<0.000508	<0.000508	<0.00071	<0.00071	<0.0006	<0.0006	<0.0006
Arsenic	mg/L	<0.001	0.000336	0.000346	0.000237	0.000345	0.00023	0.000134 J	0.00263 J	0.00247 J	0.0023 J
Barium	mg/L	0.124	0.123	0.103	0.1	0.0804	0.082	0.0689	0.0285	0.0268	0.0248
Beryllium	mg/L	<0.0006	0.000694 J	<0.000406	<0.000406	<0.000406	<0.000406	<0.000406	<0.0006	<0.0006	<0.0006
Cadmium	mg/L	<0.0003	<6.8e-005	<6.8e-005	<6.8e-005	<6.8e-005	<6.8e-005	<6.8e-005	<0.0002	<0.0002	<0.0002
Chromium	mg/L	<0.002	0.000296 J	0.000301 J	0.000334 J	0.000212 J	0.000215 J	0.000205 J	<0.002	<0.002	<0.002
Cobalt	mg/L	0.00697	0.00611	0.00517	0.00487	0.00394	0.00398	0.0034	0.00842 J	0.008 J	0.00796 J
Combined Radium 226 + 228	pCi/L	1.77	0.639 U	1.77	1.34	1.11	1.03 U	0.516 U	1 U	1 U	0.121 U
Fluoride	mg/L	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	0.04 J	0.038 J	0.067 J
Lead	mg/L	<0.001	9.79e-005 J	0.000115 J	8.38e-005 J	0.00017 J	7.57e-005 J	<6.8e-005	<0.001	<0.001	<0.001
Lithium	mg/L	<0.01	<0.007105	<0.007105	<0.007105	<0.007105	<0.007105	<0.007105	<0.01	<0.01	<0.01
Mercury	mg/L	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.00025	<0.00025	<0.00025
Molybdenum	mg/L	<0.002	<6.8e-005	<6.8e-005	<0.000102	<0.000102	<0.005075	<0.005075	<0.002	<0.002	<0.002
Selenium	mg/L	<0.002	<0.000507	<0.000508	<0.000508	<0.000508	<0.000508	<0.000508	<0.002	<0.002	<0.002
Thallium	mg/L	<0.0002	<6.8e-005	<6.8e-005	<6.8e-005	<6.8e-005	<6.8e-005	<6.8e-005	<0.0002	<0.0002	<0.0002

Notes:

1. mg/L - Milligrams per Liter
2. pCi/L - picocuries per Liter
3. J - Result is an estimated value. The result is greater than or equal to the Method Detection Limit (MDL) and less than the Practical Quantita



ANALYTICAL DATA SUMMARY
Ash Pond (02/23/2016 - 08/16/2023)
APC Plant Barry
Mobile County Alabama

Analyte	Units	BY-AP-MW-2									
		08/31/2016	10/19/2016	01/31/2017	03/21/2017	05/02/2017	06/06/2017	09/12/2017	01/24/2018	05/01/2018	11/27/2018
Appendix III											
Boron	mg/L	<0.02	<0.02	<0.02	--	<0.02	<0.02	<0.02	--	<0.02	<0.02
Calcium	mg/L	3.07	2.91	2.94	--	2.82	2.79	2.88	--	2.82	2.8
Chloride	mg/L	6.51	6.85	--	7.2	8.3	8.5	8.6	--	7.6	8.8
Fluoride	mg/L	0.05 J	<0.01	--	0.1	0.04 J	0.04 J	0.037 J	<0.032	<0.032	<0.032
pH_Field	SU	5.87	5.82	5.87	5.85	5.61	5.82	5.61	5.83	5.8	5.71
Sulfate	mg/L	<0.3	<0.3	--	5	<1.4	<1.4	<1.4	--	<1.4	<1.4
TDS	mg/L	32.7	37.3	47.3	--	44	48	40.7	--	42.7	48
Appendix IV											
Antimony	mg/L	<0.0006	<0.0006	0.000739 J	--	<0.0006	<0.0006	--	<0.0006	<0.0006	<0.0008
Arsenic	mg/L	0.00237 J	0.00241 J	0.00185 J	--	0.00194 J	0.00175 J	--	0.00158 J	0.00166 J	0.00144 J
Barium	mg/L	0.026	0.0247	0.0228	--	0.0257	0.0219	--	0.0229	0.0279	0.0249
Beryllium	mg/L	<0.0006	<0.0006	<0.0006	--	<0.0006	<0.0006	--	<0.0006	<0.0006	<0.0006
Cadmium	mg/L	<0.0002	<0.0002	<0.0002	--	<0.0002	<0.0002	--	<0.0003	<0.0003	<0.0003
Chromium	mg/L	<0.002	<0.002	<0.002	--	<0.002	<0.002	--	<0.002	<0.002	<0.002
Cobalt	mg/L	0.00752 J	0.00778 J	0.00647 J	--	0.00686 J	0.00694 J	--	0.00592 J	0.00693 J	0.0066
Combined Radium 226 + 228	pCi/L	0.348 U	0.48	0.00333 U	--	0.4 U	0.083 U	--	0.404 U	0.457	0.359 U
Fluoride	mg/L	0.05 J	<0.01	--	0.1	0.04 J	0.04 J	0.037 J	<0.032	<0.032	<0.032
Lead	mg/L	<0.001	<0.001	<0.001	--	<0.001	<0.001	--	<0.001	<0.001	<0.001
Lithium	mg/L	<0.01	<0.01	<0.01	--	<0.01	<0.01	--	<0.01	<0.01	<0.01
Mercury	mg/L	<0.00025	<0.00025	<0.00025	--	<0.00025	<0.00025	--	<0.00025	<0.00025	<0.00025
Molybdenum	mg/L	<0.002	<0.002	<0.002	--	<0.002	<0.002	--	<0.002	<0.002	<0.002
Selenium	mg/L	<0.002	<0.002	<0.002	--	<0.002	<0.002	--	<0.002	<0.002	<0.002
Thallium	mg/L	<0.0002	<0.0002	<0.0002	--	<0.0002	<0.0002	--	<0.0002	<0.0002	<0.0002

Notes:

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ANALYTICAL DATA SUMMARY
Ash Pond (02/23/2016 - 08/16/2023)
APC Plant Barry
Mobile County Alabama

Analyte	Units	BY-AP-MW-2									
		05/29/2019	10/01/2019	03/31/2020	08/31/2020	05/11/2021	05/18/2021	11/01/2021	05/24/2022	11/02/2022	04/03/2023
Appendix III											
Boron	mg/L	<0.03	<0.03	<0.03	<0.03	--	<0.03	<0.03	<0.03	<0.03	<0.03
Calcium	mg/L	2.82	2.94	2.95	3	--	3.17	3.13	2.45	2.03	1.79
Chloride	mg/L	8.31	8.19	8.48	8.3	--	7.89	8.16	9.21	8.49	7.35
Fluoride	mg/L	<0.05	<0.05	<0.06	<0.06	--	<0.06	<0.06	<0.06	0.0711 J	<0.06
pH_Field	SU	5.7	4.97	5.71	5.57	--	5.83	5.2	4.78	5.68	4.88
Sulfate	mg/L	0.885 J	<0.5	1.69	0.576 J	--	<0.5	1.56	0.615 J	1.17 J	1.77 J
TDS	mg/L	47.3	44.7	42	45.3	--	48.7	52	40.7	41.3	40.7
Appendix IV											
Antimony	mg/L	<0.0008	<0.0008	<0.0008	<0.0008	--	<0.000507	<0.000508	<0.000508	<0.000508	<0.00071
Arsenic	mg/L	0.00132 J	0.0014 J	0.00149 J	0.00176 J	--	0.00159	0.00191	0.00115	0.00151	0.00156
Barium	mg/L	0.0232	0.0241	0.0264	0.0275	--	0.0259	0.0247	0.0248	0.0201	0.018
Beryllium	mg/L	<0.0006	<0.0006	<0.0006	<0.0006	--	<0.000406	<0.000406	<0.000406	<0.000406	<0.000406
Cadmium	mg/L	<0.0003	<0.0003	<0.0003	<0.0003	--	<6.8e-005	<6.8e-005	<6.8e-005	<6.8e-005	<6.8e-005
Chromium	mg/L	<0.002	<0.002	<0.002	<0.002	--	0.000394 J	0.000288 J	<0.000203	0.000206 J	0.000877 J
Cobalt	mg/L	0.00745	0.00696	0.00716	0.00751	--	0.00746	0.00706	0.00582	0.00497	0.0042
Combined Radium 226 + 228	pCi/L	1.18	0.284 U	0.699	0.0265 U	0.945 U	0.72 U	0.523 U	0.732 U	0.366 U	0.24 U
Fluoride	mg/L	<0.05	<0.05	<0.06	<0.06	--	<0.06	<0.06	<0.06	0.0711 J	<0.06
Lead	mg/L	<0.001	<0.001	<0.001	<0.001	--	<6.8e-005	<6.8e-005	<6.8e-005	<6.8e-005	<6.8e-005
Lithium	mg/L	<0.01	<0.01	<0.01	<0.01	--	<0.007105	<0.007105	<0.007105	<0.007105	<0.007105
Mercury	mg/L	<0.0003	<0.0003	<0.0003	<0.0003	--	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003
Molybdenum	mg/L	<0.002	<0.002	<0.002	<0.002	--	<6.8e-005	<6.8e-005	<0.000102	<0.000102	<0.005075
Selenium	mg/L	<0.002	<0.002	<0.002	<0.002	--	<0.000507	<0.000508	<0.000508	<0.000508	<0.000508
Thallium	mg/L	<0.0002	<0.0002	<0.0002	<0.0002	--	<6.8e-005	<6.8e-005	<6.8e-005	<6.8e-005	<6.8e-005

Notes:

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ANALYTICAL DATA SUMMARY
Ash Pond (02/23/2016 - 08/16/2023)
APC Plant Barry
Mobile County Alabama

Analyte	Units	BY-AP-MW-2	BY-UP-MW-2								
		08/08/2023	02/23/2016	04/19/2016	06/07/2016	08/30/2016	10/18/2016	01/31/2017	03/20/2017	05/02/2017	06/06/2017
Appendix III											
Boron	mg/L	<0.03	0.0252 J	<0.02	0.0202 J	<0.02	<0.02	<0.02	--	<0.02	<0.02
Calcium	mg/L	1.59	1.11	1.09	1.16	1.08	1.03	1.23	--	1.28	1.25
Chloride	mg/L	7.04	3.99	4.08	4.28	4.26	4.26	--	4.1	5	3.9
Fluoride	mg/L	0.0705 J	0.02 J	0.021 J	0.06 J	0.05 J	0.04 J	--	<0.032	0.04 J	0.04 J
pH_Field	SU	4.91	4.79	4.84	4.81	4.76	4.84	4.6	4.71	4.8	4.72
Sulfate	mg/L	1.82 J	7.2	7.22	7.92	8.17	7.99	--	6.1	5	5.3
TDS	mg/L	44	30.7	--	35.3	27.3	--	32.7	--	30.7	34.7
Appendix IV											
Antimony	mg/L	<0.00071	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	0.000898 J	--	<0.0006	<0.0006
Arsenic	mg/L	0.00129	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.001
Barium	mg/L	0.0171	0.111	0.0875	0.0979	0.108	0.103	0.109	--	0.125	0.108
Beryllium	mg/L	<0.000406	<0.0006	<0.0006	0.00093 J	<0.0006	<0.0006	<0.0006	--	<0.0006	<0.0006
Cadmium	mg/L	<6.8e-005	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	--	<0.0002	<0.0002
Chromium	mg/L	0.000301 J	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	--	<0.002	<0.002
Cobalt	mg/L	0.00386	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	--	<0.002	<0.002
Combined Radium 226 + 228	pCi/L	0.497 U	1 U	1 U	0.652	0.411 U	1	0.398 U	--	0.66	0.639
Fluoride	mg/L	0.0705 J	0.02 J	0.021 J	0.06 J	0.05 J	0.04 J	--	<0.032	0.04 J	0.04 J
Lead	mg/L	<6.8e-005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.001
Lithium	mg/L	<0.007105	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	--	<0.01	<0.01
Mercury	mg/L	<0.0003	<0.00025	<0.00025	<0.00025	<0.00025	<0.00025	<0.00025	--	<0.00025	<0.00025
Molybdenum	mg/L	<0.005075	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	--	<0.002	<0.002
Selenium	mg/L	<0.000508	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	--	<0.002	<0.002
Thallium	mg/L	<6.8e-005	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	--	<0.0002	<0.0002

Notes:

1. mg/L - Milligrams per Liter
2. pCi/L - picocuries per Liter
3. J - Result is an estimated value. The result is greater than or equal to the Method Detection Limit (MDL) and less than the Practical Quantita



ANALYTICAL DATA SUMMARY
Ash Pond (02/23/2016 - 08/16/2023)
APC Plant Barry
Mobile County Alabama

Analyte	Units	BY-UP-MW-2									
		09/13/2017	01/23/2018	05/01/2018	11/27/2018	05/29/2019	10/02/2019	03/31/2020	09/09/2020	05/11/2021	10/19/2021
Appendix III											
Boron	mg/L	<0.02	--	<0.02	0.0207 J	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03
Calcium	mg/L	1.6	--	1.58	1.49	1.59	1.7	1.43	1.5	1.39	1.32
Chloride	mg/L	4.3	--	3.7	3.2	2.93	2.75	2.72	2.32	2.16	2.08
Fluoride	mg/L	0.043 J	0.04 J	0.04 J	<0.032	<0.05	<0.05	<0.06	<0.06	<0.06	<0.06
pH_Field	SU	4.71	4.67	4.61	4.72	4.58	4.43	4.6	4.67	4.29	4.6
Sulfate	mg/L	4.9 J	--	4.2 J	3.7 J	5.94	6.04	6.83	6.08	7.92	7.48
TDS	mg/L	39.3	--	42	31.3	40	41.3	40	40.7	35.3	36
Appendix IV											
Antimony	mg/L	--	<0.0006	<0.0006	<0.0008	<0.0008	<0.0008	<0.0008	<0.0008	<0.000507	<0.000508
Arsenic	mg/L	--	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.000136 J	0.000122 J
Barium	mg/L	--	0.153	0.167	0.158	0.172	0.183	0.171	0.172	0.165	0.145
Beryllium	mg/L	--	<0.0006	<0.0006	0.000801 J	<0.0006	<0.0006	<0.0006	<0.0006	<0.000406	<0.000406
Cadmium	mg/L	--	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<6.8e-005	<6.8e-005
Chromium	mg/L	--	0.00596 J	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	0.00136	0.00135
Cobalt	mg/L	--	0.0021 J	<0.002	0.00209 J	0.00248 J	0.00244 J	0.00224 J	0.00219 J	0.00194	0.00192
Combined Radium 226 + 228	pCi/L	--	0.669 U	1.06	0.636	0.579 U	1.33	0.814	0.653 U	0.945 U	1.85
Fluoride	mg/L	0.043 J	0.04 J	0.04 J	<0.032	<0.05	<0.05	<0.06	<0.06	<0.06	<0.06
Lead	mg/L	--	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.000118 J	0.0001 J
Lithium	mg/L	--	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.007105	<0.007105
Mercury	mg/L	--	<0.00025	<0.00025	<0.00025	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003
Molybdenum	mg/L	--	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<6.8e-005	<6.8e-005
Selenium	mg/L	--	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	0.000602 J	<0.000508
Thallium	mg/L	--	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<6.8e-005	<6.8e-005

Notes:

1. mg/L - Milligrams per Liter
2. pCi/L - picocuries per Liter
3. J - Result is an estimated value. The result is greater than or equal to the Method Detection Limit (MDL) and less than the Practical Quantita



ANALYTICAL DATA SUMMARY
Ash Pond (02/23/2016 - 08/16/2023)
APC Plant Barry
Mobile County Alabama

Analyte	Units	BY-UP-MW-2				BY-AP-MW-3					
		05/31/2022	11/01/2022	04/12/2023	08/16/2023	03/02/2016	04/19/2016	06/07/2016	08/31/2016	10/19/2016	01/31/2017
Appendix III											
Boron	mg/L	<0.03	<0.03	<0.03	<0.03	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Calcium	mg/L	1.24	1.23	1.16	1.03	1.11	1.01	1.06	0.978	0.906	1.04
Chloride	mg/L	2.17	2.22	2.25	2.01	8.04	7.6	7.7	7.7	7.73	--
Fluoride	mg/L	<0.06	<0.06	<0.06	<0.06	0.01 J	0.014 J	0.049 J	0.034 J	0.023 J	--
pH_Field	SU	3.31	4.42	4.67	4.49	5.14	5.06	5.13	5.11	5.05	5.14
Sulfate	mg/L	8.09	7.11	8.54	8.28	0.79 J	0.674 J	1	0.702 J	0.739 J	--
TDS	mg/L	30.7	36	27.3	30	27.3	33.3	44	29.3	29.3	36.7
Appendix IV											
Antimony	mg/L	<0.000508	<0.000508	<0.00071	<0.00071	<0.0006	<0.0006	0.000606 J	<0.0006	<0.0006	0.000637 J
Arsenic	mg/L	8.79e-005 J	0.000379	0.0002 J	<0.000112	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Barium	mg/L	0.153	0.145	0.138	0.13	0.0306	0.0292	0.0318	0.0324	0.0313	0.0306
Beryllium	mg/L	0.000413 J	0.000429 J	0.000416 J	<0.000406	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006
Cadmium	mg/L	<6.8e-005	<6.8e-005	<6.8e-005	<6.8e-005	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Chromium	mg/L	0.0012	0.00209	0.00152	0.00111	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Cobalt	mg/L	0.00194	0.0016	0.00157	0.00157	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Combined Radium 226 + 228	pCi/L	1.38	1	1.07	0.389 U	1 U	1 U	0.455	0.329 U	0.536	0.496
Fluoride	mg/L	<0.06	<0.06	<0.06	<0.06	0.01 J	0.014 J	0.049 J	0.034 J	0.023 J	--
Lead	mg/L	7.81e-005 J	0.000411	0.00014 J	<6.8e-005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Lithium	mg/L	<0.007105	<0.007105	<0.007105	<0.007105	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Mercury	mg/L	<0.0003	<0.0003	<0.0003	<0.0003	<0.00025	<0.00025	<0.00025	<0.00025	<0.00025	<0.00025
Molybdenum	mg/L	<0.000102	<0.000102	<0.005075	<0.005075	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Selenium	mg/L	0.000633 J	0.000558 J	0.000702 J	0.000614 J	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Thallium	mg/L	<6.8e-005	<6.8e-005	<6.8e-005	<6.8e-005	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002

Notes:

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3. J - Result is an estimated value. The result is greater than or equal to the Method Detection Limit (MDL) and less than the Practical Quantita



ANALYTICAL DATA SUMMARY
Ash Pond (02/23/2016 - 08/16/2023)
APC Plant Barry
Mobile County Alabama

Analyte	Units	BY-AP-MW-3									
		03/21/2017	05/02/2017	06/06/2017	09/12/2017	01/24/2018	05/01/2018	11/27/2018	05/29/2019	10/01/2019	03/31/2020
Appendix III											
Boron	mg/L	--	<0.02	<0.02	<0.02	--	<0.02	<0.02	<0.03	<0.03	<0.03
Calcium	mg/L	--	0.969	0.902	0.988	--	1.07	0.999	1.09	1.08	1.1
Chloride	mg/L	7.2	8.6	8.3	8.5	--	7.6	8.4	9.01	8.05	9.07
Fluoride	mg/L	<0.032	<0.032	<0.032	<0.032	<0.032	<0.032	<0.032	<0.05	<0.05	<0.06
pH_Field	SU	5.13	4.85	5.15	4.96	5.22	5.11	5.05	5.05	4.37	5.08
Sulfate	mg/L	5	5	<1.4	<1.4	--	<1.4	<1.4	0.747 J	0.61 J	1.02
TDS	mg/L	--	28	36.7	35.3	--	34.7	41.3	40	36.7	37.3
Appendix IV											
Antimony	mg/L	--	<0.0006	<0.0006	--	<0.0006	<0.0006	<0.0008	<0.0008	<0.0008	<0.0008
Arsenic	mg/L	--	<0.001	<0.001	--	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Barium	mg/L	--	0.0332	0.0275	--	0.0317	0.0356	0.0339	0.037	0.0356	0.0393
Beryllium	mg/L	--	<0.0006	<0.0006	--	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006
Cadmium	mg/L	--	<0.0002	<0.0002	--	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003
Chromium	mg/L	--	<0.002	<0.002	--	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Cobalt	mg/L	--	<0.002	<0.002	--	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Combined Radium 226 + 228	pCi/L	--	0.149 U	0.191 U	--	0.543 U	0.372 U	0.591	2.31	1.52	0.478 U
Fluoride	mg/L	<0.032	<0.032	<0.032	<0.032	<0.032	<0.032	<0.032	<0.05	<0.05	<0.06
Lead	mg/L	--	<0.001	<0.001	--	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Lithium	mg/L	--	<0.01	<0.01	--	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Mercury	mg/L	--	<0.00025	<0.00025	--	<0.00025	<0.00025	<0.00025	<0.0003	<0.0003	<0.0003
Molybdenum	mg/L	--	<0.002	<0.002	--	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Selenium	mg/L	--	<0.002	<0.002	--	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Thallium	mg/L	--	<0.0002	<0.0002	--	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002

Notes:

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2. pCi/L - picocuries per Liter
3. J - Result is an estimated value. The result is greater than or equal to the Method Detection Limit (MDL) and less than the Practical Quantita



ANALYTICAL DATA SUMMARY
Ash Pond (02/23/2016 - 08/16/2023)
APC Plant Barry
Mobile County Alabama

Analyte	Units	BY-AP-MW-3								BY-UP-MW-3	
		09/01/2020	05/11/2021	05/18/2021	11/01/2021	05/25/2022	11/01/2022	04/04/2023	08/09/2023	02/23/2016	04/19/2016
Appendix III											
Boron	mg/L	<0.03	--	<0.03	<0.03	<0.03	<0.03	0.0468 J	0.106	<0.02	<0.02
Calcium	mg/L	1.08	--	1.12	1.09	1.29	0.926	1.29	2.13	1.77	1.68
Chloride	mg/L	8.97	--	9.52	9.76	15.2	8.88	9.66	10.7	3.68	3.72
Fluoride	mg/L	<0.06	--	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	0.02 J	0.016 J
pH_Field	SU	4.24	--	4.93	4.94	4.64	5.01	5.31	5.45	4.96	4.94
Sulfate	mg/L	0.705 J	--	0.883 J	1.01	1.41 J	1.66 J	2.92	3.04	7.44	7.66
TDS	mg/L	39.3	--	38	35.3	50.7	40	43.3	67.3	40	32
Appendix IV											
Antimony	mg/L	<0.0008	--	<0.000507	<0.000508	<0.000508	<0.000508	<0.00071	<0.00071	<0.0006	<0.0006
Arsenic	mg/L	<0.001	--	<6.8e-005	<6.8e-005	<8.1e-005	0.000102 J	0.000455	0.00125	<0.001	<0.001
Barium	mg/L	0.038	--	0.0406	0.0371	0.0494	0.0289	0.0271	0.0351	0.0862	0.0718
Beryllium	mg/L	<0.0006	--	<0.000406	<0.000406	<0.000406	<0.000406	<0.000406	<0.000406	<0.0006	<0.0006
Cadmium	mg/L	<0.0003	--	<6.8e-005	<6.8e-005	<6.8e-005	<6.8e-005	<6.8e-005	<6.8e-005	<0.0002	<0.0002
Chromium	mg/L	<0.002	--	0.000919 J	0.000932 J	0.00104	0.00107	0.00053 J	0.000549 J	<0.002	<0.002
Cobalt	mg/L	<0.002	--	0.000196 J	0.000156 J	0.000279	0.000152 J	0.000108 J	0.000108 J	<0.002	<0.002
Combined Radium 226 + 228	pCi/L	0.158 U	0.521 U	0.749 U	0.688 U	1.72	0.505 U	0.479 U	0.203 U	1 U	1 U
Fluoride	mg/L	<0.06	--	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	0.02 J	0.016 J
Lead	mg/L	<0.001	--	<6.8e-005	<6.8e-005	<6.8e-005	<6.8e-005	<6.8e-005	<6.8e-005	<0.001	<0.001
Lithium	mg/L	<0.01	--	<0.007105	<0.007105	<0.007105	<0.007105	<0.007105	<0.007105	<0.01	<0.01
Mercury	mg/L	<0.0003	--	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.00025	<0.00025
Molybdenum	mg/L	<0.002	--	<6.8e-005	<6.8e-005	<0.000102	<0.000102	<0.005075	<0.005075	<0.002	<0.002
Selenium	mg/L	<0.002	--	<0.000507	<0.000508	<0.000508	<0.000508	<0.000508	<0.000508	<0.002	<0.002
Thallium	mg/L	<0.0002	--	<6.8e-005	<6.8e-005	<6.8e-005	<6.8e-005	<6.8e-005	<6.8e-005	<0.0002	<0.0002

Notes:

1. mg/L - Milligrams per Liter
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3. J - Result is an estimated value. The result is greater than or equal to the Method Detection Limit (MDL) and less than the Practical Quantita



ANALYTICAL DATA SUMMARY
Ash Pond (02/23/2016 - 08/16/2023)
APC Plant Barry
Mobile County Alabama

Analyte	Units	BY-UP-MW-3									
		06/07/2016	08/30/2016	10/18/2016	01/31/2017	03/20/2017	05/02/2017	06/06/2017	09/13/2017	01/23/2018	05/01/2018
Appendix III											
Boron	mg/L	<0.02	<0.02	<0.02	<0.02	--	<0.02	<0.02	<0.02	--	<0.02
Calcium	mg/L	1.68	1.62	1.53	1.65	--	1.58	1.55	1.71	--	1.76
Chloride	mg/L	3.66	3.7	3.77	--	3.7	4.6	3.4	3.9	--	4.1
Fluoride	mg/L	0.052 J	0.038 J	0.03 J	--	<0.032	0.1	0.1	<0.032	<0.032	<0.032
pH_Field	SU	4.96	4.92	4.98	4.74	4.9	4.98	4.94	4.93	4.91	4.87
Sulfate	mg/L	8.16	8.43	8.47	--	7.4	6.3	7.1	7.3	--	6.9
TDS	mg/L	38.7	31.3	26.7	30	--	30.7	32.7	38	--	35.3
Appendix IV											
Antimony	mg/L	<0.0006	<0.0006	<0.0006	0.000911 J	--	<0.0006	<0.0006	--	<0.0006	<0.0006
Arsenic	mg/L	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.001	--	<0.001	<0.001
Barium	mg/L	0.0754	0.0768	0.0727	0.0698	--	0.0723	0.07	--	0.0747	0.0877
Beryllium	mg/L	<0.0006	<0.0006	<0.0006	<0.0006	--	<0.0006	<0.0006	--	<0.0006	<0.0006
Cadmium	mg/L	<0.0002	<0.0002	<0.0002	<0.0002	--	<0.0002	<0.0002	--	<0.0003	<0.0003
Chromium	mg/L	<0.002	<0.002	<0.002	<0.002	--	<0.002	<0.002	--	0.00229 J	<0.002
Cobalt	mg/L	<0.002	<0.002	<0.002	<0.002	--	<0.002	<0.002	--	<0.002	<0.002
Combined Radium 226 + 228	pCi/L	0.342 U	0.702	0.791	0.0613 U	--	0.974	0.748	--	0.558 U	0.296 U
Fluoride	mg/L	0.052 J	0.038 J	0.03 J	--	<0.032	0.1	0.1	<0.032	<0.032	<0.032
Lead	mg/L	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.001	--	<0.001	<0.001
Lithium	mg/L	<0.01	<0.01	<0.01	<0.01	--	<0.01	<0.01	--	<0.01	<0.01
Mercury	mg/L	<0.00025	<0.00025	<0.00025	<0.00025	--	<0.00025	<0.00025	--	<0.00025	<0.00025
Molybdenum	mg/L	<0.002	<0.002	<0.002	<0.002	--	<0.002	<0.002	--	<0.002	<0.002
Selenium	mg/L	<0.002	<0.002	<0.002	<0.002	--	<0.002	<0.002	--	<0.002	<0.002
Thallium	mg/L	<0.0002	<0.0002	<0.0002	<0.0002	--	<0.0002	<0.0002	--	<0.0002	<0.0002

Notes:

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3. J - Result is an estimated value. The result is greater than or equal to the Method Detection Limit (MDL) and less than the Practical Quantita



ANALYTICAL DATA SUMMARY
Ash Pond (02/23/2016 - 08/16/2023)
APC Plant Barry
Mobile County Alabama

Analyte	Units	BY-UP-MW-3									
		11/27/2018	05/29/2019	10/02/2019	03/31/2020	09/09/2020	05/11/2021	10/18/2021	05/31/2022	11/01/2022	04/12/2023
Appendix III											
Boron	mg/L	<0.02	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03
Calcium	mg/L	1.69	1.74	1.86	1.92	1.97	2.06	2.09	1.95	1.94	1.83
Chloride	mg/L	3.5	3.58	3.64	3.47	3.47	3.42	3.45	3.41	3.09	3.11
Fluoride	mg/L	<0.032	<0.05	<0.05	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06
pH_Field	SU	4.94	4.8	4.52	4.4	4.76	4.53	4.55	3.54	4.12	4.83
Sulfate	mg/L	6.5	7.81	7.62	7.98	7.13	7.73	7.07	7.02	6.83	7.59
TDS	mg/L	36	37.3	36.7	39.3	42.7	44	36	31.3	36	30.7
Appendix IV											
Antimony	mg/L	<0.0008	<0.0008	<0.0008	<0.0008	<0.0008	<0.000507	<0.000508	<0.000508	<0.000508	<0.00071
Arsenic	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001	<6.8e-005	<6.8e-005	<8.1e-005	<8.1e-005	<0.000112
Barium	mg/L	0.0804	0.0831	0.089	0.0927	0.0919	0.0981	0.0935	0.0992	0.0963	0.0925
Beryllium	mg/L	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.000406	<0.000406	<0.000406	<0.000406	<0.000406
Cadmium	mg/L	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<6.8e-005	<6.8e-005	<6.8e-005	<6.8e-005	<6.8e-005
Chromium	mg/L	<0.002	<0.002	<0.002	<0.002	<0.002	0.00146	0.00135	0.00139	0.0012	0.00138
Cobalt	mg/L	<0.002	<0.002	<0.002	<0.002	<0.002	0.00142	0.00146	0.00149	0.00143	0.0013
Combined Radium 226 + 228	pCi/L	0.357 U	0.275 U	0.458 U	0.941	1.05	0.521 U	1.75	1.67	0.53 U	1.28
Fluoride	mg/L	<0.032	<0.05	<0.05	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06
Lead	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001	<6.8e-005	<6.8e-005	<6.8e-005	<6.8e-005	8.25e-005 J
Lithium	mg/L	<0.01	<0.01	<0.01	<0.01	<0.01	<0.007105	<0.007105	<0.007105	<0.007105	<0.007105
Mercury	mg/L	<0.00025	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003
Molybdenum	mg/L	<0.002	<0.002	<0.002	<0.002	<0.002	<6.8e-005	<6.8e-005	<0.000102	<0.000102	<0.005075
Selenium	mg/L	<0.002	<0.002	<0.002	<0.002	<0.002	<0.000507	<0.000508	<0.000508	<0.000508	<0.000508
Thallium	mg/L	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<6.8e-005	<6.8e-005	<6.8e-005	<6.8e-005	<6.8e-005

Notes:

1. mg/L - Milligrams per Liter
2. pCi/L - picocuries per Liter
3. J - Result is an estimated value. The result is greater than or equal to the Method Detection Limit (MDL) and less than the Practical Quantita



ANALYTICAL DATA SUMMARY
Ash Pond (02/23/2016 - 08/16/2023)
APC Plant Barry
Mobile County Alabama

Analyte	Units	BY-UP-MW-3	BY-AP-MW-4								
		08/16/2023	03/01/2016	04/19/2016	06/07/2016	08/30/2016	10/19/2016	01/31/2017	03/21/2017	05/02/2017	06/06/2017
Appendix III											
Boron	mg/L	<0.03	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	--	<0.02	<0.02
Calcium	mg/L	1.77	1.07	0.969	1.08	0.952	1.17	0.946	--	0.826	0.834
Chloride	mg/L	2.94	7.74	7.66	11.3	10.8	11.1	--	11	12	12
Fluoride	mg/L	<0.06	0.02 J	0.016 J	0.047 J	0.035 J	0.025 J	--	<0.032	<0.032	<0.032
pH_Field	SU	4.03	5.19	5.06	4.7	4.77	4.67	4.42	4.45	4.46	4.89
Sulfate	mg/L	7.26	2.58	2.3	2.58	2.81	5.06	--	3.4 J	2.7 J	1.5 J
TDS	mg/L	32.7	27.3	38	48.7	32.7	36	40.7	--	30.7	41.3
Appendix IV											
Antimony	mg/L	<0.00071	<0.0006	<0.0006	0.000869 J	<0.0006	<0.0006	0.00086 J	--	<0.0006	<0.0006
Arsenic	mg/L	<0.000112	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.001
Barium	mg/L	0.0912	0.018	0.0166	0.0271	0.0312	0.0443	0.0231	--	0.0241	0.0276
Beryllium	mg/L	<0.000406	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	--	<0.0006	<0.0006
Cadmium	mg/L	<6.8e-005	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	--	<0.0002	<0.0002
Chromium	mg/L	0.00126	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	--	<0.002	<0.002
Cobalt	mg/L	0.00133	<0.002	<0.002	0.00424 J	0.00262 J	0.00469 J	0.0127	--	0.00891 J	0.00217 J
Combined Radium 226 + 228	pCi/L	1.1 U	1 U	1 U	0.287 U	0.585	1.85	0.25 U	--	0.391 U	0.183 U
Fluoride	mg/L	<0.06	0.02 J	0.016 J	0.047 J	0.035 J	0.025 J	--	<0.032	<0.032	<0.032
Lead	mg/L	<6.8e-005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.001
Lithium	mg/L	<0.007105	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	--	<0.01	<0.01
Mercury	mg/L	<0.0003	<0.00025	<0.00025	<0.00025	<0.00025	<0.00025	<0.00025	--	<0.00025	<0.00025
Molybdenum	mg/L	<0.005075	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	--	<0.002	<0.002
Selenium	mg/L	<0.000508	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	--	<0.002	<0.002
Thallium	mg/L	<6.8e-005	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	--	<0.0002	<0.0002

Notes:

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ANALYTICAL DATA SUMMARY
Ash Pond (02/23/2016 - 08/16/2023)
APC Plant Barry
Mobile County Alabama

Analyte	Units	BY-AP-MW-4									
		09/12/2017	01/24/2018	05/01/2018	11/27/2018	05/29/2019	10/01/2019	03/31/2020	09/01/2020	05/11/2021	05/18/2021
Appendix III											
Boron	mg/L	<0.02	--	<0.02	<0.02	<0.03	<0.03	<0.03	<0.03	--	<0.03
Calcium	mg/L	0.884	--	0.921	1.01	0.622	0.645	0.898	0.566	--	0.974
Chloride	mg/L	11	--	9.2	10	8.52	7.35	9.54	7.82	--	9.53
Fluoride	mg/L	<0.032	<0.032	<0.032	<0.032	<0.05	<0.05	<0.06	<0.06	--	<0.06
pH_Field	SU	4.71	5.03	4.44	4.78	4.65	4.28	4.69	4.23	--	4.17
Sulfate	mg/L	1.9 J	--	1.4 J	2.3 J	2.83	2.09	4.12	1.83	--	4.43
TDS	mg/L	34.7	--	39.3	32	36	32	42.7	36	--	47.3
Appendix IV											
Antimony	mg/L	--	<0.0006	<0.0006	<0.0008	<0.0008	<0.0008	<0.0008	<0.0008	--	<0.000507
Arsenic	mg/L	--	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	--	0.000125 J
Barium	mg/L	--	0.0293	0.0205	0.0321	0.0213	0.0207	0.0193	0.0131	--	0.0225
Beryllium	mg/L	--	<0.0006	<0.0006	0.00071 J	<0.0006	<0.0006	<0.0006	<0.0006	--	<0.000406
Cadmium	mg/L	--	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	--	<6.8e-005
Chromium	mg/L	--	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	--	0.000544 J
Cobalt	mg/L	--	<0.002	0.0126	0.00363 J	0.00576	<0.002	0.0205	0.00657	--	0.018
Combined Radium 226 + 228	pCi/L	--	0.622 U	0.0917 U	0.695	0.947	0.7	0.323 U	0.39 U	0.969 U	0.734 U
Fluoride	mg/L	<0.032	<0.032	<0.032	<0.032	<0.05	<0.05	<0.06	<0.06	--	<0.06
Lead	mg/L	--	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	--	0.00013 J
Lithium	mg/L	--	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	--	<0.007105
Mercury	mg/L	--	<0.00025	<0.00025	<0.00025	<0.0003	<0.0003	<0.0003	<0.0003	--	<0.0003
Molybdenum	mg/L	--	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	--	<6.8e-005
Selenium	mg/L	--	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	--	<0.000507
Thallium	mg/L	--	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	--	<6.8e-005

Notes:

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ANALYTICAL DATA SUMMARY
Ash Pond (02/23/2016 - 08/16/2023)
APC Plant Barry
Mobile County Alabama

Analyte	Units	BY-AP-MW-4					BY-UP-MW-4				
		11/01/2021	05/25/2022	10/31/2022	04/04/2023	08/09/2023	02/23/2016	04/19/2016	06/06/2016	08/30/2016	10/18/2016
Appendix III											
Boron	mg/L	<0.03	<0.03	<0.03	<0.03	<0.03	0.0257 J	<0.02	<0.02	<0.02	0.022 J
Calcium	mg/L	0.816	1.69	3.38	3.36	3.23	1.42	1.31	1.35	1.31	1.22
Chloride	mg/L	7.99	16.1	32.8	32.4	30.8	3.5	3.63	3.6	3.54	3.68
Fluoride	mg/L	<0.06	<0.06	<0.06	<0.06	<0.06	0.02 J	0.015 J	0.05 J	0.036 J	0.025 J
pH_Field	SU	5.18	4.6	4.65	4.55	4.55	4.74	4.86	4.88	4.91	4.95
Sulfate	mg/L	3.34	1.97 J	1.02 J	2.33	2.28	7.04	6.74	7.04	7.57	6.62
TDS	mg/L	32	48.7	71.3	76.7	81.3	--	--	28.7	25.3	--
Appendix IV											
Antimony	mg/L	<0.000508	<0.000508	<0.000508	<0.00071	<0.00071	0.000606 J	<0.0006	<0.0006	<0.0006	<0.0006
Arsenic	mg/L	0.000203	<8.1e-005	9.89e-005 J	<0.000112	0.000226	<0.001	<0.001	<0.001	<0.001	<0.001
Barium	mg/L	0.0217	0.0399	0.118	0.118	0.115	0.0973	0.0802	0.0862	0.0841	0.0715
Beryllium	mg/L	<0.000406	0.000649 J	0.000451 J	0.000432 J	<0.000406	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006
Cadmium	mg/L	<6.8e-005	<6.8e-005	0.000102 J	8.96e-005 J	0.000103 J	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Chromium	mg/L	0.000668 J	0.000257 J	0.00057 J	0.000444 J	0.000854 J	<0.002	<0.002	<0.002	<0.002	<0.002
Cobalt	mg/L	0.00478	0.00455	0.00319	0.0031	0.00259	<0.002	<0.002	<0.002	<0.002	<0.002
Combined Radium 226 + 228	pCi/L	0.888 U	0.821 U	0.927	1.82	1.09 U	2.1138	1 U	0.757	0.992	0.905
Fluoride	mg/L	<0.06	<0.06	<0.06	<0.06	<0.06	0.02 J	0.015 J	0.05 J	0.036 J	0.025 J
Lead	mg/L	6.92e-005 J	0.000176 J	0.000144 J	8.51e-005 J	0.000149 J	<0.001	<0.001	<0.001	<0.001	<0.001
Lithium	mg/L	<0.007105	<0.007105	<0.007105	<0.007105	<0.007105	<0.01	<0.01	<0.01	<0.01	<0.01
Mercury	mg/L	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.00025	<0.00025	<0.00025	<0.00025	<0.00025
Molybdenum	mg/L	<6.8e-005	<0.000102	<0.000102	<0.005075	<0.005075	<0.002	<0.002	<0.002	<0.002	<0.002
Selenium	mg/L	<0.000508	<0.000508	<0.000508	<0.000508	<0.000508	<0.002	<0.002	<0.002	<0.002	<0.002
Thallium	mg/L	<6.8e-005	<6.8e-005	<6.8e-005	<6.8e-005	<6.8e-005	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002

Notes:

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ANALYTICAL DATA SUMMARY
Ash Pond (02/23/2016 - 08/16/2023)
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Mobile County Alabama

Analyte	Units	BY-UP-MW-4									
		01/31/2017	03/20/2017	05/02/2017	06/06/2017	09/12/2017	01/23/2018	05/01/2018	11/26/2018	05/28/2019	10/02/2019
Appendix III											
Boron	mg/L	<0.02	--	<0.02	<0.02	<0.02	--	<0.02	<0.02	<0.03	<0.03
Calcium	mg/L	1.36	--	1.24	1.28	1.47	--	1.47	1.52	1.6	1.7
Chloride	mg/L	--	4.6	3.9	3.4	4.3	--	3.8	3.6	3.6	3.5
Fluoride	mg/L	--	<0.032	0.1	<0.032	<0.032	<0.032	<0.032	<0.032	<0.05	<0.05
pH_Field	SU	4.71	4.83	4.93	4.9	4.82	4.85	4.8	4.88	4.73	4.67
Sulfate	mg/L	--	7	5.6	6.6	7.2	--	5.9	5.1	7.1	6.88
TDS	mg/L	26	--	--	42.7	26.7	--	34.7	32.7	31.3	36
Appendix IV											
Antimony	mg/L	0.000928 J	--	<0.0006	<0.0006	--	<0.0006	<0.0006	<0.0008	<0.0008	<0.0008
Arsenic	mg/L	<0.001	--	<0.001	<0.001	--	<0.001	<0.001	<0.001	<0.001	<0.001
Barium	mg/L	0.0825	--	0.0777	0.078	--	0.0825	0.102	0.0994	0.102	0.111
Beryllium	mg/L	<0.0006	--	<0.0006	<0.0006	--	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006
Cadmium	mg/L	<0.0002	--	<0.0002	<0.0002	--	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003
Chromium	mg/L	<0.002	--	<0.002	<0.002	--	<0.002	<0.002	<0.002	<0.002	<0.002
Cobalt	mg/L	<0.002	--	<0.002	<0.002	--	<0.002	<0.002	<0.002	<0.002	<0.002
Combined Radium 226 + 228	pCi/L	1.08	--	1.18	1.1	--	1.32 U	1.19	0.863	0.474 U	0.624 U
Fluoride	mg/L	--	<0.032	0.1	<0.032	<0.032	<0.032	<0.032	<0.032	<0.05	<0.05
Lead	mg/L	<0.001	--	<0.001	<0.001	--	<0.001	<0.001	<0.001	<0.001	<0.001
Lithium	mg/L	<0.01	--	<0.01	<0.01	--	<0.01	<0.01	<0.01	<0.01	<0.01
Mercury	mg/L	<0.00025	--	<0.00025	<0.00025	--	<0.00025	<0.00025	<0.00025	<0.0003	<0.0003
Molybdenum	mg/L	<0.002	--	<0.002	<0.002	--	<0.002	<0.002	<0.002	<0.002	<0.002
Selenium	mg/L	<0.002	--	<0.002	<0.002	--	<0.002	<0.002	<0.002	<0.002	<0.002
Thallium	mg/L	<0.0002	--	<0.0002	<0.0002	--	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002

Notes:

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ANALYTICAL DATA SUMMARY
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APC Plant Barry
Mobile County Alabama

Analyte	Units	BY-UP-MW-4								BY-AP-MW-5	
		03/31/2020	09/08/2020	05/11/2021	10/18/2021	05/31/2022	11/01/2022	04/12/2023	08/16/2023	03/01/2016	04/20/2016
Appendix III											
Boron	mg/L	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.0462 J	0.0719 J
Calcium	mg/L	1.78	1.94	1.93	2.01	2.02	1.59	1.76	1.76	15	14.3
Chloride	mg/L	3.34	3.29	3.33	3.32	3.31	3.3	3.42	3.22	19.7	18.9
Fluoride	mg/L	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	0.04 J	0.043 J
pH_Field	SU	4.51	4.75	4.67	4.38	3.97	4.74	4.73	4.58	5.99	5.96
Sulfate	mg/L	10.8	6.52	6.8	6.58	7.94	4.59	5.92	7.05	<0.3	<0.3
TDS	mg/L	36.7	39.3	46.7	36	36.7	31.3	32.7	35.3	273	269
Appendix IV											
Antimony	mg/L	<0.0008	<0.0008	<0.000507	<0.000508	<0.000508	<0.000508	<0.00071	<0.00071	<0.0006	<0.0006
Arsenic	mg/L	0.0017 J	<0.001	0.000217	0.000193 J	0.000203	0.000128 J	0.000114 J	0.000209	0.0277	0.0307
Barium	mg/L	0.129	0.125	0.125	0.124	0.129	0.116	0.116	0.121	0.136	0.132
Beryllium	mg/L	<0.0006	<0.0006	<0.000406	<0.000406	<0.000406	<0.000406	<0.000406	<0.000406	<0.0006	<0.0006
Cadmium	mg/L	<0.0003	<0.0003	<6.8e-005	<6.8e-005	<6.8e-005	<6.8e-005	<6.8e-005	<6.8e-005	<0.0002	<0.0002
Chromium	mg/L	0.00604 J	<0.002	0.00159	0.00146	0.00156	0.00111	0.00128	0.00164	<0.002	<0.002
Cobalt	mg/L	<0.002	<0.002	0.00137	0.00139	0.0015	0.00162	0.00127	0.00161	<0.002	<0.002
Combined Radium 226 + 228	pCi/L	1.09	1.27	0.969 U	2.19	1.47	1.36	1.17	1.56	1.67764 U	3.0801
Fluoride	mg/L	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	0.04 J	0.043 J
Lead	mg/L	0.00126 J	<0.001	0.000159 J	0.00012 J	0.000173 J	8.6e-005 J	8.65e-005 J	0.000177 J	<0.001	<0.001
Lithium	mg/L	<0.01	<0.01	<0.007105	<0.007105	<0.007105	<0.007105	<0.007105	<0.007105	<0.01	<0.01
Mercury	mg/L	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.00025	<0.00025
Molybdenum	mg/L	<0.002	<0.002	<6.8e-005	<6.8e-005	<0.000102	<0.000102	<0.005075	<0.005075	<0.002	<0.002
Selenium	mg/L	<0.002	<0.002	<0.000507	<0.000508	<0.000508	<0.000508	<0.000508	<0.000508	<0.002	<0.002
Thallium	mg/L	<0.0002	<0.0002	<6.8e-005	<6.8e-005	<6.8e-005	<6.8e-005	<6.8e-005	<6.8e-005	<0.0002	<0.0002

Notes:

1. mg/L - Milligrams per Liter
2. pCi/L - picocuries per Liter
3. J - Result is an estimated value. The result is greater than or equal to the Method Detection Limit (MDL) and less than the Practical Quantita



ANALYTICAL DATA SUMMARY
Ash Pond (02/23/2016 - 08/16/2023)
APC Plant Barry
Mobile County Alabama

Analyte	Units	BY-AP-MW-5									
		06/07/2016	08/30/2016	10/18/2016	01/31/2017	03/22/2017	05/03/2017	06/07/2017	09/14/2017	01/24/2018	05/02/2018
Appendix III											
Boron	mg/L	0.0591 J	0.0675 J	0.0699 J	0.0518 J	--	0.0737 J	0.0518 J	0.0825 J	--	0.0603 J
Calcium	mg/L	14.8	13.7	13.3	13.7	--	14.3	14.7	15.1	--	14.5
Chloride	mg/L	18.5	17.9	18.2	--	22	22	21	21	--	20
Fluoride	mg/L	0.075 J	0.057 J	0.049 J	--	0.04 J	0.05 J	0.05 J	0.06 J	0.05 J	0.05 J
pH_Field	SU	6.03	6	5.99	5.96	6.01	5.99	6.01	6	5.98	5.99
Sulfate	mg/L	0.583 J	<0.3	<0.3	--	<1.4	5	<1.4	<1.4	--	<1.4
TDS	mg/L	272	244	238	266	--	259	255	276	--	247
Appendix IV											
Antimony	mg/L	<0.0006	<0.0006	<0.0006	0.000765 J	--	<0.0006	<0.0006	--	<0.0006	<0.0006
Arsenic	mg/L	0.0308	0.033	0.0296	0.0264	--	0.0309	0.0283	--	0.0282	0.0315
Barium	mg/L	0.141	0.136	0.125	0.125	--	0.146	0.126	--	0.127	0.154
Beryllium	mg/L	<0.0006	<0.0006	<0.0006	<0.0006	--	<0.0006	<0.0006	--	<0.0006	<0.0006
Cadmium	mg/L	<0.0002	<0.0002	<0.0002	<0.0002	--	<0.0002	<0.0002	--	<0.0003	<0.0003
Chromium	mg/L	<0.002	<0.002	<0.002	<0.002	--	<0.002	<0.002	--	<0.002	<0.002
Cobalt	mg/L	<0.002	<0.002	<0.002	<0.002	--	<0.002	<0.002	--	<0.002	<0.002
Combined Radium 226 + 228	pCi/L	1.5	1.17	1.93	1	--	1.48	0.915	--	1.74 U	0.58
Fluoride	mg/L	0.075 J	0.057 J	0.049 J	--	0.04 J	0.05 J	0.05 J	0.06 J	0.05 J	0.05 J
Lead	mg/L	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.001	--	<0.001	<0.001
Lithium	mg/L	<0.01	<0.01	<0.01	<0.01	--	<0.01	<0.01	--	<0.01	<0.01
Mercury	mg/L	<0.00025	<0.00025	<0.00025	<0.00025	--	<0.00025	<0.00025	--	<0.00025	<0.00025
Molybdenum	mg/L	<0.002	<0.002	<0.002	<0.002	--	<0.002	<0.002	--	<0.002	<0.002
Selenium	mg/L	<0.002	<0.002	<0.002	<0.002	--	<0.002	<0.002	--	<0.002	<0.002
Thallium	mg/L	<0.0002	<0.0002	<0.0002	<0.0002	--	<0.0002	<0.0002	--	<0.0002	<0.0002

Notes:

1. mg/L - Milligrams per Liter
2. pCi/L - picocuries per Liter
3. J - Result is an estimated value. The result is greater than or equal to the Method Detection Limit (MDL) and less than the Practical Quantita



ANALYTICAL DATA SUMMARY
Ash Pond (02/23/2016 - 08/16/2023)
APC Plant Barry
Mobile County Alabama

Analyte	Units	BY-AP-MW-5									
		11/27/2018	05/29/2019	10/01/2019	03/31/2020	09/01/2020	11/02/2021	05/25/2022	10/31/2022	04/04/2023	08/07/2023
Appendix III											
Boron	mg/L	0.0613 J	0.0946 J	0.103	0.0782 J	0.115	0.0755 J	0.063 J	0.0498 J	0.0381 J	0.0327 J
Calcium	mg/L	13.7	14.5	13.8	14.4	13.6	16.2	14.6	10.1	8.36	6.02
Chloride	mg/L	21	19.7	19.8	19.8	19.1	21	20	17.5	17.2	15.9
Fluoride	mg/L	<0.032	0.0923 J	0.0557 J	0.0735 J	0.0921 J	0.0964 J	<0.06	0.0614 J	0.0631 J	<0.06
pH_Field	SU	6.01	5.93	5.47	6.01	5.93	6.36	5.99	5.99	5.84	5.84
Sulfate	mg/L	2.7 J	5.51	7.4	23.7	11	15	5.53	15.2	43.9	17.6
TDS	mg/L	248	259	243	243	253	297	252	194	151	140
Appendix IV											
Antimony	mg/L	<0.0008	<0.0008	<0.0008	<0.0008	<0.0008	<0.000508	<0.000508	<0.000508	<0.00071	<0.00071
Arsenic	mg/L	0.0283	0.0301	0.0307	0.0329	0.0372	0.0357	0.0316	0.0293	0.0191	0.0164
Barium	mg/L	0.139	0.146	0.138	0.15	0.154	0.159	0.155	0.102	0.0842	0.0707
Beryllium	mg/L	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.000406	<0.000406	<0.000406	<0.000406	<0.000406
Cadmium	mg/L	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<6.8e-005	<6.8e-005	<6.8e-005	<6.8e-005	<6.8e-005
Chromium	mg/L	<0.002	<0.002	<0.002	<0.002	<0.002	0.00101 J	0.00103	0.00096 J	0.000894 J	0.000897 J
Cobalt	mg/L	<0.002	<0.002	<0.002	<0.002	<0.002	0.00197	0.00184	0.00144	0.00112	0.000923
Combined Radium 226 + 228	pCi/L	1.43	2.16	2.14	0.754	1.1	2.06	1.71	0.75 U	1.15	0.539 U
Fluoride	mg/L	<0.032	0.0923 J	0.0557 J	0.0735 J	0.0921 J	0.0964 J	<0.06	0.0614 J	0.0631 J	<0.06
Lead	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001	<6.8e-005	<6.8e-005	<6.8e-005	<6.8e-005	<6.8e-005
Lithium	mg/L	<0.01	<0.01	<0.01	<0.01	<0.01	<0.007105	<0.007105	<0.007105	<0.007105	<0.007105
Mercury	mg/L	<0.00025	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003
Molybdenum	mg/L	<0.002	<0.002	<0.002	<0.002	<0.002	0.000124 J	0.000114 J	0.000301	<0.005075	<0.005075
Selenium	mg/L	<0.002	<0.002	<0.002	<0.002	<0.002	<0.000508	<0.000508	<0.000508	<0.000508	<0.000508
Thallium	mg/L	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<6.8e-005	<6.8e-005	<6.8e-005	<6.8e-005	<6.8e-005

Notes:

1. mg/L - Milligrams per Liter
2. pCi/L - picocuries per Liter
3. J - Result is an estimated value. The result is greater than or equal to the Method Detection Limit (MDL) and less than the Practical Quantita



ANALYTICAL DATA SUMMARY
Ash Pond (02/23/2016 - 08/16/2023)
APC Plant Barry
Mobile County Alabama

Analyte	Units	BY-AP-MW-6									
		03/01/2016	04/19/2016	06/07/2016	08/30/2016	10/19/2016	01/31/2017	03/22/2017	05/03/2017	06/07/2017	09/14/2017
Appendix III											
Boron	mg/L	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	--	<0.02	<0.02	<0.02
Calcium	mg/L	1.87	1.69	1.75	1.77	1.8	1.98	--	1.97	1.98	2.14
Chloride	mg/L	5.77	5.57	5.52	5.5	5.55	--	6	6.4	5.9	6.5
Fluoride	mg/L	<0.01	0.016 J	0.048 J	0.034 J	0.023 J	--	0.1	0.1	0.1	<0.032
pH_Field	SU	5.59	5.55	5.43	5.39	5.31	5.26	5.32	5.35	5.32	5.29
Sulfate	mg/L	0.36 J	0.435 J	1.22	1.08	1.01	--	<1.4	1.4 J	1.5 J	1.8 J
TDS	mg/L	45.3	46	46	30	37.3	43.3	--	44.7	45.3	48.7
Appendix IV											
Antimony	mg/L	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	0.000852 J	--	<0.0006	<0.0006	--
Arsenic	mg/L	0.00142 J	0.00138 J	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.001	--
Barium	mg/L	0.0278	0.0242	0.0223	0.0242	0.024	0.0248	--	0.0268	0.0256	--
Beryllium	mg/L	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	--	<0.0006	<0.0006	--
Cadmium	mg/L	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	--	<0.0002	<0.0002	--
Chromium	mg/L	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	--	<0.002	<0.002	--
Cobalt	mg/L	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	--	<0.002	<0.002	--
Combined Radium 226 + 228	pCi/L	1 U	1 U	0.353 U	0.428 U	0.449 U	-0.0173 U	--	0.447	0.572	--
Fluoride	mg/L	<0.01	0.016 J	0.048 J	0.034 J	0.023 J	--	0.1	0.1	0.1	<0.032
Lead	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.001	--
Lithium	mg/L	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	--	<0.01	<0.01	--
Mercury	mg/L	<0.00025	<0.00025	<0.00025	<0.00025	<0.00025	<0.00025	--	<0.00025	<0.00025	--
Molybdenum	mg/L	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	--	<0.002	<0.002	--
Selenium	mg/L	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	--	<0.002	<0.002	--
Thallium	mg/L	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	--	<0.0002	<0.0002	--

Notes:

1. mg/L - Milligrams per Liter
2. pCi/L - picocuries per Liter
3. J - Result is an estimated value. The result is greater than or equal to the Method Detection Limit (MDL) and less than the Practical Quantita



ANALYTICAL DATA SUMMARY
Ash Pond (02/23/2016 - 08/16/2023)
APC Plant Barry
Mobile County Alabama

Analyte	Units	BY-AP-MW-6									
		01/24/2018	05/02/2018	11/28/2018	05/29/2019	10/01/2019	03/31/2020	09/02/2020	05/17/2021	11/02/2021	05/25/2022
Appendix III											
Boron	mg/L	--	<0.02	<0.02	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03
Calcium	mg/L	--	2.13	1.91	1.72	1.92	1.68	1.8	1.93	1.97	1.62
Chloride	mg/L	--	5.5	6.2	6.15	5.99	5.94	5.94	6.26	6.4	6.63
Fluoride	mg/L	<0.032	<0.032	<0.032	<0.05	<0.05	<0.06	<0.06	<0.06	<0.06	<0.06
pH_Field	SU	5.32	5.33	5.46	5.31	4.7	5.22	5.16	5.21	5.59	4.57
Sulfate	mg/L	--	<1.4	<1.4	1.17	1.04	1.21	1.02	0.981 J	1.37	1.27 J
TDS	mg/L	--	44	50.7	48.7	38	42	37.3	46.7	38	40.7
Appendix IV											
Antimony	mg/L	<0.0006	<0.0006	<0.0008	<0.0008	<0.0008	<0.0008	<0.0008	<0.000507	<0.000508	<0.000508
Arsenic	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.000103 J	9.83e-005 J	<8.1e-005
Barium	mg/L	0.0254	0.0276	0.0231	0.0244	0.0257	0.0244	0.0282	0.0305	0.0286	0.0268
Beryllium	mg/L	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.000406	<0.000406	<0.000406
Cadmium	mg/L	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<6.8e-005	7.34e-005 J	0.000306
Chromium	mg/L	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	0.000313 J	0.000232 J	0.000286 J
Cobalt	mg/L	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	0.000678	0.000601	0.000977
Combined Radium 226 + 228	pCi/L	1.09 U	0.187 U	0.478 U	-0.276 U	0.742	0.291 U	0.241 U	1.84	0.773 U	1.06 U
Fluoride	mg/L	<0.032	<0.032	<0.032	<0.05	<0.05	<0.06	<0.06	<0.06	<0.06	<0.06
Lead	mg/L	<0.001	<0.001	<0.001	0.00185 J	0.00545	0.00276 J	0.00171 J	0.00162	0.00336	0.0112
Lithium	mg/L	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.007105	<0.007105	<0.007105
Mercury	mg/L	<0.00025	<0.00025	<0.00025	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003
Molybdenum	mg/L	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	0.000117 J	0.00011 J	0.000325
Selenium	mg/L	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.000507	<0.000508	<0.000508
Thallium	mg/L	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<6.8e-005	<6.8e-005	<6.8e-005

Notes:

1. mg/L - Milligrams per Liter
2. pCi/L - picocuries per Liter
3. J - Result is an estimated value. The result is greater than or equal to the Method Detection Limit (MDL) and less than the Practical Quantita



ANALYTICAL DATA SUMMARY
Ash Pond (02/23/2016 - 08/16/2023)
APC Plant Barry
Mobile County Alabama

Analyte	Units	BY-AP-MW-6			BY-AP-MW-7						
		10/31/2022	04/04/2023	08/09/2023	03/01/2016	04/20/2016	06/07/2016	08/31/2016	10/19/2016	01/31/2017	03/22/2017
Appendix III											
Boron	mg/L	<0.03	<0.03	<0.03	0.0546 J	0.0472 J	0.0417 J	0.036 J	0.0386 J	0.0343 J	--
Calcium	mg/L	1.63	1.94	2.26	7.65	7.54	7.71	8.1	8.59	8.78	--
Chloride	mg/L	7.48	7.81	8.06	11.2	10.8	10.8	10.8	10.8	--	13
Fluoride	mg/L	<0.06	<0.06	<0.06	0.06 J	0.078 J	0.101 J	0.086 J	0.075 J	--	0.06 J
pH_Field	SU	4.9	5.33	5.05	6.36	6.31	6.3	6.31	6.23	6.26	6.32
Sulfate	mg/L	1.22 J	1.59 J	1.61 J	0.3 J	0.514 J	0.971 J	0.445 J	0.366 J	--	5
TDS	mg/L	46	40	47.3	129	128	140	112	134	134	--
Appendix IV											
Antimony	mg/L	<0.000508	<0.00071	<0.00071	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	0.00107 J	--
Arsenic	mg/L	<8.1e-005	<0.000112	<0.000112	0.0166	0.02	0.0223	0.0231	0.0244	0.0197	--
Barium	mg/L	0.0263	0.0275	0.0288	0.0519	0.0517	0.0577	0.0614	0.0618	0.0576	--
Beryllium	mg/L	<0.000406	<0.000406	<0.000406	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	--
Cadmium	mg/L	6.82e-005 J	<6.8e-005	<6.8e-005	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	--
Chromium	mg/L	0.000281 J	0.000267 J	0.00028 J	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	--
Cobalt	mg/L	0.000588	0.000584	0.00065	0.011	0.0148	0.0172	0.0175	0.0189	0.0165	--
Combined Radium 226 + 228	pCi/L	0.925	1.33	0.212 U	1 U	1 U	0.555 U	0.284 U	0.557 U	0.0949 U	--
Fluoride	mg/L	<0.06	<0.06	<0.06	0.06 J	0.078 J	0.101 J	0.086 J	0.075 J	--	0.06 J
Lead	mg/L	0.00148	0.00183	0.00149	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	--
Lithium	mg/L	<0.007105	<0.007105	<0.007105	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	--
Mercury	mg/L	<0.0003	<0.0003	<0.0003	<0.00025	<0.00025	<0.00025	<0.00025	<0.00025	<0.00025	--
Molybdenum	mg/L	0.000122 J	<0.005075	<0.005075	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	--
Selenium	mg/L	<0.000508	<0.000508	<0.000508	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	--
Thallium	mg/L	<6.8e-005	<6.8e-005	<6.8e-005	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	--

Notes:

1. mg/L - Milligrams per Liter
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3. J - Result is an estimated value. The result is greater than or equal to the Method Detection Limit (MDL) and less than the Practical Quantita



ANALYTICAL DATA SUMMARY
Ash Pond (02/23/2016 - 08/16/2023)
APC Plant Barry
Mobile County Alabama

Analyte	Units	BY-AP-MW-7									
		05/03/2017	06/07/2017	09/14/2017	01/24/2018	05/02/2018	11/28/2018	05/29/2019	09/30/2019	03/30/2020	09/02/2020
Appendix III											
Boron	mg/L	0.037 J	0.0227 J	0.0471 J	--	0.0313 J	0.0311 J	0.042 J	0.0418 J	0.0369 J	0.042 J
Calcium	mg/L	8.85	8.99	9.64	--	9.14	9.66	8.88	9.8	10.1	10.4
Chloride	mg/L	14	14	13	--	13	13	13.3	13.1	13.3	12.9
Fluoride	mg/L	0.08 J	0.08 J	0.07 J	0.09 J	0.08 J	0.07 J	0.0937 J	0.0925 J	0.0933 J	0.109
pH_Field	SU	6.29	6.27	6.25	6.35	6.29	6.33	6.18	6.36	6.32	6.25
Sulfate	mg/L	5	5	<1.4	--	<1.4	<1.4	2.77	2.51	4.78	3.59
TDS	mg/L	127	134	141	--	133	138	132	137	135	129
Appendix IV											
Antimony	mg/L	<0.0006	<0.0006	--	<0.0006	<0.0006	<0.0008	<0.0008	<0.0008	<0.0008	<0.0008
Arsenic	mg/L	0.0212	0.0203	--	0.0214	0.0218	0.0209	0.0178	0.0217	0.0215	0.0234
Barium	mg/L	0.0601	0.054	--	0.0568	0.063	0.0654	0.059	0.0648	0.059	0.0745
Beryllium	mg/L	<0.0006	<0.0006	--	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006
Cadmium	mg/L	<0.0002	<0.0002	--	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003
Chromium	mg/L	<0.002	<0.002	--	<0.002	0.00328 J	<0.002	<0.002	<0.002	<0.002	<0.002
Cobalt	mg/L	0.0172	0.0173	--	0.0158	0.0169	0.0178	0.0197	0.0186	0.0172	0.0197
Combined Radium 226 + 228	pCi/L	0.53	-0.231 U	--	0.691 U	0.535	0.62	0.244 U	0.388 U	0.744	0.567
Fluoride	mg/L	0.08 J	0.08 J	0.07 J	0.09 J	0.08 J	0.07 J	0.0937 J	0.0925 J	0.0933 J	0.109
Lead	mg/L	<0.001	<0.001	--	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Lithium	mg/L	<0.01	<0.01	--	<0.01	0.0108 J	<0.01	<0.01	<0.01	0.0102 J	<0.01
Mercury	mg/L	<0.00025	<0.00025	--	<0.00025	<0.00025	<0.00025	<0.0003	<0.0003	<0.0003	<0.0003
Molybdenum	mg/L	<0.002	<0.002	--	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Selenium	mg/L	<0.002	<0.002	--	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Thallium	mg/L	<0.0002	<0.0002	--	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002

Notes:

1. mg/L - Milligrams per Liter
2. pCi/L - picocuries per Liter
3. J - Result is an estimated value. The result is greater than or equal to the Method Detection Limit (MDL) and less than the Practical Quantita



ANALYTICAL DATA SUMMARY
Ash Pond (02/23/2016 - 08/16/2023)
APC Plant Barry
Mobile County Alabama

Analyte	Units	BY-AP-MW-7						BY-AP-MW-8			
		05/18/2021	10/27/2021	05/24/2022	10/31/2022	04/03/2023	08/07/2023	03/01/2016	04/20/2016	06/07/2016	08/30/2016
Appendix III											
Boron	mg/L	0.037 J	0.0427 J	0.0368 J	0.275	0.174	0.174	1.72	1.7	1.57	1.67
Calcium	mg/L	10.2	10	10.7	2.36	3.52	3.21	36.1	34.5	34.7	34.1
Chloride	mg/L	14.2	15.3	13.2	96	59.4	48.4	24.5	22.5	21.6	21.6
Fluoride	mg/L	0.11	0.0823 J	0.0916 J	0.376	0.171	0.162	0.03 J	0.043 J	0.069 J	0.052 J
pH_Field	SU	6.4	6.35	6.32	7.07	6.53	6.67	6.21	6.22	6.26	6.21
Sulfate	mg/L	4.6	5.17	7.53	33.8	14.8	25.9	<0.3	<0.3	0.504 J	<0.3
TDS	mg/L	175	123	148	299	198	203	309	324	314	308
Appendix IV											
Antimony	mg/L	<0.000507	<0.000508	<0.000508	<0.000508	<0.00071	<0.00071	<0.0006	<0.0006	<0.0006	<0.0006
Arsenic	mg/L	0.0215	0.0236	0.0197	0.00919	0.013	0.0134	0.036	0.0399	0.0401	0.0387
Barium	mg/L	0.07	0.0664	0.0715	0.0188	0.0288	0.0303	0.142	0.143	0.145	0.147
Beryllium	mg/L	<0.000406	<0.000406	<0.000406	<0.000406	<0.000406	<0.000406	<0.0006	<0.0006	<0.0006	<0.0006
Cadmium	mg/L	<6.8e-005	<6.8e-005	<6.8e-005	<6.8e-005	<6.8e-005	<6.8e-005	<0.0002	<0.0002	<0.0002	<0.0002
Chromium	mg/L	0.00709	0.00309	0.000587 J	0.000273 J	0.000246 J	<0.000203	<0.002	<0.002	<0.002	<0.002
Cobalt	mg/L	0.0189	0.0206	0.023	0.00246	0.00492	0.00447	<0.002	<0.002	<0.002	<0.002
Combined Radium 226 + 228	pCi/L	0.597 U	1.46 U	1.05 U	0.932	0.49 U	0.826 U	1 U	2.0115 U	0.853	0.669
Fluoride	mg/L	0.11	0.0823 J	0.0916 J	0.376	0.171	0.162	0.03 J	0.043 J	0.069 J	0.052 J
Lead	mg/L	<6.8e-005	<6.8e-005	<6.8e-005	<6.8e-005	<6.8e-005	<6.8e-005	<0.001	<0.001	<0.001	<0.001
Lithium	mg/L	0.0882	<0.007105	<0.007105	<0.007105	<0.007105	<0.007105	<0.01	<0.01	<0.01	<0.01
Mercury	mg/L	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.00025	<0.00025	<0.00025	<0.00025
Molybdenum	mg/L	0.000214	0.000182 J	0.000178 J	0.00298	<0.005075	<0.005075	<0.002	<0.002	<0.002	<0.002
Selenium	mg/L	<0.000507	<0.000508	<0.000508	<0.000508	<0.000508	<0.000508	<0.002	<0.002	<0.002	<0.002
Thallium	mg/L	<6.8e-005	<6.8e-005	<6.8e-005	<6.8e-005	<6.8e-005	<6.8e-005	<0.0002	<0.0002	<0.0002	<0.0002

Notes:

1. mg/L - Milligrams per Liter
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3. J - Result is an estimated value. The result is greater than or equal to the Method Detection Limit (MDL) and less than the Practical Quantita



ANALYTICAL DATA SUMMARY
Ash Pond (02/23/2016 - 08/16/2023)
APC Plant Barry
Mobile County Alabama

Analyte	Units	BY-AP-MW-8									
		10/18/2016	01/31/2017	03/22/2017	05/03/2017	06/07/2017	09/14/2017	01/24/2018	05/02/2018	11/27/2018	05/29/2019
Appendix III											
Boron	mg/L	1.4	1.46	--	1.45	1.41	1.16	--	1.12	1.31	1.44
Calcium	mg/L	33.2	32.3	--	34.1	34.7	34.4	--	32.3	32.5	31.9
Chloride	mg/L	20.2	--	24	25	24	24	--	23	27	27.4
Fluoride	mg/L	0.042 J	--	0.1	0.05 J	0.05 J	0.05 J	0.04 J	0.04 J	<0.032	0.0958 J
pH_Field	SU	6.21	6.17	6.22	6.22	6.21	6.18	6.16	6.17	6.18	6.11
Sulfate	mg/L	<0.3	--	<1.4	2.7 J	<1.4	<1.4	--	<1.4	<1.4	6.01
TDS	mg/L	295	303	--	300	284	325	--	306	303	291
Appendix IV											
Antimony	mg/L	<0.0006	0.00074 J	--	<0.0006	<0.0006	--	<0.0006	<0.0006	<0.0008	<0.0008
Arsenic	mg/L	0.0394	0.0408	--	0.0416	0.0395	--	0.0536	0.0572	0.0536	0.0482
Barium	mg/L	0.14	0.134	--	0.145	0.128	--	0.129	0.149	0.143	0.138
Beryllium	mg/L	<0.0006	<0.0006	--	<0.0006	<0.0006	--	<0.0006	<0.0006	<0.0006	<0.0006
Cadmium	mg/L	<0.0002	<0.0002	--	<0.0002	<0.0002	--	<0.0003	<0.0003	<0.0003	<0.0003
Chromium	mg/L	<0.002	<0.002	--	<0.002	<0.002	--	<0.002	<0.002	<0.002	<0.002
Cobalt	mg/L	<0.002	<0.002	--	<0.002	<0.002	--	<0.002	<0.002	<0.002	<0.002
Combined Radium 226 + 228	pCi/L	1.32	0.801	--	0.648	0.408 U	--	0.706 U	0.572	0.687	0.627 U
Fluoride	mg/L	0.042 J	--	0.1	0.05 J	0.05 J	0.05 J	0.04 J	0.04 J	<0.032	0.0958 J
Lead	mg/L	<0.001	<0.001	--	<0.001	<0.001	--	<0.001	<0.001	<0.001	<0.001
Lithium	mg/L	<0.01	<0.01	--	<0.01	<0.01	--	<0.01	<0.01	<0.01	<0.01
Mercury	mg/L	<0.00025	<0.00025	--	<0.00025	<0.00025	--	<0.00025	<0.00025	<0.00025	<0.0003
Molybdenum	mg/L	<0.002	<0.002	--	<0.002	<0.002	--	<0.002	<0.002	<0.002	<0.002
Selenium	mg/L	<0.002	<0.002	--	<0.002	<0.002	--	<0.002	<0.002	<0.002	<0.002
Thallium	mg/L	<0.0002	<0.0002	--	<0.0002	<0.0002	--	<0.0002	<0.0002	<0.0002	<0.0002

Notes:

1. mg/L - Milligrams per Liter
2. pCi/L - picocuries per Liter
3. J - Result is an estimated value. The result is greater than or equal to the Method Detection Limit (MDL) and less than the Practical Quantita



ANALYTICAL DATA SUMMARY
Ash Pond (02/23/2016 - 08/16/2023)
APC Plant Barry
Mobile County Alabama

Analyte	Units	BY-AP-MW-8									BY-AP-MW-9
		09/30/2019	03/30/2020	09/02/2020	05/11/2021	10/26/2021	05/24/2022	11/02/2022	04/03/2023	08/07/2023	03/01/2016
Appendix III											
Boron	mg/L	1.38	1.12	1.26	0.971	0.933	1.12	1.59	0.129	0.0437 J	1.79
Calcium	mg/L	33	32.2	31.5	33	33.5	31.5	31	4.21	4.68	40.3
Chloride	mg/L	25.5	22.6	22.2	21.9	21.7	25	26.6	10.8	6.63	20.4
Fluoride	mg/L	0.0559 J	0.0701 J	<0.06	0.094 J	<0.06	0.0713 J	<0.06	0.0706 J	0.112 J	0.04 J
pH_Field	SU	6.19	6.2	5.89	6.25	6.26	5.6	6.28	6.34	6.82	6.26
Sulfate	mg/L	5.29	33.1	15.8	35.4	25.7	81.3	7.58	32.1	38.6	<0.3
TDS	mg/L	293	310	298	318	332	303	293	107	90	314
Appendix IV											
Antimony	mg/L	<0.0008	<0.0008	<0.0008	<0.000507	<0.000508	<0.000508	<0.000508	<0.00071	<0.00071	<0.0006
Arsenic	mg/L	0.0514	0.0589	0.0629	0.0659	0.0668	0.0583	0.0415	0.00353	0.0024	0.0322
Barium	mg/L	0.138	0.141	0.151	0.147	0.136	0.142	0.149	0.0223	0.0215	0.114
Beryllium	mg/L	<0.0006	<0.0006	<0.0006	<0.000406	<0.000406	<0.000406	<0.000406	<0.000406	<0.000406	<0.0006
Cadmium	mg/L	<0.0003	<0.0003	<0.0003	<6.8e-005	<6.8e-005	<6.8e-005	<6.8e-005	<6.8e-005	<6.8e-005	<0.0002
Chromium	mg/L	<0.002	<0.002	<0.002	0.00156	0.00165	0.00128	0.001 J	0.00115	0.000611 J	<0.002
Cobalt	mg/L	<0.002	<0.002	<0.002	0.000778	0.000788	0.000666	0.00059	0.000153 J	<6.8e-005	<0.002
Combined Radium 226 + 228	pCi/L	0.321 U	0.6	3.95	0.648 U	1.61	0.733 U	0.503 U	1.21	0.789 U	1.5514 U
Fluoride	mg/L	0.0559 J	0.0701 J	<0.06	0.094 J	<0.06	0.0713 J	<0.06	0.0706 J	0.112 J	0.04 J
Lead	mg/L	<0.001	<0.001	<0.001	<6.8e-005	<6.8e-005	<6.8e-005	<6.8e-005	<6.8e-005	8.06e-005 J	<0.001
Lithium	mg/L	<0.01	<0.01	<0.01	<0.007105	<0.007105	<0.007105	<0.007105	<0.007105	<0.007105	<0.01
Mercury	mg/L	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.00025
Molybdenum	mg/L	<0.002	<0.002	<0.002	0.000321	0.000193 J	0.000234	0.000232	<0.005075	<0.005075	<0.002
Selenium	mg/L	<0.002	<0.002	<0.002	<0.000507	<0.000508	<0.000508	<0.000508	<0.000508	<0.000508	<0.002
Thallium	mg/L	<0.0002	<0.0002	<0.0002	<6.8e-005	<6.8e-005	<6.8e-005	<6.8e-005	<6.8e-005	<6.8e-005	<0.0002

Notes:

1. mg/L - Milligrams per Liter
2. pCi/L - picocuries per Liter
3. J - Result is an estimated value. The result is greater than or equal to the Method Detection Limit (MDL) and less than the Practical Quantita



ANALYTICAL DATA SUMMARY
Ash Pond (02/23/2016 - 08/16/2023)
APC Plant Barry
Mobile County Alabama

Analyte	Units	BY-AP-MW-9									
		04/20/2016	06/08/2016	08/31/2016	10/19/2016	02/01/2017	03/22/2017	05/03/2017	06/07/2017	09/14/2017	01/23/2018
Appendix III											
Boron	mg/L	2.01	2.23	2.14	2.13	2.17	--	2.28	2.25	2.41	--
Calcium	mg/L	38.2	39.2	38.2	38.7	39.2	--	39.1	40.3	40.7	--
Chloride	mg/L	22.7	25.3	24.4	23	--	26	26	27	24	--
Fluoride	mg/L	0.052 J	0.077 J	0.056 J	0.045 J	--	0.05 J	0.06 J	0.06 J	0.07 J	0.06 J
pH_Field	SU	6.26	6.25	6.29	6.22	6.24	6.28	6.17	6.24	6.24	6.3
Sulfate	mg/L	<0.3	0.51 J	<0.3	<0.3	--	5	2.7 J	5	<1.4	--
TDS	mg/L	338	288	334	333	330	--	338	300	350	--
Appendix IV											
Antimony	mg/L	<0.0006	<0.0006	<0.0006	<0.0006	0.000738 J	--	<0.0006	<0.0006	--	<0.0006
Arsenic	mg/L	0.0354	0.0385	0.0404	0.0412	0.0374	--	0.0444	0.0423	--	0.0435
Barium	mg/L	0.114	0.128	0.123	0.118	0.104	--	0.126	0.111	--	0.115
Beryllium	mg/L	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	--	<0.0006	<0.0006	--	<0.0006
Cadmium	mg/L	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	--	<0.0002	<0.0002	--	<0.0003
Chromium	mg/L	<0.002	<0.002	<0.002	<0.002	<0.002	--	<0.002	<0.002	--	<0.002
Cobalt	mg/L	<0.002	<0.002	<0.002	<0.002	<0.002	--	<0.002	<0.002	--	<0.002
Combined Radium 226 + 228	pCi/L	1 U	0.837	0.917	1.41	0.785	--	1.33	0.758	--	1.06 U
Fluoride	mg/L	0.052 J	0.077 J	0.056 J	0.045 J	--	0.05 J	0.06 J	0.06 J	0.07 J	0.06 J
Lead	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.001	--	<0.001
Lithium	mg/L	<0.01	<0.01	<0.01	<0.01	<0.01	--	<0.01	<0.01	--	<0.01
Mercury	mg/L	<0.00025	<0.00025	<0.00025	<0.00025	<0.00025	--	<0.00025	<0.00025	--	<0.00025
Molybdenum	mg/L	<0.002	<0.002	<0.002	<0.002	<0.002	--	<0.002	<0.002	--	<0.002
Selenium	mg/L	<0.002	<0.002	<0.002	<0.002	<0.002	--	<0.002	<0.002	--	<0.002
Thallium	mg/L	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	--	<0.0002	<0.0002	--	<0.0002

Notes:

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3. J - Result is an estimated value. The result is greater than or equal to the Method Detection Limit (MDL) and less than the Practical Quantita



ANALYTICAL DATA SUMMARY
Ash Pond (02/23/2016 - 08/16/2023)
APC Plant Barry
Mobile County Alabama

Analyte	Units	BY-AP-MW-9									
		05/02/2018	11/28/2018	05/30/2019	09/30/2019	03/31/2020	09/02/2020	05/18/2021	10/27/2021	05/24/2022	10/31/2022
Appendix III											
Boron	mg/L	2.34	2.23	2.44	2.34	2.27	2.05	2.08	2.04	2.01	2.3
Calcium	mg/L	40	39.7	38.3	39.9	40.1	38	40.5	40.3	38.3	38.1
Chloride	mg/L	22	23	27.3	21.7	20.6	18.5	18.3	19.1	17.3	25.1
Fluoride	mg/L	0.05 J	0.04 J	0.0745 J	0.0679 J	0.0655 J	0.0804 J	0.0709 J	0.0803 J	<0.06	0.0788 J
pH_Field	SU	6.31	6.32	6.14	6.07	6.31	5.97	6.3	6.13	6.03	6.26
Sulfate	mg/L	<1.4	1.4 J	4.69	3.77	43.5	21.9	27.7	6.33	5.76	11.4
TDS	mg/L	333	330	316	319	330	301	314	302	268	329
Appendix IV											
Antimony	mg/L	<0.0006	<0.0008	<0.0008	<0.0008	<0.0008	<0.0008	<0.000507	<0.000508	<0.000508	<0.000508
Arsenic	mg/L	0.0437	0.0422	0.0383	0.0391	0.0393	0.0432	0.0435	0.0468	0.0404	0.023
Barium	mg/L	0.125	0.119	0.119	0.117	0.119	0.124	0.125	0.117	0.117	0.111
Beryllium	mg/L	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.000406	<0.000406	<0.000406	<0.000406
Cadmium	mg/L	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<6.8e-005	<6.8e-005	<6.8e-005	<6.8e-005
Chromium	mg/L	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	0.00078 J	0.00087 J	0.000701 J	0.000692 J
Cobalt	mg/L	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	0.000725	0.000702	0.000695	0.000698
Combined Radium 226 + 228	pCi/L	0.983	0.747	1.08	0.58	0.82	2.25	0.98 U	1.07 U	2.11	1.64
Fluoride	mg/L	0.05 J	0.04 J	0.0745 J	0.0679 J	0.0655 J	0.0804 J	0.0709 J	0.0803 J	<0.06	0.0788 J
Lead	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<6.8e-005	<6.8e-005	<6.8e-005	<6.8e-005
Lithium	mg/L	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.007105	<0.007105	<0.007105	<0.007105
Mercury	mg/L	<0.00025	<0.00025	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003
Molybdenum	mg/L	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	0.00022	0.000214	0.00024	0.000157 J
Selenium	mg/L	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.000507	<0.000508	<0.000508	<0.000508
Thallium	mg/L	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<6.8e-005	<6.8e-005	<6.8e-005	<6.8e-005

Notes:

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3. J - Result is an estimated value. The result is greater than or equal to the Method Detection Limit (MDL) and less than the Practical Quantita



ANALYTICAL DATA SUMMARY
Ash Pond (02/23/2016 - 08/16/2023)
APC Plant Barry
Mobile County Alabama

Analyte	Units	BY-AP-MW-9		BY-AP-MW-10							
		04/04/2023	08/07/2023	03/01/2016	04/20/2016	06/08/2016	08/31/2016	10/19/2016	02/01/2017	03/22/2017	05/03/2017
Appendix III											
Boron	mg/L	1.65	1.16	1.39	1.51	1.62	1.73	1.77	1.42	--	1.52
Calcium	mg/L	32.4	25.2	50.6	49.1	48.7	57.9	52.2	47.6	--	51.3
Chloride	mg/L	18	15.7	19.6	18.8	18.6	18.5	18.7	--	21	22
Fluoride	mg/L	0.0797 J	0.0808 J	0.02 J	0.034 J	0.061 J	0.04 J	0.03 J	--	<0.032	0.04 J
pH_Field	SU	6.15	6.13	6.33	6.31	6.34	6.35	6.35	6.27	6.29	6.23
Sulfate	mg/L	25.3	30.4	0.34 J	<0.3	0.538 J	<0.3	<0.3	--	<1.4	4.1 J
TDS	mg/L	317	224	326	366	314	368	381	342	--	369
Appendix IV											
Antimony	mg/L	<0.00071	<0.00071	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	0.000743 J	--	<0.0006
Arsenic	mg/L	0.0147	0.0315	0.0264	0.0303	0.0306	0.0304	0.0314	0.0274	--	0.03
Barium	mg/L	0.128	0.0829	0.0634	0.0622	0.0642	0.063	0.0577	0.0607	--	0.0665
Beryllium	mg/L	<0.000406	<0.000406	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	--	<0.0006
Cadmium	mg/L	<6.8e-005	<6.8e-005	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	--	<0.0002
Chromium	mg/L	0.00062 J	0.000492 J	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	--	<0.002
Cobalt	mg/L	0.000737	0.000514	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	--	<0.002
Combined Radium 226 + 228	pCi/L	1.05 U	0.578 U	1 U	1 U	1.06	0.871	1.25	1	--	1.07
Fluoride	mg/L	0.0797 J	0.0808 J	0.02 J	0.034 J	0.061 J	0.04 J	0.03 J	--	<0.032	0.04 J
Lead	mg/L	<6.8e-005	<6.8e-005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	--	<0.001
Lithium	mg/L	<0.007105	<0.007105	<0.1	<0.01	<0.01	<0.01	<0.01	<0.01	--	<0.01
Mercury	mg/L	<0.0003	<0.0003	<0.00025	<0.00025	<0.00025	<0.00025	<0.00025	<0.00025	--	<0.00025
Molybdenum	mg/L	<0.005075	<0.005075	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	--	<0.002
Selenium	mg/L	<0.000508	<0.000508	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	--	<0.002
Thallium	mg/L	<6.8e-005	<6.8e-005	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	--	<0.0002

Notes:

1. mg/L - Milligrams per Liter
2. pCi/L - picocuries per Liter
3. J - Result is an estimated value. The result is greater than or equal to the Method Detection Limit (MDL) and less than the Practical Quantita



ANALYTICAL DATA SUMMARY
Ash Pond (02/23/2016 - 08/16/2023)
APC Plant Barry
Mobile County Alabama

Analyte	Units	BY-AP-MW-10									
		06/07/2017	09/14/2017	01/23/2018	05/02/2018	11/28/2018	05/30/2019	09/30/2019	03/31/2020	09/01/2020	05/11/2021
Appendix III											
Boron	mg/L	1.52	1.96	--	2	2	2.11	2.02	2.12	2.02	1.99
Calcium	mg/L	51.4	54.9	--	53.3	54.2	60.5	63.1	63.6	57.2	62.7
Chloride	mg/L	22	22	--	23	25	25.9	25.7	26.1	25	27.3
Fluoride	mg/L	0.04 J	0.04 J	<0.032	<0.032	<0.032	0.0573 J	<0.05	<0.06	0.0794 J	0.105
pH_Field	SU	6.27	6.27	6.32	6.36	6.32	6.23	6.11	6.37	6.33	6.4
Sulfate	mg/L	5	<1.4	--	<1.4	<1.4	3.76	2.77	20.1	15.6	13.2
TDS	mg/L	340	391	--	343	378	377	361	387	392	391
Appendix IV											
Antimony	mg/L	<0.0006	--	<0.0006	<0.0006	<0.0008	<0.0008	<0.0008	<0.0008	<0.0008	<0.000507
Arsenic	mg/L	0.0303	--	0.0362	0.0433	0.0536	0.0671	0.0704	0.0702	0.0763	0.0762
Barium	mg/L	0.0632	--	0.0673	0.0752	0.066	0.063	0.0669	0.0727	0.078	0.0757
Beryllium	mg/L	<0.0006	--	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.000406
Cadmium	mg/L	<0.0002	--	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<6.8e-005
Chromium	mg/L	<0.002	--	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	0.000685 J
Cobalt	mg/L	<0.002	--	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	0.000636
Combined Radium 226 + 228	pCi/L	0.254 U	--	0.795 U	0.405	0.609	0.0949 U	0.965	1.14	1.68	1.12 U
Fluoride	mg/L	0.04 J	0.04 J	<0.032	<0.032	<0.032	0.0573 J	<0.05	<0.06	0.0794 J	0.105
Lead	mg/L	<0.001	--	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<6.8e-005
Lithium	mg/L	<0.01	--	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.007105
Mercury	mg/L	<0.00025	--	<0.00025	<0.00025	<0.00025	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003
Molybdenum	mg/L	<0.002	--	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<6.8e-005
Selenium	mg/L	<0.002	--	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.000507
Thallium	mg/L	<0.0002	--	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<6.8e-005

Notes:

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3. J - Result is an estimated value. The result is greater than or equal to the Method Detection Limit (MDL) and less than the Practical Quantita



ANALYTICAL DATA SUMMARY
Ash Pond (02/23/2016 - 08/16/2023)
APC Plant Barry
Mobile County Alabama

Analyte	Units	BY-AP-MW-10					BY-AP-MW-11				
		10/27/2021	05/24/2022	11/02/2022	04/03/2023	08/07/2023	03/01/2016	04/20/2016	06/08/2016	08/31/2016	10/19/2016
Appendix III											
Boron	mg/L	2.39	2.34	2.02	2.22	1.68	0.0482 J	0.059 J	0.0568 J	0.0651 J	0.06 J
Calcium	mg/L	64.2	63.9	59.5	48.8	58.4	35.3	28.9	27.6	25.4	25.7
Chloride	mg/L	27.2	30.8	25.1	29.7	23.5	21.7	20.7	20.4	20.3	20.3
Fluoride	mg/L	<0.06	<0.06	<0.06	<0.06	<0.06	0.06 J	0.073 J	0.085 J	0.064 J	0.05 J
pH_Field	SU	5.91	5.81	6.39	6.05	6.27	6.34	6.31	6.33	6.29	6.26
Sulfate	mg/L	5.72	14.7	10.2	15	17.8	1.02	1.1	0.701 J	<0.3	<0.3
TDS	mg/L	373	357	344	370	359	395	376	324	367	367
Appendix IV											
Antimony	mg/L	<0.000508	<0.000508	<0.000508	<0.00071	<0.00071	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006
Arsenic	mg/L	0.0705	0.0775	0.0742	0.0561	0.0256	0.01	0.0127	0.0136	0.0149	0.0149
Barium	mg/L	0.0638	0.0618	0.0617	0.0628	0.0675	0.122	0.11	0.105	0.102	0.0953
Beryllium	mg/L	<0.000406	<0.000406	<0.000406	<0.000406	<0.000406	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006
Cadmium	mg/L	<6.8e-005	<6.8e-005	<6.8e-005	<6.8e-005	<6.8e-005	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Chromium	mg/L	0.000724 J	0.000522 J	0.000642 J	0.00066 J	0.000561 J	0.00213 J	0.00214 J	0.00205 J	0.00221 J	0.00213 J
Cobalt	mg/L	0.000645	0.000543	0.000605	0.000622	0.000642	<0.002	<0.002	<0.002	<0.002	<0.002
Combined Radium 226 + 228	pCi/L	1.2 U	1.36 U	0.886 U	0.75 U	1.34	1 U	0.667	0.704	0.726	0.737
Fluoride	mg/L	<0.06	<0.06	<0.06	<0.06	<0.06	0.06 J	0.073 J	0.085 J	0.064 J	0.05 J
Lead	mg/L	<6.8e-005	<6.8e-005	<6.8e-005	<6.8e-005	<6.8e-005	<0.001	<0.001	<0.001	<0.001	<0.001
Lithium	mg/L	<0.007105	<0.007105	<0.007105	<0.007105	<0.007105	<0.01	<0.01	<0.01	<0.01	<0.01
Mercury	mg/L	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.00025	<0.00025	<0.00025	<0.00025	<0.00025
Molybdenum	mg/L	<6.8e-005	<0.000102	<0.000102	<0.005075	<0.005075	<0.002	<0.002	<0.002	<0.002	<0.002
Selenium	mg/L	<0.000508	<0.000508	<0.000508	<0.000508	<0.000508	<0.002	<0.002	<0.002	<0.002	<0.002
Thallium	mg/L	<6.8e-005	<6.8e-005	<6.8e-005	<6.8e-005	<6.8e-005	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002

Notes:

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ANALYTICAL DATA SUMMARY
Ash Pond (02/23/2016 - 08/16/2023)
APC Plant Barry
Mobile County Alabama

Analyte	Units	BY-AP-MW-11									
		02/01/2017	03/22/2017	05/03/2017	06/07/2017	09/13/2017	01/23/2018	05/02/2018	11/28/2018	05/29/2019	09/30/2019
Appendix III											
Boron	mg/L	0.0638 J	--	0.0655 J	0.0468 J	0.0751 J	--	0.0545 J	0.0545 J	0.082 J	0.103
Calcium	mg/L	25.6	--	24	25.2	25.5	--	25.2	24.6	23.9	24.6
Chloride	mg/L	--	27	27	24	26	--	23	25	27.8	25
Fluoride	mg/L	--	0.05 J	0.06 J	0.06 J	0.07 J	0.06 J	0.06 J	0.05 J	0.0759 J	0.0733 J
pH_Field	SU	6.22	6.22	6.15	6.21	6.26	6.28	6.33	6.28	6.24	5.85
Sulfate	mg/L	--	2.1 J	3.6 J	5	<1.4	--	<1.4	<1.4	24.1	37.4
TDS	mg/L	391	--	373	367	378	--	330	357	367	399
Appendix IV											
Antimony	mg/L	0.000812 J	--	<0.0006	<0.0006	--	<0.0006	<0.0006	<0.0008	<0.0008	<0.0008
Arsenic	mg/L	0.0151	--	0.0155	0.0145	--	0.0154	0.0158	0.014	0.0132	0.0145
Barium	mg/L	0.0917	--	0.0951	0.0864	--	0.0868	0.0816	0.0796	0.0653	0.0759
Beryllium	mg/L	<0.0006	--	<0.0006	<0.0006	--	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006
Cadmium	mg/L	<0.0002	--	<0.0002	<0.0002	--	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003
Chromium	mg/L	0.00228 J	--	0.00229 J	0.00233 J	--	0.00248 J	0.00273 J	0.0023 J	0.00211 J	0.00228 J
Cobalt	mg/L	<0.002	--	<0.002	<0.002	--	<0.002	<0.002	<0.002	<0.002	<0.002
Combined Radium 226 + 228	pCi/L	0.766	--	0.515	1.04	--	1.17 U	0.505	0.232 U	0.726	0.489 U
Fluoride	mg/L	--	0.05 J	0.06 J	0.06 J	0.07 J	0.06 J	0.06 J	0.05 J	0.0759 J	0.0733 J
Lead	mg/L	<0.001	--	<0.001	<0.001	--	<0.001	<0.001	<0.001	<0.001	<0.001
Lithium	mg/L	<0.01	--	<0.01	<0.01	--	<0.01	0.0384 J	0.0262	0.0321	0.0228
Mercury	mg/L	<0.00025	--	<0.00025	<0.00025	--	<0.00025	<0.00025	<0.00025	<0.0003	<0.0003
Molybdenum	mg/L	<0.002	--	<0.002	<0.002	--	<0.002	<0.002	<0.002	<0.002	<0.002
Selenium	mg/L	<0.002	--	<0.002	<0.002	--	<0.002	<0.002	<0.002	<0.002	<0.002
Thallium	mg/L	<0.0002	--	<0.0002	<0.0002	--	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002

Notes:

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ANALYTICAL DATA SUMMARY
Ash Pond (02/23/2016 - 08/16/2023)
APC Plant Barry
Mobile County Alabama

Analyte	Units	BY-AP-MW-11								BY-AP-MW-12	
		03/31/2020	09/01/2020	05/19/2021	11/02/2021	05/23/2022	11/01/2022	04/04/2023	08/07/2023	03/02/2016	04/20/2016
Appendix III											
Boron	mg/L	0.0815 J	0.104	0.0856 J	0.0691 J	0.0558 J	0.0727 J	0.0581 J	0.0562 J	0.0502 J	0.0672 J
Calcium	mg/L	25.1	23.9	41.5	25.8	26	26.4	26.6	23.5	21	20.1
Chloride	mg/L	24.1	23.2	23.1	25.1	25.1	22.7	28.9	24	22.2	21.7
Fluoride	mg/L	0.078 J	0.0841 J	0.0994 J	0.101	0.0709 J	0.0612 J	0.126	0.099 J	0.04 J	0.059 J
pH_Field	SU	6.26	5.87	6.33	5.84	6.32	6.28	6.27	6.3	6.16	6.17
Sulfate	mg/L	57.5	42.8	16.5	133	29.3	47.7	84.3	158	<0.3	<0.3
TDS	mg/L	393	399	422	390	404	419	392	409	351	353
Appendix IV											
Antimony	mg/L	<0.0008	<0.0008	<0.000507	<0.000508	<0.000508	<0.000508	<0.00071	<0.00071	<0.0006	<0.0006
Arsenic	mg/L	0.0158	0.0165	0.0166	0.0161	0.0142	0.0148	0.0128	0.0136	0.0215	0.0214
Barium	mg/L	0.0842	0.0923	0.112	0.0894	0.0691	0.078	0.0699	0.0637	0.0815	0.0692
Beryllium	mg/L	<0.0006	<0.0006	<0.000406	<0.000406	<0.000406	<0.000406	<0.000406	<0.000406	<0.0006	<0.0006
Cadmium	mg/L	<0.0003	<0.0003	<6.8e-005	<6.8e-005	<6.8e-005	<6.8e-005	<6.8e-005	<6.8e-005	<0.0002	<0.0002
Chromium	mg/L	0.00358 J	0.00259 J	0.00301	0.00348	0.00474	0.00316	0.00254	0.00232	0.0042 J	0.0034 J
Cobalt	mg/L	<0.002	<0.002	0.00257	0.00118	0.00118	0.00105	0.000946	0.00101	0.00235 J	0.00212 J
Combined Radium 226 + 228	pCi/L	0.462 U	0.752	1.15	0.504 U	0.452 U	1.03	0.562 U	1.12	1 U	1 U
Fluoride	mg/L	0.078 J	0.0841 J	0.0994 J	0.101	0.0709 J	0.0612 J	0.126	0.099 J	0.04 J	0.059 J
Lead	mg/L	<0.001	<0.001	0.000102 J	0.000126 J	9.32e-005 J	7.77e-005 J	6.9e-005 J	<6.8e-005	<0.001	<0.001
Lithium	mg/L	0.022	<0.01	0.00754 J	<0.007105	0.0269	0.0182 J	0.034	0.0284	<0.01	<0.01
Mercury	mg/L	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.00025	<0.00025
Molybdenum	mg/L	<0.002	<0.002	0.00652	0.00161	0.00141	0.000972	<0.005075	<0.005075	<0.002	<0.002
Selenium	mg/L	<0.002	<0.002	<0.000507	<0.000508	<0.000508	<0.000508	<0.000508	<0.000508	<0.002	<0.002
Thallium	mg/L	<0.0002	<0.0002	<6.8e-005	<6.8e-005	<6.8e-005	<6.8e-005	<6.8e-005	<6.8e-005	<0.0002	<0.0002

Notes:

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ANALYTICAL DATA SUMMARY
Ash Pond (02/23/2016 - 08/16/2023)
APC Plant Barry
Mobile County Alabama

Analyte	Units	BY-AP-MW-12									
		06/07/2016	06/08/2016	08/31/2016	10/19/2016	02/01/2017	03/22/2017	05/03/2017	06/07/2017	09/13/2017	01/23/2018
Appendix III											
Boron	mg/L	--	0.0659 J	0.065 J	0.0721 J	0.06 J	--	0.0768 J	0.0625 J	0.0926 J	--
Calcium	mg/L	--	20.2	19.9	20.4	20.9	--	20.9	21.2	22.1	--
Chloride	mg/L	--	22	22.3	20.8	--	23	25	23	23	--
Fluoride	mg/L	--	0.08 J	0.059 J	0.045 J	--	0.04 J	0.06 J	0.06 J	0.07 J	0.05 J
pH_Field	SU	--	6.25	6.23	6.2	6.08	6.12	6.12	6.13	6.19	6.17
Sulfate	mg/L	--	0.511 J	<0.3	<0.3	--	<1.4	2.1 J	5	<1.4	--
TDS	mg/L	--	330	354	354	360	--	341	337	359	--
Appendix IV											
Antimony	mg/L	--	<0.0006	<0.0006	<0.0006	0.000838 J	--	<0.0006	<0.0006	--	<0.0006
Arsenic	mg/L	--	0.0221	0.0223	0.0227	0.0215	--	0.0227	0.0211	--	0.0227
Barium	mg/L	--	0.0763	0.0741	0.0727	0.0701	--	0.078	0.0682	--	0.0744
Beryllium	mg/L	--	<0.0006	<0.0006	<0.0006	<0.0006	--	<0.0006	<0.0006	--	<0.0006
Cadmium	mg/L	--	<0.0002	<0.0002	<0.0002	<0.0002	--	<0.0002	<0.0002	--	<0.0003
Chromium	mg/L	--	0.00308 J	0.0032 J	0.0035 J	0.00371 J	--	0.00369 J	0.00372 J	--	0.00605 J
Cobalt	mg/L	--	0.00276 J	0.00261 J	0.00256 J	0.00231 J	--	0.00279 J	0.00262 J	--	0.00248 J
Combined Radium 226 + 228	pCi/L	1.08	--	0.528	0.81	1.11	--	0.639	0.705	--	1.1 U
Fluoride	mg/L	--	0.08 J	0.059 J	0.045 J	--	0.04 J	0.06 J	0.06 J	0.07 J	0.05 J
Lead	mg/L	--	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.001	--	<0.001
Lithium	mg/L	--	<0.01	<0.01	<0.01	<0.01	--	<0.01	<0.01	--	<0.01
Mercury	mg/L	--	<0.00025	<0.00025	<0.00025	<0.00025	--	<0.00025	<0.00025	--	<0.00025
Molybdenum	mg/L	--	<0.002	<0.002	<0.002	<0.002	--	<0.002	<0.002	--	<0.002
Selenium	mg/L	--	<0.002	<0.002	<0.002	<0.002	--	<0.002	<0.002	--	<0.002
Thallium	mg/L	--	<0.0002	<0.0002	<0.0002	<0.0002	--	<0.0002	<0.0002	--	<0.0002

Notes:

1. mg/L - Milligrams per Liter
2. pCi/L - picocuries per Liter
3. J - Result is an estimated value. The result is greater than or equal to the Method Detection Limit (MDL) and less than the Practical Quantita



ANALYTICAL DATA SUMMARY
Ash Pond (02/23/2016 - 08/16/2023)
APC Plant Barry
Mobile County Alabama

Analyte	Units	BY-AP-MW-12									
		05/02/2018	11/28/2018	05/29/2019	10/01/2019	03/31/2020	09/01/2020	05/18/2021	11/01/2021	05/23/2022	11/01/2022
Appendix III											
Boron	mg/L	0.064 J	0.064 J	0.0952 J	0.0967 J	0.0856 J	0.115	0.0927 J	0.0769 J	0.0626 J	0.0777 J
Calcium	mg/L	22.2	22.1	21.4	23.1	22.4	22.2	23.1	21.8	20.6	22.6
Chloride	mg/L	21	23	24.1	26.1	23.9	23.4	25.4	27.4	26.2	24.9
Fluoride	mg/L	0.06 J	0.04 J	0.0677 J	0.0682 J	0.0755 J	0.0845 J	0.0614 J	0.0928 J	0.0873 J	0.0695 J
pH_Field	SU	6.15	6.11	6.13	6	6.21	6.19	5.58	5.75	6.12	6.21
Sulfate	mg/L	<1.4	<14	7.04	35.3	35.8	32.1	25.1	27	13	18
TDS	mg/L	310	336	321	344	331	356	332	349	345	363
Appendix IV											
Antimony	mg/L	<0.0006	<0.0008	<0.0008	<0.0008	<0.0008	<0.0008	<0.000507	<0.000508	<0.000508	<0.000508
Arsenic	mg/L	0.0239	0.0216	0.0215	0.0221	0.0246	0.0246	0.0237	0.0245	0.0245	0.0226
Barium	mg/L	0.0814	0.0788	0.0769	0.0795	0.0851	0.0827	0.0902	0.0823	0.0802	0.079
Beryllium	mg/L	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.000406	<0.000406	<0.000406	<0.000406
Cadmium	mg/L	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<6.8e-005	<6.8e-005	<6.8e-005	<6.8e-005
Chromium	mg/L	0.00351 J	0.00353 J	0.00333 J	0.00325 J	0.0056 J	0.00332 J	0.00377	0.00423	0.00374	0.0033
Cobalt	mg/L	0.00271 J	0.00274 J	0.00358 J	0.00303 J	0.00364 J	0.0031 J	0.00336	0.0037	0.00428	0.00406
Combined Radium 226 + 228	pCi/L	1.11	0.846	2.06	0.984	1.26	1.2	1.11	1.79	1.4	0.672 U
Fluoride	mg/L	0.06 J	0.04 J	0.0677 J	0.0682 J	0.0755 J	0.0845 J	0.0614 J	0.0928 J	0.0873 J	0.0695 J
Lead	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.000326	0.000292	0.000179 J	<6.8e-005
Lithium	mg/L	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.007105	<0.007105	<0.007105	<0.007105
Mercury	mg/L	<0.00025	<0.00025	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003
Molybdenum	mg/L	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	0.000947	0.000985	0.00109	0.000942
Selenium	mg/L	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.000507	<0.000508	<0.000508	<0.000508
Thallium	mg/L	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<6.8e-005	<6.8e-005	<6.8e-005	<6.8e-005

Notes:

1. mg/L - Milligrams per Liter
2. pCi/L - picocuries per Liter
3. J - Result is an estimated value. The result is greater than or equal to the Method Detection Limit (MDL) and less than the Practical Quantita



ANALYTICAL DATA SUMMARY
Ash Pond (02/23/2016 - 08/16/2023)
APC Plant Barry
Mobile County Alabama

Analyte	Units	BY-AP-MW-12		BY-AP-MW-13							
		04/04/2023	08/08/2023	03/02/2016	04/20/2016	06/07/2016	06/08/2016	08/31/2016	10/19/2016	01/31/2017	03/22/2017
Appendix III											
Boron	mg/L	0.0629 J	0.0641 J	0.0328 J	0.0434 J	--	0.0391 J	0.0401 J	0.0427 J	0.034 J	--
Calcium	mg/L	23.3	21.9	16.7	13.1	--	11.7	11.3	11.8	12.5	--
Chloride	mg/L	25	22.3	47.3	40.5	--	37.2	38.2	39.4	--	49
Fluoride	mg/L	0.081 J	0.0672 J	0.05 J	0.064 J	--	0.082 J	0.062 J	0.049 J	--	0.05 J
pH_Field	SU	5.76	6.07	6.1	6.14	--	6.11	6.1	6.1	6.07	6.07
Sulfate	mg/L	39.6	65.1	<0.3	<0.3	--	0.496 J	<0.3	<0.3	--	6.9
TDS	mg/L	334	351	319	305	--	287	295	305	325	--
Appendix IV											
Antimony	mg/L	<0.00071	<0.00071	<0.0006	<0.0006	--	0.00111 J	<0.0006	<0.0006	0.000834 J	--
Arsenic	mg/L	0.0218	0.0222	0.0115	0.0123	--	0.0121	0.0127	0.0131	0.0131	--
Barium	mg/L	0.074	0.086	0.0947	0.0758	--	0.071	0.0722	0.0707	0.0686	--
Beryllium	mg/L	<0.000406	<0.000406	<0.0006	<0.0006	--	<0.0006	<0.0006	<0.0006	<0.0006	--
Cadmium	mg/L	<6.8e-005	<6.8e-005	<0.0002	<0.0002	--	<0.0002	<0.0002	<0.0002	<0.0002	--
Chromium	mg/L	0.00351	0.00496	0.00656 J	0.00661 J	--	0.0067 J	0.00693 J	0.00732 J	0.00699 J	--
Cobalt	mg/L	0.00309	0.00388	<0.002	<0.002	--	<0.002	<0.002	<0.002	<0.002	--
Combined Radium 226 + 228	pCi/L	1.42	1.21	1 U	0.398	0.812	--	0.46 U	0.601	1.1	--
Fluoride	mg/L	0.081 J	0.0672 J	0.05 J	0.064 J	--	0.082 J	0.062 J	0.049 J	--	0.05 J
Lead	mg/L	<6.8e-005	0.000572	<0.001	<0.001	--	<0.001	<0.001	<0.001	<0.001	--
Lithium	mg/L	<0.007105	<0.007105	<0.01	<0.01	--	<0.01	<0.01	<0.01	<0.01	--
Mercury	mg/L	<0.0003	<0.0003	<0.00025	<0.00025	--	<0.00025	<0.00025	<0.00025	<0.00025	--
Molybdenum	mg/L	<0.005075	<0.005075	<0.002	<0.002	--	<0.002	<0.002	<0.002	<0.002	--
Selenium	mg/L	<0.000508	<0.000508	<0.002	<0.002	--	<0.002	<0.002	<0.002	<0.002	--
Thallium	mg/L	<6.8e-005	<6.8e-005	<0.0002	<0.0002	--	<0.0002	<0.0002	<0.0002	<0.0002	--

Notes:

1. mg/L - Milligrams per Liter
2. pCi/L - picocuries per Liter
3. J - Result is an estimated value. The result is greater than or equal to the Method Detection Limit (MDL) and less than the Practical Quantita



ANALYTICAL DATA SUMMARY
Ash Pond (02/23/2016 - 08/16/2023)
APC Plant Barry
Mobile County Alabama

Analyte	Units	BY-AP-MW-13									
		05/03/2017	06/07/2017	09/13/2017	01/22/2018	05/02/2018	11/28/2018	05/29/2019	10/01/2019	03/31/2020	09/01/2020
Appendix III											
Boron	mg/L	0.0416 J	0.0277 J	0.044 J	--	0.0393 J	0.0417 J	0.0528 J	0.0604 J	0.0505 J	0.0642 J
Calcium	mg/L	12	12.8	13.3	--	13.8	15.2	12.8	13.4	13.2	12.3
Chloride	mg/L	48	49	42	--	47	43	44	39	44.9	39.1
Fluoride	mg/L	0.06 J	0.07 J	0.07 J	0.06 J	0.07 J	0.05 J	0.0679 J	0.0703 J	0.0665 J	0.0757 J
pH_Field	SU	6.1	6.07	6.12	6.12	6.13	6.04	6.01	6.02	5.98	5.82
Sulfate	mg/L	6.6	6	2.2 J	--	4.1 J	4.9 J	49.5	48.1	23.2	14.2
TDS	mg/L	306	320	332	--	320	304	307	290	290	285
Appendix IV											
Antimony	mg/L	<0.0006	0.000857 J	--	<0.0006	<0.0006	<0.0008	<0.0008	<0.0008	<0.0008	<0.0008
Arsenic	mg/L	0.014	0.0141	--	0.0149	0.0175	0.0141	0.0138	0.0144	0.0154	0.0148
Barium	mg/L	0.0756	0.0695	--	0.0688	0.0806	0.0697	0.0704	0.0696	0.0728	0.0722
Beryllium	mg/L	<0.0006	0.00103 J	--	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006
Cadmium	mg/L	<0.0002	0.00077 J	--	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003
Chromium	mg/L	0.00712 J	0.00752 J	--	0.00729 J	0.00642 J	0.0068 J	0.00727 J	0.00733 J	0.00955 J	0.00888 J
Cobalt	mg/L	<0.002	<0.002	--	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Combined Radium 226 + 228	pCi/L	0.832	0.752	--	0.898 U	0.752	0.523	1.01	1.07	0.725	0.698
Fluoride	mg/L	0.06 J	0.07 J	0.07 J	0.06 J	0.07 J	0.05 J	0.0679 J	0.0703 J	0.0665 J	0.0757 J
Lead	mg/L	<0.001	<0.001	--	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Lithium	mg/L	<0.01	<0.01	--	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Mercury	mg/L	<0.00025	<0.00025	--	<0.00025	<0.00025	<0.00025	<0.0003	<0.0003	<0.0003	<0.0003
Molybdenum	mg/L	<0.002	<0.002	--	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Selenium	mg/L	<0.002	<0.002	--	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Thallium	mg/L	<0.0002	0.000878 J	--	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002

Notes:

1. mg/L - Milligrams per Liter
2. pCi/L - picocuries per Liter
3. J - Result is an estimated value. The result is greater than or equal to the Method Detection Limit (MDL) and less than the Practical Quantita



ANALYTICAL DATA SUMMARY
Ash Pond (02/23/2016 - 08/16/2023)
APC Plant Barry
Mobile County Alabama

Analyte	Units	BY-AP-MW-13						BY-AP-MW-14			
		05/19/2021	10/26/2021	05/24/2022	11/01/2022	04/04/2023	08/09/2023	03/02/2016	04/20/2016	06/08/2016	08/30/2016
Appendix III											
Boron	mg/L	0.0604 J	0.0511 J	0.0453 J	0.0445 J	0.0391 J	0.0538 J	0.0395 J	0.0549 J	0.0593 J	0.0534 J
Calcium	mg/L	12.9	12.3	19.2	25.2	47.7	18.2	9.53	9.55	13.1	12.1
Chloride	mg/L	46.8	38.4	43.5	40.2	14.3	40.5	36.6	35.5	43.8	41.6
Fluoride	mg/L	0.0748 J	0.0641 J	0.0769 J	0.13	0.187	0.0948 J	0.07 J	0.076 J	0.105 J	0.083 J
pH_Field	SU	5.79	5.69	5.5	6.09	6.06	5.76	6.08	6.04	6.13	6.08
Sulfate	mg/L	50.4	21	38.3	86.9	24.6	23.5	<0.3	<0.3	0.514 J	<0.3
TDS	mg/L	300	280	259	313	220	309	266	311	353	328
Appendix IV											
Antimony	mg/L	<0.000507	<0.000508	<0.000508	<0.000508	<0.00071	<0.00071	<0.0006	<0.0006	<0.0006	<0.0006
Arsenic	mg/L	0.014	0.013	0.0128	0.0208	0.00645	0.0143	0.0101	0.0119	0.0119	0.0127
Barium	mg/L	0.0817	0.0667	0.0721	0.0783	0.0526	0.061	0.0491	0.049	0.0627	0.0635
Beryllium	mg/L	<0.000406	<0.000406	<0.000406	<0.000406	<0.000406	<0.000406	<0.0006	<0.0006	<0.0006	<0.0006
Cadmium	mg/L	<6.8e-005	<6.8e-005	<6.8e-005	<6.8e-005	<6.8e-005	<6.8e-005	<0.0002	<0.0002	<0.0002	<0.0002
Chromium	mg/L	0.00692	0.00755	0.00685	0.00772	0.00286	0.00763	0.00552 J	0.00572 J	0.00492 J	0.00534 J
Cobalt	mg/L	0.00113	0.00122	0.00189	0.00274	0.000801	0.0013	<0.002	<0.002	<0.002	<0.002
Combined Radium 226 + 228	pCi/L	1.15	1.74	0.915 U	0.569 U	0.885 U	0.938 U	1 U	1 U	0.631	0.693
Fluoride	mg/L	0.0748 J	0.0641 J	0.0769 J	0.13	0.187	0.0948 J	0.07 J	0.076 J	0.105 J	0.083 J
Lead	mg/L	<6.8e-005	<6.8e-005	0.000146 J	0.000151 J	0.000101 J	7.98e-005 J	<0.001	<0.001	<0.001	<0.001
Lithium	mg/L	<0.007105	<0.007105	<0.007105	<0.007105	<0.007105	<0.007105	<0.01	<0.01	<0.01	<0.01
Mercury	mg/L	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.00025	<0.00025	<0.00025	<0.00025
Molybdenum	mg/L	0.000437	0.000432	0.00369	0.00585	0.0108	<0.005075	<0.002	<0.002	<0.002	<0.002
Selenium	mg/L	<0.000507	<0.000508	0.000558 J	0.000611 J	0.000664 J	<0.000508	<0.002	<0.002	<0.002	<0.002
Thallium	mg/L	<6.8e-005	<6.8e-005	<6.8e-005	<6.8e-005	<6.8e-005	<6.8e-005	<0.0002	<0.0002	<0.0002	<0.0002

Notes:

1. mg/L - Milligrams per Liter
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ANALYTICAL DATA SUMMARY
Ash Pond (02/23/2016 - 08/16/2023)
APC Plant Barry
Mobile County Alabama

Analyte	Units	BY-AP-MW-14									
		10/18/2016	01/31/2017	03/22/2017	05/02/2017	06/06/2017	09/13/2017	01/23/2018	05/02/2018	11/27/2018	05/29/2019
Appendix III											
Boron	mg/L	0.0597 J	0.0479 J	--	0.0587 J	0.0428 J	0.0647 J	--	0.0484 J	0.0493 J	0.0682 J
Calcium	mg/L	11.4	10.8	--	11.9	12.2	13.9	--	10.6	10.8	11.2
Chloride	mg/L	39.5	--	46	42	44	43	--	39	43	50.1
Fluoride	mg/L	0.067 J	--	0.06 J	0.08 J	0.077 J	0.07 J	0.08 J	0.08 J	0.06 J	0.0781 J
pH_Field	SU	6.13	6.06	6.09	5.94	6.1	6.11	6.12	6.13	6.07	6.07
Sulfate	mg/L	<0.3	--	<1.4	1.8 J	5	<1.4	--	1.6 J	<1.4	67.6
TDS	mg/L	310	312	--	300	335	339	--	301	295	318
Appendix IV											
Antimony	mg/L	<0.0006	0.00086 J	--	<0.0006	<0.0006	--	<0.0006	<0.0006	<0.0008	<0.0008
Arsenic	mg/L	0.0136	0.0124	--	0.0131	0.0129	--	0.0148	0.0156	0.0145	0.014
Barium	mg/L	0.0603	0.0533	--	0.0616	0.0585	--	0.0608	0.0614	0.0589	0.0617
Beryllium	mg/L	<0.0006	<0.0006	--	<0.0006	<0.0006	--	<0.0006	<0.0006	<0.0006	<0.0006
Cadmium	mg/L	<0.0002	<0.0002	--	<0.0002	<0.0002	--	<0.0003	<0.0003	<0.0003	<0.0003
Chromium	mg/L	0.00556 J	0.00514 J	--	0.00524 J	0.00541 J	--	0.00573 J	0.00534 J	0.00523 J	0.00455 J
Cobalt	mg/L	<0.002	<0.002	--	<0.002	<0.002	--	<0.002	<0.002	<0.002	<0.002
Combined Radium 226 + 228	pCi/L	0.626	0.0723 U	--	0.363 U	0.198 U	--	0.294 U	0.522	0.576	0.437 U
Fluoride	mg/L	0.067 J	--	0.06 J	0.08 J	0.077 J	0.07 J	0.08 J	0.08 J	0.06 J	0.0781 J
Lead	mg/L	<0.001	<0.001	--	<0.001	<0.001	--	<0.001	<0.001	<0.001	<0.001
Lithium	mg/L	<0.01	<0.01	--	<0.01	<0.01	--	<0.01	<0.01	<0.01	<0.01
Mercury	mg/L	<0.00025	<0.00025	--	<0.00025	<0.00025	--	<0.00025	<0.00025	<0.00025	<0.0003
Molybdenum	mg/L	<0.002	<0.002	--	<0.002	<0.002	--	<0.002	<0.002	<0.002	<0.002
Selenium	mg/L	<0.002	<0.002	--	<0.002	<0.002	--	<0.002	<0.002	<0.002	<0.002
Thallium	mg/L	<0.0002	<0.0002	--	<0.0002	<0.0002	--	<0.0002	<0.0002	<0.0002	<0.0002

Notes:

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ANALYTICAL DATA SUMMARY
Ash Pond (02/23/2016 - 08/16/2023)
APC Plant Barry
Mobile County Alabama

Analyte	Units	BY-AP-MW-14									BY-AP-MW-15
		10/01/2019	03/31/2020	09/02/2020	05/25/2021	10/27/2021	05/25/2022	11/01/2022	04/05/2023	08/09/2023	03/02/2016
Appendix III											
Boron	mg/L	0.0701 J	0.0655 J	0.0789 J	0.074 J	0.0677 J	0.0618 J	0.0519 J	0.0587 J	0.0724 J	0.0447 J
Calcium	mg/L	11.4	9.04	10.8	11.2	11.4	11.4	10.9	9.78	11.6	6.61
Chloride	mg/L	44.8	44.7	47.2	52.1	42.9	45.3	53.1	47	47.1	20.9
Fluoride	mg/L	0.0885 J	0.0867 J	0.0957 J	0.0957 J	0.0651 J	0.0733 J	0.0685 J	0.127	0.0753 J	0.18 J
pH_Field	SU	6.01	5.76	5.8	5.82	6.41	6.14	5.93	5.93	5.83	6.61
Sulfate	mg/L	61.6	34.7	18.5	59.2	98.5	105	86.1	112	37.8	<0.3
TDS	mg/L	317	317	327	318	327	328	347	316	336	182
Appendix IV											
Antimony	mg/L	<0.0008	<0.0008	<0.0008	<0.000507	<0.000508	<0.000508	<0.000508	<0.00071	<0.00071	<0.0006
Arsenic	mg/L	0.0152	0.0177	0.0174	0.0172	0.0174	0.0183	0.0174	0.017	0.0176	0.0128
Barium	mg/L	0.0605	0.0619	0.0687	0.0745	0.0651	0.0693	0.0681	0.0594	0.0646	0.0468
Beryllium	mg/L	<0.0006	<0.0006	<0.0006	<0.000406	<0.000406	<0.000406	<0.000406	<0.000406	<0.000406	<0.0006
Cadmium	mg/L	<0.0003	<0.0003	<0.0003	<6.8e-005	<6.8e-005	<6.8e-005	<6.8e-005	<6.8e-005	<6.8e-005	<0.0002
Chromium	mg/L	0.00508 J	0.00463 J	0.00482 J	0.00365	0.00401	0.00345	0.00317	0.00336	0.00347	<0.002
Cobalt	mg/L	<0.002	<0.002	<0.002	0.00124	0.00125	0.00125	0.0012	0.00119	0.00125	0.0279
Combined Radium 226 + 228	pCi/L	1.11	0.941	2.12	0.978 U	0.587 U	1.25	0.528 U	0.746 U	0.709 U	1 U
Fluoride	mg/L	0.0885 J	0.0867 J	0.0957 J	0.0957 J	0.0651 J	0.0733 J	0.0685 J	0.127	0.0753 J	0.18 J
Lead	mg/L	<0.001	<0.001	<0.001	7.64e-005 J	8.69e-005 J	0.000102 J	8.29e-005 J	0.00011 J	0.000229	<0.001
Lithium	mg/L	<0.01	<0.01	<0.01	<0.007105	<0.007105	<0.007105	<0.007105	<0.007105	<0.007105	<0.01
Mercury	mg/L	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.00025
Molybdenum	mg/L	<0.002	<0.002	<0.002	0.000701	0.00053	0.000518	0.000643	<0.005075	<0.005075	0.00238 J
Selenium	mg/L	<0.002	<0.002	<0.002	<0.000507	<0.000508	<0.000508	<0.000508	<0.000508	<0.000508	<0.002
Thallium	mg/L	<0.0002	<0.0002	<0.0002	<6.8e-005	<6.8e-005	<6.8e-005	<6.8e-005	<6.8e-005	<6.8e-005	<0.0002

Notes:

1. mg/L - Milligrams per Liter
2. pCi/L - picocuries per Liter
3. J - Result is an estimated value. The result is greater than or equal to the Method Detection Limit (MDL) and less than the Practical Quantita



ANALYTICAL DATA SUMMARY
Ash Pond (02/23/2016 - 08/16/2023)
APC Plant Barry
Mobile County Alabama

Analyte	Units	BY-AP-MW-15									
		04/19/2016	06/08/2016	08/31/2016	10/19/2016	01/31/2017	03/21/2017	05/02/2017	06/06/2017	09/13/2017	01/22/2018
Appendix III											
Boron	mg/L	0.0645 J	0.0592 J	0.0632 J	0.0637 J	0.0536 J	--	0.0775 J	0.0535 J	0.0937 J	--
Calcium	mg/L	5.97	6.36	6.28	6.57	6.77	--	6.94	6.88	7.43	--
Chloride	mg/L	19.8	24	28	21.3	--	34	33	35	36	--
Fluoride	mg/L	0.21 J	0.223 J	0.196 J	0.166 J	--	0.18	0.18	0.18	0.2	0.19
pH_Field	SU	6.75	6.63	6.71	6.66	6.73	6.62	6.49	6.7	6.66	6.73
Sulfate	mg/L	<0.3	0.489 J	<0.3	<0.3	--	<1.4	<1.4	5	<1.4	--
TDS	mg/L	151	168	188	180	166	--	183	187	202	--
Appendix IV											
Antimony	mg/L	<0.0006	<0.0006	<0.0006	<0.0006	0.000746 J	--	<0.0006	<0.0006	--	<0.0006
Arsenic	mg/L	0.0157	0.0168	0.0168	0.0178	0.0164	--	0.0172	0.0158	--	0.0173
Barium	mg/L	0.043	0.0465	0.0464	0.0481	0.0427	--	0.0473	0.0437	--	0.0501
Beryllium	mg/L	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	--	<0.0006	<0.0006	--	<0.0006
Cadmium	mg/L	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	--	<0.0002	<0.0002	--	<0.0003
Chromium	mg/L	<0.002	<0.002	<0.002	<0.002	<0.002	--	<0.002	<0.002	--	<0.002
Cobalt	mg/L	0.0269	0.0293	0.0272	0.0285	0.025	--	0.0274	0.0285	--	0.0273
Combined Radium 226 + 228	pCi/L	1 U	0.557	0.765	0.654	0.402 U	--	0.578	0.128 U	--	0.768 U
Fluoride	mg/L	0.21 J	0.223 J	0.196 J	0.166 J	--	0.18	0.18	0.18	0.2	0.19
Lead	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.001	--	<0.001
Lithium	mg/L	<0.01	<0.01	<0.01	<0.01	<0.01	--	<0.01	<0.01	--	<0.01
Mercury	mg/L	<0.00025	<0.00025	<0.00025	<0.00025	<0.00025	--	<0.00025	<0.00025	--	<0.00025
Molybdenum	mg/L	0.00203 J	<0.002	<0.002	<0.002	<0.002	--	0.00201 J	<0.002	--	0.00211 J
Selenium	mg/L	<0.002	<0.002	<0.002	<0.002	<0.002	--	<0.002	<0.002	--	<0.002
Thallium	mg/L	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	--	<0.0002	<0.0002	--	<0.0002

Notes:

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2. pCi/L - picocuries per Liter
3. J - Result is an estimated value. The result is greater than or equal to the Method Detection Limit (MDL) and less than the Practical Quantita



ANALYTICAL DATA SUMMARY
Ash Pond (02/23/2016 - 08/16/2023)
APC Plant Barry
Mobile County Alabama

Analyte	Units	BY-AP-MW-15									
		05/01/2018	11/27/2018	05/29/2019	10/01/2019	04/01/2020	09/02/2020	05/11/2021	10/26/2021	05/25/2022	11/01/2022
Appendix III											
Boron	mg/L	0.0683 J	0.0715 J	0.116	0.116	0.1	0.148	0.109	0.0953 J	0.0794 J	0.0712 J
Calcium	mg/L	7.42	7.58	7.22	6.9	7.32	7.04	6.98	6.46	6.35	6.57
Chloride	mg/L	42	43	47.2	56.3	54.7	47	80	85.4	80.7	99.1
Fluoride	mg/L	0.19	0.18	0.168	0.185	0.187	0.18	0.214	0.171	0.214	0.177
pH_Field	SU	6.62	6.58	6.63	6.2	6.72	6.57	6.76	6.7	6.68	6.64
Sulfate	mg/L	<1.4	<1.4	3.27	1.72	7.5	7.61	7.54	26.4	1.49 J	4.24
TDS	mg/L	197	190	198	236	231	208	279	269	255	278
Appendix IV											
Antimony	mg/L	<0.0006	<0.0008	<0.0008	<0.0008	<0.0008	<0.0008	<0.000507	<0.000508	<0.000508	<0.000508
Arsenic	mg/L	0.0181	0.0158	0.0148	0.017	0.0183	0.0206	0.0184	0.0186	0.0176	0.0177
Barium	mg/L	0.0575	0.0557	0.0562	0.0628	0.0697	0.0736	0.0762	0.0784	0.0846	0.0745
Beryllium	mg/L	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.000406	<0.000406	<0.000406	<0.000406
Cadmium	mg/L	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<6.8e-005	<6.8e-005	<6.8e-005	<6.8e-005
Chromium	mg/L	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	0.000581 J	0.00052 J	0.000489 J	0.000361 J
Cobalt	mg/L	0.0298	0.0311	0.0343	0.0336	0.0344	0.0385	0.0349	0.0347	0.0358	0.0357
Combined Radium 226 + 228	pCi/L	0.651	0.764	0.433	0.988	0.527	1.87	0.684 U	1.95	1.3	1.15
Fluoride	mg/L	0.19	0.18	0.168	0.185	0.187	0.18	0.214	0.171	0.214	0.177
Lead	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<6.8e-005	<6.8e-005	<6.8e-005	<6.8e-005
Lithium	mg/L	<0.01	0.0169 J	0.0254	0.0248	0.0174 J	<0.01	0.00788 J	0.0117 J	0.0118 J	<0.007105
Mercury	mg/L	<0.00025	<0.00025	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003
Molybdenum	mg/L	<0.002	<0.002	<0.002	<0.002	<0.002	0.00209 J	0.00171	0.00206	0.0018	0.00173
Selenium	mg/L	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.000507	<0.000508	<0.000508	<0.000508
Thallium	mg/L	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<6.8e-005	<6.8e-005	<6.8e-005	<6.8e-005

Notes:

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2. pCi/L - picocuries per Liter
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ANALYTICAL DATA SUMMARY
Ash Pond (02/23/2016 - 08/16/2023)
APC Plant Barry
Mobile County Alabama

Analyte	Units	BY-AP-MW-15		BY-AP-MW-16							
		04/03/2023	08/08/2023	03/02/2016	04/19/2016	06/08/2016	08/31/2016	10/19/2016	01/31/2017	03/21/2017	05/02/2017
Appendix III											
Boron	mg/L	0.0713 J	0.0792 J	1.47	1.53	1.7	1.68	1.53	1.51	--	1.64
Calcium	mg/L	6.76	6.85	14.6	13.3	13.2	11.8	12.9	13.5	--	13.5
Chloride	mg/L	91.5	90.2	16.6	15.7	15.1	15.9	15.3	--	19	19
Fluoride	mg/L	0.26	0.172	0.04 J	0.05 J	0.073 J	0.051 J	<0.01	--	0.04 J	0.05 J
pH_Field	SU	6.63	6.6	5.79	5.78	5.8	5.83	5.81	5.84	5.79	5.68
Sulfate	mg/L	8.28	10.6	<0.3	<0.3	0.514 J	<0.3	<0.3	--	5	5
TDS	mg/L	285	332	263	259	285	279	264	270	--	259
Appendix IV											
Antimony	mg/L	<0.00071	<0.00071	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	0.000769 J	--	<0.0006
Arsenic	mg/L	0.02	0.0188	0.0102	0.0103	0.0105	0.0117	0.0108	0.0102	--	0.0102
Barium	mg/L	0.081	0.0822	0.0921	0.0775	0.0798	0.0801	0.0766	0.075	--	0.0761
Beryllium	mg/L	<0.000406	<0.000406	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	--	<0.0006
Cadmium	mg/L	<6.8e-005	<6.8e-005	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	--	<0.0002
Chromium	mg/L	0.000638 J	0.000353 J	<0.002	<0.002	<0.002	0.00215 J	<0.002	<0.002	--	<0.002
Cobalt	mg/L	0.0345	0.0355	0.0212	0.018	0.0176	0.0134	0.0193	0.017	--	0.0166
Combined Radium 226 + 228	pCi/L	1.63	0.921 U	1 U	1 U	0.344 U	0.582	0.448	0.653	--	0.698
Fluoride	mg/L	0.26	0.172	0.04 J	0.05 J	0.073 J	0.051 J	<0.01	--	0.04 J	0.05 J
Lead	mg/L	<6.8e-005	<6.8e-005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	--	<0.001
Lithium	mg/L	0.0189 J	0.0107 J	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	--	<0.01
Mercury	mg/L	<0.0003	<0.0003	<0.00025	<0.00025	<0.00025	<0.00025	<0.00025	<0.00025	--	<0.00025
Molybdenum	mg/L	<0.005075	<0.005075	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	--	<0.002
Selenium	mg/L	<0.000508	<0.000508	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	--	<0.002
Thallium	mg/L	<6.8e-005	<6.8e-005	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	--	<0.0002

Notes:

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3. J - Result is an estimated value. The result is greater than or equal to the Method Detection Limit (MDL) and less than the Practical Quantita



ANALYTICAL DATA SUMMARY
Ash Pond (02/23/2016 - 08/16/2023)
APC Plant Barry
Mobile County Alabama

Analyte	Units	BY-AP-MW-16									
		06/06/2017	09/13/2017	01/23/2018	05/01/2018	11/27/2018	05/29/2019	10/01/2019	03/31/2020	09/02/2020	05/19/2021
Appendix III											
Boron	mg/L	1.57	2.18	--	1.57	1.58	1.7	2.05	1.74	1.9	1.74
Calcium	mg/L	13.6	11.8	--	14	13.3	13.4	11.7	14.2	13.1	14.2
Chloride	mg/L	19	21	--	18	20	20	20.3	20.8	20.8	21.4
Fluoride	mg/L	0.053 J	0.06 J	0.05 J	0.05 J	<0.032	0.0683 J	0.0774 J	0.0602 J	<0.06	0.0793 J
pH_Field	SU	5.8	5.86	5.86	5.85	5.76	5.76	5.23	5.75	5.47	5.8
Sulfate	mg/L	5	2.6 J	--	<1.4	<1.4	6.72	3.4	17.5	13.3	3.11
TDS	mg/L	278	333	--	274	250	264	295	276	279	274
Appendix IV											
Antimony	mg/L	<0.0006	--	<0.0006	<0.0006	<0.0008	<0.0008	<0.0008	<0.0008	<0.0008	<0.000507
Arsenic	mg/L	0.00982	--	0.0151	0.0114	0.0108	0.0106	0.0138	0.012	0.0137	0.0118
Barium	mg/L	0.07	--	0.0779	0.0877	0.0792	0.081	0.0803	0.091	0.0954	0.102
Beryllium	mg/L	<0.0006	--	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.000406
Cadmium	mg/L	<0.0002	--	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<6.8e-005
Chromium	mg/L	<0.002	--	0.00253 J	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	0.00162
Cobalt	mg/L	0.0172	--	0.00621 J	0.0189	0.0182	0.0206	0.0107	0.0199	0.0192	0.0182
Combined Radium 226 + 228	pCi/L	0.548	--	0.98 U	0.623	0.744	2.51	0.443 U	0.341 U	2.25	0.321 U
Fluoride	mg/L	0.053 J	0.06 J	0.05 J	0.05 J	<0.032	0.0683 J	0.0774 J	0.0602 J	<0.06	0.0793 J
Lead	mg/L	<0.001	--	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.000191 J
Lithium	mg/L	<0.01	--	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.007105
Mercury	mg/L	<0.00025	--	<0.00025	<0.00025	<0.00025	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003
Molybdenum	mg/L	<0.002	--	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	0.000136 J
Selenium	mg/L	<0.002	--	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.000507
Thallium	mg/L	<0.0002	--	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<6.8e-005

Notes:

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ANALYTICAL DATA SUMMARY
Ash Pond (02/23/2016 - 08/16/2023)
APC Plant Barry
Mobile County Alabama

Analyte	Units	BY-AP-MW-16					BY-AP-MW-1V				
		11/01/2021	05/25/2022	11/01/2022	04/05/2023	08/08/2023	01/08/2019	10/02/2019	03/30/2020	09/01/2020	05/18/2021
Appendix III											
Boron	mg/L	2.18	1.98	2.24	2.29	2.45	0.0205 J	<0.03	0.0347 J	0.0368 J	0.0334 J
Calcium	mg/L	13.4	13.9	11.1	11.4	8.99	15.7	3.16	3.23	3.43	3.79
Chloride	mg/L	22.3	20	23.5	21.8	20	42	60.7	69.1	69	79.5
Fluoride	mg/L	0.0887 J	<0.06	0.112 J	0.144	0.0772 J	0.0548 J	0.0595 J	<0.06	<0.06	<0.06
pH_Field	SU	5.36	5.74	5.78	5.83	5.39	6.38	5.27	5.65	5.62	5.55
Sulfate	mg/L	11.9	6.29	7.46	9.3	31.6	20.9	10.5	11.1	13	16
TDS	mg/L	324	299	330	327	347	192	154	160	175	189
Appendix IV											
Antimony	mg/L	<0.000508	<0.000508	<0.000508	<0.00071	<0.00071	0.00125 J	<0.0008	<0.0008	<0.0008	<0.000507
Arsenic	mg/L	0.0151	0.0134	0.0161	0.0156	0.0156	0.00109 J	0.00157 J	0.00152 J	0.00179 J	0.00144
Barium	mg/L	0.0988	0.0977	0.0905	0.0852	0.0888	0.0826	0.0611	0.062	0.0795	0.0861
Beryllium	mg/L	<0.000406	<0.000406	<0.000406	<0.000406	<0.000406	<0.0006	<0.0006	<0.0006	<0.0006	<0.000406
Cadmium	mg/L	<6.8e-005	<6.8e-005	<6.8e-005	<6.8e-005	<6.8e-005	<0.0003	<0.0003	<0.0003	<0.0003	<6.8e-005
Chromium	mg/L	0.0018	0.00135	0.00122	0.00125	0.00166	<0.002	<0.002	<0.002	<0.002	0.000447 J
Cobalt	mg/L	0.0139	0.0155	0.00812	0.00721	0.00584	0.00911	0.00289 J	<0.002	0.00407 J	0.00483
Combined Radium 226 + 228	pCi/L	1.28	0.927 U	1.09	1.5	1.23	1.06	1.03	0.579	0.948	0.814 U
Fluoride	mg/L	0.0887 J	<0.06	0.112 J	0.144	0.0772 J	0.0548 J	0.0595 J	<0.06	<0.06	<0.06
Lead	mg/L	<6.8e-005	<6.8e-005	<6.8e-005	<6.8e-005	0.000181 J	<0.001	<0.001	<0.001	<0.001	<6.8e-005
Lithium	mg/L	<0.007105	<0.007105	<0.007105	<0.007105	<0.007105	0.0219	<0.01	<0.01	<0.01	<0.007105
Mercury	mg/L	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003
Molybdenum	mg/L	<6.8e-005	<0.000102	<0.000102	<0.005075	<0.005075	<0.002	<0.002	<0.002	<0.002	0.00018 J
Selenium	mg/L	<0.000508	<0.000508	<0.000508	<0.000508	<0.000508	<0.002	<0.002	<0.002	<0.002	<0.000507
Thallium	mg/L	<6.8e-005	<6.8e-005	<6.8e-005	<6.8e-005	<6.8e-005	<0.0002	<0.0002	<0.0002	<0.0002	<6.8e-005

Notes:

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ANALYTICAL DATA SUMMARY
Ash Pond (02/23/2016 - 08/16/2023)
APC Plant Barry
Mobile County Alabama

Analyte	Units	BY-AP-MW-1V					BY-AP-MW-5V				
		11/01/2021	05/24/2022	11/01/2022	04/04/2023	08/09/2023	01/08/2019	10/02/2019	03/31/2020	09/01/2020	11/02/2021
Appendix III											
Boron	mg/L	<0.03	0.0333 J	0.0424 J	0.0656 J	0.0661 J	0.029 J	0.0336 J	0.0339 J	0.0414 J	<0.03
Calcium	mg/L	3.68	3.55	3.5	2.57	2.37	3.7	2.43	1.88	2.13	2.11
Chloride	mg/L	79.4	95.1	98.5	92.3	80	20.9	25.8	25.8	30.6	30.5
Fluoride	mg/L	<0.06	<0.06	<0.06	<0.06	<0.06	<0.05	0.0777 J	<0.06	0.0807 J	0.0627 J
pH_Field	SU	5.76	4.9	5.21	5.69	5.85	6.07	5.9	6.05	5.7	6.35
Sulfate	mg/L	20.2	21.1	23	19	20.3	1.75	5.8	0.98 J	1.47	1.34
TDS	mg/L	190	176	220	219	229	76.7	98	81.3	94	77.3
Appendix IV											
Antimony	mg/L	<0.000508	<0.000508	<0.000508	<0.00071	<0.00071	0.00207 J	<0.0008	<0.0008	<0.0008	<0.000508
Arsenic	mg/L	0.000856	0.000793	0.000464	0.000633	0.000431	<0.001	<0.001	<0.001	<0.001	0.00101
Barium	mg/L	0.0731	0.0863	0.0843	0.0564	0.0464	0.0372	0.0338	0.0313	0.0399	0.0368
Beryllium	mg/L	<0.000406	<0.000406	<0.000406	<0.000406	<0.000406	<0.0006	<0.0006	<0.0006	<0.0006	<0.000406
Cadmium	mg/L	<6.8e-005	<6.8e-005	7.15e-005 J	<6.8e-005	7.07e-005 J	<0.0003	<0.0003	<0.0003	<0.0003	<6.8e-005
Chromium	mg/L	0.000454 J	0.000381 J	0.000558 J	0.000342 J	0.000413 J	<0.002	<0.002	<0.002	<0.002	0.000991 J
Cobalt	mg/L	0.00578	0.00765	0.00928	0.00568	0.00549	<0.002	<0.002	<0.002	<0.002	0.000132 J
Combined Radium 226 + 228	pCi/L	1.3 U	2	1.35	1.62	0.576 U	0.298 U	0.206 U	0.024 U	0.741	0.158 U
Fluoride	mg/L	<0.06	<0.06	<0.06	<0.06	<0.06	<0.05	0.0777 J	<0.06	0.0807 J	0.0627 J
Lead	mg/L	<6.8e-005	<6.8e-005	<6.8e-005	<6.8e-005	<6.8e-005	<0.001	<0.001	<0.001	<0.001	<6.8e-005
Lithium	mg/L	<0.007105	<0.007105	<0.007105	<0.007105	<0.007105	<0.01	<0.01	<0.01	<0.01	<0.007105
Mercury	mg/L	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003
Molybdenum	mg/L	0.00013 J	0.000108 J	<0.000102	<0.005075	<0.005075	<0.002	<0.002	<0.002	<0.002	8.05e-005 J
Selenium	mg/L	<0.000508	<0.000508	<0.000508	<0.000508	<0.000508	<0.002	<0.002	<0.002	<0.002	<0.000508
Thallium	mg/L	<6.8e-005	<6.8e-005	<6.8e-005	<6.8e-005	<6.8e-005	<0.0002	<0.0002	<0.0002	<0.0002	<6.8e-005

Notes:

1. mg/L - Milligrams per Liter
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3. J - Result is an estimated value. The result is greater than or equal to the Method Detection Limit (MDL) and less than the Practical Quantita



ANALYTICAL DATA SUMMARY
Ash Pond (02/23/2016 - 08/16/2023)
APC Plant Barry
Mobile County Alabama

Analyte	Units	BY-AP-MW-5V				BY-AP-MW-7V					
		05/25/2022	10/31/2022	04/04/2023	08/07/2023	01/09/2019	10/01/2019	12/02/2019	03/30/2020	09/02/2020	05/18/2021
Appendix III											
Boron	mg/L	<0.03	0.0652 J	0.0924 J	0.0978 J	0.0615 J	0.0546 J	--	0.0555 J	0.0565 J	0.0599 J
Calcium	mg/L	2.62	2.16	2.13	1.78	37	18.7	--	20	13.9	14.1
Chloride	mg/L	22.6	35.3	39.5	35.9	16.9	13.2	--	15.5	14.2	19
Fluoride	mg/L	<0.06	<0.06	<0.06	0.077 J	0.139	0.0871 J	--	0.127	0.126	0.112
pH_Field	SU	5.88	5.9	5.99	5.89	7.12	6.67	6.56	6.69	6.49	6.53
Sulfate	mg/L	2.91	7.44	4.84	7.84	3.69	2	--	9.65	6.7	5.53
TDS	mg/L	75.3	115	120	135	240	182	--	204	168	192
Appendix IV											
Antimony	mg/L	<0.000508	<0.000508	<0.00071	<0.00071	0.000861 J	<0.0008	--	<0.0008	<0.0008	<0.000507
Arsenic	mg/L	0.000171 J	0.000618	<0.000112	<0.000112	<0.001	0.00278 J	--	0.005	0.0024 J	0.00242
Barium	mg/L	0.0574	0.0514	0.0465	0.0433	0.112	0.0541	--	0.0519	0.0648	0.0805
Beryllium	mg/L	<0.000406	<0.000406	<0.000406	<0.000406	<0.0006	<0.0006	--	<0.0006	<0.0006	<0.000406
Cadmium	mg/L	<6.8e-005	<6.8e-005	<6.8e-005	<6.8e-005	<0.0003	<0.0003	--	<0.0003	<0.0003	<6.8e-005
Chromium	mg/L	0.000476 J	0.001 J	0.000566 J	0.000763 J	<0.002	<0.002	--	<0.002	<0.002	0.000463 J
Cobalt	mg/L	0.00106	9.47e-005 J	<6.8e-005	<6.8e-005	<0.002	<0.002	--	<0.002	<0.002	0.000139 J
Combined Radium 226 + 228	pCi/L	1.03 U	0.7 U	1.13 U	0.198 U	0.527	1.01	--	0.604	1.12	0.199 U
Fluoride	mg/L	<0.06	<0.06	<0.06	0.077 J	0.139	0.0871 J	--	0.127	0.126	0.112
Lead	mg/L	<6.8e-005	<6.8e-005	<6.8e-005	<6.8e-005	<0.001	<0.001	--	<0.001	<0.001	<6.8e-005
Lithium	mg/L	<0.007105	<0.007105	<0.007105	<0.007105	0.0662	<0.01	<0.01	<0.01	<0.01	<0.007105
Mercury	mg/L	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	--	<0.0003	<0.0003	<0.0003
Molybdenum	mg/L	<0.000102	<0.000102	<0.005075	<0.005075	0.00511 J	<0.002	--	<0.002	<0.002	0.00021
Selenium	mg/L	<0.000508	<0.000508	<0.000508	<0.000508	<0.002	<0.002	--	<0.002	<0.002	<0.000507
Thallium	mg/L	<6.8e-005	<6.8e-005	<6.8e-005	<6.8e-005	<0.0002	<0.0002	--	<0.0002	<0.0002	<6.8e-005

Notes:

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3. J - Result is an estimated value. The result is greater than or equal to the Method Detection Limit (MDL) and less than the Practical Quantita



ANALYTICAL DATA SUMMARY
Ash Pond (02/23/2016 - 08/16/2023)
APC Plant Barry
Mobile County Alabama

Analyte	Units	BY-AP-MW-7V					BY-AP-MW-8V				
		10/27/2021	05/24/2022	10/31/2022	04/03/2023	08/07/2023	01/09/2019	10/01/2019	03/30/2020	09/02/2020	05/18/2021
Appendix III											
Boron	mg/L	0.0546 J	0.165	0.329	0.293	0.169	0.164	0.241	0.247	0.26	0.247
Calcium	mg/L	17.2	8.84	3.61	1.43	21.9	27.2	24.2	24.5	23.3	26.4
Chloride	mg/L	18.9	40.4	129	85.8	39.5	21.9	22.6	22.7	22.6	22.7
Fluoride	mg/L	0.0795 J	0.0869 J	0.428	0.418	0.222	0.0831 J	0.0832 J	0.0935 J	0.098 J	0.0958 J
pH_Field	SU	6.78	6.92	7.9	7.67	7.94	6.38	6.16	6.2	5.79	6.33
Sulfate	mg/L	5.31	6.06	6.09	5.29	54.7	1.74	7	75.8	24	19.6
TDS	mg/L	169	228	357	311	241	276	324	328	318	331
Appendix IV											
Antimony	mg/L	<0.000508	<0.000508	<0.000508	<0.00071	0.000744 J	<0.0008	<0.0008	<0.0008	<0.0008	<0.000507
Arsenic	mg/L	0.0027	0.00218	0.000983	0.00117	0.00141	0.00121 J	0.00243 J	0.00275 J	0.00346 J	0.00398
Barium	mg/L	0.0684	0.0803	0.0179	0.01	0.0583	0.337	0.264	0.264	0.289	0.299
Beryllium	mg/L	<0.000406	<0.000406	<0.000406	<0.000406	<0.000406	<0.0006	<0.0006	<0.0006	<0.0006	<0.000406
Cadmium	mg/L	<6.8e-005	<6.8e-005	<6.8e-005	<6.8e-005	<6.8e-005	<0.0003	<0.0003	<0.0003	<0.0003	<6.8e-005
Chromium	mg/L	0.000515 J	0.000226 J	0.000391 J	0.00059 J	0.00027 J	<0.002	<0.002	<0.002	<0.002	0.00129
Cobalt	mg/L	0.000134 J	0.00011 J	7.79e-005 J	0.000148 J	9.47e-005 J	<0.002	<0.002	<0.002	<0.002	0.000882
Combined Radium 226 + 228	pCi/L	0.914 U	0.619 U	0.332 U	0.856 U	0.164 U	1.69	1.66	0.787	2.89	0.975 U
Fluoride	mg/L	0.0795 J	0.0869 J	0.428	0.418	0.222	0.0831 J	0.0832 J	0.0935 J	0.098 J	0.0958 J
Lead	mg/L	<6.8e-005	<6.8e-005	0.000114 J	0.000161 J	0.000131 J	<0.001	<0.001	<0.001	<0.001	<6.8e-005
Lithium	mg/L	0.00746 J	<0.007105	<0.007105	<0.007105	0.00775 J	0.0217	<0.01	<0.01	<0.01	<0.007105
Mercury	mg/L	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003
Molybdenum	mg/L	0.000456	0.00074	0.00124	<0.005075	0.00832 J	0.00243 J	<0.002	<0.002	<0.002	0.000363
Selenium	mg/L	<0.000508	<0.000508	<0.000508	<0.000508	0.00096 J	<0.002	<0.002	<0.002	<0.002	<0.000507
Thallium	mg/L	<6.8e-005	<6.8e-005	<6.8e-005	<6.8e-005	<6.8e-005	<0.0002	<0.0002	<0.0002	<0.0002	<6.8e-005

Notes:

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ANALYTICAL DATA SUMMARY
Ash Pond (02/23/2016 - 08/16/2023)
APC Plant Barry
Mobile County Alabama

Analyte	Units	BY-AP-MW-8V					BY-AP-MW-10V				
		10/26/2021	05/23/2022	10/31/2022	04/03/2023	08/07/2023	01/08/2019	10/01/2019	03/31/2020	09/01/2020	05/18/2021
Appendix III											
Boron	mg/L	0.216	0.259	0.186	0.245	0.0907 J	0.677	1.02	1.04	1.06	0.971
Calcium	mg/L	25.7	24.4	23.9	8.95	20.4	57.2	61.2	66.6	57.3	64
Chloride	mg/L	23.9	22.1	27.1	279	22.7	21.3	20	20.7	22.9	21
Fluoride	mg/L	0.107	0.108 J	0.0963 J	0.212	0.316	0.123	0.0517 J	<0.06	0.0695 J	<0.06
pH_Field	SU	6.26	6.08	6.23	6.5	8.18	6.5	6.05	6.38	6.34	6.34
Sulfate	mg/L	58.2	8.35	10	21.7	50.7	93.7	4.91	20.3	30.1	24.9
TDS	mg/L	350	331	328	616	200	462	393	413	403	401
Appendix IV											
Antimony	mg/L	<0.000508	<0.000508	<0.000508	<0.00071	<0.00071	0.000965 J	<0.0008	<0.0008	<0.0008	<0.000507
Arsenic	mg/L	0.0048	0.00386	0.00136	0.000552	0.00143	<0.001	<0.001	<0.001	<0.001	0.000356
Barium	mg/L	0.282	0.277	0.277	0.139	0.0322	0.149	0.167	0.184	0.203	0.212
Beryllium	mg/L	<0.000406	<0.000406	<0.000406	<0.000406	<0.000406	<0.0006	<0.0006	<0.0006	<0.0006	<0.000406
Cadmium	mg/L	<6.8e-005	<6.8e-005	<6.8e-005	<6.8e-005	7.47e-005 J	<0.0003	<0.0003	<0.0003	<0.0003	<6.8e-005
Chromium	mg/L	0.00124	0.00124	0.000756 J	0.000809 J	0.00276	<0.002	<0.002	<0.002	<0.002	0.000684 J
Cobalt	mg/L	0.000879	0.000921	0.000614	0.000362	0.000545	<0.002	<0.002	<0.002	<0.002	0.000648
Combined Radium 226 + 228	pCi/L	1.61	1.13	1.12	0.795 U	0.991 U	1.35	1.99	0.957	0.625 U	1.66
Fluoride	mg/L	0.107	0.108 J	0.0963 J	0.212	0.316	0.123	0.0517 J	<0.06	0.0695 J	<0.06
Lead	mg/L	<6.8e-005	<6.8e-005	<6.8e-005	0.000158 J	0.0016	<0.001	<0.001	<0.001	<0.001	<6.8e-005
Lithium	mg/L	<0.007105	<0.007105	<0.007105	0.00904 J	<0.007105	0.0313	<0.01	<0.01	<0.01	<0.007105
Mercury	mg/L	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003
Molybdenum	mg/L	0.000276	0.000286	0.000222	<0.005075	<0.005075	0.00335 J	<0.002	<0.002	<0.002	0.000148 J
Selenium	mg/L	<0.000508	<0.000508	<0.000508	<0.000508	0.00281	<0.002	<0.002	<0.002	<0.002	<0.000507
Thallium	mg/L	<6.8e-005	<6.8e-005	<6.8e-005	<6.8e-005	<6.8e-005	<0.0002	<0.0002	<0.0002	<0.0002	<6.8e-005

Notes:

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ANALYTICAL DATA SUMMARY
Ash Pond (02/23/2016 - 08/16/2023)
APC Plant Barry
Mobile County Alabama

Analyte	Units	BY-AP-MW-10V					BY-AP-MW-12V				
		10/27/2021	05/24/2022	11/01/2022	04/03/2023	08/07/2023	01/08/2019	10/02/2019	03/31/2020	09/01/2020	05/18/2021
Appendix III											
Boron	mg/L	0.933	0.938	1	0.965	0.958	0.0939 J	0.134	0.101	0.149	0.118
Calcium	mg/L	61.6	65	69.9	59.2	85	33.8	21.8	21.3	21	22.1
Chloride	mg/L	21	19.4	22.1	26.1	24.1	23.1	28.1	25	26.4	25.5
Fluoride	mg/L	<0.06	<0.06	0.0602 J	<0.06	<0.06	0.0729 J	0.12	0.0828 J	0.0947 J	0.0783 J
pH_Field	SU	6.1	5.77	6.41	6.38	6.21	6.48	5.9	6.33	6.2	5.92
Sulfate	mg/L	6.04	5.73	11.4	13	17.9	10.3	9.34	61.1	47.5	32.8
TDS	mg/L	400	403	452	442	404	348	321	328	338	329
Appendix IV											
Antimony	mg/L	<0.000508	<0.000508	<0.000508	<0.00071	<0.00071	0.00117 J	<0.0008	<0.0008	<0.0008	<0.000507
Arsenic	mg/L	0.000331	0.000362	0.000299	0.000359	0.000251	0.0112	0.0215	0.025	0.0257	0.0251
Barium	mg/L	0.182	0.188	0.199	0.189	0.166	0.144	0.101	0.0939	0.102	0.111
Beryllium	mg/L	<0.000406	<0.000406	<0.000406	<0.000406	<0.000406	<0.0006	<0.0006	<0.0006	<0.0006	<0.000406
Cadmium	mg/L	<6.8e-005	<6.8e-005	<6.8e-005	<6.8e-005	<6.8e-005	<0.0003	<0.0003	<0.0003	<0.0003	<6.8e-005
Chromium	mg/L	0.000677 J	0.000493 J	0.000597 J	0.000508 J	0.000434 J	0.0021 J	<0.002	<0.002	<0.002	0.00112
Cobalt	mg/L	0.000613	0.000618	0.000667	0.000623	0.000623	<0.002	<0.002	<0.002	<0.002	0.00237
Combined Radium 226 + 228	pCi/L	1.44 U	1.2	1.34	1.24	1.63	1.04	0.896	0.923	1.03	1.31
Fluoride	mg/L	<0.06	<0.06	0.0602 J	<0.06	<0.06	0.0729 J	0.12	0.0828 J	0.0947 J	0.0783 J
Lead	mg/L	<6.8e-005	<6.8e-005	<6.8e-005	<6.8e-005	<6.8e-005	<0.001	<0.001	<0.001	<0.001	8.16e-005 J
Lithium	mg/L	<0.007105	<0.007105	<0.007105	<0.007105	<0.007105	0.0148 J	<0.01	<0.01	<0.01	<0.007105
Mercury	mg/L	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003
Molybdenum	mg/L	0.000143 J	0.000111 J	0.000103 J	<0.005075	<0.005075	0.00303 J	<0.002	<0.002	<0.002	0.00106
Selenium	mg/L	<0.000508	<0.000508	<0.000508	<0.000508	<0.000508	<0.002	<0.002	<0.002	<0.002	<0.000507
Thallium	mg/L	<6.8e-005	<6.8e-005	<6.8e-005	<6.8e-005	<6.8e-005	<0.0002	<0.0002	<0.0002	<0.0002	<6.8e-005

Notes:

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ANALYTICAL DATA SUMMARY
Ash Pond (02/23/2016 - 08/16/2023)
APC Plant Barry
Mobile County Alabama

Analyte	Units	BY-AP-MW-12V					BY-AP-MW-13V				
		11/01/2021	05/23/2022	11/01/2022	04/04/2023	08/08/2023	06/17/2020	09/02/2020	05/19/2021	10/26/2021	05/25/2022
Appendix III											
Boron	mg/L	0.0962 J	0.0765 J	0.0922 J	0.0808 J	0.0777 J	0.0847 J	0.112	0.0976 J	0.0888 J	0.0852 J
Calcium	mg/L	21.4	20.6	20.7	20.3	19.7	20.2	12.3	12.7	11.3	12
Chloride	mg/L	26.1	25.6	26.9	26.3	22.8	77	51.7	64.4	47.7	59.3
Fluoride	mg/L	0.123	<0.06	0.13	0.0996 J	0.0731 J	0.103	0.0864 J	0.0884 J	0.096 J	<0.06
pH_Field	SU	6.09	6.22	6.32	6.22	6.25	6.25	6.23	6.2	6.81	6.3
Sulfate	mg/L	10.9	6.64	12.3	85.5	110	101	30.6	39.7	47.3	122
TDS	mg/L	352	352	365	345	327	449	361	362	355	343
Appendix IV											
Antimony	mg/L	<0.000508	<0.000508	<0.000508	<0.00071	<0.00071	<0.0008	<0.0008	<0.000507	<0.000508	<0.000508
Arsenic	mg/L	0.0256	0.0257	0.0241	0.0208	0.0227	0.00321 J	0.00708	0.00877	0.0103	0.0102
Barium	mg/L	0.103	0.103	0.101	0.0971	0.0976	0.106	0.109	0.114	0.0827	0.0888
Beryllium	mg/L	<0.000406	<0.000406	<0.000406	<0.000406	<0.000406	<0.0006	<0.0006	<0.000406	<0.000406	<0.000406
Cadmium	mg/L	<6.8e-005	<6.8e-005	<6.8e-005	<6.8e-005	<6.8e-005	<0.0003	<0.0003	<6.8e-005	<6.8e-005	<6.8e-005
Chromium	mg/L	0.000862 J	0.000813 J	0.001 J	0.000978 J	0.00105	0.00537 J	0.00525 J	0.00416	0.00606	0.00488
Cobalt	mg/L	0.00231	0.00255	0.00239	0.00164	0.00284	<0.002	<0.002	0.000827	0.00114	0.00119
Combined Radium 226 + 228	pCi/L	0.814 U	0.962 U	0.816 U	1.48	0.422 U	1.22	2.49	0.783 U	1.6	0.951 U
Fluoride	mg/L	0.123	<0.06	0.13	0.0996 J	0.0731 J	0.103	0.0864 J	0.0884 J	0.096 J	<0.06
Lead	mg/L	<6.8e-005	<6.8e-005	<6.8e-005	<6.8e-005	0.000124 J	<0.001	<0.001	<6.8e-005	<6.8e-005	<6.8e-005
Lithium	mg/L	<0.007105	<0.007105	<0.007105	<0.007105	<0.007105	<0.01	<0.01	<0.007105	0.0484	0.0318
Mercury	mg/L	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003
Molybdenum	mg/L	0.00118	0.00123	0.00112	<0.005075	<0.005075	0.00237 J	<0.002	0.000642	0.00135	0.000796
Selenium	mg/L	<0.000508	<0.000508	<0.000508	<0.000508	<0.000508	<0.002	<0.002	<0.000507	<0.000508	<0.000508
Thallium	mg/L	<6.8e-005	<6.8e-005	<6.8e-005	<6.8e-005	<6.8e-005	<0.0002	<0.0002	<6.8e-005	<6.8e-005	<6.8e-005

Notes:

1. mg/L - Milligrams per Liter
2. pCi/L - picocuries per Liter
3. J - Result is an estimated value. The result is greater than or equal to the Method Detection Limit (MDL) and less than the Practical Quantita



ANALYTICAL DATA SUMMARY
Ash Pond (02/23/2016 - 08/16/2023)
APC Plant Barry
Mobile County Alabama

Analyte	Units	BY-AP-MW-13V			BY-AP-MW-14V						
		11/01/2022	04/04/2023	08/09/2023	06/17/2020	09/02/2020	05/25/2021	10/26/2021	05/24/2022	11/01/2022	04/04/2023
Appendix III											
Boron	mg/L	0.0803 J	0.0745 J	0.109	0.426	0.407	0.43	0.393	0.376	0.361	0.39
Calcium	mg/L	12.2	14.4	13.1	5.32	4.7	4.66	5.28	7.03	5.52	5.34
Chloride	mg/L	62.7	52.1	60	240	178	210	191	184	175	174
Fluoride	mg/L	0.069 J	0.0687 J	0.0755 J	0.343	0.359	0.378	0.384	0.291	0.275	0.302
pH_Field	SU	6.29	6.24	5.82	7.27	7.02	7.2	6.91	6.71	6.9	6.8
Sulfate	mg/L	136	29.5	34.1	28	63.6	39.5	75.1	13.6	10.7	11.7
TDS	mg/L	340	338	375	546	498	520	474	508	464	464
Appendix IV											
Antimony	mg/L	<0.000508	<0.00071	<0.00071	<0.0008	<0.0008	<0.000507	<0.000508	<0.000508	<0.000508	<0.00071
Arsenic	mg/L	0.00887	0.00843	0.00967	0.00208 J	0.00433 J	0.00324	0.0041	0.00572	0.0057	0.00501
Barium	mg/L	0.0987	0.106	0.109	0.0809	0.0766	0.0729	0.0653	0.067	0.0617	0.0645
Beryllium	mg/L	<0.000406	<0.000406	<0.000406	<0.0006	<0.0006	<0.000406	<0.000406	<0.000406	<0.000406	<0.000406
Cadmium	mg/L	<6.8e-005	<6.8e-005	<6.8e-005	<0.0003	<0.0003	<6.8e-005	<6.8e-005	<6.8e-005	<6.8e-005	<6.8e-005
Chromium	mg/L	0.00391	0.00417	0.00368	<0.002	<0.002	0.00113	0.00098 J	0.000602 J	0.000613 J	0.00049 J
Cobalt	mg/L	0.00112	0.00106	0.00111	<0.002	0.00444 J	0.00271	0.00419	0.00327	0.00405	0.00396
Combined Radium 226 + 228	pCi/L	0.933 U	0.957 U	1.3	0.726	1.54	0.859 U	1.34 U	1.26	1.38	1.23 U
Fluoride	mg/L	0.069 J	0.0687 J	0.0755 J	0.343	0.359	0.378	0.384	0.291	0.275	0.302
Lead	mg/L	<6.8e-005	<6.8e-005	<6.8e-005	<0.001	<0.001	7.24e-005 J	<6.8e-005	<6.8e-005	<6.8e-005	<6.8e-005
Lithium	mg/L	0.0331	0.0351	0.00949 J	<0.01	<0.01	<0.007105	<0.007105	<0.007105	<0.007105	<0.007105
Mercury	mg/L	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003
Molybdenum	mg/L	0.000573	<0.005075	<0.005075	0.00451 J	0.00229 J	0.00135	0.0012	0.0031	0.00119	<0.005075
Selenium	mg/L	<0.000508	<0.000508	<0.000508	<0.002	<0.002	<0.000507	<0.000508	<0.000508	<0.000508	<0.000508
Thallium	mg/L	<6.8e-005	<6.8e-005	<6.8e-005	<0.0002	<0.0002	<6.8e-005	<6.8e-005	<6.8e-005	<6.8e-005	<6.8e-005

Notes:

1. mg/L - Milligrams per Liter
2. pCi/L - picocuries per Liter
3. J - Result is an estimated value. The result is greater than or equal to the Method Detection Limit (MDL) and less than the Practical Quantita



ANALYTICAL DATA SUMMARY
Ash Pond (02/23/2016 - 08/16/2023)
APC Plant Barry
Mobile County Alabama

Analyte	Units	BY-AP-MW-14V	BY-AP-MW-15V								
		08/09/2023	07/31/2019	10/01/2019	05/12/2020	09/01/2020	05/25/2021	10/26/2021	05/24/2022	11/02/2022	04/24/2023
Appendix III											
Boron	mg/L	0.399	0.0439 J	0.0824 J	0.0559 J	0.0907 J	0.0617 J	0.0498 J	0.0376 J	0.033 J	0.0423 J
Calcium	mg/L	6.47	9.32	8.41	8.01	6.9	8.47	8.13	8.1	7.84	9.13
Chloride	mg/L	158	157	195	190	170	180	196	191	179	192
Fluoride	mg/L	0.27	0.0515 J	0.0931 J	0.0946 J	0.0624 J	<0.06	<0.06	<0.06	<0.06	<0.06
pH_Field	SU	6.75	5.37	5.68	5.68	5.91	5.6	5.93	5.7	5.38	5.61
Sulfate	mg/L	36.3	2.65	0.854 J	1.61	2.21	1.19	0.829 J	2.35	6.26	1.93 J
TDS	mg/L	488	337	321	327	318	335	321	348	358	352
Appendix IV											
Antimony	mg/L	<0.00071	0.00094 J	<0.0008	<0.0008	<0.0008	<0.000507	<0.000508	<0.000508	<0.000508	<0.00071
Arsenic	mg/L	0.00508	0.0174	0.0243	0.0206	0.0401	0.0233	0.0242	0.0333	0.0403	0.0224
Barium	mg/L	0.0704	0.144	0.13	0.155	0.134	0.184	0.149	0.156	0.153	0.164
Beryllium	mg/L	<0.000406	<0.0006	<0.0006	<0.0006	<0.0006	<0.000406	<0.000406	<0.000406	<0.000406	<0.000406
Cadmium	mg/L	<6.8e-005	<0.0003	<0.0003	<0.0003	<0.0003	<6.8e-005	<6.8e-005	0.00018 J	0.0001 J	0.000212
Chromium	mg/L	0.000723 J	<0.002	<0.002	<0.002	<0.002	0.000258 J	0.000264 J	0.000234 J	<0.000203	0.000278 J
Cobalt	mg/L	0.0064	0.0632	0.0629	0.0719	0.0665	0.0694	0.0756	0.0764	0.0748	0.0817
Combined Radium 226 + 228	pCi/L	0.58 U	1.09	1.51	1.67	1.28	1.72	2.53	1.85	1.46	2.02
Fluoride	mg/L	0.27	0.0515 J	0.0931 J	0.0946 J	0.0624 J	<0.06	<0.06	<0.06	<0.06	<0.06
Lead	mg/L	<6.8e-005	<0.001	<0.001	<0.001	<0.001	<6.8e-005	<6.8e-005	0.000111 J	<6.8e-005	<6.8e-005
Lithium	mg/L	<0.007105	<0.01	<0.01	<0.01	<0.01	<0.007105	<0.007105	<0.007105	<0.007105	<0.007105
Mercury	mg/L	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003
Molybdenum	mg/L	<0.005075	<0.002	<0.002	<0.002	<0.002	0.000106 J	0.00011 J	<0.000102	<0.000102	<0.005075
Selenium	mg/L	<0.000508	<0.002	<0.002	<0.002	<0.002	<0.000507	<0.000508	<0.000508	<0.000508	<0.000508
Thallium	mg/L	<6.8e-005	<0.0002	<0.0002	<0.0002	<0.0002	8.49e-005 J	8.68e-005 J	0.00014 J	0.000133 J	0.000107 J

Notes:

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ANALYTICAL DATA SUMMARY
Ash Pond (02/23/2016 - 08/16/2023)
APC Plant Barry
Mobile County Alabama

Analyte	Units	BY-AP-MW-15V	BY-AP-MW-16V								BY-AP-MW-17V	
		08/08/2023	06/16/2020	09/02/2020	05/19/2021	10/26/2021	05/25/2022	11/01/2022	04/04/2023	08/07/2023	06/16/2020	
Appendix III												
Boron	mg/L	0.0366 J	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.176
Calcium	mg/L	7.43	2.15	2.02	2.26	1.96	1.8	2.24	2.35	1.86		65.3
Chloride	mg/L	183	77.4	75.6	81.2	68.3	56.6	70.9	55	53.6		734
Fluoride	mg/L	0.0634 J	0.0744 J	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06		0.0994 J
pH_Field	SU	5.71	5.2	5.23	5.24	5.26	5.26	5.13	4.97	5.25		6.43
Sulfate	mg/L	3.44	41.5	40	40.9	38.1	35.1	29.9	34	30.5		57.4
TDS	mg/L	371	238	219	213	195	188	184	187	169		1460
Appendix IV												
Antimony	mg/L	<0.00071	<0.0008	<0.0008	<0.000507	<0.000508	<0.000508	<0.000508	<0.00071	<0.00071		<0.0008
Arsenic	mg/L	0.0303	0.00135 J	0.0012 J	0.00123	0.00105	0.00112	0.00102	0.00092	0.000884		0.0117
Barium	mg/L	0.159	0.0658	0.0733	0.0743	0.0589	0.0569	0.0656	0.0618	0.0564		0.62
Beryllium	mg/L	<0.000406	<0.0006	<0.0006	<0.000406	<0.000406	<0.000406	<0.000406	<0.000406	<0.000406		<0.0006
Cadmium	mg/L	0.000218	<0.0003	<0.0003	<6.8e-005	<6.8e-005	<6.8e-005	6.97e-005 J	<6.8e-005	9.17e-005 J		<0.0003
Chromium	mg/L	0.000298 J	0.00222 J	<0.002	0.000385 J	0.000402 J	<0.000203	0.000275 J	0.00133	0.000891 J		0.00475 J
Cobalt	mg/L	0.0802	0.0144	0.0163	0.0153	0.0159	0.0139	0.0185	0.0168	0.0149		0.0858
Combined Radium 226 + 228	pCi/L	2.05	0.642	1.15	0.496 U	0.773 U	1.03 U	0.705 U	1.07	0.678 U		2.17
Fluoride	mg/L	0.0634 J	0.0744 J	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06		0.0994 J
Lead	mg/L	0.000303	<0.001	<0.001	<6.8e-005	<6.8e-005	<6.8e-005	<6.8e-005	0.000253	0.000174 J		<0.001
Lithium	mg/L	<0.007105	<0.01	<0.01	<0.007105	<0.007105	<0.007105	<0.007105	<0.007105	<0.007105		<0.01
Mercury	mg/L	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003		<0.0003
Molybdenum	mg/L	<0.005075	<0.002	<0.002	<6.8e-005	<6.8e-005	<0.000102	<0.000102	<0.005075	<0.005075		<0.002
Selenium	mg/L	<0.000508	<0.002	<0.002	<0.000507	<0.000508	<0.000508	<0.000508	<0.000508	<0.000508		<0.002
Thallium	mg/L	0.000114 J	<0.0002	<0.0002	9.13e-005 J	0.000103 J	8.86e-005 J	0.000112 J	8.22e-005 J	7.58e-005 J		<0.0002

Notes:

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ANALYTICAL DATA SUMMARY
Ash Pond (02/23/2016 - 08/16/2023)
APC Plant Barry
Mobile County Alabama

Analyte	Units	BY-AP-MW-17V								BY-AP-MW-20V	
		09/01/2020	05/18/2021	10/25/2021	05/25/2022	10/31/2022	12/20/2022	04/04/2023	08/08/2023	06/17/2020	09/01/2020
Appendix III											
Boron	mg/L	0.124	0.124	0.113	0.177	0.198	--	0.285	0.194	0.118	0.134
Calcium	mg/L	20.5	15	6.58	49.6	58.5	--	83.2	60.9	17.9	14.7
Chloride	mg/L	273	225	111	649	914	--	1540	725	29.2	27.1
Fluoride	mg/L	0.144	0.16	0.172	0.0799 J	0.118 J	--	0.108 J	0.109 J	0.155	0.106
pH_Field	SU	6.49	6.55	6.53	6.34	6.4	--	6.48	6.49	6.26	6.03
Sulfate	mg/L	26.6	17.4	11	49.1	55.8	--	59	59.7	10.1	38.3
TDS	mg/L	576	438	280	1270	1720	--	2690	1520	301	308
Appendix IV											
Antimony	mg/L	<0.0008	<0.000507	<0.000508	<0.000508	<0.000508	--	<0.00071	<0.00071	<0.0008	<0.0008
Arsenic	mg/L	0.00472 J	0.00546	0.00162	0.00192	0.00144	--	0.00113	0.00165	0.00584	0.00845
Barium	mg/L	0.277	0.255	0.0928	0.698	0.804	--	1.11	0.645	0.152	0.115
Beryllium	mg/L	<0.0006	<0.000406	<0.000406	<0.000406	<0.000406	--	<0.000406	<0.000406	<0.0006	<0.0006
Cadmium	mg/L	<0.0003	<6.8e-005	<6.8e-005	<6.8e-005	<6.8e-005	--	0.000114 J	0.000144 J	<0.0003	<0.0003
Chromium	mg/L	<0.002	0.000973 J	0.000619 J	0.000477 J	0.000316 J	--	0.000244 J	0.00175	<0.002	<0.002
Cobalt	mg/L	0.022	0.0197	0.00915	0.0685	0.0967	--	0.13	0.0598	0.00593	0.012
Combined Radium 226 + 228	pCi/L	1.9	1.05 U	1.04 U	5.37	5.26	8.68	9.59	3.64	0.767	1.43
Fluoride	mg/L	0.144	0.16	0.172	0.0799 J	0.118 J	--	0.108 J	0.109 J	0.155	0.106
Lead	mg/L	<0.001	0.000137 J	<6.8e-005	7.37e-005 J	<6.8e-005	--	<6.8e-005	0.000305	<0.001	<0.001
Lithium	mg/L	<0.01	<0.007105	<0.007105	<0.007105	<0.007105	--	<0.007105	<0.007105	<0.01	<0.01
Mercury	mg/L	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	--	<0.0003	<0.0003	<0.0003	<0.0003
Molybdenum	mg/L	<0.002	0.000571	0.000877	0.000428	0.000535	--	<0.005075	0.00662 J	<0.002	<0.002
Selenium	mg/L	<0.002	<0.000507	<0.000508	<0.000508	<0.000508	--	<0.000508	<0.000508	<0.002	<0.002
Thallium	mg/L	<0.0002	<6.8e-005	<6.8e-005	0.000103 J	0.000166 J	--	0.000362	0.000166 J	<0.0002	<0.0002

Notes:

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ANALYTICAL DATA SUMMARY
Ash Pond (02/23/2016 - 08/16/2023)
APC Plant Barry
Mobile County Alabama

Analyte	Units	BY-AP-MW-20V						BY-AP-MW-23V			
		05/19/2021	11/01/2021	05/24/2022	11/01/2022	04/24/2023	08/08/2023	06/16/2020	09/01/2020	05/17/2021	10/26/2021
Appendix III											
Boron	mg/L	0.119	0.11	0.0977 J	0.0866 J	<0.03	0.148	0.325	0.307	0.32	0.306
Calcium	mg/L	15.3	15.1	14.4	13.8	24.3	29.1	1.25	1.27	1.33	0.837
Chloride	mg/L	32.4	29.6	35.4	28.4	20.7	400	120	117	134	124
Fluoride	mg/L	0.123	0.14	0.0852 J	0.0715 J	0.145	0.0917 J	0.393	0.401	0.379	0.445
pH_Field	SU	6.44	6	6.28	6.3	6.35	6.42	8.08	7.98	7.87	8.31
Sulfate	mg/L	1.93	5.66	3.66	6.08	8.99	63.4	28.6	9.25	6.92	4.23
TDS	mg/L	271	282	296	275	161	1040	479	391	386	362
Appendix IV											
Antimony	mg/L	<0.000507	<0.000508	<0.000508	<0.000508	<0.00071	<0.00071	<0.0008	<0.0008	<0.000507	<0.000508
Arsenic	mg/L	0.0148	0.0182	0.0186	0.0186	0.00175	0.0152	0.00193 J	<0.001	0.00119	0.00119
Barium	mg/L	0.107	0.0883	0.0906	0.0871	0.0548	0.275	0.02	0.00933 J	0.0094	0.00766
Beryllium	mg/L	<0.000406	<0.000406	<0.000406	<0.000406	<0.000406	<0.000406	<0.0006	<0.0006	<0.000406	<0.000406
Cadmium	mg/L	<6.8e-005	<6.8e-005	<6.8e-005	<6.8e-005	<6.8e-005	<6.8e-005	<0.0003	<0.0003	<6.8e-005	<6.8e-005
Chromium	mg/L	0.000669 J	0.000606 J	0.00053 J	0.000578 J	0.000721 J	0.00107	0.0221	0.00284 J	0.00163	0.000605 J
Cobalt	mg/L	0.0173	0.0236	0.0264	0.0309	0.000458	0.0234	0.00302 J	<0.002	0.000217	<6.8e-005
Combined Radium 226 + 228	pCi/L	1.43	1.48	0.97 U	0.873	0.605 U	3.45	0.752 U	0.323 U	0.374 U	0.285 U
Fluoride	mg/L	0.123	0.14	0.0852 J	0.0715 J	0.145	0.0917 J	0.393	0.401	0.379	0.445
Lead	mg/L	<6.8e-005	<6.8e-005	<6.8e-005	<6.8e-005	8.63e-005 J	0.000429	0.00222 J	<0.001	0.000216	9.98e-005 J
Lithium	mg/L	<0.007105	<0.007105	<0.007105	<0.007105	<0.007105	<0.007105	<0.01	<0.01	<0.007105	<0.007105
Mercury	mg/L	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003
Molybdenum	mg/L	0.00155	0.00181	0.00164	0.00138	<0.005075	<0.005075	<0.002	<0.002	0.00147	0.00124
Selenium	mg/L	<0.000507	<0.000508	<0.000508	<0.000508	<0.000508	<0.000508	<0.002	<0.002	<0.000507	<0.000508
Thallium	mg/L	<6.8e-005	<6.8e-005	<6.8e-005	<6.8e-005	<6.8e-005	<6.8e-005	<0.0002	<0.0002	<6.8e-005	<6.8e-005

Notes:

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3. J - Result is an estimated value. The result is greater than or equal to the Method Detection Limit (MDL) and less than the Practical Quantita



ANALYTICAL DATA SUMMARY
Ash Pond (02/23/2016 - 08/16/2023)
APC Plant Barry
Mobile County Alabama

Analyte	Units	BY-AP-MW-23V				BY-AP-MW-25V					
		05/25/2022	11/01/2022	04/04/2023	08/08/2023	06/17/2020	09/02/2020	05/24/2021	11/02/2021	05/25/2022	11/01/2022
Appendix III											
Boron	mg/L	0.307	0.345	0.245	0.238	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03
Calcium	mg/L	0.899	3.65	42.5	58.4	0.842	0.547	0.554	0.567	0.573	0.609
Chloride	mg/L	106	365	741	690	4.04	3.85	3.48	3.42	3.22	3.52
Fluoride	mg/L	0.385	0.222	0.0682 J	0.0635 J	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06
pH_Field	SU	7.44	7.36	6.73	6.59	5.27	5.32	5.24	5.13	5.45	4.22
Sulfate	mg/L	4.25	11	32.9	35	2.39	2.26	2.59	2.08	2.13	1.85 J
TDS	mg/L	359	858	1370	1460	37.3	34	26.7	36	29.3	32
Appendix IV											
Antimony	mg/L	<0.000508	<0.000508	<0.00071	<0.00071	<0.0008	<0.0008	<0.000507	<0.000508	<0.000508	<0.000508
Arsenic	mg/L	0.00149	0.00195	0.00445	0.00483	<0.001	<0.001	<6.8e-005	<6.8e-005	<8.1e-005	<8.1e-005
Barium	mg/L	0.00735	0.036	0.262	0.289	0.0132	0.0111	0.00981	0.00907	0.00993	0.0106
Beryllium	mg/L	<0.000406	<0.000406	<0.000406	<0.000406	<0.0006	<0.0006	<0.000406	<0.000406	<0.000406	<0.000406
Cadmium	mg/L	<6.8e-005	<6.8e-005	<6.8e-005	<6.8e-005	<0.0003	<0.0003	<6.8e-005	<6.8e-005	<6.8e-005	<6.8e-005
Chromium	mg/L	0.000455 J	<0.000203	0.000237 J	0.000325 J	<0.002	<0.002	0.00119	0.0013	0.00126	0.00131
Cobalt	mg/L	<6.8e-005	0.000236	0.0375	0.043	0.0026 J	<0.002	0.000422	0.000366	0.000277	0.000337
Combined Radium 226 + 228	pCi/L	0.285 U	0.656 U	1.91	1.9	0.479	0.596	0.531 U	1.05 U	0.527 U	0.545 U
Fluoride	mg/L	0.385	0.222	0.0682 J	0.0635 J	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06
Lead	mg/L	0.000124 J	<6.8e-005	<6.8e-005	<6.8e-005	<0.001	<0.001	<6.8e-005	<6.8e-005	<6.8e-005	<6.8e-005
Lithium	mg/L	<0.007105	<0.007105	<0.007105	<0.007105	<0.01	<0.01	<0.007105	<0.007105	<0.007105	<0.007105
Mercury	mg/L	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003
Molybdenum	mg/L	0.00142	0.000634	<0.005075	<0.005075	<0.002	<0.002	9.23e-005 J	<6.8e-005	<0.000102	<0.000102
Selenium	mg/L	<0.000508	<0.000508	<0.000508	<0.000508	<0.002	<0.002	<0.000507	<0.000508	<0.000508	<0.000508
Thallium	mg/L	<6.8e-005	<6.8e-005	<6.8e-005	<6.8e-005	<0.0002	<0.0002	<6.8e-005	<6.8e-005	<6.8e-005	<6.8e-005

Notes:

1. mg/L - Milligrams per Liter
2. pCi/L - picocuries per Liter
3. J - Result is an estimated value. The result is greater than or equal to the Method Detection Limit (MDL) and less than the Practical Quantita



ANALYTICAL DATA SUMMARY
Ash Pond (02/23/2016 - 08/16/2023)
APC Plant Barry
Mobile County Alabama

Analyte	Units	BY-AP-MW-25V		BY-AP-MW-17H							
		04/03/2023	08/08/2023	07/31/2019	10/02/2019	04/01/2020	09/01/2020	05/17/2021	10/25/2021	05/25/2022	10/31/2022
Appendix III											
Boron	mg/L	<0.03	<0.03	0.0782 J	0.129	0.073 J	0.146	0.0911 J	0.0887 J	0.0597 J	0.064 J
Calcium	mg/L	0.703	0.669	19.1	13.2	27	10.8	12.8	10.4	11.6	11.2
Chloride	mg/L	3.61	3.6	18	17.7	17.2	18.2	17.1	18.4	16	17.1
Fluoride	mg/L	<0.06	<0.06	0.178	0.254	0.151	0.196	0.148	0.182	0.138	0.135
pH_Field	SU	4.8	4.79	6.64	6.58	6.52	6.56	6.35	6.48	6.21	6.34
Sulfate	mg/L	2.28	2.47	23	10.6	19.4	7.61	10.2	20.3	3.58	13.2
TDS	mg/L	29.3	29.3	212	203	243	236	201	219	194	206
Appendix IV											
Antimony	mg/L	<0.00071	<0.00071	0.000878 J	<0.0008	<0.0008	<0.0008	<0.000507	<0.000508	<0.000508	<0.000508
Arsenic	mg/L	<0.000112	<0.000112	0.0221	0.0251	0.0208	0.0371	0.0329	0.0364	0.03	0.0281
Barium	mg/L	0.0105	0.012	0.138	0.117	0.194	0.114	0.125	0.0953	0.126	0.116
Beryllium	mg/L	<0.000406	<0.000406	<0.0006	<0.0006	<0.0006	<0.0006	<0.000406	<0.000406	<0.000406	<0.000406
Cadmium	mg/L	<6.8e-005	<6.8e-005	<0.0003	<0.0003	<0.0003	<0.0003	<6.8e-005	<6.8e-005	<6.8e-005	<6.8e-005
Chromium	mg/L	0.0013	0.00128	<0.002	<0.002	<0.002	<0.002	0.000627 J	0.000597 J	0.000334 J	0.000446 J
Cobalt	mg/L	0.000304	0.000272	<0.002	0.0033 J	<0.002	0.00258 J	0.0013	0.00371	0.0013	0.00156
Combined Radium 226 + 228	pCi/L	1.32	0.737 U	0.621	1.14	0.797	0.44 U	1.64	1.57	1.71	0.928 U
Fluoride	mg/L	<0.06	<0.06	0.178	0.254	0.151	0.196	0.148	0.182	0.138	0.135
Lead	mg/L	<6.8e-005	<6.8e-005	<0.001	<0.001	<0.001	<0.001	9.09e-005 J	<6.8e-005	<6.8e-005	<6.8e-005
Lithium	mg/L	<0.007105	<0.007105	<0.01	<0.01	<0.01	<0.01	<0.007105	<0.007105	<0.007105	<0.007105
Mercury	mg/L	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003
Molybdenum	mg/L	<0.005075	<0.005075	<0.002	<0.002	<0.002	<0.002	0.000469	0.000842	0.000454	0.000432
Selenium	mg/L	<0.000508	<0.000508	<0.002	<0.002	<0.002	<0.002	<0.000507	<0.000508	<0.000508	<0.000508
Thallium	mg/L	<6.8e-005	<6.8e-005	<0.0002	<0.0002	<0.0002	<0.0002	<6.8e-005	<6.8e-005	<6.8e-005	<6.8e-005

Notes:

1. mg/L - Milligrams per Liter
2. pCi/L - picocuries per Liter
3. J - Result is an estimated value. The result is greater than or equal to the Method Detection Limit (MDL) and less than the Practical Quantita



ANALYTICAL DATA SUMMARY
Ash Pond (02/23/2016 - 08/16/2023)
APC Plant Barry
Mobile County Alabama

Analyte	Units	BY-AP-MW-17H		BY-AP-MW-18H							
		04/04/2023	08/08/2023	03/20/2019	10/01/2019	04/01/2020	09/01/2020	05/19/2021	10/25/2021	05/23/2022	10/31/2022
Appendix III											
Boron	mg/L	0.0474 J	0.0614 J	0.924	1.05	0.435	0.855	0.866	0.931	0.91	1.65
Calcium	mg/L	10.4	10.2	28.2	27.2	23.1	25.6	27.1	26.9	25.5	31.3
Chloride	mg/L	17.6	18.2	17.6	20.1	12.2	19.8	19.3	20.5	18.9	27.1
Fluoride	mg/L	0.176	0.137	0.126	0.071 J	0.0722 J	0.0784 J	0.0886 J	0.11	0.0857 J	0.148
pH_Field	SU	6.25	6.23	6.19	6.26	6.48	6.15	6.23	6.76	6.24	6.23
Sulfate	mg/L	17.2	14.4	12.7	8.49	24.2	30.6	7.48	66.8	9.46	12.1
TDS	mg/L	171	198	308	283	210	281	293	309	292	303
Appendix IV											
Antimony	mg/L	<0.00071	<0.00071	0.0011 J	<0.0008	<0.0008	<0.0008	<0.000507	<0.000508	<0.000508	<0.000508
Arsenic	mg/L	0.0192	0.0303	0.00835	0.0137	0.00937	0.015	0.0147	0.0155	0.0143	0.00934
Barium	mg/L	0.125	0.123	0.154	0.126	0.109	0.123	0.147	0.12	0.127	0.119
Beryllium	mg/L	<0.000406	<0.000406	<0.0006	<0.0006	<0.0006	<0.0006	<0.000406	<0.000406	<0.000406	<0.000406
Cadmium	mg/L	<6.8e-005	<6.8e-005	<0.0003	<0.0003	<0.0003	<0.0003	<6.8e-005	<6.8e-005	<6.8e-005	<6.8e-005
Chromium	mg/L	0.00042 J	0.000419 J	0.00243 J	<0.002	<0.002	<0.002	0.00132	0.00134	0.00133	0.000706 J
Cobalt	mg/L	0.000596	0.00297	<0.002	<0.002	0.013	<0.002	0.00109	0.00101	0.00108	0.000688
Combined Radium 226 + 228	pCi/L	1.09 U	0.898 U	0.473	0.6	1.05	0.684	0.971 U	1.2	1.03 U	0.691 U
Fluoride	mg/L	0.176	0.137	0.126	0.071 J	0.0722 J	0.0784 J	0.0886 J	0.11	0.0857 J	0.148
Lead	mg/L	7.57e-005 J	7.4e-005 J	<0.001	<0.001	<0.001	<0.001	<6.8e-005	<6.8e-005	<6.8e-005	<6.8e-005
Lithium	mg/L	<0.007105	<0.007105	<0.01	<0.01	<0.01	<0.01	<0.007105	<0.007105	<0.007105	<0.007105
Mercury	mg/L	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003
Molybdenum	mg/L	<0.005075	<0.005075	<0.002	<0.002	<0.002	<0.002	0.00025	0.000249	0.000361	0.000165 J
Selenium	mg/L	<0.000508	<0.000508	<0.002	<0.002	<0.002	<0.002	<0.000507	<0.000508	<0.000508	<0.000508
Thallium	mg/L	<6.8e-005	<6.8e-005	<0.0002	<0.0002	<0.0002	<0.0002	<6.8e-005	<6.8e-005	<6.8e-005	<6.8e-005

Notes:

1. mg/L - Milligrams per Liter
2. pCi/L - picocuries per Liter
3. J - Result is an estimated value. The result is greater than or equal to the Method Detection Limit (MDL) and less than the Practical Quantita



ANALYTICAL DATA SUMMARY
Ash Pond (02/23/2016 - 08/16/2023)
APC Plant Barry
Mobile County Alabama

Analyte	Units	BY-AP-MW-18H		BY-AP-MW-19H							
		04/05/2023	08/08/2023	07/31/2019	10/01/2019	05/12/2020	09/01/2020	05/25/2021	10/25/2021	05/24/2022	10/31/2022
Appendix III											
Boron	mg/L	0.0377 J	0.0442 J	0.848	0.931	1.22	0.895	0.252	0.142	0.159	0.63
Calcium	mg/L	4.89	4.75	31.8	31.1	34.2	31.6	23.9	18.3	18.6	31.7
Chloride	mg/L	6.46	5.79	16.4	16.8	17.9	17.6	10.7	10.1	10.4	15.2
Fluoride	mg/L	0.0765 J	0.0799 J	0.089 J	0.0712 J	0.0732 J	0.0752 J	0.0673 J	<0.06	<0.06	<0.06
pH_Field	SU	6.15	6.67	6.21	6.33	6.09	6.31	6.1	6.13	5.8	6.1
Sulfate	mg/L	67	43.3	11.3	5.9	22.9	16.9	26.6	28.7	34.7	23
TDS	mg/L	85.3	82.7	312	316	321	294	162	123	133	249
Appendix IV											
Antimony	mg/L	<0.00071	<0.00071	0.00137 J	<0.0008	<0.0008	<0.0008	<0.000507	<0.000508	<0.000508	<0.000508
Arsenic	mg/L	0.000869	0.00104	<0.001	<0.001	<0.001	0.00101 J	0.0015	0.00134	0.000993	0.000896
Barium	mg/L	0.0207	0.0233	0.137	0.113	0.167	0.159	0.104	0.0738	0.0796	0.123
Beryllium	mg/L	<0.000406	<0.000406	<0.0006	<0.0006	<0.0006	<0.0006	<0.000406	<0.000406	<0.000406	<0.000406
Cadmium	mg/L	<6.8e-005	<6.8e-005	<0.0003	<0.0003	<0.0003	<0.0003	<6.8e-005	<6.8e-005	<6.8e-005	<6.8e-005
Chromium	mg/L	0.000484 J	0.000382 J	<0.002	<0.002	<0.002	<0.002	0.000391 J	0.00044 J	0.000423 J	0.000431 J
Cobalt	mg/L	<6.8e-005	<6.8e-005	<0.002	<0.002	<0.002	<0.002	0.00294	0.00501	0.00513	0.00053
Combined Radium 226 + 228	pCi/L	0.675 U	0.262 U	0.272 U	0.817	0.691	0.675	1.04 U	1.03 U	1.06 U	1.11
Fluoride	mg/L	0.0765 J	0.0799 J	0.089 J	0.0712 J	0.0732 J	0.0752 J	0.0673 J	<0.06	<0.06	<0.06
Lead	mg/L	<6.8e-005	<6.8e-005	<0.001	<0.001	<0.001	<0.001	<6.8e-005	<6.8e-005	<6.8e-005	<6.8e-005
Lithium	mg/L	<0.007105	<0.007105	<0.01	<0.01	<0.01	<0.01	<0.007105	<0.007105	<0.007105	<0.007105
Mercury	mg/L	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003
Molybdenum	mg/L	<0.005075	<0.005075	<0.002	<0.002	<0.002	<0.002	0.000124 J	8.42e-005 J	<0.000102	0.000139 J
Selenium	mg/L	<0.000508	<0.000508	<0.002	<0.002	<0.002	<0.002	<0.000507	<0.000508	<0.000508	<0.000508
Thallium	mg/L	<6.8e-005	<6.8e-005	<0.0002	<0.0002	<0.0002	<0.0002	<6.8e-005	<6.8e-005	<6.8e-005	<6.8e-005

Notes:

1. mg/L - Milligrams per Liter
2. pCi/L - picocuries per Liter
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ANALYTICAL DATA SUMMARY
Ash Pond (02/23/2016 - 08/16/2023)
APC Plant Barry
Mobile County Alabama

Analyte	Units	BY-AP-MW-19H		BY-AP-MW-20H							
		04/24/2023	08/08/2023	07/31/2019	10/01/2019	04/01/2020	09/01/2020	05/19/2021	10/26/2021	05/23/2022	10/31/2022
Appendix III											
Boron	mg/L	0.876	1.23	0.0707 J	0.101	0.046 J	0.106	0.0909 J	0.0784 J	0.0653 J	0.06 J
Calcium	mg/L	28.5	30.7	30.3	29.4	26	28.8	30.9	30.2	28.6	28
Chloride	mg/L	15.2	16.9	33.4	44.7	23.1	34.6	36.2	34	44.1	35.3
Fluoride	mg/L	0.083 J	<0.06	0.0934 J	0.0838 J	0.0793 J	0.0954 J	0.0852 J	0.114	0.124 J	0.0822 J
pH_Field	SU	6.35	6.34	6.22	6.24	6.45	6.15	6.17	6.49	6.15	6.12
Sulfate	mg/L	38.7	18.3	83.2	28.9	18.7	43.5	59.5	73.2	95.1	103
TDS	mg/L	261	311	481	470	319	479	479	493	462	482
Appendix IV											
Antimony	mg/L	<0.00071	<0.00071	0.00113 J	<0.0008	<0.0008	<0.0008	<0.000507	<0.000508	<0.000508	<0.000508
Arsenic	mg/L	0.000745	0.000696	0.0112	0.013	0.00508	0.0172	0.0132	0.0133	0.0136	0.0131
Barium	mg/L	0.136	0.156	0.0928	0.0913	0.119	0.11	0.111	0.0936	0.0963	0.0954
Beryllium	mg/L	<0.000406	<0.000406	<0.0006	<0.0006	<0.0006	<0.0006	<0.000406	<0.000406	<0.000406	<0.000406
Cadmium	mg/L	<6.8e-005	<6.8e-005	<0.0003	<0.0003	<0.0003	<0.0003	<6.8e-005	<6.8e-005	<6.8e-005	<6.8e-005
Chromium	mg/L	0.000396 J	0.000325 J	0.00209 J	0.0025 J	<0.002	0.00283 J	0.00284	0.00261	0.00233	0.00246
Cobalt	mg/L	0.00147	0.000813	0.00433 J	0.00431 J	0.00541	0.0046 J	0.00426	0.00447	0.00423	0.00455
Combined Radium 226 + 228	pCi/L	1.35	0.636 U	0.268 U	1.22	0.968	0.39 U	1.03 U	1.28 U	0.657 U	1.15
Fluoride	mg/L	0.083 J	<0.06	0.0934 J	0.0838 J	0.0793 J	0.0954 J	0.0852 J	0.114	0.124 J	0.0822 J
Lead	mg/L	<6.8e-005	<6.8e-005	<0.001	<0.001	<0.001	<0.001	0.000224	<6.8e-005	<6.8e-005	<6.8e-005
Lithium	mg/L	<0.007105	<0.007105	<0.01	<0.01	<0.01	<0.01	<0.007105	<0.007105	<0.007105	<0.007105
Mercury	mg/L	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003
Molybdenum	mg/L	<0.005075	<0.005075	<0.002	<0.002	<0.002	<0.002	0.000503	0.000482	0.000537	0.000556
Selenium	mg/L	<0.000508	<0.000508	<0.002	<0.002	<0.002	<0.002	<0.000507	<0.000508	0.000538 J	<0.000508
Thallium	mg/L	<6.8e-005	<6.8e-005	<0.0002	<0.0002	<0.0002	<0.0002	<6.8e-005	<6.8e-005	<6.8e-005	<6.8e-005

Notes:

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3. J - Result is an estimated value. The result is greater than or equal to the Method Detection Limit (MDL) and less than the Practical Quantita



ANALYTICAL DATA SUMMARY
Ash Pond (02/23/2016 - 08/16/2023)
APC Plant Barry
Mobile County Alabama

Analyte	Units	BY-AP-MW-20H		BY-AP-MW-22H							
		04/24/2023	08/08/2023	07/31/2019	10/01/2019	05/12/2020	09/01/2020	05/25/2021	10/26/2021	05/24/2022	10/31/2022
Appendix III											
Boron	mg/L	0.0573 J	0.0655 J	0.0643 J	0.105	0.0807 J	0.115	0.0889 J	0.0725 J	0.0562 J	0.0346 J
Calcium	mg/L	28.1	25.5	15	15.5	15	14.8	15.2	15.1	14.4	13.8
Chloride	mg/L	37.6	32.6	60.3	70	58.3	59.9	65.4	54.5	57.1	61.6
Fluoride	mg/L	0.0659 J	0.103 J	0.257	0.268	0.323	0.301	0.282	0.323	0.318	0.257
pH_Field	SU	6.16	6.25	6.54	6.6	6.55	6.48	6.44	6.86	6.57	6.46
Sulfate	mg/L	63.6	84.1	171	17.2	59.5	93.2	72.3	140	103	110
TDS	mg/L	473	468	345	346	337	362	378	362	372	363
Appendix IV											
Antimony	mg/L	<0.00071	<0.00071	0.00117 J	<0.0008	<0.0008	<0.0008	<0.000507	<0.000508	<0.000508	<0.000508
Arsenic	mg/L	0.0133	0.0134	0.0225	0.0225	0.0199	0.0217	0.0191	0.0202	0.0197	0.0183
Barium	mg/L	0.098	0.0938	0.185	0.213	0.222	0.234	0.261	0.202	0.215	0.2
Beryllium	mg/L	<0.000406	<0.000406	<0.0006	<0.0006	<0.0006	<0.0006	<0.000406	<0.000406	<0.000406	<0.000406
Cadmium	mg/L	<6.8e-005	<6.8e-005	<0.0003	<0.0003	<0.0003	<0.0003	<6.8e-005	<6.8e-005	<6.8e-005	<6.8e-005
Chromium	mg/L	0.00253	0.00263	<0.002	<0.002	<0.002	<0.002	0.000667 J	0.000618 J	0.000566 J	0.000493 J
Cobalt	mg/L	0.00442	0.0046	0.00233 J	0.00268 J	0.00281 J	0.00294 J	0.00264	0.00285	0.0027	0.00274
Combined Radium 226 + 228	pCi/L	1.17	1.25	0.448	0.508	0.61	0.419 U	1.26	1.52	0.656 U	0.454 U
Fluoride	mg/L	0.0659 J	0.103 J	0.257	0.268	0.323	0.301	0.282	0.323	0.318	0.257
Lead	mg/L	<6.8e-005	0.000116 J	<0.001	<0.001	<0.001	<0.001	<6.8e-005	<6.8e-005	<6.8e-005	<6.8e-005
Lithium	mg/L	<0.007105	<0.007105	<0.01	<0.01	<0.01	<0.01	<0.007105	<0.007105	<0.007105	<0.007105
Mercury	mg/L	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003
Molybdenum	mg/L	<0.005075	<0.005075	0.00426 J	<0.002	<0.002	<0.002	0.00137	0.00136	0.00145	0.00132
Selenium	mg/L	<0.000508	<0.000508	<0.002	<0.002	<0.002	<0.002	<0.000507	<0.000508	<0.000508	<0.000508
Thallium	mg/L	<6.8e-005	<6.8e-005	<0.0002	<0.0002	<0.0002	<0.0002	<6.8e-005	<6.8e-005	<6.8e-005	<6.8e-005

Notes:

1. mg/L - Milligrams per Liter
2. pCi/L - picocuries per Liter
3. J - Result is an estimated value. The result is greater than or equal to the Method Detection Limit (MDL) and less than the Practical Quantita



ANALYTICAL DATA SUMMARY
Ash Pond (02/23/2016 - 08/16/2023)
APC Plant Barry
Mobile County Alabama

Analyte	Units	BY-AP-MW-22H		BY-AP-MW-23H							
		04/24/2023	08/08/2023	07/31/2019	10/01/2019	04/01/2020	09/01/2020	05/24/2021	10/26/2021	05/25/2022	11/01/2022
Appendix III											
Boron	mg/L	0.0696 J	0.0587 J	0.0531 J	0.0856 J	<0.03	0.0943 J	0.0785 J	0.0709 J	0.0526 J	0.0382 J
Calcium	mg/L	14.3	13.4	25.8	27.2	15.8	35.8	27.1	29.4	24.5	24.4
Chloride	mg/L	63.7	51.2	8.03	6.7	4.46	6.96	6.33	5.64	6.63	7.96
Fluoride	mg/L	0.255	0.252	0.0766 J	0.0804 J	0.0607 J	0.0919 J	0.0734 J	0.0709 J	<0.06	<0.06
pH_Field	SU	6.46	6.22	6.08	6.03	6.44	6.14	6.19	6.54	5.92	6
Sulfate	mg/L	152	214	18.4	4.89	18.1	24.5	3.99	29.5	4.01	5.37
TDS	mg/L	355	390	241	261	105	271	244	252	236	235
Appendix IV											
Antimony	mg/L	<0.00071	<0.00071	0.000964 J	<0.0008	<0.0008	<0.0008	<0.000507	<0.000508	<0.000508	<0.000508
Arsenic	mg/L	0.0191	0.0197	0.0132	0.013	0.00689	0.0226	0.0133	0.00807	0.00518	0.00449
Barium	mg/L	0.209	0.21	0.162	0.175	0.0629	0.182	0.208	0.188	0.174	0.171
Beryllium	mg/L	<0.000406	<0.000406	<0.0006	<0.0006	<0.0006	<0.0006	<0.000406	<0.000406	<0.000406	<0.000406
Cadmium	mg/L	<6.8e-005	<6.8e-005	<0.0003	<0.0003	<0.0003	<0.0003	<6.8e-005	<6.8e-005	<6.8e-005	<6.8e-005
Chromium	mg/L	0.000486 J	0.00061 J	<0.002	<0.002	<0.002	<0.002	0.000814 J	0.000696 J	0.000514 J	0.000394 J
Cobalt	mg/L	0.00275	0.00275	0.0031 J	0.00201 J	0.0206	0.0273	0.00682	0.00495	0.002	0.000639
Combined Radium 226 + 228	pCi/L	1 U	0.648 U	0.331 U	1.05	0.618	0.224 U	1.1 U	1.13 U	0.674 U	0.583 U
Fluoride	mg/L	0.255	0.252	0.0766 J	0.0804 J	0.0607 J	0.0919 J	0.0734 J	0.0709 J	<0.06	<0.06
Lead	mg/L	<6.8e-005	<6.8e-005	<0.001	<0.001	<0.001	<0.001	<6.8e-005	<6.8e-005	<6.8e-005	<6.8e-005
Lithium	mg/L	<0.007105	<0.007105	<0.01	<0.01	<0.01	<0.01	<0.007105	<0.007105	<0.007105	<0.007105
Mercury	mg/L	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003
Molybdenum	mg/L	<0.005075	<0.005075	<0.002	<0.002	<0.002	<0.002	0.00069	0.00035	0.000131 J	<0.000102
Selenium	mg/L	<0.000508	<0.000508	<0.002	<0.002	<0.002	<0.002	<0.000507	<0.000508	<0.000508	<0.000508
Thallium	mg/L	<6.8e-005	<6.8e-005	<0.0002	<0.0002	<0.0002	<0.0002	<6.8e-005	<6.8e-005	<6.8e-005	<6.8e-005

Notes:

1. mg/L - Milligrams per Liter
2. pCi/L - picocuries per Liter
3. J - Result is an estimated value. The result is greater than or equal to the Method Detection Limit (MDL) and less than the Practical Quantita



ANALYTICAL DATA SUMMARY
Ash Pond (02/23/2016 - 08/16/2023)
APC Plant Barry
Mobile County Alabama

Analyte	Units	BY-AP-MW-23H		BY-AP-MW-24H							
		04/04/2023	08/08/2023	01/08/2019	10/02/2019	03/31/2020	09/02/2020	05/25/2021	10/26/2021	05/24/2022	11/02/2022
Appendix III											
Boron	mg/L	0.0481 J	0.0427 J	0.213	0.344	0.325	0.382	0.37	0.354	0.351	0.337
Calcium	mg/L	23.5	21.6	38	18.4	18.1	17.6	18.6	18.4	17.9	17.6
Chloride	mg/L	9.01	7.97	44.6	53	47.5	43.7	46	41.6	50.8	45.4
Fluoride	mg/L	0.0744 J	<0.06	0.147	0.183	0.148	0.158	0.156	0.158	0.135	0.131
pH_Field	SU	5.94	6.13	6.51	6.21	6.23	6.01	6.16	6.2	6.22	6.05
Sulfate	mg/L	15.2	14	31.2	92.3	84.5	59.7	17	122	92.3	19.9
TDS	mg/L	216	221	504	430	418	471	420	448	383	446
Appendix IV											
Antimony	mg/L	<0.00071	<0.00071	0.00116 J	<0.0008	<0.0008	<0.0008	<0.000507	<0.000508	<0.000508	<0.000508
Arsenic	mg/L	0.00291	0.00254	0.0306	0.0673	0.0729	0.0783	0.0693	0.0752	0.0718	0.0664
Barium	mg/L	0.159	0.165	0.294	0.229	0.243	0.26	0.26	0.238	0.245	0.23
Beryllium	mg/L	<0.000406	<0.000406	<0.0006	<0.0006	<0.0006	<0.0006	<0.000406	<0.000406	<0.000406	<0.000406
Cadmium	mg/L	<6.8e-005	<6.8e-005	<0.0003	<0.0003	<0.0003	<0.0003	<6.8e-005	<6.8e-005	<6.8e-005	<6.8e-005
Chromium	mg/L	0.000406 J	0.000383 J	<0.002	<0.002	<0.002	<0.002	0.000878 J	0.00104	0.000809 J	0.000799 J
Cobalt	mg/L	0.000522	0.000504	0.00243 J	0.00513	0.00528	0.0061	0.00542	0.00591	0.00571	0.00575
Combined Radium 226 + 228	pCi/L	0.92 U	0.864 U	1.49	1.24	0.577	1.5 U	0.695 U	0.987 U	1.08 U	1.05
Fluoride	mg/L	0.0744 J	<0.06	0.147	0.183	0.148	0.158	0.156	0.158	0.135	0.131
Lead	mg/L	<6.8e-005	<6.8e-005	<0.001	<0.001	<0.001	<0.001	<6.8e-005	<6.8e-005	<6.8e-005	<6.8e-005
Lithium	mg/L	<0.007105	<0.007105	0.0183 J	<0.01	<0.01	<0.01	<0.007105	<0.007105	<0.007105	<0.007105
Mercury	mg/L	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003
Molybdenum	mg/L	<0.005075	<0.005075	0.00399 J	<0.002	<0.002	<0.002	0.000869	0.000964	0.000923	0.00104
Selenium	mg/L	<0.000508	<0.000508	<0.002	<0.002	<0.002	<0.002	<0.000507	<0.000508	<0.000508	<0.000508
Thallium	mg/L	<6.8e-005	<6.8e-005	<0.0002	<0.0002	<0.0002	<0.0002	<6.8e-005	<6.8e-005	<6.8e-005	<6.8e-005

Notes:

1. mg/L - Milligrams per Liter
2. pCi/L - picocuries per Liter
3. J - Result is an estimated value. The result is greater than or equal to the Method Detection Limit (MDL) and less than the Practical Quantita



ANALYTICAL DATA SUMMARY
Ash Pond (02/23/2016 - 08/16/2023)
APC Plant Barry
Mobile County Alabama

Analyte	Units	BY-AP-MW-24H		BY-AP-MW-25H							
		04/03/2023	08/08/2023	06/17/2020	09/02/2020	05/24/2021	11/02/2021	05/25/2022	10/31/2022	04/03/2023	08/08/2023
Appendix III											
Boron	mg/L	0.378	0.279	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03
Calcium	mg/L	17.8	16	0.793	0.875	0.905	1.05	0.949	0.951	1.01	0.967
Chloride	mg/L	46.3	45.1	4.81	4.62	4.72	5.07	5.32	5.67	5.52	5.99
Fluoride	mg/L	0.175	0.144	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06
pH_Field	SU	6.08	5.99	5.27	5.39	4.12	5.01	5.23	5.11	4.65	4.95
Sulfate	mg/L	112	253	6.1	4.39	4.94	4.28	4.24	4.57	4.48	5.13
TDS	mg/L	462	517	44	36	39.3	34.7	37.3	40	40	44
Appendix IV											
Antimony	mg/L	<0.00071	<0.00071	<0.0008	<0.0008	<0.000507	<0.000508	<0.000508	<0.000508	<0.00071	<0.00071
Arsenic	mg/L	0.0696	0.0654	<0.001	<0.001	8.73e-005 J	0.000162 J	0.000196 J	0.000176 J	0.000135 J	0.000125 J
Barium	mg/L	0.235	0.256	0.0189	0.0204	0.0206	0.0203	0.0197	0.0198	0.0187	0.0209
Beryllium	mg/L	<0.000406	<0.000406	<0.0006	<0.0006	<0.000406	<0.000406	<0.000406	<0.000406	<0.000406	<0.000406
Cadmium	mg/L	<6.8e-005	<6.8e-005	<0.0003	<0.0003	<6.8e-005	<6.8e-005	<6.8e-005	<6.8e-005	<6.8e-005	<6.8e-005
Chromium	mg/L	0.000868 J	0.000914 J	<0.002	<0.002	0.00117	0.000976 J	0.00103	0.00111	0.00106	0.00113
Cobalt	mg/L	0.0056	0.00581	<0.002	0.00246 J	0.00156	0.00146	0.00132	0.00135	0.00113	0.00142
Combined Radium 226 + 228	pCi/L	1.46	1.23	0.554	0.0187 U	0.545 U	0.707 U	0.682 U	0.793 U	0.724 U	0.401 U
Fluoride	mg/L	0.175	0.144	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06
Lead	mg/L	<6.8e-005	<6.8e-005	<0.001	<0.001	<6.8e-005	<6.8e-005	<6.8e-005	<6.8e-005	<6.8e-005	<6.8e-005
Lithium	mg/L	<0.007105	<0.007105	<0.01	<0.01	<0.007105	<0.007105	<0.007105	<0.007105	<0.007105	<0.007105
Mercury	mg/L	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003
Molybdenum	mg/L	<0.005075	<0.005075	<0.002	<0.002	0.000102 J	0.00014 J	0.000103 J	0.000107 J	<0.005075	<0.005075
Selenium	mg/L	<0.000508	<0.000508	<0.002	<0.002	<0.000507	<0.000508	<0.000508	<0.000508	<0.000508	<0.000508
Thallium	mg/L	<6.8e-005	<6.8e-005	<0.0002	<0.0002	<6.8e-005	<6.8e-005	<6.8e-005	<6.8e-005	<6.8e-005	<6.8e-005

Notes:

1. mg/L - Milligrams per Liter
2. pCi/L - picocuries per Liter
3. J - Result is an estimated value. The result is greater than or equal to the Method Detection Limit (MDL) and less than the Practical Quantita

Appendix B

Appendix B. Historical Groundwater Elevations Summary

Plant Barry Ash Pond
02/22/2016 - 08/07/23

Well	Hydraulic Location	Geologic Unit	Measure Date																	
			02/22/16	02/29/16	04/18/16	06/06/16	06/07/16	08/29/16	08/30/16	10/17/16	01/30/17	01/31/17	03/20/17	05/01/17	06/05/17	09/12/17	11/15/17	01/22/18	04/30/18	08/27/18
BY-UP-MW-1	Upgradient	Unit 2: Mixed Sand and Clay	7.73	NM	7.92	5.81	NM	5.13	NM	4.59	6.94	NM	5.42	5.51	6.64	5.45	5.43	4.75	6.83	5.22
BY-UP-MW-2	Upgradient	Unit 2: Mixed Sand and Clay	7.55	NM	7.77	5.75	NM	5.04	NM	4.50	6.82	NM	5.30	5.48	6.45	5.30	5.28	4.68	6.66	5.06
BY-UP-MW-3	Upgradient	Unit 2: Mixed Sand and Clay	8.19	NM	8.45	6.52	NM	5.78	NM	5.19	7.55	NM	6.04	6.16	7.39	6.16	6.08	5.46	7.19	5.76
BY-UP-MW-4	Upgradient	Unit 2: Mixed Sand and Clay	7.83	NM	8.13	6.21	NM	5.47	NM	4.93	7.25	NM	5.71	5.98	6.87	5.74	5.69	5.18	6.99	5.47
BY-AP-MW-1	Downgradient	Unit 2: Upper Sand	8.19	NM	7.23	NM	4.52	NM	4.12	2.86	NM	6.90	4.27	4.49	5.11	3.46	NM	3.67	6.52	4.19
BY-AP-MW-2	Downgradient	Unit 2 - Unit 3 Transition Zone	7.59	NM	6.58	NM	3.51	NM	3.03	2.61	NM	5.79	2.99	3.95	4.13	2.49	NM	2.47	5.84	2.95
BY-AP-MW-3	Downgradient	Unit 2 - Unit 3 Transition Zone	NM	7.53	6.53	NM	3.35	NM	2.84	2.43	NM	5.73	2.85	3.81	4.00	2.31	NM	2.31	5.78	2.83
BY-AP-MW-4	Downgradient	Unit 2 - Unit 3 Transition Zone	NM	7.41	6.36	NM	3.12	NM	2.68	2.10	NM	5.56	2.62	3.54	3.73	2.88	NM	2.04	5.62	2.62
BY-AP-MW-5	Downgradient	Unit 2: Mixed Sand and Clay	NM	7.39	6.24	NM	2.78	NM	2.46	1.80	NM	5.35	2.44	3.27	3.43	1.58	NM	1.78	5.49	2.48
BY-AP-MW-6	Downgradient	Unit 3: Sands	NM	7.48	6.34	NM	2.87	NM	2.46	1.66	NM	5.36	2.33	3.20	3.36	1.36	NM	1.63	5.58	2.33
BY-AP-MW-7	Downgradient	Unit 3: Sands	NM	7.86	6.51	NM	2.74	NM	2.52	1.52	NM	5.52	2.28	3.15	3.40	1.25	NM	1.81	5.82	2.29
BY-AP-MW-8	Downgradient	Unit 2: Mixed Sand and Clay	NM	7.90	6.36	NM	2.48	NM	2.34	1.19	NM	5.35	2.06	2.91	3.16	0.92	NM	1.32	5.56	2.14
BY-AP-MW-9	Downgradient	Unit 2: Mixed Sand and Clay	NM	7.64	6.16	NM	2.54	NM	2.17	1.08	NM	5.09	1.85	2.77	3.00	0.74	NM	1.09	5.33	1.90
BY-AP-MW-10	Downgradient	Unit 2 - Unit 3 Transition Zone	NM	7.77	6.29	NM	2.74	NM	2.35	1.19	NM	5.19	2.01	2.88	3.14	0.88	NM	1.26	5.47	2.07
BY-AP-MW-11	Downgradient	Unit 2 - Unit 3 Transition Zone	NM	7.82	6.36	NM	2.89	NM	2.48	1.34	NM	5.28	2.23	3.00	3.25	1.04	NM	1.52	5.60	2.26
BY-AP-MW-12	Downgradient	Unit 3: Sands	NM	7.43	6.00	NM	2.56	NM	2.16	1.07	NM	4.93	1.91	2.67	2.93	0.73	NM	1.19	5.23	1.99
BY-AP-MW-13	Downgradient	Unit 2 - Unit 3 Transition Zone	NM	7.49	6.06	NM	2.67	NM	2.28	1.14	NM	4.98	1.99	2.74	3.01	0.81	NM	1.17	5.28	2.10
BY-AP-MW-14	Downgradient	Unit 2 - Unit 3 Transition Zone	NM	6.89	5.49	NM	2.66	NM	1.72	0.73	NM	4.49	1.44	2.29	2.54	0.36	NM	0.61	4.66	1.49
BY-AP-MW-15	Downgradient	Unit 3: Sands	NM	7.21	5.88	NM	2.61	NM	2.20	1.34	NM	4.94	1.93	2.82	3.04	0.99	NM	1.18	5.14	1.98
BY-AP-MW-16	Downgradient	Unit 2 - Unit 3 Transition Zone	NM	7.34	6.17	NM	2.94	NM	2.52	2.04	NM	5.31	2.38	3.40	3.52	1.76	NM	1.93	5.40	2.40
BY-AP-MW-1V	Vertical Delineation	Unit 3: Lower Sands & Gravel (Watercourse Aq)	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
BY-AP-MW-5V	Vertical Delineation	Unit 3: Lower Sands & Gravel (Watercourse Aq)	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
BY-AP-MW-7V	Vertical Delineation	Unit 3: Lower Sands & Gravel (Watercourse Aq)	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---

Notes:
 (1) Groundwater elevations measured in vertical feet relative to the North American Vertical Datum (NAVD) 1988.
 (2) NM = Not Measured

Appendix B. Historical Groundwater Elevations Summary

Plant Barry Ash Pond
02/22/2016 - 08/07/23

Well	Hydraulic Location	Geologic Unit	Measure Date																	
			02/22/16	02/29/16	04/18/16	06/06/16	06/07/16	08/29/16	08/30/16	10/17/16	01/30/17	01/31/17	03/20/17	05/01/17	06/05/17	09/12/17	11/15/17	01/22/18	04/30/18	08/27/18
BY-AP-MW-8V	Vertical Delineation	Unit 3: Lower Sands & Gravel (Watercourse Aq)	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	
BY-AP-MW-10V	Vertical Delineation	Unit 3: Lower Sands & Gravel (Watercourse Aq)	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	
BY-AP-MW-12V	Vertical Delineation	Unit 3: Lower Sands & Gravel (Watercourse Aq)	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	
BY-AP-MW-13V	Vertical Delineation	Unit 3: Lower Sands & Gravel (Watercourse Aq)	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	
BY-AP-MW-14V	Vertical Delineation	Unit 3: Lower Sands & Gravel (Watercourse Aq)	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	
BY-AP-MW-15V	Vertical Delineation	Unit 3: Lower Sands & Gravel (Watercourse Aq)	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	
BY-AP-MW-16V	Vertical Delineation	Unit 3: Lower Sands & Gravel (Watercourse Aq)	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	
BY-AP-MW-17V	Vertical Delineation	Unit 3: Lower Sands & Gravel (Watercourse Aq)	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	
BY-AP-MW-20V	Vertical Delineation	Unit 3: Lower Sands & Gravel (Watercourse Aq)	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	
BY-AP-MW-23V	Vertical Delineation	Unit 3: Lower Sands & Gravel (Watercourse Aq)	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	
BY-AP-MW-25V	Vertical Delineation	Unit 3: Lower Sands & Gravel (Watercourse Aq)	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	
BY-AP-MW-17H	Horizontal Delineation	Unit 2 - Unit 3 Transition Zone	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	
BY-AP-MW-18H	Horizontal Delineation	Unit 2 - Unit 3 Transition Zone	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	
BY-AP-MW-19H	Horizontal Delineation	Unit 2: Mixed Sand and Clay	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	
BY-AP-MW-20H	Horizontal Delineation	Unit 2: Mixed Sand and Clay	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	
BY-AP-MW-22H	Horizontal Delineation	Unit 2: Mixed Sand and Clay	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	
BY-AP-MW-23H	Horizontal Delineation	Unit 2: Mixed Sand and Clay	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	
BY-AP-MW-24H	Horizontal Delineation	Unit 2: Mixed Sand and Clay	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	
BY-AP-MW-25H	Horizontal Delineation	Unit 2 - Unit 3 Transition Zone	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	
BY-AP-MW-15VM	Piezometer	Unit 5 Sands	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	

Notes:
(1) Groundwater elevations measured in vertical feet relative to the North American Vertical Datum (NAVD) 1988.
(2) NM = Not Measured

Appendix B. Historical Groundwater Elevations Summary

Plant Barry Ash Pond
02/22/2016 - 08/07/23

Well	Hydraulic Location	Geologic Unit	Measure Date																			
			11/26/18	03/20/19	05/28/19	09/30/19	10/02/19	03/30/20	05/12/20	06/15/20	08/31/20	09/08/20	05/11/21	05/12/21	05/24/21	10/18/21	05/23/22	10/31/22	04/03/23	04/11/23	06/11/23	08/07/23
BY-UP-MW-1	Upgradient	Unit 2: Mixed Sand and Clay	5.84	NM	6.60	NM	4.78	8.38	NM	NM	NM	5.31	7.41	NM	7.13	6.64	6.17	5.04	7.31	7.25	5.46	4.91
BY-UP-MW-2	Upgradient	Unit 2: Mixed Sand and Clay	5.73	NM	6.32	NM	4.71	8.05	NM	NM	NM	5.16	7.25	NM	6.80	6.40	6.03	5.00	7.25	7.09	5.35	4.80
BY-UP-MW-3	Upgradient	Unit 2: Mixed Sand and Clay	6.40	NM	7.02	NM	5.37	8.54	NM	NM	NM	5.83	8.03	NM	7.49	7.19	6.75	5.79	7.80	7.63	6.03	5.50
BY-UP-MW-4	Upgradient	Unit 2: Mixed Sand and Clay	6.13	NM	6.57	NM	5.16	8.20	NM	NM	NM	5.53	NM	NM	6.99	6.68	6.37	5.53	7.74	7.39	5.78	5.23
BY-AP-MW-1	Downgradient	Unit 2: Upper Sand	5.10	7.53	4.33	3.40	NM	6.97	4.38	5.02	5.02	NM	NM	7.35	5.28	5.06	4.57	3.11	5.83	NM	3.09	2.84
BY-AP-MW-2	Downgradient	Unit 2 - Unit 3 Transition Zone	4.26	6.99	3.55	2.74	NM	6.53	3.55	3.81	3.84	NM	NM	6.73	3.96	3.63	3.57	3.61	6.70	NM	3.12	3.04
BY-AP-MW-3	Downgradient	Unit 2 - Unit 3 Transition Zone	4.09	6.86	3.41	2.60	NM	6.46	3.39	3.70	3.84	NM	NM	6.67	3.84	3.47	3.59	3.52	6.65	NM	3.29	3.26
BY-AP-MW-4	Downgradient	Unit 2 - Unit 3 Transition Zone	3.84	6.63	3.14	2.33	NM	6.21	3.06	3.39	3.60	NM	NM	6.47	3.57	3.15	3.31	3.03	6.73	NM	2.77	2.84
BY-AP-MW-5	Downgradient	Unit 2: Mixed Sand and Clay	3.53	6.43	2.89	2.08	NM	5.90	2.66	3.00	3.29	NM	NM	6.25	NM	2.81	2.84	2.55	6.61	NM	2.34	2.50
BY-AP-MW-6	Downgradient	Unit 3: Sands	3.60	6.45	2.66	1.91	NM	6.10	2.51	2.85	3.30	NM	NM	6.44	3.04	2.64	2.60	2.47	6.77	NM	2.15	2.20
BY-AP-MW-7	Downgradient	Unit 3: Sands	3.51	6.60	2.47	1.69	NM	6.25	2.31	2.90	3.35	NM	NM	6.82	2.53	2.21	2.35	2.67	7.03	NM	1.78	2.11
BY-AP-MW-8	Downgradient	Unit 2: Mixed Sand and Clay	3.17	6.37	2.17	1.32	NM	5.89	1.53	2.41	3.21	NM	NM	9.65	2.35	4.96	2.16	1.94	6.89	NM	1.37	1.82
BY-AP-MW-9	Downgradient	Unit 2: Mixed Sand and Clay	3.15	6.17	1.96	1.26	NM	5.83	1.47	2.36	2.97	NM	NM	6.30	2.36	2.05	2.24	1.87	6.81	NM	1.33	1.71
BY-AP-MW-10	Downgradient	Unit 2 - Unit 3 Transition Zone	3.09	6.26	2.12	1.34	NM	4.96	1.58	2.46	3.11	NM	NM	8.95	2.17	1.89	1.95	1.58	5.66	NM	1.18	1.60
BY-AP-MW-11	Downgradient	Unit 2 - Unit 3 Transition Zone	3.20	6.41	2.32	1.54	NM	5.94	1.64	2.50	3.16	NM	NM	9.16	2.41	2.06	2.69	1.63	6.71	NM	1.45	1.81
BY-AP-MW-12	Downgradient	Unit 3: Sands	2.86	5.98	1.97	1.26	NM	6.02	1.52	2.31	2.95	NM	NM	6.20	2.48	2.13	2.63	1.72	6.78	NM	1.53	1.93
BY-AP-MW-13	Downgradient	Unit 2 - Unit 3 Transition Zone	2.94	6.09	2.11	1.42	NM	5.83	1.68	2.43	3.11	NM	NM	6.33	2.64	2.29	2.84	1.85	6.94	NM	1.67	2.14
BY-AP-MW-14	Downgradient	Unit 2 - Unit 3 Transition Zone	2.51	5.49	1.60	0.89	NM	5.04	0.97	1.77	1.96	NM	NM	5.54	1.89	1.56	1.71	1.25	6.00	NM	0.89	1.37
BY-AP-MW-15	Downgradient	Unit 3: Sands	3.07	6.13	2.23	1.58	NM	5.77	1.93	2.57	3.12	NM	NM	6.19	2.74	2.45	2.57	2.49	6.76	NM	1.89	2.29
BY-AP-MW-16	Downgradient	Unit 2 - Unit 3 Transition Zone	3.70	6.47	2.82	2.20	NM	6.08	2.35	3.83	3.45	NM	NM	6.46	3.22	2.92	3.06	3.03	6.84	NM	2.49	2.59
BY-AP-MW-1V	Vertical Delineation	Unit 3: Lower Sands & Gravel (Watercourse Aq)	---	6.90	NM	2.65	NM	7.34	3.69	3.61	3.72	NM	NM	6.52	3.72	3.43	3.40	3.28	6.93	NM	2.98	2.89
BY-AP-MW-5V	Vertical Delineation	Unit 3: Lower Sands & Gravel (Watercourse Aq)	---	6.43	NM	2.10	NM	5.88	2.63	3.00	3.32	NM	NM	6.25	NM	2.79	2.83	2.62	6.81	NM	2.36	2.50
BY-AP-MW-7V	Vertical Delineation	Unit 3: Lower Sands & Gravel (Watercourse Aq)	---	6.54	NM	1.66	NM	6.03	2.15	2.68	3.13	NM	NM	6.82	2.51	2.21	2.34	2.56	7.17	NM	1.90	2.23

Notes:
(1) Groundwater elevations measured in vertical feet relative to the North American Vertical Datum (NAVD) 1988.
(2) NM = Not Measured

Appendix B. Historical Groundwater Elevations Summary

Plant Barry Ash Pond
02/22/2016 - 08/07/23

Well	Hydraulic Location	Geologic Unit	Measure Date																			
			11/26/18	03/20/19	05/28/19	09/30/19	10/02/19	03/30/20	05/12/20	06/15/20	08/31/20	09/08/20	05/11/21	05/12/21	05/24/21	10/18/21	05/23/22	10/31/22	04/03/23	04/11/23	06/11/23	08/07/23
BY-AP-MW-8V	Vertical Delineation	Unit 3: Lower Sands & Gravel (Watercourse Aq)	---	6.18	NM	1.23	NM	5.74	1.44	2.23	2.82	NM	NM	9.46	2.41	2.07	2.38	2.17	7.06	NM	1.56	1.97
BY-AP-MW-10V	Vertical Delineation	Unit 3: Lower Sands & Gravel (Watercourse Aq)	---	6.09	NM	1.21	NM	5.65	1.23	2.17	2.78	NM	NM	6.14	2.21	1.93	2.20	1.59	6.65	NM	1.20	1.61
BY-AP-MW-12V	Vertical Delineation	Unit 3: Lower Sands & Gravel (Watercourse Aq)	---	8.15	NM	3.46	NM	7.83	3.53	4.33	5.00	NM	NM	8.25	4.53	4.19	4.63	3.74	6.77	NM	1.49	1.89
BY-AP-MW-13V	Vertical Delineation	Unit 3: Lower Sands & Gravel (Watercourse Aq)	---	---	---	---	---	---	1.48	2.23	2.93	NM	NM	6.19	2.47	2.57	2.62	1.69	6.83	NM	1.52	2.00
BY-AP-MW-14V	Vertical Delineation	Unit 3: Lower Sands & Gravel (Watercourse Aq)	---	---	---	---	---	---	2.13	2.26	2.88	NM	NM	6.02	2.41	2.09	2.22	1.79	6.24	NM	1.49	1.94
BY-AP-MW-15V	Vertical Delineation	Unit 3: Lower Sands & Gravel (Watercourse Aq)	---	---	---	1.97	NM	NM	2.17	2.71	3.23	NM	NM	NM	2.83	2.52	2.55	2.49	NM	NM	1.92	2.23
BY-AP-MW-16V	Vertical Delineation	Unit 3: Lower Sands & Gravel (Watercourse Aq)	---	---	---	---	---	---	2.97	3.15	3.47	NM	NM	NM	3.26	2.94	2.94	2.84	6.93	NM	2.49	2.63
BY-AP-MW-17V	Vertical Delineation	Unit 3: Lower Sands & Gravel (Watercourse Aq)	---	---	---	---	---	---	1.51	2.11	3.01	NM	NM	6.46	2.44	2.20	2.09	2.19	6.91	NM	1.34	1.88
BY-AP-MW-20V	Vertical Delineation	Unit 3: Lower Sands & Gravel (Watercourse Aq)	---	---	---	---	---	---	1.40	2.19	2.87	NM	NM	NM	2.39	2.04	2.56	1.61	6.73	NM	1.44	1.84
BY-AP-MW-23V	Vertical Delineation	Unit 3: Lower Sands & Gravel (Watercourse Aq)	---	---	---	---	---	NM	1.50	2.09	2.98	NM	NM	6.42	2.34	2.15	2.65	1.57	6.78	NM	1.35	1.84
BY-AP-MW-25V	Vertical Delineation	Unit 3: Lower Sands & Gravel (Watercourse Aq)	---	---	---	---	---	---	3.22	3.42	3.38	NM	NM	5.96	3.58	3.19	3.22	2.53	6.28	NM	2.50	2.18
BY-AP-MW-17H	Horizontal Delineation	Unit 2 - Unit 3 Transition Zone	---	NM	NM	1.51	NM	5.88	1.47	2.36	2.93	NM	NM	6.40	2.37	2.14	2.02	2.04	6.85	NM	1.31	1.80
BY-AP-MW-18H	Horizontal Delineation	Unit 2 - Unit 3 Transition Zone	---	6.33	NM	1.34	NM	5.88	1.87	2.03	3.00	NM	NM	NM	2.40	2.05	2.61	2.54	6.85	NM	1.44	1.69
BY-AP-MW-19H	Horizontal Delineation	Unit 2: Mixed Sand and Clay	---	---	---	1.42	NM	5.85	2.02	2.07	3.04	NM	NM	NM	2.45	2.14	2.50	2.42	NM	NM	1.42	1.80
BY-AP-MW-20H	Horizontal Delineation	Unit 2: Mixed Sand and Clay	---	---	---	1.55	NM	5.79	1.55	2.31	2.97	NM	NM	NM	2.51	2.13	2.57	2.29	NM	NM	1.48	1.84
BY-AP-MW-22H	Horizontal Delineation	Unit 2: Mixed Sand and Clay	---	---	---	1.85	NM	NM	2.17	2.75	3.09	NM	NM	NM	2.80	2.46	2.40	2.57	NM	NM	1.72	2.04
BY-AP-MW-23H	Horizontal Delineation	Unit 2: Mixed Sand and Clay	---	---	---	1.67	NM	5.98	1.55	2.48	3.07	NM	NM	NM	2.44	2.14	2.75	1.60	6.89	NM	1.41	1.92
BY-AP-MW-24H	Horizontal Delineation	Unit 2: Mixed Sand and Clay	---	6.31	NM	1.86	NM	5.82	1.40	2.74	3.16	NM	NM	NM	2.92	2.60	2.60	2.65	6.73	NM	2.05	2.35
BY-AP-MW-25H	Horizontal Delineation	Unit 2 - Unit 3 Transition Zone	---	---	---	---	---	---	3.49	3.53	3.37	NM	NM	5.92	3.63	3.29	2.31	2.56	6.21	NM	2.60	2.23
BY-AP-MW-15VM	Piezometer	Unit 5 Sands	---	---	---	---	---	---	4.15	3.95	3.90	NM	NM	6.75	3.98	3.45	4.36	3.06	7.79	NM	2.95	2.84

Notes:
(1) Groundwater elevations measured in vertical feet relative to the North American Vertical Datum (NAVD) 1988.
(2) NM = Not Measured

Appendix C

Alabama Power General Test Laboratory
744 County Road 87, GSC#8
Calera, AL 35040
(205) 664-6032 or 6171
FAX (205) 257-1654

Field Case Narrative



Plant Barry Ash Pond

2023 Compliance Event 1

All samples were collected using methods defined in Alabama Power's Water Field Group Low-Flow Groundwater Sampling Procedure and the associated site-specific Sampling and Analysis Plan (SAP).

Suspected iron bacteria was present when pumping well MW-15.

Strong winds causing dusty conditions were present when pumping and sampling wells MW-8 and MW-10.

Vehicle traffic causing dusty conditions were present when pumping and sampling wells MW-3 and MW-1V.

Field quality control procedures were performed as follows:

- Blanks and Sample Duplicates were collected as described in the SAP.
- Calibration verification for all required field parameters were performed daily, before and after sample collection.

Plant Barry Ash Pond
Field Parameter Summary

WELL ID	PARAMETER	DESCRIPTION	TIME OF READING	VALUE	UNIT
APCO- BY-UP-MW-1	COND	Conductivity	4/12/23 12:45 PM	51.89	uS/cm
APCO- BY-UP-MW-1	DO	DO	4/12/23 12:45 PM	0.31	mg/L
APCO- BY-UP-MW-1	DTW	Depth to Water Detail	4/12/23 12:45 PM	13.42	ft
APCO- BY-UP-MW-1	ORP	Oxidation Reduction Potential	4/12/23 12:45 PM	229.85	mv
APCO- BY-UP-MW-1	PH	pH	4/12/23 12:45 PM	4.76	SU
APCO- BY-UP-MW-1	TEMP	Temperature	4/12/23 12:45 PM	20.25	C
APCO- BY-UP-MW-1	TURB	Turbidity	4/12/23 12:45 PM	5.73	NTU
APCO- BY-UP-MW-1	COND	Conductivity	4/12/23 12:50 PM	50.89	uS/cm
APCO- BY-UP-MW-1	DO	DO	4/12/23 12:50 PM	0.28	mg/L
APCO- BY-UP-MW-1	DTW	Depth to Water Detail	4/12/23 12:50 PM	13.42	ft
APCO- BY-UP-MW-1	ORP	Oxidation Reduction Potential	4/12/23 12:50 PM	230.01	mv
APCO- BY-UP-MW-1	PH	pH	4/12/23 12:50 PM	4.79	SU
APCO- BY-UP-MW-1	TEMP	Temperature	4/12/23 12:50 PM	20.28	C
APCO- BY-UP-MW-1	TURB	Turbidity	4/12/23 12:50 PM	4.23	NTU
APCO- BY-UP-MW-1	COND	Conductivity	4/12/23 12:55 PM	50.71	uS/cm
APCO- BY-UP-MW-1	DO	DO	4/12/23 12:55 PM	0.27	mg/L
APCO- BY-UP-MW-1	DTW	Depth to Water Detail	4/12/23 12:55 PM	13.42	ft
APCO- BY-UP-MW-1	ORP	Oxidation Reduction Potential	4/12/23 12:55 PM	230.75	mv
APCO- BY-UP-MW-1	PH	pH	4/12/23 12:55 PM	4.81	SU
APCO- BY-UP-MW-1	TEMP	Temperature	4/12/23 12:55 PM	20.28	C
APCO- BY-UP-MW-1	TURB	Turbidity	4/12/23 12:55 PM	2.95	NTU
APCO- BY-UP-MW-1	COND	Conductivity	4/12/23 1:00 PM	50.26	uS/cm
APCO- BY-UP-MW-1	DO	DO	4/12/23 1:00 PM	0.28	mg/L
APCO- BY-UP-MW-1	DTW	Depth to Water Detail	4/12/23 1:00 PM	13.42	ft
APCO- BY-UP-MW-1	ORP	Oxidation Reduction Potential	4/12/23 1:00 PM	234.04	mv
APCO- BY-UP-MW-1	PH	pH	4/12/23 1:00 PM	4.77	SU
APCO- BY-UP-MW-1	SULFIDE	Sulfide	4/12/23 1:00 PM	0	mg/L
APCO- BY-UP-MW-1	TEMP	Temperature	4/12/23 1:00 PM	20.31	C
APCO- BY-UP-MW-1	TURB	Turbidity	4/12/23 1:00 PM	2.86	NTU
APCO- BY-UP-MW-2	COND	Conductivity	4/12/23 11:48 AM	51.94	uS/cm
APCO- BY-UP-MW-2	DO	DO	4/12/23 11:48 AM	6.43	mg/L
APCO- BY-UP-MW-2	DTW	Depth to Water Detail	4/12/23 11:48 AM	12.92	ft
APCO- BY-UP-MW-2	ORP	Oxidation Reduction Potential	4/12/23 11:48 AM	396.32	mv
APCO- BY-UP-MW-2	PH	pH	4/12/23 11:48 AM	4.62	SU
APCO- BY-UP-MW-2	TEMP	Temperature	4/12/23 11:48 AM	19.54	C
APCO- BY-UP-MW-2	TURB	Turbidity	4/12/23 11:48 AM	17.3	NTU
APCO- BY-UP-MW-2	COND	Conductivity	4/12/23 11:53 AM	51.82	uS/cm
APCO- BY-UP-MW-2	DO	DO	4/12/23 11:53 AM	6.26	mg/L
APCO- BY-UP-MW-2	DTW	Depth to Water Detail	4/12/23 11:53 AM	12.92	ft
APCO- BY-UP-MW-2	ORP	Oxidation Reduction Potential	4/12/23 11:53 AM	409.68	mv
APCO- BY-UP-MW-2	PH	pH	4/12/23 11:53 AM	4.65	SU
APCO- BY-UP-MW-2	TEMP	Temperature	4/12/23 11:53 AM	19.54	C
APCO- BY-UP-MW-2	TURB	Turbidity	4/12/23 11:53 AM	17.8	NTU
APCO- BY-UP-MW-2	COND	Conductivity	4/12/23 11:58 AM	51.84	uS/cm
APCO- BY-UP-MW-2	DO	DO	4/12/23 11:58 AM	6.17	mg/L
APCO- BY-UP-MW-2	DTW	Depth to Water Detail	4/12/23 11:58 AM	12.92	ft
APCO- BY-UP-MW-2	ORP	Oxidation Reduction Potential	4/12/23 11:58 AM	420.19	mv
APCO- BY-UP-MW-2	PH	pH	4/12/23 11:58 AM	4.59	SU
APCO- BY-UP-MW-2	TEMP	Temperature	4/12/23 11:58 AM	19.55	C
APCO- BY-UP-MW-2	TURB	Turbidity	4/12/23 11:58 AM	14.6	NTU
APCO- BY-UP-MW-2	COND	Conductivity	4/12/23 12:03 PM	51.71	uS/cm
APCO- BY-UP-MW-2	DO	DO	4/12/23 12:03 PM	6.14	mg/L
APCO- BY-UP-MW-2	DTW	Depth to Water Detail	4/12/23 12:03 PM	12.92	ft
APCO- BY-UP-MW-2	ORP	Oxidation Reduction Potential	4/12/23 12:03 PM	422.45	mv
APCO- BY-UP-MW-2	PH	pH	4/12/23 12:03 PM	4.63	SU
APCO- BY-UP-MW-2	TEMP	Temperature	4/12/23 12:03 PM	19.49	C
APCO- BY-UP-MW-2	TURB	Turbidity	4/12/23 12:03 PM	11.16	NTU
APCO- BY-UP-MW-2	COND	Conductivity	4/12/23 12:08 PM	51.68	uS/cm
APCO- BY-UP-MW-2	DO	DO	4/12/23 12:08 PM	6.08	mg/L
APCO- BY-UP-MW-2	DTW	Depth to Water Detail	4/12/23 12:08 PM	12.92	ft

Plant Barry Ash Pond
Field Parameter Summary

WELL ID	PARAMETER	DESCRIPTION	TIME OF READING	VALUE	UNIT
APCO- BY-UP-MW-2	ORP	Oxidation Reduction Potential	4/12/23 12:08 PM	422.56	mv
APCO- BY-UP-MW-2	PH	pH	4/12/23 12:08 PM	4.67	SU
APCO- BY-UP-MW-2	SULFIDE	Sulfide	4/12/23 12:08 PM	0	mg/L
APCO- BY-UP-MW-2	TEMP	Temperature	4/12/23 12:08 PM	19.45	C
APCO- BY-UP-MW-2	TURB	Turbidity	4/12/23 12:08 PM	8.09	NTU
APCO- BY-UP-MW-3	COND	Conductivity	4/12/23 10:45 AM	54.26	uS/cm
APCO- BY-UP-MW-3	DO	DO	4/12/23 10:45 AM	5.78	mg/L
APCO- BY-UP-MW-3	DTW	Depth to Water Detail	4/12/23 10:45 AM	15.66	ft
APCO- BY-UP-MW-3	ORP	Oxidation Reduction Potential	4/12/23 10:45 AM	373.43	mv
APCO- BY-UP-MW-3	PH	pH	4/12/23 10:45 AM	4.72	SU
APCO- BY-UP-MW-3	TEMP	Temperature	4/12/23 10:45 AM	19.5	C
APCO- BY-UP-MW-3	TURB	Turbidity	4/12/23 10:45 AM	5.48	NTU
APCO- BY-UP-MW-3	COND	Conductivity	4/12/23 10:50 AM	54.31	uS/cm
APCO- BY-UP-MW-3	DO	DO	4/12/23 10:50 AM	5.7	mg/L
APCO- BY-UP-MW-3	DTW	Depth to Water Detail	4/12/23 10:50 AM	15.66	ft
APCO- BY-UP-MW-3	ORP	Oxidation Reduction Potential	4/12/23 10:50 AM	387.46	mv
APCO- BY-UP-MW-3	PH	pH	4/12/23 10:50 AM	4.77	SU
APCO- BY-UP-MW-3	TEMP	Temperature	4/12/23 10:50 AM	19.51	C
APCO- BY-UP-MW-3	TURB	Turbidity	4/12/23 10:50 AM	3.98	NTU
APCO- BY-UP-MW-3	COND	Conductivity	4/12/23 10:55 AM	54.24	uS/cm
APCO- BY-UP-MW-3	DO	DO	4/12/23 10:55 AM	5.68	mg/L
APCO- BY-UP-MW-3	DTW	Depth to Water Detail	4/12/23 10:55 AM	15.66	ft
APCO- BY-UP-MW-3	ORP	Oxidation Reduction Potential	4/12/23 10:55 AM	393.4	mv
APCO- BY-UP-MW-3	PH	pH	4/12/23 10:55 AM	4.81	SU
APCO- BY-UP-MW-3	TEMP	Temperature	4/12/23 10:55 AM	19.52	C
APCO- BY-UP-MW-3	TURB	Turbidity	4/12/23 10:55 AM	3.96	NTU
APCO- BY-UP-MW-3	COND	Conductivity	4/12/23 11:00 AM	54.29	uS/cm
APCO- BY-UP-MW-3	DO	DO	4/12/23 11:00 AM	5.66	mg/L
APCO- BY-UP-MW-3	DTW	Depth to Water Detail	4/12/23 11:00 AM	15.66	ft
APCO- BY-UP-MW-3	ORP	Oxidation Reduction Potential	4/12/23 11:00 AM	397.4	mv
APCO- BY-UP-MW-3	PH	pH	4/12/23 11:00 AM	4.83	SU
APCO- BY-UP-MW-3	SULFIDE	Sulfide	4/12/23 11:00 AM	0	mg/L
APCO- BY-UP-MW-3	TEMP	Temperature	4/12/23 11:00 AM	19.52	C
APCO- BY-UP-MW-3	TURB	Turbidity	4/12/23 11:00 AM	3.14	NTU
APCO- BY-UP-MW-4	COND	Conductivity	4/12/23 9:27 AM	58.91	uS/cm
APCO- BY-UP-MW-4	DO	DO	4/12/23 9:27 AM	6.12	mg/L
APCO- BY-UP-MW-4	DTW	Depth to Water Detail	4/12/23 9:27 AM	21.84	ft
APCO- BY-UP-MW-4	ORP	Oxidation Reduction Potential	4/12/23 9:27 AM	354.83	mv
APCO- BY-UP-MW-4	PH	pH	4/12/23 9:27 AM	4.74	SU
APCO- BY-UP-MW-4	TEMP	Temperature	4/12/23 9:27 AM	20.73	C
APCO- BY-UP-MW-4	TURB	Turbidity	4/12/23 9:27 AM	9.38	NTU
APCO- BY-UP-MW-4	COND	Conductivity	4/12/23 9:32 AM	58.83	uS/cm
APCO- BY-UP-MW-4	DO	DO	4/12/23 9:32 AM	6.12	mg/L
APCO- BY-UP-MW-4	DTW	Depth to Water Detail	4/12/23 9:32 AM	21.84	ft
APCO- BY-UP-MW-4	ORP	Oxidation Reduction Potential	4/12/23 9:32 AM	379.72	mv
APCO- BY-UP-MW-4	PH	pH	4/12/23 9:32 AM	4.6	SU
APCO- BY-UP-MW-4	TEMP	Temperature	4/12/23 9:32 AM	20.75	C
APCO- BY-UP-MW-4	TURB	Turbidity	4/12/23 9:32 AM	7.55	NTU
APCO- BY-UP-MW-4	COND	Conductivity	4/12/23 9:37 AM	58.42	uS/cm
APCO- BY-UP-MW-4	DO	DO	4/12/23 9:37 AM	6.1	mg/L
APCO- BY-UP-MW-4	DTW	Depth to Water Detail	4/12/23 9:37 AM	21.84	ft
APCO- BY-UP-MW-4	ORP	Oxidation Reduction Potential	4/12/23 9:37 AM	388.26	mv
APCO- BY-UP-MW-4	PH	pH	4/12/23 9:37 AM	4.66	SU
APCO- BY-UP-MW-4	TEMP	Temperature	4/12/23 9:37 AM	20.75	C
APCO- BY-UP-MW-4	TURB	Turbidity	4/12/23 9:37 AM	6.75	NTU
APCO- BY-UP-MW-4	COND	Conductivity	4/12/23 9:42 AM	58.11	uS/cm
APCO- BY-UP-MW-4	DO	DO	4/12/23 9:42 AM	6.03	mg/L
APCO- BY-UP-MW-4	DTW	Depth to Water Detail	4/12/23 9:42 AM	21.84	ft
APCO- BY-UP-MW-4	ORP	Oxidation Reduction Potential	4/12/23 9:42 AM	393.08	mv
APCO- BY-UP-MW-4	PH	pH	4/12/23 9:42 AM	4.7	SU

Plant Barry Ash Pond
Field Parameter Summary

WELL ID	PARAMETER	DESCRIPTION	TIME OF READING	VALUE	UNIT
APCO- BY-UP-MW-4	TEMP	Temperature	4/12/23 9:42 AM	20.77	C
APCO- BY-UP-MW-4	TURB	Turbidity	4/12/23 9:42 AM	5.72	NTU
APCO- BY-UP-MW-4	COND	Conductivity	4/12/23 9:47 AM	57.67	uS/cm
APCO- BY-UP-MW-4	DO	DO	4/12/23 9:47 AM	5.97	mg/L
APCO- BY-UP-MW-4	DTW	Depth to Water Detail	4/12/23 9:47 AM	21.84	ft
APCO- BY-UP-MW-4	ORP	Oxidation Reduction Potential	4/12/23 9:47 AM	397.5	mv
APCO- BY-UP-MW-4	PH	pH	4/12/23 9:47 AM	4.73	SU
APCO- BY-UP-MW-4	SULFIDE	Sulfide	4/12/23 9:47 AM	0	mg/L
APCO- BY-UP-MW-4	TEMP	Temperature	4/12/23 9:47 AM	20.79	C
APCO- BY-UP-MW-4	TURB	Turbidity	4/12/23 9:47 AM	4.96	NTU
APCO- BY-AP-MW-1	COND	Conductivity	4/3/23 8:32 AM	683.62	uS/cm
APCO- BY-AP-MW-1	DO	DO	4/3/23 8:32 AM	0.18	mg/L
APCO- BY-AP-MW-1	DTW	Depth to Water Detail	4/3/23 8:32 AM	19.36	ft
APCO- BY-AP-MW-1	ORP	Oxidation Reduction Potential	4/3/23 8:32 AM	-50.72	mv
APCO- BY-AP-MW-1	PH	pH	4/3/23 8:32 AM	5.74	SU
APCO- BY-AP-MW-1	TEMP	Temperature	4/3/23 8:32 AM	21.76	C
APCO- BY-AP-MW-1	TURB	Turbidity	4/3/23 8:32 AM	4.76	NTU
APCO- BY-AP-MW-1	COND	Conductivity	4/3/23 8:37 AM	682.01	uS/cm
APCO- BY-AP-MW-1	DO	DO	4/3/23 8:37 AM	0.17	mg/L
APCO- BY-AP-MW-1	DTW	Depth to Water Detail	4/3/23 8:37 AM	19.36	ft
APCO- BY-AP-MW-1	ORP	Oxidation Reduction Potential	4/3/23 8:37 AM	-53.28	mv
APCO- BY-AP-MW-1	PH	pH	4/3/23 8:37 AM	5.76	SU
APCO- BY-AP-MW-1	TEMP	Temperature	4/3/23 8:37 AM	21.71	C
APCO- BY-AP-MW-1	TURB	Turbidity	4/3/23 8:37 AM	5.61	NTU
APCO- BY-AP-MW-1	COND	Conductivity	4/3/23 8:42 AM	683.18	uS/cm
APCO- BY-AP-MW-1	DO	DO	4/3/23 8:42 AM	0.17	mg/L
APCO- BY-AP-MW-1	DTW	Depth to Water Detail	4/3/23 8:42 AM	19.36	ft
APCO- BY-AP-MW-1	ORP	Oxidation Reduction Potential	4/3/23 8:42 AM	-54.55	mv
APCO- BY-AP-MW-1	PH	pH	4/3/23 8:42 AM	5.77	SU
APCO- BY-AP-MW-1	TEMP	Temperature	4/3/23 8:42 AM	21.61	C
APCO- BY-AP-MW-1	TURB	Turbidity	4/3/23 8:42 AM	4.65	NTU
APCO- BY-AP-MW-1	COND	Conductivity	4/3/23 8:47 AM	689.74	uS/cm
APCO- BY-AP-MW-1	DO	DO	4/3/23 8:47 AM	0.17	mg/L
APCO- BY-AP-MW-1	DTW	Depth to Water Detail	4/3/23 8:47 AM	19.36	ft
APCO- BY-AP-MW-1	ORP	Oxidation Reduction Potential	4/3/23 8:47 AM	-55.85	mv
APCO- BY-AP-MW-1	PH	pH	4/3/23 8:47 AM	5.78	SU
APCO- BY-AP-MW-1	SULFIDE	Sulfide	4/3/23 8:47 AM	0	mg/L
APCO- BY-AP-MW-1	TEMP	Temperature	4/3/23 8:47 AM	21.61	C
APCO- BY-AP-MW-1	TURB	Turbidity	4/3/23 8:47 AM	4.85	NTU
APCO- BY-AP-MW-2	COND	Conductivity	4/3/23 10:49 AM	44.98	uS/cm
APCO- BY-AP-MW-2	DO	DO	4/3/23 10:49 AM	0.6	mg/L
APCO- BY-AP-MW-2	DTW	Depth to Water Detail	4/3/23 10:49 AM	16.91	ft
APCO- BY-AP-MW-2	ORP	Oxidation Reduction Potential	4/3/23 10:49 AM	149.52	mv
APCO- BY-AP-MW-2	PH	pH	4/3/23 10:49 AM	4.75	SU
APCO- BY-AP-MW-2	TEMP	Temperature	4/3/23 10:49 AM	21.85	C
APCO- BY-AP-MW-2	TURB	Turbidity	4/3/23 10:49 AM	3.56	NTU
APCO- BY-AP-MW-2	COND	Conductivity	4/3/23 10:54 AM	46.15	uS/cm
APCO- BY-AP-MW-2	DO	DO	4/3/23 10:54 AM	0.56	mg/L
APCO- BY-AP-MW-2	DTW	Depth to Water Detail	4/3/23 10:54 AM	16.91	ft
APCO- BY-AP-MW-2	ORP	Oxidation Reduction Potential	4/3/23 10:54 AM	151.74	mv
APCO- BY-AP-MW-2	PH	pH	4/3/23 10:54 AM	4.74	SU
APCO- BY-AP-MW-2	TEMP	Temperature	4/3/23 10:54 AM	21.9	C
APCO- BY-AP-MW-2	TURB	Turbidity	4/3/23 10:54 AM	3.32	NTU
APCO- BY-AP-MW-2	COND	Conductivity	4/3/23 10:59 AM	45.75	uS/cm
APCO- BY-AP-MW-2	DO	DO	4/3/23 10:59 AM	0.54	mg/L
APCO- BY-AP-MW-2	DTW	Depth to Water Detail	4/3/23 10:59 AM	16.91	ft
APCO- BY-AP-MW-2	ORP	Oxidation Reduction Potential	4/3/23 10:59 AM	149.6	mv
APCO- BY-AP-MW-2	PH	pH	4/3/23 10:59 AM	4.75	SU
APCO- BY-AP-MW-2	TEMP	Temperature	4/3/23 10:59 AM	21.9	C
APCO- BY-AP-MW-2	TURB	Turbidity	4/3/23 10:59 AM	3.13	NTU

Plant Barry Ash Pond
Field Parameter Summary

WELL ID	PARAMETER	DESCRIPTION	TIME OF READING	VALUE	UNIT
APCO- BY-AP-MW-2	COND	Conductivity	4/3/23 11:04 AM	41.95	uS/cm
APCO- BY-AP-MW-2	DO	DO	4/3/23 11:04 AM	0.55	mg/L
APCO- BY-AP-MW-2	DTW	Depth to Water Detail	4/3/23 11:04 AM	16.91	ft
APCO- BY-AP-MW-2	ORP	Oxidation Reduction Potential	4/3/23 11:04 AM	146.68	mv
APCO- BY-AP-MW-2	PH	pH	4/3/23 11:04 AM	4.78	SU
APCO- BY-AP-MW-2	TEMP	Temperature	4/3/23 11:04 AM	21.88	C
APCO- BY-AP-MW-2	TURB	Turbidity	4/3/23 11:04 AM	1.73	NTU
APCO- BY-AP-MW-2	COND	Conductivity	4/3/23 11:09 AM	45.37	uS/cm
APCO- BY-AP-MW-2	DO	DO	4/3/23 11:09 AM	0.59	mg/L
APCO- BY-AP-MW-2	DTW	Depth to Water Detail	4/3/23 11:09 AM	16.91	ft
APCO- BY-AP-MW-2	ORP	Oxidation Reduction Potential	4/3/23 11:09 AM	144.37	mv
APCO- BY-AP-MW-2	PH	pH	4/3/23 11:09 AM	4.82	SU
APCO- BY-AP-MW-2	TEMP	Temperature	4/3/23 11:09 AM	21.72	C
APCO- BY-AP-MW-2	TURB	Turbidity	4/3/23 11:09 AM	1.53	NTU
APCO- BY-AP-MW-2	COND	Conductivity	4/3/23 11:14 AM	44.36	uS/cm
APCO- BY-AP-MW-2	DO	DO	4/3/23 11:14 AM	0.52	mg/L
APCO- BY-AP-MW-2	DTW	Depth to Water Detail	4/3/23 11:14 AM	16.91	ft
APCO- BY-AP-MW-2	ORP	Oxidation Reduction Potential	4/3/23 11:14 AM	141.95	mv
APCO- BY-AP-MW-2	PH	pH	4/3/23 11:14 AM	4.85	SU
APCO- BY-AP-MW-2	TEMP	Temperature	4/3/23 11:14 AM	21.6	C
APCO- BY-AP-MW-2	TURB	Turbidity	4/3/23 11:14 AM	1.29	NTU
APCO- BY-AP-MW-2	COND	Conductivity	4/3/23 11:19 AM	46.42	uS/cm
APCO- BY-AP-MW-2	DO	DO	4/3/23 11:19 AM	0.53	mg/L
APCO- BY-AP-MW-2	DTW	Depth to Water Detail	4/3/23 11:19 AM	16.91	ft
APCO- BY-AP-MW-2	ORP	Oxidation Reduction Potential	4/3/23 11:19 AM	138.69	mv
APCO- BY-AP-MW-2	PH	pH	4/3/23 11:19 AM	4.88	SU
APCO- BY-AP-MW-2	SULFIDE	Sulfide	4/3/23 11:19 AM	0	mg/L
APCO- BY-AP-MW-2	TEMP	Temperature	4/3/23 11:19 AM	21.66	C
APCO- BY-AP-MW-2	TURB	Turbidity	4/3/23 11:19 AM	1.38	NTU
APCO- BY-AP-MW-6	COND	Conductivity	4/4/23 8:17 AM	62.86	uS/cm
APCO- BY-AP-MW-6	DO	DO	4/4/23 8:17 AM	0.54	mg/L
APCO- BY-AP-MW-6	DTW	Depth to Water Detail	4/4/23 8:17 AM	19.86	ft
APCO- BY-AP-MW-6	ORP	Oxidation Reduction Potential	4/4/23 8:17 AM	233.52	mv
APCO- BY-AP-MW-6	PH	pH	4/4/23 8:17 AM	5.25	SU
APCO- BY-AP-MW-6	TEMP	Temperature	4/4/23 8:17 AM	21.57	C
APCO- BY-AP-MW-6	TURB	Turbidity	4/4/23 8:17 AM	1.04	NTU
APCO- BY-AP-MW-6	COND	Conductivity	4/4/23 8:22 AM	62.49	uS/cm
APCO- BY-AP-MW-6	DO	DO	4/4/23 8:22 AM	0.89	mg/L
APCO- BY-AP-MW-6	DTW	Depth to Water Detail	4/4/23 8:22 AM	19.86	ft
APCO- BY-AP-MW-6	ORP	Oxidation Reduction Potential	4/4/23 8:22 AM	244.99	mv
APCO- BY-AP-MW-6	PH	pH	4/4/23 8:22 AM	5.3	SU
APCO- BY-AP-MW-6	TEMP	Temperature	4/4/23 8:22 AM	22.04	C
APCO- BY-AP-MW-6	TURB	Turbidity	4/4/23 8:22 AM	1.09	NTU
APCO- BY-AP-MW-6	COND	Conductivity	4/4/23 8:27 AM	76.83	uS/cm
APCO- BY-AP-MW-6	DO	DO	4/4/23 8:27 AM	1.33	mg/L
APCO- BY-AP-MW-6	DTW	Depth to Water Detail	4/4/23 8:27 AM	19.86	ft
APCO- BY-AP-MW-6	ORP	Oxidation Reduction Potential	4/4/23 8:27 AM	246.85	mv
APCO- BY-AP-MW-6	PH	pH	4/4/23 8:27 AM	5.34	SU
APCO- BY-AP-MW-6	TEMP	Temperature	4/4/23 8:27 AM	22.87	C
APCO- BY-AP-MW-6	TURB	Turbidity	4/4/23 8:27 AM	3.79	NTU
APCO- BY-AP-MW-6	COND	Conductivity	4/4/23 8:32 AM	61.03	uS/cm
APCO- BY-AP-MW-6	DO	DO	4/4/23 8:32 AM	0.62	mg/L
APCO- BY-AP-MW-6	DTW	Depth to Water Detail	4/4/23 8:32 AM	19.86	ft
APCO- BY-AP-MW-6	ORP	Oxidation Reduction Potential	4/4/23 8:32 AM	261.85	mv
APCO- BY-AP-MW-6	PH	pH	4/4/23 8:32 AM	5.23	SU
APCO- BY-AP-MW-6	TEMP	Temperature	4/4/23 8:32 AM	21.41	C
APCO- BY-AP-MW-6	TURB	Turbidity	4/4/23 8:32 AM	0.69	NTU
APCO- BY-AP-MW-6	COND	Conductivity	4/4/23 8:37 AM	61.37	uS/cm
APCO- BY-AP-MW-6	DO	DO	4/4/23 8:37 AM	0.5	mg/L
APCO- BY-AP-MW-6	DTW	Depth to Water Detail	4/4/23 8:37 AM	19.86	ft

Plant Barry Ash Pond
Field Parameter Summary

WELL ID	PARAMETER	DESCRIPTION	TIME OF READING	VALUE	UNIT
APCO- BY-AP-MW-6	ORP	Oxidation Reduction Potential	4/4/23 8:37 AM	276.29	mv
APCO- BY-AP-MW-6	PH	pH	4/4/23 8:37 AM	5.24	SU
APCO- BY-AP-MW-6	TEMP	Temperature	4/4/23 8:37 AM	21.3	C
APCO- BY-AP-MW-6	TURB	Turbidity	4/4/23 8:37 AM	0.82	NTU
APCO- BY-AP-MW-6	COND	Conductivity	4/4/23 8:42 AM	61.88	uS/cm
APCO- BY-AP-MW-6	DO	DO	4/4/23 8:42 AM	0.55	mg/L
APCO- BY-AP-MW-6	DTW	Depth to Water Detail	4/4/23 8:42 AM	19.86	ft
APCO- BY-AP-MW-6	ORP	Oxidation Reduction Potential	4/4/23 8:42 AM	257.28	mv
APCO- BY-AP-MW-6	PH	pH	4/4/23 8:42 AM	5.28	SU
APCO- BY-AP-MW-6	TEMP	Temperature	4/4/23 8:42 AM	21.35	C
APCO- BY-AP-MW-6	TURB	Turbidity	4/4/23 8:42 AM	1.5	NTU
APCO- BY-AP-MW-6	COND	Conductivity	4/4/23 8:47 AM	61.93	uS/cm
APCO- BY-AP-MW-6	DO	DO	4/4/23 8:47 AM	0.55	mg/L
APCO- BY-AP-MW-6	DTW	Depth to Water Detail	4/4/23 8:47 AM	19.86	ft
APCO- BY-AP-MW-6	ORP	Oxidation Reduction Potential	4/4/23 8:47 AM	245.91	mv
APCO- BY-AP-MW-6	PH	pH	4/4/23 8:47 AM	5.33	SU
APCO- BY-AP-MW-6	SULFIDE	Sulfide	4/4/23 8:47 AM	0	mg/L
APCO- BY-AP-MW-6	TEMP	Temperature	4/4/23 8:47 AM	21.41	C
APCO- BY-AP-MW-6	TURB	Turbidity	4/4/23 8:47 AM	1.33	NTU
APCO- BY-AP-MW-7	COND	Conductivity	4/3/23 5:19 PM	381.35	uS/cm
APCO- BY-AP-MW-7	DO	DO	4/3/23 5:19 PM	0.2	mg/L
APCO- BY-AP-MW-7	DTW	Depth to Water Detail	4/3/23 5:19 PM	18.46	ft
APCO- BY-AP-MW-7	ORP	Oxidation Reduction Potential	4/3/23 5:19 PM	-62.4	mv
APCO- BY-AP-MW-7	PH	pH	4/3/23 5:19 PM	6.51	SU
APCO- BY-AP-MW-7	TEMP	Temperature	4/3/23 5:19 PM	21.38	C
APCO- BY-AP-MW-7	TURB	Turbidity	4/3/23 5:19 PM	0.93	NTU
APCO- BY-AP-MW-7	COND	Conductivity	4/3/23 5:24 PM	378.5	uS/cm
APCO- BY-AP-MW-7	DO	DO	4/3/23 5:24 PM	0.2	mg/L
APCO- BY-AP-MW-7	DTW	Depth to Water Detail	4/3/23 5:24 PM	18.46	ft
APCO- BY-AP-MW-7	ORP	Oxidation Reduction Potential	4/3/23 5:24 PM	-64	mv
APCO- BY-AP-MW-7	PH	pH	4/3/23 5:24 PM	6.51	SU
APCO- BY-AP-MW-7	TEMP	Temperature	4/3/23 5:24 PM	21.31	C
APCO- BY-AP-MW-7	TURB	Turbidity	4/3/23 5:24 PM	0.97	NTU
APCO- BY-AP-MW-7	COND	Conductivity	4/3/23 5:29 PM	378.3	uS/cm
APCO- BY-AP-MW-7	DO	DO	4/3/23 5:29 PM	0.21	mg/L
APCO- BY-AP-MW-7	DTW	Depth to Water Detail	4/3/23 5:29 PM	18.46	ft
APCO- BY-AP-MW-7	ORP	Oxidation Reduction Potential	4/3/23 5:29 PM	-65.23	mv
APCO- BY-AP-MW-7	PH	pH	4/3/23 5:29 PM	6.52	SU
APCO- BY-AP-MW-7	TEMP	Temperature	4/3/23 5:29 PM	21.26	C
APCO- BY-AP-MW-7	TURB	Turbidity	4/3/23 5:29 PM	0.82	NTU
APCO- BY-AP-MW-7	COND	Conductivity	4/3/23 5:34 PM	376.47	uS/cm
APCO- BY-AP-MW-7	DO	DO	4/3/23 5:34 PM	0.21	mg/L
APCO- BY-AP-MW-7	DTW	Depth to Water Detail	4/3/23 5:34 PM	18.46	ft
APCO- BY-AP-MW-7	ORP	Oxidation Reduction Potential	4/3/23 5:34 PM	-66.15	mv
APCO- BY-AP-MW-7	PH	pH	4/3/23 5:34 PM	6.53	SU
APCO- BY-AP-MW-7	SULFIDE	Sulfide	4/3/23 5:34 PM	0	mg/L
APCO- BY-AP-MW-7	TEMP	Temperature	4/3/23 5:34 PM	21.16	C
APCO- BY-AP-MW-7	TURB	Turbidity	4/3/23 5:34 PM	1.03	NTU
APCO- BY-AP-MW-7V	COND	Conductivity	4/3/23 4:23 PM	565.95	uS/cm
APCO- BY-AP-MW-7V	DO	DO	4/3/23 4:23 PM	0.21	mg/L
APCO- BY-AP-MW-7V	DTW	Depth to Water Detail	4/3/23 4:23 PM	17.95	ft
APCO- BY-AP-MW-7V	ORP	Oxidation Reduction Potential	4/3/23 4:23 PM	-185.1	mv
APCO- BY-AP-MW-7V	PH	pH	4/3/23 4:23 PM	7.68	SU
APCO- BY-AP-MW-7V	TEMP	Temperature	4/3/23 4:23 PM	21.7	C
APCO- BY-AP-MW-7V	TURB	Turbidity	4/3/23 4:23 PM	1.85	NTU
APCO- BY-AP-MW-7V	COND	Conductivity	4/3/23 4:28 PM	564.5	uS/cm
APCO- BY-AP-MW-7V	DO	DO	4/3/23 4:28 PM	0.18	mg/L
APCO- BY-AP-MW-7V	DTW	Depth to Water Detail	4/3/23 4:28 PM	18.04	ft
APCO- BY-AP-MW-7V	ORP	Oxidation Reduction Potential	4/3/23 4:28 PM	-186.33	mv
APCO- BY-AP-MW-7V	PH	pH	4/3/23 4:28 PM	7.67	SU

Plant Barry Ash Pond
Field Parameter Summary

WELL ID	PARAMETER	DESCRIPTION	TIME OF READING	VALUE	UNIT
APCO- BY-AP-MW-7V	TEMP	Temperature	4/3/23 4:28 PM	21.55	C
APCO- BY-AP-MW-7V	TURB	Turbidity	4/3/23 4:28 PM	1.98	NTU
APCO- BY-AP-MW-7V	COND	Conductivity	4/3/23 4:33 PM	563.4	uS/cm
APCO- BY-AP-MW-7V	DO	DO	4/3/23 4:33 PM	0.18	mg/L
APCO- BY-AP-MW-7V	DTW	Depth to Water Detail	4/3/23 4:33 PM	18.04	ft
APCO- BY-AP-MW-7V	ORP	Oxidation Reduction Potential	4/3/23 4:33 PM	-185.98	mv
APCO- BY-AP-MW-7V	PH	pH	4/3/23 4:33 PM	7.66	SU
APCO- BY-AP-MW-7V	TEMP	Temperature	4/3/23 4:33 PM	21.54	C
APCO- BY-AP-MW-7V	TURB	Turbidity	4/3/23 4:33 PM	2.05	NTU
APCO- BY-AP-MW-7V	COND	Conductivity	4/3/23 4:38 PM	561.78	uS/cm
APCO- BY-AP-MW-7V	DO	DO	4/3/23 4:38 PM	0.17	mg/L
APCO- BY-AP-MW-7V	DTW	Depth to Water Detail	4/3/23 4:38 PM	18.04	ft
APCO- BY-AP-MW-7V	ORP	Oxidation Reduction Potential	4/3/23 4:38 PM	-184.77	mv
APCO- BY-AP-MW-7V	PH	pH	4/3/23 4:38 PM	7.67	SU
APCO- BY-AP-MW-7V	SULFIDE	Sulfide	4/3/23 4:38 PM	0	mg/L
APCO- BY-AP-MW-7V	TEMP	Temperature	4/3/23 4:38 PM	21.47	C
APCO- BY-AP-MW-7V	TURB	Turbidity	4/3/23 4:38 PM	1.94	NTU
APCO- BY-AP-MW-10V	COND	Conductivity	4/3/23 2:59 PM	778.9	uS/cm
APCO- BY-AP-MW-10V	DO	DO	4/3/23 2:59 PM	0.2	mg/L
APCO- BY-AP-MW-10V	DTW	Depth to Water Detail	4/3/23 2:59 PM	18.75	ft
APCO- BY-AP-MW-10V	ORP	Oxidation Reduction Potential	4/3/23 2:59 PM	-103.5	mv
APCO- BY-AP-MW-10V	PH	pH	4/3/23 2:59 PM	6.36	SU
APCO- BY-AP-MW-10V	TEMP	Temperature	4/3/23 2:59 PM	21.51	C
APCO- BY-AP-MW-10V	TURB	Turbidity	4/3/23 2:59 PM	0.9	NTU
APCO- BY-AP-MW-10V	COND	Conductivity	4/3/23 3:04 PM	784.74	uS/cm
APCO- BY-AP-MW-10V	DO	DO	4/3/23 3:04 PM	0.19	mg/L
APCO- BY-AP-MW-10V	DTW	Depth to Water Detail	4/3/23 3:04 PM	18.75	ft
APCO- BY-AP-MW-10V	ORP	Oxidation Reduction Potential	4/3/23 3:04 PM	-104.92	mv
APCO- BY-AP-MW-10V	PH	pH	4/3/23 3:04 PM	6.38	SU
APCO- BY-AP-MW-10V	TEMP	Temperature	4/3/23 3:04 PM	21.47	C
APCO- BY-AP-MW-10V	TURB	Turbidity	4/3/23 3:04 PM	3.01	NTU
APCO- BY-AP-MW-10V	COND	Conductivity	4/3/23 3:09 PM	785.59	uS/cm
APCO- BY-AP-MW-10V	DO	DO	4/3/23 3:09 PM	0.2	mg/L
APCO- BY-AP-MW-10V	DTW	Depth to Water Detail	4/3/23 3:09 PM	18.75	ft
APCO- BY-AP-MW-10V	ORP	Oxidation Reduction Potential	4/3/23 3:09 PM	-105.54	mv
APCO- BY-AP-MW-10V	PH	pH	4/3/23 3:09 PM	6.37	SU
APCO- BY-AP-MW-10V	TEMP	Temperature	4/3/23 3:09 PM	21.5	C
APCO- BY-AP-MW-10V	TURB	Turbidity	4/3/23 3:09 PM	1.1	NTU
APCO- BY-AP-MW-10V	COND	Conductivity	4/3/23 3:14 PM	787.79	uS/cm
APCO- BY-AP-MW-10V	DO	DO	4/3/23 3:14 PM	0.19	mg/L
APCO- BY-AP-MW-10V	DTW	Depth to Water Detail	4/3/23 3:14 PM	18.75	ft
APCO- BY-AP-MW-10V	ORP	Oxidation Reduction Potential	4/3/23 3:14 PM	-106.12	mv
APCO- BY-AP-MW-10V	PH	pH	4/3/23 3:14 PM	6.38	SU
APCO- BY-AP-MW-10V	SULFIDE	Sulfide	4/3/23 3:14 PM	0	mg/L
APCO- BY-AP-MW-10V	TEMP	Temperature	4/3/23 3:14 PM	21.47	C
APCO- BY-AP-MW-10V	TURB	Turbidity	4/3/23 3:14 PM	0.95	NTU
APCO- BY-AP-MW-11	COND	Conductivity	4/4/23 11:08 AM	694.01	uS/cm
APCO- BY-AP-MW-11	DO	DO	4/4/23 11:08 AM	0.14	mg/L
APCO- BY-AP-MW-11	DTW	Depth to Water Detail	4/4/23 11:08 AM	16.59	ft
APCO- BY-AP-MW-11	ORP	Oxidation Reduction Potential	4/4/23 11:08 AM	-79.18	mv
APCO- BY-AP-MW-11	PH	pH	4/4/23 11:08 AM	6.26	SU
APCO- BY-AP-MW-11	TEMP	Temperature	4/4/23 11:08 AM	21.21	C
APCO- BY-AP-MW-11	TURB	Turbidity	4/4/23 11:08 AM	5.84	NTU
APCO- BY-AP-MW-11	COND	Conductivity	4/4/23 11:13 AM	685.82	uS/cm
APCO- BY-AP-MW-11	DO	DO	4/4/23 11:13 AM	0.13	mg/L
APCO- BY-AP-MW-11	DTW	Depth to Water Detail	4/4/23 11:13 AM	16.59	ft
APCO- BY-AP-MW-11	ORP	Oxidation Reduction Potential	4/4/23 11:13 AM	-78.9	mv
APCO- BY-AP-MW-11	PH	pH	4/4/23 11:13 AM	6.26	SU
APCO- BY-AP-MW-11	TEMP	Temperature	4/4/23 11:13 AM	21.18	C
APCO- BY-AP-MW-11	TURB	Turbidity	4/4/23 11:13 AM	5.03	NTU

Plant Barry Ash Pond
Field Parameter Summary

WELL ID	PARAMETER	DESCRIPTION	TIME OF READING	VALUE	UNIT
APCO- BY-AP-MW-11	COND	Conductivity	4/4/23 11:18 AM	679.52	uS/cm
APCO- BY-AP-MW-11	DO	DO	4/4/23 11:18 AM	0.13	mg/L
APCO- BY-AP-MW-11	DTW	Depth to Water Detail	4/4/23 11:18 AM	16.59	ft
APCO- BY-AP-MW-11	ORP	Oxidation Reduction Potential	4/4/23 11:18 AM	-78.49	mv
APCO- BY-AP-MW-11	PH	pH	4/4/23 11:18 AM	6.26	SU
APCO- BY-AP-MW-11	TEMP	Temperature	4/4/23 11:18 AM	21.28	C
APCO- BY-AP-MW-11	TURB	Turbidity	4/4/23 11:18 AM	5.05	NTU
APCO- BY-AP-MW-11	COND	Conductivity	4/4/23 11:23 AM	672.85	uS/cm
APCO- BY-AP-MW-11	DO	DO	4/4/23 11:23 AM	0.13	mg/L
APCO- BY-AP-MW-11	DTW	Depth to Water Detail	4/4/23 11:23 AM	16.59	ft
APCO- BY-AP-MW-11	ORP	Oxidation Reduction Potential	4/4/23 11:23 AM	-78.42	mv
APCO- BY-AP-MW-11	PH	pH	4/4/23 11:23 AM	6.27	SU
APCO- BY-AP-MW-11	SULFIDE	Sulfide	4/4/23 11:23 AM	0	mg/L
APCO- BY-AP-MW-11	TEMP	Temperature	4/4/23 11:23 AM	21.31	C
APCO- BY-AP-MW-11	TURB	Turbidity	4/4/23 11:23 AM	4.71	NTU
APCO- BY-AP-MW-12	COND	Conductivity	4/4/23 1:26 PM	584.72	uS/cm
APCO- BY-AP-MW-12	DO	DO	4/4/23 1:26 PM	0.2	mg/L
APCO- BY-AP-MW-12	DTW	Depth to Water Detail	4/4/23 1:26 PM	17.26	ft
APCO- BY-AP-MW-12	ORP	Oxidation Reduction Potential	4/4/23 1:26 PM	-33.74	mv
APCO- BY-AP-MW-12	PH	pH	4/4/23 1:26 PM	5.77	SU
APCO- BY-AP-MW-12	TEMP	Temperature	4/4/23 1:26 PM	21.25	C
APCO- BY-AP-MW-12	TURB	Turbidity	4/4/23 1:26 PM	3.41	NTU
APCO- BY-AP-MW-12	COND	Conductivity	4/4/23 1:31 PM	583.58	uS/cm
APCO- BY-AP-MW-12	DO	DO	4/4/23 1:31 PM	0.17	mg/L
APCO- BY-AP-MW-12	DTW	Depth to Water Detail	4/4/23 1:31 PM	17.26	ft
APCO- BY-AP-MW-12	ORP	Oxidation Reduction Potential	4/4/23 1:31 PM	-32.09	mv
APCO- BY-AP-MW-12	PH	pH	4/4/23 1:31 PM	5.74	SU
APCO- BY-AP-MW-12	TEMP	Temperature	4/4/23 1:31 PM	21.24	C
APCO- BY-AP-MW-12	TURB	Turbidity	4/4/23 1:31 PM	3.36	NTU
APCO- BY-AP-MW-12	COND	Conductivity	4/4/23 1:36 PM	585.12	uS/cm
APCO- BY-AP-MW-12	DO	DO	4/4/23 1:36 PM	0.17	mg/L
APCO- BY-AP-MW-12	DTW	Depth to Water Detail	4/4/23 1:36 PM	17.26	ft
APCO- BY-AP-MW-12	ORP	Oxidation Reduction Potential	4/4/23 1:36 PM	-32.29	mv
APCO- BY-AP-MW-12	PH	pH	4/4/23 1:36 PM	5.74	SU
APCO- BY-AP-MW-12	TEMP	Temperature	4/4/23 1:36 PM	21.31	C
APCO- BY-AP-MW-12	TURB	Turbidity	4/4/23 1:36 PM	2.28	NTU
APCO- BY-AP-MW-12	COND	Conductivity	4/4/23 1:41 PM	584.5	uS/cm
APCO- BY-AP-MW-12	DO	DO	4/4/23 1:41 PM	0.17	mg/L
APCO- BY-AP-MW-12	DTW	Depth to Water Detail	4/4/23 1:41 PM	17.26	ft
APCO- BY-AP-MW-12	ORP	Oxidation Reduction Potential	4/4/23 1:41 PM	-33.59	mv
APCO- BY-AP-MW-12	PH	pH	4/4/23 1:41 PM	5.76	SU
APCO- BY-AP-MW-12	SULFIDE	Sulfide	4/4/23 1:41 PM	0	mg/L
APCO- BY-AP-MW-12	TEMP	Temperature	4/4/23 1:41 PM	21.3	C
APCO- BY-AP-MW-12	TURB	Turbidity	4/4/23 1:41 PM	2	NTU
APCO- BY-AP-MW-12V	COND	Conductivity	4/4/23 12:15 PM	618.89	uS/cm
APCO- BY-AP-MW-12V	DO	DO	4/4/23 12:15 PM	0.26	mg/L
APCO- BY-AP-MW-12V	DTW	Depth to Water Detail	4/4/23 12:15 PM	16.79	ft
APCO- BY-AP-MW-12V	ORP	Oxidation Reduction Potential	4/4/23 12:15 PM	-54.95	mv
APCO- BY-AP-MW-12V	PH	pH	4/4/23 12:15 PM	6.08	SU
APCO- BY-AP-MW-12V	TEMP	Temperature	4/4/23 12:15 PM	21.36	C
APCO- BY-AP-MW-12V	TURB	Turbidity	4/4/23 12:15 PM	1.72	NTU
APCO- BY-AP-MW-12V	COND	Conductivity	4/4/23 12:20 PM	617.26	uS/cm
APCO- BY-AP-MW-12V	DO	DO	4/4/23 12:20 PM	0.21	mg/L
APCO- BY-AP-MW-12V	DTW	Depth to Water Detail	4/4/23 12:20 PM	16.79	ft
APCO- BY-AP-MW-12V	ORP	Oxidation Reduction Potential	4/4/23 12:20 PM	-59.79	mv
APCO- BY-AP-MW-12V	PH	pH	4/4/23 12:20 PM	6.14	SU
APCO- BY-AP-MW-12V	TEMP	Temperature	4/4/23 12:20 PM	21.14	C
APCO- BY-AP-MW-12V	TURB	Turbidity	4/4/23 12:20 PM	2.28	NTU
APCO- BY-AP-MW-12V	COND	Conductivity	4/4/23 12:25 PM	617.67	uS/cm
APCO- BY-AP-MW-12V	DO	DO	4/4/23 12:25 PM	0.16	mg/L

Plant Barry Ash Pond
Field Parameter Summary

WELL ID	PARAMETER	DESCRIPTION	TIME OF READING	VALUE	UNIT
APCO- BY-AP-MW-12V	DTW	Depth to Water Detail	4/4/23 12:25 PM	16.79	ft
APCO- BY-AP-MW-12V	ORP	Oxidation Reduction Potential	4/4/23 12:25 PM	-63.15	mv
APCO- BY-AP-MW-12V	PH	pH	4/4/23 12:25 PM	6.19	SU
APCO- BY-AP-MW-12V	TEMP	Temperature	4/4/23 12:25 PM	21.34	C
APCO- BY-AP-MW-12V	TURB	Turbidity	4/4/23 12:25 PM	1.36	NTU
APCO- BY-AP-MW-12V	COND	Conductivity	4/4/23 12:30 PM	615.08	uS/cm
APCO- BY-AP-MW-12V	DO	DO	4/4/23 12:30 PM	0.16	mg/L
APCO- BY-AP-MW-12V	DTW	Depth to Water Detail	4/4/23 12:30 PM	16.79	ft
APCO- BY-AP-MW-12V	ORP	Oxidation Reduction Potential	4/4/23 12:30 PM	-65.41	mv
APCO- BY-AP-MW-12V	PH	pH	4/4/23 12:30 PM	6.22	SU
APCO- BY-AP-MW-12V	SULFIDE	Sulfide	4/4/23 12:30 PM	0	mg/L
APCO- BY-AP-MW-12V	TEMP	Temperature	4/4/23 12:30 PM	21.36	C
APCO- BY-AP-MW-12V	TURB	Turbidity	4/4/23 12:30 PM	1.78	NTU
APCO- BY-AP-MW-13	COND	Conductivity	4/4/23 2:42 PM	333.39	uS/cm
APCO- BY-AP-MW-13	DO	DO	4/4/23 2:42 PM	0.22	mg/L
APCO- BY-AP-MW-13	DTW	Depth to Water Detail	4/4/23 2:42 PM	17.4	ft
APCO- BY-AP-MW-13	ORP	Oxidation Reduction Potential	4/4/23 2:42 PM	33.75	mv
APCO- BY-AP-MW-13	PH	pH	4/4/23 2:42 PM	6.19	SU
APCO- BY-AP-MW-13	TEMP	Temperature	4/4/23 2:42 PM	20.8	C
APCO- BY-AP-MW-13	TURB	Turbidity	4/4/23 2:42 PM	9.19	NTU
APCO- BY-AP-MW-13	COND	Conductivity	4/4/23 2:47 PM	339.81	uS/cm
APCO- BY-AP-MW-13	DO	DO	4/4/23 2:47 PM	0.2	mg/L
APCO- BY-AP-MW-13	DTW	Depth to Water Detail	4/4/23 2:47 PM	17.43	ft
APCO- BY-AP-MW-13	ORP	Oxidation Reduction Potential	4/4/23 2:47 PM	30.88	mv
APCO- BY-AP-MW-13	PH	pH	4/4/23 2:47 PM	6.11	SU
APCO- BY-AP-MW-13	TEMP	Temperature	4/4/23 2:47 PM	20.85	C
APCO- BY-AP-MW-13	TURB	Turbidity	4/4/23 2:47 PM	7.51	NTU
APCO- BY-AP-MW-13	COND	Conductivity	4/4/23 2:52 PM	345.55	uS/cm
APCO- BY-AP-MW-13	DO	DO	4/4/23 2:52 PM	0.19	mg/L
APCO- BY-AP-MW-13	DTW	Depth to Water Detail	4/4/23 2:52 PM	17.43	ft
APCO- BY-AP-MW-13	ORP	Oxidation Reduction Potential	4/4/23 2:52 PM	18.73	mv
APCO- BY-AP-MW-13	PH	pH	4/4/23 2:52 PM	6.08	SU
APCO- BY-AP-MW-13	TEMP	Temperature	4/4/23 2:52 PM	20.82	C
APCO- BY-AP-MW-13	TURB	Turbidity	4/4/23 2:52 PM	6.03	NTU
APCO- BY-AP-MW-13	COND	Conductivity	4/4/23 2:57 PM	349.79	uS/cm
APCO- BY-AP-MW-13	DO	DO	4/4/23 2:57 PM	0.2	mg/L
APCO- BY-AP-MW-13	DTW	Depth to Water Detail	4/4/23 2:57 PM	17.43	ft
APCO- BY-AP-MW-13	ORP	Oxidation Reduction Potential	4/4/23 2:57 PM	14.29	mv
APCO- BY-AP-MW-13	PH	pH	4/4/23 2:57 PM	6.06	SU
APCO- BY-AP-MW-13	TEMP	Temperature	4/4/23 2:57 PM	20.85	C
APCO- BY-AP-MW-13	TURB	Turbidity	4/4/23 2:57 PM	5.52	NTU
APCO- BY-AP-MW-13	COND	Conductivity	4/4/23 3:02 PM	352.44	uS/cm
APCO- BY-AP-MW-13	DO	DO	4/4/23 3:02 PM	0.19	mg/L
APCO- BY-AP-MW-13	DTW	Depth to Water Detail	4/4/23 3:02 PM	17.43	ft
APCO- BY-AP-MW-13	ORP	Oxidation Reduction Potential	4/4/23 3:02 PM	12.18	mv
APCO- BY-AP-MW-13	PH	pH	4/4/23 3:02 PM	6.06	SU
APCO- BY-AP-MW-13	SULFIDE	Sulfide	4/4/23 3:02 PM	0	mg/L
APCO- BY-AP-MW-13	TEMP	Temperature	4/4/23 3:02 PM	20.83	C
APCO- BY-AP-MW-13	TURB	Turbidity	4/4/23 3:02 PM	4.16	NTU
APCO- BY-AP-MW-13V	COND	Conductivity	4/4/23 3:32 PM	566.93	uS/cm
APCO- BY-AP-MW-13V	DO	DO	4/4/23 3:32 PM	0.78	mg/L
APCO- BY-AP-MW-13V	DTW	Depth to Water Detail	4/4/23 3:32 PM	18.05	ft
APCO- BY-AP-MW-13V	ORP	Oxidation Reduction Potential	4/4/23 3:32 PM	-47.22	mv
APCO- BY-AP-MW-13V	PH	pH	4/4/23 3:32 PM	6.2	SU
APCO- BY-AP-MW-13V	TEMP	Temperature	4/4/23 3:32 PM	21.03	C
APCO- BY-AP-MW-13V	TURB	Turbidity	4/4/23 3:32 PM	2.58	NTU
APCO- BY-AP-MW-13V	COND	Conductivity	4/4/23 3:37 PM	565.17	uS/cm
APCO- BY-AP-MW-13V	DO	DO	4/4/23 3:37 PM	0.75	mg/L
APCO- BY-AP-MW-13V	DTW	Depth to Water Detail	4/4/23 3:37 PM	18.05	ft
APCO- BY-AP-MW-13V	ORP	Oxidation Reduction Potential	4/4/23 3:37 PM	-47.8	mv

Plant Barry Ash Pond
Field Parameter Summary

WELL ID	PARAMETER	DESCRIPTION	TIME OF READING	VALUE	UNIT
APCO- BY-AP-MW-13V	PH	pH	4/4/23 3:37 PM	6.21	SU
APCO- BY-AP-MW-13V	TEMP	Temperature	4/4/23 3:37 PM	21.01	C
APCO- BY-AP-MW-13V	TURB	Turbidity	4/4/23 3:37 PM	4.01	NTU
APCO- BY-AP-MW-13V	COND	Conductivity	4/4/23 3:42 PM	562.88	uS/cm
APCO- BY-AP-MW-13V	DO	DO	4/4/23 3:42 PM	0.64	mg/L
APCO- BY-AP-MW-13V	DTW	Depth to Water Detail	4/4/23 3:42 PM	18.05	ft
APCO- BY-AP-MW-13V	ORP	Oxidation Reduction Potential	4/4/23 3:42 PM	-47.41	mv
APCO- BY-AP-MW-13V	PH	pH	4/4/23 3:42 PM	6.22	SU
APCO- BY-AP-MW-13V	TEMP	Temperature	4/4/23 3:42 PM	21.03	C
APCO- BY-AP-MW-13V	TURB	Turbidity	4/4/23 3:42 PM	3.57	NTU
APCO- BY-AP-MW-13V	COND	Conductivity	4/4/23 3:47 PM	565.28	uS/cm
APCO- BY-AP-MW-13V	DO	DO	4/4/23 3:47 PM	0.68	mg/L
APCO- BY-AP-MW-13V	DTW	Depth to Water Detail	4/4/23 3:47 PM	18.05	ft
APCO- BY-AP-MW-13V	ORP	Oxidation Reduction Potential	4/4/23 3:47 PM	-48.09	mv
APCO- BY-AP-MW-13V	PH	pH	4/4/23 3:47 PM	6.24	SU
APCO- BY-AP-MW-13V	SULFIDE	Sulfide	4/4/23 3:47 PM	0	mg/L
APCO- BY-AP-MW-13V	TEMP	Temperature	4/4/23 3:47 PM	21.02	C
APCO- BY-AP-MW-13V	TURB	Turbidity	4/4/23 3:47 PM	3.69	NTU
APCO- BY-AP-MW-15	COND	Conductivity	4/3/23 8:44 AM	647.59	uS/cm
APCO- BY-AP-MW-15	DO	DO	4/3/23 8:44 AM	0.02	mg/L
APCO- BY-AP-MW-15	DTW	Depth to Water Detail	4/3/23 8:44 AM	17.13	ft
APCO- BY-AP-MW-15	ORP	Oxidation Reduction Potential	4/3/23 8:44 AM	-145.43	mv
APCO- BY-AP-MW-15	PH	pH	4/3/23 8:44 AM	6.64	SU
APCO- BY-AP-MW-15	TEMP	Temperature	4/3/23 8:44 AM	21.32	C
APCO- BY-AP-MW-15	TURB	Turbidity	4/3/23 8:44 AM	33.7	NTU
APCO- BY-AP-MW-15	COND	Conductivity	4/3/23 8:49 AM	610.68	uS/cm
APCO- BY-AP-MW-15	DO	DO	4/3/23 8:49 AM	0.01	mg/L
APCO- BY-AP-MW-15	DTW	Depth to Water Detail	4/3/23 8:49 AM	17.13	ft
APCO- BY-AP-MW-15	ORP	Oxidation Reduction Potential	4/3/23 8:49 AM	-135.65	mv
APCO- BY-AP-MW-15	PH	pH	4/3/23 8:49 AM	6.62	SU
APCO- BY-AP-MW-15	TEMP	Temperature	4/3/23 8:49 AM	21.28	C
APCO- BY-AP-MW-15	TURB	Turbidity	4/3/23 8:49 AM	28.9	NTU
APCO- BY-AP-MW-15	COND	Conductivity	4/3/23 8:54 AM	603.18	uS/cm
APCO- BY-AP-MW-15	DO	DO	4/3/23 8:54 AM	0.02	mg/L
APCO- BY-AP-MW-15	DTW	Depth to Water Detail	4/3/23 8:54 AM	17.13	ft
APCO- BY-AP-MW-15	ORP	Oxidation Reduction Potential	4/3/23 8:54 AM	-131.19	mv
APCO- BY-AP-MW-15	PH	pH	4/3/23 8:54 AM	6.62	SU
APCO- BY-AP-MW-15	TEMP	Temperature	4/3/23 8:54 AM	21.3	C
APCO- BY-AP-MW-15	TURB	Turbidity	4/3/23 8:54 AM	11.84	NTU
APCO- BY-AP-MW-15	COND	Conductivity	4/3/23 8:59 AM	601.15	uS/cm
APCO- BY-AP-MW-15	DO	DO	4/3/23 8:59 AM	0.02	mg/L
APCO- BY-AP-MW-15	DTW	Depth to Water Detail	4/3/23 8:59 AM	17.13	ft
APCO- BY-AP-MW-15	ORP	Oxidation Reduction Potential	4/3/23 8:59 AM	-127.78	mv
APCO- BY-AP-MW-15	PH	pH	4/3/23 8:59 AM	6.61	SU
APCO- BY-AP-MW-15	TEMP	Temperature	4/3/23 8:59 AM	21.24	C
APCO- BY-AP-MW-15	TURB	Turbidity	4/3/23 8:59 AM	8.48	NTU
APCO- BY-AP-MW-15	COND	Conductivity	4/3/23 9:04 AM	595.75	uS/cm
APCO- BY-AP-MW-15	DO	DO	4/3/23 9:04 AM	0.02	mg/L
APCO- BY-AP-MW-15	DTW	Depth to Water Detail	4/3/23 9:04 AM	17.13	ft
APCO- BY-AP-MW-15	ORP	Oxidation Reduction Potential	4/3/23 9:04 AM	-125.74	mv
APCO- BY-AP-MW-15	PH	pH	4/3/23 9:04 AM	6.62	SU
APCO- BY-AP-MW-15	TEMP	Temperature	4/3/23 9:04 AM	21.2	C
APCO- BY-AP-MW-15	TURB	Turbidity	4/3/23 9:04 AM	7.49	NTU
APCO- BY-AP-MW-15	COND	Conductivity	4/3/23 9:09 AM	592.6	uS/cm
APCO- BY-AP-MW-15	DO	DO	4/3/23 9:09 AM	0.02	mg/L
APCO- BY-AP-MW-15	DTW	Depth to Water Detail	4/3/23 9:09 AM	17.13	ft
APCO- BY-AP-MW-15	ORP	Oxidation Reduction Potential	4/3/23 9:09 AM	-124.3	mv
APCO- BY-AP-MW-15	PH	pH	4/3/23 9:09 AM	6.63	SU
APCO- BY-AP-MW-15	SULFIDE	Sulfide	4/3/23 9:09 AM	0	mg/L
APCO- BY-AP-MW-15	TEMP	Temperature	4/3/23 9:09 AM	21.23	C

Plant Barry Ash Pond
Field Parameter Summary

WELL ID	PARAMETER	DESCRIPTION	TIME OF READING	VALUE	UNIT
APCO- BY-AP-MW-15	TURB	Turbidity	4/3/23 9:09 AM	8.81	NTU
APCO- BY-AP-MW-24H	COND	Conductivity	4/3/23 11:30 AM	801.71	uS/cm
APCO- BY-AP-MW-24H	DO	DO	4/3/23 11:30 AM	0.04	mg/L
APCO- BY-AP-MW-24H	DTW	Depth to Water Detail	4/3/23 11:30 AM	19.55	ft
APCO- BY-AP-MW-24H	ORP	Oxidation Reduction Potential	4/3/23 11:30 AM	-73.99	mv
APCO- BY-AP-MW-24H	PH	pH	4/3/23 11:30 AM	6.04	SU
APCO- BY-AP-MW-24H	TEMP	Temperature	4/3/23 11:30 AM	22.04	C
APCO- BY-AP-MW-24H	TURB	Turbidity	4/3/23 11:30 AM	3.22	NTU
APCO- BY-AP-MW-24H	COND	Conductivity	4/3/23 11:35 AM	802.42	uS/cm
APCO- BY-AP-MW-24H	DO	DO	4/3/23 11:35 AM	0.03	mg/L
APCO- BY-AP-MW-24H	DTW	Depth to Water Detail	4/3/23 11:35 AM	19.55	ft
APCO- BY-AP-MW-24H	ORP	Oxidation Reduction Potential	4/3/23 11:35 AM	-74.34	mv
APCO- BY-AP-MW-24H	PH	pH	4/3/23 11:35 AM	6.04	SU
APCO- BY-AP-MW-24H	TEMP	Temperature	4/3/23 11:35 AM	21.99	C
APCO- BY-AP-MW-24H	TURB	Turbidity	4/3/23 11:35 AM	4.85	NTU
APCO- BY-AP-MW-24H	COND	Conductivity	4/3/23 11:40 AM	804.4	uS/cm
APCO- BY-AP-MW-24H	DO	DO	4/3/23 11:40 AM	0.03	mg/L
APCO- BY-AP-MW-24H	DTW	Depth to Water Detail	4/3/23 11:40 AM	19.55	ft
APCO- BY-AP-MW-24H	ORP	Oxidation Reduction Potential	4/3/23 11:40 AM	-75.5	mv
APCO- BY-AP-MW-24H	PH	pH	4/3/23 11:40 AM	6.07	SU
APCO- BY-AP-MW-24H	TEMP	Temperature	4/3/23 11:40 AM	21.89	C
APCO- BY-AP-MW-24H	TURB	Turbidity	4/3/23 11:40 AM	3.3	NTU
APCO- BY-AP-MW-24H	COND	Conductivity	4/3/23 11:45 AM	804.05	uS/cm
APCO- BY-AP-MW-24H	DO	DO	4/3/23 11:45 AM	0.03	mg/L
APCO- BY-AP-MW-24H	DTW	Depth to Water Detail	4/3/23 11:45 AM	19.55	ft
APCO- BY-AP-MW-24H	ORP	Oxidation Reduction Potential	4/3/23 11:45 AM	-75.45	mv
APCO- BY-AP-MW-24H	PH	pH	4/3/23 11:45 AM	6.08	SU
APCO- BY-AP-MW-24H	SULFIDE	Sulfide	4/3/23 11:45 AM	0	mg/L
APCO- BY-AP-MW-24H	TEMP	Temperature	4/3/23 11:45 AM	21.89	C
APCO- BY-AP-MW-24H	TURB	Turbidity	4/3/23 11:45 AM	7.19	NTU
APCO- BY-AP-MW-25H	COND	Conductivity	4/3/23 2:06 PM	46.57	uS/cm
APCO- BY-AP-MW-25H	DO	DO	4/3/23 2:06 PM	0.75	mg/L
APCO- BY-AP-MW-25H	DTW	Depth to Water Detail	4/3/23 2:06 PM	17.61	ft
APCO- BY-AP-MW-25H	ORP	Oxidation Reduction Potential	4/3/23 2:06 PM	215.78	mv
APCO- BY-AP-MW-25H	PH	pH	4/3/23 2:06 PM	4.63	SU
APCO- BY-AP-MW-25H	TEMP	Temperature	4/3/23 2:06 PM	23.2	C
APCO- BY-AP-MW-25H	TURB	Turbidity	4/3/23 2:06 PM	4.76	NTU
APCO- BY-AP-MW-25H	COND	Conductivity	4/3/23 2:11 PM	46.06	uS/cm
APCO- BY-AP-MW-25H	DO	DO	4/3/23 2:11 PM	0.73	mg/L
APCO- BY-AP-MW-25H	DTW	Depth to Water Detail	4/3/23 2:11 PM	17.61	ft
APCO- BY-AP-MW-25H	ORP	Oxidation Reduction Potential	4/3/23 2:11 PM	218.99	mv
APCO- BY-AP-MW-25H	PH	pH	4/3/23 2:11 PM	4.7	SU
APCO- BY-AP-MW-25H	TEMP	Temperature	4/3/23 2:11 PM	23.12	C
APCO- BY-AP-MW-25H	TURB	Turbidity	4/3/23 2:11 PM	3.46	NTU
APCO- BY-AP-MW-25H	COND	Conductivity	4/3/23 2:16 PM	45.85	uS/cm
APCO- BY-AP-MW-25H	DO	DO	4/3/23 2:16 PM	0.73	mg/L
APCO- BY-AP-MW-25H	DTW	Depth to Water Detail	4/3/23 2:16 PM	17.61	ft
APCO- BY-AP-MW-25H	ORP	Oxidation Reduction Potential	4/3/23 2:16 PM	227.7	mv
APCO- BY-AP-MW-25H	PH	pH	4/3/23 2:16 PM	4.63	SU
APCO- BY-AP-MW-25H	TEMP	Temperature	4/3/23 2:16 PM	23.01	C
APCO- BY-AP-MW-25H	TURB	Turbidity	4/3/23 2:16 PM	3.16	NTU
APCO- BY-AP-MW-25H	COND	Conductivity	4/3/23 2:21 PM	45.8	uS/cm
APCO- BY-AP-MW-25H	DO	DO	4/3/23 2:21 PM	0.72	mg/L
APCO- BY-AP-MW-25H	DTW	Depth to Water Detail	4/3/23 2:21 PM	17.61	ft
APCO- BY-AP-MW-25H	ORP	Oxidation Reduction Potential	4/3/23 2:21 PM	231.08	mv
APCO- BY-AP-MW-25H	PH	pH	4/3/23 2:21 PM	4.65	SU
APCO- BY-AP-MW-25H	SULFIDE	Sulfide	4/3/23 2:21 PM	0	mg/L
APCO- BY-AP-MW-25H	TEMP	Temperature	4/3/23 2:21 PM	23.02	C
APCO- BY-AP-MW-25H	TURB	Turbidity	4/3/23 2:21 PM	3.98	NTU
APCO- BY-AP-MW-23H	COND	Conductivity	4/4/23 10:52 AM	444.84	uS/cm

Plant Barry Ash Pond
Field Parameter Summary

WELL ID	PARAMETER	DESCRIPTION	TIME OF READING	VALUE	UNIT
APCO- BY-AP-MW-23H	DO	DO	4/4/23 10:52 AM	0.04	mg/L
APCO- BY-AP-MW-23H	DTW	Depth to Water Detail	4/4/23 10:52 AM	3.74	ft
APCO- BY-AP-MW-23H	ORP	Oxidation Reduction Potential	4/4/23 10:52 AM	-74.75	mv
APCO- BY-AP-MW-23H	PH	pH	4/4/23 10:52 AM	5.93	SU
APCO- BY-AP-MW-23H	TEMP	Temperature	4/4/23 10:52 AM	20.08	C
APCO- BY-AP-MW-23H	TURB	Turbidity	4/4/23 10:52 AM	5.56	NTU
APCO- BY-AP-MW-23H	COND	Conductivity	4/4/23 10:57 AM	425	uS/cm
APCO- BY-AP-MW-23H	DO	DO	4/4/23 10:57 AM	0.02	mg/L
APCO- BY-AP-MW-23H	DTW	Depth to Water Detail	4/4/23 10:57 AM	3.74	ft
APCO- BY-AP-MW-23H	ORP	Oxidation Reduction Potential	4/4/23 10:57 AM	-73.13	mv
APCO- BY-AP-MW-23H	PH	pH	4/4/23 10:57 AM	5.89	SU
APCO- BY-AP-MW-23H	TEMP	Temperature	4/4/23 10:57 AM	20.08	C
APCO- BY-AP-MW-23H	TURB	Turbidity	4/4/23 10:57 AM	5.4	NTU
APCO- BY-AP-MW-23H	COND	Conductivity	4/4/23 11:02 AM	412.61	uS/cm
APCO- BY-AP-MW-23H	DO	DO	4/4/23 11:02 AM	0.01	mg/L
APCO- BY-AP-MW-23H	DTW	Depth to Water Detail	4/4/23 11:02 AM	3.74	ft
APCO- BY-AP-MW-23H	ORP	Oxidation Reduction Potential	4/4/23 11:02 AM	-73.38	mv
APCO- BY-AP-MW-23H	PH	pH	4/4/23 11:02 AM	5.89	SU
APCO- BY-AP-MW-23H	TEMP	Temperature	4/4/23 11:02 AM	20.1	C
APCO- BY-AP-MW-23H	TURB	Turbidity	4/4/23 11:02 AM	4.28	NTU
APCO- BY-AP-MW-23H	COND	Conductivity	4/4/23 11:07 AM	399.81	uS/cm
APCO- BY-AP-MW-23H	DO	DO	4/4/23 11:07 AM	0.01	mg/L
APCO- BY-AP-MW-23H	DTW	Depth to Water Detail	4/4/23 11:07 AM	3.74	ft
APCO- BY-AP-MW-23H	ORP	Oxidation Reduction Potential	4/4/23 11:07 AM	-74.49	mv
APCO- BY-AP-MW-23H	PH	pH	4/4/23 11:07 AM	5.91	SU
APCO- BY-AP-MW-23H	TEMP	Temperature	4/4/23 11:07 AM	20.11	C
APCO- BY-AP-MW-23H	TURB	Turbidity	4/4/23 11:07 AM	4.61	NTU
APCO- BY-AP-MW-23H	COND	Conductivity	4/4/23 11:12 AM	396.41	uS/cm
APCO- BY-AP-MW-23H	DO	DO	4/4/23 11:12 AM	0.01	mg/L
APCO- BY-AP-MW-23H	DTW	Depth to Water Detail	4/4/23 11:12 AM	3.74	ft
APCO- BY-AP-MW-23H	ORP	Oxidation Reduction Potential	4/4/23 11:12 AM	-75.8	mv
APCO- BY-AP-MW-23H	PH	pH	4/4/23 11:12 AM	5.94	SU
APCO- BY-AP-MW-23H	SULFIDE	Sulfide	4/4/23 11:12 AM	0	mg/L
APCO- BY-AP-MW-23H	TEMP	Temperature	4/4/23 11:12 AM	20.14	C
APCO- BY-AP-MW-23H	TURB	Turbidity	4/4/23 11:12 AM	3.24	NTU
APCO- BY-AP-MW-23V	COND	Conductivity	4/4/23 11:37 AM	2496.96	uS/cm
APCO- BY-AP-MW-23V	DO	DO	4/4/23 11:37 AM	0.06	mg/L
APCO- BY-AP-MW-23V	DTW	Depth to Water Detail	4/4/23 11:37 AM	8.55	ft
APCO- BY-AP-MW-23V	ORP	Oxidation Reduction Potential	4/4/23 11:37 AM	-86.84	mv
APCO- BY-AP-MW-23V	PH	pH	4/4/23 11:37 AM	6.72	SU
APCO- BY-AP-MW-23V	TEMP	Temperature	4/4/23 11:37 AM	20.86	C
APCO- BY-AP-MW-23V	TURB	Turbidity	4/4/23 11:37 AM	2.43	NTU
APCO- BY-AP-MW-23V	COND	Conductivity	4/4/23 11:42 AM	2548.6	uS/cm
APCO- BY-AP-MW-23V	DO	DO	4/4/23 11:42 AM	0.06	mg/L
APCO- BY-AP-MW-23V	DTW	Depth to Water Detail	4/4/23 11:42 AM	8.55	ft
APCO- BY-AP-MW-23V	ORP	Oxidation Reduction Potential	4/4/23 11:42 AM	-89.39	mv
APCO- BY-AP-MW-23V	PH	pH	4/4/23 11:42 AM	6.72	SU
APCO- BY-AP-MW-23V	TEMP	Temperature	4/4/23 11:42 AM	20.84	C
APCO- BY-AP-MW-23V	TURB	Turbidity	4/4/23 11:42 AM	2.32	NTU
APCO- BY-AP-MW-23V	COND	Conductivity	4/4/23 11:47 AM	2570.39	uS/cm
APCO- BY-AP-MW-23V	DO	DO	4/4/23 11:47 AM	0.07	mg/L
APCO- BY-AP-MW-23V	DTW	Depth to Water Detail	4/4/23 11:47 AM	8.55	ft
APCO- BY-AP-MW-23V	ORP	Oxidation Reduction Potential	4/4/23 11:47 AM	-90.96	mv
APCO- BY-AP-MW-23V	PH	pH	4/4/23 11:47 AM	6.73	SU
APCO- BY-AP-MW-23V	TEMP	Temperature	4/4/23 11:47 AM	20.89	C
APCO- BY-AP-MW-23V	TURB	Turbidity	4/4/23 11:47 AM	2.96	NTU
APCO- BY-AP-MW-23V	COND	Conductivity	4/4/23 11:52 AM	2583.92	uS/cm
APCO- BY-AP-MW-23V	DO	DO	4/4/23 11:52 AM	0.08	mg/L
APCO- BY-AP-MW-23V	DTW	Depth to Water Detail	4/4/23 11:52 AM	8.55	ft
APCO- BY-AP-MW-23V	ORP	Oxidation Reduction Potential	4/4/23 11:52 AM	-91.76	mv

Plant Barry Ash Pond
Field Parameter Summary

WELL ID	PARAMETER	DESCRIPTION	TIME OF READING	VALUE	UNIT
APCO- BY-AP-MW-23V	PH	pH	4/4/23 11:52 AM	6.73	SU
APCO- BY-AP-MW-23V	SULFIDE	Sulfide	4/4/23 11:52 AM	0	mg/L
APCO- BY-AP-MW-23V	TEMP	Temperature	4/4/23 11:52 AM	20.83	C
APCO- BY-AP-MW-23V	TURB	Turbidity	4/4/23 11:52 AM	2.6	NTU
APCO- BY-AP-MW-17H	COND	Conductivity	4/4/23 1:19 PM	334.34	uS/cm
APCO- BY-AP-MW-17H	DO	DO	4/4/23 1:19 PM	0.08	mg/L
APCO- BY-AP-MW-17H	DTW	Depth to Water Detail	4/4/23 1:19 PM	13.08	ft
APCO- BY-AP-MW-17H	ORP	Oxidation Reduction Potential	4/4/23 1:19 PM	-36.1	mv
APCO- BY-AP-MW-17H	PH	pH	4/4/23 1:19 PM	6.18	SU
APCO- BY-AP-MW-17H	TEMP	Temperature	4/4/23 1:19 PM	21.8	C
APCO- BY-AP-MW-17H	TURB	Turbidity	4/4/23 1:19 PM	15.4	NTU
APCO- BY-AP-MW-17H	COND	Conductivity	4/4/23 1:24 PM	331.8	uS/cm
APCO- BY-AP-MW-17H	DO	DO	4/4/23 1:24 PM	0.07	mg/L
APCO- BY-AP-MW-17H	DTW	Depth to Water Detail	4/4/23 1:24 PM	13.08	ft
APCO- BY-AP-MW-17H	ORP	Oxidation Reduction Potential	4/4/23 1:24 PM	-40.76	mv
APCO- BY-AP-MW-17H	PH	pH	4/4/23 1:24 PM	6.19	SU
APCO- BY-AP-MW-17H	TEMP	Temperature	4/4/23 1:24 PM	21.63	C
APCO- BY-AP-MW-17H	TURB	Turbidity	4/4/23 1:24 PM	11.3	NTU
APCO- BY-AP-MW-17H	COND	Conductivity	4/4/23 1:29 PM	331.99	uS/cm
APCO- BY-AP-MW-17H	DO	DO	4/4/23 1:29 PM	0.07	mg/L
APCO- BY-AP-MW-17H	DTW	Depth to Water Detail	4/4/23 1:29 PM	13.08	ft
APCO- BY-AP-MW-17H	ORP	Oxidation Reduction Potential	4/4/23 1:29 PM	-45.13	mv
APCO- BY-AP-MW-17H	PH	pH	4/4/23 1:29 PM	6.22	SU
APCO- BY-AP-MW-17H	TEMP	Temperature	4/4/23 1:29 PM	21.79	C
APCO- BY-AP-MW-17H	TURB	Turbidity	4/4/23 1:29 PM	9.9	NTU
APCO- BY-AP-MW-17H	COND	Conductivity	4/4/23 1:34 PM	331.33	uS/cm
APCO- BY-AP-MW-17H	DO	DO	4/4/23 1:34 PM	0.09	mg/L
APCO- BY-AP-MW-17H	DTW	Depth to Water Detail	4/4/23 1:34 PM	13.08	ft
APCO- BY-AP-MW-17H	ORP	Oxidation Reduction Potential	4/4/23 1:34 PM	-48.7	mv
APCO- BY-AP-MW-17H	PH	pH	4/4/23 1:34 PM	6.25	SU
APCO- BY-AP-MW-17H	SULFIDE	Sulfide	4/4/23 1:34 PM	0	mg/L
APCO- BY-AP-MW-17H	TEMP	Temperature	4/4/23 1:34 PM	22.18	C
APCO- BY-AP-MW-17H	TURB	Turbidity	4/4/23 1:34 PM	8.7	NTU
APCO- BY-AP-MW-14V	COND	Conductivity	4/4/23 2:47 PM	1045.12	uS/cm
APCO- BY-AP-MW-14V	DO	DO	4/4/23 2:47 PM	0.08	mg/L
APCO- BY-AP-MW-14V	DTW	Depth to Water Detail	4/4/23 2:47 PM	18.48	ft
APCO- BY-AP-MW-14V	ORP	Oxidation Reduction Potential	4/4/23 2:47 PM	-131.05	mv
APCO- BY-AP-MW-14V	PH	pH	4/4/23 2:47 PM	7.22	SU
APCO- BY-AP-MW-14V	TEMP	Temperature	4/4/23 2:47 PM	22.48	C
APCO- BY-AP-MW-14V	TURB	Turbidity	4/4/23 2:47 PM	5.07	NTU
APCO- BY-AP-MW-14V	COND	Conductivity	4/4/23 2:52 PM	936	uS/cm
APCO- BY-AP-MW-14V	DO	DO	4/4/23 2:52 PM	0.06	mg/L
APCO- BY-AP-MW-14V	DTW	Depth to Water Detail	4/4/23 2:52 PM	18.48	ft
APCO- BY-AP-MW-14V	ORP	Oxidation Reduction Potential	4/4/23 2:52 PM	-118.96	mv
APCO- BY-AP-MW-14V	PH	pH	4/4/23 2:52 PM	6.89	SU
APCO- BY-AP-MW-14V	TEMP	Temperature	4/4/23 2:52 PM	22.29	C
APCO- BY-AP-MW-14V	TURB	Turbidity	4/4/23 2:52 PM	3.87	NTU
APCO- BY-AP-MW-14V	COND	Conductivity	4/4/23 2:57 PM	918.2	uS/cm
APCO- BY-AP-MW-14V	DO	DO	4/4/23 2:57 PM	0.06	mg/L
APCO- BY-AP-MW-14V	DTW	Depth to Water Detail	4/4/23 2:57 PM	18.48	ft
APCO- BY-AP-MW-14V	ORP	Oxidation Reduction Potential	4/4/23 2:57 PM	-116.26	mv
APCO- BY-AP-MW-14V	PH	pH	4/4/23 2:57 PM	6.82	SU
APCO- BY-AP-MW-14V	TEMP	Temperature	4/4/23 2:57 PM	22.24	C
APCO- BY-AP-MW-14V	TURB	Turbidity	4/4/23 2:57 PM	3.54	NTU
APCO- BY-AP-MW-14V	COND	Conductivity	4/4/23 3:02 PM	912.46	uS/cm
APCO- BY-AP-MW-14V	DO	DO	4/4/23 3:02 PM	0.07	mg/L
APCO- BY-AP-MW-14V	DTW	Depth to Water Detail	4/4/23 3:02 PM	18.48	ft
APCO- BY-AP-MW-14V	ORP	Oxidation Reduction Potential	4/4/23 3:02 PM	-115.9	mv
APCO- BY-AP-MW-14V	PH	pH	4/4/23 3:02 PM	6.8	SU
APCO- BY-AP-MW-14V	SULFIDE	Sulfide	4/4/23 3:02 PM	0	mg/L

Plant Barry Ash Pond
Field Parameter Summary

WELL ID	PARAMETER	DESCRIPTION	TIME OF READING	VALUE	UNIT
APCO- BY-AP-MW-14V	TEMP	Temperature	4/4/23 3:02 PM	22.32	C
APCO- BY-AP-MW-14V	TURB	Turbidity	4/4/23 3:02 PM	3.19	NTU
APCO- BY-AP-MW-16	COND	Conductivity	4/5/23 9:27 AM	564.24	uS/cm
APCO- BY-AP-MW-16	DO	DO	4/5/23 9:27 AM	0.06	mg/L
APCO- BY-AP-MW-16	DTW	Depth to Water Detail	4/5/23 9:27 AM	18.32	ft
APCO- BY-AP-MW-16	ORP	Oxidation Reduction Potential	4/5/23 9:27 AM	-33.87	mv
APCO- BY-AP-MW-16	PH	pH	4/5/23 9:27 AM	5.82	SU
APCO- BY-AP-MW-16	TEMP	Temperature	4/5/23 9:27 AM	21.96	C
APCO- BY-AP-MW-16	TURB	Turbidity	4/5/23 9:27 AM	4.47	NTU
APCO- BY-AP-MW-16	COND	Conductivity	4/5/23 9:32 AM	564.39	uS/cm
APCO- BY-AP-MW-16	DO	DO	4/5/23 9:32 AM	0.06	mg/L
APCO- BY-AP-MW-16	DTW	Depth to Water Detail	4/5/23 9:32 AM	18.32	ft
APCO- BY-AP-MW-16	ORP	Oxidation Reduction Potential	4/5/23 9:32 AM	-32.77	mv
APCO- BY-AP-MW-16	PH	pH	4/5/23 9:32 AM	5.84	SU
APCO- BY-AP-MW-16	TEMP	Temperature	4/5/23 9:32 AM	21.91	C
APCO- BY-AP-MW-16	TURB	Turbidity	4/5/23 9:32 AM	4.57	NTU
APCO- BY-AP-MW-16	COND	Conductivity	4/5/23 9:37 AM	564.62	uS/cm
APCO- BY-AP-MW-16	DO	DO	4/5/23 9:37 AM	0.06	mg/L
APCO- BY-AP-MW-16	DTW	Depth to Water Detail	4/5/23 9:37 AM	18.32	ft
APCO- BY-AP-MW-16	ORP	Oxidation Reduction Potential	4/5/23 9:37 AM	-32.52	mv
APCO- BY-AP-MW-16	PH	pH	4/5/23 9:37 AM	5.85	SU
APCO- BY-AP-MW-16	TEMP	Temperature	4/5/23 9:37 AM	21.86	C
APCO- BY-AP-MW-16	TURB	Turbidity	4/5/23 9:37 AM	3.9	NTU
APCO- BY-AP-MW-16	COND	Conductivity	4/5/23 9:42 AM	562.14	uS/cm
APCO- BY-AP-MW-16	DO	DO	4/5/23 9:42 AM	0.06	mg/L
APCO- BY-AP-MW-16	DTW	Depth to Water Detail	4/5/23 9:42 AM	18.32	ft
APCO- BY-AP-MW-16	ORP	Oxidation Reduction Potential	4/5/23 9:42 AM	-31.36	mv
APCO- BY-AP-MW-16	PH	pH	4/5/23 9:42 AM	5.83	SU
APCO- BY-AP-MW-16	TEMP	Temperature	4/5/23 9:42 AM	21.91	C
APCO- BY-AP-MW-16	TURB	Turbidity	4/5/23 9:42 AM	4.09	NTU
APCO- BY-AP-MW-17V	COND	Conductivity	4/4/23 12:32 PM	5078.7	uS/cm
APCO- BY-AP-MW-17V	DO	DO	4/4/23 12:32 PM	0.19	mg/L
APCO- BY-AP-MW-17V	DTW	Depth to Water Detail	4/4/23 12:32 PM	13.63	ft
APCO- BY-AP-MW-17V	ORP	Oxidation Reduction Potential	4/4/23 12:32 PM	24	mv
APCO- BY-AP-MW-17V	PH	pH	4/4/23 12:32 PM	6.47	SU
APCO- BY-AP-MW-17V	TEMP	Temperature	4/4/23 12:32 PM	26.67	C
APCO- BY-AP-MW-17V	TURB	Turbidity	4/4/23 12:32 PM	3.94	NTU
APCO- BY-AP-MW-17V	COND	Conductivity	4/4/23 12:37 PM	5020.39	uS/cm
APCO- BY-AP-MW-17V	DO	DO	4/4/23 12:37 PM	0.11	mg/L
APCO- BY-AP-MW-17V	DTW	Depth to Water Detail	4/4/23 12:37 PM	13.63	ft
APCO- BY-AP-MW-17V	ORP	Oxidation Reduction Potential	4/4/23 12:37 PM	31.63	mv
APCO- BY-AP-MW-17V	PH	pH	4/4/23 12:37 PM	6.47	SU
APCO- BY-AP-MW-17V	TEMP	Temperature	4/4/23 12:37 PM	22.18	C
APCO- BY-AP-MW-17V	TURB	Turbidity	4/4/23 12:37 PM	3.9	NTU
APCO- BY-AP-MW-17V	COND	Conductivity	4/4/23 12:42 PM	5001.28	uS/cm
APCO- BY-AP-MW-17V	DO	DO	4/4/23 12:42 PM	0.13	mg/L
APCO- BY-AP-MW-17V	DTW	Depth to Water Detail	4/4/23 12:42 PM	13.63	ft
APCO- BY-AP-MW-17V	ORP	Oxidation Reduction Potential	4/4/23 12:42 PM	33.71	mv
APCO- BY-AP-MW-17V	PH	pH	4/4/23 12:42 PM	6.47	SU
APCO- BY-AP-MW-17V	TEMP	Temperature	4/4/23 12:42 PM	21.85	C
APCO- BY-AP-MW-17V	TURB	Turbidity	4/4/23 12:42 PM	3.11	NTU
APCO- BY-AP-MW-17V	COND	Conductivity	4/4/23 12:47 PM	5004.48	uS/cm
APCO- BY-AP-MW-17V	DO	DO	4/4/23 12:47 PM	0.13	mg/L
APCO- BY-AP-MW-17V	DTW	Depth to Water Detail	4/4/23 12:47 PM	13.63	ft
APCO- BY-AP-MW-17V	ORP	Oxidation Reduction Potential	4/4/23 12:47 PM	35.18	mv
APCO- BY-AP-MW-17V	PH	pH	4/4/23 12:47 PM	6.48	SU
APCO- BY-AP-MW-17V	SULFIDE	Sulfide	4/4/23 12:47 PM	0	mg/L
APCO- BY-AP-MW-17V	TEMP	Temperature	4/4/23 12:47 PM	22.09	C
APCO- BY-AP-MW-17V	TURB	Turbidity	4/4/23 12:47 PM	3.38	NTU
APCO- BY-AP-MW-25V	COND	Conductivity	4/3/23 3:00 PM	32.46	uS/cm

Plant Barry Ash Pond
Field Parameter Summary

WELL ID	PARAMETER	DESCRIPTION	TIME OF READING	VALUE	UNIT
APCO- BY-AP-MW-25V	DO	DO	4/3/23 3:00 PM	3.39	mg/L
APCO- BY-AP-MW-25V	DTW	Depth to Water Detail	4/3/23 3:00 PM	17.53	ft
APCO- BY-AP-MW-25V	ORP	Oxidation Reduction Potential	4/3/23 3:00 PM	215.79	mv
APCO- BY-AP-MW-25V	PH	pH	4/3/23 3:00 PM	4.88	SU
APCO- BY-AP-MW-25V	TEMP	Temperature	4/3/23 3:00 PM	23.28	C
APCO- BY-AP-MW-25V	TURB	Turbidity	4/3/23 3:00 PM	3.92	NTU
APCO- BY-AP-MW-25V	COND	Conductivity	4/3/23 3:05 PM	32.26	uS/cm
APCO- BY-AP-MW-25V	DO	DO	4/3/23 3:05 PM	3.39	mg/L
APCO- BY-AP-MW-25V	DTW	Depth to Water Detail	4/3/23 3:05 PM	17.53	ft
APCO- BY-AP-MW-25V	ORP	Oxidation Reduction Potential	4/3/23 3:05 PM	224.96	mv
APCO- BY-AP-MW-25V	PH	pH	4/3/23 3:05 PM	4.81	SU
APCO- BY-AP-MW-25V	TEMP	Temperature	4/3/23 3:05 PM	23.48	C
APCO- BY-AP-MW-25V	TURB	Turbidity	4/3/23 3:05 PM	3.89	NTU
APCO- BY-AP-MW-25V	COND	Conductivity	4/3/23 3:10 PM	32.06	uS/cm
APCO- BY-AP-MW-25V	DO	DO	4/3/23 3:10 PM	3.42	mg/L
APCO- BY-AP-MW-25V	DTW	Depth to Water Detail	4/3/23 3:10 PM	17.53	ft
APCO- BY-AP-MW-25V	ORP	Oxidation Reduction Potential	4/3/23 3:10 PM	233.41	mv
APCO- BY-AP-MW-25V	PH	pH	4/3/23 3:10 PM	4.77	SU
APCO- BY-AP-MW-25V	TEMP	Temperature	4/3/23 3:10 PM	23.24	C
APCO- BY-AP-MW-25V	TURB	Turbidity	4/3/23 3:10 PM	3.74	NTU
APCO- BY-AP-MW-25V	COND	Conductivity	4/3/23 3:15 PM	31.89	uS/cm
APCO- BY-AP-MW-25V	DO	DO	4/3/23 3:15 PM	3.45	mg/L
APCO- BY-AP-MW-25V	DTW	Depth to Water Detail	4/3/23 3:15 PM	17.53	ft
APCO- BY-AP-MW-25V	ORP	Oxidation Reduction Potential	4/3/23 3:15 PM	233.01	mv
APCO- BY-AP-MW-25V	PH	pH	4/3/23 3:15 PM	4.8	SU
APCO- BY-AP-MW-25V	SULFIDE	Sulfide	4/3/23 3:15 PM	0	mg/L
APCO- BY-AP-MW-25V	TEMP	Temperature	4/3/23 3:15 PM	23.31	C
APCO- BY-AP-MW-25V	TURB	Turbidity	4/3/23 3:15 PM	3.94	NTU
APCO- BY-AP-MW-1V	COND	Conductivity	4/4/23 2:53 PM	411.97	uS/cm
APCO- BY-AP-MW-1V	DO	DO	4/4/23 2:53 PM	0.16	mg/L
APCO- BY-AP-MW-1V	DTW	Depth to Water Detail	4/4/23 2:53 PM	19.36	ft
APCO- BY-AP-MW-1V	ORP	Oxidation Reduction Potential	4/4/23 2:53 PM	110.04	mv
APCO- BY-AP-MW-1V	PH	pH	4/4/23 2:53 PM	5.79	SU
APCO- BY-AP-MW-1V	TEMP	Temperature	4/4/23 2:53 PM	22.71	C
APCO- BY-AP-MW-1V	TURB	Turbidity	4/4/23 2:53 PM	1.47	NTU
APCO- BY-AP-MW-1V	COND	Conductivity	4/4/23 2:58 PM	411.87	uS/cm
APCO- BY-AP-MW-1V	DO	DO	4/4/23 2:58 PM	0.13	mg/L
APCO- BY-AP-MW-1V	DTW	Depth to Water Detail	4/4/23 2:58 PM	19.36	ft
APCO- BY-AP-MW-1V	ORP	Oxidation Reduction Potential	4/4/23 2:58 PM	117.07	mv
APCO- BY-AP-MW-1V	PH	pH	4/4/23 2:58 PM	5.74	SU
APCO- BY-AP-MW-1V	TEMP	Temperature	4/4/23 2:58 PM	22.7	C
APCO- BY-AP-MW-1V	TURB	Turbidity	4/4/23 2:58 PM	1.66	NTU
APCO- BY-AP-MW-1V	COND	Conductivity	4/4/23 3:03 PM	410.08	uS/cm
APCO- BY-AP-MW-1V	DO	DO	4/4/23 3:03 PM	0.12	mg/L
APCO- BY-AP-MW-1V	DTW	Depth to Water Detail	4/4/23 3:03 PM	19.36	ft
APCO- BY-AP-MW-1V	ORP	Oxidation Reduction Potential	4/4/23 3:03 PM	120.58	mv
APCO- BY-AP-MW-1V	PH	pH	4/4/23 3:03 PM	5.71	SU
APCO- BY-AP-MW-1V	TEMP	Temperature	4/4/23 3:03 PM	22.64	C
APCO- BY-AP-MW-1V	TURB	Turbidity	4/4/23 3:03 PM	1.43	NTU
APCO- BY-AP-MW-1V	COND	Conductivity	4/4/23 3:08 PM	410.3	uS/cm
APCO- BY-AP-MW-1V	DO	DO	4/4/23 3:08 PM	0.11	mg/L
APCO- BY-AP-MW-1V	DTW	Depth to Water Detail	4/4/23 3:08 PM	19.36	ft
APCO- BY-AP-MW-1V	ORP	Oxidation Reduction Potential	4/4/23 3:08 PM	122.38	mv
APCO- BY-AP-MW-1V	PH	pH	4/4/23 3:08 PM	5.69	SU
APCO- BY-AP-MW-1V	SULFIDE	Sulfide	4/4/23 3:08 PM	0	mg/L
APCO- BY-AP-MW-1V	TEMP	Temperature	4/4/23 3:08 PM	22.74	C
APCO- BY-AP-MW-1V	TURB	Turbidity	4/4/23 3:08 PM	1.4	NTU
APCO- BY-AP-MW-3	COND	Conductivity	4/4/23 1:31 PM	94.09	uS/cm
APCO- BY-AP-MW-3	DO	DO	4/4/23 1:31 PM	0.27	mg/L
APCO- BY-AP-MW-3	DTW	Depth to Water Detail	4/4/23 1:31 PM	19.35	ft

Plant Barry Ash Pond
Field Parameter Summary

WELL ID	PARAMETER	DESCRIPTION	TIME OF READING	VALUE	UNIT
APCO- BY-AP-MW-3	ORP	Oxidation Reduction Potential	4/4/23 1:31 PM	105.95	mv
APCO- BY-AP-MW-3	PH	pH	4/4/23 1:31 PM	5.48	SU
APCO- BY-AP-MW-3	TEMP	Temperature	4/4/23 1:31 PM	22.25	C
APCO- BY-AP-MW-3	TURB	Turbidity	4/4/23 1:31 PM	2.81	NTU
APCO- BY-AP-MW-3	COND	Conductivity	4/4/23 1:36 PM	80.8	uS/cm
APCO- BY-AP-MW-3	DO	DO	4/4/23 1:36 PM	0.49	mg/L
APCO- BY-AP-MW-3	DTW	Depth to Water Detail	4/4/23 1:36 PM	19.35	ft
APCO- BY-AP-MW-3	ORP	Oxidation Reduction Potential	4/4/23 1:36 PM	114.54	mv
APCO- BY-AP-MW-3	PH	pH	4/4/23 1:36 PM	5.41	SU
APCO- BY-AP-MW-3	TEMP	Temperature	4/4/23 1:36 PM	22.19	C
APCO- BY-AP-MW-3	TURB	Turbidity	4/4/23 1:36 PM	2.43	NTU
APCO- BY-AP-MW-3	COND	Conductivity	4/4/23 1:41 PM	72.96	uS/cm
APCO- BY-AP-MW-3	DO	DO	4/4/23 1:41 PM	0.66	mg/L
APCO- BY-AP-MW-3	DTW	Depth to Water Detail	4/4/23 1:41 PM	19.35	ft
APCO- BY-AP-MW-3	ORP	Oxidation Reduction Potential	4/4/23 1:41 PM	121.39	mv
APCO- BY-AP-MW-3	PH	pH	4/4/23 1:41 PM	5.35	SU
APCO- BY-AP-MW-3	TEMP	Temperature	4/4/23 1:41 PM	22.15	C
APCO- BY-AP-MW-3	TURB	Turbidity	4/4/23 1:41 PM	2.14	NTU
APCO- BY-AP-MW-3	COND	Conductivity	4/4/23 1:46 PM	68.56	uS/cm
APCO- BY-AP-MW-3	DO	DO	4/4/23 1:46 PM	0.77	mg/L
APCO- BY-AP-MW-3	DTW	Depth to Water Detail	4/4/23 1:46 PM	19.35	ft
APCO- BY-AP-MW-3	ORP	Oxidation Reduction Potential	4/4/23 1:46 PM	125.94	mv
APCO- BY-AP-MW-3	PH	pH	4/4/23 1:46 PM	5.32	SU
APCO- BY-AP-MW-3	TEMP	Temperature	4/4/23 1:46 PM	22.07	C
APCO- BY-AP-MW-3	TURB	Turbidity	4/4/23 1:46 PM	2.1	NTU
APCO- BY-AP-MW-3	COND	Conductivity	4/4/23 1:51 PM	65.42	uS/cm
APCO- BY-AP-MW-3	DO	DO	4/4/23 1:51 PM	0.85	mg/L
APCO- BY-AP-MW-3	DTW	Depth to Water Detail	4/4/23 1:51 PM	19.35	ft
APCO- BY-AP-MW-3	ORP	Oxidation Reduction Potential	4/4/23 1:51 PM	129.5	mv
APCO- BY-AP-MW-3	PH	pH	4/4/23 1:51 PM	5.3	SU
APCO- BY-AP-MW-3	TEMP	Temperature	4/4/23 1:51 PM	22.09	C
APCO- BY-AP-MW-3	TURB	Turbidity	4/4/23 1:51 PM	1.82	NTU
APCO- BY-AP-MW-3	COND	Conductivity	4/4/23 1:56 PM	63.84	uS/cm
APCO- BY-AP-MW-3	DO	DO	4/4/23 1:56 PM	0.9	mg/L
APCO- BY-AP-MW-3	DTW	Depth to Water Detail	4/4/23 1:56 PM	19.35	ft
APCO- BY-AP-MW-3	ORP	Oxidation Reduction Potential	4/4/23 1:56 PM	130.7	mv
APCO- BY-AP-MW-3	PH	pH	4/4/23 1:56 PM	5.31	SU
APCO- BY-AP-MW-3	TEMP	Temperature	4/4/23 1:56 PM	21.92	C
APCO- BY-AP-MW-3	TURB	Turbidity	4/4/23 1:56 PM	1.8	NTU
APCO- BY-AP-MW-3	COND	Conductivity	4/4/23 2:01 PM	62.21	uS/cm
APCO- BY-AP-MW-3	DO	DO	4/4/23 2:01 PM	0.94	mg/L
APCO- BY-AP-MW-3	DTW	Depth to Water Detail	4/4/23 2:01 PM	19.35	ft
APCO- BY-AP-MW-3	ORP	Oxidation Reduction Potential	4/4/23 2:01 PM	132.67	mv
APCO- BY-AP-MW-3	PH	pH	4/4/23 2:01 PM	5.31	SU
APCO- BY-AP-MW-3	TEMP	Temperature	4/4/23 2:01 PM	21.97	C
APCO- BY-AP-MW-3	TURB	Turbidity	4/4/23 2:01 PM	1.85	NTU
APCO- BY-AP-MW-3	COND	Conductivity	4/4/23 2:06 PM	60.54	uS/cm
APCO- BY-AP-MW-3	DO	DO	4/4/23 2:06 PM	0.98	mg/L
APCO- BY-AP-MW-3	DTW	Depth to Water Detail	4/4/23 2:06 PM	19.35	ft
APCO- BY-AP-MW-3	ORP	Oxidation Reduction Potential	4/4/23 2:06 PM	135.13	mv
APCO- BY-AP-MW-3	PH	pH	4/4/23 2:06 PM	5.31	SU
APCO- BY-AP-MW-3	TEMP	Temperature	4/4/23 2:06 PM	21.99	C
APCO- BY-AP-MW-3	TURB	Turbidity	4/4/23 2:06 PM	1.65	NTU
APCO- BY-AP-MW-3	COND	Conductivity	4/4/23 2:11 PM	59.36	uS/cm
APCO- BY-AP-MW-3	DO	DO	4/4/23 2:11 PM	1.02	mg/L
APCO- BY-AP-MW-3	DTW	Depth to Water Detail	4/4/23 2:11 PM	19.35	ft
APCO- BY-AP-MW-3	ORP	Oxidation Reduction Potential	4/4/23 2:11 PM	137.72	mv
APCO- BY-AP-MW-3	PH	pH	4/4/23 2:11 PM	5.31	SU
APCO- BY-AP-MW-3	SULFIDE	Sulfide	4/4/23 2:11 PM	0	mg/L
APCO- BY-AP-MW-3	TEMP	Temperature	4/4/23 2:11 PM	22.13	C

Plant Barry Ash Pond
Field Parameter Summary

WELL ID	PARAMETER	DESCRIPTION	TIME OF READING	VALUE	UNIT
APCO- BY-AP-MW-3	TURB	Turbidity	4/4/23 2:11 PM	1.69	NTU
APCO- BY-AP-MW-4	COND	Conductivity	4/4/23 12:43 PM	122.16	uS/cm
APCO- BY-AP-MW-4	DO	DO	4/4/23 12:43 PM	0.18	mg/L
APCO- BY-AP-MW-4	DTW	Depth to Water Detail	4/4/23 12:43 PM	20.02	ft
APCO- BY-AP-MW-4	ORP	Oxidation Reduction Potential	4/4/23 12:43 PM	282.61	mv
APCO- BY-AP-MW-4	PH	pH	4/4/23 12:43 PM	4.7	SU
APCO- BY-AP-MW-4	TEMP	Temperature	4/4/23 12:43 PM	22.5	C
APCO- BY-AP-MW-4	TURB	Turbidity	4/4/23 12:43 PM	3.24	NTU
APCO- BY-AP-MW-4	COND	Conductivity	4/4/23 12:48 PM	121.9	uS/cm
APCO- BY-AP-MW-4	DO	DO	4/4/23 12:48 PM	0.17	mg/L
APCO- BY-AP-MW-4	DTW	Depth to Water Detail	4/4/23 12:48 PM	20.02	ft
APCO- BY-AP-MW-4	ORP	Oxidation Reduction Potential	4/4/23 12:48 PM	310.49	mv
APCO- BY-AP-MW-4	PH	pH	4/4/23 12:48 PM	4.63	SU
APCO- BY-AP-MW-4	TEMP	Temperature	4/4/23 12:48 PM	22.72	C
APCO- BY-AP-MW-4	TURB	Turbidity	4/4/23 12:48 PM	3	NTU
APCO- BY-AP-MW-4	COND	Conductivity	4/4/23 12:53 PM	121.7	uS/cm
APCO- BY-AP-MW-4	DO	DO	4/4/23 12:53 PM	0.16	mg/L
APCO- BY-AP-MW-4	DTW	Depth to Water Detail	4/4/23 12:53 PM	20.02	ft
APCO- BY-AP-MW-4	ORP	Oxidation Reduction Potential	4/4/23 12:53 PM	328.01	mv
APCO- BY-AP-MW-4	PH	pH	4/4/23 12:53 PM	4.57	SU
APCO- BY-AP-MW-4	TEMP	Temperature	4/4/23 12:53 PM	22.58	C
APCO- BY-AP-MW-4	TURB	Turbidity	4/4/23 12:53 PM	2.87	NTU
APCO- BY-AP-MW-4	COND	Conductivity	4/4/23 12:58 PM	121.44	uS/cm
APCO- BY-AP-MW-4	DO	DO	4/4/23 12:58 PM	0.17	mg/L
APCO- BY-AP-MW-4	DTW	Depth to Water Detail	4/4/23 12:58 PM	20.02	ft
APCO- BY-AP-MW-4	ORP	Oxidation Reduction Potential	4/4/23 12:58 PM	339.03	mv
APCO- BY-AP-MW-4	PH	pH	4/4/23 12:58 PM	4.55	SU
APCO- BY-AP-MW-4	SULFIDE	Sulfide	4/4/23 12:58 PM	0	mg/L
APCO- BY-AP-MW-4	TEMP	Temperature	4/4/23 12:58 PM	22.88	C
APCO- BY-AP-MW-4	TURB	Turbidity	4/4/23 12:58 PM	3.02	NTU
APCO- BY-AP-MW-5	COND	Conductivity	4/4/23 11:44 AM	258.84	uS/cm
APCO- BY-AP-MW-5	DO	DO	4/4/23 11:44 AM	0.13	mg/L
APCO- BY-AP-MW-5	DTW	Depth to Water Detail	4/4/23 11:44 AM	22.2	ft
APCO- BY-AP-MW-5	ORP	Oxidation Reduction Potential	4/4/23 11:44 AM	-18.33	mv
APCO- BY-AP-MW-5	PH	pH	4/4/23 11:44 AM	5.97	SU
APCO- BY-AP-MW-5	TEMP	Temperature	4/4/23 11:44 AM	22.5	C
APCO- BY-AP-MW-5	TURB	Turbidity	4/4/23 11:44 AM	1.56	NTU
APCO- BY-AP-MW-5	COND	Conductivity	4/4/23 11:49 AM	261.63	uS/cm
APCO- BY-AP-MW-5	DO	DO	4/4/23 11:49 AM	0.12	mg/L
APCO- BY-AP-MW-5	DTW	Depth to Water Detail	4/4/23 11:49 AM	22.2	ft
APCO- BY-AP-MW-5	ORP	Oxidation Reduction Potential	4/4/23 11:49 AM	-15.88	mv
APCO- BY-AP-MW-5	PH	pH	4/4/23 11:49 AM	5.89	SU
APCO- BY-AP-MW-5	TEMP	Temperature	4/4/23 11:49 AM	22.59	C
APCO- BY-AP-MW-5	TURB	Turbidity	4/4/23 11:49 AM	1.35	NTU
APCO- BY-AP-MW-5	COND	Conductivity	4/4/23 11:54 AM	261.6	uS/cm
APCO- BY-AP-MW-5	DO	DO	4/4/23 11:54 AM	0.12	mg/L
APCO- BY-AP-MW-5	DTW	Depth to Water Detail	4/4/23 11:54 AM	22.2	ft
APCO- BY-AP-MW-5	ORP	Oxidation Reduction Potential	4/4/23 11:54 AM	-14.85	mv
APCO- BY-AP-MW-5	PH	pH	4/4/23 11:54 AM	5.85	SU
APCO- BY-AP-MW-5	TEMP	Temperature	4/4/23 11:54 AM	22.73	C
APCO- BY-AP-MW-5	TURB	Turbidity	4/4/23 11:54 AM	1.39	NTU
APCO- BY-AP-MW-5	COND	Conductivity	4/4/23 11:59 AM	259.08	uS/cm
APCO- BY-AP-MW-5	DO	DO	4/4/23 11:59 AM	0.12	mg/L
APCO- BY-AP-MW-5	DTW	Depth to Water Detail	4/4/23 11:59 AM	22.2	ft
APCO- BY-AP-MW-5	ORP	Oxidation Reduction Potential	4/4/23 11:59 AM	-14.73	mv
APCO- BY-AP-MW-5	PH	pH	4/4/23 11:59 AM	5.84	SU
APCO- BY-AP-MW-5	SULFIDE	Sulfide	4/4/23 11:59 AM	0	mg/L
APCO- BY-AP-MW-5	TEMP	Temperature	4/4/23 11:59 AM	22.61	C
APCO- BY-AP-MW-5	TURB	Turbidity	4/4/23 11:59 AM	1.48	NTU
APCO- BY-AP-MW-5V	COND	Conductivity	4/4/23 10:53 AM	252.88	uS/cm

Plant Barry Ash Pond
Field Parameter Summary

WELL ID	PARAMETER	DESCRIPTION	TIME OF READING	VALUE	UNIT
APCO- BY-AP-MW-5V	DO	DO	4/4/23 10:53 AM	0.02	mg/L
APCO- BY-AP-MW-5V	DTW	Depth to Water Detail	4/4/23 10:53 AM	22.18	ft
APCO- BY-AP-MW-5V	ORP	Oxidation Reduction Potential	4/4/23 10:53 AM	93.34	mv
APCO- BY-AP-MW-5V	PH	pH	4/4/23 10:53 AM	6.17	SU
APCO- BY-AP-MW-5V	TEMP	Temperature	4/4/23 10:53 AM	22.55	C
APCO- BY-AP-MW-5V	TURB	Turbidity	4/4/23 10:53 AM	6.71	NTU
APCO- BY-AP-MW-5V	COND	Conductivity	4/4/23 10:58 AM	247.15	uS/cm
APCO- BY-AP-MW-5V	DO	DO	4/4/23 10:58 AM	0.31	mg/L
APCO- BY-AP-MW-5V	DTW	Depth to Water Detail	4/4/23 10:58 AM	22.18	ft
APCO- BY-AP-MW-5V	ORP	Oxidation Reduction Potential	4/4/23 10:58 AM	111.88	mv
APCO- BY-AP-MW-5V	PH	pH	4/4/23 10:58 AM	6.08	SU
APCO- BY-AP-MW-5V	TEMP	Temperature	4/4/23 10:58 AM	22.42	C
APCO- BY-AP-MW-5V	TURB	Turbidity	4/4/23 10:58 AM	7.73	NTU
APCO- BY-AP-MW-5V	COND	Conductivity	4/4/23 11:03 AM	242.24	uS/cm
APCO- BY-AP-MW-5V	DO	DO	4/4/23 11:03 AM	0.35	mg/L
APCO- BY-AP-MW-5V	DTW	Depth to Water Detail	4/4/23 11:03 AM	22.18	ft
APCO- BY-AP-MW-5V	ORP	Oxidation Reduction Potential	4/4/23 11:03 AM	123.79	mv
APCO- BY-AP-MW-5V	PH	pH	4/4/23 11:03 AM	6.03	SU
APCO- BY-AP-MW-5V	TEMP	Temperature	4/4/23 11:03 AM	22.47	C
APCO- BY-AP-MW-5V	TURB	Turbidity	4/4/23 11:03 AM	4.7	NTU
APCO- BY-AP-MW-5V	COND	Conductivity	4/4/23 11:08 AM	236.13	uS/cm
APCO- BY-AP-MW-5V	DO	DO	4/4/23 11:08 AM	0.39	mg/L
APCO- BY-AP-MW-5V	DTW	Depth to Water Detail	4/4/23 11:08 AM	22.18	ft
APCO- BY-AP-MW-5V	ORP	Oxidation Reduction Potential	4/4/23 11:08 AM	131.01	mv
APCO- BY-AP-MW-5V	PH	pH	4/4/23 11:08 AM	5.99	SU
APCO- BY-AP-MW-5V	SULFIDE	Sulfide	4/4/23 11:08 AM	0	mg/L
APCO- BY-AP-MW-5V	TEMP	Temperature	4/4/23 11:08 AM	22.54	C
APCO- BY-AP-MW-5V	TURB	Turbidity	4/4/23 11:08 AM	3.45	NTU
APCO- BY-AP-MW-8	COND	Conductivity	4/3/23 9:24 AM	154.13	uS/cm
APCO- BY-AP-MW-8	DO	DO	4/3/23 9:24 AM	0.15	mg/L
APCO- BY-AP-MW-8	DTW	Depth to Water Detail	4/3/23 9:24 AM	18.22	ft
APCO- BY-AP-MW-8	ORP	Oxidation Reduction Potential	4/3/23 9:24 AM	-100.94	mv
APCO- BY-AP-MW-8	PH	pH	4/3/23 9:24 AM	6.34	SU
APCO- BY-AP-MW-8	TEMP	Temperature	4/3/23 9:24 AM	19.34	C
APCO- BY-AP-MW-8	TURB	Turbidity	4/3/23 9:24 AM	8.09	NTU
APCO- BY-AP-MW-8	COND	Conductivity	4/3/23 9:29 AM	153.1	uS/cm
APCO- BY-AP-MW-8	DO	DO	4/3/23 9:29 AM	0.13	mg/L
APCO- BY-AP-MW-8	DTW	Depth to Water Detail	4/3/23 9:29 AM	18.22	ft
APCO- BY-AP-MW-8	ORP	Oxidation Reduction Potential	4/3/23 9:29 AM	-102.38	mv
APCO- BY-AP-MW-8	PH	pH	4/3/23 9:29 AM	6.29	SU
APCO- BY-AP-MW-8	TEMP	Temperature	4/3/23 9:29 AM	19.39	C
APCO- BY-AP-MW-8	TURB	Turbidity	4/3/23 9:29 AM	7.53	NTU
APCO- BY-AP-MW-8	COND	Conductivity	4/3/23 9:34 AM	154.86	uS/cm
APCO- BY-AP-MW-8	DO	DO	4/3/23 9:34 AM	0.12	mg/L
APCO- BY-AP-MW-8	DTW	Depth to Water Detail	4/3/23 9:34 AM	18.22	ft
APCO- BY-AP-MW-8	ORP	Oxidation Reduction Potential	4/3/23 9:34 AM	-104.13	mv
APCO- BY-AP-MW-8	PH	pH	4/3/23 9:34 AM	6.32	SU
APCO- BY-AP-MW-8	TEMP	Temperature	4/3/23 9:34 AM	19.42	C
APCO- BY-AP-MW-8	TURB	Turbidity	4/3/23 9:34 AM	6.72	NTU
APCO- BY-AP-MW-8	COND	Conductivity	4/3/23 9:39 AM	154.48	uS/cm
APCO- BY-AP-MW-8	DO	DO	4/3/23 9:39 AM	0.12	mg/L
APCO- BY-AP-MW-8	DTW	Depth to Water Detail	4/3/23 9:39 AM	18.22	ft
APCO- BY-AP-MW-8	ORP	Oxidation Reduction Potential	4/3/23 9:39 AM	-105.54	mv
APCO- BY-AP-MW-8	PH	pH	4/3/23 9:39 AM	6.34	SU
APCO- BY-AP-MW-8	SULFIDE	Sulfide	4/3/23 9:39 AM	0	mg/L
APCO- BY-AP-MW-8	TEMP	Temperature	4/3/23 9:39 AM	19.37	C
APCO- BY-AP-MW-8	TURB	Turbidity	4/3/23 9:39 AM	5.38	NTU
APCO- BY-AP-MW-8V	COND	Conductivity	4/3/23 3:22 PM	1177.37	uS/cm
APCO- BY-AP-MW-8V	DO	DO	4/3/23 3:22 PM	0.1	mg/L
APCO- BY-AP-MW-8V	DTW	Depth to Water Detail	4/3/23 3:22 PM	18.12	ft

Plant Barry Ash Pond
Field Parameter Summary

WELL ID	PARAMETER	DESCRIPTION	TIME OF READING	VALUE	UNIT
APCO- BY-AP-MW-8V	ORP	Oxidation Reduction Potential	4/3/23 3:22 PM	-75.28	mv
APCO- BY-AP-MW-8V	PH	pH	4/3/23 3:22 PM	6.62	SU
APCO- BY-AP-MW-8V	TEMP	Temperature	4/3/23 3:22 PM	21.41	C
APCO- BY-AP-MW-8V	TURB	Turbidity	4/3/23 3:22 PM	6.12	NTU
APCO- BY-AP-MW-8V	COND	Conductivity	4/3/23 3:27 PM	1156.72	uS/cm
APCO- BY-AP-MW-8V	DO	DO	4/3/23 3:27 PM	0.12	mg/L
APCO- BY-AP-MW-8V	DTW	Depth to Water Detail	4/3/23 3:27 PM	18.12	ft
APCO- BY-AP-MW-8V	ORP	Oxidation Reduction Potential	4/3/23 3:27 PM	-72.44	mv
APCO- BY-AP-MW-8V	PH	pH	4/3/23 3:27 PM	6.57	SU
APCO- BY-AP-MW-8V	TEMP	Temperature	4/3/23 3:27 PM	21.05	C
APCO- BY-AP-MW-8V	TURB	Turbidity	4/3/23 3:27 PM	5.22	NTU
APCO- BY-AP-MW-8V	COND	Conductivity	4/3/23 3:32 PM	1152.04	uS/cm
APCO- BY-AP-MW-8V	DO	DO	4/3/23 3:32 PM	0.11	mg/L
APCO- BY-AP-MW-8V	DTW	Depth to Water Detail	4/3/23 3:32 PM	18.12	ft
APCO- BY-AP-MW-8V	ORP	Oxidation Reduction Potential	4/3/23 3:32 PM	-68.9	mv
APCO- BY-AP-MW-8V	PH	pH	4/3/23 3:32 PM	6.51	SU
APCO- BY-AP-MW-8V	TEMP	Temperature	4/3/23 3:32 PM	21.31	C
APCO- BY-AP-MW-8V	TURB	Turbidity	4/3/23 3:32 PM	5.14	NTU
APCO- BY-AP-MW-8V	COND	Conductivity	4/3/23 3:37 PM	1142.75	uS/cm
APCO- BY-AP-MW-8V	DO	DO	4/3/23 3:37 PM	0.12	mg/L
APCO- BY-AP-MW-8V	DTW	Depth to Water Detail	4/3/23 3:37 PM	18.12	ft
APCO- BY-AP-MW-8V	ORP	Oxidation Reduction Potential	4/3/23 3:37 PM	-67.82	mv
APCO- BY-AP-MW-8V	PH	pH	4/3/23 3:37 PM	6.5	SU
APCO- BY-AP-MW-8V	SULFIDE	Sulfide	4/3/23 3:37 PM	0	mg/L
APCO- BY-AP-MW-8V	TEMP	Temperature	4/3/23 3:37 PM	21.45	C
APCO- BY-AP-MW-8V	TURB	Turbidity	4/3/23 3:37 PM	5.17	NTU
APCO- BY-AP-MW-9	COND	Conductivity	4/4/23 8:29 AM	560.66	uS/cm
APCO- BY-AP-MW-9	DO	DO	4/4/23 8:29 AM	0.16	mg/L
APCO- BY-AP-MW-9	DTW	Depth to Water Detail	4/4/23 8:29 AM	17.64	ft
APCO- BY-AP-MW-9	ORP	Oxidation Reduction Potential	4/4/23 8:29 AM	-86.17	mv
APCO- BY-AP-MW-9	PH	pH	4/4/23 8:29 AM	6.12	SU
APCO- BY-AP-MW-9	TEMP	Temperature	4/4/23 8:29 AM	21.37	C
APCO- BY-AP-MW-9	TURB	Turbidity	4/4/23 8:29 AM	3.75	NTU
APCO- BY-AP-MW-9	COND	Conductivity	4/4/23 8:34 AM	559.6	uS/cm
APCO- BY-AP-MW-9	DO	DO	4/4/23 8:34 AM	0.12	mg/L
APCO- BY-AP-MW-9	DTW	Depth to Water Detail	4/4/23 8:34 AM	17.64	ft
APCO- BY-AP-MW-9	ORP	Oxidation Reduction Potential	4/4/23 8:34 AM	-84.09	mv
APCO- BY-AP-MW-9	PH	pH	4/4/23 8:34 AM	6.14	SU
APCO- BY-AP-MW-9	TEMP	Temperature	4/4/23 8:34 AM	21.39	C
APCO- BY-AP-MW-9	TURB	Turbidity	4/4/23 8:34 AM	5.88	NTU
APCO- BY-AP-MW-9	COND	Conductivity	4/4/23 8:39 AM	558.55	uS/cm
APCO- BY-AP-MW-9	DO	DO	4/4/23 8:39 AM	0.11	mg/L
APCO- BY-AP-MW-9	DTW	Depth to Water Detail	4/4/23 8:39 AM	17.64	ft
APCO- BY-AP-MW-9	ORP	Oxidation Reduction Potential	4/4/23 8:39 AM	-81.72	mv
APCO- BY-AP-MW-9	PH	pH	4/4/23 8:39 AM	6.15	SU
APCO- BY-AP-MW-9	TEMP	Temperature	4/4/23 8:39 AM	21.39	C
APCO- BY-AP-MW-9	TURB	Turbidity	4/4/23 8:39 AM	4.42	NTU
APCO- BY-AP-MW-9	COND	Conductivity	4/4/23 8:44 AM	557.93	uS/cm
APCO- BY-AP-MW-9	DO	DO	4/4/23 8:44 AM	0.11	mg/L
APCO- BY-AP-MW-9	DTW	Depth to Water Detail	4/4/23 8:44 AM	17.64	ft
APCO- BY-AP-MW-9	ORP	Oxidation Reduction Potential	4/4/23 8:44 AM	-79.64	mv
APCO- BY-AP-MW-9	PH	pH	4/4/23 8:44 AM	6.15	SU
APCO- BY-AP-MW-9	SULFIDE	Sulfide	4/4/23 8:44 AM	0	mg/L
APCO- BY-AP-MW-9	TEMP	Temperature	4/4/23 8:44 AM	21.55	C
APCO- BY-AP-MW-9	TURB	Turbidity	4/4/23 8:44 AM	3.66	NTU
APCO- BY-AP-MW-10	COND	Conductivity	4/3/23 12:24 PM	663.05	uS/cm
APCO- BY-AP-MW-10	DO	DO	4/3/23 12:24 PM	0.23	mg/L
APCO- BY-AP-MW-10	DTW	Depth to Water Detail	4/3/23 12:24 PM	18.41	ft
APCO- BY-AP-MW-10	ORP	Oxidation Reduction Potential	4/3/23 12:24 PM	-75.26	mv
APCO- BY-AP-MW-10	PH	pH	4/3/23 12:24 PM	6.28	SU

Plant Barry Ash Pond
Field Parameter Summary

WELL ID	PARAMETER	DESCRIPTION	TIME OF READING	VALUE	UNIT
APCO- BY-AP-MW-10	TEMP	Temperature	4/3/23 12:24 PM	21.83	C
APCO- BY-AP-MW-10	TURB	Turbidity	4/3/23 12:24 PM	4.38	NTU
APCO- BY-AP-MW-10	COND	Conductivity	4/3/23 12:29 PM	653.68	uS/cm
APCO- BY-AP-MW-10	DO	DO	4/3/23 12:29 PM	0.19	mg/L
APCO- BY-AP-MW-10	DTW	Depth to Water Detail	4/3/23 12:29 PM	18.41	ft
APCO- BY-AP-MW-10	ORP	Oxidation Reduction Potential	4/3/23 12:29 PM	-69.56	mv
APCO- BY-AP-MW-10	PH	pH	4/3/23 12:29 PM	6.17	SU
APCO- BY-AP-MW-10	TEMP	Temperature	4/3/23 12:29 PM	21.86	C
APCO- BY-AP-MW-10	TURB	Turbidity	4/3/23 12:29 PM	3.3	NTU
APCO- BY-AP-MW-10	COND	Conductivity	4/3/23 12:34 PM	648.29	uS/cm
APCO- BY-AP-MW-10	DO	DO	4/3/23 12:34 PM	0.17	mg/L
APCO- BY-AP-MW-10	DTW	Depth to Water Detail	4/3/23 12:34 PM	18.41	ft
APCO- BY-AP-MW-10	ORP	Oxidation Reduction Potential	4/3/23 12:34 PM	-64.9	mv
APCO- BY-AP-MW-10	PH	pH	4/3/23 12:34 PM	6.09	SU
APCO- BY-AP-MW-10	TEMP	Temperature	4/3/23 12:34 PM	21.84	C
APCO- BY-AP-MW-10	TURB	Turbidity	4/3/23 12:34 PM	3.11	NTU
APCO- BY-AP-MW-10	COND	Conductivity	4/3/23 12:39 PM	644.19	uS/cm
APCO- BY-AP-MW-10	DO	DO	4/3/23 12:39 PM	0.17	mg/L
APCO- BY-AP-MW-10	DTW	Depth to Water Detail	4/3/23 12:39 PM	18.41	ft
APCO- BY-AP-MW-10	ORP	Oxidation Reduction Potential	4/3/23 12:39 PM	-62.3	mv
APCO- BY-AP-MW-10	PH	pH	4/3/23 12:39 PM	6.05	SU
APCO- BY-AP-MW-10	SULFIDE	Sulfide	4/3/23 12:39 PM	0	mg/L
APCO- BY-AP-MW-10	TEMP	Temperature	4/3/23 12:39 PM	21.82	C
APCO- BY-AP-MW-10	TURB	Turbidity	4/3/23 12:39 PM	2.92	NTU
APCO- BY-AP-MW-14	COND	Conductivity	4/5/23 11:17 AM	484	uS/cm
APCO- BY-AP-MW-14	DO	DO	4/5/23 11:17 AM	0.32	mg/L
APCO- BY-AP-MW-14	DTW	Depth to Water Detail	4/5/23 11:17 AM	5.94	ft
APCO- BY-AP-MW-14	ORP	Oxidation Reduction Potential	4/5/23 11:17 AM	-32.63	mv
APCO- BY-AP-MW-14	PH	pH	4/5/23 11:17 AM	6.1	SU
APCO- BY-AP-MW-14	TEMP	Temperature	4/5/23 11:17 AM	21.61	C
APCO- BY-AP-MW-14	TURB	Turbidity	4/5/23 11:17 AM	2.01	NTU
APCO- BY-AP-MW-14	COND	Conductivity	4/5/23 11:22 AM	491.69	uS/cm
APCO- BY-AP-MW-14	DO	DO	4/5/23 11:22 AM	0.27	mg/L
APCO- BY-AP-MW-14	DTW	Depth to Water Detail	4/5/23 11:22 AM	5.94	ft
APCO- BY-AP-MW-14	ORP	Oxidation Reduction Potential	4/5/23 11:22 AM	-29.04	mv
APCO- BY-AP-MW-14	PH	pH	4/5/23 11:22 AM	6.01	SU
APCO- BY-AP-MW-14	TEMP	Temperature	4/5/23 11:22 AM	21.66	C
APCO- BY-AP-MW-14	TURB	Turbidity	4/5/23 11:22 AM	1.95	NTU
APCO- BY-AP-MW-14	COND	Conductivity	4/5/23 11:27 AM	493.12	uS/cm
APCO- BY-AP-MW-14	DO	DO	4/5/23 11:27 AM	0.25	mg/L
APCO- BY-AP-MW-14	DTW	Depth to Water Detail	4/5/23 11:27 AM	5.94	ft
APCO- BY-AP-MW-14	ORP	Oxidation Reduction Potential	4/5/23 11:27 AM	-26.35	mv
APCO- BY-AP-MW-14	PH	pH	4/5/23 11:27 AM	5.96	SU
APCO- BY-AP-MW-14	TEMP	Temperature	4/5/23 11:27 AM	21.65	C
APCO- BY-AP-MW-14	TURB	Turbidity	4/5/23 11:27 AM	1.84	NTU
APCO- BY-AP-MW-14	COND	Conductivity	4/5/23 11:32 AM	492.29	uS/cm
APCO- BY-AP-MW-14	DO	DO	4/5/23 11:32 AM	0.24	mg/L
APCO- BY-AP-MW-14	DTW	Depth to Water Detail	4/5/23 11:32 AM	5.94	ft
APCO- BY-AP-MW-14	ORP	Oxidation Reduction Potential	4/5/23 11:32 AM	-25.06	mv
APCO- BY-AP-MW-14	PH	pH	4/5/23 11:32 AM	5.93	SU
APCO- BY-AP-MW-14	SULFIDE	Sulfide	4/5/23 11:32 AM	0	mg/L
APCO- BY-AP-MW-14	TEMP	Temperature	4/5/23 11:32 AM	21.7	C
APCO- BY-AP-MW-14	TURB	Turbidity	4/5/23 11:32 AM	1.88	NTU
APCO- BY-AP-MW-16V	COND	Conductivity	4/4/23 3:53 PM	300.29	uS/cm
APCO- BY-AP-MW-16V	DO	DO	4/4/23 3:53 PM	0.15	mg/L
APCO- BY-AP-MW-16V	DTW	Depth to Water Detail	4/4/23 3:53 PM	17.85	ft
APCO- BY-AP-MW-16V	ORP	Oxidation Reduction Potential	4/4/23 3:53 PM	135.72	mv
APCO- BY-AP-MW-16V	PH	pH	4/4/23 3:53 PM	5.29	SU
APCO- BY-AP-MW-16V	TEMP	Temperature	4/4/23 3:53 PM	22.31	C
APCO- BY-AP-MW-16V	TURB	Turbidity	4/4/23 3:53 PM	40.7	NTU

Plant Barry Ash Pond
Field Parameter Summary

WELL ID	PARAMETER	DESCRIPTION	TIME OF READING	VALUE	UNIT
APCO- BY-AP-MW-16V	COND	Conductivity	4/4/23 3:58 PM	300.2	uS/cm
APCO- BY-AP-MW-16V	DO	DO	4/4/23 3:58 PM	0.14	mg/L
APCO- BY-AP-MW-16V	DTW	Depth to Water Detail	4/4/23 3:58 PM	17.85	ft
APCO- BY-AP-MW-16V	ORP	Oxidation Reduction Potential	4/4/23 3:58 PM	143.74	mv
APCO- BY-AP-MW-16V	PH	pH	4/4/23 3:58 PM	5.14	SU
APCO- BY-AP-MW-16V	TEMP	Temperature	4/4/23 3:58 PM	22.29	C
APCO- BY-AP-MW-16V	TURB	Turbidity	4/4/23 3:58 PM	24.3	NTU
APCO- BY-AP-MW-16V	COND	Conductivity	4/4/23 4:03 PM	299.93	uS/cm
APCO- BY-AP-MW-16V	DO	DO	4/4/23 4:03 PM	0.15	mg/L
APCO- BY-AP-MW-16V	DTW	Depth to Water Detail	4/4/23 4:03 PM	17.85	ft
APCO- BY-AP-MW-16V	ORP	Oxidation Reduction Potential	4/4/23 4:03 PM	146.07	mv
APCO- BY-AP-MW-16V	PH	pH	4/4/23 4:03 PM	5.08	SU
APCO- BY-AP-MW-16V	TEMP	Temperature	4/4/23 4:03 PM	22.28	C
APCO- BY-AP-MW-16V	TURB	Turbidity	4/4/23 4:03 PM	18.4	NTU
APCO- BY-AP-MW-16V	COND	Conductivity	4/4/23 4:08 PM	299.65	uS/cm
APCO- BY-AP-MW-16V	DO	DO	4/4/23 4:08 PM	0.15	mg/L
APCO- BY-AP-MW-16V	DTW	Depth to Water Detail	4/4/23 4:08 PM	17.85	ft
APCO- BY-AP-MW-16V	ORP	Oxidation Reduction Potential	4/4/23 4:08 PM	145.99	mv
APCO- BY-AP-MW-16V	PH	pH	4/4/23 4:08 PM	5.03	SU
APCO- BY-AP-MW-16V	TEMP	Temperature	4/4/23 4:08 PM	22.17	C
APCO- BY-AP-MW-16V	TURB	Turbidity	4/4/23 4:08 PM	16.6	NTU
APCO- BY-AP-MW-16V	COND	Conductivity	4/4/23 4:13 PM	299.29	uS/cm
APCO- BY-AP-MW-16V	DO	DO	4/4/23 4:13 PM	0.15	mg/L
APCO- BY-AP-MW-16V	DTW	Depth to Water Detail	4/4/23 4:13 PM	17.85	ft
APCO- BY-AP-MW-16V	ORP	Oxidation Reduction Potential	4/4/23 4:13 PM	143.56	mv
APCO- BY-AP-MW-16V	PH	pH	4/4/23 4:13 PM	5	SU
APCO- BY-AP-MW-16V	TEMP	Temperature	4/4/23 4:13 PM	22.1	C
APCO- BY-AP-MW-16V	TURB	Turbidity	4/4/23 4:13 PM	13.5	NTU
APCO- BY-AP-MW-16V	COND	Conductivity	4/4/23 4:18 PM	299.52	uS/cm
APCO- BY-AP-MW-16V	DO	DO	4/4/23 4:18 PM	0.15	mg/L
APCO- BY-AP-MW-16V	DTW	Depth to Water Detail	4/4/23 4:18 PM	17.85	ft
APCO- BY-AP-MW-16V	ORP	Oxidation Reduction Potential	4/4/23 4:18 PM	139.86	mv
APCO- BY-AP-MW-16V	PH	pH	4/4/23 4:18 PM	4.98	SU
APCO- BY-AP-MW-16V	TEMP	Temperature	4/4/23 4:18 PM	22.06	C
APCO- BY-AP-MW-16V	TURB	Turbidity	4/4/23 4:18 PM	11.1	NTU
APCO- BY-AP-MW-16V	COND	Conductivity	4/4/23 4:23 PM	298.77	uS/cm
APCO- BY-AP-MW-16V	DO	DO	4/4/23 4:23 PM	0.15	mg/L
APCO- BY-AP-MW-16V	DTW	Depth to Water Detail	4/4/23 4:23 PM	17.85	ft
APCO- BY-AP-MW-16V	ORP	Oxidation Reduction Potential	4/4/23 4:23 PM	136.61	mv
APCO- BY-AP-MW-16V	PH	pH	4/4/23 4:23 PM	4.97	SU
APCO- BY-AP-MW-16V	TEMP	Temperature	4/4/23 4:23 PM	22.09	C
APCO- BY-AP-MW-16V	TURB	Turbidity	4/4/23 4:23 PM	9.47	NTU
APCO- BY-AP-MW-16V	COND	Conductivity	4/4/23 4:28 PM	298.93	uS/cm
APCO- BY-AP-MW-16V	DO	DO	4/4/23 4:28 PM	0.15	mg/L
APCO- BY-AP-MW-16V	DTW	Depth to Water Detail	4/4/23 4:28 PM	17.85	ft
APCO- BY-AP-MW-16V	ORP	Oxidation Reduction Potential	4/4/23 4:28 PM	134.31	mv
APCO- BY-AP-MW-16V	PH	pH	4/4/23 4:28 PM	4.97	SU
APCO- BY-AP-MW-16V	SULFIDE	Sulfide	4/4/23 4:28 PM	0	mg/L
APCO- BY-AP-MW-16V	TEMP	Temperature	4/4/23 4:28 PM	22.07	C
APCO- BY-AP-MW-16V	TURB	Turbidity	4/4/23 4:28 PM	8.86	NTU
APCO- BY-AP-MW-18H	COND	Conductivity	4/5/23 9:05 AM	124.13	uS/cm
APCO- BY-AP-MW-18H	DO	DO	4/5/23 9:05 AM	0.28	mg/L
APCO- BY-AP-MW-18H	DTW	Depth to Water Detail	4/5/23 9:05 AM	3.67	ft
APCO- BY-AP-MW-18H	ORP	Oxidation Reduction Potential	4/5/23 9:05 AM	-93.21	mv
APCO- BY-AP-MW-18H	PH	pH	4/5/23 9:05 AM	6.31	SU
APCO- BY-AP-MW-18H	TEMP	Temperature	4/5/23 9:05 AM	18.15	C
APCO- BY-AP-MW-18H	TURB	Turbidity	4/5/23 9:05 AM	6.11	NTU
APCO- BY-AP-MW-18H	COND	Conductivity	4/5/23 9:10 AM	123.93	uS/cm
APCO- BY-AP-MW-18H	DO	DO	4/5/23 9:10 AM	0.22	mg/L
APCO- BY-AP-MW-18H	DTW	Depth to Water Detail	4/5/23 9:10 AM	3.67	ft

Plant Barry Ash Pond
Field Parameter Summary

WELL ID	PARAMETER	DESCRIPTION	TIME OF READING	VALUE	UNIT
APCO- BY-AP-MW-18H	ORP	Oxidation Reduction Potential	4/5/23 9:10 AM	-83.57	mv
APCO- BY-AP-MW-18H	PH	pH	4/5/23 9:10 AM	6.18	SU
APCO- BY-AP-MW-18H	TEMP	Temperature	4/5/23 9:10 AM	18.16	C
APCO- BY-AP-MW-18H	TURB	Turbidity	4/5/23 9:10 AM	4.89	NTU
APCO- BY-AP-MW-18H	COND	Conductivity	4/5/23 9:15 AM	122.81	uS/cm
APCO- BY-AP-MW-18H	DO	DO	4/5/23 9:15 AM	0.19	mg/L
APCO- BY-AP-MW-18H	DTW	Depth to Water Detail	4/5/23 9:15 AM	3.67	ft
APCO- BY-AP-MW-18H	ORP	Oxidation Reduction Potential	4/5/23 9:15 AM	-81.06	mv
APCO- BY-AP-MW-18H	PH	pH	4/5/23 9:15 AM	6.15	SU
APCO- BY-AP-MW-18H	TEMP	Temperature	4/5/23 9:15 AM	18.07	C
APCO- BY-AP-MW-18H	TURB	Turbidity	4/5/23 9:15 AM	4.45	NTU
APCO- BY-AP-MW-18H	COND	Conductivity	4/5/23 9:20 AM	124.04	uS/cm
APCO- BY-AP-MW-18H	DO	DO	4/5/23 9:20 AM	0.22	mg/L
APCO- BY-AP-MW-18H	DTW	Depth to Water Detail	4/5/23 9:20 AM	3.67	ft
APCO- BY-AP-MW-18H	ORP	Oxidation Reduction Potential	4/5/23 9:20 AM	-79.95	mv
APCO- BY-AP-MW-18H	PH	pH	4/5/23 9:20 AM	6.15	SU
APCO- BY-AP-MW-18H	SULFIDE	Sulfide	4/5/23 9:20 AM	0	mg/L
APCO- BY-AP-MW-18H	TEMP	Temperature	4/5/23 9:20 AM	18.15	C
APCO- BY-AP-MW-18H	TURB	Turbidity	4/5/23 9:20 AM	4.13	NTU
APCO- BY-AP-MW-15V	COND	Conductivity	4/24/23 2:34 PM	640.4	uS/cm
APCO- BY-AP-MW-15V	DO	DO	4/24/23 2:34 PM	0.14	mg/L
APCO- BY-AP-MW-15V	DTW	Depth to Water Detail	4/24/23 2:34 PM	4.45	ft
APCO- BY-AP-MW-15V	ORP	Oxidation Reduction Potential	4/24/23 2:34 PM	49.58	mv
APCO- BY-AP-MW-15V	PH	pH	4/24/23 2:34 PM	5.52	SU
APCO- BY-AP-MW-15V	TEMP	Temperature	4/24/23 2:34 PM	20.64	C
APCO- BY-AP-MW-15V	TURB	Turbidity	4/24/23 2:34 PM	3.14	NTU
APCO- BY-AP-MW-15V	COND	Conductivity	4/24/23 2:39 PM	675.65	uS/cm
APCO- BY-AP-MW-15V	DO	DO	4/24/23 2:39 PM	0.11	mg/L
APCO- BY-AP-MW-15V	DTW	Depth to Water Detail	4/24/23 2:39 PM	4.45	ft
APCO- BY-AP-MW-15V	ORP	Oxidation Reduction Potential	4/24/23 2:39 PM	42.79	mv
APCO- BY-AP-MW-15V	PH	pH	4/24/23 2:39 PM	5.59	SU
APCO- BY-AP-MW-15V	TEMP	Temperature	4/24/23 2:39 PM	20.68	C
APCO- BY-AP-MW-15V	TURB	Turbidity	4/24/23 2:39 PM	1	NTU
APCO- BY-AP-MW-15V	COND	Conductivity	4/24/23 2:44 PM	676.71	uS/cm
APCO- BY-AP-MW-15V	DO	DO	4/24/23 2:44 PM	0.1	mg/L
APCO- BY-AP-MW-15V	DTW	Depth to Water Detail	4/24/23 2:44 PM	4.45	ft
APCO- BY-AP-MW-15V	ORP	Oxidation Reduction Potential	4/24/23 2:44 PM	38.59	mv
APCO- BY-AP-MW-15V	PH	pH	4/24/23 2:44 PM	5.6	SU
APCO- BY-AP-MW-15V	TEMP	Temperature	4/24/23 2:44 PM	20.67	C
APCO- BY-AP-MW-15V	TURB	Turbidity	4/24/23 2:44 PM	1.67	NTU
APCO- BY-AP-MW-15V	COND	Conductivity	4/24/23 2:49 PM	676.76	uS/cm
APCO- BY-AP-MW-15V	DO	DO	4/24/23 2:49 PM	0.12	mg/L
APCO- BY-AP-MW-15V	DTW	Depth to Water Detail	4/24/23 2:49 PM	4.45	ft
APCO- BY-AP-MW-15V	ORP	Oxidation Reduction Potential	4/24/23 2:49 PM	37.07	mv
APCO- BY-AP-MW-15V	PH	pH	4/24/23 2:49 PM	5.61	SU
APCO- BY-AP-MW-15V	TEMP	Temperature	4/24/23 2:49 PM	20.68	C
APCO- BY-AP-MW-15V	TURB	Turbidity	4/24/23 2:49 PM	10.56	NTU
APCO- BY-AP-MW-15V	COND	Conductivity	4/24/23 2:54 PM	676.95	uS/cm
APCO- BY-AP-MW-15V	DO	DO	4/24/23 2:54 PM	0.11	mg/L
APCO- BY-AP-MW-15V	DTW	Depth to Water Detail	4/24/23 2:54 PM	4.45	ft
APCO- BY-AP-MW-15V	ORP	Oxidation Reduction Potential	4/24/23 2:54 PM	36.2	mv
APCO- BY-AP-MW-15V	PH	pH	4/24/23 2:54 PM	5.61	SU
APCO- BY-AP-MW-15V	TEMP	Temperature	4/24/23 2:54 PM	20.7	C
APCO- BY-AP-MW-15V	TURB	Turbidity	4/24/23 2:54 PM	10.87	NTU
APCO- BY-AP-MW-15V	COND	Conductivity	4/24/23 2:59 PM	675.79	uS/cm
APCO- BY-AP-MW-15V	DO	DO	4/24/23 2:59 PM	0.1	mg/L
APCO- BY-AP-MW-15V	DTW	Depth to Water Detail	4/24/23 2:59 PM	4.45	ft
APCO- BY-AP-MW-15V	ORP	Oxidation Reduction Potential	4/24/23 2:59 PM	36.12	mv
APCO- BY-AP-MW-15V	PH	pH	4/24/23 2:59 PM	5.61	SU
APCO- BY-AP-MW-15V	SULFIDE	Sulfide	4/24/23 2:59 PM	0	mg/L

Plant Barry Ash Pond
Field Parameter Summary

WELL ID	PARAMETER	DESCRIPTION	TIME OF READING	VALUE	UNIT
APCO- BY-AP-MW-15V	TEMP	Temperature	4/24/23 2:59 PM	20.74	C
APCO- BY-AP-MW-15V	TURB	Turbidity	4/24/23 2:59 PM	4.37	NTU
APCO- BY-AP-MW-22H	COND	Conductivity	4/24/23 1:48 PM	649.62	uS/cm
APCO- BY-AP-MW-22H	DO	DO	4/24/23 1:48 PM	0.39	mg/L
APCO- BY-AP-MW-22H	DTW	Depth to Water Detail	4/24/23 1:48 PM	5.39	ft
APCO- BY-AP-MW-22H	ORP	Oxidation Reduction Potential	4/24/23 1:48 PM	-74.06	mv
APCO- BY-AP-MW-22H	PH	pH	4/24/23 1:48 PM	6.37	SU
APCO- BY-AP-MW-22H	TEMP	Temperature	4/24/23 1:48 PM	19.96	C
APCO- BY-AP-MW-22H	TURB	Turbidity	4/24/23 1:48 PM	1.76	NTU
APCO- BY-AP-MW-22H	COND	Conductivity	4/24/23 1:53 PM	653.04	uS/cm
APCO- BY-AP-MW-22H	DO	DO	4/24/23 1:53 PM	0.15	mg/L
APCO- BY-AP-MW-22H	DTW	Depth to Water Detail	4/24/23 1:53 PM	5.39	ft
APCO- BY-AP-MW-22H	ORP	Oxidation Reduction Potential	4/24/23 1:53 PM	-82.62	mv
APCO- BY-AP-MW-22H	PH	pH	4/24/23 1:53 PM	6.4	SU
APCO- BY-AP-MW-22H	TEMP	Temperature	4/24/23 1:53 PM	19.99	C
APCO- BY-AP-MW-22H	TURB	Turbidity	4/24/23 1:53 PM	2.42	NTU
APCO- BY-AP-MW-22H	COND	Conductivity	4/24/23 1:58 PM	659.68	uS/cm
APCO- BY-AP-MW-22H	DO	DO	4/24/23 1:58 PM	0.09	mg/L
APCO- BY-AP-MW-22H	DTW	Depth to Water Detail	4/24/23 1:58 PM	5.39	ft
APCO- BY-AP-MW-22H	ORP	Oxidation Reduction Potential	4/24/23 1:58 PM	-91	mv
APCO- BY-AP-MW-22H	PH	pH	4/24/23 1:58 PM	6.45	SU
APCO- BY-AP-MW-22H	TEMP	Temperature	4/24/23 1:58 PM	20.02	C
APCO- BY-AP-MW-22H	TURB	Turbidity	4/24/23 1:58 PM	1.38	NTU
APCO- BY-AP-MW-22H	COND	Conductivity	4/24/23 2:03 PM	660.41	uS/cm
APCO- BY-AP-MW-22H	DO	DO	4/24/23 2:03 PM	0.04	mg/L
APCO- BY-AP-MW-22H	DTW	Depth to Water Detail	4/24/23 2:03 PM	5.39	ft
APCO- BY-AP-MW-22H	ORP	Oxidation Reduction Potential	4/24/23 2:03 PM	-94.71	mv
APCO- BY-AP-MW-22H	PH	pH	4/24/23 2:03 PM	6.46	SU
APCO- BY-AP-MW-22H	SULFIDE	Sulfide	4/24/23 2:03 PM	0	mg/L
APCO- BY-AP-MW-22H	TEMP	Temperature	4/24/23 2:03 PM	20.02	C
APCO- BY-AP-MW-22H	TURB	Turbidity	4/24/23 2:03 PM	0.91	NTU
APCO- BY-AP-MW-20H	COND	Conductivity	4/24/23 3:49 PM	756.51	uS/cm
APCO- BY-AP-MW-20H	DO	DO	4/24/23 3:49 PM	0.09	mg/L
APCO- BY-AP-MW-20H	DTW	Depth to Water Detail	4/24/23 3:49 PM	6.92	ft
APCO- BY-AP-MW-20H	ORP	Oxidation Reduction Potential	4/24/23 3:49 PM	-64.54	mv
APCO- BY-AP-MW-20H	PH	pH	4/24/23 3:49 PM	6.24	SU
APCO- BY-AP-MW-20H	TEMP	Temperature	4/24/23 3:49 PM	19.81	C
APCO- BY-AP-MW-20H	TURB	Turbidity	4/24/23 3:49 PM	1.18	NTU
APCO- BY-AP-MW-20H	COND	Conductivity	4/24/23 3:54 PM	752.84	uS/cm
APCO- BY-AP-MW-20H	DO	DO	4/24/23 3:54 PM	0.05	mg/L
APCO- BY-AP-MW-20H	DTW	Depth to Water Detail	4/24/23 3:54 PM	6.92	ft
APCO- BY-AP-MW-20H	ORP	Oxidation Reduction Potential	4/24/23 3:54 PM	-67.68	mv
APCO- BY-AP-MW-20H	PH	pH	4/24/23 3:54 PM	6.21	SU
APCO- BY-AP-MW-20H	TEMP	Temperature	4/24/23 3:54 PM	19.81	C
APCO- BY-AP-MW-20H	TURB	Turbidity	4/24/23 3:54 PM	2.19	NTU
APCO- BY-AP-MW-20H	COND	Conductivity	4/24/23 3:59 PM	754.21	uS/cm
APCO- BY-AP-MW-20H	DO	DO	4/24/23 3:59 PM	0.04	mg/L
APCO- BY-AP-MW-20H	DTW	Depth to Water Detail	4/24/23 3:59 PM	6.92	ft
APCO- BY-AP-MW-20H	ORP	Oxidation Reduction Potential	4/24/23 3:59 PM	-68.92	mv
APCO- BY-AP-MW-20H	PH	pH	4/24/23 3:59 PM	6.18	SU
APCO- BY-AP-MW-20H	TEMP	Temperature	4/24/23 3:59 PM	19.82	C
APCO- BY-AP-MW-20H	TURB	Turbidity	4/24/23 3:59 PM	0.51	NTU
APCO- BY-AP-MW-20H	COND	Conductivity	4/24/23 4:04 PM	759.26	uS/cm
APCO- BY-AP-MW-20H	DO	DO	4/24/23 4:04 PM	0.04	mg/L
APCO- BY-AP-MW-20H	DTW	Depth to Water Detail	4/24/23 4:04 PM	6.92	ft
APCO- BY-AP-MW-20H	ORP	Oxidation Reduction Potential	4/24/23 4:04 PM	-69.55	mv
APCO- BY-AP-MW-20H	PH	pH	4/24/23 4:04 PM	6.16	SU
APCO- BY-AP-MW-20H	SULFIDE	Sulfide	4/24/23 4:04 PM	0	mg/L
APCO- BY-AP-MW-20H	TEMP	Temperature	4/24/23 4:04 PM	19.83	C
APCO- BY-AP-MW-20H	TURB	Turbidity	4/24/23 4:04 PM	1.8	NTU

Plant Barry Ash Pond
Field Parameter Summary

WELL ID	PARAMETER	DESCRIPTION	TIME OF READING	VALUE	UNIT
APCO- BY-AP-MW-20V	COND	Conductivity	4/24/23 12:40 PM	282.47	uS/cm
APCO- BY-AP-MW-20V	DO	DO	4/24/23 12:40 PM	0.38	mg/L
APCO- BY-AP-MW-20V	DTW	Depth to Water Detail	4/24/23 12:40 PM	22.9	ft
APCO- BY-AP-MW-20V	ORP	Oxidation Reduction Potential	4/24/23 12:40 PM	8.17	mv
APCO- BY-AP-MW-20V	PH	pH	4/24/23 12:40 PM	6.4	SU
APCO- BY-AP-MW-20V	TEMP	Temperature	4/24/23 12:40 PM	20.34	C
APCO- BY-AP-MW-20V	TURB	Turbidity	4/24/23 12:40 PM	2.56	NTU
APCO- BY-AP-MW-20V	COND	Conductivity	4/24/23 12:45 PM	283.85	uS/cm
APCO- BY-AP-MW-20V	DO	DO	4/24/23 12:45 PM	0.25	mg/L
APCO- BY-AP-MW-20V	DTW	Depth to Water Detail	4/24/23 12:45 PM	22.9	ft
APCO- BY-AP-MW-20V	ORP	Oxidation Reduction Potential	4/24/23 12:45 PM	-22.8	mv
APCO- BY-AP-MW-20V	PH	pH	4/24/23 12:45 PM	6.4	SU
APCO- BY-AP-MW-20V	TEMP	Temperature	4/24/23 12:45 PM	20.22	C
APCO- BY-AP-MW-20V	TURB	Turbidity	4/24/23 12:45 PM	4.86	NTU
APCO- BY-AP-MW-20V	COND	Conductivity	4/24/23 12:50 PM	282.32	uS/cm
APCO- BY-AP-MW-20V	DO	DO	4/24/23 12:50 PM	0.25	mg/L
APCO- BY-AP-MW-20V	DTW	Depth to Water Detail	4/24/23 12:50 PM	22.9	ft
APCO- BY-AP-MW-20V	ORP	Oxidation Reduction Potential	4/24/23 12:50 PM	-31.67	mv
APCO- BY-AP-MW-20V	PH	pH	4/24/23 12:50 PM	6.35	SU
APCO- BY-AP-MW-20V	TEMP	Temperature	4/24/23 12:50 PM	20.24	C
APCO- BY-AP-MW-20V	TURB	Turbidity	4/24/23 12:50 PM	5.7	NTU
APCO- BY-AP-MW-20V	COND	Conductivity	4/24/23 12:55 PM	283.31	uS/cm
APCO- BY-AP-MW-20V	DO	DO	4/24/23 12:55 PM	0.2	mg/L
APCO- BY-AP-MW-20V	DTW	Depth to Water Detail	4/24/23 12:55 PM	22.9	ft
APCO- BY-AP-MW-20V	ORP	Oxidation Reduction Potential	4/24/23 12:55 PM	-38.79	mv
APCO- BY-AP-MW-20V	PH	pH	4/24/23 12:55 PM	6.35	SU
APCO- BY-AP-MW-20V	SULFIDE	Sulfide	4/24/23 12:55 PM	0	mg/L
APCO- BY-AP-MW-20V	TEMP	Temperature	4/24/23 12:55 PM	20.16	C
APCO- BY-AP-MW-20V	TURB	Turbidity	4/24/23 12:55 PM	6.16	NTU
APCO- BY-AP-MW-19H	COND	Conductivity	4/24/23 4:36 PM	133.83	uS/cm
APCO- BY-AP-MW-19H	DO	DO	4/24/23 4:36 PM	0.06	mg/L
APCO- BY-AP-MW-19H	DTW	Depth to Water Detail	4/24/23 4:36 PM	6.95	ft
APCO- BY-AP-MW-19H	ORP	Oxidation Reduction Potential	4/24/23 4:36 PM	15.88	mv
APCO- BY-AP-MW-19H	PH	pH	4/24/23 4:36 PM	5.87	SU
APCO- BY-AP-MW-19H	TEMP	Temperature	4/24/23 4:36 PM	20.01	C
APCO- BY-AP-MW-19H	TURB	Turbidity	4/24/23 4:36 PM	6.14	NTU
APCO- BY-AP-MW-19H	COND	Conductivity	4/24/23 4:41 PM	147.94	uS/cm
APCO- BY-AP-MW-19H	DO	DO	4/24/23 4:41 PM	0.03	mg/L
APCO- BY-AP-MW-19H	DTW	Depth to Water Detail	4/24/23 4:41 PM	6.95	ft
APCO- BY-AP-MW-19H	ORP	Oxidation Reduction Potential	4/24/23 4:41 PM	15.24	mv
APCO- BY-AP-MW-19H	PH	pH	4/24/23 4:41 PM	5.91	SU
APCO- BY-AP-MW-19H	TEMP	Temperature	4/24/23 4:41 PM	20.03	C
APCO- BY-AP-MW-19H	TURB	Turbidity	4/24/23 4:41 PM	2.19	NTU
APCO- BY-AP-MW-19H	COND	Conductivity	4/24/23 4:46 PM	173.34	uS/cm
APCO- BY-AP-MW-19H	DO	DO	4/24/23 4:46 PM	0.02	mg/L
APCO- BY-AP-MW-19H	DTW	Depth to Water Detail	4/24/23 4:46 PM	6.95	ft
APCO- BY-AP-MW-19H	ORP	Oxidation Reduction Potential	4/24/23 4:46 PM	4.23	mv
APCO- BY-AP-MW-19H	PH	pH	4/24/23 4:46 PM	6	SU
APCO- BY-AP-MW-19H	TEMP	Temperature	4/24/23 4:46 PM	20.04	C
APCO- BY-AP-MW-19H	TURB	Turbidity	4/24/23 4:46 PM	3.99	NTU
APCO- BY-AP-MW-19H	COND	Conductivity	4/24/23 4:51 PM	201.76	uS/cm
APCO- BY-AP-MW-19H	DO	DO	4/24/23 4:51 PM	0.02	mg/L
APCO- BY-AP-MW-19H	DTW	Depth to Water Detail	4/24/23 4:51 PM	6.95	ft
APCO- BY-AP-MW-19H	ORP	Oxidation Reduction Potential	4/24/23 4:51 PM	-8.98	mv
APCO- BY-AP-MW-19H	PH	pH	4/24/23 4:51 PM	6.08	SU
APCO- BY-AP-MW-19H	TEMP	Temperature	4/24/23 4:51 PM	20.05	C
APCO- BY-AP-MW-19H	TURB	Turbidity	4/24/23 4:51 PM	2.84	NTU
APCO- BY-AP-MW-19H	COND	Conductivity	4/24/23 4:56 PM	239.37	uS/cm
APCO- BY-AP-MW-19H	DO	DO	4/24/23 4:56 PM	0.02	mg/L
APCO- BY-AP-MW-19H	DTW	Depth to Water Detail	4/24/23 4:56 PM	6.95	ft

Plant Barry Ash Pond
Field Parameter Summary

WELL ID	PARAMETER	DESCRIPTION	TIME OF READING	VALUE	UNIT
APCO- BY-AP-MW-19H	ORP	Oxidation Reduction Potential	4/24/23 4:56 PM	-21.81	mv
APCO- BY-AP-MW-19H	PH	pH	4/24/23 4:56 PM	6.15	SU
APCO- BY-AP-MW-19H	TEMP	Temperature	4/24/23 4:56 PM	20.06	C
APCO- BY-AP-MW-19H	TURB	Turbidity	4/24/23 4:56 PM	1.25	NTU
APCO- BY-AP-MW-19H	COND	Conductivity	4/24/23 5:01 PM	263.76	uS/cm
APCO- BY-AP-MW-19H	DO	DO	4/24/23 5:01 PM	0.03	mg/L
APCO- BY-AP-MW-19H	DTW	Depth to Water Detail	4/24/23 5:01 PM	6.95	ft
APCO- BY-AP-MW-19H	ORP	Oxidation Reduction Potential	4/24/23 5:01 PM	-33.08	mv
APCO- BY-AP-MW-19H	PH	pH	4/24/23 5:01 PM	6.21	SU
APCO- BY-AP-MW-19H	TEMP	Temperature	4/24/23 5:01 PM	20.04	C
APCO- BY-AP-MW-19H	TURB	Turbidity	4/24/23 5:01 PM	1.45	NTU
APCO- BY-AP-MW-19H	COND	Conductivity	4/24/23 5:06 PM	290.62	uS/cm
APCO- BY-AP-MW-19H	DO	DO	4/24/23 5:06 PM	0.02	mg/L
APCO- BY-AP-MW-19H	DTW	Depth to Water Detail	4/24/23 5:06 PM	6.95	ft
APCO- BY-AP-MW-19H	ORP	Oxidation Reduction Potential	4/24/23 5:06 PM	-41.61	mv
APCO- BY-AP-MW-19H	PH	pH	4/24/23 5:06 PM	6.26	SU
APCO- BY-AP-MW-19H	TEMP	Temperature	4/24/23 5:06 PM	20.06	C
APCO- BY-AP-MW-19H	TURB	Turbidity	4/24/23 5:06 PM	1.28	NTU
APCO- BY-AP-MW-19H	COND	Conductivity	4/24/23 5:11 PM	310.58	uS/cm
APCO- BY-AP-MW-19H	DO	DO	4/24/23 5:11 PM	0.03	mg/L
APCO- BY-AP-MW-19H	DTW	Depth to Water Detail	4/24/23 5:11 PM	6.95	ft
APCO- BY-AP-MW-19H	ORP	Oxidation Reduction Potential	4/24/23 5:11 PM	-48.35	mv
APCO- BY-AP-MW-19H	PH	pH	4/24/23 5:11 PM	6.28	SU
APCO- BY-AP-MW-19H	TEMP	Temperature	4/24/23 5:11 PM	20.05	C
APCO- BY-AP-MW-19H	TURB	Turbidity	4/24/23 5:11 PM	1.15	NTU
APCO- BY-AP-MW-19H	COND	Conductivity	4/24/23 5:16 PM	334.61	uS/cm
APCO- BY-AP-MW-19H	DO	DO	4/24/23 5:16 PM	0.02	mg/L
APCO- BY-AP-MW-19H	DTW	Depth to Water Detail	4/24/23 5:16 PM	6.95	ft
APCO- BY-AP-MW-19H	ORP	Oxidation Reduction Potential	4/24/23 5:16 PM	-53.88	mv
APCO- BY-AP-MW-19H	PH	pH	4/24/23 5:16 PM	6.3	SU
APCO- BY-AP-MW-19H	TEMP	Temperature	4/24/23 5:16 PM	20.05	C
APCO- BY-AP-MW-19H	TURB	Turbidity	4/24/23 5:16 PM	1.43	NTU
APCO- BY-AP-MW-19H	COND	Conductivity	4/24/23 5:21 PM	352.84	uS/cm
APCO- BY-AP-MW-19H	DO	DO	4/24/23 5:21 PM	0.02	mg/L
APCO- BY-AP-MW-19H	DTW	Depth to Water Detail	4/24/23 5:21 PM	6.95	ft
APCO- BY-AP-MW-19H	ORP	Oxidation Reduction Potential	4/24/23 5:21 PM	-58.32	mv
APCO- BY-AP-MW-19H	PH	pH	4/24/23 5:21 PM	6.31	SU
APCO- BY-AP-MW-19H	TEMP	Temperature	4/24/23 5:21 PM	20.05	C
APCO- BY-AP-MW-19H	TURB	Turbidity	4/24/23 5:21 PM	1.3	NTU
APCO- BY-AP-MW-19H	COND	Conductivity	4/24/23 5:26 PM	372.08	uS/cm
APCO- BY-AP-MW-19H	DO	DO	4/24/23 5:26 PM	0.02	mg/L
APCO- BY-AP-MW-19H	DTW	Depth to Water Detail	4/24/23 5:26 PM	6.95	ft
APCO- BY-AP-MW-19H	ORP	Oxidation Reduction Potential	4/24/23 5:26 PM	-62.17	mv
APCO- BY-AP-MW-19H	PH	pH	4/24/23 5:26 PM	6.32	SU
APCO- BY-AP-MW-19H	TEMP	Temperature	4/24/23 5:26 PM	20.05	C
APCO- BY-AP-MW-19H	TURB	Turbidity	4/24/23 5:26 PM	1.23	NTU
APCO- BY-AP-MW-19H	COND	Conductivity	4/24/23 5:31 PM	384.6	uS/cm
APCO- BY-AP-MW-19H	DO	DO	4/24/23 5:31 PM	0.02	mg/L
APCO- BY-AP-MW-19H	DTW	Depth to Water Detail	4/24/23 5:31 PM	6.95	ft
APCO- BY-AP-MW-19H	ORP	Oxidation Reduction Potential	4/24/23 5:31 PM	-65.42	mv
APCO- BY-AP-MW-19H	PH	pH	4/24/23 5:31 PM	6.33	SU
APCO- BY-AP-MW-19H	TEMP	Temperature	4/24/23 5:31 PM	20.05	C
APCO- BY-AP-MW-19H	TURB	Turbidity	4/24/23 5:31 PM	1.5	NTU
APCO- BY-AP-MW-19H	COND	Conductivity	4/24/23 5:36 PM	405.7	uS/cm
APCO- BY-AP-MW-19H	DO	DO	4/24/23 5:36 PM	0.02	mg/L
APCO- BY-AP-MW-19H	DTW	Depth to Water Detail	4/24/23 5:36 PM	6.95	ft
APCO- BY-AP-MW-19H	ORP	Oxidation Reduction Potential	4/24/23 5:36 PM	-68.31	mv
APCO- BY-AP-MW-19H	PH	pH	4/24/23 5:36 PM	6.34	SU
APCO- BY-AP-MW-19H	TEMP	Temperature	4/24/23 5:36 PM	20.05	C
APCO- BY-AP-MW-19H	TURB	Turbidity	4/24/23 5:36 PM	1.43	NTU

Plant Barry Ash Pond
Field Parameter Summary

WELL ID	PARAMETER	DESCRIPTION	TIME OF READING	VALUE	UNIT
APCO- BY-AP-MW-19H	COND	Conductivity	4/24/23 5:41 PM	414.85	uS/cm
APCO- BY-AP-MW-19H	DO	DO	4/24/23 5:41 PM	0.02	mg/L
APCO- BY-AP-MW-19H	DTW	Depth to Water Detail	4/24/23 5:41 PM	6.95	ft
APCO- BY-AP-MW-19H	ORP	Oxidation Reduction Potential	4/24/23 5:41 PM	-70.93	mv
APCO- BY-AP-MW-19H	PH	pH	4/24/23 5:41 PM	6.34	SU
APCO- BY-AP-MW-19H	TEMP	Temperature	4/24/23 5:41 PM	20.05	C
APCO- BY-AP-MW-19H	TURB	Turbidity	4/24/23 5:41 PM	0.77	NTU
APCO- BY-AP-MW-19H	COND	Conductivity	4/24/23 5:46 PM	430.32	uS/cm
APCO- BY-AP-MW-19H	DO	DO	4/24/23 5:46 PM	0.02	mg/L
APCO- BY-AP-MW-19H	DTW	Depth to Water Detail	4/24/23 5:46 PM	6.95	ft
APCO- BY-AP-MW-19H	ORP	Oxidation Reduction Potential	4/24/23 5:46 PM	-72.86	mv
APCO- BY-AP-MW-19H	PH	pH	4/24/23 5:46 PM	6.34	SU
APCO- BY-AP-MW-19H	TEMP	Temperature	4/24/23 5:46 PM	20.05	C
APCO- BY-AP-MW-19H	TURB	Turbidity	4/24/23 5:46 PM	0.85	NTU
APCO- BY-AP-MW-19H	COND	Conductivity	4/24/23 5:51 PM	435.36	uS/cm
APCO- BY-AP-MW-19H	DO	DO	4/24/23 5:51 PM	0.02	mg/L
APCO- BY-AP-MW-19H	DTW	Depth to Water Detail	4/24/23 5:51 PM	6.95	ft
APCO- BY-AP-MW-19H	ORP	Oxidation Reduction Potential	4/24/23 5:51 PM	-75.26	mv
APCO- BY-AP-MW-19H	PH	pH	4/24/23 5:51 PM	6.35	SU
APCO- BY-AP-MW-19H	SULFIDE	Sulfide	4/24/23 5:51 PM	0	mg/L
APCO- BY-AP-MW-19H	TEMP	Temperature	4/24/23 5:51 PM	20.04	C
APCO- BY-AP-MW-19H	TURB	Turbidity	4/24/23 5:51 PM	0.9	NTU

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040
205-664-6001

Analytical Report



Sample Group : WMWBARPU_1406

Project/Site : Barry Pooled Upgradient
Bucks, AL 36512

For : Southern Company Services
3535 Colonnade Parkway
Birmingham, AL 35243

Attention : Dustin Brooks & Greg Dyer

Released By : Brooke Caton
tbwill@southernco.com
(205) 664-6101

May 08, 2023

Dear Dustin Brooks,

Enclosed are the analytical results for sample(s) received by the laboratory on April 14, 2023. All results reported herein conform to the laboratory's most current Quality Assurance Manual. Results marked with an asterisk conform to the most current applicable TNI/NELAC requirements. Exceptions will be noted in the body of the report.

Laboratory certification ID: E571114
Issued By: State of Florida, Department of Health
Expiration: June 30, 2023

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Quality Control: **Brooke
Caton**

Digitally signed by Brooke
Caton
Date: 2023.05.08
15:00:53 -05'00'

Supervision: **T Durant
Maske**

Digitally signed by T Durant Maske
DN: cn=T Durant Maske, gn=T Durant Maske, c=US,
United States, +41US, United States,
e=t.durante@southernco.com
Reason: I am the author of this document
Location:
Date: 2023-05-09 07:47:06-00



REPORT OF LABORATORY ANALYSIS

This Certificate states the physical and/or chemical characteristics of the sample as submitted.
This document shall not be reproduced, except in full, without written consent from
Alabama Power's General Test Laboratory.



Total Metals ICP

Barry Pooled Upgradient

WMWBARPU_1406

1. This report consists of all MWs and corresponding Lab IDs listed on the Chain of Custody.
2. Refer to comments on Chain of Custody for information regarding sample receipt.
3. All standards and solutions meet NELAP traceability requirements and were used within their recommended shelf life.

<u>Sample ID</u>	<u>Batch ID</u>	<u>Project ID</u>
BD07411	752636	WMWBARPU_1406
BD07412	752636	WMWBARPU_1406
BD07413	752636	WMWBARPU_1406
BD07414	752636	WMWBARPU_1406
BD07415	752636	WMWBARPU_1406
BD07416	752636	WMWBARPU_1406
BD07417	752636	WMWBARPU_1406

4. All of the above samples were analyzed by EPA 200.7 and prepared by EPA 1638.
5. All samples were prepared and analyzed within the established hold times.
6. All in house quality control procedures were followed, as described below.

General Quality Control Procedures:

- Prior to sample analysis, an initial calibration verification (ICV) was analyzed, and all criteria were met.
- Following the ICV, an initial calibration blank (ICB) was analyzed, and all criteria were met.
- All continued calibration verification (CCV) were within the acceptance criteria for the requested analytes.
- All continued calibration blanks (CCB) were analyzed, and all criteria were met.
- A preparation method blank and laboratory control sample were digested and analyzed with the samples in each digestion batch.
- All laboratory control sample criteria were met.
- The method blank associated with each digestion batch passed all acceptance criteria for all requested analytes.
- All calibration curve requirements were within acceptance criteria.
- All sample internal standard criteria were met.
- The spectral interference check associated with EPA 200.7 was analyzed and all acceptance criteria were met.
- It is noted that the QC summary page typically provides the QC results from the original batch analytical sequence. If dilutions were subsequently performed to bring sample concentrations within the calibration range, any additional QC data from the dilution analyses may need to be obtained from the laboratory. Any qualifications applied to original analyses or dilution re-analyses are based upon QC data available at the time of review.

Matrix Specific Quality Control Procedures:

Similarity of matrix and therefore relevance of matrix specific QC results should not be automatically inferred for any sample other than the sample selected for QC.

- A matrix spike and matrix spike duplicate were digested and analyzed with each ICP batch. All acceptance criteria for accuracy were met.
 - A matrix spike and matrix spike duplicate were digested and analyzed with each ICP batch. All acceptance criteria for precision were met.
7. All samples were analyzed without a dilution factor.
 8. The raw data results are shown with dilution factors included.

Dissolved Metals ICP

Barry Pooled Upgradient

WMWBARPU_1406

1. This report consists of all MWs and corresponding Lab IDs listed on the Chain of Custody.
2. Refer to comments on Chain of Custody for information regarding sample receipt.
3. All standards and solutions meet NELAP traceability requirements and were used within their recommended shelf life.

<u>Sample ID</u>	<u>Batch ID</u>	<u>Project ID</u>
BD07411	752618	WMWBARPU_1406
BD07412	752618	WMWBARPU_1406
BD07413	752618	WMWBARPU_1406
BD07414	752618	WMWBARPU_1406
BD07415	752618	WMWBARPU_1406

4. All of the above samples were analyzed and prepared by EPA 200.7 for dissolved analysis.
5. All samples were prepared and analyzed within the established hold times.
6. All in house quality control procedures were followed, as described below.

General Quality Control Procedures:

- Prior to sample analysis, an initial calibration verification (ICV) was analyzed, and all criteria were met.
- Following the ICV, an initial calibration blank (ICB) was analyzed, and all criteria were met.
- All continued calibration verification (CCV) were within the acceptance criteria for the requested analytes.
- All continued calibration blanks (CCB) were analyzed, and all criteria were met.
- Due to no filtered method blank (MB) or laboratory control sample (LCS) submitted with the sample set, an unfiltered MB and LCS were analyzed with the samples in each batch.
- All laboratory control sample criteria were met.
- The method blank associated with each batch passed all acceptance criteria for all requested analytes.
- All calibration curve requirements were within acceptance criteria.
- All sample internal standard criteria were met.
- The spectral interference check associated with EPA 200.7 was analyzed and all acceptance criteria were met.
- It is noted that the QC summary page typically provides the QC results from the original batch analytical sequence. If dilutions were subsequently performed to bring sample concentrations within the calibration range, any additional QC data from the dilution analyses may need to be obtained from the laboratory. Any qualifications applied to original analyses or dilution re-analyses are based upon QC data available at the time of review.

Matrix Specific Quality Control Procedures:

Revision 5

Similarity of matrix and therefore relevance of matrix specific QC results should not be automatically inferred for any sample other than the sample selected for QC.

- A matrix spike and matrix spike duplicate were analyzed with each ICP batch. All acceptance criteria for accuracy were met.
 - A matrix spike and matrix spike duplicate were analyzed with each ICP batch. All acceptance criteria for precision were met.
7. All samples were analyzed without a dilution factor.
 8. The raw data results are shown with dilution factors included.

Total Metals ICPMS

Barry Pooled Upgradient

WMWBARPU_1406

1. This report consists of all MWs and corresponding Lab IDs listed on the Chain of Custody.
2. Refer to comments on Chain of Custody for information regarding sample receipt.
3. All standards and solutions meet NELAP traceability requirements and were used within their recommended shelf life.

<u>Sample ID</u>	<u>Batch ID</u>	<u>Project ID</u>
BD07411	753293	WMWBARPU_1406
BD07412	753293	WMWBARPU_1406
BD07413	753293	WMWBARPU_1406
BD07414	753293	WMWBARPU_1406
BD07415	753293	WMWBARPU_1406
BD07416	753293	WMWBARPU_1406
BD07417	753293	WMWBARPU_1406

4. All of the above samples were analyzed by EPA 200.8 and prepared by EPA 1638.
5. All samples were prepared and analyzed within the established hold times.
6. All in house quality control procedures were followed, as described below.

General Quality Control Procedures:

- All tune and calibration met criteria for all requested analytes.
- Prior to sample analysis, an initial calibration verification (ICV) was analyzed, and all criteria were met.
- Following the ICV, an initial calibration blank (ICB) was analyzed and was below the limit of quantitation for all requested analytes.
- All continued calibration verification (CCV) were within the acceptance criteria for the requested analytes.
- All continued calibration blanks (CCB) were below the limit of quantitation for the requested analytes.
- A preparation method blank and laboratory control sample were digested and analyzed with the samples in each digestion batch.
- All laboratory control sample criteria were met.
- The method blank associated with each digestion batch passed all acceptance criteria for all requested analytes.
- The interference check samples associated with EPA 200.8 were analyzed and passed for all requested analytes.
- All sample internal standard criteria were met.
- It is noted that the QC summary page typically provides the QC results from the original batch analytical sequence. If dilutions were subsequently performed to bring sample concentrations within the calibration range, any additional QC data from the dilution analyses may need to be obtained from the laboratory. Any

qualifications applied to original analyses or dilution re-analyses are based upon QC data available at the time of review.

Matrix Specific Quality Control Procedures:

Similarity of matrix and therefore relevance of matrix specific QC results should not be automatically inferred for any sample other than the sample selected for QC.

- A matrix spike and matrix spike duplicate were digested and analyzed with each ICPMS batch. All acceptance criteria for accuracy were met.
 - A matrix spike and matrix spike duplicate were digested and analyzed with each ICPMS batch. All acceptance criteria for precision were met.
7. All samples were analyzed without a dilution factor.
 8. The raw data results are shown with dilution factors included.

Dissolved Metals ICPMS

Barry Pooled Upgradient

WMWBARPU_1406

1. This report consists of all MWs and corresponding Lab IDs listed on the Chain of Custody.
2. Refer to comments on Chain of Custody for information regarding sample receipt.
3. All standards and solutions meet NELAP traceability requirements and were used within their recommended shelf life.

<u>Sample ID</u>	<u>Batch ID</u>	<u>Project ID</u>
BD07411	753322	WMWBARPU_1406
BD07412	753322	WMWBARPU_1406
BD07413	753322	WMWBARPU_1406
BD07414	753322	WMWBARPU_1406
BD07415	753322	WMWBARPU_1406

4. All of the above samples were analyzed and prepared by EPA 200.8 for dissolved analysis.
5. All samples were prepared and analyzed within the established hold times.
6. All in house quality control procedures were followed, as described below.

General Quality Control Procedures:

- All tune and calibration met criteria for all requested analytes.
- Prior to sample analysis, an initial calibration verification (ICV) was analyzed, and all criteria were met.
- Following the ICV, an initial calibration blank (ICB) was analyzed and was below the limit of quantitation for all requested analytes.
- All continued calibration verification (CCV) were within the acceptance criteria for the requested analytes.
- All continued calibration blanks (CCB) were below the limit of quantitation for the requested analytes.
- Due to no filtered method blank (MB) or laboratory control sample (LCS) submitted with the sample set, an unfiltered MB and LCS were analyzed with the samples in each batch.
- All laboratory control sample criteria were met.
- The method blank associated with each preparation batch passed all acceptance criteria for all requested analytes.
- The interference check samples associated with EPA 200.8 were analyzed and passed for all requested analytes.
- All sample internal standard criteria were met.
- It is noted that the QC summary page typically provides the QC results from the original batch analytical sequence. If dilutions were subsequently performed to bring sample concentrations within the calibration range, any additional QC data from the dilution analyses may need to be obtained from the laboratory. Any qualifications applied to original analyses or dilution re-analyses are based upon QC data available at the time of review.

Matrix Specific Quality Control Procedures:

Similarity of matrix and therefore relevance of matrix specific QC results should not be automatically inferred for any sample other than the sample selected for QC.

- A matrix spike and matrix spike duplicate were analyzed with each ICPMS batch. All acceptance criteria for accuracy were met.
 - A matrix spike and matrix spike duplicate were analyzed with each ICPMS batch. All acceptance criteria for precision were met.
7. All samples were analyzed without a dilution factor.
 8. The raw data results are shown with dilution factors included.

Mercury

Barry Pooled Upgradient

WMWBARPU_1406

1. This report consists of all MWs and corresponding Lab IDs listed on the Chain of Custody.
2. Refer to comments on Chain of Custody for information regarding sample receipt.
3. All standards and solutions meet NELAP traceability requirements and were used within their recommended shelf life.

<u>Sample ID</u>	<u>Batch ID</u>	<u>Project ID</u>
BD07411	753077	WMWBARPU_1406
BD07412	753077	WMWBARPU_1406
BD07413	753077	WMWBARPU_1406
BD07414	753077	WMWBARPU_1406
BD07415	753077	WMWBARPU_1406
BD07416	753077	WMWBARPU_1406
BD07417	753077	WMWBARPU_1406

4. All of the above samples were analyzed and prepared by EPA 245.1.
5. All samples were prepared and analyzed within the established hold times.
6. All in house quality control procedures were followed, as described below.

General Quality Control Procedures:

- Prior to sample analysis, an initial calibration verification (ICV) was analyzed, and all criteria were met.
- Following the ICV, an initial calibration blank (ICB) was analyzed and was below the method detection limit for the requested analyte.
- All continued calibration verification (CCV) were within the acceptance criteria for the requested analyte.
- All continued calibration blanks (CCB) were below the limit of quantitation for the requested analyte.
- A preparation method blank and laboratory control sample were digested and analyzed with the samples in each digestion batch.
- All laboratory control sample criteria were met.
- The method blank associated with each digestion batch was below the limit of quantitation for the requested analyte.
- All calibration met criteria for the requested analyte.
- All response signals were satisfactory.

Matrix Specific Quality Control Procedures:

Similarity of matrix and therefore relevance of matrix specific QC results should not be automatically inferred for any sample other than the sample selected for QC.

Revision 5

- A matrix spike and matrix spike duplicate were digested and analyzed with each batch. All acceptance criteria for accuracy were met.
 - A matrix spike and matrix spike duplicate were digested and analyzed with each batch. All acceptance criteria for precision were met.
7. All samples were analyzed without a dilution factor.

Total Dissolved Solids

Barry Pooled Upgradient

WMWBARPU_1406

1. This report consists of all MWs and corresponding Lab IDs listed on the Chain of Custody.
2. Refer to comments on Chain of Custody for information regarding sample receipt.
3. All standards and solutions meet NELAP traceability requirements and were used within their recommended shelf life.

<u>Sample ID</u>	<u>Batch ID</u>	<u>Project ID</u>
BD07411	752520	WMWBARPU_1406
BD07412	752520	WMWBARPU_1406
BD07413	752520	WMWBARPU_1406
BD07414	752520	WMWBARPU_1406
BD07415	752520	WMWBARPU_1406
BD07416	752520	WMWBARPU_1406
BD07417	752520	WMWBARPU_1406

4. All of the above samples were prepared and analyzed by Standard Method 2540C.
5. All samples were prepared and analyzed within the established hold times.
6. All in house quality control procedures were followed, as described below.

General Quality Control Procedures:

- A Method Blank was analyzed with each batch. All criteria were met.
- All final weights of samples, standards, and blanks agreed within 0.5mg of the previous weight.
- A sample duplicate was analyzed with each batch, and RPD was $\leq 10\%$.
- A laboratory control sample was analyzed with each batch. All criteria were met.
- Samples were between 2.5mg and 200mg residue.
- All samples with residue $< 2.5\text{mg}$ had the maximum volume of 150mL filtered. Affected samples are as follows:
 - BD07415
 - BD07416
 - BD07417

Alkalinity

Barry Pooled Upgradient

WMWBARPU_1406

1. This report consists of all MWs and corresponding Lab IDs listed on the Chain of Custody.
2. Refer to comments on Chain of Custody for information regarding sample receipt.
3. All standards and solutions meet NELAP traceability requirements and were used within their recommended shelf life.

<u>Sample ID</u>	<u>Batch ID</u>	<u>Project ID</u>
BD07411	753827, 753829, 753830	WMWBARPU_1406
BD07412	753827, 753829, 753830	WMWBARPU_1406
BD07413	753827, 753829, 753830	WMWBARPU_1406
BD07414	753827, 753829, 753830	WMWBARPU_1406
BD07415	753827, 753829, 753830	WMWBARPU_1406

4. All of the above samples were prepared and analyzed by Standard Method 2320B.
5. All samples were prepared and analyzed within the established hold times.
6. All in house quality control procedures were followed, as described below.

General Quality Control Procedures:

- An initial pH check was analyzed with each batch. The acceptance criteria were met.
- A final pH check was analyzed with each batch. The acceptance criteria were met.
- An alkalinity laboratory control sample was analyzed with each batch. Range criteria of within 10% of true value was met.
- An alkalinity sample duplicate was analyzed with each batch. Precision criteria less than 10 RPD was met, except for the following:
 - BD07415 Precision is out of specification limit.

Anions

Barry Pooled Upgradient

WMWBARPU_1406

1. This report consists of all MWs and corresponding Lab IDs listed on the Chain of Custody.
2. Refer to comments on Chain of Custody for information regarding sample receipt.
3. All standards and solutions meet NELAP traceability requirements and were used within their recommended shelf life.

<u>Sample ID</u>	<u>Batch ID</u>	<u>Project ID</u>
BD07411	752951, 752953, 752699	WMWBARPU_1406
BD07412	752951, 752953, 752699	WMWBARPU_1406
BD07413	752951, 752953, 752699	WMWBARPU_1406
BD07414	752951, 752953, 752699	WMWBARPU_1406
BD07415	752951, 752953, 752699	WMWBARPU_1406
BD07416	752951, 752953, 752699	WMWBARPU_1406
BD07417	752951, 752953, 752699	WMWBARPU_1406

4. All of the above samples were analyzed and prepared by SM4500 Cl E, SM4500 F G, and SM4500 SO4 E.
5. All samples were prepared and analyzed within the established hold times.
6. All in house quality control procedures were followed, as described below.

General Quality Control Procedures:

- All calibration met criteria for the requested analyte.
- Prior to sample analysis, an initial calibration verification (ICV) was analyzed, and all criteria were met.
- Prior to sample analysis, an initial calibration blank (ICB) was analyzed and was below half the limit of quantitation for the requested analyte.
- All continued calibration verification (CCV) were within the acceptance criteria for the requested analyte.
- All continued calibration blanks (CCB) were below the limit of quantitation for the requested analyte.
- It is noted that the QC summary page typically provides the QC results from the original batch analytical sequence. If dilutions were subsequently performed to bring sample concentrations within the calibration range, any additional QC data from the dilution analyses may need to be obtained from the laboratory. Any qualifications applied to original analyses or dilution re-analyses are based upon QC data available at the time of review.

Matrix Specific Quality Control Procedures:

Similarity of matrix and therefore relevance of matrix specific QC results should not be automatically inferred for any sample other than the sample selected for QC.

- A matrix spike and matrix spike duplicate were analyzed with each batch. All acceptance criteria for accuracy were met.
 - A matrix spike and matrix spike duplicate were analyzed with each batch. All acceptance criteria for precision were met.
7. All samples were analyzed without dilution.

Nitrate-Nitrite

Barry Pooled Upgradient

WMWBARPU_1406

1. This report consists of all MWs and corresponding Lab IDs listed on the Chain of Custody.
2. Refer to comments on Chain of Custody for information regarding sample receipt.
3. All standards and solutions meet NELAP traceability requirements and were used within their recommended shelf life.

<u>Sample ID</u>	<u>Batch ID</u>	<u>Project ID</u>
BD07411	752617	WMWBARPU_1406
BD07412	752617	WMWBARPU_1406
BD07413	752617	WMWBARPU_1406
BD07414	752617	WMWBARPU_1406
BD07415	752617	WMWBARPU_1406
BD07416	752617	WMWBARPU_1406
BD07417	752617	WMWBARPU_1406

4. All of the above samples were prepared and analyzed for NO_x by EPA 353.2.
5. All samples were prepared and analyzed within the established hold times.
6. All in house quality control procedures were followed, as described below.

General Quality Control Procedures:

- Water baseline report was run and met criteria.
- All calibration met criteria for the requested analytes.
- Prior to sample analysis, an initial calibration verification (ICV) was analyzed and met all criteria.
- All continued calibration verification (CCV) were within the acceptance criteria.
- Prior to sample analysis, an initial calibration blank (ICB) was analyzed and were below limit of detection.
- All continued calibration blanks (CCB) were below the limit of detection.

EPA 353.2 Specific QC:

- Prior to sample analysis, Cadmium coil reduction efficiency check met criteria.
- Matrix Specific QC:
 - A sample duplicate was run and criteria for precision was met.
 - A matrix spike was run and criteria for accuracy was met.
- 7. All samples were analyzed without a dilution factor.
- 8. The raw data results are shown with dilution factors included.

Total Organic Carbon

Barry Pooled Upgradient

WMWBARPU_1406

1. This report consists of all MWs and corresponding Lab IDs listed on the Chain of Custody.
2. Refer to comments on Chain of Custody for information regarding sample receipt.
3. All standards and solutions meet NELAP traceability requirements and were used within their recommended shelf life.

<u>Sample ID</u>	<u>Batch ID</u>	<u>Project ID</u>
BD07411	752565	WMWBARPU_1406
BD07412	752565	WMWBARPU_1406
BD07413	752565	WMWBARPU_1406
BD07414	752565	WMWBARPU_1406
BD07415	752565	WMWBARPU_1406
BD07416	752565	WMWBARPU_1406
BD07417	752565	WMWBARPU_1406

4. All of the above samples were prepared and analyzed by Standard Method 5310B.
5. All samples were prepared and analyzed within the established hold times.
6. All in house quality control procedures were followed, as described below.

General Quality Control Procedures:

- All calibration criteria were met.
- Prior to sample analysis, an initial calibration verification (ICV) was analyzed and met all criteria.
- Prior to sample analysis, an initial calibration blank (ICB) was analyzed and was <1/2RL.
- All continued calibration verifications (CCVs) were within the acceptance range.
- All continued calibration blanks (CCBs) were <1/2RL.

Matrix Specific Quality Control Procedures:

- A matrix spike and matrix spike duplicate were analyzed with each batch. All acceptance criteria for accuracy were met.
- A matrix spike and matrix spike duplicate were analyzed with each batch. All acceptance criteria for precision were met.

7. All samples were analyzed without a dilution factor.
8. The raw data results are shown with dilution factors included.

Certificate Of Analysis

Description: Barry Pooled Upgradient - MW-4

Location Code: WMWBARPU
Collected: 4/12/23 09:51
Customer ID:
Submittal Date: 4/14/23 10:53

Laboratory ID Number: BD07411

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q	
Analytical Method: EPA 200.7		Analyst: ABB			Preparation Method: EPA 1638					
* Boron, Total	4/17/23 11:50	4/19/23 10:55		1.015	Not Detected	mg/L	0.030000	0.1015	U	
* Calcium, Total	4/17/23 11:50	4/19/23 10:55		1.015	1.76	mg/L	0.070035	0.406		
* Iron, Total	4/17/23 11:50	4/19/23 10:55		1.015	0.0726	mg/L	0.008120	0.0406		
* Lithium, Total	4/17/23 11:50	4/19/23 10:55		1.015	Not Detected	mg/L	0.007105	0.01999956	U	
* Magnesium, Total	4/17/23 11:50	4/19/23 10:55		1.015	1.94	mg/L	0.021315	0.406		
* Molybdenum, Total	4/17/23 11:50	4/19/23 10:55		1.015	Not Detected	mg/L	0.005075	0.01015	U	
* Silica, Total (calc.)	4/17/23 11:50	4/19/23 10:55		1	9.05	mg/L				
* Silicon, Total	4/17/23 11:50	4/19/23 10:55		1.015	4.23	mg/L	0.02030	0.25375		
* Sodium, Total	4/17/23 11:50	4/19/23 10:55		1.015	2.61	mg/L	0.04060	0.406		
Analytical Method: EPA 200.7		Analyst: ABB			Preparation Method: EPA 1638					
* Boron, Dissolved	4/17/23 09:38	4/19/23 10:20		1.015	Not Detected	mg/L	0.030000	0.1015	U	
* Calcium, Dissolved	4/17/23 09:38	4/19/23 10:20		1.015	1.75	mg/L	0.070035	0.406		
* Iron, Dissolved	4/17/23 09:38	4/19/23 10:20		1.015	Not Detected	mg/L	0.008120	0.0406	U	
* Lithium, Dissolved	4/17/23 09:38	4/19/23 10:20		1.015	Not Detected	mg/L	0.007105	0.01999956	U	
* Magnesium, Dissolved	4/17/23 09:38	4/19/23 10:20		1.015	1.93	mg/L	0.021315	0.406		
* Molybdenum, Dissolved	4/17/23 09:38	4/19/23 10:20		1.015	Not Detected	mg/L	0.005075	0.01015	U	
* Silica, Dissolved (calc.)	4/17/23 09:38	4/19/23 10:20		1	8.73	mg/L				
* Silicon, Dissolved	4/17/23 09:38	4/19/23 10:20		1.015	4.08	mg/L	0.02030	0.25375		
* Sodium, Dissolved	4/17/23 09:38	4/19/23 10:20		1.015	2.62	mg/L	0.04060	0.406		
Analytical Method: EPA 200.8		Analyst: DLJ			Preparation Method: EPA 1638					
* Antimony, Total	4/17/23 11:50	4/17/23 13:02		1.015	Not Detected	mg/L	0.000710	0.001015	U	
* Aluminum, Total	4/17/23 11:50	4/17/23 13:02		1.015	0.154	mg/L	0.009135	0.05075		
* Arsenic, Total	4/17/23 11:50	4/17/23 13:02		1.015	0.000114	mg/L	0.000112	0.000203	J	
* Barium, Total	4/17/23 11:50	4/17/23 13:02		1.015	0.116	mg/L	0.000508	0.001015		
* Beryllium, Total	4/17/23 11:50	4/17/23 13:02		1.015	Not Detected	mg/L	0.000406	0.001015	U	
* Cadmium, Total	4/17/23 11:50	4/17/23 13:02		1.015	Not Detected	mg/L	0.000068	0.000203	U	
* Chromium, Total	4/17/23 11:50	4/17/23 13:02		1.015	0.00128	mg/L	0.000203	0.001015		
* Cobalt, Total	4/17/23 11:50	4/17/23 13:02		1.015	0.00127	mg/L	0.000068	0.000203		
* Lead, Total	4/17/23 11:50	4/17/23 13:02		1.015	0.0000865	mg/L	0.000068	0.000203	J	
* Manganese, Total	4/17/23 11:50	4/17/23 13:02		1.015	0.0159	mg/L	0.000152	0.001015		

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Barry Pooled Upgradient - MW-4

Location Code: WMWBARPU
Collected: 4/12/23 09:51
Customer ID:
Submittal Date: 4/14/23 10:53

Laboratory ID Number: BD07411

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
* Potassium, Total	4/17/23 11:50	4/17/23 13:02		1.015	0.944	mg/L	0.169505	0.5075	
* Selenium, Total	4/17/23 11:50	4/17/23 13:02		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Total	4/17/23 11:50	4/17/23 13:02		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 200.8		Analyst: DLJ							
* Antimony, Dissolved	4/17/23 09:38	4/17/23 09:57		1.015	Not Detected	mg/L	0.000710	0.001015	U
* Aluminum, Dissolved	4/17/23 09:38	4/17/23 09:57		1.015	0.0275	mg/L	0.009135	0.05075	J
* Arsenic, Dissolved	4/17/23 09:38	4/17/23 09:57		1.015	Not Detected	mg/L	0.000112	0.000203	U
* Barium, Dissolved	4/17/23 09:38	4/17/23 09:57		1.015	0.115	mg/L	0.000508	0.001015	
* Beryllium, Dissolved	4/17/23 09:38	4/17/23 09:57		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Dissolved	4/17/23 09:38	4/17/23 09:57		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Dissolved	4/17/23 09:38	4/17/23 09:57		1.015	0.000911	mg/L	0.000203	0.001015	J
* Cobalt, Dissolved	4/17/23 09:38	4/17/23 09:57		1.015	0.00125	mg/L	0.000068	0.000203	
* Lead, Dissolved	4/17/23 09:38	4/17/23 09:57		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Dissolved	4/17/23 09:38	4/17/23 09:57		1.015	0.0158	mg/L	0.000152	0.001015	
* Potassium, Dissolved	4/17/23 09:38	4/17/23 09:57		1.015	0.961	mg/L	0.169505	0.5075	
* Selenium, Dissolved	4/17/23 09:38	4/17/23 09:57		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Dissolved	4/17/23 09:38	4/17/23 09:57		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 245.1		Analyst: CRB							
* Mercury, Total by CVAA	4/20/23 18:26	4/21/23 01:12		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: EPA 353.2		Analyst: SC							
* Nitrogen, Nitrate/Nitrite	4/17/23 15:23	4/17/23 15:23		1	2.09	mg/L as N	0.20	0.3	
Analytical Method: SM 2320 B		Analyst: ALH							
* Alkalinity to pH 4.5	4/25/23 10:52	4/25/23 11:47		1	1.20	mg CaCO3/L		0.10	
Analytical Method: SM 2540C		Analyst: CNJ							
* Solids, Dissolved	4/14/23 13:40	4/17/23 13:45		1	32.0	mg/L		25	
Analytical Method: SM 4500CO2 D		Analyst: ALH							
* Bicarbonate Alkalinity, (calc.)	4/25/23 10:52	4/25/23 11:47		1	1.20	mg CaCO3/L		1	
* Carbonate Alkalinity, (calc.)	4/25/23 10:52	4/25/23 11:47		1	Not Detected	mg CaCO3/L		0.5	
Analytical Method: SM 5310 B		Analyst: SC							
* Total Organic Carbon	4/17/23 17:28	4/17/23 17:28		1	Not Detected	mg/L	1.00	2	U

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Barry Pooled Upgradient - MW-4

Location Code: WMWBARPU

Collected: 4/12/23 09:51

Customer ID:

Submittal Date: 4/14/23 10:53

Laboratory ID Number: BD07411

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM4500Cl E		Analyst: JCC							
* Chloride	4/19/23 11:44	4/19/23 11:44		1	3.42	mg/L	0.50	1	
Analytical Method: SM4500F G 2017		Analyst: JCC							
* Fluoride	4/19/23 12:57	4/19/23 12:57		1	Not Detected	mg/L	0.06	0.125	U
Analytical Method: SM4500SO4 E 2011		Analyst: JCC							
* Sulfate	4/18/23 09:47	4/18/23 09:47		1	5.93	mg/L	0.6	2	
Analytical Method: Field Measurements		Analyst: TJD							
Conductivity	4/12/23 09:47	4/12/23 09:47			57.67	uS/cm			FA
pH	4/12/23 09:47	4/12/23 09:47			4.73	SU			FA
Temperature	4/12/23 09:47	4/12/23 09:47			20.79	C			FA
Turbidity	4/12/23 09:47	4/12/23 09:47			4.96	NTU			FA
Sulfide	4/12/23 09:47	4/12/23 09:47			0	mg/L			FA

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWBARPU
Sample Date: 4/12/23 09:51
Customer ID:
Delivery Date: 4/14/23 10:53

Description: Barry Pooled Upgradient - MW-4

Laboratory ID Number: BD07411

Sample	Analysis	Units	MB	MB				Standard		Rec		Prec	Limit
				Limit	Spike	MS	MSD	Standard	Limit	Rec	Limit		
BD07415	Aluminum, Dissolved	mg/L	-0.000203	0.0198	0.100	0.152	0.153	0.101	0.0850 to 0.115	96.0	70.0 to 130	0.656	20.0
BD07417	Aluminum, Total	mg/L	0.000313	0.0198	0.100	0.0965	0.0975	0.0986	0.0850 to 0.115	96.5	70.0 to 130	1.03	20.0
BD07415	Antimony, Dissolved	mg/L	0.000286	0.00100	0.100	0.0904	0.0930	0.0926	0.0850 to 0.115	90.4	70.0 to 130	2.84	20.0
BD07417	Antimony, Total	mg/L	0.000390	0.00100	0.100	0.0912	0.0914	0.0889	0.0850 to 0.115	91.2	70.0 to 130	0.219	20.0
BD07415	Arsenic, Dissolved	mg/L	0.0000131	0.000200	0.100	0.0991	0.0998	0.100	0.0850 to 0.115	99.0	70.0 to 130	0.704	20.0
BD07417	Arsenic, Total	mg/L	0.0000162	0.000200	0.100	0.0986	0.0999	0.100	0.0850 to 0.115	98.6	70.0 to 130	1.31	20.0
BD07415	Barium, Dissolved	mg/L	0.0000409	0.00100	0.100	0.178	0.178	0.0981	0.0850 to 0.115	97.9	70.0 to 130	0.00	20.0
BD07417	Barium, Total	mg/L	0.0000205	0.00100	0.100	0.0983	0.101	0.104	0.0850 to 0.115	98.3	70.0 to 130	2.71	20.0
BD07415	Beryllium, Dissolved	mg/L	0.0000340	0.000880	0.100	0.0970	0.101	0.100	0.0850 to 0.115	97.0	70.0 to 130	4.04	20.0
BD07417	Beryllium, Total	mg/L	0.0000276	0.000880	0.100	0.101	0.101	0.0988	0.0850 to 0.115	101	70.0 to 130	0.00	20.0
BD07415	Boron, Dissolved	mg/L	-0.000211	0.0650	1.00	1.05	1.06	1.02	0.850 to 1.15	100	70.0 to 130	0.948	20.0
BD07417	Boron, Total	mg/L	-0.000030	0.0650	1.00	0.997	0.992	1.01	0.850 to 1.15	99.7	70.0 to 130	0.503	20.0
BD07415	Cadmium, Dissolved	mg/L	-0.0000003	0.000147	0.100	0.100	0.102	0.101	0.0850 to 0.115	100	70.0 to 130	1.98	20.0
BD07417	Cadmium, Total	mg/L	0.0000025	0.000147	0.100	0.0972	0.0983	0.101	0.0850 to 0.115	97.2	70.0 to 130	1.13	20.0
BD07415	Calcium, Dissolved	mg/L	-0.00525	0.152	5.00	5.80	5.94	4.91	4.25 to 5.75	95.4	70.0 to 130	2.39	20.0
BD07417	Calcium, Total	mg/L	-0.00628	0.152	5.00	5.00	4.88	4.94	4.25 to 5.75	100	70.0 to 130	2.43	20.0
BD07417	Chloride	mg/L	0.0658	1.00	10.0	11.1	11.2	11.0	9.00 to 11.0	111	80.0 to 120	0.897	20.0
BD07415	Chromium, Dissolved	mg/L	-0.0000139	0.000440	0.100	0.101	0.101	0.102	0.0850 to 0.115	101	70.0 to 130	0.00	20.0
BD07417	Chromium, Total	mg/L	-0.0000146	0.000440	0.100	0.0964	0.0994	0.101	0.0850 to 0.115	96.4	70.0 to 130	3.06	20.0
BD07415	Cobalt, Dissolved	mg/L	-0.0000973	0.000147	0.100	0.106	0.107	0.104	0.0850 to 0.115	102	70.0 to 130	0.939	20.0
BD07417	Cobalt, Total	mg/L	-0.0000965	0.000147	0.100	0.0988	0.100	0.103	0.0850 to 0.115	98.8	70.0 to 130	1.21	20.0
BD07417	Fluoride	mg/L	0.0394	0.125	2.50	2.57	2.64	2.58	2.25 to 2.75	103	80.0 to 120	2.69	20.0
BD07415	Iron, Dissolved	mg/L	0.00271	0.0176	0.2	3.84	3.84	0.202	0.170 to 0.230	90.0	70.0 to 130	0.00	20.0
BD07417	Iron, Total	mg/L	0.000031	0.0176	0.2	0.198	0.197	0.199	0.170 to 0.230	99.0	70.0 to 130	0.506	20.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWBARPU
Sample Date: 4/12/23 09:51
Customer ID:
Delivery Date: 4/14/23 10:53

Description: Barry Pooled Upgradient - MW-4

Laboratory ID Number: BD07411

Sample	Analysis	Units	MB		Spike	MS	MSD	Standard		Rec		Prec	Limit
			MB	Limit				Standard	Limit	Rec	Limit		
BD07415	Lead, Dissolved	mg/L	0.000064	0.000147	0.100	0.102	0.102	0.105	0.0850 to 0.115	102	70.0 to 130	0.00	20.0
BD07417	Lead, Total	mg/L	0.0000071	0.000147	0.100	0.103	0.105	0.104	0.0850 to 0.115	103	70.0 to 130	1.92	20.0
BD07415	Lithium, Dissolved	mg/L	0.00066	0.0154	0.200	0.200	0.198	0.196	0.170 to 0.230	100	70.0 to 130	1.01	20.0
BD07417	Lithium, Total	mg/L	0.00114	0.0154	0.200	0.193	0.195	0.196	0.170 to 0.230	96.5	70.0 to 130	1.03	20.0
BD07415	Magnesium, Dissolved	mg/L	0.00859	0.0462	5.00	6.72	6.78	4.90	4.25 to 5.75	97.2	70.0 to 130	0.889	20.0
BD07417	Magnesium, Total	mg/L	0.00979	0.0462	5.00	4.95	4.90	4.96	4.25 to 5.75	99.0	70.0 to 130	1.02	20.0
BD07415	Manganese, Dissolved	mg/L	0.0000117	0.00033	0.100	0.241	0.242	0.105	0.0850 to 0.115	102	70.0 to 130	0.414	20.0
BD07417	Manganese, Total	mg/L	0.0000023	0.00033	0.100	0.0994	0.101	0.104	0.0850 to 0.115	99.4	70.0 to 130	1.60	20.0
BD07415	Mercury, Total by CVAA	mg/L	0.000	0.000500	0.004	0.00396	0.00398	0.00393	0.00340 to 0.00460	99.0	70.0 to 130	0.504	20.0
BD07415	Molybdenum, Dissolved	mg/L	0.00135	0.0100	0.2	0.197	0.199	0.199	0.170 to 0.230	98.5	70.0 to 130	1.01	20.0
BD07417	Molybdenum, Total	mg/L	0.001	0.0100	0.2	0.196	0.196	0.197	0.170 to 0.230	98.0	70.0 to 130	0.00	20.0
BD07415	Potassium, Dissolved	mg/L	0.00156	0.367	10.0	10.2	10.3	9.98	8.50 to 11.5	97.2	70.0 to 130	0.976	20.0
BD07417	Potassium, Total	mg/L	-0.00118	0.367	10.0	9.67	9.73	9.93	8.50 to 11.5	96.7	70.0 to 130	0.619	20.0
BD07415	Selenium, Dissolved	mg/L	0.0000755	0.00100	0.100	0.102	0.103	0.102	0.0850 to 0.115	102	70.0 to 130	0.976	20.0
BD07417	Selenium, Total	mg/L	0.0000695	0.00100	0.100	0.100	0.100	0.101	0.0850 to 0.115	100	70.0 to 130	0.00	20.0
BD07415	Silicon, Dissolved	mg/L	-0.000488	0.0440	1.00	4.25	4.26	1.02	0.850 to 1.15	99.0	70.0 to 130	0.235	20.0
BD07417	Silicon, Total	mg/L	-0.000143	0.0440	1.00	1.01	1.00	1.01	0.850 to 1.15	101	70.0 to 130	0.995	20.0
BD07415	Sodium, Dissolved	mg/L	-0.000111	0.0880	5.00	6.73	6.68	4.86	4.25 to 5.75	96.2	70.0 to 130	0.746	20.0
BD07417	Sodium, Total	mg/L	-0.00109	0.0880	5.00	4.78	4.81	4.88	4.25 to 5.75	95.6	70.0 to 130	0.626	20.0
BD07417	Sulfate	mg/L	0.130	2.0	20.0	22.4	22.5	21.5	18.0 to 22.0	112	80.0 to 120	0.445	20.0
BD07415	Thallium, Dissolved	mg/L	-0.000112	0.000147	0.100	0.102	0.100	0.105	0.0850 to 0.115	102	70.0 to 130	1.98	20.0
BD07417	Thallium, Total	mg/L	-0.000111	0.000147	0.100	0.0987	0.103	0.101	0.0850 to 0.115	98.7	70.0 to 130	4.26	20.0
BD07417	Total Organic Carbon	mg/L	0.120	1.00	10.0	10.4	10.3	25.3		104	80.0 to 120	0.966	20.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWBARPU
Sample Date: 4/12/23 09:51
Customer ID:
Delivery Date: 4/14/23 10:53

Description: Barry Pooled Upgradient - MW-4

Laboratory ID Number: BD07411

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard Standard	Standard Limit	Rec Rec	Limit	Prec	Prec Limit
BD07415	Alkalinity to pH 4.5	mg CaCO3/L					5.60	52.04	45.0 to 55.0			26.6	10.0
BD07417	Nitrogen, Nitrate/Nitrite	mg/L as N	-0.04	0.200	2.00	2.10	-0.055	2.09	1.80 to 2.20	105	90.0 to 110	0.00	15.0
BD07415	Solids, Dissolved	mg/L	1.00	25.0			22.0	55.0	40.0 to 60.0			0.00	10.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Barry Pooled Upgradient - MW-4 Dup

Location Code: WMWBARPU
Collected: 4/12/23 09:51
Customer ID:
Submittal Date: 4/14/23 10:53

Laboratory ID Number: BD07412

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q	
Analytical Method: EPA 200.7		Analyst: ABB			Preparation Method: EPA 1638					
* Boron, Total	4/17/23 11:50	4/19/23 10:58		1.015	Not Detected	mg/L	0.030000	0.1015	U	
* Calcium, Total	4/17/23 11:50	4/19/23 10:58		1.015	1.76	mg/L	0.070035	0.406		
* Iron, Total	4/17/23 11:50	4/19/23 10:58		1.015	0.0749	mg/L	0.008120	0.0406		
* Lithium, Total	4/17/23 11:50	4/19/23 10:58		1.015	Not Detected	mg/L	0.007105	0.01999956	U	
* Magnesium, Total	4/17/23 11:50	4/19/23 10:58		1.015	1.94	mg/L	0.021315	0.406		
* Molybdenum, Total	4/17/23 11:50	4/19/23 10:58		1.015	Not Detected	mg/L	0.005075	0.01015	U	
* Silica, Total (calc.)	4/17/23 11:50	4/19/23 10:58		1	9.03	mg/L				
* Silicon, Total	4/17/23 11:50	4/19/23 10:58		1.015	4.22	mg/L	0.02030	0.25375		
* Sodium, Total	4/17/23 11:50	4/19/23 10:58		1.015	2.62	mg/L	0.04060	0.406		
Analytical Method: EPA 200.7		Analyst: ABB			Preparation Method: EPA 1638					
* Boron, Dissolved	4/17/23 09:38	4/19/23 10:24		1.015	Not Detected	mg/L	0.030000	0.1015	U	
* Calcium, Dissolved	4/17/23 09:38	4/19/23 10:24		1.015	1.77	mg/L	0.070035	0.406		
* Iron, Dissolved	4/17/23 09:38	4/19/23 10:24		1.015	Not Detected	mg/L	0.008120	0.0406	U	
* Lithium, Dissolved	4/17/23 09:38	4/19/23 10:24		1.015	Not Detected	mg/L	0.007105	0.01999956	U	
* Magnesium, Dissolved	4/17/23 09:38	4/19/23 10:24		1.015	1.93	mg/L	0.021315	0.406		
* Molybdenum, Dissolved	4/17/23 09:38	4/19/23 10:24		1.015	Not Detected	mg/L	0.005075	0.01015	U	
* Silica, Dissolved (calc.)	4/17/23 09:38	4/19/23 10:24		1	8.88	mg/L				
* Silicon, Dissolved	4/17/23 09:38	4/19/23 10:24		1.015	4.15	mg/L	0.02030	0.25375		
* Sodium, Dissolved	4/17/23 09:38	4/19/23 10:24		1.015	2.62	mg/L	0.04060	0.406		
Analytical Method: EPA 200.8		Analyst: DLJ			Preparation Method: EPA 1638					
* Antimony, Total	4/17/23 11:50	4/17/23 13:05		1.015	Not Detected	mg/L	0.000710	0.001015	U	
* Aluminum, Total	4/17/23 11:50	4/17/23 13:05		1.015	0.153	mg/L	0.009135	0.05075		
* Arsenic, Total	4/17/23 11:50	4/17/23 13:05		1.015	0.000121	mg/L	0.000112	0.000203	J	
* Barium, Total	4/17/23 11:50	4/17/23 13:05		1.015	0.117	mg/L	0.000508	0.001015		
* Beryllium, Total	4/17/23 11:50	4/17/23 13:05		1.015	Not Detected	mg/L	0.000406	0.001015	U	
* Cadmium, Total	4/17/23 11:50	4/17/23 13:05		1.015	Not Detected	mg/L	0.000068	0.000203	U	
* Chromium, Total	4/17/23 11:50	4/17/23 13:05		1.015	0.00126	mg/L	0.000203	0.001015		
* Cobalt, Total	4/17/23 11:50	4/17/23 13:05		1.015	0.00124	mg/L	0.000068	0.000203		
* Lead, Total	4/17/23 11:50	4/17/23 13:05		1.015	0.0000978	mg/L	0.000068	0.000203	J	
* Manganese, Total	4/17/23 11:50	4/17/23 13:05		1.015	0.0154	mg/L	0.000152	0.001015		

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Barry Pooled Upgradient - MW-4 Dup

Location Code: WMWBARPU
Collected: 4/12/23 09:51
Customer ID:
Submittal Date: 4/14/23 10:53

Laboratory ID Number: BD07412

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
* Potassium, Total	4/17/23 11:50	4/17/23 13:05		1.015	0.968	mg/L	0.169505	0.5075	
* Selenium, Total	4/17/23 11:50	4/17/23 13:05		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Total	4/17/23 11:50	4/17/23 13:05		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 200.8		Analyst: DLJ							
* Antimony, Dissolved	4/17/23 09:38	4/17/23 10:00		1.015	Not Detected	mg/L	0.000710	0.001015	U
* Aluminum, Dissolved	4/17/23 09:38	4/17/23 10:00		1.015	0.0284	mg/L	0.009135	0.05075	J
* Arsenic, Dissolved	4/17/23 09:38	4/17/23 10:00		1.015	Not Detected	mg/L	0.000112	0.000203	U
* Barium, Dissolved	4/17/23 09:38	4/17/23 10:00		1.015	0.115	mg/L	0.000508	0.001015	
* Beryllium, Dissolved	4/17/23 09:38	4/17/23 10:00		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Dissolved	4/17/23 09:38	4/17/23 10:00		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Dissolved	4/17/23 09:38	4/17/23 10:00		1.015	0.000936	mg/L	0.000203	0.001015	J
* Cobalt, Dissolved	4/17/23 09:38	4/17/23 10:00		1.015	0.00124	mg/L	0.000068	0.000203	
* Lead, Dissolved	4/17/23 09:38	4/17/23 10:00		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Dissolved	4/17/23 09:38	4/17/23 10:00		1.015	0.0158	mg/L	0.000152	0.001015	
* Potassium, Dissolved	4/17/23 09:38	4/17/23 10:00		1.015	0.975	mg/L	0.169505	0.5075	
* Selenium, Dissolved	4/17/23 09:38	4/17/23 10:00		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Dissolved	4/17/23 09:38	4/17/23 10:00		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 245.1		Analyst: CRB							
* Mercury, Total by CVAA	4/20/23 18:26	4/21/23 01:16		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: EPA 353.2		Analyst: SC							
* Nitrogen, Nitrate/Nitrite	4/17/23 15:25	4/17/23 15:25		1	2.11	mg/L as N	0.20	0.3	
Analytical Method: SM 2320 B		Analyst: ALH							
* Alkalinity to pH 4.5	4/25/23 10:52	4/25/23 11:47		1	2.60	mg CaCO3/L		0.10	
Analytical Method: SM 2540C		Analyst: CNJ							
* Solids, Dissolved	4/14/23 13:40	4/17/23 13:45		1	32.7	mg/L		25	
Analytical Method: SM 4500CO2 D		Analyst: ALH							
* Bicarbonate Alkalinity, (calc.)	4/25/23 10:52	4/25/23 11:47		1	2.60	mg CaCO3/L		1	
* Carbonate Alkalinity, (calc.)	4/25/23 10:52	4/25/23 11:47		1	Not Detected	mg CaCO3/L		0.5	
Analytical Method: SM 5310 B		Analyst: SC							
* Total Organic Carbon	4/17/23 17:42	4/17/23 17:42		1	Not Detected	mg/L	1.00	2	U

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Barry Pooled Upgradient - MW-4 Dup

Location Code: WMWBARPU

Collected: 4/12/23 09:51

Customer ID:

Submittal Date: 4/14/23 10:53

Laboratory ID Number: BD07412

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM4500Cl E		Analyst: JCC							
* Chloride	4/19/23 11:45	4/19/23 11:45		1	3.39	mg/L	0.50	1	
Analytical Method: SM4500F G 2017		Analyst: JCC							
* Fluoride	4/19/23 12:58	4/19/23 12:58		1	Not Detected	mg/L	0.06	0.125	U
Analytical Method: SM4500SO4 E 2011		Analyst: JCC							
* Sulfate	4/18/23 09:48	4/18/23 09:48		1	5.92	mg/L	0.6	2	
Analytical Method: Field Measurements		Analyst: TJD							
Conductivity	4/12/23 09:47	4/12/23 09:47			57.67	uS/cm			FA
pH	4/12/23 09:47	4/12/23 09:47			4.73	SU			FA
Temperature	4/12/23 09:47	4/12/23 09:47			20.79	C			FA
Turbidity	4/12/23 09:47	4/12/23 09:47			4.96	NTU			FA
Sulfide	4/12/23 09:47	4/12/23 09:47			0	mg/L			FA

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWBARPU
Sample Date: 4/12/23 09:51
Customer ID:
Delivery Date: 4/14/23 10:53

Description: Barry Pooled Upgradient - MW-4 Dup

Laboratory ID Number: BD07412

Sample	Analysis	Units	MB	MB				Standard		Rec			Prec Limit
				Limit	Spike	MS	MSD	Standard	Limit	Rec	Limit	Prec	
BD07415	Aluminum, Dissolved	mg/L	-0.000203	0.0198	0.100	0.152	0.153	0.101	0.0850 to 0.115	96.0	70.0 to 130	0.656	20.0
BD07417	Aluminum, Total	mg/L	0.000313	0.0198	0.100	0.0965	0.0975	0.0986	0.0850 to 0.115	96.5	70.0 to 130	1.03	20.0
BD07415	Antimony, Dissolved	mg/L	0.000286	0.00100	0.100	0.0904	0.0930	0.0926	0.0850 to 0.115	90.4	70.0 to 130	2.84	20.0
BD07417	Antimony, Total	mg/L	0.000390	0.00100	0.100	0.0912	0.0914	0.0889	0.0850 to 0.115	91.2	70.0 to 130	0.219	20.0
BD07415	Arsenic, Dissolved	mg/L	0.0000131	0.000200	0.100	0.0991	0.0998	0.100	0.0850 to 0.115	99.0	70.0 to 130	0.704	20.0
BD07417	Arsenic, Total	mg/L	0.0000162	0.000200	0.100	0.0986	0.0999	0.100	0.0850 to 0.115	98.6	70.0 to 130	1.31	20.0
BD07415	Barium, Dissolved	mg/L	0.0000409	0.00100	0.100	0.178	0.178	0.0981	0.0850 to 0.115	97.9	70.0 to 130	0.00	20.0
BD07417	Barium, Total	mg/L	0.0000205	0.00100	0.100	0.0983	0.101	0.104	0.0850 to 0.115	98.3	70.0 to 130	2.71	20.0
BD07415	Beryllium, Dissolved	mg/L	0.0000340	0.000880	0.100	0.0970	0.101	0.100	0.0850 to 0.115	97.0	70.0 to 130	4.04	20.0
BD07417	Beryllium, Total	mg/L	0.0000276	0.000880	0.100	0.101	0.101	0.0988	0.0850 to 0.115	101	70.0 to 130	0.00	20.0
BD07415	Boron, Dissolved	mg/L	-0.000211	0.0650	1.00	1.05	1.06	1.02	0.850 to 1.15	100	70.0 to 130	0.948	20.0
BD07417	Boron, Total	mg/L	-0.000030	0.0650	1.00	0.997	0.992	1.01	0.850 to 1.15	99.7	70.0 to 130	0.503	20.0
BD07415	Cadmium, Dissolved	mg/L	-0.0000003	0.000147	0.100	0.100	0.102	0.101	0.0850 to 0.115	100	70.0 to 130	1.98	20.0
BD07417	Cadmium, Total	mg/L	0.0000025	0.000147	0.100	0.0972	0.0983	0.101	0.0850 to 0.115	97.2	70.0 to 130	1.13	20.0
BD07415	Calcium, Dissolved	mg/L	-0.00525	0.152	5.00	5.80	5.94	4.91	4.25 to 5.75	95.4	70.0 to 130	2.39	20.0
BD07417	Calcium, Total	mg/L	-0.00628	0.152	5.00	5.00	4.88	4.94	4.25 to 5.75	100	70.0 to 130	2.43	20.0
BD07417	Chloride	mg/L	0.0658	1.00	10.0	11.1	11.2	11.0	9.00 to 11.0	111	80.0 to 120	0.897	20.0
BD07415	Chromium, Dissolved	mg/L	-0.0000139	0.000440	0.100	0.101	0.101	0.102	0.0850 to 0.115	101	70.0 to 130	0.00	20.0
BD07417	Chromium, Total	mg/L	-0.0000146	0.000440	0.100	0.0964	0.0994	0.101	0.0850 to 0.115	96.4	70.0 to 130	3.06	20.0
BD07415	Cobalt, Dissolved	mg/L	-0.0000973	0.000147	0.100	0.106	0.107	0.104	0.0850 to 0.115	102	70.0 to 130	0.939	20.0
BD07417	Cobalt, Total	mg/L	-0.0000965	0.000147	0.100	0.0988	0.100	0.103	0.0850 to 0.115	98.8	70.0 to 130	1.21	20.0
BD07417	Fluoride	mg/L	0.0394	0.125	2.50	2.57	2.64	2.58	2.25 to 2.75	103	80.0 to 120	2.69	20.0
BD07415	Iron, Dissolved	mg/L	0.00271	0.0176	0.2	3.84	3.84	0.202	0.170 to 0.230	90.0	70.0 to 130	0.00	20.0
BD07417	Iron, Total	mg/L	0.000031	0.0176	0.2	0.198	0.197	0.199	0.170 to 0.230	99.0	70.0 to 130	0.506	20.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWBARPU

Sample Date: 4/12/23 09:51

Customer ID:

Delivery Date: 4/14/23 10:53

Description: Barry Pooled Upgradient - MW-4 Dup

Laboratory ID Number: BD07412

Sample	Analysis	Units	MB	MB		MS	MSD	Standard		Rec		Prec	Limit
				Limit	Spike			Standard	Limit	Rec	Limit		
BD07415	Lead, Dissolved	mg/L	0.000064	0.000147	0.100	0.102	0.102	0.105	0.0850 to 0.115	102	70.0 to 130	0.00	20.0
BD07417	Lead, Total	mg/L	0.0000071	0.000147	0.100	0.103	0.105	0.104	0.0850 to 0.115	103	70.0 to 130	1.92	20.0
BD07415	Lithium, Dissolved	mg/L	0.00066	0.0154	0.200	0.200	0.198	0.196	0.170 to 0.230	100	70.0 to 130	1.01	20.0
BD07417	Lithium, Total	mg/L	0.00114	0.0154	0.200	0.193	0.195	0.196	0.170 to 0.230	96.5	70.0 to 130	1.03	20.0
BD07415	Magnesium, Dissolved	mg/L	0.00859	0.0462	5.00	6.72	6.78	4.90	4.25 to 5.75	97.2	70.0 to 130	0.889	20.0
BD07417	Magnesium, Total	mg/L	0.00979	0.0462	5.00	4.95	4.90	4.96	4.25 to 5.75	99.0	70.0 to 130	1.02	20.0
BD07415	Manganese, Dissolved	mg/L	0.0000117	0.00033	0.100	0.241	0.242	0.105	0.0850 to 0.115	102	70.0 to 130	0.414	20.0
BD07417	Manganese, Total	mg/L	0.0000023	0.00033	0.100	0.0994	0.101	0.104	0.0850 to 0.115	99.4	70.0 to 130	1.60	20.0
BD07415	Mercury, Total by CVAA	mg/L	0.000	0.000500	0.004	0.00396	0.00398	0.00393	0.00340 to 0.00460	99.0	70.0 to 130	0.504	20.0
BD07415	Molybdenum, Dissolved	mg/L	0.00135	0.0100	0.2	0.197	0.199	0.199	0.170 to 0.230	98.5	70.0 to 130	1.01	20.0
BD07417	Molybdenum, Total	mg/L	0.001	0.0100	0.2	0.196	0.196	0.197	0.170 to 0.230	98.0	70.0 to 130	0.00	20.0
BD07415	Potassium, Dissolved	mg/L	0.00156	0.367	10.0	10.2	10.3	9.98	8.50 to 11.5	97.2	70.0 to 130	0.976	20.0
BD07417	Potassium, Total	mg/L	-0.00118	0.367	10.0	9.67	9.73	9.93	8.50 to 11.5	96.7	70.0 to 130	0.619	20.0
BD07415	Selenium, Dissolved	mg/L	0.0000755	0.00100	0.100	0.102	0.103	0.102	0.0850 to 0.115	102	70.0 to 130	0.976	20.0
BD07417	Selenium, Total	mg/L	0.0000695	0.00100	0.100	0.100	0.100	0.101	0.0850 to 0.115	100	70.0 to 130	0.00	20.0
BD07415	Silicon, Dissolved	mg/L	-0.000488	0.0440	1.00	4.25	4.26	1.02	0.850 to 1.15	99.0	70.0 to 130	0.235	20.0
BD07417	Silicon, Total	mg/L	-0.000143	0.0440	1.00	1.01	1.00	1.01	0.850 to 1.15	101	70.0 to 130	0.995	20.0
BD07415	Sodium, Dissolved	mg/L	-0.000111	0.0880	5.00	6.73	6.68	4.86	4.25 to 5.75	96.2	70.0 to 130	0.746	20.0
BD07417	Sodium, Total	mg/L	-0.00109	0.0880	5.00	4.78	4.81	4.88	4.25 to 5.75	95.6	70.0 to 130	0.626	20.0
BD07417	Sulfate	mg/L	0.130	2.0	20.0	22.4	22.5	21.5	18.0 to 22.0	112	80.0 to 120	0.445	20.0
BD07415	Thallium, Dissolved	mg/L	-0.000112	0.000147	0.100	0.102	0.100	0.105	0.0850 to 0.115	102	70.0 to 130	1.98	20.0
BD07417	Thallium, Total	mg/L	-0.000111	0.000147	0.100	0.0987	0.103	0.101	0.0850 to 0.115	98.7	70.0 to 130	4.26	20.0
BD07417	Total Organic Carbon	mg/L	0.120	1.00	10.0	10.4	10.3	25.3		104	80.0 to 120	0.966	20.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWBARPU
Sample Date: 4/12/23 09:51
Customer ID:
Delivery Date: 4/14/23 10:53

Description: Barry Pooled Upgradient - MW-4 Dup

Laboratory ID Number: BD07412

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard Standard	Standard Limit	Rec	Limit	Prec	Limit
BD07415	Alkalinity to pH 4.5	mg CaCO3/L					5.60	52.04	45.0 to 55.0			26.6	10.0
BD07417	Nitrogen, Nitrate/Nitrite	mg/L as N	-0.04	0.200	2.00	2.10	-0.055	2.09	1.80 to 2.20	105	90.0 to 110	0.00	15.0
BD07415	Solids, Dissolved	mg/L	1.00	25.0			22.0	55.0	40.0 to 60.0			0.00	10.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Barry Pooled Upgradient - MW-3

Location Code: WMWBARPU
Collected: 4/12/23 11:05
Customer ID:
Submittal Date: 4/14/23 10:53

Laboratory ID Number: BD07413

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q	
Analytical Method: EPA 200.7		Analyst: ABB			Preparation Method: EPA 1638					
* Boron, Total	4/17/23 11:50	4/19/23 11:02		1.015	Not Detected	mg/L	0.030000	0.1015	U	
* Calcium, Total	4/17/23 11:50	4/19/23 11:02		1.015	1.83	mg/L	0.070035	0.406		
* Iron, Total	4/17/23 11:50	4/19/23 11:02		1.015	0.0691	mg/L	0.008120	0.0406		
* Lithium, Total	4/17/23 11:50	4/19/23 11:02		1.015	Not Detected	mg/L	0.007105	0.01999956	U	
* Magnesium, Total	4/17/23 11:50	4/19/23 11:02		1.015	1.85	mg/L	0.021315	0.406		
* Molybdenum, Total	4/17/23 11:50	4/19/23 11:02		1.015	Not Detected	mg/L	0.005075	0.01015	U	
* Silica, Total (calc.)	4/17/23 11:50	4/19/23 11:02		1	8.56	mg/L				
* Silicon, Total	4/17/23 11:50	4/19/23 11:02		1.015	4.00	mg/L	0.02030	0.25375		
* Sodium, Total	4/17/23 11:50	4/19/23 11:02		1.015	2.91	mg/L	0.04060	0.406		
Analytical Method: EPA 200.7		Analyst: ABB			Preparation Method: EPA 1638					
* Boron, Dissolved	4/17/23 09:38	4/19/23 10:27		1.015	Not Detected	mg/L	0.030000	0.1015	U	
* Calcium, Dissolved	4/17/23 09:38	4/19/23 10:27		1.015	1.88	mg/L	0.070035	0.406		
* Iron, Dissolved	4/17/23 09:38	4/19/23 10:27		1.015	Not Detected	mg/L	0.008120	0.0406	U	
* Lithium, Dissolved	4/17/23 09:38	4/19/23 10:27		1.015	Not Detected	mg/L	0.007105	0.01999956	U	
* Magnesium, Dissolved	4/17/23 09:38	4/19/23 10:27		1.015	1.89	mg/L	0.021315	0.406		
* Molybdenum, Dissolved	4/17/23 09:38	4/19/23 10:27		1.015	Not Detected	mg/L	0.005075	0.01015	U	
* Silica, Dissolved (calc.)	4/17/23 09:38	4/19/23 10:27		1	8.47	mg/L				
* Silicon, Dissolved	4/17/23 09:38	4/19/23 10:27		1.015	3.96	mg/L	0.02030	0.25375		
* Sodium, Dissolved	4/17/23 09:38	4/19/23 10:27		1.015	2.90	mg/L	0.04060	0.406		
Analytical Method: EPA 200.8		Analyst: DLJ			Preparation Method: EPA 1638					
* Antimony, Total	4/17/23 11:50	4/17/23 13:09		1.015	Not Detected	mg/L	0.000710	0.001015	U	
* Aluminum, Total	4/17/23 11:50	4/17/23 13:09		1.015	0.0764	mg/L	0.009135	0.05075		
* Arsenic, Total	4/17/23 11:50	4/17/23 13:09		1.015	Not Detected	mg/L	0.000112	0.000203	U	
* Barium, Total	4/17/23 11:50	4/17/23 13:09		1.015	0.0925	mg/L	0.000508	0.001015		
* Beryllium, Total	4/17/23 11:50	4/17/23 13:09		1.015	Not Detected	mg/L	0.000406	0.001015	U	
* Cadmium, Total	4/17/23 11:50	4/17/23 13:09		1.015	Not Detected	mg/L	0.000068	0.000203	U	
* Chromium, Total	4/17/23 11:50	4/17/23 13:09		1.015	0.00138	mg/L	0.000203	0.001015		
* Cobalt, Total	4/17/23 11:50	4/17/23 13:09		1.015	0.00130	mg/L	0.000068	0.000203		
* Lead, Total	4/17/23 11:50	4/17/23 13:09		1.015	0.0000825	mg/L	0.000068	0.000203	J	
* Manganese, Total	4/17/23 11:50	4/17/23 13:09		1.015	0.0189	mg/L	0.000152	0.001015		

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Barry Pooled Upgradient - MW-3

Location Code: WMWBARPU

Collected: 4/12/23 11:05

Customer ID:

Submittal Date: 4/14/23 10:53

Laboratory ID Number: BD07413

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
* Potassium, Total	4/17/23 11:50	4/17/23 13:09		1.015	0.935	mg/L	0.169505	0.5075	
* Selenium, Total	4/17/23 11:50	4/17/23 13:09		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Total	4/17/23 11:50	4/17/23 13:09		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 200.8		Analyst: DLJ							
* Antimony, Dissolved	4/17/23 09:38	4/17/23 10:04		1.015	Not Detected	mg/L	0.000710	0.001015	U
* Aluminum, Dissolved	4/17/23 09:38	4/17/23 10:04		1.015	0.0200	mg/L	0.009135	0.05075	J
* Arsenic, Dissolved	4/17/23 09:38	4/17/23 10:04		1.015	Not Detected	mg/L	0.000112	0.000203	U
* Barium, Dissolved	4/17/23 09:38	4/17/23 10:04		1.015	0.0898	mg/L	0.000508	0.001015	
* Beryllium, Dissolved	4/17/23 09:38	4/17/23 10:04		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Dissolved	4/17/23 09:38	4/17/23 10:04		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Dissolved	4/17/23 09:38	4/17/23 10:04		1.015	0.00121	mg/L	0.000203	0.001015	
* Cobalt, Dissolved	4/17/23 09:38	4/17/23 10:04		1.015	0.00127	mg/L	0.000068	0.000203	
* Lead, Dissolved	4/17/23 09:38	4/17/23 10:04		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Dissolved	4/17/23 09:38	4/17/23 10:04		1.015	0.0185	mg/L	0.000152	0.001015	
* Potassium, Dissolved	4/17/23 09:38	4/17/23 10:04		1.015	0.947	mg/L	0.169505	0.5075	
* Selenium, Dissolved	4/17/23 09:38	4/17/23 10:04		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Dissolved	4/17/23 09:38	4/17/23 10:04		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 245.1		Analyst: CRB							
* Mercury, Total by CVAA	4/20/23 18:26	4/21/23 01:20		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: EPA 353.2		Analyst: SC							
* Nitrogen, Nitrate/Nitrite	4/17/23 15:26	4/17/23 15:26		1	1.65	mg/L as N	0.20	0.3	
Analytical Method: SM 2320 B		Analyst: ALH							
* Alkalinity to pH 4.5	4/25/23 10:52	4/25/23 11:47		1	1.00	mg CaCO3/L		0.10	
Analytical Method: SM 2540C		Analyst: CNJ							
* Solids, Dissolved	4/14/23 13:40	4/17/23 13:45		1	30.7	mg/L		25	
Analytical Method: SM 4500CO2 D		Analyst: ALH							
* Bicarbonate Alkalinity, (calc.)	4/25/23 10:52	4/25/23 11:47		1	1.00	mg CaCO3/L		1	
* Carbonate Alkalinity, (calc.)	4/25/23 10:52	4/25/23 11:47		1	Not Detected	mg CaCO3/L		0.5	
Analytical Method: SM 5310 B		Analyst: SC							
* Total Organic Carbon	4/17/23 17:54	4/17/23 17:54		1	Not Detected	mg/L	1.00	2	U

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Barry Pooled Upgradient - MW-3

Location Code: WMWBARPU

Collected: 4/12/23 11:05

Customer ID:

Submittal Date: 4/14/23 10:53

Laboratory ID Number: BD07413

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM4500Cl E		Analyst: JCC							
* Chloride	4/19/23 11:46	4/19/23 11:46		1	3.11	mg/L	0.50	1	
Analytical Method: SM4500F G 2017		Analyst: JCC							
* Fluoride	4/19/23 12:59	4/19/23 12:59		1	Not Detected	mg/L	0.06	0.125	U
Analytical Method: SM4500SO4 E 2011		Analyst: JCC							
* Sulfate	4/18/23 09:49	4/18/23 09:49		1	7.59	mg/L	0.6	2	
Analytical Method: Field Measurements		Analyst: TJD							
Conductivity	4/12/23 11:00	4/12/23 11:00			54.29	uS/cm			FA
pH	4/12/23 11:00	4/12/23 11:00			4.83	SU			FA
Temperature	4/12/23 11:00	4/12/23 11:00			19.52	C			FA
Turbidity	4/12/23 11:00	4/12/23 11:00			3.14	NTU			FA
Sulfide	4/12/23 11:00	4/12/23 11:00			0	mg/L			FA

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWBARPU
Sample Date: 4/12/23 11:05
Customer ID:
Delivery Date: 4/14/23 10:53

Description: Barry Pooled Upgradient - MW-3

Laboratory ID Number: BD07413

Sample	Analysis	Units	MB	MB				Standard		Rec		Prec	Limit
				Limit	Spike	MS	MSD	Standard	Limit	Rec	Limit		
BD07415	Aluminum, Dissolved	mg/L	-0.000203	0.0198	0.100	0.152	0.153	0.101	0.0850 to 0.115	96.0	70.0 to 130	0.656	20.0
BD07417	Aluminum, Total	mg/L	0.000313	0.0198	0.100	0.0965	0.0975	0.0986	0.0850 to 0.115	96.5	70.0 to 130	1.03	20.0
BD07415	Antimony, Dissolved	mg/L	0.000286	0.00100	0.100	0.0904	0.0930	0.0926	0.0850 to 0.115	90.4	70.0 to 130	2.84	20.0
BD07417	Antimony, Total	mg/L	0.000390	0.00100	0.100	0.0912	0.0914	0.0889	0.0850 to 0.115	91.2	70.0 to 130	0.219	20.0
BD07415	Arsenic, Dissolved	mg/L	0.0000131	0.000200	0.100	0.0991	0.0998	0.100	0.0850 to 0.115	99.0	70.0 to 130	0.704	20.0
BD07417	Arsenic, Total	mg/L	0.0000162	0.000200	0.100	0.0986	0.0999	0.100	0.0850 to 0.115	98.6	70.0 to 130	1.31	20.0
BD07415	Barium, Dissolved	mg/L	0.0000409	0.00100	0.100	0.178	0.178	0.0981	0.0850 to 0.115	97.9	70.0 to 130	0.00	20.0
BD07417	Barium, Total	mg/L	0.0000205	0.00100	0.100	0.0983	0.101	0.104	0.0850 to 0.115	98.3	70.0 to 130	2.71	20.0
BD07415	Beryllium, Dissolved	mg/L	0.0000340	0.000880	0.100	0.0970	0.101	0.100	0.0850 to 0.115	97.0	70.0 to 130	4.04	20.0
BD07417	Beryllium, Total	mg/L	0.0000276	0.000880	0.100	0.101	0.101	0.0988	0.0850 to 0.115	101	70.0 to 130	0.00	20.0
BD07415	Boron, Dissolved	mg/L	-0.000211	0.0650	1.00	1.05	1.06	1.02	0.850 to 1.15	100	70.0 to 130	0.948	20.0
BD07417	Boron, Total	mg/L	-0.000030	0.0650	1.00	0.997	0.992	1.01	0.850 to 1.15	99.7	70.0 to 130	0.503	20.0
BD07415	Cadmium, Dissolved	mg/L	-0.0000003	0.000147	0.100	0.100	0.102	0.101	0.0850 to 0.115	100	70.0 to 130	1.98	20.0
BD07417	Cadmium, Total	mg/L	0.0000025	0.000147	0.100	0.0972	0.0983	0.101	0.0850 to 0.115	97.2	70.0 to 130	1.13	20.0
BD07415	Calcium, Dissolved	mg/L	-0.00525	0.152	5.00	5.80	5.94	4.91	4.25 to 5.75	95.4	70.0 to 130	2.39	20.0
BD07417	Calcium, Total	mg/L	-0.00628	0.152	5.00	5.00	4.88	4.94	4.25 to 5.75	100	70.0 to 130	2.43	20.0
BD07417	Chloride	mg/L	0.0658	1.00	10.0	11.1	11.2	11.0	9.00 to 11.0	111	80.0 to 120	0.897	20.0
BD07415	Chromium, Dissolved	mg/L	-0.0000139	0.000440	0.100	0.101	0.101	0.102	0.0850 to 0.115	101	70.0 to 130	0.00	20.0
BD07417	Chromium, Total	mg/L	-0.0000146	0.000440	0.100	0.0964	0.0994	0.101	0.0850 to 0.115	96.4	70.0 to 130	3.06	20.0
BD07415	Cobalt, Dissolved	mg/L	-0.0000973	0.000147	0.100	0.106	0.107	0.104	0.0850 to 0.115	102	70.0 to 130	0.939	20.0
BD07417	Cobalt, Total	mg/L	-0.0000965	0.000147	0.100	0.0988	0.100	0.103	0.0850 to 0.115	98.8	70.0 to 130	1.21	20.0
BD07417	Fluoride	mg/L	0.0394	0.125	2.50	2.57	2.64	2.58	2.25 to 2.75	103	80.0 to 120	2.69	20.0
BD07415	Iron, Dissolved	mg/L	0.00271	0.0176	0.2	3.84	3.84	0.202	0.170 to 0.230	90.0	70.0 to 130	0.00	20.0
BD07417	Iron, Total	mg/L	0.000031	0.0176	0.2	0.198	0.197	0.199	0.170 to 0.230	99.0	70.0 to 130	0.506	20.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWBARPU
Sample Date: 4/12/23 11:05
Customer ID:
Delivery Date: 4/14/23 10:53

Description: Barry Pooled Upgradient - MW-3

Laboratory ID Number: BD07413

Sample	Analysis	Units	MB		Spike	MS	MSD	Standard		Rec		Prec	Limit
			MB	Limit				Standard	Limit	Rec	Limit		
BD07415	Lead, Dissolved	mg/L	0.000064	0.000147	0.100	0.102	0.102	0.105	0.0850 to 0.115	102	70.0 to 130	0.00	20.0
BD07417	Lead, Total	mg/L	0.0000071	0.000147	0.100	0.103	0.105	0.104	0.0850 to 0.115	103	70.0 to 130	1.92	20.0
BD07415	Lithium, Dissolved	mg/L	0.00066	0.0154	0.200	0.200	0.198	0.196	0.170 to 0.230	100	70.0 to 130	1.01	20.0
BD07417	Lithium, Total	mg/L	0.00114	0.0154	0.200	0.193	0.195	0.196	0.170 to 0.230	96.5	70.0 to 130	1.03	20.0
BD07415	Magnesium, Dissolved	mg/L	0.00859	0.0462	5.00	6.72	6.78	4.90	4.25 to 5.75	97.2	70.0 to 130	0.889	20.0
BD07417	Magnesium, Total	mg/L	0.00979	0.0462	5.00	4.95	4.90	4.96	4.25 to 5.75	99.0	70.0 to 130	1.02	20.0
BD07415	Manganese, Dissolved	mg/L	0.0000117	0.00033	0.100	0.241	0.242	0.105	0.0850 to 0.115	102	70.0 to 130	0.414	20.0
BD07417	Manganese, Total	mg/L	0.0000023	0.00033	0.100	0.0994	0.101	0.104	0.0850 to 0.115	99.4	70.0 to 130	1.60	20.0
BD07415	Mercury, Total by CVAA	mg/L	0.000	0.000500	0.004	0.00396	0.00398	0.00393	0.00340 to 0.00460	99.0	70.0 to 130	0.504	20.0
BD07415	Molybdenum, Dissolved	mg/L	0.00135	0.0100	0.2	0.197	0.199	0.199	0.170 to 0.230	98.5	70.0 to 130	1.01	20.0
BD07417	Molybdenum, Total	mg/L	0.001	0.0100	0.2	0.196	0.196	0.197	0.170 to 0.230	98.0	70.0 to 130	0.00	20.0
BD07415	Potassium, Dissolved	mg/L	0.00156	0.367	10.0	10.2	10.3	9.98	8.50 to 11.5	97.2	70.0 to 130	0.976	20.0
BD07417	Potassium, Total	mg/L	-0.00118	0.367	10.0	9.67	9.73	9.93	8.50 to 11.5	96.7	70.0 to 130	0.619	20.0
BD07415	Selenium, Dissolved	mg/L	0.0000755	0.00100	0.100	0.102	0.103	0.102	0.0850 to 0.115	102	70.0 to 130	0.976	20.0
BD07417	Selenium, Total	mg/L	0.0000695	0.00100	0.100	0.100	0.100	0.101	0.0850 to 0.115	100	70.0 to 130	0.00	20.0
BD07415	Silicon, Dissolved	mg/L	-0.000488	0.0440	1.00	4.25	4.26	1.02	0.850 to 1.15	99.0	70.0 to 130	0.235	20.0
BD07417	Silicon, Total	mg/L	-0.000143	0.0440	1.00	1.01	1.00	1.01	0.850 to 1.15	101	70.0 to 130	0.995	20.0
BD07415	Sodium, Dissolved	mg/L	-0.000111	0.0880	5.00	6.73	6.68	4.86	4.25 to 5.75	96.2	70.0 to 130	0.746	20.0
BD07417	Sodium, Total	mg/L	-0.00109	0.0880	5.00	4.78	4.81	4.88	4.25 to 5.75	95.6	70.0 to 130	0.626	20.0
BD07417	Sulfate	mg/L	0.130	2.0	20.0	22.4	22.5	21.5	18.0 to 22.0	112	80.0 to 120	0.445	20.0
BD07415	Thallium, Dissolved	mg/L	-0.000112	0.000147	0.100	0.102	0.100	0.105	0.0850 to 0.115	102	70.0 to 130	1.98	20.0
BD07417	Thallium, Total	mg/L	-0.000111	0.000147	0.100	0.0987	0.103	0.101	0.0850 to 0.115	98.7	70.0 to 130	4.26	20.0
BD07417	Total Organic Carbon	mg/L	0.120	1.00	10.0	10.4	10.3	25.3		104	80.0 to 120	0.966	20.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWBARPU
Sample Date: 4/12/23 11:05
Customer ID:
Delivery Date: 4/14/23 10:53

Description: Barry Pooled Upgradient - MW-3

Laboratory ID Number: BD07413

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BD07415	Alkalinity to pH 4.5	mg CaCO3/L					5.60	52.04	45.0 to 55.0			26.6	10.0
BD07417	Nitrogen, Nitrate/Nitrite	mg/L as N	-0.04	0.200	2.00	2.10	-0.055	2.09	1.80 to 2.20	105	90.0 to 110	0.00	15.0
BD07415	Solids, Dissolved	mg/L	1.00	25.0			22.0	55.0	40.0 to 60.0			0.00	10.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Barry Pooled Upgradient - MW-2

Location Code: WMWBARPU
Collected: 4/12/23 12:10
Customer ID:
Submittal Date: 4/14/23 10:53

Laboratory ID Number: BD07414

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q	
Analytical Method: EPA 200.7		Analyst: ABB			Preparation Method: EPA 1638					
* Boron, Total	4/17/23 11:50	4/19/23 11:05		1.015	Not Detected	mg/L	0.030000	0.1015	U	
* Calcium, Total	4/17/23 11:50	4/19/23 11:05		1.015	1.16	mg/L	0.070035	0.406		
* Iron, Total	4/17/23 11:50	4/19/23 11:05		1.015	0.220	mg/L	0.008120	0.0406		
* Lithium, Total	4/17/23 11:50	4/19/23 11:05		1.015	Not Detected	mg/L	0.007105	0.01999956	U	
* Magnesium, Total	4/17/23 11:50	4/19/23 11:05		1.015	2.21	mg/L	0.021315	0.406		
* Molybdenum, Total	4/17/23 11:50	4/19/23 11:05		1.015	Not Detected	mg/L	0.005075	0.01015	U	
* Silica, Total (calc.)	4/17/23 11:50	4/19/23 11:05		1	8.54	mg/L				
* Silicon, Total	4/17/23 11:50	4/19/23 11:05		1.015	3.99	mg/L	0.02030	0.25375		
* Sodium, Total	4/17/23 11:50	4/19/23 11:05		1.015	2.11	mg/L	0.04060	0.406		
Analytical Method: EPA 200.7		Analyst: ABB			Preparation Method: EPA 1638					
* Boron, Dissolved	4/17/23 09:38	4/19/23 10:30		1.015	Not Detected	mg/L	0.030000	0.1015	U	
* Calcium, Dissolved	4/17/23 09:38	4/19/23 10:30		1.015	1.17	mg/L	0.070035	0.406		
* Iron, Dissolved	4/17/23 09:38	4/19/23 10:30		1.015	Not Detected	mg/L	0.008120	0.0406	U	
* Lithium, Dissolved	4/17/23 09:38	4/19/23 10:30		1.015	Not Detected	mg/L	0.007105	0.01999956	U	
* Magnesium, Dissolved	4/17/23 09:38	4/19/23 10:30		1.015	2.15	mg/L	0.021315	0.406		
* Molybdenum, Dissolved	4/17/23 09:38	4/19/23 10:30		1.015	Not Detected	mg/L	0.005075	0.01015	U	
* Silica, Dissolved (calc.)	4/17/23 09:38	4/19/23 10:30		1	8.37	mg/L				
* Silicon, Dissolved	4/17/23 09:38	4/19/23 10:30		1.015	3.91	mg/L	0.02030	0.25375		
* Sodium, Dissolved	4/17/23 09:38	4/19/23 10:30		1.015	2.14	mg/L	0.04060	0.406		
Analytical Method: EPA 200.8		Analyst: DLJ			Preparation Method: EPA 1638					
* Antimony, Total	4/17/23 11:50	4/17/23 13:12		1.015	Not Detected	mg/L	0.000710	0.001015	U	
* Aluminum, Total	4/17/23 11:50	4/17/23 13:12		1.015	0.232	mg/L	0.009135	0.05075		
* Arsenic, Total	4/17/23 11:50	4/17/23 13:12		1.015	0.000200	mg/L	0.000112	0.000203	J	
* Barium, Total	4/17/23 11:50	4/17/23 13:12		1.015	0.138	mg/L	0.000508	0.001015		
* Beryllium, Total	4/17/23 11:50	4/17/23 13:12		1.015	0.000416	mg/L	0.000406	0.001015	J	
* Cadmium, Total	4/17/23 11:50	4/17/23 13:12		1.015	Not Detected	mg/L	0.000068	0.000203	U	
* Chromium, Total	4/17/23 11:50	4/17/23 13:12		1.015	0.00152	mg/L	0.000203	0.001015		
* Cobalt, Total	4/17/23 11:50	4/17/23 13:12		1.015	0.00157	mg/L	0.000068	0.000203		
* Lead, Total	4/17/23 11:50	4/17/23 13:12		1.015	0.000140	mg/L	0.000068	0.000203	J	
* Manganese, Total	4/17/23 11:50	4/17/23 13:12		1.015	0.0216	mg/L	0.000152	0.001015		

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Barry Pooled Upgradient - MW-2

Location Code: WMWBARPU
Collected: 4/12/23 12:10
Customer ID:
Submittal Date: 4/14/23 10:53

Laboratory ID Number: BD07414

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
* Potassium, Total	4/17/23 11:50	4/17/23 13:12		1.015	0.857	mg/L	0.169505	0.5075	
* Selenium, Total	4/17/23 11:50	4/17/23 13:12		1.015	0.000702	mg/L	0.000508	0.001015	J
* Thallium, Total	4/17/23 11:50	4/17/23 13:12		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 200.8		Analyst: DLJ							
* Antimony, Dissolved	4/17/23 09:38	4/17/23 10:07		1.015	Not Detected	mg/L	0.000710	0.001015	U
* Aluminum, Dissolved	4/17/23 09:38	4/17/23 10:07		1.015	0.0683	mg/L	0.009135	0.05075	
* Arsenic, Dissolved	4/17/23 09:38	4/17/23 10:07		1.015	Not Detected	mg/L	0.000112	0.000203	U
* Barium, Dissolved	4/17/23 09:38	4/17/23 10:07		1.015	0.136	mg/L	0.000508	0.001015	
* Beryllium, Dissolved	4/17/23 09:38	4/17/23 10:07		1.015	0.000411	mg/L	0.000406	0.001015	J
* Cadmium, Dissolved	4/17/23 09:38	4/17/23 10:07		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Dissolved	4/17/23 09:38	4/17/23 10:07		1.015	0.000946	mg/L	0.000203	0.001015	J
* Cobalt, Dissolved	4/17/23 09:38	4/17/23 10:07		1.015	0.00155	mg/L	0.000068	0.000203	
* Lead, Dissolved	4/17/23 09:38	4/17/23 10:07		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Dissolved	4/17/23 09:38	4/17/23 10:07		1.015	0.0210	mg/L	0.000152	0.001015	
* Potassium, Dissolved	4/17/23 09:38	4/17/23 10:07		1.015	0.860	mg/L	0.169505	0.5075	
* Selenium, Dissolved	4/17/23 09:38	4/17/23 10:07		1.015	0.000665	mg/L	0.000508	0.001015	J
* Thallium, Dissolved	4/17/23 09:38	4/17/23 10:07		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 245.1		Analyst: CRB							
* Mercury, Total by CVAA	4/20/23 18:26	4/21/23 01:24		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: EPA 353.2		Analyst: SC							
* Nitrogen, Nitrate/Nitrite	4/17/23 15:27	4/17/23 15:27		1	1.27	mg/L as N	0.20	0.3	
Analytical Method: SM 2320 B		Analyst: ALH							
* Alkalinity to pH 4.5	4/25/23 10:52	4/25/23 11:47		1	2.96	mg CaCO3/L		0.10	
Analytical Method: SM 2540C		Analyst: CNJ							
* Solids, Dissolved	4/14/23 13:40	4/17/23 13:45		1	27.3	mg/L		25	
Analytical Method: SM 4500CO2 D		Analyst: ALH							
* Bicarbonate Alkalinity, (calc.)	4/25/23 10:52	4/25/23 11:47		1	2.96	mg CaCO3/L		1	
* Carbonate Alkalinity, (calc.)	4/25/23 10:52	4/25/23 11:47		1	Not Detected	mg CaCO3/L		0.5	
Analytical Method: SM 5310 B		Analyst: SC							
* Total Organic Carbon	4/17/23 18:11	4/17/23 18:11		1	Not Detected	mg/L	1.00	2	U

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Barry Pooled Upgradient - MW-2

Location Code: WMWBARPU

Collected: 4/12/23 12:10

Customer ID:

Submittal Date: 4/14/23 10:53

Laboratory ID Number: BD07414

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM4500Cl E		Analyst: JCC							
* Chloride	4/19/23 11:47	4/19/23 11:47		1	2.25	mg/L	0.50	1	
Analytical Method: SM4500F G 2017		Analyst: JCC							
* Fluoride	4/19/23 13:00	4/19/23 13:00		1	Not Detected	mg/L	0.06	0.125	U
Analytical Method: SM4500SO4 E 2011		Analyst: JCC							
* Sulfate	4/18/23 09:51	4/18/23 09:51		1	8.54	mg/L	0.6	2	
Analytical Method: Field Measurements		Analyst: TJD							
Conductivity	4/12/23 12:08	4/12/23 12:08			51.68	uS/cm			FA
pH	4/12/23 12:08	4/12/23 12:08			4.67	SU			FA
Temperature	4/12/23 12:08	4/12/23 12:08			19.45	C			FA
Turbidity	4/12/23 12:08	4/12/23 12:08			8.09	NTU			FA
Sulfide	4/12/23 12:08	4/12/23 12:08			0	mg/L			FA

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWBARPU
Sample Date: 4/12/23 12:10
Customer ID:
Delivery Date: 4/14/23 10:53

Description: Barry Pooled Upgradient - MW-2

Laboratory ID Number: BD07414

Sample	Analysis	Units	MB	MB				Standard		Rec		Prec	Limit
				Limit	Spike	MS	MSD	Standard	Limit	Rec	Limit		
BD07415	Aluminum, Dissolved	mg/L	-0.000203	0.0198	0.100	0.152	0.153	0.101	0.0850 to 0.115	96.0	70.0 to 130	0.656	20.0
BD07417	Aluminum, Total	mg/L	0.000313	0.0198	0.100	0.0965	0.0975	0.0986	0.0850 to 0.115	96.5	70.0 to 130	1.03	20.0
BD07415	Antimony, Dissolved	mg/L	0.000286	0.00100	0.100	0.0904	0.0930	0.0926	0.0850 to 0.115	90.4	70.0 to 130	2.84	20.0
BD07417	Antimony, Total	mg/L	0.000390	0.00100	0.100	0.0912	0.0914	0.0889	0.0850 to 0.115	91.2	70.0 to 130	0.219	20.0
BD07415	Arsenic, Dissolved	mg/L	0.0000131	0.000200	0.100	0.0991	0.0998	0.100	0.0850 to 0.115	99.0	70.0 to 130	0.704	20.0
BD07417	Arsenic, Total	mg/L	0.0000162	0.000200	0.100	0.0986	0.0999	0.100	0.0850 to 0.115	98.6	70.0 to 130	1.31	20.0
BD07415	Barium, Dissolved	mg/L	0.0000409	0.00100	0.100	0.178	0.178	0.0981	0.0850 to 0.115	97.9	70.0 to 130	0.00	20.0
BD07417	Barium, Total	mg/L	0.0000205	0.00100	0.100	0.0983	0.101	0.104	0.0850 to 0.115	98.3	70.0 to 130	2.71	20.0
BD07415	Beryllium, Dissolved	mg/L	0.0000340	0.000880	0.100	0.0970	0.101	0.100	0.0850 to 0.115	97.0	70.0 to 130	4.04	20.0
BD07417	Beryllium, Total	mg/L	0.0000276	0.000880	0.100	0.101	0.101	0.0988	0.0850 to 0.115	101	70.0 to 130	0.00	20.0
BD07415	Boron, Dissolved	mg/L	-0.000211	0.0650	1.00	1.05	1.06	1.02	0.850 to 1.15	100	70.0 to 130	0.948	20.0
BD07417	Boron, Total	mg/L	-0.000030	0.0650	1.00	0.997	0.992	1.01	0.850 to 1.15	99.7	70.0 to 130	0.503	20.0
BD07415	Cadmium, Dissolved	mg/L	-0.0000003	0.000147	0.100	0.100	0.102	0.101	0.0850 to 0.115	100	70.0 to 130	1.98	20.0
BD07417	Cadmium, Total	mg/L	0.0000025	0.000147	0.100	0.0972	0.0983	0.101	0.0850 to 0.115	97.2	70.0 to 130	1.13	20.0
BD07415	Calcium, Dissolved	mg/L	-0.00525	0.152	5.00	5.80	5.94	4.91	4.25 to 5.75	95.4	70.0 to 130	2.39	20.0
BD07417	Calcium, Total	mg/L	-0.00628	0.152	5.00	5.00	4.88	4.94	4.25 to 5.75	100	70.0 to 130	2.43	20.0
BD07417	Chloride	mg/L	0.0658	1.00	10.0	11.1	11.2	11.0	9.00 to 11.0	111	80.0 to 120	0.897	20.0
BD07415	Chromium, Dissolved	mg/L	-0.0000139	0.000440	0.100	0.101	0.101	0.102	0.0850 to 0.115	101	70.0 to 130	0.00	20.0
BD07417	Chromium, Total	mg/L	-0.0000146	0.000440	0.100	0.0964	0.0994	0.101	0.0850 to 0.115	96.4	70.0 to 130	3.06	20.0
BD07415	Cobalt, Dissolved	mg/L	-0.0000973	0.000147	0.100	0.106	0.107	0.104	0.0850 to 0.115	102	70.0 to 130	0.939	20.0
BD07417	Cobalt, Total	mg/L	-0.0000965	0.000147	0.100	0.0988	0.100	0.103	0.0850 to 0.115	98.8	70.0 to 130	1.21	20.0
BD07417	Fluoride	mg/L	0.0394	0.125	2.50	2.57	2.64	2.58	2.25 to 2.75	103	80.0 to 120	2.69	20.0
BD07415	Iron, Dissolved	mg/L	0.00271	0.0176	0.2	3.84	3.84	0.202	0.170 to 0.230	90.0	70.0 to 130	0.00	20.0
BD07417	Iron, Total	mg/L	0.000031	0.0176	0.2	0.198	0.197	0.199	0.170 to 0.230	99.0	70.0 to 130	0.506	20.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWBARPU
Sample Date: 4/12/23 12:10
Customer ID:
Delivery Date: 4/14/23 10:53

Description: Barry Pooled Upgradient - MW-2

Laboratory ID Number: BD07414

Sample	Analysis	Units	MB		Spike	MS	MSD	Standard		Rec		Prec	Limit
			MB	Limit				Standard	Limit	Rec	Limit		
BD07415	Lead, Dissolved	mg/L	0.000064	0.000147	0.100	0.102	0.102	0.105	0.0850 to 0.115	102	70.0 to 130	0.00	20.0
BD07417	Lead, Total	mg/L	0.0000071	0.000147	0.100	0.103	0.105	0.104	0.0850 to 0.115	103	70.0 to 130	1.92	20.0
BD07415	Lithium, Dissolved	mg/L	0.00066	0.0154	0.200	0.200	0.198	0.196	0.170 to 0.230	100	70.0 to 130	1.01	20.0
BD07417	Lithium, Total	mg/L	0.00114	0.0154	0.200	0.193	0.195	0.196	0.170 to 0.230	96.5	70.0 to 130	1.03	20.0
BD07415	Magnesium, Dissolved	mg/L	0.00859	0.0462	5.00	6.72	6.78	4.90	4.25 to 5.75	97.2	70.0 to 130	0.889	20.0
BD07417	Magnesium, Total	mg/L	0.00979	0.0462	5.00	4.95	4.90	4.96	4.25 to 5.75	99.0	70.0 to 130	1.02	20.0
BD07415	Manganese, Dissolved	mg/L	0.0000117	0.00033	0.100	0.241	0.242	0.105	0.0850 to 0.115	102	70.0 to 130	0.414	20.0
BD07417	Manganese, Total	mg/L	0.0000023	0.00033	0.100	0.0994	0.101	0.104	0.0850 to 0.115	99.4	70.0 to 130	1.60	20.0
BD07415	Mercury, Total by CVAA	mg/L	0.000	0.000500	0.004	0.00396	0.00398	0.00393	0.00340 to 0.00460	99.0	70.0 to 130	0.504	20.0
BD07415	Molybdenum, Dissolved	mg/L	0.00135	0.0100	0.2	0.197	0.199	0.199	0.170 to 0.230	98.5	70.0 to 130	1.01	20.0
BD07417	Molybdenum, Total	mg/L	0.001	0.0100	0.2	0.196	0.196	0.197	0.170 to 0.230	98.0	70.0 to 130	0.00	20.0
BD07415	Potassium, Dissolved	mg/L	0.00156	0.367	10.0	10.2	10.3	9.98	8.50 to 11.5	97.2	70.0 to 130	0.976	20.0
BD07417	Potassium, Total	mg/L	-0.00118	0.367	10.0	9.67	9.73	9.93	8.50 to 11.5	96.7	70.0 to 130	0.619	20.0
BD07415	Selenium, Dissolved	mg/L	0.0000755	0.00100	0.100	0.102	0.103	0.102	0.0850 to 0.115	102	70.0 to 130	0.976	20.0
BD07417	Selenium, Total	mg/L	0.0000695	0.00100	0.100	0.100	0.100	0.101	0.0850 to 0.115	100	70.0 to 130	0.00	20.0
BD07415	Silicon, Dissolved	mg/L	-0.000488	0.0440	1.00	4.25	4.26	1.02	0.850 to 1.15	99.0	70.0 to 130	0.235	20.0
BD07417	Silicon, Total	mg/L	-0.000143	0.0440	1.00	1.01	1.00	1.01	0.850 to 1.15	101	70.0 to 130	0.995	20.0
BD07415	Sodium, Dissolved	mg/L	-0.000111	0.0880	5.00	6.73	6.68	4.86	4.25 to 5.75	96.2	70.0 to 130	0.746	20.0
BD07417	Sodium, Total	mg/L	-0.00109	0.0880	5.00	4.78	4.81	4.88	4.25 to 5.75	95.6	70.0 to 130	0.626	20.0
BD07417	Sulfate	mg/L	0.130	2.0	20.0	22.4	22.5	21.5	18.0 to 22.0	112	80.0 to 120	0.445	20.0
BD07415	Thallium, Dissolved	mg/L	-0.000112	0.000147	0.100	0.102	0.100	0.105	0.0850 to 0.115	102	70.0 to 130	1.98	20.0
BD07417	Thallium, Total	mg/L	-0.000111	0.000147	0.100	0.0987	0.103	0.101	0.0850 to 0.115	98.7	70.0 to 130	4.26	20.0
BD07417	Total Organic Carbon	mg/L	0.120	1.00	10.0	10.4	10.3	25.3		104	80.0 to 120	0.966	20.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWBARPU
Sample Date: 4/12/23 12:10
Customer ID:
Delivery Date: 4/14/23 10:53

Description: Barry Pooled Upgradient - MW-2

Laboratory ID Number: BD07414

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BD07415	Alkalinity to pH 4.5	mg CaCO3/L					5.60	52.04	45.0 to 55.0			26.6	10.0
BD07417	Nitrogen, Nitrate/Nitrite	mg/L as N	-0.04	0.200	2.00	2.10	-0.055	2.09	1.80 to 2.20	105	90.0 to 110	0.00	15.0
BD07415	Solids, Dissolved	mg/L	1.00	25.0			22.0	55.0	40.0 to 60.0			0.00	10.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Barry Pooled Upgradient - MW-1

Location Code: WMWBARPU
Collected: 4/12/23 13:05
Customer ID:
Submittal Date: 4/14/23 10:53

Laboratory ID Number: BD07415

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q	
Analytical Method: EPA 200.7		Analyst: ABB			Preparation Method: EPA 1638					
* Boron, Total	4/17/23 11:50	4/19/23 11:08		1.015	0.0464	mg/L	0.030000	0.1015	J	
* Calcium, Total	4/17/23 11:50	4/19/23 11:08		1.015	1.02	mg/L	0.070035	0.406		
* Iron, Total	4/17/23 11:50	4/19/23 11:08		1.015	3.90	mg/L	0.008120	0.0406		
* Lithium, Total	4/17/23 11:50	4/19/23 11:08		1.015	Not Detected	mg/L	0.007105	0.01999956	U	
* Magnesium, Total	4/17/23 11:50	4/19/23 11:08		1.015	1.83	mg/L	0.021315	0.406		
* Molybdenum, Total	4/17/23 11:50	4/19/23 11:08		1.015	Not Detected	mg/L	0.005075	0.01015	U	
* Silica, Total (calc.)	4/17/23 11:50	4/19/23 11:08		1	6.93	mg/L				
* Silicon, Total	4/17/23 11:50	4/19/23 11:08		1.015	3.24	mg/L	0.02030	0.25375		
* Sodium, Total	4/17/23 11:50	4/19/23 11:08		1.015	1.85	mg/L	0.04060	0.406		
Analytical Method: EPA 200.7		Analyst: ABB			Preparation Method: EPA 1638					
* Boron, Dissolved	4/17/23 09:38	4/19/23 10:33		1.015	0.0469	mg/L	0.030000	0.1015	J	
* Calcium, Dissolved	4/17/23 09:38	4/19/23 10:33		1.015	1.03	mg/L	0.070035	0.406		
* Iron, Dissolved	4/17/23 09:38	4/19/23 12:59		1.015	3.66	mg/L	0.008120	0.0406		
* Lithium, Dissolved	4/17/23 09:38	4/19/23 10:33		1.015	Not Detected	mg/L	0.007105	0.01999956	U	
* Magnesium, Dissolved	4/17/23 09:38	4/19/23 10:33		1.015	1.86	mg/L	0.021315	0.406		
* Molybdenum, Dissolved	4/17/23 09:38	4/19/23 10:33		1.015	Not Detected	mg/L	0.005075	0.01015	U	
* Silica, Dissolved (calc.)	4/17/23 09:38	4/19/23 10:33		1	6.98	mg/L				
* Silicon, Dissolved	4/17/23 09:38	4/19/23 10:33		1.015	3.26	mg/L	0.02030	0.25375		
* Sodium, Dissolved	4/17/23 09:38	4/19/23 10:33		1.015	1.92	mg/L	0.04060	0.406		
Analytical Method: EPA 200.8		Analyst: DLJ			Preparation Method: EPA 1638					
* Antimony, Total	4/17/23 11:50	4/17/23 13:16		1.015	Not Detected	mg/L	0.000710	0.001015	U	
* Aluminum, Total	4/17/23 11:50	4/17/23 13:16		1.015	0.0616	mg/L	0.009135	0.05075		
* Arsenic, Total	4/17/23 11:50	4/17/23 13:16		1.015	0.000230	mg/L	0.000112	0.000203		
* Barium, Total	4/17/23 11:50	4/17/23 13:16		1.015	0.0820	mg/L	0.000508	0.001015		
* Beryllium, Total	4/17/23 11:50	4/17/23 13:16		1.015	Not Detected	mg/L	0.000406	0.001015	U	
* Cadmium, Total	4/17/23 11:50	4/17/23 13:16		1.015	Not Detected	mg/L	0.000068	0.000203	U	
* Chromium, Total	4/17/23 11:50	4/17/23 13:16		1.015	0.000215	mg/L	0.000203	0.001015	J	
* Cobalt, Total	4/17/23 11:50	4/17/23 13:16		1.015	0.00398	mg/L	0.000068	0.000203		
* Lead, Total	4/17/23 11:50	4/17/23 13:16		1.015	0.0000757	mg/L	0.000068	0.000203	J	
* Manganese, Total	4/17/23 11:50	4/17/23 13:16		1.015	0.135	mg/L	0.000152	0.001015		

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Barry Pooled Upgradient - MW-1

Location Code: WMWBARPU
Collected: 4/12/23 13:05
Customer ID:
Submittal Date: 4/14/23 10:53

Laboratory ID Number: BD07415

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
* Potassium, Total	4/17/23 11:50	4/17/23 13:16		1.015	0.474	mg/L	0.169505	0.5075	J
* Selenium, Total	4/17/23 11:50	4/17/23 13:16		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Total	4/17/23 11:50	4/17/23 13:16		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 200.8		Analyst: DLJ							
* Antimony, Dissolved	4/17/23 09:38	4/17/23 10:11		1.015	Not Detected	mg/L	0.000710	0.001015	U
* Aluminum, Dissolved	4/17/23 09:38	4/17/23 10:11		1.015	0.0560	mg/L	0.009135	0.05075	
* Arsenic, Dissolved	4/17/23 09:38	4/17/23 10:11		1.015	0.000119	mg/L	0.000112	0.000203	J
* Barium, Dissolved	4/17/23 09:38	4/17/23 10:11		1.015	0.0801	mg/L	0.000508	0.001015	
* Beryllium, Dissolved	4/17/23 09:38	4/17/23 10:11		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Dissolved	4/17/23 09:38	4/17/23 10:11		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Dissolved	4/17/23 09:38	4/17/23 10:11		1.015	Not Detected	mg/L	0.000203	0.001015	U
* Cobalt, Dissolved	4/17/23 09:38	4/17/23 10:11		1.015	0.00395	mg/L	0.000068	0.000203	
* Lead, Dissolved	4/17/23 09:38	4/17/23 10:11		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Dissolved	4/17/23 09:38	4/17/23 10:11		1.015	0.139	mg/L	0.000152	0.001015	
* Potassium, Dissolved	4/17/23 09:38	4/17/23 10:11		1.015	0.482	mg/L	0.169505	0.5075	J
* Selenium, Dissolved	4/17/23 09:38	4/17/23 10:11		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Dissolved	4/17/23 09:38	4/17/23 10:11		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 245.1		Analyst: CRB							
* Mercury, Total by CVAA	4/20/23 18:26	4/21/23 01:36		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: EPA 353.2		Analyst: SC							
* Nitrogen, Nitrate/Nitrite	4/17/23 15:28	4/17/23 15:28		1	Not Detected	mg/L as N	0.20	0.3	U
Analytical Method: SM 2320 B		Analyst: ALH							
* Alkalinity to pH 4.5	4/25/23 10:52	4/25/23 11:47		1	7.32	mg CaCO3/L		0.10	P
Analytical Method: SM 2540C		Analyst: CNJ							
* Solids, Dissolved	4/14/23 13:40	4/17/23 13:45		1	Not Detected	mg/L		25	U
Analytical Method: SM 4500CO2 D		Analyst: ALH							
* Bicarbonate Alkalinity, (calc.)	4/25/23 10:52	4/25/23 11:47		1	7.32	mg CaCO3/L		1	
* Carbonate Alkalinity, (calc.)	4/25/23 10:52	4/25/23 11:47		1	Not Detected	mg CaCO3/L		0.5	
Analytical Method: SM 5310 B		Analyst: SC							
* Total Organic Carbon	4/17/23 18:29	4/17/23 18:29		1	1.04	mg/L	1.00	2	J

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Barry Pooled Upgradient - MW-1

Location Code: WMWBARPU
Collected: 4/12/23 13:05
Customer ID:
Submittal Date: 4/14/23 10:53

Laboratory ID Number: BD07415

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM4500Cl E		Analyst: JCC							
* Chloride	4/19/23 11:48	4/19/23 11:48		1	2.31	mg/L	0.50	1	
Analytical Method: SM4500F G 2017		Analyst: JCC							
* Fluoride	4/19/23 13:01	4/19/23 13:01		1	Not Detected	mg/L	0.06	0.125	U
Analytical Method: SM4500SO4 E 2011		Analyst: JCC							
* Sulfate	4/18/23 09:52	4/18/23 09:52		1	11.8	mg/L	0.6	2	
Analytical Method: Field Measurements		Analyst: TJD							
Conductivity	4/12/23 13:00	4/12/23 13:00			50.26	uS/cm			FA
pH	4/12/23 13:00	4/12/23 13:00			4.77	SU			FA
Temperature	4/12/23 13:00	4/12/23 13:00			20.31	C			FA
Turbidity	4/12/23 13:00	4/12/23 13:00			2.86	NTU			FA
Sulfide	4/12/23 13:00	4/12/23 13:00			0	mg/L			FA

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWBARPU
Sample Date: 4/12/23 13:05
Customer ID:
Delivery Date: 4/14/23 10:53

Description: Barry Pooled Upgradient - MW-1

Laboratory ID Number: BD07415

Sample	Analysis	Units	MB	MB				Standard		Rec			Prec Limit
				Limit	Spike	MS	MSD	Standard	Limit	Rec	Limit	Prec	
BD07415	Aluminum, Dissolved	mg/L	-0.000203	0.0198	0.100	0.152	0.153	0.101	0.0850 to 0.115	96.0	70.0 to 130	0.656	20.0
BD07417	Aluminum, Total	mg/L	0.000313	0.0198	0.100	0.0965	0.0975	0.0986	0.0850 to 0.115	96.5	70.0 to 130	1.03	20.0
BD07415	Antimony, Dissolved	mg/L	0.000286	0.00100	0.100	0.0904	0.0930	0.0926	0.0850 to 0.115	90.4	70.0 to 130	2.84	20.0
BD07417	Antimony, Total	mg/L	0.000390	0.00100	0.100	0.0912	0.0914	0.0889	0.0850 to 0.115	91.2	70.0 to 130	0.219	20.0
BD07415	Arsenic, Dissolved	mg/L	0.0000131	0.000200	0.100	0.0991	0.0998	0.100	0.0850 to 0.115	99.0	70.0 to 130	0.704	20.0
BD07417	Arsenic, Total	mg/L	0.0000162	0.000200	0.100	0.0986	0.0999	0.100	0.0850 to 0.115	98.6	70.0 to 130	1.31	20.0
BD07415	Barium, Dissolved	mg/L	0.0000409	0.00100	0.100	0.178	0.178	0.0981	0.0850 to 0.115	97.9	70.0 to 130	0.00	20.0
BD07417	Barium, Total	mg/L	0.0000205	0.00100	0.100	0.0983	0.101	0.104	0.0850 to 0.115	98.3	70.0 to 130	2.71	20.0
BD07415	Beryllium, Dissolved	mg/L	0.0000340	0.000880	0.100	0.0970	0.101	0.100	0.0850 to 0.115	97.0	70.0 to 130	4.04	20.0
BD07417	Beryllium, Total	mg/L	0.0000276	0.000880	0.100	0.101	0.101	0.0988	0.0850 to 0.115	101	70.0 to 130	0.00	20.0
BD07415	Boron, Dissolved	mg/L	-0.000211	0.0650	1.00	1.05	1.06	1.02	0.850 to 1.15	100	70.0 to 130	0.948	20.0
BD07417	Boron, Total	mg/L	-0.000030	0.0650	1.00	0.997	0.992	1.01	0.850 to 1.15	99.7	70.0 to 130	0.503	20.0
BD07415	Cadmium, Dissolved	mg/L	-0.0000003	0.000147	0.100	0.100	0.102	0.101	0.0850 to 0.115	100	70.0 to 130	1.98	20.0
BD07417	Cadmium, Total	mg/L	0.0000025	0.000147	0.100	0.0972	0.0983	0.101	0.0850 to 0.115	97.2	70.0 to 130	1.13	20.0
BD07415	Calcium, Dissolved	mg/L	-0.00525	0.152	5.00	5.80	5.94	4.91	4.25 to 5.75	95.4	70.0 to 130	2.39	20.0
BD07417	Calcium, Total	mg/L	-0.00628	0.152	5.00	5.00	4.88	4.94	4.25 to 5.75	100	70.0 to 130	2.43	20.0
BD07417	Chloride	mg/L	0.0658	1.00	10.0	11.1	11.2	11.0	9.00 to 11.0	111	80.0 to 120	0.897	20.0
BD07415	Chromium, Dissolved	mg/L	-0.0000139	0.000440	0.100	0.101	0.101	0.102	0.0850 to 0.115	101	70.0 to 130	0.00	20.0
BD07417	Chromium, Total	mg/L	-0.0000146	0.000440	0.100	0.0964	0.0994	0.101	0.0850 to 0.115	96.4	70.0 to 130	3.06	20.0
BD07415	Cobalt, Dissolved	mg/L	-0.0000973	0.000147	0.100	0.106	0.107	0.104	0.0850 to 0.115	102	70.0 to 130	0.939	20.0
BD07417	Cobalt, Total	mg/L	-0.0000965	0.000147	0.100	0.0988	0.100	0.103	0.0850 to 0.115	98.8	70.0 to 130	1.21	20.0
BD07417	Fluoride	mg/L	0.0394	0.125	2.50	2.57	2.64	2.58	2.25 to 2.75	103	80.0 to 120	2.69	20.0
BD07415	Iron, Dissolved	mg/L	0.00271	0.0176	0.2	3.84	3.84	0.202	0.170 to 0.230	90.0	70.0 to 130	0.00	20.0
BD07417	Iron, Total	mg/L	0.000031	0.0176	0.2	0.198	0.197	0.199	0.170 to 0.230	99.0	70.0 to 130	0.506	20.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWBARPU
Sample Date: 4/12/23 13:05
Customer ID:
Delivery Date: 4/14/23 10:53

Description: Barry Pooled Upgradient - MW-1

Laboratory ID Number: BD07415

Sample	Analysis	Units	MB		Spike	MS	MSD	Standard		Rec		Prec	Limit
			MB	Limit				Standard	Limit	Rec	Limit		
BD07415	Lead, Dissolved	mg/L	0.000064	0.000147	0.100	0.102	0.102	0.105	0.0850 to 0.115	102	70.0 to 130	0.00	20.0
BD07417	Lead, Total	mg/L	0.0000071	0.000147	0.100	0.103	0.105	0.104	0.0850 to 0.115	103	70.0 to 130	1.92	20.0
BD07415	Lithium, Dissolved	mg/L	0.00066	0.0154	0.200	0.200	0.198	0.196	0.170 to 0.230	100	70.0 to 130	1.01	20.0
BD07417	Lithium, Total	mg/L	0.00114	0.0154	0.200	0.193	0.195	0.196	0.170 to 0.230	96.5	70.0 to 130	1.03	20.0
BD07415	Magnesium, Dissolved	mg/L	0.00859	0.0462	5.00	6.72	6.78	4.90	4.25 to 5.75	97.2	70.0 to 130	0.889	20.0
BD07417	Magnesium, Total	mg/L	0.00979	0.0462	5.00	4.95	4.90	4.96	4.25 to 5.75	99.0	70.0 to 130	1.02	20.0
BD07415	Manganese, Dissolved	mg/L	0.0000117	0.00033	0.100	0.241	0.242	0.105	0.0850 to 0.115	102	70.0 to 130	0.414	20.0
BD07417	Manganese, Total	mg/L	0.0000023	0.00033	0.100	0.0994	0.101	0.104	0.0850 to 0.115	99.4	70.0 to 130	1.60	20.0
BD07415	Mercury, Total by CVAA	mg/L	0.000	0.000500	0.004	0.00396	0.00398	0.00393	0.00340 to 0.00460	99.0	70.0 to 130	0.504	20.0
BD07415	Molybdenum, Dissolved	mg/L	0.00135	0.0100	0.2	0.197	0.199	0.199	0.170 to 0.230	98.5	70.0 to 130	1.01	20.0
BD07417	Molybdenum, Total	mg/L	0.001	0.0100	0.2	0.196	0.196	0.197	0.170 to 0.230	98.0	70.0 to 130	0.00	20.0
BD07415	Potassium, Dissolved	mg/L	0.00156	0.367	10.0	10.2	10.3	9.98	8.50 to 11.5	97.2	70.0 to 130	0.976	20.0
BD07417	Potassium, Total	mg/L	-0.00118	0.367	10.0	9.67	9.73	9.93	8.50 to 11.5	96.7	70.0 to 130	0.619	20.0
BD07415	Selenium, Dissolved	mg/L	0.0000755	0.00100	0.100	0.102	0.103	0.102	0.0850 to 0.115	102	70.0 to 130	0.976	20.0
BD07417	Selenium, Total	mg/L	0.0000695	0.00100	0.100	0.100	0.100	0.101	0.0850 to 0.115	100	70.0 to 130	0.00	20.0
BD07415	Silicon, Dissolved	mg/L	-0.000488	0.0440	1.00	4.25	4.26	1.02	0.850 to 1.15	99.0	70.0 to 130	0.235	20.0
BD07417	Silicon, Total	mg/L	-0.000143	0.0440	1.00	1.01	1.00	1.01	0.850 to 1.15	101	70.0 to 130	0.995	20.0
BD07415	Sodium, Dissolved	mg/L	-0.000111	0.0880	5.00	6.73	6.68	4.86	4.25 to 5.75	96.2	70.0 to 130	0.746	20.0
BD07417	Sodium, Total	mg/L	-0.00109	0.0880	5.00	4.78	4.81	4.88	4.25 to 5.75	95.6	70.0 to 130	0.626	20.0
BD07417	Sulfate	mg/L	0.130	2.0	20.0	22.4	22.5	21.5	18.0 to 22.0	112	80.0 to 120	0.445	20.0
BD07415	Thallium, Dissolved	mg/L	-0.000112	0.000147	0.100	0.102	0.100	0.105	0.0850 to 0.115	102	70.0 to 130	1.98	20.0
BD07417	Thallium, Total	mg/L	-0.000111	0.000147	0.100	0.0987	0.103	0.101	0.0850 to 0.115	98.7	70.0 to 130	4.26	20.0
BD07417	Total Organic Carbon	mg/L	0.120	1.00	10.0	10.4	10.3	25.3		104	80.0 to 120	0.966	20.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWBARPU
Sample Date: 4/12/23 13:05
Customer ID:
Delivery Date: 4/14/23 10:53

Description: Barry Pooled Upgradient - MW-1

Laboratory ID Number: BD07415

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BD07415	Alkalinity to pH 4.5	mg CaCO3/L					5.60	52.04	45.0 to 55.0			26.6	10.0
BD07417	Nitrogen, Nitrate/Nitrite	mg/L as N	-0.04	0.200	2.00	2.10	-0.055	2.09	1.80 to 2.20	105	90.0 to 110	0.00	15.0
BD07415	Solids, Dissolved	mg/L	1.00	25.0			22.0	55.0	40.0 to 60.0			0.00	10.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Barry Pooled Upgradient Field Blank-1

Location Code: WMWBARPUFB
Collected: 4/12/23 13:35
Customer ID:
Submittal Date: 4/14/23 10:53

Laboratory ID Number: BD07416

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7		Analyst: ABB			Preparation Method: EPA 1638				
* Boron, Total	4/17/23 11:50	4/19/23 11:11		1.015	Not Detected	mg/L	0.030000	0.1015	U
* Calcium, Total	4/17/23 11:50	4/19/23 11:11		1.015	Not Detected	mg/L	0.070035	0.406	U
* Iron, Total	4/17/23 11:50	4/19/23 11:11		1.015	Not Detected	mg/L	0.008120	0.0406	U
* Lithium, Total	4/17/23 11:50	4/19/23 11:11		1.015	Not Detected	mg/L	0.007105	0.01999956	U
* Magnesium, Total	4/17/23 11:50	4/19/23 11:11		1.015	Not Detected	mg/L	0.021315	0.406	U
* Molybdenum, Total	4/17/23 11:50	4/19/23 11:11		1.015	Not Detected	mg/L	0.005075	0.01015	U
* Silica, Total (calc.)	4/17/23 11:50	4/19/23 11:11		1	Not Detected	mg/L			
* Silicon, Total	4/17/23 11:50	4/19/23 11:11		1.015	Not Detected	mg/L	0.02030	0.25375	U
* Sodium, Total	4/17/23 11:50	4/19/23 11:11		1.015	Not Detected	mg/L	0.04060	0.406	U
Analytical Method: EPA 200.8		Analyst: DLJ			Preparation Method: EPA 1638				
* Antimony, Total	4/17/23 11:50	4/17/23 13:20		1.015	Not Detected	mg/L	0.000710	0.001015	U
* Aluminum, Total	4/17/23 11:50	4/17/23 13:20		1.015	Not Detected	mg/L	0.009135	0.05075	U
* Arsenic, Total	4/17/23 11:50	4/17/23 13:20		1.015	Not Detected	mg/L	0.000112	0.000203	U
* Barium, Total	4/17/23 11:50	4/17/23 13:20		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Beryllium, Total	4/17/23 11:50	4/17/23 13:20		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Total	4/17/23 11:50	4/17/23 13:20		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Total	4/17/23 11:50	4/17/23 13:20		1.015	0.000320	mg/L	0.000203	0.001015	J
* Cobalt, Total	4/17/23 11:50	4/17/23 13:20		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Lead, Total	4/17/23 11:50	4/17/23 13:20		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Total	4/17/23 11:50	4/17/23 13:20		1.015	Not Detected	mg/L	0.000152	0.001015	U
* Potassium, Total	4/17/23 11:50	4/17/23 13:20		1.015	Not Detected	mg/L	0.169505	0.5075	U
* Selenium, Total	4/17/23 11:50	4/17/23 13:20		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Total	4/17/23 11:50	4/17/23 13:20		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 245.1		Analyst: CRB							
* Mercury, Total by CVAA	4/20/23 18:26	4/21/23 01:28		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: EPA 353.2		Analyst: SC							
* Nitrogen, Nitrate/Nitrite	4/17/23 15:29	4/17/23 15:29		1	Not Detected	mg/L as N	0.20	0.3	U
Analytical Method: SM 2540C		Analyst: CNJ							
* Solids, Dissolved	4/14/23 13:40	4/17/23 13:45		1	Not Detected	mg/L		25	U

MDL's and RL's are adjusted for sample dilution, as applicable

Comments:

Certificate Of Analysis

Description: Barry Pooled Upgradient Field Blank-1

Location Code: WMWBARPUFB

Collected: 4/12/23 13:35

Customer ID:

Submittal Date: 4/14/23 10:53

Laboratory ID Number: BD07416

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM 5310 B		Analyst: SC							
* Total Organic Carbon	4/17/23 18:46	4/17/23 18:46		1	Not Detected	mg/L	1.00	2	U
Analytical Method: SM4500Cl E		Analyst: JCC							
* Chloride	4/19/23 11:49	4/19/23 11:49		1	Not Detected	mg/L	0.50	1	U
Analytical Method: SM4500F G 2017		Analyst: JCC							
* Fluoride	4/19/23 13:03	4/19/23 13:03		1	Not Detected	mg/L	0.06	0.125	U
Analytical Method: SM4500SO4 E 2011		Analyst: JCC							
* Sulfate	4/18/23 09:53	4/18/23 09:53		1	Not Detected	mg/L	0.6	2	U

MDL's and RL's are adjusted for sample dilution, as applicable

Comments:

Batch QC Summary

Customer Account: WMWBARPUFB

Sample Date: 4/12/23 13:35

Customer ID:

Delivery Date: 4/14/23 10:53

Description: Barry Pooled Upgradient Field Blank-1

Laboratory ID Number: BD07416

Sample	Analysis	Units	MB	MB				Standard		Rec		Prec	Limit
				Limit	Spike	MS	MSD	Standard	Limit	Rec	Limit		
BD07417	Aluminum, Total	mg/L	0.000313	0.0198	0.100	0.0965	0.0975	0.0986	0.0850 to 0.115	96.5	70.0 to 130	1.03	20.0
BD07417	Antimony, Total	mg/L	0.000390	0.00100	0.100	0.0912	0.0914	0.0889	0.0850 to 0.115	91.2	70.0 to 130	0.219	20.0
BD07417	Arsenic, Total	mg/L	0.0000162	0.000200	0.100	0.0986	0.0999	0.100	0.0850 to 0.115	98.6	70.0 to 130	1.31	20.0
BD07417	Barium, Total	mg/L	0.0000205	0.00100	0.100	0.0983	0.101	0.104	0.0850 to 0.115	98.3	70.0 to 130	2.71	20.0
BD07417	Beryllium, Total	mg/L	0.0000276	0.000880	0.100	0.101	0.101	0.0988	0.0850 to 0.115	101	70.0 to 130	0.00	20.0
BD07417	Boron, Total	mg/L	-0.000030	0.0650	1.00	0.997	0.992	1.01	0.850 to 1.15	99.7	70.0 to 130	0.503	20.0
BD07417	Cadmium, Total	mg/L	0.0000025	0.000147	0.100	0.0972	0.0983	0.101	0.0850 to 0.115	97.2	70.0 to 130	1.13	20.0
BD07417	Calcium, Total	mg/L	-0.00628	0.152	5.00	5.00	4.88	4.94	4.25 to 5.75	100	70.0 to 130	2.43	20.0
BD07417	Chloride	mg/L	0.0658	1.00	10.0	11.1	11.2	11.0	9.00 to 11.0	111	80.0 to 120	0.897	20.0
BD07417	Chromium, Total	mg/L	-0.0000146	0.000440	0.100	0.0964	0.0994	0.101	0.0850 to 0.115	96.4	70.0 to 130	3.06	20.0
BD07417	Cobalt, Total	mg/L	-0.0000965	0.000147	0.100	0.0988	0.100	0.103	0.0850 to 0.115	98.8	70.0 to 130	1.21	20.0
BD07417	Fluoride	mg/L	0.0394	0.125	2.50	2.57	2.64	2.58	2.25 to 2.75	103	80.0 to 120	2.69	20.0
BD07417	Iron, Total	mg/L	0.000031	0.0176	0.2	0.198	0.197	0.199	0.170 to 0.230	99.0	70.0 to 130	0.506	20.0
BD07417	Lead, Total	mg/L	0.0000071	0.000147	0.100	0.103	0.105	0.104	0.0850 to 0.115	103	70.0 to 130	1.92	20.0
BD07417	Lithium, Total	mg/L	0.00114	0.0154	0.200	0.193	0.195	0.196	0.170 to 0.230	96.5	70.0 to 130	1.03	20.0
BD07417	Magnesium, Total	mg/L	0.00979	0.0462	5.00	4.95	4.90	4.96	4.25 to 5.75	99.0	70.0 to 130	1.02	20.0
BD07417	Manganese, Total	mg/L	0.0000023	0.00033	0.100	0.0994	0.101	0.104	0.0850 to 0.115	99.4	70.0 to 130	1.60	20.0
BD07415	Mercury, Total by CVAA	mg/L	0.000	0.000500	0.004	0.00396	0.00398	0.00393	0.00340 to 0.00460	99.0	70.0 to 130	0.504	20.0
BD07417	Molybdenum, Total	mg/L	0.001	0.0100	0.2	0.196	0.196	0.197	0.170 to 0.230	98.0	70.0 to 130	0.00	20.0
BD07417	Potassium, Total	mg/L	-0.00118	0.367	10.0	9.67	9.73	9.93	8.50 to 11.5	96.7	70.0 to 130	0.619	20.0
BD07417	Selenium, Total	mg/L	0.0000695	0.00100	0.100	0.100	0.100	0.101	0.0850 to 0.115	100	70.0 to 130	0.00	20.0
BD07417	Silicon, Total	mg/L	-0.000143	0.0440	1.00	1.01	1.00	1.01	0.850 to 1.15	101	70.0 to 130	0.995	20.0
BD07417	Sodium, Total	mg/L	-0.00109	0.0880	5.00	4.78	4.81	4.88	4.25 to 5.75	95.6	70.0 to 130	0.626	20.0
BD07417	Sulfate	mg/L	0.130	2.0	20.0	22.4	22.5	21.5	18.0 to 22.0	112	80.0 to 120	0.445	20.0

Comments:

Batch QC Summary

Customer Account: WMWBARPUFB

Sample Date: 4/12/23 13:35

Customer ID:

Delivery Date: 4/14/23 10:53

Description: Barry Pooled Upgradient Field Blank-1

Laboratory ID Number: BD07416

Sample	Analysis	Units	MB	MB				Standard		Rec		Prec	
				Limit	Spike	MS	MSD	Standard	Limit	Rec	Limit	Prec	Limit
BD07417	Thallium, Total	mg/L	-0.000111	0.000147	0.100	0.0987	0.103	0.101	0.0850 to 0.115	98.7	70.0 to 130	4.26	20.0
BD07417	Total Organic Carbon	mg/L	0.120	1.00	10.0	10.4	10.3	25.3		104	80.0 to 120	0.966	20.0

Comments:

Batch QC Summary

Customer Account: WMWBARPUFB

Sample Date: 4/12/23 13:35

Customer ID:

Delivery Date: 4/14/23 10:53

Description: Barry Pooled Upgradient Field Blank-1

Laboratory ID Number: BD07416

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BD07417	Nitrogen, Nitrate/Nitrite	mg/L as N	-0.04	0.200	2.00	2.10	-0.055	2.09	1.80 to 2.20	105	90.0 to 110	0.00	15.0
BD07415	Solids, Dissolved	mg/L	1.00	25.0			22.0	55.0	40.0 to 60.0			0.00	10.0

Comments:

Certificate Of Analysis

Description: Barry Pooled Upgradient Equipment Blank-1

Location Code: WMWBARPUEB
Collected: 4/12/23 13:45
Customer ID:
Submittal Date: 4/14/23 10:53

Laboratory ID Number: BD07417

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7		Analyst: ABB			Preparation Method: EPA 1638				
* Boron, Total	4/17/23 11:50	4/19/23 11:14		1.015	Not Detected	mg/L	0.030000	0.1015	U
* Calcium, Total	4/17/23 11:50	4/19/23 11:14		1.015	Not Detected	mg/L	0.070035	0.406	U
* Iron, Total	4/17/23 11:50	4/19/23 11:14		1.015	Not Detected	mg/L	0.008120	0.0406	U
* Lithium, Total	4/17/23 11:50	4/19/23 11:14		1.015	Not Detected	mg/L	0.007105	0.01999956	U
* Magnesium, Total	4/17/23 11:50	4/19/23 11:14		1.015	Not Detected	mg/L	0.021315	0.406	U
* Molybdenum, Total	4/17/23 11:50	4/19/23 11:14		1.015	Not Detected	mg/L	0.005075	0.01015	U
* Silica, Total (calc.)	4/17/23 11:50	4/19/23 11:14		1	Not Detected	mg/L			
* Silicon, Total	4/17/23 11:50	4/19/23 11:14		1.015	Not Detected	mg/L	0.02030	0.25375	U
* Sodium, Total	4/17/23 11:50	4/19/23 11:14		1.015	Not Detected	mg/L	0.04060	0.406	U
Analytical Method: EPA 200.8		Analyst: DLJ			Preparation Method: EPA 1638				
* Antimony, Total	4/17/23 11:50	4/17/23 13:23		1.015	Not Detected	mg/L	0.000710	0.001015	U
* Aluminum, Total	4/17/23 11:50	4/17/23 13:23		1.015	Not Detected	mg/L	0.009135	0.05075	U
* Arsenic, Total	4/17/23 11:50	4/17/23 13:23		1.015	Not Detected	mg/L	0.000112	0.000203	U
* Barium, Total	4/17/23 11:50	4/17/23 13:23		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Beryllium, Total	4/17/23 11:50	4/17/23 13:23		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Total	4/17/23 11:50	4/17/23 13:23		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Total	4/17/23 11:50	4/17/23 13:23		1.015	Not Detected	mg/L	0.000203	0.001015	U
* Cobalt, Total	4/17/23 11:50	4/17/23 13:23		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Lead, Total	4/17/23 11:50	4/17/23 13:23		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Total	4/17/23 11:50	4/17/23 13:23		1.015	Not Detected	mg/L	0.000152	0.001015	U
* Potassium, Total	4/17/23 11:50	4/17/23 13:23		1.015	Not Detected	mg/L	0.169505	0.5075	U
* Selenium, Total	4/17/23 11:50	4/17/23 13:23		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Total	4/17/23 11:50	4/17/23 13:23		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 245.1		Analyst: CRB							
* Mercury, Total by CVAA	4/20/23 18:26	4/21/23 01:32		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: EPA 353.2		Analyst: SC							
* Nitrogen, Nitrate/Nitrite	4/17/23 15:30	4/17/23 15:30		1	Not Detected	mg/L as N	0.20	0.3	U
Analytical Method: SM 2540C		Analyst: CNJ							
* Solids, Dissolved	4/14/23 13:40	4/17/23 13:45		1	Not Detected	mg/L		25	U

MDL's and RL's are adjusted for sample dilution, as applicable

Comments:

Certificate Of Analysis

Description: Barry Pooled Upgradient Equipment Blank-1

Location Code: WMWBARPUEB

Collected: 4/12/23 13:45

Customer ID:

Submittal Date: 4/14/23 10:53

Laboratory ID Number: BD07417

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM 5310 B		Analyst: SC							
* Total Organic Carbon	4/17/23 18:58	4/17/23 18:58		1	Not Detected	mg/L	1.00	2	U
Analytical Method: SM4500Cl E		Analyst: JCC							
* Chloride	4/19/23 11:51	4/19/23 11:51		1	Not Detected	mg/L	0.50	1	U
Analytical Method: SM4500F G 2017		Analyst: JCC							
* Fluoride	4/19/23 13:04	4/19/23 13:04		1	Not Detected	mg/L	0.06	0.125	U
Analytical Method: SM4500SO4 E 2011		Analyst: JCC							
* Sulfate	4/18/23 09:54	4/18/23 09:54		1	Not Detected	mg/L	0.6	2	U

MDL's and RL's are adjusted for sample dilution, as applicable

Comments:

Batch QC Summary

Customer Account: WMWBARPUEB

Sample Date: 4/12/23 13:45

Customer ID:

Delivery Date: 4/14/23 10:53

Description: Barry Pooled Upgradient Equipment Blank-1

Laboratory ID Number: BD07417

Sample	Analysis	Units	MB	MB				Standard		Rec		Prec	Limit
				Limit	Spike	MS	MSD	Standard	Limit	Rec	Limit		
BD07417	Aluminum, Total	mg/L	0.000313	0.0198	0.100	0.0965	0.0975	0.0986	0.0850 to 0.115	96.5	70.0 to 130	1.03	20.0
BD07417	Antimony, Total	mg/L	0.000390	0.00100	0.100	0.0912	0.0914	0.0889	0.0850 to 0.115	91.2	70.0 to 130	0.219	20.0
BD07417	Arsenic, Total	mg/L	0.0000162	0.000200	0.100	0.0986	0.0999	0.100	0.0850 to 0.115	98.6	70.0 to 130	1.31	20.0
BD07417	Barium, Total	mg/L	0.0000205	0.00100	0.100	0.0983	0.101	0.104	0.0850 to 0.115	98.3	70.0 to 130	2.71	20.0
BD07417	Beryllium, Total	mg/L	0.0000276	0.000880	0.100	0.101	0.101	0.0988	0.0850 to 0.115	101	70.0 to 130	0.00	20.0
BD07417	Boron, Total	mg/L	-0.000030	0.0650	1.00	0.997	0.992	1.01	0.850 to 1.15	99.7	70.0 to 130	0.503	20.0
BD07417	Cadmium, Total	mg/L	0.0000025	0.000147	0.100	0.0972	0.0983	0.101	0.0850 to 0.115	97.2	70.0 to 130	1.13	20.0
BD07417	Calcium, Total	mg/L	-0.00628	0.152	5.00	5.00	4.88	4.94	4.25 to 5.75	100	70.0 to 130	2.43	20.0
BD07417	Chloride	mg/L	0.0658	1.00	10.0	11.1	11.2	11.0	9.00 to 11.0	111	80.0 to 120	0.897	20.0
BD07417	Chromium, Total	mg/L	-0.0000146	0.000440	0.100	0.0964	0.0994	0.101	0.0850 to 0.115	96.4	70.0 to 130	3.06	20.0
BD07417	Cobalt, Total	mg/L	-0.0000965	0.000147	0.100	0.0988	0.100	0.103	0.0850 to 0.115	98.8	70.0 to 130	1.21	20.0
BD07417	Fluoride	mg/L	0.0394	0.125	2.50	2.57	2.64	2.58	2.25 to 2.75	103	80.0 to 120	2.69	20.0
BD07417	Iron, Total	mg/L	0.000031	0.0176	0.2	0.198	0.197	0.199	0.170 to 0.230	99.0	70.0 to 130	0.506	20.0
BD07417	Lead, Total	mg/L	0.0000071	0.000147	0.100	0.103	0.105	0.104	0.0850 to 0.115	103	70.0 to 130	1.92	20.0
BD07417	Lithium, Total	mg/L	0.00114	0.0154	0.200	0.193	0.195	0.196	0.170 to 0.230	96.5	70.0 to 130	1.03	20.0
BD07417	Magnesium, Total	mg/L	0.00979	0.0462	5.00	4.95	4.90	4.96	4.25 to 5.75	99.0	70.0 to 130	1.02	20.0
BD07417	Manganese, Total	mg/L	0.0000023	0.00033	0.100	0.0994	0.101	0.104	0.0850 to 0.115	99.4	70.0 to 130	1.60	20.0
BD07415	Mercury, Total by CVAA	mg/L	0.000	0.000500	0.004	0.00396	0.00398	0.00393	0.00340 to 0.00460	99.0	70.0 to 130	0.504	20.0
BD07417	Molybdenum, Total	mg/L	0.001	0.0100	0.2	0.196	0.196	0.197	0.170 to 0.230	98.0	70.0 to 130	0.00	20.0
BD07417	Potassium, Total	mg/L	-0.00118	0.367	10.0	9.67	9.73	9.93	8.50 to 11.5	96.7	70.0 to 130	0.619	20.0
BD07417	Selenium, Total	mg/L	0.0000695	0.00100	0.100	0.100	0.100	0.101	0.0850 to 0.115	100	70.0 to 130	0.00	20.0
BD07417	Silicon, Total	mg/L	-0.000143	0.0440	1.00	1.01	1.00	1.01	0.850 to 1.15	101	70.0 to 130	0.995	20.0
BD07417	Sodium, Total	mg/L	-0.00109	0.0880	5.00	4.78	4.81	4.88	4.25 to 5.75	95.6	70.0 to 130	0.626	20.0
BD07417	Sulfate	mg/L	0.130	2.0	20.0	22.4	22.5	21.5	18.0 to 22.0	112	80.0 to 120	0.445	20.0

Comments:

Batch QC Summary

Customer Account: WMWBARPUEB

Sample Date: 4/12/23 13:45

Customer ID:

Delivery Date: 4/14/23 10:53

Description: Barry Pooled Upgradient Equipment Blank-1

Laboratory ID Number: BD07417

Sample	Analysis	Units	MB	MB				MSD	Standard	Standard		Rec		Prec	Limit
				Limit	Spike	MS	Standard			Limit	Rec	Limit	Prec		
BD07417	Thallium, Total	mg/L	-0.000111	0.000147	0.100	0.0987	0.103	0.101	0.0850 to 0.115		98.7	70.0 to 130		4.26	20.0
BD07417	Total Organic Carbon	mg/L	0.120	1.00	10.0	10.4	10.3	25.3			104	80.0 to 120		0.966	20.0

Comments:

Batch QC Summary

Customer Account: WMWBARPUEB

Sample Date: 4/12/23 13:45

Customer ID:

Delivery Date: 4/14/23 10:53

Description: Barry Pooled Upgradient Equipment Blank-1

Laboratory ID Number: BD07417

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BD07417	Nitrogen, Nitrate/Nitrite	mg/L as N	-0.04	0.200	2.00	2.10	-0.055	2.09	1.80 to 2.20	105	90.0 to 110	0.00	15.0
BD07415	Solids, Dissolved	mg/L	1.00	25.0			22.0	55.0	40.0 to 60.0			0.00	10.0

Comments:

Definitions

Project Number: WMWBARPU_1406

Abbreviation	Description
DF	Dilution Factor
LCS	Lab Control Sample
LFM	Lab Fortified Matrix
MB	Method Blank
MDL	Method Detection Limit; minimum concentration of an analyte that can be determined with 99% confidence that the concentration is greater than zero.
MS	Matrix Spike
MSD	Matrix Spike Duplicate
Prec	Precision (% RPD)
Q	Qualifier; comment used to note deviations or additional information associated with analytical results.
QC	Quality Control
Rec	Recovery of Matrix Spike
RL	Reporting Limit; lowest concentration at which an analyte can be quantitatively measured.
Vio Spec	Violation Specification; regulatory limit which has been exceeded by the sample analyzed.

Qualifier	Description
FA	Field results were reviewed by the Water Field Group. Refer to APC Field Case Narrative.
J	Reported value is an estimate because concentration is less than reporting limit.
P	Precision is out of specification limit.
U	Compound was analyzed, but not detected.



Chain of Custody

Groundwater

APC General Testing Laboratory

Field Complete
 Lab Complete

Outside Lab

Lab ETA

Requested Complete Date	Routine	Results To	Dustin Brooks, Greg Dyer
	Collector TJ Daugherty		Requested By
		Location	Barry Pooled Upgradient

Bottles	1	Metals	500 mL	3	Hg	250 mL	5	TDS/Alkalinity	500 mL	7	N/A	N/A
	2	Dissolved Metals	500 mL	4	Nitrite, Nitrate; TOC	250 mL	6	Anions	500 mL	8	N/A	N/A

Comments

Sample #	Date	Time	Bottle Count	Description	Lab Filter	Lab Id	pH Check
MW-4	04/12/2023	09:51	6	Groundwater		BD07411	<input checked="" type="checkbox"/>
MW-4 Dup	04/12/2023	09:51	6	Sample Duplicate		BD07412	<input checked="" type="checkbox"/>
MW-3	04/12/2023	11:05	6	Groundwater		BD07413	<input checked="" type="checkbox"/>
MW-2	04/12/2023	12:10	6	Groundwater		BD07414	<input checked="" type="checkbox"/>
MW-1	04/12/2023	13:05	6	Groundwater		BD07415	<input checked="" type="checkbox"/>
FB-1	04/12/2023	13:35	5	Field Blank		BD07416	<input checked="" type="checkbox"/>
EB-1	04/12/2023	13:45	5	Equipment Blank		BD07417	<input checked="" type="checkbox"/>
							<input type="checkbox"/>
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Relinquished By	Received By	Date/Time
		04/13/2023 13:31

SmarTroll ID	7586-41445-5-4	Cooler Temp	3.1 °C
Turbidity ID	4677-23343-4-2	Thermometer ID	10614-61208-2-1
Sample Event	1406	pH Strip ID	10429-60252-10-8

Bottles/Pre-Preserved Bottles are provided by the GTL.
 Total Metals and Alkalinity are not performed on Dissolved Sets
 Dissolved Metals and Alkalinity are not performed on blanks i.e. Field Blanks or Equipment Blanks



Chain of Custody

Groundwater

APC General Testing Laboratory

 Field Complete
 Lab Complete

 Outside Lab


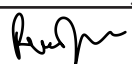
 Lab ETA

Requested Complete Date	Routine		Results To	Dustin Brooks, Greg Dyer	
	Collector	TJ Daugherty		Requested By	Greg Dyer
			Location	Barry Pooled Upgradient	

Bottles	1	Radium	1 L	3	N/A	N/A	5	N/A	N/A	7	N/A	N/A
	2	N/A	N/A	4	N/A	N/A	6	N/A	N/A	8	N/A	N/A

Comments	Rad MS/MSD @ MW-3
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Sample #	Date	Time	Bottle Count	Description	Lab Filter	Lab Id	pH Check
MW-4	04/12/2023	09:51	1	Groundwater		BD07418	<input checked="" type="checkbox"/>
MW-4 Dup	04/12/2023	09:51	1	Sample Duplicate		BD07419	<input checked="" type="checkbox"/>
MW-3	04/12/2023	11:05	3	Groundwater		BD07420	<input checked="" type="checkbox"/>
MW-2	04/12/2023	12:10	1	Groundwater		BD07421	<input checked="" type="checkbox"/>
MW-1	04/12/2023	13:05	1	Groundwater		BD07422	<input checked="" type="checkbox"/>
FB-1	04/12/2023	13:35	1	Field Blank		BD07423	<input checked="" type="checkbox"/>
EB-1	04/12/2023	13:45	1	Equipment Blank		BD07424	<input checked="" type="checkbox"/>
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Relinquished By	Received By	Date/Time
		04/13/2023 13:31

SmarTroll ID	7586-41445-5-4	Cooler Temp	N/A
Turbidity ID	4677-23343-4-2	Thermometer ID	N/A
Sample Event	1406	pH Strip ID	10429-60252-10-8

Bottles/Pre-Preserved Bottles are provided by the GTL.
 Total Metals and Alkalinity are not performed on Dissolved Sets
 Dissolved Metals and Alkalinity are not performed on blanks i.e. Field Blanks or Equipment Blanks

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040
205-664-6001

Analytical Report



Sample Group : WMWBARAP_1404

Project/Site : Barry Ash Pond
Bucks, AL 36512

For : Southern Company Services
3535 Colonnade Parkway
Birmingham, AL 35243

Attention : Dustin Brooks & Greg Dyer

Released By : Brooke Caton
tbwill@southernco.com
(205) 664-6101

May 18, 2023

Dear Dustin Brooks,

Enclosed are the analytical results for sample(s) received by the laboratory between April 05, 2023 and April 26, 2023. All results reported herein conform to the laboratory's most current Quality Assurance Manual. Results marked with an asterisk conform to the most current applicable TNI/NELAC requirements. Exceptions will be noted in the body of the report.

Laboratory certification ID: E571114
Issued By: State of Florida, Department of Health
Expiration: June 30, 2023

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Quality Control: **Brooke
Caton**

Digitally signed by Brooke
Caton
Date: 2023.05.18
09:42:10 -05'00'

Supervision: **T Durant
Maske**

Digitally signed by T Durant Maske
DN: cn=T Durant Maske, gn=T Durant Maske, c=US
United States, i=US United States
=tdmaske@Southernco.com
Reason: I am the author of this document
Location:
Date: 2023-05-19 14:04:05-00



REPORT OF LABORATORY ANALYSIS

This Certificate states the physical and/or chemical characteristics of the sample as submitted.
This document shall not be reproduced, except in full, without written consent from
Alabama Power's General Test Laboratory.



Total Metals ICP

Barry Ash Pond

WMWBARAP_1404

1. This report consists of all MWs and corresponding Lab IDs listed on the Chain of Custody.
2. Refer to comments on Chain of Custody for information regarding sample receipt.
3. All standards and solutions meet NELAP traceability requirements and were used within their recommended shelf life.

<u>Sample ID</u>	<u>Batch ID</u>	<u>Project ID</u>
BD06604	751626	WMWBARAP_1404
BD06605	751626	WMWBARAP_1404
BD06606	751626	WMWBARAP_1404
BD06607	751626	WMWBARAP_1404
BD06608	751626	WMWBARAP_1404
BD06609	751626	WMWBARAP_1404
BD06610	751626	WMWBARAP_1404
BD06611	751626	WMWBARAP_1404
BD06612	751626	WMWBARAP_1404
BD06613	751626	WMWBARAP_1404
BD06614	751627	WMWBARAP_1404
BD06615	751627	WMWBARAP_1404
BD06616	751627	WMWBARAP_1404
BD06617	751627	WMWBARAP_1404
BD06618	751627	WMWBARAP_1404
BD06619	751627	WMWBARAP_1404
BD06620	751627	WMWBARAP_1404
BD06621	751627	WMWBARAP_1404
BD06622	751627	WMWBARAP_1404
BD06623	751627	WMWBARAP_1404
BD06775	751825	WMWBARAP_1404
BD06776	751825	WMWBARAP_1404
BD06777	751825	WMWBARAP_1404
BD06778	751825	WMWBARAP_1404
BD06779	751825	WMWBARAP_1404
BD06780	751825	WMWBARAP_1404
BD06781	751825	WMWBARAP_1404
BD06826	751825	WMWBARAP_1404
BD06827	751825	WMWBARAP_1404
BD06828	751825	WMWBARAP_1404
BD06829	751826	WMWBARAP_1404

BD06830	751826	WMWBARAP_1404
BD06831	751826	WMWBARAP_1404
BD06832	751826	WMWBARAP_1404
BD06833	751826	WMWBARAP_1404
BD06834	751826	WMWBARAP_1404
BD06835	751826	WMWBARAP_1404
BD06836	751826	WMWBARAP_1404
BD06837	751826	WMWBARAP_1404
BD06838	751826	WMWBARAP_1404
BD06839	751827	WMWBARAP_1404
BD06840	751827	WMWBARAP_1404
BD08112	753717	WMWBARAP_1404
BD08113	753717	WMWBARAP_1404
BD08114	753717	WMWBARAP_1404
BD08115	753717	WMWBARAP_1404
BD08116	753717	WMWBARAP_1404

4. All of the above samples were analyzed by EPA 200.7 and prepared by EPA 1638.
5. All samples were prepared and analyzed within the established hold times.
6. All in house quality control procedures were followed, as described below.

General Quality Control Procedures:

- Prior to sample analysis, an initial calibration verification (ICV) was analyzed, and all criteria were met.
- Following the ICV, an initial calibration blank (ICB) was analyzed, and all criteria were met.
- All continued calibration verification (CCV) were within the acceptance criteria for the requested analytes.
- All continued calibration blanks (CCB) were analyzed, and all criteria were met.
- A preparation method blank and laboratory control sample were digested and analyzed with the samples in each digestion batch.
- All laboratory control sample criteria were met.
- The method blank associated with each digestion batch passed all acceptance criteria for all requested analytes.
- All calibration curve requirements were within acceptance criteria.
- All sample internal standard criteria were met.
- The spectral interference check associated with EPA 200.7 was analyzed and all acceptance criteria were met.
- It is noted that the QC summary page typically provides the QC results from the original batch analytical sequence. If dilutions were subsequently performed to bring sample concentrations within the calibration range, any additional QC data from the dilution analyses may need to be obtained from the laboratory. Any qualifications applied to original analyses or dilution re-analyses are based upon QC data available at the time of review.

Matrix Specific Quality Control Procedures:

Similarity of matrix and therefore relevance of matrix specific QC results should not be automatically inferred for any sample other than the sample selected for QC.

- A matrix spike and matrix spike duplicate were digested and analyzed with each ICP batch. All acceptance criteria for accuracy were met except for the following:
 - BD06613 Iron MS/MSD spike levels were less than 30% of the sample concentrations.
 - BD06828 Calcium and Magnesium MS/MSD spike levels were less than 30% of the sample concentrations.
 - BD06838 Iron MS/MSD spike levels were less than 30% of the sample concentrations.
 - BD08116 Iron MS/MSD spike levels were less than 30% of the sample concentrations.
 - A matrix spike and matrix spike duplicate were digested and analyzed with each ICP batch. All acceptance criteria for precision were met.
7. The following samples were diluted due to the analyzed sample concentration being greater than the high standard of the calibration curve:

<u>Sample ID</u>	<u>Analyte</u>	<u>Dilution Factor</u>
BD06604	Iron	101.5
BD06606	Iron	101.5
BD06607	Iron, Sodium	101.5
BD06611	Iron	101.5
BD06613	Calcium, Iron	101.5
BD06614	Sodium	10.15
BD06615	Iron, Sodium	10.15
BD06618	Iron	10.15
BD06619	Calcium, Iron	101.5
BD06620	Iron, Sodium	10.15
BD06621	Iron	101.5
BD06622	Iron	101.5
BD06775	Iron, Sodium	101.5
BD06776	Iron, Sodium	101.5
BD06777	Iron, Sodium	101.5
BD06778	Iron, Sodium	101.5
BD06779	Calcium, Iron	10.15
BD06780	Iron, Sodium	101.5
BD06826	Iron	101.5
BD06827	Calcium, Iron, Sodium	101.5
BD06828	Calcium, Magnesium, Sodium	101.5
BD06829	Iron	101.5

Case Narrative

BD06830	Iron, Sodium	10.15
BD06831	Iron	101.5
BD06832	Sodium	10.15
BD06833	Iron	101.5
BD06835	Iron	10.15
BD06837	Sodium	10.15
BD06838	Iron	10.15
BD06839	Iron, Sodium	10.15
BD08113	Iron, Sodium	101.5
BD08114	Iron, Sodium	101.5
BD08115	Iron, Sodium	101.5
BD08116	Iron	101.5

8. The raw data results are shown with dilution factors included.

Dissolved Metals ICP

Barry Ash Pond

WMWBARAP_1404

1. This report consists of all MWs and corresponding Lab IDs listed on the Chain of Custody.
2. Refer to comments on Chain of Custody for information regarding sample receipt.
3. All standards and solutions meet NELAP traceability requirements and were used within their recommended shelf life.

<u>Sample ID</u>	<u>Batch ID</u>	<u>Project ID</u>
BD06604	751590	WMWBARAP_1404
BD06606	751590	WMWBARAP_1404
BD06607	751590	WMWBARAP_1404
BD06608	751590	WMWBARAP_1404
BD06609	751590	WMWBARAP_1404
BD06610	751590	WMWBARAP_1404
BD06611	751590	WMWBARAP_1404
BD06612	751590	WMWBARAP_1404
BD06613	751590	WMWBARAP_1404
BD06614	751590	WMWBARAP_1404
BD06615	751591	WMWBARAP_1404
BD06616	751591	WMWBARAP_1404
BD06618	751591	WMWBARAP_1404
BD06619	751591	WMWBARAP_1404
BD06620	751591	WMWBARAP_1404
BD06621	751591	WMWBARAP_1404
BD06622	751591	WMWBARAP_1404
BD06775	751779	WMWBARAP_1404
BD06776	751779	WMWBARAP_1404
BD06777	751779	WMWBARAP_1404
BD06778	751779	WMWBARAP_1404
BD06779	751779	WMWBARAP_1404
BD06780	751779	WMWBARAP_1404
BD06826	751779	WMWBARAP_1404
BD06827	751779	WMWBARAP_1404
BD06828	751779	WMWBARAP_1404
BD06829	751779	WMWBARAP_1404
BD06830	751780	WMWBARAP_1404
BD06831	751780	WMWBARAP_1404
BD06832	751780	WMWBARAP_1404
BD06833	751780	WMWBARAP_1404

BD06834	751780	WMWBARAP_1404
BD06835	751780	WMWBARAP_1404
BD06836	751780	WMWBARAP_1404
BD06837	751780	WMWBARAP_1404
BD06838	751780	WMWBARAP_1404
BD06839	751780	WMWBARAP_1404
BD08112	753753	WMWBARAP_1404
BD08113	753753	WMWBARAP_1404
BD08114	753753	WMWBARAP_1404
BD08115	753753	WMWBARAP_1404
BD08116	753753	WMWBARAP_1404

4. All of the above samples were analyzed and prepared by EPA 200.7 for dissolved analysis.
5. All samples were prepared and analyzed within the established hold times.
6. All in house quality control procedures were followed, as described below.

General Quality Control Procedures:

- Prior to sample analysis, an initial calibration verification (ICV) was analyzed, and all criteria were met.
- Following the ICV, an initial calibration blank (ICB) was analyzed, and all criteria were met.
- All continued calibration verification (CCV) were within the acceptance criteria for the requested analytes.
- All continued calibration blanks (CCB) were analyzed, and all criteria were met.
- Due to no filtered method blank (MB) or laboratory control sample (LCS) submitted with the sample set, an unfiltered MB and LCS were analyzed with the samples in each batch.
- All laboratory control sample criteria were met.
- The method blank associated with each batch passed all acceptance criteria for all requested analytes.
- All calibration curve requirements were within acceptance criteria.
- All sample internal standard criteria were met.
- The spectral interference check associated with EPA 200.7 was analyzed and all acceptance criteria were met.
- It is noted that the QC summary page typically provides the QC results from the original batch analytical sequence. If dilutions were subsequently performed to bring sample concentrations within the calibration range, any additional QC data from the dilution analyses may need to be obtained from the laboratory. Any qualifications applied to original analyses or dilution re-analyses are based upon QC data available at the time of review.

Matrix Specific Quality Control Procedures:

Similarity of matrix and therefore relevance of matrix specific QC results should not be automatically inferred for any sample other than the sample selected for QC.

Case Narrative

- A matrix spike and matrix spike duplicate were analyzed with each ICP batch. All acceptance criteria for accuracy were met except for the following:
 - BD06614 Sodium MS/MSD spike levels were less than 30% of the sample concentrations.
 - BD06622 Iron MS/MSD spike levels were less than 30% of the sample concentrations.
 - BD06829 Iron MS/MSD spike levels were less than 30% of the sample concentrations.
 - BD06839 Iron MS/MSD spike levels were less than 30% of the sample concentrations.
 - BD08116 Calcium and Iron MS/MSD spike levels were less than 30% of the sample concentrations.
 - A matrix spike and matrix spike duplicate were analyzed with each ICP batch. All acceptance criteria for precision were met.
7. The following samples were diluted due to the analyzed sample concentration being greater than the high standard of the calibration curve:

<u>Sample ID</u>	<u>Analyte</u>	<u>Dilution Factor</u>
BD06604	Iron	101.5
BD06606	Iron, Sodium	101.5
BD06607	Iron, Sodium	101.5
BD06611	Iron	101.5
BD06613	Calcium, Iron	101.5
BD06614	Sodium	10.15
BD06615	Iron, Sodium	10.15
BD06618	Iron	10.15
BD06619	Calcium, Iron	101.5
BD06620	Iron, Sodium	10.15
BD06621	Iron	101.5
BD06622	Iron	101.5
BD06775	Iron, Sodium	101.5
BD06776	Iron, Sodium	101.5
BD06777	Iron, Sodium	101.5
BD06778	Iron, Sodium	101.5
BD06779	Calcium, Iron	10.15
BD06780	Iron, Sodium	101.5
BD06826	Iron	101.5
BD06827	Calcium, Iron, Sodium	101.5
BD06828	Calcium, Magnesium, Sodium	101.5
BD06829	Iron	101.5
BD06830	Iron, Sodium	10.15
BD06831	Iron	101.5
BD06832	Sodium	10.15
BD06833	Iron	101.5
BD06836	Sodium	10.15

Case Narrative

BD06837	Sodium	10.15
BD06838	Iron	10.15
BD06839	Iron, Sodium	10.15
BD08113	Iron, Sodium	101.5
BD08114	Iron, Sodium	101.5
BD08115	Iron, Sodium	101.5
BD08116	Iron	101.5

8. The raw data results are shown with dilution factors included.

Total Metals ICPMS

Barry Ash Pond

WMWBARAP_1404

1. This report consists of all MWs and corresponding Lab IDs listed on the Chain of Custody.
2. Refer to comments on Chain of Custody for information regarding sample receipt.
3. All standards and solutions meet NELAP traceability requirements and were used within their recommended shelf life.

<u>Sample ID</u>	<u>Batch ID</u>	<u>Project ID</u>
BD06604	752355	WMWBARAP_1404
BD06605	752355	WMWBARAP_1404
BD06606	752355	WMWBARAP_1404
BD06607	752355	WMWBARAP_1404
BD06608	752355	WMWBARAP_1404
BD06609	752355	WMWBARAP_1404
BD06610	752355	WMWBARAP_1404
BD06611	752355	WMWBARAP_1404
BD06612	752355	WMWBARAP_1404
BD06613	752355	WMWBARAP_1404
BD06614	752356	WMWBARAP_1404
BD06615	752356	WMWBARAP_1404
BD06616	752356	WMWBARAP_1404
BD06617	752356	WMWBARAP_1404
BD06618	752356	WMWBARAP_1404
BD06619	752356	WMWBARAP_1404
BD06620	752356	WMWBARAP_1404
BD06621	752356	WMWBARAP_1404
BD06622	752356	WMWBARAP_1404
BD06623	752356	WMWBARAP_1404
BD06775	752397	WMWBARAP_1404
BD06776	752397	WMWBARAP_1404
BD06777	752397	WMWBARAP_1404
BD06778	752397	WMWBARAP_1404
BD06779	752397	WMWBARAP_1404
BD06780	752397	WMWBARAP_1404
BD06781	752397	WMWBARAP_1404
BD06826	752397	WMWBARAP_1404
BD06827	752397	WMWBARAP_1404
BD06828	752397	WMWBARAP_1404
BD06829	752398	WMWBARAP_1404

BD06830	752398	WMWBARAP_1404
BD06831	752398	WMWBARAP_1404
BD06832	752398	WMWBARAP_1404
BD06833	752398	WMWBARAP_1404
BD06834	752398	WMWBARAP_1404
BD06835	752398	WMWBARAP_1404
BD06836	752398	WMWBARAP_1404
BD06837	752398	WMWBARAP_1404
BD06838	752398	WMWBARAP_1404
BD06839	752399	WMWBARAP_1404
BD06840	752399	WMWBARAP_1404
BD08112	754564	WMWBARAP_1404
BD08113	754564	WMWBARAP_1404
BD08114	754564	WMWBARAP_1404
BD08115	754564	WMWBARAP_1404
BD08116	754564	WMWBARAP_1404

4. All of the above samples were analyzed by EPA 200.8 and prepared by EPA 1638.
5. All samples were prepared and analyzed within the established hold times.
6. All in house quality control procedures were followed, as described below.

General Quality Control Procedures:

- All tune and calibration met criteria for all requested analytes.
- Prior to sample analysis, an initial calibration verification (ICV) was analyzed, and all criteria were met.
- Following the ICV, an initial calibration blank (ICB) was analyzed and was below the limit of quantitation for all requested analytes.
- All continued calibration verification (CCV) were within the acceptance criteria for the requested analytes.
- All continued calibration blanks (CCB) were below the limit of quantitation for the requested analytes.
- A preparation method blank and laboratory control sample were digested and analyzed with the samples in each digestion batch.
- All laboratory control sample criteria were met.
- The method blank associated with each digestion batch passed all acceptance criteria for all requested analytes.
- The interference check samples associated with EPA 200.8 were analyzed and passed for all requested analytes.
- All sample internal standard criteria were met.
- It is noted that the QC summary page typically provides the QC results from the original batch analytical sequence. If dilutions were subsequently performed to bring sample concentrations within the calibration range, any additional QC data from the dilution analyses may need to be obtained from the laboratory. Any qualifications applied to original analyses or dilution re-analyses are based upon QC data available at the time of review.

Matrix Specific Quality Control Procedures:

Similarity of matrix and therefore relevance of matrix specific QC results should not be automatically inferred for any sample other than the sample selected for QC.

- A matrix spike and matrix spike duplicate were digested and analyzed with each ICPMS batch. All acceptance criteria for accuracy were met, except for the following:
 - BD06828 Barium and Manganese MS and/or MSD spike levels were less than 30% of the sample concentrations.
 - BD08116 Manganese MS and/or MSD spike levels were less than 30% of the sample concentrations.
 - A matrix spike and matrix spike duplicate were digested and analyzed with each ICPMS batch. All acceptance criteria for precision were met.
7. The following samples were diluted due to the analyzed sample concentration being greater than the high standard of the calibration curve:

<u>Sample ID</u>	<u>Analyte</u>	<u>Dilution Factor</u>
BD06621	Manganese	5.075
BD06622	Manganese	5.075
BD06828	Manganese	5.075
BD08116	Manganese	5.075

8. The raw data results are shown with dilution factors included.

Dissolved Metals ICPMS

Barry Ash Pond

WMWBARAP_1404

1. This report consists of all MWs and corresponding Lab IDs listed on the Chain of Custody.
2. Refer to comments on Chain of Custody for information regarding sample receipt.
3. All standards and solutions meet NELAP traceability requirements and were used within their recommended shelf life.

<u>Sample ID</u>	<u>Batch ID</u>	<u>Project ID</u>
BD06604	752301	WMWBARAP_1404
BD06606	752301	WMWBARAP_1404
BD06607	752301	WMWBARAP_1404
BD06608	752301	WMWBARAP_1404
BD06609	752301	WMWBARAP_1404
BD06610	752301	WMWBARAP_1404
BD06611	752301	WMWBARAP_1404
BD06612	752301	WMWBARAP_1404
BD06613	752301	WMWBARAP_1404
BD06614	752301	WMWBARAP_1404
BD06615	752302	WMWBARAP_1404
BD06616	752302	WMWBARAP_1404
BD06618	752302	WMWBARAP_1404
BD06619	752302	WMWBARAP_1404
BD06620	752302	WMWBARAP_1404
BD06621	752302	WMWBARAP_1404
BD06622	752302	WMWBARAP_1404
BD06775	752272	WMWBARAP_1404
BD06776	752272	WMWBARAP_1404
BD06777	752272	WMWBARAP_1404
BD06778	752272	WMWBARAP_1404
BD06779	752272	WMWBARAP_1404
BD06780	752272	WMWBARAP_1404
BD06826	752272	WMWBARAP_1404
BD06827	752272	WMWBARAP_1404
BD06828	752272	WMWBARAP_1404
BD06829	752272	WMWBARAP_1404
BD06830	752273	WMWBARAP_1404
BD06831	752273	WMWBARAP_1404
BD06832	752273	WMWBARAP_1404
BD06833	752273	WMWBARAP_1404

BD06834	752273	WMWBARAP_1404
BD06835	752273	WMWBARAP_1404
BD06836	752273	WMWBARAP_1404
BD06837	752273	WMWBARAP_1404
BD06838	752273	WMWBARAP_1404
BD06839	752273	WMWBARAP_1404
BD08112	754593	WMWBARAP_1404
BD08113	754593	WMWBARAP_1404
BD08114	754593	WMWBARAP_1404
BD08115	754593	WMWBARAP_1404
BD08116	754593	WMWBARAP_1404

4. All of the above samples were analyzed and prepared by EPA 200.8 for dissolved analysis.
5. All samples were prepared and analyzed within the established hold times.
6. All in house quality control procedures were followed, as described below.

General Quality Control Procedures:

- All tune and calibration met criteria for all requested analytes.
- Prior to sample analysis, an initial calibration verification (ICV) was analyzed, and all criteria were met.
- Following the ICV, an initial calibration blank (ICB) was analyzed and was below the limit of quantitation for all requested analytes.
- All continued calibration verification (CCV) were within the acceptance criteria for the requested analytes.
- All continued calibration blanks (CCB) were below the limit of quantitation for the requested analytes.
- Due to no filtered method blank (MB) or laboratory control sample (LCS) submitted with the sample set, an unfiltered MB and LCS were analyzed with the samples in each batch.
- All laboratory control sample criteria were met.
- The method blank associated with each preparation batch passed all acceptance criteria for all requested analytes.
- The interference check samples associated with EPA 200.8 were analyzed and passed for all requested analytes.
- All sample internal standard criteria were met.
- It is noted that the QC summary page typically provides the QC results from the original batch analytical sequence. If dilutions were subsequently performed to bring sample concentrations within the calibration range, any additional QC data from the dilution analyses may need to be obtained from the laboratory. Any qualifications applied to original analyses or dilution re-analyses are based upon QC data available at the time of review.

Matrix Specific Quality Control Procedures:

Similarity of matrix and therefore relevance of matrix specific QC results should not be automatically inferred for any sample other than the sample selected for QC.

- A matrix spike and matrix spike duplicate were analyzed with each ICPMS batch. All acceptance criteria for accuracy were met, except for the following:
 - BD08116 Manganese MS/MSD spike levels were less than 30% of the sample concentrations.
 - A matrix spike and matrix spike duplicate were analyzed with each ICPMS batch. All acceptance criteria for precision were met.
7. The following samples were diluted due to the analyzed sample concentration being greater than the high standard of the calibration curve:

<u>Sample ID</u>	<u>Analyte</u>	<u>Dilution Factor</u>
BD06621	Manganese	5.075
BD06622	Manganese	5.075
BD06828	Manganese	5.075
BD08116	Manganese	5.075

8. The raw data results are shown with dilution factors included.

Mercury

Barry Ash Pond

WMWBARAP_1404

1. This report consists of all MWs and corresponding Lab IDs listed on the Chain of Custody.
2. Refer to comments on Chain of Custody for information regarding sample receipt.
3. All standards and solutions meet NELAP traceability requirements and were used within their recommended shelf life.

<u>Sample ID</u>	<u>Batch ID</u>	<u>Project ID</u>
BD06604	752145	WMWBARAP_1404
BD06605	752145	WMWBARAP_1404
BD06606	752145	WMWBARAP_1404
BD06607	752145	WMWBARAP_1404
BD06608	752145	WMWBARAP_1404
BD06609	752145	WMWBARAP_1404
BD06610	752145	WMWBARAP_1404
BD06611	752145	WMWBARAP_1404
BD06612	752145	WMWBARAP_1404
BD06613	752145	WMWBARAP_1404
BD06614	752146	WMWBARAP_1404
BD06615	752146	WMWBARAP_1404
BD06616	752146	WMWBARAP_1404
BD06617	752146	WMWBARAP_1404
BD06618	752146	WMWBARAP_1404
BD06619	752146	WMWBARAP_1404
BD06620	752146	WMWBARAP_1404
BD06621	752146	WMWBARAP_1404
BD06622	752146	WMWBARAP_1404
BD06623	752146	WMWBARAP_1404
BD06775	752147	WMWBARAP_1404
BD06776	752147	WMWBARAP_1404
BD06777	752147	WMWBARAP_1404
BD06778	752147	WMWBARAP_1404
BD06779	752147	WMWBARAP_1404
BD06780	752147	WMWBARAP_1404
BD06781	752147	WMWBARAP_1404
BD06826	752147	WMWBARAP_1404
BD06827	752147	WMWBARAP_1404
BD06828	752147	WMWBARAP_1404
BD06829	752148	WMWBARAP_1404

BD06830	752148	WMWBARAP_1404
BD06831	752148	WMWBARAP_1404
BD06832	752148	WMWBARAP_1404
BD06833	752148	WMWBARAP_1404
BD06834	752148	WMWBARAP_1404
BD06835	752148	WMWBARAP_1404
BD06836	752148	WMWBARAP_1404
BD06837	752148	WMWBARAP_1404
BD06838	752148	WMWBARAP_1404
BD06839	752468	WMWBARAP_1404
BD06840	752468	WMWBARAP_1404
BD08112	753660	WMWBARAP_1404
BD08113	753660	WMWBARAP_1404
BD08114	753660	WMWBARAP_1404
BD08115	753660	WMWBARAP_1404
BD08116	753660	WMWBARAP_1404

4. All of the above samples were analyzed and prepared by EPA 245.1.
5. All samples were prepared and analyzed within the established hold times.
6. All in house quality control procedures were followed, as described below.

General Quality Control Procedures:

- Prior to sample analysis, an initial calibration verification (ICV) was analyzed, and all criteria were met.
- Following the ICV, an initial calibration blank (ICB) was analyzed and was below the method detection limit for the requested analyte.
- All continued calibration verification (CCV) were within the acceptance criteria for the requested analyte.
- All continued calibration blanks (CCB) were below the limit of quantitation for the requested analyte.
- A preparation method blank and laboratory control sample were digested and analyzed with the samples in each digestion batch.
- All laboratory control sample criteria were met.
- The method blank associated with each digestion batch was below the limit of quantitation for the requested analyte.
- All calibration met criteria for the requested analyte.
- All response signals were satisfactory.

Matrix Specific Quality Control Procedures:

Similarity of matrix and therefore relevance of matrix specific QC results should not be automatically inferred for any sample other than the sample selected for QC.

Revision 5

- A matrix spike and matrix spike duplicate were digested and analyzed with each analytical batch. All acceptance criteria for accuracy were met.
 - A matrix spike and matrix spike duplicate were digested and analyzed with each analytical batch. All acceptance criteria for precision were met, except for the following:
 - BD06623 Precision is out of specification limit.
7. All samples were analyzed without a dilution.

Total Dissolved Solids

Barry Ash Pond

WMWBARAP_1404

1. This report consists of all MWs and corresponding Lab IDs listed on the Chain of Custody.
2. Refer to comments on Chain of Custody for information regarding sample receipt.
3. All standards and solutions meet NELAP traceability requirements and were used within their recommended shelf life.

<u>Sample ID</u>	<u>Batch ID</u>	<u>Project ID</u>
BD06604	751754	WMWBARAP_1404
BD06605	751754	WMWBARAP_1404
BD06606	751754	WMWBARAP_1404
BD06607	751754	WMWBARAP_1404
BD06608	751754	WMWBARAP_1404
BD06609	751754	WMWBARAP_1404
BD06610	751755	WMWBARAP_1404
BD06611	751754	WMWBARAP_1404
BD06612	751755	WMWBARAP_1404
BD06613	751755	WMWBARAP_1404
BD06614	751755	WMWBARAP_1404
BD06615	751755	WMWBARAP_1404
BD06616	751755	WMWBARAP_1404
BD06617	751755	WMWBARAP_1404
BD06618	751755	WMWBARAP_1404
BD06619	751755	WMWBARAP_1404
BD06620	751755	WMWBARAP_1404
BD06621	751896	WMWBARAP_1404
BD06622	751896	WMWBARAP_1404
BD06623	751896	WMWBARAP_1404
BD06775	751896	WMWBARAP_1404
BD06776	751896	WMWBARAP_1404
BD06777	751896	WMWBARAP_1404
BD06778	751896	WMWBARAP_1404
BD06779	751896	WMWBARAP_1404
BD06780	751896	WMWBARAP_1404
BD06781	751896	WMWBARAP_1404
BD06826	751897	WMWBARAP_1404
BD06827	751897	WMWBARAP_1404
BD06828	751897	WMWBARAP_1404
BD06829	751897	WMWBARAP_1404

BD06830	751897	WMWBARAP_1404
BD06831	752041	WMWBARAP_1404
BD06832	751897	WMWBARAP_1404
BD06833	751897	WMWBARAP_1404
BD06834	751897	WMWBARAP_1404
BD06835	751897	WMWBARAP_1404
BD06836	751897	WMWBARAP_1404
BD06837	752041	WMWBARAP_1404
BD06838	752041	WMWBARAP_1404
BD06839	752041	WMWBARAP_1404
BD06840	752041	WMWBARAP_1404
BD08112	753835	WMWBARAP_1404
BD08113	753835	WMWBARAP_1404
BD08114	753835	WMWBARAP_1404
BD08115	753836	WMWBARAP_1404
BD08116	753836	WMWBARAP_1404

4. All of the above samples were analyzed and prepared by Standard Method 2540C.
5. All samples were prepared and analyzed within the established hold times.
6. All in house quality control procedures were followed, as described below.

General Quality Control Procedures:

- A Method Blank was analyzed with each batch. All criteria were met.
- All final weights of samples, standards, and blanks agreed within 0.5mg of the previous weight.
- A sample duplicate was analyzed with each batch. RPD/2 was less than 5%.
- A laboratory control sample was analyzed with each batch. All criteria were met.
- Samples were between 2.5mg and 200mg residue.
- All samples with residue <2.5mg had the maximum volume of 150mL filtered. Affected samples are as follows:
 - BD06605
 - BD06617
 - BD06623
 - BD06781
 - BD06840

Alkalinity

Barry Ash Pond

WMWBARAP_1404

1. This report consists of all MWs and corresponding Lab IDs listed on the Chain of Custody.
2. Refer to comments on Chain of Custody for information regarding sample receipt.
3. All standards and solutions meet NELAP traceability requirements and were used within their recommended shelf life.

<u>Sample ID</u>	<u>Batch ID</u>	<u>Project ID</u>
BD06604	752552, 752553, 752554	WMWBARAP_1404
BD06606	752552, 752553, 752554	WMWBARAP_1404
BD06607	752552, 752553, 752554	WMWBARAP_1404
BD06608	752609, 752610, 752611	WMWBARAP_1404
BD06609	752609, 752610, 752611	WMWBARAP_1404
BD06610	752609, 752610, 752611	WMWBARAP_1404
BD06611	752552, 752553, 752554	WMWBARAP_1404
BD06612	752552, 752553, 752554	WMWBARAP_1404
BD06613	752609, 752610, 752611	WMWBARAP_1404
BD06614	752609, 752610, 752611	WMWBARAP_1404
BD06615	752609, 752610, 752611	WMWBARAP_1404
BD06616	752609, 752610, 752611	WMWBARAP_1404
BD06618	752552, 752553, 752554	WMWBARAP_1404
BD06619	752609, 752610, 752611	WMWBARAP_1404
BD06620	752609, 752610, 752611	WMWBARAP_1404
BD06621	752609, 752610, 752611	WMWBARAP_1404
BD06622	752609, 752610, 752611	WMWBARAP_1404
BD06775	752609, 752610, 752611	WMWBARAP_1404
BD06776	752609, 752610, 752611	WMWBARAP_1404
BD06777	752609, 752610, 752611	WMWBARAP_1404
BD06778	752609, 752610, 752611	WMWBARAP_1404
BD06779	752609, 752610, 752611	WMWBARAP_1404
BD06780	752609, 752610, 752611	WMWBARAP_1404
BD06826	752701, 752702, 752703	WMWBARAP_1404
BD06827	752701, 752702, 752703	WMWBARAP_1404
BD06828	752701, 752702, 752703	WMWBARAP_1404
BD06829	752701, 752702, 752703	WMWBARAP_1404
BD06830	752701, 752702, 752703	WMWBARAP_1404
BD06831	752701, 752702, 752703	WMWBARAP_1404
BD06832	752701, 752702, 752703	WMWBARAP_1404
BD06833	752701, 752702, 752703	WMWBARAP_1404

BD06834	752701, 752702, 752703	WMWBARAP_1404
BD06835	752701, 752702, 752703	WMWBARAP_1404
BD06836	752701, 752702, 752703	WMWBARAP_1404
BD06837	752701, 752702, 752703	WMWBARAP_1404
BD06838	752701, 752702, 752703	WMWBARAP_1404
BD06839	752701, 752702, 752703	WMWBARAP_1404
BD08112	754431, 754432, 754433	WMWBARAP_1404
BD08113	754431, 754432, 754433	WMWBARAP_1404
BD08114	754431, 754432, 754433	WMWBARAP_1404
BD08115	754431, 754432, 754433	WMWBARAP_1404
BD08116	754431, 754432, 754433	WMWBARAP_1404

4. All of the above samples were analyzed and prepared by Standard Method 2320B.
5. All samples were prepared and analyzed within the established hold times.
6. All in house quality control procedures were followed, as described below.

General Quality Control Procedures:

- An initial pH check was analyzed with each batch. The acceptance criteria were met.
 - A final pH check was analyzed with each batch. The acceptance criteria were met.
 - An alkalinity laboratory control sample was analyzed with each batch. Range criteria of within 10% of true value was met.
 - An alkalinity sample duplicate was analyzed with each batch. Precision criteria less than 10 RPD was met.
7. The following samples had pH>10 and/or TDS>500mg/L. Therefore, the calculations for carbonate and bicarbonate are estimates:
 - BD06220
 - BD06827
 - BD06828

Anions

Barry Ash Pond

WMWBARAP_1404

1. This report consists of all MWs and corresponding Lab IDs listed on the Chain of Custody.
2. Refer to comments on Chain of Custody for information regarding sample receipt.
3. All standards and solutions meet NELAP traceability requirements and were used within their recommended shelf life.

<u>Sample ID</u>	<u>Batch ID</u>	<u>Project ID</u>
BD06604	752402, 752421, 751761	WMWBARAP_1404
BD06605	752402, 752421, 751761	WMWBARAP_1404
BD06606	752402, 752421, 751761	WMWBARAP_1404
BD06607	752402, 752421, 751761	WMWBARAP_1404
BD06608	752402, 752421, 751761	WMWBARAP_1404
BD06609	752402, 752421, 751761	WMWBARAP_1404
BD06610	752402, 752421, 751761	WMWBARAP_1404
BD06611	752402, 752421, 751761	WMWBARAP_1404
BD06612	752402, 752421, 751761	WMWBARAP_1404
BD06613	752403, 752421, 751761	WMWBARAP_1404
BD06614	752403, 752422, 751762	WMWBARAP_1404
BD06615	752403, 752422, 751762	WMWBARAP_1404
BD06616	752403, 752422, 751762	WMWBARAP_1404
BD06617	752403, 752422, 751762	WMWBARAP_1404
BD06618	752403, 752422, 751762	WMWBARAP_1404
BD06619	752403, 752422, 751762	WMWBARAP_1404
BD06620	752403, 752422, 751762	WMWBARAP_1404
BD06621	752403, 752422, 751762	WMWBARAP_1404
BD06622	752403, 752422, 751762	WMWBARAP_1404
BD06623	752404, 752422, 751762	WMWBARAP_1404
BD06775	752404, 752423, 751763	WMWBARAP_1404
BD06776	752404, 752423, 751763	WMWBARAP_1404
BD06777	752404, 752423, 751763	WMWBARAP_1404
BD06778	752404, 752423, 751763	WMWBARAP_1404
BD06779	752404, 752423, 751763	WMWBARAP_1404
BD06780	752404, 752423, 751763	WMWBARAP_1404
BD06781	752404, 752423, 751763	WMWBARAP_1404
BD06826	752404, 752423, 752696	WMWBARAP_1404
BD06827	752404, 752423, 752696	WMWBARAP_1404
BD06828	752405, 752423, 752696	WMWBARAP_1404
BD06829	752405, 752424, 752696	WMWBARAP_1404

BD06830	752405, 752424, 752696	WMWBARAP_1404
BD06831	752405, 752424, 752696	WMWBARAP_1404
BD06832	752405, 752424, 752696	WMWBARAP_1404
BD06833	752405, 752424, 752696	WMWBARAP_1404
BD06834	752405, 752424, 752696	WMWBARAP_1404
BD06835	752405, 752424, 752696	WMWBARAP_1404
BD06836	752405, 752424, 752697	WMWBARAP_1404
BD06837	752405, 752424, 752697	WMWBARAP_1404
BD06838	752406, 752424, 752697	WMWBARAP_1404
BD06839	752406, 752425, 752697	WMWBARAP_1404
BD06840	752406, 752425, 752697	WMWBARAP_1404
BD08112	753980, 754043, 753927	WMWBARAP_1404
BD08113	753980, 754043, 753927	WMWBARAP_1404
BD08114	753980, 754043, 753927	WMWBARAP_1404
BD08115	753980, 754043, 753927	WMWBARAP_1404
BD08116	753980, 754043, 753927	WMWBARAP_1404

4. All of the above samples were analyzed and prepared by SM4500 Cl E, SM4500 F G, & SM4500 SO4 E.
5. All samples were prepared and analyzed within the established hold times.
6. All in house quality control procedures were followed, as described below.

General Quality Control Procedures:

- All calibration met criteria for the requested analyte.
- Prior to sample analysis, an initial calibration verification (ICV), and all criteria were met.
- Prior to sample analysis, an initial calibration blank (ICB) was analyzed and was below the limit of quantitation for the requested analyte.
- All continued calibration verification (CCV) were within the acceptance criteria for the requested analyte.
- All continued calibration blanks (CCB) were below the limit of quantitation for the requested analyte.
- It is noted that the QC summary page typically provides the QC results from the original batch analytical sequence. If dilutions were subsequently performed to bring sample concentrations within the calibration range, any additional QC data from the dilution analyses may need to be obtained from the laboratory. Any qualifications applied to original analyses or dilution re-analyses are based upon QC data available at the time of review.

Matrix Specific Quality Control Procedures:

Similarity of matrix and therefore relevance of matrix specific QC results should not be automatically inferred for any sample other than the sample selected for QC.

Case Narrative

- A matrix spike was analyzed with each batch. Acceptance criteria for accuracy were met, except for the following:
 - BD06613 Sulfate MS and/or MSD recovery is outside of the specification limits.
 - A sample duplicate was analyzed with each batch. Acceptance criteria for precision were met.
7. The following samples were diluted due to the analyzed sample concentration being greater than the high standard of the calibration curve:

<u>Sample ID</u>	<u>Analyte</u>	<u>Dilution Factor</u>
BD06604	Chloride	5
BD06606	Chloride, Sulfate	5, 4
BD06607	Chloride, Sulfate	5, 3
BD06611	Chloride	4
BD06613	Chloride	4
BD06614	Chloride	5
BD06615	Chloride	5
BD06619	Chloride	4
BD06620	Chloride	20
BD06775	Chloride, Sulfate	2, 3
BD06776	Chloride, Sulfate	2, 3
BD06777	Chloride, Sulfate	2, 3
BD06778	Chloride	2
BD06780	Chloride	5
BD06827	Chloride	80
BD06828	Chloride, Sulfate	100, 3
BD06830	Chloride	40
BD06831	Chloride	2
BD06832	Chloride	5
BD06833	Chloride	3
BD06834	Chloride	5
BD06836	Chloride	20
BD06837	Chloride	20
BD06838	Sulfate	3
BD06839	Chloride, Sulfate	4, 5
BD08112	Chloride	2
BD08113	Chloride, Sulfate	4, 4
BD08114	Chloride	20
BD08115	Chloride, Sulfate	4, 3
BD08116	Sulfate	3

8. The raw data results are shown with dilution factors included.

Nitrate-Nitrite

Barry Ash Pond

WMWBARAP_1404

1. This report consists of all MWs and corresponding Lab IDs listed on the Chain of Custody.
2. Refer to comments on Chain of Custody for information regarding sample receipt.
3. All standards and solutions meet NELAP traceability requirements and were used within their recommended shelf life.

<u>Sample ID</u>	<u>Batch ID</u>	<u>Project ID</u>
BD06604	751764	WMWBARAP_1404
BD06605	751764	WMWBARAP_1404
BD06606	751764	WMWBARAP_1404
BD06607	751764	WMWBARAP_1404
BD06608	751764	WMWBARAP_1404
BD06609	751764	WMWBARAP_1404
BD06610	751764	WMWBARAP_1404
BD06611	751764	WMWBARAP_1404
BD06612	751764	WMWBARAP_1404
BD06613	751764	WMWBARAP_1404
BD06614	751765	WMWBARAP_1404
BD06615	751765	WMWBARAP_1404
BD06616	751765	WMWBARAP_1404
BD06617	751765	WMWBARAP_1404
BD06618	751765	WMWBARAP_1404
BD06619	751765	WMWBARAP_1404
BD06620	751765	WMWBARAP_1404
BD06621	751765	WMWBARAP_1404
BD06622	751765	WMWBARAP_1404
BD06623	751765	WMWBARAP_1404
BD06775	751766	WMWBARAP_1404
BD06776	751766	WMWBARAP_1404
BD06777	751766	WMWBARAP_1404
BD06778	751766	WMWBARAP_1404
BD06779	751766	WMWBARAP_1404
BD06780	751766	WMWBARAP_1404
BD06781	751766	WMWBARAP_1404
BD06826	752105	WMWBARAP_1404
BD06827	752105	WMWBARAP_1404
BD06828	752105	WMWBARAP_1404
BD06829	752105	WMWBARAP_1404

BD06830	752105	WMWBARAP_1404
BD06831	752105	WMWBARAP_1404
BD06832	752105	WMWBARAP_1404
BD06833	752105	WMWBARAP_1404
BD06834	752105	WMWBARAP_1404
BD06835	752105	WMWBARAP_1404
BD06836	752106	WMWBARAP_1404
BD06837	752106	WMWBARAP_1404
BD06838	752106	WMWBARAP_1404
BD06839	752106	WMWBARAP_1404
BD06840	752106	WMWBARAP_1404
BD08112	753853	WMWBARAP_1404
BD08113	753853	WMWBARAP_1404
BD08114	753853	WMWBARAP_1404
BD08115	753853	WMWBARAP_1404
BD08116	753853	WMWBARAP_1404

4. All of the above samples were prepared and analyzed for NO_x by EPA 353.2.
5. All samples were prepared and analyzed within the established hold times.
6. All in house quality control procedures were followed, as described below.

General Quality Control Procedures:

- Water baseline report was run and met criteria.
- All calibration met criteria for the requested analytes.
- Prior to sample analysis, an initial calibration verification (ICV) was analyzed and met all criteria.
- All continued calibration verification (CCV) were within the acceptance criteria.
- Prior to sample analysis, an initial calibration blank (ICB) was analyzed and were below limit of detection.
- All continued calibration blanks (CCB) were below the limit of detection.

EPA 353.2 Specific QC:

- Prior to sample analysis, Cadmium coil reduction efficiency check met criteria.
- Matrix Specific QC:
 - A sample duplicate was run and criteria for precision was met.
 - A matrix spike was run and criteria for accuracy was met, except for the following:
 - BD06613 MS and/or MSD recovery is outside of the specification limits.
 - BD06835 MS and/or MSD recovery is outside of the specification limits.
- 7. All samples were analyzed without a dilution factor.
- 8. The raw data results are shown with dilution factors included.

Total Organic Carbon

Barry Ash Pond

WMWBARAP_1404

1. This report consists of all MWs and corresponding Lab IDs listed on the Chain of Custody.
2. Refer to comments on Chain of Custody for information regarding sample receipt.
3. All standards and solutions meet NELAP traceability requirements and were used within their recommended shelf life.

<u>Sample ID</u>	<u>Batch ID</u>	<u>Project ID</u>
BD06604	751638	WMWBARAP_1404
BD06605	751638	WMWBARAP_1404
BD06606	751638	WMWBARAP_1404
BD06607	751638	WMWBARAP_1404
BD06608	751638	WMWBARAP_1404
BD06609	751638	WMWBARAP_1404
BD06610	751638	WMWBARAP_1404
BD06611	751638	WMWBARAP_1404
BD06612	751638	WMWBARAP_1404
BD06613	751638	WMWBARAP_1404
BD06614	751639	WMWBARAP_1404
BD06615	751639	WMWBARAP_1404
BD06616	751639	WMWBARAP_1404
BD06617	751639	WMWBARAP_1404
BD06618	751639	WMWBARAP_1404
BD06619	751639	WMWBARAP_1404
BD06620	751639	WMWBARAP_1404
BD06621	751639	WMWBARAP_1404
BD06622	751639	WMWBARAP_1404
BD06623	751639	WMWBARAP_1404
BD06775	752153	WMWBARAP_1404
BD06776	752153	WMWBARAP_1404
BD06777	752153	WMWBARAP_1404
BD06778	752153	WMWBARAP_1404
BD06779	752153	WMWBARAP_1404
BD06780	752153	WMWBARAP_1404
BD06781	752153	WMWBARAP_1404
BD06826	752153	WMWBARAP_1404
BD06827	752153	WMWBARAP_1404
BD06828	752153	WMWBARAP_1404
BD06829	752154	WMWBARAP_1404

BD06830	752154	WMWBARAP_1404
BD06831	752154	WMWBARAP_1404
BD06832	752154	WMWBARAP_1404
BD06833	752154	WMWBARAP_1404
BD06834	752154	WMWBARAP_1404
BD06835	752154	WMWBARAP_1404
BD06836	752154	WMWBARAP_1404
BD06837	752154	WMWBARAP_1404
BD06838	752154	WMWBARAP_1404
BD06839	752155	WMWBARAP_1404
BD06840	752155	WMWBARAP_1404
BD08112	753964	WMWBARAP_1404
BD08113	753964	WMWBARAP_1404
BD08114	753964	WMWBARAP_1404
BD08115	753964	WMWBARAP_1404
BD08116	753964	WMWBARAP_1404

4. All of the above samples were prepared and analyzed by Standard Method 5310B.
5. All samples were prepared and analyzed within the established hold times.
6. All in house quality control procedures were followed, as described below.

General Quality Control Procedures:

- All calibration criteria were met.
- Prior to sample analysis, an initial calibration verification (ICV) was analyzed and met all criteria.
- Prior to sample analysis, an initial calibration blank (ICB) was analyzed and was $<1/2RL$.
- All continued calibration verifications (CCVs) were within the acceptance range.
- All continued calibration blanks (CCBs) were $<1/2RL$.

Matrix Specific Quality Control Procedures:

- A matrix spike and matrix spike duplicate were analyzed with each batch. All acceptance criteria for accuracy were met.
 - A matrix spike and matrix spike duplicate were analyzed with each batch. All acceptance criteria for precision were met.
7. All samples were analyzed without a dilution factor.
 8. The raw data results are shown with dilution factors included.

Certificate Of Analysis

Description: Barry Ash Pond - MW-15

Location Code: WMWBARAP
Collected: 4/3/23 09:12
Customer ID:
Submittal Date: 4/5/23 07:36

Laboratory ID Number: BD06604

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7		Analyst: ABB			Preparation Method: EPA 1638				
* Boron, Total	4/6/23 06:51	4/6/23 11:44		1.015	0.0713	mg/L	0.030000	0.1015	J
* Calcium, Total	4/6/23 06:51	4/6/23 11:44		1.015	6.76	mg/L	0.070035	0.406	
* Iron, Total	4/6/23 06:51	4/6/23 13:12		101.5	99.0	mg/L	0.8120	4.06	
* Lithium, Total	4/6/23 06:51	4/6/23 11:44		1.015	0.0189	mg/L	0.007105	0.01999956	J
* Magnesium, Total	4/6/23 06:51	4/6/23 11:44		1.015	5.38	mg/L	0.021315	0.406	
* Molybdenum, Total	4/6/23 06:51	4/6/23 11:44		1.015	Not Detected	mg/L	0.005075	0.01015	U
* Silica, Total (calc.)	4/6/23 06:51	4/6/23 11:44		1	13.0	mg/L			
* Silicon, Total	4/6/23 06:51	4/6/23 11:44		1.015	6.07	mg/L	0.02030	0.25375	
* Sodium, Total	4/6/23 06:51	4/6/23 11:44		1.015	39.0	mg/L	0.04060	0.406	
Analytical Method: EPA 200.7		Analyst: ABB			Preparation Method: EPA 1638				
* Boron, Dissolved	4/6/23 09:44	4/7/23 11:20		1.015	0.0825	mg/L	0.030000	0.1015	J
* Calcium, Dissolved	4/6/23 09:44	4/7/23 11:20		1.015	6.62	mg/L	0.070035	0.406	
* Iron, Dissolved	4/6/23 09:44	4/7/23 12:39		101.5	98.0	mg/L	0.8120	4.06	
* Lithium, Dissolved	4/6/23 09:44	4/7/23 11:20		1.015	0.0172	mg/L	0.007105	0.01999956	J
* Magnesium, Dissolved	4/6/23 09:44	4/7/23 11:20		1.015	5.39	mg/L	0.021315	0.406	
* Molybdenum, Dissolved	4/6/23 09:44	4/7/23 11:20		1.015	Not Detected	mg/L	0.005075	0.01015	U
* Silica, Dissolved (calc.)	4/6/23 09:44	4/7/23 11:20		1	13.2	mg/L			
* Silicon, Dissolved	4/6/23 09:44	4/7/23 11:20		1.015	6.18	mg/L	0.02030	0.25375	
* Sodium, Dissolved	4/6/23 09:44	4/7/23 11:20		1.015	38.5	mg/L	0.04060	0.406	
Analytical Method: EPA 200.8		Analyst: DLJ			Preparation Method: EPA 1638				
* Antimony, Total	4/6/23 06:51	4/7/23 11:31		1.015	Not Detected	mg/L	0.000710	0.001015	U
* Aluminum, Total	4/6/23 06:51	4/7/23 11:31		1.015	Not Detected	mg/L	0.009135	0.05075	U
* Arsenic, Total	4/6/23 06:51	4/7/23 11:31		1.015	0.0200	mg/L	0.000112	0.000203	
* Barium, Total	4/6/23 06:51	4/7/23 11:31		1.015	0.0810	mg/L	0.000508	0.001015	
* Beryllium, Total	4/6/23 06:51	4/7/23 11:31		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Total	4/6/23 06:51	4/7/23 11:31		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Total	4/6/23 06:51	4/7/23 11:31		1.015	0.000638	mg/L	0.000203	0.001015	J
* Cobalt, Total	4/6/23 06:51	4/7/23 11:31		1.015	0.0345	mg/L	0.000068	0.000203	
* Lead, Total	4/6/23 06:51	4/7/23 11:31		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Total	4/6/23 06:51	4/7/23 11:31		1.015	0.628	mg/L	0.000152	0.001015	

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Barry Ash Pond - MW-15

Location Code: WMWBARAP
Collected: 4/3/23 09:12
Customer ID:
Submittal Date: 4/5/23 07:36

Laboratory ID Number: BD06604

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
* Potassium, Total	4/6/23 06:51	4/7/23 11:31		1.015	4.80	mg/L	0.169505	0.5075	
* Selenium, Total	4/6/23 06:51	4/7/23 11:31		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Total	4/6/23 06:51	4/7/23 11:31		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 200.8		Analyst: DLJ							
* Antimony, Dissolved	4/6/23 09:44	4/6/23 11:11		1.015	Not Detected	mg/L	0.000710	0.001015	U
* Aluminum, Dissolved	4/6/23 09:44	4/6/23 11:11		1.015	Not Detected	mg/L	0.009135	0.05075	U
* Arsenic, Dissolved	4/6/23 09:44	4/6/23 11:11		1.015	0.0219	mg/L	0.000112	0.000203	
* Barium, Dissolved	4/6/23 09:44	4/6/23 11:11		1.015	0.0875	mg/L	0.000508	0.001015	
* Beryllium, Dissolved	4/6/23 09:44	4/6/23 11:11		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Dissolved	4/6/23 09:44	4/6/23 11:11		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Dissolved	4/6/23 09:44	4/6/23 11:11		1.015	0.000225	mg/L	0.000203	0.001015	J
* Cobalt, Dissolved	4/6/23 09:44	4/6/23 11:11		1.015	0.0376	mg/L	0.000068	0.000203	
* Lead, Dissolved	4/6/23 09:44	4/6/23 11:11		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Dissolved	4/6/23 09:44	4/6/23 11:11		1.015	0.632	mg/L	0.000152	0.001015	
* Potassium, Dissolved	4/6/23 09:44	4/6/23 11:11		1.015	4.79	mg/L	0.169505	0.5075	
* Selenium, Dissolved	4/6/23 09:44	4/6/23 11:11		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Dissolved	4/6/23 09:44	4/6/23 11:11		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 245.1		Analyst: CRB							
* Mercury, Total by CVAA	4/11/23 18:35	4/11/23 22:33		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: EPA 353.2		Analyst: SC							
* Nitrogen, Nitrate/Nitrite	4/6/23 08:53	4/6/23 08:53		1	0.228	mg/L as N	0.20	0.3	J
Analytical Method: SM 2320 B		Analyst: ALH							
* Alkalinity to pH 4.5	4/14/23 14:44	4/14/23 15:50		1	67.3	mg CaCO3/L		0.10	
Analytical Method: SM 2540C		Analyst: CNJ							
* Solids, Dissolved	4/6/23 10:55	4/7/23 12:30		1	285	mg/L		25	
Analytical Method: SM 4500CO2 D		Analyst: ALH							
* Bicarbonate Alkalinity, (calc.)	4/14/23 14:44	4/14/23 15:50		1	67.3	mg CaCO3/L		1	
* Carbonate Alkalinity, (calc.)	4/14/23 14:44	4/14/23 15:50		1	Not Detected	mg CaCO3/L		0.5	
Analytical Method: SM 5310 B		Analyst: SC							
* Total Organic Carbon	4/5/23 14:24	4/5/23 14:24		1	4.96	mg/L	1.00	2	

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Barry Ash Pond - MW-15

Location Code: WMWBARAP

Collected: 4/3/23 09:12

Customer ID:

Submittal Date: 4/5/23 07:36

Laboratory ID Number: BD06604

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM4500Cl E		Analyst: CES							
* Chloride	4/12/23 11:07	4/12/23 11:07		5	91.5	mg/L	2.50	2.5	
Analytical Method: SM4500F G 2017		Analyst: CES							
* Fluoride	4/13/23 10:22	4/13/23 10:22		1	0.260	mg/L	0.06	0.125	
Analytical Method: SM4500SO4 E 2011		Analyst: JCC							
* Sulfate	4/6/23 10:00	4/6/23 10:00		1	8.28	mg/L	0.6	2	
Analytical Method: Field Measurements		Analyst: AWG							
Conductivity	4/3/23 09:09	4/3/23 09:09			592.60	uS/cm			FA
pH	4/3/23 09:09	4/3/23 09:09			6.63	SU			FA
Temperature	4/3/23 09:09	4/3/23 09:09			21.23	C			FA
Turbidity	4/3/23 09:09	4/3/23 09:09			8.81	NTU			FA
Sulfide	4/3/23 09:09	4/3/23 09:09			0	mg/L			FA

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWBARAP

Sample Date: 4/3/23 09:12

Customer ID:

Delivery Date: 4/5/23 07:36

Description: Barry Ash Pond - MW-15

Laboratory ID Number: BD06604

Sample	Analysis	Units	MB	MB				Standard		Rec			Prec Limit
				Limit	Spike	MS	MSD	Standard	Limit	Rec	Limit	Prec	
BD06614	Aluminum, Dissolved	mg/L	-0.000829	0.0198	0.100	0.101	0.103	0.103	0.0850 to 0.115	101	70.0 to 130	1.96	20.0
BD06613	Aluminum, Total	mg/L	0.000464	0.0198	0.100	0.104	0.106	0.103	0.0850 to 0.115	104	70.0 to 130	1.90	20.0
BD06614	Antimony, Dissolved	mg/L	0.000282	0.00100	0.100	0.105	0.107	0.105	0.0850 to 0.115	105	70.0 to 130	1.89	20.0
BD06613	Antimony, Total	mg/L	0.000260	0.00100	0.100	0.0945	0.0970	0.0922	0.0850 to 0.115	94.5	70.0 to 130	2.61	20.0
BD06614	Arsenic, Dissolved	mg/L	0.000293	0.000200	0.100	0.110	0.112	0.108	0.0850 to 0.115	109	70.0 to 130	1.80	20.0
BD06613	Arsenic, Total	mg/L	0.000185	0.000200	0.100	0.0996	0.0980	0.101	0.0850 to 0.115	99.2	70.0 to 130	1.62	20.0
BD06614	Barium, Dissolved	mg/L	0.0000004	0.00100	0.100	0.111	0.114	0.104	0.0850 to 0.115	103	70.0 to 130	2.67	20.0
BD06613	Barium, Total	mg/L	0.0000235	0.00100	0.100	0.272	0.282	0.0935	0.0850 to 0.115	83.0	70.0 to 130	3.61	20.0
BD06614	Beryllium, Dissolved	mg/L	0.0000122	0.000880	0.100	0.0988	0.102	0.0962	0.0850 to 0.115	98.8	70.0 to 130	3.19	20.0
BD06613	Beryllium, Total	mg/L	0.0000089	0.000880	0.100	0.0946	0.0943	0.0982	0.0850 to 0.115	94.6	70.0 to 130	0.318	20.0
BD06614	Boron, Dissolved	mg/L	0.000167	0.0650	1.00	1.32	1.30	1.01	0.850 to 1.15	102	70.0 to 130	1.53	20.0
BD06613	Boron, Total	mg/L	-0.00119	0.0650	1.00	2.00	1.98	0.989	0.850 to 1.15	104	70.0 to 130	1.01	20.0
BD06614	Cadmium, Dissolved	mg/L	0.0000050	0.000147	0.100	0.107	0.109	0.111	0.0850 to 0.115	107	70.0 to 130	1.85	20.0
BD06613	Cadmium, Total	mg/L	0.0000000	0.000147	0.100	0.0986	0.0971	0.0971	0.0850 to 0.115	98.6	70.0 to 130	1.53	20.0
BD06614	Calcium, Dissolved	mg/L	-0.0141	0.152	5.00	5.35	5.12	4.92	4.25 to 5.75	96.0	70.0 to 130	4.39	20.0
BD06613	Calcium, Total	mg/L	0.00187	0.152	5.00	63.1	64.0	4.92	4.25 to 5.75	78.0	70.0 to 130	1.42	20.0
BD06612	Chloride	mg/L	0.0720	1.00	10.0	17.6	17.8	10.3	9.00 to 11.0	102	80.0 to 120	1.13	20.0
BD06614	Chromium, Dissolved	mg/L	-0.0000464	0.000440	0.100	0.106	0.110	0.111	0.0850 to 0.115	106	70.0 to 130	3.70	20.0
BD06613	Chromium, Total	mg/L	0.0000577	0.000440	0.100	0.0980	0.0992	0.0984	0.0850 to 0.115	97.5	70.0 to 130	1.22	20.0
BD06614	Cobalt, Dissolved	mg/L	-0.0000057	0.000147	0.100	0.108	0.111	0.110	0.0850 to 0.115	108	70.0 to 130	2.74	20.0
BD06613	Cobalt, Total	mg/L	-0.0000008	0.000147	0.100	0.102	0.103	0.101	0.0850 to 0.115	101	70.0 to 130	0.976	20.0
BD06613	Fluoride	mg/L	0.0117	0.125	2.50	2.69	2.66	2.57	2.25 to 2.75	108	80.0 to 120	1.12	20.0
BD06614	Iron, Dissolved	mg/L	-0.000107	0.0176	0.2	0.757	0.755	0.202	0.170 to 0.230	97.5	70.0 to 130	0.265	20.0
BD06613	Iron, Total	mg/L	-0.000067	0.0176	0.2	100	100	0.194	0.170 to 0.230	-500	70.0 to 130	0.00	20.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWBARAP

Sample Date: 4/3/23 09:12

Customer ID:

Delivery Date: 4/5/23 07:36

Description: Barry Ash Pond - MW-15

Laboratory ID Number: BD06604

Sample	Analysis	Units	MB		Spike	MS	MSD	Standard		Rec		Prec	Limit
			MB	Limit				Standard	Limit	Rec	Limit		
BD06614	Lead, Dissolved	mg/L	0.0000188	0.000147	0.100	0.0994	0.0993	0.101	0.0850 to 0.115	99.4	70.0 to 130	0.101	20.0
BD06613	Lead, Total	mg/L	0.0000100	0.000147	0.100	0.0971	0.0966	0.0990	0.0850 to 0.115	97.1	70.0 to 130	0.516	20.0
BD06614	Lithium, Dissolved	mg/L	0.000058	0.0154	0.200	0.207	0.204	0.197	0.170 to 0.230	104	70.0 to 130	1.46	20.0
BD06613	Lithium, Total	mg/L	0.000883	0.0154	0.200	0.202	0.201	0.191	0.170 to 0.230	101	70.0 to 130	0.496	20.0
BD06614	Magnesium, Dissolved	mg/L	-0.00906	0.0462	5.00	5.15	4.89	4.92	4.25 to 5.75	98.5	70.0 to 130	5.18	20.0
BD06613	Magnesium, Total	mg/L	-0.00266	0.0462	5.00	16.8	16.7	4.86	4.25 to 5.75	96.0	70.0 to 130	0.597	20.0
BD06614	Manganese, Dissolved	mg/L	0.0000223	0.00033	0.100	0.115	0.120	0.102	0.0850 to 0.115	98.9	70.0 to 130	4.26	20.0
BD06613	Manganese, Total	mg/L	0.0000173	0.00033	0.100	0.894	0.904	0.101	0.0850 to 0.115	81.0	70.0 to 130	1.11	20.0
BD06613	Mercury, Total by CVAA	mg/L	3.000E-05	0.000500	0.004	0.00402	0.00407	0.00409	0.00340 to 0.00460	100	70.0 to 130	1.24	20.0
BD06614	Molybdenum, Dissolved	mg/L	0.000012	0.0100	0.2	0.206	0.206	0.203	0.170 to 0.230	103	70.0 to 130	0.00	20.0
BD06613	Molybdenum, Total	mg/L	0.000	0.0100	0.2	0.200	0.199	0.199	0.170 to 0.230	100	70.0 to 130	0.501	20.0
BD06614	Potassium, Dissolved	mg/L	0.0134	0.367	10.0	11.0	11.2	10.4	8.50 to 11.5	99.1	70.0 to 130	1.80	20.0
BD06613	Potassium, Total	mg/L	0.0131	0.367	10.0	12.3	12.3	10.0	8.50 to 11.5	99.9	70.0 to 130	0.00	20.0
BD06614	Selenium, Dissolved	mg/L	0.0000543	0.00100	0.100	0.109	0.112	0.109	0.0850 to 0.115	109	70.0 to 130	2.71	20.0
BD06613	Selenium, Total	mg/L	0.000122	0.00100	0.100	0.103	0.0993	0.103	0.0850 to 0.115	103	70.0 to 130	3.66	20.0
BD06614	Silicon, Dissolved	mg/L	0.000048	0.0440	1.00	6.94	6.92	1.01	0.850 to 1.15	102	70.0 to 130	0.289	20.0
BD06613	Silicon, Total	mg/L	0.00174	0.0440	1.00	14.7	14.7	0.987	0.850 to 1.15	90.0	70.0 to 130	0.00	20.0
BD06614	Sodium, Dissolved	mg/L	-0.00120	0.0880	5.00	123	122	4.73	4.25 to 5.75	-120	70.0 to 130	0.816	20.0
BD06613	Sodium, Total	mg/L	0.00274	0.0880	5.00	31.5	31.4	4.66	4.25 to 5.75	94.0	70.0 to 130	0.318	20.0
BD06613	Sulfate	mg/L	0.439	2.0	20.0	29.1	28.9	20.2	18.0 to 22.0	80.5	80.0 to 120	0.690	20.0
BD06614	Thallium, Dissolved	mg/L	0.0000007	0.000147	0.100	0.103	0.0996	0.102	0.0850 to 0.115	103	70.0 to 130	3.36	20.0
BD06613	Thallium, Total	mg/L	0.0000062	0.000147	0.100	0.100	0.0988	0.102	0.0850 to 0.115	100	70.0 to 130	1.21	20.0
BD06613	Total Organic Carbon	mg/L	0.142	1.00	10.0	21.8	20.3	24.2		106	80.0 to 120	7.13	20.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWBARAP

Sample Date: 4/3/23 09:12

Customer ID:

Delivery Date: 4/5/23 07:36

Description: Barry Ash Pond - MW-15

Laboratory ID Number: BD06604

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BD06618	Alkalinity to pH 4.5	mg CaCO3/L					25.3	50.5	45.0 to 55.0			0.794	10.0
BD06613	Nitrogen, Nitrate/Nitrite	mg/L as N	0.02	0.200	2.00	1.74	0.240	2.00	1.80 to 2.20	75.0	90.0 to 110	0.418	15.0
BD06611	Solids, Dissolved	mg/L	0.0000	25.0			393	50.0	40.0 to 60.0			1.77	10.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Barry Ash Pond Equipment Blank-1

Location Code: WMWBARAPEB
Collected: 4/3/23 09:40
Customer ID:
Submittal Date: 4/5/23 07:36

Laboratory ID Number: BD06605

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7		Analyst: ABB			Preparation Method: EPA 1638				
* Boron, Total	4/6/23 06:51	4/6/23 11:47		1.015	Not Detected	mg/L	0.030000	0.1015	U
* Calcium, Total	4/6/23 06:51	4/6/23 11:47		1.015	Not Detected	mg/L	0.070035	0.406	U
* Iron, Total	4/6/23 06:51	4/6/23 11:47		1.015	Not Detected	mg/L	0.008120	0.0406	U
* Lithium, Total	4/6/23 06:51	4/6/23 11:47		1.015	Not Detected	mg/L	0.007105	0.01999956	U
* Magnesium, Total	4/6/23 06:51	4/6/23 11:47		1.015	Not Detected	mg/L	0.021315	0.406	U
* Molybdenum, Total	4/6/23 06:51	4/6/23 11:47		1.015	Not Detected	mg/L	0.005075	0.01015	U
* Silica, Total (calc.)	4/6/23 06:51	4/6/23 11:47		1	Not Detected	mg/L			
* Silicon, Total	4/6/23 06:51	4/6/23 11:47		1.015	Not Detected	mg/L	0.02030	0.25375	U
* Sodium, Total	4/6/23 06:51	4/6/23 11:47		1.015	0.126	mg/L	0.04060	0.406	J
Analytical Method: EPA 200.8		Analyst: DLJ			Preparation Method: EPA 1638				
* Antimony, Total	4/6/23 06:51	4/7/23 11:35		1.015	Not Detected	mg/L	0.000710	0.001015	U
* Aluminum, Total	4/6/23 06:51	4/7/23 11:35		1.015	Not Detected	mg/L	0.009135	0.05075	U
* Arsenic, Total	4/6/23 06:51	4/7/23 11:35		1.015	Not Detected	mg/L	0.000112	0.000203	U
* Barium, Total	4/6/23 06:51	4/7/23 11:35		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Beryllium, Total	4/6/23 06:51	4/7/23 11:35		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Total	4/6/23 06:51	4/7/23 11:35		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Total	4/6/23 06:51	4/7/23 11:35		1.015	0.000253	mg/L	0.000203	0.001015	J
* Cobalt, Total	4/6/23 06:51	4/7/23 11:35		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Lead, Total	4/6/23 06:51	4/7/23 11:35		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Total	4/6/23 06:51	4/7/23 11:35		1.015	Not Detected	mg/L	0.000152	0.001015	U
* Potassium, Total	4/6/23 06:51	4/7/23 11:35		1.015	Not Detected	mg/L	0.169505	0.5075	U
* Selenium, Total	4/6/23 06:51	4/7/23 11:35		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Total	4/6/23 06:51	4/7/23 11:35		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 245.1		Analyst: CRB							
* Mercury, Total by CVAA	4/11/23 18:35	4/11/23 22:37		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: EPA 353.2		Analyst: SC							
* Nitrogen, Nitrate/Nitrite	4/6/23 08:54	4/6/23 08:54		1	Not Detected	mg/L as N	0.20	0.3	U
Analytical Method: SM 2540C		Analyst: CNJ							
* Solids, Dissolved	4/6/23 10:55	4/7/23 12:30		1	Not Detected	mg/L		25	U

MDL's and RL's are adjusted for sample dilution, as applicable

Comments:

Certificate Of Analysis

Description: Barry Ash Pond Equipment Blank-1

Location Code: WMWBARAPEB

Collected: 4/3/23 09:40

Customer ID:

Submittal Date: 4/5/23 07:36

Laboratory ID Number: BD06605

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM 5310 B		Analyst: SC							
* Total Organic Carbon	4/5/23 14:39	4/5/23 14:39		1	Not Detected	mg/L	1.00	2	U
Analytical Method: SM4500Cl E		Analyst: CES							
* Chloride	4/12/23 11:05	4/12/23 11:05		1	Not Detected	mg/L	0.50	0.5	U
Analytical Method: SM4500F G 2017		Analyst: CES							
* Fluoride	4/13/23 10:23	4/13/23 10:23		1	Not Detected	mg/L	0.06	0.125	U
Analytical Method: SM4500SO4 E 2011		Analyst: JCC							
* Sulfate	4/6/23 10:02	4/6/23 10:02		1	Not Detected	mg/L	0.6	2	U

MDL's and RL's are adjusted for sample dilution, as applicable

Comments:

Batch QC Summary

Customer Account: WMWBARAPEB

Sample Date: 4/3/23 09:40

Customer ID:

Delivery Date: 4/5/23 07:36

Description: Barry Ash Pond Equipment Blank-1

Laboratory ID Number: BD06605

Sample	Analysis	Units	MB				Standard		Rec		Prec	Limit	
			MB	Limit	Spike	MS	MSD	Standard	Limit	Rec			Limit
BD06613	Aluminum, Total	mg/L	0.000464	0.0198	0.100	0.104	0.106	0.103	0.0850 to 0.115	104	70.0 to 130	1.90	20.0
BD06613	Antimony, Total	mg/L	0.000260	0.00100	0.100	0.0945	0.0970	0.0922	0.0850 to 0.115	94.5	70.0 to 130	2.61	20.0
BD06613	Arsenic, Total	mg/L	0.0000185	0.000200	0.100	0.0996	0.0980	0.101	0.0850 to 0.115	99.2	70.0 to 130	1.62	20.0
BD06613	Barium, Total	mg/L	0.0000235	0.00100	0.100	0.272	0.282	0.0935	0.0850 to 0.115	83.0	70.0 to 130	3.61	20.0
BD06613	Beryllium, Total	mg/L	0.0000089	0.000880	0.100	0.0946	0.0943	0.0982	0.0850 to 0.115	94.6	70.0 to 130	0.318	20.0
BD06613	Boron, Total	mg/L	-0.00119	0.0650	1.00	2.00	1.98	0.989	0.850 to 1.15	104	70.0 to 130	1.01	20.0
BD06613	Cadmium, Total	mg/L	0.0000000	0.000147	0.100	0.0986	0.0971	0.0971	0.0850 to 0.115	98.6	70.0 to 130	1.53	20.0
BD06613	Calcium, Total	mg/L	0.00187	0.152	5.00	63.1	64.0	4.92	4.25 to 5.75	78.0	70.0 to 130	1.42	20.0
BD06612	Chloride	mg/L	0.0720	1.00	10.0	17.6	17.8	10.3	9.00 to 11.0	102	80.0 to 120	1.13	20.0
BD06613	Chromium, Total	mg/L	0.0000577	0.000440	0.100	0.0980	0.0992	0.0984	0.0850 to 0.115	97.5	70.0 to 130	1.22	20.0
BD06613	Cobalt, Total	mg/L	-0.0000008	0.000147	0.100	0.102	0.103	0.101	0.0850 to 0.115	101	70.0 to 130	0.976	20.0
BD06613	Fluoride	mg/L	0.0117	0.125	2.50	2.69	2.66	2.57	2.25 to 2.75	108	80.0 to 120	1.12	20.0
BD06613	Iron, Total	mg/L	-0.000067	0.0176	0.2	100	100	0.194	0.170 to 0.230	-500	70.0 to 130	0.00	20.0
BD06613	Lead, Total	mg/L	0.0000100	0.000147	0.100	0.0971	0.0966	0.0990	0.0850 to 0.115	97.1	70.0 to 130	0.516	20.0
BD06613	Lithium, Total	mg/L	0.000883	0.0154	0.200	0.202	0.201	0.191	0.170 to 0.230	101	70.0 to 130	0.496	20.0
BD06613	Magnesium, Total	mg/L	-0.00266	0.0462	5.00	16.8	16.7	4.86	4.25 to 5.75	96.0	70.0 to 130	0.597	20.0
BD06613	Manganese, Total	mg/L	0.0000173	0.00033	0.100	0.894	0.904	0.101	0.0850 to 0.115	81.0	70.0 to 130	1.11	20.0
BD06613	Mercury, Total by CVAA	mg/L	3.000E-05	0.000500	0.004	0.00402	0.00407	0.00409	0.00340 to 0.00460	100	70.0 to 130	1.24	20.0
BD06613	Molybdenum, Total	mg/L	0.000	0.0100	0.2	0.200	0.199	0.199	0.170 to 0.230	100	70.0 to 130	0.501	20.0
BD06613	Potassium, Total	mg/L	0.0131	0.367	10.0	12.3	12.3	10.0	8.50 to 11.5	99.9	70.0 to 130	0.00	20.0
BD06613	Selenium, Total	mg/L	0.000122	0.00100	0.100	0.103	0.0993	0.103	0.0850 to 0.115	103	70.0 to 130	3.66	20.0
BD06613	Silicon, Total	mg/L	0.00174	0.0440	1.00	14.7	14.7	0.987	0.850 to 1.15	90.0	70.0 to 130	0.00	20.0
BD06613	Sodium, Total	mg/L	0.00274	0.0880	5.00	31.5	31.4	4.66	4.25 to 5.75	94.0	70.0 to 130	0.318	20.0
BD06613	Sulfate	mg/L	0.439	2.0	20.0	29.1	28.9	20.2	18.0 to 22.0	80.5	80.0 to 120	0.690	20.0

Comments:

Batch QC Summary

Customer Account: WMWBARAPEB

Sample Date: 4/3/23 09:40

Customer ID:

Delivery Date: 4/5/23 07:36

Description: Barry Ash Pond Equipment Blank-1

Laboratory ID Number: BD06605

Sample	Analysis	Units	MB	MB				Standard		Rec		Prec	
				Limit	Spike	MS	MSD	Standard	Limit	Rec	Limit	Prec	Limit
BD06613	Thallium, Total	mg/L	0.0000062	0.000147	0.100	0.100	0.0988	0.102	0.0850 to 0.115	100	70.0 to 130	1.21	20.0
BD06613	Total Organic Carbon	mg/L	0.142	1.00	10.0	21.8	20.3	24.2		106	80.0 to 120	7.13	20.0

Comments:

Batch QC Summary

Customer Account: WMWBARAPEB

Sample Date: 4/3/23 09:40

Customer ID:

Delivery Date: 4/5/23 07:36

Description: Barry Ash Pond Equipment Blank-1

Laboratory ID Number: BD06605

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BD06613	Nitrogen, Nitrate/Nitrite	mg/L as N	0.02	0.200	2.00	1.74	0.240	2.00	1.80 to 2.20	75.0	90.0 to 110	0.418	15.0
BD06611	Solids, Dissolved	mg/L	0.0000	25.0			393	50.0	40.0 to 60.0			1.77	10.0

Comments:

Certificate Of Analysis

Description: Barry Ash Pond - MW-24H

Location Code: WMWBARAP
Collected: 4/3/23 11:48
Customer ID:
Submittal Date: 4/5/23 07:36

Laboratory ID Number: BD06606

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7			Analyst: ABB			Preparation Method: EPA 1638			
* Boron, Total	4/6/23 06:51	4/6/23 11:50		1.015	0.381	mg/L	0.030000	0.1015	
* Calcium, Total	4/6/23 06:51	4/6/23 11:50		1.015	17.8	mg/L	0.070035	0.406	
* Iron, Total	4/6/23 06:51	4/6/23 13:15		101.5	113	mg/L	0.8120	4.06	
* Lithium, Total	4/6/23 06:51	4/6/23 11:50		1.015	Not Detected	mg/L	0.007105	0.01999956	U
* Magnesium, Total	4/6/23 06:51	4/6/23 11:50		1.015	16.4	mg/L	0.021315	0.406	
* Molybdenum, Total	4/6/23 06:51	4/6/23 11:50		1.015	Not Detected	mg/L	0.005075	0.01015	U
* Silica, Total (calc.)	4/6/23 06:51	4/6/23 11:50		1	23.3	mg/L			
* Silicon, Total	4/6/23 06:51	4/6/23 11:50		1.015	10.9	mg/L	0.02030	0.25375	
* Sodium, Total	4/6/23 06:51	4/6/23 13:15		101.5	65.7	mg/L	4.060	40.6	
Analytical Method: EPA 200.7			Analyst: ABB						
* Boron, Dissolved	4/6/23 09:44	4/7/23 11:24		1.015	0.382	mg/L	0.030000	0.1015	
* Calcium, Dissolved	4/6/23 09:44	4/7/23 11:24		1.015	17.7	mg/L	0.070035	0.406	
* Iron, Dissolved	4/6/23 09:44	4/7/23 12:43		101.5	109	mg/L	0.8120	4.06	
* Lithium, Dissolved	4/6/23 09:44	4/7/23 11:24		1.015	Not Detected	mg/L	0.007105	0.01999956	U
* Magnesium, Dissolved	4/6/23 09:44	4/7/23 11:24		1.015	16.4	mg/L	0.021315	0.406	
* Molybdenum, Dissolved	4/6/23 09:44	4/7/23 11:24		1.015	Not Detected	mg/L	0.005075	0.01015	U
* Silica, Dissolved (calc.)	4/6/23 09:44	4/7/23 11:24		1	23.5	mg/L			
* Silicon, Dissolved	4/6/23 09:44	4/7/23 11:24		1.015	11.0	mg/L	0.02030	0.25375	
* Sodium, Dissolved	4/6/23 09:44	4/7/23 12:43		101.5	68.1	mg/L	4.060	40.6	
Analytical Method: EPA 200.8			Analyst: DLJ			Preparation Method: EPA 1638			
* Antimony, Total	4/6/23 06:51	4/7/23 11:38		1.015	Not Detected	mg/L	0.000710	0.001015	U
* Aluminum, Total	4/6/23 06:51	4/7/23 11:38		1.015	Not Detected	mg/L	0.009135	0.05075	U
* Arsenic, Total	4/6/23 06:51	4/7/23 11:38		1.015	0.0694	mg/L	0.000112	0.000203	
* Barium, Total	4/6/23 06:51	4/7/23 11:38		1.015	0.235	mg/L	0.000508	0.001015	
* Beryllium, Total	4/6/23 06:51	4/7/23 11:38		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Total	4/6/23 06:51	4/7/23 11:38		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Total	4/6/23 06:51	4/7/23 11:38		1.015	0.000781	mg/L	0.000203	0.001015	J
* Cobalt, Total	4/6/23 06:51	4/7/23 11:38		1.015	0.00563	mg/L	0.000068	0.000203	
* Lead, Total	4/6/23 06:51	4/7/23 11:38		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Total	4/6/23 06:51	4/7/23 11:38		1.015	0.208	mg/L	0.000152	0.001015	

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Barry Ash Pond - MW-24H

Location Code: WMWBARAP
Collected: 4/3/23 11:48
Customer ID:
Submittal Date: 4/5/23 07:36

Laboratory ID Number: BD06606

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
* Potassium, Total	4/6/23 06:51	4/7/23 11:38		1.015	2.53	mg/L	0.169505	0.5075	
* Selenium, Total	4/6/23 06:51	4/7/23 11:38		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Total	4/6/23 06:51	4/7/23 11:38		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 200.8		Analyst: DLJ							
* Antimony, Dissolved	4/6/23 09:44	4/6/23 11:15		1.015	Not Detected	mg/L	0.000710	0.001015	U
* Aluminum, Dissolved	4/6/23 09:44	4/6/23 11:15		1.015	Not Detected	mg/L	0.009135	0.05075	U
* Arsenic, Dissolved	4/6/23 09:44	4/6/23 11:15		1.015	0.0762	mg/L	0.000112	0.000203	
* Barium, Dissolved	4/6/23 09:44	4/6/23 11:15		1.015	0.232	mg/L	0.000508	0.001015	
* Beryllium, Dissolved	4/6/23 09:44	4/6/23 11:15		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Dissolved	4/6/23 09:44	4/6/23 11:15		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Dissolved	4/6/23 09:44	4/6/23 11:15		1.015	0.000766	mg/L	0.000203	0.001015	J
* Cobalt, Dissolved	4/6/23 09:44	4/6/23 11:15		1.015	0.00571	mg/L	0.000068	0.000203	
* Lead, Dissolved	4/6/23 09:44	4/6/23 11:15		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Dissolved	4/6/23 09:44	4/6/23 11:15		1.015	0.197	mg/L	0.000152	0.001015	
* Potassium, Dissolved	4/6/23 09:44	4/6/23 11:15		1.015	2.47	mg/L	0.169505	0.5075	
* Selenium, Dissolved	4/6/23 09:44	4/6/23 11:15		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Dissolved	4/6/23 09:44	4/6/23 11:15		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 245.1		Analyst: CRB							
* Mercury, Total by CVAA	4/11/23 18:35	4/11/23 22:41		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: EPA 353.2		Analyst: SC							
* Nitrogen, Nitrate/Nitrite	4/6/23 08:56	4/6/23 08:56		1	0.274	mg/L as N	0.20	0.3	J
Analytical Method: SM 2320 B		Analyst: ALH							
* Alkalinity to pH 4.5	4/14/23 14:44	4/14/23 15:50		1	251	mg CaCO3/L		0.10	
Analytical Method: SM 2540C		Analyst: CNJ							
* Solids, Dissolved	4/6/23 10:55	4/7/23 12:30		1	462	mg/L		50	
Analytical Method: SM 4500CO2 D		Analyst: ALH							
* Bicarbonate Alkalinity, (calc.)	4/14/23 14:44	4/14/23 15:50		1	251	mg CaCO3/L		1	
* Carbonate Alkalinity, (calc.)	4/14/23 14:44	4/14/23 15:50		1	Not Detected	mg CaCO3/L		0.5	
Analytical Method: SM 5310 B		Analyst: SC							
* Total Organic Carbon	4/5/23 14:54	4/5/23 14:54		1	25.2	mg/L	1.00	2	

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Barry Ash Pond - MW-24H

Location Code: WMWBARAP

Collected: 4/3/23 11:48

Customer ID:

Submittal Date: 4/5/23 07:36

Laboratory ID Number: BD06606

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM4500Cl E		Analyst: CES							
* Chloride	4/12/23 11:08	4/12/23 11:08		5	45.5	mg/L	2.50	2.5	
Analytical Method: SM4500F G 2017		Analyst: CES							
* Fluoride	4/13/23 10:24	4/13/23 10:24		1	0.175	mg/L	0.06	0.125	
Analytical Method: SM4500SO4 E 2011		Analyst: JCC							
* Sulfate	4/6/23 10:31	4/6/23 10:31		4	94.0	mg/L	2.4	8	
Analytical Method: Field Measurements		Analyst: AWG							
Conductivity	4/3/23 11:45	4/3/23 11:45			804.05	uS/cm			FA
pH	4/3/23 11:45	4/3/23 11:45			6.08	SU			FA
Temperature	4/3/23 11:45	4/3/23 11:45			21.89	C			FA
Turbidity	4/3/23 11:45	4/3/23 11:45			7.19	NTU			FA
Sulfide	4/3/23 11:45	4/3/23 11:45			0	mg/L			FA

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWBARAP
Sample Date: 4/3/23 11:48
Customer ID:
Delivery Date: 4/5/23 07:36

Description: Barry Ash Pond - MW-24H

Laboratory ID Number: BD06606

Sample	Analysis	Units	MB					Standard		Rec		Prec	Limit
			MB	Limit	Spike	MS	MSD	Standard	Limit	Rec	Limit		
BD06614	Aluminum, Dissolved	mg/L	-0.000829	0.0198	0.100	0.101	0.103	0.103	0.0850 to 0.115	101	70.0 to 130	1.96	20.0
BD06613	Aluminum, Total	mg/L	0.000464	0.0198	0.100	0.104	0.106	0.103	0.0850 to 0.115	104	70.0 to 130	1.90	20.0
BD06614	Antimony, Dissolved	mg/L	0.000282	0.00100	0.100	0.105	0.107	0.105	0.0850 to 0.115	105	70.0 to 130	1.89	20.0
BD06613	Antimony, Total	mg/L	0.000260	0.00100	0.100	0.0945	0.0970	0.0922	0.0850 to 0.115	94.5	70.0 to 130	2.61	20.0
BD06614	Arsenic, Dissolved	mg/L	0.0000293	0.000200	0.100	0.110	0.112	0.108	0.0850 to 0.115	109	70.0 to 130	1.80	20.0
BD06613	Arsenic, Total	mg/L	0.0000185	0.000200	0.100	0.0996	0.0980	0.101	0.0850 to 0.115	99.2	70.0 to 130	1.62	20.0
BD06614	Barium, Dissolved	mg/L	0.0000004	0.00100	0.100	0.111	0.114	0.104	0.0850 to 0.115	103	70.0 to 130	2.67	20.0
BD06613	Barium, Total	mg/L	0.0000235	0.00100	0.100	0.272	0.282	0.0935	0.0850 to 0.115	83.0	70.0 to 130	3.61	20.0
BD06614	Beryllium, Dissolved	mg/L	0.0000122	0.000880	0.100	0.0988	0.102	0.0962	0.0850 to 0.115	98.8	70.0 to 130	3.19	20.0
BD06613	Beryllium, Total	mg/L	0.0000089	0.000880	0.100	0.0946	0.0943	0.0982	0.0850 to 0.115	94.6	70.0 to 130	0.318	20.0
BD06614	Boron, Dissolved	mg/L	0.000167	0.0650	1.00	1.32	1.30	1.01	0.850 to 1.15	102	70.0 to 130	1.53	20.0
BD06613	Boron, Total	mg/L	-0.00119	0.0650	1.00	2.00	1.98	0.989	0.850 to 1.15	104	70.0 to 130	1.01	20.0
BD06614	Cadmium, Dissolved	mg/L	0.0000050	0.000147	0.100	0.107	0.109	0.111	0.0850 to 0.115	107	70.0 to 130	1.85	20.0
BD06613	Cadmium, Total	mg/L	0.0000000	0.000147	0.100	0.0986	0.0971	0.0971	0.0850 to 0.115	98.6	70.0 to 130	1.53	20.0
BD06614	Calcium, Dissolved	mg/L	-0.0141	0.152	5.00	5.35	5.12	4.92	4.25 to 5.75	96.0	70.0 to 130	4.39	20.0
BD06613	Calcium, Total	mg/L	0.00187	0.152	5.00	63.1	64.0	4.92	4.25 to 5.75	78.0	70.0 to 130	1.42	20.0
BD06612	Chloride	mg/L	0.0720	1.00	10.0	17.6	17.8	10.3	9.00 to 11.0	102	80.0 to 120	1.13	20.0
BD06614	Chromium, Dissolved	mg/L	-0.0000464	0.000440	0.100	0.106	0.110	0.111	0.0850 to 0.115	106	70.0 to 130	3.70	20.0
BD06613	Chromium, Total	mg/L	0.0000577	0.000440	0.100	0.0980	0.0992	0.0984	0.0850 to 0.115	97.5	70.0 to 130	1.22	20.0
BD06614	Cobalt, Dissolved	mg/L	-0.0000057	0.000147	0.100	0.108	0.111	0.110	0.0850 to 0.115	108	70.0 to 130	2.74	20.0
BD06613	Cobalt, Total	mg/L	-0.0000008	0.000147	0.100	0.102	0.103	0.101	0.0850 to 0.115	101	70.0 to 130	0.976	20.0
BD06613	Fluoride	mg/L	0.0117	0.125	2.50	2.69	2.66	2.57	2.25 to 2.75	108	80.0 to 120	1.12	20.0
BD06614	Iron, Dissolved	mg/L	-0.000107	0.0176	0.2	0.757	0.755	0.202	0.170 to 0.230	97.5	70.0 to 130	0.265	20.0
BD06613	Iron, Total	mg/L	-0.000067	0.0176	0.2	100	100	0.194	0.170 to 0.230	-500	70.0 to 130	0.00	20.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWBARAP

Sample Date: 4/3/23 11:48

Customer ID:

Delivery Date: 4/5/23 07:36

Description: Barry Ash Pond - MW-24H

Laboratory ID Number: BD06606

Sample	Analysis	Units	MB		Spike	MS	MSD	Standard		Rec		Prec	Limit
			MB	Limit				Standard	Limit	Rec	Limit		
BD06614	Lead, Dissolved	mg/L	0.0000188	0.000147	0.100	0.0994	0.0993	0.101	0.0850 to 0.115	99.4	70.0 to 130	0.101	20.0
BD06613	Lead, Total	mg/L	0.0000100	0.000147	0.100	0.0971	0.0966	0.0990	0.0850 to 0.115	97.1	70.0 to 130	0.516	20.0
BD06614	Lithium, Dissolved	mg/L	0.000058	0.0154	0.200	0.207	0.204	0.197	0.170 to 0.230	104	70.0 to 130	1.46	20.0
BD06613	Lithium, Total	mg/L	0.000883	0.0154	0.200	0.202	0.201	0.191	0.170 to 0.230	101	70.0 to 130	0.496	20.0
BD06614	Magnesium, Dissolved	mg/L	-0.00906	0.0462	5.00	5.15	4.89	4.92	4.25 to 5.75	98.5	70.0 to 130	5.18	20.0
BD06613	Magnesium, Total	mg/L	-0.00266	0.0462	5.00	16.8	16.7	4.86	4.25 to 5.75	96.0	70.0 to 130	0.597	20.0
BD06614	Manganese, Dissolved	mg/L	0.0000223	0.00033	0.100	0.115	0.120	0.102	0.0850 to 0.115	98.9	70.0 to 130	4.26	20.0
BD06613	Manganese, Total	mg/L	0.0000173	0.00033	0.100	0.894	0.904	0.101	0.0850 to 0.115	81.0	70.0 to 130	1.11	20.0
BD06613	Mercury, Total by CVAA	mg/L	3.000E-05	0.000500	0.004	0.00402	0.00407	0.00409	0.00340 to 0.00460	100	70.0 to 130	1.24	20.0
BD06614	Molybdenum, Dissolved	mg/L	0.000012	0.0100	0.2	0.206	0.206	0.203	0.170 to 0.230	103	70.0 to 130	0.00	20.0
BD06613	Molybdenum, Total	mg/L	0.000	0.0100	0.2	0.200	0.199	0.199	0.170 to 0.230	100	70.0 to 130	0.501	20.0
BD06614	Potassium, Dissolved	mg/L	0.0134	0.367	10.0	11.0	11.2	10.4	8.50 to 11.5	99.1	70.0 to 130	1.80	20.0
BD06613	Potassium, Total	mg/L	0.0131	0.367	10.0	12.3	12.3	10.0	8.50 to 11.5	99.9	70.0 to 130	0.00	20.0
BD06614	Selenium, Dissolved	mg/L	0.0000543	0.00100	0.100	0.109	0.112	0.109	0.0850 to 0.115	109	70.0 to 130	2.71	20.0
BD06613	Selenium, Total	mg/L	0.000122	0.00100	0.100	0.103	0.0993	0.103	0.0850 to 0.115	103	70.0 to 130	3.66	20.0
BD06614	Silicon, Dissolved	mg/L	0.000048	0.0440	1.00	6.94	6.92	1.01	0.850 to 1.15	102	70.0 to 130	0.289	20.0
BD06613	Silicon, Total	mg/L	0.00174	0.0440	1.00	14.7	14.7	0.987	0.850 to 1.15	90.0	70.0 to 130	0.00	20.0
BD06614	Sodium, Dissolved	mg/L	-0.00120	0.0880	5.00	123	122	4.73	4.25 to 5.75	-120	70.0 to 130	0.816	20.0
BD06613	Sodium, Total	mg/L	0.00274	0.0880	5.00	31.5	31.4	4.66	4.25 to 5.75	94.0	70.0 to 130	0.318	20.0
BD06613	Sulfate	mg/L	0.439	2.0	20.0	29.1	28.9	20.2	18.0 to 22.0	80.5	80.0 to 120	0.690	20.0
BD06614	Thallium, Dissolved	mg/L	0.0000007	0.000147	0.100	0.103	0.0996	0.102	0.0850 to 0.115	103	70.0 to 130	3.36	20.0
BD06613	Thallium, Total	mg/L	0.0000062	0.000147	0.100	0.100	0.0988	0.102	0.0850 to 0.115	100	70.0 to 130	1.21	20.0
BD06613	Total Organic Carbon	mg/L	0.142	1.00	10.0	21.8	20.3	24.2		106	80.0 to 120	7.13	20.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWBARAP

Sample Date: 4/3/23 11:48

Customer ID:

Delivery Date: 4/5/23 07:36

Description: Barry Ash Pond - MW-24H

Laboratory ID Number: BD06606

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BD06618	Alkalinity to pH 4.5	mg CaCO3/L					25.3	50.5	45.0 to 55.0			0.794	10.0
BD06613	Nitrogen, Nitrate/Nitrite	mg/L as N	0.02	0.200	2.00	1.74	0.240	2.00	1.80 to 2.20	75.0	90.0 to 110	0.418	15.0
BD06611	Solids, Dissolved	mg/L	0.0000	25.0			393	50.0	40.0 to 60.0			1.77	10.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Barry Ash Pond - MW-24H DUP

Location Code: WMWBARAP
Collected: 4/3/23 11:48
Customer ID:
Submittal Date: 4/5/23 07:36

Laboratory ID Number: BD06607

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7			Analyst: ABB		Preparation Method: EPA 1638				
* Boron, Total	4/6/23 06:51	4/6/23 11:53		1.015	0.378	mg/L	0.030000	0.1015	
* Calcium, Total	4/6/23 06:51	4/6/23 11:53		1.015	18.1	mg/L	0.070035	0.406	
* Iron, Total	4/6/23 06:51	4/6/23 13:19		101.5	111	mg/L	0.8120	4.06	
* Lithium, Total	4/6/23 06:51	4/6/23 11:53		1.015	Not Detected	mg/L	0.007105	0.01999956	U
* Magnesium, Total	4/6/23 06:51	4/6/23 11:53		1.015	16.4	mg/L	0.021315	0.406	
* Molybdenum, Total	4/6/23 06:51	4/6/23 11:53		1.015	Not Detected	mg/L	0.005075	0.01015	U
* Silica, Total (calc.)	4/6/23 06:51	4/6/23 11:53		1	23.3	mg/L			
* Silicon, Total	4/6/23 06:51	4/6/23 11:53		1.015	10.9	mg/L	0.02030	0.25375	
* Sodium, Total	4/6/23 06:51	4/6/23 13:19		101.5	65.0	mg/L	4.060	40.6	
Analytical Method: EPA 200.7			Analyst: ABB						
* Boron, Dissolved	4/6/23 09:44	4/7/23 11:27		1.015	0.386	mg/L	0.030000	0.1015	
* Calcium, Dissolved	4/6/23 09:44	4/7/23 11:27		1.015	17.4	mg/L	0.070035	0.406	
* Iron, Dissolved	4/6/23 09:44	4/7/23 12:46		101.5	114	mg/L	0.8120	4.06	
* Lithium, Dissolved	4/6/23 09:44	4/7/23 11:27		1.015	Not Detected	mg/L	0.007105	0.01999956	U
* Magnesium, Dissolved	4/6/23 09:44	4/7/23 11:27		1.015	16.3	mg/L	0.021315	0.406	
* Molybdenum, Dissolved	4/6/23 09:44	4/7/23 11:27		1.015	Not Detected	mg/L	0.005075	0.01015	U
* Silica, Dissolved (calc.)	4/6/23 09:44	4/7/23 11:27		1	23.5	mg/L			
* Silicon, Dissolved	4/6/23 09:44	4/7/23 11:27		1.015	11.0	mg/L	0.02030	0.25375	
* Sodium, Dissolved	4/6/23 09:44	4/7/23 12:46		101.5	65.5	mg/L	4.060	40.6	
Analytical Method: EPA 200.8			Analyst: DLJ		Preparation Method: EPA 1638				
* Antimony, Total	4/6/23 06:51	4/7/23 11:42		1.015	Not Detected	mg/L	0.000710	0.001015	U
* Aluminum, Total	4/6/23 06:51	4/7/23 11:42		1.015	0.00915	mg/L	0.009135	0.05075	J
* Arsenic, Total	4/6/23 06:51	4/7/23 11:42		1.015	0.0696	mg/L	0.000112	0.000203	
* Barium, Total	4/6/23 06:51	4/7/23 11:42		1.015	0.230	mg/L	0.000508	0.001015	
* Beryllium, Total	4/6/23 06:51	4/7/23 11:42		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Total	4/6/23 06:51	4/7/23 11:42		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Total	4/6/23 06:51	4/7/23 11:42		1.015	0.000868	mg/L	0.000203	0.001015	J
* Cobalt, Total	4/6/23 06:51	4/7/23 11:42		1.015	0.00560	mg/L	0.000068	0.000203	
* Lead, Total	4/6/23 06:51	4/7/23 11:42		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Total	4/6/23 06:51	4/7/23 11:42		1.015	0.207	mg/L	0.000152	0.001015	

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Barry Ash Pond - MW-24H DUP

Location Code: WMWBARAP

Collected: 4/3/23 11:48

Customer ID:

Submittal Date: 4/5/23 07:36

Laboratory ID Number: BD06607

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
* Potassium, Total	4/6/23 06:51	4/7/23 11:42		1.015	2.59	mg/L	0.169505	0.5075	
* Selenium, Total	4/6/23 06:51	4/7/23 11:42		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Total	4/6/23 06:51	4/7/23 11:42		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 200.8		Analyst: DLJ							
* Antimony, Dissolved	4/6/23 09:44	4/6/23 11:19		1.015	Not Detected	mg/L	0.000710	0.001015	U
* Aluminum, Dissolved	4/6/23 09:44	4/6/23 11:19		1.015	Not Detected	mg/L	0.009135	0.05075	U
* Arsenic, Dissolved	4/6/23 09:44	4/6/23 11:19		1.015	0.0766	mg/L	0.000112	0.000203	
* Barium, Dissolved	4/6/23 09:44	4/6/23 11:19		1.015	0.228	mg/L	0.000508	0.001015	
* Beryllium, Dissolved	4/6/23 09:44	4/6/23 11:19		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Dissolved	4/6/23 09:44	4/6/23 11:19		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Dissolved	4/6/23 09:44	4/6/23 11:19		1.015	0.000773	mg/L	0.000203	0.001015	J
* Cobalt, Dissolved	4/6/23 09:44	4/6/23 11:19		1.015	0.00573	mg/L	0.000068	0.000203	
* Lead, Dissolved	4/6/23 09:44	4/6/23 11:19		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Dissolved	4/6/23 09:44	4/6/23 11:19		1.015	0.202	mg/L	0.000152	0.001015	
* Potassium, Dissolved	4/6/23 09:44	4/6/23 11:19		1.015	2.52	mg/L	0.169505	0.5075	
* Selenium, Dissolved	4/6/23 09:44	4/6/23 11:19		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Dissolved	4/6/23 09:44	4/6/23 11:19		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 245.1		Analyst: CRB							
* Mercury, Total by CVAA	4/11/23 18:35	4/11/23 22:45		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: EPA 353.2		Analyst: SC							
* Nitrogen, Nitrate/Nitrite	4/6/23 08:58	4/6/23 08:58		1	0.310	mg/L as N	0.20	0.3	
Analytical Method: SM 2320 B		Analyst: ALH							
* Alkalinity to pH 4.5	4/14/23 14:44	4/14/23 15:50		1	250	mg CaCO3/L		0.10	
Analytical Method: SM 2540C		Analyst: CNJ							
* Solids, Dissolved	4/6/23 10:55	4/7/23 12:30		1	450	mg/L		50	
Analytical Method: SM 4500CO2 D		Analyst: ALH							
* Bicarbonate Alkalinity, (calc.)	4/14/23 14:44	4/14/23 15:50		1	250	mg CaCO3/L		1	
* Carbonate Alkalinity, (calc.)	4/14/23 14:44	4/14/23 15:50		1	Not Detected	mg CaCO3/L		0.5	
Analytical Method: SM 5310 B		Analyst: SC							
* Total Organic Carbon	4/5/23 15:10	4/5/23 15:10		1	25.6	mg/L	1.00	2	

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Barry Ash Pond - MW-24H DUP

Location Code: WMWBARAP

Collected: 4/3/23 11:48

Customer ID:

Submittal Date: 4/5/23 07:36

Laboratory ID Number: BD06607

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM4500Cl E		Analyst: CES							
* Chloride	4/12/23 11:10	4/12/23 11:10		5	46.3	mg/L	2.50	2.5	
Analytical Method: SM4500F G 2017		Analyst: CES							
* Fluoride	4/13/23 10:25	4/13/23 10:25		1	0.182	mg/L	0.06	0.125	
Analytical Method: SM4500SO4 E 2011		Analyst: JCC							
* Sulfate	4/6/23 10:16	4/6/23 10:16		3	112	mg/L	1.8	6	
Analytical Method: Field Measurements		Analyst: AWG							
Conductivity	4/3/23 11:45	4/3/23 11:45			804.05	uS/cm			FA
pH	4/3/23 11:45	4/3/23 11:45			6.08	SU			FA
Temperature	4/3/23 11:45	4/3/23 11:45			21.89	C			FA
Turbidity	4/3/23 11:45	4/3/23 11:45			7.19	NTU			FA
Sulfide	4/3/23 11:45	4/3/23 11:45			0	mg/L			FA

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWBARAP
Sample Date: 4/3/23 11:48
Customer ID:
Delivery Date: 4/5/23 07:36

Description: Barry Ash Pond - MW-24H DUP

Laboratory ID Number: BD06607

Sample	Analysis	Units	MB	MB				Standard		Rec		Prec	Limit
				Limit	Spike	MS	MSD	Standard	Limit	Rec	Limit		
BD06614	Aluminum, Dissolved	mg/L	-0.000829	0.0198	0.100	0.101	0.103	0.103	0.0850 to 0.115	101	70.0 to 130	1.96	20.0
BD06613	Aluminum, Total	mg/L	0.000464	0.0198	0.100	0.104	0.106	0.103	0.0850 to 0.115	104	70.0 to 130	1.90	20.0
BD06614	Antimony, Dissolved	mg/L	0.000282	0.00100	0.100	0.105	0.107	0.105	0.0850 to 0.115	105	70.0 to 130	1.89	20.0
BD06613	Antimony, Total	mg/L	0.000260	0.00100	0.100	0.0945	0.0970	0.0922	0.0850 to 0.115	94.5	70.0 to 130	2.61	20.0
BD06614	Arsenic, Dissolved	mg/L	0.000293	0.000200	0.100	0.110	0.112	0.108	0.0850 to 0.115	109	70.0 to 130	1.80	20.0
BD06613	Arsenic, Total	mg/L	0.000185	0.000200	0.100	0.0996	0.0980	0.101	0.0850 to 0.115	99.2	70.0 to 130	1.62	20.0
BD06614	Barium, Dissolved	mg/L	0.000004	0.00100	0.100	0.111	0.114	0.104	0.0850 to 0.115	103	70.0 to 130	2.67	20.0
BD06613	Barium, Total	mg/L	0.0000235	0.00100	0.100	0.272	0.282	0.0935	0.0850 to 0.115	83.0	70.0 to 130	3.61	20.0
BD06614	Beryllium, Dissolved	mg/L	0.0000122	0.000880	0.100	0.0988	0.102	0.0962	0.0850 to 0.115	98.8	70.0 to 130	3.19	20.0
BD06613	Beryllium, Total	mg/L	0.0000089	0.000880	0.100	0.0946	0.0943	0.0982	0.0850 to 0.115	94.6	70.0 to 130	0.318	20.0
BD06614	Boron, Dissolved	mg/L	0.000167	0.0650	1.00	1.32	1.30	1.01	0.850 to 1.15	102	70.0 to 130	1.53	20.0
BD06613	Boron, Total	mg/L	-0.00119	0.0650	1.00	2.00	1.98	0.989	0.850 to 1.15	104	70.0 to 130	1.01	20.0
BD06614	Cadmium, Dissolved	mg/L	0.0000050	0.000147	0.100	0.107	0.109	0.111	0.0850 to 0.115	107	70.0 to 130	1.85	20.0
BD06613	Cadmium, Total	mg/L	0.0000000	0.000147	0.100	0.0986	0.0971	0.0971	0.0850 to 0.115	98.6	70.0 to 130	1.53	20.0
BD06614	Calcium, Dissolved	mg/L	-0.0141	0.152	5.00	5.35	5.12	4.92	4.25 to 5.75	96.0	70.0 to 130	4.39	20.0
BD06613	Calcium, Total	mg/L	0.00187	0.152	5.00	63.1	64.0	4.92	4.25 to 5.75	78.0	70.0 to 130	1.42	20.0
BD06612	Chloride	mg/L	0.0720	1.00	10.0	17.6	17.8	10.3	9.00 to 11.0	102	80.0 to 120	1.13	20.0
BD06614	Chromium, Dissolved	mg/L	-0.0000464	0.000440	0.100	0.106	0.110	0.111	0.0850 to 0.115	106	70.0 to 130	3.70	20.0
BD06613	Chromium, Total	mg/L	0.0000577	0.000440	0.100	0.0980	0.0992	0.0984	0.0850 to 0.115	97.5	70.0 to 130	1.22	20.0
BD06614	Cobalt, Dissolved	mg/L	-0.0000057	0.000147	0.100	0.108	0.111	0.110	0.0850 to 0.115	108	70.0 to 130	2.74	20.0
BD06613	Cobalt, Total	mg/L	-0.0000008	0.000147	0.100	0.102	0.103	0.101	0.0850 to 0.115	101	70.0 to 130	0.976	20.0
BD06613	Fluoride	mg/L	0.0117	0.125	2.50	2.69	2.66	2.57	2.25 to 2.75	108	80.0 to 120	1.12	20.0
BD06614	Iron, Dissolved	mg/L	-0.000107	0.0176	0.2	0.757	0.755	0.202	0.170 to 0.230	97.5	70.0 to 130	0.265	20.0
BD06613	Iron, Total	mg/L	-0.000067	0.0176	0.2	100	100	0.194	0.170 to 0.230	-500	70.0 to 130	0.00	20.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWBARAP

Sample Date: 4/3/23 11:48

Customer ID:

Delivery Date: 4/5/23 07:36

Description: Barry Ash Pond - MW-24H DUP

Laboratory ID Number: BD06607

Sample	Analysis	Units	MB		Spike	MS	MSD	Standard		Rec		Prec	Limit
			MB	Limit				Standard	Limit	Rec	Limit		
BD06614	Lead, Dissolved	mg/L	0.0000188	0.000147	0.100	0.0994	0.0993	0.101	0.0850 to 0.115	99.4	70.0 to 130	0.101	20.0
BD06613	Lead, Total	mg/L	0.0000100	0.000147	0.100	0.0971	0.0966	0.0990	0.0850 to 0.115	97.1	70.0 to 130	0.516	20.0
BD06614	Lithium, Dissolved	mg/L	0.000058	0.0154	0.200	0.207	0.204	0.197	0.170 to 0.230	104	70.0 to 130	1.46	20.0
BD06613	Lithium, Total	mg/L	0.000883	0.0154	0.200	0.202	0.201	0.191	0.170 to 0.230	101	70.0 to 130	0.496	20.0
BD06614	Magnesium, Dissolved	mg/L	-0.00906	0.0462	5.00	5.15	4.89	4.92	4.25 to 5.75	98.5	70.0 to 130	5.18	20.0
BD06613	Magnesium, Total	mg/L	-0.00266	0.0462	5.00	16.8	16.7	4.86	4.25 to 5.75	96.0	70.0 to 130	0.597	20.0
BD06614	Manganese, Dissolved	mg/L	0.0000223	0.00033	0.100	0.115	0.120	0.102	0.0850 to 0.115	98.9	70.0 to 130	4.26	20.0
BD06613	Manganese, Total	mg/L	0.0000173	0.00033	0.100	0.894	0.904	0.101	0.0850 to 0.115	81.0	70.0 to 130	1.11	20.0
BD06613	Mercury, Total by CVAA	mg/L	3.000E-05	0.000500	0.004	0.00402	0.00407	0.00409	0.00340 to 0.00460	100	70.0 to 130	1.24	20.0
BD06614	Molybdenum, Dissolved	mg/L	0.000012	0.0100	0.2	0.206	0.206	0.203	0.170 to 0.230	103	70.0 to 130	0.00	20.0
BD06613	Molybdenum, Total	mg/L	0.000	0.0100	0.2	0.200	0.199	0.199	0.170 to 0.230	100	70.0 to 130	0.501	20.0
BD06614	Potassium, Dissolved	mg/L	0.0134	0.367	10.0	11.0	11.2	10.4	8.50 to 11.5	99.1	70.0 to 130	1.80	20.0
BD06613	Potassium, Total	mg/L	0.0131	0.367	10.0	12.3	12.3	10.0	8.50 to 11.5	99.9	70.0 to 130	0.00	20.0
BD06614	Selenium, Dissolved	mg/L	0.0000543	0.00100	0.100	0.109	0.112	0.109	0.0850 to 0.115	109	70.0 to 130	2.71	20.0
BD06613	Selenium, Total	mg/L	0.000122	0.00100	0.100	0.103	0.0993	0.103	0.0850 to 0.115	103	70.0 to 130	3.66	20.0
BD06614	Silicon, Dissolved	mg/L	0.000048	0.0440	1.00	6.94	6.92	1.01	0.850 to 1.15	102	70.0 to 130	0.289	20.0
BD06613	Silicon, Total	mg/L	0.00174	0.0440	1.00	14.7	14.7	0.987	0.850 to 1.15	90.0	70.0 to 130	0.00	20.0
BD06614	Sodium, Dissolved	mg/L	-0.00120	0.0880	5.00	123	122	4.73	4.25 to 5.75	-120	70.0 to 130	0.816	20.0
BD06613	Sodium, Total	mg/L	0.00274	0.0880	5.00	31.5	31.4	4.66	4.25 to 5.75	94.0	70.0 to 130	0.318	20.0
BD06613	Sulfate	mg/L	0.439	2.0	20.0	29.1	28.9	20.2	18.0 to 22.0	80.5	80.0 to 120	0.690	20.0
BD06614	Thallium, Dissolved	mg/L	0.0000007	0.000147	0.100	0.103	0.0996	0.102	0.0850 to 0.115	103	70.0 to 130	3.36	20.0
BD06613	Thallium, Total	mg/L	0.0000062	0.000147	0.100	0.100	0.0988	0.102	0.0850 to 0.115	100	70.0 to 130	1.21	20.0
BD06613	Total Organic Carbon	mg/L	0.142	1.00	10.0	21.8	20.3	24.2		106	80.0 to 120	7.13	20.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWBARAP

Sample Date: 4/3/23 11:48

Customer ID:

Delivery Date: 4/5/23 07:36

Description: Barry Ash Pond - MW-24H DUP

Laboratory ID Number: BD06607

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BD06618	Alkalinity to pH 4.5	mg CaCO3/L					25.3	50.5	45.0 to 55.0			0.794	10.0
BD06613	Nitrogen, Nitrate/Nitrite	mg/L as N	0.02	0.200	2.00	1.74	0.240	2.00	1.80 to 2.20	75.0	90.0 to 110	0.418	15.0
BD06611	Solids, Dissolved	mg/L	0.0000	25.0			393	50.0	40.0 to 60.0			1.77	10.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Barry Ash Pond - MW-25H

Location Code: WMWBARAP
Collected: 4/3/23 14:24
Customer ID:
Submittal Date: 4/5/23 07:36

Laboratory ID Number: BD06608

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7			Analyst: ABB			Preparation Method: EPA 1638			
* Boron, Total	4/6/23 06:51	4/6/23 11:57		1.015	Not Detected	mg/L	0.030000	0.1015	U
* Calcium, Total	4/6/23 06:51	4/6/23 11:57		1.015	1.01	mg/L	0.070035	0.406	
* Iron, Total	4/6/23 06:51	4/6/23 11:57		1.015	0.0232	mg/L	0.008120	0.0406	J
* Lithium, Total	4/6/23 06:51	4/6/23 11:57		1.015	Not Detected	mg/L	0.007105	0.01999956	U
* Magnesium, Total	4/6/23 06:51	4/6/23 11:57		1.015	0.748	mg/L	0.021315	0.406	
* Molybdenum, Total	4/6/23 06:51	4/6/23 11:57		1.015	Not Detected	mg/L	0.005075	0.01015	U
* Silica, Total (calc.)	4/6/23 06:51	4/6/23 11:57		1	15.9	mg/L			
* Silicon, Total	4/6/23 06:51	4/6/23 11:57		1.015	7.45	mg/L	0.02030	0.25375	
* Sodium, Total	4/6/23 06:51	4/6/23 11:57		1.015	5.81	mg/L	0.04060	0.406	
Analytical Method: EPA 200.7			Analyst: ABB						
* Boron, Dissolved	4/6/23 09:44	4/7/23 11:30		1.015	Not Detected	mg/L	0.030000	0.1015	U
* Calcium, Dissolved	4/6/23 09:44	4/7/23 11:30		1.015	0.977	mg/L	0.070035	0.406	
* Iron, Dissolved	4/6/23 09:44	4/7/23 11:30		1.015	Not Detected	mg/L	0.008120	0.0406	U
* Lithium, Dissolved	4/6/23 09:44	4/7/23 11:30		1.015	Not Detected	mg/L	0.007105	0.01999956	U
* Magnesium, Dissolved	4/6/23 09:44	4/7/23 11:30		1.015	0.743	mg/L	0.021315	0.406	
* Molybdenum, Dissolved	4/6/23 09:44	4/7/23 11:30		1.015	Not Detected	mg/L	0.005075	0.01015	U
* Silica, Dissolved (calc.)	4/6/23 09:44	4/7/23 11:30		1	16.2	mg/L			
* Silicon, Dissolved	4/6/23 09:44	4/7/23 11:30		1.015	7.55	mg/L	0.02030	0.25375	
* Sodium, Dissolved	4/6/23 09:44	4/7/23 11:30		1.015	5.86	mg/L	0.04060	0.406	
Analytical Method: EPA 200.8			Analyst: DLJ			Preparation Method: EPA 1638			
* Antimony, Total	4/6/23 06:51	4/7/23 11:46		1.015	Not Detected	mg/L	0.000710	0.001015	U
* Aluminum, Total	4/6/23 06:51	4/7/23 11:46		1.015	0.0114	mg/L	0.009135	0.05075	J
* Arsenic, Total	4/6/23 06:51	4/7/23 11:46		1.015	0.000135	mg/L	0.000112	0.000203	J
* Barium, Total	4/6/23 06:51	4/7/23 11:46		1.015	0.0187	mg/L	0.000508	0.001015	
* Beryllium, Total	4/6/23 06:51	4/7/23 11:46		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Total	4/6/23 06:51	4/7/23 11:46		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Total	4/6/23 06:51	4/7/23 11:46		1.015	0.00106	mg/L	0.000203	0.001015	
* Cobalt, Total	4/6/23 06:51	4/7/23 11:46		1.015	0.00113	mg/L	0.000068	0.000203	
* Lead, Total	4/6/23 06:51	4/7/23 11:46		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Total	4/6/23 06:51	4/7/23 11:46		1.015	0.00292	mg/L	0.000152	0.001015	

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Barry Ash Pond - MW-25H

Location Code: WMWBARAP

Collected: 4/3/23 14:24

Customer ID:

Submittal Date: 4/5/23 07:36

Laboratory ID Number: BD06608

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
* Potassium, Total	4/6/23 06:51	4/7/23 11:46		1.015	0.897	mg/L	0.169505	0.5075	
* Selenium, Total	4/6/23 06:51	4/7/23 11:46		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Total	4/6/23 06:51	4/7/23 11:46		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 200.8		Analyst: DLJ							
* Antimony, Dissolved	4/6/23 09:44	4/6/23 11:22		1.015	Not Detected	mg/L	0.000710	0.001015	U
* Aluminum, Dissolved	4/6/23 09:44	4/6/23 11:22		1.015	Not Detected	mg/L	0.009135	0.05075	U
* Arsenic, Dissolved	4/6/23 09:44	4/6/23 11:22		1.015	Not Detected	mg/L	0.000112	0.000203	U
* Barium, Dissolved	4/6/23 09:44	4/6/23 11:22		1.015	0.0211	mg/L	0.000508	0.001015	
* Beryllium, Dissolved	4/6/23 09:44	4/6/23 11:22		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Dissolved	4/6/23 09:44	4/6/23 11:22		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Dissolved	4/6/23 09:44	4/6/23 11:22		1.015	0.00122	mg/L	0.000203	0.001015	
* Cobalt, Dissolved	4/6/23 09:44	4/6/23 11:22		1.015	0.00136	mg/L	0.000068	0.000203	
* Lead, Dissolved	4/6/23 09:44	4/6/23 11:22		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Dissolved	4/6/23 09:44	4/6/23 11:22		1.015	0.00306	mg/L	0.000152	0.001015	
* Potassium, Dissolved	4/6/23 09:44	4/6/23 11:22		1.015	0.942	mg/L	0.169505	0.5075	
* Selenium, Dissolved	4/6/23 09:44	4/6/23 11:22		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Dissolved	4/6/23 09:44	4/6/23 11:22		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 245.1		Analyst: CRB							
* Mercury, Total by CVAA	4/11/23 18:35	4/11/23 22:49		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: EPA 353.2		Analyst: SC							
* Nitrogen, Nitrate/Nitrite	4/6/23 09:00	4/6/23 09:00		1	Not Detected	mg/L as N	0.20	0.3	U
Analytical Method: SM 2320 B		Analyst: ALH							
* Alkalinity to pH 4.5	4/17/23 10:54	4/17/23 12:30		1	5.52	mg CaCO3/L		0.10	
Analytical Method: SM 2540C		Analyst: CNJ							
* Solids, Dissolved	4/6/23 10:55	4/7/23 12:30		1	40.0	mg/L		25	
Analytical Method: SM 4500CO2 D		Analyst: ALH							
* Bicarbonate Alkalinity, (calc.)	4/17/23 10:54	4/17/23 12:30		1	5.52	mg CaCO3/L		1	
* Carbonate Alkalinity, (calc.)	4/17/23 10:54	4/17/23 12:30		1	Not Detected	mg CaCO3/L		0.5	
Analytical Method: SM 5310 B		Analyst: SC							
* Total Organic Carbon	4/5/23 15:26	4/5/23 15:26		1	Not Detected	mg/L	1.00	2	U

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Barry Ash Pond - MW-25H

Location Code: WMWBARAP

Collected: 4/3/23 14:24

Customer ID:

Submittal Date: 4/5/23 07:36

Laboratory ID Number: BD06608

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM4500Cl E		Analyst: CES							
* Chloride	4/12/23 10:58	4/12/23 10:58		1	5.52	mg/L	0.50	0.5	
Analytical Method: SM4500F G 2017		Analyst: CES							
* Fluoride	4/13/23 10:27	4/13/23 10:27		1	Not Detected	mg/L	0.06	0.125	U
Analytical Method: SM4500SO4 E 2011		Analyst: JCC							
* Sulfate	4/6/23 10:05	4/6/23 10:05		1	4.48	mg/L	0.6	2	
Analytical Method: Field Measurements		Analyst: AWG							
Conductivity	4/3/23 14:21	4/3/23 14:21			45.80	uS/cm			FA
pH	4/3/23 14:21	4/3/23 14:21			4.65	SU			FA
Temperature	4/3/23 14:21	4/3/23 14:21			23.02	C			FA
Turbidity	4/3/23 14:21	4/3/23 14:21			3.98	NTU			FA
Sulfide	4/3/23 14:21	4/3/23 14:21			0	mg/L			FA

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWBARAP

Sample Date: 4/3/23 14:24

Customer ID:

Delivery Date: 4/5/23 07:36

Description: Barry Ash Pond - MW-25H

Laboratory ID Number: BD06608

Sample	Analysis	Units	MB		Spike	MS	MSD	Standard		Rec		Prec	Limit
			MB	Limit				Standard	Limit	Rec	Limit		
BD06614	Aluminum, Dissolved	mg/L	-0.000829	0.0198	0.100	0.101	0.103	0.103	0.0850 to 0.115	101	70.0 to 130	1.96	20.0
BD06613	Aluminum, Total	mg/L	0.000464	0.0198	0.100	0.104	0.106	0.103	0.0850 to 0.115	104	70.0 to 130	1.90	20.0
BD06614	Antimony, Dissolved	mg/L	0.000282	0.00100	0.100	0.105	0.107	0.105	0.0850 to 0.115	105	70.0 to 130	1.89	20.0
BD06613	Antimony, Total	mg/L	0.000260	0.00100	0.100	0.0945	0.0970	0.0922	0.0850 to 0.115	94.5	70.0 to 130	2.61	20.0
BD06614	Arsenic, Dissolved	mg/L	0.0000293	0.000200	0.100	0.110	0.112	0.108	0.0850 to 0.115	109	70.0 to 130	1.80	20.0
BD06613	Arsenic, Total	mg/L	0.0000185	0.000200	0.100	0.0996	0.0980	0.101	0.0850 to 0.115	99.2	70.0 to 130	1.62	20.0
BD06614	Barium, Dissolved	mg/L	0.0000004	0.00100	0.100	0.111	0.114	0.104	0.0850 to 0.115	103	70.0 to 130	2.67	20.0
BD06613	Barium, Total	mg/L	0.0000235	0.00100	0.100	0.272	0.282	0.0935	0.0850 to 0.115	83.0	70.0 to 130	3.61	20.0
BD06614	Beryllium, Dissolved	mg/L	0.0000122	0.000880	0.100	0.0988	0.102	0.0962	0.0850 to 0.115	98.8	70.0 to 130	3.19	20.0
BD06613	Beryllium, Total	mg/L	0.0000089	0.000880	0.100	0.0946	0.0943	0.0982	0.0850 to 0.115	94.6	70.0 to 130	0.318	20.0
BD06614	Boron, Dissolved	mg/L	0.000167	0.0650	1.00	1.32	1.30	1.01	0.850 to 1.15	102	70.0 to 130	1.53	20.0
BD06613	Boron, Total	mg/L	-0.00119	0.0650	1.00	2.00	1.98	0.989	0.850 to 1.15	104	70.0 to 130	1.01	20.0
BD06614	Cadmium, Dissolved	mg/L	0.0000050	0.000147	0.100	0.107	0.109	0.111	0.0850 to 0.115	107	70.0 to 130	1.85	20.0
BD06613	Cadmium, Total	mg/L	0.0000000	0.000147	0.100	0.0986	0.0971	0.0971	0.0850 to 0.115	98.6	70.0 to 130	1.53	20.0
BD06614	Calcium, Dissolved	mg/L	-0.0141	0.152	5.00	5.35	5.12	4.92	4.25 to 5.75	96.0	70.0 to 130	4.39	20.0
BD06613	Calcium, Total	mg/L	0.00187	0.152	5.00	63.1	64.0	4.92	4.25 to 5.75	78.0	70.0 to 130	1.42	20.0
BD06612	Chloride	mg/L	0.0720	1.00	10.0	17.6	17.8	10.3	9.00 to 11.0	102	80.0 to 120	1.13	20.0
BD06614	Chromium, Dissolved	mg/L	-0.0000464	0.000440	0.100	0.106	0.110	0.111	0.0850 to 0.115	106	70.0 to 130	3.70	20.0
BD06613	Chromium, Total	mg/L	0.0000577	0.000440	0.100	0.0980	0.0992	0.0984	0.0850 to 0.115	97.5	70.0 to 130	1.22	20.0
BD06614	Cobalt, Dissolved	mg/L	-0.0000057	0.000147	0.100	0.108	0.111	0.110	0.0850 to 0.115	108	70.0 to 130	2.74	20.0
BD06613	Cobalt, Total	mg/L	-0.0000008	0.000147	0.100	0.102	0.103	0.101	0.0850 to 0.115	101	70.0 to 130	0.976	20.0
BD06613	Fluoride	mg/L	0.0117	0.125	2.50	2.69	2.66	2.57	2.25 to 2.75	108	80.0 to 120	1.12	20.0
BD06614	Iron, Dissolved	mg/L	-0.000107	0.0176	0.2	0.757	0.755	0.202	0.170 to 0.230	97.5	70.0 to 130	0.265	20.0
BD06613	Iron, Total	mg/L	-0.000067	0.0176	0.2	100	100	0.194	0.170 to 0.230	-500	70.0 to 130	0.00	20.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWBARAP

Sample Date: 4/3/23 14:24

Customer ID:

Delivery Date: 4/5/23 07:36

Description: Barry Ash Pond - MW-25H

Laboratory ID Number: BD06608

Sample	Analysis	Units	MB		Spike	MS	MSD	Standard		Rec		Prec	Limit
			MB	Limit				Standard	Limit	Rec	Limit		
BD06614	Lead, Dissolved	mg/L	0.0000188	0.000147	0.100	0.0994	0.0993	0.101	0.0850 to 0.115	99.4	70.0 to 130	0.101	20.0
BD06613	Lead, Total	mg/L	0.0000100	0.000147	0.100	0.0971	0.0966	0.0990	0.0850 to 0.115	97.1	70.0 to 130	0.516	20.0
BD06614	Lithium, Dissolved	mg/L	0.000058	0.0154	0.200	0.207	0.204	0.197	0.170 to 0.230	104	70.0 to 130	1.46	20.0
BD06613	Lithium, Total	mg/L	0.000883	0.0154	0.200	0.202	0.201	0.191	0.170 to 0.230	101	70.0 to 130	0.496	20.0
BD06614	Magnesium, Dissolved	mg/L	-0.00906	0.0462	5.00	5.15	4.89	4.92	4.25 to 5.75	98.5	70.0 to 130	5.18	20.0
BD06613	Magnesium, Total	mg/L	-0.00266	0.0462	5.00	16.8	16.7	4.86	4.25 to 5.75	96.0	70.0 to 130	0.597	20.0
BD06614	Manganese, Dissolved	mg/L	0.0000223	0.00033	0.100	0.115	0.120	0.102	0.0850 to 0.115	98.9	70.0 to 130	4.26	20.0
BD06613	Manganese, Total	mg/L	0.0000173	0.00033	0.100	0.894	0.904	0.101	0.0850 to 0.115	81.0	70.0 to 130	1.11	20.0
BD06613	Mercury, Total by CVAA	mg/L	3.000E-05	0.000500	0.004	0.00402	0.00407	0.00409	0.00340 to 0.00460	100	70.0 to 130	1.24	20.0
BD06614	Molybdenum, Dissolved	mg/L	0.000012	0.0100	0.2	0.206	0.206	0.203	0.170 to 0.230	103	70.0 to 130	0.00	20.0
BD06613	Molybdenum, Total	mg/L	0.000	0.0100	0.2	0.200	0.199	0.199	0.170 to 0.230	100	70.0 to 130	0.501	20.0
BD06614	Potassium, Dissolved	mg/L	0.0134	0.367	10.0	11.0	11.2	10.4	8.50 to 11.5	99.1	70.0 to 130	1.80	20.0
BD06613	Potassium, Total	mg/L	0.0131	0.367	10.0	12.3	12.3	10.0	8.50 to 11.5	99.9	70.0 to 130	0.00	20.0
BD06614	Selenium, Dissolved	mg/L	0.0000543	0.00100	0.100	0.109	0.112	0.109	0.0850 to 0.115	109	70.0 to 130	2.71	20.0
BD06613	Selenium, Total	mg/L	0.000122	0.00100	0.100	0.103	0.0993	0.103	0.0850 to 0.115	103	70.0 to 130	3.66	20.0
BD06614	Silicon, Dissolved	mg/L	0.000048	0.0440	1.00	6.94	6.92	1.01	0.850 to 1.15	102	70.0 to 130	0.289	20.0
BD06613	Silicon, Total	mg/L	0.00174	0.0440	1.00	14.7	14.7	0.987	0.850 to 1.15	90.0	70.0 to 130	0.00	20.0
BD06614	Sodium, Dissolved	mg/L	-0.00120	0.0880	5.00	123	122	4.73	4.25 to 5.75	-120	70.0 to 130	0.816	20.0
BD06613	Sodium, Total	mg/L	0.00274	0.0880	5.00	31.5	31.4	4.66	4.25 to 5.75	94.0	70.0 to 130	0.318	20.0
BD06613	Sulfate	mg/L	0.439	2.0	20.0	29.1	28.9	20.2	18.0 to 22.0	80.5	80.0 to 120	0.690	20.0
BD06614	Thallium, Dissolved	mg/L	0.0000007	0.000147	0.100	0.103	0.0996	0.102	0.0850 to 0.115	103	70.0 to 130	3.36	20.0
BD06613	Thallium, Total	mg/L	0.0000062	0.000147	0.100	0.100	0.0988	0.102	0.0850 to 0.115	100	70.0 to 130	1.21	20.0
BD06613	Total Organic Carbon	mg/L	0.142	1.00	10.0	21.8	20.3	24.2		106	80.0 to 120	7.13	20.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWBARAP

Sample Date: 4/3/23 14:24

Customer ID:

Delivery Date: 4/5/23 07:36

Description: Barry Ash Pond - MW-25H

Laboratory ID Number: BD06608

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BD06780	Alkalinity to pH 4.5	mg CaCO3/L					147	50.5	45.0 to 55.0			0.678	10.0
BD06613	Nitrogen, Nitrate/Nitrite	mg/L as N	0.02	0.200	2.00	1.74	0.240	2.00	1.80 to 2.20	75.0	90.0 to 110	0.418	15.0
BD06611	Solids, Dissolved	mg/L	0.0000	25.0			393	50.0	40.0 to 60.0			1.77	10.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Barry Ash Pond - MW-25H DUP

Location Code: WMWBARAP
Collected: 4/3/23 14:24
Customer ID:
Submittal Date: 4/5/23 07:36

Laboratory ID Number: BD06609

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7			Analyst: ABB		Preparation Method: EPA 1638				
* Boron, Total	4/6/23 06:51	4/6/23 12:00		1.015	Not Detected	mg/L	0.030000	0.1015	U
* Calcium, Total	4/6/23 06:51	4/6/23 12:00		1.015	0.997	mg/L	0.070035	0.406	
* Iron, Total	4/6/23 06:51	4/6/23 12:00		1.015	0.0232	mg/L	0.008120	0.0406	J
* Lithium, Total	4/6/23 06:51	4/6/23 12:00		1.015	Not Detected	mg/L	0.007105	0.01999956	U
* Magnesium, Total	4/6/23 06:51	4/6/23 12:00		1.015	0.742	mg/L	0.021315	0.406	
* Molybdenum, Total	4/6/23 06:51	4/6/23 12:00		1.015	Not Detected	mg/L	0.005075	0.01015	U
* Silica, Total (calc.)	4/6/23 06:51	4/6/23 12:00		1	15.9	mg/L			
* Silicon, Total	4/6/23 06:51	4/6/23 12:00		1.015	7.42	mg/L	0.02030	0.25375	
* Sodium, Total	4/6/23 06:51	4/6/23 12:00		1.015	5.78	mg/L	0.04060	0.406	
Analytical Method: EPA 200.7			Analyst: ABB						
* Boron, Dissolved	4/6/23 09:44	4/7/23 11:33		1.015	Not Detected	mg/L	0.030000	0.1015	U
* Calcium, Dissolved	4/6/23 09:44	4/7/23 11:33		1.015	0.975	mg/L	0.070035	0.406	
* Iron, Dissolved	4/6/23 09:44	4/7/23 11:33		1.015	Not Detected	mg/L	0.008120	0.0406	U
* Lithium, Dissolved	4/6/23 09:44	4/7/23 11:33		1.015	Not Detected	mg/L	0.007105	0.01999956	U
* Magnesium, Dissolved	4/6/23 09:44	4/7/23 11:33		1.015	0.758	mg/L	0.021315	0.406	
* Molybdenum, Dissolved	4/6/23 09:44	4/7/23 11:33		1.015	Not Detected	mg/L	0.005075	0.01015	U
* Silica, Dissolved (calc.)	4/6/23 09:44	4/7/23 11:33		1	16.1	mg/L			
* Silicon, Dissolved	4/6/23 09:44	4/7/23 11:33		1.015	7.51	mg/L	0.02030	0.25375	
* Sodium, Dissolved	4/6/23 09:44	4/7/23 11:33		1.015	5.95	mg/L	0.04060	0.406	
Analytical Method: EPA 200.8			Analyst: DLJ		Preparation Method: EPA 1638				
* Antimony, Total	4/6/23 06:51	4/7/23 11:49		1.015	Not Detected	mg/L	0.000710	0.001015	U
* Aluminum, Total	4/6/23 06:51	4/7/23 11:49		1.015	0.0125	mg/L	0.009135	0.05075	J
* Arsenic, Total	4/6/23 06:51	4/7/23 11:49		1.015	0.000149	mg/L	0.000112	0.000203	J
* Barium, Total	4/6/23 06:51	4/7/23 11:49		1.015	0.0193	mg/L	0.000508	0.001015	
* Beryllium, Total	4/6/23 06:51	4/7/23 11:49		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Total	4/6/23 06:51	4/7/23 11:49		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Total	4/6/23 06:51	4/7/23 11:49		1.015	0.00122	mg/L	0.000203	0.001015	
* Cobalt, Total	4/6/23 06:51	4/7/23 11:49		1.015	0.00125	mg/L	0.000068	0.000203	
* Lead, Total	4/6/23 06:51	4/7/23 11:49		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Total	4/6/23 06:51	4/7/23 11:49		1.015	0.00299	mg/L	0.000152	0.001015	

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Barry Ash Pond - MW-25H DUP

Location Code: WMWBARAP
Collected: 4/3/23 14:24
Customer ID:
Submittal Date: 4/5/23 07:36

Laboratory ID Number: BD06609

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
* Potassium, Total	4/6/23 06:51	4/7/23 11:49		1.015	0.940	mg/L	0.169505	0.5075	
* Selenium, Total	4/6/23 06:51	4/7/23 11:49		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Total	4/6/23 06:51	4/7/23 11:49		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 200.8		Analyst: DLJ							
* Antimony, Dissolved	4/6/23 09:44	4/6/23 11:26		1.015	Not Detected	mg/L	0.000710	0.001015	U
* Aluminum, Dissolved	4/6/23 09:44	4/6/23 11:26		1.015	Not Detected	mg/L	0.009135	0.05075	U
* Arsenic, Dissolved	4/6/23 09:44	4/6/23 11:26		1.015	Not Detected	mg/L	0.000112	0.000203	U
* Barium, Dissolved	4/6/23 09:44	4/6/23 11:26		1.015	0.0209	mg/L	0.000508	0.001015	
* Beryllium, Dissolved	4/6/23 09:44	4/6/23 11:26		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Dissolved	4/6/23 09:44	4/6/23 11:26		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Dissolved	4/6/23 09:44	4/6/23 11:26		1.015	0.00115	mg/L	0.000203	0.001015	
* Cobalt, Dissolved	4/6/23 09:44	4/6/23 11:26		1.015	0.00127	mg/L	0.000068	0.000203	
* Lead, Dissolved	4/6/23 09:44	4/6/23 11:26		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Dissolved	4/6/23 09:44	4/6/23 11:26		1.015	0.00295	mg/L	0.000152	0.001015	
* Potassium, Dissolved	4/6/23 09:44	4/6/23 11:26		1.015	0.918	mg/L	0.169505	0.5075	
* Selenium, Dissolved	4/6/23 09:44	4/6/23 11:26		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Dissolved	4/6/23 09:44	4/6/23 11:26		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 245.1		Analyst: CRB							
* Mercury, Total by CVAA	4/11/23 18:35	4/11/23 22:53		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: EPA 353.2		Analyst: SC							
* Nitrogen, Nitrate/Nitrite	4/6/23 09:02	4/6/23 09:02		1	Not Detected	mg/L as N	0.20	0.3	U
Analytical Method: SM 2320 B		Analyst: ALH							
* Alkalinity to pH 4.5	4/17/23 10:54	4/17/23 12:30		1	5.64	mg CaCO3/L		0.10	
Analytical Method: SM 2540C		Analyst: CNJ							
* Solids, Dissolved	4/6/23 10:55	4/7/23 12:30		1	40.0	mg/L		25	
Analytical Method: SM 4500CO2 D		Analyst: ALH							
* Bicarbonate Alkalinity, (calc.)	4/17/23 10:54	4/17/23 12:30		1	5.64	mg CaCO3/L		1	
* Carbonate Alkalinity, (calc.)	4/17/23 10:54	4/17/23 12:30		1	Not Detected	mg CaCO3/L		0.5	
Analytical Method: SM 5310 B		Analyst: SC							
* Total Organic Carbon	4/5/23 15:43	4/5/23 15:43		1	Not Detected	mg/L	1.00	2	U

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Barry Ash Pond - MW-25H DUP

Location Code: WMWBARAP

Collected: 4/3/23 14:24

Customer ID:

Submittal Date: 4/5/23 07:36

Laboratory ID Number: BD06609

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM4500Cl E		Analyst: CES							
* Chloride	4/12/23 11:06	4/12/23 11:06		1	5.54	mg/L	0.50	0.5	
Analytical Method: SM4500F G 2017		Analyst: CES							
* Fluoride	4/13/23 10:28	4/13/23 10:28		1	Not Detected	mg/L	0.06	0.125	U
Analytical Method: SM4500SO4 E 2011		Analyst: JCC							
* Sulfate	4/6/23 10:06	4/6/23 10:06		1	4.48	mg/L	0.6	2	
Analytical Method: Field Measurements		Analyst: AWG							
Conductivity	4/3/23 14:21	4/3/23 14:21			45.80	uS/cm			FA
pH	4/3/23 14:21	4/3/23 14:21			4.65	SU			FA
Temperature	4/3/23 14:21	4/3/23 14:21			23.02	C			FA
Turbidity	4/3/23 14:21	4/3/23 14:21			3.98	NTU			FA
Sulfide	4/3/23 14:21	4/3/23 14:21			0	mg/L			FA

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWBARAP
Sample Date: 4/3/23 14:24
Customer ID:
Delivery Date: 4/5/23 07:36

Description: Barry Ash Pond - MW-25H DUP

Laboratory ID Number: BD06609

Sample	Analysis	Units	MB	MB				Standard		Rec		Prec	Limit
				Limit	Spike	MS	MSD	Standard	Limit	Rec	Limit		
BD06614	Aluminum, Dissolved	mg/L	-0.000829	0.0198	0.100	0.101	0.103	0.103	0.0850 to 0.115	101	70.0 to 130	1.96	20.0
BD06613	Aluminum, Total	mg/L	0.000464	0.0198	0.100	0.104	0.106	0.103	0.0850 to 0.115	104	70.0 to 130	1.90	20.0
BD06614	Antimony, Dissolved	mg/L	0.000282	0.00100	0.100	0.105	0.107	0.105	0.0850 to 0.115	105	70.0 to 130	1.89	20.0
BD06613	Antimony, Total	mg/L	0.000260	0.00100	0.100	0.0945	0.0970	0.0922	0.0850 to 0.115	94.5	70.0 to 130	2.61	20.0
BD06614	Arsenic, Dissolved	mg/L	0.0000293	0.000200	0.100	0.110	0.112	0.108	0.0850 to 0.115	109	70.0 to 130	1.80	20.0
BD06613	Arsenic, Total	mg/L	0.0000185	0.000200	0.100	0.0996	0.0980	0.101	0.0850 to 0.115	99.2	70.0 to 130	1.62	20.0
BD06614	Barium, Dissolved	mg/L	0.0000004	0.00100	0.100	0.111	0.114	0.104	0.0850 to 0.115	103	70.0 to 130	2.67	20.0
BD06613	Barium, Total	mg/L	0.0000235	0.00100	0.100	0.272	0.282	0.0935	0.0850 to 0.115	83.0	70.0 to 130	3.61	20.0
BD06614	Beryllium, Dissolved	mg/L	0.0000122	0.000880	0.100	0.0988	0.102	0.0962	0.0850 to 0.115	98.8	70.0 to 130	3.19	20.0
BD06613	Beryllium, Total	mg/L	0.0000089	0.000880	0.100	0.0946	0.0943	0.0982	0.0850 to 0.115	94.6	70.0 to 130	0.318	20.0
BD06614	Boron, Dissolved	mg/L	0.000167	0.0650	1.00	1.32	1.30	1.01	0.850 to 1.15	102	70.0 to 130	1.53	20.0
BD06613	Boron, Total	mg/L	-0.00119	0.0650	1.00	2.00	1.98	0.989	0.850 to 1.15	104	70.0 to 130	1.01	20.0
BD06614	Cadmium, Dissolved	mg/L	0.0000050	0.000147	0.100	0.107	0.109	0.111	0.0850 to 0.115	107	70.0 to 130	1.85	20.0
BD06613	Cadmium, Total	mg/L	0.0000000	0.000147	0.100	0.0986	0.0971	0.0971	0.0850 to 0.115	98.6	70.0 to 130	1.53	20.0
BD06614	Calcium, Dissolved	mg/L	-0.0141	0.152	5.00	5.35	5.12	4.92	4.25 to 5.75	96.0	70.0 to 130	4.39	20.0
BD06613	Calcium, Total	mg/L	0.00187	0.152	5.00	63.1	64.0	4.92	4.25 to 5.75	78.0	70.0 to 130	1.42	20.0
BD06612	Chloride	mg/L	0.0720	1.00	10.0	17.6	17.8	10.3	9.00 to 11.0	102	80.0 to 120	1.13	20.0
BD06614	Chromium, Dissolved	mg/L	-0.0000464	0.000440	0.100	0.106	0.110	0.111	0.0850 to 0.115	106	70.0 to 130	3.70	20.0
BD06613	Chromium, Total	mg/L	0.0000577	0.000440	0.100	0.0980	0.0992	0.0984	0.0850 to 0.115	97.5	70.0 to 130	1.22	20.0
BD06614	Cobalt, Dissolved	mg/L	-0.0000057	0.000147	0.100	0.108	0.111	0.110	0.0850 to 0.115	108	70.0 to 130	2.74	20.0
BD06613	Cobalt, Total	mg/L	-0.0000008	0.000147	0.100	0.102	0.103	0.101	0.0850 to 0.115	101	70.0 to 130	0.976	20.0
BD06613	Fluoride	mg/L	0.0117	0.125	2.50	2.69	2.66	2.57	2.25 to 2.75	108	80.0 to 120	1.12	20.0
BD06614	Iron, Dissolved	mg/L	-0.000107	0.0176	0.2	0.757	0.755	0.202	0.170 to 0.230	97.5	70.0 to 130	0.265	20.0
BD06613	Iron, Total	mg/L	-0.000067	0.0176	0.2	100	100	0.194	0.170 to 0.230	-500	70.0 to 130	0.00	20.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWBARAP
Sample Date: 4/3/23 14:24
Customer ID:
Delivery Date: 4/5/23 07:36

Description: Barry Ash Pond - MW-25H DUP

Laboratory ID Number: BD06609

Sample	Analysis	Units	MB		Spike	MS	MSD	Standard		Rec		Prec	Limit
			MB	Limit				Standard	Limit	Rec	Limit		
BD06614	Lead, Dissolved	mg/L	0.0000188	0.000147	0.100	0.0994	0.0993	0.101	0.0850 to 0.115	99.4	70.0 to 130	0.101	20.0
BD06613	Lead, Total	mg/L	0.0000100	0.000147	0.100	0.0971	0.0966	0.0990	0.0850 to 0.115	97.1	70.0 to 130	0.516	20.0
BD06614	Lithium, Dissolved	mg/L	0.000058	0.0154	0.200	0.207	0.204	0.197	0.170 to 0.230	104	70.0 to 130	1.46	20.0
BD06613	Lithium, Total	mg/L	0.000883	0.0154	0.200	0.202	0.201	0.191	0.170 to 0.230	101	70.0 to 130	0.496	20.0
BD06614	Magnesium, Dissolved	mg/L	-0.00906	0.0462	5.00	5.15	4.89	4.92	4.25 to 5.75	98.5	70.0 to 130	5.18	20.0
BD06613	Magnesium, Total	mg/L	-0.00266	0.0462	5.00	16.8	16.7	4.86	4.25 to 5.75	96.0	70.0 to 130	0.597	20.0
BD06614	Manganese, Dissolved	mg/L	0.0000223	0.00033	0.100	0.115	0.120	0.102	0.0850 to 0.115	98.9	70.0 to 130	4.26	20.0
BD06613	Manganese, Total	mg/L	0.0000173	0.00033	0.100	0.894	0.904	0.101	0.0850 to 0.115	81.0	70.0 to 130	1.11	20.0
BD06613	Mercury, Total by CVAA	mg/L	3.000E-05	0.000500	0.004	0.00402	0.00407	0.00409	0.00340 to 0.00460	100	70.0 to 130	1.24	20.0
BD06614	Molybdenum, Dissolved	mg/L	0.000012	0.0100	0.2	0.206	0.206	0.203	0.170 to 0.230	103	70.0 to 130	0.00	20.0
BD06613	Molybdenum, Total	mg/L	0.000	0.0100	0.2	0.200	0.199	0.199	0.170 to 0.230	100	70.0 to 130	0.501	20.0
BD06614	Potassium, Dissolved	mg/L	0.0134	0.367	10.0	11.0	11.2	10.4	8.50 to 11.5	99.1	70.0 to 130	1.80	20.0
BD06613	Potassium, Total	mg/L	0.0131	0.367	10.0	12.3	12.3	10.0	8.50 to 11.5	99.9	70.0 to 130	0.00	20.0
BD06614	Selenium, Dissolved	mg/L	0.0000543	0.00100	0.100	0.109	0.112	0.109	0.0850 to 0.115	109	70.0 to 130	2.71	20.0
BD06613	Selenium, Total	mg/L	0.000122	0.00100	0.100	0.103	0.0993	0.103	0.0850 to 0.115	103	70.0 to 130	3.66	20.0
BD06614	Silicon, Dissolved	mg/L	0.000048	0.0440	1.00	6.94	6.92	1.01	0.850 to 1.15	102	70.0 to 130	0.289	20.0
BD06613	Silicon, Total	mg/L	0.00174	0.0440	1.00	14.7	14.7	0.987	0.850 to 1.15	90.0	70.0 to 130	0.00	20.0
BD06614	Sodium, Dissolved	mg/L	-0.00120	0.0880	5.00	123	122	4.73	4.25 to 5.75	-120	70.0 to 130	0.816	20.0
BD06613	Sodium, Total	mg/L	0.00274	0.0880	5.00	31.5	31.4	4.66	4.25 to 5.75	94.0	70.0 to 130	0.318	20.0
BD06613	Sulfate	mg/L	0.439	2.0	20.0	29.1	28.9	20.2	18.0 to 22.0	80.5	80.0 to 120	0.690	20.0
BD06614	Thallium, Dissolved	mg/L	0.0000007	0.000147	0.100	0.103	0.0996	0.102	0.0850 to 0.115	103	70.0 to 130	3.36	20.0
BD06613	Thallium, Total	mg/L	0.0000062	0.000147	0.100	0.100	0.0988	0.102	0.0850 to 0.115	100	70.0 to 130	1.21	20.0
BD06613	Total Organic Carbon	mg/L	0.142	1.00	10.0	21.8	20.3	24.2		106	80.0 to 120	7.13	20.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWBARAP

Sample Date: 4/3/23 14:24

Customer ID:

Delivery Date: 4/5/23 07:36

Description: Barry Ash Pond - MW-25H DUP

Laboratory ID Number: BD06609

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BD06780	Alkalinity to pH 4.5	mg CaCO3/L					147	50.5	45.0 to 55.0			0.678	10.0
BD06613	Nitrogen, Nitrate/Nitrite	mg/L as N	0.02	0.200	2.00	1.74	0.240	2.00	1.80 to 2.20	75.0	90.0 to 110	0.418	15.0
BD06611	Solids, Dissolved	mg/L	0.0000	25.0			393	50.0	40.0 to 60.0			1.77	10.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Barry Ash Pond - MW-25V

Location Code: WMWBARAP
Collected: 4/3/23 15:17
Customer ID:
Submittal Date: 4/5/23 07:36

Laboratory ID Number: BD06610

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7			Analyst: ABB			Preparation Method: EPA 1638			
* Boron, Total	4/6/23 06:51	4/6/23 12:03		1.015	Not Detected	mg/L	0.030000	0.1015	U
* Calcium, Total	4/6/23 06:51	4/6/23 12:03		1.015	0.703	mg/L	0.070035	0.406	
* Iron, Total	4/6/23 06:51	4/6/23 12:03		1.015	0.0467	mg/L	0.008120	0.0406	
* Lithium, Total	4/6/23 06:51	4/6/23 12:03		1.015	Not Detected	mg/L	0.007105	0.01999956	U
* Magnesium, Total	4/6/23 06:51	4/6/23 12:03		1.015	0.399	mg/L	0.021315	0.406	J
* Molybdenum, Total	4/6/23 06:51	4/6/23 12:03		1.015	Not Detected	mg/L	0.005075	0.01015	U
* Silica, Total (calc.)	4/6/23 06:51	4/6/23 12:03		1	13.6	mg/L			
* Silicon, Total	4/6/23 06:51	4/6/23 12:03		1.015	6.36	mg/L	0.02030	0.25375	
* Sodium, Total	4/6/23 06:51	4/6/23 12:03		1.015	4.41	mg/L	0.04060	0.406	
Analytical Method: EPA 200.7			Analyst: ABB						
* Boron, Dissolved	4/6/23 09:44	4/7/23 11:36		1.015	Not Detected	mg/L	0.030000	0.1015	U
* Calcium, Dissolved	4/6/23 09:44	4/7/23 11:36		1.015	0.680	mg/L	0.070035	0.406	
* Iron, Dissolved	4/6/23 09:44	4/7/23 11:36		1.015	Not Detected	mg/L	0.008120	0.0406	U
* Lithium, Dissolved	4/6/23 09:44	4/7/23 11:36		1.015	Not Detected	mg/L	0.007105	0.01999956	U
* Magnesium, Dissolved	4/6/23 09:44	4/7/23 11:36		1.015	0.404	mg/L	0.021315	0.406	J
* Molybdenum, Dissolved	4/6/23 09:44	4/7/23 11:36		1.015	Not Detected	mg/L	0.005075	0.01015	U
* Silica, Dissolved (calc.)	4/6/23 09:44	4/7/23 11:36		1	13.7	mg/L			
* Silicon, Dissolved	4/6/23 09:44	4/7/23 11:36		1.015	6.41	mg/L	0.02030	0.25375	
* Sodium, Dissolved	4/6/23 09:44	4/7/23 11:36		1.015	4.54	mg/L	0.04060	0.406	
Analytical Method: EPA 200.8			Analyst: DLJ			Preparation Method: EPA 1638			
* Antimony, Total	4/6/23 06:51	4/7/23 11:53		1.015	Not Detected	mg/L	0.000710	0.001015	U
* Aluminum, Total	4/6/23 06:51	4/7/23 11:53		1.015	0.0185	mg/L	0.009135	0.05075	J
* Arsenic, Total	4/6/23 06:51	4/7/23 11:53		1.015	Not Detected	mg/L	0.000112	0.000203	U
* Barium, Total	4/6/23 06:51	4/7/23 11:53		1.015	0.0105	mg/L	0.000508	0.001015	
* Beryllium, Total	4/6/23 06:51	4/7/23 11:53		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Total	4/6/23 06:51	4/7/23 11:53		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Total	4/6/23 06:51	4/7/23 11:53		1.015	0.00130	mg/L	0.000203	0.001015	
* Cobalt, Total	4/6/23 06:51	4/7/23 11:53		1.015	0.000304	mg/L	0.000068	0.000203	
* Lead, Total	4/6/23 06:51	4/7/23 11:53		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Total	4/6/23 06:51	4/7/23 11:53		1.015	0.00489	mg/L	0.000152	0.001015	

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Barry Ash Pond - MW-25V

Location Code: WMWBARAP

Collected: 4/3/23 15:17

Customer ID:

Submittal Date: 4/5/23 07:36

Laboratory ID Number: BD06610

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
* Potassium, Total	4/6/23 06:51	4/7/23 11:53		1.015	0.786	mg/L	0.169505	0.5075	
* Selenium, Total	4/6/23 06:51	4/7/23 11:53		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Total	4/6/23 06:51	4/7/23 11:53		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 200.8		Analyst: DLJ							
* Antimony, Dissolved	4/6/23 09:44	4/6/23 11:30		1.015	Not Detected	mg/L	0.000710	0.001015	U
* Aluminum, Dissolved	4/6/23 09:44	4/6/23 11:30		1.015	Not Detected	mg/L	0.009135	0.05075	U
* Arsenic, Dissolved	4/6/23 09:44	4/6/23 11:30		1.015	Not Detected	mg/L	0.000112	0.000203	U
* Barium, Dissolved	4/6/23 09:44	4/6/23 11:30		1.015	0.0114	mg/L	0.000508	0.001015	
* Beryllium, Dissolved	4/6/23 09:44	4/6/23 11:30		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Dissolved	4/6/23 09:44	4/6/23 11:30		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Dissolved	4/6/23 09:44	4/6/23 11:30		1.015	0.00123	mg/L	0.000203	0.001015	
* Cobalt, Dissolved	4/6/23 09:44	4/6/23 11:30		1.015	0.000352	mg/L	0.000068	0.000203	
* Lead, Dissolved	4/6/23 09:44	4/6/23 11:30		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Dissolved	4/6/23 09:44	4/6/23 11:30		1.015	0.00500	mg/L	0.000152	0.001015	
* Potassium, Dissolved	4/6/23 09:44	4/6/23 11:30		1.015	0.831	mg/L	0.169505	0.5075	
* Selenium, Dissolved	4/6/23 09:44	4/6/23 11:30		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Dissolved	4/6/23 09:44	4/6/23 11:30		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 245.1		Analyst: CRB							
* Mercury, Total by CVAA	4/11/23 18:35	4/11/23 22:57		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: EPA 353.2		Analyst: SC							
* Nitrogen, Nitrate/Nitrite	4/6/23 09:04	4/6/23 09:04		1	Not Detected	mg/L as N	0.20	0.3	U
Analytical Method: SM 2320 B		Analyst: ALH							
* Alkalinity to pH 4.5	4/17/23 10:54	4/17/23 12:30		1	8.08	mg CaCO3/L		0.10	
Analytical Method: SM 2540C		Analyst: CNJ							
* Solids, Dissolved	4/6/23 10:55	4/7/23 12:30		1	29.3	mg/L		25	
Analytical Method: SM 4500CO2 D		Analyst: ALH							
* Bicarbonate Alkalinity, (calc.)	4/17/23 10:54	4/17/23 12:30		1	8.08	mg CaCO3/L		1	
* Carbonate Alkalinity, (calc.)	4/17/23 10:54	4/17/23 12:30		1	Not Detected	mg CaCO3/L		0.5	
Analytical Method: SM 5310 B		Analyst: SC							
* Total Organic Carbon	4/5/23 15:58	4/5/23 15:58		1	Not Detected	mg/L	1.00	2	U

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Barry Ash Pond - MW-25V

Location Code: WMWBARAP

Collected: 4/3/23 15:17

Customer ID:

Submittal Date: 4/5/23 07:36

Laboratory ID Number: BD06610

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM4500Cl E		Analyst: CES							
* Chloride	4/12/23 10:59	4/12/23 10:59		1	3.61	mg/L	0.50	0.5	
Analytical Method: SM4500F G 2017		Analyst: CES							
* Fluoride	4/13/23 10:29	4/13/23 10:29		1	Not Detected	mg/L	0.06	0.125	U
Analytical Method: SM4500SO4 E 2011		Analyst: JCC							
* Sulfate	4/6/23 10:08	4/6/23 10:08		1	2.28	mg/L	0.6	2	
Analytical Method: Field Measurements		Analyst: AWG							
Conductivity	4/3/23 15:15	4/3/23 15:15			31.89	uS/cm			FA
pH	4/3/23 15:15	4/3/23 15:15			4.80	SU			FA
Temperature	4/3/23 15:15	4/3/23 15:15			23.31	C			FA
Turbidity	4/3/23 15:15	4/3/23 15:15			3.94	NTU			FA
Sulfide	4/3/23 15:15	4/3/23 15:15			0	mg/L			FA

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWBARAP

Sample Date: 4/3/23 15:17

Customer ID:

Delivery Date: 4/5/23 07:36

Description: Barry Ash Pond - MW-25V

Laboratory ID Number: BD06610

Sample	Analysis	Units	MB					Standard		Rec		Prec	Limit
			MB	Limit	Spike	MS	MSD	Standard	Limit	Rec	Limit		
BD06614	Aluminum, Dissolved	mg/L	-0.000829	0.0198	0.100	0.101	0.103	0.103	0.0850 to 0.115	101	70.0 to 130	1.96	20.0
BD06613	Aluminum, Total	mg/L	0.000464	0.0198	0.100	0.104	0.106	0.103	0.0850 to 0.115	104	70.0 to 130	1.90	20.0
BD06614	Antimony, Dissolved	mg/L	0.000282	0.00100	0.100	0.105	0.107	0.105	0.0850 to 0.115	105	70.0 to 130	1.89	20.0
BD06613	Antimony, Total	mg/L	0.000260	0.00100	0.100	0.0945	0.0970	0.0922	0.0850 to 0.115	94.5	70.0 to 130	2.61	20.0
BD06614	Arsenic, Dissolved	mg/L	0.000293	0.000200	0.100	0.110	0.112	0.108	0.0850 to 0.115	109	70.0 to 130	1.80	20.0
BD06613	Arsenic, Total	mg/L	0.000185	0.000200	0.100	0.0996	0.0980	0.101	0.0850 to 0.115	99.2	70.0 to 130	1.62	20.0
BD06614	Barium, Dissolved	mg/L	0.0000004	0.00100	0.100	0.111	0.114	0.104	0.0850 to 0.115	103	70.0 to 130	2.67	20.0
BD06613	Barium, Total	mg/L	0.0000235	0.00100	0.100	0.272	0.282	0.0935	0.0850 to 0.115	83.0	70.0 to 130	3.61	20.0
BD06614	Beryllium, Dissolved	mg/L	0.0000122	0.000880	0.100	0.0988	0.102	0.0962	0.0850 to 0.115	98.8	70.0 to 130	3.19	20.0
BD06613	Beryllium, Total	mg/L	0.0000089	0.000880	0.100	0.0946	0.0943	0.0982	0.0850 to 0.115	94.6	70.0 to 130	0.318	20.0
BD06614	Boron, Dissolved	mg/L	0.000167	0.0650	1.00	1.32	1.30	1.01	0.850 to 1.15	102	70.0 to 130	1.53	20.0
BD06613	Boron, Total	mg/L	-0.00119	0.0650	1.00	2.00	1.98	0.989	0.850 to 1.15	104	70.0 to 130	1.01	20.0
BD06614	Cadmium, Dissolved	mg/L	0.0000050	0.000147	0.100	0.107	0.109	0.111	0.0850 to 0.115	107	70.0 to 130	1.85	20.0
BD06613	Cadmium, Total	mg/L	0.0000000	0.000147	0.100	0.0986	0.0971	0.0971	0.0850 to 0.115	98.6	70.0 to 130	1.53	20.0
BD06614	Calcium, Dissolved	mg/L	-0.0141	0.152	5.00	5.35	5.12	4.92	4.25 to 5.75	96.0	70.0 to 130	4.39	20.0
BD06613	Calcium, Total	mg/L	0.00187	0.152	5.00	63.1	64.0	4.92	4.25 to 5.75	78.0	70.0 to 130	1.42	20.0
BD06612	Chloride	mg/L	0.0720	1.00	10.0	17.6	17.8	10.3	9.00 to 11.0	102	80.0 to 120	1.13	20.0
BD06614	Chromium, Dissolved	mg/L	-0.0000464	0.000440	0.100	0.106	0.110	0.111	0.0850 to 0.115	106	70.0 to 130	3.70	20.0
BD06613	Chromium, Total	mg/L	0.0000577	0.000440	0.100	0.0980	0.0992	0.0984	0.0850 to 0.115	97.5	70.0 to 130	1.22	20.0
BD06614	Cobalt, Dissolved	mg/L	-0.0000057	0.000147	0.100	0.108	0.111	0.110	0.0850 to 0.115	108	70.0 to 130	2.74	20.0
BD06613	Cobalt, Total	mg/L	-0.0000008	0.000147	0.100	0.102	0.103	0.101	0.0850 to 0.115	101	70.0 to 130	0.976	20.0
BD06613	Fluoride	mg/L	0.0117	0.125	2.50	2.69	2.66	2.57	2.25 to 2.75	108	80.0 to 120	1.12	20.0
BD06614	Iron, Dissolved	mg/L	-0.000107	0.0176	0.2	0.757	0.755	0.202	0.170 to 0.230	97.5	70.0 to 130	0.265	20.0
BD06613	Iron, Total	mg/L	-0.000067	0.0176	0.2	100	100	0.194	0.170 to 0.230	-500	70.0 to 130	0.00	20.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWBARAP
Sample Date: 4/3/23 15:17
Customer ID:
Delivery Date: 4/5/23 07:36

Description: Barry Ash Pond - MW-25V

Laboratory ID Number: BD06610

Sample	Analysis	Units	MB		Spike	MS	MSD	Standard		Rec		Prec	Limit
			MB	Limit				Standard	Limit	Rec	Prec		
BD06614	Lead, Dissolved	mg/L	0.0000188	0.000147	0.100	0.0994	0.0993	0.101	0.0850 to 0.115	99.4	70.0 to 130	0.101	20.0
BD06613	Lead, Total	mg/L	0.0000100	0.000147	0.100	0.0971	0.0966	0.0990	0.0850 to 0.115	97.1	70.0 to 130	0.516	20.0
BD06614	Lithium, Dissolved	mg/L	0.000058	0.0154	0.200	0.207	0.204	0.197	0.170 to 0.230	104	70.0 to 130	1.46	20.0
BD06613	Lithium, Total	mg/L	0.000883	0.0154	0.200	0.202	0.201	0.191	0.170 to 0.230	101	70.0 to 130	0.496	20.0
BD06614	Magnesium, Dissolved	mg/L	-0.00906	0.0462	5.00	5.15	4.89	4.92	4.25 to 5.75	98.5	70.0 to 130	5.18	20.0
BD06613	Magnesium, Total	mg/L	-0.00266	0.0462	5.00	16.8	16.7	4.86	4.25 to 5.75	96.0	70.0 to 130	0.597	20.0
BD06614	Manganese, Dissolved	mg/L	0.0000223	0.00033	0.100	0.115	0.120	0.102	0.0850 to 0.115	98.9	70.0 to 130	4.26	20.0
BD06613	Manganese, Total	mg/L	0.0000173	0.00033	0.100	0.894	0.904	0.101	0.0850 to 0.115	81.0	70.0 to 130	1.11	20.0
BD06613	Mercury, Total by CVAA	mg/L	3.000E-05	0.000500	0.004	0.00402	0.00407	0.00409	0.00340 to 0.00460	100	70.0 to 130	1.24	20.0
BD06614	Molybdenum, Dissolved	mg/L	0.000012	0.0100	0.2	0.206	0.206	0.203	0.170 to 0.230	103	70.0 to 130	0.00	20.0
BD06613	Molybdenum, Total	mg/L	0.000	0.0100	0.2	0.200	0.199	0.199	0.170 to 0.230	100	70.0 to 130	0.501	20.0
BD06614	Potassium, Dissolved	mg/L	0.0134	0.367	10.0	11.0	11.2	10.4	8.50 to 11.5	99.1	70.0 to 130	1.80	20.0
BD06613	Potassium, Total	mg/L	0.0131	0.367	10.0	12.3	12.3	10.0	8.50 to 11.5	99.9	70.0 to 130	0.00	20.0
BD06614	Selenium, Dissolved	mg/L	0.0000543	0.00100	0.100	0.109	0.112	0.109	0.0850 to 0.115	109	70.0 to 130	2.71	20.0
BD06613	Selenium, Total	mg/L	0.000122	0.00100	0.100	0.103	0.0993	0.103	0.0850 to 0.115	103	70.0 to 130	3.66	20.0
BD06614	Silicon, Dissolved	mg/L	0.000048	0.0440	1.00	6.94	6.92	1.01	0.850 to 1.15	102	70.0 to 130	0.289	20.0
BD06613	Silicon, Total	mg/L	0.00174	0.0440	1.00	14.7	14.7	0.987	0.850 to 1.15	90.0	70.0 to 130	0.00	20.0
BD06614	Sodium, Dissolved	mg/L	-0.00120	0.0880	5.00	123	122	4.73	4.25 to 5.75	-120	70.0 to 130	0.816	20.0
BD06613	Sodium, Total	mg/L	0.00274	0.0880	5.00	31.5	31.4	4.66	4.25 to 5.75	94.0	70.0 to 130	0.318	20.0
BD06613	Sulfate	mg/L	0.439	2.0	20.0	29.1	28.9	20.2	18.0 to 22.0	80.5	80.0 to 120	0.690	20.0
BD06614	Thallium, Dissolved	mg/L	0.0000007	0.000147	0.100	0.103	0.0996	0.102	0.0850 to 0.115	103	70.0 to 130	3.36	20.0
BD06613	Thallium, Total	mg/L	0.0000062	0.000147	0.100	0.100	0.0988	0.102	0.0850 to 0.115	100	70.0 to 130	1.21	20.0
BD06613	Total Organic Carbon	mg/L	0.142	1.00	10.0	21.8	20.3	24.2		106	80.0 to 120	7.13	20.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWBARAP

Sample Date: 4/3/23 15:17

Customer ID:

Delivery Date: 4/5/23 07:36

Description: Barry Ash Pond - MW-25V

Laboratory ID Number: BD06610

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BD06780	Alkalinity to pH 4.5	mg CaCO3/L					147	50.5	45.0 to 55.0			0.678	10.0
BD06613	Nitrogen, Nitrate/Nitrite	mg/L as N	0.02	0.200	2.00	1.74	0.240	2.00	1.80 to 2.20	75.0	90.0 to 110	0.418	15.0
BD06620	Solids, Dissolved	mg/L	0.0000	25.0			612	50.0	40.0 to 60.0			0.651	10.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Barry Ash Pond - MW-1

Location Code: WMWBARAP
Collected: 4/3/23 08:50
Customer ID:
Submittal Date: 4/5/23 07:36

Laboratory ID Number: BD06611

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7			Analyst: ABB			Preparation Method: EPA 1638			
* Boron, Total	4/6/23 06:51	4/6/23 12:06		1.015	2.04	mg/L	0.030000	0.1015	
* Calcium, Total	4/6/23 06:51	4/6/23 12:06		1.015	36.9	mg/L	0.070035	0.406	
* Iron, Total	4/6/23 06:51	4/6/23 13:22		101.5	110	mg/L	0.8120	4.06	
* Lithium, Total	4/6/23 06:51	4/6/23 12:06		1.015	Not Detected	mg/L	0.007105	0.01999956	U
* Magnesium, Total	4/6/23 06:51	4/6/23 12:06		1.015	11.6	mg/L	0.021315	0.406	
* Molybdenum, Total	4/6/23 06:51	4/6/23 12:06		1.015	Not Detected	mg/L	0.005075	0.01015	U
* Silica, Total (calc.)	4/6/23 06:51	4/6/23 12:06		1	24.0	mg/L			
* Silicon, Total	4/6/23 06:51	4/6/23 12:06		1.015	11.2	mg/L	0.02030	0.25375	
* Sodium, Total	4/6/23 06:51	4/6/23 12:06		1.015	23.4	mg/L	0.04060	0.406	
Analytical Method: EPA 200.7			Analyst: ABB						
* Boron, Dissolved	4/6/23 09:44	4/7/23 11:39		1.015	1.97	mg/L	0.030000	0.1015	
* Calcium, Dissolved	4/6/23 09:44	4/7/23 11:39		1.015	36.4	mg/L	0.070035	0.406	
* Iron, Dissolved	4/6/23 09:44	4/7/23 12:49		101.5	115	mg/L	0.8120	4.06	
* Lithium, Dissolved	4/6/23 09:44	4/7/23 11:39		1.015	Not Detected	mg/L	0.007105	0.01999956	U
* Magnesium, Dissolved	4/6/23 09:44	4/7/23 11:39		1.015	11.5	mg/L	0.021315	0.406	
* Molybdenum, Dissolved	4/6/23 09:44	4/7/23 11:39		1.015	Not Detected	mg/L	0.005075	0.01015	U
* Silica, Dissolved (calc.)	4/6/23 09:44	4/7/23 11:39		1	24.0	mg/L			
* Silicon, Dissolved	4/6/23 09:44	4/7/23 11:39		1.015	11.2	mg/L	0.02030	0.25375	
* Sodium, Dissolved	4/6/23 09:44	4/7/23 11:39		1.015	23.9	mg/L	0.04060	0.406	
Analytical Method: EPA 200.8			Analyst: DLJ			Preparation Method: EPA 1638			
* Antimony, Total	4/6/23 06:51	4/7/23 11:56		1.015	Not Detected	mg/L	0.000710	0.001015	U
* Aluminum, Total	4/6/23 06:51	4/7/23 11:56		1.015	0.157	mg/L	0.009135	0.05075	
* Arsenic, Total	4/6/23 06:51	4/7/23 11:56		1.015	0.0680	mg/L	0.000112	0.000203	
* Barium, Total	4/6/23 06:51	4/7/23 11:56		1.015	0.226	mg/L	0.000508	0.001015	
* Beryllium, Total	4/6/23 06:51	4/7/23 11:56		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Total	4/6/23 06:51	4/7/23 11:56		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Total	4/6/23 06:51	4/7/23 11:56		1.015	0.00638	mg/L	0.000203	0.001015	
* Cobalt, Total	4/6/23 06:51	4/7/23 11:56		1.015	0.00133	mg/L	0.000068	0.000203	
* Lead, Total	4/6/23 06:51	4/7/23 11:56		1.015	0.000122	mg/L	0.000068	0.000203	J
* Manganese, Total	4/6/23 06:51	4/7/23 11:56		1.015	0.713	mg/L	0.000152	0.001015	

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Barry Ash Pond - MW-1

Location Code: WMWBARAP
Collected: 4/3/23 08:50
Customer ID:
Submittal Date: 4/5/23 07:36

Laboratory ID Number: BD06611

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
* Potassium, Total	4/6/23 06:51	4/7/23 11:56		1.015	2.11	mg/L	0.169505	0.5075	
* Selenium, Total	4/6/23 06:51	4/7/23 11:56		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Total	4/6/23 06:51	4/7/23 11:56		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 200.8		Analyst: DLJ							
* Antimony, Dissolved	4/6/23 09:44	4/6/23 11:33		1.015	Not Detected	mg/L	0.000710	0.001015	U
* Aluminum, Dissolved	4/6/23 09:44	4/6/23 11:33		1.015	0.0167	mg/L	0.009135	0.05075	J
* Arsenic, Dissolved	4/6/23 09:44	4/6/23 11:33		1.015	0.0751	mg/L	0.000112	0.000203	
* Barium, Dissolved	4/6/23 09:44	4/6/23 11:33		1.015	0.222	mg/L	0.000508	0.001015	
* Beryllium, Dissolved	4/6/23 09:44	4/6/23 11:33		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Dissolved	4/6/23 09:44	4/6/23 11:33		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Dissolved	4/6/23 09:44	4/6/23 11:33		1.015	0.00570	mg/L	0.000203	0.001015	
* Cobalt, Dissolved	4/6/23 09:44	4/6/23 11:33		1.015	0.00121	mg/L	0.000068	0.000203	
* Lead, Dissolved	4/6/23 09:44	4/6/23 11:33		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Dissolved	4/6/23 09:44	4/6/23 11:33		1.015	0.706	mg/L	0.000152	0.001015	
* Potassium, Dissolved	4/6/23 09:44	4/6/23 11:33		1.015	2.00	mg/L	0.169505	0.5075	
* Selenium, Dissolved	4/6/23 09:44	4/6/23 11:33		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Dissolved	4/6/23 09:44	4/6/23 11:33		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 245.1		Analyst: CRB							
* Mercury, Total by CVAA	4/11/23 18:35	4/11/23 23:00		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: EPA 353.2		Analyst: SC							
* Nitrogen, Nitrate/Nitrite	4/6/23 09:06	4/6/23 09:06		1	0.245	mg/L as N	0.20	0.3	J
Analytical Method: SM 2320 B		Analyst: ALH							
* Alkalinity to pH 4.5	4/14/23 14:44	4/14/23 15:50		1	266	mg CaCO3/L		0.10	
Analytical Method: SM 2540C		Analyst: CNJ							
* Solids, Dissolved	4/6/23 10:55	4/7/23 12:30		1	400	mg/L		25	
Analytical Method: SM 4500CO2 D		Analyst: ALH							
* Bicarbonate Alkalinity, (calc.)	4/14/23 14:44	4/14/23 15:50		1	266	mg CaCO3/L		1	
* Carbonate Alkalinity, (calc.)	4/14/23 14:44	4/14/23 15:50		1	Not Detected	mg CaCO3/L		0.5	
Analytical Method: SM 5310 B		Analyst: SC							
* Total Organic Carbon	4/5/23 16:12	4/5/23 16:12		1	13.6	mg/L	1.00	2	

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Barry Ash Pond - MW-1

Location Code: WMWBARAP

Collected: 4/3/23 08:50

Customer ID:

Submittal Date: 4/5/23 07:36

Laboratory ID Number: BD06611

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM4500Cl E		Analyst: CES							
* Chloride	4/12/23 11:11	4/12/23 11:11		4	23.7	mg/L	2.00	2	
Analytical Method: SM4500F G 2017		Analyst: CES							
* Fluoride	4/13/23 10:30	4/13/23 10:30		1	0.0717	mg/L	0.06	0.125	J
Analytical Method: SM4500SO4 E 2011		Analyst: JCC							
* Sulfate	4/6/23 10:09	4/6/23 10:09		1	34.2	mg/L	0.6	2	
Analytical Method: Field Measurements		Analyst: TJD							
Conductivity	4/3/23 08:47	4/3/23 08:47			689.74	uS/cm			FA
pH	4/3/23 08:47	4/3/23 08:47			5.78	SU			FA
Temperature	4/3/23 08:47	4/3/23 08:47			21.61	C			FA
Turbidity	4/3/23 08:47	4/3/23 08:47			4.85	NTU			FA
Sulfide	4/3/23 08:47	4/3/23 08:47			0	mg/L			FA

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWBARAP
Sample Date: 4/3/23 08:50
Customer ID:
Delivery Date: 4/5/23 07:36

Description: Barry Ash Pond - MW-1

Laboratory ID Number: BD06611

Sample	Analysis	Units	MB	MB		Spike	MS	MSD	Standard		Rec		Prec	Limit
				Limit					Standard	Limit	Rec	Limit		
BD06614	Aluminum, Dissolved	mg/L	-0.000829	0.0198	0.100	0.101	0.103	0.103	0.103	0.0850 to 0.115	101	70.0 to 130	1.96	20.0
BD06613	Aluminum, Total	mg/L	0.000464	0.0198	0.100	0.104	0.106	0.103	0.103	0.0850 to 0.115	104	70.0 to 130	1.90	20.0
BD06614	Antimony, Dissolved	mg/L	0.000282	0.00100	0.100	0.105	0.107	0.105	0.105	0.0850 to 0.115	105	70.0 to 130	1.89	20.0
BD06613	Antimony, Total	mg/L	0.000260	0.00100	0.100	0.0945	0.0970	0.0922	0.0922	0.0850 to 0.115	94.5	70.0 to 130	2.61	20.0
BD06614	Arsenic, Dissolved	mg/L	0.000293	0.000200	0.100	0.110	0.112	0.108	0.108	0.0850 to 0.115	109	70.0 to 130	1.80	20.0
BD06613	Arsenic, Total	mg/L	0.000185	0.000200	0.100	0.0996	0.0980	0.101	0.101	0.0850 to 0.115	99.2	70.0 to 130	1.62	20.0
BD06614	Barium, Dissolved	mg/L	0.0000004	0.00100	0.100	0.111	0.114	0.104	0.104	0.0850 to 0.115	103	70.0 to 130	2.67	20.0
BD06613	Barium, Total	mg/L	0.0000235	0.00100	0.100	0.272	0.282	0.0935	0.0935	0.0850 to 0.115	83.0	70.0 to 130	3.61	20.0
BD06614	Beryllium, Dissolved	mg/L	0.0000122	0.000880	0.100	0.0988	0.102	0.0962	0.0962	0.0850 to 0.115	98.8	70.0 to 130	3.19	20.0
BD06613	Beryllium, Total	mg/L	0.0000089	0.000880	0.100	0.0946	0.0943	0.0982	0.0982	0.0850 to 0.115	94.6	70.0 to 130	0.318	20.0
BD06614	Boron, Dissolved	mg/L	0.000167	0.0650	1.00	1.32	1.30	1.01	1.01	0.850 to 1.15	102	70.0 to 130	1.53	20.0
BD06613	Boron, Total	mg/L	-0.00119	0.0650	1.00	2.00	1.98	0.989	0.989	0.850 to 1.15	104	70.0 to 130	1.01	20.0
BD06614	Cadmium, Dissolved	mg/L	0.0000050	0.000147	0.100	0.107	0.109	0.111	0.111	0.0850 to 0.115	107	70.0 to 130	1.85	20.0
BD06613	Cadmium, Total	mg/L	0.0000000	0.000147	0.100	0.0986	0.0971	0.0971	0.0971	0.0850 to 0.115	98.6	70.0 to 130	1.53	20.0
BD06614	Calcium, Dissolved	mg/L	-0.0141	0.152	5.00	5.35	5.12	4.92	4.92	4.25 to 5.75	96.0	70.0 to 130	4.39	20.0
BD06613	Calcium, Total	mg/L	0.00187	0.152	5.00	63.1	64.0	4.92	4.92	4.25 to 5.75	78.0	70.0 to 130	1.42	20.0
BD06612	Chloride	mg/L	0.0720	1.00	10.0	17.6	17.8	10.3	10.3	9.00 to 11.0	102	80.0 to 120	1.13	20.0
BD06614	Chromium, Dissolved	mg/L	-0.0000464	0.000440	0.100	0.106	0.110	0.111	0.111	0.0850 to 0.115	106	70.0 to 130	3.70	20.0
BD06613	Chromium, Total	mg/L	0.0000577	0.000440	0.100	0.0980	0.0992	0.0984	0.0984	0.0850 to 0.115	97.5	70.0 to 130	1.22	20.0
BD06614	Cobalt, Dissolved	mg/L	-0.0000057	0.000147	0.100	0.108	0.111	0.110	0.110	0.0850 to 0.115	108	70.0 to 130	2.74	20.0
BD06613	Cobalt, Total	mg/L	-0.0000008	0.000147	0.100	0.102	0.103	0.101	0.101	0.0850 to 0.115	101	70.0 to 130	0.976	20.0
BD06613	Fluoride	mg/L	0.0117	0.125	2.50	2.69	2.66	2.57	2.57	2.25 to 2.75	108	80.0 to 120	1.12	20.0
BD06614	Iron, Dissolved	mg/L	-0.000107	0.0176	0.2	0.757	0.755	0.202	0.202	0.170 to 0.230	97.5	70.0 to 130	0.265	20.0
BD06613	Iron, Total	mg/L	-0.000067	0.0176	0.2	100	100	0.194	0.194	0.170 to 0.230	-500	70.0 to 130	0.00	20.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWBARAP

Sample Date: 4/3/23 08:50

Customer ID:

Delivery Date: 4/5/23 07:36

Description: Barry Ash Pond - MW-1

Laboratory ID Number: BD06611

Sample	Analysis	Units	MB		Spike	MS	MSD	Standard		Rec		Prec	Limit
			MB	Limit				Standard	Limit	Rec	Limit		
BD06614	Lead, Dissolved	mg/L	0.0000188	0.000147	0.100	0.0994	0.0993	0.101	0.0850 to 0.115	99.4	70.0 to 130	0.101	20.0
BD06613	Lead, Total	mg/L	0.0000100	0.000147	0.100	0.0971	0.0966	0.0990	0.0850 to 0.115	97.1	70.0 to 130	0.516	20.0
BD06614	Lithium, Dissolved	mg/L	0.000058	0.0154	0.200	0.207	0.204	0.197	0.170 to 0.230	104	70.0 to 130	1.46	20.0
BD06613	Lithium, Total	mg/L	0.000883	0.0154	0.200	0.202	0.201	0.191	0.170 to 0.230	101	70.0 to 130	0.496	20.0
BD06614	Magnesium, Dissolved	mg/L	-0.00906	0.0462	5.00	5.15	4.89	4.92	4.25 to 5.75	98.5	70.0 to 130	5.18	20.0
BD06613	Magnesium, Total	mg/L	-0.00266	0.0462	5.00	16.8	16.7	4.86	4.25 to 5.75	96.0	70.0 to 130	0.597	20.0
BD06614	Manganese, Dissolved	mg/L	0.0000223	0.00033	0.100	0.115	0.120	0.102	0.0850 to 0.115	98.9	70.0 to 130	4.26	20.0
BD06613	Manganese, Total	mg/L	0.0000173	0.00033	0.100	0.894	0.904	0.101	0.0850 to 0.115	81.0	70.0 to 130	1.11	20.0
BD06613	Mercury, Total by CVAA	mg/L	3.000E-05	0.000500	0.004	0.00402	0.00407	0.00409	0.00340 to 0.00460	100	70.0 to 130	1.24	20.0
BD06614	Molybdenum, Dissolved	mg/L	0.000012	0.0100	0.2	0.206	0.206	0.203	0.170 to 0.230	103	70.0 to 130	0.00	20.0
BD06613	Molybdenum, Total	mg/L	0.000	0.0100	0.2	0.200	0.199	0.199	0.170 to 0.230	100	70.0 to 130	0.501	20.0
BD06614	Potassium, Dissolved	mg/L	0.0134	0.367	10.0	11.0	11.2	10.4	8.50 to 11.5	99.1	70.0 to 130	1.80	20.0
BD06613	Potassium, Total	mg/L	0.0131	0.367	10.0	12.3	12.3	10.0	8.50 to 11.5	99.9	70.0 to 130	0.00	20.0
BD06614	Selenium, Dissolved	mg/L	0.0000543	0.00100	0.100	0.109	0.112	0.109	0.0850 to 0.115	109	70.0 to 130	2.71	20.0
BD06613	Selenium, Total	mg/L	0.000122	0.00100	0.100	0.103	0.0993	0.103	0.0850 to 0.115	103	70.0 to 130	3.66	20.0
BD06614	Silicon, Dissolved	mg/L	0.000048	0.0440	1.00	6.94	6.92	1.01	0.850 to 1.15	102	70.0 to 130	0.289	20.0
BD06613	Silicon, Total	mg/L	0.00174	0.0440	1.00	14.7	14.7	0.987	0.850 to 1.15	90.0	70.0 to 130	0.00	20.0
BD06614	Sodium, Dissolved	mg/L	-0.00120	0.0880	5.00	123	122	4.73	4.25 to 5.75	-120	70.0 to 130	0.816	20.0
BD06613	Sodium, Total	mg/L	0.00274	0.0880	5.00	31.5	31.4	4.66	4.25 to 5.75	94.0	70.0 to 130	0.318	20.0
BD06613	Sulfate	mg/L	0.439	2.0	20.0	29.1	28.9	20.2	18.0 to 22.0	80.5	80.0 to 120	0.690	20.0
BD06614	Thallium, Dissolved	mg/L	0.0000007	0.000147	0.100	0.103	0.0996	0.102	0.0850 to 0.115	103	70.0 to 130	3.36	20.0
BD06613	Thallium, Total	mg/L	0.0000062	0.000147	0.100	0.100	0.0988	0.102	0.0850 to 0.115	100	70.0 to 130	1.21	20.0
BD06613	Total Organic Carbon	mg/L	0.142	1.00	10.0	21.8	20.3	24.2		106	80.0 to 120	7.13	20.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWBARAP

Sample Date: 4/3/23 08:50

Customer ID:

Delivery Date: 4/5/23 07:36

Description: Barry Ash Pond - MW-1

Laboratory ID Number: BD06611

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BD06618	Alkalinity to pH 4.5	mg CaCO3/L					25.3	50.5	45.0 to 55.0			0.794	10.0
BD06613	Nitrogen, Nitrate/Nitrite	mg/L as N	0.02	0.200	2.00	1.74	0.240	2.00	1.80 to 2.20	75.0	90.0 to 110	0.418	15.0
BD06611	Solids, Dissolved	mg/L	0.0000	25.0			393	50.0	40.0 to 60.0			1.77	10.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Barry Ash Pond - MW-2

Location Code: WMWBARAP
Collected: 4/3/23 11:23
Customer ID:
Submittal Date: 4/5/23 07:36

Laboratory ID Number: BD06612

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7			Analyst: ABB		Preparation Method: EPA 1638				
* Boron, Total	4/6/23 06:51	4/6/23 12:09		1.015	Not Detected	mg/L	0.030000	0.1015	U
* Calcium, Total	4/6/23 06:51	4/6/23 12:09		1.015	1.79	mg/L	0.070035	0.406	
* Iron, Total	4/6/23 06:51	4/6/23 12:09		1.015	0.250	mg/L	0.008120	0.0406	
* Lithium, Total	4/6/23 06:51	4/6/23 12:09		1.015	Not Detected	mg/L	0.007105	0.01999956	U
* Magnesium, Total	4/6/23 06:51	4/6/23 12:09		1.015	1.16	mg/L	0.021315	0.406	
* Molybdenum, Total	4/6/23 06:51	4/6/23 12:09		1.015	Not Detected	mg/L	0.005075	0.01015	U
* Silica, Total (calc.)	4/6/23 06:51	4/6/23 12:09		1	16.1	mg/L			
* Silicon, Total	4/6/23 06:51	4/6/23 12:09		1.015	7.54	mg/L	0.02030	0.25375	
* Sodium, Total	4/6/23 06:51	4/6/23 12:09		1.015	4.15	mg/L	0.04060	0.406	
Analytical Method: EPA 200.7			Analyst: ABB						
* Boron, Dissolved	4/6/23 09:44	4/7/23 11:43		1.015	Not Detected	mg/L	0.030000	0.1015	U
* Calcium, Dissolved	4/6/23 09:44	4/7/23 11:43		1.015	1.77	mg/L	0.070035	0.406	
* Iron, Dissolved	4/6/23 09:44	4/7/23 11:43		1.015	0.234	mg/L	0.008120	0.0406	
* Lithium, Dissolved	4/6/23 09:44	4/7/23 11:43		1.015	Not Detected	mg/L	0.007105	0.01999956	U
* Magnesium, Dissolved	4/6/23 09:44	4/7/23 11:43		1.015	1.17	mg/L	0.021315	0.406	
* Molybdenum, Dissolved	4/6/23 09:44	4/7/23 11:43		1.015	Not Detected	mg/L	0.005075	0.01015	U
* Silica, Dissolved (calc.)	4/6/23 09:44	4/7/23 11:43		1	16.3	mg/L			
* Silicon, Dissolved	4/6/23 09:44	4/7/23 11:43		1.015	7.63	mg/L	0.02030	0.25375	
* Sodium, Dissolved	4/6/23 09:44	4/7/23 11:43		1.015	4.28	mg/L	0.04060	0.406	
Analytical Method: EPA 200.8			Analyst: DLJ		Preparation Method: EPA 1638				
* Antimony, Total	4/6/23 06:51	4/7/23 12:00		1.015	Not Detected	mg/L	0.000710	0.001015	U
* Aluminum, Total	4/6/23 06:51	4/7/23 12:00		1.015	0.0187	mg/L	0.009135	0.05075	J
* Arsenic, Total	4/6/23 06:51	4/7/23 12:00		1.015	0.00156	mg/L	0.000112	0.000203	
* Barium, Total	4/6/23 06:51	4/7/23 12:00		1.015	0.0180	mg/L	0.000508	0.001015	
* Beryllium, Total	4/6/23 06:51	4/7/23 12:00		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Total	4/6/23 06:51	4/7/23 12:00		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Total	4/6/23 06:51	4/7/23 12:00		1.015	0.000877	mg/L	0.000203	0.001015	J
* Cobalt, Total	4/6/23 06:51	4/7/23 12:00		1.015	0.00420	mg/L	0.000068	0.000203	
* Lead, Total	4/6/23 06:51	4/7/23 12:00		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Total	4/6/23 06:51	4/7/23 12:00		1.015	0.195	mg/L	0.000152	0.001015	

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Barry Ash Pond - MW-2

Location Code: WMWBARAP
Collected: 4/3/23 11:23
Customer ID:
Submittal Date: 4/5/23 07:36

Laboratory ID Number: BD06612

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
* Potassium, Total	4/6/23 06:51	4/7/23 12:00		1.015	0.829	mg/L	0.169505	0.5075	
* Selenium, Total	4/6/23 06:51	4/7/23 12:00		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Total	4/6/23 06:51	4/7/23 12:00		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 200.8		Analyst: DLJ							
* Antimony, Dissolved	4/6/23 09:44	4/6/23 11:37		1.015	Not Detected	mg/L	0.000710	0.001015	U
* Aluminum, Dissolved	4/6/23 09:44	4/6/23 11:37		1.015	Not Detected	mg/L	0.009135	0.05075	U
* Arsenic, Dissolved	4/6/23 09:44	4/6/23 11:37		1.015	0.00151	mg/L	0.000112	0.000203	
* Barium, Dissolved	4/6/23 09:44	4/6/23 11:37		1.015	0.0193	mg/L	0.000508	0.001015	
* Beryllium, Dissolved	4/6/23 09:44	4/6/23 11:37		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Dissolved	4/6/23 09:44	4/6/23 11:37		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Dissolved	4/6/23 09:44	4/6/23 11:37		1.015	0.000209	mg/L	0.000203	0.001015	J
* Cobalt, Dissolved	4/6/23 09:44	4/6/23 11:37		1.015	0.00456	mg/L	0.000068	0.000203	
* Lead, Dissolved	4/6/23 09:44	4/6/23 11:37		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Dissolved	4/6/23 09:44	4/6/23 11:37		1.015	0.200	mg/L	0.000152	0.001015	
* Potassium, Dissolved	4/6/23 09:44	4/6/23 11:37		1.015	0.848	mg/L	0.169505	0.5075	
* Selenium, Dissolved	4/6/23 09:44	4/6/23 11:37		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Dissolved	4/6/23 09:44	4/6/23 11:37		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 245.1		Analyst: CRB							
* Mercury, Total by CVAA	4/11/23 18:35	4/11/23 23:04		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: EPA 353.2		Analyst: SC							
* Nitrogen, Nitrate/Nitrite	4/6/23 09:07	4/6/23 09:07		1	Not Detected	mg/L as N	0.20	0.3	U
Analytical Method: SM 2320 B		Analyst: ALH							
* Alkalinity to pH 4.5	4/14/23 14:44	4/14/23 15:50		1	10.2	mg CaCO3/L		0.10	
Analytical Method: SM 2540C		Analyst: CNJ							
* Solids, Dissolved	4/6/23 10:55	4/7/23 12:30		1	40.7	mg/L		25	
Analytical Method: SM 4500CO2 D		Analyst: ALH							
* Bicarbonate Alkalinity, (calc.)	4/14/23 14:44	4/14/23 15:50		1	10.2	mg CaCO3/L		1	
* Carbonate Alkalinity, (calc.)	4/14/23 14:44	4/14/23 15:50		1	Not Detected	mg CaCO3/L		0.5	
Analytical Method: SM 5310 B		Analyst: SC							
* Total Organic Carbon	4/5/23 16:29	4/5/23 16:29		1	Not Detected	mg/L	1.00	2	U

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Barry Ash Pond - MW-2

Location Code: WMWBARAP
Collected: 4/3/23 11:23
Customer ID:
Submittal Date: 4/5/23 07:36

Laboratory ID Number: BD06612

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM4500Cl E		Analyst: CES							
* Chloride	4/12/23 11:01	4/12/23 11:01		1	7.35	mg/L	0.50	0.5	
Analytical Method: SM4500F G 2017		Analyst: CES							
* Fluoride	4/13/23 10:31	4/13/23 10:31		1	Not Detected	mg/L	0.06	0.125	U
Analytical Method: SM4500SO4 E 2011		Analyst: JCC							
* Sulfate	4/6/23 10:10	4/6/23 10:10		1	1.77	mg/L	0.6	2	J
Analytical Method: Field Measurements		Analyst: TJD							
Conductivity	4/3/23 11:19	4/3/23 11:19			46.42	uS/cm			FA
pH	4/3/23 11:19	4/3/23 11:19			4.88	SU			FA
Temperature	4/3/23 11:19	4/3/23 11:19			21.66	C			FA
Turbidity	4/3/23 11:19	4/3/23 11:19			1.38	NTU			FA
Sulfide	4/3/23 11:19	4/3/23 11:19			0	mg/L			FA

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWBARAP
Sample Date: 4/3/23 11:23
Customer ID:
Delivery Date: 4/5/23 07:36

Description: Barry Ash Pond - MW-2

Laboratory ID Number: BD06612

Sample	Analysis	Units	MB	MB				Standard		Rec		Prec	Limit
				Limit	Spike	MS	MSD	Standard	Limit	Rec	Limit		
BD06614	Aluminum, Dissolved	mg/L	-0.000829	0.0198	0.100	0.101	0.103	0.103	0.0850 to 0.115	101	70.0 to 130	1.96	20.0
BD06613	Aluminum, Total	mg/L	0.000464	0.0198	0.100	0.104	0.106	0.103	0.0850 to 0.115	104	70.0 to 130	1.90	20.0
BD06614	Antimony, Dissolved	mg/L	0.000282	0.00100	0.100	0.105	0.107	0.105	0.0850 to 0.115	105	70.0 to 130	1.89	20.0
BD06613	Antimony, Total	mg/L	0.000260	0.00100	0.100	0.0945	0.0970	0.0922	0.0850 to 0.115	94.5	70.0 to 130	2.61	20.0
BD06614	Arsenic, Dissolved	mg/L	0.000293	0.000200	0.100	0.110	0.112	0.108	0.0850 to 0.115	109	70.0 to 130	1.80	20.0
BD06613	Arsenic, Total	mg/L	0.000185	0.000200	0.100	0.0996	0.0980	0.101	0.0850 to 0.115	99.2	70.0 to 130	1.62	20.0
BD06614	Barium, Dissolved	mg/L	0.0000004	0.00100	0.100	0.111	0.114	0.104	0.0850 to 0.115	103	70.0 to 130	2.67	20.0
BD06613	Barium, Total	mg/L	0.0000235	0.00100	0.100	0.272	0.282	0.0935	0.0850 to 0.115	83.0	70.0 to 130	3.61	20.0
BD06614	Beryllium, Dissolved	mg/L	0.0000122	0.000880	0.100	0.0988	0.102	0.0962	0.0850 to 0.115	98.8	70.0 to 130	3.19	20.0
BD06613	Beryllium, Total	mg/L	0.0000089	0.000880	0.100	0.0946	0.0943	0.0982	0.0850 to 0.115	94.6	70.0 to 130	0.318	20.0
BD06614	Boron, Dissolved	mg/L	0.000167	0.0650	1.00	1.32	1.30	1.01	0.850 to 1.15	102	70.0 to 130	1.53	20.0
BD06613	Boron, Total	mg/L	-0.00119	0.0650	1.00	2.00	1.98	0.989	0.850 to 1.15	104	70.0 to 130	1.01	20.0
BD06614	Cadmium, Dissolved	mg/L	0.0000050	0.000147	0.100	0.107	0.109	0.111	0.0850 to 0.115	107	70.0 to 130	1.85	20.0
BD06613	Cadmium, Total	mg/L	0.0000000	0.000147	0.100	0.0986	0.0971	0.0971	0.0850 to 0.115	98.6	70.0 to 130	1.53	20.0
BD06614	Calcium, Dissolved	mg/L	-0.0141	0.152	5.00	5.35	5.12	4.92	4.25 to 5.75	96.0	70.0 to 130	4.39	20.0
BD06613	Calcium, Total	mg/L	0.00187	0.152	5.00	63.1	64.0	4.92	4.25 to 5.75	78.0	70.0 to 130	1.42	20.0
BD06612	Chloride	mg/L	0.0720	1.00	10.0	17.6	17.8	10.3	9.00 to 11.0	102	80.0 to 120	1.13	20.0
BD06614	Chromium, Dissolved	mg/L	-0.0000464	0.000440	0.100	0.106	0.110	0.111	0.0850 to 0.115	106	70.0 to 130	3.70	20.0
BD06613	Chromium, Total	mg/L	0.0000577	0.000440	0.100	0.0980	0.0992	0.0984	0.0850 to 0.115	97.5	70.0 to 130	1.22	20.0
BD06614	Cobalt, Dissolved	mg/L	-0.0000057	0.000147	0.100	0.108	0.111	0.110	0.0850 to 0.115	108	70.0 to 130	2.74	20.0
BD06613	Cobalt, Total	mg/L	-0.0000008	0.000147	0.100	0.102	0.103	0.101	0.0850 to 0.115	101	70.0 to 130	0.976	20.0
BD06613	Fluoride	mg/L	0.0117	0.125	2.50	2.69	2.66	2.57	2.25 to 2.75	108	80.0 to 120	1.12	20.0
BD06614	Iron, Dissolved	mg/L	-0.000107	0.0176	0.2	0.757	0.755	0.202	0.170 to 0.230	97.5	70.0 to 130	0.265	20.0
BD06613	Iron, Total	mg/L	-0.000067	0.0176	0.2	100	100	0.194	0.170 to 0.230	-500	70.0 to 130	0.00	20.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWBARAP

Sample Date: 4/3/23 11:23

Customer ID:

Delivery Date: 4/5/23 07:36

Description: Barry Ash Pond - MW-2

Laboratory ID Number: BD06612

Sample	Analysis	Units	MB		Spike	MS	MSD	Standard		Rec		Prec	Limit
			MB	Limit				Standard	Limit	Rec	Limit		
BD06614	Lead, Dissolved	mg/L	0.0000188	0.000147	0.100	0.0994	0.0993	0.101	0.0850 to 0.115	99.4	70.0 to 130	0.101	20.0
BD06613	Lead, Total	mg/L	0.0000100	0.000147	0.100	0.0971	0.0966	0.0990	0.0850 to 0.115	97.1	70.0 to 130	0.516	20.0
BD06614	Lithium, Dissolved	mg/L	0.000058	0.0154	0.200	0.207	0.204	0.197	0.170 to 0.230	104	70.0 to 130	1.46	20.0
BD06613	Lithium, Total	mg/L	0.000883	0.0154	0.200	0.202	0.201	0.191	0.170 to 0.230	101	70.0 to 130	0.496	20.0
BD06614	Magnesium, Dissolved	mg/L	-0.00906	0.0462	5.00	5.15	4.89	4.92	4.25 to 5.75	98.5	70.0 to 130	5.18	20.0
BD06613	Magnesium, Total	mg/L	-0.00266	0.0462	5.00	16.8	16.7	4.86	4.25 to 5.75	96.0	70.0 to 130	0.597	20.0
BD06614	Manganese, Dissolved	mg/L	0.0000223	0.00033	0.100	0.115	0.120	0.102	0.0850 to 0.115	98.9	70.0 to 130	4.26	20.0
BD06613	Manganese, Total	mg/L	0.0000173	0.00033	0.100	0.894	0.904	0.101	0.0850 to 0.115	81.0	70.0 to 130	1.11	20.0
BD06613	Mercury, Total by CVAA	mg/L	3.000E-05	0.000500	0.004	0.00402	0.00407	0.00409	0.00340 to 0.00460	100	70.0 to 130	1.24	20.0
BD06614	Molybdenum, Dissolved	mg/L	0.000012	0.0100	0.2	0.206	0.206	0.203	0.170 to 0.230	103	70.0 to 130	0.00	20.0
BD06613	Molybdenum, Total	mg/L	0.000	0.0100	0.2	0.200	0.199	0.199	0.170 to 0.230	100	70.0 to 130	0.501	20.0
BD06614	Potassium, Dissolved	mg/L	0.0134	0.367	10.0	11.0	11.2	10.4	8.50 to 11.5	99.1	70.0 to 130	1.80	20.0
BD06613	Potassium, Total	mg/L	0.0131	0.367	10.0	12.3	12.3	10.0	8.50 to 11.5	99.9	70.0 to 130	0.00	20.0
BD06614	Selenium, Dissolved	mg/L	0.0000543	0.00100	0.100	0.109	0.112	0.109	0.0850 to 0.115	109	70.0 to 130	2.71	20.0
BD06613	Selenium, Total	mg/L	0.000122	0.00100	0.100	0.103	0.0993	0.103	0.0850 to 0.115	103	70.0 to 130	3.66	20.0
BD06614	Silicon, Dissolved	mg/L	0.000048	0.0440	1.00	6.94	6.92	1.01	0.850 to 1.15	102	70.0 to 130	0.289	20.0
BD06613	Silicon, Total	mg/L	0.00174	0.0440	1.00	14.7	14.7	0.987	0.850 to 1.15	90.0	70.0 to 130	0.00	20.0
BD06614	Sodium, Dissolved	mg/L	-0.00120	0.0880	5.00	123	122	4.73	4.25 to 5.75	-120	70.0 to 130	0.816	20.0
BD06613	Sodium, Total	mg/L	0.00274	0.0880	5.00	31.5	31.4	4.66	4.25 to 5.75	94.0	70.0 to 130	0.318	20.0
BD06613	Sulfate	mg/L	0.439	2.0	20.0	29.1	28.9	20.2	18.0 to 22.0	80.5	80.0 to 120	0.690	20.0
BD06614	Thallium, Dissolved	mg/L	0.0000007	0.000147	0.100	0.103	0.0996	0.102	0.0850 to 0.115	103	70.0 to 130	3.36	20.0
BD06613	Thallium, Total	mg/L	0.0000062	0.000147	0.100	0.100	0.0988	0.102	0.0850 to 0.115	100	70.0 to 130	1.21	20.0
BD06613	Total Organic Carbon	mg/L	0.142	1.00	10.0	21.8	20.3	24.2		106	80.0 to 120	7.13	20.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWBARAP

Sample Date: 4/3/23 11:23

Customer ID:

Delivery Date: 4/5/23 07:36

Description: Barry Ash Pond - MW-2

Laboratory ID Number: BD06612

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BD06618	Alkalinity to pH 4.5	mg CaCO3/L					25.3	50.5	45.0 to 55.0			0.794	10.0
BD06613	Nitrogen, Nitrate/Nitrite	mg/L as N	0.02	0.200	2.00	1.74	0.240	2.00	1.80 to 2.20	75.0	90.0 to 110	0.418	15.0
BD06620	Solids, Dissolved	mg/L	0.0000	25.0			612	50.0	40.0 to 60.0			0.651	10.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Barry Ash Pond - MW-10V

Location Code: WMWBARAP
Collected: 4/3/23 15:16
Customer ID:
Submittal Date: 4/5/23 07:36

Laboratory ID Number: BD06613

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7			Analyst: ABB		Preparation Method: EPA 1638				
* Boron, Total	4/6/23 06:51	4/6/23 12:12		1.015	0.965	mg/L	0.030000	0.1015	
* Calcium, Total	4/6/23 06:51	4/6/23 13:25		101.5	59.2	mg/L	7.0035	40.6	
* Iron, Total	4/6/23 06:51	4/6/23 13:25		101.5	101	mg/L	0.8120	4.06	RA
* Lithium, Total	4/6/23 06:51	4/6/23 12:12		1.015	Not Detected	mg/L	0.007105	0.01999956	U
* Magnesium, Total	4/6/23 06:51	4/6/23 12:12		1.015	12.0	mg/L	0.021315	0.406	
* Molybdenum, Total	4/6/23 06:51	4/6/23 12:12		1.015	Not Detected	mg/L	0.005075	0.01015	U
* Silica, Total (calc.)	4/6/23 06:51	4/6/23 12:12		1	29.5	mg/L			
* Silicon, Total	4/6/23 06:51	4/6/23 12:12		1.015	13.8	mg/L	0.02030	0.25375	
* Sodium, Total	4/6/23 06:51	4/6/23 12:12		1.015	26.8	mg/L	0.04060	0.406	
Analytical Method: EPA 200.7			Analyst: ABB						
* Boron, Dissolved	4/6/23 09:44	4/7/23 11:46		1.015	0.976	mg/L	0.030000	0.1015	
* Calcium, Dissolved	4/6/23 09:44	4/7/23 12:52		101.5	60.0	mg/L	7.0035	40.6	
* Iron, Dissolved	4/6/23 09:44	4/7/23 12:52		101.5	105	mg/L	0.8120	4.06	
* Lithium, Dissolved	4/6/23 09:44	4/7/23 11:46		1.015	Not Detected	mg/L	0.007105	0.01999956	U
* Magnesium, Dissolved	4/6/23 09:44	4/7/23 11:46		1.015	12.2	mg/L	0.021315	0.406	
* Molybdenum, Dissolved	4/6/23 09:44	4/7/23 11:46		1.015	Not Detected	mg/L	0.005075	0.01015	U
* Silica, Dissolved (calc.)	4/6/23 09:44	4/7/23 11:46		1	29.7	mg/L			
* Silicon, Dissolved	4/6/23 09:44	4/7/23 11:46		1.015	13.9	mg/L	0.02030	0.25375	
* Sodium, Dissolved	4/6/23 09:44	4/7/23 11:46		1.015	27.6	mg/L	0.04060	0.406	
Analytical Method: EPA 200.8			Analyst: DLJ		Preparation Method: EPA 1638				
* Antimony, Total	4/6/23 06:51	4/7/23 12:04		1.015	Not Detected	mg/L	0.000710	0.001015	U
* Aluminum, Total	4/6/23 06:51	4/7/23 12:04		1.015	Not Detected	mg/L	0.009135	0.05075	U
* Arsenic, Total	4/6/23 06:51	4/7/23 12:04		1.015	0.000359	mg/L	0.000112	0.000203	
* Barium, Total	4/6/23 06:51	4/7/23 12:04		1.015	0.189	mg/L	0.000508	0.001015	
* Beryllium, Total	4/6/23 06:51	4/7/23 12:04		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Total	4/6/23 06:51	4/7/23 12:04		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Total	4/6/23 06:51	4/7/23 12:04		1.015	0.000508	mg/L	0.000203	0.001015	J
* Cobalt, Total	4/6/23 06:51	4/7/23 12:04		1.015	0.000623	mg/L	0.000068	0.000203	
* Lead, Total	4/6/23 06:51	4/7/23 12:04		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Total	4/6/23 06:51	4/7/23 12:04		1.015	0.813	mg/L	0.000152	0.001015	

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.
 Nitrate-Nitrite matrix spike recovery and/or matrix spike duplicate recovery is outside of specification limit.

Certificate Of Analysis

Description: Barry Ash Pond - MW-10V

Location Code: WMWBARAP
Collected: 4/3/23 15:16
Customer ID:
Submittal Date: 4/5/23 07:36

Laboratory ID Number: BD06613

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
* Potassium, Total	4/6/23 06:51	4/7/23 12:04		1.015	2.31	mg/L	0.169505	0.5075	
* Selenium, Total	4/6/23 06:51	4/7/23 12:04		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Total	4/6/23 06:51	4/7/23 12:04		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 200.8		Analyst: DLJ							
* Antimony, Dissolved	4/6/23 09:44	4/6/23 11:40		1.015	Not Detected	mg/L	0.000710	0.001015	U
* Aluminum, Dissolved	4/6/23 09:44	4/6/23 11:40		1.015	Not Detected	mg/L	0.009135	0.05075	U
* Arsenic, Dissolved	4/6/23 09:44	4/6/23 11:40		1.015	0.000313	mg/L	0.000112	0.000203	
* Barium, Dissolved	4/6/23 09:44	4/6/23 11:40		1.015	0.201	mg/L	0.000508	0.001015	
* Beryllium, Dissolved	4/6/23 09:44	4/6/23 11:40		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Dissolved	4/6/23 09:44	4/6/23 11:40		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Dissolved	4/6/23 09:44	4/6/23 11:40		1.015	0.000522	mg/L	0.000203	0.001015	J
* Cobalt, Dissolved	4/6/23 09:44	4/6/23 11:40		1.015	0.000597	mg/L	0.000068	0.000203	
* Lead, Dissolved	4/6/23 09:44	4/6/23 11:40		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Dissolved	4/6/23 09:44	4/6/23 11:40		1.015	0.815	mg/L	0.000152	0.001015	
* Potassium, Dissolved	4/6/23 09:44	4/6/23 11:40		1.015	2.35	mg/L	0.169505	0.5075	
* Selenium, Dissolved	4/6/23 09:44	4/6/23 11:40		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Dissolved	4/6/23 09:44	4/6/23 11:40		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 245.1		Analyst: CRB							
* Mercury, Total by CVAA	4/11/23 18:35	4/11/23 23:08		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: EPA 353.2		Analyst: SC							
* Nitrogen, Nitrate/Nitrite	4/6/23 09:09	4/6/23 09:09		1	0.239	mg/L as N	0.20	0.3	J
Analytical Method: SM 2320 B		Analyst: ALH							
* Alkalinity to pH 4.5	4/17/23 10:54	4/17/23 12:30		1	271	mg CaCO3/L		0.10	
Analytical Method: SM 2540C		Analyst: CNJ							
* Solids, Dissolved	4/6/23 10:55	4/7/23 12:30		1	442	mg/L		25	
Analytical Method: SM 4500CO2 D		Analyst: ALH							
* Bicarbonate Alkalinity, (calc.)	4/17/23 10:54	4/17/23 12:30		1	271	mg CaCO3/L		1	
* Carbonate Alkalinity, (calc.)	4/17/23 10:54	4/17/23 12:30		1	Not Detected	mg CaCO3/L		0.5	
Analytical Method: SM 5310 B		Analyst: SC							
* Total Organic Carbon	4/5/23 16:43	4/5/23 16:43		1	11.2	mg/L	1.00	2	

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.
 Nitrate-Nitrite matrix spike recovery and/or matrix spike duplicate recovery is outside of specification limit.

Certificate Of Analysis

Description: Barry Ash Pond - MW-10V

Location Code: WMWBARAP
Collected: 4/3/23 15:16
Customer ID:
Submittal Date: 4/5/23 07:36

Laboratory ID Number: BD06613

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM4500Cl E		Analyst: CES							
* Chloride	4/12/23 11:37	4/12/23 11:37		4	26.1	mg/L	2.00	2	
Analytical Method: SM4500F G 2017		Analyst: CES							
* Fluoride	4/13/23 10:33	4/13/23 10:33		1	Not Detected	mg/L	0.06	0.125	U
Analytical Method: SM4500SO4 E 2011		Analyst: JCC							
* Sulfate	4/6/23 10:11	4/6/23 10:11		1	13.0	mg/L	0.6	2	R
Analytical Method: Field Measurements		Analyst: TJD							
Conductivity	4/3/23 15:14	4/3/23 15:14			787.79	uS/cm			FA
pH	4/3/23 15:14	4/3/23 15:14			6.38	SU			FA
Temperature	4/3/23 15:14	4/3/23 15:14			21.47	C			FA
Turbidity	4/3/23 15:14	4/3/23 15:14			0.95	NTU			FA
Sulfide	4/3/23 15:14	4/3/23 15:14			0	mg/L			FA

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.
 Nitrate-Nitrite matrix spike recovery and/or matrix spike duplicate recovery is outside of specification limit.

Batch QC Summary

Customer Account: WMWBARAP
Sample Date: 4/3/23 15:16
Customer ID:
Delivery Date: 4/5/23 07:36

Description: Barry Ash Pond - MW-10V

Laboratory ID Number: BD06613

Sample	Analysis	Units	MB					Standard		Rec			Prec Limit
			MB	Limit	Spike	MS	MSD	Standard	Limit	Rec	Limit	Prec	
BD06614	Aluminum, Dissolved	mg/L	-0.000829	0.0198	0.100	0.101	0.103	0.103	0.0850 to 0.115	101	70.0 to 130	1.96	20.0
BD06613	Aluminum, Total	mg/L	0.000464	0.0198	0.100	0.104	0.106	0.103	0.0850 to 0.115	104	70.0 to 130	1.90	20.0
BD06614	Antimony, Dissolved	mg/L	0.000282	0.00100	0.100	0.105	0.107	0.105	0.0850 to 0.115	105	70.0 to 130	1.89	20.0
BD06613	Antimony, Total	mg/L	0.000260	0.00100	0.100	0.0945	0.0970	0.0922	0.0850 to 0.115	94.5	70.0 to 130	2.61	20.0
BD06614	Arsenic, Dissolved	mg/L	0.000293	0.000200	0.100	0.110	0.112	0.108	0.0850 to 0.115	109	70.0 to 130	1.80	20.0
BD06613	Arsenic, Total	mg/L	0.000185	0.000200	0.100	0.0996	0.0980	0.101	0.0850 to 0.115	99.2	70.0 to 130	1.62	20.0
BD06614	Barium, Dissolved	mg/L	0.0000004	0.00100	0.100	0.111	0.114	0.104	0.0850 to 0.115	103	70.0 to 130	2.67	20.0
BD06613	Barium, Total	mg/L	0.0000235	0.00100	0.100	0.272	0.282	0.0935	0.0850 to 0.115	83.0	70.0 to 130	3.61	20.0
BD06614	Beryllium, Dissolved	mg/L	0.0000122	0.000880	0.100	0.0988	0.102	0.0962	0.0850 to 0.115	98.8	70.0 to 130	3.19	20.0
BD06613	Beryllium, Total	mg/L	0.0000089	0.000880	0.100	0.0946	0.0943	0.0982	0.0850 to 0.115	94.6	70.0 to 130	0.318	20.0
BD06614	Boron, Dissolved	mg/L	0.000167	0.0650	1.00	1.32	1.30	1.01	0.850 to 1.15	102	70.0 to 130	1.53	20.0
BD06613	Boron, Total	mg/L	-0.00119	0.0650	1.00	2.00	1.98	0.989	0.850 to 1.15	104	70.0 to 130	1.01	20.0
BD06614	Cadmium, Dissolved	mg/L	0.0000050	0.000147	0.100	0.107	0.109	0.111	0.0850 to 0.115	107	70.0 to 130	1.85	20.0
BD06613	Cadmium, Total	mg/L	0.0000000	0.000147	0.100	0.0986	0.0971	0.0971	0.0850 to 0.115	98.6	70.0 to 130	1.53	20.0
BD06614	Calcium, Dissolved	mg/L	-0.0141	0.152	5.00	5.35	5.12	4.92	4.25 to 5.75	96.0	70.0 to 130	4.39	20.0
BD06613	Calcium, Total	mg/L	0.00187	0.152	5.00	63.1	64.0	4.92	4.25 to 5.75	78.0	70.0 to 130	1.42	20.0
BD06622	Chloride	mg/L	0.0211	1.00	10.0	26.7	26.9	10.3	9.00 to 11.0	87.0	80.0 to 120	0.746	20.0
BD06614	Chromium, Dissolved	mg/L	-0.0000464	0.000440	0.100	0.106	0.110	0.111	0.0850 to 0.115	106	70.0 to 130	3.70	20.0
BD06613	Chromium, Total	mg/L	0.0000577	0.000440	0.100	0.0980	0.0992	0.0984	0.0850 to 0.115	97.5	70.0 to 130	1.22	20.0
BD06614	Cobalt, Dissolved	mg/L	-0.0000057	0.000147	0.100	0.108	0.111	0.110	0.0850 to 0.115	108	70.0 to 130	2.74	20.0
BD06613	Cobalt, Total	mg/L	-0.0000008	0.000147	0.100	0.102	0.103	0.101	0.0850 to 0.115	101	70.0 to 130	0.976	20.0
BD06613	Fluoride	mg/L	0.0117	0.125	2.50	2.69	2.66	2.57	2.25 to 2.75	108	80.0 to 120	1.12	20.0
BD06614	Iron, Dissolved	mg/L	-0.000107	0.0176	0.2	0.757	0.755	0.202	0.170 to 0.230	97.5	70.0 to 130	0.265	20.0
BD06613	Iron, Total	mg/L	-0.000067	0.0176	0.2	100	100	0.194	0.170 to 0.230	-500	70.0 to 130	0.00	20.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.
 Nitrate-Nitrite matrix spike recovery and/or matrix spike duplicate recovery is outside of specification limit.

Batch QC Summary

Customer Account: WMWBARAP

Sample Date: 4/3/23 15:16

Customer ID:

Delivery Date: 4/5/23 07:36

Description: Barry Ash Pond - MW-10V

Laboratory ID Number: BD06613

Sample	Analysis	Units	MB		Spike	MS	MSD	Standard		Rec		Prec	Limit
			MB	Limit				Standard	Limit	Rec	Limit		
BD06614	Lead, Dissolved	mg/L	0.0000188	0.000147	0.100	0.0994	0.0993	0.101	0.0850 to 0.115	99.4	70.0 to 130	0.101	20.0
BD06613	Lead, Total	mg/L	0.0000100	0.000147	0.100	0.0971	0.0966	0.0990	0.0850 to 0.115	97.1	70.0 to 130	0.516	20.0
BD06614	Lithium, Dissolved	mg/L	0.000058	0.0154	0.200	0.207	0.204	0.197	0.170 to 0.230	104	70.0 to 130	1.46	20.0
BD06613	Lithium, Total	mg/L	0.000883	0.0154	0.200	0.202	0.201	0.191	0.170 to 0.230	101	70.0 to 130	0.496	20.0
BD06614	Magnesium, Dissolved	mg/L	-0.00906	0.0462	5.00	5.15	4.89	4.92	4.25 to 5.75	98.5	70.0 to 130	5.18	20.0
BD06613	Magnesium, Total	mg/L	-0.00266	0.0462	5.00	16.8	16.7	4.86	4.25 to 5.75	96.0	70.0 to 130	0.597	20.0
BD06614	Manganese, Dissolved	mg/L	0.0000223	0.00033	0.100	0.115	0.120	0.102	0.0850 to 0.115	98.9	70.0 to 130	4.26	20.0
BD06613	Manganese, Total	mg/L	0.0000173	0.00033	0.100	0.894	0.904	0.101	0.0850 to 0.115	81.0	70.0 to 130	1.11	20.0
BD06613	Mercury, Total by CVAA	mg/L	3.000E-05	0.000500	0.004	0.00402	0.00407	0.00409	0.00340 to 0.00460	100	70.0 to 130	1.24	20.0
BD06614	Molybdenum, Dissolved	mg/L	0.000012	0.0100	0.2	0.206	0.206	0.203	0.170 to 0.230	103	70.0 to 130	0.00	20.0
BD06613	Molybdenum, Total	mg/L	0.000	0.0100	0.2	0.200	0.199	0.199	0.170 to 0.230	100	70.0 to 130	0.501	20.0
BD06614	Potassium, Dissolved	mg/L	0.0134	0.367	10.0	11.0	11.2	10.4	8.50 to 11.5	99.1	70.0 to 130	1.80	20.0
BD06613	Potassium, Total	mg/L	0.0131	0.367	10.0	12.3	12.3	10.0	8.50 to 11.5	99.9	70.0 to 130	0.00	20.0
BD06614	Selenium, Dissolved	mg/L	0.0000543	0.00100	0.100	0.109	0.112	0.109	0.0850 to 0.115	109	70.0 to 130	2.71	20.0
BD06613	Selenium, Total	mg/L	0.000122	0.00100	0.100	0.103	0.0993	0.103	0.0850 to 0.115	103	70.0 to 130	3.66	20.0
BD06614	Silicon, Dissolved	mg/L	0.000048	0.0440	1.00	6.94	6.92	1.01	0.850 to 1.15	102	70.0 to 130	0.289	20.0
BD06613	Silicon, Total	mg/L	0.00174	0.0440	1.00	14.7	14.7	0.987	0.850 to 1.15	90.0	70.0 to 130	0.00	20.0
BD06614	Sodium, Dissolved	mg/L	-0.00120	0.0880	5.00	123	122	4.73	4.25 to 5.75	-120	70.0 to 130	0.816	20.0
BD06613	Sodium, Total	mg/L	0.00274	0.0880	5.00	31.5	31.4	4.66	4.25 to 5.75	94.0	70.0 to 130	0.318	20.0
BD06613	Sulfate	mg/L	0.439	2.0	20.0	29.1	28.9	20.2	18.0 to 22.0	80.5	80.0 to 120	0.690	20.0
BD06614	Thallium, Dissolved	mg/L	0.0000007	0.000147	0.100	0.103	0.0996	0.102	0.0850 to 0.115	103	70.0 to 130	3.36	20.0
BD06613	Thallium, Total	mg/L	0.0000062	0.000147	0.100	0.100	0.0988	0.102	0.0850 to 0.115	100	70.0 to 130	1.21	20.0
BD06613	Total Organic Carbon	mg/L	0.142	1.00	10.0	21.8	20.3	24.2		106	80.0 to 120	7.13	20.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.
 Nitrate-Nitrite matrix spike recovery and/or matrix spike duplicate recovery is outside of specification limit.

Batch QC Summary

Customer Account: WMWBARAP

Sample Date: 4/3/23 15:16

Customer ID:

Delivery Date: 4/5/23 07:36

Description: Barry Ash Pond - MW-10V

Laboratory ID Number: BD06613

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BD06780	Alkalinity to pH 4.5	mg CaCO3/L					147	50.5	45.0 to 55.0			0.678	10.0
BD06613	Nitrogen, Nitrate/Nitrite	mg/L as N	0.02	0.200	2.00	1.74	0.240	2.00	1.80 to 2.20	75.0	90.0 to 110	0.418	15.0
BD06620	Solids, Dissolved	mg/L	0.0000	25.0			612	50.0	40.0 to 60.0			0.651	10.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.
 Nitrate-Nitrite matrix spike recovery and/or matrix spike duplicate recovery is outside of specification limit.

Certificate Of Analysis

Description: Barry Ash Pond - MW-7V

Location Code: WMWBARAP
Collected: 4/3/23 16:40
Customer ID:
Submittal Date: 4/5/23 07:36

Laboratory ID Number: BD06614

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q	
Analytical Method: EPA 200.7		Analyst: ABB			Preparation Method: EPA 1638					
* Boron, Total	4/6/23 06:51	4/6/23 12:28		1.015	0.293	mg/L	0.030000	0.1015		
* Calcium, Total	4/6/23 06:51	4/6/23 12:28		1.015	1.43	mg/L	0.070035	0.406		
* Iron, Total	4/6/23 06:51	4/6/23 12:28		1.015	1.18	mg/L	0.008120	0.0406		
* Lithium, Total	4/6/23 06:51	4/6/23 12:28		1.015	Not Detected	mg/L	0.007105	0.01999956	U	
* Magnesium, Total	4/6/23 06:51	4/6/23 12:28		1.015	0.282	mg/L	0.021315	0.406	J	
* Molybdenum, Total	4/6/23 06:51	4/6/23 12:28		1.015	Not Detected	mg/L	0.005075	0.01015	U	
* Silica, Total (calc.)	4/6/23 06:51	4/6/23 12:28		1	12.8	mg/L				
* Silicon, Total	4/6/23 06:51	4/6/23 12:28		1.015	6.00	mg/L	0.02030	0.25375		
* Sodium, Total	4/6/23 06:51	4/6/23 13:35		10.15	120	mg/L	0.4060	4.06		
Analytical Method: EPA 200.7		Analyst: ABB			Preparation Method: EPA 1638					
* Boron, Dissolved	4/6/23 09:44	4/7/23 11:49		1.015	0.297	mg/L	0.030000	0.1015		
* Calcium, Dissolved	4/6/23 09:44	4/7/23 11:49		1.015	0.549	mg/L	0.070035	0.406		
* Iron, Dissolved	4/6/23 09:44	4/7/23 11:49		1.015	0.562	mg/L	0.008120	0.0406		
* Lithium, Dissolved	4/6/23 09:44	4/7/23 11:49		1.015	Not Detected	mg/L	0.007105	0.01999956	U	
* Magnesium, Dissolved	4/6/23 09:44	4/7/23 11:49		1.015	0.227	mg/L	0.021315	0.406	J	
* Molybdenum, Dissolved	4/6/23 09:44	4/7/23 11:49		1.015	Not Detected	mg/L	0.005075	0.01015	U	
* Silica, Dissolved (calc.)	4/6/23 09:44	4/7/23 11:49		1	12.7	mg/L				
* Silicon, Dissolved	4/6/23 09:44	4/7/23 11:49		1.015	5.92	mg/L	0.02030	0.25375		
* Sodium, Dissolved	4/6/23 09:44	4/7/23 12:55		10.15	129	mg/L	0.4060	4.06	RA	
Analytical Method: EPA 200.8		Analyst: DLJ			Preparation Method: EPA 1638					
* Antimony, Total	4/6/23 06:51	4/7/23 12:25		1.015	Not Detected	mg/L	0.000710	0.001015	U	
* Aluminum, Total	4/6/23 06:51	4/7/23 12:25		1.015	0.0394	mg/L	0.009135	0.05075	J	
* Arsenic, Total	4/6/23 06:51	4/7/23 12:25		1.015	0.00117	mg/L	0.000112	0.000203		
* Barium, Total	4/6/23 06:51	4/7/23 12:25		1.015	0.0100	mg/L	0.000508	0.001015		
* Beryllium, Total	4/6/23 06:51	4/7/23 12:25		1.015	Not Detected	mg/L	0.000406	0.001015	U	
* Cadmium, Total	4/6/23 06:51	4/7/23 12:25		1.015	Not Detected	mg/L	0.000068	0.000203	U	
* Chromium, Total	4/6/23 06:51	4/7/23 12:25		1.015	0.000590	mg/L	0.000203	0.001015	J	
* Cobalt, Total	4/6/23 06:51	4/7/23 12:25		1.015	0.000148	mg/L	0.000068	0.000203	J	
* Lead, Total	4/6/23 06:51	4/7/23 12:25		1.015	0.000161	mg/L	0.000068	0.000203	J	
* Manganese, Total	4/6/23 06:51	4/7/23 12:25		1.015	0.0191	mg/L	0.000152	0.001015		

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Barry Ash Pond - MW-7V

Location Code: WMWBARAP
Collected: 4/3/23 16:40
Customer ID:
Submittal Date: 4/5/23 07:36

Laboratory ID Number: BD06614

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
* Potassium, Total	4/6/23 06:51	4/7/23 12:25		1.015	1.02	mg/L	0.169505	0.5075	
* Selenium, Total	4/6/23 06:51	4/7/23 12:25		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Total	4/6/23 06:51	4/7/23 12:25		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 200.8		Analyst: DLJ							
* Antimony, Dissolved	4/6/23 09:44	4/6/23 11:44		1.015	Not Detected	mg/L	0.000710	0.001015	U
* Aluminum, Dissolved	4/6/23 09:44	4/6/23 11:44		1.015	Not Detected	mg/L	0.009135	0.05075	U
* Arsenic, Dissolved	4/6/23 09:44	4/6/23 11:44		1.015	0.00104	mg/L	0.000112	0.000203	
* Barium, Dissolved	4/6/23 09:44	4/6/23 11:44		1.015	0.00816	mg/L	0.000508	0.001015	
* Beryllium, Dissolved	4/6/23 09:44	4/6/23 11:44		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Dissolved	4/6/23 09:44	4/6/23 11:44		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Dissolved	4/6/23 09:44	4/6/23 11:44		1.015	0.000210	mg/L	0.000203	0.001015	J
* Cobalt, Dissolved	4/6/23 09:44	4/6/23 11:44		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Lead, Dissolved	4/6/23 09:44	4/6/23 11:44		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Dissolved	4/6/23 09:44	4/6/23 11:44		1.015	0.0161	mg/L	0.000152	0.001015	
* Potassium, Dissolved	4/6/23 09:44	4/6/23 11:44		1.015	1.09	mg/L	0.169505	0.5075	
* Selenium, Dissolved	4/6/23 09:44	4/6/23 11:44		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Dissolved	4/6/23 09:44	4/6/23 11:44		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 245.1		Analyst: CRB							
* Mercury, Total by CVAA	4/11/23 18:35	4/11/23 23:28		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: EPA 353.2		Analyst: SC							
* Nitrogen, Nitrate/Nitrite	4/6/23 09:18	4/6/23 09:18		1	Not Detected	mg/L as N	0.20	0.3	U
Analytical Method: SM 2320 B		Analyst: ALH							
* Alkalinity to pH 4.5	4/17/23 10:54	4/17/23 12:30		1	155	mg CaCO3/L		0.10	
Analytical Method: SM 2540C		Analyst: CNJ							
* Solids, Dissolved	4/6/23 10:55	4/7/23 12:30		1	311	mg/L		25	
Analytical Method: SM 4500CO2 D		Analyst: ALH							
* Bicarbonate Alkalinity, (calc.)	4/17/23 10:54	4/17/23 12:30		1	152	mg CaCO3/L		1	
* Carbonate Alkalinity, (calc.)	4/17/23 10:54	4/17/23 12:30		1	3.12	mg CaCO3/L		0.5	
Analytical Method: SM 5310 B		Analyst: SC							
* Total Organic Carbon	4/5/23 17:57	4/5/23 17:57		1	1.25	mg/L	1.00	2	J

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Barry Ash Pond - MW-7V

Location Code: WMWBARAP

Collected: 4/3/23 16:40

Customer ID:

Submittal Date: 4/5/23 07:36

Laboratory ID Number: BD06614

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM4500Cl E		Analyst: CES							
* Chloride	4/12/23 11:38	4/12/23 11:38		5	85.8	mg/L	2.50	2.5	
Analytical Method: SM4500F G 2017		Analyst: CES							
* Fluoride	4/13/23 10:49	4/13/23 10:49		1	0.418	mg/L	0.06	0.125	
Analytical Method: SM4500SO4 E 2011		Analyst: JCC							
* Sulfate	4/6/23 10:42	4/6/23 10:42		1	5.29	mg/L	0.6	2	
Analytical Method: Field Measurements		Analyst: TJD							
Conductivity	4/3/23 16:38	4/3/23 16:38			561.78	uS/cm			FA
pH	4/3/23 16:38	4/3/23 16:38			7.67	SU			FA
Temperature	4/3/23 16:38	4/3/23 16:38			21.47	C			FA
Turbidity	4/3/23 16:38	4/3/23 16:38			1.94	NTU			FA
Sulfide	4/3/23 16:38	4/3/23 16:38			0	mg/L			FA

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWBARAP
Sample Date: 4/3/23 16:40
Customer ID:
Delivery Date: 4/5/23 07:36

Description: Barry Ash Pond - MW-7V

Laboratory ID Number: BD06614

Sample	Analysis	Units	MB	MB				Standard		Rec		Prec	Limit
				Limit	Spike	MS	MSD	Standard	Limit	Rec	Limit		
BD06614	Aluminum, Dissolved	mg/L	-0.000829	0.0198	0.100	0.101	0.103	0.103	0.0850 to 0.115	101	70.0 to 130	1.96	20.0
BD06623	Aluminum, Total	mg/L	0.000464	0.0198	0.100	0.102	0.0992	0.103	0.0850 to 0.115	102	70.0 to 130	2.78	20.0
BD06614	Antimony, Dissolved	mg/L	0.000282	0.00100	0.100	0.105	0.107	0.105	0.0850 to 0.115	105	70.0 to 130	1.89	20.0
BD06623	Antimony, Total	mg/L	0.000260	0.00100	0.100	0.0952	0.0937	0.0922	0.0850 to 0.115	95.2	70.0 to 130	1.59	20.0
BD06614	Arsenic, Dissolved	mg/L	0.000293	0.000200	0.100	0.110	0.112	0.108	0.0850 to 0.115	109	70.0 to 130	1.80	20.0
BD06623	Arsenic, Total	mg/L	0.000185	0.000200	0.100	0.0990	0.0984	0.101	0.0850 to 0.115	99.0	70.0 to 130	0.608	20.0
BD06614	Barium, Dissolved	mg/L	0.0000004	0.00100	0.100	0.111	0.114	0.104	0.0850 to 0.115	103	70.0 to 130	2.67	20.0
BD06623	Barium, Total	mg/L	0.0000235	0.00100	0.100	0.0962	0.0934	0.0935	0.0850 to 0.115	96.2	70.0 to 130	2.95	20.0
BD06614	Beryllium, Dissolved	mg/L	0.0000122	0.000880	0.100	0.0988	0.102	0.0962	0.0850 to 0.115	98.8	70.0 to 130	3.19	20.0
BD06623	Beryllium, Total	mg/L	0.0000089	0.000880	0.100	0.0937	0.0937	0.0982	0.0850 to 0.115	93.7	70.0 to 130	0.00	20.0
BD06614	Boron, Dissolved	mg/L	0.000167	0.0650	1.00	1.32	1.30	1.01	0.850 to 1.15	102	70.0 to 130	1.53	20.0
BD06623	Boron, Total	mg/L	-0.00119	0.0650	1.00	0.992	0.982	0.989	0.850 to 1.15	99.2	70.0 to 130	1.01	20.0
BD06614	Cadmium, Dissolved	mg/L	0.0000050	0.000147	0.100	0.107	0.109	0.111	0.0850 to 0.115	107	70.0 to 130	1.85	20.0
BD06623	Cadmium, Total	mg/L	0.0000000	0.000147	0.100	0.0989	0.0992	0.0971	0.0850 to 0.115	98.9	70.0 to 130	0.303	20.0
BD06614	Calcium, Dissolved	mg/L	-0.0141	0.152	5.00	5.35	5.12	4.92	4.25 to 5.75	96.0	70.0 to 130	4.39	20.0
BD06623	Calcium, Total	mg/L	0.00187	0.152	5.00	4.77	4.82	4.92	4.25 to 5.75	95.4	70.0 to 130	1.04	20.0
BD06622	Chloride	mg/L	0.0211	1.00	10.0	26.7	26.9	10.3	9.00 to 11.0	87.0	80.0 to 120	0.746	20.0
BD06614	Chromium, Dissolved	mg/L	-0.0000464	0.000440	0.100	0.106	0.110	0.111	0.0850 to 0.115	106	70.0 to 130	3.70	20.0
BD06623	Chromium, Total	mg/L	0.0000577	0.000440	0.100	0.100	0.0988	0.0984	0.0850 to 0.115	100	70.0 to 130	1.21	20.0
BD06614	Cobalt, Dissolved	mg/L	-0.0000057	0.000147	0.100	0.108	0.111	0.110	0.0850 to 0.115	108	70.0 to 130	2.74	20.0
BD06623	Cobalt, Total	mg/L	-0.0000008	0.000147	0.100	0.103	0.101	0.101	0.0850 to 0.115	103	70.0 to 130	1.96	20.0
BD06623	Fluoride	mg/L	0.00185	0.125	2.50	2.65	2.62	2.62	2.25 to 2.75	106	80.0 to 120	1.14	20.0
BD06614	Iron, Dissolved	mg/L	-0.000107	0.0176	0.2	0.757	0.755	0.202	0.170 to 0.230	97.5	70.0 to 130	0.265	20.0
BD06623	Iron, Total	mg/L	-0.000067	0.0176	0.2	0.197	0.193	0.194	0.170 to 0.230	98.5	70.0 to 130	2.05	20.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWBARAP
Sample Date: 4/3/23 16:40
Customer ID:
Delivery Date: 4/5/23 07:36

Description: Barry Ash Pond - MW-7V

Laboratory ID Number: BD06614

Sample	Analysis	Units	MB		Spike	MS	MSD	Standard		Rec		Prec	Limit
			MB	Limit				Standard	Limit	Rec	Limit		
BD06614	Lead, Dissolved	mg/L	0.0000188	0.000147	0.100	0.0994	0.0993	0.101	0.0850 to 0.115	99.4	70.0 to 130	0.101	20.0
BD06623	Lead, Total	mg/L	0.0000100	0.000147	0.100	0.0981	0.0971	0.0990	0.0850 to 0.115	98.1	70.0 to 130	1.02	20.0
BD06614	Lithium, Dissolved	mg/L	0.000058	0.0154	0.200	0.207	0.204	0.197	0.170 to 0.230	104	70.0 to 130	1.46	20.0
BD06623	Lithium, Total	mg/L	0.000883	0.0154	0.200	0.197	0.195	0.191	0.170 to 0.230	98.5	70.0 to 130	1.02	20.0
BD06614	Magnesium, Dissolved	mg/L	-0.00906	0.0462	5.00	5.15	4.89	4.92	4.25 to 5.75	98.5	70.0 to 130	5.18	20.0
BD06623	Magnesium, Total	mg/L	-0.00266	0.0462	5.00	4.84	4.81	4.86	4.25 to 5.75	96.8	70.0 to 130	0.622	20.0
BD06614	Manganese, Dissolved	mg/L	0.0000223	0.00033	0.100	0.115	0.120	0.102	0.0850 to 0.115	98.9	70.0 to 130	4.26	20.0
BD06623	Manganese, Total	mg/L	0.0000173	0.00033	0.100	0.102	0.100	0.101	0.0850 to 0.115	102	70.0 to 130	1.98	20.0
BD06623	Mercury, Total by CVAA	mg/L	3.000E-05	0.000500	0.005	0.00388	0.00505	0.00409	0.00340 to 0.00460	77.6	70.0 to 130	26.2	20.0
BD06614	Molybdenum, Dissolved	mg/L	0.000012	0.0100	0.2	0.206	0.206	0.203	0.170 to 0.230	103	70.0 to 130	0.00	20.0
BD06623	Molybdenum, Total	mg/L	0.000	0.0100	0.2	0.199	0.197	0.199	0.170 to 0.230	99.5	70.0 to 130	1.01	20.0
BD06614	Potassium, Dissolved	mg/L	0.0134	0.367	10.0	11.0	11.2	10.4	8.50 to 11.5	99.1	70.0 to 130	1.80	20.0
BD06623	Potassium, Total	mg/L	0.0131	0.367	10.0	10.1	9.91	10.0	8.50 to 11.5	101	70.0 to 130	1.90	20.0
BD06614	Selenium, Dissolved	mg/L	0.0000543	0.00100	0.100	0.109	0.112	0.109	0.0850 to 0.115	109	70.0 to 130	2.71	20.0
BD06623	Selenium, Total	mg/L	0.000122	0.00100	0.100	0.101	0.100	0.103	0.0850 to 0.115	101	70.0 to 130	0.995	20.0
BD06614	Silicon, Dissolved	mg/L	0.000048	0.0440	1.00	6.94	6.92	1.01	0.850 to 1.15	102	70.0 to 130	0.289	20.0
BD06623	Silicon, Total	mg/L	0.00174	0.0440	1.00	0.990	0.979	0.987	0.850 to 1.15	99.0	70.0 to 130	1.12	20.0
BD06614	Sodium, Dissolved	mg/L	-0.00120	0.0880	5.00	123	122	4.73	4.25 to 5.75	-120	70.0 to 130	0.816	20.0
BD06623	Sodium, Total	mg/L	0.00274	0.0880	5.00	4.73	4.72	4.66	4.25 to 5.75	94.6	70.0 to 130	0.212	20.0
BD06623	Sulfate	mg/L	0.416	2.0	20.0	21.0	20.5	20.3	18.0 to 22.0	105	80.0 to 120	2.41	20.0
BD06614	Thallium, Dissolved	mg/L	0.0000007	0.000147	0.100	0.103	0.0996	0.102	0.0850 to 0.115	103	70.0 to 130	3.36	20.0
BD06623	Thallium, Total	mg/L	0.0000062	0.000147	0.100	0.101	0.101	0.102	0.0850 to 0.115	101	70.0 to 130	0.00	20.0
BD06623	Total Organic Carbon	mg/L	0.0651	1.00	10.0	9.83	9.42	25.6		98.3	80.0 to 120	4.26	20.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWBARAP

Sample Date: 4/3/23 16:40

Customer ID:

Delivery Date: 4/5/23 07:36

Description: Barry Ash Pond - MW-7V

Laboratory ID Number: BD06614

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BD06780	Alkalinity to pH 4.5	mg CaCO3/L					147	50.5	45.0 to 55.0			0.678	10.0
BD06623	Nitrogen, Nitrate/Nitrite	mg/L as N	0.08	0.200	2.00	2.08	0.076	2.11	1.80 to 2.20	104	90.0 to 110	0.00	15.0
BD06620	Solids, Dissolved	mg/L	0.0000	25.0			612	50.0	40.0 to 60.0			0.651	10.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Barry Ash Pond - MW-7

Location Code: WMWBARAP
Collected: 4/3/23 17:37
Customer ID:
Submittal Date: 4/5/23 07:36

Laboratory ID Number: BD06615

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7			Analyst: ABB			Preparation Method: EPA 1638			
* Boron, Total	4/6/23 06:51	4/6/23 12:31		1.015	0.174	mg/L	0.030000	0.1015	
* Calcium, Total	4/6/23 06:51	4/6/23 12:31		1.015	3.52	mg/L	0.070035	0.406	
* Iron, Total	4/6/23 06:51	4/6/23 13:38		10.15	8.37	mg/L	0.08120	0.406	
* Lithium, Total	4/6/23 06:51	4/6/23 12:31		1.015	Not Detected	mg/L	0.007105	0.01999956	U
* Magnesium, Total	4/6/23 06:51	4/6/23 12:31		1.015	2.50	mg/L	0.021315	0.406	
* Molybdenum, Total	4/6/23 06:51	4/6/23 12:31		1.015	Not Detected	mg/L	0.005075	0.01015	U
* Silica, Total (calc.)	4/6/23 06:51	4/6/23 12:31		1	12.1	mg/L			
* Silicon, Total	4/6/23 06:51	4/6/23 12:31		1.015	5.67	mg/L	0.02030	0.25375	
* Sodium, Total	4/6/23 06:51	4/6/23 13:38		10.15	65.6	mg/L	0.4060	4.06	
Analytical Method: EPA 200.7			Analyst: ABB						
* Boron, Dissolved	4/6/23 09:44	4/7/23 12:05		1.015	0.177	mg/L	0.030000	0.1015	
* Calcium, Dissolved	4/6/23 09:44	4/7/23 12:05		1.015	3.52	mg/L	0.070035	0.406	
* Iron, Dissolved	4/6/23 09:44	4/7/23 13:05		10.15	8.47	mg/L	0.08120	0.406	
* Lithium, Dissolved	4/6/23 09:44	4/7/23 12:05		1.015	Not Detected	mg/L	0.007105	0.01999956	U
* Magnesium, Dissolved	4/6/23 09:44	4/7/23 12:05		1.015	2.54	mg/L	0.021315	0.406	
* Molybdenum, Dissolved	4/6/23 09:44	4/7/23 12:05		1.015	Not Detected	mg/L	0.005075	0.01015	U
* Silica, Dissolved (calc.)	4/6/23 09:44	4/7/23 12:05		1	12.2	mg/L			
* Silicon, Dissolved	4/6/23 09:44	4/7/23 12:05		1.015	5.72	mg/L	0.02030	0.25375	
* Sodium, Dissolved	4/6/23 09:44	4/7/23 13:05		10.15	65.4	mg/L	0.4060	4.06	
Analytical Method: EPA 200.8			Analyst: DLJ			Preparation Method: EPA 1638			
* Antimony, Total	4/6/23 06:51	4/7/23 12:29		1.015	Not Detected	mg/L	0.000710	0.001015	U
* Aluminum, Total	4/6/23 06:51	4/7/23 12:29		1.015	Not Detected	mg/L	0.009135	0.05075	U
* Arsenic, Total	4/6/23 06:51	4/7/23 12:29		1.015	0.0130	mg/L	0.000112	0.000203	
* Barium, Total	4/6/23 06:51	4/7/23 12:29		1.015	0.0288	mg/L	0.000508	0.001015	
* Beryllium, Total	4/6/23 06:51	4/7/23 12:29		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Total	4/6/23 06:51	4/7/23 12:29		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Total	4/6/23 06:51	4/7/23 12:29		1.015	0.000246	mg/L	0.000203	0.001015	J
* Cobalt, Total	4/6/23 06:51	4/7/23 12:29		1.015	0.00492	mg/L	0.000068	0.000203	
* Lead, Total	4/6/23 06:51	4/7/23 12:29		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Total	4/6/23 06:51	4/7/23 12:29		1.015	0.102	mg/L	0.000152	0.001015	

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Barry Ash Pond - MW-7

Location Code: WMWBARAP
Collected: 4/3/23 17:37
Customer ID:
Submittal Date: 4/5/23 07:36

Laboratory ID Number: BD06615

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
* Potassium, Total	4/6/23 06:51	4/7/23 12:29		1.015	1.81	mg/L	0.169505	0.5075	
* Selenium, Total	4/6/23 06:51	4/7/23 12:29		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Total	4/6/23 06:51	4/7/23 12:29		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 200.8		Analyst: DLJ							
* Antimony, Dissolved	4/6/23 09:44	4/6/23 12:06		1.015	Not Detected	mg/L	0.000710	0.001015	U
* Aluminum, Dissolved	4/6/23 09:44	4/6/23 12:06		1.015	Not Detected	mg/L	0.009135	0.05075	U
* Arsenic, Dissolved	4/6/23 09:44	4/6/23 12:06		1.015	0.0148	mg/L	0.000112	0.000203	
* Barium, Dissolved	4/6/23 09:44	4/6/23 12:06		1.015	0.0319	mg/L	0.000508	0.001015	
* Beryllium, Dissolved	4/6/23 09:44	4/6/23 12:06		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Dissolved	4/6/23 09:44	4/6/23 12:06		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Dissolved	4/6/23 09:44	4/6/23 12:06		1.015	0.000218	mg/L	0.000203	0.001015	J
* Cobalt, Dissolved	4/6/23 09:44	4/6/23 12:06		1.015	0.00554	mg/L	0.000068	0.000203	
* Lead, Dissolved	4/6/23 09:44	4/6/23 12:06		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Dissolved	4/6/23 09:44	4/6/23 12:06		1.015	0.107	mg/L	0.000152	0.001015	
* Potassium, Dissolved	4/6/23 09:44	4/6/23 12:06		1.015	1.99	mg/L	0.169505	0.5075	
* Selenium, Dissolved	4/6/23 09:44	4/6/23 12:06		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Dissolved	4/6/23 09:44	4/6/23 12:06		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 245.1		Analyst: CRB							
* Mercury, Total by CVAA	4/11/23 18:35	4/11/23 23:32		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: EPA 353.2		Analyst: SC							
* Nitrogen, Nitrate/Nitrite	4/6/23 09:20	4/6/23 09:20		1	Not Detected	mg/L as N	0.20	0.3	U
Analytical Method: SM 2320 B		Analyst: ALH							
* Alkalinity to pH 4.5	4/17/23 10:54	4/17/23 12:30		1	100	mg CaCO3/L		0.10	
Analytical Method: SM 2540C		Analyst: CNJ							
* Solids, Dissolved	4/6/23 10:55	4/7/23 12:30		1	198	mg/L		25	
Analytical Method: SM 4500CO2 D		Analyst: ALH							
* Bicarbonate Alkalinity, (calc.)	4/17/23 10:54	4/17/23 12:30		1	99.9	mg CaCO3/L		1	
* Carbonate Alkalinity, (calc.)	4/17/23 10:54	4/17/23 12:30		1	Not Detected	mg CaCO3/L		0.5	
Analytical Method: SM 5310 B		Analyst: SC							
* Total Organic Carbon	4/5/23 18:15	4/5/23 18:15		1	1.56	mg/L	1.00	2	J

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Barry Ash Pond - MW-7

Location Code: WMWBARAP

Collected: 4/3/23 17:37

Customer ID:

Submittal Date: 4/5/23 07:36

Laboratory ID Number: BD06615

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM4500Cl E		Analyst: CES							
* Chloride	4/12/23 11:41	4/12/23 11:41		5	59.4	mg/L	2.50	2.5	
Analytical Method: SM4500F G 2017		Analyst: CES							
* Fluoride	4/13/23 10:50	4/13/23 10:50		1	0.171	mg/L	0.06	0.125	
Analytical Method: SM4500SO4 E 2011		Analyst: JCC							
* Sulfate	4/6/23 10:43	4/6/23 10:43		1	14.8	mg/L	0.6	2	
Analytical Method: Field Measurements		Analyst: TJD							
Conductivity	4/3/23 17:34	4/3/23 17:34			376.47	uS/cm			FA
pH	4/3/23 17:34	4/3/23 17:34			6.53	SU			FA
Temperature	4/3/23 17:34	4/3/23 17:34			21.16	C			FA
Turbidity	4/3/23 17:34	4/3/23 17:34			1.03	NTU			FA
Sulfide	4/3/23 17:34	4/3/23 17:34			0	mg/L			FA

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWBARAP
Sample Date: 4/3/23 17:37
Customer ID:
Delivery Date: 4/5/23 07:36

Description: Barry Ash Pond - MW-7

Laboratory ID Number: BD06615

Sample	Analysis	Units	MB	MB				Standard		Rec			Prec Limit
				Limit	Spike	MS	MSD	Standard	Limit	Rec	Limit	Prec	
BD06622	Aluminum, Dissolved	mg/L	-0.000829	0.0198	0.100	0.102	0.102	0.103	0.0850 to 0.115	102	70.0 to 130	0.00	20.0
BD06623	Aluminum, Total	mg/L	0.000464	0.0198	0.100	0.102	0.0992	0.103	0.0850 to 0.115	102	70.0 to 130	2.78	20.0
BD06622	Antimony, Dissolved	mg/L	0.000282	0.00100	0.100	0.106	0.103	0.105	0.0850 to 0.115	106	70.0 to 130	2.87	20.0
BD06623	Antimony, Total	mg/L	0.000260	0.00100	0.100	0.0952	0.0937	0.0922	0.0850 to 0.115	95.2	70.0 to 130	1.59	20.0
BD06622	Arsenic, Dissolved	mg/L	0.000293	0.000200	0.100	0.127	0.128	0.108	0.0850 to 0.115	110	70.0 to 130	0.784	20.0
BD06623	Arsenic, Total	mg/L	0.000185	0.000200	0.100	0.0990	0.0984	0.101	0.0850 to 0.115	99.0	70.0 to 130	0.608	20.0
BD06622	Barium, Dissolved	mg/L	0.0000004	0.00100	0.100	0.231	0.234	0.104	0.0850 to 0.115	99.0	70.0 to 130	1.29	20.0
BD06623	Barium, Total	mg/L	0.0000235	0.00100	0.100	0.0962	0.0934	0.0935	0.0850 to 0.115	96.2	70.0 to 130	2.95	20.0
BD06622	Beryllium, Dissolved	mg/L	0.0000122	0.000880	0.100	0.0999	0.0987	0.0962	0.0850 to 0.115	99.9	70.0 to 130	1.21	20.0
BD06623	Beryllium, Total	mg/L	0.0000089	0.000880	0.100	0.0937	0.0937	0.0982	0.0850 to 0.115	93.7	70.0 to 130	0.00	20.0
BD06622	Boron, Dissolved	mg/L	0.000167	0.0650	1.00	2.70	2.69	1.01	0.850 to 1.15	102	70.0 to 130	0.371	20.0
BD06623	Boron, Total	mg/L	-0.00119	0.0650	1.00	0.992	0.982	0.989	0.850 to 1.15	99.2	70.0 to 130	1.01	20.0
BD06622	Cadmium, Dissolved	mg/L	0.0000050	0.000147	0.100	0.103	0.109	0.111	0.0850 to 0.115	103	70.0 to 130	5.66	20.0
BD06623	Cadmium, Total	mg/L	0.0000000	0.000147	0.100	0.0989	0.0992	0.0971	0.0850 to 0.115	98.9	70.0 to 130	0.303	20.0
BD06622	Calcium, Dissolved	mg/L	-0.0141	0.152	5.00	38.0	37.8	4.92	4.25 to 5.75	96.0	70.0 to 130	0.528	20.0
BD06623	Calcium, Total	mg/L	0.00187	0.152	5.00	4.77	4.82	4.92	4.25 to 5.75	95.4	70.0 to 130	1.04	20.0
BD06622	Chloride	mg/L	0.0211	1.00	10.0	26.7	26.9	10.3	9.00 to 11.0	87.0	80.0 to 120	0.746	20.0
BD06622	Chromium, Dissolved	mg/L	-0.0000464	0.000440	0.100	0.105	0.106	0.111	0.0850 to 0.115	104	70.0 to 130	0.948	20.0
BD06623	Chromium, Total	mg/L	0.0000577	0.000440	0.100	0.100	0.0988	0.0984	0.0850 to 0.115	100	70.0 to 130	1.21	20.0
BD06622	Cobalt, Dissolved	mg/L	-0.0000057	0.000147	0.100	0.108	0.107	0.110	0.0850 to 0.115	107	70.0 to 130	0.930	20.0
BD06623	Cobalt, Total	mg/L	-0.0000008	0.000147	0.100	0.103	0.101	0.101	0.0850 to 0.115	103	70.0 to 130	1.96	20.0
BD06623	Fluoride	mg/L	0.00185	0.125	2.50	2.65	2.62	2.62	2.25 to 2.75	106	80.0 to 120	1.14	20.0
BD06622	Iron, Dissolved	mg/L	-0.000107	0.0176	0.2	93.2	93.5	0.202	0.170 to 0.230	100	70.0 to 130	0.321	20.0
BD06623	Iron, Total	mg/L	-0.000067	0.0176	0.2	0.197	0.193	0.194	0.170 to 0.230	98.5	70.0 to 130	2.05	20.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWBARAP
Sample Date: 4/3/23 17:37
Customer ID:
Delivery Date: 4/5/23 07:36

Description: Barry Ash Pond - MW-7

Laboratory ID Number: BD06615

Sample	Analysis	Units	MB		Spike	MS	MSD	Standard		Rec		Prec	Limit
			MB	Limit				Standard	Limit	Rec	Limit		
BD06622	Lead, Dissolved	mg/L	0.0000188	0.000147	0.100	0.0986	0.0971	0.101	0.0850 to 0.115	98.6	70.0 to 130	1.53	20.0
BD06623	Lead, Total	mg/L	0.0000100	0.000147	0.100	0.0981	0.0971	0.0990	0.0850 to 0.115	98.1	70.0 to 130	1.02	20.0
BD06622	Lithium, Dissolved	mg/L	0.000058	0.0154	0.200	0.206	0.207	0.197	0.170 to 0.230	103	70.0 to 130	0.484	20.0
BD06623	Lithium, Total	mg/L	0.000883	0.0154	0.200	0.197	0.195	0.191	0.170 to 0.230	98.5	70.0 to 130	1.02	20.0
BD06622	Magnesium, Dissolved	mg/L	-0.00906	0.0462	5.00	17.0	17.0	4.92	4.25 to 5.75	96.0	70.0 to 130	0.00	20.0
BD06623	Magnesium, Total	mg/L	-0.00266	0.0462	5.00	4.84	4.81	4.86	4.25 to 5.75	96.8	70.0 to 130	0.622	20.0
BD06622	Manganese, Dissolved	mg/L	0.0000223	0.00033	0.100	1.87	1.84	0.102	0.0850 to 0.115	110	70.0 to 130	1.62	20.0
BD06623	Manganese, Total	mg/L	0.0000173	0.00033	0.100	0.102	0.100	0.101	0.0850 to 0.115	102	70.0 to 130	1.98	20.0
BD06623	Mercury, Total by CVAA	mg/L	3.000E-05	0.000500	0.005	0.00388	0.00505	0.00409	0.00340 to 0.00460	77.6	70.0 to 130	26.2	20.0
BD06622	Molybdenum, Dissolved	mg/L	0.000012	0.0100	0.2	0.204	0.203	0.203	0.170 to 0.230	102	70.0 to 130	0.491	20.0
BD06623	Molybdenum, Total	mg/L	0.000	0.0100	0.2	0.199	0.197	0.199	0.170 to 0.230	99.5	70.0 to 130	1.01	20.0
BD06622	Potassium, Dissolved	mg/L	0.0134	0.367	10.0	11.7	11.4	10.4	8.50 to 11.5	99.1	70.0 to 130	2.60	20.0
BD06623	Potassium, Total	mg/L	0.0131	0.367	10.0	10.1	9.91	10.0	8.50 to 11.5	101	70.0 to 130	1.90	20.0
BD06622	Selenium, Dissolved	mg/L	0.0000543	0.00100	0.100	0.112	0.114	0.109	0.0850 to 0.115	112	70.0 to 130	1.77	20.0
BD06623	Selenium, Total	mg/L	0.000122	0.00100	0.100	0.101	0.100	0.103	0.0850 to 0.115	101	70.0 to 130	0.995	20.0
BD06622	Silicon, Dissolved	mg/L	0.000048	0.0440	1.00	10.6	10.6	1.01	0.850 to 1.15	97.0	70.0 to 130	0.00	20.0
BD06623	Silicon, Total	mg/L	0.00174	0.0440	1.00	0.990	0.979	0.987	0.850 to 1.15	99.0	70.0 to 130	1.12	20.0
BD06622	Sodium, Dissolved	mg/L	-0.00120	0.0880	5.00	23.4	23.5	4.73	4.25 to 5.75	90.0	70.0 to 130	0.426	20.0
BD06623	Sodium, Total	mg/L	0.00274	0.0880	5.00	4.73	4.72	4.66	4.25 to 5.75	94.6	70.0 to 130	0.212	20.0
BD06623	Sulfate	mg/L	0.416	2.0	20.0	21.0	20.5	20.3	18.0 to 22.0	105	80.0 to 120	2.41	20.0
BD06622	Thallium, Dissolved	mg/L	0.0000007	0.000147	0.100	0.101	0.101	0.102	0.0850 to 0.115	101	70.0 to 130	0.00	20.0
BD06623	Thallium, Total	mg/L	0.0000062	0.000147	0.100	0.101	0.101	0.102	0.0850 to 0.115	101	70.0 to 130	0.00	20.0
BD06623	Total Organic Carbon	mg/L	0.0651	1.00	10.0	9.83	9.42	25.6		98.3	80.0 to 120	4.26	20.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWBARAP

Sample Date: 4/3/23 17:37

Customer ID:

Delivery Date: 4/5/23 07:36

Description: Barry Ash Pond - MW-7

Laboratory ID Number: BD06615

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Limit	Prec	Prec Limit
BD06780	Alkalinity to pH 4.5	mg CaCO3/L					147	50.5	45.0 to 55.0			0.678	10.0
BD06623	Nitrogen, Nitrate/Nitrite	mg/L as N	0.08	0.200	2.00	2.08	0.076	2.11	1.80 to 2.20	104	90.0 to 110	0.00	15.0
BD06620	Solids, Dissolved	mg/L	0.0000	25.0			612	50.0	40.0 to 60.0			0.651	10.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Barry Ash Pond - MW-6

Location Code: WMWBARAP
Collected: 4/4/23 08:50
Customer ID:
Submittal Date: 4/5/23 07:36

Laboratory ID Number: BD06616

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7			Analyst: ABB			Preparation Method: EPA 1638			
* Boron, Total	4/6/23 06:51	4/6/23 12:34		1.015	Not Detected	mg/L	0.030000	0.1015	U
* Calcium, Total	4/6/23 06:51	4/6/23 12:34		1.015	1.94	mg/L	0.070035	0.406	
* Iron, Total	4/6/23 06:51	4/6/23 12:34		1.015	0.0289	mg/L	0.008120	0.0406	J
* Lithium, Total	4/6/23 06:51	4/6/23 12:34		1.015	Not Detected	mg/L	0.007105	0.01999956	U
* Magnesium, Total	4/6/23 06:51	4/6/23 12:34		1.015	1.32	mg/L	0.021315	0.406	
* Molybdenum, Total	4/6/23 06:51	4/6/23 12:34		1.015	Not Detected	mg/L	0.005075	0.01015	U
* Silica, Total (calc.)	4/6/23 06:51	4/6/23 12:34		1	13.3	mg/L			
* Silicon, Total	4/6/23 06:51	4/6/23 12:34		1.015	6.21	mg/L	0.02030	0.25375	
* Sodium, Total	4/6/23 06:51	4/6/23 12:34		1.015	7.30	mg/L	0.04060	0.406	
Analytical Method: EPA 200.7			Analyst: ABB						
* Boron, Dissolved	4/6/23 09:44	4/7/23 12:08		1.015	Not Detected	mg/L	0.030000	0.1015	U
* Calcium, Dissolved	4/6/23 09:44	4/7/23 12:08		1.015	1.91	mg/L	0.070035	0.406	
* Iron, Dissolved	4/6/23 09:44	4/7/23 12:08		1.015	0.0360	mg/L	0.008120	0.0406	J
* Lithium, Dissolved	4/6/23 09:44	4/7/23 12:08		1.015	Not Detected	mg/L	0.007105	0.01999956	U
* Magnesium, Dissolved	4/6/23 09:44	4/7/23 12:08		1.015	1.32	mg/L	0.021315	0.406	
* Molybdenum, Dissolved	4/6/23 09:44	4/7/23 12:08		1.015	Not Detected	mg/L	0.005075	0.01015	U
* Silica, Dissolved (calc.)	4/6/23 09:44	4/7/23 12:08		1	13.4	mg/L			
* Silicon, Dissolved	4/6/23 09:44	4/7/23 12:08		1.015	6.24	mg/L	0.02030	0.25375	
* Sodium, Dissolved	4/6/23 09:44	4/7/23 12:08		1.015	7.38	mg/L	0.04060	0.406	
Analytical Method: EPA 200.8			Analyst: DLJ			Preparation Method: EPA 1638			
* Antimony, Total	4/6/23 06:51	4/7/23 12:33		1.015	Not Detected	mg/L	0.000710	0.001015	U
* Aluminum, Total	4/6/23 06:51	4/7/23 12:33		1.015	Not Detected	mg/L	0.009135	0.05075	U
* Arsenic, Total	4/6/23 06:51	4/7/23 12:33		1.015	Not Detected	mg/L	0.000112	0.000203	U
* Barium, Total	4/6/23 06:51	4/7/23 12:33		1.015	0.0275	mg/L	0.000508	0.001015	
* Beryllium, Total	4/6/23 06:51	4/7/23 12:33		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Total	4/6/23 06:51	4/7/23 12:33		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Total	4/6/23 06:51	4/7/23 12:33		1.015	0.000267	mg/L	0.000203	0.001015	J
* Cobalt, Total	4/6/23 06:51	4/7/23 12:33		1.015	0.000584	mg/L	0.000068	0.000203	
* Lead, Total	4/6/23 06:51	4/7/23 12:33		1.015	0.00183	mg/L	0.000068	0.000203	
* Manganese, Total	4/6/23 06:51	4/7/23 12:33		1.015	0.00463	mg/L	0.000152	0.001015	

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Barry Ash Pond - MW-6

Location Code: WMWBARAP
Collected: 4/4/23 08:50
Customer ID:
Submittal Date: 4/5/23 07:36

Laboratory ID Number: BD06616

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
* Potassium, Total	4/6/23 06:51	4/7/23 12:33		1.015	1.16	mg/L	0.169505	0.5075	
* Selenium, Total	4/6/23 06:51	4/7/23 12:33		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Total	4/6/23 06:51	4/7/23 12:33		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 200.8		Analyst: DLJ							
* Antimony, Dissolved	4/6/23 09:44	4/6/23 12:09		1.015	Not Detected	mg/L	0.000710	0.001015	U
* Aluminum, Dissolved	4/6/23 09:44	4/6/23 12:09		1.015	Not Detected	mg/L	0.009135	0.05075	U
* Arsenic, Dissolved	4/6/23 09:44	4/6/23 12:09		1.015	Not Detected	mg/L	0.000112	0.000203	U
* Barium, Dissolved	4/6/23 09:44	4/6/23 12:09		1.015	0.0312	mg/L	0.000508	0.001015	
* Beryllium, Dissolved	4/6/23 09:44	4/6/23 12:09		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Dissolved	4/6/23 09:44	4/6/23 12:09		1.015	0.0000780	mg/L	0.000068	0.000203	J
* Chromium, Dissolved	4/6/23 09:44	4/6/23 12:09		1.015	0.000216	mg/L	0.000203	0.001015	J
* Cobalt, Dissolved	4/6/23 09:44	4/6/23 12:09		1.015	0.000652	mg/L	0.000068	0.000203	
* Lead, Dissolved	4/6/23 09:44	4/6/23 12:09		1.015	0.00195	mg/L	0.000068	0.000203	
* Manganese, Dissolved	4/6/23 09:44	4/6/23 12:09		1.015	0.00503	mg/L	0.000152	0.001015	
* Potassium, Dissolved	4/6/23 09:44	4/6/23 12:09		1.015	1.18	mg/L	0.169505	0.5075	
* Selenium, Dissolved	4/6/23 09:44	4/6/23 12:09		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Dissolved	4/6/23 09:44	4/6/23 12:09		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 245.1		Analyst: CRB							
* Mercury, Total by CVAA	4/11/23 18:35	4/11/23 23:36		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: EPA 353.2		Analyst: SC							
* Nitrogen, Nitrate/Nitrite	4/6/23 09:22	4/6/23 09:22		1	Not Detected	mg/L as N	0.20	0.3	U
Analytical Method: SM 2320 B		Analyst: ALH							
* Alkalinity to pH 4.5	4/17/23 10:54	4/17/23 12:30		1	15.8	mg CaCO3/L		0.10	
Analytical Method: SM 2540C		Analyst: CNJ							
* Solids, Dissolved	4/6/23 10:55	4/7/23 12:30		1	40.0	mg/L		25	
Analytical Method: SM 4500CO2 D		Analyst: ALH							
* Bicarbonate Alkalinity, (calc.)	4/17/23 10:54	4/17/23 12:30		1	15.8	mg CaCO3/L		1	
* Carbonate Alkalinity, (calc.)	4/17/23 10:54	4/17/23 12:30		1	Not Detected	mg CaCO3/L		0.5	
Analytical Method: SM 5310 B		Analyst: SC							
* Total Organic Carbon	4/5/23 18:29	4/5/23 18:29		1	Not Detected	mg/L	1.00	2	U

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Barry Ash Pond - MW-6

Location Code: WMWBARAP

Collected: 4/4/23 08:50

Customer ID:

Submittal Date: 4/5/23 07:36

Laboratory ID Number: BD06616

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM4500Cl E		Analyst: CES							
* Chloride	4/12/23 11:26	4/12/23 11:26		1	7.81	mg/L	0.50	0.5	
Analytical Method: SM4500F G 2017		Analyst: CES							
* Fluoride	4/13/23 10:51	4/13/23 10:51		1	Not Detected	mg/L	0.06	0.125	U
Analytical Method: SM4500SO4 E 2011		Analyst: JCC							
* Sulfate	4/6/23 10:44	4/6/23 10:44		1	1.59	mg/L	0.6	2	J
Analytical Method: Field Measurements		Analyst: TJD							
Conductivity	4/4/23 08:47	4/4/23 08:47			61.93	uS/cm			FA
pH	4/4/23 08:47	4/4/23 08:47			5.33	SU			FA
Temperature	4/4/23 08:47	4/4/23 08:47			21.41	C			FA
Turbidity	4/4/23 08:47	4/4/23 08:47			1.33	NTU			FA
Sulfide	4/4/23 08:47	4/4/23 08:47			0	mg/L			FA

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWBARAP
Sample Date: 4/4/23 08:50
Customer ID:
Delivery Date: 4/5/23 07:36

Description: Barry Ash Pond - MW-6

Laboratory ID Number: BD06616

Sample	Analysis	Units	MB	MB				Standard		Rec		Prec	Limit
				Limit	Spike	MS	MSD	Standard	Limit	Rec	Limit		
BD06622	Aluminum, Dissolved	mg/L	-0.000829	0.0198	0.100	0.102	0.102	0.103	0.0850 to 0.115	102	70.0 to 130	0.00	20.0
BD06623	Aluminum, Total	mg/L	0.000464	0.0198	0.100	0.102	0.0992	0.103	0.0850 to 0.115	102	70.0 to 130	2.78	20.0
BD06622	Antimony, Dissolved	mg/L	0.000282	0.00100	0.100	0.106	0.103	0.105	0.0850 to 0.115	106	70.0 to 130	2.87	20.0
BD06623	Antimony, Total	mg/L	0.000260	0.00100	0.100	0.0952	0.0937	0.0922	0.0850 to 0.115	95.2	70.0 to 130	1.59	20.0
BD06622	Arsenic, Dissolved	mg/L	0.0000293	0.000200	0.100	0.127	0.128	0.108	0.0850 to 0.115	110	70.0 to 130	0.784	20.0
BD06623	Arsenic, Total	mg/L	0.0000185	0.000200	0.100	0.0990	0.0984	0.101	0.0850 to 0.115	99.0	70.0 to 130	0.608	20.0
BD06622	Barium, Dissolved	mg/L	0.0000004	0.00100	0.100	0.231	0.234	0.104	0.0850 to 0.115	99.0	70.0 to 130	1.29	20.0
BD06623	Barium, Total	mg/L	0.0000235	0.00100	0.100	0.0962	0.0934	0.0935	0.0850 to 0.115	96.2	70.0 to 130	2.95	20.0
BD06622	Beryllium, Dissolved	mg/L	0.0000122	0.000880	0.100	0.0999	0.0987	0.0962	0.0850 to 0.115	99.9	70.0 to 130	1.21	20.0
BD06623	Beryllium, Total	mg/L	0.0000089	0.000880	0.100	0.0937	0.0937	0.0982	0.0850 to 0.115	93.7	70.0 to 130	0.00	20.0
BD06622	Boron, Dissolved	mg/L	0.000167	0.0650	1.00	2.70	2.69	1.01	0.850 to 1.15	102	70.0 to 130	0.371	20.0
BD06623	Boron, Total	mg/L	-0.00119	0.0650	1.00	0.992	0.982	0.989	0.850 to 1.15	99.2	70.0 to 130	1.01	20.0
BD06622	Cadmium, Dissolved	mg/L	0.0000050	0.000147	0.100	0.103	0.109	0.111	0.0850 to 0.115	103	70.0 to 130	5.66	20.0
BD06623	Cadmium, Total	mg/L	0.0000000	0.000147	0.100	0.0989	0.0992	0.0971	0.0850 to 0.115	98.9	70.0 to 130	0.303	20.0
BD06622	Calcium, Dissolved	mg/L	-0.0141	0.152	5.00	38.0	37.8	4.92	4.25 to 5.75	96.0	70.0 to 130	0.528	20.0
BD06623	Calcium, Total	mg/L	0.00187	0.152	5.00	4.77	4.82	4.92	4.25 to 5.75	95.4	70.0 to 130	1.04	20.0
BD06622	Chloride	mg/L	0.0211	1.00	10.0	26.7	26.9	10.3	9.00 to 11.0	87.0	80.0 to 120	0.746	20.0
BD06622	Chromium, Dissolved	mg/L	-0.0000464	0.000440	0.100	0.105	0.106	0.111	0.0850 to 0.115	104	70.0 to 130	0.948	20.0
BD06623	Chromium, Total	mg/L	0.0000577	0.000440	0.100	0.100	0.0988	0.0984	0.0850 to 0.115	100	70.0 to 130	1.21	20.0
BD06622	Cobalt, Dissolved	mg/L	-0.0000057	0.000147	0.100	0.108	0.107	0.110	0.0850 to 0.115	107	70.0 to 130	0.930	20.0
BD06623	Cobalt, Total	mg/L	-0.0000008	0.000147	0.100	0.103	0.101	0.101	0.0850 to 0.115	103	70.0 to 130	1.96	20.0
BD06623	Fluoride	mg/L	0.00185	0.125	2.50	2.65	2.62	2.62	2.25 to 2.75	106	80.0 to 120	1.14	20.0
BD06622	Iron, Dissolved	mg/L	-0.000107	0.0176	0.2	93.2	93.5	0.202	0.170 to 0.230	100	70.0 to 130	0.321	20.0
BD06623	Iron, Total	mg/L	-0.000067	0.0176	0.2	0.197	0.193	0.194	0.170 to 0.230	98.5	70.0 to 130	2.05	20.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWBARAP

Sample Date: 4/4/23 08:50

Customer ID:

Delivery Date: 4/5/23 07:36

Description: Barry Ash Pond - MW-6

Laboratory ID Number: BD06616

Sample	Analysis	Units	MB		Spike	MS	MSD	Standard		Rec		Prec	Limit
			MB	Limit				Standard	Limit	Rec	Limit		
BD06622	Lead, Dissolved	mg/L	0.0000188	0.000147	0.100	0.0986	0.0971	0.101	0.0850 to 0.115	98.6	70.0 to 130	1.53	20.0
BD06623	Lead, Total	mg/L	0.0000100	0.000147	0.100	0.0981	0.0971	0.0990	0.0850 to 0.115	98.1	70.0 to 130	1.02	20.0
BD06622	Lithium, Dissolved	mg/L	0.000058	0.0154	0.200	0.206	0.207	0.197	0.170 to 0.230	103	70.0 to 130	0.484	20.0
BD06623	Lithium, Total	mg/L	0.000883	0.0154	0.200	0.197	0.195	0.191	0.170 to 0.230	98.5	70.0 to 130	1.02	20.0
BD06622	Magnesium, Dissolved	mg/L	-0.00906	0.0462	5.00	17.0	17.0	4.92	4.25 to 5.75	96.0	70.0 to 130	0.00	20.0
BD06623	Magnesium, Total	mg/L	-0.00266	0.0462	5.00	4.84	4.81	4.86	4.25 to 5.75	96.8	70.0 to 130	0.622	20.0
BD06622	Manganese, Dissolved	mg/L	0.0000223	0.00033	0.100	1.87	1.84	0.102	0.0850 to 0.115	110	70.0 to 130	1.62	20.0
BD06623	Manganese, Total	mg/L	0.0000173	0.00033	0.100	0.102	0.100	0.101	0.0850 to 0.115	102	70.0 to 130	1.98	20.0
BD06623	Mercury, Total by CVAA	mg/L	3.000E-05	0.000500	0.005	0.00388	0.00505	0.00409	0.00340 to 0.00460	77.6	70.0 to 130	26.2	20.0
BD06622	Molybdenum, Dissolved	mg/L	0.000012	0.0100	0.2	0.204	0.203	0.203	0.170 to 0.230	102	70.0 to 130	0.491	20.0
BD06623	Molybdenum, Total	mg/L	0.000	0.0100	0.2	0.199	0.197	0.199	0.170 to 0.230	99.5	70.0 to 130	1.01	20.0
BD06622	Potassium, Dissolved	mg/L	0.0134	0.367	10.0	11.7	11.4	10.4	8.50 to 11.5	99.1	70.0 to 130	2.60	20.0
BD06623	Potassium, Total	mg/L	0.0131	0.367	10.0	10.1	9.91	10.0	8.50 to 11.5	101	70.0 to 130	1.90	20.0
BD06622	Selenium, Dissolved	mg/L	0.0000543	0.00100	0.100	0.112	0.114	0.109	0.0850 to 0.115	112	70.0 to 130	1.77	20.0
BD06623	Selenium, Total	mg/L	0.000122	0.00100	0.100	0.101	0.100	0.103	0.0850 to 0.115	101	70.0 to 130	0.995	20.0
BD06622	Silicon, Dissolved	mg/L	0.000048	0.0440	1.00	10.6	10.6	1.01	0.850 to 1.15	97.0	70.0 to 130	0.00	20.0
BD06623	Silicon, Total	mg/L	0.00174	0.0440	1.00	0.990	0.979	0.987	0.850 to 1.15	99.0	70.0 to 130	1.12	20.0
BD06622	Sodium, Dissolved	mg/L	-0.00120	0.0880	5.00	23.4	23.5	4.73	4.25 to 5.75	90.0	70.0 to 130	0.426	20.0
BD06623	Sodium, Total	mg/L	0.00274	0.0880	5.00	4.73	4.72	4.66	4.25 to 5.75	94.6	70.0 to 130	0.212	20.0
BD06623	Sulfate	mg/L	0.416	2.0	20.0	21.0	20.5	20.3	18.0 to 22.0	105	80.0 to 120	2.41	20.0
BD06622	Thallium, Dissolved	mg/L	0.0000007	0.000147	0.100	0.101	0.101	0.102	0.0850 to 0.115	101	70.0 to 130	0.00	20.0
BD06623	Thallium, Total	mg/L	0.0000062	0.000147	0.100	0.101	0.101	0.102	0.0850 to 0.115	101	70.0 to 130	0.00	20.0
BD06623	Total Organic Carbon	mg/L	0.0651	1.00	10.0	9.83	9.42	25.6		98.3	80.0 to 120	4.26	20.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWBARAP

Sample Date: 4/4/23 08:50

Customer ID:

Delivery Date: 4/5/23 07:36

Description: Barry Ash Pond - MW-6

Laboratory ID Number: BD06616

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BD06780	Alkalinity to pH 4.5	mg CaCO3/L					147	50.5	45.0 to 55.0			0.678	10.0
BD06623	Nitrogen, Nitrate/Nitrite	mg/L as N	0.08	0.200	2.00	2.08	0.076	2.11	1.80 to 2.20	104	90.0 to 110	0.00	15.0
BD06620	Solids, Dissolved	mg/L	0.0000	25.0			612	50.0	40.0 to 60.0			0.651	10.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Barry Ash Pond Field Blank-1

Location Code: WMWBARAPFB

Collected: 4/4/23 09:20

Customer ID:

Submittal Date: 4/5/23 07:36

Laboratory ID Number: BD06617

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7			Analyst: ABB		Preparation Method: EPA 1638				
* Boron, Total	4/6/23 06:51	4/6/23 12:37		1.015	Not Detected	mg/L	0.030000	0.1015	U
* Calcium, Total	4/6/23 06:51	4/6/23 12:37		1.015	Not Detected	mg/L	0.070035	0.406	U
* Iron, Total	4/6/23 06:51	4/6/23 12:37		1.015	Not Detected	mg/L	0.008120	0.0406	U
* Lithium, Total	4/6/23 06:51	4/6/23 12:37		1.015	Not Detected	mg/L	0.007105	0.01999956	U
* Magnesium, Total	4/6/23 06:51	4/6/23 12:37		1.015	Not Detected	mg/L	0.021315	0.406	U
* Molybdenum, Total	4/6/23 06:51	4/6/23 12:37		1.015	Not Detected	mg/L	0.005075	0.01015	U
* Silica, Total (calc.)	4/6/23 06:51	4/6/23 12:37		1	Not Detected	mg/L			
* Silicon, Total	4/6/23 06:51	4/6/23 12:37		1.015	Not Detected	mg/L	0.02030	0.25375	U
* Sodium, Total	4/6/23 06:51	4/6/23 12:37		1.015	Not Detected	mg/L	0.04060	0.406	U
Analytical Method: EPA 200.8			Analyst: DLJ		Preparation Method: EPA 1638				
* Antimony, Total	4/6/23 06:51	4/7/23 12:36		1.015	Not Detected	mg/L	0.000710	0.001015	U
* Aluminum, Total	4/6/23 06:51	4/7/23 12:36		1.015	Not Detected	mg/L	0.009135	0.05075	U
* Arsenic, Total	4/6/23 06:51	4/7/23 12:36		1.015	Not Detected	mg/L	0.000112	0.000203	U
* Barium, Total	4/6/23 06:51	4/7/23 12:36		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Beryllium, Total	4/6/23 06:51	4/7/23 12:36		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Total	4/6/23 06:51	4/7/23 12:36		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Total	4/6/23 06:51	4/7/23 12:36		1.015	0.000231	mg/L	0.000203	0.001015	J
* Cobalt, Total	4/6/23 06:51	4/7/23 12:36		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Lead, Total	4/6/23 06:51	4/7/23 12:36		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Total	4/6/23 06:51	4/7/23 12:36		1.015	Not Detected	mg/L	0.000152	0.001015	U
* Potassium, Total	4/6/23 06:51	4/7/23 12:36		1.015	Not Detected	mg/L	0.169505	0.5075	U
* Selenium, Total	4/6/23 06:51	4/7/23 12:36		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Total	4/6/23 06:51	4/7/23 12:36		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 245.1			Analyst: CRB						
* Mercury, Total by CVAA	4/11/23 18:35	4/11/23 23:40		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: EPA 353.2			Analyst: SC						
* Nitrogen, Nitrate/Nitrite	4/6/23 09:24	4/6/23 09:24		1	Not Detected	mg/L as N	0.20	0.3	U
Analytical Method: SM 2540C			Analyst: CNJ						
* Solids, Dissolved	4/6/23 10:55	4/7/23 12:30		1	Not Detected	mg/L		25	U

MDL's and RL's are adjusted for sample dilution, as applicable

Comments:

Certificate Of Analysis

Description: Barry Ash Pond Field Blank-1

Location Code: WMWBARAPFB

Collected: 4/4/23 09:20

Customer ID:

Submittal Date: 4/5/23 07:36

Laboratory ID Number: BD06617

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM 5310 B		Analyst: SC							
* Total Organic Carbon	4/5/23 18:44	4/5/23 18:44		1	Not Detected	mg/L	1.00	2	U
Analytical Method: SM4500Cl E		Analyst: CES							
* Chloride	4/12/23 11:36	4/12/23 11:36		1	Not Detected	mg/L	0.50	0.5	U
Analytical Method: SM4500F G 2017		Analyst: CES							
* Fluoride	4/13/23 10:52	4/13/23 10:52		1	Not Detected	mg/L	0.06	0.125	U
Analytical Method: SM4500SO4 E 2011		Analyst: JCC							
* Sulfate	4/6/23 10:46	4/6/23 10:46		1	Not Detected	mg/L	0.6	2	U

MDL's and RL's are adjusted for sample dilution, as applicable

Comments:

Batch QC Summary

Customer Account: WMWBARAPFB
Sample Date: 4/4/23 09:20
Customer ID:
Delivery Date: 4/5/23 07:36

Description: Barry Ash Pond Field Blank-1

Laboratory ID Number: BD06617

Sample	Analysis	Units	MB	MB				Standard		Rec		Prec	Limit
				Limit	Spike	MS	MSD	Standard	Limit	Rec	Limit		
BD06623	Aluminum, Total	mg/L	0.000464	0.0198	0.100	0.102	0.0992	0.103	0.0850 to 0.115	102	70.0 to 130	2.78	20.0
BD06623	Antimony, Total	mg/L	0.000260	0.00100	0.100	0.0952	0.0937	0.0922	0.0850 to 0.115	95.2	70.0 to 130	1.59	20.0
BD06623	Arsenic, Total	mg/L	0.0000185	0.000200	0.100	0.0990	0.0984	0.101	0.0850 to 0.115	99.0	70.0 to 130	0.608	20.0
BD06623	Barium, Total	mg/L	0.0000235	0.00100	0.100	0.0962	0.0934	0.0935	0.0850 to 0.115	96.2	70.0 to 130	2.95	20.0
BD06623	Beryllium, Total	mg/L	0.0000089	0.000880	0.100	0.0937	0.0937	0.0982	0.0850 to 0.115	93.7	70.0 to 130	0.00	20.0
BD06623	Boron, Total	mg/L	-0.00119	0.0650	1.00	0.992	0.982	0.989	0.850 to 1.15	99.2	70.0 to 130	1.01	20.0
BD06623	Cadmium, Total	mg/L	0.0000000	0.000147	0.100	0.0989	0.0992	0.0971	0.0850 to 0.115	98.9	70.0 to 130	0.303	20.0
BD06623	Calcium, Total	mg/L	0.00187	0.152	5.00	4.77	4.82	4.92	4.25 to 5.75	95.4	70.0 to 130	1.04	20.0
BD06622	Chloride	mg/L	0.0211	1.00	10.0	26.7	26.9	10.3	9.00 to 11.0	87.0	80.0 to 120	0.746	20.0
BD06623	Chromium, Total	mg/L	0.0000577	0.000440	0.100	0.100	0.0988	0.0984	0.0850 to 0.115	100	70.0 to 130	1.21	20.0
BD06623	Cobalt, Total	mg/L	-0.0000008	0.000147	0.100	0.103	0.101	0.101	0.0850 to 0.115	103	70.0 to 130	1.96	20.0
BD06623	Fluoride	mg/L	0.00185	0.125	2.50	2.65	2.62	2.62	2.25 to 2.75	106	80.0 to 120	1.14	20.0
BD06623	Iron, Total	mg/L	-0.000067	0.0176	0.2	0.197	0.193	0.194	0.170 to 0.230	98.5	70.0 to 130	2.05	20.0
BD06623	Lead, Total	mg/L	0.0000100	0.000147	0.100	0.0981	0.0971	0.0990	0.0850 to 0.115	98.1	70.0 to 130	1.02	20.0
BD06623	Lithium, Total	mg/L	0.000883	0.0154	0.200	0.197	0.195	0.191	0.170 to 0.230	98.5	70.0 to 130	1.02	20.0
BD06623	Magnesium, Total	mg/L	-0.00266	0.0462	5.00	4.84	4.81	4.86	4.25 to 5.75	96.8	70.0 to 130	0.622	20.0
BD06623	Manganese, Total	mg/L	0.0000173	0.00033	0.100	0.102	0.100	0.101	0.0850 to 0.115	102	70.0 to 130	1.98	20.0
BD06623	Mercury, Total by CVAA	mg/L	3.000E-05	0.000500	0.005	0.00388	0.00505	0.00409	0.00340 to 0.00460	77.6	70.0 to 130	26.2	20.0
BD06623	Molybdenum, Total	mg/L	0.000	0.0100	0.2	0.199	0.197	0.199	0.170 to 0.230	99.5	70.0 to 130	1.01	20.0
BD06623	Potassium, Total	mg/L	0.0131	0.367	10.0	10.1	9.91	10.0	8.50 to 11.5	101	70.0 to 130	1.90	20.0
BD06623	Selenium, Total	mg/L	0.000122	0.00100	0.100	0.101	0.100	0.103	0.0850 to 0.115	101	70.0 to 130	0.995	20.0
BD06623	Silicon, Total	mg/L	0.00174	0.0440	1.00	0.990	0.979	0.987	0.850 to 1.15	99.0	70.0 to 130	1.12	20.0
BD06623	Sodium, Total	mg/L	0.00274	0.0880	5.00	4.73	4.72	4.66	4.25 to 5.75	94.6	70.0 to 130	0.212	20.0
BD06623	Sulfate	mg/L	0.416	2.0	20.0	21.0	20.5	20.3	18.0 to 22.0	105	80.0 to 120	2.41	20.0

Comments:

Batch QC Summary

Customer Account: WMWBARAPFB

Sample Date: 4/4/23 09:20

Customer ID:

Delivery Date: 4/5/23 07:36

Description: Barry Ash Pond Field Blank-1

Laboratory ID Number: BD06617

Sample	Analysis	Units	MB	MB				Standard		Rec		Prec		
				Limit	Spike	MS	MSD	Standard	Limit	Rec	Limit	Prec	Limit	
BD06623	Thallium, Total	mg/L	0.0000062	0.000147	0.100	0.101	0.101	0.102	0.0850 to 0.115		101	70.0 to 130	0.00	20.0
BD06623	Total Organic Carbon	mg/L	0.0651	1.00	10.0	9.83	9.42	25.6			98.3	80.0 to 120	4.26	20.0

Comments:

Batch QC Summary

Customer Account: WMWBARAPFB

Sample Date: 4/4/23 09:20

Customer ID:

Delivery Date: 4/5/23 07:36

Description: Barry Ash Pond Field Blank-1

Laboratory ID Number: BD06617

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BD06623	Nitrogen, Nitrate/Nitrite	mg/L as N	0.08	0.200	2.00	2.08	0.076	2.11	1.80 to 2.20	104	90.0 to 110	0.00	15.0
BD06620	Solids, Dissolved	mg/L	0.0000	25.0			612	50.0	40.0 to 60.0			0.651	10.0

Comments:

Certificate Of Analysis

Description: Barry Ash Pond - MW-8

Location Code: WMWBARAP
Collected: 4/3/23 09:42
Customer ID:
Submittal Date: 4/5/23 07:36

Laboratory ID Number: BD06618

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q	
Analytical Method: EPA 200.7		Analyst: ABB			Preparation Method: EPA 1638					
* Boron, Total	4/6/23 06:51	4/6/23 12:41		1.015	0.129	mg/L	0.030000	0.1015		
* Calcium, Total	4/6/23 06:51	4/6/23 12:41		1.015	4.21	mg/L	0.070035	0.406		
* Iron, Total	4/6/23 06:51	4/6/23 13:41		10.15	12.4	mg/L	0.08120	0.406		
* Lithium, Total	4/6/23 06:51	4/6/23 12:41		1.015	Not Detected	mg/L	0.007105	0.01999956	U	
* Magnesium, Total	4/6/23 06:51	4/6/23 12:41		1.015	1.54	mg/L	0.021315	0.406		
* Molybdenum, Total	4/6/23 06:51	4/6/23 12:41		1.015	Not Detected	mg/L	0.005075	0.01015	U	
* Silica, Total (calc.)	4/6/23 06:51	4/6/23 12:41		1	13.6	mg/L				
* Silicon, Total	4/6/23 06:51	4/6/23 12:41		1.015	6.36	mg/L	0.02030	0.25375		
* Sodium, Total	4/6/23 06:51	4/6/23 12:41		1.015	18.4	mg/L	0.04060	0.406		
Analytical Method: EPA 200.7		Analyst: ABB			Preparation Method: EPA 1638					
* Boron, Dissolved	4/6/23 09:44	4/7/23 12:11		1.015	0.134	mg/L	0.030000	0.1015		
* Calcium, Dissolved	4/6/23 09:44	4/7/23 12:11		1.015	3.99	mg/L	0.070035	0.406		
* Iron, Dissolved	4/6/23 09:44	4/7/23 13:08		10.15	12.5	mg/L	0.08120	0.406		
* Lithium, Dissolved	4/6/23 09:44	4/7/23 12:11		1.015	Not Detected	mg/L	0.007105	0.01999956	U	
* Magnesium, Dissolved	4/6/23 09:44	4/7/23 12:11		1.015	1.49	mg/L	0.021315	0.406		
* Molybdenum, Dissolved	4/6/23 09:44	4/7/23 12:11		1.015	Not Detected	mg/L	0.005075	0.01015	U	
* Silica, Dissolved (calc.)	4/6/23 09:44	4/7/23 12:11		1	13.7	mg/L				
* Silicon, Dissolved	4/6/23 09:44	4/7/23 12:11		1.015	6.41	mg/L	0.02030	0.25375		
* Sodium, Dissolved	4/6/23 09:44	4/7/23 12:11		1.015	18.5	mg/L	0.04060	0.406		
Analytical Method: EPA 200.8		Analyst: DLJ			Preparation Method: EPA 1638					
* Antimony, Total	4/6/23 06:51	4/7/23 12:40		1.015	Not Detected	mg/L	0.000710	0.001015	U	
* Aluminum, Total	4/6/23 06:51	4/7/23 12:40		1.015	0.0369	mg/L	0.009135	0.05075	J	
* Arsenic, Total	4/6/23 06:51	4/7/23 12:40		1.015	0.00353	mg/L	0.000112	0.000203		
* Barium, Total	4/6/23 06:51	4/7/23 12:40		1.015	0.0223	mg/L	0.000508	0.001015		
* Beryllium, Total	4/6/23 06:51	4/7/23 12:40		1.015	Not Detected	mg/L	0.000406	0.001015	U	
* Cadmium, Total	4/6/23 06:51	4/7/23 12:40		1.015	Not Detected	mg/L	0.000068	0.000203	U	
* Chromium, Total	4/6/23 06:51	4/7/23 12:40		1.015	0.00115	mg/L	0.000203	0.001015		
* Cobalt, Total	4/6/23 06:51	4/7/23 12:40		1.015	0.000153	mg/L	0.000068	0.000203	J	
* Lead, Total	4/6/23 06:51	4/7/23 12:40		1.015	Not Detected	mg/L	0.000068	0.000203	U	
* Manganese, Total	4/6/23 06:51	4/7/23 12:40		1.015	0.211	mg/L	0.000152	0.001015		

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Barry Ash Pond - MW-8

Location Code: WMWBARAP

Collected: 4/3/23 09:42

Customer ID:

Submittal Date: 4/5/23 07:36

Laboratory ID Number: BD06618

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
* Potassium, Total	4/6/23 06:51	4/7/23 12:40		1.015	0.546	mg/L	0.169505	0.5075	
* Selenium, Total	4/6/23 06:51	4/7/23 12:40		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Total	4/6/23 06:51	4/7/23 12:40		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 200.8		Analyst: DLJ							
* Antimony, Dissolved	4/6/23 09:44	4/6/23 12:13		1.015	Not Detected	mg/L	0.000710	0.001015	U
* Aluminum, Dissolved	4/6/23 09:44	4/6/23 12:13		1.015	Not Detected	mg/L	0.009135	0.05075	U
* Arsenic, Dissolved	4/6/23 09:44	4/6/23 12:13		1.015	0.00320	mg/L	0.000112	0.000203	
* Barium, Dissolved	4/6/23 09:44	4/6/23 12:13		1.015	0.0232	mg/L	0.000508	0.001015	
* Beryllium, Dissolved	4/6/23 09:44	4/6/23 12:13		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Dissolved	4/6/23 09:44	4/6/23 12:13		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Dissolved	4/6/23 09:44	4/6/23 12:13		1.015	0.000805	mg/L	0.000203	0.001015	J
* Cobalt, Dissolved	4/6/23 09:44	4/6/23 12:13		1.015	0.000149	mg/L	0.000068	0.000203	J
* Lead, Dissolved	4/6/23 09:44	4/6/23 12:13		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Dissolved	4/6/23 09:44	4/6/23 12:13		1.015	0.211	mg/L	0.000152	0.001015	
* Potassium, Dissolved	4/6/23 09:44	4/6/23 12:13		1.015	0.546	mg/L	0.169505	0.5075	
* Selenium, Dissolved	4/6/23 09:44	4/6/23 12:13		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Dissolved	4/6/23 09:44	4/6/23 12:13		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 245.1		Analyst: CRB							
* Mercury, Total by CVAA	4/11/23 18:35	4/11/23 23:44		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: EPA 353.2		Analyst: SC							
* Nitrogen, Nitrate/Nitrite	4/6/23 09:26	4/6/23 09:26		1	Not Detected	mg/L as N	0.20	0.3	U
Analytical Method: SM 2320 B		Analyst: ALH							
* Alkalinity to pH 4.5	4/14/23 14:44	4/14/23 15:50		1	25.1	mg CaCO3/L		0.10	
Analytical Method: SM 2540C		Analyst: CNJ							
* Solids, Dissolved	4/6/23 10:55	4/7/23 12:30		1	107	mg/L		25	
Analytical Method: SM 4500CO2 D		Analyst: ALH							
* Bicarbonate Alkalinity, (calc.)	4/14/23 14:44	4/14/23 15:50		1	25.1	mg CaCO3/L		1	
* Carbonate Alkalinity, (calc.)	4/14/23 14:44	4/14/23 15:50		1	Not Detected	mg CaCO3/L		0.5	
Analytical Method: SM 5310 B		Analyst: SC							
* Total Organic Carbon	4/5/23 18:58	4/5/23 18:58		1	4.99	mg/L	1.00	2	

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Barry Ash Pond - MW-8

Location Code: WMWBARAP

Collected: 4/3/23 09:42

Customer ID:

Submittal Date: 4/5/23 07:36

Laboratory ID Number: BD06618

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM4500Cl E		Analyst: CES							
* Chloride	4/12/23 11:28	4/12/23 11:28		1	10.8	mg/L	0.50	0.5	
Analytical Method: SM4500F G 2017		Analyst: CES							
* Fluoride	4/13/23 10:53	4/13/23 10:53		1	0.0706	mg/L	0.06	0.125	J
Analytical Method: SM4500SO4 E 2011		Analyst: JCC							
* Sulfate	4/6/23 10:47	4/6/23 10:47		1	32.1	mg/L	0.6	2	
Analytical Method: Field Measurements		Analyst: DKG							
Conductivity	4/3/23 09:39	4/3/23 09:39			154.48	uS/cm			FA
pH	4/3/23 09:39	4/3/23 09:39			6.34	SU			FA
Temperature	4/3/23 09:39	4/3/23 09:39			19.37	C			FA
Turbidity	4/3/23 09:39	4/3/23 09:39			5.38	NTU			FA
Sulfide	4/3/23 09:39	4/3/23 09:39			0	mg/L			FA

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWBARAP
Sample Date: 4/3/23 09:42
Customer ID:
Delivery Date: 4/5/23 07:36

Description: Barry Ash Pond - MW-8

Laboratory ID Number: BD06618

Sample	Analysis	Units	MB	MB				Standard		Rec		Prec	Limit
				Limit	Spike	MS	MSD	Standard	Limit	Rec	Limit		
BD06622	Aluminum, Dissolved	mg/L	-0.000829	0.0198	0.100	0.102	0.102	0.103	0.0850 to 0.115	102	70.0 to 130	0.00	20.0
BD06623	Aluminum, Total	mg/L	0.000464	0.0198	0.100	0.102	0.0992	0.103	0.0850 to 0.115	102	70.0 to 130	2.78	20.0
BD06622	Antimony, Dissolved	mg/L	0.000282	0.00100	0.100	0.106	0.103	0.105	0.0850 to 0.115	106	70.0 to 130	2.87	20.0
BD06623	Antimony, Total	mg/L	0.000260	0.00100	0.100	0.0952	0.0937	0.0922	0.0850 to 0.115	95.2	70.0 to 130	1.59	20.0
BD06622	Arsenic, Dissolved	mg/L	0.0000293	0.000200	0.100	0.127	0.128	0.108	0.0850 to 0.115	110	70.0 to 130	0.784	20.0
BD06623	Arsenic, Total	mg/L	0.0000185	0.000200	0.100	0.0990	0.0984	0.101	0.0850 to 0.115	99.0	70.0 to 130	0.608	20.0
BD06622	Barium, Dissolved	mg/L	0.0000004	0.00100	0.100	0.231	0.234	0.104	0.0850 to 0.115	99.0	70.0 to 130	1.29	20.0
BD06623	Barium, Total	mg/L	0.0000235	0.00100	0.100	0.0962	0.0934	0.0935	0.0850 to 0.115	96.2	70.0 to 130	2.95	20.0
BD06622	Beryllium, Dissolved	mg/L	0.0000122	0.000880	0.100	0.0999	0.0987	0.0962	0.0850 to 0.115	99.9	70.0 to 130	1.21	20.0
BD06623	Beryllium, Total	mg/L	0.0000089	0.000880	0.100	0.0937	0.0937	0.0982	0.0850 to 0.115	93.7	70.0 to 130	0.00	20.0
BD06622	Boron, Dissolved	mg/L	0.000167	0.0650	1.00	2.70	2.69	1.01	0.850 to 1.15	102	70.0 to 130	0.371	20.0
BD06623	Boron, Total	mg/L	-0.00119	0.0650	1.00	0.992	0.982	0.989	0.850 to 1.15	99.2	70.0 to 130	1.01	20.0
BD06622	Cadmium, Dissolved	mg/L	0.0000050	0.000147	0.100	0.103	0.109	0.111	0.0850 to 0.115	103	70.0 to 130	5.66	20.0
BD06623	Cadmium, Total	mg/L	0.0000000	0.000147	0.100	0.0989	0.0992	0.0971	0.0850 to 0.115	98.9	70.0 to 130	0.303	20.0
BD06622	Calcium, Dissolved	mg/L	-0.0141	0.152	5.00	38.0	37.8	4.92	4.25 to 5.75	96.0	70.0 to 130	0.528	20.0
BD06623	Calcium, Total	mg/L	0.00187	0.152	5.00	4.77	4.82	4.92	4.25 to 5.75	95.4	70.0 to 130	1.04	20.0
BD06622	Chloride	mg/L	0.0211	1.00	10.0	26.7	26.9	10.3	9.00 to 11.0	87.0	80.0 to 120	0.746	20.0
BD06622	Chromium, Dissolved	mg/L	-0.0000464	0.000440	0.100	0.105	0.106	0.111	0.0850 to 0.115	104	70.0 to 130	0.948	20.0
BD06623	Chromium, Total	mg/L	0.0000577	0.000440	0.100	0.100	0.0988	0.0984	0.0850 to 0.115	100	70.0 to 130	1.21	20.0
BD06622	Cobalt, Dissolved	mg/L	-0.0000057	0.000147	0.100	0.108	0.107	0.110	0.0850 to 0.115	107	70.0 to 130	0.930	20.0
BD06623	Cobalt, Total	mg/L	-0.0000008	0.000147	0.100	0.103	0.101	0.101	0.0850 to 0.115	103	70.0 to 130	1.96	20.0
BD06623	Fluoride	mg/L	0.00185	0.125	2.50	2.65	2.62	2.62	2.25 to 2.75	106	80.0 to 120	1.14	20.0
BD06622	Iron, Dissolved	mg/L	-0.000107	0.0176	0.2	93.2	93.5	0.202	0.170 to 0.230	100	70.0 to 130	0.321	20.0
BD06623	Iron, Total	mg/L	-0.000067	0.0176	0.2	0.197	0.193	0.194	0.170 to 0.230	98.5	70.0 to 130	2.05	20.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWBARAP
Sample Date: 4/3/23 09:42
Customer ID:
Delivery Date: 4/5/23 07:36

Description: Barry Ash Pond - MW-8

Laboratory ID Number: BD06618

Sample	Analysis	Units	MB		Spike	MS	MSD	Standard		Rec		Prec	Limit
			MB	Limit				Standard	Limit	Rec	Limit		
BD06622	Lead, Dissolved	mg/L	0.0000188	0.000147	0.100	0.0986	0.0971	0.101	0.0850 to 0.115	98.6	70.0 to 130	1.53	20.0
BD06623	Lead, Total	mg/L	0.0000100	0.000147	0.100	0.0981	0.0971	0.0990	0.0850 to 0.115	98.1	70.0 to 130	1.02	20.0
BD06622	Lithium, Dissolved	mg/L	0.000058	0.0154	0.200	0.206	0.207	0.197	0.170 to 0.230	103	70.0 to 130	0.484	20.0
BD06623	Lithium, Total	mg/L	0.000883	0.0154	0.200	0.197	0.195	0.191	0.170 to 0.230	98.5	70.0 to 130	1.02	20.0
BD06622	Magnesium, Dissolved	mg/L	-0.00906	0.0462	5.00	17.0	17.0	4.92	4.25 to 5.75	96.0	70.0 to 130	0.00	20.0
BD06623	Magnesium, Total	mg/L	-0.00266	0.0462	5.00	4.84	4.81	4.86	4.25 to 5.75	96.8	70.0 to 130	0.622	20.0
BD06622	Manganese, Dissolved	mg/L	0.0000223	0.00033	0.100	1.87	1.84	0.102	0.0850 to 0.115	110	70.0 to 130	1.62	20.0
BD06623	Manganese, Total	mg/L	0.0000173	0.00033	0.100	0.102	0.100	0.101	0.0850 to 0.115	102	70.0 to 130	1.98	20.0
BD06623	Mercury, Total by CVAA	mg/L	3.000E-05	0.000500	0.005	0.00388	0.00505	0.00409	0.00340 to 0.00460	77.6	70.0 to 130	26.2	20.0
BD06622	Molybdenum, Dissolved	mg/L	0.000012	0.0100	0.2	0.204	0.203	0.203	0.170 to 0.230	102	70.0 to 130	0.491	20.0
BD06623	Molybdenum, Total	mg/L	0.000	0.0100	0.2	0.199	0.197	0.199	0.170 to 0.230	99.5	70.0 to 130	1.01	20.0
BD06622	Potassium, Dissolved	mg/L	0.0134	0.367	10.0	11.7	11.4	10.4	8.50 to 11.5	99.1	70.0 to 130	2.60	20.0
BD06623	Potassium, Total	mg/L	0.0131	0.367	10.0	10.1	9.91	10.0	8.50 to 11.5	101	70.0 to 130	1.90	20.0
BD06622	Selenium, Dissolved	mg/L	0.0000543	0.00100	0.100	0.112	0.114	0.109	0.0850 to 0.115	112	70.0 to 130	1.77	20.0
BD06623	Selenium, Total	mg/L	0.000122	0.00100	0.100	0.101	0.100	0.103	0.0850 to 0.115	101	70.0 to 130	0.995	20.0
BD06622	Silicon, Dissolved	mg/L	0.000048	0.0440	1.00	10.6	10.6	1.01	0.850 to 1.15	97.0	70.0 to 130	0.00	20.0
BD06623	Silicon, Total	mg/L	0.00174	0.0440	1.00	0.990	0.979	0.987	0.850 to 1.15	99.0	70.0 to 130	1.12	20.0
BD06622	Sodium, Dissolved	mg/L	-0.00120	0.0880	5.00	23.4	23.5	4.73	4.25 to 5.75	90.0	70.0 to 130	0.426	20.0
BD06623	Sodium, Total	mg/L	0.00274	0.0880	5.00	4.73	4.72	4.66	4.25 to 5.75	94.6	70.0 to 130	0.212	20.0
BD06623	Sulfate	mg/L	0.416	2.0	20.0	21.0	20.5	20.3	18.0 to 22.0	105	80.0 to 120	2.41	20.0
BD06622	Thallium, Dissolved	mg/L	0.0000007	0.000147	0.100	0.101	0.101	0.102	0.0850 to 0.115	101	70.0 to 130	0.00	20.0
BD06623	Thallium, Total	mg/L	0.0000062	0.000147	0.100	0.101	0.101	0.102	0.0850 to 0.115	101	70.0 to 130	0.00	20.0
BD06623	Total Organic Carbon	mg/L	0.0651	1.00	10.0	9.83	9.42	25.6		98.3	80.0 to 120	4.26	20.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWBARAP

Sample Date: 4/3/23 09:42

Customer ID:

Delivery Date: 4/5/23 07:36

Description: Barry Ash Pond - MW-8

Laboratory ID Number: BD06618

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Limit	Prec	Limit
BD06618	Alkalinity to pH 4.5	mg CaCO3/L					25.3	50.5	45.0 to 55.0			0.794	10.0
BD06623	Nitrogen, Nitrate/Nitrite	mg/L as N	0.08	0.200	2.00	2.08	0.076	2.11	1.80 to 2.20	104	90.0 to 110	0.00	15.0
BD06620	Solids, Dissolved	mg/L	0.0000	25.0			612	50.0	40.0 to 60.0			0.651	10.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Barry Ash Pond - MW-10

Location Code: WMWBARAP
Collected: 4/3/23 12:42
Customer ID:
Submittal Date: 4/5/23 07:36

Laboratory ID Number: BD06619

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7		Analyst: ABB			Preparation Method: EPA 1638				
* Boron, Total	4/6/23 06:51	4/6/23 12:44		1.015	2.22	mg/L	0.030000	0.1015	
* Calcium, Total	4/6/23 06:51	4/6/23 13:44		101.5	48.8	mg/L	7.0035	40.6	
* Iron, Total	4/6/23 06:51	4/6/23 13:44		101.5	70.7	mg/L	0.8120	4.06	
* Lithium, Total	4/6/23 06:51	4/6/23 12:44		1.015	Not Detected	mg/L	0.007105	0.01999956	U
* Magnesium, Total	4/6/23 06:51	4/6/23 12:44		1.015	14.4	mg/L	0.021315	0.406	
* Molybdenum, Total	4/6/23 06:51	4/6/23 12:44		1.015	Not Detected	mg/L	0.005075	0.01015	U
* Silica, Total (calc.)	4/6/23 06:51	4/6/23 12:44		1	25.0	mg/L			
* Silicon, Total	4/6/23 06:51	4/6/23 12:44		1.015	11.7	mg/L	0.02030	0.25375	
* Sodium, Total	4/6/23 06:51	4/6/23 12:44		1.015	23.6	mg/L	0.04060	0.406	
Analytical Method: EPA 200.7		Analyst: ABB							
* Boron, Dissolved	4/6/23 09:44	4/7/23 12:14		1.015	2.23	mg/L	0.030000	0.1015	
* Calcium, Dissolved	4/6/23 09:44	4/7/23 13:11		101.5	46.2	mg/L	7.0035	40.6	
* Iron, Dissolved	4/6/23 09:44	4/7/23 13:11		101.5	72.5	mg/L	0.8120	4.06	
* Lithium, Dissolved	4/6/23 09:44	4/7/23 12:14		1.015	Not Detected	mg/L	0.007105	0.01999956	U
* Magnesium, Dissolved	4/6/23 09:44	4/7/23 12:14		1.015	14.8	mg/L	0.021315	0.406	
* Molybdenum, Dissolved	4/6/23 09:44	4/7/23 12:14		1.015	Not Detected	mg/L	0.005075	0.01015	U
* Silica, Dissolved (calc.)	4/6/23 09:44	4/7/23 12:14		1	25.0	mg/L			
* Silicon, Dissolved	4/6/23 09:44	4/7/23 12:14		1.015	11.7	mg/L	0.02030	0.25375	
* Sodium, Dissolved	4/6/23 09:44	4/7/23 12:14		1.015	23.9	mg/L	0.04060	0.406	
Analytical Method: EPA 200.8		Analyst: DLJ			Preparation Method: EPA 1638				
* Antimony, Total	4/6/23 06:51	4/7/23 12:43		1.015	Not Detected	mg/L	0.000710	0.001015	U
* Aluminum, Total	4/6/23 06:51	4/7/23 12:43		1.015	Not Detected	mg/L	0.009135	0.05075	U
* Arsenic, Total	4/6/23 06:51	4/7/23 12:43		1.015	0.0561	mg/L	0.000112	0.000203	
* Barium, Total	4/6/23 06:51	4/7/23 12:43		1.015	0.0628	mg/L	0.000508	0.001015	
* Beryllium, Total	4/6/23 06:51	4/7/23 12:43		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Total	4/6/23 06:51	4/7/23 12:43		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Total	4/6/23 06:51	4/7/23 12:43		1.015	0.000660	mg/L	0.000203	0.001015	J
* Cobalt, Total	4/6/23 06:51	4/7/23 12:43		1.015	0.000622	mg/L	0.000068	0.000203	
* Lead, Total	4/6/23 06:51	4/7/23 12:43		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Total	4/6/23 06:51	4/7/23 12:43		1.015	1.18	mg/L	0.000152	0.001015	

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Barry Ash Pond - MW-10

Location Code: WMWBARAP
Collected: 4/3/23 12:42
Customer ID:
Submittal Date: 4/5/23 07:36

Laboratory ID Number: BD06619

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
* Potassium, Total	4/6/23 06:51	4/7/23 12:43		1.015	1.70	mg/L	0.169505	0.5075	
* Selenium, Total	4/6/23 06:51	4/7/23 12:43		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Total	4/6/23 06:51	4/7/23 12:43		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 200.8		Analyst: DLJ							
* Antimony, Dissolved	4/6/23 09:44	4/6/23 12:17		1.015	Not Detected	mg/L	0.000710	0.001015	U
* Aluminum, Dissolved	4/6/23 09:44	4/6/23 12:17		1.015	Not Detected	mg/L	0.009135	0.05075	U
* Arsenic, Dissolved	4/6/23 09:44	4/6/23 12:17		1.015	0.0647	mg/L	0.000112	0.000203	
* Barium, Dissolved	4/6/23 09:44	4/6/23 12:17		1.015	0.0684	mg/L	0.000508	0.001015	
* Beryllium, Dissolved	4/6/23 09:44	4/6/23 12:17		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Dissolved	4/6/23 09:44	4/6/23 12:17		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Dissolved	4/6/23 09:44	4/6/23 12:17		1.015	0.000727	mg/L	0.000203	0.001015	J
* Cobalt, Dissolved	4/6/23 09:44	4/6/23 12:17		1.015	0.000699	mg/L	0.000068	0.000203	
* Lead, Dissolved	4/6/23 09:44	4/6/23 12:17		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Dissolved	4/6/23 09:44	4/6/23 12:17		1.015	1.21	mg/L	0.000152	0.001015	
* Potassium, Dissolved	4/6/23 09:44	4/6/23 12:17		1.015	1.79	mg/L	0.169505	0.5075	
* Selenium, Dissolved	4/6/23 09:44	4/6/23 12:17		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Dissolved	4/6/23 09:44	4/6/23 12:17		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 245.1		Analyst: CRB							
* Mercury, Total by CVAA	4/11/23 18:35	4/11/23 23:48		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: EPA 353.2		Analyst: SC							
* Nitrogen, Nitrate/Nitrite	4/6/23 09:28	4/6/23 09:28		1	0.230	mg/L as N	0.20	0.3	J
Analytical Method: SM 2320 B		Analyst: ALH							
* Alkalinity to pH 4.5	4/17/23 10:54	4/17/23 12:30		1	234	mg CaCO3/L		0.10	
Analytical Method: SM 2540C		Analyst: CNJ							
* Solids, Dissolved	4/6/23 10:55	4/7/23 12:30		1	370	mg/L		25	
Analytical Method: SM 4500CO2 D		Analyst: ALH							
* Bicarbonate Alkalinity, (calc.)	4/17/23 10:54	4/17/23 12:30		1	234	mg CaCO3/L		1	
* Carbonate Alkalinity, (calc.)	4/17/23 10:54	4/17/23 12:30		1	Not Detected	mg CaCO3/L		0.5	
Analytical Method: SM 5310 B		Analyst: SC							
* Total Organic Carbon	4/5/23 19:12	4/5/23 19:12		1	11.4	mg/L	1.00	2	

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Barry Ash Pond - MW-10

Location Code: WMWBARAP
Collected: 4/3/23 12:42
Customer ID:
Submittal Date: 4/5/23 07:36

Laboratory ID Number: BD06619

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM4500Cl E		Analyst: CES							
* Chloride	4/12/23 11:42	4/12/23 11:42		4	29.7	mg/L	2.00	2	
Analytical Method: SM4500F G 2017		Analyst: CES							
* Fluoride	4/13/23 10:55	4/13/23 10:55		1	Not Detected	mg/L	0.06	0.125	U
Analytical Method: SM4500SO4 E 2011		Analyst: JCC							
* Sulfate	4/6/23 10:48	4/6/23 10:48		1	15.0	mg/L	0.6	2	
Analytical Method: Field Measurements		Analyst: DKG							
Conductivity	4/3/23 12:39	4/3/23 12:39			644.19	uS/cm			FA
pH	4/3/23 12:39	4/3/23 12:39			6.05	SU			FA
Temperature	4/3/23 12:39	4/3/23 12:39			21.82	C			FA
Turbidity	4/3/23 12:39	4/3/23 12:39			2.92	NTU			FA
Sulfide	4/3/23 12:39	4/3/23 12:39			0	mg/L			FA

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWBARAP

Sample Date: 4/3/23 12:42

Customer ID:

Delivery Date: 4/5/23 07:36

Description: Barry Ash Pond - MW-10

Laboratory ID Number: BD06619

Sample	Analysis	Units	MB	MB		Spike	MS	MSD	Standard		Rec		Prec	Limit
				Limit					Standard	Limit	Rec	Limit		
BD06622	Aluminum, Dissolved	mg/L	-0.000829	0.0198	0.100	0.102	0.102	0.103	0.0850 to 0.115	102	70.0 to 130	0.00	20.0	
BD06623	Aluminum, Total	mg/L	0.000464	0.0198	0.100	0.102	0.0992	0.103	0.0850 to 0.115	102	70.0 to 130	2.78	20.0	
BD06622	Antimony, Dissolved	mg/L	0.000282	0.00100	0.100	0.106	0.103	0.105	0.0850 to 0.115	106	70.0 to 130	2.87	20.0	
BD06623	Antimony, Total	mg/L	0.000260	0.00100	0.100	0.0952	0.0937	0.0922	0.0850 to 0.115	95.2	70.0 to 130	1.59	20.0	
BD06622	Arsenic, Dissolved	mg/L	0.000293	0.000200	0.100	0.127	0.128	0.108	0.0850 to 0.115	110	70.0 to 130	0.784	20.0	
BD06623	Arsenic, Total	mg/L	0.000185	0.000200	0.100	0.0990	0.0984	0.101	0.0850 to 0.115	99.0	70.0 to 130	0.608	20.0	
BD06622	Barium, Dissolved	mg/L	0.000004	0.00100	0.100	0.231	0.234	0.104	0.0850 to 0.115	99.0	70.0 to 130	1.29	20.0	
BD06623	Barium, Total	mg/L	0.0000235	0.00100	0.100	0.0962	0.0934	0.0935	0.0850 to 0.115	96.2	70.0 to 130	2.95	20.0	
BD06622	Beryllium, Dissolved	mg/L	0.0000122	0.000880	0.100	0.0999	0.0987	0.0962	0.0850 to 0.115	99.9	70.0 to 130	1.21	20.0	
BD06623	Beryllium, Total	mg/L	0.0000089	0.000880	0.100	0.0937	0.0937	0.0982	0.0850 to 0.115	93.7	70.0 to 130	0.00	20.0	
BD06622	Boron, Dissolved	mg/L	0.000167	0.0650	1.00	2.70	2.69	1.01	0.850 to 1.15	102	70.0 to 130	0.371	20.0	
BD06623	Boron, Total	mg/L	-0.00119	0.0650	1.00	0.992	0.982	0.989	0.850 to 1.15	99.2	70.0 to 130	1.01	20.0	
BD06622	Cadmium, Dissolved	mg/L	0.0000050	0.000147	0.100	0.103	0.109	0.111	0.0850 to 0.115	103	70.0 to 130	5.66	20.0	
BD06623	Cadmium, Total	mg/L	0.0000000	0.000147	0.100	0.0989	0.0992	0.0971	0.0850 to 0.115	98.9	70.0 to 130	0.303	20.0	
BD06622	Calcium, Dissolved	mg/L	-0.0141	0.152	5.00	38.0	37.8	4.92	4.25 to 5.75	96.0	70.0 to 130	0.528	20.0	
BD06623	Calcium, Total	mg/L	0.00187	0.152	5.00	4.77	4.82	4.92	4.25 to 5.75	95.4	70.0 to 130	1.04	20.0	
BD06622	Chloride	mg/L	0.0211	1.00	10.0	26.7	26.9	10.3	9.00 to 11.0	87.0	80.0 to 120	0.746	20.0	
BD06622	Chromium, Dissolved	mg/L	-0.0000464	0.000440	0.100	0.105	0.106	0.111	0.0850 to 0.115	104	70.0 to 130	0.948	20.0	
BD06623	Chromium, Total	mg/L	0.0000577	0.000440	0.100	0.100	0.0988	0.0984	0.0850 to 0.115	100	70.0 to 130	1.21	20.0	
BD06622	Cobalt, Dissolved	mg/L	-0.0000057	0.000147	0.100	0.108	0.107	0.110	0.0850 to 0.115	107	70.0 to 130	0.930	20.0	
BD06623	Cobalt, Total	mg/L	-0.0000008	0.000147	0.100	0.103	0.101	0.101	0.0850 to 0.115	103	70.0 to 130	1.96	20.0	
BD06623	Fluoride	mg/L	0.00185	0.125	2.50	2.65	2.62	2.62	2.25 to 2.75	106	80.0 to 120	1.14	20.0	
BD06622	Iron, Dissolved	mg/L	-0.000107	0.0176	0.2	93.2	93.5	0.202	0.170 to 0.230	100	70.0 to 130	0.321	20.0	
BD06623	Iron, Total	mg/L	-0.000067	0.0176	0.2	0.197	0.193	0.194	0.170 to 0.230	98.5	70.0 to 130	2.05	20.0	

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWBARAP

Sample Date: 4/3/23 12:42

Customer ID:

Delivery Date: 4/5/23 07:36

Description: Barry Ash Pond - MW-10

Laboratory ID Number: BD06619

Sample	Analysis	Units	MB		Spike	MS	MSD	Standard		Rec		Prec	Limit
			MB	Limit				Standard	Limit	Rec	Limit		
BD06622	Lead, Dissolved	mg/L	0.0000188	0.000147	0.100	0.0986	0.0971	0.101	0.0850 to 0.115	98.6	70.0 to 130	1.53	20.0
BD06623	Lead, Total	mg/L	0.0000100	0.000147	0.100	0.0981	0.0971	0.0990	0.0850 to 0.115	98.1	70.0 to 130	1.02	20.0
BD06622	Lithium, Dissolved	mg/L	0.000058	0.0154	0.200	0.206	0.207	0.197	0.170 to 0.230	103	70.0 to 130	0.484	20.0
BD06623	Lithium, Total	mg/L	0.000883	0.0154	0.200	0.197	0.195	0.191	0.170 to 0.230	98.5	70.0 to 130	1.02	20.0
BD06622	Magnesium, Dissolved	mg/L	-0.00906	0.0462	5.00	17.0	17.0	4.92	4.25 to 5.75	96.0	70.0 to 130	0.00	20.0
BD06623	Magnesium, Total	mg/L	-0.00266	0.0462	5.00	4.84	4.81	4.86	4.25 to 5.75	96.8	70.0 to 130	0.622	20.0
BD06622	Manganese, Dissolved	mg/L	0.0000223	0.00033	0.100	1.87	1.84	0.102	0.0850 to 0.115	110	70.0 to 130	1.62	20.0
BD06623	Manganese, Total	mg/L	0.0000173	0.00033	0.100	0.102	0.100	0.101	0.0850 to 0.115	102	70.0 to 130	1.98	20.0
BD06623	Mercury, Total by CVAA	mg/L	3.000E-05	0.000500	0.005	0.00388	0.00505	0.00409	0.00340 to 0.00460	77.6	70.0 to 130	26.2	20.0
BD06622	Molybdenum, Dissolved	mg/L	0.000012	0.0100	0.2	0.204	0.203	0.203	0.170 to 0.230	102	70.0 to 130	0.491	20.0
BD06623	Molybdenum, Total	mg/L	0.000	0.0100	0.2	0.199	0.197	0.199	0.170 to 0.230	99.5	70.0 to 130	1.01	20.0
BD06622	Potassium, Dissolved	mg/L	0.0134	0.367	10.0	11.7	11.4	10.4	8.50 to 11.5	99.1	70.0 to 130	2.60	20.0
BD06623	Potassium, Total	mg/L	0.0131	0.367	10.0	10.1	9.91	10.0	8.50 to 11.5	101	70.0 to 130	1.90	20.0
BD06622	Selenium, Dissolved	mg/L	0.0000543	0.00100	0.100	0.112	0.114	0.109	0.0850 to 0.115	112	70.0 to 130	1.77	20.0
BD06623	Selenium, Total	mg/L	0.000122	0.00100	0.100	0.101	0.100	0.103	0.0850 to 0.115	101	70.0 to 130	0.995	20.0
BD06622	Silicon, Dissolved	mg/L	0.000048	0.0440	1.00	10.6	10.6	1.01	0.850 to 1.15	97.0	70.0 to 130	0.00	20.0
BD06623	Silicon, Total	mg/L	0.00174	0.0440	1.00	0.990	0.979	0.987	0.850 to 1.15	99.0	70.0 to 130	1.12	20.0
BD06622	Sodium, Dissolved	mg/L	-0.00120	0.0880	5.00	23.4	23.5	4.73	4.25 to 5.75	90.0	70.0 to 130	0.426	20.0
BD06623	Sodium, Total	mg/L	0.00274	0.0880	5.00	4.73	4.72	4.66	4.25 to 5.75	94.6	70.0 to 130	0.212	20.0
BD06623	Sulfate	mg/L	0.416	2.0	20.0	21.0	20.5	20.3	18.0 to 22.0	105	80.0 to 120	2.41	20.0
BD06622	Thallium, Dissolved	mg/L	0.0000007	0.000147	0.100	0.101	0.101	0.102	0.0850 to 0.115	101	70.0 to 130	0.00	20.0
BD06623	Thallium, Total	mg/L	0.0000062	0.000147	0.100	0.101	0.101	0.102	0.0850 to 0.115	101	70.0 to 130	0.00	20.0
BD06623	Total Organic Carbon	mg/L	0.0651	1.00	10.0	9.83	9.42	25.6		98.3	80.0 to 120	4.26	20.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWBARAP

Sample Date: 4/3/23 12:42

Customer ID:

Delivery Date: 4/5/23 07:36

Description: Barry Ash Pond - MW-10

Laboratory ID Number: BD06619

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BD06780	Alkalinity to pH 4.5	mg CaCO3/L					147	50.5	45.0 to 55.0			0.678	10.0
BD06623	Nitrogen, Nitrate/Nitrite	mg/L as N	0.08	0.200	2.00	2.08	0.076	2.11	1.80 to 2.20	104	90.0 to 110	0.00	15.0
BD06620	Solids, Dissolved	mg/L	0.0000	25.0			612	50.0	40.0 to 60.0			0.651	10.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Barry Ash Pond - MW-8V

Location Code: WMWBARAP
Collected: 4/3/23 15:40
Customer ID:
Submittal Date: 4/5/23 07:36

Laboratory ID Number: BD06620

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7			Analyst: ABB			Preparation Method: EPA 1638			
* Boron, Total	4/6/23 06:51	4/6/23 12:47		1.015	0.245	mg/L	0.030000	0.1015	
* Calcium, Total	4/6/23 06:51	4/6/23 12:47		1.015	8.95	mg/L	0.070035	0.406	
* Iron, Total	4/6/23 06:51	4/6/23 13:47		10.15	12.9	mg/L	0.08120	0.406	
* Lithium, Total	4/6/23 06:51	4/6/23 12:47		1.015	0.00904	mg/L	0.007105	0.01999956	J
* Magnesium, Total	4/6/23 06:51	4/6/23 12:47		1.015	5.17	mg/L	0.021315	0.406	
* Molybdenum, Total	4/6/23 06:51	4/6/23 12:47		1.015	Not Detected	mg/L	0.005075	0.01015	U
* Silica, Total (calc.)	4/6/23 06:51	4/6/23 12:47		1	18.0	mg/L			
* Silicon, Total	4/6/23 06:51	4/6/23 12:47		1.015	8.39	mg/L	0.02030	0.25375	
* Sodium, Total	4/6/23 06:51	4/6/23 13:47		10.15	215	mg/L	0.4060	4.06	
Analytical Method: EPA 200.7			Analyst: ABB						
* Boron, Dissolved	4/6/23 09:44	4/7/23 12:17		1.015	0.249	mg/L	0.030000	0.1015	
* Calcium, Dissolved	4/6/23 09:44	4/7/23 12:17		1.015	7.52	mg/L	0.070035	0.406	
* Iron, Dissolved	4/6/23 09:44	4/7/23 13:14		10.15	13.6	mg/L	0.08120	0.406	
* Lithium, Dissolved	4/6/23 09:44	4/7/23 12:17		1.015	0.00830	mg/L	0.007105	0.01999956	J
* Magnesium, Dissolved	4/6/23 09:44	4/7/23 12:17		1.015	4.59	mg/L	0.021315	0.406	
* Molybdenum, Dissolved	4/6/23 09:44	4/7/23 12:17		1.015	Not Detected	mg/L	0.005075	0.01015	U
* Silica, Dissolved (calc.)	4/6/23 09:44	4/7/23 12:17		1	17.6	mg/L			
* Silicon, Dissolved	4/6/23 09:44	4/7/23 12:17		1.015	8.24	mg/L	0.02030	0.25375	
* Sodium, Dissolved	4/6/23 09:44	4/7/23 13:14		10.15	225	mg/L	0.4060	4.06	
Analytical Method: EPA 200.8			Analyst: DLJ			Preparation Method: EPA 1638			
* Antimony, Total	4/6/23 06:51	4/7/23 12:47		1.015	Not Detected	mg/L	0.000710	0.001015	U
* Aluminum, Total	4/6/23 06:51	4/7/23 12:47		1.015	0.127	mg/L	0.009135	0.05075	
* Arsenic, Total	4/6/23 06:51	4/7/23 12:47		1.015	0.000552	mg/L	0.000112	0.000203	
* Barium, Total	4/6/23 06:51	4/7/23 12:47		1.015	0.139	mg/L	0.000508	0.001015	
* Beryllium, Total	4/6/23 06:51	4/7/23 12:47		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Total	4/6/23 06:51	4/7/23 12:47		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Total	4/6/23 06:51	4/7/23 12:47		1.015	0.000809	mg/L	0.000203	0.001015	J
* Cobalt, Total	4/6/23 06:51	4/7/23 12:47		1.015	0.000362	mg/L	0.000068	0.000203	
* Lead, Total	4/6/23 06:51	4/7/23 12:47		1.015	0.000158	mg/L	0.000068	0.000203	J
* Manganese, Total	4/6/23 06:51	4/7/23 12:47		1.015	0.176	mg/L	0.000152	0.001015	

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Barry Ash Pond - MW-8V

Location Code: WMWBARAP

Collected: 4/3/23 15:40

Customer ID:

Submittal Date: 4/5/23 07:36

Laboratory ID Number: BD06620

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
* Potassium, Total	4/6/23 06:51	4/7/23 12:47		1.015	3.24	mg/L	0.169505	0.5075	
* Selenium, Total	4/6/23 06:51	4/7/23 12:47		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Total	4/6/23 06:51	4/7/23 12:47		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 200.8		Analyst: DLJ							
* Antimony, Dissolved	4/6/23 09:44	4/6/23 12:20		1.015	Not Detected	mg/L	0.000710	0.001015	U
* Aluminum, Dissolved	4/6/23 09:44	4/6/23 12:20		1.015	Not Detected	mg/L	0.009135	0.05075	U
* Arsenic, Dissolved	4/6/23 09:44	4/6/23 12:20		1.015	0.000444	mg/L	0.000112	0.000203	
* Barium, Dissolved	4/6/23 09:44	4/6/23 12:20		1.015	0.151	mg/L	0.000508	0.001015	
* Beryllium, Dissolved	4/6/23 09:44	4/6/23 12:20		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Dissolved	4/6/23 09:44	4/6/23 12:20		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Dissolved	4/6/23 09:44	4/6/23 12:20		1.015	0.000369	mg/L	0.000203	0.001015	J
* Cobalt, Dissolved	4/6/23 09:44	4/6/23 12:20		1.015	0.000226	mg/L	0.000068	0.000203	
* Lead, Dissolved	4/6/23 09:44	4/6/23 12:20		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Dissolved	4/6/23 09:44	4/6/23 12:20		1.015	0.176	mg/L	0.000152	0.001015	
* Potassium, Dissolved	4/6/23 09:44	4/6/23 12:20		1.015	3.39	mg/L	0.169505	0.5075	
* Selenium, Dissolved	4/6/23 09:44	4/6/23 12:20		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Dissolved	4/6/23 09:44	4/6/23 12:20		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 245.1		Analyst: CRB							
* Mercury, Total by CVAA	4/11/23 18:35	4/11/23 23:52		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: EPA 353.2		Analyst: SC							
* Nitrogen, Nitrate/Nitrite	4/6/23 09:30	4/6/23 09:30		1	Not Detected	mg/L as N	0.20	0.3	U
Analytical Method: SM 2320 B		Analyst: ALH							
* Alkalinity to pH 4.5	4/17/23 10:54	4/17/23 12:30		1	149	mg CaCO3/L		0.10	
Analytical Method: SM 2540C		Analyst: CNJ							
* Solids, Dissolved	4/6/23 10:55	4/7/23 12:30		1	616	mg/L		50	
Analytical Method: SM 4500CO2 D		Analyst: ALH							
* Bicarbonate Alkalinity, (calc.)	4/17/23 10:54	4/17/23 12:30		1	149	mg CaCO3/L		1	A
* Carbonate Alkalinity, (calc.)	4/17/23 10:54	4/17/23 12:30		1	Not Detected	mg CaCO3/L		0.5	A
Analytical Method: SM 5310 B		Analyst: SC							
* Total Organic Carbon	4/5/23 19:29	4/5/23 19:29		1	7.04	mg/L	1.00	2	

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Barry Ash Pond - MW-8V

Location Code: WMWBARAP

Collected: 4/3/23 15:40

Customer ID:

Submittal Date: 4/5/23 07:36

Laboratory ID Number: BD06620

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM4500Cl E		Analyst: CES							
* Chloride	4/12/23 11:40	4/12/23 11:40		20	279	mg/L	10.00	10	
Analytical Method: SM4500F G 2017		Analyst: CES							
* Fluoride	4/13/23 10:56	4/13/23 10:56		1	0.212	mg/L	0.06	0.125	
Analytical Method: SM4500SO4 E 2011		Analyst: JCC							
* Sulfate	4/6/23 10:49	4/6/23 10:49		1	21.7	mg/L	0.6	2	
Analytical Method: Field Measurements		Analyst: DKG							
Conductivity	4/3/23 15:37	4/3/23 15:37			1142.75	uS/cm			FA
pH	4/3/23 15:37	4/3/23 15:37			6.50	SU			FA
Temperature	4/3/23 15:37	4/3/23 15:37			21.45	C			FA
Turbidity	4/3/23 15:37	4/3/23 15:37			5.17	NTU			FA
Sulfide	4/3/23 15:37	4/3/23 15:37			0	mg/L			FA

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWBARAP
Sample Date: 4/3/23 15:40
Customer ID:
Delivery Date: 4/5/23 07:36

Description: Barry Ash Pond - MW-8V

Laboratory ID Number: BD06620

Sample	Analysis	Units	MB	MB				Standard		Rec		Prec	Limit
				Limit	Spike	MS	MSD	Standard	Limit	Rec	Limit		
BD06622	Aluminum, Dissolved	mg/L	-0.000829	0.0198	0.100	0.102	0.102	0.103	0.0850 to 0.115	102	70.0 to 130	0.00	20.0
BD06623	Aluminum, Total	mg/L	0.000464	0.0198	0.100	0.102	0.0992	0.103	0.0850 to 0.115	102	70.0 to 130	2.78	20.0
BD06622	Antimony, Dissolved	mg/L	0.000282	0.00100	0.100	0.106	0.103	0.105	0.0850 to 0.115	106	70.0 to 130	2.87	20.0
BD06623	Antimony, Total	mg/L	0.000260	0.00100	0.100	0.0952	0.0937	0.0922	0.0850 to 0.115	95.2	70.0 to 130	1.59	20.0
BD06622	Arsenic, Dissolved	mg/L	0.000293	0.000200	0.100	0.127	0.128	0.108	0.0850 to 0.115	110	70.0 to 130	0.784	20.0
BD06623	Arsenic, Total	mg/L	0.000185	0.000200	0.100	0.0990	0.0984	0.101	0.0850 to 0.115	99.0	70.0 to 130	0.608	20.0
BD06622	Barium, Dissolved	mg/L	0.0000004	0.00100	0.100	0.231	0.234	0.104	0.0850 to 0.115	99.0	70.0 to 130	1.29	20.0
BD06623	Barium, Total	mg/L	0.0000235	0.00100	0.100	0.0962	0.0934	0.0935	0.0850 to 0.115	96.2	70.0 to 130	2.95	20.0
BD06622	Beryllium, Dissolved	mg/L	0.0000122	0.000880	0.100	0.0999	0.0987	0.0962	0.0850 to 0.115	99.9	70.0 to 130	1.21	20.0
BD06623	Beryllium, Total	mg/L	0.0000089	0.000880	0.100	0.0937	0.0937	0.0982	0.0850 to 0.115	93.7	70.0 to 130	0.00	20.0
BD06622	Boron, Dissolved	mg/L	0.000167	0.0650	1.00	2.70	2.69	1.01	0.850 to 1.15	102	70.0 to 130	0.371	20.0
BD06623	Boron, Total	mg/L	-0.00119	0.0650	1.00	0.992	0.982	0.989	0.850 to 1.15	99.2	70.0 to 130	1.01	20.0
BD06622	Cadmium, Dissolved	mg/L	0.0000050	0.000147	0.100	0.103	0.109	0.111	0.0850 to 0.115	103	70.0 to 130	5.66	20.0
BD06623	Cadmium, Total	mg/L	0.0000000	0.000147	0.100	0.0989	0.0992	0.0971	0.0850 to 0.115	98.9	70.0 to 130	0.303	20.0
BD06622	Calcium, Dissolved	mg/L	-0.0141	0.152	5.00	38.0	37.8	4.92	4.25 to 5.75	96.0	70.0 to 130	0.528	20.0
BD06623	Calcium, Total	mg/L	0.00187	0.152	5.00	4.77	4.82	4.92	4.25 to 5.75	95.4	70.0 to 130	1.04	20.0
BD06622	Chloride	mg/L	0.0211	1.00	10.0	26.7	26.9	10.3	9.00 to 11.0	87.0	80.0 to 120	0.746	20.0
BD06622	Chromium, Dissolved	mg/L	-0.0000464	0.000440	0.100	0.105	0.106	0.111	0.0850 to 0.115	104	70.0 to 130	0.948	20.0
BD06623	Chromium, Total	mg/L	0.0000577	0.000440	0.100	0.100	0.0988	0.0984	0.0850 to 0.115	100	70.0 to 130	1.21	20.0
BD06622	Cobalt, Dissolved	mg/L	-0.0000057	0.000147	0.100	0.108	0.107	0.110	0.0850 to 0.115	107	70.0 to 130	0.930	20.0
BD06623	Cobalt, Total	mg/L	-0.0000008	0.000147	0.100	0.103	0.101	0.101	0.0850 to 0.115	103	70.0 to 130	1.96	20.0
BD06623	Fluoride	mg/L	0.00185	0.125	2.50	2.65	2.62	2.62	2.25 to 2.75	106	80.0 to 120	1.14	20.0
BD06622	Iron, Dissolved	mg/L	-0.000107	0.0176	0.2	93.2	93.5	0.202	0.170 to 0.230	100	70.0 to 130	0.321	20.0
BD06623	Iron, Total	mg/L	-0.000067	0.0176	0.2	0.197	0.193	0.194	0.170 to 0.230	98.5	70.0 to 130	2.05	20.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWBARAP
Sample Date: 4/3/23 15:40
Customer ID:
Delivery Date: 4/5/23 07:36

Description: Barry Ash Pond - MW-8V

Laboratory ID Number: BD06620

Sample	Analysis	Units	MB		Spike	MS	MSD	Standard		Rec		Prec	Limit
			MB	Limit				Standard	Limit	Rec	Limit		
BD06622	Lead, Dissolved	mg/L	0.0000188	0.000147	0.100	0.0986	0.0971	0.101	0.0850 to 0.115	98.6	70.0 to 130	1.53	20.0
BD06623	Lead, Total	mg/L	0.0000100	0.000147	0.100	0.0981	0.0971	0.0990	0.0850 to 0.115	98.1	70.0 to 130	1.02	20.0
BD06622	Lithium, Dissolved	mg/L	0.000058	0.0154	0.200	0.206	0.207	0.197	0.170 to 0.230	103	70.0 to 130	0.484	20.0
BD06623	Lithium, Total	mg/L	0.000883	0.0154	0.200	0.197	0.195	0.191	0.170 to 0.230	98.5	70.0 to 130	1.02	20.0
BD06622	Magnesium, Dissolved	mg/L	-0.00906	0.0462	5.00	17.0	17.0	4.92	4.25 to 5.75	96.0	70.0 to 130	0.00	20.0
BD06623	Magnesium, Total	mg/L	-0.00266	0.0462	5.00	4.84	4.81	4.86	4.25 to 5.75	96.8	70.0 to 130	0.622	20.0
BD06622	Manganese, Dissolved	mg/L	0.0000223	0.00033	0.100	1.87	1.84	0.102	0.0850 to 0.115	110	70.0 to 130	1.62	20.0
BD06623	Manganese, Total	mg/L	0.0000173	0.00033	0.100	0.102	0.100	0.101	0.0850 to 0.115	102	70.0 to 130	1.98	20.0
BD06623	Mercury, Total by CVAA	mg/L	3.000E-05	0.000500	0.005	0.00388	0.00505	0.00409	0.00340 to 0.00460	77.6	70.0 to 130	26.2	20.0
BD06622	Molybdenum, Dissolved	mg/L	0.000012	0.0100	0.2	0.204	0.203	0.203	0.170 to 0.230	102	70.0 to 130	0.491	20.0
BD06623	Molybdenum, Total	mg/L	0.000	0.0100	0.2	0.199	0.197	0.199	0.170 to 0.230	99.5	70.0 to 130	1.01	20.0
BD06622	Potassium, Dissolved	mg/L	0.0134	0.367	10.0	11.7	11.4	10.4	8.50 to 11.5	99.1	70.0 to 130	2.60	20.0
BD06623	Potassium, Total	mg/L	0.0131	0.367	10.0	10.1	9.91	10.0	8.50 to 11.5	101	70.0 to 130	1.90	20.0
BD06622	Selenium, Dissolved	mg/L	0.0000543	0.00100	0.100	0.112	0.114	0.109	0.0850 to 0.115	112	70.0 to 130	1.77	20.0
BD06623	Selenium, Total	mg/L	0.000122	0.00100	0.100	0.101	0.100	0.103	0.0850 to 0.115	101	70.0 to 130	0.995	20.0
BD06622	Silicon, Dissolved	mg/L	0.000048	0.0440	1.00	10.6	10.6	1.01	0.850 to 1.15	97.0	70.0 to 130	0.00	20.0
BD06623	Silicon, Total	mg/L	0.00174	0.0440	1.00	0.990	0.979	0.987	0.850 to 1.15	99.0	70.0 to 130	1.12	20.0
BD06622	Sodium, Dissolved	mg/L	-0.00120	0.0880	5.00	23.4	23.5	4.73	4.25 to 5.75	90.0	70.0 to 130	0.426	20.0
BD06623	Sodium, Total	mg/L	0.00274	0.0880	5.00	4.73	4.72	4.66	4.25 to 5.75	94.6	70.0 to 130	0.212	20.0
BD06623	Sulfate	mg/L	0.416	2.0	20.0	21.0	20.5	20.3	18.0 to 22.0	105	80.0 to 120	2.41	20.0
BD06622	Thallium, Dissolved	mg/L	0.0000007	0.000147	0.100	0.101	0.101	0.102	0.0850 to 0.115	101	70.0 to 130	0.00	20.0
BD06623	Thallium, Total	mg/L	0.0000062	0.000147	0.100	0.101	0.101	0.102	0.0850 to 0.115	101	70.0 to 130	0.00	20.0
BD06623	Total Organic Carbon	mg/L	0.0651	1.00	10.0	9.83	9.42	25.6		98.3	80.0 to 120	4.26	20.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWBARAP

Sample Date: 4/3/23 15:40

Customer ID:

Delivery Date: 4/5/23 07:36

Description: Barry Ash Pond - MW-8V

Laboratory ID Number: BD06620

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BD06780	Alkalinity to pH 4.5	mg CaCO3/L					147	50.5	45.0 to 55.0			0.678	10.0
BD06623	Nitrogen, Nitrate/Nitrite	mg/L as N	0.08	0.200	2.00	2.08	0.076	2.11	1.80 to 2.20	104	90.0 to 110	0.00	15.0
BD06620	Solids, Dissolved	mg/L	0.0000	25.0			612	50.0	40.0 to 60.0			0.651	10.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Barry Ash Pond - MW-9

Location Code: WMWBARAP
Collected: 4/4/23 08:47
Customer ID:
Submittal Date: 4/5/23 07:36

Laboratory ID Number: BD06621

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7		Analyst: ABB			Preparation Method: EPA 1638				
* Boron, Total	4/6/23 06:51	4/6/23 12:50		1.015	1.65	mg/L	0.030000	0.1015	
* Calcium, Total	4/6/23 06:51	4/6/23 12:50		1.015	32.4	mg/L	0.070035	0.406	
* Iron, Total	4/6/23 06:51	4/6/23 13:57		101.5	91.2	mg/L	0.8120	4.06	
* Lithium, Total	4/6/23 06:51	4/6/23 12:50		1.015	Not Detected	mg/L	0.007105	0.01999956	U
* Magnesium, Total	4/6/23 06:51	4/6/23 12:50		1.015	12.0	mg/L	0.021315	0.406	
* Molybdenum, Total	4/6/23 06:51	4/6/23 12:50		1.015	Not Detected	mg/L	0.005075	0.01015	U
* Silica, Total (calc.)	4/6/23 06:51	4/6/23 12:50		1	20.4	mg/L			
* Silicon, Total	4/6/23 06:51	4/6/23 12:50		1.015	9.53	mg/L	0.02030	0.25375	
* Sodium, Total	4/6/23 06:51	4/6/23 12:50		1.015	18.7	mg/L	0.04060	0.406	
Analytical Method: EPA 200.7		Analyst: ABB			Preparation Method: EPA 1638				
* Boron, Dissolved	4/6/23 09:44	4/7/23 12:20		1.015	1.68	mg/L	0.030000	0.1015	
* Calcium, Dissolved	4/6/23 09:44	4/7/23 12:20		1.015	33.1	mg/L	0.070035	0.406	
* Iron, Dissolved	4/6/23 09:44	4/7/23 13:24		101.5	93.9	mg/L	0.8120	4.06	
* Lithium, Dissolved	4/6/23 09:44	4/7/23 12:20		1.015	Not Detected	mg/L	0.007105	0.01999956	U
* Magnesium, Dissolved	4/6/23 09:44	4/7/23 12:20		1.015	12.1	mg/L	0.021315	0.406	
* Molybdenum, Dissolved	4/6/23 09:44	4/7/23 12:20		1.015	Not Detected	mg/L	0.005075	0.01015	U
* Silica, Dissolved (calc.)	4/6/23 09:44	4/7/23 12:20		1	20.6	mg/L			
* Silicon, Dissolved	4/6/23 09:44	4/7/23 12:20		1.015	9.62	mg/L	0.02030	0.25375	
* Sodium, Dissolved	4/6/23 09:44	4/7/23 12:20		1.015	18.8	mg/L	0.04060	0.406	
Analytical Method: EPA 200.8		Analyst: DLJ			Preparation Method: EPA 1638				
* Antimony, Total	4/6/23 06:51	4/7/23 12:51		1.015	Not Detected	mg/L	0.000710	0.001015	U
* Aluminum, Total	4/6/23 06:51	4/7/23 12:51		1.015	Not Detected	mg/L	0.009135	0.05075	U
* Arsenic, Total	4/6/23 06:51	4/7/23 12:51		1.015	0.0145	mg/L	0.000112	0.000203	
* Barium, Total	4/6/23 06:51	4/7/23 12:51		1.015	0.128	mg/L	0.000508	0.001015	
* Beryllium, Total	4/6/23 06:51	4/7/23 12:51		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Total	4/6/23 06:51	4/7/23 12:51		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Total	4/6/23 06:51	4/7/23 12:51		1.015	0.000620	mg/L	0.000203	0.001015	J
* Cobalt, Total	4/6/23 06:51	4/7/23 12:51		1.015	0.000737	mg/L	0.000068	0.000203	
* Lead, Total	4/6/23 06:51	4/7/23 12:51		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Total	4/6/23 06:51	4/7/23 19:30		5.075	1.78	mg/L	0.000761	0.005075	

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Barry Ash Pond - MW-9

Location Code: WMWBARAP

Collected: 4/4/23 08:47

Customer ID:

Submittal Date: 4/5/23 07:36

Laboratory ID Number: BD06621

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
* Potassium, Total	4/6/23 06:51	4/7/23 12:51		1.015	1.77	mg/L	0.169505	0.5075	
* Selenium, Total	4/6/23 06:51	4/7/23 12:51		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Total	4/6/23 06:51	4/7/23 12:51		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 200.8		Analyst: DLJ							
* Antimony, Dissolved	4/6/23 09:44	4/6/23 12:24		1.015	Not Detected	mg/L	0.000710	0.001015	U
* Aluminum, Dissolved	4/6/23 09:44	4/6/23 12:24		1.015	Not Detected	mg/L	0.009135	0.05075	U
* Arsenic, Dissolved	4/6/23 09:44	4/6/23 12:24		1.015	0.0157	mg/L	0.000112	0.000203	
* Barium, Dissolved	4/6/23 09:44	4/6/23 12:24		1.015	0.127	mg/L	0.000508	0.001015	
* Beryllium, Dissolved	4/6/23 09:44	4/6/23 12:24		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Dissolved	4/6/23 09:44	4/6/23 12:24		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Dissolved	4/6/23 09:44	4/6/23 12:24		1.015	0.000525	mg/L	0.000203	0.001015	J
* Cobalt, Dissolved	4/6/23 09:44	4/6/23 12:24		1.015	0.000716	mg/L	0.000068	0.000203	
* Lead, Dissolved	4/6/23 09:44	4/6/23 12:24		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Dissolved	4/6/23 09:44	4/7/23 19:05		5.075	1.74	mg/L	0.000761	0.005075	
* Potassium, Dissolved	4/6/23 09:44	4/6/23 12:24		1.015	1.71	mg/L	0.169505	0.5075	
* Selenium, Dissolved	4/6/23 09:44	4/6/23 12:24		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Dissolved	4/6/23 09:44	4/6/23 12:24		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 245.1		Analyst: CRB							
* Mercury, Total by CVAA	4/11/23 18:35	4/11/23 23:55		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: EPA 353.2		Analyst: SC							
* Nitrogen, Nitrate/Nitrite	4/6/23 09:31	4/6/23 09:31		1	0.297	mg/L as N	0.20	0.3	J
Analytical Method: SM 2320 B		Analyst: ALH							
* Alkalinity to pH 4.5	4/17/23 10:54	4/17/23 14:05		1	195	mg CaCO3/L		0.10	
Analytical Method: SM 2540C		Analyst: CNJ							
* Solids, Dissolved	4/7/23 10:42	4/10/23 13:50		1	317	mg/L		25	
Analytical Method: SM 4500CO2 D		Analyst: ALH							
* Bicarbonate Alkalinity, (calc.)	4/17/23 10:54	4/17/23 14:05		1	195	mg CaCO3/L		1	
* Carbonate Alkalinity, (calc.)	4/17/23 10:54	4/17/23 14:05		1	Not Detected	mg CaCO3/L		0.5	
Analytical Method: SM 5310 B		Analyst: SC							
* Total Organic Carbon	4/5/23 19:43	4/5/23 19:43		1	12.1	mg/L	1.00	2	

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Barry Ash Pond - MW-9

Location Code: WMWBARAP

Collected: 4/4/23 08:47

Customer ID:

Submittal Date: 4/5/23 07:36

Laboratory ID Number: BD06621

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM4500Cl E		Analyst: CES							
* Chloride	4/12/23 11:31	4/12/23 11:31		1	18.0	mg/L	0.50	0.5	
Analytical Method: SM4500F G 2017		Analyst: CES							
* Fluoride	4/13/23 10:57	4/13/23 10:57		1	0.0797	mg/L	0.06	0.125	J
Analytical Method: SM4500SO4 E 2011		Analyst: JCC							
* Sulfate	4/6/23 10:50	4/6/23 10:50		1	25.3	mg/L	0.6	2	
Analytical Method: Field Measurements		Analyst: DKG							
Conductivity	4/4/23 08:44	4/4/23 08:44			557.93	uS/cm			FA
pH	4/4/23 08:44	4/4/23 08:44			6.15	SU			FA
Temperature	4/4/23 08:44	4/4/23 08:44			21.55	C			FA
Turbidity	4/4/23 08:44	4/4/23 08:44			3.66	NTU			FA
Sulfide	4/4/23 08:44	4/4/23 08:44			0	mg/L			FA

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWBARAP
Sample Date: 4/4/23 08:47
Customer ID:
Delivery Date: 4/5/23 07:36

Description: Barry Ash Pond - MW-9

Laboratory ID Number: BD06621

Sample	Analysis	Units	MB	MB				Standard		Rec			Prec Limit
				Limit	Spike	MS	MSD	Standard	Limit	Rec	Limit	Prec	
BD06622	Aluminum, Dissolved	mg/L	-0.000829	0.0198	0.100	0.102	0.102	0.103	0.0850 to 0.115	102	70.0 to 130	0.00	20.0
BD06623	Aluminum, Total	mg/L	0.000464	0.0198	0.100	0.102	0.0992	0.103	0.0850 to 0.115	102	70.0 to 130	2.78	20.0
BD06622	Antimony, Dissolved	mg/L	0.000282	0.00100	0.100	0.106	0.103	0.105	0.0850 to 0.115	106	70.0 to 130	2.87	20.0
BD06623	Antimony, Total	mg/L	0.000260	0.00100	0.100	0.0952	0.0937	0.0922	0.0850 to 0.115	95.2	70.0 to 130	1.59	20.0
BD06622	Arsenic, Dissolved	mg/L	0.0000293	0.000200	0.100	0.127	0.128	0.108	0.0850 to 0.115	110	70.0 to 130	0.784	20.0
BD06623	Arsenic, Total	mg/L	0.0000185	0.000200	0.100	0.0990	0.0984	0.101	0.0850 to 0.115	99.0	70.0 to 130	0.608	20.0
BD06622	Barium, Dissolved	mg/L	0.0000004	0.00100	0.100	0.231	0.234	0.104	0.0850 to 0.115	99.0	70.0 to 130	1.29	20.0
BD06623	Barium, Total	mg/L	0.0000235	0.00100	0.100	0.0962	0.0934	0.0935	0.0850 to 0.115	96.2	70.0 to 130	2.95	20.0
BD06622	Beryllium, Dissolved	mg/L	0.0000122	0.000880	0.100	0.0999	0.0987	0.0962	0.0850 to 0.115	99.9	70.0 to 130	1.21	20.0
BD06623	Beryllium, Total	mg/L	0.0000089	0.000880	0.100	0.0937	0.0937	0.0982	0.0850 to 0.115	93.7	70.0 to 130	0.00	20.0
BD06622	Boron, Dissolved	mg/L	0.000167	0.0650	1.00	2.70	2.69	1.01	0.850 to 1.15	102	70.0 to 130	0.371	20.0
BD06623	Boron, Total	mg/L	-0.00119	0.0650	1.00	0.992	0.982	0.989	0.850 to 1.15	99.2	70.0 to 130	1.01	20.0
BD06622	Cadmium, Dissolved	mg/L	0.0000050	0.000147	0.100	0.103	0.109	0.111	0.0850 to 0.115	103	70.0 to 130	5.66	20.0
BD06623	Cadmium, Total	mg/L	0.0000000	0.000147	0.100	0.0989	0.0992	0.0971	0.0850 to 0.115	98.9	70.0 to 130	0.303	20.0
BD06622	Calcium, Dissolved	mg/L	-0.0141	0.152	5.00	38.0	37.8	4.92	4.25 to 5.75	96.0	70.0 to 130	0.528	20.0
BD06623	Calcium, Total	mg/L	0.00187	0.152	5.00	4.77	4.82	4.92	4.25 to 5.75	95.4	70.0 to 130	1.04	20.0
BD06622	Chloride	mg/L	0.0211	1.00	10.0	26.7	26.9	10.3	9.00 to 11.0	87.0	80.0 to 120	0.746	20.0
BD06622	Chromium, Dissolved	mg/L	-0.0000464	0.000440	0.100	0.105	0.106	0.111	0.0850 to 0.115	104	70.0 to 130	0.948	20.0
BD06623	Chromium, Total	mg/L	0.0000577	0.000440	0.100	0.100	0.0988	0.0984	0.0850 to 0.115	100	70.0 to 130	1.21	20.0
BD06622	Cobalt, Dissolved	mg/L	-0.0000057	0.000147	0.100	0.108	0.107	0.110	0.0850 to 0.115	107	70.0 to 130	0.930	20.0
BD06623	Cobalt, Total	mg/L	-0.0000008	0.000147	0.100	0.103	0.101	0.101	0.0850 to 0.115	103	70.0 to 130	1.96	20.0
BD06623	Fluoride	mg/L	0.00185	0.125	2.50	2.65	2.62	2.62	2.25 to 2.75	106	80.0 to 120	1.14	20.0
BD06622	Iron, Dissolved	mg/L	-0.000107	0.0176	0.2	93.2	93.5	0.202	0.170 to 0.230	100	70.0 to 130	0.321	20.0
BD06623	Iron, Total	mg/L	-0.000067	0.0176	0.2	0.197	0.193	0.194	0.170 to 0.230	98.5	70.0 to 130	2.05	20.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWBARAP

Sample Date: 4/4/23 08:47

Customer ID:

Delivery Date: 4/5/23 07:36

Description: Barry Ash Pond - MW-9

Laboratory ID Number: BD06621

Sample	Analysis	Units	MB		Spike	MS	MSD	Standard		Rec		Prec	Limit
			MB	Limit				Standard	Limit	Rec	Limit		
BD06622	Lead, Dissolved	mg/L	0.0000188	0.000147	0.100	0.0986	0.0971	0.101	0.0850 to 0.115	98.6	70.0 to 130	1.53	20.0
BD06623	Lead, Total	mg/L	0.0000100	0.000147	0.100	0.0981	0.0971	0.0990	0.0850 to 0.115	98.1	70.0 to 130	1.02	20.0
BD06622	Lithium, Dissolved	mg/L	0.000058	0.0154	0.200	0.206	0.207	0.197	0.170 to 0.230	103	70.0 to 130	0.484	20.0
BD06623	Lithium, Total	mg/L	0.000883	0.0154	0.200	0.197	0.195	0.191	0.170 to 0.230	98.5	70.0 to 130	1.02	20.0
BD06622	Magnesium, Dissolved	mg/L	-0.00906	0.0462	5.00	17.0	17.0	4.92	4.25 to 5.75	96.0	70.0 to 130	0.00	20.0
BD06623	Magnesium, Total	mg/L	-0.00266	0.0462	5.00	4.84	4.81	4.86	4.25 to 5.75	96.8	70.0 to 130	0.622	20.0
BD06622	Manganese, Dissolved	mg/L	0.0000223	0.00033	0.100	1.87	1.84	0.102	0.0850 to 0.115	110	70.0 to 130	1.62	20.0
BD06623	Manganese, Total	mg/L	0.0000173	0.00033	0.100	0.102	0.100	0.101	0.0850 to 0.115	102	70.0 to 130	1.98	20.0
BD06623	Mercury, Total by CVAA	mg/L	3.000E-05	0.000500	0.005	0.00388	0.00505	0.00409	0.00340 to 0.00460	77.6	70.0 to 130	26.2	20.0
BD06622	Molybdenum, Dissolved	mg/L	0.000012	0.0100	0.2	0.204	0.203	0.203	0.170 to 0.230	102	70.0 to 130	0.491	20.0
BD06623	Molybdenum, Total	mg/L	0.000	0.0100	0.2	0.199	0.197	0.199	0.170 to 0.230	99.5	70.0 to 130	1.01	20.0
BD06622	Potassium, Dissolved	mg/L	0.0134	0.367	10.0	11.7	11.4	10.4	8.50 to 11.5	99.1	70.0 to 130	2.60	20.0
BD06623	Potassium, Total	mg/L	0.0131	0.367	10.0	10.1	9.91	10.0	8.50 to 11.5	101	70.0 to 130	1.90	20.0
BD06622	Selenium, Dissolved	mg/L	0.0000543	0.00100	0.100	0.112	0.114	0.109	0.0850 to 0.115	112	70.0 to 130	1.77	20.0
BD06623	Selenium, Total	mg/L	0.000122	0.00100	0.100	0.101	0.100	0.103	0.0850 to 0.115	101	70.0 to 130	0.995	20.0
BD06622	Silicon, Dissolved	mg/L	0.000048	0.0440	1.00	10.6	10.6	1.01	0.850 to 1.15	97.0	70.0 to 130	0.00	20.0
BD06623	Silicon, Total	mg/L	0.00174	0.0440	1.00	0.990	0.979	0.987	0.850 to 1.15	99.0	70.0 to 130	1.12	20.0
BD06622	Sodium, Dissolved	mg/L	-0.00120	0.0880	5.00	23.4	23.5	4.73	4.25 to 5.75	90.0	70.0 to 130	0.426	20.0
BD06623	Sodium, Total	mg/L	0.00274	0.0880	5.00	4.73	4.72	4.66	4.25 to 5.75	94.6	70.0 to 130	0.212	20.0
BD06623	Sulfate	mg/L	0.416	2.0	20.0	21.0	20.5	20.3	18.0 to 22.0	105	80.0 to 120	2.41	20.0
BD06622	Thallium, Dissolved	mg/L	0.0000007	0.000147	0.100	0.101	0.101	0.102	0.0850 to 0.115	101	70.0 to 130	0.00	20.0
BD06623	Thallium, Total	mg/L	0.0000062	0.000147	0.100	0.101	0.101	0.102	0.0850 to 0.115	101	70.0 to 130	0.00	20.0
BD06623	Total Organic Carbon	mg/L	0.0651	1.00	10.0	9.83	9.42	25.6		98.3	80.0 to 120	4.26	20.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWBARAP

Sample Date: 4/4/23 08:47

Customer ID:

Delivery Date: 4/5/23 07:36

Description: Barry Ash Pond - MW-9

Laboratory ID Number: BD06621

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BD06780	Alkalinity to pH 4.5	mg CaCO3/L					147	50.5	45.0 to 55.0			0.678	10.0
BD06623	Nitrogen, Nitrate/Nitrite	mg/L as N	0.08	0.200	2.00	2.08	0.076	2.11	1.80 to 2.20	104	90.0 to 110	0.00	15.0
BD06780	Solids, Dissolved	mg/L	1.00	25.0			329	51.0	40.0 to 60.0			2.70	10.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Barry Ash Pond - MW-9 DUP

Location Code: WMWBARAP
Collected: 4/4/23 08:47
Customer ID:
Submittal Date: 4/5/23 07:36

Laboratory ID Number: BD06622

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q	
Analytical Method: EPA 200.7		Analyst: ABB			Preparation Method: EPA 1638					
* Boron, Total	4/6/23 06:51	4/6/23 12:53		1.015	1.65	mg/L	0.030000	0.1015		
* Calcium, Total	4/6/23 06:51	4/6/23 12:53		1.015	32.8	mg/L	0.070035	0.406		
* Iron, Total	4/6/23 06:51	4/6/23 14:00		101.5	91.5	mg/L	0.8120	4.06		
* Lithium, Total	4/6/23 06:51	4/6/23 12:53		1.015	Not Detected	mg/L	0.007105	0.01999956	U	
* Magnesium, Total	4/6/23 06:51	4/6/23 12:53		1.015	12.0	mg/L	0.021315	0.406		
* Molybdenum, Total	4/6/23 06:51	4/6/23 12:53		1.015	Not Detected	mg/L	0.005075	0.01015	U	
* Silica, Total (calc.)	4/6/23 06:51	4/6/23 12:53		1	20.4	mg/L				
* Silicon, Total	4/6/23 06:51	4/6/23 12:53		1.015	9.55	mg/L	0.02030	0.25375		
* Sodium, Total	4/6/23 06:51	4/6/23 12:53		1.015	18.8	mg/L	0.04060	0.406		
Analytical Method: EPA 200.7		Analyst: ABB								
* Boron, Dissolved	4/6/23 09:44	4/7/23 12:24		1.015	1.68	mg/L	0.030000	0.1015		
* Calcium, Dissolved	4/6/23 09:44	4/7/23 12:24		1.015	33.2	mg/L	0.070035	0.406		
* Iron, Dissolved	4/6/23 09:44	4/7/23 13:27		101.5	93.0	mg/L	0.8120	4.06	RA	
* Lithium, Dissolved	4/6/23 09:44	4/7/23 12:24		1.015	Not Detected	mg/L	0.007105	0.01999956	U	
* Magnesium, Dissolved	4/6/23 09:44	4/7/23 12:24		1.015	12.2	mg/L	0.021315	0.406		
* Molybdenum, Dissolved	4/6/23 09:44	4/7/23 12:24		1.015	Not Detected	mg/L	0.005075	0.01015	U	
* Silica, Dissolved (calc.)	4/6/23 09:44	4/7/23 12:24		1	20.6	mg/L				
* Silicon, Dissolved	4/6/23 09:44	4/7/23 12:24		1.015	9.63	mg/L	0.02030	0.25375		
* Sodium, Dissolved	4/6/23 09:44	4/7/23 12:24		1.015	18.9	mg/L	0.04060	0.406		
Analytical Method: EPA 200.8		Analyst: DLJ			Preparation Method: EPA 1638					
* Antimony, Total	4/6/23 06:51	4/7/23 12:54		1.015	Not Detected	mg/L	0.000710	0.001015	U	
* Aluminum, Total	4/6/23 06:51	4/7/23 12:54		1.015	Not Detected	mg/L	0.009135	0.05075	U	
* Arsenic, Total	4/6/23 06:51	4/7/23 12:54		1.015	0.0147	mg/L	0.000112	0.000203		
* Barium, Total	4/6/23 06:51	4/7/23 12:54		1.015	0.126	mg/L	0.000508	0.001015		
* Beryllium, Total	4/6/23 06:51	4/7/23 12:54		1.015	Not Detected	mg/L	0.000406	0.001015	U	
* Cadmium, Total	4/6/23 06:51	4/7/23 12:54		1.015	Not Detected	mg/L	0.000068	0.000203	U	
* Chromium, Total	4/6/23 06:51	4/7/23 12:54		1.015	0.000607	mg/L	0.000203	0.001015	J	
* Cobalt, Total	4/6/23 06:51	4/7/23 12:54		1.015	0.000723	mg/L	0.000068	0.000203		
* Lead, Total	4/6/23 06:51	4/7/23 12:54		1.015	Not Detected	mg/L	0.000068	0.000203	U	
* Manganese, Total	4/6/23 06:51	4/7/23 19:34		5.075	1.79	mg/L	0.000761	0.005075		

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Barry Ash Pond - MW-9 DUP

Location Code: WMWBARAP
Collected: 4/4/23 08:47
Customer ID:
Submittal Date: 4/5/23 07:36

Laboratory ID Number: BD06622

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
* Potassium, Total	4/6/23 06:51	4/7/23 12:54		1.015	1.78	mg/L	0.169505	0.5075	
* Selenium, Total	4/6/23 06:51	4/7/23 12:54		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Total	4/6/23 06:51	4/7/23 12:54		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 200.8		Analyst: DLJ							
* Antimony, Dissolved	4/6/23 09:44	4/6/23 12:27		1.015	Not Detected	mg/L	0.000710	0.001015	U
* Aluminum, Dissolved	4/6/23 09:44	4/6/23 12:27		1.015	Not Detected	mg/L	0.009135	0.05075	U
* Arsenic, Dissolved	4/6/23 09:44	4/6/23 12:27		1.015	0.0165	mg/L	0.000112	0.000203	
* Barium, Dissolved	4/6/23 09:44	4/6/23 12:27		1.015	0.132	mg/L	0.000508	0.001015	
* Beryllium, Dissolved	4/6/23 09:44	4/6/23 12:27		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Dissolved	4/6/23 09:44	4/6/23 12:27		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Dissolved	4/6/23 09:44	4/6/23 12:27		1.015	0.000638	mg/L	0.000203	0.001015	J
* Cobalt, Dissolved	4/6/23 09:44	4/6/23 12:27		1.015	0.000768	mg/L	0.000068	0.000203	
* Lead, Dissolved	4/6/23 09:44	4/6/23 12:27		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Dissolved	4/6/23 09:44	4/7/23 19:09		5.075	1.76	mg/L	0.000761	0.005075	
* Potassium, Dissolved	4/6/23 09:44	4/6/23 12:27		1.015	1.79	mg/L	0.169505	0.5075	
* Selenium, Dissolved	4/6/23 09:44	4/6/23 12:27		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Dissolved	4/6/23 09:44	4/6/23 12:27		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 245.1		Analyst: CRB							
* Mercury, Total by CVAA	4/11/23 18:35	4/11/23 23:59		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: EPA 353.2		Analyst: SC							
* Nitrogen, Nitrate/Nitrite	4/6/23 09:33	4/6/23 09:33		1	0.277	mg/L as N	0.20	0.3	J
Analytical Method: SM 2320 B		Analyst: ALH							
* Alkalinity to pH 4.5	4/17/23 10:54	4/17/23 14:05		1	197	mg CaCO3/L		0.10	
Analytical Method: SM 2540C		Analyst: CNJ							
* Solids, Dissolved	4/7/23 10:42	4/10/23 13:50		1	317	mg/L		25	
Analytical Method: SM 4500CO2 D		Analyst: ALH							
* Bicarbonate Alkalinity, (calc.)	4/17/23 10:54	4/17/23 14:05		1	197	mg CaCO3/L		1	
* Carbonate Alkalinity, (calc.)	4/17/23 10:54	4/17/23 14:05		1	Not Detected	mg CaCO3/L		0.5	
Analytical Method: SM 5310 B		Analyst: SC							
* Total Organic Carbon	4/5/23 19:58	4/5/23 19:58		1	11.2	mg/L	1.00	2	

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Barry Ash Pond - MW-9 DUP

Location Code: WMWBARAP

Collected: 4/4/23 08:47

Customer ID:

Submittal Date: 4/5/23 07:36

Laboratory ID Number: BD06622

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM4500Cl E		Analyst: CES							
* Chloride	4/12/23 11:32	4/12/23 11:32		1	18.0	mg/L	0.50	0.5	
Analytical Method: SM4500F G 2017		Analyst: CES							
* Fluoride	4/13/23 10:58	4/13/23 10:58		1	0.0651	mg/L	0.06	0.125	J
Analytical Method: SM4500SO4 E 2011		Analyst: JCC							
* Sulfate	4/6/23 10:52	4/6/23 10:52		1	24.2	mg/L	0.6	2	
Analytical Method: Field Measurements		Analyst: DKG							
Conductivity	4/4/23 08:44	4/4/23 08:44			557.93	uS/cm			FA
pH	4/4/23 08:44	4/4/23 08:44			6.15	SU			FA
Temperature	4/4/23 08:44	4/4/23 08:44			21.55	C			FA
Turbidity	4/4/23 08:44	4/4/23 08:44			3.66	NTU			FA
Sulfide	4/4/23 08:44	4/4/23 08:44			0	mg/L			FA

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWBARAP
Sample Date: 4/4/23 08:47
Customer ID:
Delivery Date: 4/5/23 07:36

Description: Barry Ash Pond - MW-9 DUP

Laboratory ID Number: BD06622

Sample	Analysis	Units	MB	MB				Standard		Rec			Prec Limit
				Limit	Spike	MS	MSD	Standard	Limit	Rec	Limit	Prec	
BD06622	Aluminum, Dissolved	mg/L	-0.000829	0.0198	0.100	0.102	0.102	0.103	0.0850 to 0.115	102	70.0 to 130	0.00	20.0
BD06623	Aluminum, Total	mg/L	0.000464	0.0198	0.100	0.102	0.0992	0.103	0.0850 to 0.115	102	70.0 to 130	2.78	20.0
BD06622	Antimony, Dissolved	mg/L	0.000282	0.00100	0.100	0.106	0.103	0.105	0.0850 to 0.115	106	70.0 to 130	2.87	20.0
BD06623	Antimony, Total	mg/L	0.000260	0.00100	0.100	0.0952	0.0937	0.0922	0.0850 to 0.115	95.2	70.0 to 130	1.59	20.0
BD06622	Arsenic, Dissolved	mg/L	0.000293	0.000200	0.100	0.127	0.128	0.108	0.0850 to 0.115	110	70.0 to 130	0.784	20.0
BD06623	Arsenic, Total	mg/L	0.000185	0.000200	0.100	0.0990	0.0984	0.101	0.0850 to 0.115	99.0	70.0 to 130	0.608	20.0
BD06622	Barium, Dissolved	mg/L	0.0000004	0.00100	0.100	0.231	0.234	0.104	0.0850 to 0.115	99.0	70.0 to 130	1.29	20.0
BD06623	Barium, Total	mg/L	0.0000235	0.00100	0.100	0.0962	0.0934	0.0935	0.0850 to 0.115	96.2	70.0 to 130	2.95	20.0
BD06622	Beryllium, Dissolved	mg/L	0.0000122	0.000880	0.100	0.0999	0.0987	0.0962	0.0850 to 0.115	99.9	70.0 to 130	1.21	20.0
BD06623	Beryllium, Total	mg/L	0.0000089	0.000880	0.100	0.0937	0.0937	0.0982	0.0850 to 0.115	93.7	70.0 to 130	0.00	20.0
BD06622	Boron, Dissolved	mg/L	0.000167	0.0650	1.00	2.70	2.69	1.01	0.850 to 1.15	102	70.0 to 130	0.371	20.0
BD06623	Boron, Total	mg/L	-0.00119	0.0650	1.00	0.992	0.982	0.989	0.850 to 1.15	99.2	70.0 to 130	1.01	20.0
BD06622	Cadmium, Dissolved	mg/L	0.0000050	0.000147	0.100	0.103	0.109	0.111	0.0850 to 0.115	103	70.0 to 130	5.66	20.0
BD06623	Cadmium, Total	mg/L	0.0000000	0.000147	0.100	0.0989	0.0992	0.0971	0.0850 to 0.115	98.9	70.0 to 130	0.303	20.0
BD06622	Calcium, Dissolved	mg/L	-0.0141	0.152	5.00	38.0	37.8	4.92	4.25 to 5.75	96.0	70.0 to 130	0.528	20.0
BD06623	Calcium, Total	mg/L	0.00187	0.152	5.00	4.77	4.82	4.92	4.25 to 5.75	95.4	70.0 to 130	1.04	20.0
BD06622	Chloride	mg/L	0.0211	1.00	10.0	26.7	26.9	10.3	9.00 to 11.0	87.0	80.0 to 120	0.746	20.0
BD06622	Chromium, Dissolved	mg/L	-0.0000464	0.000440	0.100	0.105	0.106	0.111	0.0850 to 0.115	104	70.0 to 130	0.948	20.0
BD06623	Chromium, Total	mg/L	0.0000577	0.000440	0.100	0.100	0.0988	0.0984	0.0850 to 0.115	100	70.0 to 130	1.21	20.0
BD06622	Cobalt, Dissolved	mg/L	-0.0000057	0.000147	0.100	0.108	0.107	0.110	0.0850 to 0.115	107	70.0 to 130	0.930	20.0
BD06623	Cobalt, Total	mg/L	-0.0000008	0.000147	0.100	0.103	0.101	0.101	0.0850 to 0.115	103	70.0 to 130	1.96	20.0
BD06623	Fluoride	mg/L	0.00185	0.125	2.50	2.65	2.62	2.62	2.25 to 2.75	106	80.0 to 120	1.14	20.0
BD06622	Iron, Dissolved	mg/L	-0.000107	0.0176	0.2	93.2	93.5	0.202	0.170 to 0.230	100	70.0 to 130	0.321	20.0
BD06623	Iron, Total	mg/L	-0.000067	0.0176	0.2	0.197	0.193	0.194	0.170 to 0.230	98.5	70.0 to 130	2.05	20.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWBARAP

Sample Date: 4/4/23 08:47

Customer ID:

Delivery Date: 4/5/23 07:36

Description: Barry Ash Pond - MW-9 DUP

Laboratory ID Number: BD06622

Sample	Analysis	Units	MB		Spike	MS	MSD	Standard		Rec		Prec	Limit
			MB	Limit				Standard	Limit	Rec	Limit		
BD06622	Lead, Dissolved	mg/L	0.0000188	0.000147	0.100	0.0986	0.0971	0.101	0.0850 to 0.115	98.6	70.0 to 130	1.53	20.0
BD06623	Lead, Total	mg/L	0.0000100	0.000147	0.100	0.0981	0.0971	0.0990	0.0850 to 0.115	98.1	70.0 to 130	1.02	20.0
BD06622	Lithium, Dissolved	mg/L	0.000058	0.0154	0.200	0.206	0.207	0.197	0.170 to 0.230	103	70.0 to 130	0.484	20.0
BD06623	Lithium, Total	mg/L	0.000883	0.0154	0.200	0.197	0.195	0.191	0.170 to 0.230	98.5	70.0 to 130	1.02	20.0
BD06622	Magnesium, Dissolved	mg/L	-0.00906	0.0462	5.00	17.0	17.0	4.92	4.25 to 5.75	96.0	70.0 to 130	0.00	20.0
BD06623	Magnesium, Total	mg/L	-0.00266	0.0462	5.00	4.84	4.81	4.86	4.25 to 5.75	96.8	70.0 to 130	0.622	20.0
BD06622	Manganese, Dissolved	mg/L	0.0000223	0.00033	0.100	1.87	1.84	0.102	0.0850 to 0.115	110	70.0 to 130	1.62	20.0
BD06623	Manganese, Total	mg/L	0.0000173	0.00033	0.100	0.102	0.100	0.101	0.0850 to 0.115	102	70.0 to 130	1.98	20.0
BD06623	Mercury, Total by CVAA	mg/L	3.000E-05	0.000500	0.005	0.00388	0.00505	0.00409	0.00340 to 0.00460	77.6	70.0 to 130	26.2	20.0
BD06622	Molybdenum, Dissolved	mg/L	0.000012	0.0100	0.2	0.204	0.203	0.203	0.170 to 0.230	102	70.0 to 130	0.491	20.0
BD06623	Molybdenum, Total	mg/L	0.000	0.0100	0.2	0.199	0.197	0.199	0.170 to 0.230	99.5	70.0 to 130	1.01	20.0
BD06622	Potassium, Dissolved	mg/L	0.0134	0.367	10.0	11.7	11.4	10.4	8.50 to 11.5	99.1	70.0 to 130	2.60	20.0
BD06623	Potassium, Total	mg/L	0.0131	0.367	10.0	10.1	9.91	10.0	8.50 to 11.5	101	70.0 to 130	1.90	20.0
BD06622	Selenium, Dissolved	mg/L	0.0000543	0.00100	0.100	0.112	0.114	0.109	0.0850 to 0.115	112	70.0 to 130	1.77	20.0
BD06623	Selenium, Total	mg/L	0.000122	0.00100	0.100	0.101	0.100	0.103	0.0850 to 0.115	101	70.0 to 130	0.995	20.0
BD06622	Silicon, Dissolved	mg/L	0.000048	0.0440	1.00	10.6	10.6	1.01	0.850 to 1.15	97.0	70.0 to 130	0.00	20.0
BD06623	Silicon, Total	mg/L	0.00174	0.0440	1.00	0.990	0.979	0.987	0.850 to 1.15	99.0	70.0 to 130	1.12	20.0
BD06622	Sodium, Dissolved	mg/L	-0.00120	0.0880	5.00	23.4	23.5	4.73	4.25 to 5.75	90.0	70.0 to 130	0.426	20.0
BD06623	Sodium, Total	mg/L	0.00274	0.0880	5.00	4.73	4.72	4.66	4.25 to 5.75	94.6	70.0 to 130	0.212	20.0
BD06623	Sulfate	mg/L	0.416	2.0	20.0	21.0	20.5	20.3	18.0 to 22.0	105	80.0 to 120	2.41	20.0
BD06622	Thallium, Dissolved	mg/L	0.0000007	0.000147	0.100	0.101	0.101	0.102	0.0850 to 0.115	101	70.0 to 130	0.00	20.0
BD06623	Thallium, Total	mg/L	0.0000062	0.000147	0.100	0.101	0.101	0.102	0.0850 to 0.115	101	70.0 to 130	0.00	20.0
BD06623	Total Organic Carbon	mg/L	0.0651	1.00	10.0	9.83	9.42	25.6		98.3	80.0 to 120	4.26	20.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWBARAP

Sample Date: 4/4/23 08:47

Customer ID:

Delivery Date: 4/5/23 07:36

Description: Barry Ash Pond - MW-9 DUP

Laboratory ID Number: BD06622

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BD06780	Alkalinity to pH 4.5	mg CaCO3/L					147	50.5	45.0 to 55.0			0.678	10.0
BD06623	Nitrogen, Nitrate/Nitrite	mg/L as N	0.08	0.200	2.00	2.08	0.076	2.11	1.80 to 2.20	104	90.0 to 110	0.00	15.0
BD06780	Solids, Dissolved	mg/L	1.00	25.0			329	51.0	40.0 to 60.0			2.70	10.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Barry Ash Pond Field Blank-3

Location Code: WMWBARAPFB
Collected: 4/4/23 09:20
Customer ID:
Submittal Date: 4/5/23 07:36

Laboratory ID Number: BD06623

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7		Analyst: ABB			Preparation Method: EPA 1638				
* Boron, Total	4/6/23 06:51	4/6/23 12:56		1.015	Not Detected	mg/L	0.030000	0.1015	U
* Calcium, Total	4/6/23 06:51	4/6/23 12:56		1.015	Not Detected	mg/L	0.070035	0.406	U
* Iron, Total	4/6/23 06:51	4/6/23 12:56		1.015	Not Detected	mg/L	0.008120	0.0406	U
* Lithium, Total	4/6/23 06:51	4/6/23 12:56		1.015	Not Detected	mg/L	0.007105	0.01999956	U
* Magnesium, Total	4/6/23 06:51	4/6/23 12:56		1.015	Not Detected	mg/L	0.021315	0.406	U
* Molybdenum, Total	4/6/23 06:51	4/6/23 12:56		1.015	Not Detected	mg/L	0.005075	0.01015	U
* Silica, Total (calc.)	4/6/23 06:51	4/6/23 12:56		1	Not Detected	mg/L			
* Silicon, Total	4/6/23 06:51	4/6/23 12:56		1.015	Not Detected	mg/L	0.02030	0.25375	U
* Sodium, Total	4/6/23 06:51	4/6/23 12:56		1.015	Not Detected	mg/L	0.04060	0.406	U
Analytical Method: EPA 200.8		Analyst: DLJ			Preparation Method: EPA 1638				
* Antimony, Total	4/6/23 06:51	4/7/23 12:58		1.015	Not Detected	mg/L	0.000710	0.001015	U
* Aluminum, Total	4/6/23 06:51	4/7/23 12:58		1.015	Not Detected	mg/L	0.009135	0.05075	U
* Arsenic, Total	4/6/23 06:51	4/7/23 12:58		1.015	Not Detected	mg/L	0.000112	0.000203	U
* Barium, Total	4/6/23 06:51	4/7/23 12:58		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Beryllium, Total	4/6/23 06:51	4/7/23 12:58		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Total	4/6/23 06:51	4/7/23 12:58		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Total	4/6/23 06:51	4/7/23 12:58		1.015	Not Detected	mg/L	0.000203	0.001015	U
* Cobalt, Total	4/6/23 06:51	4/7/23 12:58		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Lead, Total	4/6/23 06:51	4/7/23 12:58		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Total	4/6/23 06:51	4/7/23 12:58		1.015	Not Detected	mg/L	0.000152	0.001015	U
* Potassium, Total	4/6/23 06:51	4/7/23 12:58		1.015	Not Detected	mg/L	0.169505	0.5075	U
* Selenium, Total	4/6/23 06:51	4/7/23 12:58		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Total	4/6/23 06:51	4/7/23 12:58		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 245.1		Analyst: CRB							
* Mercury, Total by CVAA	4/11/23 18:35	4/12/23 00:03		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: EPA 353.2		Analyst: SC							
* Nitrogen, Nitrate/Nitrite	4/6/23 09:35	4/6/23 09:35		1	Not Detected	mg/L as N	0.20	0.3	U
Analytical Method: SM 2540C		Analyst: CNJ							
* Solids, Dissolved	4/7/23 10:42	4/10/23 13:50		1	Not Detected	mg/L		25	U

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Mercury precision is out of specification limit.

Certificate Of Analysis

Description: Barry Ash Pond Field Blank-3

Location Code: WMWBARAPFB

Collected: 4/4/23 09:20

Customer ID:

Submittal Date: 4/5/23 07:36

Laboratory ID Number: BD06623

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM 5310 B		Analyst: SC							
* Total Organic Carbon	4/5/23 20:14	4/5/23 20:14		1	Not Detected	mg/L	1.00	2	U
Analytical Method: SM4500Cl E		Analyst: CES							
* Chloride	4/12/23 12:18	4/12/23 12:18		1	Not Detected	mg/L	0.50	0.5	U
Analytical Method: SM4500F G 2017		Analyst: CES							
* Fluoride	4/13/23 10:59	4/13/23 10:59		1	Not Detected	mg/L	0.06	0.125	U
Analytical Method: SM4500SO4 E 2011		Analyst: JCC							
* Sulfate	4/6/23 10:53	4/6/23 10:53		1	Not Detected	mg/L	0.6	2	U

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Mercury precision is out of specification limit.

Batch QC Summary

Customer Account: WMWBARAPFB
Sample Date: 4/4/23 09:20
Customer ID:
Delivery Date: 4/5/23 07:36

Description: Barry Ash Pond Field Blank-3

Laboratory ID Number: BD06623

Sample	Analysis	Units	MB					Standard		Rec		Prec	Limit
			MB	Limit	Spike	MS	MSD	Standard	Limit	Rec	Limit		
BD06623	Aluminum, Total	mg/L	0.000464	0.0198	0.100	0.102	0.0992	0.103	0.0850 to 0.115	102	70.0 to 130	2.78	20.0
BD06623	Antimony, Total	mg/L	0.000260	0.00100	0.100	0.0952	0.0937	0.0922	0.0850 to 0.115	95.2	70.0 to 130	1.59	20.0
BD06623	Arsenic, Total	mg/L	0.0000185	0.000200	0.100	0.0990	0.0984	0.101	0.0850 to 0.115	99.0	70.0 to 130	0.608	20.0
BD06623	Barium, Total	mg/L	0.0000235	0.00100	0.100	0.0962	0.0934	0.0935	0.0850 to 0.115	96.2	70.0 to 130	2.95	20.0
BD06623	Beryllium, Total	mg/L	0.0000089	0.000880	0.100	0.0937	0.0937	0.0982	0.0850 to 0.115	93.7	70.0 to 130	0.00	20.0
BD06623	Boron, Total	mg/L	-0.00119	0.0650	1.00	0.992	0.982	0.989	0.850 to 1.15	99.2	70.0 to 130	1.01	20.0
BD06623	Cadmium, Total	mg/L	0.0000000	0.000147	0.100	0.0989	0.0992	0.0971	0.0850 to 0.115	98.9	70.0 to 130	0.303	20.0
BD06623	Calcium, Total	mg/L	0.00187	0.152	5.00	4.77	4.82	4.92	4.25 to 5.75	95.4	70.0 to 130	1.04	20.0
BD06827	Chloride	mg/L	0.0514	1.00	800	1580	1590	10.2	9.00 to 11.0	105	80.0 to 120	0.631	20.0
BD06623	Chromium, Total	mg/L	0.0000577	0.000440	0.100	0.100	0.0988	0.0984	0.0850 to 0.115	100	70.0 to 130	1.21	20.0
BD06623	Cobalt, Total	mg/L	-0.0000008	0.000147	0.100	0.103	0.101	0.101	0.0850 to 0.115	103	70.0 to 130	1.96	20.0
BD06623	Fluoride	mg/L	0.00185	0.125	2.50	2.65	2.62	2.62	2.25 to 2.75	106	80.0 to 120	1.14	20.0
BD06623	Iron, Total	mg/L	-0.000067	0.0176	0.2	0.197	0.193	0.194	0.170 to 0.230	98.5	70.0 to 130	2.05	20.0
BD06623	Lead, Total	mg/L	0.0000100	0.000147	0.100	0.0981	0.0971	0.0990	0.0850 to 0.115	98.1	70.0 to 130	1.02	20.0
BD06623	Lithium, Total	mg/L	0.000883	0.0154	0.200	0.197	0.195	0.191	0.170 to 0.230	98.5	70.0 to 130	1.02	20.0
BD06623	Magnesium, Total	mg/L	-0.00266	0.0462	5.00	4.84	4.81	4.86	4.25 to 5.75	96.8	70.0 to 130	0.622	20.0
BD06623	Manganese, Total	mg/L	0.0000173	0.00033	0.100	0.102	0.100	0.101	0.0850 to 0.115	102	70.0 to 130	1.98	20.0
BD06623	Mercury, Total by CVAA	mg/L	3.000E-05	0.000500	0.005	0.00388	0.00505	0.00409	0.00340 to 0.00460	77.6	70.0 to 130	26.2	20.0
BD06623	Molybdenum, Total	mg/L	0.000	0.0100	0.2	0.199	0.197	0.199	0.170 to 0.230	99.5	70.0 to 130	1.01	20.0
BD06623	Potassium, Total	mg/L	0.0131	0.367	10.0	10.1	9.91	10.0	8.50 to 11.5	101	70.0 to 130	1.90	20.0
BD06623	Selenium, Total	mg/L	0.000122	0.00100	0.100	0.101	0.100	0.103	0.0850 to 0.115	101	70.0 to 130	0.995	20.0
BD06623	Silicon, Total	mg/L	0.00174	0.0440	1.00	0.990	0.979	0.987	0.850 to 1.15	99.0	70.0 to 130	1.12	20.0
BD06623	Sodium, Total	mg/L	0.00274	0.0880	5.00	4.73	4.72	4.66	4.25 to 5.75	94.6	70.0 to 130	0.212	20.0
BD06623	Sulfate	mg/L	0.416	2.0	20.0	21.0	20.5	20.3	18.0 to 22.0	105	80.0 to 120	2.41	20.0

Comments: Mercury precision is out of specification limit.

Batch QC Summary

Customer Account: WMWBARAPFB
Sample Date: 4/4/23 09:20
Customer ID:
Delivery Date: 4/5/23 07:36

Description: Barry Ash Pond Field Blank-3

Laboratory ID Number: BD06623

Sample	Analysis	Units	MB	MB				Standard		Rec		Prec		
				Limit	Spike	MS	MSD	Standard	Limit	Rec	Limit	Prec	Limit	
BD06623	Thallium, Total	mg/L	0.0000062	0.000147	0.100	0.101	0.101	0.102	0.0850 to 0.115		101	70.0 to 130	0.00	20.0
BD06623	Total Organic Carbon	mg/L	0.0651	1.00	10.0	9.83	9.42	25.6			98.3	80.0 to 120	4.26	20.0

Comments: Mercury precision is out of specification limit.

Batch QC Summary

Customer Account: WMWBARAPFB

Sample Date: 4/4/23 09:20

Customer ID:

Delivery Date: 4/5/23 07:36

Description: Barry Ash Pond Field Blank-3

Laboratory ID Number: BD06623

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BD06623	Nitrogen, Nitrate/Nitrite	mg/L as N	0.08	0.200	2.00	2.08	0.076	2.11	1.80 to 2.20	104	90.0 to 110	0.00	15.0
BD06780	Solids, Dissolved	mg/L	1.00	25.0			329	51.0	40.0 to 60.0			2.70	10.0

Comments: Mercury precision is out of specification limit.

Certificate Of Analysis

Description: Barry Ash Pond - MW-11

Location Code: WMWBARAP
Collected: 4/4/23 11:25
Customer ID:
Submittal Date: 4/5/23 14:11

Laboratory ID Number: BD06775

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7			Analyst: ABB			Preparation Method: EPA 1638			
* Boron, Total	4/7/23 14:10	4/11/23 11:10		1.015	0.0581	mg/L	0.030000	0.1015	J
* Calcium, Total	4/7/23 14:10	4/11/23 11:10		1.015	26.6	mg/L	0.070035	0.406	
* Iron, Total	4/7/23 14:10	4/11/23 13:16		101.5	73.5	mg/L	0.8120	4.06	
* Lithium, Total	4/7/23 14:10	4/11/23 11:10		1.015	0.0340	mg/L	0.007105	0.01999956	
* Magnesium, Total	4/7/23 14:10	4/11/23 11:10		1.015	13.9	mg/L	0.021315	0.406	
* Molybdenum, Total	4/7/23 14:10	4/11/23 11:10		1.015	Not Detected	mg/L	0.005075	0.01015	U
* Silica, Total (calc.)	4/7/23 14:10	4/11/23 11:10		1	16.2	mg/L			
* Silicon, Total	4/7/23 14:10	4/11/23 11:10		1.015	7.59	mg/L	0.02030	0.25375	
* Sodium, Total	4/7/23 14:10	4/11/23 13:16		101.5	49.7	mg/L	4.060	40.6	
Analytical Method: EPA 200.7			Analyst: ABB						
* Boron, Dissolved	4/7/23 11:45	4/12/23 11:11		1.015	0.0559	mg/L	0.030000	0.1015	J
* Calcium, Dissolved	4/7/23 11:45	4/12/23 11:11		1.015	26.0	mg/L	0.070035	0.406	
* Iron, Dissolved	4/7/23 11:45	4/12/23 13:18		101.5	71.2	mg/L	0.8120	4.06	
* Lithium, Dissolved	4/7/23 11:45	4/12/23 11:11		1.015	0.0332	mg/L	0.007105	0.01999956	
* Magnesium, Dissolved	4/7/23 11:45	4/12/23 11:11		1.015	13.9	mg/L	0.021315	0.406	
* Molybdenum, Dissolved	4/7/23 11:45	4/12/23 11:11		1.015	Not Detected	mg/L	0.005075	0.01015	U
* Silica, Dissolved (calc.)	4/7/23 11:45	4/12/23 11:11		1	16.1	mg/L			
* Silicon, Dissolved	4/7/23 11:45	4/12/23 11:11		1.015	7.51	mg/L	0.02030	0.25375	
* Sodium, Dissolved	4/7/23 11:45	4/12/23 13:18		101.5	48.3	mg/L	4.060	40.6	
Analytical Method: EPA 200.8			Analyst: DLJ			Preparation Method: EPA 1638			
* Antimony, Total	4/7/23 14:10	4/7/23 16:32		1.015	Not Detected	mg/L	0.000710	0.001015	U
* Aluminum, Total	4/7/23 14:10	4/7/23 16:32		1.015	0.0493	mg/L	0.009135	0.05075	J
* Arsenic, Total	4/7/23 14:10	4/7/23 16:32		1.015	0.0128	mg/L	0.000112	0.000203	
* Barium, Total	4/7/23 14:10	4/7/23 16:32		1.015	0.0699	mg/L	0.000508	0.001015	
* Beryllium, Total	4/7/23 14:10	4/7/23 16:32		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Total	4/7/23 14:10	4/7/23 16:32		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Total	4/7/23 14:10	4/7/23 16:32		1.015	0.00254	mg/L	0.000203	0.001015	
* Cobalt, Total	4/7/23 14:10	4/7/23 16:32		1.015	0.000946	mg/L	0.000068	0.000203	
* Lead, Total	4/7/23 14:10	4/7/23 16:32		1.015	0.0000690	mg/L	0.000068	0.000203	J
* Manganese, Total	4/7/23 14:10	4/7/23 16:32		1.015	0.600	mg/L	0.000152	0.001015	

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Barry Ash Pond - MW-11

Location Code: WMWBARAP
Collected: 4/4/23 11:25
Customer ID:
Submittal Date: 4/5/23 14:11

Laboratory ID Number: BD06775

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
* Potassium, Total	4/7/23 14:10	4/7/23 16:32		1.015	12.1	mg/L	0.169505	0.5075	
* Selenium, Total	4/7/23 14:10	4/7/23 16:32		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Total	4/7/23 14:10	4/7/23 16:32		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 200.8		Analyst: DLJ							
* Antimony, Dissolved	4/7/23 11:45	4/7/23 13:27		1.015	Not Detected	mg/L	0.000710	0.001015	U
* Aluminum, Dissolved	4/7/23 11:45	4/7/23 13:27		1.015	Not Detected	mg/L	0.009135	0.05075	U
* Arsenic, Dissolved	4/7/23 11:45	4/7/23 13:27		1.015	0.0137	mg/L	0.000112	0.000203	
* Barium, Dissolved	4/7/23 11:45	4/7/23 13:27		1.015	0.0703	mg/L	0.000508	0.001015	
* Beryllium, Dissolved	4/7/23 11:45	4/7/23 13:27		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Dissolved	4/7/23 11:45	4/7/23 13:27		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Dissolved	4/7/23 11:45	4/7/23 13:27		1.015	0.00220	mg/L	0.000203	0.001015	
* Cobalt, Dissolved	4/7/23 11:45	4/7/23 13:27		1.015	0.000905	mg/L	0.000068	0.000203	
* Lead, Dissolved	4/7/23 11:45	4/7/23 13:27		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Dissolved	4/7/23 11:45	4/7/23 13:27		1.015	0.603	mg/L	0.000152	0.001015	
* Potassium, Dissolved	4/7/23 11:45	4/7/23 13:27		1.015	11.7	mg/L	0.169505	0.5075	
* Selenium, Dissolved	4/7/23 11:45	4/7/23 13:27		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Dissolved	4/7/23 11:45	4/7/23 13:27		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 245.1		Analyst: CRB							
* Mercury, Total by CVAA	4/11/23 18:35	4/12/23 00:31		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: EPA 353.2		Analyst: SC							
* Nitrogen, Nitrate/Nitrite	4/6/23 09:44	4/6/23 09:44		1	0.227	mg/L as N	0.20	0.3	J
Analytical Method: SM 2320 B		Analyst: ALH							
* Alkalinity to pH 4.5	4/17/23 10:54	4/17/23 14:05		1	230	mg CaCO3/L		0.10	
Analytical Method: SM 2540C		Analyst: CNJ							
* Solids, Dissolved	4/7/23 10:42	4/10/23 13:50		1	392	mg/L		25	
Analytical Method: SM 4500CO2 D		Analyst: ALH							
* Bicarbonate Alkalinity, (calc.)	4/17/23 10:54	4/17/23 14:05		1	230	mg CaCO3/L		1	
* Carbonate Alkalinity, (calc.)	4/17/23 10:54	4/17/23 14:05		1	Not Detected	mg CaCO3/L		0.5	
Analytical Method: SM 5310 B		Analyst: SC							
* Total Organic Carbon	4/12/23 10:31	4/12/23 10:31		1	25.8	mg/L	1.00	2	

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Barry Ash Pond - MW-11

Location Code: WMWBARAP

Collected: 4/4/23 11:25

Customer ID:

Submittal Date: 4/5/23 14:11

Laboratory ID Number: BD06775

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM4500Cl E		Analyst: CES							
* Chloride	4/12/23 12:08	4/12/23 12:08		2	28.9	mg/L	1.00	1	
Analytical Method: SM4500F G 2017		Analyst: CES							
* Fluoride	4/13/23 11:11	4/13/23 11:11		1	0.126	mg/L	0.06	0.125	
Analytical Method: SM4500SO4 E 2011		Analyst: JCC							
* Sulfate	4/6/23 11:17	4/6/23 11:17		3	84.3	mg/L	1.8	6	
Analytical Method: Field Measurements		Analyst: TJD							
Conductivity	4/4/23 11:23	4/4/23 11:23			672.85	uS/cm			FA
pH	4/4/23 11:23	4/4/23 11:23			6.27	SU			FA
Temperature	4/4/23 11:23	4/4/23 11:23			21.31	C			FA
Turbidity	4/4/23 11:23	4/4/23 11:23			4.71	NTU			FA
Sulfide	4/4/23 11:23	4/4/23 11:23			0	mg/L			FA

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWBARAP
Sample Date: 4/4/23 11:25
Customer ID:
Delivery Date: 4/5/23 14:11

Description: Barry Ash Pond - MW-11

Laboratory ID Number: BD06775

Sample	Analysis	Units	MB	MB				Standard		Rec		Prec	Limit
				Limit	Spike	MS	MSD	Standard	Limit	Rec	Limit		
BD06829	Aluminum, Dissolved	mg/L	0.0000353	0.0198	0.100	0.101	0.102	0.0999	0.0850 to 0.115	101	70.0 to 130	0.985	20.0
BD06828	Aluminum, Total	mg/L	0.000609	0.0198	0.100	0.139	0.139	0.103	0.0850 to 0.115	99.8	70.0 to 130	0.00	20.0
BD06829	Antimony, Dissolved	mg/L	0.000377	0.00100	0.100	0.0881	0.0905	0.0898	0.0850 to 0.115	88.1	70.0 to 130	2.69	20.0
BD06828	Antimony, Total	mg/L	0.000237	0.00100	0.100	0.0875	0.0922	0.0867	0.0850 to 0.115	87.5	70.0 to 130	5.23	20.0
BD06829	Arsenic, Dissolved	mg/L	0.0000113	0.000200	0.100	0.121	0.124	0.0990	0.0850 to 0.115	98.1	70.0 to 130	2.45	20.0
BD06828	Arsenic, Total	mg/L	0.0000156	0.000200	0.100	0.0969	0.0996	0.0998	0.0850 to 0.115	95.8	70.0 to 130	2.75	20.0
BD06829	Barium, Dissolved	mg/L	0.0000105	0.00100	0.100	0.210	0.210	0.0944	0.0850 to 0.115	93.0	70.0 to 130	0.00	20.0
BD06828	Barium, Total	mg/L	-0.0000063	0.00100	0.100	1.14	1.19	0.0923	0.0850 to 0.115	30.0	70.0 to 130	4.29	20.0
BD06829	Beryllium, Dissolved	mg/L	0.0000117	0.000880	0.100	0.0899	0.0944	0.0908	0.0850 to 0.115	89.9	70.0 to 130	4.88	20.0
BD06828	Beryllium, Total	mg/L	0.0000000	0.000880	0.100	0.0921	0.0959	0.0944	0.0850 to 0.115	92.1	70.0 to 130	4.04	20.0
BD06829	Boron, Dissolved	mg/L	-0.000075	0.0650	1.00	1.01	1.06	1.00	0.850 to 1.15	96.4	70.0 to 130	4.83	20.0
BD06828	Boron, Total	mg/L	-0.000537	0.0650	1.00	1.35	1.34	1.02	0.850 to 1.15	106	70.0 to 130	0.743	20.0
BD06829	Cadmium, Dissolved	mg/L	0.0000046	0.000147	0.100	0.0963	0.0981	0.0982	0.0850 to 0.115	96.3	70.0 to 130	1.85	20.0
BD06828	Cadmium, Total	mg/L	0.0000043	0.000147	0.100	0.0895	0.0918	0.0962	0.0850 to 0.115	89.4	70.0 to 130	2.54	20.0
BD06829	Calcium, Dissolved	mg/L	-0.00493	0.152	5.00	14.7	14.6	4.94	4.25 to 5.75	92.0	70.0 to 130	0.683	20.0
BD06828	Calcium, Total	mg/L	-0.0178	0.152	5.00	85.0	86.4	5.00	4.25 to 5.75	36.0	70.0 to 130	1.63	20.0
BD06827	Chloride	mg/L	0.0514	1.00	800	1580	1590	10.2	9.00 to 11.0	105	80.0 to 120	0.631	20.0
BD06829	Chromium, Dissolved	mg/L	-0.0000370	0.000440	0.100	0.0967	0.0995	0.0995	0.0850 to 0.115	96.7	70.0 to 130	2.85	20.0
BD06828	Chromium, Total	mg/L	-0.0000476	0.000440	0.100	0.0926	0.0929	0.0965	0.0850 to 0.115	92.4	70.0 to 130	0.323	20.0
BD06829	Cobalt, Dissolved	mg/L	-0.0000017	0.000147	0.100	0.101	0.104	0.101	0.0850 to 0.115	100	70.0 to 130	2.93	20.0
BD06828	Cobalt, Total	mg/L	0.0000042	0.000147	0.100	0.219	0.220	0.0997	0.0850 to 0.115	89.0	70.0 to 130	0.456	20.0
BD06828	Fluoride	mg/L	-0.00644	0.125	2.50	2.78	2.79	2.62	2.25 to 2.75	107	80.0 to 120	0.359	20.0
BD06829	Iron, Dissolved	mg/L	-0.00183	0.0176	0.2	60.3	60.4	0.195	0.170 to 0.230	-50.0	70.0 to 130	0.166	20.0
BD06828	Iron, Total	mg/L	0.000416	0.0176	0.2	0.648	0.649	0.200	0.170 to 0.230	98.0	70.0 to 130	0.154	20.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWBARAP

Sample Date: 4/4/23 11:25

Customer ID:

Delivery Date: 4/5/23 14:11

Description: Barry Ash Pond - MW-11

Laboratory ID Number: BD06775

Sample	Analysis	Units	MB	MB		Spike	MS	MSD	Standard		Rec		Prec	Limit
				Limit					Standard	Limit	Rec	Limit		
BD06829	Lead, Dissolved	mg/L	0.0000118	0.000147	0.100	0.0948	0.0971	0.0971	0.0850 to 0.115	94.8	70.0 to 130	2.40	20.0	
BD06828	Lead, Total	mg/L	0.0000027	0.000147	0.100	0.0928	0.0958	0.0945	0.0850 to 0.115	92.8	70.0 to 130	3.18	20.0	
BD06829	Lithium, Dissolved	mg/L	0.000245	0.0154	0.200	0.199	0.200	0.195	0.170 to 0.230	99.5	70.0 to 130	0.501	20.0	
BD06828	Lithium, Total	mg/L	-0.000701	0.0154	0.200	0.220	0.221	0.199	0.170 to 0.230	110	70.0 to 130	0.454	20.0	
BD06829	Magnesium, Dissolved	mg/L	0.000	0.0462	5.00	9.49	9.46	4.93	4.25 to 5.75	93.2	70.0 to 130	0.317	20.0	
BD06828	Magnesium, Total	mg/L	-0.00548	0.0462	5.00	77.6	75.3	4.93	4.25 to 5.75	102	70.0 to 130	3.01	20.0	
BD06829	Manganese, Dissolved	mg/L	0.0000167	0.00033	0.100	0.378	0.382	0.101	0.0850 to 0.115	98.0	70.0 to 130	1.05	20.0	
BD06828	Manganese, Total	mg/L	0.000200	0.00033	0.100	4.77	4.92	0.0980	0.0850 to 0.115	70.0	70.0 to 130	3.10	20.0	
BD06828	Mercury, Total by CVAA	mg/L	2.000E-05	0.000500	0.004	0.00397	0.00409	0.00403	0.00340 to 0.00460	99.2	70.0 to 130	2.98	20.0	
BD06829	Molybdenum, Dissolved	mg/L	-0.000152	0.0100	0.2	0.194	0.196	0.195	0.170 to 0.230	97.0	70.0 to 130	1.03	20.0	
BD06828	Molybdenum, Total	mg/L	-0.001	0.0100	0.2	0.202	0.201	0.201	0.170 to 0.230	101	70.0 to 130	0.496	20.0	
BD06829	Potassium, Dissolved	mg/L	0.00935	0.367	10.0	11.2	11.3	9.82	8.50 to 11.5	97.4	70.0 to 130	0.889	20.0	
BD06828	Potassium, Total	mg/L	-0.00778	0.367	10.0	25.9	26.1	9.95	8.50 to 11.5	88.0	70.0 to 130	0.769	20.0	
BD06829	Selenium, Dissolved	mg/L	0.000102	0.00100	0.100	0.102	0.103	0.0997	0.0850 to 0.115	102	70.0 to 130	0.976	20.0	
BD06828	Selenium, Total	mg/L	0.0000454	0.00100	0.100	0.0951	0.0968	0.100	0.0850 to 0.115	95.1	70.0 to 130	1.77	20.0	
BD06829	Silicon, Dissolved	mg/L	0.000229	0.0440	1.00	8.70	8.71	0.997	0.850 to 1.15	96.0	70.0 to 130	0.115	20.0	
BD06828	Silicon, Total	mg/L	-0.000048	0.0440	1.00	6.40	6.36	1.02	0.850 to 1.15	101	70.0 to 130	0.627	20.0	
BD06829	Sodium, Dissolved	mg/L	0.0149	0.0880	5.00	21.1	20.8	5.23	4.25 to 5.75	96.0	70.0 to 130	1.43	20.0	
BD06828	Sodium, Total	mg/L	0.000332	0.0880	5.00	761	761	4.87	4.25 to 5.75	120	70.0 to 130	0.00	20.0	
BD06781	Sulfate	mg/L	0.358	2.0	20.0	20.2	20.0	20.4	18.0 to 22.0	101	80.0 to 120	0.995	20.0	
BD06829	Thallium, Dissolved	mg/L	-0.0000001	0.000147	0.100	0.0977	0.0992	0.0992	0.0850 to 0.115	97.7	70.0 to 130	1.52	20.0	
BD06828	Thallium, Total	mg/L	0.0000054	0.000147	0.100	0.0959	0.0990	0.0978	0.0850 to 0.115	95.5	70.0 to 130	3.18	20.0	
BD06828	Total Organic Carbon	mg/L	0.108	1.00	10.0	11.0	10.6	23.5		94.6	80.0 to 120	3.70	20.0	

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWBARAP

Sample Date: 4/4/23 11:25

Customer ID:

Delivery Date: 4/5/23 14:11

Description: Barry Ash Pond - MW-11

Laboratory ID Number: BD06775

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BD06780	Alkalinity to pH 4.5	mg CaCO3/L					147	50.5	45.0 to 55.0			0.678	10.0
BD06781	Nitrogen, Nitrate/Nitrite	mg/L as N	0.05	0.200	2.00	2.05	0.032	2.07	1.80 to 2.20	102	90.0 to 110	0.00	15.0
BD06780	Solids, Dissolved	mg/L	1.00	25.0			329	51.0	40.0 to 60.0			2.70	10.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Barry Ash Pond - MW-12V

Location Code: WMWBARAP
Collected: 4/4/23 12:35
Customer ID:
Submittal Date: 4/5/23 14:11

Laboratory ID Number: BD06776

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7			Analyst: ABB			Preparation Method: EPA 1638			
* Boron, Total	4/7/23 14:10	4/11/23 11:13		1.015	0.0809	mg/L	0.030000	0.1015	J
* Calcium, Total	4/7/23 14:10	4/11/23 11:13		1.015	20.3	mg/L	0.070035	0.406	
* Iron, Total	4/7/23 14:10	4/11/23 13:19		101.5	84.4	mg/L	0.8120	4.06	
* Lithium, Total	4/7/23 14:10	4/11/23 11:13		1.015	Not Detected	mg/L	0.007105	0.01999956	U
* Magnesium, Total	4/7/23 14:10	4/11/23 11:13		1.015	14.2	mg/L	0.021315	0.406	
* Molybdenum, Total	4/7/23 14:10	4/11/23 11:13		1.015	Not Detected	mg/L	0.005075	0.01015	U
* Silica, Total (calc.)	4/7/23 14:10	4/11/23 11:13		1	14.6	mg/L			
* Silicon, Total	4/7/23 14:10	4/11/23 11:13		1.015	6.82	mg/L	0.02030	0.25375	
* Sodium, Total	4/7/23 14:10	4/11/23 13:19		101.5	43.1	mg/L	4.060	40.6	
Analytical Method: EPA 200.7			Analyst: ABB						
* Boron, Dissolved	4/7/23 11:45	4/12/23 11:14		1.015	0.0872	mg/L	0.030000	0.1015	J
* Calcium, Dissolved	4/7/23 11:45	4/12/23 11:14		1.015	20.1	mg/L	0.070035	0.406	
* Iron, Dissolved	4/7/23 11:45	4/12/23 13:21		101.5	84.2	mg/L	0.8120	4.06	
* Lithium, Dissolved	4/7/23 11:45	4/12/23 11:14		1.015	Not Detected	mg/L	0.007105	0.01999956	U
* Magnesium, Dissolved	4/7/23 11:45	4/12/23 11:14		1.015	14.3	mg/L	0.021315	0.406	
* Molybdenum, Dissolved	4/7/23 11:45	4/12/23 11:14		1.015	Not Detected	mg/L	0.005075	0.01015	U
* Silica, Dissolved (calc.)	4/7/23 11:45	4/12/23 11:14		1	14.4	mg/L			
* Silicon, Dissolved	4/7/23 11:45	4/12/23 11:14		1.015	6.71	mg/L	0.02030	0.25375	
* Sodium, Dissolved	4/7/23 11:45	4/12/23 13:21		101.5	42.1	mg/L	4.060	40.6	
Analytical Method: EPA 200.8			Analyst: DLJ			Preparation Method: EPA 1638			
* Antimony, Total	4/7/23 14:10	4/7/23 16:36		1.015	Not Detected	mg/L	0.000710	0.001015	U
* Aluminum, Total	4/7/23 14:10	4/7/23 16:36		1.015	Not Detected	mg/L	0.009135	0.05075	U
* Arsenic, Total	4/7/23 14:10	4/7/23 16:36		1.015	0.0214	mg/L	0.000112	0.000203	
* Barium, Total	4/7/23 14:10	4/7/23 16:36		1.015	0.0978	mg/L	0.000508	0.001015	
* Beryllium, Total	4/7/23 14:10	4/7/23 16:36		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Total	4/7/23 14:10	4/7/23 16:36		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Total	4/7/23 14:10	4/7/23 16:36		1.015	0.000978	mg/L	0.000203	0.001015	J
* Cobalt, Total	4/7/23 14:10	4/7/23 16:36		1.015	0.00154	mg/L	0.000068	0.000203	
* Lead, Total	4/7/23 14:10	4/7/23 16:36		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Total	4/7/23 14:10	4/7/23 16:36		1.015	1.16	mg/L	0.000152	0.001015	

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Barry Ash Pond - MW-12V

Location Code: WMWBARAP
Collected: 4/4/23 12:35
Customer ID:
Submittal Date: 4/5/23 14:11

Laboratory ID Number: BD06776

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
* Potassium, Total	4/7/23 14:10	4/7/23 16:36		1.015	2.68	mg/L	0.169505	0.5075	
* Selenium, Total	4/7/23 14:10	4/7/23 16:36		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Total	4/7/23 14:10	4/7/23 16:36		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 200.8		Analyst: DLJ							
* Antimony, Dissolved	4/7/23 11:45	4/7/23 13:31		1.015	Not Detected	mg/L	0.000710	0.001015	U
* Aluminum, Dissolved	4/7/23 11:45	4/7/23 13:31		1.015	Not Detected	mg/L	0.009135	0.05075	U
* Arsenic, Dissolved	4/7/23 11:45	4/7/23 13:31		1.015	0.0224	mg/L	0.000112	0.000203	
* Barium, Dissolved	4/7/23 11:45	4/7/23 13:31		1.015	0.0952	mg/L	0.000508	0.001015	
* Beryllium, Dissolved	4/7/23 11:45	4/7/23 13:31		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Dissolved	4/7/23 11:45	4/7/23 13:31		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Dissolved	4/7/23 11:45	4/7/23 13:31		1.015	0.000961	mg/L	0.000203	0.001015	J
* Cobalt, Dissolved	4/7/23 11:45	4/7/23 13:31		1.015	0.00160	mg/L	0.000068	0.000203	
* Lead, Dissolved	4/7/23 11:45	4/7/23 13:31		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Dissolved	4/7/23 11:45	4/7/23 13:31		1.015	1.18	mg/L	0.000152	0.001015	
* Potassium, Dissolved	4/7/23 11:45	4/7/23 13:31		1.015	2.54	mg/L	0.169505	0.5075	
* Selenium, Dissolved	4/7/23 11:45	4/7/23 13:31		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Dissolved	4/7/23 11:45	4/7/23 13:31		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 245.1		Analyst: CRB							
* Mercury, Total by CVAA	4/11/23 18:35	4/12/23 00:35		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: EPA 353.2		Analyst: SC							
* Nitrogen, Nitrate/Nitrite	4/6/23 09:46	4/6/23 09:46		1	0.256	mg/L as N	0.20	0.3	J
Analytical Method: SM 2320 B		Analyst: ALH							
* Alkalinity to pH 4.5	4/17/23 10:54	4/17/23 14:05		1	203	mg CaCO3/L		0.10	
Analytical Method: SM 2540C		Analyst: CNJ							
* Solids, Dissolved	4/7/23 10:42	4/10/23 13:50		1	343	mg/L		25	
Analytical Method: SM 4500CO2 D		Analyst: ALH							
* Bicarbonate Alkalinity, (calc.)	4/17/23 10:54	4/17/23 14:05		1	203	mg CaCO3/L		1	
* Carbonate Alkalinity, (calc.)	4/17/23 10:54	4/17/23 14:05		1	Not Detected	mg CaCO3/L		0.5	
Analytical Method: SM 5310 B		Analyst: SC							
* Total Organic Carbon	4/12/23 10:45	4/12/23 10:45		1	14.6	mg/L	1.00	2	

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Barry Ash Pond - MW-12V

Location Code: WMWBARAP

Collected: 4/4/23 12:35

Customer ID:

Submittal Date: 4/5/23 14:11

Laboratory ID Number: BD06776

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM4500Cl E		Analyst: CES							
* Chloride	4/12/23 12:13	4/12/23 12:13		2	26.3	mg/L	1.00	1	
Analytical Method: SM4500F G 2017		Analyst: CES							
* Fluoride	4/13/23 11:13	4/13/23 11:13		1	0.126	mg/L	0.06	0.125	
Analytical Method: SM4500SO4 E 2011		Analyst: JCC							
* Sulfate	4/6/23 11:18	4/6/23 11:18		3	85.5	mg/L	1.8	6	
Analytical Method: Field Measurements		Analyst: TJD							
Conductivity	4/4/23 12:30	4/4/23 12:30			615.08	uS/cm			FA
pH	4/4/23 12:30	4/4/23 12:30			6.22	SU			FA
Temperature	4/4/23 12:30	4/4/23 12:30			21.36	C			FA
Turbidity	4/4/23 12:30	4/4/23 12:30			1.78	NTU			FA
Sulfide	4/4/23 12:30	4/4/23 12:30			0	mg/L			FA

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWBARAP
Sample Date: 4/4/23 12:35
Customer ID:
Delivery Date: 4/5/23 14:11

Description: Barry Ash Pond - MW-12V

Laboratory ID Number: BD06776

Sample	Analysis	Units	MB	MB				Standard		Rec		Prec	Limit
				Limit	Spike	MS	MSD	Standard	Limit	Rec	Limit		
BD06829	Aluminum, Dissolved	mg/L	0.0000353	0.0198	0.100	0.101	0.102	0.0999	0.0850 to 0.115	101	70.0 to 130	0.985	20.0
BD06828	Aluminum, Total	mg/L	0.000609	0.0198	0.100	0.139	0.139	0.103	0.0850 to 0.115	99.8	70.0 to 130	0.00	20.0
BD06829	Antimony, Dissolved	mg/L	0.000377	0.00100	0.100	0.0881	0.0905	0.0898	0.0850 to 0.115	88.1	70.0 to 130	2.69	20.0
BD06828	Antimony, Total	mg/L	0.000237	0.00100	0.100	0.0875	0.0922	0.0867	0.0850 to 0.115	87.5	70.0 to 130	5.23	20.0
BD06829	Arsenic, Dissolved	mg/L	0.0000113	0.000200	0.100	0.121	0.124	0.0990	0.0850 to 0.115	98.1	70.0 to 130	2.45	20.0
BD06828	Arsenic, Total	mg/L	0.0000156	0.000200	0.100	0.0969	0.0996	0.0998	0.0850 to 0.115	95.8	70.0 to 130	2.75	20.0
BD06829	Barium, Dissolved	mg/L	0.0000105	0.00100	0.100	0.210	0.210	0.0944	0.0850 to 0.115	93.0	70.0 to 130	0.00	20.0
BD06828	Barium, Total	mg/L	-0.0000063	0.00100	0.100	1.14	1.19	0.0923	0.0850 to 0.115	30.0	70.0 to 130	4.29	20.0
BD06829	Beryllium, Dissolved	mg/L	0.0000117	0.000880	0.100	0.0899	0.0944	0.0908	0.0850 to 0.115	89.9	70.0 to 130	4.88	20.0
BD06828	Beryllium, Total	mg/L	0.0000000	0.000880	0.100	0.0921	0.0959	0.0944	0.0850 to 0.115	92.1	70.0 to 130	4.04	20.0
BD06829	Boron, Dissolved	mg/L	-0.000075	0.0650	1.00	1.01	1.06	1.00	0.850 to 1.15	96.4	70.0 to 130	4.83	20.0
BD06828	Boron, Total	mg/L	-0.000537	0.0650	1.00	1.35	1.34	1.02	0.850 to 1.15	106	70.0 to 130	0.743	20.0
BD06829	Cadmium, Dissolved	mg/L	0.0000046	0.000147	0.100	0.0963	0.0981	0.0982	0.0850 to 0.115	96.3	70.0 to 130	1.85	20.0
BD06828	Cadmium, Total	mg/L	0.0000043	0.000147	0.100	0.0895	0.0918	0.0962	0.0850 to 0.115	89.4	70.0 to 130	2.54	20.0
BD06829	Calcium, Dissolved	mg/L	-0.00493	0.152	5.00	14.7	14.6	4.94	4.25 to 5.75	92.0	70.0 to 130	0.683	20.0
BD06828	Calcium, Total	mg/L	-0.0178	0.152	5.00	85.0	86.4	5.00	4.25 to 5.75	36.0	70.0 to 130	1.63	20.0
BD06827	Chloride	mg/L	0.0514	1.00	800	1580	1590	10.2	9.00 to 11.0	105	80.0 to 120	0.631	20.0
BD06829	Chromium, Dissolved	mg/L	-0.0000370	0.000440	0.100	0.0967	0.0995	0.0995	0.0850 to 0.115	96.7	70.0 to 130	2.85	20.0
BD06828	Chromium, Total	mg/L	-0.0000476	0.000440	0.100	0.0926	0.0929	0.0965	0.0850 to 0.115	92.4	70.0 to 130	0.323	20.0
BD06829	Cobalt, Dissolved	mg/L	-0.0000017	0.000147	0.100	0.101	0.104	0.101	0.0850 to 0.115	100	70.0 to 130	2.93	20.0
BD06828	Cobalt, Total	mg/L	0.0000042	0.000147	0.100	0.219	0.220	0.0997	0.0850 to 0.115	89.0	70.0 to 130	0.456	20.0
BD06828	Fluoride	mg/L	-0.00644	0.125	2.50	2.78	2.79	2.62	2.25 to 2.75	107	80.0 to 120	0.359	20.0
BD06829	Iron, Dissolved	mg/L	-0.00183	0.0176	0.2	60.3	60.4	0.195	0.170 to 0.230	-50.0	70.0 to 130	0.166	20.0
BD06828	Iron, Total	mg/L	0.000416	0.0176	0.2	0.648	0.649	0.200	0.170 to 0.230	98.0	70.0 to 130	0.154	20.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWBARAP
Sample Date: 4/4/23 12:35
Customer ID:
Delivery Date: 4/5/23 14:11

Description: Barry Ash Pond - MW-12V

Laboratory ID Number: BD06776

Sample	Analysis	Units	MB					Standard		Rec		Prec	Limit
			MB	Limit	Spike	MS	MSD	Standard	Limit	Rec	Limit		
BD06829	Lead, Dissolved	mg/L	0.0000118	0.000147	0.100	0.0948	0.0971	0.0971	0.0850 to 0.115	94.8	70.0 to 130	2.40	20.0
BD06828	Lead, Total	mg/L	0.0000027	0.000147	0.100	0.0928	0.0958	0.0945	0.0850 to 0.115	92.8	70.0 to 130	3.18	20.0
BD06829	Lithium, Dissolved	mg/L	0.000245	0.0154	0.200	0.199	0.200	0.195	0.170 to 0.230	99.5	70.0 to 130	0.501	20.0
BD06828	Lithium, Total	mg/L	-0.000701	0.0154	0.200	0.220	0.221	0.199	0.170 to 0.230	110	70.0 to 130	0.454	20.0
BD06829	Magnesium, Dissolved	mg/L	0.000	0.0462	5.00	9.49	9.46	4.93	4.25 to 5.75	93.2	70.0 to 130	0.317	20.0
BD06828	Magnesium, Total	mg/L	-0.00548	0.0462	5.00	77.6	75.3	4.93	4.25 to 5.75	102	70.0 to 130	3.01	20.0
BD06829	Manganese, Dissolved	mg/L	0.0000167	0.00033	0.100	0.378	0.382	0.101	0.0850 to 0.115	98.0	70.0 to 130	1.05	20.0
BD06828	Manganese, Total	mg/L	0.000200	0.00033	0.100	4.77	4.92	0.0980	0.0850 to 0.115	70.0	70.0 to 130	3.10	20.0
BD06828	Mercury, Total by CVAA	mg/L	2.000E-05	0.000500	0.004	0.00397	0.00409	0.00403	0.00340 to 0.00460	99.2	70.0 to 130	2.98	20.0
BD06829	Molybdenum, Dissolved	mg/L	-0.000152	0.0100	0.2	0.194	0.196	0.195	0.170 to 0.230	97.0	70.0 to 130	1.03	20.0
BD06828	Molybdenum, Total	mg/L	-0.001	0.0100	0.2	0.202	0.201	0.201	0.170 to 0.230	101	70.0 to 130	0.496	20.0
BD06829	Potassium, Dissolved	mg/L	0.00935	0.367	10.0	11.2	11.3	9.82	8.50 to 11.5	97.4	70.0 to 130	0.889	20.0
BD06828	Potassium, Total	mg/L	-0.00778	0.367	10.0	25.9	26.1	9.95	8.50 to 11.5	88.0	70.0 to 130	0.769	20.0
BD06829	Selenium, Dissolved	mg/L	0.000102	0.00100	0.100	0.102	0.103	0.0997	0.0850 to 0.115	102	70.0 to 130	0.976	20.0
BD06828	Selenium, Total	mg/L	0.0000454	0.00100	0.100	0.0951	0.0968	0.100	0.0850 to 0.115	95.1	70.0 to 130	1.77	20.0
BD06829	Silicon, Dissolved	mg/L	0.000229	0.0440	1.00	8.70	8.71	0.997	0.850 to 1.15	96.0	70.0 to 130	0.115	20.0
BD06828	Silicon, Total	mg/L	-0.000048	0.0440	1.00	6.40	6.36	1.02	0.850 to 1.15	101	70.0 to 130	0.627	20.0
BD06829	Sodium, Dissolved	mg/L	0.0149	0.0880	5.00	21.1	20.8	5.23	4.25 to 5.75	96.0	70.0 to 130	1.43	20.0
BD06828	Sodium, Total	mg/L	0.000332	0.0880	5.00	761	761	4.87	4.25 to 5.75	120	70.0 to 130	0.00	20.0
BD06781	Sulfate	mg/L	0.358	2.0	20.0	20.2	20.0	20.4	18.0 to 22.0	101	80.0 to 120	0.995	20.0
BD06829	Thallium, Dissolved	mg/L	-0.0000001	0.000147	0.100	0.0977	0.0992	0.0992	0.0850 to 0.115	97.7	70.0 to 130	1.52	20.0
BD06828	Thallium, Total	mg/L	0.0000054	0.000147	0.100	0.0959	0.0990	0.0978	0.0850 to 0.115	95.5	70.0 to 130	3.18	20.0
BD06828	Total Organic Carbon	mg/L	0.108	1.00	10.0	11.0	10.6	23.5		94.6	80.0 to 120	3.70	20.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWBARAP

Sample Date: 4/4/23 12:35

Customer ID:

Delivery Date: 4/5/23 14:11

Description: Barry Ash Pond - MW-12V

Laboratory ID Number: BD06776

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BD06780	Alkalinity to pH 4.5	mg CaCO3/L					147	50.5	45.0 to 55.0			0.678	10.0
BD06781	Nitrogen, Nitrate/Nitrite	mg/L as N	0.05	0.200	2.00	2.05	0.032	2.07	1.80 to 2.20	102	90.0 to 110	0.00	15.0
BD06780	Solids, Dissolved	mg/L	1.00	25.0			329	51.0	40.0 to 60.0			2.70	10.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Barry Ash Pond - MW-12V DUP

Location Code: WMWBARAP
Collected: 4/4/23 12:35
Customer ID:
Submittal Date: 4/5/23 14:11

Laboratory ID Number: BD06777

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7			Analyst: ABB		Preparation Method: EPA 1638				
* Boron, Total	4/7/23 14:10	4/11/23 11:17		1.015	0.0808	mg/L	0.030000	0.1015	J
* Calcium, Total	4/7/23 14:10	4/11/23 11:17		1.015	20.4	mg/L	0.070035	0.406	
* Iron, Total	4/7/23 14:10	4/11/23 13:23		101.5	85.7	mg/L	0.8120	4.06	
* Lithium, Total	4/7/23 14:10	4/11/23 11:17		1.015	Not Detected	mg/L	0.007105	0.01999956	U
* Magnesium, Total	4/7/23 14:10	4/11/23 11:17		1.015	14.1	mg/L	0.021315	0.406	
* Molybdenum, Total	4/7/23 14:10	4/11/23 11:17		1.015	Not Detected	mg/L	0.005075	0.01015	U
* Silica, Total (calc.)	4/7/23 14:10	4/11/23 11:17		1	14.5	mg/L			
* Silicon, Total	4/7/23 14:10	4/11/23 11:17		1.015	6.77	mg/L	0.02030	0.25375	
* Sodium, Total	4/7/23 14:10	4/11/23 13:23		101.5	41.5	mg/L	4.060	40.6	
Analytical Method: EPA 200.7			Analyst: ABB		Preparation Method: EPA 1638				
* Boron, Dissolved	4/7/23 11:45	4/12/23 11:17		1.015	0.0873	mg/L	0.030000	0.1015	J
* Calcium, Dissolved	4/7/23 11:45	4/12/23 11:17		1.015	20.3	mg/L	0.070035	0.406	
* Iron, Dissolved	4/7/23 11:45	4/12/23 13:24		101.5	83.5	mg/L	0.8120	4.06	
* Lithium, Dissolved	4/7/23 11:45	4/12/23 11:17		1.015	Not Detected	mg/L	0.007105	0.01999956	U
* Magnesium, Dissolved	4/7/23 11:45	4/12/23 11:17		1.015	14.1	mg/L	0.021315	0.406	
* Molybdenum, Dissolved	4/7/23 11:45	4/12/23 11:17		1.015	Not Detected	mg/L	0.005075	0.01015	U
* Silica, Dissolved (calc.)	4/7/23 11:45	4/12/23 11:17		1	14.4	mg/L			
* Silicon, Dissolved	4/7/23 11:45	4/12/23 11:17		1.015	6.75	mg/L	0.02030	0.25375	
* Sodium, Dissolved	4/7/23 11:45	4/12/23 13:24		101.5	42.7	mg/L	4.060	40.6	
Analytical Method: EPA 200.8			Analyst: DLJ		Preparation Method: EPA 1638				
* Antimony, Total	4/7/23 14:10	4/7/23 16:40		1.015	Not Detected	mg/L	0.000710	0.001015	U
* Aluminum, Total	4/7/23 14:10	4/7/23 16:40		1.015	Not Detected	mg/L	0.009135	0.05075	U
* Arsenic, Total	4/7/23 14:10	4/7/23 16:40		1.015	0.0208	mg/L	0.000112	0.000203	
* Barium, Total	4/7/23 14:10	4/7/23 16:40		1.015	0.0971	mg/L	0.000508	0.001015	
* Beryllium, Total	4/7/23 14:10	4/7/23 16:40		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Total	4/7/23 14:10	4/7/23 16:40		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Total	4/7/23 14:10	4/7/23 16:40		1.015	0.000962	mg/L	0.000203	0.001015	J
* Cobalt, Total	4/7/23 14:10	4/7/23 16:40		1.015	0.00164	mg/L	0.000068	0.000203	
* Lead, Total	4/7/23 14:10	4/7/23 16:40		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Total	4/7/23 14:10	4/7/23 16:40		1.015	1.17	mg/L	0.000152	0.001015	

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Barry Ash Pond - MW-12V DUP

Location Code: WMWBARAP
Collected: 4/4/23 12:35
Customer ID:
Submittal Date: 4/5/23 14:11

Laboratory ID Number: BD06777

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
* Potassium, Total	4/7/23 14:10	4/7/23 16:40		1.015	2.60	mg/L	0.169505	0.5075	
* Selenium, Total	4/7/23 14:10	4/7/23 16:40		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Total	4/7/23 14:10	4/7/23 16:40		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 200.8		Analyst: DLJ							
* Antimony, Dissolved	4/7/23 11:45	4/7/23 13:34		1.015	Not Detected	mg/L	0.000710	0.001015	U
* Aluminum, Dissolved	4/7/23 11:45	4/7/23 13:34		1.015	Not Detected	mg/L	0.009135	0.05075	U
* Arsenic, Dissolved	4/7/23 11:45	4/7/23 13:34		1.015	0.0220	mg/L	0.000112	0.000203	
* Barium, Dissolved	4/7/23 11:45	4/7/23 13:34		1.015	0.0943	mg/L	0.000508	0.001015	
* Beryllium, Dissolved	4/7/23 11:45	4/7/23 13:34		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Dissolved	4/7/23 11:45	4/7/23 13:34		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Dissolved	4/7/23 11:45	4/7/23 13:34		1.015	0.000981	mg/L	0.000203	0.001015	J
* Cobalt, Dissolved	4/7/23 11:45	4/7/23 13:34		1.015	0.00168	mg/L	0.000068	0.000203	
* Lead, Dissolved	4/7/23 11:45	4/7/23 13:34		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Dissolved	4/7/23 11:45	4/7/23 13:34		1.015	1.17	mg/L	0.000152	0.001015	
* Potassium, Dissolved	4/7/23 11:45	4/7/23 13:34		1.015	2.59	mg/L	0.169505	0.5075	
* Selenium, Dissolved	4/7/23 11:45	4/7/23 13:34		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Dissolved	4/7/23 11:45	4/7/23 13:34		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 245.1		Analyst: CRB							
* Mercury, Total by CVAA	4/11/23 18:35	4/12/23 00:39		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: EPA 353.2		Analyst: SC							
* Nitrogen, Nitrate/Nitrite	4/6/23 09:48	4/6/23 09:48		1	0.251	mg/L as N	0.20	0.3	J
Analytical Method: SM 2320 B		Analyst: ALH							
* Alkalinity to pH 4.5	4/17/23 10:54	4/17/23 14:05		1	207	mg CaCO3/L		0.10	
Analytical Method: SM 2540C		Analyst: CNJ							
* Solids, Dissolved	4/7/23 10:42	4/10/23 13:50		1	345	mg/L		25	
Analytical Method: SM 4500CO2 D		Analyst: ALH							
* Bicarbonate Alkalinity, (calc.)	4/17/23 10:54	4/17/23 14:05		1	207	mg CaCO3/L		1	
* Carbonate Alkalinity, (calc.)	4/17/23 10:54	4/17/23 14:05		1	Not Detected	mg CaCO3/L		0.5	
Analytical Method: SM 5310 B		Analyst: SC							
* Total Organic Carbon	4/12/23 11:03	4/12/23 11:03		1	14.3	mg/L	1.00	2	

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Barry Ash Pond - MW-12V DUP

Location Code: WMWBARAP
Collected: 4/4/23 12:35
Customer ID:
Submittal Date: 4/5/23 14:11

Laboratory ID Number: BD06777

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM4500Cl E		Analyst: CES							
* Chloride	4/12/23 12:14	4/12/23 12:14		2	25.7	mg/L	1.00	1	
Analytical Method: SM4500F G 2017		Analyst: CES							
* Fluoride	4/13/23 11:14	4/13/23 11:14		1	0.0996	mg/L	0.06	0.125	J
Analytical Method: SM4500SO4 E 2011		Analyst: JCC							
* Sulfate	4/6/23 11:19	4/6/23 11:19		3	88.4	mg/L	1.8	6	
Analytical Method: Field Measurements		Analyst: TJD							
Conductivity	4/4/23 12:30	4/4/23 12:30			615.08	uS/cm			FA
pH	4/4/23 12:30	4/4/23 12:30			6.22	SU			FA
Temperature	4/4/23 12:30	4/4/23 12:30			21.36	C			FA
Turbidity	4/4/23 12:30	4/4/23 12:30			1.78	NTU			FA
Sulfide	4/4/23 12:30	4/4/23 12:30			0	mg/L			FA

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWBARAP

Sample Date: 4/4/23 12:35

Customer ID:

Delivery Date: 4/5/23 14:11

Description: Barry Ash Pond - MW-12V DUP

Laboratory ID Number: BD06777

Sample	Analysis	Units	MB	MB				Standard		Rec			Prec Limit
				Limit	Spike	MS	MSD	Standard	Limit	Rec	Limit	Prec	
BD06829	Aluminum, Dissolved	mg/L	0.0000353	0.0198	0.100	0.101	0.102	0.0999	0.0850 to 0.115	101	70.0 to 130	0.985	20.0
BD06828	Aluminum, Total	mg/L	0.000609	0.0198	0.100	0.139	0.139	0.103	0.0850 to 0.115	99.8	70.0 to 130	0.00	20.0
BD06829	Antimony, Dissolved	mg/L	0.000377	0.00100	0.100	0.0881	0.0905	0.0898	0.0850 to 0.115	88.1	70.0 to 130	2.69	20.0
BD06828	Antimony, Total	mg/L	0.000237	0.00100	0.100	0.0875	0.0922	0.0867	0.0850 to 0.115	87.5	70.0 to 130	5.23	20.0
BD06829	Arsenic, Dissolved	mg/L	0.0000113	0.000200	0.100	0.121	0.124	0.0990	0.0850 to 0.115	98.1	70.0 to 130	2.45	20.0
BD06828	Arsenic, Total	mg/L	0.0000156	0.000200	0.100	0.0969	0.0996	0.0998	0.0850 to 0.115	95.8	70.0 to 130	2.75	20.0
BD06829	Barium, Dissolved	mg/L	0.0000105	0.00100	0.100	0.210	0.210	0.0944	0.0850 to 0.115	93.0	70.0 to 130	0.00	20.0
BD06828	Barium, Total	mg/L	-0.0000063	0.00100	0.100	1.14	1.19	0.0923	0.0850 to 0.115	30.0	70.0 to 130	4.29	20.0
BD06829	Beryllium, Dissolved	mg/L	0.0000117	0.000880	0.100	0.0899	0.0944	0.0908	0.0850 to 0.115	89.9	70.0 to 130	4.88	20.0
BD06828	Beryllium, Total	mg/L	0.0000000	0.000880	0.100	0.0921	0.0959	0.0944	0.0850 to 0.115	92.1	70.0 to 130	4.04	20.0
BD06829	Boron, Dissolved	mg/L	-0.000075	0.0650	1.00	1.01	1.06	1.00	0.850 to 1.15	96.4	70.0 to 130	4.83	20.0
BD06828	Boron, Total	mg/L	-0.000537	0.0650	1.00	1.35	1.34	1.02	0.850 to 1.15	106	70.0 to 130	0.743	20.0
BD06829	Cadmium, Dissolved	mg/L	0.0000046	0.000147	0.100	0.0963	0.0981	0.0982	0.0850 to 0.115	96.3	70.0 to 130	1.85	20.0
BD06828	Cadmium, Total	mg/L	0.0000043	0.000147	0.100	0.0895	0.0918	0.0962	0.0850 to 0.115	89.4	70.0 to 130	2.54	20.0
BD06829	Calcium, Dissolved	mg/L	-0.00493	0.152	5.00	14.7	14.6	4.94	4.25 to 5.75	92.0	70.0 to 130	0.683	20.0
BD06828	Calcium, Total	mg/L	-0.0178	0.152	5.00	85.0	86.4	5.00	4.25 to 5.75	36.0	70.0 to 130	1.63	20.0
BD06827	Chloride	mg/L	0.0514	1.00	800	1580	1590	10.2	9.00 to 11.0	105	80.0 to 120	0.631	20.0
BD06829	Chromium, Dissolved	mg/L	-0.0000370	0.000440	0.100	0.0967	0.0995	0.0995	0.0850 to 0.115	96.7	70.0 to 130	2.85	20.0
BD06828	Chromium, Total	mg/L	-0.0000476	0.000440	0.100	0.0926	0.0929	0.0965	0.0850 to 0.115	92.4	70.0 to 130	0.323	20.0
BD06829	Cobalt, Dissolved	mg/L	-0.0000017	0.000147	0.100	0.101	0.104	0.101	0.0850 to 0.115	100	70.0 to 130	2.93	20.0
BD06828	Cobalt, Total	mg/L	0.0000042	0.000147	0.100	0.219	0.220	0.0997	0.0850 to 0.115	89.0	70.0 to 130	0.456	20.0
BD06828	Fluoride	mg/L	-0.00644	0.125	2.50	2.78	2.79	2.62	2.25 to 2.75	107	80.0 to 120	0.359	20.0
BD06829	Iron, Dissolved	mg/L	-0.00183	0.0176	0.2	60.3	60.4	0.195	0.170 to 0.230	-50.0	70.0 to 130	0.166	20.0
BD06828	Iron, Total	mg/L	0.000416	0.0176	0.2	0.648	0.649	0.200	0.170 to 0.230	98.0	70.0 to 130	0.154	20.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWBARAP
Sample Date: 4/4/23 12:35
Customer ID:
Delivery Date: 4/5/23 14:11

Description: Barry Ash Pond - MW-12V DUP

Laboratory ID Number: BD06777

Sample	Analysis	Units	MB	MB		Spike	MS	MSD	Standard		Rec		Prec
				Limit					Standard	Limit	Rec	Limit	
BD06829	Lead, Dissolved	mg/L	0.0000118	0.000147	0.100	0.0948	0.0971	0.0971	0.0850 to 0.115	94.8	70.0 to 130	2.40	20.0
BD06828	Lead, Total	mg/L	0.0000027	0.000147	0.100	0.0928	0.0958	0.0945	0.0850 to 0.115	92.8	70.0 to 130	3.18	20.0
BD06829	Lithium, Dissolved	mg/L	0.000245	0.0154	0.200	0.199	0.200	0.195	0.170 to 0.230	99.5	70.0 to 130	0.501	20.0
BD06828	Lithium, Total	mg/L	-0.000701	0.0154	0.200	0.220	0.221	0.199	0.170 to 0.230	110	70.0 to 130	0.454	20.0
BD06829	Magnesium, Dissolved	mg/L	0.000	0.0462	5.00	9.49	9.46	4.93	4.25 to 5.75	93.2	70.0 to 130	0.317	20.0
BD06828	Magnesium, Total	mg/L	-0.00548	0.0462	5.00	77.6	75.3	4.93	4.25 to 5.75	102	70.0 to 130	3.01	20.0
BD06829	Manganese, Dissolved	mg/L	0.0000167	0.00033	0.100	0.378	0.382	0.101	0.0850 to 0.115	98.0	70.0 to 130	1.05	20.0
BD06828	Manganese, Total	mg/L	0.000200	0.00033	0.100	4.77	4.92	0.0980	0.0850 to 0.115	70.0	70.0 to 130	3.10	20.0
BD06828	Mercury, Total by CVAA	mg/L	2.000E-05	0.000500	0.004	0.00397	0.00409	0.00403	0.00340 to 0.00460	99.2	70.0 to 130	2.98	20.0
BD06829	Molybdenum, Dissolved	mg/L	-0.000152	0.0100	0.2	0.194	0.196	0.195	0.170 to 0.230	97.0	70.0 to 130	1.03	20.0
BD06828	Molybdenum, Total	mg/L	-0.001	0.0100	0.2	0.202	0.201	0.201	0.170 to 0.230	101	70.0 to 130	0.496	20.0
BD06829	Potassium, Dissolved	mg/L	0.00935	0.367	10.0	11.2	11.3	9.82	8.50 to 11.5	97.4	70.0 to 130	0.889	20.0
BD06828	Potassium, Total	mg/L	-0.00778	0.367	10.0	25.9	26.1	9.95	8.50 to 11.5	88.0	70.0 to 130	0.769	20.0
BD06829	Selenium, Dissolved	mg/L	0.000102	0.00100	0.100	0.102	0.103	0.0997	0.0850 to 0.115	102	70.0 to 130	0.976	20.0
BD06828	Selenium, Total	mg/L	0.0000454	0.00100	0.100	0.0951	0.0968	0.100	0.0850 to 0.115	95.1	70.0 to 130	1.77	20.0
BD06829	Silicon, Dissolved	mg/L	0.000229	0.0440	1.00	8.70	8.71	0.997	0.850 to 1.15	96.0	70.0 to 130	0.115	20.0
BD06828	Silicon, Total	mg/L	-0.000048	0.0440	1.00	6.40	6.36	1.02	0.850 to 1.15	101	70.0 to 130	0.627	20.0
BD06829	Sodium, Dissolved	mg/L	0.0149	0.0880	5.00	21.1	20.8	5.23	4.25 to 5.75	96.0	70.0 to 130	1.43	20.0
BD06828	Sodium, Total	mg/L	0.000332	0.0880	5.00	761	761	4.87	4.25 to 5.75	120	70.0 to 130	0.00	20.0
BD06781	Sulfate	mg/L	0.358	2.0	20.0	20.2	20.0	20.4	18.0 to 22.0	101	80.0 to 120	0.995	20.0
BD06829	Thallium, Dissolved	mg/L	-0.0000001	0.000147	0.100	0.0977	0.0992	0.0992	0.0850 to 0.115	97.7	70.0 to 130	1.52	20.0
BD06828	Thallium, Total	mg/L	0.0000054	0.000147	0.100	0.0959	0.0990	0.0978	0.0850 to 0.115	95.5	70.0 to 130	3.18	20.0
BD06828	Total Organic Carbon	mg/L	0.108	1.00	10.0	11.0	10.6	23.5		94.6	80.0 to 120	3.70	20.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWBARAP

Sample Date: 4/4/23 12:35

Customer ID:

Delivery Date: 4/5/23 14:11

Description: Barry Ash Pond - MW-12V DUP

Laboratory ID Number: BD06777

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BD06780	Alkalinity to pH 4.5	mg CaCO3/L					147	50.5	45.0 to 55.0			0.678	10.0
BD06781	Nitrogen, Nitrate/Nitrite	mg/L as N	0.05	0.200	2.00	2.05	0.032	2.07	1.80 to 2.20	102	90.0 to 110	0.00	15.0
BD06780	Solids, Dissolved	mg/L	1.00	25.0			329	51.0	40.0 to 60.0			2.70	10.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Barry Ash Pond - MW-12

Location Code: WMWBARAP
Collected: 4/4/23 13:45
Customer ID:
Submittal Date: 4/5/23 14:11

Laboratory ID Number: BD06778

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7			Analyst: ABB			Preparation Method: EPA 1638			
* Boron, Total	4/7/23 14:10	4/11/23 11:20		1.015	0.0629	mg/L	0.030000	0.1015	J
* Calcium, Total	4/7/23 14:10	4/11/23 11:20		1.015	23.3	mg/L	0.070035	0.406	
* Iron, Total	4/7/23 14:10	4/11/23 13:26		101.5	63.2	mg/L	0.8120	4.06	
* Lithium, Total	4/7/23 14:10	4/11/23 11:20		1.015	Not Detected	mg/L	0.007105	0.01999956	U
* Magnesium, Total	4/7/23 14:10	4/11/23 11:20		1.015	17.4	mg/L	0.021315	0.406	
* Molybdenum, Total	4/7/23 14:10	4/11/23 11:20		1.015	Not Detected	mg/L	0.005075	0.01015	U
* Silica, Total (calc.)	4/7/23 14:10	4/11/23 11:20		1	16.5	mg/L			
* Silicon, Total	4/7/23 14:10	4/11/23 11:20		1.015	7.70	mg/L	0.02030	0.25375	
* Sodium, Total	4/7/23 14:10	4/11/23 13:26		101.5	39.8	mg/L	4.060	40.6	J
Analytical Method: EPA 200.7			Analyst: ABB						
* Boron, Dissolved	4/7/23 11:45	4/12/23 11:21		1.015	0.0613	mg/L	0.030000	0.1015	J
* Calcium, Dissolved	4/7/23 11:45	4/12/23 11:21		1.015	23.0	mg/L	0.070035	0.406	
* Iron, Dissolved	4/7/23 11:45	4/12/23 13:27		101.5	61.6	mg/L	0.8120	4.06	
* Lithium, Dissolved	4/7/23 11:45	4/12/23 11:21		1.015	Not Detected	mg/L	0.007105	0.01999956	U
* Magnesium, Dissolved	4/7/23 11:45	4/12/23 11:21		1.015	17.4	mg/L	0.021315	0.406	
* Molybdenum, Dissolved	4/7/23 11:45	4/12/23 11:21		1.015	Not Detected	mg/L	0.005075	0.01015	U
* Silica, Dissolved (calc.)	4/7/23 11:45	4/12/23 11:21		1	16.4	mg/L			
* Silicon, Dissolved	4/7/23 11:45	4/12/23 11:21		1.015	7.68	mg/L	0.02030	0.25375	
* Sodium, Dissolved	4/7/23 11:45	4/12/23 13:27		101.5	40.5	mg/L	4.060	40.6	J
Analytical Method: EPA 200.8			Analyst: DLJ			Preparation Method: EPA 1638			
* Antimony, Total	4/7/23 14:10	4/7/23 16:43		1.015	Not Detected	mg/L	0.000710	0.001015	U
* Aluminum, Total	4/7/23 14:10	4/7/23 16:43		1.015	0.0392	mg/L	0.009135	0.05075	J
* Arsenic, Total	4/7/23 14:10	4/7/23 16:43		1.015	0.0218	mg/L	0.000112	0.000203	
* Barium, Total	4/7/23 14:10	4/7/23 16:43		1.015	0.0740	mg/L	0.000508	0.001015	
* Beryllium, Total	4/7/23 14:10	4/7/23 16:43		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Total	4/7/23 14:10	4/7/23 16:43		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Total	4/7/23 14:10	4/7/23 16:43		1.015	0.00351	mg/L	0.000203	0.001015	
* Cobalt, Total	4/7/23 14:10	4/7/23 16:43		1.015	0.00309	mg/L	0.000068	0.000203	
* Lead, Total	4/7/23 14:10	4/7/23 16:43		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Total	4/7/23 14:10	4/7/23 16:43		1.015	0.661	mg/L	0.000152	0.001015	

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Barry Ash Pond - MW-12

Location Code: WMWBARAP

Collected: 4/4/23 13:45

Customer ID:

Submittal Date: 4/5/23 14:11

Laboratory ID Number: BD06778

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
* Potassium, Total	4/7/23 14:10	4/7/23 16:43		1.015	3.00	mg/L	0.169505	0.5075	
* Selenium, Total	4/7/23 14:10	4/7/23 16:43		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Total	4/7/23 14:10	4/7/23 16:43		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 200.8		Analyst: DLJ							
* Antimony, Dissolved	4/7/23 11:45	4/7/23 13:38		1.015	Not Detected	mg/L	0.000710	0.001015	U
* Aluminum, Dissolved	4/7/23 11:45	4/7/23 13:38		1.015	Not Detected	mg/L	0.009135	0.05075	U
* Arsenic, Dissolved	4/7/23 11:45	4/7/23 13:38		1.015	0.0229	mg/L	0.000112	0.000203	
* Barium, Dissolved	4/7/23 11:45	4/7/23 13:38		1.015	0.0727	mg/L	0.000508	0.001015	
* Beryllium, Dissolved	4/7/23 11:45	4/7/23 13:38		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Dissolved	4/7/23 11:45	4/7/23 13:38		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Dissolved	4/7/23 11:45	4/7/23 13:38		1.015	0.00340	mg/L	0.000203	0.001015	
* Cobalt, Dissolved	4/7/23 11:45	4/7/23 13:38		1.015	0.00315	mg/L	0.000068	0.000203	
* Lead, Dissolved	4/7/23 11:45	4/7/23 13:38		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Dissolved	4/7/23 11:45	4/7/23 13:38		1.015	0.671	mg/L	0.000152	0.001015	
* Potassium, Dissolved	4/7/23 11:45	4/7/23 13:38		1.015	3.01	mg/L	0.169505	0.5075	
* Selenium, Dissolved	4/7/23 11:45	4/7/23 13:38		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Dissolved	4/7/23 11:45	4/7/23 13:38		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 245.1		Analyst: CRB							
* Mercury, Total by CVAA	4/11/23 18:35	4/12/23 00:43		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: EPA 353.2		Analyst: SC							
* Nitrogen, Nitrate/Nitrite	4/6/23 09:49	4/6/23 09:49		1	Not Detected	mg/L as N	0.20	0.3	U
Analytical Method: SM 2320 B		Analyst: ALH							
* Alkalinity to pH 4.5	4/17/23 10:54	4/17/23 14:05		1	204	mg CaCO3/L		0.10	
Analytical Method: SM 2540C		Analyst: CNJ							
* Solids, Dissolved	4/7/23 10:42	4/10/23 13:50		1	334	mg/L		25	
Analytical Method: SM 4500CO2 D		Analyst: ALH							
* Bicarbonate Alkalinity, (calc.)	4/17/23 10:54	4/17/23 14:05		1	204	mg CaCO3/L		1	
* Carbonate Alkalinity, (calc.)	4/17/23 10:54	4/17/23 14:05		1	Not Detected	mg CaCO3/L		0.5	
Analytical Method: SM 5310 B		Analyst: SC							
* Total Organic Carbon	4/12/23 11:18	4/12/23 11:18		1	20.5	mg/L	1.00	2	

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Barry Ash Pond - MW-12

Location Code: WMWBARAP
Collected: 4/4/23 13:45
Customer ID:
Submittal Date: 4/5/23 14:11

Laboratory ID Number: BD06778

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM4500Cl E		Analyst: CES							
* Chloride	4/12/23 12:16	4/12/23 12:16		2	25.0	mg/L	1.00	1	
Analytical Method: SM4500F G 2017		Analyst: CES							
* Fluoride	4/13/23 11:15	4/13/23 11:15		1	0.0810	mg/L	0.06	0.125	J
Analytical Method: SM4500SO4 E 2011		Analyst: JCC							
* Sulfate	4/6/23 11:10	4/6/23 11:10		1	39.6	mg/L	0.6	2	
Analytical Method: Field Measurements		Analyst: TJD							
Conductivity	4/4/23 13:41	4/4/23 13:41			584.50	uS/cm			FA
pH	4/4/23 13:41	4/4/23 13:41			5.76	SU			FA
Temperature	4/4/23 13:41	4/4/23 13:41			21.30	C			FA
Turbidity	4/4/23 13:41	4/4/23 13:41			2	NTU			FA
Sulfide	4/4/23 13:41	4/4/23 13:41			0	mg/L			FA

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWBARAP
Sample Date: 4/4/23 13:45
Customer ID:
Delivery Date: 4/5/23 14:11

Description: Barry Ash Pond - MW-12

Laboratory ID Number: BD06778

Sample	Analysis	Units	MB	MB				Standard		Rec		Prec	Limit
				Limit	Spike	MS	MSD	Standard	Limit	Rec	Limit		
BD06829	Aluminum, Dissolved	mg/L	0.0000353	0.0198	0.100	0.101	0.102	0.0999	0.0850 to 0.115	101	70.0 to 130	0.985	20.0
BD06828	Aluminum, Total	mg/L	0.000609	0.0198	0.100	0.139	0.139	0.103	0.0850 to 0.115	99.8	70.0 to 130	0.00	20.0
BD06829	Antimony, Dissolved	mg/L	0.000377	0.00100	0.100	0.0881	0.0905	0.0898	0.0850 to 0.115	88.1	70.0 to 130	2.69	20.0
BD06828	Antimony, Total	mg/L	0.000237	0.00100	0.100	0.0875	0.0922	0.0867	0.0850 to 0.115	87.5	70.0 to 130	5.23	20.0
BD06829	Arsenic, Dissolved	mg/L	0.0000113	0.000200	0.100	0.121	0.124	0.0990	0.0850 to 0.115	98.1	70.0 to 130	2.45	20.0
BD06828	Arsenic, Total	mg/L	0.0000156	0.000200	0.100	0.0969	0.0996	0.0998	0.0850 to 0.115	95.8	70.0 to 130	2.75	20.0
BD06829	Barium, Dissolved	mg/L	0.0000105	0.00100	0.100	0.210	0.210	0.0944	0.0850 to 0.115	93.0	70.0 to 130	0.00	20.0
BD06828	Barium, Total	mg/L	-0.0000063	0.00100	0.100	1.14	1.19	0.0923	0.0850 to 0.115	30.0	70.0 to 130	4.29	20.0
BD06829	Beryllium, Dissolved	mg/L	0.0000117	0.000880	0.100	0.0899	0.0944	0.0908	0.0850 to 0.115	89.9	70.0 to 130	4.88	20.0
BD06828	Beryllium, Total	mg/L	0.0000000	0.000880	0.100	0.0921	0.0959	0.0944	0.0850 to 0.115	92.1	70.0 to 130	4.04	20.0
BD06829	Boron, Dissolved	mg/L	-0.000075	0.0650	1.00	1.01	1.06	1.00	0.850 to 1.15	96.4	70.0 to 130	4.83	20.0
BD06828	Boron, Total	mg/L	-0.000537	0.0650	1.00	1.35	1.34	1.02	0.850 to 1.15	106	70.0 to 130	0.743	20.0
BD06829	Cadmium, Dissolved	mg/L	0.0000046	0.000147	0.100	0.0963	0.0981	0.0982	0.0850 to 0.115	96.3	70.0 to 130	1.85	20.0
BD06828	Cadmium, Total	mg/L	0.0000043	0.000147	0.100	0.0895	0.0918	0.0962	0.0850 to 0.115	89.4	70.0 to 130	2.54	20.0
BD06829	Calcium, Dissolved	mg/L	-0.00493	0.152	5.00	14.7	14.6	4.94	4.25 to 5.75	92.0	70.0 to 130	0.683	20.0
BD06828	Calcium, Total	mg/L	-0.0178	0.152	5.00	85.0	86.4	5.00	4.25 to 5.75	36.0	70.0 to 130	1.63	20.0
BD06827	Chloride	mg/L	0.0514	1.00	800	1580	1590	10.2	9.00 to 11.0	105	80.0 to 120	0.631	20.0
BD06829	Chromium, Dissolved	mg/L	-0.0000370	0.000440	0.100	0.0967	0.0995	0.0995	0.0850 to 0.115	96.7	70.0 to 130	2.85	20.0
BD06828	Chromium, Total	mg/L	-0.0000476	0.000440	0.100	0.0926	0.0929	0.0965	0.0850 to 0.115	92.4	70.0 to 130	0.323	20.0
BD06829	Cobalt, Dissolved	mg/L	-0.0000017	0.000147	0.100	0.101	0.104	0.101	0.0850 to 0.115	100	70.0 to 130	2.93	20.0
BD06828	Cobalt, Total	mg/L	0.0000042	0.000147	0.100	0.219	0.220	0.0997	0.0850 to 0.115	89.0	70.0 to 130	0.456	20.0
BD06828	Fluoride	mg/L	-0.00644	0.125	2.50	2.78	2.79	2.62	2.25 to 2.75	107	80.0 to 120	0.359	20.0
BD06829	Iron, Dissolved	mg/L	-0.00183	0.0176	0.2	60.3	60.4	0.195	0.170 to 0.230	-50.0	70.0 to 130	0.166	20.0
BD06828	Iron, Total	mg/L	0.000416	0.0176	0.2	0.648	0.649	0.200	0.170 to 0.230	98.0	70.0 to 130	0.154	20.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWBARAP

Sample Date: 4/4/23 13:45

Customer ID:

Delivery Date: 4/5/23 14:11

Description: Barry Ash Pond - MW-12

Laboratory ID Number: BD06778

Sample	Analysis	Units	MB		Spike	MS	MSD	Standard		Rec		Prec	Limit
			MB	Limit				Standard	Limit	Rec	Limit		
BD06829	Lead, Dissolved	mg/L	0.0000118	0.000147	0.100	0.0948	0.0971	0.0971	0.0850 to 0.115	94.8	70.0 to 130	2.40	20.0
BD06828	Lead, Total	mg/L	0.0000027	0.000147	0.100	0.0928	0.0958	0.0945	0.0850 to 0.115	92.8	70.0 to 130	3.18	20.0
BD06829	Lithium, Dissolved	mg/L	0.000245	0.0154	0.200	0.199	0.200	0.195	0.170 to 0.230	99.5	70.0 to 130	0.501	20.0
BD06828	Lithium, Total	mg/L	-0.000701	0.0154	0.200	0.220	0.221	0.199	0.170 to 0.230	110	70.0 to 130	0.454	20.0
BD06829	Magnesium, Dissolved	mg/L	0.000	0.0462	5.00	9.49	9.46	4.93	4.25 to 5.75	93.2	70.0 to 130	0.317	20.0
BD06828	Magnesium, Total	mg/L	-0.00548	0.0462	5.00	77.6	75.3	4.93	4.25 to 5.75	102	70.0 to 130	3.01	20.0
BD06829	Manganese, Dissolved	mg/L	0.0000167	0.00033	0.100	0.378	0.382	0.101	0.0850 to 0.115	98.0	70.0 to 130	1.05	20.0
BD06828	Manganese, Total	mg/L	0.000200	0.00033	0.100	4.77	4.92	0.0980	0.0850 to 0.115	70.0	70.0 to 130	3.10	20.0
BD06828	Mercury, Total by CVAA	mg/L	2.000E-05	0.000500	0.004	0.00397	0.00409	0.00403	0.00340 to 0.00460	99.2	70.0 to 130	2.98	20.0
BD06829	Molybdenum, Dissolved	mg/L	-0.000152	0.0100	0.2	0.194	0.196	0.195	0.170 to 0.230	97.0	70.0 to 130	1.03	20.0
BD06828	Molybdenum, Total	mg/L	-0.001	0.0100	0.2	0.202	0.201	0.201	0.170 to 0.230	101	70.0 to 130	0.496	20.0
BD06829	Potassium, Dissolved	mg/L	0.00935	0.367	10.0	11.2	11.3	9.82	8.50 to 11.5	97.4	70.0 to 130	0.889	20.0
BD06828	Potassium, Total	mg/L	-0.00778	0.367	10.0	25.9	26.1	9.95	8.50 to 11.5	88.0	70.0 to 130	0.769	20.0
BD06829	Selenium, Dissolved	mg/L	0.000102	0.00100	0.100	0.102	0.103	0.0997	0.0850 to 0.115	102	70.0 to 130	0.976	20.0
BD06828	Selenium, Total	mg/L	0.0000454	0.00100	0.100	0.0951	0.0968	0.100	0.0850 to 0.115	95.1	70.0 to 130	1.77	20.0
BD06829	Silicon, Dissolved	mg/L	0.000229	0.0440	1.00	8.70	8.71	0.997	0.850 to 1.15	96.0	70.0 to 130	0.115	20.0
BD06828	Silicon, Total	mg/L	-0.000048	0.0440	1.00	6.40	6.36	1.02	0.850 to 1.15	101	70.0 to 130	0.627	20.0
BD06829	Sodium, Dissolved	mg/L	0.0149	0.0880	5.00	21.1	20.8	5.23	4.25 to 5.75	96.0	70.0 to 130	1.43	20.0
BD06828	Sodium, Total	mg/L	0.000332	0.0880	5.00	761	761	4.87	4.25 to 5.75	120	70.0 to 130	0.00	20.0
BD06781	Sulfate	mg/L	0.358	2.0	20.0	20.2	20.0	20.4	18.0 to 22.0	101	80.0 to 120	0.995	20.0
BD06829	Thallium, Dissolved	mg/L	-0.0000001	0.000147	0.100	0.0977	0.0992	0.0992	0.0850 to 0.115	97.7	70.0 to 130	1.52	20.0
BD06828	Thallium, Total	mg/L	0.0000054	0.000147	0.100	0.0959	0.0990	0.0978	0.0850 to 0.115	95.5	70.0 to 130	3.18	20.0
BD06828	Total Organic Carbon	mg/L	0.108	1.00	10.0	11.0	10.6	23.5		94.6	80.0 to 120	3.70	20.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWBARAP

Sample Date: 4/4/23 13:45

Customer ID:

Delivery Date: 4/5/23 14:11

Description: Barry Ash Pond - MW-12

Laboratory ID Number: BD06778

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BD06780	Alkalinity to pH 4.5	mg CaCO3/L					147	50.5	45.0 to 55.0			0.678	10.0
BD06781	Nitrogen, Nitrate/Nitrite	mg/L as N	0.05	0.200	2.00	2.05	0.032	2.07	1.80 to 2.20	102	90.0 to 110	0.00	15.0
BD06780	Solids, Dissolved	mg/L	1.00	25.0			329	51.0	40.0 to 60.0			2.70	10.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Barry Ash Pond - MW-13

Location Code: WMWBARAP
Collected: 4/4/23 15:05
Customer ID:
Submittal Date: 4/5/23 14:11

Laboratory ID Number: BD06779

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7			Analyst: ABB			Preparation Method: EPA 1638			
* Boron, Total	4/7/23 14:10	4/11/23 11:23		1.015	0.0391	mg/L	0.030000	0.1015	J
* Calcium, Total	4/7/23 14:10	4/11/23 13:29		10.15	47.7	mg/L	0.70035	4.06	
* Iron, Total	4/7/23 14:10	4/11/23 13:29		10.15	4.94	mg/L	0.08120	0.406	
* Lithium, Total	4/7/23 14:10	4/11/23 11:23		1.015	Not Detected	mg/L	0.007105	0.01999956	U
* Magnesium, Total	4/7/23 14:10	4/11/23 11:23		1.015	4.88	mg/L	0.021315	0.406	
* Molybdenum, Total	4/7/23 14:10	4/11/23 11:23		1.015	0.0108	mg/L	0.005075	0.01015	
* Silica, Total (calc.)	4/7/23 14:10	4/11/23 11:23		1	13.7	mg/L			
* Silicon, Total	4/7/23 14:10	4/11/23 11:23		1.015	6.41	mg/L	0.02030	0.25375	
* Sodium, Total	4/7/23 14:10	4/11/23 11:23		1.015	19.3	mg/L	0.04060	0.406	
Analytical Method: EPA 200.7			Analyst: ABB						
* Boron, Dissolved	4/7/23 11:45	4/12/23 11:24		1.015	0.0371	mg/L	0.030000	0.1015	J
* Calcium, Dissolved	4/7/23 11:45	4/12/23 13:30		10.15	46.5	mg/L	0.70035	4.06	
* Iron, Dissolved	4/7/23 11:45	4/12/23 13:30		10.15	5.18	mg/L	0.08120	0.406	
* Lithium, Dissolved	4/7/23 11:45	4/12/23 11:24		1.015	Not Detected	mg/L	0.007105	0.01999956	U
* Magnesium, Dissolved	4/7/23 11:45	4/12/23 11:24		1.015	4.88	mg/L	0.021315	0.406	
* Molybdenum, Dissolved	4/7/23 11:45	4/12/23 11:24		1.015	0.0119	mg/L	0.005075	0.01015	
* Silica, Dissolved (calc.)	4/7/23 11:45	4/12/23 11:24		1	13.7	mg/L			
* Silicon, Dissolved	4/7/23 11:45	4/12/23 11:24		1.015	6.41	mg/L	0.02030	0.25375	
* Sodium, Dissolved	4/7/23 11:45	4/12/23 12:40		1.015	20.4	mg/L	0.04060	0.406	
Analytical Method: EPA 200.8			Analyst: DLJ			Preparation Method: EPA 1638			
* Antimony, Total	4/7/23 14:10	4/7/23 16:47		1.015	Not Detected	mg/L	0.000710	0.001015	U
* Aluminum, Total	4/7/23 14:10	4/7/23 16:47		1.015	0.0554	mg/L	0.009135	0.05075	
* Arsenic, Total	4/7/23 14:10	4/7/23 16:47		1.015	0.00645	mg/L	0.000112	0.000203	
* Barium, Total	4/7/23 14:10	4/7/23 16:47		1.015	0.0526	mg/L	0.000508	0.001015	
* Beryllium, Total	4/7/23 14:10	4/7/23 16:47		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Total	4/7/23 14:10	4/7/23 16:47		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Total	4/7/23 14:10	4/7/23 16:47		1.015	0.00286	mg/L	0.000203	0.001015	
* Cobalt, Total	4/7/23 14:10	4/7/23 16:47		1.015	0.000801	mg/L	0.000068	0.000203	
* Lead, Total	4/7/23 14:10	4/7/23 16:47		1.015	0.000101	mg/L	0.000068	0.000203	J
* Manganese, Total	4/7/23 14:10	4/7/23 16:47		1.015	0.106	mg/L	0.000152	0.001015	

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Barry Ash Pond - MW-13

Location Code: WMWBARAP

Collected: 4/4/23 15:05

Customer ID:

Submittal Date: 4/5/23 14:11

Laboratory ID Number: BD06779

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
* Potassium, Total	4/7/23 14:10	4/7/23 16:47		1.015	2.83	mg/L	0.169505	0.5075	
* Selenium, Total	4/7/23 14:10	4/7/23 16:47		1.015	0.000664	mg/L	0.000508	0.001015	J
* Thallium, Total	4/7/23 14:10	4/7/23 16:47		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 200.8		Analyst: DLJ							
* Antimony, Dissolved	4/7/23 11:45	4/7/23 13:42		1.015	Not Detected	mg/L	0.000710	0.001015	U
* Aluminum, Dissolved	4/7/23 11:45	4/7/23 13:42		1.015	Not Detected	mg/L	0.009135	0.05075	U
* Arsenic, Dissolved	4/7/23 11:45	4/7/23 13:42		1.015	0.00660	mg/L	0.000112	0.000203	
* Barium, Dissolved	4/7/23 11:45	4/7/23 13:42		1.015	0.0528	mg/L	0.000508	0.001015	
* Beryllium, Dissolved	4/7/23 11:45	4/7/23 13:42		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Dissolved	4/7/23 11:45	4/7/23 13:42		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Dissolved	4/7/23 11:45	4/7/23 13:42		1.015	0.00269	mg/L	0.000203	0.001015	
* Cobalt, Dissolved	4/7/23 11:45	4/7/23 13:42		1.015	0.000827	mg/L	0.000068	0.000203	
* Lead, Dissolved	4/7/23 11:45	4/7/23 13:42		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Dissolved	4/7/23 11:45	4/7/23 13:42		1.015	0.114	mg/L	0.000152	0.001015	
* Potassium, Dissolved	4/7/23 11:45	4/7/23 13:42		1.015	2.70	mg/L	0.169505	0.5075	
* Selenium, Dissolved	4/7/23 11:45	4/7/23 13:42		1.015	0.000520	mg/L	0.000508	0.001015	J
* Thallium, Dissolved	4/7/23 11:45	4/7/23 13:42		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 245.1		Analyst: CRB							
* Mercury, Total by CVAA	4/11/23 18:35	4/12/23 00:47		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: EPA 353.2		Analyst: SC							
* Nitrogen, Nitrate/Nitrite	4/6/23 09:50	4/6/23 09:50		1	Not Detected	mg/L as N	0.20	0.3	U
Analytical Method: SM 2320 B		Analyst: ALH							
* Alkalinity to pH 4.5	4/17/23 10:54	4/17/23 14:05		1	140	mg CaCO3/L		0.10	
Analytical Method: SM 2540C		Analyst: CNJ							
* Solids, Dissolved	4/7/23 10:42	4/10/23 13:50		1	220	mg/L		25	
Analytical Method: SM 4500CO2 D		Analyst: ALH							
* Bicarbonate Alkalinity, (calc.)	4/17/23 10:54	4/17/23 14:05		1	140	mg CaCO3/L		1	
* Carbonate Alkalinity, (calc.)	4/17/23 10:54	4/17/23 14:05		1	Not Detected	mg CaCO3/L		0.5	
Analytical Method: SM 5310 B		Analyst: SC							
* Total Organic Carbon	4/12/23 11:32	4/12/23 11:32		1	10.9	mg/L	1.00	2	

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Barry Ash Pond - MW-13

Location Code: WMWBARAP

Collected: 4/4/23 15:05

Customer ID:

Submittal Date: 4/5/23 14:11

Laboratory ID Number: BD06779

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM4500Cl E		Analyst: CES							
* Chloride	4/12/23 11:58	4/12/23 11:58		1	14.3	mg/L	0.50	0.5	
Analytical Method: SM4500F G 2017		Analyst: CES							
* Fluoride	4/13/23 11:16	4/13/23 11:16		1	0.187	mg/L	0.06	0.125	
Analytical Method: SM4500SO4 E 2011		Analyst: JCC							
* Sulfate	4/6/23 11:11	4/6/23 11:11		1	24.6	mg/L	0.6	2	
Analytical Method: Field Measurements		Analyst: TJD							
Conductivity	4/4/23 15:02	4/4/23 15:02			352.44	uS/cm			FA
pH	4/4/23 15:02	4/4/23 15:02			6.06	SU			FA
Temperature	4/4/23 15:02	4/4/23 15:02			20.83	C			FA
Turbidity	4/4/23 15:02	4/4/23 15:02			4.16	NTU			FA
Sulfide	4/4/23 15:02	4/4/23 15:02			0	mg/L			FA

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWBARAP
Sample Date: 4/4/23 15:05
Customer ID:
Delivery Date: 4/5/23 14:11

Description: Barry Ash Pond - MW-13

Laboratory ID Number: BD06779

Sample	Analysis	Units	MB		Spike	MS	MSD	Standard		Rec		Prec	Limit
			MB	Limit				Standard	Limit	Rec	Limit		
BD06829	Aluminum, Dissolved	mg/L	0.0000353	0.0198	0.100	0.101	0.102	0.0999	0.0850 to 0.115	101	70.0 to 130	0.985	20.0
BD06828	Aluminum, Total	mg/L	0.000609	0.0198	0.100	0.139	0.139	0.103	0.0850 to 0.115	99.8	70.0 to 130	0.00	20.0
BD06829	Antimony, Dissolved	mg/L	0.000377	0.00100	0.100	0.0881	0.0905	0.0898	0.0850 to 0.115	88.1	70.0 to 130	2.69	20.0
BD06828	Antimony, Total	mg/L	0.000237	0.00100	0.100	0.0875	0.0922	0.0867	0.0850 to 0.115	87.5	70.0 to 130	5.23	20.0
BD06829	Arsenic, Dissolved	mg/L	0.0000113	0.000200	0.100	0.121	0.124	0.0990	0.0850 to 0.115	98.1	70.0 to 130	2.45	20.0
BD06828	Arsenic, Total	mg/L	0.0000156	0.000200	0.100	0.0969	0.0996	0.0998	0.0850 to 0.115	95.8	70.0 to 130	2.75	20.0
BD06829	Barium, Dissolved	mg/L	0.0000105	0.00100	0.100	0.210	0.210	0.0944	0.0850 to 0.115	93.0	70.0 to 130	0.00	20.0
BD06828	Barium, Total	mg/L	-0.0000063	0.00100	0.100	1.14	1.19	0.0923	0.0850 to 0.115	30.0	70.0 to 130	4.29	20.0
BD06829	Beryllium, Dissolved	mg/L	0.0000117	0.000880	0.100	0.0899	0.0944	0.0908	0.0850 to 0.115	89.9	70.0 to 130	4.88	20.0
BD06828	Beryllium, Total	mg/L	0.0000000	0.000880	0.100	0.0921	0.0959	0.0944	0.0850 to 0.115	92.1	70.0 to 130	4.04	20.0
BD06829	Boron, Dissolved	mg/L	-0.000075	0.0650	1.00	1.01	1.06	1.00	0.850 to 1.15	96.4	70.0 to 130	4.83	20.0
BD06828	Boron, Total	mg/L	-0.000537	0.0650	1.00	1.35	1.34	1.02	0.850 to 1.15	106	70.0 to 130	0.743	20.0
BD06829	Cadmium, Dissolved	mg/L	0.0000046	0.000147	0.100	0.0963	0.0981	0.0982	0.0850 to 0.115	96.3	70.0 to 130	1.85	20.0
BD06828	Cadmium, Total	mg/L	0.0000043	0.000147	0.100	0.0895	0.0918	0.0962	0.0850 to 0.115	89.4	70.0 to 130	2.54	20.0
BD06829	Calcium, Dissolved	mg/L	-0.00493	0.152	5.00	14.7	14.6	4.94	4.25 to 5.75	92.0	70.0 to 130	0.683	20.0
BD06828	Calcium, Total	mg/L	-0.0178	0.152	5.00	85.0	86.4	5.00	4.25 to 5.75	36.0	70.0 to 130	1.63	20.0
BD06827	Chloride	mg/L	0.0514	1.00	800	1580	1590	10.2	9.00 to 11.0	105	80.0 to 120	0.631	20.0
BD06829	Chromium, Dissolved	mg/L	-0.0000370	0.000440	0.100	0.0967	0.0995	0.0995	0.0850 to 0.115	96.7	70.0 to 130	2.85	20.0
BD06828	Chromium, Total	mg/L	-0.0000476	0.000440	0.100	0.0926	0.0929	0.0965	0.0850 to 0.115	92.4	70.0 to 130	0.323	20.0
BD06829	Cobalt, Dissolved	mg/L	-0.0000017	0.000147	0.100	0.101	0.104	0.101	0.0850 to 0.115	100	70.0 to 130	2.93	20.0
BD06828	Cobalt, Total	mg/L	0.0000042	0.000147	0.100	0.219	0.220	0.0997	0.0850 to 0.115	89.0	70.0 to 130	0.456	20.0
BD06828	Fluoride	mg/L	-0.00644	0.125	2.50	2.78	2.79	2.62	2.25 to 2.75	107	80.0 to 120	0.359	20.0
BD06829	Iron, Dissolved	mg/L	-0.00183	0.0176	0.2	60.3	60.4	0.195	0.170 to 0.230	-50.0	70.0 to 130	0.166	20.0
BD06828	Iron, Total	mg/L	0.000416	0.0176	0.2	0.648	0.649	0.200	0.170 to 0.230	98.0	70.0 to 130	0.154	20.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWBARAP

Sample Date: 4/4/23 15:05

Customer ID:

Delivery Date: 4/5/23 14:11

Description: Barry Ash Pond - MW-13

Laboratory ID Number: BD06779

Sample	Analysis	Units	MB		Spike	MS	MSD	Standard		Rec		Prec	Limit
			MB	Limit				Standard	Limit	Rec	Limit		
BD06829	Lead, Dissolved	mg/L	0.0000118	0.000147	0.100	0.0948	0.0971	0.0971	0.0850 to 0.115	94.8	70.0 to 130	2.40	20.0
BD06828	Lead, Total	mg/L	0.0000027	0.000147	0.100	0.0928	0.0958	0.0945	0.0850 to 0.115	92.8	70.0 to 130	3.18	20.0
BD06829	Lithium, Dissolved	mg/L	0.000245	0.0154	0.200	0.199	0.200	0.195	0.170 to 0.230	99.5	70.0 to 130	0.501	20.0
BD06828	Lithium, Total	mg/L	-0.000701	0.0154	0.200	0.220	0.221	0.199	0.170 to 0.230	110	70.0 to 130	0.454	20.0
BD06829	Magnesium, Dissolved	mg/L	0.000	0.0462	5.00	9.49	9.46	4.93	4.25 to 5.75	93.2	70.0 to 130	0.317	20.0
BD06828	Magnesium, Total	mg/L	-0.00548	0.0462	5.00	77.6	75.3	4.93	4.25 to 5.75	102	70.0 to 130	3.01	20.0
BD06829	Manganese, Dissolved	mg/L	0.0000167	0.00033	0.100	0.378	0.382	0.101	0.0850 to 0.115	98.0	70.0 to 130	1.05	20.0
BD06828	Manganese, Total	mg/L	0.000200	0.00033	0.100	4.77	4.92	0.0980	0.0850 to 0.115	70.0	70.0 to 130	3.10	20.0
BD06828	Mercury, Total by CVAA	mg/L	2.000E-05	0.000500	0.004	0.00397	0.00409	0.00403	0.00340 to 0.00460	99.2	70.0 to 130	2.98	20.0
BD06829	Molybdenum, Dissolved	mg/L	-0.000152	0.0100	0.2	0.194	0.196	0.195	0.170 to 0.230	97.0	70.0 to 130	1.03	20.0
BD06828	Molybdenum, Total	mg/L	-0.001	0.0100	0.2	0.202	0.201	0.201	0.170 to 0.230	101	70.0 to 130	0.496	20.0
BD06829	Potassium, Dissolved	mg/L	0.00935	0.367	10.0	11.2	11.3	9.82	8.50 to 11.5	97.4	70.0 to 130	0.889	20.0
BD06828	Potassium, Total	mg/L	-0.00778	0.367	10.0	25.9	26.1	9.95	8.50 to 11.5	88.0	70.0 to 130	0.769	20.0
BD06829	Selenium, Dissolved	mg/L	0.000102	0.00100	0.100	0.102	0.103	0.0997	0.0850 to 0.115	102	70.0 to 130	0.976	20.0
BD06828	Selenium, Total	mg/L	0.0000454	0.00100	0.100	0.0951	0.0968	0.100	0.0850 to 0.115	95.1	70.0 to 130	1.77	20.0
BD06829	Silicon, Dissolved	mg/L	0.000229	0.0440	1.00	8.70	8.71	0.997	0.850 to 1.15	96.0	70.0 to 130	0.115	20.0
BD06828	Silicon, Total	mg/L	-0.000048	0.0440	1.00	6.40	6.36	1.02	0.850 to 1.15	101	70.0 to 130	0.627	20.0
BD06829	Sodium, Dissolved	mg/L	0.0149	0.0880	5.00	21.1	20.8	5.23	4.25 to 5.75	96.0	70.0 to 130	1.43	20.0
BD06828	Sodium, Total	mg/L	0.000332	0.0880	5.00	761	761	4.87	4.25 to 5.75	120	70.0 to 130	0.00	20.0
BD06781	Sulfate	mg/L	0.358	2.0	20.0	20.2	20.0	20.4	18.0 to 22.0	101	80.0 to 120	0.995	20.0
BD06829	Thallium, Dissolved	mg/L	-0.0000001	0.000147	0.100	0.0977	0.0992	0.0992	0.0850 to 0.115	97.7	70.0 to 130	1.52	20.0
BD06828	Thallium, Total	mg/L	0.0000054	0.000147	0.100	0.0959	0.0990	0.0978	0.0850 to 0.115	95.5	70.0 to 130	3.18	20.0
BD06828	Total Organic Carbon	mg/L	0.108	1.00	10.0	11.0	10.6	23.5		94.6	80.0 to 120	3.70	20.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWBARAP

Sample Date: 4/4/23 15:05

Customer ID:

Delivery Date: 4/5/23 14:11

Description: Barry Ash Pond - MW-13

Laboratory ID Number: BD06779

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard Standard	Standard Limit	Rec Rec	Rec Limit	Prec Prec	Prec Limit
BD06780	Alkalinity to pH 4.5	mg CaCO3/L					147	50.5	45.0 to 55.0			0.678	10.0
BD06781	Nitrogen, Nitrate/Nitrite	mg/L as N	0.05	0.200	2.00	2.05	0.032	2.07	1.80 to 2.20	102	90.0 to 110	0.00	15.0
BD06780	Solids, Dissolved	mg/L	1.00	25.0			329	51.0	40.0 to 60.0			2.70	10.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Barry Ash Pond - MW-13V

Location Code: WMWBARAP
Collected: 4/4/23 15:50
Customer ID:
Submittal Date: 4/5/23 14:11

Laboratory ID Number: BD06780

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7			Analyst: ABB			Preparation Method: EPA 1638			
* Boron, Total	4/7/23 14:10	4/11/23 11:26		1.015	0.0745	mg/L	0.030000	0.1015	J
* Calcium, Total	4/7/23 14:10	4/11/23 11:26		1.015	14.4	mg/L	0.070035	0.406	
* Iron, Total	4/7/23 14:10	4/11/23 13:32		101.5	54.7	mg/L	0.8120	4.06	
* Lithium, Total	4/7/23 14:10	4/11/23 11:26		1.015	0.0351	mg/L	0.007105	0.01999956	
* Magnesium, Total	4/7/23 14:10	4/11/23 11:26		1.015	6.35	mg/L	0.021315	0.406	
* Molybdenum, Total	4/7/23 14:10	4/11/23 11:26		1.015	Not Detected	mg/L	0.005075	0.01015	U
* Silica, Total (calc.)	4/7/23 14:10	4/11/23 11:26		1	14.7	mg/L			
* Silicon, Total	4/7/23 14:10	4/11/23 11:26		1.015	6.85	mg/L	0.02030	0.25375	
* Sodium, Total	4/7/23 14:10	4/11/23 13:32		101.5	62.7	mg/L	4.060	40.6	
Analytical Method: EPA 200.7			Analyst: ABB						
* Boron, Dissolved	4/7/23 11:45	4/12/23 11:27		1.015	0.0851	mg/L	0.030000	0.1015	J
* Calcium, Dissolved	4/7/23 11:45	4/12/23 11:27		1.015	14.2	mg/L	0.070035	0.406	
* Iron, Dissolved	4/7/23 11:45	4/12/23 13:33		101.5	53.1	mg/L	0.8120	4.06	
* Lithium, Dissolved	4/7/23 11:45	4/12/23 11:27		1.015	0.0341	mg/L	0.007105	0.01999956	
* Magnesium, Dissolved	4/7/23 11:45	4/12/23 11:27		1.015	6.29	mg/L	0.021315	0.406	
* Molybdenum, Dissolved	4/7/23 11:45	4/12/23 11:27		1.015	Not Detected	mg/L	0.005075	0.01015	U
* Silica, Dissolved (calc.)	4/7/23 11:45	4/12/23 11:27		1	14.5	mg/L			
* Silicon, Dissolved	4/7/23 11:45	4/12/23 11:27		1.015	6.78	mg/L	0.02030	0.25375	
* Sodium, Dissolved	4/7/23 11:45	4/12/23 13:33		101.5	61.8	mg/L	4.060	40.6	
Analytical Method: EPA 200.8			Analyst: DLJ			Preparation Method: EPA 1638			
* Antimony, Total	4/7/23 14:10	4/7/23 16:51		1.015	Not Detected	mg/L	0.000710	0.001015	U
* Aluminum, Total	4/7/23 14:10	4/7/23 16:51		1.015	0.0120	mg/L	0.009135	0.05075	J
* Arsenic, Total	4/7/23 14:10	4/7/23 16:51		1.015	0.00843	mg/L	0.000112	0.000203	
* Barium, Total	4/7/23 14:10	4/7/23 16:51		1.015	0.106	mg/L	0.000508	0.001015	
* Beryllium, Total	4/7/23 14:10	4/7/23 16:51		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Total	4/7/23 14:10	4/7/23 16:51		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Total	4/7/23 14:10	4/7/23 16:51		1.015	0.00417	mg/L	0.000203	0.001015	
* Cobalt, Total	4/7/23 14:10	4/7/23 16:51		1.015	0.00106	mg/L	0.000068	0.000203	
* Lead, Total	4/7/23 14:10	4/7/23 16:51		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Total	4/7/23 14:10	4/7/23 16:51		1.015	0.766	mg/L	0.000152	0.001015	

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Barry Ash Pond - MW-13V

Location Code: WMWBARAP
Collected: 4/4/23 15:50
Customer ID:
Submittal Date: 4/5/23 14:11

Laboratory ID Number: BD06780

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
* Potassium, Total	4/7/23 14:10	4/7/23 16:51		1.015	7.22	mg/L	0.169505	0.5075	
* Selenium, Total	4/7/23 14:10	4/7/23 16:51		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Total	4/7/23 14:10	4/7/23 16:51		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 200.8		Analyst: DLJ							
* Antimony, Dissolved	4/7/23 11:45	4/7/23 13:45		1.015	Not Detected	mg/L	0.000710	0.001015	U
* Aluminum, Dissolved	4/7/23 11:45	4/7/23 13:45		1.015	Not Detected	mg/L	0.009135	0.05075	U
* Arsenic, Dissolved	4/7/23 11:45	4/7/23 13:45		1.015	0.00817	mg/L	0.000112	0.000203	
* Barium, Dissolved	4/7/23 11:45	4/7/23 13:45		1.015	0.106	mg/L	0.000508	0.001015	
* Beryllium, Dissolved	4/7/23 11:45	4/7/23 13:45		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Dissolved	4/7/23 11:45	4/7/23 13:45		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Dissolved	4/7/23 11:45	4/7/23 13:45		1.015	0.00410	mg/L	0.000203	0.001015	
* Cobalt, Dissolved	4/7/23 11:45	4/7/23 13:45		1.015	0.00104	mg/L	0.000068	0.000203	
* Lead, Dissolved	4/7/23 11:45	4/7/23 13:45		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Dissolved	4/7/23 11:45	4/7/23 13:45		1.015	0.789	mg/L	0.000152	0.001015	
* Potassium, Dissolved	4/7/23 11:45	4/7/23 13:45		1.015	7.22	mg/L	0.169505	0.5075	
* Selenium, Dissolved	4/7/23 11:45	4/7/23 13:45		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Dissolved	4/7/23 11:45	4/7/23 13:45		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 245.1		Analyst: CRB							
* Mercury, Total by CVAA	4/11/23 18:35	4/12/23 00:50		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: EPA 353.2		Analyst: SC							
* Nitrogen, Nitrate/Nitrite	4/6/23 09:51	4/6/23 09:51		1	Not Detected	mg/L as N	0.20	0.3	U
Analytical Method: SM 2320 B		Analyst: ALH							
* Alkalinity to pH 4.5	4/17/23 10:54	4/17/23 14:05		1	148	mg CaCO3/L		0.10	
Analytical Method: SM 2540C		Analyst: CNJ							
* Solids, Dissolved	4/7/23 10:42	4/10/23 13:50		1	338	mg/L		25	
Analytical Method: SM 4500CO2 D		Analyst: ALH							
* Bicarbonate Alkalinity, (calc.)	4/17/23 10:54	4/17/23 14:05		1	148	mg CaCO3/L		1	
* Carbonate Alkalinity, (calc.)	4/17/23 10:54	4/17/23 14:05		1	Not Detected	mg CaCO3/L		0.5	
Analytical Method: SM 5310 B		Analyst: SC							
* Total Organic Carbon	4/12/23 11:47	4/12/23 11:47		1	17.3	mg/L	1.00	2	

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Barry Ash Pond - MW-13V

Location Code: WMWBARAP

Collected: 4/4/23 15:50

Customer ID:

Submittal Date: 4/5/23 14:11

Laboratory ID Number: BD06780

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM4500Cl E		Analyst: CES							
* Chloride	4/12/23 12:17	4/12/23 12:17		5	52.1	mg/L	2.50	2.5	
Analytical Method: SM4500F G 2017		Analyst: CES							
* Fluoride	4/13/23 11:17	4/13/23 11:17		1	0.0687	mg/L	0.06	0.125	J
Analytical Method: SM4500SO4 E 2011		Analyst: JCC							
* Sulfate	4/6/23 11:12	4/6/23 11:12		1	29.5	mg/L	0.6	2	
Analytical Method: Field Measurements		Analyst: TJD							
Conductivity	4/4/23 15:47	4/4/23 15:47			565.28	uS/cm			FA
pH	4/4/23 15:47	4/4/23 15:47			6.24	SU			FA
Temperature	4/4/23 15:47	4/4/23 15:47			21.02	C			FA
Turbidity	4/4/23 15:47	4/4/23 15:47			3.69	NTU			FA
Sulfide	4/4/23 15:47	4/4/23 15:47			0	mg/L			FA

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWBARAP

Sample Date: 4/4/23 15:50

Customer ID:

Delivery Date: 4/5/23 14:11

Description: Barry Ash Pond - MW-13V

Laboratory ID Number: BD06780

Sample	Analysis	Units	MB	MB		Spike	MS	MSD	Standard		Rec		Prec	Limit
				Limit					Standard	Limit	Rec	Limit		
BD06829	Aluminum, Dissolved	mg/L	0.0000353	0.0198	0.100	0.101	0.102	0.0999	0.0850 to 0.115	101	70.0 to 130	0.985	20.0	
BD06828	Aluminum, Total	mg/L	0.000609	0.0198	0.100	0.139	0.139	0.103	0.0850 to 0.115	99.8	70.0 to 130	0.00	20.0	
BD06829	Antimony, Dissolved	mg/L	0.000377	0.00100	0.100	0.0881	0.0905	0.0898	0.0850 to 0.115	88.1	70.0 to 130	2.69	20.0	
BD06828	Antimony, Total	mg/L	0.000237	0.00100	0.100	0.0875	0.0922	0.0867	0.0850 to 0.115	87.5	70.0 to 130	5.23	20.0	
BD06829	Arsenic, Dissolved	mg/L	0.0000113	0.000200	0.100	0.121	0.124	0.0990	0.0850 to 0.115	98.1	70.0 to 130	2.45	20.0	
BD06828	Arsenic, Total	mg/L	0.0000156	0.000200	0.100	0.0969	0.0996	0.0998	0.0850 to 0.115	95.8	70.0 to 130	2.75	20.0	
BD06829	Barium, Dissolved	mg/L	0.0000105	0.00100	0.100	0.210	0.210	0.0944	0.0850 to 0.115	93.0	70.0 to 130	0.00	20.0	
BD06828	Barium, Total	mg/L	-0.0000063	0.00100	0.100	1.14	1.19	0.0923	0.0850 to 0.115	30.0	70.0 to 130	4.29	20.0	
BD06829	Beryllium, Dissolved	mg/L	0.0000117	0.000880	0.100	0.0899	0.0944	0.0908	0.0850 to 0.115	89.9	70.0 to 130	4.88	20.0	
BD06828	Beryllium, Total	mg/L	0.0000000	0.000880	0.100	0.0921	0.0959	0.0944	0.0850 to 0.115	92.1	70.0 to 130	4.04	20.0	
BD06829	Boron, Dissolved	mg/L	-0.000075	0.0650	1.00	1.01	1.06	1.00	0.850 to 1.15	96.4	70.0 to 130	4.83	20.0	
BD06828	Boron, Total	mg/L	-0.000537	0.0650	1.00	1.35	1.34	1.02	0.850 to 1.15	106	70.0 to 130	0.743	20.0	
BD06829	Cadmium, Dissolved	mg/L	0.0000046	0.000147	0.100	0.0963	0.0981	0.0982	0.0850 to 0.115	96.3	70.0 to 130	1.85	20.0	
BD06828	Cadmium, Total	mg/L	0.0000043	0.000147	0.100	0.0895	0.0918	0.0962	0.0850 to 0.115	89.4	70.0 to 130	2.54	20.0	
BD06829	Calcium, Dissolved	mg/L	-0.00493	0.152	5.00	14.7	14.6	4.94	4.25 to 5.75	92.0	70.0 to 130	0.683	20.0	
BD06828	Calcium, Total	mg/L	-0.0178	0.152	5.00	85.0	86.4	5.00	4.25 to 5.75	36.0	70.0 to 130	1.63	20.0	
BD06827	Chloride	mg/L	0.0514	1.00	800	1580	1590	10.2	9.00 to 11.0	105	80.0 to 120	0.631	20.0	
BD06829	Chromium, Dissolved	mg/L	-0.0000370	0.000440	0.100	0.0967	0.0995	0.0995	0.0850 to 0.115	96.7	70.0 to 130	2.85	20.0	
BD06828	Chromium, Total	mg/L	-0.0000476	0.000440	0.100	0.0926	0.0929	0.0965	0.0850 to 0.115	92.4	70.0 to 130	0.323	20.0	
BD06829	Cobalt, Dissolved	mg/L	-0.0000017	0.000147	0.100	0.101	0.104	0.101	0.0850 to 0.115	100	70.0 to 130	2.93	20.0	
BD06828	Cobalt, Total	mg/L	0.0000042	0.000147	0.100	0.219	0.220	0.0997	0.0850 to 0.115	89.0	70.0 to 130	0.456	20.0	
BD06828	Fluoride	mg/L	-0.00644	0.125	2.50	2.78	2.79	2.62	2.25 to 2.75	107	80.0 to 120	0.359	20.0	
BD06829	Iron, Dissolved	mg/L	-0.00183	0.0176	0.2	60.3	60.4	0.195	0.170 to 0.230	-50.0	70.0 to 130	0.166	20.0	
BD06828	Iron, Total	mg/L	0.000416	0.0176	0.2	0.648	0.649	0.200	0.170 to 0.230	98.0	70.0 to 130	0.154	20.0	

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWBARAP

Sample Date: 4/4/23 15:50

Customer ID:

Delivery Date: 4/5/23 14:11

Description: Barry Ash Pond - MW-13V

Laboratory ID Number: BD06780

Sample	Analysis	Units	MB	MB				Standard		Rec		Prec	Limit
				Limit	Spike	MS	MSD	Standard	Limit	Rec	Limit		
BD06829	Lead, Dissolved	mg/L	0.0000118	0.000147	0.100	0.0948	0.0971	0.0971	0.0850 to 0.115	94.8	70.0 to 130	2.40	20.0
BD06828	Lead, Total	mg/L	0.0000027	0.000147	0.100	0.0928	0.0958	0.0945	0.0850 to 0.115	92.8	70.0 to 130	3.18	20.0
BD06829	Lithium, Dissolved	mg/L	0.000245	0.0154	0.200	0.199	0.200	0.195	0.170 to 0.230	99.5	70.0 to 130	0.501	20.0
BD06828	Lithium, Total	mg/L	-0.000701	0.0154	0.200	0.220	0.221	0.199	0.170 to 0.230	110	70.0 to 130	0.454	20.0
BD06829	Magnesium, Dissolved	mg/L	0.000	0.0462	5.00	9.49	9.46	4.93	4.25 to 5.75	93.2	70.0 to 130	0.317	20.0
BD06828	Magnesium, Total	mg/L	-0.00548	0.0462	5.00	77.6	75.3	4.93	4.25 to 5.75	102	70.0 to 130	3.01	20.0
BD06829	Manganese, Dissolved	mg/L	0.0000167	0.00033	0.100	0.378	0.382	0.101	0.0850 to 0.115	98.0	70.0 to 130	1.05	20.0
BD06828	Manganese, Total	mg/L	0.000200	0.00033	0.100	4.77	4.92	0.0980	0.0850 to 0.115	70.0	70.0 to 130	3.10	20.0
BD06828	Mercury, Total by CVAA	mg/L	2.000E-05	0.000500	0.004	0.00397	0.00409	0.00403	0.00340 to 0.00460	99.2	70.0 to 130	2.98	20.0
BD06829	Molybdenum, Dissolved	mg/L	-0.000152	0.0100	0.2	0.194	0.196	0.195	0.170 to 0.230	97.0	70.0 to 130	1.03	20.0
BD06828	Molybdenum, Total	mg/L	-0.001	0.0100	0.2	0.202	0.201	0.201	0.170 to 0.230	101	70.0 to 130	0.496	20.0
BD06829	Potassium, Dissolved	mg/L	0.00935	0.367	10.0	11.2	11.3	9.82	8.50 to 11.5	97.4	70.0 to 130	0.889	20.0
BD06828	Potassium, Total	mg/L	-0.00778	0.367	10.0	25.9	26.1	9.95	8.50 to 11.5	88.0	70.0 to 130	0.769	20.0
BD06829	Selenium, Dissolved	mg/L	0.000102	0.00100	0.100	0.102	0.103	0.0997	0.0850 to 0.115	102	70.0 to 130	0.976	20.0
BD06828	Selenium, Total	mg/L	0.0000454	0.00100	0.100	0.0951	0.0968	0.100	0.0850 to 0.115	95.1	70.0 to 130	1.77	20.0
BD06829	Silicon, Dissolved	mg/L	0.000229	0.0440	1.00	8.70	8.71	0.997	0.850 to 1.15	96.0	70.0 to 130	0.115	20.0
BD06828	Silicon, Total	mg/L	-0.000048	0.0440	1.00	6.40	6.36	1.02	0.850 to 1.15	101	70.0 to 130	0.627	20.0
BD06829	Sodium, Dissolved	mg/L	0.0149	0.0880	5.00	21.1	20.8	5.23	4.25 to 5.75	96.0	70.0 to 130	1.43	20.0
BD06828	Sodium, Total	mg/L	0.000332	0.0880	5.00	761	761	4.87	4.25 to 5.75	120	70.0 to 130	0.00	20.0
BD06781	Sulfate	mg/L	0.358	2.0	20.0	20.2	20.0	20.4	18.0 to 22.0	101	80.0 to 120	0.995	20.0
BD06829	Thallium, Dissolved	mg/L	-0.0000001	0.000147	0.100	0.0977	0.0992	0.0992	0.0850 to 0.115	97.7	70.0 to 130	1.52	20.0
BD06828	Thallium, Total	mg/L	0.0000054	0.000147	0.100	0.0959	0.0990	0.0978	0.0850 to 0.115	95.5	70.0 to 130	3.18	20.0
BD06828	Total Organic Carbon	mg/L	0.108	1.00	10.0	11.0	10.6	23.5		94.6	80.0 to 120	3.70	20.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWBARAP

Sample Date: 4/4/23 15:50

Customer ID:

Delivery Date: 4/5/23 14:11

Description: Barry Ash Pond - MW-13V

Laboratory ID Number: BD06780

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BD06780	Alkalinity to pH 4.5	mg CaCO3/L					147	50.5	45.0 to 55.0			0.678	10.0
BD06781	Nitrogen, Nitrate/Nitrite	mg/L as N	0.05	0.200	2.00	2.05	0.032	2.07	1.80 to 2.20	102	90.0 to 110	0.00	15.0
BD06780	Solids, Dissolved	mg/L	1.00	25.0			329	51.0	40.0 to 60.0			2.70	10.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Barry Ash Pond Field Blank-2

Location Code: WMWBARAPFB
Collected: 4/4/23 16:20
Customer ID:
Submittal Date: 4/5/23 14:11

Laboratory ID Number: BD06781

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q	
Analytical Method: EPA 200.7		Analyst: ABB			Preparation Method: EPA 1638					
* Boron, Total	4/7/23 14:10	4/11/23 11:29		1.015	Not Detected	mg/L	0.030000	0.1015	U	
* Calcium, Total	4/7/23 14:10	4/11/23 11:29		1.015	Not Detected	mg/L	0.070035	0.406	U	
* Iron, Total	4/7/23 14:10	4/11/23 11:29		1.015	Not Detected	mg/L	0.008120	0.0406	U	
* Lithium, Total	4/7/23 14:10	4/11/23 11:29		1.015	Not Detected	mg/L	0.007105	0.01999956	U	
* Magnesium, Total	4/7/23 14:10	4/11/23 11:29		1.015	Not Detected	mg/L	0.021315	0.406	U	
* Molybdenum, Total	4/7/23 14:10	4/11/23 11:29		1.015	Not Detected	mg/L	0.005075	0.01015	U	
* Silica, Total (calc.)	4/7/23 14:10	4/11/23 11:29		1	Not Detected	mg/L				
* Silicon, Total	4/7/23 14:10	4/11/23 11:29		1.015	Not Detected	mg/L	0.02030	0.25375	U	
* Sodium, Total	4/7/23 14:10	4/11/23 11:29		1.015	Not Detected	mg/L	0.04060	0.406	U	
Analytical Method: EPA 200.8		Analyst: DLJ			Preparation Method: EPA 1638					
* Antimony, Total	4/7/23 14:10	4/7/23 16:54		1.015	Not Detected	mg/L	0.000710	0.001015	U	
* Aluminum, Total	4/7/23 14:10	4/7/23 16:54		1.015	Not Detected	mg/L	0.009135	0.05075	U	
* Arsenic, Total	4/7/23 14:10	4/7/23 16:54		1.015	Not Detected	mg/L	0.000112	0.000203	U	
* Barium, Total	4/7/23 14:10	4/7/23 16:54		1.015	Not Detected	mg/L	0.000508	0.001015	U	
* Beryllium, Total	4/7/23 14:10	4/7/23 16:54		1.015	Not Detected	mg/L	0.000406	0.001015	U	
* Cadmium, Total	4/7/23 14:10	4/7/23 16:54		1.015	Not Detected	mg/L	0.000068	0.000203	U	
* Chromium, Total	4/7/23 14:10	4/7/23 16:54		1.015	Not Detected	mg/L	0.000203	0.001015	U	
* Cobalt, Total	4/7/23 14:10	4/7/23 16:54		1.015	Not Detected	mg/L	0.000068	0.000203	U	
* Lead, Total	4/7/23 14:10	4/7/23 16:54		1.015	Not Detected	mg/L	0.000068	0.000203	U	
* Manganese, Total	4/7/23 14:10	4/7/23 16:54		1.015	Not Detected	mg/L	0.000152	0.001015	U	
* Potassium, Total	4/7/23 14:10	4/7/23 16:54		1.015	Not Detected	mg/L	0.169505	0.5075	U	
* Selenium, Total	4/7/23 14:10	4/7/23 16:54		1.015	Not Detected	mg/L	0.000508	0.001015	U	
* Thallium, Total	4/7/23 14:10	4/7/23 16:54		1.015	Not Detected	mg/L	0.000068	0.000203	U	
Analytical Method: EPA 245.1		Analyst: CRB								
* Mercury, Total by CVAA	4/11/23 18:35	4/12/23 00:54		1	Not Detected	mg/L	0.0003	0.0005	U	
Analytical Method: EPA 353.2		Analyst: SC								
* Nitrogen, Nitrate/Nitrite	4/6/23 09:51	4/6/23 09:51		1	Not Detected	mg/L as N	0.20	0.3	U	
Analytical Method: SM 2540C		Analyst: CNJ								
* Solids, Dissolved	4/7/23 10:42	4/10/23 13:50		1	Not Detected	mg/L		25	U	

MDL's and RL's are adjusted for sample dilution, as applicable

Comments:

Certificate Of Analysis

Description: Barry Ash Pond Field Blank-2

Location Code: WMWBARAPFB

Collected: 4/4/23 16:20

Customer ID:

Submittal Date: 4/5/23 14:11

Laboratory ID Number: BD06781

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM 5310 B		Analyst: SC							
* Total Organic Carbon	4/12/23 12:01	4/12/23 12:01		1	Not Detected	mg/L	1.00	2	U
Analytical Method: SM4500Cl E		Analyst: CES							
* Chloride	4/12/23 12:06	4/12/23 12:06		1	Not Detected	mg/L	0.50	0.5	U
Analytical Method: SM4500F G 2017		Analyst: CES							
* Fluoride	4/13/23 11:19	4/13/23 11:19		1	Not Detected	mg/L	0.06	0.125	U
Analytical Method: SM4500SO4 E 2011		Analyst: JCC							
* Sulfate	4/6/23 11:13	4/6/23 11:13		1	Not Detected	mg/L	0.6	2	U

MDL's and RL's are adjusted for sample dilution, as applicable

Comments:

Batch QC Summary

Customer Account: WMWBARAPFB

Sample Date: 4/4/23 16:20

Customer ID:

Delivery Date: 4/5/23 14:11

Description: Barry Ash Pond Field Blank-2

Laboratory ID Number: BD06781

Sample	Analysis	Units	MB				Standard		Rec		Prec	Limit	
			MB	Limit	Spike	MS	MSD	Standard	Limit	Rec			Limit
BD06828	Aluminum, Total	mg/L	0.000609	0.0198	0.100	0.139	0.139	0.103	0.0850 to 0.115	99.8	70.0 to 130	0.00	20.0
BD06828	Antimony, Total	mg/L	0.000237	0.00100	0.100	0.0875	0.0922	0.0867	0.0850 to 0.115	87.5	70.0 to 130	5.23	20.0
BD06828	Arsenic, Total	mg/L	0.0000156	0.000200	0.100	0.0969	0.0996	0.0998	0.0850 to 0.115	95.8	70.0 to 130	2.75	20.0
BD06828	Barium, Total	mg/L	-0.0000063	0.00100	0.100	1.14	1.19	0.0923	0.0850 to 0.115	30.0	70.0 to 130	4.29	20.0
BD06828	Beryllium, Total	mg/L	0.0000000	0.000880	0.100	0.0921	0.0959	0.0944	0.0850 to 0.115	92.1	70.0 to 130	4.04	20.0
BD06828	Boron, Total	mg/L	-0.000537	0.0650	1.00	1.35	1.34	1.02	0.850 to 1.15	106	70.0 to 130	0.743	20.0
BD06828	Cadmium, Total	mg/L	0.0000043	0.000147	0.100	0.0895	0.0918	0.0962	0.0850 to 0.115	89.4	70.0 to 130	2.54	20.0
BD06828	Calcium, Total	mg/L	-0.0178	0.152	5.00	85.0	86.4	5.00	4.25 to 5.75	36.0	70.0 to 130	1.63	20.0
BD06827	Chloride	mg/L	0.0514	1.00	800	1580	1590	10.2	9.00 to 11.0	105	80.0 to 120	0.631	20.0
BD06828	Chromium, Total	mg/L	-0.0000476	0.000440	0.100	0.0926	0.0929	0.0965	0.0850 to 0.115	92.4	70.0 to 130	0.323	20.0
BD06828	Cobalt, Total	mg/L	0.0000042	0.000147	0.100	0.219	0.220	0.0997	0.0850 to 0.115	89.0	70.0 to 130	0.456	20.0
BD06828	Fluoride	mg/L	-0.00644	0.125	2.50	2.78	2.79	2.62	2.25 to 2.75	107	80.0 to 120	0.359	20.0
BD06828	Iron, Total	mg/L	0.000416	0.0176	0.2	0.648	0.649	0.200	0.170 to 0.230	98.0	70.0 to 130	0.154	20.0
BD06828	Lead, Total	mg/L	0.0000027	0.000147	0.100	0.0928	0.0958	0.0945	0.0850 to 0.115	92.8	70.0 to 130	3.18	20.0
BD06828	Lithium, Total	mg/L	-0.000701	0.0154	0.200	0.220	0.221	0.199	0.170 to 0.230	110	70.0 to 130	0.454	20.0
BD06828	Magnesium, Total	mg/L	-0.00548	0.0462	5.00	77.6	75.3	4.93	4.25 to 5.75	102	70.0 to 130	3.01	20.0
BD06828	Manganese, Total	mg/L	0.000200	0.00033	0.100	4.77	4.92	0.0980	0.0850 to 0.115	70.0	70.0 to 130	3.10	20.0
BD06828	Mercury, Total by CVAA	mg/L	2.000E-05	0.000500	0.004	0.00397	0.00409	0.00403	0.00340 to 0.00460	99.2	70.0 to 130	2.98	20.0
BD06828	Molybdenum, Total	mg/L	-0.001	0.0100	0.2	0.202	0.201	0.201	0.170 to 0.230	101	70.0 to 130	0.496	20.0
BD06828	Potassium, Total	mg/L	-0.00778	0.367	10.0	25.9	26.1	9.95	8.50 to 11.5	88.0	70.0 to 130	0.769	20.0
BD06828	Selenium, Total	mg/L	0.0000454	0.00100	0.100	0.0951	0.0968	0.100	0.0850 to 0.115	95.1	70.0 to 130	1.77	20.0
BD06828	Silicon, Total	mg/L	-0.000048	0.0440	1.00	6.40	6.36	1.02	0.850 to 1.15	101	70.0 to 130	0.627	20.0
BD06828	Sodium, Total	mg/L	0.000332	0.0880	5.00	761	761	4.87	4.25 to 5.75	120	70.0 to 130	0.00	20.0
BD06781	Sulfate	mg/L	0.358	2.0	20.0	20.2	20.0	20.4	18.0 to 22.0	101	80.0 to 120	0.995	20.0

Comments:

Batch QC Summary

Customer Account: WMWBARAPFB

Sample Date: 4/4/23 16:20

Customer ID:

Delivery Date: 4/5/23 14:11

Description: Barry Ash Pond Field Blank-2

Laboratory ID Number: BD06781

Sample	Analysis	Units	MB	MB				Standard		Rec		Prec	
				Limit	Spike	MS	MSD	Standard	Limit	Rec	Limit	Prec	Limit
BD06828	Thallium, Total	mg/L	0.0000054	0.000147	0.100	0.0959	0.0990	0.0978	0.0850 to 0.115	95.5	70.0 to 130	3.18	20.0
BD06828	Total Organic Carbon	mg/L	0.108	1.00	10.0	11.0	10.6	23.5		94.6	80.0 to 120	3.70	20.0

Comments:

Batch QC Summary

Customer Account: WMWBARAPFB

Sample Date: 4/4/23 16:20

Customer ID:

Delivery Date: 4/5/23 14:11

Description: Barry Ash Pond Field Blank-2

Laboratory ID Number: BD06781

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BD06781	Nitrogen, Nitrate/Nitrite	mg/L as N	0.05	0.200	2.00	2.05	0.032	2.07	1.80 to 2.20	102	90.0 to 110	0.00	15.0
BD06780	Solids, Dissolved	mg/L	1.00	25.0			329	51.0	40.0 to 60.0			2.70	10.0

Comments:

Certificate Of Analysis

Description: Barry Ash Pond - MW-23H

Location Code: WMWBARAP
Collected: 4/4/23 11:15
Customer ID:
Submittal Date: 4/6/23 11:49

Laboratory ID Number: BD06826

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7			Analyst: ABB			Preparation Method: EPA 1638			
* Boron, Total	4/7/23 14:10	4/11/23 11:32		1.015	0.0481	mg/L	0.030000	0.1015	J
* Calcium, Total	4/7/23 14:10	4/11/23 11:32		1.015	23.5	mg/L	0.070035	0.406	
* Iron, Total	4/7/23 14:10	4/11/23 13:35		101.5	54.7	mg/L	0.8120	4.06	
* Lithium, Total	4/7/23 14:10	4/11/23 11:32		1.015	Not Detected	mg/L	0.007105	0.01999956	U
* Magnesium, Total	4/7/23 14:10	4/11/23 11:32		1.015	6.51	mg/L	0.021315	0.406	
* Molybdenum, Total	4/7/23 14:10	4/11/23 11:32		1.015	Not Detected	mg/L	0.005075	0.01015	U
* Silica, Total (calc.)	4/7/23 14:10	4/11/23 11:32		1	33.0	mg/L			
* Silicon, Total	4/7/23 14:10	4/11/23 11:32		1.015	15.4	mg/L	0.02030	0.25375	
* Sodium, Total	4/7/23 14:10	4/11/23 11:32		1.015	17.3	mg/L	0.04060	0.406	
Analytical Method: EPA 200.7			Analyst: ABB						
* Boron, Dissolved	4/7/23 11:45	4/12/23 11:30		1.015	0.0472	mg/L	0.030000	0.1015	J
* Calcium, Dissolved	4/7/23 11:45	4/12/23 11:30		1.015	23.0	mg/L	0.070035	0.406	
* Iron, Dissolved	4/7/23 11:45	4/12/23 13:36		101.5	52.4	mg/L	0.8120	4.06	
* Lithium, Dissolved	4/7/23 11:45	4/12/23 11:30		1.015	Not Detected	mg/L	0.007105	0.01999956	U
* Magnesium, Dissolved	4/7/23 11:45	4/12/23 11:30		1.015	6.40	mg/L	0.021315	0.406	
* Molybdenum, Dissolved	4/7/23 11:45	4/12/23 11:30		1.015	Not Detected	mg/L	0.005075	0.01015	U
* Silica, Dissolved (calc.)	4/7/23 11:45	4/12/23 11:30		1	32.5	mg/L			
* Silicon, Dissolved	4/7/23 11:45	4/12/23 11:30		1.015	15.2	mg/L	0.02030	0.25375	
* Sodium, Dissolved	4/7/23 11:45	4/12/23 12:43		1.015	16.8	mg/L	0.04060	0.406	
Analytical Method: EPA 200.8			Analyst: DLJ			Preparation Method: EPA 1638			
* Antimony, Total	4/7/23 14:10	4/7/23 16:58		1.015	Not Detected	mg/L	0.000710	0.001015	U
* Aluminum, Total	4/7/23 14:10	4/7/23 16:58		1.015	0.0441	mg/L	0.009135	0.05075	J
* Arsenic, Total	4/7/23 14:10	4/7/23 16:58		1.015	0.00291	mg/L	0.000112	0.000203	
* Barium, Total	4/7/23 14:10	4/7/23 16:58		1.015	0.159	mg/L	0.000508	0.001015	
* Beryllium, Total	4/7/23 14:10	4/7/23 16:58		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Total	4/7/23 14:10	4/7/23 16:58		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Total	4/7/23 14:10	4/7/23 16:58		1.015	0.000406	mg/L	0.000203	0.001015	J
* Cobalt, Total	4/7/23 14:10	4/7/23 16:58		1.015	0.000522	mg/L	0.000068	0.000203	
* Lead, Total	4/7/23 14:10	4/7/23 16:58		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Total	4/7/23 14:10	4/7/23 16:58		1.015	0.879	mg/L	0.000152	0.001015	

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Barry Ash Pond - MW-23H

Location Code: WMWBARAP
Collected: 4/4/23 11:15
Customer ID:
Submittal Date: 4/6/23 11:49

Laboratory ID Number: BD06826

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
* Potassium, Total	4/7/23 14:10	4/7/23 16:58		1.015	1.03	mg/L	0.169505	0.5075	
* Selenium, Total	4/7/23 14:10	4/7/23 16:58		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Total	4/7/23 14:10	4/7/23 16:58		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 200.8		Analyst: DLJ							
* Antimony, Dissolved	4/7/23 11:45	4/7/23 13:49		1.015	Not Detected	mg/L	0.000710	0.001015	U
* Aluminum, Dissolved	4/7/23 11:45	4/7/23 13:49		1.015	Not Detected	mg/L	0.009135	0.05075	U
* Arsenic, Dissolved	4/7/23 11:45	4/7/23 13:49		1.015	0.00288	mg/L	0.000112	0.000203	
* Barium, Dissolved	4/7/23 11:45	4/7/23 13:49		1.015	0.150	mg/L	0.000508	0.001015	
* Beryllium, Dissolved	4/7/23 11:45	4/7/23 13:49		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Dissolved	4/7/23 11:45	4/7/23 13:49		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Dissolved	4/7/23 11:45	4/7/23 13:49		1.015	0.000432	mg/L	0.000203	0.001015	J
* Cobalt, Dissolved	4/7/23 11:45	4/7/23 13:49		1.015	0.000523	mg/L	0.000068	0.000203	
* Lead, Dissolved	4/7/23 11:45	4/7/23 13:49		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Dissolved	4/7/23 11:45	4/7/23 13:49		1.015	0.861	mg/L	0.000152	0.001015	
* Potassium, Dissolved	4/7/23 11:45	4/7/23 13:49		1.015	1.02	mg/L	0.169505	0.5075	
* Selenium, Dissolved	4/7/23 11:45	4/7/23 13:49		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Dissolved	4/7/23 11:45	4/7/23 13:49		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 245.1		Analyst: CRB							
* Mercury, Total by CVAA	4/11/23 18:35	4/12/23 00:58		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: EPA 353.2		Analyst: SC							
* Nitrogen, Nitrate/Nitrite	4/10/23 14:43	4/10/23 14:43		1	Not Detected	mg/L as N	0.20	0.3	U
Analytical Method: SM 2320 B		Analyst: ALH							
* Alkalinity to pH 4.5	4/18/23 10:05	4/18/23 11:02		1	149	mg CaCO3/L		0.10	
Analytical Method: SM 2540C		Analyst: CNJ							
* Solids, Dissolved	4/7/23 10:42	4/10/23 13:50		1	216	mg/L		25	
Analytical Method: SM 4500CO2 D		Analyst: ALH							
* Bicarbonate Alkalinity, (calc.)	4/18/23 10:05	4/18/23 11:02		1	149	mg CaCO3/L		1	
* Carbonate Alkalinity, (calc.)	4/18/23 10:05	4/18/23 11:02		1	Not Detected	mg CaCO3/L		0.5	
Analytical Method: SM 5310 B		Analyst: SC							
* Total Organic Carbon	4/12/23 12:15	4/12/23 12:15		1	4.16	mg/L	1.00	2	

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Barry Ash Pond - MW-23H

Location Code: WMWBARAP
Collected: 4/4/23 11:15
Customer ID:
Submittal Date: 4/6/23 11:49

Laboratory ID Number: BD06826

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM4500Cl E		Analyst: CES							
* Chloride	4/12/23 12:00	4/12/23 12:00		1	9.01	mg/L	0.50	0.5	
Analytical Method: SM4500F G 2017		Analyst: CES							
* Fluoride	4/13/23 11:20	4/13/23 11:20		1	0.0744	mg/L	0.06	0.125	J
Analytical Method: SM4500SO4 E 2011		Analyst: JCC							
* Sulfate	4/17/23 14:24	4/17/23 14:24		1	15.2	mg/L	0.6	2	
Analytical Method: Field Measurements		Analyst: AWG							
Conductivity	4/4/23 11:12	4/4/23 11:12			396.41	uS/cm			FA
pH	4/4/23 11:12	4/4/23 11:12			5.94	SU			FA
Temperature	4/4/23 11:12	4/4/23 11:12			20.14	C			FA
Turbidity	4/4/23 11:12	4/4/23 11:12			3.24	NTU			FA
Sulfide	4/4/23 11:12	4/4/23 11:12			0	mg/L			FA

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWBARAP
Sample Date: 4/4/23 11:15
Customer ID:
Delivery Date: 4/6/23 11:49

Description: Barry Ash Pond - MW-23H

Laboratory ID Number: BD06826

Sample	Analysis	Units	MB	MB				Standard		Rec		Prec	Limit
				Limit	Spike	MS	MSD	Standard	Limit	Rec	Limit		
BD06829	Aluminum, Dissolved	mg/L	0.0000353	0.0198	0.100	0.101	0.102	0.0999	0.0850 to 0.115	101	70.0 to 130	0.985	20.0
BD06828	Aluminum, Total	mg/L	0.000609	0.0198	0.100	0.139	0.139	0.103	0.0850 to 0.115	99.8	70.0 to 130	0.00	20.0
BD06829	Antimony, Dissolved	mg/L	0.000377	0.00100	0.100	0.0881	0.0905	0.0898	0.0850 to 0.115	88.1	70.0 to 130	2.69	20.0
BD06828	Antimony, Total	mg/L	0.000237	0.00100	0.100	0.0875	0.0922	0.0867	0.0850 to 0.115	87.5	70.0 to 130	5.23	20.0
BD06829	Arsenic, Dissolved	mg/L	0.0000113	0.000200	0.100	0.121	0.124	0.0990	0.0850 to 0.115	98.1	70.0 to 130	2.45	20.0
BD06828	Arsenic, Total	mg/L	0.0000156	0.000200	0.100	0.0969	0.0996	0.0998	0.0850 to 0.115	95.8	70.0 to 130	2.75	20.0
BD06829	Barium, Dissolved	mg/L	0.0000105	0.00100	0.100	0.210	0.210	0.0944	0.0850 to 0.115	93.0	70.0 to 130	0.00	20.0
BD06828	Barium, Total	mg/L	-0.0000063	0.00100	0.100	1.14	1.19	0.0923	0.0850 to 0.115	30.0	70.0 to 130	4.29	20.0
BD06829	Beryllium, Dissolved	mg/L	0.0000117	0.000880	0.100	0.0899	0.0944	0.0908	0.0850 to 0.115	89.9	70.0 to 130	4.88	20.0
BD06828	Beryllium, Total	mg/L	0.0000000	0.000880	0.100	0.0921	0.0959	0.0944	0.0850 to 0.115	92.1	70.0 to 130	4.04	20.0
BD06829	Boron, Dissolved	mg/L	-0.000075	0.0650	1.00	1.01	1.06	1.00	0.850 to 1.15	96.4	70.0 to 130	4.83	20.0
BD06828	Boron, Total	mg/L	-0.000537	0.0650	1.00	1.35	1.34	1.02	0.850 to 1.15	106	70.0 to 130	0.743	20.0
BD06829	Cadmium, Dissolved	mg/L	0.0000046	0.000147	0.100	0.0963	0.0981	0.0982	0.0850 to 0.115	96.3	70.0 to 130	1.85	20.0
BD06828	Cadmium, Total	mg/L	0.0000043	0.000147	0.100	0.0895	0.0918	0.0962	0.0850 to 0.115	89.4	70.0 to 130	2.54	20.0
BD06829	Calcium, Dissolved	mg/L	-0.00493	0.152	5.00	14.7	14.6	4.94	4.25 to 5.75	92.0	70.0 to 130	0.683	20.0
BD06828	Calcium, Total	mg/L	-0.0178	0.152	5.00	85.0	86.4	5.00	4.25 to 5.75	36.0	70.0 to 130	1.63	20.0
BD06827	Chloride	mg/L	0.0514	1.00	800	1580	1590	10.2	9.00 to 11.0	105	80.0 to 120	0.631	20.0
BD06829	Chromium, Dissolved	mg/L	-0.0000370	0.000440	0.100	0.0967	0.0995	0.0995	0.0850 to 0.115	96.7	70.0 to 130	2.85	20.0
BD06828	Chromium, Total	mg/L	-0.0000476	0.000440	0.100	0.0926	0.0929	0.0965	0.0850 to 0.115	92.4	70.0 to 130	0.323	20.0
BD06829	Cobalt, Dissolved	mg/L	-0.0000017	0.000147	0.100	0.101	0.104	0.101	0.0850 to 0.115	100	70.0 to 130	2.93	20.0
BD06828	Cobalt, Total	mg/L	0.0000042	0.000147	0.100	0.219	0.220	0.0997	0.0850 to 0.115	89.0	70.0 to 130	0.456	20.0
BD06828	Fluoride	mg/L	-0.00644	0.125	2.50	2.78	2.79	2.62	2.25 to 2.75	107	80.0 to 120	0.359	20.0
BD06829	Iron, Dissolved	mg/L	-0.00183	0.0176	0.2	60.3	60.4	0.195	0.170 to 0.230	-50.0	70.0 to 130	0.166	20.0
BD06828	Iron, Total	mg/L	0.000416	0.0176	0.2	0.648	0.649	0.200	0.170 to 0.230	98.0	70.0 to 130	0.154	20.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWBARAP

Sample Date: 4/4/23 11:15

Customer ID:

Delivery Date: 4/6/23 11:49

Description: Barry Ash Pond - MW-23H

Laboratory ID Number: BD06826

Sample	Analysis	Units	MB	MB		Spike	MS	MSD	Standard		Rec		Prec
				Limit					Standard	Limit	Rec	Limit	
BD06829	Lead, Dissolved	mg/L	0.0000118	0.000147	0.100	0.0948	0.0971	0.0971	0.0850 to 0.115	94.8	70.0 to 130	2.40	20.0
BD06828	Lead, Total	mg/L	0.0000027	0.000147	0.100	0.0928	0.0958	0.0945	0.0850 to 0.115	92.8	70.0 to 130	3.18	20.0
BD06829	Lithium, Dissolved	mg/L	0.000245	0.0154	0.200	0.199	0.200	0.195	0.170 to 0.230	99.5	70.0 to 130	0.501	20.0
BD06828	Lithium, Total	mg/L	-0.000701	0.0154	0.200	0.220	0.221	0.199	0.170 to 0.230	110	70.0 to 130	0.454	20.0
BD06829	Magnesium, Dissolved	mg/L	0.000	0.0462	5.00	9.49	9.46	4.93	4.25 to 5.75	93.2	70.0 to 130	0.317	20.0
BD06828	Magnesium, Total	mg/L	-0.00548	0.0462	5.00	77.6	75.3	4.93	4.25 to 5.75	102	70.0 to 130	3.01	20.0
BD06829	Manganese, Dissolved	mg/L	0.0000167	0.00033	0.100	0.378	0.382	0.101	0.0850 to 0.115	98.0	70.0 to 130	1.05	20.0
BD06828	Manganese, Total	mg/L	0.000200	0.00033	0.100	4.77	4.92	0.0980	0.0850 to 0.115	70.0	70.0 to 130	3.10	20.0
BD06828	Mercury, Total by CVAA	mg/L	2.000E-05	0.000500	0.004	0.00397	0.00409	0.00403	0.00340 to 0.00460	99.2	70.0 to 130	2.98	20.0
BD06829	Molybdenum, Dissolved	mg/L	-0.000152	0.0100	0.2	0.194	0.196	0.195	0.170 to 0.230	97.0	70.0 to 130	1.03	20.0
BD06828	Molybdenum, Total	mg/L	-0.001	0.0100	0.2	0.202	0.201	0.201	0.170 to 0.230	101	70.0 to 130	0.496	20.0
BD06829	Potassium, Dissolved	mg/L	0.00935	0.367	10.0	11.2	11.3	9.82	8.50 to 11.5	97.4	70.0 to 130	0.889	20.0
BD06828	Potassium, Total	mg/L	-0.00778	0.367	10.0	25.9	26.1	9.95	8.50 to 11.5	88.0	70.0 to 130	0.769	20.0
BD06829	Selenium, Dissolved	mg/L	0.000102	0.00100	0.100	0.102	0.103	0.0997	0.0850 to 0.115	102	70.0 to 130	0.976	20.0
BD06828	Selenium, Total	mg/L	0.0000454	0.00100	0.100	0.0951	0.0968	0.100	0.0850 to 0.115	95.1	70.0 to 130	1.77	20.0
BD06829	Silicon, Dissolved	mg/L	0.000229	0.0440	1.00	8.70	8.71	0.997	0.850 to 1.15	96.0	70.0 to 130	0.115	20.0
BD06828	Silicon, Total	mg/L	-0.000048	0.0440	1.00	6.40	6.36	1.02	0.850 to 1.15	101	70.0 to 130	0.627	20.0
BD06829	Sodium, Dissolved	mg/L	0.0149	0.0880	5.00	21.1	20.8	5.23	4.25 to 5.75	96.0	70.0 to 130	1.43	20.0
BD06828	Sodium, Total	mg/L	0.000332	0.0880	5.00	761	761	4.87	4.25 to 5.75	120	70.0 to 130	0.00	20.0
BD06835	Sulfate	mg/L	-0.0671	2.0	20.0	22.3	22.4	19.9	18.0 to 22.0	96.9	80.0 to 120	0.447	20.0
BD06829	Thallium, Dissolved	mg/L	-0.0000001	0.000147	0.100	0.0977	0.0992	0.0992	0.0850 to 0.115	97.7	70.0 to 130	1.52	20.0
BD06828	Thallium, Total	mg/L	0.0000054	0.000147	0.100	0.0959	0.0990	0.0978	0.0850 to 0.115	95.5	70.0 to 130	3.18	20.0
BD06828	Total Organic Carbon	mg/L	0.108	1.00	10.0	11.0	10.6	23.5		94.6	80.0 to 120	3.70	20.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWBARAP

Sample Date: 4/4/23 11:15

Customer ID:

Delivery Date: 4/6/23 11:49

Description: Barry Ash Pond - MW-23H

Laboratory ID Number: BD06826

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BD06839	Alkalinity to pH 4.5	mg CaCO3/L					167	50.5	45.0 to 55.0			0.601	10.0
BD06835	Nitrogen, Nitrate/Nitrite	mg/L as N	0.04	0.200	2.00	2.32	0.166	1.92	1.80 to 2.20	116	90.0 to 110	0.00	15.0
BD06836	Solids, Dissolved	mg/L	1.00	25.0			222	51.0	40.0 to 60.0			1.36	10.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Barry Ash Pond - MW-23V

Location Code: WMWBARAP
Collected: 4/4/23 11:55
Customer ID:
Submittal Date: 4/6/23 11:49

Laboratory ID Number: BD06827

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7		Analyst: ABB			Preparation Method: EPA 1638				
* Boron, Total	4/7/23 14:10	4/11/23 11:36		1.015	0.245	mg/L	0.030000	0.1015	
* Calcium, Total	4/7/23 14:10	4/11/23 13:38		101.5	42.5	mg/L	7.0035	40.6	
* Iron, Total	4/7/23 14:10	4/11/23 13:38		101.5	35.3	mg/L	0.8120	4.06	
* Lithium, Total	4/7/23 14:10	4/11/23 11:36		1.015	Not Detected	mg/L	0.007105	0.01999956	U
* Magnesium, Total	4/7/23 14:10	4/11/23 11:36		1.015	38.2	mg/L	0.021315	0.406	
* Molybdenum, Total	4/7/23 14:10	4/11/23 11:36		1.015	Not Detected	mg/L	0.005075	0.01015	U
* Silica, Total (calc.)	4/7/23 14:10	4/11/23 11:36		1	17.0	mg/L			
* Silicon, Total	4/7/23 14:10	4/11/23 11:36		1.015	7.94	mg/L	0.02030	0.25375	
* Sodium, Total	4/7/23 14:10	4/11/23 13:38		101.5	361	mg/L	4.060	40.6	
Analytical Method: EPA 200.7		Analyst: ABB			Preparation Method: EPA 1638				
* Boron, Dissolved	4/7/23 11:45	4/12/23 11:33		1.015	0.246	mg/L	0.030000	0.1015	
* Calcium, Dissolved	4/7/23 11:45	4/12/23 13:40		101.5	42.6	mg/L	7.0035	40.6	
* Iron, Dissolved	4/7/23 11:45	4/12/23 13:40		101.5	33.9	mg/L	0.8120	4.06	
* Lithium, Dissolved	4/7/23 11:45	4/12/23 11:33		1.015	Not Detected	mg/L	0.007105	0.01999956	U
* Magnesium, Dissolved	4/7/23 11:45	4/12/23 11:33		1.015	38.6	mg/L	0.021315	0.406	
* Molybdenum, Dissolved	4/7/23 11:45	4/12/23 11:33		1.015	Not Detected	mg/L	0.005075	0.01015	U
* Silica, Dissolved (calc.)	4/7/23 11:45	4/12/23 11:33		1	16.9	mg/L			
* Silicon, Dissolved	4/7/23 11:45	4/12/23 11:33		1.015	7.88	mg/L	0.02030	0.25375	
* Sodium, Dissolved	4/7/23 11:45	4/12/23 13:40		101.5	369	mg/L	4.060	40.6	
Analytical Method: EPA 200.8		Analyst: DLJ			Preparation Method: EPA 1638				
* Antimony, Total	4/7/23 14:10	4/7/23 17:02		1.015	Not Detected	mg/L	0.000710	0.001015	U
* Aluminum, Total	4/7/23 14:10	4/7/23 17:02		1.015	Not Detected	mg/L	0.009135	0.05075	U
* Arsenic, Total	4/7/23 14:10	4/7/23 17:02		1.015	0.00445	mg/L	0.000112	0.000203	
* Barium, Total	4/7/23 14:10	4/7/23 17:02		1.015	0.262	mg/L	0.000508	0.001015	
* Beryllium, Total	4/7/23 14:10	4/7/23 17:02		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Total	4/7/23 14:10	4/7/23 17:02		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Total	4/7/23 14:10	4/7/23 17:02		1.015	0.000237	mg/L	0.000203	0.001015	J
* Cobalt, Total	4/7/23 14:10	4/7/23 17:02		1.015	0.0375	mg/L	0.000068	0.000203	
* Lead, Total	4/7/23 14:10	4/7/23 17:02		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Total	4/7/23 14:10	4/7/23 17:02		1.015	1.14	mg/L	0.000152	0.001015	

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Barry Ash Pond - MW-23V

Location Code: WMWBARAP
Collected: 4/4/23 11:55
Customer ID:
Submittal Date: 4/6/23 11:49

Laboratory ID Number: BD06827

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
* Potassium, Total	4/7/23 14:10	4/7/23 17:02		1.015	8.07	mg/L	0.169505	0.5075	
* Selenium, Total	4/7/23 14:10	4/7/23 17:02		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Total	4/7/23 14:10	4/7/23 17:02		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 200.8		Analyst: DLJ							
* Antimony, Dissolved	4/7/23 11:45	4/7/23 13:52		1.015	Not Detected	mg/L	0.000710	0.001015	U
* Aluminum, Dissolved	4/7/23 11:45	4/7/23 13:52		1.015	Not Detected	mg/L	0.009135	0.05075	U
* Arsenic, Dissolved	4/7/23 11:45	4/7/23 13:52		1.015	0.00471	mg/L	0.000112	0.000203	
* Barium, Dissolved	4/7/23 11:45	4/7/23 13:52		1.015	0.259	mg/L	0.000508	0.001015	
* Beryllium, Dissolved	4/7/23 11:45	4/7/23 13:52		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Dissolved	4/7/23 11:45	4/7/23 13:52		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Dissolved	4/7/23 11:45	4/7/23 13:52		1.015	0.000217	mg/L	0.000203	0.001015	J
* Cobalt, Dissolved	4/7/23 11:45	4/7/23 13:52		1.015	0.0395	mg/L	0.000068	0.000203	
* Lead, Dissolved	4/7/23 11:45	4/7/23 13:52		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Dissolved	4/7/23 11:45	4/7/23 13:52		1.015	1.17	mg/L	0.000152	0.001015	
* Potassium, Dissolved	4/7/23 11:45	4/7/23 13:52		1.015	8.03	mg/L	0.169505	0.5075	
* Selenium, Dissolved	4/7/23 11:45	4/7/23 13:52		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Dissolved	4/7/23 11:45	4/7/23 13:52		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 245.1		Analyst: CRB							
* Mercury, Total by CVAA	4/11/23 18:35	4/12/23 01:02		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: EPA 353.2		Analyst: SC							
* Nitrogen, Nitrate/Nitrite	4/10/23 14:45	4/10/23 14:45		1	Not Detected	mg/L as N	0.20	0.3	U
Analytical Method: SM 2320 B		Analyst: ALH							
* Alkalinity to pH 4.5	4/18/23 10:05	4/18/23 11:02		1	135	mg CaCO3/L		0.10	
Analytical Method: SM 2540C		Analyst: CNJ							
* Solids, Dissolved	4/7/23 10:42	4/10/23 13:50		1	1370	mg/L		147.1	
Analytical Method: SM 4500CO2 D		Analyst: ALH							
* Bicarbonate Alkalinity, (calc.)	4/18/23 10:05	4/18/23 11:02		1	135	mg CaCO3/L		1	A
* Carbonate Alkalinity, (calc.)	4/18/23 10:05	4/18/23 11:02		1	Not Detected	mg CaCO3/L		0.5	A
Analytical Method: SM 5310 B		Analyst: SC							
* Total Organic Carbon	4/12/23 12:31	4/12/23 12:31		1	4.99	mg/L	1.00	2	

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Barry Ash Pond - MW-23V

Location Code: WMWBARAP

Collected: 4/4/23 11:55

Customer ID:

Submittal Date: 4/6/23 11:49

Laboratory ID Number: BD06827

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM4500Cl E		Analyst: CES							
* Chloride	4/12/23 12:19	4/12/23 12:19		80	741	mg/L	40.00	40	
Analytical Method: SM4500F G 2017		Analyst: CES							
* Fluoride	4/13/23 11:21	4/13/23 11:21		1	0.0682	mg/L	0.06	0.125	J
Analytical Method: SM4500SO4 E 2011		Analyst: JCC							
* Sulfate	4/17/23 14:26	4/17/23 14:26		1	32.9	mg/L	0.6	2	
Analytical Method: Field Measurements		Analyst: AWG							
Conductivity	4/4/23 11:52	4/4/23 11:52			2583.92	uS/cm			FA
pH	4/4/23 11:52	4/4/23 11:52			6.73	SU			FA
Temperature	4/4/23 11:52	4/4/23 11:52			20.83	C			FA
Turbidity	4/4/23 11:52	4/4/23 11:52			2.6	NTU			FA
Sulfide	4/4/23 11:52	4/4/23 11:52			0	mg/L			FA

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWBARAP
Sample Date: 4/4/23 11:55
Customer ID:
Delivery Date: 4/6/23 11:49

Description: Barry Ash Pond - MW-23V

Laboratory ID Number: BD06827

Sample	Analysis	Units	MB	MB				Standard		Rec		Prec	Limit
				Limit	Spike	MS	MSD	Standard	Limit	Rec	Limit		
BD06829	Aluminum, Dissolved	mg/L	0.0000353	0.0198	0.100	0.101	0.102	0.0999	0.0850 to 0.115	101	70.0 to 130	0.985	20.0
BD06828	Aluminum, Total	mg/L	0.000609	0.0198	0.100	0.139	0.139	0.103	0.0850 to 0.115	99.8	70.0 to 130	0.00	20.0
BD06829	Antimony, Dissolved	mg/L	0.000377	0.00100	0.100	0.0881	0.0905	0.0898	0.0850 to 0.115	88.1	70.0 to 130	2.69	20.0
BD06828	Antimony, Total	mg/L	0.000237	0.00100	0.100	0.0875	0.0922	0.0867	0.0850 to 0.115	87.5	70.0 to 130	5.23	20.0
BD06829	Arsenic, Dissolved	mg/L	0.0000113	0.000200	0.100	0.121	0.124	0.0990	0.0850 to 0.115	98.1	70.0 to 130	2.45	20.0
BD06828	Arsenic, Total	mg/L	0.0000156	0.000200	0.100	0.0969	0.0996	0.0998	0.0850 to 0.115	95.8	70.0 to 130	2.75	20.0
BD06829	Barium, Dissolved	mg/L	0.0000105	0.00100	0.100	0.210	0.210	0.0944	0.0850 to 0.115	93.0	70.0 to 130	0.00	20.0
BD06828	Barium, Total	mg/L	-0.0000063	0.00100	0.100	1.14	1.19	0.0923	0.0850 to 0.115	30.0	70.0 to 130	4.29	20.0
BD06829	Beryllium, Dissolved	mg/L	0.0000117	0.000880	0.100	0.0899	0.0944	0.0908	0.0850 to 0.115	89.9	70.0 to 130	4.88	20.0
BD06828	Beryllium, Total	mg/L	0.0000000	0.000880	0.100	0.0921	0.0959	0.0944	0.0850 to 0.115	92.1	70.0 to 130	4.04	20.0
BD06829	Boron, Dissolved	mg/L	-0.000075	0.0650	1.00	1.01	1.06	1.00	0.850 to 1.15	96.4	70.0 to 130	4.83	20.0
BD06828	Boron, Total	mg/L	-0.000537	0.0650	1.00	1.35	1.34	1.02	0.850 to 1.15	106	70.0 to 130	0.743	20.0
BD06829	Cadmium, Dissolved	mg/L	0.0000046	0.000147	0.100	0.0963	0.0981	0.0982	0.0850 to 0.115	96.3	70.0 to 130	1.85	20.0
BD06828	Cadmium, Total	mg/L	0.0000043	0.000147	0.100	0.0895	0.0918	0.0962	0.0850 to 0.115	89.4	70.0 to 130	2.54	20.0
BD06829	Calcium, Dissolved	mg/L	-0.00493	0.152	5.00	14.7	14.6	4.94	4.25 to 5.75	92.0	70.0 to 130	0.683	20.0
BD06828	Calcium, Total	mg/L	-0.0178	0.152	5.00	85.0	86.4	5.00	4.25 to 5.75	36.0	70.0 to 130	1.63	20.0
BD06827	Chloride	mg/L	0.0514	1.00	800	1580	1590	10.2	9.00 to 11.0	105	80.0 to 120	0.631	20.0
BD06829	Chromium, Dissolved	mg/L	-0.0000370	0.000440	0.100	0.0967	0.0995	0.0995	0.0850 to 0.115	96.7	70.0 to 130	2.85	20.0
BD06828	Chromium, Total	mg/L	-0.0000476	0.000440	0.100	0.0926	0.0929	0.0965	0.0850 to 0.115	92.4	70.0 to 130	0.323	20.0
BD06829	Cobalt, Dissolved	mg/L	-0.0000017	0.000147	0.100	0.101	0.104	0.101	0.0850 to 0.115	100	70.0 to 130	2.93	20.0
BD06828	Cobalt, Total	mg/L	0.0000042	0.000147	0.100	0.219	0.220	0.0997	0.0850 to 0.115	89.0	70.0 to 130	0.456	20.0
BD06828	Fluoride	mg/L	-0.00644	0.125	2.50	2.78	2.79	2.62	2.25 to 2.75	107	80.0 to 120	0.359	20.0
BD06829	Iron, Dissolved	mg/L	-0.00183	0.0176	0.2	60.3	60.4	0.195	0.170 to 0.230	-50.0	70.0 to 130	0.166	20.0
BD06828	Iron, Total	mg/L	0.000416	0.0176	0.2	0.648	0.649	0.200	0.170 to 0.230	98.0	70.0 to 130	0.154	20.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWBARAP

Sample Date: 4/4/23 11:55

Customer ID:

Delivery Date: 4/6/23 11:49

Description: Barry Ash Pond - MW-23V

Laboratory ID Number: BD06827

Sample	Analysis	Units	MB	MB		Spike	MS	MSD	Standard		Rec		Prec
				Limit					Standard	Limit	Rec	Limit	
BD06829	Lead, Dissolved	mg/L	0.0000118	0.000147	0.100	0.0948	0.0971	0.0971	0.0850 to 0.115	94.8	70.0 to 130	2.40	20.0
BD06828	Lead, Total	mg/L	0.0000027	0.000147	0.100	0.0928	0.0958	0.0945	0.0850 to 0.115	92.8	70.0 to 130	3.18	20.0
BD06829	Lithium, Dissolved	mg/L	0.000245	0.0154	0.200	0.199	0.200	0.195	0.170 to 0.230	99.5	70.0 to 130	0.501	20.0
BD06828	Lithium, Total	mg/L	-0.000701	0.0154	0.200	0.220	0.221	0.199	0.170 to 0.230	110	70.0 to 130	0.454	20.0
BD06829	Magnesium, Dissolved	mg/L	0.000	0.0462	5.00	9.49	9.46	4.93	4.25 to 5.75	93.2	70.0 to 130	0.317	20.0
BD06828	Magnesium, Total	mg/L	-0.00548	0.0462	5.00	77.6	75.3	4.93	4.25 to 5.75	102	70.0 to 130	3.01	20.0
BD06829	Manganese, Dissolved	mg/L	0.0000167	0.00033	0.100	0.378	0.382	0.101	0.0850 to 0.115	98.0	70.0 to 130	1.05	20.0
BD06828	Manganese, Total	mg/L	0.000200	0.00033	0.100	4.77	4.92	0.0980	0.0850 to 0.115	70.0	70.0 to 130	3.10	20.0
BD06828	Mercury, Total by CVAA	mg/L	2.000E-05	0.000500	0.004	0.00397	0.00409	0.00403	0.00340 to 0.00460	99.2	70.0 to 130	2.98	20.0
BD06829	Molybdenum, Dissolved	mg/L	-0.000152	0.0100	0.2	0.194	0.196	0.195	0.170 to 0.230	97.0	70.0 to 130	1.03	20.0
BD06828	Molybdenum, Total	mg/L	-0.001	0.0100	0.2	0.202	0.201	0.201	0.170 to 0.230	101	70.0 to 130	0.496	20.0
BD06829	Potassium, Dissolved	mg/L	0.00935	0.367	10.0	11.2	11.3	9.82	8.50 to 11.5	97.4	70.0 to 130	0.889	20.0
BD06828	Potassium, Total	mg/L	-0.00778	0.367	10.0	25.9	26.1	9.95	8.50 to 11.5	88.0	70.0 to 130	0.769	20.0
BD06829	Selenium, Dissolved	mg/L	0.000102	0.00100	0.100	0.102	0.103	0.0997	0.0850 to 0.115	102	70.0 to 130	0.976	20.0
BD06828	Selenium, Total	mg/L	0.0000454	0.00100	0.100	0.0951	0.0968	0.100	0.0850 to 0.115	95.1	70.0 to 130	1.77	20.0
BD06829	Silicon, Dissolved	mg/L	0.000229	0.0440	1.00	8.70	8.71	0.997	0.850 to 1.15	96.0	70.0 to 130	0.115	20.0
BD06828	Silicon, Total	mg/L	-0.000048	0.0440	1.00	6.40	6.36	1.02	0.850 to 1.15	101	70.0 to 130	0.627	20.0
BD06829	Sodium, Dissolved	mg/L	0.0149	0.0880	5.00	21.1	20.8	5.23	4.25 to 5.75	96.0	70.0 to 130	1.43	20.0
BD06828	Sodium, Total	mg/L	0.000332	0.0880	5.00	761	761	4.87	4.25 to 5.75	120	70.0 to 130	0.00	20.0
BD06835	Sulfate	mg/L	-0.0671	2.0	20.0	22.3	22.4	19.9	18.0 to 22.0	96.9	80.0 to 120	0.447	20.0
BD06829	Thallium, Dissolved	mg/L	-0.0000001	0.000147	0.100	0.0977	0.0992	0.0992	0.0850 to 0.115	97.7	70.0 to 130	1.52	20.0
BD06828	Thallium, Total	mg/L	0.0000054	0.000147	0.100	0.0959	0.0990	0.0978	0.0850 to 0.115	95.5	70.0 to 130	3.18	20.0
BD06828	Total Organic Carbon	mg/L	0.108	1.00	10.0	11.0	10.6	23.5		94.6	80.0 to 120	3.70	20.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWBARAP

Sample Date: 4/4/23 11:55

Customer ID:

Delivery Date: 4/6/23 11:49

Description: Barry Ash Pond - MW-23V

Laboratory ID Number: BD06827

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BD06839	Alkalinity to pH 4.5	mg CaCO3/L					167	50.5	45.0 to 55.0			0.601	10.0
BD06835	Nitrogen, Nitrate/Nitrite	mg/L as N	0.04	0.200	2.00	2.32	0.166	1.92	1.80 to 2.20	116	90.0 to 110	0.00	15.0
BD06836	Solids, Dissolved	mg/L	1.00	25.0			222	51.0	40.0 to 60.0			1.36	10.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Barry Ash Pond - MW-17V

Location Code: WMWBARAP
Collected: 4/4/23 12:50
Customer ID:
Submittal Date: 4/6/23 11:49

Laboratory ID Number: BD06828

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q	
Analytical Method: EPA 200.7		Analyst: ABB			Preparation Method: EPA 1638					
* Boron, Total	4/7/23 14:10	4/11/23 11:39		1.015	0.285	mg/L	0.030000	0.1015		
* Calcium, Total	4/7/23 14:10	4/11/23 13:42		101.5	83.2	mg/L	7.0035	40.6	RA	
* Iron, Total	4/7/23 14:10	4/11/23 11:39		1.015	0.452	mg/L	0.008120	0.0406		
* Lithium, Total	4/7/23 14:10	4/11/23 11:39		1.015	Not Detected	mg/L	0.007105	0.01999956	U	
* Magnesium, Total	4/7/23 14:10	4/11/23 13:42		101.5	72.5	mg/L	2.1315	40.6	RA	
* Molybdenum, Total	4/7/23 14:10	4/11/23 11:39		1.015	Not Detected	mg/L	0.005075	0.01015	U	
* Silica, Total (calc.)	4/7/23 14:10	4/11/23 11:39		1	11.5	mg/L				
* Silicon, Total	4/7/23 14:10	4/11/23 11:39		1.015	5.39	mg/L	0.02030	0.25375		
* Sodium, Total	4/7/23 14:10	4/11/23 13:42		101.5	755	mg/L	4.060	40.6		
Analytical Method: EPA 200.7		Analyst: ABB			Preparation Method: EPA 1638					
* Boron, Dissolved	4/7/23 11:45	4/12/23 11:36		1.015	0.283	mg/L	0.030000	0.1015		
* Calcium, Dissolved	4/7/23 11:45	4/12/23 13:43		101.5	81.8	mg/L	7.0035	40.6		
* Iron, Dissolved	4/7/23 11:45	4/12/23 11:36		1.015	0.301	mg/L	0.008120	0.0406		
* Lithium, Dissolved	4/7/23 11:45	4/12/23 11:36		1.015	Not Detected	mg/L	0.007105	0.01999956	U	
* Magnesium, Dissolved	4/7/23 11:45	4/12/23 13:43		101.5	72.7	mg/L	2.1315	40.6		
* Molybdenum, Dissolved	4/7/23 11:45	4/12/23 11:36		1.015	Not Detected	mg/L	0.005075	0.01015	U	
* Silica, Dissolved (calc.)	4/7/23 11:45	4/12/23 11:36		1	11.4	mg/L				
* Silicon, Dissolved	4/7/23 11:45	4/12/23 11:36		1.015	5.33	mg/L	0.02030	0.25375		
* Sodium, Dissolved	4/7/23 11:45	4/12/23 13:43		101.5	768	mg/L	4.060	40.6		
Analytical Method: EPA 200.8		Analyst: DLJ			Preparation Method: EPA 1638					
* Antimony, Total	4/7/23 14:10	4/7/23 17:05		1.015	Not Detected	mg/L	0.000710	0.001015	U	
* Aluminum, Total	4/7/23 14:10	4/7/23 17:05		1.015	0.0392	mg/L	0.009135	0.05075	J	
* Arsenic, Total	4/7/23 14:10	4/7/23 17:05		1.015	0.00113	mg/L	0.000112	0.000203		
* Barium, Total	4/7/23 14:10	4/7/23 17:05		1.015	1.11	mg/L	0.000508	0.001015	RA	
* Beryllium, Total	4/7/23 14:10	4/7/23 17:05		1.015	Not Detected	mg/L	0.000406	0.001015	U	
* Cadmium, Total	4/7/23 14:10	4/7/23 17:05		1.015	0.000114	mg/L	0.000068	0.000203	J	
* Chromium, Total	4/7/23 14:10	4/7/23 17:05		1.015	0.000244	mg/L	0.000203	0.001015	J	
* Cobalt, Total	4/7/23 14:10	4/7/23 17:05		1.015	0.130	mg/L	0.000068	0.000203		
* Lead, Total	4/7/23 14:10	4/7/23 17:05		1.015	Not Detected	mg/L	0.000068	0.000203	U	
* Manganese, Total	4/7/23 14:10	4/7/23 18:43		5.075	4.70	mg/L	0.000761	0.005075	RA	

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Barry Ash Pond - MW-17V

Location Code: WMWBARAP

Collected: 4/4/23 12:50

Customer ID:

Submittal Date: 4/6/23 11:49

Laboratory ID Number: BD06828

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
* Potassium, Total	4/7/23 14:10	4/7/23 17:05		1.015	17.1	mg/L	0.169505	0.5075	
* Selenium, Total	4/7/23 14:10	4/7/23 17:05		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Total	4/7/23 14:10	4/7/23 17:05		1.015	0.000362	mg/L	0.000068	0.000203	
Analytical Method: EPA 200.8		Analyst: DLJ							
* Antimony, Dissolved	4/7/23 11:45	4/7/23 13:56		1.015	Not Detected	mg/L	0.000710	0.001015	U
* Aluminum, Dissolved	4/7/23 11:45	4/7/23 13:56		1.015	Not Detected	mg/L	0.009135	0.05075	U
* Arsenic, Dissolved	4/7/23 11:45	4/7/23 13:56		1.015	0.00111	mg/L	0.000112	0.000203	
* Barium, Dissolved	4/7/23 11:45	4/7/23 13:56		1.015	1.08	mg/L	0.000508	0.001015	
* Beryllium, Dissolved	4/7/23 11:45	4/7/23 13:56		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Dissolved	4/7/23 11:45	4/7/23 13:56		1.015	0.000118	mg/L	0.000068	0.000203	J
* Chromium, Dissolved	4/7/23 11:45	4/7/23 13:56		1.015	Not Detected	mg/L	0.000203	0.001015	U
* Cobalt, Dissolved	4/7/23 11:45	4/7/23 13:56		1.015	0.132	mg/L	0.000068	0.000203	
* Lead, Dissolved	4/7/23 11:45	4/7/23 13:56		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Dissolved	4/7/23 11:45	4/7/23 19:23		5.075	4.64	mg/L	0.000761	0.005075	
* Potassium, Dissolved	4/7/23 11:45	4/7/23 13:56		1.015	16.6	mg/L	0.169505	0.5075	
* Selenium, Dissolved	4/7/23 11:45	4/7/23 13:56		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Dissolved	4/7/23 11:45	4/7/23 13:56		1.015	0.000370	mg/L	0.000068	0.000203	
Analytical Method: EPA 245.1		Analyst: CRB							
* Mercury, Total by CVAA	4/11/23 18:35	4/12/23 01:06		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: EPA 353.2		Analyst: SC							
* Nitrogen, Nitrate/Nitrite	4/10/23 14:47	4/10/23 14:47		1	Not Detected	mg/L as N	0.20	0.3	U
Analytical Method: SM 2320 B		Analyst: ALH							
* Alkalinity to pH 4.5	4/18/23 10:05	4/18/23 11:02		1	202	mg CaCO3/L		0.10	
Analytical Method: SM 2540C		Analyst: CNJ							
* Solids, Dissolved	4/7/23 10:42	4/10/23 13:50		1	2690	mg/L		312.5	
Analytical Method: SM 4500CO2 D		Analyst: ALH							
* Bicarbonate Alkalinity, (calc.)	4/18/23 10:05	4/18/23 11:02		1	202	mg CaCO3/L		1	A
* Carbonate Alkalinity, (calc.)	4/18/23 10:05	4/18/23 11:02		1	Not Detected	mg CaCO3/L		0.5	A
Analytical Method: SM 5310 B		Analyst: SC							
* Total Organic Carbon	4/12/23 12:46	4/12/23 12:46		1	1.54	mg/L	1.00	2	J

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Barry Ash Pond - MW-17V

Location Code: WMWBARAP

Collected: 4/4/23 12:50

Customer ID:

Submittal Date: 4/6/23 11:49

Laboratory ID Number: BD06828

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM4500Cl E		Analyst: CES							
* Chloride	4/12/23 12:52	4/12/23 12:52		100	1540	mg/L	50.00	50	
Analytical Method: SM4500F G 2017		Analyst: CES							
* Fluoride	4/13/23 11:22	4/13/23 11:22		1	0.108	mg/L	0.06	0.125	J
Analytical Method: SM4500SO4 E 2011		Analyst: JCC							
* Sulfate	4/17/23 14:44	4/17/23 14:44		3	59.0	mg/L	1.8	6	
Analytical Method: Field Measurements		Analyst: AWG							
Conductivity	4/4/23 12:47	4/4/23 12:47			5004.48	uS/cm			FA
pH	4/4/23 12:47	4/4/23 12:47			6.48	SU			FA
Temperature	4/4/23 12:47	4/4/23 12:47			22.09	C			FA
Turbidity	4/4/23 12:47	4/4/23 12:47			3.38	NTU			FA
Sulfide	4/4/23 12:47	4/4/23 12:47			0	mg/L			FA

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWBARAP
Sample Date: 4/4/23 12:50
Customer ID:
Delivery Date: 4/6/23 11:49

Description: Barry Ash Pond - MW-17V

Laboratory ID Number: BD06828

Sample	Analysis	Units	MB	MB				Standard		Rec		Prec	Limit
				Limit	Spike	MS	MSD	Standard	Limit	Rec	Limit		
BD06829	Aluminum, Dissolved	mg/L	0.0000353	0.0198	0.100	0.101	0.102	0.0999	0.0850 to 0.115	101	70.0 to 130	0.985	20.0
BD06828	Aluminum, Total	mg/L	0.000609	0.0198	0.100	0.139	0.139	0.103	0.0850 to 0.115	99.8	70.0 to 130	0.00	20.0
BD06829	Antimony, Dissolved	mg/L	0.000377	0.00100	0.100	0.0881	0.0905	0.0898	0.0850 to 0.115	88.1	70.0 to 130	2.69	20.0
BD06828	Antimony, Total	mg/L	0.000237	0.00100	0.100	0.0875	0.0922	0.0867	0.0850 to 0.115	87.5	70.0 to 130	5.23	20.0
BD06829	Arsenic, Dissolved	mg/L	0.0000113	0.000200	0.100	0.121	0.124	0.0990	0.0850 to 0.115	98.1	70.0 to 130	2.45	20.0
BD06828	Arsenic, Total	mg/L	0.0000156	0.000200	0.100	0.0969	0.0996	0.0998	0.0850 to 0.115	95.8	70.0 to 130	2.75	20.0
BD06829	Barium, Dissolved	mg/L	0.0000105	0.00100	0.100	0.210	0.210	0.0944	0.0850 to 0.115	93.0	70.0 to 130	0.00	20.0
BD06828	Barium, Total	mg/L	-0.0000063	0.00100	0.100	1.14	1.19	0.0923	0.0850 to 0.115	30.0	70.0 to 130	4.29	20.0
BD06829	Beryllium, Dissolved	mg/L	0.0000117	0.000880	0.100	0.0899	0.0944	0.0908	0.0850 to 0.115	89.9	70.0 to 130	4.88	20.0
BD06828	Beryllium, Total	mg/L	0.0000000	0.000880	0.100	0.0921	0.0959	0.0944	0.0850 to 0.115	92.1	70.0 to 130	4.04	20.0
BD06829	Boron, Dissolved	mg/L	-0.000075	0.0650	1.00	1.01	1.06	1.00	0.850 to 1.15	96.4	70.0 to 130	4.83	20.0
BD06828	Boron, Total	mg/L	-0.000537	0.0650	1.00	1.35	1.34	1.02	0.850 to 1.15	106	70.0 to 130	0.743	20.0
BD06829	Cadmium, Dissolved	mg/L	0.0000046	0.000147	0.100	0.0963	0.0981	0.0982	0.0850 to 0.115	96.3	70.0 to 130	1.85	20.0
BD06828	Cadmium, Total	mg/L	0.0000043	0.000147	0.100	0.0895	0.0918	0.0962	0.0850 to 0.115	89.4	70.0 to 130	2.54	20.0
BD06829	Calcium, Dissolved	mg/L	-0.00493	0.152	5.00	14.7	14.6	4.94	4.25 to 5.75	92.0	70.0 to 130	0.683	20.0
BD06828	Calcium, Total	mg/L	-0.0178	0.152	5.00	85.0	86.4	5.00	4.25 to 5.75	36.0	70.0 to 130	1.63	20.0
BD06837	Chloride	mg/L	0.0436	1.00	200	259	263	10.1	9.00 to 11.0	102	80.0 to 120	1.53	20.0
BD06829	Chromium, Dissolved	mg/L	-0.0000370	0.000440	0.100	0.0967	0.0995	0.0995	0.0850 to 0.115	96.7	70.0 to 130	2.85	20.0
BD06828	Chromium, Total	mg/L	-0.0000476	0.000440	0.100	0.0926	0.0929	0.0965	0.0850 to 0.115	92.4	70.0 to 130	0.323	20.0
BD06829	Cobalt, Dissolved	mg/L	-0.0000017	0.000147	0.100	0.101	0.104	0.101	0.0850 to 0.115	100	70.0 to 130	2.93	20.0
BD06828	Cobalt, Total	mg/L	0.0000042	0.000147	0.100	0.219	0.220	0.0997	0.0850 to 0.115	89.0	70.0 to 130	0.456	20.0
BD06828	Fluoride	mg/L	-0.00644	0.125	2.50	2.78	2.79	2.62	2.25 to 2.75	107	80.0 to 120	0.359	20.0
BD06829	Iron, Dissolved	mg/L	-0.00183	0.0176	0.2	60.3	60.4	0.195	0.170 to 0.230	-50.0	70.0 to 130	0.166	20.0
BD06828	Iron, Total	mg/L	0.000416	0.0176	0.2	0.648	0.649	0.200	0.170 to 0.230	98.0	70.0 to 130	0.154	20.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWBARAP
Sample Date: 4/4/23 12:50
Customer ID:
Delivery Date: 4/6/23 11:49

Description: Barry Ash Pond - MW-17V

Laboratory ID Number: BD06828

Sample	Analysis	Units	MB	MB		Spike	MS	MSD	Standard		Rec		Prec
				Limit					Standard	Limit	Rec	Limit	
BD06829	Lead, Dissolved	mg/L	0.0000118	0.000147	0.100	0.0948	0.0971	0.0971	0.0850 to 0.115	94.8	70.0 to 130	2.40	20.0
BD06828	Lead, Total	mg/L	0.0000027	0.000147	0.100	0.0928	0.0958	0.0945	0.0850 to 0.115	92.8	70.0 to 130	3.18	20.0
BD06829	Lithium, Dissolved	mg/L	0.000245	0.0154	0.200	0.199	0.200	0.195	0.170 to 0.230	99.5	70.0 to 130	0.501	20.0
BD06828	Lithium, Total	mg/L	-0.000701	0.0154	0.200	0.220	0.221	0.199	0.170 to 0.230	110	70.0 to 130	0.454	20.0
BD06829	Magnesium, Dissolved	mg/L	0.000	0.0462	5.00	9.49	9.46	4.93	4.25 to 5.75	93.2	70.0 to 130	0.317	20.0
BD06828	Magnesium, Total	mg/L	-0.00548	0.0462	5.00	77.6	75.3	4.93	4.25 to 5.75	102	70.0 to 130	3.01	20.0
BD06829	Manganese, Dissolved	mg/L	0.0000167	0.00033	0.100	0.378	0.382	0.101	0.0850 to 0.115	98.0	70.0 to 130	1.05	20.0
BD06828	Manganese, Total	mg/L	0.000200	0.00033	0.100	4.77	4.92	0.0980	0.0850 to 0.115	70.0	70.0 to 130	3.10	20.0
BD06828	Mercury, Total by CVAA	mg/L	2.000E-05	0.000500	0.004	0.00397	0.00409	0.00403	0.00340 to 0.00460	99.2	70.0 to 130	2.98	20.0
BD06829	Molybdenum, Dissolved	mg/L	-0.000152	0.0100	0.2	0.194	0.196	0.195	0.170 to 0.230	97.0	70.0 to 130	1.03	20.0
BD06828	Molybdenum, Total	mg/L	-0.001	0.0100	0.2	0.202	0.201	0.201	0.170 to 0.230	101	70.0 to 130	0.496	20.0
BD06829	Potassium, Dissolved	mg/L	0.00935	0.367	10.0	11.2	11.3	9.82	8.50 to 11.5	97.4	70.0 to 130	0.889	20.0
BD06828	Potassium, Total	mg/L	-0.00778	0.367	10.0	25.9	26.1	9.95	8.50 to 11.5	88.0	70.0 to 130	0.769	20.0
BD06829	Selenium, Dissolved	mg/L	0.000102	0.00100	0.100	0.102	0.103	0.0997	0.0850 to 0.115	102	70.0 to 130	0.976	20.0
BD06828	Selenium, Total	mg/L	0.0000454	0.00100	0.100	0.0951	0.0968	0.100	0.0850 to 0.115	95.1	70.0 to 130	1.77	20.0
BD06829	Silicon, Dissolved	mg/L	0.000229	0.0440	1.00	8.70	8.71	0.997	0.850 to 1.15	96.0	70.0 to 130	0.115	20.0
BD06828	Silicon, Total	mg/L	-0.000048	0.0440	1.00	6.40	6.36	1.02	0.850 to 1.15	101	70.0 to 130	0.627	20.0
BD06829	Sodium, Dissolved	mg/L	0.0149	0.0880	5.00	21.1	20.8	5.23	4.25 to 5.75	96.0	70.0 to 130	1.43	20.0
BD06828	Sodium, Total	mg/L	0.000332	0.0880	5.00	761	761	4.87	4.25 to 5.75	120	70.0 to 130	0.00	20.0
BD06835	Sulfate	mg/L	-0.0671	2.0	20.0	22.3	22.4	19.9	18.0 to 22.0	96.9	80.0 to 120	0.447	20.0
BD06829	Thallium, Dissolved	mg/L	-0.0000001	0.000147	0.100	0.0977	0.0992	0.0992	0.0850 to 0.115	97.7	70.0 to 130	1.52	20.0
BD06828	Thallium, Total	mg/L	0.0000054	0.000147	0.100	0.0959	0.0990	0.0978	0.0850 to 0.115	95.5	70.0 to 130	3.18	20.0
BD06828	Total Organic Carbon	mg/L	0.108	1.00	10.0	11.0	10.6	23.5		94.6	80.0 to 120	3.70	20.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWBARAP

Sample Date: 4/4/23 12:50

Customer ID:

Delivery Date: 4/6/23 11:49

Description: Barry Ash Pond - MW-17V

Laboratory ID Number: BD06828

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BD06839	Alkalinity to pH 4.5	mg CaCO3/L					167	50.5	45.0 to 55.0			0.601	10.0
BD06835	Nitrogen, Nitrate/Nitrite	mg/L as N	0.04	0.200	2.00	2.32	0.166	1.92	1.80 to 2.20	116	90.0 to 110	0.00	15.0
BD06836	Solids, Dissolved	mg/L	1.00	25.0			222	51.0	40.0 to 60.0			1.36	10.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Barry Ash Pond - MW-17H

Location Code: WMWBARAP
Collected: 4/4/23 13:36
Customer ID:
Submittal Date: 4/6/23 11:49

Laboratory ID Number: BD06829

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7			Analyst: ABB		Preparation Method: EPA 1638				
* Boron, Total	4/7/23 14:10	4/11/23 11:55		1.015	0.0474	mg/L	0.030000	0.1015	J
* Calcium, Total	4/7/23 14:10	4/11/23 11:55		1.015	10.4	mg/L	0.070035	0.406	
* Iron, Total	4/7/23 14:10	4/11/23 13:51		101.5	63.9	mg/L	0.8120	4.06	
* Lithium, Total	4/7/23 14:10	4/11/23 11:55		1.015	Not Detected	mg/L	0.007105	0.01999956	U
* Magnesium, Total	4/7/23 14:10	4/11/23 11:55		1.015	4.68	mg/L	0.021315	0.406	
* Molybdenum, Total	4/7/23 14:10	4/11/23 11:55		1.015	Not Detected	mg/L	0.005075	0.01015	U
* Silica, Total (calc.)	4/7/23 14:10	4/11/23 11:55		1	17.1	mg/L			
* Silicon, Total	4/7/23 14:10	4/11/23 11:55		1.015	7.99	mg/L	0.02030	0.25375	
* Sodium, Total	4/7/23 14:10	4/11/23 11:55		1.015	16.3	mg/L	0.04060	0.406	
Analytical Method: EPA 200.7			Analyst: ABB						
* Boron, Dissolved	4/7/23 11:45	4/12/23 11:40		1.015	0.0458	mg/L	0.030000	0.1015	J
* Calcium, Dissolved	4/7/23 11:45	4/12/23 11:40		1.015	10.1	mg/L	0.070035	0.406	
* Iron, Dissolved	4/7/23 11:45	4/12/23 13:46		101.5	60.4	mg/L	0.8120	4.06	RA
* Lithium, Dissolved	4/7/23 11:45	4/12/23 11:40		1.015	Not Detected	mg/L	0.007105	0.01999956	U
* Magnesium, Dissolved	4/7/23 11:45	4/12/23 11:40		1.015	4.83	mg/L	0.021315	0.406	
* Molybdenum, Dissolved	4/7/23 11:45	4/12/23 11:40		1.015	Not Detected	mg/L	0.005075	0.01015	U
* Silica, Dissolved (calc.)	4/7/23 11:45	4/12/23 11:40		1	16.6	mg/L			
* Silicon, Dissolved	4/7/23 11:45	4/12/23 11:40		1.015	7.74	mg/L	0.02030	0.25375	
* Sodium, Dissolved	4/7/23 11:45	4/12/23 12:46		1.015	16.3	mg/L	0.04060	0.406	
Analytical Method: EPA 200.8			Analyst: DLJ		Preparation Method: EPA 1638				
* Antimony, Total	4/7/23 14:10	4/7/23 17:27		1.015	Not Detected	mg/L	0.000710	0.001015	U
* Aluminum, Total	4/7/23 14:10	4/7/23 17:27		1.015	0.103	mg/L	0.009135	0.05075	
* Arsenic, Total	4/7/23 14:10	4/7/23 17:27		1.015	0.0192	mg/L	0.000112	0.000203	
* Barium, Total	4/7/23 14:10	4/7/23 17:27		1.015	0.125	mg/L	0.000508	0.001015	
* Beryllium, Total	4/7/23 14:10	4/7/23 17:27		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Total	4/7/23 14:10	4/7/23 17:27		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Total	4/7/23 14:10	4/7/23 17:27		1.015	0.000420	mg/L	0.000203	0.001015	J
* Cobalt, Total	4/7/23 14:10	4/7/23 17:27		1.015	0.000596	mg/L	0.000068	0.000203	
* Lead, Total	4/7/23 14:10	4/7/23 17:27		1.015	0.0000757	mg/L	0.000068	0.000203	J
* Manganese, Total	4/7/23 14:10	4/7/23 17:27		1.015	0.282	mg/L	0.000152	0.001015	

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Barry Ash Pond - MW-17H

Location Code: WMWBARAP
Collected: 4/4/23 13:36
Customer ID:
Submittal Date: 4/6/23 11:49

Laboratory ID Number: BD06829

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
* Potassium, Total	4/7/23 14:10	4/7/23 17:27		1.015	1.54	mg/L	0.169505	0.5075	
* Selenium, Total	4/7/23 14:10	4/7/23 17:27		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Total	4/7/23 14:10	4/7/23 17:27		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 200.8		Analyst: DLJ							
* Antimony, Dissolved	4/7/23 11:45	4/7/23 14:00		1.015	Not Detected	mg/L	0.000710	0.001015	U
* Aluminum, Dissolved	4/7/23 11:45	4/7/23 14:00		1.015	Not Detected	mg/L	0.009135	0.05075	U
* Arsenic, Dissolved	4/7/23 11:45	4/7/23 14:00		1.015	0.0229	mg/L	0.000112	0.000203	
* Barium, Dissolved	4/7/23 11:45	4/7/23 14:00		1.015	0.117	mg/L	0.000508	0.001015	
* Beryllium, Dissolved	4/7/23 11:45	4/7/23 14:00		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Dissolved	4/7/23 11:45	4/7/23 14:00		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Dissolved	4/7/23 11:45	4/7/23 14:00		1.015	Not Detected	mg/L	0.000203	0.001015	U
* Cobalt, Dissolved	4/7/23 11:45	4/7/23 14:00		1.015	0.000766	mg/L	0.000068	0.000203	
* Lead, Dissolved	4/7/23 11:45	4/7/23 14:00		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Dissolved	4/7/23 11:45	4/7/23 14:00		1.015	0.280	mg/L	0.000152	0.001015	
* Potassium, Dissolved	4/7/23 11:45	4/7/23 14:00		1.015	1.46	mg/L	0.169505	0.5075	
* Selenium, Dissolved	4/7/23 11:45	4/7/23 14:00		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Dissolved	4/7/23 11:45	4/7/23 14:00		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 245.1		Analyst: CRB							
* Mercury, Total by CVAA	4/11/23 18:35	4/12/23 01:26		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: EPA 353.2		Analyst: SC							
* Nitrogen, Nitrate/Nitrite	4/10/23 14:49	4/10/23 14:49		1	Not Detected	mg/L as N	0.20	0.3	U
Analytical Method: SM 2320 B		Analyst: ALH							
* Alkalinity to pH 4.5	4/18/23 10:05	4/18/23 11:02		1	103	mg CaCO3/L		0.10	
Analytical Method: SM 2540C		Analyst: CNJ							
* Solids, Dissolved	4/7/23 10:42	4/10/23 13:50		1	171	mg/L		25	
Analytical Method: SM 4500CO2 D		Analyst: ALH							
* Bicarbonate Alkalinity, (calc.)	4/18/23 10:05	4/18/23 11:02		1	103	mg CaCO3/L		1	
* Carbonate Alkalinity, (calc.)	4/18/23 10:05	4/18/23 11:02		1	Not Detected	mg CaCO3/L		0.5	
Analytical Method: SM 5310 B		Analyst: SC							
* Total Organic Carbon	4/12/23 14:01	4/12/23 14:01		1	4.50	mg/L	1.00	2	

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Barry Ash Pond - MW-17H

Location Code: WMWBARAP

Collected: 4/4/23 13:36

Customer ID:

Submittal Date: 4/6/23 11:49

Laboratory ID Number: BD06829

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM4500Cl E		Analyst: CES							
* Chloride	4/12/23 12:39	4/12/23 12:39		1	17.6	mg/L	0.50	0.5	
Analytical Method: SM4500F G 2017		Analyst: CES							
* Fluoride	4/13/23 11:35	4/13/23 11:35		1	0.176	mg/L	0.06	0.125	
Analytical Method: SM4500SO4 E 2011		Analyst: JCC							
* Sulfate	4/17/23 14:28	4/17/23 14:28		1	17.2	mg/L	0.6	2	
Analytical Method: Field Measurements		Analyst: AWG							
Conductivity	4/4/23 13:34	4/4/23 13:34			331.33	uS/cm			FA
pH	4/4/23 13:34	4/4/23 13:34			6.25	SU			FA
Temperature	4/4/23 13:34	4/4/23 13:34			22.18	C			FA
Turbidity	4/4/23 13:34	4/4/23 13:34			8.7	NTU			FA
Sulfide	4/4/23 13:34	4/4/23 13:34			0	mg/L			FA

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWBARAP
Sample Date: 4/4/23 13:36
Customer ID:
Delivery Date: 4/6/23 11:49

Description: Barry Ash Pond - MW-17H

Laboratory ID Number: BD06829

Sample	Analysis	Units	MB	MB				Standard		Rec		Prec	Limit
				Limit	Spike	MS	MSD	Standard	Limit	Rec	Limit		
BD06829	Aluminum, Dissolved	mg/L	0.0000353	0.0198	0.100	0.101	0.102	0.0999	0.0850 to 0.115	101	70.0 to 130	0.985	20.0
BD06838	Aluminum, Total	mg/L	0.000609	0.0198	0.100	0.155	0.156	0.103	0.0850 to 0.115	111	70.0 to 130	0.643	20.0
BD06829	Antimony, Dissolved	mg/L	0.000377	0.00100	0.100	0.0881	0.0905	0.0898	0.0850 to 0.115	88.1	70.0 to 130	2.69	20.0
BD06838	Antimony, Total	mg/L	0.000237	0.00100	0.100	0.0909	0.0928	0.0867	0.0850 to 0.115	90.9	70.0 to 130	2.07	20.0
BD06829	Arsenic, Dissolved	mg/L	0.0000113	0.000200	0.100	0.121	0.124	0.0990	0.0850 to 0.115	98.1	70.0 to 130	2.45	20.0
BD06838	Arsenic, Total	mg/L	0.0000156	0.000200	0.100	0.0974	0.0996	0.0998	0.0850 to 0.115	96.5	70.0 to 130	2.23	20.0
BD06829	Barium, Dissolved	mg/L	0.0000105	0.00100	0.100	0.210	0.210	0.0944	0.0850 to 0.115	93.0	70.0 to 130	0.00	20.0
BD06838	Barium, Total	mg/L	-0.0000063	0.00100	0.100	0.117	0.116	0.0923	0.0850 to 0.115	96.3	70.0 to 130	0.858	20.0
BD06829	Beryllium, Dissolved	mg/L	0.0000117	0.000880	0.100	0.0899	0.0944	0.0908	0.0850 to 0.115	89.9	70.0 to 130	4.88	20.0
BD06838	Beryllium, Total	mg/L	0.0000000	0.000880	0.100	0.0961	0.0991	0.0944	0.0850 to 0.115	96.1	70.0 to 130	3.07	20.0
BD06829	Boron, Dissolved	mg/L	-0.000075	0.0650	1.00	1.01	1.06	1.00	0.850 to 1.15	96.4	70.0 to 130	4.83	20.0
BD06838	Boron, Total	mg/L	-0.000537	0.0650	1.00	1.06	1.07	1.02	0.850 to 1.15	102	70.0 to 130	0.939	20.0
BD06829	Cadmium, Dissolved	mg/L	0.0000046	0.000147	0.100	0.0963	0.0981	0.0982	0.0850 to 0.115	96.3	70.0 to 130	1.85	20.0
BD06838	Cadmium, Total	mg/L	0.0000043	0.000147	0.100	0.0946	0.0954	0.0962	0.0850 to 0.115	94.6	70.0 to 130	0.842	20.0
BD06829	Calcium, Dissolved	mg/L	-0.00493	0.152	5.00	14.7	14.6	4.94	4.25 to 5.75	92.0	70.0 to 130	0.683	20.0
BD06838	Calcium, Total	mg/L	-0.0178	0.152	5.00	9.85	10.1	5.00	4.25 to 5.75	99.2	70.0 to 130	2.51	20.0
BD06837	Chloride	mg/L	0.0436	1.00	200	259	263	10.1	9.00 to 11.0	102	80.0 to 120	1.53	20.0
BD06829	Chromium, Dissolved	mg/L	-0.0000370	0.000440	0.100	0.0967	0.0995	0.0995	0.0850 to 0.115	96.7	70.0 to 130	2.85	20.0
BD06838	Chromium, Total	mg/L	-0.0000476	0.000440	0.100	0.0986	0.0969	0.0965	0.0850 to 0.115	98.1	70.0 to 130	1.74	20.0
BD06829	Cobalt, Dissolved	mg/L	-0.0000017	0.000147	0.100	0.101	0.104	0.101	0.0850 to 0.115	100	70.0 to 130	2.93	20.0
BD06838	Cobalt, Total	mg/L	0.0000042	0.000147	0.100	0.101	0.0985	0.0997	0.0850 to 0.115	101	70.0 to 130	2.51	20.0
BD06838	Fluoride	mg/L	-0.00248	0.125	2.50	2.72	2.76	2.59	2.25 to 2.75	106	80.0 to 120	1.46	20.0
BD06829	Iron, Dissolved	mg/L	-0.00183	0.0176	0.2	60.3	60.4	0.195	0.170 to 0.230	-50.0	70.0 to 130	0.166	20.0
BD06838	Iron, Total	mg/L	0.000416	0.0176	0.2	14.9	14.1	0.200	0.170 to 0.230	450	70.0 to 130	5.52	20.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWBARAP

Sample Date: 4/4/23 13:36

Customer ID:

Delivery Date: 4/6/23 11:49

Description: Barry Ash Pond - MW-17H

Laboratory ID Number: BD06829

Sample	Analysis	Units	MB		Spike	MS	MSD	Standard		Rec		Prec	Limit
			MB	Limit				Standard	Limit	Rec	Limit		
BD06829	Lead, Dissolved	mg/L	0.0000118	0.000147	0.100	0.0948	0.0971	0.0971	0.0850 to 0.115	94.8	70.0 to 130	2.40	20.0
BD06838	Lead, Total	mg/L	0.0000027	0.000147	0.100	0.0958	0.0961	0.0945	0.0850 to 0.115	95.8	70.0 to 130	0.313	20.0
BD06829	Lithium, Dissolved	mg/L	0.000245	0.0154	0.200	0.199	0.200	0.195	0.170 to 0.230	99.5	70.0 to 130	0.501	20.0
BD06838	Lithium, Total	mg/L	-0.000701	0.0154	0.200	0.204	0.201	0.199	0.170 to 0.230	102	70.0 to 130	1.48	20.0
BD06829	Magnesium, Dissolved	mg/L	0.000	0.0462	5.00	9.49	9.46	4.93	4.25 to 5.75	93.2	70.0 to 130	0.317	20.0
BD06838	Magnesium, Total	mg/L	-0.00548	0.0462	5.00	6.45	6.43	4.93	4.25 to 5.75	99.8	70.0 to 130	0.311	20.0
BD06829	Manganese, Dissolved	mg/L	0.0000167	0.00033	0.100	0.378	0.382	0.101	0.0850 to 0.115	98.0	70.0 to 130	1.05	20.0
BD06838	Manganese, Total	mg/L	0.000200	0.00033	0.100	0.340	0.329	0.0980	0.0850 to 0.115	108	70.0 to 130	3.29	20.0
BD06838	Mercury, Total by CVAA	mg/L	2.000E-05	0.000500	0.004	0.00399	0.004	0.00403	0.00340 to 0.00460	99.8	70.0 to 130	0.250	20.0
BD06829	Molybdenum, Dissolved	mg/L	-0.000152	0.0100	0.2	0.194	0.196	0.195	0.170 to 0.230	97.0	70.0 to 130	1.03	20.0
BD06838	Molybdenum, Total	mg/L	-0.001	0.0100	0.2	0.200	0.201	0.201	0.170 to 0.230	100	70.0 to 130	0.499	20.0
BD06829	Potassium, Dissolved	mg/L	0.00935	0.367	10.0	11.2	11.3	9.82	8.50 to 11.5	97.4	70.0 to 130	0.889	20.0
BD06838	Potassium, Total	mg/L	-0.00778	0.367	10.0	10.4	10.5	9.95	8.50 to 11.5	100	70.0 to 130	0.957	20.0
BD06829	Selenium, Dissolved	mg/L	0.000102	0.00100	0.100	0.102	0.103	0.0997	0.0850 to 0.115	102	70.0 to 130	0.976	20.0
BD06838	Selenium, Total	mg/L	0.0000454	0.00100	0.100	0.0988	0.0998	0.100	0.0850 to 0.115	98.8	70.0 to 130	1.01	20.0
BD06829	Silicon, Dissolved	mg/L	0.000229	0.0440	1.00	8.70	8.71	0.997	0.850 to 1.15	96.0	70.0 to 130	0.115	20.0
BD06838	Silicon, Total	mg/L	-0.000048	0.0440	1.00	5.47	5.48	1.02	0.850 to 1.15	107	70.0 to 130	0.183	20.0
BD06829	Sodium, Dissolved	mg/L	0.0149	0.0880	5.00	21.1	20.8	5.23	4.25 to 5.75	96.0	70.0 to 130	1.43	20.0
BD06838	Sodium, Total	mg/L	0.000332	0.0880	5.00	14.7	14.4	4.87	4.25 to 5.75	97.6	70.0 to 130	2.06	20.0
BD06835	Sulfate	mg/L	-0.0671	2.0	20.0	22.3	22.4	19.9	18.0 to 22.0	96.9	80.0 to 120	0.447	20.0
BD06829	Thallium, Dissolved	mg/L	-0.0000001	0.000147	0.100	0.0977	0.0992	0.0992	0.0850 to 0.115	97.7	70.0 to 130	1.52	20.0
BD06838	Thallium, Total	mg/L	0.0000054	0.000147	0.100	0.0974	0.0989	0.0978	0.0850 to 0.115	97.4	70.0 to 130	1.53	20.0
BD06838	Total Organic Carbon	mg/L	0.0766	1.00	10.0	12.5	12.5	24.8		99.2	80.0 to 120	0.00	20.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWBARAP

Sample Date: 4/4/23 13:36

Customer ID:

Delivery Date: 4/6/23 11:49

Description: Barry Ash Pond - MW-17H

Laboratory ID Number: BD06829

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BD06839	Alkalinity to pH 4.5	mg CaCO3/L					167	50.5	45.0 to 55.0			0.601	10.0
BD06835	Nitrogen, Nitrate/Nitrite	mg/L as N	0.04	0.200	2.00	2.32	0.166	1.92	1.80 to 2.20	116	90.0 to 110	0.00	15.0
BD06836	Solids, Dissolved	mg/L	1.00	25.0			222	51.0	40.0 to 60.0			1.36	10.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Barry Ash Pond - MW-14V

Location Code: WMWBARAP
Collected: 4/4/23 15:05
Customer ID:
Submittal Date: 4/6/23 11:49

Laboratory ID Number: BD06830

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7		Analyst: ABB			Preparation Method: EPA 1638				
* Boron, Total	4/7/23 14:10	4/11/23 11:58		1.015	0.390	mg/L	0.030000	0.1015	
* Calcium, Total	4/7/23 14:10	4/11/23 11:58		1.015	5.34	mg/L	0.070035	0.406	
* Iron, Total	4/7/23 14:10	4/11/23 14:00		10.15	20.8	mg/L	0.08120	0.406	
* Lithium, Total	4/7/23 14:10	4/11/23 11:58		1.015	Not Detected	mg/L	0.007105	0.01999956	U
* Magnesium, Total	4/7/23 14:10	4/11/23 11:58		1.015	2.85	mg/L	0.021315	0.406	
* Molybdenum, Total	4/7/23 14:10	4/11/23 11:58		1.015	Not Detected	mg/L	0.005075	0.01015	U
* Silica, Total (calc.)	4/7/23 14:10	4/11/23 11:58		1	14.3	mg/L			
* Silicon, Total	4/7/23 14:10	4/11/23 11:58		1.015	6.66	mg/L	0.02030	0.25375	
* Sodium, Total	4/7/23 14:10	4/11/23 14:00		10.15	169	mg/L	0.4060	4.06	
Analytical Method: EPA 200.7		Analyst: ABB			Preparation Method: EPA 1638				
* Boron, Dissolved	4/7/23 11:45	4/12/23 11:55		1.015	0.387	mg/L	0.030000	0.1015	
* Calcium, Dissolved	4/7/23 11:45	4/12/23 11:55		1.015	5.38	mg/L	0.070035	0.406	
* Iron, Dissolved	4/7/23 11:45	4/12/23 14:02		10.15	20.7	mg/L	0.08120	0.406	
* Lithium, Dissolved	4/7/23 11:45	4/12/23 11:55		1.015	Not Detected	mg/L	0.007105	0.01999956	U
* Magnesium, Dissolved	4/7/23 11:45	4/12/23 11:55		1.015	2.89	mg/L	0.021315	0.406	
* Molybdenum, Dissolved	4/7/23 11:45	4/12/23 11:55		1.015	Not Detected	mg/L	0.005075	0.01015	U
* Silica, Dissolved (calc.)	4/7/23 11:45	4/12/23 11:55		1	14.0	mg/L			
* Silicon, Dissolved	4/7/23 11:45	4/12/23 11:55		1.015	6.55	mg/L	0.02030	0.25375	
* Sodium, Dissolved	4/7/23 11:45	4/12/23 14:02		10.15	170	mg/L	0.4060	4.06	
Analytical Method: EPA 200.8		Analyst: DLJ			Preparation Method: EPA 1638				
* Antimony, Total	4/7/23 14:10	4/7/23 17:31		1.015	Not Detected	mg/L	0.000710	0.001015	U
* Aluminum, Total	4/7/23 14:10	4/7/23 17:31		1.015	0.0188	mg/L	0.009135	0.05075	J
* Arsenic, Total	4/7/23 14:10	4/7/23 17:31		1.015	0.00501	mg/L	0.000112	0.000203	
* Barium, Total	4/7/23 14:10	4/7/23 17:31		1.015	0.0645	mg/L	0.000508	0.001015	
* Beryllium, Total	4/7/23 14:10	4/7/23 17:31		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Total	4/7/23 14:10	4/7/23 17:31		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Total	4/7/23 14:10	4/7/23 17:31		1.015	0.000490	mg/L	0.000203	0.001015	J
* Cobalt, Total	4/7/23 14:10	4/7/23 17:31		1.015	0.00396	mg/L	0.000068	0.000203	
* Lead, Total	4/7/23 14:10	4/7/23 17:31		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Total	4/7/23 14:10	4/7/23 17:31		1.015	0.281	mg/L	0.000152	0.001015	

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Barry Ash Pond - MW-14V

Location Code: WMWBARAP
Collected: 4/4/23 15:05
Customer ID:
Submittal Date: 4/6/23 11:49

Laboratory ID Number: BD06830

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
* Potassium, Total	4/7/23 14:10	4/7/23 17:31		1.015	2.65	mg/L	0.169505	0.5075	
* Selenium, Total	4/7/23 14:10	4/7/23 17:31		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Total	4/7/23 14:10	4/7/23 17:31		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 200.8		Analyst: DLJ							
* Antimony, Dissolved	4/7/23 11:45	4/7/23 14:21		1.015	Not Detected	mg/L	0.000710	0.001015	U
* Aluminum, Dissolved	4/7/23 11:45	4/7/23 14:21		1.015	Not Detected	mg/L	0.009135	0.05075	U
* Arsenic, Dissolved	4/7/23 11:45	4/7/23 14:21		1.015	0.00514	mg/L	0.000112	0.000203	
* Barium, Dissolved	4/7/23 11:45	4/7/23 14:21		1.015	0.0623	mg/L	0.000508	0.001015	
* Beryllium, Dissolved	4/7/23 11:45	4/7/23 14:21		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Dissolved	4/7/23 11:45	4/7/23 14:21		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Dissolved	4/7/23 11:45	4/7/23 14:21		1.015	0.000422	mg/L	0.000203	0.001015	J
* Cobalt, Dissolved	4/7/23 11:45	4/7/23 14:21		1.015	0.00407	mg/L	0.000068	0.000203	
* Lead, Dissolved	4/7/23 11:45	4/7/23 14:21		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Dissolved	4/7/23 11:45	4/7/23 14:21		1.015	0.280	mg/L	0.000152	0.001015	
* Potassium, Dissolved	4/7/23 11:45	4/7/23 14:21		1.015	2.55	mg/L	0.169505	0.5075	
* Selenium, Dissolved	4/7/23 11:45	4/7/23 14:21		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Dissolved	4/7/23 11:45	4/7/23 14:21		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 245.1		Analyst: CRB							
* Mercury, Total by CVAA	4/11/23 18:35	4/12/23 01:30		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: EPA 353.2		Analyst: SC							
* Nitrogen, Nitrate/Nitrite	4/10/23 14:51	4/10/23 14:51		1	Not Detected	mg/L as N	0.20	0.3	U
Analytical Method: SM 2320 B		Analyst: ALH							
* Alkalinity to pH 4.5	4/18/23 10:05	4/18/23 11:02		1	159	mg CaCO3/L		0.10	
Analytical Method: SM 2540C		Analyst: CNJ							
* Solids, Dissolved	4/7/23 10:42	4/10/23 13:50		1	464	mg/L		50	
Analytical Method: SM 4500CO2 D		Analyst: ALH							
* Bicarbonate Alkalinity, (calc.)	4/18/23 10:05	4/18/23 11:02		1	159	mg CaCO3/L		1	
* Carbonate Alkalinity, (calc.)	4/18/23 10:05	4/18/23 11:02		1	Not Detected	mg CaCO3/L		0.5	
Analytical Method: SM 5310 B		Analyst: SC							
* Total Organic Carbon	4/12/23 14:18	4/12/23 14:18		1	4.24	mg/L	1.00	2	

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Barry Ash Pond - MW-14V

Location Code: WMWBARAP

Collected: 4/4/23 15:05

Customer ID:

Submittal Date: 4/6/23 11:49

Laboratory ID Number: BD06830

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM4500Cl E		Analyst: CES							
* Chloride	4/12/23 12:53	4/12/23 12:53		40	174	mg/L	20.00	20	
Analytical Method: SM4500F G 2017		Analyst: CES							
* Fluoride	4/13/23 11:50	4/13/23 11:50		1	0.302	mg/L	0.06	0.125	
Analytical Method: SM4500SO4 E 2011		Analyst: JCC							
* Sulfate	4/17/23 14:29	4/17/23 14:29		1	11.7	mg/L	0.6	2	
Analytical Method: Field Measurements		Analyst: AWG							
Conductivity	4/4/23 15:02	4/4/23 15:02			912.46	uS/cm			FA
pH	4/4/23 15:02	4/4/23 15:02			6.80	SU			FA
Temperature	4/4/23 15:02	4/4/23 15:02			22.32	C			FA
Turbidity	4/4/23 15:02	4/4/23 15:02			3.19	NTU			FA
Sulfide	4/4/23 15:02	4/4/23 15:02			0	mg/L			FA

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWBARAP

Sample Date: 4/4/23 15:05

Customer ID:

Delivery Date: 4/6/23 11:49

Description: Barry Ash Pond - MW-14V

Laboratory ID Number: BD06830

Sample	Analysis	Units	MB		Spike	MS	MSD	Standard		Rec		Prec	Limit
			MB	Limit				Standard	Limit	Rec	Limit		
BD06839	Aluminum, Dissolved	mg/L	0.0000353	0.0198	0.100	0.106	0.107	0.0999	0.0850 to 0.115	106	70.0 to 130	0.939	20.0
BD06838	Aluminum, Total	mg/L	0.000609	0.0198	0.100	0.155	0.156	0.103	0.0850 to 0.115	111	70.0 to 130	0.643	20.0
BD06839	Antimony, Dissolved	mg/L	0.000377	0.00100	0.100	0.0917	0.0904	0.0898	0.0850 to 0.115	91.7	70.0 to 130	1.43	20.0
BD06838	Antimony, Total	mg/L	0.000237	0.00100	0.100	0.0909	0.0928	0.0867	0.0850 to 0.115	90.9	70.0 to 130	2.07	20.0
BD06839	Arsenic, Dissolved	mg/L	0.0000113	0.000200	0.100	0.116	0.117	0.0990	0.0850 to 0.115	98.1	70.0 to 130	0.858	20.0
BD06838	Arsenic, Total	mg/L	0.0000156	0.000200	0.100	0.0974	0.0996	0.0998	0.0850 to 0.115	96.5	70.0 to 130	2.23	20.0
BD06839	Barium, Dissolved	mg/L	0.0000105	0.00100	0.100	0.149	0.147	0.0944	0.0850 to 0.115	92.7	70.0 to 130	1.35	20.0
BD06838	Barium, Total	mg/L	-0.0000063	0.00100	0.100	0.117	0.116	0.0923	0.0850 to 0.115	96.3	70.0 to 130	0.858	20.0
BD06839	Beryllium, Dissolved	mg/L	0.0000117	0.000880	0.100	0.0966	0.0920	0.0908	0.0850 to 0.115	96.6	70.0 to 130	4.88	20.0
BD06838	Beryllium, Total	mg/L	0.0000000	0.000880	0.100	0.0961	0.0991	0.0944	0.0850 to 0.115	96.1	70.0 to 130	3.07	20.0
BD06839	Boron, Dissolved	mg/L	-0.000075	0.0650	1.00	1.08	1.08	1.00	0.850 to 1.15	102	70.0 to 130	0.00	20.0
BD06838	Boron, Total	mg/L	-0.000537	0.0650	1.00	1.06	1.07	1.02	0.850 to 1.15	102	70.0 to 130	0.939	20.0
BD06839	Cadmium, Dissolved	mg/L	0.0000046	0.000147	0.100	0.0986	0.0955	0.0982	0.0850 to 0.115	98.6	70.0 to 130	3.19	20.0
BD06838	Cadmium, Total	mg/L	0.0000043	0.000147	0.100	0.0946	0.0954	0.0962	0.0850 to 0.115	94.6	70.0 to 130	0.842	20.0
BD06839	Calcium, Dissolved	mg/L	-0.00493	0.152	5.00	14.4	14.3	4.94	4.25 to 5.75	94.6	70.0 to 130	0.697	20.0
BD06838	Calcium, Total	mg/L	-0.0178	0.152	5.00	9.85	10.1	5.00	4.25 to 5.75	99.2	70.0 to 130	2.51	20.0
BD06837	Chloride	mg/L	0.0436	1.00	200	259	263	10.1	9.00 to 11.0	102	80.0 to 120	1.53	20.0
BD06839	Chromium, Dissolved	mg/L	-0.0000370	0.000440	0.100	0.0988	0.0992	0.0995	0.0850 to 0.115	95.8	70.0 to 130	0.404	20.0
BD06838	Chromium, Total	mg/L	-0.0000476	0.000440	0.100	0.0986	0.0969	0.0965	0.0850 to 0.115	98.1	70.0 to 130	1.74	20.0
BD06839	Cobalt, Dissolved	mg/L	-0.0000017	0.000147	0.100	0.101	0.101	0.101	0.0850 to 0.115	99.9	70.0 to 130	0.00	20.0
BD06838	Cobalt, Total	mg/L	0.0000042	0.000147	0.100	0.101	0.0985	0.0997	0.0850 to 0.115	101	70.0 to 130	2.51	20.0
BD06838	Fluoride	mg/L	-0.00248	0.125	2.50	2.72	2.76	2.59	2.25 to 2.75	106	80.0 to 120	1.46	20.0
BD06839	Iron, Dissolved	mg/L	-0.00183	0.0176	0.2	32.1	32.1	0.195	0.170 to 0.230	50.0	70.0 to 130	0.00	20.0
BD06838	Iron, Total	mg/L	0.000416	0.0176	0.2	14.9	14.1	0.200	0.170 to 0.230	450	70.0 to 130	5.52	20.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWBARAP

Sample Date: 4/4/23 15:05

Customer ID:

Delivery Date: 4/6/23 11:49

Description: Barry Ash Pond - MW-14V

Laboratory ID Number: BD06830

Sample	Analysis	Units	MB		Spike	MS	MSD	Standard		Rec		Prec	Limit
			MB	Limit				Standard	Limit	Rec	Limit		
BD06839	Lead, Dissolved	mg/L	0.0000118	0.000147	0.100	0.100	0.0955	0.0971	0.0850 to 0.115	100	70.0 to 130	4.60	20.0
BD06838	Lead, Total	mg/L	0.0000027	0.000147	0.100	0.0958	0.0961	0.0945	0.0850 to 0.115	95.8	70.0 to 130	0.313	20.0
BD06839	Lithium, Dissolved	mg/L	0.000245	0.0154	0.200	0.203	0.199	0.195	0.170 to 0.230	102	70.0 to 130	1.99	20.0
BD06838	Lithium, Total	mg/L	-0.000701	0.0154	0.200	0.204	0.201	0.199	0.170 to 0.230	102	70.0 to 130	1.48	20.0
BD06839	Magnesium, Dissolved	mg/L	0.000	0.0462	5.00	11.0	11.0	4.93	4.25 to 5.75	97.6	70.0 to 130	0.00	20.0
BD06838	Magnesium, Total	mg/L	-0.00548	0.0462	5.00	6.45	6.43	4.93	4.25 to 5.75	99.8	70.0 to 130	0.311	20.0
BD06839	Manganese, Dissolved	mg/L	0.0000167	0.00033	0.100	0.376	0.381	0.101	0.0850 to 0.115	94.0	70.0 to 130	1.32	20.0
BD06838	Manganese, Total	mg/L	0.000200	0.00033	0.100	0.340	0.329	0.0980	0.0850 to 0.115	108	70.0 to 130	3.29	20.0
BD06838	Mercury, Total by CVAA	mg/L	2.000E-05	0.000500	0.004	0.00399	0.004	0.00403	0.00340 to 0.00460	99.8	70.0 to 130	0.250	20.0
BD06839	Molybdenum, Dissolved	mg/L	-0.000152	0.0100	0.2	0.197	0.194	0.195	0.170 to 0.230	98.5	70.0 to 130	1.53	20.0
BD06838	Molybdenum, Total	mg/L	-0.001	0.0100	0.2	0.200	0.201	0.201	0.170 to 0.230	100	70.0 to 130	0.499	20.0
BD06839	Potassium, Dissolved	mg/L	0.00935	0.367	10.0	12.2	12.2	9.82	8.50 to 11.5	98.2	70.0 to 130	0.00	20.0
BD06838	Potassium, Total	mg/L	-0.00778	0.367	10.0	10.4	10.5	9.95	8.50 to 11.5	100	70.0 to 130	0.957	20.0
BD06839	Selenium, Dissolved	mg/L	0.000102	0.00100	0.100	0.103	0.104	0.0997	0.0850 to 0.115	103	70.0 to 130	0.966	20.0
BD06838	Selenium, Total	mg/L	0.0000454	0.00100	0.100	0.0988	0.0998	0.100	0.0850 to 0.115	98.8	70.0 to 130	1.01	20.0
BD06839	Silicon, Dissolved	mg/L	0.000229	0.0440	1.00	10.2	10.2	0.997	0.850 to 1.15	94.0	70.0 to 130	0.00	20.0
BD06838	Silicon, Total	mg/L	-0.000048	0.0440	1.00	5.47	5.48	1.02	0.850 to 1.15	107	70.0 to 130	0.183	20.0
BD06839	Sodium, Dissolved	mg/L	0.0149	0.0880	5.00	78.3	78.6	5.23	4.25 to 5.75	76.0	70.0 to 130	0.382	20.0
BD06838	Sodium, Total	mg/L	0.000332	0.0880	5.00	14.7	14.4	4.87	4.25 to 5.75	97.6	70.0 to 130	2.06	20.0
BD06835	Sulfate	mg/L	-0.0671	2.0	20.0	22.3	22.4	19.9	18.0 to 22.0	96.9	80.0 to 120	0.447	20.0
BD06839	Thallium, Dissolved	mg/L	-0.0000001	0.000147	0.100	0.102	0.0974	0.0992	0.0850 to 0.115	102	70.0 to 130	4.61	20.0
BD06838	Thallium, Total	mg/L	0.0000054	0.000147	0.100	0.0974	0.0989	0.0978	0.0850 to 0.115	97.4	70.0 to 130	1.53	20.0
BD06838	Total Organic Carbon	mg/L	0.0766	1.00	10.0	12.5	12.5	24.8		99.2	80.0 to 120	0.00	20.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWBARAP

Sample Date: 4/4/23 15:05

Customer ID:

Delivery Date: 4/6/23 11:49

Description: Barry Ash Pond - MW-14V

Laboratory ID Number: BD06830

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BD06839	Alkalinity to pH 4.5	mg CaCO3/L					167	50.5	45.0 to 55.0			0.601	10.0
BD06835	Nitrogen, Nitrate/Nitrite	mg/L as N	0.04	0.200	2.00	2.32	0.166	1.92	1.80 to 2.20	116	90.0 to 110	0.00	15.0
BD06836	Solids, Dissolved	mg/L	1.00	25.0			222	51.0	40.0 to 60.0			1.36	10.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Barry Ash Pond - MW-16

Location Code: WMWBARAP
Collected: 4/5/23 09:45
Customer ID:
Submittal Date: 4/6/23 11:49

Laboratory ID Number: BD06831

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7			Analyst: ABB		Preparation Method: EPA 1638				
* Boron, Total	4/7/23 14:10	4/11/23 12:01		1.015	2.29	mg/L	0.030000	0.1015	
* Calcium, Total	4/7/23 14:10	4/11/23 12:01		1.015	11.4	mg/L	0.070035	0.406	
* Iron, Total	4/7/23 14:10	4/11/23 14:04		101.5	131	mg/L	0.8120	4.06	
* Lithium, Total	4/7/23 14:10	4/11/23 12:01		1.015	Not Detected	mg/L	0.007105	0.01999956	U
* Magnesium, Total	4/7/23 14:10	4/11/23 12:01		1.015	6.61	mg/L	0.021315	0.406	
* Molybdenum, Total	4/7/23 14:10	4/11/23 12:01		1.015	Not Detected	mg/L	0.005075	0.01015	U
* Silica, Total (calc.)	4/7/23 14:10	4/11/23 12:01		1	25.3	mg/L			
* Silicon, Total	4/7/23 14:10	4/11/23 12:01		1.015	11.8	mg/L	0.02030	0.25375	
* Sodium, Total	4/7/23 14:10	4/11/23 12:01		1.015	25.7	mg/L	0.04060	0.406	
Analytical Method: EPA 200.7			Analyst: ABB						
* Boron, Dissolved	4/7/23 11:45	4/12/23 11:59		1.015	2.26	mg/L	0.030000	0.1015	
* Calcium, Dissolved	4/7/23 11:45	4/12/23 11:59		1.015	11.4	mg/L	0.070035	0.406	
* Iron, Dissolved	4/7/23 11:45	4/12/23 14:05		101.5	131	mg/L	0.8120	4.06	
* Lithium, Dissolved	4/7/23 11:45	4/12/23 11:59		1.015	Not Detected	mg/L	0.007105	0.01999956	U
* Magnesium, Dissolved	4/7/23 11:45	4/12/23 11:59		1.015	6.54	mg/L	0.021315	0.406	
* Molybdenum, Dissolved	4/7/23 11:45	4/12/23 11:59		1.015	Not Detected	mg/L	0.005075	0.01015	U
* Silica, Dissolved (calc.)	4/7/23 11:45	4/12/23 11:59		1	24.8	mg/L			
* Silicon, Dissolved	4/7/23 11:45	4/12/23 11:59		1.015	11.6	mg/L	0.02030	0.25375	
* Sodium, Dissolved	4/7/23 11:45	4/12/23 12:55		1.015	24.8	mg/L	0.04060	0.406	
Analytical Method: EPA 200.8			Analyst: DLJ		Preparation Method: EPA 1638				
* Antimony, Total	4/7/23 14:10	4/7/23 17:34		1.015	Not Detected	mg/L	0.000710	0.001015	U
* Aluminum, Total	4/7/23 14:10	4/7/23 17:34		1.015	0.0263	mg/L	0.009135	0.05075	J
* Arsenic, Total	4/7/23 14:10	4/7/23 17:34		1.015	0.0156	mg/L	0.000112	0.000203	
* Barium, Total	4/7/23 14:10	4/7/23 17:34		1.015	0.0852	mg/L	0.000508	0.001015	
* Beryllium, Total	4/7/23 14:10	4/7/23 17:34		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Total	4/7/23 14:10	4/7/23 17:34		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Total	4/7/23 14:10	4/7/23 17:34		1.015	0.00125	mg/L	0.000203	0.001015	
* Cobalt, Total	4/7/23 14:10	4/7/23 17:34		1.015	0.00721	mg/L	0.000068	0.000203	
* Lead, Total	4/7/23 14:10	4/7/23 17:34		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Total	4/7/23 14:10	4/7/23 17:34		1.015	0.582	mg/L	0.000152	0.001015	

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Barry Ash Pond - MW-16

Location Code: WMWBARAP
Collected: 4/5/23 09:45
Customer ID:
Submittal Date: 4/6/23 11:49

Laboratory ID Number: BD06831

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
* Potassium, Total	4/7/23 14:10	4/7/23 17:34		1.015	2.25	mg/L	0.169505	0.5075	
* Selenium, Total	4/7/23 14:10	4/7/23 17:34		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Total	4/7/23 14:10	4/7/23 17:34		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 200.8		Analyst: DLJ							
* Antimony, Dissolved	4/7/23 11:45	4/7/23 14:25		1.015	Not Detected	mg/L	0.000710	0.001015	U
* Aluminum, Dissolved	4/7/23 11:45	4/7/23 14:25		1.015	Not Detected	mg/L	0.009135	0.05075	U
* Arsenic, Dissolved	4/7/23 11:45	4/7/23 14:25		1.015	0.0167	mg/L	0.000112	0.000203	
* Barium, Dissolved	4/7/23 11:45	4/7/23 14:25		1.015	0.0787	mg/L	0.000508	0.001015	
* Beryllium, Dissolved	4/7/23 11:45	4/7/23 14:25		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Dissolved	4/7/23 11:45	4/7/23 14:25		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Dissolved	4/7/23 11:45	4/7/23 14:25		1.015	0.00125	mg/L	0.000203	0.001015	
* Cobalt, Dissolved	4/7/23 11:45	4/7/23 14:25		1.015	0.00729	mg/L	0.000068	0.000203	
* Lead, Dissolved	4/7/23 11:45	4/7/23 14:25		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Dissolved	4/7/23 11:45	4/7/23 14:25		1.015	0.589	mg/L	0.000152	0.001015	
* Potassium, Dissolved	4/7/23 11:45	4/7/23 14:25		1.015	2.19	mg/L	0.169505	0.5075	
* Selenium, Dissolved	4/7/23 11:45	4/7/23 14:25		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Dissolved	4/7/23 11:45	4/7/23 14:25		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 245.1		Analyst: CRB							
* Mercury, Total by CVAA	4/11/23 18:35	4/12/23 01:34		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: EPA 353.2		Analyst: SC							
* Nitrogen, Nitrate/Nitrite	4/10/23 14:53	4/10/23 14:53		1	0.212	mg/L as N	0.20	0.3	J
Analytical Method: SM 2320 B		Analyst: ALH							
* Alkalinity to pH 4.5	4/18/23 10:05	4/18/23 11:02		1	223	mg CaCO3/L		0.10	
Analytical Method: SM 2540C		Analyst: CNJ							
* Solids, Dissolved	4/10/23 12:00	4/12/23 09:20		1	327	mg/L		25	
Analytical Method: SM 4500CO2 D		Analyst: ALH							
* Bicarbonate Alkalinity, (calc.)	4/18/23 10:05	4/18/23 11:02		1	223	mg CaCO3/L		1	
* Carbonate Alkalinity, (calc.)	4/18/23 10:05	4/18/23 11:02		1	Not Detected	mg CaCO3/L		0.5	
Analytical Method: SM 5310 B		Analyst: SC							
* Total Organic Carbon	4/12/23 14:34	4/12/23 14:34		1	9.27	mg/L	1.00	2	

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Barry Ash Pond - MW-16

Location Code: WMWBARAP
Collected: 4/5/23 09:45
Customer ID:
Submittal Date: 4/6/23 11:49

Laboratory ID Number: BD06831

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM4500Cl E		Analyst: CES							
* Chloride	4/12/23 12:59	4/12/23 12:59		2	21.8	mg/L	1.00	1	
Analytical Method: SM4500F G 2017		Analyst: CES							
* Fluoride	4/13/23 11:38	4/13/23 11:38		1	0.144	mg/L	0.06	0.125	
Analytical Method: SM4500SO4 E 2011		Analyst: JCC							
* Sulfate	4/17/23 14:42	4/17/23 14:42		1	9.30	mg/L	0.6	2	
Analytical Method: Field Measurements		Analyst: AWG							
Conductivity	4/5/23 09:42	4/5/23 09:42			562.14	uS/cm			FA
pH	4/5/23 09:42	4/5/23 09:42			5.83	SU			FA
Temperature	4/5/23 09:42	4/5/23 09:42			21.91	C			FA
Turbidity	4/5/23 09:42	4/5/23 09:42			4.09	NTU			FA

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWBARAP
Sample Date: 4/5/23 09:45
Customer ID:
Delivery Date: 4/6/23 11:49

Description: Barry Ash Pond - MW-16

Laboratory ID Number: BD06831

Sample	Analysis	Units	MB	MB				Standard		Rec		Prec	Limit
				Limit	Spike	MS	MSD	Standard	Limit	Rec	Limit		
BD06839	Aluminum, Dissolved	mg/L	0.0000353	0.0198	0.100	0.106	0.107	0.0999	0.0850 to 0.115	106	70.0 to 130	0.939	20.0
BD06838	Aluminum, Total	mg/L	0.000609	0.0198	0.100	0.155	0.156	0.103	0.0850 to 0.115	111	70.0 to 130	0.643	20.0
BD06839	Antimony, Dissolved	mg/L	0.000377	0.00100	0.100	0.0917	0.0904	0.0898	0.0850 to 0.115	91.7	70.0 to 130	1.43	20.0
BD06838	Antimony, Total	mg/L	0.000237	0.00100	0.100	0.0909	0.0928	0.0867	0.0850 to 0.115	90.9	70.0 to 130	2.07	20.0
BD06839	Arsenic, Dissolved	mg/L	0.0000113	0.000200	0.100	0.116	0.117	0.0990	0.0850 to 0.115	98.1	70.0 to 130	0.858	20.0
BD06838	Arsenic, Total	mg/L	0.0000156	0.000200	0.100	0.0974	0.0996	0.0998	0.0850 to 0.115	96.5	70.0 to 130	2.23	20.0
BD06839	Barium, Dissolved	mg/L	0.0000105	0.00100	0.100	0.149	0.147	0.0944	0.0850 to 0.115	92.7	70.0 to 130	1.35	20.0
BD06838	Barium, Total	mg/L	-0.0000063	0.00100	0.100	0.117	0.116	0.0923	0.0850 to 0.115	96.3	70.0 to 130	0.858	20.0
BD06839	Beryllium, Dissolved	mg/L	0.0000117	0.000880	0.100	0.0966	0.0920	0.0908	0.0850 to 0.115	96.6	70.0 to 130	4.88	20.0
BD06838	Beryllium, Total	mg/L	0.0000000	0.000880	0.100	0.0961	0.0991	0.0944	0.0850 to 0.115	96.1	70.0 to 130	3.07	20.0
BD06839	Boron, Dissolved	mg/L	-0.000075	0.0650	1.00	1.08	1.08	1.00	0.850 to 1.15	102	70.0 to 130	0.00	20.0
BD06838	Boron, Total	mg/L	-0.000537	0.0650	1.00	1.06	1.07	1.02	0.850 to 1.15	102	70.0 to 130	0.939	20.0
BD06839	Cadmium, Dissolved	mg/L	0.0000046	0.000147	0.100	0.0986	0.0955	0.0982	0.0850 to 0.115	98.6	70.0 to 130	3.19	20.0
BD06838	Cadmium, Total	mg/L	0.0000043	0.000147	0.100	0.0946	0.0954	0.0962	0.0850 to 0.115	94.6	70.0 to 130	0.842	20.0
BD06839	Calcium, Dissolved	mg/L	-0.00493	0.152	5.00	14.4	14.3	4.94	4.25 to 5.75	94.6	70.0 to 130	0.697	20.0
BD06838	Calcium, Total	mg/L	-0.0178	0.152	5.00	9.85	10.1	5.00	4.25 to 5.75	99.2	70.0 to 130	2.51	20.0
BD06837	Chloride	mg/L	0.0436	1.00	200	259	263	10.1	9.00 to 11.0	102	80.0 to 120	1.53	20.0
BD06839	Chromium, Dissolved	mg/L	-0.0000370	0.000440	0.100	0.0988	0.0992	0.0995	0.0850 to 0.115	95.8	70.0 to 130	0.404	20.0
BD06838	Chromium, Total	mg/L	-0.0000476	0.000440	0.100	0.0986	0.0969	0.0965	0.0850 to 0.115	98.1	70.0 to 130	1.74	20.0
BD06839	Cobalt, Dissolved	mg/L	-0.0000017	0.000147	0.100	0.101	0.101	0.101	0.0850 to 0.115	99.9	70.0 to 130	0.00	20.0
BD06838	Cobalt, Total	mg/L	0.0000042	0.000147	0.100	0.101	0.0985	0.0997	0.0850 to 0.115	101	70.0 to 130	2.51	20.0
BD06838	Fluoride	mg/L	-0.00248	0.125	2.50	2.72	2.76	2.59	2.25 to 2.75	106	80.0 to 120	1.46	20.0
BD06839	Iron, Dissolved	mg/L	-0.00183	0.0176	0.2	32.1	32.1	0.195	0.170 to 0.230	50.0	70.0 to 130	0.00	20.0
BD06838	Iron, Total	mg/L	0.000416	0.0176	0.2	14.9	14.1	0.200	0.170 to 0.230	450	70.0 to 130	5.52	20.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWBARAP
Sample Date: 4/5/23 09:45
Customer ID:
Delivery Date: 4/6/23 11:49

Description: Barry Ash Pond - MW-16

Laboratory ID Number: BD06831

Sample	Analysis	Units	MB	MB				Standard		Rec		Prec	Limit
				Limit	Spike	MS	MSD	Standard	Limit	Rec	Limit		
BD06839	Lead, Dissolved	mg/L	0.0000118	0.000147	0.100	0.100	0.0955	0.0971	0.0850 to 0.115	100	70.0 to 130	4.60	20.0
BD06838	Lead, Total	mg/L	0.0000027	0.000147	0.100	0.0958	0.0961	0.0945	0.0850 to 0.115	95.8	70.0 to 130	0.313	20.0
BD06839	Lithium, Dissolved	mg/L	0.000245	0.0154	0.200	0.203	0.199	0.195	0.170 to 0.230	102	70.0 to 130	1.99	20.0
BD06838	Lithium, Total	mg/L	-0.000701	0.0154	0.200	0.204	0.201	0.199	0.170 to 0.230	102	70.0 to 130	1.48	20.0
BD06839	Magnesium, Dissolved	mg/L	0.000	0.0462	5.00	11.0	11.0	4.93	4.25 to 5.75	97.6	70.0 to 130	0.00	20.0
BD06838	Magnesium, Total	mg/L	-0.00548	0.0462	5.00	6.45	6.43	4.93	4.25 to 5.75	99.8	70.0 to 130	0.311	20.0
BD06839	Manganese, Dissolved	mg/L	0.0000167	0.00033	0.100	0.376	0.381	0.101	0.0850 to 0.115	94.0	70.0 to 130	1.32	20.0
BD06838	Manganese, Total	mg/L	0.000200	0.00033	0.100	0.340	0.329	0.0980	0.0850 to 0.115	108	70.0 to 130	3.29	20.0
BD06838	Mercury, Total by CVAA	mg/L	2.000E-05	0.000500	0.004	0.00399	0.004	0.00403	0.00340 to 0.00460	99.8	70.0 to 130	0.250	20.0
BD06839	Molybdenum, Dissolved	mg/L	-0.000152	0.0100	0.2	0.197	0.194	0.195	0.170 to 0.230	98.5	70.0 to 130	1.53	20.0
BD06838	Molybdenum, Total	mg/L	-0.001	0.0100	0.2	0.200	0.201	0.201	0.170 to 0.230	100	70.0 to 130	0.499	20.0
BD06839	Potassium, Dissolved	mg/L	0.00935	0.367	10.0	12.2	12.2	9.82	8.50 to 11.5	98.2	70.0 to 130	0.00	20.0
BD06838	Potassium, Total	mg/L	-0.00778	0.367	10.0	10.4	10.5	9.95	8.50 to 11.5	100	70.0 to 130	0.957	20.0
BD06839	Selenium, Dissolved	mg/L	0.000102	0.00100	0.100	0.103	0.104	0.0997	0.0850 to 0.115	103	70.0 to 130	0.966	20.0
BD06838	Selenium, Total	mg/L	0.0000454	0.00100	0.100	0.0988	0.0998	0.100	0.0850 to 0.115	98.8	70.0 to 130	1.01	20.0
BD06839	Silicon, Dissolved	mg/L	0.000229	0.0440	1.00	10.2	10.2	0.997	0.850 to 1.15	94.0	70.0 to 130	0.00	20.0
BD06838	Silicon, Total	mg/L	-0.000048	0.0440	1.00	5.47	5.48	1.02	0.850 to 1.15	107	70.0 to 130	0.183	20.0
BD06839	Sodium, Dissolved	mg/L	0.0149	0.0880	5.00	78.3	78.6	5.23	4.25 to 5.75	76.0	70.0 to 130	0.382	20.0
BD06838	Sodium, Total	mg/L	0.000332	0.0880	5.00	14.7	14.4	4.87	4.25 to 5.75	97.6	70.0 to 130	2.06	20.0
BD06835	Sulfate	mg/L	-0.0671	2.0	20.0	22.3	22.4	19.9	18.0 to 22.0	96.9	80.0 to 120	0.447	20.0
BD06839	Thallium, Dissolved	mg/L	-0.0000001	0.000147	0.100	0.102	0.0974	0.0992	0.0850 to 0.115	102	70.0 to 130	4.61	20.0
BD06838	Thallium, Total	mg/L	0.0000054	0.000147	0.100	0.0974	0.0989	0.0978	0.0850 to 0.115	97.4	70.0 to 130	1.53	20.0
BD06838	Total Organic Carbon	mg/L	0.0766	1.00	10.0	12.5	12.5	24.8		99.2	80.0 to 120	0.00	20.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWBARAP

Sample Date: 4/5/23 09:45

Customer ID:

Delivery Date: 4/6/23 11:49

Description: Barry Ash Pond - MW-16

Laboratory ID Number: BD06831

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BD06839	Alkalinity to pH 4.5	mg CaCO3/L					167	50.5	45.0 to 55.0			0.601	10.0
BD06835	Nitrogen, Nitrate/Nitrite	mg/L as N	0.04	0.200	2.00	2.32	0.166	1.92	1.80 to 2.20	116	90.0 to 110	0.00	15.0
BD06839	Solids, Dissolved	mg/L	0.0000	25.0			315	52.0	40.0 to 60.0			0.317	10.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Barry Ash Pond - MW-5V

Location Code: WMWBARAP
Collected: 4/4/23 11:11
Customer ID:
Submittal Date: 4/6/23 11:49

Laboratory ID Number: BD06832

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7			Analyst: ABB		Preparation Method: EPA 1638				
* Boron, Total	4/7/23 14:10	4/11/23 12:04		1.015	0.0924	mg/L	0.030000	0.1015	J
* Calcium, Total	4/7/23 14:10	4/11/23 12:04		1.015	2.13	mg/L	0.070035	0.406	
* Iron, Total	4/7/23 14:10	4/11/23 12:04		1.015	0.246	mg/L	0.008120	0.0406	
* Lithium, Total	4/7/23 14:10	4/11/23 12:04		1.015	Not Detected	mg/L	0.007105	0.01999956	U
* Magnesium, Total	4/7/23 14:10	4/11/23 12:04		1.015	1.52	mg/L	0.021315	0.406	
* Molybdenum, Total	4/7/23 14:10	4/11/23 12:04		1.015	Not Detected	mg/L	0.005075	0.01015	U
* Silica, Total (calc.)	4/7/23 14:10	4/11/23 12:04		1	12.6	mg/L			
* Silicon, Total	4/7/23 14:10	4/11/23 12:04		1.015	5.88	mg/L	0.02030	0.25375	
* Sodium, Total	4/7/23 14:10	4/11/23 14:07		10.15	44.9	mg/L	0.4060	4.06	
Analytical Method: EPA 200.7			Analyst: ABB						
* Boron, Dissolved	4/7/23 11:45	4/12/23 12:02		1.015	0.0910	mg/L	0.030000	0.1015	J
* Calcium, Dissolved	4/7/23 11:45	4/12/23 12:02		1.015	2.11	mg/L	0.070035	0.406	
* Iron, Dissolved	4/7/23 11:45	4/12/23 12:02		1.015	0.0411	mg/L	0.008120	0.0406	
* Lithium, Dissolved	4/7/23 11:45	4/12/23 12:02		1.015	Not Detected	mg/L	0.007105	0.01999956	U
* Magnesium, Dissolved	4/7/23 11:45	4/12/23 12:02		1.015	1.47	mg/L	0.021315	0.406	
* Molybdenum, Dissolved	4/7/23 11:45	4/12/23 12:02		1.015	Not Detected	mg/L	0.005075	0.01015	U
* Silica, Dissolved (calc.)	4/7/23 11:45	4/12/23 12:02		1	12.5	mg/L			
* Silicon, Dissolved	4/7/23 11:45	4/12/23 12:02		1.015	5.82	mg/L	0.02030	0.25375	
* Sodium, Dissolved	4/7/23 11:45	4/12/23 14:08		10.15	44.4	mg/L	0.4060	4.06	
Analytical Method: EPA 200.8			Analyst: DLJ		Preparation Method: EPA 1638				
* Antimony, Total	4/7/23 14:10	4/7/23 17:38		1.015	Not Detected	mg/L	0.000710	0.001015	U
* Aluminum, Total	4/7/23 14:10	4/7/23 17:38		1.015	0.0102	mg/L	0.009135	0.05075	J
* Arsenic, Total	4/7/23 14:10	4/7/23 17:38		1.015	Not Detected	mg/L	0.000112	0.000203	U
* Barium, Total	4/7/23 14:10	4/7/23 17:38		1.015	0.0465	mg/L	0.000508	0.001015	
* Beryllium, Total	4/7/23 14:10	4/7/23 17:38		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Total	4/7/23 14:10	4/7/23 17:38		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Total	4/7/23 14:10	4/7/23 17:38		1.015	0.000566	mg/L	0.000203	0.001015	J
* Cobalt, Total	4/7/23 14:10	4/7/23 17:38		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Lead, Total	4/7/23 14:10	4/7/23 17:38		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Total	4/7/23 14:10	4/7/23 17:38		1.015	0.00193	mg/L	0.000152	0.001015	

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Barry Ash Pond - MW-5V

Location Code: WMWBARAP

Collected: 4/4/23 11:11

Customer ID:

Submittal Date: 4/6/23 11:49

Laboratory ID Number: BD06832

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
* Potassium, Total	4/7/23 14:10	4/7/23 17:38		1.015	1.77	mg/L	0.169505	0.5075	
* Selenium, Total	4/7/23 14:10	4/7/23 17:38		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Total	4/7/23 14:10	4/7/23 17:38		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 200.8		Analyst: DLJ							
* Antimony, Dissolved	4/7/23 11:45	4/7/23 14:29		1.015	Not Detected	mg/L	0.000710	0.001015	U
* Aluminum, Dissolved	4/7/23 11:45	4/7/23 14:29		1.015	Not Detected	mg/L	0.009135	0.05075	U
* Arsenic, Dissolved	4/7/23 11:45	4/7/23 14:29		1.015	Not Detected	mg/L	0.000112	0.000203	U
* Barium, Dissolved	4/7/23 11:45	4/7/23 14:29		1.015	0.0451	mg/L	0.000508	0.001015	
* Beryllium, Dissolved	4/7/23 11:45	4/7/23 14:29		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Dissolved	4/7/23 11:45	4/7/23 14:29		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Dissolved	4/7/23 11:45	4/7/23 14:29		1.015	0.000502	mg/L	0.000203	0.001015	J
* Cobalt, Dissolved	4/7/23 11:45	4/7/23 14:29		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Lead, Dissolved	4/7/23 11:45	4/7/23 14:29		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Dissolved	4/7/23 11:45	4/7/23 14:29		1.015	0.00190	mg/L	0.000152	0.001015	
* Potassium, Dissolved	4/7/23 11:45	4/7/23 14:29		1.015	1.71	mg/L	0.169505	0.5075	
* Selenium, Dissolved	4/7/23 11:45	4/7/23 14:29		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Dissolved	4/7/23 11:45	4/7/23 14:29		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 245.1		Analyst: CRB							
* Mercury, Total by CVAA	4/11/23 18:35	4/12/23 01:37		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: EPA 353.2		Analyst: SC							
* Nitrogen, Nitrate/Nitrite	4/10/23 14:55	4/10/23 14:55		1	Not Detected	mg/L as N	0.20	0.3	U
Analytical Method: SM 2320 B		Analyst: ALH							
* Alkalinity to pH 4.5	4/18/23 10:05	4/18/23 11:02		1	54.0	mg CaCO3/L		0.10	
Analytical Method: SM 2540C		Analyst: CNJ							
* Solids, Dissolved	4/7/23 10:42	4/10/23 13:50		1	120	mg/L		25	
Analytical Method: SM 4500CO2 D		Analyst: ALH							
* Bicarbonate Alkalinity, (calc.)	4/18/23 10:05	4/18/23 11:02		1	54.0	mg CaCO3/L		1	
* Carbonate Alkalinity, (calc.)	4/18/23 10:05	4/18/23 11:02		1	Not Detected	mg CaCO3/L		0.5	
Analytical Method: SM 5310 B		Analyst: SC							
* Total Organic Carbon	4/12/23 14:51	4/12/23 14:51		1	Not Detected	mg/L	1.00	2	U

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Barry Ash Pond - MW-5V

Location Code: WMWBARAP
Collected: 4/4/23 11:11
Customer ID:
Submittal Date: 4/6/23 11:49

Laboratory ID Number: BD06832

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM4500Cl E		Analyst: CES							
* Chloride	4/12/23 13:01	4/12/23 13:01		5	39.5	mg/L	2.50	2.5	
Analytical Method: SM4500F G 2017		Analyst: CES							
* Fluoride	4/13/23 11:39	4/13/23 11:39		1	Not Detected	mg/L	0.06	0.125	U
Analytical Method: SM4500SO4 E 2011		Analyst: JCC							
* Sulfate	4/17/23 14:32	4/17/23 14:32		1	4.84	mg/L	0.6	2	
Analytical Method: Field Measurements		Analyst: DKG							
Conductivity	4/4/23 11:08	4/4/23 11:08			236.13	uS/cm			FA
pH	4/4/23 11:08	4/4/23 11:08			5.99	SU			FA
Temperature	4/4/23 11:08	4/4/23 11:08			22.54	C			FA
Turbidity	4/4/23 11:08	4/4/23 11:08			3.45	NTU			FA
Sulfide	4/4/23 11:08	4/4/23 11:08			0	mg/L			FA

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWBARAP
Sample Date: 4/4/23 11:11
Customer ID:
Delivery Date: 4/6/23 11:49

Description: Barry Ash Pond - MW-5V

Laboratory ID Number: BD06832

Sample	Analysis	Units	MB	MB				Standard		Rec			Prec Limit
				Limit	Spike	MS	MSD	Standard	Limit	Rec	Limit	Prec	
BD06839	Aluminum, Dissolved	mg/L	0.0000353	0.0198	0.100	0.106	0.107	0.0999	0.0850 to 0.115	106	70.0 to 130	0.939	20.0
BD06838	Aluminum, Total	mg/L	0.000609	0.0198	0.100	0.155	0.156	0.103	0.0850 to 0.115	111	70.0 to 130	0.643	20.0
BD06839	Antimony, Dissolved	mg/L	0.000377	0.00100	0.100	0.0917	0.0904	0.0898	0.0850 to 0.115	91.7	70.0 to 130	1.43	20.0
BD06838	Antimony, Total	mg/L	0.000237	0.00100	0.100	0.0909	0.0928	0.0867	0.0850 to 0.115	90.9	70.0 to 130	2.07	20.0
BD06839	Arsenic, Dissolved	mg/L	0.0000113	0.000200	0.100	0.116	0.117	0.0990	0.0850 to 0.115	98.1	70.0 to 130	0.858	20.0
BD06838	Arsenic, Total	mg/L	0.0000156	0.000200	0.100	0.0974	0.0996	0.0998	0.0850 to 0.115	96.5	70.0 to 130	2.23	20.0
BD06839	Barium, Dissolved	mg/L	0.0000105	0.00100	0.100	0.149	0.147	0.0944	0.0850 to 0.115	92.7	70.0 to 130	1.35	20.0
BD06838	Barium, Total	mg/L	-0.0000063	0.00100	0.100	0.117	0.116	0.0923	0.0850 to 0.115	96.3	70.0 to 130	0.858	20.0
BD06839	Beryllium, Dissolved	mg/L	0.0000117	0.000880	0.100	0.0966	0.0920	0.0908	0.0850 to 0.115	96.6	70.0 to 130	4.88	20.0
BD06838	Beryllium, Total	mg/L	0.0000000	0.000880	0.100	0.0961	0.0991	0.0944	0.0850 to 0.115	96.1	70.0 to 130	3.07	20.0
BD06839	Boron, Dissolved	mg/L	-0.000075	0.0650	1.00	1.08	1.08	1.00	0.850 to 1.15	102	70.0 to 130	0.00	20.0
BD06838	Boron, Total	mg/L	-0.000537	0.0650	1.00	1.06	1.07	1.02	0.850 to 1.15	102	70.0 to 130	0.939	20.0
BD06839	Cadmium, Dissolved	mg/L	0.0000046	0.000147	0.100	0.0986	0.0955	0.0982	0.0850 to 0.115	98.6	70.0 to 130	3.19	20.0
BD06838	Cadmium, Total	mg/L	0.0000043	0.000147	0.100	0.0946	0.0954	0.0962	0.0850 to 0.115	94.6	70.0 to 130	0.842	20.0
BD06839	Calcium, Dissolved	mg/L	-0.00493	0.152	5.00	14.4	14.3	4.94	4.25 to 5.75	94.6	70.0 to 130	0.697	20.0
BD06838	Calcium, Total	mg/L	-0.0178	0.152	5.00	9.85	10.1	5.00	4.25 to 5.75	99.2	70.0 to 130	2.51	20.0
BD06837	Chloride	mg/L	0.0436	1.00	200	259	263	10.1	9.00 to 11.0	102	80.0 to 120	1.53	20.0
BD06839	Chromium, Dissolved	mg/L	-0.0000370	0.000440	0.100	0.0988	0.0992	0.0995	0.0850 to 0.115	95.8	70.0 to 130	0.404	20.0
BD06838	Chromium, Total	mg/L	-0.0000476	0.000440	0.100	0.0986	0.0969	0.0965	0.0850 to 0.115	98.1	70.0 to 130	1.74	20.0
BD06839	Cobalt, Dissolved	mg/L	-0.0000017	0.000147	0.100	0.101	0.101	0.101	0.0850 to 0.115	99.9	70.0 to 130	0.00	20.0
BD06838	Cobalt, Total	mg/L	0.0000042	0.000147	0.100	0.101	0.0985	0.0997	0.0850 to 0.115	101	70.0 to 130	2.51	20.0
BD06838	Fluoride	mg/L	-0.00248	0.125	2.50	2.72	2.76	2.59	2.25 to 2.75	106	80.0 to 120	1.46	20.0
BD06839	Iron, Dissolved	mg/L	-0.00183	0.0176	0.2	32.1	32.1	0.195	0.170 to 0.230	50.0	70.0 to 130	0.00	20.0
BD06838	Iron, Total	mg/L	0.000416	0.0176	0.2	14.9	14.1	0.200	0.170 to 0.230	450	70.0 to 130	5.52	20.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWBARAP
Sample Date: 4/4/23 11:11
Customer ID:
Delivery Date: 4/6/23 11:49

Description: Barry Ash Pond - MW-5V

Laboratory ID Number: BD06832

Sample	Analysis	Units	MB		Spike	MS	MSD	Standard		Rec		Prec	Limit
			MB	Limit				Standard	Limit	Rec	Limit		
BD06839	Lead, Dissolved	mg/L	0.0000118	0.000147	0.100	0.100	0.0955	0.0971	0.0850 to 0.115	100	70.0 to 130	4.60	20.0
BD06838	Lead, Total	mg/L	0.0000027	0.000147	0.100	0.0958	0.0961	0.0945	0.0850 to 0.115	95.8	70.0 to 130	0.313	20.0
BD06839	Lithium, Dissolved	mg/L	0.000245	0.0154	0.200	0.203	0.199	0.195	0.170 to 0.230	102	70.0 to 130	1.99	20.0
BD06838	Lithium, Total	mg/L	-0.000701	0.0154	0.200	0.204	0.201	0.199	0.170 to 0.230	102	70.0 to 130	1.48	20.0
BD06839	Magnesium, Dissolved	mg/L	0.000	0.0462	5.00	11.0	11.0	4.93	4.25 to 5.75	97.6	70.0 to 130	0.00	20.0
BD06838	Magnesium, Total	mg/L	-0.00548	0.0462	5.00	6.45	6.43	4.93	4.25 to 5.75	99.8	70.0 to 130	0.311	20.0
BD06839	Manganese, Dissolved	mg/L	0.0000167	0.00033	0.100	0.376	0.381	0.101	0.0850 to 0.115	94.0	70.0 to 130	1.32	20.0
BD06838	Manganese, Total	mg/L	0.000200	0.00033	0.100	0.340	0.329	0.0980	0.0850 to 0.115	108	70.0 to 130	3.29	20.0
BD06838	Mercury, Total by CVAA	mg/L	2.000E-05	0.000500	0.004	0.00399	0.004	0.00403	0.00340 to 0.00460	99.8	70.0 to 130	0.250	20.0
BD06839	Molybdenum, Dissolved	mg/L	-0.000152	0.0100	0.2	0.197	0.194	0.195	0.170 to 0.230	98.5	70.0 to 130	1.53	20.0
BD06838	Molybdenum, Total	mg/L	-0.001	0.0100	0.2	0.200	0.201	0.201	0.170 to 0.230	100	70.0 to 130	0.499	20.0
BD06839	Potassium, Dissolved	mg/L	0.00935	0.367	10.0	12.2	12.2	9.82	8.50 to 11.5	98.2	70.0 to 130	0.00	20.0
BD06838	Potassium, Total	mg/L	-0.00778	0.367	10.0	10.4	10.5	9.95	8.50 to 11.5	100	70.0 to 130	0.957	20.0
BD06839	Selenium, Dissolved	mg/L	0.000102	0.00100	0.100	0.103	0.104	0.0997	0.0850 to 0.115	103	70.0 to 130	0.966	20.0
BD06838	Selenium, Total	mg/L	0.0000454	0.00100	0.100	0.0988	0.0998	0.100	0.0850 to 0.115	98.8	70.0 to 130	1.01	20.0
BD06839	Silicon, Dissolved	mg/L	0.000229	0.0440	1.00	10.2	10.2	0.997	0.850 to 1.15	94.0	70.0 to 130	0.00	20.0
BD06838	Silicon, Total	mg/L	-0.000048	0.0440	1.00	5.47	5.48	1.02	0.850 to 1.15	107	70.0 to 130	0.183	20.0
BD06839	Sodium, Dissolved	mg/L	0.0149	0.0880	5.00	78.3	78.6	5.23	4.25 to 5.75	76.0	70.0 to 130	0.382	20.0
BD06838	Sodium, Total	mg/L	0.000332	0.0880	5.00	14.7	14.4	4.87	4.25 to 5.75	97.6	70.0 to 130	2.06	20.0
BD06835	Sulfate	mg/L	-0.0671	2.0	20.0	22.3	22.4	19.9	18.0 to 22.0	96.9	80.0 to 120	0.447	20.0
BD06839	Thallium, Dissolved	mg/L	-0.0000001	0.000147	0.100	0.102	0.0974	0.0992	0.0850 to 0.115	102	70.0 to 130	4.61	20.0
BD06838	Thallium, Total	mg/L	0.0000054	0.000147	0.100	0.0974	0.0989	0.0978	0.0850 to 0.115	97.4	70.0 to 130	1.53	20.0
BD06838	Total Organic Carbon	mg/L	0.0766	1.00	10.0	12.5	12.5	24.8		99.2	80.0 to 120	0.00	20.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWBARAP

Sample Date: 4/4/23 11:11

Customer ID:

Delivery Date: 4/6/23 11:49

Description: Barry Ash Pond - MW-5V

Laboratory ID Number: BD06832

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BD06839	Alkalinity to pH 4.5	mg CaCO3/L					167	50.5	45.0 to 55.0			0.601	10.0
BD06835	Nitrogen, Nitrate/Nitrite	mg/L as N	0.04	0.200	2.00	2.32	0.166	1.92	1.80 to 2.20	116	90.0 to 110	0.00	15.0
BD06836	Solids, Dissolved	mg/L	1.00	25.0			222	51.0	40.0 to 60.0			1.36	10.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Barry Ash Pond - MW-5

Location Code: WMWBARAP
Collected: 4/4/23 12:02
Customer ID:
Submittal Date: 4/6/23 11:49

Laboratory ID Number: BD06833

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7			Analyst: ABB		Preparation Method: EPA 1638				
* Boron, Total	4/7/23 14:10	4/11/23 12:07		1.015	0.0381	mg/L	0.030000	0.1015	J
* Calcium, Total	4/7/23 14:10	4/11/23 12:07		1.015	8.36	mg/L	0.070035	0.406	
* Iron, Total	4/7/23 14:10	4/11/23 14:10		101.5	45.3	mg/L	0.8120	4.06	
* Lithium, Total	4/7/23 14:10	4/11/23 12:07		1.015	Not Detected	mg/L	0.007105	0.01999956	U
* Magnesium, Total	4/7/23 14:10	4/11/23 12:07		1.015	2.76	mg/L	0.021315	0.406	
* Molybdenum, Total	4/7/23 14:10	4/11/23 12:07		1.015	Not Detected	mg/L	0.005075	0.01015	U
* Silica, Total (calc.)	4/7/23 14:10	4/11/23 12:07		1	24.8	mg/L			
* Silicon, Total	4/7/23 14:10	4/11/23 12:07		1.015	11.6	mg/L	0.02030	0.25375	
* Sodium, Total	4/7/23 14:10	4/11/23 12:07		1.015	13.8	mg/L	0.04060	0.406	
Analytical Method: EPA 200.7			Analyst: ABB		Preparation Method: EPA 1638				
* Boron, Dissolved	4/7/23 11:45	4/12/23 12:05		1.015	0.0373	mg/L	0.030000	0.1015	J
* Calcium, Dissolved	4/7/23 11:45	4/12/23 12:05		1.015	8.19	mg/L	0.070035	0.406	
* Iron, Dissolved	4/7/23 11:45	4/12/23 14:11		101.5	44.3	mg/L	0.8120	4.06	
* Lithium, Dissolved	4/7/23 11:45	4/12/23 12:05		1.015	Not Detected	mg/L	0.007105	0.01999956	U
* Magnesium, Dissolved	4/7/23 11:45	4/12/23 12:05		1.015	2.80	mg/L	0.021315	0.406	
* Molybdenum, Dissolved	4/7/23 11:45	4/12/23 12:05		1.015	Not Detected	mg/L	0.005075	0.01015	U
* Silica, Dissolved (calc.)	4/7/23 11:45	4/12/23 12:05		1	24.4	mg/L			
* Silicon, Dissolved	4/7/23 11:45	4/12/23 12:05		1.015	11.4	mg/L	0.02030	0.25375	
* Sodium, Dissolved	4/7/23 11:45	4/12/23 12:59		1.015	13.7	mg/L	0.04060	0.406	
Analytical Method: EPA 200.8			Analyst: DLJ		Preparation Method: EPA 1638				
* Antimony, Total	4/7/23 14:10	4/7/23 17:41		1.015	Not Detected	mg/L	0.000710	0.001015	U
* Aluminum, Total	4/7/23 14:10	4/7/23 17:41		1.015	Not Detected	mg/L	0.009135	0.05075	U
* Arsenic, Total	4/7/23 14:10	4/7/23 17:41		1.015	0.0191	mg/L	0.000112	0.000203	
* Barium, Total	4/7/23 14:10	4/7/23 17:41		1.015	0.0842	mg/L	0.000508	0.001015	
* Beryllium, Total	4/7/23 14:10	4/7/23 17:41		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Total	4/7/23 14:10	4/7/23 17:41		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Total	4/7/23 14:10	4/7/23 17:41		1.015	0.000894	mg/L	0.000203	0.001015	J
* Cobalt, Total	4/7/23 14:10	4/7/23 17:41		1.015	0.00112	mg/L	0.000068	0.000203	
* Lead, Total	4/7/23 14:10	4/7/23 17:41		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Total	4/7/23 14:10	4/7/23 17:41		1.015	0.356	mg/L	0.000152	0.001015	

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Barry Ash Pond - MW-5

Location Code: WMWBARAP

Collected: 4/4/23 12:02

Customer ID:

Submittal Date: 4/6/23 11:49

Laboratory ID Number: BD06833

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
* Potassium, Total	4/7/23 14:10	4/7/23 17:41		1.015	1.26	mg/L	0.169505	0.5075	
* Selenium, Total	4/7/23 14:10	4/7/23 17:41		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Total	4/7/23 14:10	4/7/23 17:41		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 200.8		Analyst: DLJ							
* Antimony, Dissolved	4/7/23 11:45	4/7/23 14:32		1.015	Not Detected	mg/L	0.000710	0.001015	U
* Aluminum, Dissolved	4/7/23 11:45	4/7/23 14:32		1.015	Not Detected	mg/L	0.009135	0.05075	U
* Arsenic, Dissolved	4/7/23 11:45	4/7/23 14:32		1.015	0.0194	mg/L	0.000112	0.000203	
* Barium, Dissolved	4/7/23 11:45	4/7/23 14:32		1.015	0.0822	mg/L	0.000508	0.001015	
* Beryllium, Dissolved	4/7/23 11:45	4/7/23 14:32		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Dissolved	4/7/23 11:45	4/7/23 14:32		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Dissolved	4/7/23 11:45	4/7/23 14:32		1.015	0.000932	mg/L	0.000203	0.001015	J
* Cobalt, Dissolved	4/7/23 11:45	4/7/23 14:32		1.015	0.00114	mg/L	0.000068	0.000203	
* Lead, Dissolved	4/7/23 11:45	4/7/23 14:32		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Dissolved	4/7/23 11:45	4/7/23 14:32		1.015	0.360	mg/L	0.000152	0.001015	
* Potassium, Dissolved	4/7/23 11:45	4/7/23 14:32		1.015	1.23	mg/L	0.169505	0.5075	
* Selenium, Dissolved	4/7/23 11:45	4/7/23 14:32		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Dissolved	4/7/23 11:45	4/7/23 14:32		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 245.1		Analyst: CRB							
* Mercury, Total by CVAA	4/11/23 18:35	4/12/23 01:41		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: EPA 353.2		Analyst: SC							
* Nitrogen, Nitrate/Nitrite	4/10/23 14:56	4/10/23 14:56		1	Not Detected	mg/L as N	0.20	0.3	U
Analytical Method: SM 2320 B		Analyst: ALH							
* Alkalinity to pH 4.5	4/18/23 10:05	4/18/23 11:07		1	87.9	mg CaCO3/L		0.10	
Analytical Method: SM 2540C		Analyst: CNJ							
* Solids, Dissolved	4/7/23 10:42	4/10/23 13:50		1	151	mg/L		25	
Analytical Method: SM 4500CO2 D		Analyst: ALH							
* Bicarbonate Alkalinity, (calc.)	4/18/23 10:05	4/18/23 11:07		1	87.9	mg CaCO3/L		1	
* Carbonate Alkalinity, (calc.)	4/18/23 10:05	4/18/23 11:07		1	Not Detected	mg CaCO3/L		0.5	
Analytical Method: SM 5310 B		Analyst: SC							
* Total Organic Carbon	4/12/23 15:05	4/12/23 15:05		1	7.46	mg/L	1.00	2	

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Barry Ash Pond - MW-5

Location Code: WMWBARAP

Collected: 4/4/23 12:02

Customer ID:

Submittal Date: 4/6/23 11:49

Laboratory ID Number: BD06833

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM4500Cl E		Analyst: CES							
* Chloride	4/12/23 12:44	4/12/23 12:44		1	17.2	mg/L	0.50	0.5	
Analytical Method: SM4500F G 2017		Analyst: CES							
* Fluoride	4/13/23 11:40	4/13/23 11:40		1	0.0631	mg/L	0.06	0.125	J
Analytical Method: SM4500SO4 E 2011		Analyst: JCC							
* Sulfate	4/17/23 14:41	4/17/23 14:41		3	43.9	mg/L	1.8	6	
Analytical Method: Field Measurements		Analyst: DKG							
Conductivity	4/4/23 11:59	4/4/23 11:59			259.08	uS/cm			FA
pH	4/4/23 11:59	4/4/23 11:59			5.84	SU			FA
Temperature	4/4/23 11:59	4/4/23 11:59			22.61	C			FA
Turbidity	4/4/23 11:59	4/4/23 11:59			1.48	NTU			FA
Sulfide	4/4/23 11:59	4/4/23 11:59			0	mg/L			FA

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWBARAP
Sample Date: 4/4/23 12:02
Customer ID:
Delivery Date: 4/6/23 11:49

Description: Barry Ash Pond - MW-5

Laboratory ID Number: BD06833

Sample	Analysis	Units	MB	MB		Spike	MS	MSD	Standard		Rec		Prec
				Limit					Standard	Limit	Rec	Limit	
BD06839	Aluminum, Dissolved	mg/L	0.0000353	0.0198	0.100	0.106	0.107	0.0999	0.0850 to 0.115	106	70.0 to 130	0.939	20.0
BD06838	Aluminum, Total	mg/L	0.000609	0.0198	0.100	0.155	0.156	0.103	0.0850 to 0.115	111	70.0 to 130	0.643	20.0
BD06839	Antimony, Dissolved	mg/L	0.000377	0.00100	0.100	0.0917	0.0904	0.0898	0.0850 to 0.115	91.7	70.0 to 130	1.43	20.0
BD06838	Antimony, Total	mg/L	0.000237	0.00100	0.100	0.0909	0.0928	0.0867	0.0850 to 0.115	90.9	70.0 to 130	2.07	20.0
BD06839	Arsenic, Dissolved	mg/L	0.0000113	0.000200	0.100	0.116	0.117	0.0990	0.0850 to 0.115	98.1	70.0 to 130	0.858	20.0
BD06838	Arsenic, Total	mg/L	0.0000156	0.000200	0.100	0.0974	0.0996	0.0998	0.0850 to 0.115	96.5	70.0 to 130	2.23	20.0
BD06839	Barium, Dissolved	mg/L	0.0000105	0.00100	0.100	0.149	0.147	0.0944	0.0850 to 0.115	92.7	70.0 to 130	1.35	20.0
BD06838	Barium, Total	mg/L	-0.0000063	0.00100	0.100	0.117	0.116	0.0923	0.0850 to 0.115	96.3	70.0 to 130	0.858	20.0
BD06839	Beryllium, Dissolved	mg/L	0.0000117	0.000880	0.100	0.0966	0.0920	0.0908	0.0850 to 0.115	96.6	70.0 to 130	4.88	20.0
BD06838	Beryllium, Total	mg/L	0.0000000	0.000880	0.100	0.0961	0.0991	0.0944	0.0850 to 0.115	96.1	70.0 to 130	3.07	20.0
BD06839	Boron, Dissolved	mg/L	-0.000075	0.0650	1.00	1.08	1.08	1.00	0.850 to 1.15	102	70.0 to 130	0.00	20.0
BD06838	Boron, Total	mg/L	-0.000537	0.0650	1.00	1.06	1.07	1.02	0.850 to 1.15	102	70.0 to 130	0.939	20.0
BD06839	Cadmium, Dissolved	mg/L	0.0000046	0.000147	0.100	0.0986	0.0955	0.0982	0.0850 to 0.115	98.6	70.0 to 130	3.19	20.0
BD06838	Cadmium, Total	mg/L	0.0000043	0.000147	0.100	0.0946	0.0954	0.0962	0.0850 to 0.115	94.6	70.0 to 130	0.842	20.0
BD06839	Calcium, Dissolved	mg/L	-0.00493	0.152	5.00	14.4	14.3	4.94	4.25 to 5.75	94.6	70.0 to 130	0.697	20.0
BD06838	Calcium, Total	mg/L	-0.0178	0.152	5.00	9.85	10.1	5.00	4.25 to 5.75	99.2	70.0 to 130	2.51	20.0
BD06837	Chloride	mg/L	0.0436	1.00	200	259	263	10.1	9.00 to 11.0	102	80.0 to 120	1.53	20.0
BD06839	Chromium, Dissolved	mg/L	-0.0000370	0.000440	0.100	0.0988	0.0992	0.0995	0.0850 to 0.115	95.8	70.0 to 130	0.404	20.0
BD06838	Chromium, Total	mg/L	-0.0000476	0.000440	0.100	0.0986	0.0969	0.0965	0.0850 to 0.115	98.1	70.0 to 130	1.74	20.0
BD06839	Cobalt, Dissolved	mg/L	-0.0000017	0.000147	0.100	0.101	0.101	0.101	0.0850 to 0.115	99.9	70.0 to 130	0.00	20.0
BD06838	Cobalt, Total	mg/L	0.0000042	0.000147	0.100	0.101	0.0985	0.0997	0.0850 to 0.115	101	70.0 to 130	2.51	20.0
BD06838	Fluoride	mg/L	-0.00248	0.125	2.50	2.72	2.76	2.59	2.25 to 2.75	106	80.0 to 120	1.46	20.0
BD06839	Iron, Dissolved	mg/L	-0.00183	0.0176	0.2	32.1	32.1	0.195	0.170 to 0.230	50.0	70.0 to 130	0.00	20.0
BD06838	Iron, Total	mg/L	0.000416	0.0176	0.2	14.9	14.1	0.200	0.170 to 0.230	450	70.0 to 130	5.52	20.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWBARAP

Sample Date: 4/4/23 12:02

Customer ID:

Delivery Date: 4/6/23 11:49

Description: Barry Ash Pond - MW-5

Laboratory ID Number: BD06833

Sample	Analysis	Units	MB					Standard		Rec		Prec	Limit
			MB	Limit	Spike	MS	MSD	Standard	Limit	Rec	Limit		
BD06839	Lead, Dissolved	mg/L	0.0000118	0.000147	0.100	0.100	0.0955	0.0971	0.0850 to 0.115	100	70.0 to 130	4.60	20.0
BD06838	Lead, Total	mg/L	0.0000027	0.000147	0.100	0.0958	0.0961	0.0945	0.0850 to 0.115	95.8	70.0 to 130	0.313	20.0
BD06839	Lithium, Dissolved	mg/L	0.000245	0.0154	0.200	0.203	0.199	0.195	0.170 to 0.230	102	70.0 to 130	1.99	20.0
BD06838	Lithium, Total	mg/L	-0.000701	0.0154	0.200	0.204	0.201	0.199	0.170 to 0.230	102	70.0 to 130	1.48	20.0
BD06839	Magnesium, Dissolved	mg/L	0.000	0.0462	5.00	11.0	11.0	4.93	4.25 to 5.75	97.6	70.0 to 130	0.00	20.0
BD06838	Magnesium, Total	mg/L	-0.00548	0.0462	5.00	6.45	6.43	4.93	4.25 to 5.75	99.8	70.0 to 130	0.311	20.0
BD06839	Manganese, Dissolved	mg/L	0.0000167	0.00033	0.100	0.376	0.381	0.101	0.0850 to 0.115	94.0	70.0 to 130	1.32	20.0
BD06838	Manganese, Total	mg/L	0.000200	0.00033	0.100	0.340	0.329	0.0980	0.0850 to 0.115	108	70.0 to 130	3.29	20.0
BD06838	Mercury, Total by CVAA	mg/L	2.000E-05	0.000500	0.004	0.00399	0.004	0.00403	0.00340 to 0.00460	99.8	70.0 to 130	0.250	20.0
BD06839	Molybdenum, Dissolved	mg/L	-0.000152	0.0100	0.2	0.197	0.194	0.195	0.170 to 0.230	98.5	70.0 to 130	1.53	20.0
BD06838	Molybdenum, Total	mg/L	-0.001	0.0100	0.2	0.200	0.201	0.201	0.170 to 0.230	100	70.0 to 130	0.499	20.0
BD06839	Potassium, Dissolved	mg/L	0.00935	0.367	10.0	12.2	12.2	9.82	8.50 to 11.5	98.2	70.0 to 130	0.00	20.0
BD06838	Potassium, Total	mg/L	-0.00778	0.367	10.0	10.4	10.5	9.95	8.50 to 11.5	100	70.0 to 130	0.957	20.0
BD06839	Selenium, Dissolved	mg/L	0.000102	0.00100	0.100	0.103	0.104	0.0997	0.0850 to 0.115	103	70.0 to 130	0.966	20.0
BD06838	Selenium, Total	mg/L	0.0000454	0.00100	0.100	0.0988	0.0998	0.100	0.0850 to 0.115	98.8	70.0 to 130	1.01	20.0
BD06839	Silicon, Dissolved	mg/L	0.000229	0.0440	1.00	10.2	10.2	0.997	0.850 to 1.15	94.0	70.0 to 130	0.00	20.0
BD06838	Silicon, Total	mg/L	-0.000048	0.0440	1.00	5.47	5.48	1.02	0.850 to 1.15	107	70.0 to 130	0.183	20.0
BD06839	Sodium, Dissolved	mg/L	0.0149	0.0880	5.00	78.3	78.6	5.23	4.25 to 5.75	76.0	70.0 to 130	0.382	20.0
BD06838	Sodium, Total	mg/L	0.000332	0.0880	5.00	14.7	14.4	4.87	4.25 to 5.75	97.6	70.0 to 130	2.06	20.0
BD06835	Sulfate	mg/L	-0.0671	2.0	20.0	22.3	22.4	19.9	18.0 to 22.0	96.9	80.0 to 120	0.447	20.0
BD06839	Thallium, Dissolved	mg/L	-0.0000001	0.000147	0.100	0.102	0.0974	0.0992	0.0850 to 0.115	102	70.0 to 130	4.61	20.0
BD06838	Thallium, Total	mg/L	0.0000054	0.000147	0.100	0.0974	0.0989	0.0978	0.0850 to 0.115	97.4	70.0 to 130	1.53	20.0
BD06838	Total Organic Carbon	mg/L	0.0766	1.00	10.0	12.5	12.5	24.8		99.2	80.0 to 120	0.00	20.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWBARAP

Sample Date: 4/4/23 12:02

Customer ID:

Delivery Date: 4/6/23 11:49

Description: Barry Ash Pond - MW-5

Laboratory ID Number: BD06833

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BD06839	Alkalinity to pH 4.5	mg CaCO3/L					167	50.5	45.0 to 55.0			0.601	10.0
BD06835	Nitrogen, Nitrate/Nitrite	mg/L as N	0.04	0.200	2.00	2.32	0.166	1.92	1.80 to 2.20	116	90.0 to 110	0.00	15.0
BD06836	Solids, Dissolved	mg/L	1.00	25.0			222	51.0	40.0 to 60.0			1.36	10.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Barry Ash Pond - MW-4

Location Code: WMWBARAP
Collected: 4/4/23 13:01
Customer ID:
Submittal Date: 4/6/23 11:49

Laboratory ID Number: BD06834

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7		Analyst: ABB			Preparation Method: EPA 1638				
* Boron, Total	4/7/23 14:10	4/11/23 12:10		1.015	Not Detected	mg/L	0.030000	0.1015	U
* Calcium, Total	4/7/23 14:10	4/11/23 12:10		1.015	3.36	mg/L	0.070035	0.406	
* Iron, Total	4/7/23 14:10	4/11/23 12:10		1.015	0.0235	mg/L	0.008120	0.0406	J
* Lithium, Total	4/7/23 14:10	4/11/23 12:10		1.015	Not Detected	mg/L	0.007105	0.01999956	U
* Magnesium, Total	4/7/23 14:10	4/11/23 12:10		1.015	2.82	mg/L	0.021315	0.406	
* Molybdenum, Total	4/7/23 14:10	4/11/23 12:10		1.015	Not Detected	mg/L	0.005075	0.01015	U
* Silica, Total (calc.)	4/7/23 14:10	4/11/23 12:10		1	14.7	mg/L			
* Silicon, Total	4/7/23 14:10	4/11/23 12:10		1.015	6.89	mg/L	0.02030	0.25375	
* Sodium, Total	4/7/23 14:10	4/11/23 12:10		1.015	12.0	mg/L	0.04060	0.406	
Analytical Method: EPA 200.7		Analyst: ABB			Preparation Method: EPA 1638				
* Boron, Dissolved	4/7/23 11:45	4/12/23 12:08		1.015	Not Detected	mg/L	0.030000	0.1015	U
* Calcium, Dissolved	4/7/23 11:45	4/12/23 12:08		1.015	3.29	mg/L	0.070035	0.406	
* Iron, Dissolved	4/7/23 11:45	4/12/23 12:08		1.015	Not Detected	mg/L	0.008120	0.0406	U
* Lithium, Dissolved	4/7/23 11:45	4/12/23 12:08		1.015	Not Detected	mg/L	0.007105	0.01999956	U
* Magnesium, Dissolved	4/7/23 11:45	4/12/23 12:08		1.015	2.86	mg/L	0.021315	0.406	
* Molybdenum, Dissolved	4/7/23 11:45	4/12/23 12:08		1.015	Not Detected	mg/L	0.005075	0.01015	U
* Silica, Dissolved (calc.)	4/7/23 11:45	4/12/23 12:08		1	14.7	mg/L			
* Silicon, Dissolved	4/7/23 11:45	4/12/23 12:08		1.015	6.86	mg/L	0.02030	0.25375	
* Sodium, Dissolved	4/7/23 11:45	4/12/23 13:02		1.015	12.2	mg/L	0.04060	0.406	
Analytical Method: EPA 200.8		Analyst: DLJ			Preparation Method: EPA 1638				
* Antimony, Total	4/7/23 14:10	4/7/23 17:45		1.015	Not Detected	mg/L	0.000710	0.001015	U
* Aluminum, Total	4/7/23 14:10	4/7/23 17:45		1.015	0.0404	mg/L	0.009135	0.05075	J
* Arsenic, Total	4/7/23 14:10	4/7/23 17:45		1.015	Not Detected	mg/L	0.000112	0.000203	U
* Barium, Total	4/7/23 14:10	4/7/23 17:45		1.015	0.118	mg/L	0.000508	0.001015	
* Beryllium, Total	4/7/23 14:10	4/7/23 17:45		1.015	0.000432	mg/L	0.000406	0.001015	J
* Cadmium, Total	4/7/23 14:10	4/7/23 17:45		1.015	0.0000896	mg/L	0.000068	0.000203	J
* Chromium, Total	4/7/23 14:10	4/7/23 17:45		1.015	0.000444	mg/L	0.000203	0.001015	J
* Cobalt, Total	4/7/23 14:10	4/7/23 17:45		1.015	0.00310	mg/L	0.000068	0.000203	
* Lead, Total	4/7/23 14:10	4/7/23 17:45		1.015	0.0000851	mg/L	0.000068	0.000203	J
* Manganese, Total	4/7/23 14:10	4/7/23 17:45		1.015	0.0219	mg/L	0.000152	0.001015	

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Barry Ash Pond - MW-4

Location Code: WMWBARAP
Collected: 4/4/23 13:01
Customer ID:
Submittal Date: 4/6/23 11:49

Laboratory ID Number: BD06834

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
* Potassium, Total	4/7/23 14:10	4/7/23 17:45		1.015	1.93	mg/L	0.169505	0.5075	
* Selenium, Total	4/7/23 14:10	4/7/23 17:45		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Total	4/7/23 14:10	4/7/23 17:45		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 200.8		Analyst: DLJ							
* Antimony, Dissolved	4/7/23 11:45	4/7/23 14:36		1.015	Not Detected	mg/L	0.000710	0.001015	U
* Aluminum, Dissolved	4/7/23 11:45	4/7/23 14:36		1.015	0.0272	mg/L	0.009135	0.05075	J
* Arsenic, Dissolved	4/7/23 11:45	4/7/23 14:36		1.015	Not Detected	mg/L	0.000112	0.000203	U
* Barium, Dissolved	4/7/23 11:45	4/7/23 14:36		1.015	0.117	mg/L	0.000508	0.001015	
* Beryllium, Dissolved	4/7/23 11:45	4/7/23 14:36		1.015	0.000499	mg/L	0.000406	0.001015	J
* Cadmium, Dissolved	4/7/23 11:45	4/7/23 14:36		1.015	0.000165	mg/L	0.000068	0.000203	J
* Chromium, Dissolved	4/7/23 11:45	4/7/23 14:36		1.015	0.000434	mg/L	0.000203	0.001015	J
* Cobalt, Dissolved	4/7/23 11:45	4/7/23 14:36		1.015	0.00317	mg/L	0.000068	0.000203	
* Lead, Dissolved	4/7/23 11:45	4/7/23 14:36		1.015	0.0000834	mg/L	0.000068	0.000203	J
* Manganese, Dissolved	4/7/23 11:45	4/7/23 14:36		1.015	0.0222	mg/L	0.000152	0.001015	
* Potassium, Dissolved	4/7/23 11:45	4/7/23 14:36		1.015	1.92	mg/L	0.169505	0.5075	
* Selenium, Dissolved	4/7/23 11:45	4/7/23 14:36		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Dissolved	4/7/23 11:45	4/7/23 14:36		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 245.1		Analyst: CRB							
* Mercury, Total by CVAA	4/11/23 18:35	4/12/23 01:45		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: EPA 353.2		Analyst: SC							
* Nitrogen, Nitrate/Nitrite	4/10/23 14:58	4/10/23 14:58		1	Not Detected	mg/L as N	0.20	0.3	U
Analytical Method: SM 2320 B		Analyst: ALH							
* Alkalinity to pH 4.5	4/18/23 10:05	4/18/23 12:08		1	2.04	mg CaCO3/L		0.10	
Analytical Method: SM 2540C		Analyst: CNJ							
* Solids, Dissolved	4/7/23 10:42	4/10/23 13:50		1	76.7	mg/L		25	
Analytical Method: SM 4500CO2 D		Analyst: ALH							
* Bicarbonate Alkalinity, (calc.)	4/18/23 10:05	4/18/23 12:08		1	2.04	mg CaCO3/L		1	
* Carbonate Alkalinity, (calc.)	4/18/23 10:05	4/18/23 12:08		1	Not Detected	mg CaCO3/L		0.5	
Analytical Method: SM 5310 B		Analyst: SC							
* Total Organic Carbon	4/12/23 15:21	4/12/23 15:21		1	Not Detected	mg/L	1.00	2	U

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Barry Ash Pond - MW-4

Location Code: WMWBARAP
Collected: 4/4/23 13:01
Customer ID:
Submittal Date: 4/6/23 11:49

Laboratory ID Number: BD06834

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM4500Cl E		Analyst: CES							
* Chloride	4/12/23 13:02	4/12/23 13:02		5	32.4	mg/L	2.50	2.5	
Analytical Method: SM4500F G 2017		Analyst: CES							
* Fluoride	4/13/23 11:41	4/13/23 11:41		1	Not Detected	mg/L	0.06	0.125	U
Analytical Method: SM4500SO4 E 2011		Analyst: JCC							
* Sulfate	4/17/23 14:34	4/17/23 14:34		1	2.33	mg/L	0.6	2	
Analytical Method: Field Measurements		Analyst: DKG							
Conductivity	4/4/23 12:58	4/4/23 12:58			121.44	uS/cm			FA
pH	4/4/23 12:58	4/4/23 12:58			4.55	SU			FA
Temperature	4/4/23 12:58	4/4/23 12:58			22.88	C			FA
Turbidity	4/4/23 12:58	4/4/23 12:58			3.02	NTU			FA
Sulfide	4/4/23 12:58	4/4/23 12:58			0	mg/L			FA

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWBARAP
Sample Date: 4/4/23 13:01
Customer ID:
Delivery Date: 4/6/23 11:49

Description: Barry Ash Pond - MW-4

Laboratory ID Number: BD06834

Sample	Analysis	Units	MB	MB				Standard		Rec		Prec	Limit
				Limit	Spike	MS	MSD	Standard	Limit	Rec	Limit		
BD06839	Aluminum, Dissolved	mg/L	0.0000353	0.0198	0.100	0.106	0.107	0.0999	0.0850 to 0.115	106	70.0 to 130	0.939	20.0
BD06838	Aluminum, Total	mg/L	0.000609	0.0198	0.100	0.155	0.156	0.103	0.0850 to 0.115	111	70.0 to 130	0.643	20.0
BD06839	Antimony, Dissolved	mg/L	0.000377	0.00100	0.100	0.0917	0.0904	0.0898	0.0850 to 0.115	91.7	70.0 to 130	1.43	20.0
BD06838	Antimony, Total	mg/L	0.000237	0.00100	0.100	0.0909	0.0928	0.0867	0.0850 to 0.115	90.9	70.0 to 130	2.07	20.0
BD06839	Arsenic, Dissolved	mg/L	0.0000113	0.000200	0.100	0.116	0.117	0.0990	0.0850 to 0.115	98.1	70.0 to 130	0.858	20.0
BD06838	Arsenic, Total	mg/L	0.0000156	0.000200	0.100	0.0974	0.0996	0.0998	0.0850 to 0.115	96.5	70.0 to 130	2.23	20.0
BD06839	Barium, Dissolved	mg/L	0.0000105	0.00100	0.100	0.149	0.147	0.0944	0.0850 to 0.115	92.7	70.0 to 130	1.35	20.0
BD06838	Barium, Total	mg/L	-0.0000063	0.00100	0.100	0.117	0.116	0.0923	0.0850 to 0.115	96.3	70.0 to 130	0.858	20.0
BD06839	Beryllium, Dissolved	mg/L	0.0000117	0.000880	0.100	0.0966	0.0920	0.0908	0.0850 to 0.115	96.6	70.0 to 130	4.88	20.0
BD06838	Beryllium, Total	mg/L	0.0000000	0.000880	0.100	0.0961	0.0991	0.0944	0.0850 to 0.115	96.1	70.0 to 130	3.07	20.0
BD06839	Boron, Dissolved	mg/L	-0.000075	0.0650	1.00	1.08	1.08	1.00	0.850 to 1.15	102	70.0 to 130	0.00	20.0
BD06838	Boron, Total	mg/L	-0.000537	0.0650	1.00	1.06	1.07	1.02	0.850 to 1.15	102	70.0 to 130	0.939	20.0
BD06839	Cadmium, Dissolved	mg/L	0.0000046	0.000147	0.100	0.0986	0.0955	0.0982	0.0850 to 0.115	98.6	70.0 to 130	3.19	20.0
BD06838	Cadmium, Total	mg/L	0.0000043	0.000147	0.100	0.0946	0.0954	0.0962	0.0850 to 0.115	94.6	70.0 to 130	0.842	20.0
BD06839	Calcium, Dissolved	mg/L	-0.00493	0.152	5.00	14.4	14.3	4.94	4.25 to 5.75	94.6	70.0 to 130	0.697	20.0
BD06838	Calcium, Total	mg/L	-0.0178	0.152	5.00	9.85	10.1	5.00	4.25 to 5.75	99.2	70.0 to 130	2.51	20.0
BD06837	Chloride	mg/L	0.0436	1.00	200	259	263	10.1	9.00 to 11.0	102	80.0 to 120	1.53	20.0
BD06839	Chromium, Dissolved	mg/L	-0.0000370	0.000440	0.100	0.0988	0.0992	0.0995	0.0850 to 0.115	95.8	70.0 to 130	0.404	20.0
BD06838	Chromium, Total	mg/L	-0.0000476	0.000440	0.100	0.0986	0.0969	0.0965	0.0850 to 0.115	98.1	70.0 to 130	1.74	20.0
BD06839	Cobalt, Dissolved	mg/L	-0.0000017	0.000147	0.100	0.101	0.101	0.101	0.0850 to 0.115	99.9	70.0 to 130	0.00	20.0
BD06838	Cobalt, Total	mg/L	0.0000042	0.000147	0.100	0.101	0.0985	0.0997	0.0850 to 0.115	101	70.0 to 130	2.51	20.0
BD06838	Fluoride	mg/L	-0.00248	0.125	2.50	2.72	2.76	2.59	2.25 to 2.75	106	80.0 to 120	1.46	20.0
BD06839	Iron, Dissolved	mg/L	-0.00183	0.0176	0.2	32.1	32.1	0.195	0.170 to 0.230	50.0	70.0 to 130	0.00	20.0
BD06838	Iron, Total	mg/L	0.000416	0.0176	0.2	14.9	14.1	0.200	0.170 to 0.230	450	70.0 to 130	5.52	20.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWBARAP
Sample Date: 4/4/23 13:01
Customer ID:
Delivery Date: 4/6/23 11:49

Description: Barry Ash Pond - MW-4

Laboratory ID Number: BD06834

Sample	Analysis	Units	MB	MB		MS	MSD	Standard		Rec		Prec	Limit
				Limit	Spike			Standard	Limit	Rec	Limit		
BD06839	Lead, Dissolved	mg/L	0.0000118	0.000147	0.100	0.100	0.0955	0.0971	0.0850 to 0.115	100	70.0 to 130	4.60	20.0
BD06838	Lead, Total	mg/L	0.0000027	0.000147	0.100	0.0958	0.0961	0.0945	0.0850 to 0.115	95.8	70.0 to 130	0.313	20.0
BD06839	Lithium, Dissolved	mg/L	0.000245	0.0154	0.200	0.203	0.199	0.195	0.170 to 0.230	102	70.0 to 130	1.99	20.0
BD06838	Lithium, Total	mg/L	-0.000701	0.0154	0.200	0.204	0.201	0.199	0.170 to 0.230	102	70.0 to 130	1.48	20.0
BD06839	Magnesium, Dissolved	mg/L	0.000	0.0462	5.00	11.0	11.0	4.93	4.25 to 5.75	97.6	70.0 to 130	0.00	20.0
BD06838	Magnesium, Total	mg/L	-0.00548	0.0462	5.00	6.45	6.43	4.93	4.25 to 5.75	99.8	70.0 to 130	0.311	20.0
BD06839	Manganese, Dissolved	mg/L	0.0000167	0.00033	0.100	0.376	0.381	0.101	0.0850 to 0.115	94.0	70.0 to 130	1.32	20.0
BD06838	Manganese, Total	mg/L	0.000200	0.00033	0.100	0.340	0.329	0.0980	0.0850 to 0.115	108	70.0 to 130	3.29	20.0
BD06838	Mercury, Total by CVAA	mg/L	2.000E-05	0.000500	0.004	0.00399	0.004	0.00403	0.00340 to 0.00460	99.8	70.0 to 130	0.250	20.0
BD06839	Molybdenum, Dissolved	mg/L	-0.000152	0.0100	0.2	0.197	0.194	0.195	0.170 to 0.230	98.5	70.0 to 130	1.53	20.0
BD06838	Molybdenum, Total	mg/L	-0.001	0.0100	0.2	0.200	0.201	0.201	0.170 to 0.230	100	70.0 to 130	0.499	20.0
BD06839	Potassium, Dissolved	mg/L	0.00935	0.367	10.0	12.2	12.2	9.82	8.50 to 11.5	98.2	70.0 to 130	0.00	20.0
BD06838	Potassium, Total	mg/L	-0.00778	0.367	10.0	10.4	10.5	9.95	8.50 to 11.5	100	70.0 to 130	0.957	20.0
BD06839	Selenium, Dissolved	mg/L	0.000102	0.00100	0.100	0.103	0.104	0.0997	0.0850 to 0.115	103	70.0 to 130	0.966	20.0
BD06838	Selenium, Total	mg/L	0.0000454	0.00100	0.100	0.0988	0.0998	0.100	0.0850 to 0.115	98.8	70.0 to 130	1.01	20.0
BD06839	Silicon, Dissolved	mg/L	0.000229	0.0440	1.00	10.2	10.2	0.997	0.850 to 1.15	94.0	70.0 to 130	0.00	20.0
BD06838	Silicon, Total	mg/L	-0.000048	0.0440	1.00	5.47	5.48	1.02	0.850 to 1.15	107	70.0 to 130	0.183	20.0
BD06839	Sodium, Dissolved	mg/L	0.0149	0.0880	5.00	78.3	78.6	5.23	4.25 to 5.75	76.0	70.0 to 130	0.382	20.0
BD06838	Sodium, Total	mg/L	0.000332	0.0880	5.00	14.7	14.4	4.87	4.25 to 5.75	97.6	70.0 to 130	2.06	20.0
BD06835	Sulfate	mg/L	-0.0671	2.0	20.0	22.3	22.4	19.9	18.0 to 22.0	96.9	80.0 to 120	0.447	20.0
BD06839	Thallium, Dissolved	mg/L	-0.0000001	0.000147	0.100	0.102	0.0974	0.0992	0.0850 to 0.115	102	70.0 to 130	4.61	20.0
BD06838	Thallium, Total	mg/L	0.0000054	0.000147	0.100	0.0974	0.0989	0.0978	0.0850 to 0.115	97.4	70.0 to 130	1.53	20.0
BD06838	Total Organic Carbon	mg/L	0.0766	1.00	10.0	12.5	12.5	24.8		99.2	80.0 to 120	0.00	20.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWBARAP

Sample Date: 4/4/23 13:01

Customer ID:

Delivery Date: 4/6/23 11:49

Description: Barry Ash Pond - MW-4

Laboratory ID Number: BD06834

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BD06839	Alkalinity to pH 4.5	mg CaCO3/L					167	50.5	45.0 to 55.0			0.601	10.0
BD06835	Nitrogen, Nitrate/Nitrite	mg/L as N	0.04	0.200	2.00	2.32	0.166	1.92	1.80 to 2.20	116	90.0 to 110	0.00	15.0
BD06836	Solids, Dissolved	mg/L	1.00	25.0			222	51.0	40.0 to 60.0			1.36	10.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Barry Ash Pond - MW-3

Location Code: WMWBARAP
Collected: 4/4/23 14:14
Customer ID:
Submittal Date: 4/6/23 11:49

Laboratory ID Number: BD06835

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7			Analyst: ABB		Preparation Method: EPA 1638				
* Boron, Total	4/7/23 14:10	4/11/23 12:14		1.015	0.0468	mg/L	0.030000	0.1015	J
* Calcium, Total	4/7/23 14:10	4/11/23 12:14		1.015	1.29	mg/L	0.070035	0.406	
* Iron, Total	4/7/23 14:10	4/11/23 14:13		10.15	4.13	mg/L	0.08120	0.406	
* Lithium, Total	4/7/23 14:10	4/11/23 12:14		1.015	Not Detected	mg/L	0.007105	0.01999956	U
* Magnesium, Total	4/7/23 14:10	4/11/23 12:14		1.015	0.762	mg/L	0.021315	0.406	
* Molybdenum, Total	4/7/23 14:10	4/11/23 12:14		1.015	Not Detected	mg/L	0.005075	0.01015	U
* Silica, Total (calc.)	4/7/23 14:10	4/11/23 12:14		1	15.3	mg/L			
* Silicon, Total	4/7/23 14:10	4/11/23 12:14		1.015	7.16	mg/L	0.02030	0.25375	
* Sodium, Total	4/7/23 14:10	4/11/23 12:14		1.015	5.42	mg/L	0.04060	0.406	
Analytical Method: EPA 200.7			Analyst: ABB						
* Boron, Dissolved	4/7/23 11:45	4/12/23 12:11		1.015	0.0458	mg/L	0.030000	0.1015	J
* Calcium, Dissolved	4/7/23 11:45	4/12/23 12:11		1.015	1.27	mg/L	0.070035	0.406	
* Iron, Dissolved	4/7/23 11:45	4/12/23 12:11		1.015	3.88	mg/L	0.008120	0.0406	
* Lithium, Dissolved	4/7/23 11:45	4/12/23 12:11		1.015	Not Detected	mg/L	0.007105	0.01999956	U
* Magnesium, Dissolved	4/7/23 11:45	4/12/23 12:11		1.015	0.757	mg/L	0.021315	0.406	
* Molybdenum, Dissolved	4/7/23 11:45	4/12/23 12:11		1.015	Not Detected	mg/L	0.005075	0.01015	U
* Silica, Dissolved (calc.)	4/7/23 11:45	4/12/23 12:11		1	15.0	mg/L			
* Silicon, Dissolved	4/7/23 11:45	4/12/23 12:11		1.015	7.01	mg/L	0.02030	0.25375	
* Sodium, Dissolved	4/7/23 11:45	4/12/23 13:05		1.015	5.43	mg/L	0.04060	0.406	
Analytical Method: EPA 200.8			Analyst: DLJ		Preparation Method: EPA 1638				
* Antimony, Total	4/7/23 14:10	4/7/23 17:49		1.015	Not Detected	mg/L	0.000710	0.001015	U
* Aluminum, Total	4/7/23 14:10	4/7/23 17:49		1.015	0.0187	mg/L	0.009135	0.05075	J
* Arsenic, Total	4/7/23 14:10	4/7/23 17:49		1.015	0.000455	mg/L	0.000112	0.000203	
* Barium, Total	4/7/23 14:10	4/7/23 17:49		1.015	0.0271	mg/L	0.000508	0.001015	
* Beryllium, Total	4/7/23 14:10	4/7/23 17:49		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Total	4/7/23 14:10	4/7/23 17:49		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Total	4/7/23 14:10	4/7/23 17:49		1.015	0.000530	mg/L	0.000203	0.001015	J
* Cobalt, Total	4/7/23 14:10	4/7/23 17:49		1.015	0.000108	mg/L	0.000068	0.000203	J
* Lead, Total	4/7/23 14:10	4/7/23 17:49		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Total	4/7/23 14:10	4/7/23 17:49		1.015	0.0279	mg/L	0.000152	0.001015	

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.
 Nitrate-Nitrite matrix spike recovery and/or matrix spike duplicate recovery passes using values below the detection limit.

Certificate Of Analysis

Description: Barry Ash Pond - MW-3

Location Code: WMWBARAP
Collected: 4/4/23 14:14
Customer ID:
Submittal Date: 4/6/23 11:49

Laboratory ID Number: BD06835

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
* Potassium, Total	4/7/23 14:10	4/7/23 17:49		1.015	0.984	mg/L	0.169505	0.5075	
* Selenium, Total	4/7/23 14:10	4/7/23 17:49		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Total	4/7/23 14:10	4/7/23 17:49		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 200.8		Analyst: DLJ							
* Antimony, Dissolved	4/7/23 11:45	4/7/23 14:40		1.015	Not Detected	mg/L	0.000710	0.001015	U
* Aluminum, Dissolved	4/7/23 11:45	4/7/23 14:40		1.015	Not Detected	mg/L	0.009135	0.05075	U
* Arsenic, Dissolved	4/7/23 11:45	4/7/23 14:40		1.015	0.000366	mg/L	0.000112	0.000203	
* Barium, Dissolved	4/7/23 11:45	4/7/23 14:40		1.015	0.0255	mg/L	0.000508	0.001015	
* Beryllium, Dissolved	4/7/23 11:45	4/7/23 14:40		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Dissolved	4/7/23 11:45	4/7/23 14:40		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Dissolved	4/7/23 11:45	4/7/23 14:40		1.015	0.000414	mg/L	0.000203	0.001015	J
* Cobalt, Dissolved	4/7/23 11:45	4/7/23 14:40		1.015	0.000108	mg/L	0.000068	0.000203	J
* Lead, Dissolved	4/7/23 11:45	4/7/23 14:40		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Dissolved	4/7/23 11:45	4/7/23 14:40		1.015	0.0276	mg/L	0.000152	0.001015	
* Potassium, Dissolved	4/7/23 11:45	4/7/23 14:40		1.015	0.904	mg/L	0.169505	0.5075	
* Selenium, Dissolved	4/7/23 11:45	4/7/23 14:40		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Dissolved	4/7/23 11:45	4/7/23 14:40		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 245.1		Analyst: CRB							
* Mercury, Total by CVAA	4/11/23 18:35	4/12/23 01:49		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: EPA 353.2		Analyst: SC							
* Nitrogen, Nitrate/Nitrite	4/10/23 15:00	4/10/23 15:00		1	Not Detected	mg/L as N	0.20	0.3	U
Analytical Method: SM 2320 B		Analyst: ALH							
* Alkalinity to pH 4.5	4/18/23 10:05	4/18/23 12:08		1	11.4	mg CaCO3/L		0.10	
Analytical Method: SM 2540C		Analyst: CNJ							
* Solids, Dissolved	4/7/23 10:42	4/10/23 13:50		1	43.3	mg/L		25	
Analytical Method: SM 4500CO2 D		Analyst: ALH							
* Bicarbonate Alkalinity, (calc.)	4/18/23 10:05	4/18/23 12:08		1	11.4	mg CaCO3/L		1	
* Carbonate Alkalinity, (calc.)	4/18/23 10:05	4/18/23 12:08		1	Not Detected	mg CaCO3/L		0.5	
Analytical Method: SM 5310 B		Analyst: SC							
* Total Organic Carbon	4/12/23 15:36	4/12/23 15:36		1	Not Detected	mg/L	1.00	2	U

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.
 Nitrate-Nitrite matrix spike recovery and/or matrix spike duplicate recovery passes using values below the detection limit.

Certificate Of Analysis

Description: Barry Ash Pond - MW-3

Location Code: WMWBARAP

Collected: 4/4/23 14:14

Customer ID:

Submittal Date: 4/6/23 11:49

Laboratory ID Number: BD06835

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM4500Cl E		Analyst: CES							
* Chloride	4/12/23 12:46	4/12/23 12:46		1	9.66	mg/L	0.50	0.5	
Analytical Method: SM4500F G 2017		Analyst: CES							
* Fluoride	4/13/23 11:42	4/13/23 11:42		1	Not Detected	mg/L	0.06	0.125	U
Analytical Method: SM4500SO4 E 2011		Analyst: JCC							
* Sulfate	4/17/23 14:36	4/17/23 14:36		1	2.92	mg/L	0.6	2	
Analytical Method: Field Measurements		Analyst: DKG							
Conductivity	4/4/23 14:11	4/4/23 14:11			59.36	uS/cm			FA
pH	4/4/23 14:11	4/4/23 14:11			5.31	SU			FA
Temperature	4/4/23 14:11	4/4/23 14:11			22.13	C			FA
Turbidity	4/4/23 14:11	4/4/23 14:11			1.69	NTU			FA
Sulfide	4/4/23 14:11	4/4/23 14:11			0	mg/L			FA

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.
 Nitrate-Nitrite matrix spike recovery and/or matrix spike duplicate recovery passes using values below the detection limit.

Batch QC Summary

Customer Account: WMWBARAP
Sample Date: 4/4/23 14:14
Customer ID:
Delivery Date: 4/6/23 11:49

Description: Barry Ash Pond - MW-3

Laboratory ID Number: BD06835

Sample	Analysis	Units	MB		Spike	MS	MSD	Standard		Rec		Prec	Limit
			MB	Limit				Standard	Limit	Rec	Limit		
BD06839	Aluminum, Dissolved	mg/L	0.0000353	0.0198	0.100	0.106	0.107	0.0999	0.0850 to 0.115	106	70.0 to 130	0.939	20.0
BD06838	Aluminum, Total	mg/L	0.000609	0.0198	0.100	0.155	0.156	0.103	0.0850 to 0.115	111	70.0 to 130	0.643	20.0
BD06839	Antimony, Dissolved	mg/L	0.000377	0.00100	0.100	0.0917	0.0904	0.0898	0.0850 to 0.115	91.7	70.0 to 130	1.43	20.0
BD06838	Antimony, Total	mg/L	0.000237	0.00100	0.100	0.0909	0.0928	0.0867	0.0850 to 0.115	90.9	70.0 to 130	2.07	20.0
BD06839	Arsenic, Dissolved	mg/L	0.0000113	0.000200	0.100	0.116	0.117	0.0990	0.0850 to 0.115	98.1	70.0 to 130	0.858	20.0
BD06838	Arsenic, Total	mg/L	0.0000156	0.000200	0.100	0.0974	0.0996	0.0998	0.0850 to 0.115	96.5	70.0 to 130	2.23	20.0
BD06839	Barium, Dissolved	mg/L	0.0000105	0.00100	0.100	0.149	0.147	0.0944	0.0850 to 0.115	92.7	70.0 to 130	1.35	20.0
BD06838	Barium, Total	mg/L	-0.0000063	0.00100	0.100	0.117	0.116	0.0923	0.0850 to 0.115	96.3	70.0 to 130	0.858	20.0
BD06839	Beryllium, Dissolved	mg/L	0.0000117	0.000880	0.100	0.0966	0.0920	0.0908	0.0850 to 0.115	96.6	70.0 to 130	4.88	20.0
BD06838	Beryllium, Total	mg/L	0.0000000	0.000880	0.100	0.0961	0.0991	0.0944	0.0850 to 0.115	96.1	70.0 to 130	3.07	20.0
BD06839	Boron, Dissolved	mg/L	-0.000075	0.0650	1.00	1.08	1.08	1.00	0.850 to 1.15	102	70.0 to 130	0.00	20.0
BD06838	Boron, Total	mg/L	-0.000537	0.0650	1.00	1.06	1.07	1.02	0.850 to 1.15	102	70.0 to 130	0.939	20.0
BD06839	Cadmium, Dissolved	mg/L	0.0000046	0.000147	0.100	0.0986	0.0955	0.0982	0.0850 to 0.115	98.6	70.0 to 130	3.19	20.0
BD06838	Cadmium, Total	mg/L	0.0000043	0.000147	0.100	0.0946	0.0954	0.0962	0.0850 to 0.115	94.6	70.0 to 130	0.842	20.0
BD06839	Calcium, Dissolved	mg/L	-0.00493	0.152	5.00	14.4	14.3	4.94	4.25 to 5.75	94.6	70.0 to 130	0.697	20.0
BD06838	Calcium, Total	mg/L	-0.0178	0.152	5.00	9.85	10.1	5.00	4.25 to 5.75	99.2	70.0 to 130	2.51	20.0
BD06837	Chloride	mg/L	0.0436	1.00	200	259	263	10.1	9.00 to 11.0	102	80.0 to 120	1.53	20.0
BD06839	Chromium, Dissolved	mg/L	-0.0000370	0.000440	0.100	0.0988	0.0992	0.0995	0.0850 to 0.115	95.8	70.0 to 130	0.404	20.0
BD06838	Chromium, Total	mg/L	-0.0000476	0.000440	0.100	0.0986	0.0969	0.0965	0.0850 to 0.115	98.1	70.0 to 130	1.74	20.0
BD06839	Cobalt, Dissolved	mg/L	-0.0000017	0.000147	0.100	0.101	0.101	0.101	0.0850 to 0.115	99.9	70.0 to 130	0.00	20.0
BD06838	Cobalt, Total	mg/L	0.0000042	0.000147	0.100	0.101	0.0985	0.0997	0.0850 to 0.115	101	70.0 to 130	2.51	20.0
BD06838	Fluoride	mg/L	-0.00248	0.125	2.50	2.72	2.76	2.59	2.25 to 2.75	106	80.0 to 120	1.46	20.0
BD06839	Iron, Dissolved	mg/L	-0.00183	0.0176	0.2	32.1	32.1	0.195	0.170 to 0.230	50.0	70.0 to 130	0.00	20.0
BD06838	Iron, Total	mg/L	0.000416	0.0176	0.2	14.9	14.1	0.200	0.170 to 0.230	450	70.0 to 130	5.52	20.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.
 Nitrate-Nitrite matrix spike recovery and/or matrix spike duplicate recovery passes using values below the detection limit.

Batch QC Summary

Customer Account: WMWBARAP
Sample Date: 4/4/23 14:14
Customer ID:
Delivery Date: 4/6/23 11:49

Description: Barry Ash Pond - MW-3

Laboratory ID Number: BD06835

Sample	Analysis	Units	MB	MB		Spike	MS	MSD	Standard		Rec		Prec
				Limit					Standard	Limit	Rec	Limit	
BD06839	Lead, Dissolved	mg/L	0.0000118	0.000147	0.100	0.100	0.0955	0.0971	0.0850 to 0.115	100	70.0 to 130	4.60	20.0
BD06838	Lead, Total	mg/L	0.0000027	0.000147	0.100	0.0958	0.0961	0.0945	0.0850 to 0.115	95.8	70.0 to 130	0.313	20.0
BD06839	Lithium, Dissolved	mg/L	0.000245	0.0154	0.200	0.203	0.199	0.195	0.170 to 0.230	102	70.0 to 130	1.99	20.0
BD06838	Lithium, Total	mg/L	-0.000701	0.0154	0.200	0.204	0.201	0.199	0.170 to 0.230	102	70.0 to 130	1.48	20.0
BD06839	Magnesium, Dissolved	mg/L	0.000	0.0462	5.00	11.0	11.0	4.93	4.25 to 5.75	97.6	70.0 to 130	0.00	20.0
BD06838	Magnesium, Total	mg/L	-0.00548	0.0462	5.00	6.45	6.43	4.93	4.25 to 5.75	99.8	70.0 to 130	0.311	20.0
BD06839	Manganese, Dissolved	mg/L	0.0000167	0.00033	0.100	0.376	0.381	0.101	0.0850 to 0.115	94.0	70.0 to 130	1.32	20.0
BD06838	Manganese, Total	mg/L	0.000200	0.00033	0.100	0.340	0.329	0.0980	0.0850 to 0.115	108	70.0 to 130	3.29	20.0
BD06838	Mercury, Total by CVAA	mg/L	2.000E-05	0.000500	0.004	0.00399	0.004	0.00403	0.00340 to 0.00460	99.8	70.0 to 130	0.250	20.0
BD06839	Molybdenum, Dissolved	mg/L	-0.000152	0.0100	0.2	0.197	0.194	0.195	0.170 to 0.230	98.5	70.0 to 130	1.53	20.0
BD06838	Molybdenum, Total	mg/L	-0.001	0.0100	0.2	0.200	0.201	0.201	0.170 to 0.230	100	70.0 to 130	0.499	20.0
BD06839	Potassium, Dissolved	mg/L	0.00935	0.367	10.0	12.2	12.2	9.82	8.50 to 11.5	98.2	70.0 to 130	0.00	20.0
BD06838	Potassium, Total	mg/L	-0.00778	0.367	10.0	10.4	10.5	9.95	8.50 to 11.5	100	70.0 to 130	0.957	20.0
BD06839	Selenium, Dissolved	mg/L	0.000102	0.00100	0.100	0.103	0.104	0.0997	0.0850 to 0.115	103	70.0 to 130	0.966	20.0
BD06838	Selenium, Total	mg/L	0.0000454	0.00100	0.100	0.0988	0.0998	0.100	0.0850 to 0.115	98.8	70.0 to 130	1.01	20.0
BD06839	Silicon, Dissolved	mg/L	0.000229	0.0440	1.00	10.2	10.2	0.997	0.850 to 1.15	94.0	70.0 to 130	0.00	20.0
BD06838	Silicon, Total	mg/L	-0.000048	0.0440	1.00	5.47	5.48	1.02	0.850 to 1.15	107	70.0 to 130	0.183	20.0
BD06839	Sodium, Dissolved	mg/L	0.0149	0.0880	5.00	78.3	78.6	5.23	4.25 to 5.75	76.0	70.0 to 130	0.382	20.0
BD06838	Sodium, Total	mg/L	0.000332	0.0880	5.00	14.7	14.4	4.87	4.25 to 5.75	97.6	70.0 to 130	2.06	20.0
BD06835	Sulfate	mg/L	-0.0671	2.0	20.0	22.3	22.4	19.9	18.0 to 22.0	96.9	80.0 to 120	0.447	20.0
BD06839	Thallium, Dissolved	mg/L	-0.0000001	0.000147	0.100	0.102	0.0974	0.0992	0.0850 to 0.115	102	70.0 to 130	4.61	20.0
BD06838	Thallium, Total	mg/L	0.0000054	0.000147	0.100	0.0974	0.0989	0.0978	0.0850 to 0.115	97.4	70.0 to 130	1.53	20.0
BD06838	Total Organic Carbon	mg/L	0.0766	1.00	10.0	12.5	12.5	24.8		99.2	80.0 to 120	0.00	20.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.
 Nitrate-Nitrite matrix spike recovery and/or matrix spike duplicate recovery passes using values below the detection limit.

Batch QC Summary

Customer Account: WMWBARAP

Sample Date: 4/4/23 14:14

Customer ID:

Delivery Date: 4/6/23 11:49

Description: Barry Ash Pond - MW-3

Laboratory ID Number: BD06835

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BD06839	Alkalinity to pH 4.5	mg CaCO3/L					167	50.5	45.0 to 55.0			0.601	10.0
BD06835	Nitrogen, Nitrate/Nitrite	mg/L as N	0.04	0.200	2.00	2.32	0.166	1.92	1.80 to 2.20	116	90.0 to 110	0.00	15.0
BD06836	Solids, Dissolved	mg/L	1.00	25.0			222	51.0	40.0 to 60.0			1.36	10.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.
 Nitrate-Nitrite matrix spike recovery and/or matrix spike duplicate recovery passes using values below the detection limit.

Certificate Of Analysis

Description: Barry Ash Pond - MW-1V

Location Code: WMWBARAP
Collected: 4/4/23 15:12
Customer ID:
Submittal Date: 4/6/23 11:49

Laboratory ID Number: BD06836

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7			Analyst: ABB		Preparation Method: EPA 1638				
* Boron, Total	4/7/23 14:10	4/11/23 12:17		1.015	0.0656	mg/L	0.030000	0.1015	J
* Calcium, Total	4/7/23 14:10	4/11/23 12:17		1.015	2.57	mg/L	0.070035	0.406	
* Iron, Total	4/7/23 14:10	4/11/23 12:17		1.015	0.304	mg/L	0.008120	0.0406	
* Lithium, Total	4/7/23 14:10	4/11/23 12:17		1.015	Not Detected	mg/L	0.007105	0.01999956	U
* Magnesium, Total	4/7/23 14:10	4/11/23 12:17		1.015	1.50	mg/L	0.021315	0.406	
* Molybdenum, Total	4/7/23 14:10	4/11/23 12:17		1.015	Not Detected	mg/L	0.005075	0.01015	U
* Silica, Total (calc.)	4/7/23 14:10	4/11/23 12:17		1	13.1	mg/L			
* Silicon, Total	4/7/23 14:10	4/11/23 12:17		1.015	6.10	mg/L	0.02030	0.25375	
* Sodium, Total	4/7/23 14:10	4/13/23 13:46		10.15	78.6	mg/L	0.4060	4.06	
Analytical Method: EPA 200.7			Analyst: ABB		Preparation Method: EPA 1638				
* Boron, Dissolved	4/7/23 11:45	4/12/23 12:14		1.015	0.0659	mg/L	0.030000	0.1015	J
* Calcium, Dissolved	4/7/23 11:45	4/12/23 12:14		1.015	2.52	mg/L	0.070035	0.406	
* Iron, Dissolved	4/7/23 11:45	4/12/23 12:14		1.015	0.297	mg/L	0.008120	0.0406	
* Lithium, Dissolved	4/7/23 11:45	4/12/23 12:14		1.015	Not Detected	mg/L	0.007105	0.01999956	U
* Magnesium, Dissolved	4/7/23 11:45	4/12/23 12:14		1.015	1.50	mg/L	0.021315	0.406	
* Molybdenum, Dissolved	4/7/23 11:45	4/12/23 12:14		1.015	Not Detected	mg/L	0.005075	0.01015	U
* Silica, Dissolved (calc.)	4/7/23 11:45	4/12/23 12:14		1	12.8	mg/L			
* Silicon, Dissolved	4/7/23 11:45	4/12/23 12:14		1.015	5.99	mg/L	0.02030	0.25375	
* Sodium, Dissolved	4/7/23 11:45	4/12/23 14:14		10.15	74.3	mg/L	0.4060	4.06	
Analytical Method: EPA 200.8			Analyst: DLJ		Preparation Method: EPA 1638				
* Antimony, Total	4/7/23 14:10	4/7/23 17:52		1.015	Not Detected	mg/L	0.000710	0.001015	U
* Aluminum, Total	4/7/23 14:10	4/7/23 17:52		1.015	0.0253	mg/L	0.009135	0.05075	J
* Arsenic, Total	4/7/23 14:10	4/7/23 17:52		1.015	0.000633	mg/L	0.000112	0.000203	
* Barium, Total	4/7/23 14:10	4/7/23 17:52		1.015	0.0564	mg/L	0.000508	0.001015	
* Beryllium, Total	4/7/23 14:10	4/7/23 17:52		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Total	4/7/23 14:10	4/7/23 17:52		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Total	4/7/23 14:10	4/7/23 17:52		1.015	0.000342	mg/L	0.000203	0.001015	J
* Cobalt, Total	4/7/23 14:10	4/7/23 17:52		1.015	0.00568	mg/L	0.000068	0.000203	
* Lead, Total	4/7/23 14:10	4/7/23 17:52		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Total	4/7/23 14:10	4/7/23 17:52		1.015	0.0802	mg/L	0.000152	0.001015	

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Barry Ash Pond - MW-1V

Location Code: WMWBARAP
Collected: 4/4/23 15:12
Customer ID:
Submittal Date: 4/6/23 11:49

Laboratory ID Number: BD06836

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
* Potassium, Total	4/7/23 14:10	4/7/23 17:52		1.015	2.12	mg/L	0.169505	0.5075	
* Selenium, Total	4/7/23 14:10	4/7/23 17:52		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Total	4/7/23 14:10	4/7/23 17:52		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 200.8		Analyst: DLJ							
* Antimony, Dissolved	4/7/23 11:45	4/7/23 14:43		1.015	Not Detected	mg/L	0.000710	0.001015	U
* Aluminum, Dissolved	4/7/23 11:45	4/7/23 14:43		1.015	0.0111	mg/L	0.009135	0.05075	J
* Arsenic, Dissolved	4/7/23 11:45	4/7/23 14:43		1.015	0.000570	mg/L	0.000112	0.000203	
* Barium, Dissolved	4/7/23 11:45	4/7/23 14:43		1.015	0.0558	mg/L	0.000508	0.001015	
* Beryllium, Dissolved	4/7/23 11:45	4/7/23 14:43		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Dissolved	4/7/23 11:45	4/7/23 14:43		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Dissolved	4/7/23 11:45	4/7/23 14:43		1.015	0.000316	mg/L	0.000203	0.001015	J
* Cobalt, Dissolved	4/7/23 11:45	4/7/23 14:43		1.015	0.00587	mg/L	0.000068	0.000203	
* Lead, Dissolved	4/7/23 11:45	4/7/23 14:43		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Dissolved	4/7/23 11:45	4/7/23 14:43		1.015	0.0830	mg/L	0.000152	0.001015	
* Potassium, Dissolved	4/7/23 11:45	4/7/23 14:43		1.015	2.11	mg/L	0.169505	0.5075	
* Selenium, Dissolved	4/7/23 11:45	4/7/23 14:43		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Dissolved	4/7/23 11:45	4/7/23 14:43		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 245.1		Analyst: CRB							
* Mercury, Total by CVAA	4/11/23 18:35	4/12/23 01:53		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: EPA 353.2		Analyst: SC							
* Nitrogen, Nitrate/Nitrite	4/10/23 15:10	4/10/23 15:10		1	Not Detected	mg/L as N	0.20	0.3	U
Analytical Method: SM 2320 B		Analyst: ALH							
* Alkalinity to pH 4.5	4/18/23 10:05	4/18/23 12:08		1	34.1	mg CaCO3/L		0.10	
Analytical Method: SM 2540C		Analyst: CNJ							
* Solids, Dissolved	4/7/23 10:42	4/10/23 13:50		1	219	mg/L		25	
Analytical Method: SM 4500CO2 D		Analyst: ALH							
* Bicarbonate Alkalinity, (calc.)	4/18/23 10:05	4/18/23 12:08		1	34.1	mg CaCO3/L		1	
* Carbonate Alkalinity, (calc.)	4/18/23 10:05	4/18/23 12:08		1	Not Detected	mg CaCO3/L		0.5	
Analytical Method: SM 5310 B		Analyst: SC							
* Total Organic Carbon	4/12/23 15:53	4/12/23 15:53		1	Not Detected	mg/L	1.00	2	U

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Barry Ash Pond - MW-1V

Location Code: WMWBARAP
Collected: 4/4/23 15:12
Customer ID:
Submittal Date: 4/6/23 11:49

Laboratory ID Number: BD06836

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM4500Cl E		Analyst: CES							
* Chloride	4/12/23 12:58	4/12/23 12:58		20	92.3	mg/L	10.00	10	
Analytical Method: SM4500F G 2017		Analyst: CES							
* Fluoride	4/13/23 11:44	4/13/23 11:44		1	Not Detected	mg/L	0.06	0.125	U
Analytical Method: SM4500SO4 E 2011		Analyst: JCC							
* Sulfate	4/17/23 15:25	4/17/23 15:25		1	19.0	mg/L	0.6	2	
Analytical Method: Field Measurements		Analyst: DKG							
Conductivity	4/4/23 15:08	4/4/23 15:08			410.30	uS/cm			FA
pH	4/4/23 15:08	4/4/23 15:08			5.69	SU			FA
Temperature	4/4/23 15:08	4/4/23 15:08			22.74	C			FA
Turbidity	4/4/23 15:08	4/4/23 15:08			1.4	NTU			FA
Sulfide	4/4/23 15:08	4/4/23 15:08			0	mg/L			FA

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWBARAP
Sample Date: 4/4/23 15:12
Customer ID:
Delivery Date: 4/6/23 11:49

Description: Barry Ash Pond - MW-1V

Laboratory ID Number: BD06836

Sample	Analysis	Units	MB	MB				Standard		Rec			Prec Limit
				Limit	Spike	MS	MSD	Standard	Limit	Rec	Limit	Prec	
BD06839	Aluminum, Dissolved	mg/L	0.0000353	0.0198	0.100	0.106	0.107	0.0999	0.0850 to 0.115	106	70.0 to 130	0.939	20.0
BD06838	Aluminum, Total	mg/L	0.000609	0.0198	0.100	0.155	0.156	0.103	0.0850 to 0.115	111	70.0 to 130	0.643	20.0
BD06839	Antimony, Dissolved	mg/L	0.000377	0.00100	0.100	0.0917	0.0904	0.0898	0.0850 to 0.115	91.7	70.0 to 130	1.43	20.0
BD06838	Antimony, Total	mg/L	0.000237	0.00100	0.100	0.0909	0.0928	0.0867	0.0850 to 0.115	90.9	70.0 to 130	2.07	20.0
BD06839	Arsenic, Dissolved	mg/L	0.0000113	0.000200	0.100	0.116	0.117	0.0990	0.0850 to 0.115	98.1	70.0 to 130	0.858	20.0
BD06838	Arsenic, Total	mg/L	0.0000156	0.000200	0.100	0.0974	0.0996	0.0998	0.0850 to 0.115	96.5	70.0 to 130	2.23	20.0
BD06839	Barium, Dissolved	mg/L	0.0000105	0.00100	0.100	0.149	0.147	0.0944	0.0850 to 0.115	92.7	70.0 to 130	1.35	20.0
BD06838	Barium, Total	mg/L	-0.0000063	0.00100	0.100	0.117	0.116	0.0923	0.0850 to 0.115	96.3	70.0 to 130	0.858	20.0
BD06839	Beryllium, Dissolved	mg/L	0.0000117	0.000880	0.100	0.0966	0.0920	0.0908	0.0850 to 0.115	96.6	70.0 to 130	4.88	20.0
BD06838	Beryllium, Total	mg/L	0.0000000	0.000880	0.100	0.0961	0.0991	0.0944	0.0850 to 0.115	96.1	70.0 to 130	3.07	20.0
BD06839	Boron, Dissolved	mg/L	-0.000075	0.0650	1.00	1.08	1.08	1.00	0.850 to 1.15	102	70.0 to 130	0.00	20.0
BD06838	Boron, Total	mg/L	-0.000537	0.0650	1.00	1.06	1.07	1.02	0.850 to 1.15	102	70.0 to 130	0.939	20.0
BD06839	Cadmium, Dissolved	mg/L	0.0000046	0.000147	0.100	0.0986	0.0955	0.0982	0.0850 to 0.115	98.6	70.0 to 130	3.19	20.0
BD06838	Cadmium, Total	mg/L	0.0000043	0.000147	0.100	0.0946	0.0954	0.0962	0.0850 to 0.115	94.6	70.0 to 130	0.842	20.0
BD06839	Calcium, Dissolved	mg/L	-0.00493	0.152	5.00	14.4	14.3	4.94	4.25 to 5.75	94.6	70.0 to 130	0.697	20.0
BD06838	Calcium, Total	mg/L	-0.0178	0.152	5.00	9.85	10.1	5.00	4.25 to 5.75	99.2	70.0 to 130	2.51	20.0
BD06837	Chloride	mg/L	0.0436	1.00	200	259	263	10.1	9.00 to 11.0	102	80.0 to 120	1.53	20.0
BD06839	Chromium, Dissolved	mg/L	-0.0000370	0.000440	0.100	0.0988	0.0992	0.0995	0.0850 to 0.115	95.8	70.0 to 130	0.404	20.0
BD06838	Chromium, Total	mg/L	-0.0000476	0.000440	0.100	0.0986	0.0969	0.0965	0.0850 to 0.115	98.1	70.0 to 130	1.74	20.0
BD06839	Cobalt, Dissolved	mg/L	-0.0000017	0.000147	0.100	0.101	0.101	0.101	0.0850 to 0.115	99.9	70.0 to 130	0.00	20.0
BD06838	Cobalt, Total	mg/L	0.0000042	0.000147	0.100	0.101	0.0985	0.0997	0.0850 to 0.115	101	70.0 to 130	2.51	20.0
BD06838	Fluoride	mg/L	-0.00248	0.125	2.50	2.72	2.76	2.59	2.25 to 2.75	106	80.0 to 120	1.46	20.0
BD06839	Iron, Dissolved	mg/L	-0.00183	0.0176	0.2	32.1	32.1	0.195	0.170 to 0.230	50.0	70.0 to 130	0.00	20.0
BD06838	Iron, Total	mg/L	0.000416	0.0176	0.2	14.9	14.1	0.200	0.170 to 0.230	450	70.0 to 130	5.52	20.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWBARAP
Sample Date: 4/4/23 15:12
Customer ID:
Delivery Date: 4/6/23 11:49

Description: Barry Ash Pond - MW-1V

Laboratory ID Number: BD06836

Sample	Analysis	Units	MB	MB				Standard		Rec		Prec	Limit
				Limit	Spike	MS	MSD	Standard	Limit	Rec	Limit		
BD06839	Lead, Dissolved	mg/L	0.0000118	0.000147	0.100	0.100	0.0955	0.0971	0.0850 to 0.115	100	70.0 to 130	4.60	20.0
BD06838	Lead, Total	mg/L	0.0000027	0.000147	0.100	0.0958	0.0961	0.0945	0.0850 to 0.115	95.8	70.0 to 130	0.313	20.0
BD06839	Lithium, Dissolved	mg/L	0.000245	0.0154	0.200	0.203	0.199	0.195	0.170 to 0.230	102	70.0 to 130	1.99	20.0
BD06838	Lithium, Total	mg/L	-0.000701	0.0154	0.200	0.204	0.201	0.199	0.170 to 0.230	102	70.0 to 130	1.48	20.0
BD06839	Magnesium, Dissolved	mg/L	0.000	0.0462	5.00	11.0	11.0	4.93	4.25 to 5.75	97.6	70.0 to 130	0.00	20.0
BD06838	Magnesium, Total	mg/L	-0.00548	0.0462	5.00	6.45	6.43	4.93	4.25 to 5.75	99.8	70.0 to 130	0.311	20.0
BD06839	Manganese, Dissolved	mg/L	0.0000167	0.00033	0.100	0.376	0.381	0.101	0.0850 to 0.115	94.0	70.0 to 130	1.32	20.0
BD06838	Manganese, Total	mg/L	0.000200	0.00033	0.100	0.340	0.329	0.0980	0.0850 to 0.115	108	70.0 to 130	3.29	20.0
BD06838	Mercury, Total by CVAA	mg/L	2.000E-05	0.000500	0.004	0.00399	0.004	0.00403	0.00340 to 0.00460	99.8	70.0 to 130	0.250	20.0
BD06839	Molybdenum, Dissolved	mg/L	-0.000152	0.0100	0.2	0.197	0.194	0.195	0.170 to 0.230	98.5	70.0 to 130	1.53	20.0
BD06838	Molybdenum, Total	mg/L	-0.001	0.0100	0.2	0.200	0.201	0.201	0.170 to 0.230	100	70.0 to 130	0.499	20.0
BD06839	Potassium, Dissolved	mg/L	0.00935	0.367	10.0	12.2	12.2	9.82	8.50 to 11.5	98.2	70.0 to 130	0.00	20.0
BD06838	Potassium, Total	mg/L	-0.00778	0.367	10.0	10.4	10.5	9.95	8.50 to 11.5	100	70.0 to 130	0.957	20.0
BD06839	Selenium, Dissolved	mg/L	0.000102	0.00100	0.100	0.103	0.104	0.0997	0.0850 to 0.115	103	70.0 to 130	0.966	20.0
BD06838	Selenium, Total	mg/L	0.0000454	0.00100	0.100	0.0988	0.0998	0.100	0.0850 to 0.115	98.8	70.0 to 130	1.01	20.0
BD06839	Silicon, Dissolved	mg/L	0.000229	0.0440	1.00	10.2	10.2	0.997	0.850 to 1.15	94.0	70.0 to 130	0.00	20.0
BD06838	Silicon, Total	mg/L	-0.000048	0.0440	1.00	5.47	5.48	1.02	0.850 to 1.15	107	70.0 to 130	0.183	20.0
BD06839	Sodium, Dissolved	mg/L	0.0149	0.0880	5.00	78.3	78.6	5.23	4.25 to 5.75	76.0	70.0 to 130	0.382	20.0
BD06838	Sodium, Total	mg/L	0.000332	0.0880	5.00	14.7	14.4	4.87	4.25 to 5.75	97.6	70.0 to 130	2.06	20.0
BD06840	Sulfate	mg/L	0.346	2.0	20.0	20.6	20.3	19.7	18.0 to 22.0	103	80.0 to 120	1.47	20.0
BD06839	Thallium, Dissolved	mg/L	-0.0000001	0.000147	0.100	0.102	0.0974	0.0992	0.0850 to 0.115	102	70.0 to 130	4.61	20.0
BD06838	Thallium, Total	mg/L	0.0000054	0.000147	0.100	0.0974	0.0989	0.0978	0.0850 to 0.115	97.4	70.0 to 130	1.53	20.0
BD06838	Total Organic Carbon	mg/L	0.0766	1.00	10.0	12.5	12.5	24.8		99.2	80.0 to 120	0.00	20.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWBARAP

Sample Date: 4/4/23 15:12

Customer ID:

Delivery Date: 4/6/23 11:49

Description: Barry Ash Pond - MW-1V

Laboratory ID Number: BD06836

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BD06839	Alkalinity to pH 4.5	mg CaCO3/L					167	50.5	45.0 to 55.0			0.601	10.0
BD06840	Nitrogen, Nitrate/Nitrite	mg/L as N	0.00	0.200	2.00	2.05	-0.001	1.98	1.80 to 2.20	102	90.0 to 110	0.00	15.0
BD06836	Solids, Dissolved	mg/L	1.00	25.0			222	51.0	40.0 to 60.0			1.36	10.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Barry Ash Pond - MW-16V

Location Code: WMWBARAP
Collected: 4/4/23 16:31
Customer ID:
Submittal Date: 4/6/23 11:49

Laboratory ID Number: BD06837

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7			Analyst: ABB		Preparation Method: EPA 1638				
* Boron, Total	4/7/23 14:10	4/11/23 12:20		1.015	Not Detected	mg/L	0.030000	0.1015	U
* Calcium, Total	4/7/23 14:10	4/11/23 12:20		1.015	2.35	mg/L	0.070035	0.406	
* Iron, Total	4/7/23 14:10	4/11/23 12:20		1.015	3.89	mg/L	0.008120	0.0406	
* Lithium, Total	4/7/23 14:10	4/11/23 12:20		1.015	Not Detected	mg/L	0.007105	0.01999956	U
* Magnesium, Total	4/7/23 14:10	4/11/23 12:20		1.015	2.06	mg/L	0.021315	0.406	
* Molybdenum, Total	4/7/23 14:10	4/11/23 12:20		1.015	Not Detected	mg/L	0.005075	0.01015	U
* Silica, Total (calc.)	4/7/23 14:10	4/11/23 12:20		1	13.6	mg/L			
* Silicon, Total	4/7/23 14:10	4/11/23 12:20		1.015	6.36	mg/L	0.02030	0.25375	
* Sodium, Total	4/7/23 14:10	4/11/23 14:16		10.15	50.9	mg/L	0.4060	4.06	
Analytical Method: EPA 200.7			Analyst: ABB		Preparation Method: EPA 1638				
* Boron, Dissolved	4/7/23 11:45	4/12/23 12:18		1.015	Not Detected	mg/L	0.030000	0.1015	U
* Calcium, Dissolved	4/7/23 11:45	4/12/23 12:18		1.015	2.35	mg/L	0.070035	0.406	
* Iron, Dissolved	4/7/23 11:45	4/12/23 12:18		1.015	3.81	mg/L	0.008120	0.0406	
* Lithium, Dissolved	4/7/23 11:45	4/12/23 12:18		1.015	Not Detected	mg/L	0.007105	0.01999956	U
* Magnesium, Dissolved	4/7/23 11:45	4/12/23 12:18		1.015	2.12	mg/L	0.021315	0.406	
* Molybdenum, Dissolved	4/7/23 11:45	4/12/23 12:18		1.015	Not Detected	mg/L	0.005075	0.01015	U
* Silica, Dissolved (calc.)	4/7/23 11:45	4/12/23 12:18		1	13.2	mg/L			
* Silicon, Dissolved	4/7/23 11:45	4/12/23 12:18		1.015	6.17	mg/L	0.02030	0.25375	
* Sodium, Dissolved	4/7/23 11:45	4/12/23 14:18		10.15	50.1	mg/L	0.4060	4.06	
Analytical Method: EPA 200.8			Analyst: DLJ		Preparation Method: EPA 1638				
* Antimony, Total	4/7/23 14:10	4/7/23 17:56		1.015	Not Detected	mg/L	0.000710	0.001015	U
* Aluminum, Total	4/7/23 14:10	4/7/23 17:56		1.015	0.407	mg/L	0.009135	0.05075	
* Arsenic, Total	4/7/23 14:10	4/7/23 17:56		1.015	0.000920	mg/L	0.000112	0.000203	
* Barium, Total	4/7/23 14:10	4/7/23 17:56		1.015	0.0618	mg/L	0.000508	0.001015	
* Beryllium, Total	4/7/23 14:10	4/7/23 17:56		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Total	4/7/23 14:10	4/7/23 17:56		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Total	4/7/23 14:10	4/7/23 17:56		1.015	0.00133	mg/L	0.000203	0.001015	
* Cobalt, Total	4/7/23 14:10	4/7/23 17:56		1.015	0.0168	mg/L	0.000068	0.000203	
* Lead, Total	4/7/23 14:10	4/7/23 17:56		1.015	0.000253	mg/L	0.000068	0.000203	
* Manganese, Total	4/7/23 14:10	4/7/23 17:56		1.015	0.186	mg/L	0.000152	0.001015	

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Barry Ash Pond - MW-16V

Location Code: WMWBARAP

Collected: 4/4/23 16:31

Customer ID:

Submittal Date: 4/6/23 11:49

Laboratory ID Number: BD06837

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
* Potassium, Total	4/7/23 14:10	4/7/23 17:56		1.015	1.89	mg/L	0.169505	0.5075	
* Selenium, Total	4/7/23 14:10	4/7/23 17:56		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Total	4/7/23 14:10	4/7/23 17:56		1.015	0.0000822	mg/L	0.000068	0.000203	J
Analytical Method: EPA 200.8		Analyst: DLJ							
* Antimony, Dissolved	4/7/23 11:45	4/7/23 14:47		1.015	Not Detected	mg/L	0.000710	0.001015	U
* Aluminum, Dissolved	4/7/23 11:45	4/7/23 14:47		1.015	Not Detected	mg/L	0.009135	0.05075	U
* Arsenic, Dissolved	4/7/23 11:45	4/7/23 14:47		1.015	0.000944	mg/L	0.000112	0.000203	
* Barium, Dissolved	4/7/23 11:45	4/7/23 14:47		1.015	0.0569	mg/L	0.000508	0.001015	
* Beryllium, Dissolved	4/7/23 11:45	4/7/23 14:47		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Dissolved	4/7/23 11:45	4/7/23 14:47		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Dissolved	4/7/23 11:45	4/7/23 14:47		1.015	Not Detected	mg/L	0.000203	0.001015	U
* Cobalt, Dissolved	4/7/23 11:45	4/7/23 14:47		1.015	0.0176	mg/L	0.000068	0.000203	
* Lead, Dissolved	4/7/23 11:45	4/7/23 14:47		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Dissolved	4/7/23 11:45	4/7/23 14:47		1.015	0.191	mg/L	0.000152	0.001015	
* Potassium, Dissolved	4/7/23 11:45	4/7/23 14:47		1.015	1.84	mg/L	0.169505	0.5075	
* Selenium, Dissolved	4/7/23 11:45	4/7/23 14:47		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Dissolved	4/7/23 11:45	4/7/23 14:47		1.015	0.0000858	mg/L	0.000068	0.000203	J
Analytical Method: EPA 245.1		Analyst: CRB							
* Mercury, Total by CVAA	4/11/23 18:35	4/12/23 01:57		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: EPA 353.2		Analyst: SC							
* Nitrogen, Nitrate/Nitrite	4/10/23 15:10	4/10/23 15:10		1	Not Detected	mg/L as N	0.20	0.3	U
Analytical Method: SM 2320 B		Analyst: ALH							
* Alkalinity to pH 4.5	4/18/23 10:05	4/18/23 12:08		1	17.6	mg CaCO3/L		0.10	
Analytical Method: SM 2540C		Analyst: CNJ							
* Solids, Dissolved	4/10/23 12:00	4/12/23 09:20		1	187	mg/L		25	
Analytical Method: SM 4500CO2 D		Analyst: ALH							
* Bicarbonate Alkalinity, (calc.)	4/18/23 10:05	4/18/23 12:08		1	17.6	mg CaCO3/L		1	
* Carbonate Alkalinity, (calc.)	4/18/23 10:05	4/18/23 12:08		1	Not Detected	mg CaCO3/L		0.5	
Analytical Method: SM 5310 B		Analyst: SC							
* Total Organic Carbon	4/12/23 16:08	4/12/23 16:08		1	Not Detected	mg/L	1.00	2	U

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Barry Ash Pond - MW-16V

Location Code: WMWBARAP

Collected: 4/4/23 16:31

Customer ID:

Submittal Date: 4/6/23 11:49

Laboratory ID Number: BD06837

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM4500Cl E		Analyst: CES							
* Chloride	4/12/23 12:55	4/12/23 12:55		20	55.0	mg/L	10.00	10	
Analytical Method: SM4500F G 2017		Analyst: CES							
* Fluoride	4/13/23 11:45	4/13/23 11:45		1	Not Detected	mg/L	0.06	0.125	U
Analytical Method: SM4500SO4 E 2011		Analyst: JCC							
* Sulfate	4/17/23 15:26	4/17/23 15:26		1	34.0	mg/L	0.6	2	
Analytical Method: Field Measurements		Analyst: DKG							
Conductivity	4/4/23 16:28	4/4/23 16:28			298.93	uS/cm			FA
pH	4/4/23 16:28	4/4/23 16:28			4.97	SU			FA
Temperature	4/4/23 16:28	4/4/23 16:28			22.07	C			FA
Turbidity	4/4/23 16:28	4/4/23 16:28			8.86	NTU			FA
Sulfide	4/4/23 16:28	4/4/23 16:28			0	mg/L			FA

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWBARAP
Sample Date: 4/4/23 16:31
Customer ID:
Delivery Date: 4/6/23 11:49

Description: Barry Ash Pond - MW-16V

Laboratory ID Number: BD06837

Sample	Analysis	Units	MB	MB		Spike	MS	MSD	Standard		Rec		Prec
				Limit					Standard	Limit	Rec	Limit	
BD06839	Aluminum, Dissolved	mg/L	0.0000353	0.0198	0.100	0.106	0.107	0.0999	0.0850 to 0.115	106	70.0 to 130	0.939	20.0
BD06838	Aluminum, Total	mg/L	0.000609	0.0198	0.100	0.155	0.156	0.103	0.0850 to 0.115	111	70.0 to 130	0.643	20.0
BD06839	Antimony, Dissolved	mg/L	0.000377	0.00100	0.100	0.0917	0.0904	0.0898	0.0850 to 0.115	91.7	70.0 to 130	1.43	20.0
BD06838	Antimony, Total	mg/L	0.000237	0.00100	0.100	0.0909	0.0928	0.0867	0.0850 to 0.115	90.9	70.0 to 130	2.07	20.0
BD06839	Arsenic, Dissolved	mg/L	0.0000113	0.000200	0.100	0.116	0.117	0.0990	0.0850 to 0.115	98.1	70.0 to 130	0.858	20.0
BD06838	Arsenic, Total	mg/L	0.0000156	0.000200	0.100	0.0974	0.0996	0.0998	0.0850 to 0.115	96.5	70.0 to 130	2.23	20.0
BD06839	Barium, Dissolved	mg/L	0.0000105	0.00100	0.100	0.149	0.147	0.0944	0.0850 to 0.115	92.7	70.0 to 130	1.35	20.0
BD06838	Barium, Total	mg/L	-0.0000063	0.00100	0.100	0.117	0.116	0.0923	0.0850 to 0.115	96.3	70.0 to 130	0.858	20.0
BD06839	Beryllium, Dissolved	mg/L	0.0000117	0.000880	0.100	0.0966	0.0920	0.0908	0.0850 to 0.115	96.6	70.0 to 130	4.88	20.0
BD06838	Beryllium, Total	mg/L	0.0000000	0.000880	0.100	0.0961	0.0991	0.0944	0.0850 to 0.115	96.1	70.0 to 130	3.07	20.0
BD06839	Boron, Dissolved	mg/L	-0.000075	0.0650	1.00	1.08	1.08	1.00	0.850 to 1.15	102	70.0 to 130	0.00	20.0
BD06838	Boron, Total	mg/L	-0.000537	0.0650	1.00	1.06	1.07	1.02	0.850 to 1.15	102	70.0 to 130	0.939	20.0
BD06839	Cadmium, Dissolved	mg/L	0.0000046	0.000147	0.100	0.0986	0.0955	0.0982	0.0850 to 0.115	98.6	70.0 to 130	3.19	20.0
BD06838	Cadmium, Total	mg/L	0.0000043	0.000147	0.100	0.0946	0.0954	0.0962	0.0850 to 0.115	94.6	70.0 to 130	0.842	20.0
BD06839	Calcium, Dissolved	mg/L	-0.00493	0.152	5.00	14.4	14.3	4.94	4.25 to 5.75	94.6	70.0 to 130	0.697	20.0
BD06838	Calcium, Total	mg/L	-0.0178	0.152	5.00	9.85	10.1	5.00	4.25 to 5.75	99.2	70.0 to 130	2.51	20.0
BD06837	Chloride	mg/L	0.0436	1.00	200	259	263	10.1	9.00 to 11.0	102	80.0 to 120	1.53	20.0
BD06839	Chromium, Dissolved	mg/L	-0.0000370	0.000440	0.100	0.0988	0.0992	0.0995	0.0850 to 0.115	95.8	70.0 to 130	0.404	20.0
BD06838	Chromium, Total	mg/L	-0.0000476	0.000440	0.100	0.0986	0.0969	0.0965	0.0850 to 0.115	98.1	70.0 to 130	1.74	20.0
BD06839	Cobalt, Dissolved	mg/L	-0.0000017	0.000147	0.100	0.101	0.101	0.101	0.0850 to 0.115	99.9	70.0 to 130	0.00	20.0
BD06838	Cobalt, Total	mg/L	0.0000042	0.000147	0.100	0.101	0.0985	0.0997	0.0850 to 0.115	101	70.0 to 130	2.51	20.0
BD06838	Fluoride	mg/L	-0.00248	0.125	2.50	2.72	2.76	2.59	2.25 to 2.75	106	80.0 to 120	1.46	20.0
BD06839	Iron, Dissolved	mg/L	-0.00183	0.0176	0.2	32.1	32.1	0.195	0.170 to 0.230	50.0	70.0 to 130	0.00	20.0
BD06838	Iron, Total	mg/L	0.000416	0.0176	0.2	14.9	14.1	0.200	0.170 to 0.230	450	70.0 to 130	5.52	20.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWBARAP

Sample Date: 4/4/23 16:31

Customer ID:

Delivery Date: 4/6/23 11:49

Description: Barry Ash Pond - MW-16V

Laboratory ID Number: BD06837

Sample	Analysis	Units	MB	MB		Spike	MS	MSD	Standard		Rec		Prec
				Limit					Standard	Limit	Rec	Limit	
BD06839	Lead, Dissolved	mg/L	0.0000118	0.000147	0.100	0.100	0.0955	0.0971	0.0850 to 0.115	100	70.0 to 130	4.60	20.0
BD06838	Lead, Total	mg/L	0.0000027	0.000147	0.100	0.0958	0.0961	0.0945	0.0850 to 0.115	95.8	70.0 to 130	0.313	20.0
BD06839	Lithium, Dissolved	mg/L	0.000245	0.0154	0.200	0.203	0.199	0.195	0.170 to 0.230	102	70.0 to 130	1.99	20.0
BD06838	Lithium, Total	mg/L	-0.000701	0.0154	0.200	0.204	0.201	0.199	0.170 to 0.230	102	70.0 to 130	1.48	20.0
BD06839	Magnesium, Dissolved	mg/L	0.000	0.0462	5.00	11.0	11.0	4.93	4.25 to 5.75	97.6	70.0 to 130	0.00	20.0
BD06838	Magnesium, Total	mg/L	-0.00548	0.0462	5.00	6.45	6.43	4.93	4.25 to 5.75	99.8	70.0 to 130	0.311	20.0
BD06839	Manganese, Dissolved	mg/L	0.0000167	0.00033	0.100	0.376	0.381	0.101	0.0850 to 0.115	94.0	70.0 to 130	1.32	20.0
BD06838	Manganese, Total	mg/L	0.000200	0.00033	0.100	0.340	0.329	0.0980	0.0850 to 0.115	108	70.0 to 130	3.29	20.0
BD06838	Mercury, Total by CVAA	mg/L	2.000E-05	0.000500	0.004	0.00399	0.004	0.00403	0.00340 to 0.00460	99.8	70.0 to 130	0.250	20.0
BD06839	Molybdenum, Dissolved	mg/L	-0.000152	0.0100	0.2	0.197	0.194	0.195	0.170 to 0.230	98.5	70.0 to 130	1.53	20.0
BD06838	Molybdenum, Total	mg/L	-0.001	0.0100	0.2	0.200	0.201	0.201	0.170 to 0.230	100	70.0 to 130	0.499	20.0
BD06839	Potassium, Dissolved	mg/L	0.00935	0.367	10.0	12.2	12.2	9.82	8.50 to 11.5	98.2	70.0 to 130	0.00	20.0
BD06838	Potassium, Total	mg/L	-0.00778	0.367	10.0	10.4	10.5	9.95	8.50 to 11.5	100	70.0 to 130	0.957	20.0
BD06839	Selenium, Dissolved	mg/L	0.000102	0.00100	0.100	0.103	0.104	0.0997	0.0850 to 0.115	103	70.0 to 130	0.966	20.0
BD06838	Selenium, Total	mg/L	0.0000454	0.00100	0.100	0.0988	0.0998	0.100	0.0850 to 0.115	98.8	70.0 to 130	1.01	20.0
BD06839	Silicon, Dissolved	mg/L	0.000229	0.0440	1.00	10.2	10.2	0.997	0.850 to 1.15	94.0	70.0 to 130	0.00	20.0
BD06838	Silicon, Total	mg/L	-0.000048	0.0440	1.00	5.47	5.48	1.02	0.850 to 1.15	107	70.0 to 130	0.183	20.0
BD06839	Sodium, Dissolved	mg/L	0.0149	0.0880	5.00	78.3	78.6	5.23	4.25 to 5.75	76.0	70.0 to 130	0.382	20.0
BD06838	Sodium, Total	mg/L	0.000332	0.0880	5.00	14.7	14.4	4.87	4.25 to 5.75	97.6	70.0 to 130	2.06	20.0
BD06840	Sulfate	mg/L	0.346	2.0	20.0	20.6	20.3	19.7	18.0 to 22.0	103	80.0 to 120	1.47	20.0
BD06839	Thallium, Dissolved	mg/L	-0.0000001	0.000147	0.100	0.102	0.0974	0.0992	0.0850 to 0.115	102	70.0 to 130	4.61	20.0
BD06838	Thallium, Total	mg/L	0.0000054	0.000147	0.100	0.0974	0.0989	0.0978	0.0850 to 0.115	97.4	70.0 to 130	1.53	20.0
BD06838	Total Organic Carbon	mg/L	0.0766	1.00	10.0	12.5	12.5	24.8		99.2	80.0 to 120	0.00	20.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWBARAP

Sample Date: 4/4/23 16:31

Customer ID:

Delivery Date: 4/6/23 11:49

Description: Barry Ash Pond - MW-16V

Laboratory ID Number: BD06837

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Limit	Prec	Prec Limit
BD06839	Alkalinity to pH 4.5	mg CaCO3/L					167	50.5	45.0 to 55.0			0.601	10.0
BD06840	Nitrogen, Nitrate/Nitrite	mg/L as N	0.00	0.200	2.00	2.05	-0.001	1.98	1.80 to 2.20	102	90.0 to 110	0.00	15.0
BD06839	Solids, Dissolved	mg/L	0.0000	25.0			315	52.0	40.0 to 60.0			0.317	10.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Barry Ash Pond - MW-18H

Location Code: WMWBARAP
Collected: 4/5/23 09:23
Customer ID:
Submittal Date: 4/6/23 11:49

Laboratory ID Number: BD06838

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7			Analyst: ABB		Preparation Method: EPA 1638				
* Boron, Total	4/7/23 14:10	4/11/23 12:23		1.015	0.0377	mg/L	0.030000	0.1015	J
* Calcium, Total	4/7/23 14:10	4/11/23 12:23		1.015	4.89	mg/L	0.070035	0.406	
* Iron, Total	4/7/23 14:10	4/11/23 14:19		10.15	14.0	mg/L	0.08120	0.406	RA
* Lithium, Total	4/7/23 14:10	4/11/23 12:23		1.015	Not Detected	mg/L	0.007105	0.01999956	U
* Magnesium, Total	4/7/23 14:10	4/11/23 12:23		1.015	1.46	mg/L	0.021315	0.406	
* Molybdenum, Total	4/7/23 14:10	4/11/23 12:23		1.015	Not Detected	mg/L	0.005075	0.01015	U
* Silica, Total (calc.)	4/7/23 14:10	4/11/23 12:23		1	9.42	mg/L			
* Silicon, Total	4/7/23 14:10	4/11/23 12:23		1.015	4.40	mg/L	0.02030	0.25375	
* Sodium, Total	4/7/23 14:10	4/11/23 12:23		1.015	9.82	mg/L	0.04060	0.406	
Analytical Method: EPA 200.7			Analyst: ABB		Preparation Method: EPA 1638				
* Boron, Dissolved	4/7/23 11:45	4/12/23 12:21		1.015	0.0328	mg/L	0.030000	0.1015	J
* Calcium, Dissolved	4/7/23 11:45	4/12/23 12:21		1.015	4.86	mg/L	0.070035	0.406	
* Iron, Dissolved	4/7/23 11:45	4/12/23 14:21		10.15	13.3	mg/L	0.08120	0.406	
* Lithium, Dissolved	4/7/23 11:45	4/12/23 12:21		1.015	Not Detected	mg/L	0.007105	0.01999956	U
* Magnesium, Dissolved	4/7/23 11:45	4/12/23 12:21		1.015	1.44	mg/L	0.021315	0.406	
* Molybdenum, Dissolved	4/7/23 11:45	4/12/23 12:21		1.015	Not Detected	mg/L	0.005075	0.01015	U
* Silica, Dissolved (calc.)	4/7/23 11:45	4/12/23 12:21		1	9.24	mg/L			
* Silicon, Dissolved	4/7/23 11:45	4/12/23 12:21		1.015	4.32	mg/L	0.02030	0.25375	
* Sodium, Dissolved	4/7/23 11:45	4/12/23 13:08		1.015	9.83	mg/L	0.04060	0.406	
Analytical Method: EPA 200.8			Analyst: DLJ		Preparation Method: EPA 1638				
* Antimony, Total	4/7/23 14:10	4/7/23 18:00		1.015	Not Detected	mg/L	0.000710	0.001015	U
* Aluminum, Total	4/7/23 14:10	4/7/23 18:00		1.015	0.0441	mg/L	0.009135	0.05075	J
* Arsenic, Total	4/7/23 14:10	4/7/23 18:00		1.015	0.000869	mg/L	0.000112	0.000203	
* Barium, Total	4/7/23 14:10	4/7/23 18:00		1.015	0.0207	mg/L	0.000508	0.001015	
* Beryllium, Total	4/7/23 14:10	4/7/23 18:00		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Total	4/7/23 14:10	4/7/23 18:00		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Total	4/7/23 14:10	4/7/23 18:00		1.015	0.000484	mg/L	0.000203	0.001015	J
* Cobalt, Total	4/7/23 14:10	4/7/23 18:00		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Lead, Total	4/7/23 14:10	4/7/23 18:00		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Total	4/7/23 14:10	4/7/23 18:00		1.015	0.232	mg/L	0.000152	0.001015	

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Barry Ash Pond - MW-18H

Location Code: WMWBARAP
Collected: 4/5/23 09:23
Customer ID:
Submittal Date: 4/6/23 11:49

Laboratory ID Number: BD06838

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
* Potassium, Total	4/7/23 14:10	4/7/23 18:00		1.015	0.351	mg/L	0.169505	0.5075	J
* Selenium, Total	4/7/23 14:10	4/7/23 18:00		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Total	4/7/23 14:10	4/7/23 18:00		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 200.8		Analyst: DLJ							
* Antimony, Dissolved	4/7/23 11:45	4/7/23 14:50		1.015	Not Detected	mg/L	0.000710	0.001015	U
* Aluminum, Dissolved	4/7/23 11:45	4/7/23 14:50		1.015	Not Detected	mg/L	0.009135	0.05075	U
* Arsenic, Dissolved	4/7/23 11:45	4/7/23 14:50		1.015	0.000725	mg/L	0.000112	0.000203	
* Barium, Dissolved	4/7/23 11:45	4/7/23 14:50		1.015	0.0192	mg/L	0.000508	0.001015	
* Beryllium, Dissolved	4/7/23 11:45	4/7/23 14:50		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Dissolved	4/7/23 11:45	4/7/23 14:50		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Dissolved	4/7/23 11:45	4/7/23 14:50		1.015	0.000303	mg/L	0.000203	0.001015	J
* Cobalt, Dissolved	4/7/23 11:45	4/7/23 14:50		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Lead, Dissolved	4/7/23 11:45	4/7/23 14:50		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Dissolved	4/7/23 11:45	4/7/23 14:50		1.015	0.222	mg/L	0.000152	0.001015	
* Potassium, Dissolved	4/7/23 11:45	4/7/23 14:50		1.015	0.331	mg/L	0.169505	0.5075	J
* Selenium, Dissolved	4/7/23 11:45	4/7/23 14:50		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Dissolved	4/7/23 11:45	4/7/23 14:50		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 245.1		Analyst: CRB							
* Mercury, Total by CVAA	4/11/23 18:35	4/12/23 02:01		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: EPA 353.2		Analyst: SC							
* Nitrogen, Nitrate/Nitrite	4/10/23 15:11	4/10/23 15:11		1	Not Detected	mg/L as N	0.20	0.3	U
Analytical Method: SM 2320 B		Analyst: ALH							
* Alkalinity to pH 4.5	4/18/23 10:05	4/18/23 12:08		1	15.1	mg CaCO3/L		0.10	
Analytical Method: SM 2540C		Analyst: CNJ							
* Solids, Dissolved	4/10/23 12:00	4/12/23 09:20		1	85.3	mg/L		25	
Analytical Method: SM 4500CO2 D		Analyst: ALH							
* Bicarbonate Alkalinity, (calc.)	4/18/23 10:05	4/18/23 12:08		1	15.1	mg CaCO3/L		1	
* Carbonate Alkalinity, (calc.)	4/18/23 10:05	4/18/23 12:08		1	Not Detected	mg CaCO3/L		0.5	
Analytical Method: SM 5310 B		Analyst: SC							
* Total Organic Carbon	4/12/23 16:24	4/12/23 16:24		1	2.58	mg/L	1.00	2	

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Barry Ash Pond - MW-18H

Location Code: WMWBARAP
Collected: 4/5/23 09:23
Customer ID:
Submittal Date: 4/6/23 11:49

Laboratory ID Number: BD06838

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM4500Cl E		Analyst: CES							
* Chloride	4/12/23 13:12	4/12/23 13:12		1	6.46	mg/L	0.50	0.5	
Analytical Method: SM4500F G 2017		Analyst: CES							
* Fluoride	4/13/23 11:46	4/13/23 11:46		1	0.0765	mg/L	0.06	0.125	J
Analytical Method: SM4500SO4 E 2011		Analyst: JCC							
* Sulfate	4/17/23 15:33	4/17/23 15:33		3	67.0	mg/L	1.8	6	
Analytical Method: Field Measurements		Analyst: DKG							
Conductivity	4/5/23 09:20	4/5/23 09:20			124.04	uS/cm			FA
pH	4/5/23 09:20	4/5/23 09:20			6.15	SU			FA
Temperature	4/5/23 09:20	4/5/23 09:20			18.15	C			FA
Turbidity	4/5/23 09:20	4/5/23 09:20			4.13	NTU			FA
Sulfide	4/5/23 09:20	4/5/23 09:20			0	mg/L			FA

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWBARAP
Sample Date: 4/5/23 09:23
Customer ID:
Delivery Date: 4/6/23 11:49

Description: Barry Ash Pond - MW-18H

Laboratory ID Number: BD06838

Sample	Analysis	Units	MB	MB				Standard		Rec		Prec	Limit
				Limit	Spike	MS	MSD	Standard	Limit	Rec	Limit		
BD06839	Aluminum, Dissolved	mg/L	0.0000353	0.0198	0.100	0.106	0.107	0.0999	0.0850 to 0.115	106	70.0 to 130	0.939	20.0
BD06838	Aluminum, Total	mg/L	0.000609	0.0198	0.100	0.155	0.156	0.103	0.0850 to 0.115	111	70.0 to 130	0.643	20.0
BD06839	Antimony, Dissolved	mg/L	0.000377	0.00100	0.100	0.0917	0.0904	0.0898	0.0850 to 0.115	91.7	70.0 to 130	1.43	20.0
BD06838	Antimony, Total	mg/L	0.000237	0.00100	0.100	0.0909	0.0928	0.0867	0.0850 to 0.115	90.9	70.0 to 130	2.07	20.0
BD06839	Arsenic, Dissolved	mg/L	0.0000113	0.000200	0.100	0.116	0.117	0.0990	0.0850 to 0.115	98.1	70.0 to 130	0.858	20.0
BD06838	Arsenic, Total	mg/L	0.0000156	0.000200	0.100	0.0974	0.0996	0.0998	0.0850 to 0.115	96.5	70.0 to 130	2.23	20.0
BD06839	Barium, Dissolved	mg/L	0.0000105	0.00100	0.100	0.149	0.147	0.0944	0.0850 to 0.115	92.7	70.0 to 130	1.35	20.0
BD06838	Barium, Total	mg/L	-0.0000063	0.00100	0.100	0.117	0.116	0.0923	0.0850 to 0.115	96.3	70.0 to 130	0.858	20.0
BD06839	Beryllium, Dissolved	mg/L	0.0000117	0.000880	0.100	0.0966	0.0920	0.0908	0.0850 to 0.115	96.6	70.0 to 130	4.88	20.0
BD06838	Beryllium, Total	mg/L	0.0000000	0.000880	0.100	0.0961	0.0991	0.0944	0.0850 to 0.115	96.1	70.0 to 130	3.07	20.0
BD06839	Boron, Dissolved	mg/L	-0.000075	0.0650	1.00	1.08	1.08	1.00	0.850 to 1.15	102	70.0 to 130	0.00	20.0
BD06838	Boron, Total	mg/L	-0.000537	0.0650	1.00	1.06	1.07	1.02	0.850 to 1.15	102	70.0 to 130	0.939	20.0
BD06839	Cadmium, Dissolved	mg/L	0.0000046	0.000147	0.100	0.0986	0.0955	0.0982	0.0850 to 0.115	98.6	70.0 to 130	3.19	20.0
BD06838	Cadmium, Total	mg/L	0.0000043	0.000147	0.100	0.0946	0.0954	0.0962	0.0850 to 0.115	94.6	70.0 to 130	0.842	20.0
BD06839	Calcium, Dissolved	mg/L	-0.00493	0.152	5.00	14.4	14.3	4.94	4.25 to 5.75	94.6	70.0 to 130	0.697	20.0
BD06838	Calcium, Total	mg/L	-0.0178	0.152	5.00	9.85	10.1	5.00	4.25 to 5.75	99.2	70.0 to 130	2.51	20.0
BD06840	Chloride	mg/L	0.0330	1.00	10.0	10.2	10.2	10.0	9.00 to 11.0	102	80.0 to 120	0.00	20.0
BD06839	Chromium, Dissolved	mg/L	-0.0000370	0.000440	0.100	0.0988	0.0992	0.0995	0.0850 to 0.115	95.8	70.0 to 130	0.404	20.0
BD06838	Chromium, Total	mg/L	-0.0000476	0.000440	0.100	0.0986	0.0969	0.0965	0.0850 to 0.115	98.1	70.0 to 130	1.74	20.0
BD06839	Cobalt, Dissolved	mg/L	-0.0000017	0.000147	0.100	0.101	0.101	0.101	0.0850 to 0.115	99.9	70.0 to 130	0.00	20.0
BD06838	Cobalt, Total	mg/L	0.0000042	0.000147	0.100	0.101	0.0985	0.0997	0.0850 to 0.115	101	70.0 to 130	2.51	20.0
BD06838	Fluoride	mg/L	-0.00248	0.125	2.50	2.72	2.76	2.59	2.25 to 2.75	106	80.0 to 120	1.46	20.0
BD06839	Iron, Dissolved	mg/L	-0.00183	0.0176	0.2	32.1	32.1	0.195	0.170 to 0.230	50.0	70.0 to 130	0.00	20.0
BD06838	Iron, Total	mg/L	0.000416	0.0176	0.2	14.9	14.1	0.200	0.170 to 0.230	450	70.0 to 130	5.52	20.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWBARAP
Sample Date: 4/5/23 09:23
Customer ID:
Delivery Date: 4/6/23 11:49

Description: Barry Ash Pond - MW-18H

Laboratory ID Number: BD06838

Sample	Analysis	Units	MB					Standard		Rec		Prec	Limit
			MB	Limit	Spike	MS	MSD	Standard	Limit	Rec	Limit		
BD06839	Lead, Dissolved	mg/L	0.0000118	0.000147	0.100	0.100	0.0955	0.0971	0.0850 to 0.115	100	70.0 to 130	4.60	20.0
BD06838	Lead, Total	mg/L	0.0000027	0.000147	0.100	0.0958	0.0961	0.0945	0.0850 to 0.115	95.8	70.0 to 130	0.313	20.0
BD06839	Lithium, Dissolved	mg/L	0.000245	0.0154	0.200	0.203	0.199	0.195	0.170 to 0.230	102	70.0 to 130	1.99	20.0
BD06838	Lithium, Total	mg/L	-0.000701	0.0154	0.200	0.204	0.201	0.199	0.170 to 0.230	102	70.0 to 130	1.48	20.0
BD06839	Magnesium, Dissolved	mg/L	0.000	0.0462	5.00	11.0	11.0	4.93	4.25 to 5.75	97.6	70.0 to 130	0.00	20.0
BD06838	Magnesium, Total	mg/L	-0.00548	0.0462	5.00	6.45	6.43	4.93	4.25 to 5.75	99.8	70.0 to 130	0.311	20.0
BD06839	Manganese, Dissolved	mg/L	0.0000167	0.00033	0.100	0.376	0.381	0.101	0.0850 to 0.115	94.0	70.0 to 130	1.32	20.0
BD06838	Manganese, Total	mg/L	0.000200	0.00033	0.100	0.340	0.329	0.0980	0.0850 to 0.115	108	70.0 to 130	3.29	20.0
BD06838	Mercury, Total by CVAA	mg/L	2.000E-05	0.000500	0.004	0.00399	0.004	0.00403	0.00340 to 0.00460	99.8	70.0 to 130	0.250	20.0
BD06839	Molybdenum, Dissolved	mg/L	-0.000152	0.0100	0.2	0.197	0.194	0.195	0.170 to 0.230	98.5	70.0 to 130	1.53	20.0
BD06838	Molybdenum, Total	mg/L	-0.001	0.0100	0.2	0.200	0.201	0.201	0.170 to 0.230	100	70.0 to 130	0.499	20.0
BD06839	Potassium, Dissolved	mg/L	0.00935	0.367	10.0	12.2	12.2	9.82	8.50 to 11.5	98.2	70.0 to 130	0.00	20.0
BD06838	Potassium, Total	mg/L	-0.00778	0.367	10.0	10.4	10.5	9.95	8.50 to 11.5	100	70.0 to 130	0.957	20.0
BD06839	Selenium, Dissolved	mg/L	0.000102	0.00100	0.100	0.103	0.104	0.0997	0.0850 to 0.115	103	70.0 to 130	0.966	20.0
BD06838	Selenium, Total	mg/L	0.0000454	0.00100	0.100	0.0988	0.0998	0.100	0.0850 to 0.115	98.8	70.0 to 130	1.01	20.0
BD06839	Silicon, Dissolved	mg/L	0.000229	0.0440	1.00	10.2	10.2	0.997	0.850 to 1.15	94.0	70.0 to 130	0.00	20.0
BD06838	Silicon, Total	mg/L	-0.000048	0.0440	1.00	5.47	5.48	1.02	0.850 to 1.15	107	70.0 to 130	0.183	20.0
BD06839	Sodium, Dissolved	mg/L	0.0149	0.0880	5.00	78.3	78.6	5.23	4.25 to 5.75	76.0	70.0 to 130	0.382	20.0
BD06838	Sodium, Total	mg/L	0.000332	0.0880	5.00	14.7	14.4	4.87	4.25 to 5.75	97.6	70.0 to 130	2.06	20.0
BD06840	Sulfate	mg/L	0.346	2.0	20.0	20.6	20.3	19.7	18.0 to 22.0	103	80.0 to 120	1.47	20.0
BD06839	Thallium, Dissolved	mg/L	-0.0000001	0.000147	0.100	0.102	0.0974	0.0992	0.0850 to 0.115	102	70.0 to 130	4.61	20.0
BD06838	Thallium, Total	mg/L	0.0000054	0.000147	0.100	0.0974	0.0989	0.0978	0.0850 to 0.115	97.4	70.0 to 130	1.53	20.0
BD06838	Total Organic Carbon	mg/L	0.0766	1.00	10.0	12.5	12.5	24.8		99.2	80.0 to 120	0.00	20.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWBARAP

Sample Date: 4/5/23 09:23

Customer ID:

Delivery Date: 4/6/23 11:49

Description: Barry Ash Pond - MW-18H

Laboratory ID Number: BD06838

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BD06839	Alkalinity to pH 4.5	mg CaCO3/L					167	50.5	45.0 to 55.0			0.601	10.0
BD06840	Nitrogen, Nitrate/Nitrite	mg/L as N	0.00	0.200	2.00	2.05	-0.001	1.98	1.80 to 2.20	102	90.0 to 110	0.00	15.0
BD06839	Solids, Dissolved	mg/L	0.0000	25.0			315	52.0	40.0 to 60.0			0.317	10.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Barry Ash Pond - MW-14

Location Code: WMWBARAP
Collected: 4/5/23 11:35
Customer ID:
Submittal Date: 4/6/23 11:49

Laboratory ID Number: BD06839

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q	
Analytical Method: EPA 200.7		Analyst: ABB			Preparation Method: EPA 1638					
* Boron, Total	4/7/23 14:10	4/11/23 12:45		1.015	0.0587	mg/L	0.030000	0.1015	J	
* Calcium, Total	4/7/23 14:10	4/11/23 12:45		1.015	9.78	mg/L	0.070035	0.406		
* Iron, Total	4/7/23 14:10	4/11/23 14:29		10.15	32.4	mg/L	0.08120	0.406		
* Lithium, Total	4/7/23 14:10	4/11/23 12:45		1.015	Not Detected	mg/L	0.007105	0.01999956	U	
* Magnesium, Total	4/7/23 14:10	4/11/23 12:45		1.015	6.00	mg/L	0.021315	0.406		
* Molybdenum, Total	4/7/23 14:10	4/11/23 12:45		1.015	Not Detected	mg/L	0.005075	0.01015	U	
* Silica, Total (calc.)	4/7/23 14:10	4/11/23 12:45		1	20.1	mg/L				
* Silicon, Total	4/7/23 14:10	4/11/23 12:45		1.015	9.39	mg/L	0.02030	0.25375		
* Sodium, Total	4/7/23 14:10	4/11/23 14:29		10.15	76.0	mg/L	0.4060	4.06		
Analytical Method: EPA 200.7		Analyst: ABB			Preparation Method: EPA 1638					
* Boron, Dissolved	4/7/23 11:45	4/12/23 12:24		1.015	0.0592	mg/L	0.030000	0.1015	J	
* Calcium, Dissolved	4/7/23 11:45	4/12/23 12:24		1.015	9.67	mg/L	0.070035	0.406		
* Iron, Dissolved	4/7/23 11:45	4/12/23 14:24		10.15	32.0	mg/L	0.08120	0.406	RA	
* Lithium, Dissolved	4/7/23 11:45	4/12/23 12:24		1.015	Not Detected	mg/L	0.007105	0.01999956	U	
* Magnesium, Dissolved	4/7/23 11:45	4/12/23 12:24		1.015	6.12	mg/L	0.021315	0.406		
* Molybdenum, Dissolved	4/7/23 11:45	4/12/23 12:24		1.015	Not Detected	mg/L	0.005075	0.01015	U	
* Silica, Dissolved (calc.)	4/7/23 11:45	4/12/23 12:24		1	19.8	mg/L				
* Silicon, Dissolved	4/7/23 11:45	4/12/23 12:24		1.015	9.26	mg/L	0.02030	0.25375		
* Sodium, Dissolved	4/7/23 11:45	4/12/23 14:24		10.15	74.5	mg/L	0.4060	4.06		
Analytical Method: EPA 200.8		Analyst: DLJ			Preparation Method: EPA 1638					
* Antimony, Total	4/7/23 14:10	4/7/23 18:29		1.015	Not Detected	mg/L	0.000710	0.001015	U	
* Aluminum, Total	4/7/23 14:10	4/7/23 18:29		1.015	0.215	mg/L	0.009135	0.05075		
* Arsenic, Total	4/7/23 14:10	4/7/23 18:29		1.015	0.0170	mg/L	0.000112	0.000203		
* Barium, Total	4/7/23 14:10	4/7/23 18:29		1.015	0.0594	mg/L	0.000508	0.001015		
* Beryllium, Total	4/7/23 14:10	4/7/23 18:29		1.015	Not Detected	mg/L	0.000406	0.001015	U	
* Cadmium, Total	4/7/23 14:10	4/7/23 18:29		1.015	Not Detected	mg/L	0.000068	0.000203	U	
* Chromium, Total	4/7/23 14:10	4/7/23 18:29		1.015	0.00336	mg/L	0.000203	0.001015		
* Cobalt, Total	4/7/23 14:10	4/7/23 18:29		1.015	0.00119	mg/L	0.000068	0.000203		
* Lead, Total	4/7/23 14:10	4/7/23 18:29		1.015	0.000110	mg/L	0.000068	0.000203	J	
* Manganese, Total	4/7/23 14:10	4/7/23 18:29		1.015	0.285	mg/L	0.000152	0.001015		

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Barry Ash Pond - MW-14

Location Code: WMWBARAP
Collected: 4/5/23 11:35
Customer ID:
Submittal Date: 4/6/23 11:49

Laboratory ID Number: BD06839

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
* Potassium, Total	4/7/23 14:10	4/7/23 18:29		1.015	2.46	mg/L	0.169505	0.5075	
* Selenium, Total	4/7/23 14:10	4/7/23 18:29		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Total	4/7/23 14:10	4/7/23 18:29		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 200.8		Analyst: DLJ							
* Antimony, Dissolved	4/7/23 11:45	4/7/23 14:54		1.015	Not Detected	mg/L	0.000710	0.001015	U
* Aluminum, Dissolved	4/7/23 11:45	4/7/23 14:54		1.015	Not Detected	mg/L	0.009135	0.05075	U
* Arsenic, Dissolved	4/7/23 11:45	4/7/23 14:54		1.015	0.0179	mg/L	0.000112	0.000203	
* Barium, Dissolved	4/7/23 11:45	4/7/23 14:54		1.015	0.0563	mg/L	0.000508	0.001015	
* Beryllium, Dissolved	4/7/23 11:45	4/7/23 14:54		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Dissolved	4/7/23 11:45	4/7/23 14:54		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Dissolved	4/7/23 11:45	4/7/23 14:54		1.015	0.00302	mg/L	0.000203	0.001015	
* Cobalt, Dissolved	4/7/23 11:45	4/7/23 14:54		1.015	0.00108	mg/L	0.000068	0.000203	
* Lead, Dissolved	4/7/23 11:45	4/7/23 14:54		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Dissolved	4/7/23 11:45	4/7/23 14:54		1.015	0.282	mg/L	0.000152	0.001015	
* Potassium, Dissolved	4/7/23 11:45	4/7/23 14:54		1.015	2.38	mg/L	0.169505	0.5075	
* Selenium, Dissolved	4/7/23 11:45	4/7/23 14:54		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Dissolved	4/7/23 11:45	4/7/23 14:54		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 245.1		Analyst: CRB							
* Mercury, Total by CVAA	4/13/23 17:00	4/13/23 21:19		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: EPA 353.2		Analyst: SC							
* Nitrogen, Nitrate/Nitrite	4/10/23 15:12	4/10/23 15:12		1	Not Detected	mg/L as N	0.20	0.3	U
Analytical Method: SM 2320 B		Analyst: ALH							
* Alkalinity to pH 4.5	4/18/23 10:05	4/18/23 12:08		1	166	mg CaCO3/L		0.10	
Analytical Method: SM 2540C		Analyst: CNJ							
* Solids, Dissolved	4/10/23 12:00	4/12/23 09:20		1	316	mg/L		25	
Analytical Method: SM 4500CO2 D		Analyst: ALH							
* Bicarbonate Alkalinity, (calc.)	4/18/23 10:05	4/18/23 12:08		1	166	mg CaCO3/L		1	
* Carbonate Alkalinity, (calc.)	4/18/23 10:05	4/18/23 12:08		1	Not Detected	mg CaCO3/L		0.5	
Analytical Method: SM 5310 B		Analyst: SC							
* Total Organic Carbon	4/12/23 17:43	4/12/23 17:43		1	17.2	mg/L	1.00	2	

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Barry Ash Pond - MW-14

Location Code: WMWBARAP

Collected: 4/5/23 11:35

Customer ID:

Submittal Date: 4/6/23 11:49

Laboratory ID Number: BD06839

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM4500Cl E		Analyst: CES							
* Chloride	4/12/23 13:18	4/12/23 13:18		4	47.0	mg/L	2.00	2	
Analytical Method: SM4500F G 2017		Analyst: CES							
* Fluoride	4/13/23 11:59	4/13/23 11:59		1	0.127	mg/L	0.06	0.125	
Analytical Method: SM4500SO4 E 2011		Analyst: JCC							
* Sulfate	4/17/23 15:35	4/17/23 15:35		5	112	mg/L	3.0	10	
Analytical Method: Field Measurements		Analyst: DKG							
Conductivity	4/5/23 11:32	4/5/23 11:32			492.29	uS/cm			FA
pH	4/5/23 11:32	4/5/23 11:32			5.93	SU			FA
Temperature	4/5/23 11:32	4/5/23 11:32			21.70	C			FA
Turbidity	4/5/23 11:32	4/5/23 11:32			1.88	NTU			FA
Sulfide	4/5/23 11:32	4/5/23 11:32			0	mg/L			FA

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWBARAP
Sample Date: 4/5/23 11:35
Customer ID:
Delivery Date: 4/6/23 11:49

Description: Barry Ash Pond - MW-14

Laboratory ID Number: BD06839

Sample	Analysis	Units	MB	MB				Standard		Rec		Prec	Limit
				Limit	Spike	MS	MSD	Standard	Limit	Rec	Limit		
BD06839	Aluminum, Dissolved	mg/L	0.000353	0.0198	0.100	0.106	0.107	0.0999	0.0850 to 0.115	106	70.0 to 130	0.939	20.0
BD06840	Aluminum, Total	mg/L	0.000446	0.0198	0.100	0.104	0.102	0.104	0.0850 to 0.115	104	70.0 to 130	1.94	20.0
BD06839	Antimony, Dissolved	mg/L	0.000377	0.00100	0.100	0.0917	0.0904	0.0898	0.0850 to 0.115	91.7	70.0 to 130	1.43	20.0
BD06840	Antimony, Total	mg/L	0.000261	0.00100	0.100	0.0886	0.0889	0.0908	0.0850 to 0.115	88.6	70.0 to 130	0.338	20.0
BD06839	Arsenic, Dissolved	mg/L	0.0000113	0.000200	0.100	0.116	0.117	0.0990	0.0850 to 0.115	98.1	70.0 to 130	0.858	20.0
BD06840	Arsenic, Total	mg/L	0.0000234	0.000200	0.100	0.0970	0.0973	0.0971	0.0850 to 0.115	97.0	70.0 to 130	0.309	20.0
BD06839	Barium, Dissolved	mg/L	0.0000105	0.00100	0.100	0.149	0.147	0.0944	0.0850 to 0.115	92.7	70.0 to 130	1.35	20.0
BD06840	Barium, Total	mg/L	0.0000051	0.00100	0.100	0.0930	0.0960	0.0944	0.0850 to 0.115	93.0	70.0 to 130	3.17	20.0
BD06839	Beryllium, Dissolved	mg/L	0.0000117	0.000880	0.100	0.0966	0.0920	0.0908	0.0850 to 0.115	96.6	70.0 to 130	4.88	20.0
BD06840	Beryllium, Total	mg/L	0.0000000	0.000880	0.100	0.0932	0.0957	0.0936	0.0850 to 0.115	93.2	70.0 to 130	2.65	20.0
BD06839	Boron, Dissolved	mg/L	-0.000075	0.0650	1.00	1.08	1.08	1.00	0.850 to 1.15	102	70.0 to 130	0.00	20.0
BD06840	Boron, Total	mg/L	-0.000529	0.0650	1.00	1.01	1.01	1.02	0.850 to 1.15	101	70.0 to 130	0.00	20.0
BD06839	Cadmium, Dissolved	mg/L	0.0000046	0.000147	0.100	0.0986	0.0955	0.0982	0.0850 to 0.115	98.6	70.0 to 130	3.19	20.0
BD06840	Cadmium, Total	mg/L	0.0000044	0.000147	0.100	0.0955	0.0956	0.0973	0.0850 to 0.115	95.5	70.0 to 130	0.105	20.0
BD06839	Calcium, Dissolved	mg/L	-0.00493	0.152	5.00	14.4	14.3	4.94	4.25 to 5.75	94.6	70.0 to 130	0.697	20.0
BD06840	Calcium, Total	mg/L	-0.0204	0.152	5.00	4.93	4.92	4.92	4.25 to 5.75	98.6	70.0 to 130	0.203	20.0
BD06840	Chloride	mg/L	0.0330	1.00	10.0	10.2	10.2	10.0	9.00 to 11.0	102	80.0 to 120	0.00	20.0
BD06839	Chromium, Dissolved	mg/L	-0.0000370	0.000440	0.100	0.0988	0.0992	0.0995	0.0850 to 0.115	95.8	70.0 to 130	0.404	20.0
BD06840	Chromium, Total	mg/L	-0.0000616	0.000440	0.100	0.0991	0.0974	0.0981	0.0850 to 0.115	99.1	70.0 to 130	1.73	20.0
BD06839	Cobalt, Dissolved	mg/L	-0.0000017	0.000147	0.100	0.101	0.101	0.101	0.0850 to 0.115	99.9	70.0 to 130	0.00	20.0
BD06840	Cobalt, Total	mg/L	-0.0000010	0.000147	0.100	0.101	0.0991	0.100	0.0850 to 0.115	101	70.0 to 130	1.90	20.0
BD06840	Fluoride	mg/L	0.000729	0.125	2.50	2.65	2.65	2.58	2.25 to 2.75	106	80.0 to 120	0.00	20.0
BD06839	Iron, Dissolved	mg/L	-0.00183	0.0176	0.2	32.1	32.1	0.195	0.170 to 0.230	50.0	70.0 to 130	0.00	20.0
BD06840	Iron, Total	mg/L	0.000825	0.0176	0.2	0.201	0.199	0.200	0.170 to 0.230	100	70.0 to 130	1.00	20.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWBARAP

Sample Date: 4/5/23 11:35

Customer ID:

Delivery Date: 4/6/23 11:49

Description: Barry Ash Pond - MW-14

Laboratory ID Number: BD06839

Sample	Analysis	Units	MB		Spike	MS	MSD	Standard		Rec		Prec	Limit
			MB	Limit				Standard	Limit	Rec	Limit		
BD06839	Lead, Dissolved	mg/L	0.0000118	0.000147	0.100	0.100	0.0955	0.0971	0.0850 to 0.115	100	70.0 to 130	4.60	20.0
BD06840	Lead, Total	mg/L	0.0000054	0.000147	0.100	0.0954	0.0906	0.0962	0.0850 to 0.115	95.4	70.0 to 130	5.16	20.0
BD06839	Lithium, Dissolved	mg/L	0.000245	0.0154	0.200	0.203	0.199	0.195	0.170 to 0.230	102	70.0 to 130	1.99	20.0
BD06840	Lithium, Total	mg/L	0.000132	0.0154	0.200	0.198	0.197	0.198	0.170 to 0.230	99.0	70.0 to 130	0.506	20.0
BD06839	Magnesium, Dissolved	mg/L	0.000	0.0462	5.00	11.0	11.0	4.93	4.25 to 5.75	97.6	70.0 to 130	0.00	20.0
BD06840	Magnesium, Total	mg/L	0.00139	0.0462	5.00	4.86	4.89	4.90	4.25 to 5.75	97.2	70.0 to 130	0.615	20.0
BD06839	Manganese, Dissolved	mg/L	0.0000167	0.00033	0.100	0.376	0.381	0.101	0.0850 to 0.115	94.0	70.0 to 130	1.32	20.0
BD06840	Manganese, Total	mg/L	0.0000432	0.00033	0.100	0.101	0.0996	0.101	0.0850 to 0.115	101	70.0 to 130	1.40	20.0
BD06840	Mercury, Total by CVAA	mg/L	2.000E-05	0.000500	0.004	0.00411	0.00413	0.00408	0.00340 to 0.00460	103	70.0 to 130	0.485	20.0
BD06839	Molybdenum, Dissolved	mg/L	-0.000152	0.0100	0.2	0.197	0.194	0.195	0.170 to 0.230	98.5	70.0 to 130	1.53	20.0
BD06840	Molybdenum, Total	mg/L	-0.001	0.0100	0.2	0.201	0.200	0.200	0.170 to 0.230	100	70.0 to 130	0.499	20.0
BD06839	Potassium, Dissolved	mg/L	0.00935	0.367	10.0	12.2	12.2	9.82	8.50 to 11.5	98.2	70.0 to 130	0.00	20.0
BD06840	Potassium, Total	mg/L	-0.00821	0.367	10.0	10.3	9.94	10.3	8.50 to 11.5	103	70.0 to 130	3.56	20.0
BD06839	Selenium, Dissolved	mg/L	0.000102	0.00100	0.100	0.103	0.104	0.0997	0.0850 to 0.115	103	70.0 to 130	0.966	20.0
BD06840	Selenium, Total	mg/L	0.000107	0.00100	0.100	0.100	0.0962	0.100	0.0850 to 0.115	100	70.0 to 130	3.87	20.0
BD06839	Silicon, Dissolved	mg/L	0.000229	0.0440	1.00	10.2	10.2	0.997	0.850 to 1.15	94.0	70.0 to 130	0.00	20.0
BD06840	Silicon, Total	mg/L	-0.000383	0.0440	1.00	1.00	1.00	1.01	0.850 to 1.15	100	70.0 to 130	0.00	20.0
BD06839	Sodium, Dissolved	mg/L	0.0149	0.0880	5.00	78.3	78.6	5.23	4.25 to 5.75	76.0	70.0 to 130	0.382	20.0
BD06840	Sodium, Total	mg/L	0.00482	0.0880	5.00	4.79	4.79	4.86	4.25 to 5.75	95.8	70.0 to 130	0.00	20.0
BD06840	Sulfate	mg/L	0.346	2.0	20.0	20.6	20.3	19.7	18.0 to 22.0	103	80.0 to 120	1.47	20.0
BD06839	Thallium, Dissolved	mg/L	-0.0000001	0.000147	0.100	0.102	0.0974	0.0992	0.0850 to 0.115	102	70.0 to 130	4.61	20.0
BD06840	Thallium, Total	mg/L	0.0000009	0.000147	0.100	0.0992	0.0942	0.0992	0.0850 to 0.115	99.2	70.0 to 130	5.17	20.0
BD06840	Total Organic Carbon	mg/L	0.0982	1.00	10.0	9.21	9.56	23.8		92.1	80.0 to 120	3.73	20.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWBARAP

Sample Date: 4/5/23 11:35

Customer ID:

Delivery Date: 4/6/23 11:49

Description: Barry Ash Pond - MW-14

Laboratory ID Number: BD06839

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BD06839	Alkalinity to pH 4.5	mg CaCO3/L					167	50.5	45.0 to 55.0			0.601	10.0
BD06840	Nitrogen, Nitrate/Nitrite	mg/L as N	0.00	0.200	2.00	2.05	-0.001	1.98	1.80 to 2.20	102	90.0 to 110	0.00	15.0
BD06839	Solids, Dissolved	mg/L	0.0000	25.0			315	52.0	40.0 to 60.0			0.317	10.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Barry Ash Pond Field Blank-4

Location Code: WMWBARAPFB

Collected: 4/5/23 12:30

Customer ID:

Submittal Date: 4/6/23 11:50

Laboratory ID Number: BD06840

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7		Analyst: ABB			Preparation Method: EPA 1638				
* Boron, Total	4/7/23 14:10	4/11/23 12:48		1.015	Not Detected	mg/L	0.030000	0.1015	U
* Calcium, Total	4/7/23 14:10	4/11/23 12:48		1.015	Not Detected	mg/L	0.070035	0.406	U
* Iron, Total	4/7/23 14:10	4/11/23 12:48		1.015	Not Detected	mg/L	0.008120	0.0406	U
* Lithium, Total	4/7/23 14:10	4/11/23 12:48		1.015	Not Detected	mg/L	0.007105	0.01999956	U
* Magnesium, Total	4/7/23 14:10	4/11/23 12:48		1.015	Not Detected	mg/L	0.021315	0.406	U
* Molybdenum, Total	4/7/23 14:10	4/11/23 12:48		1.015	Not Detected	mg/L	0.005075	0.01015	U
* Silica, Total (calc.)	4/7/23 14:10	4/11/23 12:48		1	Not Detected	mg/L			
* Silicon, Total	4/7/23 14:10	4/11/23 12:48		1.015	Not Detected	mg/L	0.02030	0.25375	U
* Sodium, Total	4/7/23 14:10	4/11/23 12:48		1.015	Not Detected	mg/L	0.04060	0.406	U
Analytical Method: EPA 200.8		Analyst: DLJ			Preparation Method: EPA 1638				
* Antimony, Total	4/7/23 14:10	4/7/23 18:32		1.015	Not Detected	mg/L	0.000710	0.001015	U
* Aluminum, Total	4/7/23 14:10	4/7/23 18:32		1.015	Not Detected	mg/L	0.009135	0.05075	U
* Arsenic, Total	4/7/23 14:10	4/7/23 18:32		1.015	Not Detected	mg/L	0.000112	0.000203	U
* Barium, Total	4/7/23 14:10	4/7/23 18:32		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Beryllium, Total	4/7/23 14:10	4/7/23 18:32		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Total	4/7/23 14:10	4/7/23 18:32		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Total	4/7/23 14:10	4/7/23 18:32		1.015	Not Detected	mg/L	0.000203	0.001015	U
* Cobalt, Total	4/7/23 14:10	4/7/23 18:32		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Lead, Total	4/7/23 14:10	4/7/23 18:32		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Total	4/7/23 14:10	4/7/23 18:32		1.015	Not Detected	mg/L	0.000152	0.001015	U
* Potassium, Total	4/7/23 14:10	4/7/23 18:32		1.015	Not Detected	mg/L	0.169505	0.5075	U
* Selenium, Total	4/7/23 14:10	4/7/23 18:32		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Total	4/7/23 14:10	4/7/23 18:32		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 245.1		Analyst: CRB							
* Mercury, Total by CVAA	4/13/23 17:00	4/13/23 21:23		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: EPA 353.2		Analyst: SC							
* Nitrogen, Nitrate/Nitrite	4/10/23 15:13	4/10/23 15:13		1	Not Detected	mg/L as N	0.20	0.3	U
Analytical Method: SM 2540C		Analyst: CNJ							
* Solids, Dissolved	4/10/23 12:00	4/12/23 09:20		1	Not Detected	mg/L		25	U

MDL's and RL's are adjusted for sample dilution, as applicable

Comments:

Certificate Of Analysis

Description: Barry Ash Pond Field Blank-4

Location Code: WMWBARAPFB

Collected: 4/5/23 12:30

Customer ID:

Submittal Date: 4/6/23 11:50

Laboratory ID Number: BD06840

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM 5310 B		Analyst: SC							
* Total Organic Carbon	4/12/23 17:57	4/12/23 17:57		1	Not Detected	mg/L	1.00	2	U
Analytical Method: SM4500CI E		Analyst: CES							
* Chloride	4/12/23 13:14	4/12/23 13:14		1	Not Detected	mg/L	0.50	0.5	U
Analytical Method: SM4500F G 2017		Analyst: CES							
* Fluoride	4/13/23 12:00	4/13/23 12:00		1	Not Detected	mg/L	0.06	0.125	U
Analytical Method: SM4500SO4 E 2011		Analyst: JCC							
* Sulfate	4/17/23 15:30	4/17/23 15:30		1	Not Detected	mg/L	0.6	2	U

MDL's and RL's are adjusted for sample dilution, as applicable

Comments:

Batch QC Summary

Customer Account: WMWBARAPFB

Sample Date: 4/5/23 12:30

Customer ID:

Delivery Date: 4/6/23 11:50

Description: Barry Ash Pond Field Blank-4

Laboratory ID Number: BD06840

Sample	Analysis	Units	MB		Spike	MS	MSD	Standard		Rec		Prec	Limit
			MB	Limit				Standard	Limit	Rec	Limit		
BD06840	Aluminum, Total	mg/L	0.000446	0.0198	0.100	0.104	0.102	0.104	0.0850 to 0.115	104	70.0 to 130	1.94	20.0
BD06840	Antimony, Total	mg/L	0.000261	0.00100	0.100	0.0886	0.0889	0.0908	0.0850 to 0.115	88.6	70.0 to 130	0.338	20.0
BD06840	Arsenic, Total	mg/L	0.0000234	0.000200	0.100	0.0970	0.0973	0.0971	0.0850 to 0.115	97.0	70.0 to 130	0.309	20.0
BD06840	Barium, Total	mg/L	0.0000051	0.00100	0.100	0.0930	0.0960	0.0944	0.0850 to 0.115	93.0	70.0 to 130	3.17	20.0
BD06840	Beryllium, Total	mg/L	0.0000000	0.000880	0.100	0.0932	0.0957	0.0936	0.0850 to 0.115	93.2	70.0 to 130	2.65	20.0
BD06840	Boron, Total	mg/L	-0.000529	0.0650	1.00	1.01	1.01	1.02	0.850 to 1.15	101	70.0 to 130	0.00	20.0
BD06840	Cadmium, Total	mg/L	0.0000044	0.000147	0.100	0.0955	0.0956	0.0973	0.0850 to 0.115	95.5	70.0 to 130	0.105	20.0
BD06840	Calcium, Total	mg/L	-0.0204	0.152	5.00	4.93	4.92	4.92	4.25 to 5.75	98.6	70.0 to 130	0.203	20.0
BD06840	Chloride	mg/L	0.0330	1.00	10.0	10.2	10.2	10.0	9.00 to 11.0	102	80.0 to 120	0.00	20.0
BD06840	Chromium, Total	mg/L	-0.0000616	0.000440	0.100	0.0991	0.0974	0.0981	0.0850 to 0.115	99.1	70.0 to 130	1.73	20.0
BD06840	Cobalt, Total	mg/L	-0.0000010	0.000147	0.100	0.101	0.0991	0.100	0.0850 to 0.115	101	70.0 to 130	1.90	20.0
BD06840	Fluoride	mg/L	0.000729	0.125	2.50	2.65	2.65	2.58	2.25 to 2.75	106	80.0 to 120	0.00	20.0
BD06840	Iron, Total	mg/L	0.000825	0.0176	0.2	0.201	0.199	0.200	0.170 to 0.230	100	70.0 to 130	1.00	20.0
BD06840	Lead, Total	mg/L	0.0000054	0.000147	0.100	0.0954	0.0906	0.0962	0.0850 to 0.115	95.4	70.0 to 130	5.16	20.0
BD06840	Lithium, Total	mg/L	0.000132	0.0154	0.200	0.198	0.197	0.198	0.170 to 0.230	99.0	70.0 to 130	0.506	20.0
BD06840	Magnesium, Total	mg/L	0.00139	0.0462	5.00	4.86	4.89	4.90	4.25 to 5.75	97.2	70.0 to 130	0.615	20.0
BD06840	Manganese, Total	mg/L	0.0000432	0.00033	0.100	0.101	0.0996	0.101	0.0850 to 0.115	101	70.0 to 130	1.40	20.0
BD06840	Mercury, Total by CVAA	mg/L	2.000E-05	0.000500	0.004	0.00411	0.00413	0.00408	0.00340 to 0.00460	103	70.0 to 130	0.485	20.0
BD06840	Molybdenum, Total	mg/L	-0.001	0.0100	0.2	0.201	0.200	0.200	0.170 to 0.230	100	70.0 to 130	0.499	20.0
BD06840	Potassium, Total	mg/L	-0.00821	0.367	10.0	10.3	9.94	10.3	8.50 to 11.5	103	70.0 to 130	3.56	20.0
BD06840	Selenium, Total	mg/L	0.000107	0.00100	0.100	0.100	0.0962	0.100	0.0850 to 0.115	100	70.0 to 130	3.87	20.0
BD06840	Silicon, Total	mg/L	-0.000383	0.0440	1.00	1.00	1.00	1.01	0.850 to 1.15	100	70.0 to 130	0.00	20.0
BD06840	Sodium, Total	mg/L	0.00482	0.0880	5.00	4.79	4.79	4.86	4.25 to 5.75	95.8	70.0 to 130	0.00	20.0
BD06840	Sulfate	mg/L	0.346	2.0	20.0	20.6	20.3	19.7	18.0 to 22.0	103	80.0 to 120	1.47	20.0

Comments:

Batch QC Summary

Customer Account: WMWBARAPFB

Sample Date: 4/5/23 12:30

Customer ID:

Delivery Date: 4/6/23 11:50

Description: Barry Ash Pond Field Blank-4

Laboratory ID Number: BD06840

Sample	Analysis	Units	MB	MB				Standard		Rec		Prec	
				Limit	Spike	MS	MSD	Standard	Limit	Rec	Limit	Prec	Limit
BD06840	Thallium, Total	mg/L	0.0000009	0.000147	0.100	0.0992	0.0942	0.0992	0.0850 to 0.115	99.2	70.0 to 130	5.17	20.0
BD06840	Total Organic Carbon	mg/L	0.0982	1.00	10.0	9.21	9.56	23.8		92.1	80.0 to 120	3.73	20.0

Comments:

Batch QC Summary

Customer Account: WMWBARAPFB

Sample Date: 4/5/23 12:30

Customer ID:

Delivery Date: 4/6/23 11:50

Description: Barry Ash Pond Field Blank-4

Laboratory ID Number: BD06840

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard Standard	Standard Limit	Rec Rec	Rec Limit	Prec	Prec Limit
BD06840	Nitrogen, Nitrate/Nitrite	mg/L as N	0.00	0.200	2.00	2.05	-0.001	1.98	1.80 to 2.20	102	90.0 to 110	0.00	15.0
BD06839	Solids, Dissolved	mg/L	0.0000	25.0			315	52.0	40.0 to 60.0			0.317	10.0

Comments:

Certificate Of Analysis

Description: Barry Ash Pond - MW-20V

Location Code: WMWBARAP
Collected: 4/24/23 12:58
Customer ID:
Submittal Date: 4/26/23 10:18

Laboratory ID Number: BD08112

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7			Analyst: ABB		Preparation Method: EPA 1638				
* Boron, Total	4/28/23 06:47	5/4/23 10:06		1.015	Not Detected	mg/L	0.030000	0.1015	U
* Calcium, Total	4/28/23 06:47	5/4/23 10:06		1.015	24.3	mg/L	0.070035	0.406	
* Iron, Total	4/28/23 06:47	5/4/23 10:06		1.015	2.06	mg/L	0.008120	0.0406	
* Lithium, Total	4/28/23 06:47	5/4/23 10:06		1.015	Not Detected	mg/L	0.007105	0.01999956	U
* Magnesium, Total	4/28/23 06:47	5/4/23 10:06		1.015	4.81	mg/L	0.021315	0.406	
* Molybdenum, Total	4/28/23 06:47	5/4/23 10:06		1.015	Not Detected	mg/L	0.005075	0.01015	U
* Silica, Total (calc.)	4/28/23 06:47	5/4/23 10:06		1	8.26	mg/L			
* Silicon, Total	4/28/23 06:47	5/4/23 10:06		1.015	3.86	mg/L	0.02030	0.25375	
* Sodium, Total	4/28/23 06:47	5/4/23 10:06		1.015	24.4	mg/L	0.04060	0.406	
Analytical Method: EPA 200.7			Analyst: ABB		Preparation Method: EPA 1638				
* Boron, Dissolved	4/27/23 14:09	5/4/23 09:37		1.015	Not Detected	mg/L	0.030000	0.1015	U
* Calcium, Dissolved	4/27/23 14:09	5/4/23 09:37		1.015	24.3	mg/L	0.070035	0.406	
* Iron, Dissolved	4/27/23 14:09	5/4/23 09:37		1.015	1.89	mg/L	0.008120	0.0406	
* Lithium, Dissolved	4/27/23 14:09	5/4/23 09:37		1.015	Not Detected	mg/L	0.007105	0.01999956	U
* Magnesium, Dissolved	4/27/23 14:09	5/4/23 09:37		1.015	4.71	mg/L	0.021315	0.406	
* Molybdenum, Dissolved	4/27/23 14:09	5/4/23 09:37		1.015	Not Detected	mg/L	0.005075	0.01015	U
* Silica, Dissolved (calc.)	4/27/23 14:09	5/4/23 09:37		1	8.13	mg/L			
* Silicon, Dissolved	4/27/23 14:09	5/4/23 09:37		1.015	3.80	mg/L	0.02030	0.25375	
* Sodium, Dissolved	4/27/23 14:09	5/4/23 09:37		1.015	24.1	mg/L	0.04060	0.406	
Analytical Method: EPA 200.8			Analyst: DLJ		Preparation Method: EPA 1638				
* Antimony, Total	4/28/23 06:47	4/28/23 10:56		1.015	Not Detected	mg/L	0.000710	0.001015	U
* Aluminum, Total	4/28/23 06:47	4/28/23 10:56		1.015	0.0356	mg/L	0.009135	0.05075	J
* Arsenic, Total	4/28/23 06:47	4/28/23 10:56		1.015	0.00175	mg/L	0.000112	0.000203	
* Barium, Total	4/28/23 06:47	4/28/23 10:56		1.015	0.0548	mg/L	0.000508	0.001015	
* Beryllium, Total	4/28/23 06:47	4/28/23 10:56		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Total	4/28/23 06:47	4/28/23 10:56		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Total	4/28/23 06:47	4/28/23 10:56		1.015	0.000721	mg/L	0.000203	0.001015	J
* Cobalt, Total	4/28/23 06:47	4/28/23 10:56		1.015	0.000458	mg/L	0.000068	0.000203	
* Lead, Total	4/28/23 06:47	4/28/23 10:56		1.015	0.0000863	mg/L	0.000068	0.000203	J
* Manganese, Total	4/28/23 06:47	4/28/23 10:56		1.015	0.304	mg/L	0.000152	0.001015	

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Barry Ash Pond - MW-20V

Location Code: WMWBARAP
Collected: 4/24/23 12:58
Customer ID:
Submittal Date: 4/26/23 10:18

Laboratory ID Number: BD08112

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
* Potassium, Total	4/28/23 06:47	4/28/23 10:56		1.015	7.67	mg/L	0.169505	0.5075	
* Selenium, Total	4/28/23 06:47	4/28/23 10:56		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Total	4/28/23 06:47	4/28/23 10:56		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 200.8		Analyst: DLJ							
* Antimony, Dissolved	4/27/23 14:09	4/28/23 14:08		1.015	Not Detected	mg/L	0.000710	0.001015	U
* Aluminum, Dissolved	4/27/23 14:09	4/28/23 14:08		1.015	Not Detected	mg/L	0.009135	0.05075	U
* Arsenic, Dissolved	4/27/23 14:09	4/28/23 14:08		1.015	0.00143	mg/L	0.000112	0.000203	
* Barium, Dissolved	4/27/23 14:09	4/28/23 14:08		1.015	0.0546	mg/L	0.000508	0.001015	
* Beryllium, Dissolved	4/27/23 14:09	4/28/23 14:08		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Dissolved	4/27/23 14:09	4/28/23 14:08		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Dissolved	4/27/23 14:09	4/28/23 14:08		1.015	0.000523	mg/L	0.000203	0.001015	J
* Cobalt, Dissolved	4/27/23 14:09	4/28/23 14:08		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Lead, Dissolved	4/27/23 14:09	4/28/23 14:08		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Dissolved	4/27/23 14:09	4/28/23 14:08		1.015	0.313	mg/L	0.000152	0.001015	
* Potassium, Dissolved	4/27/23 14:09	4/28/23 14:08		1.015	7.65	mg/L	0.169505	0.5075	
* Selenium, Dissolved	4/27/23 14:09	4/28/23 14:08		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Dissolved	4/27/23 14:09	4/28/23 14:08		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 245.1		Analyst: CRB							
* Mercury, Total by CVAA	4/26/23 14:52	4/26/23 20:08		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: EPA 353.2		Analyst: SC							
* Nitrogen, Nitrate/Nitrite	4/28/23 15:44	4/28/23 15:44		1	Not Detected	mg/L as N	0.20	0.3	U
Analytical Method: SM 2320 B		Analyst: ALH							
* Alkalinity to pH 4.5	5/4/23 11:16	5/4/23 12:19		1	112	mg CaCO3/L		0.10	
Analytical Method: SM 2540C		Analyst: CNJ							
* Solids, Dissolved	4/27/23 13:15	5/1/23 10:20		1	161	mg/L		25	
Analytical Method: SM 4500CO2 D		Analyst: ALH							
* Bicarbonate Alkalinity, (calc.)	5/4/23 11:16	5/4/23 12:19		1	112	mg CaCO3/L		1	
* Carbonate Alkalinity, (calc.)	5/4/23 11:16	5/4/23 12:19		1	Not Detected	mg CaCO3/L		0.5	
Analytical Method: SM 5310 B		Analyst: SC							
* Total Organic Carbon	5/1/23 17:11	5/1/23 17:11		1	3.38	mg/L	1.00	2	

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Barry Ash Pond - MW-20V

Location Code: WMWBARAP
Collected: 4/24/23 12:58
Customer ID:
Submittal Date: 4/26/23 10:18

Laboratory ID Number: BD08112

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM4500Cl E		Analyst: JCC							
* Chloride	5/1/23 12:11	5/1/23 12:11		2	20.7	mg/L	1.00	2	
Analytical Method: SM4500F G 2017		Analyst: JCC							
* Fluoride	5/2/23 13:36	5/2/23 13:36		1	0.145	mg/L	0.06	0.125	
Analytical Method: SM4500SO4 E 2011		Analyst: JCC							
* Sulfate	4/28/23 11:57	4/28/23 11:57		1	8.99	mg/L	0.6	2	
Analytical Method: Field Measurements		Analyst: AWG							
Conductivity	4/24/23 12:55	4/24/23 12:55			283.31	uS/cm			FA
pH	4/24/23 12:55	4/24/23 12:55			6.35	SU			FA
Temperature	4/24/23 12:55	4/24/23 12:55			20.16	C			FA
Turbidity	4/24/23 12:55	4/24/23 12:55			6.16	NTU			FA
Sulfide	4/24/23 12:55	4/24/23 12:55			0	mg/L			FA

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWBARAP
Sample Date: 4/24/23 12:58
Customer ID:
Delivery Date: 4/26/23 10:18

Description: Barry Ash Pond - MW-20V

Laboratory ID Number: BD08112

Sample	Analysis	Units	MB					Standard		Rec			Prec Limit
			MB	Limit	Spike	MS	MSD	Standard	Limit	Rec	Limit	Prec	
BD08116	Aluminum, Dissolved	mg/L	0.00331	0.0198	0.100	0.110	0.110	0.106	0.0850 to 0.115	110	70.0 to 130	0.00	20.0
BD08116	Aluminum, Total	mg/L	0.00295	0.0198	0.100	0.113	0.111	0.106	0.0850 to 0.115	101	70.0 to 130	1.79	20.0
BD08116	Antimony, Dissolved	mg/L	0.000830	0.00100	0.100	0.107	0.105	0.0894	0.0850 to 0.115	107	70.0 to 130	1.89	20.0
BD08116	Antimony, Total	mg/L	0.000650	0.00100	0.100	0.106	0.104	0.101	0.0850 to 0.115	106	70.0 to 130	1.90	20.0
BD08116	Arsenic, Dissolved	mg/L	0.0000122	0.000200	0.100	0.0995	0.102	0.0994	0.0850 to 0.115	98.9	70.0 to 130	2.48	20.0
BD08116	Arsenic, Total	mg/L	0.000123	0.000200	0.100	0.0987	0.100	0.0982	0.0850 to 0.115	98.0	70.0 to 130	1.31	20.0
BD08116	Barium, Dissolved	mg/L	0.0000272	0.00100	0.100	0.246	0.243	0.101	0.0850 to 0.115	104	70.0 to 130	1.23	20.0
BD08116	Barium, Total	mg/L	0.0000316	0.00100	0.100	0.244	0.240	0.102	0.0850 to 0.115	108	70.0 to 130	1.65	20.0
BD08116	Beryllium, Dissolved	mg/L	0.0000195	0.000880	0.100	0.101	0.104	0.104	0.0850 to 0.115	101	70.0 to 130	2.93	20.0
BD08116	Beryllium, Total	mg/L	0.0000178	0.000880	0.100	0.102	0.102	0.101	0.0850 to 0.115	102	70.0 to 130	0.00	20.0
BD08116	Boron, Dissolved	mg/L	0.000249	0.0650	1.00	1.93	1.92	1.02	0.850 to 1.15	105	70.0 to 130	0.519	20.0
BD08116	Boron, Total	mg/L	0.000124	0.0650	1.00	1.92	1.93	1.03	0.850 to 1.15	104	70.0 to 130	0.519	20.0
BD08116	Cadmium, Dissolved	mg/L	0.0000027	0.000147	0.100	0.101	0.100	0.103	0.0850 to 0.115	101	70.0 to 130	0.995	20.0
BD08116	Cadmium, Total	mg/L	0.0000055	0.000147	0.100	0.100	0.0974	0.0985	0.0850 to 0.115	100	70.0 to 130	2.63	20.0
BD08116	Calcium, Dissolved	mg/L	-0.00637	0.152	5.00	35.1	34.3	4.99	4.25 to 5.75	132	70.0 to 130	2.31	20.0
BD08116	Calcium, Total	mg/L	0.00590	0.152	5.00	33.7	33.8	4.91	4.25 to 5.75	104	70.0 to 130	0.296	20.0
BD08116	Chloride	mg/L	0.0399	1.00	10.0	24.4	24.5	10.4	9.00 to 11.0	92.0	80.0 to 120	0.409	20.0
BD08116	Chromium, Dissolved	mg/L	-0.0000334	0.000440	0.100	0.100	0.0991	0.0996	0.0850 to 0.115	99.7	70.0 to 130	0.904	20.0
BD08116	Chromium, Total	mg/L	0.000143	0.000440	0.100	0.101	0.0981	0.100	0.0850 to 0.115	101	70.0 to 130	2.91	20.0
BD08116	Cobalt, Dissolved	mg/L	-0.0000223	0.000147	0.100	0.107	0.105	0.104	0.0850 to 0.115	106	70.0 to 130	1.89	20.0
BD08116	Cobalt, Total	mg/L	-0.0000221	0.000147	0.100	0.105	0.103	0.103	0.0850 to 0.115	104	70.0 to 130	1.92	20.0
BD08116	Fluoride	mg/L	0.022	0.125	2.50	2.78	2.71	2.62	2.25 to 2.75	108	80.0 to 120	2.55	20.0
BD08116	Iron, Dissolved	mg/L	-0.00302	0.0176	0.2	73.2	72.3	0.192	0.170 to 0.230	1100	70.0 to 130	1.24	20.0
BD08116	Iron, Total	mg/L	0.000805	0.0176	0.2	70.5	68.1	0.198	0.170 to 0.230	150	70.0 to 130	3.46	20.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWBARAP
Sample Date: 4/24/23 12:58
Customer ID:
Delivery Date: 4/26/23 10:18

Description: Barry Ash Pond - MW-20V

Laboratory ID Number: BD08112

Sample	Analysis	Units	MB	MB				Standard		Rec		Prec	Limit
				Limit	Spike	MS	MSD	Standard	Limit	Rec	Limit		
BD08116	Lead, Dissolved	mg/L	0.0000078	0.000147	0.100	0.104	0.105	0.102	0.0850 to 0.115	104	70.0 to 130	0.957	20.0
BD08116	Lead, Total	mg/L	0.0000063	0.000147	0.100	0.104	0.107	0.109	0.0850 to 0.115	104	70.0 to 130	2.84	20.0
BD08116	Lithium, Dissolved	mg/L	0.000195	0.0154	0.200	0.204	0.201	0.198	0.170 to 0.230	102	70.0 to 130	1.48	20.0
BD08116	Lithium, Total	mg/L	0.000277	0.0154	0.200	0.203	0.207	0.200	0.170 to 0.230	102	70.0 to 130	1.95	20.0
BD08116	Magnesium, Dissolved	mg/L	-0.00516	0.0462	5.00	12.0	11.9	5.06	4.25 to 5.75	103	70.0 to 130	0.837	20.0
BD08116	Magnesium, Total	mg/L	-0.0114	0.0462	5.00	11.8	11.9	5.07	4.25 to 5.75	98.2	70.0 to 130	0.844	20.0
BD08116	Manganese, Dissolved	mg/L	0.0000314	0.00033	0.100	1.60	1.57	0.101	0.0850 to 0.115	90.0	70.0 to 130	1.89	20.0
BD08116	Manganese, Total	mg/L	0.000110	0.00033	0.100	1.67	1.59	0.102	0.0850 to 0.115	190	70.0 to 130	4.91	20.0
BD08116	Mercury, Total by CVAA	mg/L	-4.000E-05	0.000500	0.004	0.00395	0.00396	0.00395	0.00340 to 0.00460	98.8	70.0 to 130	0.253	20.0
BD08116	Molybdenum, Dissolved	mg/L	0.00153	0.0100	0.2	0.195	0.195	0.194	0.170 to 0.230	97.5	70.0 to 130	0.00	20.0
BD08116	Molybdenum, Total	mg/L	0.001	0.0100	0.2	0.194	0.197	0.194	0.170 to 0.230	97.0	70.0 to 130	1.53	20.0
BD08116	Potassium, Dissolved	mg/L	0.0132	0.367	10.0	11.6	11.5	9.92	8.50 to 11.5	102	70.0 to 130	0.866	20.0
BD08116	Potassium, Total	mg/L	0.00927	0.367	10.0	11.5	11.1	10.1	8.50 to 11.5	101	70.0 to 130	3.54	20.0
BD08116	Selenium, Dissolved	mg/L	0.000101	0.00100	0.100	0.104	0.105	0.104	0.0850 to 0.115	104	70.0 to 130	0.957	20.0
BD08116	Selenium, Total	mg/L	0.0000944	0.00100	0.100	0.101	0.101	0.103	0.0850 to 0.115	101	70.0 to 130	0.00	20.0
BD08116	Silicon, Dissolved	mg/L	-0.000887	0.0440	1.00	14.4	14.3	1.01	0.850 to 1.15	100	70.0 to 130	0.697	20.0
BD08116	Silicon, Total	mg/L	-0.000333	0.0440	1.00	14.3	14.3	1.02	0.850 to 1.15	90.0	70.0 to 130	0.00	20.0
BD08116	Sodium, Dissolved	mg/L	0.00269	0.0880	5.00	20.2	20.0	4.92	4.25 to 5.75	92.0	70.0 to 130	0.995	20.0
BD08116	Sodium, Total	mg/L	0.00556	0.0880	5.00	19.9	20.2	5.00	4.25 to 5.75	90.0	70.0 to 130	1.50	20.0
BD08116	Sulfate	mg/L	0.0983	2.0	75.0	103	103	19.7	18.0 to 22.0	85.7	80.0 to 120	0.00	20.0
BD08116	Thallium, Dissolved	mg/L	-0.0000230	0.000147	0.100	0.105	0.103	0.103	0.0850 to 0.115	105	70.0 to 130	1.92	20.0
BD08116	Thallium, Total	mg/L	-0.0000206	0.000147	0.100	0.104	0.106	0.107	0.0850 to 0.115	104	70.0 to 130	1.90	20.0
BD08116	Total Organic Carbon	mg/L	0.112	1.00	10.0	16.9	18.0	8.96		88.3	80.0 to 120	6.30	20.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWBARAP

Sample Date: 4/24/23 12:58

Customer ID:

Delivery Date: 4/26/23 10:18

Description: Barry Ash Pond - MW-20V

Laboratory ID Number: BD08112

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BD08116	Alkalinity to pH 4.5	mg CaCO3/L					164	51.2	45.0 to 55.0			0.608	10.0
BD08116	Nitrogen, Nitrate/Nitrite	mg/L as N	0.08	0.200	2.00	2.22	0.340	2.20	1.80 to 2.20	93.8	90.0 to 110	1.17	15.0
BD08114	Solids, Dissolved	mg/L	1.00	25.0			345	51.0	40.0 to 60.0			2.01	10.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Barry Ash Pond - MW-22H

Location Code: WMWBARAP
Collected: 4/24/23 14:05
Customer ID:
Submittal Date: 4/26/23 10:18

Laboratory ID Number: BD08113

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7			Analyst: ABB		Preparation Method: EPA 1638				
* Boron, Total	4/28/23 06:47	5/4/23 10:09		1.015	0.0696	mg/L	0.030000	0.1015	J
* Calcium, Total	4/28/23 06:47	5/4/23 10:09		1.015	14.3	mg/L	0.070035	0.406	
* Iron, Total	4/28/23 06:47	5/4/23 11:37		101.5	67.7	mg/L	0.8120	4.06	
* Lithium, Total	4/28/23 06:47	5/4/23 10:09		1.015	Not Detected	mg/L	0.007105	0.01999956	U
* Magnesium, Total	4/28/23 06:47	5/4/23 10:09		1.015	13.3	mg/L	0.021315	0.406	
* Molybdenum, Total	4/28/23 06:47	5/4/23 10:09		1.015	Not Detected	mg/L	0.005075	0.01015	U
* Silica, Total (calc.)	4/28/23 06:47	5/4/23 10:09		1	19.4	mg/L			
* Silicon, Total	4/28/23 06:47	5/4/23 10:09		1.015	9.07	mg/L	0.02030	0.25375	
* Sodium, Total	4/28/23 06:47	5/4/23 11:37		101.5	73.8	mg/L	4.060	40.6	
Analytical Method: EPA 200.7			Analyst: ABB		Preparation Method: EPA 1638				
* Boron, Dissolved	4/27/23 14:09	5/4/23 09:40		1.015	0.0689	mg/L	0.030000	0.1015	J
* Calcium, Dissolved	4/27/23 14:09	5/4/23 09:40		1.015	14.5	mg/L	0.070035	0.406	
* Iron, Dissolved	4/27/23 14:09	5/4/23 11:18		101.5	63.0	mg/L	0.8120	4.06	
* Lithium, Dissolved	4/27/23 14:09	5/4/23 09:40		1.015	Not Detected	mg/L	0.007105	0.01999956	U
* Magnesium, Dissolved	4/27/23 14:09	5/4/23 09:40		1.015	13.4	mg/L	0.021315	0.406	
* Molybdenum, Dissolved	4/27/23 14:09	5/4/23 09:40		1.015	Not Detected	mg/L	0.005075	0.01015	U
* Silica, Dissolved (calc.)	4/27/23 14:09	5/4/23 09:40		1	19.2	mg/L			
* Silicon, Dissolved	4/27/23 14:09	5/4/23 09:40		1.015	8.98	mg/L	0.02030	0.25375	
* Sodium, Dissolved	4/27/23 14:09	5/4/23 11:18		101.5	73.9	mg/L	4.060	40.6	
Analytical Method: EPA 200.8			Analyst: DLJ		Preparation Method: EPA 1638				
* Antimony, Total	4/28/23 06:47	4/28/23 10:59		1.015	Not Detected	mg/L	0.000710	0.001015	U
* Aluminum, Total	4/28/23 06:47	4/28/23 10:59		1.015	0.0195	mg/L	0.009135	0.05075	J
* Arsenic, Total	4/28/23 06:47	4/28/23 10:59		1.015	0.0191	mg/L	0.000112	0.000203	
* Barium, Total	4/28/23 06:47	4/28/23 10:59		1.015	0.209	mg/L	0.000508	0.001015	
* Beryllium, Total	4/28/23 06:47	4/28/23 10:59		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Total	4/28/23 06:47	4/28/23 10:59		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Total	4/28/23 06:47	4/28/23 10:59		1.015	0.000486	mg/L	0.000203	0.001015	J
* Cobalt, Total	4/28/23 06:47	4/28/23 10:59		1.015	0.00275	mg/L	0.000068	0.000203	
* Lead, Total	4/28/23 06:47	4/28/23 10:59		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Total	4/28/23 06:47	4/28/23 10:59		1.015	0.544	mg/L	0.000152	0.001015	

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Barry Ash Pond - MW-22H

Location Code: WMWBARAP
Collected: 4/24/23 14:05
Customer ID:
Submittal Date: 4/26/23 10:18

Laboratory ID Number: BD08113

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
* Potassium, Total	4/28/23 06:47	4/28/23 10:59		1.015	1.98	mg/L	0.169505	0.5075	
* Selenium, Total	4/28/23 06:47	4/28/23 10:59		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Total	4/28/23 06:47	4/28/23 10:59		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 200.8		Analyst: DLJ							
* Antimony, Dissolved	4/27/23 14:09	4/28/23 14:11		1.015	Not Detected	mg/L	0.000710	0.001015	U
* Aluminum, Dissolved	4/27/23 14:09	4/28/23 14:11		1.015	Not Detected	mg/L	0.009135	0.05075	U
* Arsenic, Dissolved	4/27/23 14:09	4/28/23 14:11		1.015	0.0198	mg/L	0.000112	0.000203	
* Barium, Dissolved	4/27/23 14:09	4/28/23 14:11		1.015	0.214	mg/L	0.000508	0.001015	
* Beryllium, Dissolved	4/27/23 14:09	4/28/23 14:11		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Dissolved	4/27/23 14:09	4/28/23 14:11		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Dissolved	4/27/23 14:09	4/28/23 14:11		1.015	0.000462	mg/L	0.000203	0.001015	J
* Cobalt, Dissolved	4/27/23 14:09	4/28/23 14:11		1.015	0.00266	mg/L	0.000068	0.000203	
* Lead, Dissolved	4/27/23 14:09	4/28/23 14:11		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Dissolved	4/27/23 14:09	4/28/23 14:11		1.015	0.541	mg/L	0.000152	0.001015	
* Potassium, Dissolved	4/27/23 14:09	4/28/23 14:11		1.015	2.04	mg/L	0.169505	0.5075	
* Selenium, Dissolved	4/27/23 14:09	4/28/23 14:11		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Dissolved	4/27/23 14:09	4/28/23 14:11		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 245.1		Analyst: CRB							
* Mercury, Total by CVAA	4/26/23 14:52	4/26/23 20:12		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: EPA 353.2		Analyst: SC							
* Nitrogen, Nitrate/Nitrite	4/28/23 15:46	4/28/23 15:46		1	0.312	mg/L as N	0.20	0.3	
Analytical Method: SM 2320 B		Analyst: ALH							
* Alkalinity to pH 4.5	5/4/23 11:16	5/4/23 12:19		1	189	mg CaCO3/L		0.10	
Analytical Method: SM 2540C		Analyst: CNJ							
* Solids, Dissolved	4/27/23 13:15	5/1/23 10:20		1	355	mg/L		25	
Analytical Method: SM 4500CO2 D		Analyst: ALH							
* Bicarbonate Alkalinity, (calc.)	5/4/23 11:16	5/4/23 12:19		1	189	mg CaCO3/L		1	
* Carbonate Alkalinity, (calc.)	5/4/23 11:16	5/4/23 12:19		1	Not Detected	mg CaCO3/L		0.5	
Analytical Method: SM 5310 B		Analyst: SC							
* Total Organic Carbon	5/1/23 17:28	5/1/23 17:28		1	14.4	mg/L	1.00	2	

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Barry Ash Pond - MW-22H

Location Code: WMWBARAP

Collected: 4/24/23 14:05

Customer ID:

Submittal Date: 4/26/23 10:18

Laboratory ID Number: BD08113

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM4500Cl E		Analyst: JCC							
* Chloride	5/1/23 12:12	5/1/23 12:12		4	63.7	mg/L	2.00	4	
Analytical Method: SM4500F G 2017		Analyst: JCC							
* Fluoride	5/2/23 13:38	5/2/23 13:38		1	0.255	mg/L	0.06	0.125	
Analytical Method: SM4500SO4 E 2011		Analyst: JCC							
* Sulfate	4/28/23 11:58	4/28/23 11:58		4	152	mg/L	2.4	8	
Analytical Method: Field Measurements		Analyst: AWG							
Conductivity	4/24/23 14:03	4/24/23 14:03			660.41	uS/cm			FA
pH	4/24/23 14:03	4/24/23 14:03			6.46	SU			FA
Temperature	4/24/23 14:03	4/24/23 14:03			20.02	C			FA
Turbidity	4/24/23 14:03	4/24/23 14:03			0.91	NTU			FA
Sulfide	4/24/23 14:03	4/24/23 14:03			0	mg/L			FA

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWBARAP
Sample Date: 4/24/23 14:05
Customer ID:
Delivery Date: 4/26/23 10:18

Description: Barry Ash Pond - MW-22H

Laboratory ID Number: BD08113

Sample	Analysis	Units	MB		Spike	MS	MSD	Standard		Rec		Prec	Limit
			MB	Limit				Standard	Limit	Rec	Limit		
BD08116	Aluminum, Dissolved	mg/L	0.00331	0.0198	0.100	0.110	0.110	0.106	0.0850 to 0.115	110	70.0 to 130	0.00	20.0
BD08116	Aluminum, Total	mg/L	0.00295	0.0198	0.100	0.113	0.111	0.106	0.0850 to 0.115	101	70.0 to 130	1.79	20.0
BD08116	Antimony, Dissolved	mg/L	0.000830	0.00100	0.100	0.107	0.105	0.0894	0.0850 to 0.115	107	70.0 to 130	1.89	20.0
BD08116	Antimony, Total	mg/L	0.000650	0.00100	0.100	0.106	0.104	0.101	0.0850 to 0.115	106	70.0 to 130	1.90	20.0
BD08116	Arsenic, Dissolved	mg/L	0.0000122	0.000200	0.100	0.0995	0.102	0.0994	0.0850 to 0.115	98.9	70.0 to 130	2.48	20.0
BD08116	Arsenic, Total	mg/L	0.000123	0.000200	0.100	0.0987	0.100	0.0982	0.0850 to 0.115	98.0	70.0 to 130	1.31	20.0
BD08116	Barium, Dissolved	mg/L	0.0000272	0.00100	0.100	0.246	0.243	0.101	0.0850 to 0.115	104	70.0 to 130	1.23	20.0
BD08116	Barium, Total	mg/L	0.0000316	0.00100	0.100	0.244	0.240	0.102	0.0850 to 0.115	108	70.0 to 130	1.65	20.0
BD08116	Beryllium, Dissolved	mg/L	0.0000195	0.000880	0.100	0.101	0.104	0.104	0.0850 to 0.115	101	70.0 to 130	2.93	20.0
BD08116	Beryllium, Total	mg/L	0.0000178	0.000880	0.100	0.102	0.102	0.101	0.0850 to 0.115	102	70.0 to 130	0.00	20.0
BD08116	Boron, Dissolved	mg/L	0.000249	0.0650	1.00	1.93	1.92	1.02	0.850 to 1.15	105	70.0 to 130	0.519	20.0
BD08116	Boron, Total	mg/L	0.000124	0.0650	1.00	1.92	1.93	1.03	0.850 to 1.15	104	70.0 to 130	0.519	20.0
BD08116	Cadmium, Dissolved	mg/L	0.0000027	0.000147	0.100	0.101	0.100	0.103	0.0850 to 0.115	101	70.0 to 130	0.995	20.0
BD08116	Cadmium, Total	mg/L	0.0000055	0.000147	0.100	0.100	0.0974	0.0985	0.0850 to 0.115	100	70.0 to 130	2.63	20.0
BD08116	Calcium, Dissolved	mg/L	-0.00637	0.152	5.00	35.1	34.3	4.99	4.25 to 5.75	132	70.0 to 130	2.31	20.0
BD08116	Calcium, Total	mg/L	0.00590	0.152	5.00	33.7	33.8	4.91	4.25 to 5.75	104	70.0 to 130	0.296	20.0
BD08116	Chloride	mg/L	0.0399	1.00	10.0	24.4	24.5	10.4	9.00 to 11.0	92.0	80.0 to 120	0.409	20.0
BD08116	Chromium, Dissolved	mg/L	-0.0000334	0.000440	0.100	0.100	0.0991	0.0996	0.0850 to 0.115	99.7	70.0 to 130	0.904	20.0
BD08116	Chromium, Total	mg/L	0.000143	0.000440	0.100	0.101	0.0981	0.100	0.0850 to 0.115	101	70.0 to 130	2.91	20.0
BD08116	Cobalt, Dissolved	mg/L	-0.0000223	0.000147	0.100	0.107	0.105	0.104	0.0850 to 0.115	106	70.0 to 130	1.89	20.0
BD08116	Cobalt, Total	mg/L	-0.0000221	0.000147	0.100	0.105	0.103	0.103	0.0850 to 0.115	104	70.0 to 130	1.92	20.0
BD08116	Fluoride	mg/L	0.022	0.125	2.50	2.78	2.71	2.62	2.25 to 2.75	108	80.0 to 120	2.55	20.0
BD08116	Iron, Dissolved	mg/L	-0.00302	0.0176	0.2	73.2	72.3	0.192	0.170 to 0.230	1100	70.0 to 130	1.24	20.0
BD08116	Iron, Total	mg/L	0.000805	0.0176	0.2	70.5	68.1	0.198	0.170 to 0.230	150	70.0 to 130	3.46	20.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWBARAP
Sample Date: 4/24/23 14:05
Customer ID:
Delivery Date: 4/26/23 10:18

Description: Barry Ash Pond - MW-22H

Laboratory ID Number: BD08113

Sample	Analysis	Units	MB					Standard		Rec		Prec	Limit
			MB	Limit	Spike	MS	MSD	Standard	Limit	Rec	Limit		
BD08116	Lead, Dissolved	mg/L	0.0000078	0.000147	0.100	0.104	0.105	0.102	0.0850 to 0.115	104	70.0 to 130	0.957	20.0
BD08116	Lead, Total	mg/L	0.0000063	0.000147	0.100	0.104	0.107	0.109	0.0850 to 0.115	104	70.0 to 130	2.84	20.0
BD08116	Lithium, Dissolved	mg/L	0.000195	0.0154	0.200	0.204	0.201	0.198	0.170 to 0.230	102	70.0 to 130	1.48	20.0
BD08116	Lithium, Total	mg/L	0.000277	0.0154	0.200	0.203	0.207	0.200	0.170 to 0.230	102	70.0 to 130	1.95	20.0
BD08116	Magnesium, Dissolved	mg/L	-0.00516	0.0462	5.00	12.0	11.9	5.06	4.25 to 5.75	103	70.0 to 130	0.837	20.0
BD08116	Magnesium, Total	mg/L	-0.0114	0.0462	5.00	11.8	11.9	5.07	4.25 to 5.75	98.2	70.0 to 130	0.844	20.0
BD08116	Manganese, Dissolved	mg/L	0.0000314	0.00033	0.100	1.60	1.57	0.101	0.0850 to 0.115	90.0	70.0 to 130	1.89	20.0
BD08116	Manganese, Total	mg/L	0.000110	0.00033	0.100	1.67	1.59	0.102	0.0850 to 0.115	190	70.0 to 130	4.91	20.0
BD08116	Mercury, Total by CVAA	mg/L	-4.000E-05	0.000500	0.004	0.00395	0.00396	0.00395	0.00340 to 0.00460	98.8	70.0 to 130	0.253	20.0
BD08116	Molybdenum, Dissolved	mg/L	0.00153	0.0100	0.2	0.195	0.195	0.194	0.170 to 0.230	97.5	70.0 to 130	0.00	20.0
BD08116	Molybdenum, Total	mg/L	0.001	0.0100	0.2	0.194	0.197	0.194	0.170 to 0.230	97.0	70.0 to 130	1.53	20.0
BD08116	Potassium, Dissolved	mg/L	0.0132	0.367	10.0	11.6	11.5	9.92	8.50 to 11.5	102	70.0 to 130	0.866	20.0
BD08116	Potassium, Total	mg/L	0.00927	0.367	10.0	11.5	11.1	10.1	8.50 to 11.5	101	70.0 to 130	3.54	20.0
BD08116	Selenium, Dissolved	mg/L	0.000101	0.00100	0.100	0.104	0.105	0.104	0.0850 to 0.115	104	70.0 to 130	0.957	20.0
BD08116	Selenium, Total	mg/L	0.0000944	0.00100	0.100	0.101	0.101	0.103	0.0850 to 0.115	101	70.0 to 130	0.00	20.0
BD08116	Silicon, Dissolved	mg/L	-0.000887	0.0440	1.00	14.4	14.3	1.01	0.850 to 1.15	100	70.0 to 130	0.697	20.0
BD08116	Silicon, Total	mg/L	-0.000333	0.0440	1.00	14.3	14.3	1.02	0.850 to 1.15	90.0	70.0 to 130	0.00	20.0
BD08116	Sodium, Dissolved	mg/L	0.00269	0.0880	5.00	20.2	20.0	4.92	4.25 to 5.75	92.0	70.0 to 130	0.995	20.0
BD08116	Sodium, Total	mg/L	0.00556	0.0880	5.00	19.9	20.2	5.00	4.25 to 5.75	90.0	70.0 to 130	1.50	20.0
BD08116	Sulfate	mg/L	0.0983	2.0	75.0	103	103	19.7	18.0 to 22.0	85.7	80.0 to 120	0.00	20.0
BD08116	Thallium, Dissolved	mg/L	-0.0000230	0.000147	0.100	0.105	0.103	0.103	0.0850 to 0.115	105	70.0 to 130	1.92	20.0
BD08116	Thallium, Total	mg/L	-0.0000206	0.000147	0.100	0.104	0.106	0.107	0.0850 to 0.115	104	70.0 to 130	1.90	20.0
BD08116	Total Organic Carbon	mg/L	0.112	1.00	10.0	16.9	18.0	8.96		88.3	80.0 to 120	6.30	20.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWBARAP

Sample Date: 4/24/23 14:05

Customer ID:

Delivery Date: 4/26/23 10:18

Description: Barry Ash Pond - MW-22H

Laboratory ID Number: BD08113

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BD08116	Alkalinity to pH 4.5	mg CaCO3/L					164	51.2	45.0 to 55.0			0.608	10.0
BD08116	Nitrogen, Nitrate/Nitrite	mg/L as N	0.08	0.200	2.00	2.22	0.340	2.20	1.80 to 2.20	93.8	90.0 to 110	1.17	15.0
BD08114	Solids, Dissolved	mg/L	1.00	25.0			345	51.0	40.0 to 60.0			2.01	10.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Barry Ash Pond - MW-15V

Location Code: WMWBARAP
Collected: 4/24/23 15:00
Customer ID:
Submittal Date: 4/26/23 10:18

Laboratory ID Number: BD08114

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7			Analyst: ABB			Preparation Method: EPA 1638			
* Boron, Total	4/28/23 06:47	5/4/23 10:12		1.015	0.0423	mg/L	0.030000	0.1015	J
* Calcium, Total	4/28/23 06:47	5/4/23 10:12		1.015	9.13	mg/L	0.070035	0.406	
* Iron, Total	4/28/23 06:47	5/4/23 11:40		101.5	43.1	mg/L	0.8120	4.06	
* Lithium, Total	4/28/23 06:47	5/4/23 10:12		1.015	Not Detected	mg/L	0.007105	0.01999956	U
* Magnesium, Total	4/28/23 06:47	5/4/23 10:12		1.015	6.12	mg/L	0.021315	0.406	
* Molybdenum, Total	4/28/23 06:47	5/4/23 10:12		1.015	Not Detected	mg/L	0.005075	0.01015	U
* Silica, Total (calc.)	4/28/23 06:47	5/4/23 10:12		1	17.1	mg/L			
* Silicon, Total	4/28/23 06:47	5/4/23 10:12		1.015	8.01	mg/L	0.02030	0.25375	
* Sodium, Total	4/28/23 06:47	5/4/23 11:40		101.5	76.1	mg/L	4.060	40.6	
Analytical Method: EPA 200.7			Analyst: ABB						
* Boron, Dissolved	4/27/23 14:09	5/4/23 09:44		1.015	0.0368	mg/L	0.030000	0.1015	J
* Calcium, Dissolved	4/27/23 14:09	5/4/23 09:44		1.015	9.09	mg/L	0.070035	0.406	
* Iron, Dissolved	4/27/23 14:09	5/4/23 11:22		101.5	41.5	mg/L	0.8120	4.06	
* Lithium, Dissolved	4/27/23 14:09	5/4/23 09:44		1.015	Not Detected	mg/L	0.007105	0.01999956	U
* Magnesium, Dissolved	4/27/23 14:09	5/4/23 09:44		1.015	5.95	mg/L	0.021315	0.406	
* Molybdenum, Dissolved	4/27/23 14:09	5/4/23 09:44		1.015	Not Detected	mg/L	0.005075	0.01015	U
* Silica, Dissolved (calc.)	4/27/23 14:09	5/4/23 09:44		1	17.1	mg/L			
* Silicon, Dissolved	4/27/23 14:09	5/4/23 09:44		1.015	7.97	mg/L	0.02030	0.25375	
* Sodium, Dissolved	4/27/23 14:09	5/4/23 11:22		101.5	76.1	mg/L	4.060	40.6	
Analytical Method: EPA 200.8			Analyst: DLJ			Preparation Method: EPA 1638			
* Antimony, Total	4/28/23 06:47	4/28/23 11:03		1.015	Not Detected	mg/L	0.000710	0.001015	U
* Aluminum, Total	4/28/23 06:47	4/28/23 11:03		1.015	0.00946	mg/L	0.009135	0.05075	J
* Arsenic, Total	4/28/23 06:47	4/28/23 11:03		1.015	0.0224	mg/L	0.000112	0.000203	
* Barium, Total	4/28/23 06:47	4/28/23 11:03		1.015	0.164	mg/L	0.000508	0.001015	
* Beryllium, Total	4/28/23 06:47	4/28/23 11:03		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Total	4/28/23 06:47	4/28/23 11:03		1.015	0.000212	mg/L	0.000068	0.000203	
* Chromium, Total	4/28/23 06:47	4/28/23 11:03		1.015	0.000278	mg/L	0.000203	0.001015	J
* Cobalt, Total	4/28/23 06:47	4/28/23 11:03		1.015	0.0817	mg/L	0.000068	0.000203	
* Lead, Total	4/28/23 06:47	4/28/23 11:03		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Total	4/28/23 06:47	4/28/23 11:03		1.015	1.16	mg/L	0.000152	0.001015	

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Barry Ash Pond - MW-15V

Location Code: WMWBARAP
Collected: 4/24/23 15:00
Customer ID:
Submittal Date: 4/26/23 10:18

Laboratory ID Number: BD08114

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
* Potassium, Total	4/28/23 06:47	4/28/23 11:03		1.015	3.16	mg/L	0.169505	0.5075	
* Selenium, Total	4/28/23 06:47	4/28/23 11:03		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Total	4/28/23 06:47	4/28/23 11:03		1.015	0.000107	mg/L	0.000068	0.000203	J
Analytical Method: EPA 200.8		Analyst: DLJ							
* Antimony, Dissolved	4/27/23 14:09	4/28/23 14:15		1.015	Not Detected	mg/L	0.000710	0.001015	U
* Aluminum, Dissolved	4/27/23 14:09	4/28/23 14:15		1.015	Not Detected	mg/L	0.009135	0.05075	U
* Arsenic, Dissolved	4/27/23 14:09	4/28/23 14:15		1.015	0.0220	mg/L	0.000112	0.000203	
* Barium, Dissolved	4/27/23 14:09	4/28/23 14:15		1.015	0.168	mg/L	0.000508	0.001015	
* Beryllium, Dissolved	4/27/23 14:09	4/28/23 14:15		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Dissolved	4/27/23 14:09	4/28/23 14:15		1.015	0.000203	mg/L	0.000068	0.000203	
* Chromium, Dissolved	4/27/23 14:09	4/28/23 14:15		1.015	Not Detected	mg/L	0.000203	0.001015	U
* Cobalt, Dissolved	4/27/23 14:09	4/28/23 14:15		1.015	0.0839	mg/L	0.000068	0.000203	
* Lead, Dissolved	4/27/23 14:09	4/28/23 14:15		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Dissolved	4/27/23 14:09	4/28/23 14:15		1.015	1.15	mg/L	0.000152	0.001015	
* Potassium, Dissolved	4/27/23 14:09	4/28/23 14:15		1.015	3.25	mg/L	0.169505	0.5075	
* Selenium, Dissolved	4/27/23 14:09	4/28/23 14:15		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Dissolved	4/27/23 14:09	4/28/23 14:15		1.015	0.000111	mg/L	0.000068	0.000203	J
Analytical Method: EPA 245.1		Analyst: CRB							
* Mercury, Total by CVAA	4/26/23 14:52	4/26/23 20:16		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: EPA 353.2		Analyst: SC							
* Nitrogen, Nitrate/Nitrite	4/28/23 15:48	4/28/23 15:48		1	0.253	mg/L as N	0.20	0.3	J
Analytical Method: SM 2320 B		Analyst: ALH							
* Alkalinity to pH 4.5	5/4/23 11:16	5/4/23 12:19		1	30.9	mg CaCO3/L		0.10	
Analytical Method: SM 2540C		Analyst: CNJ							
* Solids, Dissolved	4/27/23 13:15	5/1/23 10:20		1	352	mg/L		25	
Analytical Method: SM 4500CO2 D		Analyst: ALH							
* Bicarbonate Alkalinity, (calc.)	5/4/23 11:16	5/4/23 12:19		1	30.9	mg CaCO3/L		1	
* Carbonate Alkalinity, (calc.)	5/4/23 11:16	5/4/23 12:19		1	Not Detected	mg CaCO3/L		0.5	
Analytical Method: SM 5310 B		Analyst: SC							
* Total Organic Carbon	5/1/23 17:43	5/1/23 17:43		1	Not Detected	mg/L	1.00	2	U

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Barry Ash Pond - MW-15V

Location Code: WMWBARAP

Collected: 4/24/23 15:00

Customer ID:

Submittal Date: 4/26/23 10:18

Laboratory ID Number: BD08114

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM4500Cl E		Analyst: JCC							
* Chloride	5/1/23 12:27	5/1/23 12:27		20	192	mg/L	10.00	20	
Analytical Method: SM4500F G 2017		Analyst: JCC							
* Fluoride	5/2/23 13:39	5/2/23 13:39		1	Not Detected	mg/L	0.06	0.125	U
Analytical Method: SM4500SO4 E 2011		Analyst: JCC							
* Sulfate	4/28/23 11:59	4/28/23 11:59		1	1.93	mg/L	0.6	2	J
Analytical Method: Field Measurements		Analyst: AWG							
Conductivity	4/24/23 14:59	4/24/23 14:59			675.79	uS/cm			FA
pH	4/24/23 14:59	4/24/23 14:59			5.61	SU			FA
Temperature	4/24/23 14:59	4/24/23 14:59			20.74	C			FA
Turbidity	4/24/23 14:59	4/24/23 14:59			4.37	NTU			FA
Sulfide	4/24/23 14:59	4/24/23 14:59			0	mg/L			FA

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWBARAP
Sample Date: 4/24/23 15:00
Customer ID:
Delivery Date: 4/26/23 10:18

Description: Barry Ash Pond - MW-15V

Laboratory ID Number: BD08114

Sample	Analysis	Units	MB					Standard		Rec		Prec	Limit
			MB	Limit	Spike	MS	MSD	Standard	Limit	Rec	Limit		
BD08116	Aluminum, Dissolved	mg/L	0.00331	0.0198	0.100	0.110	0.110	0.106	0.0850 to 0.115	110	70.0 to 130	0.00	20.0
BD08116	Aluminum, Total	mg/L	0.00295	0.0198	0.100	0.113	0.111	0.106	0.0850 to 0.115	101	70.0 to 130	1.79	20.0
BD08116	Antimony, Dissolved	mg/L	0.000830	0.00100	0.100	0.107	0.105	0.0894	0.0850 to 0.115	107	70.0 to 130	1.89	20.0
BD08116	Antimony, Total	mg/L	0.000650	0.00100	0.100	0.106	0.104	0.101	0.0850 to 0.115	106	70.0 to 130	1.90	20.0
BD08116	Arsenic, Dissolved	mg/L	0.0000122	0.000200	0.100	0.0995	0.102	0.0994	0.0850 to 0.115	98.9	70.0 to 130	2.48	20.0
BD08116	Arsenic, Total	mg/L	0.000123	0.000200	0.100	0.0987	0.100	0.0982	0.0850 to 0.115	98.0	70.0 to 130	1.31	20.0
BD08116	Barium, Dissolved	mg/L	0.0000272	0.00100	0.100	0.246	0.243	0.101	0.0850 to 0.115	104	70.0 to 130	1.23	20.0
BD08116	Barium, Total	mg/L	0.0000316	0.00100	0.100	0.244	0.240	0.102	0.0850 to 0.115	108	70.0 to 130	1.65	20.0
BD08116	Beryllium, Dissolved	mg/L	0.0000195	0.000880	0.100	0.101	0.104	0.104	0.0850 to 0.115	101	70.0 to 130	2.93	20.0
BD08116	Beryllium, Total	mg/L	0.0000178	0.000880	0.100	0.102	0.102	0.101	0.0850 to 0.115	102	70.0 to 130	0.00	20.0
BD08116	Boron, Dissolved	mg/L	0.000249	0.0650	1.00	1.93	1.92	1.02	0.850 to 1.15	105	70.0 to 130	0.519	20.0
BD08116	Boron, Total	mg/L	0.000124	0.0650	1.00	1.92	1.93	1.03	0.850 to 1.15	104	70.0 to 130	0.519	20.0
BD08116	Cadmium, Dissolved	mg/L	0.0000027	0.000147	0.100	0.101	0.100	0.103	0.0850 to 0.115	101	70.0 to 130	0.995	20.0
BD08116	Cadmium, Total	mg/L	0.0000055	0.000147	0.100	0.100	0.0974	0.0985	0.0850 to 0.115	100	70.0 to 130	2.63	20.0
BD08116	Calcium, Dissolved	mg/L	-0.00637	0.152	5.00	35.1	34.3	4.99	4.25 to 5.75	132	70.0 to 130	2.31	20.0
BD08116	Calcium, Total	mg/L	0.00590	0.152	5.00	33.7	33.8	4.91	4.25 to 5.75	104	70.0 to 130	0.296	20.0
BD08116	Chloride	mg/L	0.0399	1.00	10.0	24.4	24.5	10.4	9.00 to 11.0	92.0	80.0 to 120	0.409	20.0
BD08116	Chromium, Dissolved	mg/L	-0.0000334	0.000440	0.100	0.100	0.0991	0.0996	0.0850 to 0.115	99.7	70.0 to 130	0.904	20.0
BD08116	Chromium, Total	mg/L	0.000143	0.000440	0.100	0.101	0.0981	0.100	0.0850 to 0.115	101	70.0 to 130	2.91	20.0
BD08116	Cobalt, Dissolved	mg/L	-0.0000223	0.000147	0.100	0.107	0.105	0.104	0.0850 to 0.115	106	70.0 to 130	1.89	20.0
BD08116	Cobalt, Total	mg/L	-0.0000221	0.000147	0.100	0.105	0.103	0.103	0.0850 to 0.115	104	70.0 to 130	1.92	20.0
BD08116	Fluoride	mg/L	0.022	0.125	2.50	2.78	2.71	2.62	2.25 to 2.75	108	80.0 to 120	2.55	20.0
BD08116	Iron, Dissolved	mg/L	-0.00302	0.0176	0.2	73.2	72.3	0.192	0.170 to 0.230	1100	70.0 to 130	1.24	20.0
BD08116	Iron, Total	mg/L	0.000805	0.0176	0.2	70.5	68.1	0.198	0.170 to 0.230	150	70.0 to 130	3.46	20.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWBARAP
Sample Date: 4/24/23 15:00
Customer ID:
Delivery Date: 4/26/23 10:18

Description: Barry Ash Pond - MW-15V

Laboratory ID Number: BD08114

Sample	Analysis	Units	MB					Standard		Rec		Prec	Limit
			MB	Limit	Spike	MS	MSD	Standard	Limit	Rec	Limit		
BD08116	Lead, Dissolved	mg/L	0.0000078	0.000147	0.100	0.104	0.105	0.102	0.0850 to 0.115	104	70.0 to 130	0.957	20.0
BD08116	Lead, Total	mg/L	0.0000063	0.000147	0.100	0.104	0.107	0.109	0.0850 to 0.115	104	70.0 to 130	2.84	20.0
BD08116	Lithium, Dissolved	mg/L	0.000195	0.0154	0.200	0.204	0.201	0.198	0.170 to 0.230	102	70.0 to 130	1.48	20.0
BD08116	Lithium, Total	mg/L	0.000277	0.0154	0.200	0.203	0.207	0.200	0.170 to 0.230	102	70.0 to 130	1.95	20.0
BD08116	Magnesium, Dissolved	mg/L	-0.00516	0.0462	5.00	12.0	11.9	5.06	4.25 to 5.75	103	70.0 to 130	0.837	20.0
BD08116	Magnesium, Total	mg/L	-0.0114	0.0462	5.00	11.8	11.9	5.07	4.25 to 5.75	98.2	70.0 to 130	0.844	20.0
BD08116	Manganese, Dissolved	mg/L	0.0000314	0.00033	0.100	1.60	1.57	0.101	0.0850 to 0.115	90.0	70.0 to 130	1.89	20.0
BD08116	Manganese, Total	mg/L	0.000110	0.00033	0.100	1.67	1.59	0.102	0.0850 to 0.115	190	70.0 to 130	4.91	20.0
BD08116	Mercury, Total by CVAA	mg/L	-4.000E-05	0.000500	0.004	0.00395	0.00396	0.00395	0.00340 to 0.00460	98.8	70.0 to 130	0.253	20.0
BD08116	Molybdenum, Dissolved	mg/L	0.00153	0.0100	0.2	0.195	0.195	0.194	0.170 to 0.230	97.5	70.0 to 130	0.00	20.0
BD08116	Molybdenum, Total	mg/L	0.001	0.0100	0.2	0.194	0.197	0.194	0.170 to 0.230	97.0	70.0 to 130	1.53	20.0
BD08116	Potassium, Dissolved	mg/L	0.0132	0.367	10.0	11.6	11.5	9.92	8.50 to 11.5	102	70.0 to 130	0.866	20.0
BD08116	Potassium, Total	mg/L	0.00927	0.367	10.0	11.5	11.1	10.1	8.50 to 11.5	101	70.0 to 130	3.54	20.0
BD08116	Selenium, Dissolved	mg/L	0.000101	0.00100	0.100	0.104	0.105	0.104	0.0850 to 0.115	104	70.0 to 130	0.957	20.0
BD08116	Selenium, Total	mg/L	0.0000944	0.00100	0.100	0.101	0.101	0.103	0.0850 to 0.115	101	70.0 to 130	0.00	20.0
BD08116	Silicon, Dissolved	mg/L	-0.000887	0.0440	1.00	14.4	14.3	1.01	0.850 to 1.15	100	70.0 to 130	0.697	20.0
BD08116	Silicon, Total	mg/L	-0.000333	0.0440	1.00	14.3	14.3	1.02	0.850 to 1.15	90.0	70.0 to 130	0.00	20.0
BD08116	Sodium, Dissolved	mg/L	0.00269	0.0880	5.00	20.2	20.0	4.92	4.25 to 5.75	92.0	70.0 to 130	0.995	20.0
BD08116	Sodium, Total	mg/L	0.00556	0.0880	5.00	19.9	20.2	5.00	4.25 to 5.75	90.0	70.0 to 130	1.50	20.0
BD08116	Sulfate	mg/L	0.0983	2.0	75.0	103	103	19.7	18.0 to 22.0	85.7	80.0 to 120	0.00	20.0
BD08116	Thallium, Dissolved	mg/L	-0.0000230	0.000147	0.100	0.105	0.103	0.103	0.0850 to 0.115	105	70.0 to 130	1.92	20.0
BD08116	Thallium, Total	mg/L	-0.0000206	0.000147	0.100	0.104	0.106	0.107	0.0850 to 0.115	104	70.0 to 130	1.90	20.0
BD08116	Total Organic Carbon	mg/L	0.112	1.00	10.0	16.9	18.0	8.96		88.3	80.0 to 120	6.30	20.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWBARAP
Sample Date: 4/24/23 15:00
Customer ID:
Delivery Date: 4/26/23 10:18

Description: Barry Ash Pond - MW-15V

Laboratory ID Number: BD08114

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BD08116	Alkalinity to pH 4.5	mg CaCO3/L					164	51.2	45.0 to 55.0			0.608	10.0
BD08116	Nitrogen, Nitrate/Nitrite	mg/L as N	0.08	0.200	2.00	2.22	0.340	2.20	1.80 to 2.20	93.8	90.0 to 110	1.17	15.0
BD08114	Solids, Dissolved	mg/L	1.00	25.0			345	51.0	40.0 to 60.0			2.01	10.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Barry Ash Pond - MW-20H

Location Code: WMWBARAP
Collected: 4/24/23 16:06
Customer ID:
Submittal Date: 4/26/23 10:18

Laboratory ID Number: BD08115

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7			Analyst: ABB		Preparation Method: EPA 1638				
* Boron, Total	4/28/23 06:47	5/4/23 10:15		1.015	0.0573	mg/L	0.030000	0.1015	J
* Calcium, Total	4/28/23 06:47	5/4/23 10:15		1.015	28.1	mg/L	0.070035	0.406	
* Iron, Total	4/28/23 06:47	5/4/23 11:44		101.5	54.5	mg/L	0.8120	4.06	
* Lithium, Total	4/28/23 06:47	5/4/23 10:15		1.015	Not Detected	mg/L	0.007105	0.01999956	U
* Magnesium, Total	4/28/23 06:47	5/4/23 10:15		1.015	17.7	mg/L	0.021315	0.406	
* Molybdenum, Total	4/28/23 06:47	5/4/23 10:15		1.015	Not Detected	mg/L	0.005075	0.01015	U
* Silica, Total (calc.)	4/28/23 06:47	5/4/23 10:15		1	16.9	mg/L			
* Silicon, Total	4/28/23 06:47	5/4/23 10:15		1.015	7.90	mg/L	0.02030	0.25375	
* Sodium, Total	4/28/23 06:47	5/4/23 11:44		101.5	91.0	mg/L	4.060	40.6	
Analytical Method: EPA 200.7			Analyst: ABB		Preparation Method: EPA 1638				
* Boron, Dissolved	4/27/23 14:09	5/4/23 09:47		1.015	0.0698	mg/L	0.030000	0.1015	J
* Calcium, Dissolved	4/27/23 14:09	5/4/23 09:47		1.015	28.3	mg/L	0.070035	0.406	
* Iron, Dissolved	4/27/23 14:09	5/4/23 11:25		101.5	52.7	mg/L	0.8120	4.06	
* Lithium, Dissolved	4/27/23 14:09	5/4/23 09:47		1.015	Not Detected	mg/L	0.007105	0.01999956	U
* Magnesium, Dissolved	4/27/23 14:09	5/4/23 09:47		1.015	17.5	mg/L	0.021315	0.406	
* Molybdenum, Dissolved	4/27/23 14:09	5/4/23 09:47		1.015	Not Detected	mg/L	0.005075	0.01015	U
* Silica, Dissolved (calc.)	4/27/23 14:09	5/4/23 09:47		1	16.9	mg/L			
* Silicon, Dissolved	4/27/23 14:09	5/4/23 09:47		1.015	7.88	mg/L	0.02030	0.25375	
* Sodium, Dissolved	4/27/23 14:09	5/4/23 11:25		101.5	91.6	mg/L	4.060	40.6	
Analytical Method: EPA 200.8			Analyst: DLJ		Preparation Method: EPA 1638				
* Antimony, Total	4/28/23 06:47	4/28/23 11:06		1.015	Not Detected	mg/L	0.000710	0.001015	U
* Aluminum, Total	4/28/23 06:47	4/28/23 11:06		1.015	0.0187	mg/L	0.009135	0.05075	J
* Arsenic, Total	4/28/23 06:47	4/28/23 11:06		1.015	0.0133	mg/L	0.000112	0.000203	
* Barium, Total	4/28/23 06:47	4/28/23 11:06		1.015	0.0980	mg/L	0.000508	0.001015	
* Beryllium, Total	4/28/23 06:47	4/28/23 11:06		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Total	4/28/23 06:47	4/28/23 11:06		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Total	4/28/23 06:47	4/28/23 11:06		1.015	0.00253	mg/L	0.000203	0.001015	
* Cobalt, Total	4/28/23 06:47	4/28/23 11:06		1.015	0.00442	mg/L	0.000068	0.000203	
* Lead, Total	4/28/23 06:47	4/28/23 11:06		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Total	4/28/23 06:47	4/28/23 11:06		1.015	0.475	mg/L	0.000152	0.001015	

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Barry Ash Pond - MW-20H

Location Code: WMWBARAP
Collected: 4/24/23 16:06
Customer ID:
Submittal Date: 4/26/23 10:18

Laboratory ID Number: BD08115

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
* Potassium, Total	4/28/23 06:47	4/28/23 11:06		1.015	3.27	mg/L	0.169505	0.5075	
* Selenium, Total	4/28/23 06:47	4/28/23 11:06		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Total	4/28/23 06:47	4/28/23 11:06		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 200.8		Analyst: DLJ							
* Antimony, Dissolved	4/27/23 14:09	4/28/23 14:18		1.015	Not Detected	mg/L	0.000710	0.001015	U
* Aluminum, Dissolved	4/27/23 14:09	4/28/23 14:18		1.015	0.0126	mg/L	0.009135	0.05075	J
* Arsenic, Dissolved	4/27/23 14:09	4/28/23 14:18		1.015	0.0133	mg/L	0.000112	0.000203	
* Barium, Dissolved	4/27/23 14:09	4/28/23 14:18		1.015	0.0958	mg/L	0.000508	0.001015	
* Beryllium, Dissolved	4/27/23 14:09	4/28/23 14:18		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Dissolved	4/27/23 14:09	4/28/23 14:18		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Dissolved	4/27/23 14:09	4/28/23 14:18		1.015	0.00239	mg/L	0.000203	0.001015	
* Cobalt, Dissolved	4/27/23 14:09	4/28/23 14:18		1.015	0.00430	mg/L	0.000068	0.000203	
* Lead, Dissolved	4/27/23 14:09	4/28/23 14:18		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Dissolved	4/27/23 14:09	4/28/23 14:18		1.015	0.475	mg/L	0.000152	0.001015	
* Potassium, Dissolved	4/27/23 14:09	4/28/23 14:18		1.015	3.31	mg/L	0.169505	0.5075	
* Selenium, Dissolved	4/27/23 14:09	4/28/23 14:18		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Dissolved	4/27/23 14:09	4/28/23 14:18		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 245.1		Analyst: CRB							
* Mercury, Total by CVAA	4/26/23 14:52	4/26/23 20:20		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: EPA 353.2		Analyst: SC							
* Nitrogen, Nitrate/Nitrite	4/28/23 15:50	4/28/23 15:50		1	0.292	mg/L as N	0.20	0.3	J
Analytical Method: SM 2320 B		Analyst: ALH							
* Alkalinity to pH 4.5	5/4/23 11:16	5/4/23 12:19		1	304	mg CaCO3/L		0.10	
Analytical Method: SM 2540C		Analyst: CNJ							
* Solids, Dissolved	4/27/23 13:15	5/1/23 10:20		1	473	mg/L		25	
Analytical Method: SM 4500CO2 D		Analyst: ALH							
* Bicarbonate Alkalinity, (calc.)	5/4/23 11:16	5/4/23 12:19		1	304	mg CaCO3/L		1	
* Carbonate Alkalinity, (calc.)	5/4/23 11:16	5/4/23 12:19		1	Not Detected	mg CaCO3/L		0.5	
Analytical Method: SM 5310 B		Analyst: SC							
* Total Organic Carbon	5/1/23 18:04	5/1/23 18:04		1	25.2	mg/L	1.00	2	

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Barry Ash Pond - MW-20H

Location Code: WMWBARAP
Collected: 4/24/23 16:06
Customer ID:
Submittal Date: 4/26/23 10:18

Laboratory ID Number: BD08115

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM4500Cl E		Analyst: JCC							
* Chloride	5/1/23 12:15	5/1/23 12:15		4	37.6	mg/L	2.00	4	
Analytical Method: SM4500F G 2017		Analyst: JCC							
* Fluoride	5/2/23 13:40	5/2/23 13:40		1	0.0659	mg/L	0.06	0.125	J
Analytical Method: SM4500SO4 E 2011		Analyst: JCC							
* Sulfate	4/28/23 12:01	4/28/23 12:01		3	63.6	mg/L	1.8	6	
Analytical Method: Field Measurements		Analyst: AWG							
Conductivity	4/24/23 16:04	4/24/23 16:04			759.26	uS/cm			FA
pH	4/24/23 16:04	4/24/23 16:04			6.16	SU			FA
Temperature	4/24/23 16:04	4/24/23 16:04			19.83	C			FA
Turbidity	4/24/23 16:04	4/24/23 16:04			1.8	NTU			FA
Sulfide	4/24/23 16:04	4/24/23 16:04			0	mg/L			FA

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWBARAP
Sample Date: 4/24/23 16:06
Customer ID:
Delivery Date: 4/26/23 10:18

Description: Barry Ash Pond - MW-20H

Laboratory ID Number: BD08115

Sample	Analysis	Units	MB					Standard		Rec			Prec Limit
			MB	Limit	Spike	MS	MSD	Standard	Limit	Rec	Limit	Prec	
BD08116	Aluminum, Dissolved	mg/L	0.00331	0.0198	0.100	0.110	0.110	0.106	0.0850 to 0.115	110	70.0 to 130	0.00	20.0
BD08116	Aluminum, Total	mg/L	0.00295	0.0198	0.100	0.113	0.111	0.106	0.0850 to 0.115	101	70.0 to 130	1.79	20.0
BD08116	Antimony, Dissolved	mg/L	0.000830	0.00100	0.100	0.107	0.105	0.0894	0.0850 to 0.115	107	70.0 to 130	1.89	20.0
BD08116	Antimony, Total	mg/L	0.000650	0.00100	0.100	0.106	0.104	0.101	0.0850 to 0.115	106	70.0 to 130	1.90	20.0
BD08116	Arsenic, Dissolved	mg/L	0.0000122	0.000200	0.100	0.0995	0.102	0.0994	0.0850 to 0.115	98.9	70.0 to 130	2.48	20.0
BD08116	Arsenic, Total	mg/L	0.000123	0.000200	0.100	0.0987	0.100	0.0982	0.0850 to 0.115	98.0	70.0 to 130	1.31	20.0
BD08116	Barium, Dissolved	mg/L	0.0000272	0.00100	0.100	0.246	0.243	0.101	0.0850 to 0.115	104	70.0 to 130	1.23	20.0
BD08116	Barium, Total	mg/L	0.0000316	0.00100	0.100	0.244	0.240	0.102	0.0850 to 0.115	108	70.0 to 130	1.65	20.0
BD08116	Beryllium, Dissolved	mg/L	0.0000195	0.000880	0.100	0.101	0.104	0.104	0.0850 to 0.115	101	70.0 to 130	2.93	20.0
BD08116	Beryllium, Total	mg/L	0.0000178	0.000880	0.100	0.102	0.102	0.101	0.0850 to 0.115	102	70.0 to 130	0.00	20.0
BD08116	Boron, Dissolved	mg/L	0.000249	0.0650	1.00	1.93	1.92	1.02	0.850 to 1.15	105	70.0 to 130	0.519	20.0
BD08116	Boron, Total	mg/L	0.000124	0.0650	1.00	1.92	1.93	1.03	0.850 to 1.15	104	70.0 to 130	0.519	20.0
BD08116	Cadmium, Dissolved	mg/L	0.0000027	0.000147	0.100	0.101	0.100	0.103	0.0850 to 0.115	101	70.0 to 130	0.995	20.0
BD08116	Cadmium, Total	mg/L	0.0000055	0.000147	0.100	0.100	0.0974	0.0985	0.0850 to 0.115	100	70.0 to 130	2.63	20.0
BD08116	Calcium, Dissolved	mg/L	-0.00637	0.152	5.00	35.1	34.3	4.99	4.25 to 5.75	132	70.0 to 130	2.31	20.0
BD08116	Calcium, Total	mg/L	0.00590	0.152	5.00	33.7	33.8	4.91	4.25 to 5.75	104	70.0 to 130	0.296	20.0
BD08116	Chloride	mg/L	0.0399	1.00	10.0	24.4	24.5	10.4	9.00 to 11.0	92.0	80.0 to 120	0.409	20.0
BD08116	Chromium, Dissolved	mg/L	-0.0000334	0.000440	0.100	0.100	0.0991	0.0996	0.0850 to 0.115	99.7	70.0 to 130	0.904	20.0
BD08116	Chromium, Total	mg/L	0.000143	0.000440	0.100	0.101	0.0981	0.100	0.0850 to 0.115	101	70.0 to 130	2.91	20.0
BD08116	Cobalt, Dissolved	mg/L	-0.0000223	0.000147	0.100	0.107	0.105	0.104	0.0850 to 0.115	106	70.0 to 130	1.89	20.0
BD08116	Cobalt, Total	mg/L	-0.0000221	0.000147	0.100	0.105	0.103	0.103	0.0850 to 0.115	104	70.0 to 130	1.92	20.0
BD08116	Fluoride	mg/L	0.022	0.125	2.50	2.78	2.71	2.62	2.25 to 2.75	108	80.0 to 120	2.55	20.0
BD08116	Iron, Dissolved	mg/L	-0.00302	0.0176	0.2	73.2	72.3	0.192	0.170 to 0.230	1100	70.0 to 130	1.24	20.0
BD08116	Iron, Total	mg/L	0.000805	0.0176	0.2	70.5	68.1	0.198	0.170 to 0.230	150	70.0 to 130	3.46	20.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWBARAP
Sample Date: 4/24/23 16:06
Customer ID:
Delivery Date: 4/26/23 10:18

Description: Barry Ash Pond - MW-20H

Laboratory ID Number: BD08115

Sample	Analysis	Units	MB					Standard		Rec		Prec	Limit
			MB	Limit	Spike	MS	MSD	Standard	Limit	Rec	Limit		
BD08116	Lead, Dissolved	mg/L	0.0000078	0.000147	0.100	0.104	0.105	0.102	0.0850 to 0.115	104	70.0 to 130	0.957	20.0
BD08116	Lead, Total	mg/L	0.0000063	0.000147	0.100	0.104	0.107	0.109	0.0850 to 0.115	104	70.0 to 130	2.84	20.0
BD08116	Lithium, Dissolved	mg/L	0.000195	0.0154	0.200	0.204	0.201	0.198	0.170 to 0.230	102	70.0 to 130	1.48	20.0
BD08116	Lithium, Total	mg/L	0.000277	0.0154	0.200	0.203	0.207	0.200	0.170 to 0.230	102	70.0 to 130	1.95	20.0
BD08116	Magnesium, Dissolved	mg/L	-0.00516	0.0462	5.00	12.0	11.9	5.06	4.25 to 5.75	103	70.0 to 130	0.837	20.0
BD08116	Magnesium, Total	mg/L	-0.0114	0.0462	5.00	11.8	11.9	5.07	4.25 to 5.75	98.2	70.0 to 130	0.844	20.0
BD08116	Manganese, Dissolved	mg/L	0.0000314	0.00033	0.100	1.60	1.57	0.101	0.0850 to 0.115	90.0	70.0 to 130	1.89	20.0
BD08116	Manganese, Total	mg/L	0.000110	0.00033	0.100	1.67	1.59	0.102	0.0850 to 0.115	190	70.0 to 130	4.91	20.0
BD08116	Mercury, Total by CVAA	mg/L	-4.000E-05	0.000500	0.004	0.00395	0.00396	0.00395	0.00340 to 0.00460	98.8	70.0 to 130	0.253	20.0
BD08116	Molybdenum, Dissolved	mg/L	0.00153	0.0100	0.2	0.195	0.195	0.194	0.170 to 0.230	97.5	70.0 to 130	0.00	20.0
BD08116	Molybdenum, Total	mg/L	0.001	0.0100	0.2	0.194	0.197	0.194	0.170 to 0.230	97.0	70.0 to 130	1.53	20.0
BD08116	Potassium, Dissolved	mg/L	0.0132	0.367	10.0	11.6	11.5	9.92	8.50 to 11.5	102	70.0 to 130	0.866	20.0
BD08116	Potassium, Total	mg/L	0.00927	0.367	10.0	11.5	11.1	10.1	8.50 to 11.5	101	70.0 to 130	3.54	20.0
BD08116	Selenium, Dissolved	mg/L	0.000101	0.00100	0.100	0.104	0.105	0.104	0.0850 to 0.115	104	70.0 to 130	0.957	20.0
BD08116	Selenium, Total	mg/L	0.0000944	0.00100	0.100	0.101	0.101	0.103	0.0850 to 0.115	101	70.0 to 130	0.00	20.0
BD08116	Silicon, Dissolved	mg/L	-0.000887	0.0440	1.00	14.4	14.3	1.01	0.850 to 1.15	100	70.0 to 130	0.697	20.0
BD08116	Silicon, Total	mg/L	-0.000333	0.0440	1.00	14.3	14.3	1.02	0.850 to 1.15	90.0	70.0 to 130	0.00	20.0
BD08116	Sodium, Dissolved	mg/L	0.00269	0.0880	5.00	20.2	20.0	4.92	4.25 to 5.75	92.0	70.0 to 130	0.995	20.0
BD08116	Sodium, Total	mg/L	0.00556	0.0880	5.00	19.9	20.2	5.00	4.25 to 5.75	90.0	70.0 to 130	1.50	20.0
BD08116	Sulfate	mg/L	0.0983	2.0	75.0	103	103	19.7	18.0 to 22.0	85.7	80.0 to 120	0.00	20.0
BD08116	Thallium, Dissolved	mg/L	-0.0000230	0.000147	0.100	0.105	0.103	0.103	0.0850 to 0.115	105	70.0 to 130	1.92	20.0
BD08116	Thallium, Total	mg/L	-0.0000206	0.000147	0.100	0.104	0.106	0.107	0.0850 to 0.115	104	70.0 to 130	1.90	20.0
BD08116	Total Organic Carbon	mg/L	0.112	1.00	10.0	16.9	18.0	8.96		88.3	80.0 to 120	6.30	20.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWBARAP

Sample Date: 4/24/23 16:06

Customer ID:

Delivery Date: 4/26/23 10:18

Description: Barry Ash Pond - MW-20H

Laboratory ID Number: BD08115

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BD08116	Alkalinity to pH 4.5	mg CaCO3/L					164	51.2	45.0 to 55.0			0.608	10.0
BD08116	Nitrogen, Nitrate/Nitrite	mg/L as N	0.08	0.200	2.00	2.22	0.340	2.20	1.80 to 2.20	93.8	90.0 to 110	1.17	15.0
BD08198	Solids, Dissolved	mg/L	1.00	25.0			830	51.0	40.0 to 60.0			0.00	10.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Barry Ash Pond - MW-19H

Location Code: WMWBARAP
Collected: 4/24/23 17:55
Customer ID:
Submittal Date: 4/26/23 10:18

Laboratory ID Number: BD08116

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7			Analyst: ABB			Preparation Method: EPA 1638			
* Boron, Total	4/28/23 06:47	5/4/23 10:18		1.015	0.876	mg/L	0.030000	0.1015	
* Calcium, Total	4/28/23 06:47	5/4/23 10:18		1.015	28.5	mg/L	0.070035	0.406	
* Iron, Total	4/28/23 06:47	5/4/23 11:47		101.5	70.2	mg/L	0.8120	4.06	RA
* Lithium, Total	4/28/23 06:47	5/4/23 10:18		1.015	Not Detected	mg/L	0.007105	0.01999956	U
* Magnesium, Total	4/28/23 06:47	5/4/23 10:18		1.015	6.89	mg/L	0.021315	0.406	
* Molybdenum, Total	4/28/23 06:47	5/4/23 10:18		1.015	Not Detected	mg/L	0.005075	0.01015	U
* Silica, Total (calc.)	4/28/23 06:47	5/4/23 10:18		1	28.7	mg/L			
* Silicon, Total	4/28/23 06:47	5/4/23 10:18		1.015	13.4	mg/L	0.02030	0.25375	
* Sodium, Total	4/28/23 06:47	5/4/23 10:18		1.015	15.4	mg/L	0.04060	0.406	
Analytical Method: EPA 200.7			Analyst: ABB						
* Boron, Dissolved	4/27/23 14:09	5/4/23 09:50		1.015	0.880	mg/L	0.030000	0.1015	
* Calcium, Dissolved	4/27/23 14:09	5/4/23 09:50		1.015	28.5	mg/L	0.070035	0.406	RA
* Iron, Dissolved	4/27/23 14:09	5/4/23 11:28		101.5	71.0	mg/L	0.8120	4.06	RA
* Lithium, Dissolved	4/27/23 14:09	5/4/23 09:50		1.015	Not Detected	mg/L	0.007105	0.01999956	U
* Magnesium, Dissolved	4/27/23 14:09	5/4/23 09:50		1.015	6.86	mg/L	0.021315	0.406	
* Molybdenum, Dissolved	4/27/23 14:09	5/4/23 09:50		1.015	Not Detected	mg/L	0.005075	0.01015	U
* Silica, Dissolved (calc.)	4/27/23 14:09	5/4/23 09:50		1	28.7	mg/L			
* Silicon, Dissolved	4/27/23 14:09	5/4/23 09:50		1.015	13.4	mg/L	0.02030	0.25375	
* Sodium, Dissolved	4/27/23 14:09	5/4/23 09:50		1.015	15.6	mg/L	0.04060	0.406	
Analytical Method: EPA 200.8			Analyst: DLJ			Preparation Method: EPA 1638			
* Antimony, Total	4/28/23 06:47	4/28/23 11:10		1.015	Not Detected	mg/L	0.000710	0.001015	U
* Aluminum, Total	4/28/23 06:47	4/28/23 11:10		1.015	0.0117	mg/L	0.009135	0.05075	J
* Arsenic, Total	4/28/23 06:47	4/28/23 11:10		1.015	0.000745	mg/L	0.000112	0.000203	
* Barium, Total	4/28/23 06:47	4/28/23 11:10		1.015	0.136	mg/L	0.000508	0.001015	
* Beryllium, Total	4/28/23 06:47	4/28/23 11:10		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Total	4/28/23 06:47	4/28/23 11:10		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Total	4/28/23 06:47	4/28/23 11:10		1.015	0.000396	mg/L	0.000203	0.001015	J
* Cobalt, Total	4/28/23 06:47	4/28/23 11:10		1.015	0.00147	mg/L	0.000068	0.000203	
* Lead, Total	4/28/23 06:47	4/28/23 11:10		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Total	4/28/23 06:47	4/28/23 19:20		5.075	1.48	mg/L	0.000761	0.005075	RA

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Barry Ash Pond - MW-19H

Location Code: WMWBARAP
Collected: 4/24/23 17:55
Customer ID:
Submittal Date: 4/26/23 10:18

Laboratory ID Number: BD08116

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
* Potassium, Total	4/28/23 06:47	4/28/23 11:10		1.015	1.41	mg/L	0.169505	0.5075	
* Selenium, Total	4/28/23 06:47	4/28/23 11:10		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Total	4/28/23 06:47	4/28/23 11:10		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 200.8		Analyst: DLJ							
* Antimony, Dissolved	4/27/23 14:09	4/28/23 14:22		1.015	Not Detected	mg/L	0.000710	0.001015	U
* Aluminum, Dissolved	4/27/23 14:09	4/28/23 14:22		1.015	Not Detected	mg/L	0.009135	0.05075	U
* Arsenic, Dissolved	4/27/23 14:09	4/28/23 14:22		1.015	0.000632	mg/L	0.000112	0.000203	
* Barium, Dissolved	4/27/23 14:09	4/28/23 14:22		1.015	0.142	mg/L	0.000508	0.001015	
* Beryllium, Dissolved	4/27/23 14:09	4/28/23 14:22		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Dissolved	4/27/23 14:09	4/28/23 14:22		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Dissolved	4/27/23 14:09	4/28/23 14:22		1.015	0.000336	mg/L	0.000203	0.001015	J
* Cobalt, Dissolved	4/27/23 14:09	4/28/23 14:22		1.015	0.00138	mg/L	0.000068	0.000203	
* Lead, Dissolved	4/27/23 14:09	4/28/23 14:22		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Dissolved	4/27/23 14:09	4/28/23 19:06		5.075	1.51	mg/L	0.000761	0.005075	RA
* Potassium, Dissolved	4/27/23 14:09	4/28/23 14:22		1.015	1.42	mg/L	0.169505	0.5075	
* Selenium, Dissolved	4/27/23 14:09	4/28/23 14:22		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Dissolved	4/27/23 14:09	4/28/23 14:22		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 245.1		Analyst: CRB							
* Mercury, Total by CVAA	4/26/23 14:52	4/26/23 20:24		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: EPA 353.2		Analyst: SC							
* Nitrogen, Nitrate/Nitrite	4/28/23 15:52	4/28/23 15:52		1	0.344	mg/L as N	0.20	0.3	
Analytical Method: SM 2320 B		Analyst: ALH							
* Alkalinity to pH 4.5	5/4/23 11:16	5/4/23 12:19		1	165	mg CaCO3/L		0.10	
Analytical Method: SM 2540C		Analyst: CNJ							
* Solids, Dissolved	4/27/23 13:15	5/1/23 10:20		1	261	mg/L		25	
Analytical Method: SM 4500CO2 D		Analyst: ALH							
* Bicarbonate Alkalinity, (calc.)	5/4/23 11:16	5/4/23 12:19		1	165	mg CaCO3/L		1	
* Carbonate Alkalinity, (calc.)	5/4/23 11:16	5/4/23 12:19		1	Not Detected	mg CaCO3/L		0.5	
Analytical Method: SM 5310 B		Analyst: SC							
* Total Organic Carbon	5/1/23 18:23	5/1/23 18:23		1	8.07	mg/L	1.00	2	

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Barry Ash Pond - MW-19H

Location Code: WMWBARAP
Collected: 4/24/23 17:55
Customer ID:
Submittal Date: 4/26/23 10:18

Laboratory ID Number: BD08116

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM4500Cl E		Analyst: JCC							
* Chloride	5/1/23 12:08	5/1/23 12:08		1	15.2	mg/L	0.50	1	
Analytical Method: SM4500F G 2017		Analyst: JCC							
* Fluoride	5/2/23 13:41	5/2/23 13:41		1	0.083	mg/L	0.06	0.125	J
Analytical Method: SM4500SO4 E 2011		Analyst: JCC							
* Sulfate	4/28/23 12:02	4/28/23 12:02		3	38.7	mg/L	1.8	6	
Analytical Method: Field Measurements		Analyst: AWG							
Conductivity	4/24/23 17:51	4/24/23 17:51			435.36	uS/cm			FA
pH	4/24/23 17:51	4/24/23 17:51			6.35	SU			FA
Temperature	4/24/23 17:51	4/24/23 17:51			20.04	C			FA
Turbidity	4/24/23 17:51	4/24/23 17:51			0.9	NTU			FA
Sulfide	4/24/23 17:51	4/24/23 17:51			0	mg/L			FA

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWBARAP
Sample Date: 4/24/23 17:55
Customer ID:
Delivery Date: 4/26/23 10:18

Description: Barry Ash Pond - MW-19H

Laboratory ID Number: BD08116

Sample	Analysis	Units	MB		Spike	MS	MSD	Standard		Rec		Prec	Limit
			MB	Limit				Standard	Limit	Rec	Limit		
BD08116	Aluminum, Dissolved	mg/L	0.00331	0.0198	0.100	0.110	0.110	0.106	0.0850 to 0.115	110	70.0 to 130	0.00	20.0
BD08116	Aluminum, Total	mg/L	0.00295	0.0198	0.100	0.113	0.111	0.106	0.0850 to 0.115	101	70.0 to 130	1.79	20.0
BD08116	Antimony, Dissolved	mg/L	0.000830	0.00100	0.100	0.107	0.105	0.0894	0.0850 to 0.115	107	70.0 to 130	1.89	20.0
BD08116	Antimony, Total	mg/L	0.000650	0.00100	0.100	0.106	0.104	0.101	0.0850 to 0.115	106	70.0 to 130	1.90	20.0
BD08116	Arsenic, Dissolved	mg/L	0.0000122	0.000200	0.100	0.0995	0.102	0.0994	0.0850 to 0.115	98.9	70.0 to 130	2.48	20.0
BD08116	Arsenic, Total	mg/L	0.000123	0.000200	0.100	0.0987	0.100	0.0982	0.0850 to 0.115	98.0	70.0 to 130	1.31	20.0
BD08116	Barium, Dissolved	mg/L	0.0000272	0.00100	0.100	0.246	0.243	0.101	0.0850 to 0.115	104	70.0 to 130	1.23	20.0
BD08116	Barium, Total	mg/L	0.0000316	0.00100	0.100	0.244	0.240	0.102	0.0850 to 0.115	108	70.0 to 130	1.65	20.0
BD08116	Beryllium, Dissolved	mg/L	0.0000195	0.000880	0.100	0.101	0.104	0.104	0.0850 to 0.115	101	70.0 to 130	2.93	20.0
BD08116	Beryllium, Total	mg/L	0.0000178	0.000880	0.100	0.102	0.102	0.101	0.0850 to 0.115	102	70.0 to 130	0.00	20.0
BD08116	Boron, Dissolved	mg/L	0.000249	0.0650	1.00	1.93	1.92	1.02	0.850 to 1.15	105	70.0 to 130	0.519	20.0
BD08116	Boron, Total	mg/L	0.000124	0.0650	1.00	1.92	1.93	1.03	0.850 to 1.15	104	70.0 to 130	0.519	20.0
BD08116	Cadmium, Dissolved	mg/L	0.0000027	0.000147	0.100	0.101	0.100	0.103	0.0850 to 0.115	101	70.0 to 130	0.995	20.0
BD08116	Cadmium, Total	mg/L	0.0000055	0.000147	0.100	0.100	0.0974	0.0985	0.0850 to 0.115	100	70.0 to 130	2.63	20.0
BD08116	Calcium, Dissolved	mg/L	-0.00637	0.152	5.00	35.1	34.3	4.99	4.25 to 5.75	132	70.0 to 130	2.31	20.0
BD08116	Calcium, Total	mg/L	0.00590	0.152	5.00	33.7	33.8	4.91	4.25 to 5.75	104	70.0 to 130	0.296	20.0
BD08116	Chloride	mg/L	0.0399	1.00	10.0	24.4	24.5	10.4	9.00 to 11.0	92.0	80.0 to 120	0.409	20.0
BD08116	Chromium, Dissolved	mg/L	-0.0000334	0.000440	0.100	0.100	0.0991	0.0996	0.0850 to 0.115	99.7	70.0 to 130	0.904	20.0
BD08116	Chromium, Total	mg/L	0.000143	0.000440	0.100	0.101	0.0981	0.100	0.0850 to 0.115	101	70.0 to 130	2.91	20.0
BD08116	Cobalt, Dissolved	mg/L	-0.0000223	0.000147	0.100	0.107	0.105	0.104	0.0850 to 0.115	106	70.0 to 130	1.89	20.0
BD08116	Cobalt, Total	mg/L	-0.0000221	0.000147	0.100	0.105	0.103	0.103	0.0850 to 0.115	104	70.0 to 130	1.92	20.0
BD08116	Fluoride	mg/L	0.022	0.125	2.50	2.78	2.71	2.62	2.25 to 2.75	108	80.0 to 120	2.55	20.0
BD08116	Iron, Dissolved	mg/L	-0.00302	0.0176	0.2	73.2	72.3	0.192	0.170 to 0.230	1100	70.0 to 130	1.24	20.0
BD08116	Iron, Total	mg/L	0.000805	0.0176	0.2	70.5	68.1	0.198	0.170 to 0.230	150	70.0 to 130	3.46	20.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWBARAP
Sample Date: 4/24/23 17:55
Customer ID:
Delivery Date: 4/26/23 10:18

Description: Barry Ash Pond - MW-19H

Laboratory ID Number: BD08116

Sample	Analysis	Units	MB					Standard		Rec		Prec	Limit
			MB	Limit	Spike	MS	MSD	Standard	Limit	Rec	Limit		
BD08116	Lead, Dissolved	mg/L	0.0000078	0.000147	0.100	0.104	0.105	0.102	0.0850 to 0.115	104	70.0 to 130	0.957	20.0
BD08116	Lead, Total	mg/L	0.0000063	0.000147	0.100	0.104	0.107	0.109	0.0850 to 0.115	104	70.0 to 130	2.84	20.0
BD08116	Lithium, Dissolved	mg/L	0.000195	0.0154	0.200	0.204	0.201	0.198	0.170 to 0.230	102	70.0 to 130	1.48	20.0
BD08116	Lithium, Total	mg/L	0.000277	0.0154	0.200	0.203	0.207	0.200	0.170 to 0.230	102	70.0 to 130	1.95	20.0
BD08116	Magnesium, Dissolved	mg/L	-0.00516	0.0462	5.00	12.0	11.9	5.06	4.25 to 5.75	103	70.0 to 130	0.837	20.0
BD08116	Magnesium, Total	mg/L	-0.0114	0.0462	5.00	11.8	11.9	5.07	4.25 to 5.75	98.2	70.0 to 130	0.844	20.0
BD08116	Manganese, Dissolved	mg/L	0.0000314	0.00033	0.100	1.60	1.57	0.101	0.0850 to 0.115	90.0	70.0 to 130	1.89	20.0
BD08116	Manganese, Total	mg/L	0.000110	0.00033	0.100	1.67	1.59	0.102	0.0850 to 0.115	190	70.0 to 130	4.91	20.0
BD08116	Mercury, Total by CVAA	mg/L	-4.000E-05	0.000500	0.004	0.00395	0.00396	0.00395	0.00340 to 0.00460	98.8	70.0 to 130	0.253	20.0
BD08116	Molybdenum, Dissolved	mg/L	0.00153	0.0100	0.2	0.195	0.195	0.194	0.170 to 0.230	97.5	70.0 to 130	0.00	20.0
BD08116	Molybdenum, Total	mg/L	0.001	0.0100	0.2	0.194	0.197	0.194	0.170 to 0.230	97.0	70.0 to 130	1.53	20.0
BD08116	Potassium, Dissolved	mg/L	0.0132	0.367	10.0	11.6	11.5	9.92	8.50 to 11.5	102	70.0 to 130	0.866	20.0
BD08116	Potassium, Total	mg/L	0.00927	0.367	10.0	11.5	11.1	10.1	8.50 to 11.5	101	70.0 to 130	3.54	20.0
BD08116	Selenium, Dissolved	mg/L	0.000101	0.00100	0.100	0.104	0.105	0.104	0.0850 to 0.115	104	70.0 to 130	0.957	20.0
BD08116	Selenium, Total	mg/L	0.0000944	0.00100	0.100	0.101	0.101	0.103	0.0850 to 0.115	101	70.0 to 130	0.00	20.0
BD08116	Silicon, Dissolved	mg/L	-0.000887	0.0440	1.00	14.4	14.3	1.01	0.850 to 1.15	100	70.0 to 130	0.697	20.0
BD08116	Silicon, Total	mg/L	-0.000333	0.0440	1.00	14.3	14.3	1.02	0.850 to 1.15	90.0	70.0 to 130	0.00	20.0
BD08116	Sodium, Dissolved	mg/L	0.00269	0.0880	5.00	20.2	20.0	4.92	4.25 to 5.75	92.0	70.0 to 130	0.995	20.0
BD08116	Sodium, Total	mg/L	0.00556	0.0880	5.00	19.9	20.2	5.00	4.25 to 5.75	90.0	70.0 to 130	1.50	20.0
BD08116	Sulfate	mg/L	0.0983	2.0	75.0	103	103	19.7	18.0 to 22.0	85.7	80.0 to 120	0.00	20.0
BD08116	Thallium, Dissolved	mg/L	-0.0000230	0.000147	0.100	0.105	0.103	0.103	0.0850 to 0.115	105	70.0 to 130	1.92	20.0
BD08116	Thallium, Total	mg/L	-0.0000206	0.000147	0.100	0.104	0.106	0.107	0.0850 to 0.115	104	70.0 to 130	1.90	20.0
BD08116	Total Organic Carbon	mg/L	0.112	1.00	10.0	16.9	18.0	8.96		88.3	80.0 to 120	6.30	20.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWBARAP

Sample Date: 4/24/23 17:55

Customer ID:

Delivery Date: 4/26/23 10:18

Description: Barry Ash Pond - MW-19H

Laboratory ID Number: BD08116

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BD08116	Alkalinity to pH 4.5	mg CaCO3/L					164	51.2	45.0 to 55.0			0.608	10.0
BD08116	Nitrogen, Nitrate/Nitrite	mg/L as N	0.08	0.200	2.00	2.22	0.340	2.20	1.80 to 2.20	93.8	90.0 to 110	1.17	15.0
BD08198	Solids, Dissolved	mg/L	1.00	25.0			830	51.0	40.0 to 60.0			0.00	10.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Definitions

Project Number: WMWBARAP_1404

Abbreviation	Description
DF	Dilution Factor
LCS	Lab Control Sample
LFM	Lab Fortified Matrix
MB	Method Blank
MDL	Method Detection Limit; minimum concentration of an analyte that can be determined with 99% confidence that the concentration is greater than zero.
MS	Matrix Spike
MSD	Matrix Spike Duplicate
Prec	Precision (% RPD)
Q	Qualifier; comment used to note deviations or additional information associated with analytical results.
QC	Quality Control
Rec	Recovery of Matrix Spike
RL	Reporting Limit; lowest concentration at which an analyte can be quantitatively measured.
Vio Spec	Violation Specification; regulatory limit which has been exceeded by the sample analyzed.

Qualifier	Description
A	Bicarbonate alkalinity, carbonate alkalinity, hydroxide alkalinity, free carbon dioxide, and/or total carbon dioxide calculations are estimates due to pH>10SU and/or TDS>500mg/L.
FA	Field results were reviewed by the Water Field Group. Refer to APC Field Case Narrative.
J	Reported value is an estimate because concentration is less than reporting limit.
R	Matrix spike recovery and/or matrix spike duplicate recovery is outside of specification limit.
RA	Matrix spike is invalid due to sample concentration.
U	Compound was analyzed, but not detected.



Chain of Custody
Groundwater
APC General Testing Laboratory

Field Complete
 Lab Complete

Outside Lab

Lab ETA

Requested Complete Date	Routine	Results To	Dustin Brooks, Greg Dyer
Collector	Dallas Gentry	Requested By	Greg Dyer
		Location	Barry Ash Pond

Bottles	1	Metals	500 mL	3	Hg	250 mL	5	TDS/Alkalinity	500 mL	7	N/A	N/A
	2	Dissolved Metals	500 mL	4	Nitrite, Nitrate; TOC	250 mL	6	Anions	500 mL	8	N/A	N/A

Comments Relinquish to shipping room at 1447. GFH 04/04/23

Sample #	Date	Time	Bottle Count	Description	Lab Filter	Lab Id	pH Check
MW-8	04/03/2023	09:42	6	Groundwater		BD06618	<input checked="" type="checkbox"/>
MW-10	04/03/2023	12:42	6	Groundwater		BD06619	<input checked="" type="checkbox"/>
MW-8V	04/03/2023	15:40	6	Groundwater		BD06620	<input checked="" type="checkbox"/>
MW-9	04/04/2023	08:47	6	Groundwater		BD06621	<input checked="" type="checkbox"/>
MW-9 dup	04/04/2023	08:47	6	Sample Duplicate		BD06622	<input checked="" type="checkbox"/>
FB-3	04/04/2023	09:20	5	Field Blank		BD06623	<input checked="" type="checkbox"/>
							<input type="checkbox"/>
							<input type="checkbox"/>
							<input type="checkbox"/>
							<input type="checkbox"/>
							<input type="checkbox"/>
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Relinquished By	Received By	Date/Time
		04/04/2023 10:29
	Renee Jernigan <small>Digitally signed by Renee Jernigan Date: 2023.04.05 07:54:40 -05'00'</small>	

SmarTroll ID	7586-41443-5-2	Cooler Temp	0.4 °C
Turbidity ID	9901-57263-1-1	Thermometer ID	10614-61208-2-1
Sample Event	1404	pH Strip ID	10429-60252-10-8

Bottles/Pre-Preserved Bottles are provided by the GTL.
Total Metals and Alkalinity are not performed on Dissolved Sets

Dissolved Metals and Alkalinity are not performed on blanks i.e. Field Blanks or Equipment Blanks



Chain of Custody Groundwater

APC General Testing Laboratory

Field Complete
 Lab Complete

Outside Lab

Lab ETA

Requested Complete Date	Routine	Results To	Dustin Brooks, Greg Dyer
	Collector: TJ Daugherty		Requested By: Greg Dyer
		Location	Barry Ash Pond

Bottles	1	Metals	500 mL	3	Hg	250 mL	5	TDS/Alkalinity	500 mL	7	N/A	N/A
	2	Dissolved Metals	500 mL	4	Nitrite, Nitrate; TOC	250 mL	6	Anions	500 mL	8	N/A	N/A

Comments: Relinquish to shipping room at 1447. GFH 04/04/23

Sample #	Date	Time	Bottle Count	Description	Lab Filter	Lab Id	pH Check
MW-1	04/03/2023	08:50	6	Groundwater		BD06611	<input checked="" type="checkbox"/>
MW-2	04/03/2023	11:23	6	Groundwater		BD06612	<input checked="" type="checkbox"/>
MW-10V	04/03/2023	15:16	6	Groundwater		BD06613	<input checked="" type="checkbox"/>
MW-7V	04/03/2023	16:40	6	Groundwater		BD06614	<input checked="" type="checkbox"/>
MW-7	04/03/2023	17:37	6	Groundwater		BD06615	<input checked="" type="checkbox"/>
MW-6	04/04/2023	08:50	6	Groundwater		BD06616	<input checked="" type="checkbox"/>
FB-1	04/04/2023	09:20	5	Field Blank		BD06617	<input checked="" type="checkbox"/>
							<input type="checkbox"/>
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Relinquished By	Received By	Date/Time
		04/04/2023 10:27
	Renee Jernigan	
	Digitally signed by Renee Jernigan Date: 2023.04.05 07:54:28 -05'00'	

SmarTroll ID	7586-41445-5-4	Cooler Temp	0.4 °C
Turbidity ID	4677-23343-4-2	Thermometer ID	10614-61208-2-1
Sample Event	1404	pH Strip ID	10429-60252-10-8

Bottles/Pre-Preserved Bottles are provided by the GTL.
Total Metals and Alkalinity are not performed on Dissolved Sets
Dissolved Metals and Alkalinity are not performed on blanks i.e. Field Blanks or Equipment Blanks



Chain of Custody

Groundwater

APC General Testing Laboratory

Field Complete
 Lab Complete

Outside Lab

Lab ETA

Requested Complete Date	Routine	Results To	Dustin Brooks, Greg Dyer
Collector	Anthony Goggins	Requested By	Greg Dyer
		Location	Barry Ash Pond

Bottles	1	Metals	500 mL	3	Hg	250 mL	5	TDS/Alkalinity	500 mL	7	N/A	N/A
	2	Dissolved Metals	500 mL	4	Nitrite, Nitrate; TOC	250 mL	6	Anions	500 mL	8	N/A	N/A

Comments: Relinquish to shipping room at 1447. GFH 04/04/23

Sample #	Date	Time	Bottle Count	Description	Lab Filter	Lab Id	pH Check
MW-15	04/03/2023	09:12	6	Groundwater		BD06604	<input checked="" type="checkbox"/>
EB-1	04/03/2023	09:40	5	Equipment Blank		BD06605	<input checked="" type="checkbox"/>
MW-24H	04/03/2023	11:48	6	Groundwater		BD06606	<input checked="" type="checkbox"/>
MW-24H Dup	04/03/2023	11:48	6	Sample Duplicate		BD06607	<input checked="" type="checkbox"/>
MW-25H	04/03/2023	14:24	6	Groundwater		BD06608	<input checked="" type="checkbox"/>
MW-25H Dup	04/03/2023	14:24	6	Sample Duplicate		BD06609	<input checked="" type="checkbox"/>
MW-25V	04/03/2023	15:17	6	Groundwater		BD06610	<input checked="" type="checkbox"/>
							<input type="checkbox"/>
							<input type="checkbox"/>
							<input type="checkbox"/>
							<input type="checkbox"/>
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Relinquished By	Received By	Date/Time
		04/04/2023 10:26
	Renee Jernigan Digitally signed by Renee Jernigan Date: 2023.04.05 07:53:57 -05'00'	

SmarTroll ID	7586-41446-5-5	Cooler Temp	0.4 °C
Turbidity ID	9830-57039-1-1	Thermometer ID	10614-61208-2-1
Sample Event	1404	pH Strip ID	10429-60252-10-8

Bottles/Pre-Preserved Bottles are provided by the GTL.
 Total Metals and Alkalinity are not performed on Dissolved Sets
 Dissolved Metals and Alkalinity are not performed on blanks i.e. Field Blanks or Equipment Blanks



Chain of Custody
Groundwater
APC General Testing Laboratory

Field Complete
 Lab Complete

Outside Lab

Lab ETA

Requested Complete Date	Routine	Results To	Dustin Brooks, Greg Dyer
Collector	TJ Daugherty	Requested By	Greg Dyer
		Location	Barry Ash Pond

Bottles	1	Metals	500 mL	3	Hg	250 mL	5	TDS/Alkalinity	500 mL	7	N/A	N/A
	2	Dissolved Metals	500 mL	4	Nitrite, Nitrate; TOC	250 mL	6	Anions	500 mL	8	N/A	N/A

Comments

Sample #	Date	Time	Bottle Count	Description	Lab Filter	Lab Id	pH Check
MW-11	04/04/2023	11:25	6	Groundwater		BD06775	<input checked="" type="checkbox"/>
MW-12V	04/04/2023	12:35	6	Groundwater		BD06776	<input checked="" type="checkbox"/>
MW-12V Dup	04/04/2023	12:35	6	Sample Duplicate		BD06777	<input checked="" type="checkbox"/>
MW-12	04/04/2023	13:45	6	Groundwater		BD06778	<input checked="" type="checkbox"/>
MW-13	04/04/2023	15:05	6	Groundwater		BD06779	<input checked="" type="checkbox"/>
MW-13V	04/04/2023	15:50	6	Groundwater		BD06780	<input checked="" type="checkbox"/>
FB-2	04/04/2023	16:20	5	Field Blank		BD06781	<input checked="" type="checkbox"/>
							<input type="checkbox"/>
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Relinquished By	Received By	Date/Time
<i>HAB</i>	<i>Greg Dyer</i>	04/05/2023 13:31

SmarTroll ID	7586-41445-5-4	Cooler Temp	0.3 °C
Turbidity ID	4677-23343-4-2	Thermometer ID	10614-61208-2-1
Sample Event	1404	pH Strip ID	10620-61242-10-8

Bottles/Pre-Preserved Bottles are provided by the GTL.
Total Metals and Alkalinity are not performed on Dissolved Sets
Dissolved Metals and Alkalinity are not performed on blanks i.e. Field Blanks or Equipment Blanks



Chain of Custody

Groundwater

APC General Testing Laboratory

Field Complete
 Lab Complete

Outside Lab

Lab ETA

Requested Complete Date	Routine	Results To	Dustin Brooks, Greg Dyer
	Collector		Dallas Gentry
		Location	Barry Ash Pond

Bottles	1	Metals	500 mL	3	Hg	250 mL	5	TDS/Alkalinity	500 mL	7	N/A	N/A
	2	Dissolved Metals	500 mL	4	Nitrite, Nitrate; TOC	250 mL	6	Anions	500 mL	8	N/A	N/A

Comments

Sample #	Date	Time	Bottle Count	Description	Lab Filter	Lab Id	pH Check
MW-5V	04/04/2023	11:11	6	Groundwater		BD06832	<input checked="" type="checkbox"/>
MW-5	04/04/2023	12:02	6	Groundwater		BD06833	<input checked="" type="checkbox"/>
MW-4	04/04/2023	13:01	6	Groundwater		BD06834	<input checked="" type="checkbox"/>
MW-3	04/04/2023	14:14	6	Groundwater		BD06835	<input checked="" type="checkbox"/>
MW-1V	04/04/2023	15:12	6	Groundwater		BD06836	<input checked="" type="checkbox"/>
MW-16V	04/04/2023	16:31	6	Groundwater		BD06837	<input checked="" type="checkbox"/>
MW-18H	04/05/2023	09:23	6	Groundwater		BD06838	<input checked="" type="checkbox"/>
MW-14	04/05/2023	11:35	6	Groundwater		BD06839	<input checked="" type="checkbox"/>
FB-4	04/05/2023	12:30	5	Field Blank		BD06840	<input checked="" type="checkbox"/>
							<input type="checkbox"/>
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Relinquished By	Received By	Date/Time
<i>Dallas Gentry</i>	<i>Rand</i>	04/06/2023 10:51

SmarTroll ID	7586-41443-5-2	Cooler Temp	0.3 °C
Turbidity ID	9901-57263-1-1	Thermometer ID	10614-61208-2-1
Sample Event	1404	pH Strip ID	10620-61242-10-8

Bottles/Pre-Preserved Bottles are provided by the GTL.
 Total Metals and Alkalinity are not performed on Dissolved Sets
 Dissolved Metals and Alkalinity are not performed on blanks i.e. Field Blanks or Equipment Blanks



Chain of Custody Groundwater

APC General Testing Laboratory

Field Complete
 Lab Complete

Outside Lab

Lab ETA

Requested Complete Date	Routine	Results To	Dustin Brooks, Greg Dyer
	Collector: Anthony Goggins		Requested By: Greg Dyer
		Location	Barry Ash Pond

Bottles	1	Metals	500 mL	3	Hg	250 mL	5	TDS/Alkalinity	500 mL	7	N/A	N/A
	2	Dissolved Metals	500 mL	4	Nitrite, Nitrate; TOC	250 mL	6	Anions	500 mL	8	N/A	N/A

Comments

Sample #	Date	Time	Bottle Count	Description	Lab Filter	Lab Id	pH Check
MW-23H	04/04/2023	11:15	6	Groundwater		BD06826	<input checked="" type="checkbox"/>
MW-23V	04/04/2023	11:55	6	Groundwater		BD06827	<input checked="" type="checkbox"/>
MW-17V	04/04/2023	12:50	6	Groundwater		BD06828	<input checked="" type="checkbox"/>
MW-17H	04/04/2023	13:36	6	Groundwater		BD06829	<input checked="" type="checkbox"/>
MW-14V	04/04/2023	15:05	6	Groundwater		BD06830	<input checked="" type="checkbox"/>
MW-16	04/05/2023	09:45	6	Groundwater		BD06831	<input checked="" type="checkbox"/>
							<input type="checkbox"/>
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Relinquished By	Received By	Date/Time
<i>Anthony Goggins</i>	<i>Greg Dyer</i>	04/06/2023 10:51

SmarTroll ID	7586-41446-5-5	Cooler Temp	0.1 °C
Turbidity ID	9830-57039-1-1	Thermometer ID	10614-61208-2-1
Sample Event	1404	pH Strip ID	10620-61242-10-8

Bottles/Pre-Preserved Bottles are provided by the GTL.
Total Metals and Alkalinity are not performed on Dissolved Sets
Dissolved Metals and Alkalinity are not performed on blanks i.e. Field Blanks or Equipment Blanks



Chain of Custody Groundwater

APC General Testing Laboratory

 Field Complete
 Lab Complete

 Outside Lab

 Lab ETA

Requested Complete Date	Routine	Results To	Dustin Brooks, Greg Dyer
Collector	Anthony Goggins	Requested By	Greg Dyer
		Location	Barry Ash Pond

Bottles	1	Metals	500 mL	3	Hg	250 mL	5	TDS/Alkalinity	500 mL	7	N/A	N/A
	2	Dissolved Metals	500 mL	4	Nitrite, Nitrate; TOC	250 mL	6	Anions	500 mL	8	N/A	N/A

Comments

Sample #	Date	Time	Bottle Count	Description	Lab Filter	Lab Id	pH Check
MW-20V	04/24/2023	12:58	6	Groundwater		BD08112	<input checked="" type="checkbox"/>
MW-22H	04/24/2023	14:05	6	Groundwater		BD08113	<input checked="" type="checkbox"/>
MW-15V	04/24/2023	15:00	6	Groundwater		BD08114	<input checked="" type="checkbox"/>
MW-20H	04/24/2023	16:06	6	Groundwater		BD08115	<input checked="" type="checkbox"/>
MW-19H	04/24/2023	17:55	6	Groundwater		BD08116	<input checked="" type="checkbox"/>
							<input type="checkbox"/>
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Relinquished By	Received By	Date/Time
<i>Anthony Goggins</i>	<i>Bushy Cotton</i>	04/26/2023 08:57

SmarTroll ID	7586-41446-5-5	Cooler Temp	0.9 °C
Turbidity ID	9830-57039-1-1	Thermometer ID	10614-61208-2-1
Sample Event	1404	pH Strip ID	10429-60252-10-8

Bottles/Pre-Preserved Bottles are provided by the GTL.
Total Metals and Alkalinity are not performed on Dissolved Sets
Dissolved Metals and Alkalinity are not performed on blanks i.e. Field Blanks or Equipment Blanks



Chain of Custody Groundwater

APC General Testing Laboratory

Field Complete
 Lab Complete

Outside Lab

Lab ETA

Requested Complete Date	Routine	Results To	Dustin Brooks, Greg Dyer
	Collector: Anthony Goggins		Requested By: Greg Dyer
		Location	Barry Ash Pond

Bottles	1 Radium	1 L	3 N/A	N/A	5 N/A	N/A	7 N/A	N/A
	2 N/A	N/A	4 N/A	N/A	6 N/A	N/A	8 N/A	N/A

Comments: MS/MSD @ MW-15
Relinquish to shipping room at 1447. GFH 04/04/23

Sample #	Date	Time	Bottle Count	Description	Lab Filter	Lab Id	pH Check
MW-15	04/03/2023	09:12	3	Groundwater		BD06624	<input checked="" type="checkbox"/>
EB-1	04/03/2023	09:40	1	Equipment Blank		BD06625	<input checked="" type="checkbox"/>
MW-24H	04/03/2023	11:48	1	Groundwater		BD06626	<input checked="" type="checkbox"/>
MW-24H Dup	04/03/2023	11:48	1	Sample Duplicate		BD06627	<input checked="" type="checkbox"/>
MW-25H	04/03/2023	14:24	1	Groundwater		BD06628	<input checked="" type="checkbox"/>
MW-25H Dup	04/03/2023	14:24	1	Sample Duplicate		BD06629	<input checked="" type="checkbox"/>
MW-25V	04/03/2023	15:17	1	Groundwater		BD06630	<input checked="" type="checkbox"/>
							<input type="checkbox"/>
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Relinquished By	Received By	Date/Time
		04/04/2023 10:27
	Renee Jernigan Digitally signed by Renee Jernigan Date: 2023.04.05 07:54:51 -05'00'	

SmarTroll ID	7586-41446-5-5	Cooler Temp	N/A
Turbidity ID	9830-57039-1-1	Thermometer ID	N/A
Sample Event	1404	pH Strip ID	10429-60252-10-8

Bottles/Pre-Preserved Bottles are provided by the GTL.
Total Metals and Alkalinity are not performed on Dissolved Sets
Dissolved Metals and Alkalinity are not performed on blanks i.e. Field Blanks or Equipment Blanks



Chain of Custody

Groundwater

APC General Testing Laboratory

Field Complete
 Lab Complete

Outside Lab

Lab ETA

Requested Complete Date	Routine	Results To	Dustin Brooks, Greg Dyer
Collector	Dallas Gentry	Requested By	Greg Dyer
		Location	Barry Ash Pond

Bottles	1 Radium	1 L	3 N/A	N/A	5 N/A	N/A	7 N/A	N/A
	2 N/A	N/A	4 N/A	N/A	6 N/A	N/A	8 N/A	N/A

Comments: Radium MS/MSD collected at MW-8
 Relinquish to shipping room at 1447. GFH 04/04/23

Sample #	Date	Time	Bottle Count	Description	Lab Filter	Lab Id	pH Check
MW-8	04/03/2023	09:42	3	Groundwater		BD06638	<input checked="" type="checkbox"/>
MW-10	04/03/2023	12:42	1	Groundwater		BD06639	<input checked="" type="checkbox"/>
MW-8V	04/03/2023	15:40	1	Groundwater		BD06640	<input checked="" type="checkbox"/>
MW-9	04/04/2023	08:47	1	Groundwater		BD06641	<input checked="" type="checkbox"/>
MW-9 dup	04/04/2023	08:47	1	Sample Duplicate		BD06642	<input checked="" type="checkbox"/>
FB-3	04/04/2023	09:20	1	Field Blank		BD06643	<input checked="" type="checkbox"/>
							<input type="checkbox"/>
							<input type="checkbox"/>
							<input type="checkbox"/>
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Relinquished By	Received By	Date/Time
		04/04/2023 10:29
	Renee Jernigan	
	<small>Digitally signed by Renee Jernigan Date: 2023.04.05 07:55:13 -05'00'</small>	

SmarTroll ID	7586-41443-5-2	Cooler Temp	N/A
Turbidity ID	9901-57263-1-1	Thermometer ID	N/A
Sample Event	1404	pH Strip ID	10429-60252-10-8

Bottles/Pre-Preserved Bottles are provided by the GTL.
 Total Metals and Alkalinity are not performed on Dissolved Sets
 Dissolved Metals and Alkalinity are not performed on blanks i.e. Field Blanks or Equipment Blanks



Chain of Custody Groundwater

APC General Testing Laboratory

Field Complete

Outside Lab

Lab Complete

Lab ETA

Requested Complete Date	Routine	Results To	Dustin Brooks, Greg Dyer
	Collector		TJ Daugherty
		Location	Barry Ash Pond

Bottles	1	Radium	1 L	3	N/A	N/A	5	N/A	N/A	7	N/A	N/A
	2	N/A	N/A	4	N/A	N/A	6	N/A	N/A	8	N/A	N/A

Comments

Sample #	Date	Time	Bottle Count	Description	Lab Filter	Lab Id	pH Check
MW-1	04/03/2023	08:50	1	Groundwater		BD06631	<input checked="" type="checkbox"/>
MW-2	04/03/2023	11:23	1	Groundwater		BD06632	<input checked="" type="checkbox"/>
MW-10V	04/03/2023	15:16	1	Groundwater		BD06633	<input checked="" type="checkbox"/>
MW-7V	04/03/2023	16:40	1	Groundwater		BD06634	<input checked="" type="checkbox"/>
MW-7	04/03/2023	17:37	1	Groundwater		BD06635	<input checked="" type="checkbox"/>
MW-6	04/04/2023	08:50	1	Groundwater		BD06636	<input checked="" type="checkbox"/>
FB-1	04/04/2023	09:20	1	Field Blank		BD06637	<input checked="" type="checkbox"/>
							<input type="checkbox"/>
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Relinquished By	Received By	Date/Time
		04/04/2023 10:27
	Renee Jernigan <small>Digitally signed by Renee Jernigan Date: 2023.04.05 07:55:02 -05'00'</small>	

SmarTroll ID	7586-41445-5-4	Cooler Temp	N/A
Turbidity ID	4677-23343-4-2	Thermometer ID	N/A
Sample Event	1404	pH Strip ID	10429-60252-10-8

Bottles/Pre-Preserved Bottles are provided by the GTL.
Total Metals and Alkalinity are not performed on Dissolved Sets
Dissolved Metals and Alkalinity are not performed on blanks i.e. Field Blanks or Equipment Blanks



Chain of Custody

Groundwater

APC General Testing Laboratory

Field Complete
 Lab Complete

Outside Lab

Lab ETA

Requested Complete Date	Routine	Results To	Dustin Brooks, Greg Dyer
	Collector: TJ Daugherty		Requested By: Greg Dyer
		Location	Barry Ash Pond

Bottles	1 Radium	1 L	3 N/A	N/A	5 N/A	N/A	7 N/A	N/A
	2 N/A	N/A	4 N/A	N/A	6 N/A	N/A	8 N/A	N/A

Comments: Rad MS/MSD @ MW-12

Sample #	Date	Time	Bottle Count	Description	Lab Filter	Lab Id	pH Check
MW-11	04/04/2023	11:25	1	Groundwater		BD06782	<input checked="" type="checkbox"/>
MW-12V	04/04/2023	12:35	1	Groundwater		BD06783	<input checked="" type="checkbox"/>
MW-12V Dup	04/04/2023	12:35	1	Sample Duplicate		BD06784	<input checked="" type="checkbox"/>
MW-12	04/04/2023	13:45	3	Groundwater		BD06785	<input checked="" type="checkbox"/>
MW-13	04/04/2023	15:05	1	Groundwater		BD06786	<input checked="" type="checkbox"/>
MW-13V	04/04/2023	15:50	1	Groundwater		BD06787	<input checked="" type="checkbox"/>
FB-2	04/04/2023	16:20	1	Field Blank		BD06788	<input checked="" type="checkbox"/>
							<input type="checkbox"/>
							<input type="checkbox"/>
							<input type="checkbox"/>
							<input type="checkbox"/>
							<input type="checkbox"/>
							<input type="checkbox"/>
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							<input type="checkbox"/>

Relinquished By	Received By	Date/Time
		04/05/2023 13:31

SmarTroll ID	7586-41445-5-4	Cooler Temp	NA
Turbidity ID	4677-23343-4-2	Thermometer ID	NA
Sample Event	1404	pH Strip ID	10620-61242-10-8

Bottles/Pre-Preserved Bottles are provided by the GTL.
 Total Metals and Alkalinity are not performed on Dissolved Sets
 Dissolved Metals and Alkalinity are not performed on blanks i.e. Field Blanks or Equipment Blanks



Chain of Custody

Groundwater

APC General Testing Laboratory

Field Complete
 Lab Complete

Outside Lab

Lab ETA

Requested Complete Date	Routine	Results To	Dustin Brooks, Greg Dyer
	Collector		Dallas Gentry
		Location	Barry Ash Pond

Bottles	1	Radium	1 L	3	N/A	N/A	5	N/A	N/A	7	N/A	N/A
	2	N/A	N/A	4	N/A	N/A	6	N/A	N/A	8	N/A	N/A

Comments

Sample #	Date	Time	Bottle Count	Description	Lab Filter	Lab Id	pH Check
MW-5V	04/04/2023	11:11	1	Groundwater		BD06847	<input checked="" type="checkbox"/>
MW-5	04/04/2023	12:02	1	Groundwater		BD06848	<input checked="" type="checkbox"/>
MW-4	04/04/2023	13:01	1	Groundwater		BD06849	<input checked="" type="checkbox"/>
MW-3	04/04/2023	14:14	1	Groundwater		BD06850	<input checked="" type="checkbox"/>
MW-1V	04/04/2023	15:12	1	Groundwater		BD06851	<input checked="" type="checkbox"/>
MW-16V	04/04/2023	16:31	1	Groundwater		BD06852	<input checked="" type="checkbox"/>
MW-18H	04/05/2023	09:23	1	Groundwater		BD06853	<input checked="" type="checkbox"/>
MW-14	04/05/2023	11:35	1	Groundwater		BD06854	<input checked="" type="checkbox"/>
FB-4	04/05/2023	12:30	1	Field Blank		BD06855	<input checked="" type="checkbox"/>
							<input type="checkbox"/>
							<input type="checkbox"/>
							<input type="checkbox"/>
							<input type="checkbox"/>
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Relinquished By	Received By	Date/Time
		04/06/2023 10:51

SmarTroll ID	7586-41443-5-2	Cooler Temp	NA
Turbidity ID	9901-57263-1-1	Thermometer ID	NA
Sample Event	1404	pH Strip ID	10620-61242-10-8

Bottles/Pre-Preserved Bottles are provided by the GTL.
 Total Metals and Alkalinity are not performed on Dissolved Sets
 Dissolved Metals and Alkalinity are not performed on blanks i.e. Field Blanks or Equipment Blanks



Chain of Custody

Groundwater

APC General Testing Laboratory

 Field Complete
 Lab Complete

 Outside Lab

 Lab ETA

Requested Complete Date	Routine	Results To	Dustin Brooks, Greg Dyer		
	Collector		Anthony Goggins	Requested By	Greg Dyer
					Location

Bottles	1	Radium	1 L	3	N/A	N/A	5	N/A	N/A	7	N/A	N/A
	2	N/A	N/A	4	N/A	N/A	6	N/A	N/A	8	N/A	N/A

 Comments

Sample #	Date	Time	Bottle Count	Description	Lab Filter	Lab Id	pH Check
MW-23H	04/04/2023	11:15	1	Groundwater		BD06841	<input checked="" type="checkbox"/>
MW-23V	04/04/2023	11:55	1	Groundwater		BD06842	<input checked="" type="checkbox"/>
MW-17V	04/04/2023	12:50	1	Groundwater		BD06843	<input checked="" type="checkbox"/>
MW-17H	04/04/2023	13:36	1	Groundwater		BD06844	<input checked="" type="checkbox"/>
MW-14V	04/04/2023	15:05	1	Groundwater		BD06845	<input checked="" type="checkbox"/>
MW-16	04/05/2023	09:45	1	Groundwater		BD06846	<input checked="" type="checkbox"/>
							<input type="checkbox"/>
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Relinquished By	Received By	Date/Time
<i>Anthony Goggins</i>	<i>Greg Dyer</i>	04/06/2023 10:51

SmarTroll ID	7586-41446-5-5	Cooler Temp	NA
Turbidity ID	9830-57039-1-1	Thermometer ID	NA
Sample Event	1404	pH Strip ID	10620-61242-10-8

Bottles/Pre-Preserved Bottles are provided by the GTL.
 Total Metals and Alkalinity are not performed on Dissolved Sets
 Dissolved Metals and Alkalinity are not performed on blanks i.e. Field Blanks or Equipment Blanks



Chain of Custody Groundwater

APC General Testing Laboratory

Field Complete
 Lab Complete

Outside Lab

Lab ETA

Requested Complete Date	Routine	Results To	Dustin Brooks, Greg Dyer
Collector	Anthony Goggins	Requested By	Greg Dyer
		Location	Barry Ash Pond

Bottles	1	Radium	1 L	3	N/A	N/A	5	N/A	N/A	7	N/A	N/A
	2	N/A	N/A	4	N/A	N/A	6	N/A	N/A	8	N/A	N/A

Comments

Sample #	Date	Time	Bottle Count	Description	Lab Filter	Lab Id	pH Check
MW-20V	04/24/2023	12:58	1	Groundwater		BD08117	<input checked="" type="checkbox"/>
MW-22H	04/24/2023	14:05	1	Groundwater		BD08118	<input checked="" type="checkbox"/>
MW-15V	04/24/2023	15:00	1	Groundwater		BD08119	<input checked="" type="checkbox"/>
MW-20H	04/24/2023	16:06	1	Groundwater		BD08120	<input checked="" type="checkbox"/>
MW-19H	04/24/2023	17:55	1	Groundwater		BD08121	<input checked="" type="checkbox"/>
							<input type="checkbox"/>
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Relinquished By	Received By	Date/Time
<i>Anthony Goggins</i>	<i>Bruce Gibson</i>	04/26/2023 08:56

SmarTroll ID	7586-41446-5-5	Cooler Temp	N/A
Turbidity ID	9830-57039-1-1	Thermometer ID	N/A
Sample Event	1404	pH Strip ID	10429-60252-10-8

Bottles/Pre-Preserved Bottles are provided by the GTL.
 Total Metals and Alkalinity are not performed on Dissolved Sets
 Dissolved Metals and Alkalinity are not performed on blanks i.e. Field Blanks or Equipment Blanks

May 19, 2023

Brooke Caton
Alabama Power
744 Highway 87
Calera, AL 35040

RE: Project: WMWBARPU_1406
Pace Project No.: 30580824

Dear Brooke Caton:

Enclosed are the analytical results for sample(s) received by the laboratory on April 20, 2023. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Services - Greensburg

If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Skyler C. Richmond
skyler.richmond@pacelabs.com
(724)850-5600
Project Manager

Enclosures

cc: Blaine Denton, Alabama Power
Renee Jernigan, Alabama Power



REPORT OF LABORATORY ANALYSIS

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CERTIFICATIONS

Project: WMWBARPU_1406
Pace Project No.: 30580824

Pace Analytical Services Pennsylvania

1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601
ANAB DOD-ELAP Rad Accreditation #: L2417
Alabama Certification #: 41590
Arizona Certification #: AZ0734
Arkansas Certification
California Certification #: 04222CA
Colorado Certification #: PA01547
Connecticut Certification #: PH-0694
Delaware Certification
EPA Region 4 DW Rad
Florida/TNI Certification #: E87683
Georgia Certification #: C040
Florida: Cert E871149 SEKS WET
Guam Certification
Hawaii Certification
Idaho Certification
Illinois Certification
Indiana Certification
Iowa Certification #: 391
Kansas/TNI Certification #: E-10358
Kentucky Certification #: KY90133
KY WW Permit #: KY0098221
KY WW Permit #: KY0000221
Louisiana DHH/TNI Certification #: LA180012
Louisiana DEQ/TNI Certification #: 4086
Maine Certification #: 2017020
Maryland Certification #: 308
Massachusetts Certification #: M-PA1457
Michigan/PADEP Certification #: 9991

Missouri Certification #: 235
Montana Certification #: Cert0082
Nebraska Certification #: NE-OS-29-14
Nevada Certification #: PA014572018-1
New Hampshire/TNI Certification #: 297617
New Jersey/TNI Certification #: PA051
New Mexico Certification #: PA01457
New York/TNI Certification #: 10888
North Carolina Certification #: 42706
North Dakota Certification #: R-190
Ohio EPA Rad Approval: #41249
Oregon/TNI Certification #: PA200002-010
Pennsylvania/TNI Certification #: 65-00282
Puerto Rico Certification #: PA01457
Rhode Island Certification #: 65-00282
South Dakota Certification
Tennessee Certification #: 02867
Texas/TNI Certification #: T104704188-17-3
Utah/TNI Certification #: PA014572017-9
USDA Soil Permit #: P330-17-00091
Vermont Dept. of Health: ID# VT-0282
Virgin Island/PADEP Certification
Virginia/VELAP Certification #: 460198
Washington Certification #: C868
West Virginia DEP Certification #: 143
West Virginia DHHR Certification #: 9964C
Wisconsin Approve List for Rad
Wyoming Certification #: 8TMS-L

REPORT OF LABORATORY ANALYSIS

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SAMPLE SUMMARY

Project: WMWBARPU_1406
Pace Project No.: 30580824

Lab ID	Sample ID	Matrix	Date Collected	Date Received
30580824001	BD07418 MW-4	Water	04/12/23 09:51	04/20/23 10:15
30580824002	BD07419 MW-4 Dup	Water	04/12/23 09:51	04/20/23 10:15
30580824003	BD07420 MW-3	Water	04/12/23 11:05	04/20/23 10:15
30580824004	BD07420 MW-3 MS	Water	04/12/23 11:05	04/20/23 10:15
30580824005	BD07420 MW-3 MSD	Water	04/12/23 11:05	04/20/23 10:15
30580824006	BD07421 MW-2	Water	04/12/23 12:10	04/20/23 10:15
30580824007	BD07422 MW-1	Water	04/12/23 13:05	04/20/23 10:15
30580824008	BD07423 FB-1	Water	04/12/23 13:35	04/20/23 10:15
30580824009	BD07424 EB-1	Water	04/12/23 13:45	04/20/23 10:15

REPORT OF LABORATORY ANALYSIS

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SAMPLE ANALYTE COUNT

Project: WMWBARPU_1406
Pace Project No.: 30580824

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
30580824001	BD07418 MW-4	EPA 9315	SLC	1	PASI-PA
		EPA 9320	ZPC	1	PASI-PA
		Total Radium Calculation	LAL	1	PASI-PA
30580824002	BD07419 MW-4 Dup	EPA 9315	SLC	1	PASI-PA
		EPA 9320	ZPC	1	PASI-PA
		Total Radium Calculation	LAL	1	PASI-PA
30580824003	BD07420 MW-3	EPA 9315	SLC	1	PASI-PA
		EPA 9320	ZPC	1	PASI-PA
		Total Radium Calculation	LAL	1	PASI-PA
30580824004	BD07420 MW-3 MS	EPA 9315	SLC	1	PASI-PA
		EPA 9320	ZPC	1	PASI-PA
30580824005	BD07420 MW-3 MSD	EPA 9315	SLC	1	PASI-PA
		EPA 9320	ZPC	1	PASI-PA
30580824006	BD07421 MW-2	EPA 9315	SLC	1	PASI-PA
		EPA 9320	ZPC	1	PASI-PA
		Total Radium Calculation	LAL	1	PASI-PA
30580824007	BD07422 MW-1	EPA 9315	SLC	1	PASI-PA
		EPA 9320	ZPC	1	PASI-PA
		Total Radium Calculation	LAL	1	PASI-PA
30580824008	BD07423 FB-1	EPA 9315	SLC	1	PASI-PA
		EPA 9320	ZPC	1	PASI-PA
		Total Radium Calculation	LAL	1	PASI-PA
30580824009	BD07424 EB-1	EPA 9315	SLC	1	PASI-PA
		EPA 9320	ZPC	1	PASI-PA
		Total Radium Calculation	LAL	1	PASI-PA

PASI-PA = Pace Analytical Services - Greensburg

REPORT OF LABORATORY ANALYSIS

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PROJECT NARRATIVE

Project: WMWBARPU_1406
Pace Project No.: 30580824

Method: EPA 9315
Description: 9315 Total Radium
Client: Alabama Power
Date: May 19, 2023

General Information:

9 samples were analyzed for EPA 9315 by Pace Analytical Services Greensburg. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:

The samples were analyzed within the method required hold times with any exceptions noted below.

Method Blank:

All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:

All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

REPORT OF LABORATORY ANALYSIS

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PROJECT NARRATIVE

Project: WMWBARPU_1406
Pace Project No.: 30580824

Method: EPA 9320
Description: 9320 Radium 228
Client: Alabama Power
Date: May 19, 2023

General Information:

9 samples were analyzed for EPA 9320 by Pace Analytical Services Greensburg. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:

The samples were analyzed within the method required hold times with any exceptions noted below.

Method Blank:

All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:

All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

REPORT OF LABORATORY ANALYSIS

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PROJECT NARRATIVE

Project: WMWBARPU_1406
Pace Project No.: 30580824

Method: Total Radium Calculation
Description: Total Radium 228+226
Client: Alabama Power
Date: May 19, 2023

General Information:

7 samples were analyzed for Total Radium Calculation by Pace Analytical Services Greensburg. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:

The samples were analyzed within the method required hold times with any exceptions noted below.

Method Blank:

All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:

All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

This data package has been reviewed for quality and completeness and is approved for release.

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: WMWBARPU_1406

Pace Project No.: 30580824

Sample: BD07418 MW-4 **Lab ID: 30580824001** Collected: 04/12/23 09:51 Received: 04/20/23 10:15 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 9315	0.629 ± 0.299 (0.343) C:96% T:NA	pCi/L	05/17/23 14:26	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	0.543U ± 0.369 (0.695) C:72% T:86%	pCi/L	05/09/23 15:02	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	1.17 ± 0.668 (1.04)	pCi/L	05/18/23 12:06	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: WMWBARPU_1406

Pace Project No.: 30580824

Sample: BD07419 MW-4 Dup **Lab ID: 30580824002** Collected: 04/12/23 09:51 Received: 04/20/23 10:15 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	0.524 ± 0.275 (0.361) C:95% T:NA	pCi/L	05/17/23 14:26	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	1.03 ± 0.416 (0.643) C:79% T:91%	pCi/L	05/09/23 15:02	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	1.55 ± 0.691 (1.00)	pCi/L	05/18/23 12:06	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: WMWBARPU_1406

Pace Project No.: 30580824

Sample: BD07420 MW-3 **Lab ID: 30580824003** Collected: 04/12/23 11:05 Received: 04/20/23 10:15 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 9315	0.656 ± 0.311 (0.376) C:96% T:NA	pCi/L	05/17/23 14:26	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	0.625U ± 0.359 (0.656) C:80% T:94%	pCi/L	05/09/23 15:02	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	1.28 ± 0.670 (1.03)	pCi/L	05/18/23 12:06	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: WMWBARPU_1406

Pace Project No.: 30580824

Sample: BD07420 MW-3 MS **Lab ID: 30580824004** Collected: 04/12/23 11:05 Received: 04/20/23 10:15 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	115.16 %REC ± NA (NA) C:NA T:NA	pCi/L	05/17/23 14:26	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	70.62 %REC ± NA (NA) C:NA T:NA	pCi/L	05/09/23 15:02	15262-20-1	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: WMWBARPU_1406

Pace Project No.: 30580824

Sample: BD07420 MW-3 MSD **Lab ID: 30580824005** Collected: 04/12/23 11:05 Received: 04/20/23 10:15 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 9315	107.99 %REC 6.43RPD ± NA (NA) C:NA T:NA	pCi/L	05/17/23 14:26	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	81.12 %REC 13.85RPD ± NA (NA) C:NA T:NA	pCi/L	05/09/23 15:03	15262-20-1	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: WMWBARPU_1406

Pace Project No.: 30580824

Sample: BD07421 MW-2 **Lab ID: 30580824006** Collected: 04/12/23 12:10 Received: 04/20/23 10:15 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	0.626 ± 0.316 (0.415) C:91% T:NA	pCi/L	05/17/23 14:26	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	0.443U ± 0.311 (0.597) C:81% T:98%	pCi/L	05/09/23 15:03	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	1.07 ± 0.627 (1.01)	pCi/L	05/18/23 12:06	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: WMWBARPU_1406

Pace Project No.: 30580824

Sample: BD07422 MW-1 **Lab ID: 30580824007** Collected: 04/12/23 13:05 Received: 04/20/23 10:15 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	0.587 ± 0.322 (0.497) C:93% T:NA	pCi/L	05/17/23 14:26	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	0.443U ± 0.363 (0.722) C:76% T:85%	pCi/L	05/09/23 15:03	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	1.03U ± 0.685 (1.22)	pCi/L	05/18/23 12:06	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: WMWBARPU_1406

Pace Project No.: 30580824

Sample: BD07423 FB-1 **Lab ID: 30580824008** Collected: 04/12/23 13:35 Received: 04/20/23 10:15 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 9315	0.118U ± 0.176 (0.381) C:92% T:NA	pCi/L	05/17/23 14:26	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	0.321U ± 0.267 (0.523) C:79% T:92%	pCi/L	05/09/23 15:03	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	0.439U ± 0.443 (0.904)	pCi/L	05/18/23 12:06	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: WMWBARPU_1406

Pace Project No.: 30580824

Sample: BD07424 EB-1 **Lab ID: 30580824009** Collected: 04/12/23 13:45 Received: 04/20/23 10:15 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 9315	0.306U ± 0.235 (0.400) C:96% T:NA	pCi/L	05/17/23 14:26	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	0.638 ± 0.350 (0.617) C:81% T:88%	pCi/L	05/09/23 15:03	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	0.944U ± 0.585 (1.02)	pCi/L	05/18/23 12:06	7440-14-4	

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QUALITY CONTROL - RADIOCHEMISTRY

Project: WMWBARPU_1406

Pace Project No.: 30580824

QC Batch: 582723

Analysis Method: EPA 9320

QC Batch Method: EPA 9320

Analysis Description: 9320 Radium 228

Laboratory: Pace Analytical Services - Greensburg

Associated Lab Samples: 30580824001, 30580824002, 30580824003, 30580824004, 30580824005, 30580824006, 30580824007, 30580824008, 30580824009

METHOD BLANK: 2829969

Matrix: Water

Associated Lab Samples: 30580824001, 30580824002, 30580824003, 30580824004, 30580824005, 30580824006, 30580824007, 30580824008, 30580824009

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.978 ± 0.391 (0.591) C:78% T:92%	pCi/L	05/09/23 11:59	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

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QUALITY CONTROL - RADIOCHEMISTRY

Project: WMWBARPU_1406

Pace Project No.: 30580824

QC Batch: 583035

Analysis Method: EPA 9315

QC Batch Method: EPA 9315

Analysis Description: 9315 Total Radium

Laboratory: Pace Analytical Services - Greensburg

Associated Lab Samples: 30580824001, 30580824002, 30580824003, 30580824004, 30580824005, 30580824006, 30580824007, 30580824008, 30580824009

METHOD BLANK: 2831530

Matrix: Water

Associated Lab Samples: 30580824001, 30580824002, 30580824003, 30580824004, 30580824005, 30580824006, 30580824007, 30580824008, 30580824009

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.208 ± 0.117 (0.172) C:98% T:NA	pCi/L	05/17/23 14:20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

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QUALIFIERS

Project: WMWBARPU_1406
Pace Project No.: 30580824

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Reported results are not rounded until the final step prior to reporting. Therefore, calculated parameters that are typically reported as "Total" may vary slightly from the sum of the reported component parameters.

Act - Activity

Unc - Uncertainty: For Safe Drinking Water Act (SDWA) analyses, the reported Unc. is the calculated Count Uncertainty (95% confidence interval) using a coverage factor of 1.96. For all other matrices (non-SDWA), the reported Unc. is the calculated Expanded Uncertainty (aka Combined Standard Uncertainty, CSU), reported at the 95% confidence interval using a coverage factor of 1.96.

Gamma Spec: The Unc. reported for all gamma-spectroscopy analyses (EPA 901.1), is the calculated Expanded Uncertainty (CSU) at the 95.4% confidence interval, using a coverage factor of 2.0.

(MDC) - Minimum Detectable Concentration

Trac - Tracer Recovery (%)

Carr - Carrier Recovery (%)

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: WMWBARPU_1406

Pace Project No.: 30580824

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
30580824001	BD07418 MW-4	EPA 9315	583035		
30580824002	BD07419 MW-4 Dup	EPA 9315	583035		
30580824003	BD07420 MW-3	EPA 9315	583035		
30580824004	BD07420 MW-3 MS	EPA 9315	583035		
30580824005	BD07420 MW-3 MSD	EPA 9315	583035		
30580824006	BD07421 MW-2	EPA 9315	583035		
30580824007	BD07422 MW-1	EPA 9315	583035		
30580824008	BD07423 FB-1	EPA 9315	583035		
30580824009	BD07424 EB-1	EPA 9315	583035		
30580824001	BD07418 MW-4	EPA 9320	582723		
30580824002	BD07419 MW-4 Dup	EPA 9320	582723		
30580824003	BD07420 MW-3	EPA 9320	582723		
30580824004	BD07420 MW-3 MS	EPA 9320	582723		
30580824005	BD07420 MW-3 MSD	EPA 9320	582723		
30580824006	BD07421 MW-2	EPA 9320	582723		
30580824007	BD07422 MW-1	EPA 9320	582723		
30580824008	BD07423 FB-1	EPA 9320	582723		
30580824009	BD07424 EB-1	EPA 9320	582723		
30580824001	BD07418 MW-4	Total Radium Calculation	589102		
30580824002	BD07419 MW-4 Dup	Total Radium Calculation	589102		
30580824003	BD07420 MW-3	Total Radium Calculation	589102		
30580824006	BD07421 MW-2	Total Radium Calculation	589102		
30580824007	BD07422 MW-1	Total Radium Calculation	589102		
30580824008	BD07423 FB-1	Total Radium Calculation	589102		
30580824009	BD07424 EB-1	Total Radium Calculation	589102		

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CHAIN-OF-CUSTODY / Analytical Request Document


The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Section A		Section B		Section C	
Required Client Information:		Required Project Information:		Invoice Information:	
Company: Alabama Power Company	Report To: Brooke Caton	Report To: Brooke Caton	Company Name: Alabama Power Co.	Attention: Brooke Caton	
Address: 744 Highway 87 GSC Bldg #8	Copy To: Renee Jernigan & Blaine Denton	Copy To: Renee Jernigan & Blaine Denton	Address: 744 Highway 87 GSC Bldg #8	Address: 744 Highway 87 GSC Bldg #8	Regulatory Agency
Calera, AL 35040	Purchase Order #: APC10755638	Purchase Order #: APC10755638	CCR	CCR	
Email To: tbwilli@southrimco.com	Project Name: Plant Barry Pooled Upgradient	Project Name: Plant Barry Pooled Upgradient	Pace Project Manager: Skyler Richmond	Pace Quote:	State / Location
Phone: 205-664-6101 Fax:	Project Number: WMMBARPU_1406	Project Number: WMMBARPU_1406	Pace Profile #:		AL
Requested Due Date: 28 days					

ITEM #	Description	Station Name Location_ID	Site Name Facility_ID	Sample Duplicate	Matrix Spike/Matrix Spike Duplicate	Field Filtered	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED		# OF CONTAINERS	Preservatives	Analyses Test	Requested Analysis Filtered (Y/N)	EPA 9315	EPA 9320	Total Radium Sum	Residual Chlorine (Y/N)	SAMPLE CONDITIONS
									DATE	TIME									
1	BD07418	APCO-BY-UP-MW-4	APCO_Barry_Pooled_Upgradient				GW G	G	4/12/2023	9:51	1	X		X	X	X		001	
2	BD07419	APCO-BY-UP-MW-4	APCO_Barry_Pooled_Upgradient	X			GW G	G	4/12/2023	9:51	1	X		X	X	X		002	
3	BD07420	APCO-BY-UP-MW-3	APCO_Barry_Pooled_Upgradient		X		GW G	G	4/12/2023	11:05	3	X		X	X	X		003, 004, 005	
4	BD07421	APCO-BY-UP-MW-2	APCO_Barry_Pooled_Upgradient				GW G	G	4/12/2023	12:10	1	X		X	X	X		006	
5	BD07422	APCO-BY-UP-MW-1	APCO_Barry_Pooled_Upgradient				GW G	G	4/12/2023	13:05	1	X		X	X	X		007	
6	BD07423	APCO-BY-UP-EB-01	APCO_Barry_Pooled_Upgradient				GW G	G	4/12/2023	13:35	1	X		X	X	X		008	
7	BD07424	APCO-BY-UP-ES-01	APCO_Barry_Pooled_Upgradient				GW G	G	4/12/2023	13:45	1	X		X	X	X		009	
8																			
9																			
10																			
11																			
12																			

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
	Brooke Caton / APC-GTL	4/18/2023	9:07	<i>[Signature]</i>	4-20-23	10:15	

WO#: 30580824



30580824

SAMPLER NAME AND SIGNATURE
PRINT Name of SAMPLER:
SIGNATURE of SAMPLER:

DATE Signed:

Received on _____
Temp in C _____

Intact (Y/N) _____
Sealed (Y/N) _____
Cooler (Y/N) _____
Custody (Y/N) _____



DC# Title: ENV-FRM-GBUR-0088 v04_Sample Condition Upon Receipt
 Pittsburgh
 Effective Date: 02/03/2023

WO#: 30580824

PM: SCR Due Date: 05/18/23
 CLIENT: ALABAMA PWR

Client Name: Alabama Power

Courier: Fed Ex UPS USPS Client Commercial Pace Other

Tracking Number: 6368 8465 0871

Examined By	PS
Labeled By	PS
Temped By	—

Custody Seal on Cooler/Box Present: Yes No Seals Intact: Yes No

Thermometer Used: — Type of Ice: Wet Blue None

Cooler Temperature: Observed Temp — °C Correction Factor: — °C Final Temp: — °C
 Temp should be above freezing to 6°C

Comments:	Yes	No	NA	pH paper Lot#	D.P.D. Residual Chlorine Lot #
				1003121	—
Chain of Custody Present	/				
Chain of Custody Filled Out: -Were client corrections present on COC	/				
Chain of Custody Relinquished	/				
Sampler Name & Signature on COC:	/				
Sample Labels match COC: -Includes date/time/ID Matrix: WT	/				
Samples Arrived within Hold Time:	/				
Short Hold Time Analysis (<72hr remaining):		/			
Rush Turn Around Time Requested:		/			
Sufficient Volume:	/				
Correct Containers Used: -Pace Containers Used	/				
Containers Intact:	/				
Orthophosphate field filtered:			/		
Hex Cr Aqueous samples field filtered:			/		
Organic Samples checked for dechlorination			/		
Filtered volume received for dissolved tests:			/		
All containers checked for preservation: exceptions: VOA, coliform, TOC, O&G, Phenolics, Radon, non-aqueous matrix	/				
All containers meet method preservation requirements:	/			PHC2 Initial when completed PS	Date/Time of Preservation
8260C/D: Headspace in VOA Vials (> 6mm)			/		
624.1: Headspace in VOA Vials (0mm)			/		
Trip Blank Present:			/		Trip blank custody seal present? YES or NO
Rad Samples Screened <0.5 mrem/hr.	/			Initial when completed PS	Date: 4/21/23 Survey Meter SN: 1569
Comments:					

Note: For NC compliance samples with discrepancies, a copy of this form must be sent to the DEHNR Certification office. PM Review is documented electronically in LIMS through the SRF Review schedule in the Workorder Edit Screen.

Quality Control Sample Performance Assessment



Analyst Must Manually Enter All Fields Highlighted in Yellow.

Test: Ra-226
Analyst: SLC
Date: 4/25/2023
Worklist: 72709
Matrix: W1

Method Blank Assessment	
MB Sample ID	2831530
MB concentration:	0.208
M/B 2 Sigma CSU:	0.117
MB MDC:	0.172
MB Numerical Performance Indicator:	3.50
MB Status vs Numerical Indicator:	Fail*
MB Status vs. MDC:	N/A

Laboratory Control Sample Assessment		LCSD (Y or N)?	N
		LCSD72709	LCSD72709
Count Date:	5/17/2023		
Spike I.D.:	19-033		
Decay Corrected Spike Concentration (pCi/mL):	24.017		
Volume Used (mL):	0.10		
Aliquot Volume (L, g, F):	0.507		
Target Conc. (pCi/L, g, F):	4.737		
Uncertainty (Calculated):	0.057		
Result (pCi/L, g, F):	5.031		
LCSD/LCSD 2 Sigma CSU (pCi/L, g, F):	0.880		
Numerical Performance Indicator:	0.65		
Percent Recovery:	106.21%		
Status vs Numerical Indicator:	Pass		
Status vs Recovery:	N/A		
Upper % Recovery Limits:	125%		
Lower % Recovery Limits:	75%		

Sample Matrix Spike Control Assessment	MS/MSD 1	MS/MSD 2
Sample Collection Date:	4/12/2023	
Sample I.D.:	30580824003	
Sample MS I.D.:	30580824004	
Sample MSD I.D.:	30580824005	
Spike I.D.:	19-033	
MS/MSD Decay Corrected Spike Concentration (pCi/mL):	24.018	
Spike Volume Used in MS (mL):	0.20	
Spike Volume Used in MSD (mL):	0.20	
MS Aliquot (L, g, F):	0.203	
MS Target Conc. (pCi/L, g, F):	23.656	
MSD Aliquot (L, g, F):	0.203	
MSD Target Conc. (pCi/L, g, F):	23.685	
MS Spike Uncertainty (calculated):	0.284	
MSD Spike Uncertainty (calculated):	0.284	
Sample Result:	0.656	
Sample Result 2 Sigma CSU (pCi/L, g, F):	0.311	
Sample Matrix Spike Result:	27.899	
Matrix Spike Result 2 Sigma CSU (pCi/L, g, F):	4.412	
Sample Matrix Spike Duplicate Result:	26.233	
Sample Matrix Spike Duplicate Result 2 Sigma CSU (pCi/L, g, F):	4.162	
Matrix Spike Duplicate Result 2 Sigma CSU (pCi/L, g, F):	1.586	
MS Numerical Performance Indicator:	0.887	
MSD Numerical Performance Indicator:	115.16%	
MS Percent Recovery:	107.99%	
MS Status vs Numerical Indicator:	Pass	
MS Status vs Numerical Indicator:	Pass	
MS Status vs Recovery:	N/A	
MSD Status vs Recovery:	N/A	
MS/MSD Upper % Recovery Limits:	125%	
MS/MSD Lower % Recovery Limits:	75%	

Duplicate Sample Assessment	
Sample I.D.:	
Duplicate Sample I.D.:	
Sample Result (pCi/L, g, F):	
Sample Result 2 Sigma CSU (pCi/L, g, F):	
Sample Duplicate Result (pCi/L, g, F):	
Sample Duplicate Result 2 Sigma CSU (pCi/L, g, F):	
Are sample and/or duplicate results below RL?	
Duplicate Numerical Performance Indicator:	
Duplicate RPD:	
Duplicate Status vs Numerical Indicator:	
Duplicate Status vs RPD:	
% RPD Limit:	

Matrix Spike/Matrix Spike Duplicate Sample Assessment	
Sample I.D.:	30580824003
Sample MS I.D.:	30580824004
Sample MSD I.D.:	30580824005
Spike I.D.:	19-033
Matrix Spike Result 2 Sigma CSU (pCi/L, g, F):	27.899
Sample Matrix Spike Duplicate Result:	26.233
Sample Matrix Spike Duplicate Result 2 Sigma CSU (pCi/L, g, F):	4.162
Duplicate Numerical Performance Indicator:	0.538
Duplicate Numerical Performance Indicator (Based on the Percent Recoveries) MS/MSD Duplicate RPD:	6.43%
MS/MSD Duplicate Status vs Numerical Indicator:	Pass
MS/MSD Duplicate Status vs RPD:	N/A
% RPD Limit:	25%

Evaluation of duplicate precision is not applicable if either the sample or duplicate results are below the MDC.

Comments:

*If the lowest activity sample in this batch is greater than ten times the blank value, the blank is acceptable; otherwise this batch must be re-prepped.

ET
5-18-23

1AM 5/18/23

Quality Control Sample Performance Assessment



Test: Ra-228
Analyst: ZPC
Date: 5/3/2023
Worklist: 72701
Matrix: W/T

Analyst Must Manually Enter All Fields Highlighted in Yellow.

Method Blank Assessment	
MB Sample ID	2829969
MB concentration:	0.978
MB 2 Sigma CSU:	0.391
MB MDC:	0.591
MB Numerical Performance Indicator:	4.90
MB Status vs Numerical Indicator:	Fail*
MB Status vs. MDC:	See Comment*

Laboratory Control Sample Assessment	
LCSD (Y or N)?	N
Count Date:	5/9/2023
Spike I.D.:	22-040
Decay Corrected Spike Concentration (pCi/mL):	32.638
Volume Used (mL):	0.10
Aliquot Volume (L, g, F):	0.804
Target Conc. (pCi/L, g, F):	4.060
Uncertainty (Calculated):	0.199
Result (pCi/L, g, F):	3.867
LCSD/LCSD 2 Sigma CSU (pCi/L, g, F):	0.898
Numerical Performance Indicator:	-0.41
Percent Recovery:	95.24%
Status vs Numerical Indicator:	N/A
Status vs Recovery:	Pass
Upper % Recovery Limits:	135%
Lower % Recovery Limits:	60%

Duplicate Sample Assessment	
Sample I.D.:	Enter Duplicate sample IDs if other than LCS/LCSD in the space below.
Duplicate Sample I.D.:	
Sample Result (pCi/L, g, F):	
Sample Result 2 Sigma CSU (pCi/L, g, F):	
Sample Duplicate Result (pCi/L, g, F):	
Sample Duplicate Result 2 Sigma CSU (pCi/L, g, F):	
Are sample and/or duplicate results below RL?	See Below ##
Duplicate Numerical Performance Indicator:	
Duplicate RPD:	
Duplicate Status vs Numerical Indicator:	
Duplicate Status vs RPD:	
% RPD Limit:	

Evaluation of duplicate precision is not applicable if either the sample or duplicate results are below the MDC.

Comments:
*The method blank result is below the reporting limit for this analysis and is acceptable.

***If another QC criteria pass, this batch is acceptable. The matrix spike duplicate result indicates a possible bias in this sample only and may not be applicable to any other samples in this analytical batch.

Sample Matrix Spike Control Assessment	
Sample Collection Date:	MS/MSD 1 4/4/2023
Sample I.D.:	30580435028
Sample MS I.D.:	30580824004
Sample MSD I.D.:	30580435030
MS/MSD Decay Corrected Spike Concentration (pCi/mL):	MS/MSD 2 4/12/2023
Spike Volume Used in MS (mL):	33.016
Spike Volume Used in MSD (mL):	0.20
MS Aliquot (L, g, F):	0.801
MS Target Conc. (pCi/L, g, F):	8.247
MSD Aliquot (L, g, F):	0.801
MSD Target Conc. (pCi/L, g, F):	8.243
MS Spike Uncertainty (calculated):	0.404
MSD Spike Uncertainty (calculated):	0.404
Sample Result 2 Sigma CSU (pCi/L, g, F):	0.793
Sample Matrix Spike Result:	0.429
Matrix Spike Result 2 Sigma CSU (pCi/L, g, F):	6.114
Sample Matrix Spike Duplicate Result:	6.427
Sample Matrix Spike Duplicate Result:	1.339
MS Numerical Performance Indicator:	1.372
MSD Numerical Performance Indicator:	1.506
MS Percent Recovery:	-3.278
MSD Percent Recovery:	-1.897
MS Status vs Numerical Indicator:	70.62%
MSD Status vs Numerical Indicator:	81.12%
MS Status vs Recovery:	Fail****
MSD Status vs Recovery:	Fail****
MS/MSD Upper % Recovery Limits:	Pass
MS/MSD Lower % Recovery Limits:	Pass
	135%
	60%

Matrix Spike/Matrix Spike Duplicate Sample Assessment	
Sample I.D.:	30580435028
Sample MS I.D.:	30580824004
Sample MSD I.D.:	30580435030
Matrix Spike Result 2 Sigma CSU (pCi/L, g, F):	6.114
Sample Matrix Spike Duplicate Result:	1.268
Sample Matrix Spike Duplicate Result:	6.606
Matrix Spike Duplicate Result 2 Sigma CSU (pCi/L, g, F):	1.372
Duplicate Numerical Performance Indicator:	-0.516
Duplicate Numerical Performance Indicator:	8.89%
(Based on the Percent Recoveries) MS/MSD Duplicate RPD:	13.85%
MS/MSD Duplicate Status vs Numerical Indicator:	Pass
MS/MSD Duplicate Status vs RPD:	Pass
% RPD Limit:	36%

MS/MSD Pass to recovery criteria.

MS/MSD Pass to recovery criteria.

June 02, 2023

Brooke Caton
Alabama Power
744 Highway 87
Calera, AL 35040

RE: Project: WMWBARAP_1404
Pace Project No.: 30580435

Dear Brooke Caton:

Enclosed are the analytical results for sample(s) received by the laboratory between April 19, 2023 and May 03, 2023. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Services - Greensburg

If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Skyler C. Richmond
skyler.richmond@pacelabs.com
(724)850-5600
Project Manager

Enclosures

cc: Blaine Denton, Alabama Power
Renee Jernigan, Alabama Power



REPORT OF LABORATORY ANALYSIS

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CERTIFICATIONS

Project: WMWBARAP_1404
Pace Project No.: 30580435

Pace Analytical Services Pennsylvania

1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601
ANAB DOD-ELAP Rad Accreditation #: L2417
Alabama Certification #: 41590
Arizona Certification #: AZ0734
Arkansas Certification
California Certification #: 04222CA
Colorado Certification #: PA01547
Connecticut Certification #: PH-0694
Delaware Certification
EPA Region 4 DW Rad
Florida/TNI Certification #: E87683
Georgia Certification #: C040
Guam Certification
Florida: Cert E871149 SEKS WET
Hawaii Certification
Idaho Certification
Illinois Certification
Indiana Certification
Iowa Certification #: 391
Kansas/TNI Certification #: E-10358
Kentucky Certification #: KY90133
KY WW Permit #: KY0098221
KY WW Permit #: KY0000221
Louisiana DHH/TNI Certification #: LA180012
Louisiana DEQ/TNI Certification #: 4086
Maine Certification #: 2017020
Maryland Certification #: 308
Massachusetts Certification #: M-PA1457
Michigan/PADEP Certification #: 9991

Missouri Certification #: 235
Montana Certification #: Cert0082
Nebraska Certification #: NE-OS-29-14
Nevada Certification #: PA014572018-1
New Hampshire/TNI Certification #: 297617
New Jersey/TNI Certification #: PA051
New Mexico Certification #: PA01457
New York/TNI Certification #: 10888
North Carolina Certification #: 42706
North Dakota Certification #: R-190
Ohio EPA Rad Approval: #41249
Oregon/TNI Certification #: PA200002-010
Pennsylvania/TNI Certification #: 65-00282
Puerto Rico Certification #: PA01457
Rhode Island Certification #: 65-00282
South Dakota Certification
Tennessee Certification #: 02867
Texas/TNI Certification #: T104704188-17-3
Utah/TNI Certification #: PA014572017-9
USDA Soil Permit #: P330-17-00091
Vermont Dept. of Health: ID# VT-0282
Virgin Island/PADEP Certification
Virginia/VELAP Certification #: 460198
Washington Certification #: C868
West Virginia DEP Certification #: 143
West Virginia DHHR Certification #: 9964C
Wisconsin Approve List for Rad
Wyoming Certification #: 8TMS-L

REPORT OF LABORATORY ANALYSIS

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SAMPLE SUMMARY

Project: WMWBARAP_1404

Pace Project No.: 30580435

Lab ID	Sample ID	Matrix	Date Collected	Date Received
30580435001	BD06624 MW-15	Water	04/03/23 09:12	04/19/23 10:25
30580435002	BD06624 MW-15 MS	Water	04/03/23 09:12	04/19/23 10:25
30580435003	BD06624 MW-15 MSD	Water	04/03/23 09:12	04/19/23 10:25
30580435004	BD06625 EB-1	Water	04/03/23 09:40	04/19/23 10:25
30580435005	BD06626 MW-24H	Water	04/03/23 11:48	04/19/23 10:25
30580435006	BD06627 MW-24H Dup	Water	04/03/23 11:48	04/19/23 10:25
30580435007	BD06628 MW-25H	Water	04/03/23 14:24	04/19/23 10:25
30580435008	BD06629 MW-25H Dup	Water	04/03/23 14:24	04/19/23 10:25
30580435009	BD06630 MW-25V	Water	04/03/23 15:17	04/19/23 10:25
30580435010	BD06631 MW-1	Water	04/03/23 08:50	04/19/23 10:25
30580435011	BD06632 MW-2	Water	04/03/23 11:23	04/19/23 10:25
30580435012	BD06633 MW-10V	Water	04/03/23 15:16	04/19/23 10:25
30580435013	BD06634 MW-7V	Water	04/03/23 16:40	04/19/23 10:25
30580435014	BD06635 MW-7	Water	04/03/23 17:37	04/19/23 10:25
30580435015	BD06636 MW-6	Water	04/04/23 08:50	04/19/23 10:25
30580435016	BD06637 FB-1	Water	04/04/23 09:20	04/19/23 10:25
30580435017	BD06638 MW-8	Water	04/03/23 09:42	04/19/23 10:25
30580435018	BD06638 MW-8 MS	Water	04/03/23 09:42	04/19/23 10:25
30580435019	BD06638 MW-8 MSD	Water	04/03/23 09:42	04/19/23 10:25
30580435020	BD06639 MW-10	Water	04/03/23 12:42	04/19/23 10:25
30580435021	BD06640 MW-8V	Water	04/03/23 15:40	04/19/23 10:25
30580435022	BD06641 MW-9	Water	04/04/23 08:47	04/19/23 10:25
30580435023	BD06642 MW-9 Dup	Water	04/04/23 08:47	04/19/23 10:25
30580435024	BD06643 FB-3	Water	04/04/23 09:20	04/19/23 10:25
30580435025	BD06782 MW-11	Water	04/04/23 11:25	04/19/23 10:25
30580435026	BD06783 MW-12V	Water	04/04/23 12:35	04/19/23 10:25
30580435027	BD06784 MW-12V Dup	Water	04/04/23 12:35	04/19/23 10:25
30580435028	BD06785 MW-12	Water	04/04/23 13:45	04/19/23 10:25
30580435029	BD06785 MW-12 MS	Water	04/04/23 13:45	04/19/23 10:25
30580435030	BD06785 MW-12 MSD	Water	04/04/23 13:45	04/19/23 10:25
30580435031	BD06786 MW-13	Water	04/04/23 15:05	04/19/23 10:25
30580435032	BD06787 MW-13V	Water	04/04/23 15:50	04/19/23 10:25
30580435033	BD06788 FB-2	Water	04/04/23 16:20	04/19/23 10:25
30580435034	BD06841 MW-23H	Water	04/04/23 11:15	04/19/23 10:25
30580435035	BD06842 MW-23V	Water	04/04/23 11:55	04/19/23 10:25
30580435036	BD06843 MW-17V	Water	04/04/23 12:50	04/19/23 10:25
30580435037	BD06844 MW-17H	Water	04/04/23 13:36	04/19/23 10:25

REPORT OF LABORATORY ANALYSIS

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SAMPLE SUMMARY

Project: WMWBARAP_1404

Pace Project No.: 30580435

Lab ID	Sample ID	Matrix	Date Collected	Date Received
30580435038	BD06845 MW-14V	Water	04/04/23 15:05	04/19/23 10:25
30580435039	BD06846 MW-16	Water	04/05/23 09:45	04/19/23 10:25
30580435040	BD06847 MW-5V	Water	04/04/23 11:11	04/19/23 10:25
30580435041	BD06848 MW-5	Water	04/04/23 12:02	04/19/23 10:25
30580435042	BD06849 MW-4	Water	04/04/23 13:01	04/19/23 10:25
30580435043	BD06850 MW-3	Water	04/04/23 14:14	04/19/23 10:25
30580435044	BD06851 MW-1V	Water	04/04/23 15:12	04/19/23 10:25
30580435045	BD06852 MW-16V	Water	04/04/23 16:31	04/19/23 10:25
30580435046	BD06853 MW-18H	Water	04/05/23 09:23	04/19/23 10:25
30580435047	BD06854 MW-14	Water	04/05/23 11:35	04/19/23 10:25
30580435048	BD06855 FB-4	Water	04/05/23 12:30	04/19/23 10:25
30584315001	BD08117 MW-20V	Water	04/24/23 12:58	05/03/23 10:00
30584315002	BD08118 MW-22H	Water	04/24/23 14:05	05/03/23 10:00
30584315003	BD08119 MW-15V	Water	04/24/23 15:00	05/03/23 10:00
30584315004	BD08120 MW-20H	Water	04/24/23 16:06	05/03/23 10:00
30584315005	BD08121 MW-19H	Water	04/24/23 17:55	05/03/23 10:00

REPORT OF LABORATORY ANALYSIS

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SAMPLE ANALYTE COUNT

Project: WMWBARAP_1404
Pace Project No.: 30580435

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
30580435001	BD06624 MW-15	EPA 9315	SLC	1	PASI-PA
		EPA 9320	JDZ	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
30580435002	BD06624 MW-15 MS	EPA 9315	SLC	1	PASI-PA
		EPA 9320	JDZ	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
30580435003	BD06624 MW-15 MSD	EPA 9315	SLC	1	PASI-PA
		EPA 9320	JDZ	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
30580435004	BD06625 EB-1	EPA 9315	SLC	1	PASI-PA
		EPA 9320	JDZ	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
30580435005	BD06626 MW-24H	EPA 9315	SLC	1	PASI-PA
		EPA 9320	JDZ	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
30580435006	BD06627 MW-24H Dup	EPA 9315	SLC	1	PASI-PA
		EPA 9320	JDZ	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
30580435007	BD06628 MW-25H	EPA 9315	SLC	1	PASI-PA
		EPA 9320	JDZ	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
30580435008	BD06629 MW-25H Dup	EPA 9315	SLC	1	PASI-PA
		EPA 9320	JDZ	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
30580435009	BD06630 MW-25V	EPA 9315	SLC	1	PASI-PA
		EPA 9320	JDZ	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
30580435010	BD06631 MW-1	EPA 9315	SLC	1	PASI-PA
		EPA 9320	JDZ	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
30580435011	BD06632 MW-2	EPA 9315	SLC	1	PASI-PA
		EPA 9320	JDZ	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
30580435012	BD06633 MW-10V	EPA 9315	SLC	1	PASI-PA
		EPA 9320	JDZ	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
30580435013	BD06634 MW-7V	EPA 9315	SLC	1	PASI-PA
		EPA 9320	JDZ	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA

REPORT OF LABORATORY ANALYSIS

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SAMPLE ANALYTE COUNT

Project: WMWBARAP_1404
Pace Project No.: 30580435

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
30580435014	BD06635 MW-7	EPA 9315	SLC	1	PASI-PA
		EPA 9320	JDZ	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
30580435015	BD06636 MW-6	EPA 9315	SLC	1	PASI-PA
		EPA 9320	JDZ	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
30580435016	BD06637 FB-1	EPA 9315	SLC	1	PASI-PA
		EPA 9320	JDZ	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
30580435017	BD06638 MW-8	EPA 9315	SLC	1	PASI-PA
		EPA 9320	JJS1	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
30580435018	BD06638 MW-8 MS	EPA 9315	SLC	1	PASI-PA
		EPA 9320	JJS1	1	PASI-PA
30580435019	BD06638 MW-8 MSD	EPA 9315	SLC	1	PASI-PA
		EPA 9320	JJS1	1	PASI-PA
30580435020	BD06639 MW-10	EPA 9315	SLC	1	PASI-PA
		EPA 9320	JDZ	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
30580435021	BD06640 MW-8V	EPA 9315	SLC	1	PASI-PA
		EPA 9320	JDZ	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
30580435022	BD06641 MW-9	EPA 9315	SLC	1	PASI-PA
		EPA 9320	JDZ	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
30580435023	BD06642 MW-9 Dup	EPA 9315	SLC	1	PASI-PA
		EPA 9320	JDZ	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
30580435024	BD06643 FB-3	EPA 9315	SLC	1	PASI-PA
		EPA 9320	JJS1	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
30580435025	BD06782 MW-11	EPA 9315	SLC	1	PASI-PA
		EPA 9320	JJS1	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
30580435026	BD06783 MW-12V	EPA 9315	SLC	1	PASI-PA
		EPA 9320	JJS1	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA

REPORT OF LABORATORY ANALYSIS

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SAMPLE ANALYTE COUNT

Project: WMWBARAP_1404
Pace Project No.: 30580435

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
30580435027	BD06784 MW-12V Dup	EPA 9315	SLC	1	PASI-PA
		EPA 9320	JJS1	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
30580435028	BD06785 MW-12	EPA 9315	SLC	1	PASI-PA
		EPA 9320	ZPC	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
30580435029	BD06785 MW-12 MS	EPA 9315	SLC	1	PASI-PA
		EPA 9320	ZPC	1	PASI-PA
30580435030	BD06785 MW-12 MSD	EPA 9315	SLC	1	PASI-PA
		EPA 9320	ZPC	1	PASI-PA
30580435031	BD06786 MW-13	EPA 9315	SLC	1	PASI-PA
		EPA 9320	JJS1	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
30580435032	BD06787 MW-13V	EPA 9315	SLC	1	PASI-PA
		EPA 9320	JJS1	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
30580435033	BD06788 FB-2	EPA 9315	SLC	1	PASI-PA
		EPA 9320	JJS1	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
30580435034	BD06841 MW-23H	EPA 9315	SLC	1	PASI-PA
		EPA 9320	JJS1	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
30580435035	BD06842 MW-23V	EPA 9315	SLC	1	PASI-PA
		EPA 9320	JJS1	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
30580435036	BD06843 MW-17V	EPA 9315	SLC	1	PASI-PA
		EPA 9320	JJS1	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
30580435037	BD06844 MW-17H	EPA 9315	SLC	1	PASI-PA
		EPA 9320	JJS1	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
30580435038	BD06845 MW-14V	EPA 9315	SLC	1	PASI-PA
		EPA 9320	JJS1	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
30580435039	BD06846 MW-16	EPA 9315	SLC	1	PASI-PA
		EPA 9320	JJS1	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA

REPORT OF LABORATORY ANALYSIS

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SAMPLE ANALYTE COUNT

Project: WMWBARAP_1404
Pace Project No.: 30580435

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
30580435040	BD06847 MW-5V	EPA 9315	SLC	1	PASI-PA
		EPA 9320	JJS1	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
30580435041	BD06848 MW-5	EPA 9315	SLC	1	PASI-PA
		EPA 9320	ZPC	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
30580435042	BD06849 MW-4	EPA 9315	SLC	1	PASI-PA
		EPA 9320	ZPC	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
30580435043	BD06850 MW-3	EPA 9315	SLC	1	PASI-PA
		EPA 9320	ZPC	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
30580435044	BD06851 MW-1V	EPA 9315	SLC	1	PASI-PA
		EPA 9320	ZPC	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
30580435045	BD06852 MW-16V	EPA 9315	SLC	1	PASI-PA
		EPA 9320	ZPC	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
30580435046	BD06853 MW-18H	EPA 9315	SLC	1	PASI-PA
		EPA 9320	ZPC	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
30580435047	BD06854 MW-14	EPA 9315	SLC	1	PASI-PA
		EPA 9320	ZPC	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
30580435048	BD06855 FB-4	EPA 9315	SLC	1	PASI-PA
		EPA 9320	ZPC	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
30584315001	BD08117 MW-20V	EPA 9315	SLC	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
30584315002	BD08118 MW-22H	EPA 9315	SLC	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
30584315003	BD08119 MW-15V	EPA 9315	SLC	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
30584315004	BD08120 MW-20H	EPA 9315	SLC	1	PASI-PA

REPORT OF LABORATORY ANALYSIS

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SAMPLE ANALYTE COUNT

Project: WMWBARAP_1404

Pace Project No.: 30580435

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
30584315005	BD08121 MW-19H	EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		EPA 9315	SLC	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA

PASI-PA = Pace Analytical Services - Greensburg

REPORT OF LABORATORY ANALYSIS

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PROJECT NARRATIVE

Project: WMWBARAP_1404

Pace Project No.: 30580435

Method: EPA 9315

Description: 9315 Total Radium

Client: Alabama Power

Date: June 02, 2023

General Information:

53 samples were analyzed for EPA 9315 by Pace Analytical Services Greensburg. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:

The samples were analyzed within the method required hold times with any exceptions noted below.

Method Blank:

All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:

All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

REPORT OF LABORATORY ANALYSIS

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PROJECT NARRATIVE

Project: WMWBARAP_1404
Pace Project No.: 30580435

Method: EPA 9320
Description: 9320 Radium 228
Client: Alabama Power
Date: June 02, 2023

General Information:

53 samples were analyzed for EPA 9320 by Pace Analytical Services Greensburg. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:

The samples were analyzed within the method required hold times with any exceptions noted below.

Method Blank:

All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:

All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

REPORT OF LABORATORY ANALYSIS

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PROJECT NARRATIVE

Project: WMWBARAP_1404
Pace Project No.: 30580435

Method: Total Radium Calculation
Description: Total Radium 228+226
Client: Alabama Power
Date: June 02, 2023

General Information:

47 samples were analyzed for Total Radium Calculation by Pace Analytical Services Greensburg. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:

The samples were analyzed within the method required hold times with any exceptions noted below.

Method Blank:

All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:

All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

This data package has been reviewed for quality and completeness and is approved for release.

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: WMWBARAP_1404

Pace Project No.: 30580435

Sample: BD06624 MW-15 **Lab ID: 30580435001** Collected: 04/03/23 09:12 Received: 04/19/23 10:25 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 9315	0.778 ± 0.444 (0.639) C:59% T:NA	pCi/L	05/17/23 10:08	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	0.848 ± 0.377 (0.614) C:83% T:89%	pCi/L	05/03/23 11:24	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	1.63 ± 0.821 (1.25)	pCi/L	05/17/23 16:37	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: WMWBARAP_1404

Pace Project No.: 30580435

Sample: BD06624 MW-15 MS **Lab ID: 30580435002** Collected: 04/03/23 09:12 Received: 04/19/23 10:25 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	109.92 %REC ± NA (NA) C:NA T:NA	pCi/L	05/16/23 18:48	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	90.44 %REC ± NA (NA) C:NA T:NA	pCi/L	05/03/23 11:24	15262-20-1	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: WMWBARAP_1404

Pace Project No.: 30580435

Sample: BD06624 MW-15 MSD **Lab ID: 30580435003** Collected: 04/03/23 09:12 Received: 04/19/23 10:25 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 9315	111.04 %REC 1.01RPD ± NA (NA) C:NA T:NA	pCi/L	05/16/23 18:47	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	94.05 %REC 3.91RPD ± NA (NA) C:NA T:NA	pCi/L	05/03/23 11:24	15262-20-1	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: WMWBARAP_1404

Pace Project No.: 30580435

Sample: BD06625 EB-1 **Lab ID: 30580435004** Collected: 04/03/23 09:40 Received: 04/19/23 10:25 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 9315	0.165U ± 0.262 (0.572) C:93% T:NA	pCi/L	05/16/23 19:14	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	0.179U ± 0.222 (0.466) C:82% T:97%	pCi/L	05/03/23 11:24	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	0.344U ± 0.484 (1.04)	pCi/L	05/17/23 16:37	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: WMWBARAP_1404

Pace Project No.: 30580435

Sample: BD06626 MW-24H **Lab ID: 30580435005** Collected: 04/03/23 11:48 Received: 04/19/23 10:25 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 9315	0.597 ± 0.295 (0.369) C:93% T:NA	pCi/L	05/16/23 19:14	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	0.859 ± 0.431 (0.748) C:77% T:88%	pCi/L	05/03/23 14:49	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	1.46 ± 0.726 (1.12)	pCi/L	05/17/23 16:37	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: WMWBARAP_1404

Pace Project No.: 30580435

Sample: BD06627 MW-24H Dup **Lab ID: 30580435006** Collected: 04/03/23 11:48 Received: 04/19/23 10:25 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	1.17 ± 0.408 (0.306) C:89% T:NA	pCi/L	05/16/23 19:14	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	0.533U ± 0.354 (0.663) C:78% T:87%	pCi/L	05/03/23 14:49	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	1.70 ± 0.762 (0.969)	pCi/L	05/17/23 16:37	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: WMWBARAP_1404

Pace Project No.: 30580435

Sample: BD06628 MW-25H **Lab ID: 30580435007** Collected: 04/03/23 14:24 Received: 04/19/23 10:25 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 9315	0.290U ± 0.212 (0.316) C:92% T:NA	pCi/L	05/16/23 19:14	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	0.434U ± 0.320 (0.620) C:83% T:89%	pCi/L	05/03/23 14:49	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	0.724U ± 0.532 (0.936)	pCi/L	05/17/23 16:37	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: WMWBARAP_1404

Pace Project No.: 30580435

Sample: BD06629 MW-25H Dup **Lab ID: 30580435008** Collected: 04/03/23 14:24 Received: 04/19/23 10:25 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 9315	0.124U ± 0.190 (0.413) C:83% T:NA	pCi/L	05/16/23 19:15	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	0.368U ± 0.343 (0.698) C:81% T:90%	pCi/L	05/03/23 14:49	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	0.492U ± 0.533 (1.11)	pCi/L	05/17/23 16:37	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: WMWBARAP_1404

Pace Project No.: 30580435

Sample: BD06630 MW-25V **Lab ID: 30580435009** Collected: 04/03/23 15:17 Received: 04/19/23 10:25 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 9315	0.551 ± 0.334 (0.520) C:86% T:NA	pCi/L	05/16/23 19:15	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	0.771 ± 0.360 (0.583) C:77% T:94%	pCi/L	05/03/23 14:49	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	1.32 ± 0.694 (1.10)	pCi/L	05/17/23 16:37	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: WMWBARAP_1404

Pace Project No.: 30580435

Sample: BD06631 MW-1 **Lab ID: 30580435010** Collected: 04/03/23 08:50 Received: 04/19/23 10:25 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 9315	0.844 ± 0.370 (0.434) C:87% T:NA	pCi/L	05/16/23 19:15	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	0.991 ± 0.430 (0.692) C:80% T:87%	pCi/L	05/03/23 14:49	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	1.84 ± 0.800 (1.13)	pCi/L	05/17/23 16:37	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: WMWBARAP_1404

Pace Project No.: 30580435

Sample: BD06632 MW-2 **Lab ID: 30580435011** Collected: 04/03/23 11:23 Received: 04/19/23 10:25 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 9315	0.234U ± 0.245 (0.488) C:89% T:NA	pCi/L	05/16/23 19:15	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	0.00585U ± 0.225 (0.531) C:79% T:88%	pCi/L	05/03/23 11:59	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	0.240U ± 0.470 (1.02)	pCi/L	05/17/23 16:37	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: WMWBARAP_1404

Pace Project No.: 30580435

Sample: BD06633 MW-10V **Lab ID: 30580435012** Collected: 04/03/23 15:16 Received: 04/19/23 10:25 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 9315	0.630 ± 0.328 (0.442) C:88% T:NA	pCi/L	05/16/23 19:15	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	0.606 ± 0.332 (0.594) C:81% T:89%	pCi/L	05/03/23 11:59	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	1.24 ± 0.660 (1.04)	pCi/L	05/17/23 16:37	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: WMWBARAP_1404

Pace Project No.: 30580435

Sample: BD06634 MW-7V **Lab ID: 30580435013** Collected: 04/03/23 16:40 Received: 04/19/23 10:25 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 9315	0.206U ± 0.199 (0.358) C:91% T:NA	pCi/L	05/16/23 19:04	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	0.650 ± 0.341 (0.603) C:80% T:90%	pCi/L	05/03/23 11:59	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	0.856U ± 0.540 (0.961)	pCi/L	05/17/23 16:37	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: WMWBARAP_1404

Pace Project No.: 30580435

Sample: BD06635 MW-7 **Lab ID: 30580435014** Collected: 04/03/23 17:37 Received: 04/19/23 10:25 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 9315	0.204U ± 0.233 (0.473) C:84% T:NA	pCi/L	05/16/23 19:04	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	0.286U ± 0.337 (0.707) C:74% T:78%	pCi/L	05/03/23 11:59	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	0.490U ± 0.570 (1.18)	pCi/L	05/17/23 16:37	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: WMWBARAP_1404
Pace Project No.: 30580435

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 9315	0.461 ± 0.267 (0.359) C:92% T:NA	pCi/L	05/16/23 19:04	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	0.865 ± 0.403 (0.672) C:72% T:87%	pCi/L	05/03/23 11:59	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	1.33 ± 0.670 (1.03)	pCi/L	05/17/23 16:37	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: WMWBARAP_1404

Pace Project No.: 30580435

Sample: BD06637 FB-1 **Lab ID: 30580435016** Collected: 04/04/23 09:20 Received: 04/19/23 10:25 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 9315	0.255U ± 0.210 (0.351) C:94% T:NA	pCi/L	05/16/23 19:04	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	0.404U ± 0.304 (0.593) C:78% T:92%	pCi/L	05/03/23 15:21	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	0.659U ± 0.514 (0.944)	pCi/L	05/17/23 16:37	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: WMWBARAP_1404
Pace Project No.: 30580435

Sample: BD06638 MW-8 **Lab ID: 30580435017** Collected: 04/03/23 09:42 Received: 04/19/23 10:25 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	0.380U ± 0.258 (0.384) C:85% T:NA	pCi/L	05/16/23 18:52	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	0.831 ± 0.405 (0.681) C:68% T:88%	pCi/L	05/08/23 11:36	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	1.21 ± 0.663 (1.07)	pCi/L	05/17/23 16:44	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: WMWBARAP_1404

Pace Project No.: 30580435

Sample: BD06638 MW-8 MS **Lab ID: 30580435018** Collected: 04/03/23 09:42 Received: 04/19/23 10:25 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	100.89 %REC ± NA (NA) C:NA T:NA	pCi/L	05/16/23 18:52	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	68.62 %REC ± NA (NA) C:NA T:NA	pCi/L	05/08/23 11:39	15262-20-1	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: WMWBARAP_1404

Pace Project No.: 30580435

Sample: BD06638 MW-8 MSD **Lab ID: 30580435019** Collected: 04/03/23 09:42 Received: 04/19/23 10:25 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 9315	105.86 %REC 4.81RPD ± NA (NA) C:NA T:NA	pCi/L	05/16/23 18:53	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	79.39 %REC 14.56RPD ± NA (NA) C:NA T:NA	pCi/L	05/08/23 11:39	15262-20-1	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: WMWBARAP_1404

Pace Project No.: 30580435

Sample: BD06639 MW-10 **Lab ID: 30580435020** Collected: 04/03/23 12:42 Received: 04/19/23 10:25 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 9315	0.588U ± 0.374 (0.640) C:80% T:NA	pCi/L	05/16/23 19:04	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	0.162U ± 0.250 (0.539) C:82% T:89%	pCi/L	05/03/23 15:21	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	0.750U ± 0.624 (1.18)	pCi/L	05/17/23 16:37	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: WMWBARAP_1404

Pace Project No.: 30580435

Sample: BD06640 MW-8V **Lab ID: 30580435021** Collected: 04/03/23 15:40 Received: 04/19/23 10:25 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 9315	0.529U ± 0.347 (0.570) C:73% T:NA	pCi/L	05/16/23 19:04	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	0.266U ± 0.300 (0.628) C:81% T:91%	pCi/L	05/03/23 15:21	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	0.795U ± 0.647 (1.20)	pCi/L	05/17/23 16:37	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: WMWBARAP_1404

Pace Project No.: 30580435

Sample: BD06641 MW-9 **Lab ID: 30580435022** Collected: 04/04/23 08:47 Received: 04/19/23 10:25 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	0.921 ± 0.375 (0.407) C:92% T:NA	pCi/L	05/16/23 19:04	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	0.126U ± 0.313 (0.699) C:77% T:87%	pCi/L	05/03/23 15:21	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	1.05U ± 0.688 (1.11)	pCi/L	05/17/23 16:37	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: WMWBARAP_1404

Pace Project No.: 30580435

Sample: BD06642 MW-9 Dup **Lab ID: 30580435023** Collected: 04/04/23 08:47 Received: 04/19/23 10:25 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	0.471 ± 0.305 (0.462) C:75% T:NA	pCi/L	05/16/23 19:04	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	0.608U ± 0.365 (0.671) C:76% T:88%	pCi/L	05/03/23 15:21	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	1.08U ± 0.670 (1.13)	pCi/L	05/17/23 16:37	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: WMWBARAP_1404

Pace Project No.: 30580435

Sample: BD06643 FB-3 **Lab ID: 30580435024** Collected: 04/04/23 09:20 Received: 04/19/23 10:25 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	0.0836U ± 0.172 (0.401) C:88% T:NA	pCi/L	05/16/23 18:53	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	0.433U ± 0.341 (0.674) C:71% T:94%	pCi/L	05/08/23 11:42	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	0.517U ± 0.513 (1.08)	pCi/L	05/17/23 16:44	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: WMWBARAP_1404

Pace Project No.: 30580435

Sample: BD06782 MW-11 **Lab ID: 30580435025** Collected: 04/04/23 11:25 Received: 04/19/23 10:25 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 9315	0.363U ± 0.268 (0.455) C:87% T:NA	pCi/L	05/16/23 18:53	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	0.199U ± 0.331 (0.721) C:68% T:88%	pCi/L	05/08/23 11:39	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	0.562U ± 0.599 (1.18)	pCi/L	05/17/23 16:44	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: WMWBARAP_1404

Pace Project No.: 30580435

Sample: BD06783 MW-12V **Lab ID: 30580435026** Collected: 04/04/23 12:35 Received: 04/19/23 10:25 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 9315	0.903 ± 0.369 (0.384) C:89% T:NA	pCi/L	05/16/23 18:53	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	0.574U ± 0.359 (0.667) C:71% T:92%	pCi/L	05/08/23 11:39	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	1.48 ± 0.728 (1.05)	pCi/L	05/17/23 16:44	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: WMWBARAP_1404
Pace Project No.: 30580435

Sample: BD06784 MW-12V Dup **Lab ID: 30580435027** Collected: 04/04/23 12:35 Received: 04/19/23 10:25 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	0.544 ± 0.303 (0.393) C:82% T:NA	pCi/L	05/16/23 18:53	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	0.949 ± 0.459 (0.784) C:67% T:87%	pCi/L	05/08/23 11:39	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	1.49 ± 0.762 (1.18)	pCi/L	05/17/23 16:44	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: WMWBARAP_1404

Pace Project No.: 30580435

Sample: BD06785 MW-12 **Lab ID: 30580435028** Collected: 04/04/23 13:45 Received: 04/19/23 10:25 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 9315	0.626 ± 0.309 (0.361) C:92% T:NA	pCi/L	05/17/23 08:31	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	0.793 ± 0.429 (0.751) C:76% T:71%	pCi/L	05/09/23 11:59	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	1.42 ± 0.738 (1.11)	pCi/L	05/17/23 16:35	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: WMWBARAP_1404

Pace Project No.: 30580435

Sample: BD06785 MW-12 MS **Lab ID: 30580435029** Collected: 04/04/23 13:45 Received: 04/19/23 10:25 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 9315	96.81 %REC ± NA (NA) C:NA T:NA	pCi/L	05/17/23 08:31	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	64.52 %REC ± NA (NA) C:NA T:NA	pCi/L	05/09/23 12:00	15262-20-1	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: WMWBARAP_1404

Pace Project No.: 30580435

Sample: BD06785 MW-12 MSD **Lab ID: 30580435030** Collected: 04/04/23 13:45 Received: 04/19/23 10:25 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 9315	113.71 %REC 16.06RPD ± NA (NA) C:NA T:NA	pCi/L	05/17/23 08:31	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	70.53 %REC 8.89RPD ± NA (NA) C:NA T:NA	pCi/L	05/09/23 12:00	15262-20-1	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: WMWBARAP_1404

Pace Project No.: 30580435

Sample: BD06786 MW-13 **Lab ID: 30580435031** Collected: 04/04/23 15:05 Received: 04/19/23 10:25 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 9315	0.373U ± 0.261 (0.410) C:87% T:NA	pCi/L	05/16/23 18:53	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	0.512U ± 0.365 (0.701) C:68% T:88%	pCi/L	05/08/23 11:39	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	0.885U ± 0.626 (1.11)	pCi/L	05/17/23 16:44	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: WMWBARAP_1404

Pace Project No.: 30580435

Sample: BD06787 MW-13V **Lab ID: 30580435032** Collected: 04/04/23 15:50 Received: 04/19/23 10:25 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	0.695 ± 0.384 (0.623) C:91% T:NA	pCi/L	05/17/23 08:25	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	0.262U ± 0.331 (0.700) C:69% T:89%	pCi/L	05/08/23 11:39	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	0.957U ± 0.715 (1.32)	pCi/L	05/17/23 16:44	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: WMWBARAP_1404

Pace Project No.: 30580435

Sample: BD06788 FB-2 **Lab ID: 30580435033** Collected: 04/04/23 16:20 Received: 04/19/23 10:25 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 9315	0.396U ± 0.269 (0.432) C:95% T:NA	pCi/L	05/17/23 08:27	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	0.104U ± 0.315 (0.710) C:71% T:88%	pCi/L	05/08/23 11:39	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	0.500U ± 0.584 (1.14)	pCi/L	05/17/23 16:44	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: WMWBARAP_1404

Pace Project No.: 30580435

Sample: BD06841 MW-23H **Lab ID: 30580435034** Collected: 04/04/23 11:15 Received: 04/19/23 10:25 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 9315	0.519 ± 0.298 (0.423) C:87% T:NA	pCi/L	05/17/23 08:27	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	0.401U ± 0.364 (0.734) C:66% T:86%	pCi/L	05/08/23 11:40	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	0.920U ± 0.662 (1.16)	pCi/L	05/17/23 16:44	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: WMWBARAP_1404

Pace Project No.: 30580435

Sample: BD06842 MW-23V **Lab ID: 30580435035** Collected: 04/04/23 11:55 Received: 04/19/23 10:25 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 9315	0.920 ± 0.362 (0.356) C:91% T:NA	pCi/L	05/17/23 08:27	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	0.994 ± 0.436 (0.685) C:69% T:82%	pCi/L	05/08/23 11:40	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	1.91 ± 0.798 (1.04)	pCi/L	05/17/23 16:44	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: WMWBARAP_1404

Pace Project No.: 30580435

Sample: BD06843 MW-17V **Lab ID: 30580435036** Collected: 04/04/23 12:50 Received: 04/19/23 10:25 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	5.21 ± 1.07 (0.429) C:97% T:NA	pCi/L	05/17/23 08:28	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	4.38 ± 1.01 (0.697) C:69% T:84%	pCi/L	05/08/23 11:40	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	9.59 ± 2.08 (1.13)	pCi/L	05/17/23 16:44	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: WMWBARAP_1404

Pace Project No.: 30580435

Sample: BD06844 MW-17H **Lab ID: 30580435037** Collected: 04/04/23 13:36 Received: 04/19/23 10:25 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 9315	0.625 ± 0.308 (0.334) C:84% T:NA	pCi/L	05/17/23 08:28	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	0.461U ± 0.380 (0.756) C:70% T:84%	pCi/L	05/08/23 11:40	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	1.09U ± 0.688 (1.09)	pCi/L	05/17/23 16:44	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: WMWBARAP_1404

Pace Project No.: 30580435

Sample: BD06845 MW-14V **Lab ID: 30580435038** Collected: 04/04/23 15:05 Received: 04/19/23 10:25 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	0.500 ± 0.303 (0.471) C:93% T:NA	pCi/L	05/17/23 08:29	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	0.727U ± 0.430 (0.788) C:66% T:85%	pCi/L	05/08/23 11:40	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	1.23U ± 0.733 (1.26)	pCi/L	05/17/23 16:44	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: WMWBARAP_1404

Pace Project No.: 30580435

Sample: BD06846 MW-16 **Lab ID: 30580435039** Collected: 04/05/23 09:45 Received: 04/19/23 10:25 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	0.709 ± 0.365 (0.487) C:79% T:NA	pCi/L	05/17/23 08:29	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	0.790 ± 0.404 (0.690) C:67% T:89%	pCi/L	05/08/23 11:40	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	1.50 ± 0.769 (1.18)	pCi/L	05/17/23 16:44	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: WMWBARAP_1404

Pace Project No.: 30580435

Sample: BD06847 MW-5V **Lab ID: 30580435040** Collected: 04/04/23 11:11 Received: 04/19/23 10:25 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	0.333U ± 0.247 (0.415) C:94% T:NA	pCi/L	05/17/23 08:29	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	0.797 ± 0.429 (0.756) C:64% T:91%	pCi/L	05/08/23 11:41	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	1.13U ± 0.676 (1.17)	pCi/L	05/17/23 16:44	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: WMWBARAP_1404

Pace Project No.: 30580435

Sample: BD06848 MW-5 **Lab ID: 30580435041** Collected: 04/04/23 12:02 Received: 04/19/23 10:25 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	0.288U ± 0.219 (0.349) C:90% T:NA	pCi/L	05/17/23 08:29	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	0.859 ± 0.350 (0.528) C:81% T:93%	pCi/L	05/09/23 12:00	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	1.15 ± 0.569 (0.877)	pCi/L	05/17/23 16:44	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: WMWBARAP_1404

Pace Project No.: 30580435

Sample: BD06849 MW-4 **Lab ID: 30580435042** Collected: 04/04/23 13:01 Received: 04/19/23 10:25 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	0.882 ± 0.371 (0.416) C:89% T:NA	pCi/L	05/17/23 08:30	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	0.938 ± 0.383 (0.591) C:79% T:92%	pCi/L	05/09/23 12:00	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	1.82 ± 0.754 (1.01)	pCi/L	05/17/23 16:44	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: WMWBARAP_1404

Pace Project No.: 30580435

Sample: BD06850 MW-3 **Lab ID: 30580435043** Collected: 04/04/23 14:14 Received: 04/19/23 10:25 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 9315	0.242U ± 0.211 (0.374) C:91% T:NA	pCi/L	05/17/23 08:30	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	0.237U ± 0.288 (0.609) C:78% T:95%	pCi/L	05/09/23 12:00	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	0.479U ± 0.499 (0.983)	pCi/L	05/17/23 16:44	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: WMWBARAP_1404

Pace Project No.: 30580435

Sample: BD06851 MW-1V **Lab ID: 30580435044** Collected: 04/04/23 15:12 Received: 04/19/23 10:25 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	0.618 ± 0.313 (0.397) C:93% T:NA	pCi/L	05/17/23 08:31	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	1.00 ± 0.411 (0.642) C:78% T:90%	pCi/L	05/09/23 12:00	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	1.62 ± 0.724 (1.04)	pCi/L	05/17/23 16:35	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: WMWBARAP_1404

Pace Project No.: 30580435

Sample: BD06852 MW-16V **Lab ID: 30580435045** Collected: 04/04/23 16:31 Received: 04/19/23 10:25 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 9315	0.675 ± 0.325 (0.423) C:93% T:NA	pCi/L	05/17/23 08:32	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	0.390U ± 0.280 (0.527) C:78% T:88%	pCi/L	05/09/23 12:00	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	1.07 ± 0.605 (0.950)	pCi/L	05/17/23 16:35	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: WMWBARAP_1404

Pace Project No.: 30580435

Sample: BD06853 MW-18H **Lab ID: 30580435046** Collected: 04/05/23 09:23 Received: 04/19/23 10:25 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 9315	0.169U ± 0.189 (0.372) C:94% T:NA	pCi/L	05/17/23 08:32	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	0.506U ± 0.307 (0.552) C:74% T:91%	pCi/L	05/09/23 12:00	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	0.675U ± 0.496 (0.924)	pCi/L	05/17/23 16:35	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: WMWBARAP_1404

Pace Project No.: 30580435

Sample: BD06854 MW-14 **Lab ID: 30580435047** Collected: 04/05/23 11:35 Received: 04/19/23 10:25 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	0.0241U ± 0.127 (0.341) C:94% T:NA	pCi/L	05/17/23 08:32	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	0.722 ± 0.328 (0.533) C:82% T:96%	pCi/L	05/09/23 12:00	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	0.746U ± 0.455 (0.874)	pCi/L	05/17/23 16:35	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: WMWBARAP_1404

Pace Project No.: 30580435

Sample: BD06855 FB-4 **Lab ID: 30580435048** Collected: 04/05/23 12:30 Received: 04/19/23 10:25 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 9315	0.288U ± 0.227 (0.380) C:92% T:NA	pCi/L	05/17/23 08:32	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	0.566U ± 0.334 (0.606) C:81% T:90%	pCi/L	05/09/23 15:02	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	0.854U ± 0.561 (0.986)	pCi/L	05/17/23 16:35	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: WMWBARAP_1404

Pace Project No.: 30580435

Sample: BD08117 MW-20V **Lab ID: 30584315001** Collected: 04/24/23 12:58 Received: 05/03/23 10:00 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 9315	0.211U ± 0.238 (0.480) C:86% T:NA	pCi/L	06/01/23 08:08	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	0.394U ± 0.337 (0.676) C:88% T:82%	pCi/L	05/22/23 15:57	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	0.605U ± 0.575 (1.16)	pCi/L	06/01/23 17:02	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: WMWBARAP_1404

Pace Project No.: 30580435

Sample: BD08118 MW-22H **Lab ID: 30584315002** Collected: 04/24/23 14:05 Received: 05/03/23 10:00 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	0.489 ± 0.305 (0.480) C:89% T:NA	pCi/L	06/01/23 08:08	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	0.512U ± 0.347 (0.660) C:82% T:87%	pCi/L	05/22/23 15:57	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	1.00U ± 0.652 (1.14)	pCi/L	06/01/23 17:02	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: WMWBARAP_1404

Pace Project No.: 30580435

Sample: BD08119 MW-15V **Lab ID: 30584315003** Collected: 04/24/23 15:00 Received: 05/03/23 10:00 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	1.41 ± 0.482 (0.453) C:92% T:NA	pCi/L	06/01/23 08:08	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	0.606 ± 0.307 (0.508) C:83% T:91%	pCi/L	05/22/23 15:58	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	2.02 ± 0.789 (0.961)	pCi/L	06/01/23 17:02	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: WMWBARAP_1404

Pace Project No.: 30580435

Sample: BD08120 MW-20H **Lab ID: 30584315004** Collected: 04/24/23 16:06 Received: 05/03/23 10:00 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	0.532 ± 0.279 (0.333) C:93% T:NA	pCi/L	06/01/23 08:09	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	0.642 ± 0.303 (0.480) C:83% T:93%	pCi/L	05/22/23 15:58	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	1.17 ± 0.582 (0.813)	pCi/L	06/01/23 17:02	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: WMWBARAP_1404

Pace Project No.: 30580435

Sample: BD08121 MW-19H **Lab ID: 30584315005** Collected: 04/24/23 17:55 Received: 05/03/23 10:00 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	0.547 ± 0.305 (0.435) C:88% T:NA	pCi/L	06/01/23 08:09	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	0.799 ± 0.371 (0.615) C:83% T:89%	pCi/L	05/22/23 15:58	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	1.35 ± 0.676 (1.05)	pCi/L	06/01/23 17:02	7440-14-4	

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QUALITY CONTROL - RADIOCHEMISTRY

Project: WMWBARAP_1404

Pace Project No.: 30580435

QC Batch: 582721

Analysis Method: EPA 9320

QC Batch Method: EPA 9320

Analysis Description: 9320 Radium 228

Laboratory: Pace Analytical Services - Greensburg

Associated Lab Samples: 30580435001, 30580435002, 30580435003, 30580435004, 30580435005, 30580435006, 30580435007, 30580435008, 30580435009, 30580435010, 30580435011, 30580435012, 30580435013, 30580435014, 30580435015, 30580435016, 30580435020, 30580435021, 30580435022, 30580435023

METHOD BLANK: 2829963

Matrix: Water

Associated Lab Samples: 30580435001, 30580435002, 30580435003, 30580435004, 30580435005, 30580435006, 30580435007, 30580435008, 30580435009, 30580435010, 30580435011, 30580435012, 30580435013, 30580435014, 30580435015, 30580435016, 30580435020, 30580435021, 30580435022, 30580435023

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.676 ± 0.320 (0.523) C:83% T:90%	pCi/L	05/03/23 11:24	

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QUALITY CONTROL - RADIOCHEMISTRY

Project: WMWBARAP_1404

Pace Project No.: 30580435

QC Batch: 586015

Analysis Method: EPA 9315

QC Batch Method: EPA 9315

Analysis Description: 9315 Total Radium

Laboratory: Pace Analytical Services - Greensburg

Associated Lab Samples: 30584315001, 30584315002, 30584315003, 30584315004, 30584315005

METHOD BLANK: 2846888

Matrix: Water

Associated Lab Samples: 30584315001, 30584315002, 30584315003, 30584315004, 30584315005

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.194 ± 0.133 (0.236) C:94% T:NA	pCi/L	06/01/23 08:55	

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QUALITY CONTROL - RADIOCHEMISTRY

Project: WMWBARAP_1404
Pace Project No.: 30580435

QC Batch:	582723	Analysis Method:	EPA 9320
QC Batch Method:	EPA 9320	Analysis Description:	9320 Radium 228
		Laboratory:	Pace Analytical Services - Greensburg

Associated Lab Samples: 30580435028, 30580435029, 30580435030, 30580435041, 30580435042, 30580435043, 30580435044, 30580435045, 30580435046, 30580435047, 30580435048

METHOD BLANK: 2829969	Matrix: Water
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Associated Lab Samples: 30580435028, 30580435029, 30580435030, 30580435041, 30580435042, 30580435043, 30580435044, 30580435045, 30580435046, 30580435047, 30580435048

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.978 ± 0.391 (0.591) C:78% T:92%	pCi/L	05/09/23 11:59	

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QUALITY CONTROL - RADIOCHEMISTRY

Project: WMWBARAP_1404

Pace Project No.: 30580435

QC Batch: 588032

Analysis Method: EPA 9320

QC Batch Method: EPA 9320

Analysis Description: 9320 Radium 228

Laboratory: Pace Analytical Services - Greensburg

Associated Lab Samples: 30584315001, 30584315002, 30584315003, 30584315004, 30584315005

METHOD BLANK: 2857357

Matrix: Water

Associated Lab Samples: 30584315001, 30584315002, 30584315003, 30584315004, 30584315005

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.120 ± 0.284 (0.634) C:84% T:90%	pCi/L	05/22/23 15:57	

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QUALITY CONTROL - RADIOCHEMISTRY

Project: WMWBARAP_1404

Pace Project No.: 30580435

QC Batch: 582598

Analysis Method: EPA 9315

QC Batch Method: EPA 9315

Analysis Description: 9315 Total Radium

Laboratory: Pace Analytical Services - Greensburg

Associated Lab Samples: 30580435028, 30580435029, 30580435030, 30580435044, 30580435045, 30580435046, 30580435047, 30580435048

METHOD BLANK: 2829634

Matrix: Water

Associated Lab Samples: 30580435028, 30580435029, 30580435030, 30580435044, 30580435045, 30580435046, 30580435047, 30580435048

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.101 ± 0.0856 (0.149) C:96% T:NA	pCi/L	05/17/23 08:31	

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QUALITY CONTROL - RADIOCHEMISTRY

Project: WMWBARAP_1404

Pace Project No.: 30580435

QC Batch:	582596	Analysis Method:	EPA 9315
QC Batch Method:	EPA 9315	Analysis Description:	9315 Total Radium
		Laboratory:	Pace Analytical Services - Greensburg

Associated Lab Samples: 30580435001, 30580435002, 30580435003, 30580435004, 30580435005, 30580435006, 30580435007, 30580435008, 30580435009, 30580435010, 30580435011, 30580435012, 30580435013, 30580435014, 30580435015, 30580435016, 30580435020, 30580435021, 30580435022, 30580435023

METHOD BLANK:	2829632	Matrix:	Water
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Associated Lab Samples: 30580435001, 30580435002, 30580435003, 30580435004, 30580435005, 30580435006, 30580435007, 30580435008, 30580435009, 30580435010, 30580435011, 30580435012, 30580435013, 30580435014, 30580435015, 30580435016, 30580435020, 30580435021, 30580435022, 30580435023

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.113 ± 0.115 (0.223) C:68% T:NA	pCi/L	05/16/23 18:44	

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QUALITY CONTROL - RADIOCHEMISTRY

Project: WMWBARAP_1404

Pace Project No.: 30580435

QC Batch: 582722

Analysis Method: EPA 9320

QC Batch Method: EPA 9320

Analysis Description: 9320 Radium 228

Laboratory: Pace Analytical Services - Greensburg

Associated Lab Samples: 30580435017, 30580435018, 30580435019, 30580435024, 30580435025, 30580435026, 30580435027, 30580435031, 30580435032, 30580435033, 30580435034, 30580435035, 30580435036, 30580435037, 30580435038, 30580435039, 30580435040

METHOD BLANK: 2829964

Matrix: Water

Associated Lab Samples: 30580435017, 30580435018, 30580435019, 30580435024, 30580435025, 30580435026, 30580435027, 30580435031, 30580435032, 30580435033, 30580435034, 30580435035, 30580435036, 30580435037, 30580435038, 30580435039, 30580435040

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.488 ± 0.311 (0.569) C:71% T:89%	pCi/L	05/08/23 11:36	

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QUALITY CONTROL - RADIOCHEMISTRY

Project: WMWBARAP_1404

Pace Project No.: 30580435

QC Batch: 582597

Analysis Method: EPA 9315

QC Batch Method: EPA 9315

Analysis Description: 9315 Total Radium

Laboratory: Pace Analytical Services - Greensburg

Associated Lab Samples: 30580435017, 30580435018, 30580435019, 30580435024, 30580435025, 30580435026, 30580435027, 30580435031, 30580435032, 30580435033, 30580435034, 30580435035, 30580435036, 30580435037, 30580435038, 30580435039, 30580435040, 30580435041, 30580435042, 30580435043

METHOD BLANK: 2829633

Matrix: Water

Associated Lab Samples: 30580435017, 30580435018, 30580435019, 30580435024, 30580435025, 30580435026, 30580435027, 30580435031, 30580435032, 30580435033, 30580435034, 30580435035, 30580435036, 30580435037, 30580435038, 30580435039, 30580435040, 30580435041, 30580435042, 30580435043

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.143 ± 0.0999 (0.157) C:88% T:NA	pCi/L	05/16/23 18:52	

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QUALIFIERS

Project: WMWBARAP_1404
Pace Project No.: 30580435

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Reported results are not rounded until the final step prior to reporting. Therefore, calculated parameters that are typically reported as "Total" may vary slightly from the sum of the reported component parameters.

Act - Activity

Unc - Uncertainty: For Safe Drinking Water Act (SDWA) analyses, the reported Unc. is the calculated Count Uncertainty (95% confidence interval) using a coverage factor of 1.96. For all other matrices (non-SDWA), the reported Unc. is the calculated Expanded Uncertainty (aka Combined Standard Uncertainty, CSU), reported at the 95% confidence interval using a coverage factor of 1.96.

Gamma Spec: The Unc. reported for all gamma-spectroscopy analyses (EPA 901.1), is the calculated Expanded Uncertainty (CSU) at the 95.4% confidence interval, using a coverage factor of 2.0.

(MDC) - Minimum Detectable Concentration

Trac - Tracer Recovery (%)

Carr - Carrier Recovery (%)

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: WMWBARAP_1404

Pace Project No.: 30580435

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
30580435001	BD06624 MW-15	EPA 9315	582596		
30580435002	BD06624 MW-15 MS	EPA 9315	582596		
30580435003	BD06624 MW-15 MSD	EPA 9315	582596		
30580435004	BD06625 EB-1	EPA 9315	582596		
30580435005	BD06626 MW-24H	EPA 9315	582596		
30580435006	BD06627 MW-24H Dup	EPA 9315	582596		
30580435007	BD06628 MW-25H	EPA 9315	582596		
30580435008	BD06629 MW-25H Dup	EPA 9315	582596		
30580435009	BD06630 MW-25V	EPA 9315	582596		
30580435010	BD06631 MW-1	EPA 9315	582596		
30580435011	BD06632 MW-2	EPA 9315	582596		
30580435012	BD06633 MW-10V	EPA 9315	582596		
30580435013	BD06634 MW-7V	EPA 9315	582596		
30580435014	BD06635 MW-7	EPA 9315	582596		
30580435015	BD06636 MW-6	EPA 9315	582596		
30580435016	BD06637 FB-1	EPA 9315	582596		
30580435017	BD06638 MW-8	EPA 9315	582597		
30580435018	BD06638 MW-8 MS	EPA 9315	582597		
30580435019	BD06638 MW-8 MSD	EPA 9315	582597		
30580435020	BD06639 MW-10	EPA 9315	582596		
30580435021	BD06640 MW-8V	EPA 9315	582596		
30580435022	BD06641 MW-9	EPA 9315	582596		
30580435023	BD06642 MW-9 Dup	EPA 9315	582596		
30580435024	BD06643 FB-3	EPA 9315	582597		
30580435025	BD06782 MW-11	EPA 9315	582597		
30580435026	BD06783 MW-12V	EPA 9315	582597		
30580435027	BD06784 MW-12V Dup	EPA 9315	582597		
30580435028	BD06785 MW-12	EPA 9315	582598		
30580435029	BD06785 MW-12 MS	EPA 9315	582598		
30580435030	BD06785 MW-12 MSD	EPA 9315	582598		
30580435031	BD06786 MW-13	EPA 9315	582597		
30580435032	BD06787 MW-13V	EPA 9315	582597		
30580435033	BD06788 FB-2	EPA 9315	582597		
30580435034	BD06841 MW-23H	EPA 9315	582597		
30580435035	BD06842 MW-23V	EPA 9315	582597		
30580435036	BD06843 MW-17V	EPA 9315	582597		
30580435037	BD06844 MW-17H	EPA 9315	582597		
30580435038	BD06845 MW-14V	EPA 9315	582597		
30580435039	BD06846 MW-16	EPA 9315	582597		
30580435040	BD06847 MW-5V	EPA 9315	582597		
30580435041	BD06848 MW-5	EPA 9315	582597		
30580435042	BD06849 MW-4	EPA 9315	582597		
30580435043	BD06850 MW-3	EPA 9315	582597		
30580435044	BD06851 MW-1V	EPA 9315	582598		
30580435045	BD06852 MW-16V	EPA 9315	582598		
30580435046	BD06853 MW-18H	EPA 9315	582598		

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: WMWBARAP_1404

Pace Project No.: 30580435

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
30580435047	BD06854 MW-14	EPA 9315	582598		
30580435048	BD06855 FB-4	EPA 9315	582598		
30584315001	BD08117 MW-20V	EPA 9315	586015		
30584315002	BD08118 MW-22H	EPA 9315	586015		
30584315003	BD08119 MW-15V	EPA 9315	586015		
30584315004	BD08120 MW-20H	EPA 9315	586015		
30584315005	BD08121 MW-19H	EPA 9315	586015		
30580435001	BD06624 MW-15	EPA 9320	582721		
30580435002	BD06624 MW-15 MS	EPA 9320	582721		
30580435003	BD06624 MW-15 MSD	EPA 9320	582721		
30580435004	BD06625 EB-1	EPA 9320	582721		
30580435005	BD06626 MW-24H	EPA 9320	582721		
30580435006	BD06627 MW-24H Dup	EPA 9320	582721		
30580435007	BD06628 MW-25H	EPA 9320	582721		
30580435008	BD06629 MW-25H Dup	EPA 9320	582721		
30580435009	BD06630 MW-25V	EPA 9320	582721		
30580435010	BD06631 MW-1	EPA 9320	582721		
30580435011	BD06632 MW-2	EPA 9320	582721		
30580435012	BD06633 MW-10V	EPA 9320	582721		
30580435013	BD06634 MW-7V	EPA 9320	582721		
30580435014	BD06635 MW-7	EPA 9320	582721		
30580435015	BD06636 MW-6	EPA 9320	582721		
30580435016	BD06637 FB-1	EPA 9320	582721		
30580435017	BD06638 MW-8	EPA 9320	582722		
30580435018	BD06638 MW-8 MS	EPA 9320	582722		
30580435019	BD06638 MW-8 MSD	EPA 9320	582722		
30580435020	BD06639 MW-10	EPA 9320	582721		
30580435021	BD06640 MW-8V	EPA 9320	582721		
30580435022	BD06641 MW-9	EPA 9320	582721		
30580435023	BD06642 MW-9 Dup	EPA 9320	582721		
30580435024	BD06643 FB-3	EPA 9320	582722		
30580435025	BD06782 MW-11	EPA 9320	582722		
30580435026	BD06783 MW-12V	EPA 9320	582722		
30580435027	BD06784 MW-12V Dup	EPA 9320	582722		
30580435028	BD06785 MW-12	EPA 9320	582723		
30580435029	BD06785 MW-12 MS	EPA 9320	582723		
30580435030	BD06785 MW-12 MSD	EPA 9320	582723		
30580435031	BD06786 MW-13	EPA 9320	582722		
30580435032	BD06787 MW-13V	EPA 9320	582722		
30580435033	BD06788 FB-2	EPA 9320	582722		
30580435034	BD06841 MW-23H	EPA 9320	582722		
30580435035	BD06842 MW-23V	EPA 9320	582722		
30580435036	BD06843 MW-17V	EPA 9320	582722		
30580435037	BD06844 MW-17H	EPA 9320	582722		
30580435038	BD06845 MW-14V	EPA 9320	582722		

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: WMWBARAP_1404
Pace Project No.: 30580435

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
30580435039	BD06846 MW-16	EPA 9320	582722		
30580435040	BD06847 MW-5V	EPA 9320	582722		
30580435041	BD06848 MW-5	EPA 9320	582723		
30580435042	BD06849 MW-4	EPA 9320	582723		
30580435043	BD06850 MW-3	EPA 9320	582723		
30580435044	BD06851 MW-1V	EPA 9320	582723		
30580435045	BD06852 MW-16V	EPA 9320	582723		
30580435046	BD06853 MW-18H	EPA 9320	582723		
30580435047	BD06854 MW-14	EPA 9320	582723		
30580435048	BD06855 FB-4	EPA 9320	582723		
30584315001	BD08117 MW-20V	EPA 9320	588032		
30584315002	BD08118 MW-22H	EPA 9320	588032		
30584315003	BD08119 MW-15V	EPA 9320	588032		
30584315004	BD08120 MW-20H	EPA 9320	588032		
30584315005	BD08121 MW-19H	EPA 9320	588032		
30580435001	BD06624 MW-15	Total Radium Calculation	588920		
30580435004	BD06625 EB-1	Total Radium Calculation	588920		
30580435005	BD06626 MW-24H	Total Radium Calculation	588920		
30580435006	BD06627 MW-24H Dup	Total Radium Calculation	588920		
30580435007	BD06628 MW-25H	Total Radium Calculation	588920		
30580435008	BD06629 MW-25H Dup	Total Radium Calculation	588920		
30580435009	BD06630 MW-25V	Total Radium Calculation	588920		
30580435010	BD06631 MW-1	Total Radium Calculation	588920		
30580435011	BD06632 MW-2	Total Radium Calculation	588920		
30580435012	BD06633 MW-10V	Total Radium Calculation	588920		
30580435013	BD06634 MW-7V	Total Radium Calculation	588920		
30580435014	BD06635 MW-7	Total Radium Calculation	588920		
30580435015	BD06636 MW-6	Total Radium Calculation	588920		
30580435016	BD06637 FB-1	Total Radium Calculation	588920		
30580435017	BD06638 MW-8	Total Radium Calculation	588923		
30580435020	BD06639 MW-10	Total Radium Calculation	588920		
30580435021	BD06640 MW-8V	Total Radium Calculation	588920		
30580435022	BD06641 MW-9	Total Radium Calculation	588920		
30580435023	BD06642 MW-9 Dup	Total Radium Calculation	588920		
30580435024	BD06643 FB-3	Total Radium Calculation	588923		
30580435025	BD06782 MW-11	Total Radium Calculation	588923		
30580435026	BD06783 MW-12V	Total Radium Calculation	588923		
30580435027	BD06784 MW-12V Dup	Total Radium Calculation	588923		
30580435028	BD06785 MW-12	Total Radium Calculation	588919		
30580435031	BD06786 MW-13	Total Radium Calculation	588923		
30580435032	BD06787 MW-13V	Total Radium Calculation	588923		
30580435033	BD06788 FB-2	Total Radium Calculation	588923		
30580435034	BD06841 MW-23H	Total Radium Calculation	588923		
30580435035	BD06842 MW-23V	Total Radium Calculation	588923		
30580435036	BD06843 MW-17V	Total Radium Calculation	588923		

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: WMWBARAP_1404
Pace Project No.: 30580435

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
30580435037	BD06844 MW-17H	Total Radium Calculation	588923		
30580435038	BD06845 MW-14V	Total Radium Calculation	588923		
30580435039	BD06846 MW-16	Total Radium Calculation	588923		
30580435040	BD06847 MW-5V	Total Radium Calculation	588923		
30580435041	BD06848 MW-5	Total Radium Calculation	588923		
30580435042	BD06849 MW-4	Total Radium Calculation	588923		
30580435043	BD06850 MW-3	Total Radium Calculation	588923		
30580435044	BD06851 MW-1V	Total Radium Calculation	588919		
30580435045	BD06852 MW-16V	Total Radium Calculation	588919		
30580435046	BD06853 MW-18H	Total Radium Calculation	588919		
30580435047	BD06854 MW-14	Total Radium Calculation	588919		
30580435048	BD06855 FB-4	Total Radium Calculation	588919		
30584315001	BD08117 MW-20V	Total Radium Calculation	592116		
30584315002	BD08118 MW-22H	Total Radium Calculation	592116		
30584315003	BD08119 MW-15V	Total Radium Calculation	592116		
30584315004	BD08120 MW-20H	Total Radium Calculation	592116		
30584315005	BD08121 MW-19H	Total Radium Calculation	592116		

REPORT OF LABORATORY ANALYSIS

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CHAIN-OF-CUSTODY / Analytical Request Document

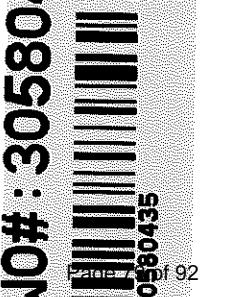
The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Section A		Section B		Section C	
Required Client Information:		Required Project Information:		Invoice Information:	
Company: Alabama Power Company	Report To: Brooke Caton	Company Name: Alabama Power Co.	Attention: Brooke Caton	Company Name: Alabama Power Co.	Address: 744 Highway 87 GSC Bldg #8
Address: 744 Highway 87 GSC Bldg #8	Copy To: Renee Jernigan & Blaine Denton	Address: 744 Highway 87 GSC Bldg #8	Address: 744 Highway 87 GSC Bldg #8	Address: 744 Highway 87 GSC Bldg #8	Address: 744 Highway 87 GSC Bldg #8
Calera, AL 35040	Purchase Order #: APC10755638	State: AL	City: Calera	City: Calera	City: Calera
Email To: tbwill@southernco.com	Project Name: Plant Barry Ash Pond	Project Name: Plant Barry Ash Pond	Project Name: Plant Barry Ash Pond	Project Name: Plant Barry Ash Pond	Project Name: Plant Barry Ash Pond
Phone: 205-664-6101	Requested Due Date: 28 days	Requested Due Date: 28 days	Requested Due Date: 28 days	Requested Due Date: 28 days	Requested Due Date: 28 days
Requested Due Date: 28 days	Project Number: WMMBARAP_1404	Project Number: WMMBARAP_1404	Project Number: WMMBARAP_1404	Project Number: WMMBARAP_1404	Project Number: WMMBARAP_1404
	Face Profile #: 16788	Face Profile #: 16788	Face Profile #: 16788	Face Profile #: 16788	Face Profile #: 16788
	State / Location: AL	State / Location: AL	State / Location: AL	State / Location: AL	State / Location: AL
	Regulatory Agency:	Regulatory Agency:	Regulatory Agency:	Regulatory Agency:	Regulatory Agency:

ITEM #	Description	Station Name Location_ID	Site Name Facility_ID	Sample Duplicate	Matrix Spike/Matrix Spike Duplicate	Field Filtered	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED		# OF CONTAINERS	Preservatives	Y/N	Requested Analysis Filtered (Y/N)	EPA 9315	EPA 9320	Total Radium Sum	Residual Chlorine (Y/N)	TEMP in C	Received on	Custody (Y/N)	Sealed (Y/N)	Cooler (Y/N)	Samples Intact (Y/N)
									DATE	TIME														
1	BD06624	APCO-BY-AP-MW-15	APCO_Barry_AshPond		X		GW	G	4/3/2023	9:12	3			X	X	X								
2	BD06625	APCO-BY-AP-EB-01	APCO_Barry_AshPond				GW	G	4/3/2023	9:40	1			X	X	X								
3	BD06626	APCO-BY-AP-MW-24H	APCO_Barry_AshPond				GW	G	4/3/2023	11:48	1			X	X	X								
4	BD06627	APCO-BY-AP-MW-24H	APCO_Barry_AshPond	X			GW	G	4/3/2023	11:48	1			X	X	X								
5	BD06628	APCO-BY-AP-MW-28H	APCO_Barry_AshPond				GW	G	4/3/2023	14:24	1			X	X	X								
6	BD06629	APCO-BY-AP-MW-25H	APCO_Barry_AshPond	X			GW	G	4/3/2023	14:24	1			X	X	X								
7	BD06630	APCO-BY-AP-MW-25V	APCO_Barry_AshPond				GW	G	4/3/2023	15:17	1			X	X	X								
8	BD06631	APCO-BY-AP-MW-1	APCO_Barry_AshPond				GW	G	4/3/2023	8:50	1			X	X	X								
9	BD06632	APCO-BY-AP-MW-2	APCO_Barry_AshPond				GW	G	4/3/2023	11:23	1			X	X	X								
10	BD06633	APCO-BY-AP-MW-10V	APCO_Barry_AshPond				GW	G	4/3/2023	15:16	1			X	X	X								
11	BD06634	APCO-BY-AP-MW-7V	APCO_Barry_AshPond				GW	G	4/3/2023	16:40	1			X	X	X								
12	BD06635	APCO-BY-AP-MW-7	APCO_Barry_AshPond				GW	G	4/3/2023	17:37	1			X	X	X								

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
	Brooke Caton/ APC GTL	4/12/2023	11:57	<i>[Signature]</i>	4/12/23	10:55	

WO#: 30580435



30580435

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SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER:

SIGNATURE of SAMPLER:

DATE Signed:

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Section A

Required Client Information:
 Company: Alabama Power Company
 Address: 744 Highway 87 GSC Bldg #8
 Calera, AL 35040
 Email To: tbwill@southemco.com
 Phone: 205-664-6101 Fax:
 Requested Due Date: 28 days


Section B

Required Project Information:
 Report To: Brooke Caton
 Copy To: Renee Jernigan & Blaine Denton
 Purchase Order #: APC10755638
 Project Name: Plant Barry Ash Pond
 Project Number: W/MW/BAR/AP_1404

Section C

Invoice Information:
 Attention: Brooke Caton
 Company Name: Alabama Power Co.
 Address: 744 Highway 87 GSC Bldg #8
 CCR
 Pace Project Manager:
 Pace Profile #: 16788
 Reg. Agency: AL

ITEM #	Description	Station Name Location_ID	Site Name Facility_ID	COLLECTED		Sample Duplicate	Matrix Spike/Matrix Spike Duplicate	Field Filtered	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	# OF CONTAINERS	Preservatives H2SO4 HNO3 Unpreserved	Y/N	Requested Analysis Filtered (Y/N)				Residual Chlorine (Y/N)		
				DATE	TIME									EPA 9315	EPA 9320	Total Radium Sum	TEMP in C			
1	MW-6	APCO-BY-AP-MW-6	APCO_Barry_AshPond	4/4/2023	6:50				GW	G	1		X	X	X					
2	FB-1	APCO-BY-AP-FB-01	APCO_Barry_AshPond	4/4/2023	9:20				GW	G	1		X	X	X					015
3	MW-8	APCO-BY-AP-MW-8	APCO_Barry_AshPond	4/3/2023	9:42				GW	G	3		X	X	X					016
4	MW-10	APCO-BY-AP-MW-10	APCO_Barry_AshPond	4/3/2023	12:42		X		GW	G	1		X	X	X					017 018 019
5	MW-8V	APCO-BY-AP-MW-8V	APCO_Barry_AshPond	4/3/2023	15:40				GW	G	1		X	X	X					020
6	MW-9	APCO-BY-AP-MW-9	APCO_Barry_AshPond	4/4/2023	8:47				GW	G	1		X	X	X					021
7	MW-9 Dup	APCO-BY-AP-MW-9	APCO_Barry_AshPond	4/4/2023	8:47	X			GW	G	1		X	X	X					022
8	FB-3	APCO-BY-AP-FB-03	APCO_Barry_AshPond	4/4/2023	9:20				GW	G	1		X	X	X					023
9	MW-11	APCO-BY-AP-MW-11	APCO_Barry_AshPond	4/4/2023	11:25				GW	G	1		X	X	X					024
10	MW-12V	APCO-BY-AP-MW-12V	APCO_Barry_AshPond	4/4/2023	12:35				GW	G	1		X	X	X					025
11	MW-12V Dup	APCO-BY-AP-MW-12V	APCO_Barry_AshPond	4/4/2023	12:35	X			GW	G	1		X	X	X					026
12	MW-12	APCO-BY-AP-MW-12	APCO_Barry_AshPond	4/4/2023	13:45		X		GW	G	3		X	X	X					027

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME
	Brooke Caton / APC GTL	4/12/2023	11:57		4/17/23	10:25

WO#: 30580435

PR: SCR Due Date: 05/17/23

CLIENT: ALABAMA PWR

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER:
SIGNATURE of SAMPLER:

DATE Signed:

CHAIN-OF-CUSTODY / Analytical Request Document

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Section A		Section B		Section C	
Required Client Information:		Required Project Information:		Invoice Information:	
Company: Alabama Power Company	Report To: Brooke Caton	Company Name: Alabama Power Co.	Attention: Brooke Caton		
Address: 744 Highway 87 GSC Bldg #8 Calera, AL 35040	Copy To: Renee Jernigan & Blaine Denton	Address: 744 Highway 87 GSC Bldg #8	CCR		
Email To: tbwill@southernco.com	Purchase Order #: APC10755638	Pace Quote: Skylar Richmond	State / Location: AL		
Phone: 205-664-6101 Fax:	Project Name: Plant Barry Ash Pond	Pace Project Manager: 16788			
Requested Due Date: 28 days	Project Number: WMWBARAP_1404				

ITEM #	Description	Station Name Location_ID	Site Name Facility_ID	Sample Duplicate	Matrix Spike/Matrix Spike Duplicate	Field Filtered	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED		# OF CONTAINERS	Requested Analysis Filtered (Y/N)				TEMP in C	Received on	Sealed (Y/N)	Cooler (Y/N)	Samples Intact (Y/N)
									DATE	TIME		Preservatives	H2SO4	HNO3	Unpreserved					
1	BD06766 MW-13	APCO-BY-AP-MW-13	APCO_Barry_AshPond				GW	G	4/4/2023	15:05	1	X	X	X						
2	BD06767 MW-13V	APCO-BY-AP-MW-13V	APCO_Barry_AshPond				GW	G	4/4/2023	15:50	1	X	X	X						
3	BD06768 FB-2	APCO-BY-AP-FB-02	APCO_Barry_AshPond				GW	G	4/4/2023	16:20	1	X	X	X						
4	BD06841 MW-23H	APCO-BY-AP-MW-23H	APCO_Barry_AshPond				GW	G	4/4/2023	11:15	1	X	X	X						
5	BD06842 MW-23V	APCO-BY-AP-MW-23V	APCO_Barry_AshPond				GW	G	4/4/2023	11:55	1	X	X	X						
6	BD06843 MW-17V	APCO-BY-AP-MW-17V	APCO_Barry_AshPond				GW	G	4/4/2023	12:50	1	X	X	X						
7	BD06844 MW-17H	APCO-BY-AP-MW-17H	APCO_Barry_AshPond				GW	G	4/4/2023	13:36	1	X	X	X						
8	BD06845 MW-14V	APCO-BY-AP-MW-14V	APCO_Barry_AshPond				GW	G	4/4/2023	15:05	1	X	X	X						
9	BD06846 MW-16	APCO-BY-AP-MW-16	APCO_Barry_AshPond				GW	G	4/5/2023	9:45	1	X	X	X						
10	BD06847 MW-5V	APCO-BY-AP-MW-5V	APCO_Barry_AshPond				GW	G	4/4/2023	11:11	1	X	X	X						
11	BD06848 MW-5	APCO-BY-AP-MW-5	APCO_Barry_AshPond				GW	G	4/4/2023	12:02	1	X	X	X						
12	BD06849 MW-4	APCO-BY-AP-MW-4	APCO_Barry_AshPond				GW	G	4/4/2023	13:01	1	X	X	X						

ADDITIONAL COMMENTS:

RELINQUISHED BY / AFFILIATION: Brooke Caton/ APC-GTL DATE: 4/12/2023 TIME: 11:57

ACCEPTED BY / AFFILIATION: *[Signature]* DATE: 4/12/23 TIME: 10:25

SAMPLER NAME AND SIGNATURE: PRINT Name of SAMPLER: SIGNATURE of SAMPLER: DATE Signed:

WO#: 30580435

PM: SCR Due Date: 05/17/23

CLIENT: ALABAMA PWR

of 92

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Section A Required Client Information:		Section B Required Project Information:		Section C Invoice Information:	
Company:	Alabama Power Company	Report To:	Brooke Caton	Attention:	Brooke Caton
Address:	744 Highway 87 GSC Bldg #8 Catera, AL 35040	Copy To:	Ranee Jernigan & Blaine Denton	Company Name:	Alabama Power Co.
Email To:	ibwill@southernco.com	Purchase Order #:	APC10755638	Address:	744 Highway 87 GSC Bldg #8
Phone:	205-664-6101	Project Name:	Plant Barry Ash Pond	Place Quote:	CCR
Requested Due Date:	28 days	Project Number:	WMWBARAP_1404	Place Project Manager:	Skyler Richmond
				Place Profile #:	16788
				Regulatory Agency:	AL
				State / Location:	AL

ITEM #	Description	Station Name Location_ID	Site Name Facility_ID	Sample Duplicate	Matrix Spike/Matrix Spike Duplicate	Field Filtered	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED		# OF CONTAINERS	Preservatives	Y/N	Requested Analysis Filtered (Y/N)		DATE	TIME	SAMPLE CONDITIONS
									DATE	TIME				EPA 9315	EPA 9320			
1	MW-3	APCO-BY-AP-MW-3	APCO_Barry_AshPond				GW	G	4/4/2023	14:14	1			X	X			
2	MW-1V	APCO-BY-AP-MW-1V	APCO_Barry_AshPond				GW	G	4/4/2023	15:12	1			X	X			
3	MW-16V	APCO-BY-AP-MW-16V	APCO_Barry_AshPond				GW	G	4/4/2023	16:31	1			X	X			
4	MW-18H	APCO-BY-AP-MW-18H	APCO_Barry_AshPond				GW	G	4/5/2023	9:23	1			X	X			
5	MW-14	APCO-BY-AP-MW-14	APCO_Barry_AshPond				GW	G	4/5/2023	11:35	1			X	X			
6	FB-4	APCO-BY-AP-FB-04	APCO_Barry_AshPond				GW	G	4/5/2023	12:30	1			X	X			
7																		
8																		
9																		
10																		
11																		
12																		

ADDITIONAL COMMENTS		RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	TEMP in C	Received on	Sealed	Cooler	Samples	Intact
		Brooke Caton/ APC-GTL	4/12/2023	11:57		4/12/23	10:25						
SAMPLE NAME AND SIGNATURE		PRINT Name of SAMPLER:		SIGNATURE of SAMPLER:		DATE Signed:							

WO#: 30580435
 PM: SCR Due Date: 05/17/23
 CLIENT: ALABAMA PWR



DC#_Title: ENV-FRM-GBUR-0088 v04_Sample Condition Upon Receipt-
Pittsburgh

WO#: 30580435

Effective Date: 02/03/2023

PM: SCR Due Date: 05/17/23
CLIENT: ALABAMA PWR

Client Name: Alabama Power Company

Courier: Fed Ex UPS USPS Client Commercial Pace Other

Tracking Number: 636884650816

Examined By	JH
Labeled By	JH
Temped By	-

Custody Seal on Cooler/Box Present: Yes No Seals Intact: Yes No

Thermometer Used: _____ Type of Ice: Wet Blue None

Cooler Temperature: Observed Temp _____ °C Correction Factor: _____ °C Final Temp: _____ °C

Temp should be above freezing to 6°C

Comments:	Yes	No	NA	pH paper Lot#	D.P.D. Residual Chlorine Lot #
				1002124	_____
Chain of Custody Present	J				
Chain of Custody Filled Out:	J				
-Were client corrections present on COC		J			
Chain of Custody Relinquished	J				
Sampler Name & Signature on COC:	J	J			
Sample Labels match COC:	J				
-Includes date/time/ID					
Matrix:					
Samples Arrived within Hold Time:	J				
Short Hold Time Analysis (<72hr remaining):		J			
Rush Turn Around Time Requested:		J			
Sufficient Volume:	J				
Correct Containers Used:	J				
-Pace Containers Used					
Containers Intact:	J				
Orthophosphate field filtered:			J		
Hex Cr Aqueous samples field filtered:			J		
Organic Samples checked for dechlorination			J		
Filtered volume received for dissolved tests:	J				
All containers checked for preservation:	J				
exceptions: VOA, coliform, TOC, O&G, Phenolics, Radon, non-aqueous matrix					
All containers meet method preservation requirements:	J			PHC2	
				Initial when completed JH	Date/Time of Preservation
				Lot# of added Preservative	
8260C/D: Headspace in VOA Vials (> 6mm)			J		
624.1: Headspace in VOA Vials (0mm)			J		
Trip Blank Present:			J		Trip blank custody seal present? YES or NO
Rad Samples Screened <0.5 mrem/hr.	J			Initial when completed JH	Date: 4/20/23 Survey Meter SN: 6563
Comments:					

Note: For NC compliance samples with discrepancies, a copy of this form must be sent to the DEHNR Certification office. PM Review is documented electronically in LIMS through the SRF Review schedule in the Workorder Edit Screen.

Client _____

Site Plant Barry Ash Pond

Profile Number 16788

Notes _____

Page 1 of 1

Sample Line Item	Amber Glass					Plastic					Vials					Other														
	AG1H	AG3S	AG3U	AG5U	AG5T	BP1N	BP1U	BP2S	BP2U	BP3C	BP3N	BP3S	BP3U	DG9S	VG9H	VG9T	VG9U	VOAK	WG9U	WG9T	WG9U	WGFU	WGKU	ZPLC	GUCB	GJN	12GN	GN	BG1U	
WT																														
WT																														
WT																														
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WO#: 30580435

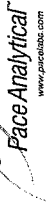
PM: SCR Due Date: 05/17/23
 CLIENT: ALABAMA PWR

Container Codes

Glass	
GJN	1 Gallon Jug with HNO3
AG5U	100mL amber glass unpreserved
AG5T	100mL amber glass Na Thiosulfate
GJN	1 Gallon Jug
AG1S	1L amber glass H2SO4
AG1H	1L amber glass HCl
AG1T	1L amber glass NA Thiosulfate
BG1U	1L clear glass unpreserved
AG3S	250mL amber glass H2SO4
AG3U	250mL amber glass unpreserved
DG9S	40mL amber VOA vial H2SO4
VG9U	40mL clear VOA vial
VG9T	40mL clear VOA vial Na Thiosulfate
VG9H	40mL clear VOA vial HCl
JGFU	4oz amber wide jar
WG9U	4oz wide jar unpreserved
BG2U	500mL clear glass unpreserved
AG2U	500mL amber glass unpreserved
WGKU	8oz wide jar unpreserved
GN	General

Plastic/Misc.	
GCUB	1 gallon cubitainer
12GN	1/2 gallon cubitainer
SP5T	120mL coliform Na Thiosulfate
BP1N	1L plastic HNO3
BP1U	1L plastic unpreserved
BP3S	250mL plastic H2SO4
BP3N	250mL plastic HNO3
BP3U	250mL plastic unpreserved
BP3C	250mL plastic NaOH
BP2S	500mL plastic H2SO4
BP2U	500mL plastic unpreserved
EZI	5g Encore
VOAK	Kit Volatile Solid
I	Wipe/Swab
ZPLC	Siploc Bag
WT	Water
SL	Solid
OL	Non-Aq Liquid
WP	Wipe

Quality Control Sample Performance Assessment



Analyst **Must Manually Enter All Fields Highlighted in Yellow.**

Test: Ra-226
Analyst: SLC
Date: 4/25/2023
Worklist: 72668
Matrix: W1

Method Blank Assessment	
MB Sample ID	2829632
MB concentration:	0.113
M/B 2 Sigma CSU:	0.115
MB MDC:	0.223
MB Numerical Performance Indicator:	1.93
MB Status vs Numerical Indicator:	Pass
MB Status vs. MDC:	N/A

Laboratory Control Sample Assessment		LCSD (Y or N)?	y
Count Date:		LCS72668	5/16/2023
Spike I.D.:		LCS72668	5/16/2023
Decay Corrected Spike Concentration (pCi/mL):		19-033	24.017
Volume Used (mL):		0.10	0.10
Aliquot Volume (L, g, F):		0.507	0.508
Target Conc. (pCi/L, g, F):		4.736	4.728
Uncertainty (Calculated):		0.057	0.057
Result (pCi/L, g, F):		4.972	4.989
LCS/LCSD 2 Sigma CSU (pCi/L, g, F):		0.870	0.888
Numerical Performance Indicator:		0.53	0.58
Percent Recovery:		104.97%	105.52%
Status vs Numerical Indicator:		Pass	Pass
Upper % Recovery Limits:		N/A	N/A
Lower % Recovery Limits:		125%	125%
		75%	75%

Duplicate Sample Assessment	
Sample I.D.:	LCS72668
Duplicate Sample I.D.:	LCS72668
Sample Result (pCi/L, g, F):	4.972
Sample Duplicate Result (pCi/L, g, F):	0.870
Sample Duplicate Result 2 Sigma CSU (pCi/L, g, F):	4.989
Sample Duplicate Result 2 Sigma CSU (pCi/L, g, F):	0.888
Are sample and/or duplicate results below RL?	NO
Duplicate Numerical Performance Indicator:	-0.027
(Based on the LCS/LCSD Percent Recoveries) Duplicate RPD:	0.52%
Duplicate Status vs Numerical Indicator:	Pass
Duplicate Status vs RPD:	N/A
% RPD Limit:	25%

Sample Matrix Spike Control Assessment		MS/MSD 1	MS/MSD 2
Sample Collection Date:		4/3/2023	
Sample I.D.:		30580435001	
Sample MS I.D.:		30580435002	
Sample MSD I.D.:		30580435003	
Spike I.D.:		19-033	
MS/MSD Decay Corrected Spike Concentration (pCi/mL):		24.018	
Spike Volume Used in MS (mL):		0.20	
Spike Volume Used in MSD (mL):		0.20	
MS Aliquot (L, g, F):		0.202	
MS Target Conc. (pCi/L, g, F):		23.753	
MSD Aliquot (L, g, F):		0.209	
MSD Target Conc. (pCi/L, g, F):		22.994	
MS Spike Uncertainty (calculated):		0.285	
MSD Spike Uncertainty (calculated):		0.276	
Sample Result: 2 Sigma CSU (pCi/L, g, F):		0.778	
Sample Matrix Spike Result:		0.444	
Matrix Spike Result 2 Sigma CSU (pCi/L, g, F):		26.888	
Sample Matrix Spike Duplicate Result:		4.273	
Matrix Spike Duplicate Result 2 Sigma CSU (pCi/L, g, F):		26.309	
MS Numerical Performance Indicator:		4.192	
MSD Numerical Performance Indicator:		1.077	
MS Percent Recovery:		109.92%	
MSD Percent Recovery:		111.04%	
MS Status vs Numerical Indicator:		Pass	
MSD Status vs Numerical Indicator:		Pass	
MS Status vs Recovery:		N/A	
MSD Status vs Recovery:		N/A	
MS/MSD Upper % Recovery Limits:		125%	
MS/MSD Lower % Recovery Limits:		75%	

Matrix Spike/Matrix Spike Duplicate Sample Assessment	
Sample I.D.:	30580435001
Sample MS I.D.:	30580435002
Sample MSD I.D.:	30580435003
Matrix Spike Result 2 Sigma CSU (pCi/L, g, F):	26.888
Matrix Spike Duplicate Result 2 Sigma CSU (pCi/L, g, F):	4.273
Matrix Spike Duplicate Result 2 Sigma CSU (pCi/L, g, F):	26.309
Duplicate Numerical Performance Indicator:	4.192
(Based on the Percent Recoveries) MS/MSD Duplicate RPD:	1.01%
MS/MSD Duplicate Status vs Numerical Indicator:	Pass
MS/MSD Duplicate Status vs RPD:	N/A
% RPD Limit:	25%

Evaluation of duplicate precision is not applicable if either the sample or duplicate results are below the MDC.

Comments:

6AM5/17/23

Quality Control Sample Performance Assessment



Analyst Must Manually Enter All Fields Highlighted in Yellow.

Test: Ra-228
Analyst: JDZ
Date: 4/26/2023
Worklist: 72699
Matrix: WT

Method Blank Assessment	
MB Sample ID	2829963
MB concentration:	0.676
M/B 2 Sigma CSU:	0.320
MB MDC:	0.523
MB Numerical Performance Indicator:	4.14
MB Status vs. Numerical Indicator:	Fail*
MB Status vs. MDC:	See Comment*

Laboratory Control Sample Assessment		LCS D (Y or N)?	N
Count Date:	5/3/2023	LCS D72699	LCS D72699
Spike I.D.:	22-040		
Decay Corrected Spike Concentration (pCi/mL):	32.701		
Volume Used (mL):	0.10		
Aliquot Volume (L, g, F):	0.804		
Target Conc. (pCi/L, g, F):	4.066		
Uncertainty (Calculated):	0.199		
Result (pCi/L, g, F):	3.936		
LCS/LCSD 2 Sigma CSU (pCi/L, g, F):	0.924		
Numerical Performance Indicator:	-0.27		
Percent Recovery:	96.81%		
Status vs Numerical Indicator:	N/A		
Status vs Recovery:	Pass		
Upper % Recovery Limits:	135%		
Lower % Recovery Limits:	60%		

Sample Matrix Spike Control Assessment		MS/MSD 1	MS/MSD 2
Sample Collection Date:	4/3/2023		
Sample I.D.:	30580435001		
Sample MS I.D.:	30580435002		
Sample MSD I.D.:	30580435003		
Spike I.D.:	22-040		
MS/MSD Decay Corrected Spike Concentration (pCi/mL):	33.029		
Spike Volume Used in MS (mL):	0.20		
Spike Volume Used in MSD (mL):	0.20		
MS Aliquot (L, g, F):	0.806		
MS Target Conc. (pCi/L, g, F):	8.193		
MSD Aliquot (L, g, F):	0.806		
MSD Target Conc. (pCi/L, g, F):	8.192		
MS Spike Uncertainty (calculated):	0.401		
MSD Spike Uncertainty (calculated):	0.401		
Sample Result 2 Sigma CSU (pCi/L, g, F):	0.848		
Sample Matrix Spike Result:	0.377		
Sample Matrix Spike Duplicate Result:	8.259		
Matrix Spike Result 2 Sigma CSU (pCi/L, g, F):	1.675		
Sample Matrix Spike Duplicate Result:	8.553		
Matrix Spike Duplicate Result 2 Sigma CSU (pCi/L, g, F):	1.701		
MS Numerical Performance Indicator:	-0.871		
MSD Numerical Performance Indicator:	-0.534		
MS Percent Recovery:	90.44%		
MSD Percent Recovery:	94.05%		
MS Status vs Numerical Indicator:	Pass		
MSD Status vs Numerical Indicator:	Pass		
MS Status vs Recovery:	Pass		
MSD Status vs Recovery:	Pass		
MS/MSD Upper % Recovery Limits:	135%		
MS/MSD Lower % Recovery Limits:	60%		

Duplicate Sample Assessment		Enter Duplicate sample IDs if other than LCS/LCSD in the space below.
Sample I.D.:	See Below ##	
Duplicate Sample I.D.:		
Sample Result (pCi/L, g, F):		
Sample Duplicate Result (pCi/L, g, F):		
Sample Duplicate Result 2 Sigma CSU (pCi/L, g, F):		
Sample Duplicate Result 2 Sigma CSU (pCi/L, g, F):		
Are sample and/or duplicate results below RL?		
Duplicate Numerical Performance Indicator:		
Duplicate RPD:		
Duplicate Status vs Numerical Indicator:		
Duplicate Status vs RPD:		
% RPD Limit:		

Matrix Spike/Matrix Spike Duplicate Sample Assessment	
Sample I.D.:	30580435001
Sample MS I.D.:	30580435002
Sample MSD I.D.:	30580435003
Matrix Spike Result 2 Sigma CSU (pCi/L, g, F):	8.259
Sample Matrix Spike Duplicate Result:	1.675
Sample Matrix Spike Duplicate Result:	8.553
Matrix Spike Duplicate Result 2 Sigma CSU (pCi/L, g, F):	1.701
Duplicate Numerical Performance Indicator:	-0.242
Duplicate Numerical Performance Indicator:	3.91%
MS/MSD Duplicate Status vs Numerical Indicator:	Pass
MS/MSD Duplicate Status vs RPD:	Pass
% RPD Limit:	36%

Evaluation of duplicate precision is not applicable if either the sample or duplicate results are below the MDC.

Comments:
*The method blank result is below the reporting limit for this analysis and is acceptable.

Handwritten: VAC 5/4/23

Handwritten: JDZ

Quality Control Sample Performance Assessment



Analyst Must Manually Enter All Fields Highlighted in Yellow.

Test: Ra-228
Analyst: JJS1
Date: 5/3/2023
Worklist: 72700
Matrix: WT

Method Blank Assessment	
MB Sample ID	2829964
MB concentration:	0.488
MB 2 Sigma CSU:	0.311
MB MDC:	0.569
MB Numerical Performance Indicator:	3.07
MB Status vs Numerical Indicator:	Fail*
MB Status vs. MDC:	Pass

Laboratory Control Sample Assessment		LCS D (Y or N)?	N
Count Date:		5/8/2023	LCS D72700
Spike I.D.:		22-040	
Decay Corrected Spike Concentration (pCi/mL):		32.649	
Volume Used (mL):		0.10	
Aliquot Volume (L, g, F):		0.800	
Target Conc. (pCi/L, g, F):		4.079	
Uncertainty (Calculated):		0.200	
Result (pCi/L, g, F):		2.591	
LCS/LCSD 2 Sigma CSU (pCi/L, g, F):		0.738	
Numerical Performance Indicator:		-3.81	
Percent Recovery:		63.54%	
Status vs Numerical Indicator:		N/A	
Status vs Recovery:		Pass	
Upper % Recovery Limits:		135%	
Lower % Recovery Limits:		60%	

Duplicate Sample Assessment		Enter Duplicate sample IDs if other than LCS/LCSD in the space below.
Sample I.D.:		
Duplicate Sample I.D.:		
Sample Result (pCi/L, g, F):		
Sample Duplicate Result (pCi/L, g, F):		
Sample Duplicate Result 2 Sigma CSU (pCi/L, g, F):		
Sample Duplicate Result 2 Sigma CSU (pCi/L, g, F):		
Are sample and/or duplicate results below RL?		
Duplicate Numerical Performance Indicator:		
Duplicate RPD:		
Duplicate Status vs Numerical Indicator:		
Duplicate Status vs RPD:		
% RPD Limit:		

Evaluation of duplicate precision is not applicable if either the sample or duplicate results are below the MDC.

Comments:

*If the lowest activity sample in this batch is greater than ten times the blank value, the blank is acceptable; otherwise this batch must be re-prepped. *Sub activity < 1 uCi, Pass*

***If all other LOC criteria pass, this batch is acceptable. The matrix spike-duplicate result indicates a possible bias for this sample only and may not be applicable to any other samples in this analytical batch. *MS pass % recovery criteria*

Sample Matrix Spike Control Assessment		MS/MSD 1	MS/MSD 2
Sample Collection Date:		4/3/2023	
Sample I.D.:		30580435017	
Sample MS I.D.:		30580435018	
Sample MSD I.D.:		30580435019	
Spike I.D.:		22-040	
MS/MSD Decay Corrected Spike Concentration (pCi/mL):		33.029	
Spike Volume Used in MS (mL):		0.20	
Spike Volume Used in MSD (mL):		0.20	
MS Aliquot (L, g, F):		0.803	
MS Target Conc. (pCi/L, g, F):		8.225	
MSD Aliquot (L, g, F):		0.806	
MSD Target Conc. (pCi/L, g, F):		8.192	
MS Spike Uncertainty (calculated):		0.403	
MSD Spike Uncertainty (calculated):		0.401	
Sample Result:		0.831	
Sample Result 2 Sigma CSU (pCi/L, g, F):		0.405	
Sample Matrix Spike Result:		6.475	
Matrix Spike Result 2 Sigma CSU (pCi/L, g, F):		1.356	
Sample Matrix Spike Duplicate Result:		7.335	
Sample Matrix Spike Duplicate Result 2 Sigma CSU (pCi/L, g, F):		1.528	
MS Numerical Performance Indicator:		-3.439	
MSD Numerical Performance Indicator:		-2.029	
MS Percent Recovery:		68.62%	
MSD Percent Recovery:		79.39%	
MS Status vs Numerical Indicator:		Fail****	
MSD Status vs Numerical Indicator:		Warning	
MS Status vs Recovery:		Pass	
MSD Status vs Recovery:		Pass	
MS/MSD Upper % Recovery Limits:		135%	
MS/MSD Lower % Recovery Limits:		60%	

Matrix Spike/Matrix Spike Duplicate Sample Assessment	
Sample I.D.:	30580435017
Sample MS I.D.:	30580435018
Sample MSD I.D.:	30580435019
Sample Matrix Spike Result:	6.475
Matrix Spike Result 2 Sigma CSU (pCi/L, g, F):	1.356
Sample Matrix Spike Duplicate Result:	7.335
Sample Matrix Spike Duplicate Result 2 Sigma CSU (pCi/L, g, F):	1.528
Duplicate Numerical Performance Indicator:	-0.825
Duplicate Numerical Performance Indicator RPD:	14.56%
MS/MSD Duplicate Status vs Numerical Indicator:	Pass
MS/MSD Duplicate Status vs RPD:	Pass
% RPD Limit:	36%

Quality Control Sample Performance Assessment



Analyst Must Manually Enter All Fields Highlighted in Yellow.

Test: Ra-226
Analyst: SLC
Date: 4/25/2023
Worklist: 72670
Matrix: W1

Method Blank Assessment	
MB Sample ID	2829634
MB concentration:	0.101
MB 2 Sigma CSU:	0.086
MB MDC:	0.149
MB Numerical Performance Indicator:	2.32
MB Status vs Numerical Indicator:	Warning
MB Status vs. MDC:	N/A

Laboratory Control Sample Assessment		LCSD (Y or N)?	N
		LCSD72670	LCSD72670
Count Date:	5/17/2023		
Spike I.D.:	19-033		
Decay Corrected Spike Concentration (pCi/mL):	24.017		
Volume Used (mL):	0.10		
Aliquot Volume (L, g, F):	0.506		
Target Conc. (pCi/L, g, F):	4.749		
Uncertainty (Calculated):	0.057		
Result (pCi/L, g, F):	5.029		
LCS/LCSD 2 Sigma CSU (pCi/L, g, F):	0.871		
Numerical Performance Indicator:	0.63		
Percent Recovery:	105.91%		
Status vs Numerical Indicator:	Pass		
Status vs Recovery:	N/A		
Upper % Recovery Limits:	125%		
Lower % Recovery Limits:	75%		

Duplicate Sample Assessment	
Sample I.D.:	See Below ##
Duplicate Sample I.D.:	
Sample Result (pCi/L, g, F):	
Sample Result 2 Sigma CSU (pCi/L, g, F):	
Sample Duplicate Result (pCi/L, g, F):	
Sample Duplicate Result 2 Sigma CSU (pCi/L, g, F):	
Are sample and/or duplicate results below RL?	
Duplicate Numerical Performance Indicator:	
Duplicate RPD:	
Duplicate Status vs Numerical Indicator:	
Duplicate Status vs RPD:	
% RPD Limit:	

Sample Matrix Spike Control Assessment		MS/MSD 1	MS/MSD 2
Sample Collection Date:	4/4/2023		
Sample I.D.:	30580435028		
Sample MS I.D.:	30580435029		
Sample MSD I.D.:	30580435030		
Spike I.D.:	19-033		
MS/MSD Decay Corrected Spike Concentration (pCi/mL):	24.018		
Spike Volume Used in MS (mL):	0.20		
Spike Volume Used in MSD (mL):	0.20		
MS Aliquot (L, g, F):	0.209		
MS Target Conc. (pCi/L, g, F):	23.010		
MSD Aliquot (L, g, F):	0.204		
MSD Target Conc. (pCi/L, g, F):	23.504		
MS Spike Uncertainty (calculated):	0.276		
MSD Spike Uncertainty (calculated):	0.282		
Sample Result 2 Sigma CSU (pCi/L, g, F):	0.626		
Sample Matrix Spike Result:	0.309		
Matrix Spike Result 2 Sigma CSU (pCi/L, g, F):	22.902		
Sample Matrix Spike Duplicate Result:	3.688		
Matrix Spike Duplicate Result 2 Sigma CSU (pCi/L, g, F):	27.353		
MS Numerical Performance Indicator:	4.329		
MSD Numerical Performance Indicator:	-0.388		
MS Percent Recovery:	1.452		
MSD Percent Recovery:	96.81%		
MS Status vs Numerical Indicator:	113.71%		
MS Status vs Recovery:	Pass		
MS Status vs Numerical Indicator:	N/A		
MS/MSD Upper % Recovery Limits:	N/A		
MS/MSD Lower % Recovery Limits:	125%		
	75%		

Matrix Spike/Matrix Spike Duplicate Sample Assessment	
Sample I.D.:	30580435028
Sample MS I.D.:	30580435029
Sample MSD I.D.:	30580435030
Matrix Spike Result 2 Sigma CSU (pCi/L, g, F):	22.902
Sample Matrix Spike Duplicate Result:	3.688
Matrix Spike Duplicate Result 2 Sigma CSU (pCi/L, g, F):	27.353
Duplicate Numerical Performance Indicator:	4.329
(Based on the Percent Recoveries) MS/MSD Duplicate RPD:	-1.534
MS/MSD Duplicate Status vs Numerical Indicator:	16.06%
MS/MSD Duplicate Status vs RPD:	Pass
% RPD Limit:	N/A
	25%

Evaluation of duplicate precision is not applicable if either the sample or duplicate results are below the MDC.

Comments:

ET
5-17-23

UAM 5/17/23

Quality Control Sample Performance Assessment



Test: Ra-228
Analyst: ZPC
Date: 5/3/2023
Worklist: 72701
Matrix: W/T

Analyst Must Manually Enter All Fields Highlighted in Yellow.

Method Blank Assessment	
MB Sample ID	2829969
MB concentration:	0.978
MB 2 Sigma CSU:	0.391
MB MDC:	0.591
MB Numerical Performance Indicator:	4.90
MB Status vs Numerical Indicator:	Fail*
MB Status vs. MDC:	See Comment*

Laboratory Control Sample Assessment	
LCSD (Y or N)?	N
Count Date:	5/9/2023
Spike I.D.:	22-040
Decay Corrected Spike Concentration (pCi/mL):	32.638
Volume Used (mL):	0.10
Aliquot Volume (L, g, F):	0.804
Target Conc. (pCi/L, g, F):	4.060
Uncertainty (Calculated):	0.199
Result (pCi/L, g, F):	3.867
LCSD/LCSD 2 Sigma CSU (pCi/L, g, F):	0.898
Numerical Performance Indicator:	-0.41
Percent Recovery:	95.24%
Status vs Numerical Indicator:	N/A
Status vs Recovery:	Pass
Upper % Recovery Limits:	135%
Lower % Recovery Limits:	60%

Duplicate Sample Assessment	
Sample I.D.:	Enter Duplicate sample IDs if other than LCS/LCSD in the space below.
Duplicate Sample I.D.:	
Sample Result (pCi/L, g, F):	
Sample Result 2 Sigma CSU (pCi/L, g, F):	
Sample Duplicate Result (pCi/L, g, F):	
Sample Duplicate Result 2 Sigma CSU (pCi/L, g, F):	
Are sample and/or duplicate results below RL?	See Below ##
Duplicate Numerical Performance Indicator:	
Duplicate RPD:	
Duplicate Status vs Numerical Indicator:	
Duplicate Status vs RPD:	
% RPD Limit:	

Evaluation of duplicate precision is not applicable if either the sample or duplicate results are below the MDC.

Comments:
*The method blank result is below the reporting limit for this analysis and is acceptable.

****If another QC criteria pass, this batch is acceptable. The matrix spike duplicate result indicates a possible bias in this sample only and may not be applicable to any other samples in this analytical batch.

Sample Matrix Spike Control Assessment	
Sample Collection Date:	MS/MSD 1 4/4/2023
Sample I.D.:	30580435028
Sample MS I.D.:	30580435029
Sample MSD I.D.:	30580435030
MS/MSD Decay Corrected Spike Concentration (pCi/mL):	MS/MSD 2 4/12/2023
Spike Volume Used in MS (mL):	33.016
Spike Volume Used in MSD (mL):	0.20
MS Aliquot (L, g, F):	0.801
MS Target Conc. (pCi/L, g, F):	8.247
MSD Aliquot (L, g, F):	0.801
MSD Target Conc. (pCi/L, g, F):	8.243
MS Spike Uncertainty (calculated):	0.404
MSD Spike Uncertainty (calculated):	0.404
Sample Result 2 Sigma CSU (pCi/L, g, F):	0.793
Sample Matrix Spike Result:	0.429
Matrix Spike Result 2 Sigma CSU (pCi/L, g, F):	6.114
Sample Matrix Spike Duplicate Result:	6.427
Sample Matrix Spike Duplicate Result:	1.339
Matrix Spike Duplicate Result 2 Sigma CSU (pCi/L, g, F):	6.606
Matrix Spike Duplicate Result 2 Sigma CSU (pCi/L, g, F):	1.372
MS Numerical Performance Indicator:	-4.101
MSD Numerical Performance Indicator:	-3.189
MS Percent Recovery:	64.52%
MSD Percent Recovery:	70.53%
MS Status vs Numerical Indicator:	Fail****
MSD Status vs Numerical Indicator:	Fail****
MS Status vs Recovery:	Pass
MSD Status vs Recovery:	Pass
MS/MSD Upper % Recovery Limits:	135%
MS/MSD Lower % Recovery Limits:	60%

Matrix Spike/Matrix Spike Duplicate Sample Assessment	
Sample I.D.:	30580435028
Sample MS I.D.:	30580435029
Sample MSD I.D.:	30580435030
Matrix Spike Result 2 Sigma CSU (pCi/L, g, F):	6.114
Sample Matrix Spike Result:	1.268
Sample Matrix Spike Duplicate Result:	6.606
Matrix Spike Duplicate Result 2 Sigma CSU (pCi/L, g, F):	1.372
Duplicate Numerical Performance Indicator:	-0.516
Duplicate Numerical Performance Indicator:	8.89%
(Based on the Percent Recoveries) MS/MSD Duplicate RPD:	13.85%
MS/MSD Duplicate Status vs Numerical Indicator:	Pass
MS/MSD Duplicate Status vs RPD:	Pass
% RPD Limit:	36%

MS/MSD Pass to recovery criteria.

MS/MSD Pass to recovery criteria.

MS/MSD Pass to recovery criteria.

Quality Control Sample Performance Assessment



Analyst Must Manually Enter All Fields Highlighted in Yellow.

Test: Ra-226
Analyst: SLC
Date: 5/9/2023
Worklist: 72984
Matrix: WT

Method Blank Assessment	
MB Sample ID	2846888
MB concentration:	0.194
MB 2 Sigma CSU:	0.133
MB MDC:	0.236
MB Numerical Performance Indicator:	2.85
MB Status vs Numerical Indicator:	Warning
MB Status vs. MDC:	N/A

Laboratory Control Sample Assessment		LCSD (Y or N)?	Y
Count Date:	6/1/2023	LCSD72984	6/1/2023
Spike I.D.:	19-033		19-033
Decay Corrected Spike Concentration (pCi/mL):	24.016		24.016
Volume Used (mL):	0.10		0.10
Aliquot Volume (L, g, F):	0.505		0.506
Target Conc. (pCi/L, g, F):	4.751		4.746
Uncertainty (Calculated):	0.057		0.057
Result (pCi/L, g, F):	3.880		4.882
LCS/LCSD 2 Sigma CSU (pCi/L, g, F):	0.702		0.849
Numerical Performance Indicator:	-2.42		0.31
Percent Recovery:	81.66%		102.87%
Status vs Numerical Indicator:	Warning		Pass
Upper % Recovery Limits:	N/A		N/A
Lower % Recovery Limits:	125%		125%
	75%		75%

Duplicate Sample Assessment	
Sample I.D.:	LCSD72984
Duplicate Sample I.D.:	LCSD72984
Sample Result (pCi/L, g, F):	3.880
Sample Result 2 Sigma CSU (pCi/L, g, F):	0.702
Sample Duplicate Result (pCi/L, g, F):	4.882
Sample Duplicate Result 2 Sigma CSU (pCi/L, g, F):	0.849
Are sample and/or duplicate results below RL?	NO
Duplicate Numerical Performance Indicator:	-1.783
(Based on the LCS/LCSD Percent Recoveries) Duplicate RPD:	22.99%
Duplicate Status vs Numerical Indicator:	Pass
Duplicate Status vs RPD:	N/A
% RPD Limit:	25%

Sample Matrix Spike Control Assessment		MS/MSD 1	MS/MSD 2
Sample Collection Date:			
Sample I.D.:			
Sample MS I.D.:			
Sample MSD I.D.:			
Spike I.D.:			
MS/MSD Decay Corrected Spike Concentration (pCi/mL):			
Spike Volume Used in MS (mL):			
Spike Volume Used in MSD (mL):			
MS Aliquot (L, g, F):			
MS Target Conc. (pCi/L, g, F):			
MSD Aliquot (L, g, F):			
MSD Target Conc. (pCi/L, g, F):			
MS Spike Uncertainty (calculated):			
MSD Spike Uncertainty (calculated):			
Sample Result 2 Sigma CSU (pCi/L, g, F):			
Sample Matrix Spike Result:			
Matrix Spike Result 2 Sigma CSU (pCi/L, g, F):			
Sample Matrix Spike Duplicate Result:			
Matrix Spike Duplicate Result 2 Sigma CSU (pCi/L, g, F):			
MS Numerical Performance Indicator:			
MSD Numerical Performance Indicator:			
MS Percent Recovery:			
MSD Percent Recovery:			
MS Status vs Numerical Indicator:			
MSD Status vs Numerical Indicator:			
MS Status vs Recovery:			
MSD Status vs Recovery:			
MS/MSD Upper % Recovery Limits:			
MS/MSD Lower % Recovery Limits:			

Matrix Spike/Matrix Spike Duplicate Sample Assessment	
Sample I.D.:	
Sample MS I.D.:	
Sample MSD I.D.:	
Matrix Spike Result 2 Sigma CSU (pCi/L, g, F):	
Sample Matrix Spike Duplicate Result:	
Sample Matrix Spike Duplicate Result:	
Matrix Spike Duplicate Result 2 Sigma CSU (pCi/L, g, F):	
Duplicate Numerical Performance Indicator:	
(Based on the Percent Recoveries) MS/MSD Duplicate RPD:	
MS/MSD Duplicate Status vs Numerical Indicator:	
MS/MSD Duplicate Status vs RPD:	
% RPD Limit:	

Evaluation of duplicate precision is not applicable if either the sample or duplicate results are below the MDC.

Comments:

LA 6/1/23

Quality Control Sample Performance Assessment



Analyst **Must Manually Enter All Fields Highlighted in Yellow.**

Test: Ra-228
Analyst: VAL
Date: 5/17/2023
Worklist: 73168
Matrix: WT

Method Blank Assessment

MB Sample ID: 2857357
 MB concentration: 0.120
 MB 2 Sigma CSU: 0.284
 MB MDC: 0.634
 MB Numerical Performance Indicator: 0.83
 MB Status vs Numerical Indicator: Pass
 MB Status vs. MDC: Pass

Laboratory Control Sample Assessment	LCS/D (Y or N)?	
	LCS/D73168	Y
Count Date:	5/22/2023	5/22/2023
Spike I.D.:	22-040	22-040
Decay Corrected Spike Concentration (pCi/mL):	32.496	32.496
Volume Used (mL):	0.10	0.10
Aliquot Volume (L, g, F):	0.806	0.804
Target Conc. (pCi/L, g, F):	4.033	4.042
Uncertainty (Calculated):	0.198	0.198
Result (pCi/L, g, F):	3.180	2.653
LCS/LCSD 2 Sigma CSU (pCi/L, g, F):	0.753	0.674
Numerical Performance Indicator:	-2.15	-3.87
Percent Recovery:	78.85%	65.65%
Status vs Numerical Indicator:	N/A	N/A
Status vs Recovery:	Pass	Pass
Upper % Recovery Limits:	135%	135%
Lower % Recovery Limits:	60%	60%

Duplicate Sample Assessment	Enter Duplicate sample IDs if other than LCS/LCSD in the space below.
Sample I.D.:	LCS73168
Duplicate Sample I.D.:	LCS/D73168
Sample Result (pCi/L, g, F):	3.180
Sample Result 2 Sigma CSU (pCi/L, g, F):	0.753
Sample Duplicate Result (pCi/L, g, F):	2.653
Sample Duplicate Result 2 Sigma CSU (pCi/L, g, F):	0.674
Are sample and/or duplicate results below RL?	NO
Duplicate Numerical Performance Indicator:	1.021
(Based on the LCS/LCSD Percent Recoveries) Duplicate RPD:	18.27%
Duplicate Status vs Numerical Indicator:	Pass
Duplicate Status vs RPD:	Pass
% RPD Limit:	36%

Evaluation of duplicate precision is not applicable if either the sample or duplicate results are below the MDC.

Comments:

Sample Matrix Spike Control Assessment	MS/MSD 1	MS/MSD 2
Sample Collection Date: Sample I.D.: Sample MS I.D.: Sample MSD I.D.: Spike I.D.: MS/MSD Decay Corrected Spike Concentration (pCi/mL): Spike Volume Used in MS (mL): Spike Volume Used in MSD (mL): MS Aliquot (L, g, F): MS Target Conc. (pCi/L, g, F): MSD Aliquot (L, g, F): MSD Target Conc. (pCi/L, g, F): MS Spike Uncertainty (calculated): MSD Spike Uncertainty (calculated): Sample Result 2 Sigma CSU (pCi/L, g, F): Sample Matrix Spike Result: Matrix Spike Result 2 Sigma CSU (pCi/L, g, F): Sample Matrix Spike Duplicate Result: Matrix Spike Duplicate Result 2 Sigma CSU (pCi/L, g, F): MS Numerical Performance Indicator: MSD Numerical Performance Indicator: MS Percent Recovery: MSD Percent Recovery: MS Status vs Numerical Indicator: MSD Status vs Numerical Indicator: MS Status vs Recovery: MSD Status vs Recovery: MS/MSD Upper % Recovery Limits: MS/MSD Lower % Recovery Limits:		

Matrix Spike/Matrix Spike Duplicate Sample Assessment
Sample I.D.: Sample MS I.D.: Sample MSD I.D.: Sample Matrix Spike Result: Matrix Spike Result 2 Sigma CSU (pCi/L, g, F): Sample Matrix Spike Duplicate Result: Matrix Spike Duplicate Result 2 Sigma CSU (pCi/L, g, F): Duplicate Numerical Performance Indicator: Duplicate Numerical Performance Indicator: (Based on the Percent Recoveries) MS/MSD Duplicate RPD: MS/MSD Duplicate Status vs Numerical Indicator: MS/MSD Duplicate Status vs RPD: % RPD Limit:

Am 5/24/23

5-24-23 JSS

Quality Control Sample Performance Assessment



Analyt Must Manually Enter All Fields Highlighted in Yellow.

Test: Ra-226
Analyst: SLC
Date: 4/25/2023
Worklist: 72669
Matrix: WI

Method Blank Assessment	
MB Sample ID	2829633
MB concentration:	0.143
MB 2 Sigma CSU:	0.100
MB MDC:	0.157
MB Numerical Performance Indicator:	2.80
MB Status vs Numerical Indicator:	Warning
MB Status vs. MDC:	N/A

Laboratory Control Sample Assessment		LCS2 (Y or N)?	Y
Count Date:		LCS272669	LCS272669
Spike I.D.:		5/17/2023	5/17/2023
Decay Corrected Spike Concentration (pCi/mL):		19-033	19-033
Volume Used (mL):		24.017	24.017
Aliquot Volume (L, g, F):		0.10	0.10
Target Conc. (pCi/L, g, F):		0.503	0.503
Uncertainty (Calculated):		4.777	4.777
Result (pCi/L, g, F):		0.057	0.057
LCS/LCSD 2 Sigma CSU (pCi/L, g, F):		4.953	5.160
Numerical Performance Indicator:		0.862	0.909
Percent Recovery:		0.41	0.82
Status vs Numerical Indicator:		103.74%	108.02%
Upper % Recovery Limits:		Pass	Pass
Lower % Recovery Limits:		N/A	N/A
		125%	125%
		75%	75%

Duplicate Sample Assessment	
Sample I.D.:	LCS272669
Duplicate Sample I.D.:	LCS272669
Sample Result (pCi/L, g, F):	4.953
Sample Duplicate Result (pCi/L, g, F):	0.862
Sample Result 2 Sigma CSU (pCi/L, g, F):	5.160
Sample Duplicate Result 2 Sigma CSU (pCi/L, g, F):	0.909
Sample Duplicate Result 2 Sigma CSU (pCi/L, g, F):	NO
Are sample and/or duplicate results below RL?	-0.325
Duplicate Numerical Performance Indicator:	4.04%
Duplicate Numerical Performance Indicator:	Pass
Duplicate Status vs Numerical Indicator:	N/A
Duplicate Status vs RPD:	25%
% RPD Limit:	

Evaluation of duplicate precision is not applicable if either the sample or duplicate results are below the MDC.

Comments:

ET
5-17-23

Sample Matrix Spike Control Assessment		MS/MSD 1	MS/MSD 2
Sample Collection Date:		4/3/2023	
Sample I.D.:		30580435017	
Sample MS I.D.:		30580435018	
Sample MSD I.D.:		30580435019	
Spike I.D.:		19-033	
MS/MSD Decay Corrected Spike Concentration (pCi/mL):		24.018	
Spike Volume Used in MS (mL):		0.20	
Spike Volume Used in MSD (mL):		0.20	
MS Aliquot (L, g, F):		0.202	
MS Target Conc. (pCi/L, g, F):		23.836	
MSD Aliquot (L, g, F):		0.205	
MSD Target Conc. (pCi/L, g, F):		23.466	
MS Spike Uncertainty (calculated):		0.286	
MSD Spike Uncertainty (calculated):		0.282	
Sample Result:		0.380	
Sample Result 2 Sigma CSU (pCi/L, g, F):		0.258	
Sample Matrix Spike Result:		24.428	
Sample Matrix Spike Duplicate Result:		3.937	
MS Numerical Performance Indicator:		25.223	
MS Percent Recovery:		4.039	
MSD Numerical Performance Indicator:		0.105	
MSD Percent Recovery:		0.665	
MS Status vs Numerical Indicator:		100.89%	
MSD Status vs Numerical Indicator:		105.86%	
MS Status vs Recovery:		Pass	
MSD Status vs Recovery:		Pass	
MS/MSD Upper % Recovery Limits:		N/A	
MS/MSD Lower % Recovery Limits:		N/A	
		125%	
		75%	

Matrix Spike/Matrix Spike Duplicate Sample Assessment	
Sample I.D.:	30580435017
Sample MS I.D.:	30580435018
Sample MSD I.D.:	30580435019
Sample Matrix Spike Result:	24.428
Sample Matrix Spike Duplicate Result:	3.937
Sample Result 2 Sigma CSU (pCi/L, g, F):	25.223
Sample Duplicate Result 2 Sigma CSU (pCi/L, g, F):	4.039
Duplicate Numerical Performance Indicator:	-0.276
Duplicate Numerical Performance Indicator:	4.81%
(Based on the Percent Recoveries) MS/MSD Duplicate RPD:	Pass
(Based on the Percent Recoveries) MS/MSD Duplicate Status vs Numerical Indicator:	N/A
(Based on the Percent Recoveries) MS/MSD Duplicate Status vs RPD:	25%
% RPD Limit:	

LAM 5/17/23

Alabama Power General Test Laboratory
744 County Road 87, GSC#8
Calera, AL 35040
(205) 664-6032 or 6171
FAX (205) 257-1654

Field Case Narrative



Plant Barry Ash Pond

2023 Compliance Event 2

All samples were collected using methods defined in Alabama Power's Water Field Group Low-Flow Groundwater Sampling Procedure and the associated site-specific Sampling and Analysis Plan (SAP).

Turbidity levels less than 10 NTU were not able to be achieved after extended pumping for well MW-8V. A complete sample set for totals analysis was collected followed by a field filtered set for dissolved analysis.

Field quality control procedures were performed as follows:

- Blanks and Sample Duplicates were collected as described in the SAP.
- Calibration verification for all required field parameters were performed daily, before and after sample collection.

Plant Barry Ash Pond
Field Parameter Summary

WELL ID	PARAMETER	DESCRIPTION	TIME OF READING	VALUE	UNIT
APCO BY-AP-MW-5	COND	Conductivity	8/7/2023 15:34	204.48	uS/cm
APCO BY-AP-MW-5	DO	DO	8/7/2023 15:34	0.12	mg/L
APCO BY-AP-MW-5	DTW	Depth to Water Detail	8/7/2023 15:34	26.84	ft
APCO BY-AP-MW-5	ORP	Oxidation Reduction Potential	8/7/2023 15:34	-7.24	mv
APCO BY-AP-MW-5	PH	pH	8/7/2023 15:34	5.77	SU
APCO BY-AP-MW-5	TEMP	Temperature	8/7/2023 15:34	22.8	C
APCO BY-AP-MW-5	TURB	Turbidity	8/7/2023 15:34	3.58	NTU
APCO BY-AP-MW-5	COND	Conductivity	8/7/2023 15:39	201.58	uS/cm
APCO BY-AP-MW-5	DO	DO	8/7/2023 15:39	0.1	mg/L
APCO BY-AP-MW-5	DTW	Depth to Water Detail	8/7/2023 15:39	26.84	ft
APCO BY-AP-MW-5	ORP	Oxidation Reduction Potential	8/7/2023 15:39	-11.22	mv
APCO BY-AP-MW-5	PH	pH	8/7/2023 15:39	5.78	SU
APCO BY-AP-MW-5	TEMP	Temperature	8/7/2023 15:39	22.71	C
APCO BY-AP-MW-5	TURB	Turbidity	8/7/2023 15:39	4.04	NTU
APCO BY-AP-MW-5	COND	Conductivity	8/7/2023 15:44	202.14	uS/cm
APCO BY-AP-MW-5	DO	DO	8/7/2023 15:44	0.1	mg/L
APCO BY-AP-MW-5	DTW	Depth to Water Detail	8/7/2023 15:44	26.84	ft
APCO BY-AP-MW-5	ORP	Oxidation Reduction Potential	8/7/2023 15:44	-14.77	mv
APCO BY-AP-MW-5	PH	pH	8/7/2023 15:44	5.81	SU
APCO BY-AP-MW-5	TEMP	Temperature	8/7/2023 15:44	22.68	C
APCO BY-AP-MW-5	TURB	Turbidity	8/7/2023 15:44	3.19	NTU
APCO BY-AP-MW-5	COND	Conductivity	8/7/2023 15:49	202.3	uS/cm
APCO BY-AP-MW-5	DO	DO	8/7/2023 15:49	0.1	mg/L
APCO BY-AP-MW-5	DTW	Depth to Water Detail	8/7/2023 15:49	26.84	ft
APCO BY-AP-MW-5	ORP	Oxidation Reduction Potential	8/7/2023 15:49	-17.16	mv
APCO BY-AP-MW-5	PH	pH	8/7/2023 15:49	5.84	SU
APCO BY-AP-MW-5	SULFIDE	Sulfide	8/7/2023 15:49	0	mg/L
APCO BY-AP-MW-5	TEMP	Temperature	8/7/2023 15:49	22.59	C
APCO BY-AP-MW-5	TURB	Turbidity	8/7/2023 15:49	3.21	NTU
APCO BY-AP-MW-5V	COND	Conductivity	8/7/2023 14:37	231.81	uS/cm
APCO BY-AP-MW-5V	DO	DO	8/7/2023 14:37	0.8	mg/L
APCO BY-AP-MW-5V	DTW	Depth to Water Detail	8/7/2023 14:37	26.79	ft
APCO BY-AP-MW-5V	ORP	Oxidation Reduction Potential	8/7/2023 14:37	138.19	mv
APCO BY-AP-MW-5V	PH	pH	8/7/2023 14:37	5.84	SU
APCO BY-AP-MW-5V	TEMP	Temperature	8/7/2023 14:37	23.28	C
APCO BY-AP-MW-5V	TURB	Turbidity	8/7/2023 14:37	3.73	NTU
APCO BY-AP-MW-5V	COND	Conductivity	8/7/2023 14:42	233.11	uS/cm
APCO BY-AP-MW-5V	DO	DO	8/7/2023 14:42	0.77	mg/L
APCO BY-AP-MW-5V	DTW	Depth to Water Detail	8/7/2023 14:42	26.79	ft
APCO BY-AP-MW-5V	ORP	Oxidation Reduction Potential	8/7/2023 14:42	150.27	mv
APCO BY-AP-MW-5V	PH	pH	8/7/2023 14:42	5.85	SU
APCO BY-AP-MW-5V	TEMP	Temperature	8/7/2023 14:42	23.1	C
APCO BY-AP-MW-5V	TURB	Turbidity	8/7/2023 14:42	3.47	NTU
APCO BY-AP-MW-5V	COND	Conductivity	8/7/2023 14:47	231.6	uS/cm
APCO BY-AP-MW-5V	DO	DO	8/7/2023 14:47	0.76	mg/L
APCO BY-AP-MW-5V	DTW	Depth to Water Detail	8/7/2023 14:47	26.79	ft
APCO BY-AP-MW-5V	ORP	Oxidation Reduction Potential	8/7/2023 14:47	153.65	mv
APCO BY-AP-MW-5V	PH	pH	8/7/2023 14:47	5.87	SU
APCO BY-AP-MW-5V	TEMP	Temperature	8/7/2023 14:47	22.96	C
APCO BY-AP-MW-5V	TURB	Turbidity	8/7/2023 14:47	2.07	NTU
APCO BY-AP-MW-5V	COND	Conductivity	8/7/2023 14:52	233.01	uS/cm
APCO BY-AP-MW-5V	DO	DO	8/7/2023 14:52	0.74	mg/L
APCO BY-AP-MW-5V	DTW	Depth to Water Detail	8/7/2023 14:52	26.79	ft
APCO BY-AP-MW-5V	ORP	Oxidation Reduction Potential	8/7/2023 14:52	155.93	mv
APCO BY-AP-MW-5V	PH	pH	8/7/2023 14:52	5.89	SU
APCO BY-AP-MW-5V	SULFIDE	Sulfide	8/7/2023 14:52	0	mg/L
APCO BY-AP-MW-5V	TEMP	Temperature	8/7/2023 14:52	22.96	C
APCO BY-AP-MW-5V	TURB	Turbidity	8/7/2023 14:52	1.64	NTU

Plant Barry Ash Pond
Field Parameter Summary

APCO BY-AP-MW-7	COND	Conductivity	8/7/2023 13:11	351.18	uS/cm
APCO BY-AP-MW-7	DO	DO	8/7/2023 13:11	0.3	mg/L
APCO BY-AP-MW-7	DTW	Depth to Water Detail	8/7/2023 13:11	23.68	ft
APCO BY-AP-MW-7	ORP	Oxidation Reduction Potential	8/7/2023 13:11	-59.56	mv
APCO BY-AP-MW-7	PH	pH	8/7/2023 13:11	6.54	SU
APCO BY-AP-MW-7	TEMP	Temperature	8/7/2023 13:11	23.28	C
APCO BY-AP-MW-7	TURB	Turbidity	8/7/2023 13:11	2.66	NTU
APCO BY-AP-MW-7	COND	Conductivity	8/7/2023 13:16	351.17	uS/cm
APCO BY-AP-MW-7	DO	DO	8/7/2023 13:16	0.24	mg/L
APCO BY-AP-MW-7	DTW	Depth to Water Detail	8/7/2023 13:16	23.68	ft
APCO BY-AP-MW-7	ORP	Oxidation Reduction Potential	8/7/2023 13:16	-62.29	mv
APCO BY-AP-MW-7	PH	pH	8/7/2023 13:16	6.59	SU
APCO BY-AP-MW-7	TEMP	Temperature	8/7/2023 13:16	23.14	C
APCO BY-AP-MW-7	TURB	Turbidity	8/7/2023 13:16	2.5	NTU
APCO BY-AP-MW-7	COND	Conductivity	8/7/2023 13:21	351.41	uS/cm
APCO BY-AP-MW-7	DO	DO	8/7/2023 13:21	0.23	mg/L
APCO BY-AP-MW-7	DTW	Depth to Water Detail	8/7/2023 13:21	23.68	ft
APCO BY-AP-MW-7	ORP	Oxidation Reduction Potential	8/7/2023 13:21	-63.58	mv
APCO BY-AP-MW-7	PH	pH	8/7/2023 13:21	6.62	SU
APCO BY-AP-MW-7	TEMP	Temperature	8/7/2023 13:21	23.29	C
APCO BY-AP-MW-7	TURB	Turbidity	8/7/2023 13:21	2.33	NTU
APCO BY-AP-MW-7	COND	Conductivity	8/7/2023 13:26	350.79	uS/cm
APCO BY-AP-MW-7	DO	DO	8/7/2023 13:26	0.24	mg/L
APCO BY-AP-MW-7	DTW	Depth to Water Detail	8/7/2023 13:26	23.68	ft
APCO BY-AP-MW-7	ORP	Oxidation Reduction Potential	8/7/2023 13:26	-64.83	mv
APCO BY-AP-MW-7	PH	pH	8/7/2023 13:26	6.67	SU
APCO BY-AP-MW-7	SULFIDE	Sulfide	8/7/2023 13:26	0	mg/L
APCO BY-AP-MW-7	TEMP	Temperature	8/7/2023 13:26	23.02	C
APCO BY-AP-MW-7	TURB	Turbidity	8/7/2023 13:26	1.9	NTU
APCO BY-AP-MW-7V	COND	Conductivity	8/7/2023 11:23	390.88	uS/cm
APCO BY-AP-MW-7V	DO	DO	8/7/2023 11:23	0.25	mg/L
APCO BY-AP-MW-7V	DTW	Depth to Water Detail	8/7/2023 11:23	23.09	ft
APCO BY-AP-MW-7V	ORP	Oxidation Reduction Potential	8/7/2023 11:23	-11.61	mv
APCO BY-AP-MW-7V	PH	pH	8/7/2023 11:23	7.73	SU
APCO BY-AP-MW-7V	TEMP	Temperature	8/7/2023 11:23	23.56	C
APCO BY-AP-MW-7V	TURB	Turbidity	8/7/2023 11:23	8.28	NTU
APCO BY-AP-MW-7V	COND	Conductivity	8/7/2023 11:28	355.56	uS/cm
APCO BY-AP-MW-7V	DO	DO	8/7/2023 11:28	0.2	mg/L
APCO BY-AP-MW-7V	DTW	Depth to Water Detail	8/7/2023 11:28	23.09	ft
APCO BY-AP-MW-7V	ORP	Oxidation Reduction Potential	8/7/2023 11:28	-65.71	mv
APCO BY-AP-MW-7V	PH	pH	8/7/2023 11:28	7.79	SU
APCO BY-AP-MW-7V	TEMP	Temperature	8/7/2023 11:28	24.42	C
APCO BY-AP-MW-7V	TURB	Turbidity	8/7/2023 11:28	8.2	NTU
APCO BY-AP-MW-7V	COND	Conductivity	8/7/2023 11:33	336.33	uS/cm
APCO BY-AP-MW-7V	DO	DO	8/7/2023 11:33	0.17	mg/L
APCO BY-AP-MW-7V	DTW	Depth to Water Detail	8/7/2023 11:33	23.09	ft
APCO BY-AP-MW-7V	ORP	Oxidation Reduction Potential	8/7/2023 11:33	-85.99	mv
APCO BY-AP-MW-7V	PH	pH	8/7/2023 11:33	7.93	SU
APCO BY-AP-MW-7V	TEMP	Temperature	8/7/2023 11:33	24.71	C
APCO BY-AP-MW-7V	TURB	Turbidity	8/7/2023 11:33	15.9	NTU
APCO BY-AP-MW-7V	COND	Conductivity	8/7/2023 11:38	328.2	uS/cm
APCO BY-AP-MW-7V	DO	DO	8/7/2023 11:38	0.17	mg/L
APCO BY-AP-MW-7V	DTW	Depth to Water Detail	8/7/2023 11:38	23.09	ft
APCO BY-AP-MW-7V	ORP	Oxidation Reduction Potential	8/7/2023 11:38	-89.95	mv
APCO BY-AP-MW-7V	PH	pH	8/7/2023 11:38	8.08	SU
APCO BY-AP-MW-7V	TEMP	Temperature	8/7/2023 11:38	24.94	C
APCO BY-AP-MW-7V	TURB	Turbidity	8/7/2023 11:38	21.8	NTU
APCO BY-AP-MW-7V	COND	Conductivity	8/7/2023 11:43	322.76	uS/cm
APCO BY-AP-MW-7V	DO	DO	8/7/2023 11:43	0.16	mg/L

Plant Barry Ash Pond
Field Parameter Summary

APCO BY-AP-MW-7V	DTW	Depth to Water Detail	8/7/2023 11:43	23.09	ft
APCO BY-AP-MW-7V	ORP	Oxidation Reduction Potential	8/7/2023 11:43	-89.55	mv
APCO BY-AP-MW-7V	PH	pH	8/7/2023 11:43	8.16	SU
APCO BY-AP-MW-7V	TEMP	Temperature	8/7/2023 11:43	25.13	C
APCO BY-AP-MW-7V	TURB	Turbidity	8/7/2023 11:43	19.8	NTU
APCO BY-AP-MW-7V	COND	Conductivity	8/7/2023 11:48	321.58	uS/cm
APCO BY-AP-MW-7V	DO	DO	8/7/2023 11:48	0.17	mg/L
APCO BY-AP-MW-7V	DTW	Depth to Water Detail	8/7/2023 11:48	23.09	ft
APCO BY-AP-MW-7V	ORP	Oxidation Reduction Potential	8/7/2023 11:48	-90.49	mv
APCO BY-AP-MW-7V	PH	pH	8/7/2023 11:48	8.22	SU
APCO BY-AP-MW-7V	TEMP	Temperature	8/7/2023 11:48	25.31	C
APCO BY-AP-MW-7V	TURB	Turbidity	8/7/2023 11:48	16.1	NTU
APCO BY-AP-MW-7V	COND	Conductivity	8/7/2023 11:53	317.03	uS/cm
APCO BY-AP-MW-7V	DO	DO	8/7/2023 11:53	0.17	mg/L
APCO BY-AP-MW-7V	DTW	Depth to Water Detail	8/7/2023 11:53	23.09	ft
APCO BY-AP-MW-7V	ORP	Oxidation Reduction Potential	8/7/2023 11:53	-90.61	mv
APCO BY-AP-MW-7V	PH	pH	8/7/2023 11:53	8.3	SU
APCO BY-AP-MW-7V	TEMP	Temperature	8/7/2023 11:53	25.36	C
APCO BY-AP-MW-7V	TURB	Turbidity	8/7/2023 11:53	15.7	NTU
APCO BY-AP-MW-7V	COND	Conductivity	8/7/2023 11:58	318.47	uS/cm
APCO BY-AP-MW-7V	DO	DO	8/7/2023 11:58	0.17	mg/L
APCO BY-AP-MW-7V	DTW	Depth to Water Detail	8/7/2023 11:58	23.09	ft
APCO BY-AP-MW-7V	ORP	Oxidation Reduction Potential	8/7/2023 11:58	-89.88	mv
APCO BY-AP-MW-7V	PH	pH	8/7/2023 11:58	8.33	SU
APCO BY-AP-MW-7V	TEMP	Temperature	8/7/2023 11:58	25.47	C
APCO BY-AP-MW-7V	TURB	Turbidity	8/7/2023 11:58	12.6	NTU
APCO BY-AP-MW-7V	COND	Conductivity	8/7/2023 12:03	318.85	uS/cm
APCO BY-AP-MW-7V	DO	DO	8/7/2023 12:03	0.17	mg/L
APCO BY-AP-MW-7V	DTW	Depth to Water Detail	8/7/2023 12:03	23.09	ft
APCO BY-AP-MW-7V	ORP	Oxidation Reduction Potential	8/7/2023 12:03	-90.1	mv
APCO BY-AP-MW-7V	PH	pH	8/7/2023 12:03	8.36	SU
APCO BY-AP-MW-7V	TEMP	Temperature	8/7/2023 12:03	25.58	C
APCO BY-AP-MW-7V	TURB	Turbidity	8/7/2023 12:03	11.05	NTU
APCO BY-AP-MW-7V	COND	Conductivity	8/7/2023 12:06	316.45	uS/cm
APCO BY-AP-MW-7V	DO	DO	8/7/2023 12:06	2.01	mg/L
APCO BY-AP-MW-7V	DTW	Depth to Water Detail	8/7/2023 12:06	23.09	ft
APCO BY-AP-MW-7V	ORP	Oxidation Reduction Potential	8/7/2023 12:06	-52.23	mv
APCO BY-AP-MW-7V	PH	pH	8/7/2023 12:06	8.34	SU
APCO BY-AP-MW-7V	TEMP	Temperature	8/7/2023 12:06	25.79	C
APCO BY-AP-MW-7V	TURB	Turbidity	8/7/2023 12:06	11.5	NTU
APCO BY-AP-MW-7V	COND	Conductivity	8/7/2023 12:09	317.06	uS/cm
APCO BY-AP-MW-7V	DO	DO	8/7/2023 12:09	0.42	mg/L
APCO BY-AP-MW-7V	DTW	Depth to Water Detail	8/7/2023 12:09	23.09	ft
APCO BY-AP-MW-7V	ORP	Oxidation Reduction Potential	8/7/2023 12:09	-74.89	mv
APCO BY-AP-MW-7V	PH	pH	8/7/2023 12:09	8.41	SU
APCO BY-AP-MW-7V	TEMP	Temperature	8/7/2023 12:09	25.35	C
APCO BY-AP-MW-7V	TURB	Turbidity	8/7/2023 12:09	11.63	NTU
APCO BY-AP-MW-7V	COND	Conductivity	8/7/2023 12:14	359.08	uS/cm
APCO BY-AP-MW-7V	DO	DO	8/7/2023 12:14	0.18	mg/L
APCO BY-AP-MW-7V	DTW	Depth to Water Detail	8/7/2023 12:14	23.09	ft
APCO BY-AP-MW-7V	ORP	Oxidation Reduction Potential	8/7/2023 12:14	-100.6	mv
APCO BY-AP-MW-7V	PH	pH	8/7/2023 12:14	8.22	SU
APCO BY-AP-MW-7V	TEMP	Temperature	8/7/2023 12:14	24.5	C
APCO BY-AP-MW-7V	TURB	Turbidity	8/7/2023 12:14	8.88	NTU
APCO BY-AP-MW-7V	COND	Conductivity	8/7/2023 12:19	382.81	uS/cm
APCO BY-AP-MW-7V	DO	DO	8/7/2023 12:19	0.17	mg/L
APCO BY-AP-MW-7V	DTW	Depth to Water Detail	8/7/2023 12:19	23.09	ft
APCO BY-AP-MW-7V	ORP	Oxidation Reduction Potential	8/7/2023 12:19	-121.69	mv
APCO BY-AP-MW-7V	PH	pH	8/7/2023 12:19	8.02	SU

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APCO BY-AP-MW-7V	TEMP	Temperature	8/7/2023 12:19	24.23	C
APCO BY-AP-MW-7V	TURB	Turbidity	8/7/2023 12:19	8.65	NTU
APCO BY-AP-MW-7V	COND	Conductivity	8/7/2023 12:24	382.48	uS/cm
APCO BY-AP-MW-7V	DO	DO	8/7/2023 12:24	0.17	mg/L
APCO BY-AP-MW-7V	DTW	Depth to Water Detail	8/7/2023 12:24	23.09	ft
APCO BY-AP-MW-7V	ORP	Oxidation Reduction Potential	8/7/2023 12:24	-129.55	mv
APCO BY-AP-MW-7V	PH	pH	8/7/2023 12:24	7.93	SU
APCO BY-AP-MW-7V	TEMP	Temperature	8/7/2023 12:24	24.41	C
APCO BY-AP-MW-7V	TURB	Turbidity	8/7/2023 12:24	6.72	NTU
APCO BY-AP-MW-7V	COND	Conductivity	8/7/2023 12:29	379.72	uS/cm
APCO BY-AP-MW-7V	DO	DO	8/7/2023 12:29	0.17	mg/L
APCO BY-AP-MW-7V	DTW	Depth to Water Detail	8/7/2023 12:29	23.09	ft
APCO BY-AP-MW-7V	ORP	Oxidation Reduction Potential	8/7/2023 12:29	-133.73	mv
APCO BY-AP-MW-7V	PH	pH	8/7/2023 12:29	7.94	SU
APCO BY-AP-MW-7V	SULFIDE	Sulfide	8/7/2023 12:29	0	mg/L
APCO BY-AP-MW-7V	TEMP	Temperature	8/7/2023 12:29	24.62	C
APCO BY-AP-MW-7V	TURB	Turbidity	8/7/2023 12:29	6.18	NTU
APCO BY-AP-MW-13V	COND	Conductivity	8/9/2023 11:27	566.05	uS/cm
APCO BY-AP-MW-13V	DO	DO	8/9/2023 11:27	0.29	mg/L
APCO BY-AP-MW-13V	DTW	Depth to Water Detail	8/9/2023 11:27	22.64	ft
APCO BY-AP-MW-13V	ORP	Oxidation Reduction Potential	8/9/2023 11:27	1.74	mv
APCO BY-AP-MW-13V	PH	pH	8/9/2023 11:27	5.79	SU
APCO BY-AP-MW-13V	TEMP	Temperature	8/9/2023 11:27	22.35	C
APCO BY-AP-MW-13V	TURB	Turbidity	8/9/2023 11:27	2.8	NTU
APCO BY-AP-MW-13V	COND	Conductivity	8/9/2023 11:32	560.44	uS/cm
APCO BY-AP-MW-13V	DO	DO	8/9/2023 11:32	0.23	mg/L
APCO BY-AP-MW-13V	DTW	Depth to Water Detail	8/9/2023 11:32	22.64	ft
APCO BY-AP-MW-13V	ORP	Oxidation Reduction Potential	8/9/2023 11:32	-1.78	mv
APCO BY-AP-MW-13V	PH	pH	8/9/2023 11:32	5.8	SU
APCO BY-AP-MW-13V	TEMP	Temperature	8/9/2023 11:32	22.07	C
APCO BY-AP-MW-13V	TURB	Turbidity	8/9/2023 11:32	2.08	NTU
APCO BY-AP-MW-13V	COND	Conductivity	8/9/2023 11:37	553.89	uS/cm
APCO BY-AP-MW-13V	DO	DO	8/9/2023 11:37	0.22	mg/L
APCO BY-AP-MW-13V	DTW	Depth to Water Detail	8/9/2023 11:37	22.64	ft
APCO BY-AP-MW-13V	ORP	Oxidation Reduction Potential	8/9/2023 11:37	-3.94	mv
APCO BY-AP-MW-13V	PH	pH	8/9/2023 11:37	5.81	SU
APCO BY-AP-MW-13V	TEMP	Temperature	8/9/2023 11:37	21.84	C
APCO BY-AP-MW-13V	TURB	Turbidity	8/9/2023 11:37	1.93	NTU
APCO BY-AP-MW-13V	COND	Conductivity	8/9/2023 11:42	551.57	uS/cm
APCO BY-AP-MW-13V	DO	DO	8/9/2023 11:42	0.22	mg/L
APCO BY-AP-MW-13V	DTW	Depth to Water Detail	8/9/2023 11:42	22.64	ft
APCO BY-AP-MW-13V	ORP	Oxidation Reduction Potential	8/9/2023 11:42	-5.4	mv
APCO BY-AP-MW-13V	PH	pH	8/9/2023 11:42	5.82	SU
APCO BY-AP-MW-13V	SULFIDE	Sulfide	8/9/2023 11:42	0	mg/L
APCO BY-AP-MW-13V	TEMP	Temperature	8/9/2023 11:42	22.29	C
APCO BY-AP-MW-13V	TURB	Turbidity	8/9/2023 11:42	2.69	NTU
APCO BY-AP-MW-14	COND	Conductivity	8/9/2023 10:09	497.38	uS/cm
APCO BY-AP-MW-14	DO	DO	8/9/2023 10:09	0.16	mg/L
APCO BY-AP-MW-14	DTW	Depth to Water Detail	8/9/2023 10:09	10.25	ft
APCO BY-AP-MW-14	ORP	Oxidation Reduction Potential	8/9/2023 10:09	-2.24	mv
APCO BY-AP-MW-14	PH	pH	8/9/2023 10:09	5.81	SU
APCO BY-AP-MW-14	TEMP	Temperature	8/9/2023 10:09	21.4	C
APCO BY-AP-MW-14	TURB	Turbidity	8/9/2023 10:09	7.23	NTU
APCO BY-AP-MW-14	COND	Conductivity	8/9/2023 10:14	495.39	uS/cm
APCO BY-AP-MW-14	DO	DO	8/9/2023 10:14	0.14	mg/L
APCO BY-AP-MW-14	DTW	Depth to Water Detail	8/9/2023 10:14	10.25	ft
APCO BY-AP-MW-14	ORP	Oxidation Reduction Potential	8/9/2023 10:14	-6.22	mv
APCO BY-AP-MW-14	PH	pH	8/9/2023 10:14	5.8	SU
APCO BY-AP-MW-14	TEMP	Temperature	8/9/2023 10:14	21.18	C

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APCO BY-AP-MW-14	TURB	Turbidity	8/9/2023 10:14	7.87	NTU
APCO BY-AP-MW-14	COND	Conductivity	8/9/2023 10:19	492.35	uS/cm
APCO BY-AP-MW-14	DO	DO	8/9/2023 10:19	0.14	mg/L
APCO BY-AP-MW-14	DTW	Depth to Water Detail	8/9/2023 10:19	10.25	ft
APCO BY-AP-MW-14	ORP	Oxidation Reduction Potential	8/9/2023 10:19	-8.75	mv
APCO BY-AP-MW-14	PH	pH	8/9/2023 10:19	5.81	SU
APCO BY-AP-MW-14	TEMP	Temperature	8/9/2023 10:19	21.18	C
APCO BY-AP-MW-14	TURB	Turbidity	8/9/2023 10:19	7.72	NTU
APCO BY-AP-MW-14	COND	Conductivity	8/9/2023 10:24	489.78	uS/cm
APCO BY-AP-MW-14	DO	DO	8/9/2023 10:24	0.14	mg/L
APCO BY-AP-MW-14	DTW	Depth to Water Detail	8/9/2023 10:24	10.25	ft
APCO BY-AP-MW-14	ORP	Oxidation Reduction Potential	8/9/2023 10:24	-11.2	mv
APCO BY-AP-MW-14	PH	pH	8/9/2023 10:24	5.83	SU
APCO BY-AP-MW-14	SULFIDE	Sulfide	8/9/2023 10:24	0	mg/L
APCO BY-AP-MW-14	TEMP	Temperature	8/9/2023 10:24	21.28	C
APCO BY-AP-MW-14	TURB	Turbidity	8/9/2023 10:24	6.98	NTU
APCO BY-AP-MW-14V	COND	Conductivity	8/9/2023 9:02	1032.42	uS/cm
APCO BY-AP-MW-14V	DO	DO	8/9/2023 9:02	0.42	mg/L
APCO BY-AP-MW-14V	DTW	Depth to Water Detail	8/9/2023 9:02	22.72	ft
APCO BY-AP-MW-14V	ORP	Oxidation Reduction Potential	8/9/2023 9:02	-141.17	mv
APCO BY-AP-MW-14V	PH	pH	8/9/2023 9:02	7.46	SU
APCO BY-AP-MW-14V	TEMP	Temperature	8/9/2023 9:02	22.79	C
APCO BY-AP-MW-14V	TURB	Turbidity	8/9/2023 9:02	5	NTU
APCO BY-AP-MW-14V	COND	Conductivity	8/9/2023 9:07	905.14	uS/cm
APCO BY-AP-MW-14V	DO	DO	8/9/2023 9:07	0.32	mg/L
APCO BY-AP-MW-14V	DTW	Depth to Water Detail	8/9/2023 9:07	22.72	ft
APCO BY-AP-MW-14V	ORP	Oxidation Reduction Potential	8/9/2023 9:07	-114.94	mv
APCO BY-AP-MW-14V	PH	pH	8/9/2023 9:07	6.93	SU
APCO BY-AP-MW-14V	TEMP	Temperature	8/9/2023 9:07	22.65	C
APCO BY-AP-MW-14V	TURB	Turbidity	8/9/2023 9:07	2.96	NTU
APCO BY-AP-MW-14V	COND	Conductivity	8/9/2023 9:12	858.21	uS/cm
APCO BY-AP-MW-14V	DO	DO	8/9/2023 9:12	0.31	mg/L
APCO BY-AP-MW-14V	DTW	Depth to Water Detail	8/9/2023 9:12	22.72	ft
APCO BY-AP-MW-14V	ORP	Oxidation Reduction Potential	8/9/2023 9:12	-103.43	mv
APCO BY-AP-MW-14V	PH	pH	8/9/2023 9:12	6.78	SU
APCO BY-AP-MW-14V	TEMP	Temperature	8/9/2023 9:12	22.82	C
APCO BY-AP-MW-14V	TURB	Turbidity	8/9/2023 9:12	2.91	NTU
APCO BY-AP-MW-14V	COND	Conductivity	8/9/2023 9:17	845.39	uS/cm
APCO BY-AP-MW-14V	DO	DO	8/9/2023 9:17	0.3	mg/L
APCO BY-AP-MW-14V	DTW	Depth to Water Detail	8/9/2023 9:17	22.72	ft
APCO BY-AP-MW-14V	ORP	Oxidation Reduction Potential	8/9/2023 9:17	-99.56	mv
APCO BY-AP-MW-14V	PH	pH	8/9/2023 9:17	6.75	SU
APCO BY-AP-MW-14V	TEMP	Temperature	8/9/2023 9:17	22.75	C
APCO BY-AP-MW-14V	TURB	Turbidity	8/9/2023 9:17	3.57	NTU
APCO BY-AP-MW-14V	COND	Conductivity	8/9/2023 9:22	839.89	uS/cm
APCO BY-AP-MW-14V	DO	DO	8/9/2023 9:22	0.31	mg/L
APCO BY-AP-MW-14V	DTW	Depth to Water Detail	8/9/2023 9:22	22.72	ft
APCO BY-AP-MW-14V	ORP	Oxidation Reduction Potential	8/9/2023 9:22	-98.16	mv
APCO BY-AP-MW-14V	PH	pH	8/9/2023 9:22	6.75	SU
APCO BY-AP-MW-14V	SULFIDE	Sulfide	8/9/2023 9:22	0	mg/L
APCO BY-AP-MW-14V	TEMP	Temperature	8/9/2023 9:22	22.75	C
APCO BY-AP-MW-14V	TURB	Turbidity	8/9/2023 9:22	2.04	NTU
APCO BY-AP-MW-17V	COND	Conductivity	8/8/2023 11:00	2871.48	uS/cm
APCO BY-AP-MW-17V	DO	DO	8/8/2023 11:00	0.35	mg/L
APCO BY-AP-MW-17V	DTW	Depth to Water Detail	8/8/2023 11:00	18.72	ft
APCO BY-AP-MW-17V	ORP	Oxidation Reduction Potential	8/8/2023 11:00	94.45	mv
APCO BY-AP-MW-17V	PH	pH	8/8/2023 11:00	6.3	SU
APCO BY-AP-MW-17V	TEMP	Temperature	8/8/2023 11:00	23.69	C
APCO BY-AP-MW-17V	TURB	Turbidity	8/8/2023 11:00	40.8	NTU

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APCO BY-AP-MW-17V	COND	Conductivity	8/8/2023 11:05	2453.23	uS/cm
APCO BY-AP-MW-17V	DO	DO	8/8/2023 11:05	0.19	mg/L
APCO BY-AP-MW-17V	DTW	Depth to Water Detail	8/8/2023 11:05	18.72	ft
APCO BY-AP-MW-17V	ORP	Oxidation Reduction Potential	8/8/2023 11:05	85.49	mv
APCO BY-AP-MW-17V	PH	pH	8/8/2023 11:05	6.4	SU
APCO BY-AP-MW-17V	TEMP	Temperature	8/8/2023 11:05	22.59	C
APCO BY-AP-MW-17V	TURB	Turbidity	8/8/2023 11:05	22.1	NTU
APCO BY-AP-MW-17V	COND	Conductivity	8/8/2023 11:10	2393.74	uS/cm
APCO BY-AP-MW-17V	DO	DO	8/8/2023 11:10	0.18	mg/L
APCO BY-AP-MW-17V	DTW	Depth to Water Detail	8/8/2023 11:10	18.72	ft
APCO BY-AP-MW-17V	ORP	Oxidation Reduction Potential	8/8/2023 11:10	80.67	mv
APCO BY-AP-MW-17V	PH	pH	8/8/2023 11:10	6.4	SU
APCO BY-AP-MW-17V	TEMP	Temperature	8/8/2023 11:10	22.51	C
APCO BY-AP-MW-17V	TURB	Turbidity	8/8/2023 11:10	21	NTU
APCO BY-AP-MW-17V	COND	Conductivity	8/8/2023 11:15	2376.5	uS/cm
APCO BY-AP-MW-17V	DO	DO	8/8/2023 11:15	0.18	mg/L
APCO BY-AP-MW-17V	DTW	Depth to Water Detail	8/8/2023 11:15	18.72	ft
APCO BY-AP-MW-17V	ORP	Oxidation Reduction Potential	8/8/2023 11:15	79.81	mv
APCO BY-AP-MW-17V	PH	pH	8/8/2023 11:15	6.4	SU
APCO BY-AP-MW-17V	TEMP	Temperature	8/8/2023 11:15	22.34	C
APCO BY-AP-MW-17V	TURB	Turbidity	8/8/2023 11:15	18.8	NTU
APCO BY-AP-MW-17V	COND	Conductivity	8/8/2023 11:20	2393.97	uS/cm
APCO BY-AP-MW-17V	DO	DO	8/8/2023 11:20	0.19	mg/L
APCO BY-AP-MW-17V	DTW	Depth to Water Detail	8/8/2023 11:20	18.72	ft
APCO BY-AP-MW-17V	ORP	Oxidation Reduction Potential	8/8/2023 11:20	79.34	mv
APCO BY-AP-MW-17V	PH	pH	8/8/2023 11:20	6.41	SU
APCO BY-AP-MW-17V	TEMP	Temperature	8/8/2023 11:20	22.36	C
APCO BY-AP-MW-17V	TURB	Turbidity	8/8/2023 11:20	16.9	NTU
APCO BY-AP-MW-17V	COND	Conductivity	8/8/2023 11:25	2406.13	uS/cm
APCO BY-AP-MW-17V	DO	DO	8/8/2023 11:25	0.19	mg/L
APCO BY-AP-MW-17V	DTW	Depth to Water Detail	8/8/2023 11:25	18.72	ft
APCO BY-AP-MW-17V	ORP	Oxidation Reduction Potential	8/8/2023 11:25	78.46	mv
APCO BY-AP-MW-17V	PH	pH	8/8/2023 11:25	6.42	SU
APCO BY-AP-MW-17V	TEMP	Temperature	8/8/2023 11:25	22.45	C
APCO BY-AP-MW-17V	TURB	Turbidity	8/8/2023 11:25	15.9	NTU
APCO BY-AP-MW-17V	COND	Conductivity	8/8/2023 11:30	2419.94	uS/cm
APCO BY-AP-MW-17V	DO	DO	8/8/2023 11:30	0.19	mg/L
APCO BY-AP-MW-17V	DTW	Depth to Water Detail	8/8/2023 11:30	18.72	ft
APCO BY-AP-MW-17V	ORP	Oxidation Reduction Potential	8/8/2023 11:30	77.49	mv
APCO BY-AP-MW-17V	PH	pH	8/8/2023 11:30	6.43	SU
APCO BY-AP-MW-17V	TEMP	Temperature	8/8/2023 11:30	22.39	C
APCO BY-AP-MW-17V	TURB	Turbidity	8/8/2023 11:30	14.6	NTU
APCO BY-AP-MW-17V	COND	Conductivity	8/8/2023 11:35	2437	uS/cm
APCO BY-AP-MW-17V	DO	DO	8/8/2023 11:35	0.19	mg/L
APCO BY-AP-MW-17V	DTW	Depth to Water Detail	8/8/2023 11:35	18.72	ft
APCO BY-AP-MW-17V	ORP	Oxidation Reduction Potential	8/8/2023 11:35	76.95	mv
APCO BY-AP-MW-17V	PH	pH	8/8/2023 11:35	6.44	SU
APCO BY-AP-MW-17V	TEMP	Temperature	8/8/2023 11:35	22.39	C
APCO BY-AP-MW-17V	TURB	Turbidity	8/8/2023 11:35	14.2	NTU
APCO BY-AP-MW-17V	COND	Conductivity	8/8/2023 11:40	2450.83	uS/cm
APCO BY-AP-MW-17V	DO	DO	8/8/2023 11:40	0.18	mg/L
APCO BY-AP-MW-17V	DTW	Depth to Water Detail	8/8/2023 11:40	18.72	ft
APCO BY-AP-MW-17V	ORP	Oxidation Reduction Potential	8/8/2023 11:40	76.34	mv
APCO BY-AP-MW-17V	PH	pH	8/8/2023 11:40	6.44	SU
APCO BY-AP-MW-17V	TEMP	Temperature	8/8/2023 11:40	22.24	C
APCO BY-AP-MW-17V	TURB	Turbidity	8/8/2023 11:40	12.4	NTU
APCO BY-AP-MW-17V	COND	Conductivity	8/8/2023 11:45	2457.45	uS/cm
APCO BY-AP-MW-17V	DO	DO	8/8/2023 11:45	0.18	mg/L
APCO BY-AP-MW-17V	DTW	Depth to Water Detail	8/8/2023 11:45	18.72	ft

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APCO BY-AP-MW-17V	ORP	Oxidation Reduction Potential	8/8/2023 11:45	75.81	mv
APCO BY-AP-MW-17V	PH	pH	8/8/2023 11:45	6.45	SU
APCO BY-AP-MW-17V	TEMP	Temperature	8/8/2023 11:45	22.39	C
APCO BY-AP-MW-17V	TURB	Turbidity	8/8/2023 11:45	12	NTU
APCO BY-AP-MW-17V	COND	Conductivity	8/8/2023 11:50	2468.52	uS/cm
APCO BY-AP-MW-17V	DO	DO	8/8/2023 11:50	0.18	mg/L
APCO BY-AP-MW-17V	DTW	Depth to Water Detail	8/8/2023 11:50	18.72	ft
APCO BY-AP-MW-17V	ORP	Oxidation Reduction Potential	8/8/2023 11:50	75.26	mv
APCO BY-AP-MW-17V	PH	pH	8/8/2023 11:50	6.46	SU
APCO BY-AP-MW-17V	TEMP	Temperature	8/8/2023 11:50	22.36	C
APCO BY-AP-MW-17V	TURB	Turbidity	8/8/2023 11:50	12.58	NTU
APCO BY-AP-MW-17V	COND	Conductivity	8/8/2023 11:55	2486.6	uS/cm
APCO BY-AP-MW-17V	DO	DO	8/8/2023 11:55	0.18	mg/L
APCO BY-AP-MW-17V	DTW	Depth to Water Detail	8/8/2023 11:55	18.72	ft
APCO BY-AP-MW-17V	ORP	Oxidation Reduction Potential	8/8/2023 11:55	75.04	mv
APCO BY-AP-MW-17V	PH	pH	8/8/2023 11:55	6.47	SU
APCO BY-AP-MW-17V	TEMP	Temperature	8/8/2023 11:55	22.6	C
APCO BY-AP-MW-17V	TURB	Turbidity	8/8/2023 11:55	12.36	NTU
APCO BY-AP-MW-17V	COND	Conductivity	8/8/2023 12:00	2476.6	uS/cm
APCO BY-AP-MW-17V	DO	DO	8/8/2023 12:00	0.18	mg/L
APCO BY-AP-MW-17V	DTW	Depth to Water Detail	8/8/2023 12:00	18.72	ft
APCO BY-AP-MW-17V	ORP	Oxidation Reduction Potential	8/8/2023 12:00	74.4	mv
APCO BY-AP-MW-17V	PH	pH	8/8/2023 12:00	6.48	SU
APCO BY-AP-MW-17V	TEMP	Temperature	8/8/2023 12:00	22.46	C
APCO BY-AP-MW-17V	TURB	Turbidity	8/8/2023 12:00	11.48	NTU
APCO BY-AP-MW-17V	COND	Conductivity	8/8/2023 12:05	2480.27	uS/cm
APCO BY-AP-MW-17V	DO	DO	8/8/2023 12:05	0.18	mg/L
APCO BY-AP-MW-17V	DTW	Depth to Water Detail	8/8/2023 12:05	18.72	ft
APCO BY-AP-MW-17V	ORP	Oxidation Reduction Potential	8/8/2023 12:05	73.71	mv
APCO BY-AP-MW-17V	PH	pH	8/8/2023 12:05	6.49	SU
APCO BY-AP-MW-17V	TEMP	Temperature	8/8/2023 12:05	22.45	C
APCO BY-AP-MW-17V	TURB	Turbidity	8/8/2023 12:05	10.56	NTU
APCO BY-AP-MW-17V	COND	Conductivity	8/8/2023 12:10	2488.46	uS/cm
APCO BY-AP-MW-17V	DO	DO	8/8/2023 12:10	0.18	mg/L
APCO BY-AP-MW-17V	DTW	Depth to Water Detail	8/8/2023 12:10	18.72	ft
APCO BY-AP-MW-17V	ORP	Oxidation Reduction Potential	8/8/2023 12:10	73.32	mv
APCO BY-AP-MW-17V	PH	pH	8/8/2023 12:10	6.49	SU
APCO BY-AP-MW-17V	SULFIDE	Sulfide	8/8/2023 12:10	0	mg/L
APCO BY-AP-MW-17V	TEMP	Temperature	8/8/2023 12:10	22.42	C
APCO BY-AP-MW-17V	TURB	Turbidity	8/8/2023 12:10	9.89	NTU
APCO BY-AP-MW-17H	COND	Conductivity	8/8/2023 12:42	393.57	uS/cm
APCO BY-AP-MW-17H	DO	DO	8/8/2023 12:42	0.16	mg/L
APCO BY-AP-MW-17H	DTW	Depth to Water Detail	8/8/2023 12:42	18.44	ft
APCO BY-AP-MW-17H	ORP	Oxidation Reduction Potential	8/8/2023 12:42	-53.07	mv
APCO BY-AP-MW-17H	PH	pH	8/8/2023 12:42	6.13	SU
APCO BY-AP-MW-17H	TEMP	Temperature	8/8/2023 12:42	22.02	C
APCO BY-AP-MW-17H	TURB	Turbidity	8/8/2023 12:42	32.8	NTU
APCO BY-AP-MW-17H	COND	Conductivity	8/8/2023 12:47	396.64	uS/cm
APCO BY-AP-MW-17H	DO	DO	8/8/2023 12:47	0.14	mg/L
APCO BY-AP-MW-17H	DTW	Depth to Water Detail	8/8/2023 12:47	18.54	ft
APCO BY-AP-MW-17H	ORP	Oxidation Reduction Potential	8/8/2023 12:47	-59.51	mv
APCO BY-AP-MW-17H	PH	pH	8/8/2023 12:47	6.15	SU
APCO BY-AP-MW-17H	TEMP	Temperature	8/8/2023 12:47	21.93	C
APCO BY-AP-MW-17H	TURB	Turbidity	8/8/2023 12:47	15.9	NTU
APCO BY-AP-MW-17H	COND	Conductivity	8/8/2023 12:52	396.32	uS/cm
APCO BY-AP-MW-17H	DO	DO	8/8/2023 12:52	0.13	mg/L
APCO BY-AP-MW-17H	DTW	Depth to Water Detail	8/8/2023 12:52	18.64	ft
APCO BY-AP-MW-17H	ORP	Oxidation Reduction Potential	8/8/2023 12:52	-63.95	mv
APCO BY-AP-MW-17H	PH	pH	8/8/2023 12:52	6.19	SU

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APCO BY-AP-MW-17H	TEMP	Temperature	8/8/2023 12:52	22	C
APCO BY-AP-MW-17H	TURB	Turbidity	8/8/2023 12:52	12.11	NTU
APCO BY-AP-MW-17H	COND	Conductivity	8/8/2023 12:57	394.88	uS/cm
APCO BY-AP-MW-17H	DO	DO	8/8/2023 12:57	0.13	mg/L
APCO BY-AP-MW-17H	DTW	Depth to Water Detail	8/8/2023 12:57	18.68	ft
APCO BY-AP-MW-17H	ORP	Oxidation Reduction Potential	8/8/2023 12:57	-67.09	mv
APCO BY-AP-MW-17H	PH	pH	8/8/2023 12:57	6.23	SU
APCO BY-AP-MW-17H	SULFIDE	Sulfide	8/8/2023 12:57	0	mg/L
APCO BY-AP-MW-17H	TEMP	Temperature	8/8/2023 12:57	22.06	C
APCO BY-AP-MW-17H	TURB	Turbidity	8/8/2023 12:57	8.5	NTU
APCO BY-AP-MW-23H	COND	Conductivity	8/8/2023 14:38	442.01	uS/cm
APCO BY-AP-MW-23H	DO	DO	8/8/2023 14:38	0.24	mg/L
APCO BY-AP-MW-23H	DTW	Depth to Water Detail	8/8/2023 14:38	9.41	ft
APCO BY-AP-MW-23H	ORP	Oxidation Reduction Potential	8/8/2023 14:38	-58.91	mv
APCO BY-AP-MW-23H	PH	pH	8/8/2023 14:38	6.04	SU
APCO BY-AP-MW-23H	TEMP	Temperature	8/8/2023 14:38	20.64	C
APCO BY-AP-MW-23H	TURB	Turbidity	8/8/2023 14:38	6.83	NTU
APCO BY-AP-MW-23H	COND	Conductivity	8/8/2023 14:43	424.62	uS/cm
APCO BY-AP-MW-23H	DO	DO	8/8/2023 14:43	0.19	mg/L
APCO BY-AP-MW-23H	DTW	Depth to Water Detail	8/8/2023 14:43	9.41	ft
APCO BY-AP-MW-23H	ORP	Oxidation Reduction Potential	8/8/2023 14:43	-58.85	mv
APCO BY-AP-MW-23H	PH	pH	8/8/2023 14:43	6.02	SU
APCO BY-AP-MW-23H	TEMP	Temperature	8/8/2023 14:43	20.58	C
APCO BY-AP-MW-23H	TURB	Turbidity	8/8/2023 14:43	4.07	NTU
APCO BY-AP-MW-23H	COND	Conductivity	8/8/2023 14:48	411.93	uS/cm
APCO BY-AP-MW-23H	DO	DO	8/8/2023 14:48	0.16	mg/L
APCO BY-AP-MW-23H	DTW	Depth to Water Detail	8/8/2023 14:48	9.41	ft
APCO BY-AP-MW-23H	ORP	Oxidation Reduction Potential	8/8/2023 14:48	-60.3	mv
APCO BY-AP-MW-23H	PH	pH	8/8/2023 14:48	6.03	SU
APCO BY-AP-MW-23H	TEMP	Temperature	8/8/2023 14:48	20.55	C
APCO BY-AP-MW-23H	TURB	Turbidity	8/8/2023 14:48	3.99	NTU
APCO BY-AP-MW-23H	COND	Conductivity	8/8/2023 14:53	395.63	uS/cm
APCO BY-AP-MW-23H	DO	DO	8/8/2023 14:53	0.14	mg/L
APCO BY-AP-MW-23H	DTW	Depth to Water Detail	8/8/2023 14:53	9.41	ft
APCO BY-AP-MW-23H	ORP	Oxidation Reduction Potential	8/8/2023 14:53	-62.18	mv
APCO BY-AP-MW-23H	PH	pH	8/8/2023 14:53	6.06	SU
APCO BY-AP-MW-23H	TEMP	Temperature	8/8/2023 14:53	20.55	C
APCO BY-AP-MW-23H	TURB	Turbidity	8/8/2023 14:53	3.07	NTU
APCO BY-AP-MW-23H	COND	Conductivity	8/8/2023 14:58	383.94	uS/cm
APCO BY-AP-MW-23H	DO	DO	8/8/2023 14:58	0.14	mg/L
APCO BY-AP-MW-23H	DTW	Depth to Water Detail	8/8/2023 14:58	9.41	ft
APCO BY-AP-MW-23H	ORP	Oxidation Reduction Potential	8/8/2023 14:58	-63.22	mv
APCO BY-AP-MW-23H	PH	pH	8/8/2023 14:58	6.09	SU
APCO BY-AP-MW-23H	TEMP	Temperature	8/8/2023 14:58	20.53	C
APCO BY-AP-MW-23H	TURB	Turbidity	8/8/2023 14:58	2.94	NTU
APCO BY-AP-MW-23H	COND	Conductivity	8/8/2023 15:03	374.76	uS/cm
APCO BY-AP-MW-23H	DO	DO	8/8/2023 15:03	0.13	mg/L
APCO BY-AP-MW-23H	DTW	Depth to Water Detail	8/8/2023 15:03	9.41	ft
APCO BY-AP-MW-23H	ORP	Oxidation Reduction Potential	8/8/2023 15:03	-64.56	mv
APCO BY-AP-MW-23H	PH	pH	8/8/2023 15:03	6.11	SU
APCO BY-AP-MW-23H	TEMP	Temperature	8/8/2023 15:03	20.51	C
APCO BY-AP-MW-23H	TURB	Turbidity	8/8/2023 15:03	2.83	NTU
APCO BY-AP-MW-23H	COND	Conductivity	8/8/2023 15:08	375.94	uS/cm
APCO BY-AP-MW-23H	DO	DO	8/8/2023 15:08	0.12	mg/L
APCO BY-AP-MW-23H	DTW	Depth to Water Detail	8/8/2023 15:08	9.41	ft
APCO BY-AP-MW-23H	ORP	Oxidation Reduction Potential	8/8/2023 15:08	-65.38	mv
APCO BY-AP-MW-23H	PH	pH	8/8/2023 15:08	6.13	SU
APCO BY-AP-MW-23H	SULFIDE	Sulfide	8/8/2023 15:08	0	mg/L
APCO BY-AP-MW-23H	TEMP	Temperature	8/8/2023 15:08	20.5	C

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APCO BY-AP-MW-23H	TURB	Turbidity	8/8/2023 15:08	2.76	NTU
APCO BY-AP-MW-23V	COND	Conductivity	8/8/2023 13:49	2401.37	uS/cm
APCO BY-AP-MW-23V	DO	DO	8/8/2023 13:49	0.25	mg/L
APCO BY-AP-MW-23V	DTW	Depth to Water Detail	8/8/2023 13:49	14.06	ft
APCO BY-AP-MW-23V	ORP	Oxidation Reduction Potential	8/8/2023 13:49	-71.29	mv
APCO BY-AP-MW-23V	PH	pH	8/8/2023 13:49	6.61	SU
APCO BY-AP-MW-23V	TEMP	Temperature	8/8/2023 13:49	21.17	C
APCO BY-AP-MW-23V	TURB	Turbidity	8/8/2023 13:49	4.07	NTU
APCO BY-AP-MW-23V	COND	Conductivity	8/8/2023 13:54	2464.97	uS/cm
APCO BY-AP-MW-23V	DO	DO	8/8/2023 13:54	0.19	mg/L
APCO BY-AP-MW-23V	DTW	Depth to Water Detail	8/8/2023 13:54	14.06	ft
APCO BY-AP-MW-23V	ORP	Oxidation Reduction Potential	8/8/2023 13:54	-72.76	mv
APCO BY-AP-MW-23V	PH	pH	8/8/2023 13:54	6.59	SU
APCO BY-AP-MW-23V	TEMP	Temperature	8/8/2023 13:54	20.83	C
APCO BY-AP-MW-23V	TURB	Turbidity	8/8/2023 13:54	1.12	NTU
APCO BY-AP-MW-23V	COND	Conductivity	8/8/2023 13:59	2489.28	uS/cm
APCO BY-AP-MW-23V	DO	DO	8/8/2023 13:59	0.19	mg/L
APCO BY-AP-MW-23V	DTW	Depth to Water Detail	8/8/2023 13:59	14.06	ft
APCO BY-AP-MW-23V	ORP	Oxidation Reduction Potential	8/8/2023 13:59	-72.85	mv
APCO BY-AP-MW-23V	PH	pH	8/8/2023 13:59	6.59	SU
APCO BY-AP-MW-23V	TEMP	Temperature	8/8/2023 13:59	20.85	C
APCO BY-AP-MW-23V	TURB	Turbidity	8/8/2023 13:59	0.72	NTU
APCO BY-AP-MW-23V	COND	Conductivity	8/8/2023 14:04	2499.73	uS/cm
APCO BY-AP-MW-23V	DO	DO	8/8/2023 14:04	0.2	mg/L
APCO BY-AP-MW-23V	DTW	Depth to Water Detail	8/8/2023 14:04	14.06	ft
APCO BY-AP-MW-23V	ORP	Oxidation Reduction Potential	8/8/2023 14:04	-72.87	mv
APCO BY-AP-MW-23V	PH	pH	8/8/2023 14:04	6.59	SU
APCO BY-AP-MW-23V	SULFIDE	Sulfide	8/8/2023 14:04	0	mg/L
APCO BY-AP-MW-23V	TEMP	Temperature	8/8/2023 14:04	20.87	C
APCO BY-AP-MW-23V	TURB	Turbidity	8/8/2023 14:04	0.77	NTU
APCO BY-AP-MW-25H	COND	Conductivity	8/8/2023 9:26	44.23	uS/cm
APCO BY-AP-MW-25H	DO	DO	8/8/2023 9:26	0.99	mg/L
APCO BY-AP-MW-25H	DTW	Depth to Water Detail	8/8/2023 9:26	21.61	ft
APCO BY-AP-MW-25H	ORP	Oxidation Reduction Potential	8/8/2023 9:26	324.1	mv
APCO BY-AP-MW-25H	PH	pH	8/8/2023 9:26	4.69	SU
APCO BY-AP-MW-25H	TEMP	Temperature	8/8/2023 9:26	22.75	C
APCO BY-AP-MW-25H	TURB	Turbidity	8/8/2023 9:26	0.75	NTU
APCO BY-AP-MW-25H	COND	Conductivity	8/8/2023 9:31	43.98	uS/cm
APCO BY-AP-MW-25H	DO	DO	8/8/2023 9:31	0.96	mg/L
APCO BY-AP-MW-25H	DTW	Depth to Water Detail	8/8/2023 9:31	21.61	ft
APCO BY-AP-MW-25H	ORP	Oxidation Reduction Potential	8/8/2023 9:31	330.13	mv
APCO BY-AP-MW-25H	PH	pH	8/8/2023 9:31	4.68	SU
APCO BY-AP-MW-25H	TEMP	Temperature	8/8/2023 9:31	22.77	C
APCO BY-AP-MW-25H	TURB	Turbidity	8/8/2023 9:31	0.67	NTU
APCO BY-AP-MW-25H	COND	Conductivity	8/8/2023 9:36	43.94	uS/cm
APCO BY-AP-MW-25H	DO	DO	8/8/2023 9:36	0.95	mg/L
APCO BY-AP-MW-25H	DTW	Depth to Water Detail	8/8/2023 9:36	21.61	ft
APCO BY-AP-MW-25H	ORP	Oxidation Reduction Potential	8/8/2023 9:36	331.09	mv
APCO BY-AP-MW-25H	PH	pH	8/8/2023 9:36	4.78	SU
APCO BY-AP-MW-25H	TEMP	Temperature	8/8/2023 9:36	22.73	C
APCO BY-AP-MW-25H	TURB	Turbidity	8/8/2023 9:36	0.65	NTU
APCO BY-AP-MW-25H	COND	Conductivity	8/8/2023 9:39	42.87	uS/cm
APCO BY-AP-MW-25H	DO	DO	8/8/2023 9:39	0.96	mg/L
APCO BY-AP-MW-25H	DTW	Depth to Water Detail	8/8/2023 9:39	21.61	ft
APCO BY-AP-MW-25H	ORP	Oxidation Reduction Potential	8/8/2023 9:39	343.84	mv
APCO BY-AP-MW-25H	PH	pH	8/8/2023 9:39	4.55	SU
APCO BY-AP-MW-25H	TEMP	Temperature	8/8/2023 9:39	22.66	C
APCO BY-AP-MW-25H	TURB	Turbidity	8/8/2023 9:39	0.51	NTU
APCO BY-AP-MW-25H	COND	Conductivity	8/8/2023 9:44	43.2	uS/cm

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APCO BY-AP-MW-25H	DO	DO	8/8/2023 9:44	0.95	mg/L
APCO BY-AP-MW-25H	DTW	Depth to Water Detail	8/8/2023 9:44	21.61	ft
APCO BY-AP-MW-25H	ORP	Oxidation Reduction Potential	8/8/2023 9:44	340.17	mv
APCO BY-AP-MW-25H	PH	pH	8/8/2023 9:44	4.75	SU
APCO BY-AP-MW-25H	TEMP	Temperature	8/8/2023 9:44	22.61	C
APCO BY-AP-MW-25H	TURB	Turbidity	8/8/2023 9:44	0.41	NTU
APCO BY-AP-MW-25H	COND	Conductivity	8/8/2023 9:49	42.92	uS/cm
APCO BY-AP-MW-25H	DO	DO	8/8/2023 9:49	0.95	mg/L
APCO BY-AP-MW-25H	DTW	Depth to Water Detail	8/8/2023 9:49	21.61	ft
APCO BY-AP-MW-25H	ORP	Oxidation Reduction Potential	8/8/2023 9:49	336	mv
APCO BY-AP-MW-25H	PH	pH	8/8/2023 9:49	4.88	SU
APCO BY-AP-MW-25H	TEMP	Temperature	8/8/2023 9:49	22.54	C
APCO BY-AP-MW-25H	TURB	Turbidity	8/8/2023 9:49	0.56	NTU
APCO BY-AP-MW-25H	COND	Conductivity	8/8/2023 9:54	42.86	uS/cm
APCO BY-AP-MW-25H	DO	DO	8/8/2023 9:54	0.95	mg/L
APCO BY-AP-MW-25H	DTW	Depth to Water Detail	8/8/2023 9:54	21.61	ft
APCO BY-AP-MW-25H	ORP	Oxidation Reduction Potential	8/8/2023 9:54	333.68	mv
APCO BY-AP-MW-25H	PH	pH	8/8/2023 9:54	4.95	SU
APCO BY-AP-MW-25H	SULFIDE	Sulfide	8/8/2023 9:54	0	mg/L
APCO BY-AP-MW-25H	TEMP	Temperature	8/8/2023 9:54	22.54	C
APCO BY-AP-MW-25H	TURB	Turbidity	8/8/2023 9:54	0.31	NTU
APCO BY-AP-MW-25V	COND	Conductivity	8/8/2023 8:28	30.77	uS/cm
APCO BY-AP-MW-25V	DO	DO	8/8/2023 8:28	4.1	mg/L
APCO BY-AP-MW-25V	DTW	Depth to Water Detail	8/8/2023 8:28	21.64	ft
APCO BY-AP-MW-25V	ORP	Oxidation Reduction Potential	8/8/2023 8:28	295.72	mv
APCO BY-AP-MW-25V	PH	pH	8/8/2023 8:28	4.64	SU
APCO BY-AP-MW-25V	TEMP	Temperature	8/8/2023 8:28	23.93	C
APCO BY-AP-MW-25V	TURB	Turbidity	8/8/2023 8:28	7.96	NTU
APCO BY-AP-MW-25V	COND	Conductivity	8/8/2023 8:33	30.7	uS/cm
APCO BY-AP-MW-25V	DO	DO	8/8/2023 8:33	4.06	mg/L
APCO BY-AP-MW-25V	DTW	Depth to Water Detail	8/8/2023 8:33	21.64	ft
APCO BY-AP-MW-25V	ORP	Oxidation Reduction Potential	8/8/2023 8:33	305.95	mv
APCO BY-AP-MW-25V	PH	pH	8/8/2023 8:33	4.73	SU
APCO BY-AP-MW-25V	TEMP	Temperature	8/8/2023 8:33	23.94	C
APCO BY-AP-MW-25V	TURB	Turbidity	8/8/2023 8:33	1.59	NTU
APCO BY-AP-MW-25V	COND	Conductivity	8/8/2023 8:38	30.71	uS/cm
APCO BY-AP-MW-25V	DO	DO	8/8/2023 8:38	4.02	mg/L
APCO BY-AP-MW-25V	DTW	Depth to Water Detail	8/8/2023 8:38	21.64	ft
APCO BY-AP-MW-25V	ORP	Oxidation Reduction Potential	8/8/2023 8:38	304.94	mv
APCO BY-AP-MW-25V	PH	pH	8/8/2023 8:38	4.89	SU
APCO BY-AP-MW-25V	TEMP	Temperature	8/8/2023 8:38	23.96	C
APCO BY-AP-MW-25V	TURB	Turbidity	8/8/2023 8:38	2.01	NTU
APCO BY-AP-MW-25V	COND	Conductivity	8/8/2023 8:43	30.34	uS/cm
APCO BY-AP-MW-25V	DO	DO	8/8/2023 8:43	3.57	mg/L
APCO BY-AP-MW-25V	DTW	Depth to Water Detail	8/8/2023 8:43	21.64	ft
APCO BY-AP-MW-25V	ORP	Oxidation Reduction Potential	8/8/2023 8:43	316.58	mv
APCO BY-AP-MW-25V	PH	pH	8/8/2023 8:43	4.8	SU
APCO BY-AP-MW-25V	TEMP	Temperature	8/8/2023 8:43	22.91	C
APCO BY-AP-MW-25V	TURB	Turbidity	8/8/2023 8:43	2.39	NTU
APCO BY-AP-MW-25V	COND	Conductivity	8/8/2023 8:48	29.97	uS/cm
APCO BY-AP-MW-25V	DO	DO	8/8/2023 8:48	3.55	mg/L
APCO BY-AP-MW-25V	DTW	Depth to Water Detail	8/8/2023 8:48	21.64	ft
APCO BY-AP-MW-25V	ORP	Oxidation Reduction Potential	8/8/2023 8:48	331.62	mv
APCO BY-AP-MW-25V	PH	pH	8/8/2023 8:48	4.64	SU
APCO BY-AP-MW-25V	TEMP	Temperature	8/8/2023 8:48	22.86	C
APCO BY-AP-MW-25V	TURB	Turbidity	8/8/2023 8:48	1.48	NTU
APCO BY-AP-MW-25V	COND	Conductivity	8/8/2023 8:53	29.71	uS/cm
APCO BY-AP-MW-25V	DO	DO	8/8/2023 8:53	3.59	mg/L
APCO BY-AP-MW-25V	DTW	Depth to Water Detail	8/8/2023 8:53	21.64	ft

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APCO BY-AP-MW-25V	ORP	Oxidation Reduction Potential	8/8/2023 8:53	325.54	mv
APCO BY-AP-MW-25V	PH	pH	8/8/2023 8:53	4.79	SU
APCO BY-AP-MW-25V	SULFIDE	Sulfide	8/8/2023 8:53	0	mg/L
APCO BY-AP-MW-25V	TEMP	Temperature	8/8/2023 8:53	22.85	C
APCO BY-AP-MW-25V	TURB	Turbidity	8/8/2023 8:53	1.18	NTU
APCO BY-AP-MW-13	COND	Conductivity	8/9/2023 12:28	425.62	uS/cm
APCO BY-AP-MW-13	DO	DO	8/9/2023 12:28	0.25	mg/L
APCO BY-AP-MW-13	DTW	Depth to Water Detail	8/9/2023 12:28	22.26	ft
APCO BY-AP-MW-13	ORP	Oxidation Reduction Potential	8/9/2023 12:28	11.5	mv
APCO BY-AP-MW-13	PH	pH	8/9/2023 12:28	5.81	SU
APCO BY-AP-MW-13	TEMP	Temperature	8/9/2023 12:28	22.08	C
APCO BY-AP-MW-13	TURB	Turbidity	8/9/2023 12:28	5.52	NTU
APCO BY-AP-MW-13	COND	Conductivity	8/9/2023 12:33	408.19	uS/cm
APCO BY-AP-MW-13	DO	DO	8/9/2023 12:33	0.22	mg/L
APCO BY-AP-MW-13	DTW	Depth to Water Detail	8/9/2023 12:33	22.26	ft
APCO BY-AP-MW-13	ORP	Oxidation Reduction Potential	8/9/2023 12:33	13.76	mv
APCO BY-AP-MW-13	PH	pH	8/9/2023 12:33	5.75	SU
APCO BY-AP-MW-13	TEMP	Temperature	8/9/2023 12:33	21.99	C
APCO BY-AP-MW-13	TURB	Turbidity	8/9/2023 12:33	5.31	NTU
APCO BY-AP-MW-13	COND	Conductivity	8/9/2023 12:38	403.89	uS/cm
APCO BY-AP-MW-13	DO	DO	8/9/2023 12:38	0.21	mg/L
APCO BY-AP-MW-13	DTW	Depth to Water Detail	8/9/2023 12:38	22.26	ft
APCO BY-AP-MW-13	ORP	Oxidation Reduction Potential	8/9/2023 12:38	13.99	mv
APCO BY-AP-MW-13	PH	pH	8/9/2023 12:38	5.74	SU
APCO BY-AP-MW-13	TEMP	Temperature	8/9/2023 12:38	21.98	C
APCO BY-AP-MW-13	TURB	Turbidity	8/9/2023 12:38	3.13	NTU
APCO BY-AP-MW-13	COND	Conductivity	8/9/2023 12:43	401.89	uS/cm
APCO BY-AP-MW-13	DO	DO	8/9/2023 12:43	0.2	mg/L
APCO BY-AP-MW-13	DTW	Depth to Water Detail	8/9/2023 12:43	22.26	ft
APCO BY-AP-MW-13	ORP	Oxidation Reduction Potential	8/9/2023 12:43	12.84	mv
APCO BY-AP-MW-13	PH	pH	8/9/2023 12:43	5.76	SU
APCO BY-AP-MW-13	SULFIDE	Sulfide	8/9/2023 12:43	0	mg/L
APCO BY-AP-MW-13	TEMP	Temperature	8/9/2023 12:43	21.88	C
APCO BY-AP-MW-13	TURB	Turbidity	8/9/2023 12:43	3.21	NTU
APCO BY-AP-MW-8V	COND	Conductivity	8/7/2023 15:17	296.42	uS/cm
APCO BY-AP-MW-8V	DO	DO	8/7/2023 15:17	1.25	mg/L
APCO BY-AP-MW-8V	DTW	Depth to Water Detail	8/7/2023 15:17	23.8	ft
APCO BY-AP-MW-8V	ORP	Oxidation Reduction Potential	8/7/2023 15:17	59.7	mv
APCO BY-AP-MW-8V	PH	pH	8/7/2023 15:17	7.43	SU
APCO BY-AP-MW-8V	TEMP	Temperature	8/7/2023 15:17	25.56	C
APCO BY-AP-MW-8V	TURB	Turbidity	8/7/2023 15:17	99	NTU
APCO BY-AP-MW-8V	COND	Conductivity	8/7/2023 15:22	289.14	uS/cm
APCO BY-AP-MW-8V	DO	DO	8/7/2023 15:22	1.33	mg/L
APCO BY-AP-MW-8V	DTW	Depth to Water Detail	8/7/2023 15:22	23.8	ft
APCO BY-AP-MW-8V	ORP	Oxidation Reduction Potential	8/7/2023 15:22	64.06	mv
APCO BY-AP-MW-8V	PH	pH	8/7/2023 15:22	7.43	SU
APCO BY-AP-MW-8V	TEMP	Temperature	8/7/2023 15:22	28.98	C
APCO BY-AP-MW-8V	TURB	Turbidity	8/7/2023 15:22	99	NTU
APCO BY-AP-MW-8V	COND	Conductivity	8/7/2023 15:27	290.92	uS/cm
APCO BY-AP-MW-8V	DO	DO	8/7/2023 15:27	1.52	mg/L
APCO BY-AP-MW-8V	DTW	Depth to Water Detail	8/7/2023 15:27	23.8	ft
APCO BY-AP-MW-8V	ORP	Oxidation Reduction Potential	8/7/2023 15:27	64.53	mv
APCO BY-AP-MW-8V	PH	pH	8/7/2023 15:27	7.47	SU
APCO BY-AP-MW-8V	TEMP	Temperature	8/7/2023 15:27	32.58	C
APCO BY-AP-MW-8V	TURB	Turbidity	8/7/2023 15:27	99	NTU
APCO BY-AP-MW-8V	COND	Conductivity	8/7/2023 15:32	291.79	uS/cm
APCO BY-AP-MW-8V	DO	DO	8/7/2023 15:32	1.48	mg/L
APCO BY-AP-MW-8V	DTW	Depth to Water Detail	8/7/2023 15:32	23.8	ft
APCO BY-AP-MW-8V	ORP	Oxidation Reduction Potential	8/7/2023 15:32	53.54	mv

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APCO BY-AP-MW-8V	PH	pH	8/7/2023 15:32	7.78	SU
APCO BY-AP-MW-8V	TEMP	Temperature	8/7/2023 15:32	33.5	C
APCO BY-AP-MW-8V	TURB	Turbidity	8/7/2023 15:32	99	NTU
APCO BY-AP-MW-8V	COND	Conductivity	8/7/2023 15:37	287.02	uS/cm
APCO BY-AP-MW-8V	DO	DO	8/7/2023 15:37	1.25	mg/L
APCO BY-AP-MW-8V	DTW	Depth to Water Detail	8/7/2023 15:37	23.8	ft
APCO BY-AP-MW-8V	ORP	Oxidation Reduction Potential	8/7/2023 15:37	49.98	mv
APCO BY-AP-MW-8V	PH	pH	8/7/2023 15:37	8	SU
APCO BY-AP-MW-8V	TEMP	Temperature	8/7/2023 15:37	31.54	C
APCO BY-AP-MW-8V	TURB	Turbidity	8/7/2023 15:37	99	NTU
APCO BY-AP-MW-8V	COND	Conductivity	8/7/2023 15:42	278.8	uS/cm
APCO BY-AP-MW-8V	DO	DO	8/7/2023 15:42	0.66	mg/L
APCO BY-AP-MW-8V	DTW	Depth to Water Detail	8/7/2023 15:42	23.8	ft
APCO BY-AP-MW-8V	ORP	Oxidation Reduction Potential	8/7/2023 15:42	66.79	mv
APCO BY-AP-MW-8V	PH	pH	8/7/2023 15:42	7.86	SU
APCO BY-AP-MW-8V	TEMP	Temperature	8/7/2023 15:42	21.61	C
APCO BY-AP-MW-8V	TURB	Turbidity	8/7/2023 15:42	99	NTU
APCO BY-AP-MW-8V	COND	Conductivity	8/7/2023 15:47	275.7	uS/cm
APCO BY-AP-MW-8V	DO	DO	8/7/2023 15:47	0.52	mg/L
APCO BY-AP-MW-8V	DTW	Depth to Water Detail	8/7/2023 15:47	23.8	ft
APCO BY-AP-MW-8V	ORP	Oxidation Reduction Potential	8/7/2023 15:47	74.98	mv
APCO BY-AP-MW-8V	PH	pH	8/7/2023 15:47	7.68	SU
APCO BY-AP-MW-8V	TEMP	Temperature	8/7/2023 15:47	21.28	C
APCO BY-AP-MW-8V	TURB	Turbidity	8/7/2023 15:47	99	NTU
APCO BY-AP-MW-8V	COND	Conductivity	8/7/2023 15:52	285.57	uS/cm
APCO BY-AP-MW-8V	DO	DO	8/7/2023 15:52	0.44	mg/L
APCO BY-AP-MW-8V	DTW	Depth to Water Detail	8/7/2023 15:52	23.8	ft
APCO BY-AP-MW-8V	ORP	Oxidation Reduction Potential	8/7/2023 15:52	73.27	mv
APCO BY-AP-MW-8V	PH	pH	8/7/2023 15:52	7.65	SU
APCO BY-AP-MW-8V	TEMP	Temperature	8/7/2023 15:52	20.88	C
APCO BY-AP-MW-8V	TURB	Turbidity	8/7/2023 15:52	99	NTU
APCO BY-AP-MW-8V	COND	Conductivity	8/7/2023 15:57	282	uS/cm
APCO BY-AP-MW-8V	DO	DO	8/7/2023 15:57	0.35	mg/L
APCO BY-AP-MW-8V	DTW	Depth to Water Detail	8/7/2023 15:57	23.8	ft
APCO BY-AP-MW-8V	ORP	Oxidation Reduction Potential	8/7/2023 15:57	69.78	mv
APCO BY-AP-MW-8V	PH	pH	8/7/2023 15:57	7.64	SU
APCO BY-AP-MW-8V	TEMP	Temperature	8/7/2023 15:57	21.23	C
APCO BY-AP-MW-8V	TURB	Turbidity	8/7/2023 15:57	99	NTU
APCO BY-AP-MW-8V	COND	Conductivity	8/7/2023 16:02	279.15	uS/cm
APCO BY-AP-MW-8V	DO	DO	8/7/2023 16:02	0.29	mg/L
APCO BY-AP-MW-8V	DTW	Depth to Water Detail	8/7/2023 16:02	23.8	ft
APCO BY-AP-MW-8V	ORP	Oxidation Reduction Potential	8/7/2023 16:02	65.45	mv
APCO BY-AP-MW-8V	PH	pH	8/7/2023 16:02	7.66	SU
APCO BY-AP-MW-8V	TEMP	Temperature	8/7/2023 16:02	20.98	C
APCO BY-AP-MW-8V	TURB	Turbidity	8/7/2023 16:02	99	NTU
APCO BY-AP-MW-8V	COND	Conductivity	8/7/2023 16:07	283.21	uS/cm
APCO BY-AP-MW-8V	DO	DO	8/7/2023 16:07	0.25	mg/L
APCO BY-AP-MW-8V	DTW	Depth to Water Detail	8/7/2023 16:07	23.8	ft
APCO BY-AP-MW-8V	ORP	Oxidation Reduction Potential	8/7/2023 16:07	62.7	mv
APCO BY-AP-MW-8V	PH	pH	8/7/2023 16:07	7.64	SU
APCO BY-AP-MW-8V	TEMP	Temperature	8/7/2023 16:07	20.8	C
APCO BY-AP-MW-8V	TURB	Turbidity	8/7/2023 16:07	99	NTU
APCO BY-AP-MW-8V	COND	Conductivity	8/7/2023 16:12	283.43	uS/cm
APCO BY-AP-MW-8V	DO	DO	8/7/2023 16:12	0.28	mg/L
APCO BY-AP-MW-8V	DTW	Depth to Water Detail	8/7/2023 16:12	23.8	ft
APCO BY-AP-MW-8V	ORP	Oxidation Reduction Potential	8/7/2023 16:12	58.53	mv
APCO BY-AP-MW-8V	PH	pH	8/7/2023 16:12	7.64	SU
APCO BY-AP-MW-8V	TEMP	Temperature	8/7/2023 16:12	20.72	C
APCO BY-AP-MW-8V	TURB	Turbidity	8/7/2023 16:12	76	NTU

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APCO BY-AP-MW-8V	COND	Conductivity	8/7/2023 16:17	283.57	uS/cm
APCO BY-AP-MW-8V	DO	DO	8/7/2023 16:17	0.3	mg/L
APCO BY-AP-MW-8V	DTW	Depth to Water Detail	8/7/2023 16:17	23.8	ft
APCO BY-AP-MW-8V	ORP	Oxidation Reduction Potential	8/7/2023 16:17	53.57	mv
APCO BY-AP-MW-8V	PH	pH	8/7/2023 16:17	7.67	SU
APCO BY-AP-MW-8V	TEMP	Temperature	8/7/2023 16:17	21.03	C
APCO BY-AP-MW-8V	TURB	Turbidity	8/7/2023 16:17	78.8	NTU
APCO BY-AP-MW-8V	COND	Conductivity	8/7/2023 16:22	287.7	uS/cm
APCO BY-AP-MW-8V	DO	DO	8/7/2023 16:22	0.28	mg/L
APCO BY-AP-MW-8V	DTW	Depth to Water Detail	8/7/2023 16:22	23.8	ft
APCO BY-AP-MW-8V	ORP	Oxidation Reduction Potential	8/7/2023 16:22	50.11	mv
APCO BY-AP-MW-8V	PH	pH	8/7/2023 16:22	7.68	SU
APCO BY-AP-MW-8V	TEMP	Temperature	8/7/2023 16:22	21.16	C
APCO BY-AP-MW-8V	TURB	Turbidity	8/7/2023 16:22	71	NTU
APCO BY-AP-MW-8V	COND	Conductivity	8/7/2023 16:27	284.57	uS/cm
APCO BY-AP-MW-8V	DO	DO	8/7/2023 16:27	0.29	mg/L
APCO BY-AP-MW-8V	DTW	Depth to Water Detail	8/7/2023 16:27	23.8	ft
APCO BY-AP-MW-8V	ORP	Oxidation Reduction Potential	8/7/2023 16:27	45.93	mv
APCO BY-AP-MW-8V	PH	pH	8/7/2023 16:27	7.72	SU
APCO BY-AP-MW-8V	TEMP	Temperature	8/7/2023 16:27	20.84	C
APCO BY-AP-MW-8V	TURB	Turbidity	8/7/2023 16:27	66	NTU
APCO BY-AP-MW-8V	COND	Conductivity	8/7/2023 16:32	283.9	uS/cm
APCO BY-AP-MW-8V	DO	DO	8/7/2023 16:32	0.27	mg/L
APCO BY-AP-MW-8V	DTW	Depth to Water Detail	8/7/2023 16:32	23.8	ft
APCO BY-AP-MW-8V	ORP	Oxidation Reduction Potential	8/7/2023 16:32	41.71	mv
APCO BY-AP-MW-8V	PH	pH	8/7/2023 16:32	7.75	SU
APCO BY-AP-MW-8V	TEMP	Temperature	8/7/2023 16:32	20.83	C
APCO BY-AP-MW-8V	TURB	Turbidity	8/7/2023 16:32	63.1	NTU
APCO BY-AP-MW-8V	COND	Conductivity	8/7/2023 16:37	285.02	uS/cm
APCO BY-AP-MW-8V	DO	DO	8/7/2023 16:37	0.24	mg/L
APCO BY-AP-MW-8V	DTW	Depth to Water Detail	8/7/2023 16:37	23.8	ft
APCO BY-AP-MW-8V	ORP	Oxidation Reduction Potential	8/7/2023 16:37	36.9	mv
APCO BY-AP-MW-8V	PH	pH	8/7/2023 16:37	7.78	SU
APCO BY-AP-MW-8V	TEMP	Temperature	8/7/2023 16:37	21.07	C
APCO BY-AP-MW-8V	TURB	Turbidity	8/7/2023 16:37	62.1	NTU
APCO BY-AP-MW-8V	COND	Conductivity	8/7/2023 16:42	283.05	uS/cm
APCO BY-AP-MW-8V	DO	DO	8/7/2023 16:42	0.22	mg/L
APCO BY-AP-MW-8V	DTW	Depth to Water Detail	8/7/2023 16:42	23.8	ft
APCO BY-AP-MW-8V	ORP	Oxidation Reduction Potential	8/7/2023 16:42	32.81	mv
APCO BY-AP-MW-8V	PH	pH	8/7/2023 16:42	7.81	SU
APCO BY-AP-MW-8V	TEMP	Temperature	8/7/2023 16:42	20.95	C
APCO BY-AP-MW-8V	TURB	Turbidity	8/7/2023 16:42	71.4	NTU
APCO BY-AP-MW-8V	COND	Conductivity	8/7/2023 16:47	285.97	uS/cm
APCO BY-AP-MW-8V	DO	DO	8/7/2023 16:47	0.21	mg/L
APCO BY-AP-MW-8V	DTW	Depth to Water Detail	8/7/2023 16:47	23.8	ft
APCO BY-AP-MW-8V	ORP	Oxidation Reduction Potential	8/7/2023 16:47	26.39	mv
APCO BY-AP-MW-8V	PH	pH	8/7/2023 16:47	7.85	SU
APCO BY-AP-MW-8V	TEMP	Temperature	8/7/2023 16:47	20.95	C
APCO BY-AP-MW-8V	TURB	Turbidity	8/7/2023 16:47	63	NTU
APCO BY-AP-MW-8V	COND	Conductivity	8/7/2023 16:52	285.02	uS/cm
APCO BY-AP-MW-8V	DO	DO	8/7/2023 16:52	0.21	mg/L
APCO BY-AP-MW-8V	DTW	Depth to Water Detail	8/7/2023 16:52	23.8	ft
APCO BY-AP-MW-8V	ORP	Oxidation Reduction Potential	8/7/2023 16:52	19.7	mv
APCO BY-AP-MW-8V	PH	pH	8/7/2023 16:52	7.92	SU
APCO BY-AP-MW-8V	TEMP	Temperature	8/7/2023 16:52	20.98	C
APCO BY-AP-MW-8V	TURB	Turbidity	8/7/2023 16:52	58.3	NTU
APCO BY-AP-MW-8V	COND	Conductivity	8/7/2023 16:57	283.61	uS/cm
APCO BY-AP-MW-8V	DO	DO	8/7/2023 16:57	0.2	mg/L
APCO BY-AP-MW-8V	DTW	Depth to Water Detail	8/7/2023 16:57	23.8	ft

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APCO BY-AP-MW-8V	ORP	Oxidation Reduction Potential	8/7/2023 16:57	14.54	mv
APCO BY-AP-MW-8V	PH	pH	8/7/2023 16:57	7.96	SU
APCO BY-AP-MW-8V	TEMP	Temperature	8/7/2023 16:57	21.14	C
APCO BY-AP-MW-8V	TURB	Turbidity	8/7/2023 16:57	53.5	NTU
APCO BY-AP-MW-8V	COND	Conductivity	8/7/2023 17:02	282.88	uS/cm
APCO BY-AP-MW-8V	DO	DO	8/7/2023 17:02	0.19	mg/L
APCO BY-AP-MW-8V	DTW	Depth to Water Detail	8/7/2023 17:02	23.8	ft
APCO BY-AP-MW-8V	ORP	Oxidation Reduction Potential	8/7/2023 17:02	8.1	mv
APCO BY-AP-MW-8V	PH	pH	8/7/2023 17:02	8	SU
APCO BY-AP-MW-8V	TEMP	Temperature	8/7/2023 17:02	21.12	C
APCO BY-AP-MW-8V	TURB	Turbidity	8/7/2023 17:02	53	NTU
APCO BY-AP-MW-8V	COND	Conductivity	8/7/2023 17:07	280.72	uS/cm
APCO BY-AP-MW-8V	DO	DO	8/7/2023 17:07	0.18	mg/L
APCO BY-AP-MW-8V	DTW	Depth to Water Detail	8/7/2023 17:07	23.8	ft
APCO BY-AP-MW-8V	ORP	Oxidation Reduction Potential	8/7/2023 17:07	2.02	mv
APCO BY-AP-MW-8V	PH	pH	8/7/2023 17:07	8.03	SU
APCO BY-AP-MW-8V	TEMP	Temperature	8/7/2023 17:07	21.15	C
APCO BY-AP-MW-8V	TURB	Turbidity	8/7/2023 17:07	55.5	NTU
APCO BY-AP-MW-8V	COND	Conductivity	8/7/2023 17:12	277.81	uS/cm
APCO BY-AP-MW-8V	DO	DO	8/7/2023 17:12	0.17	mg/L
APCO BY-AP-MW-8V	DTW	Depth to Water Detail	8/7/2023 17:12	23.8	ft
APCO BY-AP-MW-8V	ORP	Oxidation Reduction Potential	8/7/2023 17:12	-2.37	mv
APCO BY-AP-MW-8V	PH	pH	8/7/2023 17:12	8.06	SU
APCO BY-AP-MW-8V	TEMP	Temperature	8/7/2023 17:12	20.91	C
APCO BY-AP-MW-8V	TURB	Turbidity	8/7/2023 17:12	56.4	NTU
APCO BY-AP-MW-8V	COND	Conductivity	8/7/2023 17:17	279.43	uS/cm
APCO BY-AP-MW-8V	DO	DO	8/7/2023 17:17	0.16	mg/L
APCO BY-AP-MW-8V	DTW	Depth to Water Detail	8/7/2023 17:17	23.8	ft
APCO BY-AP-MW-8V	ORP	Oxidation Reduction Potential	8/7/2023 17:17	-9.56	mv
APCO BY-AP-MW-8V	PH	pH	8/7/2023 17:17	8.11	SU
APCO BY-AP-MW-8V	TEMP	Temperature	8/7/2023 17:17	20.93	C
APCO BY-AP-MW-8V	TURB	Turbidity	8/7/2023 17:17	51.1	NTU
APCO BY-AP-MW-8V	COND	Conductivity	8/7/2023 17:22	277.24	uS/cm
APCO BY-AP-MW-8V	DO	DO	8/7/2023 17:22	0.16	mg/L
APCO BY-AP-MW-8V	DTW	Depth to Water Detail	8/7/2023 17:22	23.8	ft
APCO BY-AP-MW-8V	ORP	Oxidation Reduction Potential	8/7/2023 17:22	-15.13	mv
APCO BY-AP-MW-8V	PH	pH	8/7/2023 17:22	8.14	SU
APCO BY-AP-MW-8V	TEMP	Temperature	8/7/2023 17:22	20.99	C
APCO BY-AP-MW-8V	TURB	Turbidity	8/7/2023 17:22	55.3	NTU
APCO BY-AP-MW-8V	COND	Conductivity	8/7/2023 17:27	280.22	uS/cm
APCO BY-AP-MW-8V	DO	DO	8/7/2023 17:27	0.16	mg/L
APCO BY-AP-MW-8V	DTW	Depth to Water Detail	8/7/2023 17:27	23.8	ft
APCO BY-AP-MW-8V	ORP	Oxidation Reduction Potential	8/7/2023 17:27	-19.11	mv
APCO BY-AP-MW-8V	PH	pH	8/7/2023 17:27	8.15	SU
APCO BY-AP-MW-8V	TEMP	Temperature	8/7/2023 17:27	21.13	C
APCO BY-AP-MW-8V	TURB	Turbidity	8/7/2023 17:27	49.7	NTU
APCO BY-AP-MW-8V	COND	Conductivity	8/7/2023 17:32	278.9	uS/cm
APCO BY-AP-MW-8V	DO	DO	8/7/2023 17:32	0.16	mg/L
APCO BY-AP-MW-8V	DTW	Depth to Water Detail	8/7/2023 17:32	23.8	ft
APCO BY-AP-MW-8V	ORP	Oxidation Reduction Potential	8/7/2023 17:32	-23.97	mv
APCO BY-AP-MW-8V	PH	pH	8/7/2023 17:32	8.17	SU
APCO BY-AP-MW-8V	TEMP	Temperature	8/7/2023 17:32	20.78	C
APCO BY-AP-MW-8V	TURB	Turbidity	8/7/2023 17:32	46.9	NTU
APCO BY-AP-MW-8V	COND	Conductivity	8/7/2023 17:37	279.38	uS/cm
APCO BY-AP-MW-8V	DO	DO	8/7/2023 17:37	0.16	mg/L
APCO BY-AP-MW-8V	DTW	Depth to Water Detail	8/7/2023 17:37	23.8	ft
APCO BY-AP-MW-8V	ORP	Oxidation Reduction Potential	8/7/2023 17:37	-27.63	mv
APCO BY-AP-MW-8V	PH	pH	8/7/2023 17:37	8.18	SU
APCO BY-AP-MW-8V	SULFIDE	Sulfide	8/7/2023 17:37	0	mg/L

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APCO BY-AP-MW-8V	TEMP	Temperature	8/7/2023 17:37	20.81	C
APCO BY-AP-MW-8V	TURB	Turbidity	8/7/2023 17:37	47.6	NTU
APCO BY-AP-MW-15	COND	Conductivity	8/8/2023 11:21	647.93	uS/cm
APCO BY-AP-MW-15	DO	DO	8/8/2023 11:21	0.09	mg/L
APCO BY-AP-MW-15	DTW	Depth to Water Detail	8/8/2023 11:21	21.75	ft
APCO BY-AP-MW-15	ORP	Oxidation Reduction Potential	8/8/2023 11:21	-106.6	mv
APCO BY-AP-MW-15	PH	pH	8/8/2023 11:21	6.63	SU
APCO BY-AP-MW-15	TEMP	Temperature	8/8/2023 11:21	23.55	C
APCO BY-AP-MW-15	TURB	Turbidity	8/8/2023 11:21	17.6	NTU
APCO BY-AP-MW-15	COND	Conductivity	8/8/2023 11:26	628.03	uS/cm
APCO BY-AP-MW-15	DO	DO	8/8/2023 11:26	0.08	mg/L
APCO BY-AP-MW-15	DTW	Depth to Water Detail	8/8/2023 11:26	21.75	ft
APCO BY-AP-MW-15	ORP	Oxidation Reduction Potential	8/8/2023 11:26	-103.11	mv
APCO BY-AP-MW-15	PH	pH	8/8/2023 11:26	6.57	SU
APCO BY-AP-MW-15	TEMP	Temperature	8/8/2023 11:26	23.7	C
APCO BY-AP-MW-15	TURB	Turbidity	8/8/2023 11:26	8.33	NTU
APCO BY-AP-MW-15	COND	Conductivity	8/8/2023 11:31	619.28	uS/cm
APCO BY-AP-MW-15	DO	DO	8/8/2023 11:31	0.07	mg/L
APCO BY-AP-MW-15	DTW	Depth to Water Detail	8/8/2023 11:31	21.75	ft
APCO BY-AP-MW-15	ORP	Oxidation Reduction Potential	8/8/2023 11:31	-101.92	mv
APCO BY-AP-MW-15	PH	pH	8/8/2023 11:31	6.57	SU
APCO BY-AP-MW-15	TEMP	Temperature	8/8/2023 11:31	23.64	C
APCO BY-AP-MW-15	TURB	Turbidity	8/8/2023 11:31	3.6	NTU
APCO BY-AP-MW-15	COND	Conductivity	8/8/2023 11:36	615.81	uS/cm
APCO BY-AP-MW-15	DO	DO	8/8/2023 11:36	0.07	mg/L
APCO BY-AP-MW-15	DTW	Depth to Water Detail	8/8/2023 11:36	21.75	ft
APCO BY-AP-MW-15	ORP	Oxidation Reduction Potential	8/8/2023 11:36	-103.1	mv
APCO BY-AP-MW-15	PH	pH	8/8/2023 11:36	6.6	SU
APCO BY-AP-MW-15	SULFIDE	Sulfide	8/8/2023 11:36	0	mg/L
APCO BY-AP-MW-15	TEMP	Temperature	8/8/2023 11:36	23.82	C
APCO BY-AP-MW-15	TURB	Turbidity	8/8/2023 11:36	2.05	NTU
APCO BY-AP-MW-15V	COND	Conductivity	8/8/2023 8:54	691.41	uS/cm
APCO BY-AP-MW-15V	DO	DO	8/8/2023 8:54	0.05	mg/L
APCO BY-AP-MW-15V	DTW	Depth to Water Detail	8/8/2023 8:54	4.68	ft
APCO BY-AP-MW-15V	ORP	Oxidation Reduction Potential	8/8/2023 8:54	-2.59	mv
APCO BY-AP-MW-15V	PH	pH	8/8/2023 8:54	5.7	SU
APCO BY-AP-MW-15V	TEMP	Temperature	8/8/2023 8:54	21.75	C
APCO BY-AP-MW-15V	TURB	Turbidity	8/8/2023 8:54	5.57	NTU
APCO BY-AP-MW-15V	COND	Conductivity	8/8/2023 8:59	693.88	uS/cm
APCO BY-AP-MW-15V	DO	DO	8/8/2023 8:59	0.04	mg/L
APCO BY-AP-MW-15V	DTW	Depth to Water Detail	8/8/2023 8:59	4.68	ft
APCO BY-AP-MW-15V	ORP	Oxidation Reduction Potential	8/8/2023 8:59	-2.38	mv
APCO BY-AP-MW-15V	PH	pH	8/8/2023 8:59	5.71	SU
APCO BY-AP-MW-15V	TEMP	Temperature	8/8/2023 8:59	21.7	C
APCO BY-AP-MW-15V	TURB	Turbidity	8/8/2023 8:59	6.58	NTU
APCO BY-AP-MW-15V	COND	Conductivity	8/8/2023 9:04	691.67	uS/cm
APCO BY-AP-MW-15V	DO	DO	8/8/2023 9:04	0.03	mg/L
APCO BY-AP-MW-15V	DTW	Depth to Water Detail	8/8/2023 9:04	4.68	ft
APCO BY-AP-MW-15V	ORP	Oxidation Reduction Potential	8/8/2023 9:04	-1.11	mv
APCO BY-AP-MW-15V	PH	pH	8/8/2023 9:04	5.72	SU
APCO BY-AP-MW-15V	TEMP	Temperature	8/8/2023 9:04	21.63	C
APCO BY-AP-MW-15V	TURB	Turbidity	8/8/2023 9:04	8.65	NTU
APCO BY-AP-MW-15V	COND	Conductivity	8/8/2023 9:09	688.47	uS/cm
APCO BY-AP-MW-15V	DO	DO	8/8/2023 9:09	0.03	mg/L
APCO BY-AP-MW-15V	DTW	Depth to Water Detail	8/8/2023 9:09	4.68	ft
APCO BY-AP-MW-15V	ORP	Oxidation Reduction Potential	8/8/2023 9:09	0.35	mv
APCO BY-AP-MW-15V	PH	pH	8/8/2023 9:09	5.71	SU
APCO BY-AP-MW-15V	SULFIDE	Sulfide	8/8/2023 9:09	0	mg/L
APCO BY-AP-MW-15V	TEMP	Temperature	8/8/2023 9:09	21.69	C

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APCO BY-AP-MW-15V	TURB	Turbidity	8/8/2023 9:09	9.86	NTU
APCO BY-AP-MW-22H	COND	Conductivity	8/8/2023 10:11	650.21	uS/cm
APCO BY-AP-MW-22H	DO	DO	8/8/2023 10:11	0.12	mg/L
APCO BY-AP-MW-22H	DTW	Depth to Water Detail	8/8/2023 10:11	5.76	ft
APCO BY-AP-MW-22H	ORP	Oxidation Reduction Potential	8/8/2023 10:11	-68.88	mv
APCO BY-AP-MW-22H	PH	pH	8/8/2023 10:11	6.18	SU
APCO BY-AP-MW-22H	TEMP	Temperature	8/8/2023 10:11	21.35	C
APCO BY-AP-MW-22H	TURB	Turbidity	8/8/2023 10:11	2.85	NTU
APCO BY-AP-MW-22H	COND	Conductivity	8/8/2023 10:16	651.14	uS/cm
APCO BY-AP-MW-22H	DO	DO	8/8/2023 10:16	0.09	mg/L
APCO BY-AP-MW-22H	DTW	Depth to Water Detail	8/8/2023 10:16	5.76	ft
APCO BY-AP-MW-22H	ORP	Oxidation Reduction Potential	8/8/2023 10:16	-69.97	mv
APCO BY-AP-MW-22H	PH	pH	8/8/2023 10:16	6.16	SU
APCO BY-AP-MW-22H	TEMP	Temperature	8/8/2023 10:16	21.33	C
APCO BY-AP-MW-22H	TURB	Turbidity	8/8/2023 10:16	1.92	NTU
APCO BY-AP-MW-22H	COND	Conductivity	8/8/2023 10:21	653.93	uS/cm
APCO BY-AP-MW-22H	DO	DO	8/8/2023 10:21	0.08	mg/L
APCO BY-AP-MW-22H	DTW	Depth to Water Detail	8/8/2023 10:21	5.76	ft
APCO BY-AP-MW-22H	ORP	Oxidation Reduction Potential	8/8/2023 10:21	-72.99	mv
APCO BY-AP-MW-22H	PH	pH	8/8/2023 10:21	6.18	SU
APCO BY-AP-MW-22H	TEMP	Temperature	8/8/2023 10:21	21.24	C
APCO BY-AP-MW-22H	TURB	Turbidity	8/8/2023 10:21	1.76	NTU
APCO BY-AP-MW-22H	COND	Conductivity	8/8/2023 10:26	656.79	uS/cm
APCO BY-AP-MW-22H	DO	DO	8/8/2023 10:26	0.08	mg/L
APCO BY-AP-MW-22H	DTW	Depth to Water Detail	8/8/2023 10:26	5.76	ft
APCO BY-AP-MW-22H	ORP	Oxidation Reduction Potential	8/8/2023 10:26	-75.63	mv
APCO BY-AP-MW-22H	PH	pH	8/8/2023 10:26	6.22	SU
APCO BY-AP-MW-22H	SULFIDE	Sulfide	8/8/2023 10:26	0	mg/L
APCO BY-AP-MW-22H	TEMP	Temperature	8/8/2023 10:26	21.3	C
APCO BY-AP-MW-22H	TURB	Turbidity	8/8/2023 10:26	1.57	NTU
APCO BY-AP-MW-24H	COND	Conductivity	8/8/2023 12:28	836.14	uS/cm
APCO BY-AP-MW-24H	DO	DO	8/8/2023 12:28	0.04	mg/L
APCO BY-AP-MW-24H	DTW	Depth to Water Detail	8/8/2023 12:28	24.03	ft
APCO BY-AP-MW-24H	ORP	Oxidation Reduction Potential	8/8/2023 12:28	-63.26	mv
APCO BY-AP-MW-24H	PH	pH	8/8/2023 12:28	5.94	SU
APCO BY-AP-MW-24H	TEMP	Temperature	8/8/2023 12:28	23.13	C
APCO BY-AP-MW-24H	TURB	Turbidity	8/8/2023 12:28	13.8	NTU
APCO BY-AP-MW-24H	COND	Conductivity	8/8/2023 12:33	829.75	uS/cm
APCO BY-AP-MW-24H	DO	DO	8/8/2023 12:33	0.03	mg/L
APCO BY-AP-MW-24H	DTW	Depth to Water Detail	8/8/2023 12:33	24.03	ft
APCO BY-AP-MW-24H	ORP	Oxidation Reduction Potential	8/8/2023 12:33	-64.24	mv
APCO BY-AP-MW-24H	PH	pH	8/8/2023 12:33	5.93	SU
APCO BY-AP-MW-24H	TEMP	Temperature	8/8/2023 12:33	23.01	C
APCO BY-AP-MW-24H	TURB	Turbidity	8/8/2023 12:33	13	NTU
APCO BY-AP-MW-24H	COND	Conductivity	8/8/2023 12:38	827.44	uS/cm
APCO BY-AP-MW-24H	DO	DO	8/8/2023 12:38	0.03	mg/L
APCO BY-AP-MW-24H	DTW	Depth to Water Detail	8/8/2023 12:38	24.03	ft
APCO BY-AP-MW-24H	ORP	Oxidation Reduction Potential	8/8/2023 12:38	-66.5	mv
APCO BY-AP-MW-24H	PH	pH	8/8/2023 12:38	5.97	SU
APCO BY-AP-MW-24H	TEMP	Temperature	8/8/2023 12:38	23.11	C
APCO BY-AP-MW-24H	TURB	Turbidity	8/8/2023 12:38	9.2	NTU
APCO BY-AP-MW-24H	COND	Conductivity	8/8/2023 12:43	830.43	uS/cm
APCO BY-AP-MW-24H	DO	DO	8/8/2023 12:43	0.03	mg/L
APCO BY-AP-MW-24H	DTW	Depth to Water Detail	8/8/2023 12:43	24.03	ft
APCO BY-AP-MW-24H	ORP	Oxidation Reduction Potential	8/8/2023 12:43	-68.19	mv
APCO BY-AP-MW-24H	PH	pH	8/8/2023 12:43	5.99	SU
APCO BY-AP-MW-24H	SULFIDE	Sulfide	8/8/2023 12:43	0	mg/L
APCO BY-AP-MW-24H	TEMP	Temperature	8/8/2023 12:43	23.19	C
APCO BY-AP-MW-24H	TURB	Turbidity	8/8/2023 12:43	7.22	NTU

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APCO BY-AP-MW-16	COND	Conductivity	8/8/2023 13:35	553.06	uS/cm
APCO BY-AP-MW-16	DO	DO	8/8/2023 13:35	0.05	mg/L
APCO BY-AP-MW-16	DTW	Depth to Water Detail	8/8/2023 13:35	22.52	ft
APCO BY-AP-MW-16	ORP	Oxidation Reduction Potential	8/8/2023 13:35	23.16	mv
APCO BY-AP-MW-16	PH	pH	8/8/2023 13:35	5.37	SU
APCO BY-AP-MW-16	TEMP	Temperature	8/8/2023 13:35	22.76	C
APCO BY-AP-MW-16	TURB	Turbidity	8/8/2023 13:35	16.1	NTU
APCO BY-AP-MW-16	COND	Conductivity	8/8/2023 13:40	551.54	uS/cm
APCO BY-AP-MW-16	DO	DO	8/8/2023 13:40	0.04	mg/L
APCO BY-AP-MW-16	DTW	Depth to Water Detail	8/8/2023 13:40	22.52	ft
APCO BY-AP-MW-16	ORP	Oxidation Reduction Potential	8/8/2023 13:40	22.8	mv
APCO BY-AP-MW-16	PH	pH	8/8/2023 13:40	5.31	SU
APCO BY-AP-MW-16	TEMP	Temperature	8/8/2023 13:40	22.67	C
APCO BY-AP-MW-16	TURB	Turbidity	8/8/2023 13:40	12	NTU
APCO BY-AP-MW-16	COND	Conductivity	8/8/2023 13:45	549.29	uS/cm
APCO BY-AP-MW-16	DO	DO	8/8/2023 13:45	0.04	mg/L
APCO BY-AP-MW-16	DTW	Depth to Water Detail	8/8/2023 13:45	22.52	ft
APCO BY-AP-MW-16	ORP	Oxidation Reduction Potential	8/8/2023 13:45	18.32	mv
APCO BY-AP-MW-16	PH	pH	8/8/2023 13:45	5.34	SU
APCO BY-AP-MW-16	TEMP	Temperature	8/8/2023 13:45	22.65	C
APCO BY-AP-MW-16	TURB	Turbidity	8/8/2023 13:45	9.32	NTU
APCO BY-AP-MW-16	COND	Conductivity	8/8/2023 13:50	546.11	uS/cm
APCO BY-AP-MW-16	DO	DO	8/8/2023 13:50	0.04	mg/L
APCO BY-AP-MW-16	DTW	Depth to Water Detail	8/8/2023 13:50	22.52	ft
APCO BY-AP-MW-16	ORP	Oxidation Reduction Potential	8/8/2023 13:50	15.48	mv
APCO BY-AP-MW-16	PH	pH	8/8/2023 13:50	5.36	SU
APCO BY-AP-MW-16	TEMP	Temperature	8/8/2023 13:50	22.8	C
APCO BY-AP-MW-16	TURB	Turbidity	8/8/2023 13:50	7.52	NTU
APCO BY-AP-MW-16	COND	Conductivity	8/8/2023 13:55	547.77	uS/cm
APCO BY-AP-MW-16	DO	DO	8/8/2023 13:55	0.04	mg/L
APCO BY-AP-MW-16	DTW	Depth to Water Detail	8/8/2023 13:55	22.52	ft
APCO BY-AP-MW-16	ORP	Oxidation Reduction Potential	8/8/2023 13:55	13.09	mv
APCO BY-AP-MW-16	PH	pH	8/8/2023 13:55	5.39	SU
APCO BY-AP-MW-16	TEMP	Temperature	8/8/2023 13:55	22.85	C
APCO BY-AP-MW-16	TURB	Turbidity	8/8/2023 13:55	6.36	NTU
APCO BY-AP-MW-2	COND	Conductivity	8/8/2023 14:38	42.48	uS/cm
APCO BY-AP-MW-2	DO	DO	8/8/2023 14:38	0.1	mg/L
APCO BY-AP-MW-2	DTW	Depth to Water Detail	8/8/2023 14:38	20.9	ft
APCO BY-AP-MW-2	ORP	Oxidation Reduction Potential	8/8/2023 14:38	161.37	mv
APCO BY-AP-MW-2	PH	pH	8/8/2023 14:38	4.9	SU
APCO BY-AP-MW-2	TEMP	Temperature	8/8/2023 14:38	23.36	C
APCO BY-AP-MW-2	TURB	Turbidity	8/8/2023 14:38	2.38	NTU
APCO BY-AP-MW-2	COND	Conductivity	8/8/2023 14:43	42.22	uS/cm
APCO BY-AP-MW-2	DO	DO	8/8/2023 14:43	0.1	mg/L
APCO BY-AP-MW-2	DTW	Depth to Water Detail	8/8/2023 14:43	20.9	ft
APCO BY-AP-MW-2	ORP	Oxidation Reduction Potential	8/8/2023 14:43	172.1	mv
APCO BY-AP-MW-2	PH	pH	8/8/2023 14:43	4.84	SU
APCO BY-AP-MW-2	TEMP	Temperature	8/8/2023 14:43	23.66	C
APCO BY-AP-MW-2	TURB	Turbidity	8/8/2023 14:43	1.47	NTU
APCO BY-AP-MW-2	COND	Conductivity	8/8/2023 14:48	42	uS/cm
APCO BY-AP-MW-2	DO	DO	8/8/2023 14:48	0.09	mg/L
APCO BY-AP-MW-2	DTW	Depth to Water Detail	8/8/2023 14:48	20.9	ft
APCO BY-AP-MW-2	ORP	Oxidation Reduction Potential	8/8/2023 14:48	172.83	mv
APCO BY-AP-MW-2	PH	pH	8/8/2023 14:48	4.89	SU
APCO BY-AP-MW-2	TEMP	Temperature	8/8/2023 14:48	23.46	C
APCO BY-AP-MW-2	TURB	Turbidity	8/8/2023 14:48	1.65	NTU
APCO BY-AP-MW-2	COND	Conductivity	8/8/2023 14:53	41.78	uS/cm
APCO BY-AP-MW-2	DO	DO	8/8/2023 14:53	0.09	mg/L
APCO BY-AP-MW-2	DTW	Depth to Water Detail	8/8/2023 14:53	20.9	ft

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APCO BY-AP-MW-2	ORP	Oxidation Reduction Potential	8/8/2023 14:53	173.6	mv
APCO BY-AP-MW-2	PH	pH	8/8/2023 14:53	4.91	SU
APCO BY-AP-MW-2	SULFIDE	Sulfide	8/8/2023 14:53	0	mg/L
APCO BY-AP-MW-2	TEMP	Temperature	8/8/2023 14:53	23.64	C
APCO BY-AP-MW-2	TURB	Turbidity	8/8/2023 14:53	2.01	NTU
APCO BY-AP-MW-9	COND	Conductivity	8/7/2023 13:41	359.7	uS/cm
APCO BY-AP-MW-9	DO	DO	8/7/2023 13:41	0.07	mg/L
APCO BY-AP-MW-9	DTW	Depth to Water Detail	8/7/2023 13:41	23.14	ft
APCO BY-AP-MW-9	ORP	Oxidation Reduction Potential	8/7/2023 13:41	-55.34	mv
APCO BY-AP-MW-9	PH	pH	8/7/2023 13:41	6.06	SU
APCO BY-AP-MW-9	TEMP	Temperature	8/7/2023 13:41	23.3	C
APCO BY-AP-MW-9	TURB	Turbidity	8/7/2023 13:41	2.83	NTU
APCO BY-AP-MW-9	COND	Conductivity	8/7/2023 13:46	361.37	uS/cm
APCO BY-AP-MW-9	DO	DO	8/7/2023 13:46	0.06	mg/L
APCO BY-AP-MW-9	DTW	Depth to Water Detail	8/7/2023 13:46	23.14	ft
APCO BY-AP-MW-9	ORP	Oxidation Reduction Potential	8/7/2023 13:46	-59.48	mv
APCO BY-AP-MW-9	PH	pH	8/7/2023 13:46	6.08	SU
APCO BY-AP-MW-9	TEMP	Temperature	8/7/2023 13:46	23.18	C
APCO BY-AP-MW-9	TURB	Turbidity	8/7/2023 13:46	2.28	NTU
APCO BY-AP-MW-9	COND	Conductivity	8/7/2023 13:51	361.2	uS/cm
APCO BY-AP-MW-9	DO	DO	8/7/2023 13:51	0.07	mg/L
APCO BY-AP-MW-9	DTW	Depth to Water Detail	8/7/2023 13:51	23.14	ft
APCO BY-AP-MW-9	ORP	Oxidation Reduction Potential	8/7/2023 13:51	-61.81	mv
APCO BY-AP-MW-9	PH	pH	8/7/2023 13:51	6.11	SU
APCO BY-AP-MW-9	TEMP	Temperature	8/7/2023 13:51	23.16	C
APCO BY-AP-MW-9	TURB	Turbidity	8/7/2023 13:51	2.13	NTU
APCO BY-AP-MW-9	COND	Conductivity	8/7/2023 13:56	360.3	uS/cm
APCO BY-AP-MW-9	DO	DO	8/7/2023 13:56	0.07	mg/L
APCO BY-AP-MW-9	DTW	Depth to Water Detail	8/7/2023 13:56	23.14	ft
APCO BY-AP-MW-9	ORP	Oxidation Reduction Potential	8/7/2023 13:56	-63.83	mv
APCO BY-AP-MW-9	PH	pH	8/7/2023 13:56	6.13	SU
APCO BY-AP-MW-9	SULFIDE	Sulfide	8/7/2023 13:56	0	mg/L
APCO BY-AP-MW-9	TEMP	Temperature	8/7/2023 13:56	23.25	C
APCO BY-AP-MW-9	TURB	Turbidity	8/7/2023 13:56	1.95	NTU
APCO BY-AP-MW-10	COND	Conductivity	8/7/2023 11:46	564.88	uS/cm
APCO BY-AP-MW-10	DO	DO	8/7/2023 11:46	0.08	mg/L
APCO BY-AP-MW-10	DTW	Depth to Water Detail	8/7/2023 11:46	22.78	ft
APCO BY-AP-MW-10	ORP	Oxidation Reduction Potential	8/7/2023 11:46	-66.18	mv
APCO BY-AP-MW-10	PH	pH	8/7/2023 11:46	6.12	SU
APCO BY-AP-MW-10	TEMP	Temperature	8/7/2023 11:46	22.65	C
APCO BY-AP-MW-10	TURB	Turbidity	8/7/2023 11:46	2.42	NTU
APCO BY-AP-MW-10	COND	Conductivity	8/7/2023 11:51	559.14	uS/cm
APCO BY-AP-MW-10	DO	DO	8/7/2023 11:51	0.07	mg/L
APCO BY-AP-MW-10	DTW	Depth to Water Detail	8/7/2023 11:51	22.78	ft
APCO BY-AP-MW-10	ORP	Oxidation Reduction Potential	8/7/2023 11:51	-71.3	mv
APCO BY-AP-MW-10	PH	pH	8/7/2023 11:51	6.17	SU
APCO BY-AP-MW-10	TEMP	Temperature	8/7/2023 11:51	22.66	C
APCO BY-AP-MW-10	TURB	Turbidity	8/7/2023 11:51	2.18	NTU
APCO BY-AP-MW-10	COND	Conductivity	8/7/2023 11:56	555.85	uS/cm
APCO BY-AP-MW-10	DO	DO	8/7/2023 11:56	0.07	mg/L
APCO BY-AP-MW-10	DTW	Depth to Water Detail	8/7/2023 11:56	22.78	ft
APCO BY-AP-MW-10	ORP	Oxidation Reduction Potential	8/7/2023 11:56	-75.92	mv
APCO BY-AP-MW-10	PH	pH	8/7/2023 11:56	6.22	SU
APCO BY-AP-MW-10	TEMP	Temperature	8/7/2023 11:56	22.66	C
APCO BY-AP-MW-10	TURB	Turbidity	8/7/2023 11:56	2.55	NTU
APCO BY-AP-MW-10	COND	Conductivity	8/7/2023 12:01	556.36	uS/cm
APCO BY-AP-MW-10	DO	DO	8/7/2023 12:01	0.07	mg/L
APCO BY-AP-MW-10	DTW	Depth to Water Detail	8/7/2023 12:01	22.78	ft
APCO BY-AP-MW-10	ORP	Oxidation Reduction Potential	8/7/2023 12:01	-79.8	mv

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APCO BY-AP-MW-10	PH	pH	8/7/2023 12:01	6.27	SU
APCO BY-AP-MW-10	SULFIDE	Sulfide	8/7/2023 12:01	0	mg/L
APCO BY-AP-MW-10	TEMP	Temperature	8/7/2023 12:01	22.61	C
APCO BY-AP-MW-10	TURB	Turbidity	8/7/2023 12:01	2.41	NTU
APCO BY-AP-MW-10V	COND	Conductivity	8/7/2023 12:46	710.76	uS/cm
APCO BY-AP-MW-10V	DO	DO	8/7/2023 12:46	0.09	mg/L
APCO BY-AP-MW-10V	DTW	Depth to Water Detail	8/7/2023 12:46	24.21	ft
APCO BY-AP-MW-10V	ORP	Oxidation Reduction Potential	8/7/2023 12:46	-76.24	mv
APCO BY-AP-MW-10V	PH	pH	8/7/2023 12:46	6.13	SU
APCO BY-AP-MW-10V	TEMP	Temperature	8/7/2023 12:46	24.51	C
APCO BY-AP-MW-10V	TURB	Turbidity	8/7/2023 12:46	4.19	NTU
APCO BY-AP-MW-10V	COND	Conductivity	8/7/2023 12:51	697.32	uS/cm
APCO BY-AP-MW-10V	DO	DO	8/7/2023 12:51	0.04	mg/L
APCO BY-AP-MW-10V	DTW	Depth to Water Detail	8/7/2023 12:51	24.21	ft
APCO BY-AP-MW-10V	ORP	Oxidation Reduction Potential	8/7/2023 12:51	-80.44	mv
APCO BY-AP-MW-10V	PH	pH	8/7/2023 12:51	6.16	SU
APCO BY-AP-MW-10V	TEMP	Temperature	8/7/2023 12:51	24.55	C
APCO BY-AP-MW-10V	TURB	Turbidity	8/7/2023 12:51	1.71	NTU
APCO BY-AP-MW-10V	COND	Conductivity	8/7/2023 12:56	699.34	uS/cm
APCO BY-AP-MW-10V	DO	DO	8/7/2023 12:56	0.13	mg/L
APCO BY-AP-MW-10V	DTW	Depth to Water Detail	8/7/2023 12:56	24.21	ft
APCO BY-AP-MW-10V	ORP	Oxidation Reduction Potential	8/7/2023 12:56	-82.34	mv
APCO BY-AP-MW-10V	PH	pH	8/7/2023 12:56	6.2	SU
APCO BY-AP-MW-10V	TEMP	Temperature	8/7/2023 12:56	23.89	C
APCO BY-AP-MW-10V	TURB	Turbidity	8/7/2023 12:56	1.59	NTU
APCO BY-AP-MW-10V	COND	Conductivity	8/7/2023 13:01	697.63	uS/cm
APCO BY-AP-MW-10V	DO	DO	8/7/2023 13:01	0.13	mg/L
APCO BY-AP-MW-10V	DTW	Depth to Water Detail	8/7/2023 13:01	24.21	ft
APCO BY-AP-MW-10V	ORP	Oxidation Reduction Potential	8/7/2023 13:01	-83.69	mv
APCO BY-AP-MW-10V	PH	pH	8/7/2023 13:01	6.21	SU
APCO BY-AP-MW-10V	SULFIDE	Sulfide	8/7/2023 13:01	0	mg/L
APCO BY-AP-MW-10V	TEMP	Temperature	8/7/2023 13:01	23.67	C
APCO BY-AP-MW-10V	TURB	Turbidity	8/7/2023 13:01	1.8	NTU
APCO BY-AP-MW-11	COND	Conductivity	8/7/2023 10:47	616.46	uS/cm
APCO BY-AP-MW-11	DO	DO	8/7/2023 10:47	0.09	mg/L
APCO BY-AP-MW-11	DTW	Depth to Water Detail	8/7/2023 10:47	21.56	ft
APCO BY-AP-MW-11	ORP	Oxidation Reduction Potential	8/7/2023 10:47	-110.24	mv
APCO BY-AP-MW-11	PH	pH	8/7/2023 10:47	6.31	SU
APCO BY-AP-MW-11	TEMP	Temperature	8/7/2023 10:47	22.82	C
APCO BY-AP-MW-11	TURB	Turbidity	8/7/2023 10:47	2.88	NTU
APCO BY-AP-MW-11	COND	Conductivity	8/7/2023 10:52	604.69	uS/cm
APCO BY-AP-MW-11	DO	DO	8/7/2023 10:52	0.07	mg/L
APCO BY-AP-MW-11	DTW	Depth to Water Detail	8/7/2023 10:52	21.56	ft
APCO BY-AP-MW-11	ORP	Oxidation Reduction Potential	8/7/2023 10:52	-108.1	mv
APCO BY-AP-MW-11	PH	pH	8/7/2023 10:52	6.31	SU
APCO BY-AP-MW-11	TEMP	Temperature	8/7/2023 10:52	22.72	C
APCO BY-AP-MW-11	TURB	Turbidity	8/7/2023 10:52	2.61	NTU
APCO BY-AP-MW-11	COND	Conductivity	8/7/2023 10:57	602.77	uS/cm
APCO BY-AP-MW-11	DO	DO	8/7/2023 10:57	0.07	mg/L
APCO BY-AP-MW-11	DTW	Depth to Water Detail	8/7/2023 10:57	21.56	ft
APCO BY-AP-MW-11	ORP	Oxidation Reduction Potential	8/7/2023 10:57	-106.19	mv
APCO BY-AP-MW-11	PH	pH	8/7/2023 10:57	6.31	SU
APCO BY-AP-MW-11	TEMP	Temperature	8/7/2023 10:57	22.45	C
APCO BY-AP-MW-11	TURB	Turbidity	8/7/2023 10:57	1.99	NTU
APCO BY-AP-MW-11	COND	Conductivity	8/7/2023 11:02	595.25	uS/cm
APCO BY-AP-MW-11	DO	DO	8/7/2023 11:02	0.06	mg/L
APCO BY-AP-MW-11	DTW	Depth to Water Detail	8/7/2023 11:02	21.56	ft
APCO BY-AP-MW-11	ORP	Oxidation Reduction Potential	8/7/2023 11:02	-104.39	mv
APCO BY-AP-MW-11	PH	pH	8/7/2023 11:02	6.3	SU

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APCO BY-AP-MW-11	SULFIDE	Sulfide	8/7/2023 11:02	0	mg/L
APCO BY-AP-MW-11	TEMP	Temperature	8/7/2023 11:02	22.46	C
APCO BY-AP-MW-11	TURB	Turbidity	8/7/2023 11:02	2.12	NTU
APCO BY-AP-MW-16V	COND	Conductivity	8/7/2023 14:52	280.52	uS/cm
APCO BY-AP-MW-16V	DO	DO	8/7/2023 14:52	0.15	mg/L
APCO BY-AP-MW-16V	DTW	Depth to Water Detail	8/7/2023 14:52	21.32	ft
APCO BY-AP-MW-16V	ORP	Oxidation Reduction Potential	8/7/2023 14:52	127.87	mv
APCO BY-AP-MW-16V	PH	pH	8/7/2023 14:52	5.25	SU
APCO BY-AP-MW-16V	TEMP	Temperature	8/7/2023 14:52	23.59	C
APCO BY-AP-MW-16V	TURB	Turbidity	8/7/2023 14:52	47.3	NTU
APCO BY-AP-MW-16V	COND	Conductivity	8/7/2023 14:57	278.31	uS/cm
APCO BY-AP-MW-16V	DO	DO	8/7/2023 14:57	0.14	mg/L
APCO BY-AP-MW-16V	DTW	Depth to Water Detail	8/7/2023 14:57	21.32	ft
APCO BY-AP-MW-16V	ORP	Oxidation Reduction Potential	8/7/2023 14:57	130.15	mv
APCO BY-AP-MW-16V	PH	pH	8/7/2023 14:57	5.24	SU
APCO BY-AP-MW-16V	TEMP	Temperature	8/7/2023 14:57	23.85	C
APCO BY-AP-MW-16V	TURB	Turbidity	8/7/2023 14:57	29.3	NTU
APCO BY-AP-MW-16V	COND	Conductivity	8/7/2023 15:02	278.79	uS/cm
APCO BY-AP-MW-16V	DO	DO	8/7/2023 15:02	0.14	mg/L
APCO BY-AP-MW-16V	DTW	Depth to Water Detail	8/7/2023 15:02	21.32	ft
APCO BY-AP-MW-16V	ORP	Oxidation Reduction Potential	8/7/2023 15:02	130.05	mv
APCO BY-AP-MW-16V	PH	pH	8/7/2023 15:02	5.25	SU
APCO BY-AP-MW-16V	TEMP	Temperature	8/7/2023 15:02	23.66	C
APCO BY-AP-MW-16V	TURB	Turbidity	8/7/2023 15:02	16.9	NTU
APCO BY-AP-MW-16V	COND	Conductivity	8/7/2023 15:07	278.05	uS/cm
APCO BY-AP-MW-16V	DO	DO	8/7/2023 15:07	0.14	mg/L
APCO BY-AP-MW-16V	DTW	Depth to Water Detail	8/7/2023 15:07	21.32	ft
APCO BY-AP-MW-16V	ORP	Oxidation Reduction Potential	8/7/2023 15:07	130.16	mv
APCO BY-AP-MW-16V	PH	pH	8/7/2023 15:07	5.25	SU
APCO BY-AP-MW-16V	TEMP	Temperature	8/7/2023 15:07	23.32	C
APCO BY-AP-MW-16V	TURB	Turbidity	8/7/2023 15:07	13	NTU
APCO BY-AP-MW-16V	COND	Conductivity	8/7/2023 15:12	278.75	uS/cm
APCO BY-AP-MW-16V	DO	DO	8/7/2023 15:12	0.15	mg/L
APCO BY-AP-MW-16V	DTW	Depth to Water Detail	8/7/2023 15:12	21.32	ft
APCO BY-AP-MW-16V	ORP	Oxidation Reduction Potential	8/7/2023 15:12	129.62	mv
APCO BY-AP-MW-16V	PH	pH	8/7/2023 15:12	5.24	SU
APCO BY-AP-MW-16V	TEMP	Temperature	8/7/2023 15:12	23.67	C
APCO BY-AP-MW-16V	TURB	Turbidity	8/7/2023 15:12	8.02	NTU
APCO BY-AP-MW-16V	COND	Conductivity	8/7/2023 15:17	278.5	uS/cm
APCO BY-AP-MW-16V	DO	DO	8/7/2023 15:17	0.15	mg/L
APCO BY-AP-MW-16V	DTW	Depth to Water Detail	8/7/2023 15:17	21.32	ft
APCO BY-AP-MW-16V	ORP	Oxidation Reduction Potential	8/7/2023 15:17	128.49	mv
APCO BY-AP-MW-16V	PH	pH	8/7/2023 15:17	5.25	SU
APCO BY-AP-MW-16V	SULFIDE	Sulfide	8/7/2023 15:17	0	mg/L
APCO BY-AP-MW-16V	TEMP	Temperature	8/7/2023 15:17	23.48	C
APCO BY-AP-MW-16V	TURB	Turbidity	8/7/2023 15:17	7.71	NTU
APCO BY-AP-MW-12	COND	Conductivity	8/8/2023 11:32	495.79	uS/cm
APCO BY-AP-MW-12	DO	DO	8/8/2023 11:32	0.1	mg/L
APCO BY-AP-MW-12	DTW	Depth to Water Detail	8/8/2023 11:32	22.11	ft
APCO BY-AP-MW-12	ORP	Oxidation Reduction Potential	8/8/2023 11:32	-34.46	mv
APCO BY-AP-MW-12	PH	pH	8/8/2023 11:32	5.97	SU
APCO BY-AP-MW-12	TEMP	Temperature	8/8/2023 11:32	23.02	C
APCO BY-AP-MW-12	TURB	Turbidity	8/8/2023 11:32	10.2	NTU
APCO BY-AP-MW-12	COND	Conductivity	8/8/2023 11:37	493.41	uS/cm
APCO BY-AP-MW-12	DO	DO	8/8/2023 11:37	0.09	mg/L
APCO BY-AP-MW-12	DTW	Depth to Water Detail	8/8/2023 11:37	22.11	ft
APCO BY-AP-MW-12	ORP	Oxidation Reduction Potential	8/8/2023 11:37	-38.07	mv
APCO BY-AP-MW-12	PH	pH	8/8/2023 11:37	6.01	SU
APCO BY-AP-MW-12	TEMP	Temperature	8/8/2023 11:37	22.93	C

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APCO BY-AP-MW-12	TURB	Turbidity	8/8/2023 11:37	9.05	NTU
APCO BY-AP-MW-12	COND	Conductivity	8/8/2023 11:42	496.3	uS/cm
APCO BY-AP-MW-12	DO	DO	8/8/2023 11:42	0.09	mg/L
APCO BY-AP-MW-12	DTW	Depth to Water Detail	8/8/2023 11:42	22.11	ft
APCO BY-AP-MW-12	ORP	Oxidation Reduction Potential	8/8/2023 11:42	-40.62	mv
APCO BY-AP-MW-12	PH	pH	8/8/2023 11:42	6.03	SU
APCO BY-AP-MW-12	TEMP	Temperature	8/8/2023 11:42	22.95	C
APCO BY-AP-MW-12	TURB	Turbidity	8/8/2023 11:42	8.77	NTU
APCO BY-AP-MW-12	COND	Conductivity	8/8/2023 11:47	494.55	uS/cm
APCO BY-AP-MW-12	DO	DO	8/8/2023 11:47	0.09	mg/L
APCO BY-AP-MW-12	DTW	Depth to Water Detail	8/8/2023 11:47	22.11	ft
APCO BY-AP-MW-12	ORP	Oxidation Reduction Potential	8/8/2023 11:47	-42.82	mv
APCO BY-AP-MW-12	PH	pH	8/8/2023 11:47	6.07	SU
APCO BY-AP-MW-12	SULFIDE	Sulfide	8/8/2023 11:47	0	mg/L
APCO BY-AP-MW-12	TEMP	Temperature	8/8/2023 11:47	22.91	C
APCO BY-AP-MW-12	TURB	Turbidity	8/8/2023 11:47	8.12	NTU
APCO BY-AP-MW-12V	COND	Conductivity	8/8/2023 12:20	517.38	uS/cm
APCO BY-AP-MW-12V	DO	DO	8/8/2023 12:20	0.12	mg/L
APCO BY-AP-MW-12V	DTW	Depth to Water Detail	8/8/2023 12:20	21.82	ft
APCO BY-AP-MW-12V	ORP	Oxidation Reduction Potential	8/8/2023 12:20	-41.99	mv
APCO BY-AP-MW-12V	PH	pH	8/8/2023 12:20	6.18	SU
APCO BY-AP-MW-12V	TEMP	Temperature	8/8/2023 12:20	22.61	C
APCO BY-AP-MW-12V	TURB	Turbidity	8/8/2023 12:20	10.8	NTU
APCO BY-AP-MW-12V	COND	Conductivity	8/8/2023 12:25	514.32	uS/cm
APCO BY-AP-MW-12V	DO	DO	8/8/2023 12:25	0.08	mg/L
APCO BY-AP-MW-12V	DTW	Depth to Water Detail	8/8/2023 12:25	21.82	ft
APCO BY-AP-MW-12V	ORP	Oxidation Reduction Potential	8/8/2023 12:25	-47.86	mv
APCO BY-AP-MW-12V	PH	pH	8/8/2023 12:25	6.21	SU
APCO BY-AP-MW-12V	TEMP	Temperature	8/8/2023 12:25	22.58	C
APCO BY-AP-MW-12V	TURB	Turbidity	8/8/2023 12:25	9.82	NTU
APCO BY-AP-MW-12V	COND	Conductivity	8/8/2023 12:30	511.2	uS/cm
APCO BY-AP-MW-12V	DO	DO	8/8/2023 12:30	0.08	mg/L
APCO BY-AP-MW-12V	DTW	Depth to Water Detail	8/8/2023 12:30	21.82	ft
APCO BY-AP-MW-12V	ORP	Oxidation Reduction Potential	8/8/2023 12:30	-51.53	mv
APCO BY-AP-MW-12V	PH	pH	8/8/2023 12:30	6.23	SU
APCO BY-AP-MW-12V	TEMP	Temperature	8/8/2023 12:30	22.65	C
APCO BY-AP-MW-12V	TURB	Turbidity	8/8/2023 12:30	7.85	NTU
APCO BY-AP-MW-12V	COND	Conductivity	8/8/2023 12:35	508.88	uS/cm
APCO BY-AP-MW-12V	DO	DO	8/8/2023 12:35	0.08	mg/L
APCO BY-AP-MW-12V	DTW	Depth to Water Detail	8/8/2023 12:35	21.82	ft
APCO BY-AP-MW-12V	ORP	Oxidation Reduction Potential	8/8/2023 12:35	-53.86	mv
APCO BY-AP-MW-12V	PH	pH	8/8/2023 12:35	6.25	SU
APCO BY-AP-MW-12V	SULFIDE	Sulfide	8/8/2023 12:35	0	mg/L
APCO BY-AP-MW-12V	TEMP	Temperature	8/8/2023 12:35	22.56	C
APCO BY-AP-MW-12V	TURB	Turbidity	8/8/2023 12:35	7.24	NTU
APCO BY-AP-MW-18H	COND	Conductivity	8/8/2023 7:33	120.16	uS/cm
APCO BY-AP-MW-18H	DO	DO	8/8/2023 7:33	0.3	mg/L
APCO BY-AP-MW-18H	DTW	Depth to Water Detail	8/8/2023 7:33	8.22	ft
APCO BY-AP-MW-18H	ORP	Oxidation Reduction Potential	8/8/2023 7:33	-76.5	mv
APCO BY-AP-MW-18H	PH	pH	8/8/2023 7:33	6.65	SU
APCO BY-AP-MW-18H	TEMP	Temperature	8/8/2023 7:33	22.34	C
APCO BY-AP-MW-18H	TURB	Turbidity	8/8/2023 7:33	5	NTU
APCO BY-AP-MW-18H	COND	Conductivity	8/8/2023 7:38	119.12	uS/cm
APCO BY-AP-MW-18H	DO	DO	8/8/2023 7:38	0.25	mg/L
APCO BY-AP-MW-18H	DTW	Depth to Water Detail	8/8/2023 7:38	8.22	ft
APCO BY-AP-MW-18H	ORP	Oxidation Reduction Potential	8/8/2023 7:38	-82.26	mv
APCO BY-AP-MW-18H	PH	pH	8/8/2023 7:38	6.66	SU
APCO BY-AP-MW-18H	TEMP	Temperature	8/8/2023 7:38	22.17	C
APCO BY-AP-MW-18H	TURB	Turbidity	8/8/2023 7:38	5.07	NTU

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APCO BY-AP-MW-18H	COND	Conductivity	8/8/2023 7:43	118.95	uS/cm
APCO BY-AP-MW-18H	DO	DO	8/8/2023 7:43	0.23	mg/L
APCO BY-AP-MW-18H	DTW	Depth to Water Detail	8/8/2023 7:43	8.22	ft
APCO BY-AP-MW-18H	ORP	Oxidation Reduction Potential	8/8/2023 7:43	-84.47	mv
APCO BY-AP-MW-18H	PH	pH	8/8/2023 7:43	6.65	SU
APCO BY-AP-MW-18H	TEMP	Temperature	8/8/2023 7:43	22.26	C
APCO BY-AP-MW-18H	TURB	Turbidity	8/8/2023 7:43	4.88	NTU
APCO BY-AP-MW-18H	COND	Conductivity	8/8/2023 7:48	118.35	uS/cm
APCO BY-AP-MW-18H	DO	DO	8/8/2023 7:48	0.21	mg/L
APCO BY-AP-MW-18H	DTW	Depth to Water Detail	8/8/2023 7:48	8.22	ft
APCO BY-AP-MW-18H	ORP	Oxidation Reduction Potential	8/8/2023 7:48	-86.78	mv
APCO BY-AP-MW-18H	PH	pH	8/8/2023 7:48	6.67	SU
APCO BY-AP-MW-18H	SULFIDE	Sulfide	8/8/2023 7:48	0	mg/L
APCO BY-AP-MW-18H	TEMP	Temperature	8/8/2023 7:48	22.12	C
APCO BY-AP-MW-18H	TURB	Turbidity	8/8/2023 7:48	4.91	NTU
APCO BY-AP-MW-19H	COND	Conductivity	8/8/2023 8:40	509.01	uS/cm
APCO BY-AP-MW-19H	DO	DO	8/8/2023 8:40	0.21	mg/L
APCO BY-AP-MW-19H	DTW	Depth to Water Detail	8/8/2023 8:40	7.32	ft
APCO BY-AP-MW-19H	ORP	Oxidation Reduction Potential	8/8/2023 8:40	-84.77	mv
APCO BY-AP-MW-19H	PH	pH	8/8/2023 8:40	6.32	SU
APCO BY-AP-MW-19H	TEMP	Temperature	8/8/2023 8:40	23.54	C
APCO BY-AP-MW-19H	TURB	Turbidity	8/8/2023 8:40	1.85	NTU
APCO BY-AP-MW-19H	COND	Conductivity	8/8/2023 8:45	505.67	uS/cm
APCO BY-AP-MW-19H	DO	DO	8/8/2023 8:45	0.18	mg/L
APCO BY-AP-MW-19H	DTW	Depth to Water Detail	8/8/2023 8:45	7.32	ft
APCO BY-AP-MW-19H	ORP	Oxidation Reduction Potential	8/8/2023 8:45	-88.27	mv
APCO BY-AP-MW-19H	PH	pH	8/8/2023 8:45	6.33	SU
APCO BY-AP-MW-19H	TEMP	Temperature	8/8/2023 8:45	23.54	C
APCO BY-AP-MW-19H	TURB	Turbidity	8/8/2023 8:45	1.01	NTU
APCO BY-AP-MW-19H	COND	Conductivity	8/8/2023 8:50	503.3	uS/cm
APCO BY-AP-MW-19H	DO	DO	8/8/2023 8:50	0.17	mg/L
APCO BY-AP-MW-19H	DTW	Depth to Water Detail	8/8/2023 8:50	7.32	ft
APCO BY-AP-MW-19H	ORP	Oxidation Reduction Potential	8/8/2023 8:50	-89.44	mv
APCO BY-AP-MW-19H	PH	pH	8/8/2023 8:50	6.33	SU
APCO BY-AP-MW-19H	TEMP	Temperature	8/8/2023 8:50	23.68	C
APCO BY-AP-MW-19H	TURB	Turbidity	8/8/2023 8:50	0.67	NTU
APCO BY-AP-MW-19H	COND	Conductivity	8/8/2023 8:55	501.06	uS/cm
APCO BY-AP-MW-19H	DO	DO	8/8/2023 8:55	0.16	mg/L
APCO BY-AP-MW-19H	DTW	Depth to Water Detail	8/8/2023 8:55	7.32	ft
APCO BY-AP-MW-19H	ORP	Oxidation Reduction Potential	8/8/2023 8:55	-90.21	mv
APCO BY-AP-MW-19H	PH	pH	8/8/2023 8:55	6.34	SU
APCO BY-AP-MW-19H	SULFIDE	Sulfide	8/8/2023 8:55	0	mg/L
APCO BY-AP-MW-19H	TEMP	Temperature	8/8/2023 8:55	23.72	C
APCO BY-AP-MW-19H	TURB	Turbidity	8/8/2023 8:55	0.88	NTU
APCO BY-AP-MW-20H	COND	Conductivity	8/8/2023 9:38	666.64	uS/cm
APCO BY-AP-MW-20H	DO	DO	8/8/2023 9:38	0.21	mg/L
APCO BY-AP-MW-20H	DTW	Depth to Water Detail	8/8/2023 9:38	7.43	ft
APCO BY-AP-MW-20H	ORP	Oxidation Reduction Potential	8/8/2023 9:38	-63.24	mv
APCO BY-AP-MW-20H	PH	pH	8/8/2023 9:38	6.22	SU
APCO BY-AP-MW-20H	TEMP	Temperature	8/8/2023 9:38	23.57	C
APCO BY-AP-MW-20H	TURB	Turbidity	8/8/2023 9:38	3.22	NTU
APCO BY-AP-MW-20H	COND	Conductivity	8/8/2023 9:43	668.6	uS/cm
APCO BY-AP-MW-20H	DO	DO	8/8/2023 9:43	0.17	mg/L
APCO BY-AP-MW-20H	DTW	Depth to Water Detail	8/8/2023 9:43	7.43	ft
APCO BY-AP-MW-20H	ORP	Oxidation Reduction Potential	8/8/2023 9:43	-68.26	mv
APCO BY-AP-MW-20H	PH	pH	8/8/2023 9:43	6.24	SU
APCO BY-AP-MW-20H	TEMP	Temperature	8/8/2023 9:43	23.74	C
APCO BY-AP-MW-20H	TURB	Turbidity	8/8/2023 9:43	1.37	NTU
APCO BY-AP-MW-20H	COND	Conductivity	8/8/2023 9:48	669.17	uS/cm

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APCO BY-AP-MW-20H	DO	DO	8/8/2023 9:48	0.15	mg/L
APCO BY-AP-MW-20H	DTW	Depth to Water Detail	8/8/2023 9:48	7.43	ft
APCO BY-AP-MW-20H	ORP	Oxidation Reduction Potential	8/8/2023 9:48	-70.94	mv
APCO BY-AP-MW-20H	PH	pH	8/8/2023 9:48	6.25	SU
APCO BY-AP-MW-20H	TEMP	Temperature	8/8/2023 9:48	23.82	C
APCO BY-AP-MW-20H	TURB	Turbidity	8/8/2023 9:48	1.23	NTU
APCO BY-AP-MW-20H	COND	Conductivity	8/8/2023 9:53	668.57	uS/cm
APCO BY-AP-MW-20H	DO	DO	8/8/2023 9:53	0.14	mg/L
APCO BY-AP-MW-20H	DTW	Depth to Water Detail	8/8/2023 9:53	7.43	ft
APCO BY-AP-MW-20H	ORP	Oxidation Reduction Potential	8/8/2023 9:53	-72.3	mv
APCO BY-AP-MW-20H	PH	pH	8/8/2023 9:53	6.25	SU
APCO BY-AP-MW-20H	SULFIDE	Sulfide	8/8/2023 9:53	0	mg/L
APCO BY-AP-MW-20H	TEMP	Temperature	8/8/2023 9:53	23.82	C
APCO BY-AP-MW-20H	TURB	Turbidity	8/8/2023 9:53	1.27	NTU
APCO BY-AP-MW-20V	COND	Conductivity	8/8/2023 10:26	1219.52	uS/cm
APCO BY-AP-MW-20V	DO	DO	8/8/2023 10:26	0.14	mg/L
APCO BY-AP-MW-20V	DTW	Depth to Water Detail	8/8/2023 10:26	23.06	ft
APCO BY-AP-MW-20V	ORP	Oxidation Reduction Potential	8/8/2023 10:26	-52.51	mv
APCO BY-AP-MW-20V	PH	pH	8/8/2023 10:26	6.36	SU
APCO BY-AP-MW-20V	TEMP	Temperature	8/8/2023 10:26	22.48	C
APCO BY-AP-MW-20V	TURB	Turbidity	8/8/2023 10:26	9.46	NTU
APCO BY-AP-MW-20V	COND	Conductivity	8/8/2023 10:31	1410.64	uS/cm
APCO BY-AP-MW-20V	DO	DO	8/8/2023 10:31	0.11	mg/L
APCO BY-AP-MW-20V	DTW	Depth to Water Detail	8/8/2023 10:31	23.06	ft
APCO BY-AP-MW-20V	ORP	Oxidation Reduction Potential	8/8/2023 10:31	-64.04	mv
APCO BY-AP-MW-20V	PH	pH	8/8/2023 10:31	6.38	SU
APCO BY-AP-MW-20V	TEMP	Temperature	8/8/2023 10:31	22.51	C
APCO BY-AP-MW-20V	TURB	Turbidity	8/8/2023 10:31	9.69	NTU
APCO BY-AP-MW-20V	COND	Conductivity	8/8/2023 10:36	1495.76	uS/cm
APCO BY-AP-MW-20V	DO	DO	8/8/2023 10:36	0.09	mg/L
APCO BY-AP-MW-20V	DTW	Depth to Water Detail	8/8/2023 10:36	23.06	ft
APCO BY-AP-MW-20V	ORP	Oxidation Reduction Potential	8/8/2023 10:36	-68.76	mv
APCO BY-AP-MW-20V	PH	pH	8/8/2023 10:36	6.4	SU
APCO BY-AP-MW-20V	TEMP	Temperature	8/8/2023 10:36	22.48	C
APCO BY-AP-MW-20V	TURB	Turbidity	8/8/2023 10:36	10.5	NTU
APCO BY-AP-MW-20V	COND	Conductivity	8/8/2023 10:41	1520.64	uS/cm
APCO BY-AP-MW-20V	DO	DO	8/8/2023 10:41	0.09	mg/L
APCO BY-AP-MW-20V	DTW	Depth to Water Detail	8/8/2023 10:41	23.06	ft
APCO BY-AP-MW-20V	ORP	Oxidation Reduction Potential	8/8/2023 10:41	-71.72	mv
APCO BY-AP-MW-20V	PH	pH	8/8/2023 10:41	6.41	SU
APCO BY-AP-MW-20V	TEMP	Temperature	8/8/2023 10:41	22.65	C
APCO BY-AP-MW-20V	TURB	Turbidity	8/8/2023 10:41	9.77	NTU
APCO BY-AP-MW-20V	COND	Conductivity	8/8/2023 10:46	1517.99	uS/cm
APCO BY-AP-MW-20V	DO	DO	8/8/2023 10:46	0.09	mg/L
APCO BY-AP-MW-20V	DTW	Depth to Water Detail	8/8/2023 10:46	23.06	ft
APCO BY-AP-MW-20V	ORP	Oxidation Reduction Potential	8/8/2023 10:46	-73.65	mv
APCO BY-AP-MW-20V	PH	pH	8/8/2023 10:46	6.42	SU
APCO BY-AP-MW-20V	SULFIDE	Sulfide	8/8/2023 10:46	0	mg/L
APCO BY-AP-MW-20V	TEMP	Temperature	8/8/2023 10:46	22.69	C
APCO BY-AP-MW-20V	TURB	Turbidity	8/8/2023 10:46	9.54	NTU
APCO BY-AP-MW-1	COND	Conductivity	8/8/2023 13:32	557.02	uS/cm
APCO BY-AP-MW-1	DO	DO	8/8/2023 13:32	0.1	mg/L
APCO BY-AP-MW-1	DTW	Depth to Water Detail	8/8/2023 13:32	23.22	ft
APCO BY-AP-MW-1	ORP	Oxidation Reduction Potential	8/8/2023 13:32	26.89	mv
APCO BY-AP-MW-1	PH	pH	8/8/2023 13:32	5.64	SU
APCO BY-AP-MW-1	TEMP	Temperature	8/8/2023 13:32	22.67	C
APCO BY-AP-MW-1	TURB	Turbidity	8/8/2023 13:32	12.2	NTU
APCO BY-AP-MW-1	COND	Conductivity	8/8/2023 13:37	552.61	uS/cm
APCO BY-AP-MW-1	DO	DO	8/8/2023 13:37	0.09	mg/L

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APCO BY-AP-MW-1	DTW	Depth to Water Detail	8/8/2023 13:37	23.22	ft
APCO BY-AP-MW-1	ORP	Oxidation Reduction Potential	8/8/2023 13:37	16.43	mv
APCO BY-AP-MW-1	PH	pH	8/8/2023 13:37	5.66	SU
APCO BY-AP-MW-1	TEMP	Temperature	8/8/2023 13:37	22.61	C
APCO BY-AP-MW-1	TURB	Turbidity	8/8/2023 13:37	10.18	NTU
APCO BY-AP-MW-1	COND	Conductivity	8/8/2023 13:42	553.18	uS/cm
APCO BY-AP-MW-1	DO	DO	8/8/2023 13:42	0.08	mg/L
APCO BY-AP-MW-1	DTW	Depth to Water Detail	8/8/2023 13:42	23.22	ft
APCO BY-AP-MW-1	ORP	Oxidation Reduction Potential	8/8/2023 13:42	8.97	mv
APCO BY-AP-MW-1	PH	pH	8/8/2023 13:42	5.69	SU
APCO BY-AP-MW-1	TEMP	Temperature	8/8/2023 13:42	22.92	C
APCO BY-AP-MW-1	TURB	Turbidity	8/8/2023 13:42	8.85	NTU
APCO BY-AP-MW-1	COND	Conductivity	8/8/2023 13:47	554.42	uS/cm
APCO BY-AP-MW-1	DO	DO	8/8/2023 13:47	0.07	mg/L
APCO BY-AP-MW-1	DTW	Depth to Water Detail	8/8/2023 13:47	23.22	ft
APCO BY-AP-MW-1	ORP	Oxidation Reduction Potential	8/8/2023 13:47	3.24	mv
APCO BY-AP-MW-1	PH	pH	8/8/2023 13:47	5.74	SU
APCO BY-AP-MW-1	SULFIDE	Sulfide	8/8/2023 13:47	0	mg/L
APCO BY-AP-MW-1	TEMP	Temperature	8/8/2023 13:47	22.82	C
APCO BY-AP-MW-1	TURB	Turbidity	8/8/2023 13:47	8.64	NTU
APCO BY-AP-MW-1V	COND	Conductivity	8/9/2023 9:56	396.63	uS/cm
APCO BY-AP-MW-1V	DO	DO	8/9/2023 9:56	0.7	mg/L
APCO BY-AP-MW-1V	DTW	Depth to Water Detail	8/9/2023 9:56	23.32	ft
APCO BY-AP-MW-1V	ORP	Oxidation Reduction Potential	8/9/2023 9:56	38.43	mv
APCO BY-AP-MW-1V	PH	pH	8/9/2023 9:56	5.83	SU
APCO BY-AP-MW-1V	TEMP	Temperature	8/9/2023 9:56	23.19	C
APCO BY-AP-MW-1V	TURB	Turbidity	8/9/2023 9:56	6.19	NTU
APCO BY-AP-MW-1V	COND	Conductivity	8/9/2023 10:01	393.61	uS/cm
APCO BY-AP-MW-1V	DO	DO	8/9/2023 10:01	0.5	mg/L
APCO BY-AP-MW-1V	DTW	Depth to Water Detail	8/9/2023 10:01	23.38	ft
APCO BY-AP-MW-1V	ORP	Oxidation Reduction Potential	8/9/2023 10:01	47.57	mv
APCO BY-AP-MW-1V	PH	pH	8/9/2023 10:01	5.79	SU
APCO BY-AP-MW-1V	TEMP	Temperature	8/9/2023 10:01	23.05	C
APCO BY-AP-MW-1V	TURB	Turbidity	8/9/2023 10:01	4.85	NTU
APCO BY-AP-MW-1V	COND	Conductivity	8/9/2023 10:06	394.89	uS/cm
APCO BY-AP-MW-1V	DO	DO	8/9/2023 10:06	0.44	mg/L
APCO BY-AP-MW-1V	DTW	Depth to Water Detail	8/9/2023 10:06	23.38	ft
APCO BY-AP-MW-1V	ORP	Oxidation Reduction Potential	8/9/2023 10:06	51.72	mv
APCO BY-AP-MW-1V	PH	pH	8/9/2023 10:06	5.81	SU
APCO BY-AP-MW-1V	TEMP	Temperature	8/9/2023 10:06	23.48	C
APCO BY-AP-MW-1V	TURB	Turbidity	8/9/2023 10:06	4.11	NTU
APCO BY-AP-MW-1V	COND	Conductivity	8/9/2023 10:11	395.19	uS/cm
APCO BY-AP-MW-1V	DO	DO	8/9/2023 10:11	0.39	mg/L
APCO BY-AP-MW-1V	DTW	Depth to Water Detail	8/9/2023 10:11	23.38	ft
APCO BY-AP-MW-1V	ORP	Oxidation Reduction Potential	8/9/2023 10:11	53.66	mv
APCO BY-AP-MW-1V	PH	pH	8/9/2023 10:11	5.85	SU
APCO BY-AP-MW-1V	SULFIDE	Sulfide	8/9/2023 10:11	0	mg/L
APCO BY-AP-MW-1V	TEMP	Temperature	8/9/2023 10:11	23.38	C
APCO BY-AP-MW-1V	TURB	Turbidity	8/9/2023 10:11	4.2	NTU
APCO BY-AP-MW-3	COND	Conductivity	8/9/2023 11:00	181.34	uS/cm
APCO BY-AP-MW-3	DO	DO	8/9/2023 11:00	0.63	mg/L
APCO BY-AP-MW-3	DTW	Depth to Water Detail	8/9/2023 11:00	23.3	ft
APCO BY-AP-MW-3	ORP	Oxidation Reduction Potential	8/9/2023 11:00	103.41	mv
APCO BY-AP-MW-3	PH	pH	8/9/2023 11:00	5.31	SU
APCO BY-AP-MW-3	TEMP	Temperature	8/9/2023 11:00	23.44	C
APCO BY-AP-MW-3	TURB	Turbidity	8/9/2023 11:00	4.74	NTU
APCO BY-AP-MW-3	COND	Conductivity	8/9/2023 11:05	154.5	uS/cm
APCO BY-AP-MW-3	DO	DO	8/9/2023 11:05	0.6	mg/L
APCO BY-AP-MW-3	DTW	Depth to Water Detail	8/9/2023 11:05	23.3	ft

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APCO BY-AP-MW-3	ORP	Oxidation Reduction Potential	8/9/2023 11:05	99.14	mv
APCO BY-AP-MW-3	PH	pH	8/9/2023 11:05	5.33	SU
APCO BY-AP-MW-3	TEMP	Temperature	8/9/2023 11:05	23.42	C
APCO BY-AP-MW-3	TURB	Turbidity	8/9/2023 11:05	4.12	NTU
APCO BY-AP-MW-3	COND	Conductivity	8/9/2023 11:10	132.52	uS/cm
APCO BY-AP-MW-3	DO	DO	8/9/2023 11:10	0.72	mg/L
APCO BY-AP-MW-3	DTW	Depth to Water Detail	8/9/2023 11:10	23.3	ft
APCO BY-AP-MW-3	ORP	Oxidation Reduction Potential	8/9/2023 11:10	95.64	mv
APCO BY-AP-MW-3	PH	pH	8/9/2023 11:10	5.37	SU
APCO BY-AP-MW-3	TEMP	Temperature	8/9/2023 11:10	23.17	C
APCO BY-AP-MW-3	TURB	Turbidity	8/9/2023 11:10	3.53	NTU
APCO BY-AP-MW-3	COND	Conductivity	8/9/2023 11:15	118.92	uS/cm
APCO BY-AP-MW-3	DO	DO	8/9/2023 11:15	0.8	mg/L
APCO BY-AP-MW-3	DTW	Depth to Water Detail	8/9/2023 11:15	23.3	ft
APCO BY-AP-MW-3	ORP	Oxidation Reduction Potential	8/9/2023 11:15	93.86	mv
APCO BY-AP-MW-3	PH	pH	8/9/2023 11:15	5.38	SU
APCO BY-AP-MW-3	TEMP	Temperature	8/9/2023 11:15	23.27	C
APCO BY-AP-MW-3	TURB	Turbidity	8/9/2023 11:15	3.71	NTU
APCO BY-AP-MW-3	COND	Conductivity	8/9/2023 11:20	110.11	uS/cm
APCO BY-AP-MW-3	DO	DO	8/9/2023 11:20	0.86	mg/L
APCO BY-AP-MW-3	DTW	Depth to Water Detail	8/9/2023 11:20	23.3	ft
APCO BY-AP-MW-3	ORP	Oxidation Reduction Potential	8/9/2023 11:20	92.99	mv
APCO BY-AP-MW-3	PH	pH	8/9/2023 11:20	5.36	SU
APCO BY-AP-MW-3	TEMP	Temperature	8/9/2023 11:20	22.92	C
APCO BY-AP-MW-3	TURB	Turbidity	8/9/2023 11:20	3.6	NTU
APCO BY-AP-MW-3	COND	Conductivity	8/9/2023 11:25	104.96	uS/cm
APCO BY-AP-MW-3	DO	DO	8/9/2023 11:25	0.89	mg/L
APCO BY-AP-MW-3	DTW	Depth to Water Detail	8/9/2023 11:25	23.3	ft
APCO BY-AP-MW-3	ORP	Oxidation Reduction Potential	8/9/2023 11:25	93.09	mv
APCO BY-AP-MW-3	PH	pH	8/9/2023 11:25	5.35	SU
APCO BY-AP-MW-3	TEMP	Temperature	8/9/2023 11:25	23.1	C
APCO BY-AP-MW-3	TURB	Turbidity	8/9/2023 11:25	3.11	NTU
APCO BY-AP-MW-3	COND	Conductivity	8/9/2023 11:30	101.16	uS/cm
APCO BY-AP-MW-3	DO	DO	8/9/2023 11:30	0.92	mg/L
APCO BY-AP-MW-3	DTW	Depth to Water Detail	8/9/2023 11:30	23.3	ft
APCO BY-AP-MW-3	ORP	Oxidation Reduction Potential	8/9/2023 11:30	91.75	mv
APCO BY-AP-MW-3	PH	pH	8/9/2023 11:30	5.37	SU
APCO BY-AP-MW-3	TEMP	Temperature	8/9/2023 11:30	23.11	C
APCO BY-AP-MW-3	TURB	Turbidity	8/9/2023 11:30	3.08	NTU
APCO BY-AP-MW-3	COND	Conductivity	8/9/2023 11:35	97.27	uS/cm
APCO BY-AP-MW-3	DO	DO	8/9/2023 11:35	0.96	mg/L
APCO BY-AP-MW-3	DTW	Depth to Water Detail	8/9/2023 11:35	23.3	ft
APCO BY-AP-MW-3	ORP	Oxidation Reduction Potential	8/9/2023 11:35	90.64	mv
APCO BY-AP-MW-3	PH	pH	8/9/2023 11:35	5.39	SU
APCO BY-AP-MW-3	TEMP	Temperature	8/9/2023 11:35	23.39	C
APCO BY-AP-MW-3	TURB	Turbidity	8/9/2023 11:35	2.78	NTU
APCO BY-AP-MW-3	COND	Conductivity	8/9/2023 11:40	95.21	uS/cm
APCO BY-AP-MW-3	DO	DO	8/9/2023 11:40	0.98	mg/L
APCO BY-AP-MW-3	DTW	Depth to Water Detail	8/9/2023 11:40	23.3	ft
APCO BY-AP-MW-3	ORP	Oxidation Reduction Potential	8/9/2023 11:40	89.83	mv
APCO BY-AP-MW-3	PH	pH	8/9/2023 11:40	5.42	SU
APCO BY-AP-MW-3	TEMP	Temperature	8/9/2023 11:40	23.54	C
APCO BY-AP-MW-3	TURB	Turbidity	8/9/2023 11:40	2.9	NTU
APCO BY-AP-MW-3	COND	Conductivity	8/9/2023 11:45	92.74	uS/cm
APCO BY-AP-MW-3	DO	DO	8/9/2023 11:45	1	mg/L
APCO BY-AP-MW-3	DTW	Depth to Water Detail	8/9/2023 11:45	23.3	ft
APCO BY-AP-MW-3	ORP	Oxidation Reduction Potential	8/9/2023 11:45	88.65	mv
APCO BY-AP-MW-3	PH	pH	8/9/2023 11:45	5.45	SU
APCO BY-AP-MW-3	SULFIDE	Sulfide	8/9/2023 11:45	0	mg/L

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APCO BY-AP-MW-3	TEMP	Temperature	8/9/2023 11:45	23.04	C
APCO BY-AP-MW-3	TURB	Turbidity	8/9/2023 11:45	2.94	NTU
APCO BY-AP-MW-4	COND	Conductivity	8/9/2023 12:20	122.92	uS/cm
APCO BY-AP-MW-4	DO	DO	8/9/2023 12:20	1.35	mg/L
APCO BY-AP-MW-4	DTW	Depth to Water Detail	8/9/2023 12:20	24.11	ft
APCO BY-AP-MW-4	ORP	Oxidation Reduction Potential	8/9/2023 12:20	153.65	mv
APCO BY-AP-MW-4	PH	pH	8/9/2023 12:20	4.58	SU
APCO BY-AP-MW-4	TEMP	Temperature	8/9/2023 12:20	23.64	C
APCO BY-AP-MW-4	TURB	Turbidity	8/9/2023 12:20	10.27	NTU
APCO BY-AP-MW-4	COND	Conductivity	8/9/2023 12:25	125.11	uS/cm
APCO BY-AP-MW-4	DO	DO	8/9/2023 12:25	1.2	mg/L
APCO BY-AP-MW-4	DTW	Depth to Water Detail	8/9/2023 12:25	24.11	ft
APCO BY-AP-MW-4	ORP	Oxidation Reduction Potential	8/9/2023 12:25	159.12	mv
APCO BY-AP-MW-4	PH	pH	8/9/2023 12:25	4.55	SU
APCO BY-AP-MW-4	TEMP	Temperature	8/9/2023 12:25	23.32	C
APCO BY-AP-MW-4	TURB	Turbidity	8/9/2023 12:25	8.37	NTU
APCO BY-AP-MW-4	COND	Conductivity	8/9/2023 12:30	122.92	uS/cm
APCO BY-AP-MW-4	DO	DO	8/9/2023 12:30	1.2	mg/L
APCO BY-AP-MW-4	DTW	Depth to Water Detail	8/9/2023 12:30	24.11	ft
APCO BY-AP-MW-4	ORP	Oxidation Reduction Potential	8/9/2023 12:30	162.72	mv
APCO BY-AP-MW-4	PH	pH	8/9/2023 12:30	4.55	SU
APCO BY-AP-MW-4	TEMP	Temperature	8/9/2023 12:30	23.43	C
APCO BY-AP-MW-4	TURB	Turbidity	8/9/2023 12:30	6.27	NTU
APCO BY-AP-MW-4	COND	Conductivity	8/9/2023 12:35	125.05	uS/cm
APCO BY-AP-MW-4	DO	DO	8/9/2023 12:35	1.34	mg/L
APCO BY-AP-MW-4	DTW	Depth to Water Detail	8/9/2023 12:35	24.11	ft
APCO BY-AP-MW-4	ORP	Oxidation Reduction Potential	8/9/2023 12:35	166.2	mv
APCO BY-AP-MW-4	PH	pH	8/9/2023 12:35	4.55	SU
APCO BY-AP-MW-4	SULFIDE	Sulfide	8/9/2023 12:35	0	mg/L
APCO BY-AP-MW-4	TEMP	Temperature	8/9/2023 12:35	23.48	C
APCO BY-AP-MW-4	TURB	Turbidity	8/9/2023 12:35	5.96	NTU
APCO BY-AP-MW-6	COND	Conductivity	8/9/2023 13:26	62.21	uS/cm
APCO BY-AP-MW-6	DO	DO	8/9/2023 13:26	0.89	mg/L
APCO BY-AP-MW-6	DTW	Depth to Water Detail	8/9/2023 13:26	24.45	ft
APCO BY-AP-MW-6	ORP	Oxidation Reduction Potential	8/9/2023 13:26	163.1	mv
APCO BY-AP-MW-6	PH	pH	8/9/2023 13:26	5.02	SU
APCO BY-AP-MW-6	TEMP	Temperature	8/9/2023 13:26	23.58	C
APCO BY-AP-MW-6	TURB	Turbidity	8/9/2023 13:26	3.58	NTU
APCO BY-AP-MW-6	COND	Conductivity	8/9/2023 13:31	61.99	uS/cm
APCO BY-AP-MW-6	DO	DO	8/9/2023 13:31	0.87	mg/L
APCO BY-AP-MW-6	DTW	Depth to Water Detail	8/9/2023 13:31	24.45	ft
APCO BY-AP-MW-6	ORP	Oxidation Reduction Potential	8/9/2023 13:31	164.45	mv
APCO BY-AP-MW-6	PH	pH	8/9/2023 13:31	5.02	SU
APCO BY-AP-MW-6	TEMP	Temperature	8/9/2023 13:31	23.45	C
APCO BY-AP-MW-6	TURB	Turbidity	8/9/2023 13:31	3.57	NTU
APCO BY-AP-MW-6	COND	Conductivity	8/9/2023 13:36	61.89	uS/cm
APCO BY-AP-MW-6	DO	DO	8/9/2023 13:36	0.88	mg/L
APCO BY-AP-MW-6	DTW	Depth to Water Detail	8/9/2023 13:36	24.45	ft
APCO BY-AP-MW-6	ORP	Oxidation Reduction Potential	8/9/2023 13:36	164.83	mv
APCO BY-AP-MW-6	PH	pH	8/9/2023 13:36	5.03	SU
APCO BY-AP-MW-6	TEMP	Temperature	8/9/2023 13:36	23.42	C
APCO BY-AP-MW-6	TURB	Turbidity	8/9/2023 13:36	3.8	NTU
APCO BY-AP-MW-6	COND	Conductivity	8/9/2023 13:41	62.09	uS/cm
APCO BY-AP-MW-6	DO	DO	8/9/2023 13:41	0.89	mg/L
APCO BY-AP-MW-6	DTW	Depth to Water Detail	8/9/2023 13:41	24.45	ft
APCO BY-AP-MW-6	ORP	Oxidation Reduction Potential	8/9/2023 13:41	163.93	mv
APCO BY-AP-MW-6	PH	pH	8/9/2023 13:41	5.05	SU
APCO BY-AP-MW-6	SULFIDE	Sulfide	8/9/2023 13:41	0	mg/L
APCO BY-AP-MW-6	TEMP	Temperature	8/9/2023 13:41	23.57	C

Plant Barry Ash Pond
Field Parameter Summary

APCO BY-AP-MW-6	TURB	Turbidity	8/9/2023 13:41	3.76	NTU
APCO BY-AP-MW-8	COND	Conductivity	8/7/2023 13:53	132.41	uS/cm
APCO BY-AP-MW-8	DO	DO	8/7/2023 13:53	0.1	mg/L
APCO BY-AP-MW-8	DTW	Depth to Water Detail	8/7/2023 13:53	23.8	ft
APCO BY-AP-MW-8	ORP	Oxidation Reduction Potential	8/7/2023 13:53	-93.51	mv
APCO BY-AP-MW-8	PH	pH	8/7/2023 13:53	6.43	SU
APCO BY-AP-MW-8	TEMP	Temperature	8/7/2023 13:53	22.85	C
APCO BY-AP-MW-8	TURB	Turbidity	8/7/2023 13:53	29.9	NTU
APCO BY-AP-MW-8	COND	Conductivity	8/7/2023 13:58	129.88	uS/cm
APCO BY-AP-MW-8	DO	DO	8/7/2023 13:58	0.09	mg/L
APCO BY-AP-MW-8	DTW	Depth to Water Detail	8/7/2023 13:58	23.8	ft
APCO BY-AP-MW-8	ORP	Oxidation Reduction Potential	8/7/2023 13:58	-99.38	mv
APCO BY-AP-MW-8	PH	pH	8/7/2023 13:58	6.49	SU
APCO BY-AP-MW-8	TEMP	Temperature	8/7/2023 13:58	22.4	C
APCO BY-AP-MW-8	TURB	Turbidity	8/7/2023 13:58	20.9	NTU
APCO BY-AP-MW-8	COND	Conductivity	8/7/2023 14:03	129.12	uS/cm
APCO BY-AP-MW-8	DO	DO	8/7/2023 14:03	0.1	mg/L
APCO BY-AP-MW-8	DTW	Depth to Water Detail	8/7/2023 14:03	23.8	ft
APCO BY-AP-MW-8	ORP	Oxidation Reduction Potential	8/7/2023 14:03	-109.09	mv
APCO BY-AP-MW-8	PH	pH	8/7/2023 14:03	6.68	SU
APCO BY-AP-MW-8	TEMP	Temperature	8/7/2023 14:03	23.73	C
APCO BY-AP-MW-8	TURB	Turbidity	8/7/2023 14:03	14.9	NTU
APCO BY-AP-MW-8	COND	Conductivity	8/7/2023 14:08	129.1	uS/cm
APCO BY-AP-MW-8	DO	DO	8/7/2023 14:08	0.11	mg/L
APCO BY-AP-MW-8	DTW	Depth to Water Detail	8/7/2023 14:08	23.8	ft
APCO BY-AP-MW-8	ORP	Oxidation Reduction Potential	8/7/2023 14:08	-114.41	mv
APCO BY-AP-MW-8	PH	pH	8/7/2023 14:08	6.8	SU
APCO BY-AP-MW-8	TEMP	Temperature	8/7/2023 14:08	23.99	C
APCO BY-AP-MW-8	TURB	Turbidity	8/7/2023 14:08	14	NTU
APCO BY-AP-MW-8	COND	Conductivity	8/7/2023 14:13	129.55	uS/cm
APCO BY-AP-MW-8	DO	DO	8/7/2023 14:13	0.11	mg/L
APCO BY-AP-MW-8	DTW	Depth to Water Detail	8/7/2023 14:13	23.8	ft
APCO BY-AP-MW-8	ORP	Oxidation Reduction Potential	8/7/2023 14:13	-114.39	mv
APCO BY-AP-MW-8	PH	pH	8/7/2023 14:13	6.82	SU
APCO BY-AP-MW-8	TEMP	Temperature	8/7/2023 14:13	24.72	C
APCO BY-AP-MW-8	TURB	Turbidity	8/7/2023 14:13	10.31	NTU
APCO BY-AP-MW-8	COND	Conductivity	8/7/2023 14:18	128.44	uS/cm
APCO BY-AP-MW-8	DO	DO	8/7/2023 14:18	0.1	mg/L
APCO BY-AP-MW-8	DTW	Depth to Water Detail	8/7/2023 14:18	23.8	ft
APCO BY-AP-MW-8	ORP	Oxidation Reduction Potential	8/7/2023 14:18	-110.2	mv
APCO BY-AP-MW-8	PH	pH	8/7/2023 14:18	6.79	SU
APCO BY-AP-MW-8	TEMP	Temperature	8/7/2023 14:18	24.87	C
APCO BY-AP-MW-8	TURB	Turbidity	8/7/2023 14:18	11.2	NTU
APCO BY-AP-MW-8	COND	Conductivity	8/7/2023 14:23	128.59	uS/cm
APCO BY-AP-MW-8	DO	DO	8/7/2023 14:23	0.1	mg/L
APCO BY-AP-MW-8	DTW	Depth to Water Detail	8/7/2023 14:23	23.8	ft
APCO BY-AP-MW-8	ORP	Oxidation Reduction Potential	8/7/2023 14:23	-109.12	mv
APCO BY-AP-MW-8	PH	pH	8/7/2023 14:23	6.81	SU
APCO BY-AP-MW-8	TEMP	Temperature	8/7/2023 14:23	24.25	C
APCO BY-AP-MW-8	TURB	Turbidity	8/7/2023 14:23	9.76	NTU
APCO BY-AP-MW-8	COND	Conductivity	8/7/2023 14:28	128.71	uS/cm
APCO BY-AP-MW-8	DO	DO	8/7/2023 14:28	0.11	mg/L
APCO BY-AP-MW-8	DTW	Depth to Water Detail	8/7/2023 14:28	23.8	ft
APCO BY-AP-MW-8	ORP	Oxidation Reduction Potential	8/7/2023 14:28	-108.14	mv
APCO BY-AP-MW-8	PH	pH	8/7/2023 14:28	6.82	SU
APCO BY-AP-MW-8	SULFIDE	Sulfide	8/7/2023 14:28	0	mg/L
APCO BY-AP-MW-8	TEMP	Temperature	8/7/2023 14:28	24.91	C
APCO BY-AP-MW-8	TURB	Turbidity	8/7/2023 14:28	6.42	NTU

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040
205-664-6001

Analytical Report



Sample Group : WMWBARAP_1417

Project/Site : Barry Ash Pond
Bucks, AL 36512

For : Southern Company Services
3535 Colonnade Parkway
Birmingham, AL 35243

Attention : Dustin Brooks & Greg Budd

Released By : Brooke Caton
tbwill@southernco.com
(205) 664-6101

September 11, 2023

Dear Dustin Brooks,

Enclosed are the analytical results for sample(s) received by the laboratory on August 10, 2023. All results reported herein conform to the laboratory's most current Quality Assurance Manual. Results marked with an asterisk conform to the most current applicable TNI/NELAC requirements. Exceptions will be noted in the body of the report.

Laboratory certification ID: E571114
Issued By: State of Florida, Department of Health
Expiration: June 30, 2024

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Quality Control: **Brooke
Caton**

Digitally signed by Brooke
Caton
Date: 2023.09.11
13:20:22 -05'00'

Supervision: **T Durant
Maske**

Digitally signed by T Durant Maske
DN: cn=T Durant Maske, gn=T Durant Maske, c=US
United States, u=US United States
e=t.durante@alpower.com
Reason: I am the author of this document
Location:
Date: 2023-09-12 13:03:05.00



REPORT OF LABORATORY ANALYSIS

This Certificate states the physical and/or chemical characteristics of the sample as submitted.
This document shall not be reproduced, except in full, without written consent from
Alabama Power's General Test Laboratory.



Total Metals ICP

Barry Ash Pond

WMWBARAP_1417

1. This report consists of all MWs and corresponding Lab IDs listed on the Chain of Custody.
2. Refer to comments on Chain of Custody for information regarding sample receipt.
3. All standards and solutions meet NELAP traceability requirements and were used within their recommended shelf life.

<u>Sample ID</u>	<u>Batch ID</u>	<u>Project ID</u>
BD14985	762998	WMWBARAP_1417
BD14986	762998	WMWBARAP_1417
BD14988	762998	WMWBARAP_1417
BD14989	762998	WMWBARAP_1417
BD14990	762998	WMWBARAP_1417
BD14991	762998	WMWBARAP_1417
BD14992	762998	WMWBARAP_1417
BD14993	762998	WMWBARAP_1417
BD14994	762998	WMWBARAP_1417
BD14995	762998	WMWBARAP_1417
BD14996	762999	WMWBARAP_1417
BD14997	762999	WMWBARAP_1417
BD14998	762999	WMWBARAP_1417
BD14999	762999	WMWBARAP_1417
BD15000	762999	WMWBARAP_1417
BD15001	762999	WMWBARAP_1417
BD15002	762999	WMWBARAP_1417
BD15003	762999	WMWBARAP_1417
BD15004	762999	WMWBARAP_1417
BD15005	762999	WMWBARAP_1417
BD15006	763000	WMWBARAP_1417
BD15007	763000	WMWBARAP_1417
BD15008	763000	WMWBARAP_1417
BD15009	763000	WMWBARAP_1417
BD15010	763000	WMWBARAP_1417
BD15011	763000	WMWBARAP_1417
BD15012	763000	WMWBARAP_1417
BD15013	763000	WMWBARAP_1417
BD15014	763000	WMWBARAP_1417
BD15015	763000	WMWBARAP_1417
BD15016	763001	WMWBARAP_1417
BD15017	763001	WMWBARAP_1417
BD15018	763001	WMWBARAP_1417

BD15019	763001	WMWBARAP_1417
BD15020	763001	WMWBARAP_1417
BD15021	763001	WMWBARAP_1417
BD15022	763001	WMWBARAP_1417
BD15129	763071	WMWBARAP_1417
BD15130	763071	WMWBARAP_1417
BD15131	763071	WMWBARAP_1417
BD15132	763071	WMWBARAP_1417
BD15133	763071	WMWBARAP_1417
BD15134	763071	WMWBARAP_1417
BD15135	763071	WMWBARAP_1417
BD15136	763071	WMWBARAP_1417
BD15137	763071	WMWBARAP_1417
BD15138	763071	WMWBARAP_1417

4. All of the above samples were analyzed by EPA 200.7 and prepared by EPA 1638.
5. All samples were prepared and analyzed within the established hold times.
6. All in house quality control procedures were followed, as described below.

General Quality Control Procedures:

- Prior to sample analysis, an initial calibration verification (ICV) was analyzed, and all criteria were met.
- Following the ICV, an initial calibration blank (ICB) was analyzed, and all criteria were met.
- All continued calibration verification (CCV) were within the acceptance criteria for the requested analytes.
- All continued calibration blanks (CCB) were analyzed, and all criteria were met.
- A preparation method blank and laboratory control sample were digested and analyzed with the samples in each digestion batch.
- All laboratory control sample criteria were met.
- The method blank associated with each digestion batch passed all acceptance criteria for all requested analytes.
- All calibration curve requirements were within acceptance criteria.
- All sample internal standard criteria were met.
- The spectral interference check associated with EPA 200.7 was analyzed, and all acceptance criteria were met.
- It is noted that the QC summary page typically provides the QC results from the original batch analytical sequence. If dilutions were subsequently performed to bring sample concentrations within the calibration range, any additional QC data from the dilution analyses may need to be obtained from the laboratory. Any qualifications applied to original analyses or dilution re-analyses are based upon QC data available at the time of review.

Matrix Specific Quality Control Procedures:

Similarity of matrix and therefore relevance of matrix specific QC results should not be automatically inferred for any sample other than the sample selected for QC.

Case Narrative

- A matrix spike and matrix spike duplicate were digested and analyzed with each ICP batch. All acceptance criteria for accuracy were met, except for the following:
 - BD15005 Iron and Sodium MS/MSD spike levels were less than 30% of the sample concentrations.
 - BD15022 Iron MS/MSD spike levels were less than 30% of the sample concentrations.
 - A matrix spike and matrix spike duplicate were digested and analyzed with each ICP batch. All acceptance criteria for precision were met.
7. The following samples were diluted due to the analyzed sample concentration being greater than the high standard of the calibration curve:

<u>Sample ID</u>	<u>Analyte</u>	<u>Dilution Factor</u>
BD14985	Iron	10.15
BD14986	Sodium	10.15
BD14988	Sodium	10.15
BD14989	Sodium	10.15
BD14991	Sodium	10.15
BD14992	Sodium	10.15
BD14996	Sodium	10.15
BD14998	Calcium	10.15
BD14999	Calcium	10.15
BD15000	Calcium	10.15
BD15002	Sodium	10.15
BD15003	Iron	10.15
BD15005	Sodium	10.15
BD15007	Sodium	10.15
BD15008	Sodium	10.15
BD15011	Sodium	10.15
BD15012	Iron, Sodium	10.15
BD15013	Sodium	10.15
BD15014	Iron	10.15
BD15019	Calcium	10.15
BD15021	Calcium, Iron	10.15
BD14988	Iron	101.5
BD14989	Iron	101.5
BD14991	Iron	101.5
BD14992	Iron	101.5
BD14993	Iron	101.5
BD14994	Iron	101.5
BD14996	Iron	101.5
BD14998	Iron	101.5
BD14999	Iron	101.5
BD15000	Iron	101.5
BD15001	Iron	101.5

Case Narrative

BD15004	Iron	101.5
BD15005	Iron	101.5
BD15006	Iron, Sodium	101.5
BD15007	Iron	101.5
BD15008	Iron	101.5
BD15009	Iron	101.5
BD15010	Iron	101.5
BD15019	Sodium	101.5
BD15020	Iron	101.5
BD15021	Sodium	101.5
BD15022	Iron	101.5
BD15129	Sodium	10.15
BD15131	Iron	10.15
BD15134	Iron, Sodium	10.15
BD15135	Iron, Sodium	10.15
BD15136	Iron, Sodium	101.5
BD15137	Iron, Sodium	10.15

8. The raw data results are shown with dilution factors included.

Dissolved Metals ICP

Barry Ash Pond

WMWBARAP_1417

1. This report consists of all MWs and corresponding Lab IDs listed on the Chain of Custody.
2. Refer to comments on Chain of Custody for information regarding sample receipt.
3. All standards and solutions meet NELAP traceability requirements and were used within their recommended shelf life.

<u>Sample ID</u>	<u>Batch ID</u>	<u>Project ID</u>
BD14985	763011	WMWBARAP_1417
BD14986	763011	WMWBARAP_1417
BD14988	763011	WMWBARAP_1417
BD14989	763011	WMWBARAP_1417
BD14991	763011	WMWBARAP_1417
BD14992	763011	WMWBARAP_1417
BD14993	763011	WMWBARAP_1417
BD14994	763011	WMWBARAP_1417
BD14995	763011	WMWBARAP_1417
BD14996	763011	WMWBARAP_1417
BD14998	763012	WMWBARAP_1417
BD14999	763012	WMWBARAP_1417
BD15000	763012	WMWBARAP_1417
BD15001	763012	WMWBARAP_1417
BD15002	763012	WMWBARAP_1417
BD15003	763012	WMWBARAP_1417
BD15004	763012	WMWBARAP_1417
BD15005	763012	WMWBARAP_1417
BD15006	763012	WMWBARAP_1417
BD15007	763012	WMWBARAP_1417
BD15008	763013	WMWBARAP_1417
BD15009	763013	WMWBARAP_1417
BD15010	763013	WMWBARAP_1417
BD15011	763013	WMWBARAP_1417
BD15012	763013	WMWBARAP_1417
BD15013	763013	WMWBARAP_1417
BD15014	763013	WMWBARAP_1417
BD15016	763013	WMWBARAP_1417
BD15017	763013	WMWBARAP_1417
BD15018	763013	WMWBARAP_1417
BD15019	763014	WMWBARAP_1417
BD15020	763014	WMWBARAP_1417
BD15021	763014	WMWBARAP_1417

BD15022	763014	WMWBARAP_1417
BD15129	763051	WMWBARAP_1417
BD15131	763051	WMWBARAP_1417
BD15132	763051	WMWBARAP_1417
BD15133	763051	WMWBARAP_1417
BD15134	763051	WMWBARAP_1417
BD15135	763051	WMWBARAP_1417
BD15136	763051	WMWBARAP_1417
BD15137	763051	WMWBARAP_1417

4. All of the above samples were analyzed and prepared by EPA 200.7 for dissolved analysis.
5. All samples were prepared and analyzed within the established hold times.
6. All in house quality control procedures were followed, as described below.

General Quality Control Procedures:

- Prior to sample analysis, an initial calibration verification (ICV) was analyzed, and all criteria were met.
- Following the ICV, an initial calibration blank (ICB) was analyzed, and all criteria were met.
- All continued calibration verification (CCV) were within the acceptance criteria for the requested analytes.
- All continued calibration blanks (CCB) were analyzed, and all criteria were met.
- Due to no filtered method blank (MB) or laboratory control sample (LCS) submitted with the sample set, an unfiltered MB and LCS were analyzed with the samples in each batch.
- All laboratory control sample criteria were met.
- The method blank associated with each batch passed all acceptance criteria for all requested analytes.
- All calibration curve requirements were within acceptance criteria.
- All sample internal standard criteria were met.
- The spectral interference check associated with EPA 200.7 was analyzed and all acceptance criteria were met.
- It is noted that the QC summary page typically provides the QC results from the original batch analytical sequence. If dilutions were subsequently performed to bring sample concentrations within the calibration range, any additional QC data from the dilution analyses may need to be obtained from the laboratory. Any qualifications applied to original analyses or dilution re-analyses are based upon QC data available at the time of review.

Matrix Specific Quality Control Procedures:

Similarity of matrix and therefore relevance of matrix specific QC results should not be automatically inferred for any sample other than the sample selected for QC.

- A matrix spike and matrix spike duplicate were analyzed with each ICP batch. All acceptance criteria for accuracy were met, except for the following:
 - BD14996 Iron MS/MSD spike levels were less than 30% of the sample concentrations.
 - BD15007 Iron MS/MSD spike levels were less than 30% of the sample concentrations.
 - BD15022 Iron MS/MSD spike levels were less than 30% of the sample concentrations.

Case Narrative

- BD15137 Iron MS/MSD spike levels were less than 30% of the sample concentrations.
 - A matrix spike and matrix spike duplicate were analyzed with each ICP batch. All acceptance criteria for precision were met.
7. The following samples were diluted due to the analyzed sample concentration being greater than the high standard of the calibration curve:

<u>Sample ID</u>	<u>Analyte</u>	<u>Dilution Factor</u>
BD14985	Iron	10.15
BD14986	Sodium	10.15
BD14988	Sodium	10.15
BD14989	Sodium	10.15
BD14991	Sodium	10.15
BD14992	Sodium	10.15
BD14996	Sodium	10.15
BD14998	Calcium	10.15
BD14999	Calcium	10.15
BD15000	Calcium	10.15
BD15002	Iron, Sodium	10.15
BD15003	Iron	10.15
BD15005	Sodium	10.15
BD15006	Sodium	10.15
BD15007	Sodium	10.15
BD15008	Sodium	10.15
BD15011	Sodium	10.15
BD15012	Iron, Sodium	10.15
BD15013	Sodium	10.15
BD15014	Iron	10.15
BD15019	Iron	10.15
BD15021	Calcium, Iron, Magnesium	10.15
BD14988	Iron	101.5
BD14989	Iron	101.5
BD14991	Iron	101.5
BD14992	Iron	101.5
BD14993	Iron	101.5
BD14994	Iron	101.5
BD14996	Iron	101.5
BD14998	Iron	101.5
BD14999	Iron	101.5
BD15000	Iron	101.5
BD15001	Iron	101.5
BD15004	Iron	101.5
BD15005	Iron	101.5
BD15006	Iron	101.5
BD15007	Iron	101.5
BD15008	Iron	101.5
BD15009	Iron	101.5
BD15010	Iron	101.5

Case Narrative

BD15019	Sodium	101.5
BD15020	Iron	101.5
BD15021	Sodium	101.5
BD15022	Iron	101.5
BD15129	Sodium	10.15
BD15131	Iron	10.15
BD15134	Iron, Sodium	10.15
BD15135	Iron, Sodium	10.15
BD15136	Iron, Sodium	101.5
BD15137	Iron, Sodium	10.15

8. The raw data results are shown with dilution factors included.

Total Metals ICPMS

Barry Ash Pond

WMWBARAP_1417

1. This report consists of all MWs and corresponding Lab IDs listed on the Chain of Custody.
2. Refer to comments on Chain of Custody for information regarding sample receipt.
3. All standards and solutions meet NELAP traceability requirements and were used within their recommended shelf life.

<u>Sample ID</u>	<u>Batch ID</u>	<u>Project ID</u>
BD14985	763668	WMWBARAP_1417
BD14986	763668	WMWBARAP_1417
BD14988	763668	WMWBARAP_1417
BD14989	763668	WMWBARAP_1417
BD14990	763668	WMWBARAP_1417
BD14991	763668	WMWBARAP_1417
BD14992	763668	WMWBARAP_1417
BD14993	763668	WMWBARAP_1417
BD14994	763668	WMWBARAP_1417
BD14995	763668	WMWBARAP_1417
BD14996	763669	WMWBARAP_1417
BD14997	763669	WMWBARAP_1417
BD14998	763669	WMWBARAP_1417
BD14999	763669	WMWBARAP_1417
BD15000	763669	WMWBARAP_1417
BD15001	763669	WMWBARAP_1417
BD15002	763669	WMWBARAP_1417
BD15003	763669	WMWBARAP_1417
BD15004	763669	WMWBARAP_1417
BD15005	763669	WMWBARAP_1417
BD15006	763670	WMWBARAP_1417
BD15007	763670	WMWBARAP_1417
BD15008	763670	WMWBARAP_1417
BD15009	763670	WMWBARAP_1417
BD15010	763670	WMWBARAP_1417
BD15011	763670	WMWBARAP_1417
BD15012	763670	WMWBARAP_1417
BD15013	763670	WMWBARAP_1417
BD15014	763670	WMWBARAP_1417
BD15015	763670	WMWBARAP_1417
BD15016	763671	WMWBARAP_1417
BD15017	763671	WMWBARAP_1417
BD15018	763671	WMWBARAP_1417

BD15019	763671	WMWBARAP_1417
BD15020	763671	WMWBARAP_1417
BD15021	763671	WMWBARAP_1417
BD15022	763671	WMWBARAP_1417
BD15129	763685	WMWBARAP_1417
BD15130	763685	WMWBARAP_1417
BD15131	763685	WMWBARAP_1417
BD15132	763685	WMWBARAP_1417
BD15133	763685	WMWBARAP_1417
BD15134	763685	WMWBARAP_1417
BD15135	763685	WMWBARAP_1417
BD15136	763685	WMWBARAP_1417
BD15137	763685	WMWBARAP_1417
BD15138	763685	WMWBARAP_1417

4. All of the above samples were analyzed by EPA 200.8 and prepared by EPA 1638.
5. All samples were prepared and analyzed within the established hold times.
6. All in house quality control procedures were followed, as described below.

General Quality Control Procedures:

- All tune and calibration met criteria for all requested analytes.
- Prior to sample analysis, an initial calibration verification (ICV) was analyzed, and all criteria were met.
- Following the ICV, an initial calibration blank (ICB) was analyzed and was below the limit of quantitation for all requested analytes.
- All continued calibration verification (CCV) were within the acceptance criteria for the requested analytes.
- All continued calibration blanks (CCB) were below the limit of quantitation for the requested analytes.
- A preparation method blank and laboratory control sample were digested and analyzed with the samples in each digestion batch.
- All laboratory control sample criteria were met.
- The method blank associated with each digestion batch passed all acceptance criteria for all requested analytes.
- The interference check samples associated with EPA 200.8 were analyzed and passed for all requested analytes.
- All sample internal standard criteria were met.
- It is noted that the QC summary page typically provides the QC results from the original batch analytical sequence. If dilutions were subsequently performed to bring sample concentrations within the calibration range, any additional QC data from the dilution analyses may need to be obtained from the laboratory. Any qualifications applied to original analyses or dilution re-analyses are based upon QC data available at the time of review.

Matrix Specific Quality Control Procedures:

Similarity of matrix and therefore relevance of matrix specific QC results should not be automatically inferred for any sample other than the sample selected for QC.

- A matrix spike and matrix spike duplicate were digested and analyzed with each ICPMS batch. All acceptance criteria for accuracy were met, except for the following:
 - BD15005 Aluminum MS recovery and/or MSD recovery is outside of specification limit.
 - A matrix spike and matrix spike duplicate were digested and analyzed with each ICPMS batch. All acceptance criteria for precision were met.
7. The following samples were diluted due to the analyzed sample concentration being greater than the high standard of the calibration curve:

<u>Sample ID</u>	<u>Analyte</u>	<u>Dilution Factor</u>
BD15004	Manganese	5.075
BD15006	Manganese	5.075
BD15019	Manganese	5.075
BD15021	Manganese	5.075

8. The raw data results are shown with dilution factors included.

Dissolved Metals ICPMS

Barry Ash Pond

WMWBARAP_1417

1. This report consists of all MWs and corresponding Lab IDs listed on the Chain of Custody.
2. Refer to comments on Chain of Custody for information regarding sample receipt.
3. All standards and solutions meet NELAP traceability requirements and were used within their recommended shelf life.

<u>Sample ID</u>	<u>Batch ID</u>	<u>Project ID</u>
BD14985	763560	WMWBARAP_1417
BD14986	763560	WMWBARAP_1417
BD14988	763560	WMWBARAP_1417
BD14989	763560	WMWBARAP_1417
BD14991	763560	WMWBARAP_1417
BD14992	763560	WMWBARAP_1417
BD14993	763560	WMWBARAP_1417
BD14994	763560	WMWBARAP_1417
BD14995	763560	WMWBARAP_1417
BD14996	763560	WMWBARAP_1417
BD14998	763561	WMWBARAP_1417
BD14999	763561	WMWBARAP_1417
BD15000	763561	WMWBARAP_1417
BD15001	763561	WMWBARAP_1417
BD15002	763561	WMWBARAP_1417
BD15003	763561	WMWBARAP_1417
BD15004	763561	WMWBARAP_1417
BD15005	763561	WMWBARAP_1417
BD15006	763561	WMWBARAP_1417
BD15007	763561	WMWBARAP_1417
BD15008	763562	WMWBARAP_1417
BD15009	763562	WMWBARAP_1417
BD15010	763562	WMWBARAP_1417
BD15011	763562	WMWBARAP_1417
BD15012	763562	WMWBARAP_1417
BD15013	763562	WMWBARAP_1417
BD15014	763562	WMWBARAP_1417
BD15016	763562	WMWBARAP_1417
BD15017	763562	WMWBARAP_1417
BD15018	763562	WMWBARAP_1417
BD15019	763563	WMWBARAP_1417
BD15020	763563	WMWBARAP_1417
BD15021	763563	WMWBARAP_1417

BD15022	763563	WMWBARAP_1417
BD15129	763537	WMWBARAP_1417
BD15131	763537	WMWBARAP_1417
BD15132	763537	WMWBARAP_1417
BD15133	763537	WMWBARAP_1417
BD15134	763537	WMWBARAP_1417
BD15135	763537	WMWBARAP_1417
BD15136	763537	WMWBARAP_1417
BD15137	763537	WMWBARAP_1417

4. All of the above samples were analyzed and prepared by EPA 200.8 for dissolved analysis.
5. All samples were prepared and analyzed within the established hold times.
6. All in house quality control procedures were followed, as described below.

General Quality Control Procedures:

- All tune and calibration met criteria for all requested analytes.
- Prior to sample analysis, an initial calibration verification (ICV) was analyzed, and all criteria were met.
- Following the ICV, an initial calibration blank (ICB) was analyzed and was below the limit of quantitation for all requested analytes.
- All continued calibration verification (CCV) were within the acceptance criteria for the requested analytes.
- All continued calibration blanks (CCB) were below the limit of quantitation for the requested analytes.
- Due to no filtered method blank (MB) or laboratory control sample (LCS) submitted with the sample set, an unfiltered MB and LCS were analyzed with the samples in each batch.
- All laboratory control sample criteria were met.
- The method blank associated with each preparation batch passed all acceptance criteria for all requested analytes.
- The interference check samples associated with EPA 200.8 were analyzed and passed for all requested analytes.
- All sample internal standard criteria were met.
- It is noted that the QC summary page typically provides the QC results from the original batch analytical sequence. If dilutions were subsequently performed to bring sample concentrations within the calibration range, any additional QC data from the dilution analyses may need to be obtained from the laboratory. Any qualifications applied to original analyses or dilution re-analyses are based upon QC data available at the time of review.

Matrix Specific Quality Control Procedures:

Similarity of matrix and therefore relevance of matrix specific QC results should not be automatically inferred for any sample other than the sample selected for QC.

- A matrix spike and matrix spike duplicate were analyzed with each ICPMS batch. All acceptance criteria for accuracy were met, except for the following:
 - BD14996 Manganese MS/MSD spike levels were less than 30% of the sample concentrations.

Case Narrative

- BD15007 Manganese MS/MSD spike levels were less than 30% of the sample concentrations.
 - A matrix spike and matrix spike duplicate were analyzed with each ICPMS batch. All acceptance criteria for precision were met.
7. The following samples were diluted due to the analyzed sample concentration being greater than the high standard of the calibration curve:

<u>Sample ID</u>	<u>Analyte</u>	<u>Dilution Factor</u>
BD15004	Manganese	5.075
BD15006	Manganese	5.075
BD15019	Manganese	5.075
BD15021	Manganese	5.075

8. The raw data results are shown with dilution factors included.

Mercury

Barry Ash Pond

WMWBARAP_1417

1. This report consists of all MWs and corresponding Lab IDs listed on the Chain of Custody.
2. Refer to comments on Chain of Custody for information regarding sample receipt.
3. All standards and solutions meet NELAP traceability requirements and were used within their recommended shelf life.

<u>Sample ID</u>	<u>Batch ID</u>	<u>Project ID</u>
BD14985	762954	WMWBARAP_1417
BD14986	762954	WMWBARAP_1417
BD14988	762954	WMWBARAP_1417
BD14989	762954	WMWBARAP_1417
BD14990	762954	WMWBARAP_1417
BD14991	762954	WMWBARAP_1417
BD14992	762954	WMWBARAP_1417
BD14993	762954	WMWBARAP_1417
BD14994	762954	WMWBARAP_1417
BD14995	762955	WMWBARAP_1417
BD14996	762955	WMWBARAP_1417
BD14997	762955	WMWBARAP_1417
BD14998	762955	WMWBARAP_1417
BD14999	762955	WMWBARAP_1417
BD15000	762955	WMWBARAP_1417
BD15001	762955	WMWBARAP_1417
BD15002	762955	WMWBARAP_1417
BD15003	762955	WMWBARAP_1417
BD15004	762955	WMWBARAP_1417
BD15005	762956	WMWBARAP_1417
BD15006	762956	WMWBARAP_1417
BD15007	762956	WMWBARAP_1417
BD15008	762956	WMWBARAP_1417
BD15009	762956	WMWBARAP_1417
BD15010	762956	WMWBARAP_1417
BD15011	762956	WMWBARAP_1417
BD15012	762956	WMWBARAP_1417
BD15013	762956	WMWBARAP_1417
BD15014	762956	WMWBARAP_1417
BD15015	763218	WMWBARAP_1417
BD15016	763218	WMWBARAP_1417
BD15017	763218	WMWBARAP_1417
BD15018	763218	WMWBARAP_1417

BD15019	763218	WMWBARAP_1417
BD15020	763218	WMWBARAP_1417
BD15021	763218	WMWBARAP_1417
BD15022	763218	WMWBARAP_1417
BD15129	763218	WMWBARAP_1417
BD15130	763218	WMWBARAP_1417
BD15131	763219	WMWBARAP_1417
BD15132	763219	WMWBARAP_1417
BD15133	763219	WMWBARAP_1417
BD15134	763219	WMWBARAP_1417
BD15135	763219	WMWBARAP_1417
BD15136	763219	WMWBARAP_1417
BD15137	763219	WMWBARAP_1417
BD15138	763219	WMWBARAP_1417

4. All of the above samples were analyzed and prepared by EPA 245.1.
5. All samples were prepared and analyzed within the established hold times.
6. All in house quality control procedures were followed, as described below.

General Quality Control Procedures:

- Prior to sample analysis, an initial calibration verification (ICV) was analyzed and all criteria were met.
- Following the ICV, an initial calibration blank (ICB) was analyzed and was below the method detection limit for the requested analyte.
- All continued calibration verification (CCV) were within the acceptance criteria for the requested analyte.
- All continued calibration blanks (CCB) were below the limit of quantitation for the requested analyte.
- A preparation method blank and laboratory control sample were digested and analyzed with the samples in each digestion batch.
- All laboratory control sample criteria were met.
- The method blank associated with each digestion batch was below the limit of quantitation for the requested analyte.
- All calibration met criteria for the requested analyte.
- All response signals were satisfactory.

Matrix Specific Quality Control Procedures:

Similarity of matrix and therefore relevance of matrix specific QC results should not be automatically inferred for any sample other than the sample selected for QC.

- A matrix spike and matrix spike duplicate were digested and analyzed with each analytical batch. All acceptance criteria for accuracy were met.
- A matrix spike and matrix spike duplicate were digested and analyzed with each analytical batch. All acceptance criteria for precision were met.

7. All samples were analyzed without a dilution.

Dissolved Mercury

Barry Ash Pond

WMWBARAP_1417

1. This report consists of all MWs and corresponding Lab IDs listed on the Chain of Custody.
2. Refer to comments on Chain of Custody for information regarding sample receipt.
3. All standards and solutions meet NELAP traceability requirements and were used within their recommended shelf life.

<u>Sample ID</u>	<u>Batch ID</u>	<u>Project ID</u>
BD14987	763217	WMWBARAP_1417

4. All of the above samples were analyzed and prepared by EPA 245.1 for dissolved analysis.
5. All samples were prepared and analyzed within the established hold times.
6. All in house quality control procedures were followed, as described below.

General Quality Control Procedures:

- Prior to sample analysis, an initial calibration verification (ICV) was analyzed, and all criteria were met.
- Following the ICV, an initial calibration blank (ICB) was analyzed and was below the method detection limit for the requested analyte.
- All continued calibration verification (CCV) were within the acceptance criteria for the requested analyte.
- All continued calibration blanks (CCB) were below the limit of quantitation for the requested analyte.
- Due to no filtered method blank (MB) or laboratory control sample (LCS) submitted with the sample set, an unfiltered MB and LCS were digested and analyzed with the samples in each batch.
- All laboratory control sample criteria were met.
- The method blank associated with each digestion batch was below the limit of quantitation for the requested analyte.
- All calibration met criteria for the requested analyte.
- All response signals were satisfactory.

Matrix Specific Quality Control Procedures:

Similarity of matrix and therefore relevance of matrix specific QC results should not be automatically inferred for any sample other than the sample selected for QC.

- A matrix spike and matrix spike duplicate were digested and analyzed with each analytical batch. All acceptance criteria for accuracy were met.
 - A matrix spike and matrix spike duplicate were digested and analyzed with each analytical batch. All acceptance criteria for precision were met.
7. All samples were analyzed without a dilution.

Total Dissolved Solids

Barry Ash Pond

WMWBARAP_1417

1. This report consists of all MWs and corresponding Lab IDs listed on the Chain of Custody.
2. Refer to comments on Chain of Custody for information regarding sample receipt.
3. All standards and solutions meet NELAP traceability requirements and were used within their recommended shelf life.

<u>Sample ID</u>	<u>Batch ID</u>	<u>Project ID</u>
BD14985	762959	WMWBARAP_1417
BD14986	762959	WMWBARAP_1417
BD14987	762959	WMWBARAP_1417
BD14988	762959	WMWBARAP_1417
BD14989	762959	WMWBARAP_1417
BD14990	762960	WMWBARAP_1417
BD14991	762960	WMWBARAP_1417
BD14992	762960	WMWBARAP_1417
BD14993	762960	WMWBARAP_1417
BD14994	762960	WMWBARAP_1417
BD14995	762960	WMWBARAP_1417
BD14996	762960	WMWBARAP_1417
BD14997	762960	WMWBARAP_1417
BD14998	762960	WMWBARAP_1417
BD14999	762960	WMWBARAP_1417
BD15000	763113	WMWBARAP_1417
BD15001	763113	WMWBARAP_1417
BD15002	763113	WMWBARAP_1417
BD15003	763113	WMWBARAP_1417
BD15004	763113	WMWBARAP_1417
BD15005	763113	WMWBARAP_1417
BD15006	763113	WMWBARAP_1417
BD15007	763113	WMWBARAP_1417
BD15008	763113	WMWBARAP_1417
BD15009	763113	WMWBARAP_1417
BD15010	763114	WMWBARAP_1417
BD15011	763114	WMWBARAP_1417
BD15012	763114	WMWBARAP_1417
BD15013	763114	WMWBARAP_1417
BD15014	763114	WMWBARAP_1417
BD15015	763114	WMWBARAP_1417
BD15016	763114	WMWBARAP_1417
BD15017	763114	WMWBARAP_1417

BD15018	763114	WMWBARAP_1417
BD15019	763114	WMWBARAP_1417
BD15020	763215	WMWBARAP_1417
BD15021	763215	WMWBARAP_1417
BD15022	763215	WMWBARAP_1417
BD15129	763215	WMWBARAP_1417
BD15130	763215	WMWBARAP_1417
BD15131	763215	WMWBARAP_1417
BD15132	763215	WMWBARAP_1417
BD15133	763215	WMWBARAP_1417
BD15134	763215	WMWBARAP_1417
BD15135	763215	WMWBARAP_1417
BD15136	763216	WMWBARAP_1417
BD15137	763216	WMWBARAP_1417
BD15138	763216	WMWBARAP_1417

4. All of the above samples were prepared and analyzed by Standard Method 2540C.
5. All samples were prepared and analyzed within the established hold times.
6. All in house quality control procedures were followed, as described below.

General Quality Control Procedures:

- A Method Blank was analyzed with each batch. All criteria were met.
- All final weights of samples, standards, and blanks agreed within 0.5mg of the previous weight.
- A sample duplicate was analyzed with each batch, and RPD was $\leq 10\%$.
- A laboratory control sample was analyzed with each batch. All criteria were met.
- Samples were between 2.5mg and 200mg residue.
- All samples with residue $< 2.5\text{mg}$ had the maximum volume of 150mL filtered. Affected samples are as follows:
 - BD14990
 - BD14997
 - BD15015
 - BD15130
 - BD15138

Alkalinity

Barry Ash Pond

WMWBARAP_1417

1. This report consists of all MWs and corresponding Lab IDs listed on the Chain of Custody.
2. Refer to comments on Chain of Custody for information regarding sample receipt.
3. All standards and solutions meet NELAP traceability requirements and were used within their recommended shelf life.

<u>Sample ID</u>	<u>Batch ID</u>	<u>Project ID</u>
BD14985	763490, 763491, 763492, 763493	WMWBARAP_1417
BD14986	763490, 763491, 763492, 763493	WMWBARAP_1417
BD14987	763490, 763491, 763492, 763493	WMWBARAP_1417
BD14988	763490, 763491, 763492, 763493	WMWBARAP_1417
BD14989	763916, 763917, 763918, 763919	WMWBARAP_1417
BD14991	763916, 763917, 763918, 763919	WMWBARAP_1417
BD14992	763916, 763917, 763918, 763919	WMWBARAP_1417
BD14993	763916, 763917, 763918, 763919	WMWBARAP_1417
BD14994	763916, 763917, 763918, 763919	WMWBARAP_1417
BD14995	763916, 763917, 763918, 763919	WMWBARAP_1417
BD14996	763490, 763491, 763492, 763493	WMWBARAP_1417
BD14998	763490, 763491, 763492, 763493	WMWBARAP_1417
BD14999	763490, 763491, 763492, 763493	WMWBARAP_1417
BD15000	763490, 763491, 763492, 763493	WMWBARAP_1417
BD15001	763490, 763491, 763492, 763493	WMWBARAP_1417
BD15002	763490, 763491, 763492, 763493	WMWBARAP_1417
BD15003	763490, 763491, 763492, 763493	WMWBARAP_1417
BD15004	763490, 763491, 763492, 763493	WMWBARAP_1417
BD15005	763490, 763491, 763492, 763493	WMWBARAP_1417
BD15006	763916, 763917, 763918, 763919	WMWBARAP_1417
BD15007	763916, 763917, 763918, 763919	WMWBARAP_1417
BD15008	763916, 763917, 763918, 763919	WMWBARAP_1417
BD15009	763916, 763917, 763918, 763919	WMWBARAP_1417
BD15010	763916, 763917, 763918, 763919	WMWBARAP_1417
BD15011	763490, 763491, 763492, 763493	WMWBARAP_1417
BD15012	763490, 763491, 763492, 763493	WMWBARAP_1417
BD15013	763490, 763491, 763492, 763493	WMWBARAP_1417
BD15014	763490, 763491, 763492, 763493	WMWBARAP_1417
BD15016	763916, 763917, 763918, 763919	WMWBARAP_1417
BD15017	763916, 763917, 763918, 763919	WMWBARAP_1417
BD15018	763916, 763917, 763918, 763919	WMWBARAP_1417
BD15019	763916, 763917, 763918, 763919	WMWBARAP_1417
BD15020	763916, 763917, 763918, 763919	WMWBARAP_1417

BD15021	763916, 763917, 763918, 763919	WMWBARAP_1417
BD15022	763916, 763917, 763918, 763919	WMWBARAP_1417
BD15129	763993, 763994, 763995, 763996	WMWBARAP_1417
BD15131	763993, 763994, 763995, 763996	WMWBARAP_1417
BD15132	763993, 763994, 763995, 763996	WMWBARAP_1417
BD15133	763993, 763994, 763995, 763996	WMWBARAP_1417
BD15134	763993, 763994, 763995, 763996	WMWBARAP_1417
BD15135	763993, 763994, 763995, 763996	WMWBARAP_1417
BD15136	763993, 763994, 763995, 763996	WMWBARAP_1417
BD15137	763993, 763994, 763995, 763996	WMWBARAP_1417

4. All of the above samples were prepared and analyzed by Standard Method 2320B.
5. All samples were prepared and analyzed within the established hold times.
6. All in house quality control procedures were followed, as described below.

General Quality Control Procedures:

- An initial pH check was analyzed with each batch. The acceptance criteria were met.
 - A final pH check was analyzed with each batch. The acceptance criteria were met.
 - An alkalinity laboratory control sample was analyzed with each batch. Range criteria of within 10% of true value was met.
 - An alkalinity sample duplicate was analyzed with each batch. Precision criteria less than 10 RPD was met.
7. The following samples had pH>10 and/or TDS>500mg/L. Therefore, the calculations for carbonate and bicarbonate are estimates:
 - BD14992
 - BD15006
 - BD15019
 - BD15021

Anions

Barry Ash Pond

WMWBARAP_1417

1. This report consists of all MWs and corresponding Lab IDs listed on the Chain of Custody.
2. Refer to comments on Chain of Custody for information regarding sample receipt.
3. All standards and solutions meet NELAP traceability requirements and were used within their recommended shelf life.

<u>Sample ID</u>	<u>Batch ID</u>	<u>Project ID</u>
BD14985	763355, 763732, 763135	WMWBARAP_1417
BD14986	763355, 763732, 763135	WMWBARAP_1417
BD14987	763355, 763732, 763135	WMWBARAP_1417
BD14988	763355, 763732, 763135	WMWBARAP_1417
BD14989	763355, 763732, 763135	WMWBARAP_1417
BD14990	763355, 763732, 763135	WMWBARAP_1417
BD14991	763355, 763732, 763135	WMWBARAP_1417
BD14992	763355, 763732, 763135	WMWBARAP_1417
BD14993	763355, 763732, 763135	WMWBARAP_1417
BD14994	763355, 763732, 763135	WMWBARAP_1417
BD14995	763356, 763733, 763136	WMWBARAP_1417
BD14996	763356, 763733, 763136	WMWBARAP_1417
BD14997	763356, 763733, 763136	WMWBARAP_1417
BD14998	763356, 763733, 763136	WMWBARAP_1417
BD14999	763356, 763733, 763136	WMWBARAP_1417
BD15000	763356, 763733, 763136	WMWBARAP_1417
BD15001	763356, 763733, 763136	WMWBARAP_1417
BD15002	763356, 763733, 763136	WMWBARAP_1417
BD15003	763356, 763733, 763136	WMWBARAP_1417
BD15004	763356, 763733, 763136	WMWBARAP_1417
BD15005	763357, 763734, 763137	WMWBARAP_1417
BD15006	763357, 763734, 763137	WMWBARAP_1417
BD15007	763357, 763734, 763137	WMWBARAP_1417
BD15008	763357, 763734, 763137	WMWBARAP_1417
BD15009	763357, 763734, 765944	WMWBARAP_1417
BD15010	763357, 763734, 765944	WMWBARAP_1417
BD15011	763357, 763734, 763137	WMWBARAP_1417
BD15012	763357, 763734, 763137	WMWBARAP_1417
BD15013	763357, 763734, 763137	WMWBARAP_1417
BD15014	763357, 763734, 763137	WMWBARAP_1417
BD15015	763358, 763735, 763138	WMWBARAP_1417

BD15016	763358, 763735, 763138	WMWBARAP_1417
BD15017	763358, 763735, 763138	WMWBARAP_1417
BD15018	763358, 763735, 763138	WMWBARAP_1417
BD15019	763358, 763735, 763138	WMWBARAP_1417
BD15020	763358, 763735, 763138	WMWBARAP_1417
BD15021	763358, 763735, 763138	WMWBARAP_1417
BD15022	763358, 763735, 763138	WMWBARAP_1417
BD15129	763358, 763735, 763138	WMWBARAP_1417
BD15130	763358, 763735, 763138	WMWBARAP_1417
BD15131	763359, 763736, 763139	WMWBARAP_1417
BD15132	763359, 763736, 763139	WMWBARAP_1417
BD15133	763359, 763736, 763139	WMWBARAP_1417
BD15134	763359, 763736, 763139	WMWBARAP_1417
BD15135	763359, 763736, 763139	WMWBARAP_1417
BD15136	763359, 763736, 763139	WMWBARAP_1417
BD15137	763359, 763736, 763139	WMWBARAP_1417
BD15138	763359, 763736, 763139	WMWBARAP_1417

4. All of the above samples were analyzed and prepared by SM4500 Cl E, SM4500 F G, and SM4500 SO4 E.
5. All samples were prepared and analyzed within the established hold times.
6. All in house quality control procedures were followed, as described below.

General Quality Control Procedures:

- All calibration met criteria for the requested analyte.
- Prior to sample analysis, an initial calibration verification (ICV), and all criteria were met.
- Prior to sample analysis, an initial calibration blank (ICB) was analyzed and was below half the limit of quantitation for the requested analyte.
- All continued calibration verification (CCV) were within the acceptance criteria for the requested analyte.
- All continued calibration blanks (CCB) were below the limit of quantitation for the requested analyte.
- It is noted that the QC summary page typically provides the QC results from the original batch analytical sequence. If dilutions were subsequently performed to bring sample concentrations within the calibration range, any additional QC data from the dilution analyses may need to be obtained from the laboratory. Any qualifications applied to original analyses or dilution re-analyses are based upon QC data available at the time of review.

Matrix Specific Quality Control Procedures:

Similarity of matrix and therefore relevance of matrix specific QC results should not be automatically inferred for any sample other than the sample selected for QC.

Case Narrative

- A matrix spike and matrix spike duplicate were analyzed with each batch. All acceptance criteria for accuracy were met.
 - A matrix spike and matrix spike duplicate were analyzed with each batch. All acceptance criteria for precision were met.
7. The following samples were diluted due to the analyzed sample concentration being greater than the high standard of the calibration curve:

<u>Sample ID</u>	<u>Analyte</u>	<u>Dilution Factor</u>
BD14986	Chloride, Sulfate	2, 2
BD14987	Chloride	2
BD14988	Chloride	20
BD14988	Chloride	10
BD14989	Chloride, Sulfate	10, 8
BD14991	Chloride	16
BD14992	Chloride, Sulfate	5, 8
BD14993	Chloride	2
BD14994	Chloride	4
BD14996	Chloride, Sulfate	2, 4
BD14998	Chloride	2
BD14999	Chloride	2
BD15000	Chloride	2
BD15002	Chloride	5
BD15003	Sulfate	2
BD15005	Chloride, Sulfate	4, 4
BD15006	Chloride, Sulfate	80, 4
BD15007	Chloride, Sulfate	2, 3
BD15008	Chloride, Sulfate	2, 5
BD15009	Chloride	2
BD15010	Chloride	2
BD15011	Chloride	5
BD15012	Chloride	5
BD15013	Chloride	5
BD15019	Chloride, Sulfate	80, 4
BD15021	Chloride	80
BD15129	Chloride	40
BD15132	Chloride	3
BD15134	Chloride	40
BD15135	Chloride	5
BD15136	Chloride	25
BD15137	Chloride	4

8. The raw data results are shown with dilution factors included.

Nitrate-Nitrite

Barry Ash Pond

WMWBARAP_1417

1. This report consists of all MWs and corresponding Lab IDs listed on the Chain of Custody.
2. Refer to comments on Chain of Custody for information regarding sample receipt.
3. All standards and solutions meet NELAP traceability requirements and were used within their recommended shelf life.

<u>Sample ID</u>	<u>Batch ID</u>	<u>Project ID</u>
BD14985	763097	WMWBARAP_1417
BD14986	765007	WMWBARAP_1417
BD14987	765007	WMWBARAP_1417
BD14988	763097	WMWBARAP_1417
BD14989	763097	WMWBARAP_1417
BD14990	763097	WMWBARAP_1417
BD14991	763097	WMWBARAP_1417
BD14992	763097	WMWBARAP_1417
BD14993	763097	WMWBARAP_1417
BD14994	763097	WMWBARAP_1417
BD14995	763098	WMWBARAP_1417
BD14996	763098	WMWBARAP_1417
BD14997	763098	WMWBARAP_1417
BD14998	763098	WMWBARAP_1417
BD14999	763098	WMWBARAP_1417
BD15000	763098	WMWBARAP_1417
BD15001	763098	WMWBARAP_1417
BD15002	763098	WMWBARAP_1417
BD15003	763098	WMWBARAP_1417
BD15004	763098	WMWBARAP_1417
BD15005	763099	WMWBARAP_1417
BD15006	763099	WMWBARAP_1417
BD15007	763099	WMWBARAP_1417
BD15008	763099	WMWBARAP_1417
BD15009	763099	WMWBARAP_1417
BD15010	763099	WMWBARAP_1417
BD15011	763099	WMWBARAP_1417
BD15012	763099	WMWBARAP_1417
BD15013	763099	WMWBARAP_1417
BD15014	763099	WMWBARAP_1417
BD15015	763100	WMWBARAP_1417

BD15016	763100	WMWBARAP_1417
BD15017	763100	WMWBARAP_1417
BD15018	763100	WMWBARAP_1417
BD15019	763100	WMWBARAP_1417
BD15020	763100	WMWBARAP_1417
BD15021	763100	WMWBARAP_1417
BD15022	763100	WMWBARAP_1417
BD15129	763124	WMWBARAP_1417
BD15130	763124	WMWBARAP_1417
BD15131	763124	WMWBARAP_1417
BD15132	763124	WMWBARAP_1417
BD15133	763124	WMWBARAP_1417
BD15134	763124	WMWBARAP_1417
BD15135	763124	WMWBARAP_1417
BD15136	763124	WMWBARAP_1417
BD15137	763124	WMWBARAP_1417
BD15138	763124	WMWBARAP_1417

4. All of the above samples were prepared and analyzed for NO_x by EPA 353.2.
5. All samples were prepared and analyzed within the established hold times.
6. All in house quality control procedures were followed, as described below.

General Quality Control Procedures:

- Water baseline report was run and met criteria.
- All calibration met criteria for the requested analytes.
- Prior to sample analysis, an initial calibration verification (ICV) was analyzed and met all criteria.
- All continued calibration verification (CCV) were within the acceptance criteria.
- Prior to sample analysis, an initial calibration blank (ICB) was analyzed and were below limit of detection.
- All continued calibration blanks (CCB) were below the limit of detection.

EPA 353.2 Specific QC:

- Prior to sample analysis, Cadmium coil reduction efficiency check met criteria.
 - Matrix Specific QC:
 - A sample duplicate was run and criteria for precision was met.
 - A matrix spike was run and criteria for accuracy was met.
7. All samples were analyzed without a dilution factor.
 8. The raw data results are shown with dilution factors included.

Total Organic Carbon

Barry Ash Pond

WMWBARAP_1417

1. This report consists of all MWs and corresponding Lab IDs listed on the Chain of Custody.
2. Refer to comments on Chain of Custody for information regarding sample receipt.
3. All standards and solutions meet NELAP traceability requirements and were used within their recommended shelf life.

<u>Sample ID</u>	<u>Batch ID</u>	<u>Project ID</u>
BD14985	762930	WMWBARAP_1417
BD14986	762930	WMWBARAP_1417
BD14987	762930	WMWBARAP_1417
BD14988	762930	WMWBARAP_1417
BD14989	762930	WMWBARAP_1417
BD14990	762930	WMWBARAP_1417
BD14991	762930	WMWBARAP_1417
BD14992	762930	WMWBARAP_1417
BD14993	762930	WMWBARAP_1417
BD14994	762930	WMWBARAP_1417
BD14995	762931	WMWBARAP_1417
BD14996	762931	WMWBARAP_1417
BD14997	762931	WMWBARAP_1417
BD14998	762931	WMWBARAP_1417
BD14999	762931	WMWBARAP_1417
BD15000	762931	WMWBARAP_1417
BD15001	762931	WMWBARAP_1417
BD15002	762931	WMWBARAP_1417
BD15003	762931	WMWBARAP_1417
BD15004	762931	WMWBARAP_1417
BD15005	762932	WMWBARAP_1417
BD15006	762932	WMWBARAP_1417
BD15007	762932	WMWBARAP_1417
BD15008	762932	WMWBARAP_1417
BD15009	762932	WMWBARAP_1417
BD15010	762932	WMWBARAP_1417
BD15011	762932	WMWBARAP_1417
BD15012	762932	WMWBARAP_1417
BD15013	762932	WMWBARAP_1417
BD15014	762932	WMWBARAP_1417
BD15015	762933	WMWBARAP_1417
BD15016	762933	WMWBARAP_1417
BD15017	762933	WMWBARAP_1417

BD15018	762933	WMWBARAP_1417
BD15019	762933	WMWBARAP_1417
BD15020	762933	WMWBARAP_1417
BD15021	762933	WMWBARAP_1417
BD15022	762933	WMWBARAP_1417
BD15129	763164	WMWBARAP_1417
BD15130	763164	WMWBARAP_1417
BD15131	763164	WMWBARAP_1417
BD15132	763164	WMWBARAP_1417
BD15133	763164	WMWBARAP_1417
BD15134	763164	WMWBARAP_1417
BD15135	763164	WMWBARAP_1417
BD15136	763164	WMWBARAP_1417
BD15137	763164	WMWBARAP_1417
BD15138	763164	WMWBARAP_1417

4. All of the above samples were prepared and analyzed by Standard Method 5310B.
5. All samples were prepared and analyzed within the established hold times.
6. All in house quality control procedures were followed, as described below.

General Quality Control Procedures:

- All calibration criteria were met.
- Prior to sample analysis, an initial calibration verification (ICV) was analyzed and met all criteria.
- Prior to sample analysis, an initial calibration blank (ICB) was analyzed and was $<1/2RL$.
- All continued calibration verifications (CCVs) were within the acceptance range.
- All continued calibration blanks (CCBs) were $<1/2RL$.

Matrix Specific Quality Control Procedures:

- A matrix spike and matrix spike duplicate were analyzed with each batch. All acceptance criteria for accuracy were met.
 - A matrix spike and matrix spike duplicate were analyzed with each batch. All acceptance criteria for precision were met.
7. All samples were analyzed without a dilution factor.
 8. The raw data results are shown with dilution factors included.

Certificate Of Analysis

Description: Barry Ash Pond - MW-8

Location Code: WMWBARAP
Collected: 8/7/23 14:30
Customer ID:
Submittal Date: 8/10/23 09:46

Laboratory ID Number: BD14985

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7		Analyst: ABB			Preparation Method: EPA 1638				
* Boron, Total	8/11/23 11:28	8/15/23 12:27		1.015	0.0437	mg/L	0.030000	0.1015	J
* Calcium, Total	8/11/23 11:28	8/15/23 12:27		1.015	4.68	mg/L	0.070035	0.406	
* Iron, Total	8/11/23 11:28	8/17/23 11:48		10.15	14.9	mg/L	0.08120	0.406	
* Lithium, Total	8/11/23 11:28	8/15/23 12:27		1.015	Not Detected	mg/L	0.007105	0.01999956	U
* Magnesium, Total	8/11/23 11:28	8/15/23 12:27		1.015	2.04	mg/L	0.021315	0.406	
* Molybdenum, Total	8/11/23 11:28	8/15/23 12:27		1.015	Not Detected	mg/L	0.005075	0.01015	U
* Silica, Total (calc.)	8/11/23 11:28	8/15/23 12:27		1	11.1	mg/L			
* Silicon, Total	8/11/23 11:28	8/15/23 12:27		1.015	5.20	mg/L	0.02030	0.25375	
* Sodium, Total	8/11/23 11:28	8/15/23 12:27		1.015	12.5	mg/L	0.04060	0.406	
Analytical Method: EPA 200.7		Analyst: ABB			Preparation Method: EPA 1638				
* Boron, Dissolved	8/11/23 09:10	8/11/23 11:49		1.015	0.0466	mg/L	0.030000	0.1015	J
* Calcium, Dissolved	8/11/23 09:10	8/11/23 11:49		1.015	4.12	mg/L	0.070035	0.406	
* Iron, Dissolved	8/11/23 09:10	8/14/23 13:30		10.15	12.8	mg/L	0.08120	0.406	
* Lithium, Dissolved	8/11/23 09:10	8/11/23 11:49		1.015	Not Detected	mg/L	0.007105	0.01999956	U
* Magnesium, Dissolved	8/11/23 09:10	8/11/23 11:49		1.015	1.72	mg/L	0.021315	0.406	
* Molybdenum, Dissolved	8/11/23 09:10	8/11/23 11:49		1.015	Not Detected	mg/L	0.005075	0.01015	U
* Silica, Dissolved (calc.)	8/11/23 09:10	8/11/23 11:49		1	11.4	mg/L			
* Silicon, Dissolved	8/11/23 09:10	8/11/23 11:49		1.015	5.35	mg/L	0.02030	0.25375	
* Sodium, Dissolved	8/11/23 09:10	8/11/23 11:49		1.015	12.7	mg/L	0.04060	0.406	
Analytical Method: EPA 200.8		Analyst: DLJ			Preparation Method: EPA 1638				
* Antimony, Total	8/11/23 11:28	8/11/23 13:56		1.015	Not Detected	mg/L	0.000710	0.001015	U
* Arsenic, Total	8/11/23 11:28	8/11/23 13:56		1.015	0.00240	mg/L	0.000112	0.000203	
* Aluminum, Total	8/11/23 11:28	8/11/23 13:56		1.015	0.0441	mg/L	0.009135	0.05075	J
* Barium, Total	8/11/23 11:28	8/11/23 13:56		1.015	0.0215	mg/L	0.000508	0.001015	
* Beryllium, Total	8/11/23 11:28	8/11/23 13:56		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Total	8/11/23 11:28	8/11/23 13:56		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Total	8/11/23 11:28	8/11/23 13:56		1.015	0.000611	mg/L	0.000203	0.001015	J
* Cobalt, Total	8/11/23 11:28	8/11/23 13:56		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Lead, Total	8/11/23 11:28	8/11/23 13:56		1.015	0.0000806	mg/L	0.000068	0.000203	J
* Manganese, Total	8/11/23 11:28	8/11/23 13:56		1.015	0.197	mg/L	0.000152	0.001015	

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Barry Ash Pond - MW-8

Location Code: WMWBARAP
Collected: 8/7/23 14:30
Customer ID:
Submittal Date: 8/10/23 09:46

Laboratory ID Number: BD14985

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
* Potassium, Total	8/11/23 11:28	8/11/23 13:56		1.015	0.525	mg/L	0.169505	0.5075	
* Selenium, Total	8/11/23 11:28	8/11/23 13:56		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Total	8/11/23 11:28	8/11/23 13:56		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 200.8		Analyst: DLJ							
* Antimony, Dissolved	8/11/23 09:10	8/11/23 10:30		1.015	Not Detected	mg/L	0.000710	0.001015	U
* Aluminum, Dissolved	8/11/23 09:10	8/11/23 10:30		1.015	Not Detected	mg/L	0.009135	0.05075	U
* Arsenic, Dissolved	8/11/23 09:10	8/11/23 10:30		1.015	0.00232	mg/L	0.000112	0.000203	
* Barium, Dissolved	8/11/23 09:10	8/11/23 10:30		1.015	0.0195	mg/L	0.000508	0.001015	
* Beryllium, Dissolved	8/11/23 09:10	8/11/23 10:30		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Dissolved	8/11/23 09:10	8/11/23 10:30		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Dissolved	8/11/23 09:10	8/11/23 10:30		1.015	0.000405	mg/L	0.000203	0.001015	J
* Cobalt, Dissolved	8/11/23 09:10	8/11/23 10:30		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Lead, Dissolved	8/11/23 09:10	8/11/23 10:30		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Dissolved	8/11/23 09:10	8/11/23 10:30		1.015	0.193	mg/L	0.000152	0.001015	
* Potassium, Dissolved	8/11/23 09:10	8/11/23 10:30		1.015	0.512	mg/L	0.169505	0.5075	
* Selenium, Dissolved	8/11/23 09:10	8/11/23 10:30		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Dissolved	8/11/23 09:10	8/11/23 10:30		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 245.1		Analyst: ELH							
* Mercury, Total by CVAA	8/10/23 17:13	8/10/23 21:48		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: EPA 353.2		Analyst: SC							
* Nitrogen, Nitrate/Nitrite	8/10/23 15:11	8/10/23 15:11		1	Not Detected	mg/L as N	0.20	0.3	U
Analytical Method: SM 2320 B		Analyst: DHC							
* Alkalinity	8/15/23 09:20	8/15/23 14:17		1	22.2	mg CaCO3/L		0.1	
Analytical Method: SM 2540C		Analyst: CNJ							
* Solids, Dissolved	8/10/23 13:30	8/11/23 13:40		1	90.0	mg/L		25	
Analytical Method: SM 4500CO2 D		Analyst: DHC							
* Bicarbonate Alkalinity, (calc.)	8/15/23 09:20	8/15/23 14:17		1	22.2	mg CaCO3/L		1	
* Carbonate Alkalinity, (calc.)	8/15/23 09:20	8/15/23 14:17		1	Not Detected	mg CaCO3/L		0.5	
Analytical Method: SM 4500H+ B		Analyst: DHC							
Alkalinity pH Endpoint	8/15/23 09:20	8/15/23 14:17		1	4.56	SU		2	

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Barry Ash Pond - MW-8

Location Code: WMWBARAP
Collected: 8/7/23 14:30
Customer ID:
Submittal Date: 8/10/23 09:46

Laboratory ID Number: BD14985

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM 5310 B		Analyst: SC							
* Total Organic Carbon	8/10/23 18:18	8/10/23 18:18		1	3.07	mg/L	1.00	2	
Analytical Method: SM4500Cl E		Analyst: JCC							
* Chloride	8/16/23 11:19	8/16/23 11:19		1	6.63	mg/L	0.50	1	
Analytical Method: SM4500F G 2017		Analyst: JCC							
* Fluoride	8/17/23 10:02	8/17/23 10:02		1	0.112	mg/L	0.06	0.125	J
Analytical Method: SM4500SO4 E 2011		Analyst: JCC							
* Sulfate	8/11/23 10:29	8/11/23 10:29		1	38.6	mg/L	0.6	2	
Analytical Method: Field Measurements		Analyst: AWG							
Conductivity	8/7/23 14:28	8/7/23 14:28			128.71	uS/cm			FA
pH	8/7/23 14:28	8/7/23 14:28			6.82	SU			FA
Temperature	8/7/23 14:28	8/7/23 14:28			24.91	C			FA
Turbidity	8/7/23 14:28	8/7/23 14:28			6.42	NTU			FA
Sulfide	8/7/23 14:28	8/7/23 14:28			0	mg/L			FA

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWBARAP

Sample Date: 8/7/23 14:30

Customer ID:

Delivery Date: 8/10/23 09:46

Description: Barry Ash Pond - MW-8

Laboratory ID Number: BD14985

Sample	Analysis	Units	MB		Spike	MS	MSD	Standard		Rec		Prec	Limit
			MB	Limit				Standard	Limit	Rec	Limit		
BD14996	Aluminum, Dissolved	mg/L	-0.000366	0.0198	0.100	0.105	0.105	0.104	0.0850 to 0.115	105	70.0 to 130	0.00	20.0
BD14995	Aluminum, Total	mg/L	0.000500	0.0198	0.100	0.150	0.152	0.105	0.0850 to 0.115	105	70.0 to 130	1.32	20.0
BD14996	Antimony, Dissolved	mg/L	0.000717	0.00100	0.100	0.0923	0.0961	0.0901	0.0850 to 0.115	92.3	70.0 to 130	4.03	20.0
BD14995	Antimony, Total	mg/L	0.000324	0.00100	0.100	0.0894	0.0911	0.0902	0.0850 to 0.115	89.4	70.0 to 130	1.88	20.0
BD14996	Arsenic, Dissolved	mg/L	0.0000364	0.000200	0.100	0.114	0.116	0.0999	0.0850 to 0.115	100	70.0 to 130	1.74	20.0
BD14995	Arsenic, Total	mg/L	0.0000151	0.000200	0.100	0.0991	0.0979	0.0967	0.0850 to 0.115	97.8	70.0 to 130	1.22	20.0
BD14996	Barium, Dissolved	mg/L	-0.0000120	0.00100	0.100	0.157	0.155	0.0953	0.0850 to 0.115	92.3	70.0 to 130	1.28	20.0
BD14995	Barium, Total	mg/L	-0.0000137	0.00100	0.100	0.118	0.116	0.0978	0.0850 to 0.115	101	70.0 to 130	1.71	20.0
BD14996	Beryllium, Dissolved	mg/L	0.0000241	0.000880	0.100	0.101	0.0994	0.0982	0.0850 to 0.115	101	70.0 to 130	1.60	20.0
BD14995	Beryllium, Total	mg/L	0.0000313	0.000880	0.100	0.0968	0.0959	0.0963	0.0850 to 0.115	96.8	70.0 to 130	0.934	20.0
BD14996	Boron, Dissolved	mg/L	-0.00158	0.0650	1.00	1.08	1.11	0.998	0.850 to 1.15	102	70.0 to 130	2.74	20.0
BD14995	Boron, Total	mg/L	0.000329	0.0650	1.00	1.01	0.979	1.00	0.850 to 1.15	101	70.0 to 130	3.12	20.0
BD14996	Cadmium, Dissolved	mg/L	0.0000122	0.000147	0.100	0.101	0.0988	0.0966	0.0850 to 0.115	101	70.0 to 130	2.20	20.0
BD14995	Cadmium, Total	mg/L	0.0000069	0.000147	0.100	0.0941	0.0961	0.0952	0.0850 to 0.115	94.1	70.0 to 130	2.10	20.0
BD14996	Calcium, Dissolved	mg/L	-0.00883	0.152	5.00	29.1	29.7	4.86	4.25 to 5.75	76.0	70.0 to 130	2.04	20.0
BD14995	Calcium, Total	mg/L	0.00398	0.152	5.00	6.16	5.99	4.68	4.25 to 5.75	91.4	70.0 to 130	2.80	20.0
BD14994	Chloride	mg/L	0.0253	1.00	40.0	60.6	61.3	9.83	9.00 to 11.0	102	80.0 to 120	1.15	20.0
BD14996	Chromium, Dissolved	mg/L	-0.0000772	0.000440	0.100	0.0999	0.0974	0.0988	0.0850 to 0.115	97.5	70.0 to 130	2.53	20.0
BD14995	Chromium, Total	mg/L	-0.000117	0.000440	0.100	0.0977	0.0977	0.0987	0.0850 to 0.115	97.4	70.0 to 130	0.00	20.0
BD14996	Cobalt, Dissolved	mg/L	-0.0000063	0.000147	0.100	0.104	0.101	0.102	0.0850 to 0.115	103	70.0 to 130	2.93	20.0
BD14995	Cobalt, Total	mg/L	-0.0000058	0.000147	0.100	0.105	0.105	0.104	0.0850 to 0.115	101	70.0 to 130	0.00	20.0
BD14994	Fluoride	mg/L	0.0417	0.125	2.50	2.62	2.66	2.52	2.25 to 2.75	102	80.0 to 120	1.52	20.0
BD14996	Iron, Dissolved	mg/L	0.00047	0.0176	0.2	71.7	71.4	0.204	0.170 to 0.230	150	70.0 to 130	0.419	20.0
BD14995	Iron, Total	mg/L	0.00156	0.0176	0.2	0.415	0.414	0.198	0.170 to 0.230	99.0	70.0 to 130	0.241	20.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWBARAP

Sample Date: 8/7/23 14:30

Customer ID:

Delivery Date: 8/10/23 09:46

Description: Barry Ash Pond - MW-8

Laboratory ID Number: BD14985

Sample	Analysis	Units	MB		Spike	MS	MSD	Standard		Rec		Prec	Limit
			MB	Limit				Standard	Limit	Rec	Limit		
BD14996	Lead, Dissolved	mg/L	0.0000155	0.000147	0.100	0.109	0.104	0.107	0.0850 to 0.115	109	70.0 to 130	4.69	20.0
BD14995	Lead, Total	mg/L	0.0000200	0.000147	0.100	0.102	0.105	0.106	0.0850 to 0.115	102	70.0 to 130	2.90	20.0
BD14996	Lithium, Dissolved	mg/L	-0.000571	0.0154	0.200	0.236	0.233	0.206	0.170 to 0.230	105	70.0 to 130	1.28	20.0
BD14995	Lithium, Total	mg/L	-0.000313	0.0154	0.200	0.213	0.213	0.212	0.170 to 0.230	106	70.0 to 130	0.00	20.0
BD14996	Magnesium, Dissolved	mg/L	-0.00854	0.0462	5.00	18.8	18.9	5.06	4.25 to 5.75	92.0	70.0 to 130	0.531	20.0
BD14995	Magnesium, Total	mg/L	-0.0185	0.0462	5.00	6.25	6.18	5.09	4.25 to 5.75	102	70.0 to 130	1.13	20.0
BD14996	Manganese, Dissolved	mg/L	0.0000086	0.00033	0.100	0.722	0.699	0.101	0.0850 to 0.115	91.0	70.0 to 130	3.24	20.0
BD14995	Manganese, Total	mg/L	0.0000152	0.00033	0.100	0.276	0.275	0.102	0.0850 to 0.115	97.0	70.0 to 130	0.363	20.0
BD14994	Mercury, Total by CVAA	mg/L	-4.000E-05	0.000500	0.004	0.00394	0.00395	0.00395	0.00340 to 0.00460	98.5	70.0 to 130	0.253	20.0
BD14996	Molybdenum, Dissolved	mg/L	0.00221	0.0100	0.2	0.199	0.198	0.198	0.170 to 0.230	99.5	70.0 to 130	0.504	20.0
BD14995	Molybdenum, Total	mg/L	0.000	0.0100	0.2	0.196	0.195	0.199	0.170 to 0.230	98.0	70.0 to 130	0.512	20.0
BD14996	Potassium, Dissolved	mg/L	-0.00230	0.367	10.0	20.4	20.0	10.3	8.50 to 11.5	99.0	70.0 to 130	1.98	20.0
BD14995	Potassium, Total	mg/L	-0.0139	0.367	10.0	11.0	11.0	10.5	8.50 to 11.5	102	70.0 to 130	0.00	20.0
BD14996	Selenium, Dissolved	mg/L	0.0000708	0.00100	0.100	0.106	0.107	0.101	0.0850 to 0.115	106	70.0 to 130	0.939	20.0
BD14995	Selenium, Total	mg/L	-0.0000893	0.00100	0.100	0.0976	0.0984	0.100	0.0850 to 0.115	97.6	70.0 to 130	0.816	20.0
BD14996	Silicon, Dissolved	mg/L	-0.000657	0.0440	1.00	8.63	8.66	1.02	0.850 to 1.15	93.0	70.0 to 130	0.347	20.0
BD14995	Silicon, Total	mg/L	-0.000409	0.0440	1.00	8.84	8.80	1.02	0.850 to 1.15	114	70.0 to 130	0.454	20.0
BD14996	Sodium, Dissolved	mg/L	0.00579	0.0880	5.00	56.2	56.1	5.30	4.25 to 5.75	100	70.0 to 130	0.178	20.0
BD14995	Sodium, Total	mg/L	0.00111	0.0880	5.00	10.1	10.1	5.47	4.25 to 5.75	107	70.0 to 130	0.00	20.0
BD14994	Sulfate	mg/L	0.153	2.0	20.0	43.3	43.8	20.5	18.0 to 22.0	82.0	80.0 to 120	1.15	20.0
BD14996	Thallium, Dissolved	mg/L	-0.0000062	0.000147	0.100	0.107	0.105	0.103	0.0850 to 0.115	107	70.0 to 130	1.89	20.0
BD14995	Thallium, Total	mg/L	0.0000078	0.000147	0.100	0.0997	0.105	0.105	0.0850 to 0.115	99.7	70.0 to 130	5.18	20.0
BD14994	Total Organic Carbon	mg/L	0.189	1.00	10.0	18.0	18.5	25.3		115	80.0 to 120	2.74	20.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWBARAP

Sample Date: 8/7/23 14:30

Customer ID:

Delivery Date: 8/10/23 09:46

Description: Barry Ash Pond - MW-8

Laboratory ID Number: BD14985

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BD15014	Alkalinity	mg CaCO3/L					73.7	51.9	45.0 to 55.0			3.60	10.0
BD14994	Nitrogen, Nitrate/Nitrite	mg/L as N	0.00	0.200	2.00	2.08	0.045	2.06	1.80 to 2.20	104	90.0 to 110	0.00	15.0
BD14989	Solids, Dissolved	mg/L	1.00	25.0			383	53.0	40.0 to 60.0			1.81	10.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Barry Ash Pond - MW-8V

Location Code: WMWBARAP
Collected: 8/7/23 17:40
Customer ID:
Submittal Date: 8/10/23 09:46

Laboratory ID Number: BD14986

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7			Analyst: ABB		Preparation Method: EPA 1638				
* Boron, Total	8/11/23 11:28	8/15/23 12:31		1.015	0.0907	mg/L	0.030000	0.1015	J
* Calcium, Total	8/11/23 11:28	8/15/23 12:31		1.015	20.4	mg/L	0.070035	0.406	
* Iron, Total	8/11/23 11:28	8/15/23 12:31		1.015	0.756	mg/L	0.008120	0.0406	
* Lithium, Total	8/11/23 11:28	8/15/23 12:31		1.015	Not Detected	mg/L	0.007105	0.01999956	U
* Magnesium, Total	8/11/23 11:28	8/15/23 12:31		1.015	4.79	mg/L	0.021315	0.406	
* Molybdenum, Total	8/11/23 11:28	8/15/23 12:31		1.015	Not Detected	mg/L	0.005075	0.01015	U
* Silica, Total (calc.)	8/11/23 11:28	8/15/23 12:31		1	11.5	mg/L			
* Silicon, Total	8/11/23 11:28	8/15/23 12:31		1.015	5.37	mg/L	0.02030	0.25375	
* Sodium, Total	8/11/23 11:28	8/16/23 13:44		10.15	43.8	mg/L	0.4060	4.06	
Analytical Method: EPA 200.7			Analyst: ABB						
* Boron, Dissolved	8/11/23 09:10	8/11/23 11:52		1.015	0.0920	mg/L	0.030000	0.1015	J
* Calcium, Dissolved	8/11/23 09:10	8/11/23 11:52		1.015	13.5	mg/L	0.070035	0.406	
* Iron, Dissolved	8/11/23 09:10	8/11/23 11:52		1.015	Not Detected	mg/L	0.008120	0.0406	U
* Lithium, Dissolved	8/11/23 09:10	8/11/23 11:52		1.015	Not Detected	mg/L	0.007105	0.01999956	U
* Magnesium, Dissolved	8/11/23 09:10	8/11/23 11:52		1.015	2.35	mg/L	0.021315	0.406	
* Molybdenum, Dissolved	8/11/23 09:10	8/11/23 11:52		1.015	Not Detected	mg/L	0.005075	0.01015	U
* Silica, Dissolved (calc.)	8/11/23 09:10	8/11/23 11:52		1	10.8	mg/L			
* Silicon, Dissolved	8/11/23 09:10	8/11/23 11:52		1.015	5.05	mg/L	0.02030	0.25375	
* Sodium, Dissolved	8/11/23 09:10	8/14/23 13:33		10.15	46.0	mg/L	0.4060	4.06	
Analytical Method: EPA 200.8			Analyst: DLJ		Preparation Method: EPA 1638				
* Antimony, Total	8/11/23 11:28	8/11/23 13:59		1.015	Not Detected	mg/L	0.000710	0.001015	U
* Aluminum, Total	8/11/23 11:28	8/11/23 13:59		1.015	0.717	mg/L	0.009135	0.05075	
* Arsenic, Total	8/11/23 11:28	8/11/23 13:59		1.015	0.00143	mg/L	0.000112	0.000203	
* Barium, Total	8/11/23 11:28	8/11/23 13:59		1.015	0.0322	mg/L	0.000508	0.001015	
* Beryllium, Total	8/11/23 11:28	8/11/23 13:59		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Total	8/11/23 11:28	8/11/23 13:59		1.015	0.0000747	mg/L	0.000068	0.000203	J
* Chromium, Total	8/11/23 11:28	8/11/23 13:59		1.015	0.00276	mg/L	0.000203	0.001015	
* Cobalt, Total	8/11/23 11:28	8/11/23 13:59		1.015	0.000545	mg/L	0.000068	0.000203	
* Lead, Total	8/11/23 11:28	8/11/23 13:59		1.015	0.00160	mg/L	0.000068	0.000203	
* Manganese, Total	8/11/23 11:28	8/11/23 13:59		1.015	0.0120	mg/L	0.000152	0.001015	

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Barry Ash Pond - MW-8V

Location Code: WMWBARAP
Collected: 8/7/23 17:40
Customer ID:
Submittal Date: 8/10/23 09:46

Laboratory ID Number: BD14986

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
* Potassium, Total	8/11/23 11:28	8/11/23 13:59		1.015	2.49	mg/L	0.169505	0.5075	
* Selenium, Total	8/11/23 11:28	8/11/23 13:59		1.015	0.00281	mg/L	0.000508	0.001015	
* Thallium, Total	8/11/23 11:28	8/11/23 13:59		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 200.8		Analyst: DLJ							
* Antimony, Dissolved	8/11/23 09:10	8/11/23 10:33		1.015	Not Detected	mg/L	0.000710	0.001015	U
* Aluminum, Dissolved	8/11/23 09:10	8/11/23 10:33		1.015	0.0143	mg/L	0.009135	0.05075	J
* Arsenic, Dissolved	8/11/23 09:10	8/11/23 10:33		1.015	0.000907	mg/L	0.000112	0.000203	
* Barium, Dissolved	8/11/23 09:10	8/11/23 10:33		1.015	0.0218	mg/L	0.000508	0.001015	
* Beryllium, Dissolved	8/11/23 09:10	8/11/23 10:33		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Dissolved	8/11/23 09:10	8/11/23 10:33		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Dissolved	8/11/23 09:10	8/11/23 10:33		1.015	0.000284	mg/L	0.000203	0.001015	J
* Cobalt, Dissolved	8/11/23 09:10	8/11/23 10:33		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Lead, Dissolved	8/11/23 09:10	8/11/23 10:33		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Dissolved	8/11/23 09:10	8/11/23 10:33		1.015	0.00561	mg/L	0.000152	0.001015	
* Potassium, Dissolved	8/11/23 09:10	8/11/23 10:33		1.015	2.31	mg/L	0.169505	0.5075	
* Selenium, Dissolved	8/11/23 09:10	8/11/23 10:33		1.015	0.00279	mg/L	0.000508	0.001015	
* Thallium, Dissolved	8/11/23 09:10	8/11/23 10:33		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 245.1		Analyst: ELH							
* Mercury, Total by CVAA	8/10/23 17:13	8/10/23 21:52		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: EPA 353.2		Analyst: SC							
* Nitrogen, Nitrate/Nitrite	8/29/23 12:01	8/29/23 12:01		1	Not Detected	mg/L as N	0.20	0.3	U
Analytical Method: SM 2320 B		Analyst: DHC							
* Alkalinity	8/15/23 09:20	8/15/23 14:17		1	78.5	mg CaCO3/L		0.1	
Analytical Method: SM 2540C		Analyst: CNJ							
* Solids, Dissolved	8/10/23 13:30	8/11/23 13:40		1	200	mg/L		25	
Analytical Method: SM 4500CO2 D		Analyst: DHC							
* Bicarbonate Alkalinity, (calc.)	8/15/23 09:20	8/15/23 14:17		1	77.2	mg CaCO3/L		1	
* Carbonate Alkalinity, (calc.)	8/15/23 09:20	8/15/23 14:17		1	1.23	mg CaCO3/L		0.5	
Analytical Method: SM 4500H+ B		Analyst: DHC							
Alkalinity pH Endpoint	8/15/23 09:20	8/15/23 14:17		1	4.45	SU		2	

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Barry Ash Pond - MW-8V

Location Code: WMWBARAP
Collected: 8/7/23 17:40
Customer ID:
Submittal Date: 8/10/23 09:46

Laboratory ID Number: BD14986

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM 5310 B		Analyst: SC							
* Total Organic Carbon	8/10/23 18:37	8/10/23 18:37		1	2.90	mg/L	1.00	2	
Analytical Method: SM4500Cl E		Analyst: JCC							
* Chloride	8/16/23 11:20	8/16/23 11:20		2	22.7	mg/L	1.00	2	
Analytical Method: SM4500F G 2017		Analyst: JCC							
* Fluoride	8/17/23 10:03	8/17/23 10:03		1	0.316	mg/L	0.06	0.125	
Analytical Method: SM4500SO4 E 2011		Analyst: JCC							
* Sulfate	8/11/23 10:44	8/11/23 10:44		2	50.7	mg/L	1.2	4	
Analytical Method: Field Measurements		Analyst: AWG							
Conductivity	8/7/23 17:37	8/7/23 17:37			279.38	uS/cm			FA
pH	8/7/23 17:37	8/7/23 17:37			8.18	SU			FA
Temperature	8/7/23 17:37	8/7/23 17:37			20.81	C			FA
Turbidity	8/7/23 17:37	8/7/23 17:37			47.6	NTU			FA
Sulfide	8/7/23 17:37	8/7/23 17:37			0	mg/L			FA

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWBARAP
Sample Date: 8/7/23 17:40
Customer ID:
Delivery Date: 8/10/23 09:46

Description: Barry Ash Pond - MW-8V

Laboratory ID Number: BD14986

Sample	Analysis	Units	MB	MB		Spike	MS	MSD	Standard		Rec		Prec Limit
				Limit					Standard	Limit	Rec	Limit	
BD14996	Aluminum, Dissolved	mg/L	-0.000366	0.0198	0.100	0.105	0.105	0.104	0.0850 to 0.115	105	70.0 to 130	0.00	20.0
BD14995	Aluminum, Total	mg/L	0.000500	0.0198	0.100	0.150	0.152	0.105	0.0850 to 0.115	105	70.0 to 130	1.32	20.0
BD14996	Antimony, Dissolved	mg/L	0.000717	0.00100	0.100	0.0923	0.0961	0.0901	0.0850 to 0.115	92.3	70.0 to 130	4.03	20.0
BD14995	Antimony, Total	mg/L	0.000324	0.00100	0.100	0.0894	0.0911	0.0902	0.0850 to 0.115	89.4	70.0 to 130	1.88	20.0
BD14996	Arsenic, Dissolved	mg/L	0.0000364	0.000200	0.100	0.114	0.116	0.0999	0.0850 to 0.115	100	70.0 to 130	1.74	20.0
BD14995	Arsenic, Total	mg/L	0.0000151	0.000200	0.100	0.0991	0.0979	0.0967	0.0850 to 0.115	97.8	70.0 to 130	1.22	20.0
BD14996	Barium, Dissolved	mg/L	-0.0000120	0.00100	0.100	0.157	0.155	0.0953	0.0850 to 0.115	92.3	70.0 to 130	1.28	20.0
BD14995	Barium, Total	mg/L	-0.0000137	0.00100	0.100	0.118	0.116	0.0978	0.0850 to 0.115	101	70.0 to 130	1.71	20.0
BD14996	Beryllium, Dissolved	mg/L	0.0000241	0.000880	0.100	0.101	0.0994	0.0982	0.0850 to 0.115	101	70.0 to 130	1.60	20.0
BD14995	Beryllium, Total	mg/L	0.0000313	0.000880	0.100	0.0968	0.0959	0.0963	0.0850 to 0.115	96.8	70.0 to 130	0.934	20.0
BD14996	Boron, Dissolved	mg/L	-0.00158	0.0650	1.00	1.08	1.11	0.998	0.850 to 1.15	102	70.0 to 130	2.74	20.0
BD14995	Boron, Total	mg/L	0.000329	0.0650	1.00	1.01	0.979	1.00	0.850 to 1.15	101	70.0 to 130	3.12	20.0
BD14996	Cadmium, Dissolved	mg/L	0.0000122	0.000147	0.100	0.101	0.0988	0.0966	0.0850 to 0.115	101	70.0 to 130	2.20	20.0
BD14995	Cadmium, Total	mg/L	0.0000069	0.000147	0.100	0.0941	0.0961	0.0952	0.0850 to 0.115	94.1	70.0 to 130	2.10	20.0
BD14996	Calcium, Dissolved	mg/L	-0.00883	0.152	5.00	29.1	29.7	4.86	4.25 to 5.75	76.0	70.0 to 130	2.04	20.0
BD14995	Calcium, Total	mg/L	0.00398	0.152	5.00	6.16	5.99	4.68	4.25 to 5.75	91.4	70.0 to 130	2.80	20.0
BD14994	Chloride	mg/L	0.0253	1.00	40.0	60.6	61.3	9.83	9.00 to 11.0	102	80.0 to 120	1.15	20.0
BD14996	Chromium, Dissolved	mg/L	-0.0000772	0.000440	0.100	0.0999	0.0974	0.0988	0.0850 to 0.115	97.5	70.0 to 130	2.53	20.0
BD14995	Chromium, Total	mg/L	-0.000117	0.000440	0.100	0.0977	0.0977	0.0987	0.0850 to 0.115	97.4	70.0 to 130	0.00	20.0
BD14996	Cobalt, Dissolved	mg/L	-0.0000063	0.000147	0.100	0.104	0.101	0.102	0.0850 to 0.115	103	70.0 to 130	2.93	20.0
BD14995	Cobalt, Total	mg/L	-0.0000058	0.000147	0.100	0.105	0.105	0.104	0.0850 to 0.115	101	70.0 to 130	0.00	20.0
BD14994	Fluoride	mg/L	0.0417	0.125	2.50	2.62	2.66	2.52	2.25 to 2.75	102	80.0 to 120	1.52	20.0
BD14996	Iron, Dissolved	mg/L	0.00047	0.0176	0.2	71.7	71.4	0.204	0.170 to 0.230	150	70.0 to 130	0.419	20.0
BD14995	Iron, Total	mg/L	0.00156	0.0176	0.2	0.415	0.414	0.198	0.170 to 0.230	99.0	70.0 to 130	0.241	20.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWBARAP

Sample Date: 8/7/23 17:40

Customer ID:

Delivery Date: 8/10/23 09:46

Description: Barry Ash Pond - MW-8V

Laboratory ID Number: BD14986

Sample	Analysis	Units	MB		Spike	MS	MSD	Standard		Rec		Prec	Limit
			MB	Limit				Standard	Limit	Rec	Limit		
BD14996	Lead, Dissolved	mg/L	0.0000155	0.000147	0.100	0.109	0.104	0.107	0.0850 to 0.115	109	70.0 to 130	4.69	20.0
BD14995	Lead, Total	mg/L	0.0000200	0.000147	0.100	0.102	0.105	0.106	0.0850 to 0.115	102	70.0 to 130	2.90	20.0
BD14996	Lithium, Dissolved	mg/L	-0.000571	0.0154	0.200	0.236	0.233	0.206	0.170 to 0.230	105	70.0 to 130	1.28	20.0
BD14995	Lithium, Total	mg/L	-0.000313	0.0154	0.200	0.213	0.213	0.212	0.170 to 0.230	106	70.0 to 130	0.00	20.0
BD14996	Magnesium, Dissolved	mg/L	-0.00854	0.0462	5.00	18.8	18.9	5.06	4.25 to 5.75	92.0	70.0 to 130	0.531	20.0
BD14995	Magnesium, Total	mg/L	-0.0185	0.0462	5.00	6.25	6.18	5.09	4.25 to 5.75	102	70.0 to 130	1.13	20.0
BD14996	Manganese, Dissolved	mg/L	0.0000086	0.00033	0.100	0.722	0.699	0.101	0.0850 to 0.115	91.0	70.0 to 130	3.24	20.0
BD14995	Manganese, Total	mg/L	0.0000152	0.00033	0.100	0.276	0.275	0.102	0.0850 to 0.115	97.0	70.0 to 130	0.363	20.0
BD14994	Mercury, Total by CVAA	mg/L	-4.000E-05	0.000500	0.004	0.00394	0.00395	0.00395	0.00340 to 0.00460	98.5	70.0 to 130	0.253	20.0
BD14996	Molybdenum, Dissolved	mg/L	0.00221	0.0100	0.2	0.199	0.198	0.198	0.170 to 0.230	99.5	70.0 to 130	0.504	20.0
BD14995	Molybdenum, Total	mg/L	0.000	0.0100	0.2	0.196	0.195	0.199	0.170 to 0.230	98.0	70.0 to 130	0.512	20.0
BD14996	Potassium, Dissolved	mg/L	-0.00230	0.367	10.0	20.4	20.0	10.3	8.50 to 11.5	99.0	70.0 to 130	1.98	20.0
BD14995	Potassium, Total	mg/L	-0.0139	0.367	10.0	11.0	11.0	10.5	8.50 to 11.5	102	70.0 to 130	0.00	20.0
BD14996	Selenium, Dissolved	mg/L	0.0000708	0.00100	0.100	0.106	0.107	0.101	0.0850 to 0.115	106	70.0 to 130	0.939	20.0
BD14995	Selenium, Total	mg/L	-0.0000893	0.00100	0.100	0.0976	0.0984	0.100	0.0850 to 0.115	97.6	70.0 to 130	0.816	20.0
BD14996	Silicon, Dissolved	mg/L	-0.000657	0.0440	1.00	8.63	8.66	1.02	0.850 to 1.15	93.0	70.0 to 130	0.347	20.0
BD14995	Silicon, Total	mg/L	-0.000409	0.0440	1.00	8.84	8.80	1.02	0.850 to 1.15	114	70.0 to 130	0.454	20.0
BD14996	Sodium, Dissolved	mg/L	0.00579	0.0880	5.00	56.2	56.1	5.30	4.25 to 5.75	100	70.0 to 130	0.178	20.0
BD14995	Sodium, Total	mg/L	0.00111	0.0880	5.00	10.1	10.1	5.47	4.25 to 5.75	107	70.0 to 130	0.00	20.0
BD14994	Sulfate	mg/L	0.153	2.0	20.0	43.3	43.8	20.5	18.0 to 22.0	82.0	80.0 to 120	1.15	20.0
BD14996	Thallium, Dissolved	mg/L	-0.0000062	0.000147	0.100	0.107	0.105	0.103	0.0850 to 0.115	107	70.0 to 130	1.89	20.0
BD14995	Thallium, Total	mg/L	0.0000078	0.000147	0.100	0.0997	0.105	0.105	0.0850 to 0.115	99.7	70.0 to 130	5.18	20.0
BD14994	Total Organic Carbon	mg/L	0.189	1.00	10.0	18.0	18.5	25.3		115	80.0 to 120	2.74	20.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWBARAP

Sample Date: 8/7/23 17:40

Customer ID:

Delivery Date: 8/10/23 09:46

Description: Barry Ash Pond - MW-8V

Laboratory ID Number: BD14986

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BD15014	Alkalinity	mg CaCO3/L					73.7	51.9	45.0 to 55.0			3.60	10.0
BD14987	Nitrogen, Nitrate/Nitrite	mg/L as N	0.01	0.200	2.00	2.48	0.495	1.92	1.80 to 2.20	101	90.0 to 110	5.61	15.0
BD14989	Solids, Dissolved	mg/L	1.00	25.0			383	53.0	40.0 to 60.0			1.81	10.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Barry Ash Pond - MW-8V Diss

Location Code: WMWBARAP
Collected: 8/7/23 17:40
Customer ID:
Submittal Date: 8/10/23 09:46

Laboratory ID Number: BD14987

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 245.1		Analyst: ELH							
* Mercury, Dissolved by CVAA	8/15/23 15:19	8/15/23 19:17		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: EPA 353.2		Analyst: SC							
* Nitrogen, Nitrate/Nitrite	8/29/23 12:01	8/29/23 12:01		1	0.468	mg/L as N	0.20	0.3	
Analytical Method: SM 2320 B		Analyst: DHC							
* Alkalinity	8/15/23 09:20	8/15/23 14:17		1	72.8	mg CaCO3/L		0.1	
Analytical Method: SM 2540C		Analyst: CNJ							
* Solids, Dissolved	8/10/23 13:30	8/11/23 13:40		1	176	mg/L		25	
Analytical Method: SM 4500CO2 D		Analyst: DHC							
* Bicarbonate Alkalinity, (calc.)	8/15/23 09:20	8/15/23 14:17		1	71.9	mg CaCO3/L		1	
* Carbonate Alkalinity, (calc.)	8/15/23 09:20	8/15/23 14:17		1	0.851	mg CaCO3/L		0.5	
Analytical Method: SM 4500H+ B		Analyst: DHC							
Alkalinity pH Endpoint	8/15/23 09:20	8/15/23 14:17		1	4.47	SU		2	
Analytical Method: SM 5310 B		Analyst: SC							
* Total Organic Carbon	8/10/23 18:53	8/10/23 18:53		1	3.31	mg/L	1.00	2	
Analytical Method: SM4500CI E		Analyst: JCC							
* Chloride	8/16/23 11:22	8/16/23 11:22		2	22.1	mg/L	1.00	2	
Analytical Method: SM4500F G 2017		Analyst: JCC							
* Fluoride	8/17/23 10:04	8/17/23 10:04		1	0.300	mg/L	0.06	0.125	
Analytical Method: SM4500SO4 E 2011		Analyst: JCC							
* Sulfate	8/11/23 10:31	8/11/23 10:31		1	35.4	mg/L	0.6	2	

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWBARAP

Sample Date: 8/7/23 17:40

Customer ID:

Delivery Date: 8/10/23 09:46

Description: Barry Ash Pond - MW-8V Diss

Laboratory ID Number: BD14987

Sample	Analysis	Units	MB	MB				Standard		Rec		Prec	Limit
				Limit	Spike	MS	MSD	Standard	Limit	Rec	Limit		
BD14994	Chloride	mg/L	0.0253	1.00	40.0	60.6	61.3	9.83	9.00 to 11.0	102	80.0 to 120	1.15	20.0
BD14994	Fluoride	mg/L	0.0417	0.125	2.50	2.62	2.66	2.52	2.25 to 2.75	102	80.0 to 120	1.52	20.0
BD14987	Mercury, Dissolved by	mg/L	4.000E-05	0.000500	0.004	0.00403	0.00397	0.00383	0.00340 to 0.00460	101	70.0 to 130	1.50	20.0
BD14994	Sulfate	mg/L	0.153	2.0	20.0	43.3	43.8	20.5	18.0 to 22.0	82.0	80.0 to 120	1.15	20.0
BD14994	Total Organic Carbon	mg/L	0.189	1.00	10.0	18.0	18.5	25.3		115	80.0 to 120	2.74	20.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWBARAP

Sample Date: 8/7/23 17:40

Customer ID:

Delivery Date: 8/10/23 09:46

Description: Barry Ash Pond - MW-8V Diss

Laboratory ID Number: BD14987

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BD15014	Alkalinity	mg CaCO3/L					73.7	51.9	45.0 to 55.0			3.60	10.0
BD14987	Nitrogen, Nitrate/Nitrite	mg/L as N	0.01	0.200	2.00	2.48	0.495	1.92	1.80 to 2.20	101	90.0 to 110	5.61	15.0
BD14989	Solids, Dissolved	mg/L	1.00	25.0			383	53.0	40.0 to 60.0			1.81	10.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Barry Ash Pond - MW-15V

Location Code: WMWBARAP
Collected: 8/8/23 09:13
Customer ID:
Submittal Date: 8/10/23 09:46

Laboratory ID Number: BD14988

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7		Analyst: ABB			Preparation Method: EPA 1638				
* Boron, Total	8/11/23 11:28	8/15/23 12:34		1.015	0.0366	mg/L	0.030000	0.1015	J
* Calcium, Total	8/11/23 11:28	8/15/23 12:34		1.015	7.43	mg/L	0.070035	0.406	
* Iron, Total	8/11/23 11:28	8/16/23 14:38		101.5	52.2	mg/L	0.8120	4.06	
* Lithium, Total	8/11/23 11:28	8/15/23 12:34		1.015	Not Detected	mg/L	0.007105	0.01999956	U
* Magnesium, Total	8/11/23 11:28	8/15/23 12:34		1.015	5.45	mg/L	0.021315	0.406	
* Molybdenum, Total	8/11/23 11:28	8/15/23 12:34		1.015	Not Detected	mg/L	0.005075	0.01015	U
* Silica, Total (calc.)	8/11/23 11:28	8/15/23 12:34		1	17.1	mg/L			
* Silicon, Total	8/11/23 11:28	8/15/23 12:34		1.015	7.99	mg/L	0.02030	0.25375	
* Sodium, Total	8/11/23 11:28	8/16/23 13:47		10.15	89.1	mg/L	0.4060	4.06	
Analytical Method: EPA 200.7		Analyst: ABB			Preparation Method: EPA 1638				
* Boron, Dissolved	8/11/23 09:10	8/11/23 11:55		1.015	0.0330	mg/L	0.030000	0.1015	J
* Calcium, Dissolved	8/11/23 09:10	8/11/23 11:55		1.015	8.25	mg/L	0.070035	0.406	
* Iron, Dissolved	8/11/23 09:10	8/15/23 10:34		101.5	42.7	mg/L	0.8120	4.06	
* Lithium, Dissolved	8/11/23 09:10	8/11/23 11:55		1.015	Not Detected	mg/L	0.007105	0.01999956	U
* Magnesium, Dissolved	8/11/23 09:10	8/11/23 11:55		1.015	5.62	mg/L	0.021315	0.406	
* Molybdenum, Dissolved	8/11/23 09:10	8/11/23 11:55		1.015	Not Detected	mg/L	0.005075	0.01015	U
* Silica, Dissolved (calc.)	8/11/23 09:10	8/11/23 11:55		1	17.4	mg/L			
* Silicon, Dissolved	8/11/23 09:10	8/11/23 11:55		1.015	8.15	mg/L	0.02030	0.25375	
* Sodium, Dissolved	8/11/23 09:10	8/14/23 13:36		10.15	86.4	mg/L	0.4060	4.06	
Analytical Method: EPA 200.8		Analyst: DLJ			Preparation Method: EPA 1638				
* Antimony, Total	8/11/23 11:28	8/11/23 14:03		1.015	Not Detected	mg/L	0.000710	0.001015	U
* Aluminum, Total	8/11/23 11:28	8/11/23 14:03		1.015	0.0655	mg/L	0.009135	0.05075	
* Arsenic, Total	8/11/23 11:28	8/11/23 14:03		1.015	0.0303	mg/L	0.000112	0.000203	
* Barium, Total	8/11/23 11:28	8/11/23 14:03		1.015	0.159	mg/L	0.000508	0.001015	
* Beryllium, Total	8/11/23 11:28	8/11/23 14:03		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Total	8/11/23 11:28	8/11/23 14:03		1.015	0.000218	mg/L	0.000068	0.000203	
* Chromium, Total	8/11/23 11:28	8/11/23 14:03		1.015	0.000298	mg/L	0.000203	0.001015	J
* Cobalt, Total	8/11/23 11:28	8/11/23 14:03		1.015	0.0802	mg/L	0.000068	0.000203	
* Lead, Total	8/11/23 11:28	8/11/23 14:03		1.015	0.000303	mg/L	0.000068	0.000203	
* Manganese, Total	8/11/23 11:28	8/11/23 14:03		1.015	1.08	mg/L	0.000152	0.001015	

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Barry Ash Pond - MW-15V

Location Code: WMWBARAP

Collected: 8/8/23 09:13

Customer ID:

Submittal Date: 8/10/23 09:46

Laboratory ID Number: BD14988

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
* Potassium, Total	8/11/23 11:28	8/11/23 14:03		1.015	3.26	mg/L	0.169505	0.5075	
* Selenium, Total	8/11/23 11:28	8/11/23 14:03		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Total	8/11/23 11:28	8/11/23 14:03		1.015	0.000114	mg/L	0.000068	0.000203	J
Analytical Method: EPA 200.8		Analyst: DLJ							
* Antimony, Dissolved	8/11/23 09:10	8/11/23 10:37		1.015	Not Detected	mg/L	0.000710	0.001015	U
* Aluminum, Dissolved	8/11/23 09:10	8/11/23 10:37		1.015	Not Detected	mg/L	0.009135	0.05075	U
* Arsenic, Dissolved	8/11/23 09:10	8/11/23 10:37		1.015	0.0228	mg/L	0.000112	0.000203	
* Barium, Dissolved	8/11/23 09:10	8/11/23 10:37		1.015	0.153	mg/L	0.000508	0.001015	
* Beryllium, Dissolved	8/11/23 09:10	8/11/23 10:37		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Dissolved	8/11/23 09:10	8/11/23 10:37		1.015	0.000193	mg/L	0.000068	0.000203	J
* Chromium, Dissolved	8/11/23 09:10	8/11/23 10:37		1.015	Not Detected	mg/L	0.000203	0.001015	U
* Cobalt, Dissolved	8/11/23 09:10	8/11/23 10:37		1.015	0.0816	mg/L	0.000068	0.000203	
* Lead, Dissolved	8/11/23 09:10	8/11/23 10:37		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Dissolved	8/11/23 09:10	8/11/23 10:37		1.015	1.11	mg/L	0.000152	0.001015	
* Potassium, Dissolved	8/11/23 09:10	8/11/23 10:37		1.015	3.34	mg/L	0.169505	0.5075	
* Selenium, Dissolved	8/11/23 09:10	8/11/23 10:37		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Dissolved	8/11/23 09:10	8/11/23 10:37		1.015	0.000103	mg/L	0.000068	0.000203	J
Analytical Method: EPA 245.1		Analyst: ELH							
* Mercury, Total by CVAA	8/10/23 17:13	8/10/23 21:56		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: EPA 353.2		Analyst: SC							
* Nitrogen, Nitrate/Nitrite	8/10/23 15:17	8/10/23 15:17		1	Not Detected	mg/L as N	0.20	0.3	U
Analytical Method: SM 2320 B		Analyst: DHC							
* Alkalinity	8/15/23 09:20	8/15/23 14:17		1	20.7	mg CaCO3/L		0.1	
Analytical Method: SM 2540C		Analyst: CNJ							
* Solids, Dissolved	8/10/23 13:30	8/11/23 13:40		1	371	mg/L		25	
Analytical Method: SM 4500CO2 D		Analyst: DHC							
* Bicarbonate Alkalinity, (calc.)	8/15/23 09:20	8/15/23 14:17		1	20.7	mg CaCO3/L		1	
* Carbonate Alkalinity, (calc.)	8/15/23 09:20	8/15/23 14:17		1	Not Detected	mg CaCO3/L		0.5	
Analytical Method: SM 4500H+ B		Analyst: DHC							
Alkalinity pH Endpoint	8/15/23 09:20	8/15/23 14:17		1	4.42	SU		2	

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Barry Ash Pond - MW-15V

Location Code: WMWBARAP
Collected: 8/8/23 09:13
Customer ID:
Submittal Date: 8/10/23 09:46

Laboratory ID Number: BD14988

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM 5310 B		Analyst: SC							
* Total Organic Carbon	8/10/23 19:11	8/10/23 19:11		1	Not Detected	mg/L	1.00	2	U
Analytical Method: SM4500Cl E		Analyst: JCC							
* Chloride	8/16/23 11:23	8/16/23 11:23		20	183	mg/L	10.00	20	
Analytical Method: SM4500F G 2017		Analyst: JCC							
* Fluoride	8/17/23 10:06	8/17/23 10:06		1	0.0634	mg/L	0.06	0.125	J
Analytical Method: SM4500SO4 E 2011		Analyst: JCC							
* Sulfate	8/11/23 10:32	8/11/23 10:32		1	3.44	mg/L	0.6	2	
Analytical Method: Field Measurements		Analyst: AWG							
Conductivity	8/8/23 09:09	8/8/23 09:09			688.47	uS/cm			FA
pH	8/8/23 09:09	8/8/23 09:09			5.71	SU			FA
Temperature	8/8/23 09:09	8/8/23 09:09			21.69	C			FA
Turbidity	8/8/23 09:09	8/8/23 09:09			9.86	NTU			FA
Sulfide	8/8/23 09:09	8/8/23 09:09			0	mg/L			FA

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWBARAP

Sample Date: 8/8/23 09:13

Customer ID:

Delivery Date: 8/10/23 09:46

Description: Barry Ash Pond - MW-15V

Laboratory ID Number: BD14988

Sample	Analysis	Units	MB		Spike	MS	MSD	Standard		Rec		Prec	Limit
			MB	Limit				Standard	Limit	Rec	Limit		
BD14996	Aluminum, Dissolved	mg/L	-0.000366	0.0198	0.100	0.105	0.105	0.104	0.0850 to 0.115	105	70.0 to 130	0.00	20.0
BD14995	Aluminum, Total	mg/L	0.000500	0.0198	0.100	0.150	0.152	0.105	0.0850 to 0.115	105	70.0 to 130	1.32	20.0
BD14996	Antimony, Dissolved	mg/L	0.000717	0.00100	0.100	0.0923	0.0961	0.0901	0.0850 to 0.115	92.3	70.0 to 130	4.03	20.0
BD14995	Antimony, Total	mg/L	0.000324	0.00100	0.100	0.0894	0.0911	0.0902	0.0850 to 0.115	89.4	70.0 to 130	1.88	20.0
BD14996	Arsenic, Dissolved	mg/L	0.0000364	0.000200	0.100	0.114	0.116	0.0999	0.0850 to 0.115	100	70.0 to 130	1.74	20.0
BD14995	Arsenic, Total	mg/L	0.0000151	0.000200	0.100	0.0991	0.0979	0.0967	0.0850 to 0.115	97.8	70.0 to 130	1.22	20.0
BD14996	Barium, Dissolved	mg/L	-0.0000120	0.00100	0.100	0.157	0.155	0.0953	0.0850 to 0.115	92.3	70.0 to 130	1.28	20.0
BD14995	Barium, Total	mg/L	-0.0000137	0.00100	0.100	0.118	0.116	0.0978	0.0850 to 0.115	101	70.0 to 130	1.71	20.0
BD14996	Beryllium, Dissolved	mg/L	0.0000241	0.000880	0.100	0.101	0.0994	0.0982	0.0850 to 0.115	101	70.0 to 130	1.60	20.0
BD14995	Beryllium, Total	mg/L	0.0000313	0.000880	0.100	0.0968	0.0959	0.0963	0.0850 to 0.115	96.8	70.0 to 130	0.934	20.0
BD14996	Boron, Dissolved	mg/L	-0.00158	0.0650	1.00	1.08	1.11	0.998	0.850 to 1.15	102	70.0 to 130	2.74	20.0
BD14995	Boron, Total	mg/L	0.000329	0.0650	1.00	1.01	0.979	1.00	0.850 to 1.15	101	70.0 to 130	3.12	20.0
BD14996	Cadmium, Dissolved	mg/L	0.0000122	0.000147	0.100	0.101	0.0988	0.0966	0.0850 to 0.115	101	70.0 to 130	2.20	20.0
BD14995	Cadmium, Total	mg/L	0.0000069	0.000147	0.100	0.0941	0.0961	0.0952	0.0850 to 0.115	94.1	70.0 to 130	2.10	20.0
BD14996	Calcium, Dissolved	mg/L	-0.00883	0.152	5.00	29.1	29.7	4.86	4.25 to 5.75	76.0	70.0 to 130	2.04	20.0
BD14995	Calcium, Total	mg/L	0.00398	0.152	5.00	6.16	5.99	4.68	4.25 to 5.75	91.4	70.0 to 130	2.80	20.0
BD14994	Chloride	mg/L	0.0253	1.00	40.0	60.6	61.3	9.83	9.00 to 11.0	102	80.0 to 120	1.15	20.0
BD14996	Chromium, Dissolved	mg/L	-0.0000772	0.000440	0.100	0.0999	0.0974	0.0988	0.0850 to 0.115	97.5	70.0 to 130	2.53	20.0
BD14995	Chromium, Total	mg/L	-0.000117	0.000440	0.100	0.0977	0.0977	0.0987	0.0850 to 0.115	97.4	70.0 to 130	0.00	20.0
BD14996	Cobalt, Dissolved	mg/L	-0.0000063	0.000147	0.100	0.104	0.101	0.102	0.0850 to 0.115	103	70.0 to 130	2.93	20.0
BD14995	Cobalt, Total	mg/L	-0.0000058	0.000147	0.100	0.105	0.105	0.104	0.0850 to 0.115	101	70.0 to 130	0.00	20.0
BD14994	Fluoride	mg/L	0.0417	0.125	2.50	2.62	2.66	2.52	2.25 to 2.75	102	80.0 to 120	1.52	20.0
BD14996	Iron, Dissolved	mg/L	0.00047	0.0176	0.2	71.7	71.4	0.204	0.170 to 0.230	150	70.0 to 130	0.419	20.0
BD14995	Iron, Total	mg/L	0.00156	0.0176	0.2	0.415	0.414	0.198	0.170 to 0.230	99.0	70.0 to 130	0.241	20.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWBARAP

Sample Date: 8/8/23 09:13

Customer ID:

Delivery Date: 8/10/23 09:46

Description: Barry Ash Pond - MW-15V

Laboratory ID Number: BD14988

Sample	Analysis	Units	MB		Spike	MS	MSD	Standard		Rec		Prec	Limit
			MB	Limit				Standard	Limit	Rec	Limit		
BD14996	Lead, Dissolved	mg/L	0.0000155	0.000147	0.100	0.109	0.104	0.107	0.0850 to 0.115	109	70.0 to 130	4.69	20.0
BD14995	Lead, Total	mg/L	0.0000200	0.000147	0.100	0.102	0.105	0.106	0.0850 to 0.115	102	70.0 to 130	2.90	20.0
BD14996	Lithium, Dissolved	mg/L	-0.000571	0.0154	0.200	0.236	0.233	0.206	0.170 to 0.230	105	70.0 to 130	1.28	20.0
BD14995	Lithium, Total	mg/L	-0.000313	0.0154	0.200	0.213	0.213	0.212	0.170 to 0.230	106	70.0 to 130	0.00	20.0
BD14996	Magnesium, Dissolved	mg/L	-0.00854	0.0462	5.00	18.8	18.9	5.06	4.25 to 5.75	92.0	70.0 to 130	0.531	20.0
BD14995	Magnesium, Total	mg/L	-0.0185	0.0462	5.00	6.25	6.18	5.09	4.25 to 5.75	102	70.0 to 130	1.13	20.0
BD14996	Manganese, Dissolved	mg/L	0.0000086	0.00033	0.100	0.722	0.699	0.101	0.0850 to 0.115	91.0	70.0 to 130	3.24	20.0
BD14995	Manganese, Total	mg/L	0.0000152	0.00033	0.100	0.276	0.275	0.102	0.0850 to 0.115	97.0	70.0 to 130	0.363	20.0
BD14994	Mercury, Total by CVAA	mg/L	-4.000E-05	0.000500	0.004	0.00394	0.00395	0.00395	0.00340 to 0.00460	98.5	70.0 to 130	0.253	20.0
BD14996	Molybdenum, Dissolved	mg/L	0.00221	0.0100	0.2	0.199	0.198	0.198	0.170 to 0.230	99.5	70.0 to 130	0.504	20.0
BD14995	Molybdenum, Total	mg/L	0.000	0.0100	0.2	0.196	0.195	0.199	0.170 to 0.230	98.0	70.0 to 130	0.512	20.0
BD14996	Potassium, Dissolved	mg/L	-0.00230	0.367	10.0	20.4	20.0	10.3	8.50 to 11.5	99.0	70.0 to 130	1.98	20.0
BD14995	Potassium, Total	mg/L	-0.0139	0.367	10.0	11.0	11.0	10.5	8.50 to 11.5	102	70.0 to 130	0.00	20.0
BD14996	Selenium, Dissolved	mg/L	0.0000708	0.00100	0.100	0.106	0.107	0.101	0.0850 to 0.115	106	70.0 to 130	0.939	20.0
BD14995	Selenium, Total	mg/L	-0.0000893	0.00100	0.100	0.0976	0.0984	0.100	0.0850 to 0.115	97.6	70.0 to 130	0.816	20.0
BD14996	Silicon, Dissolved	mg/L	-0.000657	0.0440	1.00	8.63	8.66	1.02	0.850 to 1.15	93.0	70.0 to 130	0.347	20.0
BD14995	Silicon, Total	mg/L	-0.000409	0.0440	1.00	8.84	8.80	1.02	0.850 to 1.15	114	70.0 to 130	0.454	20.0
BD14996	Sodium, Dissolved	mg/L	0.00579	0.0880	5.00	56.2	56.1	5.30	4.25 to 5.75	100	70.0 to 130	0.178	20.0
BD14995	Sodium, Total	mg/L	0.00111	0.0880	5.00	10.1	10.1	5.47	4.25 to 5.75	107	70.0 to 130	0.00	20.0
BD14994	Sulfate	mg/L	0.153	2.0	20.0	43.3	43.8	20.5	18.0 to 22.0	82.0	80.0 to 120	1.15	20.0
BD14996	Thallium, Dissolved	mg/L	-0.0000062	0.000147	0.100	0.107	0.105	0.103	0.0850 to 0.115	107	70.0 to 130	1.89	20.0
BD14995	Thallium, Total	mg/L	0.0000078	0.000147	0.100	0.0997	0.105	0.105	0.0850 to 0.115	99.7	70.0 to 130	5.18	20.0
BD14994	Total Organic Carbon	mg/L	0.189	1.00	10.0	18.0	18.5	25.3		115	80.0 to 120	2.74	20.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWBARAP

Sample Date: 8/8/23 09:13

Customer ID:

Delivery Date: 8/10/23 09:46

Description: Barry Ash Pond - MW-15V

Laboratory ID Number: BD14988

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Limit	Prec	Prec Limit
BD15014	Alkalinity	mg CaCO3/L					73.7	51.9	45.0 to 55.0			3.60	10.0
BD14994	Nitrogen, Nitrate/Nitrite	mg/L as N	0.00	0.200	2.00	2.08	0.045	2.06	1.80 to 2.20	104	90.0 to 110	0.00	15.0
BD14989	Solids, Dissolved	mg/L	1.00	25.0			383	53.0	40.0 to 60.0			1.81	10.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Barry Ash Pond - MW-22H

Location Code: WMWBARAP
Collected: 8/8/23 10:30
Customer ID:
Submittal Date: 8/10/23 09:46

Laboratory ID Number: BD14989

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7		Analyst: ABB			Preparation Method: EPA 1638				
* Boron, Total	8/11/23 11:28	8/15/23 12:37		1.015	0.0587	mg/L	0.030000	0.1015	J
* Calcium, Total	8/11/23 11:28	8/15/23 12:37		1.015	13.4	mg/L	0.070035	0.406	
* Iron, Total	8/11/23 11:28	8/16/23 14:42		101.5	75.4	mg/L	0.8120	4.06	
* Lithium, Total	8/11/23 11:28	8/15/23 12:37		1.015	Not Detected	mg/L	0.007105	0.01999956	U
* Magnesium, Total	8/11/23 11:28	8/15/23 12:37		1.015	13.5	mg/L	0.021315	0.406	
* Molybdenum, Total	8/11/23 11:28	8/15/23 12:37		1.015	Not Detected	mg/L	0.005075	0.01015	U
* Silica, Total (calc.)	8/11/23 11:28	8/15/23 12:37		1	19.3	mg/L			
* Silicon, Total	8/11/23 11:28	8/15/23 12:37		1.015	9.01	mg/L	0.02030	0.25375	
* Sodium, Total	8/11/23 11:28	8/16/23 13:51		10.15	78.2	mg/L	0.4060	4.06	
Analytical Method: EPA 200.7		Analyst: ABB			Preparation Method: EPA 1638				
* Boron, Dissolved	8/11/23 09:10	8/11/23 11:58		1.015	0.0586	mg/L	0.030000	0.1015	J
* Calcium, Dissolved	8/11/23 09:10	8/11/23 11:58		1.015	13.9	mg/L	0.070035	0.406	
* Iron, Dissolved	8/11/23 09:10	8/15/23 10:37		101.5	64.9	mg/L	0.8120	4.06	
* Lithium, Dissolved	8/11/23 09:10	8/11/23 11:58		1.015	Not Detected	mg/L	0.007105	0.01999956	U
* Magnesium, Dissolved	8/11/23 09:10	8/11/23 11:58		1.015	13.4	mg/L	0.021315	0.406	
* Molybdenum, Dissolved	8/11/23 09:10	8/11/23 11:58		1.015	Not Detected	mg/L	0.005075	0.01015	U
* Silica, Dissolved (calc.)	8/11/23 09:10	8/11/23 11:58		1	19.8	mg/L			
* Silicon, Dissolved	8/11/23 09:10	8/11/23 11:58		1.015	9.26	mg/L	0.02030	0.25375	
* Sodium, Dissolved	8/11/23 09:10	8/14/23 13:39		10.15	76.6	mg/L	0.4060	4.06	
Analytical Method: EPA 200.8		Analyst: DLJ			Preparation Method: EPA 1638				
* Antimony, Total	8/11/23 11:28	8/11/23 14:07		1.015	Not Detected	mg/L	0.000710	0.001015	U
* Arsenic, Total	8/11/23 11:28	8/11/23 14:07		1.015	0.0197	mg/L	0.000112	0.000203	
* Aluminum, Total	8/11/23 11:28	8/11/23 14:07		1.015	0.0166	mg/L	0.009135	0.05075	J
* Barium, Total	8/11/23 11:28	8/11/23 14:07		1.015	0.210	mg/L	0.000508	0.001015	
* Beryllium, Total	8/11/23 11:28	8/11/23 14:07		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Total	8/11/23 11:28	8/11/23 14:07		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Total	8/11/23 11:28	8/11/23 14:07		1.015	0.000610	mg/L	0.000203	0.001015	J
* Cobalt, Total	8/11/23 11:28	8/11/23 14:07		1.015	0.00275	mg/L	0.000068	0.000203	
* Lead, Total	8/11/23 11:28	8/11/23 14:07		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Total	8/11/23 11:28	8/11/23 14:07		1.015	0.494	mg/L	0.000152	0.001015	

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Barry Ash Pond - MW-22H

Location Code: WMWBARAP
Collected: 8/8/23 10:30
Customer ID:
Submittal Date: 8/10/23 09:46

Laboratory ID Number: BD14989

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
* Potassium, Total	8/11/23 11:28	8/11/23 14:07		1.015	2.19	mg/L	0.169505	0.5075	
* Selenium, Total	8/11/23 11:28	8/11/23 14:07		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Total	8/11/23 11:28	8/11/23 14:07		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 200.8		Analyst: DLJ							
* Antimony, Dissolved	8/11/23 09:10	8/11/23 10:40		1.015	Not Detected	mg/L	0.000710	0.001015	U
* Aluminum, Dissolved	8/11/23 09:10	8/11/23 10:40		1.015	Not Detected	mg/L	0.009135	0.05075	U
* Arsenic, Dissolved	8/11/23 09:10	8/11/23 10:40		1.015	0.0205	mg/L	0.000112	0.000203	
* Barium, Dissolved	8/11/23 09:10	8/11/23 10:40		1.015	0.201	mg/L	0.000508	0.001015	
* Beryllium, Dissolved	8/11/23 09:10	8/11/23 10:40		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Dissolved	8/11/23 09:10	8/11/23 10:40		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Dissolved	8/11/23 09:10	8/11/23 10:40		1.015	0.000601	mg/L	0.000203	0.001015	J
* Cobalt, Dissolved	8/11/23 09:10	8/11/23 10:40		1.015	0.00271	mg/L	0.000068	0.000203	
* Lead, Dissolved	8/11/23 09:10	8/11/23 10:40		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Dissolved	8/11/23 09:10	8/11/23 10:40		1.015	0.491	mg/L	0.000152	0.001015	
* Potassium, Dissolved	8/11/23 09:10	8/11/23 10:40		1.015	2.16	mg/L	0.169505	0.5075	
* Selenium, Dissolved	8/11/23 09:10	8/11/23 10:40		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Dissolved	8/11/23 09:10	8/11/23 10:40		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 245.1		Analyst: ELH							
* Mercury, Total by CVAA	8/10/23 17:13	8/10/23 22:00		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: EPA 353.2		Analyst: SC							
* Nitrogen, Nitrate/Nitrite	8/10/23 15:19	8/10/23 15:19		1	Not Detected	mg/L as N	0.20	0.3	U
Analytical Method: SM 2320 B		Analyst: DHC							
* Alkalinity	8/16/23 09:02	8/16/23 14:44		1	182	mg CaCO3/L		0.1	
Analytical Method: SM 2540C		Analyst: CNJ							
* Solids, Dissolved	8/10/23 13:30	8/11/23 13:40		1	390	mg/L		25	
Analytical Method: SM 4500CO2 D		Analyst: DHC							
* Bicarbonate Alkalinity, (calc.)	8/16/23 09:02	8/16/23 14:44		1	182	mg CaCO3/L		1	
* Carbonate Alkalinity, (calc.)	8/16/23 09:02	8/16/23 14:44		1	Not Detected	mg CaCO3/L		0.5	
Analytical Method: SM 4500H+ B		Analyst: DHC							
Alkalinity pH Endpoint	8/16/23 09:02	8/16/23 14:44		1	4.49	SU		2.00	

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Barry Ash Pond - MW-22H

Location Code: WMWBARAP
Collected: 8/8/23 10:30
Customer ID:
Submittal Date: 8/10/23 09:46

Laboratory ID Number: BD14989

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM 5310 B		Analyst: SC							
* Total Organic Carbon	8/10/23 19:32	8/10/23 19:32		1	17.6	mg/L	1.00	2	
Analytical Method: SM4500Cl E		Analyst: JCC							
* Chloride	8/16/23 11:24	8/16/23 11:24		10	51.2	mg/L	5.00	10	
Analytical Method: SM4500F G 2017		Analyst: JCC							
* Fluoride	8/17/23 10:07	8/17/23 10:07		1	0.252	mg/L	0.06	0.125	
Analytical Method: SM4500SO4 E 2011		Analyst: JCC							
* Sulfate	8/11/23 10:46	8/11/23 10:46		8	214	mg/L	4.8	16	
Analytical Method: Field Measurements		Analyst: AWG							
Conductivity	8/8/23 10:26	8/8/23 10:26			656.79	uS/cm			FA
pH	8/8/23 10:26	8/8/23 10:26			6.22	SU			FA
Temperature	8/8/23 10:26	8/8/23 10:26			21.30	C			FA
Turbidity	8/8/23 10:26	8/8/23 10:26			1.57	NTU			FA
Sulfide	8/8/23 10:26	8/8/23 10:26			0	mg/L			FA

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWBARAP
Sample Date: 8/8/23 10:30
Customer ID:
Delivery Date: 8/10/23 09:46

Description: Barry Ash Pond - MW-22H

Laboratory ID Number: BD14989

Sample	Analysis	Units	MB	MB		Spike	MS	MSD	Standard		Rec		Prec	Limit
				Limit					Standard	Limit	Rec	Limit		
BD14996	Aluminum, Dissolved	mg/L	-0.000366	0.0198	0.100	0.105	0.105	0.104	0.0850 to 0.115	105	70.0 to 130	0.00	20.0	
BD14995	Aluminum, Total	mg/L	0.000500	0.0198	0.100	0.150	0.152	0.105	0.0850 to 0.115	105	70.0 to 130	1.32	20.0	
BD14996	Antimony, Dissolved	mg/L	0.000717	0.00100	0.100	0.0923	0.0961	0.0901	0.0850 to 0.115	92.3	70.0 to 130	4.03	20.0	
BD14995	Antimony, Total	mg/L	0.000324	0.00100	0.100	0.0894	0.0911	0.0902	0.0850 to 0.115	89.4	70.0 to 130	1.88	20.0	
BD14996	Arsenic, Dissolved	mg/L	0.0000364	0.000200	0.100	0.114	0.116	0.0999	0.0850 to 0.115	100	70.0 to 130	1.74	20.0	
BD14995	Arsenic, Total	mg/L	0.0000151	0.000200	0.100	0.0991	0.0979	0.0967	0.0850 to 0.115	97.8	70.0 to 130	1.22	20.0	
BD14996	Barium, Dissolved	mg/L	-0.0000120	0.00100	0.100	0.157	0.155	0.0953	0.0850 to 0.115	92.3	70.0 to 130	1.28	20.0	
BD14995	Barium, Total	mg/L	-0.0000137	0.00100	0.100	0.118	0.116	0.0978	0.0850 to 0.115	101	70.0 to 130	1.71	20.0	
BD14996	Beryllium, Dissolved	mg/L	0.0000241	0.000880	0.100	0.101	0.0994	0.0982	0.0850 to 0.115	101	70.0 to 130	1.60	20.0	
BD14995	Beryllium, Total	mg/L	0.0000313	0.000880	0.100	0.0968	0.0959	0.0963	0.0850 to 0.115	96.8	70.0 to 130	0.934	20.0	
BD14996	Boron, Dissolved	mg/L	-0.00158	0.0650	1.00	1.08	1.11	0.998	0.850 to 1.15	102	70.0 to 130	2.74	20.0	
BD14995	Boron, Total	mg/L	0.000329	0.0650	1.00	1.01	0.979	1.00	0.850 to 1.15	101	70.0 to 130	3.12	20.0	
BD14996	Cadmium, Dissolved	mg/L	0.0000122	0.000147	0.100	0.101	0.0988	0.0966	0.0850 to 0.115	101	70.0 to 130	2.20	20.0	
BD14995	Cadmium, Total	mg/L	0.0000069	0.000147	0.100	0.0941	0.0961	0.0952	0.0850 to 0.115	94.1	70.0 to 130	2.10	20.0	
BD14996	Calcium, Dissolved	mg/L	-0.00883	0.152	5.00	29.1	29.7	4.86	4.25 to 5.75	76.0	70.0 to 130	2.04	20.0	
BD14995	Calcium, Total	mg/L	0.00398	0.152	5.00	6.16	5.99	4.68	4.25 to 5.75	91.4	70.0 to 130	2.80	20.0	
BD14994	Chloride	mg/L	0.0253	1.00	40.0	60.6	61.3	9.83	9.00 to 11.0	102	80.0 to 120	1.15	20.0	
BD14996	Chromium, Dissolved	mg/L	-0.0000772	0.000440	0.100	0.0999	0.0974	0.0988	0.0850 to 0.115	97.5	70.0 to 130	2.53	20.0	
BD14995	Chromium, Total	mg/L	-0.000117	0.000440	0.100	0.0977	0.0977	0.0987	0.0850 to 0.115	97.4	70.0 to 130	0.00	20.0	
BD14996	Cobalt, Dissolved	mg/L	-0.0000063	0.000147	0.100	0.104	0.101	0.102	0.0850 to 0.115	103	70.0 to 130	2.93	20.0	
BD14995	Cobalt, Total	mg/L	-0.0000058	0.000147	0.100	0.105	0.105	0.104	0.0850 to 0.115	101	70.0 to 130	0.00	20.0	
BD14994	Fluoride	mg/L	0.0417	0.125	2.50	2.62	2.66	2.52	2.25 to 2.75	102	80.0 to 120	1.52	20.0	
BD14996	Iron, Dissolved	mg/L	0.00047	0.0176	0.2	71.7	71.4	0.204	0.170 to 0.230	150	70.0 to 130	0.419	20.0	
BD14995	Iron, Total	mg/L	0.00156	0.0176	0.2	0.415	0.414	0.198	0.170 to 0.230	99.0	70.0 to 130	0.241	20.0	

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWBARAP

Sample Date: 8/8/23 10:30

Customer ID:

Delivery Date: 8/10/23 09:46

Description: Barry Ash Pond - MW-22H

Laboratory ID Number: BD14989

Sample	Analysis	Units	MB		Spike	MS	MSD	Standard		Rec		Prec	Limit
			MB	Limit				Standard	Limit	Rec	Limit		
BD14996	Lead, Dissolved	mg/L	0.0000155	0.000147	0.100	0.109	0.104	0.107	0.0850 to 0.115	109	70.0 to 130	4.69	20.0
BD14995	Lead, Total	mg/L	0.0000200	0.000147	0.100	0.102	0.105	0.106	0.0850 to 0.115	102	70.0 to 130	2.90	20.0
BD14996	Lithium, Dissolved	mg/L	-0.000571	0.0154	0.200	0.236	0.233	0.206	0.170 to 0.230	105	70.0 to 130	1.28	20.0
BD14995	Lithium, Total	mg/L	-0.000313	0.0154	0.200	0.213	0.213	0.212	0.170 to 0.230	106	70.0 to 130	0.00	20.0
BD14996	Magnesium, Dissolved	mg/L	-0.00854	0.0462	5.00	18.8	18.9	5.06	4.25 to 5.75	92.0	70.0 to 130	0.531	20.0
BD14995	Magnesium, Total	mg/L	-0.0185	0.0462	5.00	6.25	6.18	5.09	4.25 to 5.75	102	70.0 to 130	1.13	20.0
BD14996	Manganese, Dissolved	mg/L	0.0000086	0.00033	0.100	0.722	0.699	0.101	0.0850 to 0.115	91.0	70.0 to 130	3.24	20.0
BD14995	Manganese, Total	mg/L	0.0000152	0.00033	0.100	0.276	0.275	0.102	0.0850 to 0.115	97.0	70.0 to 130	0.363	20.0
BD14994	Mercury, Total by CVAA	mg/L	-4.000E-05	0.000500	0.004	0.00394	0.00395	0.00395	0.00340 to 0.00460	98.5	70.0 to 130	0.253	20.0
BD14996	Molybdenum, Dissolved	mg/L	0.00221	0.0100	0.2	0.199	0.198	0.198	0.170 to 0.230	99.5	70.0 to 130	0.504	20.0
BD14995	Molybdenum, Total	mg/L	0.000	0.0100	0.2	0.196	0.195	0.199	0.170 to 0.230	98.0	70.0 to 130	0.512	20.0
BD14996	Potassium, Dissolved	mg/L	-0.00230	0.367	10.0	20.4	20.0	10.3	8.50 to 11.5	99.0	70.0 to 130	1.98	20.0
BD14995	Potassium, Total	mg/L	-0.0139	0.367	10.0	11.0	11.0	10.5	8.50 to 11.5	102	70.0 to 130	0.00	20.0
BD14996	Selenium, Dissolved	mg/L	0.0000708	0.00100	0.100	0.106	0.107	0.101	0.0850 to 0.115	106	70.0 to 130	0.939	20.0
BD14995	Selenium, Total	mg/L	-0.0000893	0.00100	0.100	0.0976	0.0984	0.100	0.0850 to 0.115	97.6	70.0 to 130	0.816	20.0
BD14996	Silicon, Dissolved	mg/L	-0.000657	0.0440	1.00	8.63	8.66	1.02	0.850 to 1.15	93.0	70.0 to 130	0.347	20.0
BD14995	Silicon, Total	mg/L	-0.000409	0.0440	1.00	8.84	8.80	1.02	0.850 to 1.15	114	70.0 to 130	0.454	20.0
BD14996	Sodium, Dissolved	mg/L	0.00579	0.0880	5.00	56.2	56.1	5.30	4.25 to 5.75	100	70.0 to 130	0.178	20.0
BD14995	Sodium, Total	mg/L	0.00111	0.0880	5.00	10.1	10.1	5.47	4.25 to 5.75	107	70.0 to 130	0.00	20.0
BD14994	Sulfate	mg/L	0.153	2.0	20.0	43.3	43.8	20.5	18.0 to 22.0	82.0	80.0 to 120	1.15	20.0
BD14996	Thallium, Dissolved	mg/L	-0.0000062	0.000147	0.100	0.107	0.105	0.103	0.0850 to 0.115	107	70.0 to 130	1.89	20.0
BD14995	Thallium, Total	mg/L	0.0000078	0.000147	0.100	0.0997	0.105	0.105	0.0850 to 0.115	99.7	70.0 to 130	5.18	20.0
BD14994	Total Organic Carbon	mg/L	0.189	1.00	10.0	18.0	18.5	25.3		115	80.0 to 120	2.74	20.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWBARAP

Sample Date: 8/8/23 10:30

Customer ID:

Delivery Date: 8/10/23 09:46

Description: Barry Ash Pond - MW-22H

Laboratory ID Number: BD14989

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard Standard	Standard Limit	Rec Rec	Rec Limit	Prec	Prec Limit
BD15006	Alkalinity	mg CaCO3/L					153	51.2	45.0 to 55.0			0.00	10.0
BD14994	Nitrogen, Nitrate/Nitrite	mg/L as N	0.00	0.200	2.00	2.08	0.045	2.06	1.80 to 2.20	104	90.0 to 110	0.00	15.0
BD14989	Solids, Dissolved	mg/L	1.00	25.0			383	53.0	40.0 to 60.0			1.81	10.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Barry Ash Pond Field Blank-3

Location Code: WMWBARAPFB
Collected: 8/8/23 11:20
Customer ID:
Submittal Date: 8/10/23 09:46

Laboratory ID Number: BD14990

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q	
Analytical Method: EPA 200.7		Analyst: ABB			Preparation Method: EPA 1638					
* Boron, Total	8/11/23 11:28	8/15/23 12:40		1.015	Not Detected	mg/L	0.030000	0.1015	U	
* Calcium, Total	8/11/23 11:28	8/15/23 12:40		1.015	Not Detected	mg/L	0.070035	0.406	U	
* Iron, Total	8/11/23 11:28	8/15/23 12:40		1.015	Not Detected	mg/L	0.008120	0.0406	U	
* Lithium, Total	8/11/23 11:28	8/15/23 12:40		1.015	Not Detected	mg/L	0.007105	0.01999956	U	
* Magnesium, Total	8/11/23 11:28	8/15/23 12:40		1.015	Not Detected	mg/L	0.021315	0.406	U	
* Molybdenum, Total	8/11/23 11:28	8/15/23 12:40		1.015	Not Detected	mg/L	0.005075	0.01015	U	
* Silica, Total (calc.)	8/11/23 11:28	8/15/23 12:40		1	Not Detected	mg/L				
* Silicon, Total	8/11/23 11:28	8/15/23 12:40		1.015	Not Detected	mg/L	0.02030	0.25375	U	
* Sodium, Total	8/11/23 11:28	8/15/23 12:40		1.015	Not Detected	mg/L	0.04060	0.406	U	
Analytical Method: EPA 200.8		Analyst: DLJ			Preparation Method: EPA 1638					
* Antimony, Total	8/11/23 11:28	8/11/23 14:10		1.015	Not Detected	mg/L	0.000710	0.001015	U	
* Aluminum, Total	8/11/23 11:28	8/11/23 14:10		1.015	Not Detected	mg/L	0.009135	0.05075	U	
* Arsenic, Total	8/11/23 11:28	8/11/23 14:10		1.015	Not Detected	mg/L	0.000112	0.000203	U	
* Barium, Total	8/11/23 11:28	8/11/23 14:10		1.015	Not Detected	mg/L	0.000508	0.001015	U	
* Beryllium, Total	8/11/23 11:28	8/11/23 14:10		1.015	Not Detected	mg/L	0.000406	0.001015	U	
* Cadmium, Total	8/11/23 11:28	8/11/23 14:10		1.015	Not Detected	mg/L	0.000068	0.000203	U	
* Chromium, Total	8/11/23 11:28	8/11/23 14:10		1.015	Not Detected	mg/L	0.000203	0.001015	U	
* Cobalt, Total	8/11/23 11:28	8/11/23 14:10		1.015	Not Detected	mg/L	0.000068	0.000203	U	
* Lead, Total	8/11/23 11:28	8/11/23 14:10		1.015	Not Detected	mg/L	0.000068	0.000203	U	
* Manganese, Total	8/11/23 11:28	8/11/23 14:10		1.015	Not Detected	mg/L	0.000152	0.001015	U	
* Potassium, Total	8/11/23 11:28	8/11/23 14:10		1.015	Not Detected	mg/L	0.169505	0.5075	U	
* Selenium, Total	8/11/23 11:28	8/11/23 14:10		1.015	Not Detected	mg/L	0.000508	0.001015	U	
* Thallium, Total	8/11/23 11:28	8/11/23 14:10		1.015	Not Detected	mg/L	0.000068	0.000203	U	
Analytical Method: EPA 245.1		Analyst: ELH								
* Mercury, Total by CVAA	8/10/23 17:13	8/10/23 22:03		1	Not Detected	mg/L	0.0003	0.0005	U	
Analytical Method: EPA 353.2		Analyst: SC								
* Nitrogen, Nitrate/Nitrite	8/10/23 15:20	8/10/23 15:20		1	Not Detected	mg/L as N	0.20	0.3	U	
Analytical Method: SM 2540C		Analyst: CNJ								
* Solids, Dissolved	8/10/23 13:30	8/11/23 13:40		1	Not Detected	mg/L		25	U	

MDL's and RL's are adjusted for sample dilution, as applicable

Comments:

Certificate Of Analysis

Description: Barry Ash Pond Field Blank-3

Location Code: WMWBARAPFB

Collected: 8/8/23 11:20

Customer ID:

Submittal Date: 8/10/23 09:46

Laboratory ID Number: BD14990

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM 5310 B		Analyst: SC							
* Total Organic Carbon	8/10/23 19:47	8/10/23 19:47		1	Not Detected	mg/L	1.00	2	U
Analytical Method: SM4500CI E		Analyst: JCC							
* Chloride	8/16/23 11:25	8/16/23 11:25		1	Not Detected	mg/L	0.50	1	U
Analytical Method: SM4500F G 2017		Analyst: JCC							
* Fluoride	8/17/23 10:08	8/17/23 10:08		1	Not Detected	mg/L	0.06	0.125	U
Analytical Method: SM4500SO4 E 2011		Analyst: JCC							
* Sulfate	8/11/23 10:35	8/11/23 10:35		1	Not Detected	mg/L	0.6	2	U

MDL's and RL's are adjusted for sample dilution, as applicable

Comments:

Batch QC Summary

Customer Account: WMWBARAPFB

Sample Date: 8/8/23 11:20

Customer ID:

Delivery Date: 8/10/23 09:46

Description: Barry Ash Pond Field Blank-3

Laboratory ID Number: BD14990

Sample	Analysis	Units	MB				Standard		Rec			Prec Limit	
			MB	Limit	Spike	MS	MSD	Standard	Limit	Rec	Limit		Prec
BD14995	Aluminum, Total	mg/L	0.000500	0.0198	0.100	0.150	0.152	0.105	0.0850 to 0.115	105	70.0 to 130	1.32	20.0
BD14995	Antimony, Total	mg/L	0.000324	0.00100	0.100	0.0894	0.0911	0.0902	0.0850 to 0.115	89.4	70.0 to 130	1.88	20.0
BD14995	Arsenic, Total	mg/L	0.0000151	0.000200	0.100	0.0991	0.0979	0.0967	0.0850 to 0.115	97.8	70.0 to 130	1.22	20.0
BD14995	Barium, Total	mg/L	-0.0000137	0.00100	0.100	0.118	0.116	0.0978	0.0850 to 0.115	101	70.0 to 130	1.71	20.0
BD14995	Beryllium, Total	mg/L	0.0000313	0.000880	0.100	0.0968	0.0959	0.0963	0.0850 to 0.115	96.8	70.0 to 130	0.934	20.0
BD14995	Boron, Total	mg/L	0.000329	0.0650	1.00	1.01	0.979	1.00	0.850 to 1.15	101	70.0 to 130	3.12	20.0
BD14995	Cadmium, Total	mg/L	0.0000069	0.000147	0.100	0.0941	0.0961	0.0952	0.0850 to 0.115	94.1	70.0 to 130	2.10	20.0
BD14995	Calcium, Total	mg/L	0.00398	0.152	5.00	6.16	5.99	4.68	4.25 to 5.75	91.4	70.0 to 130	2.80	20.0
BD14994	Chloride	mg/L	0.0253	1.00	40.0	60.6	61.3	9.83	9.00 to 11.0	102	80.0 to 120	1.15	20.0
BD14995	Chromium, Total	mg/L	-0.000117	0.000440	0.100	0.0977	0.0977	0.0987	0.0850 to 0.115	97.4	70.0 to 130	0.00	20.0
BD14995	Cobalt, Total	mg/L	-0.0000058	0.000147	0.100	0.105	0.105	0.104	0.0850 to 0.115	101	70.0 to 130	0.00	20.0
BD14994	Fluoride	mg/L	0.0417	0.125	2.50	2.62	2.66	2.52	2.25 to 2.75	102	80.0 to 120	1.52	20.0
BD14995	Iron, Total	mg/L	0.00156	0.0176	0.2	0.415	0.414	0.198	0.170 to 0.230	99.0	70.0 to 130	0.241	20.0
BD14995	Lead, Total	mg/L	0.0000200	0.000147	0.100	0.102	0.105	0.106	0.0850 to 0.115	102	70.0 to 130	2.90	20.0
BD14995	Lithium, Total	mg/L	-0.000313	0.0154	0.200	0.213	0.213	0.212	0.170 to 0.230	106	70.0 to 130	0.00	20.0
BD14995	Magnesium, Total	mg/L	-0.0185	0.0462	5.00	6.25	6.18	5.09	4.25 to 5.75	102	70.0 to 130	1.13	20.0
BD14995	Manganese, Total	mg/L	0.0000152	0.00033	0.100	0.276	0.275	0.102	0.0850 to 0.115	97.0	70.0 to 130	0.363	20.0
BD14994	Mercury, Total by CVAA	mg/L	-4.000E-05	0.000500	0.004	0.00394	0.00395	0.00395	0.00340 to 0.00460	98.5	70.0 to 130	0.253	20.0
BD14995	Molybdenum, Total	mg/L	0.000	0.0100	0.2	0.196	0.195	0.199	0.170 to 0.230	98.0	70.0 to 130	0.512	20.0
BD14995	Potassium, Total	mg/L	-0.0139	0.367	10.0	11.0	11.0	10.5	8.50 to 11.5	102	70.0 to 130	0.00	20.0
BD14995	Selenium, Total	mg/L	-0.0000893	0.00100	0.100	0.0976	0.0984	0.100	0.0850 to 0.115	97.6	70.0 to 130	0.816	20.0
BD14995	Silicon, Total	mg/L	-0.000409	0.0440	1.00	8.84	8.80	1.02	0.850 to 1.15	114	70.0 to 130	0.454	20.0
BD14995	Sodium, Total	mg/L	0.00111	0.0880	5.00	10.1	10.1	5.47	4.25 to 5.75	107	70.0 to 130	0.00	20.0
BD14994	Sulfate	mg/L	0.153	2.0	20.0	43.3	43.8	20.5	18.0 to 22.0	82.0	80.0 to 120	1.15	20.0

Comments:

Batch QC Summary

Customer Account: WMWBARAPFB

Sample Date: 8/8/23 11:20

Customer ID:

Delivery Date: 8/10/23 09:46

Description: Barry Ash Pond Field Blank-3

Laboratory ID Number: BD14990

Sample	Analysis	Units	MB	MB				Standard		Rec		Prec	
				Limit	Spike	MS	MSD	Standard	Limit	Rec	Limit	Prec	Limit
BD14995	Thallium, Total	mg/L	0.0000078	0.000147	0.100	0.0997	0.105	0.105	0.0850 to 0.115	99.7	70.0 to 130	5.18	20.0
BD14994	Total Organic Carbon	mg/L	0.189	1.00	10.0	18.0	18.5	25.3		115	80.0 to 120	2.74	20.0

Comments:

Batch QC Summary

Customer Account: WMWBARAPFB

Sample Date: 8/8/23 11:20

Customer ID:

Delivery Date: 8/10/23 09:46

Description: Barry Ash Pond Field Blank-3

Laboratory ID Number: BD14990

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BD14994	Nitrogen, Nitrate/Nitrite	mg/L as N	0.00	0.200	2.00	2.08	0.045	2.06	1.80 to 2.20	104	90.0 to 110	0.00	15.0
BD14999	Solids, Dissolved	mg/L	1.00	25.0			361	53.0	40.0 to 60.0			1.38	10.0

Comments:

Certificate Of Analysis

Description: Barry Ash Pond - MW-15

Location Code: WMWBARAP
Collected: 8/8/23 11:40
Customer ID:
Submittal Date: 8/10/23 09:46

Laboratory ID Number: BD14991

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7			Analyst: ABB		Preparation Method: EPA 1638				
* Boron, Total	8/11/23 11:28	8/15/23 12:43		1.015	0.0792	mg/L	0.030000	0.1015	J
* Calcium, Total	8/11/23 11:28	8/15/23 12:43		1.015	6.85	mg/L	0.070035	0.406	
* Iron, Total	8/11/23 11:28	8/16/23 14:45		101.5	112	mg/L	0.8120	4.06	
* Lithium, Total	8/11/23 11:28	8/15/23 12:43		1.015	0.0107	mg/L	0.007105	0.01999956	J
* Magnesium, Total	8/11/23 11:28	8/15/23 12:43		1.015	5.73	mg/L	0.021315	0.406	
* Molybdenum, Total	8/11/23 11:28	8/15/23 12:43		1.015	Not Detected	mg/L	0.005075	0.01015	U
* Silica, Total (calc.)	8/11/23 11:28	8/15/23 12:43		1	13.3	mg/L			
* Silicon, Total	8/11/23 11:28	8/15/23 12:43		1.015	6.20	mg/L	0.02030	0.25375	
* Sodium, Total	8/11/23 11:28	8/16/23 13:54		10.15	44.3	mg/L	0.4060	4.06	
Analytical Method: EPA 200.7			Analyst: ABB		Preparation Method: EPA 1638				
* Boron, Dissolved	8/11/23 09:10	8/11/23 12:01		1.015	0.0834	mg/L	0.030000	0.1015	J
* Calcium, Dissolved	8/11/23 09:10	8/11/23 12:01		1.015	7.25	mg/L	0.070035	0.406	
* Iron, Dissolved	8/11/23 09:10	8/15/23 10:40		101.5	103	mg/L	0.8120	4.06	
* Lithium, Dissolved	8/11/23 09:10	8/11/23 12:01		1.015	0.00929	mg/L	0.007105	0.01999956	J
* Magnesium, Dissolved	8/11/23 09:10	8/11/23 12:01		1.015	5.72	mg/L	0.021315	0.406	
* Molybdenum, Dissolved	8/11/23 09:10	8/11/23 12:01		1.015	Not Detected	mg/L	0.005075	0.01015	U
* Silica, Dissolved (calc.)	8/11/23 09:10	8/11/23 12:01		1	13.8	mg/L			
* Silicon, Dissolved	8/11/23 09:10	8/11/23 12:01		1.015	6.47	mg/L	0.02030	0.25375	
* Sodium, Dissolved	8/11/23 09:10	8/14/23 13:42		10.15	43.2	mg/L	0.4060	4.06	
Analytical Method: EPA 200.8			Analyst: DLJ		Preparation Method: EPA 1638				
* Antimony, Total	8/11/23 11:28	8/11/23 14:14		1.015	Not Detected	mg/L	0.000710	0.001015	U
* Arsenic, Total	8/11/23 11:28	8/11/23 14:14		1.015	0.0188	mg/L	0.000112	0.000203	
* Aluminum, Total	8/11/23 11:28	8/11/23 14:14		1.015	0.0117	mg/L	0.009135	0.05075	J
* Barium, Total	8/11/23 11:28	8/11/23 14:14		1.015	0.0822	mg/L	0.000508	0.001015	
* Beryllium, Total	8/11/23 11:28	8/11/23 14:14		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Total	8/11/23 11:28	8/11/23 14:14		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Total	8/11/23 11:28	8/11/23 14:14		1.015	0.000353	mg/L	0.000203	0.001015	J
* Cobalt, Total	8/11/23 11:28	8/11/23 14:14		1.015	0.0355	mg/L	0.000068	0.000203	
* Lead, Total	8/11/23 11:28	8/11/23 14:14		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Total	8/11/23 11:28	8/11/23 14:14		1.015	0.677	mg/L	0.000152	0.001015	

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Barry Ash Pond - MW-15

Location Code: WMWBARAP
Collected: 8/8/23 11:40
Customer ID:
Submittal Date: 8/10/23 09:46

Laboratory ID Number: BD14991

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
* Potassium, Total	8/11/23 11:28	8/11/23 14:14		1.015	4.38	mg/L	0.169505	0.5075	
* Selenium, Total	8/11/23 11:28	8/11/23 14:14		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Total	8/11/23 11:28	8/11/23 14:14		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 200.8		Analyst: DLJ							
* Antimony, Dissolved	8/11/23 09:10	8/11/23 10:44		1.015	Not Detected	mg/L	0.000710	0.001015	U
* Aluminum, Dissolved	8/11/23 09:10	8/11/23 10:44		1.015	Not Detected	mg/L	0.009135	0.05075	U
* Arsenic, Dissolved	8/11/23 09:10	8/11/23 10:44		1.015	0.0193	mg/L	0.000112	0.000203	
* Barium, Dissolved	8/11/23 09:10	8/11/23 10:44		1.015	0.0781	mg/L	0.000508	0.001015	
* Beryllium, Dissolved	8/11/23 09:10	8/11/23 10:44		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Dissolved	8/11/23 09:10	8/11/23 10:44		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Dissolved	8/11/23 09:10	8/11/23 10:44		1.015	0.000366	mg/L	0.000203	0.001015	J
* Cobalt, Dissolved	8/11/23 09:10	8/11/23 10:44		1.015	0.0359	mg/L	0.000068	0.000203	
* Lead, Dissolved	8/11/23 09:10	8/11/23 10:44		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Dissolved	8/11/23 09:10	8/11/23 10:44		1.015	0.688	mg/L	0.000152	0.001015	
* Potassium, Dissolved	8/11/23 09:10	8/11/23 10:44		1.015	4.08	mg/L	0.169505	0.5075	
* Selenium, Dissolved	8/11/23 09:10	8/11/23 10:44		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Dissolved	8/11/23 09:10	8/11/23 10:44		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 245.1		Analyst: ELH							
* Mercury, Total by CVAA	8/10/23 17:13	8/10/23 22:07		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: EPA 353.2		Analyst: SC							
* Nitrogen, Nitrate/Nitrite	8/10/23 15:22	8/10/23 15:22		1	Not Detected	mg/L as N	0.20	0.3	U
Analytical Method: SM 2320 B		Analyst: DHC							
* Alkalinity	8/16/23 09:02	8/16/23 14:44		1	68.5	mg CaCO3/L		0.1	
Analytical Method: SM 2540C		Analyst: CNJ							
* Solids, Dissolved	8/10/23 13:30	8/11/23 13:40		1	332	mg/L		25	
Analytical Method: SM 4500CO2 D		Analyst: DHC							
* Bicarbonate Alkalinity, (calc.)	8/16/23 09:02	8/16/23 14:44		1	68.5	mg CaCO3/L		1	
* Carbonate Alkalinity, (calc.)	8/16/23 09:02	8/16/23 14:44		1	Not Detected	mg CaCO3/L		0.5	
Analytical Method: SM 4500H+ B		Analyst: DHC							
Alkalinity pH Endpoint	8/16/23 09:02	8/16/23 14:44		1	4.50	SU		2	

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Barry Ash Pond - MW-15

Location Code: WMWBARAP
Collected: 8/8/23 11:40
Customer ID:
Submittal Date: 8/10/23 09:46

Laboratory ID Number: BD14991

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM 5310 B		Analyst: SC							
* Total Organic Carbon	8/10/23 20:03	8/10/23 20:03		1	4.90	mg/L	1.00	2	
Analytical Method: SM4500Cl E		Analyst: JCC							
* Chloride	8/16/23 11:26	8/16/23 11:26		16	90.2	mg/L	8.00	16	
Analytical Method: SM4500F G 2017		Analyst: JCC							
* Fluoride	8/17/23 10:09	8/17/23 10:09		1	0.172	mg/L	0.06	0.125	
Analytical Method: SM4500SO4 E 2011		Analyst: JCC							
* Sulfate	8/11/23 10:36	8/11/23 10:36		1	10.6	mg/L	0.6	2	
Analytical Method: Field Measurements		Analyst: AWG							
Conductivity	8/8/23 11:36	8/8/23 11:36			615.81	uS/cm			FA
pH	8/8/23 11:36	8/8/23 11:36			6.60	SU			FA
Temperature	8/8/23 11:36	8/8/23 11:36			23.82	C			FA
Turbidity	8/8/23 11:36	8/8/23 11:36			2.05	NTU			FA
Sulfide	8/8/23 11:36	8/8/23 11:36			0	mg/L			FA

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWBARAP
Sample Date: 8/8/23 11:40
Customer ID:
Delivery Date: 8/10/23 09:46

Description: Barry Ash Pond - MW-15

Laboratory ID Number: BD14991

Sample	Analysis	Units	MB	MB		Spike	MS	MSD	Standard		Rec		Prec	Limit
				Limit					Standard	Limit	Rec	Limit		
BD14996	Aluminum, Dissolved	mg/L	-0.000366	0.0198	0.100	0.105	0.105	0.104	0.0850 to 0.115	105	70.0 to 130	0.00	20.0	
BD14995	Aluminum, Total	mg/L	0.000500	0.0198	0.100	0.150	0.152	0.105	0.0850 to 0.115	105	70.0 to 130	1.32	20.0	
BD14996	Antimony, Dissolved	mg/L	0.000717	0.00100	0.100	0.0923	0.0961	0.0901	0.0850 to 0.115	92.3	70.0 to 130	4.03	20.0	
BD14995	Antimony, Total	mg/L	0.000324	0.00100	0.100	0.0894	0.0911	0.0902	0.0850 to 0.115	89.4	70.0 to 130	1.88	20.0	
BD14996	Arsenic, Dissolved	mg/L	0.0000364	0.000200	0.100	0.114	0.116	0.0999	0.0850 to 0.115	100	70.0 to 130	1.74	20.0	
BD14995	Arsenic, Total	mg/L	0.0000151	0.000200	0.100	0.0991	0.0979	0.0967	0.0850 to 0.115	97.8	70.0 to 130	1.22	20.0	
BD14996	Barium, Dissolved	mg/L	-0.0000120	0.00100	0.100	0.157	0.155	0.0953	0.0850 to 0.115	92.3	70.0 to 130	1.28	20.0	
BD14995	Barium, Total	mg/L	-0.0000137	0.00100	0.100	0.118	0.116	0.0978	0.0850 to 0.115	101	70.0 to 130	1.71	20.0	
BD14996	Beryllium, Dissolved	mg/L	0.0000241	0.000880	0.100	0.101	0.0994	0.0982	0.0850 to 0.115	101	70.0 to 130	1.60	20.0	
BD14995	Beryllium, Total	mg/L	0.0000313	0.000880	0.100	0.0968	0.0959	0.0963	0.0850 to 0.115	96.8	70.0 to 130	0.934	20.0	
BD14996	Boron, Dissolved	mg/L	-0.00158	0.0650	1.00	1.08	1.11	0.998	0.850 to 1.15	102	70.0 to 130	2.74	20.0	
BD14995	Boron, Total	mg/L	0.000329	0.0650	1.00	1.01	0.979	1.00	0.850 to 1.15	101	70.0 to 130	3.12	20.0	
BD14996	Cadmium, Dissolved	mg/L	0.0000122	0.000147	0.100	0.101	0.0988	0.0966	0.0850 to 0.115	101	70.0 to 130	2.20	20.0	
BD14995	Cadmium, Total	mg/L	0.0000069	0.000147	0.100	0.0941	0.0961	0.0952	0.0850 to 0.115	94.1	70.0 to 130	2.10	20.0	
BD14996	Calcium, Dissolved	mg/L	-0.00883	0.152	5.00	29.1	29.7	4.86	4.25 to 5.75	76.0	70.0 to 130	2.04	20.0	
BD14995	Calcium, Total	mg/L	0.00398	0.152	5.00	6.16	5.99	4.68	4.25 to 5.75	91.4	70.0 to 130	2.80	20.0	
BD14994	Chloride	mg/L	0.0253	1.00	40.0	60.6	61.3	9.83	9.00 to 11.0	102	80.0 to 120	1.15	20.0	
BD14996	Chromium, Dissolved	mg/L	-0.0000772	0.000440	0.100	0.0999	0.0974	0.0988	0.0850 to 0.115	97.5	70.0 to 130	2.53	20.0	
BD14995	Chromium, Total	mg/L	-0.000117	0.000440	0.100	0.0977	0.0977	0.0987	0.0850 to 0.115	97.4	70.0 to 130	0.00	20.0	
BD14996	Cobalt, Dissolved	mg/L	-0.0000063	0.000147	0.100	0.104	0.101	0.102	0.0850 to 0.115	103	70.0 to 130	2.93	20.0	
BD14995	Cobalt, Total	mg/L	-0.0000058	0.000147	0.100	0.105	0.105	0.104	0.0850 to 0.115	101	70.0 to 130	0.00	20.0	
BD14994	Fluoride	mg/L	0.0417	0.125	2.50	2.62	2.66	2.52	2.25 to 2.75	102	80.0 to 120	1.52	20.0	
BD14996	Iron, Dissolved	mg/L	0.00047	0.0176	0.2	71.7	71.4	0.204	0.170 to 0.230	150	70.0 to 130	0.419	20.0	
BD14995	Iron, Total	mg/L	0.00156	0.0176	0.2	0.415	0.414	0.198	0.170 to 0.230	99.0	70.0 to 130	0.241	20.0	

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWBARAP

Sample Date: 8/8/23 11:40

Customer ID:

Delivery Date: 8/10/23 09:46

Description: Barry Ash Pond - MW-15

Laboratory ID Number: BD14991

Sample	Analysis	Units	MB		Spike	MS	MSD	Standard		Rec		Prec	Limit
			MB	Limit				Standard	Limit	Rec	Limit		
BD14996	Lead, Dissolved	mg/L	0.0000155	0.000147	0.100	0.109	0.104	0.107	0.0850 to 0.115	109	70.0 to 130	4.69	20.0
BD14995	Lead, Total	mg/L	0.0000200	0.000147	0.100	0.102	0.105	0.106	0.0850 to 0.115	102	70.0 to 130	2.90	20.0
BD14996	Lithium, Dissolved	mg/L	-0.000571	0.0154	0.200	0.236	0.233	0.206	0.170 to 0.230	105	70.0 to 130	1.28	20.0
BD14995	Lithium, Total	mg/L	-0.000313	0.0154	0.200	0.213	0.213	0.212	0.170 to 0.230	106	70.0 to 130	0.00	20.0
BD14996	Magnesium, Dissolved	mg/L	-0.00854	0.0462	5.00	18.8	18.9	5.06	4.25 to 5.75	92.0	70.0 to 130	0.531	20.0
BD14995	Magnesium, Total	mg/L	-0.0185	0.0462	5.00	6.25	6.18	5.09	4.25 to 5.75	102	70.0 to 130	1.13	20.0
BD14996	Manganese, Dissolved	mg/L	0.0000086	0.00033	0.100	0.722	0.699	0.101	0.0850 to 0.115	91.0	70.0 to 130	3.24	20.0
BD14995	Manganese, Total	mg/L	0.0000152	0.00033	0.100	0.276	0.275	0.102	0.0850 to 0.115	97.0	70.0 to 130	0.363	20.0
BD14994	Mercury, Total by CVAA	mg/L	-4.000E-05	0.000500	0.004	0.00394	0.00395	0.00395	0.00340 to 0.00460	98.5	70.0 to 130	0.253	20.0
BD14996	Molybdenum, Dissolved	mg/L	0.00221	0.0100	0.2	0.199	0.198	0.198	0.170 to 0.230	99.5	70.0 to 130	0.504	20.0
BD14995	Molybdenum, Total	mg/L	0.000	0.0100	0.2	0.196	0.195	0.199	0.170 to 0.230	98.0	70.0 to 130	0.512	20.0
BD14996	Potassium, Dissolved	mg/L	-0.00230	0.367	10.0	20.4	20.0	10.3	8.50 to 11.5	99.0	70.0 to 130	1.98	20.0
BD14995	Potassium, Total	mg/L	-0.0139	0.367	10.0	11.0	11.0	10.5	8.50 to 11.5	102	70.0 to 130	0.00	20.0
BD14996	Selenium, Dissolved	mg/L	0.0000708	0.00100	0.100	0.106	0.107	0.101	0.0850 to 0.115	106	70.0 to 130	0.939	20.0
BD14995	Selenium, Total	mg/L	-0.0000893	0.00100	0.100	0.0976	0.0984	0.100	0.0850 to 0.115	97.6	70.0 to 130	0.816	20.0
BD14996	Silicon, Dissolved	mg/L	-0.000657	0.0440	1.00	8.63	8.66	1.02	0.850 to 1.15	93.0	70.0 to 130	0.347	20.0
BD14995	Silicon, Total	mg/L	-0.000409	0.0440	1.00	8.84	8.80	1.02	0.850 to 1.15	114	70.0 to 130	0.454	20.0
BD14996	Sodium, Dissolved	mg/L	0.00579	0.0880	5.00	56.2	56.1	5.30	4.25 to 5.75	100	70.0 to 130	0.178	20.0
BD14995	Sodium, Total	mg/L	0.00111	0.0880	5.00	10.1	10.1	5.47	4.25 to 5.75	107	70.0 to 130	0.00	20.0
BD14994	Sulfate	mg/L	0.153	2.0	20.0	43.3	43.8	20.5	18.0 to 22.0	82.0	80.0 to 120	1.15	20.0
BD14996	Thallium, Dissolved	mg/L	-0.0000062	0.000147	0.100	0.107	0.105	0.103	0.0850 to 0.115	107	70.0 to 130	1.89	20.0
BD14995	Thallium, Total	mg/L	0.0000078	0.000147	0.100	0.0997	0.105	0.105	0.0850 to 0.115	99.7	70.0 to 130	5.18	20.0
BD14994	Total Organic Carbon	mg/L	0.189	1.00	10.0	18.0	18.5	25.3		115	80.0 to 120	2.74	20.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWBARAP

Sample Date: 8/8/23 11:40

Customer ID:

Delivery Date: 8/10/23 09:46

Description: Barry Ash Pond - MW-15

Laboratory ID Number: BD14991

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BD15006	Alkalinity	mg CaCO3/L					153	51.2	45.0 to 55.0			0.00	10.0
BD14994	Nitrogen, Nitrate/Nitrite	mg/L as N	0.00	0.200	2.00	2.08	0.045	2.06	1.80 to 2.20	104	90.0 to 110	0.00	15.0
BD14999	Solids, Dissolved	mg/L	1.00	25.0			361	53.0	40.0 to 60.0			1.38	10.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Barry Ash Pond - MW-24H

Location Code: WMWBARAP
Collected: 8/8/23 12:50
Customer ID:
Submittal Date: 8/10/23 09:46

Laboratory ID Number: BD14992

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7		Analyst: ABB			Preparation Method: EPA 1638				
* Boron, Total	8/11/23 11:28	8/15/23 12:46		1.015	0.279	mg/L	0.030000	0.1015	
* Calcium, Total	8/11/23 11:28	8/15/23 12:46		1.015	16.0	mg/L	0.070035	0.406	
* Iron, Total	8/11/23 11:28	8/16/23 14:48		101.5	118	mg/L	0.8120	4.06	
* Lithium, Total	8/11/23 11:28	8/15/23 12:46		1.015	Not Detected	mg/L	0.007105	0.01999956	U
* Magnesium, Total	8/11/23 11:28	8/15/23 12:46		1.015	16.5	mg/L	0.021315	0.406	
* Molybdenum, Total	8/11/23 11:28	8/15/23 12:46		1.015	Not Detected	mg/L	0.005075	0.01015	U
* Silica, Total (calc.)	8/11/23 11:28	8/15/23 12:46		1	23.5	mg/L			
* Silicon, Total	8/11/23 11:28	8/15/23 12:46		1.015	11.0	mg/L	0.02030	0.25375	
* Sodium, Total	8/11/23 11:28	8/16/23 13:58		10.15	87.9	mg/L	0.4060	4.06	
Analytical Method: EPA 200.7		Analyst: ABB			Preparation Method: EPA 1638				
* Boron, Dissolved	8/11/23 09:10	8/11/23 12:05		1.015	0.271	mg/L	0.030000	0.1015	
* Calcium, Dissolved	8/11/23 09:10	8/11/23 12:05		1.015	17.0	mg/L	0.070035	0.406	
* Iron, Dissolved	8/11/23 09:10	8/15/23 10:43		101.5	117	mg/L	0.8120	4.06	
* Lithium, Dissolved	8/11/23 09:10	8/11/23 12:05		1.015	Not Detected	mg/L	0.007105	0.01999956	U
* Magnesium, Dissolved	8/11/23 09:10	8/11/23 12:05		1.015	16.2	mg/L	0.021315	0.406	
* Molybdenum, Dissolved	8/11/23 09:10	8/11/23 12:05		1.015	Not Detected	mg/L	0.005075	0.01015	U
* Silica, Dissolved (calc.)	8/11/23 09:10	8/11/23 12:05		1	24.0	mg/L			
* Silicon, Dissolved	8/11/23 09:10	8/11/23 12:05		1.015	11.2	mg/L	0.02030	0.25375	
* Sodium, Dissolved	8/11/23 09:10	8/14/23 13:45		10.15	77.2	mg/L	0.4060	4.06	
Analytical Method: EPA 200.8		Analyst: DLJ			Preparation Method: EPA 1638				
* Antimony, Total	8/11/23 11:28	8/11/23 14:17		1.015	Not Detected	mg/L	0.000710	0.001015	U
* Aluminum, Total	8/11/23 11:28	8/11/23 14:17		1.015	0.0528	mg/L	0.009135	0.05075	
* Arsenic, Total	8/11/23 11:28	8/11/23 14:17		1.015	0.0654	mg/L	0.000112	0.000203	
* Barium, Total	8/11/23 11:28	8/11/23 14:17		1.015	0.256	mg/L	0.000508	0.001015	
* Beryllium, Total	8/11/23 11:28	8/11/23 14:17		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Total	8/11/23 11:28	8/11/23 14:17		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Total	8/11/23 11:28	8/11/23 14:17		1.015	0.000914	mg/L	0.000203	0.001015	J
* Cobalt, Total	8/11/23 11:28	8/11/23 14:17		1.015	0.00581	mg/L	0.000068	0.000203	
* Lead, Total	8/11/23 11:28	8/11/23 14:17		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Total	8/11/23 11:28	8/11/23 14:17		1.015	0.256	mg/L	0.000152	0.001015	

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Barry Ash Pond - MW-24H

Location Code: WMWBARAP
Collected: 8/8/23 12:50
Customer ID:
Submittal Date: 8/10/23 09:46

Laboratory ID Number: BD14992

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
* Potassium, Total	8/11/23 11:28	8/11/23 14:17		1.015	2.59	mg/L	0.169505	0.5075	
* Selenium, Total	8/11/23 11:28	8/11/23 14:17		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Total	8/11/23 11:28	8/11/23 14:17		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 200.8		Analyst: DLJ							
* Antimony, Dissolved	8/11/23 09:10	8/11/23 10:47		1.015	Not Detected	mg/L	0.000710	0.001015	U
* Aluminum, Dissolved	8/11/23 09:10	8/11/23 10:47		1.015	Not Detected	mg/L	0.009135	0.05075	U
* Arsenic, Dissolved	8/11/23 09:10	8/11/23 10:47		1.015	0.0681	mg/L	0.000112	0.000203	
* Barium, Dissolved	8/11/23 09:10	8/11/23 10:47		1.015	0.243	mg/L	0.000508	0.001015	
* Beryllium, Dissolved	8/11/23 09:10	8/11/23 10:47		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Dissolved	8/11/23 09:10	8/11/23 10:47		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Dissolved	8/11/23 09:10	8/11/23 10:47		1.015	0.000760	mg/L	0.000203	0.001015	J
* Cobalt, Dissolved	8/11/23 09:10	8/11/23 10:47		1.015	0.00550	mg/L	0.000068	0.000203	
* Lead, Dissolved	8/11/23 09:10	8/11/23 10:47		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Dissolved	8/11/23 09:10	8/11/23 10:47		1.015	0.259	mg/L	0.000152	0.001015	
* Potassium, Dissolved	8/11/23 09:10	8/11/23 10:47		1.015	2.62	mg/L	0.169505	0.5075	
* Selenium, Dissolved	8/11/23 09:10	8/11/23 10:47		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Dissolved	8/11/23 09:10	8/11/23 10:47		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 245.1		Analyst: ELH							
* Mercury, Total by CVAA	8/10/23 17:13	8/10/23 22:11		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: EPA 353.2		Analyst: SC							
* Nitrogen, Nitrate/Nitrite	8/10/23 15:24	8/10/23 15:24		1	Not Detected	mg/L as N	0.20	0.3	U
Analytical Method: SM 2320 B		Analyst: DHC							
* Alkalinity	8/16/23 09:02	8/16/23 14:44		1	244	mg CaCO3/L		0.1	
Analytical Method: SM 2540C		Analyst: CNJ							
* Solids, Dissolved	8/10/23 13:30	8/11/23 13:40		1	517	mg/L		25	
Analytical Method: SM 4500CO2 D		Analyst: DHC							
* Bicarbonate Alkalinity, (calc.)	8/16/23 09:02	8/16/23 14:44		1	244	mg CaCO3/L		1	A
* Carbonate Alkalinity, (calc.)	8/16/23 09:02	8/16/23 14:44		1	Not Detected	mg CaCO3/L		0.5	A
Analytical Method: SM 4500H+ B		Analyst: DHC							
Alkalinity pH Endpoint	8/16/23 09:02	8/16/23 14:44		1	4.41	SU		2	

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Barry Ash Pond - MW-24H

Location Code: WMWBARAP
Collected: 8/8/23 12:50
Customer ID:
Submittal Date: 8/10/23 09:46

Laboratory ID Number: BD14992

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM 5310 B		Analyst: SC							
* Total Organic Carbon	8/10/23 20:22	8/10/23 20:22		1	28.8	mg/L	1.00	2	
Analytical Method: SM4500Cl E		Analyst: JCC							
* Chloride	8/16/23 11:28	8/16/23 11:28		5	45.1	mg/L	2.50	5	
Analytical Method: SM4500F G 2017		Analyst: JCC							
* Fluoride	8/17/23 10:10	8/17/23 10:10		1	0.144	mg/L	0.06	0.125	
Analytical Method: SM4500SO4 E 2011		Analyst: JCC							
* Sulfate	8/11/23 10:47	8/11/23 10:47		8	253	mg/L	4.8	16	
Analytical Method: Field Measurements		Analyst: AWG							
Conductivity	8/8/23 12:43	8/8/23 12:43			830.43	uS/cm			FA
pH	8/8/23 12:43	8/8/23 12:43			5.99	SU			FA
Temperature	8/8/23 12:43	8/8/23 12:43			23.19	C			FA
Turbidity	8/8/23 12:43	8/8/23 12:43			7.22	NTU			FA
Sulfide	8/8/23 12:43	8/8/23 12:43			0	mg/L			FA

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWBARAP

Sample Date: 8/8/23 12:50

Customer ID:

Delivery Date: 8/10/23 09:46

Description: Barry Ash Pond - MW-24H

Laboratory ID Number: BD14992

Sample	Analysis	Units	MB	MB		Spike	MS	MSD	Standard		Rec		Prec	Limit
				Limit					Standard	Limit	Rec	Limit		
BD14996	Aluminum, Dissolved	mg/L	-0.000366	0.0198	0.100	0.105	0.105	0.104	0.0850 to 0.115	105	70.0 to 130	0.00	20.0	
BD14995	Aluminum, Total	mg/L	0.000500	0.0198	0.100	0.150	0.152	0.105	0.0850 to 0.115	105	70.0 to 130	1.32	20.0	
BD14996	Antimony, Dissolved	mg/L	0.000717	0.00100	0.100	0.0923	0.0961	0.0901	0.0850 to 0.115	92.3	70.0 to 130	4.03	20.0	
BD14995	Antimony, Total	mg/L	0.000324	0.00100	0.100	0.0894	0.0911	0.0902	0.0850 to 0.115	89.4	70.0 to 130	1.88	20.0	
BD14996	Arsenic, Dissolved	mg/L	0.0000364	0.000200	0.100	0.114	0.116	0.0999	0.0850 to 0.115	100	70.0 to 130	1.74	20.0	
BD14995	Arsenic, Total	mg/L	0.0000151	0.000200	0.100	0.0991	0.0979	0.0967	0.0850 to 0.115	97.8	70.0 to 130	1.22	20.0	
BD14996	Barium, Dissolved	mg/L	-0.0000120	0.00100	0.100	0.157	0.155	0.0953	0.0850 to 0.115	92.3	70.0 to 130	1.28	20.0	
BD14995	Barium, Total	mg/L	-0.0000137	0.00100	0.100	0.118	0.116	0.0978	0.0850 to 0.115	101	70.0 to 130	1.71	20.0	
BD14996	Beryllium, Dissolved	mg/L	0.0000241	0.000880	0.100	0.101	0.0994	0.0982	0.0850 to 0.115	101	70.0 to 130	1.60	20.0	
BD14995	Beryllium, Total	mg/L	0.0000313	0.000880	0.100	0.0968	0.0959	0.0963	0.0850 to 0.115	96.8	70.0 to 130	0.934	20.0	
BD14996	Boron, Dissolved	mg/L	-0.00158	0.0650	1.00	1.08	1.11	0.998	0.850 to 1.15	102	70.0 to 130	2.74	20.0	
BD14995	Boron, Total	mg/L	0.000329	0.0650	1.00	1.01	0.979	1.00	0.850 to 1.15	101	70.0 to 130	3.12	20.0	
BD14996	Cadmium, Dissolved	mg/L	0.0000122	0.000147	0.100	0.101	0.0988	0.0966	0.0850 to 0.115	101	70.0 to 130	2.20	20.0	
BD14995	Cadmium, Total	mg/L	0.0000069	0.000147	0.100	0.0941	0.0961	0.0952	0.0850 to 0.115	94.1	70.0 to 130	2.10	20.0	
BD14996	Calcium, Dissolved	mg/L	-0.00883	0.152	5.00	29.1	29.7	4.86	4.25 to 5.75	76.0	70.0 to 130	2.04	20.0	
BD14995	Calcium, Total	mg/L	0.00398	0.152	5.00	6.16	5.99	4.68	4.25 to 5.75	91.4	70.0 to 130	2.80	20.0	
BD14994	Chloride	mg/L	0.0253	1.00	40.0	60.6	61.3	9.83	9.00 to 11.0	102	80.0 to 120	1.15	20.0	
BD14996	Chromium, Dissolved	mg/L	-0.0000772	0.000440	0.100	0.0999	0.0974	0.0988	0.0850 to 0.115	97.5	70.0 to 130	2.53	20.0	
BD14995	Chromium, Total	mg/L	-0.000117	0.000440	0.100	0.0977	0.0977	0.0987	0.0850 to 0.115	97.4	70.0 to 130	0.00	20.0	
BD14996	Cobalt, Dissolved	mg/L	-0.0000063	0.000147	0.100	0.104	0.101	0.102	0.0850 to 0.115	103	70.0 to 130	2.93	20.0	
BD14995	Cobalt, Total	mg/L	-0.0000058	0.000147	0.100	0.105	0.105	0.104	0.0850 to 0.115	101	70.0 to 130	0.00	20.0	
BD14994	Fluoride	mg/L	0.0417	0.125	2.50	2.62	2.66	2.52	2.25 to 2.75	102	80.0 to 120	1.52	20.0	
BD14996	Iron, Dissolved	mg/L	0.00047	0.0176	0.2	71.7	71.4	0.204	0.170 to 0.230	150	70.0 to 130	0.419	20.0	
BD14995	Iron, Total	mg/L	0.00156	0.0176	0.2	0.415	0.414	0.198	0.170 to 0.230	99.0	70.0 to 130	0.241	20.0	

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWBARAP

Sample Date: 8/8/23 12:50

Customer ID:

Delivery Date: 8/10/23 09:46

Description: Barry Ash Pond - MW-24H

Laboratory ID Number: BD14992

Sample	Analysis	Units	MB		Spike	MS	MSD	Standard		Rec		Prec	Limit
			MB	Limit				Standard	Limit	Rec	Limit		
BD14996	Lead, Dissolved	mg/L	0.0000155	0.000147	0.100	0.109	0.104	0.107	0.0850 to 0.115	109	70.0 to 130	4.69	20.0
BD14995	Lead, Total	mg/L	0.0000200	0.000147	0.100	0.102	0.105	0.106	0.0850 to 0.115	102	70.0 to 130	2.90	20.0
BD14996	Lithium, Dissolved	mg/L	-0.000571	0.0154	0.200	0.236	0.233	0.206	0.170 to 0.230	105	70.0 to 130	1.28	20.0
BD14995	Lithium, Total	mg/L	-0.000313	0.0154	0.200	0.213	0.213	0.212	0.170 to 0.230	106	70.0 to 130	0.00	20.0
BD14996	Magnesium, Dissolved	mg/L	-0.00854	0.0462	5.00	18.8	18.9	5.06	4.25 to 5.75	92.0	70.0 to 130	0.531	20.0
BD14995	Magnesium, Total	mg/L	-0.0185	0.0462	5.00	6.25	6.18	5.09	4.25 to 5.75	102	70.0 to 130	1.13	20.0
BD14996	Manganese, Dissolved	mg/L	0.0000086	0.00033	0.100	0.722	0.699	0.101	0.0850 to 0.115	91.0	70.0 to 130	3.24	20.0
BD14995	Manganese, Total	mg/L	0.0000152	0.00033	0.100	0.276	0.275	0.102	0.0850 to 0.115	97.0	70.0 to 130	0.363	20.0
BD14994	Mercury, Total by CVAA	mg/L	-4.000E-05	0.000500	0.004	0.00394	0.00395	0.00395	0.00340 to 0.00460	98.5	70.0 to 130	0.253	20.0
BD14996	Molybdenum, Dissolved	mg/L	0.00221	0.0100	0.2	0.199	0.198	0.198	0.170 to 0.230	99.5	70.0 to 130	0.504	20.0
BD14995	Molybdenum, Total	mg/L	0.000	0.0100	0.2	0.196	0.195	0.199	0.170 to 0.230	98.0	70.0 to 130	0.512	20.0
BD14996	Potassium, Dissolved	mg/L	-0.00230	0.367	10.0	20.4	20.0	10.3	8.50 to 11.5	99.0	70.0 to 130	1.98	20.0
BD14995	Potassium, Total	mg/L	-0.0139	0.367	10.0	11.0	11.0	10.5	8.50 to 11.5	102	70.0 to 130	0.00	20.0
BD14996	Selenium, Dissolved	mg/L	0.0000708	0.00100	0.100	0.106	0.107	0.101	0.0850 to 0.115	106	70.0 to 130	0.939	20.0
BD14995	Selenium, Total	mg/L	-0.0000893	0.00100	0.100	0.0976	0.0984	0.100	0.0850 to 0.115	97.6	70.0 to 130	0.816	20.0
BD14996	Silicon, Dissolved	mg/L	-0.000657	0.0440	1.00	8.63	8.66	1.02	0.850 to 1.15	93.0	70.0 to 130	0.347	20.0
BD14995	Silicon, Total	mg/L	-0.000409	0.0440	1.00	8.84	8.80	1.02	0.850 to 1.15	114	70.0 to 130	0.454	20.0
BD14996	Sodium, Dissolved	mg/L	0.00579	0.0880	5.00	56.2	56.1	5.30	4.25 to 5.75	100	70.0 to 130	0.178	20.0
BD14995	Sodium, Total	mg/L	0.00111	0.0880	5.00	10.1	10.1	5.47	4.25 to 5.75	107	70.0 to 130	0.00	20.0
BD14994	Sulfate	mg/L	0.153	2.0	20.0	43.3	43.8	20.5	18.0 to 22.0	82.0	80.0 to 120	1.15	20.0
BD14996	Thallium, Dissolved	mg/L	-0.0000062	0.000147	0.100	0.107	0.105	0.103	0.0850 to 0.115	107	70.0 to 130	1.89	20.0
BD14995	Thallium, Total	mg/L	0.0000078	0.000147	0.100	0.0997	0.105	0.105	0.0850 to 0.115	99.7	70.0 to 130	5.18	20.0
BD14994	Total Organic Carbon	mg/L	0.189	1.00	10.0	18.0	18.5	25.3		115	80.0 to 120	2.74	20.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWBARAP

Sample Date: 8/8/23 12:50

Customer ID:

Delivery Date: 8/10/23 09:46

Description: Barry Ash Pond - MW-24H

Laboratory ID Number: BD14992

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BD15006	Alkalinity	mg CaCO3/L					153	51.2	45.0 to 55.0			0.00	10.0
BD14994	Nitrogen, Nitrate/Nitrite	mg/L as N	0.00	0.200	2.00	2.08	0.045	2.06	1.80 to 2.20	104	90.0 to 110	0.00	15.0
BD14999	Solids, Dissolved	mg/L	1.00	25.0			361	53.0	40.0 to 60.0			1.38	10.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Barry Ash Pond - MW-16

Location Code: WMWBARAP
Collected: 8/8/23 13:55
Customer ID:
Submittal Date: 8/10/23 09:46

Laboratory ID Number: BD14993

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7			Analyst: ABB		Preparation Method: EPA 1638				
* Boron, Total	8/11/23 11:28	8/15/23 12:50		1.015	2.45	mg/L	0.030000	0.1015	
* Calcium, Total	8/11/23 11:28	8/15/23 12:50		1.015	8.99	mg/L	0.070035	0.406	
* Iron, Total	8/11/23 11:28	8/16/23 14:51		101.5	140	mg/L	0.8120	4.06	
* Lithium, Total	8/11/23 11:28	8/15/23 12:50		1.015	Not Detected	mg/L	0.007105	0.01999956	U
* Magnesium, Total	8/11/23 11:28	8/15/23 12:50		1.015	6.24	mg/L	0.021315	0.406	
* Molybdenum, Total	8/11/23 11:28	8/15/23 12:50		1.015	Not Detected	mg/L	0.005075	0.01015	U
* Silica, Total (calc.)	8/11/23 11:28	8/15/23 12:50		1	26.1	mg/L			
* Silicon, Total	8/11/23 11:28	8/15/23 12:50		1.015	12.2	mg/L	0.02030	0.25375	
* Sodium, Total	8/11/23 11:28	8/15/23 12:50		1.015	27.6	mg/L	0.04060	0.406	
Analytical Method: EPA 200.7			Analyst: ABB						
* Boron, Dissolved	8/11/23 09:10	8/11/23 12:08		1.015	2.50	mg/L	0.030000	0.1015	
* Calcium, Dissolved	8/11/23 09:10	8/11/23 12:08		1.015	9.58	mg/L	0.070035	0.406	
* Iron, Dissolved	8/11/23 09:10	8/15/23 10:46		101.5	125	mg/L	0.8120	4.06	
* Lithium, Dissolved	8/11/23 09:10	8/11/23 12:08		1.015	Not Detected	mg/L	0.007105	0.01999956	U
* Magnesium, Dissolved	8/11/23 09:10	8/11/23 12:08		1.015	6.13	mg/L	0.021315	0.406	
* Molybdenum, Dissolved	8/11/23 09:10	8/11/23 12:08		1.015	Not Detected	mg/L	0.005075	0.01015	U
* Silica, Dissolved (calc.)	8/11/23 09:10	8/11/23 12:08		1	26.5	mg/L			
* Silicon, Dissolved	8/11/23 09:10	8/11/23 12:08		1.015	12.4	mg/L	0.02030	0.25375	
* Sodium, Dissolved	8/11/23 09:10	8/11/23 12:08		1.015	27.0	mg/L	0.04060	0.406	
Analytical Method: EPA 200.8			Analyst: DLJ		Preparation Method: EPA 1638				
* Antimony, Total	8/11/23 11:28	8/11/23 14:21		1.015	Not Detected	mg/L	0.000710	0.001015	U
* Aluminum, Total	8/11/23 11:28	8/11/23 14:21		1.015	0.230	mg/L	0.009135	0.05075	
* Arsenic, Total	8/11/23 11:28	8/11/23 14:21		1.015	0.0156	mg/L	0.000112	0.000203	
* Barium, Total	8/11/23 11:28	8/11/23 14:21		1.015	0.0904	mg/L	0.000508	0.001015	
* Beryllium, Total	8/11/23 11:28	8/11/23 14:21		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Total	8/11/23 11:28	8/11/23 14:21		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Total	8/11/23 11:28	8/11/23 14:21		1.015	0.00169	mg/L	0.000203	0.001015	
* Cobalt, Total	8/11/23 11:28	8/11/23 14:21		1.015	0.00584	mg/L	0.000068	0.000203	
* Lead, Total	8/11/23 11:28	8/11/23 14:21		1.015	0.000206	mg/L	0.000068	0.000203	
* Manganese, Total	8/11/23 11:28	8/11/23 14:21		1.015	0.427	mg/L	0.000152	0.001015	

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Barry Ash Pond - MW-16

Location Code: WMWBARAP

Collected: 8/8/23 13:55

Customer ID:

Submittal Date: 8/10/23 09:46

Laboratory ID Number: BD14993

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
* Potassium, Total	8/11/23 11:28	8/11/23 14:21		1.015	2.29	mg/L	0.169505	0.5075	
* Selenium, Total	8/11/23 11:28	8/11/23 14:21		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Total	8/11/23 11:28	8/11/23 14:21		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 200.8		Analyst: DLJ							
* Antimony, Dissolved	8/11/23 09:10	8/11/23 10:51		1.015	Not Detected	mg/L	0.000710	0.001015	U
* Aluminum, Dissolved	8/11/23 09:10	8/11/23 10:51		1.015	Not Detected	mg/L	0.009135	0.05075	U
* Arsenic, Dissolved	8/11/23 09:10	8/11/23 10:51		1.015	0.0164	mg/L	0.000112	0.000203	
* Barium, Dissolved	8/11/23 09:10	8/11/23 10:51		1.015	0.0846	mg/L	0.000508	0.001015	
* Beryllium, Dissolved	8/11/23 09:10	8/11/23 10:51		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Dissolved	8/11/23 09:10	8/11/23 10:51		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Dissolved	8/11/23 09:10	8/11/23 10:51		1.015	0.00115	mg/L	0.000203	0.001015	
* Cobalt, Dissolved	8/11/23 09:10	8/11/23 10:51		1.015	0.00578	mg/L	0.000068	0.000203	
* Lead, Dissolved	8/11/23 09:10	8/11/23 10:51		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Dissolved	8/11/23 09:10	8/11/23 10:51		1.015	0.431	mg/L	0.000152	0.001015	
* Potassium, Dissolved	8/11/23 09:10	8/11/23 10:51		1.015	2.26	mg/L	0.169505	0.5075	
* Selenium, Dissolved	8/11/23 09:10	8/11/23 10:51		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Dissolved	8/11/23 09:10	8/11/23 10:51		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 245.1		Analyst: ELH							
* Mercury, Total by CVAA	8/10/23 17:13	8/10/23 22:15		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: EPA 353.2		Analyst: SC							
* Nitrogen, Nitrate/Nitrite	8/10/23 15:26	8/10/23 15:26		1	Not Detected	mg/L as N	0.20	0.3	U
Analytical Method: SM 2320 B		Analyst: DHC							
* Alkalinity	8/16/23 09:02	8/16/23 14:44		1	230	mg CaCO3/L		0.1	
Analytical Method: SM 2540C		Analyst: CNJ							
* Solids, Dissolved	8/10/23 13:30	8/11/23 13:40		1	340	mg/L		25	
Analytical Method: SM 4500CO2 D		Analyst: DHC							
* Bicarbonate Alkalinity, (calc.)	8/16/23 09:02	8/16/23 14:44		1	230	mg CaCO3/L		1	
* Carbonate Alkalinity, (calc.)	8/16/23 09:02	8/16/23 14:44		1	Not Detected	mg CaCO3/L		0.5	
Analytical Method: SM 4500H+ B		Analyst: DHC							
Alkalinity pH Endpoint	8/16/23 09:02	8/16/23 14:44		1	4.50	SU		2	

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Barry Ash Pond - MW-16

Location Code: WMWBARAP
Collected: 8/8/23 13:55
Customer ID:
Submittal Date: 8/10/23 09:46

Laboratory ID Number: BD14993

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM 5310 B		Analyst: SC							
* Total Organic Carbon	8/10/23 20:42	8/10/23 20:42		1	8.60	mg/L	1.00	2	
Analytical Method: SM4500Cl E		Analyst: JCC							
* Chloride	8/16/23 11:29	8/16/23 11:29		2	21.3	mg/L	1.00	2	
Analytical Method: SM4500F G 2017		Analyst: JCC							
* Fluoride	8/17/23 10:12	8/17/23 10:12		1	0.0772	mg/L	0.06	0.125	J
Analytical Method: SM4500SO4 E 2011		Analyst: JCC							
* Sulfate	8/11/23 10:38	8/11/23 10:38		1	31.6	mg/L	0.6	2	
Analytical Method: Field Measurements		Analyst: AWG							
Conductivity	8/8/23 13:55	8/8/23 13:55			547.77	uS/cm			FA
pH	8/8/23 13:55	8/8/23 13:55			5.39	SU			FA
Temperature	8/8/23 13:55	8/8/23 13:55			22.85	C			FA
Turbidity	8/8/23 13:55	8/8/23 13:55			6.36	NTU			FA

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWBARAP

Sample Date: 8/8/23 13:55

Customer ID:

Delivery Date: 8/10/23 09:46

Description: Barry Ash Pond - MW-16

Laboratory ID Number: BD14993

Sample	Analysis	Units	MB	MB		Spike	MS	MSD	Standard		Rec		Prec Limit
				Limit					Standard	Limit	Rec	Limit	
BD14996	Aluminum, Dissolved	mg/L	-0.000366	0.0198	0.100	0.105	0.105	0.104	0.0850 to 0.115	105	70.0 to 130	0.00	20.0
BD14995	Aluminum, Total	mg/L	0.000500	0.0198	0.100	0.150	0.152	0.105	0.0850 to 0.115	105	70.0 to 130	1.32	20.0
BD14996	Antimony, Dissolved	mg/L	0.000717	0.00100	0.100	0.0923	0.0961	0.0901	0.0850 to 0.115	92.3	70.0 to 130	4.03	20.0
BD14995	Antimony, Total	mg/L	0.000324	0.00100	0.100	0.0894	0.0911	0.0902	0.0850 to 0.115	89.4	70.0 to 130	1.88	20.0
BD14996	Arsenic, Dissolved	mg/L	0.0000364	0.000200	0.100	0.114	0.116	0.0999	0.0850 to 0.115	100	70.0 to 130	1.74	20.0
BD14995	Arsenic, Total	mg/L	0.0000151	0.000200	0.100	0.0991	0.0979	0.0967	0.0850 to 0.115	97.8	70.0 to 130	1.22	20.0
BD14996	Barium, Dissolved	mg/L	-0.0000120	0.00100	0.100	0.157	0.155	0.0953	0.0850 to 0.115	92.3	70.0 to 130	1.28	20.0
BD14995	Barium, Total	mg/L	-0.0000137	0.00100	0.100	0.118	0.116	0.0978	0.0850 to 0.115	101	70.0 to 130	1.71	20.0
BD14996	Beryllium, Dissolved	mg/L	0.0000241	0.000880	0.100	0.101	0.0994	0.0982	0.0850 to 0.115	101	70.0 to 130	1.60	20.0
BD14995	Beryllium, Total	mg/L	0.0000313	0.000880	0.100	0.0968	0.0959	0.0963	0.0850 to 0.115	96.8	70.0 to 130	0.934	20.0
BD14996	Boron, Dissolved	mg/L	-0.00158	0.0650	1.00	1.08	1.11	0.998	0.850 to 1.15	102	70.0 to 130	2.74	20.0
BD14995	Boron, Total	mg/L	0.000329	0.0650	1.00	1.01	0.979	1.00	0.850 to 1.15	101	70.0 to 130	3.12	20.0
BD14996	Cadmium, Dissolved	mg/L	0.0000122	0.000147	0.100	0.101	0.0988	0.0966	0.0850 to 0.115	101	70.0 to 130	2.20	20.0
BD14995	Cadmium, Total	mg/L	0.0000069	0.000147	0.100	0.0941	0.0961	0.0952	0.0850 to 0.115	94.1	70.0 to 130	2.10	20.0
BD14996	Calcium, Dissolved	mg/L	-0.00883	0.152	5.00	29.1	29.7	4.86	4.25 to 5.75	76.0	70.0 to 130	2.04	20.0
BD14995	Calcium, Total	mg/L	0.00398	0.152	5.00	6.16	5.99	4.68	4.25 to 5.75	91.4	70.0 to 130	2.80	20.0
BD14994	Chloride	mg/L	0.0253	1.00	40.0	60.6	61.3	9.83	9.00 to 11.0	102	80.0 to 120	1.15	20.0
BD14996	Chromium, Dissolved	mg/L	-0.0000772	0.000440	0.100	0.0999	0.0974	0.0988	0.0850 to 0.115	97.5	70.0 to 130	2.53	20.0
BD14995	Chromium, Total	mg/L	-0.000117	0.000440	0.100	0.0977	0.0977	0.0987	0.0850 to 0.115	97.4	70.0 to 130	0.00	20.0
BD14996	Cobalt, Dissolved	mg/L	-0.0000063	0.000147	0.100	0.104	0.101	0.102	0.0850 to 0.115	103	70.0 to 130	2.93	20.0
BD14995	Cobalt, Total	mg/L	-0.0000058	0.000147	0.100	0.105	0.105	0.104	0.0850 to 0.115	101	70.0 to 130	0.00	20.0
BD14994	Fluoride	mg/L	0.0417	0.125	2.50	2.62	2.66	2.52	2.25 to 2.75	102	80.0 to 120	1.52	20.0
BD14996	Iron, Dissolved	mg/L	0.00047	0.0176	0.2	71.7	71.4	0.204	0.170 to 0.230	150	70.0 to 130	0.419	20.0
BD14995	Iron, Total	mg/L	0.00156	0.0176	0.2	0.415	0.414	0.198	0.170 to 0.230	99.0	70.0 to 130	0.241	20.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWBARAP

Sample Date: 8/8/23 13:55

Customer ID:

Delivery Date: 8/10/23 09:46

Description: Barry Ash Pond - MW-16

Laboratory ID Number: BD14993

Sample	Analysis	Units	MB					Standard		Rec		Prec	Limit
			MB	Limit	Spike	MS	MSD	Standard	Limit	Rec	Limit		
BD14996	Lead, Dissolved	mg/L	0.0000155	0.000147	0.100	0.109	0.104	0.107	0.0850 to 0.115	109	70.0 to 130	4.69	20.0
BD14995	Lead, Total	mg/L	0.0000200	0.000147	0.100	0.102	0.105	0.106	0.0850 to 0.115	102	70.0 to 130	2.90	20.0
BD14996	Lithium, Dissolved	mg/L	-0.000571	0.0154	0.200	0.236	0.233	0.206	0.170 to 0.230	105	70.0 to 130	1.28	20.0
BD14995	Lithium, Total	mg/L	-0.000313	0.0154	0.200	0.213	0.213	0.212	0.170 to 0.230	106	70.0 to 130	0.00	20.0
BD14996	Magnesium, Dissolved	mg/L	-0.00854	0.0462	5.00	18.8	18.9	5.06	4.25 to 5.75	92.0	70.0 to 130	0.531	20.0
BD14995	Magnesium, Total	mg/L	-0.0185	0.0462	5.00	6.25	6.18	5.09	4.25 to 5.75	102	70.0 to 130	1.13	20.0
BD14996	Manganese, Dissolved	mg/L	0.0000086	0.00033	0.100	0.722	0.699	0.101	0.0850 to 0.115	91.0	70.0 to 130	3.24	20.0
BD14995	Manganese, Total	mg/L	0.0000152	0.00033	0.100	0.276	0.275	0.102	0.0850 to 0.115	97.0	70.0 to 130	0.363	20.0
BD14994	Mercury, Total by CVAA	mg/L	-4.000E-05	0.000500	0.004	0.00394	0.00395	0.00395	0.00340 to 0.00460	98.5	70.0 to 130	0.253	20.0
BD14996	Molybdenum, Dissolved	mg/L	0.00221	0.0100	0.2	0.199	0.198	0.198	0.170 to 0.230	99.5	70.0 to 130	0.504	20.0
BD14995	Molybdenum, Total	mg/L	0.000	0.0100	0.2	0.196	0.195	0.199	0.170 to 0.230	98.0	70.0 to 130	0.512	20.0
BD14996	Potassium, Dissolved	mg/L	-0.00230	0.367	10.0	20.4	20.0	10.3	8.50 to 11.5	99.0	70.0 to 130	1.98	20.0
BD14995	Potassium, Total	mg/L	-0.0139	0.367	10.0	11.0	11.0	10.5	8.50 to 11.5	102	70.0 to 130	0.00	20.0
BD14996	Selenium, Dissolved	mg/L	0.0000708	0.00100	0.100	0.106	0.107	0.101	0.0850 to 0.115	106	70.0 to 130	0.939	20.0
BD14995	Selenium, Total	mg/L	-0.0000893	0.00100	0.100	0.0976	0.0984	0.100	0.0850 to 0.115	97.6	70.0 to 130	0.816	20.0
BD14996	Silicon, Dissolved	mg/L	-0.000657	0.0440	1.00	8.63	8.66	1.02	0.850 to 1.15	93.0	70.0 to 130	0.347	20.0
BD14995	Silicon, Total	mg/L	-0.000409	0.0440	1.00	8.84	8.80	1.02	0.850 to 1.15	114	70.0 to 130	0.454	20.0
BD14996	Sodium, Dissolved	mg/L	0.00579	0.0880	5.00	56.2	56.1	5.30	4.25 to 5.75	100	70.0 to 130	0.178	20.0
BD14995	Sodium, Total	mg/L	0.00111	0.0880	5.00	10.1	10.1	5.47	4.25 to 5.75	107	70.0 to 130	0.00	20.0
BD14994	Sulfate	mg/L	0.153	2.0	20.0	43.3	43.8	20.5	18.0 to 22.0	82.0	80.0 to 120	1.15	20.0
BD14996	Thallium, Dissolved	mg/L	-0.0000062	0.000147	0.100	0.107	0.105	0.103	0.0850 to 0.115	107	70.0 to 130	1.89	20.0
BD14995	Thallium, Total	mg/L	0.0000078	0.000147	0.100	0.0997	0.105	0.105	0.0850 to 0.115	99.7	70.0 to 130	5.18	20.0
BD14994	Total Organic Carbon	mg/L	0.189	1.00	10.0	18.0	18.5	25.3		115	80.0 to 120	2.74	20.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWBARAP

Sample Date: 8/8/23 13:55

Customer ID:

Delivery Date: 8/10/23 09:46

Description: Barry Ash Pond - MW-16

Laboratory ID Number: BD14993

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BD15006	Alkalinity	mg CaCO3/L					153	51.2	45.0 to 55.0			0.00	10.0
BD14994	Nitrogen, Nitrate/Nitrite	mg/L as N	0.00	0.200	2.00	2.08	0.045	2.06	1.80 to 2.20	104	90.0 to 110	0.00	15.0
BD14999	Solids, Dissolved	mg/L	1.00	25.0			361	53.0	40.0 to 60.0			1.38	10.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Barry Ash Pond - MW-16 Dup

Location Code: WMWBARAP
Collected: 8/8/23 13:55
Customer ID:
Submittal Date: 8/10/23 09:46

Laboratory ID Number: BD14994

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7		Analyst: ABB			Preparation Method: EPA 1638				
* Boron, Total	8/11/23 11:28	8/15/23 12:53		1.015	2.45	mg/L	0.030000	0.1015	
* Calcium, Total	8/11/23 11:28	8/15/23 12:53		1.015	9.03	mg/L	0.070035	0.406	
* Iron, Total	8/11/23 11:28	8/16/23 14:54		101.5	146	mg/L	0.8120	4.06	
* Lithium, Total	8/11/23 11:28	8/15/23 12:53		1.015	Not Detected	mg/L	0.007105	0.01999956	U
* Magnesium, Total	8/11/23 11:28	8/15/23 12:53		1.015	6.19	mg/L	0.021315	0.406	
* Molybdenum, Total	8/11/23 11:28	8/15/23 12:53		1.015	Not Detected	mg/L	0.005075	0.01015	U
* Silica, Total (calc.)	8/11/23 11:28	8/15/23 12:53		1	26.1	mg/L			
* Silicon, Total	8/11/23 11:28	8/15/23 12:53		1.015	12.2	mg/L	0.02030	0.25375	
* Sodium, Total	8/11/23 11:28	8/15/23 12:53		1.015	27.6	mg/L	0.04060	0.406	
Analytical Method: EPA 200.7		Analyst: ABB			Preparation Method: EPA 1638				
* Boron, Dissolved	8/11/23 09:10	8/11/23 12:11		1.015	2.50	mg/L	0.030000	0.1015	
* Calcium, Dissolved	8/11/23 09:10	8/11/23 12:11		1.015	9.22	mg/L	0.070035	0.406	
* Iron, Dissolved	8/11/23 09:10	8/15/23 10:50		101.5	123	mg/L	0.8120	4.06	
* Lithium, Dissolved	8/11/23 09:10	8/11/23 12:11		1.015	Not Detected	mg/L	0.007105	0.01999956	U
* Magnesium, Dissolved	8/11/23 09:10	8/11/23 12:11		1.015	6.06	mg/L	0.021315	0.406	
* Molybdenum, Dissolved	8/11/23 09:10	8/11/23 12:11		1.015	Not Detected	mg/L	0.005075	0.01015	U
* Silica, Dissolved (calc.)	8/11/23 09:10	8/11/23 12:11		1	26.3	mg/L			
* Silicon, Dissolved	8/11/23 09:10	8/11/23 12:11		1.015	12.3	mg/L	0.02030	0.25375	
* Sodium, Dissolved	8/11/23 09:10	8/11/23 12:11		1.015	26.6	mg/L	0.04060	0.406	
Analytical Method: EPA 200.8		Analyst: DLJ			Preparation Method: EPA 1638				
* Antimony, Total	8/11/23 11:28	8/11/23 14:24		1.015	Not Detected	mg/L	0.000710	0.001015	U
* Aluminum, Total	8/11/23 11:28	8/11/23 14:24		1.015	0.221	mg/L	0.009135	0.05075	
* Arsenic, Total	8/11/23 11:28	8/11/23 14:24		1.015	0.0159	mg/L	0.000112	0.000203	
* Barium, Total	8/11/23 11:28	8/11/23 14:24		1.015	0.0888	mg/L	0.000508	0.001015	
* Beryllium, Total	8/11/23 11:28	8/11/23 14:24		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Total	8/11/23 11:28	8/11/23 14:24		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Total	8/11/23 11:28	8/11/23 14:24		1.015	0.00166	mg/L	0.000203	0.001015	
* Cobalt, Total	8/11/23 11:28	8/11/23 14:24		1.015	0.00589	mg/L	0.000068	0.000203	
* Lead, Total	8/11/23 11:28	8/11/23 14:24		1.015	0.000181	mg/L	0.000068	0.000203	J
* Manganese, Total	8/11/23 11:28	8/11/23 14:24		1.015	0.428	mg/L	0.000152	0.001015	

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Barry Ash Pond - MW-16 Dup

Location Code: WMWBARAP

Collected: 8/8/23 13:55

Customer ID:

Submittal Date: 8/10/23 09:46

Laboratory ID Number: BD14994

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
* Potassium, Total	8/11/23 11:28	8/11/23 14:24		1.015	2.29	mg/L	0.169505	0.5075	
* Selenium, Total	8/11/23 11:28	8/11/23 14:24		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Total	8/11/23 11:28	8/11/23 14:24		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 200.8		Analyst: DLJ							
* Antimony, Dissolved	8/11/23 09:10	8/11/23 10:55		1.015	Not Detected	mg/L	0.000710	0.001015	U
* Aluminum, Dissolved	8/11/23 09:10	8/11/23 10:55		1.015	Not Detected	mg/L	0.009135	0.05075	U
* Arsenic, Dissolved	8/11/23 09:10	8/11/23 10:55		1.015	0.0163	mg/L	0.000112	0.000203	
* Barium, Dissolved	8/11/23 09:10	8/11/23 10:55		1.015	0.0830	mg/L	0.000508	0.001015	
* Beryllium, Dissolved	8/11/23 09:10	8/11/23 10:55		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Dissolved	8/11/23 09:10	8/11/23 10:55		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Dissolved	8/11/23 09:10	8/11/23 10:55		1.015	0.00115	mg/L	0.000203	0.001015	
* Cobalt, Dissolved	8/11/23 09:10	8/11/23 10:55		1.015	0.00585	mg/L	0.000068	0.000203	
* Lead, Dissolved	8/11/23 09:10	8/11/23 10:55		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Dissolved	8/11/23 09:10	8/11/23 10:55		1.015	0.432	mg/L	0.000152	0.001015	
* Potassium, Dissolved	8/11/23 09:10	8/11/23 10:55		1.015	2.27	mg/L	0.169505	0.5075	
* Selenium, Dissolved	8/11/23 09:10	8/11/23 10:55		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Dissolved	8/11/23 09:10	8/11/23 10:55		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 245.1		Analyst: ELH							
* Mercury, Total by CVAA	8/10/23 17:13	8/10/23 22:19		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: EPA 353.2		Analyst: SC							
* Nitrogen, Nitrate/Nitrite	8/10/23 15:28	8/10/23 15:28		1	Not Detected	mg/L as N	0.20	0.3	U
Analytical Method: SM 2320 B		Analyst: DHC							
* Alkalinity	8/16/23 09:02	8/16/23 14:44		1	232	mg CaCO3/L		0.1	
Analytical Method: SM 2540C		Analyst: CNJ							
* Solids, Dissolved	8/10/23 13:30	8/11/23 13:40		1	347	mg/L		25	
Analytical Method: SM 4500CO2 D		Analyst: DHC							
* Bicarbonate Alkalinity, (calc.)	8/16/23 09:02	8/16/23 14:44		1	232	mg CaCO3/L		1	
* Carbonate Alkalinity, (calc.)	8/16/23 09:02	8/16/23 14:44		1	Not Detected	mg CaCO3/L		0.5	
Analytical Method: SM 4500H+ B		Analyst: DHC							
Alkalinity pH Endpoint	8/16/23 09:02	8/16/23 14:44		1	4.53	SU		2	

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Barry Ash Pond - MW-16 Dup

Location Code: WMWBARAP
Collected: 8/8/23 13:55
Customer ID:
Submittal Date: 8/10/23 09:46

Laboratory ID Number: BD14994

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM 5310 B		Analyst: SC							
* Total Organic Carbon	8/10/23 21:01	8/10/23 21:01		1	6.48	mg/L	1.00	2	
Analytical Method: SM4500Cl E		Analyst: JCC							
* Chloride	8/16/23 11:30	8/16/23 11:30		4	20.0	mg/L	2.00	4	
Analytical Method: SM4500F G 2017		Analyst: JCC							
* Fluoride	8/17/23 10:13	8/17/23 10:13		1	0.0778	mg/L	0.06	0.125	J
Analytical Method: SM4500SO4 E 2011		Analyst: JCC							
* Sulfate	8/11/23 10:40	8/11/23 10:40		1	26.9	mg/L	0.6	2	
Analytical Method: Field Measurements		Analyst: AWG							
Conductivity	8/8/23 13:55	8/8/23 13:55			547.77	uS/cm			FA
pH	8/8/23 13:55	8/8/23 13:55			5.39	SU			FA
Temperature	8/8/23 13:55	8/8/23 13:55			22.85	C			FA
Turbidity	8/8/23 13:55	8/8/23 13:55			6.36	NTU			FA

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWBARAP

Sample Date: 8/8/23 13:55

Customer ID:

Delivery Date: 8/10/23 09:46

Description: Barry Ash Pond - MW-16 Dup

Laboratory ID Number: BD14994

Sample	Analysis	Units	MB	MB		Spike	MS	MSD	Standard		Rec		Prec	Limit
				Limit					Standard	Limit	Rec	Limit		
BD14996	Aluminum, Dissolved	mg/L	-0.000366	0.0198	0.100	0.105	0.105	0.104	0.0850 to 0.115	105	70.0 to 130	0.00	20.0	
BD14995	Aluminum, Total	mg/L	0.000500	0.0198	0.100	0.150	0.152	0.105	0.0850 to 0.115	105	70.0 to 130	1.32	20.0	
BD14996	Antimony, Dissolved	mg/L	0.000717	0.00100	0.100	0.0923	0.0961	0.0901	0.0850 to 0.115	92.3	70.0 to 130	4.03	20.0	
BD14995	Antimony, Total	mg/L	0.000324	0.00100	0.100	0.0894	0.0911	0.0902	0.0850 to 0.115	89.4	70.0 to 130	1.88	20.0	
BD14996	Arsenic, Dissolved	mg/L	0.0000364	0.000200	0.100	0.114	0.116	0.0999	0.0850 to 0.115	100	70.0 to 130	1.74	20.0	
BD14995	Arsenic, Total	mg/L	0.0000151	0.000200	0.100	0.0991	0.0979	0.0967	0.0850 to 0.115	97.8	70.0 to 130	1.22	20.0	
BD14996	Barium, Dissolved	mg/L	-0.0000120	0.00100	0.100	0.157	0.155	0.0953	0.0850 to 0.115	92.3	70.0 to 130	1.28	20.0	
BD14995	Barium, Total	mg/L	-0.0000137	0.00100	0.100	0.118	0.116	0.0978	0.0850 to 0.115	101	70.0 to 130	1.71	20.0	
BD14996	Beryllium, Dissolved	mg/L	0.0000241	0.000880	0.100	0.101	0.0994	0.0982	0.0850 to 0.115	101	70.0 to 130	1.60	20.0	
BD14995	Beryllium, Total	mg/L	0.0000313	0.000880	0.100	0.0968	0.0959	0.0963	0.0850 to 0.115	96.8	70.0 to 130	0.934	20.0	
BD14996	Boron, Dissolved	mg/L	-0.00158	0.0650	1.00	1.08	1.11	0.998	0.850 to 1.15	102	70.0 to 130	2.74	20.0	
BD14995	Boron, Total	mg/L	0.000329	0.0650	1.00	1.01	0.979	1.00	0.850 to 1.15	101	70.0 to 130	3.12	20.0	
BD14996	Cadmium, Dissolved	mg/L	0.0000122	0.000147	0.100	0.101	0.0988	0.0966	0.0850 to 0.115	101	70.0 to 130	2.20	20.0	
BD14995	Cadmium, Total	mg/L	0.0000069	0.000147	0.100	0.0941	0.0961	0.0952	0.0850 to 0.115	94.1	70.0 to 130	2.10	20.0	
BD14996	Calcium, Dissolved	mg/L	-0.00883	0.152	5.00	29.1	29.7	4.86	4.25 to 5.75	76.0	70.0 to 130	2.04	20.0	
BD14995	Calcium, Total	mg/L	0.00398	0.152	5.00	6.16	5.99	4.68	4.25 to 5.75	91.4	70.0 to 130	2.80	20.0	
BD14994	Chloride	mg/L	0.0253	1.00	40.0	60.6	61.3	9.83	9.00 to 11.0	102	80.0 to 120	1.15	20.0	
BD14996	Chromium, Dissolved	mg/L	-0.0000772	0.000440	0.100	0.0999	0.0974	0.0988	0.0850 to 0.115	97.5	70.0 to 130	2.53	20.0	
BD14995	Chromium, Total	mg/L	-0.000117	0.000440	0.100	0.0977	0.0977	0.0987	0.0850 to 0.115	97.4	70.0 to 130	0.00	20.0	
BD14996	Cobalt, Dissolved	mg/L	-0.0000063	0.000147	0.100	0.104	0.101	0.102	0.0850 to 0.115	103	70.0 to 130	2.93	20.0	
BD14995	Cobalt, Total	mg/L	-0.0000058	0.000147	0.100	0.105	0.105	0.104	0.0850 to 0.115	101	70.0 to 130	0.00	20.0	
BD14994	Fluoride	mg/L	0.0417	0.125	2.50	2.62	2.66	2.52	2.25 to 2.75	102	80.0 to 120	1.52	20.0	
BD14996	Iron, Dissolved	mg/L	0.00047	0.0176	0.2	71.7	71.4	0.204	0.170 to 0.230	150	70.0 to 130	0.419	20.0	
BD14995	Iron, Total	mg/L	0.00156	0.0176	0.2	0.415	0.414	0.198	0.170 to 0.230	99.0	70.0 to 130	0.241	20.0	

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWBARAP

Sample Date: 8/8/23 13:55

Customer ID:

Delivery Date: 8/10/23 09:46

Description: Barry Ash Pond - MW-16 Dup

Laboratory ID Number: BD14994

Sample	Analysis	Units	MB		Spike	MS	MSD	Standard		Rec		Prec	Limit
			MB	Limit				Standard	Limit	Rec	Limit		
BD14996	Lead, Dissolved	mg/L	0.0000155	0.000147	0.100	0.109	0.104	0.107	0.0850 to 0.115	109	70.0 to 130	4.69	20.0
BD14995	Lead, Total	mg/L	0.0000200	0.000147	0.100	0.102	0.105	0.106	0.0850 to 0.115	102	70.0 to 130	2.90	20.0
BD14996	Lithium, Dissolved	mg/L	-0.000571	0.0154	0.200	0.236	0.233	0.206	0.170 to 0.230	105	70.0 to 130	1.28	20.0
BD14995	Lithium, Total	mg/L	-0.000313	0.0154	0.200	0.213	0.213	0.212	0.170 to 0.230	106	70.0 to 130	0.00	20.0
BD14996	Magnesium, Dissolved	mg/L	-0.00854	0.0462	5.00	18.8	18.9	5.06	4.25 to 5.75	92.0	70.0 to 130	0.531	20.0
BD14995	Magnesium, Total	mg/L	-0.0185	0.0462	5.00	6.25	6.18	5.09	4.25 to 5.75	102	70.0 to 130	1.13	20.0
BD14996	Manganese, Dissolved	mg/L	0.0000086	0.00033	0.100	0.722	0.699	0.101	0.0850 to 0.115	91.0	70.0 to 130	3.24	20.0
BD14995	Manganese, Total	mg/L	0.0000152	0.00033	0.100	0.276	0.275	0.102	0.0850 to 0.115	97.0	70.0 to 130	0.363	20.0
BD14994	Mercury, Total by CVAA	mg/L	-4.000E-05	0.000500	0.004	0.00394	0.00395	0.00395	0.00340 to 0.00460	98.5	70.0 to 130	0.253	20.0
BD14996	Molybdenum, Dissolved	mg/L	0.00221	0.0100	0.2	0.199	0.198	0.198	0.170 to 0.230	99.5	70.0 to 130	0.504	20.0
BD14995	Molybdenum, Total	mg/L	0.000	0.0100	0.2	0.196	0.195	0.199	0.170 to 0.230	98.0	70.0 to 130	0.512	20.0
BD14996	Potassium, Dissolved	mg/L	-0.00230	0.367	10.0	20.4	20.0	10.3	8.50 to 11.5	99.0	70.0 to 130	1.98	20.0
BD14995	Potassium, Total	mg/L	-0.0139	0.367	10.0	11.0	11.0	10.5	8.50 to 11.5	102	70.0 to 130	0.00	20.0
BD14996	Selenium, Dissolved	mg/L	0.0000708	0.00100	0.100	0.106	0.107	0.101	0.0850 to 0.115	106	70.0 to 130	0.939	20.0
BD14995	Selenium, Total	mg/L	-0.0000893	0.00100	0.100	0.0976	0.0984	0.100	0.0850 to 0.115	97.6	70.0 to 130	0.816	20.0
BD14996	Silicon, Dissolved	mg/L	-0.000657	0.0440	1.00	8.63	8.66	1.02	0.850 to 1.15	93.0	70.0 to 130	0.347	20.0
BD14995	Silicon, Total	mg/L	-0.000409	0.0440	1.00	8.84	8.80	1.02	0.850 to 1.15	114	70.0 to 130	0.454	20.0
BD14996	Sodium, Dissolved	mg/L	0.00579	0.0880	5.00	56.2	56.1	5.30	4.25 to 5.75	100	70.0 to 130	0.178	20.0
BD14995	Sodium, Total	mg/L	0.00111	0.0880	5.00	10.1	10.1	5.47	4.25 to 5.75	107	70.0 to 130	0.00	20.0
BD14994	Sulfate	mg/L	0.153	2.0	20.0	43.3	43.8	20.5	18.0 to 22.0	82.0	80.0 to 120	1.15	20.0
BD14996	Thallium, Dissolved	mg/L	-0.0000062	0.000147	0.100	0.107	0.105	0.103	0.0850 to 0.115	107	70.0 to 130	1.89	20.0
BD14995	Thallium, Total	mg/L	0.0000078	0.000147	0.100	0.0997	0.105	0.105	0.0850 to 0.115	99.7	70.0 to 130	5.18	20.0
BD14994	Total Organic Carbon	mg/L	0.189	1.00	10.0	18.0	18.5	25.3		115	80.0 to 120	2.74	20.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWBARAP

Sample Date: 8/8/23 13:55

Customer ID:

Delivery Date: 8/10/23 09:46

Description: Barry Ash Pond - MW-16 Dup

Laboratory ID Number: BD14994

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BD15006	Alkalinity	mg CaCO3/L					153	51.2	45.0 to 55.0			0.00	10.0
BD14994	Nitrogen, Nitrate/Nitrite	mg/L as N	0.00	0.200	2.00	2.08	0.045	2.06	1.80 to 2.20	104	90.0 to 110	0.00	15.0
BD14999	Solids, Dissolved	mg/L	1.00	25.0			361	53.0	40.0 to 60.0			1.38	10.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Barry Ash Pond - MW-2

Location Code: WMWBARAP
Collected: 8/8/23 14:57
Customer ID:
Submittal Date: 8/10/23 09:46

Laboratory ID Number: BD14995

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7			Analyst: ABB		Preparation Method: EPA 1638				
* Boron, Total	8/11/23 11:28	8/15/23 12:56		1.015	Not Detected	mg/L	0.030000	0.1015	U
* Calcium, Total	8/11/23 11:28	8/15/23 12:56		1.015	1.59	mg/L	0.070035	0.406	
* Iron, Total	8/11/23 11:28	8/15/23 12:56		1.015	0.217	mg/L	0.008120	0.0406	
* Lithium, Total	8/11/23 11:28	8/15/23 12:56		1.015	Not Detected	mg/L	0.007105	0.01999956	U
* Magnesium, Total	8/11/23 11:28	8/15/23 12:56		1.015	1.14	mg/L	0.021315	0.406	
* Molybdenum, Total	8/11/23 11:28	8/15/23 12:56		1.015	Not Detected	mg/L	0.005075	0.01015	U
* Silica, Total (calc.)	8/11/23 11:28	8/15/23 12:56		1	16.5	mg/L			
* Silicon, Total	8/11/23 11:28	8/15/23 12:56		1.015	7.70	mg/L	0.02030	0.25375	
* Sodium, Total	8/11/23 11:28	8/15/23 12:56		1.015	4.76	mg/L	0.04060	0.406	
Analytical Method: EPA 200.7			Analyst: ABB		Preparation Method: EPA 1638				
* Boron, Dissolved	8/11/23 09:10	8/11/23 12:14		1.015	Not Detected	mg/L	0.030000	0.1015	U
* Calcium, Dissolved	8/11/23 09:10	8/11/23 12:14		1.015	1.66	mg/L	0.070035	0.406	
* Iron, Dissolved	8/11/23 09:10	8/11/23 12:14		1.015	0.218	mg/L	0.008120	0.0406	
* Lithium, Dissolved	8/11/23 09:10	8/11/23 12:14		1.015	Not Detected	mg/L	0.007105	0.01999956	U
* Magnesium, Dissolved	8/11/23 09:10	8/11/23 12:14		1.015	1.15	mg/L	0.021315	0.406	
* Molybdenum, Dissolved	8/11/23 09:10	8/11/23 12:14		1.015	Not Detected	mg/L	0.005075	0.01015	U
* Silica, Dissolved (calc.)	8/11/23 09:10	8/11/23 12:14		1	17.0	mg/L			
* Silicon, Dissolved	8/11/23 09:10	8/11/23 12:14		1.015	7.93	mg/L	0.02030	0.25375	
* Sodium, Dissolved	8/11/23 09:10	8/11/23 12:14		1.015	4.75	mg/L	0.04060	0.406	
Analytical Method: EPA 200.8			Analyst: DLJ		Preparation Method: EPA 1638				
* Antimony, Total	8/11/23 11:28	8/11/23 14:28		1.015	Not Detected	mg/L	0.000710	0.001015	U
* Aluminum, Total	8/11/23 11:28	8/11/23 14:28		1.015	0.0447	mg/L	0.009135	0.05075	J
* Arsenic, Total	8/11/23 11:28	8/11/23 14:28		1.015	0.00129	mg/L	0.000112	0.000203	
* Barium, Total	8/11/23 11:28	8/11/23 14:28		1.015	0.0171	mg/L	0.000508	0.001015	
* Beryllium, Total	8/11/23 11:28	8/11/23 14:28		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Total	8/11/23 11:28	8/11/23 14:28		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Total	8/11/23 11:28	8/11/23 14:28		1.015	0.000301	mg/L	0.000203	0.001015	J
* Cobalt, Total	8/11/23 11:28	8/11/23 14:28		1.015	0.00386	mg/L	0.000068	0.000203	
* Lead, Total	8/11/23 11:28	8/11/23 14:28		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Total	8/11/23 11:28	8/11/23 14:28		1.015	0.179	mg/L	0.000152	0.001015	

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Barry Ash Pond - MW-2

Location Code: WMWBARAP
Collected: 8/8/23 14:57
Customer ID:
Submittal Date: 8/10/23 09:46

Laboratory ID Number: BD14995

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
* Potassium, Total	8/11/23 11:28	8/11/23 14:28		1.015	0.798	mg/L	0.169505	0.5075	
* Selenium, Total	8/11/23 11:28	8/11/23 14:28		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Total	8/11/23 11:28	8/11/23 14:28		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 200.8		Analyst: DLJ							
* Antimony, Dissolved	8/11/23 09:10	8/11/23 10:58		1.015	Not Detected	mg/L	0.000710	0.001015	U
* Aluminum, Dissolved	8/11/23 09:10	8/11/23 10:58		1.015	Not Detected	mg/L	0.009135	0.05075	U
* Arsenic, Dissolved	8/11/23 09:10	8/11/23 10:58		1.015	0.00130	mg/L	0.000112	0.000203	
* Barium, Dissolved	8/11/23 09:10	8/11/23 10:58		1.015	0.0163	mg/L	0.000508	0.001015	
* Beryllium, Dissolved	8/11/23 09:10	8/11/23 10:58		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Dissolved	8/11/23 09:10	8/11/23 10:58		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Dissolved	8/11/23 09:10	8/11/23 10:58		1.015	0.000226	mg/L	0.000203	0.001015	J
* Cobalt, Dissolved	8/11/23 09:10	8/11/23 10:58		1.015	0.00388	mg/L	0.000068	0.000203	
* Lead, Dissolved	8/11/23 09:10	8/11/23 10:58		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Dissolved	8/11/23 09:10	8/11/23 10:58		1.015	0.180	mg/L	0.000152	0.001015	
* Potassium, Dissolved	8/11/23 09:10	8/11/23 10:58		1.015	0.818	mg/L	0.169505	0.5075	
* Selenium, Dissolved	8/11/23 09:10	8/11/23 10:58		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Dissolved	8/11/23 09:10	8/11/23 10:58		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 245.1		Analyst: ELH							
* Mercury, Total by CVAA	8/10/23 17:13	8/10/23 22:47		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: EPA 353.2		Analyst: SC							
* Nitrogen, Nitrate/Nitrite	8/10/23 15:37	8/10/23 15:37		1	Not Detected	mg/L as N	0.20	0.3	U
Analytical Method: SM 2320 B		Analyst: DHC							
* Alkalinity	8/16/23 09:02	8/16/23 14:44		1	11.2	mg CaCO3/L		0.1	
Analytical Method: SM 2540C		Analyst: CNJ							
* Solids, Dissolved	8/10/23 13:30	8/11/23 13:40		1	44.0	mg/L		25	
Analytical Method: SM 4500CO2 D		Analyst: DHC							
* Bicarbonate Alkalinity, (calc.)	8/16/23 09:02	8/16/23 14:44		1	11.2	mg CaCO3/L		1	
* Carbonate Alkalinity, (calc.)	8/16/23 09:02	8/16/23 14:44		1	Not Detected	mg CaCO3/L		0.5	
Analytical Method: SM 4500H+ B		Analyst: DHC							
Alkalinity pH Endpoint	8/16/23 09:02	8/16/23 14:44		1	4.20	SU		2	

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Barry Ash Pond - MW-2

Location Code: WMWBARAP
Collected: 8/8/23 14:57
Customer ID:
Submittal Date: 8/10/23 09:46

Laboratory ID Number: BD14995

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM 5310 B		Analyst: SC							
* Total Organic Carbon	8/10/23 22:25	8/10/23 22:25		1	Not Detected	mg/L	1.00	2	U
Analytical Method: SM4500Cl E		Analyst: JCC							
* Chloride	8/16/23 11:42	8/16/23 11:42		1	7.04	mg/L	0.50	1	
Analytical Method: SM4500F G 2017		Analyst: JCC							
* Fluoride	8/17/23 10:24	8/17/23 10:24		1	0.0705	mg/L	0.06	0.125	J
Analytical Method: SM4500SO4 E 2011		Analyst: JCC							
* Sulfate	8/11/23 10:58	8/11/23 10:58		1	1.82	mg/L	0.6	2	J
Analytical Method: Field Measurements		Analyst: AWG							
Conductivity	8/8/23 14:53	8/8/23 14:53			41.78	uS/cm			FA
pH	8/8/23 14:53	8/8/23 14:53			4.91	SU			FA
Temperature	8/8/23 14:53	8/8/23 14:53			23.64	C			FA
Turbidity	8/8/23 14:53	8/8/23 14:53			2.01	NTU			FA
Sulfide	8/8/23 14:53	8/8/23 14:53			0	mg/L			FA

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWBARAP

Sample Date: 8/8/23 14:57

Customer ID:

Delivery Date: 8/10/23 09:46

Description: Barry Ash Pond - MW-2

Laboratory ID Number: BD14995

Sample	Analysis	Units	MB	MB		Spike	MS	MSD	Standard		Rec		Prec	Limit
				Limit					Standard	Limit	Rec	Limit		
BD14996	Aluminum, Dissolved	mg/L	-0.000366	0.0198	0.100	0.105	0.105	0.104	0.0850 to 0.115	105	70.0 to 130	0.00	20.0	
BD14995	Aluminum, Total	mg/L	0.000500	0.0198	0.100	0.150	0.152	0.105	0.0850 to 0.115	105	70.0 to 130	1.32	20.0	
BD14996	Antimony, Dissolved	mg/L	0.000717	0.00100	0.100	0.0923	0.0961	0.0901	0.0850 to 0.115	92.3	70.0 to 130	4.03	20.0	
BD14995	Antimony, Total	mg/L	0.000324	0.00100	0.100	0.0894	0.0911	0.0902	0.0850 to 0.115	89.4	70.0 to 130	1.88	20.0	
BD14996	Arsenic, Dissolved	mg/L	0.0000364	0.000200	0.100	0.114	0.116	0.0999	0.0850 to 0.115	100	70.0 to 130	1.74	20.0	
BD14995	Arsenic, Total	mg/L	0.0000151	0.000200	0.100	0.0991	0.0979	0.0967	0.0850 to 0.115	97.8	70.0 to 130	1.22	20.0	
BD14996	Barium, Dissolved	mg/L	-0.0000120	0.00100	0.100	0.157	0.155	0.0953	0.0850 to 0.115	92.3	70.0 to 130	1.28	20.0	
BD14995	Barium, Total	mg/L	-0.0000137	0.00100	0.100	0.118	0.116	0.0978	0.0850 to 0.115	101	70.0 to 130	1.71	20.0	
BD14996	Beryllium, Dissolved	mg/L	0.0000241	0.000880	0.100	0.101	0.0994	0.0982	0.0850 to 0.115	101	70.0 to 130	1.60	20.0	
BD14995	Beryllium, Total	mg/L	0.0000313	0.000880	0.100	0.0968	0.0959	0.0963	0.0850 to 0.115	96.8	70.0 to 130	0.934	20.0	
BD14996	Boron, Dissolved	mg/L	-0.00158	0.0650	1.00	1.08	1.11	0.998	0.850 to 1.15	102	70.0 to 130	2.74	20.0	
BD14995	Boron, Total	mg/L	0.000329	0.0650	1.00	1.01	0.979	1.00	0.850 to 1.15	101	70.0 to 130	3.12	20.0	
BD14996	Cadmium, Dissolved	mg/L	0.0000122	0.000147	0.100	0.101	0.0988	0.0966	0.0850 to 0.115	101	70.0 to 130	2.20	20.0	
BD14995	Cadmium, Total	mg/L	0.0000069	0.000147	0.100	0.0941	0.0961	0.0952	0.0850 to 0.115	94.1	70.0 to 130	2.10	20.0	
BD14996	Calcium, Dissolved	mg/L	-0.00883	0.152	5.00	29.1	29.7	4.86	4.25 to 5.75	76.0	70.0 to 130	2.04	20.0	
BD14995	Calcium, Total	mg/L	0.00398	0.152	5.00	6.16	5.99	4.68	4.25 to 5.75	91.4	70.0 to 130	2.80	20.0	
BD15004	Chloride	mg/L	0.0383	1.00	10.0	25.5	25.6	9.74	9.00 to 11.0	86.0	80.0 to 120	0.391	20.0	
BD14996	Chromium, Dissolved	mg/L	-0.0000772	0.000440	0.100	0.0999	0.0974	0.0988	0.0850 to 0.115	97.5	70.0 to 130	2.53	20.0	
BD14995	Chromium, Total	mg/L	-0.000117	0.000440	0.100	0.0977	0.0977	0.0987	0.0850 to 0.115	97.4	70.0 to 130	0.00	20.0	
BD14996	Cobalt, Dissolved	mg/L	-0.0000063	0.000147	0.100	0.104	0.101	0.102	0.0850 to 0.115	103	70.0 to 130	2.93	20.0	
BD14995	Cobalt, Total	mg/L	-0.0000058	0.000147	0.100	0.105	0.105	0.104	0.0850 to 0.115	101	70.0 to 130	0.00	20.0	
BD15004	Fluoride	mg/L	0.0345	0.125	2.50	2.63	2.68	2.54	2.25 to 2.75	105	80.0 to 120	1.88	20.0	
BD14996	Iron, Dissolved	mg/L	0.00047	0.0176	0.2	71.7	71.4	0.204	0.170 to 0.230	150	70.0 to 130	0.419	20.0	
BD14995	Iron, Total	mg/L	0.00156	0.0176	0.2	0.415	0.414	0.198	0.170 to 0.230	99.0	70.0 to 130	0.241	20.0	

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWBARAP

Sample Date: 8/8/23 14:57

Customer ID:

Delivery Date: 8/10/23 09:46

Description: Barry Ash Pond - MW-2

Laboratory ID Number: BD14995

Sample	Analysis	Units	MB					Standard		Rec		Prec	Limit
			MB	Limit	Spike	MS	MSD	Standard	Limit	Rec	Limit		
BD14996	Lead, Dissolved	mg/L	0.0000155	0.000147	0.100	0.109	0.104	0.107	0.0850 to 0.115	109	70.0 to 130	4.69	20.0
BD14995	Lead, Total	mg/L	0.0000200	0.000147	0.100	0.102	0.105	0.106	0.0850 to 0.115	102	70.0 to 130	2.90	20.0
BD14996	Lithium, Dissolved	mg/L	-0.000571	0.0154	0.200	0.236	0.233	0.206	0.170 to 0.230	105	70.0 to 130	1.28	20.0
BD14995	Lithium, Total	mg/L	-0.000313	0.0154	0.200	0.213	0.213	0.212	0.170 to 0.230	106	70.0 to 130	0.00	20.0
BD14996	Magnesium, Dissolved	mg/L	-0.00854	0.0462	5.00	18.8	18.9	5.06	4.25 to 5.75	92.0	70.0 to 130	0.531	20.0
BD14995	Magnesium, Total	mg/L	-0.0185	0.0462	5.00	6.25	6.18	5.09	4.25 to 5.75	102	70.0 to 130	1.13	20.0
BD14996	Manganese, Dissolved	mg/L	0.0000086	0.00033	0.100	0.722	0.699	0.101	0.0850 to 0.115	91.0	70.0 to 130	3.24	20.0
BD14995	Manganese, Total	mg/L	0.0000152	0.00033	0.100	0.276	0.275	0.102	0.0850 to 0.115	97.0	70.0 to 130	0.363	20.0
BD15004	Mercury, Total by CVAA	mg/L	-5.000E-05	0.000500	0.004	0.00392	0.00397	0.00401	0.00340 to 0.00460	98.0	70.0 to 130	1.27	20.0
BD14996	Molybdenum, Dissolved	mg/L	0.00221	0.0100	0.2	0.199	0.198	0.198	0.170 to 0.230	99.5	70.0 to 130	0.504	20.0
BD14995	Molybdenum, Total	mg/L	0.000	0.0100	0.2	0.196	0.195	0.199	0.170 to 0.230	98.0	70.0 to 130	0.512	20.0
BD14996	Potassium, Dissolved	mg/L	-0.00230	0.367	10.0	20.4	20.0	10.3	8.50 to 11.5	99.0	70.0 to 130	1.98	20.0
BD14995	Potassium, Total	mg/L	-0.0139	0.367	10.0	11.0	11.0	10.5	8.50 to 11.5	102	70.0 to 130	0.00	20.0
BD14996	Selenium, Dissolved	mg/L	0.0000708	0.00100	0.100	0.106	0.107	0.101	0.0850 to 0.115	106	70.0 to 130	0.939	20.0
BD14995	Selenium, Total	mg/L	-0.0000893	0.00100	0.100	0.0976	0.0984	0.100	0.0850 to 0.115	97.6	70.0 to 130	0.816	20.0
BD14996	Silicon, Dissolved	mg/L	-0.000657	0.0440	1.00	8.63	8.66	1.02	0.850 to 1.15	93.0	70.0 to 130	0.347	20.0
BD14995	Silicon, Total	mg/L	-0.000409	0.0440	1.00	8.84	8.80	1.02	0.850 to 1.15	114	70.0 to 130	0.454	20.0
BD14996	Sodium, Dissolved	mg/L	0.00579	0.0880	5.00	56.2	56.1	5.30	4.25 to 5.75	100	70.0 to 130	0.178	20.0
BD14995	Sodium, Total	mg/L	0.00111	0.0880	5.00	10.1	10.1	5.47	4.25 to 5.75	107	70.0 to 130	0.00	20.0
BD15004	Sulfate	mg/L	0.312	2.0	20.0	35.0	36.8	20.4	18.0 to 22.0	83.5	80.0 to 120	5.01	20.0
BD14996	Thallium, Dissolved	mg/L	-0.0000062	0.000147	0.100	0.107	0.105	0.103	0.0850 to 0.115	107	70.0 to 130	1.89	20.0
BD14995	Thallium, Total	mg/L	0.0000078	0.000147	0.100	0.0997	0.105	0.105	0.0850 to 0.115	99.7	70.0 to 130	5.18	20.0
BD15004	Total Organic Carbon	mg/L	0.198	1.00	10.0	18.6	19.3	25.7		91.3	80.0 to 120	3.69	20.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWBARAP

Sample Date: 8/8/23 14:57

Customer ID:

Delivery Date: 8/10/23 09:46

Description: Barry Ash Pond - MW-2

Laboratory ID Number: BD14995

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BD15006	Alkalinity	mg CaCO3/L					153	51.2	45.0 to 55.0			0.00	10.0
BD15004	Nitrogen, Nitrate/Nitrite	mg/L as N	-0.02	0.200	2.00	2.03	-0.022	2.17	1.80 to 2.20	102	90.0 to 110	0.00	15.0
BD14999	Solids, Dissolved	mg/L	1.00	25.0			361	53.0	40.0 to 60.0			1.38	10.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Barry Ash Pond - MW-11

Location Code: WMWBARAP
Collected: 8/7/23 11:05
Customer ID:
Submittal Date: 8/10/23 09:46

Laboratory ID Number: BD14996

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7		Analyst: ABB			Preparation Method: EPA 1638				
* Boron, Total	8/11/23 11:28	8/15/23 13:12		1.015	0.0562	mg/L	0.030000	0.1015	J
* Calcium, Total	8/11/23 11:28	8/15/23 13:12		1.015	23.5	mg/L	0.070035	0.406	
* Iron, Total	8/11/23 11:28	8/16/23 14:57		101.5	82.0	mg/L	0.8120	4.06	
* Lithium, Total	8/11/23 11:28	8/15/23 13:12		1.015	0.0284	mg/L	0.007105	0.01999956	
* Magnesium, Total	8/11/23 11:28	8/15/23 13:12		1.015	14.1	mg/L	0.021315	0.406	
* Molybdenum, Total	8/11/23 11:28	8/15/23 13:12		1.015	Not Detected	mg/L	0.005075	0.01015	U
* Silica, Total (calc.)	8/11/23 11:28	8/15/23 13:12		1	16.2	mg/L			
* Silicon, Total	8/11/23 11:28	8/15/23 13:12		1.015	7.58	mg/L	0.02030	0.25375	
* Sodium, Total	8/11/23 11:28	8/16/23 14:01		10.15	55.1	mg/L	0.4060	4.06	
Analytical Method: EPA 200.7		Analyst: ABB							
* Boron, Dissolved	8/11/23 09:10	8/11/23 12:17		1.015	0.0586	mg/L	0.030000	0.1015	J
* Calcium, Dissolved	8/11/23 09:10	8/11/23 12:17		1.015	25.3	mg/L	0.070035	0.406	
* Iron, Dissolved	8/11/23 09:10	8/15/23 10:53		101.5	71.4	mg/L	0.8120	4.06	RA
* Lithium, Dissolved	8/11/23 09:10	8/11/23 12:17		1.015	0.0268	mg/L	0.007105	0.01999956	
* Magnesium, Dissolved	8/11/23 09:10	8/11/23 12:17		1.015	14.2	mg/L	0.021315	0.406	
* Molybdenum, Dissolved	8/11/23 09:10	8/11/23 12:17		1.015	Not Detected	mg/L	0.005075	0.01015	U
* Silica, Dissolved (calc.)	8/11/23 09:10	8/11/23 12:17		1	16.5	mg/L			
* Silicon, Dissolved	8/11/23 09:10	8/11/23 12:17		1.015	7.70	mg/L	0.02030	0.25375	
* Sodium, Dissolved	8/11/23 09:10	8/14/23 13:49		10.15	51.2	mg/L	0.4060	4.06	
Analytical Method: EPA 200.8		Analyst: DLJ			Preparation Method: EPA 1638				
* Antimony, Total	8/11/23 11:28	8/11/23 14:49		1.015	Not Detected	mg/L	0.000710	0.001015	U
* Arsenic, Total	8/11/23 11:28	8/11/23 14:49		1.015	0.0136	mg/L	0.000112	0.000203	
* Aluminum, Total	8/11/23 11:28	8/11/23 14:49		1.015	0.0422	mg/L	0.009135	0.05075	J
* Barium, Total	8/11/23 11:28	8/11/23 14:49		1.015	0.0637	mg/L	0.000508	0.001015	
* Beryllium, Total	8/11/23 11:28	8/11/23 14:49		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Total	8/11/23 11:28	8/11/23 14:49		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Total	8/11/23 11:28	8/11/23 14:49		1.015	0.00232	mg/L	0.000203	0.001015	
* Cobalt, Total	8/11/23 11:28	8/11/23 14:49		1.015	0.00101	mg/L	0.000068	0.000203	
* Lead, Total	8/11/23 11:28	8/11/23 14:49		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Total	8/11/23 11:28	8/11/23 14:49		1.015	0.617	mg/L	0.000152	0.001015	

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Barry Ash Pond - MW-11

Location Code: WMWBARAP
Collected: 8/7/23 11:05
Customer ID:
Submittal Date: 8/10/23 09:46

Laboratory ID Number: BD14996

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
* Potassium, Total	8/11/23 11:28	8/11/23 14:49		1.015	10.5	mg/L	0.169505	0.5075	
* Selenium, Total	8/11/23 11:28	8/11/23 14:49		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Total	8/11/23 11:28	8/11/23 14:49		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 200.8		Analyst: DLJ							
* Antimony, Dissolved	8/11/23 09:10	8/11/23 11:02		1.015	Not Detected	mg/L	0.000710	0.001015	U
* Aluminum, Dissolved	8/11/23 09:10	8/11/23 11:02		1.015	Not Detected	mg/L	0.009135	0.05075	U
* Arsenic, Dissolved	8/11/23 09:10	8/11/23 11:02		1.015	0.0139	mg/L	0.000112	0.000203	
* Barium, Dissolved	8/11/23 09:10	8/11/23 11:02		1.015	0.0647	mg/L	0.000508	0.001015	
* Beryllium, Dissolved	8/11/23 09:10	8/11/23 11:02		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Dissolved	8/11/23 09:10	8/11/23 11:02		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Dissolved	8/11/23 09:10	8/11/23 11:02		1.015	0.00243	mg/L	0.000203	0.001015	
* Cobalt, Dissolved	8/11/23 09:10	8/11/23 11:02		1.015	0.000980	mg/L	0.000068	0.000203	
* Lead, Dissolved	8/11/23 09:10	8/11/23 11:02		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Dissolved	8/11/23 09:10	8/11/23 11:02		1.015	0.631	mg/L	0.000152	0.001015	RA
* Potassium, Dissolved	8/11/23 09:10	8/11/23 11:02		1.015	10.5	mg/L	0.169505	0.5075	
* Selenium, Dissolved	8/11/23 09:10	8/11/23 11:02		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Dissolved	8/11/23 09:10	8/11/23 11:02		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 245.1		Analyst: ELH							
* Mercury, Total by CVAA	8/10/23 17:13	8/10/23 22:51		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: EPA 353.2		Analyst: SC							
* Nitrogen, Nitrate/Nitrite	8/10/23 15:39	8/10/23 15:39		1	Not Detected	mg/L as N	0.20	0.3	U
Analytical Method: SM 2320 B		Analyst: DHC							
* Alkalinity	8/15/23 09:20	8/15/23 14:17		1	245	mg CaCO3/L		0.1	
Analytical Method: SM 2540C		Analyst: CNJ							
* Solids, Dissolved	8/10/23 13:30	8/11/23 13:40		1	409	mg/L		25	
Analytical Method: SM 4500CO2 D		Analyst: DHC							
* Bicarbonate Alkalinity, (calc.)	8/15/23 09:20	8/15/23 14:17		1	245	mg CaCO3/L		1	
* Carbonate Alkalinity, (calc.)	8/15/23 09:20	8/15/23 14:17		1	Not Detected	mg CaCO3/L		0.5	
Analytical Method: SM 4500H+ B		Analyst: DHC							
Alkalinity pH Endpoint	8/15/23 09:20	8/15/23 14:17		1	4.49	SU		2	

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Barry Ash Pond - MW-11

Location Code: WMWBARAP
Collected: 8/7/23 11:05
Customer ID:
Submittal Date: 8/10/23 09:46

Laboratory ID Number: BD14996

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM 5310 B		Analyst: SC							
* Total Organic Carbon	8/10/23 22:44	8/10/23 22:44		1	26.4	mg/L	1.00	2	
Analytical Method: SM4500Cl E		Analyst: JCC							
* Chloride	8/16/23 11:57	8/16/23 11:57		2	24.0	mg/L	1.00	2	
Analytical Method: SM4500F G 2017		Analyst: JCC							
* Fluoride	8/17/23 10:25	8/17/23 10:25		1	0.0990	mg/L	0.06	0.125	J
Analytical Method: SM4500SO4 E 2011		Analyst: JCC							
* Sulfate	8/11/23 11:29	8/11/23 11:29		4	158	mg/L	2.4	8	
Analytical Method: Field Measurements		Analyst: DKG							
Conductivity	8/7/23 11:02	8/7/23 11:02			595.25	uS/cm			FA
pH	8/7/23 11:02	8/7/23 11:02			6.30	SU			FA
Temperature	8/7/23 11:02	8/7/23 11:02			22.46	C			FA
Turbidity	8/7/23 11:02	8/7/23 11:02			2.12	NTU			FA
Sulfide	8/7/23 11:02	8/7/23 11:02			0	mg/L			FA

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWBARAP
Sample Date: 8/7/23 11:05
Customer ID:
Delivery Date: 8/10/23 09:46

Description: Barry Ash Pond - MW-11

Laboratory ID Number: BD14996

Sample	Analysis	Units	MB	MB				Standard		Rec			Prec
				Limit	Spike	MS	MSD	Standard	Limit	Rec	Limit	Prec	
BD14996	Aluminum, Dissolved	mg/L	-0.000366	0.0198	0.100	0.105	0.105	0.104	0.0850 to 0.115	105	70.0 to 130	0.00	20.0
BD15005	Aluminum, Total	mg/L	0.000500	0.0198	0.100	0.240	0.246	0.105	0.0850 to 0.115	125	70.0 to 130	2.47	20.0
BD14996	Antimony, Dissolved	mg/L	0.000717	0.00100	0.100	0.0923	0.0961	0.0901	0.0850 to 0.115	92.3	70.0 to 130	4.03	20.0
BD15005	Antimony, Total	mg/L	0.000324	0.00100	0.100	0.0967	0.0972	0.0902	0.0850 to 0.115	96.7	70.0 to 130	0.516	20.0
BD14996	Arsenic, Dissolved	mg/L	0.0000364	0.000200	0.100	0.114	0.116	0.0999	0.0850 to 0.115	100	70.0 to 130	1.74	20.0
BD15005	Arsenic, Total	mg/L	0.0000151	0.000200	0.100	0.112	0.113	0.0967	0.0850 to 0.115	98.6	70.0 to 130	0.889	20.0
BD14996	Barium, Dissolved	mg/L	-0.0000120	0.00100	0.100	0.157	0.155	0.0953	0.0850 to 0.115	92.3	70.0 to 130	1.28	20.0
BD15005	Barium, Total	mg/L	-0.0000137	0.00100	0.100	0.191	0.193	0.0978	0.0850 to 0.115	97.2	70.0 to 130	1.04	20.0
BD14996	Beryllium, Dissolved	mg/L	0.0000241	0.000880	0.100	0.101	0.0994	0.0982	0.0850 to 0.115	101	70.0 to 130	1.60	20.0
BD15005	Beryllium, Total	mg/L	0.0000313	0.000880	0.100	0.0962	0.0905	0.0963	0.0850 to 0.115	96.2	70.0 to 130	6.11	20.0
BD14996	Boron, Dissolved	mg/L	-0.00158	0.0650	1.00	1.08	1.11	0.998	0.850 to 1.15	102	70.0 to 130	2.74	20.0
BD15005	Boron, Total	mg/L	0.000329	0.0650	1.00	1.07	1.07	1.00	0.850 to 1.15	100	70.0 to 130	0.00	20.0
BD14996	Cadmium, Dissolved	mg/L	0.0000122	0.000147	0.100	0.101	0.0988	0.0966	0.0850 to 0.115	101	70.0 to 130	2.20	20.0
BD15005	Cadmium, Total	mg/L	0.0000069	0.000147	0.100	0.100	0.0982	0.0952	0.0850 to 0.115	100	70.0 to 130	1.82	20.0
BD14996	Calcium, Dissolved	mg/L	-0.00883	0.152	5.00	29.1	29.7	4.86	4.25 to 5.75	76.0	70.0 to 130	2.04	20.0
BD15005	Calcium, Total	mg/L	0.00398	0.152	5.00	29.4	30.3	4.68	4.25 to 5.75	78.0	70.0 to 130	3.02	20.0
BD15004	Chloride	mg/L	0.0383	1.00	10.0	25.5	25.6	9.74	9.00 to 11.0	86.0	80.0 to 120	0.391	20.0
BD14996	Chromium, Dissolved	mg/L	-0.0000772	0.000440	0.100	0.0999	0.0974	0.0988	0.0850 to 0.115	97.5	70.0 to 130	2.53	20.0
BD15005	Chromium, Total	mg/L	-0.000117	0.000440	0.100	0.0997	0.101	0.0987	0.0850 to 0.115	97.1	70.0 to 130	1.30	20.0
BD14996	Cobalt, Dissolved	mg/L	-0.0000063	0.000147	0.100	0.104	0.101	0.102	0.0850 to 0.115	103	70.0 to 130	2.93	20.0
BD15005	Cobalt, Total	mg/L	-0.0000058	0.000147	0.100	0.107	0.107	0.104	0.0850 to 0.115	102	70.0 to 130	0.00	20.0
BD15004	Fluoride	mg/L	0.0345	0.125	2.50	2.63	2.68	2.54	2.25 to 2.75	105	80.0 to 120	1.88	20.0
BD14996	Iron, Dissolved	mg/L	0.00047	0.0176	0.2	71.7	71.4	0.204	0.170 to 0.230	150	70.0 to 130	0.419	20.0
BD15005	Iron, Total	mg/L	0.00156	0.0176	0.2	60.5	51.6	0.198	0.170 to 0.230	1850	70.0 to 130	15.9	20.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWBARAP

Sample Date: 8/7/23 11:05

Customer ID:

Delivery Date: 8/10/23 09:46

Description: Barry Ash Pond - MW-11

Laboratory ID Number: BD14996

Sample	Analysis	Units	MB	MB		Spike	MS	MSD	Standard		Rec		Prec
				Limit					Standard	Limit	Rec	Limit	
BD14996	Lead, Dissolved	mg/L	0.0000155	0.000147	0.100	0.109	0.104	0.107	0.0850 to 0.115	109	70.0 to 130	4.69	20.0
BD15005	Lead, Total	mg/L	0.0000200	0.000147	0.100	0.105	0.107	0.106	0.0850 to 0.115	105	70.0 to 130	1.89	20.0
BD14996	Lithium, Dissolved	mg/L	-0.000571	0.0154	0.200	0.236	0.233	0.206	0.170 to 0.230	105	70.0 to 130	1.28	20.0
BD15005	Lithium, Total	mg/L	-0.000313	0.0154	0.200	0.215	0.217	0.212	0.170 to 0.230	108	70.0 to 130	0.926	20.0
BD14996	Magnesium, Dissolved	mg/L	-0.00854	0.0462	5.00	18.8	18.9	5.06	4.25 to 5.75	92.0	70.0 to 130	0.531	20.0
BD15005	Magnesium, Total	mg/L	-0.0185	0.0462	5.00	22.3	22.8	5.09	4.25 to 5.75	92.0	70.0 to 130	2.22	20.0
BD14996	Manganese, Dissolved	mg/L	0.0000086	0.00033	0.100	0.722	0.699	0.101	0.0850 to 0.115	91.0	70.0 to 130	3.24	20.0
BD15005	Manganese, Total	mg/L	0.0000152	0.00033	0.100	0.565	0.566	0.102	0.0850 to 0.115	93.0	70.0 to 130	0.177	20.0
BD15004	Mercury, Total by CVAA	mg/L	-5.000E-05	0.000500	0.004	0.00392	0.00397	0.00401	0.00340 to 0.00460	98.0	70.0 to 130	1.27	20.0
BD14996	Molybdenum, Dissolved	mg/L	0.00221	0.0100	0.2	0.199	0.198	0.198	0.170 to 0.230	99.5	70.0 to 130	0.504	20.0
BD15005	Molybdenum, Total	mg/L	0.000	0.0100	0.2	0.195	0.196	0.199	0.170 to 0.230	97.5	70.0 to 130	0.512	20.0
BD14996	Potassium, Dissolved	mg/L	-0.00230	0.367	10.0	20.4	20.0	10.3	8.50 to 11.5	99.0	70.0 to 130	1.98	20.0
BD15005	Potassium, Total	mg/L	-0.0139	0.367	10.0	13.3	13.5	10.5	8.50 to 11.5	99.1	70.0 to 130	1.49	20.0
BD14996	Selenium, Dissolved	mg/L	0.0000708	0.00100	0.100	0.106	0.107	0.101	0.0850 to 0.115	106	70.0 to 130	0.939	20.0
BD15005	Selenium, Total	mg/L	-0.0000893	0.00100	0.100	0.103	0.102	0.100	0.0850 to 0.115	103	70.0 to 130	0.976	20.0
BD14996	Silicon, Dissolved	mg/L	-0.000657	0.0440	1.00	8.63	8.66	1.02	0.850 to 1.15	93.0	70.0 to 130	0.347	20.0
BD15005	Silicon, Total	mg/L	-0.000409	0.0440	1.00	8.91	8.91	1.02	0.850 to 1.15	106	70.0 to 130	0.00	20.0
BD14996	Sodium, Dissolved	mg/L	0.00579	0.0880	5.00	56.2	56.1	5.30	4.25 to 5.75	100	70.0 to 130	0.178	20.0
BD15005	Sodium, Total	mg/L	0.00111	0.0880	5.00	117	99.9	5.47	4.25 to 5.75	240	70.0 to 130	15.8	20.0
BD15004	Sulfate	mg/L	0.312	2.0	20.0	35.0	36.8	20.4	18.0 to 22.0	83.5	80.0 to 120	5.01	20.0
BD14996	Thallium, Dissolved	mg/L	-0.0000062	0.000147	0.100	0.107	0.105	0.103	0.0850 to 0.115	107	70.0 to 130	1.89	20.0
BD15005	Thallium, Total	mg/L	0.0000078	0.000147	0.100	0.102	0.109	0.105	0.0850 to 0.115	102	70.0 to 130	6.64	20.0
BD15004	Total Organic Carbon	mg/L	0.198	1.00	10.0	18.6	19.3	25.7		91.3	80.0 to 120	3.69	20.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWBARAP

Sample Date: 8/7/23 11:05

Customer ID:

Delivery Date: 8/10/23 09:46

Description: Barry Ash Pond - MW-11

Laboratory ID Number: BD14996

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BD15014	Alkalinity	mg CaCO3/L					73.7	51.9	45.0 to 55.0			3.60	10.0
BD15004	Nitrogen, Nitrate/Nitrite	mg/L as N	-0.02	0.200	2.00	2.03	-0.022	2.17	1.80 to 2.20	102	90.0 to 110	0.00	15.0
BD14999	Solids, Dissolved	mg/L	1.00	25.0			361	53.0	40.0 to 60.0			1.38	10.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Barry Ash Pond Field Blank-1

Location Code: WMWBARAPFB
Collected: 8/7/23 11:30
Customer ID:
Submittal Date: 8/10/23 09:47

Laboratory ID Number: BD14997

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q	
Analytical Method: EPA 200.7		Analyst: ABB			Preparation Method: EPA 1638					
* Boron, Total	8/11/23 11:28	8/15/23 13:15		1.015	Not Detected	mg/L	0.030000	0.1015	U	
* Calcium, Total	8/11/23 11:28	8/15/23 13:15		1.015	0.0931	mg/L	0.070035	0.406	J	
* Iron, Total	8/11/23 11:28	8/15/23 13:15		1.015	Not Detected	mg/L	0.008120	0.0406	U	
* Lithium, Total	8/11/23 11:28	8/15/23 13:15		1.015	Not Detected	mg/L	0.007105	0.01999956	U	
* Magnesium, Total	8/11/23 11:28	8/15/23 13:15		1.015	0.0709	mg/L	0.021315	0.406	J	
* Molybdenum, Total	8/11/23 11:28	8/15/23 13:15		1.015	Not Detected	mg/L	0.005075	0.01015	U	
* Silica, Total (calc.)	8/11/23 11:28	8/15/23 13:15		1	Not Detected	mg/L				
* Silicon, Total	8/11/23 11:28	8/15/23 13:15		1.015	Not Detected	mg/L	0.02030	0.25375	U	
* Sodium, Total	8/11/23 11:28	8/15/23 13:15		1.015	0.317	mg/L	0.04060	0.406	J	
Analytical Method: EPA 200.8		Analyst: DLJ			Preparation Method: EPA 1638					
* Antimony, Total	8/11/23 11:28	8/11/23 14:53		1.015	Not Detected	mg/L	0.000710	0.001015	U	
* Aluminum, Total	8/11/23 11:28	8/11/23 14:53		1.015	Not Detected	mg/L	0.009135	0.05075	U	
* Arsenic, Total	8/11/23 11:28	8/11/23 14:53		1.015	Not Detected	mg/L	0.000112	0.000203	U	
* Barium, Total	8/11/23 11:28	8/11/23 14:53		1.015	Not Detected	mg/L	0.000508	0.001015	U	
* Beryllium, Total	8/11/23 11:28	8/11/23 14:53		1.015	Not Detected	mg/L	0.000406	0.001015	U	
* Cadmium, Total	8/11/23 11:28	8/11/23 14:53		1.015	Not Detected	mg/L	0.000068	0.000203	U	
* Chromium, Total	8/11/23 11:28	8/11/23 14:53		1.015	0.000244	mg/L	0.000203	0.001015	J	
* Cobalt, Total	8/11/23 11:28	8/11/23 14:53		1.015	Not Detected	mg/L	0.000068	0.000203	U	
* Lead, Total	8/11/23 11:28	8/11/23 14:53		1.015	Not Detected	mg/L	0.000068	0.000203	U	
* Manganese, Total	8/11/23 11:28	8/11/23 14:53		1.015	Not Detected	mg/L	0.000152	0.001015	U	
* Potassium, Total	8/11/23 11:28	8/11/23 14:53		1.015	Not Detected	mg/L	0.169505	0.5075	U	
* Selenium, Total	8/11/23 11:28	8/11/23 14:53		1.015	Not Detected	mg/L	0.000508	0.001015	U	
* Thallium, Total	8/11/23 11:28	8/11/23 14:53		1.015	Not Detected	mg/L	0.000068	0.000203	U	
Analytical Method: EPA 245.1		Analyst: ELH								
* Mercury, Total by CVAA	8/10/23 17:13	8/10/23 22:55		1	Not Detected	mg/L	0.0003	0.0005	U	
Analytical Method: EPA 353.2		Analyst: SC								
* Nitrogen, Nitrate/Nitrite	8/10/23 15:41	8/10/23 15:41		1	Not Detected	mg/L as N	0.20	0.3	U	
Analytical Method: SM 2540C		Analyst: CNJ								
* Solids, Dissolved	8/10/23 13:30	8/11/23 13:40		1	Not Detected	mg/L		25	U	

MDL's and RL's are adjusted for sample dilution, as applicable

Comments:

Certificate Of Analysis

Description: Barry Ash Pond Field Blank-1

Location Code: WMWBARAPFB

Collected: 8/7/23 11:30

Customer ID:

Submittal Date: 8/10/23 09:47

Laboratory ID Number: BD14997

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM 5310 B		Analyst: SC							
* Total Organic Carbon	8/10/23 22:58	8/10/23 22:58		1	Not Detected	mg/L	1.00	2	U
Analytical Method: SM4500Cl E		Analyst: JCC							
* Chloride	8/16/23 11:45	8/16/23 11:45		1	Not Detected	mg/L	0.50	1	U
Analytical Method: SM4500F G 2017		Analyst: JCC							
* Fluoride	8/17/23 10:27	8/17/23 10:27		1	Not Detected	mg/L	0.06	0.125	U
Analytical Method: SM4500SO4 E 2011		Analyst: JCC							
* Sulfate	8/11/23 11:01	8/11/23 11:01		1	Not Detected	mg/L	0.6	2	U

MDL's and RL's are adjusted for sample dilution, as applicable

Comments:

Batch QC Summary

Customer Account: WMWBARAPFB

Sample Date: 8/7/23 11:30

Customer ID:

Delivery Date: 8/10/23 09:47

Description: Barry Ash Pond Field Blank-1

Laboratory ID Number: BD14997

Sample	Analysis	Units	MB	MB				Standard		Rec		Prec	Limit
				Limit	Spike	MS	MSD	Standard	Limit	Rec	Limit		
BD15005	Aluminum, Total	mg/L	0.000500	0.0198	0.100	0.240	0.246	0.105	0.0850 to 0.115	125	70.0 to 130	2.47	20.0
BD15005	Antimony, Total	mg/L	0.000324	0.00100	0.100	0.0967	0.0972	0.0902	0.0850 to 0.115	96.7	70.0 to 130	0.516	20.0
BD15005	Arsenic, Total	mg/L	0.0000151	0.000200	0.100	0.112	0.113	0.0967	0.0850 to 0.115	98.6	70.0 to 130	0.889	20.0
BD15005	Barium, Total	mg/L	-0.0000137	0.00100	0.100	0.191	0.193	0.0978	0.0850 to 0.115	97.2	70.0 to 130	1.04	20.0
BD15005	Beryllium, Total	mg/L	0.0000313	0.000880	0.100	0.0962	0.0905	0.0963	0.0850 to 0.115	96.2	70.0 to 130	6.11	20.0
BD15005	Boron, Total	mg/L	0.000329	0.0650	1.00	1.07	1.07	1.00	0.850 to 1.15	100	70.0 to 130	0.00	20.0
BD15005	Cadmium, Total	mg/L	0.0000069	0.000147	0.100	0.100	0.0982	0.0952	0.0850 to 0.115	100	70.0 to 130	1.82	20.0
BD15005	Calcium, Total	mg/L	0.00398	0.152	5.00	29.4	30.3	4.68	4.25 to 5.75	78.0	70.0 to 130	3.02	20.0
BD15004	Chloride	mg/L	0.0383	1.00	10.0	25.5	25.6	9.74	9.00 to 11.0	86.0	80.0 to 120	0.391	20.0
BD15005	Chromium, Total	mg/L	-0.000117	0.000440	0.100	0.0997	0.101	0.0987	0.0850 to 0.115	97.1	70.0 to 130	1.30	20.0
BD15005	Cobalt, Total	mg/L	-0.0000058	0.000147	0.100	0.107	0.107	0.104	0.0850 to 0.115	102	70.0 to 130	0.00	20.0
BD15004	Fluoride	mg/L	0.0345	0.125	2.50	2.63	2.68	2.54	2.25 to 2.75	105	80.0 to 120	1.88	20.0
BD15005	Iron, Total	mg/L	0.00156	0.0176	0.2	60.5	51.6	0.198	0.170 to 0.230	1850	70.0 to 130	15.9	20.0
BD15005	Lead, Total	mg/L	0.0000200	0.000147	0.100	0.105	0.107	0.106	0.0850 to 0.115	105	70.0 to 130	1.89	20.0
BD15005	Lithium, Total	mg/L	-0.000313	0.0154	0.200	0.215	0.217	0.212	0.170 to 0.230	108	70.0 to 130	0.926	20.0
BD15005	Magnesium, Total	mg/L	-0.0185	0.0462	5.00	22.3	22.8	5.09	4.25 to 5.75	92.0	70.0 to 130	2.22	20.0
BD15005	Manganese, Total	mg/L	0.0000152	0.00033	0.100	0.565	0.566	0.102	0.0850 to 0.115	93.0	70.0 to 130	0.177	20.0
BD15004	Mercury, Total by CVAA	mg/L	-5.000E-05	0.000500	0.004	0.00392	0.00397	0.00401	0.00340 to 0.00460	98.0	70.0 to 130	1.27	20.0
BD15005	Molybdenum, Total	mg/L	0.000	0.0100	0.2	0.195	0.196	0.199	0.170 to 0.230	97.5	70.0 to 130	0.512	20.0
BD15005	Potassium, Total	mg/L	-0.0139	0.367	10.0	13.3	13.5	10.5	8.50 to 11.5	99.1	70.0 to 130	1.49	20.0
BD15005	Selenium, Total	mg/L	-0.0000893	0.00100	0.100	0.103	0.102	0.100	0.0850 to 0.115	103	70.0 to 130	0.976	20.0
BD15005	Silicon, Total	mg/L	-0.000409	0.0440	1.00	8.91	8.91	1.02	0.850 to 1.15	106	70.0 to 130	0.00	20.0
BD15005	Sodium, Total	mg/L	0.00111	0.0880	5.00	117	99.9	5.47	4.25 to 5.75	240	70.0 to 130	15.8	20.0
BD15004	Sulfate	mg/L	0.312	2.0	20.0	35.0	36.8	20.4	18.0 to 22.0	83.5	80.0 to 120	5.01	20.0

Comments:

Batch QC Summary

Customer Account: WMWBARAPFB

Sample Date: 8/7/23 11:30

Customer ID:

Delivery Date: 8/10/23 09:47

Description: Barry Ash Pond Field Blank-1

Laboratory ID Number: BD14997

Sample	Analysis	Units	MB	MB				MSD	Standard	Standard		Rec		Prec	Limit
				Limit	Spike	MS	Standard			Limit	Rec	Limit	Prec		
BD15005	Thallium, Total	mg/L	0.0000078	0.000147	0.100	0.102	0.109	0.105	0.0850 to 0.115		102	70.0 to 130		6.64	20.0
BD15004	Total Organic Carbon	mg/L	0.198	1.00	10.0	18.6	19.3	25.7			91.3	80.0 to 120		3.69	20.0

Comments:

Batch QC Summary

Customer Account: WMWBARAPFB

Sample Date: 8/7/23 11:30

Customer ID:

Delivery Date: 8/10/23 09:47

Description: Barry Ash Pond Field Blank-1

Laboratory ID Number: BD14997

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BD15004	Nitrogen, Nitrate/Nitrite	mg/L as N	-0.02	0.200	2.00	2.03	-0.022	2.17	1.80 to 2.20	102	90.0 to 110	0.00	15.0
BD14999	Solids, Dissolved	mg/L	1.00	25.0			361	53.0	40.0 to 60.0			1.38	10.0

Comments:

Certificate Of Analysis

Description: Barry Ash Pond - MW-10

Location Code: WMWBARAP
Collected: 8/7/23 12:05
Customer ID:
Submittal Date: 8/10/23 09:47

Laboratory ID Number: BD14998

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7			Analyst: ABB		Preparation Method: EPA 1638				
* Boron, Total	8/11/23 11:28	8/15/23 13:18		1.015	1.68	mg/L	0.030000	0.1015	
* Calcium, Total	8/11/23 11:28	8/17/23 11:51		10.15	58.4	mg/L	0.70035	4.06	
* Iron, Total	8/11/23 11:28	8/16/23 15:00		101.5	73.7	mg/L	0.8120	4.06	
* Lithium, Total	8/11/23 11:28	8/15/23 13:18		1.015	Not Detected	mg/L	0.007105	0.01999956	U
* Magnesium, Total	8/11/23 11:28	8/15/23 13:18		1.015	12.7	mg/L	0.021315	0.406	
* Molybdenum, Total	8/11/23 11:28	8/15/23 13:18		1.015	Not Detected	mg/L	0.005075	0.01015	U
* Silica, Total (calc.)	8/11/23 11:28	8/15/23 13:18		1	26.5	mg/L			
* Silicon, Total	8/11/23 11:28	8/15/23 13:18		1.015	12.4	mg/L	0.02030	0.25375	
* Sodium, Total	8/11/23 11:28	8/15/23 13:18		1.015	26.2	mg/L	0.04060	0.406	
Analytical Method: EPA 200.7			Analyst: ABB						
* Boron, Dissolved	8/11/23 09:10	8/11/23 12:33		1.015	1.71	mg/L	0.030000	0.1015	
* Calcium, Dissolved	8/11/23 09:10	8/14/23 13:58		10.15	48.9	mg/L	0.70035	4.06	
* Iron, Dissolved	8/11/23 09:10	8/15/23 11:02		101.5	70.6	mg/L	0.8120	4.06	
* Lithium, Dissolved	8/11/23 09:10	8/11/23 12:33		1.015	Not Detected	mg/L	0.007105	0.01999956	U
* Magnesium, Dissolved	8/11/23 09:10	8/11/23 12:33		1.015	12.6	mg/L	0.021315	0.406	
* Molybdenum, Dissolved	8/11/23 09:10	8/11/23 12:33		1.015	Not Detected	mg/L	0.005075	0.01015	U
* Silica, Dissolved (calc.)	8/11/23 09:10	8/11/23 12:33		1	27.0	mg/L			
* Silicon, Dissolved	8/11/23 09:10	8/11/23 12:33		1.015	12.6	mg/L	0.02030	0.25375	
* Sodium, Dissolved	8/11/23 09:10	8/11/23 12:33		1.015	25.6	mg/L	0.04060	0.406	
Analytical Method: EPA 200.8			Analyst: DLJ		Preparation Method: EPA 1638				
* Antimony, Total	8/11/23 11:28	8/11/23 14:56		1.015	Not Detected	mg/L	0.000710	0.001015	U
* Arsenic, Total	8/11/23 11:28	8/11/23 14:56		1.015	0.0250	mg/L	0.000112	0.000203	
* Aluminum, Total	8/11/23 11:28	8/11/23 14:56		1.015	Not Detected	mg/L	0.009135	0.05075	U
* Barium, Total	8/11/23 11:28	8/11/23 14:56		1.015	0.0670	mg/L	0.000508	0.001015	
* Beryllium, Total	8/11/23 11:28	8/11/23 14:56		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Total	8/11/23 11:28	8/11/23 14:56		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Total	8/11/23 11:28	8/11/23 14:56		1.015	0.000561	mg/L	0.000203	0.001015	J
* Cobalt, Total	8/11/23 11:28	8/11/23 14:56		1.015	0.000610	mg/L	0.000068	0.000203	
* Lead, Total	8/11/23 11:28	8/11/23 14:56		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Total	8/11/23 11:28	8/11/23 14:56		1.015	0.733	mg/L	0.000152	0.001015	

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Barry Ash Pond - MW-10

Location Code: WMWBARAP
Collected: 8/7/23 12:05
Customer ID:
Submittal Date: 8/10/23 09:47

Laboratory ID Number: BD14998

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
* Potassium, Total	8/11/23 11:28	8/11/23 14:56		1.015	1.74	mg/L	0.169505	0.5075	
* Selenium, Total	8/11/23 11:28	8/11/23 14:56		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Total	8/11/23 11:28	8/11/23 14:56		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 200.8		Analyst: DLJ							
* Antimony, Dissolved	8/11/23 09:10	8/11/23 11:23		1.015	Not Detected	mg/L	0.000710	0.001015	U
* Aluminum, Dissolved	8/11/23 09:10	8/11/23 11:23		1.015	Not Detected	mg/L	0.009135	0.05075	U
* Arsenic, Dissolved	8/11/23 09:10	8/11/23 11:23		1.015	0.0255	mg/L	0.000112	0.000203	
* Barium, Dissolved	8/11/23 09:10	8/11/23 11:23		1.015	0.0657	mg/L	0.000508	0.001015	
* Beryllium, Dissolved	8/11/23 09:10	8/11/23 11:23		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Dissolved	8/11/23 09:10	8/11/23 11:23		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Dissolved	8/11/23 09:10	8/11/23 11:23		1.015	0.000621	mg/L	0.000203	0.001015	J
* Cobalt, Dissolved	8/11/23 09:10	8/11/23 11:23		1.015	0.000638	mg/L	0.000068	0.000203	
* Lead, Dissolved	8/11/23 09:10	8/11/23 11:23		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Dissolved	8/11/23 09:10	8/11/23 11:23		1.015	0.742	mg/L	0.000152	0.001015	
* Potassium, Dissolved	8/11/23 09:10	8/11/23 11:23		1.015	1.76	mg/L	0.169505	0.5075	
* Selenium, Dissolved	8/11/23 09:10	8/11/23 11:23		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Dissolved	8/11/23 09:10	8/11/23 11:23		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 245.1		Analyst: ELH							
* Mercury, Total by CVAA	8/10/23 17:13	8/10/23 22:58		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: EPA 353.2		Analyst: SC							
* Nitrogen, Nitrate/Nitrite	8/10/23 15:43	8/10/23 15:43		1	Not Detected	mg/L as N	0.20	0.3	U
Analytical Method: SM 2320 B		Analyst: DHC							
* Alkalinity	8/15/23 09:20	8/15/23 14:17		1	239	mg CaCO3/L		0.1	
Analytical Method: SM 2540C		Analyst: CNJ							
* Solids, Dissolved	8/10/23 13:30	8/11/23 13:40		1	359	mg/L		25	
Analytical Method: SM 4500CO2 D		Analyst: DHC							
* Bicarbonate Alkalinity, (calc.)	8/15/23 09:20	8/15/23 14:17		1	239	mg CaCO3/L		1	
* Carbonate Alkalinity, (calc.)	8/15/23 09:20	8/15/23 14:17		1	Not Detected	mg CaCO3/L		0.5	
Analytical Method: SM 4500H+ B		Analyst: DHC							
Alkalinity pH Endpoint	8/15/23 09:20	8/15/23 14:17		1	4.44	SU		2	

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Barry Ash Pond - MW-10

Location Code: WMWBARAP
Collected: 8/7/23 12:05
Customer ID:
Submittal Date: 8/10/23 09:47

Laboratory ID Number: BD14998

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM 5310 B		Analyst: SC							
* Total Organic Carbon	8/10/23 23:12	8/10/23 23:12	1		8.22	mg/L	1.00	2	
Analytical Method: SM4500Cl E		Analyst: JCC							
* Chloride	8/16/23 11:58	8/16/23 11:58	2		23.5	mg/L	1.00	2	
Analytical Method: SM4500F G 2017		Analyst: JCC							
* Fluoride	8/17/23 10:28	8/17/23 10:28	1		Not Detected	mg/L	0.06	0.125	U
Analytical Method: SM4500SO4 E 2011		Analyst: JCC							
* Sulfate	8/11/23 11:02	8/11/23 11:02	1		17.8	mg/L	0.6	2	
Analytical Method: Field Measurements		Analyst: DKG							
Conductivity	8/7/23 12:01	8/7/23 12:01			556.36	uS/cm			FA
pH	8/7/23 12:01	8/7/23 12:01			6.27	SU			FA
Temperature	8/7/23 12:01	8/7/23 12:01			22.61	C			FA
Turbidity	8/7/23 12:01	8/7/23 12:01			2.41	NTU			FA
Sulfide	8/7/23 12:01	8/7/23 12:01			0	mg/L			FA

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWBARAP

Sample Date: 8/7/23 12:05

Customer ID:

Delivery Date: 8/10/23 09:47

Description: Barry Ash Pond - MW-10

Laboratory ID Number: BD14998

Sample	Analysis	Units	MB		Spike	MS	MSD	Standard		Rec		Prec	Limit
			MB	Limit				Standard	Limit	Rec	Limit		
BD15007	Aluminum, Dissolved	mg/L	-0.000366	0.0198	0.100	0.105	0.107	0.104	0.0850 to 0.115	105	70.0 to 130	1.89	20.0
BD15005	Aluminum, Total	mg/L	0.000500	0.0198	0.100	0.240	0.246	0.105	0.0850 to 0.115	125	70.0 to 130	2.47	20.0
BD15007	Antimony, Dissolved	mg/L	0.000717	0.00100	0.100	0.0938	0.0930	0.0901	0.0850 to 0.115	93.8	70.0 to 130	0.857	20.0
BD15005	Antimony, Total	mg/L	0.000324	0.00100	0.100	0.0967	0.0972	0.0902	0.0850 to 0.115	96.7	70.0 to 130	0.516	20.0
BD15007	Arsenic, Dissolved	mg/L	0.0000364	0.000200	0.100	0.123	0.125	0.0999	0.0850 to 0.115	100	70.0 to 130	1.61	20.0
BD15005	Arsenic, Total	mg/L	0.0000151	0.000200	0.100	0.112	0.113	0.0967	0.0850 to 0.115	98.6	70.0 to 130	0.889	20.0
BD15007	Barium, Dissolved	mg/L	-0.0000120	0.00100	0.100	0.173	0.175	0.0953	0.0850 to 0.115	93.7	70.0 to 130	1.15	20.0
BD15005	Barium, Total	mg/L	-0.0000137	0.00100	0.100	0.191	0.193	0.0978	0.0850 to 0.115	97.2	70.0 to 130	1.04	20.0
BD15007	Beryllium, Dissolved	mg/L	0.0000241	0.000880	0.100	0.0991	0.0953	0.0982	0.0850 to 0.115	99.1	70.0 to 130	3.91	20.0
BD15005	Beryllium, Total	mg/L	0.0000313	0.000880	0.100	0.0962	0.0905	0.0963	0.0850 to 0.115	96.2	70.0 to 130	6.11	20.0
BD15007	Boron, Dissolved	mg/L	-0.00158	0.0650	1.00	1.10	1.09	0.998	0.850 to 1.15	104	70.0 to 130	0.913	20.0
BD15005	Boron, Total	mg/L	0.000329	0.0650	1.00	1.07	1.07	1.00	0.850 to 1.15	100	70.0 to 130	0.00	20.0
BD15007	Cadmium, Dissolved	mg/L	0.0000122	0.000147	0.100	0.0948	0.0990	0.0966	0.0850 to 0.115	94.8	70.0 to 130	4.33	20.0
BD15005	Cadmium, Total	mg/L	0.0000069	0.000147	0.100	0.100	0.0982	0.0952	0.0850 to 0.115	100	70.0 to 130	1.82	20.0
BD15007	Calcium, Dissolved	mg/L	-0.00883	0.152	5.00	26.8	26.8	4.86	4.25 to 5.75	82.0	70.0 to 130	0.00	20.0
BD15005	Calcium, Total	mg/L	0.00398	0.152	5.00	29.4	30.3	4.68	4.25 to 5.75	78.0	70.0 to 130	3.02	20.0
BD15004	Chloride	mg/L	0.0383	1.00	10.0	25.5	25.6	9.74	9.00 to 11.0	86.0	80.0 to 120	0.391	20.0
BD15007	Chromium, Dissolved	mg/L	-0.0000772	0.000440	0.100	0.0978	0.0988	0.0988	0.0850 to 0.115	94.2	70.0 to 130	1.02	20.0
BD15005	Chromium, Total	mg/L	-0.000117	0.000440	0.100	0.0997	0.101	0.0987	0.0850 to 0.115	97.1	70.0 to 130	1.30	20.0
BD15007	Cobalt, Dissolved	mg/L	-0.0000063	0.000147	0.100	0.102	0.105	0.102	0.0850 to 0.115	98.2	70.0 to 130	2.90	20.0
BD15005	Cobalt, Total	mg/L	-0.0000058	0.000147	0.100	0.107	0.107	0.104	0.0850 to 0.115	102	70.0 to 130	0.00	20.0
BD15004	Fluoride	mg/L	0.0345	0.125	2.50	2.63	2.68	2.54	2.25 to 2.75	105	80.0 to 120	1.88	20.0
BD15007	Iron, Dissolved	mg/L	0.00047	0.0176	0.2	65.7	63.4	0.204	0.170 to 0.230	500	70.0 to 130	3.56	20.0
BD15005	Iron, Total	mg/L	0.00156	0.0176	0.2	60.5	51.6	0.198	0.170 to 0.230	1850	70.0 to 130	15.9	20.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWBARAP

Sample Date: 8/7/23 12:05

Customer ID:

Delivery Date: 8/10/23 09:47

Description: Barry Ash Pond - MW-10

Laboratory ID Number: BD14998

Sample	Analysis	Units	MB	MB		Spike	MS	MSD	Standard		Rec		Prec	Limit
				Limit					Standard	Limit	Rec	Limit		
BD15007	Lead, Dissolved	mg/L	0.0000155	0.000147	0.100	0.102	0.101	0.107	0.0850 to 0.115	102	70.0 to 130	0.985	20.0	
BD15005	Lead, Total	mg/L	0.0000200	0.000147	0.100	0.105	0.107	0.106	0.0850 to 0.115	105	70.0 to 130	1.89	20.0	
BD15007	Lithium, Dissolved	mg/L	-0.000571	0.0154	0.200	0.210	0.208	0.206	0.170 to 0.230	105	70.0 to 130	0.957	20.0	
BD15005	Lithium, Total	mg/L	-0.000313	0.0154	0.200	0.215	0.217	0.212	0.170 to 0.230	108	70.0 to 130	0.926	20.0	
BD15007	Magnesium, Dissolved	mg/L	-0.00854	0.0462	5.00	22.8	22.6	5.06	4.25 to 5.75	94.0	70.0 to 130	0.881	20.0	
BD15005	Magnesium, Total	mg/L	-0.0185	0.0462	5.00	22.3	22.8	5.09	4.25 to 5.75	92.0	70.0 to 130	2.22	20.0	
BD15007	Manganese, Dissolved	mg/L	0.0000086	0.00033	0.100	0.776	0.747	0.101	0.0850 to 0.115	91.0	70.0 to 130	3.81	20.0	
BD15005	Manganese, Total	mg/L	0.0000152	0.00033	0.100	0.565	0.566	0.102	0.0850 to 0.115	93.0	70.0 to 130	0.177	20.0	
BD15004	Mercury, Total by CVAA	mg/L	-5.000E-05	0.000500	0.004	0.00392	0.00397	0.00401	0.00340 to 0.00460	98.0	70.0 to 130	1.27	20.0	
BD15007	Molybdenum, Dissolved	mg/L	0.00221	0.0100	0.2	0.201	0.200	0.198	0.170 to 0.230	100	70.0 to 130	0.499	20.0	
BD15005	Molybdenum, Total	mg/L	0.000	0.0100	0.2	0.195	0.196	0.199	0.170 to 0.230	97.5	70.0 to 130	0.512	20.0	
BD15007	Potassium, Dissolved	mg/L	-0.00230	0.367	10.0	12.8	13.0	10.3	8.50 to 11.5	97.7	70.0 to 130	1.55	20.0	
BD15005	Potassium, Total	mg/L	-0.0139	0.367	10.0	13.3	13.5	10.5	8.50 to 11.5	99.1	70.0 to 130	1.49	20.0	
BD15007	Selenium, Dissolved	mg/L	0.0000708	0.00100	0.100	0.104	0.105	0.101	0.0850 to 0.115	104	70.0 to 130	0.957	20.0	
BD15005	Selenium, Total	mg/L	-0.0000893	0.00100	0.100	0.103	0.102	0.100	0.0850 to 0.115	103	70.0 to 130	0.976	20.0	
BD15007	Silicon, Dissolved	mg/L	-0.000657	0.0440	1.00	8.78	8.76	1.02	0.850 to 1.15	96.0	70.0 to 130	0.228	20.0	
BD15005	Silicon, Total	mg/L	-0.000409	0.0440	1.00	8.91	8.91	1.02	0.850 to 1.15	106	70.0 to 130	0.00	20.0	
BD15007	Sodium, Dissolved	mg/L	0.00579	0.0880	5.00	46.9	47.3	5.30	4.25 to 5.75	94.0	70.0 to 130	0.849	20.0	
BD15005	Sodium, Total	mg/L	0.00111	0.0880	5.00	117	99.9	5.47	4.25 to 5.75	240	70.0 to 130	15.8	20.0	
BD15004	Sulfate	mg/L	0.312	2.0	20.0	35.0	36.8	20.4	18.0 to 22.0	83.5	80.0 to 120	5.01	20.0	
BD15007	Thallium, Dissolved	mg/L	-0.0000062	0.000147	0.100	0.104	0.104	0.103	0.0850 to 0.115	104	70.0 to 130	0.00	20.0	
BD15005	Thallium, Total	mg/L	0.0000078	0.000147	0.100	0.102	0.109	0.105	0.0850 to 0.115	102	70.0 to 130	6.64	20.0	
BD15004	Total Organic Carbon	mg/L	0.198	1.00	10.0	18.6	19.3	25.7		91.3	80.0 to 120	3.69	20.0	

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWBARAP

Sample Date: 8/7/23 12:05

Customer ID:

Delivery Date: 8/10/23 09:47

Description: Barry Ash Pond - MW-10

Laboratory ID Number: BD14998

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BD15014	Alkalinity	mg CaCO3/L					73.7	51.9	45.0 to 55.0			3.60	10.0
BD15004	Nitrogen, Nitrate/Nitrite	mg/L as N	-0.02	0.200	2.00	2.03	-0.022	2.17	1.80 to 2.20	102	90.0 to 110	0.00	15.0
BD14999	Solids, Dissolved	mg/L	1.00	25.0			361	53.0	40.0 to 60.0			1.38	10.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Barry Ash Pond - MW-10 Dup

Location Code: WMWBARAP
Collected: 8/7/23 12:05
Customer ID:
Submittal Date: 8/10/23 09:47

Laboratory ID Number: BD14999

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7			Analyst: ABB		Preparation Method: EPA 1638				
* Boron, Total	8/11/23 11:28	8/15/23 13:21		1.015	1.68	mg/L	0.030000	0.1015	
* Calcium, Total	8/11/23 11:28	8/17/23 11:54		10.15	52.0	mg/L	0.70035	4.06	
* Iron, Total	8/11/23 11:28	8/16/23 15:04		101.5	75.7	mg/L	0.8120	4.06	
* Lithium, Total	8/11/23 11:28	8/15/23 13:21		1.015	Not Detected	mg/L	0.007105	0.01999956	U
* Magnesium, Total	8/11/23 11:28	8/15/23 13:21		1.015	12.4	mg/L	0.021315	0.406	
* Molybdenum, Total	8/11/23 11:28	8/15/23 13:21		1.015	Not Detected	mg/L	0.005075	0.01015	U
* Silica, Total (calc.)	8/11/23 11:28	8/15/23 13:21		1	26.5	mg/L			
* Silicon, Total	8/11/23 11:28	8/15/23 13:21		1.015	12.4	mg/L	0.02030	0.25375	
* Sodium, Total	8/11/23 11:28	8/15/23 13:21		1.015	26.2	mg/L	0.04060	0.406	
Analytical Method: EPA 200.7			Analyst: ABB						
* Boron, Dissolved	8/11/23 09:10	8/11/23 12:36		1.015	1.72	mg/L	0.030000	0.1015	
* Calcium, Dissolved	8/11/23 09:10	8/14/23 14:01		10.15	49.8	mg/L	0.70035	4.06	
* Iron, Dissolved	8/11/23 09:10	8/15/23 11:05		101.5	68.9	mg/L	0.8120	4.06	
* Lithium, Dissolved	8/11/23 09:10	8/11/23 12:36		1.015	Not Detected	mg/L	0.007105	0.01999956	U
* Magnesium, Dissolved	8/11/23 09:10	8/11/23 12:36		1.015	12.8	mg/L	0.021315	0.406	
* Molybdenum, Dissolved	8/11/23 09:10	8/11/23 12:36		1.015	Not Detected	mg/L	0.005075	0.01015	U
* Silica, Dissolved (calc.)	8/11/23 09:10	8/11/23 12:36		1	27.2	mg/L			
* Silicon, Dissolved	8/11/23 09:10	8/11/23 12:36		1.015	12.7	mg/L	0.02030	0.25375	
* Sodium, Dissolved	8/11/23 09:10	8/11/23 12:36		1.015	25.8	mg/L	0.04060	0.406	
Analytical Method: EPA 200.8			Analyst: DLJ		Preparation Method: EPA 1638				
* Antimony, Total	8/11/23 11:28	8/11/23 15:00		1.015	Not Detected	mg/L	0.000710	0.001015	U
* Aluminum, Total	8/11/23 11:28	8/11/23 15:00		1.015	Not Detected	mg/L	0.009135	0.05075	U
* Arsenic, Total	8/11/23 11:28	8/11/23 15:00		1.015	0.0256	mg/L	0.000112	0.000203	
* Barium, Total	8/11/23 11:28	8/11/23 15:00		1.015	0.0675	mg/L	0.000508	0.001015	
* Beryllium, Total	8/11/23 11:28	8/11/23 15:00		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Total	8/11/23 11:28	8/11/23 15:00		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Total	8/11/23 11:28	8/11/23 15:00		1.015	0.000536	mg/L	0.000203	0.001015	J
* Cobalt, Total	8/11/23 11:28	8/11/23 15:00		1.015	0.000642	mg/L	0.000068	0.000203	
* Lead, Total	8/11/23 11:28	8/11/23 15:00		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Total	8/11/23 11:28	8/11/23 15:00		1.015	0.727	mg/L	0.000152	0.001015	

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Barry Ash Pond - MW-10 Dup

Location Code: WMWBARAP
Collected: 8/7/23 12:05
Customer ID:
Submittal Date: 8/10/23 09:47

Laboratory ID Number: BD14999

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
* Potassium, Total	8/11/23 11:28	8/11/23 15:00		1.015	1.76	mg/L	0.169505	0.5075	
* Selenium, Total	8/11/23 11:28	8/11/23 15:00		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Total	8/11/23 11:28	8/11/23 15:00		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 200.8		Analyst: DLJ							
* Antimony, Dissolved	8/11/23 09:10	8/11/23 11:27		1.015	Not Detected	mg/L	0.000710	0.001015	U
* Aluminum, Dissolved	8/11/23 09:10	8/11/23 11:27		1.015	Not Detected	mg/L	0.009135	0.05075	U
* Arsenic, Dissolved	8/11/23 09:10	8/11/23 11:27		1.015	0.0263	mg/L	0.000112	0.000203	
* Barium, Dissolved	8/11/23 09:10	8/11/23 11:27		1.015	0.0669	mg/L	0.000508	0.001015	
* Beryllium, Dissolved	8/11/23 09:10	8/11/23 11:27		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Dissolved	8/11/23 09:10	8/11/23 11:27		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Dissolved	8/11/23 09:10	8/11/23 11:27		1.015	0.000594	mg/L	0.000203	0.001015	J
* Cobalt, Dissolved	8/11/23 09:10	8/11/23 11:27		1.015	0.000647	mg/L	0.000068	0.000203	
* Lead, Dissolved	8/11/23 09:10	8/11/23 11:27		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Dissolved	8/11/23 09:10	8/11/23 11:27		1.015	0.724	mg/L	0.000152	0.001015	
* Potassium, Dissolved	8/11/23 09:10	8/11/23 11:27		1.015	1.76	mg/L	0.169505	0.5075	
* Selenium, Dissolved	8/11/23 09:10	8/11/23 11:27		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Dissolved	8/11/23 09:10	8/11/23 11:27		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 245.1		Analyst: ELH							
* Mercury, Total by CVAA	8/10/23 17:13	8/10/23 23:02		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: EPA 353.2		Analyst: SC							
* Nitrogen, Nitrate/Nitrite	8/10/23 15:44	8/10/23 15:44		1	Not Detected	mg/L as N	0.20	0.3	U
Analytical Method: SM 2320 B		Analyst: DHC							
* Alkalinity	8/15/23 09:20	8/15/23 14:17		1	231	mg CaCO3/L		0.1	
Analytical Method: SM 2540C		Analyst: CNJ							
* Solids, Dissolved	8/10/23 13:30	8/11/23 13:40		1	366	mg/L		25	
Analytical Method: SM 4500CO2 D		Analyst: DHC							
* Bicarbonate Alkalinity, (calc.)	8/15/23 09:20	8/15/23 14:17		1	231	mg CaCO3/L		1	
* Carbonate Alkalinity, (calc.)	8/15/23 09:20	8/15/23 14:17		1	Not Detected	mg CaCO3/L		0.5	
Analytical Method: SM 4500H+ B		Analyst: DHC							
Alkalinity pH Endpoint	8/15/23 09:20	8/15/23 14:17		1	4.47	SU		2	

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Barry Ash Pond - MW-10 Dup

Location Code: WMWBARAP

Collected: 8/7/23 12:05

Customer ID:

Submittal Date: 8/10/23 09:47

Laboratory ID Number: BD14999

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM 5310 B		Analyst: SC							
* Total Organic Carbon	8/10/23 23:29	8/10/23 23:29		1	8.91	mg/L	1.00	2	
Analytical Method: SM4500Cl E		Analyst: JCC							
* Chloride	8/16/23 11:59	8/16/23 11:59		2	23.0	mg/L	1.00	2	
Analytical Method: SM4500F G 2017		Analyst: JCC							
* Fluoride	8/17/23 10:29	8/17/23 10:29		1	Not Detected	mg/L	0.06	0.125	U
Analytical Method: SM4500SO4 E 2011		Analyst: JCC							
* Sulfate	8/11/23 11:03	8/11/23 11:03		1	19.9	mg/L	0.6	2	
Analytical Method: Field Measurements		Analyst: DKG							
Conductivity	8/7/23 12:01	8/7/23 12:01			556.36	uS/cm			FA
pH	8/7/23 12:01	8/7/23 12:01			6.27	SU			FA
Temperature	8/7/23 12:01	8/7/23 12:01			22.61	C			FA
Turbidity	8/7/23 12:01	8/7/23 12:01			2.41	NTU			FA
Sulfide	8/7/23 12:01	8/7/23 12:01			0	mg/L			FA

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWBARAP

Sample Date: 8/7/23 12:05

Customer ID:

Delivery Date: 8/10/23 09:47

Description: Barry Ash Pond - MW-10 Dup

Laboratory ID Number: BD14999

Sample	Analysis	Units	MB	MB				Standard		Rec			Prec Limit
				Limit	Spike	MS	MSD	Standard	Limit	Rec	Limit	Prec	
BD15007	Aluminum, Dissolved	mg/L	-0.000366	0.0198	0.100	0.105	0.107	0.104	0.0850 to 0.115	105	70.0 to 130	1.89	20.0
BD15005	Aluminum, Total	mg/L	0.000500	0.0198	0.100	0.240	0.246	0.105	0.0850 to 0.115	125	70.0 to 130	2.47	20.0
BD15007	Antimony, Dissolved	mg/L	0.000717	0.00100	0.100	0.0938	0.0930	0.0901	0.0850 to 0.115	93.8	70.0 to 130	0.857	20.0
BD15005	Antimony, Total	mg/L	0.000324	0.00100	0.100	0.0967	0.0972	0.0902	0.0850 to 0.115	96.7	70.0 to 130	0.516	20.0
BD15007	Arsenic, Dissolved	mg/L	0.0000364	0.000200	0.100	0.123	0.125	0.0999	0.0850 to 0.115	100	70.0 to 130	1.61	20.0
BD15005	Arsenic, Total	mg/L	0.0000151	0.000200	0.100	0.112	0.113	0.0967	0.0850 to 0.115	98.6	70.0 to 130	0.889	20.0
BD15007	Barium, Dissolved	mg/L	-0.0000120	0.00100	0.100	0.173	0.175	0.0953	0.0850 to 0.115	93.7	70.0 to 130	1.15	20.0
BD15005	Barium, Total	mg/L	-0.0000137	0.00100	0.100	0.191	0.193	0.0978	0.0850 to 0.115	97.2	70.0 to 130	1.04	20.0
BD15007	Beryllium, Dissolved	mg/L	0.0000241	0.000880	0.100	0.0991	0.0953	0.0982	0.0850 to 0.115	99.1	70.0 to 130	3.91	20.0
BD15005	Beryllium, Total	mg/L	0.0000313	0.000880	0.100	0.0962	0.0905	0.0963	0.0850 to 0.115	96.2	70.0 to 130	6.11	20.0
BD15007	Boron, Dissolved	mg/L	-0.00158	0.0650	1.00	1.10	1.09	0.998	0.850 to 1.15	104	70.0 to 130	0.913	20.0
BD15005	Boron, Total	mg/L	0.000329	0.0650	1.00	1.07	1.07	1.00	0.850 to 1.15	100	70.0 to 130	0.00	20.0
BD15007	Cadmium, Dissolved	mg/L	0.0000122	0.000147	0.100	0.0948	0.0990	0.0966	0.0850 to 0.115	94.8	70.0 to 130	4.33	20.0
BD15005	Cadmium, Total	mg/L	0.0000069	0.000147	0.100	0.100	0.0982	0.0952	0.0850 to 0.115	100	70.0 to 130	1.82	20.0
BD15007	Calcium, Dissolved	mg/L	-0.00883	0.152	5.00	26.8	26.8	4.86	4.25 to 5.75	82.0	70.0 to 130	0.00	20.0
BD15005	Calcium, Total	mg/L	0.00398	0.152	5.00	29.4	30.3	4.68	4.25 to 5.75	78.0	70.0 to 130	3.02	20.0
BD15004	Chloride	mg/L	0.0383	1.00	10.0	25.5	25.6	9.74	9.00 to 11.0	86.0	80.0 to 120	0.391	20.0
BD15007	Chromium, Dissolved	mg/L	-0.0000772	0.000440	0.100	0.0978	0.0988	0.0988	0.0850 to 0.115	94.2	70.0 to 130	1.02	20.0
BD15005	Chromium, Total	mg/L	-0.000117	0.000440	0.100	0.0997	0.101	0.0987	0.0850 to 0.115	97.1	70.0 to 130	1.30	20.0
BD15007	Cobalt, Dissolved	mg/L	-0.0000063	0.000147	0.100	0.102	0.105	0.102	0.0850 to 0.115	98.2	70.0 to 130	2.90	20.0
BD15005	Cobalt, Total	mg/L	-0.0000058	0.000147	0.100	0.107	0.107	0.104	0.0850 to 0.115	102	70.0 to 130	0.00	20.0
BD15004	Fluoride	mg/L	0.0345	0.125	2.50	2.63	2.68	2.54	2.25 to 2.75	105	80.0 to 120	1.88	20.0
BD15007	Iron, Dissolved	mg/L	0.00047	0.0176	0.2	65.7	63.4	0.204	0.170 to 0.230	500	70.0 to 130	3.56	20.0
BD15005	Iron, Total	mg/L	0.00156	0.0176	0.2	60.5	51.6	0.198	0.170 to 0.230	1850	70.0 to 130	15.9	20.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWBARAP

Sample Date: 8/7/23 12:05

Customer ID:

Delivery Date: 8/10/23 09:47

Description: Barry Ash Pond - MW-10 Dup

Laboratory ID Number: BD14999

Sample	Analysis	Units	MB					Standard		Rec		Prec	Limit
			MB	Limit	Spike	MS	MSD	Standard	Limit	Rec	Limit		
BD15007	Lead, Dissolved	mg/L	0.0000155	0.000147	0.100	0.102	0.101	0.107	0.0850 to 0.115	102	70.0 to 130	0.985	20.0
BD15005	Lead, Total	mg/L	0.0000200	0.000147	0.100	0.105	0.107	0.106	0.0850 to 0.115	105	70.0 to 130	1.89	20.0
BD15007	Lithium, Dissolved	mg/L	-0.000571	0.0154	0.200	0.210	0.208	0.206	0.170 to 0.230	105	70.0 to 130	0.957	20.0
BD15005	Lithium, Total	mg/L	-0.000313	0.0154	0.200	0.215	0.217	0.212	0.170 to 0.230	108	70.0 to 130	0.926	20.0
BD15007	Magnesium, Dissolved	mg/L	-0.00854	0.0462	5.00	22.8	22.6	5.06	4.25 to 5.75	94.0	70.0 to 130	0.881	20.0
BD15005	Magnesium, Total	mg/L	-0.0185	0.0462	5.00	22.3	22.8	5.09	4.25 to 5.75	92.0	70.0 to 130	2.22	20.0
BD15007	Manganese, Dissolved	mg/L	0.0000086	0.00033	0.100	0.776	0.747	0.101	0.0850 to 0.115	91.0	70.0 to 130	3.81	20.0
BD15005	Manganese, Total	mg/L	0.0000152	0.00033	0.100	0.565	0.566	0.102	0.0850 to 0.115	93.0	70.0 to 130	0.177	20.0
BD15004	Mercury, Total by CVAA	mg/L	-5.000E-05	0.000500	0.004	0.00392	0.00397	0.00401	0.00340 to 0.00460	98.0	70.0 to 130	1.27	20.0
BD15007	Molybdenum, Dissolved	mg/L	0.00221	0.0100	0.2	0.201	0.200	0.198	0.170 to 0.230	100	70.0 to 130	0.499	20.0
BD15005	Molybdenum, Total	mg/L	0.000	0.0100	0.2	0.195	0.196	0.199	0.170 to 0.230	97.5	70.0 to 130	0.512	20.0
BD15007	Potassium, Dissolved	mg/L	-0.00230	0.367	10.0	12.8	13.0	10.3	8.50 to 11.5	97.7	70.0 to 130	1.55	20.0
BD15005	Potassium, Total	mg/L	-0.0139	0.367	10.0	13.3	13.5	10.5	8.50 to 11.5	99.1	70.0 to 130	1.49	20.0
BD15007	Selenium, Dissolved	mg/L	0.0000708	0.00100	0.100	0.104	0.105	0.101	0.0850 to 0.115	104	70.0 to 130	0.957	20.0
BD15005	Selenium, Total	mg/L	-0.0000893	0.00100	0.100	0.103	0.102	0.100	0.0850 to 0.115	103	70.0 to 130	0.976	20.0
BD15007	Silicon, Dissolved	mg/L	-0.000657	0.0440	1.00	8.78	8.76	1.02	0.850 to 1.15	96.0	70.0 to 130	0.228	20.0
BD15005	Silicon, Total	mg/L	-0.000409	0.0440	1.00	8.91	8.91	1.02	0.850 to 1.15	106	70.0 to 130	0.00	20.0
BD15007	Sodium, Dissolved	mg/L	0.00579	0.0880	5.00	46.9	47.3	5.30	4.25 to 5.75	94.0	70.0 to 130	0.849	20.0
BD15005	Sodium, Total	mg/L	0.00111	0.0880	5.00	117	99.9	5.47	4.25 to 5.75	240	70.0 to 130	15.8	20.0
BD15004	Sulfate	mg/L	0.312	2.0	20.0	35.0	36.8	20.4	18.0 to 22.0	83.5	80.0 to 120	5.01	20.0
BD15007	Thallium, Dissolved	mg/L	-0.0000062	0.000147	0.100	0.104	0.104	0.103	0.0850 to 0.115	104	70.0 to 130	0.00	20.0
BD15005	Thallium, Total	mg/L	0.0000078	0.000147	0.100	0.102	0.109	0.105	0.0850 to 0.115	102	70.0 to 130	6.64	20.0
BD15004	Total Organic Carbon	mg/L	0.198	1.00	10.0	18.6	19.3	25.7		91.3	80.0 to 120	3.69	20.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWBARAP

Sample Date: 8/7/23 12:05

Customer ID:

Delivery Date: 8/10/23 09:47

Description: Barry Ash Pond - MW-10 Dup

Laboratory ID Number: BD14999

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Limit	Prec	Limit
BD15014	Alkalinity	mg CaCO3/L					73.7	51.9	45.0 to 55.0			3.60	10.0
BD15004	Nitrogen, Nitrate/Nitrite	mg/L as N	-0.02	0.200	2.00	2.03	-0.022	2.17	1.80 to 2.20	102	90.0 to 110	0.00	15.0
BD14999	Solids, Dissolved	mg/L	1.00	25.0			361	53.0	40.0 to 60.0			1.38	10.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Barry Ash Pond - MW-10V

Location Code: WMWBARAP
Collected: 8/7/23 13:04
Customer ID:
Submittal Date: 8/10/23 09:47

Laboratory ID Number: BD15000

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7			Analyst: ABB			Preparation Method: EPA 1638			
* Boron, Total	8/11/23 11:28	8/15/23 13:24		1.015	0.958	mg/L	0.030000	0.1015	
* Calcium, Total	8/11/23 11:28	8/17/23 11:57		10.15	85.0	mg/L	0.70035	4.06	
* Iron, Total	8/11/23 11:28	8/16/23 15:07		101.5	102	mg/L	0.8120	4.06	
* Lithium, Total	8/11/23 11:28	8/15/23 13:24		1.015	Not Detected	mg/L	0.007105	0.01999956	U
* Magnesium, Total	8/11/23 11:28	8/15/23 13:24		1.015	12.4	mg/L	0.021315	0.406	
* Molybdenum, Total	8/11/23 11:28	8/15/23 13:24		1.015	Not Detected	mg/L	0.005075	0.01015	U
* Silica, Total (calc.)	8/11/23 11:28	8/15/23 13:24		1	29.1	mg/L			
* Silicon, Total	8/11/23 11:28	8/15/23 13:24		1.015	13.6	mg/L	0.02030	0.25375	
* Sodium, Total	8/11/23 11:28	8/15/23 13:24		1.015	30.2	mg/L	0.04060	0.406	
Analytical Method: EPA 200.7			Analyst: ABB						
* Boron, Dissolved	8/11/23 09:10	8/11/23 12:39		1.015	0.966	mg/L	0.030000	0.1015	
* Calcium, Dissolved	8/11/23 09:10	8/14/23 14:04		10.15	64.4	mg/L	0.70035	4.06	
* Iron, Dissolved	8/11/23 09:10	8/15/23 11:08		101.5	99.5	mg/L	0.8120	4.06	
* Lithium, Dissolved	8/11/23 09:10	8/11/23 12:39		1.015	Not Detected	mg/L	0.007105	0.01999956	U
* Magnesium, Dissolved	8/11/23 09:10	8/11/23 12:39		1.015	12.1	mg/L	0.021315	0.406	
* Molybdenum, Dissolved	8/11/23 09:10	8/11/23 12:39		1.015	Not Detected	mg/L	0.005075	0.01015	U
* Silica, Dissolved (calc.)	8/11/23 09:10	8/11/23 12:39		1	29.3	mg/L			
* Silicon, Dissolved	8/11/23 09:10	8/11/23 12:39		1.015	13.7	mg/L	0.02030	0.25375	
* Sodium, Dissolved	8/11/23 09:10	8/11/23 12:39		1.015	28.4	mg/L	0.04060	0.406	
Analytical Method: EPA 200.8			Analyst: DLJ			Preparation Method: EPA 1638			
* Antimony, Total	8/11/23 11:28	8/11/23 15:04		1.015	Not Detected	mg/L	0.000710	0.001015	U
* Arsenic, Total	8/11/23 11:28	8/11/23 15:04		1.015	0.000251	mg/L	0.000112	0.000203	
* Aluminum, Total	8/11/23 11:28	8/11/23 15:04		1.015	Not Detected	mg/L	0.009135	0.05075	U
* Barium, Total	8/11/23 11:28	8/11/23 15:04		1.015	0.166	mg/L	0.000508	0.001015	
* Beryllium, Total	8/11/23 11:28	8/11/23 15:04		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Total	8/11/23 11:28	8/11/23 15:04		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Total	8/11/23 11:28	8/11/23 15:04		1.015	0.000434	mg/L	0.000203	0.001015	J
* Cobalt, Total	8/11/23 11:28	8/11/23 15:04		1.015	0.000623	mg/L	0.000068	0.000203	
* Lead, Total	8/11/23 11:28	8/11/23 15:04		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Total	8/11/23 11:28	8/11/23 15:04		1.015	0.770	mg/L	0.000152	0.001015	

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Barry Ash Pond - MW-10V

Location Code: WMWBARAP
Collected: 8/7/23 13:04
Customer ID:
Submittal Date: 8/10/23 09:47

Laboratory ID Number: BD15000

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
* Potassium, Total	8/11/23 11:28	8/11/23 15:04		1.015	2.43	mg/L	0.169505	0.5075	
* Selenium, Total	8/11/23 11:28	8/11/23 15:04		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Total	8/11/23 11:28	8/11/23 15:04		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 200.8		Analyst: DLJ							
* Antimony, Dissolved	8/11/23 09:10	8/11/23 11:30		1.015	Not Detected	mg/L	0.000710	0.001015	U
* Aluminum, Dissolved	8/11/23 09:10	8/11/23 11:30		1.015	Not Detected	mg/L	0.009135	0.05075	U
* Arsenic, Dissolved	8/11/23 09:10	8/11/23 11:30		1.015	0.000290	mg/L	0.000112	0.000203	
* Barium, Dissolved	8/11/23 09:10	8/11/23 11:30		1.015	0.154	mg/L	0.000508	0.001015	
* Beryllium, Dissolved	8/11/23 09:10	8/11/23 11:30		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Dissolved	8/11/23 09:10	8/11/23 11:30		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Dissolved	8/11/23 09:10	8/11/23 11:30		1.015	0.000444	mg/L	0.000203	0.001015	J
* Cobalt, Dissolved	8/11/23 09:10	8/11/23 11:30		1.015	0.000616	mg/L	0.000068	0.000203	
* Lead, Dissolved	8/11/23 09:10	8/11/23 11:30		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Dissolved	8/11/23 09:10	8/11/23 11:30		1.015	0.764	mg/L	0.000152	0.001015	
* Potassium, Dissolved	8/11/23 09:10	8/11/23 11:30		1.015	2.41	mg/L	0.169505	0.5075	
* Selenium, Dissolved	8/11/23 09:10	8/11/23 11:30		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Dissolved	8/11/23 09:10	8/11/23 11:30		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 245.1		Analyst: ELH							
* Mercury, Total by CVAA	8/10/23 17:13	8/10/23 23:06		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: EPA 353.2		Analyst: SC							
* Nitrogen, Nitrate/Nitrite	8/10/23 15:46	8/10/23 15:46		1	Not Detected	mg/L as N	0.20	0.3	U
Analytical Method: SM 2320 B		Analyst: DHC							
* Alkalinity	8/15/23 09:20	8/15/23 14:17		1	292	mg CaCO3/L		0.1	
Analytical Method: SM 2540C		Analyst: CNJ							
* Solids, Dissolved	8/11/23 11:30	8/15/23 09:35		1	404	mg/L		25	
Analytical Method: SM 4500CO2 D		Analyst: DHC							
* Bicarbonate Alkalinity, (calc.)	8/15/23 09:20	8/15/23 14:17		1	292	mg CaCO3/L		1	
* Carbonate Alkalinity, (calc.)	8/15/23 09:20	8/15/23 14:17		1	Not Detected	mg CaCO3/L		0.5	
Analytical Method: SM 4500H+ B		Analyst: DHC							
Alkalinity pH Endpoint	8/15/23 09:20	8/15/23 14:17		1	4.54	SU		2	

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Barry Ash Pond - MW-10V

Location Code: WMWBARAP
Collected: 8/7/23 13:04
Customer ID:
Submittal Date: 8/10/23 09:47

Laboratory ID Number: BD15000

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM 5310 B		Analyst: SC							
* Total Organic Carbon	8/10/23 23:46	8/10/23 23:46		1	10.7	mg/L	1.00	2	
Analytical Method: SM4500Cl E		Analyst: JCC							
* Chloride	8/16/23 12:00	8/16/23 12:00		2	24.1	mg/L	1.00	2	
Analytical Method: SM4500F G 2017		Analyst: JCC							
* Fluoride	8/17/23 10:30	8/17/23 10:30		1	Not Detected	mg/L	0.06	0.125	U
Analytical Method: SM4500SO4 E 2011		Analyst: JCC							
* Sulfate	8/11/23 11:04	8/11/23 11:04		1	17.9	mg/L	0.6	2	
Analytical Method: Field Measurements		Analyst: DKG							
Conductivity	8/7/23 13:01	8/7/23 13:01			697.63	uS/cm			FA
pH	8/7/23 13:01	8/7/23 13:01			6.21	SU			FA
Temperature	8/7/23 13:01	8/7/23 13:01			23.67	C			FA
Turbidity	8/7/23 13:01	8/7/23 13:01			1.8	NTU			FA
Sulfide	8/7/23 13:01	8/7/23 13:01			0	mg/L			FA

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWBARAP

Sample Date: 8/7/23 13:04

Customer ID:

Delivery Date: 8/10/23 09:47

Description: Barry Ash Pond - MW-10V

Laboratory ID Number: BD15000

Sample	Analysis	Units	MB		Spike	MS	MSD	Standard		Rec		Prec	Limit
			MB	Limit				Standard	Limit	Rec	Limit		
BD15007	Aluminum, Dissolved	mg/L	-0.000366	0.0198	0.100	0.105	0.107	0.104	0.0850 to 0.115	105	70.0 to 130	1.89	20.0
BD15005	Aluminum, Total	mg/L	0.000500	0.0198	0.100	0.240	0.246	0.105	0.0850 to 0.115	125	70.0 to 130	2.47	20.0
BD15007	Antimony, Dissolved	mg/L	0.000717	0.00100	0.100	0.0938	0.0930	0.0901	0.0850 to 0.115	93.8	70.0 to 130	0.857	20.0
BD15005	Antimony, Total	mg/L	0.000324	0.00100	0.100	0.0967	0.0972	0.0902	0.0850 to 0.115	96.7	70.0 to 130	0.516	20.0
BD15007	Arsenic, Dissolved	mg/L	0.0000364	0.000200	0.100	0.123	0.125	0.0999	0.0850 to 0.115	100	70.0 to 130	1.61	20.0
BD15005	Arsenic, Total	mg/L	0.0000151	0.000200	0.100	0.112	0.113	0.0967	0.0850 to 0.115	98.6	70.0 to 130	0.889	20.0
BD15007	Barium, Dissolved	mg/L	-0.0000120	0.00100	0.100	0.173	0.175	0.0953	0.0850 to 0.115	93.7	70.0 to 130	1.15	20.0
BD15005	Barium, Total	mg/L	-0.0000137	0.00100	0.100	0.191	0.193	0.0978	0.0850 to 0.115	97.2	70.0 to 130	1.04	20.0
BD15007	Beryllium, Dissolved	mg/L	0.0000241	0.000880	0.100	0.0991	0.0953	0.0982	0.0850 to 0.115	99.1	70.0 to 130	3.91	20.0
BD15005	Beryllium, Total	mg/L	0.0000313	0.000880	0.100	0.0962	0.0905	0.0963	0.0850 to 0.115	96.2	70.0 to 130	6.11	20.0
BD15007	Boron, Dissolved	mg/L	-0.00158	0.0650	1.00	1.10	1.09	0.998	0.850 to 1.15	104	70.0 to 130	0.913	20.0
BD15005	Boron, Total	mg/L	0.000329	0.0650	1.00	1.07	1.07	1.00	0.850 to 1.15	100	70.0 to 130	0.00	20.0
BD15007	Cadmium, Dissolved	mg/L	0.0000122	0.000147	0.100	0.0948	0.0990	0.0966	0.0850 to 0.115	94.8	70.0 to 130	4.33	20.0
BD15005	Cadmium, Total	mg/L	0.0000069	0.000147	0.100	0.100	0.0982	0.0952	0.0850 to 0.115	100	70.0 to 130	1.82	20.0
BD15007	Calcium, Dissolved	mg/L	-0.00883	0.152	5.00	26.8	26.8	4.86	4.25 to 5.75	82.0	70.0 to 130	0.00	20.0
BD15005	Calcium, Total	mg/L	0.00398	0.152	5.00	29.4	30.3	4.68	4.25 to 5.75	78.0	70.0 to 130	3.02	20.0
BD15004	Chloride	mg/L	0.0383	1.00	10.0	25.5	25.6	9.74	9.00 to 11.0	86.0	80.0 to 120	0.391	20.0
BD15007	Chromium, Dissolved	mg/L	-0.0000772	0.000440	0.100	0.0978	0.0988	0.0988	0.0850 to 0.115	94.2	70.0 to 130	1.02	20.0
BD15005	Chromium, Total	mg/L	-0.000117	0.000440	0.100	0.0997	0.101	0.0987	0.0850 to 0.115	97.1	70.0 to 130	1.30	20.0
BD15007	Cobalt, Dissolved	mg/L	-0.0000063	0.000147	0.100	0.102	0.105	0.102	0.0850 to 0.115	98.2	70.0 to 130	2.90	20.0
BD15005	Cobalt, Total	mg/L	-0.0000058	0.000147	0.100	0.107	0.107	0.104	0.0850 to 0.115	102	70.0 to 130	0.00	20.0
BD15004	Fluoride	mg/L	0.0345	0.125	2.50	2.63	2.68	2.54	2.25 to 2.75	105	80.0 to 120	1.88	20.0
BD15007	Iron, Dissolved	mg/L	0.00047	0.0176	0.2	65.7	63.4	0.204	0.170 to 0.230	500	70.0 to 130	3.56	20.0
BD15005	Iron, Total	mg/L	0.00156	0.0176	0.2	60.5	51.6	0.198	0.170 to 0.230	1850	70.0 to 130	15.9	20.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWBARAP

Sample Date: 8/7/23 13:04

Customer ID:

Delivery Date: 8/10/23 09:47

Description: Barry Ash Pond - MW-10V

Laboratory ID Number: BD15000

Sample	Analysis	Units	MB	MB				Standard		Rec		Prec	Limit
				Limit	Spike	MS	MSD	Standard	Limit	Rec	Limit		
BD15007	Lead, Dissolved	mg/L	0.0000155	0.000147	0.100	0.102	0.101	0.107	0.0850 to 0.115	102	70.0 to 130	0.985	20.0
BD15005	Lead, Total	mg/L	0.0000200	0.000147	0.100	0.105	0.107	0.106	0.0850 to 0.115	105	70.0 to 130	1.89	20.0
BD15007	Lithium, Dissolved	mg/L	-0.000571	0.0154	0.200	0.210	0.208	0.206	0.170 to 0.230	105	70.0 to 130	0.957	20.0
BD15005	Lithium, Total	mg/L	-0.000313	0.0154	0.200	0.215	0.217	0.212	0.170 to 0.230	108	70.0 to 130	0.926	20.0
BD15007	Magnesium, Dissolved	mg/L	-0.00854	0.0462	5.00	22.8	22.6	5.06	4.25 to 5.75	94.0	70.0 to 130	0.881	20.0
BD15005	Magnesium, Total	mg/L	-0.0185	0.0462	5.00	22.3	22.8	5.09	4.25 to 5.75	92.0	70.0 to 130	2.22	20.0
BD15007	Manganese, Dissolved	mg/L	0.0000086	0.00033	0.100	0.776	0.747	0.101	0.0850 to 0.115	91.0	70.0 to 130	3.81	20.0
BD15005	Manganese, Total	mg/L	0.0000152	0.00033	0.100	0.565	0.566	0.102	0.0850 to 0.115	93.0	70.0 to 130	0.177	20.0
BD15004	Mercury, Total by CVAA	mg/L	-5.000E-05	0.000500	0.004	0.00392	0.00397	0.00401	0.00340 to 0.00460	98.0	70.0 to 130	1.27	20.0
BD15007	Molybdenum, Dissolved	mg/L	0.00221	0.0100	0.2	0.201	0.200	0.198	0.170 to 0.230	100	70.0 to 130	0.499	20.0
BD15005	Molybdenum, Total	mg/L	0.000	0.0100	0.2	0.195	0.196	0.199	0.170 to 0.230	97.5	70.0 to 130	0.512	20.0
BD15007	Potassium, Dissolved	mg/L	-0.00230	0.367	10.0	12.8	13.0	10.3	8.50 to 11.5	97.7	70.0 to 130	1.55	20.0
BD15005	Potassium, Total	mg/L	-0.0139	0.367	10.0	13.3	13.5	10.5	8.50 to 11.5	99.1	70.0 to 130	1.49	20.0
BD15007	Selenium, Dissolved	mg/L	0.0000708	0.00100	0.100	0.104	0.105	0.101	0.0850 to 0.115	104	70.0 to 130	0.957	20.0
BD15005	Selenium, Total	mg/L	-0.0000893	0.00100	0.100	0.103	0.102	0.100	0.0850 to 0.115	103	70.0 to 130	0.976	20.0
BD15007	Silicon, Dissolved	mg/L	-0.000657	0.0440	1.00	8.78	8.76	1.02	0.850 to 1.15	96.0	70.0 to 130	0.228	20.0
BD15005	Silicon, Total	mg/L	-0.000409	0.0440	1.00	8.91	8.91	1.02	0.850 to 1.15	106	70.0 to 130	0.00	20.0
BD15007	Sodium, Dissolved	mg/L	0.00579	0.0880	5.00	46.9	47.3	5.30	4.25 to 5.75	94.0	70.0 to 130	0.849	20.0
BD15005	Sodium, Total	mg/L	0.00111	0.0880	5.00	117	99.9	5.47	4.25 to 5.75	240	70.0 to 130	15.8	20.0
BD15004	Sulfate	mg/L	0.312	2.0	20.0	35.0	36.8	20.4	18.0 to 22.0	83.5	80.0 to 120	5.01	20.0
BD15007	Thallium, Dissolved	mg/L	-0.0000062	0.000147	0.100	0.104	0.104	0.103	0.0850 to 0.115	104	70.0 to 130	0.00	20.0
BD15005	Thallium, Total	mg/L	0.0000078	0.000147	0.100	0.102	0.109	0.105	0.0850 to 0.115	102	70.0 to 130	6.64	20.0
BD15004	Total Organic Carbon	mg/L	0.198	1.00	10.0	18.6	19.3	25.7		91.3	80.0 to 120	3.69	20.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWBARAP

Sample Date: 8/7/23 13:04

Customer ID:

Delivery Date: 8/10/23 09:47

Description: Barry Ash Pond - MW-10V

Laboratory ID Number: BD15000

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Limit	Prec	Limit
BD15014	Alkalinity	mg CaCO3/L					73.7	51.9	45.0 to 55.0			3.60	10.0
BD15004	Nitrogen, Nitrate/Nitrite	mg/L as N	-0.02	0.200	2.00	2.03	-0.022	2.17	1.80 to 2.20	102	90.0 to 110	0.00	15.0
BD15009	Solids, Dissolved	mg/L	1.00	25.0			396	50.0	40.0 to 60.0			0.760	10.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Barry Ash Pond - MW-9

Location Code: WMWBARAP
Collected: 8/7/23 14:00
Customer ID:
Submittal Date: 8/10/23 09:47

Laboratory ID Number: BD15001

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7			Analyst: ABB		Preparation Method: EPA 1638				
* Boron, Total	8/11/23 11:28	8/15/23 13:27		1.015	1.16	mg/L	0.030000	0.1015	
* Calcium, Total	8/11/23 11:28	8/15/23 13:27		1.015	25.2	mg/L	0.070035	0.406	
* Iron, Total	8/11/23 11:28	8/16/23 15:16		101.5	52.7	mg/L	0.8120	4.06	
* Lithium, Total	8/11/23 11:28	8/15/23 13:27		1.015	Not Detected	mg/L	0.007105	0.01999956	U
* Magnesium, Total	8/11/23 11:28	8/15/23 13:27		1.015	7.69	mg/L	0.021315	0.406	
* Molybdenum, Total	8/11/23 11:28	8/15/23 13:27		1.015	Not Detected	mg/L	0.005075	0.01015	U
* Silica, Total (calc.)	8/11/23 11:28	8/15/23 13:27		1	21.4	mg/L			
* Silicon, Total	8/11/23 11:28	8/15/23 13:27		1.015	10.0	mg/L	0.02030	0.25375	
* Sodium, Total	8/11/23 11:28	8/15/23 13:27		1.015	14.3	mg/L	0.04060	0.406	
Analytical Method: EPA 200.7			Analyst: ABB		Preparation Method: EPA 1638				
* Boron, Dissolved	8/11/23 09:10	8/11/23 12:42		1.015	1.20	mg/L	0.030000	0.1015	
* Calcium, Dissolved	8/11/23 09:10	8/11/23 12:42		1.015	27.2	mg/L	0.070035	0.406	
* Iron, Dissolved	8/11/23 09:10	8/15/23 11:18		101.5	52.0	mg/L	0.8120	4.06	
* Lithium, Dissolved	8/11/23 09:10	8/11/23 12:42		1.015	Not Detected	mg/L	0.007105	0.01999956	U
* Magnesium, Dissolved	8/11/23 09:10	8/11/23 12:42		1.015	7.77	mg/L	0.021315	0.406	
* Molybdenum, Dissolved	8/11/23 09:10	8/11/23 12:42		1.015	Not Detected	mg/L	0.005075	0.01015	U
* Silica, Dissolved (calc.)	8/11/23 09:10	8/11/23 12:42		1	22.0	mg/L			
* Silicon, Dissolved	8/11/23 09:10	8/11/23 12:42		1.015	10.3	mg/L	0.02030	0.25375	
* Sodium, Dissolved	8/11/23 09:10	8/11/23 12:42		1.015	14.0	mg/L	0.04060	0.406	
Analytical Method: EPA 200.8			Analyst: DLJ		Preparation Method: EPA 1638				
* Antimony, Total	8/11/23 11:28	8/11/23 15:07		1.015	Not Detected	mg/L	0.000710	0.001015	U
* Arsenic, Total	8/11/23 11:28	8/11/23 15:07		1.015	0.0315	mg/L	0.000112	0.000203	
* Aluminum, Total	8/11/23 11:28	8/11/23 15:07		1.015	Not Detected	mg/L	0.009135	0.05075	U
* Barium, Total	8/11/23 11:28	8/11/23 15:07		1.015	0.0829	mg/L	0.000508	0.001015	
* Beryllium, Total	8/11/23 11:28	8/11/23 15:07		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Total	8/11/23 11:28	8/11/23 15:07		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Total	8/11/23 11:28	8/11/23 15:07		1.015	0.000492	mg/L	0.000203	0.001015	J
* Cobalt, Total	8/11/23 11:28	8/11/23 15:07		1.015	0.000514	mg/L	0.000068	0.000203	
* Lead, Total	8/11/23 11:28	8/11/23 15:07		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Total	8/11/23 11:28	8/11/23 15:07		1.015	1.21	mg/L	0.000152	0.001015	

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Barry Ash Pond - MW-9

Location Code: WMWBARAP

Collected: 8/7/23 14:00

Customer ID:

Submittal Date: 8/10/23 09:47

Laboratory ID Number: BD15001

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
* Potassium, Total	8/11/23 11:28	8/11/23 15:07		1.015	0.841	mg/L	0.169505	0.5075	
* Selenium, Total	8/11/23 11:28	8/11/23 15:07		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Total	8/11/23 11:28	8/11/23 15:07		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 200.8		Analyst: DLJ							
* Antimony, Dissolved	8/11/23 09:10	8/11/23 11:34		1.015	Not Detected	mg/L	0.000710	0.001015	U
* Aluminum, Dissolved	8/11/23 09:10	8/11/23 11:34		1.015	Not Detected	mg/L	0.009135	0.05075	U
* Arsenic, Dissolved	8/11/23 09:10	8/11/23 11:34		1.015	0.0325	mg/L	0.000112	0.000203	
* Barium, Dissolved	8/11/23 09:10	8/11/23 11:34		1.015	0.0817	mg/L	0.000508	0.001015	
* Beryllium, Dissolved	8/11/23 09:10	8/11/23 11:34		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Dissolved	8/11/23 09:10	8/11/23 11:34		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Dissolved	8/11/23 09:10	8/11/23 11:34		1.015	0.000505	mg/L	0.000203	0.001015	J
* Cobalt, Dissolved	8/11/23 09:10	8/11/23 11:34		1.015	0.000474	mg/L	0.000068	0.000203	
* Lead, Dissolved	8/11/23 09:10	8/11/23 11:34		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Dissolved	8/11/23 09:10	8/11/23 11:34		1.015	1.26	mg/L	0.000152	0.001015	
* Potassium, Dissolved	8/11/23 09:10	8/11/23 11:34		1.015	0.863	mg/L	0.169505	0.5075	
* Selenium, Dissolved	8/11/23 09:10	8/11/23 11:34		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Dissolved	8/11/23 09:10	8/11/23 11:34		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 245.1		Analyst: ELH							
* Mercury, Total by CVAA	8/10/23 17:13	8/10/23 23:10		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: EPA 353.2		Analyst: SC							
* Nitrogen, Nitrate/Nitrite	8/10/23 15:47	8/10/23 15:47		1	Not Detected	mg/L as N	0.20	0.3	U
Analytical Method: SM 2320 B		Analyst: DHC							
* Alkalinity	8/15/23 09:20	8/15/23 14:17		1	138	mg CaCO3/L		0.1	
Analytical Method: SM 2540C		Analyst: CNJ							
* Solids, Dissolved	8/11/23 11:30	8/15/23 09:35		1	224	mg/L		25	
Analytical Method: SM 4500CO2 D		Analyst: DHC							
* Bicarbonate Alkalinity, (calc.)	8/15/23 09:20	8/15/23 14:17		1	138	mg CaCO3/L		1	
* Carbonate Alkalinity, (calc.)	8/15/23 09:20	8/15/23 14:17		1	Not Detected	mg CaCO3/L		0.5	
Analytical Method: SM 4500H+ B		Analyst: DHC							
Alkalinity pH Endpoint	8/15/23 09:20	8/15/23 14:17		1	4.43	SU		2	

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Barry Ash Pond - MW-9

Location Code: WMWBARAP
Collected: 8/7/23 14:00
Customer ID:
Submittal Date: 8/10/23 09:47

Laboratory ID Number: BD15001

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM 5310 B		Analyst: SC							
* Total Organic Carbon	8/11/23 00:04	8/11/23 00:04		1	5.22	mg/L	1.00	2	
Analytical Method: SM4500Cl E		Analyst: JCC							
* Chloride	8/16/23 11:50	8/16/23 11:50		1	15.7	mg/L	0.50	1	
Analytical Method: SM4500F G 2017		Analyst: JCC							
* Fluoride	8/17/23 10:31	8/17/23 10:31		1	0.0808	mg/L	0.06	0.125	J
Analytical Method: SM4500SO4 E 2011		Analyst: JCC							
* Sulfate	8/11/23 11:05	8/11/23 11:05		1	30.4	mg/L	0.6	2	
Analytical Method: Field Measurements		Analyst: DKG							
Conductivity	8/7/23 13:56	8/7/23 13:56			360.30	uS/cm			FA
pH	8/7/23 13:56	8/7/23 13:56			6.13	SU			FA
Temperature	8/7/23 13:56	8/7/23 13:56			23.25	C			FA
Turbidity	8/7/23 13:56	8/7/23 13:56			1.95	NTU			FA
Sulfide	8/7/23 13:56	8/7/23 13:56			0	mg/L			FA

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWBARAP

Sample Date: 8/7/23 14:00

Customer ID:

Delivery Date: 8/10/23 09:47

Description: Barry Ash Pond - MW-9

Laboratory ID Number: BD15001

Sample	Analysis	Units	MB		Spike	MS	MSD	Standard		Rec		Prec	Limit
			MB	Limit				Standard	Limit	Rec	Limit		
BD15007	Aluminum, Dissolved	mg/L	-0.000366	0.0198	0.100	0.105	0.107	0.104	0.0850 to 0.115	105	70.0 to 130	1.89	20.0
BD15005	Aluminum, Total	mg/L	0.000500	0.0198	0.100	0.240	0.246	0.105	0.0850 to 0.115	125	70.0 to 130	2.47	20.0
BD15007	Antimony, Dissolved	mg/L	0.000717	0.00100	0.100	0.0938	0.0930	0.0901	0.0850 to 0.115	93.8	70.0 to 130	0.857	20.0
BD15005	Antimony, Total	mg/L	0.000324	0.00100	0.100	0.0967	0.0972	0.0902	0.0850 to 0.115	96.7	70.0 to 130	0.516	20.0
BD15007	Arsenic, Dissolved	mg/L	0.0000364	0.000200	0.100	0.123	0.125	0.0999	0.0850 to 0.115	100	70.0 to 130	1.61	20.0
BD15005	Arsenic, Total	mg/L	0.0000151	0.000200	0.100	0.112	0.113	0.0967	0.0850 to 0.115	98.6	70.0 to 130	0.889	20.0
BD15007	Barium, Dissolved	mg/L	-0.0000120	0.00100	0.100	0.173	0.175	0.0953	0.0850 to 0.115	93.7	70.0 to 130	1.15	20.0
BD15005	Barium, Total	mg/L	-0.0000137	0.00100	0.100	0.191	0.193	0.0978	0.0850 to 0.115	97.2	70.0 to 130	1.04	20.0
BD15007	Beryllium, Dissolved	mg/L	0.0000241	0.000880	0.100	0.0991	0.0953	0.0982	0.0850 to 0.115	99.1	70.0 to 130	3.91	20.0
BD15005	Beryllium, Total	mg/L	0.0000313	0.000880	0.100	0.0962	0.0905	0.0963	0.0850 to 0.115	96.2	70.0 to 130	6.11	20.0
BD15007	Boron, Dissolved	mg/L	-0.00158	0.0650	1.00	1.10	1.09	0.998	0.850 to 1.15	104	70.0 to 130	0.913	20.0
BD15005	Boron, Total	mg/L	0.000329	0.0650	1.00	1.07	1.07	1.00	0.850 to 1.15	100	70.0 to 130	0.00	20.0
BD15007	Cadmium, Dissolved	mg/L	0.0000122	0.000147	0.100	0.0948	0.0990	0.0966	0.0850 to 0.115	94.8	70.0 to 130	4.33	20.0
BD15005	Cadmium, Total	mg/L	0.0000069	0.000147	0.100	0.100	0.0982	0.0952	0.0850 to 0.115	100	70.0 to 130	1.82	20.0
BD15007	Calcium, Dissolved	mg/L	-0.00883	0.152	5.00	26.8	26.8	4.86	4.25 to 5.75	82.0	70.0 to 130	0.00	20.0
BD15005	Calcium, Total	mg/L	0.00398	0.152	5.00	29.4	30.3	4.68	4.25 to 5.75	78.0	70.0 to 130	3.02	20.0
BD15004	Chloride	mg/L	0.0383	1.00	10.0	25.5	25.6	9.74	9.00 to 11.0	86.0	80.0 to 120	0.391	20.0
BD15007	Chromium, Dissolved	mg/L	-0.0000772	0.000440	0.100	0.0978	0.0988	0.0988	0.0850 to 0.115	94.2	70.0 to 130	1.02	20.0
BD15005	Chromium, Total	mg/L	-0.000117	0.000440	0.100	0.0997	0.101	0.0987	0.0850 to 0.115	97.1	70.0 to 130	1.30	20.0
BD15007	Cobalt, Dissolved	mg/L	-0.0000063	0.000147	0.100	0.102	0.105	0.102	0.0850 to 0.115	98.2	70.0 to 130	2.90	20.0
BD15005	Cobalt, Total	mg/L	-0.0000058	0.000147	0.100	0.107	0.107	0.104	0.0850 to 0.115	102	70.0 to 130	0.00	20.0
BD15004	Fluoride	mg/L	0.0345	0.125	2.50	2.63	2.68	2.54	2.25 to 2.75	105	80.0 to 120	1.88	20.0
BD15007	Iron, Dissolved	mg/L	0.00047	0.0176	0.2	65.7	63.4	0.204	0.170 to 0.230	500	70.0 to 130	3.56	20.0
BD15005	Iron, Total	mg/L	0.00156	0.0176	0.2	60.5	51.6	0.198	0.170 to 0.230	1850	70.0 to 130	15.9	20.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWBARAP

Sample Date: 8/7/23 14:00

Customer ID:

Delivery Date: 8/10/23 09:47

Description: Barry Ash Pond - MW-9

Laboratory ID Number: BD15001

Sample	Analysis	Units	MB					Standard		Rec		Prec	Limit
			MB	Limit	Spike	MS	MSD	Standard	Limit	Rec	Limit		
BD15007	Lead, Dissolved	mg/L	0.0000155	0.000147	0.100	0.102	0.101	0.107	0.0850 to 0.115	102	70.0 to 130	0.985	20.0
BD15005	Lead, Total	mg/L	0.0000200	0.000147	0.100	0.105	0.107	0.106	0.0850 to 0.115	105	70.0 to 130	1.89	20.0
BD15007	Lithium, Dissolved	mg/L	-0.000571	0.0154	0.200	0.210	0.208	0.206	0.170 to 0.230	105	70.0 to 130	0.957	20.0
BD15005	Lithium, Total	mg/L	-0.000313	0.0154	0.200	0.215	0.217	0.212	0.170 to 0.230	108	70.0 to 130	0.926	20.0
BD15007	Magnesium, Dissolved	mg/L	-0.00854	0.0462	5.00	22.8	22.6	5.06	4.25 to 5.75	94.0	70.0 to 130	0.881	20.0
BD15005	Magnesium, Total	mg/L	-0.0185	0.0462	5.00	22.3	22.8	5.09	4.25 to 5.75	92.0	70.0 to 130	2.22	20.0
BD15007	Manganese, Dissolved	mg/L	0.0000086	0.00033	0.100	0.776	0.747	0.101	0.0850 to 0.115	91.0	70.0 to 130	3.81	20.0
BD15005	Manganese, Total	mg/L	0.0000152	0.00033	0.100	0.565	0.566	0.102	0.0850 to 0.115	93.0	70.0 to 130	0.177	20.0
BD15004	Mercury, Total by CVAA	mg/L	-5.000E-05	0.000500	0.004	0.00392	0.00397	0.00401	0.00340 to 0.00460	98.0	70.0 to 130	1.27	20.0
BD15007	Molybdenum, Dissolved	mg/L	0.00221	0.0100	0.2	0.201	0.200	0.198	0.170 to 0.230	100	70.0 to 130	0.499	20.0
BD15005	Molybdenum, Total	mg/L	0.000	0.0100	0.2	0.195	0.196	0.199	0.170 to 0.230	97.5	70.0 to 130	0.512	20.0
BD15007	Potassium, Dissolved	mg/L	-0.00230	0.367	10.0	12.8	13.0	10.3	8.50 to 11.5	97.7	70.0 to 130	1.55	20.0
BD15005	Potassium, Total	mg/L	-0.0139	0.367	10.0	13.3	13.5	10.5	8.50 to 11.5	99.1	70.0 to 130	1.49	20.0
BD15007	Selenium, Dissolved	mg/L	0.0000708	0.00100	0.100	0.104	0.105	0.101	0.0850 to 0.115	104	70.0 to 130	0.957	20.0
BD15005	Selenium, Total	mg/L	-0.0000893	0.00100	0.100	0.103	0.102	0.100	0.0850 to 0.115	103	70.0 to 130	0.976	20.0
BD15007	Silicon, Dissolved	mg/L	-0.000657	0.0440	1.00	8.78	8.76	1.02	0.850 to 1.15	96.0	70.0 to 130	0.228	20.0
BD15005	Silicon, Total	mg/L	-0.000409	0.0440	1.00	8.91	8.91	1.02	0.850 to 1.15	106	70.0 to 130	0.00	20.0
BD15007	Sodium, Dissolved	mg/L	0.00579	0.0880	5.00	46.9	47.3	5.30	4.25 to 5.75	94.0	70.0 to 130	0.849	20.0
BD15005	Sodium, Total	mg/L	0.00111	0.0880	5.00	117	99.9	5.47	4.25 to 5.75	240	70.0 to 130	15.8	20.0
BD15004	Sulfate	mg/L	0.312	2.0	20.0	35.0	36.8	20.4	18.0 to 22.0	83.5	80.0 to 120	5.01	20.0
BD15007	Thallium, Dissolved	mg/L	-0.0000062	0.000147	0.100	0.104	0.104	0.103	0.0850 to 0.115	104	70.0 to 130	0.00	20.0
BD15005	Thallium, Total	mg/L	0.0000078	0.000147	0.100	0.102	0.109	0.105	0.0850 to 0.115	102	70.0 to 130	6.64	20.0
BD15004	Total Organic Carbon	mg/L	0.198	1.00	10.0	18.6	19.3	25.7		91.3	80.0 to 120	3.69	20.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWBARAP

Sample Date: 8/7/23 14:00

Customer ID:

Delivery Date: 8/10/23 09:47

Description: Barry Ash Pond - MW-9

Laboratory ID Number: BD15001

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard Standard	Standard Limit	Rec Rec	Rec Limit	Prec Prec	Prec Limit
BD15014	Alkalinity	mg CaCO3/L					73.7	51.9	45.0 to 55.0			3.60	10.0
BD15004	Nitrogen, Nitrate/Nitrite	mg/L as N	-0.02	0.200	2.00	2.03	-0.022	2.17	1.80 to 2.20	102	90.0 to 110	0.00	15.0
BD15009	Solids, Dissolved	mg/L	1.00	25.0			396	50.0	40.0 to 60.0			0.760	10.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Barry Ash Pond - MW-16V

Location Code: WMWBARAP
Collected: 8/7/23 15:20
Customer ID:
Submittal Date: 8/10/23 09:47

Laboratory ID Number: BD15002

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7			Analyst: ABB		Preparation Method: EPA 1638				
* Boron, Total	8/11/23 11:28	8/15/23 13:31		1.015	Not Detected	mg/L	0.030000	0.1015	U
* Calcium, Total	8/11/23 11:28	8/15/23 13:31		1.015	1.86	mg/L	0.070035	0.406	
* Iron, Total	8/11/23 11:28	8/15/23 13:31		1.015	3.97	mg/L	0.008120	0.0406	
* Lithium, Total	8/11/23 11:28	8/15/23 13:31		1.015	Not Detected	mg/L	0.007105	0.01999956	U
* Magnesium, Total	8/11/23 11:28	8/15/23 13:31		1.015	1.86	mg/L	0.021315	0.406	
* Molybdenum, Total	8/11/23 11:28	8/15/23 13:31		1.015	Not Detected	mg/L	0.005075	0.01015	U
* Silica, Total (calc.)	8/11/23 11:28	8/15/23 13:31		1	13.2	mg/L			
* Silicon, Total	8/11/23 11:28	8/15/23 13:31		1.015	6.16	mg/L	0.02030	0.25375	
* Sodium, Total	8/11/23 11:28	8/16/23 14:21		10.15	54.8	mg/L	0.4060	4.06	
Analytical Method: EPA 200.7			Analyst: ABB						
* Boron, Dissolved	8/11/23 09:10	8/11/23 12:46		1.015	Not Detected	mg/L	0.030000	0.1015	U
* Calcium, Dissolved	8/11/23 09:10	8/11/23 12:46		1.015	1.96	mg/L	0.070035	0.406	
* Iron, Dissolved	8/11/23 09:10	8/14/23 14:14		10.15	4.38	mg/L	0.08120	0.406	
* Lithium, Dissolved	8/11/23 09:10	8/11/23 12:46		1.015	Not Detected	mg/L	0.007105	0.01999956	U
* Magnesium, Dissolved	8/11/23 09:10	8/11/23 12:46		1.015	1.86	mg/L	0.021315	0.406	
* Molybdenum, Dissolved	8/11/23 09:10	8/11/23 12:46		1.015	Not Detected	mg/L	0.005075	0.01015	U
* Silica, Dissolved (calc.)	8/11/23 09:10	8/11/23 12:46		1	13.4	mg/L			
* Silicon, Dissolved	8/11/23 09:10	8/11/23 12:46		1.015	6.27	mg/L	0.02030	0.25375	
* Sodium, Dissolved	8/11/23 09:10	8/14/23 14:14		10.15	54.9	mg/L	0.4060	4.06	
Analytical Method: EPA 200.8			Analyst: DLJ		Preparation Method: EPA 1638				
* Antimony, Total	8/11/23 11:28	8/11/23 15:11		1.015	Not Detected	mg/L	0.000710	0.001015	U
* Aluminum, Total	8/11/23 11:28	8/11/23 15:11		1.015	0.245	mg/L	0.009135	0.05075	
* Arsenic, Total	8/11/23 11:28	8/11/23 15:11		1.015	0.000884	mg/L	0.000112	0.000203	
* Barium, Total	8/11/23 11:28	8/11/23 15:11		1.015	0.0564	mg/L	0.000508	0.001015	
* Beryllium, Total	8/11/23 11:28	8/11/23 15:11		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Total	8/11/23 11:28	8/11/23 15:11		1.015	0.0000917	mg/L	0.000068	0.000203	J
* Chromium, Total	8/11/23 11:28	8/11/23 15:11		1.015	0.000891	mg/L	0.000203	0.001015	J
* Cobalt, Total	8/11/23 11:28	8/11/23 15:11		1.015	0.0149	mg/L	0.000068	0.000203	
* Lead, Total	8/11/23 11:28	8/11/23 15:11		1.015	0.000174	mg/L	0.000068	0.000203	J
* Manganese, Total	8/11/23 11:28	8/11/23 15:11		1.015	0.159	mg/L	0.000152	0.001015	

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Barry Ash Pond - MW-16V

Location Code: WMWBARAP

Collected: 8/7/23 15:20

Customer ID:

Submittal Date: 8/10/23 09:47

Laboratory ID Number: BD15002

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
* Potassium, Total	8/11/23 11:28	8/11/23 15:11		1.015	1.74	mg/L	0.169505	0.5075	
* Selenium, Total	8/11/23 11:28	8/11/23 15:11		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Total	8/11/23 11:28	8/11/23 15:11		1.015	0.0000758	mg/L	0.000068	0.000203	J
Analytical Method: EPA 200.8		Analyst: DLJ							
* Antimony, Dissolved	8/11/23 09:10	8/11/23 11:37		1.015	Not Detected	mg/L	0.000710	0.001015	U
* Aluminum, Dissolved	8/11/23 09:10	8/11/23 11:37		1.015	Not Detected	mg/L	0.009135	0.05075	U
* Arsenic, Dissolved	8/11/23 09:10	8/11/23 11:37		1.015	0.000953	mg/L	0.000112	0.000203	
* Barium, Dissolved	8/11/23 09:10	8/11/23 11:37		1.015	0.0555	mg/L	0.000508	0.001015	
* Beryllium, Dissolved	8/11/23 09:10	8/11/23 11:37		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Dissolved	8/11/23 09:10	8/11/23 11:37		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Dissolved	8/11/23 09:10	8/11/23 11:37		1.015	Not Detected	mg/L	0.000203	0.001015	U
* Cobalt, Dissolved	8/11/23 09:10	8/11/23 11:37		1.015	0.0150	mg/L	0.000068	0.000203	
* Lead, Dissolved	8/11/23 09:10	8/11/23 11:37		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Dissolved	8/11/23 09:10	8/11/23 11:37		1.015	0.159	mg/L	0.000152	0.001015	
* Potassium, Dissolved	8/11/23 09:10	8/11/23 11:37		1.015	1.80	mg/L	0.169505	0.5075	
* Selenium, Dissolved	8/11/23 09:10	8/11/23 11:37		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Dissolved	8/11/23 09:10	8/11/23 11:37		1.015	0.0000759	mg/L	0.000068	0.000203	J
Analytical Method: EPA 245.1		Analyst: ELH							
* Mercury, Total by CVAA	8/10/23 17:13	8/10/23 23:14		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: EPA 353.2		Analyst: SC							
* Nitrogen, Nitrate/Nitrite	8/10/23 15:48	8/10/23 15:48		1	Not Detected	mg/L as N	0.20	0.3	U
Analytical Method: SM 2320 B		Analyst: DHC							
* Alkalinity	8/15/23 09:20	8/15/23 14:17		1	24.1	mg CaCO3/L		0.1	
Analytical Method: SM 2540C		Analyst: CNJ							
* Solids, Dissolved	8/11/23 11:30	8/15/23 09:35		1	169	mg/L		25	
Analytical Method: SM 4500CO2 D		Analyst: DHC							
* Bicarbonate Alkalinity, (calc.)	8/15/23 09:20	8/15/23 14:17		1	24.1	mg CaCO3/L		1	
* Carbonate Alkalinity, (calc.)	8/15/23 09:20	8/15/23 14:17		1	Not Detected	mg CaCO3/L		0.5	
Analytical Method: SM 4500H+ B		Analyst: DHC							
Alkalinity pH Endpoint	8/15/23 09:20	8/15/23 14:17		1	4.50	SU		2	

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Barry Ash Pond - MW-16V

Location Code: WMWBARAP
Collected: 8/7/23 15:20
Customer ID:
Submittal Date: 8/10/23 09:47

Laboratory ID Number: BD15002

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM 5310 B		Analyst: SC							
* Total Organic Carbon	8/11/23 00:19	8/11/23 00:19	1		Not Detected	mg/L	1.00	2	U
Analytical Method: SM4500Cl E		Analyst: JCC							
* Chloride	8/16/23 12:02	8/16/23 12:02	5		53.6	mg/L	2.50	5	
Analytical Method: SM4500F G 2017		Analyst: JCC							
* Fluoride	8/17/23 10:33	8/17/23 10:33	1		Not Detected	mg/L	0.06	0.125	U
Analytical Method: SM4500SO4 E 2011		Analyst: JCC							
* Sulfate	8/11/23 11:07	8/11/23 11:07	1		30.5	mg/L	0.6	2	
Analytical Method: Field Measurements		Analyst: DKG							
Conductivity	8/7/23 15:17	8/7/23 15:17			278.50	uS/cm			FA
pH	8/7/23 15:17	8/7/23 15:17			5.25	SU			FA
Temperature	8/7/23 15:17	8/7/23 15:17			23.48	C			FA
Turbidity	8/7/23 15:17	8/7/23 15:17			7.71	NTU			FA
Sulfide	8/7/23 15:17	8/7/23 15:17			0	mg/L			FA

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWBARAP

Sample Date: 8/7/23 15:20

Customer ID:

Delivery Date: 8/10/23 09:47

Description: Barry Ash Pond - MW-16V

Laboratory ID Number: BD15002

Sample	Analysis	Units	MB		Spike	MS	MSD	Standard		Rec		Prec	Limit
			MB	Limit				Standard	Limit	Rec	Limit		
BD15007	Aluminum, Dissolved	mg/L	-0.000366	0.0198	0.100	0.105	0.107	0.104	0.0850 to 0.115	105	70.0 to 130	1.89	20.0
BD15005	Aluminum, Total	mg/L	0.000500	0.0198	0.100	0.240	0.246	0.105	0.0850 to 0.115	125	70.0 to 130	2.47	20.0
BD15007	Antimony, Dissolved	mg/L	0.000717	0.00100	0.100	0.0938	0.0930	0.0901	0.0850 to 0.115	93.8	70.0 to 130	0.857	20.0
BD15005	Antimony, Total	mg/L	0.000324	0.00100	0.100	0.0967	0.0972	0.0902	0.0850 to 0.115	96.7	70.0 to 130	0.516	20.0
BD15007	Arsenic, Dissolved	mg/L	0.0000364	0.000200	0.100	0.123	0.125	0.0999	0.0850 to 0.115	100	70.0 to 130	1.61	20.0
BD15005	Arsenic, Total	mg/L	0.0000151	0.000200	0.100	0.112	0.113	0.0967	0.0850 to 0.115	98.6	70.0 to 130	0.889	20.0
BD15007	Barium, Dissolved	mg/L	-0.0000120	0.00100	0.100	0.173	0.175	0.0953	0.0850 to 0.115	93.7	70.0 to 130	1.15	20.0
BD15005	Barium, Total	mg/L	-0.0000137	0.00100	0.100	0.191	0.193	0.0978	0.0850 to 0.115	97.2	70.0 to 130	1.04	20.0
BD15007	Beryllium, Dissolved	mg/L	0.0000241	0.000880	0.100	0.0991	0.0953	0.0982	0.0850 to 0.115	99.1	70.0 to 130	3.91	20.0
BD15005	Beryllium, Total	mg/L	0.0000313	0.000880	0.100	0.0962	0.0905	0.0963	0.0850 to 0.115	96.2	70.0 to 130	6.11	20.0
BD15007	Boron, Dissolved	mg/L	-0.00158	0.0650	1.00	1.10	1.09	0.998	0.850 to 1.15	104	70.0 to 130	0.913	20.0
BD15005	Boron, Total	mg/L	0.000329	0.0650	1.00	1.07	1.07	1.00	0.850 to 1.15	100	70.0 to 130	0.00	20.0
BD15007	Cadmium, Dissolved	mg/L	0.0000122	0.000147	0.100	0.0948	0.0990	0.0966	0.0850 to 0.115	94.8	70.0 to 130	4.33	20.0
BD15005	Cadmium, Total	mg/L	0.0000069	0.000147	0.100	0.100	0.0982	0.0952	0.0850 to 0.115	100	70.0 to 130	1.82	20.0
BD15007	Calcium, Dissolved	mg/L	-0.00883	0.152	5.00	26.8	26.8	4.86	4.25 to 5.75	82.0	70.0 to 130	0.00	20.0
BD15005	Calcium, Total	mg/L	0.00398	0.152	5.00	29.4	30.3	4.68	4.25 to 5.75	78.0	70.0 to 130	3.02	20.0
BD15004	Chloride	mg/L	0.0383	1.00	10.0	25.5	25.6	9.74	9.00 to 11.0	86.0	80.0 to 120	0.391	20.0
BD15007	Chromium, Dissolved	mg/L	-0.0000772	0.000440	0.100	0.0978	0.0988	0.0988	0.0850 to 0.115	94.2	70.0 to 130	1.02	20.0
BD15005	Chromium, Total	mg/L	-0.000117	0.000440	0.100	0.0997	0.101	0.0987	0.0850 to 0.115	97.1	70.0 to 130	1.30	20.0
BD15007	Cobalt, Dissolved	mg/L	-0.0000063	0.000147	0.100	0.102	0.105	0.102	0.0850 to 0.115	98.2	70.0 to 130	2.90	20.0
BD15005	Cobalt, Total	mg/L	-0.0000058	0.000147	0.100	0.107	0.107	0.104	0.0850 to 0.115	102	70.0 to 130	0.00	20.0
BD15004	Fluoride	mg/L	0.0345	0.125	2.50	2.63	2.68	2.54	2.25 to 2.75	105	80.0 to 120	1.88	20.0
BD15007	Iron, Dissolved	mg/L	0.00047	0.0176	0.2	65.7	63.4	0.204	0.170 to 0.230	500	70.0 to 130	3.56	20.0
BD15005	Iron, Total	mg/L	0.00156	0.0176	0.2	60.5	51.6	0.198	0.170 to 0.230	1850	70.0 to 130	15.9	20.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWBARAP

Sample Date: 8/7/23 15:20

Customer ID:

Delivery Date: 8/10/23 09:47

Description: Barry Ash Pond - MW-16V

Laboratory ID Number: BD15002

Sample	Analysis	Units	MB					Standard		Rec		Prec	Limit
			MB	Limit	Spike	MS	MSD	Standard	Limit	Rec	Limit		
BD15007	Lead, Dissolved	mg/L	0.0000155	0.000147	0.100	0.102	0.101	0.107	0.0850 to 0.115	102	70.0 to 130	0.985	20.0
BD15005	Lead, Total	mg/L	0.0000200	0.000147	0.100	0.105	0.107	0.106	0.0850 to 0.115	105	70.0 to 130	1.89	20.0
BD15007	Lithium, Dissolved	mg/L	-0.000571	0.0154	0.200	0.210	0.208	0.206	0.170 to 0.230	105	70.0 to 130	0.957	20.0
BD15005	Lithium, Total	mg/L	-0.000313	0.0154	0.200	0.215	0.217	0.212	0.170 to 0.230	108	70.0 to 130	0.926	20.0
BD15007	Magnesium, Dissolved	mg/L	-0.00854	0.0462	5.00	22.8	22.6	5.06	4.25 to 5.75	94.0	70.0 to 130	0.881	20.0
BD15005	Magnesium, Total	mg/L	-0.0185	0.0462	5.00	22.3	22.8	5.09	4.25 to 5.75	92.0	70.0 to 130	2.22	20.0
BD15007	Manganese, Dissolved	mg/L	0.0000086	0.00033	0.100	0.776	0.747	0.101	0.0850 to 0.115	91.0	70.0 to 130	3.81	20.0
BD15005	Manganese, Total	mg/L	0.0000152	0.00033	0.100	0.565	0.566	0.102	0.0850 to 0.115	93.0	70.0 to 130	0.177	20.0
BD15004	Mercury, Total by CVAA	mg/L	-5.000E-05	0.000500	0.004	0.00392	0.00397	0.00401	0.00340 to 0.00460	98.0	70.0 to 130	1.27	20.0
BD15007	Molybdenum, Dissolved	mg/L	0.00221	0.0100	0.2	0.201	0.200	0.198	0.170 to 0.230	100	70.0 to 130	0.499	20.0
BD15005	Molybdenum, Total	mg/L	0.000	0.0100	0.2	0.195	0.196	0.199	0.170 to 0.230	97.5	70.0 to 130	0.512	20.0
BD15007	Potassium, Dissolved	mg/L	-0.00230	0.367	10.0	12.8	13.0	10.3	8.50 to 11.5	97.7	70.0 to 130	1.55	20.0
BD15005	Potassium, Total	mg/L	-0.0139	0.367	10.0	13.3	13.5	10.5	8.50 to 11.5	99.1	70.0 to 130	1.49	20.0
BD15007	Selenium, Dissolved	mg/L	0.0000708	0.00100	0.100	0.104	0.105	0.101	0.0850 to 0.115	104	70.0 to 130	0.957	20.0
BD15005	Selenium, Total	mg/L	-0.0000893	0.00100	0.100	0.103	0.102	0.100	0.0850 to 0.115	103	70.0 to 130	0.976	20.0
BD15007	Silicon, Dissolved	mg/L	-0.000657	0.0440	1.00	8.78	8.76	1.02	0.850 to 1.15	96.0	70.0 to 130	0.228	20.0
BD15005	Silicon, Total	mg/L	-0.000409	0.0440	1.00	8.91	8.91	1.02	0.850 to 1.15	106	70.0 to 130	0.00	20.0
BD15007	Sodium, Dissolved	mg/L	0.00579	0.0880	5.00	46.9	47.3	5.30	4.25 to 5.75	94.0	70.0 to 130	0.849	20.0
BD15005	Sodium, Total	mg/L	0.00111	0.0880	5.00	117	99.9	5.47	4.25 to 5.75	240	70.0 to 130	15.8	20.0
BD15004	Sulfate	mg/L	0.312	2.0	20.0	35.0	36.8	20.4	18.0 to 22.0	83.5	80.0 to 120	5.01	20.0
BD15007	Thallium, Dissolved	mg/L	-0.0000062	0.000147	0.100	0.104	0.104	0.103	0.0850 to 0.115	104	70.0 to 130	0.00	20.0
BD15005	Thallium, Total	mg/L	0.0000078	0.000147	0.100	0.102	0.109	0.105	0.0850 to 0.115	102	70.0 to 130	6.64	20.0
BD15004	Total Organic Carbon	mg/L	0.198	1.00	10.0	18.6	19.3	25.7		91.3	80.0 to 120	3.69	20.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWBARAP

Sample Date: 8/7/23 15:20

Customer ID:

Delivery Date: 8/10/23 09:47

Description: Barry Ash Pond - MW-16V

Laboratory ID Number: BD15002

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard Standard	Standard Limit	Rec Rec	Rec Limit	Prec	Prec Limit
BD15014	Alkalinity	mg CaCO3/L					73.7	51.9	45.0 to 55.0			3.60	10.0
BD15004	Nitrogen, Nitrate/Nitrite	mg/L as N	-0.02	0.200	2.00	2.03	-0.022	2.17	1.80 to 2.20	102	90.0 to 110	0.00	15.0
BD15009	Solids, Dissolved	mg/L	1.00	25.0			396	50.0	40.0 to 60.0			0.760	10.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Barry Ash Pond - MW-18H

Location Code: WMWBARAP
Collected: 8/8/23 07:51
Customer ID:
Submittal Date: 8/10/23 09:47

Laboratory ID Number: BD15003

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7		Analyst: ABB			Preparation Method: EPA 1638				
* Boron, Total	8/11/23 11:28	8/15/23 13:34		1.015	0.0442	mg/L	0.030000	0.1015	J
* Calcium, Total	8/11/23 11:28	8/15/23 13:34		1.015	4.75	mg/L	0.070035	0.406	
* Iron, Total	8/11/23 11:28	8/17/23 12:01		10.15	17.9	mg/L	0.08120	0.406	
* Lithium, Total	8/11/23 11:28	8/15/23 13:34		1.015	Not Detected	mg/L	0.007105	0.01999956	U
* Magnesium, Total	8/11/23 11:28	8/15/23 13:34		1.015	1.77	mg/L	0.021315	0.406	
* Molybdenum, Total	8/11/23 11:28	8/15/23 13:34		1.015	Not Detected	mg/L	0.005075	0.01015	U
* Silica, Total (calc.)	8/11/23 11:28	8/15/23 13:34		1	9.35	mg/L			
* Silicon, Total	8/11/23 11:28	8/15/23 13:34		1.015	4.37	mg/L	0.02030	0.25375	
* Sodium, Total	8/11/23 11:28	8/15/23 13:34		1.015	7.39	mg/L	0.04060	0.406	
Analytical Method: EPA 200.7		Analyst: ABB			Preparation Method: EPA 1638				
* Boron, Dissolved	8/11/23 09:10	8/11/23 12:49		1.015	0.0425	mg/L	0.030000	0.1015	J
* Calcium, Dissolved	8/11/23 09:10	8/11/23 12:49		1.015	5.31	mg/L	0.070035	0.406	
* Iron, Dissolved	8/11/23 09:10	8/14/23 14:17		10.15	16.4	mg/L	0.08120	0.406	
* Lithium, Dissolved	8/11/23 09:10	8/11/23 12:49		1.015	Not Detected	mg/L	0.007105	0.01999956	U
* Magnesium, Dissolved	8/11/23 09:10	8/11/23 12:49		1.015	1.78	mg/L	0.021315	0.406	
* Molybdenum, Dissolved	8/11/23 09:10	8/11/23 12:49		1.015	Not Detected	mg/L	0.005075	0.01015	U
* Silica, Dissolved (calc.)	8/11/23 09:10	8/11/23 12:49		1	9.50	mg/L			
* Silicon, Dissolved	8/11/23 09:10	8/11/23 12:49		1.015	4.44	mg/L	0.02030	0.25375	
* Sodium, Dissolved	8/11/23 09:10	8/11/23 12:49		1.015	7.01	mg/L	0.04060	0.406	
Analytical Method: EPA 200.8		Analyst: DLJ			Preparation Method: EPA 1638				
* Antimony, Total	8/11/23 11:28	8/11/23 15:14		1.015	Not Detected	mg/L	0.000710	0.001015	U
* Arsenic, Total	8/11/23 11:28	8/11/23 15:14		1.015	0.00104	mg/L	0.000112	0.000203	
* Aluminum, Total	8/11/23 11:28	8/11/23 15:14		1.015	0.0297	mg/L	0.009135	0.05075	J
* Barium, Total	8/11/23 11:28	8/11/23 15:14		1.015	0.0233	mg/L	0.000508	0.001015	
* Beryllium, Total	8/11/23 11:28	8/11/23 15:14		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Total	8/11/23 11:28	8/11/23 15:14		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Total	8/11/23 11:28	8/11/23 15:14		1.015	0.000382	mg/L	0.000203	0.001015	J
* Cobalt, Total	8/11/23 11:28	8/11/23 15:14		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Lead, Total	8/11/23 11:28	8/11/23 15:14		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Total	8/11/23 11:28	8/11/23 15:14		1.015	0.257	mg/L	0.000152	0.001015	

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Barry Ash Pond - MW-18H

Location Code: WMWBARAP

Collected: 8/8/23 07:51

Customer ID:

Submittal Date: 8/10/23 09:47

Laboratory ID Number: BD15003

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
* Potassium, Total	8/11/23 11:28	8/11/23 15:14		1.015	0.606	mg/L	0.169505	0.5075	
* Selenium, Total	8/11/23 11:28	8/11/23 15:14		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Total	8/11/23 11:28	8/11/23 15:14		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 200.8		Analyst: DLJ							
* Antimony, Dissolved	8/11/23 09:10	8/11/23 11:41		1.015	Not Detected	mg/L	0.000710	0.001015	U
* Aluminum, Dissolved	8/11/23 09:10	8/11/23 11:41		1.015	Not Detected	mg/L	0.009135	0.05075	U
* Arsenic, Dissolved	8/11/23 09:10	8/11/23 11:41		1.015	0.00110	mg/L	0.000112	0.000203	
* Barium, Dissolved	8/11/23 09:10	8/11/23 11:41		1.015	0.0243	mg/L	0.000508	0.001015	
* Beryllium, Dissolved	8/11/23 09:10	8/11/23 11:41		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Dissolved	8/11/23 09:10	8/11/23 11:41		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Dissolved	8/11/23 09:10	8/11/23 11:41		1.015	0.000361	mg/L	0.000203	0.001015	J
* Cobalt, Dissolved	8/11/23 09:10	8/11/23 11:41		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Lead, Dissolved	8/11/23 09:10	8/11/23 11:41		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Dissolved	8/11/23 09:10	8/11/23 11:41		1.015	0.255	mg/L	0.000152	0.001015	
* Potassium, Dissolved	8/11/23 09:10	8/11/23 11:41		1.015	0.620	mg/L	0.169505	0.5075	
* Selenium, Dissolved	8/11/23 09:10	8/11/23 11:41		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Dissolved	8/11/23 09:10	8/11/23 11:41		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 245.1		Analyst: ELH							
* Mercury, Total by CVAA	8/10/23 17:13	8/10/23 23:18		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: EPA 353.2		Analyst: SC							
* Nitrogen, Nitrate/Nitrite	8/10/23 15:49	8/10/23 15:49		1	Not Detected	mg/L as N	0.20	0.3	U
Analytical Method: SM 2320 B		Analyst: DHC							
* Alkalinity	8/15/23 09:20	8/15/23 14:17		1	16.5	mg CaCO3/L		0.1	
Analytical Method: SM 2540C		Analyst: CNJ							
* Solids, Dissolved	8/11/23 11:30	8/15/23 09:35		1	82.7	mg/L		25	
Analytical Method: SM 4500CO2 D		Analyst: DHC							
* Bicarbonate Alkalinity, (calc.)	8/15/23 09:20	8/15/23 14:17		1	16.5	mg CaCO3/L		1	
* Carbonate Alkalinity, (calc.)	8/15/23 09:20	8/15/23 14:17		1	Not Detected	mg CaCO3/L		0.5	
Analytical Method: SM 4500H+ B		Analyst: DHC							
Alkalinity pH Endpoint	8/15/23 09:20	8/15/23 14:17		1	4.20	SU		2	

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Barry Ash Pond - MW-18H

Location Code: WMWBARAP
Collected: 8/8/23 07:51
Customer ID:
Submittal Date: 8/10/23 09:47

Laboratory ID Number: BD15003

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM 5310 B		Analyst: SC							
* Total Organic Carbon	8/11/23 00:34	8/11/23 00:34		1	2.65	mg/L	1.00	2	
Analytical Method: SM4500Cl E		Analyst: JCC							
* Chloride	8/16/23 11:52	8/16/23 11:52		1	5.79	mg/L	0.50	1	
Analytical Method: SM4500F G 2017		Analyst: JCC							
* Fluoride	8/17/23 10:34	8/17/23 10:34		1	0.0799	mg/L	0.06	0.125	J
Analytical Method: SM4500SO4 E 2011		Analyst: JCC							
* Sulfate	8/11/23 11:31	8/11/23 11:31		2	43.3	mg/L	1.2	4	
Analytical Method: Field Measurements		Analyst: DKG							
Conductivity	8/8/23 07:48	8/8/23 07:48			118.35	uS/cm			FA
pH	8/8/23 07:48	8/8/23 07:48			6.67	SU			FA
Temperature	8/8/23 07:48	8/8/23 07:48			22.12	C			FA
Turbidity	8/8/23 07:48	8/8/23 07:48			4.91	NTU			FA
Sulfide	8/8/23 07:48	8/8/23 07:48			0	mg/L			FA

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWBARAP

Sample Date: 8/8/23 07:51

Customer ID:

Delivery Date: 8/10/23 09:47

Description: Barry Ash Pond - MW-18H

Laboratory ID Number: BD15003

Sample	Analysis	Units	MB		Spike	MS	MSD	Standard		Rec		Prec	Limit
			MB	Limit				Standard	Limit	Rec	Limit		
BD15007	Aluminum, Dissolved	mg/L	-0.000366	0.0198	0.100	0.105	0.107	0.104	0.0850 to 0.115	105	70.0 to 130	1.89	20.0
BD15005	Aluminum, Total	mg/L	0.000500	0.0198	0.100	0.240	0.246	0.105	0.0850 to 0.115	125	70.0 to 130	2.47	20.0
BD15007	Antimony, Dissolved	mg/L	0.000717	0.00100	0.100	0.0938	0.0930	0.0901	0.0850 to 0.115	93.8	70.0 to 130	0.857	20.0
BD15005	Antimony, Total	mg/L	0.000324	0.00100	0.100	0.0967	0.0972	0.0902	0.0850 to 0.115	96.7	70.0 to 130	0.516	20.0
BD15007	Arsenic, Dissolved	mg/L	0.0000364	0.000200	0.100	0.123	0.125	0.0999	0.0850 to 0.115	100	70.0 to 130	1.61	20.0
BD15005	Arsenic, Total	mg/L	0.0000151	0.000200	0.100	0.112	0.113	0.0967	0.0850 to 0.115	98.6	70.0 to 130	0.889	20.0
BD15007	Barium, Dissolved	mg/L	-0.0000120	0.00100	0.100	0.173	0.175	0.0953	0.0850 to 0.115	93.7	70.0 to 130	1.15	20.0
BD15005	Barium, Total	mg/L	-0.0000137	0.00100	0.100	0.191	0.193	0.0978	0.0850 to 0.115	97.2	70.0 to 130	1.04	20.0
BD15007	Beryllium, Dissolved	mg/L	0.0000241	0.000880	0.100	0.0991	0.0953	0.0982	0.0850 to 0.115	99.1	70.0 to 130	3.91	20.0
BD15005	Beryllium, Total	mg/L	0.0000313	0.000880	0.100	0.0962	0.0905	0.0963	0.0850 to 0.115	96.2	70.0 to 130	6.11	20.0
BD15007	Boron, Dissolved	mg/L	-0.00158	0.0650	1.00	1.10	1.09	0.998	0.850 to 1.15	104	70.0 to 130	0.913	20.0
BD15005	Boron, Total	mg/L	0.000329	0.0650	1.00	1.07	1.07	1.00	0.850 to 1.15	100	70.0 to 130	0.00	20.0
BD15007	Cadmium, Dissolved	mg/L	0.0000122	0.000147	0.100	0.0948	0.0990	0.0966	0.0850 to 0.115	94.8	70.0 to 130	4.33	20.0
BD15005	Cadmium, Total	mg/L	0.0000069	0.000147	0.100	0.100	0.0982	0.0952	0.0850 to 0.115	100	70.0 to 130	1.82	20.0
BD15007	Calcium, Dissolved	mg/L	-0.00883	0.152	5.00	26.8	26.8	4.86	4.25 to 5.75	82.0	70.0 to 130	0.00	20.0
BD15005	Calcium, Total	mg/L	0.00398	0.152	5.00	29.4	30.3	4.68	4.25 to 5.75	78.0	70.0 to 130	3.02	20.0
BD15004	Chloride	mg/L	0.0383	1.00	10.0	25.5	25.6	9.74	9.00 to 11.0	86.0	80.0 to 120	0.391	20.0
BD15007	Chromium, Dissolved	mg/L	-0.0000772	0.000440	0.100	0.0978	0.0988	0.0988	0.0850 to 0.115	94.2	70.0 to 130	1.02	20.0
BD15005	Chromium, Total	mg/L	-0.000117	0.000440	0.100	0.0997	0.101	0.0987	0.0850 to 0.115	97.1	70.0 to 130	1.30	20.0
BD15007	Cobalt, Dissolved	mg/L	-0.0000063	0.000147	0.100	0.102	0.105	0.102	0.0850 to 0.115	98.2	70.0 to 130	2.90	20.0
BD15005	Cobalt, Total	mg/L	-0.0000058	0.000147	0.100	0.107	0.107	0.104	0.0850 to 0.115	102	70.0 to 130	0.00	20.0
BD15004	Fluoride	mg/L	0.0345	0.125	2.50	2.63	2.68	2.54	2.25 to 2.75	105	80.0 to 120	1.88	20.0
BD15007	Iron, Dissolved	mg/L	0.00047	0.0176	0.2	65.7	63.4	0.204	0.170 to 0.230	500	70.0 to 130	3.56	20.0
BD15005	Iron, Total	mg/L	0.00156	0.0176	0.2	60.5	51.6	0.198	0.170 to 0.230	1850	70.0 to 130	15.9	20.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWBARAP

Sample Date: 8/8/23 07:51

Customer ID:

Delivery Date: 8/10/23 09:47

Description: Barry Ash Pond - MW-18H

Laboratory ID Number: BD15003

Sample	Analysis	Units	MB	MB				Standard		Rec		Prec	Limit
				Limit	Spike	MS	MSD	Standard	Limit	Rec	Limit		
BD15007	Lead, Dissolved	mg/L	0.0000155	0.000147	0.100	0.102	0.101	0.107	0.0850 to 0.115	102	70.0 to 130	0.985	20.0
BD15005	Lead, Total	mg/L	0.0000200	0.000147	0.100	0.105	0.107	0.106	0.0850 to 0.115	105	70.0 to 130	1.89	20.0
BD15007	Lithium, Dissolved	mg/L	-0.000571	0.0154	0.200	0.210	0.208	0.206	0.170 to 0.230	105	70.0 to 130	0.957	20.0
BD15005	Lithium, Total	mg/L	-0.000313	0.0154	0.200	0.215	0.217	0.212	0.170 to 0.230	108	70.0 to 130	0.926	20.0
BD15007	Magnesium, Dissolved	mg/L	-0.00854	0.0462	5.00	22.8	22.6	5.06	4.25 to 5.75	94.0	70.0 to 130	0.881	20.0
BD15005	Magnesium, Total	mg/L	-0.0185	0.0462	5.00	22.3	22.8	5.09	4.25 to 5.75	92.0	70.0 to 130	2.22	20.0
BD15007	Manganese, Dissolved	mg/L	0.0000086	0.00033	0.100	0.776	0.747	0.101	0.0850 to 0.115	91.0	70.0 to 130	3.81	20.0
BD15005	Manganese, Total	mg/L	0.0000152	0.00033	0.100	0.565	0.566	0.102	0.0850 to 0.115	93.0	70.0 to 130	0.177	20.0
BD15004	Mercury, Total by CVAA	mg/L	-5.000E-05	0.000500	0.004	0.00392	0.00397	0.00401	0.00340 to 0.00460	98.0	70.0 to 130	1.27	20.0
BD15007	Molybdenum, Dissolved	mg/L	0.00221	0.0100	0.2	0.201	0.200	0.198	0.170 to 0.230	100	70.0 to 130	0.499	20.0
BD15005	Molybdenum, Total	mg/L	0.000	0.0100	0.2	0.195	0.196	0.199	0.170 to 0.230	97.5	70.0 to 130	0.512	20.0
BD15007	Potassium, Dissolved	mg/L	-0.00230	0.367	10.0	12.8	13.0	10.3	8.50 to 11.5	97.7	70.0 to 130	1.55	20.0
BD15005	Potassium, Total	mg/L	-0.0139	0.367	10.0	13.3	13.5	10.5	8.50 to 11.5	99.1	70.0 to 130	1.49	20.0
BD15007	Selenium, Dissolved	mg/L	0.0000708	0.00100	0.100	0.104	0.105	0.101	0.0850 to 0.115	104	70.0 to 130	0.957	20.0
BD15005	Selenium, Total	mg/L	-0.0000893	0.00100	0.100	0.103	0.102	0.100	0.0850 to 0.115	103	70.0 to 130	0.976	20.0
BD15007	Silicon, Dissolved	mg/L	-0.000657	0.0440	1.00	8.78	8.76	1.02	0.850 to 1.15	96.0	70.0 to 130	0.228	20.0
BD15005	Silicon, Total	mg/L	-0.000409	0.0440	1.00	8.91	8.91	1.02	0.850 to 1.15	106	70.0 to 130	0.00	20.0
BD15007	Sodium, Dissolved	mg/L	0.00579	0.0880	5.00	46.9	47.3	5.30	4.25 to 5.75	94.0	70.0 to 130	0.849	20.0
BD15005	Sodium, Total	mg/L	0.00111	0.0880	5.00	117	99.9	5.47	4.25 to 5.75	240	70.0 to 130	15.8	20.0
BD15004	Sulfate	mg/L	0.312	2.0	20.0	35.0	36.8	20.4	18.0 to 22.0	83.5	80.0 to 120	5.01	20.0
BD15007	Thallium, Dissolved	mg/L	-0.0000062	0.000147	0.100	0.104	0.104	0.103	0.0850 to 0.115	104	70.0 to 130	0.00	20.0
BD15005	Thallium, Total	mg/L	0.0000078	0.000147	0.100	0.102	0.109	0.105	0.0850 to 0.115	102	70.0 to 130	6.64	20.0
BD15004	Total Organic Carbon	mg/L	0.198	1.00	10.0	18.6	19.3	25.7		91.3	80.0 to 120	3.69	20.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWBARAP

Sample Date: 8/8/23 07:51

Customer ID:

Delivery Date: 8/10/23 09:47

Description: Barry Ash Pond - MW-18H

Laboratory ID Number: BD15003

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BD15014	Alkalinity	mg CaCO3/L					73.7	51.9	45.0 to 55.0			3.60	10.0
BD15004	Nitrogen, Nitrate/Nitrite	mg/L as N	-0.02	0.200	2.00	2.03	-0.022	2.17	1.80 to 2.20	102	90.0 to 110	0.00	15.0
BD15009	Solids, Dissolved	mg/L	1.00	25.0			396	50.0	40.0 to 60.0			0.760	10.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Barry Ash Pond - MW-19H

Location Code: WMWBARAP
Collected: 8/8/23 08:58
Customer ID:
Submittal Date: 8/10/23 09:47

Laboratory ID Number: BD15004

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7		Analyst: ABB			Preparation Method: EPA 1638				
* Boron, Total	8/11/23 11:28	8/15/23 13:37		1.015	1.23	mg/L	0.030000	0.1015	
* Calcium, Total	8/11/23 11:28	8/15/23 13:37		1.015	30.7	mg/L	0.070035	0.406	
* Iron, Total	8/11/23 11:28	8/16/23 15:19		101.5	123	mg/L	0.8120	4.06	
* Lithium, Total	8/11/23 11:28	8/15/23 13:37		1.015	Not Detected	mg/L	0.007105	0.01999956	U
* Magnesium, Total	8/11/23 11:28	8/15/23 13:37		1.015	8.90	mg/L	0.021315	0.406	
* Molybdenum, Total	8/11/23 11:28	8/15/23 13:37		1.015	Not Detected	mg/L	0.005075	0.01015	U
* Silica, Total (calc.)	8/11/23 11:28	8/15/23 13:37		1	33.0	mg/L			
* Silicon, Total	8/11/23 11:28	8/15/23 13:37		1.015	15.4	mg/L	0.02030	0.25375	
* Sodium, Total	8/11/23 11:28	8/15/23 13:37		1.015	19.4	mg/L	0.04060	0.406	
Analytical Method: EPA 200.7		Analyst: ABB			Preparation Method: EPA 1638				
* Boron, Dissolved	8/11/23 09:10	8/11/23 12:52		1.015	1.27	mg/L	0.030000	0.1015	
* Calcium, Dissolved	8/11/23 09:10	8/11/23 12:52		1.015	33.0	mg/L	0.070035	0.406	
* Iron, Dissolved	8/11/23 09:10	8/15/23 11:21		101.5	103	mg/L	0.8120	4.06	
* Lithium, Dissolved	8/11/23 09:10	8/11/23 12:52		1.015	Not Detected	mg/L	0.007105	0.01999956	U
* Magnesium, Dissolved	8/11/23 09:10	8/11/23 12:52		1.015	8.82	mg/L	0.021315	0.406	
* Molybdenum, Dissolved	8/11/23 09:10	8/11/23 12:52		1.015	Not Detected	mg/L	0.005075	0.01015	U
* Silica, Dissolved (calc.)	8/11/23 09:10	8/11/23 12:52		1	33.4	mg/L			
* Silicon, Dissolved	8/11/23 09:10	8/11/23 12:52		1.015	15.6	mg/L	0.02030	0.25375	
* Sodium, Dissolved	8/11/23 09:10	8/11/23 12:52		1.015	18.6	mg/L	0.04060	0.406	
Analytical Method: EPA 200.8		Analyst: DLJ			Preparation Method: EPA 1638				
* Antimony, Total	8/11/23 11:28	8/11/23 15:18		1.015	Not Detected	mg/L	0.000710	0.001015	U
* Aluminum, Total	8/11/23 11:28	8/11/23 15:18		1.015	Not Detected	mg/L	0.009135	0.05075	U
* Arsenic, Total	8/11/23 11:28	8/11/23 15:18		1.015	0.000696	mg/L	0.000112	0.000203	
* Barium, Total	8/11/23 11:28	8/11/23 15:18		1.015	0.156	mg/L	0.000508	0.001015	
* Beryllium, Total	8/11/23 11:28	8/11/23 15:18		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Total	8/11/23 11:28	8/11/23 15:18		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Total	8/11/23 11:28	8/11/23 15:18		1.015	0.000325	mg/L	0.000203	0.001015	J
* Cobalt, Total	8/11/23 11:28	8/11/23 15:18		1.015	0.000813	mg/L	0.000068	0.000203	
* Lead, Total	8/11/23 11:28	8/11/23 15:18		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Total	8/11/23 11:28	8/11/23 17:26		5.075	1.80	mg/L	0.000761	0.005075	

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.
 Precision is out of specification limit for Total Organic Carbon.

Certificate Of Analysis

Description: Barry Ash Pond - MW-19H

Location Code: WMWBARAP

Collected: 8/8/23 08:58

Customer ID:

Submittal Date: 8/10/23 09:47

Laboratory ID Number: BD15004

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
* Potassium, Total	8/11/23 11:28	8/11/23 15:18		1.015	1.19	mg/L	0.169505	0.5075	
* Selenium, Total	8/11/23 11:28	8/11/23 15:18		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Total	8/11/23 11:28	8/11/23 15:18		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 200.8		Analyst: DLJ							
* Antimony, Dissolved	8/11/23 09:10	8/11/23 11:44		1.015	Not Detected	mg/L	0.000710	0.001015	U
* Aluminum, Dissolved	8/11/23 09:10	8/11/23 11:44		1.015	Not Detected	mg/L	0.009135	0.05075	U
* Arsenic, Dissolved	8/11/23 09:10	8/11/23 11:44		1.015	0.000723	mg/L	0.000112	0.000203	
* Barium, Dissolved	8/11/23 09:10	8/11/23 11:44		1.015	0.154	mg/L	0.000508	0.001015	
* Beryllium, Dissolved	8/11/23 09:10	8/11/23 11:44		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Dissolved	8/11/23 09:10	8/11/23 11:44		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Dissolved	8/11/23 09:10	8/11/23 11:44		1.015	0.000334	mg/L	0.000203	0.001015	J
* Cobalt, Dissolved	8/11/23 09:10	8/11/23 11:44		1.015	0.000810	mg/L	0.000068	0.000203	
* Lead, Dissolved	8/11/23 09:10	8/11/23 11:44		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Dissolved	8/11/23 09:10	8/11/23 17:40		5.075	1.72	mg/L	0.000761	0.005075	
* Potassium, Dissolved	8/11/23 09:10	8/11/23 11:44		1.015	1.17	mg/L	0.169505	0.5075	
* Selenium, Dissolved	8/11/23 09:10	8/11/23 11:44		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Dissolved	8/11/23 09:10	8/11/23 11:44		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 245.1		Analyst: ELH							
* Mercury, Total by CVAA	8/10/23 17:13	8/10/23 23:22		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: EPA 353.2		Analyst: SC							
* Nitrogen, Nitrate/Nitrite	8/10/23 15:50	8/10/23 15:50		1	Not Detected	mg/L as N	0.20	0.3	U
Analytical Method: SM 2320 B		Analyst: DHC							
* Alkalinity	8/15/23 09:20	8/15/23 14:17		1	207	mg CaCO3/L		0.1	
Analytical Method: SM 2540C		Analyst: CNJ							
* Solids, Dissolved	8/11/23 11:30	8/15/23 09:35		1	311	mg/L		25	
Analytical Method: SM 4500CO2 D		Analyst: DHC							
* Bicarbonate Alkalinity, (calc.)	8/15/23 09:20	8/15/23 14:17		1	207	mg CaCO3/L		1	
* Carbonate Alkalinity, (calc.)	8/15/23 09:20	8/15/23 14:17		1	Not Detected	mg CaCO3/L		0.5	
Analytical Method: SM 4500H+ B		Analyst: DHC							
Alkalinity pH Endpoint	8/15/23 09:20	8/15/23 14:17		1	4.54	SU		2	

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.
 Precision is out of specification limit for Total Organic Carbon.

Certificate Of Analysis

Description: Barry Ash Pond - MW-19H

Location Code: WMWBARAP
Collected: 8/8/23 08:58
Customer ID:
Submittal Date: 8/10/23 09:47

Laboratory ID Number: BD15004

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM 5310 B		Analyst: SC							
* Total Organic Carbon	8/16/23 08:39	8/16/23 08:39		1	9.47	mg/L	1.00	2	
Analytical Method: SM4500Cl E		Analyst: JCC							
* Chloride	8/16/23 11:53	8/16/23 11:53		1	16.9	mg/L	0.50	1	
Analytical Method: SM4500F G 2017		Analyst: JCC							
* Fluoride	8/17/23 10:35	8/17/23 10:35		1	Not Detected	mg/L	0.06	0.125	U
Analytical Method: SM4500SO4 E 2011		Analyst: JCC							
* Sulfate	8/11/23 11:09	8/11/23 11:09		1	18.3	mg/L	0.6	2	
Analytical Method: Field Measurements		Analyst: DKG							
Conductivity	8/8/23 08:55	8/8/23 08:55			501.06	uS/cm			FA
pH	8/8/23 08:55	8/8/23 08:55			6.34	SU			FA
Temperature	8/8/23 08:55	8/8/23 08:55			23.72	C			FA
Turbidity	8/8/23 08:55	8/8/23 08:55			0.88	NTU			FA
Sulfide	8/8/23 08:55	8/8/23 08:55			0	mg/L			FA

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.
 Precision is out of specification limit for Total Organic Carbon.

Batch QC Summary

Customer Account: WMWBARAP

Sample Date: 8/8/23 08:58

Customer ID:

Delivery Date: 8/10/23 09:47

Description: Barry Ash Pond - MW-19H

Laboratory ID Number: BD15004

Sample	Analysis	Units	MB					Standard		Rec			Prec Limit
			MB	Limit	Spike	MS	MSD	Standard	Limit	Rec	Limit	Prec	
BD15007	Aluminum, Dissolved	mg/L	-0.000366	0.0198	0.100	0.105	0.107	0.104	0.0850 to 0.115	105	70.0 to 130	1.89	20.0
BD15005	Aluminum, Total	mg/L	0.000500	0.0198	0.100	0.240	0.246	0.105	0.0850 to 0.115	125	70.0 to 130	2.47	20.0
BD15007	Antimony, Dissolved	mg/L	0.000717	0.00100	0.100	0.0938	0.0930	0.0901	0.0850 to 0.115	93.8	70.0 to 130	0.857	20.0
BD15005	Antimony, Total	mg/L	0.000324	0.00100	0.100	0.0967	0.0972	0.0902	0.0850 to 0.115	96.7	70.0 to 130	0.516	20.0
BD15007	Arsenic, Dissolved	mg/L	0.0000364	0.000200	0.100	0.123	0.125	0.0999	0.0850 to 0.115	100	70.0 to 130	1.61	20.0
BD15005	Arsenic, Total	mg/L	0.0000151	0.000200	0.100	0.112	0.113	0.0967	0.0850 to 0.115	98.6	70.0 to 130	0.889	20.0
BD15007	Barium, Dissolved	mg/L	-0.0000120	0.00100	0.100	0.173	0.175	0.0953	0.0850 to 0.115	93.7	70.0 to 130	1.15	20.0
BD15005	Barium, Total	mg/L	-0.0000137	0.00100	0.100	0.191	0.193	0.0978	0.0850 to 0.115	97.2	70.0 to 130	1.04	20.0
BD15007	Beryllium, Dissolved	mg/L	0.0000241	0.000880	0.100	0.0991	0.0953	0.0982	0.0850 to 0.115	99.1	70.0 to 130	3.91	20.0
BD15005	Beryllium, Total	mg/L	0.0000313	0.000880	0.100	0.0962	0.0905	0.0963	0.0850 to 0.115	96.2	70.0 to 130	6.11	20.0
BD15007	Boron, Dissolved	mg/L	-0.00158	0.0650	1.00	1.10	1.09	0.998	0.850 to 1.15	104	70.0 to 130	0.913	20.0
BD15005	Boron, Total	mg/L	0.000329	0.0650	1.00	1.07	1.07	1.00	0.850 to 1.15	100	70.0 to 130	0.00	20.0
BD15007	Cadmium, Dissolved	mg/L	0.0000122	0.000147	0.100	0.0948	0.0990	0.0966	0.0850 to 0.115	94.8	70.0 to 130	4.33	20.0
BD15005	Cadmium, Total	mg/L	0.0000069	0.000147	0.100	0.100	0.0982	0.0952	0.0850 to 0.115	100	70.0 to 130	1.82	20.0
BD15007	Calcium, Dissolved	mg/L	-0.00883	0.152	5.00	26.8	26.8	4.86	4.25 to 5.75	82.0	70.0 to 130	0.00	20.0
BD15005	Calcium, Total	mg/L	0.00398	0.152	5.00	29.4	30.3	4.68	4.25 to 5.75	78.0	70.0 to 130	3.02	20.0
BD15004	Chloride	mg/L	0.0383	1.00	10.0	25.5	25.6	9.74	9.00 to 11.0	86.0	80.0 to 120	0.391	20.0
BD15007	Chromium, Dissolved	mg/L	-0.0000772	0.000440	0.100	0.0978	0.0988	0.0988	0.0850 to 0.115	94.2	70.0 to 130	1.02	20.0
BD15005	Chromium, Total	mg/L	-0.000117	0.000440	0.100	0.0997	0.101	0.0987	0.0850 to 0.115	97.1	70.0 to 130	1.30	20.0
BD15007	Cobalt, Dissolved	mg/L	-0.0000063	0.000147	0.100	0.102	0.105	0.102	0.0850 to 0.115	98.2	70.0 to 130	2.90	20.0
BD15005	Cobalt, Total	mg/L	-0.0000058	0.000147	0.100	0.107	0.107	0.104	0.0850 to 0.115	102	70.0 to 130	0.00	20.0
BD15004	Fluoride	mg/L	0.0345	0.125	2.50	2.63	2.68	2.54	2.25 to 2.75	105	80.0 to 120	1.88	20.0
BD15007	Iron, Dissolved	mg/L	0.00047	0.0176	0.2	65.7	63.4	0.204	0.170 to 0.230	500	70.0 to 130	3.56	20.0
BD15005	Iron, Total	mg/L	0.00156	0.0176	0.2	60.5	51.6	0.198	0.170 to 0.230	1850	70.0 to 130	15.9	20.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.
 Precision is out of specification limit for Total Organic Carbon.

Batch QC Summary

Customer Account: WMWBARAP

Sample Date: 8/8/23 08:58

Customer ID:

Delivery Date: 8/10/23 09:47

Description: Barry Ash Pond - MW-19H

Laboratory ID Number: BD15004

Sample	Analysis	Units	MB	MB				Standard		Rec		Prec	Limit
				Limit	Spike	MS	MSD	Standard	Limit	Rec	Limit		
BD15007	Lead, Dissolved	mg/L	0.0000155	0.000147	0.100	0.102	0.101	0.107	0.0850 to 0.115	102	70.0 to 130	0.985	20.0
BD15005	Lead, Total	mg/L	0.0000200	0.000147	0.100	0.105	0.107	0.106	0.0850 to 0.115	105	70.0 to 130	1.89	20.0
BD15007	Lithium, Dissolved	mg/L	-0.000571	0.0154	0.200	0.210	0.208	0.206	0.170 to 0.230	105	70.0 to 130	0.957	20.0
BD15005	Lithium, Total	mg/L	-0.000313	0.0154	0.200	0.215	0.217	0.212	0.170 to 0.230	108	70.0 to 130	0.926	20.0
BD15007	Magnesium, Dissolved	mg/L	-0.00854	0.0462	5.00	22.8	22.6	5.06	4.25 to 5.75	94.0	70.0 to 130	0.881	20.0
BD15005	Magnesium, Total	mg/L	-0.0185	0.0462	5.00	22.3	22.8	5.09	4.25 to 5.75	92.0	70.0 to 130	2.22	20.0
BD15007	Manganese, Dissolved	mg/L	0.0000086	0.00033	0.100	0.776	0.747	0.101	0.0850 to 0.115	91.0	70.0 to 130	3.81	20.0
BD15005	Manganese, Total	mg/L	0.0000152	0.00033	0.100	0.565	0.566	0.102	0.0850 to 0.115	93.0	70.0 to 130	0.177	20.0
BD15004	Mercury, Total by CVAA	mg/L	-5.000E-05	0.000500	0.004	0.00392	0.00397	0.00401	0.00340 to 0.00460	98.0	70.0 to 130	1.27	20.0
BD15007	Molybdenum, Dissolved	mg/L	0.00221	0.0100	0.2	0.201	0.200	0.198	0.170 to 0.230	100	70.0 to 130	0.499	20.0
BD15005	Molybdenum, Total	mg/L	0.000	0.0100	0.2	0.195	0.196	0.199	0.170 to 0.230	97.5	70.0 to 130	0.512	20.0
BD15007	Potassium, Dissolved	mg/L	-0.00230	0.367	10.0	12.8	13.0	10.3	8.50 to 11.5	97.7	70.0 to 130	1.55	20.0
BD15005	Potassium, Total	mg/L	-0.0139	0.367	10.0	13.3	13.5	10.5	8.50 to 11.5	99.1	70.0 to 130	1.49	20.0
BD15007	Selenium, Dissolved	mg/L	0.0000708	0.00100	0.100	0.104	0.105	0.101	0.0850 to 0.115	104	70.0 to 130	0.957	20.0
BD15005	Selenium, Total	mg/L	-0.0000893	0.00100	0.100	0.103	0.102	0.100	0.0850 to 0.115	103	70.0 to 130	0.976	20.0
BD15007	Silicon, Dissolved	mg/L	-0.000657	0.0440	1.00	8.78	8.76	1.02	0.850 to 1.15	96.0	70.0 to 130	0.228	20.0
BD15005	Silicon, Total	mg/L	-0.000409	0.0440	1.00	8.91	8.91	1.02	0.850 to 1.15	106	70.0 to 130	0.00	20.0
BD15007	Sodium, Dissolved	mg/L	0.00579	0.0880	5.00	46.9	47.3	5.30	4.25 to 5.75	94.0	70.0 to 130	0.849	20.0
BD15005	Sodium, Total	mg/L	0.00111	0.0880	5.00	117	99.9	5.47	4.25 to 5.75	240	70.0 to 130	15.8	20.0
BD15004	Sulfate	mg/L	0.312	2.0	20.0	35.0	36.8	20.4	18.0 to 22.0	83.5	80.0 to 120	5.01	20.0
BD15007	Thallium, Dissolved	mg/L	-0.0000062	0.000147	0.100	0.104	0.104	0.103	0.0850 to 0.115	104	70.0 to 130	0.00	20.0
BD15005	Thallium, Total	mg/L	0.0000078	0.000147	0.100	0.102	0.109	0.105	0.0850 to 0.115	102	70.0 to 130	6.64	20.0
BD15004	Total Organic Carbon	mg/L	0.198	1.00	10.0	18.6	19.3	25.7		91.3	80.0 to 120	3.69	20.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.
 Precision is out of specification limit for Total Organic Carbon.

Batch QC Summary

Customer Account: WMWBARAP

Sample Date: 8/8/23 08:58

Customer ID:

Delivery Date: 8/10/23 09:47

Description: Barry Ash Pond - MW-19H

Laboratory ID Number: BD15004

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BD15014	Alkalinity	mg CaCO3/L					73.7	51.9	45.0 to 55.0			3.60	10.0
BD15004	Nitrogen, Nitrate/Nitrite	mg/L as N	-0.02	0.200	2.00	2.03	-0.022	2.17	1.80 to 2.20	102	90.0 to 110	0.00	15.0
BD15009	Solids, Dissolved	mg/L	1.00	25.0			396	50.0	40.0 to 60.0			0.760	10.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.
 Precision is out of specification limit for Total Organic Carbon.

Certificate Of Analysis

Description: Barry Ash Pond - MW-20H

Location Code: WMWBARAP
Collected: 8/8/23 09:56
Customer ID:
Submittal Date: 8/10/23 09:47

Laboratory ID Number: BD15005

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7			Analyst: ABB			Preparation Method: EPA 1638			
* Boron, Total	8/11/23 11:28	8/15/23 13:40		1.015	0.0655	mg/L	0.030000	0.1015	J
* Calcium, Total	8/11/23 11:28	8/15/23 13:40		1.015	25.5	mg/L	0.070035	0.406	
* Iron, Total	8/11/23 11:28	8/16/23 15:23		101.5	56.8	mg/L	0.8120	4.06	RA
* Lithium, Total	8/11/23 11:28	8/15/23 13:40		1.015	Not Detected	mg/L	0.007105	0.01999956	U
* Magnesium, Total	8/11/23 11:28	8/15/23 13:40		1.015	17.7	mg/L	0.021315	0.406	
* Molybdenum, Total	8/11/23 11:28	8/15/23 13:40		1.015	Not Detected	mg/L	0.005075	0.01015	U
* Silica, Total (calc.)	8/11/23 11:28	8/15/23 13:40		1	16.8	mg/L			
* Silicon, Total	8/11/23 11:28	8/15/23 13:40		1.015	7.85	mg/L	0.02030	0.25375	
* Sodium, Total	8/11/23 11:28	8/16/23 14:28		10.15	105	mg/L	0.4060	4.06	RA
Analytical Method: EPA 200.7			Analyst: ABB						
* Boron, Dissolved	8/11/23 09:10	8/11/23 12:55		1.015	0.0662	mg/L	0.030000	0.1015	J
* Calcium, Dissolved	8/11/23 09:10	8/11/23 12:55		1.015	27.1	mg/L	0.070035	0.406	
* Iron, Dissolved	8/11/23 09:10	8/15/23 11:24		101.5	52.6	mg/L	0.8120	4.06	
* Lithium, Dissolved	8/11/23 09:10	8/11/23 12:55		1.015	Not Detected	mg/L	0.007105	0.01999956	U
* Magnesium, Dissolved	8/11/23 09:10	8/11/23 12:55		1.015	17.2	mg/L	0.021315	0.406	
* Molybdenum, Dissolved	8/11/23 09:10	8/11/23 12:55		1.015	Not Detected	mg/L	0.005075	0.01015	U
* Silica, Dissolved (calc.)	8/11/23 09:10	8/11/23 12:55		1	16.8	mg/L			
* Silicon, Dissolved	8/11/23 09:10	8/11/23 12:55		1.015	7.83	mg/L	0.02030	0.25375	
* Sodium, Dissolved	8/11/23 09:10	8/14/23 14:20		10.15	95.4	mg/L	0.4060	4.06	
Analytical Method: EPA 200.8			Analyst: DLJ			Preparation Method: EPA 1638			
* Antimony, Total	8/11/23 11:28	8/11/23 15:22		1.015	Not Detected	mg/L	0.000710	0.001015	U
* Arsenic, Total	8/11/23 11:28	8/11/23 15:22		1.015	0.0134	mg/L	0.000112	0.000203	
* Aluminum, Total	8/11/23 11:28	8/11/23 15:22		1.015	0.115	mg/L	0.009135	0.05075	RA
* Barium, Total	8/11/23 11:28	8/11/23 15:22		1.015	0.0938	mg/L	0.000508	0.001015	
* Beryllium, Total	8/11/23 11:28	8/11/23 15:22		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Total	8/11/23 11:28	8/11/23 15:22		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Total	8/11/23 11:28	8/11/23 15:22		1.015	0.00263	mg/L	0.000203	0.001015	
* Cobalt, Total	8/11/23 11:28	8/11/23 15:22		1.015	0.00460	mg/L	0.000068	0.000203	
* Lead, Total	8/11/23 11:28	8/11/23 15:22		1.015	0.000116	mg/L	0.000068	0.000203	J
* Manganese, Total	8/11/23 11:28	8/11/23 15:22		1.015	0.472	mg/L	0.000152	0.001015	

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Barry Ash Pond - MW-20H

Location Code: WMWBARAP

Collected: 8/8/23 09:56

Customer ID:

Submittal Date: 8/10/23 09:47

Laboratory ID Number: BD15005

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
* Potassium, Total	8/11/23 11:28	8/11/23 15:22		1.015	3.39	mg/L	0.169505	0.5075	
* Selenium, Total	8/11/23 11:28	8/11/23 15:22		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Total	8/11/23 11:28	8/11/23 15:22		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 200.8		Analyst: DLJ							
* Antimony, Dissolved	8/11/23 09:10	8/11/23 11:48		1.015	Not Detected	mg/L	0.000710	0.001015	U
* Aluminum, Dissolved	8/11/23 09:10	8/11/23 11:48		1.015	0.00936	mg/L	0.009135	0.05075	J
* Arsenic, Dissolved	8/11/23 09:10	8/11/23 11:48		1.015	0.0138	mg/L	0.000112	0.000203	
* Barium, Dissolved	8/11/23 09:10	8/11/23 11:48		1.015	0.0901	mg/L	0.000508	0.001015	
* Beryllium, Dissolved	8/11/23 09:10	8/11/23 11:48		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Dissolved	8/11/23 09:10	8/11/23 11:48		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Dissolved	8/11/23 09:10	8/11/23 11:48		1.015	0.00245	mg/L	0.000203	0.001015	
* Cobalt, Dissolved	8/11/23 09:10	8/11/23 11:48		1.015	0.00448	mg/L	0.000068	0.000203	
* Lead, Dissolved	8/11/23 09:10	8/11/23 11:48		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Dissolved	8/11/23 09:10	8/11/23 11:48		1.015	0.470	mg/L	0.000152	0.001015	
* Potassium, Dissolved	8/11/23 09:10	8/11/23 11:48		1.015	3.37	mg/L	0.169505	0.5075	
* Selenium, Dissolved	8/11/23 09:10	8/11/23 11:48		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Dissolved	8/11/23 09:10	8/11/23 11:48		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 245.1		Analyst: ELH							
* Mercury, Total by CVAA	8/10/23 17:13	8/10/23 23:42		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: EPA 353.2		Analyst: SC							
* Nitrogen, Nitrate/Nitrite	8/10/23 16:22	8/10/23 16:22		1	Not Detected	mg/L as N	0.20	0.3	U
Analytical Method: SM 2320 B		Analyst: DHC							
* Alkalinity	8/15/23 09:20	8/15/23 14:17		1	312	mg CaCO3/L		0.1	
Analytical Method: SM 2540C		Analyst: CNJ							
* Solids, Dissolved	8/11/23 11:30	8/15/23 09:35		1	468	mg/L		25	
Analytical Method: SM 4500CO2 D		Analyst: DHC							
* Bicarbonate Alkalinity, (calc.)	8/15/23 09:20	8/15/23 14:17		1	312	mg CaCO3/L		1	
* Carbonate Alkalinity, (calc.)	8/15/23 09:20	8/15/23 14:17		1	Not Detected	mg CaCO3/L		0.5	
Analytical Method: SM 4500H+ B		Analyst: DHC							
Alkalinity pH Endpoint	8/15/23 09:20	8/15/23 14:17		1	4.52	SU		2	

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Barry Ash Pond - MW-20H

Location Code: WMWBARAP
Collected: 8/8/23 09:56
Customer ID:
Submittal Date: 8/10/23 09:47

Laboratory ID Number: BD15005

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM 5310 B		Analyst: SC							
* Total Organic Carbon	8/11/23 09:20	8/11/23 09:20		1	29.2	mg/L	1.00	2	
Analytical Method: SM4500Cl E		Analyst: JCC							
* Chloride	8/16/23 12:27	8/16/23 12:27		4	32.6	mg/L	2.00	4	
Analytical Method: SM4500F G 2017		Analyst: JCC							
* Fluoride	8/17/23 10:47	8/17/23 10:47		1	0.103	mg/L	0.06	0.125	J
Analytical Method: SM4500SO4 E 2011		Analyst: JCC							
* Sulfate	8/11/23 12:07	8/11/23 12:07		4	84.1	mg/L	2.4	8	
Analytical Method: Field Measurements		Analyst: DKG							
Conductivity	8/8/23 09:53	8/8/23 09:53			668.57	uS/cm			FA
pH	8/8/23 09:53	8/8/23 09:53			6.25	SU			FA
Temperature	8/8/23 09:53	8/8/23 09:53			23.82	C			FA
Turbidity	8/8/23 09:53	8/8/23 09:53			1.27	NTU			FA
Sulfide	8/8/23 09:53	8/8/23 09:53			0	mg/L			FA

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWBARAP

Sample Date: 8/8/23 09:56

Customer ID:

Delivery Date: 8/10/23 09:47

Description: Barry Ash Pond - MW-20H

Laboratory ID Number: BD15005

Sample	Analysis	Units	MB		Spike	MS	MSD	Standard		Rec		Prec	Limit
			MB	Limit				Standard	Limit	Rec	Limit		
BD15007	Aluminum, Dissolved	mg/L	-0.000366	0.0198	0.100	0.105	0.107	0.104	0.0850 to 0.115	105	70.0 to 130	1.89	20.0
BD15005	Aluminum, Total	mg/L	0.000500	0.0198	0.100	0.240	0.246	0.105	0.0850 to 0.115	125	70.0 to 130	2.47	20.0
BD15007	Antimony, Dissolved	mg/L	0.000717	0.00100	0.100	0.0938	0.0930	0.0901	0.0850 to 0.115	93.8	70.0 to 130	0.857	20.0
BD15005	Antimony, Total	mg/L	0.000324	0.00100	0.100	0.0967	0.0972	0.0902	0.0850 to 0.115	96.7	70.0 to 130	0.516	20.0
BD15007	Arsenic, Dissolved	mg/L	0.0000364	0.000200	0.100	0.123	0.125	0.0999	0.0850 to 0.115	100	70.0 to 130	1.61	20.0
BD15005	Arsenic, Total	mg/L	0.0000151	0.000200	0.100	0.112	0.113	0.0967	0.0850 to 0.115	98.6	70.0 to 130	0.889	20.0
BD15007	Barium, Dissolved	mg/L	-0.0000120	0.00100	0.100	0.173	0.175	0.0953	0.0850 to 0.115	93.7	70.0 to 130	1.15	20.0
BD15005	Barium, Total	mg/L	-0.0000137	0.00100	0.100	0.191	0.193	0.0978	0.0850 to 0.115	97.2	70.0 to 130	1.04	20.0
BD15007	Beryllium, Dissolved	mg/L	0.0000241	0.000880	0.100	0.0991	0.0953	0.0982	0.0850 to 0.115	99.1	70.0 to 130	3.91	20.0
BD15005	Beryllium, Total	mg/L	0.0000313	0.000880	0.100	0.0962	0.0905	0.0963	0.0850 to 0.115	96.2	70.0 to 130	6.11	20.0
BD15007	Boron, Dissolved	mg/L	-0.00158	0.0650	1.00	1.10	1.09	0.998	0.850 to 1.15	104	70.0 to 130	0.913	20.0
BD15005	Boron, Total	mg/L	0.000329	0.0650	1.00	1.07	1.07	1.00	0.850 to 1.15	100	70.0 to 130	0.00	20.0
BD15007	Cadmium, Dissolved	mg/L	0.0000122	0.000147	0.100	0.0948	0.0990	0.0966	0.0850 to 0.115	94.8	70.0 to 130	4.33	20.0
BD15005	Cadmium, Total	mg/L	0.0000069	0.000147	0.100	0.100	0.0982	0.0952	0.0850 to 0.115	100	70.0 to 130	1.82	20.0
BD15007	Calcium, Dissolved	mg/L	-0.00883	0.152	5.00	26.8	26.8	4.86	4.25 to 5.75	82.0	70.0 to 130	0.00	20.0
BD15005	Calcium, Total	mg/L	0.00398	0.152	5.00	29.4	30.3	4.68	4.25 to 5.75	78.0	70.0 to 130	3.02	20.0
BD15014	Chloride	mg/L	0.0252	1.00	10.0	24.6	24.4	9.69	9.00 to 11.0	87.0	80.0 to 120	0.816	20.0
BD15007	Chromium, Dissolved	mg/L	-0.0000772	0.000440	0.100	0.0978	0.0988	0.0988	0.0850 to 0.115	94.2	70.0 to 130	1.02	20.0
BD15005	Chromium, Total	mg/L	-0.000117	0.000440	0.100	0.0997	0.101	0.0987	0.0850 to 0.115	97.1	70.0 to 130	1.30	20.0
BD15007	Cobalt, Dissolved	mg/L	-0.0000063	0.000147	0.100	0.102	0.105	0.102	0.0850 to 0.115	98.2	70.0 to 130	2.90	20.0
BD15005	Cobalt, Total	mg/L	-0.0000058	0.000147	0.100	0.107	0.107	0.104	0.0850 to 0.115	102	70.0 to 130	0.00	20.0
BD15014	Fluoride	mg/L	0.0306	0.125	2.50	2.63	2.66	2.53	2.25 to 2.75	105	80.0 to 120	1.13	20.0
BD15007	Iron, Dissolved	mg/L	0.00047	0.0176	0.2	65.7	63.4	0.204	0.170 to 0.230	500	70.0 to 130	3.56	20.0
BD15005	Iron, Total	mg/L	0.00156	0.0176	0.2	60.5	51.6	0.198	0.170 to 0.230	1850	70.0 to 130	15.9	20.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWBARAP

Sample Date: 8/8/23 09:56

Customer ID:

Delivery Date: 8/10/23 09:47

Description: Barry Ash Pond - MW-20H

Laboratory ID Number: BD15005

Sample	Analysis	Units	MB					Standard		Rec		Prec	Limit
			MB	Limit	Spike	MS	MSD	Standard	Limit	Rec	Limit		
BD15007	Lead, Dissolved	mg/L	0.0000155	0.000147	0.100	0.102	0.101	0.107	0.0850 to 0.115	102	70.0 to 130	0.985	20.0
BD15005	Lead, Total	mg/L	0.0000200	0.000147	0.100	0.105	0.107	0.106	0.0850 to 0.115	105	70.0 to 130	1.89	20.0
BD15007	Lithium, Dissolved	mg/L	-0.000571	0.0154	0.200	0.210	0.208	0.206	0.170 to 0.230	105	70.0 to 130	0.957	20.0
BD15005	Lithium, Total	mg/L	-0.000313	0.0154	0.200	0.215	0.217	0.212	0.170 to 0.230	108	70.0 to 130	0.926	20.0
BD15007	Magnesium, Dissolved	mg/L	-0.00854	0.0462	5.00	22.8	22.6	5.06	4.25 to 5.75	94.0	70.0 to 130	0.881	20.0
BD15005	Magnesium, Total	mg/L	-0.0185	0.0462	5.00	22.3	22.8	5.09	4.25 to 5.75	92.0	70.0 to 130	2.22	20.0
BD15007	Manganese, Dissolved	mg/L	0.0000086	0.00033	0.100	0.776	0.747	0.101	0.0850 to 0.115	91.0	70.0 to 130	3.81	20.0
BD15005	Manganese, Total	mg/L	0.0000152	0.00033	0.100	0.565	0.566	0.102	0.0850 to 0.115	93.0	70.0 to 130	0.177	20.0
BD15014	Mercury, Total by CVAA	mg/L	-5.000E-05	0.000500	0.004	0.00391	0.00394	0.00401	0.00340 to 0.00460	97.8	70.0 to 130	0.764	20.0
BD15007	Molybdenum, Dissolved	mg/L	0.00221	0.0100	0.2	0.201	0.200	0.198	0.170 to 0.230	100	70.0 to 130	0.499	20.0
BD15005	Molybdenum, Total	mg/L	0.000	0.0100	0.2	0.195	0.196	0.199	0.170 to 0.230	97.5	70.0 to 130	0.512	20.0
BD15007	Potassium, Dissolved	mg/L	-0.00230	0.367	10.0	12.8	13.0	10.3	8.50 to 11.5	97.7	70.0 to 130	1.55	20.0
BD15005	Potassium, Total	mg/L	-0.0139	0.367	10.0	13.3	13.5	10.5	8.50 to 11.5	99.1	70.0 to 130	1.49	20.0
BD15007	Selenium, Dissolved	mg/L	0.0000708	0.00100	0.100	0.104	0.105	0.101	0.0850 to 0.115	104	70.0 to 130	0.957	20.0
BD15005	Selenium, Total	mg/L	-0.0000893	0.00100	0.100	0.103	0.102	0.100	0.0850 to 0.115	103	70.0 to 130	0.976	20.0
BD15007	Silicon, Dissolved	mg/L	-0.000657	0.0440	1.00	8.78	8.76	1.02	0.850 to 1.15	96.0	70.0 to 130	0.228	20.0
BD15005	Silicon, Total	mg/L	-0.000409	0.0440	1.00	8.91	8.91	1.02	0.850 to 1.15	106	70.0 to 130	0.00	20.0
BD15007	Sodium, Dissolved	mg/L	0.00579	0.0880	5.00	46.9	47.3	5.30	4.25 to 5.75	94.0	70.0 to 130	0.849	20.0
BD15005	Sodium, Total	mg/L	0.00111	0.0880	5.00	117	99.9	5.47	4.25 to 5.75	240	70.0 to 130	15.8	20.0
BD15014	Sulfate	mg/L	0.349	2.0	20.0	36.3	36.4	20.4	18.0 to 22.0	93.5	80.0 to 120	0.275	20.0
BD15007	Thallium, Dissolved	mg/L	-0.0000062	0.000147	0.100	0.104	0.104	0.103	0.0850 to 0.115	104	70.0 to 130	0.00	20.0
BD15005	Thallium, Total	mg/L	0.0000078	0.000147	0.100	0.102	0.109	0.105	0.0850 to 0.115	102	70.0 to 130	6.64	20.0
BD15014	Total Organic Carbon	mg/L	0.165	1.00	10.0	16.2	16.8	25.3		100	80.0 to 120	3.64	20.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWBARAP

Sample Date: 8/8/23 09:56

Customer ID:

Delivery Date: 8/10/23 09:47

Description: Barry Ash Pond - MW-20H

Laboratory ID Number: BD15005

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BD15014	Alkalinity	mg CaCO3/L					73.7	51.9	45.0 to 55.0			3.60	10.0
BD15014	Nitrogen, Nitrate/Nitrite	mg/L as N	-0.01	0.200	2.00	2.02	0.006	2.01	1.80 to 2.20	101	90.0 to 110	0.00	15.0
BD15009	Solids, Dissolved	mg/L	1.00	25.0			396	50.0	40.0 to 60.0			0.760	10.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Barry Ash Pond - MW-20V

Location Code: WMWBARAP
Collected: 8/8/23 10:49
Customer ID:
Submittal Date: 8/10/23 09:47

Laboratory ID Number: BD15006

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7			Analyst: ABB		Preparation Method: EPA 1638				
* Boron, Total	8/11/23 11:28	8/15/23 14:02		1.015	0.148	mg/L	0.030000	0.1015	
* Calcium, Total	8/11/23 11:28	8/16/23 13:19		1.015	29.1	mg/L	0.070035	0.406	
* Iron, Total	8/11/23 11:28	8/16/23 15:32		101.5	105	mg/L	0.8120	4.06	
* Lithium, Total	8/11/23 11:28	8/15/23 14:02		1.015	Not Detected	mg/L	0.007105	0.01999956	U
* Magnesium, Total	8/11/23 11:28	8/15/23 14:02		1.015	29.2	mg/L	0.021315	0.406	
* Molybdenum, Total	8/11/23 11:28	8/15/23 14:02		1.015	Not Detected	mg/L	0.005075	0.01015	U
* Silica, Total (calc.)	8/11/23 11:28	8/15/23 14:02		1	13.8	mg/L			
* Silicon, Total	8/11/23 11:28	8/15/23 14:02		1.015	6.47	mg/L	0.02030	0.25375	
* Sodium, Total	8/11/23 11:28	8/16/23 15:32		101.5	240	mg/L	4.060	40.6	
Analytical Method: EPA 200.7			Analyst: ABB		Preparation Method: EPA 1638				
* Boron, Dissolved	8/11/23 09:10	8/11/23 12:58		1.015	0.152	mg/L	0.030000	0.1015	
* Calcium, Dissolved	8/11/23 09:10	8/11/23 12:58		1.015	29.5	mg/L	0.070035	0.406	
* Iron, Dissolved	8/11/23 09:10	8/15/23 11:27		101.5	105	mg/L	0.8120	4.06	
* Lithium, Dissolved	8/11/23 09:10	8/11/23 12:58		1.015	Not Detected	mg/L	0.007105	0.01999956	U
* Magnesium, Dissolved	8/11/23 09:10	8/11/23 12:58		1.015	29.2	mg/L	0.021315	0.406	
* Molybdenum, Dissolved	8/11/23 09:10	8/11/23 12:58		1.015	Not Detected	mg/L	0.005075	0.01015	U
* Silica, Dissolved (calc.)	8/11/23 09:10	8/11/23 12:58		1	13.8	mg/L			
* Silicon, Dissolved	8/11/23 09:10	8/11/23 12:58		1.015	6.47	mg/L	0.02030	0.25375	
* Sodium, Dissolved	8/11/23 09:10	8/14/23 14:23		10.15	247	mg/L	0.4060	4.06	
Analytical Method: EPA 200.8			Analyst: DLJ		Preparation Method: EPA 1638				
* Antimony, Total	8/11/23 11:28	8/11/23 15:50		1.015	Not Detected	mg/L	0.000710	0.001015	U
* Arsenic, Total	8/11/23 11:28	8/11/23 15:50		1.015	0.0152	mg/L	0.000112	0.000203	
* Aluminum, Total	8/11/23 11:28	8/11/23 15:50		1.015	0.466	mg/L	0.009135	0.05075	
* Barium, Total	8/11/23 11:28	8/11/23 15:50		1.015	0.275	mg/L	0.000508	0.001015	
* Beryllium, Total	8/11/23 11:28	8/11/23 15:50		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Total	8/11/23 11:28	8/11/23 15:50		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Total	8/11/23 11:28	8/11/23 15:50		1.015	0.00107	mg/L	0.000203	0.001015	
* Cobalt, Total	8/11/23 11:28	8/11/23 15:50		1.015	0.0234	mg/L	0.000068	0.000203	
* Lead, Total	8/11/23 11:28	8/11/23 15:50		1.015	0.000429	mg/L	0.000068	0.000203	
* Manganese, Total	8/11/23 11:28	8/11/23 17:30		5.075	2.66	mg/L	0.000761	0.005075	

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Barry Ash Pond - MW-20V

Location Code: WMWBARAP
Collected: 8/8/23 10:49
Customer ID:
Submittal Date: 8/10/23 09:47

Laboratory ID Number: BD15006

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
* Potassium, Total	8/11/23 11:28	8/11/23 15:50		1.015	4.94	mg/L	0.169505	0.5075	
* Selenium, Total	8/11/23 11:28	8/11/23 15:50		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Total	8/11/23 11:28	8/11/23 15:50		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 200.8		Analyst: DLJ							
* Antimony, Dissolved	8/11/23 09:10	8/11/23 11:51		1.015	Not Detected	mg/L	0.000710	0.001015	U
* Aluminum, Dissolved	8/11/23 09:10	8/11/23 11:51		1.015	Not Detected	mg/L	0.009135	0.05075	U
* Arsenic, Dissolved	8/11/23 09:10	8/11/23 11:51		1.015	0.0153	mg/L	0.000112	0.000203	
* Barium, Dissolved	8/11/23 09:10	8/11/23 11:51		1.015	0.261	mg/L	0.000508	0.001015	
* Beryllium, Dissolved	8/11/23 09:10	8/11/23 11:51		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Dissolved	8/11/23 09:10	8/11/23 11:51		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Dissolved	8/11/23 09:10	8/11/23 11:51		1.015	0.000538	mg/L	0.000203	0.001015	J
* Cobalt, Dissolved	8/11/23 09:10	8/11/23 11:51		1.015	0.0227	mg/L	0.000068	0.000203	
* Lead, Dissolved	8/11/23 09:10	8/11/23 11:51		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Dissolved	8/11/23 09:10	8/11/23 17:44		5.075	2.50	mg/L	0.000761	0.005075	
* Potassium, Dissolved	8/11/23 09:10	8/11/23 11:51		1.015	4.93	mg/L	0.169505	0.5075	
* Selenium, Dissolved	8/11/23 09:10	8/11/23 11:51		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Dissolved	8/11/23 09:10	8/11/23 11:51		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 245.1		Analyst: ELH							
* Mercury, Total by CVAA	8/10/23 17:13	8/10/23 23:46		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: EPA 353.2		Analyst: SC							
* Nitrogen, Nitrate/Nitrite	8/10/23 16:24	8/10/23 16:24		1	Not Detected	mg/L as N	0.20	0.3	U
Analytical Method: SM 2320 B		Analyst: DHC							
* Alkalinity	8/16/23 09:02	8/16/23 14:44		1	153	mg CaCO3/L		0.1	
Analytical Method: SM 2540C		Analyst: CNJ							
* Solids, Dissolved	8/11/23 11:30	8/15/23 09:35		1	1040	mg/L		75.8	
Analytical Method: SM 4500CO2 D		Analyst: DHC							
* Bicarbonate Alkalinity, (calc.)	8/16/23 09:02	8/16/23 14:44		1	153	mg CaCO3/L		1	A
* Carbonate Alkalinity, (calc.)	8/16/23 09:02	8/16/23 14:44		1	Not Detected	mg CaCO3/L		0.5	A
Analytical Method: SM 4500H+ B		Analyst: DHC							
Alkalinity pH Endpoint	8/16/23 09:02	8/16/23 14:44		1	4.49	SU		2	

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Barry Ash Pond - MW-20V

Location Code: WMWBARAP
Collected: 8/8/23 10:49
Customer ID:
Submittal Date: 8/10/23 09:47

Laboratory ID Number: BD15006

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM 5310 B		Analyst: SC							
* Total Organic Carbon	8/11/23 09:37	8/11/23 09:37		1	8.80	mg/L	1.00	2	
Analytical Method: SM4500Cl E		Analyst: JCC							
* Chloride	8/16/23 12:29	8/16/23 12:29		80	400	mg/L	40.00	80	
Analytical Method: SM4500F G 2017		Analyst: JCC							
* Fluoride	8/17/23 10:48	8/17/23 10:48		1	0.0917	mg/L	0.06	0.125	J
Analytical Method: SM4500SO4 E 2011		Analyst: JCC							
* Sulfate	8/11/23 12:09	8/11/23 12:09		4	63.4	mg/L	2.4	8	
Analytical Method: Field Measurements		Analyst: DKG							
Conductivity	8/8/23 10:46	8/8/23 10:46			1517.99	uS/cm			FA
pH	8/8/23 10:46	8/8/23 10:46			6.42	SU			FA
Temperature	8/8/23 10:46	8/8/23 10:46			22.69	C			FA
Turbidity	8/8/23 10:46	8/8/23 10:46			9.54	NTU			FA
Sulfide	8/8/23 10:46	8/8/23 10:46			0	mg/L			FA

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWBARAP

Sample Date: 8/8/23 10:49

Customer ID:

Delivery Date: 8/10/23 09:47

Description: Barry Ash Pond - MW-20V

Laboratory ID Number: BD15006

Sample	Analysis	Units	MB		Spike	MS	MSD	Standard		Rec		Prec	Limit
			MB	Limit				Standard	Limit	Rec	Limit		
BD15007	Aluminum, Dissolved	mg/L	-0.000366	0.0198	0.100	0.105	0.107	0.104	0.0850 to 0.115	105	70.0 to 130	1.89	20.0
BD15015	Aluminum, Total	mg/L	0.000494	0.0198	0.100	0.106	0.105	0.107	0.0850 to 0.115	106	70.0 to 130	0.948	20.0
BD15007	Antimony, Dissolved	mg/L	0.000717	0.00100	0.100	0.0938	0.0930	0.0901	0.0850 to 0.115	93.8	70.0 to 130	0.857	20.0
BD15015	Antimony, Total	mg/L	0.000335	0.00100	0.100	0.0900	0.0919	0.0915	0.0850 to 0.115	90.0	70.0 to 130	2.09	20.0
BD15007	Arsenic, Dissolved	mg/L	0.0000364	0.000200	0.100	0.123	0.125	0.0999	0.0850 to 0.115	100	70.0 to 130	1.61	20.0
BD15015	Arsenic, Total	mg/L	0.0000005	0.000200	0.100	0.100	0.0975	0.0994	0.0850 to 0.115	100	70.0 to 130	2.53	20.0
BD15007	Barium, Dissolved	mg/L	-0.0000120	0.00100	0.100	0.173	0.175	0.0953	0.0850 to 0.115	93.7	70.0 to 130	1.15	20.0
BD15015	Barium, Total	mg/L	-0.0000013	0.00100	0.100	0.103	0.102	0.102	0.0850 to 0.115	103	70.0 to 130	0.976	20.0
BD15007	Beryllium, Dissolved	mg/L	0.0000241	0.000880	0.100	0.0991	0.0953	0.0982	0.0850 to 0.115	99.1	70.0 to 130	3.91	20.0
BD15015	Beryllium, Total	mg/L	0.0000525	0.000880	0.100	0.0966	0.0932	0.0918	0.0850 to 0.115	96.6	70.0 to 130	3.58	20.0
BD15007	Boron, Dissolved	mg/L	-0.00158	0.0650	1.00	1.10	1.09	0.998	0.850 to 1.15	104	70.0 to 130	0.913	20.0
BD15015	Boron, Total	mg/L	0.000378	0.0650	1.00	0.986	0.980	0.998	0.850 to 1.15	98.6	70.0 to 130	0.610	20.0
BD15007	Cadmium, Dissolved	mg/L	0.0000122	0.000147	0.100	0.0948	0.0990	0.0966	0.0850 to 0.115	94.8	70.0 to 130	4.33	20.0
BD15015	Cadmium, Total	mg/L	0.0000138	0.000147	0.100	0.101	0.0989	0.103	0.0850 to 0.115	101	70.0 to 130	2.10	20.0
BD15007	Calcium, Dissolved	mg/L	-0.00883	0.152	5.00	26.8	26.8	4.86	4.25 to 5.75	82.0	70.0 to 130	0.00	20.0
BD15015	Calcium, Total	mg/L	-0.0114	0.152	5.00	4.62	4.58	4.71	4.25 to 5.75	92.4	70.0 to 130	0.870	20.0
BD15014	Chloride	mg/L	0.0252	1.00	10.0	24.6	24.4	9.69	9.00 to 11.0	87.0	80.0 to 120	0.816	20.0
BD15007	Chromium, Dissolved	mg/L	-0.0000772	0.000440	0.100	0.0978	0.0988	0.0988	0.0850 to 0.115	94.2	70.0 to 130	1.02	20.0
BD15015	Chromium, Total	mg/L	-0.000171	0.000440	0.100	0.0999	0.101	0.0988	0.0850 to 0.115	99.9	70.0 to 130	1.10	20.0
BD15007	Cobalt, Dissolved	mg/L	-0.0000063	0.000147	0.100	0.102	0.105	0.102	0.0850 to 0.115	98.2	70.0 to 130	2.90	20.0
BD15015	Cobalt, Total	mg/L	-0.0000060	0.000147	0.100	0.105	0.105	0.105	0.0850 to 0.115	105	70.0 to 130	0.00	20.0
BD15014	Fluoride	mg/L	0.0306	0.125	2.50	2.63	2.66	2.53	2.25 to 2.75	105	80.0 to 120	1.13	20.0
BD15007	Iron, Dissolved	mg/L	0.00047	0.0176	0.2	65.7	63.4	0.204	0.170 to 0.230	500	70.0 to 130	3.56	20.0
BD15015	Iron, Total	mg/L	0.000264	0.0176	0.2	0.195	0.195	0.196	0.170 to 0.230	97.5	70.0 to 130	0.00	20.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWBARAP

Sample Date: 8/8/23 10:49

Customer ID:

Delivery Date: 8/10/23 09:47

Description: Barry Ash Pond - MW-20V

Laboratory ID Number: BD15006

Sample	Analysis	Units	MB	MB		Spike	MS	MSD	Standard		Rec		Prec
				Limit					Standard	Limit	Rec	Limit	
BD15007	Lead, Dissolved	mg/L	0.0000155	0.000147	0.100	0.102	0.101	0.107	0.0850 to 0.115	102	70.0 to 130	0.985	20.0
BD15015	Lead, Total	mg/L	0.0000362	0.000147	0.100	0.107	0.105	0.107	0.0850 to 0.115	107	70.0 to 130	1.89	20.0
BD15007	Lithium, Dissolved	mg/L	-0.000571	0.0154	0.200	0.210	0.208	0.206	0.170 to 0.230	105	70.0 to 130	0.957	20.0
BD15015	Lithium, Total	mg/L	-0.000611	0.0154	0.200	0.210	0.212	0.211	0.170 to 0.230	105	70.0 to 130	0.948	20.0
BD15007	Magnesium, Dissolved	mg/L	-0.00854	0.0462	5.00	22.8	22.6	5.06	4.25 to 5.75	94.0	70.0 to 130	0.881	20.0
BD15015	Magnesium, Total	mg/L	-0.000838	0.0462	5.00	5.04	5.10	5.05	4.25 to 5.75	101	70.0 to 130	1.18	20.0
BD15007	Manganese, Dissolved	mg/L	0.0000086	0.00033	0.100	0.776	0.747	0.101	0.0850 to 0.115	91.0	70.0 to 130	3.81	20.0
BD15015	Manganese, Total	mg/L	0.0000106	0.00033	0.100	0.102	0.103	0.102	0.0850 to 0.115	102	70.0 to 130	0.976	20.0
BD15014	Mercury, Total by CVAA	mg/L	-5.000E-05	0.000500	0.004	0.00391	0.00394	0.00401	0.00340 to 0.00460	97.8	70.0 to 130	0.764	20.0
BD15007	Molybdenum, Dissolved	mg/L	0.00221	0.0100	0.2	0.201	0.200	0.198	0.170 to 0.230	100	70.0 to 130	0.499	20.0
BD15015	Molybdenum, Total	mg/L	0.000	0.0100	0.2	0.197	0.197	0.197	0.170 to 0.230	98.5	70.0 to 130	0.00	20.0
BD15007	Potassium, Dissolved	mg/L	-0.00230	0.367	10.0	12.8	13.0	10.3	8.50 to 11.5	97.7	70.0 to 130	1.55	20.0
BD15015	Potassium, Total	mg/L	-0.0265	0.367	10.0	10.2	10.5	10.5	8.50 to 11.5	102	70.0 to 130	2.90	20.0
BD15007	Selenium, Dissolved	mg/L	0.0000708	0.00100	0.100	0.104	0.105	0.101	0.0850 to 0.115	104	70.0 to 130	0.957	20.0
BD15015	Selenium, Total	mg/L	-0.000110	0.00100	0.100	0.0988	0.0990	0.0994	0.0850 to 0.115	98.8	70.0 to 130	0.202	20.0
BD15007	Silicon, Dissolved	mg/L	-0.000657	0.0440	1.00	8.78	8.76	1.02	0.850 to 1.15	96.0	70.0 to 130	0.228	20.0
BD15015	Silicon, Total	mg/L	-0.00110	0.0440	1.00	0.994	0.984	1.00	0.850 to 1.15	99.4	70.0 to 130	1.01	20.0
BD15007	Sodium, Dissolved	mg/L	0.00579	0.0880	5.00	46.9	47.3	5.30	4.25 to 5.75	94.0	70.0 to 130	0.849	20.0
BD15015	Sodium, Total	mg/L	0.00689	0.0880	5.00	5.35	5.42	5.44	4.25 to 5.75	105	70.0 to 130	1.30	20.0
BD15014	Sulfate	mg/L	0.349	2.0	20.0	36.3	36.4	20.4	18.0 to 22.0	93.5	80.0 to 120	0.275	20.0
BD15007	Thallium, Dissolved	mg/L	-0.0000062	0.000147	0.100	0.104	0.104	0.103	0.0850 to 0.115	104	70.0 to 130	0.00	20.0
BD15015	Thallium, Total	mg/L	0.0000283	0.000147	0.100	0.104	0.105	0.111	0.0850 to 0.115	104	70.0 to 130	0.957	20.0
BD15014	Total Organic Carbon	mg/L	0.165	1.00	10.0	16.2	16.8	25.3		100	80.0 to 120	3.64	20.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWBARAP

Sample Date: 8/8/23 10:49

Customer ID:

Delivery Date: 8/10/23 09:47

Description: Barry Ash Pond - MW-20V

Laboratory ID Number: BD15006

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BD15006	Alkalinity	mg CaCO3/L					153	51.2	45.0 to 55.0			0.00	10.0
BD15014	Nitrogen, Nitrate/Nitrite	mg/L as N	-0.01	0.200	2.00	2.02	0.006	2.01	1.80 to 2.20	101	90.0 to 110	0.00	15.0
BD15009	Solids, Dissolved	mg/L	1.00	25.0			396	50.0	40.0 to 60.0			0.760	10.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Barry Ash Pond - MW-12

Location Code: WMWBARAP
Collected: 8/8/23 11:50
Customer ID:
Submittal Date: 8/10/23 09:47

Laboratory ID Number: BD15007

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7			Analyst: ABB		Preparation Method: EPA 1638				
* Boron, Total	8/11/23 11:28	8/15/23 14:05		1.015	0.0641	mg/L	0.030000	0.1015	J
* Calcium, Total	8/11/23 11:28	8/16/23 13:23		1.015	21.9	mg/L	0.070035	0.406	
* Iron, Total	8/11/23 11:28	8/16/23 15:35		101.5	60.1	mg/L	0.8120	4.06	
* Lithium, Total	8/11/23 11:28	8/15/23 14:05		1.015	Not Detected	mg/L	0.007105	0.01999956	U
* Magnesium, Total	8/11/23 11:28	8/15/23 14:05		1.015	18.1	mg/L	0.021315	0.406	
* Molybdenum, Total	8/11/23 11:28	8/15/23 14:05		1.015	Not Detected	mg/L	0.005075	0.01015	U
* Silica, Total (calc.)	8/11/23 11:28	8/15/23 14:05		1	16.6	mg/L			
* Silicon, Total	8/11/23 11:28	8/15/23 14:05		1.015	7.77	mg/L	0.02030	0.25375	
* Sodium, Total	8/11/23 11:28	8/16/23 14:38		10.15	45.4	mg/L	0.4060	4.06	
Analytical Method: EPA 200.7			Analyst: ABB						
* Boron, Dissolved	8/11/23 09:10	8/11/23 13:01		1.015	0.0649	mg/L	0.030000	0.1015	J
* Calcium, Dissolved	8/11/23 09:10	8/11/23 13:01		1.015	22.7	mg/L	0.070035	0.406	
* Iron, Dissolved	8/11/23 09:10	8/15/23 11:31		101.5	64.7	mg/L	0.8120	4.06	RA
* Lithium, Dissolved	8/11/23 09:10	8/11/23 13:01		1.015	Not Detected	mg/L	0.007105	0.01999956	U
* Magnesium, Dissolved	8/11/23 09:10	8/11/23 13:01		1.015	18.1	mg/L	0.021315	0.406	
* Molybdenum, Dissolved	8/11/23 09:10	8/11/23 13:01		1.015	Not Detected	mg/L	0.005075	0.01015	U
* Silica, Dissolved (calc.)	8/11/23 09:10	8/11/23 13:01		1	16.7	mg/L			
* Silicon, Dissolved	8/11/23 09:10	8/11/23 13:01		1.015	7.82	mg/L	0.02030	0.25375	
* Sodium, Dissolved	8/11/23 09:10	8/14/23 14:27		10.15	42.2	mg/L	0.4060	4.06	
Analytical Method: EPA 200.8			Analyst: DLJ		Preparation Method: EPA 1638				
* Antimony, Total	8/11/23 11:28	8/11/23 15:54		1.015	Not Detected	mg/L	0.000710	0.001015	U
* Aluminum, Total	8/11/23 11:28	8/11/23 15:54		1.015	0.278	mg/L	0.009135	0.05075	
* Arsenic, Total	8/11/23 11:28	8/11/23 15:54		1.015	0.0222	mg/L	0.000112	0.000203	
* Barium, Total	8/11/23 11:28	8/11/23 15:54		1.015	0.0860	mg/L	0.000508	0.001015	
* Beryllium, Total	8/11/23 11:28	8/11/23 15:54		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Total	8/11/23 11:28	8/11/23 15:54		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Total	8/11/23 11:28	8/11/23 15:54		1.015	0.00496	mg/L	0.000203	0.001015	
* Cobalt, Total	8/11/23 11:28	8/11/23 15:54		1.015	0.00388	mg/L	0.000068	0.000203	
* Lead, Total	8/11/23 11:28	8/11/23 15:54		1.015	0.000572	mg/L	0.000068	0.000203	
* Manganese, Total	8/11/23 11:28	8/11/23 15:54		1.015	0.705	mg/L	0.000152	0.001015	

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Barry Ash Pond - MW-12

Location Code: WMWBARAP
Collected: 8/8/23 11:50
Customer ID:
Submittal Date: 8/10/23 09:47

Laboratory ID Number: BD15007

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
* Potassium, Total	8/11/23 11:28	8/11/23 15:54		1.015	3.09	mg/L	0.169505	0.5075	
* Selenium, Total	8/11/23 11:28	8/11/23 15:54		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Total	8/11/23 11:28	8/11/23 15:54		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 200.8		Analyst: DLJ							
* Antimony, Dissolved	8/11/23 09:10	8/11/23 11:55		1.015	Not Detected	mg/L	0.000710	0.001015	U
* Aluminum, Dissolved	8/11/23 09:10	8/11/23 11:55		1.015	Not Detected	mg/L	0.009135	0.05075	U
* Arsenic, Dissolved	8/11/23 09:10	8/11/23 11:55		1.015	0.0230	mg/L	0.000112	0.000203	
* Barium, Dissolved	8/11/23 09:10	8/11/23 11:55		1.015	0.0793	mg/L	0.000508	0.001015	
* Beryllium, Dissolved	8/11/23 09:10	8/11/23 11:55		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Dissolved	8/11/23 09:10	8/11/23 11:55		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Dissolved	8/11/23 09:10	8/11/23 11:55		1.015	0.00358	mg/L	0.000203	0.001015	
* Cobalt, Dissolved	8/11/23 09:10	8/11/23 11:55		1.015	0.00381	mg/L	0.000068	0.000203	
* Lead, Dissolved	8/11/23 09:10	8/11/23 11:55		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Dissolved	8/11/23 09:10	8/11/23 11:55		1.015	0.685	mg/L	0.000152	0.001015	RA
* Potassium, Dissolved	8/11/23 09:10	8/11/23 11:55		1.015	3.03	mg/L	0.169505	0.5075	
* Selenium, Dissolved	8/11/23 09:10	8/11/23 11:55		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Dissolved	8/11/23 09:10	8/11/23 11:55		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 245.1		Analyst: ELH							
* Mercury, Total by CVAA	8/10/23 17:13	8/10/23 23:49		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: EPA 353.2		Analyst: SC							
* Nitrogen, Nitrate/Nitrite	8/10/23 16:26	8/10/23 16:26		1	Not Detected	mg/L as N	0.20	0.3	U
Analytical Method: SM 2320 B		Analyst: DHC							
* Alkalinity	8/16/23 09:02	8/16/23 14:44		1	219	mg CaCO3/L		0.1	
Analytical Method: SM 2540C		Analyst: CNJ							
* Solids, Dissolved	8/11/23 11:30	8/15/23 09:35		1	351	mg/L		25	
Analytical Method: SM 4500CO2 D		Analyst: DHC							
* Bicarbonate Alkalinity, (calc.)	8/16/23 09:02	8/16/23 14:44		1	219	mg CaCO3/L		1	
* Carbonate Alkalinity, (calc.)	8/16/23 09:02	8/16/23 14:44		1	Not Detected	mg CaCO3/L		0.5	
Analytical Method: SM 4500H+ B		Analyst: DHC							
Alkalinity pH Endpoint	8/16/23 09:02	8/16/23 14:44		1	4.51	SU		2	

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Barry Ash Pond - MW-12

Location Code: WMWBARAP
Collected: 8/8/23 11:50
Customer ID:
Submittal Date: 8/10/23 09:47

Laboratory ID Number: BD15007

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM 5310 B		Analyst: SC							
* Total Organic Carbon	8/11/23 09:52	8/11/23 09:52		1	20.4	mg/L	1.00	2	
Analytical Method: SM4500Cl E		Analyst: JCC							
* Chloride	8/16/23 12:30	8/16/23 12:30		2	22.3	mg/L	1.00	2	
Analytical Method: SM4500F G 2017		Analyst: JCC							
* Fluoride	8/17/23 10:49	8/17/23 10:49		1	0.0672	mg/L	0.06	0.125	J
Analytical Method: SM4500SO4 E 2011		Analyst: JCC							
* Sulfate	8/11/23 12:10	8/11/23 12:10		3	65.1	mg/L	1.8	6	
Analytical Method: Field Measurements		Analyst: DKG							
Conductivity	8/8/23 11:47	8/8/23 11:47			494.55	uS/cm			FA
pH	8/8/23 11:47	8/8/23 11:47			6.07	SU			FA
Temperature	8/8/23 11:47	8/8/23 11:47			22.91	C			FA
Turbidity	8/8/23 11:47	8/8/23 11:47			8.12	NTU			FA
Sulfide	8/8/23 11:47	8/8/23 11:47			0	mg/L			FA

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWBARAP

Sample Date: 8/8/23 11:50

Customer ID:

Delivery Date: 8/10/23 09:47

Description: Barry Ash Pond - MW-12

Laboratory ID Number: BD15007

Sample	Analysis	Units	MB		Spike	MS	MSD	Standard		Rec		Prec	Limit
			MB	Limit				Standard	Limit	Rec	Limit		
BD15007	Aluminum, Dissolved	mg/L	-0.000366	0.0198	0.100	0.105	0.107	0.104	0.0850 to 0.115	105	70.0 to 130	1.89	20.0
BD15015	Aluminum, Total	mg/L	0.000494	0.0198	0.100	0.106	0.105	0.107	0.0850 to 0.115	106	70.0 to 130	0.948	20.0
BD15007	Antimony, Dissolved	mg/L	0.000717	0.00100	0.100	0.0938	0.0930	0.0901	0.0850 to 0.115	93.8	70.0 to 130	0.857	20.0
BD15015	Antimony, Total	mg/L	0.000335	0.00100	0.100	0.0900	0.0919	0.0915	0.0850 to 0.115	90.0	70.0 to 130	2.09	20.0
BD15007	Arsenic, Dissolved	mg/L	0.0000364	0.000200	0.100	0.123	0.125	0.0999	0.0850 to 0.115	100	70.0 to 130	1.61	20.0
BD15015	Arsenic, Total	mg/L	0.0000005	0.000200	0.100	0.100	0.0975	0.0994	0.0850 to 0.115	100	70.0 to 130	2.53	20.0
BD15007	Barium, Dissolved	mg/L	-0.0000120	0.00100	0.100	0.173	0.175	0.0953	0.0850 to 0.115	93.7	70.0 to 130	1.15	20.0
BD15015	Barium, Total	mg/L	-0.0000013	0.00100	0.100	0.103	0.102	0.102	0.0850 to 0.115	103	70.0 to 130	0.976	20.0
BD15007	Beryllium, Dissolved	mg/L	0.0000241	0.000880	0.100	0.0991	0.0953	0.0982	0.0850 to 0.115	99.1	70.0 to 130	3.91	20.0
BD15015	Beryllium, Total	mg/L	0.0000525	0.000880	0.100	0.0966	0.0932	0.0918	0.0850 to 0.115	96.6	70.0 to 130	3.58	20.0
BD15007	Boron, Dissolved	mg/L	-0.00158	0.0650	1.00	1.10	1.09	0.998	0.850 to 1.15	104	70.0 to 130	0.913	20.0
BD15015	Boron, Total	mg/L	0.000378	0.0650	1.00	0.986	0.980	0.998	0.850 to 1.15	98.6	70.0 to 130	0.610	20.0
BD15007	Cadmium, Dissolved	mg/L	0.0000122	0.000147	0.100	0.0948	0.0990	0.0966	0.0850 to 0.115	94.8	70.0 to 130	4.33	20.0
BD15015	Cadmium, Total	mg/L	0.0000138	0.000147	0.100	0.101	0.0989	0.103	0.0850 to 0.115	101	70.0 to 130	2.10	20.0
BD15007	Calcium, Dissolved	mg/L	-0.00883	0.152	5.00	26.8	26.8	4.86	4.25 to 5.75	82.0	70.0 to 130	0.00	20.0
BD15015	Calcium, Total	mg/L	-0.0114	0.152	5.00	4.62	4.58	4.71	4.25 to 5.75	92.4	70.0 to 130	0.870	20.0
BD15014	Chloride	mg/L	0.0252	1.00	10.0	24.6	24.4	9.69	9.00 to 11.0	87.0	80.0 to 120	0.816	20.0
BD15007	Chromium, Dissolved	mg/L	-0.0000772	0.000440	0.100	0.0978	0.0988	0.0988	0.0850 to 0.115	94.2	70.0 to 130	1.02	20.0
BD15015	Chromium, Total	mg/L	-0.000171	0.000440	0.100	0.0999	0.101	0.0988	0.0850 to 0.115	99.9	70.0 to 130	1.10	20.0
BD15007	Cobalt, Dissolved	mg/L	-0.0000063	0.000147	0.100	0.102	0.105	0.102	0.0850 to 0.115	98.2	70.0 to 130	2.90	20.0
BD15015	Cobalt, Total	mg/L	-0.0000060	0.000147	0.100	0.105	0.105	0.105	0.0850 to 0.115	105	70.0 to 130	0.00	20.0
BD15014	Fluoride	mg/L	0.0306	0.125	2.50	2.63	2.66	2.53	2.25 to 2.75	105	80.0 to 120	1.13	20.0
BD15007	Iron, Dissolved	mg/L	0.00047	0.0176	0.2	65.7	63.4	0.204	0.170 to 0.230	500	70.0 to 130	3.56	20.0
BD15015	Iron, Total	mg/L	0.000264	0.0176	0.2	0.195	0.195	0.196	0.170 to 0.230	97.5	70.0 to 130	0.00	20.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWBARAP

Sample Date: 8/8/23 11:50

Customer ID:

Delivery Date: 8/10/23 09:47

Description: Barry Ash Pond - MW-12

Laboratory ID Number: BD15007

Sample	Analysis	Units	MB	MB		Spike	MS	MSD	Standard		Rec		Prec
				Limit					Standard	Limit	Rec	Limit	
BD15007	Lead, Dissolved	mg/L	0.0000155	0.000147	0.100	0.102	0.101	0.107	0.0850 to 0.115	102	70.0 to 130	0.985	20.0
BD15015	Lead, Total	mg/L	0.0000362	0.000147	0.100	0.107	0.105	0.107	0.0850 to 0.115	107	70.0 to 130	1.89	20.0
BD15007	Lithium, Dissolved	mg/L	-0.000571	0.0154	0.200	0.210	0.208	0.206	0.170 to 0.230	105	70.0 to 130	0.957	20.0
BD15015	Lithium, Total	mg/L	-0.000611	0.0154	0.200	0.210	0.212	0.211	0.170 to 0.230	105	70.0 to 130	0.948	20.0
BD15007	Magnesium, Dissolved	mg/L	-0.00854	0.0462	5.00	22.8	22.6	5.06	4.25 to 5.75	94.0	70.0 to 130	0.881	20.0
BD15015	Magnesium, Total	mg/L	-0.000838	0.0462	5.00	5.04	5.10	5.05	4.25 to 5.75	101	70.0 to 130	1.18	20.0
BD15007	Manganese, Dissolved	mg/L	0.0000086	0.00033	0.100	0.776	0.747	0.101	0.0850 to 0.115	91.0	70.0 to 130	3.81	20.0
BD15015	Manganese, Total	mg/L	0.0000106	0.00033	0.100	0.102	0.103	0.102	0.0850 to 0.115	102	70.0 to 130	0.976	20.0
BD15014	Mercury, Total by CVAA	mg/L	-5.000E-05	0.000500	0.004	0.00391	0.00394	0.00401	0.00340 to 0.00460	97.8	70.0 to 130	0.764	20.0
BD15007	Molybdenum, Dissolved	mg/L	0.00221	0.0100	0.2	0.201	0.200	0.198	0.170 to 0.230	100	70.0 to 130	0.499	20.0
BD15015	Molybdenum, Total	mg/L	0.000	0.0100	0.2	0.197	0.197	0.197	0.170 to 0.230	98.5	70.0 to 130	0.00	20.0
BD15007	Potassium, Dissolved	mg/L	-0.00230	0.367	10.0	12.8	13.0	10.3	8.50 to 11.5	97.7	70.0 to 130	1.55	20.0
BD15015	Potassium, Total	mg/L	-0.0265	0.367	10.0	10.2	10.5	10.5	8.50 to 11.5	102	70.0 to 130	2.90	20.0
BD15007	Selenium, Dissolved	mg/L	0.0000708	0.00100	0.100	0.104	0.105	0.101	0.0850 to 0.115	104	70.0 to 130	0.957	20.0
BD15015	Selenium, Total	mg/L	-0.000110	0.00100	0.100	0.0988	0.0990	0.0994	0.0850 to 0.115	98.8	70.0 to 130	0.202	20.0
BD15007	Silicon, Dissolved	mg/L	-0.000657	0.0440	1.00	8.78	8.76	1.02	0.850 to 1.15	96.0	70.0 to 130	0.228	20.0
BD15015	Silicon, Total	mg/L	-0.00110	0.0440	1.00	0.994	0.984	1.00	0.850 to 1.15	99.4	70.0 to 130	1.01	20.0
BD15007	Sodium, Dissolved	mg/L	0.00579	0.0880	5.00	46.9	47.3	5.30	4.25 to 5.75	94.0	70.0 to 130	0.849	20.0
BD15015	Sodium, Total	mg/L	0.00689	0.0880	5.00	5.35	5.42	5.44	4.25 to 5.75	105	70.0 to 130	1.30	20.0
BD15014	Sulfate	mg/L	0.349	2.0	20.0	36.3	36.4	20.4	18.0 to 22.0	93.5	80.0 to 120	0.275	20.0
BD15007	Thallium, Dissolved	mg/L	-0.0000062	0.000147	0.100	0.104	0.104	0.103	0.0850 to 0.115	104	70.0 to 130	0.00	20.0
BD15015	Thallium, Total	mg/L	0.0000283	0.000147	0.100	0.104	0.105	0.111	0.0850 to 0.115	104	70.0 to 130	0.957	20.0
BD15014	Total Organic Carbon	mg/L	0.165	1.00	10.0	16.2	16.8	25.3		100	80.0 to 120	3.64	20.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWBARAP

Sample Date: 8/8/23 11:50

Customer ID:

Delivery Date: 8/10/23 09:47

Description: Barry Ash Pond - MW-12

Laboratory ID Number: BD15007

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BD15006	Alkalinity	mg CaCO3/L					153	51.2	45.0 to 55.0			0.00	10.0
BD15014	Nitrogen, Nitrate/Nitrite	mg/L as N	-0.01	0.200	2.00	2.02	0.006	2.01	1.80 to 2.20	101	90.0 to 110	0.00	15.0
BD15009	Solids, Dissolved	mg/L	1.00	25.0			396	50.0	40.0 to 60.0			0.760	10.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Barry Ash Pond - MW-12V

Location Code: WMWBARAP
Collected: 8/8/23 12:38
Customer ID:
Submittal Date: 8/10/23 09:47

Laboratory ID Number: BD15008

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7			Analyst: ABB		Preparation Method: EPA 1638				
* Boron, Total	8/11/23 11:28	8/15/23 14:08		1.015	0.0777	mg/L	0.030000	0.1015	J
* Calcium, Total	8/11/23 11:28	8/16/23 13:26		1.015	19.7	mg/L	0.070035	0.406	
* Iron, Total	8/11/23 11:28	8/16/23 15:38		101.5	85.0	mg/L	0.8120	4.06	
* Lithium, Total	8/11/23 11:28	8/15/23 14:08		1.015	Not Detected	mg/L	0.007105	0.01999956	U
* Magnesium, Total	8/11/23 11:28	8/15/23 14:08		1.015	15.0	mg/L	0.021315	0.406	
* Molybdenum, Total	8/11/23 11:28	8/15/23 14:08		1.015	Not Detected	mg/L	0.005075	0.01015	U
* Silica, Total (calc.)	8/11/23 11:28	8/15/23 14:08		1	14.2	mg/L			
* Silicon, Total	8/11/23 11:28	8/15/23 14:08		1.015	6.65	mg/L	0.02030	0.25375	
* Sodium, Total	8/11/23 11:28	8/16/23 14:41		10.15	48.9	mg/L	0.4060	4.06	
Analytical Method: EPA 200.7			Analyst: ABB						
* Boron, Dissolved	8/11/23 09:10	8/11/23 13:23		1.015	0.0726	mg/L	0.030000	0.1015	J
* Calcium, Dissolved	8/11/23 09:10	8/11/23 13:23		1.015	20.0	mg/L	0.070035	0.406	
* Iron, Dissolved	8/11/23 09:10	8/15/23 11:40		101.5	84.4	mg/L	0.8120	4.06	
* Lithium, Dissolved	8/11/23 09:10	8/11/23 13:23		1.015	Not Detected	mg/L	0.007105	0.01999956	U
* Magnesium, Dissolved	8/11/23 09:10	8/11/23 13:23		1.015	14.7	mg/L	0.021315	0.406	
* Molybdenum, Dissolved	8/11/23 09:10	8/11/23 13:23		1.015	Not Detected	mg/L	0.005075	0.01015	U
* Silica, Dissolved (calc.)	8/11/23 09:10	8/11/23 13:23		1	14.4	mg/L			
* Silicon, Dissolved	8/11/23 09:10	8/11/23 13:23		1.015	6.72	mg/L	0.02030	0.25375	
* Sodium, Dissolved	8/11/23 09:10	8/14/23 14:36		10.15	42.5	mg/L	0.4060	4.06	
Analytical Method: EPA 200.8			Analyst: DLJ		Preparation Method: EPA 1638				
* Antimony, Total	8/11/23 11:28	8/11/23 15:57		1.015	Not Detected	mg/L	0.000710	0.001015	U
* Arsenic, Total	8/11/23 11:28	8/11/23 15:57		1.015	0.0227	mg/L	0.000112	0.000203	
* Aluminum, Total	8/11/23 11:28	8/11/23 15:57		1.015	0.0890	mg/L	0.009135	0.05075	
* Barium, Total	8/11/23 11:28	8/11/23 15:57		1.015	0.0976	mg/L	0.000508	0.001015	
* Beryllium, Total	8/11/23 11:28	8/11/23 15:57		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Total	8/11/23 11:28	8/11/23 15:57		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Total	8/11/23 11:28	8/11/23 15:57		1.015	0.00105	mg/L	0.000203	0.001015	
* Cobalt, Total	8/11/23 11:28	8/11/23 15:57		1.015	0.00284	mg/L	0.000068	0.000203	
* Lead, Total	8/11/23 11:28	8/11/23 15:57		1.015	0.000124	mg/L	0.000068	0.000203	J
* Manganese, Total	8/11/23 11:28	8/11/23 15:57		1.015	1.18	mg/L	0.000152	0.001015	

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Barry Ash Pond - MW-12V

Location Code: WMWBARAP
Collected: 8/8/23 12:38
Customer ID:
Submittal Date: 8/10/23 09:47

Laboratory ID Number: BD15008

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
* Potassium, Total	8/11/23 11:28	8/11/23 15:57		1.015	2.52	mg/L	0.169505	0.5075	
* Selenium, Total	8/11/23 11:28	8/11/23 15:57		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Total	8/11/23 11:28	8/11/23 15:57		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 200.8		Analyst: DLJ							
* Antimony, Dissolved	8/11/23 09:10	8/11/23 12:23		1.015	Not Detected	mg/L	0.000710	0.001015	U
* Aluminum, Dissolved	8/11/23 09:10	8/11/23 12:23		1.015	Not Detected	mg/L	0.009135	0.05075	U
* Arsenic, Dissolved	8/11/23 09:10	8/11/23 12:23		1.015	0.0244	mg/L	0.000112	0.000203	
* Barium, Dissolved	8/11/23 09:10	8/11/23 12:23		1.015	0.0980	mg/L	0.000508	0.001015	
* Beryllium, Dissolved	8/11/23 09:10	8/11/23 12:23		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Dissolved	8/11/23 09:10	8/11/23 12:23		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Dissolved	8/11/23 09:10	8/11/23 12:23		1.015	0.000886	mg/L	0.000203	0.001015	J
* Cobalt, Dissolved	8/11/23 09:10	8/11/23 12:23		1.015	0.00286	mg/L	0.000068	0.000203	
* Lead, Dissolved	8/11/23 09:10	8/11/23 12:23		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Dissolved	8/11/23 09:10	8/11/23 12:23		1.015	1.22	mg/L	0.000152	0.001015	
* Potassium, Dissolved	8/11/23 09:10	8/11/23 12:23		1.015	2.63	mg/L	0.169505	0.5075	
* Selenium, Dissolved	8/11/23 09:10	8/11/23 12:23		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Dissolved	8/11/23 09:10	8/11/23 12:23		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 245.1		Analyst: ELH							
* Mercury, Total by CVAA	8/10/23 17:13	8/10/23 23:53		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: EPA 353.2		Analyst: SC							
* Nitrogen, Nitrate/Nitrite	8/10/23 16:28	8/10/23 16:28		1	Not Detected	mg/L as N	0.20	0.3	U
Analytical Method: SM 2320 B		Analyst: DHC							
* Alkalinity	8/16/23 09:02	8/16/23 14:44		1	213	mg CaCO3/L		0.1	
Analytical Method: SM 2540C		Analyst: CNJ							
* Solids, Dissolved	8/11/23 11:30	8/15/23 09:35		1	327	mg/L		25	
Analytical Method: SM 4500CO2 D		Analyst: DHC							
* Bicarbonate Alkalinity, (calc.)	8/16/23 09:02	8/16/23 14:44		1	213	mg CaCO3/L		1	
* Carbonate Alkalinity, (calc.)	8/16/23 09:02	8/16/23 14:44		1	Not Detected	mg CaCO3/L		0.5	
Analytical Method: SM 4500H+ B		Analyst: DHC							
Alkalinity pH Endpoint	8/16/23 09:02	8/16/23 14:44		1	4.52	SU		2	

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Barry Ash Pond - MW-12V

Location Code: WMWBARAP
Collected: 8/8/23 12:38
Customer ID:
Submittal Date: 8/10/23 09:47

Laboratory ID Number: BD15008

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM 5310 B		Analyst: SC							
* Total Organic Carbon	8/11/23 10:10	8/11/23 10:10		1	15.8	mg/L	1.00	2	
Analytical Method: SM4500Cl E		Analyst: JCC							
* Chloride	8/16/23 12:31	8/16/23 12:31		2	22.8	mg/L	1.00	2	
Analytical Method: SM4500F G 2017		Analyst: JCC							
* Fluoride	8/17/23 10:50	8/17/23 10:50		1	0.0731	mg/L	0.06	0.125	J
Analytical Method: SM4500SO4 E 2011		Analyst: JCC							
* Sulfate	8/11/23 12:11	8/11/23 12:11		5	110	mg/L	3.0	10	
Analytical Method: Field Measurements		Analyst: DKG							
Conductivity	8/8/23 12:35	8/8/23 12:35			508.88	uS/cm			FA
pH	8/8/23 12:35	8/8/23 12:35			6.25	SU			FA
Temperature	8/8/23 12:35	8/8/23 12:35			22.56	C			FA
Turbidity	8/8/23 12:35	8/8/23 12:35			7.24	NTU			FA
Sulfide	8/8/23 12:35	8/8/23 12:35			0	mg/L			FA

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWBARAP

Sample Date: 8/8/23 12:38

Customer ID:

Delivery Date: 8/10/23 09:47

Description: Barry Ash Pond - MW-12V

Laboratory ID Number: BD15008

Sample	Analysis	Units	MB		Spike	MS	MSD	Standard		Rec		Prec	Limit
			MB	Limit				Standard	Limit	Rec	Limit		
BD15018	Aluminum, Dissolved	mg/L	-0.000210	0.0198	0.100	0.105	0.107	0.0999	0.0850 to 0.115	105	70.0 to 130	1.89	20.0
BD15015	Aluminum, Total	mg/L	0.000494	0.0198	0.100	0.106	0.105	0.107	0.0850 to 0.115	106	70.0 to 130	0.948	20.0
BD15018	Antimony, Dissolved	mg/L	0.000419	0.00100	0.100	0.0935	0.0933	0.0899	0.0850 to 0.115	93.5	70.0 to 130	0.214	20.0
BD15015	Antimony, Total	mg/L	0.000335	0.00100	0.100	0.0900	0.0919	0.0915	0.0850 to 0.115	90.0	70.0 to 130	2.09	20.0
BD15018	Arsenic, Dissolved	mg/L	0.0000078	0.000200	0.100	0.0973	0.0975	0.0963	0.0850 to 0.115	97.3	70.0 to 130	0.205	20.0
BD15015	Arsenic, Total	mg/L	0.0000005	0.000200	0.100	0.100	0.0975	0.0994	0.0850 to 0.115	100	70.0 to 130	2.53	20.0
BD15018	Barium, Dissolved	mg/L	0.0000016	0.00100	0.100	0.116	0.118	0.0971	0.0850 to 0.115	95.8	70.0 to 130	1.71	20.0
BD15015	Barium, Total	mg/L	-0.0000013	0.00100	0.100	0.103	0.102	0.102	0.0850 to 0.115	103	70.0 to 130	0.976	20.0
BD15018	Beryllium, Dissolved	mg/L	0.0000249	0.000880	0.100	0.0930	0.0953	0.0946	0.0850 to 0.115	93.0	70.0 to 130	2.44	20.0
BD15015	Beryllium, Total	mg/L	0.0000525	0.000880	0.100	0.0966	0.0932	0.0918	0.0850 to 0.115	96.6	70.0 to 130	3.58	20.0
BD15018	Boron, Dissolved	mg/L	-0.00147	0.0650	1.00	1.03	1.04	1.02	0.850 to 1.15	103	70.0 to 130	0.966	20.0
BD15015	Boron, Total	mg/L	0.000378	0.0650	1.00	0.986	0.980	0.998	0.850 to 1.15	98.6	70.0 to 130	0.610	20.0
BD15018	Cadmium, Dissolved	mg/L	0.0000044	0.000147	0.100	0.0993	0.0999	0.0981	0.0850 to 0.115	99.3	70.0 to 130	0.602	20.0
BD15015	Cadmium, Total	mg/L	0.0000138	0.000147	0.100	0.101	0.0989	0.103	0.0850 to 0.115	101	70.0 to 130	2.10	20.0
BD15018	Calcium, Dissolved	mg/L	-0.00839	0.152	5.00	5.91	5.81	5.04	4.25 to 5.75	98.0	70.0 to 130	1.71	20.0
BD15015	Calcium, Total	mg/L	-0.0114	0.152	5.00	4.62	4.58	4.71	4.25 to 5.75	92.4	70.0 to 130	0.870	20.0
BD15014	Chloride	mg/L	0.0252	1.00	10.0	24.6	24.4	9.69	9.00 to 11.0	87.0	80.0 to 120	0.816	20.0
BD15018	Chromium, Dissolved	mg/L	-0.000105	0.000440	0.100	0.0976	0.0986	0.0957	0.0850 to 0.115	96.6	70.0 to 130	1.02	20.0
BD15015	Chromium, Total	mg/L	-0.000171	0.000440	0.100	0.0999	0.101	0.0988	0.0850 to 0.115	99.9	70.0 to 130	1.10	20.0
BD15018	Cobalt, Dissolved	mg/L	-0.0000064	0.000147	0.100	0.102	0.104	0.0994	0.0850 to 0.115	101	70.0 to 130	1.94	20.0
BD15015	Cobalt, Total	mg/L	-0.0000060	0.000147	0.100	0.105	0.105	0.105	0.0850 to 0.115	105	70.0 to 130	0.00	20.0
BD15014	Fluoride	mg/L	0.0306	0.125	2.50	2.63	2.66	2.53	2.25 to 2.75	105	80.0 to 120	1.13	20.0
BD15018	Iron, Dissolved	mg/L	0.00127	0.0176	0.2	0.204	0.202	0.201	0.170 to 0.230	102	70.0 to 130	0.985	20.0
BD15015	Iron, Total	mg/L	0.000264	0.0176	0.2	0.195	0.195	0.196	0.170 to 0.230	97.5	70.0 to 130	0.00	20.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWBARAP

Sample Date: 8/8/23 12:38

Customer ID:

Delivery Date: 8/10/23 09:47

Description: Barry Ash Pond - MW-12V

Laboratory ID Number: BD15008

Sample	Analysis	Units	MB					Standard		Rec		Prec	Limit
			MB	Limit	Spike	MS	MSD	Standard	Limit	Rec	Limit		
BD15018	Lead, Dissolved	mg/L	0.0000145	0.000147	0.100	0.105	0.104	0.103	0.0850 to 0.115	105	70.0 to 130	0.957	20.0
BD15015	Lead, Total	mg/L	0.0000362	0.000147	0.100	0.107	0.105	0.107	0.0850 to 0.115	107	70.0 to 130	1.89	20.0
BD15018	Lithium, Dissolved	mg/L	-0.000272	0.0154	0.200	0.212	0.211	0.210	0.170 to 0.230	106	70.0 to 130	0.473	20.0
BD15015	Lithium, Total	mg/L	-0.000611	0.0154	0.200	0.210	0.212	0.211	0.170 to 0.230	105	70.0 to 130	0.948	20.0
BD15018	Magnesium, Dissolved	mg/L	-0.000059	0.0462	5.00	5.93	5.84	5.21	4.25 to 5.75	103	70.0 to 130	1.53	20.0
BD15015	Magnesium, Total	mg/L	-0.000838	0.0462	5.00	5.04	5.10	5.05	4.25 to 5.75	101	70.0 to 130	1.18	20.0
BD15018	Manganese, Dissolved	mg/L	0.0000346	0.00033	0.100	0.103	0.103	0.0983	0.0850 to 0.115	99.5	70.0 to 130	0.00	20.0
BD15015	Manganese, Total	mg/L	0.0000106	0.00033	0.100	0.102	0.103	0.102	0.0850 to 0.115	102	70.0 to 130	0.976	20.0
BD15014	Mercury, Total by CVAA	mg/L	-5.000E-05	0.000500	0.004	0.00391	0.00394	0.00401	0.00340 to 0.00460	97.8	70.0 to 130	0.764	20.0
BD15018	Molybdenum, Dissolved	mg/L	0.00193	0.0100	0.2	0.198	0.200	0.199	0.170 to 0.230	99.0	70.0 to 130	1.01	20.0
BD15015	Molybdenum, Total	mg/L	0.000	0.0100	0.2	0.197	0.197	0.197	0.170 to 0.230	98.5	70.0 to 130	0.00	20.0
BD15018	Potassium, Dissolved	mg/L	-0.00978	0.367	10.0	11.0	11.3	10.1	8.50 to 11.5	100	70.0 to 130	2.69	20.0
BD15015	Potassium, Total	mg/L	-0.0265	0.367	10.0	10.2	10.5	10.5	8.50 to 11.5	102	70.0 to 130	2.90	20.0
BD15018	Selenium, Dissolved	mg/L	-0.0000836	0.00100	0.100	0.0999	0.0988	0.0990	0.0850 to 0.115	99.9	70.0 to 130	1.11	20.0
BD15015	Selenium, Total	mg/L	-0.000110	0.00100	0.100	0.0988	0.0990	0.0994	0.0850 to 0.115	98.8	70.0 to 130	0.202	20.0
BD15018	Silicon, Dissolved	mg/L	0.000422	0.0440	1.00	8.72	8.74	1.03	0.850 to 1.15	111	70.0 to 130	0.229	20.0
BD15015	Silicon, Total	mg/L	-0.00110	0.0440	1.00	0.994	0.984	1.00	0.850 to 1.15	99.4	70.0 to 130	1.01	20.0
BD15018	Sodium, Dissolved	mg/L	0.00934	0.0880	5.00	11.8	11.8	5.30	4.25 to 5.75	104	70.0 to 130	0.00	20.0
BD15015	Sodium, Total	mg/L	0.00689	0.0880	5.00	5.35	5.42	5.44	4.25 to 5.75	105	70.0 to 130	1.30	20.0
BD15014	Sulfate	mg/L	0.349	2.0	20.0	36.3	36.4	20.4	18.0 to 22.0	93.5	80.0 to 120	0.275	20.0
BD15018	Thallium, Dissolved	mg/L	-0.0000018	0.000147	0.100	0.106	0.104	0.105	0.0850 to 0.115	106	70.0 to 130	1.90	20.0
BD15015	Thallium, Total	mg/L	0.0000283	0.000147	0.100	0.104	0.105	0.111	0.0850 to 0.115	104	70.0 to 130	0.957	20.0
BD15014	Total Organic Carbon	mg/L	0.165	1.00	10.0	16.2	16.8	25.3		100	80.0 to 120	3.64	20.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWBARAP

Sample Date: 8/8/23 12:38

Customer ID:

Delivery Date: 8/10/23 09:47

Description: Barry Ash Pond - MW-12V

Laboratory ID Number: BD15008

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BD15006	Alkalinity	mg CaCO3/L					153	51.2	45.0 to 55.0			0.00	10.0
BD15014	Nitrogen, Nitrate/Nitrite	mg/L as N	-0.01	0.200	2.00	2.02	0.006	2.01	1.80 to 2.20	101	90.0 to 110	0.00	15.0
BD15009	Solids, Dissolved	mg/L	1.00	25.0			396	50.0	40.0 to 60.0			0.760	10.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Barry Ash Pond - MW-1

Location Code: WMWBARAP
Collected: 8/8/23 13:50
Customer ID:
Submittal Date: 8/10/23 09:47

Laboratory ID Number: BD15009

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7			Analyst: ABB		Preparation Method: EPA 1638				
* Boron, Total	8/11/23 11:28	8/15/23 14:12		1.015	1.36	mg/L	0.030000	0.1015	
* Calcium, Total	8/11/23 11:28	8/16/23 13:29		1.015	31.0	mg/L	0.070035	0.406	
* Iron, Total	8/11/23 11:28	8/16/23 15:41		101.5	122	mg/L	0.8120	4.06	
* Lithium, Total	8/11/23 11:28	8/15/23 14:12		1.015	Not Detected	mg/L	0.007105	0.01999956	U
* Magnesium, Total	8/11/23 11:28	8/15/23 14:12		1.015	10.7	mg/L	0.021315	0.406	
* Molybdenum, Total	8/11/23 11:28	8/15/23 14:12		1.015	Not Detected	mg/L	0.005075	0.01015	U
* Silica, Total (calc.)	8/11/23 11:28	8/15/23 14:12		1	25.5	mg/L			
* Silicon, Total	8/11/23 11:28	8/15/23 14:12		1.015	11.9	mg/L	0.02030	0.25375	
* Sodium, Total	8/11/23 11:28	8/15/23 14:12		1.015	27.7	mg/L	0.04060	0.406	
Analytical Method: EPA 200.7			Analyst: ABB						
* Boron, Dissolved	8/11/23 09:10	8/11/23 13:27		1.015	1.38	mg/L	0.030000	0.1015	
* Calcium, Dissolved	8/11/23 09:10	8/11/23 13:27		1.015	31.5	mg/L	0.070035	0.406	
* Iron, Dissolved	8/11/23 09:10	8/15/23 11:43		101.5	125	mg/L	0.8120	4.06	
* Lithium, Dissolved	8/11/23 09:10	8/11/23 13:27		1.015	Not Detected	mg/L	0.007105	0.01999956	U
* Magnesium, Dissolved	8/11/23 09:10	8/11/23 13:27		1.015	10.3	mg/L	0.021315	0.406	
* Molybdenum, Dissolved	8/11/23 09:10	8/11/23 13:27		1.015	Not Detected	mg/L	0.005075	0.01015	U
* Silica, Dissolved (calc.)	8/11/23 09:10	8/11/23 13:27		1	25.7	mg/L			
* Silicon, Dissolved	8/11/23 09:10	8/11/23 13:27		1.015	12.0	mg/L	0.02030	0.25375	
* Sodium, Dissolved	8/11/23 09:10	8/11/23 13:27		1.015	25.6	mg/L	0.04060	0.406	
Analytical Method: EPA 200.8			Analyst: DLJ		Preparation Method: EPA 1638				
* Antimony, Total	8/11/23 11:28	8/11/23 16:01		1.015	Not Detected	mg/L	0.000710	0.001015	U
* Arsenic, Total	8/11/23 11:28	8/11/23 16:01		1.015	0.0491	mg/L	0.000112	0.000203	
* Aluminum, Total	8/11/23 11:28	8/11/23 16:01		1.015	0.237	mg/L	0.009135	0.05075	
* Barium, Total	8/11/23 11:28	8/11/23 16:01		1.015	0.258	mg/L	0.000508	0.001015	
* Beryllium, Total	8/11/23 11:28	8/11/23 16:01		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Total	8/11/23 11:28	8/11/23 16:01		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Total	8/11/23 11:28	8/11/23 16:01		1.015	0.00374	mg/L	0.000203	0.001015	
* Cobalt, Total	8/11/23 11:28	8/11/23 16:01		1.015	0.000897	mg/L	0.000068	0.000203	
* Lead, Total	8/11/23 11:28	8/11/23 16:01		1.015	0.000206	mg/L	0.000068	0.000203	
* Manganese, Total	8/11/23 11:28	8/11/23 16:01		1.015	0.950	mg/L	0.000152	0.001015	

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Barry Ash Pond - MW-1

Location Code: WMWBARAP
Collected: 8/8/23 13:50
Customer ID:
Submittal Date: 8/10/23 09:47

Laboratory ID Number: BD15009

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
* Potassium, Total	8/11/23 11:28	8/11/23 16:01		1.015	2.09	mg/L	0.169505	0.5075	
* Selenium, Total	8/11/23 11:28	8/11/23 16:01		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Total	8/11/23 11:28	8/11/23 16:01		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 200.8		Analyst: DLJ							
* Antimony, Dissolved	8/11/23 09:10	8/11/23 12:27		1.015	Not Detected	mg/L	0.000710	0.001015	U
* Aluminum, Dissolved	8/11/23 09:10	8/11/23 12:27		1.015	0.0131	mg/L	0.009135	0.05075	J
* Arsenic, Dissolved	8/11/23 09:10	8/11/23 12:27		1.015	0.0509	mg/L	0.000112	0.000203	
* Barium, Dissolved	8/11/23 09:10	8/11/23 12:27		1.015	0.236	mg/L	0.000508	0.001015	
* Beryllium, Dissolved	8/11/23 09:10	8/11/23 12:27		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Dissolved	8/11/23 09:10	8/11/23 12:27		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Dissolved	8/11/23 09:10	8/11/23 12:27		1.015	0.00324	mg/L	0.000203	0.001015	
* Cobalt, Dissolved	8/11/23 09:10	8/11/23 12:27		1.015	0.000834	mg/L	0.000068	0.000203	
* Lead, Dissolved	8/11/23 09:10	8/11/23 12:27		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Dissolved	8/11/23 09:10	8/11/23 12:27		1.015	0.903	mg/L	0.000152	0.001015	
* Potassium, Dissolved	8/11/23 09:10	8/11/23 12:27		1.015	1.99	mg/L	0.169505	0.5075	
* Selenium, Dissolved	8/11/23 09:10	8/11/23 12:27		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Dissolved	8/11/23 09:10	8/11/23 12:27		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 245.1		Analyst: ELH							
* Mercury, Total by CVAA	8/10/23 17:13	8/10/23 23:57		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: EPA 353.2		Analyst: SC							
* Nitrogen, Nitrate/Nitrite	8/10/23 16:29	8/10/23 16:29		1	Not Detected	mg/L as N	0.20	0.3	U
Analytical Method: SM 2320 B		Analyst: DHC							
* Alkalinity	8/16/23 09:02	8/16/23 14:44		1	233	mg CaCO3/L		0.1	
Analytical Method: SM 2540C		Analyst: CNJ							
* Solids, Dissolved	8/11/23 11:30	8/15/23 09:35		1	393	mg/L		25	
Analytical Method: SM 4500CO2 D		Analyst: DHC							
* Bicarbonate Alkalinity, (calc.)	8/16/23 09:02	8/16/23 14:44		1	233	mg CaCO3/L		1	
* Carbonate Alkalinity, (calc.)	8/16/23 09:02	8/16/23 14:44		1	0.0978	mg CaCO3/L		0.5	
Analytical Method: SM 4500H+ B		Analyst: DHC							
Alkalinity pH Endpoint	8/16/23 09:02	8/16/23 14:44		1	4.51	SU		2	

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Barry Ash Pond - MW-1

Location Code: WMWBARAP
Collected: 8/8/23 13:50
Customer ID:
Submittal Date: 8/10/23 09:47

Laboratory ID Number: BD15009

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM 5310 B		Analyst: SC							
* Total Organic Carbon	8/11/23 10:27	8/11/23 10:27		1	12.8	mg/L	1.00	2	
Analytical Method: SM4500Cl E		Analyst: JCC							
* Chloride	8/16/23 12:32	8/16/23 12:32		2	20.9	mg/L	1.00	2	
Analytical Method: SM4500F G 2017		Analyst: JCC							
* Fluoride	8/17/23 10:51	8/17/23 10:51		1	0.0612	mg/L	0.06	0.125	J
Analytical Method: SM4500SO4 E 2011		Analyst: JCC							
* Sulfate	9/7/23 13:41	9/7/23 13:41		1	3.92	mg/L	0.6	2	
Analytical Method: Field Measurements		Analyst: DKG							
Conductivity	8/8/23 13:47	8/8/23 13:47			554.42	uS/cm			FA
pH	8/8/23 13:47	8/8/23 13:47			5.74	SU			FA
Temperature	8/8/23 13:47	8/8/23 13:47			22.82	C			FA
Turbidity	8/8/23 13:47	8/8/23 13:47			8.64	NTU			FA
Sulfide	8/8/23 13:47	8/8/23 13:47			0	mg/L			FA

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWBARAP

Sample Date: 8/8/23 13:50

Customer ID:

Delivery Date: 8/10/23 09:47

Description: Barry Ash Pond - MW-1

Laboratory ID Number: BD15009

Sample	Analysis	Units	MB		Spike	MS	MSD	Standard		Rec		Prec	Limit
			MB	Limit				Standard	Limit	Rec	Limit		
BD15018	Aluminum, Dissolved	mg/L	-0.000210	0.0198	0.100	0.105	0.107	0.0999	0.0850 to 0.115	105	70.0 to 130	1.89	20.0
BD15015	Aluminum, Total	mg/L	0.000494	0.0198	0.100	0.106	0.105	0.107	0.0850 to 0.115	106	70.0 to 130	0.948	20.0
BD15018	Antimony, Dissolved	mg/L	0.000419	0.00100	0.100	0.0935	0.0933	0.0899	0.0850 to 0.115	93.5	70.0 to 130	0.214	20.0
BD15015	Antimony, Total	mg/L	0.000335	0.00100	0.100	0.0900	0.0919	0.0915	0.0850 to 0.115	90.0	70.0 to 130	2.09	20.0
BD15018	Arsenic, Dissolved	mg/L	0.0000078	0.000200	0.100	0.0973	0.0975	0.0963	0.0850 to 0.115	97.3	70.0 to 130	0.205	20.0
BD15015	Arsenic, Total	mg/L	0.0000005	0.000200	0.100	0.100	0.0975	0.0994	0.0850 to 0.115	100	70.0 to 130	2.53	20.0
BD15018	Barium, Dissolved	mg/L	0.0000016	0.00100	0.100	0.116	0.118	0.0971	0.0850 to 0.115	95.8	70.0 to 130	1.71	20.0
BD15015	Barium, Total	mg/L	-0.0000013	0.00100	0.100	0.103	0.102	0.102	0.0850 to 0.115	103	70.0 to 130	0.976	20.0
BD15018	Beryllium, Dissolved	mg/L	0.0000249	0.000880	0.100	0.0930	0.0953	0.0946	0.0850 to 0.115	93.0	70.0 to 130	2.44	20.0
BD15015	Beryllium, Total	mg/L	0.0000525	0.000880	0.100	0.0966	0.0932	0.0918	0.0850 to 0.115	96.6	70.0 to 130	3.58	20.0
BD15018	Boron, Dissolved	mg/L	-0.00147	0.0650	1.00	1.03	1.04	1.02	0.850 to 1.15	103	70.0 to 130	0.966	20.0
BD15015	Boron, Total	mg/L	0.000378	0.0650	1.00	0.986	0.980	0.998	0.850 to 1.15	98.6	70.0 to 130	0.610	20.0
BD15018	Cadmium, Dissolved	mg/L	0.0000044	0.000147	0.100	0.0993	0.0999	0.0981	0.0850 to 0.115	99.3	70.0 to 130	0.602	20.0
BD15015	Cadmium, Total	mg/L	0.0000138	0.000147	0.100	0.101	0.0989	0.103	0.0850 to 0.115	101	70.0 to 130	2.10	20.0
BD15018	Calcium, Dissolved	mg/L	-0.00839	0.152	5.00	5.91	5.81	5.04	4.25 to 5.75	98.0	70.0 to 130	1.71	20.0
BD15015	Calcium, Total	mg/L	-0.0114	0.152	5.00	4.62	4.58	4.71	4.25 to 5.75	92.4	70.0 to 130	0.870	20.0
BD15014	Chloride	mg/L	0.0252	1.00	10.0	24.6	24.4	9.69	9.00 to 11.0	87.0	80.0 to 120	0.816	20.0
BD15018	Chromium, Dissolved	mg/L	-0.000105	0.000440	0.100	0.0976	0.0986	0.0957	0.0850 to 0.115	96.6	70.0 to 130	1.02	20.0
BD15015	Chromium, Total	mg/L	-0.000171	0.000440	0.100	0.0999	0.101	0.0988	0.0850 to 0.115	99.9	70.0 to 130	1.10	20.0
BD15018	Cobalt, Dissolved	mg/L	-0.0000064	0.000147	0.100	0.102	0.104	0.0994	0.0850 to 0.115	101	70.0 to 130	1.94	20.0
BD15015	Cobalt, Total	mg/L	-0.0000060	0.000147	0.100	0.105	0.105	0.105	0.0850 to 0.115	105	70.0 to 130	0.00	20.0
BD15014	Fluoride	mg/L	0.0306	0.125	2.50	2.63	2.66	2.53	2.25 to 2.75	105	80.0 to 120	1.13	20.0
BD15018	Iron, Dissolved	mg/L	0.00127	0.0176	0.2	0.204	0.202	0.201	0.170 to 0.230	102	70.0 to 130	0.985	20.0
BD15015	Iron, Total	mg/L	0.000264	0.0176	0.2	0.195	0.195	0.196	0.170 to 0.230	97.5	70.0 to 130	0.00	20.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWBARAP

Sample Date: 8/8/23 13:50

Customer ID:

Delivery Date: 8/10/23 09:47

Description: Barry Ash Pond - MW-1

Laboratory ID Number: BD15009

Sample	Analysis	Units	MB	MB				Standard		Rec		Prec	Limit
				Limit	Spike	MS	MSD	Standard	Limit	Rec	Limit		
BD15018	Lead, Dissolved	mg/L	0.0000145	0.000147	0.100	0.105	0.104	0.103	0.0850 to 0.115	105	70.0 to 130	0.957	20.0
BD15015	Lead, Total	mg/L	0.0000362	0.000147	0.100	0.107	0.105	0.107	0.0850 to 0.115	107	70.0 to 130	1.89	20.0
BD15018	Lithium, Dissolved	mg/L	-0.000272	0.0154	0.200	0.212	0.211	0.210	0.170 to 0.230	106	70.0 to 130	0.473	20.0
BD15015	Lithium, Total	mg/L	-0.000611	0.0154	0.200	0.210	0.212	0.211	0.170 to 0.230	105	70.0 to 130	0.948	20.0
BD15018	Magnesium, Dissolved	mg/L	-0.000059	0.0462	5.00	5.93	5.84	5.21	4.25 to 5.75	103	70.0 to 130	1.53	20.0
BD15015	Magnesium, Total	mg/L	-0.000838	0.0462	5.00	5.04	5.10	5.05	4.25 to 5.75	101	70.0 to 130	1.18	20.0
BD15018	Manganese, Dissolved	mg/L	0.0000346	0.00033	0.100	0.103	0.103	0.0983	0.0850 to 0.115	99.5	70.0 to 130	0.00	20.0
BD15015	Manganese, Total	mg/L	0.0000106	0.00033	0.100	0.102	0.103	0.102	0.0850 to 0.115	102	70.0 to 130	0.976	20.0
BD15014	Mercury, Total by CVAA	mg/L	-5.000E-05	0.000500	0.004	0.00391	0.00394	0.00401	0.00340 to 0.00460	97.8	70.0 to 130	0.764	20.0
BD15018	Molybdenum, Dissolved	mg/L	0.00193	0.0100	0.2	0.198	0.200	0.199	0.170 to 0.230	99.0	70.0 to 130	1.01	20.0
BD15015	Molybdenum, Total	mg/L	0.000	0.0100	0.2	0.197	0.197	0.197	0.170 to 0.230	98.5	70.0 to 130	0.00	20.0
BD15018	Potassium, Dissolved	mg/L	-0.00978	0.367	10.0	11.0	11.3	10.1	8.50 to 11.5	100	70.0 to 130	2.69	20.0
BD15015	Potassium, Total	mg/L	-0.0265	0.367	10.0	10.2	10.5	10.5	8.50 to 11.5	102	70.0 to 130	2.90	20.0
BD15018	Selenium, Dissolved	mg/L	-0.0000836	0.00100	0.100	0.0999	0.0988	0.0990	0.0850 to 0.115	99.9	70.0 to 130	1.11	20.0
BD15015	Selenium, Total	mg/L	-0.000110	0.00100	0.100	0.0988	0.0990	0.0994	0.0850 to 0.115	98.8	70.0 to 130	0.202	20.0
BD15018	Silicon, Dissolved	mg/L	0.000422	0.0440	1.00	8.72	8.74	1.03	0.850 to 1.15	111	70.0 to 130	0.229	20.0
BD15015	Silicon, Total	mg/L	-0.00110	0.0440	1.00	0.994	0.984	1.00	0.850 to 1.15	99.4	70.0 to 130	1.01	20.0
BD15018	Sodium, Dissolved	mg/L	0.00934	0.0880	5.00	11.8	11.8	5.30	4.25 to 5.75	104	70.0 to 130	0.00	20.0
BD15015	Sodium, Total	mg/L	0.00689	0.0880	5.00	5.35	5.42	5.44	4.25 to 5.75	105	70.0 to 130	1.30	20.0
BD15010	Sulfate	mg/L	-0.075	2.0	20.0	23.3	23.4	20.3	18.0 to 22.0	97.4	80.0 to 120	0.428	20.0
BD15018	Thallium, Dissolved	mg/L	-0.0000018	0.000147	0.100	0.106	0.104	0.105	0.0850 to 0.115	106	70.0 to 130	1.90	20.0
BD15015	Thallium, Total	mg/L	0.0000283	0.000147	0.100	0.104	0.105	0.111	0.0850 to 0.115	104	70.0 to 130	0.957	20.0
BD15014	Total Organic Carbon	mg/L	0.165	1.00	10.0	16.2	16.8	25.3		100	80.0 to 120	3.64	20.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWBARAP

Sample Date: 8/8/23 13:50

Customer ID:

Delivery Date: 8/10/23 09:47

Description: Barry Ash Pond - MW-1

Laboratory ID Number: BD15009

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BD15006	Alkalinity	mg CaCO3/L					153	51.2	45.0 to 55.0			0.00	10.0
BD15014	Nitrogen, Nitrate/Nitrite	mg/L as N	-0.01	0.200	2.00	2.02	0.006	2.01	1.80 to 2.20	101	90.0 to 110	0.00	15.0
BD15009	Solids, Dissolved	mg/L	1.00	25.0			396	50.0	40.0 to 60.0			0.760	10.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Barry Ash Pond - MW-1 Dup

Location Code: WMWBARAP
Collected: 8/8/23 13:50
Customer ID:
Submittal Date: 8/10/23 09:47

Laboratory ID Number: BD15010

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7		Analyst: ABB			Preparation Method: EPA 1638				
* Boron, Total	8/11/23 11:28	8/15/23 14:15		1.015	1.37	mg/L	0.030000	0.1015	
* Calcium, Total	8/11/23 11:28	8/16/23 13:32		1.015	30.7	mg/L	0.070035	0.406	
* Iron, Total	8/11/23 11:28	8/16/23 15:45		101.5	125	mg/L	0.8120	4.06	
* Lithium, Total	8/11/23 11:28	8/15/23 14:15		1.015	Not Detected	mg/L	0.007105	0.01999956	U
* Magnesium, Total	8/11/23 11:28	8/15/23 14:15		1.015	10.7	mg/L	0.021315	0.406	
* Molybdenum, Total	8/11/23 11:28	8/15/23 14:15		1.015	Not Detected	mg/L	0.005075	0.01015	U
* Silica, Total (calc.)	8/11/23 11:28	8/15/23 14:15		1	25.7	mg/L			
* Silicon, Total	8/11/23 11:28	8/15/23 14:15		1.015	12.0	mg/L	0.02030	0.25375	
* Sodium, Total	8/11/23 11:28	8/15/23 14:15		1.015	27.6	mg/L	0.04060	0.406	
Analytical Method: EPA 200.7		Analyst: ABB			Preparation Method: EPA 1638				
* Boron, Dissolved	8/11/23 09:10	8/11/23 13:30		1.015	1.39	mg/L	0.030000	0.1015	
* Calcium, Dissolved	8/11/23 09:10	8/11/23 13:30		1.015	32.0	mg/L	0.070035	0.406	
* Iron, Dissolved	8/11/23 09:10	8/15/23 11:46		101.5	124	mg/L	0.8120	4.06	
* Lithium, Dissolved	8/11/23 09:10	8/11/23 13:30		1.015	Not Detected	mg/L	0.007105	0.01999956	U
* Magnesium, Dissolved	8/11/23 09:10	8/11/23 13:30		1.015	10.4	mg/L	0.021315	0.406	
* Molybdenum, Dissolved	8/11/23 09:10	8/11/23 13:30		1.015	Not Detected	mg/L	0.005075	0.01015	U
* Silica, Dissolved (calc.)	8/11/23 09:10	8/11/23 13:30		1	25.7	mg/L			
* Silicon, Dissolved	8/11/23 09:10	8/11/23 13:30		1.015	12.0	mg/L	0.02030	0.25375	
* Sodium, Dissolved	8/11/23 09:10	8/11/23 13:30		1.015	26.0	mg/L	0.04060	0.406	
Analytical Method: EPA 200.8		Analyst: DLJ			Preparation Method: EPA 1638				
* Antimony, Total	8/11/23 11:28	8/11/23 16:04		1.015	Not Detected	mg/L	0.000710	0.001015	U
* Aluminum, Total	8/11/23 11:28	8/11/23 16:04		1.015	0.140	mg/L	0.009135	0.05075	
* Arsenic, Total	8/11/23 11:28	8/11/23 16:04		1.015	0.0468	mg/L	0.000112	0.000203	
* Barium, Total	8/11/23 11:28	8/11/23 16:04		1.015	0.247	mg/L	0.000508	0.001015	
* Beryllium, Total	8/11/23 11:28	8/11/23 16:04		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Total	8/11/23 11:28	8/11/23 16:04		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Total	8/11/23 11:28	8/11/23 16:04		1.015	0.00338	mg/L	0.000203	0.001015	
* Cobalt, Total	8/11/23 11:28	8/11/23 16:04		1.015	0.000874	mg/L	0.000068	0.000203	
* Lead, Total	8/11/23 11:28	8/11/23 16:04		1.015	0.000170	mg/L	0.000068	0.000203	J
* Manganese, Total	8/11/23 11:28	8/11/23 16:04		1.015	0.888	mg/L	0.000152	0.001015	

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Barry Ash Pond - MW-1 Dup

Location Code: WMWBARAP
Collected: 8/8/23 13:50
Customer ID:
Submittal Date: 8/10/23 09:47

Laboratory ID Number: BD15010

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
* Potassium, Total	8/11/23 11:28	8/11/23 16:04		1.015	2.01	mg/L	0.169505	0.5075	
* Selenium, Total	8/11/23 11:28	8/11/23 16:04		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Total	8/11/23 11:28	8/11/23 16:04		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 200.8		Analyst: DLJ							
* Antimony, Dissolved	8/11/23 09:10	8/11/23 12:30		1.015	Not Detected	mg/L	0.000710	0.001015	U
* Aluminum, Dissolved	8/11/23 09:10	8/11/23 12:30		1.015	0.0130	mg/L	0.009135	0.05075	J
* Arsenic, Dissolved	8/11/23 09:10	8/11/23 12:30		1.015	0.0502	mg/L	0.000112	0.000203	
* Barium, Dissolved	8/11/23 09:10	8/11/23 12:30		1.015	0.241	mg/L	0.000508	0.001015	
* Beryllium, Dissolved	8/11/23 09:10	8/11/23 12:30		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Dissolved	8/11/23 09:10	8/11/23 12:30		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Dissolved	8/11/23 09:10	8/11/23 12:30		1.015	0.00329	mg/L	0.000203	0.001015	
* Cobalt, Dissolved	8/11/23 09:10	8/11/23 12:30		1.015	0.000803	mg/L	0.000068	0.000203	
* Lead, Dissolved	8/11/23 09:10	8/11/23 12:30		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Dissolved	8/11/23 09:10	8/11/23 12:30		1.015	0.911	mg/L	0.000152	0.001015	
* Potassium, Dissolved	8/11/23 09:10	8/11/23 12:30		1.015	2.01	mg/L	0.169505	0.5075	
* Selenium, Dissolved	8/11/23 09:10	8/11/23 12:30		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Dissolved	8/11/23 09:10	8/11/23 12:30		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 245.1		Analyst: ELH							
* Mercury, Total by CVAA	8/10/23 17:13	8/11/23 00:01		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: EPA 353.2		Analyst: SC							
* Nitrogen, Nitrate/Nitrite	8/10/23 16:31	8/10/23 16:31		1	Not Detected	mg/L as N	0.20	0.3	U
Analytical Method: SM 2320 B		Analyst: DHC							
* Alkalinity	8/16/23 09:02	8/16/23 14:44		1	290	mg CaCO3/L		0.1	
Analytical Method: SM 2540C		Analyst: CNJ							
* Solids, Dissolved	8/11/23 11:30	8/15/23 09:35		1	394	mg/L		25	
Analytical Method: SM 4500CO2 D		Analyst: DHC							
* Bicarbonate Alkalinity, (calc.)	8/16/23 09:02	8/16/23 14:44		1	290	mg CaCO3/L		1	
* Carbonate Alkalinity, (calc.)	8/16/23 09:02	8/16/23 14:44		1	0.0717	mg CaCO3/L		0.5	
Analytical Method: SM 4500H+ B		Analyst: DHC							
Alkalinity pH Endpoint	8/16/23 09:02	8/16/23 14:44		1	4.51	SU		2	

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Barry Ash Pond - MW-1 Dup

Location Code: WMWBARAP
Collected: 8/8/23 13:50
Customer ID:
Submittal Date: 8/10/23 09:47

Laboratory ID Number: BD15010

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM 5310 B		Analyst: SC							
* Total Organic Carbon	8/11/23 10:45	8/11/23 10:45		1	13.2	mg/L	1.00	2	
Analytical Method: SM4500Cl E		Analyst: JCC							
* Chloride	8/16/23 12:33	8/16/23 12:33		2	21.0	mg/L	1.00	2	
Analytical Method: SM4500F G 2017		Analyst: JCC							
* Fluoride	8/17/23 10:52	8/17/23 10:52		1	0.0601	mg/L	0.06	0.125	J
Analytical Method: SM4500SO4 E 2011		Analyst: JCC							
* Sulfate	9/7/23 13:42	9/7/23 13:42		1	3.83	mg/L	0.6	2	
Analytical Method: Field Measurements		Analyst: DKG							
Conductivity	8/8/23 13:47	8/8/23 13:47			554.42	uS/cm			FA
pH	8/8/23 13:47	8/8/23 13:47			5.74	SU			FA
Temperature	8/8/23 13:47	8/8/23 13:47			22.82	C			FA
Turbidity	8/8/23 13:47	8/8/23 13:47			8.64	NTU			FA
Sulfide	8/8/23 13:47	8/8/23 13:47			0	mg/L			FA

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWBARAP

Sample Date: 8/8/23 13:50

Customer ID:

Delivery Date: 8/10/23 09:47

Description: Barry Ash Pond - MW-1 Dup

Laboratory ID Number: BD15010

Sample	Analysis	Units	MB					Standard		Rec			Prec Limit
			MB	Limit	Spike	MS	MSD	Standard	Limit	Rec	Limit	Prec	
BD15018	Aluminum, Dissolved	mg/L	-0.000210	0.0198	0.100	0.105	0.107	0.0999	0.0850 to 0.115	105	70.0 to 130	1.89	20.0
BD15015	Aluminum, Total	mg/L	0.000494	0.0198	0.100	0.106	0.105	0.107	0.0850 to 0.115	106	70.0 to 130	0.948	20.0
BD15018	Antimony, Dissolved	mg/L	0.000419	0.00100	0.100	0.0935	0.0933	0.0899	0.0850 to 0.115	93.5	70.0 to 130	0.214	20.0
BD15015	Antimony, Total	mg/L	0.000335	0.00100	0.100	0.0900	0.0919	0.0915	0.0850 to 0.115	90.0	70.0 to 130	2.09	20.0
BD15018	Arsenic, Dissolved	mg/L	0.0000078	0.000200	0.100	0.0973	0.0975	0.0963	0.0850 to 0.115	97.3	70.0 to 130	0.205	20.0
BD15015	Arsenic, Total	mg/L	0.0000005	0.000200	0.100	0.100	0.0975	0.0994	0.0850 to 0.115	100	70.0 to 130	2.53	20.0
BD15018	Barium, Dissolved	mg/L	0.0000016	0.00100	0.100	0.116	0.118	0.0971	0.0850 to 0.115	95.8	70.0 to 130	1.71	20.0
BD15015	Barium, Total	mg/L	-0.0000013	0.00100	0.100	0.103	0.102	0.102	0.0850 to 0.115	103	70.0 to 130	0.976	20.0
BD15018	Beryllium, Dissolved	mg/L	0.0000249	0.000880	0.100	0.0930	0.0953	0.0946	0.0850 to 0.115	93.0	70.0 to 130	2.44	20.0
BD15015	Beryllium, Total	mg/L	0.0000525	0.000880	0.100	0.0966	0.0932	0.0918	0.0850 to 0.115	96.6	70.0 to 130	3.58	20.0
BD15018	Boron, Dissolved	mg/L	-0.00147	0.0650	1.00	1.03	1.04	1.02	0.850 to 1.15	103	70.0 to 130	0.966	20.0
BD15015	Boron, Total	mg/L	0.000378	0.0650	1.00	0.986	0.980	0.998	0.850 to 1.15	98.6	70.0 to 130	0.610	20.0
BD15018	Cadmium, Dissolved	mg/L	0.0000044	0.000147	0.100	0.0993	0.0999	0.0981	0.0850 to 0.115	99.3	70.0 to 130	0.602	20.0
BD15015	Cadmium, Total	mg/L	0.0000138	0.000147	0.100	0.101	0.0989	0.103	0.0850 to 0.115	101	70.0 to 130	2.10	20.0
BD15018	Calcium, Dissolved	mg/L	-0.00839	0.152	5.00	5.91	5.81	5.04	4.25 to 5.75	98.0	70.0 to 130	1.71	20.0
BD15015	Calcium, Total	mg/L	-0.0114	0.152	5.00	4.62	4.58	4.71	4.25 to 5.75	92.4	70.0 to 130	0.870	20.0
BD15014	Chloride	mg/L	0.0252	1.00	10.0	24.6	24.4	9.69	9.00 to 11.0	87.0	80.0 to 120	0.816	20.0
BD15018	Chromium, Dissolved	mg/L	-0.000105	0.000440	0.100	0.0976	0.0986	0.0957	0.0850 to 0.115	96.6	70.0 to 130	1.02	20.0
BD15015	Chromium, Total	mg/L	-0.000171	0.000440	0.100	0.0999	0.101	0.0988	0.0850 to 0.115	99.9	70.0 to 130	1.10	20.0
BD15018	Cobalt, Dissolved	mg/L	-0.0000064	0.000147	0.100	0.102	0.104	0.0994	0.0850 to 0.115	101	70.0 to 130	1.94	20.0
BD15015	Cobalt, Total	mg/L	-0.0000060	0.000147	0.100	0.105	0.105	0.105	0.0850 to 0.115	105	70.0 to 130	0.00	20.0
BD15014	Fluoride	mg/L	0.0306	0.125	2.50	2.63	2.66	2.53	2.25 to 2.75	105	80.0 to 120	1.13	20.0
BD15018	Iron, Dissolved	mg/L	0.00127	0.0176	0.2	0.204	0.202	0.201	0.170 to 0.230	102	70.0 to 130	0.985	20.0
BD15015	Iron, Total	mg/L	0.000264	0.0176	0.2	0.195	0.195	0.196	0.170 to 0.230	97.5	70.0 to 130	0.00	20.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWBARAP

Sample Date: 8/8/23 13:50

Customer ID:

Delivery Date: 8/10/23 09:47

Description: Barry Ash Pond - MW-1 Dup

Laboratory ID Number: BD15010

Sample	Analysis	Units	MB					Standard		Rec		Prec	Limit
			MB	Limit	Spike	MS	MSD	Standard	Limit	Rec	Limit		
BD15018	Lead, Dissolved	mg/L	0.0000145	0.000147	0.100	0.105	0.104	0.103	0.0850 to 0.115	105	70.0 to 130	0.957	20.0
BD15015	Lead, Total	mg/L	0.0000362	0.000147	0.100	0.107	0.105	0.107	0.0850 to 0.115	107	70.0 to 130	1.89	20.0
BD15018	Lithium, Dissolved	mg/L	-0.000272	0.0154	0.200	0.212	0.211	0.210	0.170 to 0.230	106	70.0 to 130	0.473	20.0
BD15015	Lithium, Total	mg/L	-0.000611	0.0154	0.200	0.210	0.212	0.211	0.170 to 0.230	105	70.0 to 130	0.948	20.0
BD15018	Magnesium, Dissolved	mg/L	-0.000059	0.0462	5.00	5.93	5.84	5.21	4.25 to 5.75	103	70.0 to 130	1.53	20.0
BD15015	Magnesium, Total	mg/L	-0.000838	0.0462	5.00	5.04	5.10	5.05	4.25 to 5.75	101	70.0 to 130	1.18	20.0
BD15018	Manganese, Dissolved	mg/L	0.0000346	0.00033	0.100	0.103	0.103	0.0983	0.0850 to 0.115	99.5	70.0 to 130	0.00	20.0
BD15015	Manganese, Total	mg/L	0.0000106	0.00033	0.100	0.102	0.103	0.102	0.0850 to 0.115	102	70.0 to 130	0.976	20.0
BD15014	Mercury, Total by CVAA	mg/L	-5.000E-05	0.000500	0.004	0.00391	0.00394	0.00401	0.00340 to 0.00460	97.8	70.0 to 130	0.764	20.0
BD15018	Molybdenum, Dissolved	mg/L	0.00193	0.0100	0.2	0.198	0.200	0.199	0.170 to 0.230	99.0	70.0 to 130	1.01	20.0
BD15015	Molybdenum, Total	mg/L	0.000	0.0100	0.2	0.197	0.197	0.197	0.170 to 0.230	98.5	70.0 to 130	0.00	20.0
BD15018	Potassium, Dissolved	mg/L	-0.00978	0.367	10.0	11.0	11.3	10.1	8.50 to 11.5	100	70.0 to 130	2.69	20.0
BD15015	Potassium, Total	mg/L	-0.0265	0.367	10.0	10.2	10.5	10.5	8.50 to 11.5	102	70.0 to 130	2.90	20.0
BD15018	Selenium, Dissolved	mg/L	-0.0000836	0.00100	0.100	0.0999	0.0988	0.0990	0.0850 to 0.115	99.9	70.0 to 130	1.11	20.0
BD15015	Selenium, Total	mg/L	-0.000110	0.00100	0.100	0.0988	0.0990	0.0994	0.0850 to 0.115	98.8	70.0 to 130	0.202	20.0
BD15018	Silicon, Dissolved	mg/L	0.000422	0.0440	1.00	8.72	8.74	1.03	0.850 to 1.15	111	70.0 to 130	0.229	20.0
BD15015	Silicon, Total	mg/L	-0.00110	0.0440	1.00	0.994	0.984	1.00	0.850 to 1.15	99.4	70.0 to 130	1.01	20.0
BD15018	Sodium, Dissolved	mg/L	0.00934	0.0880	5.00	11.8	11.8	5.30	4.25 to 5.75	104	70.0 to 130	0.00	20.0
BD15015	Sodium, Total	mg/L	0.00689	0.0880	5.00	5.35	5.42	5.44	4.25 to 5.75	105	70.0 to 130	1.30	20.0
BD15010	Sulfate	mg/L	-0.075	2.0	20.0	23.3	23.4	20.3	18.0 to 22.0	97.4	80.0 to 120	0.428	20.0
BD15018	Thallium, Dissolved	mg/L	-0.0000018	0.000147	0.100	0.106	0.104	0.105	0.0850 to 0.115	106	70.0 to 130	1.90	20.0
BD15015	Thallium, Total	mg/L	0.0000283	0.000147	0.100	0.104	0.105	0.111	0.0850 to 0.115	104	70.0 to 130	0.957	20.0
BD15014	Total Organic Carbon	mg/L	0.165	1.00	10.0	16.2	16.8	25.3		100	80.0 to 120	3.64	20.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWBARAP

Sample Date: 8/8/23 13:50

Customer ID:

Delivery Date: 8/10/23 09:47

Description: Barry Ash Pond - MW-1 Dup

Laboratory ID Number: BD15010

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BD15006	Alkalinity	mg CaCO3/L					153	51.2	45.0 to 55.0			0.00	10.0
BD15014	Nitrogen, Nitrate/Nitrite	mg/L as N	-0.01	0.200	2.00	2.02	0.006	2.01	1.80 to 2.20	101	90.0 to 110	0.00	15.0
BD15019	Solids, Dissolved	mg/L	1.00	25.0			1540	50.0	40.0 to 60.0			1.31	10.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Barry Ash Pond - MW-7V

Location Code: WMWBARAP
Collected: 8/7/23 12:31
Customer ID:
Submittal Date: 8/10/23 09:48

Laboratory ID Number: BD15011

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7		Analyst: ABB			Preparation Method: EPA 1638				
* Boron, Total	8/11/23 11:28	8/15/23 14:18		1.015	0.169	mg/L	0.030000	0.1015	
* Calcium, Total	8/11/23 11:28	8/16/23 13:35		1.015	21.9	mg/L	0.070035	0.406	
* Iron, Total	8/11/23 11:28	8/15/23 14:18		1.015	0.288	mg/L	0.008120	0.0406	
* Lithium, Total	8/11/23 11:28	8/15/23 14:18		1.015	0.00775	mg/L	0.007105	0.01999956	J
* Magnesium, Total	8/11/23 11:28	8/15/23 14:18		1.015	7.76	mg/L	0.021315	0.406	
* Molybdenum, Total	8/11/23 11:28	8/15/23 14:18		1.015	0.00832	mg/L	0.005075	0.01015	J
* Silica, Total (calc.)	8/11/23 11:28	8/15/23 14:18		1	6.76	mg/L			
* Silicon, Total	8/11/23 11:28	8/15/23 14:18		1.015	3.16	mg/L	0.02030	0.25375	
* Sodium, Total	8/11/23 11:28	8/16/23 14:45		10.15	53.1	mg/L	0.4060	4.06	
Analytical Method: EPA 200.7		Analyst: ABB							
* Boron, Dissolved	8/11/23 09:10	8/11/23 13:33		1.015	0.206	mg/L	0.030000	0.1015	
* Calcium, Dissolved	8/11/23 09:10	8/11/23 13:33		1.015	15.1	mg/L	0.070035	0.406	
* Iron, Dissolved	8/11/23 09:10	8/11/23 13:33		1.015	0.225	mg/L	0.008120	0.0406	
* Lithium, Dissolved	8/11/23 09:10	8/11/23 13:33		1.015	Not Detected	mg/L	0.007105	0.01999956	U
* Magnesium, Dissolved	8/11/23 09:10	8/11/23 13:33		1.015	5.31	mg/L	0.021315	0.406	
* Molybdenum, Dissolved	8/11/23 09:10	8/11/23 13:33		1.015	0.00724	mg/L	0.005075	0.01015	J
* Silica, Dissolved (calc.)	8/11/23 09:10	8/11/23 13:33		1	8.75	mg/L			
* Silicon, Dissolved	8/11/23 09:10	8/11/23 13:33		1.015	4.09	mg/L	0.02030	0.25375	
* Sodium, Dissolved	8/11/23 09:10	8/14/23 14:39		10.15	66.5	mg/L	0.4060	4.06	
Analytical Method: EPA 200.8		Analyst: DLJ			Preparation Method: EPA 1638				
* Antimony, Total	8/11/23 11:28	8/11/23 16:08		1.015	0.000744	mg/L	0.000710	0.001015	J
* Arsenic, Total	8/11/23 11:28	8/11/23 16:08		1.015	0.00141	mg/L	0.000112	0.000203	
* Aluminum, Total	8/11/23 11:28	8/11/23 16:08		1.015	0.0780	mg/L	0.009135	0.05075	
* Barium, Total	8/11/23 11:28	8/11/23 16:08		1.015	0.0583	mg/L	0.000508	0.001015	
* Beryllium, Total	8/11/23 11:28	8/11/23 16:08		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Total	8/11/23 11:28	8/11/23 16:08		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Total	8/11/23 11:28	8/11/23 16:08		1.015	0.000270	mg/L	0.000203	0.001015	J
* Cobalt, Total	8/11/23 11:28	8/11/23 16:08		1.015	0.0000947	mg/L	0.000068	0.000203	J
* Lead, Total	8/11/23 11:28	8/11/23 16:08		1.015	0.000131	mg/L	0.000068	0.000203	J
* Manganese, Total	8/11/23 11:28	8/11/23 16:08		1.015	0.0101	mg/L	0.000152	0.001015	

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Barry Ash Pond - MW-7V

Location Code: WMWBARAP
Collected: 8/7/23 12:31
Customer ID:
Submittal Date: 8/10/23 09:48

Laboratory ID Number: BD15011

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
* Potassium, Total	8/11/23 11:28	8/11/23 16:08		1.015	5.83	mg/L	0.169505	0.5075	
* Selenium, Total	8/11/23 11:28	8/11/23 16:08		1.015	0.000960	mg/L	0.000508	0.001015	J
* Thallium, Total	8/11/23 11:28	8/11/23 16:08		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 200.8		Analyst: DLJ							
* Antimony, Dissolved	8/11/23 09:10	8/11/23 12:34		1.015	Not Detected	mg/L	0.000710	0.001015	U
* Aluminum, Dissolved	8/11/23 09:10	8/11/23 12:34		1.015	0.0169	mg/L	0.009135	0.05075	J
* Arsenic, Dissolved	8/11/23 09:10	8/11/23 12:34		1.015	0.00126	mg/L	0.000112	0.000203	
* Barium, Dissolved	8/11/23 09:10	8/11/23 12:34		1.015	0.0410	mg/L	0.000508	0.001015	
* Beryllium, Dissolved	8/11/23 09:10	8/11/23 12:34		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Dissolved	8/11/23 09:10	8/11/23 12:34		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Dissolved	8/11/23 09:10	8/11/23 12:34		1.015	Not Detected	mg/L	0.000203	0.001015	U
* Cobalt, Dissolved	8/11/23 09:10	8/11/23 12:34		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Lead, Dissolved	8/11/23 09:10	8/11/23 12:34		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Dissolved	8/11/23 09:10	8/11/23 12:34		1.015	0.0112	mg/L	0.000152	0.001015	
* Potassium, Dissolved	8/11/23 09:10	8/11/23 12:34		1.015	4.34	mg/L	0.169505	0.5075	
* Selenium, Dissolved	8/11/23 09:10	8/11/23 12:34		1.015	0.000520	mg/L	0.000508	0.001015	J
* Thallium, Dissolved	8/11/23 09:10	8/11/23 12:34		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 245.1		Analyst: ELH							
* Mercury, Total by CVAA	8/10/23 17:13	8/11/23 00:05		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: EPA 353.2		Analyst: SC							
* Nitrogen, Nitrate/Nitrite	8/10/23 16:33	8/10/23 16:33		1	0.453	mg/L as N	0.20	0.3	
Analytical Method: SM 2320 B		Analyst: DHC							
* Alkalinity	8/15/23 09:20	8/15/23 14:17		1	90.9	mg CaCO3/L		0.1	
Analytical Method: SM 2540C		Analyst: CNJ							
* Solids, Dissolved	8/11/23 11:30	8/15/23 09:35		1	241	mg/L		25	
Analytical Method: SM 4500CO2 D		Analyst: DHC							
* Bicarbonate Alkalinity, (calc.)	8/15/23 09:20	8/15/23 14:17		1	89.2	mg CaCO3/L		1	
* Carbonate Alkalinity, (calc.)	8/15/23 09:20	8/15/23 14:17		1	1.63	mg CaCO3/L		0.5	
Analytical Method: SM 4500H+ B		Analyst: DHC							
Alkalinity pH Endpoint	8/15/23 09:20	8/15/23 14:17		1	4.53	SU		2	

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Barry Ash Pond - MW-7V

Location Code: WMWBARAP
Collected: 8/7/23 12:31
Customer ID:
Submittal Date: 8/10/23 09:48

Laboratory ID Number: BD15011

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM 5310 B		Analyst: SC							
* Total Organic Carbon	8/11/23 11:02	8/11/23 11:02		1	1.46	mg/L	1.00	2	J
Analytical Method: SM4500Cl E		Analyst: JCC							
* Chloride	8/16/23 12:35	8/16/23 12:35		5	39.5	mg/L	2.50	5	
Analytical Method: SM4500F G 2017		Analyst: JCC							
* Fluoride	8/17/23 10:54	8/17/23 10:54		1	0.222	mg/L	0.06	0.125	
Analytical Method: SM4500SO4 E 2011		Analyst: JCC							
* Sulfate	8/11/23 12:15	8/11/23 12:15		3	54.7	mg/L	1.8	6	
Analytical Method: Field Measurements		Analyst: TJD							
Conductivity	8/7/23 12:29	8/7/23 12:29			379.72	uS/cm			FA
pH	8/7/23 12:29	8/7/23 12:29			7.94	SU			FA
Temperature	8/7/23 12:29	8/7/23 12:29			24.62	C			FA
Turbidity	8/7/23 12:29	8/7/23 12:29			6.18	NTU			FA
Sulfide	8/7/23 12:29	8/7/23 12:29			0	mg/L			FA

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWBARAP

Sample Date: 8/7/23 12:31

Customer ID:

Delivery Date: 8/10/23 09:48

Description: Barry Ash Pond - MW-7V

Laboratory ID Number: BD15011

Sample	Analysis	Units	MB		Spike	MS	MSD	Standard		Rec		Prec	Limit
			MB	Limit				Standard	Limit	Rec	Limit		
BD15018	Aluminum, Dissolved	mg/L	-0.000210	0.0198	0.100	0.105	0.107	0.0999	0.0850 to 0.115	105	70.0 to 130	1.89	20.0
BD15015	Aluminum, Total	mg/L	0.000494	0.0198	0.100	0.106	0.105	0.107	0.0850 to 0.115	106	70.0 to 130	0.948	20.0
BD15018	Antimony, Dissolved	mg/L	0.000419	0.00100	0.100	0.0935	0.0933	0.0899	0.0850 to 0.115	93.5	70.0 to 130	0.214	20.0
BD15015	Antimony, Total	mg/L	0.000335	0.00100	0.100	0.0900	0.0919	0.0915	0.0850 to 0.115	90.0	70.0 to 130	2.09	20.0
BD15018	Arsenic, Dissolved	mg/L	0.0000078	0.000200	0.100	0.0973	0.0975	0.0963	0.0850 to 0.115	97.3	70.0 to 130	0.205	20.0
BD15015	Arsenic, Total	mg/L	0.0000005	0.000200	0.100	0.100	0.0975	0.0994	0.0850 to 0.115	100	70.0 to 130	2.53	20.0
BD15018	Barium, Dissolved	mg/L	0.0000016	0.00100	0.100	0.116	0.118	0.0971	0.0850 to 0.115	95.8	70.0 to 130	1.71	20.0
BD15015	Barium, Total	mg/L	-0.0000013	0.00100	0.100	0.103	0.102	0.102	0.0850 to 0.115	103	70.0 to 130	0.976	20.0
BD15018	Beryllium, Dissolved	mg/L	0.0000249	0.000880	0.100	0.0930	0.0953	0.0946	0.0850 to 0.115	93.0	70.0 to 130	2.44	20.0
BD15015	Beryllium, Total	mg/L	0.0000525	0.000880	0.100	0.0966	0.0932	0.0918	0.0850 to 0.115	96.6	70.0 to 130	3.58	20.0
BD15018	Boron, Dissolved	mg/L	-0.00147	0.0650	1.00	1.03	1.04	1.02	0.850 to 1.15	103	70.0 to 130	0.966	20.0
BD15015	Boron, Total	mg/L	0.000378	0.0650	1.00	0.986	0.980	0.998	0.850 to 1.15	98.6	70.0 to 130	0.610	20.0
BD15018	Cadmium, Dissolved	mg/L	0.0000044	0.000147	0.100	0.0993	0.0999	0.0981	0.0850 to 0.115	99.3	70.0 to 130	0.602	20.0
BD15015	Cadmium, Total	mg/L	0.0000138	0.000147	0.100	0.101	0.0989	0.103	0.0850 to 0.115	101	70.0 to 130	2.10	20.0
BD15018	Calcium, Dissolved	mg/L	-0.00839	0.152	5.00	5.91	5.81	5.04	4.25 to 5.75	98.0	70.0 to 130	1.71	20.0
BD15015	Calcium, Total	mg/L	-0.0114	0.152	5.00	4.62	4.58	4.71	4.25 to 5.75	92.4	70.0 to 130	0.870	20.0
BD15014	Chloride	mg/L	0.0252	1.00	10.0	24.6	24.4	9.69	9.00 to 11.0	87.0	80.0 to 120	0.816	20.0
BD15018	Chromium, Dissolved	mg/L	-0.000105	0.000440	0.100	0.0976	0.0986	0.0957	0.0850 to 0.115	96.6	70.0 to 130	1.02	20.0
BD15015	Chromium, Total	mg/L	-0.000171	0.000440	0.100	0.0999	0.101	0.0988	0.0850 to 0.115	99.9	70.0 to 130	1.10	20.0
BD15018	Cobalt, Dissolved	mg/L	-0.0000064	0.000147	0.100	0.102	0.104	0.0994	0.0850 to 0.115	101	70.0 to 130	1.94	20.0
BD15015	Cobalt, Total	mg/L	-0.0000060	0.000147	0.100	0.105	0.105	0.105	0.0850 to 0.115	105	70.0 to 130	0.00	20.0
BD15014	Fluoride	mg/L	0.0306	0.125	2.50	2.63	2.66	2.53	2.25 to 2.75	105	80.0 to 120	1.13	20.0
BD15018	Iron, Dissolved	mg/L	0.00127	0.0176	0.2	0.204	0.202	0.201	0.170 to 0.230	102	70.0 to 130	0.985	20.0
BD15015	Iron, Total	mg/L	0.000264	0.0176	0.2	0.195	0.195	0.196	0.170 to 0.230	97.5	70.0 to 130	0.00	20.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWBARAP

Sample Date: 8/7/23 12:31

Customer ID:

Delivery Date: 8/10/23 09:48

Description: Barry Ash Pond - MW-7V

Laboratory ID Number: BD15011

Sample	Analysis	Units	MB	MB		Spike	MS	MSD	Standard		Rec		Prec
				Limit					Standard	Limit	Rec	Limit	
BD15018	Lead, Dissolved	mg/L	0.0000145	0.000147	0.100	0.105	0.104	0.103	0.0850 to 0.115	105	70.0 to 130	0.957	20.0
BD15015	Lead, Total	mg/L	0.0000362	0.000147	0.100	0.107	0.105	0.107	0.0850 to 0.115	107	70.0 to 130	1.89	20.0
BD15018	Lithium, Dissolved	mg/L	-0.000272	0.0154	0.200	0.212	0.211	0.210	0.170 to 0.230	106	70.0 to 130	0.473	20.0
BD15015	Lithium, Total	mg/L	-0.000611	0.0154	0.200	0.210	0.212	0.211	0.170 to 0.230	105	70.0 to 130	0.948	20.0
BD15018	Magnesium, Dissolved	mg/L	-0.000059	0.0462	5.00	5.93	5.84	5.21	4.25 to 5.75	103	70.0 to 130	1.53	20.0
BD15015	Magnesium, Total	mg/L	-0.000838	0.0462	5.00	5.04	5.10	5.05	4.25 to 5.75	101	70.0 to 130	1.18	20.0
BD15018	Manganese, Dissolved	mg/L	0.0000346	0.00033	0.100	0.103	0.103	0.0983	0.0850 to 0.115	99.5	70.0 to 130	0.00	20.0
BD15015	Manganese, Total	mg/L	0.0000106	0.00033	0.100	0.102	0.103	0.102	0.0850 to 0.115	102	70.0 to 130	0.976	20.0
BD15014	Mercury, Total by CVAA	mg/L	-5.000E-05	0.000500	0.004	0.00391	0.00394	0.00401	0.00340 to 0.00460	97.8	70.0 to 130	0.764	20.0
BD15018	Molybdenum, Dissolved	mg/L	0.00193	0.0100	0.2	0.198	0.200	0.199	0.170 to 0.230	99.0	70.0 to 130	1.01	20.0
BD15015	Molybdenum, Total	mg/L	0.000	0.0100	0.2	0.197	0.197	0.197	0.170 to 0.230	98.5	70.0 to 130	0.00	20.0
BD15018	Potassium, Dissolved	mg/L	-0.00978	0.367	10.0	11.0	11.3	10.1	8.50 to 11.5	100	70.0 to 130	2.69	20.0
BD15015	Potassium, Total	mg/L	-0.0265	0.367	10.0	10.2	10.5	10.5	8.50 to 11.5	102	70.0 to 130	2.90	20.0
BD15018	Selenium, Dissolved	mg/L	-0.0000836	0.00100	0.100	0.0999	0.0988	0.0990	0.0850 to 0.115	99.9	70.0 to 130	1.11	20.0
BD15015	Selenium, Total	mg/L	-0.000110	0.00100	0.100	0.0988	0.0990	0.0994	0.0850 to 0.115	98.8	70.0 to 130	0.202	20.0
BD15018	Silicon, Dissolved	mg/L	0.000422	0.0440	1.00	8.72	8.74	1.03	0.850 to 1.15	111	70.0 to 130	0.229	20.0
BD15015	Silicon, Total	mg/L	-0.00110	0.0440	1.00	0.994	0.984	1.00	0.850 to 1.15	99.4	70.0 to 130	1.01	20.0
BD15018	Sodium, Dissolved	mg/L	0.00934	0.0880	5.00	11.8	11.8	5.30	4.25 to 5.75	104	70.0 to 130	0.00	20.0
BD15015	Sodium, Total	mg/L	0.00689	0.0880	5.00	5.35	5.42	5.44	4.25 to 5.75	105	70.0 to 130	1.30	20.0
BD15014	Sulfate	mg/L	0.349	2.0	20.0	36.3	36.4	20.4	18.0 to 22.0	93.5	80.0 to 120	0.275	20.0
BD15018	Thallium, Dissolved	mg/L	-0.0000018	0.000147	0.100	0.106	0.104	0.105	0.0850 to 0.115	106	70.0 to 130	1.90	20.0
BD15015	Thallium, Total	mg/L	0.0000283	0.000147	0.100	0.104	0.105	0.111	0.0850 to 0.115	104	70.0 to 130	0.957	20.0
BD15014	Total Organic Carbon	mg/L	0.165	1.00	10.0	16.2	16.8	25.3		100	80.0 to 120	3.64	20.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWBARAP

Sample Date: 8/7/23 12:31

Customer ID:

Delivery Date: 8/10/23 09:48

Description: Barry Ash Pond - MW-7V

Laboratory ID Number: BD15011

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BD15014	Alkalinity	mg CaCO3/L					73.7	51.9	45.0 to 55.0			3.60	10.0
BD15014	Nitrogen, Nitrate/Nitrite	mg/L as N	-0.01	0.200	2.00	2.02	0.006	2.01	1.80 to 2.20	101	90.0 to 110	0.00	15.0
BD15019	Solids, Dissolved	mg/L	1.00	25.0			1540	50.0	40.0 to 60.0			1.31	10.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Barry Ash Pond - MW-7

Location Code: WMWBARAP
Collected: 8/7/23 13:30
Customer ID:
Submittal Date: 8/10/23 09:48

Laboratory ID Number: BD15012

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7		Analyst: ABB			Preparation Method: EPA 1638				
* Boron, Total	8/11/23 11:28	8/15/23 14:21		1.015	0.174	mg/L	0.030000	0.1015	
* Calcium, Total	8/11/23 11:28	8/16/23 13:38		1.015	3.21	mg/L	0.070035	0.406	
* Iron, Total	8/11/23 11:28	8/17/23 12:04		10.15	8.03	mg/L	0.08120	0.406	
* Lithium, Total	8/11/23 11:28	8/15/23 14:21		1.015	Not Detected	mg/L	0.007105	0.01999956	U
* Magnesium, Total	8/11/23 11:28	8/15/23 14:21		1.015	2.41	mg/L	0.021315	0.406	
* Molybdenum, Total	8/11/23 11:28	8/15/23 14:21		1.015	Not Detected	mg/L	0.005075	0.01015	U
* Silica, Total (calc.)	8/11/23 11:28	8/15/23 14:21		1	12.1	mg/L			
* Silicon, Total	8/11/23 11:28	8/15/23 14:21		1.015	5.65	mg/L	0.02030	0.25375	
* Sodium, Total	8/11/23 11:28	8/16/23 14:48		10.15	73.9	mg/L	0.4060	4.06	
Analytical Method: EPA 200.7		Analyst: ABB			Preparation Method: EPA 1638				
* Boron, Dissolved	8/11/23 09:10	8/11/23 13:36		1.015	0.178	mg/L	0.030000	0.1015	
* Calcium, Dissolved	8/11/23 09:10	8/11/23 13:36		1.015	3.36	mg/L	0.070035	0.406	
* Iron, Dissolved	8/11/23 09:10	8/14/23 14:42		10.15	7.26	mg/L	0.08120	0.406	
* Lithium, Dissolved	8/11/23 09:10	8/11/23 13:36		1.015	Not Detected	mg/L	0.007105	0.01999956	U
* Magnesium, Dissolved	8/11/23 09:10	8/11/23 13:36		1.015	2.45	mg/L	0.021315	0.406	
* Molybdenum, Dissolved	8/11/23 09:10	8/11/23 13:36		1.015	Not Detected	mg/L	0.005075	0.01015	U
* Silica, Dissolved (calc.)	8/11/23 09:10	8/11/23 13:36		1	12.5	mg/L			
* Silicon, Dissolved	8/11/23 09:10	8/11/23 13:36		1.015	5.82	mg/L	0.02030	0.25375	
* Sodium, Dissolved	8/11/23 09:10	8/14/23 14:42		10.15	69.1	mg/L	0.4060	4.06	
Analytical Method: EPA 200.8		Analyst: DLJ			Preparation Method: EPA 1638				
* Antimony, Total	8/11/23 11:28	8/11/23 16:11		1.015	Not Detected	mg/L	0.000710	0.001015	U
* Arsenic, Total	8/11/23 11:28	8/11/23 16:11		1.015	0.0134	mg/L	0.000112	0.000203	
* Aluminum, Total	8/11/23 11:28	8/11/23 16:11		1.015	Not Detected	mg/L	0.009135	0.05075	U
* Barium, Total	8/11/23 11:28	8/11/23 16:11		1.015	0.0303	mg/L	0.000508	0.001015	
* Beryllium, Total	8/11/23 11:28	8/11/23 16:11		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Total	8/11/23 11:28	8/11/23 16:11		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Total	8/11/23 11:28	8/11/23 16:11		1.015	Not Detected	mg/L	0.000203	0.001015	U
* Cobalt, Total	8/11/23 11:28	8/11/23 16:11		1.015	0.00447	mg/L	0.000068	0.000203	
* Lead, Total	8/11/23 11:28	8/11/23 16:11		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Total	8/11/23 11:28	8/11/23 16:11		1.015	0.0902	mg/L	0.000152	0.001015	

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Barry Ash Pond - MW-7

Location Code: WMWBARAP
Collected: 8/7/23 13:30
Customer ID:
Submittal Date: 8/10/23 09:48

Laboratory ID Number: BD15012

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
* Potassium, Total	8/11/23 11:28	8/11/23 16:11		1.015	2.84	mg/L	0.169505	0.5075	
* Selenium, Total	8/11/23 11:28	8/11/23 16:11		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Total	8/11/23 11:28	8/11/23 16:11		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 200.8		Analyst: DLJ							
* Antimony, Dissolved	8/11/23 09:10	8/11/23 12:37		1.015	Not Detected	mg/L	0.000710	0.001015	U
* Aluminum, Dissolved	8/11/23 09:10	8/11/23 12:37		1.015	Not Detected	mg/L	0.009135	0.05075	U
* Arsenic, Dissolved	8/11/23 09:10	8/11/23 12:37		1.015	0.0132	mg/L	0.000112	0.000203	
* Barium, Dissolved	8/11/23 09:10	8/11/23 12:37		1.015	0.0290	mg/L	0.000508	0.001015	
* Beryllium, Dissolved	8/11/23 09:10	8/11/23 12:37		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Dissolved	8/11/23 09:10	8/11/23 12:37		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Dissolved	8/11/23 09:10	8/11/23 12:37		1.015	Not Detected	mg/L	0.000203	0.001015	U
* Cobalt, Dissolved	8/11/23 09:10	8/11/23 12:37		1.015	0.00430	mg/L	0.000068	0.000203	
* Lead, Dissolved	8/11/23 09:10	8/11/23 12:37		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Dissolved	8/11/23 09:10	8/11/23 12:37		1.015	0.0875	mg/L	0.000152	0.001015	
* Potassium, Dissolved	8/11/23 09:10	8/11/23 12:37		1.015	2.82	mg/L	0.169505	0.5075	
* Selenium, Dissolved	8/11/23 09:10	8/11/23 12:37		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Dissolved	8/11/23 09:10	8/11/23 12:37		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 245.1		Analyst: ELH							
* Mercury, Total by CVAA	8/10/23 17:13	8/11/23 00:09		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: EPA 353.2		Analyst: SC							
* Nitrogen, Nitrate/Nitrite	8/10/23 16:35	8/10/23 16:35		1	Not Detected	mg/L as N	0.20	0.3	U
Analytical Method: SM 2320 B		Analyst: DHC							
* Alkalinity	8/15/23 09:20	8/15/23 14:17		1	105	mg CaCO3/L		0.1	
Analytical Method: SM 2540C		Analyst: CNJ							
* Solids, Dissolved	8/11/23 11:30	8/15/23 09:35		1	203	mg/L		25	
Analytical Method: SM 4500CO2 D		Analyst: DHC							
* Bicarbonate Alkalinity, (calc.)	8/15/23 09:20	8/15/23 14:17		1	105	mg CaCO3/L		1	
* Carbonate Alkalinity, (calc.)	8/15/23 09:20	8/15/23 14:17		1	Not Detected	mg CaCO3/L		0.5	
Analytical Method: SM 4500H+ B		Analyst: DHC							
Alkalinity pH Endpoint	8/15/23 09:20	8/15/23 14:17		1	4.52	SU		2	

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Barry Ash Pond - MW-7

Location Code: WMWBARAP
Collected: 8/7/23 13:30
Customer ID:
Submittal Date: 8/10/23 09:48

Laboratory ID Number: BD15012

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM 5310 B		Analyst: SC							
* Total Organic Carbon	8/11/23 11:17	8/11/23 11:17		1	1.77	mg/L	1.00	2	J
Analytical Method: SM4500Cl E		Analyst: JCC							
* Chloride	8/16/23 12:36	8/16/23 12:36		5	48.4	mg/L	2.50	5	
Analytical Method: SM4500F G 2017		Analyst: JCC							
* Fluoride	8/17/23 10:55	8/17/23 10:55		1	0.162	mg/L	0.06	0.125	
Analytical Method: SM4500SO4 E 2011		Analyst: JCC							
* Sulfate	8/11/23 12:16	8/11/23 12:16		1	25.9	mg/L	0.6	2	
Analytical Method: Field Measurements		Analyst: TJD							
Conductivity	8/7/23 13:26	8/7/23 13:26			350.79	uS/cm			FA
pH	8/7/23 13:26	8/7/23 13:26			6.67	SU			FA
Temperature	8/7/23 13:26	8/7/23 13:26			23.02	C			FA
Turbidity	8/7/23 13:26	8/7/23 13:26			1.9	NTU			FA
Sulfide	8/7/23 13:26	8/7/23 13:26			0	mg/L			FA

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWBARAP

Sample Date: 8/7/23 13:30

Customer ID:

Delivery Date: 8/10/23 09:48

Description: Barry Ash Pond - MW-7

Laboratory ID Number: BD15012

Sample	Analysis	Units	MB		Spike	MS	MSD	Standard		Rec		Prec	Limit
			MB	Limit				Standard	Limit	Rec	Limit		
BD15018	Aluminum, Dissolved	mg/L	-0.000210	0.0198	0.100	0.105	0.107	0.0999	0.0850 to 0.115	105	70.0 to 130	1.89	20.0
BD15015	Aluminum, Total	mg/L	0.000494	0.0198	0.100	0.106	0.105	0.107	0.0850 to 0.115	106	70.0 to 130	0.948	20.0
BD15018	Antimony, Dissolved	mg/L	0.000419	0.00100	0.100	0.0935	0.0933	0.0899	0.0850 to 0.115	93.5	70.0 to 130	0.214	20.0
BD15015	Antimony, Total	mg/L	0.000335	0.00100	0.100	0.0900	0.0919	0.0915	0.0850 to 0.115	90.0	70.0 to 130	2.09	20.0
BD15018	Arsenic, Dissolved	mg/L	0.0000078	0.000200	0.100	0.0973	0.0975	0.0963	0.0850 to 0.115	97.3	70.0 to 130	0.205	20.0
BD15015	Arsenic, Total	mg/L	0.0000005	0.000200	0.100	0.100	0.0975	0.0994	0.0850 to 0.115	100	70.0 to 130	2.53	20.0
BD15018	Barium, Dissolved	mg/L	0.0000016	0.00100	0.100	0.116	0.118	0.0971	0.0850 to 0.115	95.8	70.0 to 130	1.71	20.0
BD15015	Barium, Total	mg/L	-0.0000013	0.00100	0.100	0.103	0.102	0.102	0.0850 to 0.115	103	70.0 to 130	0.976	20.0
BD15018	Beryllium, Dissolved	mg/L	0.0000249	0.000880	0.100	0.0930	0.0953	0.0946	0.0850 to 0.115	93.0	70.0 to 130	2.44	20.0
BD15015	Beryllium, Total	mg/L	0.0000525	0.000880	0.100	0.0966	0.0932	0.0918	0.0850 to 0.115	96.6	70.0 to 130	3.58	20.0
BD15018	Boron, Dissolved	mg/L	-0.00147	0.0650	1.00	1.03	1.04	1.02	0.850 to 1.15	103	70.0 to 130	0.966	20.0
BD15015	Boron, Total	mg/L	0.000378	0.0650	1.00	0.986	0.980	0.998	0.850 to 1.15	98.6	70.0 to 130	0.610	20.0
BD15018	Cadmium, Dissolved	mg/L	0.0000044	0.000147	0.100	0.0993	0.0999	0.0981	0.0850 to 0.115	99.3	70.0 to 130	0.602	20.0
BD15015	Cadmium, Total	mg/L	0.0000138	0.000147	0.100	0.101	0.0989	0.103	0.0850 to 0.115	101	70.0 to 130	2.10	20.0
BD15018	Calcium, Dissolved	mg/L	-0.00839	0.152	5.00	5.91	5.81	5.04	4.25 to 5.75	98.0	70.0 to 130	1.71	20.0
BD15015	Calcium, Total	mg/L	-0.0114	0.152	5.00	4.62	4.58	4.71	4.25 to 5.75	92.4	70.0 to 130	0.870	20.0
BD15014	Chloride	mg/L	0.0252	1.00	10.0	24.6	24.4	9.69	9.00 to 11.0	87.0	80.0 to 120	0.816	20.0
BD15018	Chromium, Dissolved	mg/L	-0.000105	0.000440	0.100	0.0976	0.0986	0.0957	0.0850 to 0.115	96.6	70.0 to 130	1.02	20.0
BD15015	Chromium, Total	mg/L	-0.000171	0.000440	0.100	0.0999	0.101	0.0988	0.0850 to 0.115	99.9	70.0 to 130	1.10	20.0
BD15018	Cobalt, Dissolved	mg/L	-0.0000064	0.000147	0.100	0.102	0.104	0.0994	0.0850 to 0.115	101	70.0 to 130	1.94	20.0
BD15015	Cobalt, Total	mg/L	-0.0000060	0.000147	0.100	0.105	0.105	0.105	0.0850 to 0.115	105	70.0 to 130	0.00	20.0
BD15014	Fluoride	mg/L	0.0306	0.125	2.50	2.63	2.66	2.53	2.25 to 2.75	105	80.0 to 120	1.13	20.0
BD15018	Iron, Dissolved	mg/L	0.00127	0.0176	0.2	0.204	0.202	0.201	0.170 to 0.230	102	70.0 to 130	0.985	20.0
BD15015	Iron, Total	mg/L	0.000264	0.0176	0.2	0.195	0.195	0.196	0.170 to 0.230	97.5	70.0 to 130	0.00	20.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWBARAP

Sample Date: 8/7/23 13:30

Customer ID:

Delivery Date: 8/10/23 09:48

Description: Barry Ash Pond - MW-7

Laboratory ID Number: BD15012

Sample	Analysis	Units	MB		Spike	MS	MSD	Standard		Rec		Prec	Limit
			MB	Limit				Standard	Limit	Rec	Limit		
BD15018	Lead, Dissolved	mg/L	0.0000145	0.000147	0.100	0.105	0.104	0.103	0.0850 to 0.115	105	70.0 to 130	0.957	20.0
BD15015	Lead, Total	mg/L	0.0000362	0.000147	0.100	0.107	0.105	0.107	0.0850 to 0.115	107	70.0 to 130	1.89	20.0
BD15018	Lithium, Dissolved	mg/L	-0.000272	0.0154	0.200	0.212	0.211	0.210	0.170 to 0.230	106	70.0 to 130	0.473	20.0
BD15015	Lithium, Total	mg/L	-0.000611	0.0154	0.200	0.210	0.212	0.211	0.170 to 0.230	105	70.0 to 130	0.948	20.0
BD15018	Magnesium, Dissolved	mg/L	-0.000059	0.0462	5.00	5.93	5.84	5.21	4.25 to 5.75	103	70.0 to 130	1.53	20.0
BD15015	Magnesium, Total	mg/L	-0.000838	0.0462	5.00	5.04	5.10	5.05	4.25 to 5.75	101	70.0 to 130	1.18	20.0
BD15018	Manganese, Dissolved	mg/L	0.0000346	0.00033	0.100	0.103	0.103	0.0983	0.0850 to 0.115	99.5	70.0 to 130	0.00	20.0
BD15015	Manganese, Total	mg/L	0.0000106	0.00033	0.100	0.102	0.103	0.102	0.0850 to 0.115	102	70.0 to 130	0.976	20.0
BD15014	Mercury, Total by CVAA	mg/L	-5.000E-05	0.000500	0.004	0.00391	0.00394	0.00401	0.00340 to 0.00460	97.8	70.0 to 130	0.764	20.0
BD15018	Molybdenum, Dissolved	mg/L	0.00193	0.0100	0.2	0.198	0.200	0.199	0.170 to 0.230	99.0	70.0 to 130	1.01	20.0
BD15015	Molybdenum, Total	mg/L	0.000	0.0100	0.2	0.197	0.197	0.197	0.170 to 0.230	98.5	70.0 to 130	0.00	20.0
BD15018	Potassium, Dissolved	mg/L	-0.00978	0.367	10.0	11.0	11.3	10.1	8.50 to 11.5	100	70.0 to 130	2.69	20.0
BD15015	Potassium, Total	mg/L	-0.0265	0.367	10.0	10.2	10.5	10.5	8.50 to 11.5	102	70.0 to 130	2.90	20.0
BD15018	Selenium, Dissolved	mg/L	-0.0000836	0.00100	0.100	0.0999	0.0988	0.0990	0.0850 to 0.115	99.9	70.0 to 130	1.11	20.0
BD15015	Selenium, Total	mg/L	-0.000110	0.00100	0.100	0.0988	0.0990	0.0994	0.0850 to 0.115	98.8	70.0 to 130	0.202	20.0
BD15018	Silicon, Dissolved	mg/L	0.000422	0.0440	1.00	8.72	8.74	1.03	0.850 to 1.15	111	70.0 to 130	0.229	20.0
BD15015	Silicon, Total	mg/L	-0.00110	0.0440	1.00	0.994	0.984	1.00	0.850 to 1.15	99.4	70.0 to 130	1.01	20.0
BD15018	Sodium, Dissolved	mg/L	0.00934	0.0880	5.00	11.8	11.8	5.30	4.25 to 5.75	104	70.0 to 130	0.00	20.0
BD15015	Sodium, Total	mg/L	0.00689	0.0880	5.00	5.35	5.42	5.44	4.25 to 5.75	105	70.0 to 130	1.30	20.0
BD15014	Sulfate	mg/L	0.349	2.0	20.0	36.3	36.4	20.4	18.0 to 22.0	93.5	80.0 to 120	0.275	20.0
BD15018	Thallium, Dissolved	mg/L	-0.0000018	0.000147	0.100	0.106	0.104	0.105	0.0850 to 0.115	106	70.0 to 130	1.90	20.0
BD15015	Thallium, Total	mg/L	0.0000283	0.000147	0.100	0.104	0.105	0.111	0.0850 to 0.115	104	70.0 to 130	0.957	20.0
BD15014	Total Organic Carbon	mg/L	0.165	1.00	10.0	16.2	16.8	25.3		100	80.0 to 120	3.64	20.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWBARAP

Sample Date: 8/7/23 13:30

Customer ID:

Delivery Date: 8/10/23 09:48

Description: Barry Ash Pond - MW-7

Laboratory ID Number: BD15012

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BD15014	Alkalinity	mg CaCO3/L					73.7	51.9	45.0 to 55.0			3.60	10.0
BD15014	Nitrogen, Nitrate/Nitrite	mg/L as N	-0.01	0.200	2.00	2.02	0.006	2.01	1.80 to 2.20	101	90.0 to 110	0.00	15.0
BD15019	Solids, Dissolved	mg/L	1.00	25.0			1540	50.0	40.0 to 60.0			1.31	10.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Barry Ash Pond - MW-5V

Location Code: WMWBARAP
Collected: 8/7/23 14:55
Customer ID:
Submittal Date: 8/10/23 09:48

Laboratory ID Number: BD15013

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q	
Analytical Method: EPA 200.7		Analyst: ABB			Preparation Method: EPA 1638					
* Boron, Total	8/11/23 11:28	8/15/23 14:24		1.015	0.0978	mg/L	0.030000	0.1015	J	
* Calcium, Total	8/11/23 11:28	8/16/23 13:41		1.015	1.78	mg/L	0.070035	0.406		
* Iron, Total	8/11/23 11:28	8/15/23 14:24		1.015	0.138	mg/L	0.008120	0.0406		
* Lithium, Total	8/11/23 11:28	8/15/23 14:24		1.015	Not Detected	mg/L	0.007105	0.01999956	U	
* Magnesium, Total	8/11/23 11:28	8/15/23 14:24		1.015	1.38	mg/L	0.021315	0.406		
* Molybdenum, Total	8/11/23 11:28	8/15/23 14:24		1.015	Not Detected	mg/L	0.005075	0.01015	U	
* Silica, Total (calc.)	8/11/23 11:28	8/15/23 14:24		1	11.7	mg/L				
* Silicon, Total	8/11/23 11:28	8/15/23 14:24		1.015	5.49	mg/L	0.02030	0.25375		
* Sodium, Total	8/11/23 11:28	8/16/23 14:52		10.15	55.3	mg/L	0.4060	4.06		
Analytical Method: EPA 200.7		Analyst: ABB			Preparation Method: EPA 1638					
* Boron, Dissolved	8/11/23 09:10	8/11/23 13:39		1.015	0.0993	mg/L	0.030000	0.1015	J	
* Calcium, Dissolved	8/11/23 09:10	8/11/23 13:39		1.015	1.91	mg/L	0.070035	0.406		
* Iron, Dissolved	8/11/23 09:10	8/11/23 13:39		1.015	Not Detected	mg/L	0.008120	0.0406	U	
* Lithium, Dissolved	8/11/23 09:10	8/11/23 13:39		1.015	Not Detected	mg/L	0.007105	0.01999956	U	
* Magnesium, Dissolved	8/11/23 09:10	8/11/23 13:39		1.015	1.42	mg/L	0.021315	0.406		
* Molybdenum, Dissolved	8/11/23 09:10	8/11/23 13:39		1.015	Not Detected	mg/L	0.005075	0.01015	U	
* Silica, Dissolved (calc.)	8/11/23 09:10	8/11/23 13:39		1	12.3	mg/L				
* Silicon, Dissolved	8/11/23 09:10	8/11/23 13:39		1.015	5.74	mg/L	0.02030	0.25375		
* Sodium, Dissolved	8/11/23 09:10	8/14/23 14:45		10.15	51.7	mg/L	0.4060	4.06		
Analytical Method: EPA 200.8		Analyst: DLJ			Preparation Method: EPA 1638					
* Antimony, Total	8/11/23 11:28	8/11/23 16:15		1.015	Not Detected	mg/L	0.000710	0.001015	U	
* Aluminum, Total	8/11/23 11:28	8/11/23 16:15		1.015	0.00958	mg/L	0.009135	0.05075	J	
* Arsenic, Total	8/11/23 11:28	8/11/23 16:15		1.015	Not Detected	mg/L	0.000112	0.000203	U	
* Barium, Total	8/11/23 11:28	8/11/23 16:15		1.015	0.0433	mg/L	0.000508	0.001015		
* Beryllium, Total	8/11/23 11:28	8/11/23 16:15		1.015	Not Detected	mg/L	0.000406	0.001015	U	
* Cadmium, Total	8/11/23 11:28	8/11/23 16:15		1.015	Not Detected	mg/L	0.000068	0.000203	U	
* Chromium, Total	8/11/23 11:28	8/11/23 16:15		1.015	0.000763	mg/L	0.000203	0.001015	J	
* Cobalt, Total	8/11/23 11:28	8/11/23 16:15		1.015	Not Detected	mg/L	0.000068	0.000203	U	
* Lead, Total	8/11/23 11:28	8/11/23 16:15		1.015	Not Detected	mg/L	0.000068	0.000203	U	
* Manganese, Total	8/11/23 11:28	8/11/23 16:15		1.015	0.00159	mg/L	0.000152	0.001015		

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Barry Ash Pond - MW-5V

Location Code: WMWBARAP

Collected: 8/7/23 14:55

Customer ID:

Submittal Date: 8/10/23 09:48

Laboratory ID Number: BD15013

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
* Potassium, Total	8/11/23 11:28	8/11/23 16:15		1.015	1.74	mg/L	0.169505	0.5075	
* Selenium, Total	8/11/23 11:28	8/11/23 16:15		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Total	8/11/23 11:28	8/11/23 16:15		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 200.8		Analyst: DLJ							
* Antimony, Dissolved	8/11/23 09:10	8/11/23 12:41		1.015	Not Detected	mg/L	0.000710	0.001015	U
* Aluminum, Dissolved	8/11/23 09:10	8/11/23 12:41		1.015	Not Detected	mg/L	0.009135	0.05075	U
* Arsenic, Dissolved	8/11/23 09:10	8/11/23 12:41		1.015	Not Detected	mg/L	0.000112	0.000203	U
* Barium, Dissolved	8/11/23 09:10	8/11/23 12:41		1.015	0.0426	mg/L	0.000508	0.001015	
* Beryllium, Dissolved	8/11/23 09:10	8/11/23 12:41		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Dissolved	8/11/23 09:10	8/11/23 12:41		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Dissolved	8/11/23 09:10	8/11/23 12:41		1.015	0.000573	mg/L	0.000203	0.001015	J
* Cobalt, Dissolved	8/11/23 09:10	8/11/23 12:41		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Lead, Dissolved	8/11/23 09:10	8/11/23 12:41		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Dissolved	8/11/23 09:10	8/11/23 12:41		1.015	0.00178	mg/L	0.000152	0.001015	
* Potassium, Dissolved	8/11/23 09:10	8/11/23 12:41		1.015	1.70	mg/L	0.169505	0.5075	
* Selenium, Dissolved	8/11/23 09:10	8/11/23 12:41		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Dissolved	8/11/23 09:10	8/11/23 12:41		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 245.1		Analyst: ELH							
* Mercury, Total by CVAA	8/10/23 17:13	8/11/23 00:13		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: EPA 353.2		Analyst: SC							
* Nitrogen, Nitrate/Nitrite	8/10/23 16:37	8/10/23 16:37		1	Not Detected	mg/L as N	0.20	0.3	U
Analytical Method: SM 2320 B		Analyst: DHC							
* Alkalinity	8/15/23 09:20	8/15/23 14:17		1	63.0	mg CaCO3/L		0.1	
Analytical Method: SM 2540C		Analyst: CNJ							
* Solids, Dissolved	8/11/23 11:30	8/15/23 09:35		1	135	mg/L		25	
Analytical Method: SM 4500CO2 D		Analyst: DHC							
* Bicarbonate Alkalinity, (calc.)	8/15/23 09:20	8/15/23 14:17		1	62.9	mg CaCO3/L		1	
* Carbonate Alkalinity, (calc.)	8/15/23 09:20	8/15/23 14:17		1	Not Detected	mg CaCO3/L		0.5	
Analytical Method: SM 4500H+ B		Analyst: DHC							
Alkalinity pH Endpoint	8/15/23 09:20	8/15/23 14:17		1	4.43	SU		2	

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Barry Ash Pond - MW-5V

Location Code: WMWBARAP
Collected: 8/7/23 14:55
Customer ID:
Submittal Date: 8/10/23 09:48

Laboratory ID Number: BD15013

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM 5310 B		Analyst: SC							
* Total Organic Carbon	8/11/23 11:32	8/11/23 11:32		1	Not Detected	mg/L	1.00	2	U
Analytical Method: SM4500Cl E		Analyst: JCC							
* Chloride	8/16/23 12:37	8/16/23 12:37		5	35.9	mg/L	2.50	5	
Analytical Method: SM4500F G 2017		Analyst: JCC							
* Fluoride	8/17/23 10:56	8/17/23 10:56		1	0.0770	mg/L	0.06	0.125	J
Analytical Method: SM4500SO4 E 2011		Analyst: JCC							
* Sulfate	8/11/23 12:17	8/11/23 12:17		1	7.84	mg/L	0.6	2	
Analytical Method: Field Measurements		Analyst: TJD							
Conductivity	8/7/23 14:52	8/7/23 14:52			233.01	uS/cm			FA
pH	8/7/23 14:52	8/7/23 14:52			5.89	SU			FA
Temperature	8/7/23 14:52	8/7/23 14:52			22.96	C			FA
Turbidity	8/7/23 14:52	8/7/23 14:52			1.64	NTU			FA
Sulfide	8/7/23 14:52	8/7/23 14:52			0	mg/L			FA

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWBARAP

Sample Date: 8/7/23 14:55

Customer ID:

Delivery Date: 8/10/23 09:48

Description: Barry Ash Pond - MW-5V

Laboratory ID Number: BD15013

Sample	Analysis	Units	MB	MB		Spike	MS	MSD	Standard		Rec		Prec	Limit
				Limit					Standard	Limit	Rec	Limit		
BD15018	Aluminum, Dissolved	mg/L	-0.000210	0.0198	0.100	0.105	0.107	0.0999	0.0850 to 0.115	105	70.0 to 130	1.89	20.0	
BD15015	Aluminum, Total	mg/L	0.000494	0.0198	0.100	0.106	0.105	0.107	0.0850 to 0.115	106	70.0 to 130	0.948	20.0	
BD15018	Antimony, Dissolved	mg/L	0.000419	0.00100	0.100	0.0935	0.0933	0.0899	0.0850 to 0.115	93.5	70.0 to 130	0.214	20.0	
BD15015	Antimony, Total	mg/L	0.000335	0.00100	0.100	0.0900	0.0919	0.0915	0.0850 to 0.115	90.0	70.0 to 130	2.09	20.0	
BD15018	Arsenic, Dissolved	mg/L	0.0000078	0.000200	0.100	0.0973	0.0975	0.0963	0.0850 to 0.115	97.3	70.0 to 130	0.205	20.0	
BD15015	Arsenic, Total	mg/L	0.0000005	0.000200	0.100	0.100	0.0975	0.0994	0.0850 to 0.115	100	70.0 to 130	2.53	20.0	
BD15018	Barium, Dissolved	mg/L	0.0000016	0.00100	0.100	0.116	0.118	0.0971	0.0850 to 0.115	95.8	70.0 to 130	1.71	20.0	
BD15015	Barium, Total	mg/L	-0.0000013	0.00100	0.100	0.103	0.102	0.102	0.0850 to 0.115	103	70.0 to 130	0.976	20.0	
BD15018	Beryllium, Dissolved	mg/L	0.0000249	0.000880	0.100	0.0930	0.0953	0.0946	0.0850 to 0.115	93.0	70.0 to 130	2.44	20.0	
BD15015	Beryllium, Total	mg/L	0.0000525	0.000880	0.100	0.0966	0.0932	0.0918	0.0850 to 0.115	96.6	70.0 to 130	3.58	20.0	
BD15018	Boron, Dissolved	mg/L	-0.00147	0.0650	1.00	1.03	1.04	1.02	0.850 to 1.15	103	70.0 to 130	0.966	20.0	
BD15015	Boron, Total	mg/L	0.000378	0.0650	1.00	0.986	0.980	0.998	0.850 to 1.15	98.6	70.0 to 130	0.610	20.0	
BD15018	Cadmium, Dissolved	mg/L	0.0000044	0.000147	0.100	0.0993	0.0999	0.0981	0.0850 to 0.115	99.3	70.0 to 130	0.602	20.0	
BD15015	Cadmium, Total	mg/L	0.0000138	0.000147	0.100	0.101	0.0989	0.103	0.0850 to 0.115	101	70.0 to 130	2.10	20.0	
BD15018	Calcium, Dissolved	mg/L	-0.00839	0.152	5.00	5.91	5.81	5.04	4.25 to 5.75	98.0	70.0 to 130	1.71	20.0	
BD15015	Calcium, Total	mg/L	-0.0114	0.152	5.00	4.62	4.58	4.71	4.25 to 5.75	92.4	70.0 to 130	0.870	20.0	
BD15014	Chloride	mg/L	0.0252	1.00	10.0	24.6	24.4	9.69	9.00 to 11.0	87.0	80.0 to 120	0.816	20.0	
BD15018	Chromium, Dissolved	mg/L	-0.000105	0.000440	0.100	0.0976	0.0986	0.0957	0.0850 to 0.115	96.6	70.0 to 130	1.02	20.0	
BD15015	Chromium, Total	mg/L	-0.000171	0.000440	0.100	0.0999	0.101	0.0988	0.0850 to 0.115	99.9	70.0 to 130	1.10	20.0	
BD15018	Cobalt, Dissolved	mg/L	-0.0000064	0.000147	0.100	0.102	0.104	0.0994	0.0850 to 0.115	101	70.0 to 130	1.94	20.0	
BD15015	Cobalt, Total	mg/L	-0.0000060	0.000147	0.100	0.105	0.105	0.105	0.0850 to 0.115	105	70.0 to 130	0.00	20.0	
BD15014	Fluoride	mg/L	0.0306	0.125	2.50	2.63	2.66	2.53	2.25 to 2.75	105	80.0 to 120	1.13	20.0	
BD15018	Iron, Dissolved	mg/L	0.00127	0.0176	0.2	0.204	0.202	0.201	0.170 to 0.230	102	70.0 to 130	0.985	20.0	
BD15015	Iron, Total	mg/L	0.000264	0.0176	0.2	0.195	0.195	0.196	0.170 to 0.230	97.5	70.0 to 130	0.00	20.0	

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWBARAP

Sample Date: 8/7/23 14:55

Customer ID:

Delivery Date: 8/10/23 09:48

Description: Barry Ash Pond - MW-5V

Laboratory ID Number: BD15013

Sample	Analysis	Units	MB		Spike	MS	MSD	Standard		Rec		Prec	Limit
			MB	Limit				Standard	Limit	Rec	Limit		
BD15018	Lead, Dissolved	mg/L	0.0000145	0.000147	0.100	0.105	0.104	0.103	0.0850 to 0.115	105	70.0 to 130	0.957	20.0
BD15015	Lead, Total	mg/L	0.0000362	0.000147	0.100	0.107	0.105	0.107	0.0850 to 0.115	107	70.0 to 130	1.89	20.0
BD15018	Lithium, Dissolved	mg/L	-0.000272	0.0154	0.200	0.212	0.211	0.210	0.170 to 0.230	106	70.0 to 130	0.473	20.0
BD15015	Lithium, Total	mg/L	-0.000611	0.0154	0.200	0.210	0.212	0.211	0.170 to 0.230	105	70.0 to 130	0.948	20.0
BD15018	Magnesium, Dissolved	mg/L	-0.000059	0.0462	5.00	5.93	5.84	5.21	4.25 to 5.75	103	70.0 to 130	1.53	20.0
BD15015	Magnesium, Total	mg/L	-0.000838	0.0462	5.00	5.04	5.10	5.05	4.25 to 5.75	101	70.0 to 130	1.18	20.0
BD15018	Manganese, Dissolved	mg/L	0.0000346	0.00033	0.100	0.103	0.103	0.0983	0.0850 to 0.115	99.5	70.0 to 130	0.00	20.0
BD15015	Manganese, Total	mg/L	0.0000106	0.00033	0.100	0.102	0.103	0.102	0.0850 to 0.115	102	70.0 to 130	0.976	20.0
BD15014	Mercury, Total by CVAA	mg/L	-5.000E-05	0.000500	0.004	0.00391	0.00394	0.00401	0.00340 to 0.00460	97.8	70.0 to 130	0.764	20.0
BD15018	Molybdenum, Dissolved	mg/L	0.00193	0.0100	0.2	0.198	0.200	0.199	0.170 to 0.230	99.0	70.0 to 130	1.01	20.0
BD15015	Molybdenum, Total	mg/L	0.000	0.0100	0.2	0.197	0.197	0.197	0.170 to 0.230	98.5	70.0 to 130	0.00	20.0
BD15018	Potassium, Dissolved	mg/L	-0.00978	0.367	10.0	11.0	11.3	10.1	8.50 to 11.5	100	70.0 to 130	2.69	20.0
BD15015	Potassium, Total	mg/L	-0.0265	0.367	10.0	10.2	10.5	10.5	8.50 to 11.5	102	70.0 to 130	2.90	20.0
BD15018	Selenium, Dissolved	mg/L	-0.0000836	0.00100	0.100	0.0999	0.0988	0.0990	0.0850 to 0.115	99.9	70.0 to 130	1.11	20.0
BD15015	Selenium, Total	mg/L	-0.000110	0.00100	0.100	0.0988	0.0990	0.0994	0.0850 to 0.115	98.8	70.0 to 130	0.202	20.0
BD15018	Silicon, Dissolved	mg/L	0.000422	0.0440	1.00	8.72	8.74	1.03	0.850 to 1.15	111	70.0 to 130	0.229	20.0
BD15015	Silicon, Total	mg/L	-0.00110	0.0440	1.00	0.994	0.984	1.00	0.850 to 1.15	99.4	70.0 to 130	1.01	20.0
BD15018	Sodium, Dissolved	mg/L	0.00934	0.0880	5.00	11.8	11.8	5.30	4.25 to 5.75	104	70.0 to 130	0.00	20.0
BD15015	Sodium, Total	mg/L	0.00689	0.0880	5.00	5.35	5.42	5.44	4.25 to 5.75	105	70.0 to 130	1.30	20.0
BD15014	Sulfate	mg/L	0.349	2.0	20.0	36.3	36.4	20.4	18.0 to 22.0	93.5	80.0 to 120	0.275	20.0
BD15018	Thallium, Dissolved	mg/L	-0.0000018	0.000147	0.100	0.106	0.104	0.105	0.0850 to 0.115	106	70.0 to 130	1.90	20.0
BD15015	Thallium, Total	mg/L	0.0000283	0.000147	0.100	0.104	0.105	0.111	0.0850 to 0.115	104	70.0 to 130	0.957	20.0
BD15014	Total Organic Carbon	mg/L	0.165	1.00	10.0	16.2	16.8	25.3		100	80.0 to 120	3.64	20.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWBARAP

Sample Date: 8/7/23 14:55

Customer ID:

Delivery Date: 8/10/23 09:48

Description: Barry Ash Pond - MW-5V

Laboratory ID Number: BD15013

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard Standard	Standard Limit	Rec Rec	Rec Limit	Prec	Prec Limit
BD15014	Alkalinity	mg CaCO3/L					73.7	51.9	45.0 to 55.0			3.60	10.0
BD15014	Nitrogen, Nitrate/Nitrite	mg/L as N	-0.01	0.200	2.00	2.02	0.006	2.01	1.80 to 2.20	101	90.0 to 110	0.00	15.0
BD15019	Solids, Dissolved	mg/L	1.00	25.0			1540	50.0	40.0 to 60.0			1.31	10.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Barry Ash Pond - MW-5

Location Code: WMWBARAP
Collected: 8/7/23 15:52
Customer ID:
Submittal Date: 8/10/23 09:48

Laboratory ID Number: BD15014

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7		Analyst: ABB			Preparation Method: EPA 1638				
* Boron, Total	8/11/23 11:28	8/15/23 14:27		1.015	0.0327	mg/L	0.030000	0.1015	J
* Calcium, Total	8/11/23 11:28	8/16/23 13:45		1.015	6.02	mg/L	0.070035	0.406	
* Iron, Total	8/11/23 11:28	8/17/23 12:07		10.15	40.1	mg/L	0.08120	0.406	
* Lithium, Total	8/11/23 11:28	8/15/23 14:27		1.015	Not Detected	mg/L	0.007105	0.01999956	U
* Magnesium, Total	8/11/23 11:28	8/15/23 14:27		1.015	2.20	mg/L	0.021315	0.406	
* Molybdenum, Total	8/11/23 11:28	8/15/23 14:27		1.015	Not Detected	mg/L	0.005075	0.01015	U
* Silica, Total (calc.)	8/11/23 11:28	8/15/23 14:27		1	24.4	mg/L			
* Silicon, Total	8/11/23 11:28	8/15/23 14:27		1.015	11.4	mg/L	0.02030	0.25375	
* Sodium, Total	8/11/23 11:28	8/15/23 14:27		1.015	13.7	mg/L	0.04060	0.406	
Analytical Method: EPA 200.7		Analyst: ABB			Preparation Method: EPA 1638				
* Boron, Dissolved	8/11/23 09:10	8/11/23 13:42		1.015	0.0340	mg/L	0.030000	0.1015	J
* Calcium, Dissolved	8/11/23 09:10	8/11/23 13:42		1.015	6.48	mg/L	0.070035	0.406	
* Iron, Dissolved	8/11/23 09:10	8/14/23 14:49		10.15	34.5	mg/L	0.08120	0.406	
* Lithium, Dissolved	8/11/23 09:10	8/11/23 13:42		1.015	Not Detected	mg/L	0.007105	0.01999956	U
* Magnesium, Dissolved	8/11/23 09:10	8/11/23 13:42		1.015	2.22	mg/L	0.021315	0.406	
* Molybdenum, Dissolved	8/11/23 09:10	8/11/23 13:42		1.015	Not Detected	mg/L	0.005075	0.01015	U
* Silica, Dissolved (calc.)	8/11/23 09:10	8/11/23 13:42		1	24.6	mg/L			
* Silicon, Dissolved	8/11/23 09:10	8/11/23 13:42		1.015	11.5	mg/L	0.02030	0.25375	
* Sodium, Dissolved	8/11/23 09:10	8/11/23 13:42		1.015	13.0	mg/L	0.04060	0.406	
Analytical Method: EPA 200.8		Analyst: DLJ			Preparation Method: EPA 1638				
* Antimony, Total	8/11/23 11:28	8/11/23 16:19		1.015	Not Detected	mg/L	0.000710	0.001015	U
* Arsenic, Total	8/11/23 11:28	8/11/23 16:19		1.015	0.0164	mg/L	0.000112	0.000203	
* Aluminum, Total	8/11/23 11:28	8/11/23 16:19		1.015	0.0354	mg/L	0.009135	0.05075	J
* Barium, Total	8/11/23 11:28	8/11/23 16:19		1.015	0.0707	mg/L	0.000508	0.001015	
* Beryllium, Total	8/11/23 11:28	8/11/23 16:19		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Total	8/11/23 11:28	8/11/23 16:19		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Total	8/11/23 11:28	8/11/23 16:19		1.015	0.000897	mg/L	0.000203	0.001015	J
* Cobalt, Total	8/11/23 11:28	8/11/23 16:19		1.015	0.000923	mg/L	0.000068	0.000203	
* Lead, Total	8/11/23 11:28	8/11/23 16:19		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Total	8/11/23 11:28	8/11/23 16:19		1.015	0.282	mg/L	0.000152	0.001015	

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Barry Ash Pond - MW-5

Location Code: WMWBARAP
Collected: 8/7/23 15:52
Customer ID:
Submittal Date: 8/10/23 09:48

Laboratory ID Number: BD15014

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
* Potassium, Total	8/11/23 11:28	8/11/23 16:19		1.015	1.18	mg/L	0.169505	0.5075	
* Selenium, Total	8/11/23 11:28	8/11/23 16:19		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Total	8/11/23 11:28	8/11/23 16:19		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 200.8		Analyst: DLJ							
* Antimony, Dissolved	8/11/23 09:10	8/11/23 12:45		1.015	Not Detected	mg/L	0.000710	0.001015	U
* Aluminum, Dissolved	8/11/23 09:10	8/11/23 12:45		1.015	Not Detected	mg/L	0.009135	0.05075	U
* Arsenic, Dissolved	8/11/23 09:10	8/11/23 12:45		1.015	0.0169	mg/L	0.000112	0.000203	
* Barium, Dissolved	8/11/23 09:10	8/11/23 12:45		1.015	0.0683	mg/L	0.000508	0.001015	
* Beryllium, Dissolved	8/11/23 09:10	8/11/23 12:45		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Dissolved	8/11/23 09:10	8/11/23 12:45		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Dissolved	8/11/23 09:10	8/11/23 12:45		1.015	0.000729	mg/L	0.000203	0.001015	J
* Cobalt, Dissolved	8/11/23 09:10	8/11/23 12:45		1.015	0.000834	mg/L	0.000068	0.000203	
* Lead, Dissolved	8/11/23 09:10	8/11/23 12:45		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Dissolved	8/11/23 09:10	8/11/23 12:45		1.015	0.273	mg/L	0.000152	0.001015	
* Potassium, Dissolved	8/11/23 09:10	8/11/23 12:45		1.015	1.13	mg/L	0.169505	0.5075	
* Selenium, Dissolved	8/11/23 09:10	8/11/23 12:45		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Dissolved	8/11/23 09:10	8/11/23 12:45		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 245.1		Analyst: ELH							
* Mercury, Total by CVAA	8/10/23 17:13	8/11/23 00:17		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: EPA 353.2		Analyst: SC							
* Nitrogen, Nitrate/Nitrite	8/10/23 16:39	8/10/23 16:39		1	Not Detected	mg/L as N	0.20	0.3	U
Analytical Method: SM 2320 B		Analyst: DHC							
* Alkalinity	8/15/23 09:20	8/15/23 14:17		1	76.4	mg CaCO3/L		0.1	
Analytical Method: SM 2540C		Analyst: CNJ							
* Solids, Dissolved	8/11/23 11:30	8/15/23 09:35		1	140	mg/L		25	
Analytical Method: SM 4500CO2 D		Analyst: DHC							
* Bicarbonate Alkalinity, (calc.)	8/15/23 09:20	8/15/23 14:17		1	76.4	mg CaCO3/L		1	
* Carbonate Alkalinity, (calc.)	8/15/23 09:20	8/15/23 14:17		1	Not Detected	mg CaCO3/L		0.5	
Analytical Method: SM 4500H+ B		Analyst: DHC							
Alkalinity pH Endpoint	8/15/23 09:20	8/15/23 14:17		1	4.47	SU		2	

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Barry Ash Pond - MW-5

Location Code: WMWBARAP
Collected: 8/7/23 15:52
Customer ID:
Submittal Date: 8/10/23 09:48

Laboratory ID Number: BD15014

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM 5310 B		Analyst: SC							
* Total Organic Carbon	8/11/23 11:46	8/11/23 11:46		1	6.19	mg/L	1.00	2	
Analytical Method: SM4500Cl E		Analyst: JCC							
* Chloride	8/16/23 12:24	8/16/23 12:24		1	15.9	mg/L	0.50	1	
Analytical Method: SM4500F G 2017		Analyst: JCC							
* Fluoride	8/17/23 10:57	8/17/23 10:57		1	Not Detected	mg/L	0.06	0.125	U
Analytical Method: SM4500SO4 E 2011		Analyst: JCC							
* Sulfate	8/11/23 12:18	8/11/23 12:18		1	17.6	mg/L	0.6	2	
Analytical Method: Field Measurements		Analyst: TJD							
Conductivity	8/7/23 15:49	8/7/23 15:49			202.30	uS/cm			FA
pH	8/7/23 15:49	8/7/23 15:49			5.84	SU			FA
Temperature	8/7/23 15:49	8/7/23 15:49			22.59	C			FA
Turbidity	8/7/23 15:49	8/7/23 15:49			3.21	NTU			FA
Sulfide	8/7/23 15:49	8/7/23 15:49			0	mg/L			FA

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWBARAP

Sample Date: 8/7/23 15:52

Customer ID:

Delivery Date: 8/10/23 09:48

Description: Barry Ash Pond - MW-5

Laboratory ID Number: BD15014

Sample	Analysis	Units	MB					Standard		Rec		Prec	Limit
			MB	Limit	Spike	MS	MSD	Standard	Limit	Rec	Limit		
BD15018	Aluminum, Dissolved	mg/L	-0.000210	0.0198	0.100	0.105	0.107	0.0999	0.0850 to 0.115	105	70.0 to 130	1.89	20.0
BD15015	Aluminum, Total	mg/L	0.000494	0.0198	0.100	0.106	0.105	0.107	0.0850 to 0.115	106	70.0 to 130	0.948	20.0
BD15018	Antimony, Dissolved	mg/L	0.000419	0.00100	0.100	0.0935	0.0933	0.0899	0.0850 to 0.115	93.5	70.0 to 130	0.214	20.0
BD15015	Antimony, Total	mg/L	0.000335	0.00100	0.100	0.0900	0.0919	0.0915	0.0850 to 0.115	90.0	70.0 to 130	2.09	20.0
BD15018	Arsenic, Dissolved	mg/L	0.0000078	0.000200	0.100	0.0973	0.0975	0.0963	0.0850 to 0.115	97.3	70.0 to 130	0.205	20.0
BD15015	Arsenic, Total	mg/L	0.0000005	0.000200	0.100	0.100	0.0975	0.0994	0.0850 to 0.115	100	70.0 to 130	2.53	20.0
BD15018	Barium, Dissolved	mg/L	0.0000016	0.00100	0.100	0.116	0.118	0.0971	0.0850 to 0.115	95.8	70.0 to 130	1.71	20.0
BD15015	Barium, Total	mg/L	-0.0000013	0.00100	0.100	0.103	0.102	0.102	0.0850 to 0.115	103	70.0 to 130	0.976	20.0
BD15018	Beryllium, Dissolved	mg/L	0.0000249	0.000880	0.100	0.0930	0.0953	0.0946	0.0850 to 0.115	93.0	70.0 to 130	2.44	20.0
BD15015	Beryllium, Total	mg/L	0.0000525	0.000880	0.100	0.0966	0.0932	0.0918	0.0850 to 0.115	96.6	70.0 to 130	3.58	20.0
BD15018	Boron, Dissolved	mg/L	-0.00147	0.0650	1.00	1.03	1.04	1.02	0.850 to 1.15	103	70.0 to 130	0.966	20.0
BD15015	Boron, Total	mg/L	0.000378	0.0650	1.00	0.986	0.980	0.998	0.850 to 1.15	98.6	70.0 to 130	0.610	20.0
BD15018	Cadmium, Dissolved	mg/L	0.0000044	0.000147	0.100	0.0993	0.0999	0.0981	0.0850 to 0.115	99.3	70.0 to 130	0.602	20.0
BD15015	Cadmium, Total	mg/L	0.0000138	0.000147	0.100	0.101	0.0989	0.103	0.0850 to 0.115	101	70.0 to 130	2.10	20.0
BD15018	Calcium, Dissolved	mg/L	-0.00839	0.152	5.00	5.91	5.81	5.04	4.25 to 5.75	98.0	70.0 to 130	1.71	20.0
BD15015	Calcium, Total	mg/L	-0.0114	0.152	5.00	4.62	4.58	4.71	4.25 to 5.75	92.4	70.0 to 130	0.870	20.0
BD15014	Chloride	mg/L	0.0252	1.00	10.0	24.6	24.4	9.69	9.00 to 11.0	87.0	80.0 to 120	0.816	20.0
BD15018	Chromium, Dissolved	mg/L	-0.000105	0.000440	0.100	0.0976	0.0986	0.0957	0.0850 to 0.115	96.6	70.0 to 130	1.02	20.0
BD15015	Chromium, Total	mg/L	-0.000171	0.000440	0.100	0.0999	0.101	0.0988	0.0850 to 0.115	99.9	70.0 to 130	1.10	20.0
BD15018	Cobalt, Dissolved	mg/L	-0.0000064	0.000147	0.100	0.102	0.104	0.0994	0.0850 to 0.115	101	70.0 to 130	1.94	20.0
BD15015	Cobalt, Total	mg/L	-0.0000060	0.000147	0.100	0.105	0.105	0.105	0.0850 to 0.115	105	70.0 to 130	0.00	20.0
BD15014	Fluoride	mg/L	0.0306	0.125	2.50	2.63	2.66	2.53	2.25 to 2.75	105	80.0 to 120	1.13	20.0
BD15018	Iron, Dissolved	mg/L	0.00127	0.0176	0.2	0.204	0.202	0.201	0.170 to 0.230	102	70.0 to 130	0.985	20.0
BD15015	Iron, Total	mg/L	0.000264	0.0176	0.2	0.195	0.195	0.196	0.170 to 0.230	97.5	70.0 to 130	0.00	20.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWBARAP

Sample Date: 8/7/23 15:52

Customer ID:

Delivery Date: 8/10/23 09:48

Description: Barry Ash Pond - MW-5

Laboratory ID Number: BD15014

Sample	Analysis	Units	MB		Spike	MS	MSD	Standard		Rec		Prec	Limit
			MB	Limit				Standard	Limit	Rec	Limit		
BD15018	Lead, Dissolved	mg/L	0.0000145	0.000147	0.100	0.105	0.104	0.103	0.0850 to 0.115	105	70.0 to 130	0.957	20.0
BD15015	Lead, Total	mg/L	0.0000362	0.000147	0.100	0.107	0.105	0.107	0.0850 to 0.115	107	70.0 to 130	1.89	20.0
BD15018	Lithium, Dissolved	mg/L	-0.000272	0.0154	0.200	0.212	0.211	0.210	0.170 to 0.230	106	70.0 to 130	0.473	20.0
BD15015	Lithium, Total	mg/L	-0.000611	0.0154	0.200	0.210	0.212	0.211	0.170 to 0.230	105	70.0 to 130	0.948	20.0
BD15018	Magnesium, Dissolved	mg/L	-0.000059	0.0462	5.00	5.93	5.84	5.21	4.25 to 5.75	103	70.0 to 130	1.53	20.0
BD15015	Magnesium, Total	mg/L	-0.000838	0.0462	5.00	5.04	5.10	5.05	4.25 to 5.75	101	70.0 to 130	1.18	20.0
BD15018	Manganese, Dissolved	mg/L	0.0000346	0.00033	0.100	0.103	0.103	0.0983	0.0850 to 0.115	99.5	70.0 to 130	0.00	20.0
BD15015	Manganese, Total	mg/L	0.0000106	0.00033	0.100	0.102	0.103	0.102	0.0850 to 0.115	102	70.0 to 130	0.976	20.0
BD15014	Mercury, Total by CVAA	mg/L	-5.000E-05	0.000500	0.004	0.00391	0.00394	0.00401	0.00340 to 0.00460	97.8	70.0 to 130	0.764	20.0
BD15018	Molybdenum, Dissolved	mg/L	0.00193	0.0100	0.2	0.198	0.200	0.199	0.170 to 0.230	99.0	70.0 to 130	1.01	20.0
BD15015	Molybdenum, Total	mg/L	0.000	0.0100	0.2	0.197	0.197	0.197	0.170 to 0.230	98.5	70.0 to 130	0.00	20.0
BD15018	Potassium, Dissolved	mg/L	-0.00978	0.367	10.0	11.0	11.3	10.1	8.50 to 11.5	100	70.0 to 130	2.69	20.0
BD15015	Potassium, Total	mg/L	-0.0265	0.367	10.0	10.2	10.5	10.5	8.50 to 11.5	102	70.0 to 130	2.90	20.0
BD15018	Selenium, Dissolved	mg/L	-0.0000836	0.00100	0.100	0.0999	0.0988	0.0990	0.0850 to 0.115	99.9	70.0 to 130	1.11	20.0
BD15015	Selenium, Total	mg/L	-0.000110	0.00100	0.100	0.0988	0.0990	0.0994	0.0850 to 0.115	98.8	70.0 to 130	0.202	20.0
BD15018	Silicon, Dissolved	mg/L	0.000422	0.0440	1.00	8.72	8.74	1.03	0.850 to 1.15	111	70.0 to 130	0.229	20.0
BD15015	Silicon, Total	mg/L	-0.00110	0.0440	1.00	0.994	0.984	1.00	0.850 to 1.15	99.4	70.0 to 130	1.01	20.0
BD15018	Sodium, Dissolved	mg/L	0.00934	0.0880	5.00	11.8	11.8	5.30	4.25 to 5.75	104	70.0 to 130	0.00	20.0
BD15015	Sodium, Total	mg/L	0.00689	0.0880	5.00	5.35	5.42	5.44	4.25 to 5.75	105	70.0 to 130	1.30	20.0
BD15014	Sulfate	mg/L	0.349	2.0	20.0	36.3	36.4	20.4	18.0 to 22.0	93.5	80.0 to 120	0.275	20.0
BD15018	Thallium, Dissolved	mg/L	-0.0000018	0.000147	0.100	0.106	0.104	0.105	0.0850 to 0.115	106	70.0 to 130	1.90	20.0
BD15015	Thallium, Total	mg/L	0.0000283	0.000147	0.100	0.104	0.105	0.111	0.0850 to 0.115	104	70.0 to 130	0.957	20.0
BD15014	Total Organic Carbon	mg/L	0.165	1.00	10.0	16.2	16.8	25.3		100	80.0 to 120	3.64	20.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWBARAP

Sample Date: 8/7/23 15:52

Customer ID:

Delivery Date: 8/10/23 09:48

Description: Barry Ash Pond - MW-5

Laboratory ID Number: BD15014

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BD15014	Alkalinity	mg CaCO3/L					73.7	51.9	45.0 to 55.0			3.60	10.0
BD15014	Nitrogen, Nitrate/Nitrite	mg/L as N	-0.01	0.200	2.00	2.02	0.006	2.01	1.80 to 2.20	101	90.0 to 110	0.00	15.0
BD15019	Solids, Dissolved	mg/L	1.00	25.0			1540	50.0	40.0 to 60.0			1.31	10.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Barry Ash Pond Field Blank-2

Location Code: WMWBARAPFB
Collected: 8/7/23 16:20
Customer ID:
Submittal Date: 8/10/23 09:48

Laboratory ID Number: BD15015

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7		Analyst: ABB			Preparation Method: EPA 1638				
* Boron, Total	8/11/23 11:28	8/15/23 14:30		1.015	Not Detected	mg/L	0.030000	0.1015	U
* Calcium, Total	8/11/23 11:28	8/16/23 13:48		1.015	Not Detected	mg/L	0.070035	0.406	U
* Iron, Total	8/11/23 11:28	8/15/23 14:30		1.015	Not Detected	mg/L	0.008120	0.0406	U
* Lithium, Total	8/11/23 11:28	8/15/23 14:30		1.015	Not Detected	mg/L	0.007105	0.01999956	U
* Magnesium, Total	8/11/23 11:28	8/15/23 14:30		1.015	Not Detected	mg/L	0.021315	0.406	U
* Molybdenum, Total	8/11/23 11:28	8/15/23 14:30		1.015	Not Detected	mg/L	0.005075	0.01015	U
* Silica, Total (calc.)	8/11/23 11:28	8/15/23 14:30		1	Not Detected	mg/L			
* Silicon, Total	8/11/23 11:28	8/15/23 14:30		1.015	Not Detected	mg/L	0.02030	0.25375	U
* Sodium, Total	8/11/23 11:28	8/15/23 14:30		1.015	0.0850	mg/L	0.04060	0.406	J
Analytical Method: EPA 200.8		Analyst: DLJ			Preparation Method: EPA 1638				
* Antimony, Total	8/11/23 11:28	8/11/23 16:22		1.015	Not Detected	mg/L	0.000710	0.001015	U
* Aluminum, Total	8/11/23 11:28	8/11/23 16:22		1.015	Not Detected	mg/L	0.009135	0.05075	U
* Arsenic, Total	8/11/23 11:28	8/11/23 16:22		1.015	Not Detected	mg/L	0.000112	0.000203	U
* Barium, Total	8/11/23 11:28	8/11/23 16:22		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Beryllium, Total	8/11/23 11:28	8/11/23 16:22		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Total	8/11/23 11:28	8/11/23 16:22		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Total	8/11/23 11:28	8/11/23 16:22		1.015	Not Detected	mg/L	0.000203	0.001015	U
* Cobalt, Total	8/11/23 11:28	8/11/23 16:22		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Lead, Total	8/11/23 11:28	8/11/23 16:22		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Total	8/11/23 11:28	8/11/23 16:22		1.015	Not Detected	mg/L	0.000152	0.001015	U
* Potassium, Total	8/11/23 11:28	8/11/23 16:22		1.015	Not Detected	mg/L	0.169505	0.5075	U
* Selenium, Total	8/11/23 11:28	8/11/23 16:22		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Total	8/11/23 11:28	8/11/23 16:22		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 245.1		Analyst: ELH							
* Mercury, Total by CVAA	8/15/23 15:19	8/15/23 19:36		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: EPA 353.2		Analyst: SC							
* Nitrogen, Nitrate/Nitrite	8/10/23 16:48	8/10/23 16:48		1	Not Detected	mg/L as N	0.20	0.3	U
Analytical Method: SM 2540C		Analyst: CNJ							
* Solids, Dissolved	8/11/23 11:30	8/15/23 09:35		1	Not Detected	mg/L		25	U

MDL's and RL's are adjusted for sample dilution, as applicable

Comments:

Certificate Of Analysis

Description: Barry Ash Pond Field Blank-2

Location Code: WMWBARAPFB

Collected: 8/7/23 16:20

Customer ID:

Submittal Date: 8/10/23 09:48

Laboratory ID Number: BD15015

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM 5310 B		Analyst: SC							
* Total Organic Carbon	8/11/23 13:01	8/11/23 13:01		1	Not Detected	mg/L	1.00	2	U
Analytical Method: SM4500Cl E		Analyst: JCC							
* Chloride	8/16/23 12:47	8/16/23 12:47		1	Not Detected	mg/L	0.50	1	U
Analytical Method: SM4500F G 2017		Analyst: JCC							
* Fluoride	8/17/23 11:09	8/17/23 11:09		1	Not Detected	mg/L	0.06	0.125	U
Analytical Method: SM4500SO4 E 2011		Analyst: JCC							
* Sulfate	8/11/23 12:31	8/11/23 12:31		1	Not Detected	mg/L	0.6	2	U

MDL's and RL's are adjusted for sample dilution, as applicable

Comments:

Batch QC Summary

Customer Account: WMWBARAPFB

Sample Date: 8/7/23 16:20

Customer ID:

Delivery Date: 8/10/23 09:48

Description: Barry Ash Pond Field Blank-2

Laboratory ID Number: BD15015

Sample	Analysis	Units	MB					Standard		Rec			Prec Limit
			MB	Limit	Spike	MS	MSD	Standard	Limit	Rec	Limit	Prec	
BD15015	Aluminum, Total	mg/L	0.000494	0.0198	0.100	0.106	0.105	0.107	0.0850 to 0.115	106	70.0 to 130	0.948	20.0
BD15015	Antimony, Total	mg/L	0.000335	0.00100	0.100	0.0900	0.0919	0.0915	0.0850 to 0.115	90.0	70.0 to 130	2.09	20.0
BD15015	Arsenic, Total	mg/L	0.0000005	0.000200	0.100	0.100	0.0975	0.0994	0.0850 to 0.115	100	70.0 to 130	2.53	20.0
BD15015	Barium, Total	mg/L	-0.0000013	0.00100	0.100	0.103	0.102	0.102	0.0850 to 0.115	103	70.0 to 130	0.976	20.0
BD15015	Beryllium, Total	mg/L	0.0000525	0.000880	0.100	0.0966	0.0932	0.0918	0.0850 to 0.115	96.6	70.0 to 130	3.58	20.0
BD15015	Boron, Total	mg/L	0.000378	0.0650	1.00	0.986	0.980	0.998	0.850 to 1.15	98.6	70.0 to 130	0.610	20.0
BD15015	Cadmium, Total	mg/L	0.0000138	0.000147	0.100	0.101	0.0989	0.103	0.0850 to 0.115	101	70.0 to 130	2.10	20.0
BD15015	Calcium, Total	mg/L	-0.0114	0.152	5.00	4.62	4.58	4.71	4.25 to 5.75	92.4	70.0 to 130	0.870	20.0
BD15130	Chloride	mg/L	0.0796	1.00	10.0	10.0	9.92	9.64	9.00 to 11.0	100	80.0 to 120	0.803	20.0
BD15015	Chromium, Total	mg/L	-0.000171	0.000440	0.100	0.0999	0.101	0.0988	0.0850 to 0.115	99.9	70.0 to 130	1.10	20.0
BD15015	Cobalt, Total	mg/L	-0.0000060	0.000147	0.100	0.105	0.105	0.105	0.0850 to 0.115	105	70.0 to 130	0.00	20.0
BD15130	Fluoride	mg/L	0.0238	0.125	2.50	2.64	2.63	2.52	2.25 to 2.75	106	80.0 to 120	0.380	20.0
BD15015	Iron, Total	mg/L	0.000264	0.0176	0.2	0.195	0.195	0.196	0.170 to 0.230	97.5	70.0 to 130	0.00	20.0
BD15015	Lead, Total	mg/L	0.0000362	0.000147	0.100	0.107	0.105	0.107	0.0850 to 0.115	107	70.0 to 130	1.89	20.0
BD15015	Lithium, Total	mg/L	-0.000611	0.0154	0.200	0.210	0.212	0.211	0.170 to 0.230	105	70.0 to 130	0.948	20.0
BD15015	Magnesium, Total	mg/L	-0.000838	0.0462	5.00	5.04	5.10	5.05	4.25 to 5.75	101	70.0 to 130	1.18	20.0
BD15015	Manganese, Total	mg/L	0.0000106	0.00033	0.100	0.102	0.103	0.102	0.0850 to 0.115	102	70.0 to 130	0.976	20.0
BD15130	Mercury, Total by CVAA	mg/L	4.000E-05	0.000500	0.004	0.00372	0.00376	0.00383	0.00340 to 0.00460	93.0	70.0 to 130	1.07	20.0
BD15015	Molybdenum, Total	mg/L	0.000	0.0100	0.2	0.197	0.197	0.197	0.170 to 0.230	98.5	70.0 to 130	0.00	20.0
BD15015	Potassium, Total	mg/L	-0.0265	0.367	10.0	10.2	10.5	10.5	8.50 to 11.5	102	70.0 to 130	2.90	20.0
BD15015	Selenium, Total	mg/L	-0.000110	0.00100	0.100	0.0988	0.0990	0.0994	0.0850 to 0.115	98.8	70.0 to 130	0.202	20.0
BD15015	Silicon, Total	mg/L	-0.00110	0.0440	1.00	0.994	0.984	1.00	0.850 to 1.15	99.4	70.0 to 130	1.01	20.0
BD15015	Sodium, Total	mg/L	0.00689	0.0880	5.00	5.35	5.42	5.44	4.25 to 5.75	105	70.0 to 130	1.30	20.0
BD15130	Sulfate	mg/L	0.258	2.0	20.0	21.8	20.3	20.2	18.0 to 22.0	109	80.0 to 120	7.13	20.0

Comments:

Batch QC Summary

Customer Account: WMWBARAPFB

Sample Date: 8/7/23 16:20

Customer ID:

Delivery Date: 8/10/23 09:48

Description: Barry Ash Pond Field Blank-2

Laboratory ID Number: BD15015

Sample	Analysis	Units	MB	MB				Standard		Rec		Prec	
				Limit	Spike	MS	MSD	Standard	Limit	Rec	Limit	Prec	Limit
BD15015	Thallium, Total	mg/L	0.0000283	0.000147	0.100	0.104	0.105	0.111	0.0850 to 0.115	104	70.0 to 130	0.957	20.0
BD15022	Total Organic Carbon	mg/L	0.164	1.00	10.0	15.6	16.2	26.8		105	80.0 to 120	3.77	20.0

Comments:

Batch QC Summary

Customer Account: WMWBARAPFB

Sample Date: 8/7/23 16:20

Customer ID:

Delivery Date: 8/10/23 09:48

Description: Barry Ash Pond Field Blank-2

Laboratory ID Number: BD15015

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BD15022	Nitrogen, Nitrate/Nitrite	mg/L as N	-0.06	0.200	2.00	2.15	-0.046	2.01	1.80 to 2.20	108	90.0 to 110	0.00	15.0
BD15019	Solids, Dissolved	mg/L	1.00	25.0			1540	50.0	40.0 to 60.0			1.31	10.0

Comments:

Certificate Of Analysis

Description: Barry Ash Pond - MW-25V

Location Code: WMWBARAP
Collected: 8/8/23 08:55
Customer ID:
Submittal Date: 8/10/23 09:48

Laboratory ID Number: BD15016

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7			Analyst: ABB		Preparation Method: EPA 1638				
* Boron, Total	8/11/23 11:28	8/15/23 14:46		1.015	Not Detected	mg/L	0.030000	0.1015	U
* Calcium, Total	8/11/23 11:28	8/16/23 14:04		1.015	0.669	mg/L	0.070035	0.406	
* Iron, Total	8/11/23 11:28	8/15/23 14:46		1.015	0.0449	mg/L	0.008120	0.0406	
* Lithium, Total	8/11/23 11:28	8/15/23 14:46		1.015	Not Detected	mg/L	0.007105	0.01999956	U
* Magnesium, Total	8/11/23 11:28	8/15/23 14:46		1.015	0.382	mg/L	0.021315	0.406	J
* Molybdenum, Total	8/11/23 11:28	8/15/23 14:46		1.015	Not Detected	mg/L	0.005075	0.01015	U
* Silica, Total (calc.)	8/11/23 11:28	8/15/23 14:46		1	13.6	mg/L			
* Silicon, Total	8/11/23 11:28	8/15/23 14:46		1.015	6.37	mg/L	0.02030	0.25375	
* Sodium, Total	8/11/23 11:28	8/15/23 14:46		1.015	4.97	mg/L	0.04060	0.406	
Analytical Method: EPA 200.7			Analyst: ABB						
* Boron, Dissolved	8/11/23 09:10	8/11/23 13:46		1.015	Not Detected	mg/L	0.030000	0.1015	U
* Calcium, Dissolved	8/11/23 09:10	8/11/23 13:46		1.015	0.669	mg/L	0.070035	0.406	
* Iron, Dissolved	8/11/23 09:10	8/11/23 13:46		1.015	Not Detected	mg/L	0.008120	0.0406	U
* Lithium, Dissolved	8/11/23 09:10	8/11/23 13:46		1.015	Not Detected	mg/L	0.007105	0.01999956	U
* Magnesium, Dissolved	8/11/23 09:10	8/11/23 13:46		1.015	0.387	mg/L	0.021315	0.406	J
* Molybdenum, Dissolved	8/11/23 09:10	8/11/23 13:46		1.015	Not Detected	mg/L	0.005075	0.01015	U
* Silica, Dissolved (calc.)	8/11/23 09:10	8/11/23 13:46		1	14.1	mg/L			
* Silicon, Dissolved	8/11/23 09:10	8/11/23 13:46		1.015	6.60	mg/L	0.02030	0.25375	
* Sodium, Dissolved	8/11/23 09:10	8/11/23 13:46		1.015	4.95	mg/L	0.04060	0.406	
Analytical Method: EPA 200.8			Analyst: DLJ		Preparation Method: EPA 1638				
* Antimony, Total	8/11/23 11:28	8/11/23 16:43		1.015	Not Detected	mg/L	0.000710	0.001015	U
* Aluminum, Total	8/11/23 11:28	8/11/23 16:43		1.015	0.0142	mg/L	0.009135	0.05075	J
* Arsenic, Total	8/11/23 11:28	8/11/23 16:43		1.015	Not Detected	mg/L	0.000112	0.000203	U
* Barium, Total	8/11/23 11:28	8/11/23 16:43		1.015	0.0120	mg/L	0.000508	0.001015	
* Beryllium, Total	8/11/23 11:28	8/11/23 16:43		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Total	8/11/23 11:28	8/11/23 16:43		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Total	8/11/23 11:28	8/11/23 16:43		1.015	0.00128	mg/L	0.000203	0.001015	
* Cobalt, Total	8/11/23 11:28	8/11/23 16:43		1.015	0.000272	mg/L	0.000068	0.000203	
* Lead, Total	8/11/23 11:28	8/11/23 16:43		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Total	8/11/23 11:28	8/11/23 16:43		1.015	0.00478	mg/L	0.000152	0.001015	

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Barry Ash Pond - MW-25V

Location Code: WMWBARAP

Collected: 8/8/23 08:55

Customer ID:

Submittal Date: 8/10/23 09:48

Laboratory ID Number: BD15016

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
* Potassium, Total	8/11/23 11:28	8/11/23 16:43		1.015	0.828	mg/L	0.169505	0.5075	
* Selenium, Total	8/11/23 11:28	8/11/23 16:43		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Total	8/11/23 11:28	8/11/23 16:43		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 200.8		Analyst: DLJ							
* Antimony, Dissolved	8/11/23 09:10	8/11/23 12:48		1.015	Not Detected	mg/L	0.000710	0.001015	U
* Aluminum, Dissolved	8/11/23 09:10	8/11/23 12:48		1.015	Not Detected	mg/L	0.009135	0.05075	U
* Arsenic, Dissolved	8/11/23 09:10	8/11/23 12:48		1.015	Not Detected	mg/L	0.000112	0.000203	U
* Barium, Dissolved	8/11/23 09:10	8/11/23 12:48		1.015	0.0113	mg/L	0.000508	0.001015	
* Beryllium, Dissolved	8/11/23 09:10	8/11/23 12:48		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Dissolved	8/11/23 09:10	8/11/23 12:48		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Dissolved	8/11/23 09:10	8/11/23 12:48		1.015	0.00111	mg/L	0.000203	0.001015	
* Cobalt, Dissolved	8/11/23 09:10	8/11/23 12:48		1.015	0.000258	mg/L	0.000068	0.000203	
* Lead, Dissolved	8/11/23 09:10	8/11/23 12:48		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Dissolved	8/11/23 09:10	8/11/23 12:48		1.015	0.00458	mg/L	0.000152	0.001015	
* Potassium, Dissolved	8/11/23 09:10	8/11/23 12:48		1.015	0.817	mg/L	0.169505	0.5075	
* Selenium, Dissolved	8/11/23 09:10	8/11/23 12:48		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Dissolved	8/11/23 09:10	8/11/23 12:48		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 245.1		Analyst: ELH							
* Mercury, Total by CVAA	8/15/23 15:19	8/15/23 19:40		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: EPA 353.2		Analyst: SC							
* Nitrogen, Nitrate/Nitrite	8/10/23 16:50	8/10/23 16:50		1	Not Detected	mg/L as N	0.20	0.3	U
Analytical Method: SM 2320 B		Analyst: DHC							
* Alkalinity	8/16/23 09:02	8/16/23 14:44		1	8.55	mg CaCO3/L		0.1	
Analytical Method: SM 2540C		Analyst: CNJ							
* Solids, Dissolved	8/11/23 11:30	8/15/23 09:35		1	29.3	mg/L		25	
Analytical Method: SM 4500CO2 D		Analyst: DHC							
* Bicarbonate Alkalinity, (calc.)	8/16/23 09:02	8/16/23 14:44		1	8.55	mg CaCO3/L		1	
* Carbonate Alkalinity, (calc.)	8/16/23 09:02	8/16/23 14:44		1	Not Detected	mg CaCO3/L		0.5	
Analytical Method: SM 4500H+ B		Analyst: DHC							
Alkalinity pH Endpoint	8/16/23 09:02	8/16/23 14:44		1	4.15	SU		2	

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Barry Ash Pond - MW-25V

Location Code: WMWBARAP
Collected: 8/8/23 08:55
Customer ID:
Submittal Date: 8/10/23 09:48

Laboratory ID Number: BD15016

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM 5310 B		Analyst: SC							
* Total Organic Carbon	8/11/23 13:15	8/11/23 13:15		1	Not Detected	mg/L	1.00	2	U
Analytical Method: SM4500Cl E		Analyst: JCC							
* Chloride	8/16/23 12:48	8/16/23 12:48		1	3.60	mg/L	0.50	1	
Analytical Method: SM4500F G 2017		Analyst: JCC							
* Fluoride	8/17/23 11:10	8/17/23 11:10		1	Not Detected	mg/L	0.06	0.125	U
Analytical Method: SM4500SO4 E 2011		Analyst: JCC							
* Sulfate	8/11/23 12:32	8/11/23 12:32		1	2.47	mg/L	0.6	2	
Analytical Method: Field Measurements		Analyst: TJD							
Conductivity	8/8/23 08:53	8/8/23 08:53			29.71	uS/cm			FA
pH	8/8/23 08:53	8/8/23 08:53			4.79	SU			FA
Temperature	8/8/23 08:53	8/8/23 08:53			22.85	C			FA
Turbidity	8/8/23 08:53	8/8/23 08:53			1.18	NTU			FA
Sulfide	8/8/23 08:53	8/8/23 08:53			0	mg/L			FA

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWBARAP

Sample Date: 8/8/23 08:55

Customer ID:

Delivery Date: 8/10/23 09:48

Description: Barry Ash Pond - MW-25V

Laboratory ID Number: BD15016

Sample	Analysis	Units	MB		Spike	MS	MSD	Standard		Rec		Prec	Limit
			MB	Limit				Standard	Limit	Rec	Limit		
BD15018	Aluminum, Dissolved	mg/L	-0.000210	0.0198	0.100	0.105	0.107	0.0999	0.0850 to 0.115	105	70.0 to 130	1.89	20.0
BD15022	Aluminum, Total	mg/L	0.000494	0.0198	0.100	0.134	0.135	0.107	0.0850 to 0.115	113	70.0 to 130	0.743	20.0
BD15018	Antimony, Dissolved	mg/L	0.000419	0.00100	0.100	0.0935	0.0933	0.0899	0.0850 to 0.115	93.5	70.0 to 130	0.214	20.0
BD15022	Antimony, Total	mg/L	0.000335	0.00100	0.100	0.0992	0.0998	0.0915	0.0850 to 0.115	99.2	70.0 to 130	0.603	20.0
BD15018	Arsenic, Dissolved	mg/L	0.0000078	0.000200	0.100	0.0973	0.0975	0.0963	0.0850 to 0.115	97.3	70.0 to 130	0.205	20.0
BD15022	Arsenic, Total	mg/L	0.0000005	0.000200	0.100	0.102	0.0997	0.0994	0.0850 to 0.115	99.5	70.0 to 130	2.28	20.0
BD15018	Barium, Dissolved	mg/L	0.0000016	0.00100	0.100	0.116	0.118	0.0971	0.0850 to 0.115	95.8	70.0 to 130	1.71	20.0
BD15022	Barium, Total	mg/L	-0.0000013	0.00100	0.100	0.266	0.269	0.102	0.0850 to 0.115	101	70.0 to 130	1.12	20.0
BD15018	Beryllium, Dissolved	mg/L	0.0000249	0.000880	0.100	0.0930	0.0953	0.0946	0.0850 to 0.115	93.0	70.0 to 130	2.44	20.0
BD15022	Beryllium, Total	mg/L	0.0000525	0.000880	0.100	0.0954	0.0971	0.0918	0.0850 to 0.115	95.4	70.0 to 130	1.77	20.0
BD15018	Boron, Dissolved	mg/L	-0.00147	0.0650	1.00	1.03	1.04	1.02	0.850 to 1.15	103	70.0 to 130	0.966	20.0
BD15022	Boron, Total	mg/L	0.000378	0.0650	1.00	1.05	1.04	0.998	0.850 to 1.15	101	70.0 to 130	0.957	20.0
BD15018	Cadmium, Dissolved	mg/L	0.0000044	0.000147	0.100	0.0993	0.0999	0.0981	0.0850 to 0.115	99.3	70.0 to 130	0.602	20.0
BD15022	Cadmium, Total	mg/L	0.0000138	0.000147	0.100	0.0966	0.0997	0.103	0.0850 to 0.115	96.6	70.0 to 130	3.16	20.0
BD15018	Calcium, Dissolved	mg/L	-0.00839	0.152	5.00	5.91	5.81	5.04	4.25 to 5.75	98.0	70.0 to 130	1.71	20.0
BD15022	Calcium, Total	mg/L	-0.0114	0.152	5.00	26.1	26.3	4.71	4.25 to 5.75	90.0	70.0 to 130	0.763	20.0
BD15130	Chloride	mg/L	0.0796	1.00	10.0	10.0	9.92	9.64	9.00 to 11.0	100	80.0 to 120	0.803	20.0
BD15018	Chromium, Dissolved	mg/L	-0.000105	0.000440	0.100	0.0976	0.0986	0.0957	0.0850 to 0.115	96.6	70.0 to 130	1.02	20.0
BD15022	Chromium, Total	mg/L	-0.000171	0.000440	0.100	0.0990	0.0991	0.0988	0.0850 to 0.115	98.6	70.0 to 130	0.101	20.0
BD15018	Cobalt, Dissolved	mg/L	-0.0000064	0.000147	0.100	0.102	0.104	0.0994	0.0850 to 0.115	101	70.0 to 130	1.94	20.0
BD15022	Cobalt, Total	mg/L	-0.0000060	0.000147	0.100	0.105	0.105	0.105	0.0850 to 0.115	104	70.0 to 130	0.00	20.0
BD15130	Fluoride	mg/L	0.0238	0.125	2.50	2.64	2.63	2.52	2.25 to 2.75	106	80.0 to 120	0.380	20.0
BD15018	Iron, Dissolved	mg/L	0.00127	0.0176	0.2	0.204	0.202	0.201	0.170 to 0.230	102	70.0 to 130	0.985	20.0
BD15022	Iron, Total	mg/L	0.000264	0.0176	0.2	50.8	59.8	0.196	0.170 to 0.230	-150	70.0 to 130	16.3	20.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWBARAP

Sample Date: 8/8/23 08:55

Customer ID:

Delivery Date: 8/10/23 09:48

Description: Barry Ash Pond - MW-25V

Laboratory ID Number: BD15016

Sample	Analysis	Units	MB					Standard		Rec		Prec	Limit
			MB	Limit	Spike	MS	MSD	Standard	Limit	Rec	Limit		
BD15018	Lead, Dissolved	mg/L	0.0000145	0.000147	0.100	0.105	0.104	0.103	0.0850 to 0.115	105	70.0 to 130	0.957	20.0
BD15022	Lead, Total	mg/L	0.0000362	0.000147	0.100	0.105	0.109	0.107	0.0850 to 0.115	105	70.0 to 130	3.74	20.0
BD15018	Lithium, Dissolved	mg/L	-0.000272	0.0154	0.200	0.212	0.211	0.210	0.170 to 0.230	106	70.0 to 130	0.473	20.0
BD15022	Lithium, Total	mg/L	-0.000611	0.0154	0.200	0.210	0.213	0.211	0.170 to 0.230	105	70.0 to 130	1.42	20.0
BD15018	Magnesium, Dissolved	mg/L	-0.000059	0.0462	5.00	5.93	5.84	5.21	4.25 to 5.75	103	70.0 to 130	1.53	20.0
BD15022	Magnesium, Total	mg/L	-0.000838	0.0462	5.00	11.6	11.6	5.05	4.25 to 5.75	102	70.0 to 130	0.00	20.0
BD15018	Manganese, Dissolved	mg/L	0.0000346	0.00033	0.100	0.103	0.103	0.0983	0.0850 to 0.115	99.5	70.0 to 130	0.00	20.0
BD15022	Manganese, Total	mg/L	0.0000106	0.00033	0.100	0.970	0.974	0.102	0.0850 to 0.115	94.0	70.0 to 130	0.412	20.0
BD15130	Mercury, Total by CVAA	mg/L	4.000E-05	0.000500	0.004	0.00372	0.00376	0.00383	0.00340 to 0.00460	93.0	70.0 to 130	1.07	20.0
BD15018	Molybdenum, Dissolved	mg/L	0.00193	0.0100	0.2	0.198	0.200	0.199	0.170 to 0.230	99.0	70.0 to 130	1.01	20.0
BD15022	Molybdenum, Total	mg/L	0.000	0.0100	0.2	0.198	0.196	0.197	0.170 to 0.230	99.0	70.0 to 130	1.02	20.0
BD15018	Potassium, Dissolved	mg/L	-0.00978	0.367	10.0	11.0	11.3	10.1	8.50 to 11.5	100	70.0 to 130	2.69	20.0
BD15022	Potassium, Total	mg/L	-0.0265	0.367	10.0	11.3	11.4	10.5	8.50 to 11.5	103	70.0 to 130	0.881	20.0
BD15018	Selenium, Dissolved	mg/L	-0.0000836	0.00100	0.100	0.0999	0.0988	0.0990	0.0850 to 0.115	99.9	70.0 to 130	1.11	20.0
BD15022	Selenium, Total	mg/L	-0.000110	0.00100	0.100	0.103	0.101	0.0994	0.0850 to 0.115	103	70.0 to 130	1.96	20.0
BD15018	Silicon, Dissolved	mg/L	0.000422	0.0440	1.00	8.72	8.74	1.03	0.850 to 1.15	111	70.0 to 130	0.229	20.0
BD15022	Silicon, Total	mg/L	-0.00110	0.0440	1.00	16.3	16.4	1.00	0.850 to 1.15	100	70.0 to 130	0.612	20.0
BD15018	Sodium, Dissolved	mg/L	0.00934	0.0880	5.00	11.8	11.8	5.30	4.25 to 5.75	104	70.0 to 130	0.00	20.0
BD15022	Sodium, Total	mg/L	0.00689	0.0880	5.00	23.9	24.2	5.44	4.25 to 5.75	100	70.0 to 130	1.25	20.0
BD15130	Sulfate	mg/L	0.258	2.0	20.0	21.8	20.3	20.2	18.0 to 22.0	109	80.0 to 120	7.13	20.0
BD15018	Thallium, Dissolved	mg/L	-0.0000018	0.000147	0.100	0.106	0.104	0.105	0.0850 to 0.115	106	70.0 to 130	1.90	20.0
BD15022	Thallium, Total	mg/L	0.0000283	0.000147	0.100	0.106	0.109	0.111	0.0850 to 0.115	106	70.0 to 130	2.79	20.0
BD15022	Total Organic Carbon	mg/L	0.164	1.00	10.0	15.6	16.2	26.8		105	80.0 to 120	3.77	20.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWBARAP

Sample Date: 8/8/23 08:55

Customer ID:

Delivery Date: 8/10/23 09:48

Description: Barry Ash Pond - MW-25V

Laboratory ID Number: BD15016

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BD15006	Alkalinity	mg CaCO3/L					153	51.2	45.0 to 55.0			0.00	10.0
BD15022	Nitrogen, Nitrate/Nitrite	mg/L as N	-0.06	0.200	2.00	2.15	-0.046	2.01	1.80 to 2.20	108	90.0 to 110	0.00	15.0
BD15019	Solids, Dissolved	mg/L	1.00	25.0			1540	50.0	40.0 to 60.0			1.31	10.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Barry Ash Pond - MW-25H

Location Code: WMWBARAP
Collected: 8/8/23 09:58
Customer ID:
Submittal Date: 8/10/23 09:48

Laboratory ID Number: BD15017

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q	
Analytical Method: EPA 200.7		Analyst: ABB			Preparation Method: EPA 1638					
* Boron, Total	8/11/23 11:28	8/15/23 14:49		1.015	Not Detected	mg/L	0.030000	0.1015	U	
* Calcium, Total	8/11/23 11:28	8/16/23 14:07		1.015	0.967	mg/L	0.070035	0.406		
* Iron, Total	8/11/23 11:28	8/15/23 14:49		1.015	0.0224	mg/L	0.008120	0.0406	J	
* Lithium, Total	8/11/23 11:28	8/15/23 14:49		1.015	Not Detected	mg/L	0.007105	0.01999956	U	
* Magnesium, Total	8/11/23 11:28	8/15/23 14:49		1.015	0.792	mg/L	0.021315	0.406		
* Molybdenum, Total	8/11/23 11:28	8/15/23 14:49		1.015	Not Detected	mg/L	0.005075	0.01015	U	
* Silica, Total (calc.)	8/11/23 11:28	8/15/23 14:49		1	15.9	mg/L				
* Silicon, Total	8/11/23 11:28	8/15/23 14:49		1.015	7.45	mg/L	0.02030	0.25375		
* Sodium, Total	8/11/23 11:28	8/15/23 14:49		1.015	6.54	mg/L	0.04060	0.406		
Analytical Method: EPA 200.7		Analyst: ABB			Preparation Method: EPA 1638					
* Boron, Dissolved	8/11/23 09:10	8/11/23 13:49		1.015	Not Detected	mg/L	0.030000	0.1015	U	
* Calcium, Dissolved	8/11/23 09:10	8/11/23 13:49		1.015	0.992	mg/L	0.070035	0.406		
* Iron, Dissolved	8/11/23 09:10	8/11/23 13:49		1.015	Not Detected	mg/L	0.008120	0.0406	U	
* Lithium, Dissolved	8/11/23 09:10	8/11/23 13:49		1.015	Not Detected	mg/L	0.007105	0.01999956	U	
* Magnesium, Dissolved	8/11/23 09:10	8/11/23 13:49		1.015	0.813	mg/L	0.021315	0.406		
* Molybdenum, Dissolved	8/11/23 09:10	8/11/23 13:49		1.015	Not Detected	mg/L	0.005075	0.01015	U	
* Silica, Dissolved (calc.)	8/11/23 09:10	8/11/23 13:49		1	16.3	mg/L				
* Silicon, Dissolved	8/11/23 09:10	8/11/23 13:49		1.015	7.64	mg/L	0.02030	0.25375		
* Sodium, Dissolved	8/11/23 09:10	8/11/23 13:49		1.015	6.59	mg/L	0.04060	0.406		
Analytical Method: EPA 200.8		Analyst: DLJ			Preparation Method: EPA 1638					
* Antimony, Total	8/11/23 11:28	8/11/23 16:47		1.015	Not Detected	mg/L	0.000710	0.001015	U	
* Arsenic, Total	8/11/23 11:28	8/11/23 16:47		1.015	0.000121	mg/L	0.000112	0.000203	J	
* Aluminum, Total	8/11/23 11:28	8/11/23 16:47		1.015	0.0109	mg/L	0.009135	0.05075	J	
* Barium, Total	8/11/23 11:28	8/11/23 16:47		1.015	0.0210	mg/L	0.000508	0.001015		
* Beryllium, Total	8/11/23 11:28	8/11/23 16:47		1.015	Not Detected	mg/L	0.000406	0.001015	U	
* Cadmium, Total	8/11/23 11:28	8/11/23 16:47		1.015	Not Detected	mg/L	0.000068	0.000203	U	
* Chromium, Total	8/11/23 11:28	8/11/23 16:47		1.015	0.00113	mg/L	0.000203	0.001015		
* Cobalt, Total	8/11/23 11:28	8/11/23 16:47		1.015	0.00141	mg/L	0.000068	0.000203		
* Lead, Total	8/11/23 11:28	8/11/23 16:47		1.015	Not Detected	mg/L	0.000068	0.000203	U	
* Manganese, Total	8/11/23 11:28	8/11/23 16:47		1.015	0.00357	mg/L	0.000152	0.001015		

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Barry Ash Pond - MW-25H

Location Code: WMWBARAP
Collected: 8/8/23 09:58
Customer ID:
Submittal Date: 8/10/23 09:48

Laboratory ID Number: BD15017

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
* Potassium, Total	8/11/23 11:28	8/11/23 16:47		1.015	0.976	mg/L	0.169505	0.5075	
* Selenium, Total	8/11/23 11:28	8/11/23 16:47		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Total	8/11/23 11:28	8/11/23 16:47		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 200.8		Analyst: DLJ							
* Antimony, Dissolved	8/11/23 09:10	8/11/23 12:52		1.015	Not Detected	mg/L	0.000710	0.001015	U
* Aluminum, Dissolved	8/11/23 09:10	8/11/23 12:52		1.015	Not Detected	mg/L	0.009135	0.05075	U
* Arsenic, Dissolved	8/11/23 09:10	8/11/23 12:52		1.015	Not Detected	mg/L	0.000112	0.000203	U
* Barium, Dissolved	8/11/23 09:10	8/11/23 12:52		1.015	0.0207	mg/L	0.000508	0.001015	
* Beryllium, Dissolved	8/11/23 09:10	8/11/23 12:52		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Dissolved	8/11/23 09:10	8/11/23 12:52		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Dissolved	8/11/23 09:10	8/11/23 12:52		1.015	0.000999	mg/L	0.000203	0.001015	J
* Cobalt, Dissolved	8/11/23 09:10	8/11/23 12:52		1.015	0.00137	mg/L	0.000068	0.000203	
* Lead, Dissolved	8/11/23 09:10	8/11/23 12:52		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Dissolved	8/11/23 09:10	8/11/23 12:52		1.015	0.00344	mg/L	0.000152	0.001015	
* Potassium, Dissolved	8/11/23 09:10	8/11/23 12:52		1.015	0.972	mg/L	0.169505	0.5075	
* Selenium, Dissolved	8/11/23 09:10	8/11/23 12:52		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Dissolved	8/11/23 09:10	8/11/23 12:52		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 245.1		Analyst: ELH							
* Mercury, Total by CVAA	8/15/23 15:19	8/15/23 19:44		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: EPA 353.2		Analyst: SC							
* Nitrogen, Nitrate/Nitrite	8/10/23 16:52	8/10/23 16:52		1	Not Detected	mg/L as N	0.20	0.3	U
Analytical Method: SM 2320 B		Analyst: DHC							
* Alkalinity	8/16/23 09:02	8/16/23 14:44		1	6.96	mg CaCO3/L		0.1	
Analytical Method: SM 2540C		Analyst: CNJ							
* Solids, Dissolved	8/11/23 11:30	8/15/23 09:35		1	44.0	mg/L		25	
Analytical Method: SM 4500CO2 D		Analyst: DHC							
* Bicarbonate Alkalinity, (calc.)	8/16/23 09:02	8/16/23 14:44		1	6.95	mg CaCO3/L		1	
* Carbonate Alkalinity, (calc.)	8/16/23 09:02	8/16/23 14:44		1	Not Detected	mg CaCO3/L		0.5	
Analytical Method: SM 4500H+ B		Analyst: DHC							
Alkalinity pH Endpoint	8/16/23 09:02	8/16/23 14:44		1	4.19	SU		2	

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Barry Ash Pond - MW-25H

Location Code: WMWBARAP
Collected: 8/8/23 09:58
Customer ID:
Submittal Date: 8/10/23 09:48

Laboratory ID Number: BD15017

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM 5310 B		Analyst: SC							
* Total Organic Carbon	8/11/23 13:28	8/11/23 13:28		1	Not Detected	mg/L	1.00	2	U
Analytical Method: SM4500Cl E		Analyst: JCC							
* Chloride	8/16/23 12:49	8/16/23 12:49		1	5.99	mg/L	0.50	1	
Analytical Method: SM4500F G 2017		Analyst: JCC							
* Fluoride	8/17/23 11:11	8/17/23 11:11		1	Not Detected	mg/L	0.06	0.125	U
Analytical Method: SM4500SO4 E 2011		Analyst: JCC							
* Sulfate	8/11/23 12:33	8/11/23 12:33		1	4.88	mg/L	0.6	2	
Analytical Method: Field Measurements		Analyst: TJD							
Conductivity	8/8/23 09:54	8/8/23 09:54			42.86	uS/cm			FA
pH	8/8/23 09:54	8/8/23 09:54			4.95	SU			FA
Temperature	8/8/23 09:54	8/8/23 09:54			22.54	C			FA
Turbidity	8/8/23 09:54	8/8/23 09:54			0.31	NTU			FA
Sulfide	8/8/23 09:54	8/8/23 09:54			0	mg/L			FA

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWBARAP

Sample Date: 8/8/23 09:58

Customer ID:

Delivery Date: 8/10/23 09:48

Description: Barry Ash Pond - MW-25H

Laboratory ID Number: BD15017

Sample	Analysis	Units	MB		Spike	MS	MSD	Standard		Rec		Prec	Limit
			MB	Limit				Standard	Limit	Rec	Limit		
BD15018	Aluminum, Dissolved	mg/L	-0.000210	0.0198	0.100	0.105	0.107	0.0999	0.0850 to 0.115	105	70.0 to 130	1.89	20.0
BD15022	Aluminum, Total	mg/L	0.000494	0.0198	0.100	0.134	0.135	0.107	0.0850 to 0.115	113	70.0 to 130	0.743	20.0
BD15018	Antimony, Dissolved	mg/L	0.000419	0.00100	0.100	0.0935	0.0933	0.0899	0.0850 to 0.115	93.5	70.0 to 130	0.214	20.0
BD15022	Antimony, Total	mg/L	0.000335	0.00100	0.100	0.0992	0.0998	0.0915	0.0850 to 0.115	99.2	70.0 to 130	0.603	20.0
BD15018	Arsenic, Dissolved	mg/L	0.0000078	0.000200	0.100	0.0973	0.0975	0.0963	0.0850 to 0.115	97.3	70.0 to 130	0.205	20.0
BD15022	Arsenic, Total	mg/L	0.0000005	0.000200	0.100	0.102	0.0997	0.0994	0.0850 to 0.115	99.5	70.0 to 130	2.28	20.0
BD15018	Barium, Dissolved	mg/L	0.0000016	0.00100	0.100	0.116	0.118	0.0971	0.0850 to 0.115	95.8	70.0 to 130	1.71	20.0
BD15022	Barium, Total	mg/L	-0.0000013	0.00100	0.100	0.266	0.269	0.102	0.0850 to 0.115	101	70.0 to 130	1.12	20.0
BD15018	Beryllium, Dissolved	mg/L	0.0000249	0.000880	0.100	0.0930	0.0953	0.0946	0.0850 to 0.115	93.0	70.0 to 130	2.44	20.0
BD15022	Beryllium, Total	mg/L	0.0000525	0.000880	0.100	0.0954	0.0971	0.0918	0.0850 to 0.115	95.4	70.0 to 130	1.77	20.0
BD15018	Boron, Dissolved	mg/L	-0.00147	0.0650	1.00	1.03	1.04	1.02	0.850 to 1.15	103	70.0 to 130	0.966	20.0
BD15022	Boron, Total	mg/L	0.000378	0.0650	1.00	1.05	1.04	0.998	0.850 to 1.15	101	70.0 to 130	0.957	20.0
BD15018	Cadmium, Dissolved	mg/L	0.0000044	0.000147	0.100	0.0993	0.0999	0.0981	0.0850 to 0.115	99.3	70.0 to 130	0.602	20.0
BD15022	Cadmium, Total	mg/L	0.0000138	0.000147	0.100	0.0966	0.0997	0.103	0.0850 to 0.115	96.6	70.0 to 130	3.16	20.0
BD15018	Calcium, Dissolved	mg/L	-0.00839	0.152	5.00	5.91	5.81	5.04	4.25 to 5.75	98.0	70.0 to 130	1.71	20.0
BD15022	Calcium, Total	mg/L	-0.0114	0.152	5.00	26.1	26.3	4.71	4.25 to 5.75	90.0	70.0 to 130	0.763	20.0
BD15130	Chloride	mg/L	0.0796	1.00	10.0	10.0	9.92	9.64	9.00 to 11.0	100	80.0 to 120	0.803	20.0
BD15018	Chromium, Dissolved	mg/L	-0.000105	0.000440	0.100	0.0976	0.0986	0.0957	0.0850 to 0.115	96.6	70.0 to 130	1.02	20.0
BD15022	Chromium, Total	mg/L	-0.000171	0.000440	0.100	0.0990	0.0991	0.0988	0.0850 to 0.115	98.6	70.0 to 130	0.101	20.0
BD15018	Cobalt, Dissolved	mg/L	-0.0000064	0.000147	0.100	0.102	0.104	0.0994	0.0850 to 0.115	101	70.0 to 130	1.94	20.0
BD15022	Cobalt, Total	mg/L	-0.0000060	0.000147	0.100	0.105	0.105	0.105	0.0850 to 0.115	104	70.0 to 130	0.00	20.0
BD15130	Fluoride	mg/L	0.0238	0.125	2.50	2.64	2.63	2.52	2.25 to 2.75	106	80.0 to 120	0.380	20.0
BD15018	Iron, Dissolved	mg/L	0.00127	0.0176	0.2	0.204	0.202	0.201	0.170 to 0.230	102	70.0 to 130	0.985	20.0
BD15022	Iron, Total	mg/L	0.000264	0.0176	0.2	50.8	59.8	0.196	0.170 to 0.230	-150	70.0 to 130	16.3	20.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWBARAP

Sample Date: 8/8/23 09:58

Customer ID:

Delivery Date: 8/10/23 09:48

Description: Barry Ash Pond - MW-25H

Laboratory ID Number: BD15017

Sample	Analysis	Units	MB					Standard		Rec		Prec	Limit
			MB	Limit	Spike	MS	MSD	Standard	Limit	Rec	Limit		
BD15018	Lead, Dissolved	mg/L	0.0000145	0.000147	0.100	0.105	0.104	0.103	0.0850 to 0.115	105	70.0 to 130	0.957	20.0
BD15022	Lead, Total	mg/L	0.0000362	0.000147	0.100	0.105	0.109	0.107	0.0850 to 0.115	105	70.0 to 130	3.74	20.0
BD15018	Lithium, Dissolved	mg/L	-0.000272	0.0154	0.200	0.212	0.211	0.210	0.170 to 0.230	106	70.0 to 130	0.473	20.0
BD15022	Lithium, Total	mg/L	-0.000611	0.0154	0.200	0.210	0.213	0.211	0.170 to 0.230	105	70.0 to 130	1.42	20.0
BD15018	Magnesium, Dissolved	mg/L	-0.000059	0.0462	5.00	5.93	5.84	5.21	4.25 to 5.75	103	70.0 to 130	1.53	20.0
BD15022	Magnesium, Total	mg/L	-0.000838	0.0462	5.00	11.6	11.6	5.05	4.25 to 5.75	102	70.0 to 130	0.00	20.0
BD15018	Manganese, Dissolved	mg/L	0.0000346	0.00033	0.100	0.103	0.103	0.0983	0.0850 to 0.115	99.5	70.0 to 130	0.00	20.0
BD15022	Manganese, Total	mg/L	0.0000106	0.00033	0.100	0.970	0.974	0.102	0.0850 to 0.115	94.0	70.0 to 130	0.412	20.0
BD15130	Mercury, Total by CVAA	mg/L	4.000E-05	0.000500	0.004	0.00372	0.00376	0.00383	0.00340 to 0.00460	93.0	70.0 to 130	1.07	20.0
BD15018	Molybdenum, Dissolved	mg/L	0.00193	0.0100	0.2	0.198	0.200	0.199	0.170 to 0.230	99.0	70.0 to 130	1.01	20.0
BD15022	Molybdenum, Total	mg/L	0.000	0.0100	0.2	0.198	0.196	0.197	0.170 to 0.230	99.0	70.0 to 130	1.02	20.0
BD15018	Potassium, Dissolved	mg/L	-0.00978	0.367	10.0	11.0	11.3	10.1	8.50 to 11.5	100	70.0 to 130	2.69	20.0
BD15022	Potassium, Total	mg/L	-0.0265	0.367	10.0	11.3	11.4	10.5	8.50 to 11.5	103	70.0 to 130	0.881	20.0
BD15018	Selenium, Dissolved	mg/L	-0.0000836	0.00100	0.100	0.0999	0.0988	0.0990	0.0850 to 0.115	99.9	70.0 to 130	1.11	20.0
BD15022	Selenium, Total	mg/L	-0.000110	0.00100	0.100	0.103	0.101	0.0994	0.0850 to 0.115	103	70.0 to 130	1.96	20.0
BD15018	Silicon, Dissolved	mg/L	0.000422	0.0440	1.00	8.72	8.74	1.03	0.850 to 1.15	111	70.0 to 130	0.229	20.0
BD15022	Silicon, Total	mg/L	-0.00110	0.0440	1.00	16.3	16.4	1.00	0.850 to 1.15	100	70.0 to 130	0.612	20.0
BD15018	Sodium, Dissolved	mg/L	0.00934	0.0880	5.00	11.8	11.8	5.30	4.25 to 5.75	104	70.0 to 130	0.00	20.0
BD15022	Sodium, Total	mg/L	0.00689	0.0880	5.00	23.9	24.2	5.44	4.25 to 5.75	100	70.0 to 130	1.25	20.0
BD15130	Sulfate	mg/L	0.258	2.0	20.0	21.8	20.3	20.2	18.0 to 22.0	109	80.0 to 120	7.13	20.0
BD15018	Thallium, Dissolved	mg/L	-0.0000018	0.000147	0.100	0.106	0.104	0.105	0.0850 to 0.115	106	70.0 to 130	1.90	20.0
BD15022	Thallium, Total	mg/L	0.0000283	0.000147	0.100	0.106	0.109	0.111	0.0850 to 0.115	106	70.0 to 130	2.79	20.0
BD15022	Total Organic Carbon	mg/L	0.164	1.00	10.0	15.6	16.2	26.8		105	80.0 to 120	3.77	20.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWBARAP

Sample Date: 8/8/23 09:58

Customer ID:

Delivery Date: 8/10/23 09:48

Description: Barry Ash Pond - MW-25H

Laboratory ID Number: BD15017

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard Standard	Standard Limit	Rec Rec	Rec Limit	Prec Prec	Prec Limit
BD15006	Alkalinity	mg CaCO3/L					153	51.2	45.0 to 55.0			0.00	10.0
BD15022	Nitrogen, Nitrate/Nitrite	mg/L as N	-0.06	0.200	2.00	2.15	-0.046	2.01	1.80 to 2.20	108	90.0 to 110	0.00	15.0
BD15019	Solids, Dissolved	mg/L	1.00	25.0			1540	50.0	40.0 to 60.0			1.31	10.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Barry Ash Pond - MW-25H Dup

Location Code: WMWBARAP
Collected: 8/8/23 09:58
Customer ID:
Submittal Date: 8/10/23 09:48

Laboratory ID Number: BD15018

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7			Analyst: ABB		Preparation Method: EPA 1638				
* Boron, Total	8/11/23 11:28	8/15/23 14:53		1.015	Not Detected	mg/L	0.030000	0.1015	U
* Calcium, Total	8/11/23 11:28	8/16/23 14:10		1.015	0.968	mg/L	0.070035	0.406	
* Iron, Total	8/11/23 11:28	8/15/23 14:53		1.015	0.0162	mg/L	0.008120	0.0406	J
* Lithium, Total	8/11/23 11:28	8/15/23 14:53		1.015	Not Detected	mg/L	0.007105	0.01999956	U
* Magnesium, Total	8/11/23 11:28	8/15/23 14:53		1.015	0.792	mg/L	0.021315	0.406	
* Molybdenum, Total	8/11/23 11:28	8/15/23 14:53		1.015	Not Detected	mg/L	0.005075	0.01015	U
* Silica, Total (calc.)	8/11/23 11:28	8/15/23 14:53		1	15.9	mg/L			
* Silicon, Total	8/11/23 11:28	8/15/23 14:53		1.015	7.41	mg/L	0.02030	0.25375	
* Sodium, Total	8/11/23 11:28	8/15/23 14:53		1.015	6.49	mg/L	0.04060	0.406	
Analytical Method: EPA 200.7			Analyst: ABB						
* Boron, Dissolved	8/11/23 09:10	8/11/23 13:52		1.015	Not Detected	mg/L	0.030000	0.1015	U
* Calcium, Dissolved	8/11/23 09:10	8/11/23 13:52		1.015	1.01	mg/L	0.070035	0.406	
* Iron, Dissolved	8/11/23 09:10	8/11/23 13:52		1.015	Not Detected	mg/L	0.008120	0.0406	U
* Lithium, Dissolved	8/11/23 09:10	8/11/23 13:52		1.015	Not Detected	mg/L	0.007105	0.01999956	U
* Magnesium, Dissolved	8/11/23 09:10	8/11/23 13:52		1.015	0.782	mg/L	0.021315	0.406	
* Molybdenum, Dissolved	8/11/23 09:10	8/11/23 13:52		1.015	Not Detected	mg/L	0.005075	0.01015	U
* Silica, Dissolved (calc.)	8/11/23 09:10	8/11/23 13:52		1	16.3	mg/L			
* Silicon, Dissolved	8/11/23 09:10	8/11/23 13:52		1.015	7.61	mg/L	0.02030	0.25375	
* Sodium, Dissolved	8/11/23 09:10	8/11/23 13:52		1.015	6.62	mg/L	0.04060	0.406	
Analytical Method: EPA 200.8			Analyst: DLJ		Preparation Method: EPA 1638				
* Antimony, Total	8/11/23 11:28	8/11/23 16:51		1.015	Not Detected	mg/L	0.000710	0.001015	U
* Aluminum, Total	8/11/23 11:28	8/11/23 16:51		1.015	0.00967	mg/L	0.009135	0.05075	J
* Arsenic, Total	8/11/23 11:28	8/11/23 16:51		1.015	0.000125	mg/L	0.000112	0.000203	J
* Barium, Total	8/11/23 11:28	8/11/23 16:51		1.015	0.0209	mg/L	0.000508	0.001015	
* Beryllium, Total	8/11/23 11:28	8/11/23 16:51		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Total	8/11/23 11:28	8/11/23 16:51		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Total	8/11/23 11:28	8/11/23 16:51		1.015	0.00119	mg/L	0.000203	0.001015	
* Cobalt, Total	8/11/23 11:28	8/11/23 16:51		1.015	0.00142	mg/L	0.000068	0.000203	
* Lead, Total	8/11/23 11:28	8/11/23 16:51		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Total	8/11/23 11:28	8/11/23 16:51		1.015	0.00357	mg/L	0.000152	0.001015	

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Barry Ash Pond - MW-25H Dup

Location Code: WMWBARAP
Collected: 8/8/23 09:58
Customer ID:
Submittal Date: 8/10/23 09:48

Laboratory ID Number: BD15018

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
* Potassium, Total	8/11/23 11:28	8/11/23 16:51		1.015	0.978	mg/L	0.169505	0.5075	
* Selenium, Total	8/11/23 11:28	8/11/23 16:51		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Total	8/11/23 11:28	8/11/23 16:51		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 200.8		Analyst: DLJ							
* Antimony, Dissolved	8/11/23 09:10	8/11/23 12:55		1.015	Not Detected	mg/L	0.000710	0.001015	U
* Aluminum, Dissolved	8/11/23 09:10	8/11/23 12:55		1.015	Not Detected	mg/L	0.009135	0.05075	U
* Arsenic, Dissolved	8/11/23 09:10	8/11/23 12:55		1.015	Not Detected	mg/L	0.000112	0.000203	U
* Barium, Dissolved	8/11/23 09:10	8/11/23 12:55		1.015	0.0202	mg/L	0.000508	0.001015	
* Beryllium, Dissolved	8/11/23 09:10	8/11/23 12:55		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Dissolved	8/11/23 09:10	8/11/23 12:55		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Dissolved	8/11/23 09:10	8/11/23 12:55		1.015	0.00101	mg/L	0.000203	0.001015	J
* Cobalt, Dissolved	8/11/23 09:10	8/11/23 12:55		1.015	0.00139	mg/L	0.000068	0.000203	
* Lead, Dissolved	8/11/23 09:10	8/11/23 12:55		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Dissolved	8/11/23 09:10	8/11/23 12:55		1.015	0.00348	mg/L	0.000152	0.001015	
* Potassium, Dissolved	8/11/23 09:10	8/11/23 12:55		1.015	0.963	mg/L	0.169505	0.5075	
* Selenium, Dissolved	8/11/23 09:10	8/11/23 12:55		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Dissolved	8/11/23 09:10	8/11/23 12:55		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 245.1		Analyst: ELH							
* Mercury, Total by CVAA	8/15/23 15:19	8/15/23 19:48		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: EPA 353.2		Analyst: SC							
* Nitrogen, Nitrate/Nitrite	8/10/23 16:54	8/10/23 16:54		1	Not Detected	mg/L as N	0.20	0.3	U
Analytical Method: SM 2320 B		Analyst: DHC							
* Alkalinity	8/16/23 09:02	8/16/23 14:44		1	6.08	mg CaCO3/L		0.1	
Analytical Method: SM 2540C		Analyst: CNJ							
* Solids, Dissolved	8/11/23 11:30	8/15/23 09:35		1	42.7	mg/L		25	
Analytical Method: SM 4500CO2 D		Analyst: DHC							
* Bicarbonate Alkalinity, (calc.)	8/16/23 09:02	8/16/23 14:44		1	6.08	mg CaCO3/L		1	
* Carbonate Alkalinity, (calc.)	8/16/23 09:02	8/16/23 14:44		1	Not Detected	mg CaCO3/L		0.5	
Analytical Method: SM 4500H+ B		Analyst: DHC							
Alkalinity pH Endpoint	8/16/23 09:02	8/16/23 14:44		1	4.23	SU		2	

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Barry Ash Pond - MW-25H Dup

Location Code: WMWBARAP
Collected: 8/8/23 09:58
Customer ID:
Submittal Date: 8/10/23 09:48

Laboratory ID Number: BD15018

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM 5310 B		Analyst: SC							
* Total Organic Carbon	8/11/23 13:42	8/11/23 13:42		1	Not Detected	mg/L	1.00	2	U
Analytical Method: SM4500Cl E		Analyst: JCC							
* Chloride	8/16/23 12:51	8/16/23 12:51		1	6.06	mg/L	0.50	1	
Analytical Method: SM4500F G 2017		Analyst: JCC							
* Fluoride	8/17/23 11:12	8/17/23 11:12		1	Not Detected	mg/L	0.06	0.125	U
Analytical Method: SM4500SO4 E 2011		Analyst: JCC							
* Sulfate	8/11/23 12:34	8/11/23 12:34		1	5.13	mg/L	0.6	2	
Analytical Method: Field Measurements		Analyst: TJD							
Conductivity	8/8/23 09:54	8/8/23 09:54			42.86	uS/cm			FA
pH	8/8/23 09:54	8/8/23 09:54			4.95	SU			FA
Temperature	8/8/23 09:54	8/8/23 09:54			22.54	C			FA
Turbidity	8/8/23 09:54	8/8/23 09:54			0.31	NTU			FA
Sulfide	8/8/23 09:54	8/8/23 09:54			0	mg/L			FA

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWBARAP

Sample Date: 8/8/23 09:58

Customer ID:

Delivery Date: 8/10/23 09:48

Description: Barry Ash Pond - MW-25H Dup

Laboratory ID Number: BD15018

Sample	Analysis	Units	MB	MB				Standard		Rec		Prec	Limit
				Limit	Spike	MS	MSD	Standard	Limit	Rec	Limit		
BD15018	Aluminum, Dissolved	mg/L	-0.000210	0.0198	0.100	0.105	0.107	0.0999	0.0850 to 0.115	105	70.0 to 130	1.89	20.0
BD15022	Aluminum, Total	mg/L	0.000494	0.0198	0.100	0.134	0.135	0.107	0.0850 to 0.115	113	70.0 to 130	0.743	20.0
BD15018	Antimony, Dissolved	mg/L	0.000419	0.00100	0.100	0.0935	0.0933	0.0899	0.0850 to 0.115	93.5	70.0 to 130	0.214	20.0
BD15022	Antimony, Total	mg/L	0.000335	0.00100	0.100	0.0992	0.0998	0.0915	0.0850 to 0.115	99.2	70.0 to 130	0.603	20.0
BD15018	Arsenic, Dissolved	mg/L	0.0000078	0.000200	0.100	0.0973	0.0975	0.0963	0.0850 to 0.115	97.3	70.0 to 130	0.205	20.0
BD15022	Arsenic, Total	mg/L	0.0000005	0.000200	0.100	0.102	0.0997	0.0994	0.0850 to 0.115	99.5	70.0 to 130	2.28	20.0
BD15018	Barium, Dissolved	mg/L	0.0000016	0.00100	0.100	0.116	0.118	0.0971	0.0850 to 0.115	95.8	70.0 to 130	1.71	20.0
BD15022	Barium, Total	mg/L	-0.0000013	0.00100	0.100	0.266	0.269	0.102	0.0850 to 0.115	101	70.0 to 130	1.12	20.0
BD15018	Beryllium, Dissolved	mg/L	0.0000249	0.000880	0.100	0.0930	0.0953	0.0946	0.0850 to 0.115	93.0	70.0 to 130	2.44	20.0
BD15022	Beryllium, Total	mg/L	0.0000525	0.000880	0.100	0.0954	0.0971	0.0918	0.0850 to 0.115	95.4	70.0 to 130	1.77	20.0
BD15018	Boron, Dissolved	mg/L	-0.00147	0.0650	1.00	1.03	1.04	1.02	0.850 to 1.15	103	70.0 to 130	0.966	20.0
BD15022	Boron, Total	mg/L	0.000378	0.0650	1.00	1.05	1.04	0.998	0.850 to 1.15	101	70.0 to 130	0.957	20.0
BD15018	Cadmium, Dissolved	mg/L	0.0000044	0.000147	0.100	0.0993	0.0999	0.0981	0.0850 to 0.115	99.3	70.0 to 130	0.602	20.0
BD15022	Cadmium, Total	mg/L	0.0000138	0.000147	0.100	0.0966	0.0997	0.103	0.0850 to 0.115	96.6	70.0 to 130	3.16	20.0
BD15018	Calcium, Dissolved	mg/L	-0.00839	0.152	5.00	5.91	5.81	5.04	4.25 to 5.75	98.0	70.0 to 130	1.71	20.0
BD15022	Calcium, Total	mg/L	-0.0114	0.152	5.00	26.1	26.3	4.71	4.25 to 5.75	90.0	70.0 to 130	0.763	20.0
BD15130	Chloride	mg/L	0.0796	1.00	10.0	10.0	9.92	9.64	9.00 to 11.0	100	80.0 to 120	0.803	20.0
BD15018	Chromium, Dissolved	mg/L	-0.000105	0.000440	0.100	0.0976	0.0986	0.0957	0.0850 to 0.115	96.6	70.0 to 130	1.02	20.0
BD15022	Chromium, Total	mg/L	-0.000171	0.000440	0.100	0.0990	0.0991	0.0988	0.0850 to 0.115	98.6	70.0 to 130	0.101	20.0
BD15018	Cobalt, Dissolved	mg/L	-0.0000064	0.000147	0.100	0.102	0.104	0.0994	0.0850 to 0.115	101	70.0 to 130	1.94	20.0
BD15022	Cobalt, Total	mg/L	-0.0000060	0.000147	0.100	0.105	0.105	0.105	0.0850 to 0.115	104	70.0 to 130	0.00	20.0
BD15130	Fluoride	mg/L	0.0238	0.125	2.50	2.64	2.63	2.52	2.25 to 2.75	106	80.0 to 120	0.380	20.0
BD15018	Iron, Dissolved	mg/L	0.00127	0.0176	0.2	0.204	0.202	0.201	0.170 to 0.230	102	70.0 to 130	0.985	20.0
BD15022	Iron, Total	mg/L	0.000264	0.0176	0.2	50.8	59.8	0.196	0.170 to 0.230	-150	70.0 to 130	16.3	20.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWBARAP

Sample Date: 8/8/23 09:58

Customer ID:

Delivery Date: 8/10/23 09:48

Description: Barry Ash Pond - MW-25H Dup

Laboratory ID Number: BD15018

Sample	Analysis	Units	MB	MB				Standard		Rec		Prec	Limit
				Limit	Spike	MS	MSD	Standard	Limit	Rec	Limit		
BD15018	Lead, Dissolved	mg/L	0.0000145	0.000147	0.100	0.105	0.104	0.103	0.0850 to 0.115	105	70.0 to 130	0.957	20.0
BD15022	Lead, Total	mg/L	0.0000362	0.000147	0.100	0.105	0.109	0.107	0.0850 to 0.115	105	70.0 to 130	3.74	20.0
BD15018	Lithium, Dissolved	mg/L	-0.000272	0.0154	0.200	0.212	0.211	0.210	0.170 to 0.230	106	70.0 to 130	0.473	20.0
BD15022	Lithium, Total	mg/L	-0.000611	0.0154	0.200	0.210	0.213	0.211	0.170 to 0.230	105	70.0 to 130	1.42	20.0
BD15018	Magnesium, Dissolved	mg/L	-0.000059	0.0462	5.00	5.93	5.84	5.21	4.25 to 5.75	103	70.0 to 130	1.53	20.0
BD15022	Magnesium, Total	mg/L	-0.000838	0.0462	5.00	11.6	11.6	5.05	4.25 to 5.75	102	70.0 to 130	0.00	20.0
BD15018	Manganese, Dissolved	mg/L	0.0000346	0.00033	0.100	0.103	0.103	0.0983	0.0850 to 0.115	99.5	70.0 to 130	0.00	20.0
BD15022	Manganese, Total	mg/L	0.0000106	0.00033	0.100	0.970	0.974	0.102	0.0850 to 0.115	94.0	70.0 to 130	0.412	20.0
BD15130	Mercury, Total by CVAA	mg/L	4.000E-05	0.000500	0.004	0.00372	0.00376	0.00383	0.00340 to 0.00460	93.0	70.0 to 130	1.07	20.0
BD15018	Molybdenum, Dissolved	mg/L	0.00193	0.0100	0.2	0.198	0.200	0.199	0.170 to 0.230	99.0	70.0 to 130	1.01	20.0
BD15022	Molybdenum, Total	mg/L	0.000	0.0100	0.2	0.198	0.196	0.197	0.170 to 0.230	99.0	70.0 to 130	1.02	20.0
BD15018	Potassium, Dissolved	mg/L	-0.00978	0.367	10.0	11.0	11.3	10.1	8.50 to 11.5	100	70.0 to 130	2.69	20.0
BD15022	Potassium, Total	mg/L	-0.0265	0.367	10.0	11.3	11.4	10.5	8.50 to 11.5	103	70.0 to 130	0.881	20.0
BD15018	Selenium, Dissolved	mg/L	-0.0000836	0.00100	0.100	0.0999	0.0988	0.0990	0.0850 to 0.115	99.9	70.0 to 130	1.11	20.0
BD15022	Selenium, Total	mg/L	-0.000110	0.00100	0.100	0.103	0.101	0.0994	0.0850 to 0.115	103	70.0 to 130	1.96	20.0
BD15018	Silicon, Dissolved	mg/L	0.000422	0.0440	1.00	8.72	8.74	1.03	0.850 to 1.15	111	70.0 to 130	0.229	20.0
BD15022	Silicon, Total	mg/L	-0.00110	0.0440	1.00	16.3	16.4	1.00	0.850 to 1.15	100	70.0 to 130	0.612	20.0
BD15018	Sodium, Dissolved	mg/L	0.00934	0.0880	5.00	11.8	11.8	5.30	4.25 to 5.75	104	70.0 to 130	0.00	20.0
BD15022	Sodium, Total	mg/L	0.00689	0.0880	5.00	23.9	24.2	5.44	4.25 to 5.75	100	70.0 to 130	1.25	20.0
BD15130	Sulfate	mg/L	0.258	2.0	20.0	21.8	20.3	20.2	18.0 to 22.0	109	80.0 to 120	7.13	20.0
BD15018	Thallium, Dissolved	mg/L	-0.0000018	0.000147	0.100	0.106	0.104	0.105	0.0850 to 0.115	106	70.0 to 130	1.90	20.0
BD15022	Thallium, Total	mg/L	0.0000283	0.000147	0.100	0.106	0.109	0.111	0.0850 to 0.115	106	70.0 to 130	2.79	20.0
BD15022	Total Organic Carbon	mg/L	0.164	1.00	10.0	15.6	16.2	26.8		105	80.0 to 120	3.77	20.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWBARAP

Sample Date: 8/8/23 09:58

Customer ID:

Delivery Date: 8/10/23 09:48

Description: Barry Ash Pond - MW-25H Dup

Laboratory ID Number: BD15018

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BD15006	Alkalinity	mg CaCO3/L					153	51.2	45.0 to 55.0			0.00	10.0
BD15022	Nitrogen, Nitrate/Nitrite	mg/L as N	-0.06	0.200	2.00	2.15	-0.046	2.01	1.80 to 2.20	108	90.0 to 110	0.00	15.0
BD15019	Solids, Dissolved	mg/L	1.00	25.0			1540	50.0	40.0 to 60.0			1.31	10.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Barry Ash Pond - MW-17V

Location Code: WMWBARAP
Collected: 8/8/23 12:15
Customer ID:
Submittal Date: 8/10/23 09:48

Laboratory ID Number: BD15019

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7		Analyst: ABB			Preparation Method: EPA 1638				
* Boron, Total	8/11/23 11:28	8/15/23 14:56		1.015	0.194	mg/L	0.030000	0.1015	
* Calcium, Total	8/11/23 11:28	8/17/23 12:10		10.15	60.9	mg/L	0.70035	4.06	
* Iron, Total	8/11/23 11:28	8/15/23 14:56		1.015	0.808	mg/L	0.008120	0.0406	
* Lithium, Total	8/11/23 11:28	8/15/23 14:56		1.015	Not Detected	mg/L	0.007105	0.01999956	U
* Magnesium, Total	8/11/23 11:28	8/15/23 14:56		1.015	38.7	mg/L	0.021315	0.406	
* Molybdenum, Total	8/11/23 11:28	8/15/23 14:56		1.015	0.00662	mg/L	0.005075	0.01015	J
* Silica, Total (calc.)	8/11/23 11:28	8/15/23 14:56		1	12.0	mg/L			
* Silicon, Total	8/11/23 11:28	8/15/23 14:56		1.015	5.61	mg/L	0.02030	0.25375	
* Sodium, Total	8/11/23 11:28	8/21/23 09:51		101.5	564	mg/L	4.060	40.6	
Analytical Method: EPA 200.7		Analyst: ABB							
* Boron, Dissolved	8/11/23 09:10	8/11/23 14:08		1.015	0.198	mg/L	0.030000	0.1015	
* Calcium, Dissolved	8/11/23 09:10	8/14/23 14:58		10.15	53.8	mg/L	0.70035	4.06	
* Iron, Dissolved	8/11/23 09:10	8/11/23 14:08		1.015	0.196	mg/L	0.008120	0.0406	
* Lithium, Dissolved	8/11/23 09:10	8/11/23 14:08		1.015	Not Detected	mg/L	0.007105	0.01999956	U
* Magnesium, Dissolved	8/11/23 09:10	8/11/23 14:08		1.015	39.3	mg/L	0.021315	0.406	
* Molybdenum, Dissolved	8/11/23 09:10	8/11/23 14:08		1.015	Not Detected	mg/L	0.005075	0.01015	U
* Silica, Dissolved (calc.)	8/11/23 09:10	8/11/23 14:08		1	12.1	mg/L			
* Silicon, Dissolved	8/11/23 09:10	8/11/23 14:08		1.015	5.65	mg/L	0.02030	0.25375	
* Sodium, Dissolved	8/11/23 09:10	8/15/23 11:50		101.5	456	mg/L	4.060	40.6	
Analytical Method: EPA 200.8		Analyst: DLJ			Preparation Method: EPA 1638				
* Antimony, Total	8/11/23 11:28	8/11/23 16:54		1.015	Not Detected	mg/L	0.000710	0.001015	U
* Aluminum, Total	8/11/23 11:28	8/11/23 16:54		1.015	0.389	mg/L	0.009135	0.05075	
* Arsenic, Total	8/11/23 11:28	8/11/23 16:54		1.015	0.00165	mg/L	0.000112	0.000203	
* Barium, Total	8/11/23 11:28	8/11/23 16:54		1.015	0.645	mg/L	0.000508	0.001015	
* Beryllium, Total	8/11/23 11:28	8/11/23 16:54		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Total	8/11/23 11:28	8/11/23 16:54		1.015	0.000144	mg/L	0.000068	0.000203	J
* Chromium, Total	8/11/23 11:28	8/11/23 16:54		1.015	0.00175	mg/L	0.000203	0.001015	
* Cobalt, Total	8/11/23 11:28	8/11/23 16:54		1.015	0.0598	mg/L	0.000068	0.000203	
* Lead, Total	8/11/23 11:28	8/11/23 16:54		1.015	0.000305	mg/L	0.000068	0.000203	
* Manganese, Total	8/11/23 11:28	8/11/23 17:33		5.075	2.04	mg/L	0.000761	0.005075	

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Barry Ash Pond - MW-17V

Location Code: WMWBARAP

Collected: 8/8/23 12:15

Customer ID:

Submittal Date: 8/10/23 09:48

Laboratory ID Number: BD15019

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
* Potassium, Total	8/11/23 11:28	8/11/23 16:54		1.015	8.23	mg/L	0.169505	0.5075	
* Selenium, Total	8/11/23 11:28	8/11/23 16:54		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Total	8/11/23 11:28	8/11/23 16:54		1.015	0.000166	mg/L	0.000068	0.000203	J
Analytical Method: EPA 200.8		Analyst: DLJ							
* Antimony, Dissolved	8/11/23 09:10	8/11/23 13:17		1.015	Not Detected	mg/L	0.000710	0.001015	U
* Aluminum, Dissolved	8/11/23 09:10	8/11/23 13:17		1.015	Not Detected	mg/L	0.009135	0.05075	U
* Arsenic, Dissolved	8/11/23 09:10	8/11/23 13:17		1.015	0.000873	mg/L	0.000112	0.000203	
* Barium, Dissolved	8/11/23 09:10	8/11/23 13:17		1.015	0.610	mg/L	0.000508	0.001015	
* Beryllium, Dissolved	8/11/23 09:10	8/11/23 13:17		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Dissolved	8/11/23 09:10	8/11/23 13:17		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Dissolved	8/11/23 09:10	8/11/23 13:17		1.015	Not Detected	mg/L	0.000203	0.001015	U
* Cobalt, Dissolved	8/11/23 09:10	8/11/23 13:17		1.015	0.0564	mg/L	0.000068	0.000203	
* Lead, Dissolved	8/11/23 09:10	8/11/23 13:17		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Dissolved	8/11/23 09:10	8/11/23 17:48		5.075	1.96	mg/L	0.000761	0.005075	
* Potassium, Dissolved	8/11/23 09:10	8/11/23 13:17		1.015	7.99	mg/L	0.169505	0.5075	
* Selenium, Dissolved	8/11/23 09:10	8/11/23 13:17		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Dissolved	8/11/23 09:10	8/11/23 13:17		1.015	0.000161	mg/L	0.000068	0.000203	J
Analytical Method: EPA 245.1		Analyst: ELH							
* Mercury, Total by CVAA	8/15/23 15:19	8/15/23 19:52		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: EPA 353.2		Analyst: SC							
* Nitrogen, Nitrate/Nitrite	8/10/23 16:54	8/10/23 16:54		1	Not Detected	mg/L as N	0.20	0.3	U
Analytical Method: SM 2320 B		Analyst: DHC							
* Alkalinity	8/16/23 09:02	8/16/23 14:44		1	109	mg CaCO3/L		0.1	
Analytical Method: SM 2540C		Analyst: CNJ							
* Solids, Dissolved	8/11/23 11:30	8/15/23 09:35		1	1520	mg/L		147.1	
Analytical Method: SM 4500CO2 D		Analyst: DHC							
* Bicarbonate Alkalinity, (calc.)	8/16/23 09:02	8/16/23 14:44		1	109	mg CaCO3/L		1	A
* Carbonate Alkalinity, (calc.)	8/16/23 09:02	8/16/23 14:44		1	Not Detected	mg CaCO3/L		0.5	A
Analytical Method: SM 4500H+ B		Analyst: DHC							
Alkalinity pH Endpoint	8/16/23 09:02	8/16/23 14:44		1	4.52	SU		2	

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Barry Ash Pond - MW-17V

Location Code: WMWBARAP
Collected: 8/8/23 12:15
Customer ID:
Submittal Date: 8/10/23 09:48

Laboratory ID Number: BD15019

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM 5310 B		Analyst: SC							
* Total Organic Carbon	8/11/23 13:57	8/11/23 13:57		1	Not Detected	mg/L	1.00	2	U
Analytical Method: SM4500Cl E		Analyst: JCC							
* Chloride	8/16/23 13:01	8/16/23 13:01		80	725	mg/L	40.00	80	
Analytical Method: SM4500F G 2017		Analyst: JCC							
* Fluoride	8/17/23 11:14	8/17/23 11:14		1	0.109	mg/L	0.06	0.125	J
Analytical Method: SM4500SO4 E 2011		Analyst: JCC							
* Sulfate	8/11/23 12:45	8/11/23 12:45		4	59.7	mg/L	2.4	8	
Analytical Method: Field Measurements		Analyst: TJD							
Conductivity	8/8/23 12:10	8/8/23 12:10			2488.46	uS/cm			FA
pH	8/8/23 12:10	8/8/23 12:10			6.49	SU			FA
Temperature	8/8/23 12:10	8/8/23 12:10			22.42	C			FA
Turbidity	8/8/23 12:10	8/8/23 12:10			9.89	NTU			FA
Sulfide	8/8/23 12:10	8/8/23 12:10			0	mg/L			FA

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWBARAP

Sample Date: 8/8/23 12:15

Customer ID:

Delivery Date: 8/10/23 09:48

Description: Barry Ash Pond - MW-17V

Laboratory ID Number: BD15019

Sample	Analysis	Units	MB		Spike	MS	MSD	Standard		Rec		Prec	Limit
			MB	Limit				Standard	Limit	Rec	Limit		
BD15022	Aluminum, Dissolved	mg/L	-0.000210	0.0198	0.100	0.104	0.101	0.0999	0.0850 to 0.115	104	70.0 to 130	2.93	20.0
BD15022	Aluminum, Total	mg/L	0.000494	0.0198	0.100	0.134	0.135	0.107	0.0850 to 0.115	113	70.0 to 130	0.743	20.0
BD15022	Antimony, Dissolved	mg/L	0.000419	0.00100	0.100	0.0969	0.0948	0.0899	0.0850 to 0.115	96.9	70.0 to 130	2.19	20.0
BD15022	Antimony, Total	mg/L	0.000335	0.00100	0.100	0.0992	0.0998	0.0915	0.0850 to 0.115	99.2	70.0 to 130	0.603	20.0
BD15022	Arsenic, Dissolved	mg/L	0.0000078	0.000200	0.100	0.101	0.0989	0.0963	0.0850 to 0.115	98.6	70.0 to 130	2.10	20.0
BD15022	Arsenic, Total	mg/L	0.0000005	0.000200	0.100	0.102	0.0997	0.0994	0.0850 to 0.115	99.5	70.0 to 130	2.28	20.0
BD15022	Barium, Dissolved	mg/L	0.0000016	0.00100	0.100	0.246	0.249	0.0971	0.0850 to 0.115	95.0	70.0 to 130	1.21	20.0
BD15022	Barium, Total	mg/L	-0.0000013	0.00100	0.100	0.266	0.269	0.102	0.0850 to 0.115	101	70.0 to 130	1.12	20.0
BD15022	Beryllium, Dissolved	mg/L	0.0000249	0.000880	0.100	0.0983	0.0908	0.0946	0.0850 to 0.115	98.3	70.0 to 130	7.93	20.0
BD15022	Beryllium, Total	mg/L	0.0000525	0.000880	0.100	0.0954	0.0971	0.0918	0.0850 to 0.115	95.4	70.0 to 130	1.77	20.0
BD15022	Boron, Dissolved	mg/L	-0.00147	0.0650	1.00	1.07	1.07	1.02	0.850 to 1.15	102	70.0 to 130	0.00	20.0
BD15022	Boron, Total	mg/L	0.000378	0.0650	1.00	1.05	1.04	0.998	0.850 to 1.15	101	70.0 to 130	0.957	20.0
BD15022	Cadmium, Dissolved	mg/L	0.0000044	0.000147	0.100	0.0994	0.0969	0.0981	0.0850 to 0.115	99.4	70.0 to 130	2.55	20.0
BD15022	Cadmium, Total	mg/L	0.0000138	0.000147	0.100	0.0966	0.0997	0.103	0.0850 to 0.115	96.6	70.0 to 130	3.16	20.0
BD15022	Calcium, Dissolved	mg/L	-0.00839	0.152	5.00	25.7	25.8	5.04	4.25 to 5.75	88.0	70.0 to 130	0.388	20.0
BD15022	Calcium, Total	mg/L	-0.0114	0.152	5.00	26.1	26.3	4.71	4.25 to 5.75	90.0	70.0 to 130	0.763	20.0
BD15130	Chloride	mg/L	0.0796	1.00	10.0	10.0	9.92	9.64	9.00 to 11.0	100	80.0 to 120	0.803	20.0
BD15022	Chromium, Dissolved	mg/L	-0.000105	0.000440	0.100	0.0974	0.0946	0.0957	0.0850 to 0.115	97.1	70.0 to 130	2.92	20.0
BD15022	Chromium, Total	mg/L	-0.000171	0.000440	0.100	0.0990	0.0991	0.0988	0.0850 to 0.115	98.6	70.0 to 130	0.101	20.0
BD15022	Cobalt, Dissolved	mg/L	-0.0000064	0.000147	0.100	0.102	0.100	0.0994	0.0850 to 0.115	102	70.0 to 130	1.98	20.0
BD15022	Cobalt, Total	mg/L	-0.0000060	0.000147	0.100	0.105	0.105	0.105	0.0850 to 0.115	104	70.0 to 130	0.00	20.0
BD15130	Fluoride	mg/L	0.0238	0.125	2.50	2.64	2.63	2.52	2.25 to 2.75	106	80.0 to 120	0.380	20.0
BD15022	Iron, Dissolved	mg/L	0.00127	0.0176	0.2	49.2	47.9	0.201	0.170 to 0.230	150	70.0 to 130	2.68	20.0
BD15022	Iron, Total	mg/L	0.000264	0.0176	0.2	50.8	59.8	0.196	0.170 to 0.230	-150	70.0 to 130	16.3	20.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWBARAP

Sample Date: 8/8/23 12:15

Customer ID:

Delivery Date: 8/10/23 09:48

Description: Barry Ash Pond - MW-17V

Laboratory ID Number: BD15019

Sample	Analysis	Units	MB					Standard		Rec		Prec	Limit
			MB	Limit	Spike	MS	MSD	Standard	Limit	Rec	Limit		
BD15022	Lead, Dissolved	mg/L	0.0000145	0.000147	0.100	0.107	0.101	0.103	0.0850 to 0.115	107	70.0 to 130	5.77	20.0
BD15022	Lead, Total	mg/L	0.0000362	0.000147	0.100	0.105	0.109	0.107	0.0850 to 0.115	105	70.0 to 130	3.74	20.0
BD15022	Lithium, Dissolved	mg/L	-0.000272	0.0154	0.200	0.215	0.210	0.210	0.170 to 0.230	108	70.0 to 130	2.35	20.0
BD15022	Lithium, Total	mg/L	-0.000611	0.0154	0.200	0.210	0.213	0.211	0.170 to 0.230	105	70.0 to 130	1.42	20.0
BD15022	Magnesium, Dissolved	mg/L	-0.000059	0.0462	5.00	11.3	11.2	5.21	4.25 to 5.75	98.6	70.0 to 130	0.889	20.0
BD15022	Magnesium, Total	mg/L	-0.000838	0.0462	5.00	11.6	11.6	5.05	4.25 to 5.75	102	70.0 to 130	0.00	20.0
BD15022	Manganese, Dissolved	mg/L	0.0000346	0.00033	0.100	0.912	0.884	0.0983	0.0850 to 0.115	108	70.0 to 130	3.12	20.0
BD15022	Manganese, Total	mg/L	0.0000106	0.00033	0.100	0.970	0.974	0.102	0.0850 to 0.115	94.0	70.0 to 130	0.412	20.0
BD15130	Mercury, Total by CVAA	mg/L	4.000E-05	0.000500	0.004	0.00372	0.00376	0.00383	0.00340 to 0.00460	93.0	70.0 to 130	1.07	20.0
BD15022	Molybdenum, Dissolved	mg/L	0.00193	0.0100	0.2	0.198	0.198	0.199	0.170 to 0.230	99.0	70.0 to 130	0.00	20.0
BD15022	Molybdenum, Total	mg/L	0.000	0.0100	0.2	0.198	0.196	0.197	0.170 to 0.230	99.0	70.0 to 130	1.02	20.0
BD15022	Potassium, Dissolved	mg/L	-0.00978	0.367	10.0	11.1	10.9	10.1	8.50 to 11.5	101	70.0 to 130	1.82	20.0
BD15022	Potassium, Total	mg/L	-0.0265	0.367	10.0	11.3	11.4	10.5	8.50 to 11.5	103	70.0 to 130	0.881	20.0
BD15022	Selenium, Dissolved	mg/L	-0.0000836	0.00100	0.100	0.101	0.102	0.0990	0.0850 to 0.115	101	70.0 to 130	0.985	20.0
BD15022	Selenium, Total	mg/L	-0.000110	0.00100	0.100	0.103	0.101	0.0994	0.0850 to 0.115	103	70.0 to 130	1.96	20.0
BD15022	Silicon, Dissolved	mg/L	0.000422	0.0440	1.00	16.4	16.5	1.03	0.850 to 1.15	100	70.0 to 130	0.608	20.0
BD15022	Silicon, Total	mg/L	-0.00110	0.0440	1.00	16.3	16.4	1.00	0.850 to 1.15	100	70.0 to 130	0.612	20.0
BD15022	Sodium, Dissolved	mg/L	0.00934	0.0880	5.00	24.4	23.7	5.30	4.25 to 5.75	112	70.0 to 130	2.91	20.0
BD15022	Sodium, Total	mg/L	0.00689	0.0880	5.00	23.9	24.2	5.44	4.25 to 5.75	100	70.0 to 130	1.25	20.0
BD15130	Sulfate	mg/L	0.258	2.0	20.0	21.8	20.3	20.2	18.0 to 22.0	109	80.0 to 120	7.13	20.0
BD15022	Thallium, Dissolved	mg/L	-0.0000018	0.000147	0.100	0.103	0.101	0.105	0.0850 to 0.115	103	70.0 to 130	1.96	20.0
BD15022	Thallium, Total	mg/L	0.0000283	0.000147	0.100	0.106	0.109	0.111	0.0850 to 0.115	106	70.0 to 130	2.79	20.0
BD15022	Total Organic Carbon	mg/L	0.164	1.00	10.0	15.6	16.2	26.8		105	80.0 to 120	3.77	20.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWBARAP

Sample Date: 8/8/23 12:15

Customer ID:

Delivery Date: 8/10/23 09:48

Description: Barry Ash Pond - MW-17V

Laboratory ID Number: BD15019

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BD15006	Alkalinity	mg CaCO3/L					153	51.2	45.0 to 55.0			0.00	10.0
BD15022	Nitrogen, Nitrate/Nitrite	mg/L as N	-0.06	0.200	2.00	2.15	-0.046	2.01	1.80 to 2.20	108	90.0 to 110	0.00	15.0
BD15019	Solids, Dissolved	mg/L	1.00	25.0			1540	50.0	40.0 to 60.0			1.31	10.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Barry Ash Pond - MW-17H

Location Code: WMWBARAP
Collected: 8/8/23 13:00
Customer ID:
Submittal Date: 8/10/23 09:48

Laboratory ID Number: BD15020

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q	
Analytical Method: EPA 200.7		Analyst: ABB			Preparation Method: EPA 1638					
* Boron, Total	8/11/23 11:28	8/15/23 14:59		1.015	0.0614	mg/L	0.030000	0.1015	J	
* Calcium, Total	8/11/23 11:28	8/16/23 14:16		1.015	10.2	mg/L	0.070035	0.406		
* Iron, Total	8/11/23 11:28	8/16/23 15:48		101.5	83.6	mg/L	0.8120	4.06		
* Lithium, Total	8/11/23 11:28	8/15/23 14:59		1.015	Not Detected	mg/L	0.007105	0.01999956	U	
* Magnesium, Total	8/11/23 11:28	8/15/23 14:59		1.015	5.24	mg/L	0.021315	0.406		
* Molybdenum, Total	8/11/23 11:28	8/15/23 14:59		1.015	Not Detected	mg/L	0.005075	0.01015	U	
* Silica, Total (calc.)	8/11/23 11:28	8/15/23 14:59		1	13.8	mg/L				
* Silicon, Total	8/11/23 11:28	8/15/23 14:59		1.015	6.45	mg/L	0.02030	0.25375		
* Sodium, Total	8/11/23 11:28	8/15/23 14:59		1.015	20.1	mg/L	0.04060	0.406		
Analytical Method: EPA 200.7		Analyst: ABB			Preparation Method: EPA 1638					
* Boron, Dissolved	8/11/23 09:10	8/11/23 14:11		1.015	0.0629	mg/L	0.030000	0.1015	J	
* Calcium, Dissolved	8/11/23 09:10	8/11/23 14:11		1.015	10.6	mg/L	0.070035	0.406		
* Iron, Dissolved	8/11/23 09:10	8/15/23 11:53		101.5	83.7	mg/L	0.8120	4.06		
* Lithium, Dissolved	8/11/23 09:10	8/11/23 14:11		1.015	Not Detected	mg/L	0.007105	0.01999956	U	
* Magnesium, Dissolved	8/11/23 09:10	8/11/23 14:11		1.015	5.23	mg/L	0.021315	0.406		
* Molybdenum, Dissolved	8/11/23 09:10	8/11/23 14:11		1.015	Not Detected	mg/L	0.005075	0.01015	U	
* Silica, Dissolved (calc.)	8/11/23 09:10	8/11/23 14:11		1	14.2	mg/L				
* Silicon, Dissolved	8/11/23 09:10	8/11/23 14:11		1.015	6.62	mg/L	0.02030	0.25375		
* Sodium, Dissolved	8/11/23 09:10	8/11/23 14:11		1.015	20.2	mg/L	0.04060	0.406		
Analytical Method: EPA 200.8		Analyst: DLJ			Preparation Method: EPA 1638					
* Antimony, Total	8/11/23 11:28	8/11/23 16:58		1.015	Not Detected	mg/L	0.000710	0.001015	U	
* Aluminum, Total	8/11/23 11:28	8/11/23 16:58		1.015	0.0981	mg/L	0.009135	0.05075		
* Arsenic, Total	8/11/23 11:28	8/11/23 16:58		1.015	0.0303	mg/L	0.000112	0.000203		
* Barium, Total	8/11/23 11:28	8/11/23 16:58		1.015	0.123	mg/L	0.000508	0.001015		
* Beryllium, Total	8/11/23 11:28	8/11/23 16:58		1.015	Not Detected	mg/L	0.000406	0.001015	U	
* Cadmium, Total	8/11/23 11:28	8/11/23 16:58		1.015	Not Detected	mg/L	0.000068	0.000203	U	
* Chromium, Total	8/11/23 11:28	8/11/23 16:58		1.015	0.000419	mg/L	0.000203	0.001015	J	
* Cobalt, Total	8/11/23 11:28	8/11/23 16:58		1.015	0.00297	mg/L	0.000068	0.000203		
* Lead, Total	8/11/23 11:28	8/11/23 16:58		1.015	0.0000740	mg/L	0.000068	0.000203	J	
* Manganese, Total	8/11/23 11:28	8/11/23 16:58		1.015	0.342	mg/L	0.000152	0.001015		

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Barry Ash Pond - MW-17H

Location Code: WMWBARAP
Collected: 8/8/23 13:00
Customer ID:
Submittal Date: 8/10/23 09:48

Laboratory ID Number: BD15020

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
* Potassium, Total	8/11/23 11:28	8/11/23 16:58		1.015	1.40	mg/L	0.169505	0.5075	
* Selenium, Total	8/11/23 11:28	8/11/23 16:58		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Total	8/11/23 11:28	8/11/23 16:58		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 200.8		Analyst: DLJ							
* Antimony, Dissolved	8/11/23 09:10	8/11/23 13:20		1.015	Not Detected	mg/L	0.000710	0.001015	U
* Aluminum, Dissolved	8/11/23 09:10	8/11/23 13:20		1.015	Not Detected	mg/L	0.009135	0.05075	U
* Arsenic, Dissolved	8/11/23 09:10	8/11/23 13:20		1.015	0.0309	mg/L	0.000112	0.000203	
* Barium, Dissolved	8/11/23 09:10	8/11/23 13:20		1.015	0.117	mg/L	0.000508	0.001015	
* Beryllium, Dissolved	8/11/23 09:10	8/11/23 13:20		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Dissolved	8/11/23 09:10	8/11/23 13:20		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Dissolved	8/11/23 09:10	8/11/23 13:20		1.015	Not Detected	mg/L	0.000203	0.001015	U
* Cobalt, Dissolved	8/11/23 09:10	8/11/23 13:20		1.015	0.00285	mg/L	0.000068	0.000203	
* Lead, Dissolved	8/11/23 09:10	8/11/23 13:20		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Dissolved	8/11/23 09:10	8/11/23 13:20		1.015	0.330	mg/L	0.000152	0.001015	
* Potassium, Dissolved	8/11/23 09:10	8/11/23 13:20		1.015	1.36	mg/L	0.169505	0.5075	
* Selenium, Dissolved	8/11/23 09:10	8/11/23 13:20		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Dissolved	8/11/23 09:10	8/11/23 13:20		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 245.1		Analyst: ELH							
* Mercury, Total by CVAA	8/15/23 15:19	8/15/23 19:56		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: EPA 353.2		Analyst: SC							
* Nitrogen, Nitrate/Nitrite	8/10/23 16:55	8/10/23 16:55		1	Not Detected	mg/L as N	0.20	0.3	U
Analytical Method: SM 2320 B		Analyst: DHC							
* Alkalinity	8/16/23 09:02	8/16/23 14:44		1	119	mg CaCO3/L		0.1	
Analytical Method: SM 2540C		Analyst: CNJ							
* Solids, Dissolved	8/15/23 11:30	8/16/23 13:35		1	198	mg/L		25	
Analytical Method: SM 4500CO2 D		Analyst: DHC							
* Bicarbonate Alkalinity, (calc.)	8/16/23 09:02	8/16/23 14:44		1	119	mg CaCO3/L		1	
* Carbonate Alkalinity, (calc.)	8/16/23 09:02	8/16/23 14:44		1	Not Detected	mg CaCO3/L		0.5	
Analytical Method: SM 4500H+ B		Analyst: DHC							
Alkalinity pH Endpoint	8/16/23 09:02	8/16/23 14:44		1	4.52	SU		2	

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Barry Ash Pond - MW-17H

Location Code: WMWBARAP
Collected: 8/8/23 13:00
Customer ID:
Submittal Date: 8/10/23 09:48

Laboratory ID Number: BD15020

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM 5310 B		Analyst: SC							
* Total Organic Carbon	8/11/23 14:11	8/11/23 14:11		1	6.22	mg/L	1.00	2	
Analytical Method: SM4500Cl E		Analyst: JCC							
* Chloride	8/16/23 12:53	8/16/23 12:53		1	18.2	mg/L	0.50	1	
Analytical Method: SM4500F G 2017		Analyst: JCC							
* Fluoride	8/17/23 11:15	8/17/23 11:15		1	0.137	mg/L	0.06	0.125	
Analytical Method: SM4500SO4 E 2011		Analyst: JCC							
* Sulfate	8/11/23 12:37	8/11/23 12:37		1	14.4	mg/L	0.6	2	
Analytical Method: Field Measurements		Analyst: TJD							
Conductivity	8/8/23 12:57	8/8/23 12:57			394.88	uS/cm			FA
pH	8/8/23 12:57	8/8/23 12:57			6.23	SU			FA
Temperature	8/8/23 12:57	8/8/23 12:57			22.06	C			FA
Turbidity	8/8/23 12:57	8/8/23 12:57			8.5	NTU			FA
Sulfide	8/8/23 12:57	8/8/23 12:57			0	mg/L			FA

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWBARAP

Sample Date: 8/8/23 13:00

Customer ID:

Delivery Date: 8/10/23 09:48

Description: Barry Ash Pond - MW-17H

Laboratory ID Number: BD15020

Sample	Analysis	Units	MB		Spike	MS	MSD	Standard		Rec		Prec	Limit
			MB	Limit				Standard	Limit	Rec	Limit		
BD15022	Aluminum, Dissolved	mg/L	-0.000210	0.0198	0.100	0.104	0.101	0.0999	0.0850 to 0.115	104	70.0 to 130	2.93	20.0
BD15022	Aluminum, Total	mg/L	0.000494	0.0198	0.100	0.134	0.135	0.107	0.0850 to 0.115	113	70.0 to 130	0.743	20.0
BD15022	Antimony, Dissolved	mg/L	0.000419	0.00100	0.100	0.0969	0.0948	0.0899	0.0850 to 0.115	96.9	70.0 to 130	2.19	20.0
BD15022	Antimony, Total	mg/L	0.000335	0.00100	0.100	0.0992	0.0998	0.0915	0.0850 to 0.115	99.2	70.0 to 130	0.603	20.0
BD15022	Arsenic, Dissolved	mg/L	0.0000078	0.000200	0.100	0.101	0.0989	0.0963	0.0850 to 0.115	98.6	70.0 to 130	2.10	20.0
BD15022	Arsenic, Total	mg/L	0.0000005	0.000200	0.100	0.102	0.0997	0.0994	0.0850 to 0.115	99.5	70.0 to 130	2.28	20.0
BD15022	Barium, Dissolved	mg/L	0.0000016	0.00100	0.100	0.246	0.249	0.0971	0.0850 to 0.115	95.0	70.0 to 130	1.21	20.0
BD15022	Barium, Total	mg/L	-0.0000013	0.00100	0.100	0.266	0.269	0.102	0.0850 to 0.115	101	70.0 to 130	1.12	20.0
BD15022	Beryllium, Dissolved	mg/L	0.0000249	0.000880	0.100	0.0983	0.0908	0.0946	0.0850 to 0.115	98.3	70.0 to 130	7.93	20.0
BD15022	Beryllium, Total	mg/L	0.0000525	0.000880	0.100	0.0954	0.0971	0.0918	0.0850 to 0.115	95.4	70.0 to 130	1.77	20.0
BD15022	Boron, Dissolved	mg/L	-0.00147	0.0650	1.00	1.07	1.07	1.02	0.850 to 1.15	102	70.0 to 130	0.00	20.0
BD15022	Boron, Total	mg/L	0.000378	0.0650	1.00	1.05	1.04	0.998	0.850 to 1.15	101	70.0 to 130	0.957	20.0
BD15022	Cadmium, Dissolved	mg/L	0.0000044	0.000147	0.100	0.0994	0.0969	0.0981	0.0850 to 0.115	99.4	70.0 to 130	2.55	20.0
BD15022	Cadmium, Total	mg/L	0.0000138	0.000147	0.100	0.0966	0.0997	0.103	0.0850 to 0.115	96.6	70.0 to 130	3.16	20.0
BD15022	Calcium, Dissolved	mg/L	-0.00839	0.152	5.00	25.7	25.8	5.04	4.25 to 5.75	88.0	70.0 to 130	0.388	20.0
BD15022	Calcium, Total	mg/L	-0.0114	0.152	5.00	26.1	26.3	4.71	4.25 to 5.75	90.0	70.0 to 130	0.763	20.0
BD15130	Chloride	mg/L	0.0796	1.00	10.0	10.0	9.92	9.64	9.00 to 11.0	100	80.0 to 120	0.803	20.0
BD15022	Chromium, Dissolved	mg/L	-0.000105	0.000440	0.100	0.0974	0.0946	0.0957	0.0850 to 0.115	97.1	70.0 to 130	2.92	20.0
BD15022	Chromium, Total	mg/L	-0.000171	0.000440	0.100	0.0990	0.0991	0.0988	0.0850 to 0.115	98.6	70.0 to 130	0.101	20.0
BD15022	Cobalt, Dissolved	mg/L	-0.0000064	0.000147	0.100	0.102	0.100	0.0994	0.0850 to 0.115	102	70.0 to 130	1.98	20.0
BD15022	Cobalt, Total	mg/L	-0.0000060	0.000147	0.100	0.105	0.105	0.105	0.0850 to 0.115	104	70.0 to 130	0.00	20.0
BD15130	Fluoride	mg/L	0.0238	0.125	2.50	2.64	2.63	2.52	2.25 to 2.75	106	80.0 to 120	0.380	20.0
BD15022	Iron, Dissolved	mg/L	0.00127	0.0176	0.2	49.2	47.9	0.201	0.170 to 0.230	150	70.0 to 130	2.68	20.0
BD15022	Iron, Total	mg/L	0.000264	0.0176	0.2	50.8	59.8	0.196	0.170 to 0.230	-150	70.0 to 130	16.3	20.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWBARAP
Sample Date: 8/8/23 13:00
Customer ID:
Delivery Date: 8/10/23 09:48

Description: Barry Ash Pond - MW-17H

Laboratory ID Number: BD15020

Sample	Analysis	Units	MB					Standard		Rec		Prec	Limit
			MB	Limit	Spike	MS	MSD	Standard	Limit	Rec	Limit		
BD15022	Lead, Dissolved	mg/L	0.0000145	0.000147	0.100	0.107	0.101	0.103	0.0850 to 0.115	107	70.0 to 130	5.77	20.0
BD15022	Lead, Total	mg/L	0.0000362	0.000147	0.100	0.105	0.109	0.107	0.0850 to 0.115	105	70.0 to 130	3.74	20.0
BD15022	Lithium, Dissolved	mg/L	-0.000272	0.0154	0.200	0.215	0.210	0.210	0.170 to 0.230	108	70.0 to 130	2.35	20.0
BD15022	Lithium, Total	mg/L	-0.000611	0.0154	0.200	0.210	0.213	0.211	0.170 to 0.230	105	70.0 to 130	1.42	20.0
BD15022	Magnesium, Dissolved	mg/L	-0.000059	0.0462	5.00	11.3	11.2	5.21	4.25 to 5.75	98.6	70.0 to 130	0.889	20.0
BD15022	Magnesium, Total	mg/L	-0.000838	0.0462	5.00	11.6	11.6	5.05	4.25 to 5.75	102	70.0 to 130	0.00	20.0
BD15022	Manganese, Dissolved	mg/L	0.0000346	0.00033	0.100	0.912	0.884	0.0983	0.0850 to 0.115	108	70.0 to 130	3.12	20.0
BD15022	Manganese, Total	mg/L	0.0000106	0.00033	0.100	0.970	0.974	0.102	0.0850 to 0.115	94.0	70.0 to 130	0.412	20.0
BD15130	Mercury, Total by CVAA	mg/L	4.000E-05	0.000500	0.004	0.00372	0.00376	0.00383	0.00340 to 0.00460	93.0	70.0 to 130	1.07	20.0
BD15022	Molybdenum, Dissolved	mg/L	0.00193	0.0100	0.2	0.198	0.198	0.199	0.170 to 0.230	99.0	70.0 to 130	0.00	20.0
BD15022	Molybdenum, Total	mg/L	0.000	0.0100	0.2	0.198	0.196	0.197	0.170 to 0.230	99.0	70.0 to 130	1.02	20.0
BD15022	Potassium, Dissolved	mg/L	-0.00978	0.367	10.0	11.1	10.9	10.1	8.50 to 11.5	101	70.0 to 130	1.82	20.0
BD15022	Potassium, Total	mg/L	-0.0265	0.367	10.0	11.3	11.4	10.5	8.50 to 11.5	103	70.0 to 130	0.881	20.0
BD15022	Selenium, Dissolved	mg/L	-0.0000836	0.00100	0.100	0.101	0.102	0.0990	0.0850 to 0.115	101	70.0 to 130	0.985	20.0
BD15022	Selenium, Total	mg/L	-0.000110	0.00100	0.100	0.103	0.101	0.0994	0.0850 to 0.115	103	70.0 to 130	1.96	20.0
BD15022	Silicon, Dissolved	mg/L	0.000422	0.0440	1.00	16.4	16.5	1.03	0.850 to 1.15	100	70.0 to 130	0.608	20.0
BD15022	Silicon, Total	mg/L	-0.00110	0.0440	1.00	16.3	16.4	1.00	0.850 to 1.15	100	70.0 to 130	0.612	20.0
BD15022	Sodium, Dissolved	mg/L	0.00934	0.0880	5.00	24.4	23.7	5.30	4.25 to 5.75	112	70.0 to 130	2.91	20.0
BD15022	Sodium, Total	mg/L	0.00689	0.0880	5.00	23.9	24.2	5.44	4.25 to 5.75	100	70.0 to 130	1.25	20.0
BD15130	Sulfate	mg/L	0.258	2.0	20.0	21.8	20.3	20.2	18.0 to 22.0	109	80.0 to 120	7.13	20.0
BD15022	Thallium, Dissolved	mg/L	-0.0000018	0.000147	0.100	0.103	0.101	0.105	0.0850 to 0.115	103	70.0 to 130	1.96	20.0
BD15022	Thallium, Total	mg/L	0.0000283	0.000147	0.100	0.106	0.109	0.111	0.0850 to 0.115	106	70.0 to 130	2.79	20.0
BD15022	Total Organic Carbon	mg/L	0.164	1.00	10.0	15.6	16.2	26.8		105	80.0 to 120	3.77	20.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWBARAP

Sample Date: 8/8/23 13:00

Customer ID:

Delivery Date: 8/10/23 09:48

Description: Barry Ash Pond - MW-17H

Laboratory ID Number: BD15020

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BD15006	Alkalinity	mg CaCO3/L					153	51.2	45.0 to 55.0			0.00	10.0
BD15022	Nitrogen, Nitrate/Nitrite	mg/L as N	-0.06	0.200	2.00	2.15	-0.046	2.01	1.80 to 2.20	108	90.0 to 110	0.00	15.0
BD15135	Solids, Dissolved	mg/L	0.0000	25.0			335	51.0	40.0 to 60.0			0.298	10.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Barry Ash Pond - MW-23V

Location Code: WMWBARAP
Collected: 8/8/23 14:08
Customer ID:
Submittal Date: 8/10/23 09:48

Laboratory ID Number: BD15021

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7		Analyst: ABB			Preparation Method: EPA 1638				
* Boron, Total	8/11/23 11:28	8/15/23 15:02		1.015	0.238	mg/L	0.030000	0.1015	
* Calcium, Total	8/11/23 11:28	8/17/23 12:13		10.15	58.4	mg/L	0.70035	4.06	
* Iron, Total	8/11/23 11:28	8/17/23 12:13		10.15	38.8	mg/L	0.08120	0.406	
* Lithium, Total	8/11/23 11:28	8/15/23 15:02		1.015	Not Detected	mg/L	0.007105	0.01999956	U
* Magnesium, Total	8/11/23 11:28	8/15/23 15:02		1.015	38.7	mg/L	0.021315	0.406	
* Molybdenum, Total	8/11/23 11:28	8/15/23 15:02		1.015	Not Detected	mg/L	0.005075	0.01015	U
* Silica, Total (calc.)	8/11/23 11:28	8/15/23 15:02		1	16.8	mg/L			
* Silicon, Total	8/11/23 11:28	8/15/23 15:02		1.015	7.85	mg/L	0.02030	0.25375	
* Sodium, Total	8/11/23 11:28	8/16/23 15:51		101.5	398	mg/L	4.060	40.6	
Analytical Method: EPA 200.7		Analyst: ABB			Preparation Method: EPA 1638				
* Boron, Dissolved	8/11/23 09:10	8/11/23 14:14		1.015	0.233	mg/L	0.030000	0.1015	
* Calcium, Dissolved	8/11/23 09:10	8/14/23 15:01		10.15	50.3	mg/L	0.70035	4.06	
* Iron, Dissolved	8/11/23 09:10	8/14/23 15:01		10.15	31.8	mg/L	0.08120	0.406	
* Lithium, Dissolved	8/11/23 09:10	8/11/23 14:14		1.015	Not Detected	mg/L	0.007105	0.01999956	U
* Magnesium, Dissolved	8/11/23 09:10	8/14/23 15:01		10.15	40.0	mg/L	0.21315	4.06	
* Molybdenum, Dissolved	8/11/23 09:10	8/11/23 14:14		1.015	Not Detected	mg/L	0.005075	0.01015	U
* Silica, Dissolved (calc.)	8/11/23 09:10	8/11/23 14:14		1	17.4	mg/L			
* Silicon, Dissolved	8/11/23 09:10	8/11/23 14:14		1.015	8.12	mg/L	0.02030	0.25375	
* Sodium, Dissolved	8/11/23 09:10	8/15/23 12:02		101.5	433	mg/L	4.060	40.6	
Analytical Method: EPA 200.8		Analyst: DLJ			Preparation Method: EPA 1638				
* Antimony, Total	8/11/23 11:28	8/11/23 17:01		1.015	Not Detected	mg/L	0.000710	0.001015	U
* Arsenic, Total	8/11/23 11:28	8/11/23 17:01		1.015	0.00483	mg/L	0.000112	0.000203	
* Aluminum, Total	8/11/23 11:28	8/11/23 17:01		1.015	Not Detected	mg/L	0.009135	0.05075	U
* Barium, Total	8/11/23 11:28	8/11/23 17:01		1.015	0.289	mg/L	0.000508	0.001015	
* Beryllium, Total	8/11/23 11:28	8/11/23 17:01		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Total	8/11/23 11:28	8/11/23 17:01		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Total	8/11/23 11:28	8/11/23 17:01		1.015	0.000325	mg/L	0.000203	0.001015	J
* Cobalt, Total	8/11/23 11:28	8/11/23 17:01		1.015	0.0430	mg/L	0.000068	0.000203	
* Lead, Total	8/11/23 11:28	8/11/23 17:01		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Total	8/11/23 11:28	8/11/23 17:37		5.075	1.75	mg/L	0.000761	0.005075	

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Barry Ash Pond - MW-23V

Location Code: WMWBARAP

Collected: 8/8/23 14:08

Customer ID:

Submittal Date: 8/10/23 09:48

Laboratory ID Number: BD15021

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
* Potassium, Total	8/11/23 11:28	8/11/23 17:01		1.015	8.12	mg/L	0.169505	0.5075	
* Selenium, Total	8/11/23 11:28	8/11/23 17:01		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Total	8/11/23 11:28	8/11/23 17:01		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 200.8		Analyst: DLJ							
* Antimony, Dissolved	8/11/23 09:10	8/11/23 13:24		1.015	Not Detected	mg/L	0.000710	0.001015	U
* Aluminum, Dissolved	8/11/23 09:10	8/11/23 13:24		1.015	Not Detected	mg/L	0.009135	0.05075	U
* Arsenic, Dissolved	8/11/23 09:10	8/11/23 13:24		1.015	0.00466	mg/L	0.000112	0.000203	
* Barium, Dissolved	8/11/23 09:10	8/11/23 13:24		1.015	0.279	mg/L	0.000508	0.001015	
* Beryllium, Dissolved	8/11/23 09:10	8/11/23 13:24		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Dissolved	8/11/23 09:10	8/11/23 13:24		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Dissolved	8/11/23 09:10	8/11/23 13:24		1.015	Not Detected	mg/L	0.000203	0.001015	U
* Cobalt, Dissolved	8/11/23 09:10	8/11/23 13:24		1.015	0.0418	mg/L	0.000068	0.000203	
* Lead, Dissolved	8/11/23 09:10	8/11/23 13:24		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Dissolved	8/11/23 09:10	8/11/23 17:51		5.075	1.70	mg/L	0.000761	0.005075	
* Potassium, Dissolved	8/11/23 09:10	8/11/23 13:24		1.015	7.94	mg/L	0.169505	0.5075	
* Selenium, Dissolved	8/11/23 09:10	8/11/23 13:24		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Dissolved	8/11/23 09:10	8/11/23 13:24		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 245.1		Analyst: ELH							
* Mercury, Total by CVAA	8/15/23 15:19	8/15/23 20:00		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: EPA 353.2		Analyst: SC							
* Nitrogen, Nitrate/Nitrite	8/10/23 16:56	8/10/23 16:56		1	Not Detected	mg/L as N	0.20	0.3	U
Analytical Method: SM 2320 B		Analyst: DHC							
* Alkalinity	8/16/23 09:02	8/16/23 14:44		1	134	mg CaCO3/L		0.1	
Analytical Method: SM 2540C		Analyst: CNJ							
* Solids, Dissolved	8/15/23 11:30	8/16/23 13:35		1	1460	mg/L		147.1	
Analytical Method: SM 4500CO2 D		Analyst: DHC							
* Bicarbonate Alkalinity, (calc.)	8/16/23 09:02	8/16/23 14:44		1	134	mg CaCO3/L		1	A
* Carbonate Alkalinity, (calc.)	8/16/23 09:02	8/16/23 14:44		1	Not Detected	mg CaCO3/L		0.5	A
Analytical Method: SM 4500H+ B		Analyst: DHC							
Alkalinity pH Endpoint	8/16/23 09:02	8/16/23 14:44		1	4.55	SU		2	

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Barry Ash Pond - MW-23V

Location Code: WMWBARAP
Collected: 8/8/23 14:08
Customer ID:
Submittal Date: 8/10/23 09:48

Laboratory ID Number: BD15021

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM 5310 B		Analyst: SC							
* Total Organic Carbon	8/11/23 14:27	8/11/23 14:27		1	5.14	mg/L	1.00	2	
Analytical Method: SM4500Cl E		Analyst: JCC							
* Chloride	8/16/23 13:03	8/16/23 13:03		80	690	mg/L	40.00	80	
Analytical Method: SM4500F G 2017		Analyst: JCC							
* Fluoride	8/17/23 11:16	8/17/23 11:16		1	0.0635	mg/L	0.06	0.125	J
Analytical Method: SM4500SO4 E 2011		Analyst: JCC							
* Sulfate	8/11/23 12:38	8/11/23 12:38		1	35.0	mg/L	0.6	2	
Analytical Method: Field Measurements		Analyst: TJD							
Conductivity	8/8/23 14:04	8/8/23 14:04			2499.73	uS/cm			FA
pH	8/8/23 14:04	8/8/23 14:04			6.59	SU			FA
Temperature	8/8/23 14:04	8/8/23 14:04			20.87	C			FA
Turbidity	8/8/23 14:04	8/8/23 14:04			0.77	NTU			FA
Sulfide	8/8/23 14:04	8/8/23 14:04			0	mg/L			FA

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWBARAP

Sample Date: 8/8/23 14:08

Customer ID:

Delivery Date: 8/10/23 09:48

Description: Barry Ash Pond - MW-23V

Laboratory ID Number: BD15021

Sample	Analysis	Units	MB		Spike	MS	MSD	Standard		Rec		Prec	Limit
			MB	Limit				Standard	Limit	Rec	Limit		
BD15022	Aluminum, Dissolved	mg/L	-0.000210	0.0198	0.100	0.104	0.101	0.0999	0.0850 to 0.115	104	70.0 to 130	2.93	20.0
BD15022	Aluminum, Total	mg/L	0.000494	0.0198	0.100	0.134	0.135	0.107	0.0850 to 0.115	113	70.0 to 130	0.743	20.0
BD15022	Antimony, Dissolved	mg/L	0.000419	0.00100	0.100	0.0969	0.0948	0.0899	0.0850 to 0.115	96.9	70.0 to 130	2.19	20.0
BD15022	Antimony, Total	mg/L	0.000335	0.00100	0.100	0.0992	0.0998	0.0915	0.0850 to 0.115	99.2	70.0 to 130	0.603	20.0
BD15022	Arsenic, Dissolved	mg/L	0.0000078	0.000200	0.100	0.101	0.0989	0.0963	0.0850 to 0.115	98.6	70.0 to 130	2.10	20.0
BD15022	Arsenic, Total	mg/L	0.0000005	0.000200	0.100	0.102	0.0997	0.0994	0.0850 to 0.115	99.5	70.0 to 130	2.28	20.0
BD15022	Barium, Dissolved	mg/L	0.0000016	0.00100	0.100	0.246	0.249	0.0971	0.0850 to 0.115	95.0	70.0 to 130	1.21	20.0
BD15022	Barium, Total	mg/L	-0.0000013	0.00100	0.100	0.266	0.269	0.102	0.0850 to 0.115	101	70.0 to 130	1.12	20.0
BD15022	Beryllium, Dissolved	mg/L	0.0000249	0.000880	0.100	0.0983	0.0908	0.0946	0.0850 to 0.115	98.3	70.0 to 130	7.93	20.0
BD15022	Beryllium, Total	mg/L	0.0000525	0.000880	0.100	0.0954	0.0971	0.0918	0.0850 to 0.115	95.4	70.0 to 130	1.77	20.0
BD15022	Boron, Dissolved	mg/L	-0.00147	0.0650	1.00	1.07	1.07	1.02	0.850 to 1.15	102	70.0 to 130	0.00	20.0
BD15022	Boron, Total	mg/L	0.000378	0.0650	1.00	1.05	1.04	0.998	0.850 to 1.15	101	70.0 to 130	0.957	20.0
BD15022	Cadmium, Dissolved	mg/L	0.0000044	0.000147	0.100	0.0994	0.0969	0.0981	0.0850 to 0.115	99.4	70.0 to 130	2.55	20.0
BD15022	Cadmium, Total	mg/L	0.0000138	0.000147	0.100	0.0966	0.0997	0.103	0.0850 to 0.115	96.6	70.0 to 130	3.16	20.0
BD15022	Calcium, Dissolved	mg/L	-0.00839	0.152	5.00	25.7	25.8	5.04	4.25 to 5.75	88.0	70.0 to 130	0.388	20.0
BD15022	Calcium, Total	mg/L	-0.0114	0.152	5.00	26.1	26.3	4.71	4.25 to 5.75	90.0	70.0 to 130	0.763	20.0
BD15130	Chloride	mg/L	0.0796	1.00	10.0	10.0	9.92	9.64	9.00 to 11.0	100	80.0 to 120	0.803	20.0
BD15022	Chromium, Dissolved	mg/L	-0.000105	0.000440	0.100	0.0974	0.0946	0.0957	0.0850 to 0.115	97.1	70.0 to 130	2.92	20.0
BD15022	Chromium, Total	mg/L	-0.000171	0.000440	0.100	0.0990	0.0991	0.0988	0.0850 to 0.115	98.6	70.0 to 130	0.101	20.0
BD15022	Cobalt, Dissolved	mg/L	-0.0000064	0.000147	0.100	0.102	0.100	0.0994	0.0850 to 0.115	102	70.0 to 130	1.98	20.0
BD15022	Cobalt, Total	mg/L	-0.0000060	0.000147	0.100	0.105	0.105	0.105	0.0850 to 0.115	104	70.0 to 130	0.00	20.0
BD15130	Fluoride	mg/L	0.0238	0.125	2.50	2.64	2.63	2.52	2.25 to 2.75	106	80.0 to 120	0.380	20.0
BD15022	Iron, Dissolved	mg/L	0.00127	0.0176	0.2	49.2	47.9	0.201	0.170 to 0.230	150	70.0 to 130	2.68	20.0
BD15022	Iron, Total	mg/L	0.000264	0.0176	0.2	50.8	59.8	0.196	0.170 to 0.230	-150	70.0 to 130	16.3	20.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWBARAP

Sample Date: 8/8/23 14:08

Customer ID:

Delivery Date: 8/10/23 09:48

Description: Barry Ash Pond - MW-23V

Laboratory ID Number: BD15021

Sample	Analysis	Units	MB					Standard		Rec		Prec	Limit
			MB	Limit	Spike	MS	MSD	Standard	Limit	Rec	Limit		
BD15022	Lead, Dissolved	mg/L	0.0000145	0.000147	0.100	0.107	0.101	0.103	0.0850 to 0.115	107	70.0 to 130	5.77	20.0
BD15022	Lead, Total	mg/L	0.0000362	0.000147	0.100	0.105	0.109	0.107	0.0850 to 0.115	105	70.0 to 130	3.74	20.0
BD15022	Lithium, Dissolved	mg/L	-0.000272	0.0154	0.200	0.215	0.210	0.210	0.170 to 0.230	108	70.0 to 130	2.35	20.0
BD15022	Lithium, Total	mg/L	-0.000611	0.0154	0.200	0.210	0.213	0.211	0.170 to 0.230	105	70.0 to 130	1.42	20.0
BD15022	Magnesium, Dissolved	mg/L	-0.000059	0.0462	5.00	11.3	11.2	5.21	4.25 to 5.75	98.6	70.0 to 130	0.889	20.0
BD15022	Magnesium, Total	mg/L	-0.000838	0.0462	5.00	11.6	11.6	5.05	4.25 to 5.75	102	70.0 to 130	0.00	20.0
BD15022	Manganese, Dissolved	mg/L	0.0000346	0.00033	0.100	0.912	0.884	0.0983	0.0850 to 0.115	108	70.0 to 130	3.12	20.0
BD15022	Manganese, Total	mg/L	0.0000106	0.00033	0.100	0.970	0.974	0.102	0.0850 to 0.115	94.0	70.0 to 130	0.412	20.0
BD15130	Mercury, Total by CVAA	mg/L	4.000E-05	0.000500	0.004	0.00372	0.00376	0.00383	0.00340 to 0.00460	93.0	70.0 to 130	1.07	20.0
BD15022	Molybdenum, Dissolved	mg/L	0.00193	0.0100	0.2	0.198	0.198	0.199	0.170 to 0.230	99.0	70.0 to 130	0.00	20.0
BD15022	Molybdenum, Total	mg/L	0.000	0.0100	0.2	0.198	0.196	0.197	0.170 to 0.230	99.0	70.0 to 130	1.02	20.0
BD15022	Potassium, Dissolved	mg/L	-0.00978	0.367	10.0	11.1	10.9	10.1	8.50 to 11.5	101	70.0 to 130	1.82	20.0
BD15022	Potassium, Total	mg/L	-0.0265	0.367	10.0	11.3	11.4	10.5	8.50 to 11.5	103	70.0 to 130	0.881	20.0
BD15022	Selenium, Dissolved	mg/L	-0.0000836	0.00100	0.100	0.101	0.102	0.0990	0.0850 to 0.115	101	70.0 to 130	0.985	20.0
BD15022	Selenium, Total	mg/L	-0.000110	0.00100	0.100	0.103	0.101	0.0994	0.0850 to 0.115	103	70.0 to 130	1.96	20.0
BD15022	Silicon, Dissolved	mg/L	0.000422	0.0440	1.00	16.4	16.5	1.03	0.850 to 1.15	100	70.0 to 130	0.608	20.0
BD15022	Silicon, Total	mg/L	-0.00110	0.0440	1.00	16.3	16.4	1.00	0.850 to 1.15	100	70.0 to 130	0.612	20.0
BD15022	Sodium, Dissolved	mg/L	0.00934	0.0880	5.00	24.4	23.7	5.30	4.25 to 5.75	112	70.0 to 130	2.91	20.0
BD15022	Sodium, Total	mg/L	0.00689	0.0880	5.00	23.9	24.2	5.44	4.25 to 5.75	100	70.0 to 130	1.25	20.0
BD15130	Sulfate	mg/L	0.258	2.0	20.0	21.8	20.3	20.2	18.0 to 22.0	109	80.0 to 120	7.13	20.0
BD15022	Thallium, Dissolved	mg/L	-0.0000018	0.000147	0.100	0.103	0.101	0.105	0.0850 to 0.115	103	70.0 to 130	1.96	20.0
BD15022	Thallium, Total	mg/L	0.0000283	0.000147	0.100	0.106	0.109	0.111	0.0850 to 0.115	106	70.0 to 130	2.79	20.0
BD15022	Total Organic Carbon	mg/L	0.164	1.00	10.0	15.6	16.2	26.8		105	80.0 to 120	3.77	20.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWBARAP

Sample Date: 8/8/23 14:08

Customer ID:

Delivery Date: 8/10/23 09:48

Description: Barry Ash Pond - MW-23V

Laboratory ID Number: BD15021

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BD15006	Alkalinity	mg CaCO3/L					153	51.2	45.0 to 55.0			0.00	10.0
BD15022	Nitrogen, Nitrate/Nitrite	mg/L as N	-0.06	0.200	2.00	2.15	-0.046	2.01	1.80 to 2.20	108	90.0 to 110	0.00	15.0
BD15135	Solids, Dissolved	mg/L	0.0000	25.0			335	51.0	40.0 to 60.0			0.298	10.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Barry Ash Pond - MW-23H

Location Code: WMWBARAP
Collected: 8/8/23 15:10
Customer ID:
Submittal Date: 8/10/23 09:48

Laboratory ID Number: BD15022

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q	
Analytical Method: EPA 200.7		Analyst: ABB			Preparation Method: EPA 1638					
* Boron, Total	8/11/23 11:28	8/15/23 15:05		1.015	0.0427	mg/L	0.030000	0.1015	J	
* Calcium, Total	8/11/23 11:28	8/16/23 14:23		1.015	21.6	mg/L	0.070035	0.406		
* Iron, Total	8/11/23 11:28	8/16/23 16:00		101.5	51.1	mg/L	0.8120	4.06	RA	
* Lithium, Total	8/11/23 11:28	8/15/23 15:05		1.015	Not Detected	mg/L	0.007105	0.01999956	U	
* Magnesium, Total	8/11/23 11:28	8/15/23 15:05		1.015	6.51	mg/L	0.021315	0.406		
* Molybdenum, Total	8/11/23 11:28	8/15/23 15:05		1.015	Not Detected	mg/L	0.005075	0.01015	U	
* Silica, Total (calc.)	8/11/23 11:28	8/15/23 15:05		1	32.7	mg/L				
* Silicon, Total	8/11/23 11:28	8/15/23 15:05		1.015	15.3	mg/L	0.02030	0.25375		
* Sodium, Total	8/11/23 11:28	8/15/23 15:05		1.015	18.9	mg/L	0.04060	0.406		
Analytical Method: EPA 200.7		Analyst: ABB			Preparation Method: EPA 1638					
* Boron, Dissolved	8/11/23 09:10	8/11/23 14:17		1.015	0.0473	mg/L	0.030000	0.1015	J	
* Calcium, Dissolved	8/11/23 09:10	8/11/23 14:17		1.015	21.3	mg/L	0.070035	0.406		
* Iron, Dissolved	8/11/23 09:10	8/15/23 12:05		101.5	48.9	mg/L	0.8120	4.06	RA	
* Lithium, Dissolved	8/11/23 09:10	8/11/23 14:17		1.015	Not Detected	mg/L	0.007105	0.01999956	U	
* Magnesium, Dissolved	8/11/23 09:10	8/11/23 14:17		1.015	6.37	mg/L	0.021315	0.406		
* Molybdenum, Dissolved	8/11/23 09:10	8/11/23 14:17		1.015	Not Detected	mg/L	0.005075	0.01015	U	
* Silica, Dissolved (calc.)	8/11/23 09:10	8/11/23 14:17		1	33.0	mg/L				
* Silicon, Dissolved	8/11/23 09:10	8/11/23 14:17		1.015	15.4	mg/L	0.02030	0.25375		
* Sodium, Dissolved	8/11/23 09:10	8/11/23 14:17		1.015	18.8	mg/L	0.04060	0.406		
Analytical Method: EPA 200.8		Analyst: DLJ			Preparation Method: EPA 1638					
* Antimony, Total	8/11/23 11:28	8/11/23 17:05		1.015	Not Detected	mg/L	0.000710	0.001015	U	
* Arsenic, Total	8/11/23 11:28	8/11/23 17:05		1.015	0.00254	mg/L	0.000112	0.000203		
* Aluminum, Total	8/11/23 11:28	8/11/23 17:05		1.015	0.0207	mg/L	0.009135	0.05075	J	
* Barium, Total	8/11/23 11:28	8/11/23 17:05		1.015	0.165	mg/L	0.000508	0.001015		
* Beryllium, Total	8/11/23 11:28	8/11/23 17:05		1.015	Not Detected	mg/L	0.000406	0.001015	U	
* Cadmium, Total	8/11/23 11:28	8/11/23 17:05		1.015	Not Detected	mg/L	0.000068	0.000203	U	
* Chromium, Total	8/11/23 11:28	8/11/23 17:05		1.015	0.000383	mg/L	0.000203	0.001015	J	
* Cobalt, Total	8/11/23 11:28	8/11/23 17:05		1.015	0.000504	mg/L	0.000068	0.000203		
* Lead, Total	8/11/23 11:28	8/11/23 17:05		1.015	Not Detected	mg/L	0.000068	0.000203	U	
* Manganese, Total	8/11/23 11:28	8/11/23 17:05		1.015	0.876	mg/L	0.000152	0.001015		

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Barry Ash Pond - MW-23H

Location Code: WMWBARAP
Collected: 8/8/23 15:10
Customer ID:
Submittal Date: 8/10/23 09:48

Laboratory ID Number: BD15022

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
* Potassium, Total	8/11/23 11:28	8/11/23 17:05		1.015	1.03	mg/L	0.169505	0.5075	
* Selenium, Total	8/11/23 11:28	8/11/23 17:05		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Total	8/11/23 11:28	8/11/23 17:05		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 200.8		Analyst: DLJ							
* Antimony, Dissolved	8/11/23 09:10	8/11/23 13:27		1.015	Not Detected	mg/L	0.000710	0.001015	U
* Aluminum, Dissolved	8/11/23 09:10	8/11/23 13:27		1.015	Not Detected	mg/L	0.009135	0.05075	U
* Arsenic, Dissolved	8/11/23 09:10	8/11/23 13:27		1.015	0.00236	mg/L	0.000112	0.000203	
* Barium, Dissolved	8/11/23 09:10	8/11/23 13:27		1.015	0.151	mg/L	0.000508	0.001015	
* Beryllium, Dissolved	8/11/23 09:10	8/11/23 13:27		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Dissolved	8/11/23 09:10	8/11/23 13:27		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Dissolved	8/11/23 09:10	8/11/23 13:27		1.015	0.000333	mg/L	0.000203	0.001015	J
* Cobalt, Dissolved	8/11/23 09:10	8/11/23 13:27		1.015	0.000438	mg/L	0.000068	0.000203	
* Lead, Dissolved	8/11/23 09:10	8/11/23 13:27		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Dissolved	8/11/23 09:10	8/11/23 13:27		1.015	0.804	mg/L	0.000152	0.001015	
* Potassium, Dissolved	8/11/23 09:10	8/11/23 13:27		1.015	1.02	mg/L	0.169505	0.5075	
* Selenium, Dissolved	8/11/23 09:10	8/11/23 13:27		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Dissolved	8/11/23 09:10	8/11/23 13:27		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 245.1		Analyst: ELH							
* Mercury, Total by CVAA	8/15/23 15:19	8/15/23 20:04		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: EPA 353.2		Analyst: SC							
* Nitrogen, Nitrate/Nitrite	8/10/23 16:57	8/10/23 16:57		1	Not Detected	mg/L as N	0.20	0.3	U
Analytical Method: SM 2320 B		Analyst: DHC							
* Alkalinity	8/16/23 09:02	8/16/23 14:44		1	156	mg CaCO3/L		0.1	
Analytical Method: SM 2540C		Analyst: CNJ							
* Solids, Dissolved	8/15/23 11:30	8/16/23 13:35		1	221	mg/L		25	
Analytical Method: SM 4500CO2 D		Analyst: DHC							
* Bicarbonate Alkalinity, (calc.)	8/16/23 09:02	8/16/23 14:44		1	156	mg CaCO3/L		1	
* Carbonate Alkalinity, (calc.)	8/16/23 09:02	8/16/23 14:44		1	Not Detected	mg CaCO3/L		0.5	
Analytical Method: SM 4500H+ B		Analyst: DHC							
Alkalinity pH Endpoint	8/16/23 09:02	8/16/23 14:44		1	4.49	SU		2	

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Barry Ash Pond - MW-23H

Location Code: WMWBARAP
Collected: 8/8/23 15:10
Customer ID:
Submittal Date: 8/10/23 09:48

Laboratory ID Number: BD15022

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM 5310 B		Analyst: SC							
* Total Organic Carbon	8/11/23 14:41	8/11/23 14:41		1	5.10	mg/L	1.00	2	
Analytical Method: SM4500Cl E		Analyst: JCC							
* Chloride	8/16/23 12:55	8/16/23 12:55		1	7.97	mg/L	0.50	1	
Analytical Method: SM4500F G 2017		Analyst: JCC							
* Fluoride	8/17/23 11:17	8/17/23 11:17		1	Not Detected	mg/L	0.06	0.125	U
Analytical Method: SM4500SO4 E 2011		Analyst: JCC							
* Sulfate	8/11/23 12:39	8/11/23 12:39		1	14.0	mg/L	0.6	2	
Analytical Method: Field Measurements		Analyst: TJD							
Conductivity	8/8/23 15:08	8/8/23 15:08			375.94	uS/cm			FA
pH	8/8/23 15:08	8/8/23 15:08			6.13	SU			FA
Temperature	8/8/23 15:08	8/8/23 15:08			20.50	C			FA
Turbidity	8/8/23 15:08	8/8/23 15:08			2.76	NTU			FA
Sulfide	8/8/23 15:08	8/8/23 15:08			0	mg/L			FA

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWBARAP

Sample Date: 8/8/23 15:10

Customer ID:

Delivery Date: 8/10/23 09:48

Description: Barry Ash Pond - MW-23H

Laboratory ID Number: BD15022

Sample	Analysis	Units	MB		Spike	MS	MSD	Standard		Rec		Prec	Limit
			MB	Limit				Standard	Limit	Rec	Limit		
BD15022	Aluminum, Dissolved	mg/L	-0.000210	0.0198	0.100	0.104	0.101	0.0999	0.0850 to 0.115	104	70.0 to 130	2.93	20.0
BD15022	Aluminum, Total	mg/L	0.000494	0.0198	0.100	0.134	0.135	0.107	0.0850 to 0.115	113	70.0 to 130	0.743	20.0
BD15022	Antimony, Dissolved	mg/L	0.000419	0.00100	0.100	0.0969	0.0948	0.0899	0.0850 to 0.115	96.9	70.0 to 130	2.19	20.0
BD15022	Antimony, Total	mg/L	0.000335	0.00100	0.100	0.0992	0.0998	0.0915	0.0850 to 0.115	99.2	70.0 to 130	0.603	20.0
BD15022	Arsenic, Dissolved	mg/L	0.0000078	0.000200	0.100	0.101	0.0989	0.0963	0.0850 to 0.115	98.6	70.0 to 130	2.10	20.0
BD15022	Arsenic, Total	mg/L	0.0000005	0.000200	0.100	0.102	0.0997	0.0994	0.0850 to 0.115	99.5	70.0 to 130	2.28	20.0
BD15022	Barium, Dissolved	mg/L	0.0000016	0.00100	0.100	0.246	0.249	0.0971	0.0850 to 0.115	95.0	70.0 to 130	1.21	20.0
BD15022	Barium, Total	mg/L	-0.0000013	0.00100	0.100	0.266	0.269	0.102	0.0850 to 0.115	101	70.0 to 130	1.12	20.0
BD15022	Beryllium, Dissolved	mg/L	0.0000249	0.000880	0.100	0.0983	0.0908	0.0946	0.0850 to 0.115	98.3	70.0 to 130	7.93	20.0
BD15022	Beryllium, Total	mg/L	0.0000525	0.000880	0.100	0.0954	0.0971	0.0918	0.0850 to 0.115	95.4	70.0 to 130	1.77	20.0
BD15022	Boron, Dissolved	mg/L	-0.00147	0.0650	1.00	1.07	1.07	1.02	0.850 to 1.15	102	70.0 to 130	0.00	20.0
BD15022	Boron, Total	mg/L	0.000378	0.0650	1.00	1.05	1.04	0.998	0.850 to 1.15	101	70.0 to 130	0.957	20.0
BD15022	Cadmium, Dissolved	mg/L	0.0000044	0.000147	0.100	0.0994	0.0969	0.0981	0.0850 to 0.115	99.4	70.0 to 130	2.55	20.0
BD15022	Cadmium, Total	mg/L	0.0000138	0.000147	0.100	0.0966	0.0997	0.103	0.0850 to 0.115	96.6	70.0 to 130	3.16	20.0
BD15022	Calcium, Dissolved	mg/L	-0.00839	0.152	5.00	25.7	25.8	5.04	4.25 to 5.75	88.0	70.0 to 130	0.388	20.0
BD15022	Calcium, Total	mg/L	-0.0114	0.152	5.00	26.1	26.3	4.71	4.25 to 5.75	90.0	70.0 to 130	0.763	20.0
BD15130	Chloride	mg/L	0.0796	1.00	10.0	10.0	9.92	9.64	9.00 to 11.0	100	80.0 to 120	0.803	20.0
BD15022	Chromium, Dissolved	mg/L	-0.000105	0.000440	0.100	0.0974	0.0946	0.0957	0.0850 to 0.115	97.1	70.0 to 130	2.92	20.0
BD15022	Chromium, Total	mg/L	-0.000171	0.000440	0.100	0.0990	0.0991	0.0988	0.0850 to 0.115	98.6	70.0 to 130	0.101	20.0
BD15022	Cobalt, Dissolved	mg/L	-0.0000064	0.000147	0.100	0.102	0.100	0.0994	0.0850 to 0.115	102	70.0 to 130	1.98	20.0
BD15022	Cobalt, Total	mg/L	-0.0000060	0.000147	0.100	0.105	0.105	0.105	0.0850 to 0.115	104	70.0 to 130	0.00	20.0
BD15130	Fluoride	mg/L	0.0238	0.125	2.50	2.64	2.63	2.52	2.25 to 2.75	106	80.0 to 120	0.380	20.0
BD15022	Iron, Dissolved	mg/L	0.00127	0.0176	0.2	49.2	47.9	0.201	0.170 to 0.230	150	70.0 to 130	2.68	20.0
BD15022	Iron, Total	mg/L	0.000264	0.0176	0.2	50.8	59.8	0.196	0.170 to 0.230	-150	70.0 to 130	16.3	20.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWBARAP

Sample Date: 8/8/23 15:10

Customer ID:

Delivery Date: 8/10/23 09:48

Description: Barry Ash Pond - MW-23H

Laboratory ID Number: BD15022

Sample	Analysis	Units	MB		Spike	MS	MSD	Standard		Rec		Prec	Limit
			MB	Limit				Standard	Limit	Rec	Limit		
BD15022	Lead, Dissolved	mg/L	0.0000145	0.000147	0.100	0.107	0.101	0.103	0.0850 to 0.115	107	70.0 to 130	5.77	20.0
BD15022	Lead, Total	mg/L	0.0000362	0.000147	0.100	0.105	0.109	0.107	0.0850 to 0.115	105	70.0 to 130	3.74	20.0
BD15022	Lithium, Dissolved	mg/L	-0.000272	0.0154	0.200	0.215	0.210	0.210	0.170 to 0.230	108	70.0 to 130	2.35	20.0
BD15022	Lithium, Total	mg/L	-0.000611	0.0154	0.200	0.210	0.213	0.211	0.170 to 0.230	105	70.0 to 130	1.42	20.0
BD15022	Magnesium, Dissolved	mg/L	-0.000059	0.0462	5.00	11.3	11.2	5.21	4.25 to 5.75	98.6	70.0 to 130	0.889	20.0
BD15022	Magnesium, Total	mg/L	-0.000838	0.0462	5.00	11.6	11.6	5.05	4.25 to 5.75	102	70.0 to 130	0.00	20.0
BD15022	Manganese, Dissolved	mg/L	0.0000346	0.00033	0.100	0.912	0.884	0.0983	0.0850 to 0.115	108	70.0 to 130	3.12	20.0
BD15022	Manganese, Total	mg/L	0.0000106	0.00033	0.100	0.970	0.974	0.102	0.0850 to 0.115	94.0	70.0 to 130	0.412	20.0
BD15130	Mercury, Total by CVAA	mg/L	4.000E-05	0.000500	0.004	0.00372	0.00376	0.00383	0.00340 to 0.00460	93.0	70.0 to 130	1.07	20.0
BD15022	Molybdenum, Dissolved	mg/L	0.00193	0.0100	0.2	0.198	0.198	0.199	0.170 to 0.230	99.0	70.0 to 130	0.00	20.0
BD15022	Molybdenum, Total	mg/L	0.000	0.0100	0.2	0.198	0.196	0.197	0.170 to 0.230	99.0	70.0 to 130	1.02	20.0
BD15022	Potassium, Dissolved	mg/L	-0.00978	0.367	10.0	11.1	10.9	10.1	8.50 to 11.5	101	70.0 to 130	1.82	20.0
BD15022	Potassium, Total	mg/L	-0.0265	0.367	10.0	11.3	11.4	10.5	8.50 to 11.5	103	70.0 to 130	0.881	20.0
BD15022	Selenium, Dissolved	mg/L	-0.0000836	0.00100	0.100	0.101	0.102	0.0990	0.0850 to 0.115	101	70.0 to 130	0.985	20.0
BD15022	Selenium, Total	mg/L	-0.000110	0.00100	0.100	0.103	0.101	0.0994	0.0850 to 0.115	103	70.0 to 130	1.96	20.0
BD15022	Silicon, Dissolved	mg/L	0.000422	0.0440	1.00	16.4	16.5	1.03	0.850 to 1.15	100	70.0 to 130	0.608	20.0
BD15022	Silicon, Total	mg/L	-0.00110	0.0440	1.00	16.3	16.4	1.00	0.850 to 1.15	100	70.0 to 130	0.612	20.0
BD15022	Sodium, Dissolved	mg/L	0.00934	0.0880	5.00	24.4	23.7	5.30	4.25 to 5.75	112	70.0 to 130	2.91	20.0
BD15022	Sodium, Total	mg/L	0.00689	0.0880	5.00	23.9	24.2	5.44	4.25 to 5.75	100	70.0 to 130	1.25	20.0
BD15130	Sulfate	mg/L	0.258	2.0	20.0	21.8	20.3	20.2	18.0 to 22.0	109	80.0 to 120	7.13	20.0
BD15022	Thallium, Dissolved	mg/L	-0.0000018	0.000147	0.100	0.103	0.101	0.105	0.0850 to 0.115	103	70.0 to 130	1.96	20.0
BD15022	Thallium, Total	mg/L	0.0000283	0.000147	0.100	0.106	0.109	0.111	0.0850 to 0.115	106	70.0 to 130	2.79	20.0
BD15022	Total Organic Carbon	mg/L	0.164	1.00	10.0	15.6	16.2	26.8		105	80.0 to 120	3.77	20.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWBARAP

Sample Date: 8/8/23 15:10

Customer ID:

Delivery Date: 8/10/23 09:48

Description: Barry Ash Pond - MW-23H

Laboratory ID Number: BD15022

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BD15006	Alkalinity	mg CaCO3/L					153	51.2	45.0 to 55.0			0.00	10.0
BD15022	Nitrogen, Nitrate/Nitrite	mg/L as N	-0.06	0.200	2.00	2.15	-0.046	2.01	1.80 to 2.20	108	90.0 to 110	0.00	15.0
BD15135	Solids, Dissolved	mg/L	0.0000	25.0			335	51.0	40.0 to 60.0			0.298	10.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Barry Ash Pond - MW-1V

Location Code: WMWBARAP
Collected: 8/9/23 10:14
Customer ID:
Submittal Date: 8/10/23 13:23

Laboratory ID Number: BD15129

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7			Analyst: ABB		Preparation Method: EPA 1638				
* Boron, Total	8/11/23 12:23	8/15/23 12:36		1.015	0.0661	mg/L	0.030000	0.1015	J
* Calcium, Total	8/11/23 12:23	8/15/23 12:36		1.015	2.37	mg/L	0.070035	0.406	
* Iron, Total	8/11/23 12:23	8/15/23 12:36		1.015	0.489	mg/L	0.008120	0.0406	
* Lithium, Total	8/11/23 12:23	8/15/23 12:36		1.015	Not Detected	mg/L	0.007105	0.01999956	U
* Magnesium, Total	8/11/23 12:23	8/15/23 12:36		1.015	1.35	mg/L	0.021315	0.406	
* Molybdenum, Total	8/11/23 12:23	8/15/23 12:36		1.015	Not Detected	mg/L	0.005075	0.01015	U
* Silica, Total (calc.)	8/11/23 12:23	8/15/23 12:36		1	14.1	mg/L			
* Silicon, Total	8/11/23 12:23	8/15/23 12:36		1.015	6.57	mg/L	0.02030	0.25375	
* Sodium, Total	8/11/23 12:23	8/15/23 13:33		10.15	79.3	mg/L	0.4060	4.06	
Analytical Method: EPA 200.7			Analyst: ABB		Preparation Method: EPA 1638				
* Boron, Dissolved	8/11/23 10:11	8/15/23 10:38		1.015	0.0653	mg/L	0.030000	0.1015	J
* Calcium, Dissolved	8/11/23 10:11	8/15/23 10:38		1.015	2.38	mg/L	0.070035	0.406	
* Iron, Dissolved	8/11/23 10:11	8/15/23 10:38		1.015	0.459	mg/L	0.008120	0.0406	
* Lithium, Dissolved	8/11/23 10:11	8/15/23 10:38		1.015	Not Detected	mg/L	0.007105	0.01999956	U
* Magnesium, Dissolved	8/11/23 10:11	8/15/23 10:38		1.015	1.36	mg/L	0.021315	0.406	
* Molybdenum, Dissolved	8/11/23 10:11	8/15/23 10:38		1.015	Not Detected	mg/L	0.005075	0.01015	U
* Silica, Dissolved (calc.)	8/11/23 10:11	8/15/23 10:38		1	14.0	mg/L			
* Silicon, Dissolved	8/11/23 10:11	8/15/23 10:38		1.015	6.52	mg/L	0.02030	0.25375	
* Sodium, Dissolved	8/11/23 10:11	8/15/23 11:40		10.15	78.3	mg/L	0.4060	4.06	
Analytical Method: EPA 200.8			Analyst: DLJ		Preparation Method: EPA 1638				
* Antimony, Total	8/11/23 12:23	8/11/23 15:06		1.015	Not Detected	mg/L	0.000710	0.001015	U
* Arsenic, Total	8/11/23 12:23	8/15/23 18:01		1.015	0.000431	mg/L	0.000112	0.000203	
* Aluminum, Total	8/11/23 12:23	8/11/23 15:06		1.015	0.0266	mg/L	0.009135	0.05075	J
* Barium, Total	8/11/23 12:23	8/11/23 15:06		1.015	0.0464	mg/L	0.000508	0.001015	
* Beryllium, Total	8/11/23 12:23	8/11/23 15:06		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Total	8/11/23 12:23	8/15/23 18:01		1.015	0.0000707	mg/L	0.000068	0.000203	J
* Chromium, Total	8/11/23 12:23	8/11/23 15:06		1.015	0.000413	mg/L	0.000203	0.001015	J
* Cobalt, Total	8/11/23 12:23	8/11/23 15:06		1.015	0.00549	mg/L	0.000068	0.000203	
* Lead, Total	8/11/23 12:23	8/11/23 15:06		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Total	8/11/23 12:23	8/11/23 15:06		1.015	0.0730	mg/L	0.000152	0.001015	

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Barry Ash Pond - MW-1V

Location Code: WMWBARAP
Collected: 8/9/23 10:14
Customer ID:
Submittal Date: 8/10/23 13:23

Laboratory ID Number: BD15129

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
* Potassium, Total	8/11/23 12:23	8/11/23 15:06		1.015	1.95	mg/L	0.169505	0.5075	
* Selenium, Total	8/11/23 12:23	8/11/23 15:06		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Total	8/11/23 12:23	8/11/23 15:06		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 200.8		Analyst: DLJ							
* Antimony, Dissolved	8/11/23 10:11	8/11/23 12:07		1.015	Not Detected	mg/L	0.000710	0.001015	U
* Aluminum, Dissolved	8/11/23 10:11	8/11/23 12:07		1.015	0.00938	mg/L	0.009135	0.05075	J
* Arsenic, Dissolved	8/11/23 10:11	8/11/23 12:07		1.015	0.000512	mg/L	0.000112	0.000203	
* Barium, Dissolved	8/11/23 10:11	8/11/23 12:07		1.015	0.0487	mg/L	0.000508	0.001015	
* Beryllium, Dissolved	8/11/23 10:11	8/11/23 12:07		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Dissolved	8/11/23 10:11	8/11/23 12:07		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Dissolved	8/11/23 10:11	8/11/23 12:07		1.015	0.000378	mg/L	0.000203	0.001015	J
* Cobalt, Dissolved	8/11/23 10:11	8/11/23 12:07		1.015	0.00572	mg/L	0.000068	0.000203	
* Lead, Dissolved	8/11/23 10:11	8/11/23 12:07		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Dissolved	8/11/23 10:11	8/11/23 12:07		1.015	0.0743	mg/L	0.000152	0.001015	
* Potassium, Dissolved	8/11/23 10:11	8/11/23 12:07		1.015	1.87	mg/L	0.169505	0.5075	
* Selenium, Dissolved	8/11/23 10:11	8/11/23 12:07		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Dissolved	8/11/23 10:11	8/11/23 12:07		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 245.1		Analyst: ELH							
* Mercury, Total by CVAA	8/15/23 15:19	8/15/23 20:08		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: EPA 353.2		Analyst: SC							
* Nitrogen, Nitrate/Nitrite	8/11/23 10:09	8/11/23 10:09		1	Not Detected	mg/L as N	0.20	0.3	U
Analytical Method: SM 2320 B		Analyst: DHC							
* Alkalinity	8/21/23 11:38	8/21/23 12:51		1	36.8	mg CaCO3/L		0.1	
Analytical Method: SM 2540C		Analyst: CNJ							
* Solids, Dissolved	8/15/23 11:30	8/16/23 13:35		1	229	mg/L		25	
Analytical Method: SM 4500CO2 D		Analyst: DHC							
* Bicarbonate Alkalinity, (calc.)	8/21/23 11:38	8/21/23 12:51		1	36.8	mg CaCO3/L		1	
* Carbonate Alkalinity, (calc.)	8/21/23 11:38	8/21/23 12:51		1	Not Detected	mg CaCO3/L		0.5	
Analytical Method: SM 4500H+ B		Analyst: DHC							
Alkalinity pH Endpoint	8/21/23 11:38	8/21/23 12:51		1	4.46	SU		2	

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Barry Ash Pond - MW-1V

Location Code: WMWBARAP
Collected: 8/9/23 10:14
Customer ID:
Submittal Date: 8/10/23 13:23

Laboratory ID Number: BD15129

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM 5310 B		Analyst: SC							
* Total Organic Carbon	8/14/23 23:31	8/14/23 23:31		1	Not Detected	mg/L	1.00	2	U
Analytical Method: SM4500Cl E		Analyst: JCC							
* Chloride	8/16/23 13:25	8/16/23 13:25		40	80.0	mg/L	20.00	40	
Analytical Method: SM4500F G 2017		Analyst: JCC							
* Fluoride	8/17/23 11:18	8/17/23 11:18		1	Not Detected	mg/L	0.06	0.125	U
Analytical Method: SM4500SO4 E 2011		Analyst: JCC							
* Sulfate	8/11/23 12:40	8/11/23 12:40		1	20.3	mg/L	0.6	2	
Analytical Method: Field Measurements		Analyst: DKG							
Conductivity	8/9/23 10:11	8/9/23 10:11			395.19	uS/cm			FA
pH	8/9/23 10:11	8/9/23 10:11			5.85	SU			FA
Temperature	8/9/23 10:11	8/9/23 10:11			23.38	C			FA
Turbidity	8/9/23 10:11	8/9/23 10:11			4.2	NTU			FA
Sulfide	8/9/23 10:11	8/9/23 10:11			0	mg/L			FA

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWBARAP

Sample Date: 8/9/23 10:14

Customer ID:

Delivery Date: 8/10/23 13:23

Description: Barry Ash Pond - MW-1V

Laboratory ID Number: BD15129

Sample	Analysis	Units	MB		Spike	MS	MSD	Standard		Rec		Prec	Limit
			MB	Limit				Standard	Limit	Rec	Limit		
BD15137	Aluminum, Dissolved	mg/L	-0.000177	0.0198	0.100	0.113	0.114	0.0996	0.0850 to 0.115	97.8	70.0 to 130	0.881	20.0
BD15138	Aluminum, Total	mg/L	0.000797	0.0198	0.100	0.102	0.104	0.101	0.0850 to 0.115	102	70.0 to 130	1.94	20.0
BD15137	Antimony, Dissolved	mg/L	0.000284	0.00100	0.100	0.0895	0.0906	0.0894	0.0850 to 0.115	89.5	70.0 to 130	1.22	20.0
BD15138	Antimony, Total	mg/L	0.000290	0.00100	0.100	0.0949	0.0963	0.0960	0.0850 to 0.115	94.9	70.0 to 130	1.46	20.0
BD15137	Arsenic, Dissolved	mg/L	0.0000336	0.000200	0.100	0.113	0.114	0.100	0.0850 to 0.115	98.5	70.0 to 130	0.881	20.0
BD15138	Arsenic, Total	mg/L	-0.0000112	0.000200	0.100	0.0976	0.0980	0.0983	0.0850 to 0.115	97.6	70.0 to 130	0.409	20.0
BD15137	Barium, Dissolved	mg/L	0.0000170	0.00100	0.100	0.160	0.158	0.0964	0.0850 to 0.115	103	70.0 to 130	1.26	20.0
BD15138	Barium, Total	mg/L	-0.0000090	0.00100	0.100	0.0991	0.100	0.0976	0.0850 to 0.115	99.1	70.0 to 130	0.904	20.0
BD15137	Beryllium, Dissolved	mg/L	0.0000259	0.000880	0.100	0.0923	0.0920	0.0914	0.0850 to 0.115	92.3	70.0 to 130	0.326	20.0
BD15138	Beryllium, Total	mg/L	0.0000299	0.000880	0.100	0.0968	0.0953	0.0955	0.0850 to 0.115	96.8	70.0 to 130	1.56	20.0
BD15137	Boron, Dissolved	mg/L	0.00225	0.0650	1.00	1.10	1.08	1.01	0.850 to 1.15	105	70.0 to 130	1.83	20.0
BD15138	Boron, Total	mg/L	0.00168	0.0650	1.00	1.01	1.02	1.00	0.850 to 1.15	101	70.0 to 130	0.985	20.0
BD15137	Cadmium, Dissolved	mg/L	-0.0000136	0.000147	0.100	0.0979	0.0997	0.0992	0.0850 to 0.115	97.9	70.0 to 130	1.82	20.0
BD15138	Cadmium, Total	mg/L	-0.0000112	0.000147	0.100	0.0963	0.0995	0.0982	0.0850 to 0.115	96.3	70.0 to 130	3.27	20.0
BD15137	Calcium, Dissolved	mg/L	-0.00180	0.152	5.00	22.3	22.7	5.07	4.25 to 5.75	94.0	70.0 to 130	1.78	20.0
BD15138	Calcium, Total	mg/L	-0.00266	0.152	5.00	5.23	5.23	5.31	4.25 to 5.75	105	70.0 to 130	0.00	20.0
BD15130	Chloride	mg/L	0.0796	1.00	10.0	10.0	9.92	9.64	9.00 to 11.0	100	80.0 to 120	0.803	20.0
BD15137	Chromium, Dissolved	mg/L	-0.0000676	0.000440	0.100	0.104	0.106	0.0989	0.0850 to 0.115	96.8	70.0 to 130	1.90	20.0
BD15138	Chromium, Total	mg/L	-0.0000646	0.000440	0.100	0.102	0.103	0.100	0.0850 to 0.115	102	70.0 to 130	0.976	20.0
BD15137	Cobalt, Dissolved	mg/L	-0.0000050	0.000147	0.100	0.101	0.103	0.101	0.0850 to 0.115	99.8	70.0 to 130	1.96	20.0
BD15138	Cobalt, Total	mg/L	-0.0000050	0.000147	0.100	0.104	0.105	0.103	0.0850 to 0.115	104	70.0 to 130	0.957	20.0
BD15130	Fluoride	mg/L	0.0238	0.125	2.50	2.64	2.63	2.52	2.25 to 2.75	106	80.0 to 120	0.380	20.0
BD15137	Iron, Dissolved	mg/L	0.000187	0.0176	0.2	33.3	32.8	0.201	0.170 to 0.230	250	70.0 to 130	1.51	20.0
BD15138	Iron, Total	mg/L	-1.490E-05	0.0176	0.2	0.207	0.208	0.207	0.170 to 0.230	104	70.0 to 130	0.482	20.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWBARAP

Sample Date: 8/9/23 10:14

Customer ID:

Delivery Date: 8/10/23 13:23

Description: Barry Ash Pond - MW-1V

Laboratory ID Number: BD15129

Sample	Analysis	Units	MB		Spike	MS	MSD	Standard		Rec		Prec	Limit
			MB	Limit				Standard	Limit	Rec	Limit		
BD15137	Lead, Dissolved	mg/L	0.000053	0.000147	0.100	0.0931	0.0933	0.0944	0.0850 to 0.115	93.1	70.0 to 130	0.215	20.0
BD15138	Lead, Total	mg/L	0.000042	0.000147	0.100	0.0960	0.0952	0.0938	0.0850 to 0.115	96.0	70.0 to 130	0.837	20.0
BD15137	Lithium, Dissolved	mg/L	1.970E-05	0.0154	0.200	0.210	0.212	0.192	0.170 to 0.230	105	70.0 to 130	0.948	20.0
BD15138	Lithium, Total	mg/L	-1.850E-05	0.0154	0.200	0.192	0.192	0.191	0.170 to 0.230	96.0	70.0 to 130	0.00	20.0
BD15137	Magnesium, Dissolved	mg/L	-0.00343	0.0462	5.00	11.0	11.4	5.06	4.25 to 5.75	89.4	70.0 to 130	3.57	20.0
BD15138	Magnesium, Total	mg/L	-0.00212	0.0462	5.00	5.08	5.07	5.06	4.25 to 5.75	102	70.0 to 130	0.197	20.0
BD15137	Manganese, Dissolved	mg/L	-0.0000005	0.00033	0.100	0.535	0.543	0.101	0.0850 to 0.115	87.0	70.0 to 130	1.48	20.0
BD15138	Manganese, Total	mg/L	0.0000372	0.00033	0.100	0.102	0.102	0.101	0.0850 to 0.115	102	70.0 to 130	0.00	20.0
BD15130	Mercury, Total by CVAA	mg/L	4.000E-05	0.000500	0.004	0.00372	0.00376	0.00383	0.00340 to 0.00460	93.0	70.0 to 130	1.07	20.0
BD15137	Molybdenum, Dissolved	mg/L	0.000188	0.0100	0.2	0.205	0.206	0.199	0.170 to 0.230	102	70.0 to 130	0.487	20.0
BD15138	Molybdenum, Total	mg/L	0.001	0.0100	0.2	0.207	0.207	0.205	0.170 to 0.230	104	70.0 to 130	0.00	20.0
BD15137	Potassium, Dissolved	mg/L	0.00301	0.367	10.0	12.1	12.2	10.1	8.50 to 11.5	99.8	70.0 to 130	0.823	20.0
BD15138	Potassium, Total	mg/L	-0.000658	0.367	10.0	10.0	9.94	10.0	8.50 to 11.5	100	70.0 to 130	0.602	20.0
BD15137	Selenium, Dissolved	mg/L	0.0000907	0.00100	0.100	0.106	0.106	0.100	0.0850 to 0.115	106	70.0 to 130	0.00	20.0
BD15138	Selenium, Total	mg/L	0.0000520	0.00100	0.100	0.105	0.106	0.105	0.0850 to 0.115	105	70.0 to 130	0.948	20.0
BD15137	Silicon, Dissolved	mg/L	-0.00284	0.0440	1.00	8.66	8.67	1.02	0.850 to 1.15	105	70.0 to 130	0.115	20.0
BD15138	Silicon, Total	mg/L	-0.00214	0.0440	1.00	1.04	1.04	1.05	0.850 to 1.15	104	70.0 to 130	0.00	20.0
BD15137	Sodium, Dissolved	mg/L	9.930E-05	0.0880	5.00	57.8	57.0	4.81	4.25 to 5.75	104	70.0 to 130	1.39	20.0
BD15138	Sodium, Total	mg/L	0.000215	0.0880	5.00	4.81	4.82	4.84	4.25 to 5.75	96.2	70.0 to 130	0.208	20.0
BD15130	Sulfate	mg/L	0.258	2.0	20.0	21.8	20.3	20.2	18.0 to 22.0	109	80.0 to 120	7.13	20.0
BD15137	Thallium, Dissolved	mg/L	0.0000012	0.000147	0.100	0.0947	0.0938	0.0959	0.0850 to 0.115	94.7	70.0 to 130	0.955	20.0
BD15138	Thallium, Total	mg/L	0.0000074	0.000147	0.100	0.0983	0.0961	0.0955	0.0850 to 0.115	98.3	70.0 to 130	2.26	20.0
BD15138	Total Organic Carbon	mg/L	0.164	1.00	10.0	8.72	8.57	22.4		87.2	80.0 to 120	1.74	20.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWBARAP
Sample Date: 8/9/23 10:14
Customer ID:
Delivery Date: 8/10/23 13:23

Description: Barry Ash Pond - MW-1V

Laboratory ID Number: BD15129

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard Standard	Standard Limit	Rec Rec	Rec Limit	Prec Prec	Prec Limit
BD15137	Alkalinity	mg CaCO3/L					145	51.7	45.0 to 55.0			1.39	10.0
BD15138	Nitrogen, Nitrate/Nitrite	mg/L as N	0.03	0.200	2.00	1.94	0.016	2.00	1.80 to 2.20	97.0	90.0 to 110	0.00	15.0
BD15135	Solids, Dissolved	mg/L	0.0000	25.0			335	51.0	40.0 to 60.0			0.298	10.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Barry Ash Pond Field Blank-4

Location Code: WMWBARAPFB
Collected: 8/9/23 10:35
Customer ID:
Submittal Date: 8/10/23 13:23

Laboratory ID Number: BD15130

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q	
Analytical Method: EPA 200.7		Analyst: ABB			Preparation Method: EPA 1638					
* Boron, Total	8/11/23 12:23	8/15/23 12:39		1.015	Not Detected	mg/L	0.030000	0.1015	U	
* Calcium, Total	8/11/23 12:23	8/15/23 12:39		1.015	Not Detected	mg/L	0.070035	0.406	U	
* Iron, Total	8/11/23 12:23	8/15/23 12:39		1.015	Not Detected	mg/L	0.008120	0.0406	U	
* Lithium, Total	8/11/23 12:23	8/15/23 12:39		1.015	Not Detected	mg/L	0.007105	0.01999956	U	
* Magnesium, Total	8/11/23 12:23	8/15/23 12:39		1.015	Not Detected	mg/L	0.021315	0.406	U	
* Molybdenum, Total	8/11/23 12:23	8/15/23 12:39		1.015	Not Detected	mg/L	0.005075	0.01015	U	
* Silica, Total (calc.)	8/11/23 12:23	8/15/23 12:39		1	Not Detected	mg/L				
* Silicon, Total	8/11/23 12:23	8/15/23 12:39		1.015	Not Detected	mg/L	0.02030	0.25375	U	
* Sodium, Total	8/11/23 12:23	8/15/23 12:39		1.015	Not Detected	mg/L	0.04060	0.406	U	
Analytical Method: EPA 200.8		Analyst: DLJ			Preparation Method: EPA 1638					
* Antimony, Total	8/11/23 12:23	8/11/23 15:09		1.015	Not Detected	mg/L	0.000710	0.001015	U	
* Aluminum, Total	8/11/23 12:23	8/11/23 15:09		1.015	Not Detected	mg/L	0.009135	0.05075	U	
* Arsenic, Total	8/11/23 12:23	8/15/23 18:05		1.015	Not Detected	mg/L	0.000112	0.000203	U	
* Barium, Total	8/11/23 12:23	8/11/23 15:09		1.015	Not Detected	mg/L	0.000508	0.001015	U	
* Beryllium, Total	8/11/23 12:23	8/11/23 15:09		1.015	Not Detected	mg/L	0.000406	0.001015	U	
* Cadmium, Total	8/11/23 12:23	8/15/23 18:05		1.015	Not Detected	mg/L	0.000068	0.000203	U	
* Chromium, Total	8/11/23 12:23	8/11/23 15:09		1.015	0.000336	mg/L	0.000203	0.001015	J	
* Cobalt, Total	8/11/23 12:23	8/11/23 15:09		1.015	Not Detected	mg/L	0.000068	0.000203	U	
* Lead, Total	8/11/23 12:23	8/11/23 15:09		1.015	Not Detected	mg/L	0.000068	0.000203	U	
* Manganese, Total	8/11/23 12:23	8/11/23 15:09		1.015	Not Detected	mg/L	0.000152	0.001015	U	
* Potassium, Total	8/11/23 12:23	8/11/23 15:09		1.015	Not Detected	mg/L	0.169505	0.5075	U	
* Selenium, Total	8/11/23 12:23	8/11/23 15:09		1.015	Not Detected	mg/L	0.000508	0.001015	U	
* Thallium, Total	8/11/23 12:23	8/11/23 15:09		1.015	Not Detected	mg/L	0.000068	0.000203	U	
Analytical Method: EPA 245.1		Analyst: ELH								
* Mercury, Total by CVAA	8/15/23 15:19	8/15/23 20:12		1	Not Detected	mg/L	0.0003	0.0005	U	
Analytical Method: EPA 353.2		Analyst: SC								
* Nitrogen, Nitrate/Nitrite	8/11/23 10:11	8/11/23 10:11		1	Not Detected	mg/L as N	0.20	0.3	U	
Analytical Method: SM 2540C		Analyst: CNJ								
* Solids, Dissolved	8/15/23 11:30	8/16/23 13:35		1	Not Detected	mg/L		25	U	

MDL's and RL's are adjusted for sample dilution, as applicable

Comments:

Certificate Of Analysis

Description: Barry Ash Pond Field Blank-4

Location Code: WMWBARAPFB

Collected: 8/9/23 10:35

Customer ID:

Submittal Date: 8/10/23 13:23

Laboratory ID Number: BD15130

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM 5310 B		Analyst: SC							
* Total Organic Carbon	8/14/23 23:43	8/14/23 23:43		1	Not Detected	mg/L	1.00	2	U
Analytical Method: SM4500Cl E		Analyst: JCC							
* Chloride	8/16/23 12:58	8/16/23 12:58		1	Not Detected	mg/L	0.50	1	U
Analytical Method: SM4500F G 2017		Analyst: JCC							
* Fluoride	8/17/23 11:20	8/17/23 11:20		1	Not Detected	mg/L	0.06	0.125	U
Analytical Method: SM4500SO4 E 2011		Analyst: JCC							
* Sulfate	8/11/23 12:41	8/11/23 12:41		1	Not Detected	mg/L	0.6	2	U

MDL's and RL's are adjusted for sample dilution, as applicable

Comments:

Batch QC Summary

Customer Account: WMWBARAPFB

Sample Date: 8/9/23 10:35

Customer ID:

Delivery Date: 8/10/23 13:23

Description: Barry Ash Pond Field Blank-4

Laboratory ID Number: BD15130

Sample	Analysis	Units	MB		Spike	MS	MSD	Standard		Rec		Prec	Limit
			MB	Limit				Standard	Limit	Rec	Limit		
BD15138	Aluminum, Total	mg/L	0.000797	0.0198	0.100	0.102	0.104	0.101	0.0850 to 0.115	102	70.0 to 130	1.94	20.0
BD15138	Antimony, Total	mg/L	0.000290	0.00100	0.100	0.0949	0.0963	0.0960	0.0850 to 0.115	94.9	70.0 to 130	1.46	20.0
BD15138	Arsenic, Total	mg/L	-0.0000112	0.000200	0.100	0.0976	0.0980	0.0983	0.0850 to 0.115	97.6	70.0 to 130	0.409	20.0
BD15138	Barium, Total	mg/L	-0.0000090	0.00100	0.100	0.0991	0.100	0.0976	0.0850 to 0.115	99.1	70.0 to 130	0.904	20.0
BD15138	Beryllium, Total	mg/L	0.0000299	0.000880	0.100	0.0968	0.0953	0.0955	0.0850 to 0.115	96.8	70.0 to 130	1.56	20.0
BD15138	Boron, Total	mg/L	0.00168	0.0650	1.00	1.01	1.02	1.00	0.850 to 1.15	101	70.0 to 130	0.985	20.0
BD15138	Cadmium, Total	mg/L	-0.0000112	0.000147	0.100	0.0963	0.0995	0.0982	0.0850 to 0.115	96.3	70.0 to 130	3.27	20.0
BD15138	Calcium, Total	mg/L	-0.00266	0.152	5.00	5.23	5.23	5.31	4.25 to 5.75	105	70.0 to 130	0.00	20.0
BD15130	Chloride	mg/L	0.0796	1.00	10.0	10.0	9.92	9.64	9.00 to 11.0	100	80.0 to 120	0.803	20.0
BD15138	Chromium, Total	mg/L	-0.0000646	0.000440	0.100	0.102	0.103	0.100	0.0850 to 0.115	102	70.0 to 130	0.976	20.0
BD15138	Cobalt, Total	mg/L	-0.0000050	0.000147	0.100	0.104	0.105	0.103	0.0850 to 0.115	104	70.0 to 130	0.957	20.0
BD15130	Fluoride	mg/L	0.0238	0.125	2.50	2.64	2.63	2.52	2.25 to 2.75	106	80.0 to 120	0.380	20.0
BD15138	Iron, Total	mg/L	-1.490E-05	0.0176	0.2	0.207	0.208	0.207	0.170 to 0.230	104	70.0 to 130	0.482	20.0
BD15138	Lead, Total	mg/L	0.0000042	0.000147	0.100	0.0960	0.0952	0.0938	0.0850 to 0.115	96.0	70.0 to 130	0.837	20.0
BD15138	Lithium, Total	mg/L	-1.850E-05	0.0154	0.200	0.192	0.192	0.191	0.170 to 0.230	96.0	70.0 to 130	0.00	20.0
BD15138	Magnesium, Total	mg/L	-0.00212	0.0462	5.00	5.08	5.07	5.06	4.25 to 5.75	102	70.0 to 130	0.197	20.0
BD15138	Manganese, Total	mg/L	0.0000372	0.00033	0.100	0.102	0.102	0.101	0.0850 to 0.115	102	70.0 to 130	0.00	20.0
BD15130	Mercury, Total by CVAA	mg/L	4.000E-05	0.000500	0.004	0.00372	0.00376	0.00383	0.00340 to 0.00460	93.0	70.0 to 130	1.07	20.0
BD15138	Molybdenum, Total	mg/L	0.001	0.0100	0.2	0.207	0.207	0.205	0.170 to 0.230	104	70.0 to 130	0.00	20.0
BD15138	Potassium, Total	mg/L	-0.000658	0.367	10.0	10.0	9.94	10.0	8.50 to 11.5	100	70.0 to 130	0.602	20.0
BD15138	Selenium, Total	mg/L	0.0000520	0.00100	0.100	0.105	0.106	0.105	0.0850 to 0.115	105	70.0 to 130	0.948	20.0
BD15138	Silicon, Total	mg/L	-0.00214	0.0440	1.00	1.04	1.04	1.05	0.850 to 1.15	104	70.0 to 130	0.00	20.0
BD15138	Sodium, Total	mg/L	0.000215	0.0880	5.00	4.81	4.82	4.84	4.25 to 5.75	96.2	70.0 to 130	0.208	20.0
BD15130	Sulfate	mg/L	0.258	2.0	20.0	21.8	20.3	20.2	18.0 to 22.0	109	80.0 to 120	7.13	20.0

Comments:

Batch QC Summary

Customer Account: WMWBARAPFB

Sample Date: 8/9/23 10:35

Customer ID:

Delivery Date: 8/10/23 13:23

Description: Barry Ash Pond Field Blank-4

Laboratory ID Number: BD15130

Sample	Analysis	Units	MB	MB				Standard		Rec		Prec	
				Limit	Spike	MS	MSD	Standard	Limit	Rec	Limit	Prec	Limit
BD15138	Thallium, Total	mg/L	0.0000074	0.000147	0.100	0.0983	0.0961	0.0955	0.0850 to 0.115	98.3	70.0 to 130	2.26	20.0
BD15138	Total Organic Carbon	mg/L	0.164	1.00	10.0	8.72	8.57	22.4		87.2	80.0 to 120	1.74	20.0

Comments:

Batch QC Summary

Customer Account: WMWBARAPFB

Sample Date: 8/9/23 10:35

Customer ID:

Delivery Date: 8/10/23 13:23

Description: Barry Ash Pond Field Blank-4

Laboratory ID Number: BD15130

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BD15138	Nitrogen, Nitrate/Nitrite	mg/L as N	0.03	0.200	2.00	1.94	0.016	2.00	1.80 to 2.20	97.0	90.0 to 110	0.00	15.0
BD15135	Solids, Dissolved	mg/L	0.0000	25.0			335	51.0	40.0 to 60.0			0.298	10.0

Comments:

Certificate Of Analysis

Description: Barry Ash Pond - MW-3

Location Code: WMWBARAP
Collected: 8/9/23 11:48
Customer ID:
Submittal Date: 8/10/23 13:23

Laboratory ID Number: BD15131

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7			Analyst: ABB		Preparation Method: EPA 1638				
* Boron, Total	8/11/23 12:23	8/15/23 12:43		1.015	0.106	mg/L	0.030000	0.1015	
* Calcium, Total	8/11/23 12:23	8/15/23 12:43		1.015	2.13	mg/L	0.070035	0.406	
* Iron, Total	8/11/23 12:23	8/15/23 13:37		10.15	12.0	mg/L	0.08120	0.406	
* Lithium, Total	8/11/23 12:23	8/15/23 12:43		1.015	Not Detected	mg/L	0.007105	0.01999956	U
* Magnesium, Total	8/11/23 12:23	8/15/23 12:43		1.015	0.977	mg/L	0.021315	0.406	
* Molybdenum, Total	8/11/23 12:23	8/15/23 12:43		1.015	Not Detected	mg/L	0.005075	0.01015	U
* Silica, Total (calc.)	8/11/23 12:23	8/15/23 12:43		1	17.2	mg/L			
* Silicon, Total	8/11/23 12:23	8/15/23 12:43		1.015	8.04	mg/L	0.02030	0.25375	
* Sodium, Total	8/11/23 12:23	8/15/23 12:43		1.015	6.13	mg/L	0.04060	0.406	
Analytical Method: EPA 200.7			Analyst: ABB						
* Boron, Dissolved	8/11/23 10:11	8/15/23 10:41		1.015	0.101	mg/L	0.030000	0.1015	J
* Calcium, Dissolved	8/11/23 10:11	8/15/23 10:41		1.015	2.01	mg/L	0.070035	0.406	
* Iron, Dissolved	8/11/23 10:11	8/15/23 11:44		10.15	10.9	mg/L	0.08120	0.406	
* Lithium, Dissolved	8/11/23 10:11	8/15/23 10:41		1.015	Not Detected	mg/L	0.007105	0.01999956	U
* Magnesium, Dissolved	8/11/23 10:11	8/15/23 10:41		1.015	0.954	mg/L	0.021315	0.406	
* Molybdenum, Dissolved	8/11/23 10:11	8/15/23 10:41		1.015	Not Detected	mg/L	0.005075	0.01015	U
* Silica, Dissolved (calc.)	8/11/23 10:11	8/15/23 10:41		1	16.9	mg/L			
* Silicon, Dissolved	8/11/23 10:11	8/15/23 10:41		1.015	7.88	mg/L	0.02030	0.25375	
* Sodium, Dissolved	8/11/23 10:11	8/15/23 10:41		1.015	6.04	mg/L	0.04060	0.406	
Analytical Method: EPA 200.8			Analyst: DLJ		Preparation Method: EPA 1638				
* Antimony, Total	8/11/23 12:23	8/11/23 15:13		1.015	Not Detected	mg/L	0.000710	0.001015	U
* Aluminum, Total	8/11/23 12:23	8/11/23 15:13		1.015	0.0133	mg/L	0.009135	0.05075	J
* Arsenic, Total	8/11/23 12:23	8/15/23 18:09		1.015	0.00125	mg/L	0.000112	0.000203	
* Barium, Total	8/11/23 12:23	8/11/23 15:13		1.015	0.0351	mg/L	0.000508	0.001015	
* Beryllium, Total	8/11/23 12:23	8/11/23 15:13		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Total	8/11/23 12:23	8/15/23 18:09		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Total	8/11/23 12:23	8/11/23 15:13		1.015	0.000549	mg/L	0.000203	0.001015	J
* Cobalt, Total	8/11/23 12:23	8/11/23 15:13		1.015	0.000108	mg/L	0.000068	0.000203	J
* Lead, Total	8/11/23 12:23	8/11/23 15:13		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Total	8/11/23 12:23	8/11/23 15:13		1.015	0.0615	mg/L	0.000152	0.001015	

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Barry Ash Pond - MW-3

Location Code: WMWBARAP
Collected: 8/9/23 11:48
Customer ID:
Submittal Date: 8/10/23 13:23

Laboratory ID Number: BD15131

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
* Potassium, Total	8/11/23 12:23	8/11/23 15:13		1.015	0.967	mg/L	0.169505	0.5075	
* Selenium, Total	8/11/23 12:23	8/11/23 15:13		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Total	8/11/23 12:23	8/11/23 15:13		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 200.8		Analyst: DLJ							
* Antimony, Dissolved	8/11/23 10:11	8/11/23 12:11		1.015	Not Detected	mg/L	0.000710	0.001015	U
* Aluminum, Dissolved	8/11/23 10:11	8/11/23 12:11		1.015	Not Detected	mg/L	0.009135	0.05075	U
* Arsenic, Dissolved	8/11/23 10:11	8/11/23 12:11		1.015	0.000971	mg/L	0.000112	0.000203	
* Barium, Dissolved	8/11/23 10:11	8/11/23 12:11		1.015	0.0342	mg/L	0.000508	0.001015	
* Beryllium, Dissolved	8/11/23 10:11	8/11/23 12:11		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Dissolved	8/11/23 10:11	8/11/23 12:11		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Dissolved	8/11/23 10:11	8/11/23 12:11		1.015	0.000459	mg/L	0.000203	0.001015	J
* Cobalt, Dissolved	8/11/23 10:11	8/11/23 12:11		1.015	0.000120	mg/L	0.000068	0.000203	J
* Lead, Dissolved	8/11/23 10:11	8/11/23 12:11		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Dissolved	8/11/23 10:11	8/11/23 12:11		1.015	0.0592	mg/L	0.000152	0.001015	
* Potassium, Dissolved	8/11/23 10:11	8/11/23 12:11		1.015	0.965	mg/L	0.169505	0.5075	
* Selenium, Dissolved	8/11/23 10:11	8/11/23 12:11		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Dissolved	8/11/23 10:11	8/11/23 12:11		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 245.1		Analyst: ELH							
* Mercury, Total by CVAA	8/15/23 15:19	8/15/23 20:31		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: EPA 353.2		Analyst: SC							
* Nitrogen, Nitrate/Nitrite	8/11/23 10:13	8/11/23 10:13		1	Not Detected	mg/L as N	0.20	0.3	U
Analytical Method: SM 2320 B		Analyst: DHC							
* Alkalinity	8/21/23 11:38	8/21/23 12:51		1	15.7	mg CaCO3/L		0.1	
Analytical Method: SM 2540C		Analyst: CNJ							
* Solids, Dissolved	8/15/23 11:30	8/16/23 13:35		1	67.3	mg/L		25	
Analytical Method: SM 4500CO2 D		Analyst: DHC							
* Bicarbonate Alkalinity, (calc.)	8/21/23 11:38	8/21/23 12:51		1	15.7	mg CaCO3/L		1	
* Carbonate Alkalinity, (calc.)	8/21/23 11:38	8/21/23 12:51		1	Not Detected	mg CaCO3/L		0.5	
Analytical Method: SM 4500H+ B		Analyst: DHC							
Alkalinity pH Endpoint	8/21/23 11:38	8/21/23 12:51		1	4.22	SU		2	

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Barry Ash Pond - MW-3

Location Code: WMWBARAP
Collected: 8/9/23 11:48
Customer ID:
Submittal Date: 8/10/23 13:23

Laboratory ID Number: BD15131

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM 5310 B		Analyst: SC							
* Total Organic Carbon	8/14/23 23:56	8/14/23 23:56		1	1.81	mg/L	1.00	2	J
Analytical Method: SM4500Cl E		Analyst: JCC							
* Chloride	8/16/23 13:13	8/16/23 13:13		1	10.7	mg/L	0.50	1	
Analytical Method: SM4500F G 2017		Analyst: JCC							
* Fluoride	8/17/23 11:32	8/17/23 11:32		1	Not Detected	mg/L	0.06	0.125	U
Analytical Method: SM4500SO4 E 2011		Analyst: JCC							
* Sulfate	8/11/23 12:55	8/11/23 12:55		1	3.04	mg/L	0.6	2	
Analytical Method: Field Measurements		Analyst: DKG							
Conductivity	8/9/23 11:45	8/9/23 11:45			92.74	uS/cm			FA
pH	8/9/23 11:45	8/9/23 11:45			5.45	SU			FA
Temperature	8/9/23 11:45	8/9/23 11:45			23.04	C			FA
Turbidity	8/9/23 11:45	8/9/23 11:45			2.94	NTU			FA
Sulfide	8/9/23 11:45	8/9/23 11:45			0	mg/L			FA

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWBARAP

Sample Date: 8/9/23 11:48

Customer ID:

Delivery Date: 8/10/23 13:23

Description: Barry Ash Pond - MW-3

Laboratory ID Number: BD15131

Sample	Analysis	Units	MB		Spike	MS	MSD	Standard		Rec		Prec	Limit
			MB	Limit				Standard	Limit	Rec	Limit		
BD15137	Aluminum, Dissolved	mg/L	-0.000177	0.0198	0.100	0.113	0.114	0.0996	0.0850 to 0.115	97.8	70.0 to 130	0.881	20.0
BD15138	Aluminum, Total	mg/L	0.000797	0.0198	0.100	0.102	0.104	0.101	0.0850 to 0.115	102	70.0 to 130	1.94	20.0
BD15137	Antimony, Dissolved	mg/L	0.000284	0.00100	0.100	0.0895	0.0906	0.0894	0.0850 to 0.115	89.5	70.0 to 130	1.22	20.0
BD15138	Antimony, Total	mg/L	0.000290	0.00100	0.100	0.0949	0.0963	0.0960	0.0850 to 0.115	94.9	70.0 to 130	1.46	20.0
BD15137	Arsenic, Dissolved	mg/L	0.0000336	0.000200	0.100	0.113	0.114	0.100	0.0850 to 0.115	98.5	70.0 to 130	0.881	20.0
BD15138	Arsenic, Total	mg/L	-0.0000112	0.000200	0.100	0.0976	0.0980	0.0983	0.0850 to 0.115	97.6	70.0 to 130	0.409	20.0
BD15137	Barium, Dissolved	mg/L	0.0000170	0.00100	0.100	0.160	0.158	0.0964	0.0850 to 0.115	103	70.0 to 130	1.26	20.0
BD15138	Barium, Total	mg/L	-0.0000090	0.00100	0.100	0.0991	0.100	0.0976	0.0850 to 0.115	99.1	70.0 to 130	0.904	20.0
BD15137	Beryllium, Dissolved	mg/L	0.0000259	0.000880	0.100	0.0923	0.0920	0.0914	0.0850 to 0.115	92.3	70.0 to 130	0.326	20.0
BD15138	Beryllium, Total	mg/L	0.0000299	0.000880	0.100	0.0968	0.0953	0.0955	0.0850 to 0.115	96.8	70.0 to 130	1.56	20.0
BD15137	Boron, Dissolved	mg/L	0.00225	0.0650	1.00	1.10	1.08	1.01	0.850 to 1.15	105	70.0 to 130	1.83	20.0
BD15138	Boron, Total	mg/L	0.00168	0.0650	1.00	1.01	1.02	1.00	0.850 to 1.15	101	70.0 to 130	0.985	20.0
BD15137	Cadmium, Dissolved	mg/L	-0.0000136	0.000147	0.100	0.0979	0.0997	0.0992	0.0850 to 0.115	97.9	70.0 to 130	1.82	20.0
BD15138	Cadmium, Total	mg/L	-0.0000112	0.000147	0.100	0.0963	0.0995	0.0982	0.0850 to 0.115	96.3	70.0 to 130	3.27	20.0
BD15137	Calcium, Dissolved	mg/L	-0.00180	0.152	5.00	22.3	22.7	5.07	4.25 to 5.75	94.0	70.0 to 130	1.78	20.0
BD15138	Calcium, Total	mg/L	-0.00266	0.152	5.00	5.23	5.23	5.31	4.25 to 5.75	105	70.0 to 130	0.00	20.0
BD15138	Chloride	mg/L	0.0523	1.00	10.0	9.87	9.52	9.58	9.00 to 11.0	98.7	80.0 to 120	3.61	20.0
BD15137	Chromium, Dissolved	mg/L	-0.0000676	0.000440	0.100	0.104	0.106	0.0989	0.0850 to 0.115	96.8	70.0 to 130	1.90	20.0
BD15138	Chromium, Total	mg/L	-0.0000646	0.000440	0.100	0.102	0.103	0.100	0.0850 to 0.115	102	70.0 to 130	0.976	20.0
BD15137	Cobalt, Dissolved	mg/L	-0.0000050	0.000147	0.100	0.101	0.103	0.101	0.0850 to 0.115	99.8	70.0 to 130	1.96	20.0
BD15138	Cobalt, Total	mg/L	-0.0000050	0.000147	0.100	0.104	0.105	0.103	0.0850 to 0.115	104	70.0 to 130	0.957	20.0
BD15138	Fluoride	mg/L	0.0248	0.125	2.50	2.61	2.66	2.55	2.25 to 2.75	104	80.0 to 120	1.90	20.0
BD15137	Iron, Dissolved	mg/L	0.000187	0.0176	0.2	33.3	32.8	0.201	0.170 to 0.230	250	70.0 to 130	1.51	20.0
BD15138	Iron, Total	mg/L	-1.490E-05	0.0176	0.2	0.207	0.208	0.207	0.170 to 0.230	104	70.0 to 130	0.482	20.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWBARAP

Sample Date: 8/9/23 11:48

Customer ID:

Delivery Date: 8/10/23 13:23

Description: Barry Ash Pond - MW-3

Laboratory ID Number: BD15131

Sample	Analysis	Units	MB		Spike	MS	MSD	Standard		Rec		Prec	Limit
			MB	Limit				Standard	Limit	Rec	Limit		
BD15137	Lead, Dissolved	mg/L	0.000053	0.000147	0.100	0.0931	0.0933	0.0944	0.0850 to 0.115	93.1	70.0 to 130	0.215	20.0
BD15138	Lead, Total	mg/L	0.000042	0.000147	0.100	0.0960	0.0952	0.0938	0.0850 to 0.115	96.0	70.0 to 130	0.837	20.0
BD15137	Lithium, Dissolved	mg/L	1.970E-05	0.0154	0.200	0.210	0.212	0.192	0.170 to 0.230	105	70.0 to 130	0.948	20.0
BD15138	Lithium, Total	mg/L	-1.850E-05	0.0154	0.200	0.192	0.192	0.191	0.170 to 0.230	96.0	70.0 to 130	0.00	20.0
BD15137	Magnesium, Dissolved	mg/L	-0.00343	0.0462	5.00	11.0	11.4	5.06	4.25 to 5.75	89.4	70.0 to 130	3.57	20.0
BD15138	Magnesium, Total	mg/L	-0.00212	0.0462	5.00	5.08	5.07	5.06	4.25 to 5.75	102	70.0 to 130	0.197	20.0
BD15137	Manganese, Dissolved	mg/L	-0.0000005	0.00033	0.100	0.535	0.543	0.101	0.0850 to 0.115	87.0	70.0 to 130	1.48	20.0
BD15138	Manganese, Total	mg/L	0.0000372	0.00033	0.100	0.102	0.102	0.101	0.0850 to 0.115	102	70.0 to 130	0.00	20.0
BD15138	Mercury, Total by CVAA	mg/L	4.000E-05	0.000500	0.004	0.00389	0.00384	0.00383	0.00340 to 0.00460	97.2	70.0 to 130	1.29	20.0
BD15137	Molybdenum, Dissolved	mg/L	0.000188	0.0100	0.2	0.205	0.206	0.199	0.170 to 0.230	102	70.0 to 130	0.487	20.0
BD15138	Molybdenum, Total	mg/L	0.001	0.0100	0.2	0.207	0.207	0.205	0.170 to 0.230	104	70.0 to 130	0.00	20.0
BD15137	Potassium, Dissolved	mg/L	0.00301	0.367	10.0	12.1	12.2	10.1	8.50 to 11.5	99.8	70.0 to 130	0.823	20.0
BD15138	Potassium, Total	mg/L	-0.000658	0.367	10.0	10.0	9.94	10.0	8.50 to 11.5	100	70.0 to 130	0.602	20.0
BD15137	Selenium, Dissolved	mg/L	0.0000907	0.00100	0.100	0.106	0.106	0.100	0.0850 to 0.115	106	70.0 to 130	0.00	20.0
BD15138	Selenium, Total	mg/L	0.0000520	0.00100	0.100	0.105	0.106	0.105	0.0850 to 0.115	105	70.0 to 130	0.948	20.0
BD15137	Silicon, Dissolved	mg/L	-0.00284	0.0440	1.00	8.66	8.67	1.02	0.850 to 1.15	105	70.0 to 130	0.115	20.0
BD15138	Silicon, Total	mg/L	-0.00214	0.0440	1.00	1.04	1.04	1.05	0.850 to 1.15	104	70.0 to 130	0.00	20.0
BD15137	Sodium, Dissolved	mg/L	9.930E-05	0.0880	5.00	57.8	57.0	4.81	4.25 to 5.75	104	70.0 to 130	1.39	20.0
BD15138	Sodium, Total	mg/L	0.000215	0.0880	5.00	4.81	4.82	4.84	4.25 to 5.75	96.2	70.0 to 130	0.208	20.0
BD15138	Sulfate	mg/L	0.345	2.0	20.0	20.3	20.2	20.3	18.0 to 22.0	102	80.0 to 120	0.494	20.0
BD15137	Thallium, Dissolved	mg/L	0.0000012	0.000147	0.100	0.0947	0.0938	0.0959	0.0850 to 0.115	94.7	70.0 to 130	0.955	20.0
BD15138	Thallium, Total	mg/L	0.0000074	0.000147	0.100	0.0983	0.0961	0.0955	0.0850 to 0.115	98.3	70.0 to 130	2.26	20.0
BD15138	Total Organic Carbon	mg/L	0.164	1.00	10.0	8.72	8.57	22.4		87.2	80.0 to 120	1.74	20.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWBARAP

Sample Date: 8/9/23 11:48

Customer ID:

Delivery Date: 8/10/23 13:23

Description: Barry Ash Pond - MW-3

Laboratory ID Number: BD15131

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard Standard	Standard Limit	Rec Rec	Rec Limit	Prec Prec	Prec Limit
BD15137	Alkalinity	mg CaCO3/L					145	51.7	45.0 to 55.0			1.39	10.0
BD15138	Nitrogen, Nitrate/Nitrite	mg/L as N	0.03	0.200	2.00	1.94	0.016	2.00	1.80 to 2.20	97.0	90.0 to 110	0.00	15.0
BD15135	Solids, Dissolved	mg/L	0.0000	25.0			335	51.0	40.0 to 60.0			0.298	10.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Barry Ash Pond - MW-4

Location Code: WMWBARAP
Collected: 8/9/23 12:38
Customer ID:
Submittal Date: 8/10/23 13:23

Laboratory ID Number: BD15132

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7			Analyst: ABB		Preparation Method: EPA 1638				
* Boron, Total	8/11/23 12:23	8/15/23 12:46		1.015	Not Detected	mg/L	0.030000	0.1015	U
* Calcium, Total	8/11/23 12:23	8/15/23 12:46		1.015	3.23	mg/L	0.070035	0.406	
* Iron, Total	8/11/23 12:23	8/15/23 12:46		1.015	0.121	mg/L	0.008120	0.0406	
* Lithium, Total	8/11/23 12:23	8/15/23 12:46		1.015	Not Detected	mg/L	0.007105	0.01999956	U
* Magnesium, Total	8/11/23 12:23	8/15/23 12:46		1.015	2.73	mg/L	0.021315	0.406	
* Molybdenum, Total	8/11/23 12:23	8/15/23 12:46		1.015	Not Detected	mg/L	0.005075	0.01015	U
* Silica, Total (calc.)	8/11/23 12:23	8/15/23 12:46		1	15.1	mg/L			
* Silicon, Total	8/11/23 12:23	8/15/23 12:46		1.015	7.06	mg/L	0.02030	0.25375	
* Sodium, Total	8/11/23 12:23	8/15/23 12:46		1.015	12.7	mg/L	0.04060	0.406	
Analytical Method: EPA 200.7			Analyst: ABB						
* Boron, Dissolved	8/11/23 10:11	8/15/23 10:45		1.015	Not Detected	mg/L	0.030000	0.1015	U
* Calcium, Dissolved	8/11/23 10:11	8/15/23 10:45		1.015	3.17	mg/L	0.070035	0.406	
* Iron, Dissolved	8/11/23 10:11	8/15/23 10:45		1.015	Not Detected	mg/L	0.008120	0.0406	U
* Lithium, Dissolved	8/11/23 10:11	8/15/23 10:45		1.015	Not Detected	mg/L	0.007105	0.01999956	U
* Magnesium, Dissolved	8/11/23 10:11	8/15/23 10:45		1.015	2.71	mg/L	0.021315	0.406	
* Molybdenum, Dissolved	8/11/23 10:11	8/15/23 10:45		1.015	Not Detected	mg/L	0.005075	0.01015	U
* Silica, Dissolved (calc.)	8/11/23 10:11	8/15/23 10:45		1	14.8	mg/L			
* Silicon, Dissolved	8/11/23 10:11	8/15/23 10:45		1.015	6.91	mg/L	0.02030	0.25375	
* Sodium, Dissolved	8/11/23 10:11	8/15/23 10:45		1.015	12.5	mg/L	0.04060	0.406	
Analytical Method: EPA 200.8			Analyst: DLJ		Preparation Method: EPA 1638				
* Antimony, Total	8/11/23 12:23	8/11/23 15:16		1.015	Not Detected	mg/L	0.000710	0.001015	U
* Arsenic, Total	8/11/23 12:23	8/15/23 18:12		1.015	0.000226	mg/L	0.000112	0.000203	
* Aluminum, Total	8/11/23 12:23	8/11/23 15:16		1.015	0.131	mg/L	0.009135	0.05075	
* Barium, Total	8/11/23 12:23	8/11/23 15:16		1.015	0.115	mg/L	0.000508	0.001015	
* Beryllium, Total	8/11/23 12:23	8/11/23 15:16		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Total	8/11/23 12:23	8/15/23 18:12		1.015	0.000103	mg/L	0.000068	0.000203	J
* Chromium, Total	8/11/23 12:23	8/11/23 15:16		1.015	0.000854	mg/L	0.000203	0.001015	J
* Cobalt, Total	8/11/23 12:23	8/11/23 15:16		1.015	0.00259	mg/L	0.000068	0.000203	
* Lead, Total	8/11/23 12:23	8/11/23 15:16		1.015	0.000149	mg/L	0.000068	0.000203	J
* Manganese, Total	8/11/23 12:23	8/11/23 15:16		1.015	0.0192	mg/L	0.000152	0.001015	

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Barry Ash Pond - MW-4

Location Code: WMWBARAP
Collected: 8/9/23 12:38
Customer ID:
Submittal Date: 8/10/23 13:23

Laboratory ID Number: BD15132

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
* Potassium, Total	8/11/23 12:23	8/11/23 15:16		1.015	1.90	mg/L	0.169505	0.5075	
* Selenium, Total	8/11/23 12:23	8/11/23 15:16		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Total	8/11/23 12:23	8/11/23 15:16		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 200.8		Analyst: DLJ							
* Antimony, Dissolved	8/11/23 10:11	8/11/23 12:14		1.015	Not Detected	mg/L	0.000710	0.001015	U
* Aluminum, Dissolved	8/11/23 10:11	8/11/23 12:14		1.015	0.0181	mg/L	0.009135	0.05075	J
* Arsenic, Dissolved	8/11/23 10:11	8/11/23 12:14		1.015	Not Detected	mg/L	0.000112	0.000203	U
* Barium, Dissolved	8/11/23 10:11	8/11/23 12:14		1.015	0.116	mg/L	0.000508	0.001015	
* Beryllium, Dissolved	8/11/23 10:11	8/11/23 12:14		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Dissolved	8/11/23 10:11	8/11/23 12:14		1.015	0.000100	mg/L	0.000068	0.000203	J
* Chromium, Dissolved	8/11/23 10:11	8/11/23 12:14		1.015	0.000435	mg/L	0.000203	0.001015	J
* Cobalt, Dissolved	8/11/23 10:11	8/11/23 12:14		1.015	0.00271	mg/L	0.000068	0.000203	
* Lead, Dissolved	8/11/23 10:11	8/11/23 12:14		1.015	0.0000732	mg/L	0.000068	0.000203	J
* Manganese, Dissolved	8/11/23 10:11	8/11/23 12:14		1.015	0.0199	mg/L	0.000152	0.001015	
* Potassium, Dissolved	8/11/23 10:11	8/11/23 12:14		1.015	1.97	mg/L	0.169505	0.5075	
* Selenium, Dissolved	8/11/23 10:11	8/11/23 12:14		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Dissolved	8/11/23 10:11	8/11/23 12:14		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 245.1		Analyst: ELH							
* Mercury, Total by CVAA	8/15/23 15:19	8/15/23 20:35		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: EPA 353.2		Analyst: SC							
* Nitrogen, Nitrate/Nitrite	8/11/23 10:15	8/11/23 10:15		1	Not Detected	mg/L as N	0.20	0.3	U
Analytical Method: SM 2320 B		Analyst: DHC							
* Alkalinity	8/21/23 11:38	8/21/23 12:51		1	1.65	mg CaCO3/L		0.1	
Analytical Method: SM 2540C		Analyst: CNJ							
* Solids, Dissolved	8/15/23 11:30	8/16/23 13:35		1	81.3	mg/L		25	
Analytical Method: SM 4500CO2 D		Analyst: DHC							
* Bicarbonate Alkalinity, (calc.)	8/21/23 11:38	8/21/23 12:51		1	1.65	mg CaCO3/L		1	
* Carbonate Alkalinity, (calc.)	8/21/23 11:38	8/21/23 12:51		1	Not Detected	mg CaCO3/L		0.5	
Analytical Method: SM 4500H+ B		Analyst: DHC							
Alkalinity pH Endpoint	8/21/23 11:38	8/21/23 12:51		1	4.10	SU		2	

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Barry Ash Pond - MW-4

Location Code: WMWBARAP
Collected: 8/9/23 12:38
Customer ID:
Submittal Date: 8/10/23 13:23

Laboratory ID Number: BD15132

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM 5310 B		Analyst: SC							
* Total Organic Carbon	8/15/23 00:10	8/15/23 00:10		1	Not Detected	mg/L	1.00	2	U
Analytical Method: SM4500Cl E		Analyst: JCC							
* Chloride	8/16/23 13:26	8/16/23 13:26		3	30.8	mg/L	1.50	3	
Analytical Method: SM4500F G 2017		Analyst: JCC							
* Fluoride	8/17/23 11:33	8/17/23 11:33		1	Not Detected	mg/L	0.06	0.125	U
Analytical Method: SM4500SO4 E 2011		Analyst: JCC							
* Sulfate	8/11/23 12:57	8/11/23 12:57		1	2.28	mg/L	0.6	2	
Analytical Method: Field Measurements		Analyst: DKG							
Conductivity	8/9/23 12:35	8/9/23 12:35			125.05	uS/cm			FA
pH	8/9/23 12:35	8/9/23 12:35			4.55	SU			FA
Temperature	8/9/23 12:35	8/9/23 12:35			23.48	C			FA
Turbidity	8/9/23 12:35	8/9/23 12:35			5.96	NTU			FA
Sulfide	8/9/23 12:35	8/9/23 12:35			0	mg/L			FA

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWBARAP

Sample Date: 8/9/23 12:38

Customer ID:

Delivery Date: 8/10/23 13:23

Description: Barry Ash Pond - MW-4

Laboratory ID Number: BD15132

Sample	Analysis	Units	MB		Spike	MS	MSD	Standard		Rec		Prec	Limit
			MB	Limit				Standard	Limit	Rec	Limit		
BD15137	Aluminum, Dissolved	mg/L	-0.000177	0.0198	0.100	0.113	0.114	0.0996	0.0850 to 0.115	97.8	70.0 to 130	0.881	20.0
BD15138	Aluminum, Total	mg/L	0.000797	0.0198	0.100	0.102	0.104	0.101	0.0850 to 0.115	102	70.0 to 130	1.94	20.0
BD15137	Antimony, Dissolved	mg/L	0.000284	0.00100	0.100	0.0895	0.0906	0.0894	0.0850 to 0.115	89.5	70.0 to 130	1.22	20.0
BD15138	Antimony, Total	mg/L	0.000290	0.00100	0.100	0.0949	0.0963	0.0960	0.0850 to 0.115	94.9	70.0 to 130	1.46	20.0
BD15137	Arsenic, Dissolved	mg/L	0.0000336	0.000200	0.100	0.113	0.114	0.100	0.0850 to 0.115	98.5	70.0 to 130	0.881	20.0
BD15138	Arsenic, Total	mg/L	-0.0000112	0.000200	0.100	0.0976	0.0980	0.0983	0.0850 to 0.115	97.6	70.0 to 130	0.409	20.0
BD15137	Barium, Dissolved	mg/L	0.0000170	0.00100	0.100	0.160	0.158	0.0964	0.0850 to 0.115	103	70.0 to 130	1.26	20.0
BD15138	Barium, Total	mg/L	-0.0000090	0.00100	0.100	0.0991	0.100	0.0976	0.0850 to 0.115	99.1	70.0 to 130	0.904	20.0
BD15137	Beryllium, Dissolved	mg/L	0.0000259	0.000880	0.100	0.0923	0.0920	0.0914	0.0850 to 0.115	92.3	70.0 to 130	0.326	20.0
BD15138	Beryllium, Total	mg/L	0.0000299	0.000880	0.100	0.0968	0.0953	0.0955	0.0850 to 0.115	96.8	70.0 to 130	1.56	20.0
BD15137	Boron, Dissolved	mg/L	0.00225	0.0650	1.00	1.10	1.08	1.01	0.850 to 1.15	105	70.0 to 130	1.83	20.0
BD15138	Boron, Total	mg/L	0.00168	0.0650	1.00	1.01	1.02	1.00	0.850 to 1.15	101	70.0 to 130	0.985	20.0
BD15137	Cadmium, Dissolved	mg/L	-0.0000136	0.000147	0.100	0.0979	0.0997	0.0992	0.0850 to 0.115	97.9	70.0 to 130	1.82	20.0
BD15138	Cadmium, Total	mg/L	-0.0000112	0.000147	0.100	0.0963	0.0995	0.0982	0.0850 to 0.115	96.3	70.0 to 130	3.27	20.0
BD15137	Calcium, Dissolved	mg/L	-0.00180	0.152	5.00	22.3	22.7	5.07	4.25 to 5.75	94.0	70.0 to 130	1.78	20.0
BD15138	Calcium, Total	mg/L	-0.00266	0.152	5.00	5.23	5.23	5.31	4.25 to 5.75	105	70.0 to 130	0.00	20.0
BD15138	Chloride	mg/L	0.0523	1.00	10.0	9.87	9.52	9.58	9.00 to 11.0	98.7	80.0 to 120	3.61	20.0
BD15137	Chromium, Dissolved	mg/L	-0.0000676	0.000440	0.100	0.104	0.106	0.0989	0.0850 to 0.115	96.8	70.0 to 130	1.90	20.0
BD15138	Chromium, Total	mg/L	-0.0000646	0.000440	0.100	0.102	0.103	0.100	0.0850 to 0.115	102	70.0 to 130	0.976	20.0
BD15137	Cobalt, Dissolved	mg/L	-0.0000050	0.000147	0.100	0.101	0.103	0.101	0.0850 to 0.115	99.8	70.0 to 130	1.96	20.0
BD15138	Cobalt, Total	mg/L	-0.0000050	0.000147	0.100	0.104	0.105	0.103	0.0850 to 0.115	104	70.0 to 130	0.957	20.0
BD15138	Fluoride	mg/L	0.0248	0.125	2.50	2.61	2.66	2.55	2.25 to 2.75	104	80.0 to 120	1.90	20.0
BD15137	Iron, Dissolved	mg/L	0.000187	0.0176	0.2	33.3	32.8	0.201	0.170 to 0.230	250	70.0 to 130	1.51	20.0
BD15138	Iron, Total	mg/L	-1.490E-05	0.0176	0.2	0.207	0.208	0.207	0.170 to 0.230	104	70.0 to 130	0.482	20.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWBARAP

Sample Date: 8/9/23 12:38

Customer ID:

Delivery Date: 8/10/23 13:23

Description: Barry Ash Pond - MW-4

Laboratory ID Number: BD15132

Sample	Analysis	Units	MB		Spike	MS	MSD	Standard		Rec		Prec	Limit
			MB	Limit				Standard	Limit	Rec	Limit		
BD15137	Lead, Dissolved	mg/L	0.000053	0.000147	0.100	0.0931	0.0933	0.0944	0.0850 to 0.115	93.1	70.0 to 130	0.215	20.0
BD15138	Lead, Total	mg/L	0.000042	0.000147	0.100	0.0960	0.0952	0.0938	0.0850 to 0.115	96.0	70.0 to 130	0.837	20.0
BD15137	Lithium, Dissolved	mg/L	1.970E-05	0.0154	0.200	0.210	0.212	0.192	0.170 to 0.230	105	70.0 to 130	0.948	20.0
BD15138	Lithium, Total	mg/L	-1.850E-05	0.0154	0.200	0.192	0.192	0.191	0.170 to 0.230	96.0	70.0 to 130	0.00	20.0
BD15137	Magnesium, Dissolved	mg/L	-0.00343	0.0462	5.00	11.0	11.4	5.06	4.25 to 5.75	89.4	70.0 to 130	3.57	20.0
BD15138	Magnesium, Total	mg/L	-0.00212	0.0462	5.00	5.08	5.07	5.06	4.25 to 5.75	102	70.0 to 130	0.197	20.0
BD15137	Manganese, Dissolved	mg/L	-0.0000005	0.00033	0.100	0.535	0.543	0.101	0.0850 to 0.115	87.0	70.0 to 130	1.48	20.0
BD15138	Manganese, Total	mg/L	0.0000372	0.00033	0.100	0.102	0.102	0.101	0.0850 to 0.115	102	70.0 to 130	0.00	20.0
BD15138	Mercury, Total by CVAA	mg/L	4.000E-05	0.000500	0.004	0.00389	0.00384	0.00383	0.00340 to 0.00460	97.2	70.0 to 130	1.29	20.0
BD15137	Molybdenum, Dissolved	mg/L	0.000188	0.0100	0.2	0.205	0.206	0.199	0.170 to 0.230	102	70.0 to 130	0.487	20.0
BD15138	Molybdenum, Total	mg/L	0.001	0.0100	0.2	0.207	0.207	0.205	0.170 to 0.230	104	70.0 to 130	0.00	20.0
BD15137	Potassium, Dissolved	mg/L	0.00301	0.367	10.0	12.1	12.2	10.1	8.50 to 11.5	99.8	70.0 to 130	0.823	20.0
BD15138	Potassium, Total	mg/L	-0.000658	0.367	10.0	10.0	9.94	10.0	8.50 to 11.5	100	70.0 to 130	0.602	20.0
BD15137	Selenium, Dissolved	mg/L	0.0000907	0.00100	0.100	0.106	0.106	0.100	0.0850 to 0.115	106	70.0 to 130	0.00	20.0
BD15138	Selenium, Total	mg/L	0.0000520	0.00100	0.100	0.105	0.106	0.105	0.0850 to 0.115	105	70.0 to 130	0.948	20.0
BD15137	Silicon, Dissolved	mg/L	-0.00284	0.0440	1.00	8.66	8.67	1.02	0.850 to 1.15	105	70.0 to 130	0.115	20.0
BD15138	Silicon, Total	mg/L	-0.00214	0.0440	1.00	1.04	1.04	1.05	0.850 to 1.15	104	70.0 to 130	0.00	20.0
BD15137	Sodium, Dissolved	mg/L	9.930E-05	0.0880	5.00	57.8	57.0	4.81	4.25 to 5.75	104	70.0 to 130	1.39	20.0
BD15138	Sodium, Total	mg/L	0.000215	0.0880	5.00	4.81	4.82	4.84	4.25 to 5.75	96.2	70.0 to 130	0.208	20.0
BD15138	Sulfate	mg/L	0.345	2.0	20.0	20.3	20.2	20.3	18.0 to 22.0	102	80.0 to 120	0.494	20.0
BD15137	Thallium, Dissolved	mg/L	0.0000012	0.000147	0.100	0.0947	0.0938	0.0959	0.0850 to 0.115	94.7	70.0 to 130	0.955	20.0
BD15138	Thallium, Total	mg/L	0.0000074	0.000147	0.100	0.0983	0.0961	0.0955	0.0850 to 0.115	98.3	70.0 to 130	2.26	20.0
BD15138	Total Organic Carbon	mg/L	0.164	1.00	10.0	8.72	8.57	22.4		87.2	80.0 to 120	1.74	20.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWBARAP

Sample Date: 8/9/23 12:38

Customer ID:

Delivery Date: 8/10/23 13:23

Description: Barry Ash Pond - MW-4

Laboratory ID Number: BD15132

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BD15137	Alkalinity	mg CaCO3/L					145	51.7	45.0 to 55.0			1.39	10.0
BD15138	Nitrogen, Nitrate/Nitrite	mg/L as N	0.03	0.200	2.00	1.94	0.016	2.00	1.80 to 2.20	97.0	90.0 to 110	0.00	15.0
BD15135	Solids, Dissolved	mg/L	0.0000	25.0			335	51.0	40.0 to 60.0			0.298	10.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Barry Ash Pond - MW-6

Location Code: WMWBARAP
Collected: 8/9/23 13:45
Customer ID:
Submittal Date: 8/10/23 13:23

Laboratory ID Number: BD15133

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q	
Analytical Method: EPA 200.7		Analyst: ABB			Preparation Method: EPA 1638					
* Boron, Total	8/11/23 12:23	8/15/23 12:50		1.015	Not Detected	mg/L	0.030000	0.1015	U	
* Calcium, Total	8/11/23 12:23	8/15/23 12:50		1.015	2.26	mg/L	0.070035	0.406		
* Iron, Total	8/11/23 12:23	8/15/23 12:50		1.015	0.0197	mg/L	0.008120	0.0406	J	
* Lithium, Total	8/11/23 12:23	8/15/23 12:50		1.015	Not Detected	mg/L	0.007105	0.01999956	U	
* Magnesium, Total	8/11/23 12:23	8/15/23 12:50		1.015	1.38	mg/L	0.021315	0.406		
* Molybdenum, Total	8/11/23 12:23	8/15/23 12:50		1.015	Not Detected	mg/L	0.005075	0.01015	U	
* Silica, Total (calc.)	8/11/23 12:23	8/15/23 12:50		1	14.2	mg/L				
* Silicon, Total	8/11/23 12:23	8/15/23 12:50		1.015	6.64	mg/L	0.02030	0.25375		
* Sodium, Total	8/11/23 12:23	8/15/23 12:50		1.015	7.34	mg/L	0.04060	0.406		
Analytical Method: EPA 200.7		Analyst: ABB			Preparation Method: EPA 1638					
* Boron, Dissolved	8/11/23 10:11	8/15/23 10:48		1.015	Not Detected	mg/L	0.030000	0.1015	U	
* Calcium, Dissolved	8/11/23 10:11	8/15/23 10:48		1.015	2.05	mg/L	0.070035	0.406		
* Iron, Dissolved	8/11/23 10:11	8/15/23 10:48		1.015	0.0208	mg/L	0.008120	0.0406	J	
* Lithium, Dissolved	8/11/23 10:11	8/15/23 10:48		1.015	Not Detected	mg/L	0.007105	0.01999956	U	
* Magnesium, Dissolved	8/11/23 10:11	8/15/23 10:48		1.015	1.32	mg/L	0.021315	0.406		
* Molybdenum, Dissolved	8/11/23 10:11	8/15/23 10:48		1.015	Not Detected	mg/L	0.005075	0.01015	U	
* Silica, Dissolved (calc.)	8/11/23 10:11	8/15/23 10:48		1	14.0	mg/L				
* Silicon, Dissolved	8/11/23 10:11	8/15/23 10:48		1.015	6.53	mg/L	0.02030	0.25375		
* Sodium, Dissolved	8/11/23 10:11	8/15/23 10:48		1.015	7.29	mg/L	0.04060	0.406		
Analytical Method: EPA 200.8		Analyst: DLJ			Preparation Method: EPA 1638					
* Antimony, Total	8/11/23 12:23	8/11/23 15:20		1.015	Not Detected	mg/L	0.000710	0.001015	U	
* Aluminum, Total	8/11/23 12:23	8/11/23 15:20		1.015	Not Detected	mg/L	0.009135	0.05075	U	
* Arsenic, Total	8/11/23 12:23	8/15/23 18:16		1.015	Not Detected	mg/L	0.000112	0.000203	U	
* Barium, Total	8/11/23 12:23	8/11/23 15:20		1.015	0.0288	mg/L	0.000508	0.001015		
* Beryllium, Total	8/11/23 12:23	8/11/23 15:20		1.015	Not Detected	mg/L	0.000406	0.001015	U	
* Cadmium, Total	8/11/23 12:23	8/15/23 18:16		1.015	Not Detected	mg/L	0.000068	0.000203	U	
* Chromium, Total	8/11/23 12:23	8/11/23 15:20		1.015	0.000280	mg/L	0.000203	0.001015	J	
* Cobalt, Total	8/11/23 12:23	8/11/23 15:20		1.015	0.000650	mg/L	0.000068	0.000203		
* Lead, Total	8/11/23 12:23	8/11/23 15:20		1.015	0.00149	mg/L	0.000068	0.000203		
* Manganese, Total	8/11/23 12:23	8/11/23 15:20		1.015	0.00476	mg/L	0.000152	0.001015		

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Barry Ash Pond - MW-6

Location Code: WMWBARAP

Collected: 8/9/23 13:45

Customer ID:

Submittal Date: 8/10/23 13:23

Laboratory ID Number: BD15133

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
* Potassium, Total	8/11/23 12:23	8/11/23 15:20		1.015	1.14	mg/L	0.169505	0.5075	
* Selenium, Total	8/11/23 12:23	8/11/23 15:20		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Total	8/11/23 12:23	8/11/23 15:20		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 200.8		Analyst: DLJ							
* Antimony, Dissolved	8/11/23 10:11	8/11/23 12:18		1.015	Not Detected	mg/L	0.000710	0.001015	U
* Aluminum, Dissolved	8/11/23 10:11	8/11/23 12:18		1.015	Not Detected	mg/L	0.009135	0.05075	U
* Arsenic, Dissolved	8/11/23 10:11	8/11/23 12:18		1.015	Not Detected	mg/L	0.000112	0.000203	U
* Barium, Dissolved	8/11/23 10:11	8/11/23 12:18		1.015	0.0279	mg/L	0.000508	0.001015	
* Beryllium, Dissolved	8/11/23 10:11	8/11/23 12:18		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Dissolved	8/11/23 10:11	8/11/23 12:18		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Dissolved	8/11/23 10:11	8/11/23 12:18		1.015	0.000298	mg/L	0.000203	0.001015	J
* Cobalt, Dissolved	8/11/23 10:11	8/11/23 12:18		1.015	0.000600	mg/L	0.000068	0.000203	
* Lead, Dissolved	8/11/23 10:11	8/11/23 12:18		1.015	0.00144	mg/L	0.000068	0.000203	
* Manganese, Dissolved	8/11/23 10:11	8/11/23 12:18		1.015	0.00471	mg/L	0.000152	0.001015	
* Potassium, Dissolved	8/11/23 10:11	8/11/23 12:18		1.015	1.16	mg/L	0.169505	0.5075	
* Selenium, Dissolved	8/11/23 10:11	8/11/23 12:18		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Dissolved	8/11/23 10:11	8/11/23 12:18		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 245.1		Analyst: ELH							
* Mercury, Total by CVAA	8/15/23 15:19	8/15/23 20:39		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: EPA 353.2		Analyst: SC							
* Nitrogen, Nitrate/Nitrite	8/11/23 10:17	8/11/23 10:17		1	0.385	mg/L as N	0.20	0.3	
Analytical Method: SM 2320 B		Analyst: DHC							
* Alkalinity	8/21/23 11:38	8/21/23 12:51		1	14.9	mg CaCO3/L		0.1	
Analytical Method: SM 2540C		Analyst: CNJ							
* Solids, Dissolved	8/15/23 11:30	8/16/23 13:35		1	47.3	mg/L		25	
Analytical Method: SM 4500CO2 D		Analyst: DHC							
* Bicarbonate Alkalinity, (calc.)	8/21/23 11:38	8/21/23 12:51		1	14.9	mg CaCO3/L		1	
* Carbonate Alkalinity, (calc.)	8/21/23 11:38	8/21/23 12:51		1	Not Detected	mg CaCO3/L		0.5	
Analytical Method: SM 4500H+ B		Analyst: DHC							
Alkalinity pH Endpoint	8/21/23 11:38	8/21/23 12:51		1	4.25	SU		2	

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Barry Ash Pond - MW-6

Location Code: WMWBARAP
Collected: 8/9/23 13:45
Customer ID:
Submittal Date: 8/10/23 13:23

Laboratory ID Number: BD15133

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM 5310 B		Analyst: SC							
* Total Organic Carbon	8/15/23 00:23	8/15/23 00:23		1	1.24	mg/L	1.00	2	J
Analytical Method: SM4500Cl E		Analyst: JCC							
* Chloride	8/16/23 13:16	8/16/23 13:16		1	8.06	mg/L	0.50	1	
Analytical Method: SM4500F G 2017		Analyst: JCC							
* Fluoride	8/17/23 11:35	8/17/23 11:35		1	Not Detected	mg/L	0.06	0.125	U
Analytical Method: SM4500SO4 E 2011		Analyst: JCC							
* Sulfate	8/11/23 12:58	8/11/23 12:58		1	1.61	mg/L	0.6	2	J
Analytical Method: Field Measurements		Analyst: DKG							
Conductivity	8/9/23 13:41	8/9/23 13:41			62.09	uS/cm			FA
pH	8/9/23 13:41	8/9/23 13:41			5.05	SU			FA
Temperature	8/9/23 13:41	8/9/23 13:41			23.57	C			FA
Turbidity	8/9/23 13:41	8/9/23 13:41			3.76	NTU			FA
Sulfide	8/9/23 13:41	8/9/23 13:41			0	mg/L			FA

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWBARAP

Sample Date: 8/9/23 13:45

Customer ID:

Delivery Date: 8/10/23 13:23

Description: Barry Ash Pond - MW-6

Laboratory ID Number: BD15133

Sample	Analysis	Units	MB		Spike	MS	MSD	Standard		Rec		Prec	Limit
			MB	Limit				Standard	Limit	Rec	Limit		
BD15137	Aluminum, Dissolved	mg/L	-0.000177	0.0198	0.100	0.113	0.114	0.0996	0.0850 to 0.115	97.8	70.0 to 130	0.881	20.0
BD15138	Aluminum, Total	mg/L	0.000797	0.0198	0.100	0.102	0.104	0.101	0.0850 to 0.115	102	70.0 to 130	1.94	20.0
BD15137	Antimony, Dissolved	mg/L	0.000284	0.00100	0.100	0.0895	0.0906	0.0894	0.0850 to 0.115	89.5	70.0 to 130	1.22	20.0
BD15138	Antimony, Total	mg/L	0.000290	0.00100	0.100	0.0949	0.0963	0.0960	0.0850 to 0.115	94.9	70.0 to 130	1.46	20.0
BD15137	Arsenic, Dissolved	mg/L	0.0000336	0.000200	0.100	0.113	0.114	0.100	0.0850 to 0.115	98.5	70.0 to 130	0.881	20.0
BD15138	Arsenic, Total	mg/L	-0.0000112	0.000200	0.100	0.0976	0.0980	0.0983	0.0850 to 0.115	97.6	70.0 to 130	0.409	20.0
BD15137	Barium, Dissolved	mg/L	0.0000170	0.00100	0.100	0.160	0.158	0.0964	0.0850 to 0.115	103	70.0 to 130	1.26	20.0
BD15138	Barium, Total	mg/L	-0.0000090	0.00100	0.100	0.0991	0.100	0.0976	0.0850 to 0.115	99.1	70.0 to 130	0.904	20.0
BD15137	Beryllium, Dissolved	mg/L	0.0000259	0.000880	0.100	0.0923	0.0920	0.0914	0.0850 to 0.115	92.3	70.0 to 130	0.326	20.0
BD15138	Beryllium, Total	mg/L	0.0000299	0.000880	0.100	0.0968	0.0953	0.0955	0.0850 to 0.115	96.8	70.0 to 130	1.56	20.0
BD15137	Boron, Dissolved	mg/L	0.00225	0.0650	1.00	1.10	1.08	1.01	0.850 to 1.15	105	70.0 to 130	1.83	20.0
BD15138	Boron, Total	mg/L	0.00168	0.0650	1.00	1.01	1.02	1.00	0.850 to 1.15	101	70.0 to 130	0.985	20.0
BD15137	Cadmium, Dissolved	mg/L	-0.0000136	0.000147	0.100	0.0979	0.0997	0.0992	0.0850 to 0.115	97.9	70.0 to 130	1.82	20.0
BD15138	Cadmium, Total	mg/L	-0.0000112	0.000147	0.100	0.0963	0.0995	0.0982	0.0850 to 0.115	96.3	70.0 to 130	3.27	20.0
BD15137	Calcium, Dissolved	mg/L	-0.00180	0.152	5.00	22.3	22.7	5.07	4.25 to 5.75	94.0	70.0 to 130	1.78	20.0
BD15138	Calcium, Total	mg/L	-0.00266	0.152	5.00	5.23	5.23	5.31	4.25 to 5.75	105	70.0 to 130	0.00	20.0
BD15138	Chloride	mg/L	0.0523	1.00	10.0	9.87	9.52	9.58	9.00 to 11.0	98.7	80.0 to 120	3.61	20.0
BD15137	Chromium, Dissolved	mg/L	-0.0000676	0.000440	0.100	0.104	0.106	0.0989	0.0850 to 0.115	96.8	70.0 to 130	1.90	20.0
BD15138	Chromium, Total	mg/L	-0.0000646	0.000440	0.100	0.102	0.103	0.100	0.0850 to 0.115	102	70.0 to 130	0.976	20.0
BD15137	Cobalt, Dissolved	mg/L	-0.0000050	0.000147	0.100	0.101	0.103	0.101	0.0850 to 0.115	99.8	70.0 to 130	1.96	20.0
BD15138	Cobalt, Total	mg/L	-0.0000050	0.000147	0.100	0.104	0.105	0.103	0.0850 to 0.115	104	70.0 to 130	0.957	20.0
BD15138	Fluoride	mg/L	0.0248	0.125	2.50	2.61	2.66	2.55	2.25 to 2.75	104	80.0 to 120	1.90	20.0
BD15137	Iron, Dissolved	mg/L	0.000187	0.0176	0.2	33.3	32.8	0.201	0.170 to 0.230	250	70.0 to 130	1.51	20.0
BD15138	Iron, Total	mg/L	-1.490E-05	0.0176	0.2	0.207	0.208	0.207	0.170 to 0.230	104	70.0 to 130	0.482	20.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWBARAP

Sample Date: 8/9/23 13:45

Customer ID:

Delivery Date: 8/10/23 13:23

Description: Barry Ash Pond - MW-6

Laboratory ID Number: BD15133

Sample	Analysis	Units	MB		Spike	MS	MSD	Standard		Rec		Prec	Limit
			MB	Limit				Standard	Limit	Rec	Limit		
BD15137	Lead, Dissolved	mg/L	0.000053	0.000147	0.100	0.0931	0.0933	0.0944	0.0850 to 0.115	93.1	70.0 to 130	0.215	20.0
BD15138	Lead, Total	mg/L	0.000042	0.000147	0.100	0.0960	0.0952	0.0938	0.0850 to 0.115	96.0	70.0 to 130	0.837	20.0
BD15137	Lithium, Dissolved	mg/L	1.970E-05	0.0154	0.200	0.210	0.212	0.192	0.170 to 0.230	105	70.0 to 130	0.948	20.0
BD15138	Lithium, Total	mg/L	-1.850E-05	0.0154	0.200	0.192	0.192	0.191	0.170 to 0.230	96.0	70.0 to 130	0.00	20.0
BD15137	Magnesium, Dissolved	mg/L	-0.00343	0.0462	5.00	11.0	11.4	5.06	4.25 to 5.75	89.4	70.0 to 130	3.57	20.0
BD15138	Magnesium, Total	mg/L	-0.00212	0.0462	5.00	5.08	5.07	5.06	4.25 to 5.75	102	70.0 to 130	0.197	20.0
BD15137	Manganese, Dissolved	mg/L	-0.0000005	0.00033	0.100	0.535	0.543	0.101	0.0850 to 0.115	87.0	70.0 to 130	1.48	20.0
BD15138	Manganese, Total	mg/L	0.0000372	0.00033	0.100	0.102	0.102	0.101	0.0850 to 0.115	102	70.0 to 130	0.00	20.0
BD15138	Mercury, Total by CVAA	mg/L	4.000E-05	0.000500	0.004	0.00389	0.00384	0.00383	0.00340 to 0.00460	97.2	70.0 to 130	1.29	20.0
BD15137	Molybdenum, Dissolved	mg/L	0.000188	0.0100	0.2	0.205	0.206	0.199	0.170 to 0.230	102	70.0 to 130	0.487	20.0
BD15138	Molybdenum, Total	mg/L	0.001	0.0100	0.2	0.207	0.207	0.205	0.170 to 0.230	104	70.0 to 130	0.00	20.0
BD15137	Potassium, Dissolved	mg/L	0.00301	0.367	10.0	12.1	12.2	10.1	8.50 to 11.5	99.8	70.0 to 130	0.823	20.0
BD15138	Potassium, Total	mg/L	-0.000658	0.367	10.0	10.0	9.94	10.0	8.50 to 11.5	100	70.0 to 130	0.602	20.0
BD15137	Selenium, Dissolved	mg/L	0.0000907	0.00100	0.100	0.106	0.106	0.100	0.0850 to 0.115	106	70.0 to 130	0.00	20.0
BD15138	Selenium, Total	mg/L	0.0000520	0.00100	0.100	0.105	0.106	0.105	0.0850 to 0.115	105	70.0 to 130	0.948	20.0
BD15137	Silicon, Dissolved	mg/L	-0.00284	0.0440	1.00	8.66	8.67	1.02	0.850 to 1.15	105	70.0 to 130	0.115	20.0
BD15138	Silicon, Total	mg/L	-0.00214	0.0440	1.00	1.04	1.04	1.05	0.850 to 1.15	104	70.0 to 130	0.00	20.0
BD15137	Sodium, Dissolved	mg/L	9.930E-05	0.0880	5.00	57.8	57.0	4.81	4.25 to 5.75	104	70.0 to 130	1.39	20.0
BD15138	Sodium, Total	mg/L	0.000215	0.0880	5.00	4.81	4.82	4.84	4.25 to 5.75	96.2	70.0 to 130	0.208	20.0
BD15138	Sulfate	mg/L	0.345	2.0	20.0	20.3	20.2	20.3	18.0 to 22.0	102	80.0 to 120	0.494	20.0
BD15137	Thallium, Dissolved	mg/L	0.0000012	0.000147	0.100	0.0947	0.0938	0.0959	0.0850 to 0.115	94.7	70.0 to 130	0.955	20.0
BD15138	Thallium, Total	mg/L	0.0000074	0.000147	0.100	0.0983	0.0961	0.0955	0.0850 to 0.115	98.3	70.0 to 130	2.26	20.0
BD15138	Total Organic Carbon	mg/L	0.164	1.00	10.0	8.72	8.57	22.4		87.2	80.0 to 120	1.74	20.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWBARAP

Sample Date: 8/9/23 13:45

Customer ID:

Delivery Date: 8/10/23 13:23

Description: Barry Ash Pond - MW-6

Laboratory ID Number: BD15133

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard Standard	Standard Limit	Rec Rec	Rec Limit	Prec Prec	Prec Limit
BD15137	Alkalinity	mg CaCO3/L					145	51.7	45.0 to 55.0			1.39	10.0
BD15138	Nitrogen, Nitrate/Nitrite	mg/L as N	0.03	0.200	2.00	1.94	0.016	2.00	1.80 to 2.20	97.0	90.0 to 110	0.00	15.0
BD15135	Solids, Dissolved	mg/L	0.0000	25.0			335	51.0	40.0 to 60.0			0.298	10.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Barry Ash Pond - MW-14V

Location Code: WMWBARAP
Collected: 8/9/23 09:25
Customer ID:
Submittal Date: 8/10/23 13:23

Laboratory ID Number: BD15134

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7			Analyst: ABB		Preparation Method: EPA 1638				
* Boron, Total	8/11/23 12:23	8/15/23 12:53		1.015	0.399	mg/L	0.030000	0.1015	
* Calcium, Total	8/11/23 12:23	8/15/23 12:53		1.015	6.47	mg/L	0.070035	0.406	
* Iron, Total	8/11/23 12:23	8/15/23 13:40		10.15	26.4	mg/L	0.08120	0.406	
* Lithium, Total	8/11/23 12:23	8/15/23 12:53		1.015	Not Detected	mg/L	0.007105	0.01999956	U
* Magnesium, Total	8/11/23 12:23	8/15/23 12:53		1.015	3.30	mg/L	0.021315	0.406	
* Molybdenum, Total	8/11/23 12:23	8/15/23 12:53		1.015	Not Detected	mg/L	0.005075	0.01015	U
* Silica, Total (calc.)	8/11/23 12:23	8/15/23 12:53		1	15.1	mg/L			
* Silicon, Total	8/11/23 12:23	8/15/23 12:53		1.015	7.06	mg/L	0.02030	0.25375	
* Sodium, Total	8/11/23 12:23	8/15/23 13:40		10.15	165	mg/L	0.4060	4.06	
Analytical Method: EPA 200.7			Analyst: ABB		Preparation Method: EPA 1638				
* Boron, Dissolved	8/11/23 10:11	8/15/23 10:51		1.015	0.391	mg/L	0.030000	0.1015	
* Calcium, Dissolved	8/11/23 10:11	8/15/23 10:51		1.015	6.33	mg/L	0.070035	0.406	
* Iron, Dissolved	8/11/23 10:11	8/15/23 11:47		10.15	26.6	mg/L	0.08120	0.406	
* Lithium, Dissolved	8/11/23 10:11	8/15/23 10:51		1.015	Not Detected	mg/L	0.007105	0.01999956	U
* Magnesium, Dissolved	8/11/23 10:11	8/15/23 10:51		1.015	3.28	mg/L	0.021315	0.406	
* Molybdenum, Dissolved	8/11/23 10:11	8/15/23 10:51		1.015	Not Detected	mg/L	0.005075	0.01015	U
* Silica, Dissolved (calc.)	8/11/23 10:11	8/15/23 10:51		1	14.6	mg/L			
* Silicon, Dissolved	8/11/23 10:11	8/15/23 10:51		1.015	6.83	mg/L	0.02030	0.25375	
* Sodium, Dissolved	8/11/23 10:11	8/15/23 11:47		10.15	165	mg/L	0.4060	4.06	
Analytical Method: EPA 200.8			Analyst: DLJ		Preparation Method: EPA 1638				
* Antimony, Total	8/11/23 12:23	8/11/23 15:24		1.015	Not Detected	mg/L	0.000710	0.001015	U
* Arsenic, Total	8/11/23 12:23	8/15/23 18:20		1.015	0.00508	mg/L	0.000112	0.000203	
* Aluminum, Total	8/11/23 12:23	8/11/23 15:24		1.015	0.0544	mg/L	0.009135	0.05075	
* Barium, Total	8/11/23 12:23	8/11/23 15:24		1.015	0.0704	mg/L	0.000508	0.001015	
* Beryllium, Total	8/11/23 12:23	8/11/23 15:24		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Total	8/11/23 12:23	8/15/23 18:20		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Total	8/11/23 12:23	8/11/23 15:24		1.015	0.000723	mg/L	0.000203	0.001015	J
* Cobalt, Total	8/11/23 12:23	8/11/23 15:24		1.015	0.00640	mg/L	0.000068	0.000203	
* Lead, Total	8/11/23 12:23	8/11/23 15:24		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Total	8/11/23 12:23	8/11/23 15:24		1.015	0.350	mg/L	0.000152	0.001015	

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Barry Ash Pond - MW-14V

Location Code: WMWBARAP

Collected: 8/9/23 09:25

Customer ID:

Submittal Date: 8/10/23 13:23

Laboratory ID Number: BD15134

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
* Potassium, Total	8/11/23 12:23	8/11/23 15:24		1.015	2.55	mg/L	0.169505	0.5075	
* Selenium, Total	8/11/23 12:23	8/11/23 15:24		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Total	8/11/23 12:23	8/11/23 15:24		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 200.8		Analyst: DLJ							
* Antimony, Dissolved	8/11/23 10:11	8/11/23 12:22		1.015	Not Detected	mg/L	0.000710	0.001015	U
* Aluminum, Dissolved	8/11/23 10:11	8/11/23 12:22		1.015	Not Detected	mg/L	0.009135	0.05075	U
* Arsenic, Dissolved	8/11/23 10:11	8/11/23 12:22		1.015	0.00529	mg/L	0.000112	0.000203	
* Barium, Dissolved	8/11/23 10:11	8/11/23 12:22		1.015	0.0694	mg/L	0.000508	0.001015	
* Beryllium, Dissolved	8/11/23 10:11	8/11/23 12:22		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Dissolved	8/11/23 10:11	8/11/23 12:22		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Dissolved	8/11/23 10:11	8/11/23 12:22		1.015	0.000422	mg/L	0.000203	0.001015	J
* Cobalt, Dissolved	8/11/23 10:11	8/11/23 12:22		1.015	0.00636	mg/L	0.000068	0.000203	
* Lead, Dissolved	8/11/23 10:11	8/11/23 12:22		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Dissolved	8/11/23 10:11	8/11/23 12:22		1.015	0.370	mg/L	0.000152	0.001015	
* Potassium, Dissolved	8/11/23 10:11	8/11/23 12:22		1.015	2.60	mg/L	0.169505	0.5075	
* Selenium, Dissolved	8/11/23 10:11	8/11/23 12:22		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Dissolved	8/11/23 10:11	8/11/23 12:22		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 245.1		Analyst: ELH							
* Mercury, Total by CVAA	8/15/23 15:19	8/15/23 20:43		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: EPA 353.2		Analyst: SC							
* Nitrogen, Nitrate/Nitrite	8/11/23 10:19	8/11/23 10:19		1	Not Detected	mg/L as N	0.20	0.3	U
Analytical Method: SM 2320 B		Analyst: DHC							
* Alkalinity	8/21/23 11:38	8/21/23 12:51		1	154	mg CaCO3/L		0.1	
Analytical Method: SM 2540C		Analyst: CNJ							
* Solids, Dissolved	8/15/23 11:30	8/16/23 13:35		1	488	mg/L		50	
Analytical Method: SM 4500CO2 D		Analyst: DHC							
* Bicarbonate Alkalinity, (calc.)	8/21/23 11:38	8/21/23 12:51		1	154	mg CaCO3/L		1	
* Carbonate Alkalinity, (calc.)	8/21/23 11:38	8/21/23 12:51		1	Not Detected	mg CaCO3/L		0.5	
Analytical Method: SM 4500H+ B		Analyst: DHC							
Alkalinity pH Endpoint	8/21/23 11:38	8/21/23 12:51		1	4.45	SU		2	

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Barry Ash Pond - MW-14V

Location Code: WMWBARAP
Collected: 8/9/23 09:25
Customer ID:
Submittal Date: 8/10/23 13:23

Laboratory ID Number: BD15134

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM 5310 B		Analyst: SC							
* Total Organic Carbon	8/15/23 00:36	8/15/23 00:36		1	4.17	mg/L	1.00	2	
Analytical Method: SM4500Cl E		Analyst: JCC							
* Chloride	8/16/23 13:28	8/16/23 13:28		40	158	mg/L	20.00	40	
Analytical Method: SM4500F G 2017		Analyst: JCC							
* Fluoride	8/17/23 11:36	8/17/23 11:36		1	0.270	mg/L	0.06	0.125	
Analytical Method: SM4500SO4 E 2011		Analyst: JCC							
* Sulfate	8/11/23 12:59	8/11/23 12:59		1	36.3	mg/L	0.6	2	
Analytical Method: Field Measurements		Analyst: TJD							
Conductivity	8/9/23 09:22	8/9/23 09:22			839.89	uS/cm			FA
pH	8/9/23 09:22	8/9/23 09:22			6.75	SU			FA
Temperature	8/9/23 09:22	8/9/23 09:22			22.75	C			FA
Turbidity	8/9/23 09:22	8/9/23 09:22			2.04	NTU			FA
Sulfide	8/9/23 09:22	8/9/23 09:22			0	mg/L			FA

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWBARAP

Sample Date: 8/9/23 09:25

Customer ID:

Delivery Date: 8/10/23 13:23

Description: Barry Ash Pond - MW-14V

Laboratory ID Number: BD15134

Sample	Analysis	Units	MB		Spike	MS	MSD	Standard		Rec		Prec	Limit
			MB	Limit				Standard	Limit	Rec	Limit		
BD15137	Aluminum, Dissolved	mg/L	-0.000177	0.0198	0.100	0.113	0.114	0.0996	0.0850 to 0.115	97.8	70.0 to 130	0.881	20.0
BD15138	Aluminum, Total	mg/L	0.000797	0.0198	0.100	0.102	0.104	0.101	0.0850 to 0.115	102	70.0 to 130	1.94	20.0
BD15137	Antimony, Dissolved	mg/L	0.000284	0.00100	0.100	0.0895	0.0906	0.0894	0.0850 to 0.115	89.5	70.0 to 130	1.22	20.0
BD15138	Antimony, Total	mg/L	0.000290	0.00100	0.100	0.0949	0.0963	0.0960	0.0850 to 0.115	94.9	70.0 to 130	1.46	20.0
BD15137	Arsenic, Dissolved	mg/L	0.0000336	0.000200	0.100	0.113	0.114	0.100	0.0850 to 0.115	98.5	70.0 to 130	0.881	20.0
BD15138	Arsenic, Total	mg/L	-0.0000112	0.000200	0.100	0.0976	0.0980	0.0983	0.0850 to 0.115	97.6	70.0 to 130	0.409	20.0
BD15137	Barium, Dissolved	mg/L	0.0000170	0.00100	0.100	0.160	0.158	0.0964	0.0850 to 0.115	103	70.0 to 130	1.26	20.0
BD15138	Barium, Total	mg/L	-0.0000090	0.00100	0.100	0.0991	0.100	0.0976	0.0850 to 0.115	99.1	70.0 to 130	0.904	20.0
BD15137	Beryllium, Dissolved	mg/L	0.0000259	0.000880	0.100	0.0923	0.0920	0.0914	0.0850 to 0.115	92.3	70.0 to 130	0.326	20.0
BD15138	Beryllium, Total	mg/L	0.0000299	0.000880	0.100	0.0968	0.0953	0.0955	0.0850 to 0.115	96.8	70.0 to 130	1.56	20.0
BD15137	Boron, Dissolved	mg/L	0.00225	0.0650	1.00	1.10	1.08	1.01	0.850 to 1.15	105	70.0 to 130	1.83	20.0
BD15138	Boron, Total	mg/L	0.00168	0.0650	1.00	1.01	1.02	1.00	0.850 to 1.15	101	70.0 to 130	0.985	20.0
BD15137	Cadmium, Dissolved	mg/L	-0.0000136	0.000147	0.100	0.0979	0.0997	0.0992	0.0850 to 0.115	97.9	70.0 to 130	1.82	20.0
BD15138	Cadmium, Total	mg/L	-0.0000112	0.000147	0.100	0.0963	0.0995	0.0982	0.0850 to 0.115	96.3	70.0 to 130	3.27	20.0
BD15137	Calcium, Dissolved	mg/L	-0.00180	0.152	5.00	22.3	22.7	5.07	4.25 to 5.75	94.0	70.0 to 130	1.78	20.0
BD15138	Calcium, Total	mg/L	-0.00266	0.152	5.00	5.23	5.23	5.31	4.25 to 5.75	105	70.0 to 130	0.00	20.0
BD15138	Chloride	mg/L	0.0523	1.00	10.0	9.87	9.52	9.58	9.00 to 11.0	98.7	80.0 to 120	3.61	20.0
BD15137	Chromium, Dissolved	mg/L	-0.0000676	0.000440	0.100	0.104	0.106	0.0989	0.0850 to 0.115	96.8	70.0 to 130	1.90	20.0
BD15138	Chromium, Total	mg/L	-0.0000646	0.000440	0.100	0.102	0.103	0.100	0.0850 to 0.115	102	70.0 to 130	0.976	20.0
BD15137	Cobalt, Dissolved	mg/L	-0.0000050	0.000147	0.100	0.101	0.103	0.101	0.0850 to 0.115	99.8	70.0 to 130	1.96	20.0
BD15138	Cobalt, Total	mg/L	-0.0000050	0.000147	0.100	0.104	0.105	0.103	0.0850 to 0.115	104	70.0 to 130	0.957	20.0
BD15138	Fluoride	mg/L	0.0248	0.125	2.50	2.61	2.66	2.55	2.25 to 2.75	104	80.0 to 120	1.90	20.0
BD15137	Iron, Dissolved	mg/L	0.000187	0.0176	0.2	33.3	32.8	0.201	0.170 to 0.230	250	70.0 to 130	1.51	20.0
BD15138	Iron, Total	mg/L	-1.490E-05	0.0176	0.2	0.207	0.208	0.207	0.170 to 0.230	104	70.0 to 130	0.482	20.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWBARAP

Sample Date: 8/9/23 09:25

Customer ID:

Delivery Date: 8/10/23 13:23

Description: Barry Ash Pond - MW-14V

Laboratory ID Number: BD15134

Sample	Analysis	Units	MB		Spike	MS	MSD	Standard		Rec		Prec	Limit
			MB	Limit				Standard	Limit	Rec	Limit		
BD15137	Lead, Dissolved	mg/L	0.000053	0.000147	0.100	0.0931	0.0933	0.0944	0.0850 to 0.115	93.1	70.0 to 130	0.215	20.0
BD15138	Lead, Total	mg/L	0.000042	0.000147	0.100	0.0960	0.0952	0.0938	0.0850 to 0.115	96.0	70.0 to 130	0.837	20.0
BD15137	Lithium, Dissolved	mg/L	1.970E-05	0.0154	0.200	0.210	0.212	0.192	0.170 to 0.230	105	70.0 to 130	0.948	20.0
BD15138	Lithium, Total	mg/L	-1.850E-05	0.0154	0.200	0.192	0.192	0.191	0.170 to 0.230	96.0	70.0 to 130	0.00	20.0
BD15137	Magnesium, Dissolved	mg/L	-0.00343	0.0462	5.00	11.0	11.4	5.06	4.25 to 5.75	89.4	70.0 to 130	3.57	20.0
BD15138	Magnesium, Total	mg/L	-0.00212	0.0462	5.00	5.08	5.07	5.06	4.25 to 5.75	102	70.0 to 130	0.197	20.0
BD15137	Manganese, Dissolved	mg/L	-0.0000005	0.00033	0.100	0.535	0.543	0.101	0.0850 to 0.115	87.0	70.0 to 130	1.48	20.0
BD15138	Manganese, Total	mg/L	0.0000372	0.00033	0.100	0.102	0.102	0.101	0.0850 to 0.115	102	70.0 to 130	0.00	20.0
BD15138	Mercury, Total by CVAA	mg/L	4.000E-05	0.000500	0.004	0.00389	0.00384	0.00383	0.00340 to 0.00460	97.2	70.0 to 130	1.29	20.0
BD15137	Molybdenum, Dissolved	mg/L	0.000188	0.0100	0.2	0.205	0.206	0.199	0.170 to 0.230	102	70.0 to 130	0.487	20.0
BD15138	Molybdenum, Total	mg/L	0.001	0.0100	0.2	0.207	0.207	0.205	0.170 to 0.230	104	70.0 to 130	0.00	20.0
BD15137	Potassium, Dissolved	mg/L	0.00301	0.367	10.0	12.1	12.2	10.1	8.50 to 11.5	99.8	70.0 to 130	0.823	20.0
BD15138	Potassium, Total	mg/L	-0.000658	0.367	10.0	10.0	9.94	10.0	8.50 to 11.5	100	70.0 to 130	0.602	20.0
BD15137	Selenium, Dissolved	mg/L	0.0000907	0.00100	0.100	0.106	0.106	0.100	0.0850 to 0.115	106	70.0 to 130	0.00	20.0
BD15138	Selenium, Total	mg/L	0.0000520	0.00100	0.100	0.105	0.106	0.105	0.0850 to 0.115	105	70.0 to 130	0.948	20.0
BD15137	Silicon, Dissolved	mg/L	-0.00284	0.0440	1.00	8.66	8.67	1.02	0.850 to 1.15	105	70.0 to 130	0.115	20.0
BD15138	Silicon, Total	mg/L	-0.00214	0.0440	1.00	1.04	1.04	1.05	0.850 to 1.15	104	70.0 to 130	0.00	20.0
BD15137	Sodium, Dissolved	mg/L	9.930E-05	0.0880	5.00	57.8	57.0	4.81	4.25 to 5.75	104	70.0 to 130	1.39	20.0
BD15138	Sodium, Total	mg/L	0.000215	0.0880	5.00	4.81	4.82	4.84	4.25 to 5.75	96.2	70.0 to 130	0.208	20.0
BD15138	Sulfate	mg/L	0.345	2.0	20.0	20.3	20.2	20.3	18.0 to 22.0	102	80.0 to 120	0.494	20.0
BD15137	Thallium, Dissolved	mg/L	0.0000012	0.000147	0.100	0.0947	0.0938	0.0959	0.0850 to 0.115	94.7	70.0 to 130	0.955	20.0
BD15138	Thallium, Total	mg/L	0.0000074	0.000147	0.100	0.0983	0.0961	0.0955	0.0850 to 0.115	98.3	70.0 to 130	2.26	20.0
BD15138	Total Organic Carbon	mg/L	0.164	1.00	10.0	8.72	8.57	22.4		87.2	80.0 to 120	1.74	20.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWBARAP

Sample Date: 8/9/23 09:25

Customer ID:

Delivery Date: 8/10/23 13:23

Description: Barry Ash Pond - MW-14V

Laboratory ID Number: BD15134

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BD15137	Alkalinity	mg CaCO3/L					145	51.7	45.0 to 55.0			1.39	10.0
BD15138	Nitrogen, Nitrate/Nitrite	mg/L as N	0.03	0.200	2.00	1.94	0.016	2.00	1.80 to 2.20	97.0	90.0 to 110	0.00	15.0
BD15135	Solids, Dissolved	mg/L	0.0000	25.0			335	51.0	40.0 to 60.0			0.298	10.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Barry Ash Pond - MW-14

Location Code: WMWBARAP
Collected: 8/9/23 10:27
Customer ID:
Submittal Date: 8/10/23 13:23

Laboratory ID Number: BD15135

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7			Analyst: ABB		Preparation Method: EPA 1638				
* Boron, Total	8/11/23 12:23	8/15/23 12:56		1.015	0.0724	mg/L	0.030000	0.1015	J
* Calcium, Total	8/11/23 12:23	8/15/23 12:56		1.015	11.6	mg/L	0.070035	0.406	
* Iron, Total	8/11/23 12:23	8/15/23 13:44		10.15	34.6	mg/L	0.08120	0.406	
* Lithium, Total	8/11/23 12:23	8/15/23 12:56		1.015	Not Detected	mg/L	0.007105	0.01999956	U
* Magnesium, Total	8/11/23 12:23	8/15/23 12:56		1.015	6.57	mg/L	0.021315	0.406	
* Molybdenum, Total	8/11/23 12:23	8/15/23 12:56		1.015	Not Detected	mg/L	0.005075	0.01015	U
* Silica, Total (calc.)	8/11/23 12:23	8/15/23 12:56		1	21.8	mg/L			
* Silicon, Total	8/11/23 12:23	8/15/23 12:56		1.015	10.2	mg/L	0.02030	0.25375	
* Sodium, Total	8/11/23 12:23	8/15/23 13:44		10.15	77.9	mg/L	0.4060	4.06	
Analytical Method: EPA 200.7			Analyst: ABB						
* Boron, Dissolved	8/11/23 10:11	8/15/23 10:55		1.015	0.0726	mg/L	0.030000	0.1015	J
* Calcium, Dissolved	8/11/23 10:11	8/15/23 10:55		1.015	11.2	mg/L	0.070035	0.406	
* Iron, Dissolved	8/11/23 10:11	8/15/23 11:50		10.15	33.6	mg/L	0.08120	0.406	
* Lithium, Dissolved	8/11/23 10:11	8/15/23 10:55		1.015	Not Detected	mg/L	0.007105	0.01999956	U
* Magnesium, Dissolved	8/11/23 10:11	8/15/23 10:55		1.015	6.44	mg/L	0.021315	0.406	
* Molybdenum, Dissolved	8/11/23 10:11	8/15/23 10:55		1.015	Not Detected	mg/L	0.005075	0.01015	U
* Silica, Dissolved (calc.)	8/11/23 10:11	8/15/23 10:55		1	20.8	mg/L			
* Silicon, Dissolved	8/11/23 10:11	8/15/23 10:55		1.015	9.72	mg/L	0.02030	0.25375	
* Sodium, Dissolved	8/11/23 10:11	8/15/23 11:50		10.15	76.5	mg/L	0.4060	4.06	
Analytical Method: EPA 200.8			Analyst: DLJ		Preparation Method: EPA 1638				
* Antimony, Total	8/11/23 12:23	8/11/23 15:27		1.015	Not Detected	mg/L	0.000710	0.001015	U
* Arsenic, Total	8/11/23 12:23	8/15/23 18:23		1.015	0.0176	mg/L	0.000112	0.000203	
* Aluminum, Total	8/11/23 12:23	8/11/23 15:27		1.015	0.242	mg/L	0.009135	0.05075	
* Barium, Total	8/11/23 12:23	8/11/23 15:27		1.015	0.0646	mg/L	0.000508	0.001015	
* Beryllium, Total	8/11/23 12:23	8/11/23 15:27		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Total	8/11/23 12:23	8/15/23 18:23		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Total	8/11/23 12:23	8/11/23 15:27		1.015	0.00347	mg/L	0.000203	0.001015	
* Cobalt, Total	8/11/23 12:23	8/11/23 15:27		1.015	0.00125	mg/L	0.000068	0.000203	
* Lead, Total	8/11/23 12:23	8/11/23 15:27		1.015	0.000229	mg/L	0.000068	0.000203	
* Manganese, Total	8/11/23 12:23	8/11/23 15:27		1.015	0.298	mg/L	0.000152	0.001015	

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Barry Ash Pond - MW-14

Location Code: WMWBARAP
Collected: 8/9/23 10:27
Customer ID:
Submittal Date: 8/10/23 13:23

Laboratory ID Number: BD15135

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
* Potassium, Total	8/11/23 12:23	8/11/23 15:27		1.015	2.43	mg/L	0.169505	0.5075	
* Selenium, Total	8/11/23 12:23	8/11/23 15:27		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Total	8/11/23 12:23	8/11/23 15:27		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 200.8		Analyst: DLJ							
* Antimony, Dissolved	8/11/23 10:11	8/11/23 12:25		1.015	Not Detected	mg/L	0.000710	0.001015	U
* Aluminum, Dissolved	8/11/23 10:11	8/11/23 12:25		1.015	0.00920	mg/L	0.009135	0.05075	J
* Arsenic, Dissolved	8/11/23 10:11	8/11/23 12:25		1.015	0.0191	mg/L	0.000112	0.000203	
* Barium, Dissolved	8/11/23 10:11	8/11/23 12:25		1.015	0.0625	mg/L	0.000508	0.001015	
* Beryllium, Dissolved	8/11/23 10:11	8/11/23 12:25		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Dissolved	8/11/23 10:11	8/11/23 12:25		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Dissolved	8/11/23 10:11	8/11/23 12:25		1.015	0.00294	mg/L	0.000203	0.001015	
* Cobalt, Dissolved	8/11/23 10:11	8/11/23 12:25		1.015	0.000991	mg/L	0.000068	0.000203	
* Lead, Dissolved	8/11/23 10:11	8/11/23 12:25		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Dissolved	8/11/23 10:11	8/11/23 12:25		1.015	0.303	mg/L	0.000152	0.001015	
* Potassium, Dissolved	8/11/23 10:11	8/11/23 12:25		1.015	2.50	mg/L	0.169505	0.5075	
* Selenium, Dissolved	8/11/23 10:11	8/11/23 12:25		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Dissolved	8/11/23 10:11	8/11/23 12:25		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 245.1		Analyst: ELH							
* Mercury, Total by CVAA	8/15/23 15:19	8/15/23 20:47		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: EPA 353.2		Analyst: SC							
* Nitrogen, Nitrate/Nitrite	8/11/23 10:19	8/11/23 10:19		1	Not Detected	mg/L as N	0.20	0.3	U
Analytical Method: SM 2320 B		Analyst: DHC							
* Alkalinity	8/21/23 11:38	8/21/23 12:51		1	171	mg CaCO3/L		0.1	
Analytical Method: SM 2540C		Analyst: CNJ							
* Solids, Dissolved	8/15/23 11:30	8/16/23 13:35		1	336	mg/L		25	
Analytical Method: SM 4500CO2 D		Analyst: DHC							
* Bicarbonate Alkalinity, (calc.)	8/21/23 11:38	8/21/23 12:51		1	171	mg CaCO3/L		1	
* Carbonate Alkalinity, (calc.)	8/21/23 11:38	8/21/23 12:51		1	Not Detected	mg CaCO3/L		0.5	
Analytical Method: SM 4500H+ B		Analyst: DHC							
Alkalinity pH Endpoint	8/21/23 11:38	8/21/23 12:51		1	4.50	SU		2	

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Barry Ash Pond - MW-14

Location Code: WMWBARAP
Collected: 8/9/23 10:27
Customer ID:
Submittal Date: 8/10/23 13:23

Laboratory ID Number: BD15135

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM 5310 B		Analyst: SC							
* Total Organic Carbon	8/15/23 00:51	8/15/23 00:51		1	16.8	mg/L	1.00	2	
Analytical Method: SM4500Cl E		Analyst: JCC							
* Chloride	8/16/23 13:29	8/16/23 13:29		5	47.1	mg/L	2.50	5	
Analytical Method: SM4500F G 2017		Analyst: JCC							
* Fluoride	8/17/23 11:37	8/17/23 11:37		1	0.0753	mg/L	0.06	0.125	J
Analytical Method: SM4500SO4 E 2011		Analyst: JCC							
* Sulfate	8/11/23 13:00	8/11/23 13:00		1	37.8	mg/L	0.6	2	
Analytical Method: Field Measurements		Analyst: TJD							
Conductivity	8/9/23 10:24	8/9/23 10:24			489.78	uS/cm			FA
pH	8/9/23 10:24	8/9/23 10:24			5.83	SU			FA
Temperature	8/9/23 10:24	8/9/23 10:24			21.28	C			FA
Turbidity	8/9/23 10:24	8/9/23 10:24			6.98	NTU			FA
Sulfide	8/9/23 10:24	8/9/23 10:24			0	mg/L			FA

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWBARAP

Sample Date: 8/9/23 10:27

Customer ID:

Delivery Date: 8/10/23 13:23

Description: Barry Ash Pond - MW-14

Laboratory ID Number: BD15135

Sample	Analysis	Units	MB		Spike	MS	MSD	Standard		Rec		Prec	Limit
			MB	Limit				Standard	Limit	Rec	Limit		
BD15137	Aluminum, Dissolved	mg/L	-0.000177	0.0198	0.100	0.113	0.114	0.0996	0.0850 to 0.115	97.8	70.0 to 130	0.881	20.0
BD15138	Aluminum, Total	mg/L	0.000797	0.0198	0.100	0.102	0.104	0.101	0.0850 to 0.115	102	70.0 to 130	1.94	20.0
BD15137	Antimony, Dissolved	mg/L	0.000284	0.00100	0.100	0.0895	0.0906	0.0894	0.0850 to 0.115	89.5	70.0 to 130	1.22	20.0
BD15138	Antimony, Total	mg/L	0.000290	0.00100	0.100	0.0949	0.0963	0.0960	0.0850 to 0.115	94.9	70.0 to 130	1.46	20.0
BD15137	Arsenic, Dissolved	mg/L	0.0000336	0.000200	0.100	0.113	0.114	0.100	0.0850 to 0.115	98.5	70.0 to 130	0.881	20.0
BD15138	Arsenic, Total	mg/L	-0.0000112	0.000200	0.100	0.0976	0.0980	0.0983	0.0850 to 0.115	97.6	70.0 to 130	0.409	20.0
BD15137	Barium, Dissolved	mg/L	0.0000170	0.00100	0.100	0.160	0.158	0.0964	0.0850 to 0.115	103	70.0 to 130	1.26	20.0
BD15138	Barium, Total	mg/L	-0.0000090	0.00100	0.100	0.0991	0.100	0.0976	0.0850 to 0.115	99.1	70.0 to 130	0.904	20.0
BD15137	Beryllium, Dissolved	mg/L	0.0000259	0.000880	0.100	0.0923	0.0920	0.0914	0.0850 to 0.115	92.3	70.0 to 130	0.326	20.0
BD15138	Beryllium, Total	mg/L	0.0000299	0.000880	0.100	0.0968	0.0953	0.0955	0.0850 to 0.115	96.8	70.0 to 130	1.56	20.0
BD15137	Boron, Dissolved	mg/L	0.00225	0.0650	1.00	1.10	1.08	1.01	0.850 to 1.15	105	70.0 to 130	1.83	20.0
BD15138	Boron, Total	mg/L	0.00168	0.0650	1.00	1.01	1.02	1.00	0.850 to 1.15	101	70.0 to 130	0.985	20.0
BD15137	Cadmium, Dissolved	mg/L	-0.0000136	0.000147	0.100	0.0979	0.0997	0.0992	0.0850 to 0.115	97.9	70.0 to 130	1.82	20.0
BD15138	Cadmium, Total	mg/L	-0.0000112	0.000147	0.100	0.0963	0.0995	0.0982	0.0850 to 0.115	96.3	70.0 to 130	3.27	20.0
BD15137	Calcium, Dissolved	mg/L	-0.00180	0.152	5.00	22.3	22.7	5.07	4.25 to 5.75	94.0	70.0 to 130	1.78	20.0
BD15138	Calcium, Total	mg/L	-0.00266	0.152	5.00	5.23	5.23	5.31	4.25 to 5.75	105	70.0 to 130	0.00	20.0
BD15138	Chloride	mg/L	0.0523	1.00	10.0	9.87	9.52	9.58	9.00 to 11.0	98.7	80.0 to 120	3.61	20.0
BD15137	Chromium, Dissolved	mg/L	-0.0000676	0.000440	0.100	0.104	0.106	0.0989	0.0850 to 0.115	96.8	70.0 to 130	1.90	20.0
BD15138	Chromium, Total	mg/L	-0.0000646	0.000440	0.100	0.102	0.103	0.100	0.0850 to 0.115	102	70.0 to 130	0.976	20.0
BD15137	Cobalt, Dissolved	mg/L	-0.0000050	0.000147	0.100	0.101	0.103	0.101	0.0850 to 0.115	99.8	70.0 to 130	1.96	20.0
BD15138	Cobalt, Total	mg/L	-0.0000050	0.000147	0.100	0.104	0.105	0.103	0.0850 to 0.115	104	70.0 to 130	0.957	20.0
BD15138	Fluoride	mg/L	0.0248	0.125	2.50	2.61	2.66	2.55	2.25 to 2.75	104	80.0 to 120	1.90	20.0
BD15137	Iron, Dissolved	mg/L	0.000187	0.0176	0.2	33.3	32.8	0.201	0.170 to 0.230	250	70.0 to 130	1.51	20.0
BD15138	Iron, Total	mg/L	-1.490E-05	0.0176	0.2	0.207	0.208	0.207	0.170 to 0.230	104	70.0 to 130	0.482	20.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWBARAP

Sample Date: 8/9/23 10:27

Customer ID:

Delivery Date: 8/10/23 13:23

Description: Barry Ash Pond - MW-14

Laboratory ID Number: BD15135

Sample	Analysis	Units	MB		Spike	MS	MSD	Standard		Rec		Prec	Limit
			MB	Limit				Standard	Limit	Rec	Limit		
BD15137	Lead, Dissolved	mg/L	0.000053	0.000147	0.100	0.0931	0.0933	0.0944	0.0850 to 0.115	93.1	70.0 to 130	0.215	20.0
BD15138	Lead, Total	mg/L	0.000042	0.000147	0.100	0.0960	0.0952	0.0938	0.0850 to 0.115	96.0	70.0 to 130	0.837	20.0
BD15137	Lithium, Dissolved	mg/L	1.970E-05	0.0154	0.200	0.210	0.212	0.192	0.170 to 0.230	105	70.0 to 130	0.948	20.0
BD15138	Lithium, Total	mg/L	-1.850E-05	0.0154	0.200	0.192	0.192	0.191	0.170 to 0.230	96.0	70.0 to 130	0.00	20.0
BD15137	Magnesium, Dissolved	mg/L	-0.00343	0.0462	5.00	11.0	11.4	5.06	4.25 to 5.75	89.4	70.0 to 130	3.57	20.0
BD15138	Magnesium, Total	mg/L	-0.00212	0.0462	5.00	5.08	5.07	5.06	4.25 to 5.75	102	70.0 to 130	0.197	20.0
BD15137	Manganese, Dissolved	mg/L	-0.0000005	0.00033	0.100	0.535	0.543	0.101	0.0850 to 0.115	87.0	70.0 to 130	1.48	20.0
BD15138	Manganese, Total	mg/L	0.0000372	0.00033	0.100	0.102	0.102	0.101	0.0850 to 0.115	102	70.0 to 130	0.00	20.0
BD15138	Mercury, Total by CVAA	mg/L	4.000E-05	0.000500	0.004	0.00389	0.00384	0.00383	0.00340 to 0.00460	97.2	70.0 to 130	1.29	20.0
BD15137	Molybdenum, Dissolved	mg/L	0.000188	0.0100	0.2	0.205	0.206	0.199	0.170 to 0.230	102	70.0 to 130	0.487	20.0
BD15138	Molybdenum, Total	mg/L	0.001	0.0100	0.2	0.207	0.207	0.205	0.170 to 0.230	104	70.0 to 130	0.00	20.0
BD15137	Potassium, Dissolved	mg/L	0.00301	0.367	10.0	12.1	12.2	10.1	8.50 to 11.5	99.8	70.0 to 130	0.823	20.0
BD15138	Potassium, Total	mg/L	-0.000658	0.367	10.0	10.0	9.94	10.0	8.50 to 11.5	100	70.0 to 130	0.602	20.0
BD15137	Selenium, Dissolved	mg/L	0.0000907	0.00100	0.100	0.106	0.106	0.100	0.0850 to 0.115	106	70.0 to 130	0.00	20.0
BD15138	Selenium, Total	mg/L	0.0000520	0.00100	0.100	0.105	0.106	0.105	0.0850 to 0.115	105	70.0 to 130	0.948	20.0
BD15137	Silicon, Dissolved	mg/L	-0.00284	0.0440	1.00	8.66	8.67	1.02	0.850 to 1.15	105	70.0 to 130	0.115	20.0
BD15138	Silicon, Total	mg/L	-0.00214	0.0440	1.00	1.04	1.04	1.05	0.850 to 1.15	104	70.0 to 130	0.00	20.0
BD15137	Sodium, Dissolved	mg/L	9.930E-05	0.0880	5.00	57.8	57.0	4.81	4.25 to 5.75	104	70.0 to 130	1.39	20.0
BD15138	Sodium, Total	mg/L	0.000215	0.0880	5.00	4.81	4.82	4.84	4.25 to 5.75	96.2	70.0 to 130	0.208	20.0
BD15138	Sulfate	mg/L	0.345	2.0	20.0	20.3	20.2	20.3	18.0 to 22.0	102	80.0 to 120	0.494	20.0
BD15137	Thallium, Dissolved	mg/L	0.0000012	0.000147	0.100	0.0947	0.0938	0.0959	0.0850 to 0.115	94.7	70.0 to 130	0.955	20.0
BD15138	Thallium, Total	mg/L	0.0000074	0.000147	0.100	0.0983	0.0961	0.0955	0.0850 to 0.115	98.3	70.0 to 130	2.26	20.0
BD15138	Total Organic Carbon	mg/L	0.164	1.00	10.0	8.72	8.57	22.4		87.2	80.0 to 120	1.74	20.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWBARAP

Sample Date: 8/9/23 10:27

Customer ID:

Delivery Date: 8/10/23 13:23

Description: Barry Ash Pond - MW-14

Laboratory ID Number: BD15135

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BD15137	Alkalinity	mg CaCO3/L					145	51.7	45.0 to 55.0			1.39	10.0
BD15138	Nitrogen, Nitrate/Nitrite	mg/L as N	0.03	0.200	2.00	1.94	0.016	2.00	1.80 to 2.20	97.0	90.0 to 110	0.00	15.0
BD15135	Solids, Dissolved	mg/L	0.0000	25.0			335	51.0	40.0 to 60.0			0.298	10.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Barry Ash Pond - MW-13V

Location Code: WMWBARAP
Collected: 8/9/23 11:45
Customer ID:
Submittal Date: 8/10/23 13:23

Laboratory ID Number: BD15136

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7		Analyst: ABB			Preparation Method: EPA 1638				
* Boron, Total	8/11/23 12:23	8/15/23 13:00		1.015	0.109	mg/L	0.030000	0.1015	
* Calcium, Total	8/11/23 12:23	8/15/23 13:00		1.015	13.1	mg/L	0.070035	0.406	
* Iron, Total	8/11/23 12:23	8/15/23 13:47		101.5	50.7	mg/L	0.8120	4.06	
* Lithium, Total	8/11/23 12:23	8/15/23 13:00		1.015	0.00949	mg/L	0.007105	0.01999956	J
* Magnesium, Total	8/11/23 12:23	8/15/23 13:00		1.015	7.21	mg/L	0.021315	0.406	
* Molybdenum, Total	8/11/23 12:23	8/15/23 13:00		1.015	Not Detected	mg/L	0.005075	0.01015	U
* Silica, Total (calc.)	8/11/23 12:23	8/15/23 13:00		1	15.4	mg/L			
* Silicon, Total	8/11/23 12:23	8/15/23 13:00		1.015	7.21	mg/L	0.02030	0.25375	
* Sodium, Total	8/11/23 12:23	8/15/23 13:47		101.5	75.7	mg/L	4.060	40.6	
Analytical Method: EPA 200.7		Analyst: ABB			Preparation Method: EPA 1638				
* Boron, Dissolved	8/11/23 10:11	8/15/23 10:58		1.015	0.108	mg/L	0.030000	0.1015	
* Calcium, Dissolved	8/11/23 10:11	8/15/23 10:58		1.015	12.9	mg/L	0.070035	0.406	
* Iron, Dissolved	8/11/23 10:11	8/15/23 11:54		101.5	48.7	mg/L	0.8120	4.06	
* Lithium, Dissolved	8/11/23 10:11	8/15/23 10:58		1.015	0.00887	mg/L	0.007105	0.01999956	J
* Magnesium, Dissolved	8/11/23 10:11	8/15/23 10:58		1.015	7.17	mg/L	0.021315	0.406	
* Molybdenum, Dissolved	8/11/23 10:11	8/15/23 10:58		1.015	Not Detected	mg/L	0.005075	0.01015	U
* Silica, Dissolved (calc.)	8/11/23 10:11	8/15/23 10:58		1	15.2	mg/L			
* Silicon, Dissolved	8/11/23 10:11	8/15/23 10:58		1.015	7.12	mg/L	0.02030	0.25375	
* Sodium, Dissolved	8/11/23 10:11	8/15/23 11:54		101.5	74.5	mg/L	4.060	40.6	
Analytical Method: EPA 200.8		Analyst: DLJ			Preparation Method: EPA 1638				
* Antimony, Total	8/11/23 12:23	8/11/23 15:31		1.015	Not Detected	mg/L	0.000710	0.001015	U
* Arsenic, Total	8/11/23 12:23	8/15/23 18:27		1.015	0.00967	mg/L	0.000112	0.000203	
* Aluminum, Total	8/11/23 12:23	8/11/23 15:31		1.015	0.0717	mg/L	0.009135	0.05075	
* Barium, Total	8/11/23 12:23	8/11/23 15:31		1.015	0.109	mg/L	0.000508	0.001015	
* Beryllium, Total	8/11/23 12:23	8/11/23 15:31		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Total	8/11/23 12:23	8/15/23 18:27		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Total	8/11/23 12:23	8/11/23 15:31		1.015	0.00368	mg/L	0.000203	0.001015	
* Cobalt, Total	8/11/23 12:23	8/11/23 15:31		1.015	0.00111	mg/L	0.000068	0.000203	
* Lead, Total	8/11/23 12:23	8/11/23 15:31		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Total	8/11/23 12:23	8/11/23 15:31		1.015	0.796	mg/L	0.000152	0.001015	

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Barry Ash Pond - MW-13V

Location Code: WMWBARAP
Collected: 8/9/23 11:45
Customer ID:
Submittal Date: 8/10/23 13:23

Laboratory ID Number: BD15136

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
* Potassium, Total	8/11/23 12:23	8/11/23 15:31		1.015	3.28	mg/L	0.169505	0.5075	
* Selenium, Total	8/11/23 12:23	8/11/23 15:31		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Total	8/11/23 12:23	8/11/23 15:31		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 200.8		Analyst: DLJ							
* Antimony, Dissolved	8/11/23 10:11	8/11/23 12:29		1.015	Not Detected	mg/L	0.000710	0.001015	U
* Aluminum, Dissolved	8/11/23 10:11	8/11/23 12:29		1.015	Not Detected	mg/L	0.009135	0.05075	U
* Arsenic, Dissolved	8/11/23 10:11	8/11/23 12:29		1.015	0.00995	mg/L	0.000112	0.000203	
* Barium, Dissolved	8/11/23 10:11	8/11/23 12:29		1.015	0.104	mg/L	0.000508	0.001015	
* Beryllium, Dissolved	8/11/23 10:11	8/11/23 12:29		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Dissolved	8/11/23 10:11	8/11/23 12:29		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Dissolved	8/11/23 10:11	8/11/23 12:29		1.015	0.00346	mg/L	0.000203	0.001015	
* Cobalt, Dissolved	8/11/23 10:11	8/11/23 12:29		1.015	0.00106	mg/L	0.000068	0.000203	
* Lead, Dissolved	8/11/23 10:11	8/11/23 12:29		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Dissolved	8/11/23 10:11	8/11/23 12:29		1.015	0.811	mg/L	0.000152	0.001015	
* Potassium, Dissolved	8/11/23 10:11	8/11/23 12:29		1.015	3.29	mg/L	0.169505	0.5075	
* Selenium, Dissolved	8/11/23 10:11	8/11/23 12:29		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Dissolved	8/11/23 10:11	8/11/23 12:29		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 245.1		Analyst: ELH							
* Mercury, Total by CVAA	8/15/23 15:19	8/15/23 20:51		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: EPA 353.2		Analyst: SC							
* Nitrogen, Nitrate/Nitrite	8/11/23 10:20	8/11/23 10:20		1	Not Detected	mg/L as N	0.20	0.3	U
Analytical Method: SM 2320 B		Analyst: DHC							
* Alkalinity	8/21/23 11:38	8/21/23 12:51		1	151	mg CaCO3/L		0.1	
Analytical Method: SM 2540C		Analyst: CNJ							
* Solids, Dissolved	8/15/23 11:30	8/16/23 13:35		1	375	mg/L		25	
Analytical Method: SM 4500CO2 D		Analyst: DHC							
* Bicarbonate Alkalinity, (calc.)	8/21/23 11:38	8/21/23 12:51		1	151	mg CaCO3/L		1	
* Carbonate Alkalinity, (calc.)	8/21/23 11:38	8/21/23 12:51		1	Not Detected	mg CaCO3/L		0.5	
Analytical Method: SM 4500H+ B		Analyst: DHC							
Alkalinity pH Endpoint	8/21/23 11:38	8/21/23 12:51		1	4.50	SU		2	

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Barry Ash Pond - MW-13V

Location Code: WMWBARAP
Collected: 8/9/23 11:45
Customer ID:
Submittal Date: 8/10/23 13:23

Laboratory ID Number: BD15136

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM 5310 B		Analyst: SC							
* Total Organic Carbon	8/15/23 01:06	8/15/23 01:06		1	17.3	mg/L	1.00	2	
Analytical Method: SM4500Cl E		Analyst: JCC							
* Chloride	8/16/23 13:30	8/16/23 13:30		25	60.0	mg/L	12.50	25	
Analytical Method: SM4500F G 2017		Analyst: JCC							
* Fluoride	8/17/23 11:38	8/17/23 11:38		1	0.0755	mg/L	0.06	0.125	J
Analytical Method: SM4500SO4 E 2011		Analyst: JCC							
* Sulfate	8/11/23 13:01	8/11/23 13:01		1	34.1	mg/L	0.6	2	
Analytical Method: Field Measurements		Analyst: TJD							
Conductivity	8/9/23 11:42	8/9/23 11:42			551.57	uS/cm			FA
pH	8/9/23 11:42	8/9/23 11:42			5.82	SU			FA
Temperature	8/9/23 11:42	8/9/23 11:42			22.29	C			FA
Turbidity	8/9/23 11:42	8/9/23 11:42			2.69	NTU			FA
Sulfide	8/9/23 11:42	8/9/23 11:42			0	mg/L			FA

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWBARAP

Sample Date: 8/9/23 11:45

Customer ID:

Delivery Date: 8/10/23 13:23

Description: Barry Ash Pond - MW-13V

Laboratory ID Number: BD15136

Sample	Analysis	Units	MB		Spike	MS	MSD	Standard		Rec		Prec	Limit
			MB	Limit				Standard	Limit	Rec	Limit		
BD15137	Aluminum, Dissolved	mg/L	-0.000177	0.0198	0.100	0.113	0.114	0.0996	0.0850 to 0.115	97.8	70.0 to 130	0.881	20.0
BD15138	Aluminum, Total	mg/L	0.000797	0.0198	0.100	0.102	0.104	0.101	0.0850 to 0.115	102	70.0 to 130	1.94	20.0
BD15137	Antimony, Dissolved	mg/L	0.000284	0.00100	0.100	0.0895	0.0906	0.0894	0.0850 to 0.115	89.5	70.0 to 130	1.22	20.0
BD15138	Antimony, Total	mg/L	0.000290	0.00100	0.100	0.0949	0.0963	0.0960	0.0850 to 0.115	94.9	70.0 to 130	1.46	20.0
BD15137	Arsenic, Dissolved	mg/L	0.0000336	0.000200	0.100	0.113	0.114	0.100	0.0850 to 0.115	98.5	70.0 to 130	0.881	20.0
BD15138	Arsenic, Total	mg/L	-0.0000112	0.000200	0.100	0.0976	0.0980	0.0983	0.0850 to 0.115	97.6	70.0 to 130	0.409	20.0
BD15137	Barium, Dissolved	mg/L	0.0000170	0.00100	0.100	0.160	0.158	0.0964	0.0850 to 0.115	103	70.0 to 130	1.26	20.0
BD15138	Barium, Total	mg/L	-0.0000090	0.00100	0.100	0.0991	0.100	0.0976	0.0850 to 0.115	99.1	70.0 to 130	0.904	20.0
BD15137	Beryllium, Dissolved	mg/L	0.0000259	0.000880	0.100	0.0923	0.0920	0.0914	0.0850 to 0.115	92.3	70.0 to 130	0.326	20.0
BD15138	Beryllium, Total	mg/L	0.0000299	0.000880	0.100	0.0968	0.0953	0.0955	0.0850 to 0.115	96.8	70.0 to 130	1.56	20.0
BD15137	Boron, Dissolved	mg/L	0.00225	0.0650	1.00	1.10	1.08	1.01	0.850 to 1.15	105	70.0 to 130	1.83	20.0
BD15138	Boron, Total	mg/L	0.00168	0.0650	1.00	1.01	1.02	1.00	0.850 to 1.15	101	70.0 to 130	0.985	20.0
BD15137	Cadmium, Dissolved	mg/L	-0.0000136	0.000147	0.100	0.0979	0.0997	0.0992	0.0850 to 0.115	97.9	70.0 to 130	1.82	20.0
BD15138	Cadmium, Total	mg/L	-0.0000112	0.000147	0.100	0.0963	0.0995	0.0982	0.0850 to 0.115	96.3	70.0 to 130	3.27	20.0
BD15137	Calcium, Dissolved	mg/L	-0.00180	0.152	5.00	22.3	22.7	5.07	4.25 to 5.75	94.0	70.0 to 130	1.78	20.0
BD15138	Calcium, Total	mg/L	-0.00266	0.152	5.00	5.23	5.23	5.31	4.25 to 5.75	105	70.0 to 130	0.00	20.0
BD15138	Chloride	mg/L	0.0523	1.00	10.0	9.87	9.52	9.58	9.00 to 11.0	98.7	80.0 to 120	3.61	20.0
BD15137	Chromium, Dissolved	mg/L	-0.0000676	0.000440	0.100	0.104	0.106	0.0989	0.0850 to 0.115	96.8	70.0 to 130	1.90	20.0
BD15138	Chromium, Total	mg/L	-0.0000646	0.000440	0.100	0.102	0.103	0.100	0.0850 to 0.115	102	70.0 to 130	0.976	20.0
BD15137	Cobalt, Dissolved	mg/L	-0.0000050	0.000147	0.100	0.101	0.103	0.101	0.0850 to 0.115	99.8	70.0 to 130	1.96	20.0
BD15138	Cobalt, Total	mg/L	-0.0000050	0.000147	0.100	0.104	0.105	0.103	0.0850 to 0.115	104	70.0 to 130	0.957	20.0
BD15138	Fluoride	mg/L	0.0248	0.125	2.50	2.61	2.66	2.55	2.25 to 2.75	104	80.0 to 120	1.90	20.0
BD15137	Iron, Dissolved	mg/L	0.000187	0.0176	0.2	33.3	32.8	0.201	0.170 to 0.230	250	70.0 to 130	1.51	20.0
BD15138	Iron, Total	mg/L	-1.490E-05	0.0176	0.2	0.207	0.208	0.207	0.170 to 0.230	104	70.0 to 130	0.482	20.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWBARAP

Sample Date: 8/9/23 11:45

Customer ID:

Delivery Date: 8/10/23 13:23

Description: Barry Ash Pond - MW-13V

Laboratory ID Number: BD15136

Sample	Analysis	Units	MB		Spike	MS	MSD	Standard		Rec		Prec	Limit
			MB	Limit				Standard	Limit	Rec	Limit		
BD15137	Lead, Dissolved	mg/L	0.000053	0.000147	0.100	0.0931	0.0933	0.0944	0.0850 to 0.115	93.1	70.0 to 130	0.215	20.0
BD15138	Lead, Total	mg/L	0.000042	0.000147	0.100	0.0960	0.0952	0.0938	0.0850 to 0.115	96.0	70.0 to 130	0.837	20.0
BD15137	Lithium, Dissolved	mg/L	1.970E-05	0.0154	0.200	0.210	0.212	0.192	0.170 to 0.230	105	70.0 to 130	0.948	20.0
BD15138	Lithium, Total	mg/L	-1.850E-05	0.0154	0.200	0.192	0.192	0.191	0.170 to 0.230	96.0	70.0 to 130	0.00	20.0
BD15137	Magnesium, Dissolved	mg/L	-0.00343	0.0462	5.00	11.0	11.4	5.06	4.25 to 5.75	89.4	70.0 to 130	3.57	20.0
BD15138	Magnesium, Total	mg/L	-0.00212	0.0462	5.00	5.08	5.07	5.06	4.25 to 5.75	102	70.0 to 130	0.197	20.0
BD15137	Manganese, Dissolved	mg/L	-0.0000005	0.00033	0.100	0.535	0.543	0.101	0.0850 to 0.115	87.0	70.0 to 130	1.48	20.0
BD15138	Manganese, Total	mg/L	0.0000372	0.00033	0.100	0.102	0.102	0.101	0.0850 to 0.115	102	70.0 to 130	0.00	20.0
BD15138	Mercury, Total by CVAA	mg/L	4.000E-05	0.000500	0.004	0.00389	0.00384	0.00383	0.00340 to 0.00460	97.2	70.0 to 130	1.29	20.0
BD15137	Molybdenum, Dissolved	mg/L	0.000188	0.0100	0.2	0.205	0.206	0.199	0.170 to 0.230	102	70.0 to 130	0.487	20.0
BD15138	Molybdenum, Total	mg/L	0.001	0.0100	0.2	0.207	0.207	0.205	0.170 to 0.230	104	70.0 to 130	0.00	20.0
BD15137	Potassium, Dissolved	mg/L	0.00301	0.367	10.0	12.1	12.2	10.1	8.50 to 11.5	99.8	70.0 to 130	0.823	20.0
BD15138	Potassium, Total	mg/L	-0.000658	0.367	10.0	10.0	9.94	10.0	8.50 to 11.5	100	70.0 to 130	0.602	20.0
BD15137	Selenium, Dissolved	mg/L	0.0000907	0.00100	0.100	0.106	0.106	0.100	0.0850 to 0.115	106	70.0 to 130	0.00	20.0
BD15138	Selenium, Total	mg/L	0.0000520	0.00100	0.100	0.105	0.106	0.105	0.0850 to 0.115	105	70.0 to 130	0.948	20.0
BD15137	Silicon, Dissolved	mg/L	-0.00284	0.0440	1.00	8.66	8.67	1.02	0.850 to 1.15	105	70.0 to 130	0.115	20.0
BD15138	Silicon, Total	mg/L	-0.00214	0.0440	1.00	1.04	1.04	1.05	0.850 to 1.15	104	70.0 to 130	0.00	20.0
BD15137	Sodium, Dissolved	mg/L	9.930E-05	0.0880	5.00	57.8	57.0	4.81	4.25 to 5.75	104	70.0 to 130	1.39	20.0
BD15138	Sodium, Total	mg/L	0.000215	0.0880	5.00	4.81	4.82	4.84	4.25 to 5.75	96.2	70.0 to 130	0.208	20.0
BD15138	Sulfate	mg/L	0.345	2.0	20.0	20.3	20.2	20.3	18.0 to 22.0	102	80.0 to 120	0.494	20.0
BD15137	Thallium, Dissolved	mg/L	0.0000012	0.000147	0.100	0.0947	0.0938	0.0959	0.0850 to 0.115	94.7	70.0 to 130	0.955	20.0
BD15138	Thallium, Total	mg/L	0.0000074	0.000147	0.100	0.0983	0.0961	0.0955	0.0850 to 0.115	98.3	70.0 to 130	2.26	20.0
BD15138	Total Organic Carbon	mg/L	0.164	1.00	10.0	8.72	8.57	22.4		87.2	80.0 to 120	1.74	20.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWBARAP

Sample Date: 8/9/23 11:45

Customer ID:

Delivery Date: 8/10/23 13:23

Description: Barry Ash Pond - MW-13V

Laboratory ID Number: BD15136

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BD15137	Alkalinity	mg CaCO3/L					145	51.7	45.0 to 55.0			1.39	10.0
BD15138	Nitrogen, Nitrate/Nitrite	mg/L as N	0.03	0.200	2.00	1.94	0.016	2.00	1.80 to 2.20	97.0	90.0 to 110	0.00	15.0
BD15137	Solids, Dissolved	mg/L	0.0000	25.0			304	51.0	40.0 to 60.0			1.63	10.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Barry Ash Pond - MW-13

Location Code: WMWBARAP
Collected: 8/9/23 12:45
Customer ID:
Submittal Date: 8/10/23 13:23

Laboratory ID Number: BD15137

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q	
Analytical Method: EPA 200.7		Analyst: ABB			Preparation Method: EPA 1638					
* Boron, Total	8/11/23 12:23	8/15/23 13:03		1.015	0.0538	mg/L	0.030000	0.1015	J	
* Calcium, Total	8/11/23 12:23	8/15/23 13:03		1.015	18.2	mg/L	0.070035	0.406		
* Iron, Total	8/11/23 12:23	8/15/23 13:50		10.15	33.2	mg/L	0.08120	0.406		
* Lithium, Total	8/11/23 12:23	8/15/23 13:03		1.015	Not Detected	mg/L	0.007105	0.01999956	U	
* Magnesium, Total	8/11/23 12:23	8/15/23 13:03		1.015	6.62	mg/L	0.021315	0.406		
* Molybdenum, Total	8/11/23 12:23	8/15/23 13:03		1.015	Not Detected	mg/L	0.005075	0.01015	U	
* Silica, Total (calc.)	8/11/23 12:23	8/15/23 13:03		1	16.7	mg/L				
* Silicon, Total	8/11/23 12:23	8/15/23 13:03		1.015	7.81	mg/L	0.02030	0.25375		
* Sodium, Total	8/11/23 12:23	8/15/23 13:50		10.15	52.1	mg/L	0.4060	4.06		
Analytical Method: EPA 200.7		Analyst: ABB			Preparation Method: EPA 1638					
* Boron, Dissolved	8/11/23 10:11	8/15/23 11:02		1.015	0.0533	mg/L	0.030000	0.1015	J	
* Calcium, Dissolved	8/11/23 10:11	8/15/23 11:02		1.015	17.6	mg/L	0.070035	0.406		
* Iron, Dissolved	8/11/23 10:11	8/15/23 11:57		10.15	32.8	mg/L	0.08120	0.406	RA	
* Lithium, Dissolved	8/11/23 10:11	8/15/23 11:02		1.015	Not Detected	mg/L	0.007105	0.01999956	U	
* Magnesium, Dissolved	8/11/23 10:11	8/15/23 11:02		1.015	6.53	mg/L	0.021315	0.406		
* Molybdenum, Dissolved	8/11/23 10:11	8/15/23 11:02		1.015	Not Detected	mg/L	0.005075	0.01015	U	
* Silica, Dissolved (calc.)	8/11/23 10:11	8/15/23 11:02		1	16.3	mg/L				
* Silicon, Dissolved	8/11/23 10:11	8/15/23 11:02		1.015	7.61	mg/L	0.02030	0.25375		
* Sodium, Dissolved	8/11/23 10:11	8/15/23 11:57		10.15	52.6	mg/L	0.4060	4.06		
Analytical Method: EPA 200.8		Analyst: DLJ			Preparation Method: EPA 1638					
* Antimony, Total	8/11/23 12:23	8/11/23 15:34		1.015	Not Detected	mg/L	0.000710	0.001015	U	
* Aluminum, Total	8/11/23 12:23	8/11/23 15:34		1.015	0.0787	mg/L	0.009135	0.05075		
* Arsenic, Total	8/11/23 12:23	8/15/23 18:31		1.015	0.0143	mg/L	0.000112	0.000203		
* Barium, Total	8/11/23 12:23	8/11/23 15:34		1.015	0.0610	mg/L	0.000508	0.001015		
* Beryllium, Total	8/11/23 12:23	8/11/23 15:34		1.015	Not Detected	mg/L	0.000406	0.001015	U	
* Cadmium, Total	8/11/23 12:23	8/15/23 18:31		1.015	Not Detected	mg/L	0.000068	0.000203	U	
* Chromium, Total	8/11/23 12:23	8/11/23 15:34		1.015	0.00763	mg/L	0.000203	0.001015		
* Cobalt, Total	8/11/23 12:23	8/11/23 15:34		1.015	0.00130	mg/L	0.000068	0.000203		
* Lead, Total	8/11/23 12:23	8/11/23 15:34		1.015	0.0000798	mg/L	0.000068	0.000203	J	
* Manganese, Total	8/11/23 12:23	8/11/23 15:34		1.015	0.446	mg/L	0.000152	0.001015		

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Barry Ash Pond - MW-13

Location Code: WMWBARAP
Collected: 8/9/23 12:45
Customer ID:
Submittal Date: 8/10/23 13:23

Laboratory ID Number: BD15137

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
* Potassium, Total	8/11/23 12:23	8/11/23 15:34		1.015	2.10	mg/L	0.169505	0.5075	
* Selenium, Total	8/11/23 12:23	8/11/23 15:34		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Total	8/11/23 12:23	8/11/23 15:34		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 200.8		Analyst: DLJ							
* Antimony, Dissolved	8/11/23 10:11	8/11/23 12:33		1.015	Not Detected	mg/L	0.000710	0.001015	U
* Aluminum, Dissolved	8/11/23 10:11	8/11/23 12:33		1.015	0.0152	mg/L	0.009135	0.05075	J
* Arsenic, Dissolved	8/11/23 10:11	8/11/23 12:33		1.015	0.0145	mg/L	0.000112	0.000203	
* Barium, Dissolved	8/11/23 10:11	8/11/23 12:33		1.015	0.0574	mg/L	0.000508	0.001015	
* Beryllium, Dissolved	8/11/23 10:11	8/11/23 12:33		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Dissolved	8/11/23 10:11	8/11/23 12:33		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Dissolved	8/11/23 10:11	8/11/23 12:33		1.015	0.00724	mg/L	0.000203	0.001015	
* Cobalt, Dissolved	8/11/23 10:11	8/11/23 12:33		1.015	0.00115	mg/L	0.000068	0.000203	
* Lead, Dissolved	8/11/23 10:11	8/11/23 12:33		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Dissolved	8/11/23 10:11	8/11/23 12:33		1.015	0.448	mg/L	0.000152	0.001015	
* Potassium, Dissolved	8/11/23 10:11	8/11/23 12:33		1.015	2.12	mg/L	0.169505	0.5075	
* Selenium, Dissolved	8/11/23 10:11	8/11/23 12:33		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Dissolved	8/11/23 10:11	8/11/23 12:33		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 245.1		Analyst: ELH							
* Mercury, Total by CVAA	8/15/23 15:19	8/15/23 20:55		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: EPA 353.2		Analyst: SC							
* Nitrogen, Nitrate/Nitrite	8/11/23 10:21	8/11/23 10:21		1	Not Detected	mg/L as N	0.20	0.3	U
Analytical Method: SM 2320 B		Analyst: DHC							
* Alkalinity	8/21/23 11:38	8/21/23 12:51		1	143	mg CaCO3/L		0.1	
Analytical Method: SM 2540C		Analyst: CNJ							
* Solids, Dissolved	8/15/23 11:30	8/16/23 13:35		1	309	mg/L		25	
Analytical Method: SM 4500CO2 D		Analyst: DHC							
* Bicarbonate Alkalinity, (calc.)	8/21/23 11:38	8/21/23 12:51		1	143	mg CaCO3/L		1	
* Carbonate Alkalinity, (calc.)	8/21/23 11:38	8/21/23 12:51		1	Not Detected	mg CaCO3/L		0.5	
Analytical Method: SM 4500H+ B		Analyst: DHC							
Alkalinity pH Endpoint	8/21/23 11:38	8/21/23 12:51		1	4.50	SU		2	

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Barry Ash Pond - MW-13

Location Code: WMWBARAP
Collected: 8/9/23 12:45
Customer ID:
Submittal Date: 8/10/23 13:23

Laboratory ID Number: BD15137

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM 5310 B		Analyst: SC							
* Total Organic Carbon	8/15/23 01:28	8/15/23 01:28		1	25.3	mg/L	1.00	2	
Analytical Method: SM4500Cl E		Analyst: JCC							
* Chloride	8/16/23 13:31	8/16/23 13:31		4	40.5	mg/L	2.00	4	
Analytical Method: SM4500F G 2017		Analyst: JCC							
* Fluoride	8/17/23 11:39	8/17/23 11:39		1	0.0948	mg/L	0.06	0.125	J
Analytical Method: SM4500SO4 E 2011		Analyst: JCC							
* Sulfate	8/11/23 13:03	8/11/23 13:03		1	23.5	mg/L	0.6	2	
Analytical Method: Field Measurements		Analyst: TJD							
Conductivity	8/9/23 12:43	8/9/23 12:43			401.89	uS/cm			FA
pH	8/9/23 12:43	8/9/23 12:43			5.76	SU			FA
Temperature	8/9/23 12:43	8/9/23 12:43			21.88	C			FA
Turbidity	8/9/23 12:43	8/9/23 12:43			3.21	NTU			FA
Sulfide	8/9/23 12:43	8/9/23 12:43			0	mg/L			FA

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWBARAP

Sample Date: 8/9/23 12:45

Customer ID:

Delivery Date: 8/10/23 13:23

Description: Barry Ash Pond - MW-13

Laboratory ID Number: BD15137

Sample	Analysis	Units	MB		Spike	MS	MSD	Standard		Rec		Prec	Limit
			MB	Limit				Standard	Limit	Rec	Limit		
BD15137	Aluminum, Dissolved	mg/L	-0.000177	0.0198	0.100	0.113	0.114	0.0996	0.0850 to 0.115	97.8	70.0 to 130	0.881	20.0
BD15138	Aluminum, Total	mg/L	0.000797	0.0198	0.100	0.102	0.104	0.101	0.0850 to 0.115	102	70.0 to 130	1.94	20.0
BD15137	Antimony, Dissolved	mg/L	0.000284	0.00100	0.100	0.0895	0.0906	0.0894	0.0850 to 0.115	89.5	70.0 to 130	1.22	20.0
BD15138	Antimony, Total	mg/L	0.000290	0.00100	0.100	0.0949	0.0963	0.0960	0.0850 to 0.115	94.9	70.0 to 130	1.46	20.0
BD15137	Arsenic, Dissolved	mg/L	0.0000336	0.000200	0.100	0.113	0.114	0.100	0.0850 to 0.115	98.5	70.0 to 130	0.881	20.0
BD15138	Arsenic, Total	mg/L	-0.0000112	0.000200	0.100	0.0976	0.0980	0.0983	0.0850 to 0.115	97.6	70.0 to 130	0.409	20.0
BD15137	Barium, Dissolved	mg/L	0.0000170	0.00100	0.100	0.160	0.158	0.0964	0.0850 to 0.115	103	70.0 to 130	1.26	20.0
BD15138	Barium, Total	mg/L	-0.0000090	0.00100	0.100	0.0991	0.100	0.0976	0.0850 to 0.115	99.1	70.0 to 130	0.904	20.0
BD15137	Beryllium, Dissolved	mg/L	0.0000259	0.000880	0.100	0.0923	0.0920	0.0914	0.0850 to 0.115	92.3	70.0 to 130	0.326	20.0
BD15138	Beryllium, Total	mg/L	0.0000299	0.000880	0.100	0.0968	0.0953	0.0955	0.0850 to 0.115	96.8	70.0 to 130	1.56	20.0
BD15137	Boron, Dissolved	mg/L	0.00225	0.0650	1.00	1.10	1.08	1.01	0.850 to 1.15	105	70.0 to 130	1.83	20.0
BD15138	Boron, Total	mg/L	0.00168	0.0650	1.00	1.01	1.02	1.00	0.850 to 1.15	101	70.0 to 130	0.985	20.0
BD15137	Cadmium, Dissolved	mg/L	-0.0000136	0.000147	0.100	0.0979	0.0997	0.0992	0.0850 to 0.115	97.9	70.0 to 130	1.82	20.0
BD15138	Cadmium, Total	mg/L	-0.0000112	0.000147	0.100	0.0963	0.0995	0.0982	0.0850 to 0.115	96.3	70.0 to 130	3.27	20.0
BD15137	Calcium, Dissolved	mg/L	-0.00180	0.152	5.00	22.3	22.7	5.07	4.25 to 5.75	94.0	70.0 to 130	1.78	20.0
BD15138	Calcium, Total	mg/L	-0.00266	0.152	5.00	5.23	5.23	5.31	4.25 to 5.75	105	70.0 to 130	0.00	20.0
BD15138	Chloride	mg/L	0.0523	1.00	10.0	9.87	9.52	9.58	9.00 to 11.0	98.7	80.0 to 120	3.61	20.0
BD15137	Chromium, Dissolved	mg/L	-0.0000676	0.000440	0.100	0.104	0.106	0.0989	0.0850 to 0.115	96.8	70.0 to 130	1.90	20.0
BD15138	Chromium, Total	mg/L	-0.0000646	0.000440	0.100	0.102	0.103	0.100	0.0850 to 0.115	102	70.0 to 130	0.976	20.0
BD15137	Cobalt, Dissolved	mg/L	-0.0000050	0.000147	0.100	0.101	0.103	0.101	0.0850 to 0.115	99.8	70.0 to 130	1.96	20.0
BD15138	Cobalt, Total	mg/L	-0.0000050	0.000147	0.100	0.104	0.105	0.103	0.0850 to 0.115	104	70.0 to 130	0.957	20.0
BD15138	Fluoride	mg/L	0.0248	0.125	2.50	2.61	2.66	2.55	2.25 to 2.75	104	80.0 to 120	1.90	20.0
BD15137	Iron, Dissolved	mg/L	0.000187	0.0176	0.2	33.3	32.8	0.201	0.170 to 0.230	250	70.0 to 130	1.51	20.0
BD15138	Iron, Total	mg/L	-1.490E-05	0.0176	0.2	0.207	0.208	0.207	0.170 to 0.230	104	70.0 to 130	0.482	20.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWBARAP

Sample Date: 8/9/23 12:45

Customer ID:

Delivery Date: 8/10/23 13:23

Description: Barry Ash Pond - MW-13

Laboratory ID Number: BD15137

Sample	Analysis	Units	MB		Spike	MS	MSD	Standard		Rec		Prec	Limit
			MB	Limit				Standard	Limit	Rec	Limit		
BD15137	Lead, Dissolved	mg/L	0.000053	0.000147	0.100	0.0931	0.0933	0.0944	0.0850 to 0.115	93.1	70.0 to 130	0.215	20.0
BD15138	Lead, Total	mg/L	0.000042	0.000147	0.100	0.0960	0.0952	0.0938	0.0850 to 0.115	96.0	70.0 to 130	0.837	20.0
BD15137	Lithium, Dissolved	mg/L	1.970E-05	0.0154	0.200	0.210	0.212	0.192	0.170 to 0.230	105	70.0 to 130	0.948	20.0
BD15138	Lithium, Total	mg/L	-1.850E-05	0.0154	0.200	0.192	0.192	0.191	0.170 to 0.230	96.0	70.0 to 130	0.00	20.0
BD15137	Magnesium, Dissolved	mg/L	-0.00343	0.0462	5.00	11.0	11.4	5.06	4.25 to 5.75	89.4	70.0 to 130	3.57	20.0
BD15138	Magnesium, Total	mg/L	-0.00212	0.0462	5.00	5.08	5.07	5.06	4.25 to 5.75	102	70.0 to 130	0.197	20.0
BD15137	Manganese, Dissolved	mg/L	-0.0000005	0.00033	0.100	0.535	0.543	0.101	0.0850 to 0.115	87.0	70.0 to 130	1.48	20.0
BD15138	Manganese, Total	mg/L	0.0000372	0.00033	0.100	0.102	0.102	0.101	0.0850 to 0.115	102	70.0 to 130	0.00	20.0
BD15138	Mercury, Total by CVAA	mg/L	4.000E-05	0.000500	0.004	0.00389	0.00384	0.00383	0.00340 to 0.00460	97.2	70.0 to 130	1.29	20.0
BD15137	Molybdenum, Dissolved	mg/L	0.000188	0.0100	0.2	0.205	0.206	0.199	0.170 to 0.230	102	70.0 to 130	0.487	20.0
BD15138	Molybdenum, Total	mg/L	0.001	0.0100	0.2	0.207	0.207	0.205	0.170 to 0.230	104	70.0 to 130	0.00	20.0
BD15137	Potassium, Dissolved	mg/L	0.00301	0.367	10.0	12.1	12.2	10.1	8.50 to 11.5	99.8	70.0 to 130	0.823	20.0
BD15138	Potassium, Total	mg/L	-0.000658	0.367	10.0	10.0	9.94	10.0	8.50 to 11.5	100	70.0 to 130	0.602	20.0
BD15137	Selenium, Dissolved	mg/L	0.0000907	0.00100	0.100	0.106	0.106	0.100	0.0850 to 0.115	106	70.0 to 130	0.00	20.0
BD15138	Selenium, Total	mg/L	0.0000520	0.00100	0.100	0.105	0.106	0.105	0.0850 to 0.115	105	70.0 to 130	0.948	20.0
BD15137	Silicon, Dissolved	mg/L	-0.00284	0.0440	1.00	8.66	8.67	1.02	0.850 to 1.15	105	70.0 to 130	0.115	20.0
BD15138	Silicon, Total	mg/L	-0.00214	0.0440	1.00	1.04	1.04	1.05	0.850 to 1.15	104	70.0 to 130	0.00	20.0
BD15137	Sodium, Dissolved	mg/L	9.930E-05	0.0880	5.00	57.8	57.0	4.81	4.25 to 5.75	104	70.0 to 130	1.39	20.0
BD15138	Sodium, Total	mg/L	0.000215	0.0880	5.00	4.81	4.82	4.84	4.25 to 5.75	96.2	70.0 to 130	0.208	20.0
BD15138	Sulfate	mg/L	0.345	2.0	20.0	20.3	20.2	20.3	18.0 to 22.0	102	80.0 to 120	0.494	20.0
BD15137	Thallium, Dissolved	mg/L	0.0000012	0.000147	0.100	0.0947	0.0938	0.0959	0.0850 to 0.115	94.7	70.0 to 130	0.955	20.0
BD15138	Thallium, Total	mg/L	0.0000074	0.000147	0.100	0.0983	0.0961	0.0955	0.0850 to 0.115	98.3	70.0 to 130	2.26	20.0
BD15138	Total Organic Carbon	mg/L	0.164	1.00	10.0	8.72	8.57	22.4		87.2	80.0 to 120	1.74	20.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Batch QC Summary

Customer Account: WMWBARAP

Sample Date: 8/9/23 12:45

Customer ID:

Delivery Date: 8/10/23 13:23

Description: Barry Ash Pond - MW-13

Laboratory ID Number: BD15137

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BD15137	Alkalinity	mg CaCO3/L					145	51.7	45.0 to 55.0			1.39	10.0
BD15138	Nitrogen, Nitrate/Nitrite	mg/L as N	0.03	0.200	2.00	1.94	0.016	2.00	1.80 to 2.20	97.0	90.0 to 110	0.00	15.0
BD15137	Solids, Dissolved	mg/L	0.0000	25.0			304	51.0	40.0 to 60.0			1.63	10.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.

Certificate Of Analysis

Description: Barry Ash Pond Equipment Blank-1

Location Code: WMWBARAPEB
Collected: 8/9/23 13:20
Customer ID:
Submittal Date: 8/10/23 13:24

Laboratory ID Number: BD15138

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7		Analyst: ABB			Preparation Method: EPA 1638				
* Boron, Total	8/11/23 12:23	8/15/23 13:06		1.015	Not Detected	mg/L	0.030000	0.1015	U
* Calcium, Total	8/11/23 12:23	8/15/23 13:06		1.015	Not Detected	mg/L	0.070035	0.406	U
* Iron, Total	8/11/23 12:23	8/15/23 13:06		1.015	Not Detected	mg/L	0.008120	0.0406	U
* Lithium, Total	8/11/23 12:23	8/15/23 13:06		1.015	Not Detected	mg/L	0.007105	0.01999956	U
* Magnesium, Total	8/11/23 12:23	8/15/23 13:06		1.015	Not Detected	mg/L	0.021315	0.406	U
* Molybdenum, Total	8/11/23 12:23	8/15/23 13:06		1.015	Not Detected	mg/L	0.005075	0.01015	U
* Silica, Total (calc.)	8/11/23 12:23	8/15/23 13:06		1	Not Detected	mg/L			
* Silicon, Total	8/11/23 12:23	8/15/23 13:06		1.015	Not Detected	mg/L	0.02030	0.25375	U
* Sodium, Total	8/11/23 12:23	8/15/23 13:06		1.015	Not Detected	mg/L	0.04060	0.406	U
Analytical Method: EPA 200.8		Analyst: DLJ			Preparation Method: EPA 1638				
* Antimony, Total	8/11/23 12:23	8/11/23 15:38		1.015	Not Detected	mg/L	0.000710	0.001015	U
* Arsenic, Total	8/11/23 12:23	8/15/23 18:34		1.015	Not Detected	mg/L	0.000112	0.000203	U
* Aluminum, Total	8/11/23 12:23	8/11/23 15:38		1.015	Not Detected	mg/L	0.009135	0.05075	U
* Barium, Total	8/11/23 12:23	8/11/23 15:38		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Beryllium, Total	8/11/23 12:23	8/11/23 15:38		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Total	8/11/23 12:23	8/15/23 18:34		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Total	8/11/23 12:23	8/11/23 15:38		1.015	0.000250	mg/L	0.000203	0.001015	J
* Cobalt, Total	8/11/23 12:23	8/11/23 15:38		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Lead, Total	8/11/23 12:23	8/11/23 15:38		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Total	8/11/23 12:23	8/11/23 15:38		1.015	Not Detected	mg/L	0.000152	0.001015	U
* Potassium, Total	8/11/23 12:23	8/11/23 15:38		1.015	Not Detected	mg/L	0.169505	0.5075	U
* Selenium, Total	8/11/23 12:23	8/11/23 15:38		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Total	8/11/23 12:23	8/11/23 15:38		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 245.1		Analyst: ELH							
* Mercury, Total by CVAA	8/15/23 15:19	8/15/23 20:59		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: EPA 353.2		Analyst: SC							
* Nitrogen, Nitrate/Nitrite	8/11/23 10:22	8/11/23 10:22		1	Not Detected	mg/L as N	0.20	0.3	U
Analytical Method: SM 2540C		Analyst: CNJ							
* Solids, Dissolved	8/15/23 11:30	8/16/23 13:35		1	Not Detected	mg/L		25	U

MDL's and RL's are adjusted for sample dilution, as applicable

Comments:

Certificate Of Analysis

Description: Barry Ash Pond Equipment Blank-1

Location Code: WMWBARAPEB

Collected: 8/9/23 13:20

Customer ID:

Submittal Date: 8/10/23 13:24

Laboratory ID Number: BD15138

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM 5310 B		Analyst: SC							
* Total Organic Carbon	8/15/23 01:42	8/15/23 01:42		1	Not Detected	mg/L	1.00	2	U
Analytical Method: SM4500Cl E		Analyst: JCC							
* Chloride	8/16/23 13:22	8/16/23 13:22		1	Not Detected	mg/L	0.50	1	U
Analytical Method: SM4500F G 2017		Analyst: JCC							
* Fluoride	8/17/23 11:41	8/17/23 11:41		1	Not Detected	mg/L	0.06	0.125	U
Analytical Method: SM4500SO4 E 2011		Analyst: JCC							
* Sulfate	8/11/23 13:04	8/11/23 13:04		1	Not Detected	mg/L	0.6	2	U

MDL's and RL's are adjusted for sample dilution, as applicable

Comments:

Batch QC Summary

Customer Account: WMWBARAPEB

Sample Date: 8/9/23 13:20

Customer ID:

Delivery Date: 8/10/23 13:24

Description: Barry Ash Pond Equipment Blank-1

Laboratory ID Number: BD15138

Sample	Analysis	Units	MB					Standard		Rec		Prec	Limit
			MB	Limit	Spike	MS	MSD	Standard	Limit	Rec	Limit		
BD15138	Aluminum, Total	mg/L	0.000797	0.0198	0.100	0.102	0.104	0.101	0.0850 to 0.115	102	70.0 to 130	1.94	20.0
BD15138	Antimony, Total	mg/L	0.000290	0.00100	0.100	0.0949	0.0963	0.0960	0.0850 to 0.115	94.9	70.0 to 130	1.46	20.0
BD15138	Arsenic, Total	mg/L	-0.0000112	0.000200	0.100	0.0976	0.0980	0.0983	0.0850 to 0.115	97.6	70.0 to 130	0.409	20.0
BD15138	Barium, Total	mg/L	-0.0000090	0.00100	0.100	0.0991	0.100	0.0976	0.0850 to 0.115	99.1	70.0 to 130	0.904	20.0
BD15138	Beryllium, Total	mg/L	0.0000299	0.000880	0.100	0.0968	0.0953	0.0955	0.0850 to 0.115	96.8	70.0 to 130	1.56	20.0
BD15138	Boron, Total	mg/L	0.00168	0.0650	1.00	1.01	1.02	1.00	0.850 to 1.15	101	70.0 to 130	0.985	20.0
BD15138	Cadmium, Total	mg/L	-0.0000112	0.000147	0.100	0.0963	0.0995	0.0982	0.0850 to 0.115	96.3	70.0 to 130	3.27	20.0
BD15138	Calcium, Total	mg/L	-0.00266	0.152	5.00	5.23	5.23	5.31	4.25 to 5.75	105	70.0 to 130	0.00	20.0
BD15138	Chloride	mg/L	0.0523	1.00	10.0	9.87	9.52	9.58	9.00 to 11.0	98.7	80.0 to 120	3.61	20.0
BD15138	Chromium, Total	mg/L	-0.0000646	0.000440	0.100	0.102	0.103	0.100	0.0850 to 0.115	102	70.0 to 130	0.976	20.0
BD15138	Cobalt, Total	mg/L	-0.0000050	0.000147	0.100	0.104	0.105	0.103	0.0850 to 0.115	104	70.0 to 130	0.957	20.0
BD15138	Fluoride	mg/L	0.0248	0.125	2.50	2.61	2.66	2.55	2.25 to 2.75	104	80.0 to 120	1.90	20.0
BD15138	Iron, Total	mg/L	-1.490E-05	0.0176	0.2	0.207	0.208	0.207	0.170 to 0.230	104	70.0 to 130	0.482	20.0
BD15138	Lead, Total	mg/L	0.0000042	0.000147	0.100	0.0960	0.0952	0.0938	0.0850 to 0.115	96.0	70.0 to 130	0.837	20.0
BD15138	Lithium, Total	mg/L	-1.850E-05	0.0154	0.200	0.192	0.192	0.191	0.170 to 0.230	96.0	70.0 to 130	0.00	20.0
BD15138	Magnesium, Total	mg/L	-0.00212	0.0462	5.00	5.08	5.07	5.06	4.25 to 5.75	102	70.0 to 130	0.197	20.0
BD15138	Manganese, Total	mg/L	0.0000372	0.00033	0.100	0.102	0.102	0.101	0.0850 to 0.115	102	70.0 to 130	0.00	20.0
BD15138	Mercury, Total by CVAA	mg/L	4.000E-05	0.000500	0.004	0.00389	0.00384	0.00383	0.00340 to 0.00460	97.2	70.0 to 130	1.29	20.0
BD15138	Molybdenum, Total	mg/L	0.001	0.0100	0.2	0.207	0.207	0.205	0.170 to 0.230	104	70.0 to 130	0.00	20.0
BD15138	Potassium, Total	mg/L	-0.000658	0.367	10.0	10.0	9.94	10.0	8.50 to 11.5	100	70.0 to 130	0.602	20.0
BD15138	Selenium, Total	mg/L	0.0000520	0.00100	0.100	0.105	0.106	0.105	0.0850 to 0.115	105	70.0 to 130	0.948	20.0
BD15138	Silicon, Total	mg/L	-0.00214	0.0440	1.00	1.04	1.04	1.05	0.850 to 1.15	104	70.0 to 130	0.00	20.0
BD15138	Sodium, Total	mg/L	0.000215	0.0880	5.00	4.81	4.82	4.84	4.25 to 5.75	96.2	70.0 to 130	0.208	20.0
BD15138	Sulfate	mg/L	0.345	2.0	20.0	20.3	20.2	20.3	18.0 to 22.0	102	80.0 to 120	0.494	20.0

Comments:

Batch QC Summary

Customer Account: WMWBARAPEB

Sample Date: 8/9/23 13:20

Customer ID:

Delivery Date: 8/10/23 13:24

Description: Barry Ash Pond Equipment Blank-1

Laboratory ID Number: BD15138

Sample	Analysis	Units	MB	MB				Standard		Rec		Prec	
				Limit	Spike	MS	MSD	Standard	Limit	Rec	Limit	Prec	Limit
BD15138	Thallium, Total	mg/L	0.0000074	0.000147	0.100	0.0983	0.0961	0.0955	0.0850 to 0.115	98.3	70.0 to 130	2.26	20.0
BD15138	Total Organic Carbon	mg/L	0.164	1.00	10.0	8.72	8.57	22.4		87.2	80.0 to 120	1.74	20.0

Comments:

Batch QC Summary

Customer Account: WMWBARAPEB

Sample Date: 8/9/23 13:20

Customer ID:

Delivery Date: 8/10/23 13:24

Description: Barry Ash Pond Equipment Blank-1

Laboratory ID Number: BD15138

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Limit	Prec	Limit
BD15138	Nitrogen, Nitrate/Nitrite	mg/L as N	0.03	0.200	2.00	1.94	0.016	2.00	1.80 to 2.20	97.0	90.0 to 110	0.00	15.0
BD15137	Solids, Dissolved	mg/L	0.0000	25.0			304	51.0	40.0 to 60.0			1.63	10.0

Comments:

Definitions

Project Number: WMWBARAP_1417

Abbreviation	Description
DF	Dilution Factor
LCS	Lab Control Sample
LFM	Lab Fortified Matrix
MB	Method Blank
MDL	Method Detection Limit; minimum concentration of an analyte that can be determined with 99% confidence that the concentration is greater than zero.
MS	Matrix Spike
MSD	Matrix Spike Duplicate
Prec	Precision (% RPD)
Q	Qualifier; comment used to note deviations or additional information associated with analytical results.
QC	Quality Control
Rec	Recovery of Matrix Spike
RL	Reporting Limit; lowest concentration at which an analyte can be quantitatively measured.
Vio Spec	Violation Specification; regulatory limit which has been exceeded by the sample analyzed.

Qualifier	Description
A	Bicarbonate alkalinity, carbonate alkalinity, hydroxide alkalinity, free carbon dioxide, and/or total carbon dioxide calculations are estimates due to pH>10SU and/or TDS>500mg/L.
FA	Field results were reviewed by the Water Field Group. Refer to APC Field Case Narrative.
J	Reported value is an estimate because concentration is less than reporting limit.
RA	Matrix spike is invalid due to sample concentration.
U	Compound was analyzed, but not detected.



Chain of Custody

Groundwater

APC General Testing Laboratory

Field Complete
 Lab Complete

Outside Lab

Lab ETA

Requested Complete Date	Routine	Results To	Dustin Brooks, Greg Dyer
Collector	Dallas Gentry	Requested By	Greg Dyer
		Location	Barry Ash Pond

Bottles	1	Metals	500 mL	3	Hg	250 mL	5	TDS/Alkalinity	500 mL	7	N/A	N/A
	2	Dissolved Metals	500 mL	4	Nitrite, Nitrate; TOC	250 mL	6	Anions	500 mL	8	N/A	N/A

Comments: Relinquished to GSC Shipping Lab 080923 1300 AWG

Sample #	Date	Time	Bottle Count	Description	Lab Filter	Lab Id	pH Check
MW-11	08/07/2023	11:05	6	Groundwater		BD14996	<input checked="" type="checkbox"/>
FB-1	08/07/2023	11:30	5	Field Blank		BD14997	<input checked="" type="checkbox"/>
MW-10	08/07/2023	12:05	6	Groundwater		BD14998	<input checked="" type="checkbox"/>
MW-10 dup	08/07/2023	12:05	6	Sample Duplicate		BD14999	<input checked="" type="checkbox"/>
MW-10V	08/07/2023	13:04	6	Groundwater		BD15000	<input checked="" type="checkbox"/>
MW-9	08/07/2023	14:00	6	Groundwater		BD15001	<input checked="" type="checkbox"/>
MW-16V	08/07/2023	15:20	6	Groundwater		BD15002	<input checked="" type="checkbox"/>
MW-18H	08/08/2023	07:51	6	Groundwater		BD15003	<input checked="" type="checkbox"/>
MW-19H	08/08/2023	08:58	6	Groundwater		BD15004	<input checked="" type="checkbox"/>
MW-20H	08/08/2023	09:56	6	Groundwater		BD15005	<input checked="" type="checkbox"/>
MW-20V	08/08/2023	10:49	6	Groundwater		BD15006	<input checked="" type="checkbox"/>
MW-12	08/08/2023	11:50	6	Groundwater		BD15007	<input checked="" type="checkbox"/>
MW-12V	08/08/2023	12:38	6	Groundwater		BD15008	<input checked="" type="checkbox"/>
MW-1	08/08/2023	13:50	6	Groundwater		BD15009	<input checked="" type="checkbox"/>
MW-1 dup	08/08/2023	13:50	6	Sample Duplicate		BD15010	<input checked="" type="checkbox"/>
							<input type="checkbox"/>
							<input type="checkbox"/>
							<input type="checkbox"/>
							<input type="checkbox"/>
							<input type="checkbox"/>
							<input type="checkbox"/>
							<input type="checkbox"/>

Relinquished By	Received By	Date/Time
		08/09/2023 07:40
 Digitally signed by Anthony Goggins Date: 2023.08.09 15:09:12 -05'00'	Brooke Caton Digitally signed by Brooke Caton Date: 2023.08.10 09:42:19 -05'00'	08/10/2023 09:42

SmarTroll ID	7586-41443-5-2	Cooler Temp	1.8 °C
Turbidity ID	9901-57263-1-1	Thermometer ID	10614-61208-2-1
Sample Event	1417	pH Strip ID	10853-62410-10-9

Bottles/Pre-Preserved Bottles are provided by the GTL.
 Total Metals and Alkalinity are not performed on Dissolved Sets
 Dissolved Metals and Alkalinity are not performed on blanks i.e. Field Blanks or Equipment Blanks



Chain of Custody

Groundwater

APC General Testing Laboratory

Field Complete
 Lab Complete

Outside Lab

Lab ETA

Requested Complete Date	Routine	Results To	Dustin Brooks, Greg Dyer
	Collector		TJ Daugherty
		Location	Barry Ash Pond

Bottles	1	Metals	500 mL	3	Hg	250 mL	5	TDS/Alkalinity	500 mL	7	N/A	N/A
	2	Dissolved Metals	500 mL	4	Nitrite, Nitrate; TOC	250 mL	6	Anions	500 mL	8	N/A	N/A

Comments: Relinquished to GSC Shipping Lab 080923 1300 AWG

Sample #	Date	Time	Bottle Count	Description	Lab Filter	Lab Id	pH Check
MW-7V	08/07/2023	12:31	6	Groundwater		BD15011	<input checked="" type="checkbox"/>
MW-7	08/07/2023	13:30	6	Groundwater		BD15012	<input checked="" type="checkbox"/>
MW-5V	08/07/2023	14:55	6	Groundwater		BD15013	<input checked="" type="checkbox"/>
MW-5	08/07/2023	15:52	6	Groundwater		BD15014	<input checked="" type="checkbox"/>
FB-2	08/07/2023	16:20	5	Field Blank		BD15015	<input checked="" type="checkbox"/>
MW-25V	08/08/2023	08:55	6	Groundwater		BD15016	<input checked="" type="checkbox"/>
MW-25H	08/08/2023	09:58	6	Groundwater		BD15017	<input checked="" type="checkbox"/>
MW-25H Dup	08/08/2023	09:58	6	Sample Duplicate		BD15018	<input checked="" type="checkbox"/>
MW-17V	08/08/2023	12:15	6	Groundwater		BD15019	<input checked="" type="checkbox"/>
MW-17H	08/08/2023	13:00	6	Groundwater		BD15020	<input checked="" type="checkbox"/>
MW-23V	08/08/2023	14:08	6	Groundwater		BD15021	<input checked="" type="checkbox"/>
MW-23H	08/08/2023	15:10	6	Groundwater		BD15022	<input checked="" type="checkbox"/>
							<input type="checkbox"/>
							<input type="checkbox"/>
							<input type="checkbox"/>
							<input type="checkbox"/>
							<input type="checkbox"/>
							<input type="checkbox"/>
							<input type="checkbox"/>
							<input type="checkbox"/>
							<input type="checkbox"/>
							<input type="checkbox"/>

Relinquished By	Received By	Date/Time
		08/09/2023 07:39
 Digitally signed by Anthony Goggins Date: 2023.08.09 15:08:09 -05'00'	Brooke Caton Digitally signed by Brooke Caton Date: 2023.08.10 09:42:42 -05'00'	08/10/2023 09:42

SmarTroll ID	7586-41445-5-4	Cooler Temp	0.9 °C
Turbidity ID	4677-23343-4-2	Thermometer ID	10614-61208-2-1
Sample Event	1417	pH Strip ID	10853-62410-10-9

Bottles/Pre-Preserved Bottles are provided by the GTL.
 Total Metals and Alkalinity are not performed on Dissolved Sets
 Dissolved Metals and Alkalinity are not performed on blanks i.e. Field Blanks or Equipment Blanks



Chain of Custody

Groundwater

APC General Testing Laboratory

Field Complete
 Lab Complete

Outside Lab

Lab ETA

Requested Complete Date	Routine	Results To	Dustin Brooks, Greg Dyer
Collector	Anthony Goggins	Requested By	Greg Dyer
		Location	Barry Ash Pond

Bottles	1	Metals	500 mL	3	Hg	250 mL	5	TDS/Alkalinity	500 mL	7	N/A	N/A
	2	Dissolved Metals	500 mL	4	Nitrite, Nitrate; TOC	250 mL	6	Anions	500 mL	8	N/A	N/A

Comments: Field Filtered set collected @ MW-8V; Relinquished to GSC shipping Lab 080923 1300

Sample #	Date	Time	Bottle Count	Description	Lab Filter	Lab Id	pH Check
MW-8	08/07/2023	14:30	6	Groundwater		BD14985	<input checked="" type="checkbox"/>
MW-8V	08/07/2023	17:40	6	Groundwater		BD14986	<input checked="" type="checkbox"/>
MW-8V Diss	08/07/2023	17:40	4	Field Filtered		BD14987	<input checked="" type="checkbox"/>
MW-15V	08/08/2023	09:13	6	Groundwater		BD14988	<input checked="" type="checkbox"/>
MW-22H	08/08/2023	10:30	6	Groundwater		BD14989	<input checked="" type="checkbox"/>
FB-3	08/08/2023	11:20	5	Field Blank		BD14990	<input checked="" type="checkbox"/>
MW-15	08/08/2023	11:40	6	Groundwater		BD14991	<input checked="" type="checkbox"/>
MW-24H	08/08/2023	12:50	6	Groundwater		BD14992	<input checked="" type="checkbox"/>
MW-16	08/08/2023	13:55	6	Groundwater		BD14993	<input checked="" type="checkbox"/>
MW-16DUP	08/08/2023	13:55	6	Sample Duplicate		BD14994	<input checked="" type="checkbox"/>
MW-2	08/08/2023	14:57	6	Groundwater		BD14995	<input checked="" type="checkbox"/>
							<input type="checkbox"/>
							<input type="checkbox"/>
							<input type="checkbox"/>
							<input type="checkbox"/>
							<input type="checkbox"/>
							<input type="checkbox"/>
							<input type="checkbox"/>
							<input type="checkbox"/>
							<input type="checkbox"/>
							<input type="checkbox"/>
							<input type="checkbox"/>
							<input type="checkbox"/>
							<input type="checkbox"/>

Relinquished By	Received By	Date/Time
 Digitally signed by Anthony Goggins Date: 2023.08.09 15:02:50 -05'00'	Brooke Caton Digitally signed by Brooke Caton Date: 2023.08.10 09:41:57 -05'00'	08/10/2023 09:41

SmarTroll ID	7586-41446-5-5	Cooler Temp	0.9 °C
Turbidity ID	9830-57039-1-1	Thermometer ID	10614-61208-2-1
Sample Event	1417	pH Strip ID	10620-61242-10-8

Bottles/Pre-Preserved Bottles are provided by the GTL.
 Total Metals and Alkalinity are not performed on Dissolved Sets
 Dissolved Metals and Alkalinity are not performed on blanks i.e. Field Blanks or Equipment Blanks



Chain of Custody

Groundwater

APC General Testing Laboratory

Field Complete
 Lab Complete

Outside Lab

Lab ETA

Requested Complete Date	Routine	Results To	Dustin Brooks, Greg Dyer
	Collector TJ Daugherty		Requested By
		Location	Barry Ash Pond

Bottles	1	Metals	500 mL	3	Hg	250 mL	5	TDS/Alkalinity	500 mL	7	N/A	N/A
	2	Dissolved Metals	500 mL	4	Nitrite, Nitrate; TOC	250 mL	6	Anions	500 mL	8	N/A	N/A

Comments

Sample #	Date	Time	Bottle Count	Description	Lab Filter	Lab Id	pH Check
MW-14V	08/09/2023	09:25	6	Groundwater		BD15134	<input checked="" type="checkbox"/>
MW-14	08/09/2023	10:27	6	Groundwater		BD15135	<input checked="" type="checkbox"/>
MW-13V	08/09/2023	11:45	6	Groundwater		BD15136	<input checked="" type="checkbox"/>
MW-13	08/09/2023	12:45	6	Groundwater		BD15137	<input checked="" type="checkbox"/>
EB-1	08/09/2023	13:20	5	Equipment Blank		BD15138	<input checked="" type="checkbox"/>
							<input type="checkbox"/>
							<input type="checkbox"/>
							<input type="checkbox"/>
							<input type="checkbox"/>
							<input type="checkbox"/>
							<input type="checkbox"/>
							<input type="checkbox"/>
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							<input type="checkbox"/>
							<input type="checkbox"/>
							<input type="checkbox"/>
							<input type="checkbox"/>

Relinquished By	Received By	Date/Time
<i>HAB</i>	<i>Bruce Cotton</i>	08/10/2023 11:31

SmarTroll ID	7586-41445-5-4	Cooler Temp	1.8 °C
Turbidity ID	4677-23343-4-2	Thermometer ID	10614-61208-2-1
Sample Event	1417	pH Strip ID	10853-32410-10-9

Bottles/Pre-Preserved Bottles are provided by the GTL.
 Total Metals and Alkalinity are not performed on Dissolved Sets
 Dissolved Metals and Alkalinity are not performed on blanks i.e. Field Blanks or Equipment Blanks



Chain of Custody Groundwater

APC General Testing Laboratory

Field Complete
 Lab Complete

Outside Lab

Lab ETA

Requested Complete Date	Routine	Results To	Dustin Brooks, Greg Dyer
	Collector		Dallas Gentry
		Location	Barry Ash Pond

Bottles	1	Metals	500 mL	3	Hg	250 mL	5	TDS/Alkalinity	500 mL	7	N/A	N/A
	2	Dissolved Metals	500 mL	4	Nitrite, Nitrate; TOC	250 mL	6	Anions	500 mL	8	N/A	N/A

Comments Relinquished to GSC Building 8 shipping lab DFG 08/10/2023 1156
 MW-15 removed. Sample was not submitted. RDA 08/10/23

Sample #	Date	Time	Bottle Count	Description	Lab Filter	Lab Id	pH Check
	08/09/2023						<input type="checkbox"/>
MW-1V	08/09/2023	10:14	6	Groundwater		BD15129	<input checked="" type="checkbox"/>
FB-4	08/09/2023	10:35	5	Field Blank		BD15130	<input checked="" type="checkbox"/>
MW-3	08/09/2023	11:48	6	Groundwater		BD15131	<input checked="" type="checkbox"/>
MW-4	08/09/2023	12:38	6	Groundwater		BD15132	<input checked="" type="checkbox"/>
MW-6	08/09/2023	13:45	6	Groundwater		BD15133	<input checked="" type="checkbox"/>
							<input type="checkbox"/>
							<input type="checkbox"/>
							<input type="checkbox"/>
							<input type="checkbox"/>
							<input type="checkbox"/>
							<input type="checkbox"/>
							<input type="checkbox"/>
							<input type="checkbox"/>
							<input type="checkbox"/>
							<input type="checkbox"/>
							<input type="checkbox"/>
							<input type="checkbox"/>
							<input type="checkbox"/>
							<input type="checkbox"/>

Relinquished By	Received By	Date/Time
	Brooke Caton Digitally signed by Brooke Caton Date: 2023.08.10 13:18:05 -05'00'	08/10/2023 13:18

SmarTroll ID	7586-41443-5-2	Cooler Temp	0.9 °C
Turbidity ID	9901-57263-1-1	Thermometer ID	10614-61208-2-1
Sample Event	1417	pH Strip ID	10853-32410-10-9

Bottles/Pre-Preserved Bottles are provided by the GTL.
 Total Metals and Alkalinity are not performed on Dissolved Sets

Dissolved Metals and Alkalinity are not performed on blanks i.e. Field Blanks or Equipment Blanks



Chain of Custody

Groundwater

APC General Testing Laboratory

Field Complete
 Lab Complete

Outside Lab

Lab ETA

Requested Complete Date	Routine	Results To	Dustin Brooks, Greg Dyer
Collector	Dallas Gentry	Requested By	Greg Dyer
		Location	Barry Ash Pond

Bottles	1 Radium	1 L	3 N/A	N/A	5 N/A	N/A	7 N/A	N/A
	2 N/A	N/A	4 N/A	N/A	6 N/A	N/A	8 N/A	N/A

Comments: Radium MS/MSD collected at MW-11; Relinquished to GSC Shipping Lab 080923 1300 AWG

Sample #	Date	Time	Bottle Count	Description	Lab Filter	Lab Id	pH Check
MW-11	08/07/2023	11:05	3	Groundwater		BD15034	<input checked="" type="checkbox"/>
FB-1	08/07/2023	11:30	1	Field Blank		BD15035	<input checked="" type="checkbox"/>
MW-10	08/07/2023	12:05	1	Groundwater		BD15036	<input checked="" type="checkbox"/>
MW-10 dup	08/07/2023	12:05	1	Sample Duplicate		BD15037	<input checked="" type="checkbox"/>
MW-10V	08/07/2023	13:04	1	Groundwater		BD15038	<input checked="" type="checkbox"/>
MW-9	08/07/2023	14:00	1	Groundwater		BD15039	<input checked="" type="checkbox"/>
MW-16V	08/07/2023	15:20	1	Groundwater		BD15040	<input checked="" type="checkbox"/>
MW-18H	08/08/2023	07:51	1	Groundwater		BD15041	<input checked="" type="checkbox"/>
MW-19H	08/08/2023	08:58	1	Groundwater		BD15042	<input checked="" type="checkbox"/>
MW-20H	08/08/2023	09:56	1	Groundwater		BD15043	<input checked="" type="checkbox"/>
MW-20V	08/08/2023	10:49	1	Groundwater		BD15044	<input checked="" type="checkbox"/>
MW-12	08/08/2023	11:50	1	Groundwater		BD15045	<input checked="" type="checkbox"/>
MW-12V	08/08/2023	12:38	1	Groundwater		BD15046	<input checked="" type="checkbox"/>
MW-1	08/08/2023	13:50	1	Groundwater		BD15047	<input checked="" type="checkbox"/>
MW-1 dup	08/08/2023	13:50	1	Sample Duplicate		BD15048	<input checked="" type="checkbox"/>
							<input type="checkbox"/>
							<input type="checkbox"/>
							<input type="checkbox"/>
							<input type="checkbox"/>
							<input type="checkbox"/>
							<input type="checkbox"/>
							<input type="checkbox"/>

Relinquished By	Received By	Date/Time
		08/09/2023 07:40
Digitally signed by Anthony Goggins Date: 2023.08.09 15:10:06 -05'00'	Brooke Caton Digitally signed by Brooke Caton Date: 2023.08.10 09:43:15 -05'00'	08/10/2023 09:43

SmarTroll ID	7586-41443-5-2	Cooler Temp	N/A
Turbidity ID	9901-57263-1-1	Thermometer ID	N/A
Sample Event	1417	pH Strip ID	10853-62410-10-9

Bottles/Pre-Preserved Bottles are provided by the GTL.
 Total Metals and Alkalinity are not performed on Dissolved Sets
 Dissolved Metals and Alkalinity are not performed on blanks i.e. Field Blanks or Equipment Blanks



Chain of Custody

Groundwater

APC General Testing Laboratory

Field Complete
 Lab Complete

Outside Lab

Lab ETA

Requested Complete Date	Routine	Results To	Dustin Brooks, Greg Dyer
	Collector		TJ Daugherty
		Location	Barry Ash Pond

Bottles	1	Radium	1 L	3	N/A	N/A	5	N/A	N/A	7	N/A	N/A
	2	N/A	N/A	4	N/A	N/A	6	N/A	N/A	8	N/A	N/A

Comments: Rad MS/MSD @ MW-5, Relinquished to GSC Shipping Lab 080923 1300 AWG

Sample #	Date	Time	Bottle Count	Description	Lab Filter	Lab Id	pH Check
MW-7V	08/07/2023	12:31	1	Groundwater		BD15049	<input checked="" type="checkbox"/>
MW-7	08/07/2023	13:30	1	Groundwater		BD15050	<input checked="" type="checkbox"/>
MW-5V	08/07/2023	14:55	1	Groundwater		BD15051	<input checked="" type="checkbox"/>
MW-5	08/07/2023	15:52	3	Groundwater		BD15052	<input checked="" type="checkbox"/>
FB-2	08/07/2023	16:20	1	Field Blank		BD15053	<input checked="" type="checkbox"/>
MW-25V	08/08/2023	08:55	1	Groundwater		BD15054	<input checked="" type="checkbox"/>
MW-25H	08/08/2023	09:58	1	Groundwater		BD15055	<input checked="" type="checkbox"/>
MW-25H Dup	08/08/2023	09:58	1	Sample Duplicate		BD15056	<input checked="" type="checkbox"/>
MW-17V	08/08/2023	12:15	1	Groundwater		BD15057	<input checked="" type="checkbox"/>
MW-17H	08/08/2023	13:00	1	Groundwater		BD15058	<input checked="" type="checkbox"/>
MW-23V	08/08/2023	14:08	1	Groundwater		BD15059	<input checked="" type="checkbox"/>
MW-23H	08/08/2023	15:10	1	Groundwater		BD15060	<input checked="" type="checkbox"/>
							<input type="checkbox"/>
							<input type="checkbox"/>
							<input type="checkbox"/>
							<input type="checkbox"/>
							<input type="checkbox"/>
							<input type="checkbox"/>
							<input type="checkbox"/>
							<input type="checkbox"/>
							<input type="checkbox"/>
							<input type="checkbox"/>

Relinquished By	Received By	Date/Time
		08/09/2023 07:39
 Digitally signed by Anthony Goggins Date: 2023.08.09 15:06:40 -05'00'	Brooke Caton Digitally signed by Brooke Caton Date: 2023.08.10 09:43:29 -05'00'	08/10/2023 09:43

SmarTroll ID	7586-41445-5-4	Cooler Temp	N/A
Turbidity ID	4677-23343-4-2	Thermometer ID	N/A
Sample Event	1417	pH Strip ID	10853-62410-10-9

Bottles/Pre-Preserved Bottles are provided by the GTL.
 Total Metals and Alkalinity are not performed on Dissolved Sets
 Dissolved Metals and Alkalinity are not performed on blanks i.e. Field Blanks or Equipment Blanks



Chain of Custody Groundwater

APC General Testing Laboratory

Field Complete
 Lab Complete

Outside Lab


Lab ETA

Requested Complete Date	Routine	Results To	Dustin Brooks, Greg Dyer
	Collector		Anthony Goggins
		Location	Barry Ash Pond

Bottles	1	Radium	1 L	3	N/A	N/A	5	N/A	N/A	7	N/A	N/A
	2	N/A	N/A	4	N/A	N/A	6	N/A	N/A	8	N/A	N/A

Comments MS/MSD Collected @ MW15V; Field Filtered set collected at MW8V; Relinquished to GSC Shipping Lab 080923 1300
Updated bottle count on BD15026 from 1 to 3. Sample is MS/MSD for Radium. BC 08/10/2023

Sample #	Date	Time	Bottle Count	Description	Lab Filter	Lab Id	pH Check
MW-8	08/07/2023	14:30	1	Groundwater		BD15023	<input checked="" type="checkbox"/>
MW-8V	08/07/2023	17:40	1	Groundwater		BD15024	<input checked="" type="checkbox"/>
MW-8V Diss	08/07/2023	17:40	1	Field Filtered		BD15025	<input checked="" type="checkbox"/>
MW-15V	08/08/2023	09:13	3	Groundwater		BD15026	<input checked="" type="checkbox"/>
MW-22H	08/08/2023	10:30	1	Groundwater		BD15027	<input checked="" type="checkbox"/>
FB-3	08/08/2023	11:20	1	Field Blank		BD15028	<input checked="" type="checkbox"/>
MW-15	08/08/2023	11:40	1	Groundwater		BD15029	<input checked="" type="checkbox"/>
MW-24H	08/08/2023	12:50	1	Groundwater		BD15030	<input checked="" type="checkbox"/>
MW-16	08/08/2023	13:55	1	Groundwater		BD15031	<input checked="" type="checkbox"/>
MW-16Dup	08/08/2023	13:55	1	Sample Duplicate		BD15032	<input checked="" type="checkbox"/>
MW-2	08/08/2023	14:57	1	Groundwater		BD15033	<input checked="" type="checkbox"/>
							<input type="checkbox"/>
							<input type="checkbox"/>
							<input type="checkbox"/>
							<input type="checkbox"/>
							<input type="checkbox"/>
							<input type="checkbox"/>
							<input type="checkbox"/>
							<input type="checkbox"/>
							<input type="checkbox"/>
							<input type="checkbox"/>
							<input type="checkbox"/>
							<input type="checkbox"/>

Relinquished By	Received By	Date/Time
 Digitally signed by Anthony Goggins Date: 2023.08.09 15:05:24 -05'00'	Brooke Caton Digitally signed by Brooke Caton Date: 2023.08.10 09:42:58 -05'00'	08/10/2023 09:43

SmarTroll ID	7586-41446-5-5	Cooler Temp	N/A
Turbidity ID	9830-57039-1-1	Thermometer ID	N/A
Sample Event	1417	pH Strip ID	10620-61242-10-8

Bottles/Pre-Preserved Bottles are provided by the GTL.
Total Metals and Alkalinity are not performed on Dissolved Sets
Dissolved Metals and Alkalinity are not performed on blanks i.e. Field Blanks or Equipment Blanks



Chain of Custody Groundwater

APC General Testing Laboratory

Field Complete

Outside Lab

Lab Complete

Lab ETA

Requested Complete Date	Routine	Results To	Dustin Brooks, Greg Dyer
	Collector: TJ Daugherty		Requested By: Greg Dyer
		Location	Barry Ash Pond

Bottles	1 Radium 1 L	3 N/A N/A	5 N/A N/A	7 N/A N/A
	2 N/A N/A	4 N/A N/A	6 N/A N/A	8 N/A N/A

Comments

Sample #	Date	Time	Bottle Count	Description	Lab Filter	Lab Id	pH Check
MW-14V	08/09/2023	09:25	1	Groundwater		BD15144	<input checked="" type="checkbox"/>
MW-14	08/09/2023	10:27	1	Groundwater		BD15145	<input checked="" type="checkbox"/>
MW-13V	08/09/2023	11:45	1	Groundwater		BD15146	<input checked="" type="checkbox"/>
MW-13	08/09/2023	12:45	1	Groundwater		BD15147	<input checked="" type="checkbox"/>
EB-1	08/09/2023	13:20	1	Equipment Blank		BD15148	<input checked="" type="checkbox"/>
							<input type="checkbox"/>
							<input type="checkbox"/>
							<input type="checkbox"/>
							<input type="checkbox"/>
							<input type="checkbox"/>
							<input type="checkbox"/>
							<input type="checkbox"/>
							<input type="checkbox"/>
							<input type="checkbox"/>
							<input type="checkbox"/>
							<input type="checkbox"/>
							<input type="checkbox"/>
							<input type="checkbox"/>
							<input type="checkbox"/>
							<input type="checkbox"/>
							<input type="checkbox"/>
							<input type="checkbox"/>

Relinquished By	Received By	Date/Time
		08/10/2023 11:31

SmarTroll ID	7586-41445-5-4	Cooler Temp	N/A
Turbidity ID	4677-23343-4-2	Thermometer ID	N/A
Sample Event	1417	pH Strip ID	10853-32410-10-9

Bottles/Pre-Preserved Bottles are provided by the GTL.
Total Metals and Alkalinity are not performed on Dissolved Sets
Dissolved Metals and Alkalinity are not performed on blanks i.e. Field Blanks or Equipment Blanks



Chain of Custody
Groundwater
APC General Testing Laboratory

Field Complete
 Lab Complete

Outside Lab

Lab ETA

Requested Complete Date	Routine	Results To	Dustin Brooks, Greg Dyer		
	Collector Dallas Gentry		Requested By	Greg Dyer	
				Location	Barry Ash Pond

Bottles	1 Radium 1 L	3 N/A	N/A	5 N/A	N/A	7 N/A	N/A
	2 N/A	4 N/A	N/A	6 N/A	N/A	8 N/A	N/A

Comments: Relinquished to GSC Building 8 shipping lab DFG 08/10/2023 1156 MW-15 removed. Sample was not submitted. RDA 08/10/23

Sample #	Date	Time	Bottle Count	Description	Lab Filter	Lab Id	pH Check
	08/09/2023						<input type="checkbox"/>
MW-1V	08/09/2023	10:14	1	Groundwater		BD15139	<input checked="" type="checkbox"/>
FB-4	08/09/2023	10:35	1	Field Blank		BD15140	<input checked="" type="checkbox"/>
MW-3	08/09/2023	11:48	1	Groundwater		BD15141	<input checked="" type="checkbox"/>
MW-4	08/09/2023	12:38	1	Groundwater		BD15142	<input checked="" type="checkbox"/>
MW-6	08/09/2023	13:45	1	Groundwater		BD15143	<input checked="" type="checkbox"/>
							<input type="checkbox"/>
							<input type="checkbox"/>
							<input type="checkbox"/>
							<input type="checkbox"/>
							<input type="checkbox"/>
							<input type="checkbox"/>
							<input type="checkbox"/>
							<input type="checkbox"/>
							<input type="checkbox"/>
							<input type="checkbox"/>
							<input type="checkbox"/>
							<input type="checkbox"/>
							<input type="checkbox"/>
							<input type="checkbox"/>
							<input type="checkbox"/>
							<input type="checkbox"/>
							<input type="checkbox"/>

Relinquished By	Received By	Date/Time
	Brooke Caton	08/10/2023 13:19
	<small>Digitally signed by Brooke Caton Date: 2023.08.10 13:18:57 -05'00'</small>	

SmarTroll ID	Cooler Temp
Turbidity ID	Thermometer ID
Sample Event	pH Strip ID
7586-41443-5-2	N/A
9901-57263-1-1	N/A
1417	10853-32410-10-9

Bottles/Pre-Preserved Bottles are provided by the GTL.
Total Metals and Alkalinity are not performed on Dissolved Sets
Dissolved Metals and Alkalinity are not performed on blanks i.e. Field Blanks or Equipment Blanks



September 20, 2023

Brooke Caton
Alabama Power
744 Highway 87
Calera, AL 35040

RE: Project: WMWBARAP_1417
Pace Project No.: 30616118

Dear Brooke Caton:

Enclosed are the analytical results for sample(s) received by the laboratory on August 17, 2023. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Services - Greensburg

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Skyler C. Richmond
skyler.richmond@pacelabs.com
(724)850-5600
Project Manager

Enclosures

cc: Blaine Denton, Alabama Power
Renee Jernigan, Alabama Power



REPORT OF LABORATORY ANALYSIS

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CERTIFICATIONS

Project: WMWBARAP_1417
Pace Project No.: 30616118

Pace Analytical Services Pennsylvania

1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601
ANAB DOD-ELAP Rad Accreditation #: L2417
ANABISO/IEC 17025:2017 Rad Cert#: L24170
Alabama Certification #: 41590
Arizona Certification #: AZ0734
Arkansas Certification
California Certification #: 2950
Colorado Certification #: PA01547
Connecticut Certification #: PH-0694
EPA Region 4 DW Rad
Florida/TNI Certification #: E87683
Georgia Certification #: C040
Guam Certification
Hawaii Certification
Idaho Certification
Illinois Certification
Indiana Certification
Iowa Certification #: 391
Kansas Certification #: E-10358
Kentucky Certification #: KY90133
KY WW Permit #: KY0098221
KY WW Permit #: KY0000221
Louisiana DHH/TNI Certification #: LA010
Louisiana DEQ/TNI Certification #: 04086
Maine Certification #: 2023021
Maryland Certification #: 308
Massachusetts Certification #: M-PA1457
Michigan/PADEP Certification #: 9991

Missouri Certification #: 235
Montana Certification #: Cert0082
Nebraska Certification #: NE-OS-29-14
Nevada Certification #: PA014572023-03
New Hampshire/TNI Certification #: 297622
New Jersey/TNI Certification #: PA051
New Mexico Certification #: PA01457
New York/TNI Certification #: 10888
North Carolina Certification #: 42706
North Dakota Certification #: R-190
Ohio EPA Rad Approval: #41249
Oregon/TNI Certification #: PA200002-015
Pennsylvania/TNI Certification #: 65-00282
Puerto Rico Certification #: PA01457
Rhode Island Certification #: 65-00282
South Dakota Certification
Tennessee Certification #: TN02867
Texas/TNI Certification #: T104704188-22-18
Utah/TNI Certification #: PA014572223-14
USDA Soil Permit #: 525-23-67-77263
Vermont Dept. of Health: ID# VT-0282
Virgin Island/PADEP Certification
Virginia/VELAP Certification #: 460198
Washington Certification #: C868
West Virginia DEP Certification #: 143
West Virginia DHHR Certification #: 9964C
Wisconsin Approve List for Rad

REPORT OF LABORATORY ANALYSIS

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SAMPLE SUMMARY

Project: WMWBARAP_1417
Pace Project No.: 30616118

Lab ID	Sample ID	Matrix	Date Collected	Date Received
30616118001	BD15023 MW-8	Water	08/07/23 14:30	08/17/23 10:00
30616118002	BD15024 MW-8V	Water	08/07/23 17:40	08/17/23 10:00
30616118003	BD15025 MW-8V Diss	Water	08/07/23 17:40	08/17/23 10:00
30616118004	BD15026 MW-15V	Water	08/08/23 09:13	08/17/23 10:00
30616118005	BD15026 MW-15V MS	Water	08/08/23 09:13	08/17/23 10:00
30616118006	BD15026 MW-15V MSD	Water	08/08/23 09:13	08/17/23 10:00
30616118007	BD15027 MW-22H	Water	08/08/23 10:30	08/17/23 10:00
30616118008	BD15028 FB-3	Water	08/08/23 11:20	08/17/23 10:00
30616118009	BD15029 MW-15	Water	08/08/23 11:40	08/17/23 10:00
30616118010	BD15030 MW-24H	Water	08/08/23 12:50	08/17/23 10:00
30616118011	BD15031 MW-16	Water	08/08/23 13:55	08/17/23 10:00
30616118012	BD15032 MW-16 Dup	Water	08/08/23 13:55	08/17/23 10:00
30616118013	BD15033 MW-2	Water	08/08/23 14:57	08/17/23 10:00
30616118014	BD15034 MW-11	Water	08/07/23 11:05	08/17/23 10:00
30616118015	BD15034 MW-11 MS	Water	08/07/23 11:05	08/17/23 10:00
30616118016	BD15034 MW-11 MSD	Water	08/07/23 11:05	08/17/23 10:00
30616118017	BD15035 FB-1	Water	08/07/23 11:30	08/17/23 10:00
30616118018	BD15036 MW-10	Water	08/07/23 12:05	08/17/23 10:00
30616118019	BD15037 MW-10 Dup	Water	08/07/23 12:05	08/17/23 10:00
30616118020	BD15038 MW-10V	Water	08/07/23 13:04	08/17/23 10:00
30616118021	BD15039 MW-9	Water	08/07/23 14:00	08/17/23 10:00
30616118022	BD15040 MW-16V	Water	08/07/23 15:20	08/17/23 10:00
30616118023	BD15041 MW-18H	Water	08/08/23 07:51	08/17/23 10:00
30616118024	BD15042 MW-19H	Water	08/08/23 08:58	08/17/23 10:00
30616118025	BD15043 MW-20H	Water	08/08/23 09:56	08/17/23 10:00
30616118026	BD15044 MW-20V	Water	08/08/23 10:49	08/17/23 10:00
30616118027	BD15045 MW-12	Water	08/08/23 11:50	08/17/23 10:00
30616118028	BD15046 MW-12V	Water	08/08/23 12:38	08/17/23 10:00
30616118029	BD15047 MW-1	Water	08/08/23 13:50	08/17/23 10:00
30616118030	BD15048 MW-1 Dup	Water	08/08/23 13:50	08/17/23 10:00
30616118031	BD15049 MW-7V	Water	08/07/23 12:31	08/17/23 10:00
30616118032	BD15050 MW-7	Water	08/07/23 13:30	08/17/23 10:00
30616118033	BD15051 MW-5V	Water	08/07/23 14:55	08/17/23 10:00
30616118034	BD15052 MW-5	Water	08/07/23 15:52	08/17/23 10:00
30616118035	BD15052 MW-5 MS	Water	08/07/23 15:52	08/17/23 10:00
30616118036	BD15052 MW-5 MSD	Water	08/07/23 15:52	08/17/23 10:00
30616118037	BD15053 FB-2	Water	08/07/23 16:20	08/17/23 10:00

REPORT OF LABORATORY ANALYSIS

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SAMPLE SUMMARY

Project: WMWBARAP_1417
Pace Project No.: 30616118

Lab ID	Sample ID	Matrix	Date Collected	Date Received
30616118038	BD15054 MW-25V	Water	08/08/23 08:55	08/17/23 10:00
30616118039	BD15055 MW-25H	Water	08/08/23 09:58	08/17/23 10:00
30616118040	BD15056 MW-25H Dup	Water	08/08/23 09:58	08/17/23 10:00
30616118041	BD15057 MW-17V	Water	08/08/23 12:15	08/17/23 10:00
30616118042	BD15058 MW-17H	Water	08/08/23 13:00	08/17/23 10:00
30616118043	BD15059 MW-23V	Water	08/08/23 14:08	08/17/23 10:00
30616118044	BD15060 MW-23H	Water	08/08/23 15:10	08/17/23 10:00
30616118045	BD15139 MW-1V	Water	08/09/23 10:14	08/17/23 10:00
30616118046	BD15140 FB-4	Water	08/09/23 10:35	08/17/23 10:00
30616118047	BD15141 MW-3	Water	08/09/23 11:48	08/17/23 10:00
30616118048	BD15142 MW-4	Water	08/09/23 12:38	08/17/23 10:00
30616118049	BD15143 MW-6	Water	08/09/23 13:45	08/17/23 10:00
30616118050	BD15144 MW-14V	Water	08/09/23 09:25	08/17/23 10:00
30616118051	BD15145 MW-14	Water	08/09/23 10:27	08/17/23 10:00
30616118052	BD15146 MW-13V	Water	08/09/23 11:45	08/17/23 10:00
30616118053	BD15147 MW-13	Water	08/09/23 12:45	08/17/23 10:00
30616118054	BD15148 EB-1	Water	08/09/23 13:20	08/17/23 10:00

REPORT OF LABORATORY ANALYSIS

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SAMPLE ANALYTE COUNT

Project: WMWBARAP_1417
 Pace Project No.: 30616118

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
30616118001	BD15023 MW-8	EPA 9315	SLC	1	PASI-PA
		EPA 9320	JJS1	1	PASI-PA
		Total Radium Calculation	LAL	1	PASI-PA
30616118002	BD15024 MW-8V	EPA 9315	SLC	1	PASI-PA
		EPA 9320	JJS1	1	PASI-PA
		Total Radium Calculation	LAL	1	PASI-PA
30616118003	BD15025 MW-8V Diss	EPA 9315	SLC	1	PASI-PA
		EPA 9320	JJS1	1	PASI-PA
		Total Radium Calculation	LAL	1	PASI-PA
30616118004	BD15026 MW-15V	EPA 9315	SLC	1	PASI-PA
		EPA 9320	JJS1	1	PASI-PA
		Total Radium Calculation	LAL	1	PASI-PA
30616118005	BD15026 MW-15V MS	EPA 9315	SLC	1	PASI-PA
		EPA 9320	JJS1	1	PASI-PA
30616118006	BD15026 MW-15V MSD	EPA 9315	SLC	1	PASI-PA
		EPA 9320	JJS1	1	PASI-PA
30616118007	BD15027 MW-22H	EPA 9315	SLC	1	PASI-PA
		EPA 9320	JJS1	1	PASI-PA
		Total Radium Calculation	LAL	1	PASI-PA
30616118008	BD15028 FB-3	EPA 9315	SLC	1	PASI-PA
		EPA 9320	JJS1	1	PASI-PA
		Total Radium Calculation	LAL	1	PASI-PA
30616118009	BD15029 MW-15	EPA 9315	SLC	1	PASI-PA
		EPA 9320	JJS1	1	PASI-PA
		Total Radium Calculation	LAL	1	PASI-PA
30616118010	BD15030 MW-24H	EPA 9315	SLC	1	PASI-PA
		EPA 9320	JJS1	1	PASI-PA
		Total Radium Calculation	LAL	1	PASI-PA
30616118011	BD15031 MW-16	EPA 9315	SLC	1	PASI-PA
		EPA 9320	JJS1	1	PASI-PA
		Total Radium Calculation	LAL	1	PASI-PA
30616118012	BD15032 MW-16 Dup	EPA 9315	SLC	1	PASI-PA
		EPA 9320	JJS1	1	PASI-PA
		Total Radium Calculation	LAL	1	PASI-PA
30616118013	BD15033 MW-2	EPA 9315	SLC	1	PASI-PA
		EPA 9320	JJS1	1	PASI-PA
		Total Radium Calculation	LAL	1	PASI-PA

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SAMPLE ANALYTE COUNT

Project: WMWBARAP_1417
 Pace Project No.: 30616118

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
30616118014	BD15034 MW-11	EPA 9315	SLC	1	PASI-PA
		EPA 9320	JJS1	1	PASI-PA
		Total Radium Calculation	LAL	1	PASI-PA
30616118015	BD15034 MW-11 MS	EPA 9315	SLC	1	PASI-PA
		EPA 9320	JJS1	1	PASI-PA
30616118016	BD15034 MW-11 MSD	EPA 9315	SLC	1	PASI-PA
		EPA 9320	JJS1	1	PASI-PA
30616118017	BD15035 FB-1	EPA 9315	SLC	1	PASI-PA
		EPA 9320	JJS1	1	PASI-PA
		Total Radium Calculation	LAL	1	PASI-PA
30616118018	BD15036 MW-10	EPA 9315	SLC	1	PASI-PA
		EPA 9320	JJS1	1	PASI-PA
		Total Radium Calculation	LAL	1	PASI-PA
30616118019	BD15037 MW-10 Dup	EPA 9315	SLC	1	PASI-PA
		EPA 9320	JJS1	1	PASI-PA
		Total Radium Calculation	LAL	1	PASI-PA
30616118020	BD15038 MW-10V	EPA 9315	SLC	1	PASI-PA
		EPA 9320	JJS1	1	PASI-PA
		Total Radium Calculation	LAL	1	PASI-PA
30616118021	BD15039 MW-9	EPA 9315	SLC	1	PASI-PA
		EPA 9320	JJS1	1	PASI-PA
		Total Radium Calculation	LAL	1	PASI-PA
30616118022	BD15040 MW-16V	EPA 9315	SLC	1	PASI-PA
		EPA 9320	JJS1	1	PASI-PA
		Total Radium Calculation	LAL	1	PASI-PA
30616118023	BD15041 MW-18H	EPA 9315	SLC	1	PASI-PA
		EPA 9320	JJS1	1	PASI-PA
		Total Radium Calculation	LAL	1	PASI-PA
30616118024	BD15042 MW-19H	EPA 9315	SLC	1	PASI-PA
		EPA 9320	JJS1	1	PASI-PA
		Total Radium Calculation	LAL	1	PASI-PA
30616118025	BD15043 MW-20H	EPA 9315	SLC	1	PASI-PA
		EPA 9320	JJS1	1	PASI-PA
		Total Radium Calculation	LAL	1	PASI-PA
30616118026	BD15044 MW-20V	EPA 9315	SLC	1	PASI-PA
		EPA 9320	JJS1	1	PASI-PA
		Total Radium Calculation	LAL	1	PASI-PA

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SAMPLE ANALYTE COUNT

Project: WMWBARAP_1417
 Pace Project No.: 30616118

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
30616118027	BD15045 MW-12	EPA 9315	SLC	1	PASI-PA
		EPA 9320	JJS1	1	PASI-PA
		Total Radium Calculation	LAL	1	PASI-PA
30616118028	BD15046 MW-12V	EPA 9315	SLC	1	PASI-PA
		EPA 9320	JJS1	1	PASI-PA
		Total Radium Calculation	LAL	1	PASI-PA
30616118029	BD15047 MW-1	EPA 9315	SLC	1	PASI-PA
		EPA 9320	JJS1	1	PASI-PA
		Total Radium Calculation	LAL	1	PASI-PA
30616118030	BD15048 MW-1 Dup	EPA 9315	SLC	1	PASI-PA
		EPA 9320	JJS1	1	PASI-PA
		Total Radium Calculation	LAL	1	PASI-PA
30616118031	BD15049 MW-7V	EPA 9315	SLC	1	PASI-PA
		EPA 9320	JJS1	1	PASI-PA
		Total Radium Calculation	LAL	1	PASI-PA
30616118032	BD15050 MW-7	EPA 9315	SLC	1	PASI-PA
		EPA 9320	JJS1	1	PASI-PA
		Total Radium Calculation	LAL	1	PASI-PA
30616118033	BD15051 MW-5V	EPA 9315	SLC	1	PASI-PA
		EPA 9320	JJS1	1	PASI-PA
		Total Radium Calculation	LAL	1	PASI-PA
30616118034	BD15052 MW-5	EPA 9315	SLC	1	PASI-PA
		EPA 9320	ZPC	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
30616118035	BD15052 MW-5 MS	EPA 9315	SLC	1	PASI-PA
		EPA 9320	ZPC	1	PASI-PA
30616118036	BD15052 MW-5 MSD	EPA 9315	SLC	1	PASI-PA
		EPA 9320	ZPC	1	PASI-PA
30616118037	BD15053 FB-2	EPA 9315	SLC	1	PASI-PA
		EPA 9320	JJS1	1	PASI-PA
		Total Radium Calculation	LAL	1	PASI-PA
30616118038	BD15054 MW-25V	EPA 9315	SLC	1	PASI-PA
		EPA 9320	JJS1	1	PASI-PA
		Total Radium Calculation	LAL	1	PASI-PA
30616118039	BD15055 MW-25H	EPA 9315	SLC	1	PASI-PA
		EPA 9320	JJS1	1	PASI-PA
		Total Radium Calculation	LAL	1	PASI-PA

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SAMPLE ANALYTE COUNT

Project: WMWBARAP_1417
 Pace Project No.: 30616118

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
30616118040	BD15056 MW-25H Dup	EPA 9315	SLC	1	PASI-PA
		EPA 9320	JJS1	1	PASI-PA
		Total Radium Calculation	LAL	1	PASI-PA
30616118041	BD15057 MW-17V	EPA 9315	SLC	1	PASI-PA
		EPA 9320	ZPC	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
30616118042	BD15058 MW-17H	EPA 9315	SLC	1	PASI-PA
		EPA 9320	ZPC	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
30616118043	BD15059 MW-23V	EPA 9315	SLC	1	PASI-PA
		EPA 9320	ZPC	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
30616118044	BD15060 MW-23H	EPA 9315	SLC	1	PASI-PA
		EPA 9320	ZPC	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
30616118045	BD15139 MW-1V	EPA 9315	SLC	1	PASI-PA
		EPA 9320	ZPC	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
30616118046	BD15140 FB-4	EPA 9315	SLC	1	PASI-PA
		EPA 9320	ZPC	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
30616118047	BD15141 MW-3	EPA 9315	SLC	1	PASI-PA
		EPA 9320	ZPC	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
30616118048	BD15142 MW-4	EPA 9315	SLC	1	PASI-PA
		EPA 9320	ZPC	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
30616118049	BD15143 MW-6	EPA 9315	SLC	1	PASI-PA
		EPA 9320	ZPC	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
30616118050	BD15144 MW-14V	EPA 9315	SLC	1	PASI-PA
		EPA 9320	ZPC	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
30616118051	BD15145 MW-14	EPA 9315	SLC	1	PASI-PA
		EPA 9320	ZPC	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
30616118052	BD15146 MW-13V	EPA 9315	SLC	1	PASI-PA

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SAMPLE ANALYTE COUNT

Project: WMWBARAP_1417
 Pace Project No.: 30616118

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
30616118053	BD15147 MW-13	EPA 9320	ZPC	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		EPA 9315	SLC	1	PASI-PA
		EPA 9320	ZPC	1	PASI-PA
30616118054	BD15148 EB-1	Total Radium Calculation	JAL	1	PASI-PA
		EPA 9315	SLC	1	PASI-PA
		EPA 9320	ZPC	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA

PASI-PA = Pace Analytical Services - Greensburg

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PROJECT NARRATIVE

Project: WMWBARAP_1417
Pace Project No.: 30616118

Method: EPA 9315
Description: 9315 Total Radium
Client: Alabama Power
Date: September 20, 2023

General Information:

54 samples were analyzed for EPA 9315 by Pace Analytical Services Greensburg. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:

The samples were analyzed within the method required hold times with any exceptions noted below.

Method Blank:

All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:

All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

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PROJECT NARRATIVE

Project: WMWBARAP_1417
Pace Project No.: 30616118

Method: EPA 9320
Description: 9320 Radium 228
Client: Alabama Power
Date: September 20, 2023

General Information:

54 samples were analyzed for EPA 9320 by Pace Analytical Services Greensburg. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:

The samples were analyzed within the method required hold times with any exceptions noted below.

Method Blank:

All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:

All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

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PROJECT NARRATIVE

Project: WMWBARAP_1417
Pace Project No.: 30616118

Method: Total Radium Calculation
Description: Total Radium 228+226
Client: Alabama Power
Date: September 20, 2023

General Information:

48 samples were analyzed for Total Radium Calculation by Pace Analytical Services Greensburg. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:

The samples were analyzed within the method required hold times with any exceptions noted below.

Method Blank:

All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:

All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

This data package has been reviewed for quality and completeness and is approved for release.

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: WMWBARAP_1417
 Pace Project No.: 30616118

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 9315	0.376U ± 0.258 (0.424) C:96% T:NA	pCi/L	09/15/23 11:57	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	0.413U ± 0.316 (0.615) C:71% T:96%	pCi/L	09/08/23 14:57	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	0.789U ± 0.574 (1.04)	pCi/L	09/15/23 16:28	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: WMWBARAP_1417
 Pace Project No.: 30616118

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 9315	0.454 ± 0.272 (0.425) C:96% T:NA	pCi/L	09/15/23 11:57	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	0.342U ± 0.440 (0.939) C:73% T:85%	pCi/L	09/08/23 14:58	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	0.796U ± 0.712 (1.36)	pCi/L	09/15/23 16:28	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: WMWBARAP_1417
 Pace Project No.: 30616118

Sample: BD15025 MW-8V Diss **Lab ID: 30616118003** Collected: 08/07/23 17:40 Received: 08/17/23 10:00 Matrix: Water
 PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 9315	0.476U ± 0.296 (0.512) C:83% T:NA	pCi/L	09/15/23 11:58	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	0.515U ± 0.409 (0.815) C:79% T:84%	pCi/L	09/08/23 14:58	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	0.991U ± 0.705 (1.33)	pCi/L	09/15/23 16:28	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: WMWBARAP_1417
 Pace Project No.: 30616118

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 9315	0.576 ± 0.330 (0.478) C:94% T:NA	pCi/L	09/15/23 11:58	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	1.47 ± 0.526 (0.789) C:76% T:95%	pCi/L	09/08/23 14:58	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	2.05 ± 0.856 (1.27)	pCi/L	09/15/23 16:28	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: WMWBARAP_1417
 Pace Project No.: 30616118

Sample: BD15026 MW-15V MS **Lab ID: 30616118005** Collected: 08/08/23 09:13 Received: 08/17/23 10:00 Matrix: Water
 PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	94.55 %REC ± NA (NA) C:NA T:NA	pCi/L	09/15/23 11:58	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	76.86 %REC ± NA (NA) C:NA T:NA	pCi/L	09/08/23 14:58	15262-20-1	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: WMWBARAP_1417
 Pace Project No.: 30616118

Sample: BD15026 MW-15V MSD **Lab ID: 30616118006** Collected: 08/08/23 09:13 Received: 08/17/23 10:00 Matrix: Water
 PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 9315	94.59 %REC 0.04RPD ± NA (NA) C:NA T:NA	pCi/L	09/15/23 11:58	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	78.62 %REC 2.27RPD ± NA (NA) C:NA T:NA	pCi/L	09/08/23 14:58	15262-20-1	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: WMWBARAP_1417
 Pace Project No.: 30616118

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 9315	0.350U ± 0.237 (0.392) C:88% T:NA	pCi/L	09/15/23 11:58	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	0.298U ± 0.319 (0.660) C:75% T:90%	pCi/L	09/08/23 14:58	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	0.648U ± 0.556 (1.05)	pCi/L	09/15/23 16:28	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: WMWBARAP_1417
 Pace Project No.: 30616118

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 9315	0.182U ± 0.159 (0.280) C:94% T:NA	pCi/L	09/15/23 11:58	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	0.359U ± 0.305 (0.606) C:78% T:90%	pCi/L	09/08/23 14:58	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	0.541U ± 0.464 (0.886)	pCi/L	09/15/23 16:28	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: WMWBARAP_1417
 Pace Project No.: 30616118

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 9315	0.463 ± 0.256 (0.373) C:89% T:NA	pCi/L	09/15/23 11:59	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	0.458U ± 0.325 (0.620) C:75% T:94%	pCi/L	09/08/23 14:58	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	0.921U ± 0.581 (0.993)	pCi/L	09/15/23 16:28	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: WMWBARAP_1417
 Pace Project No.: 30616118

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 9315	0.602 ± 0.280 (0.364) C:88% T:NA	pCi/L	09/15/23 13:30	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	0.628U ± 0.376 (0.691) C:70% T:93%	pCi/L	09/08/23 14:58	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	1.23 ± 0.656 (1.06)	pCi/L	09/15/23 16:28	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: WMWBARAP_1417
 Pace Project No.: 30616118

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 9315	0.500U ± 0.344 (0.591) C:74% T:NA	pCi/L	09/15/23 13:30	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	0.729 ± 0.346 (0.571) C:78% T:90%	pCi/L	09/08/23 14:58	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	1.23 ± 0.690 (1.16)	pCi/L	09/15/23 16:28	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: WMWBARAP_1417
 Pace Project No.: 30616118

Sample: BD15032 MW-16 Dup **Lab ID: 30616118012** Collected: 08/08/23 13:55 Received: 08/17/23 10:00 Matrix: Water
 PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 9315	0.444 ± 0.271 (0.431) C:88% T:NA	pCi/L	09/15/23 13:30	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	0.708 ± 0.381 (0.673) C:73% T:90%	pCi/L	09/08/23 14:58	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	1.15 ± 0.652 (1.10)	pCi/L	09/15/23 16:28	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: WMWBARAP_1417
 Pace Project No.: 30616118

Sample: BD15033 MW-2 **Lab ID: 30616118013** Collected: 08/08/23 14:57 Received: 08/17/23 10:00 Matrix: Water
 PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	0.274U ± 0.313 (0.648) C:85% T:NA	pCi/L	09/15/23 13:30	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	0.223U ± 0.316 (0.679) C:77% T:92%	pCi/L	09/08/23 14:58	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	0.497U ± 0.629 (1.33)	pCi/L	09/15/23 16:28	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: WMWBARAP_1417
 Pace Project No.: 30616118

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 9315	0.538 ± 0.281 (0.412) C:85% T:NA	pCi/L	09/15/23 13:34	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	0.578U ± 0.341 (0.621) C:83% T:92%	pCi/L	09/11/23 11:45	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	1.12 ± 0.622 (1.03)	pCi/L	09/15/23 16:58	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: WMWBARAP_1417
 Pace Project No.: 30616118

Sample: BD15034 MW-11 MS **Lab ID: 30616118015** Collected: 08/07/23 11:05 Received: 08/17/23 10:00 Matrix: Water
 PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	99.60 %REC ± NA (NA) C:NA T:NA	pCi/L	09/15/23 13:34	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	82.03 %REC ± NA (NA) C:NA T:NA	pCi/L	09/11/23 11:45	15262-20-1	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: WMWBARAP_1417
 Pace Project No.: 30616118

Sample: BD15034 MW-11 MSD **Lab ID: 30616118016** Collected: 08/07/23 11:05 Received: 08/17/23 10:00 Matrix: Water
 PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 9315	110.29 %REC 10.19RPD ± NA (NA) C:NA T:NA	pCi/L	09/15/23 13:34	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	81.87 %REC 0.19RPD ± NA (NA) C:NA T:NA	pCi/L	09/11/23 11:45	15262-20-1	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: WMWBARAP_1417
 Pace Project No.: 30616118

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 9315	0.212U ± 0.232 (0.470) C:69% T:NA	pCi/L	09/15/23 13:33	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	0.692U ± 0.428 (0.817) C:81% T:88%	pCi/L	09/08/23 14:59	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	0.904U ± 0.660 (1.29)	pCi/L	09/15/23 16:28	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: WMWBARAP_1417
 Pace Project No.: 30616118

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 9315	0.429 ± 0.240 (0.364) C:86% T:NA	pCi/L	09/15/23 13:33	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	0.911 ± 0.449 (0.792) C:79% T:86%	pCi/L	09/08/23 14:59	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	1.34 ± 0.689 (1.16)	pCi/L	09/15/23 16:28	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: WMWBARAP_1417
 Pace Project No.: 30616118

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 9315	0.462 ± 0.277 (0.422) C:74% T:NA	pCi/L	09/15/23 13:33	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	1.09 ± 0.475 (0.793) C:78% T:89%	pCi/L	09/08/23 14:59	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	1.55 ± 0.752 (1.22)	pCi/L	09/15/23 16:28	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: WMWBARAP_1417
 Pace Project No.: 30616118

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 9315	0.434U ± 0.272 (0.444) C:81% T:NA	pCi/L	09/15/23 13:33	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	1.20 ± 0.480 (0.762) C:80% T:93%	pCi/L	09/08/23 14:59	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	1.63 ± 0.752 (1.21)	pCi/L	09/15/23 16:28	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: WMWBARAP_1417
 Pace Project No.: 30616118

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 9315	0.439U ± 0.273 (0.446) C:81% T:NA	pCi/L	09/15/23 13:33	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	0.139U ± 0.298 (0.659) C:83% T:92%	pCi/L	09/11/23 11:45	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	0.578U ± 0.571 (1.11)	pCi/L	09/15/23 16:28	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: WMWBARAP_1417
 Pace Project No.: 30616118

Sample: BD15040 MW-16V **Lab ID: 30616118022** Collected: 08/07/23 15:20 Received: 08/17/23 10:00 Matrix: Water
 PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 9315	0.400U ± 0.265 (0.433) C:69% T:NA	pCi/L	09/15/23 13:31	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	0.278U ± 0.359 (0.763) C:85% T:81%	pCi/L	09/11/23 11:45	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	0.678U ± 0.624 (1.20)	pCi/L	09/15/23 16:28	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: WMWBARAP_1417
 Pace Project No.: 30616118

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 9315	0.262U ± 0.209 (0.373) C:86% T:NA	pCi/L	09/15/23 13:31	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	-0.121U ± 0.338 (0.820) C:83% T:80%	pCi/L	09/11/23 11:45	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	0.262U ± 0.547 (1.19)	pCi/L	09/15/23 16:28	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: WMWBARAP_1417
 Pace Project No.: 30616118

Sample: BD15042 MW-19H **Lab ID: 30616118024** Collected: 08/08/23 08:58 Received: 08/17/23 10:00 Matrix: Water
 PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	0.404U ± 0.260 (0.431) C:91% T:NA	pCi/L	09/15/23 13:34	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	0.232U ± 0.314 (0.669) C:82% T:91%	pCi/L	09/11/23 11:45	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	0.636U ± 0.574 (1.10)	pCi/L	09/15/23 16:58	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: WMWBARAP_1417
 Pace Project No.: 30616118

Sample: BD15043 MW-20H **Lab ID: 30616118025** Collected: 08/08/23 09:56 Received: 08/17/23 10:00 Matrix: Water
 PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 9315	0.285U ± 0.245 (0.456) C:70% T:NA	pCi/L	09/15/23 13:36	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	0.967 ± 0.395 (0.618) C:81% T:99%	pCi/L	09/11/23 11:45	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	1.25 ± 0.640 (1.07)	pCi/L	09/15/23 16:58	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: WMWBARAP_1417
 Pace Project No.: 30616118

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Sample: BD15044 MW-20V Lab ID: 30616118026 Collected: 08/08/23 10:49 Received: 08/17/23 10:00 Matrix: Water PWS: Site ID: Sample Type:						
Pace Analytical Services - Greensburg						
Radium-226	EPA 9315	1.44 ± 0.432 (0.389) C:87% T:NA	pCi/L	09/15/23 13:36	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	2.01 ± 0.585 (0.643) C:82% T:82%	pCi/L	09/11/23 11:45	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	3.45 ± 1.02 (1.03)	pCi/L	09/15/23 16:58	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: WMWBARAP_1417
 Pace Project No.: 30616118

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 9315	0.686 ± 0.307 (0.381) C:82% T:NA	pCi/L	09/15/23 13:36	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	0.520U ± 0.343 (0.643) C:78% T:92%	pCi/L	09/11/23 11:45	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	1.21 ± 0.650 (1.02)	pCi/L	09/15/23 16:58	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: WMWBARAP_1417
 Pace Project No.: 30616118

Sample: BD15046 MW-12V **Lab ID: 30616118028** Collected: 08/08/23 12:38 Received: 08/17/23 10:00 Matrix: Water
 PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	0.382 ± 0.238 (0.379) C:87% T:NA	pCi/L	09/15/23 13:36	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	0.0403U ± 0.296 (0.682) C:82% T:87%	pCi/L	09/11/23 11:45	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	0.422U ± 0.534 (1.06)	pCi/L	09/15/23 16:58	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: WMWBARAP_1417
 Pace Project No.: 30616118

Sample: BD15047 MW-1 **Lab ID: 30616118029** Collected: 08/08/23 13:50 Received: 08/17/23 10:00 Matrix: Water
 PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	0.431 ± 0.215 (0.264) C:97% T:NA	pCi/L	09/15/23 13:36	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	1.17 ± 0.422 (0.601) C:80% T:97%	pCi/L	09/11/23 11:46	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	1.60 ± 0.637 (0.865)	pCi/L	09/15/23 16:58	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: WMWBARAP_1417
 Pace Project No.: 30616118

Sample: BD15048 MW-1 Dup **Lab ID: 30616118030** Collected: 08/08/23 13:50 Received: 08/17/23 10:00 Matrix: Water
 PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 9315	0.902 ± 0.334 (0.349) C:81% T:NA	pCi/L	09/15/23 13:36	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	0.863 ± 0.414 (0.683) C:76% T:89%	pCi/L	09/11/23 11:46	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	1.77 ± 0.748 (1.03)	pCi/L	09/15/23 16:58	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: WMWBARAP_1417
 Pace Project No.: 30616118

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 9315	0.101U ± 0.165 (0.369) C:85% T:NA	pCi/L	09/15/23 13:36	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	0.0631U ± 0.260 (0.595) C:85% T:87%	pCi/L	09/11/23 11:46	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	0.164U ± 0.425 (0.964)	pCi/L	09/15/23 16:58	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: WMWBARAP_1417
 Pace Project No.: 30616118

Sample: BD15050 MW-7 **Lab ID: 30616118032** Collected: 08/07/23 13:30 Received: 08/17/23 10:00 Matrix: Water
 PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 9315	0.412 ± 0.237 (0.356) C:90% T:NA	pCi/L	09/15/23 13:35	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	0.414U ± 0.332 (0.660) C:81% T:95%	pCi/L	09/11/23 11:46	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	0.826U ± 0.569 (1.02)	pCi/L	09/15/23 16:58	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: WMWBARAP_1417
 Pace Project No.: 30616118

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 9315	0.198U ± 0.182 (0.338) C:75% T:NA	pCi/L	09/15/23 13:35	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	-0.0875U ± 0.249 (0.609) C:82% T:93%	pCi/L	09/11/23 11:46	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	0.198U ± 0.431 (0.947)	pCi/L	09/15/23 16:58	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: WMWBARAP_1417
 Pace Project No.: 30616118

Sample: BD15052 MW-5 **Lab ID: 30616118034** Collected: 08/07/23 15:52 Received: 08/17/23 10:00 Matrix: Water
 PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 9315	0.263U ± 0.207 (0.373) C:87% T:NA	pCi/L	09/15/23 15:11	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	0.276U ± 0.359 (0.756) C:66% T:93%	pCi/L	09/11/23 15:09	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	0.539U ± 0.566 (1.13)	pCi/L	09/19/23 15:38	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: WMWBARAP_1417
 Pace Project No.: 30616118

Sample: BD15052 MW-5 MS **Lab ID: 30616118035** Collected: 08/07/23 15:52 Received: 08/17/23 10:00 Matrix: Water
 PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	113.26 %REC ± NA (NA) C:NA T:NA	pCi/L	09/15/23 15:11	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	82.93 %REC ± NA (NA) C:NA T:NA	pCi/L	09/11/23 15:09	15262-20-1	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: WMWBARAP_1417
 Pace Project No.: 30616118

Sample: BD15052 MW-5 MSD **Lab ID: 30616118036** Collected: 08/07/23 15:52 Received: 08/17/23 10:00 Matrix: Water
 PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 9315	122.33 %REC 7.70RPD ± NA (NA) C:NA T:NA	pCi/L	09/15/23 15:11	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	84.38 %REC 1.74RPD ± NA (NA) C:NA T:NA	pCi/L	09/11/23 15:09	15262-20-1	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: WMWBARAP_1417
 Pace Project No.: 30616118

Sample: BD15053 FB-2 **Lab ID: 30616118037** Collected: 08/07/23 16:20 Received: 08/17/23 10:00 Matrix: Water
 PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	0.452 ± 0.272 (0.413) C:77% T:NA	pCi/L	09/15/23 13:35	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	0.389U ± 0.381 (0.783) C:80% T:78%	pCi/L	09/11/23 11:46	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	0.841U ± 0.653 (1.20)	pCi/L	09/15/23 16:58	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: WMWBARAP_1417
 Pace Project No.: 30616118

Sample: BD15054 MW-25V **Lab ID: 30616118038** Collected: 08/08/23 08:55 Received: 08/17/23 10:00 Matrix: Water
 PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 9315	0.155U ± 0.174 (0.352) C:89% T:NA	pCi/L	09/15/23 13:34	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	0.582U ± 0.357 (0.658) C:83% T:86%	pCi/L	09/11/23 11:46	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	0.737U ± 0.531 (1.01)	pCi/L	09/15/23 16:58	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: WMWBARAP_1417
 Pace Project No.: 30616118

Sample: BD15055 MW-25H **Lab ID: 30616118039** Collected: 08/08/23 09:58 Received: 08/17/23 10:00 Matrix: Water
 PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	0.112U ± 0.161 (0.349) C:93% T:NA	pCi/L	09/15/23 13:35	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	0.289U ± 0.287 (0.586) C:82% T:90%	pCi/L	09/11/23 11:46	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	0.401U ± 0.448 (0.935)	pCi/L	09/15/23 16:58	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: WMWBARAP_1417
 Pace Project No.: 30616118

Sample: BD15056 MW-25H Dup **Lab ID:** 30616118040 Collected: 08/08/23 09:58 Received: 08/17/23 10:00 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	0.355 ± 0.230 (0.340) C:77% T:NA	pCi/L	09/15/23 13:35	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	0.238U ± 0.266 (0.552) C:83% T:89%	pCi/L	09/11/23 11:46	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	0.593U ± 0.496 (0.892)	pCi/L	09/15/23 16:58	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: WMWBARAP_1417
 Pace Project No.: 30616118

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 9315	2.11 ± 0.567 (0.399) C:81% T:NA	pCi/L	09/15/23 13:35	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	1.53 ± 0.604 (0.888) C:66% T:79%	pCi/L	09/11/23 15:09	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	3.64 ± 1.17 (1.29)	pCi/L	09/19/23 15:38	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: WMWBARAP_1417
 Pace Project No.: 30616118

Sample: BD15058 MW-17H **Lab ID: 30616118042** Collected: 08/08/23 13:00 Received: 08/17/23 10:00 Matrix: Water
 PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 9315	0.500 ± 0.257 (0.358) C:80% T:NA	pCi/L	09/15/23 15:09	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	0.398U ± 0.388 (0.792) C:68% T:95%	pCi/L	09/11/23 15:09	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	0.898U ± 0.645 (1.15)	pCi/L	09/19/23 15:38	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: WMWBARAP_1417
 Pace Project No.: 30616118

Sample: BD15059 MW-23V **Lab ID: 30616118043** Collected: 08/08/23 14:08 Received: 08/17/23 10:00 Matrix: Water
 PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	1.16 ± 0.413 (0.452) C:86% T:NA	pCi/L	09/15/23 15:09	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	0.739U ± 0.495 (0.935) C:66% T:83%	pCi/L	09/11/23 15:09	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	1.90 ± 0.908 (1.39)	pCi/L	09/19/23 15:38	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: WMWBARAP_1417
 Pace Project No.: 30616118

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 9315	0.580 ± 0.291 (0.417) C:94% T:NA	pCi/L	09/15/23 15:11	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	0.284U ± 0.362 (0.760) C:62% T:95%	pCi/L	09/11/23 15:09	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	0.864U ± 0.653 (1.18)	pCi/L	09/19/23 15:38	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: WMWBARAP_1417
 Pace Project No.: 30616118

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 9315	0.426 ± 0.242 (0.363) C:86% T:NA	pCi/L	09/15/23 15:11	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	0.150U ± 0.372 (0.823) C:70% T:83%	pCi/L	09/11/23 15:10	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	0.576U ± 0.614 (1.19)	pCi/L	09/19/23 15:38	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: WMWBARAP_1417
 Pace Project No.: 30616118

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 9315	0.0253U ± 0.143 (0.370) C:79% T:NA	pCi/L	09/15/23 15:11	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	0.203U ± 0.360 (0.781) C:73% T:91%	pCi/L	09/11/23 15:10	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	0.228U ± 0.503 (1.15)	pCi/L	09/19/23 15:38	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: WMWBARAP_1417
 Pace Project No.: 30616118

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Sample: BD15141 MW-3 Lab ID: 30616118047 Collected: 08/09/23 11:48 Received: 08/17/23 10:00 Matrix: Water PWS: Site ID: Sample Type:						
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	0.203U ± 0.174 (0.310) C:92% T:NA	pCi/L	09/15/23 15:11	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	-0.376U ± 0.331 (0.844) C:65% T:91%	pCi/L	09/11/23 15:10	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	0.203U ± 0.505 (1.15)	pCi/L	09/19/23 15:38	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: WMWBARAP_1417
 Pace Project No.: 30616118

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 9315	0.520 ± 0.278 (0.430) C:88% T:NA	pCi/L	09/15/23 15:11	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	0.568U ± 0.430 (0.838) C:65% T:88%	pCi/L	09/11/23 15:10	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	1.09U ± 0.708 (1.27)	pCi/L	09/19/23 15:38	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: WMWBARAP_1417
 Pace Project No.: 30616118

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 9315	0.0103U ± 0.144 (0.382) C:82% T:NA	pCi/L	09/15/23 15:11	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	0.202U ± 0.380 (0.829) C:64% T:88%	pCi/L	09/11/23 15:10	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	0.212U ± 0.524 (1.21)	pCi/L	09/19/23 15:38	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: WMWBARAP_1417
 Pace Project No.: 30616118

Sample: BD15144 MW-14V **Lab ID: 30616118050** Collected: 08/09/23 09:25 Received: 08/17/23 10:00 Matrix: Water
 PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 9315	0.319U ± 0.212 (0.356) C:93% T:NA	pCi/L	09/15/23 15:12	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	0.261U ± 0.375 (0.800) C:65% T:88%	pCi/L	09/11/23 15:10	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	0.580U ± 0.587 (1.16)	pCi/L	09/19/23 15:38	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: WMWBARAP_1417
 Pace Project No.: 30616118

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 9315	0.356U ± 0.220 (0.360) C:98% T:NA	pCi/L	09/15/23 15:12	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	0.353U ± 0.369 (0.754) C:63% T:88%	pCi/L	09/11/23 15:11	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	0.709U ± 0.589 (1.11)	pCi/L	09/19/23 15:38	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: WMWBARAP_1417
 Pace Project No.: 30616118

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 9315	0.512 ± 0.271 (0.361) C:85% T:NA	pCi/L	09/15/23 15:12	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	0.783U ± 0.487 (0.899) C:63% T:83%	pCi/L	09/11/23 15:10	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	1.30 ± 0.758 (1.26)	pCi/L	09/19/23 15:38	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: WMWBARAP_1417
 Pace Project No.: 30616118

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 9315	0.364U ± 0.225 (0.365) C:98% T:NA	pCi/L	09/15/23 15:12	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	0.574U ± 0.447 (0.873) C:63% T:86%	pCi/L	09/11/23 15:10	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	0.938U ± 0.672 (1.24)	pCi/L	09/19/23 15:38	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: WMWBARAP_1417
 Pace Project No.: 30616118

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Sample: BD15148 EB-1 Lab ID: 30616118054 Collected: 08/09/23 13:20 Received: 08/17/23 10:00 Matrix: Water PWS: Site ID: Sample Type:						
Pace Analytical Services - Greensburg						
Radium-226	EPA 9315	0.163U ± 0.181 (0.368) C:97% T:NA	pCi/L	09/15/23 15:14	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	0.429U ± 0.415 (0.846) C:67% T:89%	pCi/L	09/11/23 15:10	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	0.592U ± 0.596 (1.21)	pCi/L	09/19/23 15:38	7440-14-4	

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QUALITY CONTROL - RADIOCHEMISTRY

Project: WMWBARAP_1417
 Pace Project No.: 30616118

QC Batch:	612796	Analysis Method:	EPA 9315
QC Batch Method:	EPA 9315	Analysis Description:	9315 Total Radium
		Laboratory:	Pace Analytical Services - Greensburg

Associated Lab Samples: 30616118034, 30616118035, 30616118036, 30616118044, 30616118045, 30616118046, 30616118047, 30616118048, 30616118049, 30616118050, 30616118051, 30616118052, 30616118053, 30616118054

METHOD BLANK:	2982880	Matrix:	Water
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Associated Lab Samples: 30616118034, 30616118035, 30616118036, 30616118044, 30616118045, 30616118046, 30616118047, 30616118048, 30616118049, 30616118050, 30616118051, 30616118052, 30616118053, 30616118054

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.0701 ± 0.115 (0.256) C:84% T:NA	pCi/L	09/15/23 15:10	

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QUALITY CONTROL - RADIOCHEMISTRY

Project: WMWBARAP_1417
Pace Project No.: 30616118

QC Batch:	612791	Analysis Method:	EPA 9315
QC Batch Method:	EPA 9315	Analysis Description:	9315 Total Radium
		Laboratory:	Pace Analytical Services - Greensburg

Associated Lab Samples: 30616118001, 30616118002, 30616118003, 30616118004, 30616118005, 30616118006, 30616118007, 30616118008, 30616118009, 30616118010, 30616118011, 30616118012, 30616118013, 30616118017, 30616118018, 30616118019, 30616118020, 30616118021, 30616118022, 30616118023

METHOD BLANK: 2982869 Matrix: Water

Associated Lab Samples: 30616118001, 30616118002, 30616118003, 30616118004, 30616118005, 30616118006, 30616118007, 30616118008, 30616118009, 30616118010, 30616118011, 30616118012, 30616118013, 30616118017, 30616118018, 30616118019, 30616118020, 30616118021, 30616118022, 30616118023

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.198 ± 0.119 (0.169) C:96% T:NA	pCi/L	09/15/23 11:57	

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QUALITY CONTROL - RADIOCHEMISTRY

Project: WMWBARAP_1417
 Pace Project No.: 30616118

QC Batch: 611593 Analysis Method: EPA 9320
 QC Batch Method: EPA 9320 Analysis Description: 9320 Radium 228
 Laboratory: Pace Analytical Services - Greensburg
 Associated Lab Samples: 30616118034, 30616118035, 30616118036, 30616118041, 30616118042, 30616118043, 30616118044,
 30616118045, 30616118046, 30616118047, 30616118048, 30616118049, 30616118050, 30616118051,
 30616118052, 30616118053, 30616118054

METHOD BLANK: 2976865 Matrix: Water
 Associated Lab Samples: 30616118034, 30616118035, 30616118036, 30616118041, 30616118042, 30616118043, 30616118044,
 30616118045, 30616118046, 30616118047, 30616118048, 30616118049, 30616118050, 30616118051,
 30616118052, 30616118053, 30616118054

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.153 ± 0.337 (0.741) C:69% T:93%	pCi/L	09/11/23 15:08	

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QUALITY CONTROL - RADIOCHEMISTRY

Project: WMWBARAP_1417
 Pace Project No.: 30616118

QC Batch:	611591	Analysis Method:	EPA 9320
QC Batch Method:	EPA 9320	Analysis Description:	9320 Radium 228
		Laboratory:	Pace Analytical Services - Greensburg

Associated Lab Samples: 30616118001, 30616118002, 30616118003, 30616118004, 30616118005, 30616118006, 30616118007, 30616118008, 30616118009, 30616118010, 30616118011, 30616118012, 30616118013, 30616118017, 30616118018, 30616118019, 30616118020

METHOD BLANK: 2976859 Matrix: Water

Associated Lab Samples: 30616118001, 30616118002, 30616118003, 30616118004, 30616118005, 30616118006, 30616118007, 30616118008, 30616118009, 30616118010, 30616118011, 30616118012, 30616118013, 30616118017, 30616118018, 30616118019, 30616118020

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.768 ± 0.332 (0.493) C:77% T:88%	pCi/L	09/08/23 14:59	

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QUALITY CONTROL - RADIOCHEMISTRY

Project: WMWBARAP_1417
 Pace Project No.: 30616118

QC Batch: 612792 Analysis Method: EPA 9315
 QC Batch Method: EPA 9315 Analysis Description: 9315 Total Radium
 Laboratory: Pace Analytical Services - Greensburg
 Associated Lab Samples: 30616118014, 30616118015, 30616118016, 30616118024, 30616118025, 30616118026, 30616118027,
 30616118028, 30616118029, 30616118030, 30616118031, 30616118032, 30616118033, 30616118037,
 30616118038, 30616118039, 30616118040, 30616118041, 30616118042, 30616118043

METHOD BLANK: 2982870 Matrix: Water
 Associated Lab Samples: 30616118014, 30616118015, 30616118016, 30616118024, 30616118025, 30616118026, 30616118027,
 30616118028, 30616118029, 30616118030, 30616118031, 30616118032, 30616118033, 30616118037,
 30616118038, 30616118039, 30616118040, 30616118041, 30616118042, 30616118043

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.0315 ± 0.0900 (0.218) C:90% T:NA	pCi/L	09/15/23 13:32	

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QUALITY CONTROL - RADIOCHEMISTRY

Project: WMWBARAP_1417
 Pace Project No.: 30616118

QC Batch:	611592	Analysis Method:	EPA 9320
QC Batch Method:	EPA 9320	Analysis Description:	9320 Radium 228
		Laboratory:	Pace Analytical Services - Greensburg

Associated Lab Samples: 30616118014, 30616118015, 30616118016, 30616118021, 30616118022, 30616118023, 30616118024, 30616118025, 30616118026, 30616118027, 30616118028, 30616118029, 30616118030, 30616118031, 30616118032, 30616118033, 30616118037, 30616118038, 30616118039, 30616118040

METHOD BLANK: 2976861 Matrix: Water

Associated Lab Samples: 30616118014, 30616118015, 30616118016, 30616118021, 30616118022, 30616118023, 30616118024, 30616118025, 30616118026, 30616118027, 30616118028, 30616118029, 30616118030, 30616118031, 30616118032, 30616118033, 30616118037, 30616118038, 30616118039, 30616118040

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.706 ± 0.339 (0.562) C:83% T:94%	pCi/L	09/11/23 11:46	

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QUALIFIERS

Project: WMWBARAP_1417
Pace Project No.: 30616118

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Reported results are not rounded until the final step prior to reporting. Therefore, calculated parameters that are typically reported as "Total" may vary slightly from the sum of the reported component parameters.

Act - Activity

Unc - Uncertainty: For Safe Drinking Water Act (SDWA) analyses, the reported Unc. is the calculated Count Uncertainty (95% confidence interval) using a coverage factor of 1.96. For all other matrices (non-SDWA), the reported Unc. is the calculated Expanded Uncertainty (aka Combined Standard Uncertainty, CSU), reported at the 95% confidence interval using a coverage factor of 1.96.

Gamma Spec: The Unc. reported for all gamma-spectroscopy analyses (EPA 901.1), is the calculated Expanded Uncertainty (CSU) at the 95.4% confidence interval, using a coverage factor of 2.0.

(MDC) - Minimum Detectable Concentration

Trac - Tracer Recovery (%)

Carr - Carrier Recovery (%)

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: WMWBARAP_1417
 Pace Project No.: 30616118

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
30616118001	BD15023 MW-8	EPA 9315	612791		
30616118002	BD15024 MW-8V	EPA 9315	612791		
30616118003	BD15025 MW-8V Diss	EPA 9315	612791		
30616118004	BD15026 MW-15V	EPA 9315	612791		
30616118005	BD15026 MW-15V MS	EPA 9315	612791		
30616118006	BD15026 MW-15V MSD	EPA 9315	612791		
30616118007	BD15027 MW-22H	EPA 9315	612791		
30616118008	BD15028 FB-3	EPA 9315	612791		
30616118009	BD15029 MW-15	EPA 9315	612791		
30616118010	BD15030 MW-24H	EPA 9315	612791		
30616118011	BD15031 MW-16	EPA 9315	612791		
30616118012	BD15032 MW-16 Dup	EPA 9315	612791		
30616118013	BD15033 MW-2	EPA 9315	612791		
30616118014	BD15034 MW-11	EPA 9315	612792		
30616118015	BD15034 MW-11 MS	EPA 9315	612792		
30616118016	BD15034 MW-11 MSD	EPA 9315	612792		
30616118017	BD15035 FB-1	EPA 9315	612791		
30616118018	BD15036 MW-10	EPA 9315	612791		
30616118019	BD15037 MW-10 Dup	EPA 9315	612791		
30616118020	BD15038 MW-10V	EPA 9315	612791		
30616118021	BD15039 MW-9	EPA 9315	612791		
30616118022	BD15040 MW-16V	EPA 9315	612791		
30616118023	BD15041 MW-18H	EPA 9315	612791		
30616118024	BD15042 MW-19H	EPA 9315	612792		
30616118025	BD15043 MW-20H	EPA 9315	612792		
30616118026	BD15044 MW-20V	EPA 9315	612792		
30616118027	BD15045 MW-12	EPA 9315	612792		
30616118028	BD15046 MW-12V	EPA 9315	612792		
30616118029	BD15047 MW-1	EPA 9315	612792		
30616118030	BD15048 MW-1 Dup	EPA 9315	612792		
30616118031	BD15049 MW-7V	EPA 9315	612792		
30616118032	BD15050 MW-7	EPA 9315	612792		
30616118033	BD15051 MW-5V	EPA 9315	612792		
30616118034	BD15052 MW-5	EPA 9315	612796		
30616118035	BD15052 MW-5 MS	EPA 9315	612796		
30616118036	BD15052 MW-5 MSD	EPA 9315	612796		
30616118037	BD15053 FB-2	EPA 9315	612792		
30616118038	BD15054 MW-25V	EPA 9315	612792		
30616118039	BD15055 MW-25H	EPA 9315	612792		
30616118040	BD15056 MW-25H Dup	EPA 9315	612792		
30616118041	BD15057 MW-17V	EPA 9315	612792		
30616118042	BD15058 MW-17H	EPA 9315	612792		
30616118043	BD15059 MW-23V	EPA 9315	612792		
30616118044	BD15060 MW-23H	EPA 9315	612796		
30616118045	BD15139 MW-1V	EPA 9315	612796		
30616118046	BD15140 FB-4	EPA 9315	612796		

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: WMWBARAP_1417
 Pace Project No.: 30616118

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
30616118047	BD15141 MW-3	EPA 9315	612796		
30616118048	BD15142 MW-4	EPA 9315	612796		
30616118049	BD15143 MW-6	EPA 9315	612796		
30616118050	BD15144 MW-14V	EPA 9315	612796		
30616118051	BD15145 MW-14	EPA 9315	612796		
30616118052	BD15146 MW-13V	EPA 9315	612796		
30616118053	BD15147 MW-13	EPA 9315	612796		
30616118054	BD15148 EB-1	EPA 9315	612796		
30616118001	BD15023 MW-8	EPA 9320	611591		
30616118002	BD15024 MW-8V	EPA 9320	611591		
30616118003	BD15025 MW-8V Diss	EPA 9320	611591		
30616118004	BD15026 MW-15V	EPA 9320	611591		
30616118005	BD15026 MW-15V MS	EPA 9320	611591		
30616118006	BD15026 MW-15V MSD	EPA 9320	611591		
30616118007	BD15027 MW-22H	EPA 9320	611591		
30616118008	BD15028 FB-3	EPA 9320	611591		
30616118009	BD15029 MW-15	EPA 9320	611591		
30616118010	BD15030 MW-24H	EPA 9320	611591		
30616118011	BD15031 MW-16	EPA 9320	611591		
30616118012	BD15032 MW-16 Dup	EPA 9320	611591		
30616118013	BD15033 MW-2	EPA 9320	611591		
30616118014	BD15034 MW-11	EPA 9320	611592		
30616118015	BD15034 MW-11 MS	EPA 9320	611592		
30616118016	BD15034 MW-11 MSD	EPA 9320	611592		
30616118017	BD15035 FB-1	EPA 9320	611591		
30616118018	BD15036 MW-10	EPA 9320	611591		
30616118019	BD15037 MW-10 Dup	EPA 9320	611591		
30616118020	BD15038 MW-10V	EPA 9320	611591		
30616118021	BD15039 MW-9	EPA 9320	611592		
30616118022	BD15040 MW-16V	EPA 9320	611592		
30616118023	BD15041 MW-18H	EPA 9320	611592		
30616118024	BD15042 MW-19H	EPA 9320	611592		
30616118025	BD15043 MW-20H	EPA 9320	611592		
30616118026	BD15044 MW-20V	EPA 9320	611592		
30616118027	BD15045 MW-12	EPA 9320	611592		
30616118028	BD15046 MW-12V	EPA 9320	611592		
30616118029	BD15047 MW-1	EPA 9320	611592		
30616118030	BD15048 MW-1 Dup	EPA 9320	611592		
30616118031	BD15049 MW-7V	EPA 9320	611592		
30616118032	BD15050 MW-7	EPA 9320	611592		
30616118033	BD15051 MW-5V	EPA 9320	611592		
30616118034	BD15052 MW-5	EPA 9320	611593		
30616118035	BD15052 MW-5 MS	EPA 9320	611593		
30616118036	BD15052 MW-5 MSD	EPA 9320	611593		
30616118037	BD15053 FB-2	EPA 9320	611592		
30616118038	BD15054 MW-25V	EPA 9320	611592		

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: WMWBARAP_1417
 Pace Project No.: 30616118

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
30616118039	BD15055 MW-25H	EPA 9320	611592		
30616118040	BD15056 MW-25H Dup	EPA 9320	611592		
30616118041	BD15057 MW-17V	EPA 9320	611593		
30616118042	BD15058 MW-17H	EPA 9320	611593		
30616118043	BD15059 MW-23V	EPA 9320	611593		
30616118044	BD15060 MW-23H	EPA 9320	611593		
30616118045	BD15139 MW-1V	EPA 9320	611593		
30616118046	BD15140 FB-4	EPA 9320	611593		
30616118047	BD15141 MW-3	EPA 9320	611593		
30616118048	BD15142 MW-4	EPA 9320	611593		
30616118049	BD15143 MW-6	EPA 9320	611593		
30616118050	BD15144 MW-14V	EPA 9320	611593		
30616118051	BD15145 MW-14	EPA 9320	611593		
30616118052	BD15146 MW-13V	EPA 9320	611593		
30616118053	BD15147 MW-13	EPA 9320	611593		
30616118054	BD15148 EB-1	EPA 9320	611593		
30616118001	BD15023 MW-8	Total Radium Calculation	615910		
30616118002	BD15024 MW-8V	Total Radium Calculation	615910		
30616118003	BD15025 MW-8V Diss	Total Radium Calculation	615910		
30616118004	BD15026 MW-15V	Total Radium Calculation	615910		
30616118007	BD15027 MW-22H	Total Radium Calculation	615910		
30616118008	BD15028 FB-3	Total Radium Calculation	615910		
30616118009	BD15029 MW-15	Total Radium Calculation	615910		
30616118010	BD15030 MW-24H	Total Radium Calculation	615910		
30616118011	BD15031 MW-16	Total Radium Calculation	615910		
30616118012	BD15032 MW-16 Dup	Total Radium Calculation	615910		
30616118013	BD15033 MW-2	Total Radium Calculation	615910		
30616118014	BD15034 MW-11	Total Radium Calculation	615920		
30616118017	BD15035 FB-1	Total Radium Calculation	615910		
30616118018	BD15036 MW-10	Total Radium Calculation	615910		
30616118019	BD15037 MW-10 Dup	Total Radium Calculation	615910		
30616118020	BD15038 MW-10V	Total Radium Calculation	615910		
30616118021	BD15039 MW-9	Total Radium Calculation	615910		
30616118022	BD15040 MW-16V	Total Radium Calculation	615910		
30616118023	BD15041 MW-18H	Total Radium Calculation	615910		
30616118024	BD15042 MW-19H	Total Radium Calculation	615920		
30616118025	BD15043 MW-20H	Total Radium Calculation	615920		
30616118026	BD15044 MW-20V	Total Radium Calculation	615920		
30616118027	BD15045 MW-12	Total Radium Calculation	615920		
30616118028	BD15046 MW-12V	Total Radium Calculation	615920		
30616118029	BD15047 MW-1	Total Radium Calculation	615920		
30616118030	BD15048 MW-1 Dup	Total Radium Calculation	615920		
30616118031	BD15049 MW-7V	Total Radium Calculation	615920		
30616118032	BD15050 MW-7	Total Radium Calculation	615920		
30616118033	BD15051 MW-5V	Total Radium Calculation	615920		
30616118034	BD15052 MW-5	Total Radium Calculation	616574		

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: WMWBARAP_1417
 Pace Project No.: 30616118

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
30616118037	BD15053 FB-2	Total Radium Calculation	615920		
30616118038	BD15054 MW-25V	Total Radium Calculation	615920		
30616118039	BD15055 MW-25H	Total Radium Calculation	615920		
30616118040	BD15056 MW-25H Dup	Total Radium Calculation	615920		
30616118041	BD15057 MW-17V	Total Radium Calculation	616574		
30616118042	BD15058 MW-17H	Total Radium Calculation	616574		
30616118043	BD15059 MW-23V	Total Radium Calculation	616574		
30616118044	BD15060 MW-23H	Total Radium Calculation	616574		
30616118045	BD15139 MW-1V	Total Radium Calculation	616574		
30616118046	BD15140 FB-4	Total Radium Calculation	616574		
30616118047	BD15141 MW-3	Total Radium Calculation	616574		
30616118048	BD15142 MW-4	Total Radium Calculation	616574		
30616118049	BD15143 MW-6	Total Radium Calculation	616574		
30616118050	BD15144 MW-14V	Total Radium Calculation	616574		
30616118051	BD15145 MW-14	Total Radium Calculation	616574		
30616118052	BD15146 MW-13V	Total Radium Calculation	616574		
30616118053	BD15147 MW-13	Total Radium Calculation	616574		
30616118054	BD15148 EB-1	Total Radium Calculation	616574		

REPORT OF LABORATORY ANALYSIS

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PM: SCR Due Date: 09/15/23
 CLIENT: ALABAMA PWR

Section C	
Section A Required Client Information: Company: Alabama Power Company Address: 744 Highway 87 GSC Bldg #8 Calera, AL 35040 Email To: fbwill@southemco.com Phone: 205-664-6101 Fax: Requested Due Date: 28 days	Section B Required Project Information: Report To: Brooke Caton Copy To: Renee Jernigan & Blaine Denton Purchase Order #: APC87419-0001 Project Name: Plant Barry Ash Pond Project Number: WNWBARAP_1417
Invoice Information: Attention: Brooke Caton Company Name: Alabama Power Co. Address: 744 Highway 87 GSC Bldg #8 Pace Quote: CCR Pace Project Manager: Skyler Richmond Pace Profile #: 16788	
Regulatory Agency: AL State/Location: AL	
Page: 2 Of 4	

ITEM #	Description	Station Name Location_ID	Site Name Facility_ID	Sample Duplicate	Field Filtered	Matrix Spike/Matrix Spike Duplicate	Matrix Type (see valid codes to left)	SAMPLE TYPE (G-GRAB C-COMP)	COLLECTED	# OF CONTAINERS	Unpreserved	H2SO4	HN03	Preservatives	Y/N	Requested/Analysis Filtered (Y/N)	Total Radium Sum	Residual Chlorine (Y/N)	EPA 9315	EPA 9320	DATE	TIME	SAMPLE CONDITIONS
1	BD15035	APCO-BY-AP-FB-01	APCO_Barry_AshPond				GW	G	8/7/2023	11:30			X			X			X	X			01P
2	BD15036	APCO-BY-AP-MW-10	APCO_Barry_AshPond				GW	G	8/7/2023	12:05			X			X			X	X			01S
3	BD15037	APCO-BY-AP-MW-10	APCO_Barry_AshPond	x			GW	G	8/7/2023	12:05			X			X			X	X			01A
4	BD15038	APCO-BY-AP-MW-10V	APCO_Barry_AshPond				GW	G	8/7/2023	13:04			X			X			X	X			02D
5	BD15039	APCO-BY-AP-MW-9	APCO_Barry_AshPond				GW	G	8/7/2023	14:00			X			X			X	X			01A
6	BD15040	APCO-BY-AP-MW-16V	APCO_Barry_AshPond				GW	G	8/7/2023	15:20			X			X			X	X			01A
7	BD15041	APCO-BY-AP-MW-18H	APCO_Barry_AshPond				GW	G	8/8/2023	7:51			X			X			X	X			01A
8	BD15042	APCO-BY-AP-MW-19H	APCO_Barry_AshPond				GW	G	8/8/2023	8:58			X			X			X	X			01A
9	BD15043	APCO-BY-AP-MW-20H	APCO_Barry_AshPond				GW	G	8/8/2023	9:56			X			X			X	X			01A
10	BD15044	APCO-BY-AP-MW-20V	APCO_Barry_AshPond				GW	G	8/8/2023	10:49			X			X			X	X			01A
11	BD15045	APCO-BY-AP-MW-12	APCO_Barry_AshPond				GW	G	8/8/2023	11:50			X			X			X	X			01A
12	BD15046	APCO-BY-AP-MW-12V	APCO_Barry_AshPond				GW	G	8/8/2023	12:38			X			X			X	X			01A
ADDITIONAL COMMENTS		RELINQUISHED BY / AFFILIATION		DATE		TIME		ACCEPTED BY / AFFILIATION		DATE		TIME		SAMPLE CONDITIONS									
		Brooke Caton/ APC-GTL		8/15/2023		8:53		<i>Brooke Caton</i>		8/17/23		10:00											

SAMPLER NAME AND SIGNATURE	
PRINT Name of SAMPLER:	DATE Signed:
SIGNATURE of SAMPLER:	

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed

Section A Required Client Information:		Section B Required Project Information:		Section C Invoice Information:	
Company:	Alabama Power Company	Report To:	Brooke Caton	Attention:	Brooke Caton
Address:	744 Highway 87 GSC Bldg #8 Calera, AL 35040	Copy To:	Renee Jernigan & Blaine Denton	Company Name:	Alabama Power Co.
Email To:	tbwill@southernco.com	Purchase Order #:	APC87119-0001	Address:	744 Highway 87 GSC Bldg #8
Phone:	205-664-6101	Project Name:	Plant Barry Ash Pond	Pace Quote:	CCR
Requested Due Date:	28 days	Project Number:	WMWBARAP_1417	Pace Project Manager:	Skyler Richmond
				Pace Profile #:	16788
					Regulatory Agency
					States / Location
					AL

ITEM #	SAMPLE ID One Character per box. (A-Z, 0-9 / . -)	Description	Station Name Location_ID	Site Name Facility_ID	Sample Duplicate	Matrix Spike/Matrix Spike Duplicate	Field Filtered	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED		# OF CONTAINERS	Unpreserved	H2SO4	HN03	Preservatives	Y/N	Requested Analysis Filtered (Y/N)	EPA 9315	EPA 9320	Total Radium Sum	Residual Chlorine (Y/N)	
										DATE	TIME												
1	BD15047	MW-1	APCO-BY-AP-MW-1	APCO_Barry_AshPond				GW	G	8/8/2023	13:50	1						X	X	X			019
2	BD15048	MW-1 Dup	APCO-BY-AP-MW-1	APCO_Barry_AshPond	x			GW	G	8/8/2023	13:50	1						X	X	X			050
3	BD15049	MW-7V	APCO-BY-AP-MW-7V	APCO_Barry_AshPond				GW	G	8/7/2023	12:31	1						X	X	X			021
4	BD15050	MW-7	APCO-BY-AP-MW-7	APCO_Barry_AshPond				GW	G	8/7/2023	13:30	1						X	X	X			032
5	BD15051	MW-5V	APCO-BY-AP-MW-5V	APCO_Barry_AshPond				GW	G	8/7/2023	14:55	1						X	X	X			033
6	BD15052	MW-5	APCO-BY-AP-MW-5	APCO_Barry_AshPond	x			GW	G	8/7/2023	15:52	3						X	X	X			034, 035, 036
7	BD15053	FB-2	APCO-BY-AP-MW-5	APCO_Barry_AshPond				GW	G	8/7/2023	16:20	1						X	X	X			037
8	BD15054	MW-25V	APCO-BY-AP-MW-25V	APCO_Barry_AshPond				GW	G	8/8/2023	8:55	1						X	X	X			038
9	BD15055	MW-25H	APCO-BY-AP-MW-25H	APCO_Barry_AshPond				GW	G	8/8/2023	9:58	1						X	X	X			039
10	BD15056	MW-25H Dup	APCO-BY-AP-MW-25H	APCO_Barry_AshPond				GW	G	8/8/2023	9:58	1						X	X	X			040
11	BD15057	MW-17V	APCO-BY-AP-MW-17V	APCO_Barry_AshPond				GW	G	8/8/2023	12:15	1						X	X	X			041
12	BD15058	MW-17H	APCO-BY-AP-MW-17H	APCO_Barry_AshPond				GW	G	8/8/2023	13:00	1						X	X	X			042

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
	Brooke Caton / APC GTL	8/4/2023	8:53	<i>Brooke Caton</i>	8/19/23	1000	

SAMPLER NAME AND SIGNATURE		TEMP in C
PRINT Name of SAMPLER:		
SIGNATURE of SAMPLER:		
DATE Signed:		

CHAIN-OF-CUSTODY / Analytical Request Docum


The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be complete.

Section A Required Client Information:		Section B Required Project Information:		Section C Invoice Information:	
Company:	Alabama Power Company	Report To:	Brooke Caton	Attention:	Brooke Caton
Address:	744 Highway 87 GSC Bldg #8 Calera, AL 35040	Copy To:	Renee Jernigan & Blaine Denton	Company Name:	Alabama Power Co.
Email To:	ibwill@southemco.com	Purchase Order #:	AP087119-0001	Address:	744 Highway 87 GSC Bldg #8 CCR
Phone:	205-664-6101	Project Name:	Plant Barry Ash Pond	Pace Quote:	
Requested Due Date:	28 days	Project Number:	WNWBARAP_1417	Pace Project Manager:	Skyler Richmond
				Pace Profile #:	16788
				Regulatory Agency:	AL
				State / Location:	

ITEM #	Description	Station Name Location_ID	Site Name Facility_ID	Sample Duplicate	Matrix Spike/Matrix Spike Duplicate	Field Filtered	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED		# OF CONTAINERS	Unpreserved	H2SO4	HNO3	Preservatives	Y/N	Requested Analysis Filtered (Y/N)	EPA 8320	EPA 8315	Total Radium Sum	Residual Chlorine (Y/N)
									START DATE	TIME											
1	BD15059	MW-23V	APCO-BY-AP-MW-23V	APCO_Barry_AshPond			GW	G	8/8/2023	14:08	1						X	X	X		
2	BD15060	MW-23H	APCO-BY-AP-MW-23H	APCO_Barry_AshPond			GW	G	8/8/2023	15:10	1						X	X	X		
3	BD15139	MW-1V	APCO-BY-AP-MW-1V	APCO_Barry_AshPond			GW	G	8/9/2023	10:14	1						X	X	X		
4	BD15140	FB-4	APCO-BY-AP-FB-04	APCO_Barry_AshPond			GW	G	8/9/2023	10:35	1						X	X	X		
5	BD15141	MW-3	APCO-BY-AP-MW-3	APCO_Barry_AshPond			GW	G	8/9/2023	11:48	1						X	X	X		
6	BD15142	MW-4	APCO-BY-AP-MW-4	APCO_Barry_AshPond			GW	G	8/9/2023	12:38	1						X	X	X		
7	BD15143	MW-6	APCO-BY-AP-MW-6	APCO_Barry_AshPond			GW	G	8/9/2023	13:45	1						X	X	X		
8	BD15144	MW-14V	APCO-BY-AP-MW-14V	APCO_Barry_AshPond			GW	G	8/9/2023	9:25	1						X	X	X		
9	BD15145	MW-14	APCO-BY-AP-MW-14	APCO_Barry_AshPond			GW	G	8/9/2023	10:27	1						X	X	X		
10	BD15146	MW-13V	APCO-BY-AP-MW-13V	APCO_Barry_AshPond			GW	G	8/9/2023	11:45	1						X	X	X		
11	BD15147	MW-13	APCO-BY-AP-MW-13	APCO_Barry_AshPond			GW	G	8/9/2023	12:45	1						X	X	X		
12	BD15148	EB-1	APCO-BY-AP-EB-01	APCO_Barry_AshPond			GW	G	8/9/2023	13:20	1						X	X	X		

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
	Brooke Caton/ APC GTL	8/15/2023	8:53	<i>Brooke Caton</i>	8/17/23	10:00	

SAMPLER NAME AND SIGNATURE		TEMP IN C
PRINT Name of SAMPLER:		
SIGNATURE of SAMPLER:		
DATE Signed:		


DC#_Title: ENV-FRM-GBUR-0088 v05_Sample Condition Upon Receipt- Pittsburgh
WO#: 30616118
 Effective Date: 07/06/2023 PM: SCR Due Date: 09/15/23
 CLIENT: ALABAMA PWR
 Client Name: **APC**

Courier: Fed Ex UPS USPS Client Commercial Pace Other Initial / Date
 Tracking Number: **701236968323/701236968345**
 Custody Seal on Cooler/Box Present: Yes No Seals Intact: Yes No
 Thermometer Used: **—** Type of Ice: Wet Blue **(None)**
 Cooler Temperature: Observed Temp **—** °C Correction Factor: **—** °C Final Temp: **—** °C
 Temp should be above freezing to 6°C

Examined By: **TH 8/23/23**
 Labeled By: **TH 8/23/23**
 Temped By: **—**

Comments:	Yes	No	NA	pH paper Lot#	D.P.D. Residual Chlorine Lot #
				1000831	—
Chain of Custody Present	J			1.	
Chain of Custody Filled Out:	J			2.	
-Were client corrections present on COC		J			
Chain of Custody Relinquished	J			3.	
Sampler Name & Signature on COC:		J		4.	
Sample Labels match COC:		J		5.	Sample 005 and 006 have ID of "MM-15" and time of 11:40.
-Includes date/time/ID Matrix:		WT			
Samples Arrived within Hold Time:	J			6.	
Short Hold Time Analysis (<72hr remaining):		J		7.	
Rush Turn Around Time Requested:		J		8.	
Sufficient Volume:	J			9.	
Correct Containers Used:	J			10.	
-Pace Containers Used	J				
Containers Intact:	J			11.	
Orthophosphate field filtered:			J	12.	
Hex Cr Aqueous samples field filtered:			J	13.	
Organic Samples checked for dechlorination			J	14.	
Filtered volume received for dissolved tests:			J	15.	
All containers checked for preservation:	J			16.	
exceptions: VOA, coliform, TOC, O&G, Phenolics, Radon, non-aqueous matrix					PH42
All containers meet method preservation requirements:	J			Initial when completed	TH Date/Time of Preservation
				Lot# of added Preservative	
8260C/D: Headspace in VOA Vials (> 6mm)			J	17.	
624.1: Headspace in VOA Vials (0mm)			J	18.	
Trip Blank Present:			J		Trip blank custody seal present? YES or NO
Rad Samples Screened <0.5 mrem/hr.	J			Initial when completed	TH Date: 8/17/23 Survey Meter SN: 1583
Comments:					

Note: For NC compliance samples with discrepancies, a copy of this form must be sent to the DEHNR Certification office. PM Review is documented electronically in LIMS through the SRF Review schedule in the Workorder Edit Screen.

Client _____ Profile Number 16788
Site Plant Barry Ash Pond Page 1 of 1
Notes _____

Sample Line Item	Amber Glass					Plastic					Vials					Other												
	AG1H	AG3S	AG3U	AG5U	AG5T	BP1N	BP1U	BP2S	BP2U	BP3C	BP3N	BP3S	BP3U	DG9S	VG9H	VG9T	VG9U	VOAK	WGFU	WGKU	ZPLC	GCUB	GJN	12GN	GN	BG1U		
1																												

Container Codes

Glass			
GJN	1 Gallon Jug with HNO3	DG9S	40mL amber VOA vial H2SO4
AG5U	100mL amber glass unpreserved	VG9U	40mL clear VOA vial
AG5T	100mL amber glass Na Thiosulfate	VG9T	40mL clear VOA vial Na Thiosulfate
GJN	1 Gallon Jug	VG9H	40mL clear VOA vial HCl
AG1S	1L amber glass H2SO4	JGFU	4oz amber wide jar
AG1H	1L amber glass HCl	WGFU	4oz wide jar unpreserved
AG1T	1L amber glass NA Thiosulfate	BG2U	500mL clear glass unpreserved
BG1U	1L clear glass unpreserved	AG2U	500mL amber glass unpreserved
AG3S	250mL amber glass H2SO4	WGKU	8oz wide jar unpreserved
AG3U	250mL amber glass unpreserved	GN	General

WO#: 30616118

PM: SCR Due Date: 09/15/23

CLIENT: ALABAMA PWR

Qualitrix ID: 55678

Plastic/Misc.			
GCUB	1 gallon cubitainer	EZ1	5g Encore
12GN	1/2 gallon cubitainer	VOAK	Kit Volatile Solid
SP5T	120mL colliform Na Thiosulfate	I	Wipe/Swab
BP1N	1L plastic HNO3	ZPLC	Siploc Bag
BP1U	1L plastic unpreserved		
BP3S	250mL plastic H2SO4	WT	Water
BP3N	250mL plastic HNO3	SL	Solid
BP3U	250mL plastic unpreserved	OL	Non-Aq Liquid
BP3C	250mL plastic NAOH	WP	Wipe
	500mL plastic H2SO4		
	500mL plastic unpreserved		

Quality Control Sample Performance Assessment



Analyst Must Manually Enter All Fields Highlighted in Yellow.

Test: Ra-226
Analyst: SLC
Date: 9/15/2023
Worklist: 75118
Matrix: DW

Method Blank Assessment	
MB Sample ID	2992869
MB Concentration:	0.198
MB Counting Uncertainty:	0.116
MB MDC:	0.169
MB Numerical Performance Indicator:	3.35
MB Status vs Numerical Indicator:	N/A
MB Status vs. MDC:	See Comment*

Laboratory Control Sample Assessment		LCSD (Y or N)?	Y
Count Date:		LCSD75118	9/15/2023
Spike I.D.:		LCS75118	23-014
Decay Corrected Spike Concentration (pCi/mL):		25.031	25.031
Volume Used (mL):		0.10	0.10
Aliquot Volume (L, g, F):		0.507	0.503
Target Conc. (pCi/L, g, F):		4.941	4.975
Uncertainty (Calculated):		0.232	0.234
Result (pCi/L, g, F):		4.784	4.735
LCS/LCSD Counting Uncertainty (pCi/L, g, F):		0.501	0.536
Numerical Performance Indicator:		-0.56	-0.80
Percent Recovery:		96.81%	95.18%
Status vs Numerical Indicator:		N/A	N/A
Status vs Recovery:		Pass	Pass
Upper % Recovery Limits:		125%	125%
Lower % Recovery Limits:		75%	75%

Duplicate Sample Assessment	
Sample I.D.:	LCS75118
Duplicate Sample I.D.:	LCSD75118
Sample Result (pCi/L, g, F):	4.784
Duplicate Result (pCi/L, g, F):	0.501
Sample Duplicate Result (pCi/L, g, F):	4.735
Duplicate Duplicate Result (pCi/L, g, F):	0.536
Sample Duplicate Result Counting Uncertainty (pCi/L, g, F):	NO
Duplicate Duplicate Result Counting Uncertainty (pCi/L, g, F):	NO
Are sample and/or duplicate results below RL?	1.69%
Duplicate Numerical Performance Indicator:	N/A
Duplicate Percent Recoveries (Duplicate RPD):	1.69%
Duplicate Status vs Numerical Indicator:	N/A
Duplicate Status vs RPD:	Pass
% RPD Limit:	25%

Sample Matrix Spike Control Assessment		MS/MSD 1	MS/MSD 2
Sample Collection Date:		8/8/2023	
Sample I.D.:		30616118004	
Sample MS I.D.:		30616118005	
Sample MSD I.D.:		30616118006	
Spike I.D.:		23-014	
MS/MSD Decay Corrected Spike Concentration (pCi/mL):		25.032	
Spike Volume Used in MS (mL):		0.20	
Spike Volume Used in MSD (mL):		0.20	
MS Aliquot (L, g, F):		0.205	
MS Target Conc. (pCi/L, g, F):		24.412	
MSD Aliquot (L, g, F):		0.208	
MSD Target Conc. (pCi/L, g, F):		24.032	
MS Spike Uncertainty (calculated):		1.147	
MSD Spike Uncertainty (calculated):		1.130	
Sample Result:		0.576	
Sample Result Counting Uncertainty (pCi/L, g, F):		0.319	
Sample Matrix Spike Result:		23.658	
Sample Matrix Spike Duplicate Result:		1.794	
Sample Matrix Spike Duplicate Counting Uncertainty (pCi/L, g, F):		23.308	
Matrix Spike Duplicate Result Counting Uncertainty (pCi/L, g, F):		1.750	
MS Numerical Performance Indicator:		-1.210	
MSD Numerical Performance Indicator:		-1.209	
MS Percent Recovery:		94.55%	
MSD Percent Recovery:		94.55%	
MS Status vs Numerical Indicator:		N/A	
MSD Status vs Numerical Indicator:		N/A	
MS Status vs Recovery:		Pass	
MSD Status vs Recovery:		Pass	
MS/MSD Upper % Recovery Limits:		125%	
MS/MSD Lower % Recovery Limits:		75%	

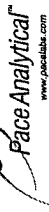
Matrix Spike/Matrix Spike Duplicate Sample Assessment	
Sample I.D.:	30616118004
Sample MS I.D.:	30616118005
Sample MSD I.D.:	30616118006
Matrix Spike Result:	23.658
Matrix Spike Duplicate Result:	1.794
Matrix Spike Duplicate Counting Uncertainty (pCi/L, g, F):	23.308
Sample Matrix Spike Duplicate Result:	1.750
Duplicate Numerical Performance Indicator:	0.274
(Based on the Percent Recoveries) MS/MSD Duplicate RPD:	0.04%
MS/MSD Duplicate Status vs Numerical Indicator:	N/A
MS/MSD Duplicate Status vs RPD:	Pass
% RPD Limit:	25%

Evaluation of duplicate precision is not applicable if either the sample or duplicate results are below the MDC.

Comments:
*The method blank result is below the reporting limit for this analysis and is acceptable.

UAM 9/15/23

Quality Control Sample Performance Assessment



Test: Ra-228
Analyst: JJS1
Date: 9/5/2023
Worklist: 75033
Matrix: WT

Analyst Must Manually Enter All Fields Highlighted in Yellow.

Method Blank Assessment	
MB Sample ID	2976859
MB concentration:	0.768
M/B 2 Sigma CSU:	0.332
MB MDC:	0.493
MB Numerical Performance Indicator:	4.53
MB Status vs. Numerical Indicator:	Fail*
MB Status vs. MDC:	See Comment*

Laboratory Control Sample Assessment		LCS (Y or NJ)?	N
		LCS75033	LCS75033
Count Date:	9/8/2023		
Spike I.D.:	23-043		
Decay Corrected Spike Concentration (pCi/mL):	39.905		
Volume Used (mL):	0.10		
Aliquot Volume (L, g, F):	0.815		
Target Conc. (pCi/L, g, F):	4.894		
Uncertainty (Calculated):	0.240		
Result (pCi/L, g, F):	4.835		
LCS/LCSD 2 Sigma CSU (pCi/L, g, F):	1.039		
Numerical Performance Indicator:	-0.11		
Percent Recovery:	98.81%		
Status vs Numerical Indicator:	N/A		
Upper % Recovery Limits:	135%		
Lower % Recovery Limits:	60%		

Duplicate Sample Assessment	
Sample I.D.:	Enter Duplicate sample IDs if other than LCS/LCSD in the space below.
Duplicate Sample I.D.:	
Sample Result (pCi/L, g, F):	
Sample Result 2 Sigma CSU (pCi/L, g, F):	
Sample Duplicate Result (pCi/L, g, F):	
Sample Duplicate Result 2 Sigma CSU (pCi/L, g, F):	
Are sample and/or duplicate results below RL?	See Below ##
Duplicate Numerical Performance Indicator:	
Duplicate RPD:	
Duplicate Status vs Numerical Indicator:	
Duplicate Status vs RPD:	
% RPD Limit:	

Sample Matrix Spike Control Assessment		MS/MSD 1	MS/MSD 2
Sample Collection Date:	8/8/2023		
Sample I.D.:	30616118004		
Sample MS I.D.:	30616118005		
Sample MSD I.D.:	30616118006		
Spike I.D.:	23-043		
MS/MSD Decay Corrected Spike Concentration (pCi/mL):	40.318		
Spike Volume Used in MS (mL):	0.20		
Spike Volume Used in MSD (mL):	0.20		
MS Aliquot (L, g, F):	0.807		
MS Target Conc. (pCi/L, g, F):	9.984		
MSD Aliquot (L, g, F):	0.807		
MSD Target Conc. (pCi/L, g, F):	9.997		
MS Spike Uncertainty (calculated):	0.490		
MSD Spike Uncertainty (calculated):	0.490		
Sample Result:	1.473		
Sample Result 2 Sigma CSU (pCi/L, g, F):	0.526		
Sample Matrix Spike Result:	9.155		
Matrix Spike Result 2 Sigma CSU (pCi/L, g, F):	1.827		
Sample Matrix Spike Duplicate Result:	9.334		
Matrix Spike Duplicate Result 2 Sigma CSU (pCi/L, g, F):	1.884		
MS Numerical Performance Indicator:	-2.310		
MSD Numerical Performance Indicator:	-2.077		
MS Percent Recovery:	76.86%		
MSD Percent Recovery:	78.62%		
MS Status vs Numerical Indicator:	Warning		
MSD Status vs Numerical Indicator:	Warning		
MS Status vs Recovery:	Pass		
MSD Status vs Recovery:	Pass		
MS/MSD Upper % Recovery Limits:	135%		
MS/MSD Lower % Recovery Limits:	60%		

Matrix Spike/Matrix Spike Duplicate Sample Assessment	
Sample I.D.:	30616118004
Sample MS I.D.:	30616118005
Sample MSD I.D.:	30616118006
Sample Matrix Spike Result:	9.155
Sample Matrix Spike Duplicate Result:	1.827
Sample Matrix Spike Duplicate Result 2 Sigma CSU (pCi/L, g, F):	9.334
Sample Matrix Spike Duplicate Result 2 Sigma CSU (pCi/L, g, F):	1.884
Duplicate Numerical Performance Indicator:	-0.134
Duplicate Numerical Performance Indicator (Based on the Percent Recoveries) MS/MSD Duplicate RPD:	2.27%
MS/MSD Duplicate Status vs Numerical Indicator:	Pass
MS/MSD Duplicate Status vs RPD:	Pass
% RPD Limit:	36%

Evaluation of duplicate precision is not applicable if either the sample or duplicate results are below the MDC.

Comments:
*The method blank result is below the reporting limit for this analysis and is acceptable.

VAL
9/12/23

Quality Control Sample Performance Assessment



Analyst Must Manually Enter All Fields Highlighted in Yellow.

Test: Ra-226
Analyst: SLC
Date: 9/15/2023
Worklist: 75119
Matrix: WT

Method Blank Assessment	
MB Sample ID	2982870
MB concentration:	0.031
M/B 2 Sigma CSU:	0.090
MB MDC:	0.218
MB Numerical Performance Indicator:	0.69
MB Status vs Numerical Indicator:	Pass
MB Status vs. MDC:	N/A

Laboratory Control Sample Assessment		LCSD (Y or N)?	Y
Count Date:	9/15/2023	LCSD75119	9/15/2023
Spike I.D.:	19-033		19-033
Decay Corrected Spike Concentration (pCi/mL):	24.013		24.013
Volume Used (mL):	0.10		0.10
Aliquot Volume (L, g, F):	0.507		0.505
Target Conc. (pCi/L, g, F):	4.738		4.754
Uncertainty (Calculated):	0.057		0.057
Result (pCi/L, g, F):	5.688		5.320
LCS/LCSD 2 Sigma CSU (pCi/L, g, F):	1.001		0.946
Numerical Performance Indicator:	1.86		1.17
Percent Recovery:	120.05%		111.92%
Status vs Numerical Indicator:	Pass		Pass
Status vs Recovery:	N/A		N/A
Upper % Recovery Limits:	125%		125%
Lower % Recovery Limits:	75%		75%

Duplicate Sample Assessment	
Sample I.D.:	LCS75119
Duplicate Sample I.D.:	LCS75119
Duplicate Sample Result (pCi/L, g, F):	5.688
Sample Result (pCi/L, g, F):	1.001
Sample Duplicate Result (pCi/L, g, F):	5.320
Sample Duplicate Result 2 Sigma CSU (pCi/L, g, F):	0.946
Sample Duplicate Result 2 Sigma CSU (pCi/L, g, F):	NO
Are sample and/or duplicate results below RL?	0.523
Duplicate Numerical Performance Indicator:	7.01%
Duplicate (Based on the LCS/LCSD Percent Recoveries) Duplicate RPD:	Pass
Duplicate Status vs Numerical Indicator:	N/A
Duplicate Status vs RPD:	25%
% RPD Limit:	

Sample Matrix Spike Control Assessment		MS/MSD 1	MS/MSD 2
Sample Collection Date:	8/7/2023		
Sample ID:	30616118014		
Sample MS I.D.:	30616118015		
Sample MSD I.D.:	30616118016		
Spike I.D.:	19-033		
MS/MSD Decay Corrected Spike Concentration (pCi/mL):	24.014		
Spike Volume Used in MS (mL):	0.20		
Spike Volume Used in MSD (mL):	0.20		
MS Aliquot (L, g, F):	0.297		
MS Target Conc. (pCi/L, g, F):	16.149		
MSD Aliquot (L, g, F):	0.282		
MSD Target Conc. (pCi/L, g, F):	17.048		
MS Spike Uncertainty (calculated):	0.194		
MSD Spike Uncertainty (calculated):	0.205		
Sample Result:	0.538		
Sample Result 2 Sigma CSU (pCi/L, g, F):	0.281		
Sample Matrix Spike Result:	16.623		
Sample Matrix Spike Duplicate Result:	2.762		
Sample Matrix Spike Duplicate Result:	19.341		
Sample Matrix Spike Duplicate Result:	3.104		
MS Numerical Performance Indicator:	-0.045		
MS Numerical Performance Indicator:	1.101		
MS Percent Recovery:	99.60%		
MSD Percent Recovery:	110.29%		
MS Status vs Numerical Indicator:	Pass		
MS Status vs Numerical Indicator:	Pass		
MS Status vs Recovery:	N/A		
MS/MSD Upper % Recovery Limits:	125%		
MS/MSD Lower % Recovery Limits:	75%		

Matrix Spike/Matrix Spike Duplicate Sample Assessment	
Sample I.D.:	30616118014
Sample MS I.D.:	30616118015
Sample MSD I.D.:	30616118016
Sample Matrix Spike Result:	16.623
Matrix Spike Result 2 Sigma CSU (pCi/L, g, F):	2.762
Sample Matrix Spike Duplicate Result:	19.341
Sample Matrix Spike Duplicate Result:	3.104
Duplicate Numerical Performance Indicator:	-1.282
Duplicate (Based on the Percent Recoveries) MS/MSD Duplicate RPD:	10.19%
MS/MSD Duplicate Status vs Numerical Indicator:	Pass
MS/MSD Duplicate Status vs RPD:	N/A
% RPD Limit:	25%

Evaluation of duplicate precision is not applicable if either the sample or duplicate results are below the MDC.

Comments:

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VAM 9/15/23

Quality Control Sample Performance Assessment



Analyst Must Manually Enter All Fields Highlighted in Yellow.

Test: Ra-228
Analyst: JJS1
Date: 9/5/2023
Worklist: 75034
Matrix: WT

Method Blank Assessment	
MB Sample ID	2976861
MB concentration:	0.706
M/B 2 Sigma CSU:	0.339
MB MDC:	0.562
MB Numerical Performance Indicator:	4.08
MB Status vs Numerical Indicator:	Fail*
MB Status vs. MDC:	See Comment*

Laboratory Control Sample Assessment	
LCSD (Y or N)?	N
LCSD75034	LCSD75034
Count Date:	9/11/2023
Spike I.D.:	23-043
Decay Corrected Spike Concentration (pCi/mL):	39.867
Volume Used (mL):	0.10
Aliquot Volume (L, g, F):	0.815
Target Conc. (pCi/L, g, F):	4.890
Uncertainty (Calculated):	0.240
Result (pCi/L, g, F):	3.749
LCSD/LCSD 2 Sigma CSU (pCi/L, g, F):	0.902
Numerical Performance Indicator:	-2.40
Percent Recovery:	76.67%
Status vs Numerical Indicator:	N/A
Status vs Recovery:	Pass
Upper % Recovery Limits:	135%
Lower % Recovery Limits:	60%

Duplicate Sample Assessment	
Sample I.D.:	Enter Duplicate sample IDs if other than LCS/LCSD in the space below.
Duplicate Sample I.D.:	
Sample Result (pCi/L, g, F):	
Sample Result 2 Sigma CSU (pCi/L, g, F):	
Sample Duplicate Result (pCi/L, g, F):	
Sample Duplicate Result 2 Sigma CSU (pCi/L, g, F):	
Are sample and/or duplicate results below RL?	See Below ##
Duplicate Numerical Performance Indicator:	
Duplicate RPD:	
Duplicate Status vs Numerical Indicator:	
Duplicate Status vs RPD:	
% RPD Limit:	

Sample Matrix Spike Control Assessment		MS/MSD 1	MS/MSD 2
Sample Collection Date:	8/7/2023		
Sample I.D.:	30616118014		
Sample MS I.D.:	30616118015		
Sample MSD I.D.:	30616118016		
Spike I.D.:	23-043		
MS/MSD Decay Corrected Spike Concentration (pCi/mL):	40.331		
Spike Volume Used in MS (mL):	0.20		
Spike Volume Used in MSD (mL):	0.20		
MS Aliquot (L, g, F):	0.802		
MS Target Conc. (pCi/L, g, F):	10.056		
MSD Aliquot (L, g, F):	0.802		
MSD Target Conc. (pCi/L, g, F):	10.055		
MS Spike Uncertainty (calculated):	0.493		
MSD Spike Uncertainty (calculated):	0.493		
Sample Result 2 Sigma CSU (pCi/L, g, F):	0.578		
Sample Matrix Spike Result:	0.341		
Sample Matrix Spike Result:	8.827		
Matrix Spike Result 2 Sigma CSU (pCi/L, g, F):	1.754		
Sample Matrix Spike Duplicate Result:	8.811		
Matrix Spike Duplicate Result 2 Sigma CSU (pCi/L, g, F):	1.769		
MS Numerical Performance Indicator:	-1.913		
MSD Numerical Performance Indicator:	82.03%		
MS Percent Recovery:	81.87%		
MSD Percent Recovery:	Pass		
MS Status vs Numerical Indicator:	Pass		
MSD Status vs Numerical Indicator:	Pass		
MS Status vs Recovery:	Pass		
MSD Status vs Recovery:	135%		
MS/MSD Upper % Recovery Limits:	60%		
MS/MSD Lower % Recovery Limits:			

Matrix Spike/Matrix Spike Duplicate Sample Assessment	
Sample I.D.:	30616118014
Sample MS I.D.:	30616118015
Sample MSD I.D.:	30616118016
Sample Matrix Spike Result:	8.827
Sample Matrix Spike Result 2 Sigma CSU (pCi/L, g, F):	1.754
Sample Matrix Spike Duplicate Result:	8.811
Sample Matrix Spike Duplicate Result 2 Sigma CSU (pCi/L, g, F):	1.769
Duplicate Numerical Performance Indicator:	0.013
Duplicate Numerical Performance Indicator:	0.19%
(Based on the Percent Recoveries) MS/MSD Duplicate RPD:	Pass
MS/MSD Duplicate Status vs Numerical Indicator:	Pass
MS/MSD Duplicate Status vs RPD:	36%
% RPD Limit:	

Evaluation of duplicate precision is not applicable if either the sample or duplicate results are below the MDC.

Comments:
*The method blank result is below the reporting limit for this analysis and is acceptable.

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UAC
9/12/23

Quality Control Sample Performance Assessment



Test: Ra-228
Analyst: ZPC
Date: 9/7/2023
Worklist: 75035
Matrix: WT

Analyst Must Manually Enter All Fields Highlighted in Yellow.

Method Blank Assessment	
MB Sample ID	2976865
MB Concentration:	0.153
MB 2 Sigma CSU:	0.337
MB MDC:	0.741
MB Numerical Performance Indicator:	0.89
MB Status vs Numerical Indicator:	Pass
MB Status vs. MDC:	Pass

Laboratory Control Sample Assessment		LCSD (Y or N)?	LCSD75035
Count Date:	9/11/2023		N
Spike I.D.:	23-043		
Decay Corrected Spike Concentration (pCi/ml):	39.865		
Volume Used (ml):	0.10		
Aliquot Volume (L, g, F):	0.817		
Target Conc. (pCi/L, g, F):	4.880		
Uncertainty (Calculated):	0.239		
Result (pCi/L, g, F):	2.662		
LCSD/MSD 2 Sigma CSU (pCi/L, g, F):	0.811		
Numerical Performance Indicator:	-5.14		
Percent Recovery:	54.56%		
Status vs Numerical Indicator:	Fail** X		
Status vs Recovery:	Fail Low**		
Upper % Recovery Limits:	135%		
Lower % Recovery Limits:	60%		

Sample Matrix Spike Control Assessment		MS/MSD 1	MS/MSD 2
Sample Collection Date:	8/7/2023		
Sample I.D.:	30616118034		
Sample MS I.D.:	30616118035		
Sample MSD I.D.:	30616118036		
Spike I.D.:	23-043		
MS/MSD Decay Corrected Spike Concentration (pCi/ml):	40.328		
Spike Volume Used in MS (ml):	0.20		
Spike Volume Used in MSD (ml):	0.20		
MS Aliquot (L, g, F):	0.803		
MS Target Conc. (pCi/L, g, F):	10.040		
MSD Aliquot (L, g, F):	0.802		
MSD Target Conc. (pCi/L, g, F):	10.061		
MS Spike Uncertainty (calculated):	0.492		
MSD Spike Uncertainty (calculated):	0.493		
Sample Result:	0.276		
Sample Result 2 Sigma CSU (pCi/L, g, F):	0.359		
Sample Matrix Spike Result:	8.602		
Matrix Spike Result 2 Sigma CSU (pCi/L, g, F):	1.759		
Sample Matrix Spike Duplicate Result:	8.765		
Matrix Spike Duplicate Result 2 Sigma CSU (pCi/L, g, F):	1.775		
MS Numerical Performance Indicator:	-1.805		
MSD Numerical Performance Indicator:	-1.641		
MS Percent Recovery:	82.93%		
MSD Percent Recovery:	84.38%		
MS Status vs Numerical Indicator:	Pass		
MSD Status vs Numerical Indicator:	Pass		
MS Status vs Recovery:	Pass		
MSD Status vs Recovery:	Pass		
MS/MSD Upper % Recovery Limits:	135%		
MS/MSD Lower % Recovery Limits:	60%		

Duplicate Sample Assessment		Enter Duplicate sample IDs if other than LCS/MSD in the space below.
Sample I.D.:		
Duplicate Sample I.D.:		
Sample Result (pCi/L, g, F):		
Sample Result 2 Sigma CSU (pCi/L, g, F):		
Sample Duplicate Result (pCi/L, g, F):		
Sample Duplicate Result 2 Sigma CSU (pCi/L, g, F):		
Ave sample and/or duplicate results below RL?		
Duplicate Numerical Performance Indicator:		
Duplicate RPD:		
Duplicate Status vs Numerical Indicator:		
Duplicate Status vs RPD:		
% RPD Limit:		

Matrix Spike/Matrix Spike Duplicate Sample Assessment		MS/MSD 1	MS/MSD 2
Sample I.D.:	30616118034		
Sample MS I.D.:	30616118035		
Sample MSD I.D.:	30616118036		
Matrix Spike Result 2 Sigma CSU (pCi/L, g, F):	8.602		
Sample Matrix Spike Result:	1.759		
Matrix Matrix Spike Duplicate Result:	8.765		
Matrix Spike Duplicate Result 2 Sigma CSU (pCi/L, g, F):	1.775		
Duplicate Numerical Performance Indicator:	-0.128		
(Based on the Percent Recoveries) MS/MSD Duplicate RPD:	1.74%		
MS/MSD Duplicate Status vs Numerical Indicator:	Pass		
MS/MSD Duplicate Status vs RPD:	Pass		
% RPD Limit:	36%		

Evaluation of duplicate precision is not applicable if either the sample or duplicate results are below the MDC.

Comments:

**Batch must be re-prepped due to LCS failure.

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Quality Control Sample Performance Assessment

Analyst Must Manually Enter All Fields Highlighted in Yellow.

Test: Ra-228
Analyst: ZPC
Date: 9/13/2023
Worklist: 75035
Matrix:

Method Blank Assessment

MB Sample ID: _____
MB concentration: _____

MB MDC: _____
MB Numerical Performance Indicator: _____
MB Status vs Numerical Indicator: _____
MB Status vs. MDC: _____

Laboratory Control Sample Assessment

Count Date:	LCSD (Y or N)?	N
9/18/2023	LCSD75035	LCSD75035

Decay Corrected Spike Concentration (pCi/mL): 23.043
Volume Used (mL): 39.774
Aliquot Volume (L, g, F): 0.10
Target Conc. (pCi/L, g, F): 0.817
Uncertainty (Calculated): 4.868
Result (pCi/L, g, F): 0.239
Numerical Performance Indicator: 3.756
Percent Recovery: 0.879
Status vs Numerical Indicator: -2.39
Status vs Recovery: 77.16%
Upper % Recovery Limits: N/A
Lower % Recovery Limits: Pass
60%

Duplicate Sample Assessment

Sample I.D.: _____
Duplicate Sample I.D.: _____
Sample Result (pCi/L, g, F): _____
Sample Duplicate Result (pCi/L, g, F): _____

Are sample and/or duplicate results below RL?
Duplicate Numerical Performance Indicator: _____
Duplicate RPD: _____
Duplicate Status vs Numerical Indicator: _____
Duplicate Status vs RPD: _____
% RPD Limit: _____

Enter Duplicate sample IDs if other than LCSD/LCSD in the space below.

Sample Matrix Spike Control Assessment

Sample Collection Date:	MS/MSD 1	MS/MSD 2
Sample I.D.: _____ Sample MS I.D.: _____ Sample MSD I.D.: _____ Spike I.D.: _____ MS/MSD Decay Corrected Spike Concentration (pCi/mL): _____ Spike Volume Used in MS (mL): _____ Spike Volume Used in MSD (mL): _____ MS Aliquot (L, g, F): _____ MS Target Conc. (pCi/L, g, F): _____ MSD Aliquot (L, g, F): _____ MSD Target Conc. (pCi/L, g, F): _____ MS Spike Uncertainty (calculated): _____ MSD Spike Uncertainty (calculated): _____ Sample Result: _____		

Sample Matrix Spike Result: _____

Sample Matrix Spike Duplicate Result: _____

MS Numerical Performance Indicator: _____
MSD Numerical Performance Indicator: _____
MS Percent Recovery: _____
MSD Percent Recovery: _____
MS Status vs Numerical Indicator: _____
MSD Status vs Numerical Indicator: _____
MS Status vs Recovery: _____
MSD Status vs Recovery: _____
MS/MSD Upper % Recovery Limits: _____
MS/MSD Lower % Recovery Limits: _____

Matrix Spiked/Matrix Spike Duplicate Sample Assessment

Sample I.D.: _____
Sample MS I.D.: _____
Sample MSD I.D.: _____
Sample Matrix Spike Result: _____
Sample Matrix Spike Duplicate Result: _____

Duplicate Numerical Performance Indicator: _____
(Based on the Percent Recoveries) MS/MSD Duplicate RPD: _____
MS/MSD Duplicate Status vs Numerical Indicator: _____
MS/MSD Duplicate Status vs RPD: _____
% RPD Limit: _____

Evaluation of duplicate precision is not applicable if either the sample or duplicate results are below the MDC.

Comments:

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UPL
9/19/23

Quality Control Sample Performance Assessment



Analyst Must Manually Enter All Fields Highlighted in Yellow.

Test: Ra-226
Analyst: SLC
Date: 9/7/2023
Worklist: 75120
Matrix: WT

Method Blank Assessment	
MB Sample ID	2982880
MB concentration:	0.070
M/B 2 Sigma CSU:	0.115
MB MDC:	0.256
MB Numerical Performance Indicator:	1.20
MB Status vs Numerical Indicator:	Pass
MB Status vs. MDC:	N/A

Laboratory Control Sample Assessment	
LCS (Y or N)?	Y
LCS75120	9/15/2023
Count Date:	9/15/2023
Spike I.D.:	19-033
Decay Corrected Spike Concentration (pCi/mL):	24.013
Volume Used (mL):	0.10
Aliquot Volume (L, g, F):	0.504
Target Conc. (pCi/L, g, F):	4.767
Uncertainty (Calculated):	0.057
Result (pCi/L, g, F):	5.299
LCS/LCSD 2 Sigma CSU (pCi/L, g, F):	0.934
Numerical Performance Indicator:	1.67
Percent Recovery:	117.53%
Status vs Numerical Indicator:	Pass
Status vs Recovery:	N/A
Upper % Recovery Limits:	125%
Lower % Recovery Limits:	75%

Duplicate Sample Assessment	
Sample I.D.:	LCS75120
Duplicate Sample I.D.:	LCS75120
Sample Result (pCi/L, g, F):	5.530
Sample Duplicate Result (pCi/L, g, F):	0.969
Sample Result 2 Sigma CSU (pCi/L, g, F):	5.299
Sample Duplicate Result 2 Sigma CSU (pCi/L, g, F):	0.934
Are sample and/or duplicate results below RL?	NO
Duplicate Numerical Performance Indicator:	0.335
(Based on the LCS/LCSD Percent Recoveries) Duplicate RPD:	5.57%
Duplicate Status vs Numerical Indicator:	Pass
Duplicate Status vs RPD:	N/A
% RPD Limit:	25%

Sample Matrix Spike Control Assessment		MS/MSD 1	MS/MSD 2
Sample Collection Date:	Sample I.D.	8/7/2023	
Spike Volume Used in MS (mL):	Sample MS I.D.	30616118034	
MS Aliquot (L, g, F):	Sample MSD I.D.	30616118035	
MS Target Conc. (pCi/L, g, F):	Spike I.D.:	30616118036	
MSD Aliquot (L, g, F):	MS/MSD Decay Corrected Spike Concentration (pCi/mL):	19-033	
MSD Target Conc. (pCi/L, g, F):	Spike Volume Used in MS (mL):	24.014	
MS Spike Uncertainty (calculated):	Spike Volume Used in MSD (mL):	0.20	
MSD Spike Uncertainty (calculated):	MS Aliquot (L, g, F):	0.325	
MSD Numerical Performance Indicator:	MS Target Conc. (pCi/L, g, F):	14.786	
MS Percent Recovery:	MSD Aliquot (L, g, F):	0.324	
MS Status vs Numerical Indicator:	MSD Target Conc. (pCi/L, g, F):	14.814	
MS Status vs Recovery:	MS Spike Uncertainty (calculated):	0.177	
MS/MSD Upper % Recovery Limits:	MSD Spike Uncertainty (calculated):	0.178	
MS/MSD Lower % Recovery Limits:	MSD Numerical Performance Indicator:	0.263	
	MS Percent Recovery:	0.207	
	MS Status vs Numerical Indicator:	17.009	
	MS Status vs Recovery:	2.760	
	MS/MSD Upper % Recovery Limits:	18.385	
	MS/MSD Lower % Recovery Limits:	2.966	
	MS Numerical Performance Indicator:	1.386	
	MS Percent Recovery:	2.177	
	MS Status vs Numerical Indicator:	113.26%	
	MS Status vs Recovery:	122.33%	
	MS/MSD Upper % Recovery Limits:	Pass	
	MS/MSD Lower % Recovery Limits:	Warning	
	MS Numerical Performance Indicator:	N/A	
	MS Percent Recovery:	N/A	
	MS Status vs Numerical Indicator:	N/A	
	MS Status vs Recovery:	N/A	
	MS/MSD Upper % Recovery Limits:	125%	
	MS/MSD Lower % Recovery Limits:	75%	

Matrix Spike/Matrix Spike Duplicate Sample Assessment	
Sample I.D.:	30616118034
Sample MS I.D.:	30616118035
Sample MSD I.D.:	30616118036
Sample Collection Date:	8/7/2023
Sample I.D.:	30616118034
Sample MS I.D.:	30616118035
Sample MSD I.D.:	30616118036
Spike Volume Used in MS (mL):	0.20
MS Aliquot (L, g, F):	0.325
MS Target Conc. (pCi/L, g, F):	14.786
MSD Aliquot (L, g, F):	0.324
MSD Target Conc. (pCi/L, g, F):	14.814
MS Spike Uncertainty (calculated):	0.177
MSD Spike Uncertainty (calculated):	0.178
MS Numerical Performance Indicator:	0.263
MS Percent Recovery:	0.207
MS Status vs Numerical Indicator:	17.009
MS Status vs Recovery:	2.760
MS/MSD Upper % Recovery Limits:	18.385
MS/MSD Lower % Recovery Limits:	2.966
MS Numerical Performance Indicator:	1.386
MS Percent Recovery:	2.177
MS Status vs Numerical Indicator:	113.26%
MS Status vs Recovery:	122.33%
MS/MSD Upper % Recovery Limits:	Pass
MS/MSD Lower % Recovery Limits:	Warning
MS Numerical Performance Indicator:	N/A
MS Percent Recovery:	N/A
MS Status vs Numerical Indicator:	N/A
MS Status vs Recovery:	N/A
MS/MSD Upper % Recovery Limits:	125%
MS/MSD Lower % Recovery Limits:	75%

Evaluation of duplicate precision is not applicable if either the sample or duplicate results are below the MDC.

Comments:

JFK-1803

RAM9/18/23

Appendix D



**Appendix D. Horizontal Groundwater Flow Velocity Calculations
Plant Barry Ash Pond**

2023 1st Semi-Annual Monitoring Event								
Date of Measurement	MW-2	MW-9	Distance	Hydraulic Gradient	Hydraulic Conductivity	Effective Porosity	Calculated Groundwater Flow Velocity	Calculated Groundwater Flow Velocity
	h ₁ (ft)	h ₂ (ft)	Δl (ft)	Δh/Δl (ft/ft)	K (ft/day)	n	(ft/d)	(ft/yr)
6/11/2023	2.81	1.26	4,420.20	0.00035	9.40	0.25	0.0132	4.81
	MW-2	MW-10	Distance	Hydraulic Gradient	Hydraulic Conductivity	Effective Porosity	Calculated Groundwater Flow Velocity	Calculated Groundwater Flow Velocity
	h ₁ (ft)	h ₂ (ft)	Δl (ft)	Δh/Δl (ft/ft)	K (ft/day)	n	(ft/d)	(ft/yr)
6/11/2023	2.81	1.16	4714.20	0.00035	9.40	0.25	0.0132	4.80

2023 2nd Semi-Annual Monitoring Event								
Date of Measurement	MW-2	MW-9	Distance	Hydraulic Gradient	Hydraulic Conductivity	Effective Porosity	Calculated Groundwater Flow Velocity	Calculated Groundwater Flow Velocity
	h ₁ (ft)	h ₂ (ft)	Δl (ft)	Δh/Δl (ft/ft)	K (ft/day)	n	(ft/d)	(ft/yr)
8/7/2023	3.04	1.71	4,420.20	0.00030	9.40	0.25	0.0113	4.13
	MW-2	MW-10	Distance	Hydraulic Gradient	Hydraulic Conductivity	Effective Porosity	Calculated Groundwater Flow Velocity	Calculated Groundwater Flow Velocity
	h ₁ (ft)	h ₂ (ft)	Δl (ft)	Δh/Δl (ft/ft)	K (ft/day)	n	(ft/d)	(ft/yr)
8/7/2023	3.04	1.60	4714.20	0.00031	9.40	0.25	0.0115	4.19

Notes:

ft = feet

ft/d = feet/day

ft/ft = feet per foot

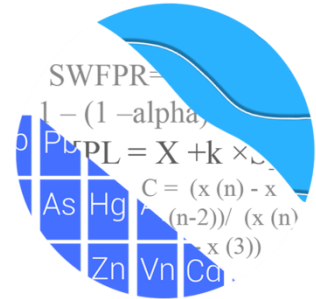
ft/yr = feet per year

Appendix E

GROUNDWATER STATS CONSULTING

June 27, 2023

Southern Company Services
Attn: Mr. Greg Dyer
3535 Colonnade Parkway
Birmingham, AL 35243



Re: Plant Barry Ash Pond
1st Semi-Annual Statistical Analysis – April 2023

Dear Mr. Dyer,

Groundwater Stats Consulting, formerly the statistical consulting division of Sanitas Technologies, is pleased to provide the statistical analysis of groundwater data for the April 2023 1st Semi-Annual sample event for Alabama Power Company's Plant Barry Ash Pond. The analysis complies with the federal rule for the Disposal of Coal Combustion Residuals from Electric Utilities (CCR Rule, 2015) as well as with the United States Environmental Protection Agency (USEPA) Unified Guidance (2009).

Sampling began at site for the CCR program in 2016. The monitoring well network, as provided by Southern Company Services, consists of the following:

- **Upgradient wells:** BY-UP-MW-1, BY-UP-MW-2, BY-UP-MW-3, and BY-UP-MW-4
- **Downgradient wells:** BY-AP-MW-1, BY-AP-MW-2, BY-AP-MW-3, BY-AP-MW-4, BY-AP-MW-5, BY-AP-MW-6, BY-AP-MW-7, BY-AP-MW-8, BY-AP-MW-9, BY-AP-MW-10, BY-AP-MW-11, BY-AP-MW-12, BY-AP-MW-13, BY-AP-MW-14, BY-AP-MW-15, and BY-AP-MW-16
- **Delineation wells:** BY-AP-MW-1V, BY-AP-MW-5V, BY-AP-MW-7V, BY-AP-MW-8V, BY-AP-MW-10V, BY-AP-MW-12V, BY-AP-MW-13V, BY-AP-MW-14V, BY-AP-MW-15V, BY-AP-MW-16V, BY-AP-MW-17H, BY-AP-MW-17V, BY-AP-MW-18H, BY-AP-MW-19H, BY-AP-MW-20H, BY-AP-MW-20V, BY-AP-MW-22H, BY-AP-MW-23H, BY-AP-MW-23V, BY-AP-MW-24H, BY-AP-MW-25H, and BY-AP-MW-25V

Data from delineation wells are included on time series and box plots but did not require formal statistics. Please note that delineation well BY-AP-MW-25V was previously identified as BY-AP-MW-25VM.

Data were sent electronically to Groundwater Stats Consulting, and the statistical analysis was prepared according to the Statistical Analysis Plan approved by Dr. Kirk Cameron, PhD Statistician with MacStat Consulting, primary author of the USEPA Unified Guidance, and Senior Advisor to Groundwater Stats Consulting. The analysis was reviewed Andrew Collins, Project Manager of Groundwater Stats Consulting.

The CCR program consists of the following constituents:

Appendix III (Detection Monitoring) - boron, calcium, chloride, fluoride, pH, sulfate, and TDS

Appendix IV (Assessment Monitoring) - antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, combined radium 226 + 228, fluoride, lead, lithium, mercury, molybdenum, selenium, and thallium

Note that when there are no detections present in downgradient wells for a given constituent, statistical analyses are not required. A summary of Appendix IV downgradient well/constituent pairs containing 100% non-detects follows this letter. For all constituents, a substitution of the most recent reporting limit is used for non-detect data. This generally gives the most conservative limit in each case.

Time series plots for Appendix III and IV parameters at all wells are provided for the purpose of screening data at these wells (Figure A). Additionally, a separate section of box plots is included for all constituents at upgradient and downgradient wells (Figure B). The time series plots are used to initially screen for suspected outliers and trends, while the box plots provide visual representation of variation within individual wells and between all wells. Any flagged data are displayed in a lighter font and as a disconnected symbol on the time series reports, as well as in a lighter font on the accompanying data pages. Summary tables of all flagged values follow this report (Figure C).

During the April 2020 background screening, Appendix III data at all wells were evaluated for the following: 1) outliers; 2) trends; 3) most appropriate statistical method for Appendix III parameters based on analysis of the spatial variability of groundwater quality data among wells upgradient of the facility; and 4) eligibility of downgradient wells when intrawell statistical methods are recommended. A summary of the background screening is presented in a later section of this letter. Power curves are provided in this report to demonstrate that the selected statistical methods for Appendix III parameters comply with

the USEPA Unified Guidance. The EPA suggests that the selected statistical method should provide at least 55% power at 3 standard deviations or at least 80% power at 4 standard deviations. Power curves are based on the following statistical methods and site/data characteristics:

- Semi-Annual Sampling
- Intrawell Prediction Limits with 1-of-2 resample plan
- Interwell Prediction Limits with 1-of-2 resample plan
- # Background Samples (Intrawell): 12
- # Background Samples (Interwell): 79
- # Constituents: 7
- # Downgradient wells: 16

Summary of Statistical Methods – Appendix III Parameters

Based on the Statistical Analysis Plan, the following statistical methods are used to evaluate the Appendix III parameters:

- Intrawell prediction limits, combined with a 1-of-2 resample plan for pH and sulfate
- Interwell prediction limits, combined with a 1-of-2 resample plan for boron, calcium, chloride, fluoride, and TDS

Parametric prediction limits are utilized when the screened historical data follow a normal or transformed-normal distribution. When data cannot be normalized or the majority of data are non-detects, a nonparametric test is utilized. While the annual false positive rate associated with parametric limits is fixed at 10% as recommended by the EPA Unified Guidance (2009), the false positive rate associated with nonparametric limits is not fixed and depends upon the available background sample size, number of future comparisons, and verification resample plan. The distribution of data is tested using the Shapiro-Wilk/Shapiro-Francia test for normality. After testing for normality and performing any adjustments as discussed below (US EPA, 2009), data are analyzed using either parametric or non-parametric prediction limits as appropriate. Non-detects are handled as follows:

- No statistical analyses are required on wells and analytes containing 100% non-detects (USEPA Unified Guidance, 2009, Chapter 6).
- When data contain <15% non-detects, simple substitution of one-half the reporting limit is utilized in the statistical analysis. The reporting limit utilized for non-detects is the most recent practical quantification limit (PQL) as reported by the laboratory.

- When data contain between 15-50% non-detects, the Kaplan-Meier non-detect adjustment is applied to the background data. This technique adjusts the mean and standard deviation of the historical concentrations to account for concentrations below the reporting limit.
- Nonparametric prediction limits are used on data containing greater than 50% non-detects.

Natural systems continuously evolve due to physical changes made to the environment. Examples include capping a landfill, paving areas near a well, or lining a drainage channel to prevent erosion. Periodic updating of background statistical limits is necessary to accommodate these types of changes. In the intrawell case, data for all wells and constituents may be re-evaluated when a minimum of 4 new data points are available to determine whether earlier concentrations are representative of present-day groundwater quality. In the interwell case, prediction limits are updated with upgradient well data following each sampling event after screening for any new outliers. While not required for this report, in some cases, deselecting the earlier portion of data may be necessary prior to construction of limits so that resulting statistical limits are conservative (lower) from a regulatory perspective and capable of rapidly detecting changes in groundwater quality. Even though the data are excluded from the calculation, the values will continue to be reported and shown in tables and graphs.

Appendix III Background Screening – April 2020

Outlier Analysis

Background data through May 2019 for Appendix III parameters were screened for outliers using Tukey's test for outliers and/or visual screening, and identified outliers were flagged with "o" in the database and shown in a lighter font on the time series graphs and data pages. A list of flagged outliers is included with this report (Appendix C). Flagged values are excluded from background in the calculation of statistical limits in order to better represent background conditions and to produce limits that are conservative from a regulatory perspective. No seasonal patterns were visually apparent on any of the time series plots, and no seasonal adjustments were made.

Trend Tests

The Sen's Slope/Mann Kendall trend test was used to evaluate all data at each well to identify statistically significant increasing or decreasing trends. In the absence of suspected contamination, significant trending data are typically not included in the background used for construction of prediction limits. This step serves to reduce variation

in background and better represent current background conditions. The results of the trend analyses showed several statistically significant increasing and decreasing trends. However, the background time period is short, and all trends noted were relatively low in magnitude when compared to average concentrations; therefore, no adjustments were made to any of the records. Trend test results were included with the April 2020 screening report.

Appendix III – Evaluation of Statistical Approach

The Analysis of Variance (ANOVA) was used to statistically evaluate differences in average concentrations among upgradient wells, which assists in identifying the most appropriate statistical approach. Interwell tests, which compare downgradient well data to statistical limits constructed from pooled upgradient well data, are appropriate when average concentrations are similar across upgradient wells. Intrawell tests, which compare compliance data from a single well to screened historical data within the same well, are appropriate when upgradient wells exhibit spatial variation; when statistical limits constructed from upgradient wells are not representative of the current background data population; and when downgradient water quality is unimpacted compared to upgradient water quality for the same parameter.

Based on the results of the screening and use of the ANOVA, intrawell limits were initially recommended for sulfate, and interwell methods were recommended for boron, calcium, chloride, fluoride, pH and TDS. However, as shown on the boxplots, the upgradient levels for pH are very low (acid) and are not representative of downgradient water quality. Therefore, intrawell limits were recommended for pH as well—unless or until a future study confirms that those low levels are representative of unimpacted downgradient conditions.

Appendix III Background Update – Fall 2021

Outlier Analysis

Proposed background data were reviewed to identify any newly suspected outliers, since the last background update described above, at all wells for pH and sulfate through May 2021 and at upgradient wells for boron, calcium, chloride, fluoride, and TDS through November 2021. Visual screening is used to identify potential outliers. When values are identified as outliers, these measurements are flagged with “o” and excluded to reduce variation, better represent background conditions, and provide limits that are conservative from a regulatory perspective. As mentioned above, flagged data are displayed in a lighter font and as a disconnected symbol on the time series reports, as

well as in a lighter font on the accompanying data pages. During the background update, the highest values for sulfate among existing background data in wells BY-MW-AP-13 and BY-MW-AP-14 were flagged to construct statistical limits that are conservative (i.e., lower) from a regulatory perspective. Additionally, the highest values among compliance data for sulfate in wells BY-MW-AP-MW-5 and MW-AP-16 were flagged in order to incorporate only compliance data that were of similar concentrations to existing background data.

Mann-Whitney

For constituents requiring intrawell prediction limits, the Mann-Whitney (Wilcoxon Rank Sum) test was used to compare the medians of historical data through May 2019 to compliance data through May 2021. When no statistically significant difference in medians between the two groups is found at a 99% confidence level, background data may be updated with newer compliance data. Statistically significant differences (either an increase or decrease in median concentrations) were found the following well/constituent pairs:

Increase:

- Sulfate: BY-AP-MW-1, BY-AP-MW-8, BY-AP-MW-11, BY-AP-MW-12, BY-AP-MW-13, BY-AP-MW-14

Decrease:

- pH: BY-UP-MW-3, BY-UP-MW-4, BY-AP-MW-6, BY-AP-MW-13, BY-AP-MW-14

Note that the Mann-Whitney could not test sulfate in wells BY-AP-MW-5 and BY-MW-AP-16 because a minimum of 4 compliance samples were not available. However, because the available compliance samples were similar in concentration to background measurements, the respective records were updated with more recent samples.

Typically, when the test concludes that the medians of the two groups are significantly different, particularly in the downgradient wells, the background data are not updated to include the newer data but will be reconsidered in the future. In studies such as the current one, in which at least one of the segments being compared is of short duration, the comparison is complicated by the fact that normal short-term variation may be mistaken for long-term change in medians.

Due to more recent data for pH in all wells being fairly similar to background and better representing the groundwater quality in the absence of suspected impacts from practices at the facility, these background data sets were updated. While the Mann-Whitney test did not identify statistically significant differences for sulfate at several wells, these records

were not updated with more recent data due to the observed increase in concentrations in more recent samples compared to background samples. The following records were not updated during the 2021 background update, and a summary follows this report (Background Date Ranges):

- Sulfate: BY-MW-AP-1, BY-MW-AP-8, BY-MW-AP-9, BY-MW-AP-10, BY-MW-AP-11, BY-MW-AP-12, and BY-MW-AP-13

Trend Tests

The Sen's Slope/Mann Kendall trend test was used to evaluate the entire record of data through October 2021 from upgradient wells for parameters utilizing interwell prediction limits. When statistically significant increasing trends are identified in upgradient wells, the earlier portion of data may be deselected prior to construction of interwell statistical limits if the trending data would result in statistical limits that are not conservative from a regulatory perspective. Statistically significant trends were identified for the following well/constituent pairs:

Increasing

- Calcium: BY-UP-MW-3 and BY-UP-MW-4
- Fluoride: BY-UP-MW-2
- TDS: BY-UP-MW-1, BY-UP-MW-2, and BY-UP-MW-4

Decreasing

- Chloride: BY-UP-MW-2

Although statistically significant trends were identified for the well/constituent pairs listed above, the magnitudes of the trends are marginal relative to the respective concentrations; therefore, no adjustments were required for these well/constituent pairs at this time. Additionally, concentrations among all upgradient wells remain similar to each other. Therefore, all data from upgradient wells were used to construct interwell prediction limits.

Evaluation of Appendix III Parameters – April 2023

Intrawell prediction limits were constructed for pH and sulfate using screened background data through May 2021 at each well. Values in background which have been flagged as outliers may be seen in a lighter font and as a disconnected symbol on the graphs. A summary of flagged outliers follows this report (Figure C).

Intrawell limits constructed from screened background data from within each well serve to provide statistical limits that are representative of the background data population, and that will rapidly identify a change in more recent compliance data from within a given well. The April 2023 sample from the same well is compared to its respective background. This statistical method removes the element of variation from across wells and eliminates the chance of mistaking natural spatial variation for a release from the facility. Intrawell prediction limits combined with a 1-of-2 verification strategy were constructed for pH and sulfate (Figure D). Background data will be re-evaluated for updating background limits when a minimum of 4 compliance samples are available.

Interwell prediction limits combined with a 1-of-2 verification strategy were constructed for boron, calcium, chloride, fluoride, and TDS using upgradient well data through April 2023 (Figure E). Interwell prediction limits pool upgradient well data to establish a background limit for an individual constituent. The April 2023 sample from each downgradient well is compared to the background limit to determine whether initial exceedances are present.

In the event of an initial exceedance of compliance well data, the 1-of-2 resample plan allows for collection of one additional sample to determine whether the initial exceedance is confirmed. When the resample confirms the initial exceedance, a statistically significant increase (SSI) is identified, and further research is required to identify the cause of the exceedance (i.e., impact from the site, natural variation, or an off-site source). If a resample falls within the statistical limit, the initial exceedance is considered to be a false positive result; therefore, no further action is necessary. Summary tables and complete graphical results for intrawell and interwell prediction limits may be found following this letter (Figures D and E, respectively, pages 16-20). Exceedances for both intrawell and interwell prediction limits were identified for the following well/constituent pairs:

Intrawell:

- pH: BY-AP-MW-2, BY-AP-MW-3, BY-AP-MW-7, BY-AP-MW-8, and BY-UP-MW-10
- Sulfate: BY-AP-MW-1, BY-AP-MW-5, BY-AP-MW-7, BY-AP-MW-8, BY-AP-MW-9, BY-AP-MW-10, BY-AP-MW-11, BY-AP-MW-12, BY-AP-MW-13, BY-AP-MW-14, BY-AP-MW-15, and BY-AP-MW-16

Interwell:

- Boron: BY-AP-MW-1, BY-AP-MW-9, BY-AP-MW-10, and BY-AP-MW-16
- Calcium: BY-AP-MW-1, BY-AP-MW-4, BY-AP-MW-5, BY-AP-MW-7, BY-AP-MW-8, BY-AP-MW-9, BY-AP-MW-10, BY-AP-MW-11, BY-AP-MW-12, BY-AP-MW-13, BY-AP-MW-14, BY-AP-MW-15, and BY-AP-MW-16

- Chloride: BY-AP-MW-1, BY-AP-MW-4, BY-AP-MW-5, BY-AP-MW-7, BY-AP-MW-8, BY-AP-MW-9, BY-AP-MW-10, BY-AP-MW-11, BY-AP-MW-12, BY-AP-MW-13, BY-AP-MW-14, BY-AP-MW-15, and BY-AP-MW-16
- Fluoride: BY-AP-MW-7, BY-AP-MW-11, BY-AP-MW-13, BY-AP-MW-14, BY-AP-MW-15, and BY-AP-MW-16
- TDS: BY-AP-MW-1, BY-AP-MW-4, BY-AP-MW-5, BY-AP-MW-7, BY-AP-MW-8, BY-AP-MW-9, BY-AP-MW-10, BY-AP-MW-11, BY-AP-MW-12, BY-AP-MW-13, BY-AP-MW-14, BY-AP-MW-15, and BY-AP-MW-16

When prediction limit exceedances are identified in downgradient wells, data are further evaluated using the Sen's Slope/Mann Kendall trend test to determine whether concentrations are statistically increasing, decreasing, or stable at the 99% confidence level (Figure F). Upgradient wells are included in the trend analyses for all parameters found to exceed their prediction limit in downgradient wells to identify whether similar patterns exist upgradient of the site. Upgradient trends are an indication of variability in groundwater quality unrelated to practices at the site. A summary of the trend test results follows this letter (pages 21-23). Statistically significant trends were identified for the following well/constituent pairs:

Increasing:

- Boron: BY-AP-MW-10 and BY-AP-MW-16
- Calcium: BY-UP-MW-3, BY-UP-MW-4 (both upgradient), BY-AP-MW-7, BY-AP-MW-10, and BY-AP-MW-12
- Chloride: BY-AP-MW-7, BY-AP-MW-10, BY-AP-MW-12, BY-AP-MW-14, BY-AP-MW-15, and BY-AP-MW-16
- Fluoride: BY-UP-MW-1, BY-UP-MW-2, BY-UP-MW-3, BY-UP-MW-4 (all upgradient), BY-AP-MW-7, BY-AP-MW-13, and BY-AP-MW-16
- Sulfate: BY-AP-MW-1, BY-AP-MW-5, BY-AP-MW-7, BY-AP-MW-8, BY-AP-MW-9, BY-AP-MW-10, BY-AP-MW-11, BY-AP-MW-12, BY-AP-MW-13, and BY-AP-MW-14
- TDS: BY-UP-MW-4 (upgradient) and BY-AP-MW-15

Decreasing:

- Calcium: BY-AP-MW-8
- Chloride: BY-UP-MW-2, BY-UP-MW-3, and BY-UP-MW-4 (all upgradient)
- pH: BY-UP-MW-2, BY-UP-MW-3, BY-UP-MW-4 (all upgradient), and BY-AP-MW-2

Evaluation of Appendix IV Parameters – April 2023

Data from upgradient wells for Appendix IV parameters were assessed for outliers during previous analyses. A summary of previously flagged outliers follows this report (Figure C).

In accordance with Alabama Department of Environmental Management (ADEM), the Groundwater Protections Standards (GWPS) were updated during the 2021 2nd semi-annual statistical analysis. The GWPS will be updated again during the 2023 2nd semi-annual statistical analysis. The methodology used to create these GWPS is described below.

Interwell Upper Tolerance Limits

First, background limits were determined using tolerance limits constructed from pooled upgradient well data through October 2021 (Figure G). The tolerance limits contain a known fraction (coverage) of the background population with a known level of confidence. The confidence and coverage levels for nonparametric tolerance limits are dependent upon the number of background samples. As requested by ADEM to eliminate variation among upgradient well data, nonparametric tolerance limits, which use the highest value in background as the statistical limit, were constructed. A summary of the upper tolerance limits follows this report (page 24).

Groundwater Protection Standards

These background limits were then compared to the Maximum Contaminant Levels (MCLs) for each parameter, and the higher of the two was used as the GWPS (Figure H, page 25) in the confidence interval comparisons described below.

Confidence Intervals

Confidence intervals were then constructed on downgradient wells using a maximum of the most recent 8 samples through April 2023 for each of the Appendix IV parameters (Figure I). These intervals were constructed as either parametric or nonparametric confidence intervals depending on the data distribution and percentage of non-detects. When data followed a normal or transformed-normal distribution, parametric confidence intervals were used for Appendix IV parameters. Nonparametric confidence intervals were constructed when data did not follow a normal or transformed-normal distribution or when there were greater than 50% non-detects. The lower confidence limit, which is constructed with 99% confidence for parametric confidence intervals, is compared to the

GWPS prepared as described above. The confidence level associated with nonparametric confidence intervals is dependent upon the number samples available.

As mentioned above, well/constituent pairs containing 100% non-detects did not require statistics and were, therefore, deselected prior to construction confidence intervals. A list of deselected well/constituent pairs also follows this report. Each confidence interval was compared with the corresponding GWPS. Only when the entire confidence interval is above the GWPS is the well/constituent pair considered to exceed its respective standard. Both a tabular summary and graphical presentation of the confidence interval results follow this letter (pages 26-28). Exceedances were identified for the following well/constituent pairs:

- Arsenic: BY-AP-MW-1, BY-AP-MW-5, BY-AP-MW-7, BY-AP-MW-8, BY-AP-MW-9, BY-AP-MW-10, BY-AP-MW-11, BY-AP-MW-12, BY-AP-MW-14, BY-AP-MW-15, and BY-AP-MW-16
- Cobalt: BY-AP-MW-15

Thank you for the opportunity to assist you in the statistical analysis of groundwater quality for Barry Ash Pond. If you have any questions or comments, please feel free to contact us.

For Groundwater Stats Consulting,

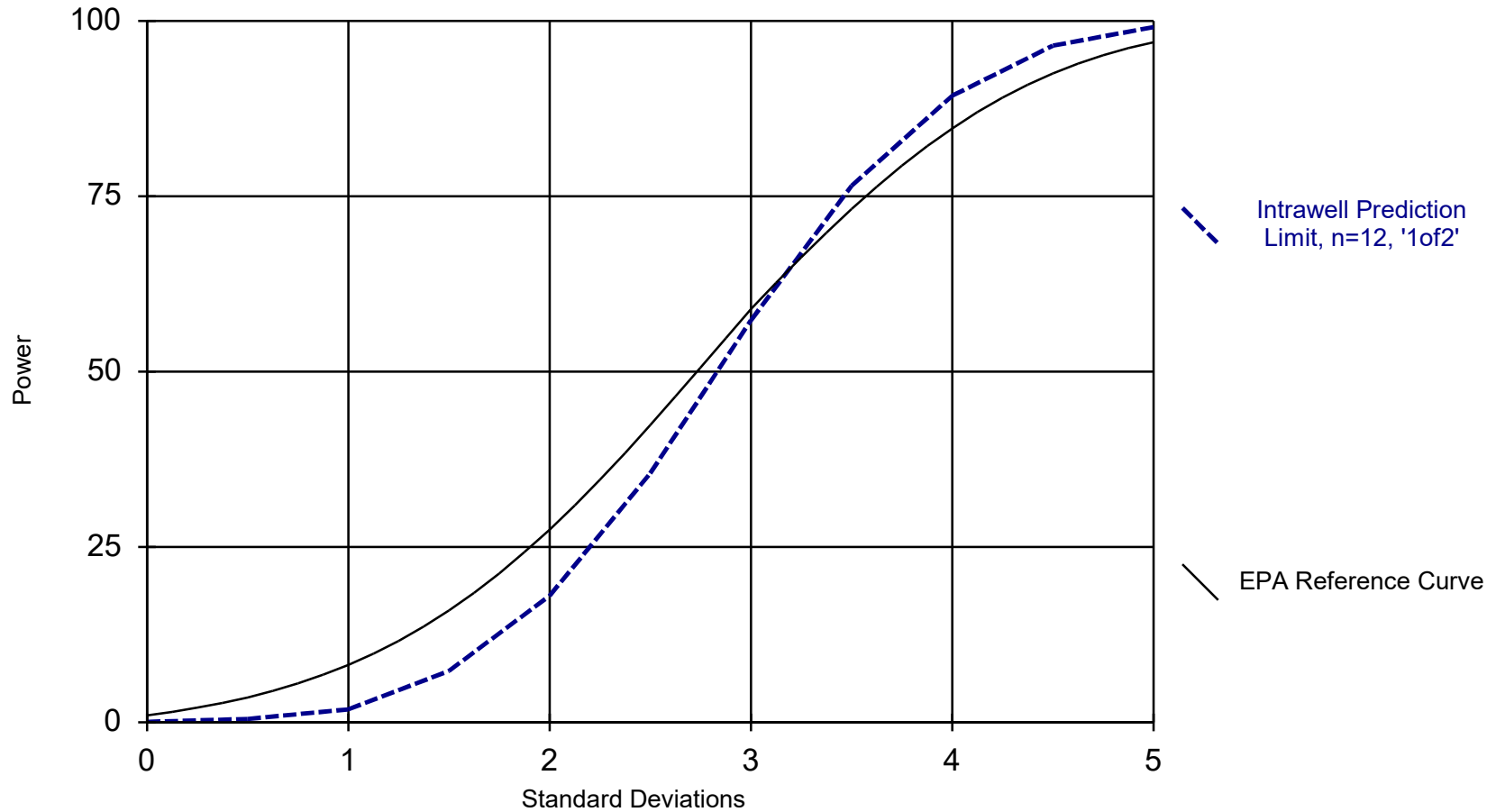


Easton Rayner
Groundwater Analyst



Andrew Collins
Project Manager

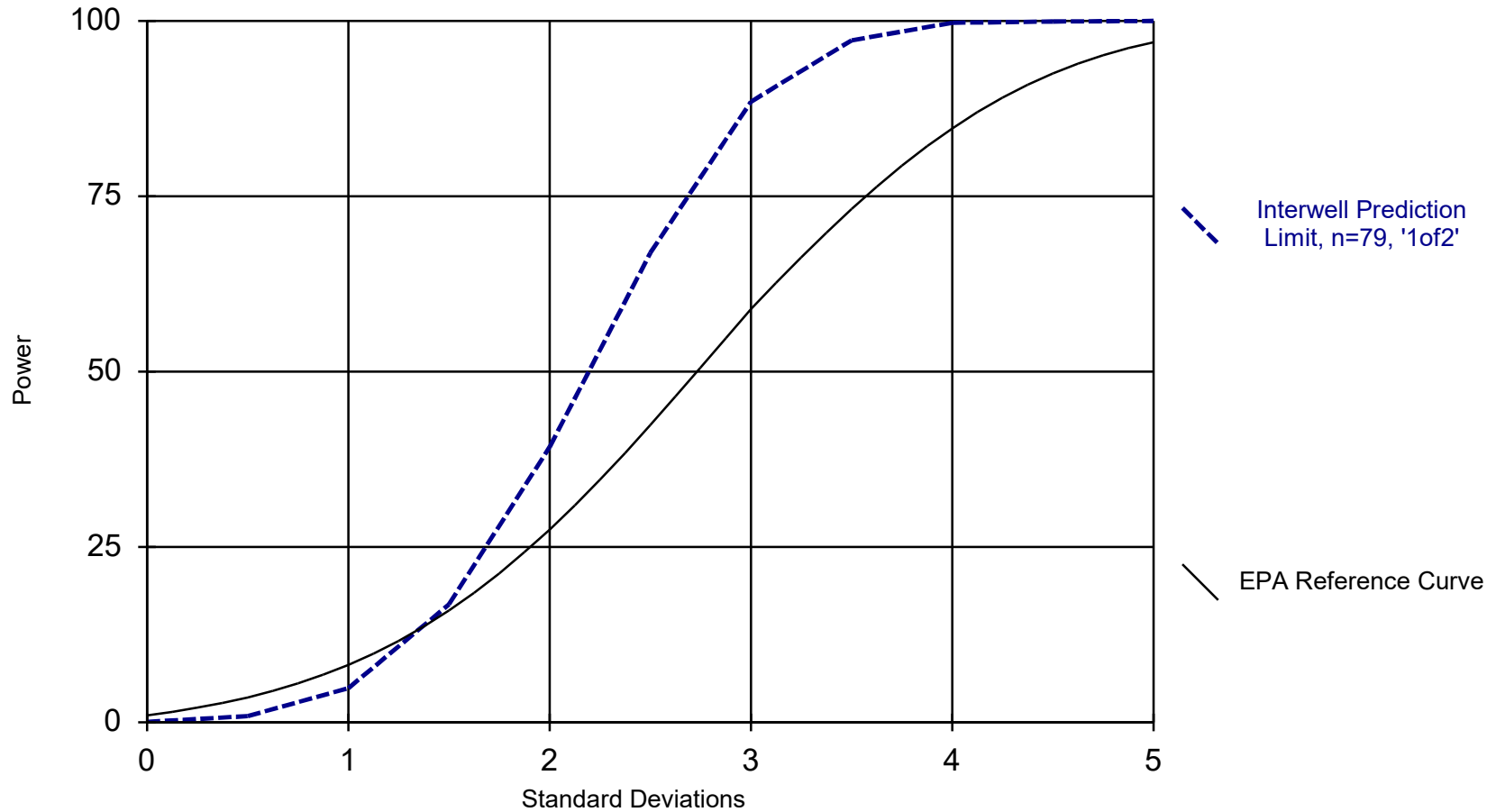
Intrawell Power Curve



Kappa = 2.8, based on 16 compliance wells and 7 constituents, evaluated semi-annually (this report reflects annual total).

Analysis Run 6/7/2023 12:19 AM View: Trend
Plant Barry Client: Southern Company Data: Barry Ash Pond

Interwell Power Curve



Kappa = 2.096, based on 16 compliance wells and 7 constituents, evaluated semi-annually (this report reflects annual total).

Analysis Run 6/7/2023 12:18 AM View: Trend
Plant Barry Client: Southern Company Data: Barry Ash Pond

Date Ranges

Date: 6/6/2023 11:56 PM

Plant Barry Client: Southern Company Data: Barry Ash Pond

Sulfate as SO4 (mg/L)

- BY-AP-MW-1 background:3/2/2016-5/29/2019
- BY-AP-MW-10 background:3/1/2016-5/30/2019
- BY-AP-MW-11 background:3/1/2016-5/29/2019
- BY-AP-MW-12 background:3/2/2016-5/29/2019
- BY-AP-MW-13 background:3/2/2016-5/29/2019
- BY-AP-MW-8 background:3/1/2016-5/29/2019
- BY-AP-MW-9 background:3/1/2016-5/30/2019

100% Non-Detects: Appendix IV Downgradient

Analysis Run 6/22/2023 11:22 AM View: AIV

Plant Barry Client: Southern Company Data: Barry Ash Pond

Antimony (mg/L)

BY-AP-MW-1, BY-AP-MW-10, BY-AP-MW-11, BY-AP-MW-12, BY-AP-MW-13, BY-AP-MW-14, BY-AP-MW-15, BY-AP-MW-16, BY-AP-MW-2, BY-AP-MW-3, BY-AP-MW-4, BY-AP-MW-5, BY-AP-MW-6, BY-AP-MW-7, BY-AP-MW-8, BY-AP-MW-9

Beryllium (mg/L)

BY-AP-MW-1, BY-AP-MW-10, BY-AP-MW-11, BY-AP-MW-12, BY-AP-MW-13, BY-AP-MW-14, BY-AP-MW-15, BY-AP-MW-16, BY-AP-MW-2, BY-AP-MW-3, BY-AP-MW-5, BY-AP-MW-6, BY-AP-MW-7, BY-AP-MW-8, BY-AP-MW-9

Cadmium (mg/L)

BY-AP-MW-1, BY-AP-MW-10, BY-AP-MW-11, BY-AP-MW-12, BY-AP-MW-13, BY-AP-MW-14, BY-AP-MW-15, BY-AP-MW-16, BY-AP-MW-2, BY-AP-MW-3, BY-AP-MW-5, BY-AP-MW-7, BY-AP-MW-8, BY-AP-MW-9

Fluoride, total (mg/L)

BY-AP-MW-3, BY-AP-MW-4, BY-AP-MW-6

Lead (mg/L)

BY-AP-MW-10, BY-AP-MW-15, BY-AP-MW-2, BY-AP-MW-3, BY-AP-MW-5, BY-AP-MW-7, BY-AP-MW-8, BY-AP-MW-9

Lithium (mg/L)

BY-AP-MW-1, BY-AP-MW-10, BY-AP-MW-12, BY-AP-MW-13, BY-AP-MW-14, BY-AP-MW-16, BY-AP-MW-2, BY-AP-MW-3, BY-AP-MW-4, BY-AP-MW-5, BY-AP-MW-6, BY-AP-MW-8, BY-AP-MW-9

Mercury (mg/L)

BY-AP-MW-1, BY-AP-MW-10, BY-AP-MW-11, BY-AP-MW-12, BY-AP-MW-13, BY-AP-MW-14, BY-AP-MW-15, BY-AP-MW-16, BY-AP-MW-2, BY-AP-MW-3, BY-AP-MW-4, BY-AP-MW-5, BY-AP-MW-6, BY-AP-MW-7, BY-AP-MW-8, BY-AP-MW-9

Molybdenum (mg/L)

BY-AP-MW-10, BY-AP-MW-2, BY-AP-MW-3, BY-AP-MW-4

Selenium (mg/L)

BY-AP-MW-1, BY-AP-MW-10, BY-AP-MW-11, BY-AP-MW-12, BY-AP-MW-14, BY-AP-MW-15, BY-AP-MW-16, BY-AP-MW-2, BY-AP-MW-3, BY-AP-MW-4, BY-AP-MW-5, BY-AP-MW-6, BY-AP-MW-7, BY-AP-MW-8, BY-AP-MW-9

Thallium (mg/L)

BY-AP-MW-1, BY-AP-MW-10, BY-AP-MW-11, BY-AP-MW-12, BY-AP-MW-13, BY-AP-MW-14, BY-AP-MW-15, BY-AP-MW-16, BY-AP-MW-2, BY-AP-MW-3, BY-AP-MW-4, BY-AP-MW-5, BY-AP-MW-6, BY-AP-MW-7, BY-AP-MW-8, BY-AP-MW-9

Intrawell Prediction Limits - Significant Results

Plant Barry Client: Southern Company Data: Barry Ash Pond Printed 6/6/2023, 11:55 PM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	Bg Wells	Bg Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
pH, field (SU)	BY-AP-MW-10	6.463	6.143	4/3/2023	6.05	Yes	19	n/a	6.303	0.06515	0	None	No	0.0002351	Param Intra 1 of 2
pH, field (SU)	BY-AP-MW-2	6.2	5.161	4/3/2023	4.88	Yes	19	n/a	1094	156.3	0	None	x^4	0.0002351	Param Intra 1 of 2
pH, field (SU)	BY-AP-MW-3	5.22	4.24	4/4/2023	5.31	Yes	19	n/a	n/a	n/a	0	n/a	n/a	0.009664	NP Intra (normality) 1 of 2
pH, field (SU)	BY-AP-MW-7	6.432	6.166	4/3/2023	6.53	Yes	18	n/a	6.299	0.05346	0	None	No	0.0002351	Param Intra 1 of 2
pH, field (SU)	BY-AP-MW-8	6.26	5.89	4/3/2023	6.34	Yes	19	n/a	n/a	n/a	0	n/a	n/a	0.009664	NP Intra (normality) 1 of 2
Sulfate as SO4 (mg/L)	BY-AP-MW-1	6.348	n/a	4/3/2023	34.2	Yes	13	n/a	52.17	74.33	46.15	Kaplan-Meier	x^3	0.0004702	Param Intra 1 of 2
Sulfate as SO4 (mg/L)	BY-AP-MW-10	5	n/a	4/3/2023	15	Yes	13	n/a	n/a	n/a	69.23	n/a	n/a	0.009692	NP Intra (NDs) 1 of 2
Sulfate as SO4 (mg/L)	BY-AP-MW-11	19.37	n/a	4/4/2023	84.3	Yes	13	n/a	1.308	0.5028	46.15	Kaplan-Meier	x^(1/3)	0.0004702	Param Intra 1 of 2
Sulfate as SO4 (mg/L)	BY-AP-MW-12	7.04	n/a	4/4/2023	39.6	Yes	12	n/a	n/a	n/a	75	n/a	n/a	0.01077	NP Intra (NDs) 1 of 2
Sulfate as SO4 (mg/L)	BY-AP-MW-13	9.841	n/a	4/4/2023	24.6	Yes	12	n/a	3.818	2.151	41.67	Kaplan-Meier	No	0.0004702	Param Intra 1 of 2
Sulfate as SO4 (mg/L)	BY-AP-MW-14	61.6	n/a	4/5/2023	112	Yes	16	n/a	n/a	n/a	56.25	n/a	n/a	0.006456	NP Intra (NDs) 1 of 2
Sulfate as SO4 (mg/L)	BY-AP-MW-15	7.61	n/a	4/3/2023	8.28	Yes	17	n/a	n/a	n/a	58.82	n/a	n/a	0.005914	NP Intra (NDs) 1 of 2
Sulfate as SO4 (mg/L)	BY-AP-MW-16	6.72	n/a	4/5/2023	9.3	Yes	15	n/a	n/a	n/a	60	n/a	n/a	0.007533	NP Intra (NDs) 1 of 2
Sulfate as SO4 (mg/L)	BY-AP-MW-5	11	n/a	4/4/2023	43.9	Yes	15	n/a	n/a	n/a	60	n/a	n/a	0.007533	NP Intra (NDs) 1 of 2
Sulfate as SO4 (mg/L)	BY-AP-MW-7	5	n/a	4/3/2023	14.8	Yes	16	n/a	n/a	n/a	37.5	n/a	n/a	0.006456	NP Intra (normality) 1 of 2
Sulfate as SO4 (mg/L)	BY-AP-MW-8	6.01	n/a	4/3/2023	32.1	Yes	13	n/a	n/a	n/a	76.92	n/a	n/a	0.009692	NP Intra (NDs) 1 of 2
Sulfate as SO4 (mg/L)	BY-AP-MW-9	5.91	n/a	4/4/2023	25.3	Yes	13	n/a	n/a	n/a	69.23	n/a	n/a	0.009692	NP Intra (NDs) 1 of 2

Intrawell Prediction Limits - All Results

Plant Barry Client: Southern Company Data: Barry Ash Pond Printed 6/6/2023, 11:55 PM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	Bg Wells	Bg Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
pH, field (SU)	BY-AP-MW-1	5.91	5.47	4/3/2023	5.78	No	19	n/a	n/a	n/a	0	n/a	n/a	0.009664	NP Intra (normality) 1 of 2
pH, field (SU)	BY-AP-MW-10	6.463	6.143	4/3/2023	6.05	Yes	19	n/a	6.303	0.06515	0	None	No	0.0002351	Param Intra 1 of 2
pH, field (SU)	BY-AP-MW-11	6.34	5.85	4/4/2023	6.27	No	19	n/a	n/a	n/a	0	n/a	n/a	0.009664	NP Intra (normality) 1 of 2
pH, field (SU)	BY-AP-MW-12	6.25	5.58	4/4/2023	5.76	No	19	n/a	n/a	n/a	0	n/a	n/a	0.009664	NP Intra (normality) 1 of 2
pH, field (SU)	BY-AP-MW-13	6.14	5.79	4/4/2023	6.06	No	19	n/a	n/a	n/a	0	n/a	n/a	0.009664	NP Intra (normality) 1 of 2
pH, field (SU)	BY-AP-MW-14	6.14	5.76	4/5/2023	5.93	No	19	n/a	n/a	n/a	0	n/a	n/a	0.009664	NP Intra (normality) 1 of 2
pH, field (SU)	BY-AP-MW-15	6.76	6.2	4/3/2023	6.63	No	19	n/a	n/a	n/a	0	n/a	n/a	0.009664	NP Intra (normality) 1 of 2
pH, field (SU)	BY-AP-MW-16	5.87	5.23	4/5/2023	5.83	No	19	n/a	n/a	n/a	0	n/a	n/a	0.009664	NP Intra (normality) 1 of 2
pH, field (SU)	BY-AP-MW-2	6.2	5.161	4/3/2023	4.88	Yes	19	n/a	1094	156.3	0	None	x^4	0.0002351	Param Intra 1 of 2
pH, field (SU)	BY-AP-MW-3	5.22	4.24	4/4/2023	5.31	Yes	19	n/a	n/a	n/a	0	n/a	n/a	0.009664	NP Intra (normality) 1 of 2
pH, field (SU)	BY-AP-MW-4	5.355	3.955	4/4/2023	4.55	No	19	n/a	4.655	0.2846	0	None	No	0.0002351	Param Intra 1 of 2
pH, field (SU)	BY-AP-MW-5	6.03	5.47	4/4/2023	5.84	No	18	n/a	n/a	n/a	0	n/a	n/a	0.01075	NP Intra (normality) 1 of 2
pH, field (SU)	BY-AP-MW-6	5.694	4.846	4/4/2023	5.33	No	19	n/a	801.5	101.6	0	None	x^4	0.0002351	Param Intra 1 of 2
pH, field (SU)	BY-AP-MW-7	6.432	6.166	4/3/2023	6.53	Yes	18	n/a	6.299	0.05346	0	None	No	0.0002351	Param Intra 1 of 2
pH, field (SU)	BY-AP-MW-8	6.26	5.89	4/3/2023	6.34	Yes	19	n/a	n/a	n/a	0	n/a	n/a	0.009664	NP Intra (normality) 1 of 2
pH, field (SU)	BY-AP-MW-9	6.32	5.97	4/4/2023	6.15	No	19	n/a	n/a	n/a	0	n/a	n/a	0.009664	NP Intra (normality) 1 of 2
pH, field (SU)	BY-UP-MW-1	4.882	4.49	4/12/2023	4.77	No	18	n/a	4.686	0.0786	0	None	No	0.0002351	Param Intra 1 of 2
pH, field (SU)	BY-UP-MW-2	5.032	4.318	4/12/2023	4.67	No	18	n/a	4.675	0.1431	0	None	No	0.0002351	Param Intra 1 of 2
pH, field (SU)	BY-UP-MW-3	4.98	4.4	4/12/2023	4.83	No	18	n/a	n/a	n/a	0	n/a	n/a	0.01075	NP Intra (normality) 1 of 2
pH, field (SU)	BY-UP-MW-4	5.082	4.517	4/12/2023	4.73	No	18	n/a	4.799	0.1134	0	None	No	0.0002351	Param Intra 1 of 2
Sulfate as SO4 (mg/L)	BY-AP-MW-1	6.348	n/a	4/3/2023	34.2	Yes	13	n/a	52.17	74.33	46.15	Kaplan-Meier	x^3	0.0004702	Param Intra 1 of 2
Sulfate as SO4 (mg/L)	BY-AP-MW-10	5	n/a	4/3/2023	15	Yes	13	n/a	n/a	n/a	69.23	n/a	n/a	0.009692	NP Intra (NDs) 1 of 2
Sulfate as SO4 (mg/L)	BY-AP-MW-11	19.37	n/a	4/4/2023	84.3	Yes	13	n/a	1.308	0.5028	46.15	Kaplan-Meier	x^(1/3)	0.0004702	Param Intra 1 of 2
Sulfate as SO4 (mg/L)	BY-AP-MW-12	7.04	n/a	4/4/2023	39.6	Yes	12	n/a	n/a	n/a	75	n/a	n/a	0.01077	NP Intra (NDs) 1 of 2
Sulfate as SO4 (mg/L)	BY-AP-MW-13	9.841	n/a	4/4/2023	24.6	Yes	12	n/a	3.818	2.151	41.67	Kaplan-Meier	No	0.0004702	Param Intra 1 of 2
Sulfate as SO4 (mg/L)	BY-AP-MW-14	61.6	n/a	4/5/2023	112	Yes	16	n/a	n/a	n/a	56.25	n/a	n/a	0.006456	NP Intra (NDs) 1 of 2
Sulfate as SO4 (mg/L)	BY-AP-MW-15	7.61	n/a	4/3/2023	8.28	Yes	17	n/a	n/a	n/a	58.82	n/a	n/a	0.005914	NP Intra (NDs) 1 of 2
Sulfate as SO4 (mg/L)	BY-AP-MW-16	6.72	n/a	4/5/2023	9.3	Yes	15	n/a	n/a	n/a	60	n/a	n/a	0.007533	NP Intra (NDs) 1 of 2
Sulfate as SO4 (mg/L)	BY-AP-MW-2	3.3	n/a	4/3/2023	1.77J	No	17	n/a	n/a	n/a	64.71	n/a	n/a	0.005914	NP Intra (NDs) 1 of 2
Sulfate as SO4 (mg/L)	BY-AP-MW-3	5	n/a	4/4/2023	2.92	No	17	n/a	n/a	n/a	41.18	n/a	n/a	0.005914	NP Intra (normality) 1 of 2
Sulfate as SO4 (mg/L)	BY-AP-MW-4	5.286	n/a	4/4/2023	2.33	No	17	n/a	2.731	1.012	5.882	None	No	0.0004702	Param Intra 1 of 2
Sulfate as SO4 (mg/L)	BY-AP-MW-5	11	n/a	4/4/2023	43.9	Yes	15	n/a	n/a	n/a	60	n/a	n/a	0.007533	NP Intra (NDs) 1 of 2
Sulfate as SO4 (mg/L)	BY-AP-MW-6	3.037	n/a	4/4/2023	1.59J	No	17	n/a	0.01145	0.4356	23.53	Kaplan-Meier	ln(x)	0.0004702	Param Intra 1 of 2
Sulfate as SO4 (mg/L)	BY-AP-MW-7	5	n/a	4/3/2023	14.8	Yes	16	n/a	n/a	n/a	37.5	n/a	n/a	0.006456	NP Intra (normality) 1 of 2
Sulfate as SO4 (mg/L)	BY-AP-MW-8	6.01	n/a	4/3/2023	32.1	Yes	13	n/a	n/a	n/a	76.92	n/a	n/a	0.009692	NP Intra (NDs) 1 of 2
Sulfate as SO4 (mg/L)	BY-AP-MW-9	5.91	n/a	4/4/2023	25.3	Yes	13	n/a	n/a	n/a	69.23	n/a	n/a	0.009692	NP Intra (NDs) 1 of 2
Sulfate as SO4 (mg/L)	BY-UP-MW-1	31.7	n/a	4/12/2023	11.8	No	16	n/a	3.458	0.85	0	None	sqrt(x)	0.0004702	Param Intra 1 of 2
Sulfate as SO4 (mg/L)	BY-UP-MW-2	9.774	n/a	4/12/2023	8.54	No	15	n/a	6.454	1.269	0	None	No	0.0004702	Param Intra 1 of 2
Sulfate as SO4 (mg/L)	BY-UP-MW-3	9.087	n/a	4/12/2023	7.59	No	16	n/a	7.496	0.6224	0	None	No	0.0004702	Param Intra 1 of 2
Sulfate as SO4 (mg/L)	BY-UP-MW-4	10.8	n/a	4/12/2023	5.93	No	16	n/a	n/a	n/a	0	n/a	n/a	0.006456	NP Intra (normality) 1 of 2

Interwell Prediction Limits - Significant Results

Plant Barry Client: Southern Company Data: Barry Ash Pond Printed 6/7/2023, 12:09 AM

Constituent	Well	Upper Lim.	Date	Observ.	Sig.	Bg N	Bg Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Boron, total (mg/L)	BY-AP-MW-1	0.188	4/3/2023	2.04	Yes	79	n/a	n/a	79.75	n/a	n/a	0.0003032	NP Inter (NDs) 1 of 2
Boron, total (mg/L)	BY-AP-MW-10	0.188	4/3/2023	2.22	Yes	79	n/a	n/a	79.75	n/a	n/a	0.0003032	NP Inter (NDs) 1 of 2
Boron, total (mg/L)	BY-AP-MW-16	0.188	4/5/2023	2.29	Yes	79	n/a	n/a	79.75	n/a	n/a	0.0003032	NP Inter (NDs) 1 of 2
Boron, total (mg/L)	BY-AP-MW-9	0.188	4/4/2023	1.65	Yes	79	n/a	n/a	79.75	n/a	n/a	0.0003032	NP Inter (NDs) 1 of 2
Calcium, total (mg/L)	BY-AP-MW-1	2.143	4/3/2023	36.9	Yes	80	1.495	0.3096	0	None	No	0.0004702	Param Inter 1 of 2
Calcium, total (mg/L)	BY-AP-MW-10	2.143	4/3/2023	48.8	Yes	80	1.495	0.3096	0	None	No	0.0004702	Param Inter 1 of 2
Calcium, total (mg/L)	BY-AP-MW-11	2.143	4/4/2023	26.6	Yes	80	1.495	0.3096	0	None	No	0.0004702	Param Inter 1 of 2
Calcium, total (mg/L)	BY-AP-MW-12	2.143	4/4/2023	23.3	Yes	80	1.495	0.3096	0	None	No	0.0004702	Param Inter 1 of 2
Calcium, total (mg/L)	BY-AP-MW-13	2.143	4/4/2023	47.7	Yes	80	1.495	0.3096	0	None	No	0.0004702	Param Inter 1 of 2
Calcium, total (mg/L)	BY-AP-MW-14	2.143	4/5/2023	9.78	Yes	80	1.495	0.3096	0	None	No	0.0004702	Param Inter 1 of 2
Calcium, total (mg/L)	BY-AP-MW-15	2.143	4/3/2023	6.76	Yes	80	1.495	0.3096	0	None	No	0.0004702	Param Inter 1 of 2
Calcium, total (mg/L)	BY-AP-MW-16	2.143	4/5/2023	11.4	Yes	80	1.495	0.3096	0	None	No	0.0004702	Param Inter 1 of 2
Calcium, total (mg/L)	BY-AP-MW-4	2.143	4/4/2023	3.36	Yes	80	1.495	0.3096	0	None	No	0.0004702	Param Inter 1 of 2
Calcium, total (mg/L)	BY-AP-MW-5	2.143	4/4/2023	8.36	Yes	80	1.495	0.3096	0	None	No	0.0004702	Param Inter 1 of 2
Calcium, total (mg/L)	BY-AP-MW-7	2.143	4/3/2023	3.52	Yes	80	1.495	0.3096	0	None	No	0.0004702	Param Inter 1 of 2
Calcium, total (mg/L)	BY-AP-MW-8	2.143	4/3/2023	4.21	Yes	80	1.495	0.3096	0	None	No	0.0004702	Param Inter 1 of 2
Calcium, total (mg/L)	BY-AP-MW-9	2.143	4/4/2023	32.4	Yes	80	1.495	0.3096	0	None	No	0.0004702	Param Inter 1 of 2
Chloride, Total (mg/L)	BY-AP-MW-1	9.9	4/3/2023	23.7	Yes	80	n/a	n/a	0	n/a	n/a	0.0002946	NP Inter (normality) 1 of 2
Chloride, Total (mg/L)	BY-AP-MW-10	9.9	4/3/2023	29.7	Yes	80	n/a	n/a	0	n/a	n/a	0.0002946	NP Inter (normality) 1 of 2
Chloride, Total (mg/L)	BY-AP-MW-11	9.9	4/4/2023	28.9	Yes	80	n/a	n/a	0	n/a	n/a	0.0002946	NP Inter (normality) 1 of 2
Chloride, Total (mg/L)	BY-AP-MW-12	9.9	4/4/2023	25	Yes	80	n/a	n/a	0	n/a	n/a	0.0002946	NP Inter (normality) 1 of 2
Chloride, Total (mg/L)	BY-AP-MW-13	9.9	4/4/2023	14.3	Yes	80	n/a	n/a	0	n/a	n/a	0.0002946	NP Inter (normality) 1 of 2
Chloride, Total (mg/L)	BY-AP-MW-14	9.9	4/5/2023	47	Yes	80	n/a	n/a	0	n/a	n/a	0.0002946	NP Inter (normality) 1 of 2
Chloride, Total (mg/L)	BY-AP-MW-15	9.9	4/3/2023	91.5	Yes	80	n/a	n/a	0	n/a	n/a	0.0002946	NP Inter (normality) 1 of 2
Chloride, Total (mg/L)	BY-AP-MW-16	9.9	4/5/2023	21.8	Yes	80	n/a	n/a	0	n/a	n/a	0.0002946	NP Inter (normality) 1 of 2
Chloride, Total (mg/L)	BY-AP-MW-4	9.9	4/4/2023	32.4	Yes	80	n/a	n/a	0	n/a	n/a	0.0002946	NP Inter (normality) 1 of 2
Chloride, Total (mg/L)	BY-AP-MW-5	9.9	4/4/2023	17.2	Yes	80	n/a	n/a	0	n/a	n/a	0.0002946	NP Inter (normality) 1 of 2
Chloride, Total (mg/L)	BY-AP-MW-7	9.9	4/3/2023	59.4	Yes	80	n/a	n/a	0	n/a	n/a	0.0002946	NP Inter (normality) 1 of 2
Chloride, Total (mg/L)	BY-AP-MW-8	9.9	4/3/2023	10.8	Yes	80	n/a	n/a	0	n/a	n/a	0.0002946	NP Inter (normality) 1 of 2
Chloride, Total (mg/L)	BY-AP-MW-9	9.9	4/4/2023	18	Yes	80	n/a	n/a	0	n/a	n/a	0.0002946	NP Inter (normality) 1 of 2
Fluoride, total (mg/L)	BY-AP-MW-11	0.125	4/4/2023	0.126	Yes	84	n/a	n/a	59.52	n/a	n/a	0.0002707	NP Inter (NDs) 1 of 2
Fluoride, total (mg/L)	BY-AP-MW-13	0.125	4/4/2023	0.187	Yes	84	n/a	n/a	59.52	n/a	n/a	0.0002707	NP Inter (NDs) 1 of 2
Fluoride, total (mg/L)	BY-AP-MW-14	0.125	4/5/2023	0.127	Yes	84	n/a	n/a	59.52	n/a	n/a	0.0002707	NP Inter (NDs) 1 of 2
Fluoride, total (mg/L)	BY-AP-MW-15	0.125	4/3/2023	0.26	Yes	84	n/a	n/a	59.52	n/a	n/a	0.0002707	NP Inter (NDs) 1 of 2
Fluoride, total (mg/L)	BY-AP-MW-16	0.125	4/5/2023	0.144	Yes	84	n/a	n/a	59.52	n/a	n/a	0.0002707	NP Inter (NDs) 1 of 2
Fluoride, total (mg/L)	BY-AP-MW-7	0.125	4/3/2023	0.171	Yes	84	n/a	n/a	59.52	n/a	n/a	0.0002707	NP Inter (NDs) 1 of 2
TDS (mg/L)	BY-AP-MW-1	58	4/3/2023	400	Yes	80	n/a	n/a	10	n/a	n/a	0.0002946	NP Inter (normality) 1 of 2
TDS (mg/L)	BY-AP-MW-10	58	4/3/2023	370	Yes	80	n/a	n/a	10	n/a	n/a	0.0002946	NP Inter (normality) 1 of 2
TDS (mg/L)	BY-AP-MW-11	58	4/4/2023	392	Yes	80	n/a	n/a	10	n/a	n/a	0.0002946	NP Inter (normality) 1 of 2
TDS (mg/L)	BY-AP-MW-12	58	4/4/2023	334	Yes	80	n/a	n/a	10	n/a	n/a	0.0002946	NP Inter (normality) 1 of 2
TDS (mg/L)	BY-AP-MW-13	58	4/4/2023	220	Yes	80	n/a	n/a	10	n/a	n/a	0.0002946	NP Inter (normality) 1 of 2
TDS (mg/L)	BY-AP-MW-14	58	4/5/2023	316	Yes	80	n/a	n/a	10	n/a	n/a	0.0002946	NP Inter (normality) 1 of 2
TDS (mg/L)	BY-AP-MW-15	58	4/3/2023	285	Yes	80	n/a	n/a	10	n/a	n/a	0.0002946	NP Inter (normality) 1 of 2
TDS (mg/L)	BY-AP-MW-16	58	4/5/2023	327	Yes	80	n/a	n/a	10	n/a	n/a	0.0002946	NP Inter (normality) 1 of 2
TDS (mg/L)	BY-AP-MW-4	58	4/4/2023	76.7	Yes	80	n/a	n/a	10	n/a	n/a	0.0002946	NP Inter (normality) 1 of 2
TDS (mg/L)	BY-AP-MW-5	58	4/4/2023	151	Yes	80	n/a	n/a	10	n/a	n/a	0.0002946	NP Inter (normality) 1 of 2
TDS (mg/L)	BY-AP-MW-7	58	4/3/2023	198	Yes	80	n/a	n/a	10	n/a	n/a	0.0002946	NP Inter (normality) 1 of 2
TDS (mg/L)	BY-AP-MW-8	58	4/3/2023	107	Yes	80	n/a	n/a	10	n/a	n/a	0.0002946	NP Inter (normality) 1 of 2
TDS (mg/L)	BY-AP-MW-9	58	4/4/2023	317	Yes	80	n/a	n/a	10	n/a	n/a	0.0002946	NP Inter (normality) 1 of 2

Interwell Prediction Limits - All Results

Plant Barry Client: Southern Company Data: Barry Ash Pond Printed 6/7/2023, 12:09 AM

Constituent	Well	Upper Lim.	Date	Observ.	Sig.	Bg N	Bg Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
TDS (mg/L)	BY-AP-MW-13	58	4/4/2023	220	Yes	80	n/a	n/a	10	n/a	n/a	0.0002946	NP Inter (normality) 1 of 2
TDS (mg/L)	BY-AP-MW-14	58	4/5/2023	316	Yes	80	n/a	n/a	10	n/a	n/a	0.0002946	NP Inter (normality) 1 of 2
TDS (mg/L)	BY-AP-MW-15	58	4/3/2023	285	Yes	80	n/a	n/a	10	n/a	n/a	0.0002946	NP Inter (normality) 1 of 2
TDS (mg/L)	BY-AP-MW-16	58	4/5/2023	327	Yes	80	n/a	n/a	10	n/a	n/a	0.0002946	NP Inter (normality) 1 of 2
TDS (mg/L)	BY-AP-MW-2	58	4/3/2023	40.7	No	80	n/a	n/a	10	n/a	n/a	0.0002946	NP Inter (normality) 1 of 2
TDS (mg/L)	BY-AP-MW-3	58	4/4/2023	43.3	No	80	n/a	n/a	10	n/a	n/a	0.0002946	NP Inter (normality) 1 of 2
TDS (mg/L)	BY-AP-MW-4	58	4/4/2023	76.7	Yes	80	n/a	n/a	10	n/a	n/a	0.0002946	NP Inter (normality) 1 of 2
TDS (mg/L)	BY-AP-MW-5	58	4/4/2023	151	Yes	80	n/a	n/a	10	n/a	n/a	0.0002946	NP Inter (normality) 1 of 2
TDS (mg/L)	BY-AP-MW-6	58	4/4/2023	40	No	80	n/a	n/a	10	n/a	n/a	0.0002946	NP Inter (normality) 1 of 2
TDS (mg/L)	BY-AP-MW-7	58	4/3/2023	198	Yes	80	n/a	n/a	10	n/a	n/a	0.0002946	NP Inter (normality) 1 of 2
TDS (mg/L)	BY-AP-MW-8	58	4/3/2023	107	Yes	80	n/a	n/a	10	n/a	n/a	0.0002946	NP Inter (normality) 1 of 2
TDS (mg/L)	BY-AP-MW-9	58	4/4/2023	317	Yes	80	n/a	n/a	10	n/a	n/a	0.0002946	NP Inter (normality) 1 of 2

Trend Tests - Prediction Limit Exceedances - Significant Results

Plant Barry Client: Southern Company Data: Barry Ash Pond Printed 6/7/2023, 12:15 AM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
Boron, total (mg/L)	BY-AP-MW-10	0.1136	133	81	Yes	20	0	n/a	n/a	0.01	NP
Boron, total (mg/L)	BY-AP-MW-16	0.08216	121	81	Yes	20	0	n/a	n/a	0.01	NP
Calcium, total (mg/L)	BY-AP-MW-10	2.02	108	87	Yes	21	0	n/a	n/a	0.01	NP
Calcium, total (mg/L)	BY-AP-MW-12	0.3894	122	87	Yes	21	0	n/a	n/a	0.01	NP
Calcium, total (mg/L)	BY-AP-MW-7	0.3936	98	81	Yes	20	0	n/a	n/a	0.01	NP
Calcium, total (mg/L)	BY-AP-MW-8	-0.5646	-127	-87	Yes	21	0	n/a	n/a	0.01	NP
Calcium, total (mg/L)	BY-UP-MW-3 (bg)	0.05783	101	81	Yes	20	0	n/a	n/a	0.01	NP
Calcium, total (mg/L)	BY-UP-MW-4 (bg)	0.1123	124	81	Yes	20	0	n/a	n/a	0.01	NP
Chloride, Total (mg/L)	BY-AP-MW-10	1.486	166	87	Yes	21	0	n/a	n/a	0.01	NP
Chloride, Total (mg/L)	BY-AP-MW-12	0.5618	125	87	Yes	21	0	n/a	n/a	0.01	NP
Chloride, Total (mg/L)	BY-AP-MW-14	1.372	114	87	Yes	21	0	n/a	n/a	0.01	NP
Chloride, Total (mg/L)	BY-AP-MW-15	9.918	188	87	Yes	21	0	n/a	n/a	0.01	NP
Chloride, Total (mg/L)	BY-AP-MW-16	0.8385	150	87	Yes	21	0	n/a	n/a	0.01	NP
Chloride, Total (mg/L)	BY-AP-MW-7	0.6631	110	81	Yes	20	0	n/a	n/a	0.01	NP
Chloride, Total (mg/L)	BY-UP-MW-2 (bg)	-0.361	-127	-81	Yes	20	0	n/a	n/a	0.01	NP
Chloride, Total (mg/L)	BY-UP-MW-3 (bg)	-0.06405	-104	-81	Yes	20	0	n/a	n/a	0.01	NP
Chloride, Total (mg/L)	BY-UP-MW-4 (bg)	-0.04945	-90	-81	Yes	20	0	n/a	n/a	0.01	NP
Fluoride, total (mg/L)	BY-AP-MW-13	0.004293	100	87	Yes	21	4.762	n/a	n/a	0.01	NP
Fluoride, total (mg/L)	BY-AP-MW-16	0.008725	101	87	Yes	21	23.81	n/a	n/a	0.01	NP
Fluoride, total (mg/L)	BY-AP-MW-7	0.006166	89	87	Yes	21	0	n/a	n/a	0.01	NP
Fluoride, total (mg/L)	BY-UP-MW-1 (bg)	0.01082	100	87	Yes	21	52.38	n/a	n/a	0.01	NP
Fluoride, total (mg/L)	BY-UP-MW-2 (bg)	0.01456	105	87	Yes	21	52.38	n/a	n/a	0.01	NP
Fluoride, total (mg/L)	BY-UP-MW-3 (bg)	0.00566	106	87	Yes	21	66.67	n/a	n/a	0.01	NP
Fluoride, total (mg/L)	BY-UP-MW-4 (bg)	0.00566	106	87	Yes	21	66.67	n/a	n/a	0.01	NP
pH, field (SU)	BY-AP-MW-2	-0.09288	-164	-98	Yes	23	0	n/a	n/a	0.01	NP
pH, field (SU)	BY-UP-MW-2 (bg)	-0.05688	-140	-92	Yes	22	0	n/a	n/a	0.01	NP
pH, field (SU)	BY-UP-MW-3 (bg)	-0.07203	-134	-92	Yes	22	0	n/a	n/a	0.01	NP
pH, field (SU)	BY-UP-MW-4 (bg)	-0.03806	-111	-92	Yes	22	0	n/a	n/a	0.01	NP
Sulfate as SO4 (mg/L)	BY-AP-MW-1	2.168	137	87	Yes	21	28.57	n/a	n/a	0.01	NP
Sulfate as SO4 (mg/L)	BY-AP-MW-10	1.096	94	87	Yes	21	42.86	n/a	n/a	0.01	NP
Sulfate as SO4 (mg/L)	BY-AP-MW-11	7.332	147	87	Yes	21	28.57	n/a	n/a	0.01	NP
Sulfate as SO4 (mg/L)	BY-AP-MW-12	2.242	104	81	Yes	20	45	n/a	n/a	0.01	NP
Sulfate as SO4 (mg/L)	BY-AP-MW-13	3.326	96	81	Yes	20	25	n/a	n/a	0.01	NP
Sulfate as SO4 (mg/L)	BY-AP-MW-14	11.37	112	81	Yes	20	45	n/a	n/a	0.01	NP
Sulfate as SO4 (mg/L)	BY-AP-MW-5	0.829	89	74	Yes	19	47.37	n/a	n/a	0.01	NP
Sulfate as SO4 (mg/L)	BY-AP-MW-7	0.9419	97	81	Yes	20	30	n/a	n/a	0.01	NP
Sulfate as SO4 (mg/L)	BY-AP-MW-8	2.016	127	87	Yes	21	47.62	n/a	n/a	0.01	NP
Sulfate as SO4 (mg/L)	BY-AP-MW-9	0.4966	90	87	Yes	21	42.86	n/a	n/a	0.01	NP
TDS (mg/L)	BY-AP-MW-15	15.94	162	87	Yes	21	0	n/a	n/a	0.01	NP
TDS (mg/L)	BY-UP-MW-4 (bg)	1.876	95	81	Yes	20	20	n/a	n/a	0.01	NP

Trend Tests - Prediction Limit Exceedances - All Results

Plant Barry Client: Southern Company Data: Barry Ash Pond Printed 6/7/2023, 12:15 AM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
Boron, total (mg/L)	BY-AP-MW-1	0.04887	64	81	No	20	0	n/a	n/a	0.01	NP
Boron, total (mg/L)	BY-AP-MW-10	0.1136	133	81	Yes	20	0	n/a	n/a	0.01	NP
Boron, total (mg/L)	BY-AP-MW-16	0.08216	121	81	Yes	20	0	n/a	n/a	0.01	NP
Boron, total (mg/L)	BY-AP-MW-9	0	1	81	No	20	0	n/a	n/a	0.01	NP
Boron, total (mg/L)	BY-UP-MW-1 (bg)	-0.0009367	-48	-81	No	20	40	n/a	n/a	0.01	NP
Boron, total (mg/L)	BY-UP-MW-2 (bg)	0	31	74	No	19	89.47	n/a	n/a	0.01	NP
Boron, total (mg/L)	BY-UP-MW-3 (bg)	0	0	81	No	20	100	n/a	n/a	0.01	NP
Boron, total (mg/L)	BY-UP-MW-4 (bg)	0	29	81	No	20	90	n/a	n/a	0.01	NP
Calcium, total (mg/L)	BY-AP-MW-1	0.3179	16	87	No	21	0	n/a	n/a	0.01	NP
Calcium, total (mg/L)	BY-AP-MW-10	2.02	108	87	Yes	21	0	n/a	n/a	0.01	NP
Calcium, total (mg/L)	BY-AP-MW-11	-0.1518	-20	-87	No	21	0	n/a	n/a	0.01	NP
Calcium, total (mg/L)	BY-AP-MW-12	0.3894	122	87	Yes	21	0	n/a	n/a	0.01	NP
Calcium, total (mg/L)	BY-AP-MW-13	0.4066	75	87	No	21	0	n/a	n/a	0.01	NP
Calcium, total (mg/L)	BY-AP-MW-14	-0.1157	-26	-87	No	21	0	n/a	n/a	0.01	NP
Calcium, total (mg/L)	BY-AP-MW-15	0.04921	29	87	No	21	0	n/a	n/a	0.01	NP
Calcium, total (mg/L)	BY-AP-MW-16	-0.04554	-19	-87	No	21	0	n/a	n/a	0.01	NP
Calcium, total (mg/L)	BY-AP-MW-4	-0.01511	-12	-87	No	21	0	n/a	n/a	0.01	NP
Calcium, total (mg/L)	BY-AP-MW-5	-0.1127	-33	-81	No	20	0	n/a	n/a	0.01	NP
Calcium, total (mg/L)	BY-AP-MW-7	0.3936	98	81	Yes	20	0	n/a	n/a	0.01	NP
Calcium, total (mg/L)	BY-AP-MW-8	-0.5646	-127	-87	Yes	21	0	n/a	n/a	0.01	NP
Calcium, total (mg/L)	BY-AP-MW-9	-0.05215	-16	-87	No	21	0	n/a	n/a	0.01	NP
Calcium, total (mg/L)	BY-UP-MW-1 (bg)	-0.004603	-12	-81	No	20	0	n/a	n/a	0.01	NP
Calcium, total (mg/L)	BY-UP-MW-2 (bg)	0.0288	40	81	No	20	0	n/a	n/a	0.01	NP
Calcium, total (mg/L)	BY-UP-MW-3 (bg)	0.05783	101	81	Yes	20	0	n/a	n/a	0.01	NP
Calcium, total (mg/L)	BY-UP-MW-4 (bg)	0.1123	124	81	Yes	20	0	n/a	n/a	0.01	NP
Chloride, Total (mg/L)	BY-AP-MW-1	0.368	55	74	No	19	0	n/a	n/a	0.01	NP
Chloride, Total (mg/L)	BY-AP-MW-10	1.486	166	87	Yes	21	0	n/a	n/a	0.01	NP
Chloride, Total (mg/L)	BY-AP-MW-11	0.4491	54	87	No	21	0	n/a	n/a	0.01	NP
Chloride, Total (mg/L)	BY-AP-MW-12	0.5618	125	87	Yes	21	0	n/a	n/a	0.01	NP
Chloride, Total (mg/L)	BY-AP-MW-13	-0.5681	-32	-87	No	21	0	n/a	n/a	0.01	NP
Chloride, Total (mg/L)	BY-AP-MW-14	1.372	114	87	Yes	21	0	n/a	n/a	0.01	NP
Chloride, Total (mg/L)	BY-AP-MW-15	9.918	188	87	Yes	21	0	n/a	n/a	0.01	NP
Chloride, Total (mg/L)	BY-AP-MW-16	0.8385	150	87	Yes	21	0	n/a	n/a	0.01	NP
Chloride, Total (mg/L)	BY-AP-MW-4	0.0839	11	87	No	21	0	n/a	n/a	0.01	NP
Chloride, Total (mg/L)	BY-AP-MW-5	-0.1245	-22	-81	No	20	0	n/a	n/a	0.01	NP
Chloride, Total (mg/L)	BY-AP-MW-7	0.6631	110	81	Yes	20	0	n/a	n/a	0.01	NP
Chloride, Total (mg/L)	BY-AP-MW-8	0.04311	13	87	No	21	0	n/a	n/a	0.01	NP
Chloride, Total (mg/L)	BY-AP-MW-9	-0.8711	-78	-87	No	21	0	n/a	n/a	0.01	NP
Chloride, Total (mg/L)	BY-UP-MW-1 (bg)	-0.1864	-62	-81	No	20	0	n/a	n/a	0.01	NP
Chloride, Total (mg/L)	BY-UP-MW-2 (bg)	-0.361	-127	-81	Yes	20	0	n/a	n/a	0.01	NP
Chloride, Total (mg/L)	BY-UP-MW-3 (bg)	-0.06405	-104	-81	Yes	20	0	n/a	n/a	0.01	NP
Chloride, Total (mg/L)	BY-UP-MW-4 (bg)	-0.04945	-90	-81	Yes	20	0	n/a	n/a	0.01	NP
Fluoride, total (mg/L)	BY-AP-MW-11	0.00443	76	87	No	21	4.762	n/a	n/a	0.01	NP
Fluoride, total (mg/L)	BY-AP-MW-13	0.004293	100	87	Yes	21	4.762	n/a	n/a	0.01	NP
Fluoride, total (mg/L)	BY-AP-MW-14	0.002285	33	87	No	21	4.762	n/a	n/a	0.01	NP
Fluoride, total (mg/L)	BY-AP-MW-15	0	9	87	No	21	4.762	n/a	n/a	0.01	NP
Fluoride, total (mg/L)	BY-AP-MW-16	0.008725	101	87	Yes	21	23.81	n/a	n/a	0.01	NP
Fluoride, total (mg/L)	BY-AP-MW-7	0.006166	89	87	Yes	21	0	n/a	n/a	0.01	NP
Fluoride, total (mg/L)	BY-UP-MW-1 (bg)	0.01082	100	87	Yes	21	52.38	n/a	n/a	0.01	NP
Fluoride, total (mg/L)	BY-UP-MW-2 (bg)	0.01456	105	87	Yes	21	52.38	n/a	n/a	0.01	NP
Fluoride, total (mg/L)	BY-UP-MW-3 (bg)	0.00566	106	87	Yes	21	66.67	n/a	n/a	0.01	NP
Fluoride, total (mg/L)	BY-UP-MW-4 (bg)	0.00566	106	87	Yes	21	66.67	n/a	n/a	0.01	NP
pH, field (SU)	BY-AP-MW-10	-0.0135	-31	-98	No	23	0	n/a	n/a	0.01	NP
pH, field (SU)	BY-AP-MW-2	-0.09288	-164	-98	Yes	23	0	n/a	n/a	0.01	NP
pH, field (SU)	BY-AP-MW-3	-0.0262	-71	-98	No	23	0	n/a	n/a	0.01	NP
pH, field (SU)	BY-AP-MW-7	0.01492	61	92	No	22	0	n/a	n/a	0.01	NP
pH, field (SU)	BY-AP-MW-8	0	-13	-98	No	23	0	n/a	n/a	0.01	NP
pH, field (SU)	BY-UP-MW-1 (bg)	-0.002988	-13	-92	No	22	0	n/a	n/a	0.01	NP
pH, field (SU)	BY-UP-MW-2 (bg)	-0.05688	-140	-92	Yes	22	0	n/a	n/a	0.01	NP
pH, field (SU)	BY-UP-MW-3 (bg)	-0.07203	-134	-92	Yes	22	0	n/a	n/a	0.01	NP
pH, field (SU)	BY-UP-MW-4 (bg)	-0.03806	-111	-92	Yes	22	0	n/a	n/a	0.01	NP
Sulfate as SO4 (mg/L)	BY-AP-MW-1	2.168	137	87	Yes	21	28.57	n/a	n/a	0.01	NP
Sulfate as SO4 (mg/L)	BY-AP-MW-10	1.096	94	87	Yes	21	42.86	n/a	n/a	0.01	NP
Sulfate as SO4 (mg/L)	BY-AP-MW-11	7.332	147	87	Yes	21	28.57	n/a	n/a	0.01	NP
Sulfate as SO4 (mg/L)	BY-AP-MW-12	2.242	104	81	Yes	20	45	n/a	n/a	0.01	NP
Sulfate as SO4 (mg/L)	BY-AP-MW-13	3.326	96	81	Yes	20	25	n/a	n/a	0.01	NP
Sulfate as SO4 (mg/L)	BY-AP-MW-14	11.37	112	81	Yes	20	45	n/a	n/a	0.01	NP
Sulfate as SO4 (mg/L)	BY-AP-MW-15	0.03312	47	87	No	21	47.62	n/a	n/a	0.01	NP

Trend Tests - Prediction Limit Exceedances - All Results

Plant Barry Client: Southern Company Data: Barry Ash Pond Printed 6/7/2023, 12:15 AM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
Sulfate as SO4 (mg/L)	BY-AP-MW-16	0.2304	47	74	No	19	47.37	n/a	n/a	0.01	NP
Sulfate as SO4 (mg/L)	BY-AP-MW-5	0.829	89	74	Yes	19	47.37	n/a	n/a	0.01	NP
Sulfate as SO4 (mg/L)	BY-AP-MW-7	0.9419	97	81	Yes	20	30	n/a	n/a	0.01	NP
Sulfate as SO4 (mg/L)	BY-AP-MW-8	2.016	127	87	Yes	21	47.62	n/a	n/a	0.01	NP
Sulfate as SO4 (mg/L)	BY-AP-MW-9	0.4966	90	87	Yes	21	42.86	n/a	n/a	0.01	NP
Sulfate as SO4 (mg/L)	BY-UP-MW-1 (bg)	0.7972	50	81	No	20	0	n/a	n/a	0.01	NP
Sulfate as SO4 (mg/L)	BY-UP-MW-2 (bg)	0.1304	22	74	No	19	0	n/a	n/a	0.01	NP
Sulfate as SO4 (mg/L)	BY-UP-MW-3 (bg)	-0.07299	-38	-81	No	20	0	n/a	n/a	0.01	NP
Sulfate as SO4 (mg/L)	BY-UP-MW-4 (bg)	-0.06997	-35	-81	No	20	0	n/a	n/a	0.01	NP
TDS (mg/L)	BY-AP-MW-1	-3.188	-36	-87	No	21	0	n/a	n/a	0.01	NP
TDS (mg/L)	BY-AP-MW-10	5.242	79	87	No	21	0	n/a	n/a	0.01	NP
TDS (mg/L)	BY-AP-MW-11	6.294	77	87	No	21	0	n/a	n/a	0.01	NP
TDS (mg/L)	BY-AP-MW-12	-0.6998	-9	-87	No	21	0	n/a	n/a	0.01	NP
TDS (mg/L)	BY-AP-MW-13	-5.299	-75	-87	No	21	0	n/a	n/a	0.01	NP
TDS (mg/L)	BY-AP-MW-14	2.236	44	87	No	21	0	n/a	n/a	0.01	NP
TDS (mg/L)	BY-AP-MW-15	15.94	162	87	Yes	21	0	n/a	n/a	0.01	NP
TDS (mg/L)	BY-AP-MW-16	6.148	82	87	No	21	0	n/a	n/a	0.01	NP
TDS (mg/L)	BY-AP-MW-4	2.211	64	87	No	21	0	n/a	n/a	0.01	NP
TDS (mg/L)	BY-AP-MW-5	-4.862	-68	-81	No	20	0	n/a	n/a	0.01	NP
TDS (mg/L)	BY-AP-MW-7	2.958	66	81	No	20	0	n/a	n/a	0.01	NP
TDS (mg/L)	BY-AP-MW-8	-2.208	-40	-87	No	21	0	n/a	n/a	0.01	NP
TDS (mg/L)	BY-AP-MW-9	-3.065	-62	-87	No	21	0	n/a	n/a	0.01	NP
TDS (mg/L)	BY-UP-MW-1 (bg)	1.942	51	81	No	20	10	n/a	n/a	0.01	NP
TDS (mg/L)	BY-UP-MW-2 (bg)	0.9688	48	81	No	20	10	n/a	n/a	0.01	NP
TDS (mg/L)	BY-UP-MW-3 (bg)	0.7112	31	81	No	20	0	n/a	n/a	0.01	NP
TDS (mg/L)	BY-UP-MW-4 (bg)	1.876	95	81	Yes	20	20	n/a	n/a	0.01	NP

Upper Tolerance Limits - Summary Table

Plant Barry Client: Southern Company Data: Barry Ash Pond Printed 1/19/2022, 3:44 PM

<u>Constituent</u>	<u>Well</u>	<u>Upper Lim.</u>	<u>Date</u>	<u>Observ.</u>	<u>Sig.</u>	<u>Bq N</u>	<u>Bq Mean</u>	<u>Std. Dev.</u>	<u>%NDs</u>	<u>ND Adj.</u>	<u>Transform</u>	<u>Alpha</u>	<u>Method</u>
Antimony (mg/L)	n/a	0.00102	n/a	n/a	n/a	68	n/a	n/a	92.65	n/a	n/a	0.03056	NP Inter
Arsenic (mg/L)	n/a	0.0017	n/a	n/a	n/a	68	n/a	n/a	88.24	n/a	n/a	0.03056	NP Inter
Barium (mg/L)	n/a	0.183	n/a	n/a	n/a	68	n/a	n/a	0	n/a	n/a	0.03056	NP Inter
Beryllium (mg/L)	n/a	0.00102	n/a	n/a	n/a	66	n/a	n/a	93.94	n/a	n/a	0.03387	NP Inter
Cadmium (mg/L)	n/a	0.0002	n/a	n/a	n/a	68	n/a	n/a	98.53	n/a	n/a	0.03056	NP Inter
Chromium (mg/L)	n/a	0.01	n/a	n/a	n/a	68	n/a	n/a	83.82	n/a	n/a	0.03056	NP Inter
Cobalt (mg/L)	n/a	0.0157	n/a	n/a	n/a	67	n/a	n/a	58.21	n/a	n/a	0.03217	NP Inter
Combined Radium 226 + 228 (pCi/L)	n/a	3	n/a	n/a	n/a	60	n/a	n/a	0	n/a	n/a	0.04607	NP Inter
Fluoride, total (mg/L)	n/a	0.1	n/a	n/a	n/a	72	n/a	n/a	52.78	n/a	n/a	0.02489	NP Inter
Lead (mg/L)	n/a	0.00126	n/a	n/a	n/a	68	n/a	n/a	89.71	n/a	n/a	0.03056	NP Inter
Lithium (mg/L)	n/a	0.02	n/a	n/a	n/a	68	n/a	n/a	100	n/a	n/a	0.03056	NP Inter
Mercury (mg/L)	n/a	0.0005	n/a	n/a	n/a	68	n/a	n/a	100	n/a	n/a	0.03056	NP Inter
Molybdenum (mg/L)	n/a	0.0002	n/a	n/a	n/a	68	n/a	n/a	100	n/a	n/a	0.03056	NP Inter
Selenium (mg/L)	n/a	0.00102	n/a	n/a	n/a	68	n/a	n/a	98.53	n/a	n/a	0.03056	NP Inter
Thallium (mg/L)	n/a	0.0002	n/a	n/a	n/a	68	n/a	n/a	100	n/a	n/a	0.03056	NP Inter

BARRY ASH POND GWPS			
Analyte	Units	Background	GWPS
Antimony	mg/L	0.00102	0.006
Arsenic	mg/L	0.0017	0.01
Barium	mg/L	0.183	2
Beryllium	mg/L	0.00102	0.004
Cadmium	mg/L	0.0002	0.005
Chromium	mg/L	0.01	0.1
Cobalt	mg/L	0.0157	0.0157
Combined Radium-226/228	pCi/L	3	5
Fluoride	mg/L	0.1	4
Lead	mg/L	0.00126	0.015
Lithium	mg/L	0.02	0.04
Mercury	mg/L	0.0005	0.002
Molybdenum	mg/L	0.0002	0.1
Selenium	mg/L	0.00102	0.05
Thallium	mg/L	0.0002	0.002

Notes:

1. mg/L - Milligrams per liter
2. pCi/L - Picocuries per liter
3. The background limits were used as the groundwater protection standard (GWPS) when appropriate under 40 CFR §257.95(h), ADEM Rule 335-13-15-.06(h), and the ADEM Variance.
4. GWPS established during second semi-annual sampling event in 2021.

Confidence Interval Summary Table - Significant Results

Plant Barry Client: Southern Company Data: Barry Ash Pond Printed 6/22/2023, 11:30 AM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	%NDs	ND Adj.	Transform	Alpha	Method
Arsenic (mg/L)	BY-AP-MW-1	0.07707	0.06075	0.01	Yes	8	0	None	No	0.01	Param.
Arsenic (mg/L)	BY-AP-MW-10	0.07752	0.06536	0.01	Yes	8	0	None	x^4	0.01	Param.
Arsenic (mg/L)	BY-AP-MW-11	0.01656	0.01376	0.01	Yes	8	0	None	No	0.01	Param.
Arsenic (mg/L)	BY-AP-MW-12	0.0246	0.0218	0.01	Yes	8	0	None	No	0.004	NP (normality)
Arsenic (mg/L)	BY-AP-MW-14	0.01806	0.01633	0.01	Yes	8	0	None	x^4	0.01	Param.
Arsenic (mg/L)	BY-AP-MW-15	0.01982	0.01723	0.01	Yes	8	0	None	No	0.01	Param.
Arsenic (mg/L)	BY-AP-MW-16	0.01561	0.01226	0.01	Yes	8	0	None	No	0.01	Param.
Arsenic (mg/L)	BY-AP-MW-5	0.03662	0.02501	0.01	Yes	8	0	None	No	0.01	Param.
Arsenic (mg/L)	BY-AP-MW-7	0.02364	0.01508	0.01	Yes	8	0	None	x^3	0.01	Param.
Arsenic (mg/L)	BY-AP-MW-8	0.06782	0.03745	0.01	Yes	8	0	None	x^2	0.01	Param.
Arsenic (mg/L)	BY-AP-MW-9	0.04644	0.0263	0.01	Yes	8	0	None	x^2	0.01	Param.
Cobalt (mg/L)	BY-AP-MW-15	0.03696	0.03371	0.0157	Yes	8	0	None	No	0.01	Param.

Confidence Interval Summary Table - All Results

Plant Barry Client: Southern Company Data: Barry Ash Pond Printed 6/22/2023, 11:30 AM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	%NDs	ND Adj.	Transform	Alpha	Method
Arsenic (mg/L)	BY-AP-MW-1	0.07707	0.06075	0.01	Yes	8	0	None	No	0.01	Param.
Arsenic (mg/L)	BY-AP-MW-10	0.07752	0.06536	0.01	Yes	8	0	None	x^4	0.01	Param.
Arsenic (mg/L)	BY-AP-MW-11	0.01656	0.01376	0.01	Yes	8	0	None	No	0.01	Param.
Arsenic (mg/L)	BY-AP-MW-12	0.0246	0.0218	0.01	Yes	8	0	None	No	0.004	NP (normality)
Arsenic (mg/L)	BY-AP-MW-13	0.01813	0.009785	0.01	No	8	0	None	No	0.01	Param.
Arsenic (mg/L)	BY-AP-MW-14	0.01806	0.01633	0.01	Yes	8	0	None	x^4	0.01	Param.
Arsenic (mg/L)	BY-AP-MW-15	0.01982	0.01723	0.01	Yes	8	0	None	No	0.01	Param.
Arsenic (mg/L)	BY-AP-MW-16	0.01561	0.01226	0.01	Yes	8	0	None	No	0.01	Param.
Arsenic (mg/L)	BY-AP-MW-2	0.001788	0.001305	0.01	No	8	0	None	No	0.01	Param.
Arsenic (mg/L)	BY-AP-MW-3	0.000455	0.000102	0.01	No	8	75	None	No	0.004	NP (NDs)
Arsenic (mg/L)	BY-AP-MW-4	0.000203	0.000099	0.01	No	8	62.5	None	No	0.004	NP (NDs)
Arsenic (mg/L)	BY-AP-MW-5	0.03662	0.02501	0.01	Yes	8	0	None	No	0.01	Param.
Arsenic (mg/L)	BY-AP-MW-6	0.000203	0.0001	0.01	No	8	75	None	No	0.004	NP (NDs)
Arsenic (mg/L)	BY-AP-MW-7	0.02364	0.01508	0.01	Yes	8	0	None	x^3	0.01	Param.
Arsenic (mg/L)	BY-AP-MW-8	0.06782	0.03745	0.01	Yes	8	0	None	x^2	0.01	Param.
Arsenic (mg/L)	BY-AP-MW-9	0.04644	0.0263	0.01	Yes	8	0	None	x^2	0.01	Param.
Barium (mg/L)	BY-AP-MW-1	0.3437	0.2591	2	No	8	0	None	No	0.01	Param.
Barium (mg/L)	BY-AP-MW-10	0.07493	0.06092	2	No	8	0	None	No	0.01	Param.
Barium (mg/L)	BY-AP-MW-11	0.09886	0.06884	2	No	8	0	None	No	0.01	Param.
Barium (mg/L)	BY-AP-MW-12	0.08667	0.07658	2	No	8	0	None	No	0.01	Param.
Barium (mg/L)	BY-AP-MW-13	0.08002	0.06153	2	No	8	0	None	No	0.01	Param.
Barium (mg/L)	BY-AP-MW-14	0.0714	0.06047	2	No	8	0	None	No	0.01	Param.
Barium (mg/L)	BY-AP-MW-15	0.08227	0.06793	2	No	8	0	None	No	0.01	Param.
Barium (mg/L)	BY-AP-MW-16	0.1004	0.08487	2	No	8	0	None	No	0.01	Param.
Barium (mg/L)	BY-AP-MW-2	0.02738	0.02049	2	No	8	0	None	No	0.01	Param.
Barium (mg/L)	BY-AP-MW-3	0.04437	0.02963	2	No	8	0	None	No	0.01	Param.
Barium (mg/L)	BY-AP-MW-4	0.118	0.0131	2	No	8	0	None	No	0.004	NP (normality)
Barium (mg/L)	BY-AP-MW-5	0.1603	0.1132	2	No	8	0	None	x^3	0.01	Param.
Barium (mg/L)	BY-AP-MW-6	0.02925	0.02525	2	No	8	0	None	No	0.01	Param.
Barium (mg/L)	BY-AP-MW-7	0.07384	0.04287	2	No	8	0	None	x^3	0.01	Param.
Barium (mg/L)	BY-AP-MW-8	0.1506	0.1252	2	No	8	0	None	x^6	0.01	Param.
Barium (mg/L)	BY-AP-MW-9	0.1256	0.1139	2	No	8	0	None	No	0.01	Param.
Beryllium (mg/L)	BY-AP-MW-4	0.00102	0.000432	0.004	No	8	62.5	None	No	0.004	NP (NDs)
Cadmium (mg/L)	BY-AP-MW-4	0.0002	0.00009	0.005	No	8	75	None	No	0.004	NP (NDs)
Cadmium (mg/L)	BY-AP-MW-6	0.00031	0.000068	0.005	No	8	62.5	None	No	0.004	NP (NDs)
Chromium (mg/L)	BY-AP-MW-1	0.00638	0.00236	0.1	No	8	0	None	No	0.004	NP (normality)
Chromium (mg/L)	BY-AP-MW-10	0.01	0.00052	0.1	No	8	37.5	None	No	0.004	NP (normality)
Chromium (mg/L)	BY-AP-MW-11	0.004001	0.002344	0.1	No	8	0	None	No	0.01	Param.
Chromium (mg/L)	BY-AP-MW-12	0.0056	0.00325	0.1	No	8	0	None	No	0.004	NP (normality)
Chromium (mg/L)	BY-AP-MW-13	0.009056	0.005476	0.1	No	8	0	None	x^2	0.01	Param.
Chromium (mg/L)	BY-AP-MW-14	0.004798	0.003245	0.1	No	8	0	None	No	0.01	Param.
Chromium (mg/L)	BY-AP-MW-15	0.01	0.000361	0.1	No	8	37.5	None	No	0.004	NP (normality)
Chromium (mg/L)	BY-AP-MW-16	0.01	0.00122	0.1	No	8	37.5	None	No	0.004	NP (normality)
Chromium (mg/L)	BY-AP-MW-2	0.00102	0.000206	0.1	No	8	50	None	No	0.004	NP (normality)
Chromium (mg/L)	BY-AP-MW-3	0.01	0.00053	0.1	No	8	37.5	None	No	0.004	NP (normality)
Chromium (mg/L)	BY-AP-MW-4	0.01	0.00026	0.1	No	8	37.5	None	No	0.004	NP (normality)
Chromium (mg/L)	BY-AP-MW-5	0.01	0.000894	0.1	No	8	50	None	No	0.004	NP (normality)
Chromium (mg/L)	BY-AP-MW-6	0.01	0.00023	0.1	No	8	37.5	None	No	0.004	NP (normality)
Chromium (mg/L)	BY-AP-MW-7	0.01	0.000246	0.1	No	8	37.5	None	No	0.004	NP (normality)
Chromium (mg/L)	BY-AP-MW-8	0.01	0.001	0.1	No	8	37.5	None	No	0.004	NP (normality)
Chromium (mg/L)	BY-AP-MW-9	0.01	0.00062	0.1	No	8	37.5	None	No	0.004	NP (normality)
Cobalt (mg/L)	BY-AP-MW-1	0.005	0.00091	0.0157	No	8	37.5	None	No	0.004	NP (normality)
Cobalt (mg/L)	BY-AP-MW-10	0.005	0.00054	0.0157	No	8	37.5	None	No	0.004	NP (normality)
Cobalt (mg/L)	BY-AP-MW-11	0.005	0.000946	0.0157	No	8	37.5	None	No	0.004	NP (normality)
Cobalt (mg/L)	BY-AP-MW-12	0.00403	0.003035	0.0157	No	8	0	None	No	0.01	Param.
Cobalt (mg/L)	BY-AP-MW-13	0.002246	0.0008853	0.0157	No	8	37.5	Kaplan-Meier	x^(1/3)	0.01	Param.
Cobalt (mg/L)	BY-AP-MW-14	0.005	0.00119	0.0157	No	8	37.5	None	No	0.004	NP (normality)
Cobalt (mg/L)	BY-AP-MW-15	0.03696	0.03371	0.0157	Yes	8	0	None	No	0.01	Param.
Cobalt (mg/L)	BY-AP-MW-16	0.01936	0.008818	0.0157	No	8	0	None	No	0.01	Param.
Cobalt (mg/L)	BY-AP-MW-2	0.007613	0.005148	0.0157	No	8	0	None	x^2	0.01	Param.
Cobalt (mg/L)	BY-AP-MW-3	0.005	0.000108	0.0157	No	8	37.5	None	No	0.004	NP (normality)
Cobalt (mg/L)	BY-AP-MW-4	0.01353	0.002498	0.0157	No	8	12.5	None	ln(x)	0.01	Param.
Cobalt (mg/L)	BY-AP-MW-5	0.005	0.00112	0.0157	No	8	50	None	No	0.004	NP (normality)
Cobalt (mg/L)	BY-AP-MW-6	0.005	0.000584	0.0157	No	8	37.5	None	No	0.004	NP (normality)
Cobalt (mg/L)	BY-AP-MW-7	0.02223	0.009928	0.0157	No	8	0	None	x^2	0.01	Param.
Cobalt (mg/L)	BY-AP-MW-8	0.0009974	0.0002687	0.0157	No	8	37.5	Kaplan-Meier	ln(x)	0.01	Param.
Cobalt (mg/L)	BY-AP-MW-9	0.005	0.00069	0.0157	No	8	37.5	None	No	0.004	NP (normality)
Combined Radium 226 + 228 (pCi/L)	BY-AP-MW-1	2.743	1.89	5	No	8	0	None	No	0.01	Param.

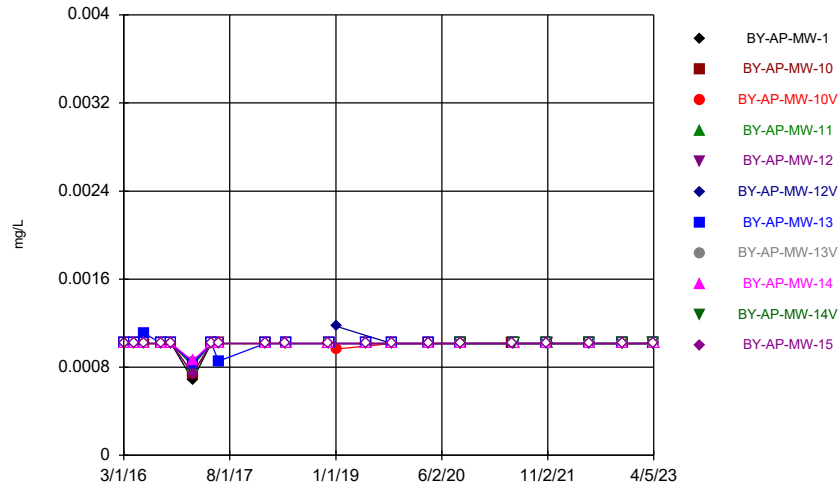
Confidence Interval Summary Table - All Results

Plant Barry Client: Southern Company Data: Barry Ash Pond Printed 6/22/2023, 11:30 AM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	%NDs	ND Adj.	Transform	Alpha	Method
Combined Radium 226 + 228 (pCi/L)	BY-AP-MW-10	1.354	0.525	5	No	8	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	BY-AP-MW-11	1.15	0.452	5	No	8	0	None	No	0.004	NP (normality)
Combined Radium 226 + 228 (pCi/L)	BY-AP-MW-12	1.805	0.8693	5	No	8	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	BY-AP-MW-13	1.379	0.6373	5	No	8	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	BY-AP-MW-14	1.133	0.5117	5	No	8	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	BY-AP-MW-15	1.65	0.5159	5	No	8	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	BY-AP-MW-16	1.833	0.2699	5	No	8	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	BY-AP-MW-2	0.9204	0.2656	5	No	8	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	BY-AP-MW-3	1.724	0.4493	5	No	8	0	None	ln(x)	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	BY-AP-MW-4	1.328	0.485	5	No	8	0	None	sqrt(x)	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	BY-AP-MW-5	2.146	0.8926	5	No	8	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	BY-AP-MW-6	1.513	0.1585	5	No	8	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	BY-AP-MW-7	1.159	0.3171	5	No	8	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	BY-AP-MW-8	1.227	0.336	5	No	8	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	BY-AP-MW-9	1.68	0.6526	5	No	8	0	None	No	0.01	Param.
Fluoride, total (mg/L)	BY-AP-MW-1	0.194	0.0665	4	No	8	0	None	No	0.004	NP (normality)
Fluoride, total (mg/L)	BY-AP-MW-10	0.125	0.0794	4	No	8	75	None	No	0.004	NP (NDs)
Fluoride, total (mg/L)	BY-AP-MW-11	0.1089	0.06453	4	No	8	0	None	No	0.01	Param.
Fluoride, total (mg/L)	BY-AP-MW-12	0.08889	0.06616	4	No	8	0	None	No	0.01	Param.
Fluoride, total (mg/L)	BY-AP-MW-13	0.187	0.0641	4	No	8	0	None	No	0.004	NP (normality)
Fluoride, total (mg/L)	BY-AP-MW-14	0.1086	0.06651	4	No	8	0	None	No	0.01	Param.
Fluoride, total (mg/L)	BY-AP-MW-15	0.229	0.1685	4	No	8	0	None	sqrt(x)	0.01	Param.
Fluoride, total (mg/L)	BY-AP-MW-16	0.1181	0.06402	4	No	8	25	Kaplan-Meier	No	0.01	Param.
Fluoride, total (mg/L)	BY-AP-MW-2	0.125	0.0711	4	No	8	87.5	None	No	0.004	NP (NDs)
Fluoride, total (mg/L)	BY-AP-MW-5	0.1072	0.05771	4	No	8	12.5	None	No	0.01	Param.
Fluoride, total (mg/L)	BY-AP-MW-7	0.381	0.0724	4	No	8	0	None	No	0.004	NP (normality)
Fluoride, total (mg/L)	BY-AP-MW-8	0.125	0.0559	4	No	8	37.5	None	No	0.004	NP (normality)
Fluoride, total (mg/L)	BY-AP-MW-9	0.0804	0.0625	4	No	8	12.5	None	No	0.004	NP (normality)
Lead (mg/L)	BY-AP-MW-1	0.0002	0.000092	0.015	No	8	75	None	No	0.004	NP (NDs)
Lead (mg/L)	BY-AP-MW-11	0.005	0.000069	0.015	No	8	37.5	None	No	0.004	NP (normality)
Lead (mg/L)	BY-AP-MW-12	0.000326	0.00018	0.015	No	8	62.5	None	No	0.004	NP (NDs)
Lead (mg/L)	BY-AP-MW-13	0.0002	0.000101	0.015	No	8	62.5	None	No	0.004	NP (NDs)
Lead (mg/L)	BY-AP-MW-14	0.005	0.0000764	0.015	No	8	37.5	None	No	0.004	NP (normality)
Lead (mg/L)	BY-AP-MW-16	0.000203	0.000191	0.015	No	8	87.5	None	No	0.004	NP (NDs)
Lead (mg/L)	BY-AP-MW-4	0.005	0.00007	0.015	No	8	37.5	None	No	0.004	NP (normality)
Lead (mg/L)	BY-AP-MW-6	0.006029	0.001339	0.015	No	8	0	None	ln(x)	0.01	Param.
Lithium (mg/L)	BY-AP-MW-11	0.02861	0.01069	0.04	No	8	25	Kaplan-Meier	No	0.01	Param.
Lithium (mg/L)	BY-AP-MW-15	0.02058	0.009311	0.04	No	8	25	Kaplan-Meier	No	0.01	Param.
Lithium (mg/L)	BY-AP-MW-7	0.0882	0.0102	0.04	No	8	75	Kaplan-Meier	No	0.004	NP (NDs)
Molybdenum (mg/L)	BY-AP-MW-1	0.01015	0.00008	0.1	No	8	75	None	No	0.004	NP (NDs)
Molybdenum (mg/L)	BY-AP-MW-11	0.01015	0.000972	0.1	No	8	50	None	No	0.004	NP (normality)
Molybdenum (mg/L)	BY-AP-MW-12	0.01015	0.000942	0.1	No	8	50	None	No	0.004	NP (normality)
Molybdenum (mg/L)	BY-AP-MW-13	0.0108	0.00043	0.1	No	8	37.5	None	No	0.004	NP (normality)
Molybdenum (mg/L)	BY-AP-MW-14	0.01015	0.00052	0.1	No	8	50	None	No	0.004	NP (normality)
Molybdenum (mg/L)	BY-AP-MW-15	0.01015	0.00171	0.1	No	8	37.5	None	No	0.004	NP (normality)
Molybdenum (mg/L)	BY-AP-MW-16	0.01015	0.000136	0.1	No	8	87.5	None	No	0.004	NP (NDs)
Molybdenum (mg/L)	BY-AP-MW-5	0.01015	0.00011	0.1	No	8	62.5	None	No	0.004	NP (NDs)
Molybdenum (mg/L)	BY-AP-MW-6	0.01015	0.00011	0.1	No	8	50	None	No	0.004	NP (normality)
Molybdenum (mg/L)	BY-AP-MW-7	0.01015	0.00018	0.1	No	8	50	None	No	0.004	NP (normality)
Molybdenum (mg/L)	BY-AP-MW-8	0.01015	0.00019	0.1	No	8	50	None	No	0.004	NP (normality)
Molybdenum (mg/L)	BY-AP-MW-9	0.01015	0.000157	0.1	No	8	50	None	No	0.004	NP (normality)
Selenium (mg/L)	BY-AP-MW-13	0.00102	0.00056	0.05	No	8	62.5	None	No	0.004	NP (NDs)

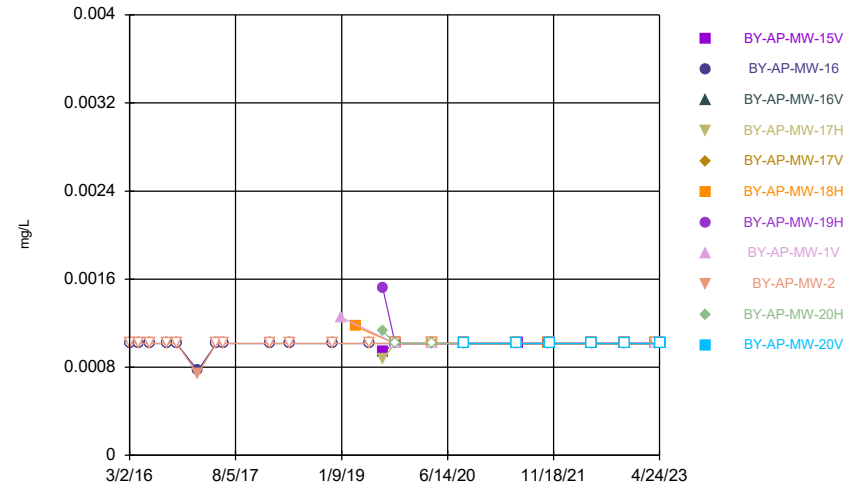
FIGURE A.

Time Series



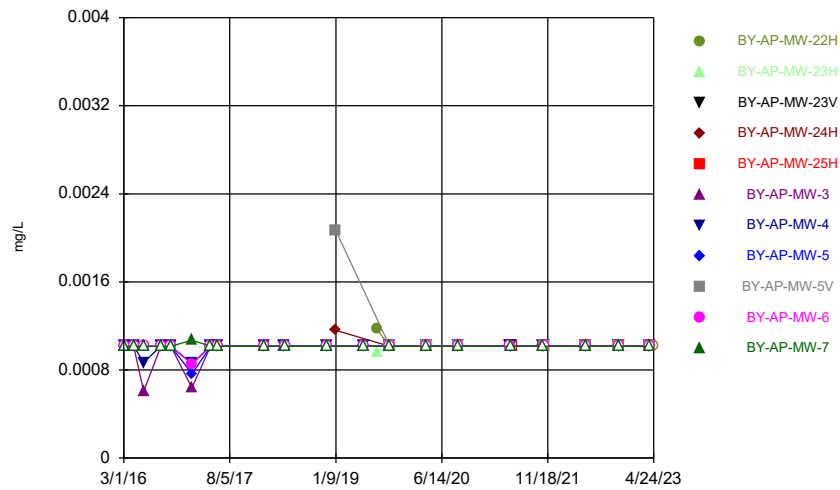
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Plant Barry Client: Southern Company Data: Barry Ash Pond

Time Series



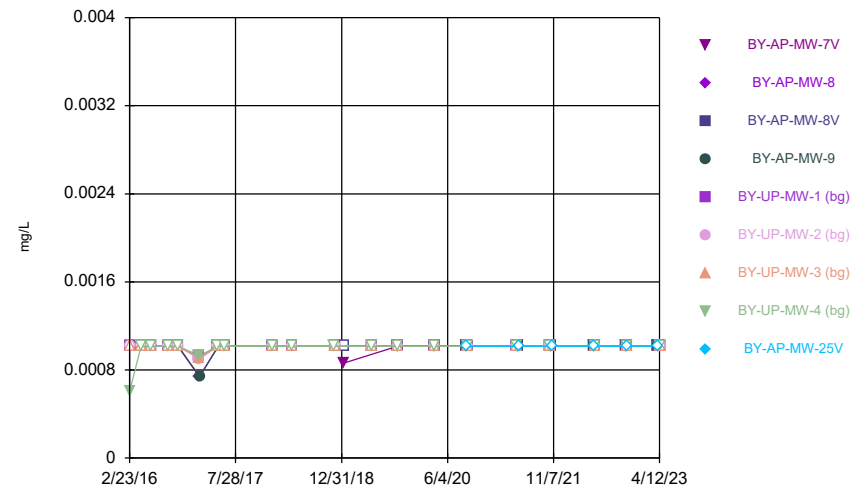
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Plant Barry Client: Southern Company Data: Barry Ash Pond

Time Series



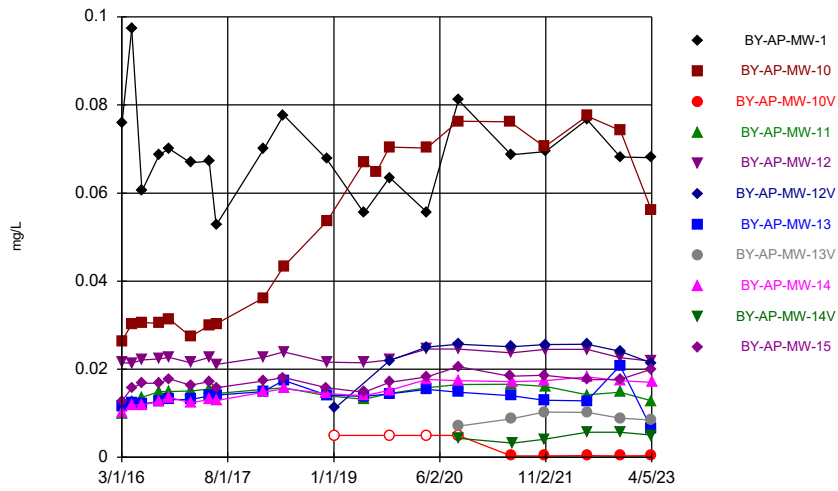
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Time Series



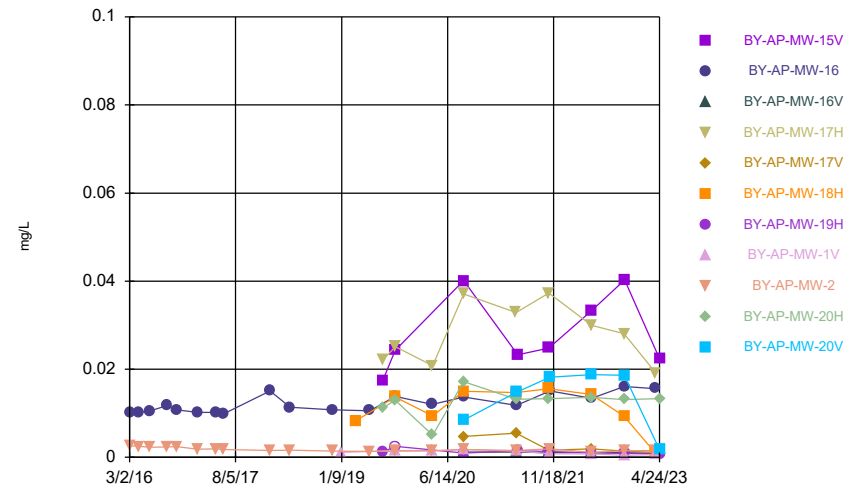
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Time Series



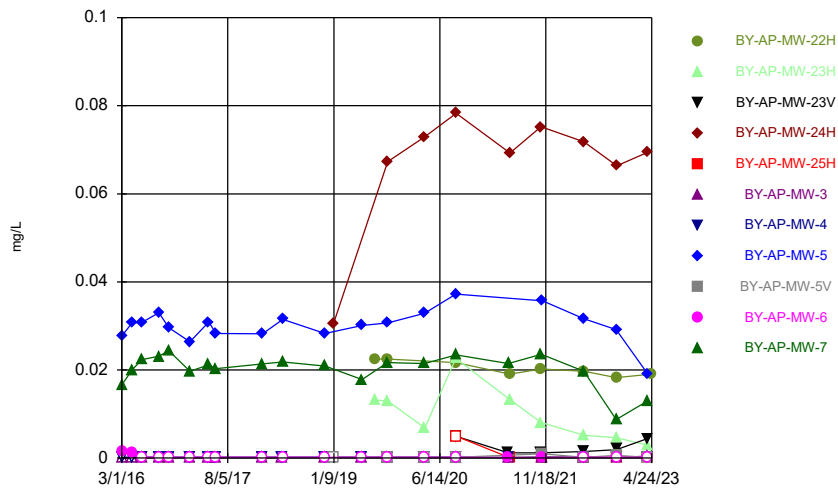
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Time Series



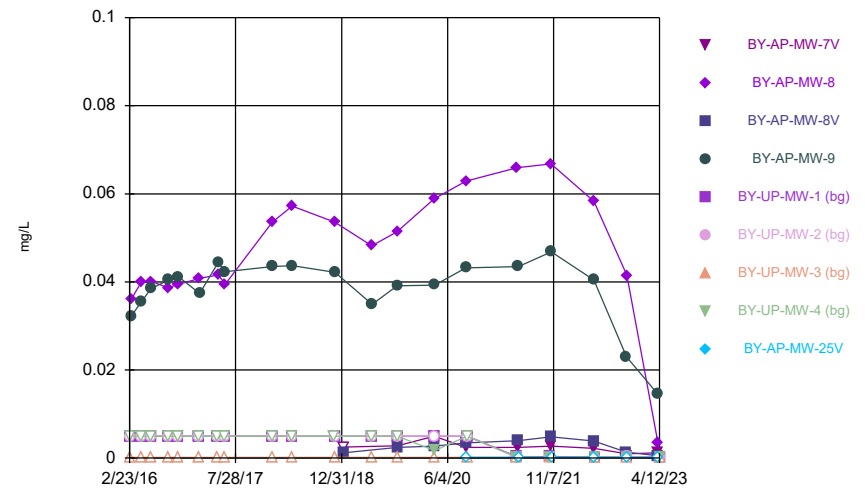
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Time Series



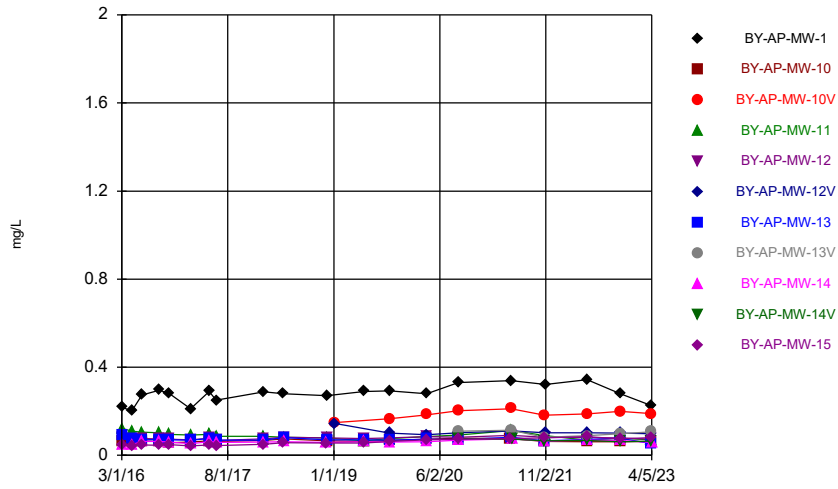
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Time Series



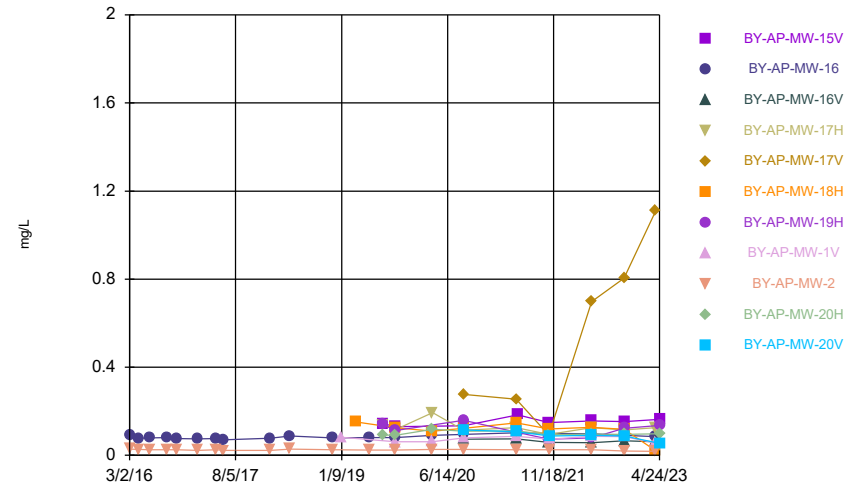
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Time Series



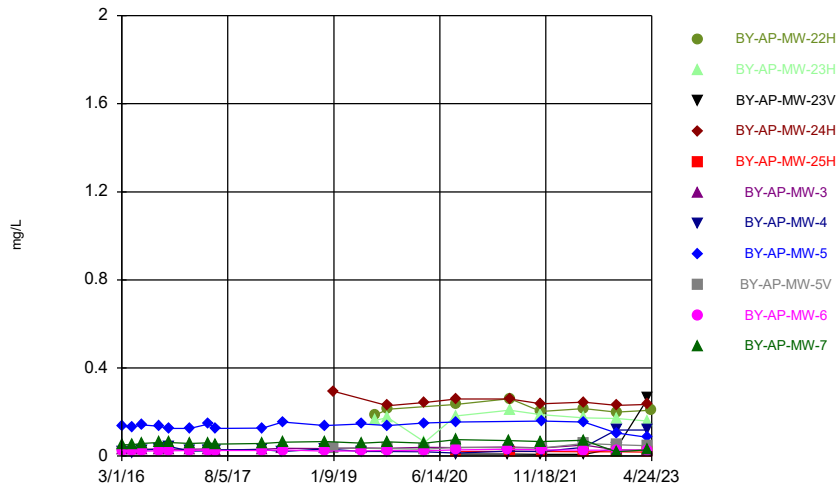
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Time Series



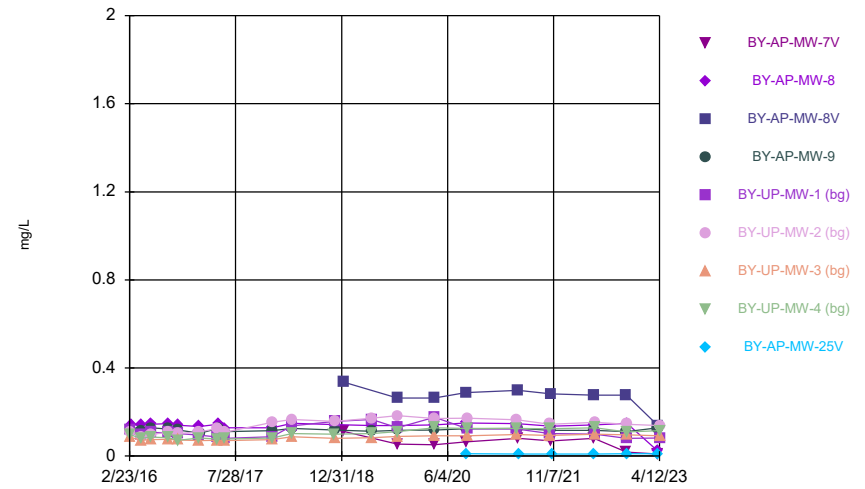
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Time Series



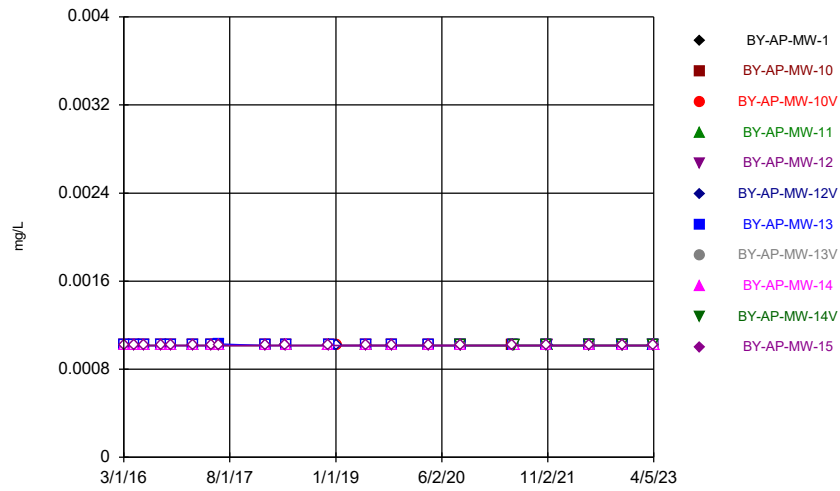
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Time Series



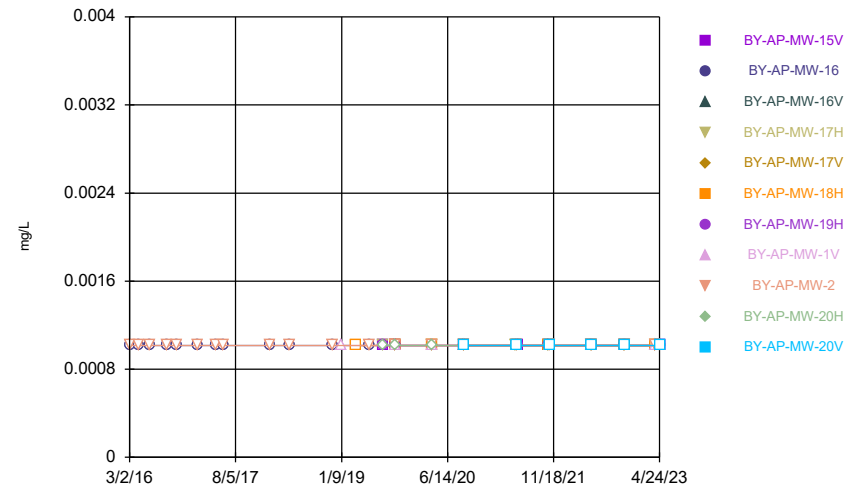
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Time Series



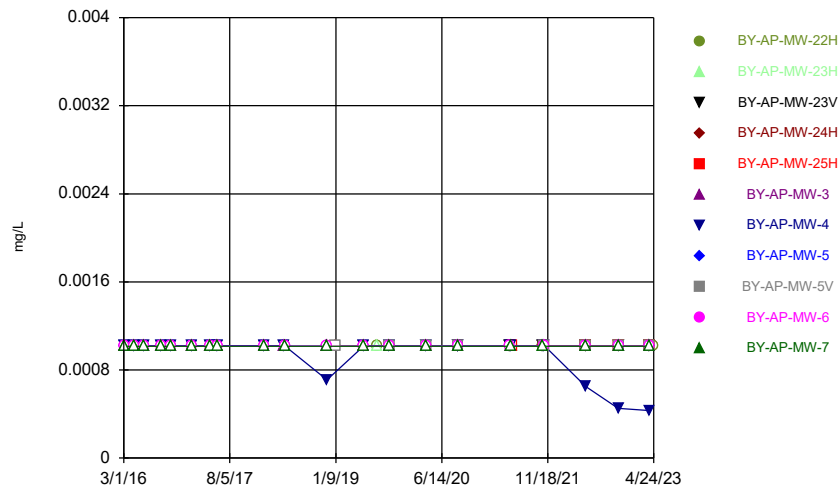
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Time Series



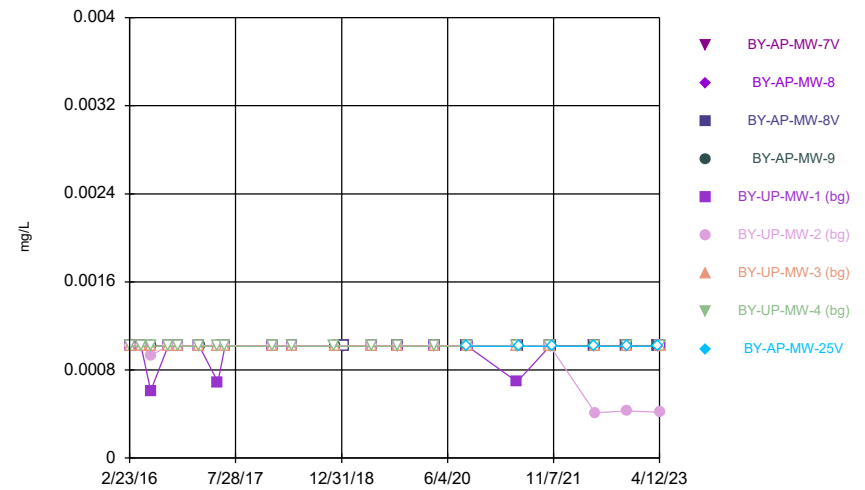
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Time Series



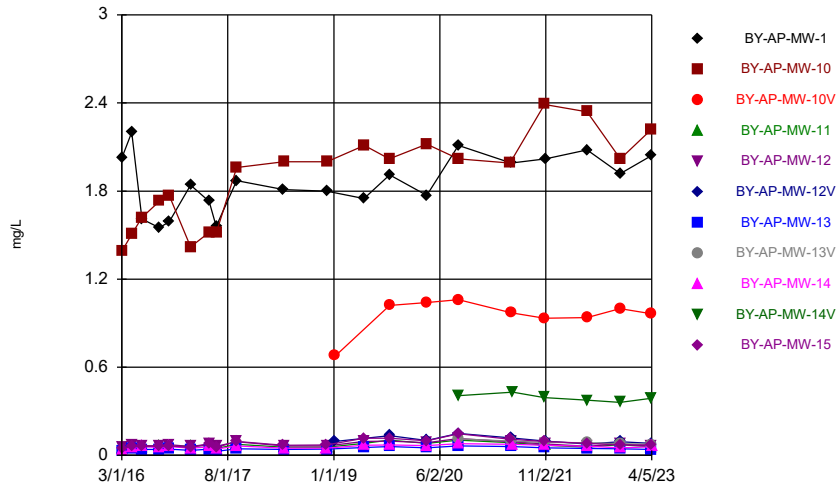
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Time Series



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Plant Barry Client: Southern Company Data: Barry Ash Pond

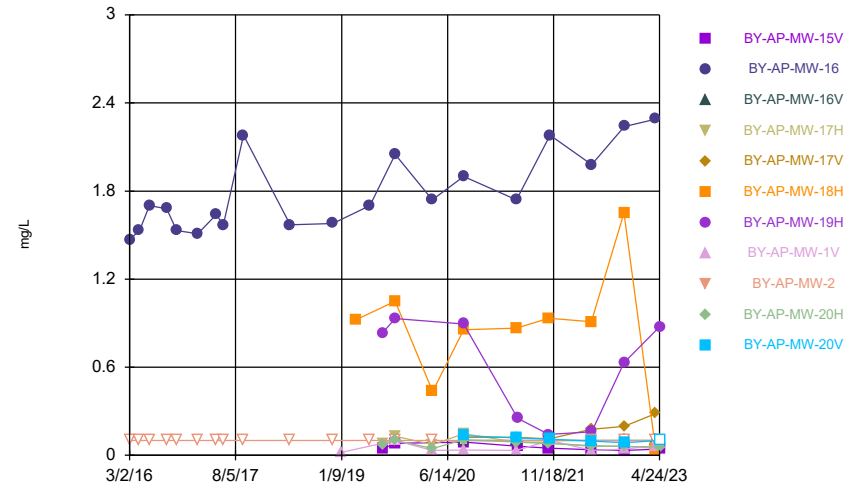
Time Series



Constituent: Boron, total Analysis Run 6/23/2023 11:14 AM View: Descriptive
Plant Barry Client: Southern Company Data: Barry Ash Pond

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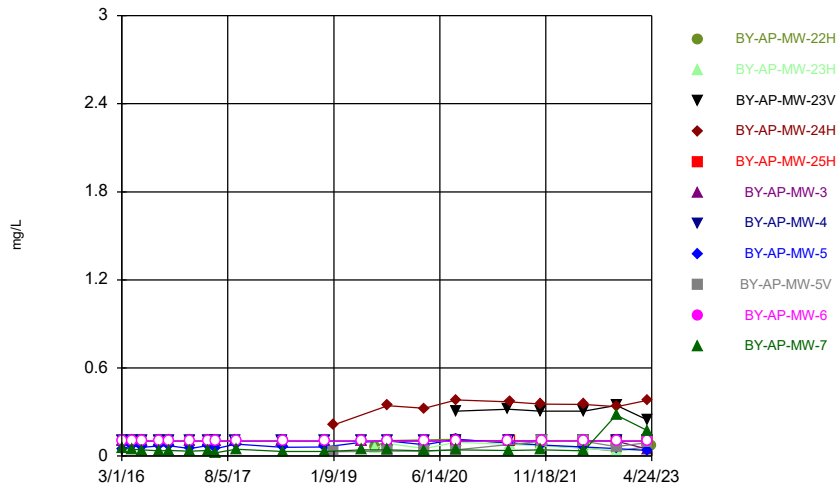
Time Series



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Plant Barry Client: Southern Company Data: Barry Ash Pond

Hollow symbols indicate censored values.

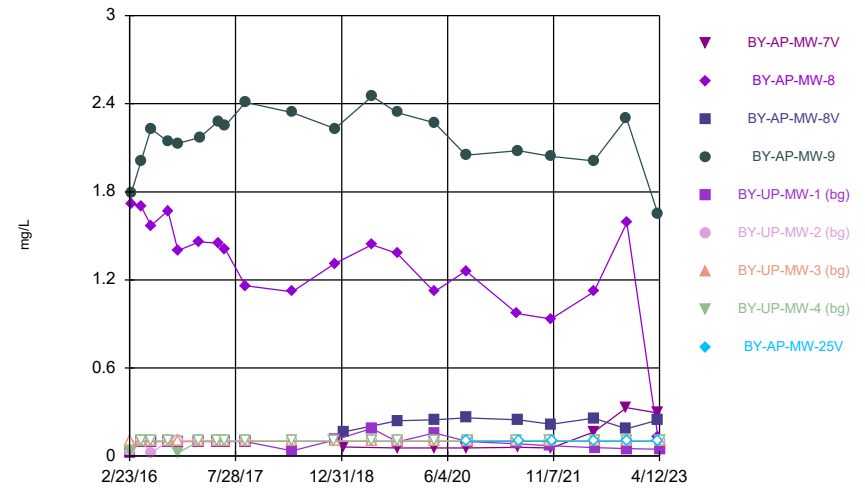
Time Series



Constituent: Boron, total Analysis Run 6/23/2023 11:14 AM View: Descriptive
Plant Barry Client: Southern Company Data: Barry Ash Pond

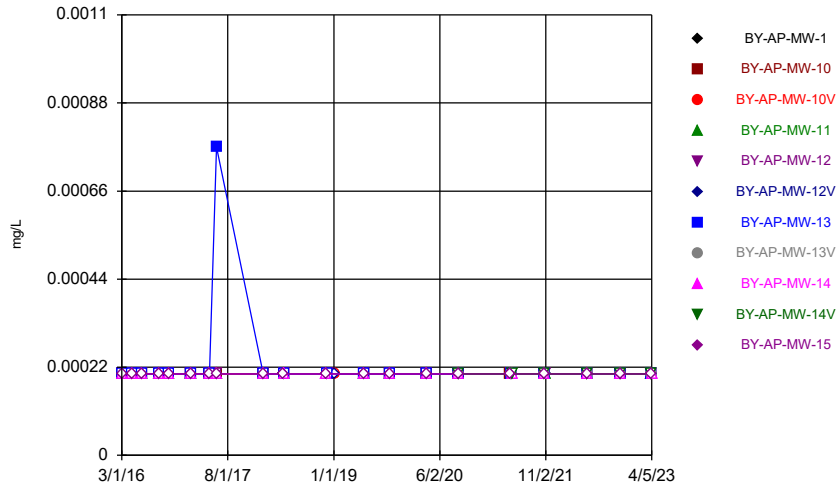
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Time Series



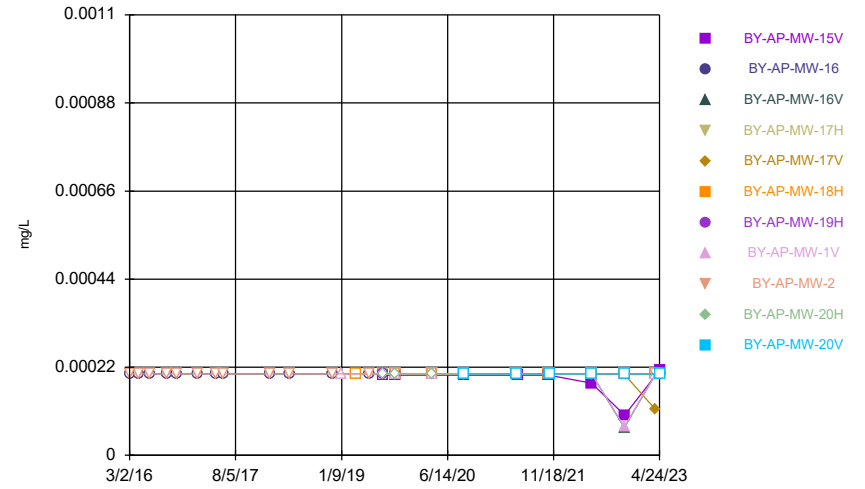
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Plant Barry Client: Southern Company Data: Barry Ash Pond

Time Series



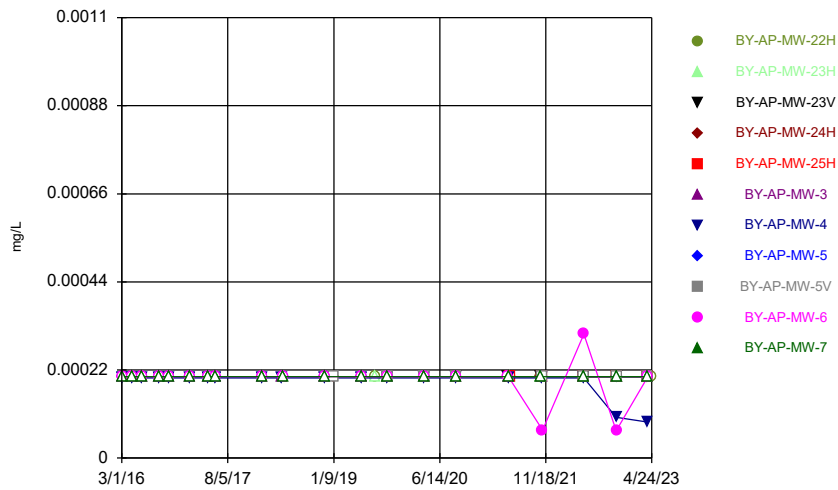
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Plant Barry Client: Southern Company Data: Barry Ash Pond

Time Series



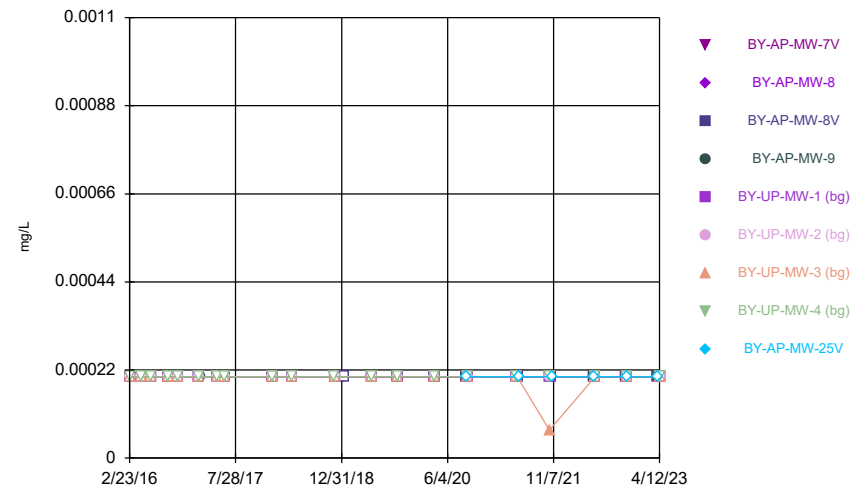
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Plant Barry Client: Southern Company Data: Barry Ash Pond

Time Series



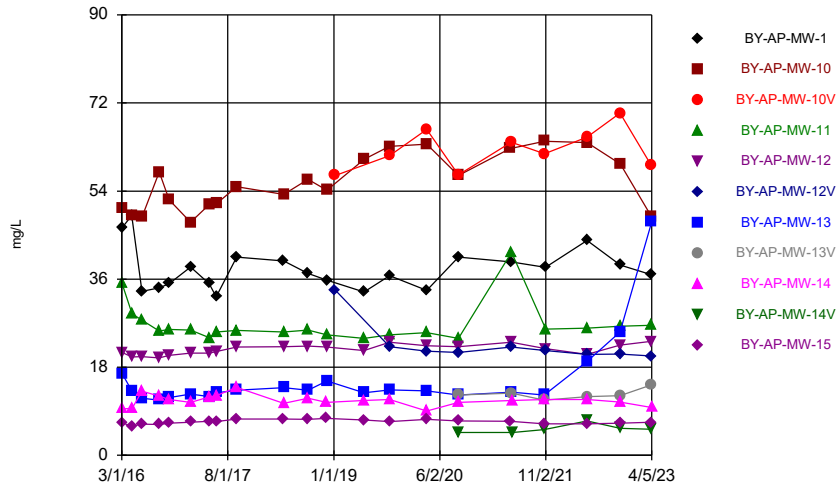
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Time Series



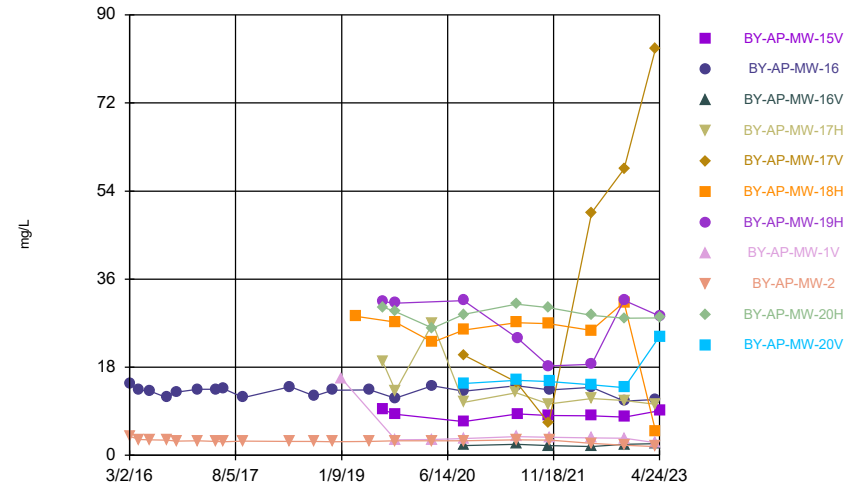
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Plant Barry Client: Southern Company Data: Barry Ash Pond

Time Series



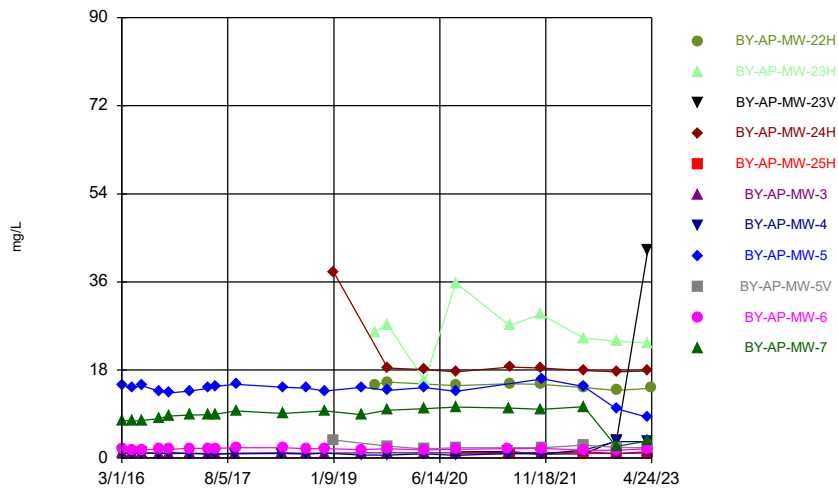
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Plant Barry Client: Southern Company Data: Barry Ash Pond

Time Series



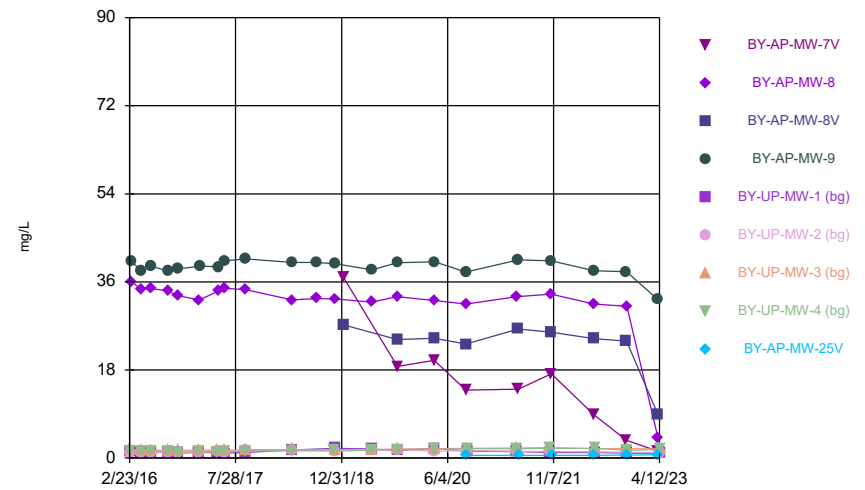
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Time Series



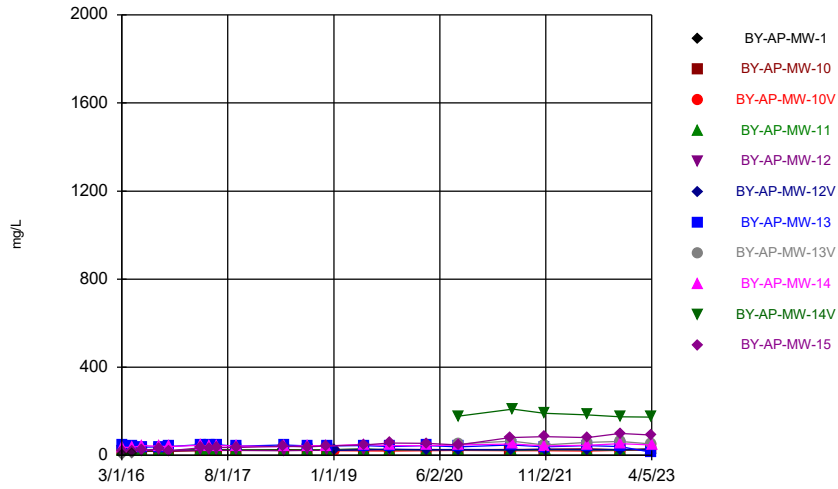
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Time Series



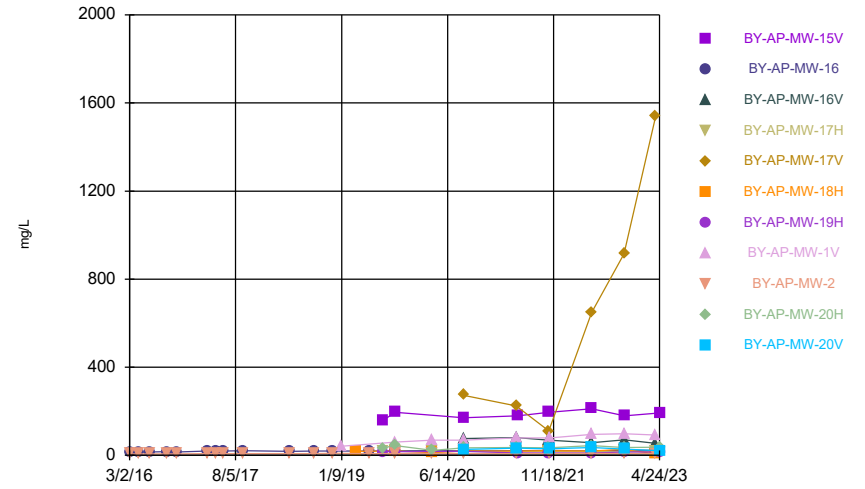
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Time Series



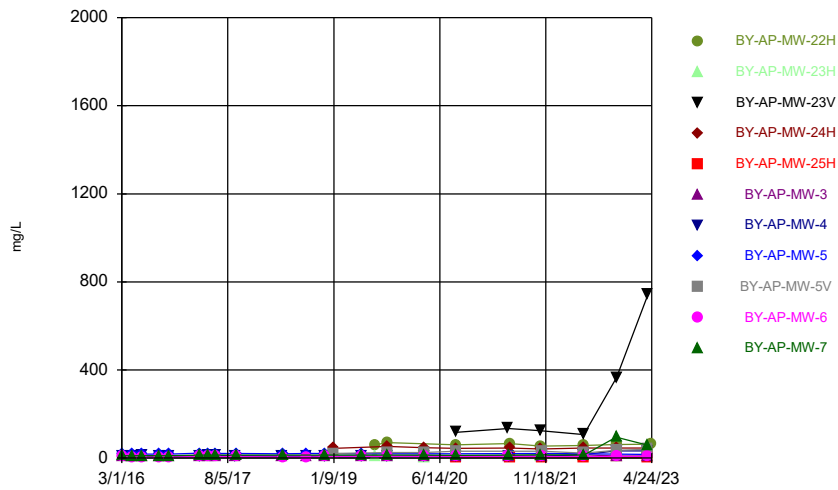
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Time Series



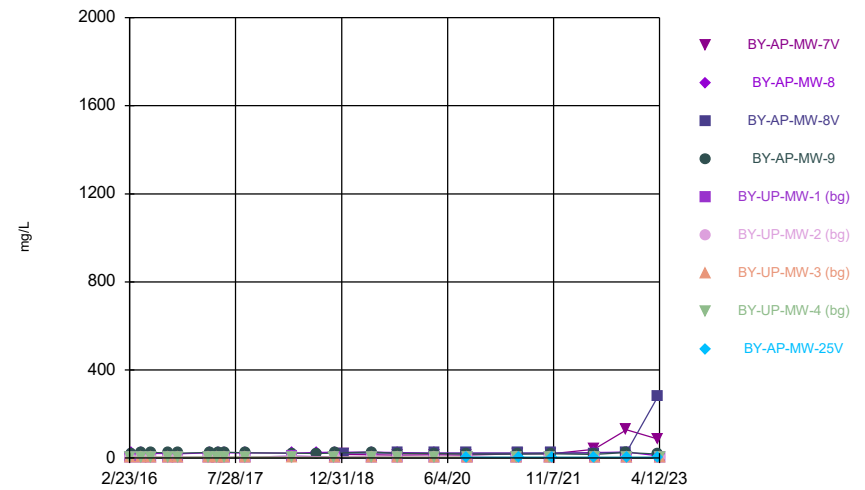
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Time Series



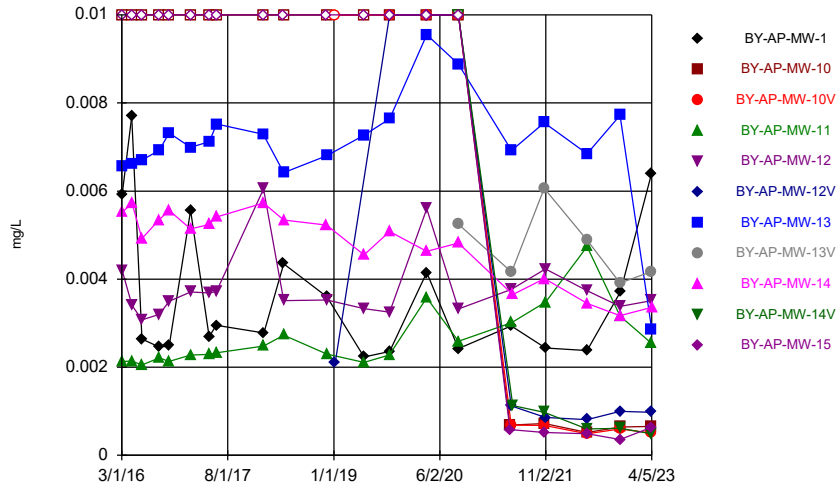
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Time Series



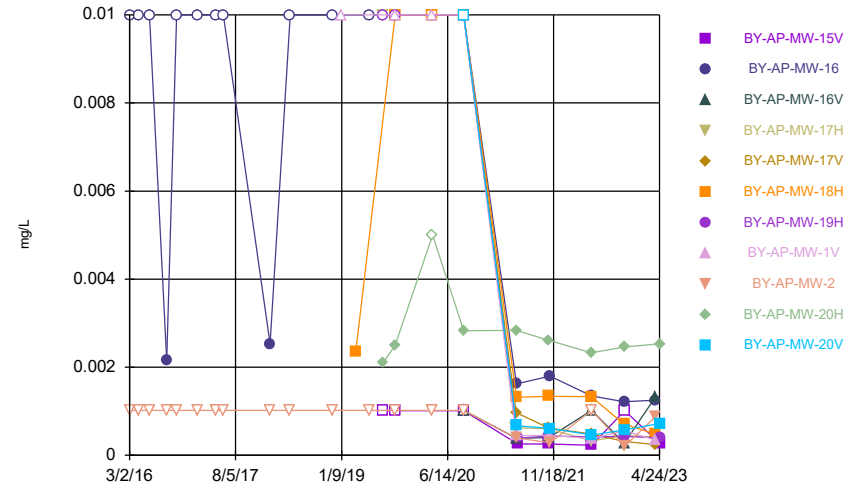
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Time Series



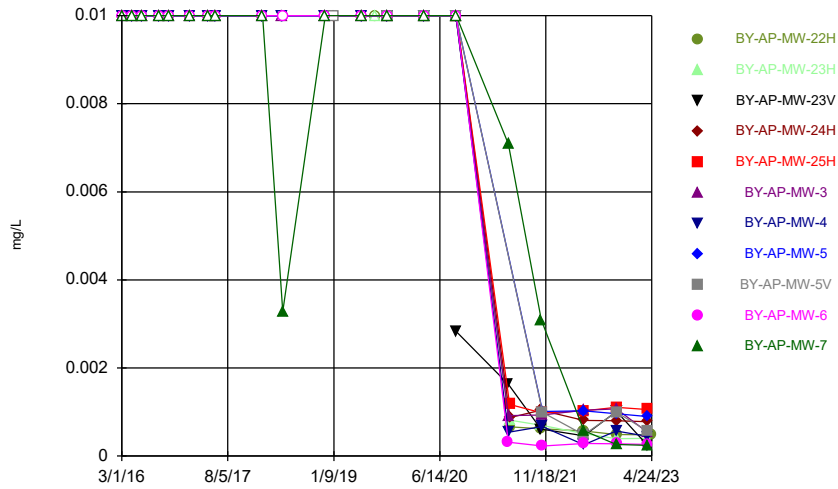
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Plant Barry Client: Southern Company Data: Barry Ash Pond

Time Series



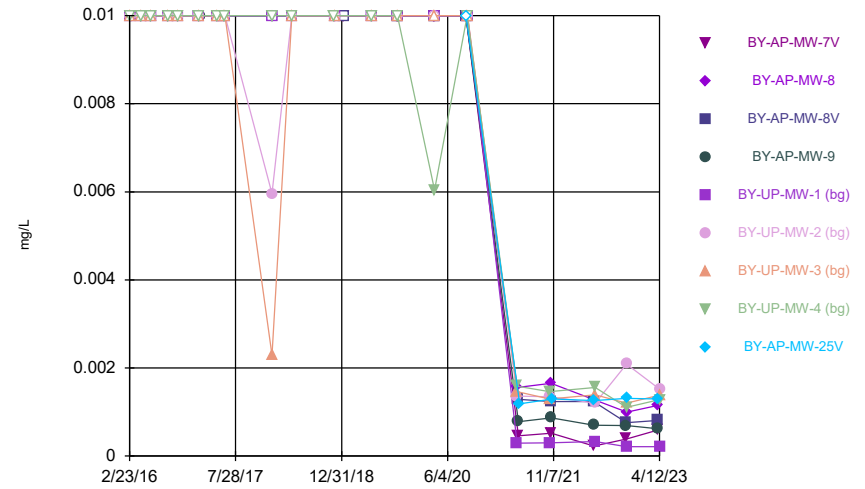
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Plant Barry Client: Southern Company Data: Barry Ash Pond

Time Series



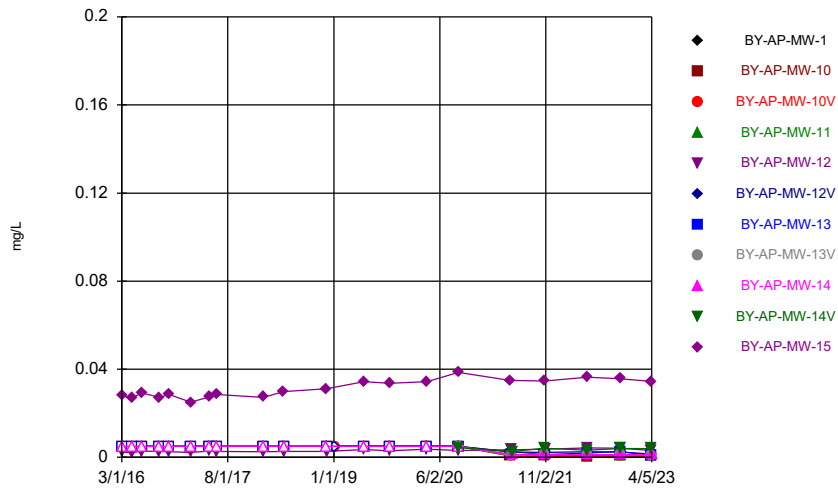
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Time Series



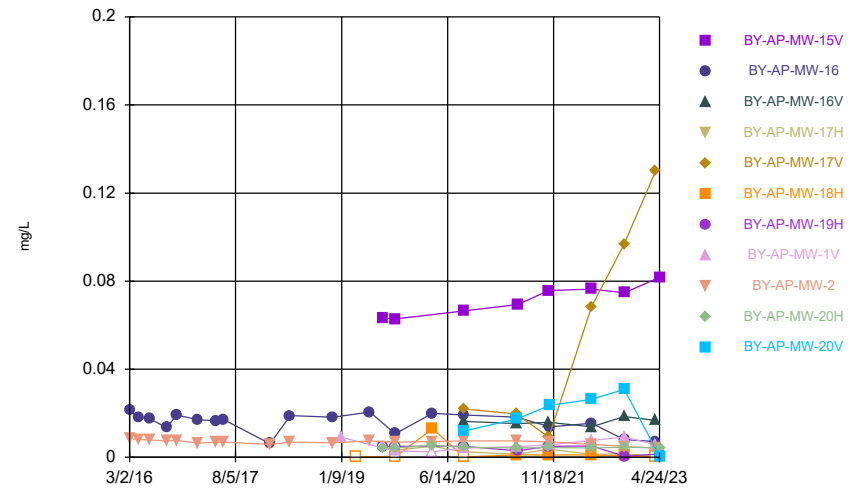
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Time Series



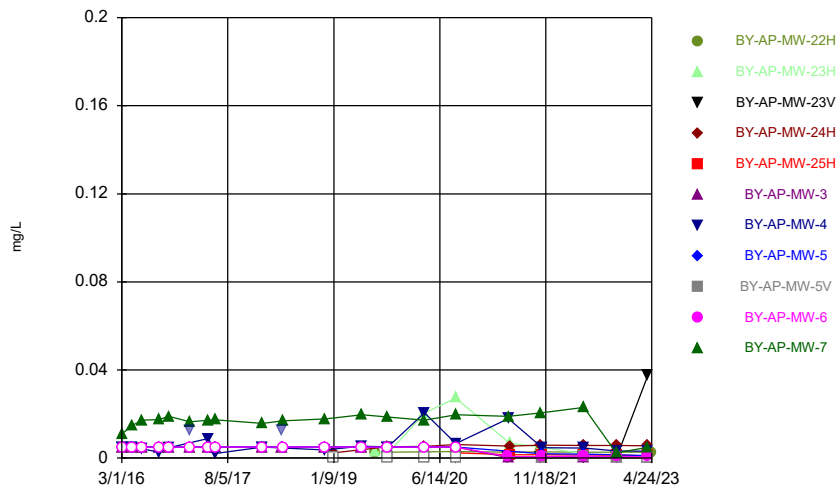
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Time Series



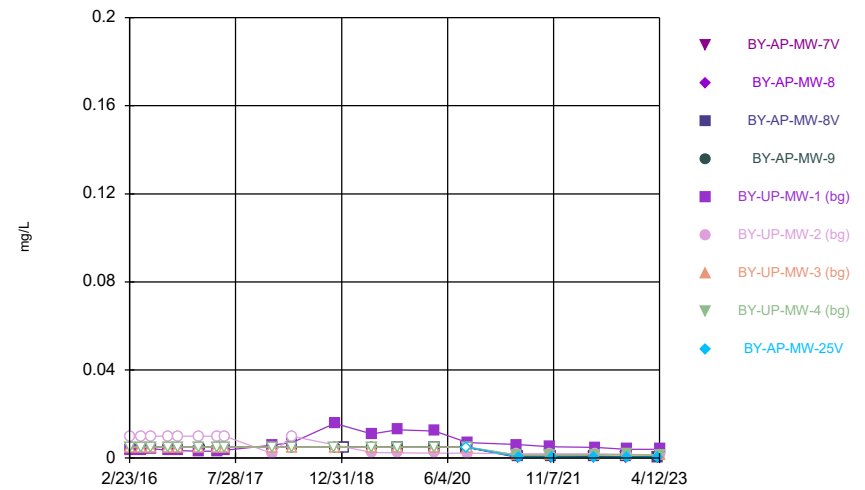
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Time Series



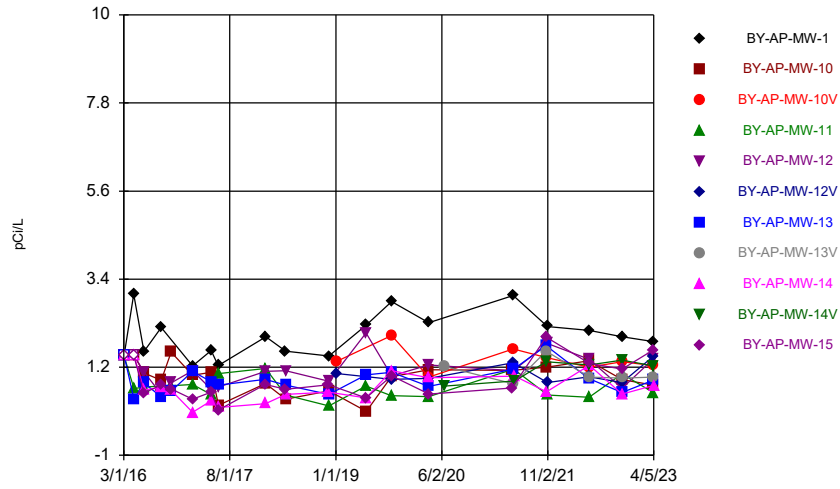
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Time Series



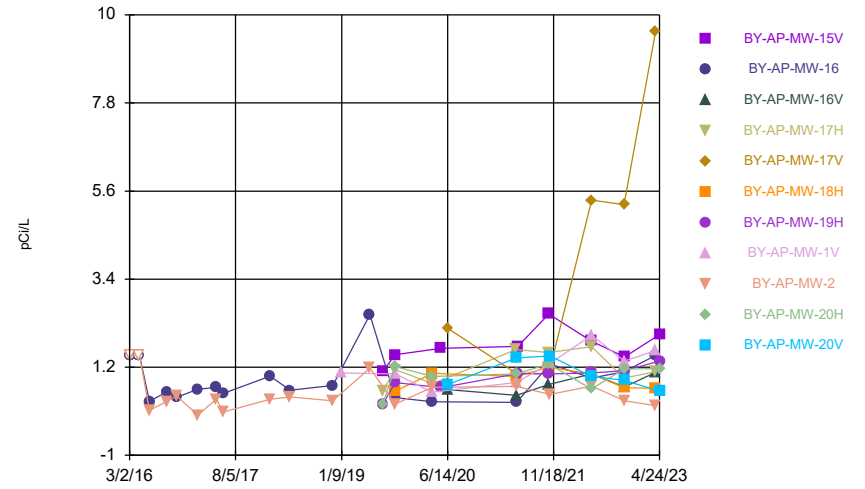
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Time Series



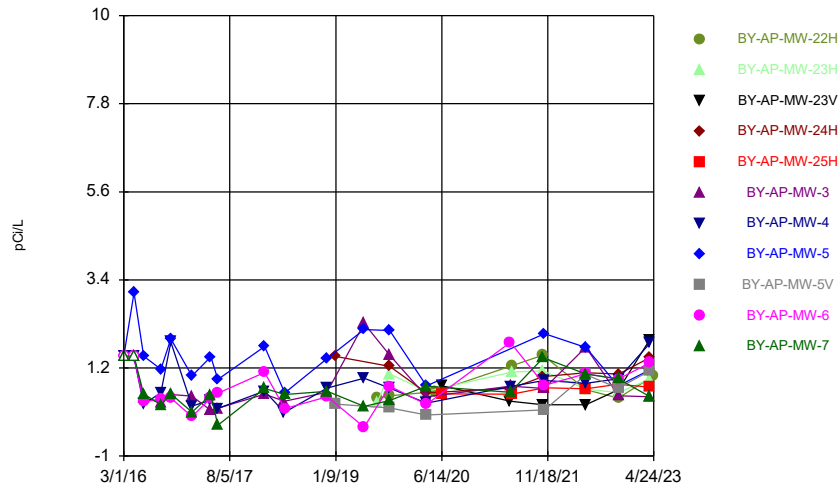
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Plant Barry Client: Southern Company Data: Barry Ash Pond

Time Series



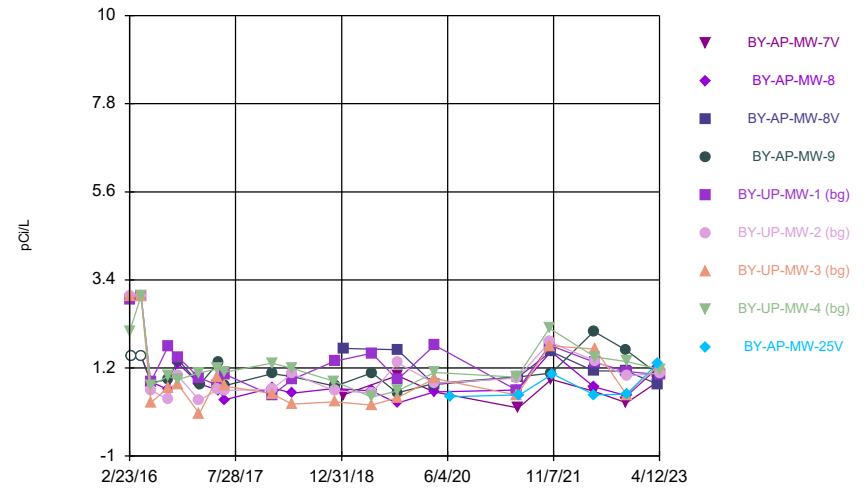
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Time Series



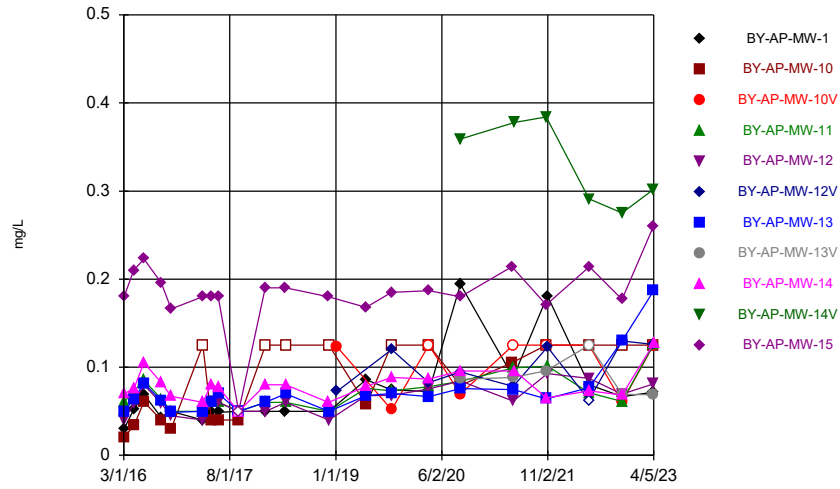
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Time Series



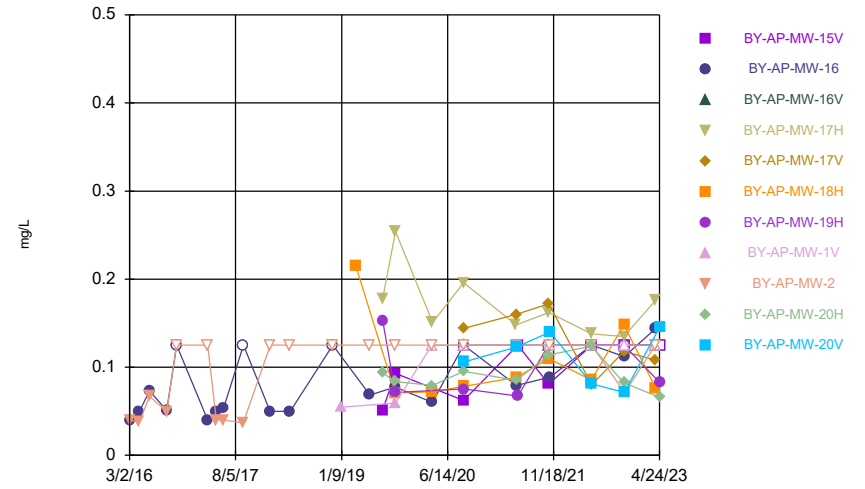
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Time Series



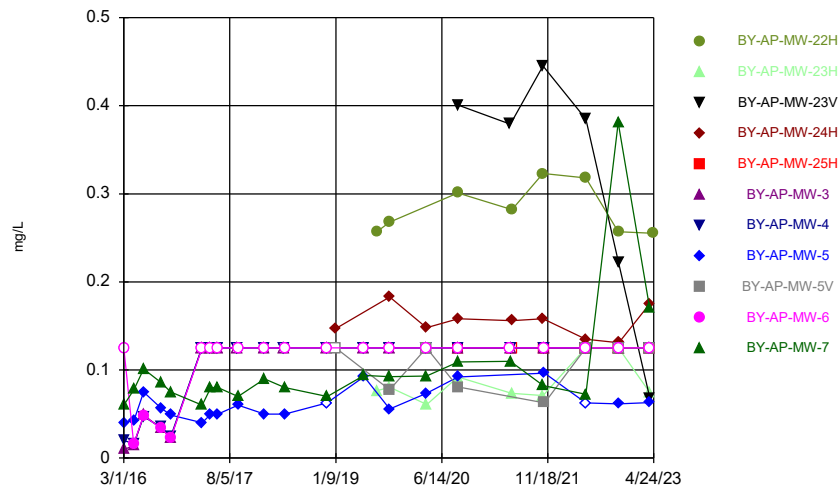
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Time Series



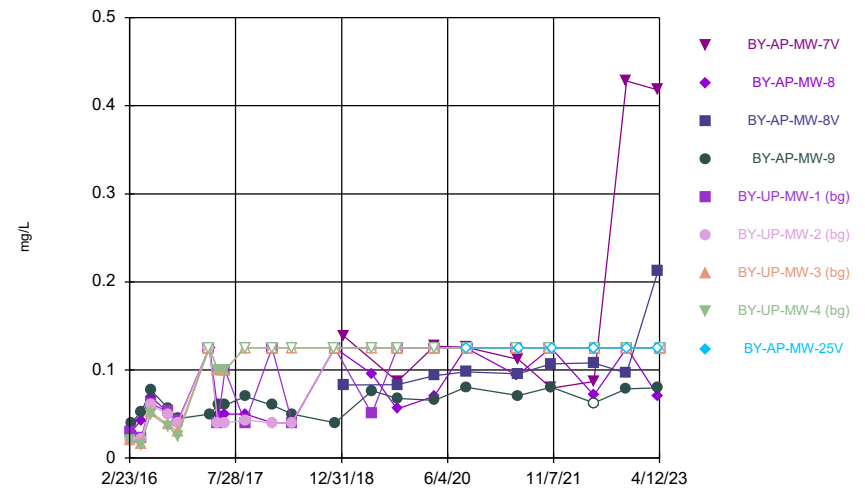
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Time Series



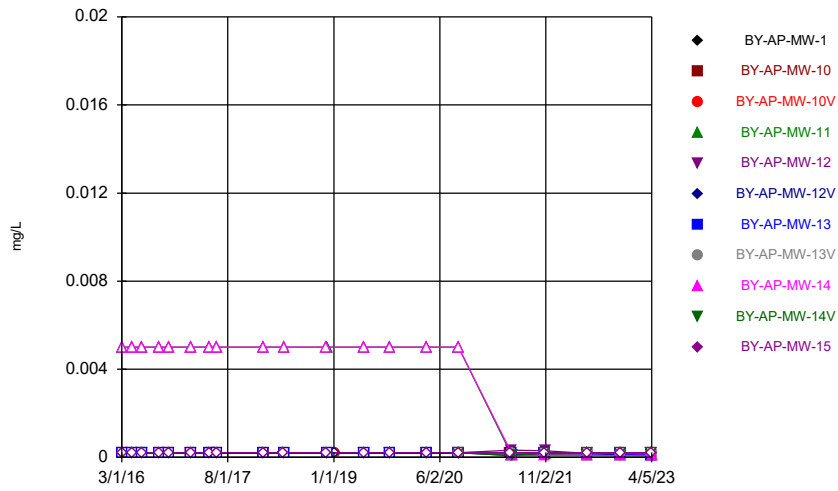
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Time Series



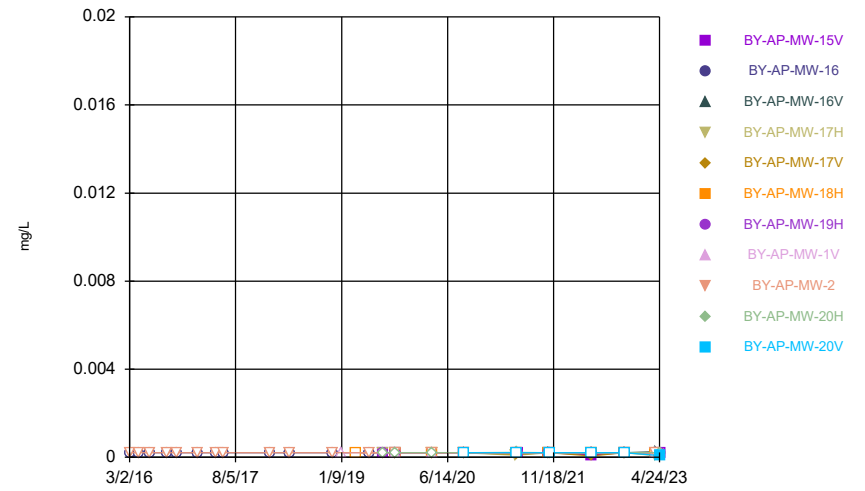
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Time Series



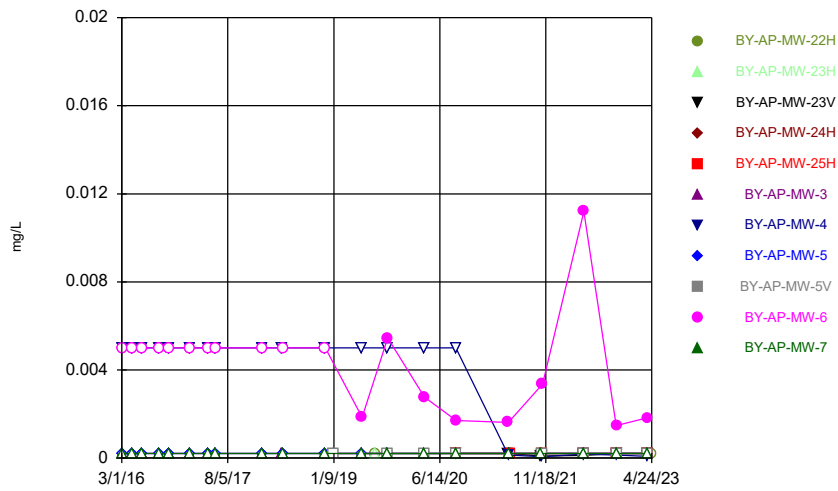
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Time Series



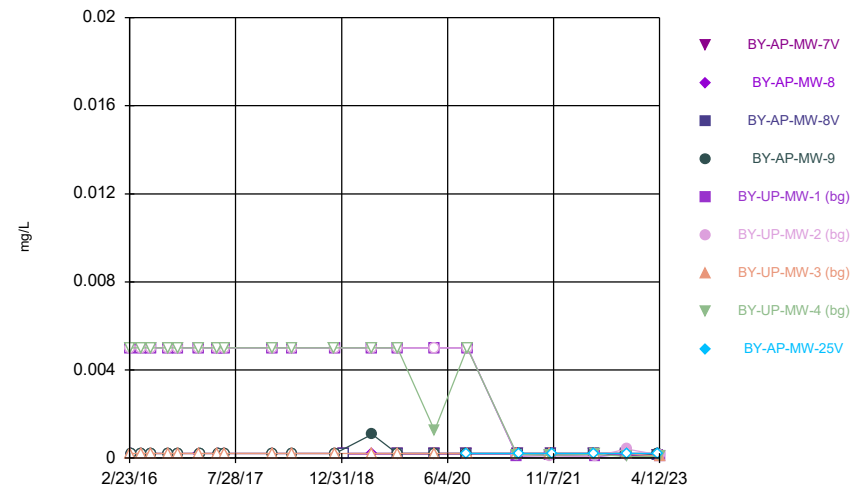
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Time Series



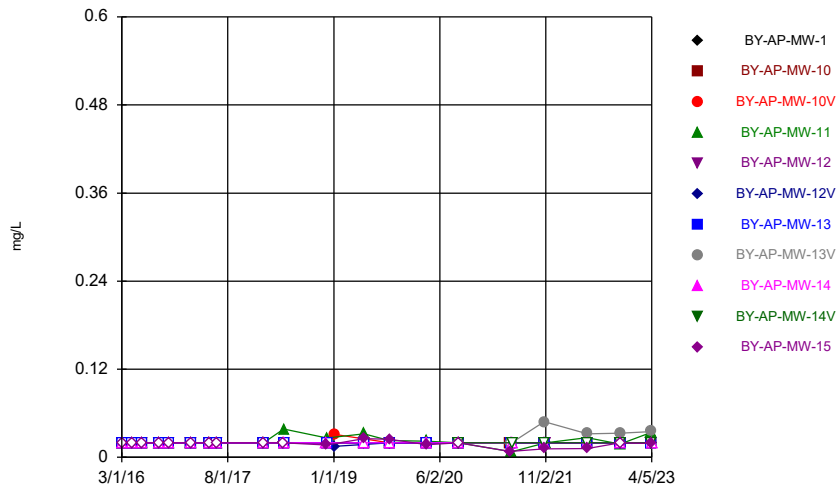
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Time Series



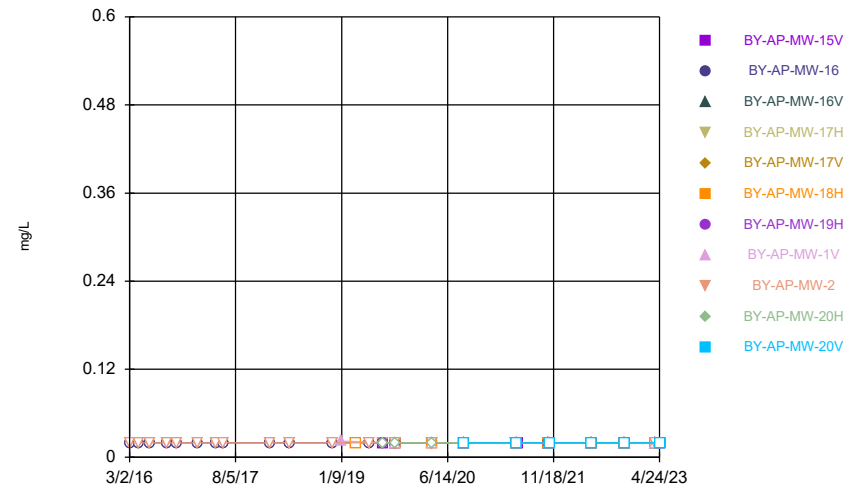
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Time Series



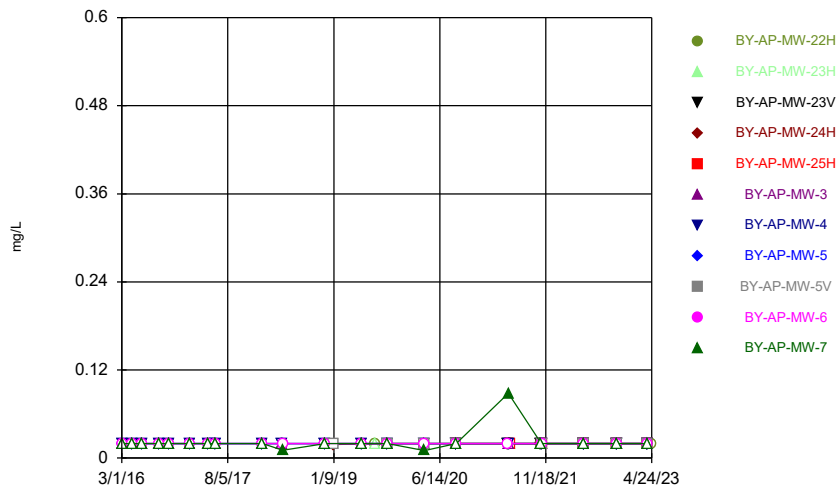
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Time Series



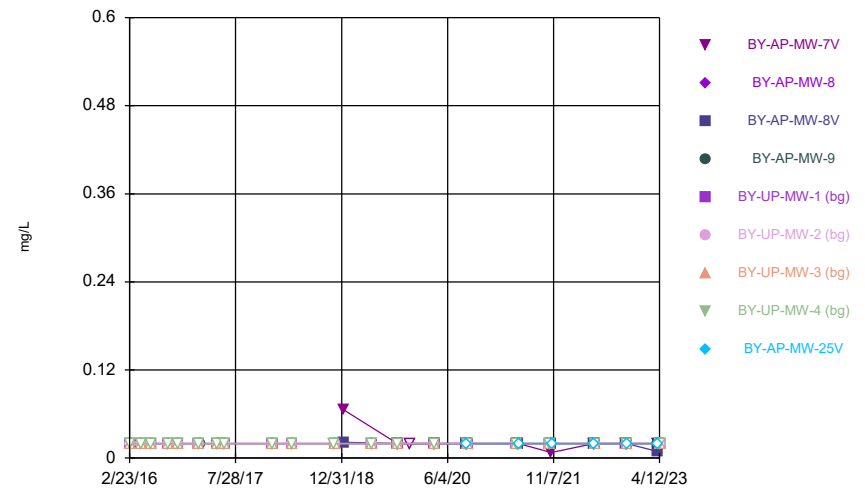
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Time Series



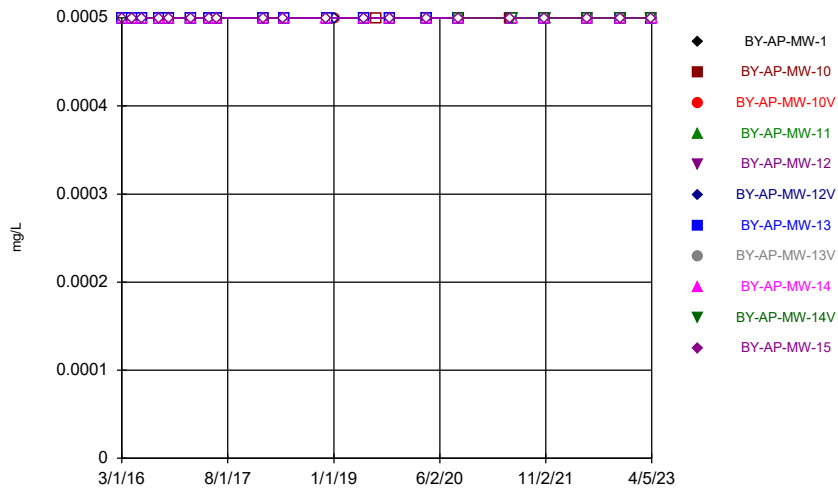
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Time Series



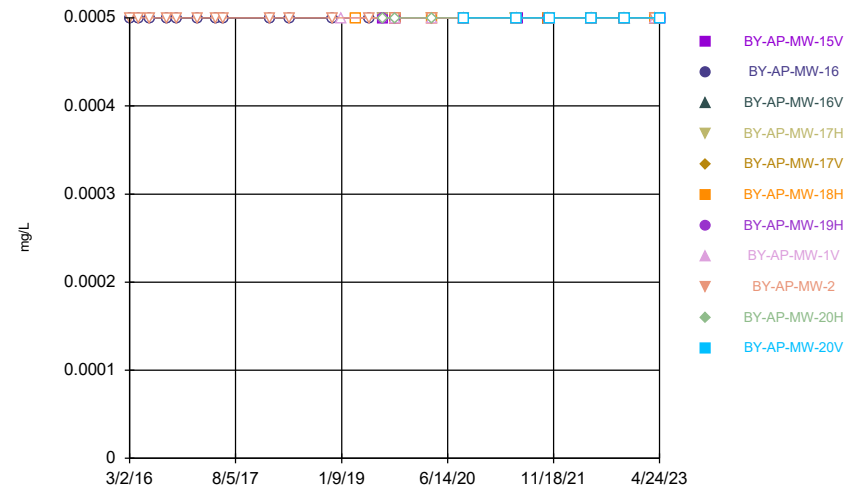
Constituent: Lithium Analysis Run 6/23/2023 11:15 AM View: Descriptive
Plant Barry Client: Southern Company Data: Barry Ash Pond

Time Series



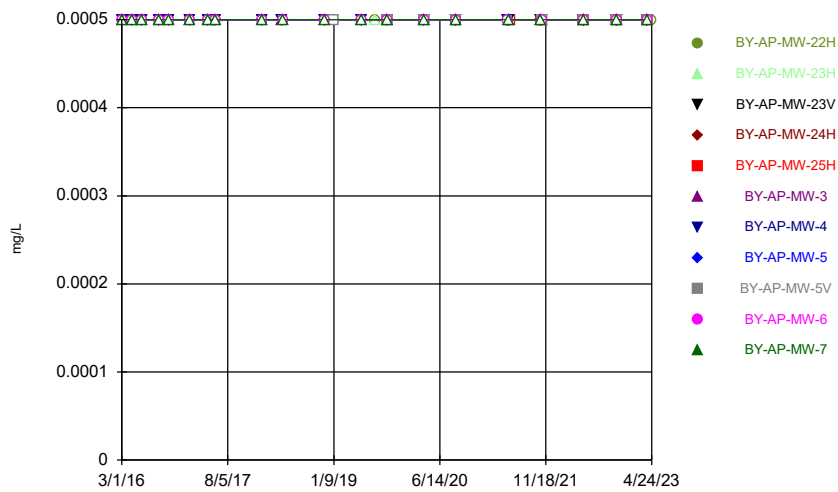
Constituent: Mercury Analysis Run 6/23/2023 11:15 AM View: Descriptive
Plant Barry Client: Southern Company Data: Barry Ash Pond

Time Series



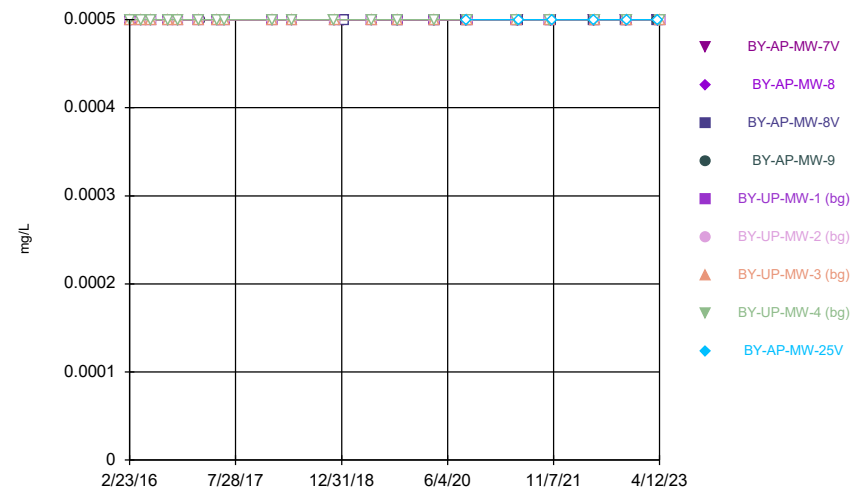
Constituent: Mercury Analysis Run 6/23/2023 11:15 AM View: Descriptive
Plant Barry Client: Southern Company Data: Barry Ash Pond

Time Series



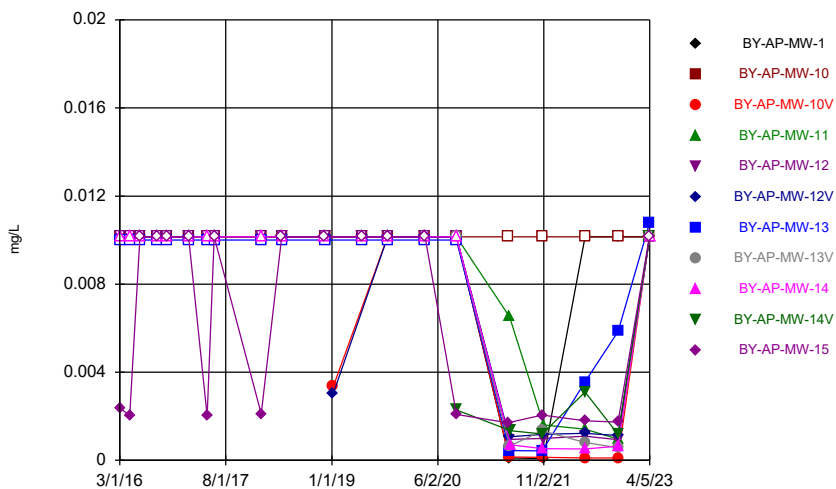
Constituent: Mercury Analysis Run 6/23/2023 11:15 AM View: Descriptive
Plant Barry Client: Southern Company Data: Barry Ash Pond

Time Series



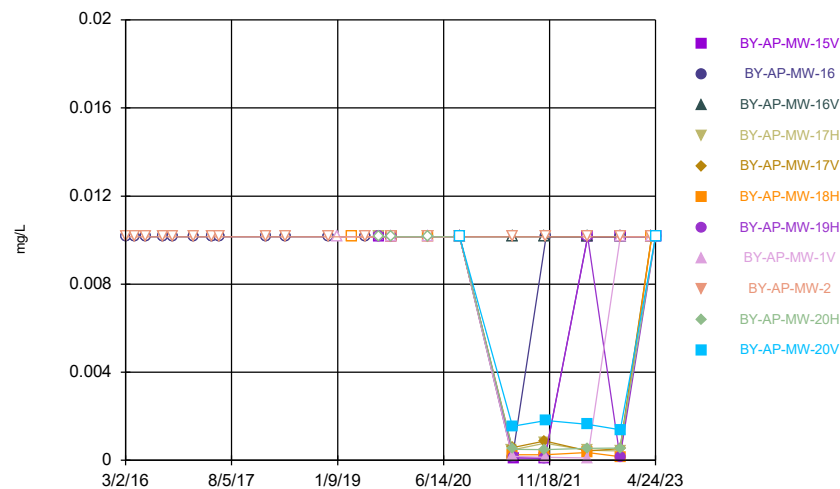
Constituent: Mercury Analysis Run 6/23/2023 11:15 AM View: Descriptive
Plant Barry Client: Southern Company Data: Barry Ash Pond

Time Series



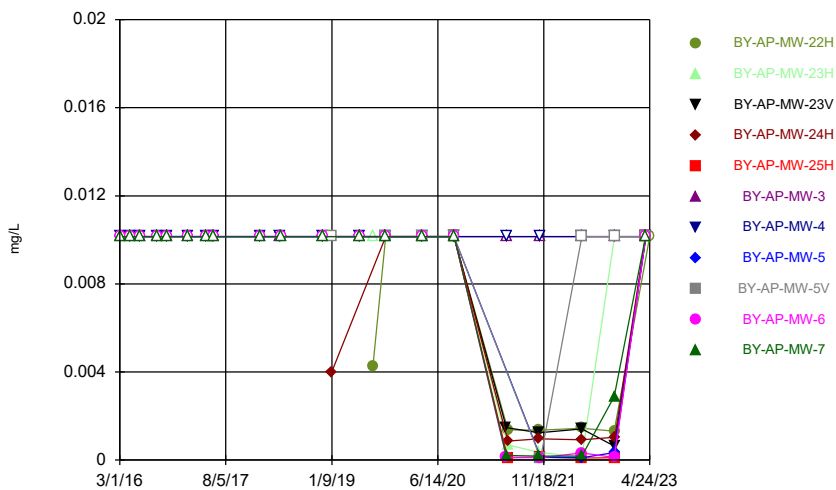
Constituent: Molybdenum Analysis Run 6/23/2023 11:15 AM View: Descriptive
Plant Barry Client: Southern Company Data: Barry Ash Pond

Time Series



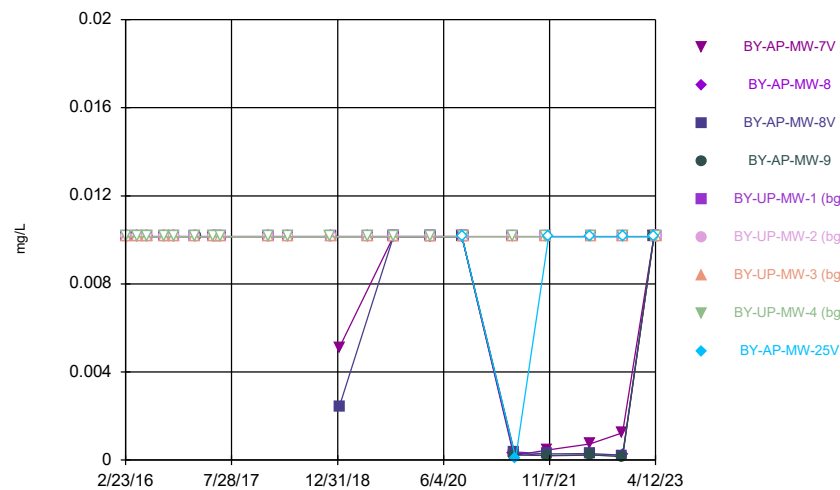
Constituent: Molybdenum Analysis Run 6/23/2023 11:15 AM View: Descriptive
Plant Barry Client: Southern Company Data: Barry Ash Pond

Time Series



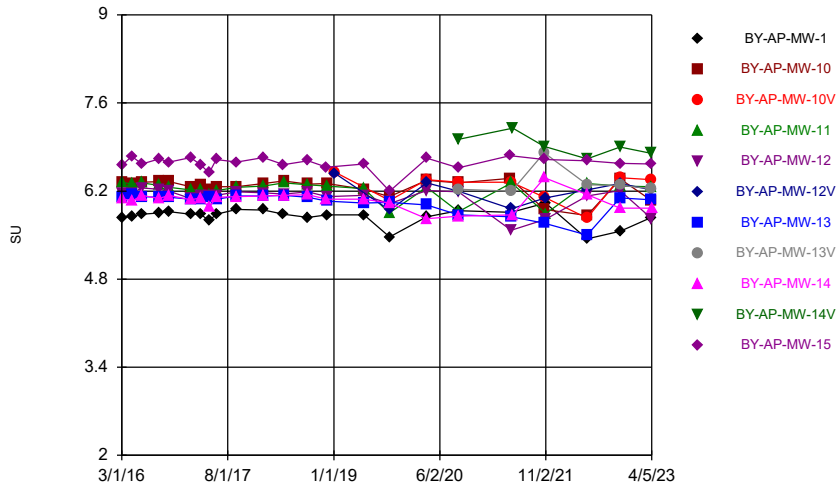
Constituent: Molybdenum Analysis Run 6/23/2023 11:15 AM View: Descriptive
Plant Barry Client: Southern Company Data: Barry Ash Pond

Time Series



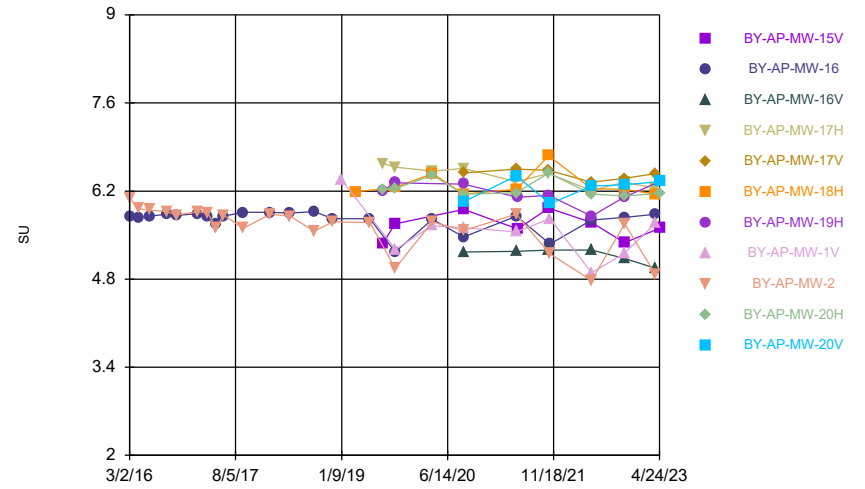
Constituent: Molybdenum Analysis Run 6/23/2023 11:15 AM View: Descriptive
Plant Barry Client: Southern Company Data: Barry Ash Pond

Time Series



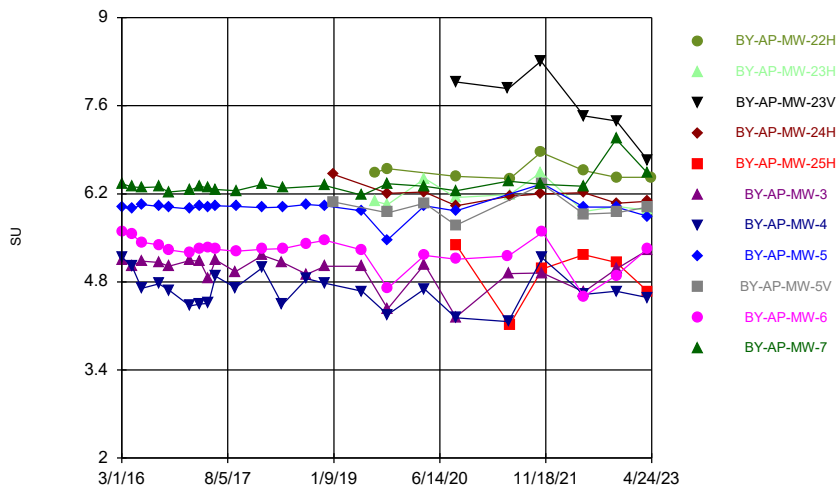
Constituent: pH, field Analysis Run 6/23/2023 11:15 AM View: Descriptive
Plant Barry Client: Southern Company Data: Barry Ash Pond

Time Series



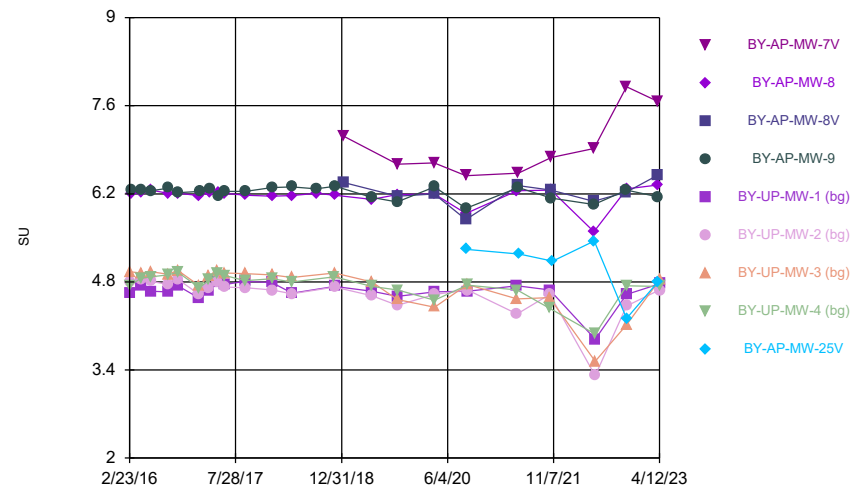
Constituent: pH, field Analysis Run 6/23/2023 11:15 AM View: Descriptive
Plant Barry Client: Southern Company Data: Barry Ash Pond

Time Series



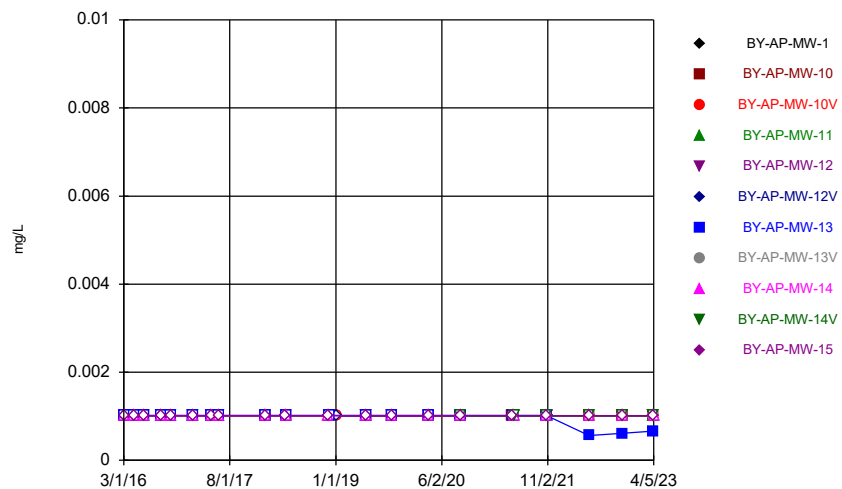
Constituent: pH, field Analysis Run 6/23/2023 11:15 AM View: Descriptive
Plant Barry Client: Southern Company Data: Barry Ash Pond

Time Series



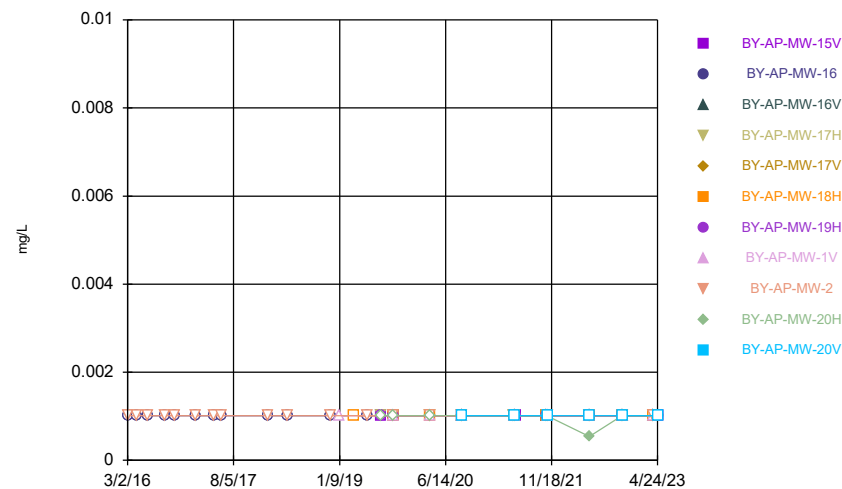
Constituent: pH, field Analysis Run 6/23/2023 11:15 AM View: Descriptive
Plant Barry Client: Southern Company Data: Barry Ash Pond

Time Series



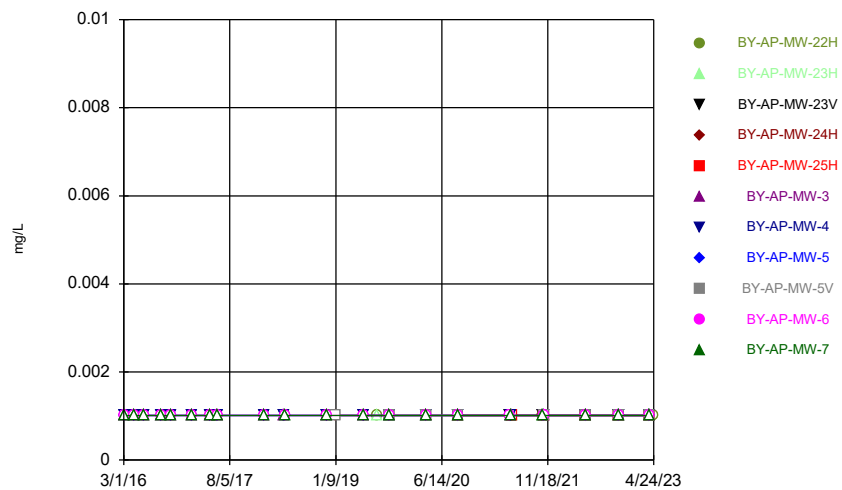
Constituent: Selenium Analysis Run 6/23/2023 11:15 AM View: Descriptive
Plant Barry Client: Southern Company Data: Barry Ash Pond

Time Series



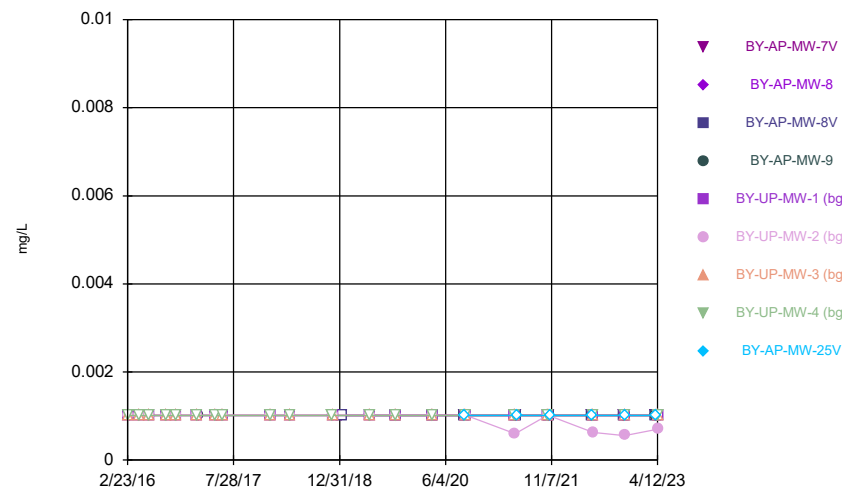
Constituent: Selenium Analysis Run 6/23/2023 11:15 AM View: Descriptive
Plant Barry Client: Southern Company Data: Barry Ash Pond

Time Series



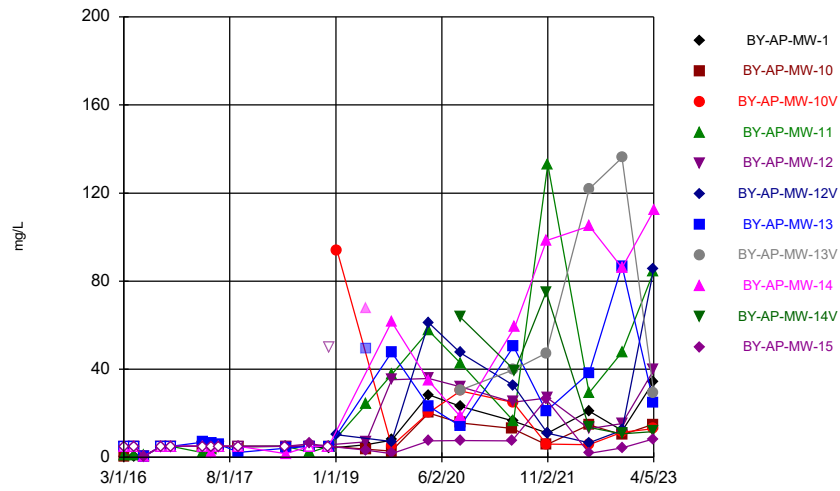
Constituent: Selenium Analysis Run 6/23/2023 11:15 AM View: Descriptive
Plant Barry Client: Southern Company Data: Barry Ash Pond

Time Series



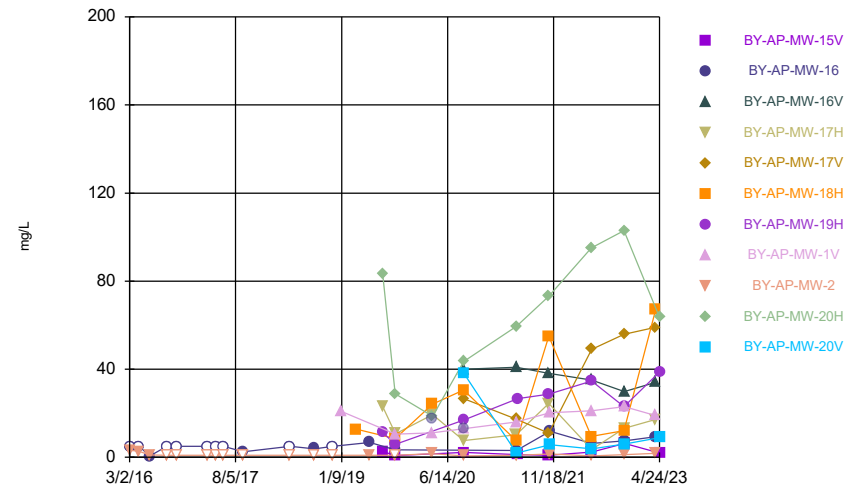
Constituent: Selenium Analysis Run 6/23/2023 11:15 AM View: Descriptive
Plant Barry Client: Southern Company Data: Barry Ash Pond

Time Series



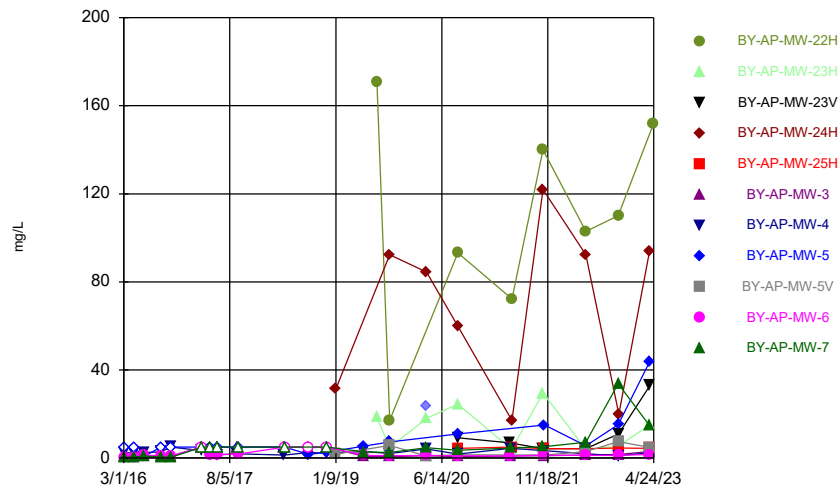
Constituent: Sulfate as SO4 Analysis Run 6/23/2023 11:15 AM View: Descriptive
Plant Barry Client: Southern Company Data: Barry Ash Pond

Time Series



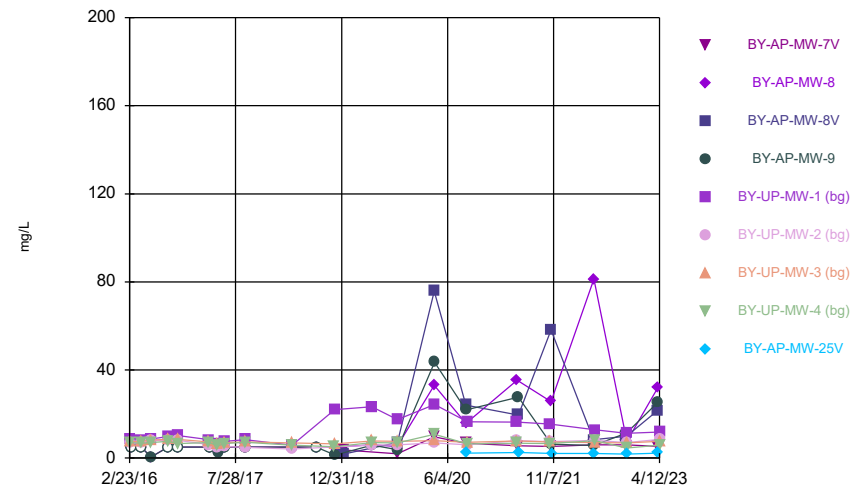
Constituent: Sulfate as SO4 Analysis Run 6/23/2023 11:15 AM View: Descriptive
Plant Barry Client: Southern Company Data: Barry Ash Pond

Time Series



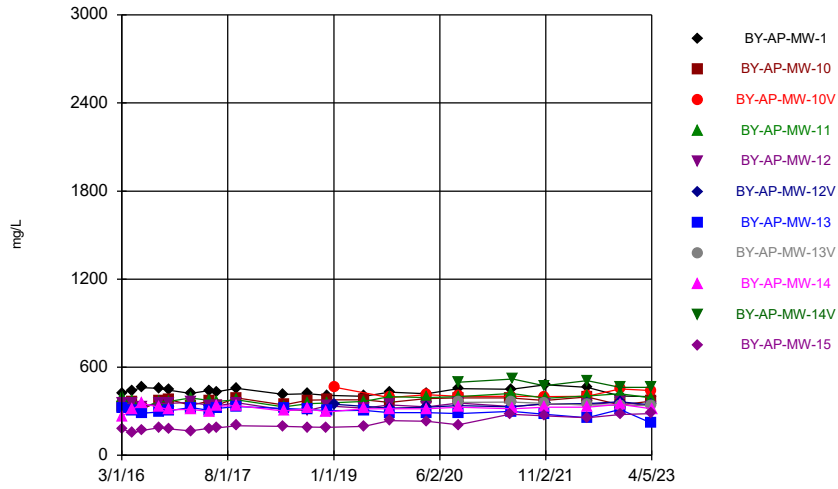
Constituent: Sulfate as SO4 Analysis Run 6/23/2023 11:15 AM View: Descriptive
Plant Barry Client: Southern Company Data: Barry Ash Pond

Time Series



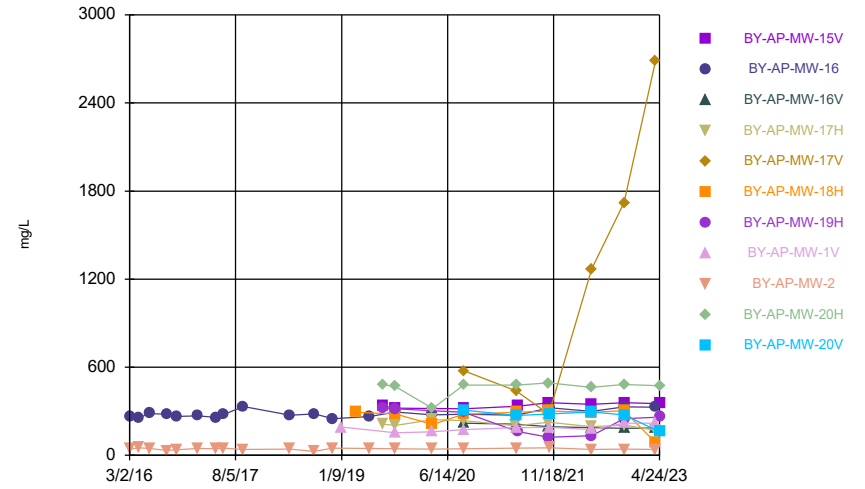
Constituent: Sulfate as SO4 Analysis Run 6/23/2023 11:15 AM View: Descriptive
Plant Barry Client: Southern Company Data: Barry Ash Pond

Time Series



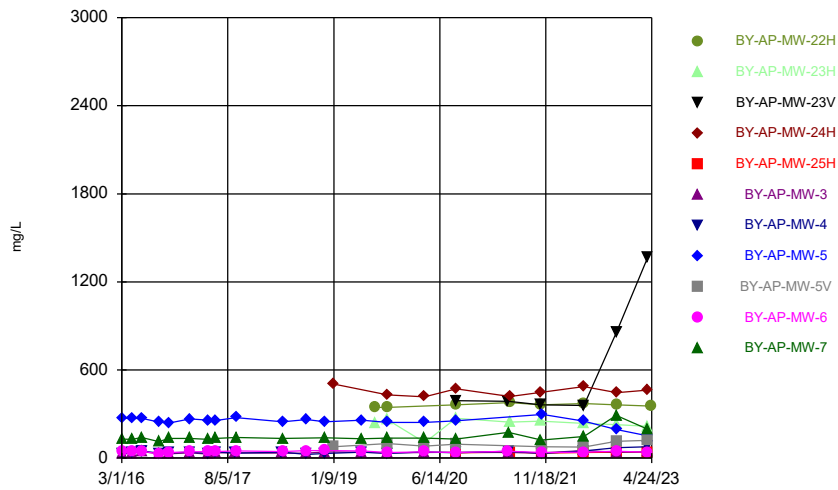
Constituent: TDS Analysis Run 6/23/2023 11:15 AM View: Descriptive
Plant Barry Client: Southern Company Data: Barry Ash Pond

Time Series



Constituent: TDS Analysis Run 6/23/2023 11:15 AM View: Descriptive
Plant Barry Client: Southern Company Data: Barry Ash Pond

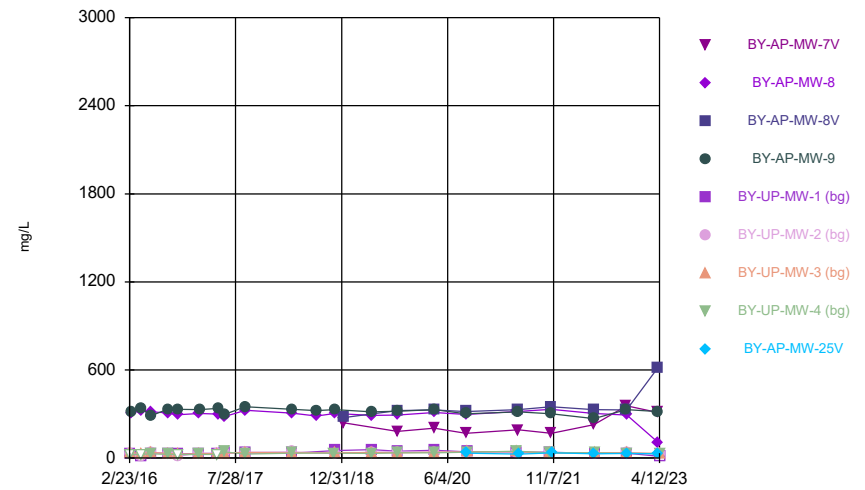
Time Series



Constituent: TDS Analysis Run 6/23/2023 11:15 AM View: Descriptive
Plant Barry Client: Southern Company Data: Barry Ash Pond

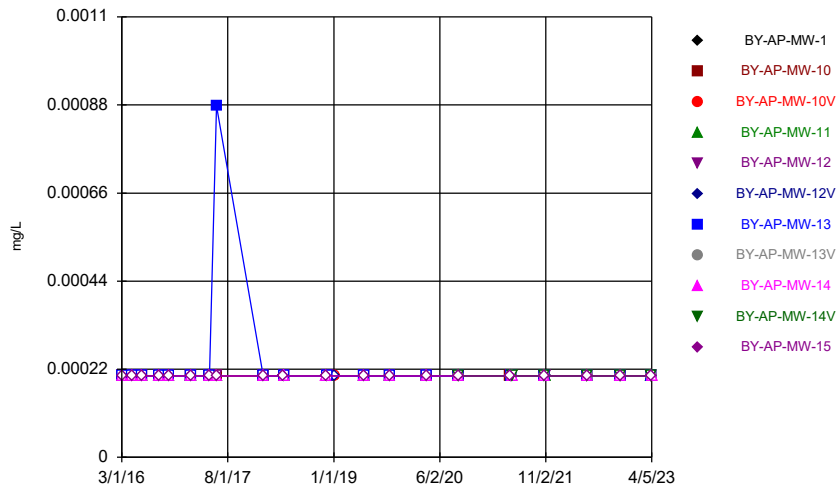
Hollow symbols indicate censored values.

Time Series



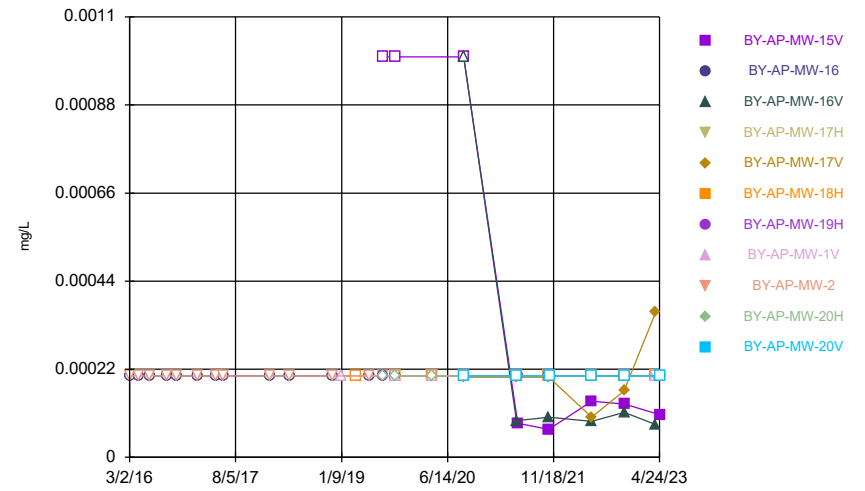
Constituent: TDS Analysis Run 6/23/2023 11:15 AM View: Descriptive
Plant Barry Client: Southern Company Data: Barry Ash Pond

Time Series



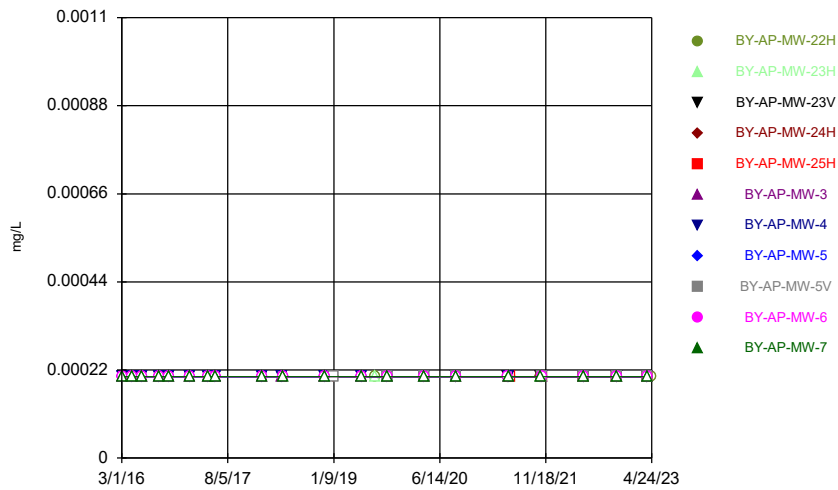
Constituent: Thallium Analysis Run 6/23/2023 11:15 AM View: Descriptive
Plant Barry Client: Southern Company Data: Barry Ash Pond

Time Series



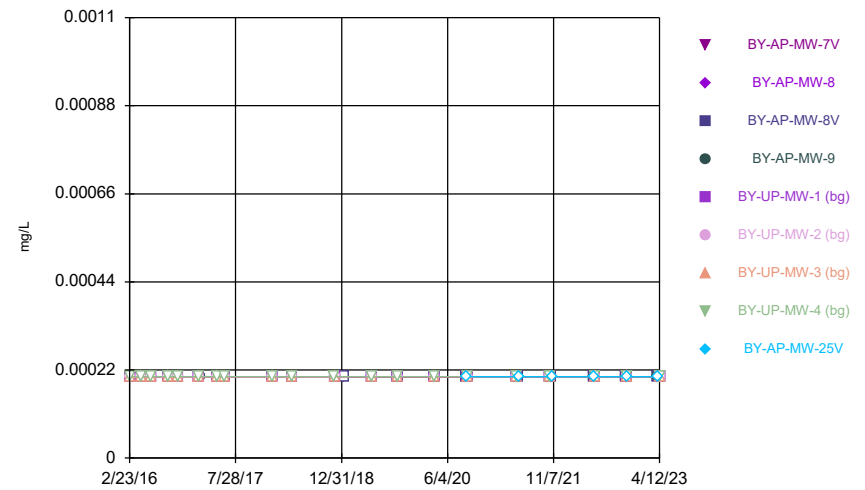
Constituent: Thallium Analysis Run 6/23/2023 11:15 AM View: Descriptive
Plant Barry Client: Southern Company Data: Barry Ash Pond

Time Series



Constituent: Thallium Analysis Run 6/23/2023 11:15 AM View: Descriptive
Plant Barry Client: Southern Company Data: Barry Ash Pond

Time Series



Constituent: Thallium Analysis Run 6/23/2023 11:15 AM View: Descriptive
Plant Barry Client: Southern Company Data: Barry Ash Pond

Time Series

Constituent: Antimony (mg/L) Analysis Run 6/23/2023 11:16 AM View: Descriptive

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-1	BY-AP-MW-10	BY-AP-MW-10V	BY-AP-MW-11	BY-AP-MW-12	BY-AP-MW-12V	BY-AP-MW-13	BY-AP-MW-13V	BY-AP-MW-14
3/1/2016		<0.001015		<0.001015					
3/2/2016	<0.001015				<0.001015		<0.001015		<0.001015
4/19/2016	<0.001015								
4/20/2016		<0.001015		<0.001015	<0.001015		<0.001015		<0.001015
6/8/2016	<0.001015	<0.001015		<0.001015	<0.001015		0.00111 (J)		<0.001015
8/30/2016									<0.001015
8/31/2016	<0.001015	<0.001015		<0.001015	<0.001015		<0.001015		
10/18/2016									<0.001015
10/19/2016	<0.001015	<0.001015		<0.001015	<0.001015		<0.001015		
1/31/2017	0.000687 (J)						0.000834 (J)		0.00086 (J)
2/1/2017		0.000743 (J)		0.000812 (J)	0.000838 (J)				
5/2/2017	<0.001015								<0.001015
5/3/2017		<0.001015		<0.001015	<0.001015		<0.001015		
6/6/2017	<0.001015								<0.001015
6/7/2017		<0.001015		<0.001015	<0.001015		0.000857 (J)		
1/22/2018							<0.001015		
1/23/2018		<0.001015		<0.001015	<0.001015				<0.001015
1/24/2018	<0.001015								
5/1/2018	<0.001015								
5/2/2018		<0.001015		<0.001015	<0.001015		<0.001015		<0.001015
11/27/2018									<0.001015
11/28/2018	<0.001015	<0.001015		<0.001015	<0.001015		<0.001015		
1/8/2019			0.000965 (J)			0.00117 (J)			
5/29/2019	<0.001015			<0.001015	<0.001015		<0.001015		<0.001015
5/30/2019		<0.001015							
9/30/2019		<0.001015		<0.001015					
10/1/2019	<0.001015		<0.001015		<0.001015		<0.001015		<0.001015
10/2/2019						<0.001015			
3/30/2020	<0.001015								
3/31/2020		<0.001015	<0.001015	<0.001015	<0.001015	<0.001015	<0.001015		<0.001015
4/1/2020									
9/1/2020	<0.001015	<0.001015	<0.001015	<0.001015	<0.001015	<0.001015	<0.001015		
9/2/2020								<0.001015	<0.001015
5/11/2021		<0.001015							
5/18/2021	<0.001015		<0.001015		<0.001015	<0.001015			
5/19/2021				<0.001015			<0.001015	<0.001015	
5/25/2021									<0.001015
10/26/2021							<0.001015	<0.001015	
10/27/2021		<0.001015	<0.001015						<0.001015
11/1/2021	<0.001015				<0.001015	<0.001015			
11/2/2021				<0.001015					
5/23/2022				<0.001015	<0.001015	<0.001015			
5/24/2022	<0.001015	<0.001015	<0.001015				<0.001015		
5/25/2022								<0.001015	<0.001015
11/1/2022			<0.001015	<0.001015	<0.001015	<0.001015	<0.001015	<0.001015	<0.001015
11/2/2022	<0.001015	<0.001015							
4/3/2023	<0.001015	<0.001015	<0.001015						
4/4/2023				<0.001015	<0.001015	<0.001015	<0.001015	<0.001015	
4/5/2023									<0.001015

Time Series

Constituent: Antimony (mg/L) Analysis Run 6/23/2023 11:16 AM View: Descriptive
Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-14V	BY-AP-MW-15
3/1/2016		
3/2/2016		<0.001015
4/19/2016		<0.001015
4/20/2016		
6/8/2016		<0.001015
8/30/2016		
8/31/2016		<0.001015
10/18/2016		
10/19/2016		<0.001015
1/31/2017		0.000746 (J)
2/1/2017		
5/2/2017		<0.001015
5/3/2017		
6/6/2017		<0.001015
6/7/2017		
1/22/2018		<0.001015
1/23/2018		
1/24/2018		
5/1/2018		<0.001015
5/2/2018		
11/27/2018		<0.001015
11/28/2018		
1/8/2019		
5/29/2019		<0.001015
5/30/2019		
9/30/2019		
10/1/2019		<0.001015
10/2/2019		
3/30/2020		
3/31/2020		
4/1/2020		<0.001015
9/1/2020		
9/2/2020	<0.001015	<0.001015
5/11/2021		<0.001015
5/18/2021		
5/19/2021		
5/25/2021	<0.001015	
10/26/2021	<0.001015	<0.001015
10/27/2021		
11/1/2021		
11/2/2021		
5/23/2022		
5/24/2022	<0.001015	
5/25/2022		<0.001015
11/1/2022	<0.001015	<0.001015
11/2/2022		
4/3/2023		<0.001015
4/4/2023	<0.001015	
4/5/2023		

Time Series

Constituent: Antimony (mg/L) Analysis Run 6/23/2023 11:16 AM View: Descriptive

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-15V	BY-AP-MW-16	BY-AP-MW-16V	BY-AP-MW-17H	BY-AP-MW-17V	BY-AP-MW-18H	BY-AP-MW-19H	BY-AP-MW-1V	BY-AP-MW-2
3/2/2016		<0.001015							<0.001015
4/19/2016		<0.001015							<0.001015
6/8/2016		<0.001015							<0.001015
8/31/2016		<0.001015							<0.001015
10/19/2016		<0.001015							<0.001015
1/31/2017		0.000769 (J)							0.000739 (J)
5/2/2017		<0.001015							<0.001015
6/6/2017		<0.001015							<0.001015
1/23/2018		<0.001015							<0.001015
1/24/2018									<0.001015
5/1/2018		<0.001015							<0.001015
11/27/2018		<0.001015							<0.001015
1/8/2019								0.00125 (J)	
3/20/2019						0.00117 (J)			
5/29/2019		<0.001015							<0.001015
7/31/2019	0.00094 (J)			0.000878 (J)			0.00152 (J)		
10/1/2019	<0.001015	<0.001015				<0.001015	<0.001015		<0.001015
10/2/2019				<0.001015				<0.001015	
3/30/2020								<0.001015	
3/31/2020		<0.001015							<0.001015
4/1/2020				<0.001015		<0.001015			
8/31/2020									<0.001015
9/1/2020	<0.001015			<0.001015	<0.001015	<0.001015	<0.001015	<0.001015	
9/2/2020		<0.001015	<0.001015						
5/17/2021				<0.001015					
5/18/2021					<0.001015			<0.001015	<0.001015
5/19/2021		<0.001015	<0.001015			<0.001015			
5/25/2021	<0.001015						<0.001015		
10/25/2021				<0.001015	<0.001015	<0.001015	<0.001015		
10/26/2021	<0.001015		<0.001015						
11/1/2021		<0.001015						<0.001015	<0.001015
5/23/2022						<0.001015			
5/24/2022	<0.001015						<0.001015	<0.001015	<0.001015
5/25/2022		<0.001015	<0.001015	<0.001015	<0.001015				
10/31/2022				<0.001015	<0.001015	<0.001015	<0.001015		
11/1/2022		<0.001015	<0.001015					<0.001015	
11/2/2022	<0.001015								<0.001015
4/3/2023									<0.001015
4/4/2023			<0.001015	<0.001015	<0.001015			<0.001015	
4/5/2023		<0.001015				<0.001015			
4/24/2023	<0.001015						<0.001015		

Time Series

Constituent: Antimony (mg/L) Analysis Run 6/23/2023 11:16 AM View: Descriptive
Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-20H	BY-AP-MW-20V
3/2/2016		
4/19/2016		
6/8/2016		
8/31/2016		
10/19/2016		
1/31/2017		
5/2/2017		
6/6/2017		
1/23/2018		
1/24/2018		
5/1/2018		
11/27/2018		
1/8/2019		
3/20/2019		
5/29/2019		
7/31/2019	0.00113 (J)	
10/1/2019	<0.001015	
10/2/2019		
3/30/2020		
3/31/2020		
4/1/2020	<0.001015	
8/31/2020		
9/1/2020	<0.001015	<0.001015
9/2/2020		
5/17/2021		
5/18/2021		
5/19/2021	<0.001015	<0.001015
5/25/2021		
10/25/2021		
10/26/2021	<0.001015	
11/1/2021		<0.001015
5/23/2022	<0.001015	
5/24/2022		<0.001015
5/25/2022		
10/31/2022	<0.001015	
11/1/2022		<0.001015
11/2/2022		
4/3/2023		
4/4/2023		
4/5/2023		
4/24/2023	<0.001015	<0.001015

Time Series

Constituent: Antimony (mg/L) Analysis Run 6/23/2023 11:16 AM View: Descriptive

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-22H	BY-AP-MW-23H	BY-AP-MW-23V	BY-AP-MW-24H	BY-AP-MW-25H	BY-AP-MW-3	BY-AP-MW-4	BY-AP-MW-5	BY-AP-MW-5V
3/1/2016							<0.001015	<0.001015	
3/2/2016						<0.001015			
4/19/2016						<0.001015	<0.001015		
4/20/2016								<0.001015	
6/7/2016						0.000606 (J)	0.000869 (J)	<0.001015	
8/30/2016							<0.001015	<0.001015	
8/31/2016						<0.001015			
10/18/2016								<0.001015	
10/19/2016						<0.001015	<0.001015		
1/31/2017						0.000637 (J)	0.00086 (J)	0.000765 (J)	
5/2/2017						<0.001015	<0.001015		
5/3/2017								<0.001015	
6/6/2017						<0.001015	<0.001015		
6/7/2017								<0.001015	
1/24/2018						<0.001015	<0.001015	<0.001015	
5/1/2018						<0.001015	<0.001015		
5/2/2018								<0.001015	
11/27/2018						<0.001015	<0.001015	<0.001015	
11/28/2018									
1/8/2019				0.00116 (J)					0.00207 (J)
5/29/2019						<0.001015	<0.001015	<0.001015	
7/31/2019	0.00117 (J)	0.000964 (J)							
9/30/2019									
10/1/2019	<0.001015	<0.001015				<0.001015	<0.001015	<0.001015	
10/2/2019				<0.001015					<0.001015
3/30/2020									
3/31/2020				<0.001015		<0.001015	<0.001015	<0.001015	<0.001015
4/1/2020		<0.001015							
9/1/2020	<0.001015	<0.001015	<0.001015			<0.001015	<0.001015	<0.001015	<0.001015
9/2/2020				<0.001015	<0.001015				
5/17/2021			<0.001015						
5/18/2021						<0.001015	<0.001015		
5/24/2021		<0.001015			<0.001015				
5/25/2021	<0.001015			<0.001015					
10/26/2021	<0.001015	<0.001015	<0.001015	<0.001015					
10/27/2021									
11/1/2021						<0.001015	<0.001015		
11/2/2021					<0.001015			<0.001015	<0.001015
5/24/2022	<0.001015			<0.001015					
5/25/2022		<0.001015	<0.001015		<0.001015	<0.001015	<0.001015	<0.001015	<0.001015
10/31/2022	<0.001015				<0.001015	<0.001015	<0.001015	<0.001015	<0.001015
11/1/2022		<0.001015	<0.001015			<0.001015			
11/2/2022				<0.001015					
4/3/2023				<0.001015	<0.001015				
4/4/2023		<0.001015	<0.001015			<0.001015	<0.001015	<0.001015	<0.001015
4/24/2023	<0.001015								

Time Series

Constituent: Antimony (mg/L) Analysis Run 6/23/2023 11:16 AM View: Descriptive
Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-6	BY-AP-MW-7
3/1/2016	<0.001015	<0.001015
3/2/2016		
4/19/2016	<0.001015	
4/20/2016		<0.001015
6/7/2016	<0.001015	<0.001015
8/30/2016	<0.001015	
8/31/2016		<0.001015
10/18/2016		
10/19/2016	<0.001015	<0.001015
1/31/2017	0.000852 (J)	0.00107 (J)
5/2/2017		
5/3/2017	<0.001015	<0.001015
6/6/2017		
6/7/2017	<0.001015	<0.001015
1/24/2018	<0.001015	<0.001015
5/1/2018		
5/2/2018	<0.001015	<0.001015
11/27/2018		
11/28/2018	<0.001015	<0.001015
1/8/2019		
5/29/2019	<0.001015	<0.001015
7/31/2019		
9/30/2019		<0.001015
10/1/2019	<0.001015	
10/2/2019		
3/30/2020		<0.001015
3/31/2020	<0.001015	
4/1/2020		
9/1/2020		
9/2/2020	<0.001015	<0.001015
5/17/2021	<0.001015	
5/18/2021		<0.001015
5/24/2021		
5/25/2021		
10/26/2021		
10/27/2021		<0.001015
11/1/2021		
11/2/2021	<0.001015	
5/24/2022		<0.001015
5/25/2022	<0.001015	
10/31/2022	<0.001015	<0.001015
11/1/2022		
11/2/2022		
4/3/2023		<0.001015
4/4/2023	<0.001015	
4/24/2023		

Time Series

Constituent: Antimony (mg/L) Analysis Run 6/23/2023 11:16 AM View: Descriptive

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-7V	BY-AP-MW-8	BY-AP-MW-8V	BY-AP-MW-9	BY-UP-MW-1 (bg)	BY-UP-MW-2 (bg)	BY-UP-MW-3 (bg)	BY-UP-MW-4 (bg)	BY-AP-MW-25V
2/23/2016					<0.001015	<0.001015	<0.001015	0.000606 (J)	
3/1/2016		<0.001015		<0.001015					
4/19/2016					<0.001015	<0.001015	<0.001015	<0.001015	
4/20/2016		<0.001015		<0.001015					
6/6/2016					<0.001015			<0.001015	
6/7/2016		<0.001015				<0.001015	<0.001015		
6/8/2016				<0.001015					
8/30/2016		<0.001015			<0.001015	<0.001015	<0.001015	<0.001015	
8/31/2016				<0.001015					
10/18/2016		<0.001015			<0.001015	<0.001015	<0.001015	<0.001015	
10/19/2016				<0.001015					
1/31/2017		0.00074 (J)			0.000925 (J)	0.000898 (J)	0.000911 (J)	0.000928 (J)	
2/1/2017				0.000738 (J)					
5/2/2017					<0.001015	<0.001015	<0.001015	<0.001015	
5/3/2017		<0.001015		<0.001015					
6/6/2017					<0.001015	<0.001015	<0.001015	<0.001015	
6/7/2017		<0.001015		<0.001015					
1/23/2018				<0.001015	<0.001015	<0.001015	<0.001015	<0.001015	
1/24/2018		<0.001015							
5/1/2018						<0.001015	<0.001015	<0.001015	
5/2/2018		<0.001015		<0.001015	<0.001015				
11/26/2018								<0.001015	
11/27/2018		<0.001015			<0.001015	<0.001015	<0.001015		
11/28/2018				<0.001015					
1/9/2019	0.000861 (J)		<0.001015						
5/28/2019								<0.001015	
5/29/2019		<0.001015			<0.001015	<0.001015	<0.001015		
5/30/2019				<0.001015					
9/30/2019		<0.001015		<0.001015					
10/1/2019	<0.001015		<0.001015						
10/2/2019					<0.001015	<0.001015	<0.001015	<0.001015	
3/30/2020	<0.001015	<0.001015	<0.001015						
3/31/2020				<0.001015	<0.001015	<0.001015	<0.001015	<0.001015	
9/2/2020	<0.001015	<0.001015	<0.001015	<0.001015					<0.001015
9/8/2020								<0.001015	
9/9/2020					<0.001015	<0.001015	<0.001015		
5/11/2021		<0.001015				<0.001015	<0.001015	<0.001015	
5/12/2021					<0.001015				
5/18/2021	<0.001015		<0.001015	<0.001015					
5/24/2021									<0.001015
10/18/2021							<0.001015	<0.001015	
10/19/2021					<0.001015	<0.001015			
10/26/2021		<0.001015	<0.001015						
10/27/2021	<0.001015			<0.001015					
11/2/2021									<0.001015
5/23/2022			<0.001015						
5/24/2022	<0.001015	<0.001015		<0.001015					
5/25/2022									<0.001015
5/31/2022					<0.001015	<0.001015	<0.001015	<0.001015	
10/31/2022	<0.001015		<0.001015	<0.001015					
11/1/2022					<0.001015	<0.001015	<0.001015	<0.001015	<0.001015
11/2/2022		<0.001015							

Time Series

Constituent: Antimony (mg/L) Analysis Run 6/23/2023 11:16 AM View: Descriptive

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-7V	BY-AP-MW-8	BY-AP-MW-8V	BY-AP-MW-9	BY-UP-MW-1 (bg)	BY-UP-MW-2 (bg)	BY-UP-MW-3 (bg)	BY-UP-MW-4 (bg)	BY-AP-MW-25V
4/3/2023	<0.001015	<0.001015	<0.001015						<0.001015
4/4/2023				<0.001015					
4/12/2023					<0.001015	<0.001015	<0.001015	<0.001015	

Time Series

Constituent: Arsenic (mg/L) Analysis Run 6/23/2023 11:16 AM View: Descriptive

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-1	BY-AP-MW-10	BY-AP-MW-10V	BY-AP-MW-11	BY-AP-MW-12	BY-AP-MW-12V	BY-AP-MW-13	BY-AP-MW-13V	BY-AP-MW-14
3/1/2016		0.0264		0.01					
3/2/2016	0.076				0.0215		0.0115		0.0101
4/19/2016	0.0973								
4/20/2016		0.0303		0.0127	0.0214		0.0123		0.0119
6/8/2016	0.0605	0.0306		0.0136	0.0221		0.0121		0.0119
8/30/2016									0.0127
8/31/2016	0.0687	0.0304		0.0149	0.0223		0.0127		
10/18/2016									0.0136
10/19/2016	0.0701	0.0314		0.0149	0.0227		0.0131		
1/31/2017	0.0669						0.0131		0.0124
2/1/2017		0.0274		0.0151	0.0215				
5/2/2017	0.0672								0.0131
5/3/2017		0.03		0.0155	0.0227		0.014		
6/6/2017	0.0527								0.0129
6/7/2017		0.0303		0.0145	0.0211		0.0141		
1/22/2018							0.0149		
1/23/2018		0.0362		0.0154	0.0227				0.0148
1/24/2018	0.07								
5/1/2018	0.0777								
5/2/2018		0.0433		0.0158	0.0239		0.0175		0.0156
11/27/2018									0.0145
11/28/2018	0.0677	0.0536		0.014	0.0216		0.0141		
1/8/2019			<0.005			0.0112			
5/29/2019	0.0555			0.0132	0.0215		0.0138		0.014
5/30/2019		0.0671							
7/31/2019		0.0649							
9/30/2019		0.0704		0.0145					
10/1/2019	0.0635		<0.005		0.0221		0.0144		0.0152
10/2/2019						0.022			
3/30/2020	0.0557								
3/31/2020		0.0702	<0.005	0.0158	0.0246	0.025	0.0154		0.0177
4/1/2020									
9/1/2020	0.0811	0.0763	<0.005	0.0165	0.0246	0.0257	0.0148		
9/2/2020								0.00708	0.0174
5/11/2021		0.0762							
5/18/2021	0.0687		0.000356		0.0237	0.0251			
5/19/2021				0.0166			0.014	0.00877	
5/25/2021									0.0172
10/26/2021							0.013	0.0103	
10/27/2021		0.0705	0.00033						0.0174
11/1/2021	0.0694				0.0245	0.0256			
11/2/2021				0.0161					
5/23/2022				0.0142	0.0245	0.0257			
5/24/2022	0.0767	0.0775	0.00036				0.0128		
5/25/2022								0.0102	0.0183
11/1/2022			0.000299	0.0148	0.0226	0.0241	0.0208	0.00887	0.0174
11/2/2022	0.0682	0.0742							
4/3/2023	0.068	0.0561	0.000359						
4/4/2023				0.0128	0.0218	0.0214	0.00645	0.00843	
4/5/2023									0.017

Time Series

Constituent: Arsenic (mg/L) Analysis Run 6/23/2023 11:16 AM View: Descriptive
Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-14V	BY-AP-MW-15
3/1/2016		
3/2/2016		0.0128
4/19/2016		0.0157
4/20/2016		
6/8/2016		0.0168
8/30/2016		
8/31/2016		0.0168
10/18/2016		
10/19/2016		0.0178
1/31/2017		0.0164
2/1/2017		
5/2/2017		0.0172
5/3/2017		
6/6/2017		0.0158
6/7/2017		
1/22/2018		0.0173
1/23/2018		
1/24/2018		
5/1/2018		0.0181
5/2/2018		
11/27/2018		0.0158
11/28/2018		
1/8/2019		
5/29/2019		0.0148
5/30/2019		
7/31/2019		
9/30/2019		
10/1/2019		0.017
10/2/2019		
3/30/2020		
3/31/2020		
4/1/2020		0.0183
9/1/2020		
9/2/2020	0.00433 (J)	0.0206
5/11/2021		0.0184
5/18/2021		
5/19/2021		
5/25/2021	0.00324	
10/26/2021	0.0041	0.0186
10/27/2021		
11/1/2021		
11/2/2021		
5/23/2022		
5/24/2022	0.00572	
5/25/2022		0.0176
11/1/2022	0.0057	0.0177
11/2/2022		
4/3/2023		0.02
4/4/2023	0.00501	
4/5/2023		

Time Series

Constituent: Arsenic (mg/L) Analysis Run 6/23/2023 11:16 AM View: Descriptive

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-15V	BY-AP-MW-16	BY-AP-MW-16V	BY-AP-MW-17H	BY-AP-MW-17V	BY-AP-MW-18H	BY-AP-MW-19H	BY-AP-MW-1V	BY-AP-MW-2
3/2/2016		0.0102							0.00263 (J)
4/19/2016		0.0103							0.00247 (J)
6/8/2016		0.0105							0.0023 (J)
8/31/2016		0.0117							0.00237 (J)
10/19/2016		0.0108							0.00241 (J)
1/31/2017		0.0102							0.00185 (J)
5/2/2017		0.0102							0.00194 (J)
6/6/2017		0.00982							0.00175 (J)
1/23/2018		0.0151							
1/24/2018									0.00158 (J)
5/1/2018		0.0114							0.00166 (J)
11/27/2018		0.0108							0.00144 (J)
1/8/2019								0.00109 (J)	
3/20/2019						0.00831			
5/29/2019		0.0106							0.00132 (J)
7/31/2019	0.0174			0.0221			0.00118 (J)		
10/1/2019	0.0243	0.0138				0.0137	<0.005		0.0014 (J)
10/2/2019				0.0251				0.00157 (J)	
3/30/2020								0.00152 (J)	
3/31/2020		0.012							0.00149 (J)
4/1/2020				0.0208		0.00937			
8/31/2020									0.00176 (J)
9/1/2020	0.0401			0.0371	0.00472 (J)	0.015	0.00101 (J)	0.00179 (J)	
9/2/2020		0.0137	0.0012 (J)						
5/17/2021				0.0329					
5/18/2021					0.00546			0.00144	0.00159
5/19/2021		0.0118	0.00123			0.0147			
5/25/2021	0.0233						0.0015		
10/25/2021				0.0373	0.00162	0.0156	0.00134		
10/26/2021	0.0248		0.00105						
11/1/2021		0.0151						0.00086	0.00191
5/23/2022						0.0143			
5/24/2022	0.0333						0.00099	0.00079	0.00115
5/25/2022		0.0134	0.00112	0.03	0.00192				
10/31/2022				0.0281	0.00144	0.00934	0.000896		
11/1/2022		0.0161	0.00102					0.000464	
11/2/2022	0.0403								0.00151
4/3/2023									0.00156
4/4/2023			0.00092	0.0192	0.00113			0.000633	
4/5/2023		0.0156				0.000869			
4/24/2023	0.0224						0.000745		

Time Series

Constituent: Arsenic (mg/L) Analysis Run 6/23/2023 11:16 AM View: Descriptive
Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-20H	BY-AP-MW-20V
3/2/2016		
4/19/2016		
6/8/2016		
8/31/2016		
10/19/2016		
1/31/2017		
5/2/2017		
6/6/2017		
1/23/2018		
1/24/2018		
5/1/2018		
11/27/2018		
1/8/2019		
3/20/2019		
5/29/2019		
7/31/2019	0.0112	
10/1/2019	0.013	
10/2/2019		
3/30/2020		
3/31/2020		
4/1/2020	0.00508	
8/31/2020		
9/1/2020	0.0172	0.00845
9/2/2020		
5/17/2021		
5/18/2021		
5/19/2021	0.0132	0.0148
5/25/2021		
10/25/2021		
10/26/2021	0.0133	
11/1/2021		0.0182
5/23/2022	0.0136	
5/24/2022		0.0188
5/25/2022		
10/31/2022	0.0131	
11/1/2022		0.0186
11/2/2022		
4/3/2023		
4/4/2023		
4/5/2023		
4/24/2023	0.0133	0.00175

Time Series

Constituent: Arsenic (mg/L) Analysis Run 6/23/2023 11:16 AM View: Descriptive

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-22H	BY-AP-MW-23H	BY-AP-MW-23V	BY-AP-MW-24H	BY-AP-MW-25H	BY-AP-MW-3	BY-AP-MW-4	BY-AP-MW-5	BY-AP-MW-5V
3/1/2016							<0.000203	0.0277	
3/2/2016						<0.0002			
4/19/2016						<0.0002	<0.000203		
4/20/2016								0.0307	
6/7/2016						<0.0002	<0.000203	0.0308	
8/30/2016							<0.000203	0.033	
8/31/2016						<0.0002			
10/18/2016								0.0296	
10/19/2016						<0.0002	<0.000203		
1/31/2017						<0.0002	<0.000203	0.0264	
5/2/2017						<0.0002	<0.000203		
5/3/2017								0.0309	
6/6/2017						<0.0002	<0.000203		
6/7/2017								0.0283	
1/24/2018						<0.0002	<0.000203	0.0282	
5/1/2018						<0.0002	<0.000203		
5/2/2018								0.0315	
11/27/2018						<0.0002	<0.000203	0.0283	
11/28/2018									
1/8/2019				0.0306					<0.000203
5/29/2019						<0.0002	<0.000203	0.0301	
7/31/2019	0.0225	0.0132							
9/30/2019									
10/1/2019	0.0225	0.013				<0.0002	<0.000203	0.0307	
10/2/2019				0.0673					<0.000203
3/30/2020									
3/31/2020				0.0729		<0.0002	<0.000203	0.0329	<0.000203
4/1/2020		0.00689							
9/1/2020	0.0217	0.0226	<0.005			<0.0002	<0.000203	0.0372	<0.000203
9/2/2020				0.0783	<0.005				
5/17/2021			0.00119						
5/18/2021						<0.0002	0.000125 (J)		
5/24/2021		0.0133			8.73E-05 (J)				
5/25/2021	0.0191			0.0693					
10/26/2021	0.0202	0.00807	0.00119	0.0752					
10/27/2021									
11/1/2021						<0.0002	0.0002		
11/2/2021					0.00016 (J)			0.0357	0.00101
5/24/2022	0.0197			0.0718					
5/25/2022		0.00518	0.00149		0.0002 (J)	<0.0002	<0.000203	0.0316	0.00017 (J)
10/31/2022	0.0183				0.000176 (J)		9.9E-05 (J)	0.0292	0.000618
11/1/2022		0.00463	0.00195			0.000102 (J)			
11/2/2022				0.0664					
4/3/2023				0.0694	0.000135 (J)				
4/4/2023		0.00291	0.00445			0.000455	<0.000203	0.0191	<0.000203
4/24/2023	0.0191								

Time Series

Constituent: Arsenic (mg/L) Analysis Run 6/23/2023 11:16 AM View: Descriptive
Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-6	BY-AP-MW-7
3/1/2016	0.00142 (J)	0.0166
3/2/2016		
4/19/2016	0.00138 (J)	
4/20/2016		0.02
6/7/2016	<0.000203	0.0223
8/30/2016	<0.000203	
8/31/2016		0.0231
10/18/2016		
10/19/2016	<0.000203	0.0244
1/31/2017	<0.000203	0.0197
5/2/2017		
5/3/2017	<0.000203	0.0212
6/6/2017		
6/7/2017	<0.000203	0.0203
1/24/2018	<0.000203	0.0214
5/1/2018		
5/2/2018	<0.000203	0.0218
11/27/2018		
11/28/2018	<0.000203	0.0209
1/8/2019		
5/29/2019	<0.000203	0.0178
7/31/2019		
9/30/2019		0.0217
10/1/2019	<0.000203	
10/2/2019		
3/30/2020		0.0215
3/31/2020	<0.000203	
4/1/2020		
9/1/2020		
9/2/2020	<0.000203	0.0234
5/17/2021	0.000103 (J)	
5/18/2021		0.0215
5/24/2021		
5/25/2021		
10/26/2021		
10/27/2021		0.0236
11/1/2021		
11/2/2021	0.0001 (J)	
5/24/2022		0.0197
5/25/2022	<0.000203	
10/31/2022	<0.000203	0.00873
11/1/2022		
11/2/2022		
4/3/2023		0.013
4/4/2023	<0.000203	
4/24/2023		

Time Series

Constituent: Arsenic (mg/L) Analysis Run 6/23/2023 11:16 AM View: Descriptive

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-7V	BY-AP-MW-8	BY-AP-MW-8V	BY-AP-MW-9	BY-UP-MW-1 (bg)	BY-UP-MW-2 (bg)	BY-UP-MW-3 (bg)	BY-UP-MW-4 (bg)	BY-AP-MW-25V
2/23/2016					<0.005	<0.005	<0.000203	<0.005	
3/1/2016		0.036		0.0322					
4/19/2016					<0.005	<0.005	<0.000203	<0.005	
4/20/2016		0.0399		0.0354					
6/6/2016					<0.005			<0.005	
6/7/2016		0.0401				<0.005	<0.000203		
6/8/2016				0.0385					
8/30/2016		0.0387			<0.005	<0.005	<0.000203	<0.005	
8/31/2016				0.0404					
10/18/2016		0.0394			<0.005	<0.005	<0.000203	<0.005	
10/19/2016				0.0412					
1/31/2017		0.0408			<0.005	<0.005	<0.000203	<0.005	
2/1/2017				0.0374					
5/2/2017					<0.005	<0.005	<0.000203	<0.005	
5/3/2017		0.0416		0.0444					
6/6/2017					<0.005	<0.005	<0.000203	<0.005	
6/7/2017		0.0395		0.0423					
1/23/2018				0.0435	<0.005	<0.005	<0.000203	<0.005	
1/24/2018		0.0536							
5/1/2018						<0.005	<0.000203	<0.005	
5/2/2018		0.0572		0.0437	<0.005				
11/26/2018								<0.005	
11/27/2018		0.0536			<0.005	<0.005	<0.000203		
11/28/2018				0.0422					
1/9/2019	<0.005		0.00121 (J)						
5/28/2019								<0.005	
5/29/2019		0.0482			<0.005	<0.005	<0.000203		
5/30/2019				0.0349					
9/30/2019		0.0514		0.0391					
10/1/2019	0.00278 (J)		0.00243 (J)						
10/2/2019					<0.005	<0.005	<0.000203	<0.005	
3/30/2020	0.005	0.0589	0.00275 (J)						
3/31/2020				0.0393	<0.005	<0.005	<0.000203	0.0017 (J)	
9/2/2020	0.0024 (J)	0.0629	0.00346 (J)	0.0432					<0.000203
9/8/2020								<0.005	
9/9/2020					<0.005	<0.005	<0.000203		
5/11/2021		0.0659				0.000136 (J)	<0.000203	0.000217	
5/12/2021					0.000336				
5/18/2021	0.00242		0.00398	0.0435					
5/24/2021									<0.000203
10/18/2021							9E-05 (J)	0.00019 (J)	
10/19/2021					0.00035	0.00012 (J)			
10/26/2021		0.0668	0.0048						
10/27/2021	0.0027			0.0468					
11/2/2021									<0.000203
5/23/2022			0.00386						
5/24/2022	0.00218	0.0583		0.0404					
5/25/2022									<0.000203
5/31/2022					0.00024	9E-05 (J)	<0.000203	0.0002	
10/31/2022	0.000983		0.00136	0.023					
11/1/2022					0.000345	0.000379	<0.000203	0.000115 (J)	<0.000203
11/2/2022		0.0415							

Time Series

Constituent: Arsenic (mg/L) Analysis Run 6/23/2023 11:16 AM View: Descriptive
Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-7V	BY-AP-MW-8	BY-AP-MW-8V	BY-AP-MW-9	BY-UP-MW-1 (bg)	BY-UP-MW-2 (bg)	BY-UP-MW-3 (bg)	BY-UP-MW-4 (bg)	BY-AP-MW-25V
4/3/2023	0.00117	0.00353	0.000552						<0.000203
4/4/2023				0.0145					
4/12/2023					0.00023	0.0002 (J)	<0.000203	0.000114 (J)	

Time Series

Constituent: Barium (mg/L) Analysis Run 6/23/2023 11:16 AM View: Descriptive
Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-14V	BY-AP-MW-15
3/1/2016		
3/2/2016		0.0468
4/19/2016		0.043
4/20/2016		
6/8/2016		0.0465
8/30/2016		
8/31/2016		0.0464
10/18/2016		
10/19/2016		0.0481
1/31/2017		0.0427
2/1/2017		
5/2/2017		0.0473
5/3/2017		
6/6/2017		0.0437
6/7/2017		
1/22/2018		0.0501
1/23/2018		
1/24/2018		
5/1/2018		0.0575
5/2/2018		
11/27/2018		0.0557
11/28/2018		
1/8/2019		
5/29/2019		0.0562
5/30/2019		
9/30/2019		
10/1/2019		0.0628
10/2/2019		
3/30/2020		
3/31/2020		
4/1/2020		0.0697
9/1/2020		
9/2/2020	0.0766	0.0736
5/11/2021		0.0762
5/18/2021		
5/19/2021		
5/25/2021	0.0729	
10/26/2021	0.0653	0.0784
10/27/2021		
11/1/2021		
11/2/2021		
5/23/2022		
5/24/2022	0.067	
5/25/2022		0.0846
11/1/2022	0.0617	0.0745
11/2/2022		
4/3/2023		0.081
4/4/2023	0.0645	
4/5/2023		

Time Series

Constituent: Barium (mg/L) Analysis Run 6/23/2023 11:16 AM View: Descriptive

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-15V	BY-AP-MW-16	BY-AP-MW-16V	BY-AP-MW-17H	BY-AP-MW-17V	BY-AP-MW-18H	BY-AP-MW-19H	BY-AP-MW-1V	BY-AP-MW-2
3/2/2016		0.0921							0.0285
4/19/2016		0.0775							0.0268
6/8/2016		0.0798							0.0248
8/31/2016		0.0801							0.026
10/19/2016		0.0766							0.0247
1/31/2017		0.075							0.0228
5/2/2017		0.0761							0.0257
6/6/2017		0.07							0.0219
1/23/2018		0.0779							
1/24/2018									0.0229
5/1/2018		0.0877							0.0279
11/27/2018		0.0792							0.0249
1/8/2019								0.0826	
3/20/2019						0.152			
5/29/2019		0.081							0.0232
7/31/2019	0.144			0.138			0.14		
10/1/2019	0.13	0.0803				0.126	0.113		0.0241
10/2/2019				0.117				0.0611	
3/30/2020								0.062	
3/31/2020		0.091							0.0264
4/1/2020				0.194		0.109			
8/31/2020									0.0275
9/1/2020	0.134			0.114	0.277	0.123	0.159	0.0795	
9/2/2020		0.0954	0.0733						
5/17/2021				0.125					
5/18/2021					0.255			0.0861	0.0259
5/19/2021		0.102	0.0743			0.147			
5/25/2021	0.184						0.104		
10/25/2021				0.0953	0.0928	0.12	0.0738		
10/26/2021	0.149		0.0589						
11/1/2021		0.0988						0.0731	0.0247
5/23/2022						0.127			
5/24/2022	0.156						0.0796	0.0863	0.0248
5/25/2022		0.0977	0.0569	0.126	0.698				
10/31/2022				0.116	0.804	0.119	0.123		
11/1/2022		0.0905	0.0656					0.0843	
11/2/2022	0.153								0.0201
4/3/2023									0.018
4/4/2023			0.0618	0.125	1.11			0.0564	
4/5/2023		0.0852				0.0207			
4/24/2023	0.164						0.136		

Time Series

Constituent: Barium (mg/L) Analysis Run 6/23/2023 11:16 AM View: Descriptive
Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-20H	BY-AP-MW-20V
3/2/2016		
4/19/2016		
6/8/2016		
8/31/2016		
10/19/2016		
1/31/2017		
5/2/2017		
6/6/2017		
1/23/2018		
1/24/2018		
5/1/2018		
11/27/2018		
1/8/2019		
3/20/2019		
5/29/2019		
7/31/2019	0.0928	
10/1/2019	0.0913	
10/2/2019		
3/30/2020		
3/31/2020		
4/1/2020	0.119	
8/31/2020		
9/1/2020	0.11	0.115
9/2/2020		
5/17/2021		
5/18/2021		
5/19/2021	0.111	0.107
5/25/2021		
10/25/2021		
10/26/2021	0.0936	
11/1/2021		0.0883
5/23/2022	0.0963	
5/24/2022		0.0906
5/25/2022		
10/31/2022	0.0954	
11/1/2022		0.0871
11/2/2022		
4/3/2023		
4/4/2023		
4/5/2023		
4/24/2023	0.098	0.0548

Time Series

Constituent: Barium (mg/L) Analysis Run 6/23/2023 11:16 AM View: Descriptive
Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-6	BY-AP-MW-7
3/1/2016	0.0278	0.0519
3/2/2016		
4/19/2016	0.0242	
4/20/2016		0.0517
6/7/2016	0.0223	0.0577
8/30/2016	0.0242	
8/31/2016		0.0614
10/18/2016		
10/19/2016	0.024	0.0618
1/31/2017	0.0248	0.0576
5/2/2017		
5/3/2017	0.0268	0.0601
6/6/2017		
6/7/2017	0.0256	0.054
1/24/2018	0.0254	0.0568
5/1/2018		
5/2/2018	0.0276	0.063
11/27/2018		
11/28/2018	0.0231	0.0654
1/8/2019		
5/29/2019	0.0244	0.059
7/31/2019		
9/30/2019		0.0648
10/1/2019	0.0257	
10/2/2019		
3/30/2020		0.059
3/31/2020	0.0244	
4/1/2020		
9/1/2020		
9/2/2020	0.0282	0.0745
5/17/2021	0.0305	
5/18/2021		0.07
5/24/2021		
5/25/2021		
10/26/2021		
10/27/2021		0.0664
11/1/2021		
11/2/2021	0.0286	
5/24/2022		0.0717
5/25/2022	0.0268	
10/31/2022	0.0263	0.0188
11/1/2022		
11/2/2022		
4/3/2023		0.0288
4/4/2023	0.0275	
4/24/2023		

Time Series

Constituent: Barium (mg/L) Analysis Run 6/23/2023 11:16 AM View: Descriptive

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-7V	BY-AP-MW-8	BY-AP-MW-8V	BY-AP-MW-9	BY-UP-MW-1 (bg)	BY-UP-MW-2 (bg)	BY-UP-MW-3 (bg)	BY-UP-MW-4 (bg)	BY-AP-MW-25V
2/23/2016					0.117	0.111	0.0862	0.0973	
3/1/2016		0.142		0.114					
4/19/2016					0.099	0.0875	0.0718	0.0802	
4/20/2016		0.143		0.114					
6/6/2016					0.107			0.0862	
6/7/2016		0.145				0.0979	0.0754		
6/8/2016				0.128					
8/30/2016		0.147			0.106	0.108	0.0768	0.0841	
8/31/2016				0.123					
10/18/2016		0.14			0.102	0.103	0.0727	0.0715	
10/19/2016				0.118					
1/31/2017		0.134			0.0944	0.109	0.0698	0.0825	
2/1/2017				0.104					
5/2/2017					0.0868	0.125	0.0723	0.0777	
5/3/2017		0.145		0.126					
6/6/2017					0.0799	0.108	0.07	0.078	
6/7/2017		0.128		0.111					
1/23/2018				0.115	0.0884	0.153	0.0747	0.0825	
1/24/2018		0.129							
5/1/2018						0.167	0.0877	0.102	
5/2/2018		0.149		0.125	0.137				
11/26/2018								0.0994	
11/27/2018		0.143			0.157	0.158	0.0804		
11/28/2018				0.119					
1/9/2019	0.112		0.337						
5/28/2019								0.102	
5/29/2019		0.138			0.166	0.172	0.0831		
5/30/2019				0.112					
9/30/2019		0.138		0.117					
10/1/2019	0.0541		0.264						
10/2/2019					0.129	0.183	0.089	0.111	
3/30/2020	0.0519	0.141	0.264						
3/31/2020				0.119	0.176	0.171	0.0927	0.129	
9/2/2020	0.0648	0.151	0.289	0.124					0.0111
9/8/2020								0.125	
9/9/2020					0.124	0.172	0.0919		
5/11/2021		0.147				0.165	0.0981	0.125	
5/12/2021					0.123				
5/18/2021	0.0805		0.299	0.125					
5/24/2021									0.00981
10/18/2021							0.0935	0.124	
10/19/2021					0.103	0.145			
10/26/2021		0.136	0.282						
10/27/2021	0.0684			0.117					
11/2/2021									0.00907
5/23/2022			0.277						
5/24/2022	0.0803	0.142		0.117					
5/25/2022									0.00993
5/31/2022					0.1	0.153	0.0992	0.129	
10/31/2022	0.0179		0.277	0.111					
11/1/2022					0.0804	0.145	0.0963	0.11	0.0106
11/2/2022		0.149							

Time Series

Constituent: Barium (mg/L) Analysis Run 6/23/2023 11:16 AM View: Descriptive
Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-7V	BY-AP-MW-8	BY-AP-MW-8V	BY-AP-MW-9	BY-UP-MW-1 (bg)	BY-UP-MW-2 (bg)	BY-UP-MW-3 (bg)	BY-UP-MW-4 (bg)	BY-AP-MW-25V
4/3/2023	0.01	0.0223	0.139						0.0105
4/4/2023				0.128					
4/12/2023					0.082	0.138	0.0925	0.116	

Time Series

Constituent: Beryllium (mg/L) Analysis Run 6/23/2023 11:16 AM View: Descriptive

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-1	BY-AP-MW-10	BY-AP-MW-10V	BY-AP-MW-11	BY-AP-MW-12	BY-AP-MW-12V	BY-AP-MW-13	BY-AP-MW-13V	BY-AP-MW-14
3/1/2016		<0.001015		<0.001015					
3/2/2016	<0.001015				<0.001015		<0.001015		<0.001015
4/19/2016	<0.001015								
4/20/2016		<0.001015		<0.001015	<0.001015		<0.001015		<0.001015
6/8/2016	<0.001015	<0.001015		<0.001015	<0.001015		<0.001015		<0.001015
8/30/2016									<0.001015
8/31/2016	<0.001015	<0.001015		<0.001015	<0.001015		<0.001015		
10/18/2016									<0.001015
10/19/2016	<0.001015	<0.001015		<0.001015	<0.001015		<0.001015		
1/31/2017	<0.001015						<0.001015		<0.001015
2/1/2017		<0.001015		<0.001015	<0.001015				
5/2/2017	<0.001015								<0.001015
5/3/2017		<0.001015		<0.001015	<0.001015		<0.001015		
6/6/2017	<0.001015								<0.001015
6/7/2017		<0.001015		<0.001015	<0.001015		0.00103 (J)		
1/22/2018							<0.001015		
1/23/2018		<0.001015		<0.001015	<0.001015				<0.001015
1/24/2018	<0.001015								
5/1/2018	<0.001015								
5/2/2018		<0.001015		<0.001015	<0.001015		<0.001015		<0.001015
11/27/2018									<0.001015
11/28/2018	<0.001015	<0.001015		<0.001015	<0.001015		<0.001015		
1/8/2019			<0.001015			<0.001015			
5/29/2019	<0.001015			<0.001015	<0.001015		<0.001015		<0.001015
5/30/2019		<0.001015							
9/30/2019		<0.001015		<0.001015					
10/1/2019	<0.001015		<0.001015		<0.001015		<0.001015		<0.001015
10/2/2019						<0.001015			
3/30/2020	<0.001015								
3/31/2020		<0.001015	<0.001015	<0.001015	<0.001015	<0.001015	<0.001015		<0.001015
4/1/2020									
9/1/2020	<0.001015	<0.001015	<0.001015	<0.001015	<0.001015	<0.001015	<0.001015		
9/2/2020								<0.001015	<0.001015
5/11/2021		<0.001015							
5/18/2021	<0.001015		<0.001015		<0.001015	<0.001015			
5/19/2021				<0.001015			<0.001015	<0.001015	
5/25/2021									<0.001015
10/26/2021							<0.001015	<0.001015	
10/27/2021		<0.001015	<0.001015						<0.001015
11/1/2021	<0.001015				<0.001015	<0.001015			
11/2/2021				<0.001015					
5/23/2022				<0.001015	<0.001015	<0.001015			
5/24/2022	<0.001015	<0.001015	<0.001015				<0.001015		
5/25/2022								<0.001015	<0.001015
11/1/2022			<0.001015	<0.001015	<0.001015	<0.001015	<0.001015	<0.001015	<0.001015
11/2/2022	<0.001015	<0.001015							
4/3/2023	<0.001015	<0.001015	<0.001015						
4/4/2023				<0.001015	<0.001015	<0.001015	<0.001015	<0.001015	
4/5/2023									<0.001015

Time Series

Constituent: Beryllium (mg/L) Analysis Run 6/23/2023 11:16 AM View: Descriptive
Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-14V	BY-AP-MW-15
3/1/2016		
3/2/2016		<0.001015
4/19/2016		<0.001015
4/20/2016		
6/8/2016		<0.001015
8/30/2016		
8/31/2016		<0.001015
10/18/2016		
10/19/2016		<0.001015
1/31/2017		<0.001015
2/1/2017		
5/2/2017		<0.001015
5/3/2017		
6/6/2017		<0.001015
6/7/2017		
1/22/2018		<0.001015
1/23/2018		
1/24/2018		
5/1/2018		<0.001015
5/2/2018		
11/27/2018		<0.001015
11/28/2018		
1/8/2019		
5/29/2019		<0.001015
5/30/2019		
9/30/2019		
10/1/2019		<0.001015
10/2/2019		
3/30/2020		
3/31/2020		
4/1/2020		<0.001015
9/1/2020		
9/2/2020	<0.001015	<0.001015
5/11/2021		<0.001015
5/18/2021		
5/19/2021		
5/25/2021	<0.001015	
10/26/2021	<0.001015	<0.001015
10/27/2021		
11/1/2021		
11/2/2021		
5/23/2022		
5/24/2022	<0.001015	
5/25/2022		<0.001015
11/1/2022	<0.001015	<0.001015
11/2/2022		
4/3/2023		<0.001015
4/4/2023	<0.001015	
4/5/2023		

Time Series

Constituent: Beryllium (mg/L) Analysis Run 6/23/2023 11:16 AM View: Descriptive

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-15V	BY-AP-MW-16	BY-AP-MW-16V	BY-AP-MW-17H	BY-AP-MW-17V	BY-AP-MW-18H	BY-AP-MW-19H	BY-AP-MW-1V	BY-AP-MW-2
3/2/2016		<0.001015							<0.001015
4/19/2016		<0.001015							<0.001015
6/8/2016		<0.001015							<0.001015
8/31/2016		<0.001015							<0.001015
10/19/2016		<0.001015							<0.001015
1/31/2017		<0.001015							<0.001015
5/2/2017		<0.001015							<0.001015
6/6/2017		<0.001015							<0.001015
1/23/2018		<0.001015							<0.001015
1/24/2018									<0.001015
5/1/2018		<0.001015							<0.001015
11/27/2018		<0.001015							<0.001015
1/8/2019								<0.001015	
3/20/2019						<0.001015			
5/29/2019		<0.001015							<0.001015
7/31/2019	<0.001015			<0.001015			<0.001015		
10/1/2019	<0.001015	<0.001015				<0.001015	<0.001015		<0.001015
10/2/2019				<0.001015				<0.001015	
3/30/2020								<0.001015	
3/31/2020		<0.001015							<0.001015
4/1/2020				<0.001015		<0.001015			
8/31/2020									<0.001015
9/1/2020	<0.001015			<0.001015	<0.001015	<0.001015	<0.001015	<0.001015	
9/2/2020		<0.001015	<0.001015						
5/17/2021				<0.001015					
5/18/2021					<0.001015			<0.001015	<0.001015
5/19/2021		<0.001015	<0.001015			<0.001015			
5/25/2021	<0.001015						<0.001015		
10/25/2021				<0.001015	<0.001015	<0.001015	<0.001015		
10/26/2021	<0.001015		<0.001015						
11/1/2021		<0.001015						<0.001015	<0.001015
5/23/2022						<0.001015			
5/24/2022	<0.001015						<0.001015	<0.001015	<0.001015
5/25/2022		<0.001015	<0.001015	<0.001015	<0.001015				
10/31/2022				<0.001015	<0.001015	<0.001015	<0.001015		
11/1/2022		<0.001015	<0.001015					<0.001015	
11/2/2022	<0.001015								<0.001015
4/3/2023									<0.001015
4/4/2023			<0.001015	<0.001015	<0.001015			<0.001015	
4/5/2023		<0.001015				<0.001015			
4/24/2023	<0.001015						<0.001015		

Time Series

Constituent: Beryllium (mg/L) Analysis Run 6/23/2023 11:16 AM View: Descriptive
Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-20H	BY-AP-MW-20V
3/2/2016		
4/19/2016		
6/8/2016		
8/31/2016		
10/19/2016		
1/31/2017		
5/2/2017		
6/6/2017		
1/23/2018		
1/24/2018		
5/1/2018		
11/27/2018		
1/8/2019		
3/20/2019		
5/29/2019		
7/31/2019	<0.001015	
10/1/2019	<0.001015	
10/2/2019		
3/30/2020		
3/31/2020		
4/1/2020	<0.001015	
8/31/2020		
9/1/2020	<0.001015	<0.001015
9/2/2020		
5/17/2021		
5/18/2021		
5/19/2021	<0.001015	<0.001015
5/25/2021		
10/25/2021		
10/26/2021	<0.001015	
11/1/2021		<0.001015
5/23/2022	<0.001015	
5/24/2022		<0.001015
5/25/2022		
10/31/2022	<0.001015	
11/1/2022		<0.001015
11/2/2022		
4/3/2023		
4/4/2023		
4/5/2023		
4/24/2023	<0.001015	<0.001015

Time Series

Constituent: Beryllium (mg/L) Analysis Run 6/23/2023 11:16 AM View: Descriptive

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-22H	BY-AP-MW-23H	BY-AP-MW-23V	BY-AP-MW-24H	BY-AP-MW-25H	BY-AP-MW-3	BY-AP-MW-4	BY-AP-MW-5	BY-AP-MW-5V
3/1/2016							<0.00102	<0.001015	
3/2/2016						<0.001015			
4/19/2016						<0.001015	<0.00102		
4/20/2016								<0.001015	
6/7/2016						<0.001015	<0.00102	<0.001015	
8/30/2016							<0.00102	<0.001015	
8/31/2016						<0.001015			
10/18/2016								<0.001015	
10/19/2016						<0.001015	<0.00102		
1/31/2017						<0.001015	<0.00102	<0.001015	
5/2/2017						<0.001015	<0.00102		
5/3/2017								<0.001015	
6/6/2017						<0.001015	<0.00102		
6/7/2017								<0.001015	
1/24/2018						<0.001015	<0.00102	<0.001015	
5/1/2018						<0.001015	<0.00102		
5/2/2018								<0.001015	
11/27/2018						<0.001015	0.00071 (J)	<0.001015	
11/28/2018									
1/8/2019				<0.001015					<0.001015
5/29/2019						<0.001015	<0.00102	<0.001015	
7/31/2019	<0.001015	<0.001015							
9/30/2019									
10/1/2019	<0.001015	<0.001015				<0.001015	<0.00102	<0.001015	
10/2/2019				<0.001015					<0.001015
3/30/2020									
3/31/2020				<0.001015		<0.001015	<0.00102	<0.001015	<0.001015
4/1/2020		<0.001015							
9/1/2020	<0.001015	<0.001015	<0.001015			<0.001015	<0.00102	<0.001015	<0.001015
9/2/2020				<0.001015	<0.001015				
5/17/2021			<0.001015						
5/18/2021						<0.001015	<0.00102		
5/24/2021		<0.001015			<0.001015				
5/25/2021	<0.001015			<0.001015					
10/26/2021	<0.001015	<0.001015	<0.001015	<0.001015					
10/27/2021									
11/1/2021						<0.001015	<0.00102		
11/2/2021					<0.001015			<0.001015	<0.001015
5/24/2022	<0.001015			<0.001015					
5/25/2022		<0.001015	<0.001015		<0.001015	<0.001015	0.00065 (J)	<0.001015	<0.001015
10/31/2022	<0.001015				<0.001015		0.000451 (J)	<0.001015	<0.001015
11/1/2022		<0.001015	<0.001015			<0.001015			
11/2/2022				<0.001015					
4/3/2023				<0.001015	<0.001015				
4/4/2023		<0.001015	<0.001015			<0.001015	0.000432 (J)	<0.001015	<0.001015
4/24/2023	<0.001015								

Time Series

Constituent: Beryllium (mg/L) Analysis Run 6/23/2023 11:16 AM View: Descriptive
Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-6	BY-AP-MW-7
3/1/2016	<0.001015	<0.001015
3/2/2016		
4/19/2016	<0.001015	
4/20/2016		<0.001015
6/7/2016	<0.001015	<0.001015
8/30/2016	<0.001015	
8/31/2016		<0.001015
10/18/2016		
10/19/2016	<0.001015	<0.001015
1/31/2017	<0.001015	<0.001015
5/2/2017		
5/3/2017	<0.001015	<0.001015
6/6/2017		
6/7/2017	<0.001015	<0.001015
1/24/2018	<0.001015	<0.001015
5/1/2018		
5/2/2018	<0.001015	<0.001015
11/27/2018		
11/28/2018	<0.001015	<0.001015
1/8/2019		
5/29/2019	<0.001015	<0.001015
7/31/2019		
9/30/2019		<0.001015
10/1/2019	<0.001015	
10/2/2019		
3/30/2020		<0.001015
3/31/2020	<0.001015	
4/1/2020		
9/1/2020		
9/2/2020	<0.001015	<0.001015
5/17/2021	<0.001015	
5/18/2021		<0.001015
5/24/2021		
5/25/2021		
10/26/2021		
10/27/2021		<0.001015
11/1/2021		
11/2/2021	<0.001015	
5/24/2022		<0.001015
5/25/2022	<0.001015	
10/31/2022	<0.001015	<0.001015
11/1/2022		
11/2/2022		
4/3/2023		<0.001015
4/4/2023	<0.001015	
4/24/2023		

Time Series

Constituent: Beryllium (mg/L) Analysis Run 6/23/2023 11:16 AM View: Descriptive

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-7V	BY-AP-MW-8	BY-AP-MW-8V	BY-AP-MW-9	BY-UP-MW-1 (bg)	BY-UP-MW-2 (bg)	BY-UP-MW-3 (bg)	BY-UP-MW-4 (bg)	BY-AP-MW-25V
2/23/2016					<0.001015	<0.00102	<0.001015	<0.001015	
3/1/2016		<0.001015		<0.001015					
4/19/2016					<0.001015	<0.00102	<0.001015	<0.001015	
4/20/2016		<0.001015		<0.001015					
6/6/2016					0.000612 (J)				<0.001015
6/7/2016		<0.001015				0.00093 (J)	<0.001015		
6/8/2016				<0.001015					
8/30/2016		<0.001015			<0.001015	<0.00102	<0.001015	<0.001015	
8/31/2016				<0.001015					
10/18/2016		<0.001015			<0.001015	<0.00102	<0.001015	<0.001015	
10/19/2016				<0.001015					
1/31/2017		<0.001015			<0.001015	<0.00102	<0.001015	<0.001015	
2/1/2017				<0.001015					
5/2/2017					0.00069 (J)	<0.00102	<0.001015	<0.001015	
5/3/2017		<0.001015		<0.001015					
6/6/2017					<0.001015	<0.00102	<0.001015	<0.001015	
6/7/2017		<0.001015		<0.001015					
1/23/2018				<0.001015	<0.001015	<0.00102	<0.001015	<0.001015	
1/24/2018		<0.001015							
5/1/2018						<0.00102	<0.001015	<0.001015	
5/2/2018		<0.001015		<0.001015	<0.001015				
11/26/2018									<0.001015
11/27/2018		<0.001015					<0.001015		
11/28/2018				<0.001015					
1/9/2019	<0.001015		<0.001015						
5/28/2019									<0.001015
5/29/2019		<0.001015			<0.001015	<0.00102	<0.001015		
5/30/2019				<0.001015					
9/30/2019		<0.001015		<0.001015					
10/1/2019	<0.001015		<0.001015						
10/2/2019					<0.001015	<0.00102	<0.001015	<0.001015	
3/30/2020	<0.001015	<0.001015	<0.001015						
3/31/2020				<0.001015	<0.001015	<0.00102	<0.001015	<0.001015	
9/2/2020	<0.001015	<0.001015	<0.001015	<0.001015					<0.001015
9/8/2020									<0.001015
9/9/2020					<0.001015	<0.00102	<0.001015	<0.001015	
5/11/2021		<0.001015				<0.00102	<0.001015	<0.001015	
5/12/2021					0.000694 (J)				
5/18/2021	<0.001015		<0.001015	<0.001015					
5/24/2021									<0.001015
10/18/2021							<0.001015	<0.001015	
10/19/2021					<0.001015	<0.00102			
10/26/2021		<0.001015	<0.001015						
10/27/2021	<0.001015			<0.001015					
11/2/2021									<0.001015
5/23/2022			<0.001015						
5/24/2022	<0.001015	<0.001015		<0.001015					
5/25/2022									<0.001015
5/31/2022					<0.001015	0.00041 (J)	<0.001015	<0.001015	
10/31/2022	<0.001015		<0.001015	<0.001015					
11/1/2022					<0.001015	0.000429 (J)	<0.001015	<0.001015	<0.001015
11/2/2022		<0.001015							

Time Series

Constituent: Beryllium (mg/L) Analysis Run 6/23/2023 11:16 AM View: Descriptive
Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-7V	BY-AP-MW-8	BY-AP-MW-8V	BY-AP-MW-9	BY-UP-MW-1 (bg)	BY-UP-MW-2 (bg)	BY-UP-MW-3 (bg)	BY-UP-MW-4 (bg)	BY-AP-MW-25V
4/3/2023	<0.001015	<0.001015	<0.001015						<0.001015
4/4/2023				<0.001015					
4/12/2023					<0.001015	0.000416 (J)	<0.001015	<0.001015	

Time Series

Constituent: Boron, total (mg/L) Analysis Run 6/23/2023 11:16 AM View: Descriptive
Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-14V	BY-AP-MW-15
3/1/2016		
3/2/2016		0.0447 (J)
4/19/2016		0.0645 (J)
4/20/2016		
6/8/2016		0.0592 (J)
8/30/2016		
8/31/2016		0.0632 (J)
10/18/2016		
10/19/2016		0.0637 (J)
1/31/2017		0.0536 (J)
2/1/2017		
5/2/2017		0.0775 (J)
5/3/2017		
6/6/2017		0.0535 (J)
6/7/2017		
9/13/2017		0.0937 (J)
9/14/2017		
5/1/2018		0.0683 (J)
5/2/2018		
11/27/2018		0.0715 (J)
11/28/2018		
1/8/2019		
5/29/2019		0.116
5/30/2019		
9/30/2019		
10/1/2019		0.116
10/2/2019		
3/30/2020		
3/31/2020		
4/1/2020		0.1
9/1/2020		
9/2/2020	0.407	0.148
5/11/2021		0.109
5/18/2021		
5/19/2021		
5/25/2021	0.43	
10/26/2021	0.393	0.0953 (J)
10/27/2021		
11/1/2021		
11/2/2021		
5/23/2022		
5/24/2022	0.376	
5/25/2022		0.0826 (J)
11/1/2022	0.361	0.0712 (J)
11/2/2022		
4/3/2023		0.0713 (J)
4/4/2023	0.39	
4/5/2023		

Time Series

Constituent: Boron, total (mg/L) Analysis Run 6/23/2023 11:16 AM View: Descriptive

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-15V	BY-AP-MW-16	BY-AP-MW-16V	BY-AP-MW-17H	BY-AP-MW-17V	BY-AP-MW-18H	BY-AP-MW-19H	BY-AP-MW-1V	BY-AP-MW-2
3/2/2016		1.47							<0.1015
4/19/2016		1.53							<0.1015
6/8/2016		1.7							<0.1015
8/31/2016		1.68							<0.1015
10/19/2016		1.53							<0.1015
1/31/2017		1.51							<0.1015
5/2/2017		1.64							<0.1015
6/6/2017		1.57							<0.1015
9/12/2017									<0.1015
9/13/2017		2.18							
5/1/2018		1.57							<0.1015
11/27/2018		1.58							<0.1015
1/8/2019								0.0205 (J)	
3/20/2019						0.924			
5/29/2019		1.7							<0.1015
7/31/2019	0.0439 (J)			0.0782 (J)			0.835		
10/1/2019	0.0824 (J)	2.05				1.05	0.931		<0.1015
10/2/2019				0.129				<0.1015	
3/30/2020								0.0347 (J)	
3/31/2020		1.74							<0.1015
4/1/2020				0.073 (J)		0.435			
8/31/2020									<0.1015
9/1/2020	0.0907 (J)			0.146	0.124	0.855	0.895	0.0368 (J)	
9/2/2020		1.9	<0.1015						
5/17/2021				0.0911 (J)					
5/18/2021					0.124			0.0334 (J)	<0.1015
5/19/2021		1.74	<0.1015			0.866			
5/25/2021	0.0617 (J)						0.252		
10/25/2021				0.0887 (J)	0.113	0.934	0.142		
10/26/2021	0.0498 (J)		<0.1015						
11/1/2021		2.18						<0.1015	<0.1015
5/23/2022						0.91			
5/24/2022	0.0376 (J)						0.159	0.0333 (J)	<0.1015
5/25/2022		1.98	<0.1015	0.0597 (J)	0.177				
10/31/2022				0.064 (J)	0.198	1.65	0.63		
11/1/2022		2.24	<0.1015					0.0424 (J)	
11/2/2022	0.033 (J)								<0.1015
4/3/2023									<0.1015
4/4/2023			<0.1015	0.0474 (J)	0.285			0.0656 (J)	
4/5/2023		2.29				0.0377 (J)			
4/24/2023	0.0423 (J)						0.876		

Time Series

Constituent: Boron, total (mg/L) Analysis Run 6/23/2023 11:16 AM View: Descriptive
Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-20H	BY-AP-MW-20V
3/2/2016		
4/19/2016		
6/8/2016		
8/31/2016		
10/19/2016		
1/31/2017		
5/2/2017		
6/6/2017		
9/12/2017		
9/13/2017		
5/1/2018		
11/27/2018		
1/8/2019		
3/20/2019		
5/29/2019		
7/31/2019	0.0707 (J)	
10/1/2019	0.101	
10/2/2019		
3/30/2020		
3/31/2020		
4/1/2020	0.046 (J)	
8/31/2020		
9/1/2020	0.106	0.134
9/2/2020		
5/17/2021		
5/18/2021		
5/19/2021	0.0909 (J)	0.119
5/25/2021		
10/25/2021		
10/26/2021	0.0784 (J)	
11/1/2021		0.11
5/23/2022	0.0653 (J)	
5/24/2022		0.0977 (J)
5/25/2022		
10/31/2022	0.06 (J)	
11/1/2022		0.0866 (J)
11/2/2022		
4/3/2023		
4/4/2023		
4/5/2023		
4/24/2023	0.0573 (J)	<0.1015

Time Series

Constituent: Boron, total (mg/L) Analysis Run 6/23/2023 11:16 AM View: Descriptive

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-22H	BY-AP-MW-23H	BY-AP-MW-23V	BY-AP-MW-24H	BY-AP-MW-25H	BY-AP-MW-3	BY-AP-MW-4	BY-AP-MW-5	BY-AP-MW-5V
3/1/2016							<0.1015	0.0462 (J)	
3/2/2016						<0.1015			
4/19/2016						<0.1015	<0.1015		
4/20/2016								0.0719 (J)	
6/7/2016						<0.1015	<0.1015	0.0591 (J)	
8/30/2016							<0.1015	0.0675 (J)	
8/31/2016						<0.1015			
10/18/2016								0.0699 (J)	
10/19/2016						<0.1015	<0.1015		
1/31/2017						<0.1015	<0.1015	0.0518 (J)	
5/2/2017						<0.1015	<0.1015		
5/3/2017								0.0737 (J)	
6/6/2017						<0.1015	<0.1015		
6/7/2017								0.0518 (J)	
9/12/2017						<0.1015	<0.1015		
9/14/2017								0.0825 (J)	
5/1/2018						<0.1015	<0.1015		
5/2/2018								0.0603 (J)	
11/27/2018						<0.1015	<0.1015	0.0613 (J)	
11/28/2018									
1/8/2019				0.213					0.029 (J)
5/29/2019						<0.1015	<0.1015	0.0946 (J)	
7/31/2019	0.0643 (J)	0.0531 (J)							
9/30/2019									
10/1/2019	0.105	0.0856 (J)				<0.1015	<0.1015	0.103	
10/2/2019				0.344					0.0336 (J)
3/30/2020									
3/31/2020				0.325		<0.1015	<0.1015	0.0782 (J)	0.0339 (J)
4/1/2020		<0.1							
9/1/2020	0.115	0.0943 (J)	0.307			<0.1015	<0.1015	0.115	0.0414 (J)
9/2/2020				0.382	<0.1015				
5/17/2021			0.32						
5/18/2021						<0.1015	<0.1015		
5/24/2021		0.0785 (J)			<0.1015				
5/25/2021	0.0889 (J)			0.37					
10/26/2021	0.0725 (J)	0.0709 (J)	0.306	0.354					
10/27/2021									
11/1/2021						<0.1015	<0.1015		
11/2/2021					<0.1015			0.0755 (J)	<0.1015
5/24/2022	0.0562 (J)			0.351					
5/25/2022		0.0526 (J)	0.307		<0.1015	<0.1015	<0.1015	0.063 (J)	<0.1015
10/31/2022	0.0346 (J)				<0.1015		<0.1015	0.0515 (J)	0.0652 (J)
11/1/2022		0.0382 (J)	0.345			<0.1015			
11/2/2022				0.337					
4/3/2023				0.381	<0.1015				
4/4/2023		0.0481 (J)	0.245			0.0468 (J)	<0.1015	0.0381 (J)	0.0924 (J)
4/24/2023	0.0696 (J)								

Time Series

Constituent: Boron, total (mg/L) Analysis Run 6/23/2023 11:16 AM View: Descriptive
Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-6	BY-AP-MW-7
3/1/2016	<0.1015	0.0546 (J)
3/2/2016		
4/19/2016	<0.1015	
4/20/2016		0.0472 (J)
6/7/2016	<0.1015	0.0417 (J)
8/30/2016	<0.1015	
8/31/2016		0.036 (J)
10/18/2016		
10/19/2016	<0.1015	0.0386 (J)
1/31/2017	<0.1015	0.0343 (J)
5/2/2017		
5/3/2017	<0.1015	0.037 (J)
6/6/2017		
6/7/2017	<0.1015	0.0227 (J)
9/12/2017		
9/14/2017	<0.1015	0.0471 (J)
5/1/2018		
5/2/2018	<0.1015	0.0313 (J)
11/27/2018		
11/28/2018	<0.1015	0.0311 (J)
1/8/2019		
5/29/2019	<0.1015	0.042 (J)
7/31/2019		
9/30/2019		0.0418 (J)
10/1/2019	<0.1015	
10/2/2019		
3/30/2020		0.0369 (J)
3/31/2020	<0.1015	
4/1/2020		
9/1/2020		
9/2/2020	<0.1015	0.042 (J)
5/17/2021	<0.1015	
5/18/2021		0.037 (J)
5/24/2021		
5/25/2021		
10/26/2021		
10/27/2021		0.0427 (J)
11/1/2021		
11/2/2021	<0.1015	
5/24/2022		0.0369 (J)
5/25/2022	<0.1015	
10/31/2022	<0.1015	0.28
11/1/2022		
11/2/2022		
4/3/2023		0.174
4/4/2023	<0.1015	
4/24/2023		

Time Series

Constituent: Boron, total (mg/L) Analysis Run 6/23/2023 11:16 AM View: Descriptive

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-7V	BY-AP-MW-8	BY-AP-MW-8V	BY-AP-MW-9	BY-UP-MW-1 (bg)	BY-UP-MW-2 (bg)	BY-UP-MW-3 (bg)	BY-UP-MW-4 (bg)	BY-AP-MW-25V
2/23/2016					0.0212 (J)	0.0252 (J)	<0.1015	0.0257 (J)	
3/1/2016		1.72		1.79					
4/19/2016					<0.1	<0.1015	<0.1015	<0.1015	
4/20/2016		1.7		2.01					
6/6/2016					<0.1			<0.1015	
6/7/2016		1.57				0.0202 (J)	<0.1015		
6/8/2016				2.23					
8/30/2016		1.67			<0.1	<0.1015	<0.1015	<0.1015	
8/31/2016				2.14					
10/18/2016		1.4			<0.1	<0.1015	<0.1015	0.022 (J)	
10/19/2016				2.13					
1/31/2017		1.46			<0.1	<0.1015	<0.1015	<0.1015	
2/1/2017				2.17					
5/2/2017					<0.1	<0.1015	<0.1015	<0.1015	
5/3/2017		1.45		2.28					
6/6/2017					<0.1	<0.1015	<0.1015	<0.1015	
6/7/2017		1.41		2.25					
9/12/2017								<0.1015	
9/13/2017					<0.1	<0.1015	<0.1015		
9/14/2017		1.16		2.41					
5/1/2018						<0.1015	<0.1015	<0.1015	
5/2/2018		1.12		2.34	0.0362 (J)				
11/26/2018								<0.1015	
11/27/2018		1.31			0.11		<0.1015		
11/28/2018				2.23					
1/9/2019	0.0615 (J)		0.164						
5/28/2019								<0.1015	
5/29/2019		1.44			0.188	<0.1015	<0.1015		
5/30/2019				2.45					
9/30/2019		1.38		2.34					
10/1/2019	0.0546 (J)		0.241						
10/2/2019					0.097 (J)	<0.1015	<0.1015	<0.1015	
3/30/2020	0.0555 (J)	1.12	0.247						
3/31/2020				2.27	0.157	<0.1015	<0.1015	<0.1015	
9/2/2020	0.0565 (J)	1.26	0.26	2.05					<0.1015
9/8/2020								<0.1015	
9/9/2020					0.0999 (J)	<0.1015	<0.1015	<0.1015	
5/11/2021		0.971				<0.1015	<0.1015	<0.1015	
5/12/2021					0.0841 (J)				
5/18/2021	0.0599 (J)		0.247	2.08					
5/24/2021									<0.1015
10/18/2021							<0.1015	<0.1015	
10/19/2021					0.0708 (J)	<0.1015			
10/26/2021		0.933	0.216						
10/27/2021	0.0546 (J)			2.04					
11/2/2021									<0.1015
5/23/2022			0.259						
5/24/2022	0.165	1.12		2.01					
5/25/2022									<0.1015
5/31/2022					0.0567 (J)	<0.1015	<0.1015	<0.1015	
10/31/2022	0.329		0.186	2.3					
11/1/2022					0.0501 (J)	<0.1015	<0.1015	<0.1015	<0.1015

Time Series

Constituent: Boron, total (mg/L) Analysis Run 6/23/2023 11:16 AM View: Descriptive
Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-7V	BY-AP-MW-8	BY-AP-MW-8V	BY-AP-MW-9	BY-UP-MW-1 (bg)	BY-UP-MW-2 (bg)	BY-UP-MW-3 (bg)	BY-UP-MW-4 (bg)	BY-AP-MW-25V
11/2/2022		1.59							
4/3/2023	0.293	0.129	0.245						<0.1015
4/4/2023				1.65					
4/12/2023					0.0464 (J)	<0.1015	<0.1015	<0.1015	

Time Series

Constituent: Cadmium (mg/L) Analysis Run 6/23/2023 11:16 AM View: Descriptive

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-1	BY-AP-MW-10	BY-AP-MW-10V	BY-AP-MW-11	BY-AP-MW-12	BY-AP-MW-12V	BY-AP-MW-13	BY-AP-MW-13V	BY-AP-MW-14
3/1/2016		<0.000203		<0.000203					
3/2/2016	<0.000203				<0.000203		<0.000203		<0.000203
4/19/2016	<0.000203								
4/20/2016		<0.000203		<0.000203	<0.000203		<0.000203		<0.000203
6/8/2016	<0.000203	<0.000203		<0.000203	<0.000203		<0.000203		<0.000203
8/30/2016									<0.000203
8/31/2016	<0.000203	<0.000203		<0.000203	<0.000203		<0.000203		
10/18/2016									<0.000203
10/19/2016	<0.000203	<0.000203		<0.000203	<0.000203		<0.000203		
1/31/2017	<0.000203						<0.000203		<0.000203
2/1/2017		<0.000203		<0.000203	<0.000203				
5/2/2017	<0.000203								<0.000203
5/3/2017		<0.000203		<0.000203	<0.000203		<0.000203		
6/6/2017	<0.000203								<0.000203
6/7/2017		<0.000203		<0.000203	<0.000203		0.00077 (J)		
1/22/2018							<0.000203		
1/23/2018		<0.000203		<0.000203	<0.000203				<0.000203
1/24/2018	<0.000203								
5/1/2018	<0.000203								
5/2/2018		<0.000203		<0.000203	<0.000203		<0.000203		<0.000203
11/27/2018									<0.000203
11/28/2018	<0.000203	<0.000203		<0.000203	<0.000203		<0.000203		
1/8/2019			<0.000203			<0.000203			
5/29/2019	<0.000203			<0.000203	<0.000203		<0.000203		<0.000203
5/30/2019		<0.000203							
9/30/2019		<0.000203		<0.000203					
10/1/2019	<0.000203		<0.000203		<0.000203		<0.000203		<0.000203
10/2/2019						<0.000203			
3/30/2020	<0.000203								
3/31/2020		<0.000203	<0.000203	<0.000203	<0.000203	<0.000203	<0.000203		<0.000203
4/1/2020									
9/1/2020	<0.000203	<0.000203	<0.000203	<0.000203	<0.000203	<0.000203	<0.000203		
9/2/2020								<0.000203	<0.000203
5/11/2021		<0.000203							
5/18/2021	<0.000203		<0.000203		<0.000203	<0.000203			
5/19/2021				<0.000203			<0.000203	<0.000203	
5/25/2021									<0.000203
10/26/2021							<0.000203	<0.000203	
10/27/2021		<0.000203	<0.000203						<0.000203
11/1/2021	<0.000203				<0.000203	<0.000203			
11/2/2021				<0.000203					
5/23/2022				<0.000203	<0.000203	<0.000203			
5/24/2022	<0.000203	<0.000203	<0.000203				<0.000203		
5/25/2022								<0.000203	<0.000203
11/1/2022			<0.000203	<0.000203	<0.000203	<0.000203	<0.000203	<0.000203	<0.000203
11/2/2022	<0.000203	<0.000203							
4/3/2023	<0.000203	<0.000203	<0.000203						
4/4/2023				<0.000203	<0.000203	<0.000203	<0.000203	<0.000203	
4/5/2023									<0.000203

Time Series

Constituent: Cadmium (mg/L) Analysis Run 6/23/2023 11:16 AM View: Descriptive
Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-14V	BY-AP-MW-15
3/1/2016		
3/2/2016		<0.000203
4/19/2016		<0.000203
4/20/2016		
6/8/2016		<0.000203
8/30/2016		
8/31/2016		<0.000203
10/18/2016		
10/19/2016		<0.000203
1/31/2017		<0.000203
2/1/2017		
5/2/2017		<0.000203
5/3/2017		
6/6/2017		<0.000203
6/7/2017		
1/22/2018		<0.000203
1/23/2018		
1/24/2018		
5/1/2018		<0.000203
5/2/2018		
11/27/2018		<0.000203
11/28/2018		
1/8/2019		
5/29/2019		<0.000203
5/30/2019		
9/30/2019		
10/1/2019		<0.000203
10/2/2019		
3/30/2020		
3/31/2020		
4/1/2020		<0.000203
9/1/2020		
9/2/2020	<0.000203	<0.000203
5/11/2021		<0.000203
5/18/2021		
5/19/2021		
5/25/2021	<0.000203	
10/26/2021	<0.000203	<0.000203
10/27/2021		
11/1/2021		
11/2/2021		
5/23/2022		
5/24/2022	<0.000203	
5/25/2022		<0.000203
11/1/2022	<0.000203	<0.000203
11/2/2022		
4/3/2023		<0.000203
4/4/2023	<0.000203	
4/5/2023		

Time Series

Constituent: Cadmium (mg/L) Analysis Run 6/23/2023 11:16 AM View: Descriptive

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-15V	BY-AP-MW-16	BY-AP-MW-16V	BY-AP-MW-17H	BY-AP-MW-17V	BY-AP-MW-18H	BY-AP-MW-19H	BY-AP-MW-1V	BY-AP-MW-2
3/2/2016		<0.000203							<0.000203
4/19/2016		<0.000203							<0.000203
6/8/2016		<0.000203							<0.000203
8/31/2016		<0.000203							<0.000203
10/19/2016		<0.000203							<0.000203
1/31/2017		<0.000203							<0.000203
5/2/2017		<0.000203							<0.000203
6/6/2017		<0.000203							<0.000203
1/23/2018		<0.000203							<0.000203
1/24/2018									<0.000203
5/1/2018		<0.000203							<0.000203
11/27/2018		<0.000203							<0.000203
1/8/2019								<0.000203	
3/20/2019						<0.000203			
5/29/2019		<0.000203							<0.000203
7/31/2019	<0.0002			<0.000203			<0.000203		
10/1/2019	<0.0002	<0.000203				<0.000203	<0.000203		<0.000203
10/2/2019				<0.000203				<0.000203	
3/30/2020								<0.000203	
3/31/2020		<0.000203							<0.000203
4/1/2020				<0.000203		<0.000203			
8/31/2020									<0.000203
9/1/2020	<0.0002			<0.000203	<0.000203	<0.000203	<0.000203	<0.000203	
9/2/2020		<0.000203	<0.000203						
5/17/2021				<0.000203					
5/18/2021					<0.000203			<0.000203	<0.000203
5/19/2021		<0.000203	<0.000203			<0.000203			
5/25/2021	<0.0002						<0.000203		
10/25/2021				<0.000203	<0.000203	<0.000203	<0.000203		
10/26/2021	<0.0002		<0.000203						
11/1/2021		<0.000203						<0.000203	<0.000203
5/23/2022						<0.000203			
5/24/2022	0.00018 (J)						<0.000203	<0.000203	<0.000203
5/25/2022		<0.000203	<0.000203	<0.000203	<0.000203				
10/31/2022				<0.000203	<0.000203	<0.000203	<0.000203		
11/1/2022		<0.000203	7E-05 (J)					7.1E-05 (J)	
11/2/2022	0.0001 (J)								<0.000203
4/3/2023									<0.000203
4/4/2023			<0.000203	<0.000203	0.000114 (J)			<0.000203	
4/5/2023		<0.000203				<0.000203			
4/24/2023	0.000212						<0.000203		

Time Series

Constituent: Cadmium (mg/L) Analysis Run 6/23/2023 11:16 AM View: Descriptive
Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-20H	BY-AP-MW-20V
3/2/2016		
4/19/2016		
6/8/2016		
8/31/2016		
10/19/2016		
1/31/2017		
5/2/2017		
6/6/2017		
1/23/2018		
1/24/2018		
5/1/2018		
11/27/2018		
1/8/2019		
3/20/2019		
5/29/2019		
7/31/2019	<0.000203	
10/1/2019	<0.000203	
10/2/2019		
3/30/2020		
3/31/2020		
4/1/2020	<0.000203	
8/31/2020		
9/1/2020	<0.000203	<0.000203
9/2/2020		
5/17/2021		
5/18/2021		
5/19/2021	<0.000203	<0.000203
5/25/2021		
10/25/2021		
10/26/2021	<0.000203	
11/1/2021		<0.000203
5/23/2022	<0.000203	
5/24/2022		<0.000203
5/25/2022		
10/31/2022	<0.000203	
11/1/2022		<0.000203
11/2/2022		
4/3/2023		
4/4/2023		
4/5/2023		
4/24/2023	<0.000203	<0.000203

Time Series

Constituent: Cadmium (mg/L) Analysis Run 6/23/2023 11:16 AM View: Descriptive

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-22H	BY-AP-MW-23H	BY-AP-MW-23V	BY-AP-MW-24H	BY-AP-MW-25H	BY-AP-MW-3	BY-AP-MW-4	BY-AP-MW-5	BY-AP-MW-5V
3/1/2016							<0.0002	<0.000203	
3/2/2016						<0.000203			
4/19/2016						<0.000203	<0.0002		
4/20/2016								<0.000203	
6/7/2016						<0.000203	<0.0002	<0.000203	
8/30/2016							<0.0002	<0.000203	
8/31/2016						<0.000203			
10/18/2016								<0.000203	
10/19/2016						<0.000203	<0.0002		
1/31/2017						<0.000203	<0.0002	<0.000203	
5/2/2017						<0.000203	<0.0002		
5/3/2017								<0.000203	
6/6/2017						<0.000203	<0.0002		
6/7/2017								<0.000203	
1/24/2018						<0.000203	<0.0002	<0.000203	
5/1/2018						<0.000203	<0.0002		
5/2/2018								<0.000203	
11/27/2018						<0.000203	<0.0002	<0.000203	
11/28/2018									
1/8/2019				<0.000203					<0.000203
5/29/2019						<0.000203	<0.0002	<0.000203	
7/31/2019	<0.000203	<0.000203							
9/30/2019									
10/1/2019	<0.000203	<0.000203				<0.000203	<0.0002	<0.000203	
10/2/2019				<0.000203					<0.000203
3/30/2020									
3/31/2020				<0.000203		<0.000203	<0.0002	<0.000203	<0.000203
4/1/2020		<0.000203							
9/1/2020	<0.000203	<0.000203	<0.000203			<0.000203	<0.0002	<0.000203	<0.000203
9/2/2020				<0.000203	<0.000203				
5/17/2021			<0.000203						
5/18/2021						<0.000203	<0.0002		
5/24/2021		<0.000203			<0.000203				
5/25/2021	<0.000203			<0.000203					
10/26/2021	<0.000203	<0.000203	<0.000203	<0.000203					
10/27/2021									
11/1/2021						<0.000203	<0.0002		
11/2/2021					<0.000203			<0.000203	<0.000203
5/24/2022	<0.000203			<0.000203					
5/25/2022		<0.000203	<0.000203		<0.000203	<0.000203	<0.0002	<0.000203	<0.000203
10/31/2022	<0.000203				<0.000203		0.000102 (J)	<0.000203	<0.000203
11/1/2022		<0.000203	<0.000203			<0.000203			
11/2/2022				<0.000203					
4/3/2023				<0.000203	<0.000203				
4/4/2023		<0.000203	<0.000203			<0.000203	9E-05 (J)	<0.000203	<0.000203
4/24/2023	<0.000203								

Time Series

Constituent: Cadmium (mg/L) Analysis Run 6/23/2023 11:16 AM View: Descriptive
Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-6	BY-AP-MW-7
3/1/2016	<0.000203	<0.000203
3/2/2016		
4/19/2016	<0.000203	
4/20/2016		<0.000203
6/7/2016	<0.000203	<0.000203
8/30/2016	<0.000203	
8/31/2016		<0.000203
10/18/2016		
10/19/2016	<0.000203	<0.000203
1/31/2017	<0.000203	<0.000203
5/2/2017		
5/3/2017	<0.000203	<0.000203
6/6/2017		
6/7/2017	<0.000203	<0.000203
1/24/2018	<0.000203	<0.000203
5/1/2018		
5/2/2018	<0.000203	<0.000203
11/27/2018		
11/28/2018	<0.000203	<0.000203
1/8/2019		
5/29/2019	<0.000203	<0.000203
7/31/2019		
9/30/2019		<0.000203
10/1/2019	<0.000203	
10/2/2019		
3/30/2020		<0.000203
3/31/2020	<0.000203	
4/1/2020		
9/1/2020		
9/2/2020	<0.000203	<0.000203
5/17/2021	<0.000203	
5/18/2021		<0.000203
5/24/2021		
5/25/2021		
10/26/2021		
10/27/2021		<0.000203
11/1/2021		
11/2/2021	7E-05 (J)	
5/24/2022		<0.000203
5/25/2022	0.00031	
10/31/2022	6.8E-05 (J)	<0.000203
11/1/2022		
11/2/2022		
4/3/2023		<0.000203
4/4/2023	<0.000203	
4/24/2023		

Time Series

Constituent: Cadmium (mg/L) Analysis Run 6/23/2023 11:16 AM View: Descriptive

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-7V	BY-AP-MW-8	BY-AP-MW-8V	BY-AP-MW-9	BY-UP-MW-1 (bg)	BY-UP-MW-2 (bg)	BY-UP-MW-3 (bg)	BY-UP-MW-4 (bg)	BY-AP-MW-25V
2/23/2016					<0.000203	<0.000203	<0.000203	<0.000203	
3/1/2016		<0.000203		<0.000203					
4/19/2016					<0.000203	<0.000203	<0.000203	<0.000203	
4/20/2016		<0.000203		<0.000203					
6/6/2016					<0.000203				<0.000203
6/7/2016		<0.000203				<0.000203	<0.000203		
6/8/2016				<0.000203					
8/30/2016		<0.000203			<0.000203	<0.000203	<0.000203	<0.000203	
8/31/2016				<0.000203					
10/18/2016		<0.000203			<0.000203	<0.000203	<0.000203	<0.000203	
10/19/2016				<0.000203					
1/31/2017		<0.000203			<0.000203	<0.000203	<0.000203	<0.000203	
2/1/2017				<0.000203					
5/2/2017					<0.000203	<0.000203	<0.000203	<0.000203	
5/3/2017		<0.000203		<0.000203					
6/6/2017					<0.000203	<0.000203	<0.000203	<0.000203	
6/7/2017		<0.000203		<0.000203					
1/23/2018				<0.000203	<0.000203	<0.000203	<0.000203	<0.000203	
1/24/2018		<0.000203							
5/1/2018						<0.000203	<0.000203	<0.000203	
5/2/2018		<0.000203		<0.000203	<0.000203				
11/26/2018									<0.000203
11/27/2018		<0.000203			<0.000203	<0.000203	<0.000203		
11/28/2018				<0.000203					
1/9/2019	<0.000203		<0.000203						
5/28/2019								<0.000203	
5/29/2019		<0.000203			<0.000203	<0.000203	<0.000203		
5/30/2019				<0.000203					
9/30/2019		<0.000203		<0.000203					
10/1/2019	<0.000203		<0.000203						
10/2/2019					<0.000203	<0.000203	<0.000203	<0.000203	
3/30/2020	<0.000203	<0.000203	<0.000203						
3/31/2020				<0.000203	<0.000203	<0.000203	<0.000203	<0.000203	
9/2/2020	<0.000203	<0.000203	<0.000203	<0.000203					<0.000203
9/8/2020								<0.000203	
9/9/2020					<0.000203	<0.000203	<0.000203		
5/11/2021		<0.000203				<0.000203	<0.000203	<0.000203	
5/12/2021					<0.000203				
5/18/2021	<0.000203		<0.000203	<0.000203					
5/24/2021									<0.000203
10/18/2021							7E-05 (J)	<0.000203	
10/19/2021					<0.000203	<0.000203			
10/26/2021		<0.000203	<0.000203						
10/27/2021	<0.000203			<0.000203					
11/2/2021									<0.000203
5/23/2022			<0.000203						
5/24/2022	<0.000203	<0.000203		<0.000203					
5/25/2022									<0.000203
5/31/2022					<0.000203	<0.000203	<0.000203	<0.000203	
10/31/2022	<0.000203		<0.000203	<0.000203					
11/1/2022					<0.000203	<0.000203	<0.000203	<0.000203	<0.000203
11/2/2022		<0.000203							

Time Series

Constituent: Cadmium (mg/L) Analysis Run 6/23/2023 11:16 AM View: Descriptive

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-7V	BY-AP-MW-8	BY-AP-MW-8V	BY-AP-MW-9	BY-UP-MW-1 (bg)	BY-UP-MW-2 (bg)	BY-UP-MW-3 (bg)	BY-UP-MW-4 (bg)	BY-AP-MW-25V
4/3/2023	<0.000203	<0.000203	<0.000203						<0.000203
4/4/2023				<0.000203					
4/12/2023					<0.000203	<0.000203	<0.000203	<0.000203	

Time Series

Constituent: Calcium, total (mg/L) Analysis Run 6/23/2023 11:16 AM View: Descriptive

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-14V	BY-AP-MW-15
3/1/2016		
3/2/2016		6.61
4/19/2016		5.97
4/20/2016		
6/8/2016		6.36
8/30/2016		
8/31/2016		6.28
10/18/2016		
10/19/2016		6.57
1/31/2017		6.77
2/1/2017		
5/2/2017		6.94
5/3/2017		
6/6/2017		6.88
6/7/2017		
9/13/2017		7.43
9/14/2017		
5/1/2018		7.42
5/2/2018		
8/28/2018		
8/29/2018		7.37
11/27/2018		7.58
11/28/2018		
1/8/2019		
5/29/2019		7.22
5/30/2019		
9/30/2019		
10/1/2019		6.9
10/2/2019		
3/30/2020		
3/31/2020		
4/1/2020		7.32
9/1/2020		
9/2/2020	4.7	7.04
5/11/2021		6.98
5/18/2021		
5/19/2021		
5/25/2021	4.66	
10/26/2021	5.28	6.46
10/27/2021		
11/1/2021		
11/2/2021		
5/23/2022		
5/24/2022	7.03	
5/25/2022		6.41
11/1/2022	5.52	6.57
11/2/2022		
4/3/2023		6.76
4/4/2023	5.34	
4/5/2023		

Time Series

Constituent: Calcium, total (mg/L) Analysis Run 6/23/2023 11:16 AM View: Descriptive

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-15V	BY-AP-MW-16	BY-AP-MW-16V	BY-AP-MW-17H	BY-AP-MW-17V	BY-AP-MW-18H	BY-AP-MW-19H	BY-AP-MW-1V	BY-AP-MW-2
3/2/2016		14.6							3.86
4/19/2016		13.3							3.22
6/8/2016		13.2							3.17
8/31/2016		11.8							3.07
10/19/2016		12.9							2.91
1/31/2017		13.5							2.94
5/2/2017		13.5							2.82
6/6/2017		13.6							2.79
9/12/2017									2.88
9/13/2017		11.8							
5/1/2018		14							2.82
8/28/2018									2.85
8/29/2018		12.1							
11/27/2018		13.3							2.8
1/8/2019								15.7	
3/20/2019						28.4			
5/29/2019		13.4							2.82
7/31/2019	9.32			19.1			31.4		
10/1/2019	8.41	11.7				27.2	31.1		2.94
10/2/2019				13.2				3.16	
3/30/2020								3.23	
3/31/2020		14.2							2.95
4/1/2020				27		23.1			
8/31/2020									3
9/1/2020	6.9			10.8	20.5	25.6	31.6	3.43	
9/2/2020		13.1	2.02						
5/17/2021				12.8					
5/18/2021					15			3.79	3.17
5/19/2021		14.2	2.26			27.1			
5/25/2021	8.47						23.9		
10/25/2021				10.5	6.58	26.9	18.3		
10/26/2021	8.16		1.96						
11/1/2021		13.4						3.68	3.13
5/23/2022						25.5			
5/24/2022	8.1						18.6	3.55	2.45
5/25/2022		13.9	1.8	11.6	49.6				
10/31/2022				11.2	58.5	31.299999	31.700001		
11/1/2022		11.1	2.24					3.5	
11/2/2022	7.84								2.03
4/3/2023									1.79
4/4/2023			2.35	10.4	83.199997			2.57	
4/5/2023		11.4				4.89			
4/24/2023	9.13						28.5		

Time Series

Constituent: Calcium, total (mg/L) Analysis Run 6/23/2023 11:16 AM View: Descriptive
Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-20H	BY-AP-MW-20V
3/2/2016		
4/19/2016		
6/8/2016		
8/31/2016		
10/19/2016		
1/31/2017		
5/2/2017		
6/6/2017		
9/12/2017		
9/13/2017		
5/1/2018		
8/28/2018		
8/29/2018		
11/27/2018		
1/8/2019		
3/20/2019		
5/29/2019		
7/31/2019	30.3	
10/1/2019	29.4	
10/2/2019		
3/30/2020		
3/31/2020		
4/1/2020	26	
8/31/2020		
9/1/2020	28.8	14.7
9/2/2020		
5/17/2021		
5/18/2021		
5/19/2021	30.9	15.3
5/25/2021		
10/25/2021		
10/26/2021	30.2	
11/1/2021		15.1
5/23/2022	28.6	
5/24/2022		14.4
5/25/2022		
10/31/2022	28	
11/1/2022		13.8
11/2/2022		
4/3/2023		
4/4/2023		
4/5/2023		
4/24/2023	28.1	24.299999

Time Series

Constituent: Calcium, total (mg/L) Analysis Run 6/23/2023 11:16 AM View: Descriptive

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-6	BY-AP-MW-7
3/1/2016	1.87	7.65
3/2/2016		
4/19/2016	1.69	
4/20/2016		7.54
6/7/2016	1.75	7.71
8/30/2016	1.77	
8/31/2016		8.1
10/18/2016		
10/19/2016	1.8	8.59
1/31/2017	1.98	8.78
5/2/2017		
5/3/2017	1.97	8.85
6/6/2017		
6/7/2017	1.98	8.99
9/12/2017		
9/14/2017	2.14	9.64
5/1/2018		
5/2/2018	2.13	9.14
8/28/2018		
8/29/2018	1.92	
11/27/2018		
11/28/2018	1.91	9.66
1/8/2019		
5/29/2019	1.72	8.88
7/31/2019		
9/30/2019		9.8
10/1/2019	1.92	
10/2/2019		
3/30/2020		10.1
3/31/2020	1.68	
4/1/2020		
9/1/2020		
9/2/2020	1.8	10.4
5/17/2021	1.93	
5/18/2021		10.2
5/24/2021		
5/25/2021		
10/26/2021		
10/27/2021		10
11/1/2021		
11/2/2021	1.97	
5/24/2022		10.5
5/25/2022	1.62	
10/31/2022	1.63	2.36
11/1/2022		
11/2/2022		
4/3/2023		3.52
4/4/2023	1.94	
4/24/2023		

Time Series

Constituent: Calcium, total (mg/L) Analysis Run 6/23/2023 11:16 AM View: Descriptive

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-7V	BY-AP-MW-8	BY-AP-MW-8V	BY-AP-MW-9	BY-UP-MW-1 (bg)	BY-UP-MW-2 (bg)	BY-UP-MW-3 (bg)	BY-UP-MW-4 (bg)	BY-AP-MW-25V
2/23/2016					1.28	1.11	1.77	1.42	
3/1/2016		36.1		40.3					
4/19/2016					1.19	1.09	1.68	1.31	
4/20/2016		34.5		38.2					
6/6/2016					1.19				1.35
6/7/2016		34.7				1.16	1.68		
6/8/2016				39.2					
8/30/2016		34.1			1.11	1.08	1.62	1.31	
8/31/2016				38.2					
10/18/2016		33.2			1.04	1.03	1.53	1.22	
10/19/2016				38.7					
1/31/2017		32.3			1.19	1.23	1.65	1.36	
2/1/2017				39.2					
5/2/2017					1.05	1.28	1.58	1.24	
5/3/2017		34.1		39.1					
6/6/2017					0.978	1.25	1.55	1.28	
6/7/2017		34.7		40.3					
9/12/2017									1.47
9/13/2017					1.14	1.6	1.71		
9/14/2017		34.4		40.7					
5/1/2018						1.58	1.76	1.47	
5/2/2018		32.3		40	1.64				
8/28/2018				40					
8/29/2018		32.6							
11/26/2018									1.52
11/27/2018		32.5			2.01	1.49	1.69		
11/28/2018				39.7					
1/9/2019	37		27.2						
5/28/2019								1.6	
5/29/2019		31.9			1.85	1.59	1.74		
5/30/2019				38.5					
9/30/2019		33		39.9					
10/1/2019	18.7		24.2						
10/2/2019					1.55	1.7	1.86	1.7	
3/30/2020	20	32.2	24.5						
3/31/2020				40.1	1.96	1.43	1.92	1.78	
9/2/2020	13.9	31.5	23.3	38					0.547
9/8/2020								1.94	
9/9/2020					1.43	1.5	1.97		
5/11/2021		33				1.39	2.06	1.93	
5/12/2021					1.34				
5/18/2021	14.1		26.4	40.5					
5/24/2021									0.554
10/18/2021							2.1	2.01	
10/19/2021					1.17	1.32			
10/26/2021		33.5	25.7						
10/27/2021	17.2			40.3					
11/2/2021									0.567
5/23/2022			24.4						
5/24/2022	8.84	31.5		38.3					
5/25/2022									0.573
5/31/2022					1.14	1.24	1.95	2.02	

Time Series

Constituent: Calcium, total (mg/L) Analysis Run 6/23/2023 11:16 AM View: Descriptive

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-7V	BY-AP-MW-8	BY-AP-MW-8V	BY-AP-MW-9	BY-UP-MW-1 (bg)	BY-UP-MW-2 (bg)	BY-UP-MW-3 (bg)	BY-UP-MW-4 (bg)	BY-AP-MW-25V
10/31/2022	3.61		23.9	38.099998					
11/1/2022					1.01	1.23	1.94	1.59	0.609
11/2/2022		31							
4/3/2023	1.43	4.21	8.95						0.703
4/4/2023				32.400002					
4/12/2023					1.02	1.16	1.83	1.76	

Time Series

Constituent: Chloride, Total (mg/L) Analysis Run 6/23/2023 11:16 AM View: Descriptive
Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-14V	BY-AP-MW-15
3/1/2016		
3/2/2016		20.9
4/19/2016		19.8
4/20/2016		
6/8/2016		24
8/30/2016		
8/31/2016		28
10/18/2016		
10/19/2016		21.3
3/21/2017		34
3/22/2017		
5/2/2017		33
5/3/2017		
6/6/2017		35
6/7/2017		
9/13/2017		36
9/14/2017		
5/1/2018		42
5/2/2018		
8/28/2018		
8/29/2018		38
11/27/2018		43
11/28/2018		
1/8/2019		
5/29/2019		47.2
5/30/2019		
9/30/2019		
10/1/2019		56.3
10/2/2019		
3/30/2020		
3/31/2020		
4/1/2020		54.7
9/1/2020		
9/2/2020	178	47
5/11/2021		80
5/18/2021		
5/19/2021		
5/25/2021	210	
10/26/2021	191	85.4
10/27/2021		
11/1/2021		
11/2/2021		
5/23/2022		
5/24/2022	184	
5/25/2022		80.7
11/1/2022	175	99.099998
11/2/2022		
4/3/2023		91.5
4/4/2023	174	
4/5/2023		

Time Series

Constituent: Chloride, Total (mg/L) Analysis Run 6/23/2023 11:16 AM View: Descriptive

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-15V	BY-AP-MW-16	BY-AP-MW-16V	BY-AP-MW-17H	BY-AP-MW-17V	BY-AP-MW-18H	BY-AP-MW-19H	BY-AP-MW-1V	BY-AP-MW-2
3/2/2016		16.6							6.08
4/19/2016		15.7							6.2
6/8/2016		15.1							6.2
8/31/2016		15.9							6.51
10/19/2016		15.3							6.85
3/21/2017		19							7.2
5/2/2017		19							8.3
6/6/2017		19							8.5
9/12/2017									8.6
9/13/2017		21							
5/1/2018		18							7.6
8/28/2018									8.5
8/29/2018		20							
11/27/2018		20							8.8
1/8/2019							42		
3/20/2019						17.6			
5/29/2019		20							8.31
7/31/2019	157			18			16.4		
10/1/2019	195	20.3				20.1	16.8		8.19
10/2/2019				17.7				60.7	
3/30/2020								69.1	
3/31/2020		20.8							8.48
4/1/2020				17.2		12.2			
8/31/2020									8.3
9/1/2020	170			18.2	273	19.8	17.6	69	
9/2/2020		20.8	75.6						
5/17/2021				17.1					
5/18/2021					225			79.5	7.89
5/19/2021		21.4	81.2			19.3			
5/25/2021	180						10.7		
10/25/2021				18.4	111	20.5	10.1		
10/26/2021	196		68.3						
11/1/2021		22.3						79.4	8.16
5/23/2022						18.9			
5/24/2022	212						10.4	95.1	9.21
5/25/2022		20	56.6	16	649				
10/31/2022				17.1	914	27.1	15.2		
11/1/2022		23.5	70.900002					98.5	
11/2/2022	179								8.49
4/3/2023									7.35
4/4/2023			55	17.6	1540			92.300003	
4/5/2023		21.799999				6.46			
4/24/2023	192						15.2		

Time Series

Constituent: Chloride, Total (mg/L) Analysis Run 6/23/2023 11:16 AM View: Descriptive
Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-20H	BY-AP-MW-20V
3/2/2016		
4/19/2016		
6/8/2016		
8/31/2016		
10/19/2016		
3/21/2017		
5/2/2017		
6/6/2017		
9/12/2017		
9/13/2017		
5/1/2018		
8/28/2018		
8/29/2018		
11/27/2018		
1/8/2019		
3/20/2019		
5/29/2019		
7/31/2019	33.4	
10/1/2019	44.7	
10/2/2019		
3/30/2020		
3/31/2020		
4/1/2020	23.1	
8/31/2020		
9/1/2020	34.6	27.1
9/2/2020		
5/17/2021		
5/18/2021		
5/19/2021	36.2	32.4
5/25/2021		
10/25/2021		
10/26/2021	34	
11/1/2021		29.6
5/23/2022	44.1	
5/24/2022		35.4
5/25/2022		
10/31/2022	35.299999	
11/1/2022		28.4
11/2/2022		
4/3/2023		
4/4/2023		
4/5/2023		
4/24/2023	37.599998	20.700001

Time Series

Constituent: Chloride, Total (mg/L) Analysis Run 6/23/2023 11:16 AM View: Descriptive
Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-6	BY-AP-MW-7
3/1/2016	5.77	11.2
3/2/2016		
4/19/2016	5.57	
4/20/2016		10.8
6/7/2016	5.52	10.8
8/30/2016	5.5	
8/31/2016		10.8
10/18/2016		
10/19/2016	5.55	10.8
3/21/2017		
3/22/2017	6	13
5/2/2017		
5/3/2017	6.4	14
6/6/2017		
6/7/2017	5.9	14
9/12/2017		
9/14/2017	6.5	13
5/1/2018		
5/2/2018	5.5	13
8/28/2018		
8/29/2018	5.4	
11/27/2018		
11/28/2018	6.2	13
1/8/2019		
5/29/2019	6.15	13.3
7/31/2019		
9/30/2019		13.1
10/1/2019	5.99	
10/2/2019		
3/30/2020		13.3
3/31/2020	5.94	
4/1/2020		
9/1/2020		
9/2/2020	5.94	12.9
5/17/2021	6.26	
5/18/2021		14.2
5/24/2021		
5/25/2021		
10/26/2021		
10/27/2021		15.3
11/1/2021		
11/2/2021	6.4	
5/24/2022		13.2
5/25/2022	6.63	
10/31/2022	7.48	95.699997
11/1/2022		
11/2/2022		
4/3/2023		59.400002
4/4/2023	7.81	
4/24/2023		

Time Series

Constituent: Chloride, Total (mg/L) Analysis Run 6/23/2023 11:16 AM View: Descriptive

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-7V	BY-AP-MW-8	BY-AP-MW-8V	BY-AP-MW-9	BY-UP-MW-1 (bg)	BY-UP-MW-2 (bg)	BY-UP-MW-3 (bg)	BY-UP-MW-4 (bg)	BY-AP-MW-25V
2/23/2016					3.59	3.99	3.68	3.5	
3/1/2016		24.5		20.4					
4/19/2016					2.89	4.08	3.72	3.63	
4/20/2016		22.5		22.7					
6/6/2016					3.12			3.6	
6/7/2016		21.6				4.28	3.66		
6/8/2016				25.3					
8/30/2016		21.6			3.91	4.26	3.7	3.54	
8/31/2016				24.4					
10/18/2016		20.2			3.9	4.26	3.77	3.68	
10/19/2016				23					
3/20/2017					3.5	4.1	3.7	4.6	
3/22/2017		24		26					
5/2/2017					3.5 (D)	5 (D)	4.6 (D)	3.9 (D)	
5/3/2017		25		26					
6/6/2017					3.1 (D)	3.9 (D)	3.4 (D)	3.4 (D)	
6/7/2017		24		27					
9/12/2017								4.3	
9/13/2017					4	4.3	3.9		
9/14/2017		24		24					
5/1/2018						3.7	4.1	3.8	
5/2/2018		23		22	9.9				
8/28/2018				21					
8/29/2018		25							
11/26/2018								3.6	
11/27/2018		27			4.7	3.2	3.5		
11/28/2018				23					
1/9/2019	16.9		21.9						
5/28/2019								3.6	
5/29/2019		27.4			5.48	2.93	3.58		
5/30/2019				27.7					
9/30/2019		25.5		21.7					
10/1/2019	13.2		22.6						
10/2/2019					3.65	2.75	3.64	3.5	
3/30/2020	15.5	22.6	22.7						
3/31/2020				20.6	3.17	2.72	3.47	3.34	
9/2/2020	14.2	22.2	22.6	18.5					3.85
9/8/2020								3.29	
9/9/2020					2.92	2.32	3.47		
5/11/2021		21.9				2.16	3.42	3.33	
5/12/2021					2.18				
5/18/2021	19		22.7	18.3					
5/24/2021									3.48
10/18/2021							3.45	3.32	
10/19/2021					2.37	2.08			
10/26/2021		21.7	23.9						
10/27/2021	18.9			19.1					
11/2/2021									3.42
5/23/2022			22.1						
5/24/2022	40.4	25		17.3					
5/25/2022									3.22
5/31/2022					1.93	2.17	3.39	3.31	

Time Series

Constituent: Chloride, Total (mg/L) Analysis Run 6/23/2023 11:16 AM View: Descriptive

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-7V	BY-AP-MW-8	BY-AP-MW-8V	BY-AP-MW-9	BY-UP-MW-1 (bg)	BY-UP-MW-2 (bg)	BY-UP-MW-3 (bg)	BY-UP-MW-4 (bg)	BY-AP-MW-25V
10/31/2022	129		27.1	25.1					
11/1/2022					2.37	2.22	3.09	3.3	3.52
11/2/2022		26.6							
4/3/2023	85.800003	10.8	279						3.61
4/4/2023				18					
4/12/2023					2.31	2.25	3.11	3.42	

Time Series

Constituent: Chromium (mg/L) Analysis Run 6/23/2023 11:16 AM View: Descriptive

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-1	BY-AP-MW-10	BY-AP-MW-10V	BY-AP-MW-11	BY-AP-MW-12	BY-AP-MW-12V	BY-AP-MW-13	BY-AP-MW-13V	BY-AP-MW-14
3/1/2016		<0.01		0.00213 (J)					
3/2/2016	0.00591 (J)				0.0042 (J)		0.00656 (J)		0.00552 (J)
4/19/2016	0.0077 (J)								
4/20/2016		<0.01		0.00214 (J)	0.0034 (J)		0.00661 (J)		0.00572 (J)
6/8/2016	0.00264 (J)	<0.01		0.00205 (J)	0.00308 (J)		0.0067 (J)		0.00492 (J)
8/30/2016									0.00534 (J)
8/31/2016	0.00246 (J)	<0.01		0.00221 (J)	0.0032 (J)		0.00693 (J)		
10/18/2016									0.00556 (J)
10/19/2016	0.00248 (J)	<0.01		0.00213 (J)	0.0035 (J)		0.00732 (J)		
1/31/2017	0.00556 (J)						0.00699 (J)		0.00514 (J)
2/1/2017		<0.01		0.00228 (J)	0.00371 (J)				
5/2/2017	0.00269 (J)								0.00524 (J)
5/3/2017		<0.01		0.00229 (J)	0.00369 (J)		0.00712 (J)		
6/6/2017	0.00295 (J)								0.00541 (J)
6/7/2017		<0.01		0.00233 (J)	0.00372 (J)		0.00752 (J)		
1/22/2018							0.00729 (J)		
1/23/2018		<0.01		0.00248 (J)	0.00605 (J)				0.00573 (J)
1/24/2018	0.00278 (J)								
5/1/2018	0.00435 (J)								
5/2/2018		<0.01		0.00273 (J)	0.00351 (J)		0.00642 (J)		0.00534 (J)
11/27/2018									0.00523 (J)
11/28/2018	0.0036 (J)	<0.01		0.0023 (J)	0.00353 (J)		0.0068 (J)		
1/8/2019			<0.01			0.0021 (J)			
5/29/2019	0.00223 (J)			0.00211 (J)	0.00333 (J)		0.00727 (J)		0.00455 (J)
5/30/2019		<0.01							
9/30/2019		<0.01		0.00228 (J)					
10/1/2019	0.00236 (J)		<0.01		0.00325 (J)		0.00764 (J)		0.00508 (J)
10/2/2019						<0.01			
3/30/2020	0.00415 (J)								
3/31/2020		<0.01	<0.01	0.00358 (J)	0.0056 (J)	<0.01	0.00955 (J)		0.00463 (J)
4/1/2020									
9/1/2020	0.00242 (J)	<0.01	<0.01	0.00259 (J)	0.00332 (J)	<0.01	0.00888 (J)		
9/2/2020								0.00525 (J)	0.00482 (J)
5/11/2021		0.000685 (J)							
5/18/2021	0.00294		0.000684 (J)		0.00377	0.00112			
5/19/2021				0.00301			0.00692	0.00416	
5/25/2021									0.00365
10/26/2021							0.00755	0.00606	
10/27/2021		0.00072 (J)	0.00068 (J)						0.00401
11/1/2021	0.00244				0.00423	0.00086 (J)			
11/2/2021				0.00348					
5/23/2022				0.00474	0.00374	0.00081 (J)			
5/24/2022	0.00238	0.00052 (J)	0.00049 (J)				0.00685		
5/25/2022								0.00488	0.00345
11/1/2022			0.000597 (J)	0.00316	0.00338	0.001 (J)	0.00772	0.00391	0.00317
11/2/2022	0.00371	0.000642 (J)							
4/3/2023	0.00638	0.00066 (J)	0.000508 (J)						
4/4/2023				0.00254	0.00351	0.000978 (J)	0.00286	0.00417	
4/5/2023									0.00336

Time Series

Constituent: Chromium (mg/L) Analysis Run 6/23/2023 11:16 AM View: Descriptive
Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-14V	BY-AP-MW-15
3/1/2016		
3/2/2016		<0.01
4/19/2016		<0.01
4/20/2016		
6/8/2016		<0.01
8/30/2016		
8/31/2016		<0.01
10/18/2016		
10/19/2016		<0.01
1/31/2017		<0.01
2/1/2017		
5/2/2017		<0.01
5/3/2017		
6/6/2017		<0.01
6/7/2017		
1/22/2018		<0.01
1/23/2018		
1/24/2018		
5/1/2018		<0.01
5/2/2018		
11/27/2018		<0.01
11/28/2018		
1/8/2019		
5/29/2019		<0.01
5/30/2019		
9/30/2019		
10/1/2019		<0.01
10/2/2019		
3/30/2020		
3/31/2020		
4/1/2020		<0.01
9/1/2020		
9/2/2020	<0.01	<0.01
5/11/2021		0.000581 (J)
5/18/2021		
5/19/2021		
5/25/2021	0.00113	
10/26/2021	0.00098 (J)	0.00052 (J)
10/27/2021		
11/1/2021		
11/2/2021		
5/23/2022		
5/24/2022	0.0006 (J)	
5/25/2022		0.00049 (J)
11/1/2022	0.000613 (J)	0.000361 (J)
11/2/2022		
4/3/2023		0.000638 (J)
4/4/2023	0.00049 (J)	
4/5/2023		

Time Series

Constituent: Chromium (mg/L) Analysis Run 6/23/2023 11:16 AM View: Descriptive

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-15V	BY-AP-MW-16	BY-AP-MW-16V	BY-AP-MW-17H	BY-AP-MW-17V	BY-AP-MW-18H	BY-AP-MW-19H	BY-AP-MW-1V	BY-AP-MW-2
3/2/2016		<0.01							<0.00102
4/19/2016		<0.01							<0.00102
6/8/2016		<0.01							<0.00102
8/31/2016		0.00215 (J)							<0.00102
10/19/2016		<0.01							<0.00102
1/31/2017		<0.01							<0.00102
5/2/2017		<0.01							<0.00102
6/6/2017		<0.01							<0.00102
1/23/2018		0.00253 (J)							
1/24/2018									<0.00102
5/1/2018		<0.01							<0.00102
11/27/2018		<0.01							<0.00102
1/8/2019								<0.01	
3/20/2019						0.00236 (J)			
5/29/2019		<0.01							<0.00102
7/31/2019	<0.001015			<0.01			<0.01		
10/1/2019	<0.001015	<0.01				<0.01	<0.01		<0.00102
10/2/2019				<0.01				<0.01	
3/30/2020								<0.01	
3/31/2020		<0.01							<0.00102
4/1/2020				<0.01		<0.01			
8/31/2020									<0.00102
9/1/2020	<0.001015			<0.01	<0.01	<0.01	<0.01	<0.01	
9/2/2020		<0.01	<0.00102						
5/17/2021				0.000627 (J)					
5/18/2021					0.000973 (J)			0.000447 (J)	0.000394 (J)
5/19/2021		0.00162	0.000385 (J)			0.00132			
5/25/2021	0.000258 (J)						0.000391 (J)		
10/25/2021				0.0006 (J)	0.00062 (J)	0.00134	0.00044 (J)		
10/26/2021	0.00026 (J)		0.0004 (J)						
11/1/2021		0.0018						0.00045 (J)	0.00029 (J)
5/23/2022						0.00133			
5/24/2022	0.00023 (J)						0.00042 (J)	0.00038 (J)	<0.00102
5/25/2022		0.00135	<0.00102	0.00033 (J)	0.00048 (J)				
10/31/2022				0.000446 (J)	0.000316 (J)	0.000706 (J)	0.000431 (J)		
11/1/2022		0.00122	0.000275 (J)					0.000558 (J)	
11/2/2022	<0.001015								0.000206 (J)
4/3/2023									0.000877 (J)
4/4/2023			0.00133	0.00042 (J)	0.000244 (J)			0.000342 (J)	
4/5/2023		0.00125				0.000484 (J)			
4/24/2023	0.000278 (J)						0.000396 (J)		

Time Series

Constituent: Chromium (mg/L) Analysis Run 6/23/2023 11:16 AM View: Descriptive
Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-20H	BY-AP-MW-20V
3/2/2016		
4/19/2016		
6/8/2016		
8/31/2016		
10/19/2016		
1/31/2017		
5/2/2017		
6/6/2017		
1/23/2018		
1/24/2018		
5/1/2018		
11/27/2018		
1/8/2019		
3/20/2019		
5/29/2019		
7/31/2019	0.00209 (J)	
10/1/2019	0.0025 (J)	
10/2/2019		
3/30/2020		
3/31/2020		
4/1/2020	<0.01	
8/31/2020		
9/1/2020	0.00283 (J)	<0.01
9/2/2020		
5/17/2021		
5/18/2021		
5/19/2021	0.00284	0.000669 (J)
5/25/2021		
10/25/2021		
10/26/2021	0.00261	
11/1/2021		0.00061 (J)
5/23/2022	0.00233	
5/24/2022		0.00046 (J)
5/25/2022		
10/31/2022	0.00246	
11/1/2022		0.000578 (J)
11/2/2022		
4/3/2023		
4/4/2023		
4/5/2023		
4/24/2023	0.00253	0.000721 (J)

Time Series

Constituent: Chromium (mg/L) Analysis Run 6/23/2023 11:16 AM View: Descriptive

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-22H	BY-AP-MW-23H	BY-AP-MW-23V	BY-AP-MW-24H	BY-AP-MW-25H	BY-AP-MW-3	BY-AP-MW-4	BY-AP-MW-5	BY-AP-MW-5V
3/1/2016							<0.01	<0.01	
3/2/2016						<0.01			
4/19/2016						<0.01	<0.01		
4/20/2016								<0.01	
6/7/2016						<0.01	<0.01	<0.01	
8/30/2016							<0.01	<0.01	
8/31/2016						<0.01			
10/18/2016								<0.01	
10/19/2016						<0.01	<0.01		
1/31/2017						<0.01	<0.01	<0.01	
5/2/2017						<0.01	<0.01		
5/3/2017								<0.01	
6/6/2017						<0.01	<0.01		
6/7/2017								<0.01	
1/24/2018						<0.01	<0.01	<0.01	
5/1/2018						<0.01	<0.01		
5/2/2018								<0.01	
11/27/2018						<0.01	<0.01	<0.01	
11/28/2018									
1/8/2019				<0.01					<0.01
5/29/2019						<0.01	<0.01	<0.01	
7/31/2019	<0.01	<0.01							
9/30/2019									
10/1/2019	<0.01	<0.01				<0.01	<0.01	<0.01	
10/2/2019				<0.01					<0.01
3/30/2020									
3/31/2020				<0.01		<0.01	<0.01	<0.01	<0.01
4/1/2020		<0.01							
9/1/2020	<0.01	<0.01	0.00284 (J)			<0.01	<0.01	<0.01	<0.01
9/2/2020				<0.01	<0.01				
5/17/2021			0.00163						
5/18/2021						0.000919 (J)	0.000544 (J)		
5/24/2021		0.000814 (J)			0.00117				
5/25/2021	0.000667 (J)			0.000878 (J)					
10/26/2021	0.00062 (J)	0.0007 (J)	0.00061 (J)	0.00104					
10/27/2021									
11/1/2021						0.00093 (J)	0.00067 (J)		
11/2/2021					0.00098 (J)			0.00101 (J)	0.00099 (J)
5/24/2022	0.00057 (J)			0.00081 (J)					
5/25/2022		0.00051 (J)	0.00046 (J)		0.00103	0.00104	0.00026 (J)	0.00103	0.00048 (J)
10/31/2022	0.000493 (J)				0.00111		0.00057 (J)	0.00096 (J)	0.001 (J)
11/1/2022		0.000394 (J)	<0.001015			0.00107			
11/2/2022				0.000799 (J)					
4/3/2023				0.000781 (J)	0.00106				
4/4/2023		0.000406 (J)	0.000237 (J)			0.00053 (J)	0.000444 (J)	0.000894 (J)	0.000566 (J)
4/24/2023	0.000486 (J)								

Time Series

Constituent: Chromium (mg/L) Analysis Run 6/23/2023 11:16 AM View: Descriptive
Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-6	BY-AP-MW-7
3/1/2016	<0.01	<0.01
3/2/2016		
4/19/2016	<0.01	
4/20/2016		<0.01
6/7/2016	<0.01	<0.01
8/30/2016	<0.01	
8/31/2016		<0.01
10/18/2016		
10/19/2016	<0.01	<0.01
1/31/2017	<0.01	<0.01
5/2/2017		
5/3/2017	<0.01	<0.01
6/6/2017		
6/7/2017	<0.01	<0.01
1/24/2018	<0.01	<0.01
5/1/2018		
5/2/2018	<0.01	0.00328 (J)
11/27/2018		
11/28/2018	<0.01	<0.01
1/8/2019		
5/29/2019	<0.01	<0.01
7/31/2019		
9/30/2019		<0.01
10/1/2019	<0.01	
10/2/2019		
3/30/2020		<0.01
3/31/2020	<0.01	
4/1/2020		
9/1/2020		
9/2/2020	<0.01	<0.01
5/17/2021	0.000313 (J)	
5/18/2021		0.00709
5/24/2021		
5/25/2021		
10/26/2021		
10/27/2021		0.00309
11/1/2021		
11/2/2021	0.00023 (J)	
5/24/2022		0.00058 (J)
5/25/2022	0.00029 (J)	
10/31/2022	0.000281 (J)	0.000263 (J)
11/1/2022		
11/2/2022		
4/3/2023		0.000246 (J)
4/4/2023	0.000267 (J)	
4/24/2023		

Time Series

Constituent: Chromium (mg/L) Analysis Run 6/23/2023 11:16 AM View: Descriptive

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-7V	BY-AP-MW-8	BY-AP-MW-8V	BY-AP-MW-9	BY-UP-MW-1 (bg)	BY-UP-MW-2 (bg)	BY-UP-MW-3 (bg)	BY-UP-MW-4 (bg)	BY-AP-MW-25V
2/23/2016					<0.01	<0.01	<0.01	<0.01	
3/1/2016		<0.01		<0.01					
4/19/2016					<0.01	<0.01	<0.01	<0.01	
4/20/2016		<0.01		<0.01					
6/6/2016					<0.01				<0.01
6/7/2016		<0.01				<0.01	<0.01		
6/8/2016				<0.01					
8/30/2016		<0.01			<0.01	<0.01	<0.01	<0.01	
8/31/2016				<0.01					
10/18/2016		<0.01			<0.01	<0.01	<0.01	<0.01	
10/19/2016				<0.01					
1/31/2017		<0.01			<0.01	<0.01	<0.01	<0.01	
2/1/2017				<0.01					
5/2/2017					<0.01	<0.01	<0.01	<0.01	
5/3/2017		<0.01		<0.01					
6/6/2017					<0.01	<0.01	<0.01	<0.01	
6/7/2017		<0.01		<0.01					
1/23/2018				<0.01	<0.01	0.00596 (J)	0.00229 (J)	<0.01	
1/24/2018		<0.01							
5/1/2018						<0.01	<0.01	<0.01	
5/2/2018		<0.01		<0.01	<0.01				
11/26/2018									<0.01
11/27/2018		<0.01			<0.01	<0.01	<0.01		
11/28/2018				<0.01					
1/9/2019	<0.01		<0.01						
5/28/2019									<0.01
5/29/2019		<0.01			<0.01	<0.01	<0.01		
5/30/2019				<0.01					
9/30/2019		<0.01		<0.01					
10/1/2019	<0.01		<0.01						
10/2/2019					<0.01	<0.01	<0.01	<0.01	
3/30/2020	<0.01	<0.01	<0.01						
3/31/2020				<0.01	<0.01	<0.01	<0.01	0.00604 (J)	
9/2/2020	<0.01	<0.01	<0.01	<0.01					<0.01
9/8/2020									<0.01
9/9/2020					<0.01	<0.01	<0.01		
5/11/2021		0.00156				0.00136	0.00146	0.00159	
5/12/2021					0.000296 (J)				
5/18/2021	0.000463 (J)		0.00129	0.00078 (J)					
5/24/2021									0.00119
10/18/2021							0.0013	0.00146	
10/19/2021					0.0003 (J)	0.00135			
10/26/2021		0.00165	0.00124						
10/27/2021	0.00052 (J)			0.00087 (J)					
11/2/2021									0.0013
5/23/2022			0.00124						
5/24/2022	0.00023 (J)	0.00128		0.0007 (J)					
5/25/2022									0.00126
5/31/2022					0.00033 (J)	0.0012	0.00139	0.00156	
10/31/2022	0.000391 (J)		0.000756 (J)	0.000692 (J)					
11/1/2022					0.000212 (J)	0.00209	0.0012	0.00111	0.00131
11/2/2022		0.001 (J)							

Time Series

Constituent: Chromium (mg/L) Analysis Run 6/23/2023 11:16 AM View: Descriptive

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-7V	BY-AP-MW-8	BY-AP-MW-8V	BY-AP-MW-9	BY-UP-MW-1 (bg)	BY-UP-MW-2 (bg)	BY-UP-MW-3 (bg)	BY-UP-MW-4 (bg)	BY-AP-MW-25V
4/3/2023	0.00059 (J)	0.00115	0.000809 (J)						0.0013
4/4/2023				0.00062 (J)					
4/12/2023					0.000215 (J)	0.00152	0.00138	0.00128	

Time Series

Constituent: Cobalt (mg/L) Analysis Run 6/23/2023 11:16 AM View: Descriptive

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-1	BY-AP-MW-10	BY-AP-MW-10V	BY-AP-MW-11	BY-AP-MW-12	BY-AP-MW-12V	BY-AP-MW-13	BY-AP-MW-13V	BY-AP-MW-14
3/1/2016		<0.005		<0.005					
3/2/2016	<0.005				0.00235 (J)		<0.005		<0.005
4/19/2016	<0.005								
4/20/2016		<0.005		<0.005	0.00212 (J)		<0.005		<0.005
6/8/2016	<0.005	<0.005		<0.005	0.00276 (J)		<0.005		<0.005
8/30/2016									<0.005
8/31/2016	<0.005	<0.005		<0.005	0.00261 (J)		<0.005		
10/18/2016									<0.005
10/19/2016	<0.005	<0.005		<0.005	0.00256 (J)		<0.005		
1/31/2017	<0.005						<0.005		<0.005
2/1/2017		<0.005		<0.005	0.00231 (J)				
5/2/2017	<0.005								<0.005
5/3/2017		<0.005		<0.005	0.00279 (J)		<0.005		
6/6/2017	<0.005								<0.005
6/7/2017		<0.005		<0.005	0.00262 (J)		<0.005		
1/22/2018							<0.005		
1/23/2018		<0.005		<0.005	0.00248 (J)				<0.005
1/24/2018	<0.005								
5/1/2018	<0.005								
5/2/2018		<0.005		<0.005	0.00271 (J)		<0.005		<0.005
11/27/2018									<0.005
11/28/2018	<0.005	<0.005		<0.005	0.00274 (J)		<0.005		
1/8/2019			<0.005			<0.005			
5/29/2019	<0.005			<0.005	0.00358 (J)		<0.005		<0.005
5/30/2019		<0.005							
9/30/2019		<0.005		<0.005					
10/1/2019	<0.005		<0.005		0.00303 (J)		<0.005		<0.005
10/2/2019						<0.005			
3/30/2020	<0.005								
3/31/2020		<0.005	<0.005	<0.005	0.00364 (J)	<0.005	<0.005		<0.005
4/1/2020									
9/1/2020	<0.005	<0.005	<0.005	<0.005	0.0031 (J)	<0.005	<0.005		
9/2/2020								<0.005	<0.005
5/11/2021		0.000636							
5/18/2021	0.000996		0.000648		0.00336	0.00237			
5/19/2021				0.00257			0.00113	0.000827	
5/25/2021									0.00124
10/26/2021							0.00122	0.00114	
10/27/2021		0.00065	0.00061						0.00125
11/1/2021	0.00091				0.0037	0.00231			
11/2/2021				0.00118					
5/23/2022				0.00118	0.00428	0.00255			
5/24/2022	0.00091	0.00054	0.00062				0.00189		
5/25/2022								0.00119	0.00125
11/1/2022			0.000667	0.00105	0.00406	0.00239	0.00274	0.00112	0.0012
11/2/2022	0.00102	0.000605							
4/3/2023	0.00133	0.000622	0.000623						
4/4/2023				0.000946	0.00309	0.00154	0.000801	0.00106	
4/5/2023									0.00119

Time Series

Constituent: Cobalt (mg/L) Analysis Run 6/23/2023 11:16 AM View: Descriptive
Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-14V	BY-AP-MW-15
3/1/2016		
3/2/2016		0.0279
4/19/2016		0.0269
4/20/2016		
6/8/2016		0.0293
8/30/2016		
8/31/2016		0.0272
10/18/2016		
10/19/2016		0.0285
1/31/2017		0.025
2/1/2017		
5/2/2017		0.0274
5/3/2017		
6/6/2017		0.0285
6/7/2017		
1/22/2018		0.0273
1/23/2018		
1/24/2018		
5/1/2018		0.0298
5/2/2018		
11/27/2018		0.0311
11/28/2018		
1/8/2019		
5/29/2019		0.0343
5/30/2019		
9/30/2019		
10/1/2019		0.0336
10/2/2019		
3/30/2020		
3/31/2020		
4/1/2020		0.0344
9/1/2020		
9/2/2020	0.00444 (J)	0.0385
5/11/2021		0.0349
5/18/2021		
5/19/2021		
5/25/2021	0.00271	
10/26/2021	0.00419	0.0347
10/27/2021		
11/1/2021		
11/2/2021		
5/23/2022		
5/24/2022	0.00327	
5/25/2022		0.0364
11/1/2022	0.00405	0.0357
11/2/2022		
4/3/2023		0.0345
4/4/2023	0.00396	
4/5/2023		

Time Series

Constituent: Cobalt (mg/L) Analysis Run 6/23/2023 11:16 AM View: Descriptive

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-15V	BY-AP-MW-16	BY-AP-MW-16V	BY-AP-MW-17H	BY-AP-MW-17V	BY-AP-MW-18H	BY-AP-MW-19H	BY-AP-MW-1V	BY-AP-MW-2
3/2/2016		0.0212							0.00842 (J)
4/19/2016		0.018							0.008 (J)
6/8/2016		0.0176							0.00796 (J)
8/31/2016		0.0134							0.00752 (J)
10/19/2016		0.0193							0.00778 (J)
1/31/2017		0.017							0.00647 (J)
5/2/2017		0.0166							0.00686 (J)
6/6/2017		0.0172							0.00694 (J)
1/23/2018		0.00621 (J)							
1/24/2018									0.00592 (J)
5/1/2018		0.0189							0.00693 (J)
11/27/2018		0.0182							0.0066
1/8/2019								0.00911	
3/20/2019						<0.000203			
5/29/2019		0.0206							0.00745
7/31/2019	0.0632			<0.005			<0.005		
10/1/2019	0.0629	0.0107				<0.000203	<0.005		0.00696
10/2/2019				0.0033 (J)				0.00289 (J)	
3/30/2020								<0.005	
3/31/2020		0.0199							0.00716
4/1/2020				<0.005		0.013			
8/31/2020									0.00751
9/1/2020	0.0665			0.00258 (J)	0.022	<0.000203	<0.005	0.00407 (J)	
9/2/2020		0.0192	0.0163						
5/17/2021				0.0013					
5/18/2021					0.0197			0.00483	0.00746
5/19/2021		0.0182	0.0153			0.00109			
5/25/2021	0.0694						0.00294		
10/25/2021				0.00371	0.00915	0.00101	0.00501		
10/26/2021	0.0757		0.0159						
11/1/2021		0.0139						0.00578	0.00706
5/23/2022						0.00108			
5/24/2022	0.0764						0.00513	0.00765	0.00582
5/25/2022		0.0155	0.0139	0.0013	0.0685				
10/31/2022				0.00156	0.0967	0.000688	0.00053		
11/1/2022		0.00812	0.0185					0.00928	
11/2/2022	0.0748								0.00497
4/3/2023									0.0042
4/4/2023			0.0168	0.000596	0.13			0.00568	
4/5/2023		0.00721				<0.000203			
4/24/2023	0.0817						0.00147		

Time Series

Constituent: Cobalt (mg/L) Analysis Run 6/23/2023 11:16 AM View: Descriptive
Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-20H	BY-AP-MW-20V
3/2/2016		
4/19/2016		
6/8/2016		
8/31/2016		
10/19/2016		
1/31/2017		
5/2/2017		
6/6/2017		
1/23/2018		
1/24/2018		
5/1/2018		
11/27/2018		
1/8/2019		
3/20/2019		
5/29/2019		
7/31/2019	0.00433 (J)	
10/1/2019	0.00431 (J)	
10/2/2019		
3/30/2020		
3/31/2020		
4/1/2020	0.00541	
8/31/2020		
9/1/2020	0.0046 (J)	0.012
9/2/2020		
5/17/2021		
5/18/2021		
5/19/2021	0.00426	0.0173
5/25/2021		
10/25/2021		
10/26/2021	0.00447	
11/1/2021		0.0236
5/23/2022	0.00423	
5/24/2022		0.0264
5/25/2022		
10/31/2022	0.00455	
11/1/2022		0.0309
11/2/2022		
4/3/2023		
4/4/2023		
4/5/2023		
4/24/2023	0.00442	0.000458

Time Series

Constituent: Cobalt (mg/L) Analysis Run 6/23/2023 11:16 AM View: Descriptive

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-22H	BY-AP-MW-23H	BY-AP-MW-23V	BY-AP-MW-24H	BY-AP-MW-25H	BY-AP-MW-3	BY-AP-MW-4	BY-AP-MW-5	BY-AP-MW-5V
3/1/2016							<0.005	<0.005	
3/2/2016						<0.005			
4/19/2016						<0.005	<0.005		
4/20/2016								<0.005	
6/7/2016						<0.005	0.00424 (J)	<0.005	
8/30/2016							0.00262 (J)	<0.005	
8/31/2016						<0.005			
10/18/2016								<0.005	
10/19/2016						<0.005	0.00469 (J)		
1/31/2017						<0.005	0.0127 (O)	<0.005	
5/2/2017						<0.005	0.00891 (J)		
5/3/2017								<0.005	
6/6/2017						<0.005	0.00217 (J)		
6/7/2017								<0.005	
1/24/2018						<0.005	<0.005	<0.005	
5/1/2018						<0.005	0.0126 (O)		
5/2/2018								<0.005	
11/27/2018						<0.005	0.00363 (J)	<0.005	
11/28/2018									
1/8/2019				0.00243 (J)					<0.000203
5/29/2019						<0.005	0.00549	<0.005	
7/31/2019	0.00233 (J)	0.0031 (J)							
9/30/2019									
10/1/2019	0.00268 (J)	0.00201 (J)				<0.005	<0.005	<0.005	
10/2/2019				0.00513					<0.000203
3/30/2020									
3/31/2020				0.00528		<0.005	0.0205	<0.005	<0.000203
4/1/2020		0.0206							
9/1/2020	0.00294 (J)	0.0273	<0.0002			<0.005	0.00657	<0.005	<0.000203
9/2/2020				0.0061	0.00246 (J)				
5/17/2021			0.000217						
5/18/2021						0.000196 (J)	0.018		
5/24/2021		0.00682			0.00156				
5/25/2021	0.00264			0.00542					
10/26/2021	0.00285	0.00495	<0.0002	0.00591					
10/27/2021									
11/1/2021						0.00016 (J)	0.00478		
11/2/2021					0.00146			0.00197	0.00013 (J)
5/24/2022	0.0027			0.00571					
5/25/2022		0.002	<0.0002		0.00132	0.00028	0.00455	0.00184	0.00106
10/31/2022	0.00274				0.00135		0.00319	0.0015	9.5E-05 (J)
11/1/2022		0.00076	0.000236			0.000152 (J)			
11/2/2022				0.00575					
4/3/2023				0.00563	0.00113				
4/4/2023		0.000522	0.0375			0.000108 (J)	0.0031	0.00112	<0.000203
4/24/2023	0.00275								

Time Series

Constituent: Cobalt (mg/L) Analysis Run 6/23/2023 11:16 AM View: Descriptive
Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-6	BY-AP-MW-7
3/1/2016	<0.005	0.011
3/2/2016		
4/19/2016	<0.005	
4/20/2016		0.0148
6/7/2016	<0.005	0.0172
8/30/2016	<0.005	
8/31/2016		0.0175
10/18/2016		
10/19/2016	<0.005	0.0189
1/31/2017	<0.005	0.0165
5/2/2017		
5/3/2017	<0.005	0.0172
6/6/2017		
6/7/2017	<0.005	0.0173
1/24/2018	<0.005	0.0158
5/1/2018		
5/2/2018	<0.005	0.0169
11/27/2018		
11/28/2018	<0.005	0.0178
1/8/2019		
5/29/2019	<0.005	0.0197
7/31/2019		
9/30/2019		0.0186
10/1/2019	<0.005	
10/2/2019		
3/30/2020		0.0172
3/31/2020	<0.005	
4/1/2020		
9/1/2020		
9/2/2020	<0.005	0.0197
5/17/2021	0.000678	
5/18/2021		0.0189
5/24/2021		
5/25/2021		
10/26/2021		
10/27/2021		0.0206
11/1/2021		
11/2/2021	0.0006	
5/24/2022		0.023
5/25/2022	0.00098	
10/31/2022	0.000588	0.00239
11/1/2022		
11/2/2022		
4/3/2023		0.00492
4/4/2023	0.000584	
4/24/2023		

Time Series

Constituent: Cobalt (mg/L) Analysis Run 6/23/2023 11:16 AM View: Descriptive

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-7V	BY-AP-MW-8	BY-AP-MW-8V	BY-AP-MW-9	BY-UP-MW-1 (bg)	BY-UP-MW-2 (bg)	BY-UP-MW-3 (bg)	BY-UP-MW-4 (bg)	BY-AP-MW-25V
2/23/2016					0.0035 (J)	<0.01	<0.005	<0.005	
3/1/2016		<0.005		<0.005					
4/19/2016					0.0038 (J)	<0.01	<0.005	<0.005	
4/20/2016		<0.005		<0.005					
6/6/2016					0.00427 (J)				<0.005
6/7/2016		<0.005				<0.01	<0.005		
6/8/2016				<0.005					
8/30/2016		<0.005			0.00348 (J)	<0.01	<0.005	<0.005	
8/31/2016				<0.005					
10/18/2016		<0.005			0.00338 (J)	<0.01	<0.005	<0.005	
10/19/2016				<0.005					
1/31/2017		<0.005			0.00308 (J)	<0.01	<0.005	<0.005	
2/1/2017				<0.005					
5/2/2017					0.00314 (J)	<0.01	<0.005	<0.005	
5/3/2017		<0.005		<0.005					
6/6/2017					0.0036 (J)	<0.01	<0.005	<0.005	
6/7/2017		<0.005		<0.005					
1/23/2018				<0.005	0.00586 (J)	0.0021 (J)	<0.005	<0.005	
1/24/2018		<0.005							
5/1/2018						<0.01	<0.005	<0.005	
5/2/2018		<0.005		<0.005	0.00702 (J)				
11/26/2018									<0.005
11/27/2018		<0.005			0.0157		<0.005		
11/28/2018				<0.005					
1/9/2019	<0.005		<0.005						
5/28/2019									<0.005
5/29/2019		<0.005			0.0109	0.00248 (J)	<0.005		
5/30/2019				<0.005					
9/30/2019		<0.005		<0.005					
10/1/2019	<0.005		<0.005						
10/2/2019					0.0129	0.00244 (J)	<0.005	<0.005	
3/30/2020	<0.005	<0.005	<0.005						
3/31/2020				<0.005	0.0123	0.00224 (J)	<0.005	<0.005	
9/2/2020	<0.005	<0.005	<0.005	<0.005					<0.005
9/8/2020									<0.005
9/9/2020					0.00697	0.00219 (J)	<0.005		
5/11/2021		0.000778				0.00194	0.00142	0.00137	
5/12/2021					0.00611				
5/18/2021	0.000139 (J)		0.000882	0.000725					
5/24/2021									0.000422
10/18/2021							0.00146	0.00139	
10/19/2021					0.00517	0.00192			
10/26/2021		0.00079	0.00088						
10/27/2021	0.00013 (J)			0.0007					
11/2/2021									0.00037
5/23/2022			0.00092						
5/24/2022	0.00011 (J)	0.00067		0.00069					
5/25/2022									0.00028
5/31/2022					0.00487	0.00194	0.00149	0.0015	
10/31/2022	7.8E-05 (J)		0.000614	0.000698					
11/1/2022					0.00394	0.0016	0.00143	0.00169	0.000337
11/2/2022		0.00059							

Time Series

Constituent: Cobalt (mg/L) Analysis Run 6/23/2023 11:16 AM View: Descriptive

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-7V	BY-AP-MW-8	BY-AP-MW-8V	BY-AP-MW-9	BY-UP-MW-1 (bg)	BY-UP-MW-2 (bg)	BY-UP-MW-3 (bg)	BY-UP-MW-4 (bg)	BY-AP-MW-25V
4/3/2023	0.000148 (J)	0.000153 (J)	0.000362						0.000304
4/4/2023				0.000737					
4/12/2023					0.00398	0.00157	0.0013	0.00127	

Time Series

Constituent: Combined Radium 226 + 228 (pCi/L) Analysis Run 6/23/2023 11:16 AM View: Descriptive
 Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-1	BY-AP-MW-10	BY-AP-MW-10V	BY-AP-MW-11	BY-AP-MW-12	BY-AP-MW-12V	BY-AP-MW-13	BY-AP-MW-13V	BY-AP-MW-14
3/1/2016		<3		<3					
3/2/2016	<3				<3		<3		<3
4/19/2016	3.0268								
4/20/2016		<3		0.667	<3		0.398		<3
6/7/2016					1.08		0.812		
6/8/2016	1.59	1.06		0.704					0.631
8/30/2016									0.693
8/31/2016	2.19	0.871		0.726	0.528		0.46 (U)		
10/18/2016									0.626
10/19/2016		1.575 (D)		0.737	0.81		0.601		
1/31/2017	1.23						1.1		0.0723 (U)
2/1/2017		1		0.766	1.11				
5/2/2017	1.62								0.363 (U)
5/3/2017		1.07		0.515	0.639		0.832		
6/6/2017	1.24								0.198 (U)
6/7/2017		0.254 (U)		1.04	0.705		0.752		
1/22/2018							0.898 (U)		
1/23/2018		0.795 (U)		1.17 (U)	1.1 (U)				0.294 (U)
1/24/2018	1.96 (U)								
5/1/2018	1.6								
5/2/2018		0.405		0.505	1.11		0.752		0.522
11/27/2018									0.576
11/28/2018	1.48	0.609		0.232 (U)	0.846		0.523		
1/8/2019			1.35			1.04			
5/29/2019	2.25			0.726	2.06		1.01		0.437 (U)
5/30/2019		0.0949 (U)							
9/30/2019		0.965		0.489 (U)					
10/1/2019	2.84		1.99		0.984		1.07		1.11
10/2/2019						0.896			
3/30/2020	2.31								
3/31/2020		1.14	0.957	0.462 (U)	1.26	0.923	0.725		0.941
4/1/2020									
6/17/2020								1.22	
5/11/2021		1.12 (U)							
5/18/2021	2.99		1.66		1.11	1.31			
5/19/2021				1.15			1.15	0.783 (U)	
5/25/2021									0.978 (U)
10/26/2021							1.74	1.6	
10/27/2021		1.2 (U)	1.44 (U)						0.587 (U)
11/1/2021	2.22				1.79	0.814 (U)			
11/2/2021				0.504 (U)					
5/23/2022				0.452 (U)	1.4	0.962 (U)			
5/24/2022	2.12	1.36 (U)	1.2				0.915 (U)		
5/25/2022								0.951 (U)	1.25
11/1/2022			1.34	1.03	0.672 (U)	0.816 (U)	0.569 (U)	0.933 (U)	0.528 (U)
11/2/2022	1.96	0.886 (U)							
4/3/2023	1.84	0.75 (U)	1.24						
4/4/2023				0.562 (U)	1.42	1.48	0.885 (U)	0.957 (U)	
4/5/2023									0.746 (U)

Time Series

Constituent: Combined Radium 226 + 228 (pCi/L) Analysis Run 6/23/2023 11:16 AM View: Descriptive
Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-14V	BY-AP-MW-15
3/1/2016		
3/2/2016		<3
4/19/2016		<3
4/20/2016		
6/7/2016		
6/8/2016		0.557
8/30/2016		
8/31/2016		0.765
10/18/2016		
10/19/2016		0.654
1/31/2017		0.402 (U)
2/1/2017		
5/2/2017		0.578
5/3/2017		
6/6/2017		0.128 (U)
6/7/2017		
1/22/2018		0.768 (U)
1/23/2018		
1/24/2018		
5/1/2018		0.651
5/2/2018		
11/27/2018		0.764
11/28/2018		
1/8/2019		
5/29/2019		0.433
5/30/2019		
9/30/2019		
10/1/2019		0.988
10/2/2019		
3/30/2020		
3/31/2020		
4/1/2020		0.527
6/17/2020	0.726	
5/11/2021		0.684 (U)
5/18/2021		
5/19/2021		
5/25/2021	0.859 (U)	
10/26/2021	1.34 (U)	1.95
10/27/2021		
11/1/2021		
11/2/2021		
5/23/2022		
5/24/2022	1.26	
5/25/2022		1.3
11/1/2022	1.38	1.15
11/2/2022		
4/3/2023		1.63
4/4/2023	1.23 (U)	
4/5/2023		

Time Series

Constituent: Combined Radium 226 + 228 (pCi/L) Analysis Run 6/23/2023 11:16 AM View: Descriptive

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-15V	BY-AP-MW-16	BY-AP-MW-16V	BY-AP-MW-17H	BY-AP-MW-17V	BY-AP-MW-18H	BY-AP-MW-19H	BY-AP-MW-1V	BY-AP-MW-2
3/2/2016		<3							<3
4/19/2016		<3							<3
6/8/2016		0.344 (U)							0.121 (U)
8/31/2016		0.582							0.348 (U)
10/19/2016		0.448							0.48
1/31/2017		0.653							0.00333 (U)
5/2/2017		0.698							0.4 (U)
6/6/2017		0.548							0.083 (U)
1/23/2018		0.98 (U)							
1/24/2018									0.404 (U)
5/1/2018		0.623							0.457
11/27/2018		0.744							0.359 (U)
1/8/2019								1.06	
5/29/2019		2.51							1.18
7/31/2019	1.09 (D)			0.621 (D)			0.272 (UD)		
10/1/2019	1.51	0.443 (U)				0.6	0.817		0.284 (U)
10/2/2019				1.14				1.03	
3/30/2020								0.579	
3/31/2020		0.341 (U)							0.699
4/1/2020				0.797		1.05			
5/12/2020	1.67						0.691		
6/16/2020			0.642		2.17				
6/17/2020									
5/17/2021				1.64					
5/18/2021					1.05 (U)			0.814 (U)	0.72 (U)
5/19/2021		0.321 (U)	0.496 (U)			0.971 (U)			
5/25/2021	1.72						1.04 (U)		
10/25/2021				1.57	1.04 (U)	1.2	1.03 (U)		
10/26/2021	2.53		0.773 (U)						
11/1/2021		1.28						1.3 (U)	0.523 (U)
5/23/2022						1.03 (U)			
5/24/2022	1.85						1.06 (U)	2	0.732 (U)
5/25/2022		0.927 (U)	1.03 (U)	1.71	5.37				
10/31/2022				0.928 (U)	5.26	0.691 (U)	1.11		
11/1/2022		1.09	0.705 (U)					1.35	
11/2/2022	1.46								0.366 (U)
4/3/2023									0.24 (U)
4/4/2023			1.07	1.09 (U)	9.59			1.62	
4/5/2023		1.5				0.675 (U)			
4/24/2023	2.02						1.35		

Time Series

Constituent: Combined Radium 226 + 228 (pCi/L) Analysis Run 6/23/2023 11:16 AM View: Descriptive
Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-20H	BY-AP-MW-20V
3/2/2016		
4/19/2016		
6/8/2016		
8/31/2016		
10/19/2016		
1/31/2017		
5/2/2017		
6/6/2017		
1/23/2018		
1/24/2018		
5/1/2018		
11/27/2018		
1/8/2019		
5/29/2019		
7/31/2019	0.268 (UD)	
10/1/2019	1.22	
10/2/2019		
3/30/2020		
3/31/2020		
4/1/2020	0.968	
5/12/2020		
6/16/2020		
6/17/2020		0.767
5/17/2021		
5/18/2021		
5/19/2021	1.03 (U)	1.43
5/25/2021		
10/25/2021		
10/26/2021	1.28 (U)	
11/1/2021		1.48
5/23/2022	0.657 (U)	
5/24/2022		0.97 (U)
5/25/2022		
10/31/2022	1.15	
11/1/2022		0.873
11/2/2022		
4/3/2023		
4/4/2023		
4/5/2023		
4/24/2023	1.17	0.605 (U)

Time Series

Constituent: Combined Radium 226 + 228 (pCi/L) Analysis Run 6/23/2023 11:16 AM View: Descriptive

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-22H	BY-AP-MW-23H	BY-AP-MW-23V	BY-AP-MW-24H	BY-AP-MW-25H	BY-AP-MW-3	BY-AP-MW-4	BY-AP-MW-5	BY-AP-MW-5V
3/1/2016							<3	<3	
3/2/2016						<3			
4/19/2016						<3	<3		
4/20/2016								3.0801	
6/7/2016						0.455	0.287 (U)	1.5	
8/30/2016							0.585	1.17	
8/31/2016						0.329 (U)			
10/18/2016								1.93	
10/19/2016						0.536	1.85		
1/31/2017						0.496	0.25 (U)	1	
5/2/2017						0.149 (U)	0.391 (U)		
5/3/2017								1.48	
6/6/2017						0.191 (U)	0.183 (U)		
6/7/2017								0.915	
1/24/2018						0.543 (U)	0.622 (U)	1.74 (U)	
5/1/2018						0.372 (U)	0.0917 (U)		
5/2/2018								0.58	
11/27/2018						0.591	0.695	1.43	
11/28/2018									
1/8/2019				1.49					0.298 (U)
5/29/2019						2.31	0.947	2.16	
7/31/2019	0.448 (D)	0.331 (UD)							
9/30/2019									
10/1/2019	0.508	1.05				1.52	0.7	2.14	
10/2/2019				1.24					0.206 (U)
3/30/2020									
3/31/2020				0.577		0.478 (U)	0.323 (U)	0.754	0.024 (U)
4/1/2020		0.618							
5/12/2020	0.61								
6/16/2020			0.752 (U)						
6/17/2020					0.554				
5/17/2021			0.374 (U)						
5/18/2021						0.749 (U)	0.734 (U)		
5/24/2021		1.1 (U)			0.545 (U)				
5/25/2021	1.26			0.695 (U)					
10/26/2021	1.52	1.13 (U)	0.285 (U)	0.987 (U)					
10/27/2021									
11/1/2021						0.688 (U)	0.888 (U)		
11/2/2021					0.707 (U)			2.06	0.158 (U)
5/24/2022	0.656 (U)			1.08 (U)					
5/25/2022		0.674 (U)	0.285 (U)		0.682 (U)	1.72	0.821 (U)	1.71	1.03 (U)
10/31/2022	0.454 (U)				0.793 (U)		0.927	0.75 (U)	0.7 (U)
11/1/2022		0.583 (U)	0.656 (U)			0.505 (U)			
11/2/2022				1.05					
4/3/2023				1.46	0.724 (U)				
4/4/2023		0.92 (U)	1.91			0.479 (U)	1.82	1.15	1.13 (U)
4/24/2023	1 (U)								

Time Series

Constituent: Combined Radium 226 + 228 (pCi/L) Analysis Run 6/23/2023 11:16 AM View: Descriptive
Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-6	BY-AP-MW-7
3/1/2016	<3	<3
3/2/2016		
4/19/2016	<3	
4/20/2016		<3
6/7/2016	0.353 (U)	0.555 (U)
8/30/2016	0.428 (U)	
8/31/2016		0.284 (U)
10/18/2016		
10/19/2016	0.449 (U)	0.557 (U)
1/31/2017	-0.0173 (U)	0.0949 (U)
5/2/2017		
5/3/2017	0.447	0.53
6/6/2017		
6/7/2017	0.572	-0.231 (U)
1/24/2018	1.09 (U)	0.691 (U)
5/1/2018		
5/2/2018	0.187 (U)	0.535
11/27/2018		
11/28/2018	0.478 (U)	0.62
1/8/2019		
5/29/2019	-0.276 (U)	0.244 (U)
7/31/2019		
9/30/2019		0.388 (U)
10/1/2019	0.742	
10/2/2019		
3/30/2020		0.744
3/31/2020	0.291 (U)	
4/1/2020		
5/12/2020		
6/16/2020		
6/17/2020		
5/17/2021	1.84	
5/18/2021		0.597 (U)
5/24/2021		
5/25/2021		
10/26/2021		
10/27/2021		1.46 (U)
11/1/2021		
11/2/2021	0.773 (U)	
5/24/2022		1.05 (U)
5/25/2022	1.06 (U)	
10/31/2022	0.925	0.932
11/1/2022		
11/2/2022		
4/3/2023		0.49 (U)
4/4/2023	1.33	
4/24/2023		

Time Series

Constituent: Combined Radium 226 + 228 (pCi/L) Analysis Run 6/23/2023 11:16 AM View: Descriptive

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-7V	BY-AP-MW-8	BY-AP-MW-8V	BY-AP-MW-9	BY-UP-MW-1 (bg)	BY-UP-MW-2 (bg)	BY-UP-MW-3 (bg)	BY-UP-MW-4 (bg)	BY-AP-MW-25V
2/23/2016					2.8971 (U)	3 (U)	3 (U)	2.1138	
3/1/2016		<3		<3					
4/19/2016					3 (U)	3 (U)	3 (U)	3 (U)	
4/20/2016		<3		<3					
6/6/2016					0.841			0.757	
6/7/2016		0.853				0.652	0.342 (U)		
6/8/2016				0.837					
8/30/2016		0.669			1.74	0.411 (U)	0.702	0.992	
8/31/2016				0.917					
10/18/2016		1.32			1.47	1	0.791	0.905	
10/19/2016				1.41					
1/31/2017		0.801			0.952	0.398 (U)	0.0613 (U)	1.08	
2/1/2017				0.785					
5/2/2017					0.768	0.66	0.974	1.18	
5/3/2017		0.648		1.33					
6/6/2017					1.04	0.639	0.748	1.1	
6/7/2017		0.408 (U)		0.758					
1/23/2018				1.06 (U)	0.513 (U)	0.669 (U)	0.558 (U)	1.32 (U)	
1/24/2018		0.706 (U)							
5/1/2018						1.06	0.296 (U)	1.19	
5/2/2018		0.572		0.983	0.916				
11/26/2018								0.863	
11/27/2018		0.687			1.37	0.636	0.357 (U)		
11/28/2018				0.747					
1/9/2019	0.527		1.69						
5/28/2019								0.474 (U)	
5/29/2019		0.627 (U)			1.57	0.579 (U)	0.275 (U)		
5/30/2019				1.08					
9/30/2019		0.321 (U)		0.58					
10/1/2019	1.01		1.66						
10/2/2019					0.905	1.33	0.458 (U)	0.624 (U)	
3/30/2020	0.604	0.6	0.787						
3/31/2020				0.82	1.77	0.814	0.941	1.09	
6/17/2020									0.479
5/11/2021		0.648 (U)				0.945 (U)	0.521 (U)	0.969 (U)	
5/12/2021					0.639 (U)				
5/18/2021	0.199 (U)		0.975 (U)	0.98 (U)					
5/24/2021									0.531 (U)
10/18/2021							1.75	2.19	
10/19/2021					1.77	1.85			
10/26/2021		1.61	1.61						
10/27/2021	0.914 (U)			1.07 (U)					
11/2/2021									1.05 (U)
5/23/2022			1.13						
5/24/2022	0.619 (U)	0.733 (U)		2.11					
5/25/2022									0.527 (U)
5/31/2022					1.34	1.38	1.67	1.47	
10/31/2022	0.332 (U)		1.12	1.64					
11/1/2022					1.11	1	0.53 (U)	1.36	0.545 (U)
11/2/2022		0.503 (U)							
4/3/2023	0.856 (U)	1.21	0.795 (U)						1.32
4/4/2023				1.05 (U)					

Time Series

Constituent: Combined Radium 226 + 228 (pCi/L) Analysis Run 6/23/2023 11:16 AM View: Descriptive

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-7V	BY-AP-MW-8	BY-AP-MW-8V	BY-AP-MW-9	BY-UP-MW-1 (bg)	BY-UP-MW-2 (bg)	BY-UP-MW-3 (bg)	BY-UP-MW-4 (bg)	BY-AP-MW-25V
4/12/2023					1.03 (U)	1.07	1.28	1.17	

Time Series

Constituent: Fluoride, total (mg/L) Analysis Run 6/23/2023 11:16 AM View: Descriptive

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-1	BY-AP-MW-10	BY-AP-MW-10V	BY-AP-MW-11	BY-AP-MW-12	BY-AP-MW-12V	BY-AP-MW-13	BY-AP-MW-13V	BY-AP-MW-14
3/1/2016		0.02 (J)		0.06 (J)					
3/2/2016	0.03 (J)				0.04 (J)		0.05 (J)		0.07 (J)
4/19/2016	0.052 (J)								
4/20/2016		0.034 (J)		0.073 (J)	0.059 (J)		0.064 (J)		0.076 (J)
6/8/2016	0.069 (J)	0.061 (J)		0.085 (J)	0.08 (J)		0.082 (J)		0.105 (J)
8/30/2016									0.083 (J)
8/31/2016	0.043 (J)	0.04 (J)		0.064 (J)	0.059 (J)		0.062 (J)		
10/18/2016									0.067 (J)
10/19/2016	<0.1	0.03 (J)		0.05 (J)	0.045 (J)		0.049 (J)		
3/21/2017	0.04 (J)								
3/22/2017		<0.125		0.05 (J)	0.04 (J)		0.05 (J)		0.06 (J)
5/2/2017	0.05 (J)								0.08 (J)
5/3/2017		0.04 (J)		0.06 (J)	0.06 (J)		0.06 (J)		
6/6/2017	0.049 (J)								0.077 (J)
6/7/2017		0.04 (J)		0.06 (J)	0.06 (J)		0.07 (J)		
9/13/2017	<0.1 (U*)			<0.1 (U*)	<0.1 (U*)		<0.1 (U*)		<0.1 (U*)
9/14/2017		0.04 (J)							
1/22/2018							0.06 (J)		
1/23/2018		<0.125		0.06 (J)	0.05 (J)				0.08 (J)
1/24/2018	0.05 (J)								
5/1/2018	0.05 (J)								
5/2/2018		<0.125		0.06 (J)	0.06 (J)		0.07 (J)		0.08 (J)
11/27/2018									0.06 (J)
11/28/2018	<0.1	<0.125		0.05 (J)	0.04 (J)		0.05 (J)		
1/8/2019			0.123			0.0729 (J)			
5/29/2019	0.0858 (J)			0.0759 (J)	0.0677 (J)		0.0679 (J)		0.0781 (J)
5/30/2019		0.0573 (J)							
9/30/2019		<0.125		0.0733 (J)					
10/1/2019	0.0744 (J)		0.0517 (J)		0.0682 (J)		0.0703 (J)		0.0885 (J)
10/2/2019						0.12			
3/30/2020	0.0726 (J)								
3/31/2020		<0.125	<0.125	0.078 (J)	0.0755 (J)	0.0828 (J)	0.0665 (J)		0.0867 (J)
4/1/2020									
9/1/2020	0.194	0.0794 (J)	0.0695 (J)	0.0841 (J)	0.0845 (J)	0.0947 (J)	0.0757 (J)		
9/2/2020								0.0864 (J)	0.0957 (J)
5/11/2021		0.105							
5/18/2021	0.0884 (J)		<0.125		0.0614 (J)	0.0783 (J)			
5/19/2021				0.0994 (J)			0.0748 (J)	0.0884 (J)	
5/25/2021									0.0957 (J)
10/26/2021							0.0641 (J)	0.096 (J)	
10/27/2021		<0.125	<0.125						0.0651 (J)
11/1/2021	0.181				0.0928 (J)	0.123			
11/2/2021				0.101					
5/23/2022				0.0709 (J)	0.0873 (J)	<0.125			
5/24/2022	0.0801 (J)	<0.125	<0.125				0.0769 (J)		
5/25/2022								<0.125	0.0733 (J)
11/1/2022			0.0602 (J)	0.0612 (J)	0.0695 (J)	0.13	0.13	0.069 (J)	0.0685 (J)
11/2/2022	0.0665 (J)	<0.125							
4/3/2023	0.0717 (J)	<0.125	<0.125						
4/4/2023				0.126	0.081 (J)	0.126	0.187	0.0687 (J)	
4/5/2023									0.127

Time Series

Constituent: Fluoride, total (mg/L) Analysis Run 6/23/2023 11:16 AM View: Descriptive
Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-14V	BY-AP-MW-15
3/1/2016		
3/2/2016		0.18 (J)
4/19/2016		0.21 (J)
4/20/2016		
6/8/2016		0.223 (J)
8/30/2016		
8/31/2016		0.196 (J)
10/18/2016		
10/19/2016		0.166 (J)
3/21/2017		0.18
3/22/2017		
5/2/2017		0.18
5/3/2017		
6/6/2017		0.18
6/7/2017		
9/13/2017		<0.1 (U*)
9/14/2017		
1/22/2018		0.19
1/23/2018		
1/24/2018		
5/1/2018		0.19
5/2/2018		
11/27/2018		0.18
11/28/2018		
1/8/2019		
5/29/2019		0.168
5/30/2019		
9/30/2019		
10/1/2019		0.185
10/2/2019		
3/30/2020		
3/31/2020		
4/1/2020		0.187
9/1/2020		
9/2/2020	0.359	0.18
5/11/2021		0.214
5/18/2021		
5/19/2021		
5/25/2021	0.378	
10/26/2021	0.384	0.171
10/27/2021		
11/1/2021		
11/2/2021		
5/23/2022		
5/24/2022	0.291	
5/25/2022		0.214
11/1/2022	0.275	0.177
11/2/2022		
4/3/2023		0.26
4/4/2023	0.302	
4/5/2023		

Time Series

Constituent: Fluoride, total (mg/L) Analysis Run 6/23/2023 11:16 AM View: Descriptive

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-15V	BY-AP-MW-16	BY-AP-MW-16V	BY-AP-MW-17H	BY-AP-MW-17V	BY-AP-MW-18H	BY-AP-MW-19H	BY-AP-MW-1V	BY-AP-MW-2
3/2/2016		0.04 (J)							0.04 (J)
4/19/2016		0.05 (J)							0.038 (J)
6/8/2016		0.073 (J)							0.067 (J)
8/31/2016		0.051 (J)							0.05 (J)
10/19/2016		<0.125							<0.125
3/21/2017		0.04 (J)							<0.125
5/2/2017		0.05 (J)							0.04 (J)
6/6/2017		0.053 (J)							0.04 (J)
9/12/2017									0.037 (J)
9/13/2017		<0.125 (U*)							
1/23/2018		0.05 (J)							
1/24/2018									<0.125
5/1/2018		0.05 (J)							<0.125
11/27/2018		<0.125							<0.125
1/8/2019								0.0548 (J)	
3/20/2019						0.215			
5/29/2019		0.0683 (J)							<0.125
7/31/2019	0.0515 (J)			0.178			0.153		
10/1/2019	0.0931 (J)	0.0774 (J)				0.071 (J)	0.0712 (J)		<0.125
10/2/2019				0.254				0.0595 (J)	
3/30/2020								<0.125	
3/31/2020		0.0602 (J)							<0.125
4/1/2020				0.151		0.0722 (J)			
8/31/2020									<0.125
9/1/2020	0.0624 (J)			0.196	0.144	0.0784 (J)	0.0752 (J)	<0.125	
9/2/2020		<0.125	<0.125						
5/17/2021				0.148					
5/18/2021					0.16			<0.125	<0.125
5/19/2021		0.0793 (J)	<0.125			0.0886 (J)			
5/25/2021	<0.125						0.0673 (J)		
10/25/2021				0.162	0.172	0.11	<0.125		
10/26/2021	0.0808 (J)		<0.125						
11/1/2021		0.0887 (J)						<0.125	<0.125
5/23/2022						0.0857 (J)			
5/24/2022	<0.125 (D)						<0.125	<0.125	<0.125
5/25/2022		<0.125	<0.125	0.138	0.0799 (J)				
10/31/2022				0.135	0.118 (J)	0.148	<0.125		
11/1/2022		0.112 (J)	<0.125					<0.125	
11/2/2022	<0.125								0.0711 (J)
4/3/2023									<0.125
4/4/2023			<0.125	0.176	0.108 (J)			<0.125	
4/5/2023		0.144				0.0765 (J)			
4/24/2023	<0.125						0.083 (J)		

Time Series

Constituent: Fluoride, total (mg/L) Analysis Run 6/23/2023 11:16 AM View: Descriptive
Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-20H	BY-AP-MW-20V
3/2/2016		
4/19/2016		
6/8/2016		
8/31/2016		
10/19/2016		
3/21/2017		
5/2/2017		
6/6/2017		
9/12/2017		
9/13/2017		
1/23/2018		
1/24/2018		
5/1/2018		
11/27/2018		
1/8/2019		
3/20/2019		
5/29/2019		
7/31/2019	0.0934 (J)	
10/1/2019	0.0838 (J)	
10/2/2019		
3/30/2020		
3/31/2020		
4/1/2020	0.0793 (J)	
8/31/2020		
9/1/2020	0.0954 (J)	0.106
9/2/2020		
5/17/2021		
5/18/2021		
5/19/2021	0.0852 (J)	0.123
5/25/2021		
10/25/2021		
10/26/2021	0.114	
11/1/2021		0.14
5/23/2022	0.124 (J)	
5/24/2022		0.0811 (J)
5/25/2022		
10/31/2022	0.0822 (J)	
11/1/2022		0.0715 (J)
11/2/2022		
4/3/2023		
4/4/2023		
4/5/2023		
4/24/2023	0.0659 (J)	0.145

Time Series

Constituent: Fluoride, total (mg/L) Analysis Run 6/23/2023 11:16 AM View: Descriptive

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-22H	BY-AP-MW-23H	BY-AP-MW-23V	BY-AP-MW-24H	BY-AP-MW-25H	BY-AP-MW-3	BY-AP-MW-4	BY-AP-MW-5	BY-AP-MW-5V
3/1/2016							0.02 (J)	0.04 (J)	
3/2/2016						0.01 (J)			
4/19/2016						0.014 (J)	0.016 (J)		
4/20/2016								0.043 (J)	
6/7/2016						0.049 (J)	0.047 (J)	0.075 (J)	
8/30/2016							0.035 (J)	0.057 (J)	
8/31/2016						0.034 (J)			
10/18/2016								0.049 (J)	
10/19/2016						0.023 (J)	0.025 (J)		
3/21/2017						<0.125	<0.125		
3/22/2017								0.04 (J)	
5/2/2017						<0.125	<0.125		
5/3/2017								0.05 (J)	
6/6/2017						<0.125	<0.125		
6/7/2017								0.05 (J)	
9/12/2017						<0.125	<0.125		
9/14/2017								0.06 (J)	
1/24/2018						<0.125	<0.125	0.05 (J)	
5/1/2018						<0.125	<0.125		
5/2/2018								0.05 (J)	
11/27/2018						<0.125	<0.125	<0.125	
11/28/2018									
1/8/2019				0.147					<0.125
5/29/2019						<0.125	<0.125	0.0923 (J)	
7/31/2019	0.257	0.0766 (J)							
9/30/2019									
10/1/2019	0.268	0.0804 (J)				<0.125	<0.125	0.0557 (J)	
10/2/2019				0.183					0.0777 (J)
3/30/2020									
3/31/2020				0.148		<0.125	<0.125	0.0735 (J)	<0.125
4/1/2020		0.0607 (J)							
9/1/2020	0.301	0.0919 (J)	0.401			<0.125	<0.125	0.0921 (J)	0.0807 (J)
9/2/2020				0.158	<0.125				
5/17/2021			0.379						
5/18/2021						<0.125	<0.125		
5/24/2021		0.0734 (J)			<0.125				
5/25/2021	0.282			0.156					
10/26/2021	0.323	0.0709 (J)	0.445	0.158					
10/27/2021									
11/1/2021						<0.125	<0.125		
11/2/2021					<0.125			0.0964 (J)	0.0627 (J)
5/24/2022	0.318			0.135					
5/25/2022		<0.125	0.385		<0.125	<0.125	<0.125	<0.125	<0.125
10/31/2022	0.257				<0.125		<0.125	0.0614 (J)	<0.125
11/1/2022		<0.125	0.222			<0.125			
11/2/2022				0.131					
4/3/2023				0.175	<0.125				
4/4/2023		0.0744 (J)	0.0682 (J)			<0.125	<0.125	0.0631 (J)	<0.125
4/24/2023	0.255								

Time Series

Constituent: Fluoride, total (mg/L) Analysis Run 6/23/2023 11:16 AM View: Descriptive
Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-6	BY-AP-MW-7
3/1/2016	<0.125	0.06 (J)
3/2/2016		
4/19/2016	0.016 (J)	
4/20/2016		0.078 (J)
6/7/2016	0.048 (J)	0.101 (J)
8/30/2016	0.034 (J)	
8/31/2016		0.086 (J)
10/18/2016		
10/19/2016	0.023 (J)	0.075 (J)
3/21/2017		
3/22/2017	<0.125	0.06 (J)
5/2/2017		
5/3/2017	<0.125	0.08 (J)
6/6/2017		
6/7/2017	<0.125	0.08 (J)
9/12/2017		
9/14/2017	<0.125	0.07 (J)
1/24/2018	<0.125	0.09 (J)
5/1/2018		
5/2/2018	<0.125	0.08 (J)
11/27/2018		
11/28/2018	<0.125	0.07 (J)
1/8/2019		
5/29/2019	<0.125	0.0937 (J)
7/31/2019		
9/30/2019		0.0925 (J)
10/1/2019	<0.125	
10/2/2019		
3/30/2020		0.0933 (J)
3/31/2020	<0.125	
4/1/2020		
9/1/2020		
9/2/2020	<0.125	0.109
5/17/2021	<0.125	
5/18/2021		0.11
5/24/2021		
5/25/2021		
10/26/2021		
10/27/2021		0.0823 (J)
11/1/2021		
11/2/2021	<0.125	
5/24/2022		0.0724 (J)
5/25/2022	<0.125	
10/31/2022	<0.125	0.381
11/1/2022		
11/2/2022		
4/3/2023		0.171
4/4/2023	<0.125	
4/24/2023		

Time Series

Constituent: Fluoride, total (mg/L) Analysis Run 6/23/2023 11:16 AM View: Descriptive

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-7V	BY-AP-MW-8	BY-AP-MW-8V	BY-AP-MW-9	BY-UP-MW-1 (bg)	BY-UP-MW-2 (bg)	BY-UP-MW-3 (bg)	BY-UP-MW-4 (bg)	BY-AP-MW-25V
2/23/2016					0.03 (J)	0.02 (J)	0.02 (J)	0.02 (J)	
3/1/2016		0.03 (J)		0.04 (J)					
4/19/2016					0.023 (J)	0.021 (J)	0.016 (J)	0.015 (J)	
4/20/2016		0.043 (J)		0.052 (J)					
6/6/2016					0.062 (J)			0.05 (J)	
6/7/2016		0.069 (J)				0.06 (J)	0.052 (J)		
6/8/2016				0.077 (J)					
8/30/2016		0.052 (J)			0.053 (J)	0.05 (J)	0.038 (J)	0.036 (J)	
8/31/2016				0.056 (J)					
10/18/2016		0.042 (J)			0.042 (J)	0.04 (J)	0.03 (J)	0.025 (J)	
10/19/2016				0.045 (J)					
3/20/2017					<0.125	<0.125	<0.125	<0.125	
3/22/2017		<0.125		0.05 (J)					
5/2/2017					0.04 (JD)	0.04 (JD)	0.1 (D)	0.1 (D)	
5/3/2017		0.05 (J)		0.06 (J)					
6/6/2017					0.1 (D)	0.04 (JD)	0.1 (D)	0.1 (D)	
6/7/2017		0.05 (J)		0.06 (J)					
9/12/2017									<0.125
9/13/2017					0.04 (J)	0.043 (J)	<0.125		
9/14/2017		0.05 (J)		0.07 (J)					
1/23/2018				0.06 (J)	<0.125	0.04 (J)	<0.125	<0.125	
1/24/2018		0.04 (J)							
5/1/2018						0.04 (J)	<0.125	<0.125	
5/2/2018		0.04 (J)		0.05 (J)	0.04 (J)				
11/26/2018									<0.125
11/27/2018		<0.125			<0.125	<0.125	<0.125		
11/28/2018				0.04 (J)					
1/9/2019	0.139		0.0831 (J)						
5/28/2019									<0.125
5/29/2019		0.0958 (J)			0.0502 (J)	<0.125	<0.125		
5/30/2019				0.0763 (J)					
9/30/2019		0.0559 (J)		0.0679 (J)					
10/1/2019	0.0871 (J)		0.0832 (J)						
10/2/2019					<0.125	<0.125	<0.125	<0.125	
3/30/2020	0.127	0.0701 (J)	0.0935 (J)						
3/31/2020				0.0655 (J)	<0.125	<0.125	<0.125	<0.125	
9/2/2020	0.126	<0.125	0.098 (J)	0.0804 (J)					<0.125
9/8/2020									<0.125
9/9/2020					<0.125	<0.125	<0.125	<0.125	
5/11/2021		0.094 (J)				<0.125	<0.125	<0.125	
5/12/2021					<0.125				
5/18/2021	0.112		0.0958 (J)	0.0709 (J)					
5/24/2021									<0.125
10/18/2021							<0.125	<0.125	
10/19/2021					<0.125	<0.125			
10/26/2021		<0.125	0.107						
10/27/2021	0.0795 (J)			0.0803 (J)					
11/2/2021									<0.125
5/23/2022			0.108 (J)						
5/24/2022	0.0869 (J)	0.0713 (J)		<0.125					
5/25/2022									<0.125
5/31/2022					<0.125	<0.125	<0.125	<0.125	

Time Series

Constituent: Fluoride, total (mg/L) Analysis Run 6/23/2023 11:16 AM View: Descriptive

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-7V	BY-AP-MW-8	BY-AP-MW-8V	BY-AP-MW-9	BY-UP-MW-1 (bg)	BY-UP-MW-2 (bg)	BY-UP-MW-3 (bg)	BY-UP-MW-4 (bg)	BY-AP-MW-25V
10/31/2022	0.428		0.0963 (J)	0.0788 (J)					
11/1/2022					<0.125	<0.125	<0.125	<0.125	<0.125
11/2/2022		<0.125							
4/3/2023	0.418	0.0706 (J)	0.212						<0.125
4/4/2023				0.0797 (J)					
4/12/2023					<0.125	<0.125	<0.125	<0.125	

Time Series

Constituent: Lead (mg/L) Analysis Run 6/23/2023 11:16 AM View: Descriptive

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-1	BY-AP-MW-10	BY-AP-MW-10V	BY-AP-MW-11	BY-AP-MW-12	BY-AP-MW-12V	BY-AP-MW-13	BY-AP-MW-13V	BY-AP-MW-14
3/1/2016		<0.000203		<0.005					
3/2/2016	<0.0002				<0.000203		<0.0002		<0.005
4/19/2016	<0.0002								
4/20/2016		<0.000203		<0.005	<0.000203		<0.0002		<0.005
6/8/2016	<0.0002	<0.000203		<0.005	<0.000203		<0.0002		<0.005
8/30/2016									<0.005
8/31/2016	<0.0002	<0.000203		<0.005	<0.000203		<0.0002		
10/18/2016									<0.005
10/19/2016	<0.0002	<0.000203		<0.005	<0.000203		<0.0002		
1/31/2017	<0.0002						<0.0002		<0.005
2/1/2017		<0.000203		<0.005	<0.000203				
5/2/2017	<0.0002								<0.005
5/3/2017		<0.000203		<0.005	<0.000203		<0.0002		
6/6/2017	<0.0002								<0.005
6/7/2017		<0.000203		<0.005	<0.000203		<0.0002		
1/22/2018							<0.0002		
1/23/2018		<0.000203		<0.005	<0.000203				<0.005
1/24/2018	<0.0002								
5/1/2018	<0.0002								
5/2/2018		<0.000203		<0.005	<0.000203		<0.0002		<0.005
11/27/2018									<0.005
11/28/2018	<0.0002	<0.000203		<0.005	<0.000203		<0.0002		
1/8/2019			<0.000203			<0.000203			
5/29/2019	<0.0002			<0.005	<0.000203		<0.0002		<0.005
5/30/2019		<0.000203							
9/30/2019		<0.000203		<0.005					
10/1/2019	<0.0002		<0.000203		<0.000203		<0.0002		<0.005
10/2/2019						<0.000203			
3/30/2020	<0.0002								
3/31/2020		<0.000203	<0.000203	<0.005	<0.000203	<0.000203	<0.0002		<0.005
4/1/2020									
9/1/2020	<0.0002	<0.000203	<0.000203	<0.005	<0.000203	<0.000203	<0.0002		
9/2/2020								<0.000203	<0.005
5/11/2021		<0.000203							
5/18/2021	<0.0002		<0.000203		0.000326	8.16E-05 (J)			
5/19/2021				0.000102 (J)			<0.0002	<0.000203	
5/25/2021									7.64E-05 (J)
10/26/2021							<0.0002	<0.000203	
10/27/2021		<0.000203	<0.000203						9E-05 (J)
11/1/2021	<0.0002				0.00029	<0.000203			
11/2/2021				0.00013 (J)					
5/23/2022				9E-05 (J)	0.00018 (J)	<0.000203			
5/24/2022	<0.0002	<0.000203	<0.000203				0.00015 (J)		
5/25/2022								<0.000203	0.0001 (J)
11/1/2022			<0.000203	7.8E-05 (J)	<0.000203	<0.000203	0.000151 (J)	<0.000203	8.3E-05 (J)
11/2/2022	9.2E-05 (J)	<0.000203							
4/3/2023	0.000122 (J)	<0.000203	<0.000203						
4/4/2023				6.9E-05 (J)	<0.000203	<0.000203	0.000101 (J)	<0.000203	
4/5/2023									0.00011 (J)

Time Series

Constituent: Lead (mg/L) Analysis Run 6/23/2023 11:16 AM View: Descriptive
Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-14V	BY-AP-MW-15
3/1/2016		
3/2/2016		<0.000203
4/19/2016		<0.000203
4/20/2016		
6/8/2016		<0.000203
8/30/2016		
8/31/2016		<0.000203
10/18/2016		
10/19/2016		<0.000203
1/31/2017		<0.000203
2/1/2017		
5/2/2017		<0.000203
5/3/2017		
6/6/2017		<0.000203
6/7/2017		
1/22/2018		<0.000203
1/23/2018		
1/24/2018		
5/1/2018		<0.000203
5/2/2018		
11/27/2018		<0.000203
11/28/2018		
1/8/2019		
5/29/2019		<0.000203
5/30/2019		
9/30/2019		
10/1/2019		<0.000203
10/2/2019		
3/30/2020		
3/31/2020		
4/1/2020		<0.000203
9/1/2020		
9/2/2020	<0.000203	<0.000203
5/11/2021		<0.000203
5/18/2021		
5/19/2021		
5/25/2021	7.24E-05 (J)	
10/26/2021	<0.000203	<0.000203
10/27/2021		
11/1/2021		
11/2/2021		
5/23/2022		
5/24/2022	<0.000203	
5/25/2022		<0.000203
11/1/2022	<0.000203	<0.000203
11/2/2022		
4/3/2023		<0.000203
4/4/2023	<0.000203	
4/5/2023		

Time Series

Constituent: Lead (mg/L) Analysis Run 6/23/2023 11:16 AM View: Descriptive

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-15V	BY-AP-MW-16	BY-AP-MW-16V	BY-AP-MW-17H	BY-AP-MW-17V	BY-AP-MW-18H	BY-AP-MW-19H	BY-AP-MW-1V	BY-AP-MW-2
3/2/2016		<0.000203							<0.000203
4/19/2016		<0.000203							<0.000203
6/8/2016		<0.000203							<0.000203
8/31/2016		<0.000203							<0.000203
10/19/2016		<0.000203							<0.000203
1/31/2017		<0.000203							<0.000203
5/2/2017		<0.000203							<0.000203
6/6/2017		<0.000203							<0.000203
1/23/2018		<0.000203							<0.000203
1/24/2018									<0.000203
5/1/2018		<0.000203							<0.000203
11/27/2018		<0.000203							<0.000203
1/8/2019								<0.000203	
3/20/2019						<0.000203			
5/29/2019		<0.000203							<0.000203
7/31/2019	<0.000203			<0.000203			<0.000203		
10/1/2019	<0.000203	<0.000203				<0.000203	<0.000203		<0.000203
10/2/2019				<0.000203				<0.000203	
3/30/2020								<0.000203	
3/31/2020		<0.000203							<0.000203
4/1/2020				<0.000203		<0.000203			
8/31/2020									<0.000203
9/1/2020	<0.000203			<0.000203	<0.000203	<0.000203	<0.000203	<0.000203	
9/2/2020		<0.000203	<0.000203						
5/17/2021				9.09E-05 (J)					
5/18/2021					0.000137 (J)			<0.000203	<0.000203
5/19/2021		0.000191 (J)	<0.000203			<0.000203			
5/25/2021	<0.000203						<0.000203		
10/25/2021				<0.000203	<0.000203	<0.000203	<0.000203		
10/26/2021	<0.000203		<0.000203						
11/1/2021		<0.000203						<0.000203	<0.000203
5/23/2022						<0.000203			
5/24/2022	0.00011 (J)						<0.000203	<0.000203	<0.000203
5/25/2022		<0.000203	<0.000203	<0.000203	7E-05 (J)				
10/31/2022				<0.000203	<0.000203	<0.000203	<0.000203		
11/1/2022		<0.000203	<0.000203					<0.000203	
11/2/2022	<0.000203								<0.000203
4/3/2023									<0.000203
4/4/2023			0.000253	7.6E-05 (J)	<0.000203			<0.000203	
4/5/2023		<0.000203				<0.000203			
4/24/2023	<0.000203						<0.000203		

Time Series

Constituent: Lead (mg/L) Analysis Run 6/23/2023 11:16 AM View: Descriptive
Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-20H	BY-AP-MW-20V
3/2/2016		
4/19/2016		
6/8/2016		
8/31/2016		
10/19/2016		
1/31/2017		
5/2/2017		
6/6/2017		
1/23/2018		
1/24/2018		
5/1/2018		
11/27/2018		
1/8/2019		
3/20/2019		
5/29/2019		
7/31/2019	<0.000203	
10/1/2019	<0.000203	
10/2/2019		
3/30/2020		
3/31/2020		
4/1/2020	<0.000203	
8/31/2020		
9/1/2020	<0.000203	<0.000203
9/2/2020		
5/17/2021		
5/18/2021		
5/19/2021	0.000224	<0.000203
5/25/2021		
10/25/2021		
10/26/2021	<0.000203	
11/1/2021		<0.000203
5/23/2022	<0.000203	
5/24/2022		<0.000203
5/25/2022		
10/31/2022	<0.000203	
11/1/2022		<0.000203
11/2/2022		
4/3/2023		
4/4/2023		
4/5/2023		
4/24/2023	<0.000203	8.6E-05 (J)

Time Series

Constituent: Lead (mg/L) Analysis Run 6/23/2023 11:16 AM View: Descriptive

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-22H	BY-AP-MW-23H	BY-AP-MW-23V	BY-AP-MW-24H	BY-AP-MW-25H	BY-AP-MW-3	BY-AP-MW-4	BY-AP-MW-5	BY-AP-MW-5V
3/1/2016							<0.005	<0.000203	
3/2/2016						<0.000203			
4/19/2016						<0.000203	<0.005		
4/20/2016								<0.000203	
6/7/2016						<0.000203	<0.005	<0.000203	
8/30/2016							<0.005	<0.000203	
8/31/2016						<0.000203			
10/18/2016								<0.000203	
10/19/2016						<0.000203	<0.005		
1/31/2017						<0.000203	<0.005	<0.000203	
5/2/2017						<0.000203	<0.005		
5/3/2017								<0.000203	
6/6/2017						<0.000203	<0.005		
6/7/2017								<0.000203	
1/24/2018						<0.000203	<0.005	<0.000203	
5/1/2018						<0.000203	<0.005		
5/2/2018								<0.000203	
11/27/2018						<0.000203	<0.005	<0.000203	
11/28/2018									
1/8/2019				<0.000203					<0.000203
5/29/2019						<0.000203	<0.005	<0.000203	
7/31/2019	<0.000203	<0.000203							
9/30/2019									
10/1/2019	<0.000203	<0.000203				<0.000203	<0.005	<0.000203	
10/2/2019				<0.000203					<0.000203
3/30/2020									
3/31/2020				<0.000203		<0.000203	<0.005	<0.000203	<0.000203
4/1/2020		<0.000203							
9/1/2020	<0.000203	<0.000203	<0.000203			<0.000203	<0.005	<0.000203	<0.000203
9/2/2020				<0.000203	<0.000203				
5/17/2021			0.000216						
5/18/2021						<0.000203	0.00013 (J)		
5/24/2021		<0.000203			<0.000203				
5/25/2021	<0.000203			<0.000203					
10/26/2021	<0.000203	<0.000203	0.0001 (J)	<0.000203					
10/27/2021									
11/1/2021						<0.000203	7E-05 (J)		
11/2/2021					<0.000203			<0.000203	<0.000203
5/24/2022	<0.000203			<0.000203					
5/25/2022		<0.000203	0.00012 (J)		<0.000203	<0.000203	0.00018 (J)	<0.000203	<0.000203
10/31/2022	<0.000203				<0.000203		0.000144 (J)	<0.000203	<0.000203
11/1/2022		<0.000203	<0.000203			<0.000203			
11/2/2022				<0.000203					
4/3/2023				<0.000203	<0.000203				
4/4/2023		<0.000203	<0.000203			<0.000203	8.5E-05 (J)	<0.000203	<0.000203
4/24/2023	<0.000203								

Time Series

Constituent: Lead (mg/L) Analysis Run 6/23/2023 11:16 AM View: Descriptive
Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-6	BY-AP-MW-7
3/1/2016	<0.005	<0.000203
3/2/2016		
4/19/2016	<0.005	
4/20/2016		<0.000203
6/7/2016	<0.005	<0.000203
8/30/2016	<0.005	
8/31/2016		<0.000203
10/18/2016		
10/19/2016	<0.005	<0.000203
1/31/2017	<0.005	<0.000203
5/2/2017		
5/3/2017	<0.005	<0.000203
6/6/2017		
6/7/2017	<0.005	<0.000203
1/24/2018	<0.005	<0.000203
5/1/2018		
5/2/2018	<0.005	<0.000203
11/27/2018		
11/28/2018	<0.005	<0.000203
1/8/2019		
5/29/2019	0.00185 (J)	<0.000203
7/31/2019		
9/30/2019		<0.000203
10/1/2019	0.00545	
10/2/2019		
3/30/2020		<0.000203
3/31/2020	0.00276 (J)	
4/1/2020		
9/1/2020		
9/2/2020	0.00171 (J)	<0.000203
5/17/2021	0.00162	
5/18/2021		<0.000203
5/24/2021		
5/25/2021		
10/26/2021		
10/27/2021		<0.000203
11/1/2021		
11/2/2021	0.00336	
5/24/2022		<0.000203
5/25/2022	0.0112	
10/31/2022	0.00148	<0.000203
11/1/2022		
11/2/2022		
4/3/2023		<0.000203
4/4/2023	0.00183	
4/24/2023		

Time Series

Constituent: Lead (mg/L) Analysis Run 6/23/2023 11:16 AM View: Descriptive

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-7V	BY-AP-MW-8	BY-AP-MW-8V	BY-AP-MW-9	BY-UP-MW-1 (bg)	BY-UP-MW-2 (bg)	BY-UP-MW-3 (bg)	BY-UP-MW-4 (bg)	BY-AP-MW-25V
2/23/2016					<0.005	<0.005	<0.000203	<0.005	
3/1/2016		<0.000203		<0.000203					
4/19/2016					<0.005	<0.005	<0.000203	<0.005	
4/20/2016		<0.000203		<0.000203					
6/6/2016					<0.005			<0.005	
6/7/2016		<0.000203				<0.005	<0.000203		
6/8/2016				<0.000203					
8/30/2016		<0.000203			<0.005	<0.005	<0.000203	<0.005	
8/31/2016				<0.000203					
10/18/2016		<0.000203			<0.005	<0.005	<0.000203	<0.005	
10/19/2016				<0.000203					
1/31/2017		<0.000203			<0.005	<0.005	<0.000203	<0.005	
2/1/2017				<0.000203					
5/2/2017					<0.005	<0.005	<0.000203	<0.005	
5/3/2017		<0.000203		<0.000203					
6/6/2017					<0.005	<0.005	<0.000203	<0.005	
6/7/2017		<0.000203		<0.000203					
1/23/2018				<0.000203	<0.005	<0.005	<0.000203	<0.005	
1/24/2018		<0.000203							
5/1/2018						<0.005	<0.000203	<0.005	
5/2/2018		<0.000203		<0.000203	<0.005				
11/26/2018								<0.005	
11/27/2018		<0.000203			<0.005	<0.005	<0.000203		
11/28/2018				<0.000203					
1/9/2019	<0.0002		<0.000203						
5/28/2019								<0.005	
5/29/2019		<0.000203			<0.005	<0.005	<0.000203		
5/30/2019				0.00108 (J)					
9/30/2019		<0.000203		<0.000203					
10/1/2019	<0.0002		<0.000203						
10/2/2019					<0.005	<0.005	<0.000203	<0.005	
3/30/2020	<0.0002	<0.000203	<0.000203						
3/31/2020				<0.000203	<0.005	<0.005	<0.000203	0.00126 (J)	
9/2/2020	<0.0002	<0.000203	<0.000203	<0.000203					<0.000203
9/8/2020								<0.005	
9/9/2020					<0.005	<0.005	<0.000203		
5/11/2021		<0.000203				0.000118 (J)	<0.000203	0.000159 (J)	
5/12/2021					9.79E-05 (J)				
5/18/2021	<0.0002		<0.000203	<0.000203					
5/24/2021									<0.000203
10/18/2021							<0.000203	0.00012 (J)	
10/19/2021					0.00012 (J)	0.0001 (J)			
10/26/2021		<0.000203	<0.000203						
10/27/2021	<0.0002			<0.000203					
11/2/2021									<0.000203
5/23/2022			<0.000203						
5/24/2022	<0.0002	<0.000203		<0.000203					
5/25/2022									<0.000203
5/31/2022					8E-05 (J)	8E-05 (J)	<0.000203	0.00017 (J)	
10/31/2022	0.000114 (J)		<0.000203	<0.000203					
11/1/2022					0.00017 (J)	0.000411	<0.000203	8.6E-05 (J)	<0.000203
11/2/2022		<0.000203							

Time Series

Constituent: Lead (mg/L) Analysis Run 6/23/2023 11:16 AM View: Descriptive

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-7V	BY-AP-MW-8	BY-AP-MW-8V	BY-AP-MW-9	BY-UP-MW-1 (bg)	BY-UP-MW-2 (bg)	BY-UP-MW-3 (bg)	BY-UP-MW-4 (bg)	BY-AP-MW-25V
4/3/2023	0.000161 (J)	<0.000203	0.000158 (J)						<0.000203
4/4/2023				<0.000203					
4/12/2023					7.6E-05 (J)	0.00014 (J)	8.3E-05 (J)	8.6E-05 (J)	

Time Series

Constituent: Lithium (mg/L) Analysis Run 6/23/2023 11:16 AM View: Descriptive

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-1	BY-AP-MW-10	BY-AP-MW-10V	BY-AP-MW-11	BY-AP-MW-12	BY-AP-MW-12V	BY-AP-MW-13	BY-AP-MW-13V	BY-AP-MW-14
3/1/2016		<0.02		<0.02					
3/2/2016	<0.02				<0.02		<0.02		<0.02
4/19/2016	<0.02								
4/20/2016		<0.02		<0.02	<0.02		<0.02		<0.02
6/8/2016	<0.02	<0.02		<0.02	<0.02		<0.02		<0.02
8/30/2016									<0.02
8/31/2016	<0.02	<0.02		<0.02	<0.02		<0.02		
10/18/2016									<0.02
10/19/2016	<0.02	<0.02		<0.02	<0.02		<0.02		
1/31/2017	<0.02						<0.02		<0.02
2/1/2017		<0.02		<0.02	<0.02				
5/2/2017	<0.02								<0.02
5/3/2017		<0.02		<0.02	<0.02		<0.02		
6/6/2017	<0.02								<0.02
6/7/2017		<0.02		<0.02	<0.02		<0.02		
1/22/2018							<0.02		
1/23/2018		<0.02		<0.02	<0.02				<0.02
1/24/2018	<0.02								
5/1/2018	<0.02								
5/2/2018		<0.02		0.0384 (J)	<0.02		<0.02		<0.02
11/27/2018									<0.02
11/28/2018	<0.02	<0.02		0.0262	<0.02		<0.02		
1/8/2019			0.0313			0.0148 (J)			
5/29/2019	<0.02			0.0321	<0.02		<0.02		<0.02
5/30/2019		<0.02							
9/30/2019		<0.02		0.0228					
10/1/2019	<0.02		<0.02		<0.02		<0.02		<0.02
10/2/2019						<0.02			
3/30/2020	<0.02								
3/31/2020		<0.02	<0.02	0.022	<0.02	<0.02	<0.02		<0.02
4/1/2020									
9/1/2020	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02		
9/2/2020								<0.01999956	<0.02
5/11/2021		<0.02							
5/18/2021	<0.02		<0.02		<0.02	<0.02			
5/19/2021				0.00754 (J)			<0.02	<0.01999956	
5/25/2021									<0.02
10/26/2021							<0.02	0.0484	
10/27/2021		<0.02	<0.02						<0.02
11/1/2021	<0.02				<0.02	<0.02			
11/2/2021				<0.02					
5/23/2022				0.0269	<0.02	<0.02			
5/24/2022	<0.02	<0.02	<0.02				<0.02		
5/25/2022								0.0318	<0.02
11/1/2022			<0.02	0.0182 (J)	<0.02	<0.02	<0.02	0.0331	<0.02
11/2/2022	<0.02	<0.02							
4/3/2023	<0.02	<0.02	<0.02						
4/4/2023				0.034	<0.02	<0.02	<0.02	0.0351	
4/5/2023									<0.02

Time Series

Constituent: Lithium (mg/L) Analysis Run 6/23/2023 11:16 AM View: Descriptive
Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-14V	BY-AP-MW-15
3/1/2016		
3/2/2016		<0.02
4/19/2016		<0.02
4/20/2016		
6/8/2016		<0.02
8/30/2016		
8/31/2016		<0.02
10/18/2016		
10/19/2016		<0.02
1/31/2017		<0.02
2/1/2017		
5/2/2017		<0.02
5/3/2017		
6/6/2017		<0.02
6/7/2017		
1/22/2018		<0.02
1/23/2018		
1/24/2018		
5/1/2018		<0.02
5/2/2018		
11/27/2018		0.0169 (J)
11/28/2018		
1/8/2019		
5/29/2019		0.0254
5/30/2019		
9/30/2019		
10/1/2019		0.0248
10/2/2019		
3/30/2020		
3/31/2020		
4/1/2020		0.0174 (J)
9/1/2020		
9/2/2020	<0.02	<0.02
5/11/2021		0.00788 (J)
5/18/2021		
5/19/2021		
5/25/2021	<0.02	
10/26/2021	<0.02	0.0117 (J)
10/27/2021		
11/1/2021		
11/2/2021		
5/23/2022		
5/24/2022	<0.02	
5/25/2022		0.0118 (J)
11/1/2022	<0.02	<0.02
11/2/2022		
4/3/2023		0.0189 (J)
4/4/2023	<0.02	
4/5/2023		

Time Series

Constituent: Lithium (mg/L) Analysis Run 6/23/2023 11:16 AM View: Descriptive

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-15V	BY-AP-MW-16	BY-AP-MW-16V	BY-AP-MW-17H	BY-AP-MW-17V	BY-AP-MW-18H	BY-AP-MW-19H	BY-AP-MW-1V	BY-AP-MW-2
3/2/2016		<0.02							<0.02
4/19/2016		<0.02							<0.02
6/8/2016		<0.02							<0.02
8/31/2016		<0.02							<0.02
10/19/2016		<0.02							<0.02
1/31/2017		<0.02							<0.02
5/2/2017		<0.02							<0.02
6/6/2017		<0.02							<0.02
1/23/2018		<0.02							<0.02
1/24/2018									<0.02
5/1/2018		<0.02							<0.02
11/27/2018		<0.02							<0.02
1/8/2019								0.0219	
3/20/2019						<0.02			
5/29/2019		<0.02							<0.02
7/31/2019	<0.02			<0.02			<0.02		
10/1/2019	<0.02	<0.02				<0.02	<0.02		<0.02
10/2/2019				<0.02				<0.02	
3/30/2020								<0.02	
3/31/2020		<0.02							<0.02
4/1/2020				<0.02		<0.02			
8/31/2020									<0.02
9/1/2020	<0.02			<0.02	<0.02	<0.02	<0.02	<0.02	
9/2/2020		<0.02	<0.02						
5/17/2021				<0.02					
5/18/2021					<0.02			<0.02	<0.02
5/19/2021		<0.02	<0.02			<0.02			
5/25/2021	<0.02						<0.02		
10/25/2021				<0.02	<0.02	<0.02	<0.02		
10/26/2021	<0.02		<0.02						
11/1/2021		<0.02						<0.02	<0.02
5/23/2022						<0.02			
5/24/2022	<0.02						<0.02	<0.02	<0.02
5/25/2022		<0.02	<0.02	<0.02	<0.02				
10/31/2022				<0.02	<0.02	<0.02	<0.02		
11/1/2022		<0.02	<0.02					<0.02	
11/2/2022	<0.02								<0.02
4/3/2023									<0.02
4/4/2023			<0.02	<0.02	<0.02			<0.02	
4/5/2023		<0.02				<0.02			
4/24/2023	<0.02						<0.02		

Time Series

Constituent: Lithium (mg/L) Analysis Run 6/23/2023 11:16 AM View: Descriptive
Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-20H	BY-AP-MW-20V
3/2/2016		
4/19/2016		
6/8/2016		
8/31/2016		
10/19/2016		
1/31/2017		
5/2/2017		
6/6/2017		
1/23/2018		
1/24/2018		
5/1/2018		
11/27/2018		
1/8/2019		
3/20/2019		
5/29/2019		
7/31/2019	<0.02	
10/1/2019	<0.02	
10/2/2019		
3/30/2020		
3/31/2020		
4/1/2020	<0.02	
8/31/2020		
9/1/2020	<0.02	<0.02
9/2/2020		
5/17/2021		
5/18/2021		
5/19/2021	<0.02	<0.02
5/25/2021		
10/25/2021		
10/26/2021	<0.02	
11/1/2021		<0.02
5/23/2022	<0.02	
5/24/2022		<0.02
5/25/2022		
10/31/2022	<0.02	
11/1/2022		<0.02
11/2/2022		
4/3/2023		
4/4/2023		
4/5/2023		
4/24/2023	<0.02	<0.02

Time Series

Constituent: Lithium (mg/L) Analysis Run 6/23/2023 11:16 AM View: Descriptive

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-22H	BY-AP-MW-23H	BY-AP-MW-23V	BY-AP-MW-24H	BY-AP-MW-25H	BY-AP-MW-3	BY-AP-MW-4	BY-AP-MW-5	BY-AP-MW-5V
3/1/2016							<0.02	<0.02	
3/2/2016						<0.02			
4/19/2016						<0.02	<0.02		
4/20/2016								<0.02	
6/7/2016						<0.02	<0.02	<0.02	
8/30/2016							<0.02	<0.02	
8/31/2016						<0.02			
10/18/2016								<0.02	
10/19/2016						<0.02	<0.02		
1/31/2017						<0.02	<0.02	<0.02	
5/2/2017						<0.02	<0.02		
5/3/2017								<0.02	
6/6/2017						<0.02	<0.02		
6/7/2017								<0.02	
1/24/2018						<0.02	<0.02	<0.02	
5/1/2018						<0.02	<0.02		
5/2/2018								<0.02	
11/27/2018						<0.02	<0.02	<0.02	
11/28/2018									
1/8/2019				0.0183 (J)					<0.02
5/29/2019						<0.02	<0.02	<0.02	
7/31/2019	<0.02	<0.02							
9/30/2019									
10/1/2019	<0.02	<0.02				<0.02	<0.02	<0.02	
10/2/2019				<0.02					<0.02
3/30/2020									
3/31/2020				<0.02		<0.02	<0.02	<0.02	<0.02
4/1/2020		<0.02							
9/1/2020	<0.02	<0.02	<0.02			<0.02	<0.02	<0.02	<0.02
9/2/2020				<0.02	<0.02				
5/17/2021			<0.02						
5/18/2021						<0.02	<0.02		
5/24/2021		<0.02			<0.02				
5/25/2021	<0.02			<0.02					
10/26/2021	<0.02	<0.02	<0.02	<0.02					
10/27/2021									
11/1/2021						<0.02	<0.02		
11/2/2021					<0.02			<0.02	<0.02
5/24/2022	<0.02			<0.02					
5/25/2022		<0.02	<0.02		<0.02	<0.02	<0.02	<0.02	<0.02
10/31/2022	<0.02				<0.02		<0.02	<0.02	<0.02
11/1/2022		<0.02	<0.02			<0.02			
11/2/2022				<0.02					
4/3/2023				<0.02	<0.02				
4/4/2023		<0.02	<0.02			<0.02	<0.02	<0.02	<0.02
4/24/2023	<0.02								

Time Series

Constituent: Lithium (mg/L) Analysis Run 6/23/2023 11:16 AM View: Descriptive
Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-6	BY-AP-MW-7
3/1/2016	<0.02	<0.02
3/2/2016		
4/19/2016	<0.02	
4/20/2016		<0.02
6/7/2016	<0.02	<0.02
8/30/2016	<0.02	
8/31/2016		<0.02
10/18/2016		
10/19/2016	<0.02	<0.02
1/31/2017	<0.02	<0.02
5/2/2017		
5/3/2017	<0.02	<0.02
6/6/2017		
6/7/2017	<0.02	<0.02
1/24/2018	<0.02	<0.02
5/1/2018		
5/2/2018	<0.02	0.0108 (J)
11/27/2018		
11/28/2018	<0.02	<0.02
1/8/2019		
5/29/2019	<0.02	<0.02
7/31/2019		
9/30/2019		<0.02
10/1/2019	<0.02	
10/2/2019		
3/30/2020		0.0102 (J)
3/31/2020	<0.02	
4/1/2020		
9/1/2020		
9/2/2020	<0.02	<0.02
5/17/2021	<0.02	
5/18/2021		0.0882
5/24/2021		
5/25/2021		
10/26/2021		
10/27/2021		<0.02
11/1/2021		
11/2/2021	<0.02	
5/24/2022		<0.02
5/25/2022	<0.02	
10/31/2022	<0.02	<0.02
11/1/2022		
11/2/2022		
4/3/2023		<0.02
4/4/2023	<0.02	
4/24/2023		

Time Series

Constituent: Lithium (mg/L) Analysis Run 6/23/2023 11:16 AM View: Descriptive

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-7V	BY-AP-MW-8	BY-AP-MW-8V	BY-AP-MW-9	BY-UP-MW-1 (bg)	BY-UP-MW-2 (bg)	BY-UP-MW-3 (bg)	BY-UP-MW-4 (bg)	BY-AP-MW-25V
2/23/2016					<0.02	<0.02	<0.02	<0.02	
3/1/2016		<0.02		<0.02					
4/19/2016					<0.02	<0.02	<0.02	<0.02	
4/20/2016		<0.02		<0.02					
6/6/2016					<0.02				<0.02
6/7/2016		<0.02				<0.02	<0.02		
6/8/2016				<0.02					
8/30/2016		<0.02			<0.02	<0.02	<0.02	<0.02	
8/31/2016				<0.02					
10/18/2016		<0.02			<0.02	<0.02	<0.02	<0.02	
10/19/2016				<0.02					
1/31/2017		<0.02			<0.02	<0.02	<0.02	<0.02	
2/1/2017				<0.02					
5/2/2017					<0.02	<0.02	<0.02	<0.02	
5/3/2017		<0.02		<0.02					
6/6/2017					<0.02	<0.02	<0.02	<0.02	
6/7/2017		<0.02		<0.02					
1/23/2018				<0.02	<0.02	<0.02	<0.02	<0.02	
1/24/2018		<0.02							
5/1/2018						<0.02	<0.02	<0.02	
5/2/2018		<0.02		<0.02	<0.02				
11/26/2018									<0.02
11/27/2018		<0.02			<0.02	<0.02	<0.02		
11/28/2018				<0.02					
1/9/2019	0.0662		0.0217						
5/28/2019									<0.02
5/29/2019		<0.02			<0.02	<0.02	<0.02		
5/30/2019				<0.02					
9/30/2019		<0.02		<0.02					
10/1/2019	<0.02		<0.02						
10/2/2019					<0.02	<0.02	<0.02	<0.02	
12/2/2019	<0.02								
3/30/2020	<0.02	<0.02	<0.02						
3/31/2020				<0.02	<0.02	<0.02	<0.02	<0.02	
9/2/2020	<0.02	<0.02	<0.02	<0.02					<0.02
9/8/2020									<0.02
9/9/2020					<0.02	<0.02	<0.02	<0.02	
5/11/2021		<0.02				<0.02	<0.02	<0.02	
5/12/2021					<0.02				
5/18/2021	<0.02		<0.02	<0.02					
5/24/2021									<0.02
10/18/2021							<0.02	<0.02	
10/19/2021					<0.02	<0.02			
10/26/2021		<0.02	<0.02						
10/27/2021	0.00746 (J)			<0.02					
11/2/2021									<0.02
5/23/2022			<0.02						
5/24/2022	<0.02	<0.02		<0.02					
5/25/2022									<0.02
5/31/2022					<0.02	<0.02	<0.02	<0.02	
10/31/2022	<0.02		<0.02	<0.02					
11/1/2022					<0.02	<0.02	<0.02	<0.02	<0.02

Time Series

Constituent: Lithium (mg/L) Analysis Run 6/23/2023 11:16 AM View: Descriptive
Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-7V	BY-AP-MW-8	BY-AP-MW-8V	BY-AP-MW-9	BY-UP-MW-1 (bg)	BY-UP-MW-2 (bg)	BY-UP-MW-3 (bg)	BY-UP-MW-4 (bg)	BY-AP-MW-25V
11/2/2022		<0.02							
4/3/2023	<0.02	<0.02	0.00904 (J)						<0.02
4/4/2023				<0.02					
4/12/2023					<0.02	<0.02	<0.02	<0.02	

Time Series

Constituent: Mercury (mg/L) Analysis Run 6/23/2023 11:16 AM View: Descriptive

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-1	BY-AP-MW-10	BY-AP-MW-10V	BY-AP-MW-11	BY-AP-MW-12	BY-AP-MW-12V	BY-AP-MW-13	BY-AP-MW-13V	BY-AP-MW-14
3/1/2016		<0.0005		<0.0005					
3/2/2016	<0.0005				<0.0005		<0.0005		<0.0005
4/19/2016	<0.0005								
4/20/2016		<0.0005		<0.0005	<0.0005		<0.0005		<0.0005
6/8/2016	<0.0005	<0.0005		<0.0005	<0.0005		<0.0005		<0.0005
8/30/2016									<0.0005
8/31/2016	<0.0005	<0.0005		<0.0005	<0.0005		<0.0005		
10/18/2016									<0.0005
10/19/2016	<0.0005	<0.0005		<0.0005	<0.0005		<0.0005		
1/31/2017	<0.0005						<0.0005		<0.0005
2/1/2017		<0.0005		<0.0005	<0.0005				
5/2/2017	<0.0005								<0.0005
5/3/2017		<0.0005		<0.0005	<0.0005		<0.0005		
6/6/2017	<0.0005								<0.0005
6/7/2017		<0.0005		<0.0005	<0.0005		<0.0005		
1/22/2018							<0.0005		
1/23/2018		<0.0005		<0.0005	<0.0005				<0.0005
1/24/2018	<0.0005								
5/1/2018	<0.0005								
5/2/2018		<0.0005		<0.0005	<0.0005		<0.0005		<0.0005
11/27/2018									<0.0005
11/28/2018	<0.0005	<0.0005		<0.0005	<0.0005		<0.0005		
1/8/2019			<0.0005			<0.0005			
5/29/2019	<0.0005			<0.0005	<0.0005		<0.0005		<0.0005
5/30/2019		<0.0005							
7/31/2019		<0.0005							
9/30/2019		<0.0005		<0.0005					
10/1/2019	<0.0005		<0.0005		<0.0005		<0.0005		<0.0005
10/2/2019						<0.0005			
3/30/2020	<0.0005								
3/31/2020		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005		<0.0005
4/1/2020									
9/1/2020	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005		
9/2/2020								<0.0005	<0.0005
5/11/2021		<0.0005							
5/18/2021	<0.0005		<0.0005		<0.0005	<0.0005			
5/19/2021				<0.0005			<0.0005	<0.0005	
5/25/2021									<0.0005
10/26/2021							<0.0005	<0.0005	
10/27/2021		<0.0005	<0.0005						<0.0005
11/1/2021	<0.0005				<0.0005	<0.0005			
11/2/2021				<0.0005					
5/23/2022				<0.0005	<0.0005	<0.0005			
5/24/2022	<0.0005	<0.0005	<0.0005				<0.0005		
5/25/2022								<0.0005	<0.0005
11/1/2022			<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
11/2/2022	<0.0005	<0.0005							
4/3/2023	<0.0005	<0.0005	<0.0005						
4/4/2023				<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	
4/5/2023									<0.0005

Time Series

Constituent: Mercury (mg/L) Analysis Run 6/23/2023 11:16 AM View: Descriptive
Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-14V	BY-AP-MW-15
3/1/2016		
3/2/2016		<0.0005
4/19/2016		<0.0005
4/20/2016		
6/8/2016		<0.0005
8/30/2016		
8/31/2016		<0.0005
10/18/2016		
10/19/2016		<0.0005
1/31/2017		<0.0005
2/1/2017		
5/2/2017		<0.0005
5/3/2017		
6/6/2017		<0.0005
6/7/2017		
1/22/2018		<0.0005
1/23/2018		
1/24/2018		
5/1/2018		<0.0005
5/2/2018		
11/27/2018		<0.0005
11/28/2018		
1/8/2019		
5/29/2019		<0.0005
5/30/2019		
7/31/2019		
9/30/2019		
10/1/2019		<0.0005
10/2/2019		
3/30/2020		
3/31/2020		
4/1/2020		<0.0005
9/1/2020		
9/2/2020	<0.0005	<0.0005
5/11/2021		<0.0005
5/18/2021		
5/19/2021		
5/25/2021	<0.0005	
10/26/2021	<0.0005	<0.0005
10/27/2021		
11/1/2021		
11/2/2021		
5/23/2022		
5/24/2022	<0.0005	
5/25/2022		<0.0005
11/1/2022	<0.0005	<0.0005
11/2/2022		
4/3/2023		<0.0005
4/4/2023	<0.0005	
4/5/2023		

Time Series

Constituent: Mercury (mg/L) Analysis Run 6/23/2023 11:16 AM View: Descriptive

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-15V	BY-AP-MW-16	BY-AP-MW-16V	BY-AP-MW-17H	BY-AP-MW-17V	BY-AP-MW-18H	BY-AP-MW-19H	BY-AP-MW-1V	BY-AP-MW-2
3/2/2016		<0.0005							<0.0005
4/19/2016		<0.0005							<0.0005
6/8/2016		<0.0005							<0.0005
8/31/2016		<0.0005							<0.0005
10/19/2016		<0.0005							<0.0005
1/31/2017		<0.0005							<0.0005
5/2/2017		<0.0005							<0.0005
6/6/2017		<0.0005							<0.0005
1/23/2018		<0.0005							<0.0005
1/24/2018									<0.0005
5/1/2018		<0.0005							<0.0005
11/27/2018		<0.0005							<0.0005
1/8/2019								<0.0005	
3/20/2019						<0.0005			
5/29/2019		<0.0005							<0.0005
7/31/2019	<0.0005			<0.0005			<0.0005		
10/1/2019	<0.0005	<0.0005				<0.0005	<0.0005		<0.0005
10/2/2019				<0.0005				<0.0005	
3/30/2020								<0.0005	
3/31/2020		<0.0005							<0.0005
4/1/2020				<0.0005		<0.0005			
8/31/2020									<0.0005
9/1/2020	<0.0005			<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	
9/2/2020		<0.0005	<0.0005						
5/17/2021				<0.0005					
5/18/2021					<0.0005			<0.0005	<0.0005
5/19/2021		<0.0005	<0.0005			<0.0005			
5/25/2021	<0.0005						<0.0005		
10/25/2021				<0.0005	<0.0005	<0.0005	<0.0005		
10/26/2021	<0.0005		<0.0005						
11/1/2021		<0.0005						<0.0005	<0.0005
5/23/2022						<0.0005			
5/24/2022	<0.0005						<0.0005	<0.0005	<0.0005
5/25/2022		<0.0005	<0.0005	<0.0005	<0.0005				
10/31/2022				<0.0005	<0.0005	<0.0005	<0.0005		
11/1/2022		<0.0005	<0.0005					<0.0005	
11/2/2022	<0.0005								<0.0005
4/3/2023									<0.0005
4/4/2023			<0.0005	<0.0005	<0.0005			<0.0005	
4/5/2023		<0.0005				<0.0005			
4/24/2023	<0.0005						<0.0005		

Time Series

Constituent: Mercury (mg/L) Analysis Run 6/23/2023 11:16 AM View: Descriptive
Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-20H	BY-AP-MW-20V
3/2/2016		
4/19/2016		
6/8/2016		
8/31/2016		
10/19/2016		
1/31/2017		
5/2/2017		
6/6/2017		
1/23/2018		
1/24/2018		
5/1/2018		
11/27/2018		
1/8/2019		
3/20/2019		
5/29/2019		
7/31/2019	<0.0005	
10/1/2019	<0.0005	
10/2/2019		
3/30/2020		
3/31/2020		
4/1/2020	<0.0005	
8/31/2020		
9/1/2020	<0.0005	<0.0005
9/2/2020		
5/17/2021		
5/18/2021		
5/19/2021	<0.0005	<0.0005
5/25/2021		
10/25/2021		
10/26/2021	<0.0005	
11/1/2021		<0.0005
5/23/2022	<0.0005	
5/24/2022		<0.0005
5/25/2022		
10/31/2022	<0.0005	
11/1/2022		<0.0005
11/2/2022		
4/3/2023		
4/4/2023		
4/5/2023		
4/24/2023	<0.0005	<0.0005

Time Series

Constituent: Mercury (mg/L) Analysis Run 6/23/2023 11:16 AM View: Descriptive

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-22H	BY-AP-MW-23H	BY-AP-MW-23V	BY-AP-MW-24H	BY-AP-MW-25H	BY-AP-MW-3	BY-AP-MW-4	BY-AP-MW-5	BY-AP-MW-5V
3/1/2016							<0.0005	<0.0005	
3/2/2016						<0.0005			
4/19/2016						<0.0005	<0.0005		
4/20/2016								<0.0005	
6/7/2016						<0.0005	<0.0005	<0.0005	
8/30/2016							<0.0005	<0.0005	
8/31/2016						<0.0005			
10/18/2016								<0.0005	
10/19/2016						<0.0005	<0.0005		
1/31/2017						<0.0005	<0.0005	<0.0005	
5/2/2017						<0.0005	<0.0005		
5/3/2017								<0.0005	
6/6/2017						<0.0005	<0.0005		
6/7/2017								<0.0005	
1/24/2018						<0.0005	<0.0005	<0.0005	
5/1/2018						<0.0005	<0.0005		
5/2/2018								<0.0005	
11/27/2018						<0.0005	<0.0005	<0.0005	
11/28/2018									
1/8/2019				<0.0005					<0.0005
5/29/2019						<0.0005	<0.0005	<0.0005	
7/31/2019	<0.0005	<0.0005							
9/30/2019									
10/1/2019	<0.0005	<0.0005				<0.0005	<0.0005	<0.0005	
10/2/2019				<0.0005					<0.0005
3/30/2020									
3/31/2020				<0.0005		<0.0005	<0.0005	<0.0005	<0.0005
4/1/2020		<0.0005							
9/1/2020	<0.0005	<0.0005	<0.0005			<0.0005	<0.0005	<0.0005	<0.0005
9/2/2020				<0.0005	<0.0005				
5/17/2021			<0.0005						
5/18/2021						<0.0005	<0.0005		
5/24/2021		<0.0005			<0.0005				
5/25/2021	<0.0005			<0.0005					
10/26/2021	<0.0005	<0.0005	<0.0005	<0.0005					
10/27/2021									
11/1/2021						<0.0005	<0.0005		
11/2/2021					<0.0005			<0.0005	<0.0005
5/24/2022	<0.0005			<0.0005					
5/25/2022		<0.0005	<0.0005		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
10/31/2022	<0.0005				<0.0005		<0.0005	<0.0005	<0.0005
11/1/2022		<0.0005	<0.0005			<0.0005			
11/2/2022				<0.0005					
4/3/2023				<0.0005	<0.0005				
4/4/2023		<0.0005	<0.0005			<0.0005	<0.0005	<0.0005	<0.0005
4/24/2023	<0.0005								

Time Series

Constituent: Mercury (mg/L) Analysis Run 6/23/2023 11:16 AM View: Descriptive
Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-6	BY-AP-MW-7
3/1/2016	<0.0005	<0.0005
3/2/2016		
4/19/2016	<0.0005	
4/20/2016		<0.0005
6/7/2016	<0.0005	<0.0005
8/30/2016	<0.0005	
8/31/2016		<0.0005
10/18/2016		
10/19/2016	<0.0005	<0.0005
1/31/2017	<0.0005	<0.0005
5/2/2017		
5/3/2017	<0.0005	<0.0005
6/6/2017		
6/7/2017	<0.0005	<0.0005
1/24/2018	<0.0005	<0.0005
5/1/2018		
5/2/2018	<0.0005	<0.0005
11/27/2018		
11/28/2018	<0.0005	<0.0005
1/8/2019		
5/29/2019	<0.0005	<0.0005
7/31/2019		
9/30/2019		<0.0005
10/1/2019	<0.0005	
10/2/2019		
3/30/2020		<0.0005
3/31/2020	<0.0005	
4/1/2020		
9/1/2020		
9/2/2020	<0.0005	<0.0005
5/17/2021	<0.0005	
5/18/2021		<0.0005
5/24/2021		
5/25/2021		
10/26/2021		
10/27/2021		<0.0005
11/1/2021		
11/2/2021	<0.0005	
5/24/2022		<0.0005
5/25/2022	<0.0005	
10/31/2022	<0.0005	<0.0005
11/1/2022		
11/2/2022		
4/3/2023		<0.0005
4/4/2023	<0.0005	
4/24/2023		

Time Series

Constituent: Mercury (mg/L) Analysis Run 6/23/2023 11:16 AM View: Descriptive

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-7V	BY-AP-MW-8	BY-AP-MW-8V	BY-AP-MW-9	BY-UP-MW-1 (bg)	BY-UP-MW-2 (bg)	BY-UP-MW-3 (bg)	BY-UP-MW-4 (bg)	BY-AP-MW-25V
2/23/2016					<0.0005	<0.0005	<0.0005	<0.0005	
3/1/2016		<0.0005		<0.0005					
4/19/2016					<0.0005	<0.0005	<0.0005	<0.0005	
4/20/2016		<0.0005		<0.0005					
6/6/2016					<0.0005				<0.0005
6/7/2016		<0.0005				<0.0005	<0.0005		
6/8/2016				<0.0005					
8/30/2016		<0.0005			<0.0005	<0.0005	<0.0005	<0.0005	
8/31/2016				<0.0005					
10/18/2016		<0.0005			<0.0005	<0.0005	<0.0005	<0.0005	
10/19/2016				<0.0005					
1/31/2017		<0.0005			<0.0005	<0.0005	<0.0005	<0.0005	
2/1/2017				<0.0005					
5/2/2017					<0.0005	<0.0005	<0.0005	<0.0005	
5/3/2017		<0.0005		<0.0005					
6/6/2017					<0.0005	<0.0005	<0.0005	<0.0005	
6/7/2017		<0.0005		<0.0005					
1/23/2018				<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	
1/24/2018		<0.0005							
5/1/2018						<0.0005	<0.0005	<0.0005	
5/2/2018		<0.0005		<0.0005	<0.0005				
11/26/2018									<0.0005
11/27/2018		<0.0005			<0.0005	<0.0005	<0.0005		
11/28/2018				<0.0005					
1/9/2019	<0.0005		<0.0005						
5/28/2019									<0.0005
5/29/2019		<0.0005			<0.0005	<0.0005	<0.0005		
5/30/2019				<0.0005					
9/30/2019		<0.0005		<0.0005					
10/1/2019	<0.0005		<0.0005						
10/2/2019					<0.0005	<0.0005	<0.0005	<0.0005	
3/30/2020	<0.0005	<0.0005	<0.0005						
3/31/2020				<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	
9/2/2020	<0.0005	<0.0005	<0.0005	<0.0005					<0.0005
9/8/2020									<0.0005
9/9/2020					<0.0005	<0.0005	<0.0005		
5/11/2021		<0.0005				<0.0005	<0.0005	<0.0005	
5/12/2021					<0.0005				
5/18/2021	<0.0005		<0.0005	<0.0005					
5/24/2021									<0.0005
10/18/2021							<0.0005	<0.0005	
10/19/2021					<0.0005	<0.0005			
10/26/2021		<0.0005	<0.0005						
10/27/2021	<0.0005			<0.0005					
11/2/2021									<0.0005
5/23/2022			<0.0005						
5/24/2022	<0.0005	<0.0005		<0.0005					
5/25/2022									<0.0005
5/31/2022					<0.0005	<0.0005	<0.0005	<0.0005	
10/31/2022	<0.0005		<0.0005	<0.0005					
11/1/2022					<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
11/2/2022		<0.0005							

Time Series

Constituent: Mercury (mg/L) Analysis Run 6/23/2023 11:16 AM View: Descriptive
Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-7V	BY-AP-MW-8	BY-AP-MW-8V	BY-AP-MW-9	BY-UP-MW-1 (bg)	BY-UP-MW-2 (bg)	BY-UP-MW-3 (bg)	BY-UP-MW-4 (bg)	BY-AP-MW-25V
4/3/2023	<0.0005	<0.0005	<0.0005						<0.0005
4/4/2023				<0.0005					
4/12/2023					<0.0005	<0.0005	<0.0005	<0.0005	

Time Series

Constituent: Molybdenum (mg/L) Analysis Run 6/23/2023 11:16 AM View: Descriptive

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-1	BY-AP-MW-10	BY-AP-MW-10V	BY-AP-MW-11	BY-AP-MW-12	BY-AP-MW-12V	BY-AP-MW-13	BY-AP-MW-13V	BY-AP-MW-14
3/1/2016		<0.01015		<0.01015					
3/2/2016	<0.01015				<0.01015		<0.01		<0.01015
4/19/2016	<0.01015								
4/20/2016		<0.01015		<0.01015	<0.01015		<0.01		<0.01015
6/8/2016	<0.01015	<0.01015		<0.01015	<0.01015		<0.01		<0.01015
8/30/2016									<0.01015
8/31/2016	<0.01015	<0.01015		<0.01015	<0.01015		<0.01		
10/18/2016									<0.01015
10/19/2016	<0.01015	<0.01015		<0.01015	<0.01015		<0.01		
1/31/2017	<0.01015						<0.01		<0.01015
2/1/2017		<0.01015		<0.01015	<0.01015				
5/2/2017	<0.01015								<0.01015
5/3/2017		<0.01015		<0.01015	<0.01015		<0.01		
6/6/2017	<0.01015								<0.01015
6/7/2017		<0.01015		<0.01015	<0.01015		<0.01		
1/22/2018							<0.01		
1/23/2018		<0.01015		<0.01015	<0.01015				<0.01015
1/24/2018	<0.01015								
5/1/2018	<0.01015								
5/2/2018		<0.01015		<0.01015	<0.01015		<0.01		<0.01015
11/27/2018									<0.01015
11/28/2018	<0.01015	<0.01015		<0.01015	<0.01015		<0.01		
1/8/2019			0.00335 (J)			0.00303 (J)			
5/29/2019	<0.01015			<0.01015	<0.01015		<0.01		<0.01015
5/30/2019		<0.01015							
9/30/2019		<0.01015		<0.01015					
10/1/2019	<0.01015		<0.01015		<0.01015		<0.01		<0.01015
10/2/2019						<0.01015			
3/30/2020	<0.01015								
3/31/2020		<0.01015	<0.01015	<0.01015	<0.01015	<0.01015	<0.01		<0.01015
4/1/2020									
9/1/2020	<0.01015	<0.01015	<0.01015	<0.01015	<0.01015	<0.01015	<0.01		
9/2/2020								<0.01015	<0.01015
5/11/2021		<0.01015							
5/18/2021	0.000106 (J)		0.000148 (J)		0.000947	0.00106			
5/19/2021				0.00652			0.000437	0.000642	
5/25/2021									0.000701
10/26/2021							0.00043	0.00135	
10/27/2021		<0.01015	0.00014 (J)						0.00053
11/1/2021	8E-05 (J)				0.00099	0.00118			
11/2/2021				0.00161					
5/23/2022				0.00141	0.00109	0.00123			
5/24/2022	<0.01015	<0.01015	0.00011 (J)				0.00356		
5/25/2022								0.0008	0.00052
11/1/2022			0.000103 (J)	0.000972	0.000942	0.00112	0.00585	0.000573	0.000643
11/2/2022	<0.01015	<0.01015							
4/3/2023	<0.01015	<0.01015	<0.01015						
4/4/2023				<0.01015	<0.01015	<0.01015	0.0108	<0.01015	
4/5/2023									<0.01015

Time Series

Constituent: Molybdenum (mg/L) Analysis Run 6/23/2023 11:16 AM View: Descriptive
Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-14V	BY-AP-MW-15
3/1/2016		
3/2/2016		0.00238 (J)
4/19/2016		0.00203 (J)
4/20/2016		
6/8/2016		<0.01015
8/30/2016		
8/31/2016		<0.01015
10/18/2016		
10/19/2016		<0.01015
1/31/2017		<0.01015
2/1/2017		
5/2/2017		0.00201 (J)
5/3/2017		
6/6/2017		<0.01015
6/7/2017		
1/22/2018		0.00211 (J)
1/23/2018		
1/24/2018		
5/1/2018		<0.01015
5/2/2018		
11/27/2018		<0.01015
11/28/2018		
1/8/2019		
5/29/2019		<0.01015
5/30/2019		
9/30/2019		
10/1/2019		<0.01015
10/2/2019		
3/30/2020		
3/31/2020		
4/1/2020		<0.01015
9/1/2020		
9/2/2020	0.00229 (J)	0.00209 (J)
5/11/2021		0.00171
5/18/2021		
5/19/2021		
5/25/2021	0.00135	
10/26/2021	0.0012	0.00206
10/27/2021		
11/1/2021		
11/2/2021		
5/23/2022		
5/24/2022	0.0031	
5/25/2022		0.0018
11/1/2022	0.00119	0.00173
11/2/2022		
4/3/2023		<0.01015
4/4/2023	<0.01015	
4/5/2023		

Time Series

Constituent: Molybdenum (mg/L) Analysis Run 6/23/2023 11:16 AM View: Descriptive

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-15V	BY-AP-MW-16	BY-AP-MW-16V	BY-AP-MW-17H	BY-AP-MW-17V	BY-AP-MW-18H	BY-AP-MW-19H	BY-AP-MW-1V	BY-AP-MW-2
3/2/2016		<0.01015							<0.01015
4/19/2016		<0.01015							<0.01015
6/8/2016		<0.01015							<0.01015
8/31/2016		<0.01015							<0.01015
10/19/2016		<0.01015							<0.01015
1/31/2017		<0.01015							<0.01015
5/2/2017		<0.01015							<0.01015
6/6/2017		<0.01015							<0.01015
1/23/2018		<0.01015							<0.01015
1/24/2018									<0.01015
5/1/2018		<0.01015							<0.01015
11/27/2018		<0.01015							<0.01015
1/8/2019								<0.01015	
3/20/2019						<0.01015			
5/29/2019		<0.01015							<0.01015
7/31/2019	<0.01015			<0.01015			<0.01015		
10/1/2019	<0.01015	<0.01015				<0.01015	<0.01015		<0.01015
10/2/2019				<0.01015				<0.01015	
3/30/2020								<0.01015	
3/31/2020		<0.01015							<0.01015
4/1/2020				<0.01015		<0.01015			
8/31/2020									<0.01015
9/1/2020	<0.01015			<0.01015	<0.01015	<0.01015	<0.01015	<0.01015	
9/2/2020		<0.01015	<0.01015						
5/17/2021				0.000469					
5/18/2021					0.000571			0.00018 (J)	<0.01015
5/19/2021		0.000136 (J)	<0.01015			0.00025			
5/25/2021	0.000106 (J)						0.000124 (J)		
10/25/2021				0.00078	0.00088	0.00025	8E-05 (J)		
10/26/2021	0.00011 (J)		<0.01015						
11/1/2021		<0.01015						0.00013 (J)	<0.01015
5/23/2022						0.00036			
5/24/2022	<0.01015						<0.01015	0.00011 (J)	<0.01015
5/25/2022		<0.01015	<0.01015	0.00045	0.00043				
10/31/2022				0.000432	0.000535	0.000165 (J)	0.000139 (J)		
11/1/2022		<0.01015	<0.01015					<0.01015	
11/2/2022	<0.01015								<0.01015
4/3/2023									<0.01015
4/4/2023			<0.01015	<0.01015	<0.01015			<0.01015	
4/5/2023		<0.01015				<0.01015			
4/24/2023	<0.01015						<0.01015		

Time Series

Constituent: Molybdenum (mg/L) Analysis Run 6/23/2023 11:16 AM View: Descriptive
Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-20H	BY-AP-MW-20V
3/2/2016		
4/19/2016		
6/8/2016		
8/31/2016		
10/19/2016		
1/31/2017		
5/2/2017		
6/6/2017		
1/23/2018		
1/24/2018		
5/1/2018		
11/27/2018		
1/8/2019		
3/20/2019		
5/29/2019		
7/31/2019	<0.01015	
10/1/2019	<0.01015	
10/2/2019		
3/30/2020		
3/31/2020		
4/1/2020	<0.01015	
8/31/2020		
9/1/2020	<0.01015	<0.01015
9/2/2020		
5/17/2021		
5/18/2021		
5/19/2021	0.000503	0.00155
5/25/2021		
10/25/2021		
10/26/2021	0.00048	
11/1/2021		0.00181
5/23/2022	0.00054	
5/24/2022		0.00164
5/25/2022		
10/31/2022	0.000556	
11/1/2022		0.00138
11/2/2022		
4/3/2023		
4/4/2023		
4/5/2023		
4/24/2023	<0.01015	<0.01015

Time Series

Constituent: Molybdenum (mg/L) Analysis Run 6/23/2023 11:16 AM View: Descriptive

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-22H	BY-AP-MW-23H	BY-AP-MW-23V	BY-AP-MW-24H	BY-AP-MW-25H	BY-AP-MW-3	BY-AP-MW-4	BY-AP-MW-5	BY-AP-MW-5V
3/1/2016							<0.01015	<0.01015	
3/2/2016						<0.01015			
4/19/2016						<0.01015	<0.01015		
4/20/2016								<0.01015	
6/7/2016						<0.01015	<0.01015	<0.01015	
8/30/2016							<0.01015	<0.01015	
8/31/2016						<0.01015			
10/18/2016								<0.01015	
10/19/2016						<0.01015	<0.01015		
1/31/2017						<0.01015	<0.01015	<0.01015	
5/2/2017						<0.01015	<0.01015		
5/3/2017								<0.01015	
6/6/2017						<0.01015	<0.01015		
6/7/2017								<0.01015	
1/24/2018						<0.01015	<0.01015	<0.01015	
5/1/2018						<0.01015	<0.01015		
5/2/2018								<0.01015	
11/27/2018						<0.01015	<0.01015	<0.01015	
11/28/2018									
1/8/2019				0.00399 (J)					<0.01015
5/29/2019						<0.01015	<0.01015	<0.01015	
7/31/2019	0.00426 (J)	<0.01015							
9/30/2019									
10/1/2019	<0.01015	<0.01015				<0.01015	<0.01015	<0.01015	
10/2/2019				<0.01015					<0.01015
3/30/2020									
3/31/2020				<0.01015		<0.01015	<0.01015	<0.01015	<0.01015
4/1/2020		<0.01015							
9/1/2020	<0.01015	<0.01015	<0.01015			<0.01015	<0.01015	<0.01015	<0.01015
9/2/2020				<0.01015	<0.01015				
5/17/2021			0.00147						
5/18/2021						<0.01015	<0.01015		
5/24/2021		0.00069			0.000102 (J)				
5/25/2021	0.00137			0.000869					
10/26/2021	0.00136	0.00035	0.00124	0.00096					
10/27/2021									
11/1/2021						<0.01015	<0.01015		
11/2/2021					0.00014 (J)			0.00012 (J)	8E-05 (J)
5/24/2022	0.00145			0.00092					
5/25/2022		0.00013 (J)	0.00142		0.0001 (J)	<0.01015	<0.01015	0.00011 (J)	<0.01015
10/31/2022	0.00132				0.000107 (J)		<0.01015	0.000344	<0.01015
11/1/2022		<0.01015	0.000634			<0.01015			
11/2/2022				0.00104					
4/3/2023				<0.01015	<0.01015				
4/4/2023		<0.01015	<0.01015			<0.01015	<0.01015	<0.01015	<0.01015
4/24/2023	<0.01015								

Time Series

Constituent: Molybdenum (mg/L) Analysis Run 6/23/2023 11:16 AM View: Descriptive
Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-6	BY-AP-MW-7
3/1/2016	<0.01015	<0.01015
3/2/2016		
4/19/2016	<0.01015	
4/20/2016		<0.01015
6/7/2016	<0.01015	<0.01015
8/30/2016	<0.01015	
8/31/2016		<0.01015
10/18/2016		
10/19/2016	<0.01015	<0.01015
1/31/2017	<0.01015	<0.01015
5/2/2017		
5/3/2017	<0.01015	<0.01015
6/6/2017		
6/7/2017	<0.01015	<0.01015
1/24/2018	<0.01015	<0.01015
5/1/2018		
5/2/2018	<0.01015	<0.01015
11/27/2018		
11/28/2018	<0.01015	<0.01015
1/8/2019		
5/29/2019	<0.01015	<0.01015
7/31/2019		
9/30/2019		<0.01015
10/1/2019	<0.01015	
10/2/2019		
3/30/2020		<0.01015
3/31/2020	<0.01015	
4/1/2020		
9/1/2020		
9/2/2020	<0.01015	<0.01015
5/17/2021	0.000117 (J)	
5/18/2021		0.000214
5/24/2021		
5/25/2021		
10/26/2021		
10/27/2021		0.00018 (J)
11/1/2021		
11/2/2021	0.00011 (J)	
5/24/2022		0.00018 (J)
5/25/2022	0.00033	
10/31/2022	0.000122 (J)	0.00289
11/1/2022		
11/2/2022		
4/3/2023		<0.01015
4/4/2023	<0.01015	
4/24/2023		

Time Series

Constituent: Molybdenum (mg/L) Analysis Run 6/23/2023 11:16 AM View: Descriptive

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-7V	BY-AP-MW-8	BY-AP-MW-8V	BY-AP-MW-9	BY-UP-MW-1 (bg)	BY-UP-MW-2 (bg)	BY-UP-MW-3 (bg)	BY-UP-MW-4 (bg)	BY-AP-MW-25V
2/23/2016					<0.01015	<0.01015	<0.01015	<0.01015	
3/1/2016		<0.01015		<0.01015					
4/19/2016					<0.01015	<0.01015	<0.01015	<0.01015	
4/20/2016		<0.01015		<0.01015					
6/6/2016					<0.01015				<0.01015
6/7/2016		<0.01015				<0.01015	<0.01015		
6/8/2016				<0.01015					
8/30/2016		<0.01015			<0.01015	<0.01015	<0.01015	<0.01015	
8/31/2016				<0.01015					
10/18/2016		<0.01015			<0.01015	<0.01015	<0.01015	<0.01015	
10/19/2016				<0.01015					
1/31/2017		<0.01015			<0.01015	<0.01015	<0.01015	<0.01015	
2/1/2017				<0.01015					
5/2/2017					<0.01015	<0.01015	<0.01015	<0.01015	
5/3/2017		<0.01015		<0.01015					
6/6/2017					<0.01015	<0.01015	<0.01015	<0.01015	
6/7/2017		<0.01015		<0.01015					
1/23/2018				<0.01015	<0.01015	<0.01015	<0.01015	<0.01015	
1/24/2018		<0.01015							
5/1/2018						<0.01015	<0.01015	<0.01015	
5/2/2018		<0.01015		<0.01015	<0.01015				
11/26/2018									<0.01015
11/27/2018		<0.01015			<0.01015	<0.01015	<0.01015		
11/28/2018				<0.01015					
1/9/2019	0.00511 (J)		0.00243 (J)						
5/28/2019									<0.01015
5/29/2019		<0.01015			<0.01015	<0.01015	<0.01015		
5/30/2019				<0.01015					
9/30/2019		<0.01015		<0.01015					
10/1/2019	<0.01015		<0.01015						
10/2/2019					<0.01015	<0.01015	<0.01015	<0.01015	
3/30/2020	<0.01015	<0.01015	<0.01015						
3/31/2020				<0.01015	<0.01015	<0.01015	<0.01015	<0.01015	
9/2/2020	<0.01015	<0.01015	<0.01015	<0.01015					<0.01015
9/8/2020									<0.01015
9/9/2020					<0.01015	<0.01015	<0.01015	<0.01015	
5/11/2021		0.000321				<0.01015	<0.01015	<0.01015	
5/12/2021					<0.01015				
5/18/2021	0.00021		0.000363	0.00022					
5/24/2021									9.23E-05 (J)
10/18/2021							<0.01015	<0.01015	
10/19/2021					<0.01015	<0.01015			
10/26/2021		0.00019 (J)	0.00028						
10/27/2021	0.00046			0.00021					
11/2/2021									<0.01015
5/23/2022			0.00029						
5/24/2022	0.00074	0.00023		0.00024					
5/25/2022									<0.01015
5/31/2022					<0.01015	<0.01015	<0.01015	<0.01015	
10/31/2022	0.00124		0.000222	0.000157 (J)					
11/1/2022					<0.01015	<0.01015	<0.01015	<0.01015	<0.01015
11/2/2022		0.000232							

Time Series

Constituent: Molybdenum (mg/L) Analysis Run 6/23/2023 11:16 AM View: Descriptive
Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-7V	BY-AP-MW-8	BY-AP-MW-8V	BY-AP-MW-9	BY-UP-MW-1 (bg)	BY-UP-MW-2 (bg)	BY-UP-MW-3 (bg)	BY-UP-MW-4 (bg)	BY-AP-MW-25V
4/3/2023	<0.01015	<0.01015	<0.01015						<0.01015
4/4/2023				<0.01015					
4/12/2023					<0.01015	<0.01015	<0.01015	<0.01015	

Time Series

Constituent: pH, field (SU) Analysis Run 6/23/2023 11:16 AM View: Descriptive

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-1	BY-AP-MW-10	BY-AP-MW-10V	BY-AP-MW-11	BY-AP-MW-12	BY-AP-MW-12V	BY-AP-MW-13	BY-AP-MW-13V	BY-AP-MW-14
3/1/2016		6.33		6.34					
3/2/2016	5.78				6.16		6.1		6.08
4/19/2016	5.8								
4/20/2016		6.31		6.31	6.17		6.14		6.04
6/8/2016	5.83	6.34		6.33	6.25		6.11		6.13
8/30/2016									6.08
8/31/2016	5.85	6.35		6.29	6.23		6.1		
10/18/2016									6.13
10/19/2016	5.87	6.35		6.26	6.2		6.1		
1/31/2017	5.83						6.07		6.06
2/1/2017		6.27		6.22	6.08				
3/21/2017	5.83								
3/22/2017		6.29		6.22	6.12		6.07		6.09
5/2/2017	5.73								5.94
5/3/2017		6.23		6.15	6.12		6.1		
6/6/2017	5.83								6.1
6/7/2017		6.27		6.21	6.13		6.07		
9/13/2017	5.91			6.26	6.19		6.12		6.11
9/14/2017		6.27							
1/22/2018							6.12		
1/23/2018		6.32		6.28	6.17				6.12
1/24/2018	5.9								
5/1/2018	5.83								
5/2/2018		6.36		6.33	6.15		6.13		6.13
8/28/2018	5.78	6.31							
8/29/2018				6.3	6.19		6.1		6.14
11/27/2018									6.07
11/28/2018	5.82	6.32		6.28	6.11		6.04		
1/8/2019			6.5			6.48			
5/29/2019	5.82			6.24	6.13		6.01		6.07
5/30/2019		6.23							
9/30/2019		6.11		5.85					
10/1/2019	5.47		6.05		6		6.02		6.01
10/2/2019						5.9			
3/30/2020	5.79								
3/31/2020		6.37	6.38	6.26	6.21	6.33	5.98		5.76
4/1/2020									
9/1/2020	5.89	6.33	6.34	5.87	6.19	6.2	5.82		
9/2/2020								6.23	5.8
5/11/2021		6.4							
5/18/2021	5.86		6.34		5.58	5.92			
5/19/2021				6.33			5.79	6.2	
5/25/2021									5.82
10/26/2021							5.69	6.81	
10/27/2021		5.91	6.1						6.41
11/1/2021	6.01				5.75	6.09			
11/2/2021				5.84					
5/23/2022				6.32	6.12	6.22			
5/24/2022	5.44	5.81	5.77				5.5		
5/25/2022								6.3	6.14
11/1/2022			6.41	6.28	6.21	6.32	6.09	6.29	5.93
11/2/2022	5.56	6.39							

Time Series

Constituent: pH, field (SU) Analysis Run 6/23/2023 11:16 AM View: Descriptive

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-14V	BY-AP-MW-15
3/1/2016		
3/2/2016		6.61
4/19/2016		6.75
4/20/2016		
6/8/2016		6.63
8/30/2016		
8/31/2016		6.71
10/18/2016		
10/19/2016		6.66
1/31/2017		6.73
2/1/2017		
3/21/2017		6.62
3/22/2017		
5/2/2017		6.49
5/3/2017		
6/6/2017		6.7
6/7/2017		
9/13/2017		6.66
9/14/2017		
1/22/2018		6.73
1/23/2018		
1/24/2018		
5/1/2018		6.62
5/2/2018		
8/28/2018		
8/29/2018		6.68
11/27/2018		6.58
11/28/2018		
1/8/2019		
5/29/2019		6.63
5/30/2019		
9/30/2019		
10/1/2019		6.2
10/2/2019		
3/30/2020		
3/31/2020		
4/1/2020		6.72
9/1/2020		
9/2/2020	7.02	6.57
5/11/2021		6.76
5/18/2021		
5/19/2021		
5/25/2021	7.2	
10/26/2021	6.91	6.7
10/27/2021		
11/1/2021		
11/2/2021		
5/23/2022		
5/24/2022	6.71	
5/25/2022		6.68
11/1/2022	6.9	6.64
11/2/2022		

Time Series

Constituent: pH, field (SU) Analysis Run 6/23/2023 11:16 AM View: Descriptive
Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-14V	BY-AP-MW-15
4/3/2023		6.63
4/4/2023	6.8	
4/5/2023		

Time Series

Constituent: pH, field (SU) Analysis Run 6/23/2023 11:16 AM View: Descriptive

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-15V	BY-AP-MW-16	BY-AP-MW-16V	BY-AP-MW-17H	BY-AP-MW-17V	BY-AP-MW-18H	BY-AP-MW-19H	BY-AP-MW-1V	BY-AP-MW-2
3/2/2016		5.79							6.08
4/19/2016		5.78							5.92
6/8/2016		5.8							5.9
8/31/2016		5.83							5.87
10/19/2016		5.81							5.82
1/31/2017		5.84							5.87
3/21/2017		5.79							5.85
5/2/2017		5.68							5.61
6/6/2017		5.8							5.82
9/12/2017									5.61
9/13/2017		5.86							
1/23/2018		5.86							
1/24/2018									5.83
5/1/2018		5.85							5.8
8/28/2018									5.56
8/29/2018		5.87							
11/27/2018		5.76							5.71
1/8/2019								6.38	
3/20/2019						6.19			
5/29/2019		5.76							5.7
7/31/2019	5.37			6.64			6.21		
10/1/2019	5.68	5.23				6.26	6.33		4.97
10/2/2019				6.58				5.27	
3/30/2020								5.65	
3/31/2020		5.75							5.71
4/1/2020				6.52		6.48			
8/31/2020									5.57
9/1/2020	5.91			6.56	6.49	6.15	6.31	5.62	
9/2/2020		5.47	5.23						
5/17/2021				6.35					
5/18/2021					6.55			5.55	5.83
5/19/2021		5.8	5.24			6.23			
5/25/2021	5.6						6.1		
10/25/2021				6.48	6.53	6.76	6.13		
10/26/2021	5.93		5.26						
11/1/2021		5.36						5.76	5.2
5/23/2022						6.24			
5/24/2022	5.7						5.8	4.9	4.78
5/25/2022		5.74	5.26	6.21	6.34				
10/31/2022				6.34	6.4	6.23	6.1		
11/1/2022		5.78	5.13					5.21	
11/2/2022	5.38								5.68
4/3/2023									4.88
4/4/2023			4.97	6.25	6.48			5.69	
4/5/2023		5.83				6.15			
4/24/2023	5.61						6.35		

Time Series

Constituent: pH, field (SU) Analysis Run 6/23/2023 11:16 AM View: Descriptive
Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-20H	BY-AP-MW-20V
3/2/2016		
4/19/2016		
6/8/2016		
8/31/2016		
10/19/2016		
1/31/2017		
3/21/2017		
5/2/2017		
6/6/2017		
9/12/2017		
9/13/2017		
1/23/2018		
1/24/2018		
5/1/2018		
8/28/2018		
8/29/2018		
11/27/2018		
1/8/2019		
3/20/2019		
5/29/2019		
7/31/2019	6.22	
10/1/2019	6.24	
10/2/2019		
3/30/2020		
3/31/2020		
4/1/2020	6.45	
8/31/2020		
9/1/2020	6.15	6.03
9/2/2020		
5/17/2021		
5/18/2021		
5/19/2021	6.17	6.44
5/25/2021		
10/25/2021		
10/26/2021	6.49	
11/1/2021		6
5/23/2022	6.15	
5/24/2022		6.28
5/25/2022		
10/31/2022	6.12	
11/1/2022		6.3
11/2/2022		
4/3/2023		
4/4/2023		
4/5/2023		
4/24/2023	6.16	6.35

Time Series

Constituent: pH, field (SU) Analysis Run 6/23/2023 11:16 AM View: Descriptive
Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-6	BY-AP-MW-7
3/1/2016	5.59	6.36
3/2/2016		
4/19/2016	5.55	
4/20/2016		6.31
6/7/2016	5.43	6.3
8/30/2016	5.39	
8/31/2016		6.31
10/18/2016		
10/19/2016	5.31	6.23
1/31/2017	5.26	6.26
3/21/2017		
3/22/2017	5.32	6.32
5/2/2017		
5/3/2017	5.35	6.29
6/6/2017		
6/7/2017	5.32	6.27
9/12/2017		
9/14/2017	5.29	6.25
1/24/2018	5.32	6.35
5/1/2018		
5/2/2018	5.33	6.29
8/28/2018		
8/29/2018	5.41	
11/27/2018		
11/28/2018	5.46	6.33
1/8/2019		
5/29/2019	5.31	6.18
7/31/2019		
9/30/2019		6.36
10/1/2019	4.7	
10/2/2019		
3/30/2020		6.32
3/31/2020	5.22	
4/1/2020		
9/1/2020		
9/2/2020	5.16	6.25
5/17/2021	5.21	
5/18/2021		6.4
5/24/2021		
5/25/2021		
10/26/2021		
10/27/2021		6.35
11/1/2021		
11/2/2021	5.59	
5/24/2022		6.32
5/25/2022	4.57	
10/31/2022	4.9	7.07
11/1/2022		
11/2/2022		
4/3/2023		6.53
4/4/2023	5.33	
4/24/2023		

Time Series

Constituent: pH, field (SU) Analysis Run 6/23/2023 11:16 AM View: Descriptive

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-7V	BY-AP-MW-8	BY-AP-MW-8V	BY-AP-MW-9	BY-UP-MW-1 (bg)	BY-UP-MW-2 (bg)	BY-UP-MW-3 (bg)	BY-UP-MW-4 (bg)	BY-AP-MW-25V
5/23/2022			6.08						
5/24/2022	6.92	5.6		6.03					
5/25/2022									5.45
5/31/2022					3.89	3.31	3.54	3.97	
10/31/2022	7.9		6.23	6.26					
11/1/2022					4.6	4.42	4.12	4.74	4.22
11/2/2022		6.28							
4/3/2023	7.67	6.34	6.5						4.8
4/4/2023				6.15					
4/12/2023					4.77	4.67	4.83	4.73	

Time Series

Constituent: Selenium (mg/L) Analysis Run 6/23/2023 11:16 AM View: Descriptive

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-1	BY-AP-MW-10	BY-AP-MW-10V	BY-AP-MW-11	BY-AP-MW-12	BY-AP-MW-12V	BY-AP-MW-13	BY-AP-MW-13V	BY-AP-MW-14
3/1/2016		<0.001015		<0.001015					
3/2/2016	<0.001015				<0.001015		<0.00102		<0.001015
4/19/2016	<0.001015								
4/20/2016		<0.001015		<0.001015	<0.001015		<0.00102		<0.001015
6/8/2016	<0.001015	<0.001015		<0.001015	<0.001015		<0.00102		<0.001015
8/30/2016									<0.001015
8/31/2016	<0.001015	<0.001015		<0.001015	<0.001015		<0.00102		
10/18/2016									<0.001015
10/19/2016	<0.001015	<0.001015		<0.001015	<0.001015		<0.00102		
1/31/2017	<0.001015						<0.00102		<0.001015
2/1/2017		<0.001015		<0.001015	<0.001015				
5/2/2017	<0.001015								<0.001015
5/3/2017		<0.001015		<0.001015	<0.001015		<0.00102		
6/6/2017	<0.001015								<0.001015
6/7/2017		<0.001015		<0.001015	<0.001015		<0.00102		
1/22/2018							<0.00102		
1/23/2018		<0.001015		<0.001015	<0.001015				<0.001015
1/24/2018	<0.001015								
5/1/2018	<0.001015								
5/2/2018		<0.001015		<0.001015	<0.001015		<0.00102		<0.001015
11/27/2018									<0.001015
11/28/2018	<0.001015	<0.001015		<0.001015	<0.001015		<0.00102		
1/8/2019			<0.001015			<0.001015			
5/29/2019	<0.001015			<0.001015	<0.001015		<0.00102		<0.001015
5/30/2019		<0.001015							
9/30/2019		<0.001015		<0.001015					
10/1/2019	<0.001015		<0.001015		<0.001015		<0.00102		<0.001015
10/2/2019						<0.001015			
3/30/2020	<0.001015								
3/31/2020		<0.001015	<0.001015	<0.001015	<0.001015	<0.001015	<0.00102		<0.001015
4/1/2020									
9/1/2020	<0.001015	<0.001015	<0.001015	<0.001015	<0.001015	<0.001015	<0.00102		
9/2/2020								<0.001015	<0.001015
5/11/2021		<0.001015							
5/18/2021	<0.001015		<0.001015		<0.001015	<0.001015			
5/19/2021				<0.001015			<0.00102	<0.001015	
5/25/2021									<0.001015
10/26/2021							<0.00102	<0.001015	
10/27/2021		<0.001015	<0.001015						<0.001015
11/1/2021	<0.001015				<0.001015	<0.001015			
11/2/2021				<0.001015					
5/23/2022				<0.001015	<0.001015	<0.001015			
5/24/2022	<0.001015	<0.001015	<0.001015				0.00056 (J)		
5/25/2022								<0.001015	<0.001015
11/1/2022			<0.001015	<0.001015	<0.001015	<0.001015	0.000611 (J)	<0.001015	<0.001015
11/2/2022	<0.001015	<0.001015							
4/3/2023	<0.001015	<0.001015	<0.001015						
4/4/2023				<0.001015	<0.001015	<0.001015	0.000664 (J)	<0.001015	
4/5/2023									<0.001015

Time Series

Constituent: Selenium (mg/L) Analysis Run 6/23/2023 11:16 AM View: Descriptive
Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-14V	BY-AP-MW-15
3/1/2016		
3/2/2016		<0.001015
4/19/2016		<0.001015
4/20/2016		
6/8/2016		<0.001015
8/30/2016		
8/31/2016		<0.001015
10/18/2016		
10/19/2016		<0.001015
1/31/2017		<0.001015
2/1/2017		
5/2/2017		<0.001015
5/3/2017		
6/6/2017		<0.001015
6/7/2017		
1/22/2018		<0.001015
1/23/2018		
1/24/2018		
5/1/2018		<0.001015
5/2/2018		
11/27/2018		<0.001015
11/28/2018		
1/8/2019		
5/29/2019		<0.001015
5/30/2019		
9/30/2019		
10/1/2019		<0.001015
10/2/2019		
3/30/2020		
3/31/2020		
4/1/2020		<0.001015
9/1/2020		
9/2/2020	<0.001015	<0.001015
5/11/2021		<0.001015
5/18/2021		
5/19/2021		
5/25/2021	<0.001015	
10/26/2021	<0.001015	<0.001015
10/27/2021		
11/1/2021		
11/2/2021		
5/23/2022		
5/24/2022	<0.001015	
5/25/2022		<0.001015
11/1/2022	<0.001015	<0.001015
11/2/2022		
4/3/2023		<0.001015
4/4/2023	<0.001015	
4/5/2023		

Time Series

Constituent: Selenium (mg/L) Analysis Run 6/23/2023 11:16 AM View: Descriptive

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-15V	BY-AP-MW-16	BY-AP-MW-16V	BY-AP-MW-17H	BY-AP-MW-17V	BY-AP-MW-18H	BY-AP-MW-19H	BY-AP-MW-1V	BY-AP-MW-2
3/2/2016		<0.001015							<0.001015
4/19/2016		<0.001015							<0.001015
6/8/2016		<0.001015							<0.001015
8/31/2016		<0.001015							<0.001015
10/19/2016		<0.001015							<0.001015
1/31/2017		<0.001015							<0.001015
5/2/2017		<0.001015							<0.001015
6/6/2017		<0.001015							<0.001015
1/23/2018		<0.001015							<0.001015
1/24/2018									<0.001015
5/1/2018		<0.001015							<0.001015
11/27/2018		<0.001015							<0.001015
1/8/2019								<0.001015	
3/20/2019						<0.001015			
5/29/2019		<0.001015							<0.001015
7/31/2019	<0.001015			<0.001015			<0.001015		
10/1/2019	<0.001015	<0.001015				<0.001015	<0.001015		<0.001015
10/2/2019				<0.001015				<0.001015	
3/30/2020								<0.001015	
3/31/2020		<0.001015							<0.001015
4/1/2020				<0.001015		<0.001015			
8/31/2020									<0.001015
9/1/2020	<0.001015			<0.001015	<0.001015	<0.001015	<0.001015	<0.001015	
9/2/2020		<0.001015	<0.001015						
5/17/2021				<0.001015					
5/18/2021					<0.001015			<0.001015	<0.001015
5/19/2021		<0.001015	<0.001015			<0.001015			
5/25/2021	<0.001015						<0.001015		
10/25/2021				<0.001015	<0.001015	<0.001015	<0.001015		
10/26/2021	<0.001015		<0.001015						
11/1/2021		<0.001015						<0.001015	<0.001015
5/23/2022						<0.001015			
5/24/2022	<0.001015						<0.001015	<0.001015	<0.001015
5/25/2022		<0.001015	<0.001015	<0.001015	<0.001015				
10/31/2022				<0.001015	<0.001015	<0.001015	<0.001015		
11/1/2022		<0.001015	<0.001015					<0.001015	
11/2/2022	<0.001015								<0.001015
4/3/2023									<0.001015
4/4/2023			<0.001015	<0.001015	<0.001015			<0.001015	
4/5/2023		<0.001015				<0.001015			
4/24/2023	<0.001015						<0.001015		

Time Series

Constituent: Selenium (mg/L) Analysis Run 6/23/2023 11:16 AM View: Descriptive
Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-20H	BY-AP-MW-20V
3/2/2016		
4/19/2016		
6/8/2016		
8/31/2016		
10/19/2016		
1/31/2017		
5/2/2017		
6/6/2017		
1/23/2018		
1/24/2018		
5/1/2018		
11/27/2018		
1/8/2019		
3/20/2019		
5/29/2019		
7/31/2019	<0.001015	
10/1/2019	<0.001015	
10/2/2019		
3/30/2020		
3/31/2020		
4/1/2020	<0.001015	
8/31/2020		
9/1/2020	<0.001015	<0.001015
9/2/2020		
5/17/2021		
5/18/2021		
5/19/2021	<0.001015	<0.001015
5/25/2021		
10/25/2021		
10/26/2021	<0.001015	
11/1/2021		<0.001015
5/23/2022	0.00054 (J)	
5/24/2022		<0.001015
5/25/2022		
10/31/2022	<0.001015	
11/1/2022		<0.001015
11/2/2022		
4/3/2023		
4/4/2023		
4/5/2023		
4/24/2023	<0.001015	<0.001015

Time Series

Constituent: Selenium (mg/L) Analysis Run 6/23/2023 11:16 AM View: Descriptive

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-22H	BY-AP-MW-23H	BY-AP-MW-23V	BY-AP-MW-24H	BY-AP-MW-25H	BY-AP-MW-3	BY-AP-MW-4	BY-AP-MW-5	BY-AP-MW-5V
3/1/2016							<0.001015	<0.001015	
3/2/2016						<0.001015			
4/19/2016						<0.001015	<0.001015		
4/20/2016								<0.001015	
6/7/2016						<0.001015	<0.001015	<0.001015	
8/30/2016							<0.001015	<0.001015	
8/31/2016						<0.001015			
10/18/2016								<0.001015	
10/19/2016						<0.001015	<0.001015		
1/31/2017						<0.001015	<0.001015	<0.001015	
5/2/2017						<0.001015	<0.001015		
5/3/2017								<0.001015	
6/6/2017						<0.001015	<0.001015		
6/7/2017								<0.001015	
1/24/2018						<0.001015	<0.001015	<0.001015	
5/1/2018						<0.001015	<0.001015		
5/2/2018								<0.001015	
11/27/2018						<0.001015	<0.001015	<0.001015	
11/28/2018									
1/8/2019				<0.001015					<0.001015
5/29/2019						<0.001015	<0.001015	<0.001015	
7/31/2019	<0.001015	<0.001015							
9/30/2019									
10/1/2019	<0.001015	<0.001015				<0.001015	<0.001015	<0.001015	
10/2/2019				<0.001015					<0.001015
3/30/2020									
3/31/2020				<0.001015		<0.001015	<0.001015	<0.001015	<0.001015
4/1/2020		<0.001015							
9/1/2020	<0.001015	<0.001015	<0.001015			<0.001015	<0.001015	<0.001015	<0.001015
9/2/2020				<0.001015	<0.001015				
5/17/2021			<0.001015						
5/18/2021						<0.001015	<0.001015		
5/24/2021		<0.001015			<0.001015				
5/25/2021	<0.001015			<0.001015					
10/26/2021	<0.001015	<0.001015	<0.001015	<0.001015					
10/27/2021									
11/1/2021						<0.001015	<0.001015		
11/2/2021					<0.001015			<0.001015	<0.001015
5/24/2022	<0.001015			<0.001015					
5/25/2022		<0.001015	<0.001015		<0.001015	<0.001015	<0.001015	<0.001015	<0.001015
10/31/2022	<0.001015				<0.001015	<0.001015	<0.001015	<0.001015	<0.001015
11/1/2022		<0.001015	<0.001015			<0.001015			
11/2/2022				<0.001015					
4/3/2023				<0.001015	<0.001015				
4/4/2023		<0.001015	<0.001015			<0.001015	<0.001015	<0.001015	<0.001015
4/24/2023	<0.001015								

Time Series

Constituent: Selenium (mg/L) Analysis Run 6/23/2023 11:16 AM View: Descriptive
Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-6	BY-AP-MW-7
3/1/2016	<0.001015	<0.001015
3/2/2016		
4/19/2016	<0.001015	
4/20/2016		<0.001015
6/7/2016	<0.001015	<0.001015
8/30/2016	<0.001015	
8/31/2016		<0.001015
10/18/2016		
10/19/2016	<0.001015	<0.001015
1/31/2017	<0.001015	<0.001015
5/2/2017		
5/3/2017	<0.001015	<0.001015
6/6/2017		
6/7/2017	<0.001015	<0.001015
1/24/2018	<0.001015	<0.001015
5/1/2018		
5/2/2018	<0.001015	<0.001015
11/27/2018		
11/28/2018	<0.001015	<0.001015
1/8/2019		
5/29/2019	<0.001015	<0.001015
7/31/2019		
9/30/2019		<0.001015
10/1/2019	<0.001015	
10/2/2019		
3/30/2020		<0.001015
3/31/2020	<0.001015	
4/1/2020		
9/1/2020		
9/2/2020	<0.001015	<0.001015
5/17/2021	<0.001015	
5/18/2021		<0.001015
5/24/2021		
5/25/2021		
10/26/2021		
10/27/2021		<0.001015
11/1/2021		
11/2/2021	<0.001015	
5/24/2022		<0.001015
5/25/2022	<0.001015	
10/31/2022	<0.001015	<0.001015
11/1/2022		
11/2/2022		
4/3/2023		<0.001015
4/4/2023	<0.001015	
4/24/2023		

Time Series

Constituent: Selenium (mg/L) Analysis Run 6/23/2023 11:16 AM View: Descriptive

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-7V	BY-AP-MW-8	BY-AP-MW-8V	BY-AP-MW-9	BY-UP-MW-1 (bg)	BY-UP-MW-2 (bg)	BY-UP-MW-3 (bg)	BY-UP-MW-4 (bg)	BY-AP-MW-25V
2/23/2016					<0.001015	<0.00102	<0.001015	<0.001015	
3/1/2016		<0.001015		<0.001015					
4/19/2016					<0.001015	<0.00102	<0.001015	<0.001015	
4/20/2016		<0.001015		<0.001015					
6/6/2016					<0.001015				<0.001015
6/7/2016		<0.001015				<0.00102	<0.001015		
6/8/2016				<0.001015					
8/30/2016		<0.001015			<0.001015	<0.00102	<0.001015	<0.001015	
8/31/2016				<0.001015					
10/18/2016		<0.001015			<0.001015	<0.00102	<0.001015	<0.001015	
10/19/2016				<0.001015					
1/31/2017		<0.001015			<0.001015	<0.00102	<0.001015	<0.001015	
2/1/2017				<0.001015					
5/2/2017					<0.001015	<0.00102	<0.001015	<0.001015	
5/3/2017		<0.001015		<0.001015					
6/6/2017					<0.001015	<0.00102	<0.001015	<0.001015	
6/7/2017		<0.001015		<0.001015					
1/23/2018				<0.001015	<0.001015	<0.00102	<0.001015	<0.001015	
1/24/2018		<0.001015							
5/1/2018						<0.00102	<0.001015	<0.001015	
5/2/2018		<0.001015		<0.001015	<0.001015				
11/26/2018									<0.001015
11/27/2018		<0.001015			<0.001015	<0.00102	<0.001015		
11/28/2018				<0.001015					
1/9/2019	<0.001015		<0.001015						
5/28/2019								<0.001015	
5/29/2019		<0.001015			<0.001015	<0.00102	<0.001015		
5/30/2019				<0.001015					
9/30/2019		<0.001015		<0.001015					
10/1/2019	<0.001015		<0.001015						
10/2/2019					<0.001015	<0.00102	<0.001015	<0.001015	
3/30/2020	<0.001015	<0.001015	<0.001015						
3/31/2020				<0.001015	<0.001015	<0.00102	<0.001015	<0.001015	
9/2/2020	<0.001015	<0.001015	<0.001015	<0.001015					<0.001015
9/8/2020								<0.001015	
9/9/2020					<0.001015	<0.00102	<0.001015		
5/11/2021		<0.001015				0.000602 (J)	<0.001015	<0.001015	
5/12/2021					<0.001015				
5/18/2021	<0.001015		<0.001015	<0.001015					
5/24/2021									<0.001015
10/18/2021							<0.001015	<0.001015	
10/19/2021					<0.001015	<0.00102			
10/26/2021		<0.001015	<0.001015						
10/27/2021	<0.001015			<0.001015					
11/2/2021									<0.001015
5/23/2022			<0.001015						
5/24/2022	<0.001015	<0.001015		<0.001015					
5/25/2022									<0.001015
5/31/2022					<0.001015	0.00063 (J)	<0.001015	<0.001015	
10/31/2022	<0.001015		<0.001015	<0.001015					
11/1/2022					<0.001015	0.000558 (J)	<0.001015	<0.001015	<0.001015
11/2/2022		<0.001015							

Time Series

Constituent: Selenium (mg/L) Analysis Run 6/23/2023 11:16 AM View: Descriptive

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-7V	BY-AP-MW-8	BY-AP-MW-8V	BY-AP-MW-9	BY-UP-MW-1 (bg)	BY-UP-MW-2 (bg)	BY-UP-MW-3 (bg)	BY-UP-MW-4 (bg)	BY-AP-MW-25V
4/3/2023	<0.001015	<0.001015	<0.001015						<0.001015
4/4/2023				<0.001015					
4/12/2023					<0.001015	0.000702 (J)	<0.001015	<0.001015	

Time Series

Constituent: Sulfate as SO4 (mg/L) Analysis Run 6/23/2023 11:16 AM View: Descriptive

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-1	BY-AP-MW-10	BY-AP-MW-10V	BY-AP-MW-11	BY-AP-MW-12	BY-AP-MW-12V	BY-AP-MW-13	BY-AP-MW-13V	BY-AP-MW-14
3/1/2016		0.34 (J)		1.02					
3/2/2016	0.31 (J)				<5		<5		<5
4/19/2016	0.335 (J)								
4/20/2016		<5		1.1	<5		<5		<5
6/8/2016	0.556 (J)	0.538 (J)		0.701 (J)	0.511 (J)		0.496 (J)		0.514 (J)
8/30/2016									<5
8/31/2016	<5	<5		<5	<5		<5		
10/18/2016									<5
10/19/2016	<5	<5		<5	<5		<5		
3/21/2017	<5								
3/22/2017		<5		2.1 (J)	<5		6.9		<5
5/2/2017	6								1.8 (J)
5/3/2017		4.1 (J)		3.6 (J)	2.1 (J)		6.6		
6/6/2017	<5								<5
6/7/2017		<5		<5	<5		6		
9/13/2017	4.7 (J)			<5	<5		2.2 (J)		<5
9/14/2017		<5							
5/1/2018	<5								
5/2/2018		<5		<5	<5		4.1 (J)		1.6 (J)
8/28/2018	<5	<5							
8/29/2018				2.3 (J)	<5		<5		<5
11/27/2018									<5
11/28/2018	4.1 (J)	<5		<5	<50 (O)		4.9 (J)		
1/8/2019			93.7			10.3			
5/29/2019	5.75			24.1	7.04		49.5 (o)		67.6 (o)
5/30/2019		3.76							
9/30/2019		2.77		37.4					
10/1/2019	7.82		5.19		35.3		47.7		61.6
10/2/2019						7.18			
3/30/2020	28.4								
3/31/2020		20.1	20.3	57.5	35.8	61.1	23.2		34.7
4/1/2020									
9/1/2020	23.1	15.6	30.1	42.8	32.1	47.5	14.2		
9/2/2020								30.6	18.5
5/11/2021		13.2							
5/18/2021	16.5		24.9		25.1	32.8			
5/19/2021				16.5			50.4	39.7	
5/25/2021									59.2
10/26/2021							21	47.3	
10/27/2021		5.72	6.04						98.5
11/1/2021	10.9				27	10.9			
11/2/2021				133					
5/23/2022				29.3	13	6.64			
5/24/2022	21	14.7	5.73				38.3		
5/25/2022								122	105
11/1/2022			11.4	47.700001	15.3	12.3	86.900002	136	86.099998
11/2/2022	12.1	10.2							
4/3/2023	34.200001	15	13						
4/4/2023				84.300003	39.599998	85.5	24.6	29.5	
4/5/2023									112

Time Series

Constituent: Sulfate as SO4 (mg/L) Analysis Run 6/23/2023 11:17 AM View: Descriptive
Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-14V	BY-AP-MW-15
3/1/2016		
3/2/2016		<5
4/19/2016		<5
4/20/2016		
6/8/2016		0.489 (J)
8/30/2016		
8/31/2016		<5
10/18/2016		
10/19/2016		<5
3/21/2017		<5
3/22/2017		
5/2/2017		<5
5/3/2017		
6/6/2017		<5
6/7/2017		
9/13/2017		<5
9/14/2017		
5/1/2018		<5
5/2/2018		
8/28/2018		
8/29/2018		6.2
11/27/2018		<5
11/28/2018		
1/8/2019		
5/29/2019		3.27
5/30/2019		
9/30/2019		
10/1/2019		1.72
10/2/2019		
3/30/2020		
3/31/2020		
4/1/2020		7.5
9/1/2020		
9/2/2020	63.6	7.61
5/11/2021		7.54
5/18/2021		
5/19/2021		
5/25/2021	39.5	
10/26/2021	75.1	26.4
10/27/2021		
11/1/2021		
11/2/2021		
5/23/2022		
5/24/2022	13.6	
5/25/2022		1.8 (J)
11/1/2022	10.7	4.24
11/2/2022		
4/3/2023		8.28
4/4/2023	11.7	
4/5/2023		

Time Series

Constituent: Sulfate as SO4 (mg/L) Analysis Run 6/23/2023 11:17 AM View: Descriptive

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-15V	BY-AP-MW-16	BY-AP-MW-16V	BY-AP-MW-17H	BY-AP-MW-17V	BY-AP-MW-18H	BY-AP-MW-19H	BY-AP-MW-1V	BY-AP-MW-2
3/2/2016		<5							3.3
4/19/2016		<5							2.68
6/8/2016		0.514 (J)							1.1
8/31/2016		<5							<1
10/19/2016		<5							<1
3/21/2017		<5							<1
5/2/2017		<5							<1
6/6/2017		<5							<1
9/12/2017									<1
9/13/2017		2.6 (J)							
5/1/2018		<5							<1
8/28/2018									<1
8/29/2018		3.9 (J)							
11/27/2018		<5							<1
1/8/2019								20.9	
3/20/2019						12.8			
5/29/2019		6.72							0.885 (J)
7/31/2019	2.65			23			11.4		
10/1/2019	0.854 (J)	3.4				8.49	5.9		<1
10/2/2019				10.6				10.5	
3/30/2020								11.1	
3/31/2020		17.5 (o)							1.69
4/1/2020				19.4		24.2			
8/31/2020									0.576 (J)
9/1/2020	2.21			7.61	26.6	30.6	16.9	13	
9/2/2020		13.3 (o)	40						
5/17/2021				10.2					
5/18/2021					17.4			16	<1
5/19/2021		3.11	40.9			7.48			
5/25/2021	1.19						26.6		
10/25/2021				24.5	11	55	28.7		
10/26/2021	0.966 (J)		38.1						
11/1/2021		11.9						20.2	1.56
5/23/2022						9.46			
5/24/2022	2.35						34.7	21.1	0.615 (J)
5/25/2022		6.29	35.1	3.58	49.1				
10/31/2022				13.2	55.799999	12.1	23		
11/1/2022		7.46	29.9					23	
11/2/2022	6.26								1.17 (J)
4/3/2023									1.77 (J)
4/4/2023			34	17.200001	59			19	
4/5/2023		9.3				67			
4/24/2023	1.93 (J)						38.700001		

Time Series

Constituent: Sulfate as SO4 (mg/L) Analysis Run 6/23/2023 11:17 AM View: Descriptive
Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-20H	BY-AP-MW-20V
3/2/2016		
4/19/2016		
6/8/2016		
8/31/2016		
10/19/2016		
3/21/2017		
5/2/2017		
6/6/2017		
9/12/2017		
9/13/2017		
5/1/2018		
8/28/2018		
8/29/2018		
11/27/2018		
1/8/2019		
3/20/2019		
5/29/2019		
7/31/2019	83.2	
10/1/2019	28.9	
10/2/2019		
3/30/2020		
3/31/2020		
4/1/2020	18.7	
8/31/2020		
9/1/2020	43.5	38.3
9/2/2020		
5/17/2021		
5/18/2021		
5/19/2021	59.5	1.93
5/25/2021		
10/25/2021		
10/26/2021	73.2	
11/1/2021		5.66
5/23/2022	95.1	
5/24/2022		3.79
5/25/2022		
10/31/2022	103	
11/1/2022		6.08
11/2/2022		
4/3/2023		
4/4/2023		
4/5/2023		
4/24/2023	63.599998	8.99

Time Series

Constituent: Sulfate as SO4 (mg/L) Analysis Run 6/23/2023 11:17 AM View: Descriptive

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-22H	BY-AP-MW-23H	BY-AP-MW-23V	BY-AP-MW-24H	BY-AP-MW-25H	BY-AP-MW-3	BY-AP-MW-4	BY-AP-MW-5	BY-AP-MW-5V
3/1/2016							2.58	<5	
3/2/2016						0.79 (J)			
4/19/2016						0.674 (J)	2.3		
4/20/2016								<5	
6/7/2016						1	2.58	0.583 (J)	
8/30/2016							2.81	<5	
8/31/2016						0.702 (J)			
10/18/2016								<5	
10/19/2016						0.739 (J)	5.06		
3/21/2017						<5	3.4 (J)		
3/22/2017								<5	
5/2/2017						<5	2.7 (J)		
5/3/2017								<5	
6/6/2017						<5	1.5 (J)		
6/7/2017								<5	
9/12/2017						<5	1.9 (J)		
9/14/2017								<5	
5/1/2018						<5	1.4 (J)		
5/2/2018								<5	
8/28/2018						<5	<5		
8/29/2018								1.6 (J)	
11/27/2018						<5	2.3 (J)	2.7 (J)	
11/28/2018									
1/8/2019				31.2					1.75
5/29/2019						0.747 (J)	2.92	5.51	
7/31/2019	171	18.4							
9/30/2019									
10/1/2019	17.2	4.89				0.61 (J)	2.09	7.4	
10/2/2019				92.3					5.8
3/30/2020									
3/31/2020				84.5		1.02	4.12	23.7 (o)	0.98 (J)
4/1/2020		18.1							
9/1/2020	93.2	24.5	9.25			0.705 (J)	1.83	11	1.47
9/2/2020				59.7	4.39				
5/17/2021			6.92						
5/18/2021						0.883 (J)	4.43		
5/24/2021		3.99			4.94				
5/25/2021	72.3			17					
10/26/2021	140	29.5	4.23	122					
10/27/2021									
11/1/2021						1.01	3.34		
11/2/2021					4.28			15	1.34
5/24/2022	103			92.3					
5/25/2022		4.01	4.25		4.24	1.41 (J)	1.97 (J)	5.53	2.91
10/31/2022	110				4.57		1.02 (J)	15.2	7.44
11/1/2022		5.37	11			1.66 (J)			
11/2/2022				19.9					
4/3/2023				94	4.48				
4/4/2023		15.2	32.900002			2.92	2.33	43.900002	4.84
4/24/2023	152								

Time Series

Constituent: Sulfate as SO4 (mg/L) Analysis Run 6/23/2023 11:17 AM View: Descriptive
Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-6	BY-AP-MW-7
3/1/2016	0.36 (J)	0.3 (J)
3/2/2016		
4/19/2016	0.435 (J)	
4/20/2016		0.514 (J)
6/7/2016	1.22	0.971 (J)
8/30/2016	1.08	
8/31/2016		0.445 (J)
10/18/2016		
10/19/2016	1.01	0.366 (J)
3/21/2017		
3/22/2017	<5	<5
5/2/2017		
5/3/2017	1.4 (J)	<5
6/6/2017		
6/7/2017	1.5 (J)	<5
9/12/2017		
9/14/2017	1.8 (J)	<5
5/1/2018		
5/2/2018	<5	<5
8/28/2018		
8/29/2018	<5	
11/27/2018		
11/28/2018	<5	<5
1/8/2019		
5/29/2019	1.17	2.77
7/31/2019		
9/30/2019		2.51
10/1/2019	1.04	
10/2/2019		
3/30/2020		4.78
3/31/2020	1.21	
4/1/2020		
9/1/2020		
9/2/2020	1.02	3.59
5/17/2021	0.981 (J)	
5/18/2021		4.6
5/24/2021		
5/25/2021		
10/26/2021		
10/27/2021		5.17
11/1/2021		
11/2/2021	1.37	
5/24/2022		7.14
5/25/2022	1.27 (J)	
10/31/2022	1.22 (J)	33.799999
11/1/2022		
11/2/2022		
4/3/2023		14.8
4/4/2023	1.59 (J)	
4/24/2023		

Time Series

Constituent: Sulfate as SO4 (mg/L) Analysis Run 6/23/2023 11:17 AM View: Descriptive

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-7V	BY-AP-MW-8	BY-AP-MW-8V	BY-AP-MW-9	BY-UP-MW-1 (bg)	BY-UP-MW-2 (bg)	BY-UP-MW-3 (bg)	BY-UP-MW-4 (bg)	BY-AP-MW-25V
2/23/2016					8.59	7.2	7.44	7.04	
3/1/2016		<5		<5					
4/19/2016					8.27	7.22	7.66	6.74	
4/20/2016		<5		<5					
6/6/2016					8.66			7.04	
6/7/2016		0.504 (J)				7.92	8.16		
6/8/2016				0.51 (J)					
8/30/2016		<5			9.74	8.17	8.43	7.57	
8/31/2016				<5					
10/18/2016		<5			10.2	7.99	8.47	6.62	
10/19/2016				<5					
3/20/2017					8.3	6.1	7.4	7	
3/22/2017		<5		<5					
5/2/2017					6.6	5	6.3	5.6	
5/3/2017		2.7 (J)		2.7 (J)					
6/6/2017					7.6	5.3	7.1	6.6	
6/7/2017		<5		<5					
9/12/2017								7.2	
9/13/2017					8.4	4.9 (J)	7.3		
9/14/2017		<5		<5					
5/1/2018						4.2 (J)	6.9	5.9	
5/2/2018		<5		<5	5.9				
8/28/2018				<5					
8/29/2018		<5							
11/26/2018								5.1	
11/27/2018		<5			22		6.5		
11/28/2018				1.4 (J)					
1/9/2019	3.69		1.74						
5/28/2019								7.1	
5/29/2019		6.01			23.3	5.94	7.81		
5/30/2019				5.91					
9/30/2019		5.29		3.77					
10/1/2019	2		7						
10/2/2019					17.5	6.04	7.62	6.88	
3/30/2020	9.65	33.1	75.8						
3/31/2020				43.5	24.3	6.83	7.98	10.8	
9/2/2020	6.7	15.8	24	21.9					2.26
9/8/2020								6.52	
9/9/2020					16.5	6.08	7.13		
5/11/2021		35.4				7.92	7.73	6.8	
5/12/2021					16.3				
5/18/2021	5.53		19.6	27.7					
5/24/2021									2.59
10/18/2021							7.36	6.58	
10/19/2021					15.5	7.48			
10/26/2021		25.7	58.2						
10/27/2021	5.31			6.33					
11/2/2021									2.08
5/23/2022			8.35						
5/24/2022	6.06	81.3		5.76					
5/25/2022									2.13
5/31/2022					12.8	8.09	7.02	7.94	

Time Series

Constituent: Sulfate as SO4 (mg/L) Analysis Run 6/23/2023 11:17 AM View: Descriptive
Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-7V	BY-AP-MW-8	BY-AP-MW-8V	BY-AP-MW-9	BY-UP-MW-1 (bg)	BY-UP-MW-2 (bg)	BY-UP-MW-3 (bg)	BY-UP-MW-4 (bg)	BY-AP-MW-25V
10/31/2022	6.09		10	11.4					
11/1/2022					11.3	7.11	6.83	4.59	1.85 (J)
11/2/2022		7.58							
4/3/2023	5.29	32.099998	21.700001						2.28
4/4/2023				25.299999					
4/12/2023					11.8	8.54	7.59	5.93	

Time Series

Constituent: TDS (mg/L) Analysis Run 6/23/2023 11:17 AM View: Descriptive
Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-14V	BY-AP-MW-15
3/1/2016		
3/2/2016		182
4/19/2016		151
4/20/2016		
6/8/2016		168
8/30/2016		
8/31/2016		188
10/18/2016		
10/19/2016		180
1/31/2017		166
2/1/2017		
5/2/2017		183
5/3/2017		
6/6/2017		187
6/7/2017		
9/13/2017		202
9/14/2017		
5/1/2018		197
5/2/2018		
8/28/2018		
8/29/2018		192
11/27/2018		190
11/28/2018		
1/8/2019		
5/29/2019		198
5/30/2019		
9/30/2019		
10/1/2019		236
10/2/2019		
3/30/2020		
3/31/2020		
4/1/2020		231
9/1/2020		
9/2/2020	498	208
5/11/2021		279
5/18/2021		
5/19/2021		
5/25/2021	520	
10/26/2021	474	269
10/27/2021		
11/1/2021		
11/2/2021		
5/23/2022		
5/24/2022	508	
5/25/2022		255
11/1/2022	464	278
11/2/2022		
4/3/2023		285
4/4/2023	464	
4/5/2023		

Time Series

Constituent: TDS (mg/L) Analysis Run 6/23/2023 11:17 AM View: Descriptive

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-15V	BY-AP-MW-16	BY-AP-MW-16V	BY-AP-MW-17H	BY-AP-MW-17V	BY-AP-MW-18H	BY-AP-MW-19H	BY-AP-MW-1V	BY-AP-MW-2
3/2/2016		263							42
4/19/2016		259							51.3
6/8/2016		285							46.7
8/31/2016		279							32.7
10/19/2016		264							37.3
1/31/2017		270							47.3
5/2/2017		259							44
6/6/2017		278							48
9/12/2017									40.7
9/13/2017		333							
5/1/2018		274							42.7
8/28/2018									28
8/29/2018		283							
11/27/2018		250							48
1/8/2019								192	
3/20/2019						293			
5/29/2019		264							47.3
7/31/2019	337			212			318		
10/1/2019	321	295				283	316		44.7
10/2/2019				203				154	
3/30/2020								160	
3/31/2020		276							42
4/1/2020				243		210			
8/31/2020									45.3
9/1/2020	318			236	576	281	294	175	
9/2/2020		279	219						
5/17/2021				201					
5/18/2021					438			189	48.7
5/19/2021		274	213			293			
5/25/2021	335						162		
10/25/2021				225	280	302	123		
10/26/2021	358		195						
11/1/2021		324						190	52
5/23/2022						292			
5/24/2022	348						133	176	40.7
5/25/2022		299	188	194	1270				
10/31/2022				206	1720	303	249		
11/1/2022		330	184					220	
11/2/2022	358								41.299999
4/3/2023									40.700001
4/4/2023			187	171	2690			219	
4/5/2023		327				85.300003			
4/24/2023	352						261		

Time Series

Constituent: TDS (mg/L) Analysis Run 6/23/2023 11:17 AM View: Descriptive
Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-20H	BY-AP-MW-20V
3/2/2016		
4/19/2016		
6/8/2016		
8/31/2016		
10/19/2016		
1/31/2017		
5/2/2017		
6/6/2017		
9/12/2017		
9/13/2017		
5/1/2018		
8/28/2018		
8/29/2018		
11/27/2018		
1/8/2019		
3/20/2019		
5/29/2019		
7/31/2019	481	
10/1/2019	470	
10/2/2019		
3/30/2020		
3/31/2020		
4/1/2020	319	
8/31/2020		
9/1/2020	479	308
9/2/2020		
5/17/2021		
5/18/2021		
5/19/2021	479	271
5/25/2021		
10/25/2021		
10/26/2021	493	
11/1/2021		282
5/23/2022	462	
5/24/2022		296
5/25/2022		
10/31/2022	482	
11/1/2022		275
11/2/2022		
4/3/2023		
4/4/2023		
4/5/2023		
4/24/2023	473	161

Time Series

Constituent: TDS (mg/L) Analysis Run 6/23/2023 11:17 AM View: Descriptive
Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-6	BY-AP-MW-7
3/1/2016	45.3	129
3/2/2016		
4/19/2016	46	
4/20/2016		128
6/7/2016	46	140
8/30/2016	30	
8/31/2016		112
10/18/2016		
10/19/2016	37.3	134
1/31/2017	43.3	134
5/2/2017		
5/3/2017	44.7	127
6/6/2017		
6/7/2017	45.3	134
9/12/2017		
9/14/2017	48.7	141
5/1/2018		
5/2/2018	44	133
8/28/2018		
8/29/2018	50	
11/27/2018		
11/28/2018	50.7	138
1/8/2019		
5/29/2019	48.7	132
7/31/2019		
9/30/2019		137
10/1/2019	38	
10/2/2019		
3/30/2020		135
3/31/2020	42	
4/1/2020		
9/1/2020		
9/2/2020	37.3	129
5/17/2021	46.7	
5/18/2021		175
5/24/2021		
5/25/2021		
10/26/2021		
10/27/2021		123
11/1/2021		
11/2/2021	38	
5/24/2022		148
5/25/2022	40.7	
10/31/2022	46	291
11/1/2022		
11/2/2022		
4/3/2023		198
4/4/2023	40	
4/24/2023		

Time Series

Constituent: TDS (mg/L) Analysis Run 6/23/2023 11:17 AM View: Descriptive

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-7V	BY-AP-MW-8	BY-AP-MW-8V	BY-AP-MW-9	BY-UP-MW-1 (bg)	BY-UP-MW-2 (bg)	BY-UP-MW-3 (bg)	BY-UP-MW-4 (bg)	BY-AP-MW-25V
2/23/2016					26.7	30.7	40	<25	
3/1/2016		309		314					
4/19/2016					<25	<25	32	<25	
4/20/2016		324		338					
6/6/2016					32.7			28.7	
6/7/2016		314				35.3	38.7		
6/8/2016				288					
8/30/2016		308			33.3	27.3	31.3	25.3	
8/31/2016				334					
10/18/2016		295			27.3	<25	26.7	<25	
10/19/2016				333					
1/31/2017		303			32	32.7	30	26	
2/1/2017				330					
5/2/2017					31.3	30.7	30.7	<25	
5/3/2017		300		338					
6/6/2017					35.3	34.7	32.7	42.7	
6/7/2017		284		300					
9/12/2017								26.7	
9/13/2017					36.7	39.3	38		
9/14/2017		325		350					
5/1/2018						42	35.3	34.7	
5/2/2018		306		333	34				
8/28/2018				324					
8/29/2018		287							
11/26/2018								32.7	
11/27/2018		303			50.7	31.3	36		
11/28/2018				330					
1/9/2019	240		276						
5/28/2019								31.3	
5/29/2019		291			58	40	37.3		
5/30/2019				315					
9/30/2019		293		319					
10/1/2019	182		324						
10/2/2019					46	41.3	36.7	36	
3/30/2020	204	310	328						
3/31/2020				330	53.3	40	39.3	36.7	
9/2/2020	168	298	318	301					34
9/8/2020								39.3	
9/9/2020					42	40.7	42.7		
5/11/2021		318				35.3	44	46.7	
5/12/2021					40.7				
5/18/2021	192		331	314					
5/24/2021									26.7
10/18/2021							36	36	
10/19/2021					40	36			
10/26/2021		332	350						
10/27/2021	169			302					
11/2/2021									36
5/23/2022			331						
5/24/2022	228	303		268					
5/25/2022									29.3
5/31/2022					32	30.7	35.3	36.7	

Time Series

Constituent: TDS (mg/L) Analysis Run 6/23/2023 11:17 AM View: Descriptive
Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-7V	BY-AP-MW-8	BY-AP-MW-8V	BY-AP-MW-9	BY-UP-MW-1 (bg)	BY-UP-MW-2 (bg)	BY-UP-MW-3 (bg)	BY-UP-MW-4 (bg)	BY-AP-MW-25V
10/31/2022	357		328	329					
11/1/2022					33.299999	36	36	31.299999	32
11/2/2022		293							
4/3/2023	311	107	616						29.299999
4/4/2023				317					
4/12/2023					<25	27.299999	30.700001	32	

Time Series

Constituent: Thallium (mg/L) Analysis Run 6/23/2023 11:17 AM View: Descriptive

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-1	BY-AP-MW-10	BY-AP-MW-10V	BY-AP-MW-11	BY-AP-MW-12	BY-AP-MW-12V	BY-AP-MW-13	BY-AP-MW-13V	BY-AP-MW-14
3/1/2016		<0.000203		<0.000203					
3/2/2016	<0.000203				<0.000203		<0.000203		<0.000203
4/19/2016	<0.000203								
4/20/2016		<0.000203		<0.000203	<0.000203		<0.000203		<0.000203
6/8/2016	<0.000203	<0.000203		<0.000203	<0.000203		<0.000203		<0.000203
8/30/2016									<0.000203
8/31/2016	<0.000203	<0.000203		<0.000203	<0.000203		<0.000203		
10/18/2016									<0.000203
10/19/2016	<0.000203	<0.000203		<0.000203	<0.000203		<0.000203		
1/31/2017	<0.000203						<0.000203		<0.000203
2/1/2017		<0.000203		<0.000203	<0.000203				
5/2/2017	<0.000203								<0.000203
5/3/2017		<0.000203		<0.000203	<0.000203		<0.000203		
6/6/2017	<0.000203								<0.000203
6/7/2017		<0.000203		<0.000203	<0.000203		0.000878 (J)		
1/22/2018							<0.000203		
1/23/2018		<0.000203		<0.000203	<0.000203				<0.000203
1/24/2018	<0.000203								
5/1/2018	<0.000203								
5/2/2018		<0.000203		<0.000203	<0.000203		<0.000203		<0.000203
11/27/2018									<0.000203
11/28/2018	<0.000203	<0.000203		<0.000203	<0.000203		<0.000203		
1/8/2019			<0.000203			<0.000203			
5/29/2019	<0.000203			<0.000203	<0.000203		<0.000203		<0.000203
5/30/2019		<0.000203							
9/30/2019		<0.000203		<0.000203					
10/1/2019	<0.000203		<0.000203		<0.000203		<0.000203		<0.000203
10/2/2019						<0.000203			
3/30/2020	<0.000203								
3/31/2020		<0.000203	<0.000203	<0.000203	<0.000203	<0.000203	<0.000203		<0.000203
4/1/2020									
9/1/2020	<0.000203	<0.000203	<0.000203	<0.000203	<0.000203	<0.000203	<0.000203		
9/2/2020								<0.000203	<0.000203
5/11/2021		<0.000203							
5/18/2021	<0.000203		<0.000203		<0.000203	<0.000203			
5/19/2021				<0.000203			<0.000203	<0.000203	
5/25/2021									<0.000203
10/26/2021							<0.000203	<0.000203	
10/27/2021		<0.000203	<0.000203						<0.000203
11/1/2021	<0.000203				<0.000203	<0.000203			
11/2/2021				<0.000203					
5/23/2022				<0.000203	<0.000203	<0.000203			
5/24/2022	<0.000203	<0.000203	<0.000203				<0.000203		
5/25/2022								<0.000203	<0.000203
11/1/2022			<0.000203	<0.000203	<0.000203	<0.000203	<0.000203	<0.000203	<0.000203
11/2/2022	<0.000203	<0.000203							
4/3/2023	<0.000203	<0.000203	<0.000203						
4/4/2023				<0.000203	<0.000203	<0.000203	<0.000203	<0.000203	
4/5/2023									<0.000203

Time Series

Constituent: Thallium (mg/L) Analysis Run 6/23/2023 11:17 AM View: Descriptive
Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-14V	BY-AP-MW-15
3/1/2016		
3/2/2016		<0.000203
4/19/2016		<0.000203
4/20/2016		
6/8/2016		<0.000203
8/30/2016		
8/31/2016		<0.000203
10/18/2016		
10/19/2016		<0.000203
1/31/2017		<0.000203
2/1/2017		
5/2/2017		<0.000203
5/3/2017		
6/6/2017		<0.000203
6/7/2017		
1/22/2018		<0.000203
1/23/2018		
1/24/2018		
5/1/2018		<0.000203
5/2/2018		
11/27/2018		<0.000203
11/28/2018		
1/8/2019		
5/29/2019		<0.000203
5/30/2019		
9/30/2019		
10/1/2019		<0.000203
10/2/2019		
3/30/2020		
3/31/2020		
4/1/2020		<0.000203
9/1/2020		
9/2/2020	<0.000203	<0.000203
5/11/2021		<0.000203
5/18/2021		
5/19/2021		
5/25/2021	<0.000203	
10/26/2021	<0.000203	<0.000203
10/27/2021		
11/1/2021		
11/2/2021		
5/23/2022		
5/24/2022	<0.000203	
5/25/2022		<0.000203
11/1/2022	<0.000203	<0.000203
11/2/2022		
4/3/2023		<0.000203
4/4/2023	<0.000203	
4/5/2023		

Time Series

Constituent: Thallium (mg/L) Analysis Run 6/23/2023 11:17 AM View: Descriptive

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-15V	BY-AP-MW-16	BY-AP-MW-16V	BY-AP-MW-17H	BY-AP-MW-17V	BY-AP-MW-18H	BY-AP-MW-19H	BY-AP-MW-1V	BY-AP-MW-2
3/2/2016		<0.000203							<0.000203
4/19/2016		<0.000203							<0.000203
6/8/2016		<0.000203							<0.000203
8/31/2016		<0.000203							<0.000203
10/19/2016		<0.000203							<0.000203
1/31/2017		<0.000203							<0.000203
5/2/2017		<0.000203							<0.000203
6/6/2017		<0.000203							<0.000203
1/23/2018		<0.000203							<0.000203
1/24/2018									<0.000203
5/1/2018		<0.000203							<0.000203
11/27/2018		<0.000203							<0.000203
1/8/2019								<0.000203	
3/20/2019						<0.000203			
5/29/2019		<0.000203							<0.000203
7/31/2019	<0.001			<0.000203			<0.000203		
10/1/2019	<0.001	<0.000203				<0.000203	<0.000203		<0.000203
10/2/2019				<0.000203				<0.000203	
3/30/2020								<0.000203	
3/31/2020		<0.000203							<0.000203
4/1/2020				<0.000203		<0.000203			
8/31/2020									<0.000203
9/1/2020	<0.001			<0.000203	<0.0002	<0.000203	<0.000203	<0.000203	
9/2/2020		<0.000203	<0.001						
5/17/2021				<0.000203					
5/18/2021					<0.0002			<0.000203	<0.000203
5/19/2021		<0.000203	9.13E-05 (J)			<0.000203			
5/25/2021	8.49E-05 (J)						<0.000203		
10/25/2021				<0.000203	<0.0002	<0.000203	<0.000203		
10/26/2021	7E-05 (J)		0.0001 (J)						
11/1/2021		<0.000203						<0.000203	<0.000203
5/23/2022						<0.000203			
5/24/2022	0.00014 (J)						<0.000203	<0.000203	<0.000203
5/25/2022		<0.000203	9E-05 (J)	<0.000203	0.0001 (J)				
10/31/2022				<0.000203	0.000166 (J)	<0.000203	<0.000203		
11/1/2022		<0.000203	0.000112 (J)					<0.000203	
11/2/2022	0.000133 (J)								<0.000203
4/3/2023									<0.000203
4/4/2023			8.2E-05 (J)	<0.000203	0.000362			<0.000203	
4/5/2023		<0.000203				<0.000203			
4/24/2023	0.000107 (J)						<0.000203		

Time Series

Constituent: Thallium (mg/L) Analysis Run 6/23/2023 11:17 AM View: Descriptive
Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-20H	BY-AP-MW-20V
3/2/2016		
4/19/2016		
6/8/2016		
8/31/2016		
10/19/2016		
1/31/2017		
5/2/2017		
6/6/2017		
1/23/2018		
1/24/2018		
5/1/2018		
11/27/2018		
1/8/2019		
3/20/2019		
5/29/2019		
7/31/2019	<0.000203	
10/1/2019	<0.000203	
10/2/2019		
3/30/2020		
3/31/2020		
4/1/2020	<0.000203	
8/31/2020		
9/1/2020	<0.000203	<0.000203
9/2/2020		
5/17/2021		
5/18/2021		
5/19/2021	<0.000203	<0.000203
5/25/2021		
10/25/2021		
10/26/2021	<0.000203	
11/1/2021		<0.000203
5/23/2022	<0.000203	
5/24/2022		<0.000203
5/25/2022		
10/31/2022	<0.000203	
11/1/2022		<0.000203
11/2/2022		
4/3/2023		
4/4/2023		
4/5/2023		
4/24/2023	<0.000203	<0.000203

Time Series

Constituent: Thallium (mg/L) Analysis Run 6/23/2023 11:17 AM View: Descriptive

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-22H	BY-AP-MW-23H	BY-AP-MW-23V	BY-AP-MW-24H	BY-AP-MW-25H	BY-AP-MW-3	BY-AP-MW-4	BY-AP-MW-5	BY-AP-MW-5V
3/1/2016							<0.000203	<0.000203	
3/2/2016						<0.000203			
4/19/2016						<0.000203	<0.000203		
4/20/2016								<0.000203	
6/7/2016						<0.000203	<0.000203	<0.000203	
8/30/2016							<0.000203	<0.000203	
8/31/2016						<0.000203			
10/18/2016								<0.000203	
10/19/2016						<0.000203	<0.000203		
1/31/2017						<0.000203	<0.000203	<0.000203	
5/2/2017						<0.000203	<0.000203		
5/3/2017								<0.000203	
6/6/2017						<0.000203	<0.000203		
6/7/2017								<0.000203	
1/24/2018						<0.000203	<0.000203	<0.000203	
5/1/2018						<0.000203	<0.000203		
5/2/2018								<0.000203	
11/27/2018						<0.000203	<0.000203	<0.000203	
11/28/2018									
1/8/2019				<0.000203					<0.000203
5/29/2019						<0.000203	<0.000203	<0.000203	
7/31/2019	<0.000203	<0.000203							
9/30/2019									
10/1/2019	<0.000203	<0.000203				<0.000203	<0.000203	<0.000203	
10/2/2019				<0.000203					<0.000203
3/30/2020									
3/31/2020				<0.000203		<0.000203	<0.000203	<0.000203	<0.000203
4/1/2020		<0.000203							
9/1/2020	<0.000203	<0.000203	<0.000203			<0.000203	<0.000203	<0.000203	<0.000203
9/2/2020				<0.000203	<0.000203				
5/17/2021			<0.000203						
5/18/2021						<0.000203	<0.000203		
5/24/2021		<0.000203			<0.000203				
5/25/2021	<0.000203			<0.000203					
10/26/2021	<0.000203	<0.000203	<0.000203	<0.000203					
10/27/2021									
11/1/2021						<0.000203	<0.000203		
11/2/2021					<0.000203			<0.000203	<0.000203
5/24/2022	<0.000203			<0.000203					
5/25/2022		<0.000203	<0.000203		<0.000203	<0.000203	<0.000203	<0.000203	<0.000203
10/31/2022	<0.000203				<0.000203	<0.000203	<0.000203	<0.000203	<0.000203
11/1/2022		<0.000203	<0.000203			<0.000203			
11/2/2022				<0.000203					
4/3/2023				<0.000203	<0.000203				
4/4/2023		<0.000203	<0.000203			<0.000203	<0.000203	<0.000203	<0.000203
4/24/2023	<0.000203								

Time Series

Constituent: Thallium (mg/L) Analysis Run 6/23/2023 11:17 AM View: Descriptive
Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-6	BY-AP-MW-7
3/1/2016	<0.000203	<0.000203
3/2/2016		
4/19/2016	<0.000203	
4/20/2016		<0.000203
6/7/2016	<0.000203	<0.000203
8/30/2016	<0.000203	
8/31/2016		<0.000203
10/18/2016		
10/19/2016	<0.000203	<0.000203
1/31/2017	<0.000203	<0.000203
5/2/2017		
5/3/2017	<0.000203	<0.000203
6/6/2017		
6/7/2017	<0.000203	<0.000203
1/24/2018	<0.000203	<0.000203
5/1/2018		
5/2/2018	<0.000203	<0.000203
11/27/2018		
11/28/2018	<0.000203	<0.000203
1/8/2019		
5/29/2019	<0.000203	<0.000203
7/31/2019		
9/30/2019		<0.000203
10/1/2019	<0.000203	
10/2/2019		
3/30/2020		<0.000203
3/31/2020	<0.000203	
4/1/2020		
9/1/2020		
9/2/2020	<0.000203	<0.000203
5/17/2021	<0.000203	
5/18/2021		<0.000203
5/24/2021		
5/25/2021		
10/26/2021		
10/27/2021		<0.000203
11/1/2021		
11/2/2021	<0.000203	
5/24/2022		<0.000203
5/25/2022	<0.000203	
10/31/2022	<0.000203	<0.000203
11/1/2022		
11/2/2022		
4/3/2023		<0.000203
4/4/2023	<0.000203	
4/24/2023		

Time Series

Constituent: Thallium (mg/L) Analysis Run 6/23/2023 11:17 AM View: Descriptive

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-7V	BY-AP-MW-8	BY-AP-MW-8V	BY-AP-MW-9	BY-UP-MW-1 (bg)	BY-UP-MW-2 (bg)	BY-UP-MW-3 (bg)	BY-UP-MW-4 (bg)	BY-AP-MW-25V
2/23/2016					<0.000203	<0.000203	<0.000203	<0.000203	
3/1/2016		<0.000203		<0.000203					
4/19/2016					<0.000203	<0.000203	<0.000203	<0.000203	
4/20/2016		<0.000203		<0.000203					
6/6/2016					<0.000203				<0.000203
6/7/2016		<0.000203				<0.000203	<0.000203		
6/8/2016				<0.000203					
8/30/2016		<0.000203			<0.000203	<0.000203	<0.000203	<0.000203	
8/31/2016				<0.000203					
10/18/2016		<0.000203			<0.000203	<0.000203	<0.000203	<0.000203	
10/19/2016				<0.000203					
1/31/2017		<0.000203			<0.000203	<0.000203	<0.000203	<0.000203	
2/1/2017				<0.000203					
5/2/2017					<0.000203	<0.000203	<0.000203	<0.000203	
5/3/2017		<0.000203		<0.000203					
6/6/2017					<0.000203	<0.000203	<0.000203	<0.000203	
6/7/2017		<0.000203		<0.000203					
1/23/2018				<0.000203	<0.000203	<0.000203	<0.000203	<0.000203	
1/24/2018		<0.000203							
5/1/2018						<0.000203	<0.000203	<0.000203	
5/2/2018		<0.000203		<0.000203	<0.000203				
11/26/2018									<0.000203
11/27/2018		<0.000203			<0.000203	<0.000203	<0.000203		
11/28/2018				<0.000203					
1/9/2019	<0.000203		<0.000203						
5/28/2019								<0.000203	
5/29/2019		<0.000203			<0.000203	<0.000203	<0.000203		
5/30/2019				<0.000203					
9/30/2019		<0.000203		<0.000203					
10/1/2019	<0.000203		<0.000203						
10/2/2019					<0.000203	<0.000203	<0.000203	<0.000203	
3/30/2020	<0.000203	<0.000203	<0.000203						
3/31/2020				<0.000203	<0.000203	<0.000203	<0.000203	<0.000203	
9/2/2020	<0.000203	<0.000203	<0.000203	<0.000203					<0.000203
9/8/2020								<0.000203	
9/9/2020					<0.000203	<0.000203	<0.000203		
5/11/2021		<0.000203				<0.000203	<0.000203	<0.000203	
5/12/2021					<0.000203				
5/18/2021	<0.000203		<0.000203	<0.000203					
5/24/2021									<0.000203
10/18/2021							<0.000203	<0.000203	
10/19/2021					<0.000203	<0.000203			
10/26/2021		<0.000203	<0.000203						
10/27/2021	<0.000203			<0.000203					
11/2/2021									<0.000203
5/23/2022			<0.000203						
5/24/2022	<0.000203	<0.000203		<0.000203					
5/25/2022									<0.000203
5/31/2022					<0.000203	<0.000203	<0.000203	<0.000203	
10/31/2022	<0.000203		<0.000203	<0.000203					
11/1/2022					<0.000203	<0.000203	<0.000203	<0.000203	<0.000203
11/2/2022		<0.000203							

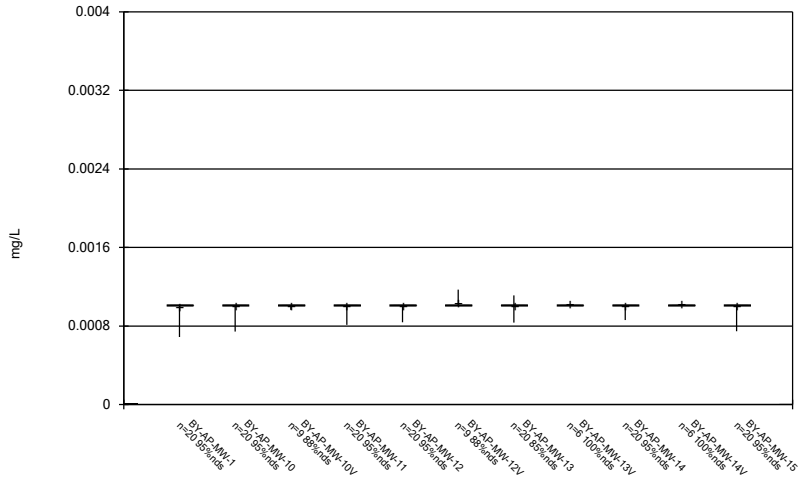
Time Series

Constituent: Thallium (mg/L) Analysis Run 6/23/2023 11:17 AM View: Descriptive
Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-7V	BY-AP-MW-8	BY-AP-MW-8V	BY-AP-MW-9	BY-UP-MW-1 (bg)	BY-UP-MW-2 (bg)	BY-UP-MW-3 (bg)	BY-UP-MW-4 (bg)	BY-AP-MW-25V
4/3/2023	<0.000203	<0.000203	<0.000203						<0.000203
4/4/2023				<0.000203					
4/12/2023					<0.000203	<0.000203	<0.000203	<0.000203	

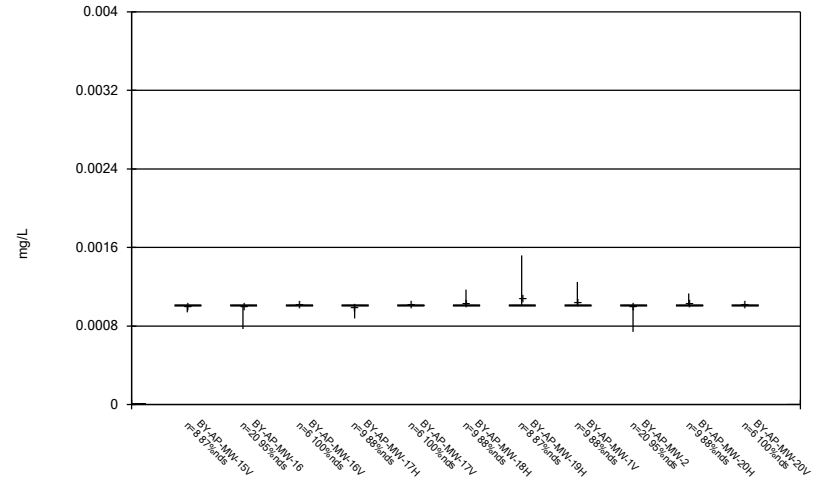
FIGURE B.

Box & Whiskers Plot



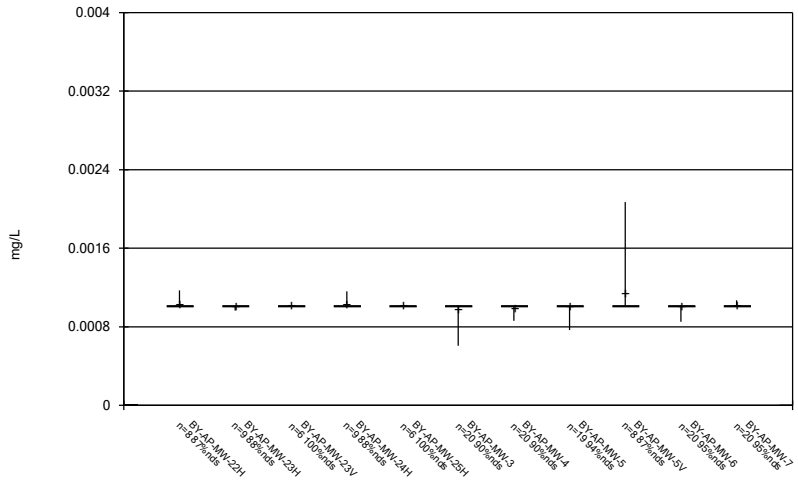
Constituent: Antimony Analysis Run 6/23/2023 5:20 PM View: Descriptive
Plant Barry Client: Southern Company Data: Barry Ash Pond

Box & Whiskers Plot



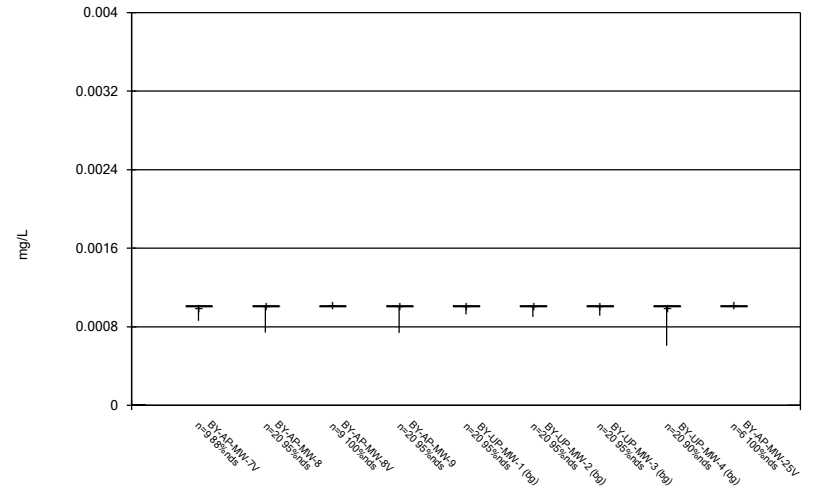
Constituent: Antimony Analysis Run 6/23/2023 5:20 PM View: Descriptive
Plant Barry Client: Southern Company Data: Barry Ash Pond

Box & Whiskers Plot



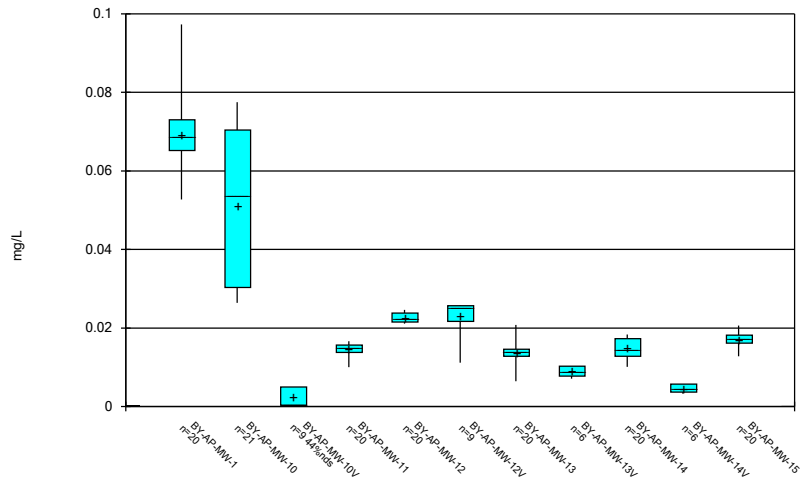
Constituent: Antimony Analysis Run 6/23/2023 5:20 PM View: Descriptive
Plant Barry Client: Southern Company Data: Barry Ash Pond

Box & Whiskers Plot



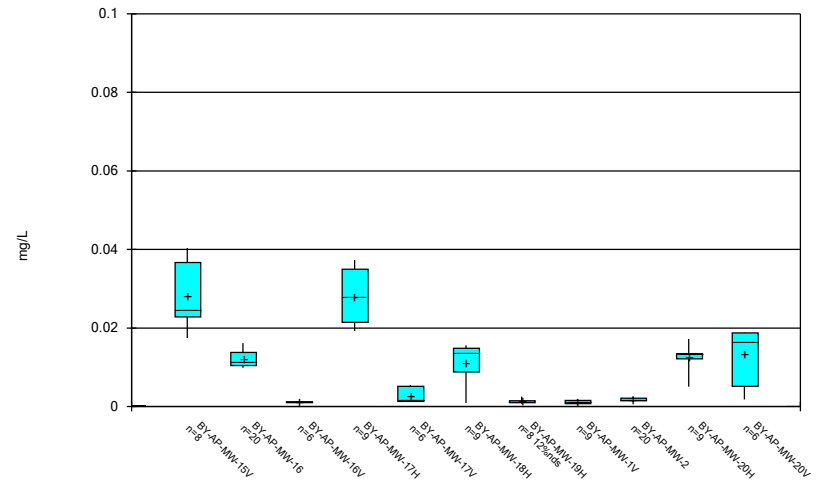
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Plant Barry Client: Southern Company Data: Barry Ash Pond

Box & Whiskers Plot



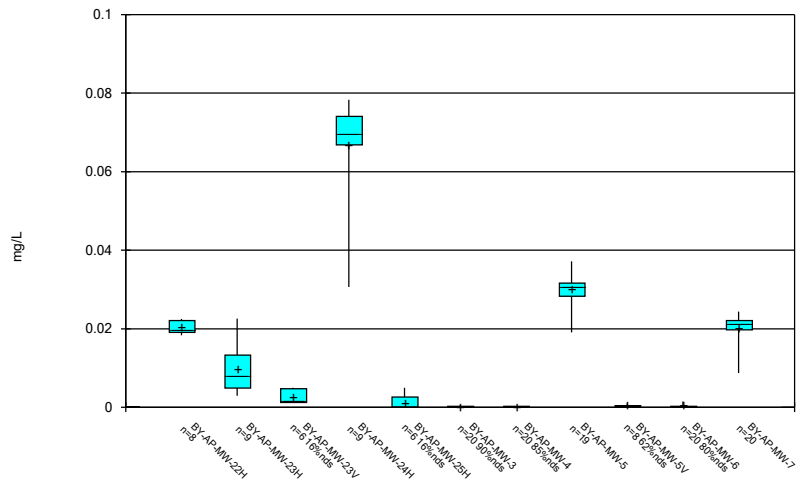
Constituent: Arsenic Analysis Run 6/23/2023 5:20 PM View: Descriptive
 Plant Barry Client: Southern Company Data: Barry Ash Pond

Box & Whiskers Plot



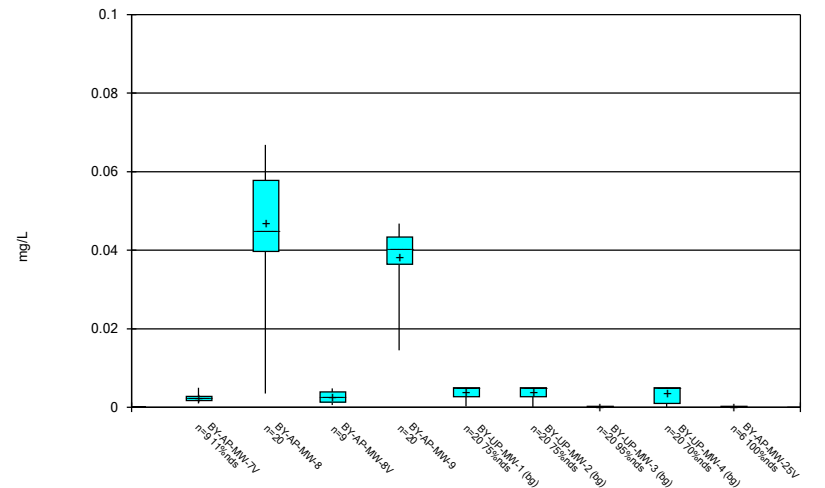
Constituent: Arsenic Analysis Run 6/23/2023 5:20 PM View: Descriptive
 Plant Barry Client: Southern Company Data: Barry Ash Pond

Box & Whiskers Plot



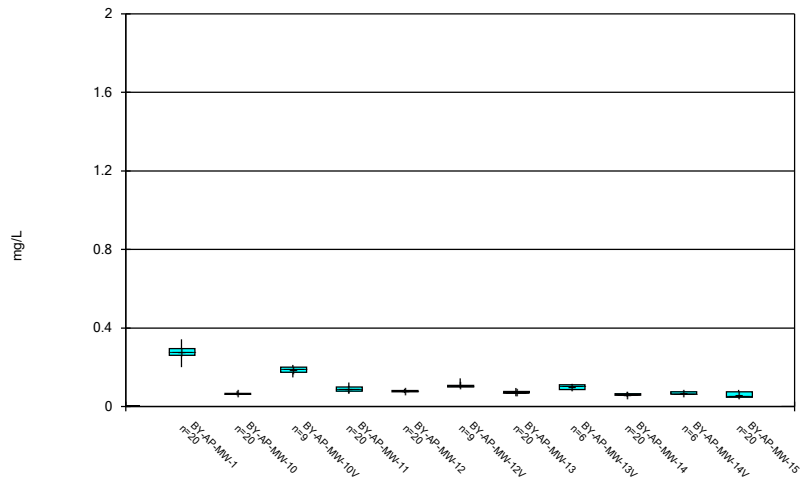
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 Plant Barry Client: Southern Company Data: Barry Ash Pond

Box & Whiskers Plot



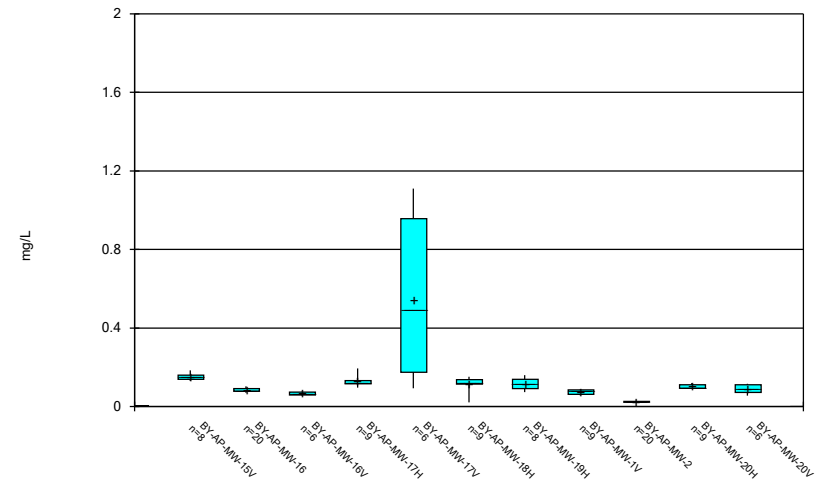
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 Plant Barry Client: Southern Company Data: Barry Ash Pond

Box & Whiskers Plot



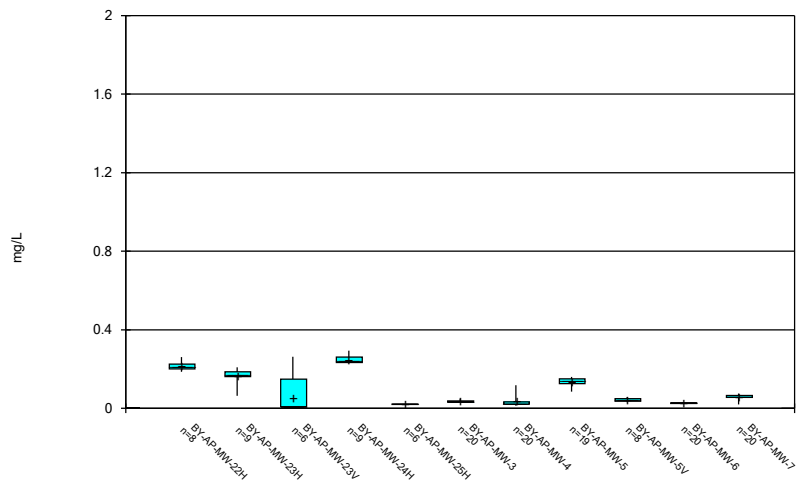
Constituent: Barium Analysis Run 6/23/2023 5:20 PM View: Descriptive
Plant Barry Client: Southern Company Data: Barry Ash Pond

Box & Whiskers Plot



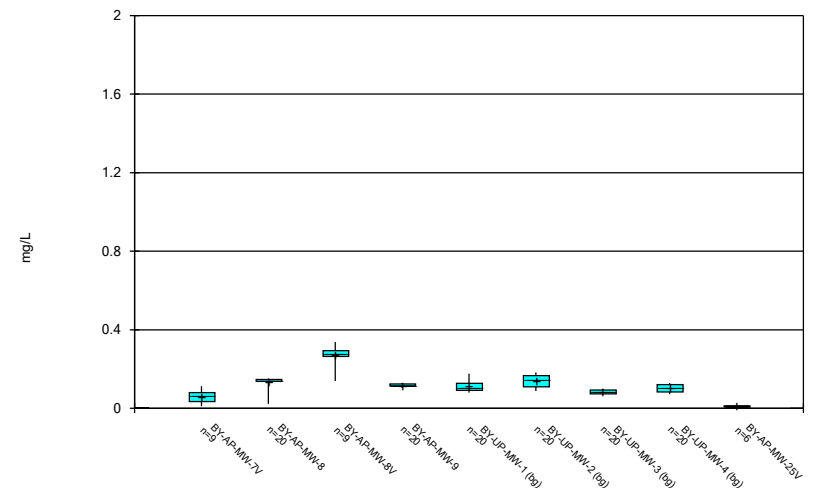
Constituent: Barium Analysis Run 6/23/2023 5:20 PM View: Descriptive
Plant Barry Client: Southern Company Data: Barry Ash Pond

Box & Whiskers Plot



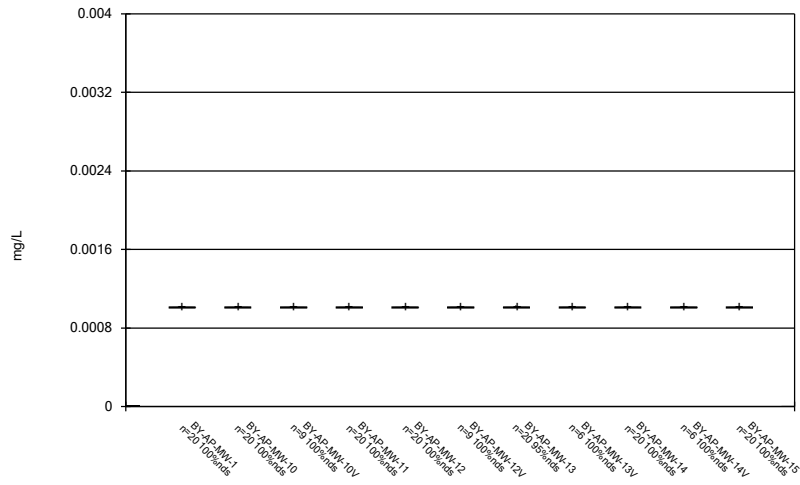
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Plant Barry Client: Southern Company Data: Barry Ash Pond

Box & Whiskers Plot



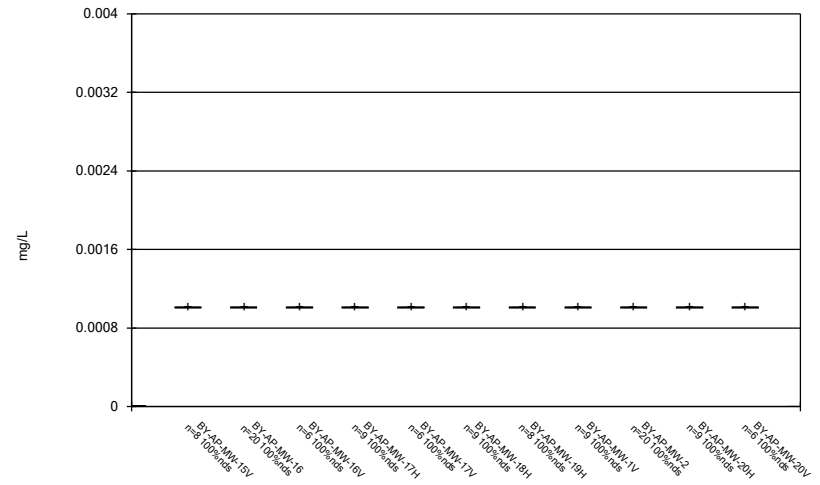
Constituent: Barium Analysis Run 6/23/2023 5:20 PM View: Descriptive
Plant Barry Client: Southern Company Data: Barry Ash Pond

Box & Whiskers Plot



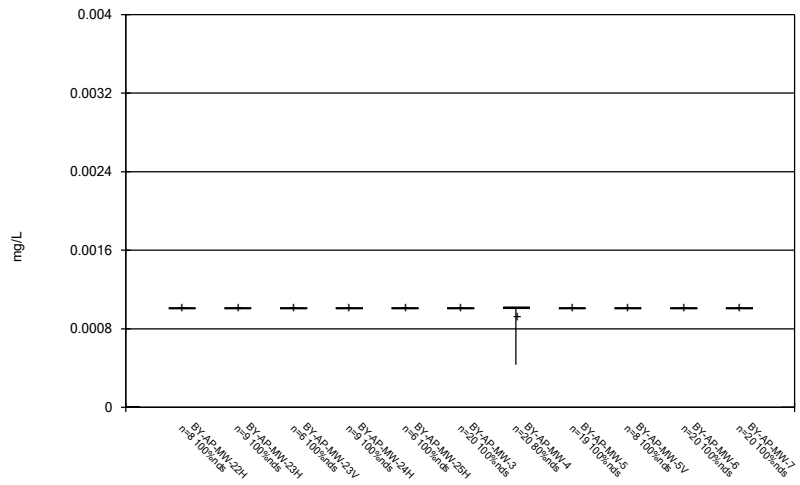
Constituent: Beryllium Analysis Run 6/23/2023 5:20 PM View: Descriptive
Plant Barry Client: Southern Company Data: Barry Ash Pond

Box & Whiskers Plot



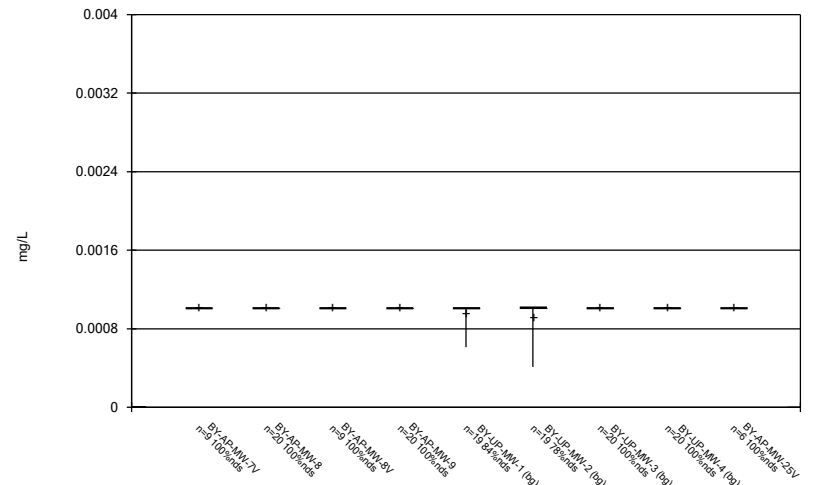
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Plant Barry Client: Southern Company Data: Barry Ash Pond

Box & Whiskers Plot



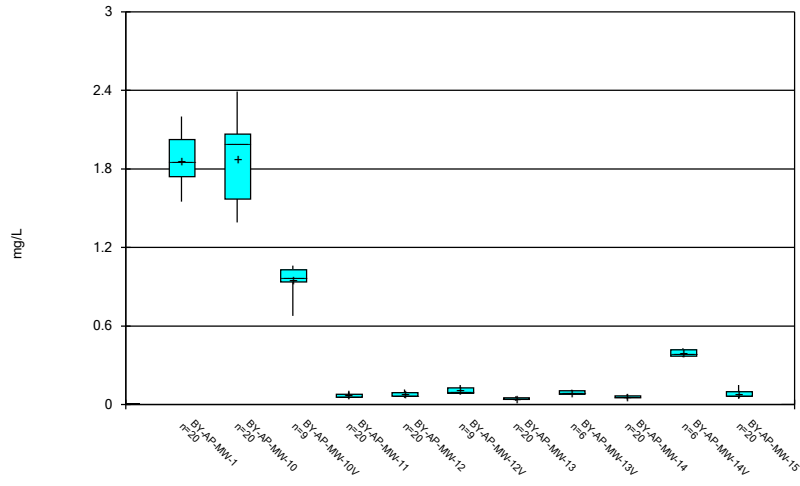
Constituent: Beryllium Analysis Run 6/23/2023 5:20 PM View: Descriptive
Plant Barry Client: Southern Company Data: Barry Ash Pond

Box & Whiskers Plot



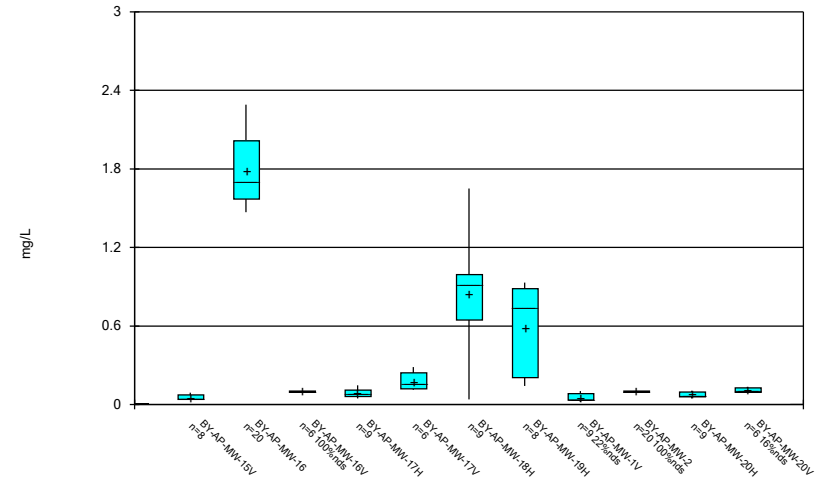
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Plant Barry Client: Southern Company Data: Barry Ash Pond

Box & Whiskers Plot



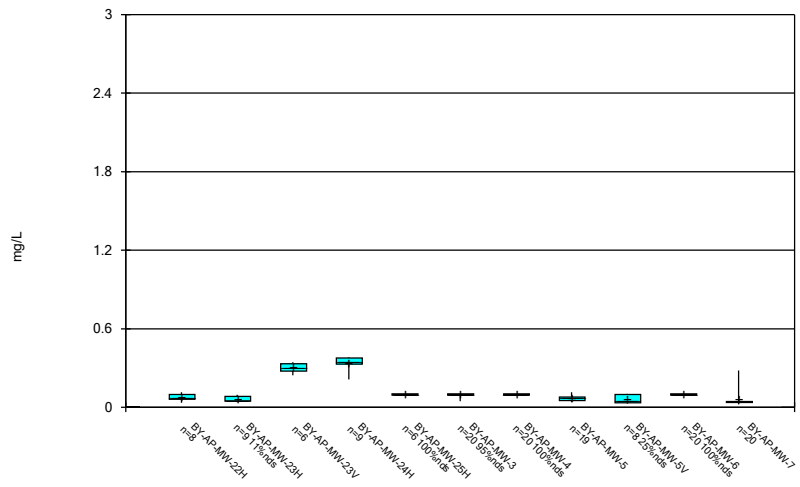
Constituent: Boron, total Analysis Run 6/23/2023 5:20 PM View: Descriptive
Plant Barry Client: Southern Company Data: Barry Ash Pond

Box & Whiskers Plot



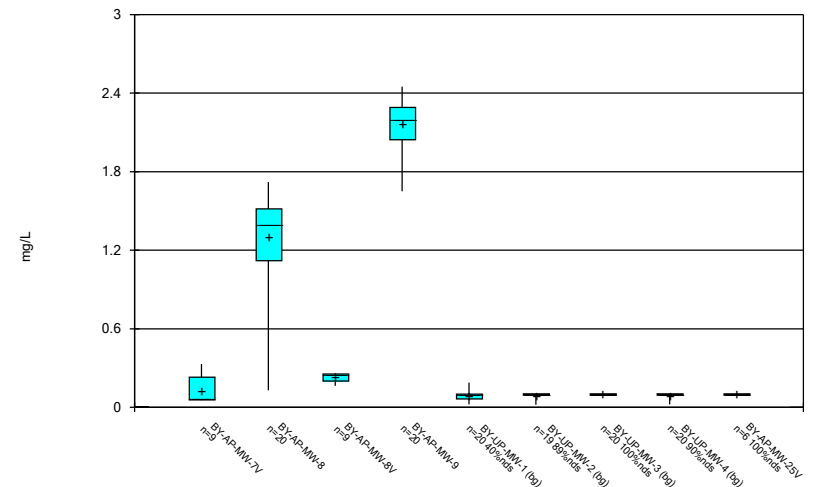
Constituent: Boron, total Analysis Run 6/23/2023 5:20 PM View: Descriptive
Plant Barry Client: Southern Company Data: Barry Ash Pond

Box & Whiskers Plot



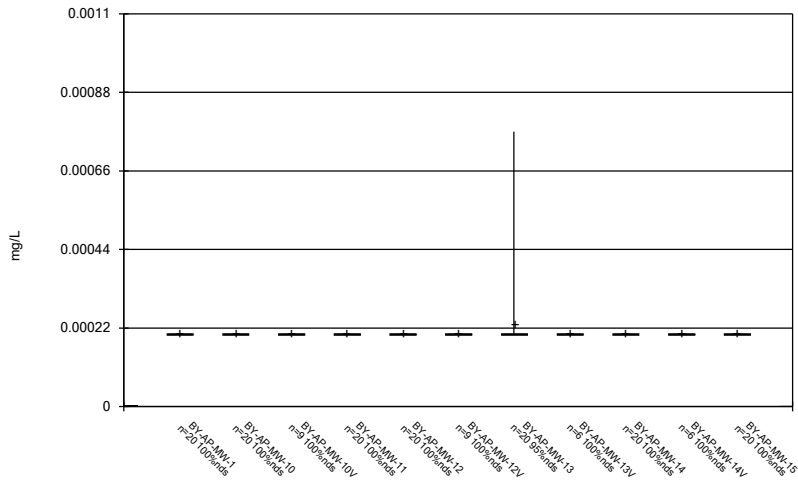
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Plant Barry Client: Southern Company Data: Barry Ash Pond

Box & Whiskers Plot



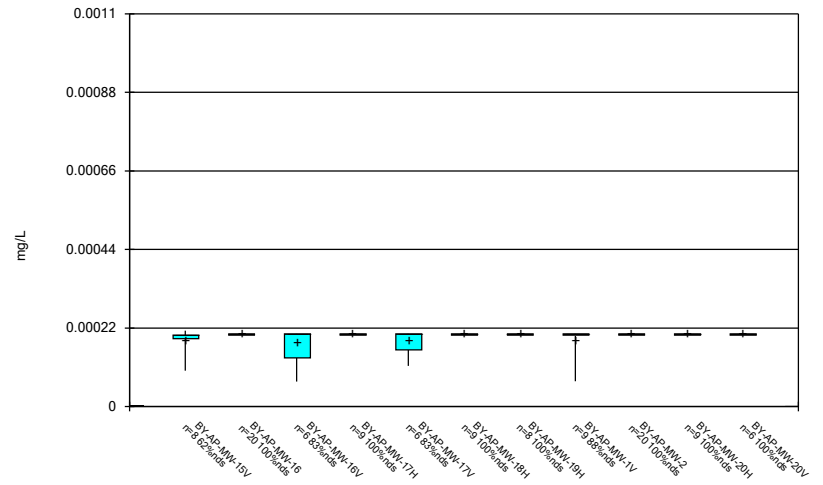
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Plant Barry Client: Southern Company Data: Barry Ash Pond

Box & Whiskers Plot



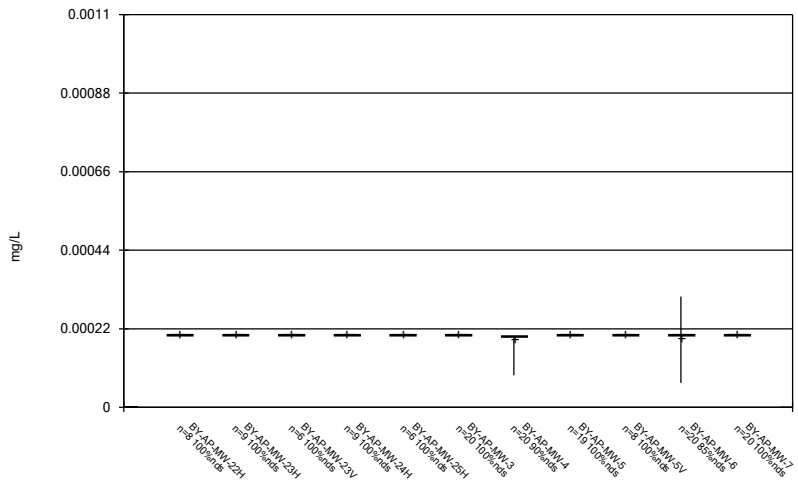
Constituent: Cadmium Analysis Run 6/23/2023 5:20 PM View: Descriptive
 Plant Barry Client: Southern Company Data: Barry Ash Pond

Box & Whiskers Plot



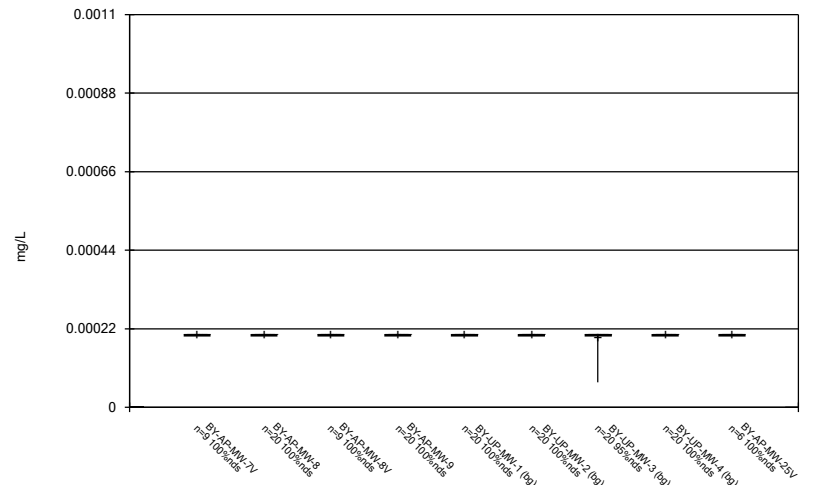
Constituent: Cadmium Analysis Run 6/23/2023 5:20 PM View: Descriptive
 Plant Barry Client: Southern Company Data: Barry Ash Pond

Box & Whiskers Plot



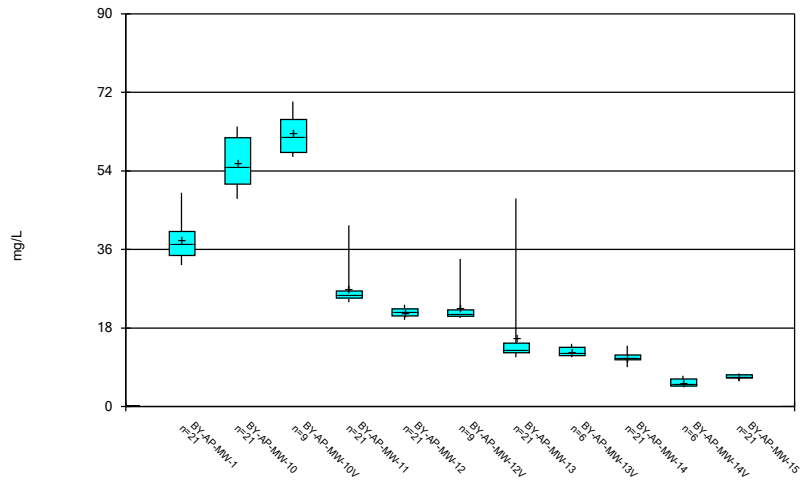
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 Plant Barry Client: Southern Company Data: Barry Ash Pond

Box & Whiskers Plot



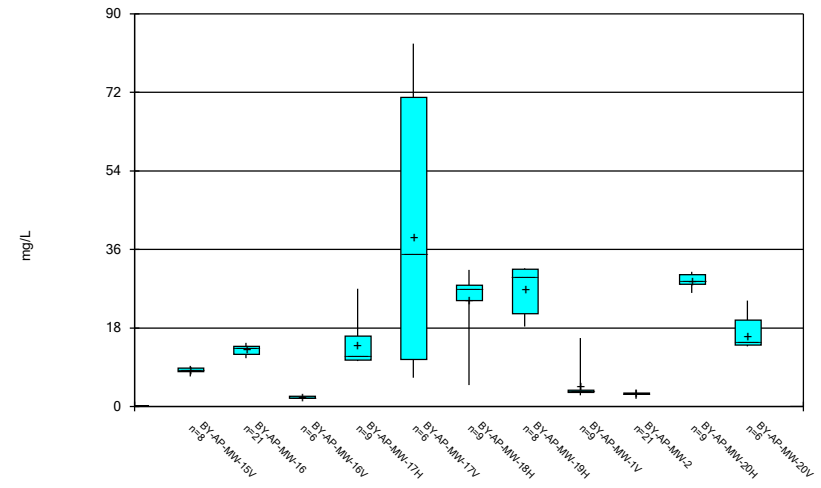
Constituent: Cadmium Analysis Run 6/23/2023 5:20 PM View: Descriptive
 Plant Barry Client: Southern Company Data: Barry Ash Pond

Box & Whiskers Plot



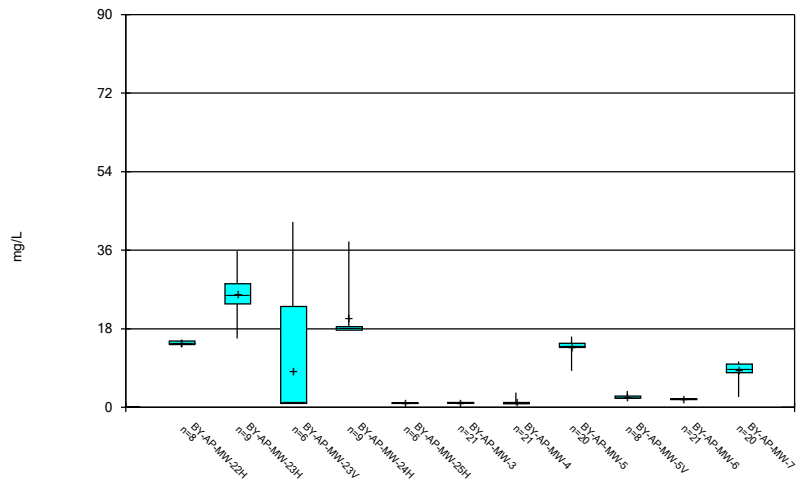
Constituent: Calcium, total Analysis Run 6/23/2023 5:20 PM View: Descriptive
 Plant Barry Client: Southern Company Data: Barry Ash Pond

Box & Whiskers Plot



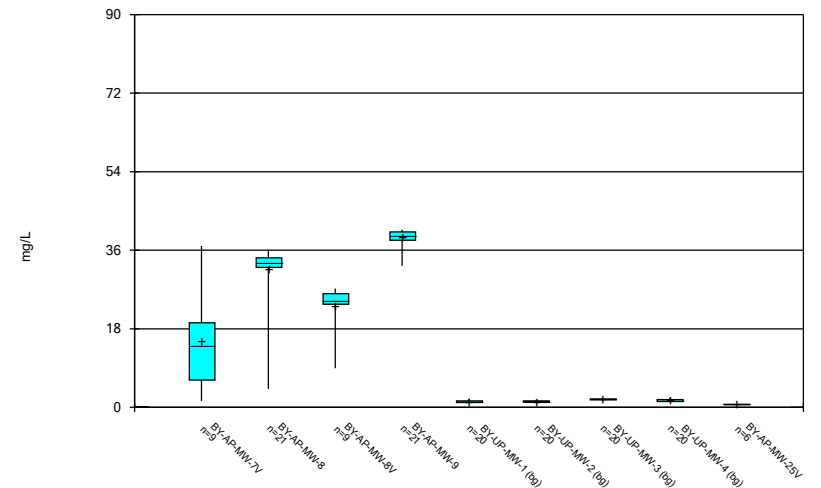
Constituent: Calcium, total Analysis Run 6/23/2023 5:20 PM View: Descriptive
 Plant Barry Client: Southern Company Data: Barry Ash Pond

Box & Whiskers Plot



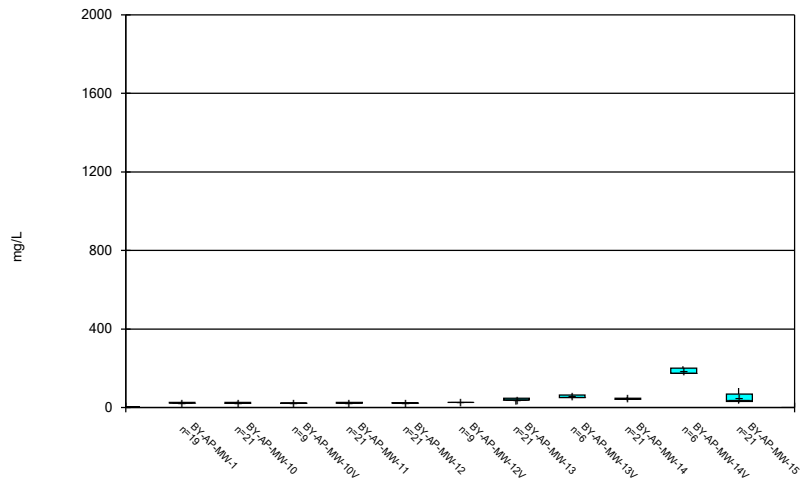
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 Plant Barry Client: Southern Company Data: Barry Ash Pond

Box & Whiskers Plot



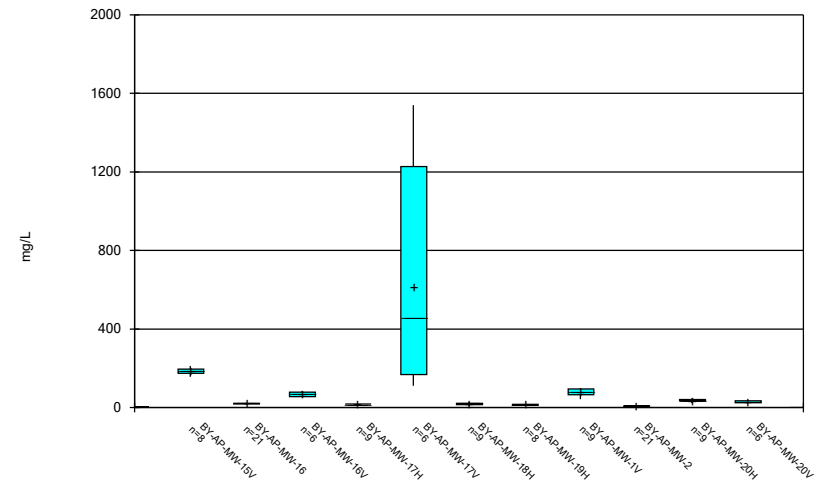
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 Plant Barry Client: Southern Company Data: Barry Ash Pond

Box & Whiskers Plot



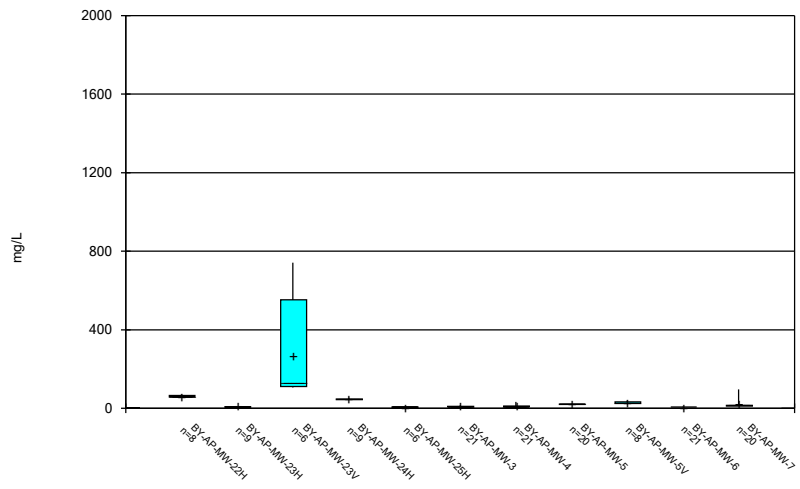
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 Plant Barry Client: Southern Company Data: Barry Ash Pond

Box & Whiskers Plot



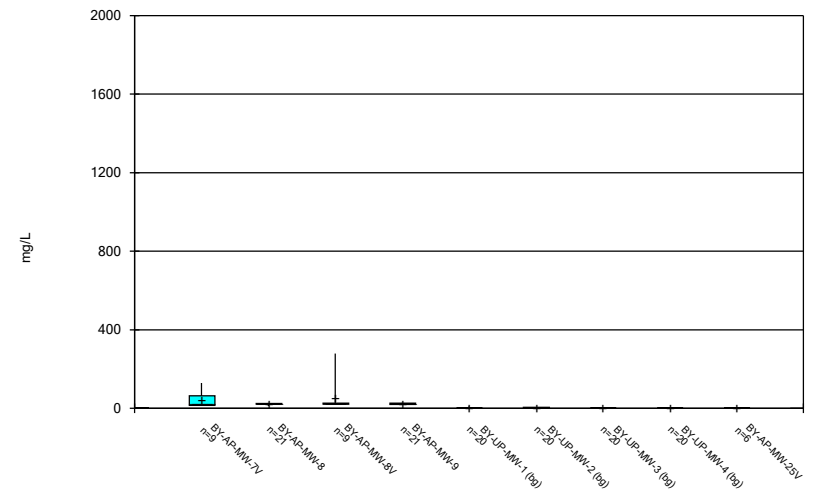
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 Plant Barry Client: Southern Company Data: Barry Ash Pond

Box & Whiskers Plot



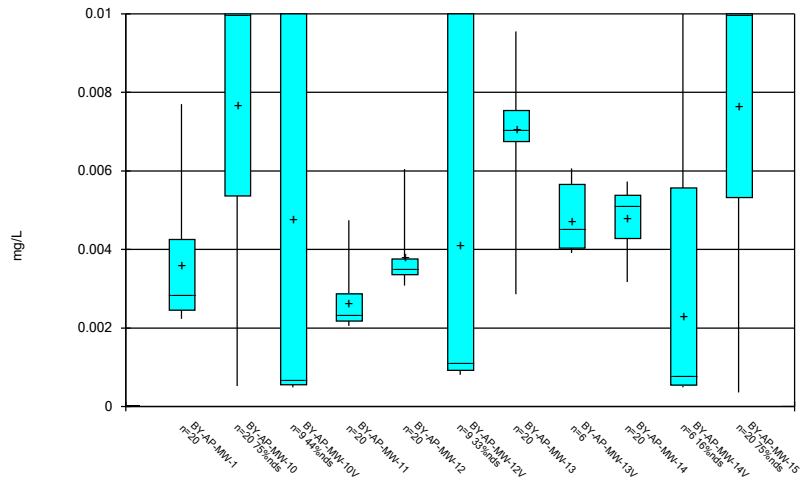
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Box & Whiskers Plot



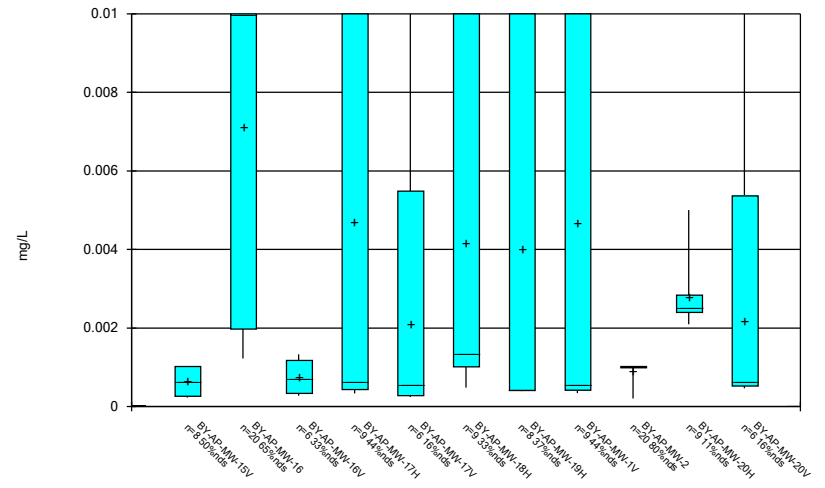
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Box & Whiskers Plot



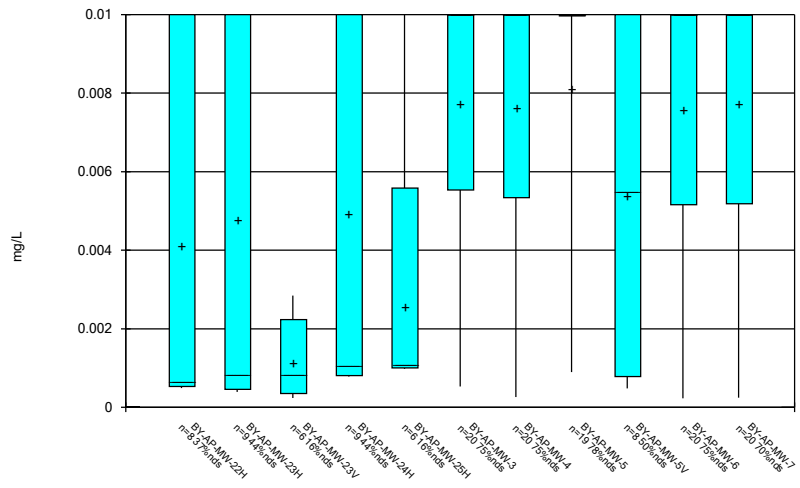
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Box & Whiskers Plot



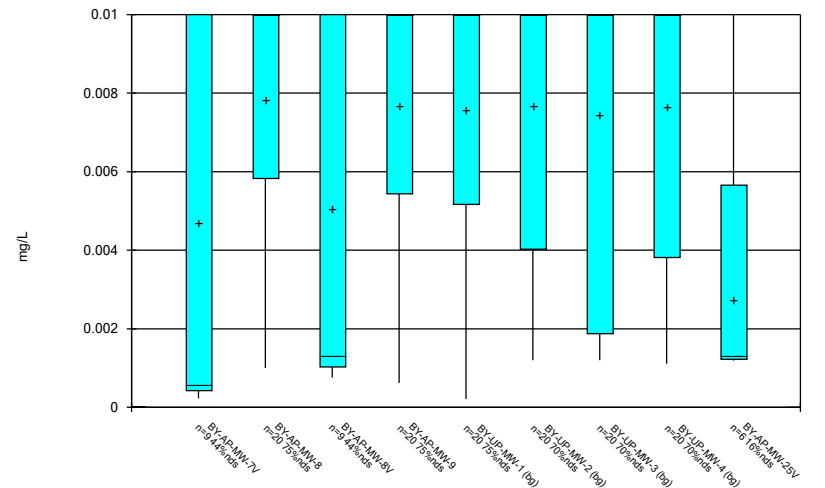
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Plant Barry Client: Southern Company Data: Barry Ash Pond

Box & Whiskers Plot



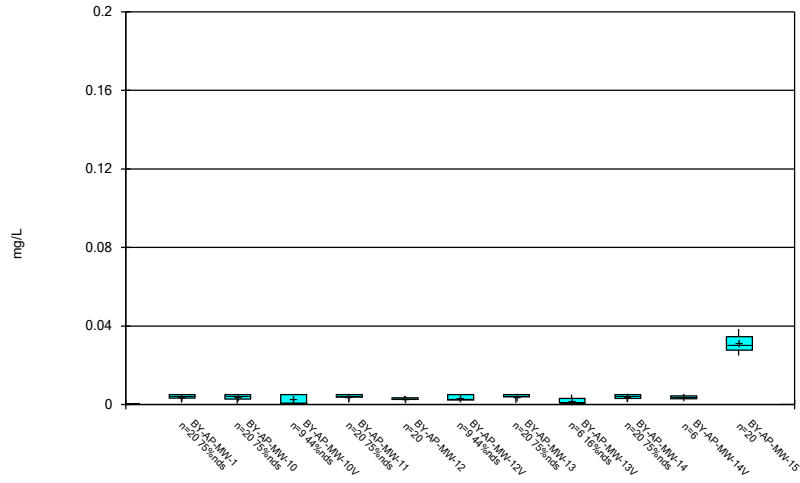
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Plant Barry Client: Southern Company Data: Barry Ash Pond

Box & Whiskers Plot



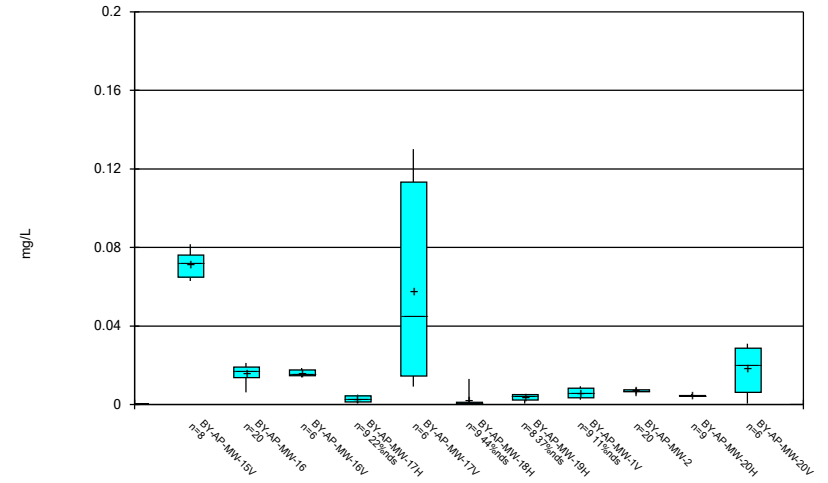
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Box & Whiskers Plot



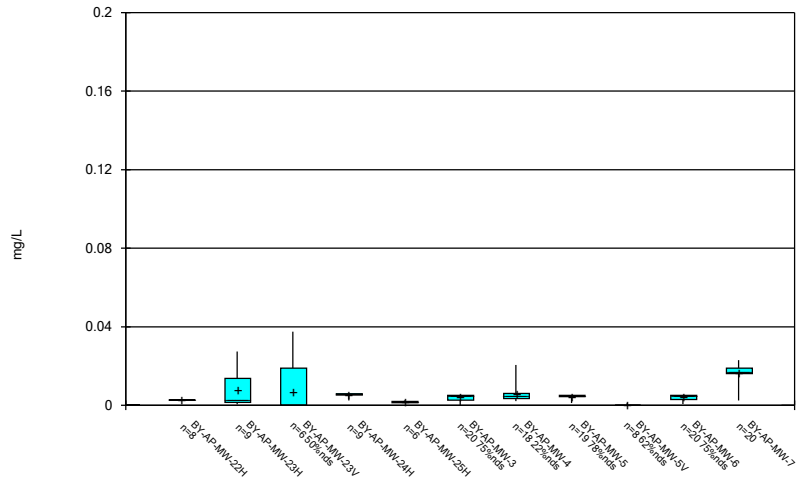
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Box & Whiskers Plot



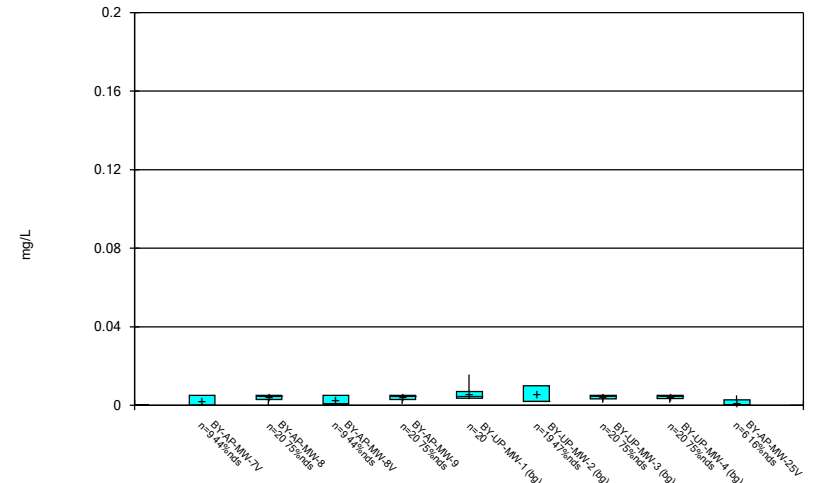
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 Plant Barry Client: Southern Company Data: Barry Ash Pond

Box & Whiskers Plot



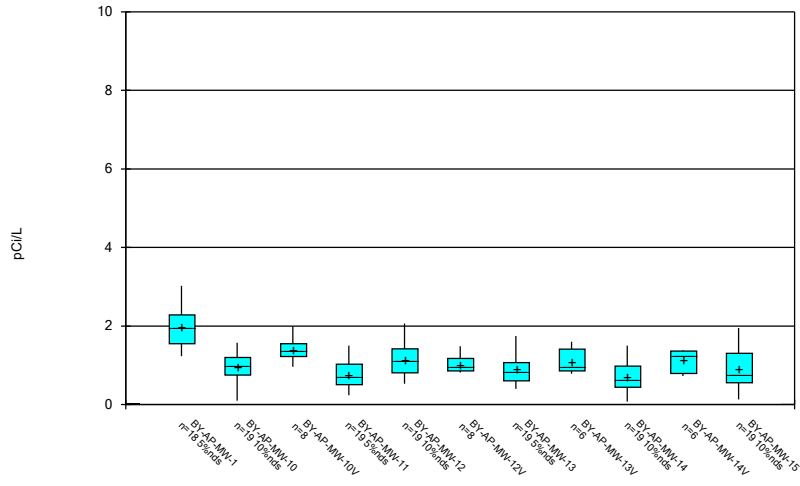
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 Plant Barry Client: Southern Company Data: Barry Ash Pond

Box & Whiskers Plot



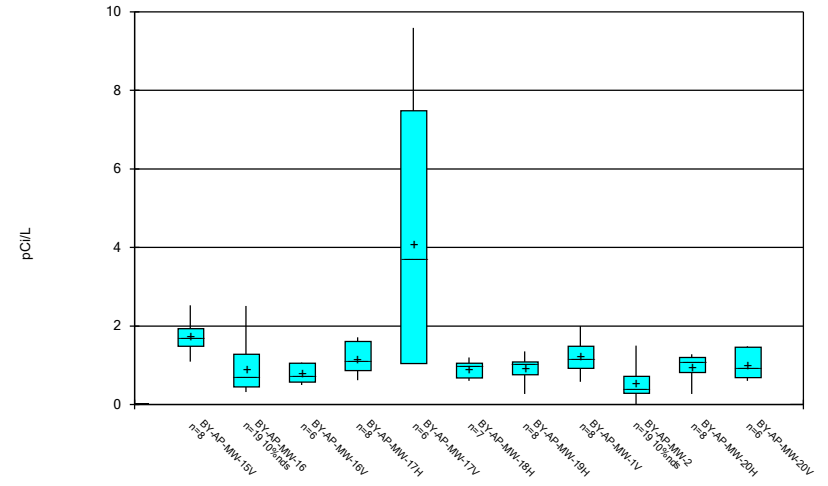
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Box & Whiskers Plot



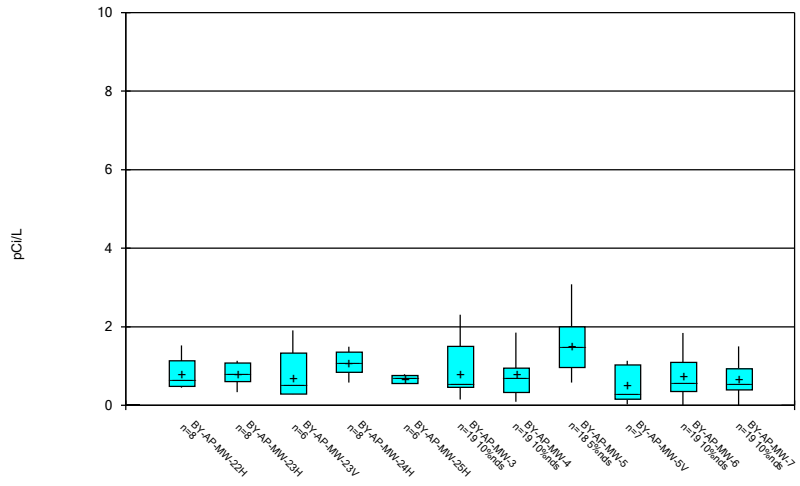
Constituent: Combined Radium 226 + 228 Analysis Run 6/23/2023 5:20 PM View: Descriptive
Plant Barry Client: Southern Company Data: Barry Ash Pond

Box & Whiskers Plot



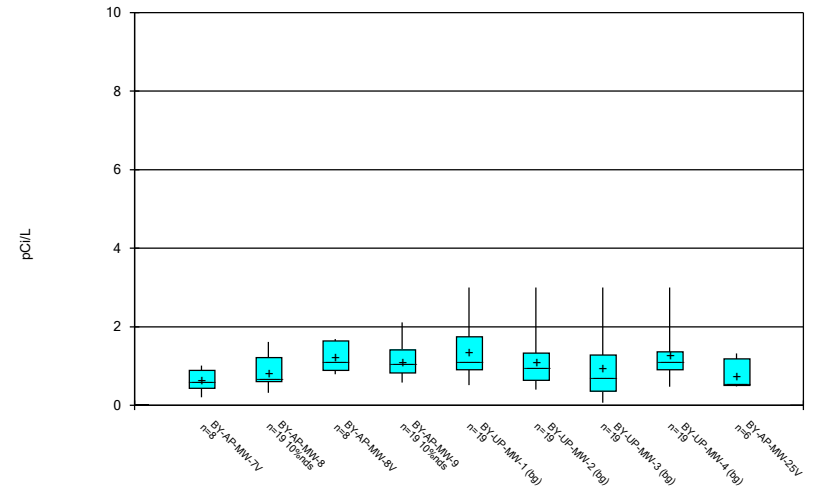
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Plant Barry Client: Southern Company Data: Barry Ash Pond

Box & Whiskers Plot



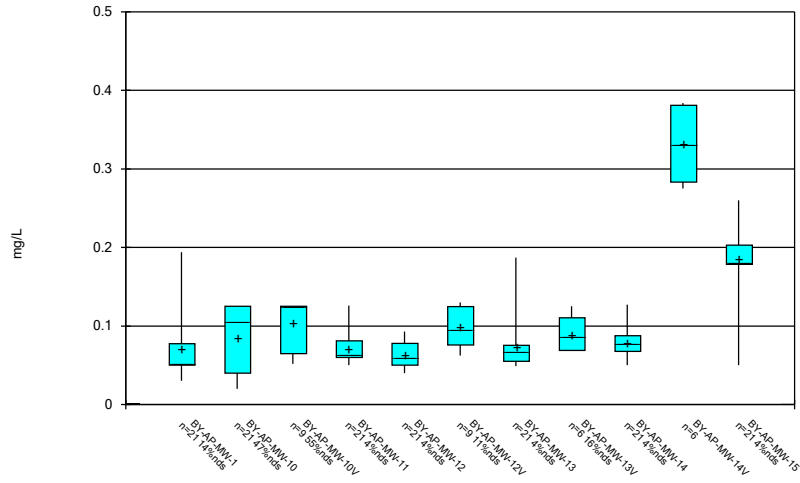
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Plant Barry Client: Southern Company Data: Barry Ash Pond

Box & Whiskers Plot



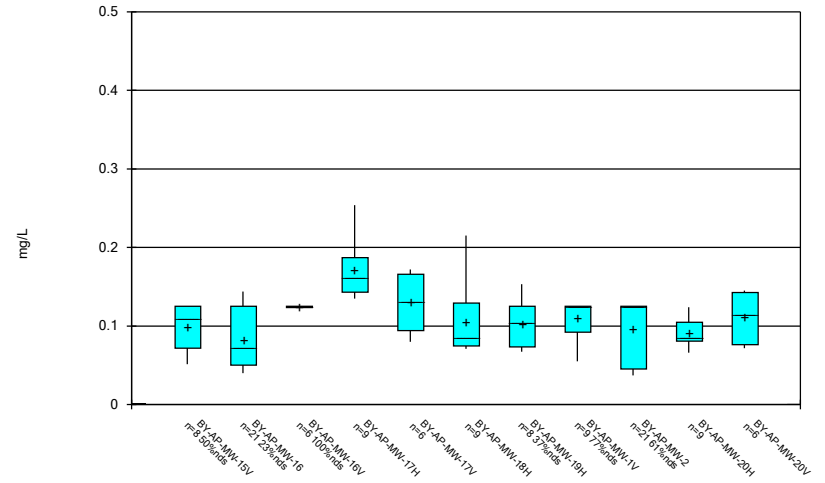
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Plant Barry Client: Southern Company Data: Barry Ash Pond

Box & Whiskers Plot



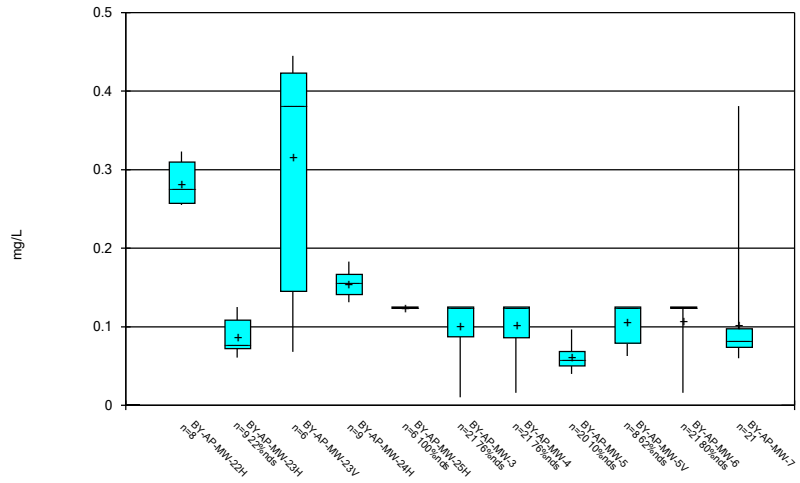
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Plant Barry Client: Southern Company Data: Barry Ash Pond

Box & Whiskers Plot



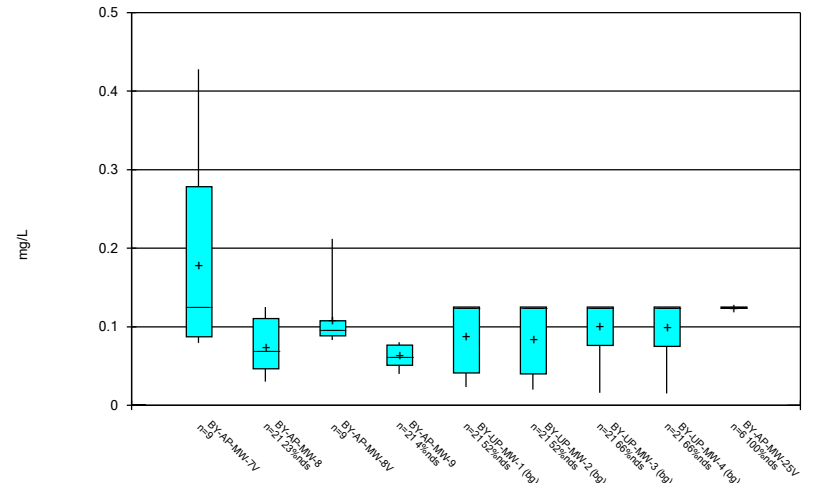
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Plant Barry Client: Southern Company Data: Barry Ash Pond

Box & Whiskers Plot



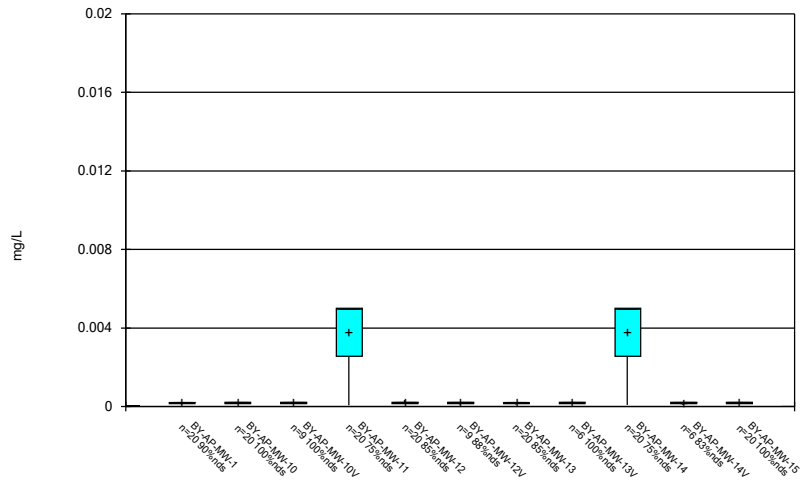
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Plant Barry Client: Southern Company Data: Barry Ash Pond

Box & Whiskers Plot



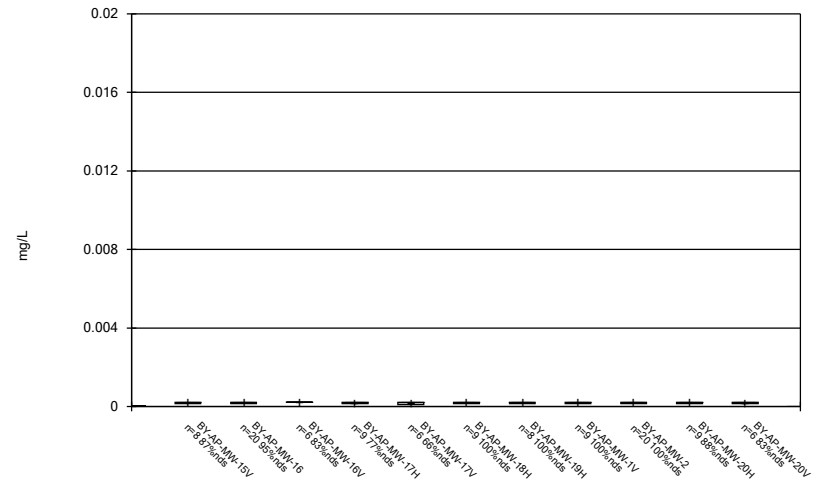
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Plant Barry Client: Southern Company Data: Barry Ash Pond

Box & Whiskers Plot



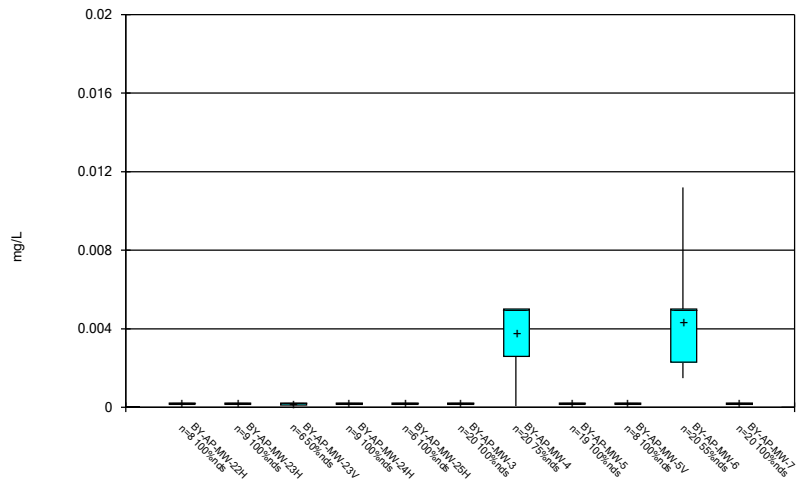
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Plant Barry Client: Southern Company Data: Barry Ash Pond

Box & Whiskers Plot



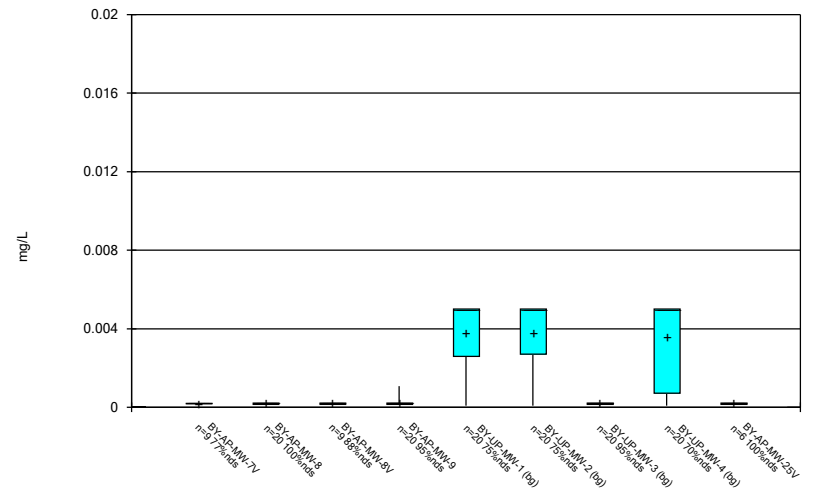
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Plant Barry Client: Southern Company Data: Barry Ash Pond

Box & Whiskers Plot



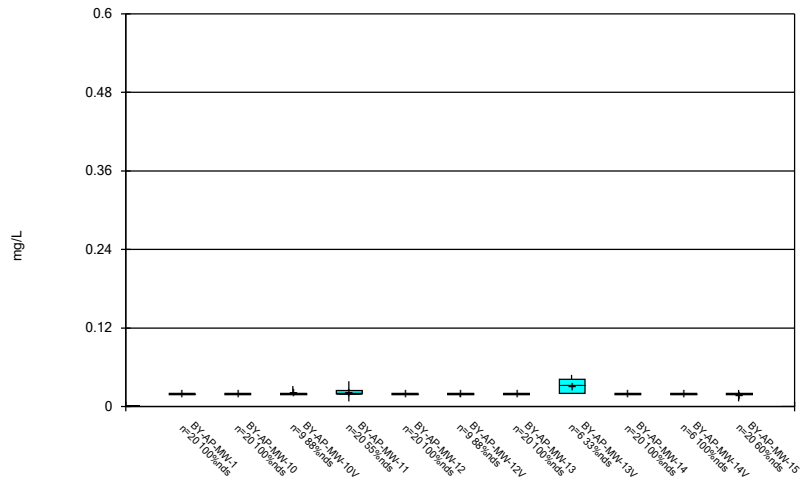
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Plant Barry Client: Southern Company Data: Barry Ash Pond

Box & Whiskers Plot



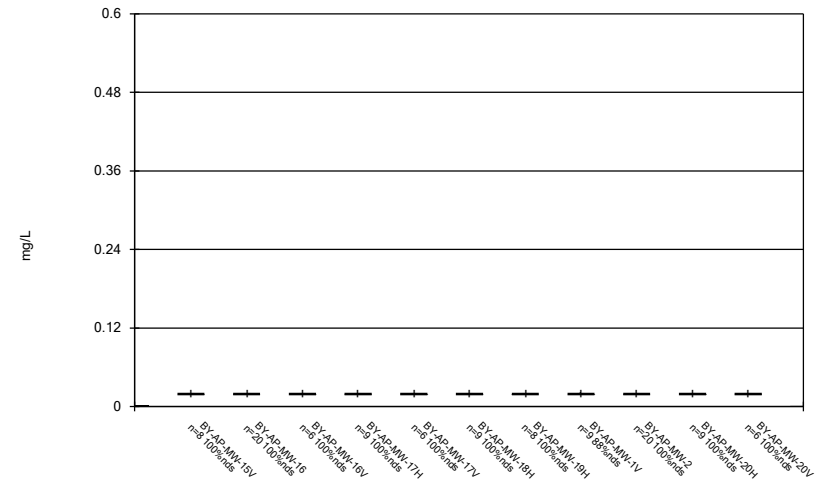
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Plant Barry Client: Southern Company Data: Barry Ash Pond

Box & Whiskers Plot



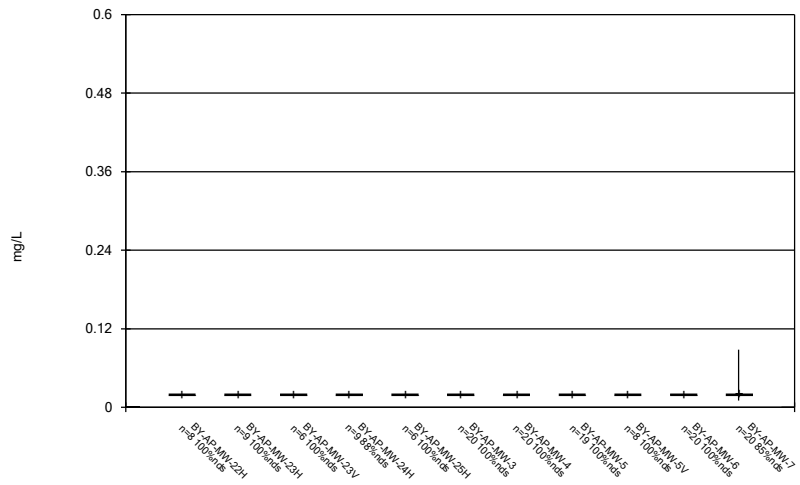
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Plant Barry Client: Southern Company Data: Barry Ash Pond

Box & Whiskers Plot



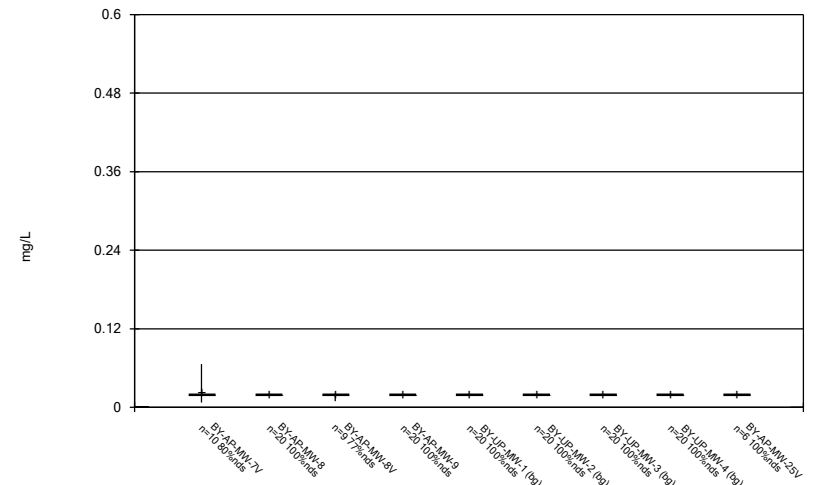
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Box & Whiskers Plot



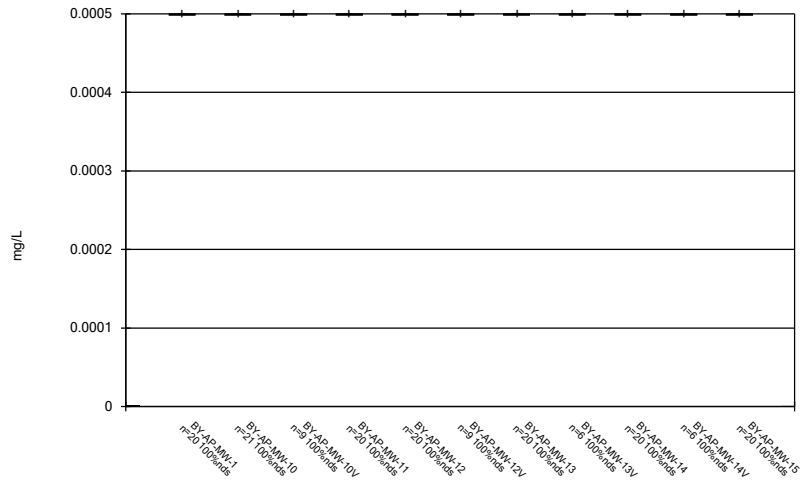
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Plant Barry Client: Southern Company Data: Barry Ash Pond

Box & Whiskers Plot



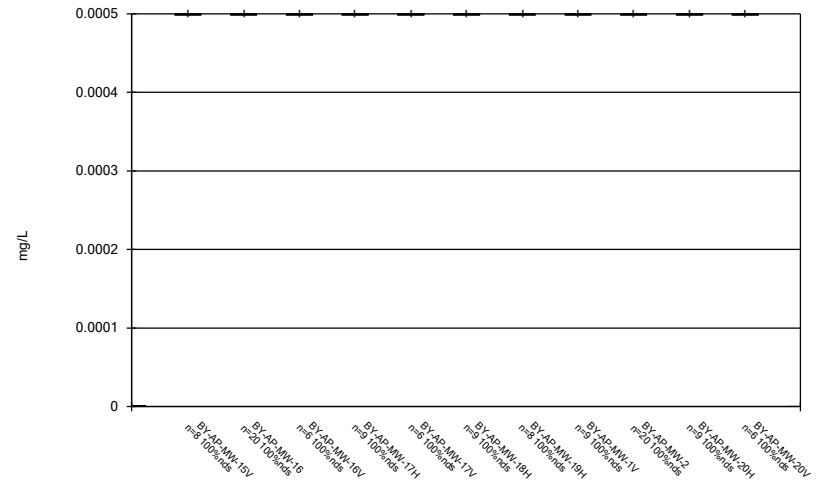
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Plant Barry Client: Southern Company Data: Barry Ash Pond

Box & Whiskers Plot



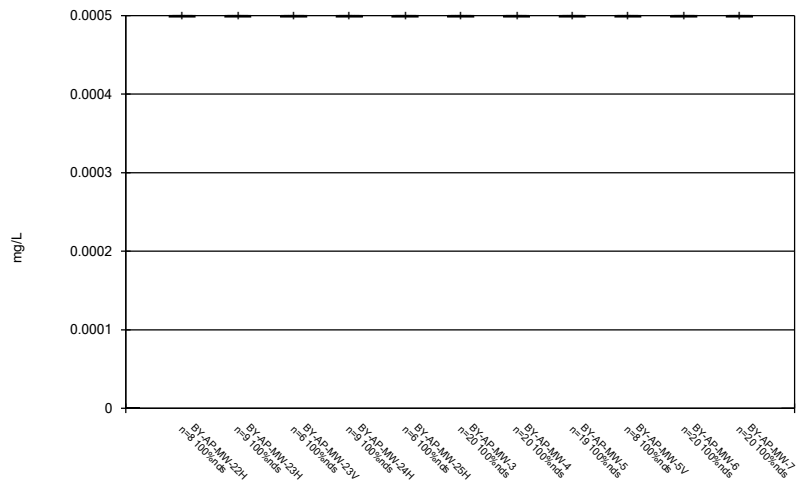
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 Plant Barry Client: Southern Company Data: Barry Ash Pond

Box & Whiskers Plot



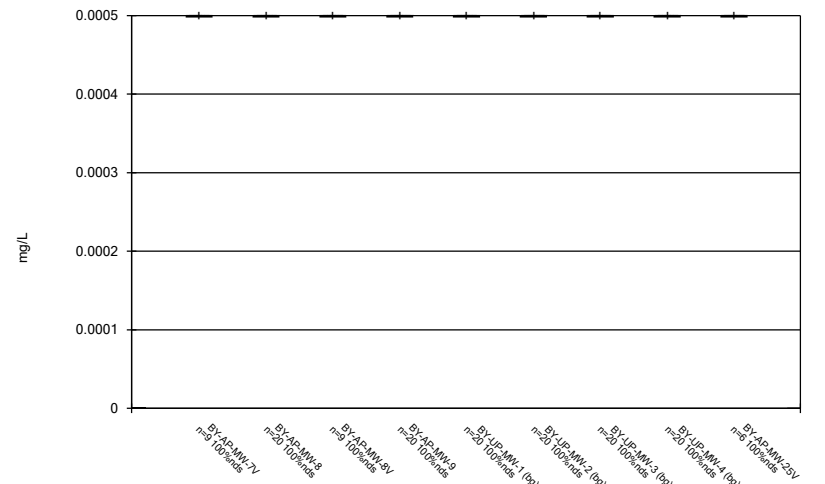
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 Plant Barry Client: Southern Company Data: Barry Ash Pond

Box & Whiskers Plot



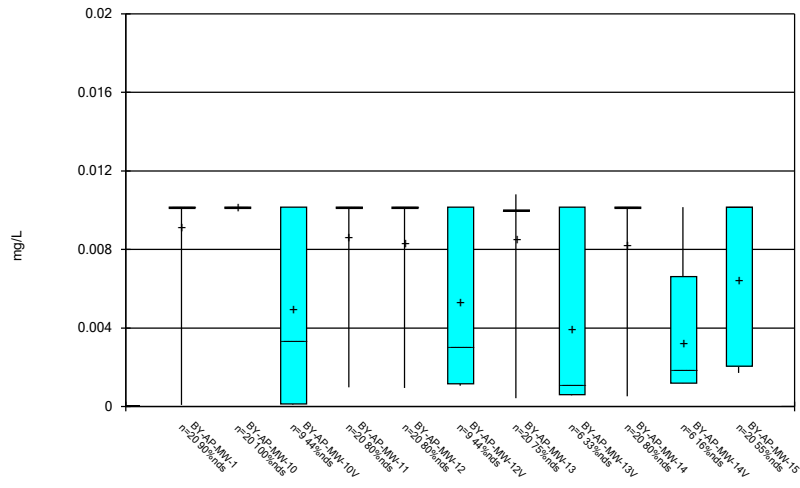
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 Plant Barry Client: Southern Company Data: Barry Ash Pond

Box & Whiskers Plot



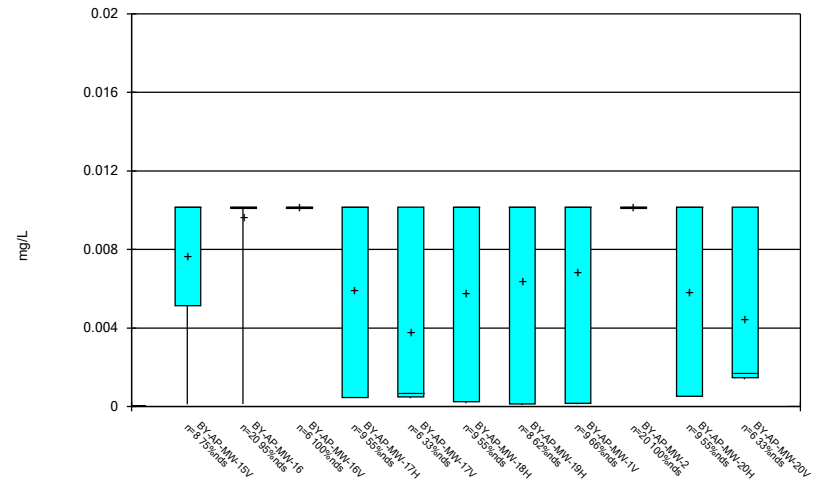
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Box & Whiskers Plot



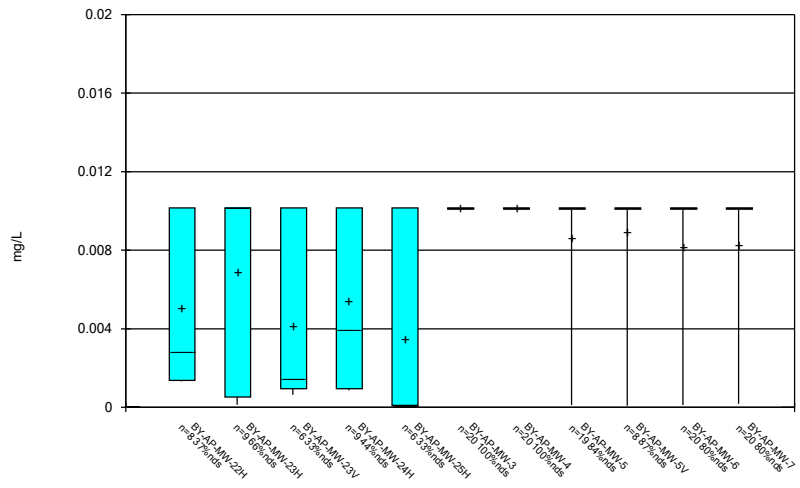
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 Plant Barry Client: Southern Company Data: Barry Ash Pond

Box & Whiskers Plot



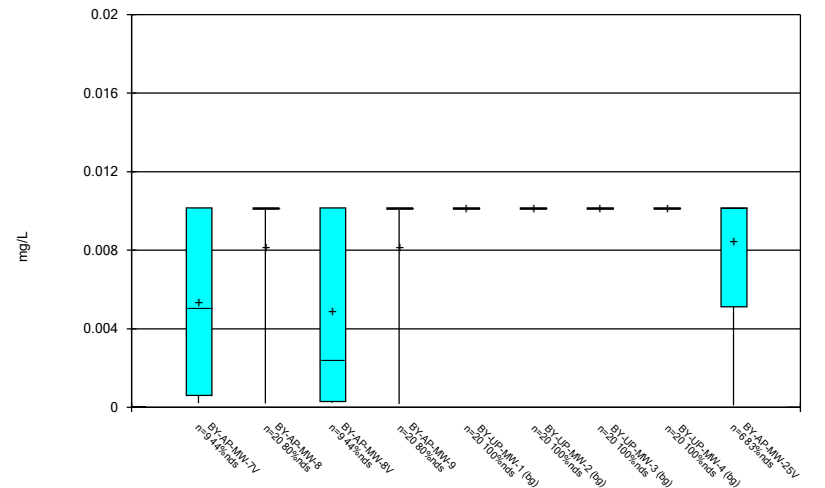
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 Plant Barry Client: Southern Company Data: Barry Ash Pond

Box & Whiskers Plot



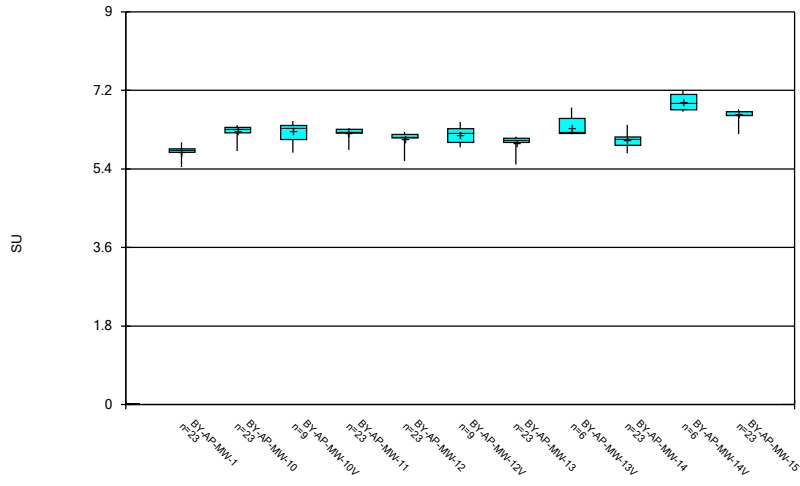
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 Plant Barry Client: Southern Company Data: Barry Ash Pond

Box & Whiskers Plot



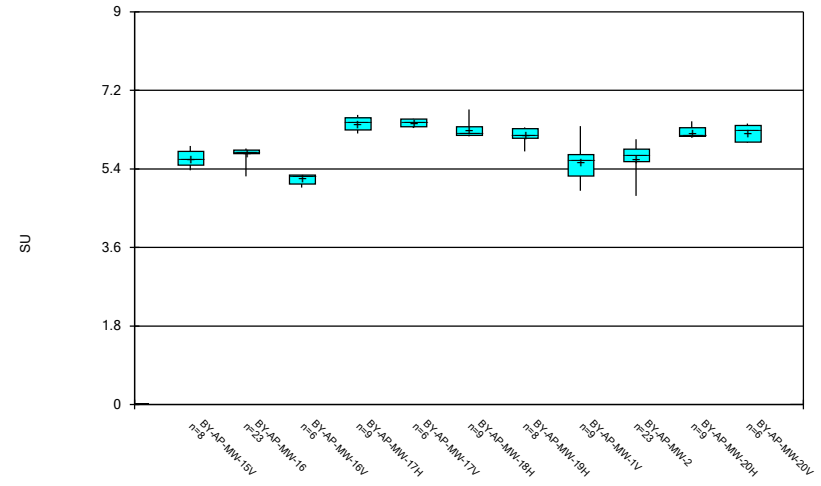
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 Plant Barry Client: Southern Company Data: Barry Ash Pond

Box & Whiskers Plot



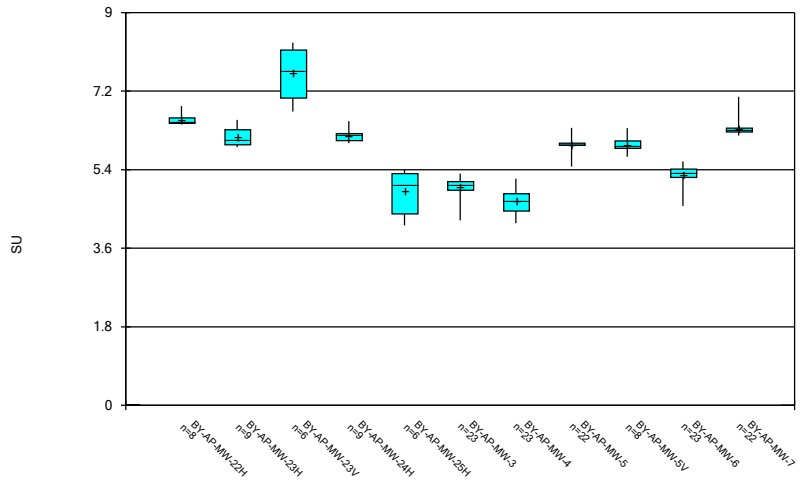
Constituent: pH, field Analysis Run 6/23/2023 5:21 PM View: Descriptive
Plant Barry Client: Southern Company Data: Barry Ash Pond

Box & Whiskers Plot



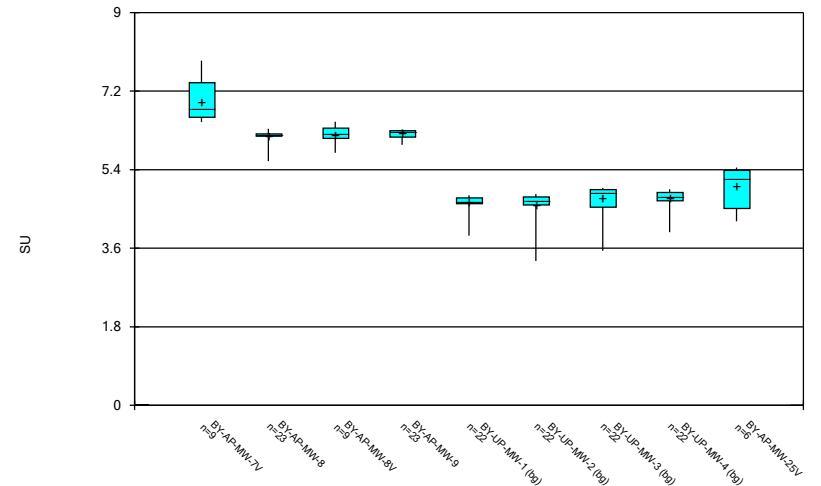
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Plant Barry Client: Southern Company Data: Barry Ash Pond

Box & Whiskers Plot



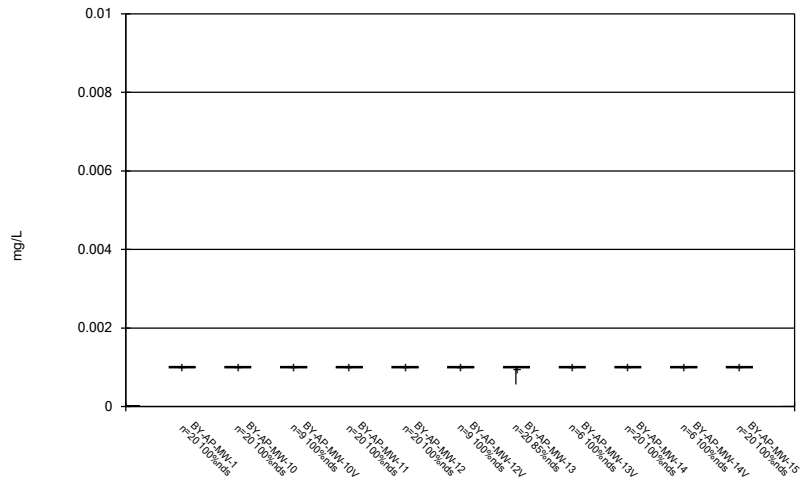
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Plant Barry Client: Southern Company Data: Barry Ash Pond

Box & Whiskers Plot



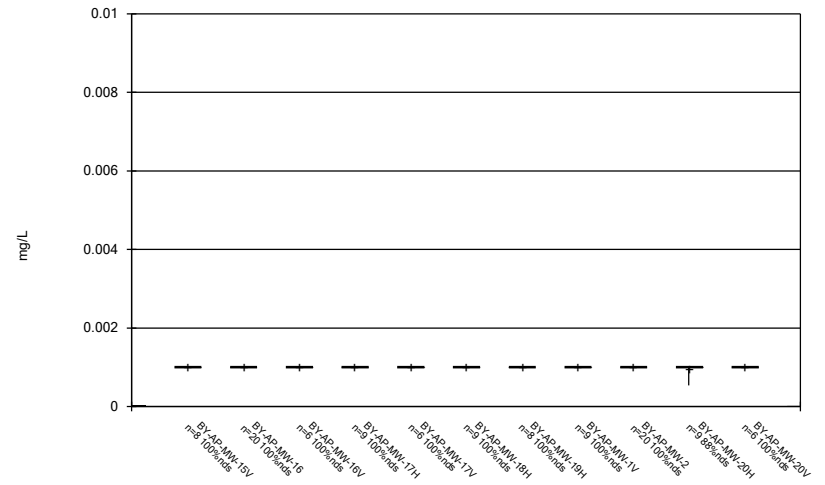
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Plant Barry Client: Southern Company Data: Barry Ash Pond

Box & Whiskers Plot



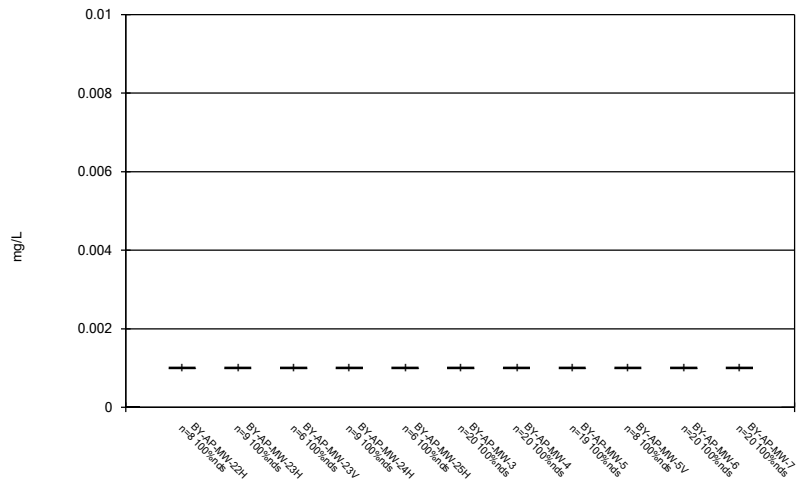
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Plant Barry Client: Southern Company Data: Barry Ash Pond

Box & Whiskers Plot



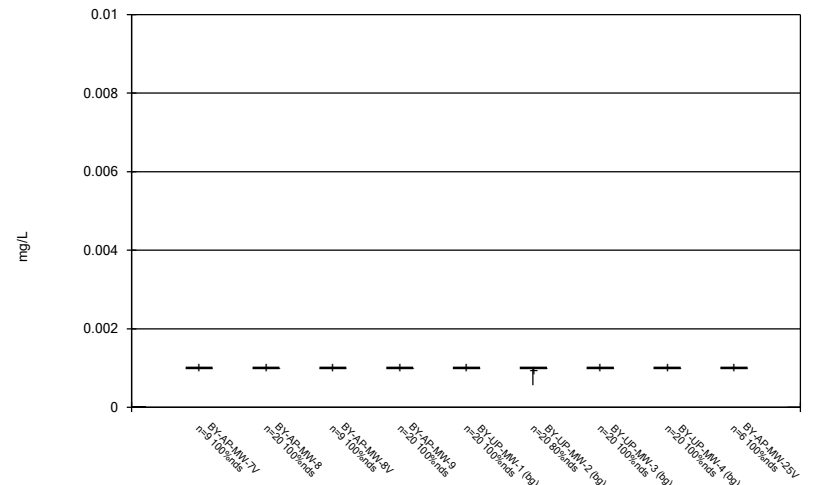
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Plant Barry Client: Southern Company Data: Barry Ash Pond

Box & Whiskers Plot



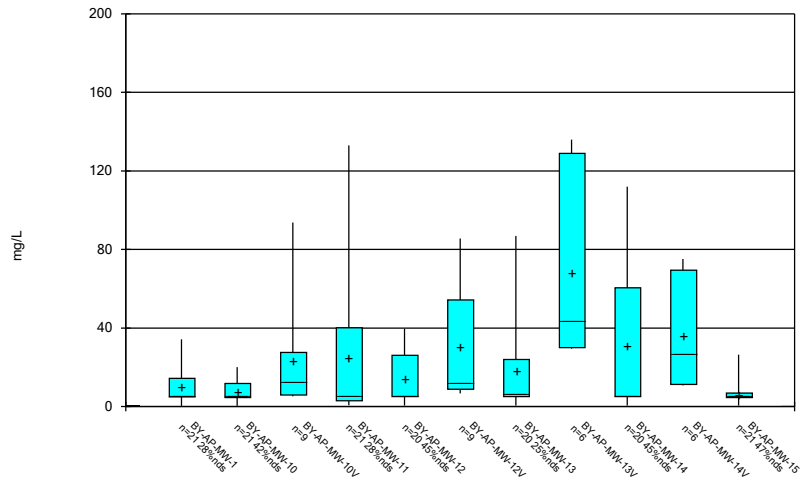
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Plant Barry Client: Southern Company Data: Barry Ash Pond

Box & Whiskers Plot



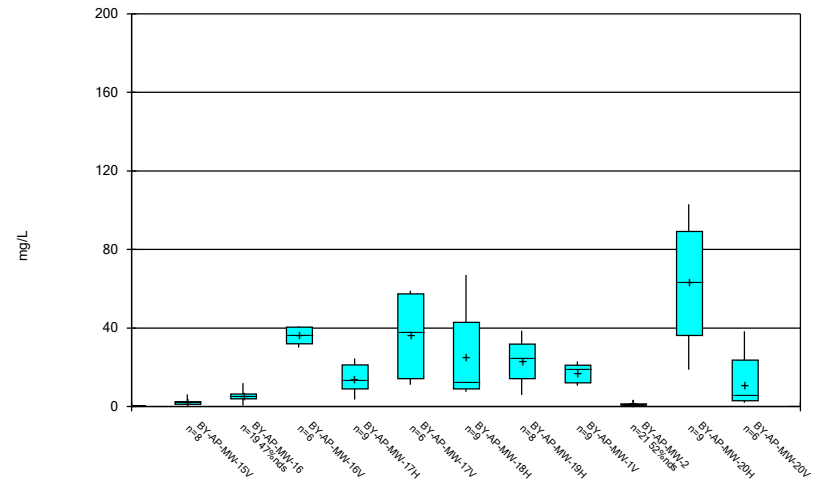
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Plant Barry Client: Southern Company Data: Barry Ash Pond

Box & Whiskers Plot



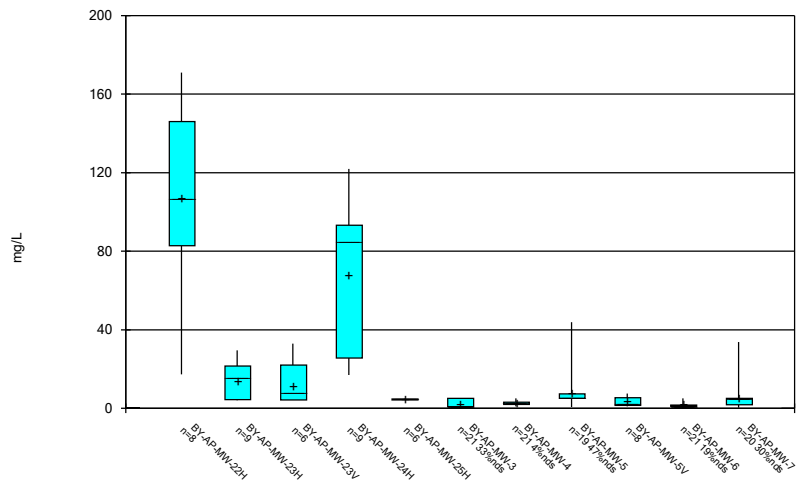
Constituent: Sulfate as SO4 Analysis Run 6/23/2023 5:21 PM View: Descriptive
 Plant Barry Client: Southern Company Data: Barry Ash Pond

Box & Whiskers Plot



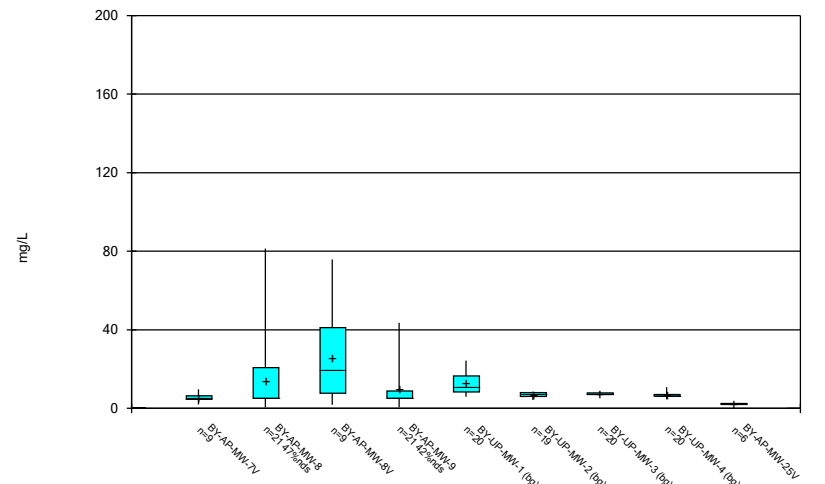
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 Plant Barry Client: Southern Company Data: Barry Ash Pond

Box & Whiskers Plot



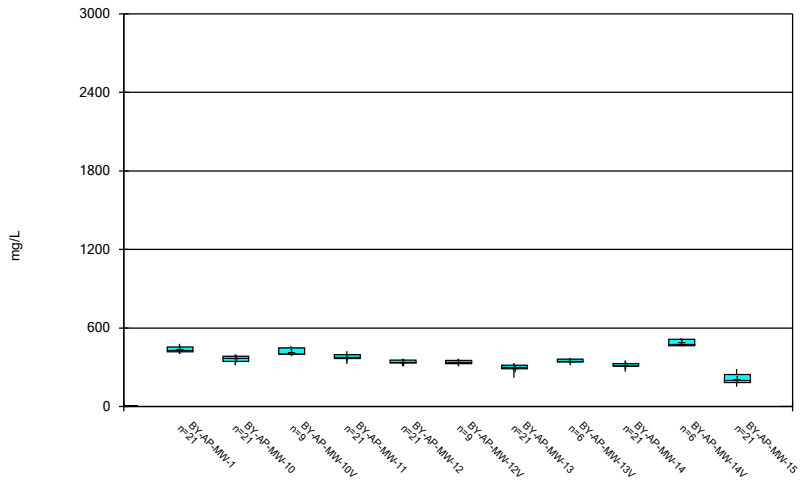
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Box & Whiskers Plot



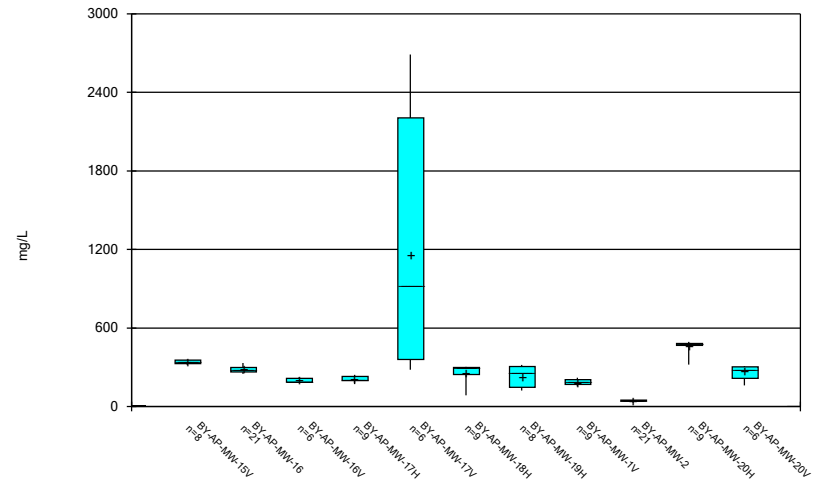
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 Plant Barry Client: Southern Company Data: Barry Ash Pond

Box & Whiskers Plot



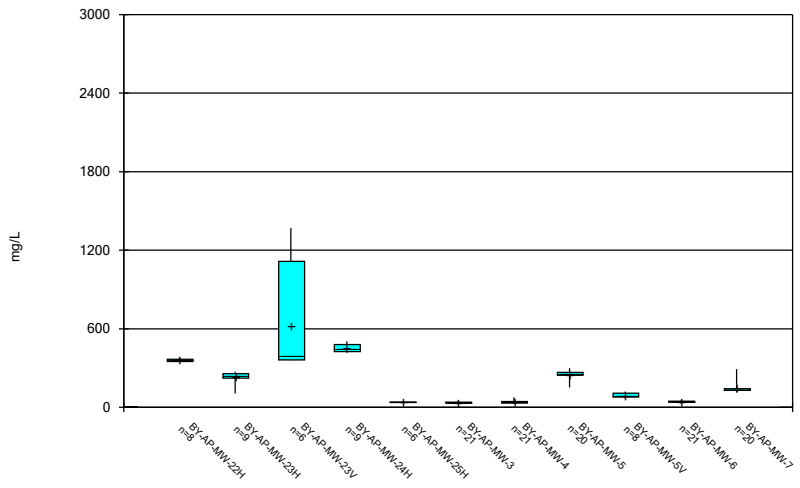
Constituent: TDS Analysis Run 6/23/2023 5:21 PM View: Descriptive
 Plant Barry Client: Southern Company Data: Barry Ash Pond

Box & Whiskers Plot



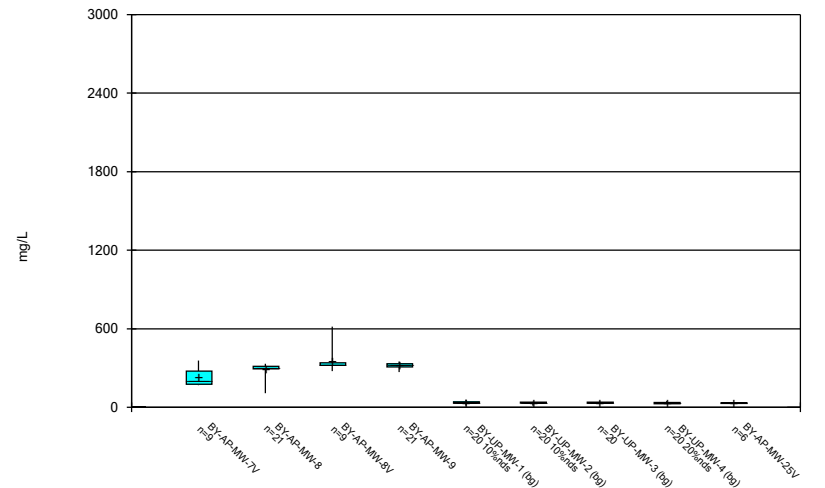
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 Plant Barry Client: Southern Company Data: Barry Ash Pond

Box & Whiskers Plot



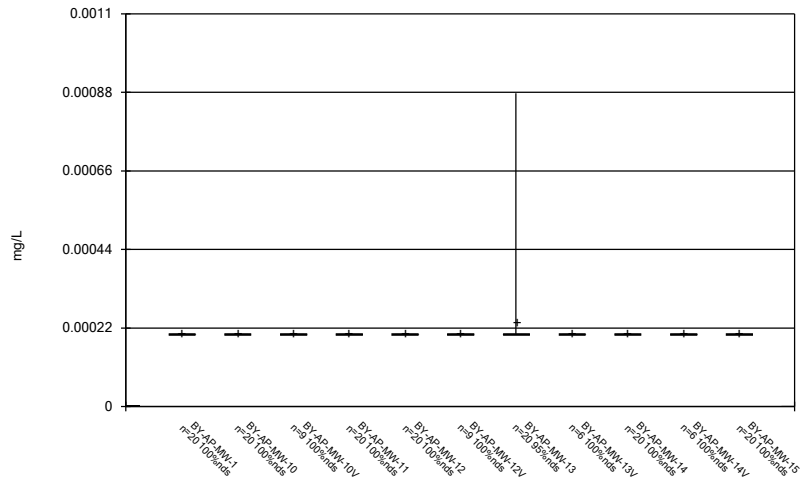
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 Plant Barry Client: Southern Company Data: Barry Ash Pond

Box & Whiskers Plot



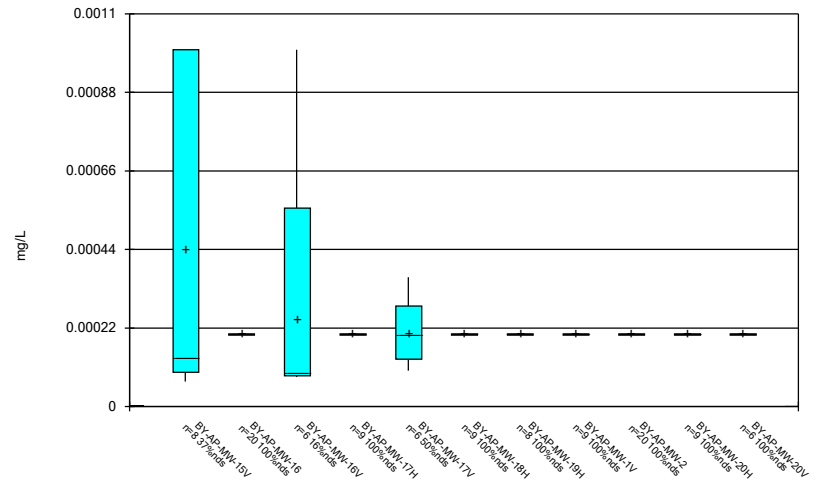
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 Plant Barry Client: Southern Company Data: Barry Ash Pond

Box & Whiskers Plot



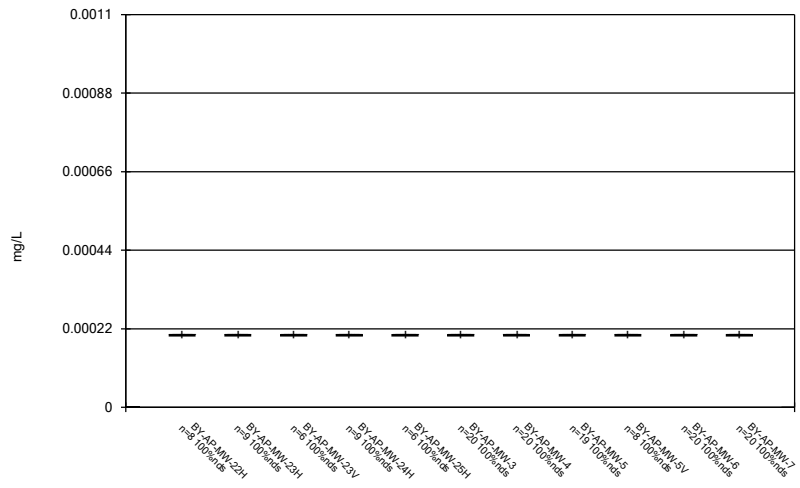
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Plant Barry Client: Southern Company Data: Barry Ash Pond

Box & Whiskers Plot



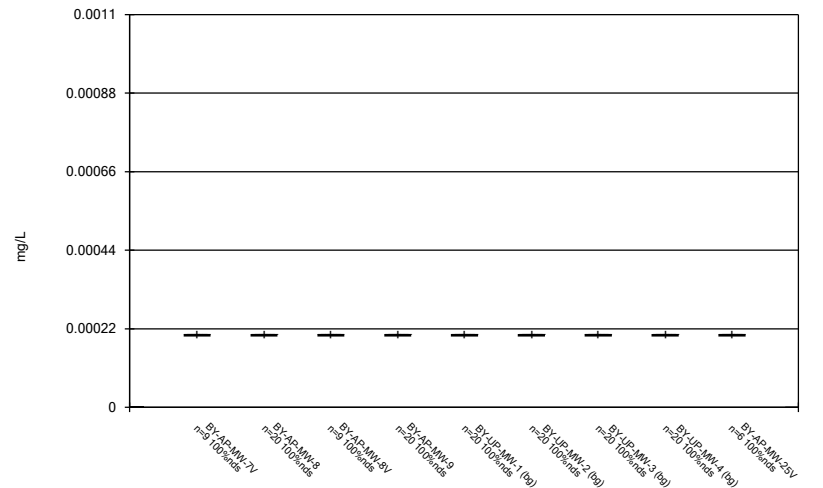
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Plant Barry Client: Southern Company Data: Barry Ash Pond

Box & Whiskers Plot



Constituent: Thallium Analysis Run 6/23/2023 5:21 PM View: Descriptive
Plant Barry Client: Southern Company Data: Barry Ash Pond

Box & Whiskers Plot



Constituent: Thallium Analysis Run 6/23/2023 5:21 PM View: Descriptive
Plant Barry Client: Southern Company Data: Barry Ash Pond

FIGURE C.

Outlier Summary

Plant Barry Client: Southern Company Data: Barry Ash Pond Printed 6/22/2023, 11:35 AM

	BY-AP-MW-1 Chloride, Total (mg/L)	BY-AP-MW-4 Cobalt (mg/L)	BY-AP-MW-12 Sulfate as SO4 (mg/L)	BY-AP-MW-13 Sulfate as SO4 (mg/L)	BY-AP-MW-14 Sulfate as SO4 (mg/L)	BY-AP-MW-16 Sulfate as SO4 (mg/L)	BY-AP-MW-5 Sulfate as SO4 (mg/L)
3/2/2016	2.18 (O)						
4/19/2016	9.01 (O)						
1/31/2017	0.0127 (O)						
5/1/2018	0.0126 (O)						
11/28/2018	<50 (O)						
5/29/2019			49.5 (o)	67.6 (o)			
3/31/2020					17.5 (o)	23.7 (o)	
9/2/2020					13.3 (o)		

FIGURE D.

Intrawell Prediction Limits - Significant Results

Plant Barry Client: Southern Company Data: Barry Ash Pond Printed 6/6/2023, 11:55 PM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	Bg Wells	Bg Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
pH, field (SU)	BY-AP-MW-10	6.463	6.143	4/3/2023	6.05	Yes	19	n/a	6.303	0.06515	0	None	No	0.0002351	Param Intra 1 of 2
pH, field (SU)	BY-AP-MW-2	6.2	5.161	4/3/2023	4.88	Yes	19	n/a	1094	156.3	0	None	x^4	0.0002351	Param Intra 1 of 2
pH, field (SU)	BY-AP-MW-3	5.22	4.24	4/4/2023	5.31	Yes	19	n/a	n/a	n/a	0	n/a	n/a	0.009664	NP Intra (normality) 1 of 2
pH, field (SU)	BY-AP-MW-7	6.432	6.166	4/3/2023	6.53	Yes	18	n/a	6.299	0.05346	0	None	No	0.0002351	Param Intra 1 of 2
pH, field (SU)	BY-AP-MW-8	6.26	5.89	4/3/2023	6.34	Yes	19	n/a	n/a	n/a	0	n/a	n/a	0.009664	NP Intra (normality) 1 of 2
Sulfate as SO4 (mg/L)	BY-AP-MW-1	6.348	n/a	4/3/2023	34.2	Yes	13	n/a	52.17	74.33	46.15	Kaplan-Meier	x^3	0.0004702	Param Intra 1 of 2
Sulfate as SO4 (mg/L)	BY-AP-MW-10	5	n/a	4/3/2023	15	Yes	13	n/a	n/a	n/a	69.23	n/a	n/a	0.009692	NP Intra (NDs) 1 of 2
Sulfate as SO4 (mg/L)	BY-AP-MW-11	19.37	n/a	4/4/2023	84.3	Yes	13	n/a	1.308	0.5028	46.15	Kaplan-Meier	x^(1/3)	0.0004702	Param Intra 1 of 2
Sulfate as SO4 (mg/L)	BY-AP-MW-12	7.04	n/a	4/4/2023	39.6	Yes	12	n/a	n/a	n/a	75	n/a	n/a	0.01077	NP Intra (NDs) 1 of 2
Sulfate as SO4 (mg/L)	BY-AP-MW-13	9.841	n/a	4/4/2023	24.6	Yes	12	n/a	3.818	2.151	41.67	Kaplan-Meier	No	0.0004702	Param Intra 1 of 2
Sulfate as SO4 (mg/L)	BY-AP-MW-14	61.6	n/a	4/5/2023	112	Yes	16	n/a	n/a	n/a	56.25	n/a	n/a	0.006456	NP Intra (NDs) 1 of 2
Sulfate as SO4 (mg/L)	BY-AP-MW-15	7.61	n/a	4/3/2023	8.28	Yes	17	n/a	n/a	n/a	58.82	n/a	n/a	0.005914	NP Intra (NDs) 1 of 2
Sulfate as SO4 (mg/L)	BY-AP-MW-16	6.72	n/a	4/5/2023	9.3	Yes	15	n/a	n/a	n/a	60	n/a	n/a	0.007533	NP Intra (NDs) 1 of 2
Sulfate as SO4 (mg/L)	BY-AP-MW-5	11	n/a	4/4/2023	43.9	Yes	15	n/a	n/a	n/a	60	n/a	n/a	0.007533	NP Intra (NDs) 1 of 2
Sulfate as SO4 (mg/L)	BY-AP-MW-7	5	n/a	4/3/2023	14.8	Yes	16	n/a	n/a	n/a	37.5	n/a	n/a	0.006456	NP Intra (normality) 1 of 2
Sulfate as SO4 (mg/L)	BY-AP-MW-8	6.01	n/a	4/3/2023	32.1	Yes	13	n/a	n/a	n/a	76.92	n/a	n/a	0.009692	NP Intra (NDs) 1 of 2
Sulfate as SO4 (mg/L)	BY-AP-MW-9	5.91	n/a	4/4/2023	25.3	Yes	13	n/a	n/a	n/a	69.23	n/a	n/a	0.009692	NP Intra (NDs) 1 of 2

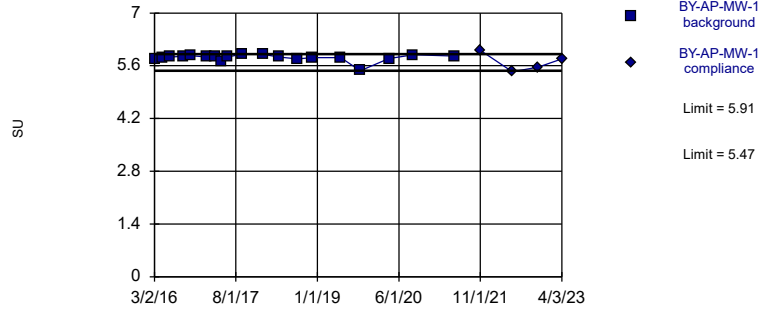
Intrawell Prediction Limits - All Results

Plant Barry Client: Southern Company Data: Barry Ash Pond Printed 6/6/2023, 11:55 PM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	Bg Wells	Bg Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
pH, field (SU)	BY-AP-MW-1	5.91	5.47	4/3/2023	5.78	No	19	n/a	n/a	n/a	0	n/a	n/a	0.009664	NP Intra (normality) 1 of 2
pH, field (SU)	BY-AP-MW-10	6.463	6.143	4/3/2023	6.05	Yes	19	n/a	6.303	0.06515	0	None	No	0.0002351	Param Intra 1 of 2
pH, field (SU)	BY-AP-MW-11	6.34	5.85	4/4/2023	6.27	No	19	n/a	n/a	n/a	0	n/a	n/a	0.009664	NP Intra (normality) 1 of 2
pH, field (SU)	BY-AP-MW-12	6.25	5.58	4/4/2023	5.76	No	19	n/a	n/a	n/a	0	n/a	n/a	0.009664	NP Intra (normality) 1 of 2
pH, field (SU)	BY-AP-MW-13	6.14	5.79	4/4/2023	6.06	No	19	n/a	n/a	n/a	0	n/a	n/a	0.009664	NP Intra (normality) 1 of 2
pH, field (SU)	BY-AP-MW-14	6.14	5.76	4/5/2023	5.93	No	19	n/a	n/a	n/a	0	n/a	n/a	0.009664	NP Intra (normality) 1 of 2
pH, field (SU)	BY-AP-MW-15	6.76	6.2	4/3/2023	6.63	No	19	n/a	n/a	n/a	0	n/a	n/a	0.009664	NP Intra (normality) 1 of 2
pH, field (SU)	BY-AP-MW-16	5.87	5.23	4/5/2023	5.83	No	19	n/a	n/a	n/a	0	n/a	n/a	0.009664	NP Intra (normality) 1 of 2
pH, field (SU)	BY-AP-MW-2	6.2	5.161	4/3/2023	4.88	Yes	19	n/a	1094	156.3	0	None	x^4	0.0002351	Param Intra 1 of 2
pH, field (SU)	BY-AP-MW-3	5.22	4.24	4/4/2023	5.31	Yes	19	n/a	n/a	n/a	0	n/a	n/a	0.009664	NP Intra (normality) 1 of 2
pH, field (SU)	BY-AP-MW-4	5.355	3.955	4/4/2023	4.55	No	19	n/a	4.655	0.2846	0	None	No	0.0002351	Param Intra 1 of 2
pH, field (SU)	BY-AP-MW-5	6.03	5.47	4/4/2023	5.84	No	18	n/a	n/a	n/a	0	n/a	n/a	0.01075	NP Intra (normality) 1 of 2
pH, field (SU)	BY-AP-MW-6	5.694	4.846	4/4/2023	5.33	No	19	n/a	801.5	101.6	0	None	x^4	0.0002351	Param Intra 1 of 2
pH, field (SU)	BY-AP-MW-7	6.432	6.166	4/3/2023	6.53	Yes	18	n/a	6.299	0.05346	0	None	No	0.0002351	Param Intra 1 of 2
pH, field (SU)	BY-AP-MW-8	6.26	5.89	4/3/2023	6.34	Yes	19	n/a	n/a	n/a	0	n/a	n/a	0.009664	NP Intra (normality) 1 of 2
pH, field (SU)	BY-AP-MW-9	6.32	5.97	4/4/2023	6.15	No	19	n/a	n/a	n/a	0	n/a	n/a	0.009664	NP Intra (normality) 1 of 2
pH, field (SU)	BY-UP-MW-1	4.882	4.49	4/12/2023	4.77	No	18	n/a	4.686	0.0786	0	None	No	0.0002351	Param Intra 1 of 2
pH, field (SU)	BY-UP-MW-2	5.032	4.318	4/12/2023	4.67	No	18	n/a	4.675	0.1431	0	None	No	0.0002351	Param Intra 1 of 2
pH, field (SU)	BY-UP-MW-3	4.98	4.4	4/12/2023	4.83	No	18	n/a	n/a	n/a	0	n/a	n/a	0.01075	NP Intra (normality) 1 of 2
pH, field (SU)	BY-UP-MW-4	5.082	4.517	4/12/2023	4.73	No	18	n/a	4.799	0.1134	0	None	No	0.0002351	Param Intra 1 of 2
Sulfate as SO4 (mg/L)	BY-AP-MW-1	6.348	n/a	4/3/2023	34.2	Yes	13	n/a	52.17	74.33	46.15	Kaplan-Meier	x^3	0.0004702	Param Intra 1 of 2
Sulfate as SO4 (mg/L)	BY-AP-MW-10	5	n/a	4/3/2023	15	Yes	13	n/a	n/a	n/a	69.23	n/a	n/a	0.009692	NP Intra (NDs) 1 of 2
Sulfate as SO4 (mg/L)	BY-AP-MW-11	19.37	n/a	4/4/2023	84.3	Yes	13	n/a	1.308	0.5028	46.15	Kaplan-Meier	x^(1/3)	0.0004702	Param Intra 1 of 2
Sulfate as SO4 (mg/L)	BY-AP-MW-12	7.04	n/a	4/4/2023	39.6	Yes	12	n/a	n/a	n/a	75	n/a	n/a	0.01077	NP Intra (NDs) 1 of 2
Sulfate as SO4 (mg/L)	BY-AP-MW-13	9.841	n/a	4/4/2023	24.6	Yes	12	n/a	3.818	2.151	41.67	Kaplan-Meier	No	0.0004702	Param Intra 1 of 2
Sulfate as SO4 (mg/L)	BY-AP-MW-14	61.6	n/a	4/5/2023	112	Yes	16	n/a	n/a	n/a	56.25	n/a	n/a	0.006456	NP Intra (NDs) 1 of 2
Sulfate as SO4 (mg/L)	BY-AP-MW-15	7.61	n/a	4/3/2023	8.28	Yes	17	n/a	n/a	n/a	58.82	n/a	n/a	0.005914	NP Intra (NDs) 1 of 2
Sulfate as SO4 (mg/L)	BY-AP-MW-16	6.72	n/a	4/5/2023	9.3	Yes	15	n/a	n/a	n/a	60	n/a	n/a	0.007533	NP Intra (NDs) 1 of 2
Sulfate as SO4 (mg/L)	BY-AP-MW-2	3.3	n/a	4/3/2023	1.77J	No	17	n/a	n/a	n/a	64.71	n/a	n/a	0.005914	NP Intra (NDs) 1 of 2
Sulfate as SO4 (mg/L)	BY-AP-MW-3	5	n/a	4/4/2023	2.92	No	17	n/a	n/a	n/a	41.18	n/a	n/a	0.005914	NP Intra (normality) 1 of 2
Sulfate as SO4 (mg/L)	BY-AP-MW-4	5.286	n/a	4/4/2023	2.33	No	17	n/a	2.731	1.012	5.882	None	No	0.0004702	Param Intra 1 of 2
Sulfate as SO4 (mg/L)	BY-AP-MW-5	11	n/a	4/4/2023	43.9	Yes	15	n/a	n/a	n/a	60	n/a	n/a	0.007533	NP Intra (NDs) 1 of 2
Sulfate as SO4 (mg/L)	BY-AP-MW-6	3.037	n/a	4/4/2023	1.59J	No	17	n/a	0.01145	0.4356	23.53	Kaplan-Meier	ln(x)	0.0004702	Param Intra 1 of 2
Sulfate as SO4 (mg/L)	BY-AP-MW-7	5	n/a	4/3/2023	14.8	Yes	16	n/a	n/a	n/a	37.5	n/a	n/a	0.006456	NP Intra (normality) 1 of 2
Sulfate as SO4 (mg/L)	BY-AP-MW-8	6.01	n/a	4/3/2023	32.1	Yes	13	n/a	n/a	n/a	76.92	n/a	n/a	0.009692	NP Intra (NDs) 1 of 2
Sulfate as SO4 (mg/L)	BY-AP-MW-9	5.91	n/a	4/4/2023	25.3	Yes	13	n/a	n/a	n/a	69.23	n/a	n/a	0.009692	NP Intra (NDs) 1 of 2
Sulfate as SO4 (mg/L)	BY-UP-MW-1	31.7	n/a	4/12/2023	11.8	No	16	n/a	3.458	0.85	0	None	sqrt(x)	0.0004702	Param Intra 1 of 2
Sulfate as SO4 (mg/L)	BY-UP-MW-2	9.774	n/a	4/12/2023	8.54	No	15	n/a	6.454	1.269	0	None	No	0.0004702	Param Intra 1 of 2
Sulfate as SO4 (mg/L)	BY-UP-MW-3	9.087	n/a	4/12/2023	7.59	No	16	n/a	7.496	0.6224	0	None	No	0.0004702	Param Intra 1 of 2
Sulfate as SO4 (mg/L)	BY-UP-MW-4	10.8	n/a	4/12/2023	5.93	No	16	n/a	n/a	n/a	0	n/a	n/a	0.006456	NP Intra (normality) 1 of 2

Within Limits

Prediction Limit Intrawell Non-parametric

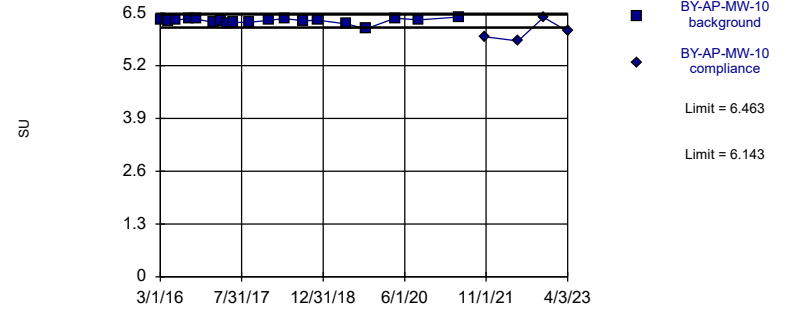


Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limits are highest and lowest of 19 background values. Well-constituent pair annual alpha = 0.01928. Individual comparison alpha = 0.009664 (1 of 2).

Constituent: pH, field Analysis Run 6/6/2023 11:51 PM View: All
Plant Barry Client: Southern Company Data: Barry Ash Pond

Exceeds Limits

Prediction Limit Intrawell Parametric

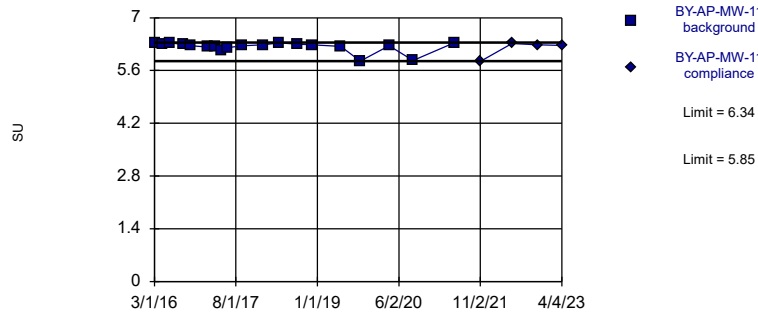


Background Data Summary: Mean=6.303, Std. Dev.=0.06515, n=19. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8965, critical = 0.863. Kappa = 2.46 (c=7, w=16, 1 of 2, event alpha = 0.05132). Report alpha = 0.0004702.

Constituent: pH, field Analysis Run 6/6/2023 11:52 PM View: All
Plant Barry Client: Southern Company Data: Barry Ash Pond

Within Limits

Prediction Limit Intrawell Non-parametric

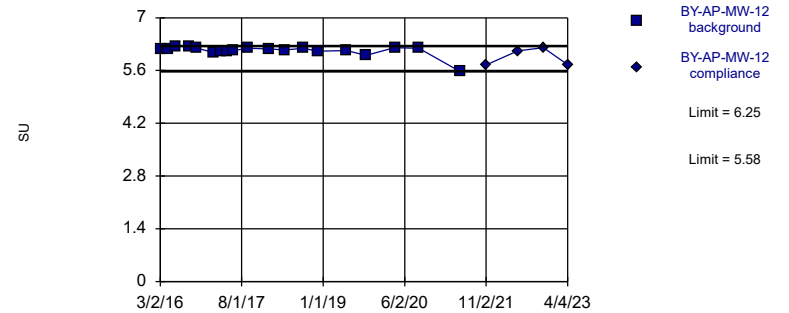


Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limits are highest and lowest of 19 background values. Well-constituent pair annual alpha = 0.01928. Individual comparison alpha = 0.009664 (1 of 2).

Constituent: pH, field Analysis Run 6/6/2023 11:52 PM View: All
Plant Barry Client: Southern Company Data: Barry Ash Pond

Within Limits

Prediction Limit Intrawell Non-parametric

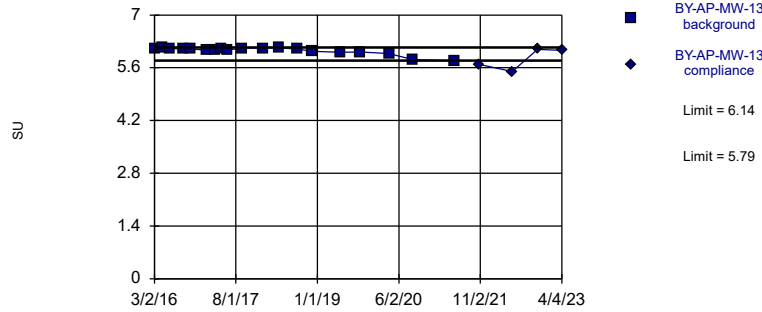


Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limits are highest and lowest of 19 background values. Well-constituent pair annual alpha = 0.01928. Individual comparison alpha = 0.009664 (1 of 2).

Constituent: pH, field Analysis Run 6/6/2023 11:52 PM View: All
Plant Barry Client: Southern Company Data: Barry Ash Pond

Within Limits

Prediction Limit Intrawell Non-parametric

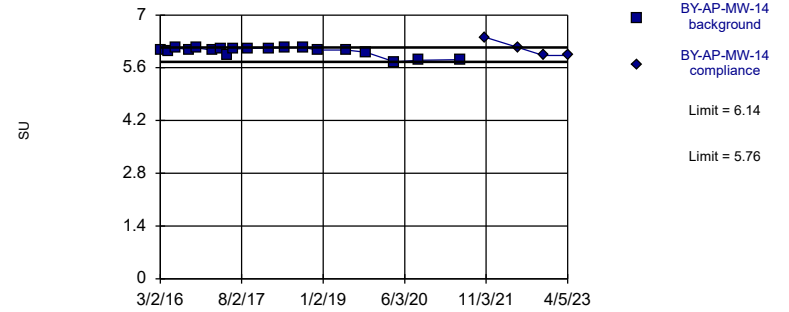


Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limits are highest and lowest of 19 background values. Well-constituent pair annual alpha = 0.01928. Individual comparison alpha = 0.009664 (1 of 2).

Constituent: pH, field Analysis Run 6/6/2023 11:52 PM View: All
Plant Barry Client: Southern Company Data: Barry Ash Pond

Within Limits

Prediction Limit Intrawell Non-parametric

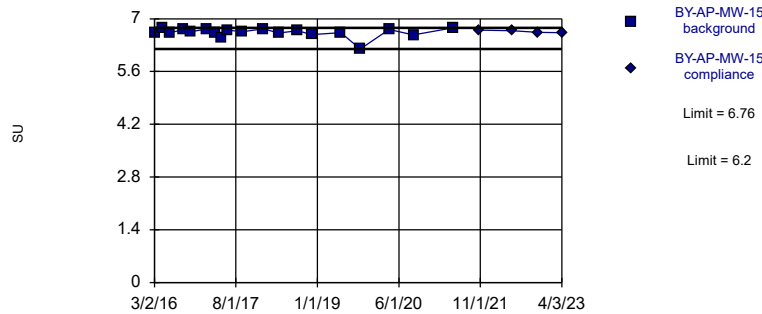


Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limits are highest and lowest of 19 background values. Well-constituent pair annual alpha = 0.01928. Individual comparison alpha = 0.009664 (1 of 2).

Constituent: pH, field Analysis Run 6/6/2023 11:52 PM View: All
Plant Barry Client: Southern Company Data: Barry Ash Pond

Within Limits

Prediction Limit Intrawell Non-parametric

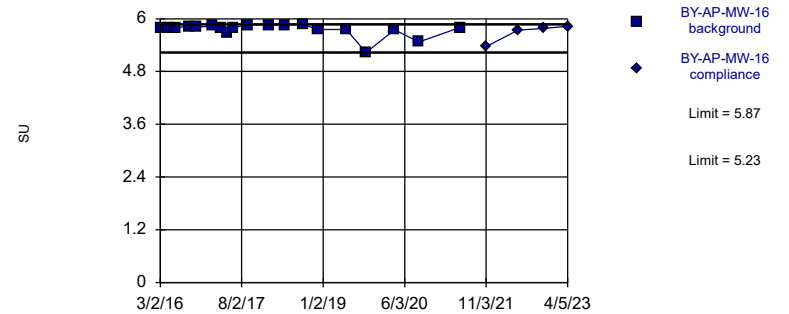


Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limits are highest and lowest of 19 background values. Well-constituent pair annual alpha = 0.01928. Individual comparison alpha = 0.009664 (1 of 2).

Constituent: pH, field Analysis Run 6/6/2023 11:52 PM View: All
Plant Barry Client: Southern Company Data: Barry Ash Pond

Within Limits

Prediction Limit Intrawell Non-parametric

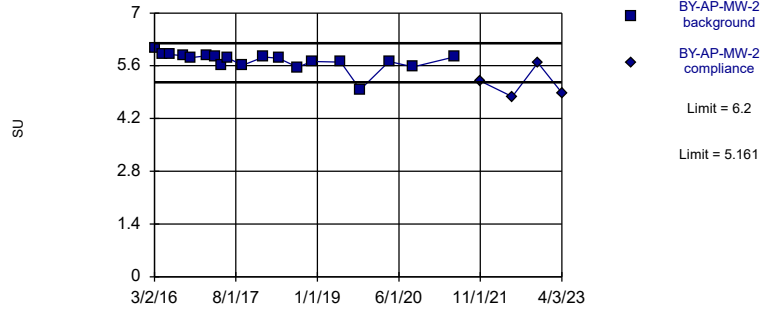


Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limits are highest and lowest of 19 background values. Well-constituent pair annual alpha = 0.01928. Individual comparison alpha = 0.009664 (1 of 2).

Constituent: pH, field Analysis Run 6/6/2023 11:52 PM View: All
Plant Barry Client: Southern Company Data: Barry Ash Pond

Exceeds Limits

Prediction Limit Intrawell Parametric

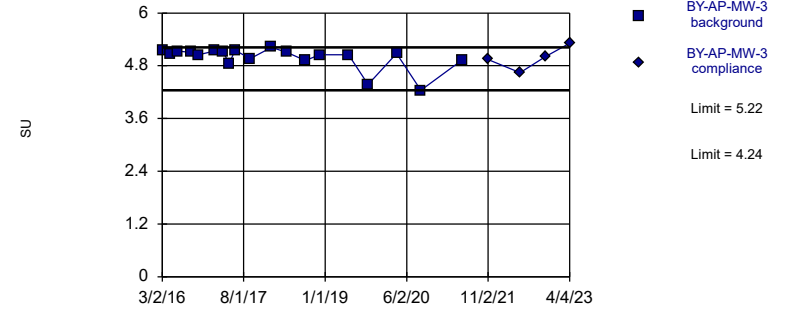


Background Data Summary (based on x^4 transformation): Mean=1094, Std. Dev.=156.3, n=19. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8685, critical = 0.863. Kappa = 2.46 (c=7, w=16, 1 of 2, event alpha = 0.05132). Report alpha = 0.0004702.

Constituent: pH, field Analysis Run 6/6/2023 11:52 PM View: All
 Plant Barry Client: Southern Company Data: Barry Ash Pond

Exceeds Limits

Prediction Limit Intrawell Non-parametric

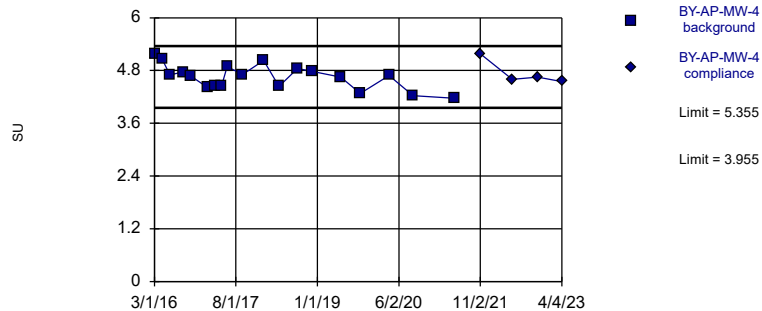


Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limits are highest and lowest of 19 background values. Well-constituent pair annual alpha = 0.01928. Individual comparison alpha = 0.009664 (1 of 2).

Constituent: pH, field Analysis Run 6/6/2023 11:52 PM View: All
 Plant Barry Client: Southern Company Data: Barry Ash Pond

Within Limits

Prediction Limit Intrawell Parametric

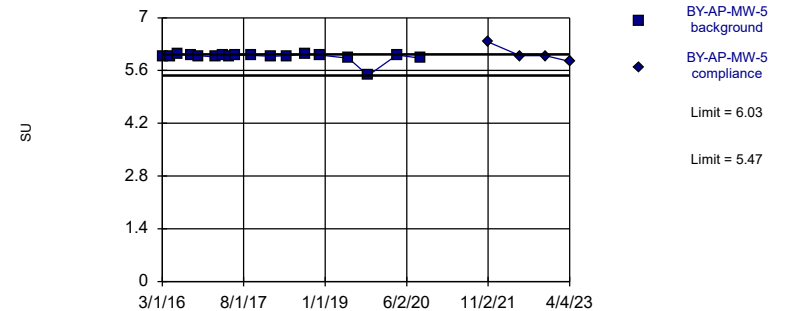


Background Data Summary: Mean=4.655, Std. Dev.=0.2846, n=19. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.972, critical = 0.863. Kappa = 2.46 (c=7, w=16, 1 of 2, event alpha = 0.05132). Report alpha = 0.0004702.

Constituent: pH, field Analysis Run 6/6/2023 11:52 PM View: All
 Plant Barry Client: Southern Company Data: Barry Ash Pond

Within Limits

Prediction Limit Intrawell Non-parametric

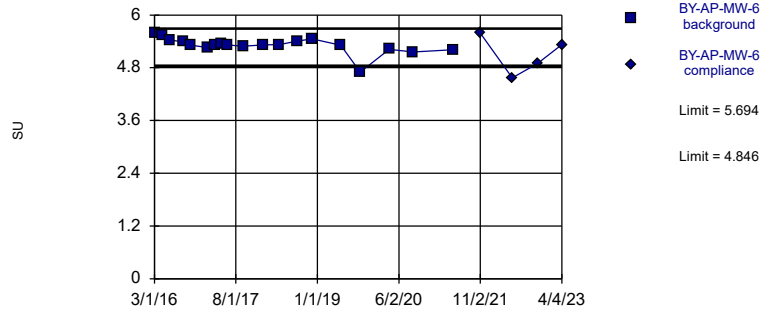


Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limits are highest and lowest of 18 background values. Well-constituent pair annual alpha = 0.02143. Individual comparison alpha = 0.01075 (1 of 2).

Constituent: pH, field Analysis Run 6/6/2023 11:52 PM View: All
 Plant Barry Client: Southern Company Data: Barry Ash Pond

Within Limits

Prediction Limit Intrawell Parametric

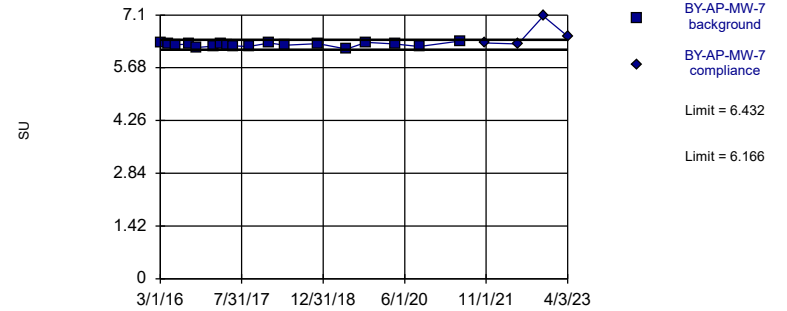


Background Data Summary (based on x^4 transformation): Mean=801.5, Std. Dev.=101.6, n=19. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8738, critical = 0.863. Kappa = 2.46 (c=7, w=16, 1 of 2, event alpha = 0.05132). Report alpha = 0.0004702.

Constituent: pH, field Analysis Run 6/6/2023 11:52 PM View: All
 Plant Barry Client: Southern Company Data: Barry Ash Pond

Exceeds Limits

Prediction Limit Intrawell Parametric

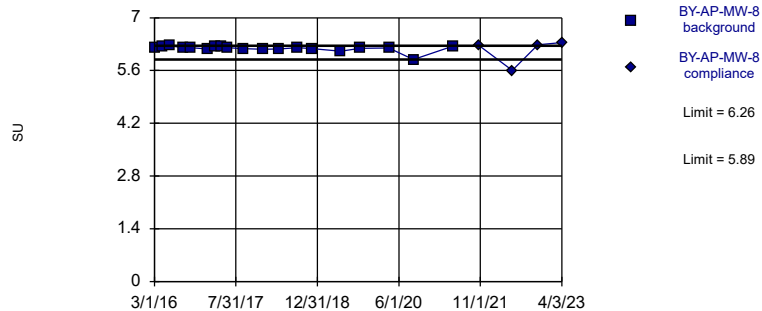


Background Data Summary: Mean=6299, Std. Dev.=0.05346, n=18. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9863, critical = 0.858. Kappa = 2.492 (c=7, w=16, 1 of 2, event alpha = 0.05132). Report alpha = 0.0004702.

Constituent: pH, field Analysis Run 6/6/2023 11:52 PM View: All
 Plant Barry Client: Southern Company Data: Barry Ash Pond

Exceeds Limits

Prediction Limit Intrawell Non-parametric

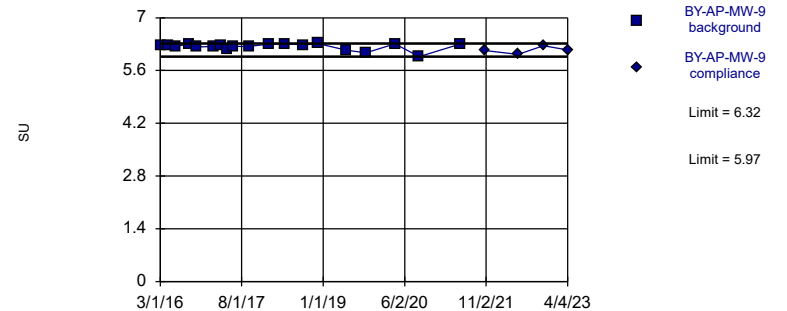


Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limits are highest and lowest of 19 background values. Well-constituent pair annual alpha = 0.01928. Individual comparison alpha = 0.009664 (1 of 2).

Constituent: pH, field Analysis Run 6/6/2023 11:52 PM View: All
 Plant Barry Client: Southern Company Data: Barry Ash Pond

Within Limits

Prediction Limit Intrawell Non-parametric

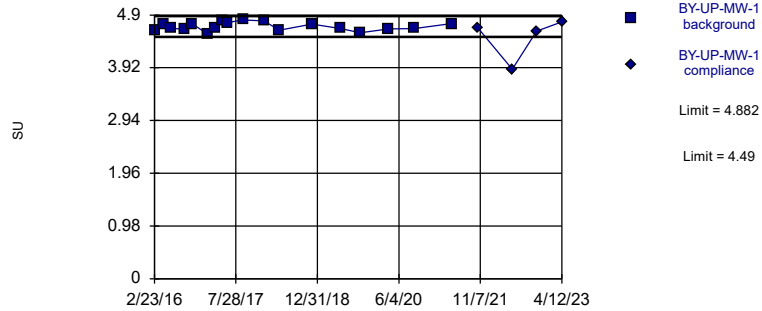


Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limits are highest and lowest of 19 background values. Well-constituent pair annual alpha = 0.01928. Individual comparison alpha = 0.009664 (1 of 2).

Constituent: pH, field Analysis Run 6/6/2023 11:52 PM View: All
 Plant Barry Client: Southern Company Data: Barry Ash Pond

Within Limits

Prediction Limit Intrawell Parametric

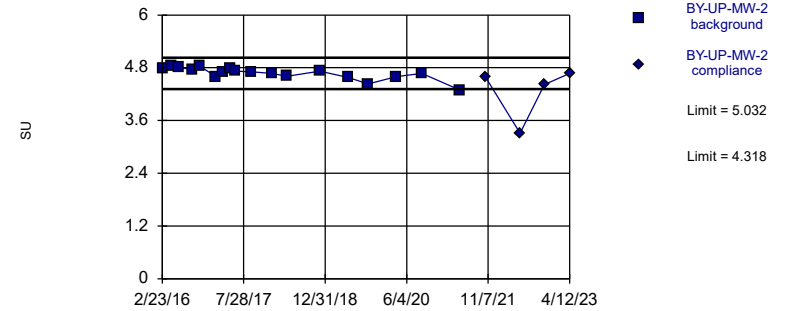


Background Data Summary: Mean=4.686, Std. Dev.=0.0786, n=18. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9444, critical = 0.858. Kappa = 2.492 (c=7, w=16, 1 of 2, event alpha = 0.05132). Report alpha = 0.0004702.

Constituent: pH, field Analysis Run 6/6/2023 11:52 PM View: All
Plant Barry Client: Southern Company Data: Barry Ash Pond

Within Limits

Prediction Limit Intrawell Parametric

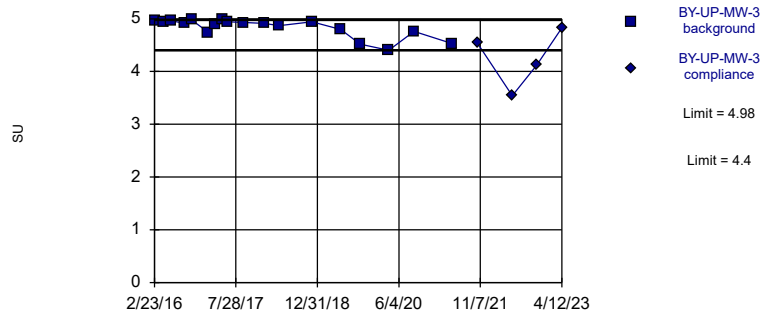


Background Data Summary: Mean=4.675, Std. Dev.=0.1431, n=18. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8886, critical = 0.858. Kappa = 2.492 (c=7, w=16, 1 of 2, event alpha = 0.05132). Report alpha = 0.0004702.

Constituent: pH, field Analysis Run 6/6/2023 11:52 PM View: All
Plant Barry Client: Southern Company Data: Barry Ash Pond

Within Limits

Prediction Limit Intrawell Non-parametric

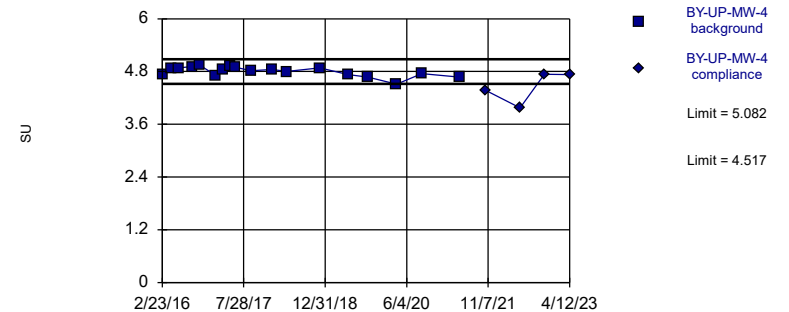


Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limits are highest and lowest of 18 background values. Well-constituent pair annual alpha = 0.02143. Individual comparison alpha = 0.01075 (1 of 2).

Constituent: pH, field Analysis Run 6/6/2023 11:52 PM View: All
Plant Barry Client: Southern Company Data: Barry Ash Pond

Within Limits

Prediction Limit Intrawell Parametric

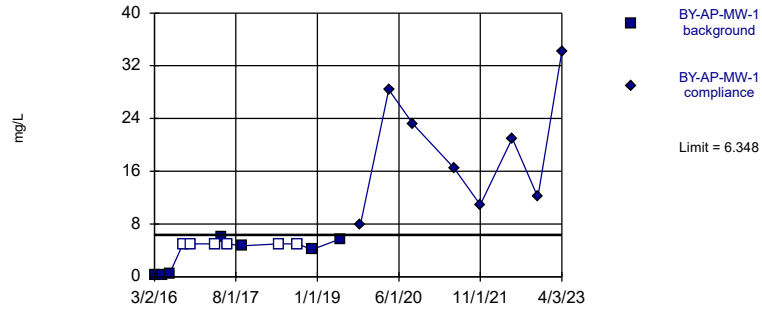


Background Data Summary: Mean=4.799, Std. Dev.=0.1134, n=18. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9332, critical = 0.858. Kappa = 2.492 (c=7, w=16, 1 of 2, event alpha = 0.05132). Report alpha = 0.0004702.

Constituent: pH, field Analysis Run 6/6/2023 11:52 PM View: All
Plant Barry Client: Southern Company Data: Barry Ash Pond

Santas™ v.10.0.02 . UG
 Hollow symbols indicate censored values.
 Exceeds Limit

Prediction Limit
 Intrawell Parametric

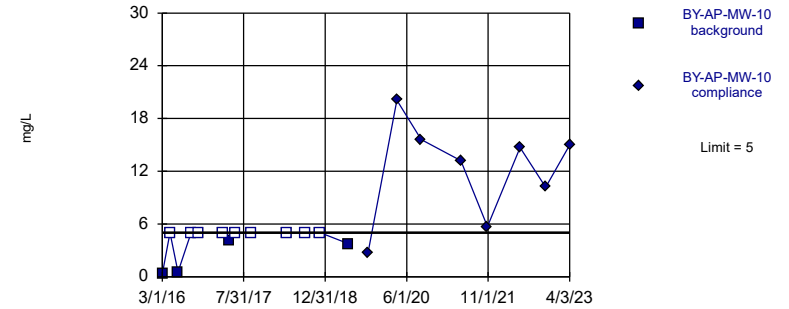


Background Data Summary (based on cube transformation) (after Kaplan-Meier Adjustment): Mean=52.17, Std. Dev.=74.33, n=13, 46.15% NDs. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8687, critical = 0.814. Kappa = 2.739 (c=7, w=16, 1 of 2, event alpha = 0.05132). Report alpha = 0.0004702.

Constituent: Sulfate as SO4 Analysis Run 6/6/2023 11:52 PM View: All
 Plant Barry Client: Southern Company Data: Barry Ash Pond

Santas™ v.10.0.02 . UG
 Hollow symbols indicate censored values.
 Exceeds Limit

Prediction Limit
 Intrawell Non-parametric

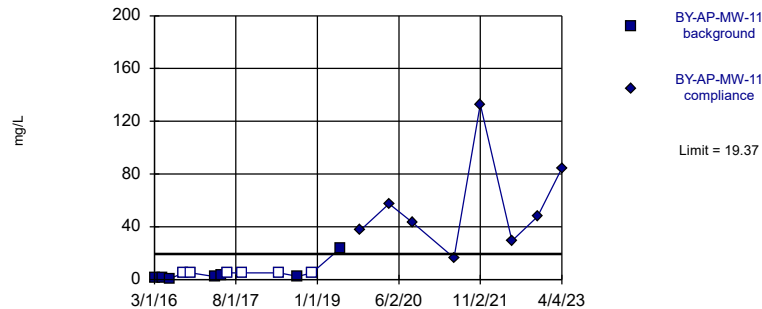


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 13 background values. 69.23% NDs. Well-constituent pair annual alpha = 0.01929. Individual comparison alpha = 0.009692 (1 of 2).

Constituent: Sulfate as SO4 Analysis Run 6/6/2023 11:52 PM View: All
 Plant Barry Client: Southern Company Data: Barry Ash Pond

Santas™ v.10.0.02 . UG
 Hollow symbols indicate censored values.
 Exceeds Limit

Prediction Limit
 Intrawell Parametric

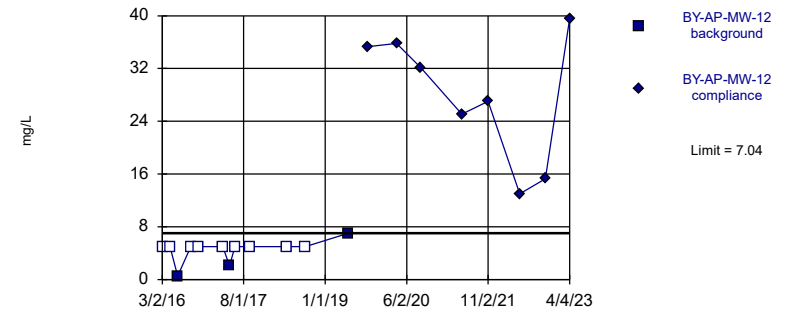


Background Data Summary (based on cube root transformation) (after Kaplan-Meier Adjustment): Mean=1.308, Std. Dev.=0.5028, n=13, 46.15% NDs. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8281, critical = 0.814. Kappa = 2.739 (c=7, w=16, 1 of 2, event alpha = 0.05132). Report alpha = 0.0004702.

Constituent: Sulfate as SO4 Analysis Run 6/6/2023 11:52 PM View: All
 Plant Barry Client: Southern Company Data: Barry Ash Pond

Santas™ v.10.0.02 . UG
 Hollow symbols indicate censored values.
 Exceeds Limit

Prediction Limit
 Intrawell Non-parametric

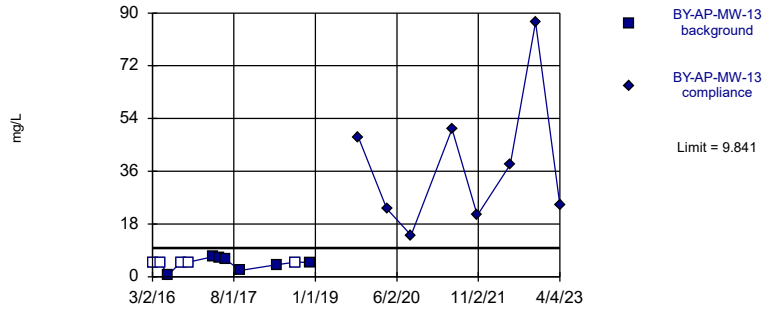


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 12 background values. 75% NDs. Well-constituent pair annual alpha = 0.02143. Individual comparison alpha = 0.01077 (1 of 2).

Constituent: Sulfate as SO4 Analysis Run 6/6/2023 11:52 PM View: All
 Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.10.0.02 . UG
 Hollow symbols indicate censored values.
 Exceeds Limit

Prediction Limit
 Intrawell Parametric

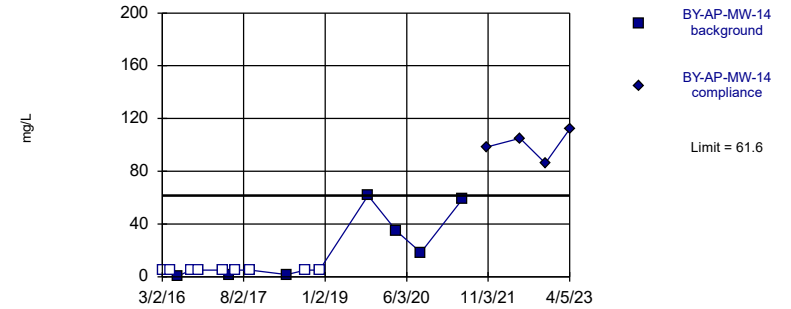


Background Data Summary (after Kaplan-Meier Adjustment): Mean=3.818, Std. Dev.=2.151, n=12, 41.67% NDs. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8449, critical = 0.805. Kappa = 2.8 (c=7, w=16, 1 of 2, event alpha = 0.05132). Report alpha = 0.0004702.

Constituent: Sulfate as SO4 Analysis Run 6/6/2023 11:52 PM View: All
 Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.10.0.02 . UG
 Hollow symbols indicate censored values.
 Exceeds Limit

Prediction Limit
 Intrawell Non-parametric

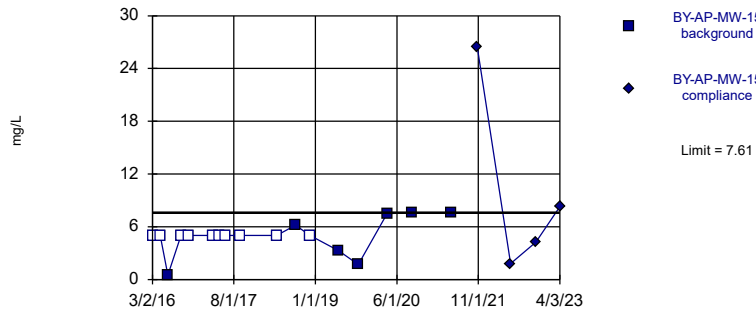


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 16 background values. 56.25% NDs. Well-constituent pair annual alpha = 0.01287. Individual comparison alpha = 0.006456 (1 of 2).

Constituent: Sulfate as SO4 Analysis Run 6/6/2023 11:52 PM View: All
 Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.10.0.02 . UG
 Hollow symbols indicate censored values.
 Exceeds Limit

Prediction Limit
 Intrawell Non-parametric

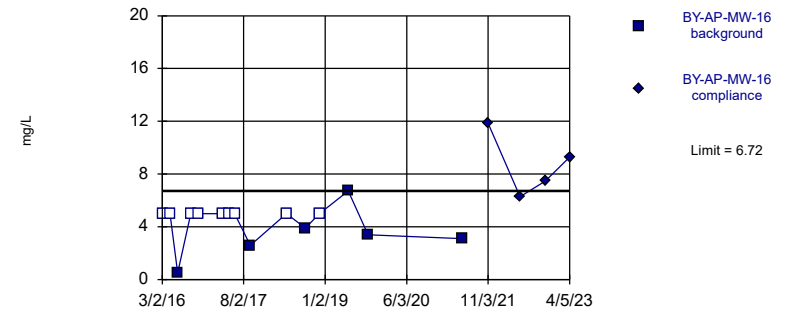


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 17 background values. 58.82% NDs. Well-constituent pair annual alpha = 0.01179. Individual comparison alpha = 0.005914 (1 of 2).

Constituent: Sulfate as SO4 Analysis Run 6/6/2023 11:52 PM View: All
 Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.10.0.02 . UG
 Hollow symbols indicate censored values.
 Exceeds Limit

Prediction Limit
 Intrawell Non-parametric

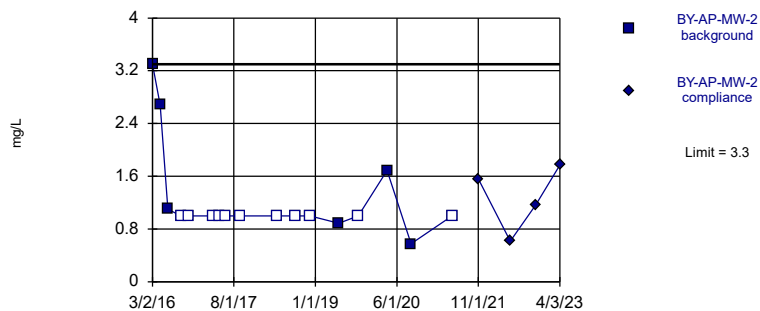


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 15 background values. 60% NDs. Well-constituent pair annual alpha = 0.01501. Individual comparison alpha = 0.007533 (1 of 2).

Constituent: Sulfate as SO4 Analysis Run 6/6/2023 11:52 PM View: All
 Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.10.0.02 . UG
 Hollow symbols indicate censored values.
 Within Limit

Prediction Limit
 Intrawell Non-parametric

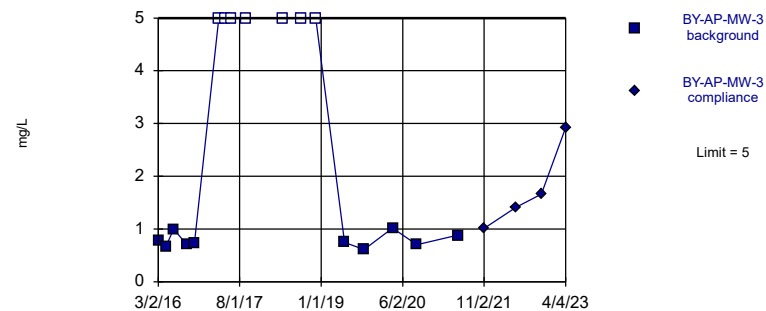


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 17 background values. 64.71% NDs. Well-constituent pair annual alpha = 0.01179. Individual comparison alpha = 0.005914 (1 of 2).

Constituent: Sulfate as SO4 Analysis Run 6/6/2023 11:52 PM View: All
 Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.10.0.02 . UG
 Hollow symbols indicate censored values.
 Within Limit

Prediction Limit
 Intrawell Non-parametric

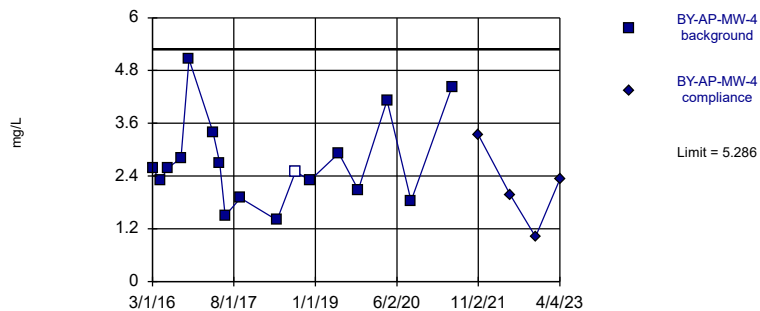


Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 17 background values. 41.18% NDs. Well-constituent pair annual alpha = 0.01179. Individual comparison alpha = 0.005914 (1 of 2).

Constituent: Sulfate as SO4 Analysis Run 6/6/2023 11:52 PM View: All
 Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.10.0.02 . UG
 Hollow symbols indicate censored values.
 Within Limit

Prediction Limit
 Intrawell Parametric

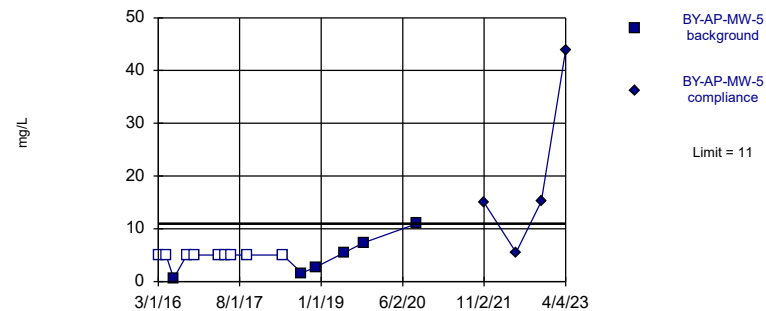


Background Data Summary: Mean=2.731, Std. Dev.=1.012, n=17, 5.882% NDs. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9141, critical = 0.851. Kappa = 2.524 (c=7, w=16, 1 of 2, event alpha = 0.05132). Report alpha = 0.0004702.

Constituent: Sulfate as SO4 Analysis Run 6/6/2023 11:52 PM View: All
 Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.10.0.02 . UG
 Hollow symbols indicate censored values.
 Exceeds Limit

Prediction Limit
 Intrawell Non-parametric



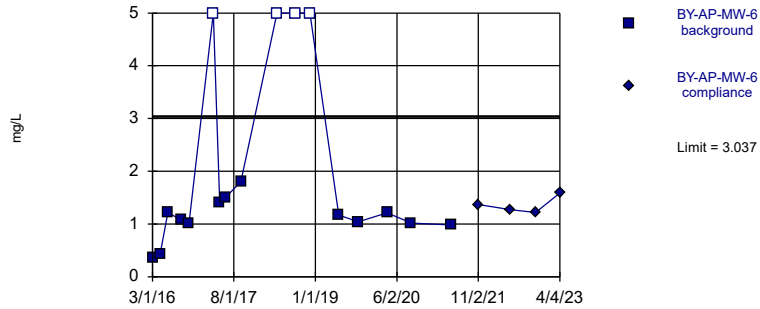
Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 15 background values. 60% NDs. Well-constituent pair annual alpha = 0.01501. Individual comparison alpha = 0.007533 (1 of 2).

Constituent: Sulfate as SO4 Analysis Run 6/6/2023 11:52 PM View: All
 Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.10.0.02 . UG
Hollow symbols indicate censored values.

Within Limit

Prediction Limit Intrawell Parametric



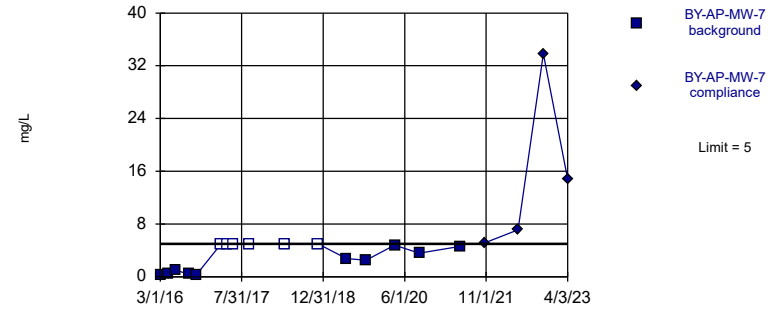
Background Data Summary (based on natural log transformation) (after Kaplan-Meier Adjustment): Mean=0.01145, Std. Dev.=0.4356, n=17, 23.53% NDs. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8672, critical = 0.851. Kappa = 2.524 (c=7, w=16, 1 of 2, event alpha = 0.05132). Report alpha = 0.0004702.

Constituent: Sulfate as SO4 Analysis Run 6/6/2023 11:52 PM View: All
Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.10.0.02 . UG
Hollow symbols indicate censored values.

Exceeds Limit

Prediction Limit Intrawell Non-parametric



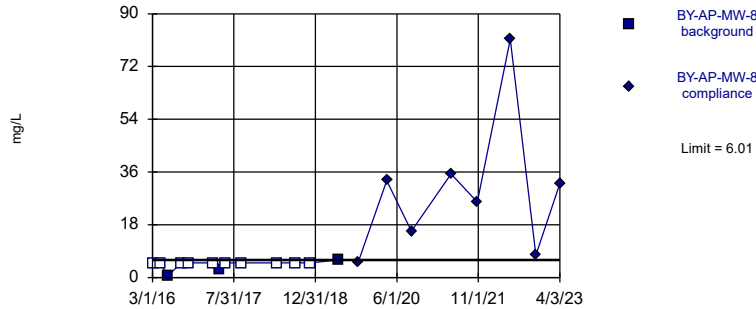
Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 16 background values. 37.5% NDs. Well-constituent pair annual alpha = 0.01287. Individual comparison alpha = 0.006456 (1 of 2).

Constituent: Sulfate as SO4 Analysis Run 6/6/2023 11:52 PM View: All
Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.10.0.02 . UG
Hollow symbols indicate censored values.

Exceeds Limit

Prediction Limit Intrawell Non-parametric



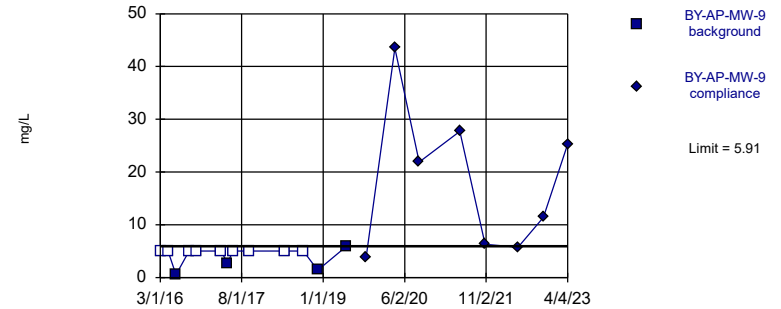
Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 13 background values. 76.92% NDs. Well-constituent pair annual alpha = 0.01929. Individual comparison alpha = 0.009692 (1 of 2).

Constituent: Sulfate as SO4 Analysis Run 6/6/2023 11:52 PM View: All
Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.10.0.02 . UG
Hollow symbols indicate censored values.

Exceeds Limit

Prediction Limit Intrawell Non-parametric

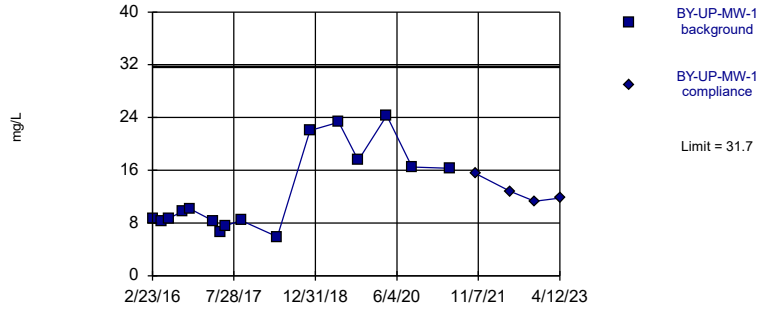


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 13 background values. 69.23% NDs. Well-constituent pair annual alpha = 0.01929. Individual comparison alpha = 0.009692 (1 of 2).

Constituent: Sulfate as SO4 Analysis Run 6/6/2023 11:52 PM View: All
Plant Barry Client: Southern Company Data: Barry Ash Pond

Within Limit

Prediction Limit Intrawell Parametric

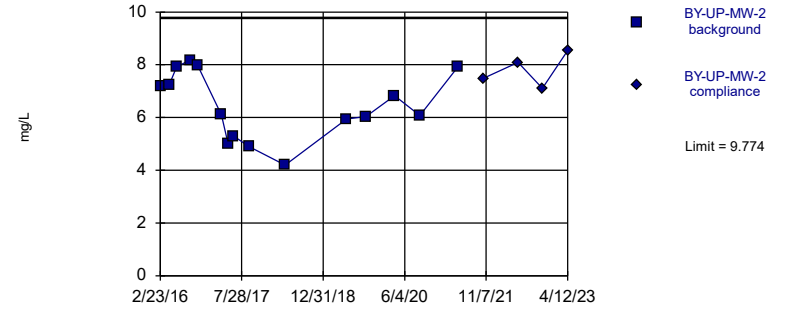


Background Data Summary (based on square root transformation): Mean=3.458, Std. Dev.=0.85, n=16. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8598, critical = 0.844. Kappa = 2.556 (c=7, w=16, 1 of 2, event alpha = 0.05132). Report alpha = 0.0004702.

Constituent: Sulfate as SO4 Analysis Run 6/6/2023 11:52 PM View: All
Plant Barry Client: Southern Company Data: Barry Ash Pond

Within Limit

Prediction Limit Intrawell Parametric

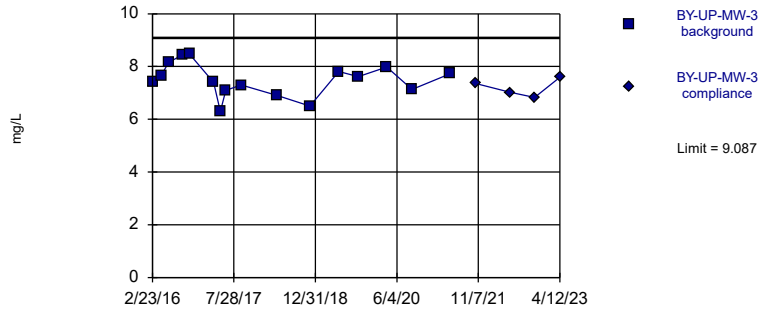


Background Data Summary: Mean=6.454, Std. Dev.=1.269, n=15. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.937, critical = 0.835. Kappa = 2.617 (c=7, w=16, 1 of 2, event alpha = 0.05132). Report alpha = 0.0004702.

Constituent: Sulfate as SO4 Analysis Run 6/6/2023 11:52 PM View: All
Plant Barry Client: Southern Company Data: Barry Ash Pond

Within Limit

Prediction Limit Intrawell Parametric

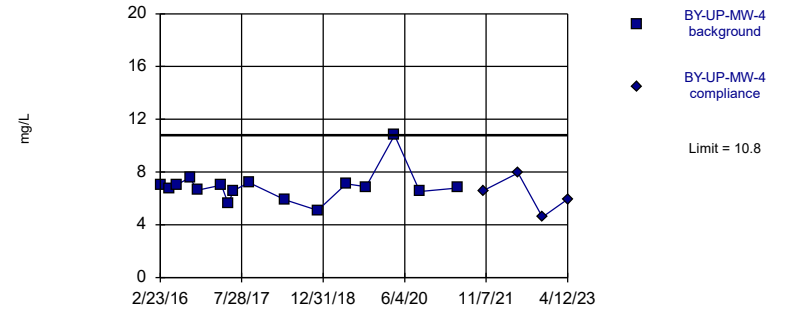


Background Data Summary: Mean=7.496, Std. Dev.=0.6224, n=16. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9756, critical = 0.844. Kappa = 2.556 (c=7, w=16, 1 of 2, event alpha = 0.05132). Report alpha = 0.0004702.

Constituent: Sulfate as SO4 Analysis Run 6/6/2023 11:52 PM View: All
Plant Barry Client: Southern Company Data: Barry Ash Pond

Within Limit

Prediction Limit Intrawell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 16 background values. Well-constituent pair annual alpha = 0.01287. Individual comparison alpha = 0.006456 (1 of 2).

Constituent: Sulfate as SO4 Analysis Run 6/6/2023 11:52 PM View: All
Plant Barry Client: Southern Company Data: Barry Ash Pond

Prediction Limit

Constituent: pH, field (SU) Analysis Run 6/6/2023 11:55 PM View: All

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-1	BY-AP-MW-1
3/2/2016	5.78	
4/19/2016	5.8	
6/8/2016	5.83	
8/31/2016	5.85	
10/19/2016	5.87	
1/31/2017	5.83	
3/21/2017	5.83	
5/2/2017	5.73	
6/6/2017	5.83	
9/13/2017	5.91	
1/24/2018	5.9	
5/1/2018	5.83	
8/28/2018	5.78	
11/28/2018	5.82	
5/29/2019	5.82	
10/1/2019	5.47	
3/30/2020	5.79	
9/1/2020	5.89	
5/18/2021	5.86	
11/1/2021		6.01
5/24/2022		5.44
11/2/2022		5.56
4/3/2023		5.78

Prediction Limit

Constituent: pH, field (SU) Analysis Run 6/6/2023 11:55 PM View: All

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-10	BY-AP-MW-10
3/1/2016	6.33	
4/20/2016	6.31	
6/8/2016	6.34	
8/31/2016	6.35	
10/19/2016	6.35	
2/1/2017	6.27	
3/22/2017	6.29	
5/3/2017	6.23	
6/7/2017	6.27	
9/14/2017	6.27	
1/23/2018	6.32	
5/2/2018	6.36	
8/28/2018	6.31	
11/28/2018	6.32	
5/30/2019	6.23	
9/30/2019	6.11	
3/31/2020	6.37	
9/1/2020	6.33	
5/11/2021	6.4	
10/27/2021		5.91
5/24/2022		5.81
11/2/2022		6.39
4/3/2023		6.05

Prediction Limit

Constituent: pH, field (SU) Analysis Run 6/6/2023 11:55 PM View: All

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-11	BY-AP-MW-11
3/1/2016	6.34	
4/20/2016	6.31	
6/8/2016	6.33	
8/31/2016	6.29	
10/19/2016	6.26	
2/1/2017	6.22	
3/22/2017	6.22	
5/3/2017	6.15	
6/7/2017	6.21	
9/13/2017	6.26	
1/23/2018	6.28	
5/2/2018	6.33	
8/29/2018	6.3	
11/28/2018	6.28	
5/29/2019	6.24	
9/30/2019	5.85	
3/31/2020	6.26	
9/1/2020	5.87	
5/19/2021	6.33	
11/2/2021		5.84
5/23/2022		6.32
11/1/2022		6.28
4/4/2023		6.27

Prediction Limit

Constituent: pH, field (SU) Analysis Run 6/6/2023 11:55 PM View: All

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-12	BY-AP-MW-12
3/2/2016	6.16	
4/20/2016	6.17	
6/8/2016	6.25	
8/31/2016	6.23	
10/19/2016	6.2	
2/1/2017	6.08	
3/22/2017	6.12	
5/3/2017	6.12	
6/7/2017	6.13	
9/13/2017	6.19	
1/23/2018	6.17	
5/2/2018	6.15	
8/29/2018	6.19	
11/28/2018	6.11	
5/29/2019	6.13	
10/1/2019	6	
3/31/2020	6.21	
9/1/2020	6.19	
5/18/2021	5.58	
11/1/2021		5.75
5/23/2022		6.12
11/1/2022		6.21
4/4/2023		5.76

Prediction Limit

Constituent: pH, field (SU) Analysis Run 6/6/2023 11:55 PM View: All

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-13	BY-AP-MW-13
3/2/2016	6.1	
4/20/2016	6.14	
6/8/2016	6.11	
8/31/2016	6.1	
10/19/2016	6.1	
1/31/2017	6.07	
3/22/2017	6.07	
5/3/2017	6.1	
6/7/2017	6.07	
9/13/2017	6.12	
1/22/2018	6.12	
5/2/2018	6.13	
8/29/2018	6.1	
11/28/2018	6.04	
5/29/2019	6.01	
10/1/2019	6.02	
3/31/2020	5.98	
9/1/2020	5.82	
5/19/2021	5.79	
10/26/2021		5.69
5/24/2022		5.5
11/1/2022		6.09
4/4/2023		6.06

Prediction Limit

Constituent: pH, field (SU) Analysis Run 6/6/2023 11:55 PM View: All

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-14	BY-AP-MW-14
3/2/2016	6.08	
4/20/2016	6.04	
6/8/2016	6.13	
8/30/2016	6.08	
10/18/2016	6.13	
1/31/2017	6.06	
3/22/2017	6.09	
5/2/2017	5.94	
6/6/2017	6.1	
9/13/2017	6.11	
1/23/2018	6.12	
5/2/2018	6.13	
8/29/2018	6.14	
11/27/2018	6.07	
5/29/2019	6.07	
10/1/2019	6.01	
3/31/2020	5.76	
9/2/2020	5.8	
5/25/2021	5.82	
10/27/2021		6.41
5/25/2022		6.14
11/1/2022		5.93
4/5/2023		5.93

Prediction Limit

Constituent: pH, field (SU) Analysis Run 6/6/2023 11:55 PM View: All

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-15	BY-AP-MW-15
3/2/2016	6.61	
4/19/2016	6.75	
6/8/2016	6.63	
8/31/2016	6.71	
10/19/2016	6.66	
1/31/2017	6.73	
3/21/2017	6.62	
5/2/2017	6.49	
6/6/2017	6.7	
9/13/2017	6.66	
1/22/2018	6.73	
5/1/2018	6.62	
8/29/2018	6.68	
11/27/2018	6.58	
5/29/2019	6.63	
10/1/2019	6.2	
4/1/2020	6.72	
9/2/2020	6.57	
5/11/2021	6.76	
10/26/2021		6.7
5/25/2022		6.68
11/1/2022		6.64
4/3/2023		6.63

Prediction Limit

Constituent: pH, field (SU) Analysis Run 6/6/2023 11:55 PM View: All

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-16	BY-AP-MW-16
3/2/2016	5.79	
4/19/2016	5.78	
6/8/2016	5.8	
8/31/2016	5.83	
10/19/2016	5.81	
1/31/2017	5.84	
3/21/2017	5.79	
5/2/2017	5.68	
6/6/2017	5.8	
9/13/2017	5.86	
1/23/2018	5.86	
5/1/2018	5.85	
8/29/2018	5.87	
11/27/2018	5.76	
5/29/2019	5.76	
10/1/2019	5.23	
3/31/2020	5.75	
9/2/2020	5.47	
5/19/2021	5.8	
11/1/2021		5.36
5/25/2022		5.74
11/1/2022		5.78
4/5/2023		5.83

Prediction Limit

Constituent: pH, field (SU) Analysis Run 6/6/2023 11:55 PM View: All

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-2	BY-AP-MW-2
3/2/2016	6.08	
4/19/2016	5.92	
6/8/2016	5.9	
8/31/2016	5.87	
10/19/2016	5.82	
1/31/2017	5.87	
3/21/2017	5.85	
5/2/2017	5.61	
6/6/2017	5.82	
9/12/2017	5.61	
1/24/2018	5.83	
5/1/2018	5.8	
8/28/2018	5.56	
11/27/2018	5.71	
5/29/2019	5.7	
10/1/2019	4.97	
3/31/2020	5.71	
8/31/2020	5.57	
5/18/2021	5.83	
11/1/2021		5.2
5/24/2022		4.78
11/2/2022		5.68
4/3/2023		4.88

Prediction Limit

Constituent: pH, field (SU) Analysis Run 6/6/2023 11:55 PM View: All

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-3	BY-AP-MW-3
3/2/2016	5.14	
4/19/2016	5.06	
6/7/2016	5.13	
8/31/2016	5.11	
10/19/2016	5.05	
1/31/2017	5.14	
3/21/2017	5.13	
5/2/2017	4.85	
6/6/2017	5.15	
9/12/2017	4.96	
1/24/2018	5.22	
5/1/2018	5.11	
8/28/2018	4.92	
11/27/2018	5.05	
5/29/2019	5.05	
10/1/2019	4.37	
3/31/2020	5.08	
9/1/2020	4.24	
5/18/2021	4.93	
11/1/2021		4.94
5/25/2022		4.64
11/1/2022		5.01
4/4/2023		5.31

Prediction Limit

Constituent: pH, field (SU) Analysis Run 6/6/2023 11:55 PM View: All

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-4	BY-AP-MW-4
3/1/2016	5.19	
4/19/2016	5.06	
6/7/2016	4.7	
8/30/2016	4.77	
10/19/2016	4.67	
1/31/2017	4.42	
3/21/2017	4.45	
5/2/2017	4.46	
6/6/2017	4.89	
9/12/2017	4.71	
1/24/2018	5.03	
5/1/2018	4.44	
8/28/2018	4.85	
11/27/2018	4.78	
5/29/2019	4.65	
10/1/2019	4.28	
3/31/2020	4.69	
9/1/2020	4.23	
5/18/2021	4.17	
11/1/2021		5.18
5/25/2022		4.6
10/31/2022		4.65
4/4/2023		4.55

Prediction Limit

Constituent: pH, field (SU) Analysis Run 6/6/2023 11:55 PM View: All

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-5	BY-AP-MW-5
3/1/2016	5.99	
4/20/2016	5.96	
6/7/2016	6.03	
8/30/2016	6	
10/18/2016	5.99	
1/31/2017	5.96	
3/22/2017	6.01	
5/3/2017	5.99	
6/7/2017	6.01	
9/14/2017	6	
1/24/2018	5.98	
5/2/2018	5.99	
8/29/2018	6.03	
11/27/2018	6.01	
5/29/2019	5.93	
10/1/2019	5.47	
3/31/2020	6.01	
9/1/2020	5.93	
11/2/2021		6.36
5/25/2022		5.99
10/31/2022		5.99
4/4/2023		5.84

Prediction Limit

Constituent: pH, field (SU) Analysis Run 6/6/2023 11:55 PM View: All

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-6	BY-AP-MW-6
3/1/2016	5.59	
4/19/2016	5.55	
6/7/2016	5.43	
8/30/2016	5.39	
10/19/2016	5.31	
1/31/2017	5.26	
3/22/2017	5.32	
5/3/2017	5.35	
6/7/2017	5.32	
9/14/2017	5.29	
1/24/2018	5.32	
5/2/2018	5.33	
8/29/2018	5.41	
11/28/2018	5.46	
5/29/2019	5.31	
10/1/2019	4.7	
3/31/2020	5.22	
9/2/2020	5.16	
5/17/2021	5.21	
11/2/2021		5.59
5/25/2022		4.57
10/31/2022		4.9
4/4/2023		5.33

Prediction Limit

Constituent: pH, field (SU) Analysis Run 6/6/2023 11:55 PM View: All

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-7	BY-AP-MW-7
3/1/2016	6.36	
4/20/2016	6.31	
6/7/2016	6.3	
8/31/2016	6.31	
10/19/2016	6.23	
1/31/2017	6.26	
3/22/2017	6.32	
5/3/2017	6.29	
6/7/2017	6.27	
9/14/2017	6.25	
1/24/2018	6.35	
5/2/2018	6.29	
11/28/2018	6.33	
5/29/2019	6.18	
9/30/2019	6.36	
3/30/2020	6.32	
9/2/2020	6.25	
5/18/2021	6.4	
10/27/2021		6.35
5/24/2022		6.32
10/31/2022		7.07
4/3/2023		6.53

Prediction Limit

Constituent: pH, field (SU) Analysis Run 6/6/2023 11:55 PM View: All

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-8	BY-AP-MW-8
3/1/2016	6.21	
4/20/2016	6.22	
6/7/2016	6.26	
8/30/2016	6.21	
10/18/2016	6.21	
1/31/2017	6.17	
3/22/2017	6.22	
5/3/2017	6.22	
6/7/2017	6.21	
9/14/2017	6.18	
1/24/2018	6.16	
5/2/2018	6.17	
8/29/2018	6.21	
11/27/2018	6.18	
5/29/2019	6.11	
9/30/2019	6.19	
3/30/2020	6.2	
9/2/2020	5.89	
5/11/2021	6.25	
10/26/2021		6.26
5/24/2022		5.6
11/2/2022		6.28
4/3/2023		6.34

Prediction Limit

Constituent: pH, field (SU) Analysis Run 6/6/2023 11:55 PM View: All

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-9	BY-AP-MW-9
3/1/2016	6.26	
4/20/2016	6.26	
6/8/2016	6.25	
8/31/2016	6.29	
10/19/2016	6.22	
2/1/2017	6.24	
3/22/2017	6.28	
5/3/2017	6.17	
6/7/2017	6.24	
9/14/2017	6.24	
1/23/2018	6.3	
5/2/2018	6.31	
8/28/2018	6.28	
11/28/2018	6.32	
5/30/2019	6.14	
9/30/2019	6.07	
3/31/2020	6.31	
9/2/2020	5.97	
5/18/2021	6.3	
10/27/2021		6.13
5/24/2022		6.03
10/31/2022		6.26
4/4/2023		6.15

Prediction Limit

Constituent: pH, field (SU) Analysis Run 6/6/2023 11:55 PM View: All

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-UP-MW-1	BY-UP-MW-1
2/23/2016	4.62	
4/19/2016	4.74	
6/6/2016	4.65	
8/30/2016	4.64	
10/18/2016	4.74	
1/31/2017	4.54	
3/20/2017	4.67	
5/2/2017	4.79	
6/6/2017	4.76	
9/13/2017	4.81	
1/23/2018	4.79	
5/2/2018	4.62	
11/27/2018	4.73	
5/29/2019	4.65	
10/2/2019	4.57	
3/31/2020	4.64	
9/9/2020	4.65	
5/12/2021	4.74	
10/19/2021		4.67
5/31/2022		3.89
11/1/2022		4.6
4/12/2023		4.77

Prediction Limit

Constituent: pH, field (SU) Analysis Run 6/6/2023 11:55 PM View: All

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-UP-MW-2	BY-UP-MW-2
2/23/2016	4.79	
4/19/2016	4.84	
6/7/2016	4.81	
8/30/2016	4.76	
10/18/2016	4.84	
1/31/2017	4.6	
3/20/2017	4.71	
5/2/2017	4.8	
6/6/2017	4.72	
9/13/2017	4.71	
1/23/2018	4.67	
5/1/2018	4.61	
11/27/2018	4.72	
5/29/2019	4.58	
10/2/2019	4.43	
3/31/2020	4.6	
9/9/2020	4.67	
5/11/2021	4.29	
10/19/2021		4.6
5/31/2022		3.31
11/1/2022		4.42
4/12/2023		4.67

Prediction Limit

Constituent: pH, field (SU) Analysis Run 6/6/2023 11:55 PM View: All

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-UP-MW-3	BY-UP-MW-3
2/23/2016	4.96	
4/19/2016	4.94	
6/7/2016	4.96	
8/30/2016	4.92	
10/18/2016	4.98	
1/31/2017	4.74	
3/20/2017	4.9	
5/2/2017	4.98	
6/6/2017	4.94	
9/13/2017	4.93	
1/23/2018	4.91	
5/1/2018	4.87	
11/27/2018	4.94	
5/29/2019	4.8	
10/2/2019	4.52	
3/31/2020	4.4	
9/9/2020	4.76	
5/11/2021	4.53	
10/18/2021		4.55
5/31/2022		3.54
11/1/2022		4.12
4/12/2023		4.83

Prediction Limit

Constituent: pH, field (SU) Analysis Run 6/6/2023 11:55 PM View: All

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-UP-MW-4	BY-UP-MW-4
2/23/2016	4.74	
4/19/2016	4.86	
6/6/2016	4.88	
8/30/2016	4.91	
10/18/2016	4.95	
1/31/2017	4.71	
3/20/2017	4.83	
5/2/2017	4.93	
6/6/2017	4.9	
9/12/2017	4.82	
1/23/2018	4.85	
5/1/2018	4.8	
11/26/2018	4.88	
5/28/2019	4.73	
10/2/2019	4.67	
3/31/2020	4.51	
9/8/2020	4.75	
5/11/2021	4.67	
10/18/2021		4.38
5/31/2022		3.97
11/1/2022		4.74
4/12/2023		4.73

Prediction Limit

Constituent: Sulfate as SO4 (mg/L) Analysis Run 6/6/2023 11:55 PM View: All

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-1	BY-AP-MW-1
3/2/2016	0.31 (J)	
4/19/2016	0.335 (J)	
6/8/2016	0.556 (J)	
8/31/2016	<5	
10/19/2016	<5	
3/21/2017	<5	
5/2/2017	6	
6/6/2017	<5	
9/13/2017	4.7 (J)	
5/1/2018	<5	
8/28/2018	<5	
11/28/2018	4.1 (J)	
5/29/2019	5.75	
10/1/2019		7.82
3/30/2020		28.4
9/1/2020		23.1
5/18/2021		16.5
11/1/2021		10.9
5/24/2022		21
11/2/2022		12.1
4/3/2023		34.200001

Prediction Limit

Constituent: Sulfate as SO4 (mg/L) Analysis Run 6/6/2023 11:55 PM View: All

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-10	BY-AP-MW-10
3/1/2016	0.34 (J)	
4/20/2016	<5	
6/8/2016	0.538 (J)	
8/31/2016	<5	
10/19/2016	<5	
3/22/2017	<5	
5/3/2017	4.1 (J)	
6/7/2017	<5	
9/14/2017	<5	
5/2/2018	<5	
8/28/2018	<5	
11/28/2018	<5	
5/30/2019	3.76	
9/30/2019		2.77
3/31/2020		20.1
9/1/2020		15.6
5/11/2021		13.2
10/27/2021		5.72
5/24/2022		14.7
11/2/2022		10.2
4/3/2023		15

Prediction Limit

Constituent: Sulfate as SO4 (mg/L) Analysis Run 6/6/2023 11:55 PM View: All

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-11	BY-AP-MW-11
3/1/2016	1.02	
4/20/2016	1.1	
6/8/2016	0.701 (J)	
8/31/2016	<5	
10/19/2016	<5	
3/22/2017	2.1 (J)	
5/3/2017	3.6 (J)	
6/7/2017	<5	
9/13/2017	<5	
5/2/2018	<5	
8/29/2018	2.3 (J)	
11/28/2018	<5	
5/29/2019	24.1	
9/30/2019		37.4
3/31/2020		57.5
9/1/2020		42.8
5/19/2021		16.5
11/2/2021		133
5/23/2022		29.3
11/1/2022		47.700001
4/4/2023		84.300003

Prediction Limit

Constituent: Sulfate as SO4 (mg/L) Analysis Run 6/6/2023 11:55 PM View: All

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-12	BY-AP-MW-12
3/2/2016	<5	
4/20/2016	<5	
6/8/2016	0.511 (J)	
8/31/2016	<5	
10/19/2016	<5	
3/22/2017	<5	
5/3/2017	2.1 (J)	
6/7/2017	<5	
9/13/2017	<5	
5/2/2018	<5	
8/29/2018	<5	
11/28/2018	<50 (O)	
5/29/2019	7.04	
10/1/2019		35.3
3/31/2020		35.8
9/1/2020		32.1
5/18/2021		25.1
11/1/2021		27
5/23/2022		13
11/1/2022		15.3
4/4/2023		39.599998

Prediction Limit

Constituent: Sulfate as SO4 (mg/L) Analysis Run 6/6/2023 11:55 PM View: All

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-13	BY-AP-MW-13
3/2/2016	<5	
4/20/2016	<5	
6/8/2016	0.496 (J)	
8/31/2016	<5	
10/19/2016	<5	
3/22/2017	6.9	
5/3/2017	6.6	
6/7/2017	6	
9/13/2017	2.2 (J)	
5/2/2018	4.1 (J)	
8/29/2018	<5	
11/28/2018	4.9 (J)	
5/29/2019	49.5 (o)	
10/1/2019		47.7
3/31/2020		23.2
9/1/2020		14.2
5/19/2021		50.4
10/26/2021		21
5/24/2022		38.3
11/1/2022		86.900002
4/4/2023		24.6

Prediction Limit

Constituent: Sulfate as SO4 (mg/L) Analysis Run 6/6/2023 11:55 PM View: All

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-14	BY-AP-MW-14
3/2/2016	<5	
4/20/2016	<5	
6/8/2016	0.514 (J)	
8/30/2016	<5	
10/18/2016	<5	
3/22/2017	<5	
5/2/2017	1.8 (J)	
6/6/2017	<5	
9/13/2017	<5	
5/2/2018	1.6 (J)	
8/29/2018	<5	
11/27/2018	<5	
5/29/2019	67.6 (o)	
10/1/2019	61.6	
3/31/2020	34.7	
9/2/2020	18.5	
5/25/2021	59.2	
10/27/2021		98.5
5/25/2022		105
11/1/2022		86.099998
4/5/2023		112

Prediction Limit

Constituent: Sulfate as SO4 (mg/L) Analysis Run 6/6/2023 11:55 PM View: All

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-15	BY-AP-MW-15
3/2/2016	<5	
4/19/2016	<5	
6/8/2016	0.489 (J)	
8/31/2016	<5	
10/19/2016	<5	
3/21/2017	<5	
5/2/2017	<5	
6/6/2017	<5	
9/13/2017	<5	
5/1/2018	<5	
8/29/2018	6.2	
11/27/2018	<5	
5/29/2019	3.27	
10/1/2019	1.72	
4/1/2020	7.5	
9/2/2020	7.61	
5/11/2021	7.54	
10/26/2021		26.4
5/25/2022		1.8 (J)
11/1/2022		4.24
4/3/2023		8.28

Prediction Limit

Constituent: Sulfate as SO4 (mg/L) Analysis Run 6/6/2023 11:55 PM View: All

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-16	BY-AP-MW-16
3/2/2016	<5	
4/19/2016	<5	
6/8/2016	0.514 (J)	
8/31/2016	<5	
10/19/2016	<5	
3/21/2017	<5	
5/2/2017	<5	
6/6/2017	<5	
9/13/2017	2.6 (J)	
5/1/2018	<5	
8/29/2018	3.9 (J)	
11/27/2018	<5	
5/29/2019	6.72	
10/1/2019	3.4	
3/31/2020	17.5 (o)	
9/2/2020	13.3 (o)	
5/19/2021	3.11	
11/1/2021		11.9
5/25/2022		6.29
11/1/2022		7.46
4/5/2023		9.3

Prediction Limit

Constituent: Sulfate as SO4 (mg/L) Analysis Run 6/6/2023 11:55 PM View: All

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-2	BY-AP-MW-2
3/2/2016	3.3	
4/19/2016	2.68	
6/8/2016	1.1	
8/31/2016	<1	
10/19/2016	<1	
3/21/2017	<1	
5/2/2017	<1	
6/6/2017	<1	
9/12/2017	<1	
5/1/2018	<1	
8/28/2018	<1	
11/27/2018	<1	
5/29/2019	0.885 (J)	
10/1/2019	<1	
3/31/2020	1.69	
8/31/2020	0.576 (J)	
5/18/2021	<1	
11/1/2021		1.56
5/24/2022		0.615 (J)
11/2/2022		1.17 (J)
4/3/2023		1.77 (J)

Prediction Limit

Constituent: Sulfate as SO4 (mg/L) Analysis Run 6/6/2023 11:55 PM View: All

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-3	BY-AP-MW-3
3/2/2016	0.79 (J)	
4/19/2016	0.674 (J)	
6/7/2016	1	
8/31/2016	0.702 (J)	
10/19/2016	0.739 (J)	
3/21/2017	<5	
5/2/2017	<5	
6/6/2017	<5	
9/12/2017	<5	
5/1/2018	<5	
8/28/2018	<5	
11/27/2018	<5	
5/29/2019	0.747 (J)	
10/1/2019	0.61 (J)	
3/31/2020	1.02	
9/1/2020	0.705 (J)	
5/18/2021	0.883 (J)	
11/1/2021		1.01
5/25/2022		1.41 (J)
11/1/2022		1.66 (J)
4/4/2023		2.92

Prediction Limit

Constituent: Sulfate as SO4 (mg/L) Analysis Run 6/6/2023 11:55 PM View: All

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-4	BY-AP-MW-4
3/1/2016	2.58	
4/19/2016	2.3	
6/7/2016	2.58	
8/30/2016	2.81	
10/19/2016	5.06	
3/21/2017	3.4 (J)	
5/2/2017	2.7 (J)	
6/6/2017	1.5 (J)	
9/12/2017	1.9 (J)	
5/1/2018	1.4 (J)	
8/28/2018	<5	
11/27/2018	2.3 (J)	
5/29/2019	2.92	
10/1/2019	2.09	
3/31/2020	4.12	
9/1/2020	1.83	
5/18/2021	4.43	
11/1/2021		3.34
5/25/2022		1.97 (J)
10/31/2022		1.02 (J)
4/4/2023		2.33

Prediction Limit

Constituent: Sulfate as SO4 (mg/L) Analysis Run 6/6/2023 11:55 PM View: All

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-5	BY-AP-MW-5
3/1/2016	<5	
4/20/2016	<5	
6/7/2016	0.583 (J)	
8/30/2016	<5	
10/18/2016	<5	
3/22/2017	<5	
5/3/2017	<5	
6/7/2017	<5	
9/14/2017	<5	
5/2/2018	<5	
8/29/2018	1.6 (J)	
11/27/2018	2.7 (J)	
5/29/2019	5.51	
10/1/2019	7.4	
3/31/2020	23.7 (o)	
9/1/2020	11	
11/2/2021		15
5/25/2022		5.53
10/31/2022		15.2
4/4/2023		43.900002

Prediction Limit

Constituent: Sulfate as SO4 (mg/L) Analysis Run 6/6/2023 11:55 PM View: All

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-6	BY-AP-MW-6
3/1/2016	0.36 (J)	
4/19/2016	0.435 (J)	
6/7/2016	1.22	
8/30/2016	1.08	
10/19/2016	1.01	
3/22/2017	<5	
5/3/2017	1.4 (J)	
6/7/2017	1.5 (J)	
9/14/2017	1.8 (J)	
5/2/2018	<5	
8/29/2018	<5	
11/28/2018	<5	
5/29/2019	1.17	
10/1/2019	1.04	
3/31/2020	1.21	
9/2/2020	1.02	
5/17/2021	0.981 (J)	
11/2/2021		1.37
5/25/2022		1.27 (J)
10/31/2022		1.22 (J)
4/4/2023		1.59 (J)

Prediction Limit

Constituent: Sulfate as SO4 (mg/L) Analysis Run 6/6/2023 11:55 PM View: All

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-7	BY-AP-MW-7
3/1/2016	0.3 (J)	
4/20/2016	0.514 (J)	
6/7/2016	0.971 (J)	
8/31/2016	0.445 (J)	
10/19/2016	0.366 (J)	
3/22/2017	<5	
5/3/2017	<5	
6/7/2017	<5	
9/14/2017	<5	
5/2/2018	<5	
11/28/2018	<5	
5/29/2019	2.77	
9/30/2019	2.51	
3/30/2020	4.78	
9/2/2020	3.59	
5/18/2021	4.6	
10/27/2021		5.17
5/24/2022		7.14
10/31/2022		33.799999
4/3/2023		14.8

Prediction Limit

Constituent: Sulfate as SO4 (mg/L) Analysis Run 6/6/2023 11:55 PM View: All

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-8	BY-AP-MW-8
3/1/2016	<5	
4/20/2016	<5	
6/7/2016	0.504 (J)	
8/30/2016	<5	
10/18/2016	<5	
3/22/2017	<5	
5/3/2017	2.7 (J)	
6/7/2017	<5	
9/14/2017	<5	
5/2/2018	<5	
8/29/2018	<5	
11/27/2018	<5	
5/29/2019	6.01	
9/30/2019		5.29
3/30/2020		33.1
9/2/2020		15.8
5/11/2021		35.4
10/26/2021		25.7
5/24/2022		81.3
11/2/2022		7.58
4/3/2023		32.099998

Prediction Limit

Constituent: Sulfate as SO4 (mg/L) Analysis Run 6/6/2023 11:55 PM View: All

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-9	BY-AP-MW-9
3/1/2016	<5	
4/20/2016	<5	
6/8/2016	0.51 (J)	
8/31/2016	<5	
10/19/2016	<5	
3/22/2017	<5	
5/3/2017	2.7 (J)	
6/7/2017	<5	
9/14/2017	<5	
5/2/2018	<5	
8/28/2018	<5	
11/28/2018	1.4 (J)	
5/30/2019	5.91	
9/30/2019		3.77
3/31/2020		43.5
9/2/2020		21.9
5/18/2021		27.7
10/27/2021		6.33
5/24/2022		5.76
10/31/2022		11.4
4/4/2023		25.299999

Prediction Limit

Constituent: Sulfate as SO4 (mg/L) Analysis Run 6/6/2023 11:55 PM View: All

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-UP-MW-1	BY-UP-MW-1
2/23/2016	8.59	
4/19/2016	8.27	
6/6/2016	8.66	
8/30/2016	9.74	
10/18/2016	10.2	
3/20/2017	8.3	
5/2/2017	6.6	
6/6/2017	7.6	
9/13/2017	8.4	
5/2/2018	5.9	
11/27/2018	22	
5/29/2019	23.3	
10/2/2019	17.5	
3/31/2020	24.3	
9/9/2020	16.5	
5/12/2021	16.3	
10/19/2021		15.5
5/31/2022		12.8
11/1/2022		11.3
4/12/2023		11.8

Prediction Limit

Constituent: Sulfate as SO4 (mg/L) Analysis Run 6/6/2023 11:55 PM View: All

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-UP-MW-2	BY-UP-MW-2
2/23/2016	7.2	
4/19/2016	7.22	
6/7/2016	7.92	
8/30/2016	8.17	
10/18/2016	7.99	
3/20/2017	6.1	
5/2/2017	5	
6/6/2017	5.3	
9/13/2017	4.9 (J)	
5/1/2018	4.2 (J)	
5/29/2019	5.94	
10/2/2019	6.04	
3/31/2020	6.83	
9/9/2020	6.08	
5/11/2021	7.92	
10/19/2021		7.48
5/31/2022		8.09
11/1/2022		7.11
4/12/2023		8.54

Prediction Limit

Constituent: Sulfate as SO4 (mg/L) Analysis Run 6/6/2023 11:55 PM View: All

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-UP-MW-3	BY-UP-MW-3
2/23/2016	7.44	
4/19/2016	7.66	
6/7/2016	8.16	
8/30/2016	8.43	
10/18/2016	8.47	
3/20/2017	7.4	
5/2/2017	6.3	
6/6/2017	7.1	
9/13/2017	7.3	
5/1/2018	6.9	
11/27/2018	6.5	
5/29/2019	7.81	
10/2/2019	7.62	
3/31/2020	7.98	
9/9/2020	7.13	
5/11/2021	7.73	
10/18/2021		7.36
5/31/2022		7.02
11/1/2022		6.83
4/12/2023		7.59

Prediction Limit

Constituent: Sulfate as SO4 (mg/L) Analysis Run 6/6/2023 11:55 PM View: All

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-UP-MW-4	BY-UP-MW-4
2/23/2016	7.04	
4/19/2016	6.74	
6/6/2016	7.04	
8/30/2016	7.57	
10/18/2016	6.62	
3/20/2017	7	
5/2/2017	5.6	
6/6/2017	6.6	
9/12/2017	7.2	
5/1/2018	5.9	
11/26/2018	5.1	
5/28/2019	7.1	
10/2/2019	6.88	
3/31/2020	10.8	
9/8/2020	6.52	
5/11/2021	6.8	
10/18/2021		6.58
5/31/2022		7.94
11/1/2022		4.59
4/12/2023		5.93

FIGURE E.

Interwell Prediction Limits - Significant Results

Plant Barry Client: Southern Company Data: Barry Ash Pond Printed 6/7/2023, 12:09 AM

Constituent	Well	Upper Lim.	Date	Observ.	Sig.	Bg N	Bg Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Boron, total (mg/L)	BY-AP-MW-1	0.188	4/3/2023	2.04	Yes	79	n/a	n/a	79.75	n/a	n/a	0.0003032	NP Inter (NDs) 1 of 2
Boron, total (mg/L)	BY-AP-MW-10	0.188	4/3/2023	2.22	Yes	79	n/a	n/a	79.75	n/a	n/a	0.0003032	NP Inter (NDs) 1 of 2
Boron, total (mg/L)	BY-AP-MW-16	0.188	4/5/2023	2.29	Yes	79	n/a	n/a	79.75	n/a	n/a	0.0003032	NP Inter (NDs) 1 of 2
Boron, total (mg/L)	BY-AP-MW-9	0.188	4/4/2023	1.65	Yes	79	n/a	n/a	79.75	n/a	n/a	0.0003032	NP Inter (NDs) 1 of 2
Calcium, total (mg/L)	BY-AP-MW-1	2.143	4/3/2023	36.9	Yes	80	1.495	0.3096	0	None	No	0.0004702	Param Inter 1 of 2
Calcium, total (mg/L)	BY-AP-MW-10	2.143	4/3/2023	48.8	Yes	80	1.495	0.3096	0	None	No	0.0004702	Param Inter 1 of 2
Calcium, total (mg/L)	BY-AP-MW-11	2.143	4/4/2023	26.6	Yes	80	1.495	0.3096	0	None	No	0.0004702	Param Inter 1 of 2
Calcium, total (mg/L)	BY-AP-MW-12	2.143	4/4/2023	23.3	Yes	80	1.495	0.3096	0	None	No	0.0004702	Param Inter 1 of 2
Calcium, total (mg/L)	BY-AP-MW-13	2.143	4/4/2023	47.7	Yes	80	1.495	0.3096	0	None	No	0.0004702	Param Inter 1 of 2
Calcium, total (mg/L)	BY-AP-MW-14	2.143	4/5/2023	9.78	Yes	80	1.495	0.3096	0	None	No	0.0004702	Param Inter 1 of 2
Calcium, total (mg/L)	BY-AP-MW-15	2.143	4/3/2023	6.76	Yes	80	1.495	0.3096	0	None	No	0.0004702	Param Inter 1 of 2
Calcium, total (mg/L)	BY-AP-MW-16	2.143	4/5/2023	11.4	Yes	80	1.495	0.3096	0	None	No	0.0004702	Param Inter 1 of 2
Calcium, total (mg/L)	BY-AP-MW-4	2.143	4/4/2023	3.36	Yes	80	1.495	0.3096	0	None	No	0.0004702	Param Inter 1 of 2
Calcium, total (mg/L)	BY-AP-MW-5	2.143	4/4/2023	8.36	Yes	80	1.495	0.3096	0	None	No	0.0004702	Param Inter 1 of 2
Calcium, total (mg/L)	BY-AP-MW-7	2.143	4/3/2023	3.52	Yes	80	1.495	0.3096	0	None	No	0.0004702	Param Inter 1 of 2
Calcium, total (mg/L)	BY-AP-MW-8	2.143	4/3/2023	4.21	Yes	80	1.495	0.3096	0	None	No	0.0004702	Param Inter 1 of 2
Calcium, total (mg/L)	BY-AP-MW-9	2.143	4/4/2023	32.4	Yes	80	1.495	0.3096	0	None	No	0.0004702	Param Inter 1 of 2
Chloride, Total (mg/L)	BY-AP-MW-1	9.9	4/3/2023	23.7	Yes	80	n/a	n/a	0	n/a	n/a	0.0002946	NP Inter (normality) 1 of 2
Chloride, Total (mg/L)	BY-AP-MW-10	9.9	4/3/2023	29.7	Yes	80	n/a	n/a	0	n/a	n/a	0.0002946	NP Inter (normality) 1 of 2
Chloride, Total (mg/L)	BY-AP-MW-11	9.9	4/4/2023	28.9	Yes	80	n/a	n/a	0	n/a	n/a	0.0002946	NP Inter (normality) 1 of 2
Chloride, Total (mg/L)	BY-AP-MW-12	9.9	4/4/2023	25	Yes	80	n/a	n/a	0	n/a	n/a	0.0002946	NP Inter (normality) 1 of 2
Chloride, Total (mg/L)	BY-AP-MW-13	9.9	4/4/2023	14.3	Yes	80	n/a	n/a	0	n/a	n/a	0.0002946	NP Inter (normality) 1 of 2
Chloride, Total (mg/L)	BY-AP-MW-14	9.9	4/5/2023	47	Yes	80	n/a	n/a	0	n/a	n/a	0.0002946	NP Inter (normality) 1 of 2
Chloride, Total (mg/L)	BY-AP-MW-15	9.9	4/3/2023	91.5	Yes	80	n/a	n/a	0	n/a	n/a	0.0002946	NP Inter (normality) 1 of 2
Chloride, Total (mg/L)	BY-AP-MW-16	9.9	4/5/2023	21.8	Yes	80	n/a	n/a	0	n/a	n/a	0.0002946	NP Inter (normality) 1 of 2
Chloride, Total (mg/L)	BY-AP-MW-4	9.9	4/4/2023	32.4	Yes	80	n/a	n/a	0	n/a	n/a	0.0002946	NP Inter (normality) 1 of 2
Chloride, Total (mg/L)	BY-AP-MW-5	9.9	4/4/2023	17.2	Yes	80	n/a	n/a	0	n/a	n/a	0.0002946	NP Inter (normality) 1 of 2
Chloride, Total (mg/L)	BY-AP-MW-7	9.9	4/3/2023	59.4	Yes	80	n/a	n/a	0	n/a	n/a	0.0002946	NP Inter (normality) 1 of 2
Chloride, Total (mg/L)	BY-AP-MW-8	9.9	4/3/2023	10.8	Yes	80	n/a	n/a	0	n/a	n/a	0.0002946	NP Inter (normality) 1 of 2
Chloride, Total (mg/L)	BY-AP-MW-9	9.9	4/4/2023	18	Yes	80	n/a	n/a	0	n/a	n/a	0.0002946	NP Inter (normality) 1 of 2
Fluoride, total (mg/L)	BY-AP-MW-11	0.125	4/4/2023	0.126	Yes	84	n/a	n/a	59.52	n/a	n/a	0.0002707	NP Inter (NDs) 1 of 2
Fluoride, total (mg/L)	BY-AP-MW-13	0.125	4/4/2023	0.187	Yes	84	n/a	n/a	59.52	n/a	n/a	0.0002707	NP Inter (NDs) 1 of 2
Fluoride, total (mg/L)	BY-AP-MW-14	0.125	4/5/2023	0.127	Yes	84	n/a	n/a	59.52	n/a	n/a	0.0002707	NP Inter (NDs) 1 of 2
Fluoride, total (mg/L)	BY-AP-MW-15	0.125	4/3/2023	0.26	Yes	84	n/a	n/a	59.52	n/a	n/a	0.0002707	NP Inter (NDs) 1 of 2
Fluoride, total (mg/L)	BY-AP-MW-16	0.125	4/5/2023	0.144	Yes	84	n/a	n/a	59.52	n/a	n/a	0.0002707	NP Inter (NDs) 1 of 2
Fluoride, total (mg/L)	BY-AP-MW-7	0.125	4/3/2023	0.171	Yes	84	n/a	n/a	59.52	n/a	n/a	0.0002707	NP Inter (NDs) 1 of 2
TDS (mg/L)	BY-AP-MW-1	58	4/3/2023	400	Yes	80	n/a	n/a	10	n/a	n/a	0.0002946	NP Inter (normality) 1 of 2
TDS (mg/L)	BY-AP-MW-10	58	4/3/2023	370	Yes	80	n/a	n/a	10	n/a	n/a	0.0002946	NP Inter (normality) 1 of 2
TDS (mg/L)	BY-AP-MW-11	58	4/4/2023	392	Yes	80	n/a	n/a	10	n/a	n/a	0.0002946	NP Inter (normality) 1 of 2
TDS (mg/L)	BY-AP-MW-12	58	4/4/2023	334	Yes	80	n/a	n/a	10	n/a	n/a	0.0002946	NP Inter (normality) 1 of 2
TDS (mg/L)	BY-AP-MW-13	58	4/4/2023	220	Yes	80	n/a	n/a	10	n/a	n/a	0.0002946	NP Inter (normality) 1 of 2
TDS (mg/L)	BY-AP-MW-14	58	4/5/2023	316	Yes	80	n/a	n/a	10	n/a	n/a	0.0002946	NP Inter (normality) 1 of 2
TDS (mg/L)	BY-AP-MW-15	58	4/3/2023	285	Yes	80	n/a	n/a	10	n/a	n/a	0.0002946	NP Inter (normality) 1 of 2
TDS (mg/L)	BY-AP-MW-16	58	4/5/2023	327	Yes	80	n/a	n/a	10	n/a	n/a	0.0002946	NP Inter (normality) 1 of 2
TDS (mg/L)	BY-AP-MW-4	58	4/4/2023	76.7	Yes	80	n/a	n/a	10	n/a	n/a	0.0002946	NP Inter (normality) 1 of 2
TDS (mg/L)	BY-AP-MW-5	58	4/4/2023	151	Yes	80	n/a	n/a	10	n/a	n/a	0.0002946	NP Inter (normality) 1 of 2
TDS (mg/L)	BY-AP-MW-7	58	4/3/2023	198	Yes	80	n/a	n/a	10	n/a	n/a	0.0002946	NP Inter (normality) 1 of 2
TDS (mg/L)	BY-AP-MW-8	58	4/3/2023	107	Yes	80	n/a	n/a	10	n/a	n/a	0.0002946	NP Inter (normality) 1 of 2
TDS (mg/L)	BY-AP-MW-9	58	4/4/2023	317	Yes	80	n/a	n/a	10	n/a	n/a	0.0002946	NP Inter (normality) 1 of 2

Interwell Prediction Limits - All Results

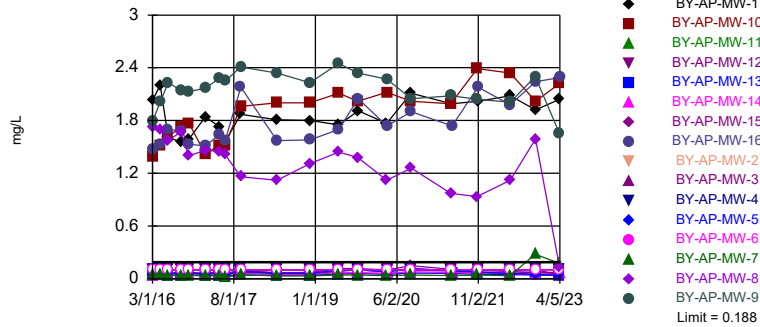
Plant Barry Client: Southern Company Data: Barry Ash Pond Printed 6/7/2023, 12:09 AM

Constituent	Well	Upper Lim.	Date	Observ.	Sig.	Bg N	Bg Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
TDS (mg/L)	BY-AP-MW-13	58	4/4/2023	220	Yes	80	n/a	n/a	10	n/a	n/a	0.0002946	NP Inter (normality) 1 of 2
TDS (mg/L)	BY-AP-MW-14	58	4/5/2023	316	Yes	80	n/a	n/a	10	n/a	n/a	0.0002946	NP Inter (normality) 1 of 2
TDS (mg/L)	BY-AP-MW-15	58	4/3/2023	285	Yes	80	n/a	n/a	10	n/a	n/a	0.0002946	NP Inter (normality) 1 of 2
TDS (mg/L)	BY-AP-MW-16	58	4/5/2023	327	Yes	80	n/a	n/a	10	n/a	n/a	0.0002946	NP Inter (normality) 1 of 2
TDS (mg/L)	BY-AP-MW-2	58	4/3/2023	40.7	No	80	n/a	n/a	10	n/a	n/a	0.0002946	NP Inter (normality) 1 of 2
TDS (mg/L)	BY-AP-MW-3	58	4/4/2023	43.3	No	80	n/a	n/a	10	n/a	n/a	0.0002946	NP Inter (normality) 1 of 2
TDS (mg/L)	BY-AP-MW-4	58	4/4/2023	76.7	Yes	80	n/a	n/a	10	n/a	n/a	0.0002946	NP Inter (normality) 1 of 2
TDS (mg/L)	BY-AP-MW-5	58	4/4/2023	151	Yes	80	n/a	n/a	10	n/a	n/a	0.0002946	NP Inter (normality) 1 of 2
TDS (mg/L)	BY-AP-MW-6	58	4/4/2023	40	No	80	n/a	n/a	10	n/a	n/a	0.0002946	NP Inter (normality) 1 of 2
TDS (mg/L)	BY-AP-MW-7	58	4/3/2023	198	Yes	80	n/a	n/a	10	n/a	n/a	0.0002946	NP Inter (normality) 1 of 2
TDS (mg/L)	BY-AP-MW-8	58	4/3/2023	107	Yes	80	n/a	n/a	10	n/a	n/a	0.0002946	NP Inter (normality) 1 of 2
TDS (mg/L)	BY-AP-MW-9	58	4/4/2023	317	Yes	80	n/a	n/a	10	n/a	n/a	0.0002946	NP Inter (normality) 1 of 2

Sanitas™ v.10.0.02 . UG
Hollow symbols indicate censored values.

Exceeds Limit: BY-AP-MW-1, BY-AP-MW-10, BY-AP-MW-16, BY-AP-MW-9

Prediction Limit
Interwell Non-parametric



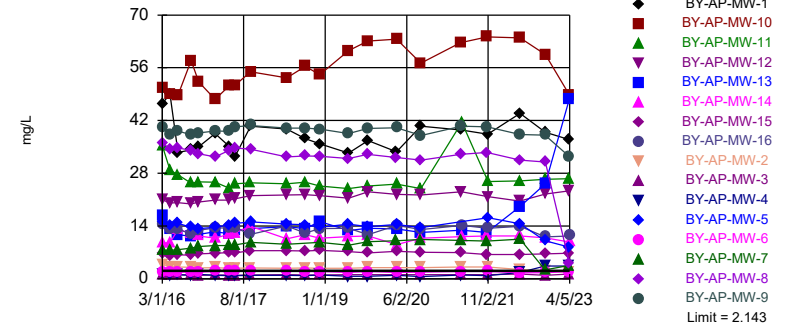
Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 79 background values. 79.75% NDs. Annual per-constituent alpha = 0.009658. Individual comparison alpha = 0.0003032 (1 of 2). Comparing 16 points to limit.

Constituent: Boron, total Analysis Run 6/7/2023 12:08 AM View: All
Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.10.0.02 . UG

Exceeds Limit: BY-AP-MW-1, BY-AP-MW-10, BY-AP-MW-11, BY-AP-MW-12, BY-AP-MW-13, BY-AP-MW-14, BY-AP-MW-15...

Prediction Limit
Interwell Parametric



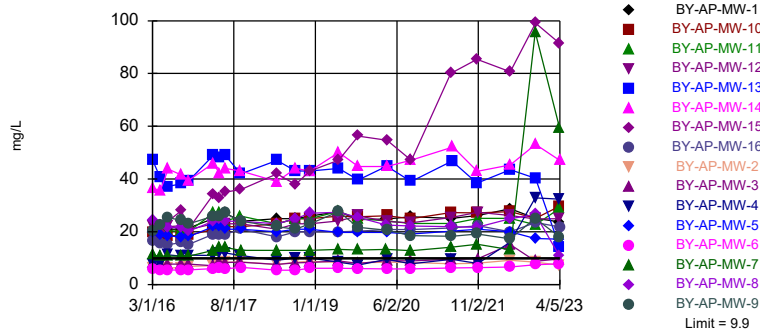
Background Data Summary: Mean=1.495, Std. Dev.=0.3096, n=80. Normality test: Shapiro Francia @alpha = 0.01, calculated = 0.9714, critical = 0.957. Kappa = 2.094 (c=7, w=16, 1 of 2, event alpha = 0.05132). Report alpha = 0.007498. Individual comparison alpha = 0.0004702. Comparing 16 points to limit.

Constituent: Calcium, total Analysis Run 6/7/2023 12:08 AM View: All
Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.10.0.02 . UG

Exceeds Limit: BY-AP-MW-1, BY-AP-MW-10, BY-AP-MW-11, BY-AP-MW-12, BY-AP-MW-13, BY-AP-MW-14, BY-AP-MW-15...

Prediction Limit
Interwell Non-parametric



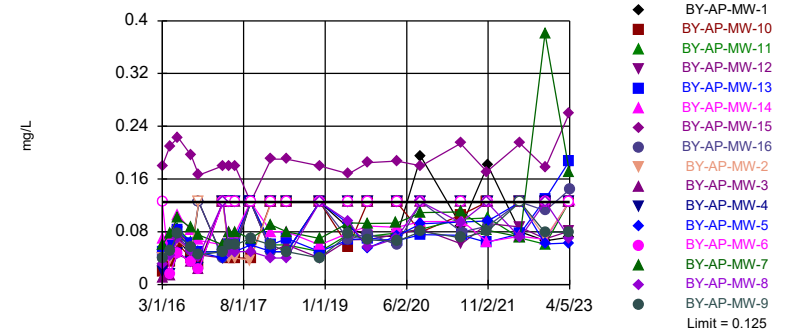
Non-parametric test used in lieu of parametric prediction limit because the Shapiro Francia normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 80 background values. Annual per-constituent alpha = 0.009386. Individual comparison alpha = 0.0002946 (1 of 2). Comparing 16 points to limit.

Constituent: Chloride, Total Analysis Run 6/7/2023 12:08 AM View: All
Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.10.0.02 . UG

Exceeds Limit: BY-AP-MW-11, BY-AP-MW-13, BY-AP-MW-14, BY-AP-MW-15, BY-AP-MW-16, BY-AP-MW-7

Prediction Limit
Interwell Non-parametric

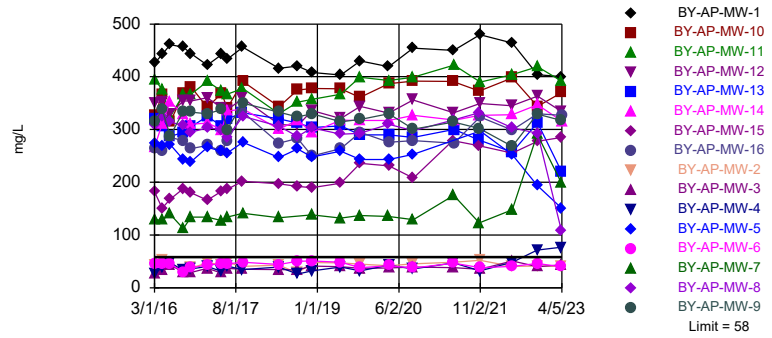


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 84 background values. 59.52% NDs. Annual per-constituent alpha = 0.008626. Individual comparison alpha = 0.0002707 (1 of 2). Comparing 16 points to limit.

Constituent: Fluoride, total Analysis Run 6/7/2023 12:08 AM View: All
Plant Barry Client: Southern Company Data: Barry Ash Pond

Exceeds Limit: BY-AP-MW-1, BY-AP-MW-10, BY-AP-MW-11, BY-AP-MW-12, BY-AP-MW-13, BY-AP-MW-14, BY-AP-MW-15...

Prediction Limit Interwell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because the Shapiro Francia normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 80 background values. 10% NDs. Annual per-constituent alpha = 0.009386. Individual comparison alpha = 0.0002946 (1 of 2). Comparing 16 points to limit.

Constituent: TDS Analysis Run 6/7/2023 12:08 AM View: All
Plant Barry Client: Southern Company Data: Barry Ash Pond

Prediction Limit

Constituent: Boron, total (mg/L) Analysis Run 6/7/2023 12:09 AM View: All

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-UP-MW-3 (bg)	BY-UP-MW-4 (bg)	BY-UP-MW-2 (bg)	BY-UP-MW-1 (bg)	BY-AP-MW-4	BY-AP-MW-10	BY-AP-MW-5	BY-AP-MW-6	BY-AP-MW-7
2/23/2016	<0.1015	0.0257 (J)	0.0252 (J)	0.0212 (J)					
3/1/2016					<0.1015	1.39	0.0462 (J)	<0.1015	0.0546 (J)
3/2/2016									
4/19/2016	<0.1015	<0.1015	<0.1015	<0.1015	<0.1015			<0.1015	
4/20/2016						1.51	0.0719 (J)		0.0472 (J)
6/6/2016		<0.1015		<0.1015					
6/7/2016	<0.1015		0.0202 (J)		<0.1015		0.0591 (J)	<0.1015	0.0417 (J)
6/8/2016						1.62			
8/30/2016	<0.1015	<0.1015	<0.1015	<0.1015	<0.1015		0.0675 (J)	<0.1015	
8/31/2016						1.73			0.036 (J)
10/18/2016	<0.1015	0.022 (J)	<0.1015	<0.1015			0.0699 (J)		
10/19/2016					<0.1015	1.77		<0.1015	0.0386 (J)
1/31/2017	<0.1015	<0.1015	<0.1015	<0.1015	<0.1015		0.0518 (J)	<0.1015	0.0343 (J)
2/1/2017						1.42			
5/2/2017	<0.1015	<0.1015	<0.1015	<0.1015	<0.1015				
5/3/2017						1.52	0.0737 (J)	<0.1015	0.037 (J)
6/6/2017	<0.1015	<0.1015	<0.1015	<0.1015	<0.1015				
6/7/2017						1.52	0.0518 (J)	<0.1015	0.0227 (J)
9/12/2017		<0.1015			<0.1015				
9/13/2017	<0.1015		<0.1015	<0.1015					
9/14/2017						1.96	0.0825 (J)	<0.1015	0.0471 (J)
5/1/2018	<0.1015	<0.1015	<0.1015		<0.1015				
5/2/2018				0.0362 (J)		2	0.0603 (J)	<0.1015	0.0313 (J)
11/26/2018		<0.1015							
11/27/2018	<0.1015			0.11	<0.1015		0.0613 (J)		
11/28/2018						2		<0.1015	0.0311 (J)
5/28/2019		<0.1015							
5/29/2019	<0.1015		<0.1015	0.188	<0.1015		0.0946 (J)	<0.1015	0.042 (J)
5/30/2019						2.11			
9/30/2019						2.02			0.0418 (J)
10/1/2019					<0.1015		0.103	<0.1015	
10/2/2019	<0.1015	<0.1015	<0.1015	0.097 (J)					
3/30/2020									0.0369 (J)
3/31/2020	<0.1015	<0.1015	<0.1015	0.157	<0.1015	2.12	0.0782 (J)	<0.1015	
4/1/2020									
8/31/2020									
9/1/2020					<0.1015	2.02	0.115		
9/2/2020								<0.1015	0.042 (J)
9/8/2020		<0.1015							
9/9/2020	<0.1015		<0.1015	0.0999 (J)					
5/11/2021	<0.1015	<0.1015	<0.1015			1.99			
5/12/2021				0.0841 (J)					
5/17/2021								<0.1015	
5/18/2021					<0.1015				0.037 (J)
5/19/2021									
5/25/2021									
10/18/2021	<0.1015	<0.1015							
10/19/2021			<0.1015	0.0708 (J)					
10/26/2021									
10/27/2021						2.39			0.0427 (J)
11/1/2021					<0.1015				
11/2/2021							0.0755 (J)	<0.1015	

Prediction Limit

Constituent: Boron, total (mg/L) Analysis Run 6/7/2023 12:09 AM View: All
Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-UP-MW-3 (bg)	BY-UP-MW-4 (bg)	BY-UP-MW-2 (bg)	BY-UP-MW-1 (bg)	BY-AP-MW-4	BY-AP-MW-10	BY-AP-MW-5	BY-AP-MW-6	BY-AP-MW-7
5/23/2022									
5/24/2022						2.34			0.0369 (J)
5/25/2022					<0.1015		0.063 (J)	<0.1015	
5/31/2022	<0.1015	<0.1015	<0.1015	0.0567 (J)					
10/31/2022					<0.1015		0.0515 (J)	<0.1015	0.28
11/1/2022	<0.1015	<0.1015	<0.1015	0.0501 (J)					
11/2/2022						2.02			
4/3/2023						2.22			0.174
4/4/2023					<0.1015		0.0381 (J)	<0.1015	
4/5/2023									
4/12/2023	<0.1015	<0.1015	<0.1015	0.0464 (J)					

Prediction Limit

Constituent: Boron, total (mg/L) Analysis Run 6/7/2023 12:09 AM View: All

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-11	BY-AP-MW-9	BY-AP-MW-8	BY-AP-MW-2	BY-AP-MW-13	BY-AP-MW-14	BY-AP-MW-15	BY-AP-MW-16	BY-AP-MW-1
2/23/2016									
3/1/2016	0.0482 (J)	1.79	1.72						
3/2/2016				<0.1015	0.0328 (J)	0.0395 (J)	0.0447 (J)	1.47	2.03
4/19/2016				<0.1015			0.0645 (J)	1.53	2.2
4/20/2016	0.059 (J)	2.01	1.7		0.0434 (J)	0.0549 (J)			
6/6/2016									
6/7/2016			1.57						
6/8/2016	0.0568 (J)	2.23		<0.1015	0.0391 (J)	0.0593 (J)	0.0592 (J)	1.7	1.61
8/30/2016			1.67			0.0534 (J)			
8/31/2016	0.0651 (J)	2.14		<0.1015	0.0401 (J)		0.0632 (J)	1.68	1.55
10/18/2016			1.4			0.0597 (J)			
10/19/2016	0.06 (J)	2.13		<0.1015	0.0427 (J)		0.0637 (J)	1.53	1.59
1/31/2017			1.46	<0.1015	0.034 (J)	0.0479 (J)	0.0536 (J)	1.51	1.84
2/1/2017	0.0638 (J)	2.17							
5/2/2017				<0.1015		0.0587 (J)	0.0775 (J)	1.64	1.73
5/3/2017	0.0655 (J)	2.28	1.45		0.0416 (J)				
6/6/2017				<0.1015		0.0428 (J)	0.0535 (J)	1.57	1.56
6/7/2017	0.0468 (J)	2.25	1.41		0.0277 (J)				
9/12/2017				<0.1015					
9/13/2017	0.0751 (J)				0.044 (J)	0.0647 (J)	0.0937 (J)	2.18	1.87
9/14/2017		2.41	1.16						
5/1/2018				<0.1015			0.0683 (J)	1.57	1.81
5/2/2018	0.0545 (J)	2.34	1.12		0.0393 (J)	0.0484 (J)			
11/26/2018									
11/27/2018			1.31	<0.1015		0.0493 (J)	0.0715 (J)	1.58	
11/28/2018	0.0545 (J)	2.23			0.0417 (J)				1.8
5/28/2019									
5/29/2019	0.082 (J)		1.44	<0.1015	0.0528 (J)	0.0682 (J)	0.116	1.7	1.75
5/30/2019		2.45							
9/30/2019	0.103	2.34	1.38						
10/1/2019				<0.1015	0.0604 (J)	0.0701 (J)	0.116	2.05	1.91
10/2/2019									
3/30/2020			1.12						1.77
3/31/2020	0.0815 (J)	2.27		<0.1015	0.0505 (J)	0.0655 (J)		1.74	
4/1/2020							0.1		
8/31/2020				<0.1015					
9/1/2020	0.104				0.0642 (J)				2.11
9/2/2020		2.05	1.26			0.0789 (J)	0.148	1.9	
9/8/2020									
9/9/2020									
5/11/2021			0.971				0.109		
5/12/2021									
5/17/2021									
5/18/2021		2.08		<0.1015					1.99
5/19/2021	0.0856 (J)				0.0604 (J)			1.74	
5/25/2021						0.074 (J)			
10/18/2021									
10/19/2021									
10/26/2021			0.933		0.0511 (J)		0.0953 (J)		
10/27/2021		2.04				0.0677 (J)			
11/1/2021				<0.1015				2.18	2.02
11/2/2021	0.0691 (J)								

Prediction Limit

Constituent: Boron, total (mg/L) Analysis Run 6/7/2023 12:09 AM View: All
Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-11	BY-AP-MW-9	BY-AP-MW-8	BY-AP-MW-2	BY-AP-MW-13	BY-AP-MW-14	BY-AP-MW-15	BY-AP-MW-16	BY-AP-MW-1
5/23/2022	0.0558 (J)								
5/24/2022		2.01	1.12	<0.1015	0.0457 (J)				2.08
5/25/2022						0.0618 (J)	0.0826 (J)	1.98	
5/31/2022									
10/31/2022		2.3							
11/1/2022	0.0727 (J)				0.0445 (J)	0.0519 (J)	0.0712 (J)	2.24	
11/2/2022			1.59	<0.1015					1.92
4/3/2023			0.129	<0.1015			0.0713 (J)		2.04
4/4/2023	0.0581 (J)	1.65			0.0391 (J)				
4/5/2023						0.0587 (J)		2.29	
4/12/2023									

Prediction Limit

Constituent: Boron, total (mg/L) Analysis Run 6/7/2023 12:09 AM View: All
Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-3	BY-AP-MW-12
2/23/2016		
3/1/2016		
3/2/2016	<0.1015	0.0502 (J)
4/19/2016	<0.1015	
4/20/2016		0.0672 (J)
6/6/2016		
6/7/2016	<0.1015	
6/8/2016		0.0659 (J)
8/30/2016		
8/31/2016	<0.1015	0.065 (J)
10/18/2016		
10/19/2016	<0.1015	0.0721 (J)
1/31/2017	<0.1015	
2/1/2017		0.06 (J)
5/2/2017	<0.1015	
5/3/2017		0.0768 (J)
6/6/2017	<0.1015	
6/7/2017		0.0625 (J)
9/12/2017	<0.1015	
9/13/2017		0.0926 (J)
9/14/2017		
5/1/2018	<0.1015	
5/2/2018		0.064 (J)
11/26/2018		
11/27/2018	<0.1015	
11/28/2018		0.064 (J)
5/28/2019		
5/29/2019	<0.1015	0.0952 (J)
5/30/2019		
9/30/2019		
10/1/2019	<0.1015	0.0967 (J)
10/2/2019		
3/30/2020		
3/31/2020	<0.1015	0.0856 (J)
4/1/2020		
8/31/2020		
9/1/2020	<0.1015	0.115
9/2/2020		
9/8/2020		
9/9/2020		
5/11/2021		
5/12/2021		
5/17/2021		
5/18/2021	<0.1015	0.0927 (J)
5/19/2021		
5/25/2021		
10/18/2021		
10/19/2021		
10/26/2021		
10/27/2021		
11/1/2021	<0.1015	0.0769 (J)
11/2/2021		

Prediction Limit

Constituent: Boron, total (mg/L) Analysis Run 6/7/2023 12:09 AM View: All
Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-3	BY-AP-MW-12
5/23/2022		0.0626 (J)
5/24/2022		
5/25/2022	<0.1015	
5/31/2022		
10/31/2022		
11/1/2022	<0.1015	0.0777 (J)
11/2/2022		
4/3/2023		
4/4/2023	0.0468 (J)	0.0629 (J)
4/5/2023		
4/12/2023		

Prediction Limit

Constituent: Calcium, total (mg/L) Analysis Run 6/7/2023 12:09 AM View: All

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-UP-MW-3 (bg)	BY-UP-MW-4 (bg)	BY-UP-MW-1 (bg)	BY-UP-MW-2 (bg)	BY-AP-MW-10	BY-AP-MW-7	BY-AP-MW-6	BY-AP-MW-9	BY-AP-MW-11
2/23/2016	1.77	1.42	1.28	1.11					
3/1/2016					50.6	7.65	1.87	40.3	35.3
3/2/2016									
4/19/2016	1.68	1.31	1.19	1.09			1.69		
4/20/2016					49.1	7.54		38.2	28.9
6/6/2016		1.35	1.19						
6/7/2016	1.68			1.16		7.71	1.75		
6/8/2016					48.7			39.2	27.6
8/30/2016	1.62	1.31	1.11	1.08			1.77		
8/31/2016					57.9	8.1		38.2	25.4
10/18/2016	1.53	1.22	1.04	1.03					
10/19/2016					52.2	8.59	1.8	38.7	25.7
1/31/2017	1.65	1.36	1.19	1.23		8.78	1.98		
2/1/2017					47.6			39.2	25.6
5/2/2017	1.58	1.24	1.05	1.28					
5/3/2017					51.3	8.85	1.97	39.1	24
6/6/2017	1.55	1.28	0.978	1.25					
6/7/2017					51.4	8.99	1.98	40.3	25.2
9/12/2017		1.47							
9/13/2017	1.71		1.14	1.6					25.5
9/14/2017					54.9	9.64	2.14	40.7	
5/1/2018	1.76	1.47		1.58					
5/2/2018			1.64		53.3	9.14	2.13	40	25.2
8/28/2018					56.4			40	
8/29/2018							1.92		25.6
11/26/2018		1.52							
11/27/2018	1.69		2.01	1.49					
11/28/2018					54.2	9.66	1.91	39.7	24.6
5/28/2019		1.6							
5/29/2019	1.74		1.85	1.59		8.88	1.72		23.9
5/30/2019					60.5			38.5	
9/30/2019					63.1	9.8		39.9	24.6
10/1/2019							1.92		
10/2/2019	1.86	1.7	1.55	1.7					
3/30/2020						10.1			
3/31/2020	1.92	1.78	1.96	1.43	63.6		1.68	40.1	25.1
4/1/2020									
8/31/2020									
9/1/2020					57.2				23.9
9/2/2020						10.4	1.8	38	
9/8/2020		1.94							
9/9/2020	1.97		1.43	1.5					
5/11/2021	2.06	1.93		1.39	62.7				
5/12/2021			1.34						
5/17/2021							1.93		
5/18/2021						10.2		40.5	
5/19/2021									41.5
5/25/2021									
10/18/2021	2.1	2.01							
10/19/2021			1.17	1.32					
10/26/2021									
10/27/2021					64.2	10		40.3	

Prediction Limit

Constituent: Calcium, total (mg/L) Analysis Run 6/7/2023 12:09 AM View: All
Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-UP-MW-3 (bg)	BY-UP-MW-4 (bg)	BY-UP-MW-1 (bg)	BY-UP-MW-2 (bg)	BY-AP-MW-10	BY-AP-MW-7	BY-AP-MW-6	BY-AP-MW-9	BY-AP-MW-11
11/1/2021									
11/2/2021							1.97		25.8
5/23/2022									26
5/24/2022					63.9	10.5		38.3	
5/25/2022							1.62		
5/31/2022	1.95	2.02	1.14	1.24					
10/31/2022						2.36	1.63	38.099998	
11/1/2022	1.94	1.59	1.01	1.23					26.4
11/2/2022					59.5				
4/3/2023					48.799999	3.52			
4/4/2023							1.94	32.400002	26.6
4/5/2023									
4/12/2023	1.83	1.76	1.02	1.16					

Prediction Limit

Constituent: Calcium, total (mg/L) Analysis Run 6/7/2023 12:09 AM View: All

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-3	BY-AP-MW-1
2/23/2016		
3/1/2016		
3/2/2016	1.11	46.5
4/19/2016	1.01	49
4/20/2016		
6/6/2016		
6/7/2016	1.06	
6/8/2016		33.5
8/30/2016		
8/31/2016	0.978	34.2
10/18/2016		
10/19/2016	0.906	35.1
1/31/2017	1.04	38.5
2/1/2017		
5/2/2017	0.969	35.1
5/3/2017		
6/6/2017	0.902	32.4
6/7/2017		
9/12/2017	0.988	
9/13/2017		40.5
9/14/2017		
5/1/2018	1.07	39.7
5/2/2018		
8/28/2018	1.02	37.2
8/29/2018		
11/26/2018		
11/27/2018	0.999	
11/28/2018		35.8
5/28/2019		
5/29/2019	1.09	33.4
5/30/2019		
9/30/2019		
10/1/2019	1.08	36.7
10/2/2019		
3/30/2020		33.7
3/31/2020	1.1	
4/1/2020		
8/31/2020		
9/1/2020	1.08	40.5
9/2/2020		
9/8/2020		
9/9/2020		
5/11/2021		
5/12/2021		
5/17/2021		
5/18/2021	1.12	39.5
5/19/2021		
5/25/2021		
10/18/2021		
10/19/2021		
10/26/2021		
10/27/2021		

Prediction Limit

Constituent: Calcium, total (mg/L) Analysis Run 6/7/2023 12:09 AM View: All
Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-3	BY-AP-MW-1
11/1/2021	1.09	38.4
11/2/2021		
5/23/2022		
5/24/2022		43.9
5/25/2022	1.29	
5/31/2022		
10/31/2022		
11/1/2022	0.926	
11/2/2022		38.900002
4/3/2023		36.900002
4/4/2023	1.29	
4/5/2023		
4/12/2023		

Prediction Limit

Constituent: Chloride, Total (mg/L) Analysis Run 6/7/2023 12:09 AM View: All

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-UP-MW-4 (bg)	BY-UP-MW-3 (bg)	BY-UP-MW-1 (bg)	BY-UP-MW-2 (bg)	BY-AP-MW-4	BY-AP-MW-5	BY-AP-MW-7	BY-AP-MW-8	BY-AP-MW-11
2/23/2016	3.5	3.68	3.59	3.99					
3/1/2016					7.74	19.7	11.2	24.5	21.7
3/2/2016									
4/19/2016	3.63	3.72	2.89	4.08	7.66				
4/20/2016						18.9	10.8	22.5	20.7
6/6/2016	3.6		3.12						
6/7/2016		3.66		4.28	11.3	18.5	10.8	21.6	
6/8/2016									20.4
8/30/2016	3.54	3.7	3.91	4.26	10.8	17.9		21.6	
8/31/2016							10.8		20.3
10/18/2016	3.68	3.77	3.9	4.26		18.2		20.2	
10/19/2016					11.1		10.8		20.3
3/20/2017	4.6	3.7	3.5	4.1					
3/21/2017					11				
3/22/2017						22	13	24	27
5/2/2017	3.9 (D)	4.6 (D)	3.5 (D)	5 (D)	12				
5/3/2017						22	14	25	27
6/6/2017	3.4 (D)	3.4 (D)	3.1 (D)	3.9 (D)	12				
6/7/2017						21	14	24	24
9/12/2017	4.3				11				
9/13/2017		3.9	4	4.3					26
9/14/2017						21	13	24	
5/1/2018	3.8	4.1		3.7	9.2				
5/2/2018			9.9			20	13	23	23
8/28/2018					10				
8/29/2018						21		25	25
11/26/2018	3.6								
11/27/2018		3.5	4.7	3.2	10	21		27	
11/28/2018							13		25
5/28/2019	3.6								
5/29/2019		3.58	5.48	2.93	8.53	19.7	13.3	27.4	27.8
5/30/2019									
9/30/2019							13.1	25.5	25
10/1/2019					7.35	19.8			
10/2/2019	3.5	3.64	3.65	2.75					
3/30/2020							13.3	22.6	
3/31/2020	3.34	3.47	3.17	2.72	9.54	19.8			24.1
4/1/2020									
8/31/2020									
9/1/2020					7.82	19.1			23.2
9/2/2020							12.9	22.2	
9/8/2020	3.29								
9/9/2020		3.47	2.92	2.32					
5/11/2021	3.33	3.42		2.16				21.9	
5/12/2021			2.18						
5/17/2021									
5/18/2021					9.53		14.2		
5/19/2021									23.1
5/25/2021									
10/18/2021	3.32	3.45							
10/19/2021			2.37	2.08					
10/26/2021							21.7		

Prediction Limit

Constituent: Chloride, Total (mg/L) Analysis Run 6/7/2023 12:09 AM View: All
Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-UP-MW-4 (bg)	BY-UP-MW-3 (bg)	BY-UP-MW-1 (bg)	BY-UP-MW-2 (bg)	BY-AP-MW-4	BY-AP-MW-5	BY-AP-MW-7	BY-AP-MW-8	BY-AP-MW-11
10/27/2021							15.3		
11/1/2021					7.99				
11/2/2021						21			25.1
5/23/2022									25.1
5/24/2022							13.2	25	
5/25/2022					16.1	20			
5/31/2022	3.31	3.39	1.93	2.17					
10/31/2022					32.799999	17.5	95.699997		
11/1/2022	3.3	3.09	2.37	2.22					22.700001
11/2/2022								26.6	
4/3/2023							59.400002	10.8	
4/4/2023					32.400002	17.200001			28.9
4/5/2023									
4/12/2023	3.42	3.11	2.31	2.25					

Prediction Limit

Constituent: Chloride, Total (mg/L) Analysis Run 6/7/2023 12:09 AM View: All

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-9	BY-AP-MW-10	BY-AP-MW-6	BY-AP-MW-2	BY-AP-MW-15	BY-AP-MW-16	BY-AP-MW-3	BY-AP-MW-13	BY-AP-MW-12
2/23/2016									
3/1/2016	20.4	19.6	5.77						
3/2/2016				6.08	20.9	16.6	8.04	47.3	22.2
4/19/2016			5.57	6.2	19.8	15.7	7.6		
4/20/2016	22.7	18.8						40.5	21.7
6/6/2016									
6/7/2016			5.52				7.7		
6/8/2016	25.3	18.6		6.2	24	15.1		37.2	22
8/30/2016			5.5						
8/31/2016	24.4	18.5		6.51	28	15.9	7.7	38.2	22.3
10/18/2016									
10/19/2016	23	18.7	5.55	6.85	21.3	15.3	7.73	39.4	20.8
3/20/2017									
3/21/2017				7.2	34	19	7.2		
3/22/2017	26	21	6					49	23
5/2/2017				8.3	33	19	8.6		
5/3/2017	26	22	6.4					48	25
6/6/2017				8.5	35	19	8.3		
6/7/2017	27	22	5.9					49	23
9/12/2017				8.6			8.5		
9/13/2017					36	21		42	23
9/14/2017	24	22	6.5						
5/1/2018				7.6	42	18	7.6		
5/2/2018	22	23	5.5					47	21
8/28/2018	21	25		8.5			8.2		
8/29/2018			5.4		38	20		43	23
11/26/2018									
11/27/2018				8.8	43	20	8.4		
11/28/2018	23	25	6.2					43	23
5/28/2019									
5/29/2019			6.15	8.31	47.2	20	9.01	44	24.1
5/30/2019	27.7	25.9							
9/30/2019	21.7	25.7							
10/1/2019			5.99	8.19	56.3	20.3	8.05	39.6	26.1
10/2/2019									
3/30/2020									
3/31/2020	20.6	26.1	5.94	8.48		20.8	9.07	44.9	23.9
4/1/2020					54.7				
8/31/2020				8.3					
9/1/2020		25					8.97	39.1	23.4
9/2/2020	18.5		5.94		47	20.8			
9/8/2020									
9/9/2020									
5/11/2021		27.3			80				
5/12/2021									
5/17/2021			6.26						
5/18/2021	18.3			7.89			9.52		25.4
5/19/2021						21.4		46.8	
5/25/2021									
10/18/2021									
10/19/2021									
10/26/2021					85.4			38.4	

Prediction Limit

Constituent: Chloride, Total (mg/L) Analysis Run 6/7/2023 12:09 AM View: All

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-14	BY-AP-MW-1
2/23/2016		
3/1/2016		
3/2/2016	36.6	2.18 (O)
4/19/2016		9.01 (O)
4/20/2016	35.5	
6/6/2016		
6/7/2016		
6/8/2016	43.8	21
8/30/2016	41.6	
8/31/2016		21
10/18/2016	39.5	
10/19/2016		21.4
3/20/2017		
3/21/2017		25
3/22/2017	46	
5/2/2017	42	26
5/3/2017		
6/6/2017	44	27
6/7/2017		
9/12/2017		
9/13/2017	43	24
9/14/2017		
5/1/2018		25
5/2/2018	39	
8/28/2018		25
8/29/2018	44	
11/26/2018		
11/27/2018	43	
11/28/2018		26
5/28/2019		
5/29/2019	50.1	27.6
5/30/2019		
9/30/2019		
10/1/2019	44.8	24.6
10/2/2019		
3/30/2020		24.9
3/31/2020	44.7	
4/1/2020		
8/31/2020		
9/1/2020		25.7
9/2/2020	47.2	
9/8/2020		
9/9/2020		
5/11/2021		
5/12/2021		
5/17/2021		
5/18/2021		25.1
5/19/2021		
5/25/2021	52.1	
10/18/2021		
10/19/2021		
10/26/2021		

Prediction Limit

Constituent: Chloride, Total (mg/L) Analysis Run 6/7/2023 12:09 AM View: All
Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-14	BY-AP-MW-1
10/27/2021	42.9	
11/1/2021		26.2
11/2/2021		
5/23/2022		
5/24/2022		28.7
5/25/2022	45.3	
5/31/2022		
10/31/2022		
11/1/2022	53.099998	
11/2/2022		25.1
4/3/2023		23.700001
4/4/2023		
4/5/2023	47	
4/12/2023		

Prediction Limit

Constituent: Fluoride, total (mg/L) Analysis Run 6/7/2023 12:09 AM View: All

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-UP-MW-2 (bg)	BY-UP-MW-1 (bg)	BY-UP-MW-3 (bg)	BY-UP-MW-4 (bg)	BY-AP-MW-10	BY-AP-MW-11	BY-AP-MW-9	BY-AP-MW-4	BY-AP-MW-8
2/23/2016	0.02 (J)	0.03 (J)	0.02 (J)	0.02 (J)					
3/1/2016					0.02 (J)	0.06 (J)	0.04 (J)	0.02 (J)	0.03 (J)
3/2/2016									
4/19/2016	0.021 (J)	0.023 (J)	0.016 (J)	0.015 (J)				0.016 (J)	
4/20/2016					0.034 (J)	0.073 (J)	0.052 (J)		0.043 (J)
6/6/2016		0.062 (J)		0.05 (J)					
6/7/2016	0.06 (J)		0.052 (J)					0.047 (J)	0.069 (J)
6/8/2016					0.061 (J)	0.085 (J)	0.077 (J)		
8/30/2016	0.05 (J)	0.053 (J)	0.038 (J)	0.036 (J)				0.035 (J)	0.052 (J)
8/31/2016					0.04 (J)	0.064 (J)	0.056 (J)		
10/18/2016	0.04 (J)	0.042 (J)	0.03 (J)	0.025 (J)					0.042 (J)
10/19/2016					0.03 (J)	0.05 (J)	0.045 (J)	0.025 (J)	
3/20/2017	<0.125	<0.125	<0.125	<0.125					
3/21/2017								<0.125	
3/22/2017					<0.125	0.05 (J)	0.05 (J)		<0.125
5/2/2017	0.04 (JD)	0.04 (JD)	0.1 (D)	0.1 (D)				<0.125	
5/3/2017					0.04 (J)	0.06 (J)	0.06 (J)		0.05 (J)
6/6/2017	0.04 (JD)	0.1 (D)	0.1 (D)	0.1 (D)				<0.125	
6/7/2017					0.04 (J)	0.06 (J)	0.06 (J)		0.05 (J)
9/12/2017				<0.125				<0.125	
9/13/2017	0.043 (J)	0.04 (J)	<0.125			<0.125 (U*)			
9/14/2017					0.04 (J)		0.07 (J)		0.05 (J)
1/22/2018									
1/23/2018	0.04 (J)	<0.125	<0.125	<0.125	<0.125	0.06 (J)	0.06 (J)		
1/24/2018								<0.125	0.04 (J)
5/1/2018	0.04 (J)		<0.125	<0.125				<0.125	
5/2/2018		0.04 (J)			<0.125	0.06 (J)	0.05 (J)		0.04 (J)
11/26/2018				<0.125					
11/27/2018	<0.125	<0.125	<0.125					<0.125	<0.125
11/28/2018					<0.125	0.05 (J)	0.04 (J)		
5/28/2019				<0.125					
5/29/2019	<0.125	0.0502 (J)	<0.125			0.0759 (J)		<0.125	0.0958 (J)
5/30/2019					0.0573 (J)		0.0763 (J)		
9/30/2019					<0.125	0.0733 (J)	0.0679 (J)		0.0559 (J)
10/1/2019								<0.125	
10/2/2019	<0.125	<0.125	<0.125	<0.125					
3/30/2020									0.0701 (J)
3/31/2020	<0.125	<0.125	<0.125	<0.125	<0.125	0.078 (J)	0.0655 (J)	<0.125	
4/1/2020									
8/31/2020									
9/1/2020					0.0794 (J)	0.0841 (J)		<0.125	
9/2/2020							0.0804 (J)		<0.125
9/8/2020				<0.125					
9/9/2020	<0.125	<0.125	<0.125						
5/11/2021	<0.125		<0.125	<0.125	0.105				0.094 (J)
5/12/2021		<0.125							
5/17/2021									
5/18/2021							0.0709 (J)	<0.125	
5/19/2021						0.0994 (J)			
5/25/2021									
10/18/2021			<0.125	<0.125					
10/19/2021	<0.125	<0.125							

Prediction Limit

Constituent: Fluoride, total (mg/L) Analysis Run 6/7/2023 12:09 AM View: All

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-UP-MW-2 (bg)	BY-UP-MW-1 (bg)	BY-UP-MW-3 (bg)	BY-UP-MW-4 (bg)	BY-AP-MW-10	BY-AP-MW-11	BY-AP-MW-9	BY-AP-MW-4	BY-AP-MW-8
10/26/2021									<0.125
10/27/2021					<0.125		0.0803 (J)		
11/1/2021								<0.125	
11/2/2021						0.101			
5/23/2022						0.0709 (J)			
5/24/2022					<0.125		<0.125		0.0713 (J)
5/25/2022								<0.125	
5/31/2022	<0.125	<0.125	<0.125	<0.125					
10/31/2022							0.0788 (J)	<0.125	
11/1/2022	<0.125	<0.125	<0.125	<0.125		0.0612 (J)			
11/2/2022					<0.125				<0.125
4/3/2023					<0.125				0.0706 (J)
4/4/2023						0.126	0.0797 (J)	<0.125	
4/5/2023									
4/12/2023	<0.125	<0.125	<0.125	<0.125					

Prediction Limit

Constituent: Fluoride, total (mg/L) Analysis Run 6/7/2023 12:09 AM View: All

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-5	BY-AP-MW-6	BY-AP-MW-7	BY-AP-MW-15	BY-AP-MW-3	BY-AP-MW-14	BY-AP-MW-2	BY-AP-MW-16	BY-AP-MW-13
2/23/2016									
3/1/2016	0.04 (J)	<0.125	0.06 (J)						
3/2/2016				0.18 (J)	0.01 (J)	0.07 (J)	0.04 (J)	0.04 (J)	0.05 (J)
4/19/2016		0.016 (J)		0.21 (J)	0.014 (J)		0.038 (J)	0.05 (J)	
4/20/2016	0.043 (J)		0.078 (J)			0.076 (J)			0.064 (J)
6/6/2016									
6/7/2016	0.075 (J)	0.048 (J)	0.101 (J)		0.049 (J)				
6/8/2016				0.223 (J)		0.105 (J)	0.067 (J)	0.073 (J)	0.082 (J)
8/30/2016	0.057 (J)	0.034 (J)				0.083 (J)			
8/31/2016			0.086 (J)	0.196 (J)	0.034 (J)		0.05 (J)	0.051 (J)	0.062 (J)
10/18/2016	0.049 (J)					0.067 (J)			
10/19/2016		0.023 (J)	0.075 (J)	0.166 (J)	0.023 (J)		<0.125	<0.125	0.049 (J)
3/20/2017									
3/21/2017				0.18	<0.125		<0.125	0.04 (J)	
3/22/2017	0.04 (J)	<0.125	0.06 (J)			0.06 (J)			0.05 (J)
5/2/2017				0.18	<0.125	0.08 (J)	0.04 (J)	0.05 (J)	
5/3/2017	0.05 (J)	<0.125	0.08 (J)						0.06 (J)
6/6/2017				0.18	<0.125	0.077 (J)	0.04 (J)	0.053 (J)	
6/7/2017	0.05 (J)	<0.125	0.08 (J)						0.07 (J)
9/12/2017					<0.125		0.037 (J)		
9/13/2017				<0.125 (U*)		<0.125 (U*)		<0.125 (U*)	<0.125 (U*)
9/14/2017	0.06 (J)	<0.125	0.07 (J)						
1/22/2018				0.19					0.06 (J)
1/23/2018						0.08 (J)		0.05 (J)	
1/24/2018	0.05 (J)	<0.125	0.09 (J)		<0.125		<0.125		
5/1/2018				0.19	<0.125		<0.125	0.05 (J)	
5/2/2018	0.05 (J)	<0.125	0.08 (J)			0.08 (J)			0.07 (J)
11/26/2018									
11/27/2018	<0.125			0.18	<0.125	0.06 (J)	<0.125	<0.125	
11/28/2018		<0.125	0.07 (J)						0.05 (J)
5/28/2019									
5/29/2019	0.0923 (J)	<0.125	0.0937 (J)	0.168	<0.125	0.0781 (J)	<0.125	0.0683 (J)	0.0679 (J)
5/30/2019									
9/30/2019			0.0925 (J)						
10/1/2019	0.0557 (J)	<0.125		0.185	<0.125	0.0885 (J)	<0.125	0.0774 (J)	0.0703 (J)
10/2/2019									
3/30/2020			0.0933 (J)						
3/31/2020	0.0735 (J)	<0.125			<0.125	0.0867 (J)	<0.125	0.0602 (J)	0.0665 (J)
4/1/2020				0.187					
8/31/2020							<0.125		
9/1/2020	0.0921 (J)				<0.125				0.0757 (J)
9/2/2020		<0.125	0.109	0.18		0.0957 (J)		<0.125	
9/8/2020									
9/9/2020									
5/11/2021				0.214					
5/12/2021									
5/17/2021		<0.125							
5/18/2021			0.11		<0.125		<0.125		
5/19/2021								0.0793 (J)	0.0748 (J)
5/25/2021						0.0957 (J)			
10/18/2021									
10/19/2021									

Prediction Limit

Constituent: Fluoride, total (mg/L) Analysis Run 6/7/2023 12:09 AM View: All

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-5	BY-AP-MW-6	BY-AP-MW-7	BY-AP-MW-15	BY-AP-MW-3	BY-AP-MW-14	BY-AP-MW-2	BY-AP-MW-16	BY-AP-MW-13
10/26/2021				0.171					0.0641 (J)
10/27/2021			0.0823 (J)			0.0651 (J)			
11/1/2021					<0.125		<0.125	0.0887 (J)	
11/2/2021	0.0964 (J)	<0.125							
5/23/2022									
5/24/2022			0.0724 (J)				<0.125		0.0769 (J)
5/25/2022	<0.125	<0.125		0.214	<0.125	0.0733 (J)		<0.125	
5/31/2022									
10/31/2022	0.0614 (J)	<0.125	0.381						
11/1/2022				0.177	<0.125	0.0685 (J)		0.112 (J)	0.13
11/2/2022							0.0711 (J)		
4/3/2023			0.171	0.26			<0.125		
4/4/2023	0.0631 (J)	<0.125			<0.125				0.187
4/5/2023						0.127		0.144	
4/12/2023									

Prediction Limit

Constituent: Fluoride, total (mg/L) Analysis Run 6/7/2023 12:09 AM View: All
Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-1	BY-AP-MW-12
2/23/2016		
3/1/2016		
3/2/2016	0.03 (J)	0.04 (J)
4/19/2016	0.052 (J)	
4/20/2016		0.059 (J)
6/6/2016		
6/7/2016		
6/8/2016	0.069 (J)	0.08 (J)
8/30/2016		
8/31/2016	0.043 (J)	0.059 (J)
10/18/2016		
10/19/2016	<0.125	0.045 (J)
3/20/2017		
3/21/2017	0.04 (J)	
3/22/2017		0.04 (J)
5/2/2017	0.05 (J)	
5/3/2017		0.06 (J)
6/6/2017	0.049 (J)	
6/7/2017		0.06 (J)
9/12/2017		
9/13/2017	<0.125 (U*)	<0.125 (U*)
9/14/2017		
1/22/2018		
1/23/2018		0.05 (J)
1/24/2018	0.05 (J)	
5/1/2018	0.05 (J)	
5/2/2018		0.06 (J)
11/26/2018		
11/27/2018		
11/28/2018	<0.125	0.04 (J)
5/28/2019		
5/29/2019	0.0858 (J)	0.0677 (J)
5/30/2019		
9/30/2019		
10/1/2019	0.0744 (J)	0.0682 (J)
10/2/2019		
3/30/2020	0.0726 (J)	
3/31/2020		0.0755 (J)
4/1/2020		
8/31/2020		
9/1/2020	0.194	0.0845 (J)
9/2/2020		
9/8/2020		
9/9/2020		
5/11/2021		
5/12/2021		
5/17/2021		
5/18/2021	0.0884 (J)	0.0614 (J)
5/19/2021		
5/25/2021		
10/18/2021		
10/19/2021		

Prediction Limit

Constituent: Fluoride, total (mg/L) Analysis Run 6/7/2023 12:09 AM View: All
Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-1	BY-AP-MW-12
10/26/2021		
10/27/2021		
11/1/2021	0.181	0.0928 (J)
11/2/2021		
5/23/2022		0.0873 (J)
5/24/2022	0.0801 (J)	
5/25/2022		
5/31/2022		
10/31/2022		
11/1/2022		0.0695 (J)
11/2/2022	0.0665 (J)	
4/3/2023	0.0717 (J)	
4/4/2023		0.081 (J)
4/5/2023		
4/12/2023		

Prediction Limit

Constituent: TDS (mg/L) Analysis Run 6/7/2023 12:09 AM View: All

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-UP-MW-3 (bg)	BY-UP-MW-4 (bg)	BY-UP-MW-1 (bg)	BY-UP-MW-2 (bg)	BY-AP-MW-10	BY-AP-MW-7	BY-AP-MW-6	BY-AP-MW-9	BY-AP-MW-11
2/23/2016	40	<25	26.7	30.7					
3/1/2016					326	129	45.3	314	395
3/2/2016									
4/19/2016	32	<25	<25	<25			46		
4/20/2016					366	128		338	376
6/6/2016		28.7	32.7						
6/7/2016	38.7			35.3		140	46		
6/8/2016					314			288	324
8/30/2016	31.3	25.3	33.3	27.3			30		
8/31/2016					368	112		334	367
10/18/2016	26.7	<25	27.3	<25					
10/19/2016					381	134	37.3	333	367
1/31/2017	30	26	32	32.7		134	43.3		
2/1/2017					342			330	391
5/2/2017	30.7	<25	31.3	30.7					
5/3/2017					369	127	44.7	338	373
6/6/2017	32.7	42.7	35.3	34.7					
6/7/2017					340	134	45.3	300	367
9/12/2017		26.7							
9/13/2017	38		36.7	39.3					378
9/14/2017					391	141	48.7	350	
5/1/2018	35.3	34.7		42					
5/2/2018			34		343	133	44	333	330
8/28/2018					375			324	
8/29/2018							50		352
11/26/2018		32.7							
11/27/2018	36		50.7	31.3					
11/28/2018					378	138	50.7	330	357
5/28/2019		31.3							
5/29/2019	37.3		58	40		132	48.7		367
5/30/2019					377			315	
9/30/2019					361	137		319	399
10/1/2019							38		
10/2/2019	36.7	36	46	41.3					
3/30/2020						135			
3/31/2020	39.3	36.7	53.3	40	387		42	330	393
4/1/2020									
8/31/2020									
9/1/2020					392				399
9/2/2020						129	37.3	301	
9/8/2020		39.3							
9/9/2020	42.7		42	40.7					
5/11/2021	44	46.7		35.3	391				
5/12/2021			40.7						
5/17/2021							46.7		
5/18/2021						175		314	
5/19/2021									422
5/25/2021									
10/18/2021	36	36							
10/19/2021			40	36					
10/26/2021									
10/27/2021					373	123		302	

Prediction Limit

Constituent: TDS (mg/L) Analysis Run 6/7/2023 12:09 AM View: All
Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-UP-MW-3 (bg)	BY-UP-MW-4 (bg)	BY-UP-MW-1 (bg)	BY-UP-MW-2 (bg)	BY-AP-MW-10	BY-AP-MW-7	BY-AP-MW-6	BY-AP-MW-9	BY-AP-MW-11
11/1/2021									
11/2/2021							38		390
5/23/2022									404
5/24/2022					398	148		268	
5/25/2022							40.7		
5/31/2022	35.3	36.7	32	30.7					
10/31/2022						291	46	329	
11/1/2022	36	31.299999	33.299999	36					419
11/2/2022					344				
4/3/2023					370	198			
4/4/2023							40	317	392
4/5/2023									
4/12/2023	30.700001	32	<25	27.299999					

Prediction Limit

Constituent: TDS (mg/L) Analysis Run 6/7/2023 12:09 AM View: All

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-3	BY-AP-MW-1
2/23/2016		
3/1/2016		
3/2/2016	27.3	426
4/19/2016	33.3	442
4/20/2016		
6/6/2016		
6/7/2016	44	
6/8/2016		461
8/30/2016		
8/31/2016	29.3	456
10/18/2016		
10/19/2016	29.3	444
1/31/2017	36.7	422
2/1/2017		
5/2/2017	28	442
5/3/2017		
6/6/2017	36.7	433
6/7/2017		
9/12/2017	35.3	
9/13/2017		456
9/14/2017		
5/1/2018	34.7	416
5/2/2018		
8/28/2018	34	420
8/29/2018		
11/26/2018		
11/27/2018	41.3	
11/28/2018		408
5/28/2019		
5/29/2019	40	403
5/30/2019		
9/30/2019		
10/1/2019	36.7	430
10/2/2019		
3/30/2020		419
3/31/2020	37.3	
4/1/2020		
8/31/2020		
9/1/2020	39.3	454
9/2/2020		
9/8/2020		
9/9/2020		
5/11/2021		
5/12/2021		
5/17/2021		
5/18/2021	38	450
5/19/2021		
5/25/2021		
10/18/2021		
10/19/2021		
10/26/2021		
10/27/2021		

Prediction Limit

Constituent: TDS (mg/L) Analysis Run 6/7/2023 12:09 AM View: All
Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-3	BY-AP-MW-1
11/1/2021	35.3	480
11/2/2021		
5/23/2022		
5/24/2022		464
5/25/2022	50.7	
5/31/2022		
10/31/2022		
11/1/2022	40	
11/2/2022		404
4/3/2023		400
4/4/2023	43.299999	
4/5/2023		
4/12/2023		

FIGURE F.

Trend Tests - Prediction Limit Exceedances - Significant Results

Plant Barry Client: Southern Company Data: Barry Ash Pond Printed 6/7/2023, 12:15 AM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
Boron, total (mg/L)	BY-AP-MW-10	0.1136	133	81	Yes	20	0	n/a	n/a	0.01	NP
Boron, total (mg/L)	BY-AP-MW-16	0.08216	121	81	Yes	20	0	n/a	n/a	0.01	NP
Calcium, total (mg/L)	BY-AP-MW-10	2.02	108	87	Yes	21	0	n/a	n/a	0.01	NP
Calcium, total (mg/L)	BY-AP-MW-12	0.3894	122	87	Yes	21	0	n/a	n/a	0.01	NP
Calcium, total (mg/L)	BY-AP-MW-7	0.3936	98	81	Yes	20	0	n/a	n/a	0.01	NP
Calcium, total (mg/L)	BY-AP-MW-8	-0.5646	-127	-87	Yes	21	0	n/a	n/a	0.01	NP
Calcium, total (mg/L)	BY-UP-MW-3 (bg)	0.05783	101	81	Yes	20	0	n/a	n/a	0.01	NP
Calcium, total (mg/L)	BY-UP-MW-4 (bg)	0.1123	124	81	Yes	20	0	n/a	n/a	0.01	NP
Chloride, Total (mg/L)	BY-AP-MW-10	1.486	166	87	Yes	21	0	n/a	n/a	0.01	NP
Chloride, Total (mg/L)	BY-AP-MW-12	0.5618	125	87	Yes	21	0	n/a	n/a	0.01	NP
Chloride, Total (mg/L)	BY-AP-MW-14	1.372	114	87	Yes	21	0	n/a	n/a	0.01	NP
Chloride, Total (mg/L)	BY-AP-MW-15	9.918	188	87	Yes	21	0	n/a	n/a	0.01	NP
Chloride, Total (mg/L)	BY-AP-MW-16	0.8385	150	87	Yes	21	0	n/a	n/a	0.01	NP
Chloride, Total (mg/L)	BY-AP-MW-7	0.6631	110	81	Yes	20	0	n/a	n/a	0.01	NP
Chloride, Total (mg/L)	BY-UP-MW-2 (bg)	-0.361	-127	-81	Yes	20	0	n/a	n/a	0.01	NP
Chloride, Total (mg/L)	BY-UP-MW-3 (bg)	-0.06405	-104	-81	Yes	20	0	n/a	n/a	0.01	NP
Chloride, Total (mg/L)	BY-UP-MW-4 (bg)	-0.04945	-90	-81	Yes	20	0	n/a	n/a	0.01	NP
Fluoride, total (mg/L)	BY-AP-MW-13	0.004293	100	87	Yes	21	4.762	n/a	n/a	0.01	NP
Fluoride, total (mg/L)	BY-AP-MW-16	0.008725	101	87	Yes	21	23.81	n/a	n/a	0.01	NP
Fluoride, total (mg/L)	BY-AP-MW-7	0.006166	89	87	Yes	21	0	n/a	n/a	0.01	NP
Fluoride, total (mg/L)	BY-UP-MW-1 (bg)	0.01082	100	87	Yes	21	52.38	n/a	n/a	0.01	NP
Fluoride, total (mg/L)	BY-UP-MW-2 (bg)	0.01456	105	87	Yes	21	52.38	n/a	n/a	0.01	NP
Fluoride, total (mg/L)	BY-UP-MW-3 (bg)	0.00566	106	87	Yes	21	66.67	n/a	n/a	0.01	NP
Fluoride, total (mg/L)	BY-UP-MW-4 (bg)	0.00566	106	87	Yes	21	66.67	n/a	n/a	0.01	NP
pH, field (SU)	BY-AP-MW-2	-0.09288	-164	-98	Yes	23	0	n/a	n/a	0.01	NP
pH, field (SU)	BY-UP-MW-2 (bg)	-0.05688	-140	-92	Yes	22	0	n/a	n/a	0.01	NP
pH, field (SU)	BY-UP-MW-3 (bg)	-0.07203	-134	-92	Yes	22	0	n/a	n/a	0.01	NP
pH, field (SU)	BY-UP-MW-4 (bg)	-0.03806	-111	-92	Yes	22	0	n/a	n/a	0.01	NP
Sulfate as SO4 (mg/L)	BY-AP-MW-1	2.168	137	87	Yes	21	28.57	n/a	n/a	0.01	NP
Sulfate as SO4 (mg/L)	BY-AP-MW-10	1.096	94	87	Yes	21	42.86	n/a	n/a	0.01	NP
Sulfate as SO4 (mg/L)	BY-AP-MW-11	7.332	147	87	Yes	21	28.57	n/a	n/a	0.01	NP
Sulfate as SO4 (mg/L)	BY-AP-MW-12	2.242	104	81	Yes	20	45	n/a	n/a	0.01	NP
Sulfate as SO4 (mg/L)	BY-AP-MW-13	3.326	96	81	Yes	20	25	n/a	n/a	0.01	NP
Sulfate as SO4 (mg/L)	BY-AP-MW-14	11.37	112	81	Yes	20	45	n/a	n/a	0.01	NP
Sulfate as SO4 (mg/L)	BY-AP-MW-5	0.829	89	74	Yes	19	47.37	n/a	n/a	0.01	NP
Sulfate as SO4 (mg/L)	BY-AP-MW-7	0.9419	97	81	Yes	20	30	n/a	n/a	0.01	NP
Sulfate as SO4 (mg/L)	BY-AP-MW-8	2.016	127	87	Yes	21	47.62	n/a	n/a	0.01	NP
Sulfate as SO4 (mg/L)	BY-AP-MW-9	0.4966	90	87	Yes	21	42.86	n/a	n/a	0.01	NP
TDS (mg/L)	BY-AP-MW-15	15.94	162	87	Yes	21	0	n/a	n/a	0.01	NP
TDS (mg/L)	BY-UP-MW-4 (bg)	1.876	95	81	Yes	20	20	n/a	n/a	0.01	NP

Trend Tests - Prediction Limit Exceedances - All Results

Plant Barry Client: Southern Company Data: Barry Ash Pond Printed 6/7/2023, 12:15 AM

<u>Constituent</u>	<u>Well</u>	<u>Slope</u>	<u>Calc.</u>	<u>Critical</u>	<u>Sig.</u>	<u>N</u>	<u>%NDs</u>	<u>Normality</u>	<u>Xform</u>	<u>Alpha</u>	<u>Method</u>
Boron, total (mg/L)	BY-AP-MW-1	0.04887	64	81	No	20	0	n/a	n/a	0.01	NP
Boron, total (mg/L)	BY-AP-MW-10	0.1136	133	81	Yes	20	0	n/a	n/a	0.01	NP
Boron, total (mg/L)	BY-AP-MW-16	0.08216	121	81	Yes	20	0	n/a	n/a	0.01	NP
Boron, total (mg/L)	BY-AP-MW-9	0	1	81	No	20	0	n/a	n/a	0.01	NP
Boron, total (mg/L)	BY-UP-MW-1 (bg)	-0.0009367	-48	-81	No	20	40	n/a	n/a	0.01	NP
Boron, total (mg/L)	BY-UP-MW-2 (bg)	0	31	74	No	19	89.47	n/a	n/a	0.01	NP
Boron, total (mg/L)	BY-UP-MW-3 (bg)	0	0	81	No	20	100	n/a	n/a	0.01	NP
Boron, total (mg/L)	BY-UP-MW-4 (bg)	0	29	81	No	20	90	n/a	n/a	0.01	NP
Calcium, total (mg/L)	BY-AP-MW-1	0.3179	16	87	No	21	0	n/a	n/a	0.01	NP
Calcium, total (mg/L)	BY-AP-MW-10	2.02	108	87	Yes	21	0	n/a	n/a	0.01	NP
Calcium, total (mg/L)	BY-AP-MW-11	-0.1518	-20	-87	No	21	0	n/a	n/a	0.01	NP
Calcium, total (mg/L)	BY-AP-MW-12	0.3894	122	87	Yes	21	0	n/a	n/a	0.01	NP
Calcium, total (mg/L)	BY-AP-MW-13	0.4066	75	87	No	21	0	n/a	n/a	0.01	NP
Calcium, total (mg/L)	BY-AP-MW-14	-0.1157	-26	-87	No	21	0	n/a	n/a	0.01	NP
Calcium, total (mg/L)	BY-AP-MW-15	0.04921	29	87	No	21	0	n/a	n/a	0.01	NP
Calcium, total (mg/L)	BY-AP-MW-16	-0.04554	-19	-87	No	21	0	n/a	n/a	0.01	NP
Calcium, total (mg/L)	BY-AP-MW-4	-0.01511	-12	-87	No	21	0	n/a	n/a	0.01	NP
Calcium, total (mg/L)	BY-AP-MW-5	-0.1127	-33	-81	No	20	0	n/a	n/a	0.01	NP
Calcium, total (mg/L)	BY-AP-MW-7	0.3936	98	81	Yes	20	0	n/a	n/a	0.01	NP
Calcium, total (mg/L)	BY-AP-MW-8	-0.5646	-127	-87	Yes	21	0	n/a	n/a	0.01	NP
Calcium, total (mg/L)	BY-AP-MW-9	-0.05215	-16	-87	No	21	0	n/a	n/a	0.01	NP
Calcium, total (mg/L)	BY-UP-MW-1 (bg)	-0.004603	-12	-81	No	20	0	n/a	n/a	0.01	NP
Calcium, total (mg/L)	BY-UP-MW-2 (bg)	0.0288	40	81	No	20	0	n/a	n/a	0.01	NP
Calcium, total (mg/L)	BY-UP-MW-3 (bg)	0.05783	101	81	Yes	20	0	n/a	n/a	0.01	NP
Calcium, total (mg/L)	BY-UP-MW-4 (bg)	0.1123	124	81	Yes	20	0	n/a	n/a	0.01	NP
Chloride, Total (mg/L)	BY-AP-MW-1	0.368	55	74	No	19	0	n/a	n/a	0.01	NP
Chloride, Total (mg/L)	BY-AP-MW-10	1.486	166	87	Yes	21	0	n/a	n/a	0.01	NP
Chloride, Total (mg/L)	BY-AP-MW-11	0.4491	54	87	No	21	0	n/a	n/a	0.01	NP
Chloride, Total (mg/L)	BY-AP-MW-12	0.5618	125	87	Yes	21	0	n/a	n/a	0.01	NP
Chloride, Total (mg/L)	BY-AP-MW-13	-0.5681	-32	-87	No	21	0	n/a	n/a	0.01	NP
Chloride, Total (mg/L)	BY-AP-MW-14	1.372	114	87	Yes	21	0	n/a	n/a	0.01	NP
Chloride, Total (mg/L)	BY-AP-MW-15	9.918	188	87	Yes	21	0	n/a	n/a	0.01	NP
Chloride, Total (mg/L)	BY-AP-MW-16	0.8385	150	87	Yes	21	0	n/a	n/a	0.01	NP
Chloride, Total (mg/L)	BY-AP-MW-4	0.0839	11	87	No	21	0	n/a	n/a	0.01	NP
Chloride, Total (mg/L)	BY-AP-MW-5	-0.1245	-22	-81	No	20	0	n/a	n/a	0.01	NP
Chloride, Total (mg/L)	BY-AP-MW-7	0.6631	110	81	Yes	20	0	n/a	n/a	0.01	NP
Chloride, Total (mg/L)	BY-AP-MW-8	0.04311	13	87	No	21	0	n/a	n/a	0.01	NP
Chloride, Total (mg/L)	BY-AP-MW-9	-0.8711	-78	-87	No	21	0	n/a	n/a	0.01	NP
Chloride, Total (mg/L)	BY-UP-MW-1 (bg)	-0.1864	-62	-81	No	20	0	n/a	n/a	0.01	NP
Chloride, Total (mg/L)	BY-UP-MW-2 (bg)	-0.361	-127	-81	Yes	20	0	n/a	n/a	0.01	NP
Chloride, Total (mg/L)	BY-UP-MW-3 (bg)	-0.06405	-104	-81	Yes	20	0	n/a	n/a	0.01	NP
Chloride, Total (mg/L)	BY-UP-MW-4 (bg)	-0.04945	-90	-81	Yes	20	0	n/a	n/a	0.01	NP
Fluoride, total (mg/L)	BY-AP-MW-11	0.00443	76	87	No	21	4.762	n/a	n/a	0.01	NP
Fluoride, total (mg/L)	BY-AP-MW-13	0.004293	100	87	Yes	21	4.762	n/a	n/a	0.01	NP
Fluoride, total (mg/L)	BY-AP-MW-14	0.002285	33	87	No	21	4.762	n/a	n/a	0.01	NP
Fluoride, total (mg/L)	BY-AP-MW-15	0	9	87	No	21	4.762	n/a	n/a	0.01	NP
Fluoride, total (mg/L)	BY-AP-MW-16	0.008725	101	87	Yes	21	23.81	n/a	n/a	0.01	NP
Fluoride, total (mg/L)	BY-AP-MW-7	0.006166	89	87	Yes	21	0	n/a	n/a	0.01	NP
Fluoride, total (mg/L)	BY-UP-MW-1 (bg)	0.01082	100	87	Yes	21	52.38	n/a	n/a	0.01	NP
Fluoride, total (mg/L)	BY-UP-MW-2 (bg)	0.01456	105	87	Yes	21	52.38	n/a	n/a	0.01	NP
Fluoride, total (mg/L)	BY-UP-MW-3 (bg)	0.00566	106	87	Yes	21	66.67	n/a	n/a	0.01	NP
Fluoride, total (mg/L)	BY-UP-MW-4 (bg)	0.00566	106	87	Yes	21	66.67	n/a	n/a	0.01	NP
pH, field (SU)	BY-AP-MW-10	-0.0135	-31	-98	No	23	0	n/a	n/a	0.01	NP
pH, field (SU)	BY-AP-MW-2	-0.09288	-164	-98	Yes	23	0	n/a	n/a	0.01	NP
pH, field (SU)	BY-AP-MW-3	-0.0262	-71	-98	No	23	0	n/a	n/a	0.01	NP
pH, field (SU)	BY-AP-MW-7	0.01492	61	92	No	22	0	n/a	n/a	0.01	NP
pH, field (SU)	BY-AP-MW-8	0	-13	-98	No	23	0	n/a	n/a	0.01	NP
pH, field (SU)	BY-UP-MW-1 (bg)	-0.002988	-13	-92	No	22	0	n/a	n/a	0.01	NP
pH, field (SU)	BY-UP-MW-2 (bg)	-0.05688	-140	-92	Yes	22	0	n/a	n/a	0.01	NP
pH, field (SU)	BY-UP-MW-3 (bg)	-0.07203	-134	-92	Yes	22	0	n/a	n/a	0.01	NP
pH, field (SU)	BY-UP-MW-4 (bg)	-0.03806	-111	-92	Yes	22	0	n/a	n/a	0.01	NP
Sulfate as SO4 (mg/L)	BY-AP-MW-1	2.168	137	87	Yes	21	28.57	n/a	n/a	0.01	NP
Sulfate as SO4 (mg/L)	BY-AP-MW-10	1.096	94	87	Yes	21	42.86	n/a	n/a	0.01	NP
Sulfate as SO4 (mg/L)	BY-AP-MW-11	7.332	147	87	Yes	21	28.57	n/a	n/a	0.01	NP
Sulfate as SO4 (mg/L)	BY-AP-MW-12	2.242	104	81	Yes	20	45	n/a	n/a	0.01	NP
Sulfate as SO4 (mg/L)	BY-AP-MW-13	3.326	96	81	Yes	20	25	n/a	n/a	0.01	NP
Sulfate as SO4 (mg/L)	BY-AP-MW-14	11.37	112	81	Yes	20	45	n/a	n/a	0.01	NP
Sulfate as SO4 (mg/L)	BY-AP-MW-15	0.03312	47	87	No	21	47.62	n/a	n/a	0.01	NP

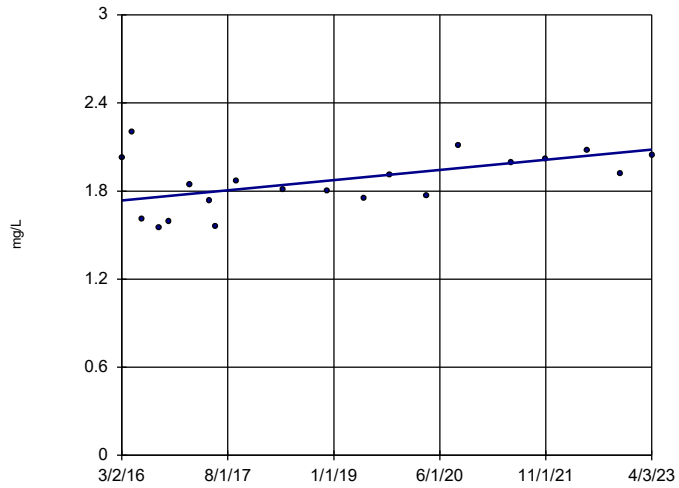
Trend Tests - Prediction Limit Exceedances - All Results

Plant Barry Client: Southern Company Data: Barry Ash Pond Printed 6/7/2023, 12:15 AM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
Sulfate as SO4 (mg/L)	BY-AP-MW-16	0.2304	47	74	No	19	47.37	n/a	n/a	0.01	NP
Sulfate as SO4 (mg/L)	BY-AP-MW-5	0.829	89	74	Yes	19	47.37	n/a	n/a	0.01	NP
Sulfate as SO4 (mg/L)	BY-AP-MW-7	0.9419	97	81	Yes	20	30	n/a	n/a	0.01	NP
Sulfate as SO4 (mg/L)	BY-AP-MW-8	2.016	127	87	Yes	21	47.62	n/a	n/a	0.01	NP
Sulfate as SO4 (mg/L)	BY-AP-MW-9	0.4966	90	87	Yes	21	42.86	n/a	n/a	0.01	NP
Sulfate as SO4 (mg/L)	BY-UP-MW-1 (bg)	0.7972	50	81	No	20	0	n/a	n/a	0.01	NP
Sulfate as SO4 (mg/L)	BY-UP-MW-2 (bg)	0.1304	22	74	No	19	0	n/a	n/a	0.01	NP
Sulfate as SO4 (mg/L)	BY-UP-MW-3 (bg)	-0.07299	-38	-81	No	20	0	n/a	n/a	0.01	NP
Sulfate as SO4 (mg/L)	BY-UP-MW-4 (bg)	-0.06997	-35	-81	No	20	0	n/a	n/a	0.01	NP
TDS (mg/L)	BY-AP-MW-1	-3.188	-36	-87	No	21	0	n/a	n/a	0.01	NP
TDS (mg/L)	BY-AP-MW-10	5.242	79	87	No	21	0	n/a	n/a	0.01	NP
TDS (mg/L)	BY-AP-MW-11	6.294	77	87	No	21	0	n/a	n/a	0.01	NP
TDS (mg/L)	BY-AP-MW-12	-0.6998	-9	-87	No	21	0	n/a	n/a	0.01	NP
TDS (mg/L)	BY-AP-MW-13	-5.299	-75	-87	No	21	0	n/a	n/a	0.01	NP
TDS (mg/L)	BY-AP-MW-14	2.236	44	87	No	21	0	n/a	n/a	0.01	NP
TDS (mg/L)	BY-AP-MW-15	15.94	162	87	Yes	21	0	n/a	n/a	0.01	NP
TDS (mg/L)	BY-AP-MW-16	6.148	82	87	No	21	0	n/a	n/a	0.01	NP
TDS (mg/L)	BY-AP-MW-4	2.211	64	87	No	21	0	n/a	n/a	0.01	NP
TDS (mg/L)	BY-AP-MW-5	-4.862	-68	-81	No	20	0	n/a	n/a	0.01	NP
TDS (mg/L)	BY-AP-MW-7	2.958	66	81	No	20	0	n/a	n/a	0.01	NP
TDS (mg/L)	BY-AP-MW-8	-2.208	-40	-87	No	21	0	n/a	n/a	0.01	NP
TDS (mg/L)	BY-AP-MW-9	-3.065	-62	-87	No	21	0	n/a	n/a	0.01	NP
TDS (mg/L)	BY-UP-MW-1 (bg)	1.942	51	81	No	20	10	n/a	n/a	0.01	NP
TDS (mg/L)	BY-UP-MW-2 (bg)	0.9688	48	81	No	20	10	n/a	n/a	0.01	NP
TDS (mg/L)	BY-UP-MW-3 (bg)	0.7112	31	81	No	20	0	n/a	n/a	0.01	NP
TDS (mg/L)	BY-UP-MW-4 (bg)	1.876	95	81	Yes	20	20	n/a	n/a	0.01	NP

Sen's Slope Estimator

BY-AP-MW-1

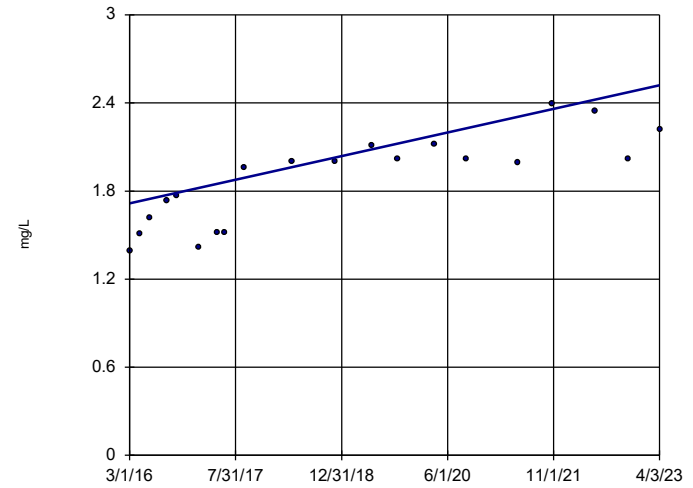


n = 20
 Slope = 0.04887
 units per year.
 Mann-Kendall
 statistic = 64
 critical = 81
 Trend not sig-
 nificant at 99%
 confidence level
 ($\alpha = 0.005$ per
 tail).

Constituent: Boron, total Analysis Run 6/7/2023 12:12 AM View: Trend
 Plant Barry Client: Southern Company Data: Barry Ash Pond

Sen's Slope Estimator

BY-AP-MW-10

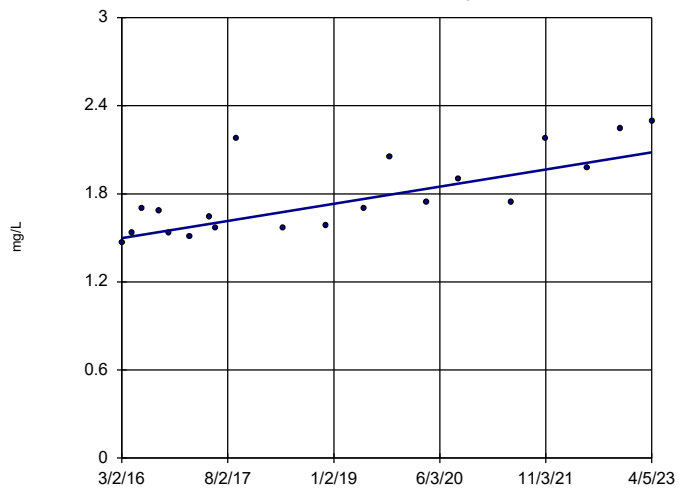


n = 20
 Slope = 0.1136
 units per year.
 Mann-Kendall
 statistic = 133
 critical = 81
 Increasing trend
 significant at 99%
 confidence level
 ($\alpha = 0.005$ per
 tail).

Constituent: Boron, total Analysis Run 6/7/2023 12:12 AM View: Trend
 Plant Barry Client: Southern Company Data: Barry Ash Pond

Sen's Slope Estimator

BY-AP-MW-16

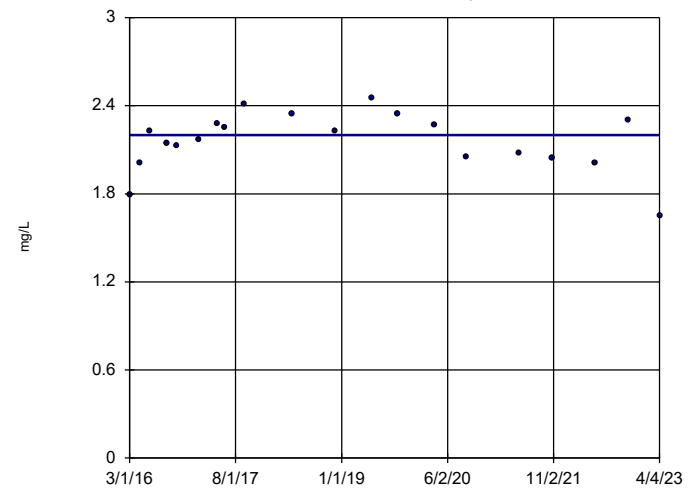


n = 20
 Slope = 0.08216
 units per year.
 Mann-Kendall
 statistic = 121
 critical = 81
 Increasing trend
 significant at 99%
 confidence level
 ($\alpha = 0.005$ per
 tail).

Constituent: Boron, total Analysis Run 6/7/2023 12:12 AM View: Trend
 Plant Barry Client: Southern Company Data: Barry Ash Pond

Sen's Slope Estimator

BY-AP-MW-9

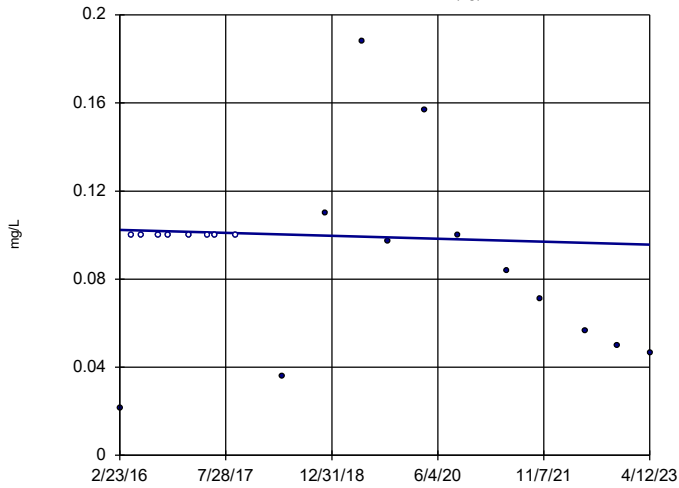


n = 20
 Slope = 0
 units per year.
 Mann-Kendall
 statistic = 1
 critical = 81
 Trend not sig-
 nificant at 99%
 confidence level
 ($\alpha = 0.005$ per
 tail).

Constituent: Boron, total Analysis Run 6/7/2023 12:12 AM View: Trend
 Plant Barry Client: Southern Company Data: Barry Ash Pond

Sen's Slope Estimator

BY-UP-MW-1 (bg)

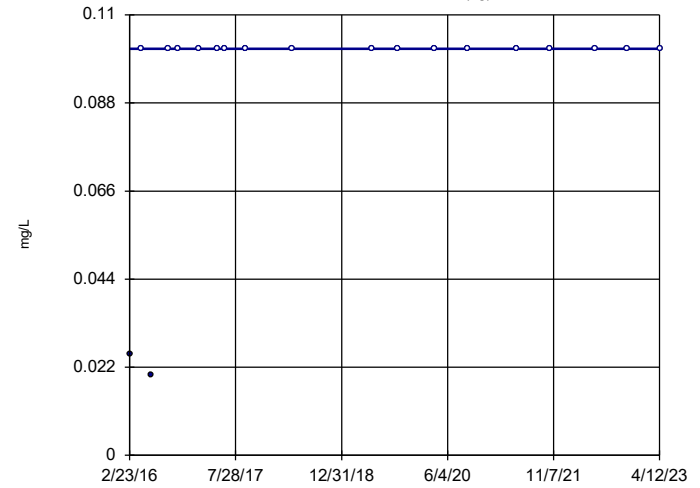


n = 20
Slope = -0.0009367
units per year.
Mann-Kendall
statistic = -48
critical = -81
Trend not sig-
nificant at 99%
confidence level
($\alpha = 0.005$ per
tail).

Constituent: Boron, total Analysis Run 6/7/2023 12:12 AM View: Trend
Plant Barry Client: Southern Company Data: Barry Ash Pond

Sen's Slope Estimator

BY-UP-MW-2 (bg)

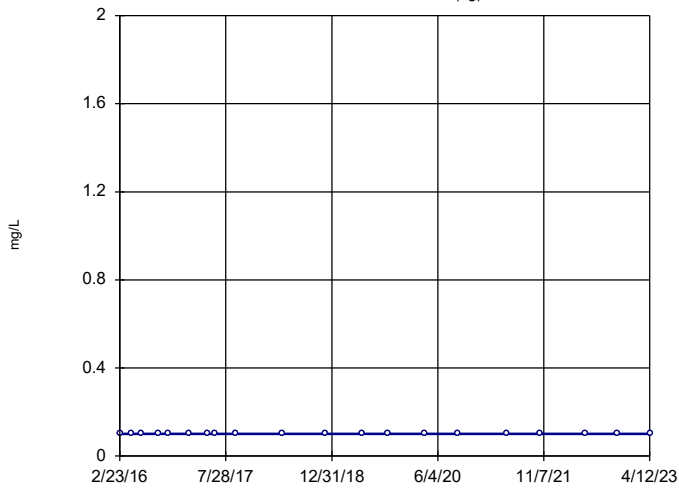


n = 19
Slope = 0
units per year.
Mann-Kendall
statistic = 31
critical = 74
Trend not sig-
nificant at 99%
confidence level
($\alpha = 0.005$ per
tail).

Constituent: Boron, total Analysis Run 6/7/2023 12:12 AM View: Trend
Plant Barry Client: Southern Company Data: Barry Ash Pond

Sen's Slope Estimator

BY-UP-MW-3 (bg)

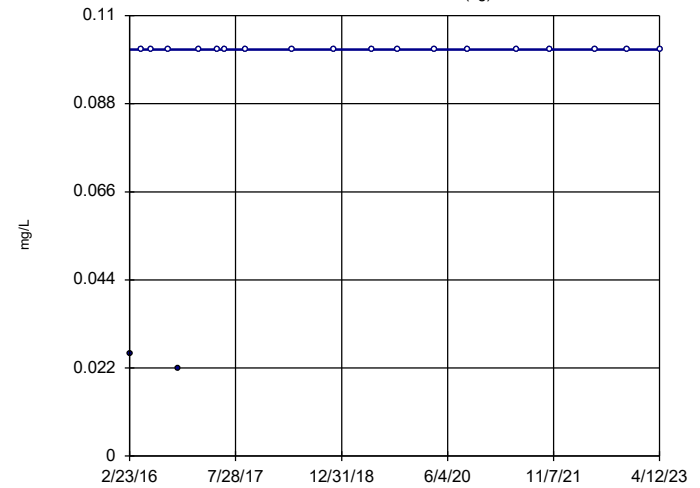


n = 20
Slope = 0
units per year.
Mann-Kendall
statistic = 0
critical = 81
Trend not sig-
nificant at 99%
confidence level
($\alpha = 0.005$ per
tail).

Constituent: Boron, total Analysis Run 6/7/2023 12:12 AM View: Trend
Plant Barry Client: Southern Company Data: Barry Ash Pond

Sen's Slope Estimator

BY-UP-MW-4 (bg)

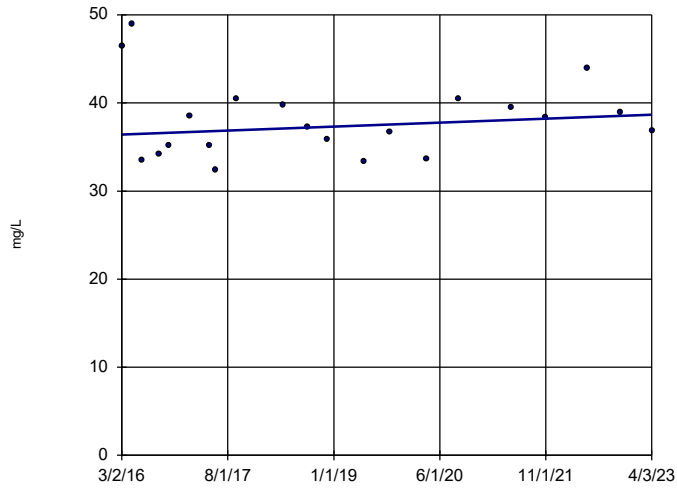


n = 20
Slope = 0
units per year.
Mann-Kendall
statistic = 29
critical = 81
Trend not sig-
nificant at 99%
confidence level
($\alpha = 0.005$ per
tail).

Constituent: Boron, total Analysis Run 6/7/2023 12:12 AM View: Trend
Plant Barry Client: Southern Company Data: Barry Ash Pond

Sen's Slope Estimator

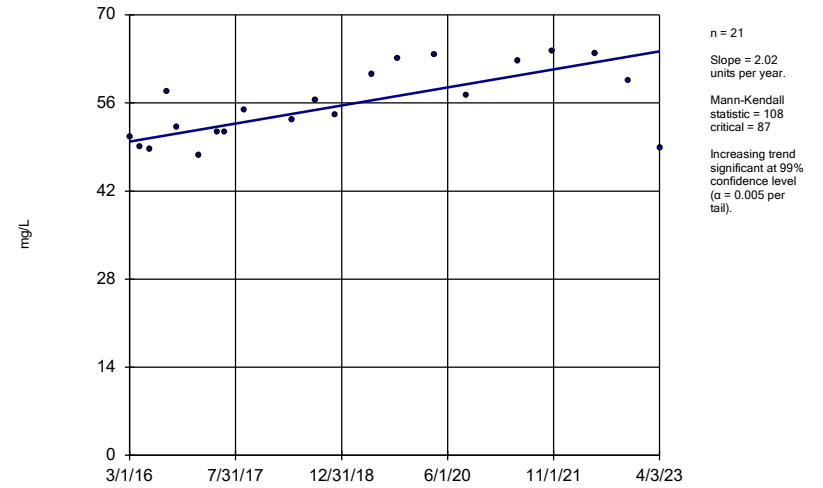
BY-AP-MW-1



Constituent: Calcium, total Analysis Run 6/7/2023 12:12 AM View: Trend
Plant Barry Client: Southern Company Data: Barry Ash Pond

Sen's Slope Estimator

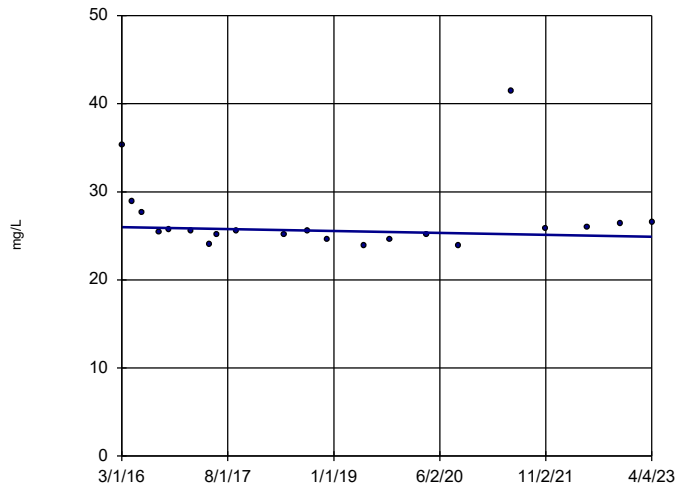
BY-AP-MW-10



Constituent: Calcium, total Analysis Run 6/7/2023 12:12 AM View: Trend
Plant Barry Client: Southern Company Data: Barry Ash Pond

Sen's Slope Estimator

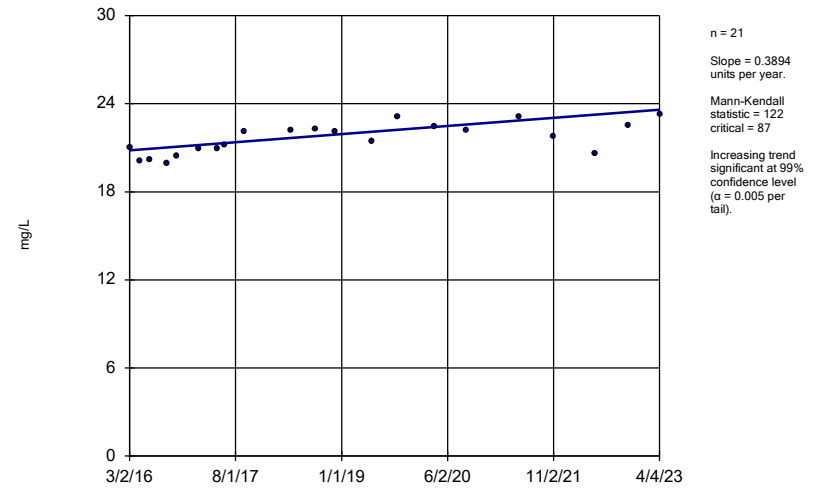
BY-AP-MW-11



Constituent: Calcium, total Analysis Run 6/7/2023 12:12 AM View: Trend
Plant Barry Client: Southern Company Data: Barry Ash Pond

Sen's Slope Estimator

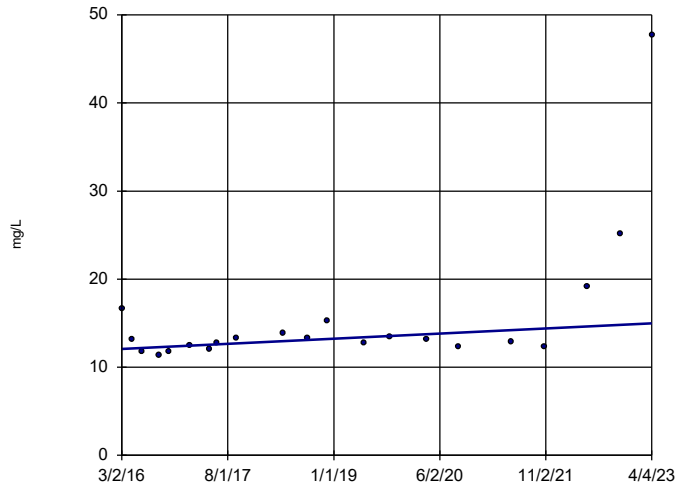
BY-AP-MW-12



Constituent: Calcium, total Analysis Run 6/7/2023 12:12 AM View: Trend
Plant Barry Client: Southern Company Data: Barry Ash Pond

Sen's Slope Estimator

BY-AP-MW-13

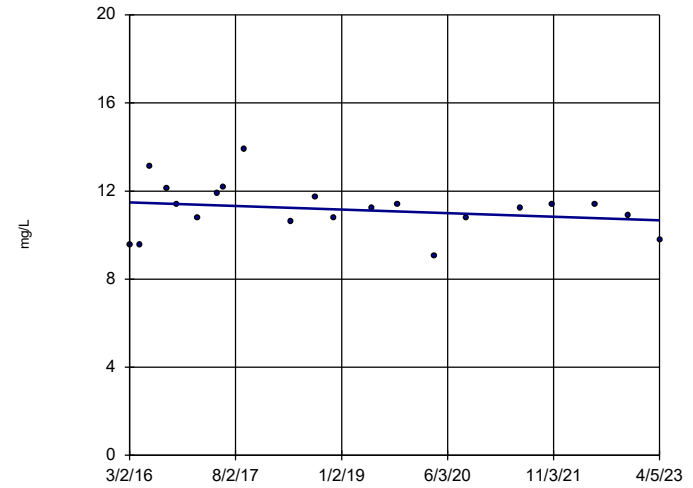


n = 21
 Slope = 0.4066
 units per year.
 Mann-Kendall
 statistic = 75
 critical = 87
 Trend not sig-
 nificant at 99%
 confidence level
 ($\alpha = 0.005$ per
 tail).

Constituent: Calcium, total Analysis Run 6/7/2023 12:12 AM View: Trend
 Plant Barry Client: Southern Company Data: Barry Ash Pond

Sen's Slope Estimator

BY-AP-MW-14

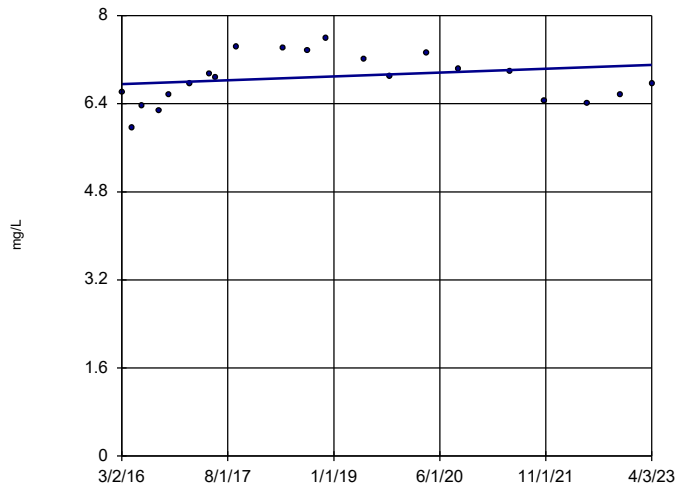


n = 21
 Slope = -0.1157
 units per year.
 Mann-Kendall
 statistic = -26
 critical = -87
 Trend not sig-
 nificant at 99%
 confidence level
 ($\alpha = 0.005$ per
 tail).

Constituent: Calcium, total Analysis Run 6/7/2023 12:12 AM View: Trend
 Plant Barry Client: Southern Company Data: Barry Ash Pond

Sen's Slope Estimator

BY-AP-MW-15

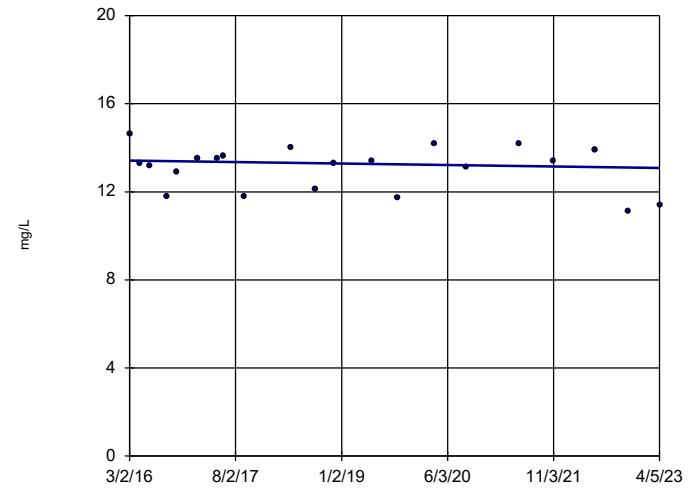


n = 21
 Slope = 0.04921
 units per year.
 Mann-Kendall
 statistic = 29
 critical = 87
 Trend not sig-
 nificant at 99%
 confidence level
 ($\alpha = 0.005$ per
 tail).

Constituent: Calcium, total Analysis Run 6/7/2023 12:12 AM View: Trend
 Plant Barry Client: Southern Company Data: Barry Ash Pond

Sen's Slope Estimator

BY-AP-MW-16

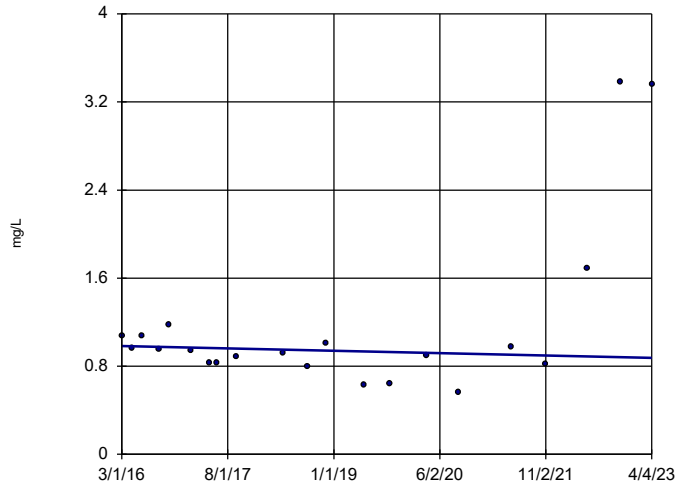


n = 21
 Slope = -0.04554
 units per year.
 Mann-Kendall
 statistic = -19
 critical = -87
 Trend not sig-
 nificant at 99%
 confidence level
 ($\alpha = 0.005$ per
 tail).

Constituent: Calcium, total Analysis Run 6/7/2023 12:12 AM View: Trend
 Plant Barry Client: Southern Company Data: Barry Ash Pond

Sen's Slope Estimator

BY-AP-MW-4

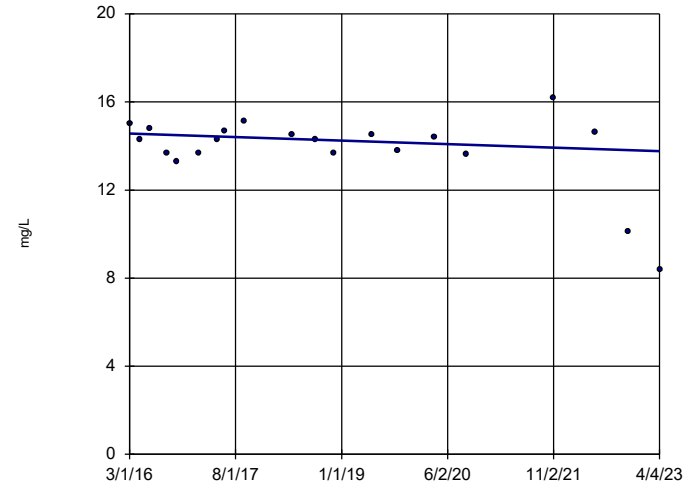


n = 21
 Slope = -0.01511
 units per year.
 Mann-Kendall
 statistic = -12
 critical = -87
 Trend not sig-
 nificant at 99%
 confidence level
 ($\alpha = 0.005$ per
 tail).

Constituent: Calcium, total Analysis Run 6/7/2023 12:12 AM View: Trend
 Plant Barry Client: Southern Company Data: Barry Ash Pond

Sen's Slope Estimator

BY-AP-MW-5

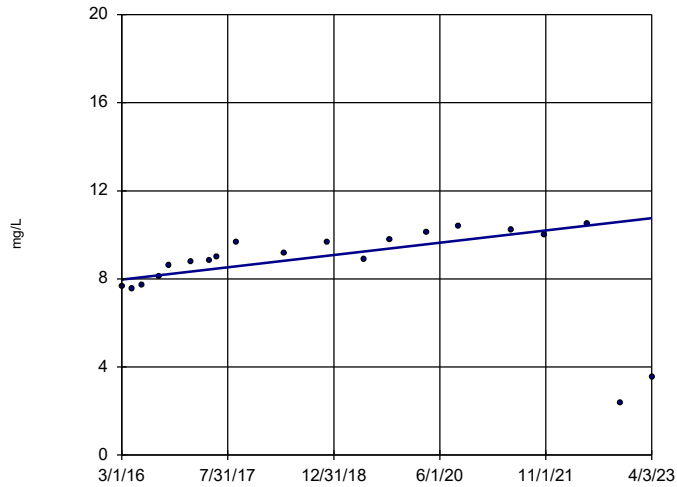


n = 20
 Slope = -0.1127
 units per year.
 Mann-Kendall
 statistic = -33
 critical = -81
 Trend not sig-
 nificant at 99%
 confidence level
 ($\alpha = 0.005$ per
 tail).

Constituent: Calcium, total Analysis Run 6/7/2023 12:12 AM View: Trend
 Plant Barry Client: Southern Company Data: Barry Ash Pond

Sen's Slope Estimator

BY-AP-MW-7

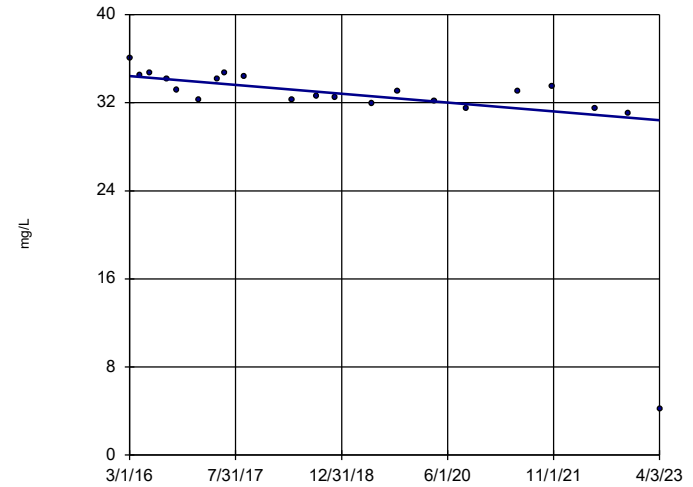


n = 20
 Slope = 0.3936
 units per year.
 Mann-Kendall
 statistic = 98
 critical = 81
 Increasing trend
 significant at 99%
 confidence level
 ($\alpha = 0.005$ per
 tail).

Constituent: Calcium, total Analysis Run 6/7/2023 12:12 AM View: Trend
 Plant Barry Client: Southern Company Data: Barry Ash Pond

Sen's Slope Estimator

BY-AP-MW-8

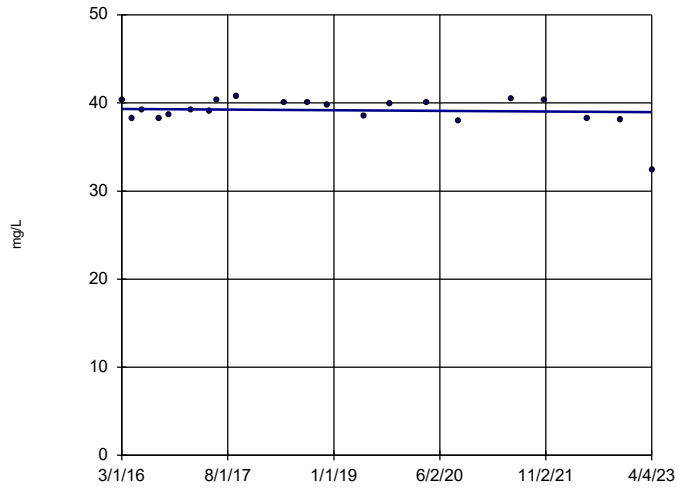


n = 21
 Slope = -0.5646
 units per year.
 Mann-Kendall
 statistic = -127
 critical = -87
 Decreasing trend
 significant at 99%
 confidence level
 ($\alpha = 0.005$ per
 tail).

Constituent: Calcium, total Analysis Run 6/7/2023 12:12 AM View: Trend
 Plant Barry Client: Southern Company Data: Barry Ash Pond

Sen's Slope Estimator

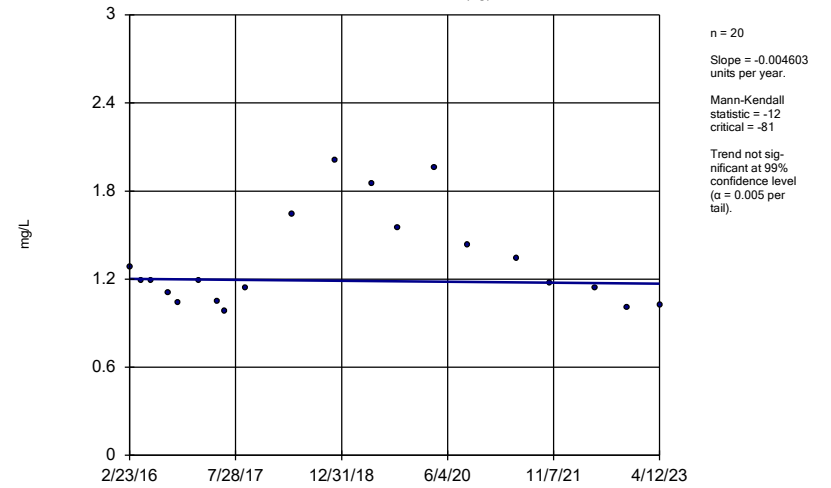
BY-AP-MW-9



Constituent: Calcium, total Analysis Run 6/7/2023 12:12 AM View: Trend
Plant Barry Client: Southern Company Data: Barry Ash Pond

Sen's Slope Estimator

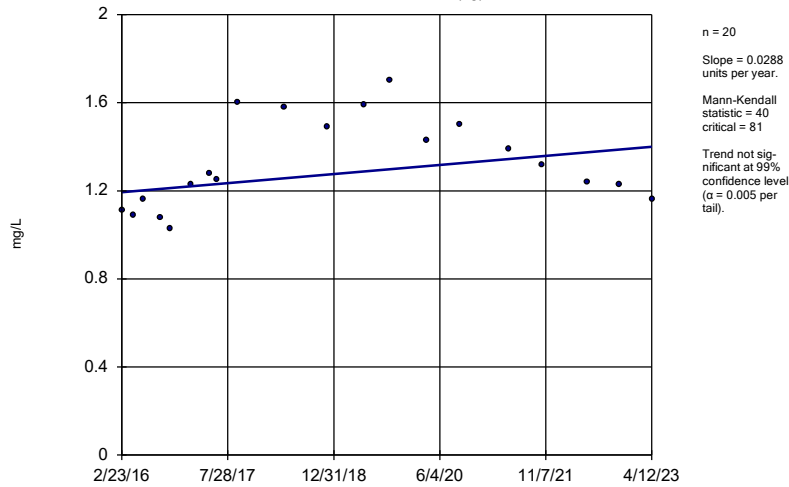
BY-UP-MW-1 (bg)



Constituent: Calcium, total Analysis Run 6/7/2023 12:12 AM View: Trend
Plant Barry Client: Southern Company Data: Barry Ash Pond

Sen's Slope Estimator

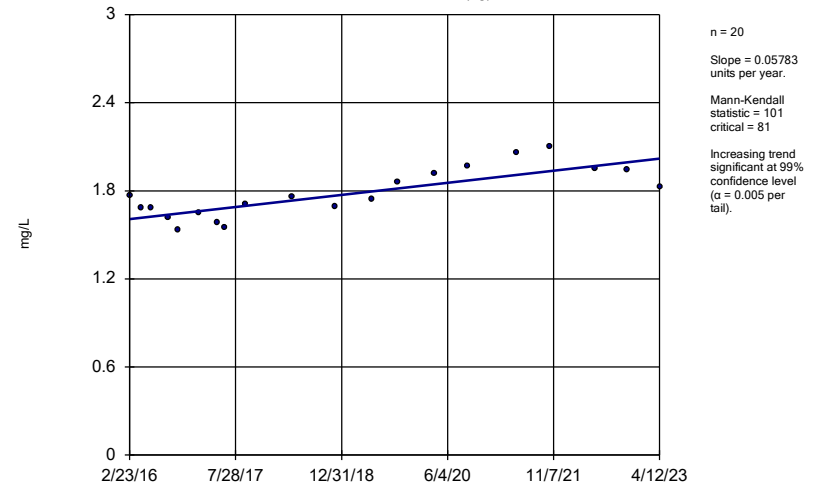
BY-UP-MW-2 (bg)



Constituent: Calcium, total Analysis Run 6/7/2023 12:12 AM View: Trend
Plant Barry Client: Southern Company Data: Barry Ash Pond

Sen's Slope Estimator

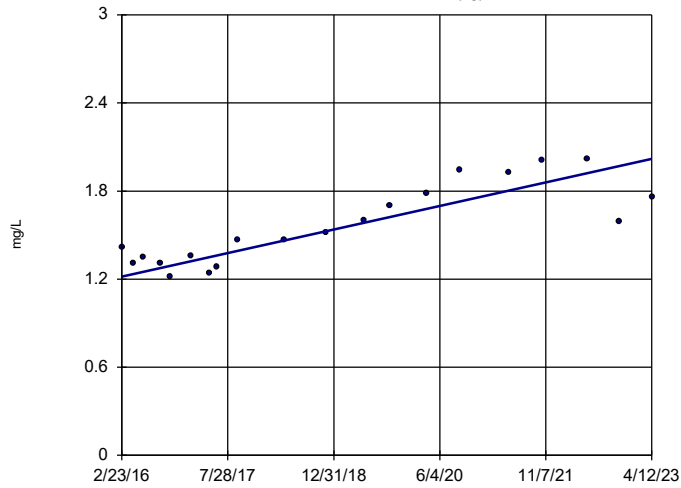
BY-UP-MW-3 (bg)



Constituent: Calcium, total Analysis Run 6/7/2023 12:13 AM View: Trend
Plant Barry Client: Southern Company Data: Barry Ash Pond

Sen's Slope Estimator

BY-UP-MW-4 (bg)

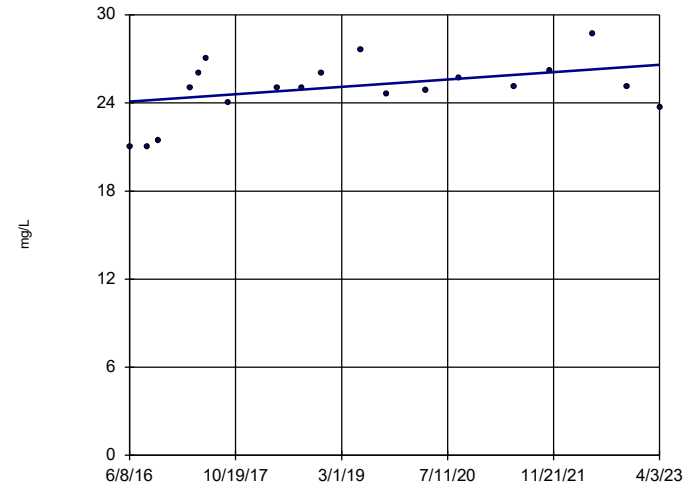


n = 20
 Slope = 0.1123
 units per year.
 Mann-Kendall
 statistic = 124
 critical = 81
 Increasing trend
 significant at 99%
 confidence level
 ($\alpha = 0.005$ per
 tail).

Constituent: Calcium, total Analysis Run 6/7/2023 12:13 AM View: Trend
 Plant Barry Client: Southern Company Data: Barry Ash Pond

Sen's Slope Estimator

BY-AP-MW-1

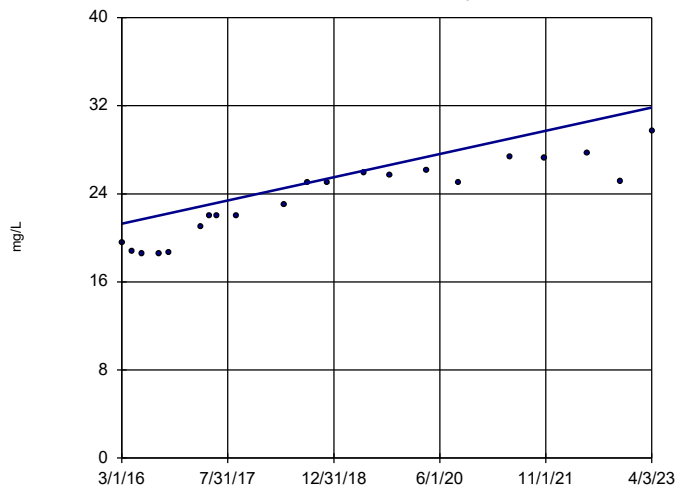


n = 19
 Slope = 0.368
 units per year.
 Mann-Kendall
 statistic = 55
 critical = 74
 Trend not sig-
 nificant at 99%
 confidence level
 ($\alpha = 0.005$ per
 tail).

Constituent: Chloride, Total Analysis Run 6/7/2023 12:13 AM View: Trend
 Plant Barry Client: Southern Company Data: Barry Ash Pond

Sen's Slope Estimator

BY-AP-MW-10

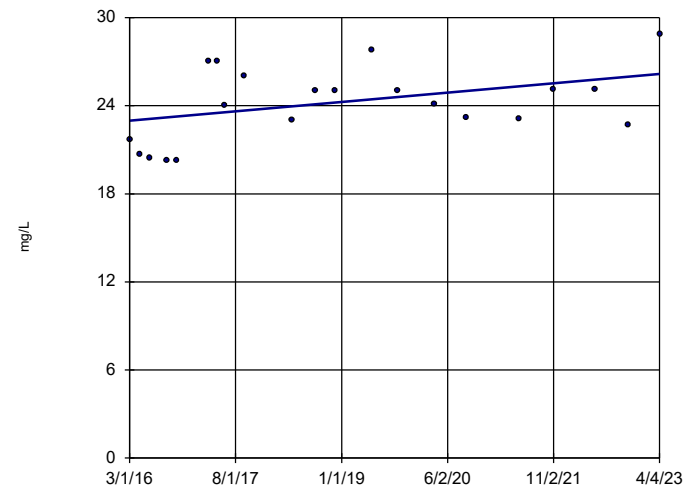


n = 21
 Slope = 1.486
 units per year.
 Mann-Kendall
 statistic = 166
 critical = 87
 Increasing trend
 significant at 99%
 confidence level
 ($\alpha = 0.005$ per
 tail).

Constituent: Chloride, Total Analysis Run 6/7/2023 12:13 AM View: Trend
 Plant Barry Client: Southern Company Data: Barry Ash Pond

Sen's Slope Estimator

BY-AP-MW-11

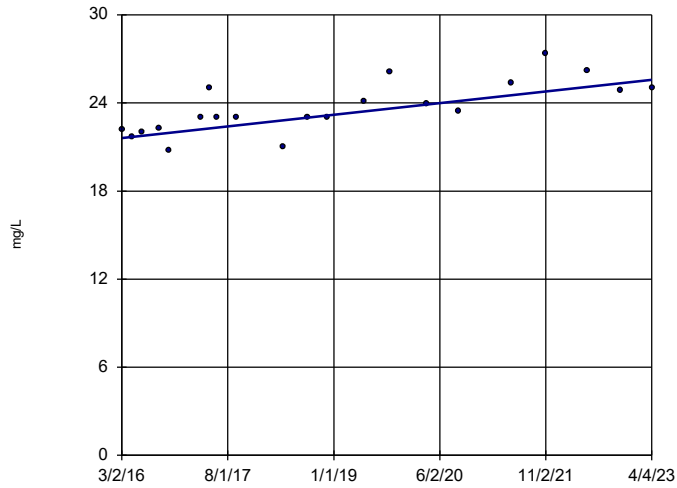


n = 21
 Slope = 0.4491
 units per year.
 Mann-Kendall
 statistic = 54
 critical = 87
 Trend not sig-
 nificant at 99%
 confidence level
 ($\alpha = 0.005$ per
 tail).

Constituent: Chloride, Total Analysis Run 6/7/2023 12:13 AM View: Trend
 Plant Barry Client: Southern Company Data: Barry Ash Pond

Sen's Slope Estimator

BY-AP-MW-12

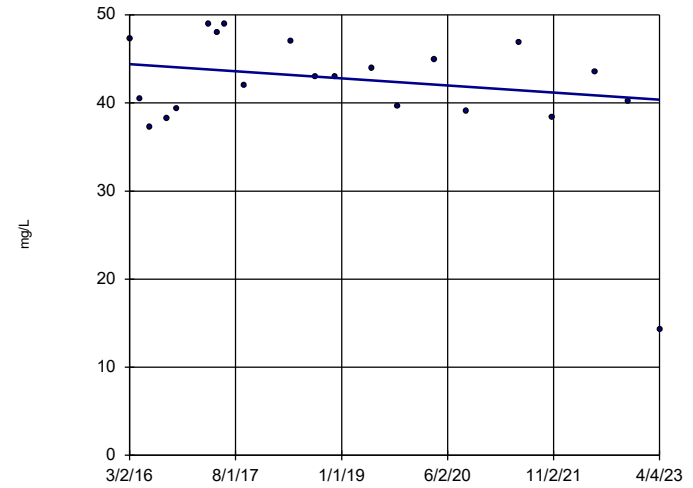


n = 21
 Slope = 0.5618
 units per year.
 Mann-Kendall
 statistic = 125
 critical = 87
 Increasing trend
 significant at 99%
 confidence level
 ($\alpha = 0.005$ per
 tail).

Constituent: Chloride, Total Analysis Run 6/7/2023 12:13 AM View: Trend
 Plant Barry Client: Southern Company Data: Barry Ash Pond

Sen's Slope Estimator

BY-AP-MW-13

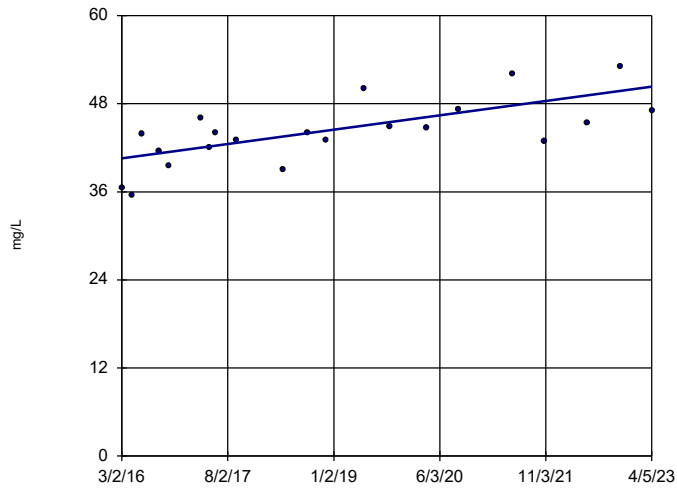


n = 21
 Slope = -0.5681
 units per year.
 Mann-Kendall
 statistic = -32
 critical = -87
 Trend not sig-
 nificant at 99%
 confidence level
 ($\alpha = 0.005$ per
 tail).

Constituent: Chloride, Total Analysis Run 6/7/2023 12:13 AM View: Trend
 Plant Barry Client: Southern Company Data: Barry Ash Pond

Sen's Slope Estimator

BY-AP-MW-14

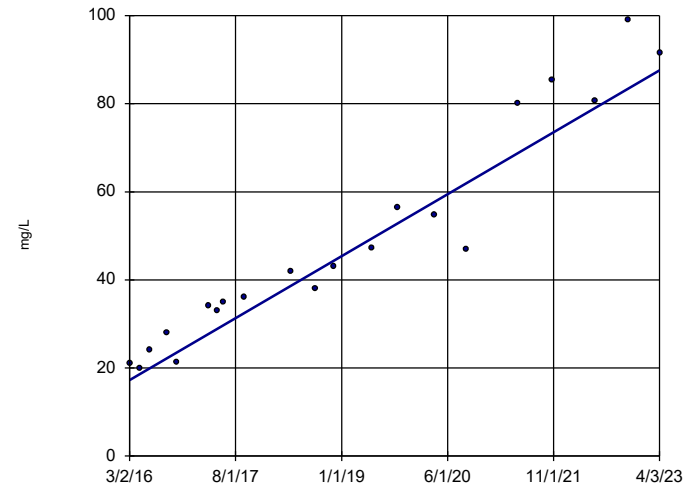


n = 21
 Slope = 1.372
 units per year.
 Mann-Kendall
 statistic = 114
 critical = 87
 Increasing trend
 significant at 99%
 confidence level
 ($\alpha = 0.005$ per
 tail).

Constituent: Chloride, Total Analysis Run 6/7/2023 12:13 AM View: Trend
 Plant Barry Client: Southern Company Data: Barry Ash Pond

Sen's Slope Estimator

BY-AP-MW-15

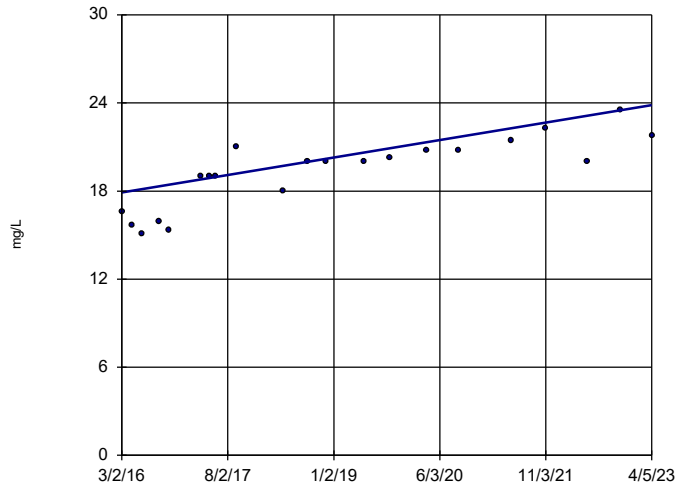


n = 21
 Slope = 9.918
 units per year.
 Mann-Kendall
 statistic = 188
 critical = 87
 Increasing trend
 significant at 99%
 confidence level
 ($\alpha = 0.005$ per
 tail).

Constituent: Chloride, Total Analysis Run 6/7/2023 12:13 AM View: Trend
 Plant Barry Client: Southern Company Data: Barry Ash Pond

Sen's Slope Estimator

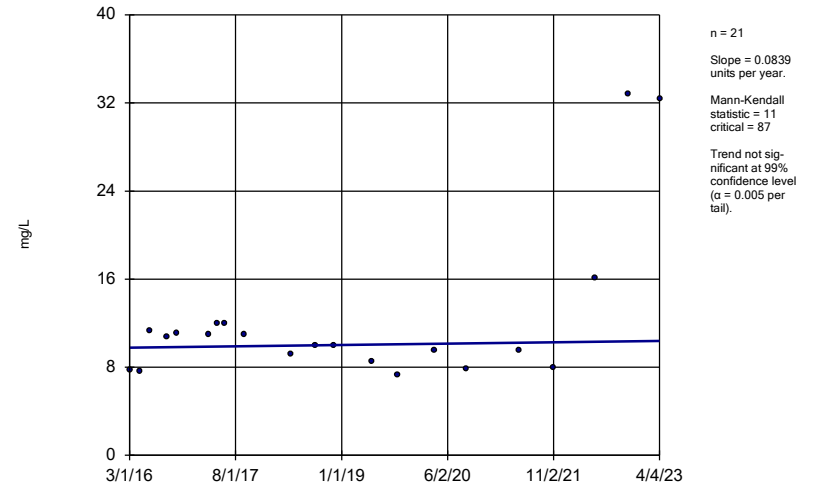
BY-AP-MW-16



Constituent: Chloride, Total Analysis Run 6/7/2023 12:13 AM View: Trend
Plant Barry Client: Southern Company Data: Barry Ash Pond

Sen's Slope Estimator

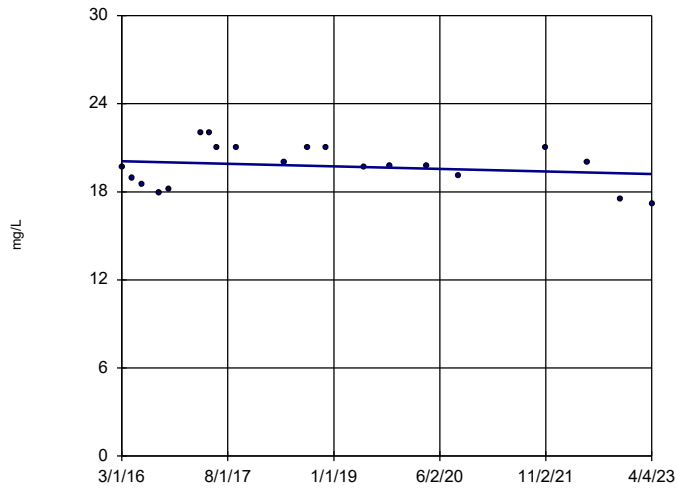
BY-AP-MW-4



Constituent: Chloride, Total Analysis Run 6/7/2023 12:13 AM View: Trend
Plant Barry Client: Southern Company Data: Barry Ash Pond

Sen's Slope Estimator

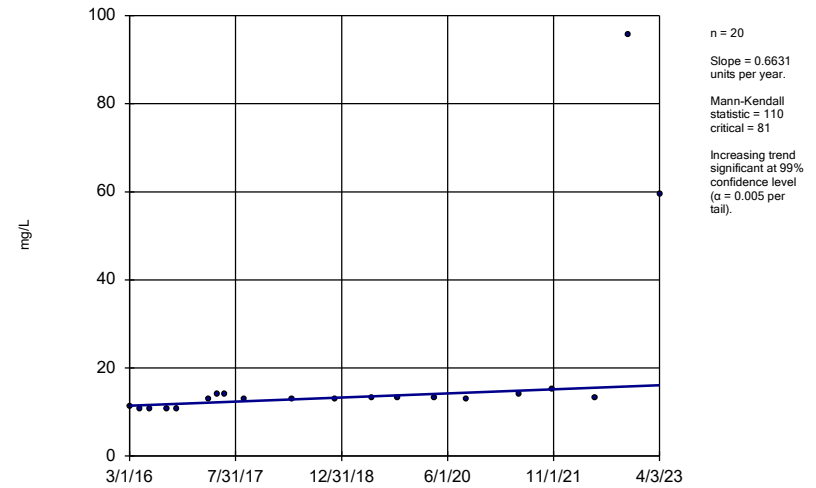
BY-AP-MW-5



Constituent: Chloride, Total Analysis Run 6/7/2023 12:13 AM View: Trend
Plant Barry Client: Southern Company Data: Barry Ash Pond

Sen's Slope Estimator

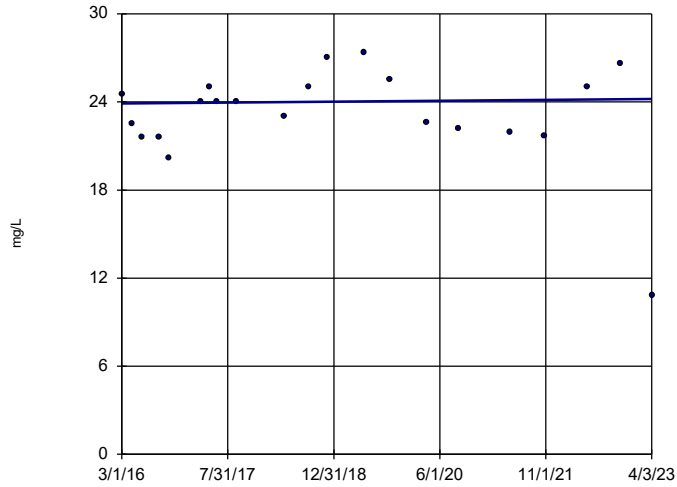
BY-AP-MW-7



Constituent: Chloride, Total Analysis Run 6/7/2023 12:13 AM View: Trend
Plant Barry Client: Southern Company Data: Barry Ash Pond

Sen's Slope Estimator

BY-AP-MW-8

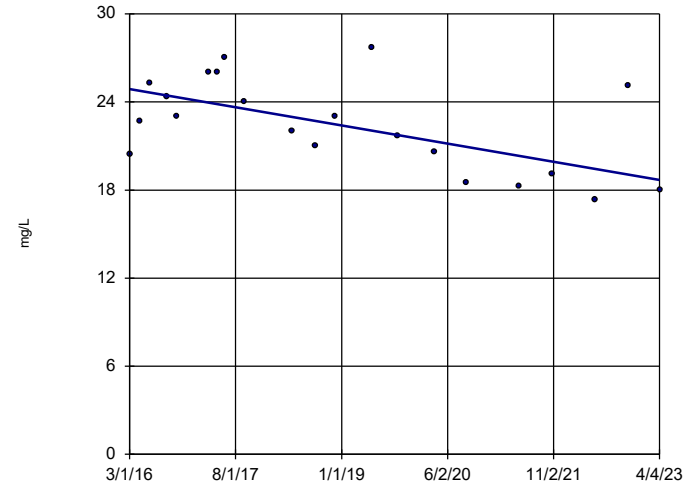


n = 21
 Slope = 0.04311 units per year.
 Mann-Kendall statistic = 13
 critical = 87
 Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Chloride, Total Analysis Run 6/7/2023 12:13 AM View: Trend
 Plant Barry Client: Southern Company Data: Barry Ash Pond

Sen's Slope Estimator

BY-AP-MW-9

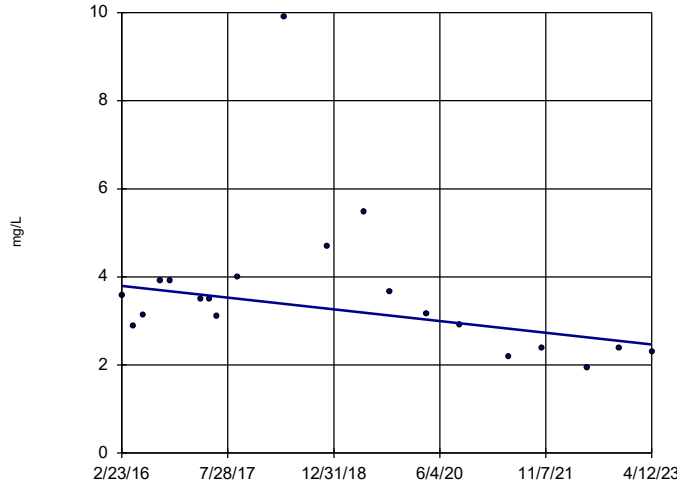


n = 21
 Slope = -0.8711 units per year.
 Mann-Kendall statistic = -78
 critical = -87
 Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Chloride, Total Analysis Run 6/7/2023 12:13 AM View: Trend
 Plant Barry Client: Southern Company Data: Barry Ash Pond

Sen's Slope Estimator

BY-UP-MW-1 (bg)

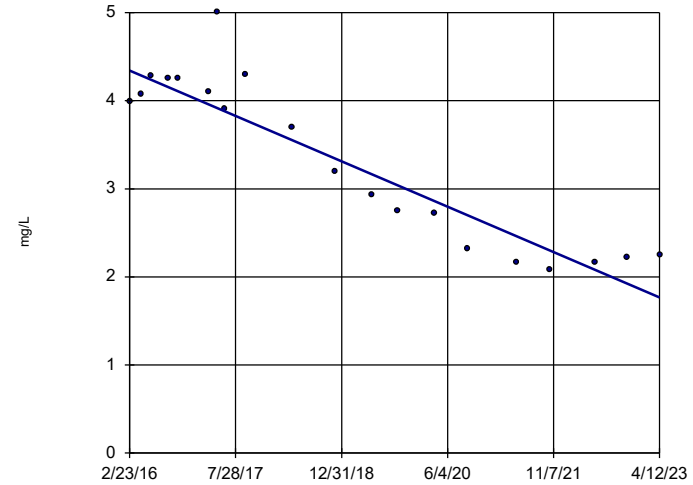


n = 20
 Slope = -0.1864 units per year.
 Mann-Kendall statistic = -62
 critical = -81
 Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Chloride, Total Analysis Run 6/7/2023 12:13 AM View: Trend
 Plant Barry Client: Southern Company Data: Barry Ash Pond

Sen's Slope Estimator

BY-UP-MW-2 (bg)

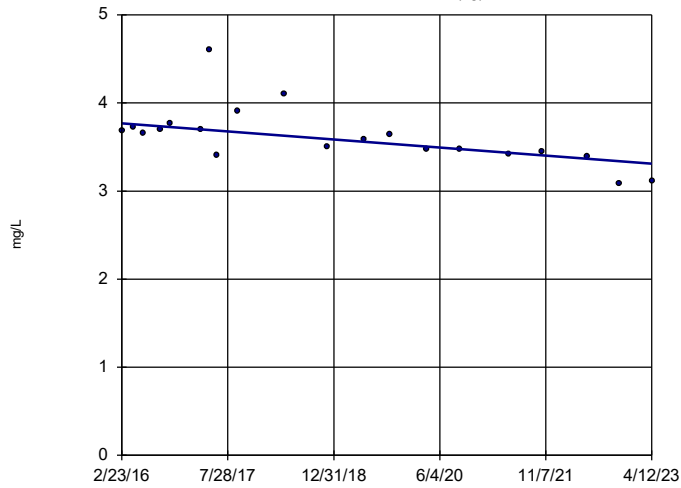


n = 20
 Slope = -0.361 units per year.
 Mann-Kendall statistic = -127
 critical = -81
 Decreasing trend significant at 99% confidence level (α = 0.005 per tail).

Constituent: Chloride, Total Analysis Run 6/7/2023 12:13 AM View: Trend
 Plant Barry Client: Southern Company Data: Barry Ash Pond

Sen's Slope Estimator

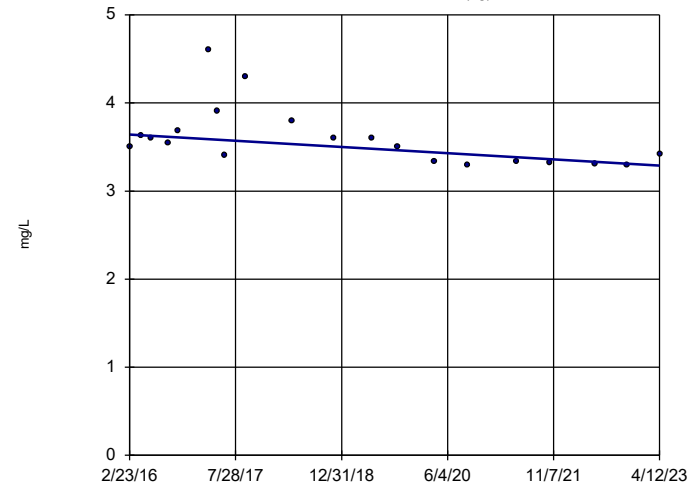
BY-UP-MW-3 (bg)



Constituent: Chloride, Total Analysis Run 6/7/2023 12:13 AM View: Trend
Plant Barry Client: Southern Company Data: Barry Ash Pond

Sen's Slope Estimator

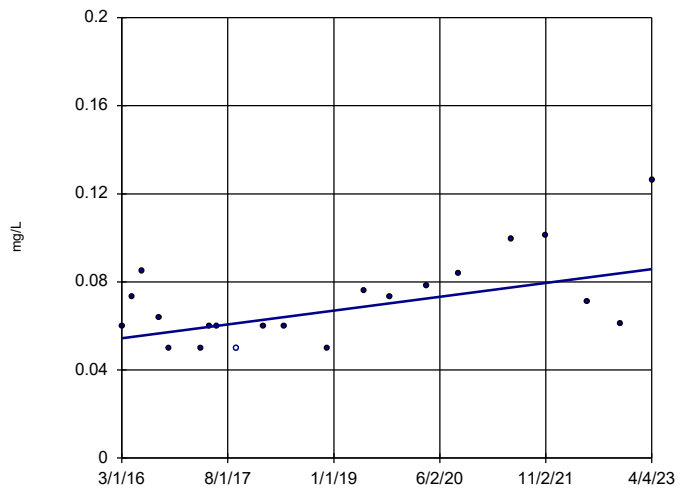
BY-UP-MW-4 (bg)



Constituent: Chloride, Total Analysis Run 6/7/2023 12:13 AM View: Trend
Plant Barry Client: Southern Company Data: Barry Ash Pond

Sen's Slope Estimator

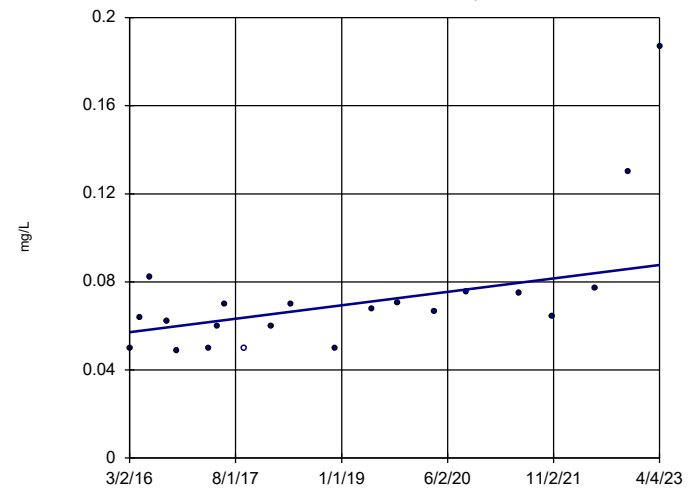
BY-AP-MW-11



Constituent: Fluoride, total Analysis Run 6/7/2023 12:13 AM View: Trend
Plant Barry Client: Southern Company Data: Barry Ash Pond

Sen's Slope Estimator

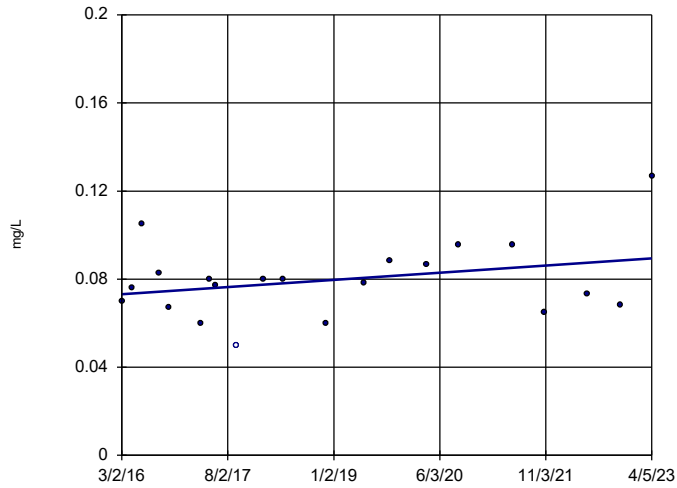
BY-AP-MW-13



Constituent: Fluoride, total Analysis Run 6/7/2023 12:13 AM View: Trend
Plant Barry Client: Southern Company Data: Barry Ash Pond

Sen's Slope Estimator

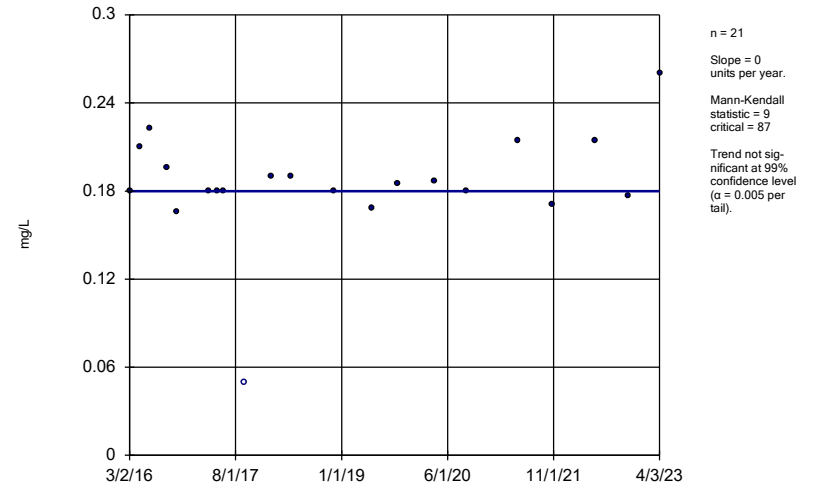
BY-AP-MW-14



Constituent: Fluoride, total Analysis Run 6/7/2023 12:13 AM View: Trend
Plant Barry Client: Southern Company Data: Barry Ash Pond

Sen's Slope Estimator

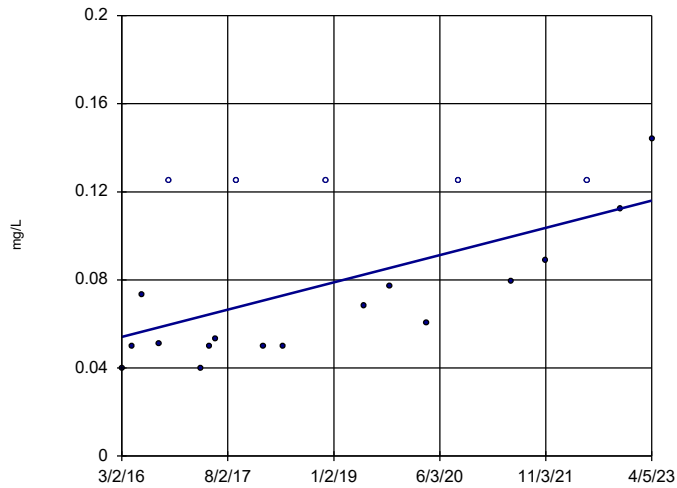
BY-AP-MW-15



Constituent: Fluoride, total Analysis Run 6/7/2023 12:13 AM View: Trend
Plant Barry Client: Southern Company Data: Barry Ash Pond

Sen's Slope Estimator

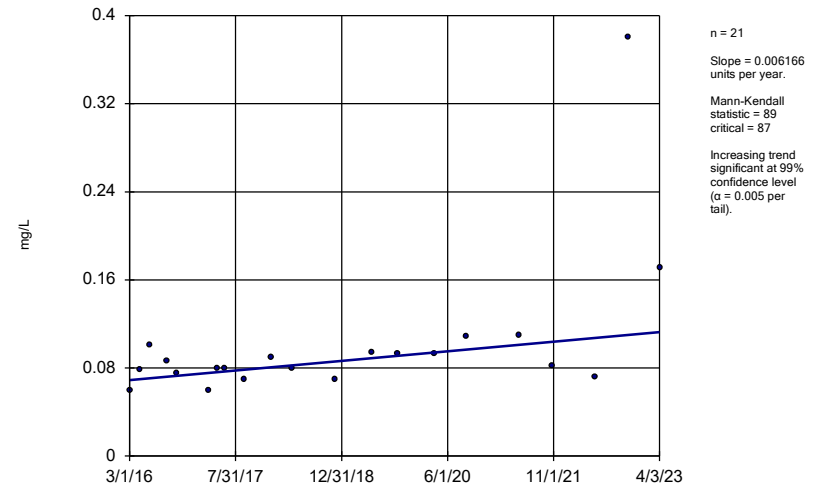
BY-AP-MW-16



Constituent: Fluoride, total Analysis Run 6/7/2023 12:13 AM View: Trend
Plant Barry Client: Southern Company Data: Barry Ash Pond

Sen's Slope Estimator

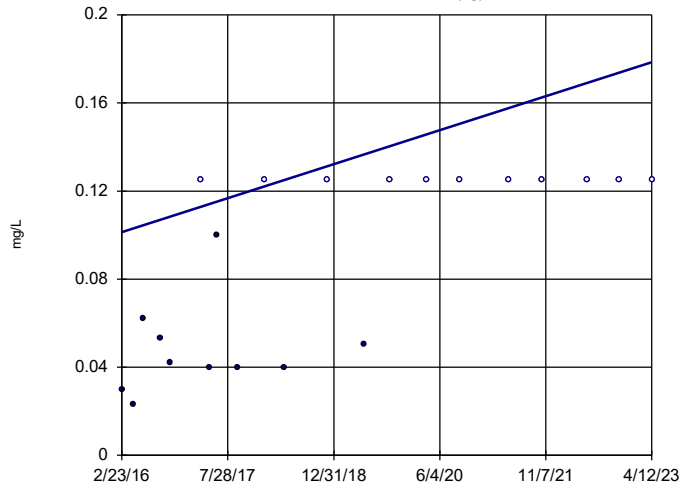
BY-AP-MW-7



Constituent: Fluoride, total Analysis Run 6/7/2023 12:13 AM View: Trend
Plant Barry Client: Southern Company Data: Barry Ash Pond

Sen's Slope Estimator

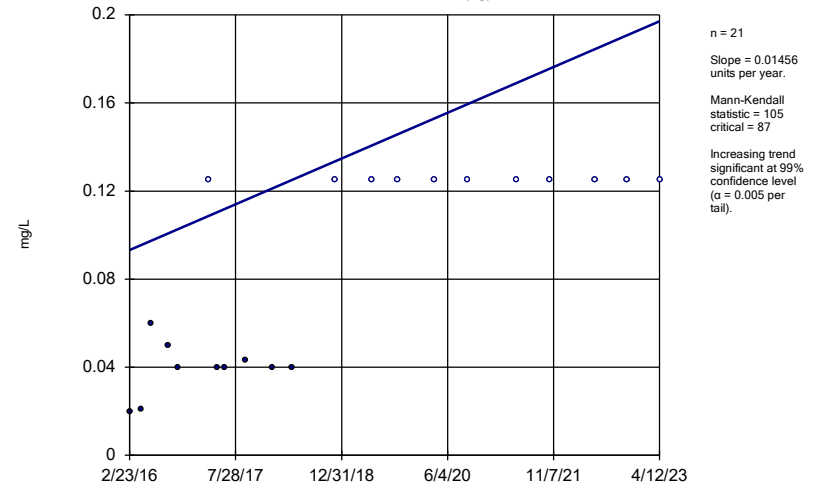
BY-UP-MW-1 (bg)



Constituent: Fluoride, total Analysis Run 6/7/2023 12:13 AM View: Trend
Plant Barry Client: Southern Company Data: Barry Ash Pond

Sen's Slope Estimator

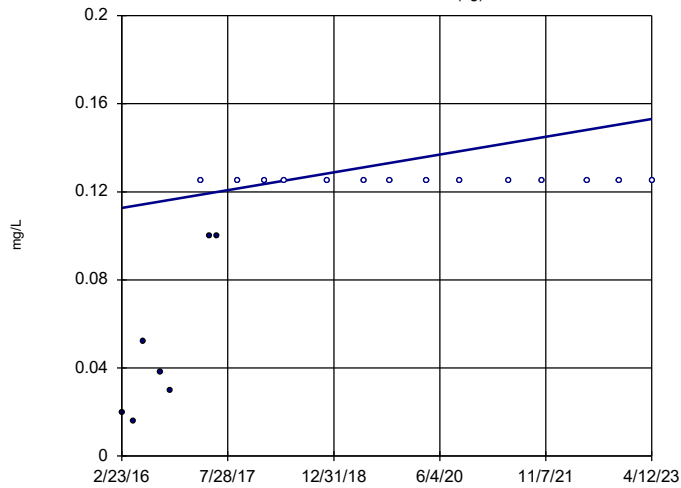
BY-UP-MW-2 (bg)



Constituent: Fluoride, total Analysis Run 6/7/2023 12:13 AM View: Trend
Plant Barry Client: Southern Company Data: Barry Ash Pond

Sen's Slope Estimator

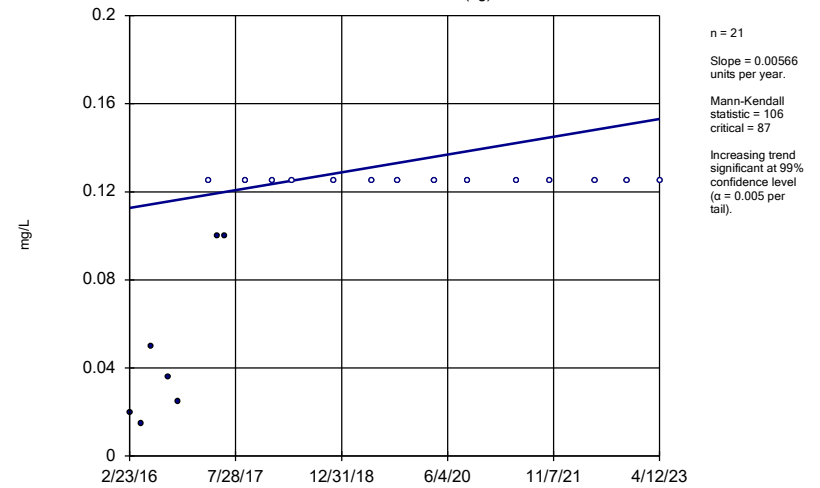
BY-UP-MW-3 (bg)



Constituent: Fluoride, total Analysis Run 6/7/2023 12:13 AM View: Trend
Plant Barry Client: Southern Company Data: Barry Ash Pond

Sen's Slope Estimator

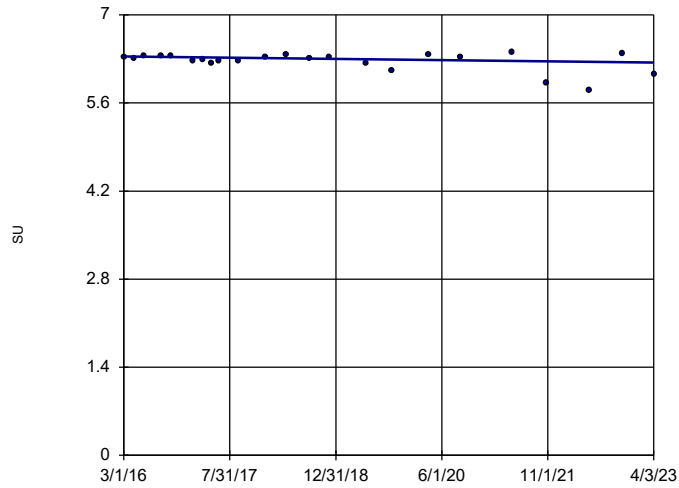
BY-UP-MW-4 (bg)



Constituent: Fluoride, total Analysis Run 6/7/2023 12:13 AM View: Trend
Plant Barry Client: Southern Company Data: Barry Ash Pond

Sen's Slope Estimator

BY-AP-MW-10

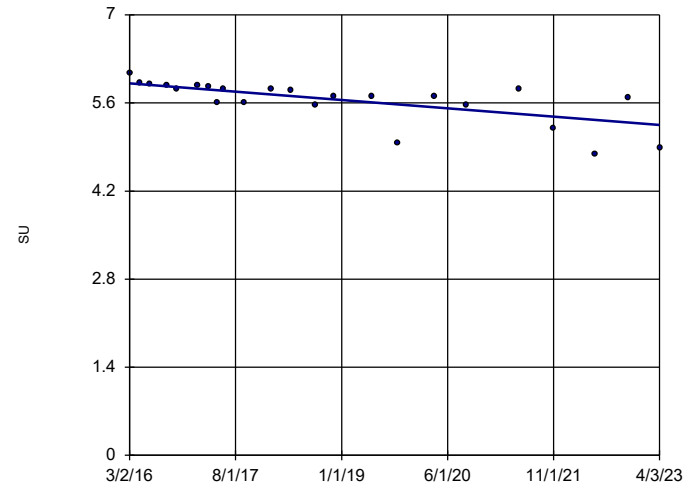


n = 23
 Slope = -0.0135
 units per year.
 Mann-Kendall
 statistic = -31
 critical = -98
 Trend not sig-
 nificant at 99%
 confidence level
 ($\alpha = 0.005$ per
 tail).

Constituent: pH, field Analysis Run 6/7/2023 12:13 AM View: Trend
 Plant Barry Client: Southern Company Data: Barry Ash Pond

Sen's Slope Estimator

BY-AP-MW-2

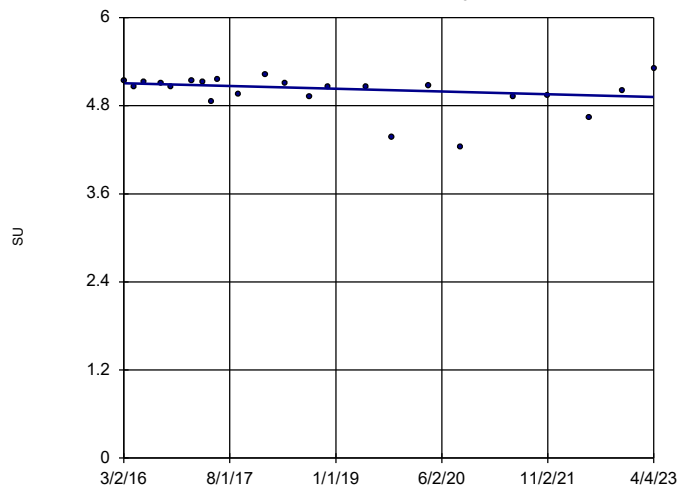


n = 23
 Slope = -0.09288
 units per year.
 Mann-Kendall
 statistic = -164
 critical = -98
 Decreasing trend
 significant at 99%
 confidence level
 ($\alpha = 0.005$ per
 tail).

Constituent: pH, field Analysis Run 6/7/2023 12:13 AM View: Trend
 Plant Barry Client: Southern Company Data: Barry Ash Pond

Sen's Slope Estimator

BY-AP-MW-3

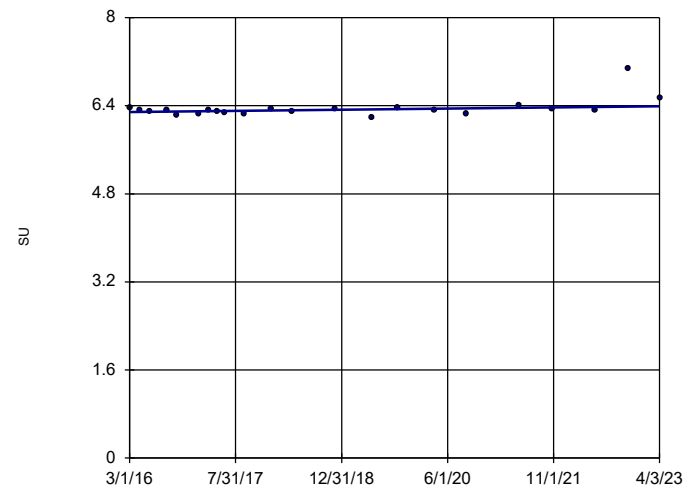


n = 23
 Slope = -0.0262
 units per year.
 Mann-Kendall
 statistic = -71
 critical = -98
 Trend not sig-
 nificant at 99%
 confidence level
 ($\alpha = 0.005$ per
 tail).

Constituent: pH, field Analysis Run 6/7/2023 12:13 AM View: Trend
 Plant Barry Client: Southern Company Data: Barry Ash Pond

Sen's Slope Estimator

BY-AP-MW-7

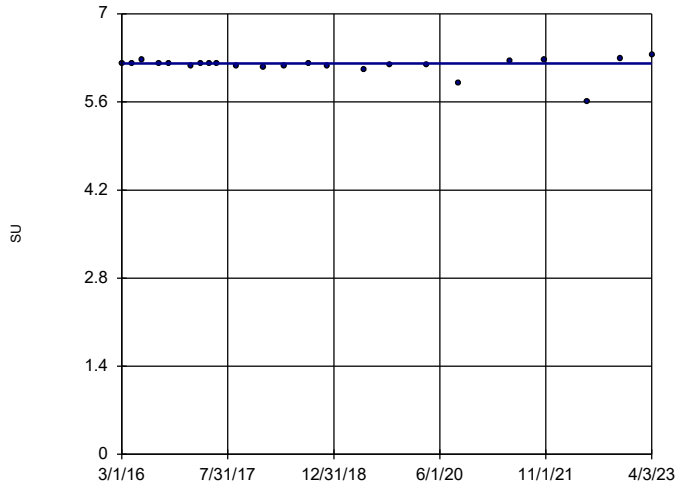


n = 22
 Slope = 0.01492
 units per year.
 Mann-Kendall
 statistic = 61
 critical = 92
 Trend not sig-
 nificant at 99%
 confidence level
 ($\alpha = 0.005$ per
 tail).

Constituent: pH, field Analysis Run 6/7/2023 12:13 AM View: Trend
 Plant Barry Client: Southern Company Data: Barry Ash Pond

Sen's Slope Estimator

BY-AP-MW-8

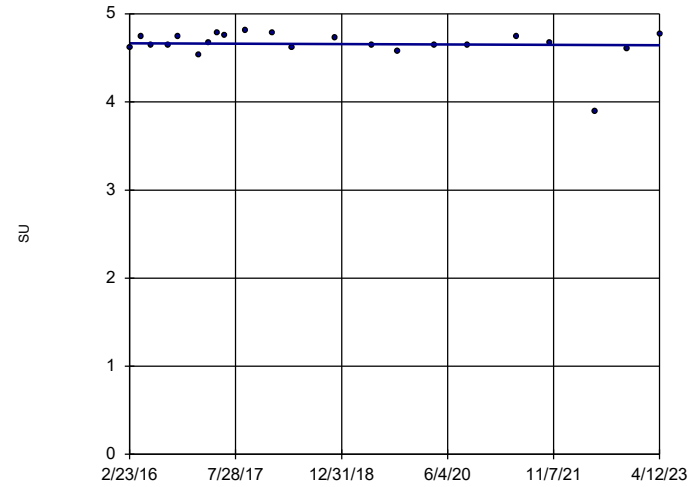


n = 23
Slope = 0
units per year.
Mann-Kendall
statistic = -13
critical = -98
Trend not sig-
nificant at 99%
confidence level
($\alpha = 0.005$ per
tail).

Constituent: pH, field Analysis Run 6/7/2023 12:13 AM View: Trend
Plant Barry Client: Southern Company Data: Barry Ash Pond

Sen's Slope Estimator

BY-UP-MW-1 (bg)

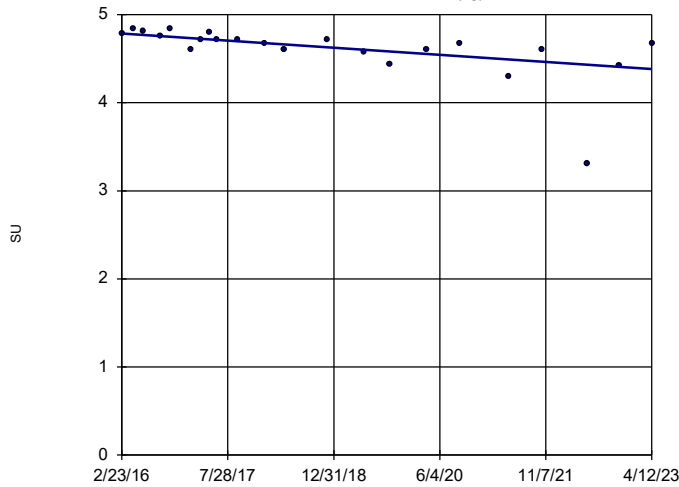


n = 22
Slope = -0.002988
units per year.
Mann-Kendall
statistic = -13
critical = -92
Trend not sig-
nificant at 99%
confidence level
($\alpha = 0.005$ per
tail).

Constituent: pH, field Analysis Run 6/7/2023 12:13 AM View: Trend
Plant Barry Client: Southern Company Data: Barry Ash Pond

Sen's Slope Estimator

BY-UP-MW-2 (bg)

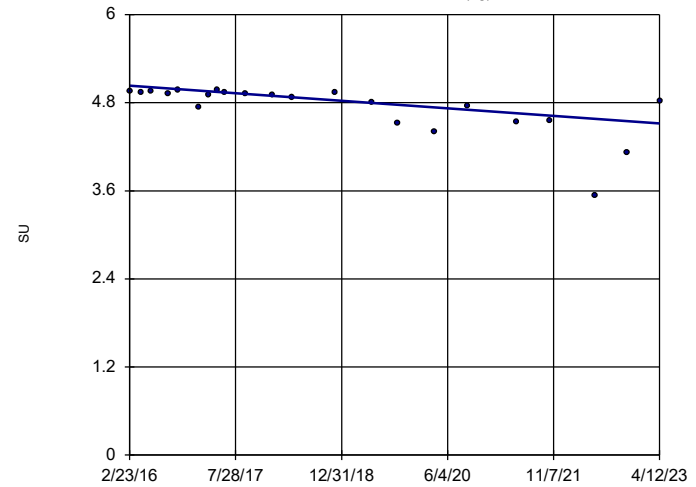


n = 22
Slope = -0.05688
units per year.
Mann-Kendall
statistic = -140
critical = -92
Decreasing trend
significant at 99%
confidence level
($\alpha = 0.005$ per
tail).

Constituent: pH, field Analysis Run 6/7/2023 12:13 AM View: Trend
Plant Barry Client: Southern Company Data: Barry Ash Pond

Sen's Slope Estimator

BY-UP-MW-3 (bg)

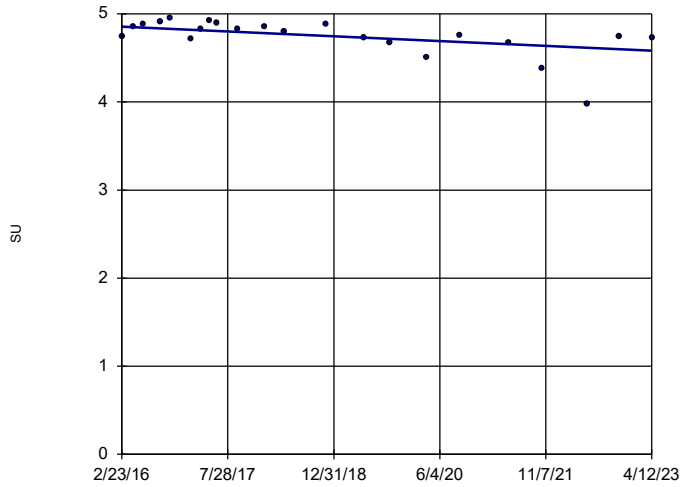


n = 22
Slope = -0.07203
units per year.
Mann-Kendall
statistic = -134
critical = -92
Decreasing trend
significant at 99%
confidence level
($\alpha = 0.005$ per
tail).

Constituent: pH, field Analysis Run 6/7/2023 12:13 AM View: Trend
Plant Barry Client: Southern Company Data: Barry Ash Pond

Sen's Slope Estimator

BY-UP-MW-4 (bg)

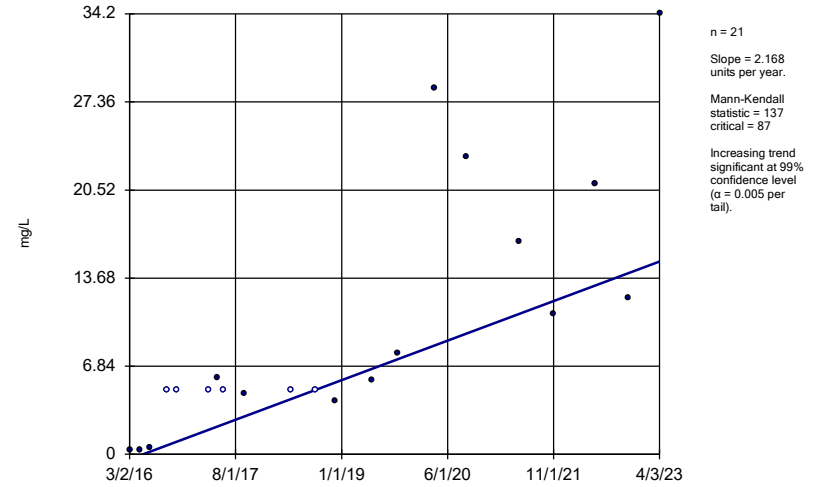


Constituent: pH, field Analysis Run 6/7/2023 12:13 AM View: Trend
 Plant Barry Client: Southern Company Data: Barry Ash Pond

Hollow symbols indicate censored values.

Sen's Slope Estimator

BY-AP-MW-1

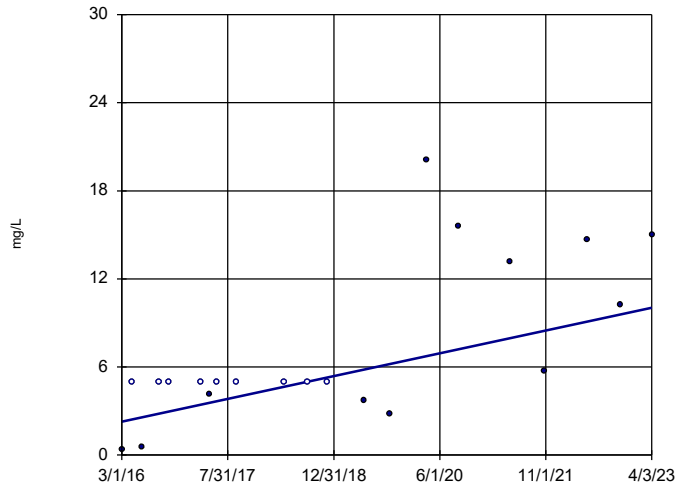


Constituent: Sulfate as SO4 Analysis Run 6/7/2023 12:13 AM View: Trend
 Plant Barry Client: Southern Company Data: Barry Ash Pond

Hollow symbols indicate censored values.

Sen's Slope Estimator

BY-AP-MW-10

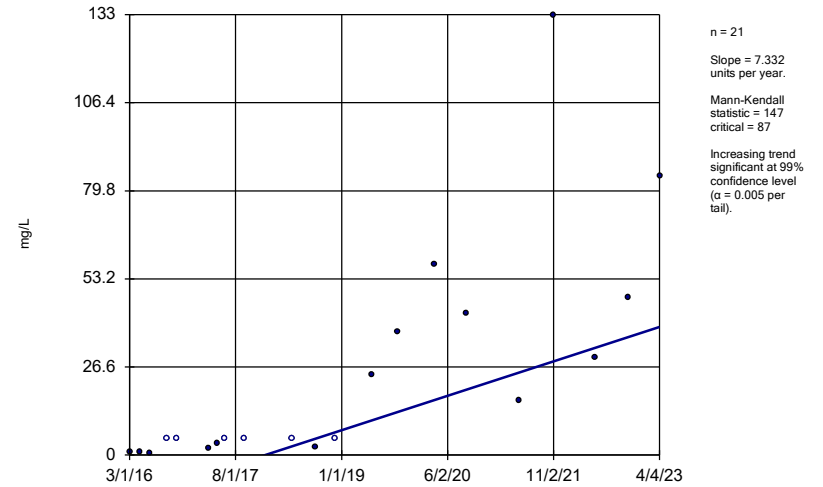


Constituent: Sulfate as SO4 Analysis Run 6/7/2023 12:13 AM View: Trend
 Plant Barry Client: Southern Company Data: Barry Ash Pond

Hollow symbols indicate censored values.

Sen's Slope Estimator

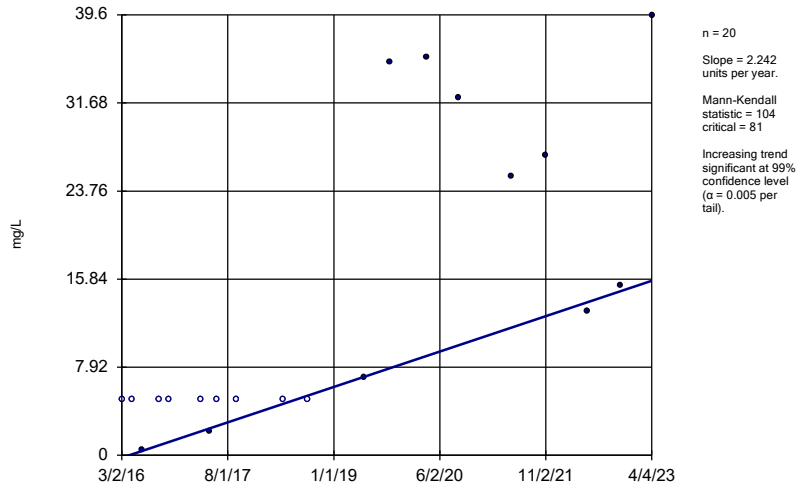
BY-AP-MW-11



Constituent: Sulfate as SO4 Analysis Run 6/7/2023 12:13 AM View: Trend
 Plant Barry Client: Southern Company Data: Barry Ash Pond

Sen's Slope Estimator

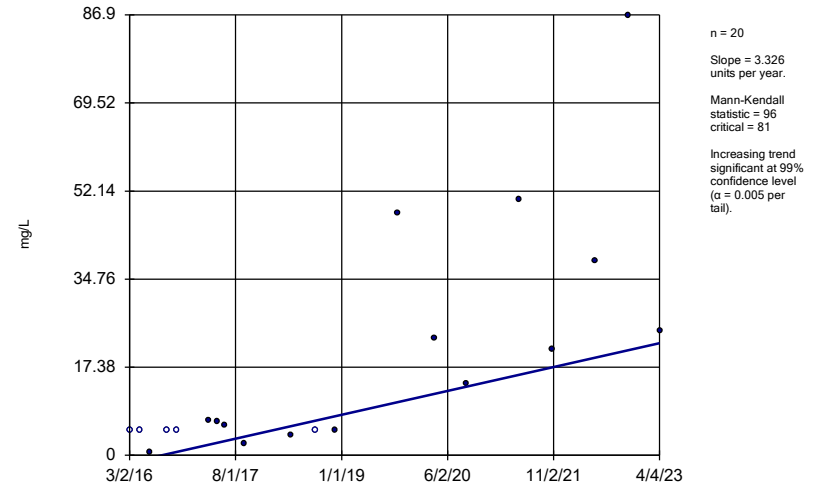
BY-AP-MW-12



Constituent: Sulfate as SO4 Analysis Run 6/7/2023 12:13 AM View: Trend
Plant Barry Client: Southern Company Data: Barry Ash Pond

Sen's Slope Estimator

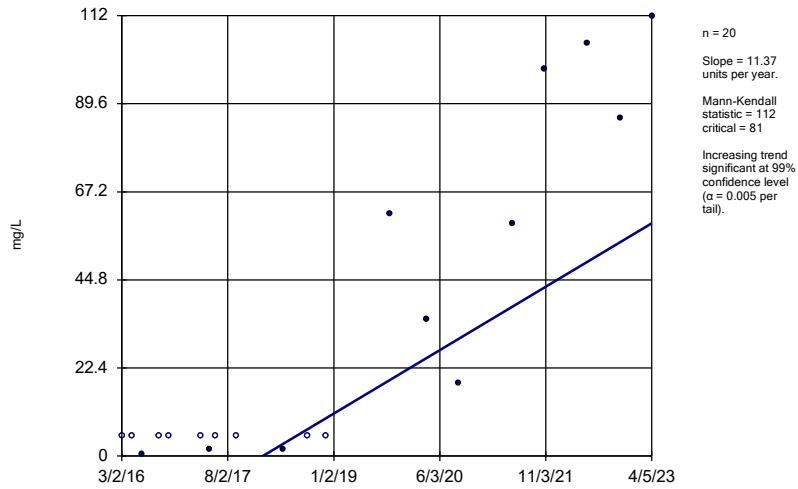
BY-AP-MW-13



Constituent: Sulfate as SO4 Analysis Run 6/7/2023 12:13 AM View: Trend
Plant Barry Client: Southern Company Data: Barry Ash Pond

Sen's Slope Estimator

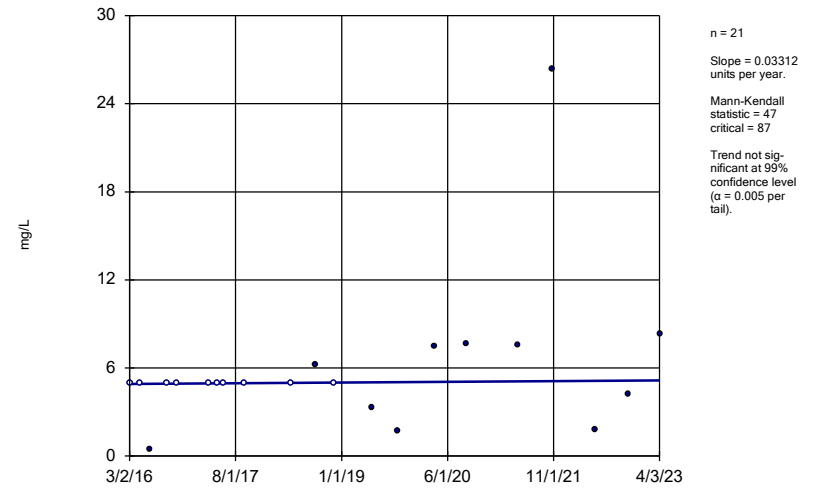
BY-AP-MW-14



Constituent: Sulfate as SO4 Analysis Run 6/7/2023 12:13 AM View: Trend
Plant Barry Client: Southern Company Data: Barry Ash Pond

Sen's Slope Estimator

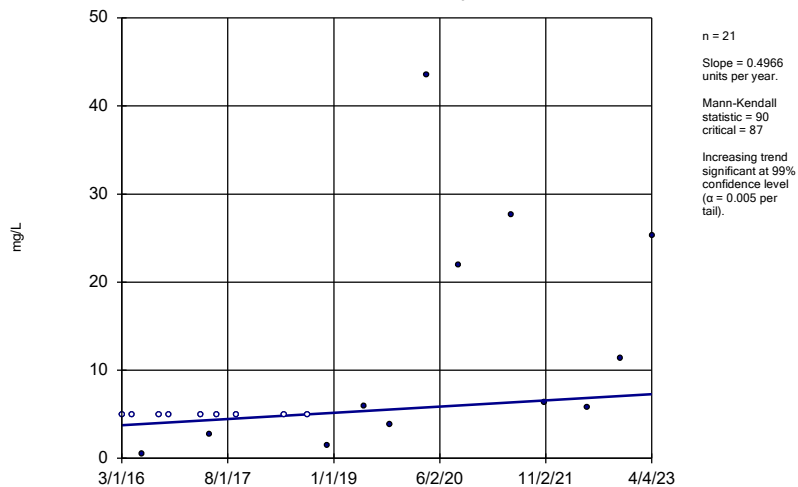
BY-AP-MW-15



Constituent: Sulfate as SO4 Analysis Run 6/7/2023 12:13 AM View: Trend
Plant Barry Client: Southern Company Data: Barry Ash Pond

Sen's Slope Estimator

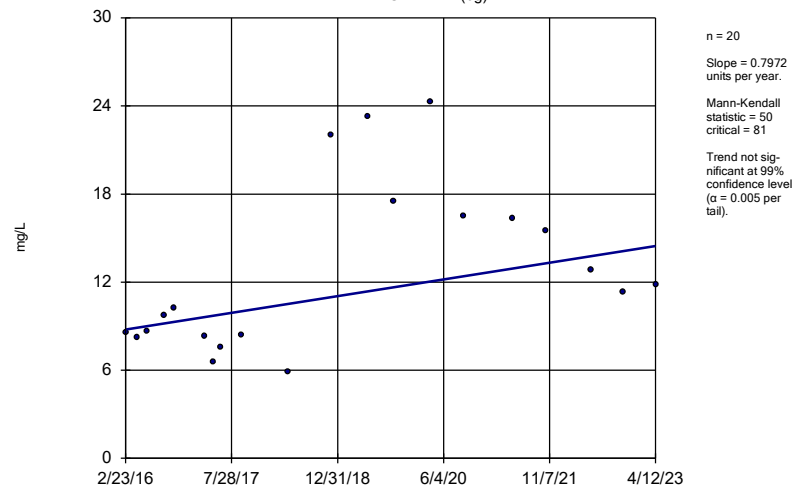
BY-AP-MW-9



Constituent: Sulfate as SO4 Analysis Run 6/7/2023 12:13 AM View: Trend
Plant Barry Client: Southern Company Data: Barry Ash Pond

Sen's Slope Estimator

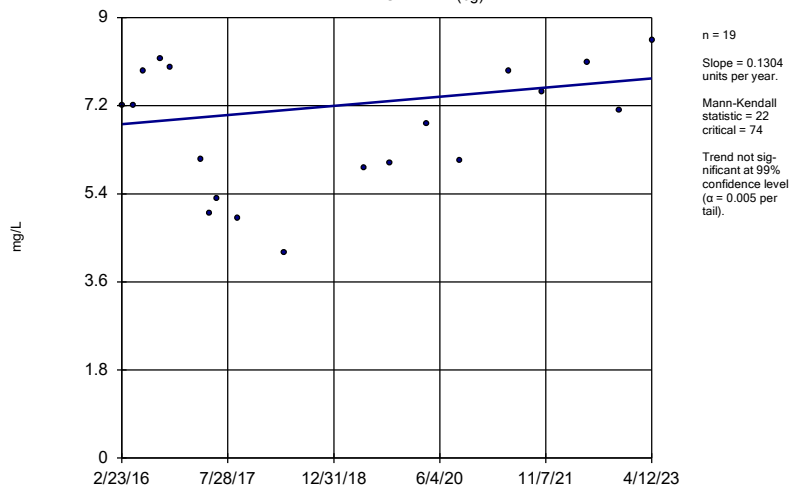
BY-UP-MW-1 (bg)



Constituent: Sulfate as SO4 Analysis Run 6/7/2023 12:13 AM View: Trend
Plant Barry Client: Southern Company Data: Barry Ash Pond

Sen's Slope Estimator

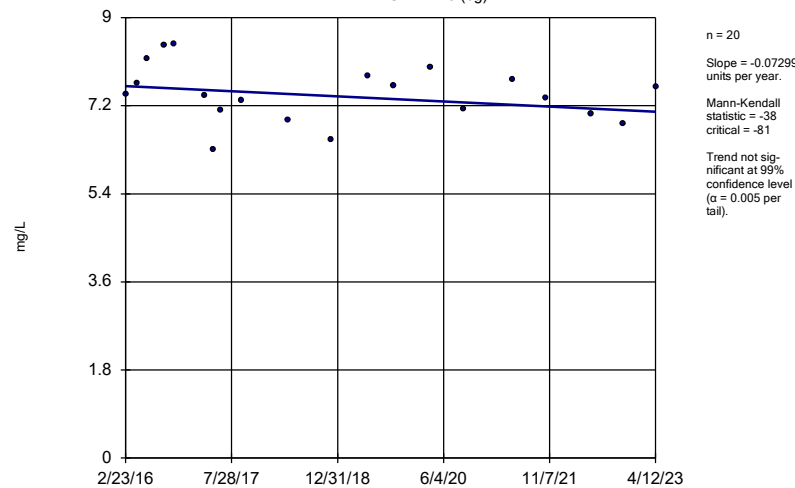
BY-UP-MW-2 (bg)



Constituent: Sulfate as SO4 Analysis Run 6/7/2023 12:13 AM View: Trend
Plant Barry Client: Southern Company Data: Barry Ash Pond

Sen's Slope Estimator

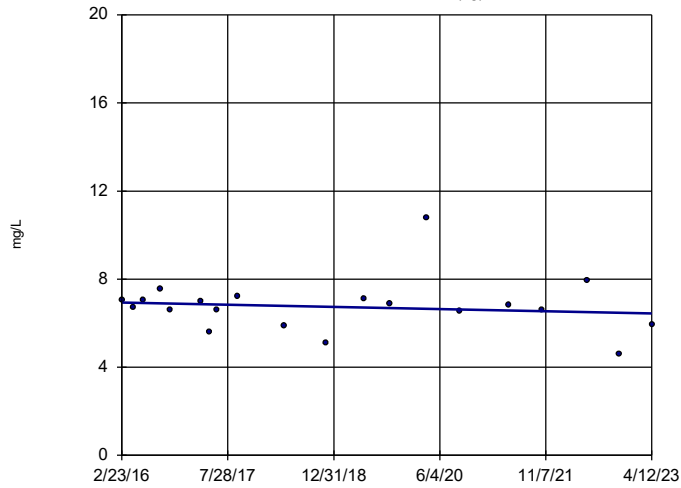
BY-UP-MW-3 (bg)



Constituent: Sulfate as SO4 Analysis Run 6/7/2023 12:13 AM View: Trend
Plant Barry Client: Southern Company Data: Barry Ash Pond

Sen's Slope Estimator

BY-UP-MW-4 (bg)

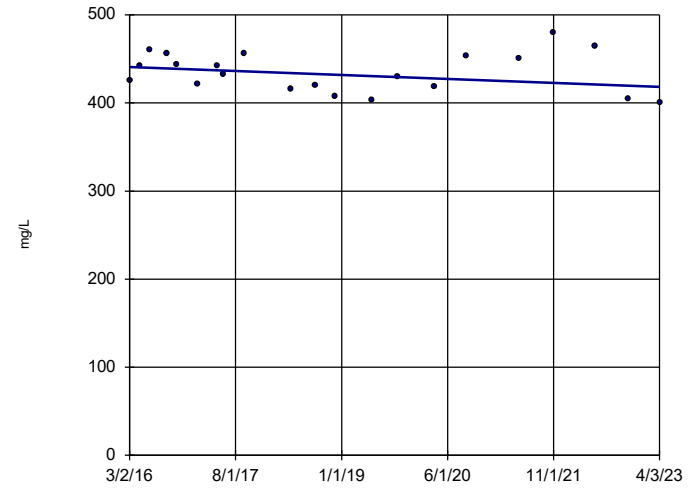


n = 20
 Slope = -0.06997
 units per year.
 Mann-Kendall
 statistic = -35
 critical = -81
 Trend not sig-
 nificant at 99%
 confidence level
 (α = 0.005 per
 tail).

Constituent: Sulfate as SO4 Analysis Run 6/7/2023 12:13 AM View: Trend
 Plant Barry Client: Southern Company Data: Barry Ash Pond

Sen's Slope Estimator

BY-AP-MW-1

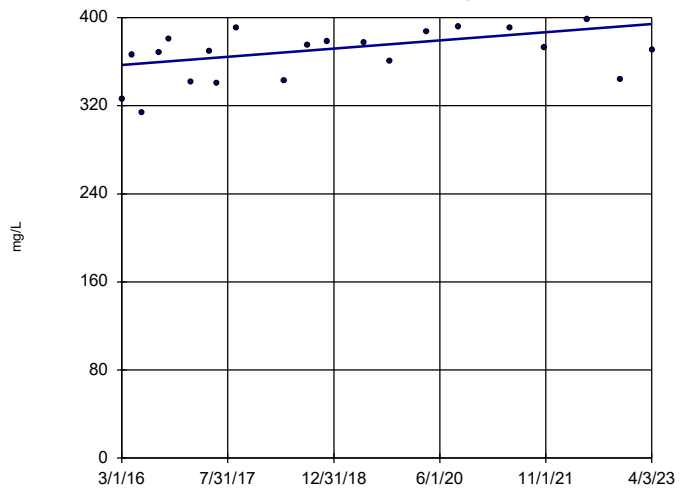


n = 21
 Slope = -3.188
 units per year.
 Mann-Kendall
 statistic = -36
 critical = -87
 Trend not sig-
 nificant at 99%
 confidence level
 (α = 0.005 per
 tail).

Constituent: TDS Analysis Run 6/7/2023 12:13 AM View: Trend
 Plant Barry Client: Southern Company Data: Barry Ash Pond

Sen's Slope Estimator

BY-AP-MW-10

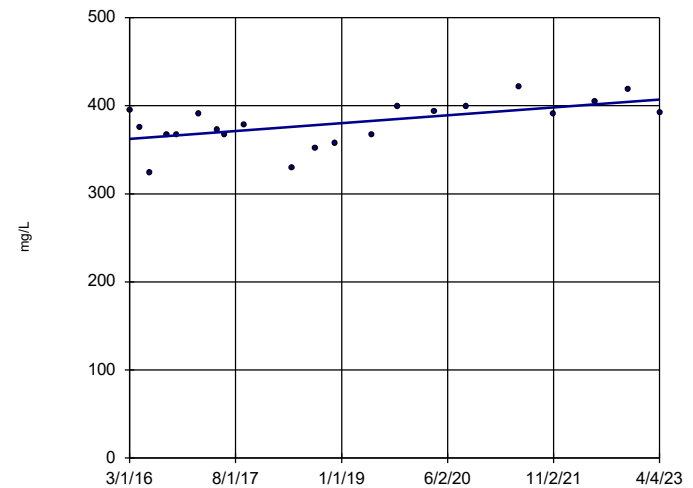


n = 21
 Slope = 5.242
 units per year.
 Mann-Kendall
 statistic = 79
 critical = 87
 Trend not sig-
 nificant at 99%
 confidence level
 (α = 0.005 per
 tail).

Constituent: TDS Analysis Run 6/7/2023 12:13 AM View: Trend
 Plant Barry Client: Southern Company Data: Barry Ash Pond

Sen's Slope Estimator

BY-AP-MW-11

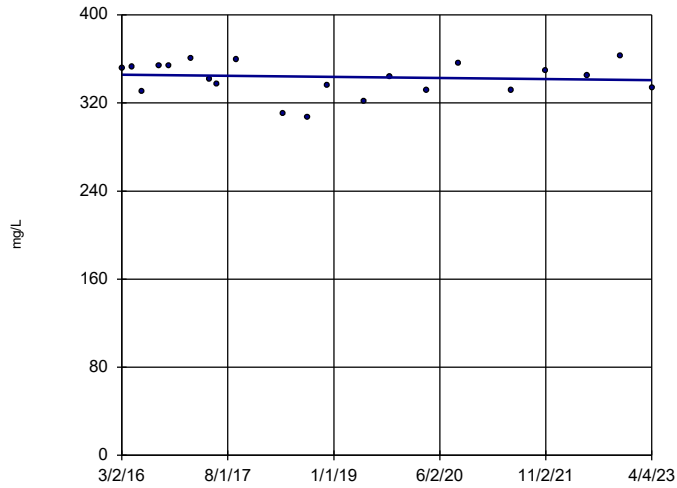


n = 21
 Slope = 6.294
 units per year.
 Mann-Kendall
 statistic = 77
 critical = 87
 Trend not sig-
 nificant at 99%
 confidence level
 (α = 0.005 per
 tail).

Constituent: TDS Analysis Run 6/7/2023 12:13 AM View: Trend
 Plant Barry Client: Southern Company Data: Barry Ash Pond

Sen's Slope Estimator

BY-AP-MW-12

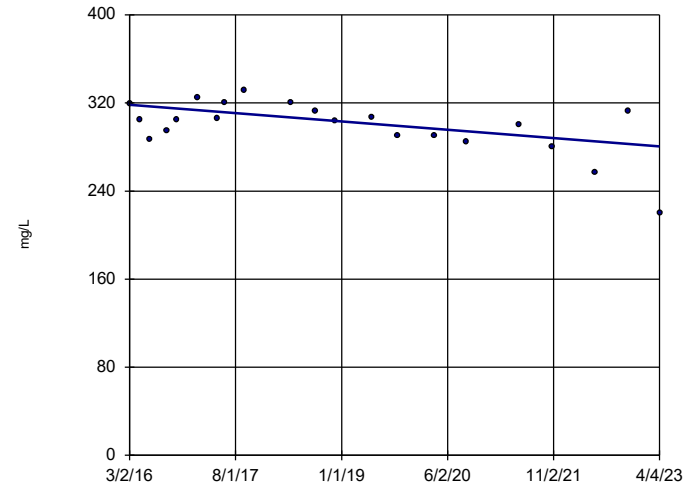


n = 21
 Slope = -0.6998
 units per year.
 Mann-Kendall
 statistic = -9
 critical = -87
 Trend not sig-
 nificant at 99%
 confidence level
 ($\alpha = 0.005$ per
 tail).

Constituent: TDS Analysis Run 6/7/2023 12:13 AM View: Trend
 Plant Barry Client: Southern Company Data: Barry Ash Pond

Sen's Slope Estimator

BY-AP-MW-13

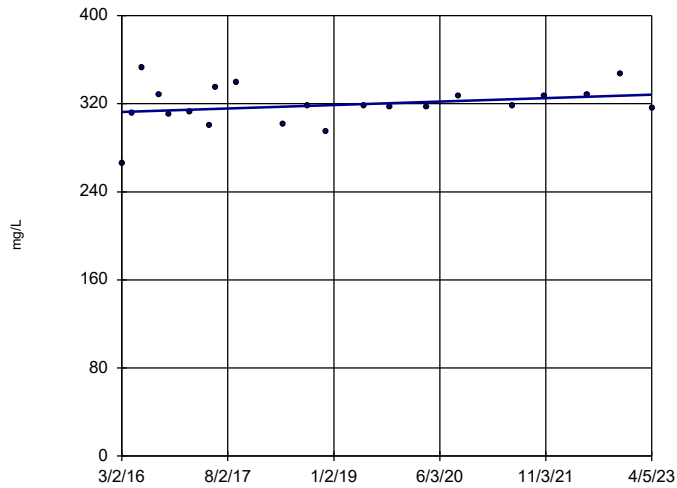


n = 21
 Slope = -5.299
 units per year.
 Mann-Kendall
 statistic = -75
 critical = -87
 Trend not sig-
 nificant at 99%
 confidence level
 ($\alpha = 0.005$ per
 tail).

Constituent: TDS Analysis Run 6/7/2023 12:13 AM View: Trend
 Plant Barry Client: Southern Company Data: Barry Ash Pond

Sen's Slope Estimator

BY-AP-MW-14

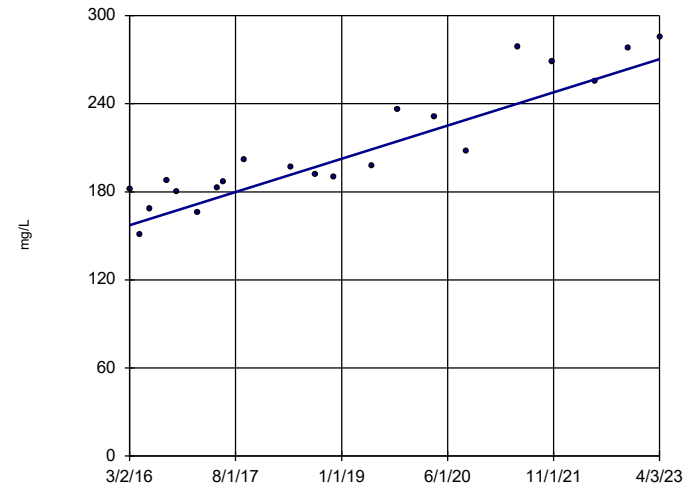


n = 21
 Slope = 2.236
 units per year.
 Mann-Kendall
 statistic = 44
 critical = 87
 Trend not sig-
 nificant at 99%
 confidence level
 ($\alpha = 0.005$ per
 tail).

Constituent: TDS Analysis Run 6/7/2023 12:13 AM View: Trend
 Plant Barry Client: Southern Company Data: Barry Ash Pond

Sen's Slope Estimator

BY-AP-MW-15

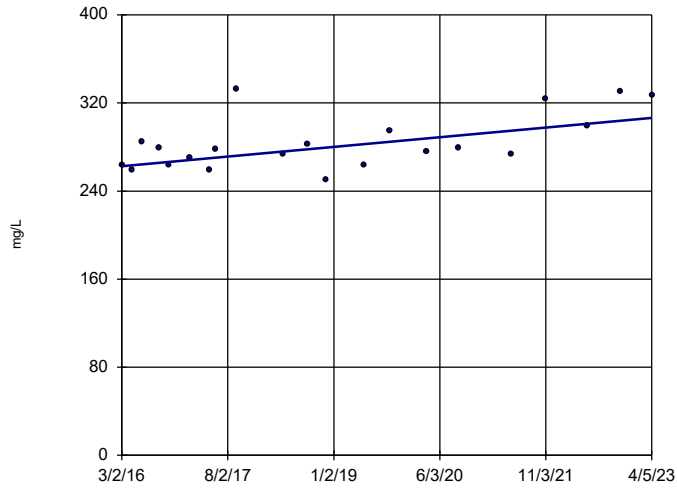


n = 21
 Slope = 15.94
 units per year.
 Mann-Kendall
 statistic = 162
 critical = 87
 Increasing trend
 significant at 99%
 confidence level
 ($\alpha = 0.005$ per
 tail).

Constituent: TDS Analysis Run 6/7/2023 12:13 AM View: Trend
 Plant Barry Client: Southern Company Data: Barry Ash Pond

Sen's Slope Estimator

BY-AP-MW-16

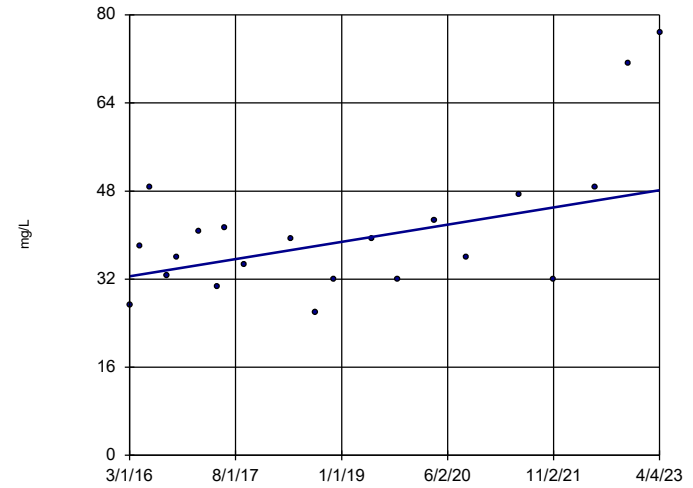


n = 21
 Slope = 6.148
 units per year.
 Mann-Kendall
 statistic = 82
 critical = 87
 Trend not sig-
 nificant at 99%
 confidence level
 ($\alpha = 0.005$ per
 tail).

Constituent: TDS Analysis Run 6/7/2023 12:13 AM View: Trend
 Plant Barry Client: Southern Company Data: Barry Ash Pond

Sen's Slope Estimator

BY-AP-MW-4

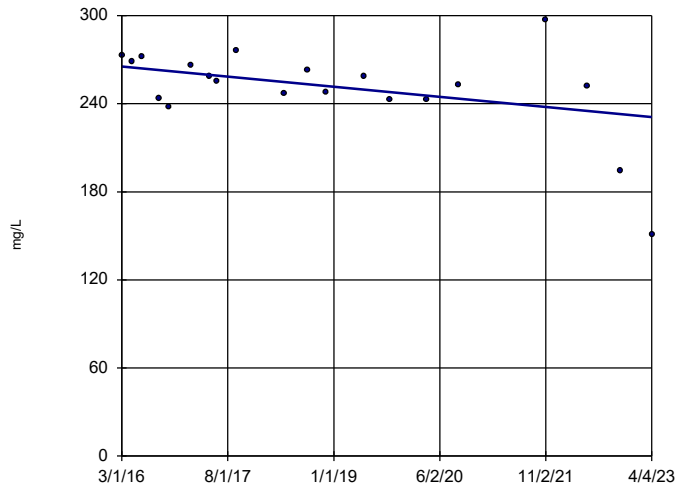


n = 21
 Slope = 2.211
 units per year.
 Mann-Kendall
 statistic = 64
 critical = 87
 Trend not sig-
 nificant at 99%
 confidence level
 ($\alpha = 0.005$ per
 tail).

Constituent: TDS Analysis Run 6/7/2023 12:13 AM View: Trend
 Plant Barry Client: Southern Company Data: Barry Ash Pond

Sen's Slope Estimator

BY-AP-MW-5

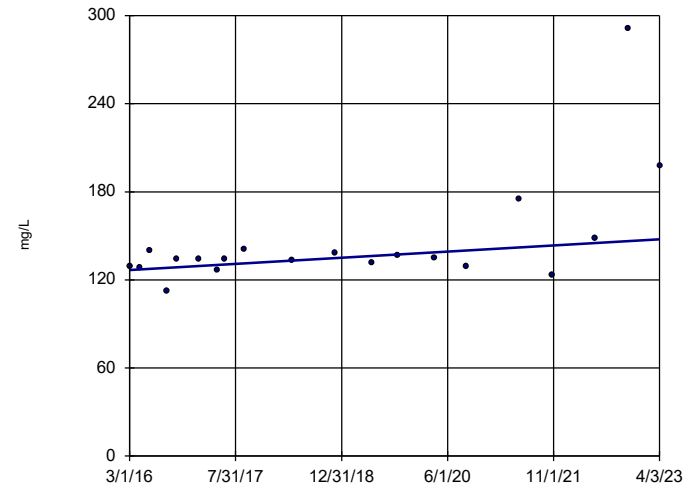


n = 20
 Slope = -4.862
 units per year.
 Mann-Kendall
 statistic = -68
 critical = -81
 Trend not sig-
 nificant at 99%
 confidence level
 ($\alpha = 0.005$ per
 tail).

Constituent: TDS Analysis Run 6/7/2023 12:13 AM View: Trend
 Plant Barry Client: Southern Company Data: Barry Ash Pond

Sen's Slope Estimator

BY-AP-MW-7

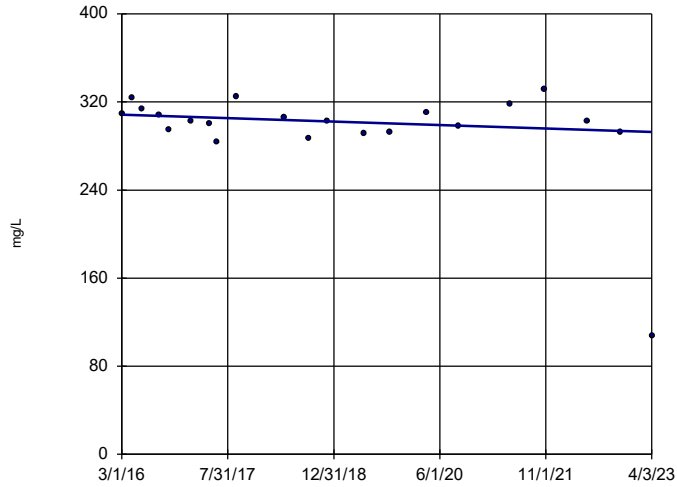


n = 20
 Slope = 2.958
 units per year.
 Mann-Kendall
 statistic = 66
 critical = 81
 Trend not sig-
 nificant at 99%
 confidence level
 ($\alpha = 0.005$ per
 tail).

Constituent: TDS Analysis Run 6/7/2023 12:13 AM View: Trend
 Plant Barry Client: Southern Company Data: Barry Ash Pond

Sen's Slope Estimator

BY-AP-MW-8

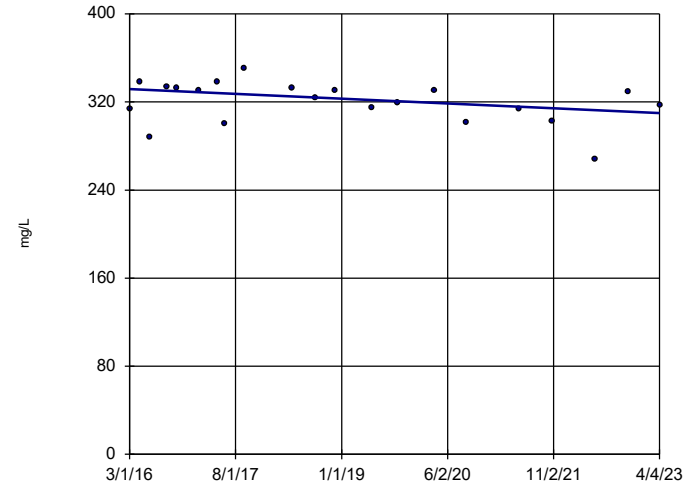


n = 21
 Slope = -2.208
 units per year.
 Mann-Kendall
 statistic = -40
 critical = -87
 Trend not sig-
 nificant at 99%
 confidence level
 ($\alpha = 0.005$ per
 tail).

Constituent: TDS Analysis Run 6/7/2023 12:13 AM View: Trend
 Plant Barry Client: Southern Company Data: Barry Ash Pond

Sen's Slope Estimator

BY-AP-MW-9

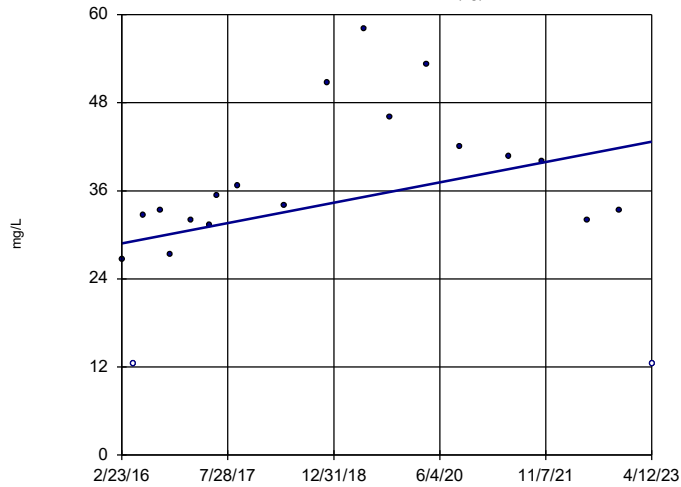


n = 21
 Slope = -3.065
 units per year.
 Mann-Kendall
 statistic = -62
 critical = -87
 Trend not sig-
 nificant at 99%
 confidence level
 ($\alpha = 0.005$ per
 tail).

Constituent: TDS Analysis Run 6/7/2023 12:13 AM View: Trend
 Plant Barry Client: Southern Company Data: Barry Ash Pond

Sen's Slope Estimator

BY-UP-MW-1 (bg)

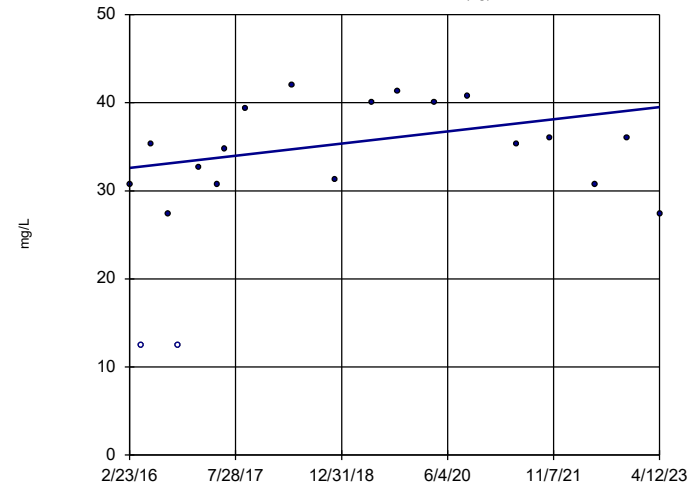


n = 20
 Slope = 1.942
 units per year.
 Mann-Kendall
 statistic = 51
 critical = 81
 Trend not sig-
 nificant at 99%
 confidence level
 ($\alpha = 0.005$ per
 tail).

Constituent: TDS Analysis Run 6/7/2023 12:13 AM View: Trend
 Plant Barry Client: Southern Company Data: Barry Ash Pond

Sen's Slope Estimator

BY-UP-MW-2 (bg)

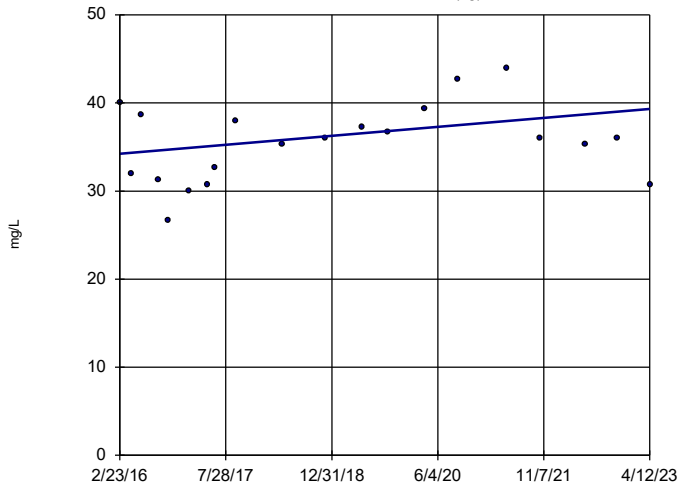


n = 20
 Slope = 0.9688
 units per year.
 Mann-Kendall
 statistic = 48
 critical = 81
 Trend not sig-
 nificant at 99%
 confidence level
 ($\alpha = 0.005$ per
 tail).

Constituent: TDS Analysis Run 6/7/2023 12:13 AM View: Trend
 Plant Barry Client: Southern Company Data: Barry Ash Pond

Sen's Slope Estimator

BY-UP-MW-3 (bg)

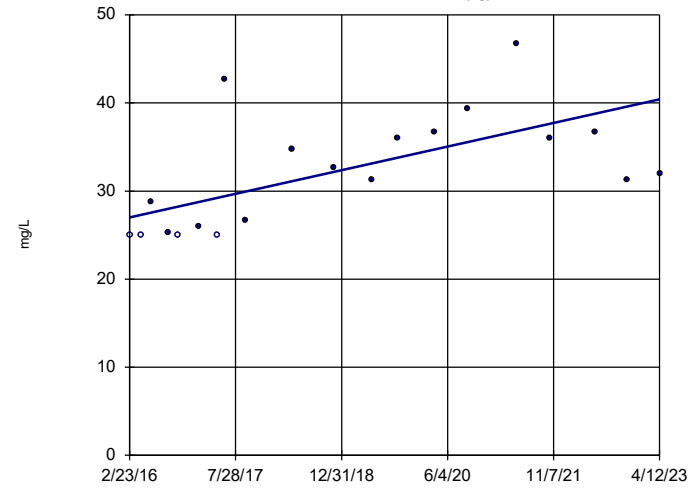


n = 20
Slope = 0.7112 units per year.
Mann-Kendall statistic = 31
critical = 81
Trend not significant at 99% confidence level ($\alpha = 0.005$ per tail).

Constituent: TDS Analysis Run 6/7/2023 12:13 AM View: Trend
Plant Barry Client: Southern Company Data: Barry Ash Pond

Sen's Slope Estimator

BY-UP-MW-4 (bg)



n = 20
Slope = 1.876 units per year.
Mann-Kendall statistic = 95
critical = 81
Increasing trend significant at 99% confidence level ($\alpha = 0.005$ per tail).

Constituent: TDS Analysis Run 6/7/2023 12:13 AM View: Trend
Plant Barry Client: Southern Company Data: Barry Ash Pond

FIGURE G.

Upper Tolerance Limits - Summary Table

Plant Barry Client: Southern Company Data: Barry Ash Pond Printed 1/19/2022, 3:44 PM

<u>Constituent</u>	<u>Well</u>	<u>Upper Lim.</u>	<u>Date</u>	<u>Observ.</u>	<u>Sig.</u>	<u>Bq N</u>	<u>Bq Mean</u>	<u>Std. Dev.</u>	<u>%NDs</u>	<u>ND Adj.</u>	<u>Transform</u>	<u>Alpha</u>	<u>Method</u>
Antimony (mg/L)	n/a	0.00102	n/a	n/a	n/a	68	n/a	n/a	92.65	n/a	n/a	0.03056	NP Inter
Arsenic (mg/L)	n/a	0.0017	n/a	n/a	n/a	68	n/a	n/a	88.24	n/a	n/a	0.03056	NP Inter
Barium (mg/L)	n/a	0.183	n/a	n/a	n/a	68	n/a	n/a	0	n/a	n/a	0.03056	NP Inter
Beryllium (mg/L)	n/a	0.00102	n/a	n/a	n/a	66	n/a	n/a	93.94	n/a	n/a	0.03387	NP Inter
Cadmium (mg/L)	n/a	0.0002	n/a	n/a	n/a	68	n/a	n/a	98.53	n/a	n/a	0.03056	NP Inter
Chromium (mg/L)	n/a	0.01	n/a	n/a	n/a	68	n/a	n/a	83.82	n/a	n/a	0.03056	NP Inter
Cobalt (mg/L)	n/a	0.0157	n/a	n/a	n/a	67	n/a	n/a	58.21	n/a	n/a	0.03217	NP Inter
Combined Radium 226 + 228 (pCi/L)	n/a	3	n/a	n/a	n/a	60	n/a	n/a	0	n/a	n/a	0.04607	NP Inter
Fluoride, total (mg/L)	n/a	0.1	n/a	n/a	n/a	72	n/a	n/a	52.78	n/a	n/a	0.02489	NP Inter
Lead (mg/L)	n/a	0.00126	n/a	n/a	n/a	68	n/a	n/a	89.71	n/a	n/a	0.03056	NP Inter
Lithium (mg/L)	n/a	0.02	n/a	n/a	n/a	68	n/a	n/a	100	n/a	n/a	0.03056	NP Inter
Mercury (mg/L)	n/a	0.0005	n/a	n/a	n/a	68	n/a	n/a	100	n/a	n/a	0.03056	NP Inter
Molybdenum (mg/L)	n/a	0.0002	n/a	n/a	n/a	68	n/a	n/a	100	n/a	n/a	0.03056	NP Inter
Selenium (mg/L)	n/a	0.00102	n/a	n/a	n/a	68	n/a	n/a	98.53	n/a	n/a	0.03056	NP Inter
Thallium (mg/L)	n/a	0.0002	n/a	n/a	n/a	68	n/a	n/a	100	n/a	n/a	0.03056	NP Inter

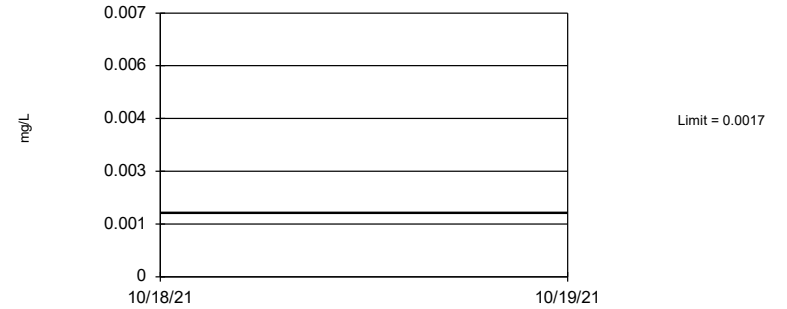
Tolerance Limit Interwell Non-parametric



NP test selected by user. Limit is highest of 68 background values. 92.65% NDs. 93.55% coverage at alpha=0.01; 95.51% coverage at alpha=0.05; 99.02% coverage at alpha=0.5. Report alpha = 0.03056.

Constituent: Antimony Analysis Run 1/19/2022 3:43 PM View: Appendix IV - UTLs
Plant Barry Client: Southern Company Data: Barry Ash Pond

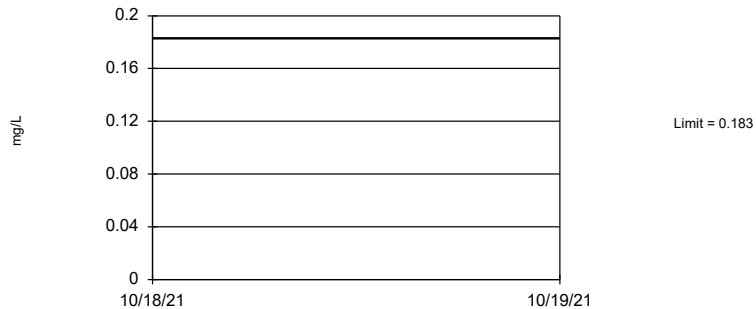
Tolerance Limit Interwell Non-parametric



NP test selected by user. Limit is highest of 68 background values. 88.24% NDs. 93.55% coverage at alpha=0.01; 95.51% coverage at alpha=0.05; 99.02% coverage at alpha=0.5. Report alpha = 0.03056.

Constituent: Arsenic Analysis Run 1/19/2022 3:43 PM View: Appendix IV - UTLs
Plant Barry Client: Southern Company Data: Barry Ash Pond

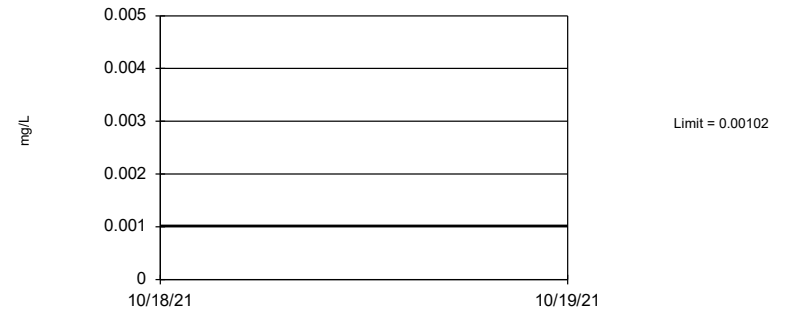
Tolerance Limit Interwell Non-parametric



NP test selected by user. Limit is highest of 68 background values. 93.55% coverage at alpha=0.01; 95.51% coverage at alpha=0.05; 99.02% coverage at alpha=0.5. Report alpha = 0.03056.

Constituent: Barium Analysis Run 1/19/2022 3:43 PM View: Appendix IV - UTLs
Plant Barry Client: Southern Company Data: Barry Ash Pond

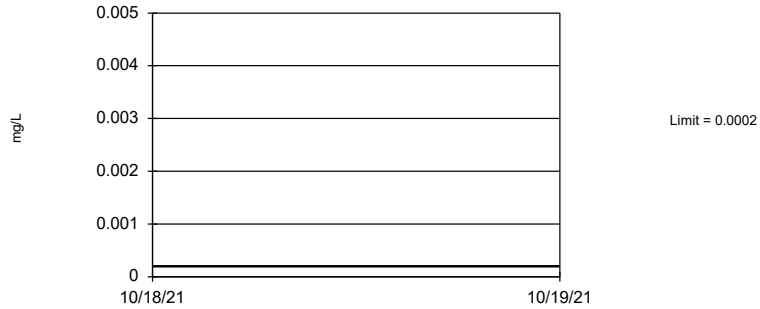
Tolerance Limit Interwell Non-parametric



NP test selected by user. Limit is highest of 66 background values. 93.94% NDs. 93.16% coverage at alpha=0.01; 95.51% coverage at alpha=0.05; 99.02% coverage at alpha=0.5. Report alpha = 0.03387.

Constituent: Beryllium Analysis Run 1/19/2022 3:43 PM View: Appendix IV - UTLs
Plant Barry Client: Southern Company Data: Barry Ash Pond

Tolerance Limit Interwell Non-parametric



NP test selected by user. Limit is highest of 68 background values. 98.53% NDs. 93.55% coverage at alpha=0.01; 95.51% coverage at alpha=0.05; 99.02% coverage at alpha=0.5. Report alpha = 0.03056.

Constituent: Cadmium Analysis Run 1/19/2022 3:43 PM View: Appendix IV - UTLs
Plant Barry Client: Southern Company Data: Barry Ash Pond

Tolerance Limit Interwell Non-parametric



NP test selected by user. Limit is highest of 68 background values. 83.82% NDs. 93.55% coverage at alpha=0.01; 95.51% coverage at alpha=0.05; 99.02% coverage at alpha=0.5. Report alpha = 0.03056.

Constituent: Chromium Analysis Run 1/19/2022 3:43 PM View: Appendix IV - UTLs
Plant Barry Client: Southern Company Data: Barry Ash Pond

Tolerance Limit Interwell Non-parametric



NP test selected by user. Limit is highest of 67 background values. 58.21% NDs. 93.16% coverage at alpha=0.01; 95.51% coverage at alpha=0.05; 99.02% coverage at alpha=0.5. Report alpha = 0.03217.

Constituent: Cobalt Analysis Run 1/19/2022 3:43 PM View: Appendix IV - UTLs
Plant Barry Client: Southern Company Data: Barry Ash Pond

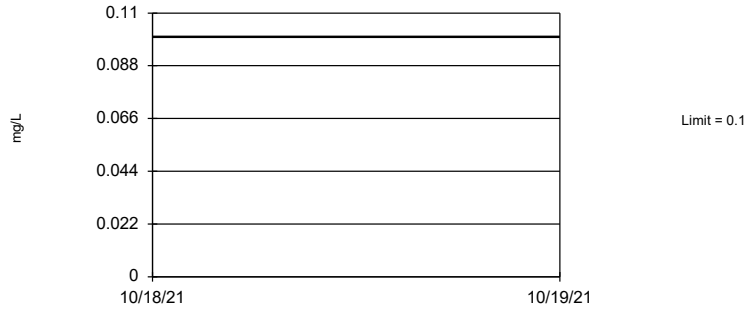
Tolerance Limit Interwell Non-parametric



NP test selected by user. Limit is highest of 60 background values. 92.77% coverage at alpha=0.01; 95.12% coverage at alpha=0.05; 99.02% coverage at alpha=0.5. Report alpha = 0.04607.

Constituent: Combined Radium 226 + 228 Analysis Run 1/19/2022 3:43 PM View: Appendix IV - UTLs
Plant Barry Client: Southern Company Data: Barry Ash Pond

Tolerance Limit Interwell Non-parametric



NP test selected by user. Limit is highest of 72 background values. 52.78% NDs. 93.95% coverage at alpha=0.01; 95.9% coverage at alpha=0.05; 99.02% coverage at alpha=0.5. Report alpha = 0.02489.

Constituent: Fluoride, total Analysis Run 1/19/2022 3:43 PM View: Appendix IV - UTLs
Plant Barry Client: Southern Company Data: Barry Ash Pond

Tolerance Limit Interwell Non-parametric



NP test selected by user. Limit is highest of 68 background values. 89.71% NDs. 93.55% coverage at alpha=0.01; 95.51% coverage at alpha=0.05; 99.02% coverage at alpha=0.5. Report alpha = 0.03056.

Constituent: Lead Analysis Run 1/19/2022 3:43 PM View: Appendix IV - UTLs
Plant Barry Client: Southern Company Data: Barry Ash Pond

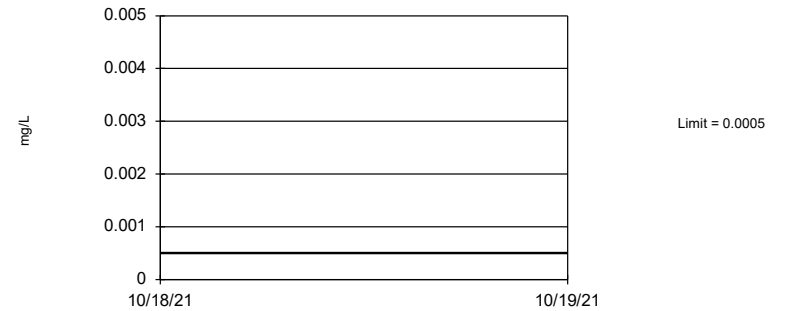
Tolerance Limit Interwell Non-parametric



NP test selected by user. All background values were censored; limit is most recent reporting limit. 93.55% coverage at alpha=0.01; 95.51% coverage at alpha=0.05; 99.02% coverage at alpha=0.5. Report alpha = 0.03056.

Constituent: Lithium Analysis Run 1/19/2022 3:43 PM View: Appendix IV - UTLs
Plant Barry Client: Southern Company Data: Barry Ash Pond

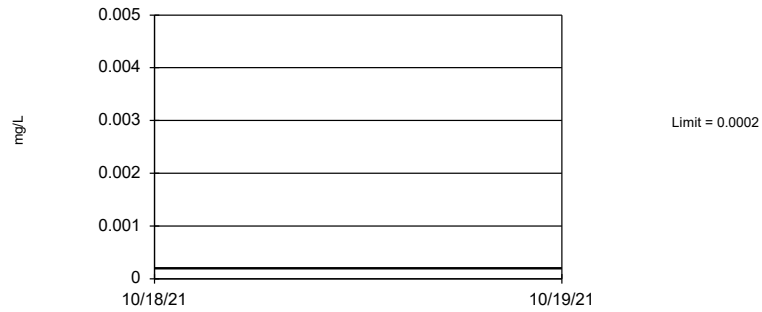
Tolerance Limit Interwell Non-parametric



NP test selected by user. All background values were censored; limit is most recent reporting limit. 93.55% coverage at alpha=0.01; 95.51% coverage at alpha=0.05; 99.02% coverage at alpha=0.5. Report alpha = 0.03056.

Constituent: Mercury Analysis Run 1/19/2022 3:43 PM View: Appendix IV - UTLs
Plant Barry Client: Southern Company Data: Barry Ash Pond

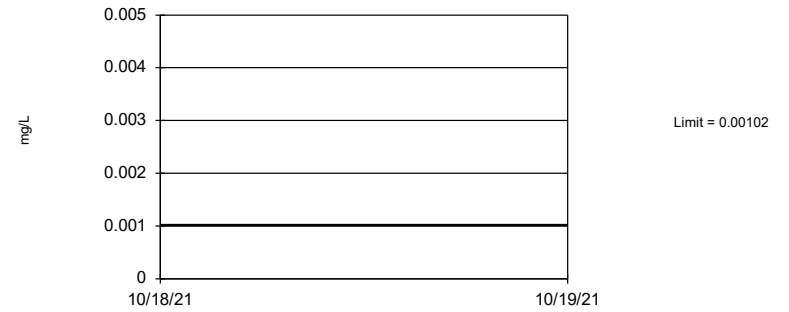
Tolerance Limit
Interwell Non-parametric



NP test selected by user. All background values were censored; limit is most recent reporting limit. 93.55% coverage at alpha=0.01; 95.51% coverage at alpha=0.05; 99.02% coverage at alpha=0.5. Report alpha = 0.03056.

Constituent: Molybdenum Analysis Run 1/19/2022 3:43 PM View: Appendix IV - UTLs
Plant Barry Client: Southern Company Data: Barry Ash Pond

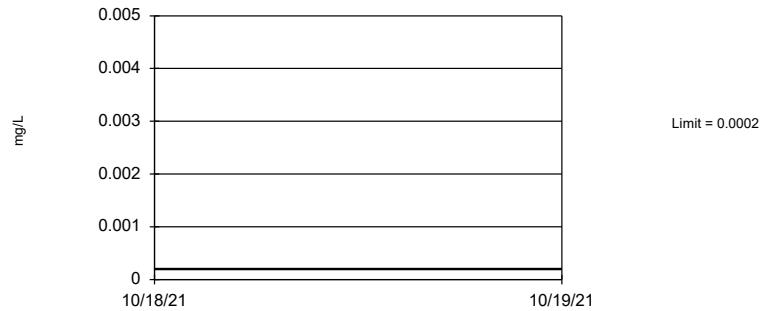
Tolerance Limit
Interwell Non-parametric



NP test selected by user. Limit is highest of 68 background values. 98.53% NDs. 93.55% coverage at alpha=0.01; 95.51% coverage at alpha=0.05; 99.02% coverage at alpha=0.5. Report alpha = 0.03056.

Constituent: Selenium Analysis Run 1/19/2022 3:43 PM View: Appendix IV - UTLs
Plant Barry Client: Southern Company Data: Barry Ash Pond

Tolerance Limit
Interwell Non-parametric



NP test selected by user. All background values were censored; limit is most recent reporting limit. 93.55% coverage at alpha=0.01; 95.51% coverage at alpha=0.05; 99.02% coverage at alpha=0.5. Report alpha = 0.03056.

Constituent: Thallium Analysis Run 1/19/2022 3:43 PM View: Appendix IV - UTLs
Plant Barry Client: Southern Company Data: Barry Ash Pond

FIGURE H.

BARRY ASH POND GWPS			
Analyte	Units	Background	GWPS
Antimony	mg/L	0.00102	0.006
Arsenic	mg/L	0.0017	0.01
Barium	mg/L	0.183	2
Beryllium	mg/L	0.00102	0.004
Cadmium	mg/L	0.0002	0.005
Chromium	mg/L	0.01	0.1
Cobalt	mg/L	0.0157	0.0157
Combined Radium-226/228	pCi/L	3	5
Fluoride	mg/L	0.1	4
Lead	mg/L	0.00126	0.015
Lithium	mg/L	0.02	0.04
Mercury	mg/L	0.0005	0.002
Molybdenum	mg/L	0.0002	0.1
Selenium	mg/L	0.00102	0.05
Thallium	mg/L	0.0002	0.002

Notes:

1. mg/L - Milligrams per liter
2. pCi/L - Picocuries per liter
3. The background limits were used as the groundwater protection standard (GWPS) when appropriate under 40 CFR §257.95(h), ADEM Rule 335-13-15-.06(h), and the ADEM Variance.
4. GWPS established during second semi-annual sampling event in 2021.

FIGURE I.

Confidence Interval Summary Table - Significant Results

Plant Barry Client: Southern Company Data: Barry Ash Pond Printed 6/22/2023, 11:30 AM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	%NDs	ND Adj.	Transform	Alpha	Method
Arsenic (mg/L)	BY-AP-MW-1	0.07707	0.06075	0.01	Yes	8	0	None	No	0.01	Param.
Arsenic (mg/L)	BY-AP-MW-10	0.07752	0.06536	0.01	Yes	8	0	None	x^4	0.01	Param.
Arsenic (mg/L)	BY-AP-MW-11	0.01656	0.01376	0.01	Yes	8	0	None	No	0.01	Param.
Arsenic (mg/L)	BY-AP-MW-12	0.0246	0.0218	0.01	Yes	8	0	None	No	0.004	NP (normality)
Arsenic (mg/L)	BY-AP-MW-14	0.01806	0.01633	0.01	Yes	8	0	None	x^4	0.01	Param.
Arsenic (mg/L)	BY-AP-MW-15	0.01982	0.01723	0.01	Yes	8	0	None	No	0.01	Param.
Arsenic (mg/L)	BY-AP-MW-16	0.01561	0.01226	0.01	Yes	8	0	None	No	0.01	Param.
Arsenic (mg/L)	BY-AP-MW-5	0.03662	0.02501	0.01	Yes	8	0	None	No	0.01	Param.
Arsenic (mg/L)	BY-AP-MW-7	0.02364	0.01508	0.01	Yes	8	0	None	x^3	0.01	Param.
Arsenic (mg/L)	BY-AP-MW-8	0.06782	0.03745	0.01	Yes	8	0	None	x^2	0.01	Param.
Arsenic (mg/L)	BY-AP-MW-9	0.04644	0.0263	0.01	Yes	8	0	None	x^2	0.01	Param.
Cobalt (mg/L)	BY-AP-MW-15	0.03696	0.03371	0.0157	Yes	8	0	None	No	0.01	Param.

Confidence Interval Summary Table - All Results

Plant Barry Client: Southern Company Data: Barry Ash Pond Printed 6/22/2023, 11:30 AM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	%NDs	ND Adj.	Transform	Alpha	Method
Arsenic (mg/L)	BY-AP-MW-1	0.07707	0.06075	0.01	Yes	8	0	None	No	0.01	Param.
Arsenic (mg/L)	BY-AP-MW-10	0.07752	0.06536	0.01	Yes	8	0	None	x^4	0.01	Param.
Arsenic (mg/L)	BY-AP-MW-11	0.01656	0.01376	0.01	Yes	8	0	None	No	0.01	Param.
Arsenic (mg/L)	BY-AP-MW-12	0.0246	0.0218	0.01	Yes	8	0	None	No	0.004	NP (normality)
Arsenic (mg/L)	BY-AP-MW-13	0.01813	0.009785	0.01	No	8	0	None	No	0.01	Param.
Arsenic (mg/L)	BY-AP-MW-14	0.01806	0.01633	0.01	Yes	8	0	None	x^4	0.01	Param.
Arsenic (mg/L)	BY-AP-MW-15	0.01982	0.01723	0.01	Yes	8	0	None	No	0.01	Param.
Arsenic (mg/L)	BY-AP-MW-16	0.01561	0.01226	0.01	Yes	8	0	None	No	0.01	Param.
Arsenic (mg/L)	BY-AP-MW-2	0.001788	0.001305	0.01	No	8	0	None	No	0.01	Param.
Arsenic (mg/L)	BY-AP-MW-3	0.000455	0.000102	0.01	No	8	75	None	No	0.004	NP (NDs)
Arsenic (mg/L)	BY-AP-MW-4	0.000203	0.000099	0.01	No	8	62.5	None	No	0.004	NP (NDs)
Arsenic (mg/L)	BY-AP-MW-5	0.03662	0.02501	0.01	Yes	8	0	None	No	0.01	Param.
Arsenic (mg/L)	BY-AP-MW-6	0.000203	0.0001	0.01	No	8	75	None	No	0.004	NP (NDs)
Arsenic (mg/L)	BY-AP-MW-7	0.02364	0.01508	0.01	Yes	8	0	None	x^3	0.01	Param.
Arsenic (mg/L)	BY-AP-MW-8	0.06782	0.03745	0.01	Yes	8	0	None	x^2	0.01	Param.
Arsenic (mg/L)	BY-AP-MW-9	0.04644	0.0263	0.01	Yes	8	0	None	x^2	0.01	Param.
Barium (mg/L)	BY-AP-MW-1	0.3437	0.2591	2	No	8	0	None	No	0.01	Param.
Barium (mg/L)	BY-AP-MW-10	0.07493	0.06092	2	No	8	0	None	No	0.01	Param.
Barium (mg/L)	BY-AP-MW-11	0.09886	0.06884	2	No	8	0	None	No	0.01	Param.
Barium (mg/L)	BY-AP-MW-12	0.08667	0.07658	2	No	8	0	None	No	0.01	Param.
Barium (mg/L)	BY-AP-MW-13	0.08002	0.06153	2	No	8	0	None	No	0.01	Param.
Barium (mg/L)	BY-AP-MW-14	0.0714	0.06047	2	No	8	0	None	No	0.01	Param.
Barium (mg/L)	BY-AP-MW-15	0.08227	0.06793	2	No	8	0	None	No	0.01	Param.
Barium (mg/L)	BY-AP-MW-16	0.1004	0.08487	2	No	8	0	None	No	0.01	Param.
Barium (mg/L)	BY-AP-MW-2	0.02738	0.02049	2	No	8	0	None	No	0.01	Param.
Barium (mg/L)	BY-AP-MW-3	0.04437	0.02963	2	No	8	0	None	No	0.01	Param.
Barium (mg/L)	BY-AP-MW-4	0.118	0.0131	2	No	8	0	None	No	0.004	NP (normality)
Barium (mg/L)	BY-AP-MW-5	0.1603	0.1132	2	No	8	0	None	x^3	0.01	Param.
Barium (mg/L)	BY-AP-MW-6	0.02925	0.02525	2	No	8	0	None	No	0.01	Param.
Barium (mg/L)	BY-AP-MW-7	0.07384	0.04287	2	No	8	0	None	x^3	0.01	Param.
Barium (mg/L)	BY-AP-MW-8	0.1506	0.1252	2	No	8	0	None	x^6	0.01	Param.
Barium (mg/L)	BY-AP-MW-9	0.1256	0.1139	2	No	8	0	None	No	0.01	Param.
Beryllium (mg/L)	BY-AP-MW-4	0.00102	0.000432	0.004	No	8	62.5	None	No	0.004	NP (NDs)
Cadmium (mg/L)	BY-AP-MW-4	0.0002	0.00009	0.005	No	8	75	None	No	0.004	NP (NDs)
Cadmium (mg/L)	BY-AP-MW-6	0.00031	0.000068	0.005	No	8	62.5	None	No	0.004	NP (NDs)
Chromium (mg/L)	BY-AP-MW-1	0.00638	0.00236	0.1	No	8	0	None	No	0.004	NP (normality)
Chromium (mg/L)	BY-AP-MW-10	0.01	0.00052	0.1	No	8	37.5	None	No	0.004	NP (normality)
Chromium (mg/L)	BY-AP-MW-11	0.004001	0.002344	0.1	No	8	0	None	No	0.01	Param.
Chromium (mg/L)	BY-AP-MW-12	0.0056	0.00325	0.1	No	8	0	None	No	0.004	NP (normality)
Chromium (mg/L)	BY-AP-MW-13	0.009056	0.005476	0.1	No	8	0	None	x^2	0.01	Param.
Chromium (mg/L)	BY-AP-MW-14	0.004798	0.003245	0.1	No	8	0	None	No	0.01	Param.
Chromium (mg/L)	BY-AP-MW-15	0.01	0.000361	0.1	No	8	37.5	None	No	0.004	NP (normality)
Chromium (mg/L)	BY-AP-MW-16	0.01	0.00122	0.1	No	8	37.5	None	No	0.004	NP (normality)
Chromium (mg/L)	BY-AP-MW-2	0.00102	0.000206	0.1	No	8	50	None	No	0.004	NP (normality)
Chromium (mg/L)	BY-AP-MW-3	0.01	0.00053	0.1	No	8	37.5	None	No	0.004	NP (normality)
Chromium (mg/L)	BY-AP-MW-4	0.01	0.00026	0.1	No	8	37.5	None	No	0.004	NP (normality)
Chromium (mg/L)	BY-AP-MW-5	0.01	0.000894	0.1	No	8	50	None	No	0.004	NP (normality)
Chromium (mg/L)	BY-AP-MW-6	0.01	0.00023	0.1	No	8	37.5	None	No	0.004	NP (normality)
Chromium (mg/L)	BY-AP-MW-7	0.01	0.000246	0.1	No	8	37.5	None	No	0.004	NP (normality)
Chromium (mg/L)	BY-AP-MW-8	0.01	0.001	0.1	No	8	37.5	None	No	0.004	NP (normality)
Chromium (mg/L)	BY-AP-MW-9	0.01	0.00062	0.1	No	8	37.5	None	No	0.004	NP (normality)
Cobalt (mg/L)	BY-AP-MW-1	0.005	0.00091	0.0157	No	8	37.5	None	No	0.004	NP (normality)
Cobalt (mg/L)	BY-AP-MW-10	0.005	0.00054	0.0157	No	8	37.5	None	No	0.004	NP (normality)
Cobalt (mg/L)	BY-AP-MW-11	0.005	0.000946	0.0157	No	8	37.5	None	No	0.004	NP (normality)
Cobalt (mg/L)	BY-AP-MW-12	0.00403	0.003035	0.0157	No	8	0	None	No	0.01	Param.
Cobalt (mg/L)	BY-AP-MW-13	0.002246	0.0008853	0.0157	No	8	37.5	Kaplan-Meier	x^(1/3)	0.01	Param.
Cobalt (mg/L)	BY-AP-MW-14	0.005	0.00119	0.0157	No	8	37.5	None	No	0.004	NP (normality)
Cobalt (mg/L)	BY-AP-MW-15	0.03696	0.03371	0.0157	Yes	8	0	None	No	0.01	Param.
Cobalt (mg/L)	BY-AP-MW-16	0.01936	0.008818	0.0157	No	8	0	None	No	0.01	Param.
Cobalt (mg/L)	BY-AP-MW-2	0.007613	0.005148	0.0157	No	8	0	None	x^2	0.01	Param.
Cobalt (mg/L)	BY-AP-MW-3	0.005	0.000108	0.0157	No	8	37.5	None	No	0.004	NP (normality)
Cobalt (mg/L)	BY-AP-MW-4	0.01353	0.002498	0.0157	No	8	12.5	None	ln(x)	0.01	Param.
Cobalt (mg/L)	BY-AP-MW-5	0.005	0.00112	0.0157	No	8	50	None	No	0.004	NP (normality)
Cobalt (mg/L)	BY-AP-MW-6	0.005	0.000584	0.0157	No	8	37.5	None	No	0.004	NP (normality)
Cobalt (mg/L)	BY-AP-MW-7	0.02223	0.009928	0.0157	No	8	0	None	x^2	0.01	Param.
Cobalt (mg/L)	BY-AP-MW-8	0.0009974	0.0002687	0.0157	No	8	37.5	Kaplan-Meier	ln(x)	0.01	Param.
Cobalt (mg/L)	BY-AP-MW-9	0.005	0.00069	0.0157	No	8	37.5	None	No	0.004	NP (normality)
Combined Radium 226 + 228 (pCi/L)	BY-AP-MW-1	2.743	1.89	5	No	8	0	None	No	0.01	Param.

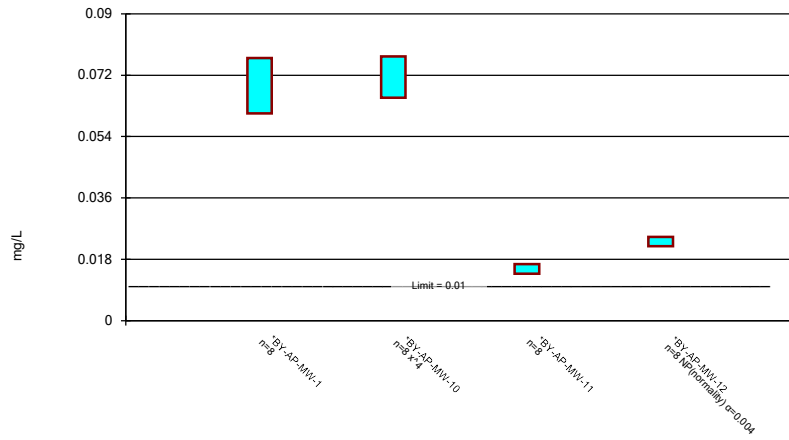
Confidence Interval Summary Table - All Results

Plant Barry Client: Southern Company Data: Barry Ash Pond Printed 6/22/2023, 11:30 AM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	%NDs	ND Adj.	Transform	Alpha	Method
Combined Radium 226 + 228 (pCi/L)	BY-AP-MW-10	1.354	0.525	5	No	8	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	BY-AP-MW-11	1.15	0.452	5	No	8	0	None	No	0.004	NP (normality)
Combined Radium 226 + 228 (pCi/L)	BY-AP-MW-12	1.805	0.8693	5	No	8	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	BY-AP-MW-13	1.379	0.6373	5	No	8	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	BY-AP-MW-14	1.133	0.5117	5	No	8	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	BY-AP-MW-15	1.65	0.5159	5	No	8	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	BY-AP-MW-16	1.833	0.2699	5	No	8	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	BY-AP-MW-2	0.9204	0.2656	5	No	8	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	BY-AP-MW-3	1.724	0.4493	5	No	8	0	None	ln(x)	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	BY-AP-MW-4	1.328	0.485	5	No	8	0	None	sqrt(x)	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	BY-AP-MW-5	2.146	0.8926	5	No	8	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	BY-AP-MW-6	1.513	0.1585	5	No	8	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	BY-AP-MW-7	1.159	0.3171	5	No	8	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	BY-AP-MW-8	1.227	0.336	5	No	8	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	BY-AP-MW-9	1.68	0.6526	5	No	8	0	None	No	0.01	Param.
Fluoride, total (mg/L)	BY-AP-MW-1	0.194	0.0665	4	No	8	0	None	No	0.004	NP (normality)
Fluoride, total (mg/L)	BY-AP-MW-10	0.125	0.0794	4	No	8	75	None	No	0.004	NP (NDs)
Fluoride, total (mg/L)	BY-AP-MW-11	0.1089	0.06453	4	No	8	0	None	No	0.01	Param.
Fluoride, total (mg/L)	BY-AP-MW-12	0.08889	0.06616	4	No	8	0	None	No	0.01	Param.
Fluoride, total (mg/L)	BY-AP-MW-13	0.187	0.0641	4	No	8	0	None	No	0.004	NP (normality)
Fluoride, total (mg/L)	BY-AP-MW-14	0.1086	0.06651	4	No	8	0	None	No	0.01	Param.
Fluoride, total (mg/L)	BY-AP-MW-15	0.229	0.1685	4	No	8	0	None	sqrt(x)	0.01	Param.
Fluoride, total (mg/L)	BY-AP-MW-16	0.1181	0.06402	4	No	8	25	Kaplan-Meier	No	0.01	Param.
Fluoride, total (mg/L)	BY-AP-MW-2	0.125	0.0711	4	No	8	87.5	None	No	0.004	NP (NDs)
Fluoride, total (mg/L)	BY-AP-MW-5	0.1072	0.05771	4	No	8	12.5	None	No	0.01	Param.
Fluoride, total (mg/L)	BY-AP-MW-7	0.381	0.0724	4	No	8	0	None	No	0.004	NP (normality)
Fluoride, total (mg/L)	BY-AP-MW-8	0.125	0.0559	4	No	8	37.5	None	No	0.004	NP (normality)
Fluoride, total (mg/L)	BY-AP-MW-9	0.0804	0.0625	4	No	8	12.5	None	No	0.004	NP (normality)
Lead (mg/L)	BY-AP-MW-1	0.0002	0.000092	0.015	No	8	75	None	No	0.004	NP (NDs)
Lead (mg/L)	BY-AP-MW-11	0.005	0.000069	0.015	No	8	37.5	None	No	0.004	NP (normality)
Lead (mg/L)	BY-AP-MW-12	0.000326	0.00018	0.015	No	8	62.5	None	No	0.004	NP (NDs)
Lead (mg/L)	BY-AP-MW-13	0.0002	0.000101	0.015	No	8	62.5	None	No	0.004	NP (NDs)
Lead (mg/L)	BY-AP-MW-14	0.005	0.0000764	0.015	No	8	37.5	None	No	0.004	NP (normality)
Lead (mg/L)	BY-AP-MW-16	0.000203	0.000191	0.015	No	8	87.5	None	No	0.004	NP (NDs)
Lead (mg/L)	BY-AP-MW-4	0.005	0.00007	0.015	No	8	37.5	None	No	0.004	NP (normality)
Lead (mg/L)	BY-AP-MW-6	0.006029	0.001339	0.015	No	8	0	None	ln(x)	0.01	Param.
Lithium (mg/L)	BY-AP-MW-11	0.02861	0.01069	0.04	No	8	25	Kaplan-Meier	No	0.01	Param.
Lithium (mg/L)	BY-AP-MW-15	0.02058	0.009311	0.04	No	8	25	Kaplan-Meier	No	0.01	Param.
Lithium (mg/L)	BY-AP-MW-7	0.0882	0.0102	0.04	No	8	75	Kaplan-Meier	No	0.004	NP (NDs)
Molybdenum (mg/L)	BY-AP-MW-1	0.01015	0.00008	0.1	No	8	75	None	No	0.004	NP (NDs)
Molybdenum (mg/L)	BY-AP-MW-11	0.01015	0.000972	0.1	No	8	50	None	No	0.004	NP (normality)
Molybdenum (mg/L)	BY-AP-MW-12	0.01015	0.000942	0.1	No	8	50	None	No	0.004	NP (normality)
Molybdenum (mg/L)	BY-AP-MW-13	0.0108	0.00043	0.1	No	8	37.5	None	No	0.004	NP (normality)
Molybdenum (mg/L)	BY-AP-MW-14	0.01015	0.00052	0.1	No	8	50	None	No	0.004	NP (normality)
Molybdenum (mg/L)	BY-AP-MW-15	0.01015	0.00171	0.1	No	8	37.5	None	No	0.004	NP (normality)
Molybdenum (mg/L)	BY-AP-MW-16	0.01015	0.000136	0.1	No	8	87.5	None	No	0.004	NP (NDs)
Molybdenum (mg/L)	BY-AP-MW-5	0.01015	0.00011	0.1	No	8	62.5	None	No	0.004	NP (NDs)
Molybdenum (mg/L)	BY-AP-MW-6	0.01015	0.00011	0.1	No	8	50	None	No	0.004	NP (normality)
Molybdenum (mg/L)	BY-AP-MW-7	0.01015	0.00018	0.1	No	8	50	None	No	0.004	NP (normality)
Molybdenum (mg/L)	BY-AP-MW-8	0.01015	0.00019	0.1	No	8	50	None	No	0.004	NP (normality)
Molybdenum (mg/L)	BY-AP-MW-9	0.01015	0.000157	0.1	No	8	50	None	No	0.004	NP (normality)
Selenium (mg/L)	BY-AP-MW-13	0.00102	0.00056	0.05	No	8	62.5	None	No	0.004	NP (NDs)

Parametric and Non-Parametric (NP) Confidence Interval

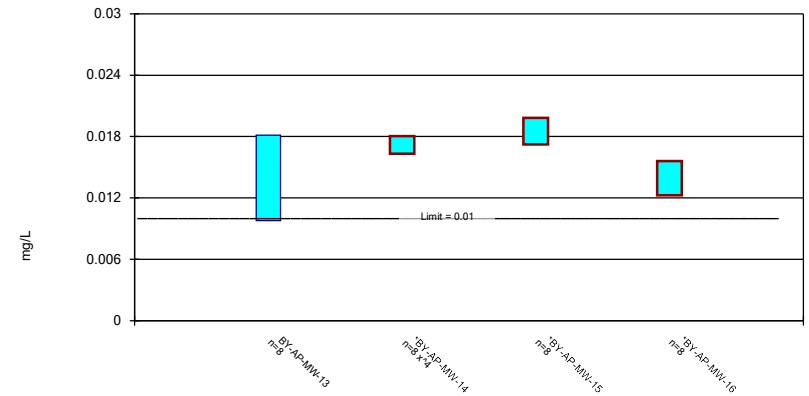
Compliance limit is exceeded.* Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Arsenic Analysis Run 6/22/2023 11:28 AM View: AIV
Plant Barry Client: Southern Company Data: Barry Ash Pond

Parametric Confidence Interval

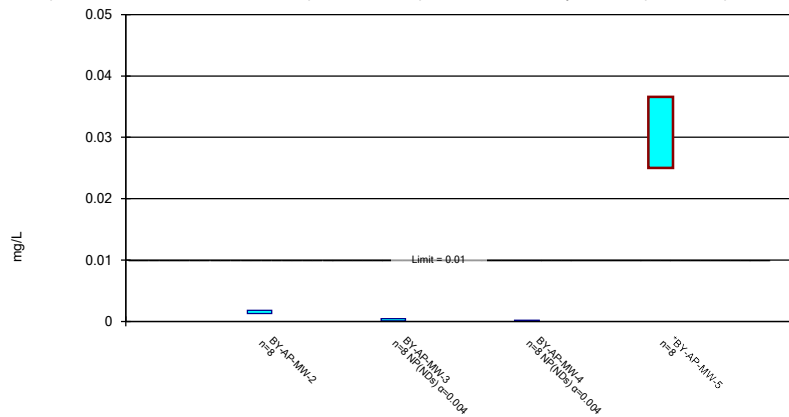
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Constituent: Arsenic Analysis Run 6/22/2023 11:28 AM View: AIV
Plant Barry Client: Southern Company Data: Barry Ash Pond

Parametric and Non-Parametric (NP) Confidence Interval

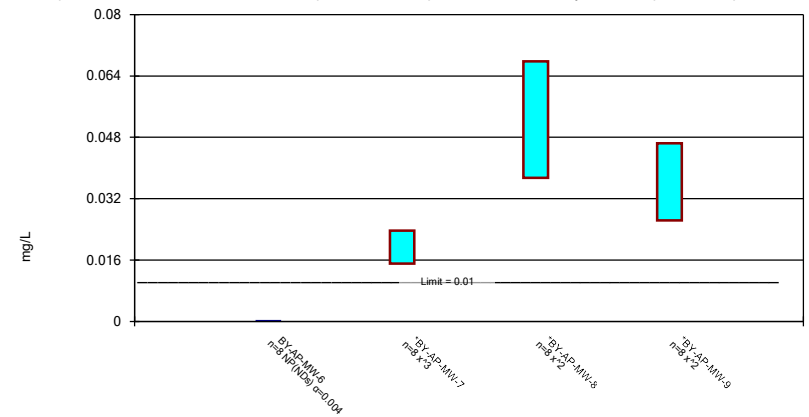
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Constituent: Arsenic Analysis Run 6/22/2023 11:28 AM View: AIV
Plant Barry Client: Southern Company Data: Barry Ash Pond

Parametric and Non-Parametric (NP) Confidence Interval

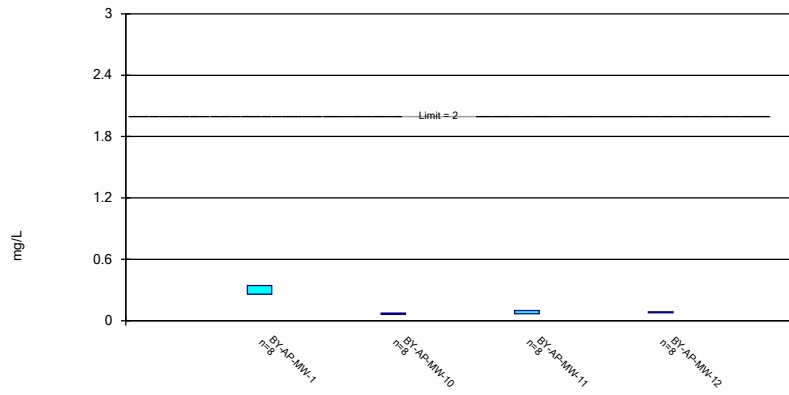
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Constituent: Arsenic Analysis Run 6/22/2023 11:28 AM View: AIV
Plant Barry Client: Southern Company Data: Barry Ash Pond

Parametric Confidence Interval

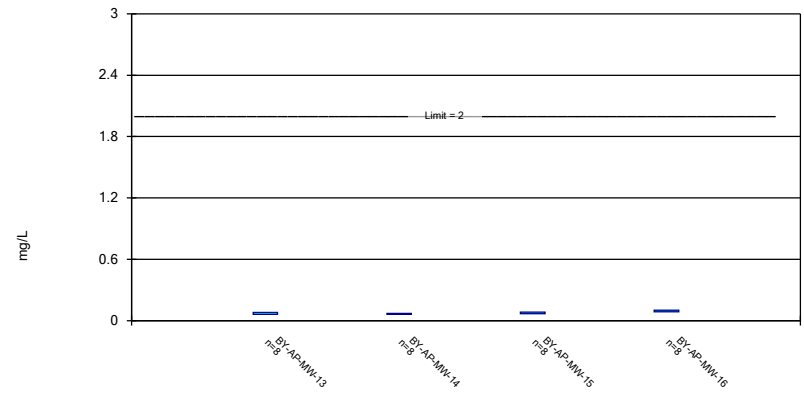
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Constituent: Barium Analysis Run 6/22/2023 11:28 AM View: AIV
Plant Barry Client: Southern Company Data: Barry Ash Pond

Parametric Confidence Interval

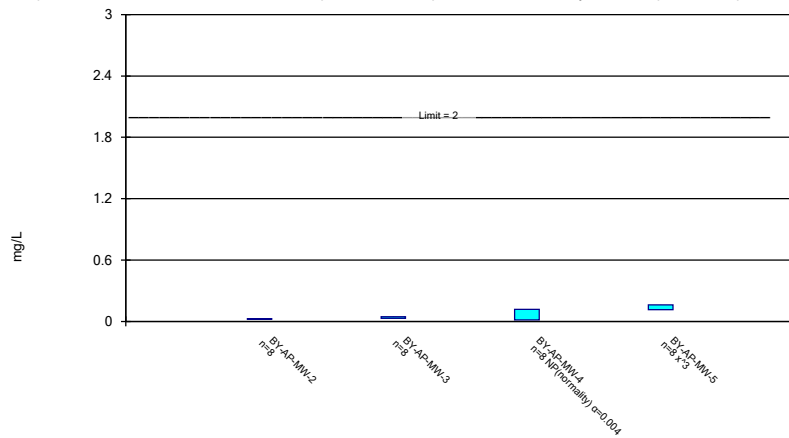
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Constituent: Barium Analysis Run 6/22/2023 11:28 AM View: AIV
Plant Barry Client: Southern Company Data: Barry Ash Pond

Parametric and Non-Parametric (NP) Confidence Interval

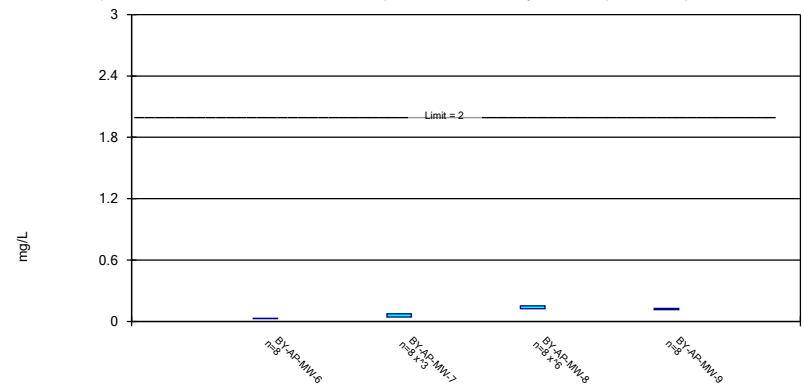
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Constituent: Barium Analysis Run 6/22/2023 11:28 AM View: AIV
Plant Barry Client: Southern Company Data: Barry Ash Pond

Parametric Confidence Interval

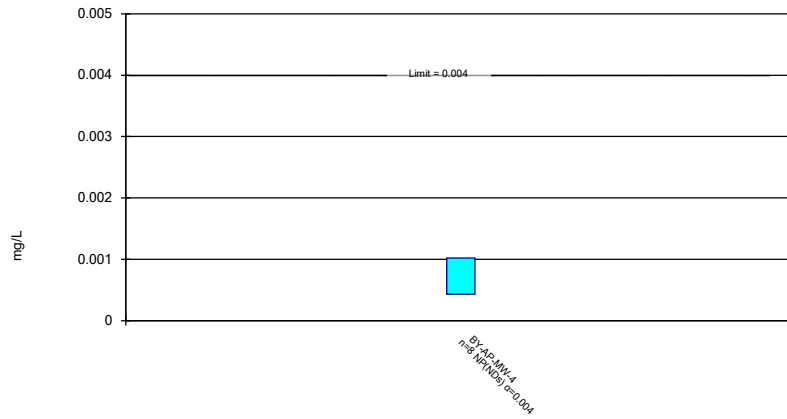
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Constituent: Barium Analysis Run 6/22/2023 11:28 AM View: AIV
Plant Barry Client: Southern Company Data: Barry Ash Pond

Non-Parametric Confidence Interval

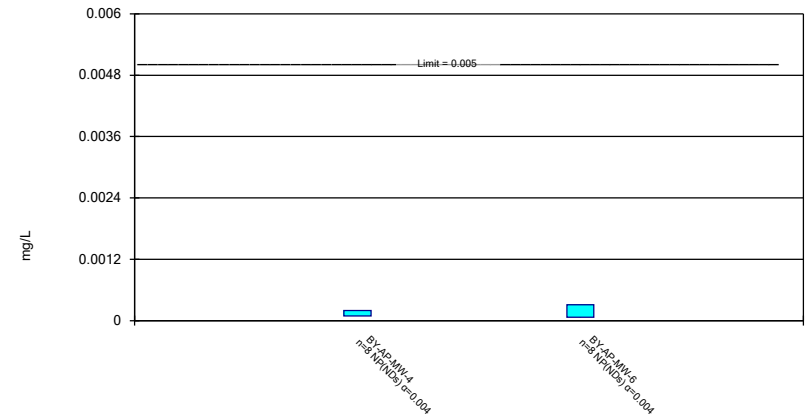
Compliance Limit is not exceeded.



Constituent: Beryllium Analysis Run 6/22/2023 11:28 AM View: AIV
Plant Barry Client: Southern Company Data: Barry Ash Pond

Non-Parametric Confidence Interval

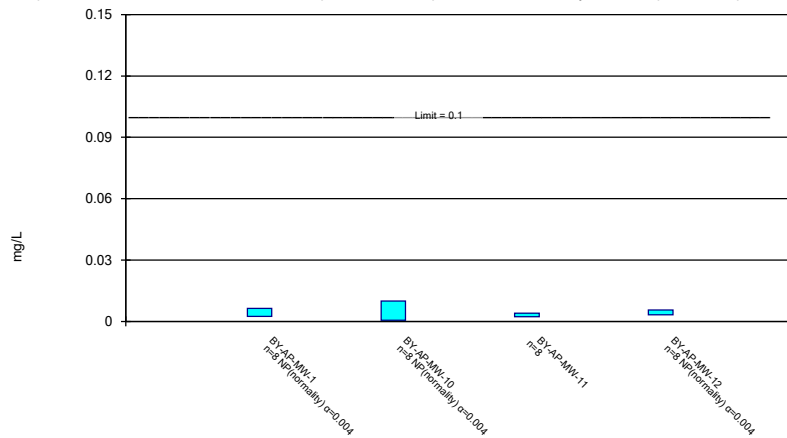
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Constituent: Cadmium Analysis Run 6/22/2023 11:28 AM View: AIV
Plant Barry Client: Southern Company Data: Barry Ash Pond

Parametric and Non-Parametric (NP) Confidence Interval

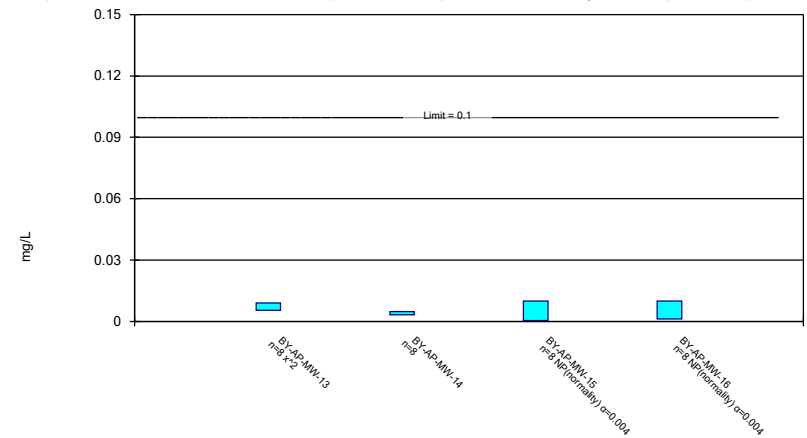
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Constituent: Chromium Analysis Run 6/22/2023 11:28 AM View: AIV
Plant Barry Client: Southern Company Data: Barry Ash Pond

Parametric and Non-Parametric (NP) Confidence Interval

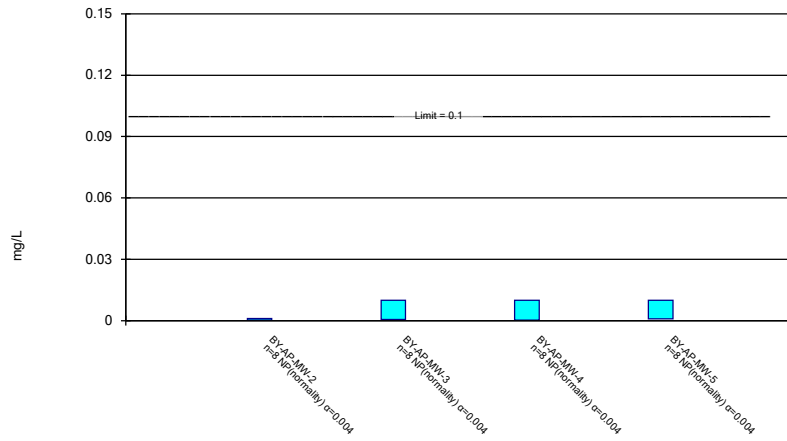
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Constituent: Chromium Analysis Run 6/22/2023 11:28 AM View: AIV
Plant Barry Client: Southern Company Data: Barry Ash Pond

Non-Parametric Confidence Interval

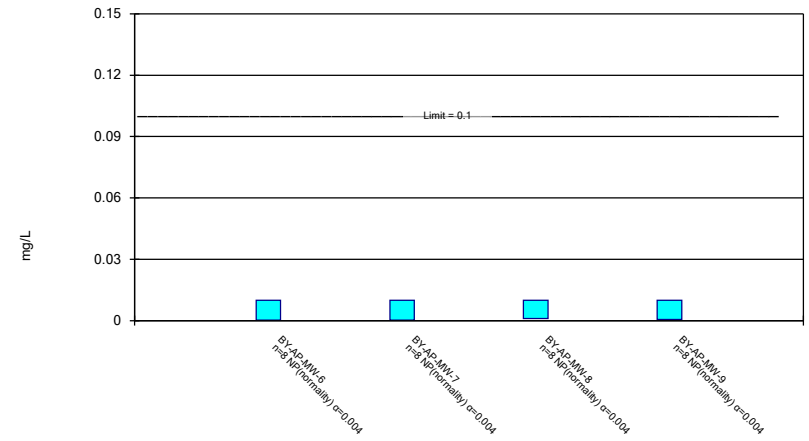
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Constituent: Chromium Analysis Run 6/22/2023 11:28 AM View: AIV
Plant Barry Client: Southern Company Data: Barry Ash Pond

Non-Parametric Confidence Interval

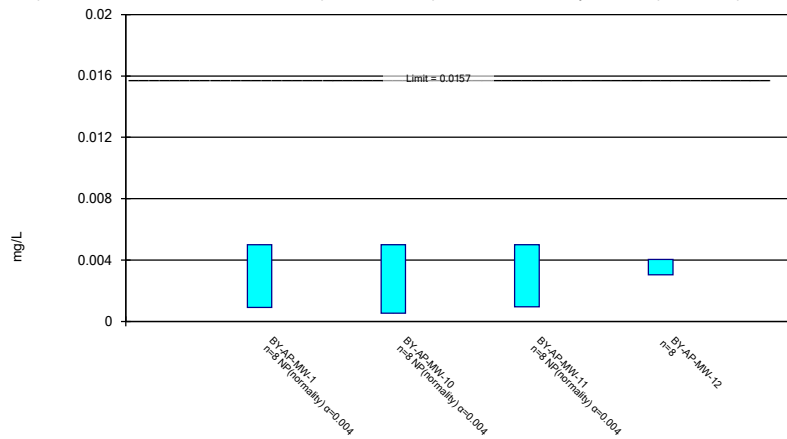
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Constituent: Chromium Analysis Run 6/22/2023 11:28 AM View: AIV
Plant Barry Client: Southern Company Data: Barry Ash Pond

Parametric and Non-Parametric (NP) Confidence Interval

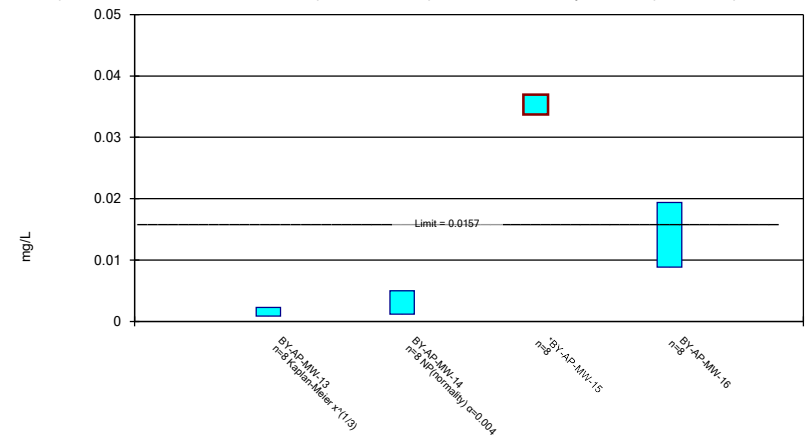
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Constituent: Cobalt Analysis Run 6/22/2023 11:28 AM View: AIV
Plant Barry Client: Southern Company Data: Barry Ash Pond

Parametric and Non-Parametric (NP) Confidence Interval

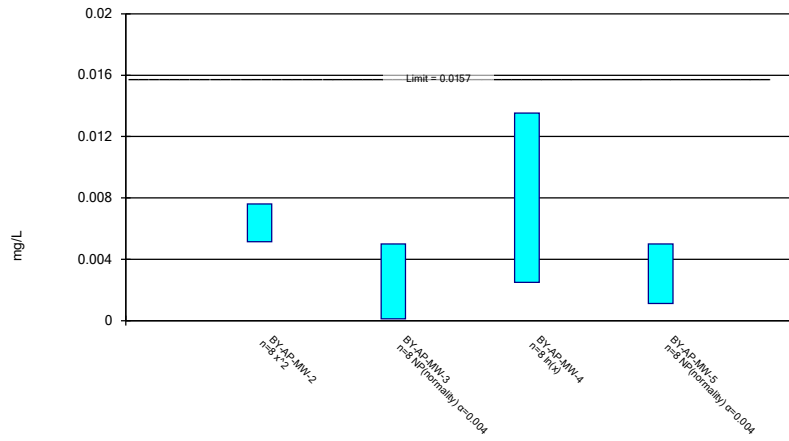
Compliance limit is exceeded.* Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Cobalt Analysis Run 6/22/2023 11:28 AM View: AIV
Plant Barry Client: Southern Company Data: Barry Ash Pond

Parametric and Non-Parametric (NP) Confidence Interval

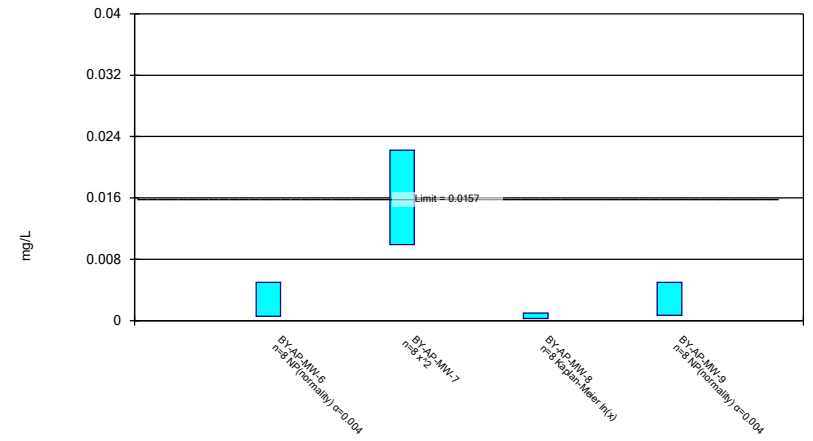
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Constituent: Cobalt Analysis Run 6/22/2023 11:28 AM View: AIV
Plant Barry Client: Southern Company Data: Barry Ash Pond

Parametric and Non-Parametric (NP) Confidence Interval

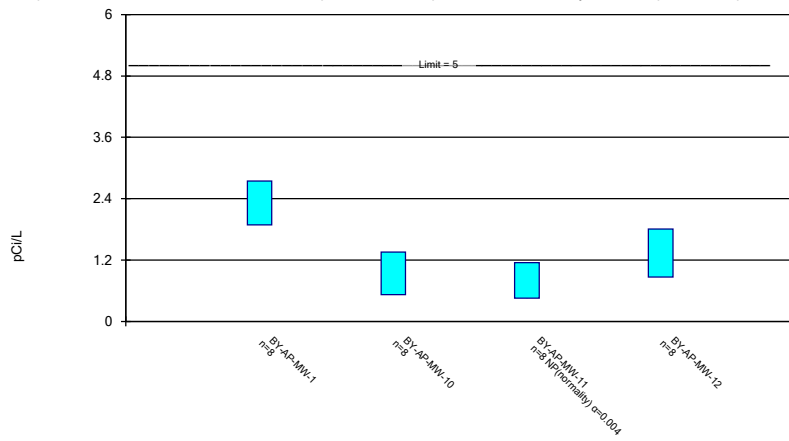
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Constituent: Cobalt Analysis Run 6/22/2023 11:28 AM View: AIV
Plant Barry Client: Southern Company Data: Barry Ash Pond

Parametric and Non-Parametric (NP) Confidence Interval

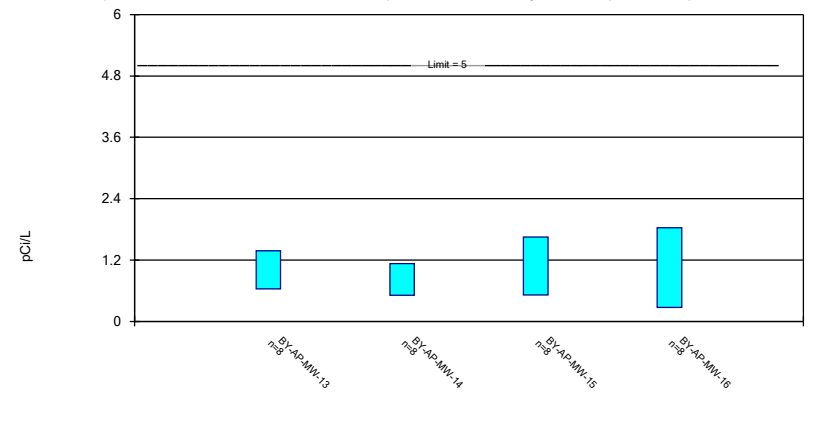
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Constituent: Combined Radium 226 + 228 Analysis Run 6/22/2023 11:28 AM View: AIV
Plant Barry Client: Southern Company Data: Barry Ash Pond

Parametric Confidence Interval

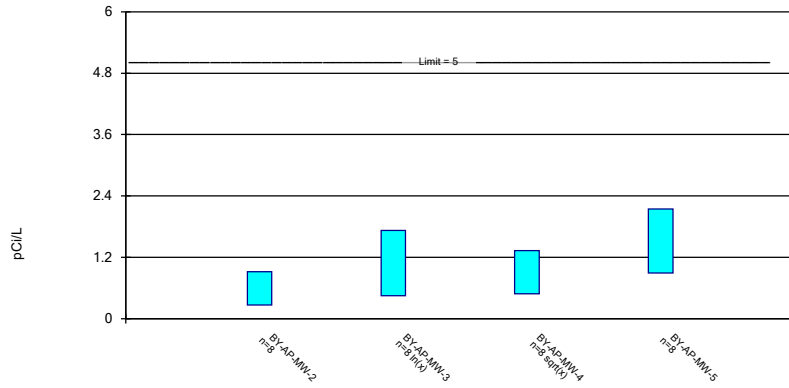
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Constituent: Combined Radium 226 + 228 Analysis Run 6/22/2023 11:28 AM View: AIV
Plant Barry Client: Southern Company Data: Barry Ash Pond

Parametric Confidence Interval

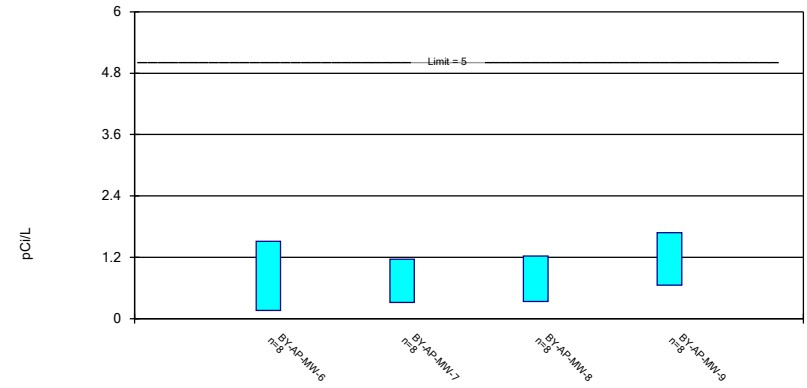
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Combined Radium 226 + 228 Analysis Run 6/22/2023 11:28 AM View: AIV
Plant Barry Client: Southern Company Data: Barry Ash Pond

Parametric Confidence Interval

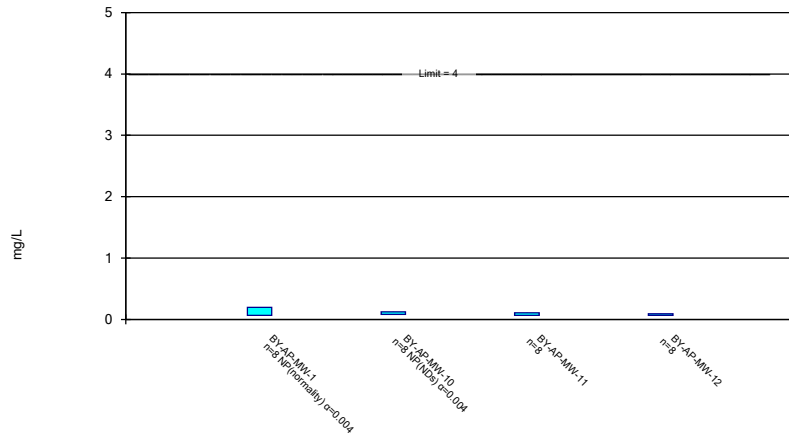
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Combined Radium 226 + 228 Analysis Run 6/22/2023 11:28 AM View: AIV
Plant Barry Client: Southern Company Data: Barry Ash Pond

Parametric and Non-Parametric (NP) Confidence Interval

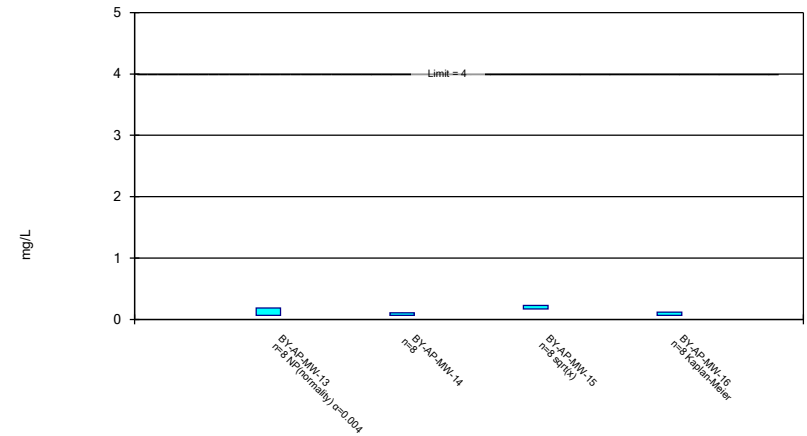
Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Fluoride, total Analysis Run 6/22/2023 11:28 AM View: AIV
Plant Barry Client: Southern Company Data: Barry Ash Pond

Parametric and Non-Parametric (NP) Confidence Interval

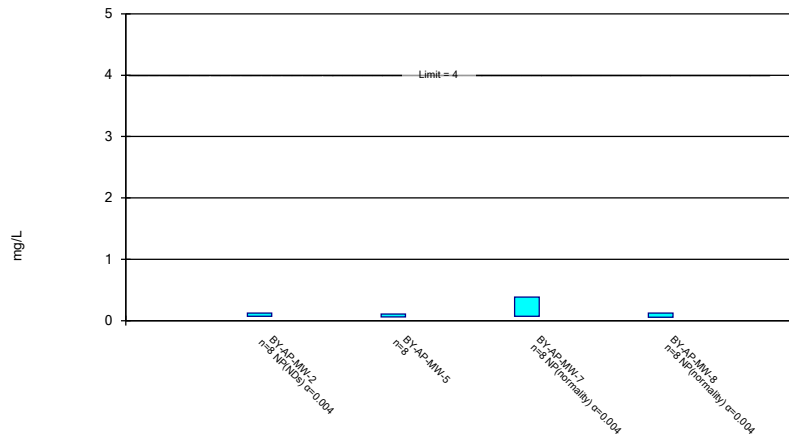
Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Fluoride, total Analysis Run 6/22/2023 11:28 AM View: AIV
Plant Barry Client: Southern Company Data: Barry Ash Pond

Parametric and Non-Parametric (NP) Confidence Interval

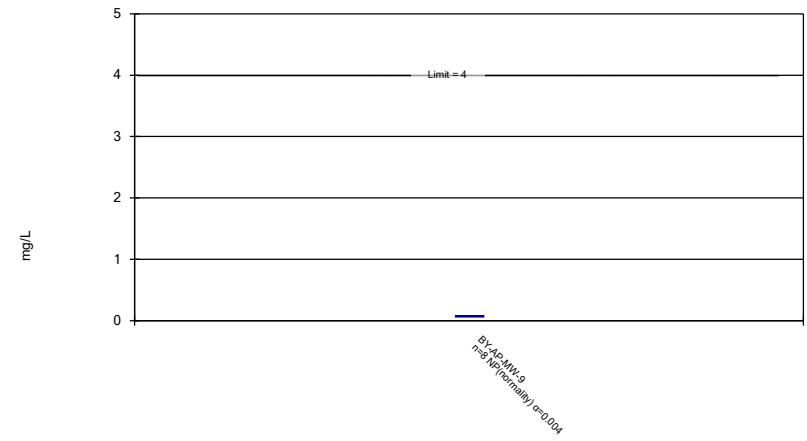
Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Fluoride, total Analysis Run 6/22/2023 11:28 AM View: AIV
Plant Barry Client: Southern Company Data: Barry Ash Pond

Non-Parametric Confidence Interval

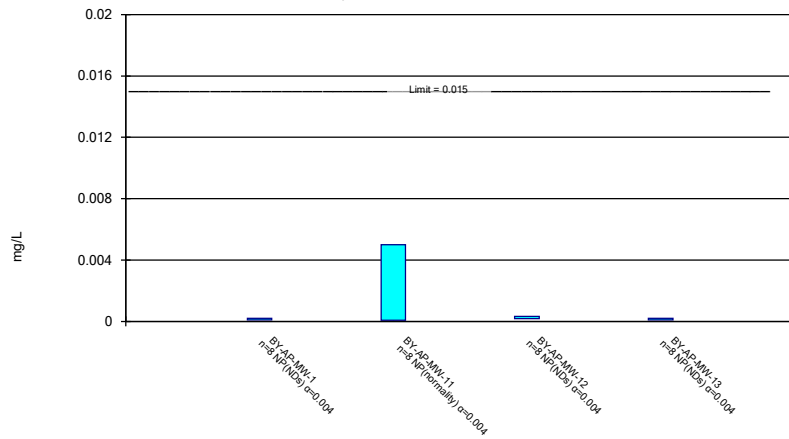
Compliance Limit is not exceeded.



Constituent: Fluoride, total Analysis Run 6/22/2023 11:28 AM View: AIV
Plant Barry Client: Southern Company Data: Barry Ash Pond

Non-Parametric Confidence Interval

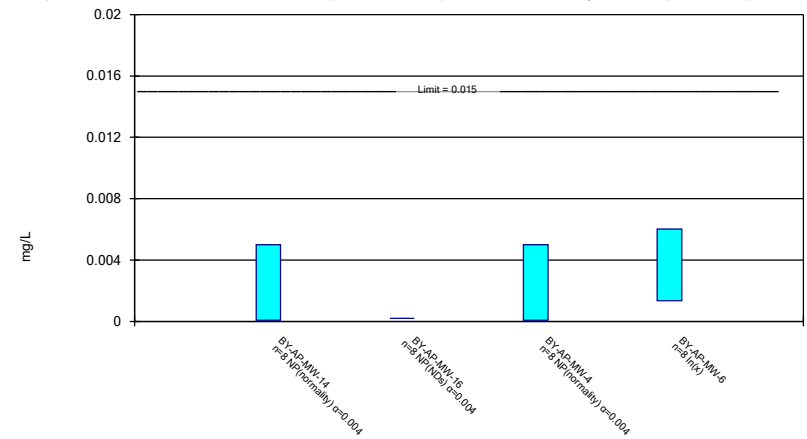
Compliance Limit is not exceeded.



Constituent: Lead Analysis Run 6/22/2023 11:28 AM View: AIV
Plant Barry Client: Southern Company Data: Barry Ash Pond

Parametric and Non-Parametric (NP) Confidence Interval

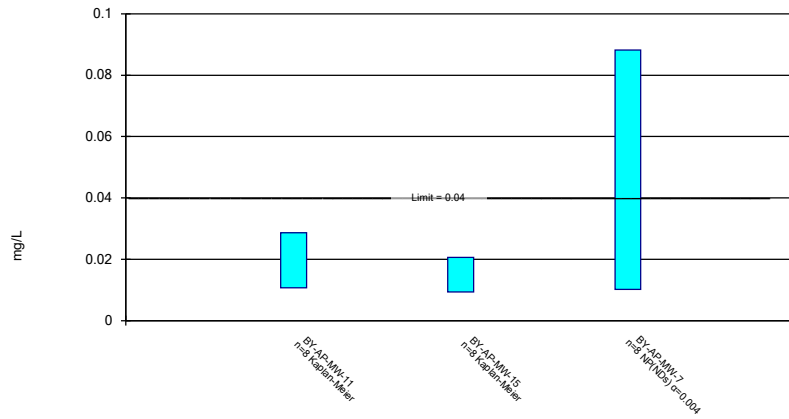
Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Lead Analysis Run 6/22/2023 11:28 AM View: AIV
Plant Barry Client: Southern Company Data: Barry Ash Pond

Parametric and Non-Parametric (NP) Confidence Interval

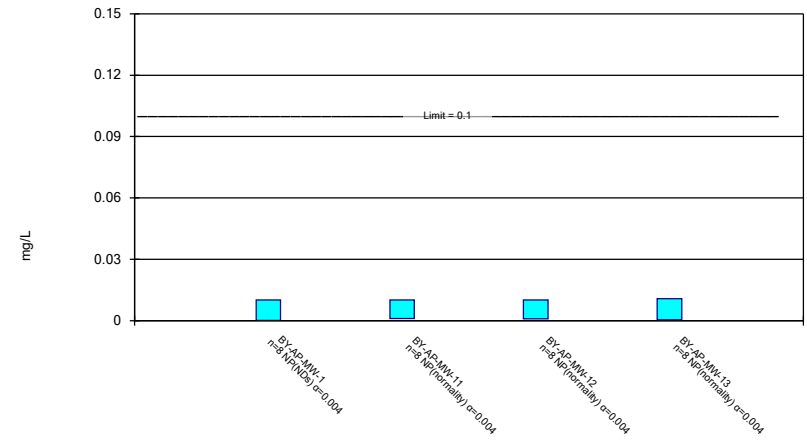
Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Lithium Analysis Run 6/22/2023 11:28 AM View: AIV
Plant Barry Client: Southern Company Data: Barry Ash Pond

Non-Parametric Confidence Interval

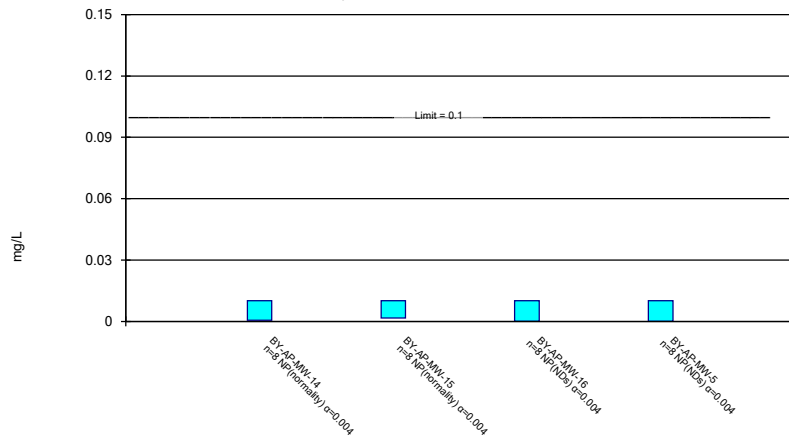
Compliance Limit is not exceeded.



Constituent: Molybdenum Analysis Run 6/22/2023 11:28 AM View: AIV
Plant Barry Client: Southern Company Data: Barry Ash Pond

Non-Parametric Confidence Interval

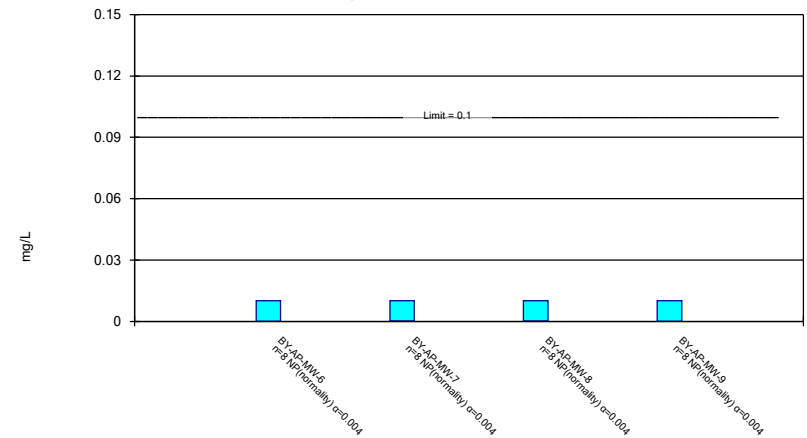
Compliance Limit is not exceeded.



Constituent: Molybdenum Analysis Run 6/22/2023 11:28 AM View: AIV
Plant Barry Client: Southern Company Data: Barry Ash Pond

Non-Parametric Confidence Interval

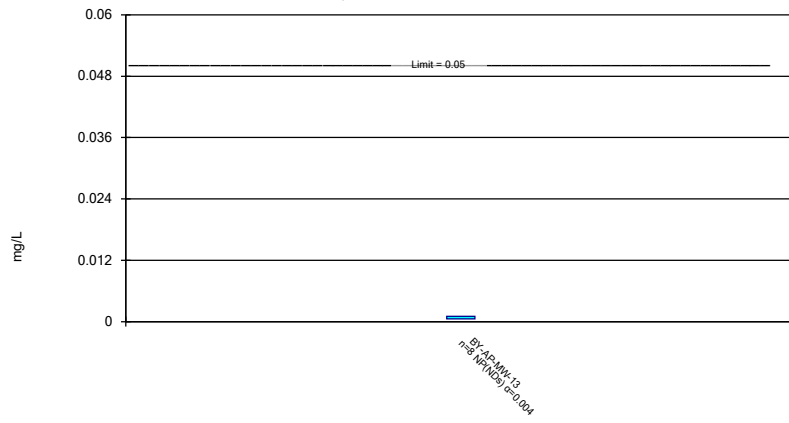
Compliance Limit is not exceeded.



Constituent: Molybdenum Analysis Run 6/22/2023 11:28 AM View: AIV
Plant Barry Client: Southern Company Data: Barry Ash Pond

Non-Parametric Confidence Interval

Compliance Limit is not exceeded.



Constituent: Selenium Analysis Run 6/22/2023 11:28 AM View: AIV
Plant Barry Client: Southern Company Data: Barry Ash Pond

Confidence Interval

Constituent: Arsenic (mg/L) Analysis Run 6/22/2023 11:30 AM View: AIV

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-1	BY-AP-MW-10	BY-AP-MW-11	BY-AP-MW-12
9/30/2019		0.0704	0.0145	
10/1/2019	0.0635			0.0221
3/30/2020	0.0557			
3/31/2020		0.0702	0.0158	0.0246
9/1/2020	0.0811	0.0763	0.0165	0.0246
5/11/2021		0.0762		
5/18/2021	0.0687			0.0237
5/19/2021			0.0166	
10/27/2021		0.0705		
11/1/2021	0.0694			0.0245
11/2/2021			0.0161	
5/23/2022			0.0142	0.0245
5/24/2022	0.0767	0.0775		
11/1/2022			0.0148	0.0226
11/2/2022	0.0682	0.0742		
4/3/2023	0.068	0.0561		
4/4/2023			0.0128	0.0218
Mean	0.06891	0.07143	0.01516	0.02355
Std. Dev.	0.007697	0.00686	0.001321	0.001201
Upper Lim.	0.07707	0.07752	0.01656	0.0246
Lower Lim.	0.06075	0.06536	0.01376	0.0218

Confidence Interval

Constituent: Arsenic (mg/L) Analysis Run 6/22/2023 11:30 AM View: AIV

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-13	BY-AP-MW-14	BY-AP-MW-15	BY-AP-MW-16
10/1/2019	0.0144	0.0152	0.017	0.0138
3/31/2020	0.0154	0.0177		0.012
4/1/2020			0.0183	
9/1/2020	0.0148			
9/2/2020		0.0174	0.0206	0.0137
5/11/2021			0.0184	
5/19/2021	0.014			0.0118
5/25/2021		0.0172		
10/26/2021	0.013		0.0186	
10/27/2021		0.0174		
11/1/2021				0.0151
5/24/2022	0.0128			
5/25/2022		0.0183	0.0176	0.0134
11/1/2022	0.0208	0.0174	0.0177	0.0161
4/3/2023			0.02	
4/4/2023	0.00645			
4/5/2023		0.017		0.0156
Mean	0.01396	0.0172	0.01853	0.01394
Std. Dev.	0.003936	0.000896	0.00122	0.00158
Upper Lim.	0.01813	0.01806	0.01982	0.01561
Lower Lim.	0.009785	0.01633	0.01723	0.01226

Confidence Interval

Constituent: Arsenic (mg/L) Analysis Run 6/22/2023 11:30 AM View: AIV

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-2	BY-AP-MW-3	BY-AP-MW-4	BY-AP-MW-5
5/29/2019				0.0301
10/1/2019	0.0014 (J)	<0.0002	<0.000203	0.0307
3/31/2020	0.00149 (J)	<0.0002	<0.000203	0.0329
8/31/2020	0.00176 (J)			
9/1/2020		<0.0002	<0.000203	0.0372
5/18/2021	0.00159	<0.0002	0.000125 (J)	
11/1/2021	0.00191	<0.0002	0.0002	
11/2/2021				0.0357
5/24/2022	0.00115			
5/25/2022		<0.0002	<0.000203	0.0316
10/31/2022			9.9E-05 (J)	0.0292
11/1/2022		0.000102 (J)		
11/2/2022	0.00151			
4/3/2023	0.00156			
4/4/2023		0.000455	<0.000203	0.0191
Mean	0.001546	0.0002196	0.0001799	0.03081
Std. Dev.	0.0002277	0.0001011	4.248E-05	0.005477
Upper Lim.	0.001788	0.000455	0.000203	0.03662
Lower Lim.	0.001305	0.000102	9.9E-05	0.02501

Confidence Interval

Constituent: Arsenic (mg/L) Analysis Run 6/22/2023 11:30 AM View: AIV

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-6	BY-AP-MW-7	BY-AP-MW-8	BY-AP-MW-9
9/30/2019		0.0217	0.0514	0.0391
10/1/2019	<0.000203			
3/30/2020		0.0215	0.0589	
3/31/2020	<0.000203			0.0393
9/2/2020	<0.000203	0.0234	0.0629	0.0432
5/11/2021			0.0659	
5/17/2021	0.000103 (J)			
5/18/2021		0.0215		0.0435
10/26/2021			0.0668	
10/27/2021		0.0236		0.0468
11/2/2021	0.0001 (J)			
5/24/2022		0.0197	0.0583	0.0404
5/25/2022	<0.000203			
10/31/2022	<0.000203	0.00873		0.023
11/2/2022			0.0415	
4/3/2023		0.013	0.00353	
4/4/2023	<0.000203			0.0145
Mean	0.0001776	0.01914	0.05115	0.03623
Std. Dev.	4.699E-05	0.005373	0.02095	0.01131
Upper Lim.	0.000203	0.02364	0.06782	0.04644
Lower Lim.	0.0001	0.01508	0.03745	0.0263

Confidence Interval

Constituent: Barium (mg/L) Analysis Run 6/22/2023 11:30 AM View: AIV

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-1	BY-AP-MW-10	BY-AP-MW-11	BY-AP-MW-12
9/30/2019		0.0669	0.0759	
10/1/2019	0.293			0.0795
3/30/2020	0.279			
3/31/2020		0.0727	0.0842	0.0851
9/1/2020	0.33	0.078	0.0923	0.0827
5/11/2021		0.0757		
5/18/2021	0.339			0.0902
5/19/2021			0.112	
10/27/2021		0.0638		
11/1/2021	0.322			0.0823
11/2/2021			0.0894	
5/23/2022			0.0691	0.0802
5/24/2022	0.343	0.0618		
11/1/2022			0.078	0.079
11/2/2022	0.279	0.0617		
4/3/2023	0.226	0.0628		
4/4/2023			0.0699	0.074
Mean	0.3014	0.06793	0.08385	0.08163
Std. Dev.	0.0399	0.006605	0.01416	0.004763
Upper Lim.	0.3437	0.07493	0.09886	0.08667
Lower Lim.	0.2591	0.06092	0.06884	0.07658

Confidence Interval

Constituent: Barium (mg/L) Analysis Run 6/22/2023 11:30 AM View: AIV

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-13	BY-AP-MW-14	BY-AP-MW-15	BY-AP-MW-16
10/1/2019	0.0696	0.0605	0.0628	0.0803
3/31/2020	0.0728	0.0619		0.091
4/1/2020			0.0697	
9/1/2020	0.0722			
9/2/2020		0.0687	0.0736	0.0954
5/11/2021			0.0762	
5/19/2021	0.0817			0.102
5/25/2021		0.0745		
10/26/2021	0.0667		0.0784	
10/27/2021		0.0651		
11/1/2021				0.0988
5/24/2022	0.0723			
5/25/2022		0.0693	0.0846	0.0977
11/1/2022	0.0783	0.0681	0.0745	0.0905
4/3/2023			0.081	
4/4/2023	0.0526			
4/5/2023		0.0594		0.0852
Mean	0.07078	0.06594	0.0751	0.09261
Std. Dev.	0.008724	0.005158	0.006764	0.007306
Upper Lim.	0.08002	0.0714	0.08227	0.1004
Lower Lim.	0.06153	0.06047	0.06793	0.08487

Confidence Interval

Constituent: Barium (mg/L) Analysis Run 6/22/2023 11:30 AM View: AIV

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-2	BY-AP-MW-3	BY-AP-MW-4	BY-AP-MW-5
5/29/2019				0.146
10/1/2019	0.0241	0.0356	0.0207	0.138
3/31/2020	0.0264	0.0393	0.0193	0.15
8/31/2020	0.0275			
9/1/2020		0.038	0.0131	0.154
5/18/2021	0.0259	0.0406	0.0225	
11/1/2021	0.0247	0.0371	0.0217	
11/2/2021				0.159
5/24/2022	0.0248			
5/25/2022		0.0494	0.0399	0.155
10/31/2022			0.118	0.105
11/1/2022		0.0289		
11/2/2022	0.0201			
4/3/2023	0.018			
4/4/2023		0.0271	0.118	0.0842
Mean	0.02394	0.037	0.04665	0.1364
Std. Dev.	0.00325	0.006955	0.04469	0.02714
Upper Lim.	0.02738	0.04437	0.118	0.1603
Lower Lim.	0.02049	0.02963	0.0131	0.1132

Confidence Interval

Constituent: Barium (mg/L) Analysis Run 6/22/2023 11:30 AM View: AIV

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-6	BY-AP-MW-7	BY-AP-MW-8	BY-AP-MW-9
9/30/2019		0.0648	0.138	0.117
10/1/2019	0.0257			
3/30/2020		0.059	0.141	
3/31/2020	0.0244			0.119
9/2/2020	0.0282	0.0745	0.151	0.124
5/11/2021			0.147	
5/17/2021	0.0305			
5/18/2021		0.07		0.125
10/26/2021			0.136	
10/27/2021		0.0664		0.117
11/2/2021	0.0286			
5/24/2022		0.0717	0.142	0.117
5/25/2022	0.0268			
10/31/2022	0.0263	0.0188		0.111
11/2/2022			0.149	
4/3/2023		0.0288	0.0223	
4/4/2023	0.0275			0.128
Mean	0.02725	0.05675	0.1283	0.1198
Std. Dev.	0.001889	0.02104	0.04315	0.005523
Upper Lim.	0.02925	0.07384	0.1506	0.1256
Lower Lim.	0.02525	0.04287	0.1252	0.1139

Confidence Interval

Constituent: Beryllium (mg/L) Analysis Run 6/22/2023 11:30 AM View: AIV
Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-4
10/1/2019	<0.00102
3/31/2020	<0.00102
9/1/2020	<0.00102
5/18/2021	<0.00102
11/1/2021	<0.00102
5/25/2022	0.00065 (J)
10/31/2022	0.000451 (J)
4/4/2023	0.000432 (J)
Mean	0.0008291
Std. Dev.	0.0002712
Upper Lim.	0.00102
Lower Lim.	0.000432

Confidence Interval

Constituent: Cadmium (mg/L) Analysis Run 6/22/2023 11:30 AM View: AIV

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-4	BY-AP-MW-6
10/1/2019	<0.0002	<0.000203
3/31/2020	<0.0002	<0.000203
9/1/2020	<0.0002	
9/2/2020		<0.000203
5/17/2021		<0.000203
5/18/2021	<0.0002	
11/1/2021	<0.0002	
11/2/2021		7E-05 (J)
5/25/2022	<0.0002	0.00031
10/31/2022	0.000102 (J)	6.8E-05 (J)
4/4/2023	9E-05 (J)	<0.000203
Mean	0.000174	0.0001829
Std. Dev.	4.825E-05	7.939E-05
Upper Lim.	0.0002	0.00031
Lower Lim.	9E-05	6.8E-05

Confidence Interval

Constituent: Chromium (mg/L) Analysis Run 6/22/2023 11:30 AM View: AIV

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-1	BY-AP-MW-10	BY-AP-MW-11	BY-AP-MW-12
9/30/2019		<0.01	0.00228 (J)	
10/1/2019	0.00236 (J)			0.00325 (J)
3/30/2020	0.00415 (J)			
3/31/2020		<0.01	0.00358 (J)	0.0056 (J)
9/1/2020	0.00242 (J)	<0.01	0.00259 (J)	0.00332 (J)
5/11/2021		0.000685 (J)		
5/18/2021	0.00294			0.00377
5/19/2021			0.00301	
10/27/2021		0.00072 (J)		
11/1/2021	0.00244			0.00423
11/2/2021			0.00348	
5/23/2022			0.00474	0.00374
5/24/2022	0.00238	0.00052 (J)		
11/1/2022			0.00316	0.00338
11/2/2022	0.00371	0.000642 (J)		
4/3/2023	0.00638	0.00066 (J)		
4/4/2023			0.00254	0.00351
Mean	0.003348	0.004153	0.003173	0.00385
Std. Dev.	0.001401	0.004842	0.000782	0.0007749
Upper Lim.	0.00638	0.01	0.004001	0.0056
Lower Lim.	0.00236	0.00052	0.002344	0.00325

Confidence Interval

Constituent: Chromium (mg/L) Analysis Run 6/22/2023 11:30 AM View: AIV

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-13	BY-AP-MW-14	BY-AP-MW-15	BY-AP-MW-16
10/1/2019	0.00764 (J)	0.00508 (J)	<0.01	<0.01
3/31/2020	0.00955 (J)	0.00463 (J)		<0.01
4/1/2020			<0.01	
9/1/2020	0.00888 (J)			
9/2/2020		0.00482 (J)	<0.01	<0.01
5/11/2021			0.000581 (J)	
5/19/2021	0.00692			0.00162
5/25/2021		0.00365		
10/26/2021	0.00755		0.00052 (J)	
10/27/2021		0.00401		
11/1/2021				0.0018
5/24/2022	0.00685			
5/25/2022		0.00345	0.00049 (J)	0.00135
11/1/2022	0.00772	0.00317	0.000361 (J)	0.00122
4/3/2023			0.000638 (J)	
4/4/2023	0.00286			
4/5/2023		0.00336		0.00125
Mean	0.007246	0.004021	0.004074	0.004655
Std. Dev.	0.001998	0.0007325	0.004908	0.00443
Upper Lim.	0.009056	0.004798	0.01	0.01
Lower Lim.	0.005476	0.003245	0.000361	0.00122

Confidence Interval

Constituent: Chromium (mg/L) Analysis Run 6/22/2023 11:30 AM View: AIV

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-2	BY-AP-MW-3	BY-AP-MW-4	BY-AP-MW-5
5/29/2019				<0.01
10/1/2019	<0.00102	<0.01	<0.01	<0.01
3/31/2020	<0.00102	<0.01	<0.01	<0.01
8/31/2020	<0.00102			
9/1/2020		<0.01	<0.01	<0.01
5/18/2021	0.000394 (J)	0.000919 (J)	0.000544 (J)	
11/1/2021	0.00029 (J)	0.00093 (J)	0.00067 (J)	
11/2/2021				0.00101 (J)
5/24/2022	<0.00102			
5/25/2022		0.00104	0.00026 (J)	0.00103
10/31/2022			0.00057 (J)	0.00096 (J)
11/1/2022		0.00107		
11/2/2022	0.000206 (J)			
4/3/2023	0.000877 (J)			
4/4/2023		0.00053 (J)	0.000444 (J)	0.000894 (J)
Mean	0.0007309	0.004311	0.004061	0.005487
Std. Dev.	0.0003663	0.004714	0.004919	0.004825
Upper Lim.	0.00102	0.01	0.01	0.01
Lower Lim.	0.000206	0.00053	0.00026	0.000894

Confidence Interval

Constituent: Chromium (mg/L) Analysis Run 6/22/2023 11:30 AM View: AIV

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-6	BY-AP-MW-7	BY-AP-MW-8	BY-AP-MW-9
9/30/2019		<0.01	<0.01	<0.01
10/1/2019	<0.01			
3/30/2020		<0.01	<0.01	
3/31/2020	<0.01			<0.01
9/2/2020	<0.01	<0.01	<0.01	<0.01
5/11/2021			0.00156	
5/17/2021	0.000313 (J)			
5/18/2021		0.00709		0.00078 (J)
10/26/2021			0.00165	
10/27/2021		0.00309		0.00087 (J)
11/2/2021	0.00023 (J)			
5/24/2022		0.00058 (J)	0.00128	0.0007 (J)
5/25/2022	0.00029 (J)			
10/31/2022	0.000281 (J)	0.000263 (J)		0.000692 (J)
11/2/2022			0.001 (J)	
4/3/2023		0.000246 (J)	0.00115	
4/4/2023	0.000267 (J)			0.00062 (J)
Mean	0.003923	0.005159	0.00458	0.004208
Std. Dev.	0.005033	0.004589	0.004493	0.004797
Upper Lim.	0.01	0.01	0.01	0.01
Lower Lim.	0.00023	0.000246	0.001	0.00062

Confidence Interval

Constituent: Cobalt (mg/L) Analysis Run 6/22/2023 11:30 AM View: AIV

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-1	BY-AP-MW-10	BY-AP-MW-11	BY-AP-MW-12
9/30/2019		<0.005	<0.005	
10/1/2019	<0.005			0.00303 (J)
3/30/2020	<0.005			
3/31/2020		<0.005	<0.005	0.00364 (J)
9/1/2020	<0.005	<0.005	<0.005	0.0031 (J)
5/11/2021		0.000636		
5/18/2021	0.000996			0.00336
5/19/2021			0.00257	
10/27/2021		0.00065		
11/1/2021	0.00091			0.0037
11/2/2021			0.00118	
5/23/2022			0.00118	0.00428
5/24/2022	0.00091	0.00054		
11/1/2022			0.00105	0.00406
11/2/2022	0.00102	0.000605		
4/3/2023	0.00133	0.000622		
4/4/2023			0.000946	0.00309
Mean	0.002521	0.002257	0.002741	0.003533
Std. Dev.	0.002057	0.002272	0.001938	0.0004693
Upper Lim.	0.005	0.005	0.005	0.00403
Lower Lim.	0.00091	0.00054	0.000946	0.003035

Confidence Interval

Constituent: Cobalt (mg/L) Analysis Run 6/22/2023 11:30 AM View: AIV

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-13	BY-AP-MW-14	BY-AP-MW-15	BY-AP-MW-16
10/1/2019	<0.005	<0.005	0.0336	0.0107
3/31/2020	<0.005	<0.005		0.0199
4/1/2020			0.0344	
9/1/2020	<0.005			
9/2/2020		<0.005	0.0385	0.0192
5/11/2021			0.0349	
5/19/2021	0.00113			0.0182
5/25/2021		0.00124		
10/26/2021	0.00122		0.0347	
10/27/2021		0.00125		
11/1/2021				0.0139
5/24/2022	0.00189			
5/25/2022		0.00125	0.0364	0.0155
11/1/2022	0.00274	0.0012	0.0357	0.00812
4/3/2023			0.0345	
4/4/2023	0.000801			
4/5/2023		0.00119		0.00721
Mean	0.002848	0.002641	0.03534	0.01409
Std. Dev.	0.001875	0.001953	0.001533	0.004975
Upper Lim.	0.002246	0.005	0.03696	0.01936
Lower Lim.	0.0008853	0.00119	0.03371	0.008818

Confidence Interval

Constituent: Cobalt (mg/L) Analysis Run 6/22/2023 11:30 AM View: AIV

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-2	BY-AP-MW-3	BY-AP-MW-4	BY-AP-MW-5
5/29/2019				<0.005
10/1/2019	0.00696	<0.005	<0.005	<0.005
3/31/2020	0.00716	<0.005	0.0205	<0.005
8/31/2020	0.00751			
9/1/2020		<0.005	0.00657	<0.005
5/18/2021	0.00746	0.000196 (J)	0.018	
11/1/2021	0.00706	0.00016 (J)	0.00478	
11/2/2021				0.00197
5/24/2022	0.00582			
5/25/2022		0.00028	0.00455	0.00184
10/31/2022			0.00319	0.0015
11/1/2022		0.000152 (J)		
11/2/2022	0.00497			
4/3/2023	0.0042			
4/4/2023		0.000108 (J)	0.0031	0.00112
Mean	0.006393	0.001987	0.007899	0.003304
Std. Dev.	0.001248	0.002495	0.00715	0.00183
Upper Lim.	0.007613	0.005	0.01353	0.005
Lower Lim.	0.005148	0.000108	0.002498	0.00112

Confidence Interval

Constituent: Cobalt (mg/L) Analysis Run 6/22/2023 11:30 AM View: AIV

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-6	BY-AP-MW-7	BY-AP-MW-8	BY-AP-MW-9
9/30/2019		0.0186	<0.005	<0.005
10/1/2019	<0.005			
3/30/2020		0.0172	<0.005	
3/31/2020	<0.005			<0.005
9/2/2020	<0.005	0.0197	<0.005	<0.005
5/11/2021			0.000778	
5/17/2021	0.000678			
5/18/2021		0.0189		0.000725
10/26/2021			0.00079	
10/27/2021		0.0206		0.0007
11/2/2021	0.0006			
5/24/2022		0.023	0.00067	0.00069
5/25/2022	0.00098			
10/31/2022	0.000588	0.00239		0.000698
11/2/2022			0.00059	
4/3/2023		0.00492	0.000153 (J)	
4/4/2023	0.000584			0.000737
Mean	0.002304	0.01566	0.002248	0.002319
Std. Dev.	0.002236	0.00763	0.002288	0.00222
Upper Lim.	0.005	0.02223	0.0009974	0.005
Lower Lim.	0.000584	0.009928	0.0002687	0.00069

Confidence Interval

Constituent: Combined Radium 226 + 228 (pCi/L) Analysis Run 6/22/2023 11:30 AM View: AIV

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-1	BY-AP-MW-10	BY-AP-MW-11	BY-AP-MW-12
5/29/2019	2.25		0.726	2.06
5/30/2019		0.0949 (U)		
9/30/2019		0.965	0.489 (U)	
10/1/2019	2.84			0.984
3/30/2020	2.31			
3/31/2020		1.14	0.462 (U)	1.26
5/11/2021		1.12 (U)		
5/18/2021	2.99			1.11
5/19/2021			1.15	
10/27/2021		1.2 (U)		
11/1/2021	2.22			1.79
11/2/2021			0.504 (U)	
5/23/2022			0.452 (U)	1.4
5/24/2022	2.12	1.36 (U)		
11/1/2022			1.03	0.672 (U)
11/2/2022	1.96	0.886 (U)		
4/3/2023	1.84	0.75 (U)		
4/4/2023			0.562 (U)	1.42
Mean	2.316	0.9395	0.6719	1.337
Std. Dev.	0.4025	0.391	0.2741	0.4413
Upper Lim.	2.743	1.354	1.15	1.805
Lower Lim.	1.89	0.525	0.452	0.8693

Confidence Interval

Constituent: Combined Radium 226 + 228 (pCi/L) Analysis Run 6/22/2023 11:30 AM View: AIV

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-13	BY-AP-MW-14	BY-AP-MW-15	BY-AP-MW-16
5/29/2019	1.01	0.437 (U)	0.433	2.51
10/1/2019	1.07	1.11	0.988	0.443 (U)
3/31/2020	0.725	0.941		0.341 (U)
4/1/2020			0.527	
5/11/2021			0.684 (U)	
5/19/2021	1.15			0.321 (U)
5/25/2021		0.978 (U)		
10/26/2021	1.74		1.95	
10/27/2021		0.587 (U)		
11/1/2021				1.28
5/24/2022	0.915 (U)			
5/25/2022		1.25	1.3	0.927 (U)
11/1/2022	0.569 (U)	0.528 (U)	1.15	1.09
4/3/2023			1.63	
4/4/2023	0.885 (U)			
4/5/2023		0.746 (U)		1.5
Mean	1.008	0.8221	1.083	1.052
Std. Dev.	0.3498	0.2928	0.5348	0.7374
Upper Lim.	1.379	1.133	1.65	1.833
Lower Lim.	0.6373	0.5117	0.5159	0.2699

Confidence Interval

Constituent: Combined Radium 226 + 228 (pCi/L) Analysis Run 6/22/2023 11:30 AM View: AIV

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-2	BY-AP-MW-3	BY-AP-MW-4	BY-AP-MW-5
11/27/2018				1.43
5/29/2019	1.18	2.31	0.947	2.16
10/1/2019	0.284 (U)	1.52	0.7	2.14
3/31/2020	0.699	0.478 (U)	0.323 (U)	0.754
5/18/2021	0.72 (U)	0.749 (U)	0.734 (U)	
11/1/2021	0.523 (U)	0.688 (U)	0.888 (U)	
11/2/2021				2.06
5/24/2022	0.732 (U)			
5/25/2022		1.72	0.821 (U)	1.71
10/31/2022			0.927	0.75 (U)
11/1/2022		0.505 (U)		
11/2/2022	0.366 (U)			
4/3/2023	0.24 (U)			
4/4/2023		0.479 (U)	1.82	1.15
Mean	0.593	1.056	0.895	1.519
Std. Dev.	0.3089	0.6999	0.4236	0.5912
Upper Lim.	0.9204	1.724	1.328	2.146
Lower Lim.	0.2656	0.4493	0.485	0.8926

Confidence Interval

Constituent: Combined Radium 226 + 228 (pCi/L) Analysis Run 6/22/2023 11:30 AM View: AIV

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-6	BY-AP-MW-7	BY-AP-MW-8	BY-AP-MW-9
5/29/2019	-0.276 (U)	0.244 (U)	0.627 (U)	
5/30/2019				1.08
9/30/2019		0.388 (U)	0.321 (U)	0.58
10/1/2019	0.742			
3/30/2020		0.744	0.6	
3/31/2020	0.291 (U)			0.82
5/11/2021			0.648 (U)	
5/17/2021	1.84			
5/18/2021		0.597 (U)		0.98 (U)
10/26/2021			1.61	
10/27/2021		1.46 (U)		1.07 (U)
11/2/2021	0.773 (U)			
5/24/2022		1.05 (U)	0.733 (U)	2.11
5/25/2022	1.06 (U)			
10/31/2022	0.925	0.932		1.64
11/2/2022			0.503 (U)	
4/3/2023		0.49 (U)	1.21	
4/4/2023	1.33			1.05 (U)
Mean	0.8356	0.7381	0.7815	1.166
Std. Dev.	0.6388	0.3972	0.4203	0.4846
Upper Lim.	1.513	1.159	1.227	1.68
Lower Lim.	0.1585	0.3171	0.336	0.6526

Confidence Interval

Constituent: Fluoride, total (mg/L) Analysis Run 6/22/2023 11:30 AM View: AIV

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-1	BY-AP-MW-10	BY-AP-MW-11	BY-AP-MW-12
9/30/2019		<0.125	0.0733 (J)	
10/1/2019	0.0744 (J)			0.0682 (J)
3/30/2020	0.0726 (J)			
3/31/2020		<0.125	0.078 (J)	0.0755 (J)
9/1/2020	0.194	0.0794 (J)	0.0841 (J)	0.0845 (J)
5/11/2021		0.105		
5/18/2021	0.0884 (J)			0.0614 (J)
5/19/2021			0.0994 (J)	
10/27/2021		<0.125		
11/1/2021	0.181			0.0928 (J)
11/2/2021			0.101	
5/23/2022			0.0709 (J)	0.0873 (J)
5/24/2022	0.0801 (J)	<0.125		
11/1/2022			0.0612 (J)	0.0695 (J)
11/2/2022	0.0665 (J)	<0.125		
4/3/2023	0.0717 (J)	<0.125		
4/4/2023			0.126	0.081 (J)
Mean	0.1036	0.1168	0.08674	0.07753
Std. Dev.	0.05231	0.01665	0.02095	0.01072
Upper Lim.	0.194	0.125	0.1089	0.08889
Lower Lim.	0.0665	0.0794	0.06453	0.06616

Confidence Interval

Constituent: Fluoride, total (mg/L) Analysis Run 6/22/2023 11:30 AM View: AIV

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-13	BY-AP-MW-14	BY-AP-MW-15	BY-AP-MW-16
10/1/2019	0.0703 (J)	0.0885 (J)	0.185	0.0774 (J)
3/31/2020	0.0665 (J)	0.0867 (J)		0.0602 (J)
4/1/2020			0.187	
9/1/2020	0.0757 (J)			
9/2/2020		0.0957 (J)	0.18	<0.125
5/11/2021			0.214	
5/19/2021	0.0748 (J)			0.0793 (J)
5/25/2021		0.0957 (J)		
10/26/2021	0.0641 (J)		0.171	
10/27/2021		0.0651 (J)		
11/1/2021				0.0887 (J)
5/24/2022	0.0769 (J)			
5/25/2022		0.0733 (J)	0.214	<0.125
11/1/2022	0.13	0.0685 (J)	0.177	0.112 (J)
4/3/2023			0.26	
4/4/2023	0.187			
4/5/2023		0.127		0.144
Mean	0.09316	0.08756	0.1985	0.1015
Std. Dev.	0.04334	0.01986	0.02961	0.02919
Upper Lim.	0.187	0.1086	0.229	0.1181
Lower Lim.	0.0641	0.06651	0.1685	0.06402

Confidence Interval

Constituent: Fluoride, total (mg/L) Analysis Run 6/22/2023 11:30 AM View: AIV

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-2	BY-AP-MW-5	BY-AP-MW-7	BY-AP-MW-8
5/29/2019		0.0923 (J)		
9/30/2019			0.0925 (J)	0.0559 (J)
10/1/2019	<0.125	0.0557 (J)		
3/30/2020			0.0933 (J)	0.0701 (J)
3/31/2020	<0.125	0.0735 (J)		
8/31/2020	<0.125			
9/1/2020		0.0921 (J)		
9/2/2020			0.109	<0.125
5/11/2021				0.094 (J)
5/18/2021	<0.125		0.11	
10/26/2021				<0.125
10/27/2021			0.0823 (J)	
11/1/2021	<0.125			
11/2/2021		0.0964 (J)		
5/24/2022	<0.125		0.0724 (J)	0.0713 (J)
5/25/2022		<0.125		
10/31/2022		0.0614 (J)	0.381	
11/2/2022	0.0711 (J)			<0.125
4/3/2023	<0.125		0.171	0.0706 (J)
4/4/2023		0.0631 (J)		
Mean	0.1183	0.08244	0.1389	0.09211
Std. Dev.	0.01906	0.02333	0.1023	0.02913
Upper Lim.	0.125	0.1072	0.381	0.125
Lower Lim.	0.0711	0.05771	0.0724	0.0559

Confidence Interval

Constituent: Fluoride, total (mg/L) Analysis Run 6/22/2023 11:30 AM View: AIV

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-9
9/30/2019	0.0679 (J)
3/31/2020	0.0655 (J)
9/2/2020	0.0804 (J)
5/18/2021	0.0709 (J)
10/27/2021	0.0803 (J)
5/24/2022	<0.125
10/31/2022	0.0788 (J)
4/4/2023	0.0797 (J)
Mean	0.07325
Std. Dev.	0.007397
Upper Lim.	0.0804
Lower Lim.	0.0625

Confidence Interval

Constituent: Lead (mg/L) Analysis Run 6/22/2023 11:30 AM View: AIV

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-1	BY-AP-MW-11	BY-AP-MW-12	BY-AP-MW-13
9/30/2019		<0.005		
10/1/2019	<0.0002		<0.000203	<0.0002
3/30/2020	<0.0002			
3/31/2020		<0.005	<0.000203	<0.0002
9/1/2020	<0.0002	<0.005	<0.000203	<0.0002
5/18/2021	<0.0002		0.000326	
5/19/2021		0.000102 (J)		<0.0002
10/26/2021				<0.0002
11/1/2021	<0.0002		0.00029	
11/2/2021		0.00013 (J)		
5/23/2022		9E-05 (J)	0.00018 (J)	
5/24/2022	<0.0002			0.00015 (J)
11/1/2022		7.8E-05 (J)	<0.000203	0.000151 (J)
11/2/2022	9.2E-05 (J)			
4/3/2023	0.000122 (J)			
4/4/2023		6.9E-05 (J)	<0.000203	0.000101 (J)
Mean	0.0001767	0.001934	0.0002264	0.0001752
Std. Dev.	4.379E-05	0.002539	5.19E-05	3.742E-05
Upper Lim.	0.0002	0.005	0.000326	0.0002
Lower Lim.	9.2E-05	6.9E-05	0.00018	0.000101

Confidence Interval

Constituent: Lead (mg/L) Analysis Run 6/22/2023 11:30 AM View: AIV

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-14	BY-AP-MW-16	BY-AP-MW-4	BY-AP-MW-6
10/1/2019	<0.005	<0.000203	<0.005	0.00545
3/31/2020	<0.005	<0.000203	<0.005	0.00276 (J)
9/1/2020			<0.005	
9/2/2020	<0.005	<0.000203		0.00171 (J)
5/17/2021				0.00162
5/18/2021			0.00013 (J)	
5/19/2021		0.000191 (J)		
5/25/2021	7.64E-05 (J)			
10/27/2021	9E-05 (J)			
11/1/2021		<0.000203	7E-05 (J)	
11/2/2021				0.00336
5/25/2022	0.0001 (J)	<0.000203	0.00018 (J)	0.0112
10/31/2022			0.000144 (J)	0.00148
11/1/2022	8.3E-05 (J)	<0.000203		
4/4/2023			8.5E-05 (J)	0.00183
4/5/2023	0.00011 (J)	<0.000203		
Mean	0.001932	0.0002015	0.001951	0.003676
Std. Dev.	0.00254	4.243E-06	0.002525	0.003317
Upper Lim.	0.005	0.000203	0.005	0.006029
Lower Lim.	7.64E-05	0.000191	7E-05	0.001339

Confidence Interval

Constituent: Lithium (mg/L) Analysis Run 6/22/2023 11:30 AM View: AIV
Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-11	BY-AP-MW-15	BY-AP-MW-7
9/30/2019	0.0228		<0.02
10/1/2019		0.0248	
3/30/2020			0.0102 (J)
3/31/2020	0.022		
4/1/2020		0.0174 (J)	
9/1/2020	<0.02		
9/2/2020		<0.02	<0.02
5/11/2021		0.00788 (J)	
5/18/2021			0.0882
5/19/2021	0.00754 (J)		
10/26/2021		0.0117 (J)	
10/27/2021			<0.02
11/2/2021	<0.02		
5/23/2022	0.0269		
5/24/2022			<0.02
5/25/2022		0.0118 (J)	
10/31/2022			<0.02
11/1/2022	0.0182 (J)	<0.02	
4/3/2023		0.0189 (J)	<0.02
4/4/2023	0.034		
Mean	0.02143	0.01656	0.0273
Std. Dev.	0.007536	0.005598	0.02485
Upper Lim.	0.02861	0.02058	0.0882
Lower Lim.	0.01069	0.009311	0.0102

Confidence Interval

Constituent: Molybdenum (mg/L) Analysis Run 6/22/2023 11:30 AM View: AIV

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-1	BY-AP-MW-11	BY-AP-MW-12	BY-AP-MW-13
9/30/2019		<0.01015		
10/1/2019	<0.01015		<0.01015	<0.01
3/30/2020	<0.01015			
3/31/2020		<0.01015	<0.01015	<0.01
9/1/2020	<0.01015	<0.01015	<0.01015	<0.01
5/18/2021	0.000106 (J)		0.000947	
5/19/2021		0.00652		0.000437
10/26/2021				0.00043
11/1/2021	8E-05 (J)		0.00099	
11/2/2021		0.00161		
5/23/2022		0.00141	0.00109	
5/24/2022	<0.01015			0.00356
11/1/2022		0.000972	0.000942	0.00585
11/2/2022	<0.01015			
4/3/2023	<0.01015			
4/4/2023		<0.01015	<0.01015	0.0108
Mean	0.007636	0.006389	0.005571	0.006385
Std. Dev.	0.004655	0.004368	0.004895	0.004437
Upper Lim.	0.01015	0.01015	0.01015	0.0108
Lower Lim.	8E-05	0.000972	0.000942	0.00043

Confidence Interval

Constituent: Molybdenum (mg/L) Analysis Run 6/22/2023 11:30 AM View: AIV

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-14	BY-AP-MW-15	BY-AP-MW-16	BY-AP-MW-5
5/29/2019				<0.01015
10/1/2019	<0.01015	<0.01015	<0.01015	<0.01015
3/31/2020	<0.01015		<0.01015	<0.01015
4/1/2020		<0.01015		
9/1/2020				<0.01015
9/2/2020	<0.01015	0.00209 (J)	<0.01015	
5/11/2021		0.00171		
5/19/2021			0.000136 (J)	
5/25/2021	0.000701			
10/26/2021		0.00206		
10/27/2021	0.00053			
11/1/2021			<0.01015	
11/2/2021				0.00012 (J)
5/25/2022	0.00052	0.0018	<0.01015	0.00011 (J)
10/31/2022				0.000344
11/1/2022	0.000643	0.00173	<0.01015	
4/3/2023		<0.01015		
4/4/2023				<0.01015
4/5/2023	<0.01015		<0.01015	
Mean	0.005374	0.00498	0.008898	0.006416
Std. Dev.	0.005106	0.004283	0.00354	0.005155
Upper Lim.	0.01015	0.01015	0.01015	0.01015
Lower Lim.	0.00052	0.00171	0.000136	0.00011

Confidence Interval

Constituent: Molybdenum (mg/L) Analysis Run 6/22/2023 11:30 AM View: AIV

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-6	BY-AP-MW-7	BY-AP-MW-8	BY-AP-MW-9
9/30/2019		<0.01015	<0.01015	<0.01015
10/1/2019	<0.01015			
3/30/2020		<0.01015	<0.01015	
3/31/2020	<0.01015			<0.01015
9/2/2020	<0.01015	<0.01015	<0.01015	<0.01015
5/11/2021			0.000321	
5/17/2021	0.000117 (J)			
5/18/2021		0.000214		0.00022
10/26/2021			0.00019 (J)	
10/27/2021		0.00018 (J)		0.00021
11/2/2021	0.00011 (J)			
5/24/2022		0.00018 (J)	0.00023	0.00024
5/25/2022	0.00033			
10/31/2022	0.000122 (J)	0.00289		0.000157 (J)
11/2/2022			0.000232	
4/3/2023		<0.01015	<0.01015	
4/4/2023	<0.01015			<0.01015
Mean	0.00516	0.005508	0.005197	0.005178
Std. Dev.	0.005335	0.005041	0.005296	0.005315
Upper Lim.	0.01015	0.01015	0.01015	0.01015
Lower Lim.	0.00011	0.00018	0.00019	0.000157

Confidence Interval

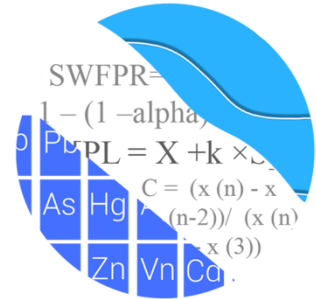
Constituent: Selenium (mg/L) Analysis Run 6/22/2023 11:30 AM View: AIV
Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-13
10/1/2019	<0.00102
3/31/2020	<0.00102
9/1/2020	<0.00102
5/19/2021	<0.00102
10/26/2021	<0.00102
5/24/2022	0.00056 (J)
11/1/2022	0.000611 (J)
4/4/2023	0.000664 (J)
Mean	0.0008669
Std. Dev.	0.0002132
Upper Lim.	0.00102
Lower Lim.	0.00056

GROUNDWATER STATS CONSULTING

October 23, 2023

Southern Company Services
Attn: Mr. Greg Budd
3535 Colonnade Parkway
Birmingham, AL 35243



Re: Plant Barry Ash Pond
Background Update & 2nd Semi-Annual Statistical Analysis – August 2023

Dear Mr. Budd,

Groundwater Stats Consulting, formerly the statistical consulting division of Sanitas Technologies, is pleased to provide the background update and statistical analysis of groundwater data for the August 2023 2nd Semi-Annual sample event for Alabama Power Company's Plant Barry Ash Pond. The analysis complies with the federal rule for the Disposal of Coal Combustion Residuals from Electric Utilities (CCR Rule, 2015) as well as with the United States Environmental Protection Agency (USEPA) Unified Guidance (2009).

Sampling began at site for the CCR program in 2016. The monitoring well network, as provided by Southern Company Services, consists of the following:

- **Upgradient wells:** BY-UP-MW-1, BY-UP-MW-2, BY-UP-MW-3, and BY-UP-MW-4
- **Downgradient wells:** BY-AP-MW-1, BY-AP-MW-2, BY-AP-MW-3, BY-AP-MW-4, BY-AP-MW-5, BY-AP-MW-6, BY-AP-MW-7, BY-AP-MW-8, BY-AP-MW-9, BY-AP-MW-10, BY-AP-MW-11, BY-AP-MW-12, BY-AP-MW-13, BY-AP-MW-14, BY-AP-MW-15, and BY-AP-MW-16
- **Delineation wells:** BY-AP-MW-1V, BY-AP-MW-5V, BY-AP-MW-7V, BY-AP-MW-8V, BY-AP-MW-10V, BY-AP-MW-12V, BY-AP-MW-13V, BY-AP-MW-14V, BY-AP-MW-15V, BY-AP-MW-16V, BY-AP-MW-17H, BY-AP-MW-17V, BY-AP-MW-18H, BY-AP-MW-19H, BY-AP-MW-20H, BY-AP-MW-20V, BY-AP-MW-22H, BY-AP-MW-23H, BY-AP-MW-23V, BY-AP-MW-24H, BY-AP-MW-25H, and BY-AP-MW-25V

Data from delineation wells are included on time series and box plots but did not require formal statistics. Please note that delineation well BY-AP-MW-25V was previously identified as BY-AP-MW-25VM.

Data were sent electronically to Groundwater Stats Consulting, and the statistical analysis was prepared according to the Statistical Analysis Plan approved by Dr. Kirk Cameron, PhD Statistician with MacStat Consulting, primary author of the USEPA Unified Guidance, and Senior Advisor to Groundwater Stats Consulting. The analysis was reviewed by Andrew Collins, Project Manager for Groundwater Stats Consulting.

The CCR program consists of the following constituents:

Appendix III (Detection Monitoring) - boron, calcium, chloride, fluoride, pH, sulfate, and TDS

Appendix IV (Assessment Monitoring) - antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, combined radium 226 + 228, fluoride, lead, lithium, mercury, molybdenum, selenium, and thallium

Note that when there are no detections present in downgradient wells for a given constituent, statistical analyses are not required. A summary of Appendix IV downgradient well/constituent pairs containing 100% non-detects follows this letter. For all constituents, a substitution of the most recent reporting limit is used for non-detect data. This generally gives the most conservative limit in each case. Due to historic varying detection limits, the following reporting limits were substituted across all wells:

- Arsenic: 0.000203 mg/L
- Cadmium: 0.000203 mg/L
- Chromium: 0.00102 mg/L
- Cobalt: 0.005 mg/L
- Lead: 0.000203 mg/L
- Selenium: 0.00102 mg/L

Time series plots for Appendix III and IV parameters at all wells are provided for the purpose of screening data at these wells (Figure A). Additionally, a separate section of box plots is included for all constituents at upgradient and downgradient wells (Figure B). The time series plots are used to initially screen for suspected outliers and trends, while the box plots provide visual representation of variation within individual wells and between all wells. Any flagged data are displayed in a lighter font and as a disconnected symbol on the time series reports, as well as in a lighter font on the accompanying data pages. Summary tables of all flagged values follow this report (Figure C).

During the April 2020 background screening, Appendix III data at all wells were evaluated for the following: 1) outliers; 2) trends; 3) most appropriate statistical method for Appendix III parameters based on analysis of the spatial variability of groundwater quality data among wells upgradient of the facility; and 4) eligibility of downgradient wells when intrawell statistical methods are recommended. A summary of the background screening is presented in a later section of this letter. Power curves are provided in this report to demonstrate that the selected statistical methods for Appendix III parameters comply with the USEPA Unified Guidance. The EPA suggests that the selected statistical method should provide at least 55% power at 3 standard deviations or at least 80% power at 4 standard deviations. Power curves are based on the following statistical methods and site/data characteristics:

- Semi-Annual Sampling
- Intrawell Prediction Limits with 1-of-2 resample plan
- Interwell Prediction Limits with 1-of-2 resample plan
- # Background Samples (Intrawell): 12
- # Background Samples (Interwell): 84
- # Constituents: 7
- # Downgradient wells: 16

Summary of Statistical Methods – Appendix III Parameters

Based on the Statistical Analysis Plan, the following statistical methods are used to evaluate the Appendix III parameters:

- Intrawell prediction limits, combined with a 1-of-2 resample plan for pH and sulfate
- Interwell prediction limits, combined with a 1-of-2 resample plan for boron, calcium, chloride, fluoride, and TDS

Parametric prediction limits are utilized when the screened historical data follow a normal or transformed-normal distribution. When data cannot be normalized or the majority of data are non-detects, a nonparametric test is utilized. While the annual false positive rate associated with parametric limits is fixed at 10% as recommended by the EPA Unified Guidance (2009), the false positive rate associated with nonparametric limits is not fixed and depends upon the available background sample size, number of future comparisons, and verification resample plan. The distribution of data is tested using the Shapiro-Wilk/Shapiro-Francia test for normality. After testing for normality and performing any adjustments as discussed below (US EPA, 2009), data are analyzed using either parametric or non-parametric prediction limits as appropriate. Non-detects are handled as follows:

- No statistical analyses are required on wells and analytes containing 100% non-detects (USEPA Unified Guidance, 2009, Chapter 6).
- When data contain <15% non-detects, simple substitution of one-half the reporting limit is utilized in the statistical analysis. The reporting limit utilized for non-detects is the most recent practical quantification limit (PQL) as reported by the laboratory.
- When data contain between 15-50% non-detects, the Kaplan-Meier non-detect adjustment is applied to the background data for parametric limits. This technique adjusts the mean and standard deviation of the historical concentrations to account for concentrations below the reporting limit.
- Nonparametric prediction limits are used on data containing greater than 50% non-detects.

Natural systems continuously evolve due to physical changes made to the environment. Examples include capping a landfill, paving areas near a well, or lining a drainage channel to prevent erosion. Periodic updating of background statistical limits is necessary to accommodate these types of changes. In the intrawell case, data for all wells and constituents may be re-evaluated when a minimum of 4 new data points are available to determine whether earlier concentrations are representative of present-day groundwater quality. In the interwell case, prediction limits are updated with upgradient well data following each sampling event after screening for any new outliers. In some cases, deselecting the earlier portion of data is necessary prior to construction of limits so that resulting statistical limits are representative of present-day groundwater quality conditions in the absence of suspected impacts as a result of practices from the facility. In other cases, the more recent portion of the record may be deselected if measurements are increasing and the cause is not known. Even though the data are excluded from the calculation, the values will continue to be reported and shown in tables and graphs. A summary of any truncated records follows this letter.

Summary of Background Update Appendix III Constituents – Fall 2023

Intrawell prediction limits, which compare the most recent compliance sample from a given well to historical data from the same well, are updated by testing for the appropriateness of consolidating new sampling observations with the screened background data. As discussed in the Statistical Analysis Plan (August 2020), intrawell prediction limits are used to evaluate pH and sulfate at all wells due to spatial variation for these parameters. Interwell prediction limits are used to compare the most recent sample from each downgradient well to statistical limits constructed from pooled upgradient well data for boron, calcium, chloride, fluoride, and TDS.

Outlier Analysis

Proposed background data were reviewed during this analysis to identify any newly suspected outliers since the last background update performed in the Fall 2021 at all wells for pH and sulfate through April 2023 and at upgradient wells for boron, calcium, chloride, fluoride, and TDS through August 2023. Visual screening and Tukey's outlier test are used to identify potential outliers.

Tukey's test identified outliers for pH, sulfate, chloride, and TDS (Figure C). However, the majority of these measurements appeared similar to remaining concentrations within each well and evident of spatial variation; therefore, the measurements were not flagged. Exceptions include the lowest measurements of pH in upgradient wells BY-UP-MW-1 and BY-UP-MW-2, which were considerably lower during the May 2022 sample event, and were flagged as outliers to reduce variation. Among the values identified for sulfate, only the highest measurements in wells BY-AP-MW-15 and BY-AP-MW-9 were flagged as outliers.

Additionally, previously flagged measurements and sulfate in wells BY-AP-MW-5, BY-AP-MW-13, BY-AP-MW-14, and BY-AP-MW-16 were unflagged as these measurements were similar to remaining measurements within each respective well. In the case of chloride in downgradient well BY-AP-MW-1, earlier measurements, which have no impact on the statistical limits, were unflagged as outliers since interwell methods constructed from pooled upgradient well data are used to construct prediction limits.

Although Tukey's test did not identify statistical outliers for the following well/constituent pairs, the highest measurements were flagged in order to construct statistical limits that are conservative (i.e., lower) from a regulatory perspective:

- Sulfate: BY-AP-MW-5, BY-AP-MW-7, BY-AP-MW-8, BY-AP-MW-11, and BY-AP-MW-13

Outliers are flagged with "o" and excluded to reduce variation, better represent background conditions, and provide limits that are conservative from a regulatory perspective. Flagged data are displayed in a lighter font and as a disconnected symbol on the time series reports, as well as in a lighter font on the accompanying data pages. All flagged data are displayed in a lighter font and as a disconnected symbol on the time series reports, as well as in a lighter font on the accompanying data pages.

Intrawell Limits - Mann-Whitney

For constituents requiring intrawell prediction limits, the Mann-Whitney (Wilcoxon Rank Sum) test was used to compare the medians of historical data through May 2021 to compliance data through April 2023 (Figure D). Previously truncated records for sulfate at wells BY-AP-MW-1, BY-AP-MW-8, BY-AP-MW-9, BY-AP-MW-10, BY-AP-MW-11, BY-AP-MW-12, and BY-AP-MW-13 were compared background data sets through May 2019 to compliance data through April 2023. When no statistically significant difference in medians between the two groups is found at a 99% confidence level, background data may be updated with newer compliance data. Statistically significant differences (either an increase or decrease in median concentrations) were found the following well/constituent pairs:

Increase:

- Sulfate: BY-AP-MW-1, BY-AP-MW-7, BY-AP-MW-8, BY-AP-MW-9, BY-AP-MW-10, BY-AP-MW-11, BY-AP-MW-12, BY-AP-MW-13, and BY-AP-MW-14

Decrease:

- pH: BY-AP-MW-2

Typically, when the test concludes that the medians of the two groups are significantly different, particularly in the downgradient wells, the background data are not updated to include the newer data but will be reconsidered in the future. In studies such as the current one, in which at least one of the segments being compared is of short duration, the comparison is complicated by the fact that normal short-term variation may be mistaken for long-term change in medians.

In the case of pH, more recent measurements at well BY-AP-MW-2 are fairly similar to historical measurements; therefore, this record was updated through April 2023.

For sulfate at wells BY-AP-MW-1, BY-AP-MW-8, BY-AP-MW-9, BY-AP-MW-10, BY-AP-MW-11, BY-AP-MW-12, and BY-AP-MW-13, compliance measurements are elevated compared to historical levels; therefore, these records retained the previously truncated background through May 2019. Additionally, the records for wells BY-AP-MW-7 and BY-AP-MW-14 were not updated at this time due to increased medians in compliance data and will continue to use background data through May 2021.

If further investigation shows the more recent reported measurements are representative of naturally occurring groundwater quality, these records will be updated. That study is beyond the scope of this analysis.

Interwell Limits - Trend Tests

The Sen's Slope/Mann Kendall trend test was used to evaluate the entire record of data through August 2023 from upgradient wells for parameters utilizing interwell prediction limits (Figure E). When statistically significant increasing trends are identified in upgradient wells, the earlier portion of data may be deselected prior to construction of interwell statistical limits if the trending data would result in statistical limits that are not conservative from a regulatory perspective. Statistically significant trends were identified for the following well/constituent pairs:

Increasing

- Calcium: BY-UP-MW-3 and BY-UP-MW-4
- Fluoride: BY-UP-MW-1 and BY-UP-MW-2
- TDS: BY-UP-MW-4

Decreasing

- Chloride: BY-UP-MW-2, BY-UP-MW-3, and BY-UP-MW-4

Although statistically significant trends were identified for the well/constituent pairs listed above, the magnitudes of the trends are marginal relative to the respective concentrations. The statistically significant increasing trends identified at wells BY-UP-MW-1 and BY-UP-MW-2 resulted from historical low-level reported concentrations followed by nondetect measurements. Additionally, concentrations among all upgradient wells remain similar to each other. Therefore, no adjustments were required for these well/constituent pairs at this time. Therefore, all data from upgradient wells were used to construct interwell prediction limits.

Evaluation of Appendix III Parameters – August 2023

Prediction Limits

Intrawell prediction limits, combined with a 1-of-2 resample plan, were constructed for pH and sulfate using screened background data through April 2023 at each well, except for those well/constituent pairs with truncated records (Figure F). Intrawell limits constructed from screened background data from within each well serve to provide statistical limits that are representative of the background data population, and that will rapidly identify a change in more recent compliance data from within a given well. The August 2023 sample from the same well is compared to its respective background. This statistical method removes the element of variation from across wells and eliminates the chance of mistaking natural spatial variation for a release from the facility.

Interwell prediction limits combined with a 1-of-2 verification strategy were constructed for boron, calcium, chloride, fluoride, and TDS using upgradient well data through August 2023 (Figure G). Interwell prediction limits pool upgradient well data to establish a background limit for an individual constituent. The August 2023 sample from each downgradient well is compared to the background limit to determine whether initial exceedances are present.

In the event of an initial exceedance of compliance well data, the 1-of-2 resample plan allows for collection of one additional sample to determine whether the initial exceedance is confirmed. When the resample confirms the initial exceedance, a statistically significant increase (SSI) is identified, and further research is required to identify the cause of the exceedance (i.e., impact from the site, natural variation, or an off-site source). If a resample falls within the statistical limit, the initial exceedance is considered to be a false positive result; therefore, no further action is necessary. Summary tables and complete graphical results for intrawell and interwell prediction limits may be found following this letter. Exceedances for both intrawell and interwell prediction limits were identified for the following well/constituent pairs:

Intrawell:

- pH (lower limit): BY-AP-MW-1
- pH (upper limit): BY-AP-MW-3 and BY-AP-MW-8
- Sulfate: BY-AP-MW-7, BY-AP-MW-8, BY-AP-MW-9, BY-AP-MW-10, BY-AP-MW-11, BY-AP-MW-12, BY-AP-MW-15, and BY-AP-MW-16

Interwell:

- Boron: BY-AP-MW-1, BY-AP-MW-9, BY-AP-MW-10, and BY-AP-MW-16
- Calcium: BY-AP-MW-1, BY-AP-MW-4, BY-AP-MW-5, BY-AP-MW-6, BY-AP-MW-7, BY-AP-MW-8, BY-AP-MW-9, BY-AP-MW-10, BY-AP-MW-11, BY-AP-MW-12, BY-AP-MW-13, BY-AP-MW-14, BY-AP-MW-15, and BY-AP-MW-16
- Chloride: BY-AP-MW-1, BY-AP-MW-3, BY-AP-MW-4, BY-AP-MW-5, BY-AP-MW-7, BY-AP-MW-9, BY-AP-MW-10, BY-AP-MW-11, BY-AP-MW-12, BY-AP-MW-13, BY-AP-MW-14, BY-AP-MW-15, and BY-AP-MW-16
- Fluoride: BY-AP-MW-7 and BY-AP-MW-15

- TDS: BY-AP-MW-1, BY-AP-MW-3, BY-AP-MW-4, BY-AP-MW-5, BY-AP-MW-7, BY-AP-MW-8, BY-AP-MW-9, BY-AP-MW-10, BY-AP-MW-11, BY-AP-MW-12, BY-AP-MW-13, BY-AP-MW-14, BY-AP-MW-15, and BY-AP-MW-16

Trend Test Evaluation – Appendix III

When prediction limit exceedances are identified in downgradient wells, data are further evaluated using the Sen’s Slope/Mann Kendall trend test to determine whether concentrations are statistically increasing, decreasing, or stable at the 99% confidence level (Figure H). Upgradient wells are included in the trend analyses for all parameters found to exceed their prediction limit in downgradient wells to identify whether similar patterns exist upgradient of the site. Upgradient trends are an indication of variability in groundwater quality unrelated to practices at the site. A summary of the trend test results follows this letter. Statistically significant trends were identified for the following well/constituent pairs:

Increasing

- Boron: BY-AP-MW-10 and BY-AP-MW-16
- Calcium: BY-UP-MW-3, BY-UP-MW-4 (both upgradient), BY-AP-MW-10, and BY-AP-MW-12
- Chloride: BY-AP-MW-3, BY-AP-MW-7, BY-AP-MW-10, BY-AP-MW-12, BY-AP-MW-14, BY-AP-MW-15, and BY-AP-MW-16
- Fluoride: BY-UP-MW-1, BY-UP-MW-2, (both upgradient), and BY-AP-MW-7
- Sulfate: BY-AP-MW-7, BY-AP-MW-8, BY-AP-MW-9, BY-AP-MW-10, BY-AP-MW-11, and BY-AP-MW-12
- TDS: BY-UP-MW-4 (upgradient), BY-AP-MW-3, BY-AP-MW-11, BY-AP-MW-15, and BY-AP-MW-16

Decreasing

- Calcium: BY-AP-MW-8
- Chloride: BY-UP-MW-2, BY-UP-MW-3, and BY-UP-MW-4 (all upgradient), and BY-AP-MW-9
- pH: BY-UP-MW-2, BY-UP-MW-3, and BY-UP-MW-4 (all upgradient)

Evaluation of Appendix IV Parameters – August 2023

Prior to evaluating Appendix IV parameters, upgradient well data were screened through visual screening and Tukey’s outlier test for potential outliers and extreme trending

patterns that would lead to artificially elevated statistical limits. A discussion of those findings is provided below.

Tukey's outlier test on pooled upgradient well data for Appendix IV parameters through August 2023 did not identify any values as potential outliers; therefore, no additional values were flagged.

Additionally, downgradient well data through August 2023 were screened through visual screening using time series graphs. Since the downgradient well data are used to construct confidence intervals, a regulatory conservative approach is taken in that values that are marginally high relative to the rest of the data are retained unless there is particular justification for excluding them. Previously flagged values for cobalt in downgradient well BY-AP-MW-4 were unflagged as these measurements were similar to remaining measurements within each respective well. A summary of flagged outliers follows this report (Figure C).

Interwell Upper Tolerance Limits

Background limits were determined using tolerance limits constructed from pooled upgradient well data through August 2023 (Figure I). The tolerance limits contain a known fraction (coverage) of the background population with a known level of confidence. The confidence and coverage levels for nonparametric tolerance limits are dependent upon the number of background samples. As requested by ADEM to eliminate variation among upgradient well data, nonparametric tolerance limits, which use the highest measurement of screened background as the statistical limit, were constructed. A summary of the upper tolerance limits follows this report.

Groundwater Protection Standards

These background limits were then compared to the Maximum Contaminant Levels (MCLs) for each parameter, and the higher of the two was used as the GWPS (Figure J) in the confidence interval comparisons described below.

In accordance with Alabama Department of Environmental Management (ADEM), the Groundwater Protections Standards (GWPS) were updated during this 2023 2nd semi-annual statistical analysis. The GWPS will be updated again during the 2025 2nd semi-annual statistical analysis.

Confidence Intervals

Confidence intervals were then constructed on downgradient wells using a maximum of the most recent 8 samples through August 2023 for each of the Appendix IV parameters (Figure K). These intervals were constructed as either parametric or nonparametric confidence intervals depending on the data distribution and percentage of non-detects. Nonparametric confidence intervals, which use the highest and lowest values as interval limits when $n=8$, were constructed when data did not follow a normal or transformed-normal distribution or when there were greater than 50% non-detects. The lower confidence limit, which is constructed with 99% confidence for parametric confidence intervals, is compared to the GWPS prepared as described above. The confidence level associated with nonparametric confidence intervals is dependent upon the number samples available.

As mentioned above, well/constituent pairs containing 100% non-detects did not require statistics and were, therefore, deselected prior to construction confidence intervals. A list of deselected well/constituent pairs also follows this report. Each confidence interval was compared with the corresponding GWPS. Only when the entire confidence interval is above the GWPS is the well/constituent pair considered to exceed its respective standard. Both a tabular summary and graphical presentation of the confidence interval results follow this letter). Exceedances were identified for the following well/constituent pairs:

- Arsenic: BY-AP-MW-1, BY-AP-MW-5, BY-AP-MW-7, BY-AP-MW-8, BY-AP-MW-9, BY-AP-MW-10, BY-AP-MW-11, BY-AP-MW-12, BY-AP-MW-14, BY-AP-MW-15, and BY-AP-MW-16
- Cobalt: BY-AP-MW-15

Trend Test Evaluation – Appendix IV

When confidence interval exceedances are identified in downgradient wells, data are further evaluated using the Sen's Slope/Mann Kendall trend test to determine whether concentrations are statistically increasing, decreasing, or stable at the 95% confidence level (Figure L). Utilizing the 95% confidence level for trend tests readily identifies significant trends and is more sensitive than the 99% confidence level without drastically increasing the false negative rate. Upgradient wells are included in the trend analyses for all parameters found to exceed their confidence interval in downgradient wells. When similar patterns exist upgradient of the site, it is an indication of variability in groundwater which may be unrelated to practices at the site. Statistically significant trends were identified for the following well/constituent pairs:

Increasing

- Arsenic: BY-AP-MW-5, BY-AP-MW-10, BY-AP-MW-14, BY-AP-MW-15, and BY-AP-MW-16
- Cobalt: BY-AP-MW-15

Decreasing

- Cobalt: BY-UP-MW-2, BY-UP-MW-3, and BY-UP-MW-4 (all upgradient)

Note that for upgradient wells BY-UP-MW-3 and BY-UP-MW-4, the slope is zero and represents the median of all pairwise slopes within each respective well.

Thank you for the opportunity to assist you in the statistical analysis of groundwater quality for Barry Ash Pond. If you have any questions or comments, please feel free to contact us.

For Groundwater Stats Consulting,



Kristina Rayner
Senior Statistician

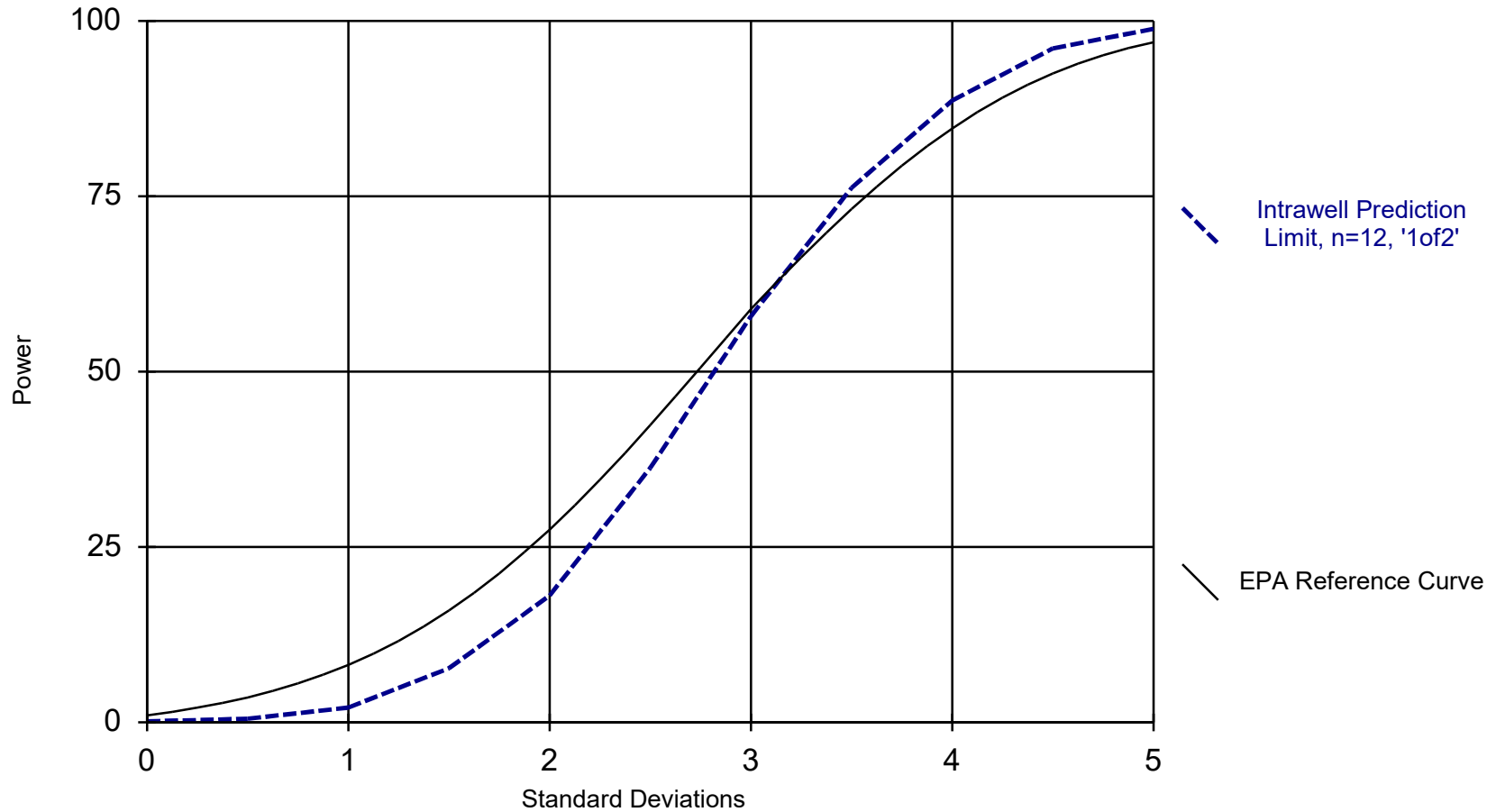


Andrew Collins
Project Manager

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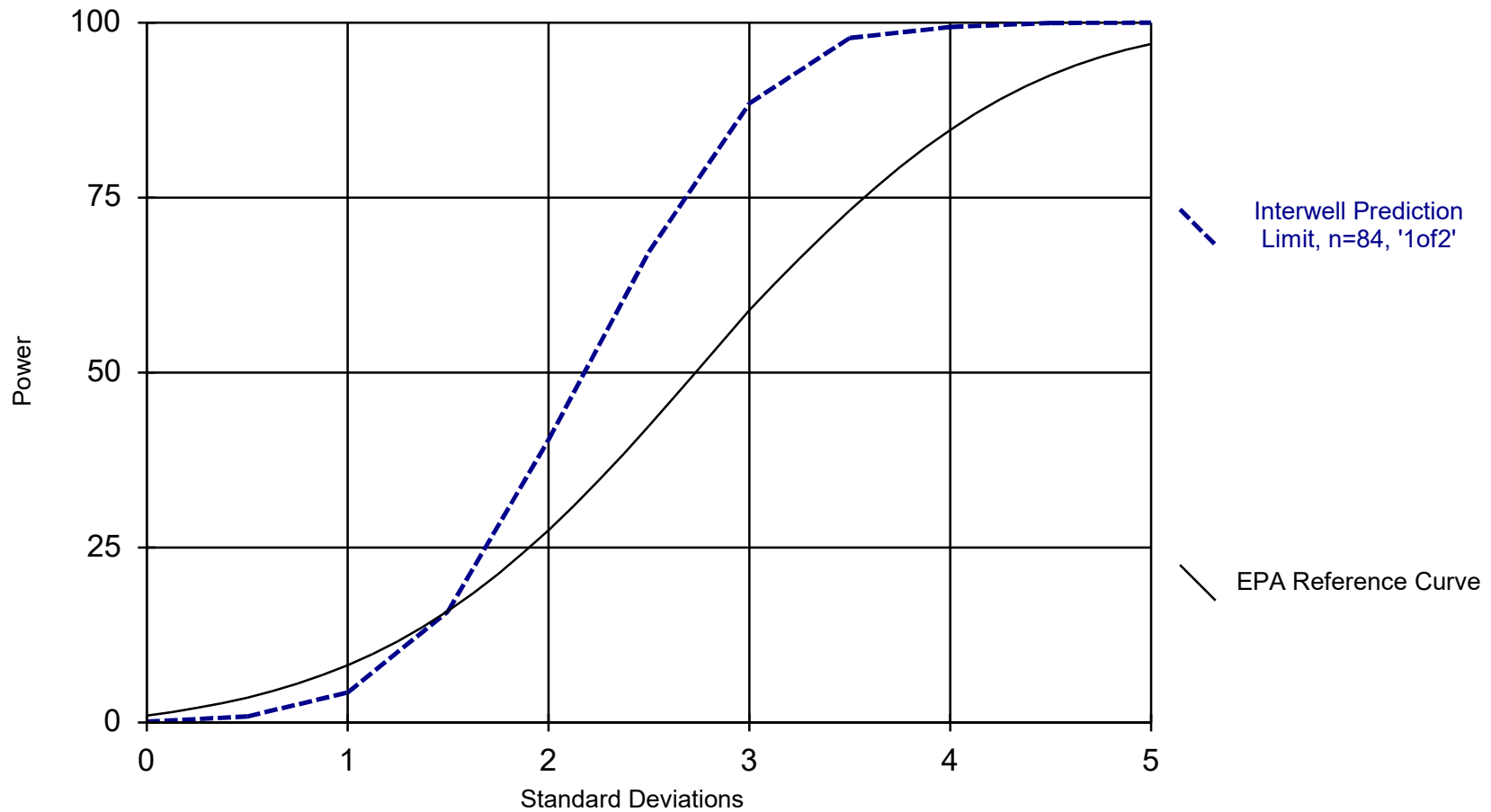
Intrawell Power Curve



Kappa = 2.8, based on 16 compliance wells and 7 constituents, evaluated semi-annually (this report reflects annual total).

Analysis Run 10/4/2023 1:47 PM View: Intrawell PLs
Plant Barry Client: Southern Company Data: Barry Ash Pond

Interwell Power Curve



Kappa = 2.09, based on 16 compliance wells and 7 constituents, evaluated semi-annually (this report reflects annual total).

Analysis Run 10/4/2023 1:48 PM View: Intrawell PLs
Plant Barry Client: Southern Company Data: Barry Ash Pond

Date Ranges

Date: 10/4/2023 1:34 PM

Plant Barry Client: Southern Company Data: Barry Ash Pond

Sulfate as SO4 (mg/L)

BY-AP-MW-1 background:3/2/2016-5/29/2019
BY-AP-MW-10 background:3/1/2016-5/30/2019
BY-AP-MW-11 background:3/1/2016-5/29/2019
BY-AP-MW-12 background:3/2/2016-5/29/2019
BY-AP-MW-13 background:3/2/2016-5/29/2019
BY-AP-MW-14 background:3/2/2016-5/25/2021
BY-AP-MW-7 background:3/1/2016-5/18/2021
BY-AP-MW-8 background:3/1/2016-5/29/2019
BY-AP-MW-9 background:3/1/2016-5/30/2019

100% Non-Detects: Appendix IV Downgradient

Analysis Run 10/6/2023 9:57 AM View: Confidence Intervals
Plant Barry Client: Southern Company Data: Barry Ash Pond

Antimony (mg/L)

BY-AP-MW-1, BY-AP-MW-10, BY-AP-MW-11, BY-AP-MW-12, BY-AP-MW-13, BY-AP-MW-14, BY-AP-MW-15, BY-AP-MW-16, BY-AP-MW-2, BY-AP-MW-3, BY-AP-MW-4, BY-AP-MW-5, BY-AP-MW-6, BY-AP-MW-7, BY-AP-MW-8, BY-AP-MW-9

Beryllium (mg/L)

BY-AP-MW-1, BY-AP-MW-10, BY-AP-MW-11, BY-AP-MW-12, BY-AP-MW-13, BY-AP-MW-14, BY-AP-MW-15, BY-AP-MW-16, BY-AP-MW-2, BY-AP-MW-3, BY-AP-MW-5, BY-AP-MW-6, BY-AP-MW-7, BY-AP-MW-8, BY-AP-MW-9

Cadmium (mg/L)

BY-AP-MW-1, BY-AP-MW-10, BY-AP-MW-11, BY-AP-MW-12, BY-AP-MW-13, BY-AP-MW-14, BY-AP-MW-15, BY-AP-MW-16, BY-AP-MW-2, BY-AP-MW-3, BY-AP-MW-5, BY-AP-MW-7, BY-AP-MW-8, BY-AP-MW-9

Fluoride, total (mg/L)

BY-AP-MW-3, BY-AP-MW-4, BY-AP-MW-6

Lead (mg/L)

BY-AP-MW-10, BY-AP-MW-15, BY-AP-MW-2, BY-AP-MW-3, BY-AP-MW-5, BY-AP-MW-7, BY-AP-MW-9

Lithium (mg/L)

BY-AP-MW-1, BY-AP-MW-10, BY-AP-MW-12, BY-AP-MW-13, BY-AP-MW-14, BY-AP-MW-16, BY-AP-MW-2, BY-AP-MW-3, BY-AP-MW-4, BY-AP-MW-5, BY-AP-MW-6, BY-AP-MW-8, BY-AP-MW-9

Mercury (mg/L)

BY-AP-MW-1, BY-AP-MW-10, BY-AP-MW-11, BY-AP-MW-12, BY-AP-MW-13, BY-AP-MW-14, BY-AP-MW-15, BY-AP-MW-16, BY-AP-MW-2, BY-AP-MW-3, BY-AP-MW-4, BY-AP-MW-5, BY-AP-MW-6, BY-AP-MW-7, BY-AP-MW-8, BY-AP-MW-9

Molybdenum (mg/L)

BY-AP-MW-10, BY-AP-MW-2, BY-AP-MW-3, BY-AP-MW-4

Selenium (mg/L)

BY-AP-MW-1, BY-AP-MW-10, BY-AP-MW-11, BY-AP-MW-12, BY-AP-MW-14, BY-AP-MW-15, BY-AP-MW-16, BY-AP-MW-2, BY-AP-MW-3, BY-AP-MW-4, BY-AP-MW-5, BY-AP-MW-6, BY-AP-MW-7, BY-AP-MW-8, BY-AP-MW-9

Thallium (mg/L)

BY-AP-MW-1, BY-AP-MW-10, BY-AP-MW-11, BY-AP-MW-12, BY-AP-MW-13, BY-AP-MW-14, BY-AP-MW-15, BY-AP-MW-16, BY-AP-MW-2, BY-AP-MW-3, BY-AP-MW-4, BY-AP-MW-5, BY-AP-MW-6, BY-AP-MW-7, BY-AP-MW-8, BY-AP-MW-9

Welch's t-test/Mann-Whitney - Significant Results

Plant Barry Client: Southern Company Data: Barry Ash Pond Printed 10/4/2023, 11:23 AM

<u>Constituent</u>	<u>Well</u>	<u>Calc.</u>	<u>0.01</u>	<u>Alpha</u>	<u>Sig.</u>	<u>Method</u>
pH, field (SU)	BY-AP-MW-2	-2.639	Yes	0.01	Yes	Mann-W
Sulfate as SO4 (mg/L)	BY-AP-MW-1	3.773	Yes	0.01	Yes	Mann-W
Sulfate as SO4 (mg/L)	BY-AP-MW-10	3.054	Yes	0.01	Yes	Mann-W
Sulfate as SO4 (mg/L)	BY-AP-MW-11	3.533	Yes	0.01	Yes	Mann-W
Sulfate as SO4 (mg/L)	BY-AP-MW-12	3.842	Yes	0.01	Yes	Mann-W
Sulfate as SO4 (mg/L)	BY-AP-MW-13	3.114	Yes	0.01	Yes	Mann-W
Sulfate as SO4 (mg/L)	BY-AP-MW-14	3.125	Yes	0.01	Yes	Mann-W
Sulfate as SO4 (mg/L)	BY-AP-MW-7	2.669	Yes	0.01	Yes	Mann-W
Sulfate as SO4 (mg/L)	BY-AP-MW-8	3.725	Yes	0.01	Yes	Mann-W
Sulfate as SO4 (mg/L)	BY-AP-MW-9	2.825	Yes	0.01	Yes	Mann-W

Welch's t-test/Mann-Whitney - All Results

Plant Barry Client: Southern Company Data: Barry Ash Pond Printed 10/4/2023, 11:23 AM

<u>Constituent</u>	<u>Well</u>	<u>Calc.</u>	<u>0.01</u>	<u>Alpha</u>	<u>Sig.</u>	<u>Method</u>
pH, field (SU)	BY-AP-MW-1	-1.265	No	0.01	No	Mann-W
pH, field (SU)	BY-AP-MW-10	-1.666	No	0.01	No	Mann-W
pH, field (SU)	BY-AP-MW-11	-0.2034	No	0.01	No	Mann-W
pH, field (SU)	BY-AP-MW-12	-1.22	No	0.01	No	Mann-W
pH, field (SU)	BY-AP-MW-13	-1.918	No	0.01	No	Mann-W
pH, field (SU)	BY-AP-MW-14	0.4064	No	0.01	No	Mann-W
pH, field (SU)	BY-AP-MW-15	0.2032	No	0.01	No	Mann-W
pH, field (SU)	BY-AP-MW-16	-1.179	No	0.01	No	Mann-W
pH, field (SU)	BY-AP-MW-2	-2.639	Yes	0.01	Yes	Mann-W
pH, field (SU)	BY-AP-MW-3	-0.5281	No	0.01	No	Mann-W
pH, field (SU)	BY-AP-MW-4	0.08113	No	0.01	No	Mann-W
pH, field (SU)	BY-AP-MW-5	-0.1295	No	0.01	No	Mann-W
pH, field (SU)	BY-AP-MW-6	-0.6094	No	0.01	No	Mann-W
pH, field (SU)	BY-AP-MW-7	2.219	No	0.01	No	Mann-W
pH, field (SU)	BY-AP-MW-8	1.47	No	0.01	No	Mann-W
pH, field (SU)	BY-AP-MW-9	-1.83	No	0.01	No	Mann-W
pH, field (SU)	BY-UP-MW-1 (bg)	-0.1009	No	0.01	No	Mann-W
pH, field (SU)	BY-UP-MW-2 (bg)	-1.563	No	0.01	No	Mann-W
pH, field (SU)	BY-UP-MW-3 (bg)	-2.345	No	0.01	No	Mann-W
pH, field (SU)	BY-UP-MW-4 (bg)	-2.258	No	0.01	No	Mann-W
Sulfate as SO4 (mg/L)	BY-AP-MW-1	3.773	Yes	0.01	Yes	Mann-W
Sulfate as SO4 (mg/L)	BY-AP-MW-10	3.054	Yes	0.01	Yes	Mann-W
Sulfate as SO4 (mg/L)	BY-AP-MW-11	3.533	Yes	0.01	Yes	Mann-W
Sulfate as SO4 (mg/L)	BY-AP-MW-12	3.842	Yes	0.01	Yes	Mann-W
Sulfate as SO4 (mg/L)	BY-AP-MW-13	3.114	Yes	0.01	Yes	Mann-W
Sulfate as SO4 (mg/L)	BY-AP-MW-14	3.125	Yes	0.01	Yes	Mann-W
Sulfate as SO4 (mg/L)	BY-AP-MW-15	-0.4524	No	0.01	No	Mann-W
Sulfate as SO4 (mg/L)	BY-AP-MW-16	2.285	No	0.01	No	Mann-W
Sulfate as SO4 (mg/L)	BY-AP-MW-2	0.919	No	0.01	No	Mann-W
Sulfate as SO4 (mg/L)	BY-AP-MW-3	0.4106	No	0.01	No	Mann-W
Sulfate as SO4 (mg/L)	BY-AP-MW-4	-0.941	No	0.01	No	Mann-W
Sulfate as SO4 (mg/L)	BY-AP-MW-5	2.187	No	0.01	No	Mann-W
Sulfate as SO4 (mg/L)	BY-AP-MW-6	0.6292	No	0.01	No	Mann-W
Sulfate as SO4 (mg/L)	BY-AP-MW-7	2.669	Yes	0.01	Yes	Mann-W
Sulfate as SO4 (mg/L)	BY-AP-MW-8	3.725	Yes	0.01	Yes	Mann-W
Sulfate as SO4 (mg/L)	BY-AP-MW-9	2.825	Yes	0.01	Yes	Mann-W
Sulfate as SO4 (mg/L)	BY-UP-MW-1 (bg)	0.7087	No	0.01	No	Mann-W
Sulfate as SO4 (mg/L)	BY-UP-MW-2 (bg)	1.938	No	0.01	No	Mann-W
Sulfate as SO4 (mg/L)	BY-UP-MW-3 (bg)	-1.276	No	0.01	No	Mann-W
Sulfate as SO4 (mg/L)	BY-UP-MW-4 (bg)	-0.9925	No	0.01	No	Mann-W

Trend Tests Upgradient Wells - Significant Results

Plant Barry Client: Southern Company Data: Barry Ash Pond Printed 10/4/2023, 10:31 AM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
Calcium, total (mg/L)	BY-UP-MW-3 (bg)	0.04639	104	87	Yes	21	0	n/a	n/a	0.01	NP
Calcium, total (mg/L)	BY-UP-MW-4 (bg)	0.09578	132	87	Yes	21	0	n/a	n/a	0.01	NP
Chloride, Total (mg/L)	BY-UP-MW-2 (bg)	-0.344	-147	-87	Yes	21	0	n/a	n/a	0.01	NP
Chloride, Total (mg/L)	BY-UP-MW-3 (bg)	-0.07532	-124	-87	Yes	21	0	n/a	n/a	0.01	NP
Chloride, Total (mg/L)	BY-UP-MW-4 (bg)	-0.05978	-110	-87	Yes	21	0	n/a	n/a	0.01	NP
Fluoride, total (mg/L)	BY-UP-MW-1 (bg)	0.008753	100	92	Yes	22	59.09	n/a	n/a	0.01	NP
Fluoride, total (mg/L)	BY-UP-MW-2 (bg)	0.01319	115	92	Yes	22	54.55	n/a	n/a	0.01	NP
TDS (mg/L)	BY-UP-MW-4 (bg)	1.443	101	87	Yes	21	19.05	n/a	n/a	0.01	NP

Trend Tests Upgradient Wells - All Results

Plant Barry Client: Southern Company Data: Barry Ash Pond Printed 10/4/2023, 10:31 AM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
Boron, total (mg/L)	BY-UP-MW-1 (bg)	-0.003302	-64	-87	No	21	38.1	n/a	n/a	0.01	NP
Boron, total (mg/L)	BY-UP-MW-2 (bg)	0	35	87	No	21	85.71	n/a	n/a	0.01	NP
Boron, total (mg/L)	BY-UP-MW-3 (bg)	0	0	87	No	21	100	n/a	n/a	0.01	NP
Boron, total (mg/L)	BY-UP-MW-4 (bg)	0	31	87	No	21	90.48	n/a	n/a	0.01	NP
Calcium, total (mg/L)	BY-UP-MW-1 (bg)	-0.02191	-32	-87	No	21	0	n/a	n/a	0.01	NP
Calcium, total (mg/L)	BY-UP-MW-2 (bg)	0.01469	21	87	No	21	0	n/a	n/a	0.01	NP
Calcium, total (mg/L)	BY-UP-MW-3 (bg)	0.04639	104	87	Yes	21	0	n/a	n/a	0.01	NP
Calcium, total (mg/L)	BY-UP-MW-4 (bg)	0.09578	132	87	Yes	21	0	n/a	n/a	0.01	NP
Chloride, Total (mg/L)	BY-UP-MW-1 (bg)	-0.1716	-72	-87	No	21	0	n/a	n/a	0.01	NP
Chloride, Total (mg/L)	BY-UP-MW-2 (bg)	-0.344	-147	-87	Yes	21	0	n/a	n/a	0.01	NP
Chloride, Total (mg/L)	BY-UP-MW-3 (bg)	-0.07532	-124	-87	Yes	21	0	n/a	n/a	0.01	NP
Chloride, Total (mg/L)	BY-UP-MW-4 (bg)	-0.05978	-110	-87	Yes	21	0	n/a	n/a	0.01	NP
Fluoride, total (mg/L)	BY-UP-MW-1 (bg)	0.008753	100	92	Yes	22	59.09	n/a	n/a	0.01	NP
Fluoride, total (mg/L)	BY-UP-MW-2 (bg)	0.01319	115	92	Yes	22	54.55	n/a	n/a	0.01	NP
Fluoride, total (mg/L)	BY-UP-MW-3 (bg)	0	87	92	No	22	77.27	n/a	n/a	0.01	NP
Fluoride, total (mg/L)	BY-UP-MW-4 (bg)	0	87	92	No	22	77.27	n/a	n/a	0.01	NP
TDS (mg/L)	BY-UP-MW-1 (bg)	1.366	39	87	No	21	9.524	n/a	n/a	0.01	NP
TDS (mg/L)	BY-UP-MW-2 (bg)	0.5823	36	87	No	21	9.524	n/a	n/a	0.01	NP
TDS (mg/L)	BY-UP-MW-3 (bg)	0.5158	24	87	No	21	0	n/a	n/a	0.01	NP
TDS (mg/L)	BY-UP-MW-4 (bg)	1.443	101	87	Yes	21	19.05	n/a	n/a	0.01	NP

Intrawell Prediction Limit Summary - Significant Results

Plant Barry Client: Southern Company Data: Barry Ash Pond Printed 10/22/2023, 12:32 PM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg.N	Bg Mean	Std. Dev.	%NDs	ND Adj.	TransformAlpha	Method
pH, field (SU)	BY-AP-MW-3	5.41	4.324	8/9/2023	5.45	Yes	23	15805	3912	0	None	x^6	0.0002351 Param Intra 1 of 2
pH, field (SU)	BY-AP-MW-8	6.34	5.6	8/7/2023	6.82	Yes	23	n/a	n/a	0	n/a	n/a	0.006831 NP Intra (normality) 1 of 2
pH, field (SU)	BY-UP-MW-1	4.872	4.499	8/16/2023	4.45	Yes	21	4.685	0.07737	0	None	No	0.0002351 Param Intra 1 of 2
Sulfate as SO4 (mg/L)	BY-AP-MW-10	5	n/a	8/7/2023	17.8	Yes	13	n/a	n/a	69.23	n/a	n/a	0.009692 NP Intra (NDs) 1 of 2
Sulfate as SO4 (mg/L)	BY-AP-MW-11	22.98	n/a	8/7/2023	158	Yes	13	0.6472	0.9082	46.15	Kaplan-Meier	ln(x)	0.0004702 Param Intra 1 of 2
Sulfate as SO4 (mg/L)	BY-AP-MW-12	7.04	n/a	8/8/2023	65.1	Yes	12	n/a	n/a	75	n/a	n/a	0.01077 NP Intra (NDs) 1 of 2
Sulfate as SO4 (mg/L)	BY-AP-MW-15	9.688	n/a	8/8/2023	10.6	Yes	20	3.584	2.514	50	Kaplan-Meier	No	0.0004702 Param Intra 1 of 2
Sulfate as SO4 (mg/L)	BY-AP-MW-16	18.2	n/a	8/8/2023	31.6	Yes	21	2.11	0.8952	42.86	Kaplan-Meier	sqrt(x)	0.0004702 Param Intra 1 of 2
Sulfate as SO4 (mg/L)	BY-AP-MW-7	5	n/a	8/7/2023	25.9	Yes	16	n/a	n/a	37.5	n/a	n/a	0.006456 NP Intra (normality) 1 of 2
Sulfate as SO4 (mg/L)	BY-AP-MW-8	6.01	n/a	8/7/2023	38.6	Yes	13	n/a	n/a	76.92	n/a	n/a	0.009692 NP Intra (NDs) 1 of 2
Sulfate as SO4 (mg/L)	BY-AP-MW-9	5.91	n/a	8/7/2023	30.4	Yes	13	n/a	n/a	69.23	n/a	n/a	0.009692 NP Intra (NDs) 1 of 2

Intrawell Prediction Limit Summary - All Results

Plant Barry Client: Southern Company Data: Barry Ash Pond Printed 10/22/2023, 12:32 PM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	Bg Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
pH, field (SU)	BY-AP-MW-1	6.01	5.44	8/8/2023	5.74	No	23	n/a	n/a	0	n/a	n/a	0.006831	NP Intra (normality) 1 of 2
pH, field (SU)	BY-AP-MW-10	6.4	5.81	8/7/2023	6.27	No	23	n/a	n/a	0	n/a	n/a	0.006831	NP Intra (normality) 1 of 2
pH, field (SU)	BY-AP-MW-11	6.34	5.84	8/7/2023	6.3	No	23	n/a	n/a	0	n/a	n/a	0.006831	NP Intra (normality) 1 of 2
pH, field (SU)	BY-AP-MW-12	6.25	5.58	8/8/2023	6.07	No	23	n/a	n/a	0	n/a	n/a	0.006831	NP Intra (normality) 1 of 2
pH, field (SU)	BY-AP-MW-13	6.14	5.5	8/9/2023	5.76	No	23	n/a	n/a	0	n/a	n/a	0.006831	NP Intra (normality) 1 of 2
pH, field (SU)	BY-AP-MW-14	6.376	5.719	8/9/2023	5.83	No	23	6.047	0.1385	0	None	No	0.0002351	Param Intra 1 of 2
pH, field (SU)	BY-AP-MW-15	6.76	6.2	8/8/2023	6.6	No	23	n/a	n/a	0	n/a	n/a	0.006831	NP Intra (normality) 1 of 2
pH, field (SU)	BY-AP-MW-16	5.87	5.23	8/8/2023	5.39	No	23	n/a	n/a	0	n/a	n/a	0.006831	NP Intra (normality) 1 of 2
pH, field (SU)	BY-AP-MW-2	6.207	4.633	8/8/2023	4.91	No	23	33530	9978	0	None	x^6	0.0002351	Param Intra 1 of 2
pH, field (SU)	BY-AP-MW-3	5.41	4.324	8/9/2023	5.45	Yes	23	15805	3912	0	None	x^6	0.0002351	Param Intra 1 of 2
pH, field (SU)	BY-AP-MW-4	5.337	4.004	8/9/2023	4.55	No	23	4.67	0.2814	0	None	No	0.0002351	Param Intra 1 of 2
pH, field (SU)	BY-AP-MW-5	6.36	5.47	8/7/2023	5.84	No	22	n/a	n/a	0	n/a	n/a	0.007415	NP Intra (normality) 1 of 2
pH, field (SU)	BY-AP-MW-6	5.735	4.629	8/9/2023	5.05	No	23	4165	861	0	None	x^5	0.0002351	Param Intra 1 of 2
pH, field (SU)	BY-AP-MW-7	7.07	6.18	8/7/2023	6.67	No	22	n/a	n/a	0	n/a	n/a	0.007415	NP Intra (normality) 1 of 2
pH, field (SU)	BY-AP-MW-8	6.34	5.6	8/7/2023	6.82	Yes	23	n/a	n/a	0	n/a	n/a	0.006831	NP Intra (normality) 1 of 2
pH, field (SU)	BY-AP-MW-9	6.32	5.97	8/7/2023	6.13	No	23	n/a	n/a	0	n/a	n/a	0.006831	NP Intra (normality) 1 of 2
pH, field (SU)	BY-UP-MW-1	4.872	4.499	8/16/2023	4.45	Yes	21	4.685	0.07737	0	None	No	0.0002351	Param Intra 1 of 2
pH, field (SU)	BY-UP-MW-2	5.005	4.313	8/16/2023	4.49	No	21	4.659	0.1438	0	None	No	0.0002351	Param Intra 1 of 2
pH, field (SU)	BY-UP-MW-3	4.98	3.54	8/16/2023	4.03	No	22	n/a	n/a	0	n/a	n/a	0.007415	NP Intra (normality) 1 of 2
pH, field (SU)	BY-UP-MW-4	4.95	3.97	8/16/2023	4.58	No	22	n/a	n/a	0	n/a	n/a	0.007415	NP Intra (normality) 1 of 2
Sulfate as SO4 (mg/L)	BY-AP-MW-1	6.348	n/a	8/8/2023	3.92	No	13	52.17	74.33	46.15	Kaplan-Meier	x^3	0.0004702	Param Intra 1 of 2
Sulfate as SO4 (mg/L)	BY-AP-MW-10	5	n/a	8/7/2023	17.8	Yes	13	n/a	n/a	69.23	n/a	n/a	0.009692	NP Intra (NDs) 1 of 2
Sulfate as SO4 (mg/L)	BY-AP-MW-11	22.98	n/a	8/7/2023	158	Yes	13	0.6472	0.9082	46.15	Kaplan-Meier	ln(x)	0.0004702	Param Intra 1 of 2
Sulfate as SO4 (mg/L)	BY-AP-MW-12	7.04	n/a	8/8/2023	65.1	Yes	12	n/a	n/a	75	n/a	n/a	0.01077	NP Intra (NDs) 1 of 2
Sulfate as SO4 (mg/L)	BY-AP-MW-13	49.5	n/a	8/9/2023	23.5	No	13	n/a	n/a	38.46	n/a	n/a	0.009692	NP Intra (normality) 1 of 2
Sulfate as SO4 (mg/L)	BY-AP-MW-14	67.6	n/a	8/9/2023	37.8	No	17	n/a	n/a	52.94	n/a	n/a	0.005914	NP Intra (NDs) 1 of 2
Sulfate as SO4 (mg/L)	BY-AP-MW-15	9.688	n/a	8/8/2023	10.6	Yes	20	3.584	2.514	50	Kaplan-Meier	No	0.0004702	Param Intra 1 of 2
Sulfate as SO4 (mg/L)	BY-AP-MW-16	18.2	n/a	8/8/2023	31.6	Yes	21	2.11	0.8952	42.86	Kaplan-Meier	sqrt(x)	0.0004702	Param Intra 1 of 2
Sulfate as SO4 (mg/L)	BY-AP-MW-2	3.3	n/a	8/8/2023	1.82J	No	21	n/a	n/a	52.38	n/a	n/a	0.003999	NP Intra (NDs) 1 of 2
Sulfate as SO4 (mg/L)	BY-AP-MW-3	5	n/a	8/9/2023	3.04	No	21	n/a	n/a	33.33	n/a	n/a	0.003999	NP Intra (normality) 1 of 2
Sulfate as SO4 (mg/L)	BY-AP-MW-4	5.043	n/a	8/9/2023	2.28	No	21	2.623	1.005	4.762	None	No	0.0004702	Param Intra 1 of 2
Sulfate as SO4 (mg/L)	BY-AP-MW-5	23.7	n/a	8/7/2023	17.6	No	19	n/a	n/a	47.37	n/a	n/a	0.004832	NP Intra (normality) 1 of 2
Sulfate as SO4 (mg/L)	BY-AP-MW-6	5	n/a	8/9/2023	1.61J	No	21	n/a	n/a	19.05	n/a	n/a	0.003999	NP Intra (normality) 1 of 2
Sulfate as SO4 (mg/L)	BY-AP-MW-7	5	n/a	8/7/2023	25.9	Yes	16	n/a	n/a	37.5	n/a	n/a	0.006456	NP Intra (normality) 1 of 2
Sulfate as SO4 (mg/L)	BY-AP-MW-8	6.01	n/a	8/7/2023	38.6	Yes	13	n/a	n/a	76.92	n/a	n/a	0.009692	NP Intra (NDs) 1 of 2
Sulfate as SO4 (mg/L)	BY-AP-MW-9	5.91	n/a	8/7/2023	30.4	Yes	13	n/a	n/a	69.23	n/a	n/a	0.009692	NP Intra (NDs) 1 of 2
Sulfate as SO4 (mg/L)	BY-UP-MW-1	26.43	n/a	8/16/2023	9.38	No	20	12.68	5.664	0	None	No	0.0004702	Param Intra 1 of 2
Sulfate as SO4 (mg/L)	BY-UP-MW-2	10.03	n/a	8/16/2023	8.28	No	20	6.587	1.419	0	None	No	0.0004702	Param Intra 1 of 2
Sulfate as SO4 (mg/L)	BY-UP-MW-3	8.85	n/a	8/16/2023	7.26	No	20	7.437	0.5821	0	None	No	0.0004702	Param Intra 1 of 2
Sulfate as SO4 (mg/L)	BY-UP-MW-4	9.931	n/a	8/16/2023	7.05	No	20	2.594	0.2297	0	None	sqrt(x)	0.0004702	Param Intra 1 of 2

Interwell Prediction Limit Summary - Significant Results

Plant Barry Client: Southern Company Data: Barry Ash Pond Printed 10/22/2023, 12:43 PM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	Bg Mean	Std. Dev.	%NDs	ND Adj.	TransformAlpha	Method
Boron, total (mg/L)	BY-AP-MW-1	0.188	n/a	8/8/2023	1.36	Yes	84	n/a	n/a	78.57	n/a	n/a	0.0002707 NP (NDs) 1 of 2
Boron, total (mg/L)	BY-AP-MW-10	0.188	n/a	8/7/2023	1.68	Yes	84	n/a	n/a	78.57	n/a	n/a	0.0002707 NP (NDs) 1 of 2
Boron, total (mg/L)	BY-AP-MW-16	0.188	n/a	8/8/2023	2.45	Yes	84	n/a	n/a	78.57	n/a	n/a	0.0002707 NP (NDs) 1 of 2
Boron, total (mg/L)	BY-AP-MW-9	0.188	n/a	8/7/2023	1.16	Yes	84	n/a	n/a	78.57	n/a	n/a	0.0002707 NP (NDs) 1 of 2
Calcium, total (mg/L)	BY-AP-MW-1	2.151	n/a	8/8/2023	31	Yes	84	1.487	0.3175	0	None	No	0.0004702 Param 1 of 2
Calcium, total (mg/L)	BY-AP-MW-10	2.151	n/a	8/7/2023	58.4	Yes	84	1.487	0.3175	0	None	No	0.0004702 Param 1 of 2
Calcium, total (mg/L)	BY-AP-MW-11	2.151	n/a	8/7/2023	23.5	Yes	84	1.487	0.3175	0	None	No	0.0004702 Param 1 of 2
Calcium, total (mg/L)	BY-AP-MW-12	2.151	n/a	8/8/2023	21.9	Yes	84	1.487	0.3175	0	None	No	0.0004702 Param 1 of 2
Calcium, total (mg/L)	BY-AP-MW-13	2.151	n/a	8/9/2023	18.2	Yes	84	1.487	0.3175	0	None	No	0.0004702 Param 1 of 2
Calcium, total (mg/L)	BY-AP-MW-14	2.151	n/a	8/9/2023	11.6	Yes	84	1.487	0.3175	0	None	No	0.0004702 Param 1 of 2
Calcium, total (mg/L)	BY-AP-MW-15	2.151	n/a	8/8/2023	6.85	Yes	84	1.487	0.3175	0	None	No	0.0004702 Param 1 of 2
Calcium, total (mg/L)	BY-AP-MW-16	2.151	n/a	8/8/2023	8.99	Yes	84	1.487	0.3175	0	None	No	0.0004702 Param 1 of 2
Calcium, total (mg/L)	BY-AP-MW-4	2.151	n/a	8/9/2023	3.23	Yes	84	1.487	0.3175	0	None	No	0.0004702 Param 1 of 2
Calcium, total (mg/L)	BY-AP-MW-5	2.151	n/a	8/7/2023	6.02	Yes	84	1.487	0.3175	0	None	No	0.0004702 Param 1 of 2
Calcium, total (mg/L)	BY-AP-MW-6	2.151	n/a	8/9/2023	2.26	Yes	84	1.487	0.3175	0	None	No	0.0004702 Param 1 of 2
Calcium, total (mg/L)	BY-AP-MW-7	2.151	n/a	8/7/2023	3.21	Yes	84	1.487	0.3175	0	None	No	0.0004702 Param 1 of 2
Calcium, total (mg/L)	BY-AP-MW-8	2.151	n/a	8/7/2023	4.68	Yes	84	1.487	0.3175	0	None	No	0.0004702 Param 1 of 2
Calcium, total (mg/L)	BY-AP-MW-9	2.151	n/a	8/7/2023	25.2	Yes	84	1.487	0.3175	0	None	No	0.0004702 Param 1 of 2
Chloride, Total (mg/L)	BY-AP-MW-1	9.9	n/a	8/8/2023	20.9	Yes	84	n/a	n/a	0	n/a	n/a	0.0002707 NP (normality) 1 of 2
Chloride, Total (mg/L)	BY-AP-MW-10	9.9	n/a	8/7/2023	23.5	Yes	84	n/a	n/a	0	n/a	n/a	0.0002707 NP (normality) 1 of 2
Chloride, Total (mg/L)	BY-AP-MW-11	9.9	n/a	8/7/2023	24	Yes	84	n/a	n/a	0	n/a	n/a	0.0002707 NP (normality) 1 of 2
Chloride, Total (mg/L)	BY-AP-MW-12	9.9	n/a	8/8/2023	22.3	Yes	84	n/a	n/a	0	n/a	n/a	0.0002707 NP (normality) 1 of 2
Chloride, Total (mg/L)	BY-AP-MW-13	9.9	n/a	8/9/2023	40.5	Yes	84	n/a	n/a	0	n/a	n/a	0.0002707 NP (normality) 1 of 2
Chloride, Total (mg/L)	BY-AP-MW-14	9.9	n/a	8/9/2023	47.1	Yes	84	n/a	n/a	0	n/a	n/a	0.0002707 NP (normality) 1 of 2
Chloride, Total (mg/L)	BY-AP-MW-15	9.9	n/a	8/8/2023	90.2	Yes	84	n/a	n/a	0	n/a	n/a	0.0002707 NP (normality) 1 of 2
Chloride, Total (mg/L)	BY-AP-MW-16	9.9	n/a	8/8/2023	21.3	Yes	84	n/a	n/a	0	n/a	n/a	0.0002707 NP (normality) 1 of 2
Chloride, Total (mg/L)	BY-AP-MW-3	9.9	n/a	8/9/2023	10.7	Yes	84	n/a	n/a	0	n/a	n/a	0.0002707 NP (normality) 1 of 2
Chloride, Total (mg/L)	BY-AP-MW-4	9.9	n/a	8/9/2023	30.8	Yes	84	n/a	n/a	0	n/a	n/a	0.0002707 NP (normality) 1 of 2
Chloride, Total (mg/L)	BY-AP-MW-5	9.9	n/a	8/7/2023	15.9	Yes	84	n/a	n/a	0	n/a	n/a	0.0002707 NP (normality) 1 of 2
Chloride, Total (mg/L)	BY-AP-MW-7	9.9	n/a	8/7/2023	48.4	Yes	84	n/a	n/a	0	n/a	n/a	0.0002707 NP (normality) 1 of 2
Chloride, Total (mg/L)	BY-AP-MW-9	9.9	n/a	8/7/2023	15.7	Yes	84	n/a	n/a	0	n/a	n/a	0.0002707 NP (normality) 1 of 2
Fluoride, total (mg/L)	BY-AP-MW-15	0.125	n/a	8/8/2023	0.172	Yes	88	n/a	n/a	67.05	n/a	n/a	0.0002468 NP (NDs) 1 of 2
Fluoride, total (mg/L)	BY-AP-MW-7	0.125	n/a	8/7/2023	0.162	Yes	88	n/a	n/a	67.05	n/a	n/a	0.0002468 NP (NDs) 1 of 2
TDS (mg/L)	BY-AP-MW-1	58	n/a	8/8/2023	393	Yes	84	n/a	n/a	9.524	n/a	n/a	0.0002707 NP (normality) 1 of 2
TDS (mg/L)	BY-AP-MW-10	58	n/a	8/7/2023	359	Yes	84	n/a	n/a	9.524	n/a	n/a	0.0002707 NP (normality) 1 of 2
TDS (mg/L)	BY-AP-MW-11	58	n/a	8/7/2023	409	Yes	84	n/a	n/a	9.524	n/a	n/a	0.0002707 NP (normality) 1 of 2
TDS (mg/L)	BY-AP-MW-12	58	n/a	8/8/2023	351	Yes	84	n/a	n/a	9.524	n/a	n/a	0.0002707 NP (normality) 1 of 2
TDS (mg/L)	BY-AP-MW-13	58	n/a	8/9/2023	309	Yes	84	n/a	n/a	9.524	n/a	n/a	0.0002707 NP (normality) 1 of 2
TDS (mg/L)	BY-AP-MW-14	58	n/a	8/9/2023	336	Yes	84	n/a	n/a	9.524	n/a	n/a	0.0002707 NP (normality) 1 of 2
TDS (mg/L)	BY-AP-MW-15	58	n/a	8/8/2023	332	Yes	84	n/a	n/a	9.524	n/a	n/a	0.0002707 NP (normality) 1 of 2
TDS (mg/L)	BY-AP-MW-16	58	n/a	8/8/2023	340	Yes	84	n/a	n/a	9.524	n/a	n/a	0.0002707 NP (normality) 1 of 2
TDS (mg/L)	BY-AP-MW-3	58	n/a	8/9/2023	67.3	Yes	84	n/a	n/a	9.524	n/a	n/a	0.0002707 NP (normality) 1 of 2
TDS (mg/L)	BY-AP-MW-4	58	n/a	8/9/2023	81.3	Yes	84	n/a	n/a	9.524	n/a	n/a	0.0002707 NP (normality) 1 of 2
TDS (mg/L)	BY-AP-MW-5	58	n/a	8/7/2023	140	Yes	84	n/a	n/a	9.524	n/a	n/a	0.0002707 NP (normality) 1 of 2
TDS (mg/L)	BY-AP-MW-7	58	n/a	8/7/2023	203	Yes	84	n/a	n/a	9.524	n/a	n/a	0.0002707 NP (normality) 1 of 2
TDS (mg/L)	BY-AP-MW-8	58	n/a	8/7/2023	90	Yes	84	n/a	n/a	9.524	n/a	n/a	0.0002707 NP (normality) 1 of 2
TDS (mg/L)	BY-AP-MW-9	58	n/a	8/7/2023	224	Yes	84	n/a	n/a	9.524	n/a	n/a	0.0002707 NP (normality) 1 of 2

Interwell Prediction Limit Summary - All Results

Plant Barry Client: Southern Company Data: Barry Ash Pond Printed 10/22/2023, 12:43 PM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg.N	Bg Mean	Std. Dev.	%NDs	ND Adj.	TransformAlpha	Method
Fluoride, total (mg/L)	BY-AP-MW-2	0.125	n/a	8/8/2023	0.0705J	No	88	n/a	n/a	67.05	n/a	n/a	0.0002468 NP (NDs) 1 of 2
Fluoride, total (mg/L)	BY-AP-MW-3	0.125	n/a	8/9/2023	0.125ND	No	88	n/a	n/a	67.05	n/a	n/a	0.0002468 NP (NDs) 1 of 2
Fluoride, total (mg/L)	BY-AP-MW-4	0.125	n/a	8/9/2023	0.125ND	No	88	n/a	n/a	67.05	n/a	n/a	0.0002468 NP (NDs) 1 of 2
Fluoride, total (mg/L)	BY-AP-MW-5	0.125	n/a	8/7/2023	0.125ND	No	88	n/a	n/a	67.05	n/a	n/a	0.0002468 NP (NDs) 1 of 2
Fluoride, total (mg/L)	BY-AP-MW-6	0.125	n/a	8/9/2023	0.125ND	No	88	n/a	n/a	67.05	n/a	n/a	0.0002468 NP (NDs) 1 of 2
Fluoride, total (mg/L)	BY-AP-MW-7	0.125	n/a	8/7/2023	0.162	Yes	88	n/a	n/a	67.05	n/a	n/a	0.0002468 NP (NDs) 1 of 2
Fluoride, total (mg/L)	BY-AP-MW-8	0.125	n/a	8/7/2023	0.112J	No	88	n/a	n/a	67.05	n/a	n/a	0.0002468 NP (NDs) 1 of 2
Fluoride, total (mg/L)	BY-AP-MW-9	0.125	n/a	8/7/2023	0.0808J	No	88	n/a	n/a	67.05	n/a	n/a	0.0002468 NP (NDs) 1 of 2
TDS (mg/L)	BY-AP-MW-1	58	n/a	8/8/2023	393	Yes	84	n/a	n/a	9.524	n/a	n/a	0.0002707 NP (normality) 1 of 2
TDS (mg/L)	BY-AP-MW-10	58	n/a	8/7/2023	359	Yes	84	n/a	n/a	9.524	n/a	n/a	0.0002707 NP (normality) 1 of 2
TDS (mg/L)	BY-AP-MW-11	58	n/a	8/7/2023	409	Yes	84	n/a	n/a	9.524	n/a	n/a	0.0002707 NP (normality) 1 of 2
TDS (mg/L)	BY-AP-MW-12	58	n/a	8/8/2023	351	Yes	84	n/a	n/a	9.524	n/a	n/a	0.0002707 NP (normality) 1 of 2
TDS (mg/L)	BY-AP-MW-13	58	n/a	8/9/2023	309	Yes	84	n/a	n/a	9.524	n/a	n/a	0.0002707 NP (normality) 1 of 2
TDS (mg/L)	BY-AP-MW-14	58	n/a	8/9/2023	336	Yes	84	n/a	n/a	9.524	n/a	n/a	0.0002707 NP (normality) 1 of 2
TDS (mg/L)	BY-AP-MW-15	58	n/a	8/8/2023	332	Yes	84	n/a	n/a	9.524	n/a	n/a	0.0002707 NP (normality) 1 of 2
TDS (mg/L)	BY-AP-MW-16	58	n/a	8/8/2023	340	Yes	84	n/a	n/a	9.524	n/a	n/a	0.0002707 NP (normality) 1 of 2
TDS (mg/L)	BY-AP-MW-2	58	n/a	8/8/2023	44	No	84	n/a	n/a	9.524	n/a	n/a	0.0002707 NP (normality) 1 of 2
TDS (mg/L)	BY-AP-MW-3	58	n/a	8/9/2023	67.3	Yes	84	n/a	n/a	9.524	n/a	n/a	0.0002707 NP (normality) 1 of 2
TDS (mg/L)	BY-AP-MW-4	58	n/a	8/9/2023	81.3	Yes	84	n/a	n/a	9.524	n/a	n/a	0.0002707 NP (normality) 1 of 2
TDS (mg/L)	BY-AP-MW-5	58	n/a	8/7/2023	140	Yes	84	n/a	n/a	9.524	n/a	n/a	0.0002707 NP (normality) 1 of 2
TDS (mg/L)	BY-AP-MW-6	58	n/a	8/9/2023	47.3	No	84	n/a	n/a	9.524	n/a	n/a	0.0002707 NP (normality) 1 of 2
TDS (mg/L)	BY-AP-MW-7	58	n/a	8/7/2023	203	Yes	84	n/a	n/a	9.524	n/a	n/a	0.0002707 NP (normality) 1 of 2
TDS (mg/L)	BY-AP-MW-8	58	n/a	8/7/2023	90	Yes	84	n/a	n/a	9.524	n/a	n/a	0.0002707 NP (normality) 1 of 2
TDS (mg/L)	BY-AP-MW-9	58	n/a	8/7/2023	224	Yes	84	n/a	n/a	9.524	n/a	n/a	0.0002707 NP (normality) 1 of 2

Trend Tests - Prediction Limit Exceedances - Significant Results

Plant Barry Client: Southern Company Data: Barry Ash Pond Printed 10/23/2023, 11:00 AM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
Boron, total (mg/L)	BY-AP-MW-10	0.1021	125	87	Yes	21	0	n/a	n/a	0.01	NP
Boron, total (mg/L)	BY-AP-MW-16	0.09303	141	87	Yes	21	0	n/a	n/a	0.01	NP
Calcium, total (mg/L)	BY-AP-MW-10	1.77	115	92	Yes	22	0	n/a	n/a	0.01	NP
Calcium, total (mg/L)	BY-AP-MW-12	0.3243	123	92	Yes	22	0	n/a	n/a	0.01	NP
Calcium, total (mg/L)	BY-AP-MW-8	-0.6482	-146	-92	Yes	22	0	n/a	n/a	0.01	NP
Calcium, total (mg/L)	BY-UP-MW-3 (bg)	0.04639	104	87	Yes	21	0	n/a	n/a	0.01	NP
Calcium, total (mg/L)	BY-UP-MW-4 (bg)	0.09578	132	87	Yes	21	0	n/a	n/a	0.01	NP
Chloride, Total (mg/L)	BY-AP-MW-10	1.361	165	92	Yes	22	0	n/a	n/a	0.01	NP
Chloride, Total (mg/L)	BY-AP-MW-12	0.4742	115	92	Yes	22	0	n/a	n/a	0.01	NP
Chloride, Total (mg/L)	BY-AP-MW-14	1.16	127	92	Yes	22	0	n/a	n/a	0.01	NP
Chloride, Total (mg/L)	BY-AP-MW-15	9.842	205	92	Yes	22	0	n/a	n/a	0.01	NP
Chloride, Total (mg/L)	BY-AP-MW-16	0.7781	163	92	Yes	22	0	n/a	n/a	0.01	NP
Chloride, Total (mg/L)	BY-AP-MW-3	0.318	149	92	Yes	22	0	n/a	n/a	0.01	NP
Chloride, Total (mg/L)	BY-AP-MW-7	0.7249	126	87	Yes	21	0	n/a	n/a	0.01	NP
Chloride, Total (mg/L)	BY-AP-MW-9	-0.9894	-99	-92	Yes	22	0	n/a	n/a	0.01	NP
Chloride, Total (mg/L)	BY-UP-MW-2 (bg)	-0.344	-147	-87	Yes	21	0	n/a	n/a	0.01	NP
Chloride, Total (mg/L)	BY-UP-MW-3 (bg)	-0.07532	-124	-87	Yes	21	0	n/a	n/a	0.01	NP
Chloride, Total (mg/L)	BY-UP-MW-4 (bg)	-0.05978	-110	-87	Yes	21	0	n/a	n/a	0.01	NP
Fluoride, total (mg/L)	BY-AP-MW-7	0.007285	106	92	Yes	22	0	n/a	n/a	0.01	NP
Fluoride, total (mg/L)	BY-UP-MW-1 (bg)	0.008753	100	92	Yes	22	59.09	n/a	n/a	0.01	NP
Fluoride, total (mg/L)	BY-UP-MW-2 (bg)	0.01319	115	92	Yes	22	54.55	n/a	n/a	0.01	NP
pH, field (SU)	BY-UP-MW-2 (bg)	-0.04795	-138	-92	Yes	22	0	n/a	n/a	0.01	NP
pH, field (SU)	BY-UP-MW-3 (bg)	-0.08243	-154	-98	Yes	23	0	n/a	n/a	0.01	NP
pH, field (SU)	BY-UP-MW-4 (bg)	-0.03972	-127	-98	Yes	23	0	n/a	n/a	0.01	NP
Sulfate as SO4 (mg/L)	BY-AP-MW-10	1.508	113	92	Yes	22	40.91	n/a	n/a	0.01	NP
Sulfate as SO4 (mg/L)	BY-AP-MW-11	7.846	153	87	Yes	21	28.57	n/a	n/a	0.01	NP
Sulfate as SO4 (mg/L)	BY-AP-MW-12	3.227	124	87	Yes	21	42.86	n/a	n/a	0.01	NP
Sulfate as SO4 (mg/L)	BY-AP-MW-7	0.9746	99	81	Yes	20	30	n/a	n/a	0.01	NP
Sulfate as SO4 (mg/L)	BY-AP-MW-8	2.016	131	87	Yes	21	47.62	n/a	n/a	0.01	NP
Sulfate as SO4 (mg/L)	BY-AP-MW-9	0.92	102	87	Yes	21	42.86	n/a	n/a	0.01	NP
TDS (mg/L)	BY-AP-MW-11	6.055	94	92	Yes	22	0	n/a	n/a	0.01	NP
TDS (mg/L)	BY-AP-MW-15	16.74	183	92	Yes	22	0	n/a	n/a	0.01	NP
TDS (mg/L)	BY-AP-MW-16	7.379	103	92	Yes	22	0	n/a	n/a	0.01	NP
TDS (mg/L)	BY-AP-MW-3	1.881	119	92	Yes	22	0	n/a	n/a	0.01	NP
TDS (mg/L)	BY-AP-MW-5	-7.278	-88	-87	Yes	21	0	n/a	n/a	0.01	NP
TDS (mg/L)	BY-UP-MW-4 (bg)	1.443	101	87	Yes	21	19.05	n/a	n/a	0.01	NP

Trend Tests - Prediction Limit Exceedances - All Results

Plant Barry Client: Southern Company Data: Barry Ash Pond Printed 10/23/2023, 11:00 AM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
Boron, total (mg/L)	BY-AP-MW-1	0.03666	44	87	No	21	0	n/a	n/a	0.01	NP
Boron, total (mg/L)	BY-AP-MW-10	0.1021	125	87	Yes	21	0	n/a	n/a	0.01	NP
Boron, total (mg/L)	BY-AP-MW-16	0.09303	141	87	Yes	21	0	n/a	n/a	0.01	NP
Boron, total (mg/L)	BY-AP-MW-9	-0.01865	-19	-87	No	21	0	n/a	n/a	0.01	NP
Boron, total (mg/L)	BY-UP-MW-1 (bg)	-0.003302	-64	-87	No	21	38.1	n/a	n/a	0.01	NP
Boron, total (mg/L)	BY-UP-MW-2 (bg)	0	35	87	No	21	85.71	n/a	n/a	0.01	NP
Boron, total (mg/L)	BY-UP-MW-3 (bg)	0	0	87	No	21	100	n/a	n/a	0.01	NP
Boron, total (mg/L)	BY-UP-MW-4 (bg)	0	31	87	No	21	90.48	n/a	n/a	0.01	NP
Calcium, total (mg/L)	BY-AP-MW-1	-0.03364	-5	-92	No	22	0	n/a	n/a	0.01	NP
Calcium, total (mg/L)	BY-AP-MW-10	1.77	115	92	Yes	22	0	n/a	n/a	0.01	NP
Calcium, total (mg/L)	BY-AP-MW-11	-0.2592	-41	-92	No	22	0	n/a	n/a	0.01	NP
Calcium, total (mg/L)	BY-AP-MW-12	0.3243	123	92	Yes	22	0	n/a	n/a	0.01	NP
Calcium, total (mg/L)	BY-AP-MW-13	0.5422	90	92	No	22	0	n/a	n/a	0.01	NP
Calcium, total (mg/L)	BY-AP-MW-14	-0.07199	-17	-92	No	22	0	n/a	n/a	0.01	NP
Calcium, total (mg/L)	BY-AP-MW-15	0.04114	28	92	No	22	0	n/a	n/a	0.01	NP
Calcium, total (mg/L)	BY-AP-MW-16	-0.1115	-40	-92	No	22	0	n/a	n/a	0.01	NP
Calcium, total (mg/L)	BY-AP-MW-4	0.00503	5	92	No	22	0	n/a	n/a	0.01	NP
Calcium, total (mg/L)	BY-AP-MW-5	-0.2232	-53	-87	No	21	0	n/a	n/a	0.01	NP
Calcium, total (mg/L)	BY-AP-MW-6	0.006145	13	92	No	22	0	n/a	n/a	0.01	NP
Calcium, total (mg/L)	BY-AP-MW-7	0.338	80	87	No	21	0	n/a	n/a	0.01	NP
Calcium, total (mg/L)	BY-AP-MW-8	-0.6482	-146	-92	Yes	22	0	n/a	n/a	0.01	NP
Calcium, total (mg/L)	BY-AP-MW-9	-0.1116	-37	-92	No	22	0	n/a	n/a	0.01	NP
Calcium, total (mg/L)	BY-UP-MW-1 (bg)	-0.02191	-32	-87	No	21	0	n/a	n/a	0.01	NP
Calcium, total (mg/L)	BY-UP-MW-2 (bg)	0.01469	21	87	No	21	0	n/a	n/a	0.01	NP
Calcium, total (mg/L)	BY-UP-MW-3 (bg)	0.04639	104	87	Yes	21	0	n/a	n/a	0.01	NP
Calcium, total (mg/L)	BY-UP-MW-4 (bg)	0.09578	132	87	Yes	21	0	n/a	n/a	0.01	NP
Chloride, Total (mg/L)	BY-AP-MW-1	0.6401	77	92	No	22	0	n/a	n/a	0.01	NP
Chloride, Total (mg/L)	BY-AP-MW-10	1.361	165	92	Yes	22	0	n/a	n/a	0.01	NP
Chloride, Total (mg/L)	BY-AP-MW-11	0.3659	52	92	No	22	0	n/a	n/a	0.01	NP
Chloride, Total (mg/L)	BY-AP-MW-12	0.4742	115	92	Yes	22	0	n/a	n/a	0.01	NP
Chloride, Total (mg/L)	BY-AP-MW-13	-0.5432	-36	-92	No	22	0	n/a	n/a	0.01	NP
Chloride, Total (mg/L)	BY-AP-MW-14	1.16	127	92	Yes	22	0	n/a	n/a	0.01	NP
Chloride, Total (mg/L)	BY-AP-MW-15	9.842	205	92	Yes	22	0	n/a	n/a	0.01	NP
Chloride, Total (mg/L)	BY-AP-MW-16	0.7781	163	92	Yes	22	0	n/a	n/a	0.01	NP
Chloride, Total (mg/L)	BY-AP-MW-3	0.318	149	92	Yes	22	0	n/a	n/a	0.01	NP
Chloride, Total (mg/L)	BY-AP-MW-4	0.3596	28	92	No	22	0	n/a	n/a	0.01	NP
Chloride, Total (mg/L)	BY-AP-MW-5	-0.2332	-42	-87	No	21	0	n/a	n/a	0.01	NP
Chloride, Total (mg/L)	BY-AP-MW-7	0.7249	126	87	Yes	21	0	n/a	n/a	0.01	NP
Chloride, Total (mg/L)	BY-AP-MW-9	-0.9894	-99	-92	Yes	22	0	n/a	n/a	0.01	NP
Chloride, Total (mg/L)	BY-UP-MW-1 (bg)	-0.1716	-72	-87	No	21	0	n/a	n/a	0.01	NP
Chloride, Total (mg/L)	BY-UP-MW-2 (bg)	-0.344	-147	-87	Yes	21	0	n/a	n/a	0.01	NP
Chloride, Total (mg/L)	BY-UP-MW-3 (bg)	-0.07532	-124	-87	Yes	21	0	n/a	n/a	0.01	NP
Chloride, Total (mg/L)	BY-UP-MW-4 (bg)	-0.05978	-110	-87	Yes	21	0	n/a	n/a	0.01	NP
Fluoride, total (mg/L)	BY-AP-MW-15	0	-4	-92	No	22	4.545	n/a	n/a	0.01	NP
Fluoride, total (mg/L)	BY-AP-MW-7	0.007285	106	92	Yes	22	0	n/a	n/a	0.01	NP
Fluoride, total (mg/L)	BY-UP-MW-1 (bg)	0.008753	100	92	Yes	22	59.09	n/a	n/a	0.01	NP
Fluoride, total (mg/L)	BY-UP-MW-2 (bg)	0.01319	115	92	Yes	22	54.55	n/a	n/a	0.01	NP
Fluoride, total (mg/L)	BY-UP-MW-3 (bg)	0	87	92	No	22	77.27	n/a	n/a	0.01	NP
Fluoride, total (mg/L)	BY-UP-MW-4 (bg)	0	87	92	No	22	77.27	n/a	n/a	0.01	NP
pH, field (SU)	BY-AP-MW-1	-0.007044	-44	-105	No	24	0	n/a	n/a	0.01	NP
pH, field (SU)	BY-AP-MW-3	-0.01972	-48	-105	No	24	0	n/a	n/a	0.01	NP
pH, field (SU)	BY-AP-MW-8	0	10	105	No	24	0	n/a	n/a	0.01	NP
pH, field (SU)	BY-UP-MW-1 (bg)	-0.003832	-17	-92	No	22	0	n/a	n/a	0.01	NP
pH, field (SU)	BY-UP-MW-2 (bg)	-0.04795	-138	-92	Yes	22	0	n/a	n/a	0.01	NP
pH, field (SU)	BY-UP-MW-3 (bg)	-0.08243	-154	-98	Yes	23	0	n/a	n/a	0.01	NP

Trend Tests - Prediction Limit Exceedances - All Results

Plant Barry Client: Southern Company Data: Barry Ash Pond Printed 10/23/2023, 11:00 AM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
pH, field (SU)	BY-UP-MW-4 (bg)	-0.03972	-127	-98	Yes	23	0	n/a	n/a	0.01	NP
Sulfate as SO4 (mg/L)	BY-AP-MW-10	1.508	113	92	Yes	22	40.91	n/a	n/a	0.01	NP
Sulfate as SO4 (mg/L)	BY-AP-MW-11	7.846	153	87	Yes	21	28.57	n/a	n/a	0.01	NP
Sulfate as SO4 (mg/L)	BY-AP-MW-12	3.227	124	87	Yes	21	42.86	n/a	n/a	0.01	NP
Sulfate as SO4 (mg/L)	BY-AP-MW-15	0.2594	53	87	No	21	47.62	n/a	n/a	0.01	NP
Sulfate as SO4 (mg/L)	BY-AP-MW-16	0.6174	85	92	No	22	40.91	n/a	n/a	0.01	NP
Sulfate as SO4 (mg/L)	BY-AP-MW-7	0.9746	99	81	Yes	20	30	n/a	n/a	0.01	NP
Sulfate as SO4 (mg/L)	BY-AP-MW-8	2.016	131	87	Yes	21	47.62	n/a	n/a	0.01	NP
Sulfate as SO4 (mg/L)	BY-AP-MW-9	0.92	102	87	Yes	21	42.86	n/a	n/a	0.01	NP
Sulfate as SO4 (mg/L)	BY-UP-MW-1 (bg)	0.5327	46	87	No	21	0	n/a	n/a	0.01	NP
Sulfate as SO4 (mg/L)	BY-UP-MW-2 (bg)	0.1445	39	87	No	21	0	n/a	n/a	0.01	NP
Sulfate as SO4 (mg/L)	BY-UP-MW-3 (bg)	-0.06757	-44	-87	No	21	0	n/a	n/a	0.01	NP
Sulfate as SO4 (mg/L)	BY-UP-MW-4 (bg)	-0.04772	-25	-87	No	21	0	n/a	n/a	0.01	NP
TDS (mg/L)	BY-AP-MW-1	-4.348	-57	-92	No	22	0	n/a	n/a	0.01	NP
TDS (mg/L)	BY-AP-MW-10	4.538	70	92	No	22	0	n/a	n/a	0.01	NP
TDS (mg/L)	BY-AP-MW-11	6.055	94	92	Yes	22	0	n/a	n/a	0.01	NP
TDS (mg/L)	BY-AP-MW-12	-0.2738	-3	-92	No	22	0	n/a	n/a	0.01	NP
TDS (mg/L)	BY-AP-MW-13	-4.349	-68	-92	No	22	0	n/a	n/a	0.01	NP
TDS (mg/L)	BY-AP-MW-14	2.788	59	92	No	22	0	n/a	n/a	0.01	NP
TDS (mg/L)	BY-AP-MW-15	16.74	183	92	Yes	22	0	n/a	n/a	0.01	NP
TDS (mg/L)	BY-AP-MW-16	7.379	103	92	Yes	22	0	n/a	n/a	0.01	NP
TDS (mg/L)	BY-AP-MW-3	1.881	119	92	Yes	22	0	n/a	n/a	0.01	NP
TDS (mg/L)	BY-AP-MW-4	2.906	85	92	No	22	0	n/a	n/a	0.01	NP
TDS (mg/L)	BY-AP-MW-5	-7.278	-88	-87	Yes	21	0	n/a	n/a	0.01	NP
TDS (mg/L)	BY-AP-MW-7	4.151	84	87	No	21	0	n/a	n/a	0.01	NP
TDS (mg/L)	BY-AP-MW-8	-3.255	-61	-92	No	22	0	n/a	n/a	0.01	NP
TDS (mg/L)	BY-AP-MW-9	-4.242	-83	-92	No	22	0	n/a	n/a	0.01	NP
TDS (mg/L)	BY-UP-MW-1 (bg)	1.366	39	87	No	21	9.524	n/a	n/a	0.01	NP
TDS (mg/L)	BY-UP-MW-2 (bg)	0.5823	36	87	No	21	9.524	n/a	n/a	0.01	NP
TDS (mg/L)	BY-UP-MW-3 (bg)	0.5158	24	87	No	21	0	n/a	n/a	0.01	NP
TDS (mg/L)	BY-UP-MW-4 (bg)	1.443	101	87	Yes	21	19.05	n/a	n/a	0.01	NP

Upper Tolerance Limits

Plant Barry Client: Southern Company Data: Barry Ash Pond Printed 10/5/2023, 11:20 AM

<u>Constituent</u>	<u>Upper Lim.</u>	<u>Bg N</u>	<u>Bg Mean</u>	<u>Std. Dev.</u>	<u>%NDs</u>	<u>ND Adj.</u>	<u>Transform</u>	<u>Alpha</u>	<u>Method</u>
Antimony (mg/L)	0.001015	84	n/a	n/a	94.05	n/a	n/a	0.01345	NP Inter
Arsenic (mg/L)	0.0017	84	n/a	n/a	77.38	n/a	n/a	0.01345	NP Inter
Barium (mg/L)	0.183	84	n/a	n/a	0	n/a	n/a	0.01345	NP Inter
Beryllium (mg/L)	0.001015	84	n/a	n/a	89.29	n/a	n/a	0.01345	NP Inter
Cadmium (mg/L)	0.000203	84	n/a	n/a	98.81	n/a	n/a	0.01345	NP Inter
Chromium (mg/L)	0.00604	84	n/a	n/a	67.86	n/a	n/a	0.01345	NP Inter
Cobalt (mg/L)	0.0157	84	n/a	n/a	46.43	n/a	n/a	0.01345	NP Inter
Combined Radium 226 + 228 (pCi/L)	3	84	n/a	n/a	0	n/a	n/a	0.01345	NP Inter
Fluoride, total (mg/L)	0.125	88	n/a	n/a	67.05	n/a	n/a	0.01096	NP Inter
Lead (mg/L)	0.00126	84	n/a	n/a	78.57	n/a	n/a	0.01345	NP Inter
Lithium (mg/L)	0.02	84	n/a	n/a	100	n/a	n/a	0.01345	NP Inter
Mercury (mg/L)	0.0005	84	n/a	n/a	100	n/a	n/a	0.01345	NP Inter
Molybdenum (mg/L)	0.01015	84	n/a	n/a	100	n/a	n/a	0.01345	NP Inter
Selenium (mg/L)	0.001015	84	n/a	n/a	94.05	n/a	n/a	0.01345	NP Inter
Thallium (mg/L)	0.000203	84	n/a	n/a	100	n/a	n/a	0.01345	NP Inter

BARRY ASH POND GWPS			
Analyte	Units	Background	GWPS
Antimony	mg/L	0.001015	0.006
Arsenic	mg/L	0.0017	0.01
Barium	mg/L	0.183	2
Beryllium	mg/L	0.001015	0.004
Cadmium	mg/L	0.000203	0.005
Chromium	mg/L	0.00604	0.1
Cobalt	mg/L	0.0157	0.0157
Combined Radium-226/228	pCi/L	3	5
Fluoride	mg/L	0.125	4
Lead	mg/L	0.00126	0.015
Lithium	mg/L	0.02	0.04
Mercury	mg/L	0.0005	0.002
Molybdenum	mg/L	0.01015	0.1
Selenium	mg/L	0.001015	0.05
Thallium	mg/L	0.000203	0.002

Notes:

1. mg/L - Milligrams per liter
2. pCi/L - Picocuries per liter
3. The background limits were used as the groundwater protection standard (GWPS) when appropriate under 40 CFR §257.95(h), ADEM Rule 335-13-15-.06(h), and the ADEM Variance.
4. GWPS established during second semi-annual sampling event in 2023.

Confidence Interval Summary Table - Significant Results

Plant Barry Client: Southern Company Data: Barry Ash Pond Printed 10/22/2023, 1:30 PM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig. N	Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Arsenic (mg/L)	BY-AP-MW-1	0.0781	0.05613	0.01	Yes 8	0.06711	0.01036	0	None	No	0.01	Param.
Arsenic (mg/L)	BY-AP-MW-10	0.07833	0.05715	0.01	Yes 8	0.06575	0.01783	0	None	x^4	0.01	Param.
Arsenic (mg/L)	BY-AP-MW-11	0.01656	0.01354	0.01	Yes 8	0.01505	0.00142	0	None	No	0.01	Param.
Arsenic (mg/L)	BY-AP-MW-12	0.0246	0.0218	0.01	Yes 8	0.02356	0.001184	0	None	No	0.004	NP (normality)
Arsenic (mg/L)	BY-AP-MW-14	0.01791	0.01709	0.01	Yes 8	0.0175	0.0003891	0	None	No	0.01	Param.
Arsenic (mg/L)	BY-AP-MW-15	0.01987	0.01763	0.01	Yes 8	0.01875	0.001053	0	None	No	0.01	Param.
Arsenic (mg/L)	BY-AP-MW-16	0.01595	0.01238	0.01	Yes 8	0.01416	0.001683	0	None	No	0.01	Param.
Arsenic (mg/L)	BY-AP-MW-5	0.03705	0.02115	0.01	Yes 8	0.0291	0.0075	0	None	No	0.01	Param.
Arsenic (mg/L)	BY-AP-MW-7	0.02404	0.01216	0.01	Yes 8	0.0181	0.005605	0	None	No	0.01	Param.
Arsenic (mg/L)	BY-AP-MW-8	0.06645	0.03222	0.01	Yes 8	0.04503	0.02712	0	None	x^3	0.01	Param.
Arsenic (mg/L)	BY-AP-MW-9	0.04731	0.02324	0.01	Yes 8	0.03528	0.01135	0	None	No	0.01	Param.
Cobalt (mg/L)	BY-AP-MW-15	0.0385	0.0344	0.0157	Yes 8	0.03558	0.001364	0	None	No	0.004	NP (normality)

Confidence Interval Summary Table - All Results

Plant Barry Client: Southern Company Data: Barry Ash Pond Printed 10/22/2023, 1:30 PM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig. N	Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Arsenic (mg/L)	BY-AP-MW-1	0.0781	0.05613	0.01	Yes 8	0.06711	0.01036	0	None	No	0.01	Param.
Arsenic (mg/L)	BY-AP-MW-10	0.07833	0.05715	0.01	Yes 8	0.06575	0.01783	0	None	x^4	0.01	Param.
Arsenic (mg/L)	BY-AP-MW-11	0.01656	0.01354	0.01	Yes 8	0.01505	0.00142	0	None	No	0.01	Param.
Arsenic (mg/L)	BY-AP-MW-12	0.0246	0.0218	0.01	Yes 8	0.02356	0.001184	0	None	No	0.004	NP (normality)
Arsenic (mg/L)	BY-AP-MW-13	0.01811	0.009774	0.01	No 8	0.01394	0.003934	0	None	No	0.01	Param.
Arsenic (mg/L)	BY-AP-MW-14	0.01791	0.01709	0.01	Yes 8	0.0175	0.0003891	0	None	No	0.01	Param.
Arsenic (mg/L)	BY-AP-MW-15	0.01987	0.01763	0.01	Yes 8	0.01875	0.001053	0	None	No	0.01	Param.
Arsenic (mg/L)	BY-AP-MW-16	0.01595	0.01238	0.01	Yes 8	0.01416	0.001683	0	None	No	0.01	Param.
Arsenic (mg/L)	BY-AP-MW-2	0.001788	0.001277	0.01	No 8	0.001533	0.0002408	0	None	No	0.01	Param.
Arsenic (mg/L)	BY-AP-MW-3	0.00125	0.000102	0.01	No 8	0.0003528	0.0003762	62.5	None	No	0.004	NP (NDs)
Arsenic (mg/L)	BY-AP-MW-4	0.000226	0.000099	0.01	No 8	0.0001828	0.00004497	50	None	No	0.004	NP (normality)
Arsenic (mg/L)	BY-AP-MW-5	0.03705	0.02115	0.01	Yes 8	0.0291	0.0075	0	None	No	0.01	Param.
Arsenic (mg/L)	BY-AP-MW-6	0.000203	0.0001	0.01	No 8	0.0001776	0.00004699	75	None	No	0.004	NP (NDs)
Arsenic (mg/L)	BY-AP-MW-7	0.02404	0.01216	0.01	Yes 8	0.0181	0.005605	0	None	No	0.01	Param.
Arsenic (mg/L)	BY-AP-MW-8	0.06645	0.03222	0.01	Yes 8	0.04503	0.02712	0	None	x^3	0.01	Param.
Arsenic (mg/L)	BY-AP-MW-9	0.04731	0.02324	0.01	Yes 8	0.03528	0.01135	0	None	No	0.01	Param.
Barium (mg/L)	BY-AP-MW-1	0.3423	0.2517	2	No 8	0.297	0.04277	0	None	No	0.01	Param.
Barium (mg/L)	BY-AP-MW-10	0.07494	0.06094	2	No 8	0.06794	0.006603	0	None	No	0.01	Param.
Barium (mg/L)	BY-AP-MW-11	0.09898	0.06567	2	No 8	0.08233	0.01571	0	None	No	0.01	Param.
Barium (mg/L)	BY-AP-MW-12	0.08763	0.07724	2	No 8	0.08244	0.004901	0	None	No	0.01	Param.
Barium (mg/L)	BY-AP-MW-13	0.07966	0.05974	2	No 8	0.0697	0.009394	0	None	No	0.01	Param.
Barium (mg/L)	BY-AP-MW-14	0.07146	0.06144	2	No 8	0.06645	0.004726	0	None	No	0.01	Param.
Barium (mg/L)	BY-AP-MW-15	0.08278	0.07227	2	No 8	0.07753	0.004961	0	None	No	0.01	Param.
Barium (mg/L)	BY-AP-MW-16	0.09974	0.08801	2	No 8	0.09388	0.005532	0	None	No	0.01	Param.
Barium (mg/L)	BY-AP-MW-2	0.02735	0.01877	2	No 8	0.02306	0.004045	0	None	No	0.01	Param.
Barium (mg/L)	BY-AP-MW-3	0.04433	0.02955	2	No 8	0.03694	0.006972	0	None	No	0.01	Param.
Barium (mg/L)	BY-AP-MW-4	0.118	0.0131	2	No 8	0.05844	0.04909	0	None	No	0.004	NP (normality)
Barium (mg/L)	BY-AP-MW-5	0.1592	0.09435	2	No 8	0.127	0.0352	0	None	x^3	0.01	Param.
Barium (mg/L)	BY-AP-MW-6	0.02959	0.02568	2	No 8	0.02764	0.001843	0	None	No	0.01	Param.
Barium (mg/L)	BY-AP-MW-7	0.07303	0.03138	2	No 8	0.05244	0.02263	0	None	x^3	0.01	Param.
Barium (mg/L)	BY-AP-MW-8	0.1509	0.1124	2	No 8	0.1137	0.05688	0	None	x^6	0.01	Param.
Barium (mg/L)	BY-AP-MW-9	0.1281	0.103	2	No 8	0.1155	0.01424	0	None	x^3	0.01	Param.
Beryllium (mg/L)	BY-AP-MW-4	0.001015	0.000432	0.004	No 8	0.000826	0.0002687	62.5	None	No	0.004	NP (NDs)
Cadmium (mg/L)	BY-AP-MW-4	0.000203	0.00009	0.005	No 8	0.0001638	0.00005431	62.5	None	No	0.004	NP (NDs)
Cadmium (mg/L)	BY-AP-MW-6	0.00031	0.000068	0.005	No 8	0.0001829	0.00007939	62.5	None	No	0.004	NP (NDs)
Chromium (mg/L)	BY-AP-MW-1	0.004863	0.002233	0.1	No 8	0.00352	0.001346	0	None	sqrt(x)	0.01	Param.
Chromium (mg/L)	BY-AP-MW-10	0.0007063	0.0005569	0.1	No 8	0.0007285	0.0001911	25	Kaplan-Meier	sqrt(x)	0.01	Param.
Chromium (mg/L)	BY-AP-MW-11	0.004	0.002355	0.1	No 8	0.003178	0.0007755	0	None	No	0.01	Param.
Chromium (mg/L)	BY-AP-MW-12	0.004933	0.003194	0.1	No 8	0.004064	0.0008202	0	None	No	0.01	Param.
Chromium (mg/L)	BY-AP-MW-13	0.009055	0.005475	0.1	No 8	0.007245	0.001998	0	None	x^2	0.01	Param.
Chromium (mg/L)	BY-AP-MW-14	0.004468	0.003172	0.1	No 8	0.00382	0.0006112	0	None	No	0.01	Param.
Chromium (mg/L)	BY-AP-MW-15	0.000604	0.0003785	0.1	No 8	0.0006229	0.0002638	25	Kaplan-Meier	sqrt(x)	0.01	Param.
Chromium (mg/L)	BY-AP-MW-16	0.001669	0.001073	0.1	No 8	0.001371	0.0003005	25	Kaplan-Meier	No	0.01	Param.
Chromium (mg/L)	BY-AP-MW-2	0.00102	0.000206	0.1	No 8	0.000641	0.0003733	37.5	None	No	0.004	NP (normality)
Chromium (mg/L)	BY-AP-MW-3	0.001024	0.0006013	0.1	No 8	0.0008847	0.0002194	25	Kaplan-Meier	x^4	0.01	Param.
Chromium (mg/L)	BY-AP-MW-4	0.0007516	0.0003624	0.1	No 8	0.0006727	0.0002736	25	Kaplan-Meier	No	0.01	Param.
Chromium (mg/L)	BY-AP-MW-5	0.00103	0.000894	0.1	No 8	0.0009814	0.00005716	37.5	None	No	0.004	NP (normality)
Chromium (mg/L)	BY-AP-MW-6	0.00102	0.00023	0.1	No 8	0.0004626	0.0003448	25	None	No	0.004	NP (normality)
Chromium (mg/L)	BY-AP-MW-7	0.002897	0.0001035	0.1	No 8	0.001791	0.002322	37.5	Kaplan-Meier	x^(1/3)	0.01	Param.
Chromium (mg/L)	BY-AP-MW-8	0.001491	0.0007243	0.1	No 8	0.001161	0.000334	25	Kaplan-Meier	No	0.01	Param.
Chromium (mg/L)	BY-AP-MW-9	0.0008183	0.0005664	0.1	No 8	0.0007742	0.0001874	25	Kaplan-Meier	No	0.01	Param.
Cobalt (mg/L)	BY-AP-MW-1	0.005	0.000897	0.0157	No 8	0.002008	0.001852	25	None	No	0.004	NP (normality)
Cobalt (mg/L)	BY-AP-MW-10	0.005	0.00054	0.0157	No 8	0.001708	0.002032	25	None	No	0.004	NP (normality)
Cobalt (mg/L)	BY-AP-MW-11	0.005	0.000946	0.0157	No 8	0.002242	0.001781	25	None	No	0.004	NP (normality)
Cobalt (mg/L)	BY-AP-MW-12	0.004099	0.003179	0.0157	No 8	0.003639	0.0004342	0	None	No	0.01	Param.

Confidence Interval Summary Table - All Results

Plant Barry Client: Southern Company Data: Barry Ash Pond Printed 10/22/2023, 1:30 PM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig. N	Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Cobalt (mg/L)	BY-AP-MW-13	0.002149	0.0008931	0.0157	No 8	0.002385	0.001718	25	Kaplan-Meier	sqrt(x)	0.01	Param.
Cobalt (mg/L)	BY-AP-MW-14	0.005	0.00119	0.0157	No 8	0.002172	0.001745	25	None	No	0.004	NP (normality)
Cobalt (mg/L)	BY-AP-MW-15	0.0385	0.0344	0.0157	Yes 8	0.03558	0.001364	0	None	No	0.004	NP (normality)
Cobalt (mg/L)	BY-AP-MW-16	0.01952	0.007449	0.0157	No 8	0.01348	0.005693	0	None	No	0.01	Param.
Cobalt (mg/L)	BY-AP-MW-2	0.007597	0.004413	0.0157	No 8	0.006005	0.001502	0	None	No	0.01	Param.
Cobalt (mg/L)	BY-AP-MW-3	0.005	0.000108	0.0157	No 8	0.001375	0.002238	25	None	No	0.004	NP (normality)
Cobalt (mg/L)	BY-AP-MW-4	0.01351	0.002523	0.0157	No 8	0.00791	0.007141	0	None	ln(x)	0.01	Param.
Cobalt (mg/L)	BY-AP-MW-5	0.00192	0.001039	0.0157	No 8	0.002794	0.001858	37.5	Kaplan-Meier	ln(x)	0.01	Param.
Cobalt (mg/L)	BY-AP-MW-6	0.005	0.000584	0.0157	No 8	0.00176	0.002004	25	None	No	0.004	NP (normality)
Cobalt (mg/L)	BY-AP-MW-7	0.02183	0.005881	0.0157	No 8	0.0139	0.008445	0	None	x^2	0.01	Param.
Cobalt (mg/L)	BY-AP-MW-8	0.0009974	0.0002687	0.0157	No 8	0.002248	0.002288	37.5	Kaplan-Meier	ln(x)	0.01	Param.
Cobalt (mg/L)	BY-AP-MW-9	0.005	0.000514	0.0157	No 8	0.001758	0.002002	25	None	No	0.004	NP (normality)
Combined Radium 226 + 228 (pCi/L)	BY-AP-MW-1	2.74	1.73	5	No 8	2.235	0.4766	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	BY-AP-MW-10	1.323	0.8673	5	No 8	1.095	0.215	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	BY-AP-MW-11	1.15	0.452	5	No 8	0.7211	0.3172	0	None	No	0.004	NP (normality)
Combined Radium 226 + 228 (pCi/L)	BY-AP-MW-12	1.581	0.8801	5	No 8	1.231	0.3308	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	BY-AP-MW-13	1.371	0.6273	5	No 8	0.999	0.3506	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	BY-AP-MW-14	1.127	0.5857	5	No 8	0.8561	0.2551	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	BY-AP-MW-15	1.647	0.6407	5	No 8	1.144	0.4746	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	BY-AP-MW-16	1.383	0.3998	5	No 8	0.8915	0.4639	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	BY-AP-MW-2	0.7174	0.2979	5	No 8	0.5076	0.1979	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	BY-AP-MW-3	1.335	0.2921	5	No 8	0.7928	0.5385	0	None	sqrt(x)	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	BY-AP-MW-4	1.368	0.4581	5	No 8	0.9129	0.4291	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	BY-AP-MW-5	2.136	0.6801	5	No 8	1.408	0.6866	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	BY-AP-MW-6	1.46	0.3329	5	No 8	0.8966	0.5318	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	BY-AP-MW-7	1.175	0.4469	5	No 8	0.8109	0.3434	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	BY-AP-MW-8	1.242	0.3612	5	No 8	0.8018	0.4157	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	BY-AP-MW-9	1.663	0.544	5	No 8	1.104	0.5279	0	None	No	0.01	Param.
Fluoride, total (mg/L)	BY-AP-MW-1	0.194	0.0612	4	No 8	0.1019	0.05355	0	None	No	0.004	NP (normality)
Fluoride, total (mg/L)	BY-AP-MW-10	0.125	0.0794	4	No 8	0.1168	0.01665	75	None	No	0.004	NP (NDs)
Fluoride, total (mg/L)	BY-AP-MW-11	0.1117	0.06816	4	No 8	0.08995	0.02056	0	None	No	0.01	Param.
Fluoride, total (mg/L)	BY-AP-MW-12	0.0889	0.0659	4	No 8	0.0774	0.01085	0	None	No	0.01	Param.
Fluoride, total (mg/L)	BY-AP-MW-13	0.187	0.0641	4	No 8	0.09623	0.04235	0	None	No	0.004	NP (normality)
Fluoride, total (mg/L)	BY-AP-MW-14	0.1074	0.06438	4	No 8	0.08591	0.02031	0	None	No	0.01	Param.
Fluoride, total (mg/L)	BY-AP-MW-15	0.26	0.171	4	No 8	0.1969	0.03079	0	None	No	0.004	NP (normality)
Fluoride, total (mg/L)	BY-AP-MW-16	0.1181	0.06397	4	No 8	0.1014	0.02921	25	Kaplan-Meier	No	0.01	Param.
Fluoride, total (mg/L)	BY-AP-MW-2	0.125	0.0705	4	No 8	0.1115	0.02509	75	Kaplan-Meier	No	0.004	NP (NDs)
Fluoride, total (mg/L)	BY-AP-MW-5	0.0964	0.0557	4	No 8	0.0709	0.01526	25	None	No	0.004	NP (normality)
Fluoride, total (mg/L)	BY-AP-MW-7	0.2248	0.07244	4	No 8	0.1476	0.1007	0	None	ln(x)	0.01	Param.
Fluoride, total (mg/L)	BY-AP-MW-8	0.125	0.0701	4	No 8	0.09913	0.02572	37.5	None	No	0.004	NP (normality)
Fluoride, total (mg/L)	BY-AP-MW-9	0.0808	0.0625	4	No 8	0.07486	0.00747	12.5	None	No	0.004	NP (normality)
Lead (mg/L)	BY-AP-MW-1	0.000206	0.000092	0.015	No 8	0.0001794	0.0000454	62.5	None	No	0.004	NP (NDs)
Lead (mg/L)	BY-AP-MW-11	0.0001155	0.00007254	0.015	No 8	0.0001348	0.0000593	37.5	Kaplan-Meier	ln(x)	0.01	Param.
Lead (mg/L)	BY-AP-MW-12	0.000572	0.00018	0.015	No 8	0.0002725	0.0001313	50	None	No	0.004	NP (normality)
Lead (mg/L)	BY-AP-MW-13	0.000203	0.00008	0.015	No 8	0.0001618	0.0000499	50	None	No	0.004	NP (normality)
Lead (mg/L)	BY-AP-MW-14	0.000229	0.0000764	0.015	No 8	0.0001368	0.00006333	25	None	No	0.004	NP (normality)
Lead (mg/L)	BY-AP-MW-16	0.000206	0.000191	0.015	No 8	0.0002019	0.00004518	75	None	No	0.004	NP (NDs)
Lead (mg/L)	BY-AP-MW-4	0.0001665	0.0000862	0.015	No 8	0.0001455	0.00004988	25	Kaplan-Meier	No	0.01	Param.
Lead (mg/L)	BY-AP-MW-6	0.0112	0.00148	0.015	No 8	0.003181	0.00331	0	None	No	0.004	NP (normality)
Lead (mg/L)	BY-AP-MW-8	0.000203	0.000081	0.015	No 8	0.0001878	0.00004313	87.5	None	No	0.004	NP (NDs)
Lithium (mg/L)	BY-AP-MW-11	0.02978	0.01091	0.04	No 8	0.02213	0.007932	25	Kaplan-Meier	No	0.01	Param.
Lithium (mg/L)	BY-AP-MW-15	0.01714	0.008986	0.04	No 8	0.0148	0.004795	25	Kaplan-Meier	No	0.01	Param.
Lithium (mg/L)	BY-AP-MW-7	0.0882	0.0102	0.04	No 8	0.0273	0.02485	75	Kaplan-Meier	No	0.004	NP (NDs)
Molybdenum (mg/L)	BY-AP-MW-1	0.01015	0.00008	0.1	No 8	0.007636	0.004655	75	None	No	0.004	NP (NDs)
Molybdenum (mg/L)	BY-AP-MW-11	0.01015	0.000972	0.1	No 8	0.006389	0.004368	50	None	No	0.004	NP (normality)

Confidence Interval Summary Table - All Results

Plant Barry Client: Southern Company Data: Barry Ash Pond Printed 10/22/2023, 1:30 PM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig. N	Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Molybdenum (mg/L)	BY-AP-MW-12	0.01015	0.000942	0.1	No 8	0.005571	0.004895	50	None	No	0.004	NP (normality)
Molybdenum (mg/L)	BY-AP-MW-13	0.0108	0.00043	0.1	No 8	0.006441	0.00449	37.5	None	No	0.004	NP (normality)
Molybdenum (mg/L)	BY-AP-MW-14	0.01015	0.00052	0.1	No 8	0.005374	0.005106	50	None	No	0.004	NP (normality)
Molybdenum (mg/L)	BY-AP-MW-15	0.01015	0.00171	0.1	No 8	0.00498	0.004283	37.5	None	No	0.004	NP (normality)
Molybdenum (mg/L)	BY-AP-MW-16	0.01015	0.000136	0.1	No 8	0.008898	0.00354	87.5	None	No	0.004	NP (NDs)
Molybdenum (mg/L)	BY-AP-MW-5	0.01015	0.00011	0.1	No 8	0.006416	0.005155	62.5	None	No	0.004	NP (NDs)
Molybdenum (mg/L)	BY-AP-MW-6	0.01015	0.00011	0.1	No 8	0.00516	0.005335	50	None	No	0.004	NP (normality)
Molybdenum (mg/L)	BY-AP-MW-7	0.01015	0.00018	0.1	No 8	0.005508	0.005041	50	None	No	0.004	NP (normality)
Molybdenum (mg/L)	BY-AP-MW-8	0.01015	0.00019	0.1	No 8	0.005197	0.005296	50	None	No	0.004	NP (normality)
Molybdenum (mg/L)	BY-AP-MW-9	0.01015	0.000157	0.1	No 8	0.005178	0.005315	50	None	No	0.004	NP (normality)
Selenium (mg/L)	BY-AP-MW-13	0.001015	0.00056	0.05	No 8	0.0008638	0.0002106	62.5	None	No	0.004	NP (NDs)

Trend Tests (Confidence Interval Exceedances) - Significant Results

Plant Barry Client: Southern Company Data: Barry Ash Pond Printed 10/22/2023, 1:42 PM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
Arsenic (mg/L)	BY-AP-MW-10	0.007782	130	71	Yes	22	0	n/a	n/a	0.05	NP
Arsenic (mg/L)	BY-AP-MW-14	0.0009533	156	66	Yes	21	0	n/a	n/a	0.05	NP
Arsenic (mg/L)	BY-AP-MW-15	0.0003814	112	66	Yes	21	0	n/a	n/a	0.05	NP
Arsenic (mg/L)	BY-AP-MW-16	0.000693	122	66	Yes	21	0	n/a	n/a	0.05	NP
Arsenic (mg/L)	BY-AP-MW-8	0.003354	71	66	Yes	21	0	n/a	n/a	0.05	NP
Cobalt (mg/L)	BY-AP-MW-15	0.00137	143	66	Yes	21	0	n/a	n/a	0.05	NP
Cobalt (mg/L)	BY-UP-MW-2 (bg)	-0.0004787	-152	-66	Yes	21	42.86	n/a	n/a	0.05	NP
Cobalt (mg/L)	BY-UP-MW-3 (bg)	0	-95	-66	Yes	21	71.43	n/a	n/a	0.05	NP
Cobalt (mg/L)	BY-UP-MW-4 (bg)	0	-85	-66	Yes	21	71.43	n/a	n/a	0.05	NP

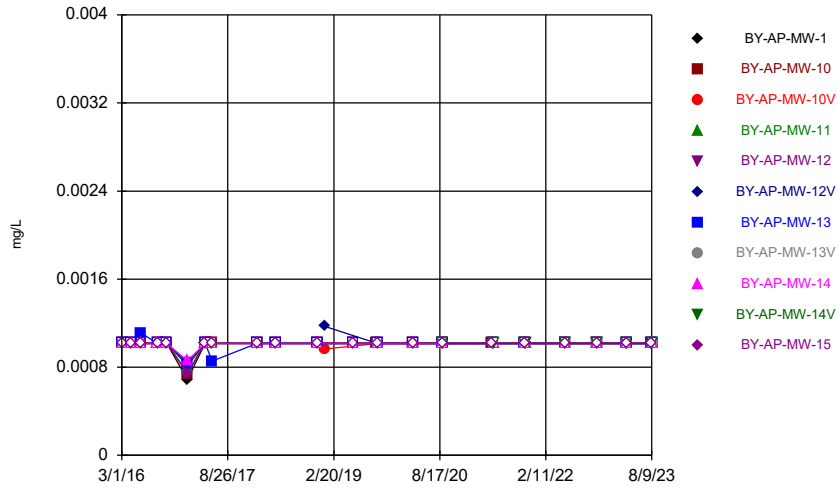
Trend Tests (Confidence Interval Exceedances) - All Results

Plant Barry Client: Southern Company Data: Barry Ash Pond Printed 10/22/2023, 1:42 PM

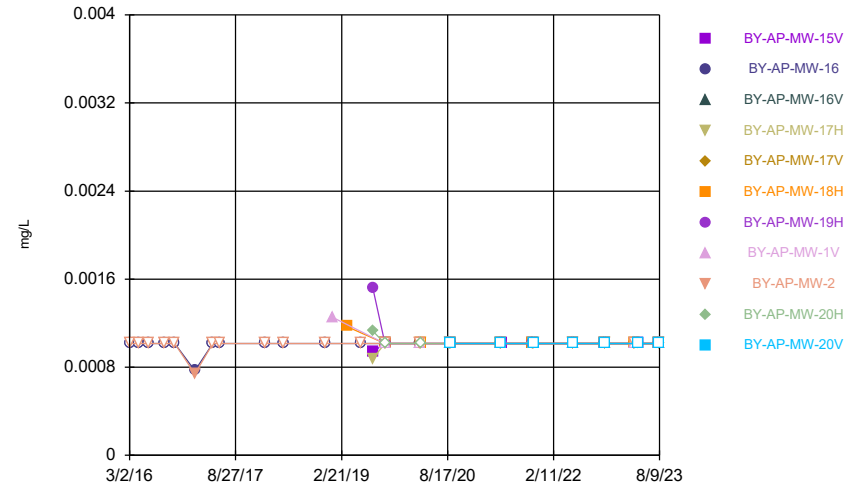
Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
Arsenic (mg/L)	BY-AP-MW-1	-0.0003887	-27	-66	No	21	0	n/a	n/a	0.05	NP
Arsenic (mg/L)	BY-AP-MW-10	0.007782	130	71	Yes	22	0	n/a	n/a	0.05	NP
Arsenic (mg/L)	BY-AP-MW-11	0.000207	40	66	No	21	0	n/a	n/a	0.05	NP
Arsenic (mg/L)	BY-AP-MW-12	0.0001874	63	66	No	21	0	n/a	n/a	0.05	NP
Arsenic (mg/L)	BY-AP-MW-14	0.0009533	156	66	Yes	21	0	n/a	n/a	0.05	NP
Arsenic (mg/L)	BY-AP-MW-15	0.0003814	112	66	Yes	21	0	n/a	n/a	0.05	NP
Arsenic (mg/L)	BY-AP-MW-16	0.000693	122	66	Yes	21	0	n/a	n/a	0.05	NP
Arsenic (mg/L)	BY-AP-MW-5	0.0001147	6	62	No	20	0	n/a	n/a	0.05	NP
Arsenic (mg/L)	BY-AP-MW-7	-0.0002797	-28	-66	No	21	0	n/a	n/a	0.05	NP
Arsenic (mg/L)	BY-AP-MW-8	0.003354	71	66	Yes	21	0	n/a	n/a	0.05	NP
Arsenic (mg/L)	BY-AP-MW-9	0.00009057	2	66	No	21	0	n/a	n/a	0.05	NP
Arsenic (mg/L)	BY-UP-MW-1 (bg)	0	51	66	No	21	71.43	n/a	n/a	0.05	NP
Arsenic (mg/L)	BY-UP-MW-2 (bg)	0	-40	-66	No	21	76.19	n/a	n/a	0.05	NP
Arsenic (mg/L)	BY-UP-MW-3 (bg)	0	-12	-66	No	21	95.24	n/a	n/a	0.05	NP
Arsenic (mg/L)	BY-UP-MW-4 (bg)	0	-13	-66	No	21	66.67	n/a	n/a	0.05	NP
Cobalt (mg/L)	BY-AP-MW-15	0.00137	143	66	Yes	21	0	n/a	n/a	0.05	NP
Cobalt (mg/L)	BY-UP-MW-1 (bg)	0.00009261	30	66	No	21	0	n/a	n/a	0.05	NP
Cobalt (mg/L)	BY-UP-MW-2 (bg)	-0.0004787	-152	-66	Yes	21	42.86	n/a	n/a	0.05	NP
Cobalt (mg/L)	BY-UP-MW-3 (bg)	0	-95	-66	Yes	21	71.43	n/a	n/a	0.05	NP
Cobalt (mg/L)	BY-UP-MW-4 (bg)	0	-85	-66	Yes	21	71.43	n/a	n/a	0.05	NP

FIGURE A.

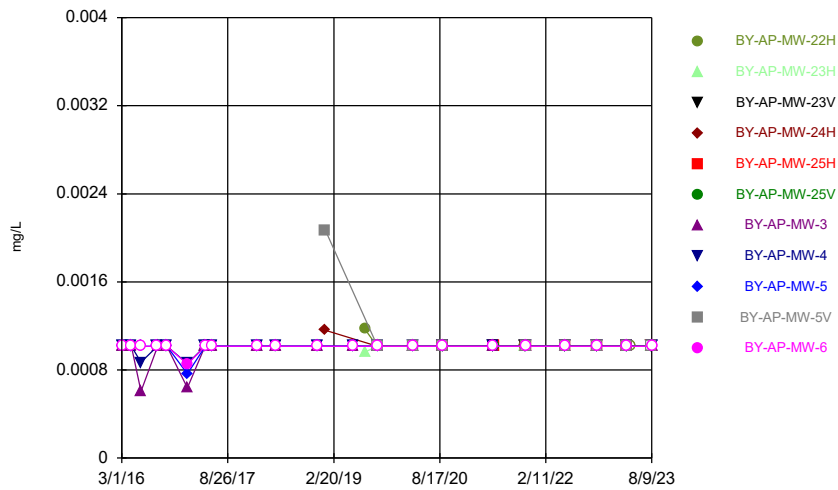
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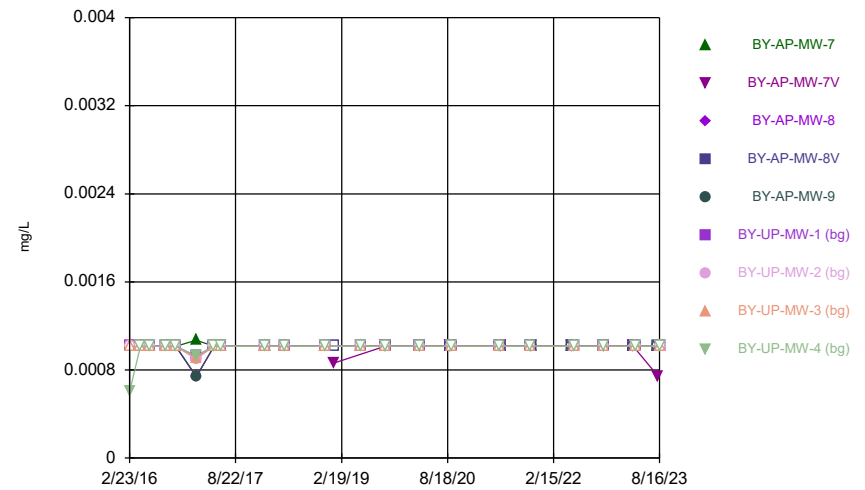
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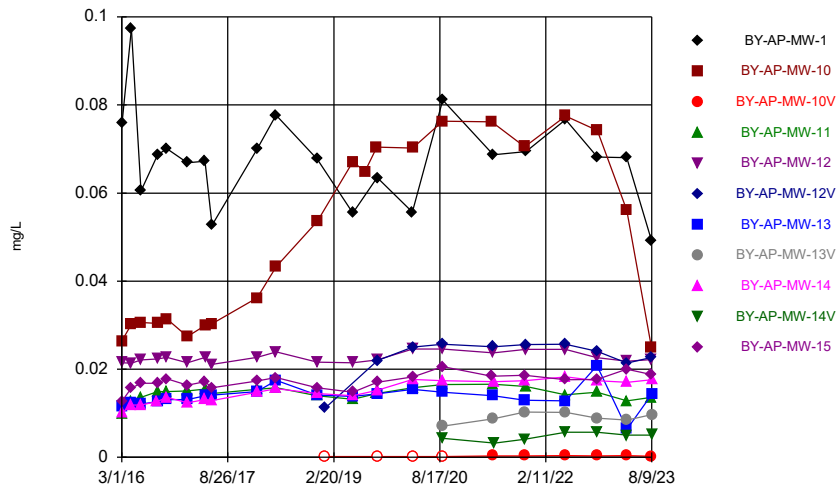
Time Series



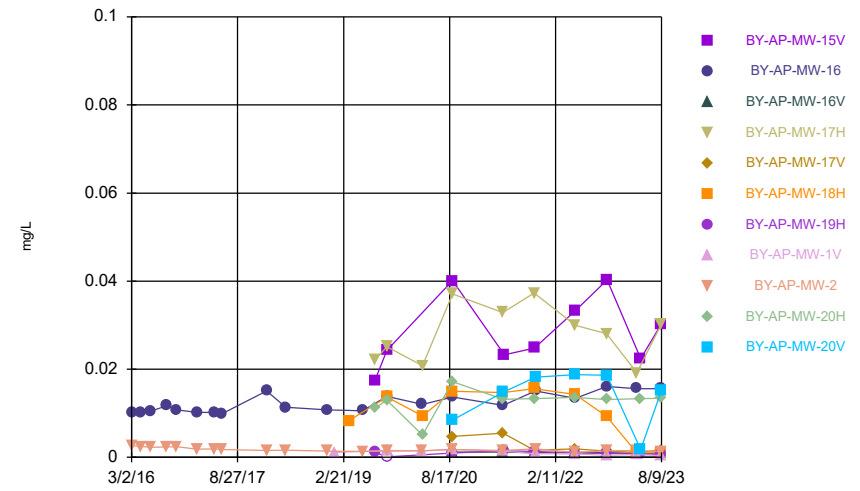
Time Series



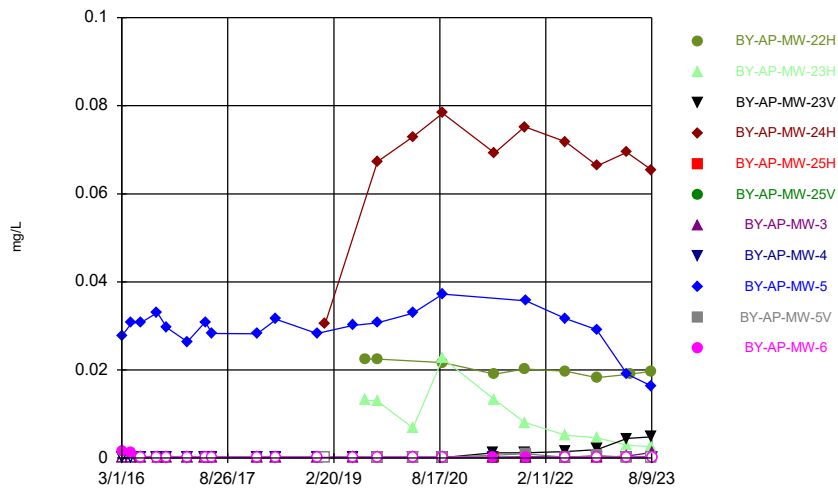
Time Series



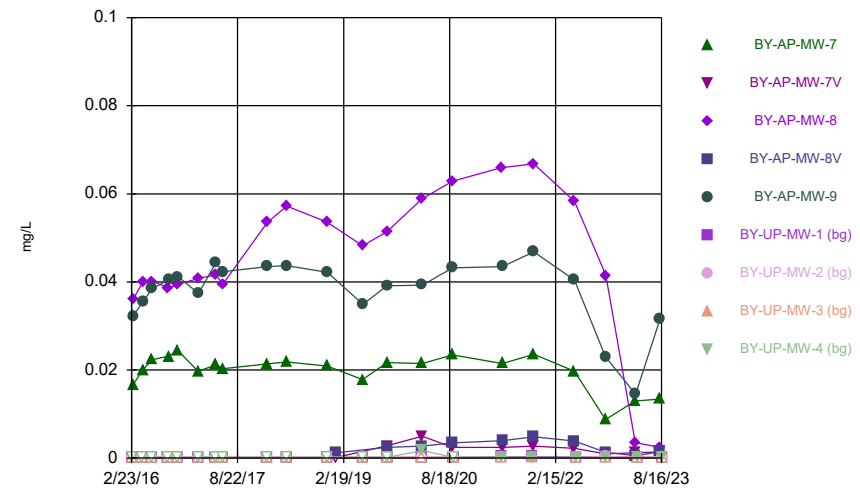
Time Series



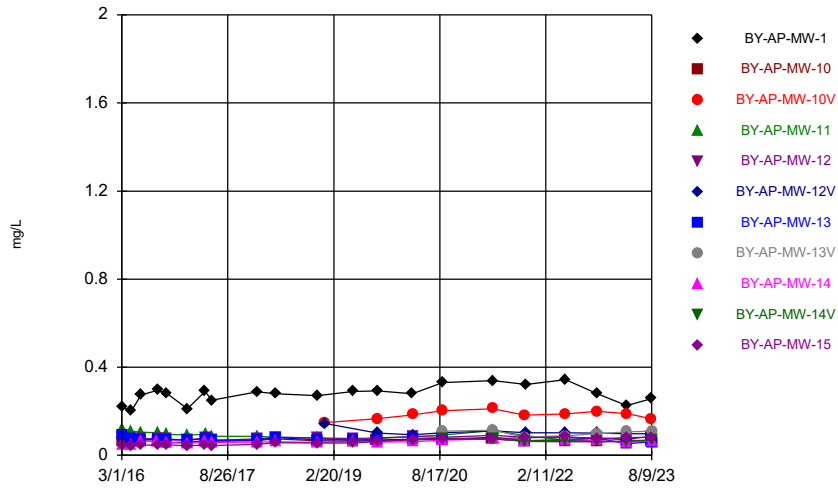
Time Series



Time Series

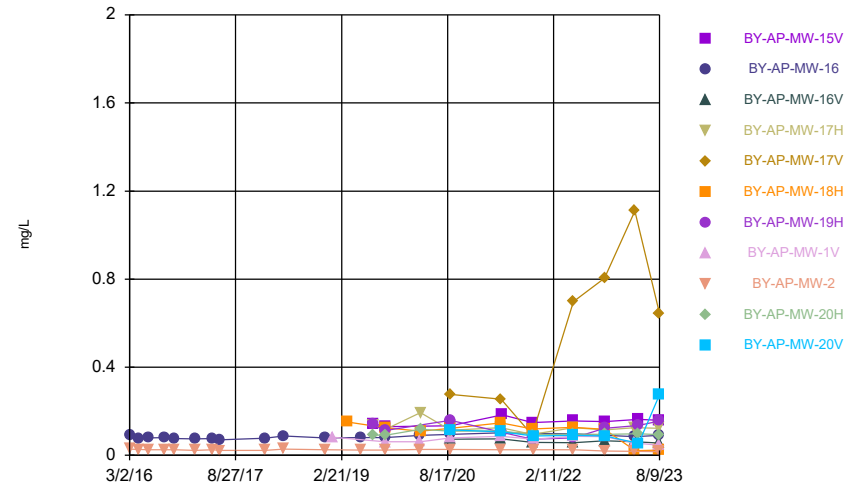


Time Series



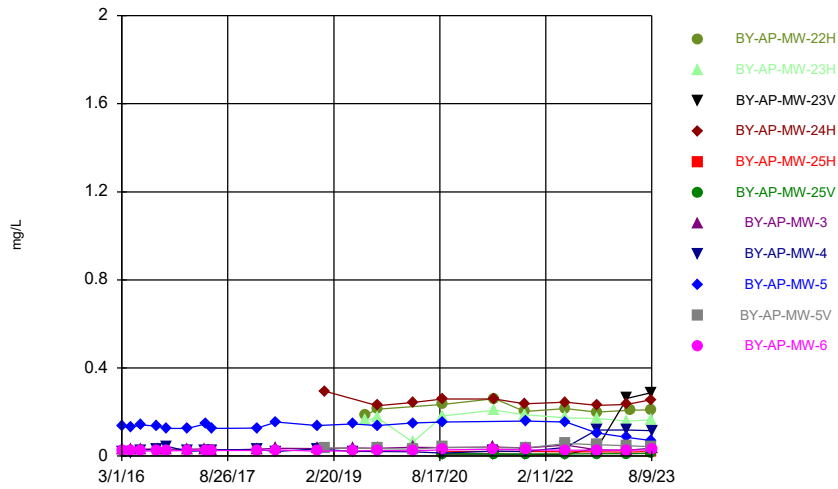
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Plant Barry Client: Southern Company Data: Barry Ash Pond

Time Series



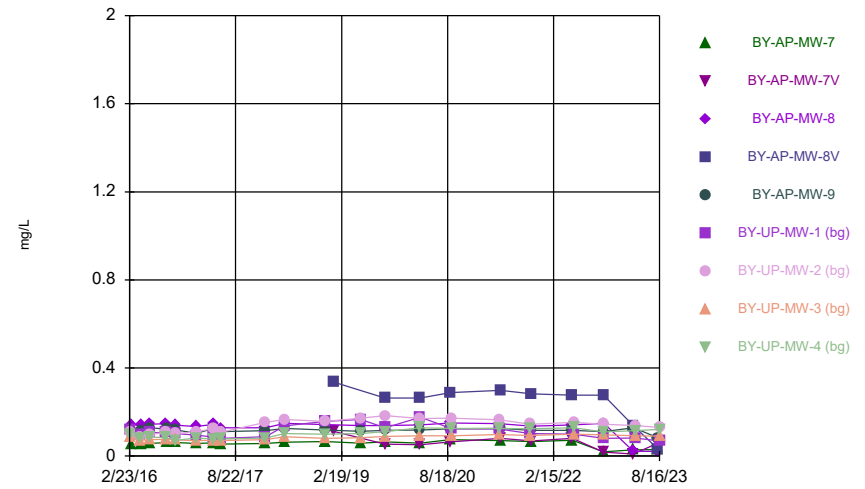
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Plant Barry Client: Southern Company Data: Barry Ash Pond

Time Series



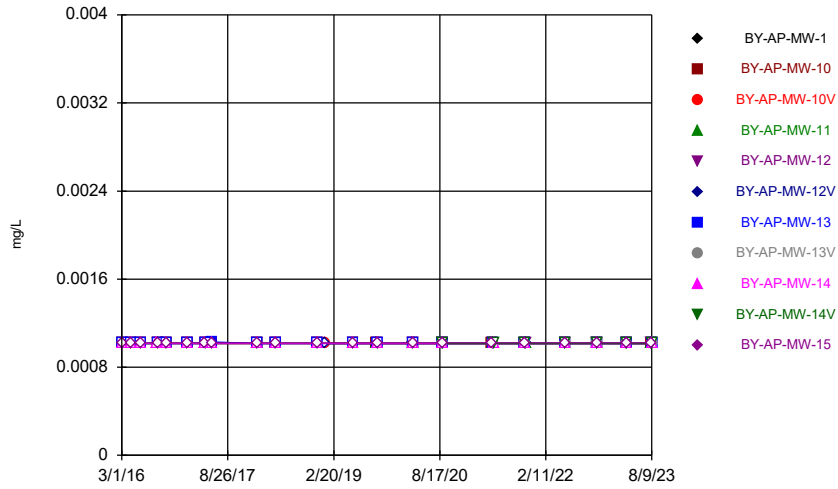
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Plant Barry Client: Southern Company Data: Barry Ash Pond

Time Series



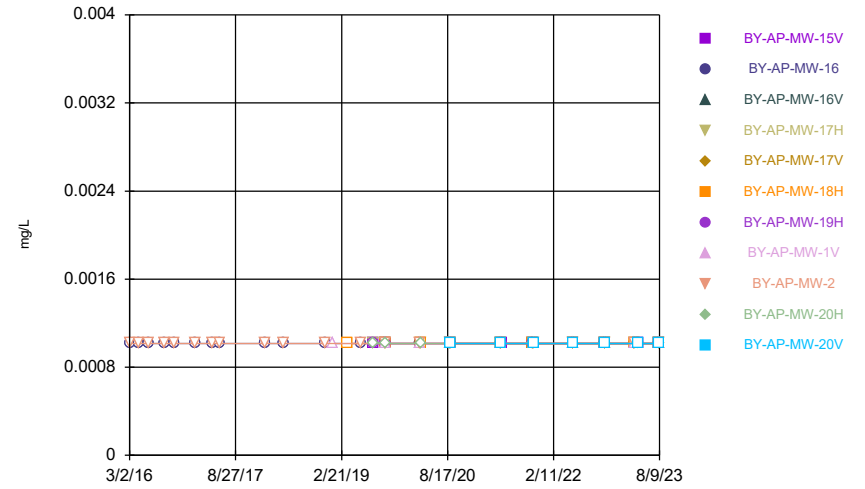
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Plant Barry Client: Southern Company Data: Barry Ash Pond

Time Series



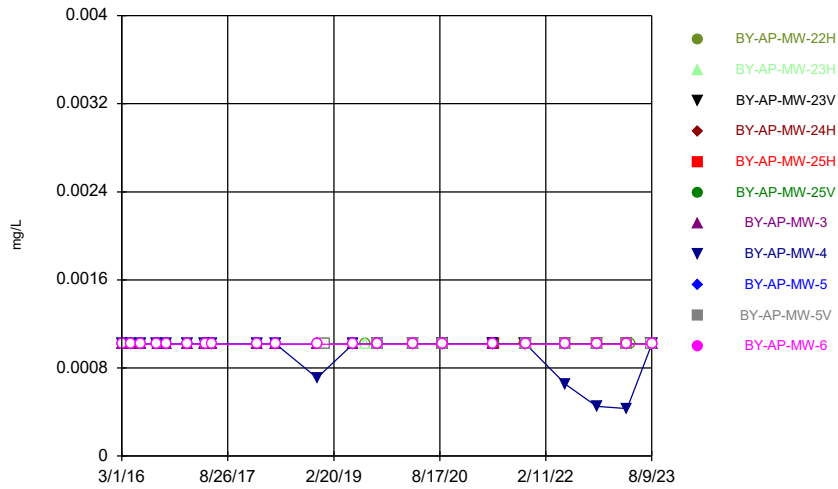
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Plant Barry Client: Southern Company Data: Barry Ash Pond

Time Series



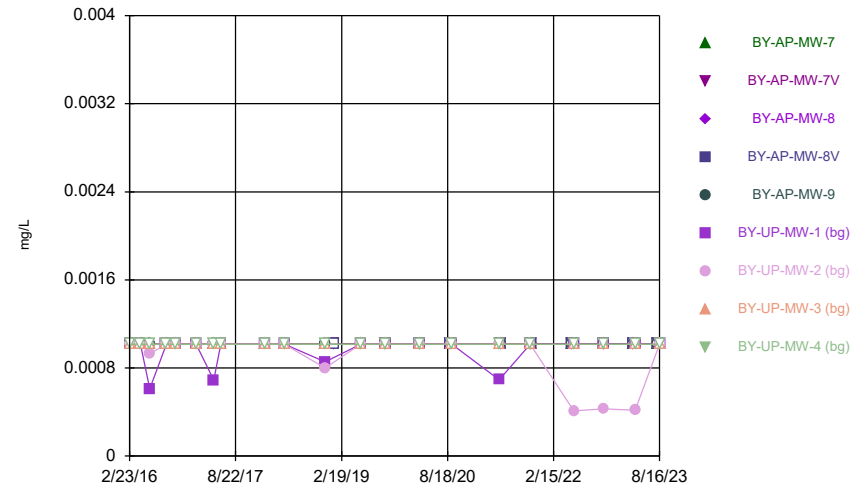
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Plant Barry Client: Southern Company Data: Barry Ash Pond

Time Series



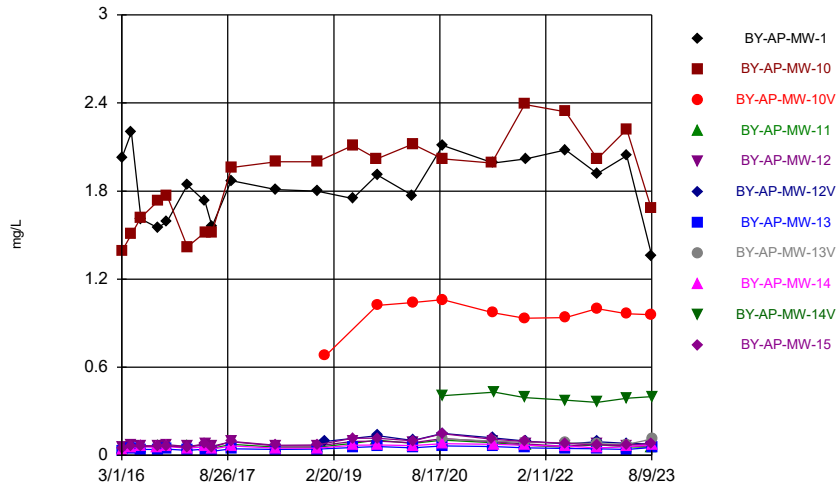
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Time Series



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Plant Barry Client: Southern Company Data: Barry Ash Pond

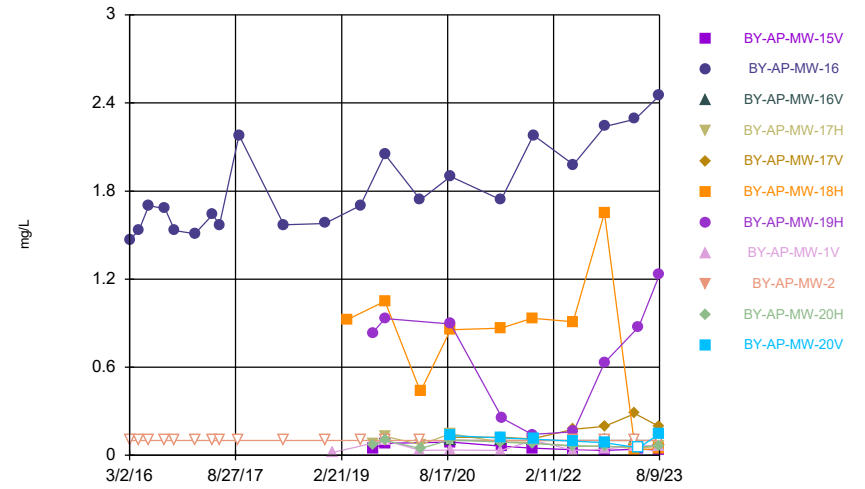
Time Series



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Hollow symbols indicate censored values.

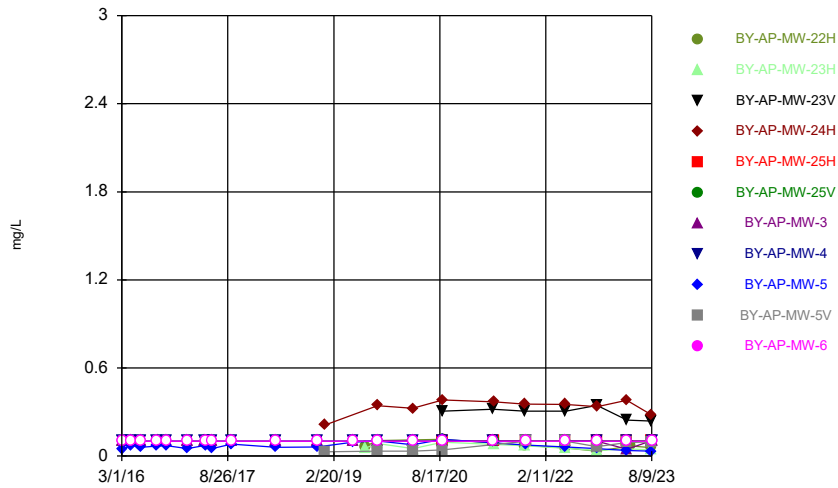
Time Series



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 Plant Barry Client: Southern Company Data: Barry Ash Pond

Hollow symbols indicate censored values.

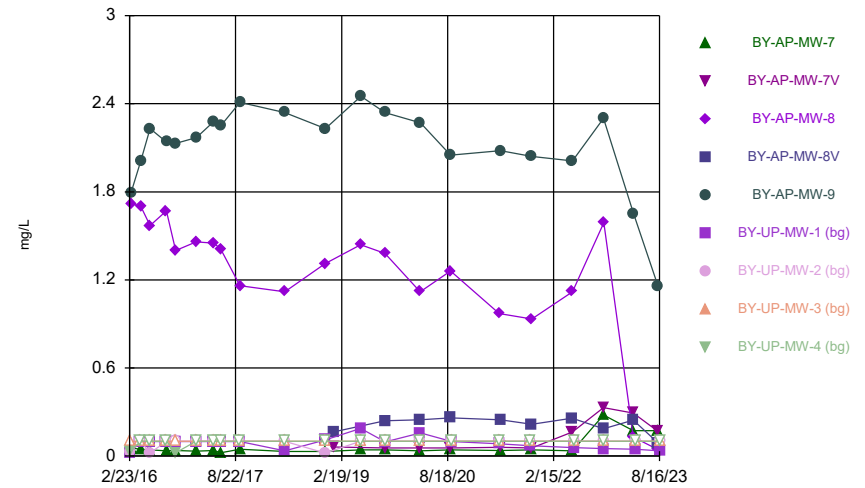
Time Series



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 Plant Barry Client: Southern Company Data: Barry Ash Pond

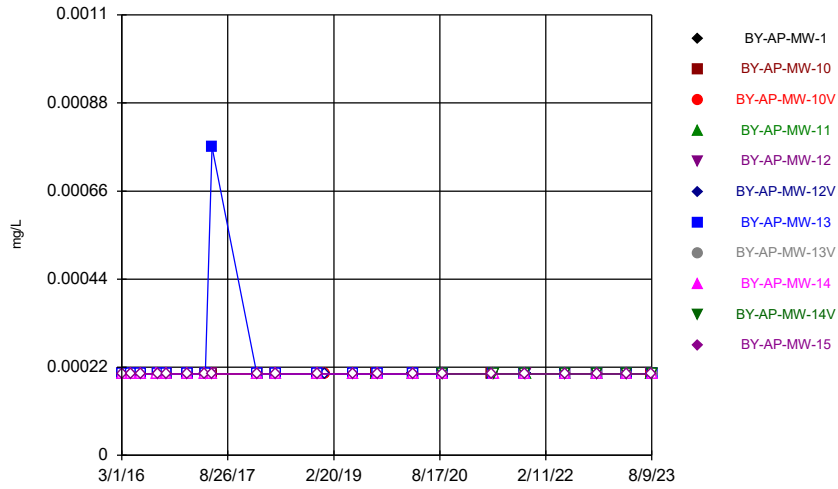
Hollow symbols indicate censored values.

Time Series

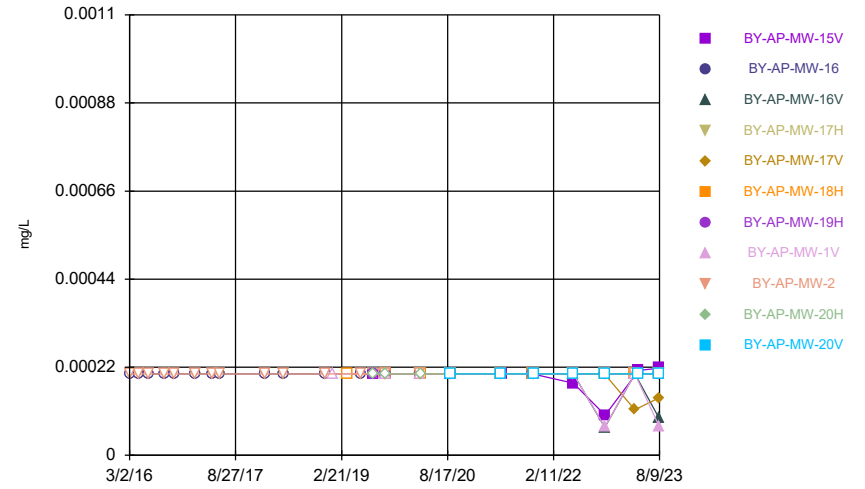


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 Plant Barry Client: Southern Company Data: Barry Ash Pond

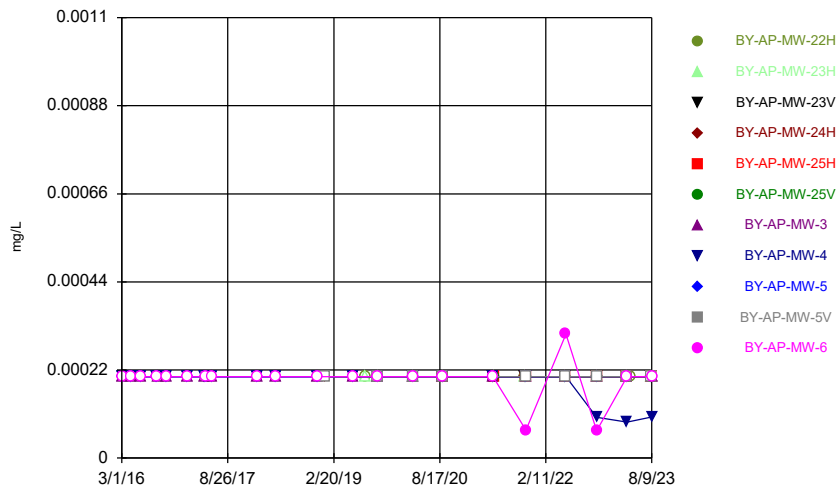
Time Series



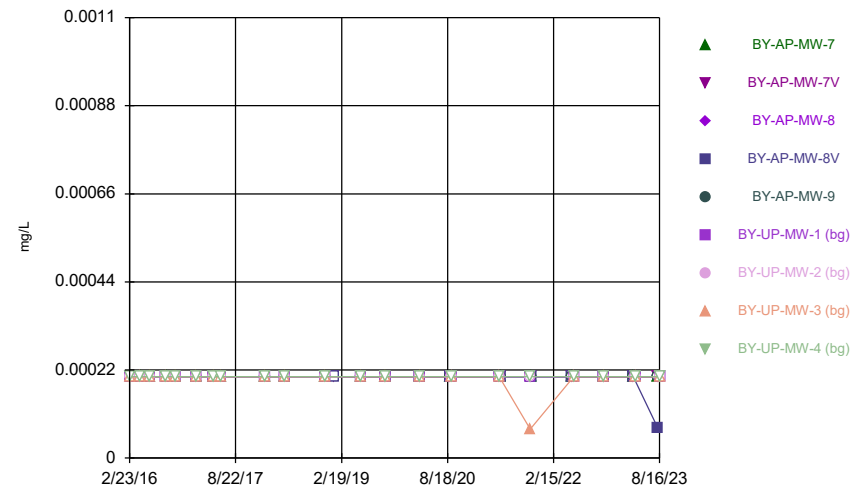
Time Series



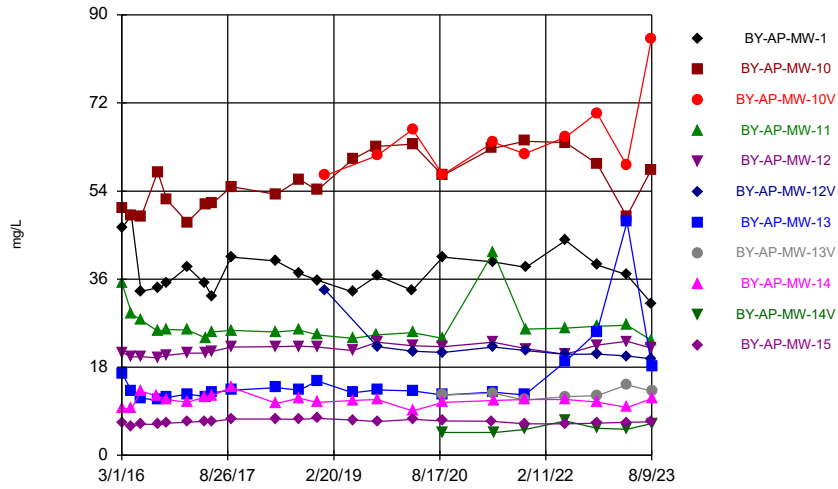
Time Series



Time Series

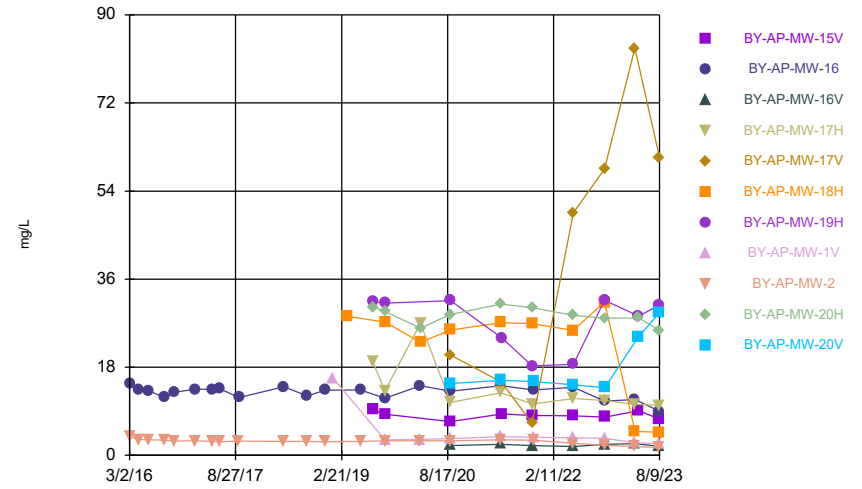


Time Series



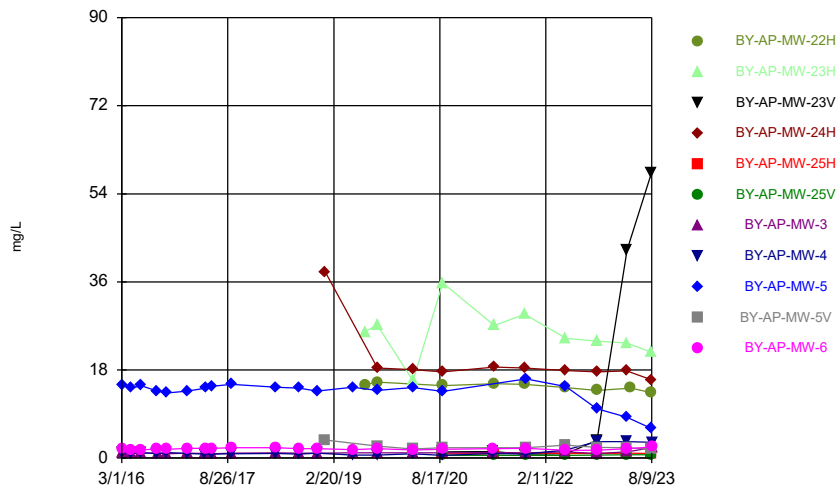
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Plant Barry Client: Southern Company Data: Barry Ash Pond

Time Series



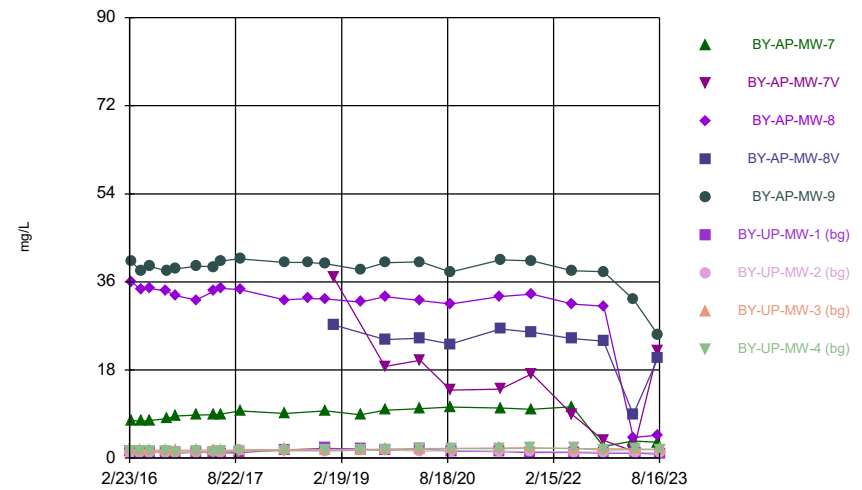
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Plant Barry Client: Southern Company Data: Barry Ash Pond

Time Series



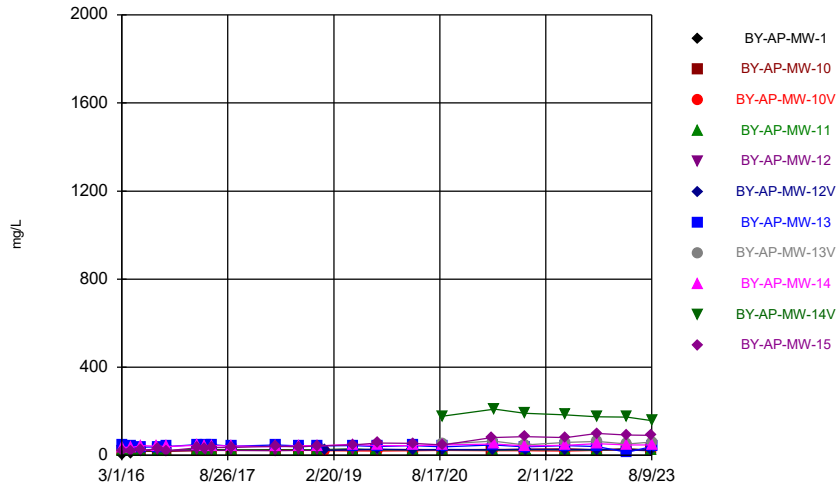
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Plant Barry Client: Southern Company Data: Barry Ash Pond

Time Series



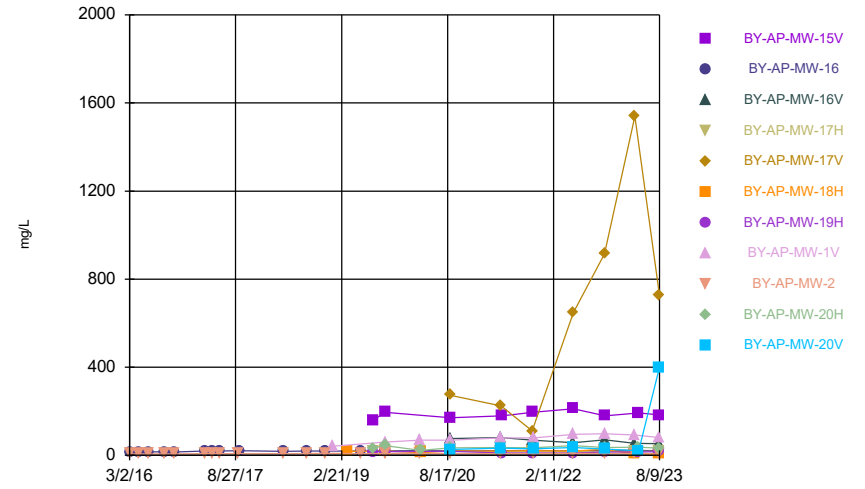
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Plant Barry Client: Southern Company Data: Barry Ash Pond

Time Series



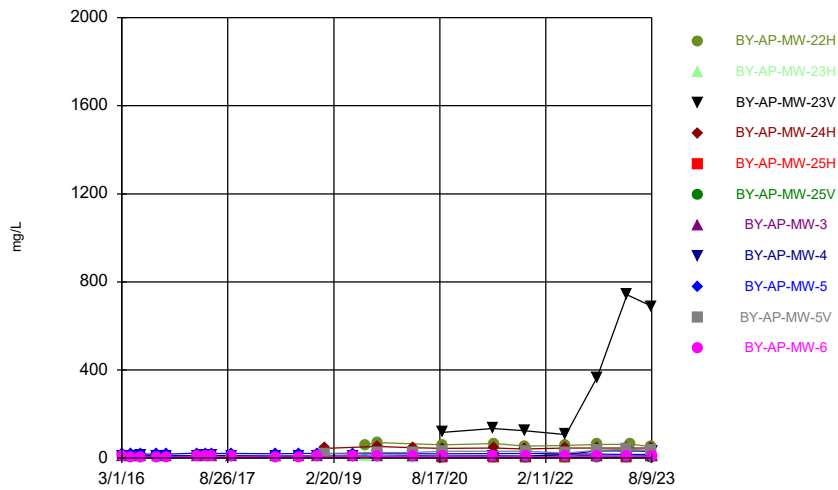
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 Plant Barry Client: Southern Company Data: Barry Ash Pond

Time Series



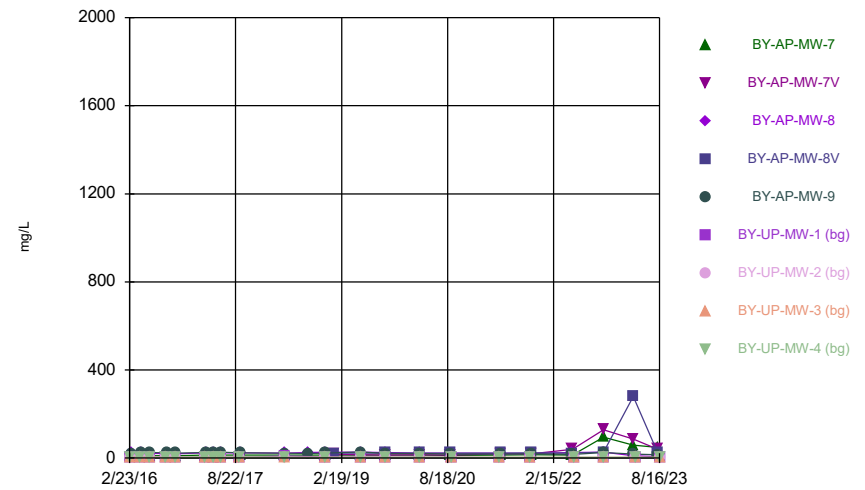
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 Plant Barry Client: Southern Company Data: Barry Ash Pond

Time Series



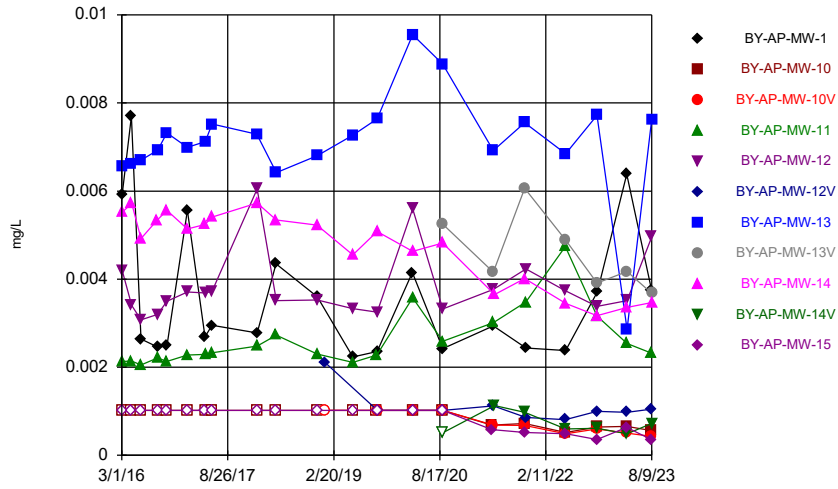
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 Plant Barry Client: Southern Company Data: Barry Ash Pond

Time Series



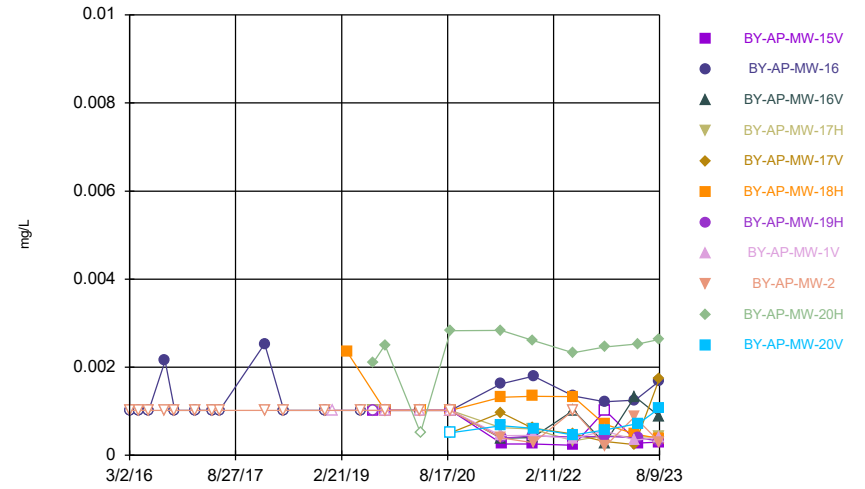
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 Plant Barry Client: Southern Company Data: Barry Ash Pond

Time Series



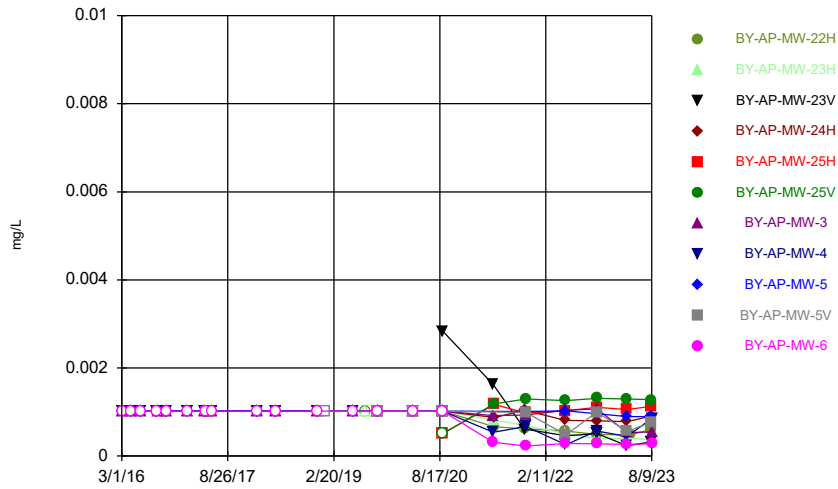
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Plant Barry Client: Southern Company Data: Barry Ash Pond

Time Series



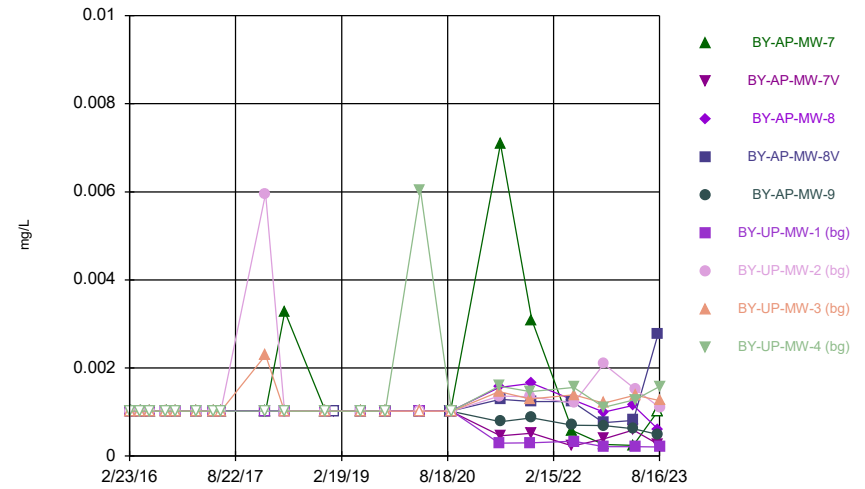
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Plant Barry Client: Southern Company Data: Barry Ash Pond

Time Series



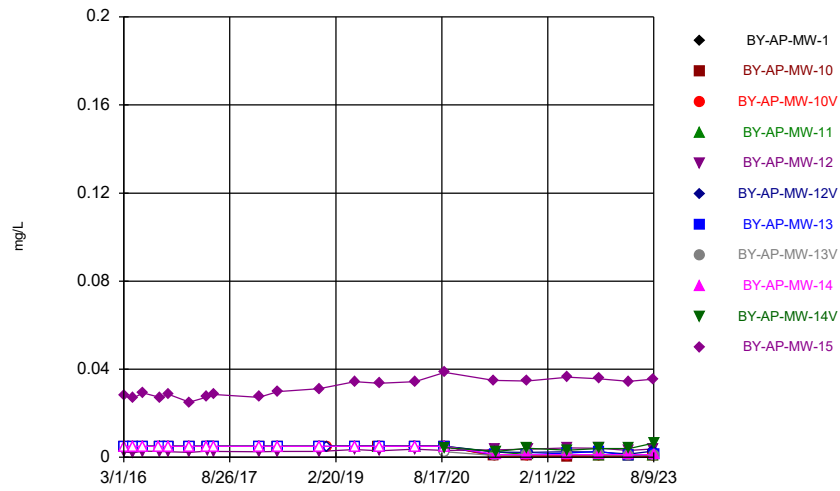
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Plant Barry Client: Southern Company Data: Barry Ash Pond

Time Series



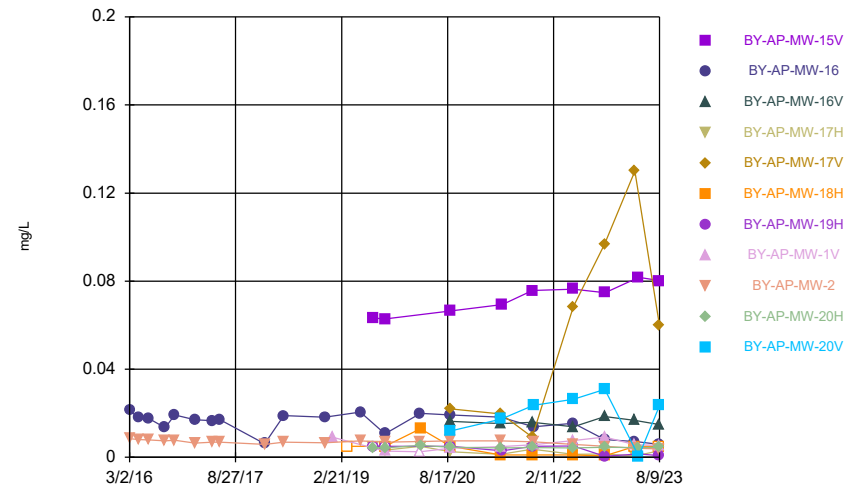
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Plant Barry Client: Southern Company Data: Barry Ash Pond

Time Series



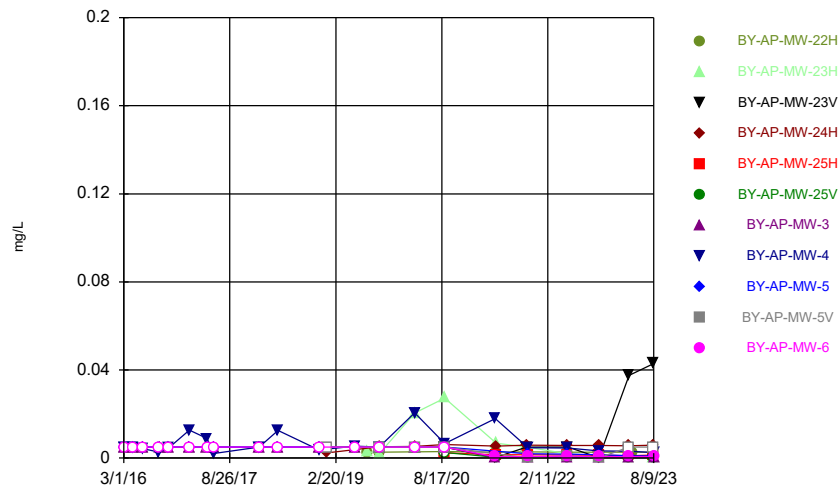
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Plant Barry Client: Southern Company Data: Barry Ash Pond

Time Series



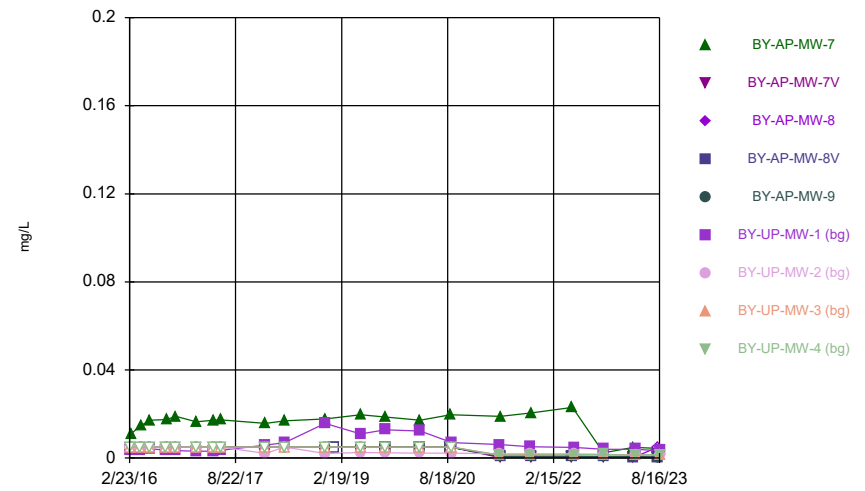
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Plant Barry Client: Southern Company Data: Barry Ash Pond

Time Series



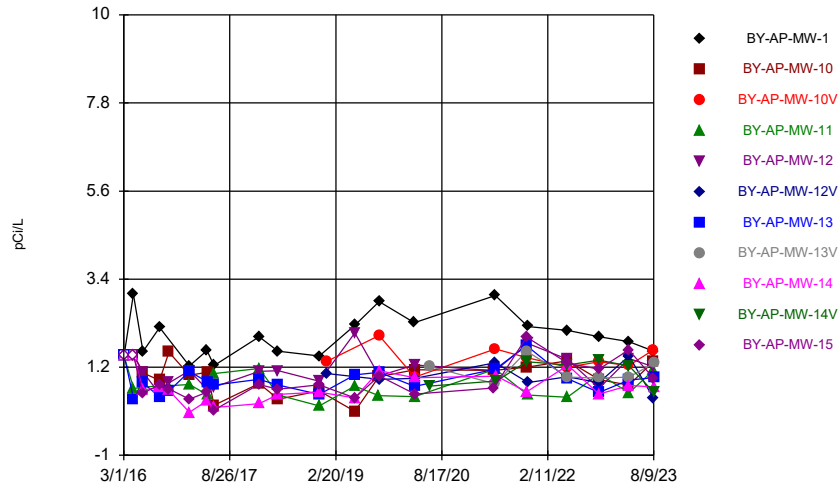
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Plant Barry Client: Southern Company Data: Barry Ash Pond

Time Series



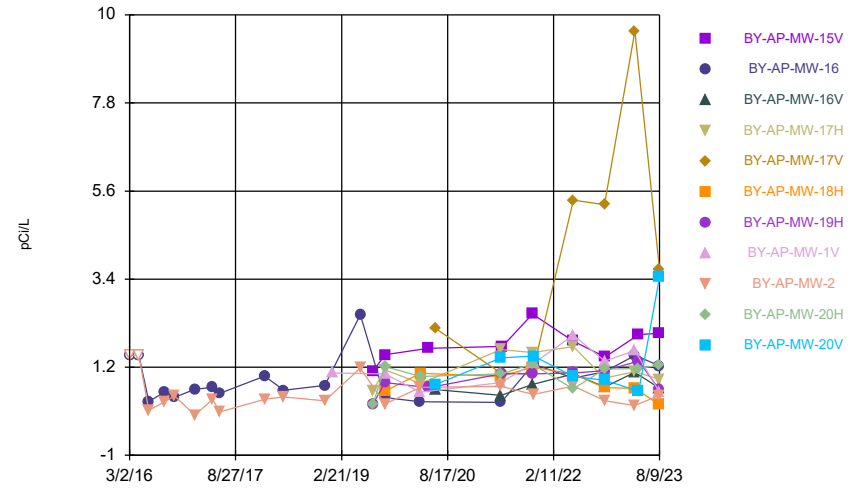
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Plant Barry Client: Southern Company Data: Barry Ash Pond

Time Series



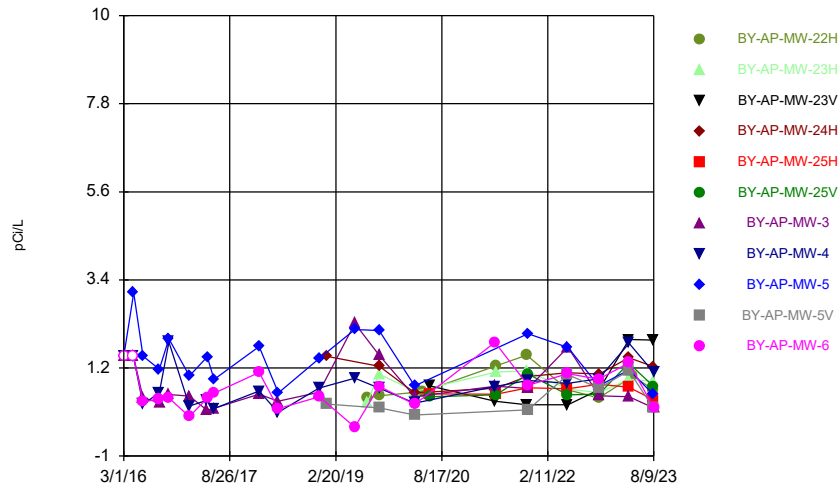
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Plant Barry Client: Southern Company Data: Barry Ash Pond

Time Series



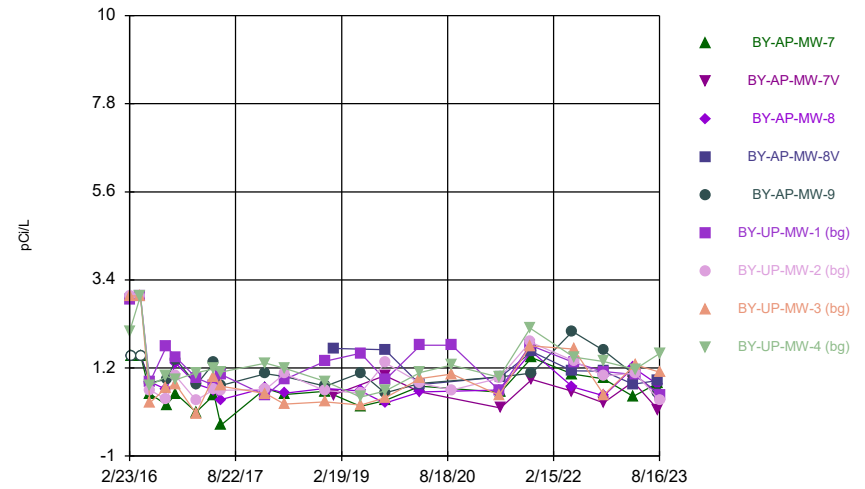
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Plant Barry Client: Southern Company Data: Barry Ash Pond

Time Series



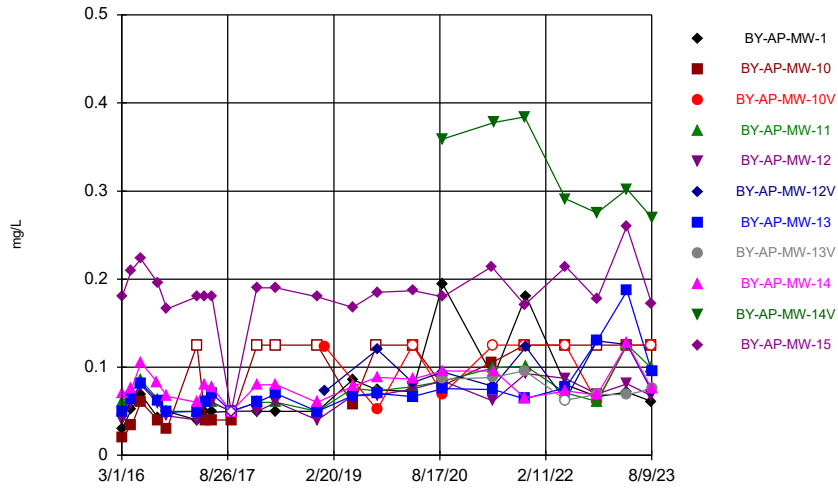
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Plant Barry Client: Southern Company Data: Barry Ash Pond

Time Series



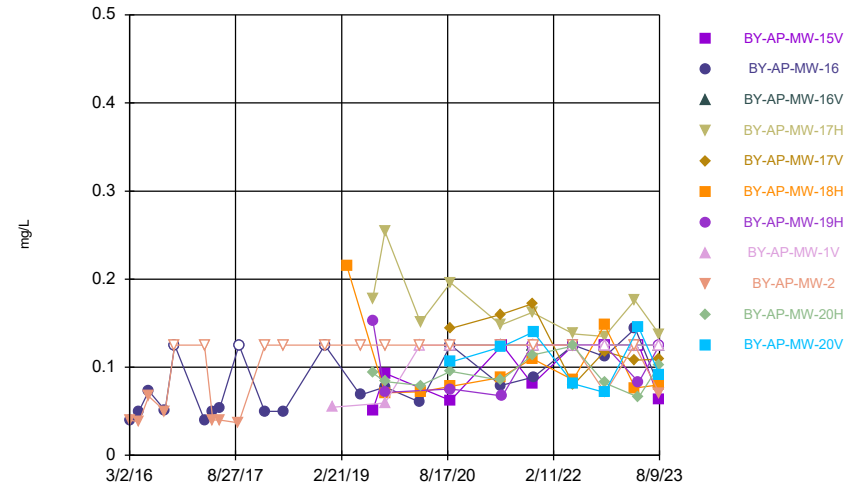
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Plant Barry Client: Southern Company Data: Barry Ash Pond

Time Series



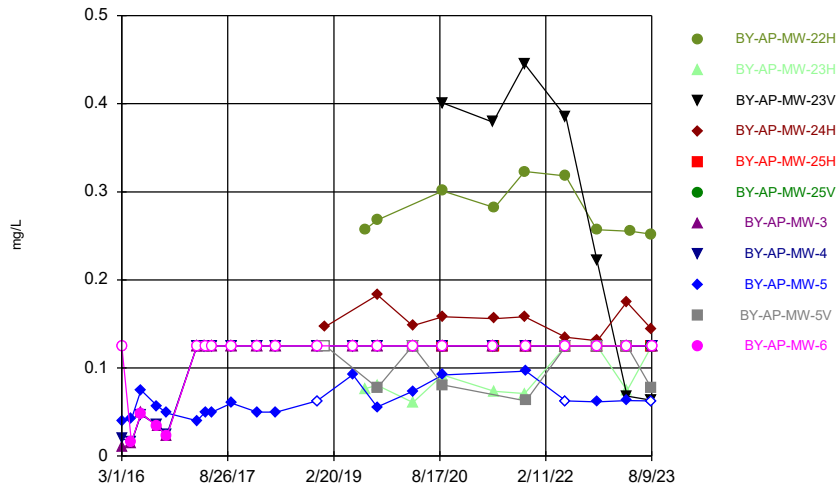
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Plant Barry Client: Southern Company Data: Barry Ash Pond

Time Series



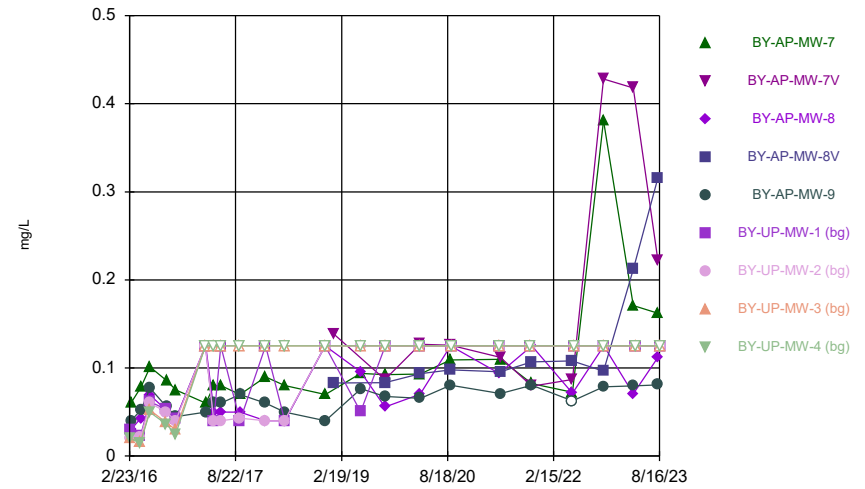
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Plant Barry Client: Southern Company Data: Barry Ash Pond

Time Series



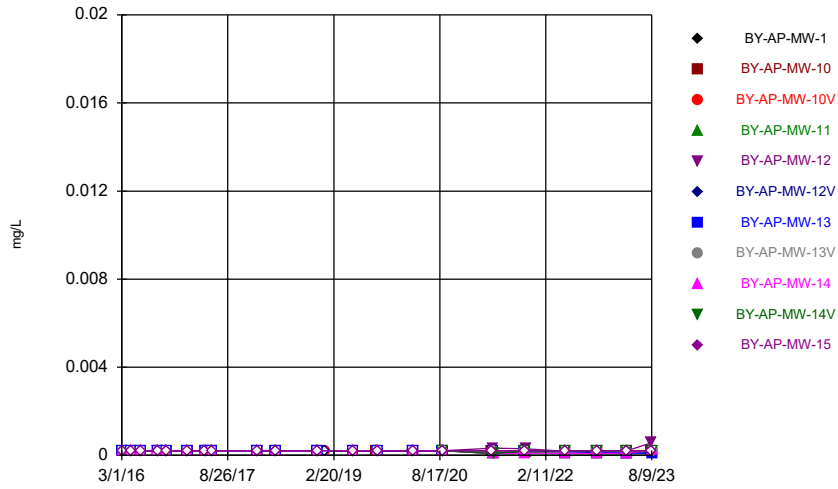
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Time Series



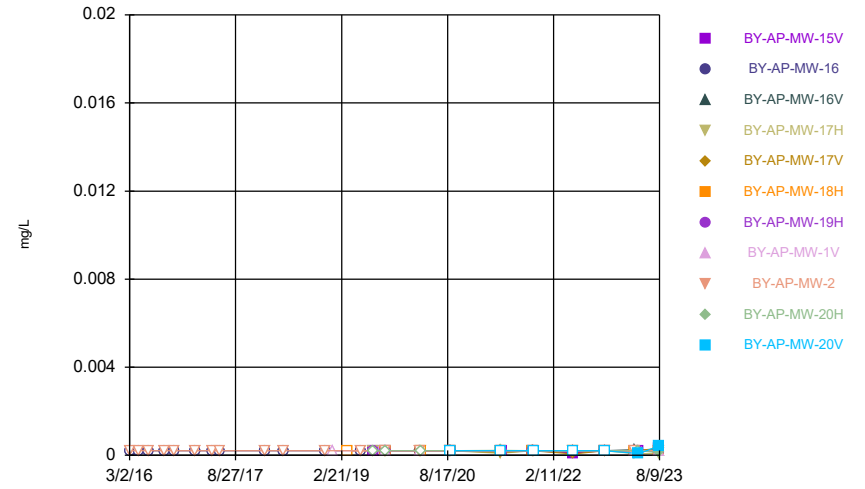
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Plant Barry Client: Southern Company Data: Barry Ash Pond

Time Series



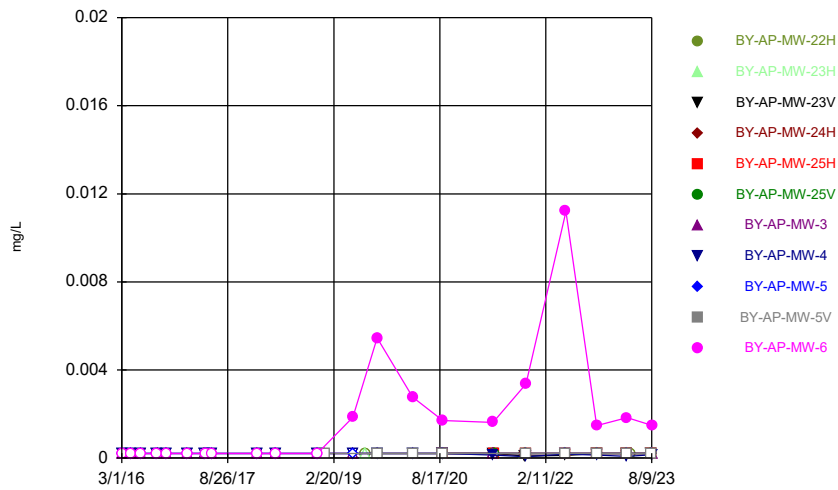
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Plant Barry Client: Southern Company Data: Barry Ash Pond

Time Series



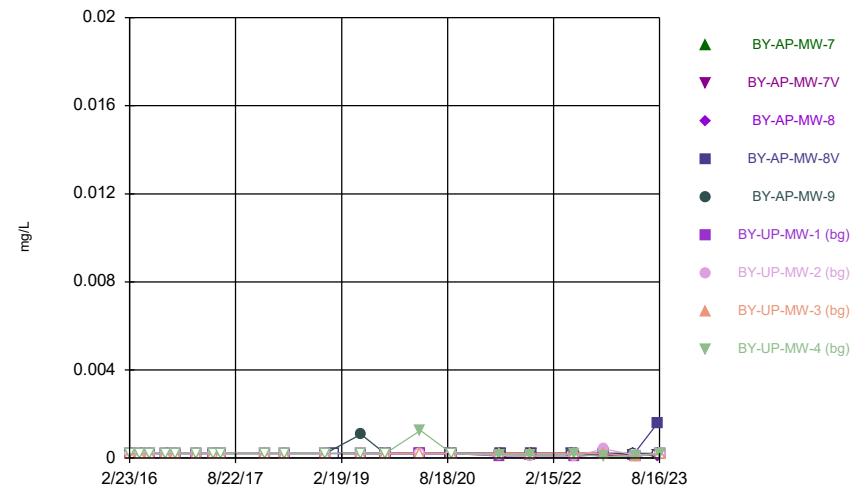
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Plant Barry Client: Southern Company Data: Barry Ash Pond

Time Series



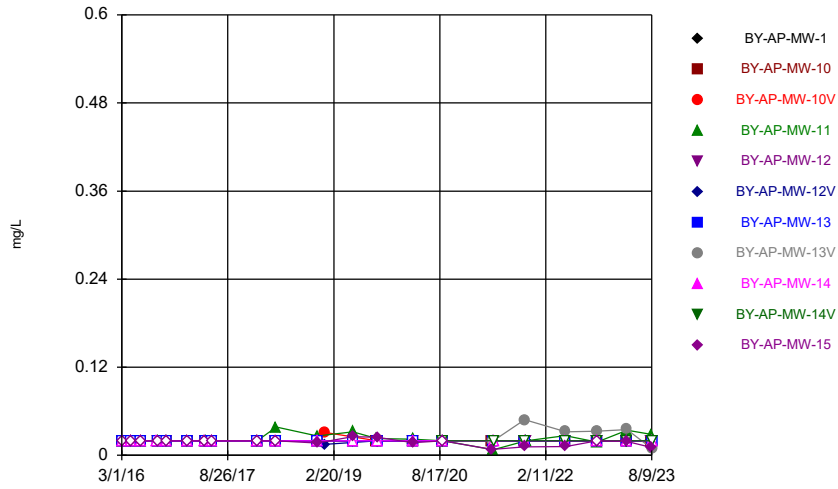
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Plant Barry Client: Southern Company Data: Barry Ash Pond

Time Series



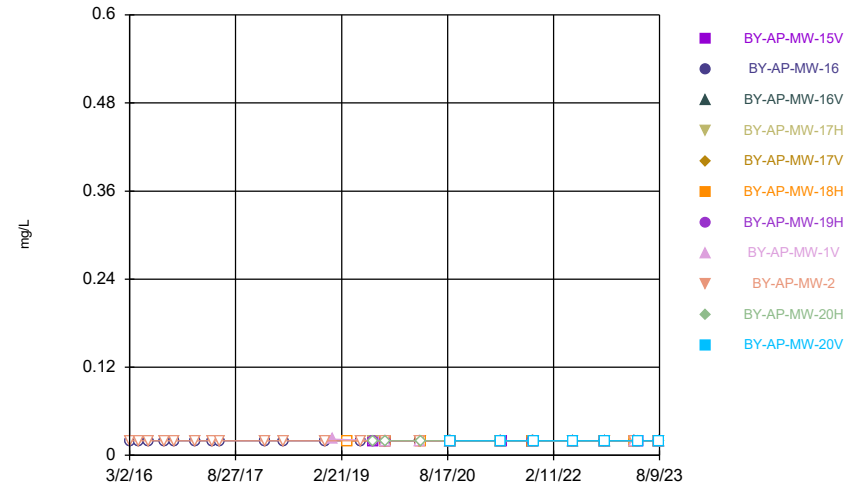
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Plant Barry Client: Southern Company Data: Barry Ash Pond

Time Series



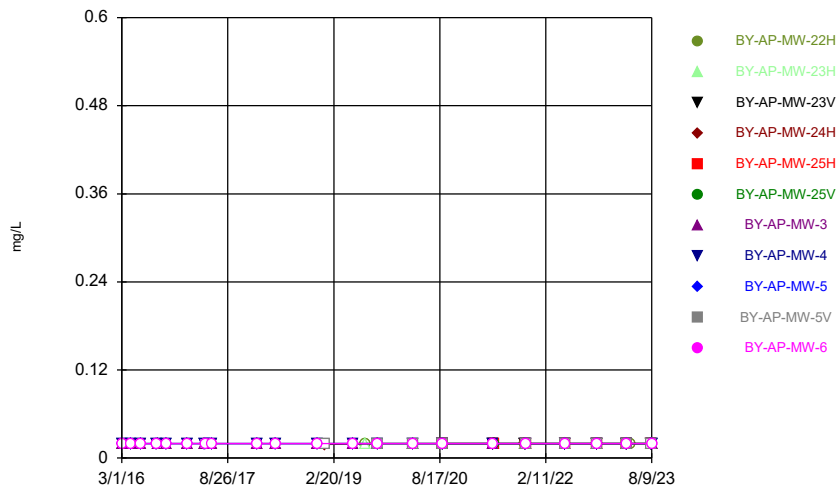
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Plant Barry Client: Southern Company Data: Barry Ash Pond

Time Series



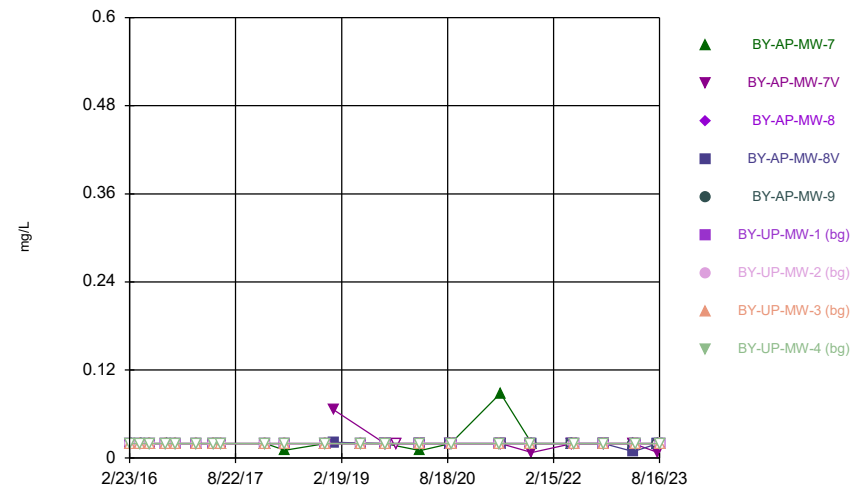
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Plant Barry Client: Southern Company Data: Barry Ash Pond

Time Series



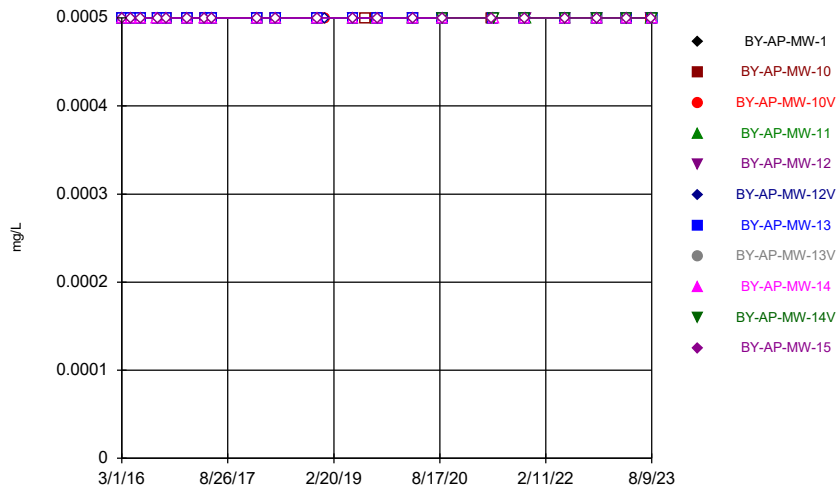
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Plant Barry Client: Southern Company Data: Barry Ash Pond

Time Series



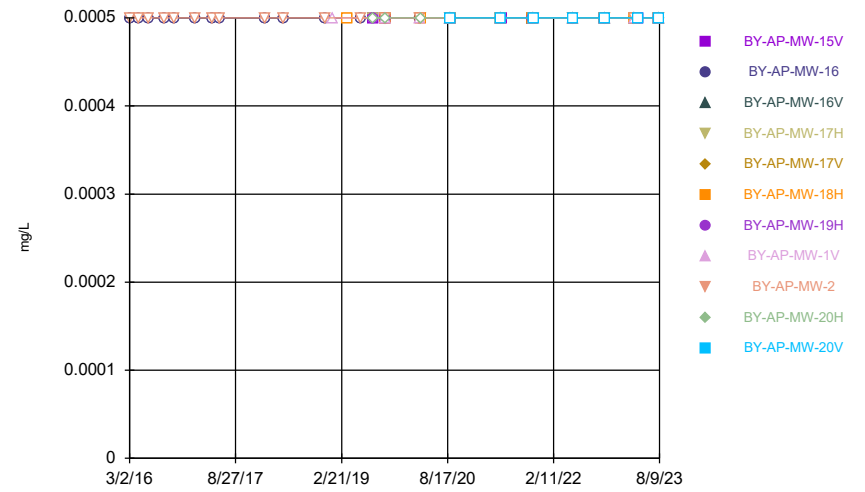
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Plant Barry Client: Southern Company Data: Barry Ash Pond

Time Series



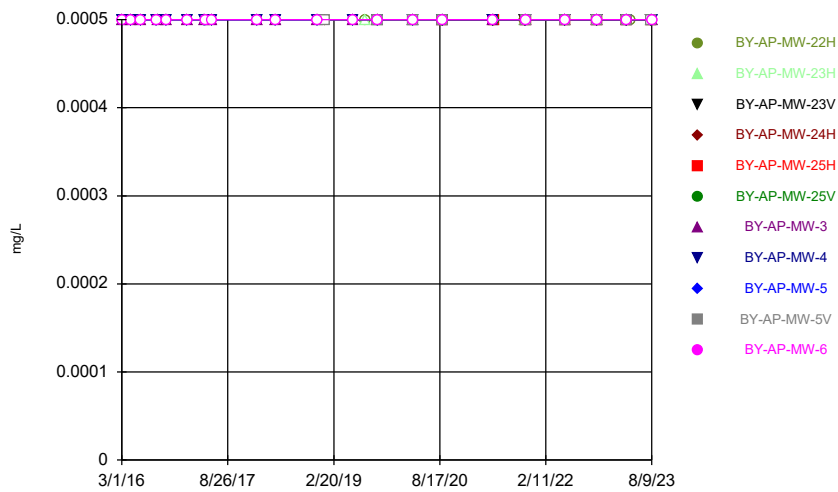
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Plant Barry Client: Southern Company Data: Barry Ash Pond

Time Series



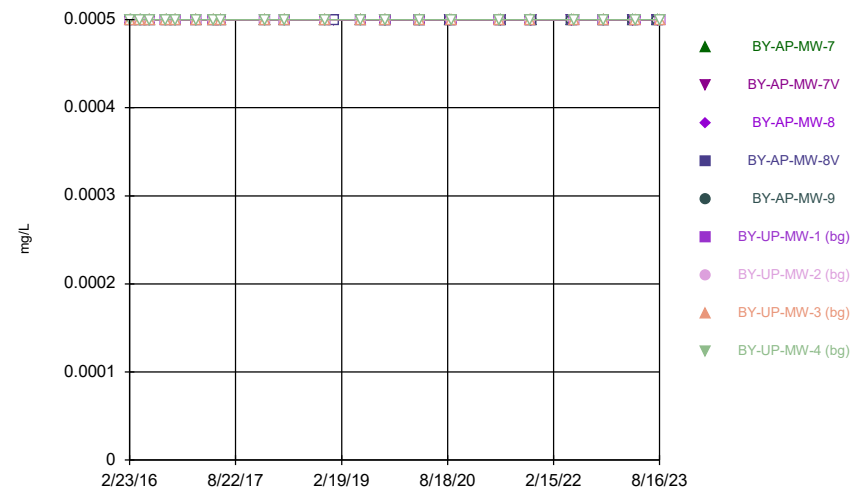
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Plant Barry Client: Southern Company Data: Barry Ash Pond

Time Series



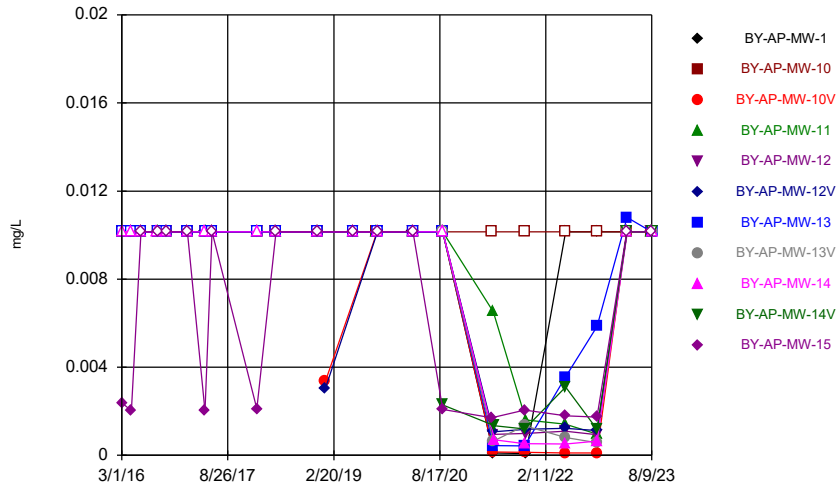
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Plant Barry Client: Southern Company Data: Barry Ash Pond

Time Series



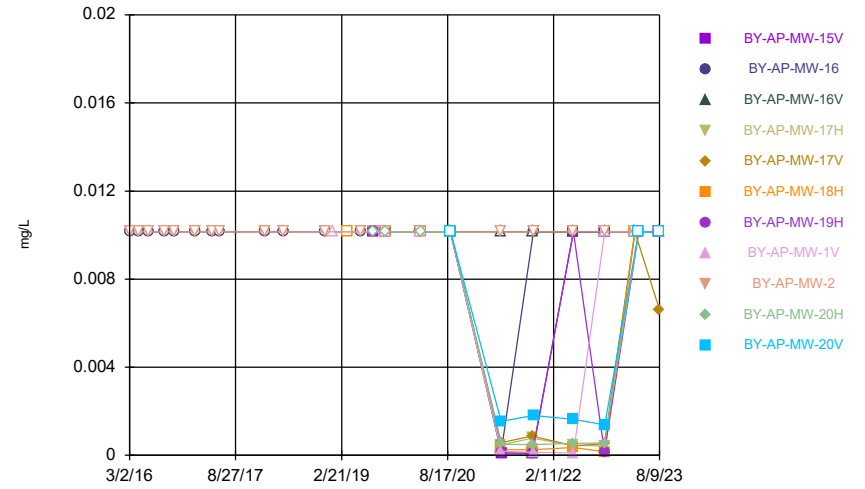
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Plant Barry Client: Southern Company Data: Barry Ash Pond

Time Series



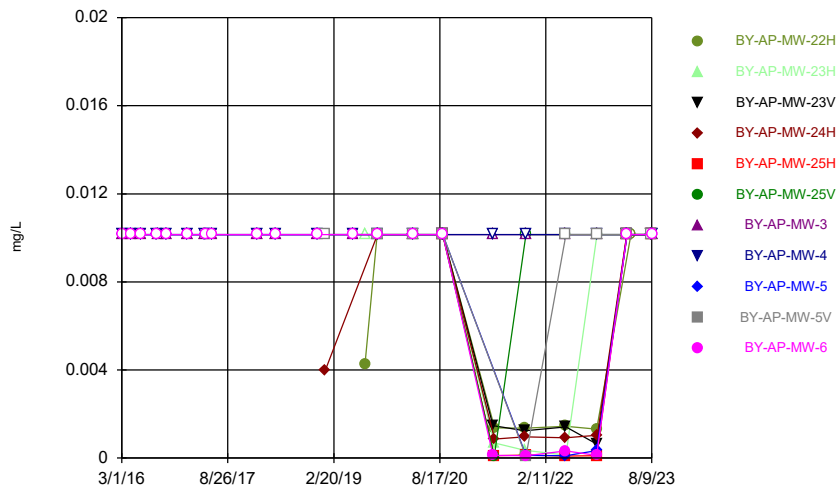
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Plant Barry Client: Southern Company Data: Barry Ash Pond

Time Series



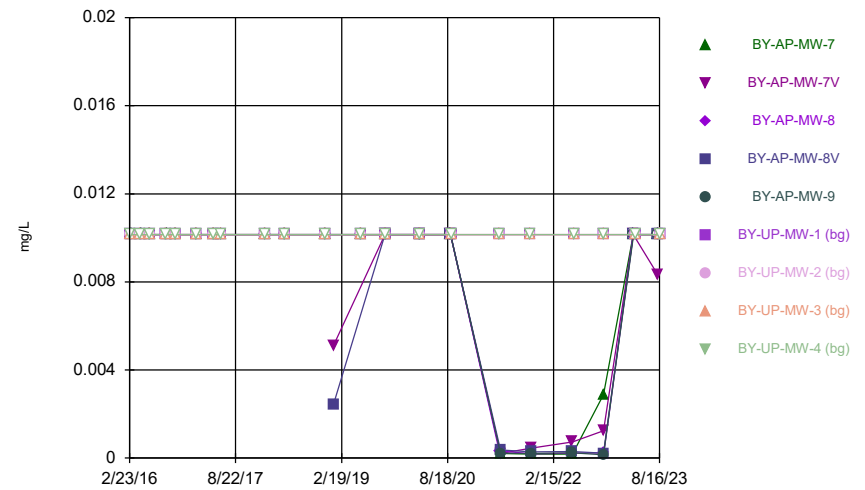
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Plant Barry Client: Southern Company Data: Barry Ash Pond

Time Series



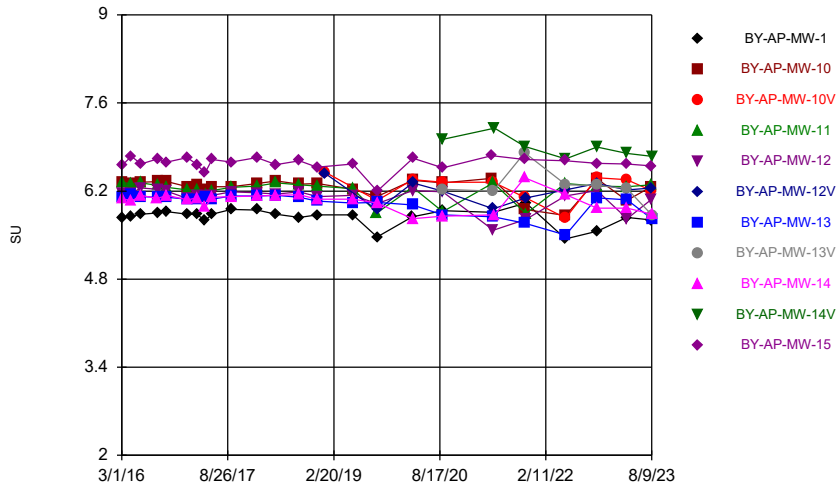
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Plant Barry Client: Southern Company Data: Barry Ash Pond

Time Series



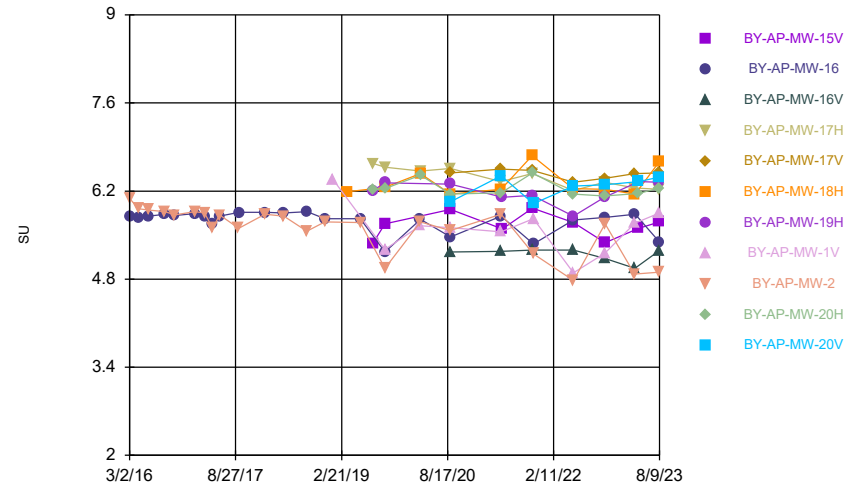
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Plant Barry Client: Southern Company Data: Barry Ash Pond

Time Series



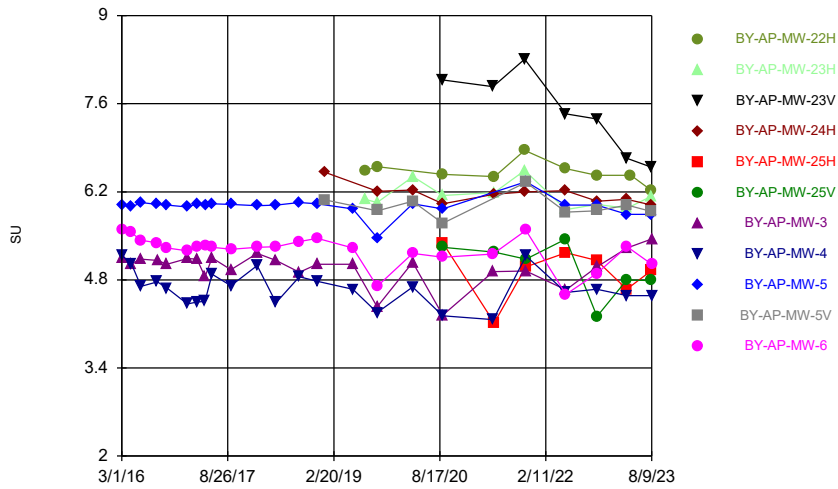
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 Plant Barry Client: Southern Company Data: Barry Ash Pond

Time Series



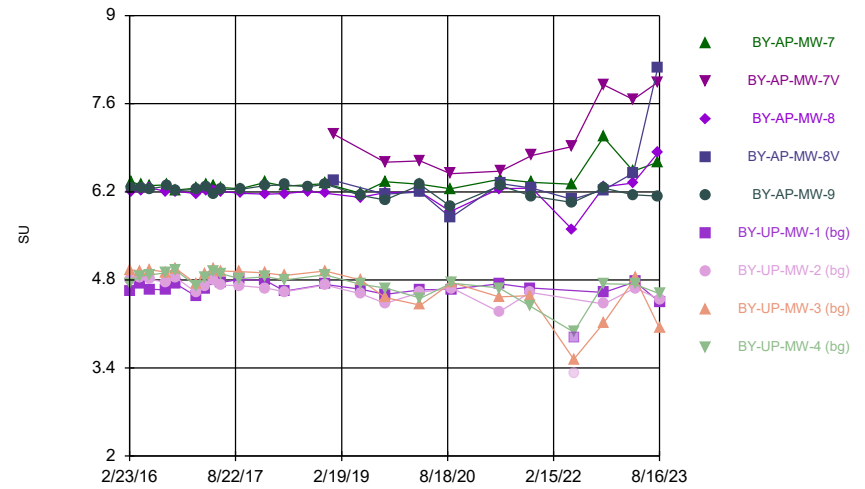
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 Plant Barry Client: Southern Company Data: Barry Ash Pond

Time Series



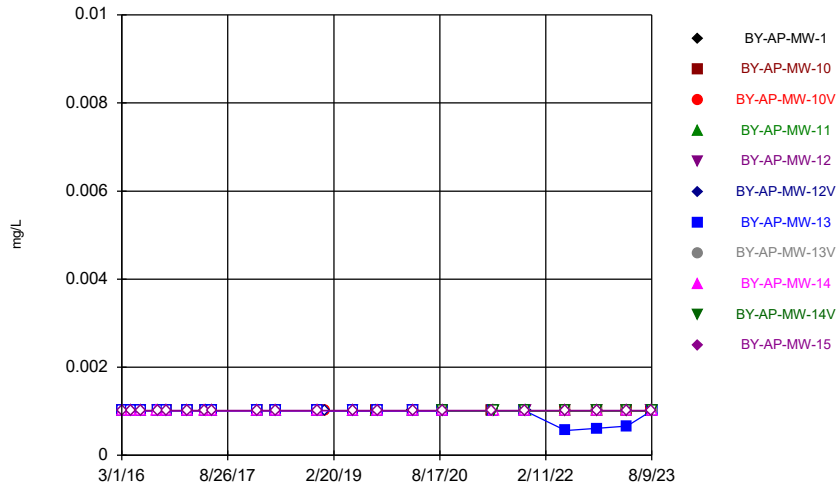
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 Plant Barry Client: Southern Company Data: Barry Ash Pond

Time Series



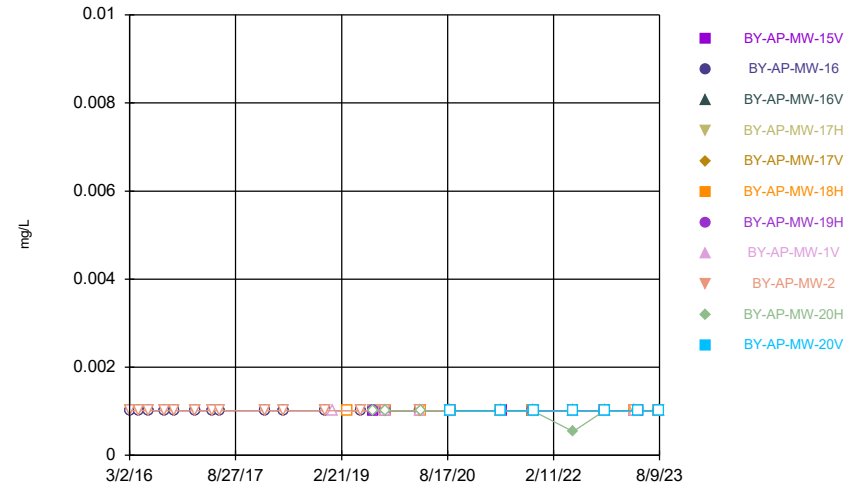
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 Plant Barry Client: Southern Company Data: Barry Ash Pond

Time Series



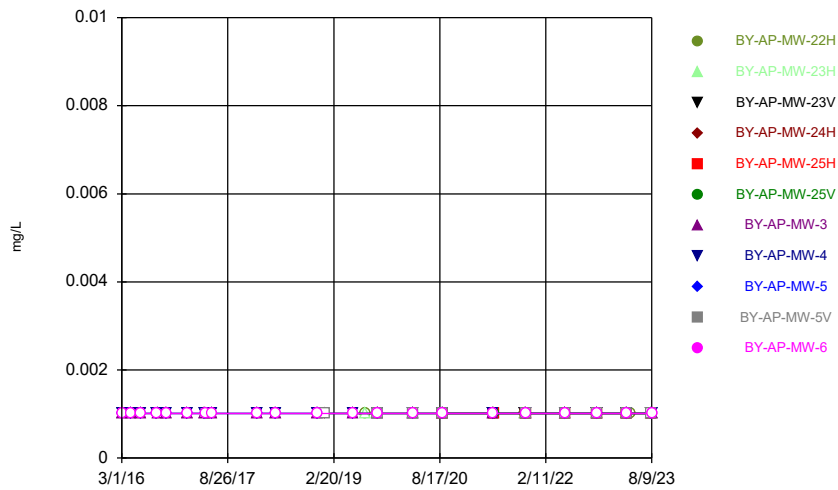
Constituent: Seleniun Analysis Run 10/22/2023 12:52 PM View: Descriptive
Plant Barry Client: Southern Company Data: Barry Ash Pond

Time Series



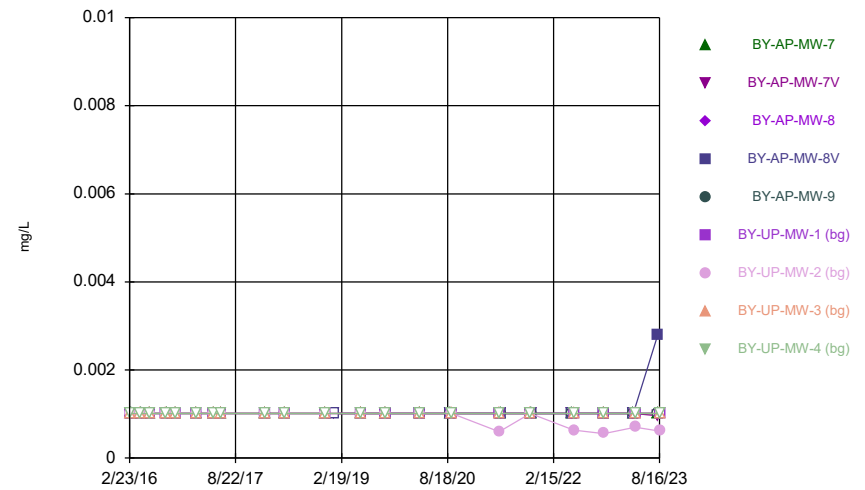
Constituent: Seleniun Analysis Run 10/22/2023 12:52 PM View: Descriptive
Plant Barry Client: Southern Company Data: Barry Ash Pond

Time Series



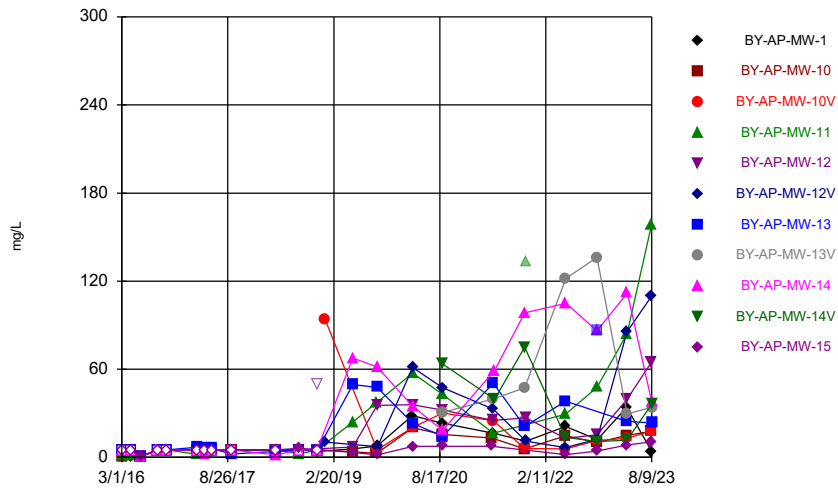
Constituent: Seleniun Analysis Run 10/22/2023 12:53 PM View: Descriptive
Plant Barry Client: Southern Company Data: Barry Ash Pond

Time Series



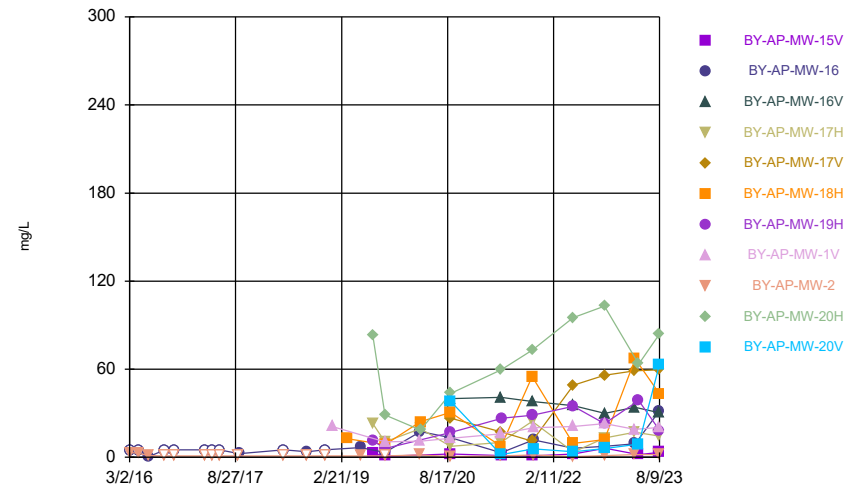
Constituent: Seleniun Analysis Run 10/22/2023 12:53 PM View: Descriptive
Plant Barry Client: Southern Company Data: Barry Ash Pond

Time Series



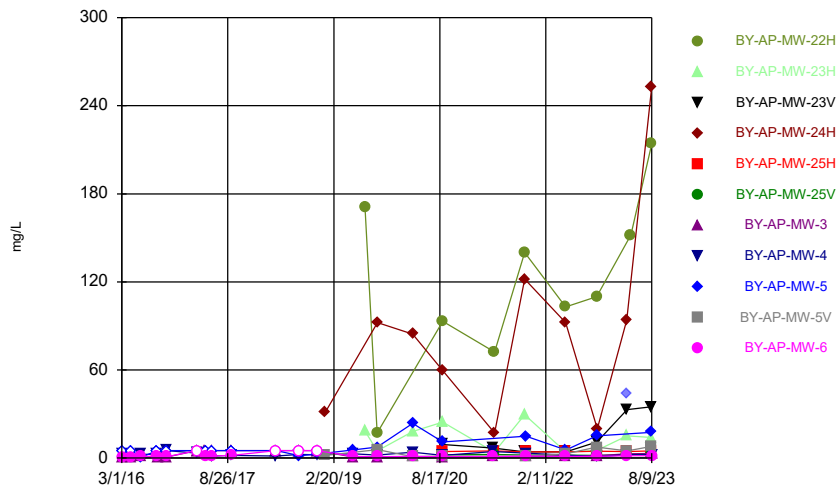
Constituent: Sulfate as SO4 Analysis Run 10/22/2023 12:53 PM View: Descriptive
Plant Barry Client: Southern Company Data: Barry Ash Pond

Time Series



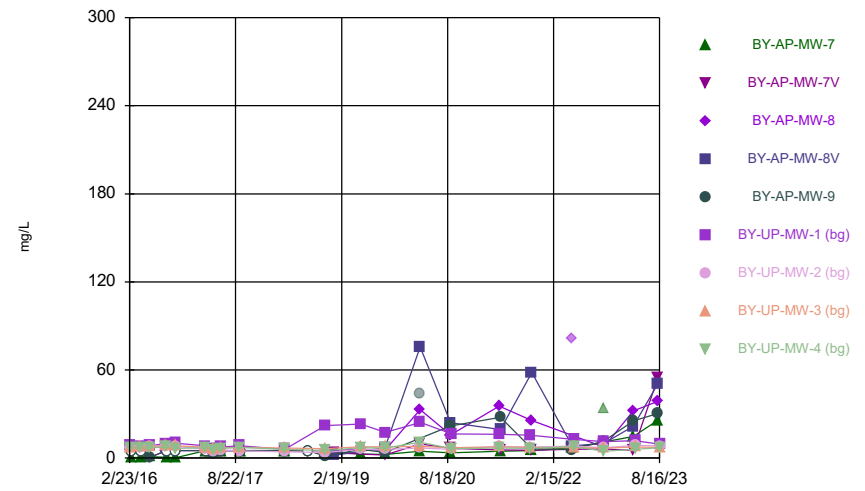
Constituent: Sulfate as SO4 Analysis Run 10/22/2023 12:53 PM View: Descriptive
Plant Barry Client: Southern Company Data: Barry Ash Pond

Time Series



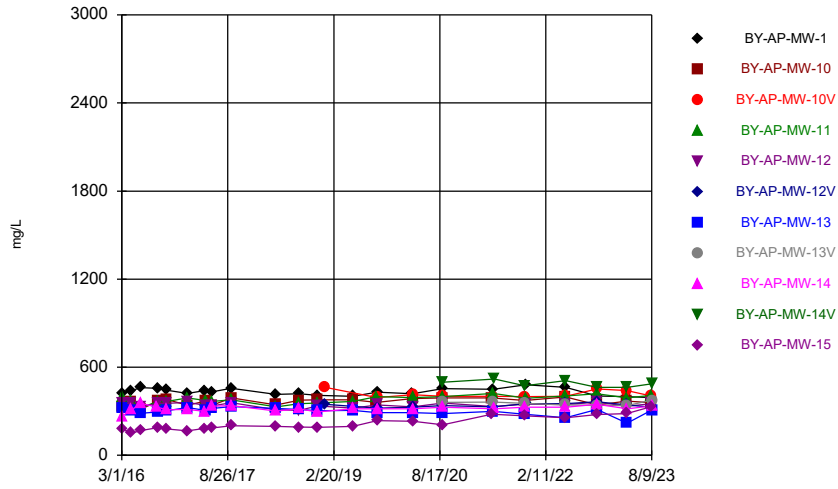
Constituent: Sulfate as SO4 Analysis Run 10/22/2023 12:53 PM View: Descriptive
Plant Barry Client: Southern Company Data: Barry Ash Pond

Time Series



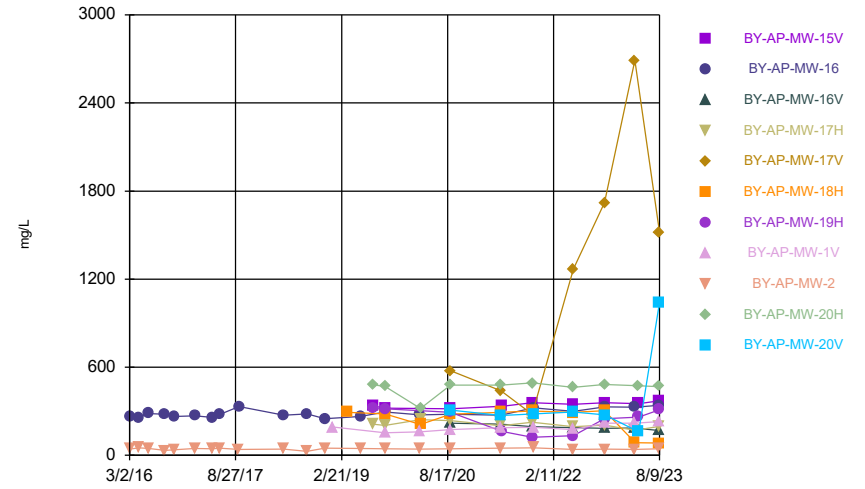
Constituent: Sulfate as SO4 Analysis Run 10/22/2023 12:53 PM View: Descriptive
Plant Barry Client: Southern Company Data: Barry Ash Pond

Time Series



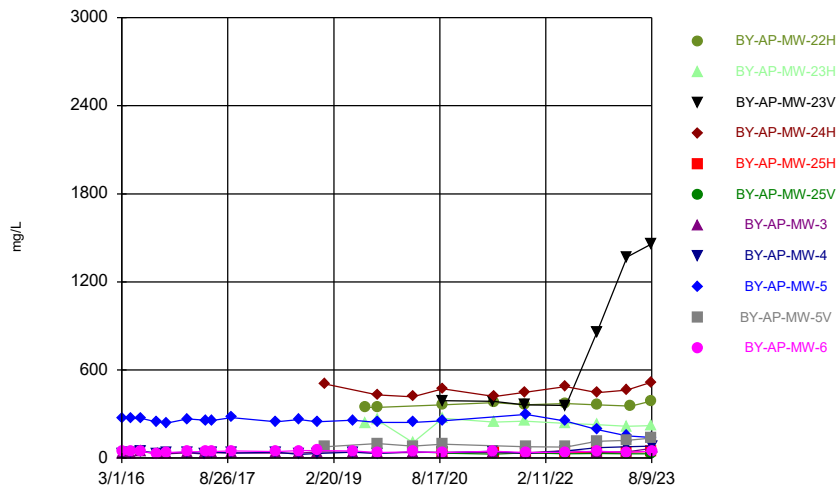
Constituent: TDS Analysis Run 10/22/2023 12:53 PM View: Descriptive
 Plant Barry Client: Southern Company Data: Barry Ash Pond

Time Series



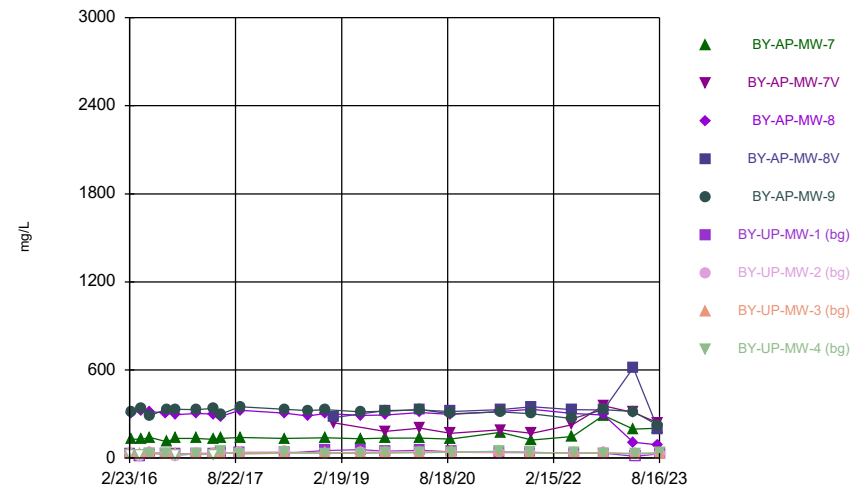
Constituent: TDS Analysis Run 10/22/2023 12:53 PM View: Descriptive
 Plant Barry Client: Southern Company Data: Barry Ash Pond

Time Series



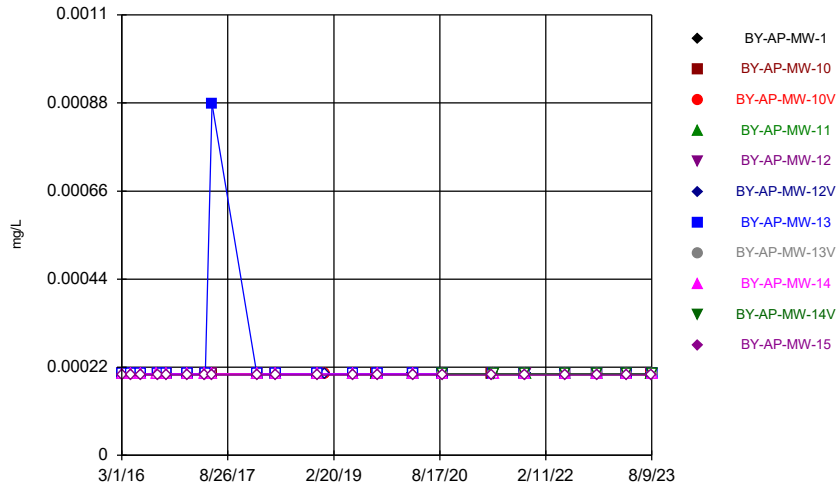
Constituent: TDS Analysis Run 10/22/2023 12:53 PM View: Descriptive
 Plant Barry Client: Southern Company Data: Barry Ash Pond

Time Series

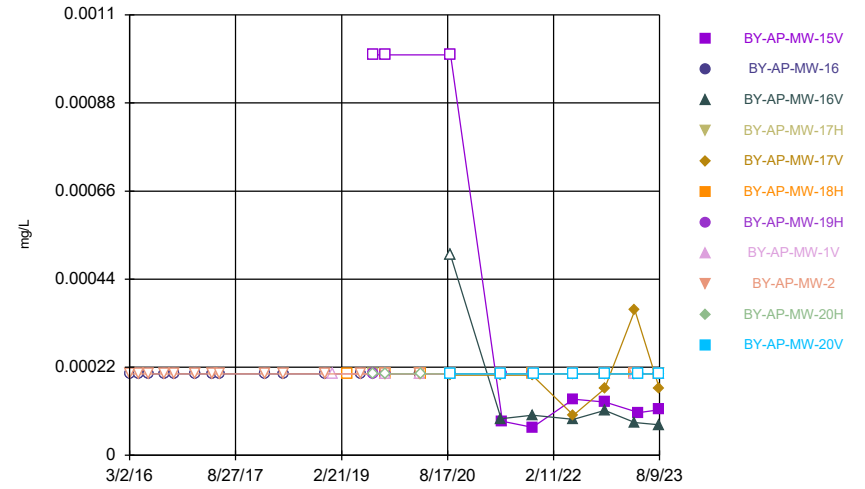


Constituent: TDS Analysis Run 10/22/2023 12:53 PM View: Descriptive
 Plant Barry Client: Southern Company Data: Barry Ash Pond

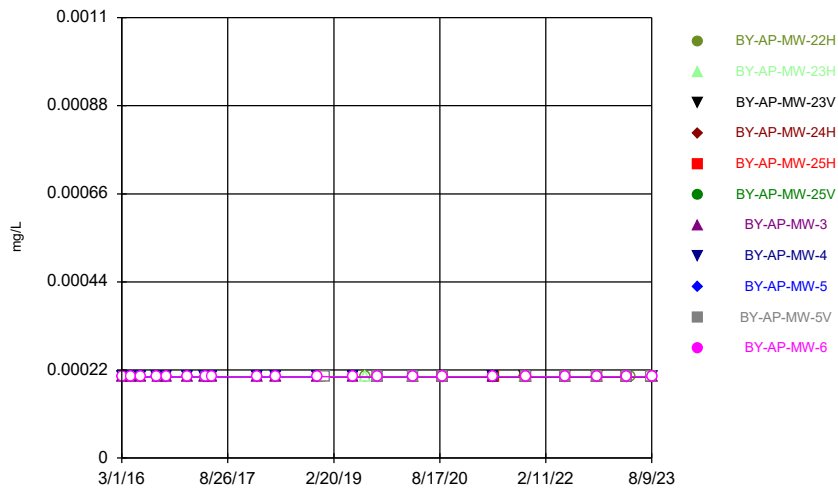
Time Series



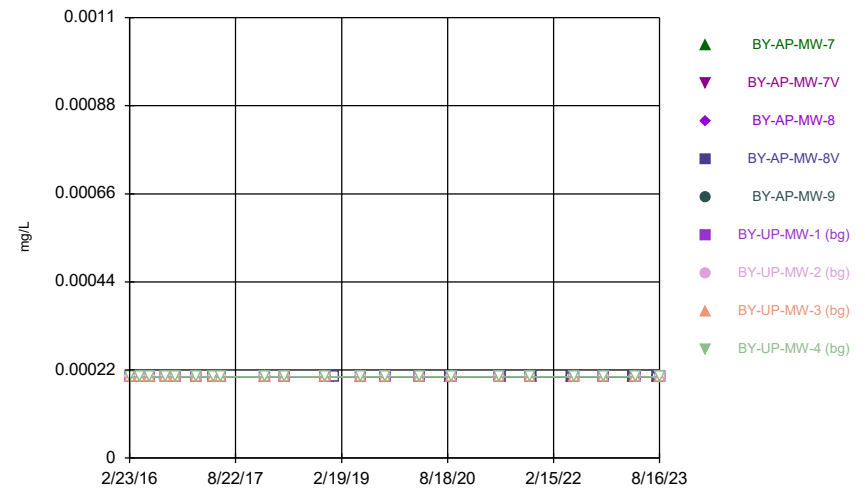
Time Series



Time Series



Time Series



Time Series

Constituent: Antimony (mg/L) Analysis Run 10/22/2023 12:53 PM View: Descriptive

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-1	BY-AP-MW-10	BY-AP-MW-10V	BY-AP-MW-11	BY-AP-MW-12	BY-AP-MW-12V	BY-AP-MW-13	BY-AP-MW-13V	BY-AP-MW-14
3/1/2016		<0.001015		<0.001015					
3/2/2016	<0.001015				<0.001015		<0.001015		<0.001015
4/19/2016	<0.001015								
4/20/2016		<0.001015		<0.001015	<0.001015		<0.001015		<0.001015
6/8/2016	<0.001015	<0.001015		<0.001015	<0.001015		0.00111 (J)		<0.001015
8/30/2016									<0.001015
8/31/2016	<0.001015	<0.001015		<0.001015	<0.001015		<0.001015		
10/18/2016									<0.001015
10/19/2016	<0.001015	<0.001015		<0.001015	<0.001015		<0.001015		
1/31/2017	0.000687 (J)						0.000834 (J)		0.00086 (J)
2/1/2017		0.000743 (J)		0.000812 (J)	0.000838 (J)				
5/2/2017	<0.001015								<0.001015
5/3/2017		<0.001015		<0.001015	<0.001015		<0.001015		
6/6/2017	<0.001015								<0.001015
6/7/2017		<0.001015		<0.001015	<0.001015		0.000857 (J)		
1/22/2018							<0.001015		
1/23/2018		<0.001015		<0.001015	<0.001015				<0.001015
1/24/2018	<0.001015								
5/1/2018	<0.001015								
5/2/2018		<0.001015		<0.001015	<0.001015		<0.001015		<0.001015
11/27/2018									<0.001015
11/28/2018	<0.001015	<0.001015		<0.001015	<0.001015		<0.001015		
1/8/2019			0.000965 (J)			0.00117 (J)			
5/29/2019	<0.001015			<0.001015	<0.001015		<0.001015		<0.001015
5/30/2019		<0.001015							
9/30/2019		<0.001015		<0.001015					
10/1/2019	<0.001015		<0.001015		<0.001015		<0.001015		<0.001015
10/2/2019						<0.001015			
3/30/2020	<0.001015								
3/31/2020		<0.001015	<0.001015	<0.001015	<0.001015	<0.001015	<0.001015		<0.001015
4/1/2020									
9/1/2020	<0.001015	<0.001015	<0.001015	<0.001015	<0.001015	<0.001015	<0.001015		
9/2/2020								<0.001015	<0.001015
5/11/2021		<0.001015							
5/18/2021	<0.001015		<0.001015		<0.001015	<0.001015			
5/19/2021				<0.001015			<0.001015	<0.001015	
5/25/2021									<0.001015
10/26/2021							<0.001015	<0.001015	
10/27/2021		<0.001015	<0.001015						<0.001015
11/1/2021	<0.001015				<0.001015	<0.001015			
11/2/2021				<0.001015					
5/23/2022				<0.001015	<0.001015	<0.001015			
5/24/2022	<0.001015	<0.001015	<0.001015				<0.001015		
5/25/2022								<0.001015	<0.001015
11/1/2022			<0.001015	<0.001015	<0.001015	<0.001015	<0.001015	<0.001015	<0.001015
11/2/2022	<0.001015	<0.001015							
4/3/2023	<0.001015	<0.001015	<0.001015						
4/4/2023				<0.001015	<0.001015	<0.001015	<0.001015	<0.001015	
4/5/2023									<0.001015
8/7/2023		<0.001015	<0.001015	<0.001015					
8/8/2023	<0.001015				<0.001015	<0.001015			
8/9/2023							<0.001015	<0.001015	<0.001015

Time Series

Constituent: Antimony (mg/L) Analysis Run 10/22/2023 12:53 PM View: Descriptive
Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-14V	BY-AP-MW-15
3/1/2016		
3/2/2016		<0.00102
4/19/2016		<0.00102
4/20/2016		
6/8/2016		<0.00102
8/30/2016		
8/31/2016		<0.00102
10/18/2016		
10/19/2016		<0.00102
1/31/2017		0.000746 (J)
2/1/2017		
5/2/2017		<0.00102
5/3/2017		
6/6/2017		<0.00102
6/7/2017		
1/22/2018		<0.00102
1/23/2018		
1/24/2018		
5/1/2018		<0.00102
5/2/2018		
11/27/2018		<0.00102
11/28/2018		
1/8/2019		
5/29/2019		<0.00102
5/30/2019		
9/30/2019		
10/1/2019		<0.00102
10/2/2019		
3/30/2020		
3/31/2020		
4/1/2020		<0.00102
9/1/2020		
9/2/2020	<0.001015	<0.00102
5/11/2021		<0.00102
5/18/2021		
5/19/2021		
5/25/2021	<0.001015	
10/26/2021	<0.001015	<0.00102
10/27/2021		
11/1/2021		
11/2/2021		
5/23/2022		
5/24/2022	<0.001015	
5/25/2022		<0.00102
11/1/2022	<0.001015	<0.00102
11/2/2022		
4/3/2023		<0.00102
4/4/2023	<0.001015	
4/5/2023		
8/7/2023		
8/8/2023		<0.00102
8/9/2023	<0.001015	

Time Series

Constituent: Antimony (mg/L) Analysis Run 10/22/2023 12:53 PM View: Descriptive

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-15V	BY-AP-MW-16	BY-AP-MW-16V	BY-AP-MW-17H	BY-AP-MW-17V	BY-AP-MW-18H	BY-AP-MW-19H	BY-AP-MW-1V	BY-AP-MW-2
3/2/2016		<0.001015							<0.001015
4/19/2016		<0.001015							<0.001015
6/8/2016		<0.001015							<0.001015
8/31/2016		<0.001015							<0.001015
10/19/2016		<0.001015							<0.001015
1/31/2017		0.000769 (J)							0.000739 (J)
5/2/2017		<0.001015							<0.001015
6/6/2017		<0.001015							<0.001015
1/23/2018		<0.001015							<0.001015
1/24/2018									<0.001015
5/1/2018		<0.001015							<0.001015
11/27/2018		<0.001015							<0.001015
1/8/2019								0.00125 (J)	
3/20/2019						0.00117 (J)			
5/29/2019		<0.001015							<0.001015
7/31/2019	0.00094 (J)			0.000878 (J)			0.00152 (J)		
10/1/2019	<0.001015	<0.001015				<0.001015	<0.001015		<0.001015
10/2/2019				<0.001015				<0.001015	
3/30/2020								<0.001015	
3/31/2020		<0.001015							<0.001015
4/1/2020				<0.001015		<0.001015			<0.001015
8/31/2020									<0.001015
9/1/2020	<0.001015			<0.001015	<0.001015	<0.001015	<0.001015	<0.001015	
9/2/2020		<0.001015	<0.001015						
5/17/2021				<0.001015					
5/18/2021					<0.001015			<0.001015	<0.001015
5/19/2021		<0.001015	<0.001015			<0.001015			
5/25/2021	<0.001015						<0.001015		
10/25/2021				<0.001015	<0.001015	<0.001015	<0.001015		
10/26/2021	<0.001015		<0.001015						
11/1/2021		<0.001015						<0.001015	<0.001015
5/23/2022						<0.001015			
5/24/2022	<0.001015						<0.001015	<0.001015	<0.001015
5/25/2022		<0.001015	<0.001015	<0.001015	<0.001015				
10/31/2022				<0.001015	<0.001015	<0.001015	<0.001015		
11/1/2022		<0.001015	<0.001015					<0.001015	
11/2/2022	<0.001015								<0.001015
4/3/2023									<0.001015
4/4/2023			<0.001015	<0.001015	<0.001015			<0.001015	
4/5/2023		<0.001015				<0.001015			
4/24/2023	<0.001015						<0.001015		
8/7/2023			<0.001015						
8/8/2023	<0.001015	<0.001015		<0.001015	<0.001015	<0.001015	<0.001015		<0.001015
8/9/2023								<0.001015	

Time Series

Constituent: Antimony (mg/L) Analysis Run 10/22/2023 12:53 PM View: Descriptive
Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-20H	BY-AP-MW-20V
3/2/2016		
4/19/2016		
6/8/2016		
8/31/2016		
10/19/2016		
1/31/2017		
5/2/2017		
6/6/2017		
1/23/2018		
1/24/2018		
5/1/2018		
11/27/2018		
1/8/2019		
3/20/2019		
5/29/2019		
7/31/2019	0.00113 (J)	
10/1/2019	<0.001015	
10/2/2019		
3/30/2020		
3/31/2020		
4/1/2020	<0.001015	
8/31/2020		
9/1/2020	<0.001015	<0.001015
9/2/2020		
5/17/2021		
5/18/2021		
5/19/2021	<0.001015	<0.001015
5/25/2021		
10/25/2021		
10/26/2021	<0.001015	
11/1/2021		<0.001015
5/23/2022	<0.001015	
5/24/2022		<0.001015
5/25/2022		
10/31/2022	<0.001015	
11/1/2022		<0.001015
11/2/2022		
4/3/2023		
4/4/2023		
4/5/2023		
4/24/2023	<0.001015	<0.001015
8/7/2023		
8/8/2023	<0.001015	<0.001015
8/9/2023		

Time Series

Constituent: Antimony (mg/L) Analysis Run 10/22/2023 12:53 PM View: Descriptive

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-22H	BY-AP-MW-23H	BY-AP-MW-23V	BY-AP-MW-24H	BY-AP-MW-25H	BY-AP-MW-25V	BY-AP-MW-3	BY-AP-MW-4	BY-AP-MW-5
3/1/2016								<0.001015	<0.001015
3/2/2016							<0.001015		
4/19/2016							<0.001015	<0.001015	
4/20/2016									<0.001015
6/7/2016							0.000606 (J)	0.000869 (J)	<0.001015
8/30/2016								<0.001015	<0.001015
8/31/2016							<0.001015		
10/18/2016									<0.001015
10/19/2016							<0.001015	<0.001015	
1/31/2017							0.000637 (J)	0.00086 (J)	0.000765 (J)
5/2/2017							<0.001015	<0.001015	
5/3/2017									<0.001015
6/6/2017							<0.001015	<0.001015	
6/7/2017									<0.001015
1/24/2018							<0.001015	<0.001015	<0.001015
5/1/2018							<0.001015	<0.001015	
5/2/2018									<0.001015
11/27/2018							<0.001015	<0.001015	<0.001015
11/28/2018									
1/8/2019				0.00116 (J)					
5/29/2019							<0.001015	<0.001015	<0.001015
7/31/2019	0.00117 (J)	0.000964 (J)							
10/1/2019	<0.001015	<0.001015					<0.001015	<0.001015	<0.001015
10/2/2019				<0.001015					
3/31/2020				<0.001015			<0.001015	<0.001015	<0.001015
4/1/2020		<0.001015							
9/1/2020	<0.001015	<0.001015	<0.001015				<0.001015	<0.001015	<0.001015
9/2/2020				<0.001015	<0.001015	<0.001015			
5/17/2021			<0.001015						
5/18/2021							<0.001015	<0.001015	
5/24/2021		<0.001015			<0.001015	<0.001015			
5/25/2021	<0.001015			<0.001015					
10/26/2021	<0.001015	<0.001015	<0.001015	<0.001015					
11/1/2021							<0.001015	<0.001015	
11/2/2021					<0.001015	<0.001015			<0.001015
5/24/2022	<0.001015			<0.001015					
5/25/2022		<0.001015	<0.001015		<0.001015	<0.001015	<0.001015	<0.001015	<0.001015
10/31/2022	<0.001015				<0.001015		<0.001015	<0.001015	<0.001015
11/1/2022		<0.001015	<0.001015			<0.001015	<0.001015		
11/2/2022				<0.001015					
4/3/2023				<0.001015	<0.001015	<0.001015			
4/4/2023		<0.001015	<0.001015				<0.001015	<0.001015	<0.001015
4/24/2023	<0.001015								
8/7/2023									<0.001015
8/8/2023	<0.001015	<0.001015	<0.001015	<0.001015	<0.001015	<0.001015			
8/9/2023							<0.001015	<0.001015	

Time Series

Constituent: Antimony (mg/L) Analysis Run 10/22/2023 12:53 PM View: Descriptive
Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-5V	BY-AP-MW-6
3/1/2016		<0.001015
3/2/2016		
4/19/2016		<0.001015
4/20/2016		
6/7/2016		<0.001015
8/30/2016		<0.001015
8/31/2016		
10/18/2016		
10/19/2016		<0.001015
1/31/2017		0.000852 (J)
5/2/2017		
5/3/2017		<0.001015
6/6/2017		
6/7/2017		<0.001015
1/24/2018		<0.001015
5/1/2018		
5/2/2018		<0.001015
11/27/2018		
11/28/2018		<0.001015
1/8/2019	0.00207 (J)	
5/29/2019		<0.001015
7/31/2019		
10/1/2019		<0.001015
10/2/2019	<0.001015	
3/31/2020	<0.001015	<0.001015
4/1/2020		
9/1/2020	<0.001015	
9/2/2020		<0.001015
5/17/2021		<0.001015
5/18/2021		
5/24/2021		
5/25/2021		
10/26/2021		
11/1/2021		
11/2/2021	<0.001015	<0.001015
5/24/2022		
5/25/2022	<0.001015	<0.001015
10/31/2022	<0.001015	<0.001015
11/1/2022		
11/2/2022		
4/3/2023		
4/4/2023	<0.001015	<0.001015
4/24/2023		
8/7/2023	<0.001015	
8/8/2023		
8/9/2023		<0.001015

Time Series

Constituent: Antimony (mg/L) Analysis Run 10/22/2023 12:54 PM View: Descriptive

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-7	BY-AP-MW-7V	BY-AP-MW-8	BY-AP-MW-8V	BY-AP-MW-9	BY-UP-MW-1 (bg)	BY-UP-MW-2 (bg)	BY-UP-MW-3 (bg)	BY-UP-MW-4 (bg)
2/23/2016						<0.001015	<0.001015	<0.001015	0.000606 (J)
3/1/2016	<0.001015		<0.001015		<0.001015				
4/19/2016						<0.001015	<0.001015	<0.001015	<0.001015
4/20/2016	<0.001015		<0.001015		<0.001015				
6/6/2016						<0.001015			<0.001015
6/7/2016	<0.001015		<0.001015				<0.001015	<0.001015	
6/8/2016					<0.001015				
8/30/2016			<0.001015			<0.001015	<0.001015	<0.001015	<0.001015
8/31/2016	<0.001015				<0.001015				
10/18/2016			<0.001015			<0.001015	<0.001015	<0.001015	<0.001015
10/19/2016	<0.001015				<0.001015				
1/31/2017	0.00107 (J)		0.00074 (J)			0.000925 (J)	0.000898 (J)	0.000911 (J)	0.000928 (J)
2/1/2017					0.000738 (J)				
5/2/2017						<0.001015	<0.001015	<0.001015	<0.001015
5/3/2017	<0.001015		<0.001015		<0.001015				
6/6/2017						<0.001015	<0.001015	<0.001015	<0.001015
6/7/2017	<0.001015		<0.001015		<0.001015				
1/23/2018					<0.001015	<0.001015	<0.001015	<0.001015	<0.001015
1/24/2018	<0.001015		<0.001015						
5/1/2018							<0.001015	<0.001015	<0.001015
5/2/2018	<0.001015		<0.001015		<0.001015	<0.001015			
11/26/2018									<0.001015
11/27/2018			<0.001015			<0.001015	<0.001015	<0.001015	
11/28/2018	<0.001015				<0.001015				
1/9/2019		0.000861 (J)		<0.001015					
5/28/2019									<0.001015
5/29/2019	<0.001015		<0.001015			<0.001015	<0.001015	<0.001015	
5/30/2019					<0.001015				
9/30/2019	<0.001015		<0.001015		<0.001015				
10/1/2019		<0.001015		<0.001015					
10/2/2019						<0.001015	<0.001015	<0.001015	<0.001015
3/30/2020	<0.001015	<0.001015	<0.001015	<0.001015					
3/31/2020					<0.001015	<0.001015	<0.001015	<0.001015	<0.001015
9/2/2020	<0.001015	<0.001015	<0.001015	<0.001015	<0.001015				
9/8/2020									<0.001015
9/9/2020						<0.001015	<0.001015	<0.001015	
5/11/2021			<0.001015				<0.001015	<0.001015	<0.001015
5/12/2021						<0.001015			
5/18/2021	<0.001015	<0.001015		<0.001015	<0.001015				
10/18/2021								<0.001015	<0.001015
10/19/2021						<0.001015	<0.001015		
10/26/2021			<0.001015	<0.001015					
10/27/2021	<0.001015	<0.001015			<0.001015				
5/23/2022				<0.001015					
5/24/2022	<0.001015	<0.001015	<0.001015		<0.001015				
5/31/2022						<0.001015	<0.001015	<0.001015	<0.001015
10/31/2022	<0.001015	<0.001015		<0.001015	<0.001015				
11/1/2022						<0.001015	<0.001015	<0.001015	<0.001015
11/2/2022			<0.001015						
4/3/2023	<0.001015	<0.001015	<0.001015	<0.001015					
4/4/2023					<0.001015				
4/12/2023						<0.001015	<0.001015	<0.001015	<0.001015

Time Series

Constituent: Antimony (mg/L) Analysis Run 10/22/2023 12:54 PM View: Descriptive

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-7	BY-AP-MW-7V	BY-AP-MW-8	BY-AP-MW-8V	BY-AP-MW-9	BY-UP-MW-1 (bg)	BY-UP-MW-2 (bg)	BY-UP-MW-3 (bg)	BY-UP-MW-4 (bg)
8/7/2023	<0.001015	0.000744 (J)	<0.001015	<0.001015	<0.001015				
8/16/2023						<0.001015	<0.001015	<0.001015	<0.001015

Time Series

Constituent: Arsenic (mg/L) Analysis Run 10/22/2023 12:54 PM View: Descriptive

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-1	BY-AP-MW-10	BY-AP-MW-10V	BY-AP-MW-11	BY-AP-MW-12	BY-AP-MW-12V	BY-AP-MW-13	BY-AP-MW-13V	BY-AP-MW-14
3/1/2016		0.0264		0.01					
3/2/2016	0.076				0.0215		0.0115		0.0101
4/19/2016	0.0973								
4/20/2016		0.0303		0.0127	0.0214		0.0123		0.0119
6/8/2016	0.0605	0.0306		0.0136	0.0221		0.0121		0.0119
8/30/2016									0.0127
8/31/2016	0.0687	0.0304		0.0149	0.0223		0.0127		
10/18/2016									0.0136
10/19/2016	0.0701	0.0314		0.0149	0.0227		0.0131		
1/31/2017	0.0669						0.0131		0.0124
2/1/2017		0.0274		0.0151	0.0215				
5/2/2017	0.0672								0.0131
5/3/2017		0.03		0.0155	0.0227		0.014		
6/6/2017	0.0527								0.0129
6/7/2017		0.0303		0.0145	0.0211		0.0141		
1/22/2018							0.0149		
1/23/2018		0.0362		0.0154	0.0227				0.0148
1/24/2018	0.07								
5/1/2018	0.0777								
5/2/2018		0.0433		0.0158	0.0239		0.0175		0.0156
11/27/2018									0.0145
11/28/2018	0.0677	0.0536		0.014	0.0216		0.0141		
1/8/2019			<0.000203			0.0112			
5/29/2019	0.0555			0.0132	0.0215		0.0138		0.014
5/30/2019		0.0671							
7/31/2019		0.0649							
9/30/2019		0.0704		0.0145					
10/1/2019	0.0635		<0.000203		0.0221		0.0144		0.0152
10/2/2019						0.022			
3/30/2020	0.0557								
3/31/2020		0.0702	<0.000203	0.0158	0.0246	0.025	0.0154		0.0177
4/1/2020									
9/1/2020	0.0811	0.0763	<0.000203	0.0165	0.0246	0.0257	0.0148		
9/2/2020								0.00708	0.0174
5/11/2021		0.0762							
5/18/2021	0.0687		0.000356		0.0237	0.0251			
5/19/2021				0.0166			0.014	0.00877	
5/25/2021									0.0172
10/26/2021							0.013	0.0103	
10/27/2021		0.0705	0.00033						0.0174
11/1/2021	0.0694				0.0245	0.0256			
11/2/2021				0.0161					
5/23/2022				0.0142	0.0245	0.0257			
5/24/2022	0.0767	0.0775	0.00036				0.0128		
5/25/2022								0.0102	0.0183
11/1/2022			0.000299	0.0148	0.0226	0.0241	0.0208	0.00887	0.0174
11/2/2022	0.0682	0.0742							
4/3/2023	0.068	0.0561	0.000359						
4/4/2023				0.0128	0.0218	0.0214	0.00645	0.00843	
4/5/2023									0.017
8/7/2023		0.025	0.000251	0.0136					
8/8/2023	0.0491				0.0222	0.0227			

Time Series

Constituent: Arsenic (mg/L) Analysis Run 10/22/2023 12:54 PM View: Descriptive
Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-1	BY-AP-MW-10	BY-AP-MW-10V	BY-AP-MW-11	BY-AP-MW-12	BY-AP-MW-12V	BY-AP-MW-13	BY-AP-MW-13V	BY-AP-MW-14
8/9/2023							0.0143	0.00967	0.0176

Time Series

Constituent: Arsenic (mg/L) Analysis Run 10/22/2023 12:54 PM View: Descriptive
Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-14V	BY-AP-MW-15
3/1/2016		
3/2/2016		0.0128
4/19/2016		0.0157
4/20/2016		
6/8/2016		0.0168
8/30/2016		
8/31/2016		0.0168
10/18/2016		
10/19/2016		0.0178
1/31/2017		0.0164
2/1/2017		
5/2/2017		0.0172
5/3/2017		
6/6/2017		0.0158
6/7/2017		
1/22/2018		0.0173
1/23/2018		
1/24/2018		
5/1/2018		0.0181
5/2/2018		
11/27/2018		0.0158
11/28/2018		
1/8/2019		
5/29/2019		0.0148
5/30/2019		
7/31/2019		
9/30/2019		
10/1/2019		0.017
10/2/2019		
3/30/2020		
3/31/2020		
4/1/2020		0.0183
9/1/2020		
9/2/2020	0.00433 (J)	0.0206
5/11/2021		0.0184
5/18/2021		
5/19/2021		
5/25/2021	0.00324	
10/26/2021	0.0041	0.0186
10/27/2021		
11/1/2021		
11/2/2021		
5/23/2022		
5/24/2022	0.00572	
5/25/2022		0.0176
11/1/2022	0.0057	0.0177
11/2/2022		
4/3/2023		0.02
4/4/2023	0.00501	
4/5/2023		
8/7/2023		
8/8/2023		0.0188

Time Series

Constituent: Arsenic (mg/L) Analysis Run 10/22/2023 12:54 PM View: Descriptive
Plant Barry Client: Southern Company Data: Barry Ash Pond

8/9/2023	BY-AP-MW-14V	BY-AP-MW-15	0.00508
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Time Series

Constituent: Arsenic (mg/L) Analysis Run 10/22/2023 12:54 PM View: Descriptive

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-15V	BY-AP-MW-16	BY-AP-MW-16V	BY-AP-MW-17H	BY-AP-MW-17V	BY-AP-MW-18H	BY-AP-MW-19H	BY-AP-MW-1V	BY-AP-MW-2
3/2/2016		0.0102							0.00263 (J)
4/19/2016		0.0103							0.00247 (J)
6/8/2016		0.0105							0.0023 (J)
8/31/2016		0.0117							0.00237 (J)
10/19/2016		0.0108							0.00241 (J)
1/31/2017		0.0102							0.00185 (J)
5/2/2017		0.0102							0.00194 (J)
6/6/2017		0.00982							0.00175 (J)
1/23/2018		0.0151							
1/24/2018									0.00158 (J)
5/1/2018		0.0114							0.00166 (J)
11/27/2018		0.0108							0.00144 (J)
1/8/2019								0.00109 (J)	
3/20/2019						0.00831			
5/29/2019		0.0106							0.00132 (J)
7/31/2019	0.0174			0.0221			0.00118 (J)		
10/1/2019	0.0243	0.0138				0.0137	<0.000203		0.0014 (J)
10/2/2019				0.0251				0.00157 (J)	
3/30/2020								0.00152 (J)	
3/31/2020		0.012							0.00149 (J)
4/1/2020				0.0208		0.00937			
8/31/2020									0.00176 (J)
9/1/2020	0.0401			0.0371	0.00472 (J)	0.015	0.00101 (J)	0.00179 (J)	
9/2/2020		0.0137	0.0012 (J)						
5/17/2021				0.0329					
5/18/2021					0.00546			0.00144	0.00159
5/19/2021		0.0118	0.00123			0.0147			
5/25/2021	0.0233						0.0015		
10/25/2021				0.0373	0.00162	0.0156	0.00134		
10/26/2021	0.0248		0.00105						
11/1/2021		0.0151						0.00086	0.00191
5/23/2022						0.0143			
5/24/2022	0.0333						0.00099	0.00079	0.00115
5/25/2022		0.0134	0.00112	0.03	0.00192				
10/31/2022				0.0281	0.00144	0.00934	0.000896		
11/1/2022		0.0161	0.00102					0.000464	
11/2/2022	0.0403								0.00151
4/3/2023									0.00156
4/4/2023			0.00092	0.0192	0.00113			0.000633	
4/5/2023		0.0156				0.000869			
4/24/2023	0.0224						0.000745		
8/7/2023			0.000884						
8/8/2023	0.0303	0.0156		0.0303	0.00165	0.00104	0.000696		0.00129
8/9/2023								0.000431	

Time Series

Constituent: Arsenic (mg/L) Analysis Run 10/22/2023 12:54 PM View: Descriptive
Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-20H	BY-AP-MW-20V
3/2/2016		
4/19/2016		
6/8/2016		
8/31/2016		
10/19/2016		
1/31/2017		
5/2/2017		
6/6/2017		
1/23/2018		
1/24/2018		
5/1/2018		
11/27/2018		
1/8/2019		
3/20/2019		
5/29/2019		
7/31/2019	0.0112	
10/1/2019	0.013	
10/2/2019		
3/30/2020		
3/31/2020		
4/1/2020	0.00508	
8/31/2020		
9/1/2020	0.0172	0.00845
9/2/2020		
5/17/2021		
5/18/2021		
5/19/2021	0.0132	0.0148
5/25/2021		
10/25/2021		
10/26/2021	0.0133	
11/1/2021		0.0182
5/23/2022	0.0136	
5/24/2022		0.0188
5/25/2022		
10/31/2022	0.0131	
11/1/2022		0.0186
11/2/2022		
4/3/2023		
4/4/2023		
4/5/2023		
4/24/2023	0.0133	0.00175
8/7/2023		
8/8/2023	0.0134	0.0152
8/9/2023		

Time Series

Constituent: Arsenic (mg/L) Analysis Run 10/22/2023 12:54 PM View: Descriptive

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-22H	BY-AP-MW-23H	BY-AP-MW-23V	BY-AP-MW-24H	BY-AP-MW-25H	BY-AP-MW-25V	BY-AP-MW-3	BY-AP-MW-4	BY-AP-MW-5
3/1/2016								<0.000203	0.0277
3/2/2016							<0.000203		
4/19/2016							<0.000203	<0.000203	
4/20/2016									0.0307
6/7/2016							<0.000203	<0.000203	0.0308
8/30/2016								<0.000203	0.033
8/31/2016							<0.000203		
10/18/2016									0.0296
10/19/2016							<0.000203	<0.000203	
1/31/2017							<0.000203	<0.000203	0.0264
5/2/2017							<0.000203	<0.000203	
5/3/2017									0.0309
6/6/2017							<0.000203	<0.000203	
6/7/2017									0.0283
1/24/2018							<0.000203	<0.000203	0.0282
5/1/2018							<0.000203	<0.000203	
5/2/2018									0.0315
11/27/2018							<0.000203	<0.000203	0.0283
11/28/2018									
1/8/2019				0.0306					
5/29/2019							<0.000203	<0.000203	0.0301
7/31/2019	0.0225	0.0132							
10/1/2019	0.0225	0.013					<0.000203	<0.000203	0.0307
10/2/2019				0.0673					
3/31/2020				0.0729			<0.000203	<0.000203	0.0329
4/1/2020		0.00689							
9/1/2020	0.0217	0.0226	<0.000203				<0.000203	<0.000203	0.0372
9/2/2020				0.0783	<0.000203	<0.000203			
5/17/2021			0.00119						
5/18/2021							<0.000203	0.000125 (J)	
5/24/2021		0.0133			8.73E-05 (J)	<0.000203			
5/25/2021	0.0191			0.0693					
10/26/2021	0.0202	0.00807	0.00119	0.0752					
11/1/2021							<0.000203	0.0002	
11/2/2021					0.00016 (J)	<0.000203			0.0357
5/24/2022	0.0197			0.0718					
5/25/2022		0.00518	0.00149		0.0002 (J)	<0.000203	<0.000203	<0.000203	0.0316
10/31/2022	0.0183				0.000176 (J)			9.9E-05 (J)	0.0292
11/1/2022		0.00463	0.00195			<0.000203	0.000102 (J)		
11/2/2022				0.0664					
4/3/2023				0.0694	0.000135 (J)	<0.000203			
4/4/2023		0.00291	0.00445				0.000455	<0.000203	0.0191
4/24/2023	0.0191								
8/7/2023									0.0164
8/8/2023	0.0197	0.00254	0.00483	0.0654	0.000121 (J)	<0.000203			
8/9/2023							0.00125	0.000226	

Time Series

Constituent: Arsenic (mg/L) Analysis Run 10/22/2023 12:54 PM View: Descriptive
Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-5V	BY-AP-MW-6
3/1/2016		0.00142 (J)
3/2/2016		
4/19/2016		0.00138 (J)
4/20/2016		
6/7/2016		<0.000203
8/30/2016		<0.000203
8/31/2016		
10/18/2016		
10/19/2016		<0.000203
1/31/2017		<0.000203
5/2/2017		
5/3/2017		<0.000203
6/6/2017		
6/7/2017		<0.000203
1/24/2018		<0.000203
5/1/2018		
5/2/2018		<0.000203
11/27/2018		
11/28/2018		<0.000203
1/8/2019	<0.000203	
5/29/2019		<0.000203
7/31/2019		
10/1/2019		<0.000203
10/2/2019	<0.000203	
3/31/2020	<0.000203	<0.000203
4/1/2020		
9/1/2020	<0.000203	
9/2/2020		<0.000203
5/17/2021		0.000103 (J)
5/18/2021		
5/24/2021		
5/25/2021		
10/26/2021		
11/1/2021		
11/2/2021	0.00101	0.0001 (J)
5/24/2022		
5/25/2022	0.00017 (J)	<0.000203
10/31/2022	0.000618	<0.000203
11/1/2022		
11/2/2022		
4/3/2023		
4/4/2023	<0.000203	<0.000203
4/24/2023		
8/7/2023	<0.000203	
8/8/2023		
8/9/2023		<0.000203

Time Series

Constituent: Arsenic (mg/L) Analysis Run 10/22/2023 12:54 PM View: Descriptive

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-7	BY-AP-MW-7V	BY-AP-MW-8	BY-AP-MW-8V	BY-AP-MW-9	BY-UP-MW-1 (bg)	BY-UP-MW-2 (bg)	BY-UP-MW-3 (bg)	BY-UP-MW-4 (bg)
2/23/2016						<0.000203	<0.000203	<0.000203	<0.000203
3/1/2016	0.0166		0.036		0.0322				
4/19/2016						<0.000203	<0.000203	<0.000203	<0.000203
4/20/2016	0.02		0.0399		0.0354				
6/6/2016						<0.000203			<0.000203
6/7/2016	0.0223		0.0401				<0.000203	<0.000203	
6/8/2016					0.0385				
8/30/2016			0.0387			<0.000203	<0.000203	<0.000203	<0.000203
8/31/2016	0.0231				0.0404				
10/18/2016			0.0394			<0.000203	<0.000203	<0.000203	<0.000203
10/19/2016	0.0244				0.0412				
1/31/2017	0.0197		0.0408			<0.000203	<0.000203	<0.000203	<0.000203
2/1/2017					0.0374				
5/2/2017						<0.000203	<0.000203	<0.000203	<0.000203
5/3/2017	0.0212		0.0416		0.0444				
6/6/2017						<0.000203	<0.000203	<0.000203	<0.000203
6/7/2017	0.0203		0.0395		0.0423				
1/23/2018					0.0435	<0.000203	<0.000203	<0.000203	<0.000203
1/24/2018	0.0214		0.0536						
5/1/2018							<0.000203	<0.000203	<0.000203
5/2/2018	0.0218		0.0572		0.0437	<0.000203			
11/26/2018									<0.000203
11/27/2018			0.0536			<0.000203	<0.000203	<0.000203	
11/28/2018	0.0209				0.0422				
1/9/2019		<0.000203		0.00121 (J)					
5/28/2019									<0.000203
5/29/2019	0.0178		0.0482			<0.000203	<0.000203	<0.000203	
5/30/2019					0.0349				
9/30/2019	0.0217		0.0514		0.0391				
10/1/2019		0.00278 (J)		0.00243 (J)					
10/2/2019						<0.000203	<0.000203	<0.000203	<0.000203
3/30/2020	0.0215	0.005	0.0589	0.00275 (J)					
3/31/2020					0.0393	<0.000203	<0.000203	<0.000203	0.0017 (J)
9/2/2020	0.0234	0.0024 (J)	0.0629	0.00346 (J)	0.0432				
9/8/2020									<0.000203
9/9/2020						<0.000203	<0.000203	<0.000203	
5/11/2021			0.0659				0.000136 (J)	<0.000203	0.000217
5/12/2021						0.000336			
5/18/2021	0.0215	0.00242		0.00398	0.0435				
10/18/2021								8.69E-05 (J)	0.000193 (J)
10/19/2021						0.000346	0.000122 (J)		
10/26/2021			0.0668	0.0048					
10/27/2021	0.0236	0.0027			0.0468				
5/23/2022				0.00386					
5/24/2022	0.0197	0.00218	0.0583		0.0404				
5/31/2022						0.000237	8.79E-05 (J)	<0.000203	0.000203
10/31/2022	0.00873	0.000983		0.00136	0.023				
11/1/2022						0.000345	0.000379	<0.000203	0.000115 (J)
11/2/2022			0.0415						
4/3/2023	0.013	0.00117	0.00353	0.000552					
4/4/2023					0.0145				
4/12/2023						0.00023	0.0002 (J)	<0.000203	0.000114 (J)

Time Series

Constituent: Arsenic (mg/L) Analysis Run 10/22/2023 12:54 PM View: Descriptive

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-7	BY-AP-MW-7V	BY-AP-MW-8	BY-AP-MW-8V	BY-AP-MW-9	BY-UP-MW-1 (bg)	BY-UP-MW-2 (bg)	BY-UP-MW-3 (bg)	BY-UP-MW-4 (bg)
8/7/2023	0.0134	0.00141	0.0024	0.00143	0.0315				
8/16/2023						0.000134 (J)	<0.000203	<0.000203	0.000209

Time Series

Constituent: Barium (mg/L) Analysis Run 10/22/2023 12:54 PM View: Descriptive

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-1	BY-AP-MW-10	BY-AP-MW-10V	BY-AP-MW-11	BY-AP-MW-12	BY-AP-MW-12V	BY-AP-MW-13	BY-AP-MW-13V	BY-AP-MW-14
3/1/2016		0.0634		0.122					
3/2/2016	0.219				0.0815		0.0947		0.0491
4/19/2016	0.201								
4/20/2016		0.0622		0.11	0.0692		0.0758		0.049
6/8/2016	0.274	0.0642		0.105	0.0763		0.071		0.0627
8/30/2016									0.0635
8/31/2016	0.296	0.063		0.102	0.0741		0.0722		
10/18/2016									0.0603
10/19/2016	0.281	0.0577		0.0953	0.0727		0.0707		
1/31/2017	0.211						0.0686		0.0533
2/1/2017		0.0607		0.0917	0.0701				
5/2/2017	0.29								0.0616
5/3/2017		0.0665		0.0951	0.078		0.0756		
6/6/2017	0.25								0.0585
6/7/2017		0.0632		0.0864	0.0682		0.0695		
1/22/2018							0.0688		
1/23/2018		0.0673		0.0868	0.0744				0.0608
1/24/2018	0.289								
5/1/2018	0.28								
5/2/2018		0.0752		0.0816	0.0814		0.0806		0.0614
11/27/2018									0.0589
11/28/2018	0.271	0.066		0.0796	0.0788		0.0697		
1/8/2019			0.149			0.144			
5/29/2019	0.29			0.0653	0.0769		0.0704		0.0617
5/30/2019		0.063							
9/30/2019		0.0669		0.0759					
10/1/2019	0.293		0.167		0.0795		0.0696		0.0605
10/2/2019						0.101			
3/30/2020	0.279								
3/31/2020		0.0727	0.184	0.0842	0.0851	0.0939	0.0728		0.0619
4/1/2020									
9/1/2020	0.33	0.078	0.203	0.0923	0.0827	0.102	0.0722		
9/2/2020								0.109	0.0687
5/11/2021		0.0757							
5/18/2021	0.339		0.212		0.0902	0.111			
5/19/2021				0.112			0.0817	0.114	
5/25/2021									0.0745
10/26/2021							0.0667	0.0827	
10/27/2021		0.0638	0.182						0.0651
11/1/2021	0.322				0.0823	0.103			
11/2/2021				0.0894					
5/23/2022				0.0691	0.0802	0.103			
5/24/2022	0.343	0.0618	0.188				0.0723		
5/25/2022								0.0888	0.0693
11/1/2022			0.199	0.078	0.079	0.101	0.0783	0.0987	0.0681
11/2/2022	0.279	0.0617							
4/3/2023	0.226	0.0628	0.189						
4/4/2023				0.0699	0.074	0.0978	0.0526	0.106	
4/5/2023									0.0594
8/7/2023		0.067	0.166	0.0637					
8/8/2023	0.258				0.086	0.0976			
8/9/2023							0.061	0.109	0.0646

Time Series

Constituent: Barium (mg/L) Analysis Run 10/22/2023 12:54 PM View: Descriptive
Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-14V	BY-AP-MW-15
3/1/2016		
3/2/2016		0.0468
4/19/2016		0.043
4/20/2016		
6/8/2016		0.0465
8/30/2016		
8/31/2016		0.0464
10/18/2016		
10/19/2016		0.0481
1/31/2017		0.0427
2/1/2017		
5/2/2017		0.0473
5/3/2017		
6/6/2017		0.0437
6/7/2017		
1/22/2018		0.0501
1/23/2018		
1/24/2018		
5/1/2018		0.0575
5/2/2018		
11/27/2018		0.0557
11/28/2018		
1/8/2019		
5/29/2019		0.0562
5/30/2019		
9/30/2019		
10/1/2019		0.0628
10/2/2019		
3/30/2020		
3/31/2020		
4/1/2020		0.0697
9/1/2020		
9/2/2020	0.0766	0.0736
5/11/2021		0.0762
5/18/2021		
5/19/2021		
5/25/2021	0.0729	
10/26/2021	0.0653	0.0784
10/27/2021		
11/1/2021		
11/2/2021		
5/23/2022		
5/24/2022	0.067	
5/25/2022		0.0846
11/1/2022	0.0617	0.0745
11/2/2022		
4/3/2023		0.081
4/4/2023	0.0645	
4/5/2023		
8/7/2023		
8/8/2023		0.0822
8/9/2023	0.0704	

Time Series

Constituent: Barium (mg/L) Analysis Run 10/22/2023 12:54 PM View: Descriptive
Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-20H	BY-AP-MW-20V
3/2/2016		
4/19/2016		
6/8/2016		
8/31/2016		
10/19/2016		
1/31/2017		
5/2/2017		
6/6/2017		
1/23/2018		
1/24/2018		
5/1/2018		
11/27/2018		
1/8/2019		
3/20/2019		
5/29/2019		
7/31/2019	0.0928	
10/1/2019	0.0913	
10/2/2019		
3/30/2020		
3/31/2020		
4/1/2020	0.119	
8/31/2020		
9/1/2020	0.11	0.115
9/2/2020		
5/17/2021		
5/18/2021		
5/19/2021	0.111	0.107
5/25/2021		
10/25/2021		
10/26/2021	0.0936	
11/1/2021		0.0883
5/23/2022	0.0963	
5/24/2022		0.0906
5/25/2022		
10/31/2022	0.0954	
11/1/2022		0.0871
11/2/2022		
4/3/2023		
4/4/2023		
4/5/2023		
4/24/2023	0.098	0.0548
8/7/2023		
8/8/2023	0.0938	0.275
8/9/2023		

Time Series

Constituent: Barium (mg/L) Analysis Run 10/22/2023 12:54 PM View: Descriptive

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-22H	BY-AP-MW-23H	BY-AP-MW-23V	BY-AP-MW-24H	BY-AP-MW-25H	BY-AP-MW-25V	BY-AP-MW-3	BY-AP-MW-4	BY-AP-MW-5
3/1/2016								0.018	0.136
3/2/2016							0.0306		
4/19/2016							0.0292	0.0166	
4/20/2016									0.132
6/7/2016							0.0318	0.0271	0.141
8/30/2016								0.0312	0.136
8/31/2016							0.0324		
10/18/2016									0.125
10/19/2016							0.0313	0.0443	
1/31/2017							0.0306	0.0231	0.125
5/2/2017							0.0332	0.0241	
5/3/2017									0.146
6/6/2017							0.0275	0.0276	
6/7/2017									0.126
1/24/2018							0.0317	0.0293	0.127
5/1/2018							0.0356	0.0205	
5/2/2018									0.154
11/27/2018							0.0339	0.0321	0.139
11/28/2018									
1/8/2019				0.294					
5/29/2019							0.037	0.0203	0.146
7/31/2019	0.185	0.162							
10/1/2019	0.213	0.175					0.0356	0.0207	0.138
10/2/2019				0.229					
3/31/2020				0.243			0.0393	0.0193	0.15
4/1/2020		0.0629							
9/1/2020	0.234	0.182	0.00933 (J)				0.038	0.0131	0.154
9/2/2020				0.26	0.0204	0.0111			
5/17/2021			0.0094						
5/18/2021							0.0406	0.0225	
5/24/2021		0.208			0.0206	0.00981			
5/25/2021	0.261			0.26					
10/26/2021	0.202	0.188	0.00766	0.238					
11/1/2021							0.0371	0.0217	
11/2/2021					0.0203	0.00907			0.159
5/24/2022	0.215			0.245					
5/25/2022		0.174	0.00735		0.0197	0.00993	0.0494	0.0399	0.155
10/31/2022	0.2				0.0198			0.118	0.105
11/1/2022		0.171	0.036			0.0106	0.0289		
11/2/2022				0.23					
4/3/2023				0.235	0.0187	0.0105			
4/4/2023		0.159	0.262				0.0271	0.118	0.0842
4/24/2023	0.209								
8/7/2023									0.0707
8/8/2023	0.21	0.165	0.289	0.256	0.021	0.012			
8/9/2023							0.0351	0.115	

Time Series

Constituent: Barium (mg/L) Analysis Run 10/22/2023 12:54 PM View: Descriptive
Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-5V	BY-AP-MW-6
3/1/2016		0.0278
3/2/2016		
4/19/2016		0.0242
4/20/2016		
6/7/2016		0.0223
8/30/2016		0.0242
8/31/2016		
10/18/2016		
10/19/2016		0.024
1/31/2017		0.0248
5/2/2017		
5/3/2017		0.0268
6/6/2017		
6/7/2017		0.0256
1/24/2018		0.0254
5/1/2018		
5/2/2018		0.0276
11/27/2018		
11/28/2018		0.0231
1/8/2019	0.0372	
5/29/2019		0.0244
7/31/2019		
10/1/2019		0.0257
10/2/2019	0.0338	
3/31/2020	0.0313	0.0244
4/1/2020		
9/1/2020	0.0399	
9/2/2020		0.0282
5/17/2021		0.0305
5/18/2021		
5/24/2021		
5/25/2021		
10/26/2021		
11/1/2021		
11/2/2021	0.0368	0.0286
5/24/2022		
5/25/2022	0.0574	0.0268
10/31/2022	0.0514	0.0263
11/1/2022		
11/2/2022		
4/3/2023		
4/4/2023	0.0465	0.0275
4/24/2023		
8/7/2023	0.0433	
8/8/2023		
8/9/2023		0.0288

Time Series

Constituent: Barium (mg/L) Analysis Run 10/22/2023 12:54 PM View: Descriptive

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-7	BY-AP-MW-7V	BY-AP-MW-8	BY-AP-MW-8V	BY-AP-MW-9	BY-UP-MW-1 (bg)	BY-UP-MW-2 (bg)	BY-UP-MW-3 (bg)	BY-UP-MW-4 (bg)
2/23/2016						0.117	0.111	0.0862	0.0973
3/1/2016	0.0519		0.142		0.114				
4/19/2016						0.099	0.0875	0.0718	0.0802
4/20/2016	0.0517		0.143		0.114				
6/6/2016						0.107			0.0862
6/7/2016	0.0577		0.145				0.0979	0.0754	
6/8/2016					0.128				
8/30/2016			0.147			0.106	0.108	0.0768	0.0841
8/31/2016	0.0614				0.123				
10/18/2016			0.14			0.102	0.103	0.0727	0.0715
10/19/2016	0.0618				0.118				
1/31/2017	0.0576		0.134			0.0944	0.109	0.0698	0.0825
2/1/2017					0.104				
5/2/2017						0.0868	0.125	0.0723	0.0777
5/3/2017	0.0601		0.145		0.126				
6/6/2017						0.0799	0.108	0.07	0.078
6/7/2017	0.054		0.128		0.111				
1/23/2018					0.115	0.0884	0.153	0.0747	0.0825
1/24/2018	0.0568		0.129						
5/1/2018							0.167	0.0877	0.102
5/2/2018	0.063		0.149		0.125	0.137			
11/26/2018									0.0994
11/27/2018			0.143			0.157	0.158	0.0804	
11/28/2018	0.0654				0.119				
1/9/2019		0.112		0.337					
5/28/2019									0.102
5/29/2019	0.059		0.138			0.166	0.172	0.0831	
5/30/2019					0.112				
9/30/2019	0.0648		0.138		0.117				
10/1/2019		0.0541		0.264					
10/2/2019						0.129	0.183	0.089	0.111
3/30/2020	0.059	0.0519	0.141	0.264					
3/31/2020					0.119	0.176	0.171	0.0927	0.129
9/2/2020	0.0745	0.0648	0.151	0.289	0.124				
9/8/2020									0.125
9/9/2020						0.124	0.172	0.0919	
5/11/2021			0.147				0.165	0.0981	0.125
5/12/2021						0.123			
5/18/2021	0.07	0.0805		0.299	0.125				
10/18/2021								0.0935	0.124
10/19/2021						0.103	0.145		
10/26/2021			0.136	0.282					
10/27/2021	0.0664	0.0684			0.117				
5/23/2022				0.277					
5/24/2022	0.0717	0.0803	0.142		0.117				
5/31/2022						0.1	0.153	0.0992	0.129
10/31/2022	0.0188	0.0179		0.277	0.111				
11/1/2022						0.0804	0.145	0.0963	0.11
11/2/2022			0.149						
4/3/2023	0.0288	0.01	0.0223	0.139					
4/4/2023					0.128				
4/12/2023						0.082	0.138	0.0925	0.116

Time Series

Constituent: Barium (mg/L) Analysis Run 10/22/2023 12:54 PM View: Descriptive

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-7	BY-AP-MW-7V	BY-AP-MW-8	BY-AP-MW-8V	BY-AP-MW-9	BY-UP-MW-1 (bg)	BY-UP-MW-2 (bg)	BY-UP-MW-3 (bg)	BY-UP-MW-4 (bg)
8/7/2023	0.0303	0.0583	0.0215	0.0322	0.0829				
8/16/2023						0.0689	0.13	0.0912	0.121

Time Series

Constituent: Beryllium (mg/L) Analysis Run 10/22/2023 12:54 PM View: Descriptive

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-1	BY-AP-MW-10	BY-AP-MW-10V	BY-AP-MW-11	BY-AP-MW-12	BY-AP-MW-12V	BY-AP-MW-13	BY-AP-MW-13V	BY-AP-MW-14
3/1/2016		<0.001015		<0.001015					
3/2/2016	<0.001015				<0.001015		<0.001015		<0.001015
4/19/2016	<0.001015								
4/20/2016		<0.001015		<0.001015	<0.001015		<0.001015		<0.001015
6/8/2016	<0.001015	<0.001015		<0.001015	<0.001015		<0.001015		<0.001015
8/30/2016									<0.001015
8/31/2016	<0.001015	<0.001015		<0.001015	<0.001015		<0.001015		
10/18/2016									<0.001015
10/19/2016	<0.001015	<0.001015		<0.001015	<0.001015		<0.001015		
1/31/2017	<0.001015						<0.001015		<0.001015
2/1/2017		<0.001015		<0.001015	<0.001015				
5/2/2017	<0.001015								<0.001015
5/3/2017		<0.001015		<0.001015	<0.001015		<0.001015		
6/6/2017	<0.001015								<0.001015
6/7/2017		<0.001015		<0.001015	<0.001015		0.00103 (J)		
1/22/2018							<0.001015		
1/23/2018		<0.001015		<0.001015	<0.001015				<0.001015
1/24/2018	<0.001015								
5/1/2018	<0.001015								
5/2/2018		<0.001015		<0.001015	<0.001015		<0.001015		<0.001015
11/27/2018									<0.001015
11/28/2018	<0.001015	<0.001015		<0.001015	<0.001015		<0.001015		
1/8/2019			<0.001015			<0.001015			
5/29/2019	<0.001015			<0.001015	<0.001015		<0.001015		<0.001015
5/30/2019		<0.001015							
9/30/2019		<0.001015		<0.001015					
10/1/2019	<0.001015		<0.001015		<0.001015		<0.001015		<0.001015
10/2/2019						<0.001015			
3/30/2020	<0.001015								
3/31/2020		<0.001015	<0.001015	<0.001015	<0.001015	<0.001015	<0.001015		<0.001015
4/1/2020									
9/1/2020	<0.001015	<0.001015	<0.001015	<0.001015	<0.001015	<0.001015	<0.001015		
9/2/2020								<0.001015	<0.001015
5/11/2021		<0.001015							
5/18/2021	<0.001015		<0.001015		<0.001015	<0.001015			
5/19/2021				<0.001015			<0.001015	<0.001015	
5/25/2021									<0.001015
10/26/2021							<0.001015	<0.001015	
10/27/2021		<0.001015	<0.001015						<0.001015
11/1/2021	<0.001015				<0.001015	<0.001015			
11/2/2021				<0.001015					
5/23/2022				<0.001015	<0.001015	<0.001015			
5/24/2022	<0.001015	<0.001015	<0.001015				<0.001015		
5/25/2022								<0.001015	<0.001015
11/1/2022			<0.001015	<0.001015	<0.001015	<0.001015	<0.001015	<0.001015	<0.001015
11/2/2022	<0.001015	<0.001015							
4/3/2023	<0.001015	<0.001015	<0.001015						
4/4/2023				<0.001015	<0.001015	<0.001015	<0.001015	<0.001015	
4/5/2023									<0.001015
8/7/2023		<0.001015	<0.001015	<0.001015					
8/8/2023	<0.001015				<0.001015	<0.001015			
8/9/2023							<0.001015	<0.001015	<0.001015

Time Series

Constituent: Beryllium (mg/L) Analysis Run 10/22/2023 12:54 PM View: Descriptive
Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-14V	BY-AP-MW-15
3/1/2016		
3/2/2016		<0.00102
4/19/2016		<0.00102
4/20/2016		
6/8/2016		<0.00102
8/30/2016		
8/31/2016		<0.00102
10/18/2016		
10/19/2016		<0.00102
1/31/2017		<0.00102
2/1/2017		
5/2/2017		<0.00102
5/3/2017		
6/6/2017		<0.00102
6/7/2017		
1/22/2018		<0.00102
1/23/2018		
1/24/2018		
5/1/2018		<0.00102
5/2/2018		
11/27/2018		<0.00102
11/28/2018		
1/8/2019		
5/29/2019		<0.00102
5/30/2019		
9/30/2019		
10/1/2019		<0.00102
10/2/2019		
3/30/2020		
3/31/2020		
4/1/2020		<0.00102
9/1/2020		
9/2/2020	<0.001015	<0.00102
5/11/2021		<0.00102
5/18/2021		
5/19/2021		
5/25/2021	<0.001015	
10/26/2021	<0.001015	<0.00102
10/27/2021		
11/1/2021		
11/2/2021		
5/23/2022		
5/24/2022	<0.001015	
5/25/2022		<0.00102
11/1/2022	<0.001015	<0.00102
11/2/2022		
4/3/2023		<0.00102
4/4/2023	<0.001015	
4/5/2023		
8/7/2023		
8/8/2023		<0.00102
8/9/2023	<0.001015	

Time Series

Constituent: Beryllium (mg/L) Analysis Run 10/22/2023 12:54 PM View: Descriptive

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-15V	BY-AP-MW-16	BY-AP-MW-16V	BY-AP-MW-17H	BY-AP-MW-17V	BY-AP-MW-18H	BY-AP-MW-19H	BY-AP-MW-1V	BY-AP-MW-2
3/2/2016		<0.001015							<0.001015
4/19/2016		<0.001015							<0.001015
6/8/2016		<0.001015							<0.001015
8/31/2016		<0.001015							<0.001015
10/19/2016		<0.001015							<0.001015
1/31/2017		<0.001015							<0.001015
5/2/2017		<0.001015							<0.001015
6/6/2017		<0.001015							<0.001015
1/23/2018		<0.001015							<0.001015
1/24/2018									<0.001015
5/1/2018		<0.001015							<0.001015
11/27/2018		<0.001015							<0.001015
1/8/2019								<0.001015	
3/20/2019						<0.001015			
5/29/2019		<0.001015							<0.001015
7/31/2019	<0.001015			<0.001015			<0.001015		
10/1/2019	<0.001015	<0.001015				<0.001015	<0.001015		<0.001015
10/2/2019				<0.001015				<0.001015	
3/30/2020								<0.001015	
3/31/2020		<0.001015							<0.001015
4/1/2020				<0.001015		<0.001015			
8/31/2020									<0.001015
9/1/2020	<0.001015			<0.001015	<0.001015	<0.001015	<0.001015	<0.001015	
9/2/2020		<0.001015	<0.001015						
5/17/2021				<0.001015					
5/18/2021					<0.001015			<0.001015	<0.001015
5/19/2021		<0.001015	<0.001015			<0.001015			
5/25/2021	<0.001015						<0.001015		
10/25/2021				<0.001015	<0.001015	<0.001015	<0.001015		
10/26/2021	<0.001015		<0.001015						
11/1/2021		<0.001015						<0.001015	<0.001015
5/23/2022						<0.001015			
5/24/2022	<0.001015						<0.001015	<0.001015	<0.001015
5/25/2022		<0.001015	<0.001015	<0.001015	<0.001015				
10/31/2022				<0.001015	<0.001015	<0.001015	<0.001015		
11/1/2022		<0.001015	<0.001015					<0.001015	
11/2/2022	<0.001015								<0.001015
4/3/2023									<0.001015
4/4/2023			<0.001015	<0.001015	<0.001015			<0.001015	
4/5/2023		<0.001015				<0.001015			
4/24/2023	<0.001015						<0.001015		
8/7/2023			<0.001015						
8/8/2023	<0.001015	<0.001015		<0.001015	<0.001015	<0.001015	<0.001015		<0.001015
8/9/2023								<0.001015	

Time Series

Constituent: Beryllium (mg/L) Analysis Run 10/22/2023 12:54 PM View: Descriptive
Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-20H	BY-AP-MW-20V
3/2/2016		
4/19/2016		
6/8/2016		
8/31/2016		
10/19/2016		
1/31/2017		
5/2/2017		
6/6/2017		
1/23/2018		
1/24/2018		
5/1/2018		
11/27/2018		
1/8/2019		
3/20/2019		
5/29/2019		
7/31/2019	<0.001015	
10/1/2019	<0.001015	
10/2/2019		
3/30/2020		
3/31/2020		
4/1/2020	<0.001015	
8/31/2020		
9/1/2020	<0.001015	<0.001015
9/2/2020		
5/17/2021		
5/18/2021		
5/19/2021	<0.001015	<0.001015
5/25/2021		
10/25/2021		
10/26/2021	<0.001015	
11/1/2021		<0.001015
5/23/2022	<0.001015	
5/24/2022		<0.001015
5/25/2022		
10/31/2022	<0.001015	
11/1/2022		<0.001015
11/2/2022		
4/3/2023		
4/4/2023		
4/5/2023		
4/24/2023	<0.001015	<0.001015
8/7/2023		
8/8/2023	<0.001015	<0.001015
8/9/2023		

Time Series

Constituent: Beryllium (mg/L) Analysis Run 10/22/2023 12:54 PM View: Descriptive

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-22H	BY-AP-MW-23H	BY-AP-MW-23V	BY-AP-MW-24H	BY-AP-MW-25H	BY-AP-MW-25V	BY-AP-MW-3	BY-AP-MW-4	BY-AP-MW-5
3/1/2016								<0.001015	<0.001015
3/2/2016							<0.001015		
4/19/2016							<0.001015	<0.001015	
4/20/2016									<0.001015
6/7/2016							<0.001015	<0.001015	<0.001015
8/30/2016								<0.001015	<0.001015
8/31/2016							<0.001015		
10/18/2016									<0.001015
10/19/2016							<0.001015	<0.001015	
1/31/2017							<0.001015	<0.001015	<0.001015
5/2/2017							<0.001015	<0.001015	
5/3/2017									<0.001015
6/6/2017							<0.001015	<0.001015	
6/7/2017									<0.001015
1/24/2018							<0.001015	<0.001015	<0.001015
5/1/2018							<0.001015	<0.001015	
5/2/2018									<0.001015
11/27/2018							<0.001015	0.00071 (J)	<0.001015
11/28/2018									
1/8/2019				<0.001015					
5/29/2019							<0.001015	<0.001015	<0.001015
7/31/2019	<0.001015	<0.001015							
10/1/2019	<0.001015	<0.001015					<0.001015	<0.001015	<0.001015
10/2/2019				<0.001015					
3/31/2020				<0.001015			<0.001015	<0.001015	<0.001015
4/1/2020		<0.001015							
9/1/2020	<0.001015	<0.001015	<0.001015				<0.001015	<0.001015	<0.001015
9/2/2020				<0.001015	<0.001015	<0.001015			
5/17/2021			<0.001015						
5/18/2021							<0.001015	<0.001015	
5/24/2021		<0.001015			<0.001015	<0.001015			
5/25/2021	<0.001015			<0.001015					
10/26/2021	<0.001015	<0.001015	<0.001015	<0.001015					
11/1/2021							<0.001015	<0.001015	
11/2/2021					<0.001015	<0.001015			<0.001015
5/24/2022	<0.001015			<0.001015					
5/25/2022		<0.001015	<0.001015		<0.001015	<0.001015	<0.001015	0.00065 (J)	<0.001015
10/31/2022	<0.001015				<0.001015			0.000451 (J)	<0.001015
11/1/2022		<0.001015	<0.001015			<0.001015	<0.001015		
11/2/2022				<0.001015					
4/3/2023				<0.001015	<0.001015	<0.001015			
4/4/2023		<0.001015	<0.001015				<0.001015	0.000432 (J)	<0.001015
4/24/2023	<0.001015								
8/7/2023									<0.001015
8/8/2023	<0.001015	<0.001015	<0.001015	<0.001015	<0.001015	<0.001015			
8/9/2023							<0.001015	<0.001015	

Time Series

Constituent: Beryllium (mg/L) Analysis Run 10/22/2023 12:54 PM View: Descriptive
Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-5V	BY-AP-MW-6
3/1/2016		<0.001015
3/2/2016		
4/19/2016		<0.001015
4/20/2016		
6/7/2016		<0.001015
8/30/2016		<0.001015
8/31/2016		
10/18/2016		
10/19/2016		<0.001015
1/31/2017		<0.001015
5/2/2017		
5/3/2017		<0.001015
6/6/2017		
6/7/2017		<0.001015
1/24/2018		<0.001015
5/1/2018		
5/2/2018		<0.001015
11/27/2018		
11/28/2018		<0.001015
1/8/2019	<0.001015	
5/29/2019		<0.001015
7/31/2019		
10/1/2019		<0.001015
10/2/2019	<0.001015	
3/31/2020	<0.001015	<0.001015
4/1/2020		
9/1/2020	<0.001015	
9/2/2020		<0.001015
5/17/2021		<0.001015
5/18/2021		
5/24/2021		
5/25/2021		
10/26/2021		
11/1/2021		
11/2/2021	<0.001015	<0.001015
5/24/2022		
5/25/2022	<0.001015	<0.001015
10/31/2022	<0.001015	<0.001015
11/1/2022		
11/2/2022		
4/3/2023		
4/4/2023	<0.001015	<0.001015
4/24/2023		
8/7/2023	<0.001015	
8/8/2023		
8/9/2023		<0.001015

Time Series

Constituent: Beryllium (mg/L) Analysis Run 10/22/2023 12:54 PM View: Descriptive

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-7	BY-AP-MW-7V	BY-AP-MW-8	BY-AP-MW-8V	BY-AP-MW-9	BY-UP-MW-1 (bg)	BY-UP-MW-2 (bg)	BY-UP-MW-3 (bg)	BY-UP-MW-4 (bg)
2/23/2016						<0.001015	<0.001015	<0.001015	<0.001015
3/1/2016	<0.001015		<0.001015		<0.001015				
4/19/2016						<0.001015	<0.001015	<0.001015	<0.001015
4/20/2016	<0.001015		<0.001015		<0.001015				
6/6/2016						0.000612 (J)			<0.001015
6/7/2016	<0.001015		<0.001015				0.00093 (J)	<0.001015	
6/8/2016					<0.001015				
8/30/2016			<0.001015			<0.001015	<0.001015	<0.001015	<0.001015
8/31/2016	<0.001015				<0.001015				
10/18/2016			<0.001015			<0.001015	<0.001015	<0.001015	<0.001015
10/19/2016	<0.001015				<0.001015				
1/31/2017	<0.001015		<0.001015			<0.001015	<0.001015	<0.001015	<0.001015
2/1/2017					<0.001015				
5/2/2017						0.00069 (J)	<0.001015	<0.001015	<0.001015
5/3/2017	<0.001015		<0.001015		<0.001015				
6/6/2017						<0.001015	<0.001015	<0.001015	<0.001015
6/7/2017	<0.001015		<0.001015		<0.001015				
1/23/2018					<0.001015	<0.001015	<0.001015	<0.001015	<0.001015
1/24/2018	<0.001015		<0.001015						
5/1/2018							<0.001015	<0.001015	<0.001015
5/2/2018	<0.001015		<0.001015		<0.001015	<0.001015			
11/26/2018									<0.001015
11/27/2018			<0.001015			0.000856 (J)	0.000801 (J)	<0.001015	
11/28/2018	<0.001015				<0.001015				
1/9/2019		<0.001015		<0.001015					
5/28/2019									<0.001015
5/29/2019	<0.001015		<0.001015			<0.001015	<0.001015	<0.001015	
5/30/2019					<0.001015				
9/30/2019	<0.001015		<0.001015		<0.001015				
10/1/2019		<0.001015		<0.001015					
10/2/2019						<0.001015	<0.001015	<0.001015	<0.001015
3/30/2020	<0.001015	<0.001015	<0.001015	<0.001015					
3/31/2020					<0.001015	<0.001015	<0.001015	<0.001015	<0.001015
9/2/2020	<0.001015	<0.001015	<0.001015	<0.001015	<0.001015				
9/8/2020									<0.001015
9/9/2020						<0.001015	<0.001015	<0.001015	
5/11/2021			<0.001015				<0.001015	<0.001015	<0.001015
5/12/2021						0.000694 (J)			
5/18/2021	<0.001015	<0.001015		<0.001015	<0.001015				
10/18/2021								<0.001015	<0.001015
10/19/2021						<0.001015	<0.001015		
10/26/2021			<0.001015	<0.001015					
10/27/2021	<0.001015	<0.001015			<0.001015				
5/23/2022				<0.001015					
5/24/2022	<0.001015	<0.001015	<0.001015		<0.001015				
5/31/2022						<0.001015	0.00041 (J)	<0.001015	<0.001015
10/31/2022	<0.001015	<0.001015		<0.001015	<0.001015				
11/1/2022						<0.001015	0.000429 (J)	<0.001015	<0.001015
11/2/2022			<0.001015						
4/3/2023	<0.001015	<0.001015	<0.001015	<0.001015					
4/4/2023					<0.001015				
4/12/2023						<0.001015	0.000416 (J)	<0.001015	<0.001015

Time Series

Constituent: Beryllium (mg/L) Analysis Run 10/22/2023 12:54 PM View: Descriptive

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-7	BY-AP-MW-7V	BY-AP-MW-8	BY-AP-MW-8V	BY-AP-MW-9	BY-UP-MW-1 (bg)	BY-UP-MW-2 (bg)	BY-UP-MW-3 (bg)	BY-UP-MW-4 (bg)
8/7/2023	<0.001015	<0.001015	<0.001015	<0.001015	<0.001015				
8/16/2023						<0.001015	<0.001015	<0.001015	<0.001015

Time Series

Constituent: Boron, total (mg/L) Analysis Run 10/22/2023 12:54 PM View: Descriptive

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-1	BY-AP-MW-10	BY-AP-MW-10V	BY-AP-MW-11	BY-AP-MW-12	BY-AP-MW-12V	BY-AP-MW-13	BY-AP-MW-13V	BY-AP-MW-14
3/1/2016		1.39		0.0482 (J)					
3/2/2016	2.03				0.0502 (J)		0.0328 (J)		0.0395 (J)
4/19/2016	2.2								
4/20/2016		1.51		0.059 (J)	0.0672 (J)		0.0434 (J)		0.0549 (J)
6/8/2016	1.61	1.62		0.0568 (J)	0.0659 (J)		0.0391 (J)		0.0593 (J)
8/30/2016									0.0534 (J)
8/31/2016	1.55	1.73		0.0651 (J)	0.065 (J)		0.0401 (J)		
10/18/2016									0.0597 (J)
10/19/2016	1.59	1.77		0.06 (J)	0.0721 (J)		0.0427 (J)		
1/31/2017	1.84						0.034 (J)		0.0479 (J)
2/1/2017		1.42		0.0638 (J)	0.06 (J)				
5/2/2017	1.73								0.0587 (J)
5/3/2017		1.52		0.0655 (J)	0.0768 (J)		0.0416 (J)		
6/6/2017	1.56								0.0428 (J)
6/7/2017		1.52		0.0468 (J)	0.0625 (J)		0.0277 (J)		
9/13/2017	1.87			0.0751 (J)	0.0926 (J)		0.044 (J)		0.0647 (J)
9/14/2017		1.96							
5/1/2018	1.81								
5/2/2018		2		0.0545 (J)	0.064 (J)		0.0393 (J)		0.0484 (J)
11/27/2018									0.0493 (J)
11/28/2018	1.8	2		0.0545 (J)	0.064 (J)		0.0417 (J)		
1/8/2019			0.677			0.0939 (J)			
5/29/2019	1.75			0.082 (J)	0.0952 (J)		0.0528 (J)		0.0682 (J)
5/30/2019		2.11							
9/30/2019		2.02		0.103					
10/1/2019	1.91		1.02		0.0967 (J)		0.0604 (J)		0.0701 (J)
10/2/2019						0.134			
3/30/2020	1.77								
3/31/2020		2.12	1.04	0.0815 (J)	0.0856 (J)	0.101	0.0505 (J)		0.0655 (J)
4/1/2020									
9/1/2020	2.11	2.02	1.06	0.104	0.115	0.149	0.0642 (J)		
9/2/2020								0.112	0.0789 (J)
5/11/2021		1.99							
5/18/2021	1.99		0.971		0.0927 (J)	0.118			
5/19/2021				0.0856 (J)			0.0604 (J)	0.0976 (J)	
5/25/2021									0.074 (J)
10/26/2021							0.0511 (J)	0.0888 (J)	
10/27/2021		2.39	0.933						0.0677 (J)
11/1/2021	2.02				0.0769 (J)	0.0962 (J)			
11/2/2021				0.0691 (J)					
5/23/2022				0.0558 (J)	0.0626 (J)	0.0765 (J)			
5/24/2022	2.08	2.34	0.938				0.0457 (J)		
5/25/2022								0.0852 (J)	0.0618 (J)
11/1/2022			1	0.0727 (J)	0.0777 (J)	0.0922 (J)	0.0445 (J)	0.0803 (J)	0.0519 (J)
11/2/2022	1.92	2.02							
4/3/2023	2.04	2.22	0.965						
4/4/2023				0.0581 (J)	0.0629 (J)	0.0809 (J)	0.0391 (J)	0.0745 (J)	
4/5/2023									0.0587 (J)
8/7/2023		1.68	0.958	0.0562 (J)					
8/8/2023	1.36				0.0641 (J)	0.0777 (J)			
8/9/2023							0.0538 (J)	0.109	0.0724 (J)

Time Series

Constituent: Boron, total (mg/L) Analysis Run 10/22/2023 12:54 PM View: Descriptive
Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-14V	BY-AP-MW-15
3/1/2016		
3/2/2016		0.0447 (J)
4/19/2016		0.0645 (J)
4/20/2016		
6/8/2016		0.0592 (J)
8/30/2016		
8/31/2016		0.0632 (J)
10/18/2016		
10/19/2016		0.0637 (J)
1/31/2017		0.0536 (J)
2/1/2017		
5/2/2017		0.0775 (J)
5/3/2017		
6/6/2017		0.0535 (J)
6/7/2017		
9/13/2017		0.0937 (J)
9/14/2017		
5/1/2018		0.0683 (J)
5/2/2018		
11/27/2018		0.0715 (J)
11/28/2018		
1/8/2019		
5/29/2019		0.116
5/30/2019		
9/30/2019		
10/1/2019		0.116
10/2/2019		
3/30/2020		
3/31/2020		
4/1/2020		0.1
9/1/2020		
9/2/2020	0.407	0.148
5/11/2021		0.109
5/18/2021		
5/19/2021		
5/25/2021	0.43	
10/26/2021	0.393	0.0953 (J)
10/27/2021		
11/1/2021		
11/2/2021		
5/23/2022		
5/24/2022	0.376	
5/25/2022		0.0826 (J)
11/1/2022	0.361	0.0712 (J)
11/2/2022		
4/3/2023		0.0713 (J)
4/4/2023	0.39	
4/5/2023		
8/7/2023		
8/8/2023		0.0792 (J)
8/9/2023	0.399	

Time Series

Constituent: Boron, total (mg/L) Analysis Run 10/22/2023 12:54 PM View: Descriptive

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-15V	BY-AP-MW-16	BY-AP-MW-16V	BY-AP-MW-17H	BY-AP-MW-17V	BY-AP-MW-18H	BY-AP-MW-19H	BY-AP-MW-1V	BY-AP-MW-2
3/2/2016		1.47							<0.1015
4/19/2016		1.53							<0.1015
6/8/2016		1.7							<0.1015
8/31/2016		1.68							<0.1015
10/19/2016		1.53							<0.1015
1/31/2017		1.51							<0.1015
5/2/2017		1.64							<0.1015
6/6/2017		1.57							<0.1015
9/12/2017									<0.1015
9/13/2017		2.18							
5/1/2018		1.57							<0.1015
11/27/2018		1.58							<0.1015
1/8/2019								0.0205 (J)	
3/20/2019						0.924			
5/29/2019		1.7							<0.1015
7/31/2019	0.0439 (J)			0.0782 (J)			0.835		
10/1/2019	0.0824 (J)	2.05				1.05	0.931		<0.1015
10/2/2019				0.129				<0.1015	
3/30/2020								0.0347 (J)	
3/31/2020		1.74							<0.1015
4/1/2020				0.073 (J)		0.435			
8/31/2020									<0.1015
9/1/2020	0.0907 (J)			0.146	0.124	0.855	0.895	0.0368 (J)	
9/2/2020		1.9	<0.1015						
5/17/2021				0.0911 (J)					
5/18/2021					0.124			0.0334 (J)	<0.1015
5/19/2021		1.74	<0.1015			0.866			
5/25/2021	0.0617 (J)						0.252		
10/25/2021				0.0887 (J)	0.113	0.934	0.142		
10/26/2021	0.0498 (J)		<0.1015						
11/1/2021		2.18						<0.1015	<0.1015
5/23/2022						0.91			
5/24/2022	0.0376 (J)						0.159	0.0333 (J)	<0.1015
5/25/2022		1.98	<0.1015	0.0597 (J)	0.177				
10/31/2022				0.064 (J)	0.198	1.65	0.63		
11/1/2022		2.24	<0.1015					0.0424 (J)	
11/2/2022	0.033 (J)								<0.1015
4/3/2023									<0.1015
4/4/2023			<0.1015	0.0474 (J)	0.285			0.0656 (J)	
4/5/2023		2.29				0.0377 (J)			
4/24/2023	0.0423 (J)						0.876		
8/7/2023			<0.1015						
8/8/2023	0.0366 (J)	2.45		0.0614 (J)	0.194	0.0442 (J)	1.23		<0.1015
8/9/2023								0.0661 (J)	

Time Series

Constituent: Boron, total (mg/L) Analysis Run 10/22/2023 12:54 PM View: Descriptive
Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-20H	BY-AP-MW-20V
3/2/2016		
4/19/2016		
6/8/2016		
8/31/2016		
10/19/2016		
1/31/2017		
5/2/2017		
6/6/2017		
9/12/2017		
9/13/2017		
5/1/2018		
11/27/2018		
1/8/2019		
3/20/2019		
5/29/2019		
7/31/2019	0.0707 (J)	
10/1/2019	0.101	
10/2/2019		
3/30/2020		
3/31/2020		
4/1/2020	0.046 (J)	
8/31/2020		
9/1/2020	0.106	0.134
9/2/2020		
5/17/2021		
5/18/2021		
5/19/2021	0.0909 (J)	0.119
5/25/2021		
10/25/2021		
10/26/2021	0.0784 (J)	
11/1/2021		0.11
5/23/2022	0.0653 (J)	
5/24/2022		0.0977 (J)
5/25/2022		
10/31/2022	0.06 (J)	
11/1/2022		0.0866 (J)
11/2/2022		
4/3/2023		
4/4/2023		
4/5/2023		
4/24/2023	0.0573 (J)	<0.1015
8/7/2023		
8/8/2023	0.0655 (J)	0.148
8/9/2023		

Time Series

Constituent: Boron, total (mg/L) Analysis Run 10/22/2023 12:54 PM View: Descriptive

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-22H	BY-AP-MW-23H	BY-AP-MW-23V	BY-AP-MW-24H	BY-AP-MW-25H	BY-AP-MW-25V	BY-AP-MW-3	BY-AP-MW-4	BY-AP-MW-5
3/1/2016								<0.1015	0.0462 (J)
3/2/2016							<0.1015		
4/19/2016							<0.1015	<0.1015	
4/20/2016									0.0719 (J)
6/7/2016							<0.1015	<0.1015	0.0591 (J)
8/30/2016								<0.1015	0.0675 (J)
8/31/2016							<0.1015		
10/18/2016									0.0699 (J)
10/19/2016							<0.1015	<0.1015	
1/31/2017							<0.1015	<0.1015	0.0518 (J)
5/2/2017							<0.1015	<0.1015	
5/3/2017									0.0737 (J)
6/6/2017							<0.1015	<0.1015	
6/7/2017									0.0518 (J)
9/12/2017							<0.1015	<0.1015	
9/14/2017									0.0825 (J)
5/1/2018							<0.1015	<0.1015	
5/2/2018									0.0603 (J)
11/27/2018							<0.1015	<0.1015	0.0613 (J)
11/28/2018									
1/8/2019				0.213					
5/29/2019							<0.1015	<0.1015	0.0946 (J)
7/31/2019	0.0643 (J)	0.0531 (J)							
10/1/2019	0.105	0.0856 (J)					<0.1015	<0.1015	0.103
10/2/2019				0.344					
3/31/2020				0.325			<0.1015	<0.1015	0.0782 (J)
4/1/2020		<0.1							
9/1/2020	0.115	0.0943 (J)	0.307				<0.1015	<0.1015	0.115
9/2/2020				0.382	<0.1015	<0.1015			
5/17/2021			0.32						
5/18/2021							<0.1015	<0.1015	
5/24/2021		0.0785 (J)			<0.1015	<0.1015			
5/25/2021	0.0889 (J)			0.37					
10/26/2021	0.0725 (J)	0.0709 (J)	0.306	0.354					
11/1/2021							<0.1015	<0.1015	
11/2/2021					<0.1015	<0.1015			0.0755 (J)
5/24/2022	0.0562 (J)			0.351					
5/25/2022		0.0526 (J)	0.307		<0.1015	<0.1015	<0.1015	<0.1015	0.063 (J)
10/31/2022	0.0346 (J)				<0.1015		<0.1015	<0.1015	0.0515 (J)
11/1/2022		0.0382 (J)	0.345			<0.1015	<0.1015		
11/2/2022				0.337					
4/3/2023				0.381	<0.1015	<0.1015			
4/4/2023		0.0481 (J)	0.245				0.0468 (J)	<0.1015	0.0381 (J)
4/24/2023	0.0696 (J)								
8/7/2023									0.0327 (J)
8/8/2023	0.0587 (J)	0.0427 (J)	0.238	0.279	<0.1015	<0.1015			
8/9/2023							0.106	<0.1015	

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Constituent: Boron, total (mg/L) Analysis Run 10/22/2023 12:54 PM View: Descriptive
Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-5V	BY-AP-MW-6
3/1/2016		<0.1015
3/2/2016		
4/19/2016		<0.1015
4/20/2016		
6/7/2016		<0.1015
8/30/2016		<0.1015
8/31/2016		
10/18/2016		
10/19/2016		<0.1015
1/31/2017		<0.1015
5/2/2017		
5/3/2017		<0.1015
6/6/2017		
6/7/2017		<0.1015
9/12/2017		
9/14/2017		<0.1015
5/1/2018		
5/2/2018		<0.1015
11/27/2018		
11/28/2018		<0.1015
1/8/2019	0.029 (J)	
5/29/2019		<0.1015
7/31/2019		
10/1/2019		<0.1015
10/2/2019	0.0336 (J)	
3/31/2020	0.0339 (J)	<0.1015
4/1/2020		
9/1/2020	0.0414 (J)	
9/2/2020		<0.1015
5/17/2021		<0.1015
5/18/2021		
5/24/2021		
5/25/2021		
10/26/2021		
11/1/2021		
11/2/2021	<0.1015	<0.1015
5/24/2022		
5/25/2022	<0.1015	<0.1015
10/31/2022	0.0652 (J)	<0.1015
11/1/2022		
11/2/2022		
4/3/2023		
4/4/2023	0.0924 (J)	<0.1015
4/24/2023		
8/7/2023	0.0978 (J)	
8/8/2023		
8/9/2023		<0.1015

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Constituent: Boron, total (mg/L) Analysis Run 10/22/2023 12:54 PM View: Descriptive

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-7	BY-AP-MW-7V	BY-AP-MW-8	BY-AP-MW-8V	BY-AP-MW-9	BY-UP-MW-1 (bg)	BY-UP-MW-2 (bg)	BY-UP-MW-3 (bg)	BY-UP-MW-4 (bg)
2/23/2016						0.0212 (J)	0.0252 (J)	<0.1015	0.0257 (J)
3/1/2016	0.0546 (J)		1.72		1.79				
4/19/2016						<0.1	<0.1015	<0.1015	<0.1015
4/20/2016	0.0472 (J)		1.7		2.01				
6/6/2016						<0.1			<0.1015
6/7/2016	0.0417 (J)		1.57				0.0202 (J)	<0.1015	
6/8/2016					2.23				
8/30/2016			1.67			<0.1	<0.1015	<0.1015	<0.1015
8/31/2016	0.036 (J)				2.14				
10/18/2016			1.4			<0.1	<0.1015	<0.1015	0.022 (J)
10/19/2016	0.0386 (J)				2.13				
1/31/2017	0.0343 (J)		1.46			<0.1	<0.1015	<0.1015	<0.1015
2/1/2017					2.17				
5/2/2017						<0.1	<0.1015	<0.1015	<0.1015
5/3/2017	0.037 (J)		1.45		2.28				
6/6/2017						<0.1	<0.1015	<0.1015	<0.1015
6/7/2017	0.0227 (J)		1.41		2.25				
9/12/2017									<0.1015
9/13/2017						<0.1	<0.1015	<0.1015	
9/14/2017	0.0471 (J)		1.16		2.41				
5/1/2018							<0.1015	<0.1015	<0.1015
5/2/2018	0.0313 (J)		1.12		2.34	0.0362 (J)			
11/26/2018									<0.1015
11/27/2018			1.31			0.11	0.0207 (J)	<0.1015	
11/28/2018	0.0311 (J)				2.23				
1/9/2019		0.0615 (J)		0.164					
5/28/2019									<0.1015
5/29/2019	0.042 (J)		1.44			0.188	<0.1015	<0.1015	
5/30/2019					2.45				
9/30/2019	0.0418 (J)		1.38		2.34				
10/1/2019		0.0546 (J)		0.241					
10/2/2019						0.097 (J)	<0.1015	<0.1015	<0.1015
3/30/2020	0.0369 (J)	0.0555 (J)	1.12	0.247					
3/31/2020					2.27	0.157	<0.1015	<0.1015	<0.1015
9/2/2020	0.042 (J)	0.0565 (J)	1.26	0.26	2.05				
9/8/2020									<0.1015
9/9/2020						0.0999 (J)	<0.1015	<0.1015	
5/11/2021			0.971				<0.1015	<0.1015	<0.1015
5/12/2021						0.0841 (J)			
5/18/2021	0.037 (J)	0.0599 (J)		0.247	2.08				
10/18/2021								<0.1015	<0.1015
10/19/2021						0.0708 (J)	<0.1015		
10/26/2021			0.933	0.216					
10/27/2021	0.0427 (J)	0.0546 (J)			2.04				
5/23/2022				0.259					
5/24/2022	0.0369 (J)	0.165	1.12		2.01				
5/31/2022						0.0567 (J)	<0.1015	<0.1015	<0.1015
10/31/2022	0.28	0.329		0.186	2.3				
11/1/2022						0.0501 (J)	<0.1015	<0.1015	<0.1015
11/2/2022			1.59						
4/3/2023	0.174	0.293	0.129	0.245					
4/4/2023					1.65				

Time Series

Constituent: Boron, total (mg/L) Analysis Run 10/22/2023 12:54 PM View: Descriptive
Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-7	BY-AP-MW-7V	BY-AP-MW-8	BY-AP-MW-8V	BY-AP-MW-9	BY-UP-MW-1 (bg)	BY-UP-MW-2 (bg)	BY-UP-MW-3 (bg)	BY-UP-MW-4 (bg)
4/12/2023						0.0464 (J)	<0.1015	<0.1015	<0.1015
8/7/2023	0.174	0.169	0.0437 (J)	0.0907 (J)	1.16				
8/16/2023						0.0364 (J)	<0.1015	<0.1015	<0.1015

Time Series

Constituent: Cadmium (mg/L) Analysis Run 10/22/2023 12:54 PM View: Descriptive

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-1	BY-AP-MW-10	BY-AP-MW-10V	BY-AP-MW-11	BY-AP-MW-12	BY-AP-MW-12V	BY-AP-MW-13	BY-AP-MW-13V	BY-AP-MW-14
3/1/2016		<0.000203		<0.000203					
3/2/2016	<0.000203				<0.000203		<0.000203		<0.000203
4/19/2016	<0.000203								
4/20/2016		<0.000203		<0.000203	<0.000203		<0.000203		<0.000203
6/8/2016	<0.000203	<0.000203		<0.000203	<0.000203		<0.000203		<0.000203
8/30/2016									<0.000203
8/31/2016	<0.000203	<0.000203		<0.000203	<0.000203		<0.000203		
10/18/2016									<0.000203
10/19/2016	<0.000203	<0.000203		<0.000203	<0.000203		<0.000203		
1/31/2017	<0.000203						<0.000203		<0.000203
2/1/2017		<0.000203		<0.000203	<0.000203				
5/2/2017	<0.000203								<0.000203
5/3/2017		<0.000203		<0.000203	<0.000203		<0.000203		
6/6/2017	<0.000203								<0.000203
6/7/2017		<0.000203		<0.000203	<0.000203		0.00077 (J)		
1/22/2018							<0.000203		
1/23/2018		<0.000203		<0.000203	<0.000203				<0.000203
1/24/2018	<0.000203								
5/1/2018	<0.000203								
5/2/2018		<0.000203		<0.000203	<0.000203		<0.000203		<0.000203
11/27/2018									<0.000203
11/28/2018	<0.000203	<0.000203		<0.000203	<0.000203		<0.000203		
1/8/2019			<0.000203			<0.000203			
5/29/2019	<0.000203			<0.000203	<0.000203		<0.000203		<0.000203
5/30/2019		<0.000203							
9/30/2019		<0.000203		<0.000203					
10/1/2019	<0.000203		<0.000203		<0.000203		<0.000203		<0.000203
10/2/2019						<0.000203			
3/30/2020	<0.000203								
3/31/2020		<0.000203	<0.000203	<0.000203	<0.000203	<0.000203	<0.000203		<0.000203
4/1/2020									
9/1/2020	<0.000203	<0.000203	<0.000203	<0.000203	<0.000203	<0.000203	<0.000203		
9/2/2020								<0.000203	<0.000203
5/11/2021		<0.000203							
5/18/2021	<0.000203		<0.000203		<0.000203	<0.000203			
5/19/2021				<0.000203			<0.000203	<0.000203	
5/25/2021									<0.000203
10/26/2021							<0.000203	<0.000203	
10/27/2021		<0.000203	<0.000203						<0.000203
11/1/2021	<0.000203				<0.000203	<0.000203			
11/2/2021				<0.000203					
5/23/2022				<0.000203	<0.000203	<0.000203			
5/24/2022	<0.000203	<0.000203	<0.000203				<0.000203		
5/25/2022								<0.000203	<0.000203
11/1/2022			<0.000203	<0.000203	<0.000203	<0.000203	<0.000203	<0.000203	<0.000203
11/2/2022	<0.000203	<0.000203							
4/3/2023	<0.000203	<0.000203	<0.000203						
4/4/2023				<0.000203	<0.000203	<0.000203	<0.000203	<0.000203	
4/5/2023									<0.000203
8/7/2023		<0.000203	<0.000203	<0.000203					
8/8/2023	<0.000203				<0.000203	<0.000203			
8/9/2023							<0.000203	<0.000203	<0.000203

Time Series

Constituent: Cadmium (mg/L) Analysis Run 10/22/2023 12:54 PM View: Descriptive
Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-14V	BY-AP-MW-15
3/1/2016		
3/2/2016		<0.000203
4/19/2016		<0.000203
4/20/2016		
6/8/2016		<0.000203
8/30/2016		
8/31/2016		<0.000203
10/18/2016		
10/19/2016		<0.000203
1/31/2017		<0.000203
2/1/2017		
5/2/2017		<0.000203
5/3/2017		
6/6/2017		<0.000203
6/7/2017		
1/22/2018		<0.000203
1/23/2018		
1/24/2018		
5/1/2018		<0.000203
5/2/2018		
11/27/2018		<0.000203
11/28/2018		
1/8/2019		
5/29/2019		<0.000203
5/30/2019		
9/30/2019		
10/1/2019		<0.000203
10/2/2019		
3/30/2020		
3/31/2020		
4/1/2020		<0.000203
9/1/2020		
9/2/2020	<0.000203	<0.000203
5/11/2021		<0.000203
5/18/2021		
5/19/2021		
5/25/2021	<0.000203	
10/26/2021	<0.000203	<0.000203
10/27/2021		
11/1/2021		
11/2/2021		
5/23/2022		
5/24/2022	<0.000203	
5/25/2022		<0.000203
11/1/2022	<0.000203	<0.000203
11/2/2022		
4/3/2023		<0.000203
4/4/2023	<0.000203	
4/5/2023		
8/7/2023		
8/8/2023		<0.000203
8/9/2023	<0.000203	

Time Series

Constituent: Cadmium (mg/L) Analysis Run 10/22/2023 12:54 PM View: Descriptive

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-15V	BY-AP-MW-16	BY-AP-MW-16V	BY-AP-MW-17H	BY-AP-MW-17V	BY-AP-MW-18H	BY-AP-MW-19H	BY-AP-MW-1V	BY-AP-MW-2
3/2/2016		<0.000203							<0.000203
4/19/2016		<0.000203							<0.000203
6/8/2016		<0.000203							<0.000203
8/31/2016		<0.000203							<0.000203
10/19/2016		<0.000203							<0.000203
1/31/2017		<0.000203							<0.000203
5/2/2017		<0.000203							<0.000203
6/6/2017		<0.000203							<0.000203
1/23/2018		<0.000203							<0.000203
1/24/2018									<0.000203
5/1/2018		<0.000203							<0.000203
11/27/2018		<0.000203							<0.000203
1/8/2019								<0.000203	
3/20/2019						<0.000203			
5/29/2019		<0.000203							<0.000203
7/31/2019	<0.000203			<0.000203			<0.000203		
10/1/2019	<0.000203	<0.000203				<0.000203	<0.000203		<0.000203
10/2/2019				<0.000203				<0.000203	
3/30/2020								<0.000203	
3/31/2020		<0.000203							<0.000203
4/1/2020				<0.000203		<0.000203			
8/31/2020									<0.000203
9/1/2020	<0.000203			<0.000203	<0.000203	<0.000203	<0.000203	<0.000203	
9/2/2020		<0.000203	<0.000203						
5/17/2021				<0.000203					
5/18/2021					<0.000203			<0.000203	<0.000203
5/19/2021		<0.000203	<0.000203			<0.000203			
5/25/2021	<0.000203						<0.000203		
10/25/2021				<0.000203	<0.000203	<0.000203	<0.000203		
10/26/2021	<0.000203		<0.000203						
11/1/2021		<0.000203						<0.000203	<0.000203
5/23/2022						<0.000203			
5/24/2022	0.00018 (J)						<0.000203	<0.000203	<0.000203
5/25/2022		<0.000203	<0.000203	<0.000203	<0.000203				
10/31/2022				<0.000203	<0.000203	<0.000203	<0.000203		
11/1/2022		<0.000203	7E-05 (J)					7.1E-05 (J)	
11/2/2022	0.0001 (J)								<0.000203
4/3/2023									<0.000203
4/4/2023			<0.000203	<0.000203	0.000114 (J)			<0.000203	
4/5/2023		<0.000203				<0.000203			
4/24/2023	0.000212						<0.000203		
8/7/2023			9.2E-05 (J)						
8/8/2023	0.000218	<0.000203		<0.000203	0.000144 (J)	<0.000203	<0.000203		<0.000203
8/9/2023								7.1E-05 (J)	

Time Series

Constituent: Cadmium (mg/L) Analysis Run 10/22/2023 12:54 PM View: Descriptive
Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-20H	BY-AP-MW-20V
3/2/2016		
4/19/2016		
6/8/2016		
8/31/2016		
10/19/2016		
1/31/2017		
5/2/2017		
6/6/2017		
1/23/2018		
1/24/2018		
5/1/2018		
11/27/2018		
1/8/2019		
3/20/2019		
5/29/2019		
7/31/2019	<0.000203	
10/1/2019	<0.000203	
10/2/2019		
3/30/2020		
3/31/2020		
4/1/2020	<0.000203	
8/31/2020		
9/1/2020	<0.000203	<0.000203
9/2/2020		
5/17/2021		
5/18/2021		
5/19/2021	<0.000203	<0.000203
5/25/2021		
10/25/2021		
10/26/2021	<0.000203	
11/1/2021		<0.000203
5/23/2022	<0.000203	
5/24/2022		<0.000203
5/25/2022		
10/31/2022	<0.000203	
11/1/2022		<0.000203
11/2/2022		
4/3/2023		
4/4/2023		
4/5/2023		
4/24/2023	<0.000203	<0.000203
8/7/2023		
8/8/2023	<0.000203	<0.000203
8/9/2023		

Time Series

Constituent: Cadmium (mg/L) Analysis Run 10/22/2023 12:54 PM View: Descriptive

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-22H	BY-AP-MW-23H	BY-AP-MW-23V	BY-AP-MW-24H	BY-AP-MW-25H	BY-AP-MW-25V	BY-AP-MW-3	BY-AP-MW-4	BY-AP-MW-5
3/1/2016								<0.000203	<0.000203
3/2/2016							<0.000203		
4/19/2016							<0.000203	<0.000203	
4/20/2016									<0.000203
6/7/2016							<0.000203	<0.000203	<0.000203
8/30/2016								<0.000203	<0.000203
8/31/2016							<0.000203		
10/18/2016									<0.000203
10/19/2016							<0.000203	<0.000203	
1/31/2017							<0.000203	<0.000203	<0.000203
5/2/2017							<0.000203	<0.000203	
5/3/2017									<0.000203
6/6/2017							<0.000203	<0.000203	
6/7/2017									<0.000203
1/24/2018							<0.000203	<0.000203	<0.000203
5/1/2018							<0.000203	<0.000203	
5/2/2018									<0.000203
11/27/2018							<0.000203	<0.000203	<0.000203
11/28/2018									
1/8/2019				<0.000203					
5/29/2019							<0.000203	<0.000203	<0.000203
7/31/2019	<0.000203	<0.000203							
10/1/2019	<0.000203	<0.000203					<0.000203	<0.000203	<0.000203
10/2/2019				<0.000203					
3/31/2020				<0.000203			<0.000203	<0.000203	<0.000203
4/1/2020		<0.000203							
9/1/2020	<0.000203	<0.000203	<0.000203				<0.000203	<0.000203	<0.000203
9/2/2020				<0.000203	<0.000203	<0.000203			
5/17/2021			<0.000203						
5/18/2021							<0.000203	<0.000203	
5/24/2021		<0.000203			<0.000203	<0.000203			
5/25/2021	<0.000203			<0.000203					
10/26/2021	<0.000203	<0.000203	<0.000203	<0.000203					
11/1/2021							<0.000203	<0.000203	
11/2/2021					<0.000203	<0.000203			<0.000203
5/24/2022	<0.000203			<0.000203					
5/25/2022		<0.000203	<0.000203		<0.000203	<0.000203	<0.000203	<0.000203	<0.000203
10/31/2022	<0.000203				<0.000203			0.000102 (J)	<0.000203
11/1/2022		<0.000203	<0.000203			<0.000203	<0.000203		
11/2/2022				<0.000203					
4/3/2023				<0.000203	<0.000203	<0.000203			
4/4/2023		<0.000203	<0.000203				<0.000203	9E-05 (J)	<0.000203
4/24/2023	<0.000203								
8/7/2023									<0.000203
8/8/2023	<0.000203	<0.000203	<0.000203	<0.000203	<0.000203	<0.000203			
8/9/2023							<0.000203	0.000103 (J)	

Time Series

Constituent: Cadmium (mg/L) Analysis Run 10/22/2023 12:54 PM View: Descriptive
Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-5V	BY-AP-MW-6
3/1/2016		<0.000203
3/2/2016		
4/19/2016		<0.000203
4/20/2016		
6/7/2016		<0.000203
8/30/2016		<0.000203
8/31/2016		
10/18/2016		
10/19/2016		<0.000203
1/31/2017		<0.000203
5/2/2017		
5/3/2017		<0.000203
6/6/2017		
6/7/2017		<0.000203
1/24/2018		<0.000203
5/1/2018		
5/2/2018		<0.000203
11/27/2018		
11/28/2018		<0.000203
1/8/2019	<0.000203	
5/29/2019		<0.000203
7/31/2019		
10/1/2019		<0.000203
10/2/2019	<0.000203	
3/31/2020	<0.000203	<0.000203
4/1/2020		
9/1/2020	<0.000203	
9/2/2020		<0.000203
5/17/2021		<0.000203
5/18/2021		
5/24/2021		
5/25/2021		
10/26/2021		
11/1/2021		
11/2/2021	<0.000203	7E-05 (J)
5/24/2022		
5/25/2022	<0.000203	0.00031
10/31/2022	<0.000203	6.8E-05 (J)
11/1/2022		
11/2/2022		
4/3/2023		
4/4/2023	<0.000203	<0.000203
4/24/2023		
8/7/2023	<0.000203	
8/8/2023		
8/9/2023		<0.000203

Time Series

Constituent: Cadmium (mg/L) Analysis Run 10/22/2023 12:54 PM View: Descriptive

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-7	BY-AP-MW-7V	BY-AP-MW-8	BY-AP-MW-8V	BY-AP-MW-9	BY-UP-MW-1 (bg)	BY-UP-MW-2 (bg)	BY-UP-MW-3 (bg)	BY-UP-MW-4 (bg)
2/23/2016						<0.000203	<0.000203	<0.000203	<0.000203
3/1/2016	<0.000203		<0.000203		<0.000203				
4/19/2016						<0.000203	<0.000203	<0.000203	<0.000203
4/20/2016	<0.000203		<0.000203		<0.000203				
6/6/2016						<0.000203			<0.000203
6/7/2016	<0.000203		<0.000203				<0.000203	<0.000203	
6/8/2016					<0.000203				
8/30/2016			<0.000203			<0.000203	<0.000203	<0.000203	<0.000203
8/31/2016	<0.000203				<0.000203				
10/18/2016			<0.000203			<0.000203	<0.000203	<0.000203	<0.000203
10/19/2016	<0.000203				<0.000203				
1/31/2017	<0.000203		<0.000203			<0.000203	<0.000203	<0.000203	<0.000203
2/1/2017					<0.000203				
5/2/2017						<0.000203	<0.000203	<0.000203	<0.000203
5/3/2017	<0.000203		<0.000203		<0.000203				
6/6/2017						<0.000203	<0.000203	<0.000203	<0.000203
6/7/2017	<0.000203		<0.000203		<0.000203				
1/23/2018					<0.000203	<0.000203	<0.000203	<0.000203	<0.000203
1/24/2018	<0.000203		<0.000203						
5/1/2018							<0.000203	<0.000203	<0.000203
5/2/2018	<0.000203		<0.000203		<0.000203	<0.000203			
11/26/2018									<0.000203
11/27/2018			<0.000203			<0.000203	<0.000203	<0.000203	
11/28/2018	<0.000203				<0.000203				
1/9/2019		<0.000203		<0.000203					
5/28/2019									<0.000203
5/29/2019	<0.000203		<0.000203			<0.000203	<0.000203	<0.000203	
5/30/2019					<0.000203				
9/30/2019	<0.000203		<0.000203		<0.000203				
10/1/2019		<0.000203		<0.000203					
10/2/2019						<0.000203	<0.000203	<0.000203	<0.000203
3/30/2020	<0.000203	<0.000203	<0.000203	<0.000203					
3/31/2020					<0.000203	<0.000203	<0.000203	<0.000203	<0.000203
9/2/2020	<0.000203	<0.000203	<0.000203	<0.000203	<0.000203				
9/8/2020									<0.000203
9/9/2020						<0.000203	<0.000203	<0.000203	
5/11/2021			<0.000203				<0.000203	<0.000203	<0.000203
5/12/2021						<0.000203			
5/18/2021	<0.000203	<0.000203		<0.000203	<0.000203				
10/18/2021								7.25E-05 (J)	<0.000203
10/19/2021						<0.000203	<0.000203		
10/26/2021			<0.000203	<0.000203					
10/27/2021	<0.000203	<0.000203			<0.000203				
5/23/2022				<0.000203					
5/24/2022	<0.000203	<0.000203	<0.000203		<0.000203				
5/31/2022						<0.000203	<0.000203	<0.000203	<0.000203
10/31/2022	<0.000203	<0.000203		<0.000203	<0.000203				
11/1/2022						<0.000203	<0.000203	<0.000203	<0.000203
11/2/2022			<0.000203						
4/3/2023	<0.000203	<0.000203	<0.000203	<0.000203					
4/4/2023					<0.000203				
4/12/2023						<0.000203	<0.000203	<0.000203	<0.000203

Time Series

Constituent: Cadmium (mg/L) Analysis Run 10/22/2023 12:54 PM View: Descriptive

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-7	BY-AP-MW-7V	BY-AP-MW-8	BY-AP-MW-8V	BY-AP-MW-9	BY-UP-MW-1 (bg)	BY-UP-MW-2 (bg)	BY-UP-MW-3 (bg)	BY-UP-MW-4 (bg)
8/7/2023	<0.000203	<0.000203	<0.000203	7.5E-05 (J)	<0.000203				
8/16/2023						<0.000203	<0.000203	<0.000203	<0.000203

Time Series

Constituent: Calcium, total (mg/L) Analysis Run 10/22/2023 12:54 PM View: Descriptive

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-1	BY-AP-MW-10	BY-AP-MW-10V	BY-AP-MW-11	BY-AP-MW-12	BY-AP-MW-12V	BY-AP-MW-13	BY-AP-MW-13V	BY-AP-MW-14
3/1/2016		50.6		35.3					
3/2/2016	46.5				21		16.7		9.53
4/19/2016	49								
4/20/2016		49.1		28.9	20.1		13.1		9.55
6/8/2016	33.5	48.7		27.6	20.2		11.7		13.1
8/30/2016									12.1
8/31/2016	34.2	57.9		25.4	19.9		11.3		
10/18/2016									11.4
10/19/2016	35.1	52.2		25.7	20.4		11.8		
1/31/2017	38.5						12.5		10.8
2/1/2017		47.6		25.6	20.9				
5/2/2017	35.1								11.9
5/3/2017		51.3		24	20.9		12		
6/6/2017	32.4								12.2
6/7/2017		51.4		25.2	21.2		12.8		
9/13/2017	40.5			25.5	22.1		13.3		13.9
9/14/2017		54.9							
5/1/2018	39.7								
5/2/2018		53.3		25.2	22.2		13.8		10.6
8/28/2018	37.2	56.4							
8/29/2018				25.6	22.3		13.3		11.7
11/27/2018									10.8
11/28/2018	35.8	54.2		24.6	22.1		15.2		
1/8/2019			57.2			33.8			
5/29/2019	33.4			23.9	21.4		12.8		11.2
5/30/2019		60.5							
9/30/2019		63.1		24.6					
10/1/2019	36.7		61.2		23.1		13.4		11.4
10/2/2019						22.2			
3/30/2020	33.7								
3/31/2020		63.6	66.6	25.1	22.4	21.3	13.2		9.04
4/1/2020									
9/1/2020	40.5	57.2	57.3	23.9	22.2	21	12.3		
9/2/2020								12.3	10.8
5/11/2021		62.7							
5/18/2021	39.5		64		23.1	22.1			
5/19/2021				41.5			12.9	12.7	
5/25/2021									11.2
10/26/2021							12.3	11.3	
10/27/2021		64.2	61.6						11.4
11/1/2021	38.4				21.8	21.4			
11/2/2021				25.8					
5/23/2022				26	20.6	20.6			
5/24/2022	43.9	63.9	65				19.2		
5/25/2022								12	11.4
11/1/2022			69.900002	26.4	22.5	20.700001	25.200001	12.2	10.9
11/2/2022	38.900002	59.5							
4/3/2023	36.900002	48.799999	59.200001						
4/4/2023				26.6	23.299999	20.299999	47.700001	14.4	
4/5/2023									9.78
8/7/2023		58.400002	85	23.5					
8/8/2023	31				21.9	19.700001			

Time Series

Constituent: Calcium, total (mg/L) Analysis Run 10/22/2023 12:54 PM View: Descriptive
Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-1	BY-AP-MW-10	BY-AP-MW-10V	BY-AP-MW-11	BY-AP-MW-12	BY-AP-MW-12V	BY-AP-MW-13	BY-AP-MW-13V	BY-AP-MW-14
8/9/2023							18.200001	13.1	11.6

Time Series

Constituent: Calcium, total (mg/L) Analysis Run 10/22/2023 12:54 PM View: Descriptive
Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-14V	BY-AP-MW-15
3/1/2016		
3/2/2016		6.61
4/19/2016		5.97
4/20/2016		
6/8/2016		6.36
8/30/2016		
8/31/2016		6.28
10/18/2016		
10/19/2016		6.57
1/31/2017		6.77
2/1/2017		
5/2/2017		6.94
5/3/2017		
6/6/2017		6.88
6/7/2017		
9/13/2017		7.43
9/14/2017		
5/1/2018		7.42
5/2/2018		
8/28/2018		
8/29/2018		7.37
11/27/2018		7.58
11/28/2018		
1/8/2019		
5/29/2019		7.22
5/30/2019		
9/30/2019		
10/1/2019		6.9
10/2/2019		
3/30/2020		
3/31/2020		
4/1/2020		7.32
9/1/2020		
9/2/2020	4.7	7.04
5/11/2021		6.98
5/18/2021		
5/19/2021		
5/25/2021	4.66	
10/26/2021	5.28	6.46
10/27/2021		
11/1/2021		
11/2/2021		
5/23/2022		
5/24/2022	7.03	
5/25/2022		6.41
11/1/2022	5.52	6.57
11/2/2022		
4/3/2023		6.76
4/4/2023	5.34	
4/5/2023		
8/7/2023		
8/8/2023		6.85

Time Series

Constituent: Calcium, total (mg/L) Analysis Run 10/22/2023 12:54 PM View: Descriptive
Plant Barry Client: Southern Company Data: Barry Ash Pond

8/9/2023	BY-AP-MW-14V	BY-AP-MW-15	6.47
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Time Series

Constituent: Calcium, total (mg/L) Analysis Run 10/22/2023 12:54 PM View: Descriptive
Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-20H	BY-AP-MW-20V
3/2/2016		
4/19/2016		
6/8/2016		
8/31/2016		
10/19/2016		
1/31/2017		
5/2/2017		
6/6/2017		
9/12/2017		
9/13/2017		
5/1/2018		
8/28/2018		
8/29/2018		
11/27/2018		
1/8/2019		
3/20/2019		
5/29/2019		
7/31/2019	30.3	
10/1/2019	29.4	
10/2/2019		
3/30/2020		
3/31/2020		
4/1/2020	26	
8/31/2020		
9/1/2020	28.8	14.7
9/2/2020		
5/17/2021		
5/18/2021		
5/19/2021	30.9	15.3
5/25/2021		
10/25/2021		
10/26/2021	30.2	
11/1/2021		15.1
5/23/2022	28.6	
5/24/2022		14.4
5/25/2022		
10/31/2022	28	
11/1/2022		13.8
11/2/2022		
4/3/2023		
4/4/2023		
4/5/2023		
4/24/2023	28.1	24.299999
8/7/2023		
8/8/2023	25.5	29.1
8/9/2023		

Time Series

Constituent: Calcium, total (mg/L) Analysis Run 10/22/2023 12:54 PM View: Descriptive

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-22H	BY-AP-MW-23H	BY-AP-MW-23V	BY-AP-MW-24H	BY-AP-MW-25H	BY-AP-MW-25V	BY-AP-MW-3	BY-AP-MW-4	BY-AP-MW-5
3/1/2016								1.07	15
3/2/2016							1.11		
4/19/2016							1.01	0.969	
4/20/2016									14.3
6/7/2016							1.06	1.08	14.8
8/30/2016								0.952	13.7
8/31/2016							0.978		
10/18/2016									13.3
10/19/2016							0.906	1.17	
1/31/2017							1.04	0.946	13.7
5/2/2017							0.969	0.826	
5/3/2017									14.3
6/6/2017							0.902	0.834	
6/7/2017									14.7
9/12/2017							0.988	0.884	
9/14/2017									15.1
5/1/2018							1.07	0.921	
5/2/2018									14.5
8/28/2018							1.02	0.8	
8/29/2018									14.3
11/27/2018							0.999	1.01	13.7
11/28/2018									
1/8/2019				38					
5/29/2019							1.09	0.627	14.5
7/31/2019	15	25.8							
10/1/2019	15.5	27.2					1.08	0.645	13.8
10/2/2019				18.4					
3/31/2020				18.1			1.1	0.898	14.4
4/1/2020		15.8							
9/1/2020	14.8	35.8	1.27				1.08	0.566	13.6
9/2/2020				17.6	0.875	0.547			
5/17/2021			1.33						
5/18/2021							1.12	0.974	
5/24/2021		27.1			0.905	0.554			
5/25/2021	15.2			18.6					
10/26/2021	15.1	29.4	0.837	18.4					
11/1/2021							1.09	0.816	
11/2/2021					1.05	0.567			16.2
5/24/2022	14.4			17.9					
5/25/2022		24.5	0.899		0.949	0.573	1.29	1.69	14.6
10/31/2022	13.8				0.951			3.38	10.1
11/1/2022		23.9	3.65			0.609	0.926		
11/2/2022				17.6					
4/3/2023				17.799999	1.01	0.703			
4/4/2023		23.5	42.5				1.29	3.36	8.36
4/24/2023	14.3								
8/7/2023									6.02
8/8/2023	13.4	21.6	58.400002	16	0.967	0.669			
8/9/2023							2.13	3.23	

Time Series

Constituent: Calcium, total (mg/L) Analysis Run 10/22/2023 12:54 PM View: Descriptive
Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-5V	BY-AP-MW-6
3/1/2016		1.87
3/2/2016		
4/19/2016		1.69
4/20/2016		
6/7/2016		1.75
8/30/2016		1.77
8/31/2016		
10/18/2016		
10/19/2016		1.8
1/31/2017		1.98
5/2/2017		
5/3/2017		1.97
6/6/2017		
6/7/2017		1.98
9/12/2017		
9/14/2017		2.14
5/1/2018		
5/2/2018		2.13
8/28/2018		
8/29/2018		1.92
11/27/2018		
11/28/2018		1.91
1/8/2019	3.7	
5/29/2019		1.72
7/31/2019		
10/1/2019		1.92
10/2/2019	2.43	
3/31/2020	1.88	1.68
4/1/2020		
9/1/2020	2.13	
9/2/2020		1.8
5/17/2021		1.93
5/18/2021		
5/24/2021		
5/25/2021		
10/26/2021		
11/1/2021		
11/2/2021	2.11	1.97
5/24/2022		
5/25/2022	2.62	1.62
10/31/2022	2.16	1.63
11/1/2022		
11/2/2022		
4/3/2023		
4/4/2023	2.13	1.94
4/24/2023		
8/7/2023	1.78	
8/8/2023		
8/9/2023		2.26

Time Series

Constituent: Calcium, total (mg/L) Analysis Run 10/22/2023 12:54 PM View: Descriptive

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-7	BY-AP-MW-7V	BY-AP-MW-8	BY-AP-MW-8V	BY-AP-MW-9	BY-UP-MW-1 (bg)	BY-UP-MW-2 (bg)	BY-UP-MW-3 (bg)	BY-UP-MW-4 (bg)
2/23/2016						1.28	1.11	1.77	1.42
3/1/2016	7.65		36.1		40.3				
4/19/2016						1.19	1.09	1.68	1.31
4/20/2016	7.54		34.5		38.2				
6/6/2016						1.19			1.35
6/7/2016	7.71		34.7				1.16	1.68	
6/8/2016					39.2				
8/30/2016			34.1			1.11	1.08	1.62	1.31
8/31/2016	8.1				38.2				
10/18/2016			33.2			1.04	1.03	1.53	1.22
10/19/2016	8.59				38.7				
1/31/2017	8.78		32.3			1.19	1.23	1.65	1.36
2/1/2017					39.2				
5/2/2017						1.05	1.28	1.58	1.24
5/3/2017	8.85		34.1		39.1				
6/6/2017						0.978	1.25	1.55	1.28
6/7/2017	8.99		34.7		40.3				
9/12/2017									1.47
9/13/2017						1.14	1.6	1.71	
9/14/2017	9.64		34.4		40.7				
5/1/2018							1.58	1.76	1.47
5/2/2018	9.14		32.3		40	1.64			
8/28/2018					40				
8/29/2018			32.6						
11/26/2018									1.52
11/27/2018			32.5			2.01	1.49	1.69	
11/28/2018	9.66				39.7				
1/9/2019		37		27.2					
5/28/2019									1.6
5/29/2019	8.88		31.9			1.85	1.59	1.74	
5/30/2019					38.5				
9/30/2019	9.8		33		39.9				
10/1/2019		18.7		24.2					
10/2/2019						1.55	1.7	1.86	1.7
3/30/2020	10.1	20	32.2	24.5					
3/31/2020					40.1	1.96	1.43	1.92	1.78
9/2/2020	10.4	13.9	31.5	23.3	38				
9/8/2020									1.94
9/9/2020						1.43	1.5	1.97	
5/11/2021			33				1.39	2.06	1.93
5/12/2021						1.34			
5/18/2021	10.2	14.1		26.4	40.5				
10/18/2021								2.1	2.01
10/19/2021						1.17	1.32		
10/26/2021			33.5	25.7					
10/27/2021	10	17.2			40.3				
5/23/2022				24.4					
5/24/2022	10.5	8.84	31.5		38.3				
5/31/2022						1.14	1.24	1.95	2.02
10/31/2022	2.36	3.61		23.9	38.099998				
11/1/2022						1.01	1.23	1.94	1.59
11/2/2022			31						

Time Series

Constituent: Calcium, total (mg/L) Analysis Run 10/22/2023 12:54 PM View: Descriptive
Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-7	BY-AP-MW-7V	BY-AP-MW-8	BY-AP-MW-8V	BY-AP-MW-9	BY-UP-MW-1 (bg)	BY-UP-MW-2 (bg)	BY-UP-MW-3 (bg)	BY-UP-MW-4 (bg)
4/3/2023	3.52	1.43	4.21	8.95					
4/4/2023					32.400002				
4/12/2023						1.02	1.16	1.83	1.76
8/7/2023	3.21	21.9	4.68	20.4	25.200001				
8/16/2023						0.816	1.03	1.77	1.71

Time Series

Constituent: Chloride, Total (mg/L) Analysis Run 10/22/2023 12:54 PM View: Descriptive

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-1	BY-AP-MW-10	BY-AP-MW-10V	BY-AP-MW-11	BY-AP-MW-12	BY-AP-MW-12V	BY-AP-MW-13	BY-AP-MW-13V	BY-AP-MW-14
3/1/2016		19.6		21.7					
3/2/2016	2.18				22.2		47.3		36.6
4/19/2016	9.01								
4/20/2016		18.8		20.7	21.7		40.5		35.5
6/8/2016	21	18.6		20.4	22		37.2		43.8
8/30/2016									41.6
8/31/2016	21	18.5		20.3	22.3		38.2		
10/18/2016									39.5
10/19/2016	21.4	18.7		20.3	20.8		39.4		
3/21/2017	25								
3/22/2017		21		27	23		49		46
5/2/2017	26								42
5/3/2017		22		27	25		48		
6/6/2017	27								44
6/7/2017		22		24	23		49		
9/13/2017	24			26	23		42		43
9/14/2017		22							
5/1/2018	25								
5/2/2018		23		23	21		47		39
8/28/2018	25	25							
8/29/2018				25	23		43		44
11/27/2018									43
11/28/2018	26	25		25	23		43		
1/8/2019			21.3			23.1			
5/29/2019	27.6			27.8	24.1		44		50.1
5/30/2019		25.9							
9/30/2019		25.7		25					
10/1/2019	24.6		20		26.1		39.6		44.8
10/2/2019						28			
3/30/2020	24.9								
3/31/2020		26.1	20.7	24.1	23.9	25	44.9		44.7
4/1/2020									
9/1/2020	25.7	25	22.9	23.2	23.4	26.4	39.1		
9/2/2020								51.7	47.2
5/11/2021		27.3							
5/18/2021	25.1		21		25.4	25.5			
5/19/2021				23.1			46.8	64.4	
5/25/2021									52.1
10/26/2021							38.4	47.7	
10/27/2021		27.2	21						42.9
11/1/2021	26.2				27.4	26.1			
11/2/2021				25.1					
5/23/2022				25.1	26.2	25.6			
5/24/2022	28.7	27.7	19.4				43.5		
5/25/2022								59.3	45.3
11/1/2022			22.1	22.700001	24.9	26.9	40.200001	62.700001	53.099998
11/2/2022	25.1	25.1							
4/3/2023	23.700001	29.700001	26.1						
4/4/2023				28.9	25	26.299999	14.3	52.099998	
4/5/2023									47
8/7/2023		23.5	24.1	24					
8/8/2023	20.9				22.299999	22.799999			

Time Series

Constituent: Chloride, Total (mg/L) Analysis Run 10/22/2023 12:54 PM View: Descriptive
Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-1	BY-AP-MW-10	BY-AP-MW-10V	BY-AP-MW-11	BY-AP-MW-12	BY-AP-MW-12V	BY-AP-MW-13	BY-AP-MW-13V	BY-AP-MW-14
8/9/2023							40.5	60	47.099998

Time Series

Constituent: Chloride, Total (mg/L) Analysis Run 10/22/2023 12:54 PM View: Descriptive
Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-14V	BY-AP-MW-15
3/1/2016		
3/2/2016		20.9
4/19/2016		19.8
4/20/2016		
6/8/2016		24
8/30/2016		
8/31/2016		28
10/18/2016		
10/19/2016		21.3
3/21/2017		34
3/22/2017		
5/2/2017		33
5/3/2017		
6/6/2017		35
6/7/2017		
9/13/2017		36
9/14/2017		
5/1/2018		42
5/2/2018		
8/28/2018		
8/29/2018		38
11/27/2018		43
11/28/2018		
1/8/2019		
5/29/2019		47.2
5/30/2019		
9/30/2019		
10/1/2019		56.3
10/2/2019		
3/30/2020		
3/31/2020		
4/1/2020		54.7
9/1/2020		
9/2/2020	178	47
5/11/2021		80
5/18/2021		
5/19/2021		
5/25/2021	210	
10/26/2021	191	85.4
10/27/2021		
11/1/2021		
11/2/2021		
5/23/2022		
5/24/2022	184	
5/25/2022		80.7
11/1/2022	175	99.099998
11/2/2022		
4/3/2023		91.5
4/4/2023	174	
4/5/2023		
8/7/2023		
8/8/2023		90.199997

Time Series

Constituent: Chloride, Total (mg/L) Analysis Run 10/22/2023 12:54 PM View: Descriptive
Plant Barry Client: Southern Company Data: Barry Ash Pond

8/9/2023	BY-AP-MW-14V	BY-AP-MW-15
	158	

Time Series

Constituent: Chloride, Total (mg/L) Analysis Run 10/22/2023 12:54 PM View: Descriptive
Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-20H	BY-AP-MW-20V
3/2/2016		
4/19/2016		
6/8/2016		
8/31/2016		
10/19/2016		
3/21/2017		
5/2/2017		
6/6/2017		
9/12/2017		
9/13/2017		
5/1/2018		
8/28/2018		
8/29/2018		
11/27/2018		
1/8/2019		
3/20/2019		
5/29/2019		
7/31/2019	33.4	
10/1/2019	44.7	
10/2/2019		
3/30/2020		
3/31/2020		
4/1/2020	23.1	
8/31/2020		
9/1/2020	34.6	27.1
9/2/2020		
5/17/2021		
5/18/2021		
5/19/2021	36.2	32.4
5/25/2021		
10/25/2021		
10/26/2021	34	
11/1/2021		29.6
5/23/2022	44.1	
5/24/2022		35.4
5/25/2022		
10/31/2022	35.299999	
11/1/2022		28.4
11/2/2022		
4/3/2023		
4/4/2023		
4/5/2023		
4/24/2023	37.599998	20.700001
8/7/2023		
8/8/2023	32.599998	400
8/9/2023		

Time Series

Constituent: Chloride, Total (mg/L) Analysis Run 10/22/2023 12:54 PM View: Descriptive

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-22H	BY-AP-MW-23H	BY-AP-MW-23V	BY-AP-MW-24H	BY-AP-MW-25H	BY-AP-MW-25V	BY-AP-MW-3	BY-AP-MW-4	BY-AP-MW-5
3/1/2016								7.74	19.7
3/2/2016							8.04		
4/19/2016							7.6	7.66	
4/20/2016									18.9
6/7/2016							7.7	11.3	18.5
8/30/2016								10.8	17.9
8/31/2016							7.7		
10/18/2016									18.2
10/19/2016							7.73	11.1	
3/21/2017							7.2	11	
3/22/2017									22
5/2/2017							8.6	12	
5/3/2017									22
6/6/2017							8.3	12	
6/7/2017									21
9/12/2017							8.5	11	
9/14/2017									21
5/1/2018							7.6	9.2	
5/2/2018									20
8/28/2018							8.2	10	
8/29/2018									21
11/27/2018							8.4	10	21
11/28/2018									
1/8/2019				44.6					
5/29/2019							9.01	8.53	19.7
7/31/2019	60.3	8.03							
10/1/2019	70	6.7					8.05	7.35	19.8
10/2/2019				53					
3/31/2020				47.5			9.07	9.54	19.8
4/1/2020		4.46							
9/1/2020	59.9	6.96	117				8.97	7.82	19.1
9/2/2020				43.7	4.62	3.85			
5/17/2021			134						
5/18/2021							9.52	9.53	
5/24/2021		6.33			4.72	3.48			
5/25/2021	65.4			46					
10/26/2021	54.5	5.64	124	41.6					
11/1/2021							9.76	7.99	
11/2/2021					5.07	3.42			21
5/24/2022	57.1			45.7					
5/25/2022		6.63	106		5.32	3.22	15.2	16.1	20
10/31/2022	61.599998				5.67			32.799999	17.5
11/1/2022		7.96	365			3.52	8.88		
11/2/2022				45.400002					
4/3/2023				45.5	5.52	3.61			
4/4/2023		9.01	741				9.66	32.400002	17.200001
4/24/2023	63.700001								
8/7/2023									15.9
8/8/2023	51.200001	7.97	690	45.099998	5.99	3.6			
8/9/2023							10.7	30.799999	

Time Series

Constituent: Chloride, Total (mg/L) Analysis Run 10/22/2023 12:54 PM View: Descriptive
Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-5V	BY-AP-MW-6
3/1/2016		5.77
3/2/2016		
4/19/2016		5.57
4/20/2016		
6/7/2016		5.52
8/30/2016		5.5
8/31/2016		
10/18/2016		
10/19/2016		5.55
3/21/2017		
3/22/2017		6
5/2/2017		
5/3/2017		6.4
6/6/2017		
6/7/2017		5.9
9/12/2017		
9/14/2017		6.5
5/1/2018		
5/2/2018		5.5
8/28/2018		
8/29/2018		5.4
11/27/2018		
11/28/2018		6.2
1/8/2019	20.9	
5/29/2019		6.15
7/31/2019		
10/1/2019		5.99
10/2/2019	25.8	
3/31/2020	25.8	5.94
4/1/2020		
9/1/2020	30.6	
9/2/2020		5.94
5/17/2021		6.26
5/18/2021		
5/24/2021		
5/25/2021		
10/26/2021		
11/1/2021		
11/2/2021	30.5	6.4
5/24/2022		
5/25/2022	22.6	6.63
10/31/2022	35.299999	7.48
11/1/2022		
11/2/2022		
4/3/2023		
4/4/2023	39.5	7.81
4/24/2023		
8/7/2023	35.900002	
8/8/2023		
8/9/2023		8.06

Time Series

Constituent: Chloride, Total (mg/L) Analysis Run 10/22/2023 12:54 PM View: Descriptive

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-7	BY-AP-MW-7V	BY-AP-MW-8	BY-AP-MW-8V	BY-AP-MW-9	BY-UP-MW-1 (bg)	BY-UP-MW-2 (bg)	BY-UP-MW-3 (bg)	BY-UP-MW-4 (bg)
2/23/2016						3.59	3.99	3.68	3.5
3/1/2016	11.2		24.5		20.4				
4/19/2016						2.89	4.08	3.72	3.63
4/20/2016	10.8		22.5		22.7				
6/6/2016						3.12			3.6
6/7/2016	10.8		21.6				4.28	3.66	
6/8/2016					25.3				
8/30/2016			21.6			3.91	4.26	3.7	3.54
8/31/2016	10.8				24.4				
10/18/2016			20.2			3.9	4.26	3.77	3.68
10/19/2016	10.8				23				
3/20/2017						3.5	4.1	3.7	4.6
3/22/2017	13		24		26				
5/2/2017						3.5	5	4.6	3.9
5/3/2017	14		25		26				
6/6/2017						3.1	3.9	3.4	3.4
6/7/2017	14		24		27				
9/12/2017									4.3
9/13/2017						4	4.3	3.9	
9/14/2017	13		24		24				
5/1/2018							3.7	4.1	3.8
5/2/2018	13		23		22	9.9			
8/28/2018					21				
8/29/2018			25						
11/26/2018									3.6
11/27/2018			27			4.7	3.2	3.5	
11/28/2018	13				23				
1/9/2019		16.9		21.9					
5/28/2019									3.6
5/29/2019	13.3		27.4			5.48	2.93	3.58	
5/30/2019					27.7				
9/30/2019	13.1		25.5		21.7				
10/1/2019		13.2		22.6					
10/2/2019						3.65	2.75	3.64	3.5
3/30/2020	13.3	15.5	22.6	22.7					
3/31/2020					20.6	3.17	2.72	3.47	3.34
9/2/2020	12.9	14.2	22.2	22.6	18.5				
9/8/2020									3.29
9/9/2020						2.92	2.32	3.47	
5/11/2021			21.9				2.16	3.42	3.33
5/12/2021						2.18			
5/18/2021	14.2	19		22.7	18.3				
10/18/2021								3.45	3.32
10/19/2021						2.37	2.08		
10/26/2021			21.7	23.9					
10/27/2021	15.3	18.9			19.1				
5/23/2022				22.1					
5/24/2022	13.2	40.4	25		17.3				
5/31/2022						1.93	2.17	3.39	3.31
10/31/2022	95.699997	129		27.1	25.1				
11/1/2022						2.37	2.22	3.09	3.3
11/2/2022			26.6						

Time Series

Constituent: Chloride, Total (mg/L) Analysis Run 10/22/2023 12:54 PM View: Descriptive

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-7	BY-AP-MW-7V	BY-AP-MW-8	BY-AP-MW-8V	BY-AP-MW-9	BY-UP-MW-1 (bg)	BY-UP-MW-2 (bg)	BY-UP-MW-3 (bg)	BY-UP-MW-4 (bg)
4/3/2023	59.400002	85.800003	10.8	279					
4/4/2023					18				
4/12/2023						2.31	2.25	3.11	3.42
8/7/2023	48.400002	39.5	6.63	22.700001	15.7				
8/16/2023						2.61	2.01	2.94	3.12

Time Series

Constituent: Chromium (mg/L) Analysis Run 10/22/2023 12:54 PM View: Descriptive

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-1	BY-AP-MW-10	BY-AP-MW-10V	BY-AP-MW-11	BY-AP-MW-12	BY-AP-MW-12V	BY-AP-MW-13	BY-AP-MW-13V	BY-AP-MW-14
3/1/2016		<0.00102		0.00213 (J)					
3/2/2016	0.00591 (J)				0.0042 (J)		0.00656 (J)		0.00552 (J)
4/19/2016	0.0077 (J)								
4/20/2016		<0.00102		0.00214 (J)	0.0034 (J)		0.00661 (J)		0.00572 (J)
6/8/2016	0.00264 (J)	<0.00102		0.00205 (J)	0.00308 (J)		0.0067 (J)		0.00492 (J)
8/30/2016									0.00534 (J)
8/31/2016	0.00246 (J)	<0.00102		0.00221 (J)	0.0032 (J)		0.00693 (J)		
10/18/2016									0.00556 (J)
10/19/2016	0.00248 (J)	<0.00102		0.00213 (J)	0.0035 (J)		0.00732 (J)		
1/31/2017	0.00556 (J)						0.00699 (J)		0.00514 (J)
2/1/2017		<0.00102		0.00228 (J)	0.00371 (J)				
5/2/2017	0.00269 (J)								0.00524 (J)
5/3/2017		<0.00102		0.00229 (J)	0.00369 (J)		0.00712 (J)		
6/6/2017	0.00295 (J)								0.00541 (J)
6/7/2017		<0.00102		0.00233 (J)	0.00372 (J)		0.00752 (J)		
1/22/2018							0.00729 (J)		
1/23/2018		<0.00102		0.00248 (J)	0.00605 (J)				0.00573 (J)
1/24/2018	0.00278 (J)								
5/1/2018	0.00435 (J)								
5/2/2018		<0.00102		0.00273 (J)	0.00351 (J)		0.00642 (J)		0.00534 (J)
11/27/2018									0.00523 (J)
11/28/2018	0.0036 (J)	<0.00102		0.0023 (J)	0.00353 (J)		0.0068 (J)		
1/8/2019			<0.00102			0.0021 (J)			
5/29/2019	0.00223 (J)			0.00211 (J)	0.00333 (J)		0.00727 (J)		0.00455 (J)
5/30/2019		<0.00102							
9/30/2019		<0.00102		0.00228 (J)					
10/1/2019	0.00236 (J)		<0.00102		0.00325 (J)		0.00764 (J)		0.00508 (J)
10/2/2019						<0.00102			
3/30/2020	0.00415 (J)								
3/31/2020		<0.00102	<0.00102	0.00358 (J)	0.0056 (J)	<0.00102	0.00955 (J)		0.00463 (J)
4/1/2020									
9/1/2020	0.00242 (J)	<0.00102	<0.00102	0.00259 (J)	0.00332 (J)	<0.00102	0.00888 (J)		
9/2/2020								0.00525 (J)	0.00482 (J)
5/11/2021		0.000685 (J)							
5/18/2021	0.00294		0.000684 (J)		0.00377	0.00112			
5/19/2021				0.00301			0.00692	0.00416	
5/25/2021									0.00365
10/26/2021							0.00755	0.00606	
10/27/2021		0.00072 (J)	0.00068 (J)						0.00401
11/1/2021	0.00244				0.00423	0.00086 (J)			
11/2/2021				0.00348					
5/23/2022				0.00474	0.00374	0.00081 (J)			
5/24/2022	0.00238	0.00052 (J)	0.00049 (J)				0.00685		
5/25/2022								0.00488	0.00345
11/1/2022			0.000597 (J)	0.00316	0.00338	0.001 (J)	0.00772	0.00391	0.00317
11/2/2022	0.00371	0.000642 (J)							
4/3/2023	0.00638	0.00066 (J)	0.000508 (J)						
4/4/2023				0.00254	0.00351	0.000978 (J)	0.00286	0.00417	
4/5/2023									0.00336
8/7/2023		0.000561 (J)	0.000434 (J)	0.00232					
8/8/2023	0.00374				0.00496	0.00105			
8/9/2023							0.00763	0.00368	0.00347

Time Series

Constituent: Chromium (mg/L) Analysis Run 10/22/2023 12:54 PM View: Descriptive
Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-14V	BY-AP-MW-15
3/1/2016		
3/2/2016		<0.00102
4/19/2016		<0.00102
4/20/2016		
6/8/2016		<0.00102
8/30/2016		
8/31/2016		<0.00102
10/18/2016		
10/19/2016		<0.00102
1/31/2017		<0.00102
2/1/2017		
5/2/2017		<0.00102
5/3/2017		
6/6/2017		<0.00102
6/7/2017		
1/22/2018		<0.00102
1/23/2018		
1/24/2018		
5/1/2018		<0.00102
5/2/2018		
11/27/2018		<0.00102
11/28/2018		
1/8/2019		
5/29/2019		<0.00102
5/30/2019		
9/30/2019		
10/1/2019		<0.00102
10/2/2019		
3/30/2020		
3/31/2020		
4/1/2020		<0.00102
9/1/2020		
9/2/2020	<0.00102	<0.00102
5/11/2021		0.000581 (J)
5/18/2021		
5/19/2021		
5/25/2021	0.00113	
10/26/2021	0.00098 (J)	0.00052 (J)
10/27/2021		
11/1/2021		
11/2/2021		
5/23/2022		
5/24/2022	0.0006 (J)	
5/25/2022		0.00049 (J)
11/1/2022	0.000613 (J)	0.000361 (J)
11/2/2022		
4/3/2023		0.000638 (J)
4/4/2023	0.00049 (J)	
4/5/2023		
8/7/2023		
8/8/2023		0.000353 (J)
8/9/2023	0.000723 (J)	

Time Series

Constituent: Chromium (mg/L) Analysis Run 10/22/2023 12:54 PM View: Descriptive

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-15V	BY-AP-MW-16	BY-AP-MW-16V	BY-AP-MW-17H	BY-AP-MW-17V	BY-AP-MW-18H	BY-AP-MW-19H	BY-AP-MW-1V	BY-AP-MW-2
3/2/2016		<0.00102							<0.00102
4/19/2016		<0.00102							<0.00102
6/8/2016		<0.00102							<0.00102
8/31/2016		0.00215 (J)							<0.00102
10/19/2016		<0.00102							<0.00102
1/31/2017		<0.00102							<0.00102
5/2/2017		<0.00102							<0.00102
6/6/2017		<0.00102							<0.00102
1/23/2018		0.00253 (J)							
1/24/2018									<0.00102
5/1/2018		<0.00102							<0.00102
11/27/2018		<0.00102							<0.00102
1/8/2019								<0.00102	
3/20/2019						0.00236 (J)			
5/29/2019		<0.00102							<0.00102
7/31/2019	<0.00102			<0.00102			<0.00102		
10/1/2019	<0.00102	<0.00102				<0.00102	<0.00102		<0.00102
10/2/2019				<0.00102				<0.00102	
3/30/2020								<0.00102	
3/31/2020		<0.00102							<0.00102
4/1/2020				<0.00102		<0.00102			
8/31/2020									<0.00102
9/1/2020	<0.00102			<0.00102	<0.00102	<0.00102	<0.00102	<0.00102	
9/2/2020		<0.00102	<0.00102						
5/17/2021				0.000627 (J)					
5/18/2021					0.000973 (J)			0.000447 (J)	0.000394 (J)
5/19/2021		0.00162	0.000385 (J)			0.00132			
5/25/2021	0.000258 (J)						0.000391 (J)		
10/25/2021				0.0006 (J)	0.00062 (J)	0.00134	0.00044 (J)		
10/26/2021	0.00026 (J)		0.0004 (J)						
11/1/2021		0.0018						0.00045 (J)	0.00029 (J)
5/23/2022						0.00133			
5/24/2022	0.00023 (J)						0.00042 (J)	0.00038 (J)	<0.00102
5/25/2022		0.00135	<0.00102	0.00033 (J)	0.00048 (J)				
10/31/2022				0.000446 (J)	0.000316 (J)	0.000706 (J)	0.000431 (J)		
11/1/2022		0.00122	0.000275 (J)					0.000558 (J)	
11/2/2022	<0.00102								0.000206 (J)
4/3/2023									0.000877 (J)
4/4/2023			0.00133	0.00042 (J)	0.000244 (J)			0.000342 (J)	
4/5/2023		0.00125				0.000484 (J)			
4/24/2023	0.000278 (J)						0.000396 (J)		
8/7/2023			0.000891 (J)						
8/8/2023	0.000298 (J)	0.00169		0.000419 (J)	0.00175	0.000382 (J)	0.000325 (J)		0.000301 (J)
8/9/2023								0.000413 (J)	

Time Series

Constituent: Chromium (mg/L) Analysis Run 10/22/2023 12:54 PM View: Descriptive
Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-20H	BY-AP-MW-20V
3/2/2016		
4/19/2016		
6/8/2016		
8/31/2016		
10/19/2016		
1/31/2017		
5/2/2017		
6/6/2017		
1/23/2018		
1/24/2018		
5/1/2018		
11/27/2018		
1/8/2019		
3/20/2019		
5/29/2019		
7/31/2019	0.00209 (J)	
10/1/2019	0.0025 (J)	
10/2/2019		
3/30/2020		
3/31/2020		
4/1/2020	<0.00102	
8/31/2020		
9/1/2020	0.00283 (J)	<0.00102
9/2/2020		
5/17/2021		
5/18/2021		
5/19/2021	0.00284	0.000669 (J)
5/25/2021		
10/25/2021		
10/26/2021	0.00261	
11/1/2021		0.00061 (J)
5/23/2022	0.00233	
5/24/2022		0.00046 (J)
5/25/2022		
10/31/2022	0.00246	
11/1/2022		0.000578 (J)
11/2/2022		
4/3/2023		
4/4/2023		
4/5/2023		
4/24/2023	0.00253	0.000721 (J)
8/7/2023		
8/8/2023	0.00263	0.00107
8/9/2023		

Time Series

Constituent: Chromium (mg/L) Analysis Run 10/22/2023 12:54 PM View: Descriptive

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-22H	BY-AP-MW-23H	BY-AP-MW-23V	BY-AP-MW-24H	BY-AP-MW-25H	BY-AP-MW-25V	BY-AP-MW-3	BY-AP-MW-4	BY-AP-MW-5
3/1/2016								<0.00102	<0.00102
3/2/2016							<0.00102		
4/19/2016							<0.00102	<0.00102	
4/20/2016									<0.00102
6/7/2016							<0.00102	<0.00102	<0.00102
8/30/2016								<0.00102	<0.00102
8/31/2016							<0.00102		
10/18/2016									<0.00102
10/19/2016							<0.00102	<0.00102	
1/31/2017							<0.00102	<0.00102	<0.00102
5/2/2017							<0.00102	<0.00102	
5/3/2017									<0.00102
6/6/2017							<0.00102	<0.00102	
6/7/2017									<0.00102
1/24/2018							<0.00102	<0.00102	<0.00102
5/1/2018							<0.00102	<0.00102	
5/2/2018									<0.00102
11/27/2018							<0.00102	<0.00102	<0.00102
11/28/2018									
1/8/2019				<0.00102					
5/29/2019							<0.00102	<0.00102	<0.00102
7/31/2019	<0.00102	<0.00102							
10/1/2019	<0.00102	<0.00102					<0.00102	<0.00102	<0.00102
10/2/2019				<0.00102					
3/31/2020				<0.00102			<0.00102	<0.00102	<0.00102
4/1/2020		<0.00102							
9/1/2020	<0.00102	<0.00102	0.00284 (J)				<0.00102	<0.00102	<0.00102
9/2/2020				<0.00102	<0.00102	<0.00102			
5/17/2021			0.00163						
5/18/2021							0.000919 (J)	0.000544 (J)	
5/24/2021		0.000814 (J)			0.00117	0.00119			
5/25/2021	0.000667 (J)			0.000878 (J)					
10/26/2021	0.00062 (J)	0.0007 (J)	0.00061 (J)	0.00104					
11/1/2021							0.00093 (J)	0.00067 (J)	
11/2/2021					0.00098 (J)	0.0013			0.00101 (J)
5/24/2022	0.00057 (J)			0.00081 (J)					
5/25/2022		0.00051 (J)	0.00046 (J)		0.00103	0.00126	0.00104	0.00026 (J)	0.00103
10/31/2022	0.000493 (J)				0.00111			0.00057 (J)	0.00096 (J)
11/1/2022		0.000394 (J)	<0.00102			0.00131	0.00107		
11/2/2022				0.000799 (J)					
4/3/2023				0.000781 (J)	0.00106	0.0013			
4/4/2023		0.000406 (J)	0.000237 (J)				0.00053 (J)	0.000444 (J)	0.000894 (J)
4/24/2023	0.000486 (J)								
8/7/2023									0.000897 (J)
8/8/2023	0.00061 (J)	0.000383 (J)	0.000325 (J)	0.000914 (J)	0.00113	0.00128			
8/9/2023							0.000549 (J)	0.000854 (J)	

Time Series

Constituent: Chromium (mg/L) Analysis Run 10/22/2023 12:54 PM View: Descriptive
Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-5V	BY-AP-MW-6
3/1/2016		<0.00102
3/2/2016		
4/19/2016		<0.00102
4/20/2016		
6/7/2016		<0.00102
8/30/2016		<0.00102
8/31/2016		
10/18/2016		
10/19/2016		<0.00102
1/31/2017		<0.00102
5/2/2017		
5/3/2017		<0.00102
6/6/2017		
6/7/2017		<0.00102
1/24/2018		<0.00102
5/1/2018		
5/2/2018		<0.00102
11/27/2018		
11/28/2018		<0.00102
1/8/2019	<0.00102	
5/29/2019		<0.00102
7/31/2019		
10/1/2019		<0.00102
10/2/2019	<0.00102	
3/31/2020	<0.00102	<0.00102
4/1/2020		
9/1/2020	<0.00102	
9/2/2020		<0.00102
5/17/2021		0.000313 (J)
5/18/2021		
5/24/2021		
5/25/2021		
10/26/2021		
11/1/2021		
11/2/2021	0.00099 (J)	0.00023 (J)
5/24/2022		
5/25/2022	0.00048 (J)	0.00029 (J)
10/31/2022	0.001 (J)	0.000281 (J)
11/1/2022		
11/2/2022		
4/3/2023		
4/4/2023	0.000566 (J)	0.000267 (J)
4/24/2023		
8/7/2023	0.000763 (J)	
8/8/2023		
8/9/2023		0.00028 (J)

Time Series

Constituent: Chromium (mg/L) Analysis Run 10/22/2023 12:54 PM View: Descriptive

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-7	BY-AP-MW-7V	BY-AP-MW-8	BY-AP-MW-8V	BY-AP-MW-9	BY-UP-MW-1 (bg)	BY-UP-MW-2 (bg)	BY-UP-MW-3 (bg)	BY-UP-MW-4 (bg)
2/23/2016						<0.00102	<0.00102	<0.00102	<0.00102
3/1/2016	<0.00102		<0.00102		<0.00102				
4/19/2016						<0.00102	<0.00102	<0.00102	<0.00102
4/20/2016	<0.00102		<0.00102		<0.00102				
6/6/2016						<0.00102			<0.00102
6/7/2016	<0.00102		<0.00102				<0.00102	<0.00102	
6/8/2016					<0.00102				
8/30/2016			<0.00102			<0.00102	<0.00102	<0.00102	<0.00102
8/31/2016	<0.00102				<0.00102				
10/18/2016			<0.00102			<0.00102	<0.00102	<0.00102	<0.00102
10/19/2016	<0.00102				<0.00102				
1/31/2017	<0.00102		<0.00102			<0.00102	<0.00102	<0.00102	<0.00102
2/1/2017					<0.00102				
5/2/2017						<0.00102	<0.00102	<0.00102	<0.00102
5/3/2017	<0.00102		<0.00102		<0.00102				
6/6/2017						<0.00102	<0.00102	<0.00102	<0.00102
6/7/2017	<0.00102		<0.00102		<0.00102				
1/23/2018					<0.00102	<0.00102	0.00596 (J)	0.00229 (J)	<0.00102
1/24/2018	<0.00102		<0.00102						
5/1/2018							<0.00102	<0.00102	<0.00102
5/2/2018	0.00328 (J)		<0.00102		<0.00102	<0.00102			
11/26/2018									<0.00102
11/27/2018			<0.00102			<0.00102	<0.00102	<0.00102	
11/28/2018	<0.00102				<0.00102				
1/9/2019		<0.00102		<0.00102					
5/28/2019									<0.00102
5/29/2019	<0.00102		<0.00102			<0.00102	<0.00102	<0.00102	
5/30/2019					<0.00102				
9/30/2019	<0.00102		<0.00102		<0.00102				
10/1/2019		<0.00102		<0.00102					
10/2/2019						<0.00102	<0.00102	<0.00102	<0.00102
3/30/2020	<0.00102	<0.00102	<0.00102	<0.00102					
3/31/2020					<0.00102	<0.00102	<0.00102	<0.00102	0.00604 (J)
9/2/2020	<0.00102	<0.00102	<0.00102	<0.00102	<0.00102				
9/8/2020									<0.00102
9/9/2020						<0.00102	<0.00102	<0.00102	
5/11/2021			0.00156				0.00136	0.00146	0.00159
5/12/2021						0.000296 (J)			
5/18/2021	0.00709	0.000463 (J)		0.00129	0.00078 (J)				
10/18/2021								0.0013	0.00146
10/19/2021						0.000301 (J)	0.00135		
10/26/2021			0.00165	0.00124					
10/27/2021	0.00309	0.00052 (J)			0.00087 (J)				
5/23/2022				0.00124					
5/24/2022	0.00058 (J)	0.00023 (J)	0.00128		0.0007 (J)				
5/31/2022						0.000334 (J)	0.0012	0.00139	0.00156
10/31/2022	0.000263 (J)	0.000391 (J)		0.000756 (J)	0.000692 (J)				
11/1/2022						0.000212 (J)	0.00209	0.0012	0.00111
11/2/2022			0.001 (J)						
4/3/2023	0.000246 (J)	0.00059 (J)	0.00115	0.000809 (J)					
4/4/2023					0.00062 (J)				
4/12/2023						0.000215 (J)	0.00152	0.00138	0.00128

Time Series

Constituent: Chromium (mg/L) Analysis Run 10/22/2023 12:54 PM View: Descriptive

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-7	BY-AP-MW-7V	BY-AP-MW-8	BY-AP-MW-8V	BY-AP-MW-9	BY-UP-MW-1 (bg)	BY-UP-MW-2 (bg)	BY-UP-MW-3 (bg)	BY-UP-MW-4 (bg)
8/7/2023	<0.00102	0.00027 (J)	0.000611 (J)	0.00276	0.000492 (J)				
8/16/2023						0.000205 (J)	0.00111	0.00126	0.00158

Time Series

Constituent: Cobalt (mg/L) Analysis Run 10/22/2023 12:54 PM View: Descriptive

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-1	BY-AP-MW-10	BY-AP-MW-10V	BY-AP-MW-11	BY-AP-MW-12	BY-AP-MW-12V	BY-AP-MW-13	BY-AP-MW-13V	BY-AP-MW-14
3/1/2016		<0.005		<0.005					
3/2/2016	<0.005				0.00235 (J)		<0.005		<0.005
4/19/2016	<0.005								
4/20/2016		<0.005		<0.005	0.00212 (J)		<0.005		<0.005
6/8/2016	<0.005	<0.005		<0.005	0.00276 (J)		<0.005		<0.005
8/30/2016									<0.005
8/31/2016	<0.005	<0.005		<0.005	0.00261 (J)		<0.005		
10/18/2016									<0.005
10/19/2016	<0.005	<0.005		<0.005	0.00256 (J)		<0.005		
1/31/2017	<0.005						<0.005		<0.005
2/1/2017		<0.005		<0.005	0.00231 (J)				
5/2/2017	<0.005								<0.005
5/3/2017		<0.005		<0.005	0.00279 (J)		<0.005		
6/6/2017	<0.005								<0.005
6/7/2017		<0.005		<0.005	0.00262 (J)		<0.005		
1/22/2018							<0.005		
1/23/2018		<0.005		<0.005	0.00248 (J)				<0.005
1/24/2018	<0.005								
5/1/2018	<0.005								
5/2/2018		<0.005		<0.005	0.00271 (J)		<0.005		<0.005
11/27/2018									<0.005
11/28/2018	<0.005	<0.005		<0.005	0.00274 (J)		<0.005		
1/8/2019			<0.005			<0.005			
5/29/2019	<0.005			<0.005	0.00358 (J)		<0.005		<0.005
5/30/2019		<0.005							
9/30/2019		<0.005		<0.005					
10/1/2019	<0.005		<0.005		0.00303 (J)		<0.005		<0.005
10/2/2019						<0.005			
3/30/2020	<0.005								
3/31/2020		<0.005	<0.005	<0.005	0.00364 (J)	<0.005	<0.005		<0.005
4/1/2020									
9/1/2020	<0.005	<0.005	<0.005	<0.005	0.0031 (J)	<0.005	<0.005		
9/2/2020								<0.005	<0.005
5/11/2021		0.000636							
5/18/2021	0.000996		0.000648		0.00336	0.00237			
5/19/2021				0.00257			0.00113	0.000827	
5/25/2021									0.00124
10/26/2021							0.00122	0.00114	
10/27/2021		0.00065	0.00061						0.00125
11/1/2021	0.00091				0.0037	0.00231			
11/2/2021				0.00118					
5/23/2022				0.00118	0.00428	0.00255			
5/24/2022	0.00091	0.00054	0.00062				0.00189		
5/25/2022								0.00119	0.00125
11/1/2022			0.000667	0.00105	0.00406	0.00239	0.00274	0.00112	0.0012
11/2/2022	0.00102	0.000605							
4/3/2023	0.00133	0.000622	0.000623						
4/4/2023				0.000946	0.00309	0.00154	0.000801	0.00106	
4/5/2023									0.00119
8/7/2023		0.00061	0.000623	0.00101					
8/8/2023	0.000897				0.00388	0.00284			
8/9/2023							0.0013	0.00111	0.00125

Time Series

Constituent: Cobalt (mg/L) Analysis Run 10/22/2023 12:54 PM View: Descriptive
Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-14V	BY-AP-MW-15
3/1/2016		
3/2/2016		0.0279
4/19/2016		0.0269
4/20/2016		
6/8/2016		0.0293
8/30/2016		
8/31/2016		0.0272
10/18/2016		
10/19/2016		0.0285
1/31/2017		0.025
2/1/2017		
5/2/2017		0.0274
5/3/2017		
6/6/2017		0.0285
6/7/2017		
1/22/2018		0.0273
1/23/2018		
1/24/2018		
5/1/2018		0.0298
5/2/2018		
11/27/2018		0.0311
11/28/2018		
1/8/2019		
5/29/2019		0.0343
5/30/2019		
9/30/2019		
10/1/2019		0.0336
10/2/2019		
3/30/2020		
3/31/2020		
4/1/2020		0.0344
9/1/2020		
9/2/2020	0.00444 (J)	0.0385
5/11/2021		0.0349
5/18/2021		
5/19/2021		
5/25/2021	0.00271	
10/26/2021	0.00419	0.0347
10/27/2021		
11/1/2021		
11/2/2021		
5/23/2022		
5/24/2022	0.00327	
5/25/2022		0.0364
11/1/2022	0.00405	0.0357
11/2/2022		
4/3/2023		0.0345
4/4/2023	0.00396	
4/5/2023		
8/7/2023		
8/8/2023		0.0355
8/9/2023	0.0064	

Time Series

Constituent: Cobalt (mg/L) Analysis Run 10/22/2023 12:54 PM View: Descriptive

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-15V	BY-AP-MW-16	BY-AP-MW-16V	BY-AP-MW-17H	BY-AP-MW-17V	BY-AP-MW-18H	BY-AP-MW-19H	BY-AP-MW-1V	BY-AP-MW-2
3/2/2016		0.0212							0.00842 (J)
4/19/2016		0.018							0.008 (J)
6/8/2016		0.0176							0.00796 (J)
8/31/2016		0.0134							0.00752 (J)
10/19/2016		0.0193							0.00778 (J)
1/31/2017		0.017							0.00647 (J)
5/2/2017		0.0166							0.00686 (J)
6/6/2017		0.0172							0.00694 (J)
1/23/2018		0.00621 (J)							
1/24/2018									0.00592 (J)
5/1/2018		0.0189							0.00693 (J)
11/27/2018		0.0182							0.0066
1/8/2019								0.00911	
3/20/2019						<0.005			
5/29/2019		0.0206							0.00745
7/31/2019	0.0632			<0.005			<0.005		
10/1/2019	0.0629	0.0107				<0.005	<0.005		0.00696
10/2/2019				0.0033 (J)				0.00289 (J)	
3/30/2020								<0.005	
3/31/2020		0.0199							0.00716
4/1/2020				<0.005		0.013			
8/31/2020									0.00751
9/1/2020	0.0665			0.00258 (J)	0.022	<0.005	<0.005	0.00407 (J)	
9/2/2020		0.0192	0.0163						
5/17/2021				0.0013					
5/18/2021					0.0197			0.00483	0.00746
5/19/2021		0.0182	0.0153			0.00109			
5/25/2021	0.0694						0.00294		
10/25/2021				0.00371	0.00915	0.00101	0.00501		
10/26/2021	0.0757		0.0159						
11/1/2021		0.0139						0.00578	0.00706
5/23/2022						0.00108			
5/24/2022	0.0764						0.00513	0.00765	0.00582
5/25/2022		0.0155	0.0139	0.0013	0.0685				
10/31/2022				0.00156	0.0967	0.000688	0.00053		
11/1/2022		0.00812	0.0185					0.00928	
11/2/2022	0.0748								0.00497
4/3/2023									0.0042
4/4/2023			0.0168	0.000596	0.13			0.00568	
4/5/2023		0.00721				<0.005			
4/24/2023	0.0817						0.00147		
8/7/2023			0.0149						
8/8/2023	0.0802	0.00584		0.00297	0.0598	<0.005	0.000813		0.00386
8/9/2023								0.00549	

Time Series

Constituent: Cobalt (mg/L) Analysis Run 10/22/2023 12:54 PM View: Descriptive
Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-20H	BY-AP-MW-20V
3/2/2016		
4/19/2016		
6/8/2016		
8/31/2016		
10/19/2016		
1/31/2017		
5/2/2017		
6/6/2017		
1/23/2018		
1/24/2018		
5/1/2018		
11/27/2018		
1/8/2019		
3/20/2019		
5/29/2019		
7/31/2019	0.00433 (J)	
10/1/2019	0.00431 (J)	
10/2/2019		
3/30/2020		
3/31/2020		
4/1/2020	0.00541	
8/31/2020		
9/1/2020	0.0046 (J)	0.012
9/2/2020		
5/17/2021		
5/18/2021		
5/19/2021	0.00426	0.0173
5/25/2021		
10/25/2021		
10/26/2021	0.00447	
11/1/2021		0.0236
5/23/2022	0.00423	
5/24/2022		0.0264
5/25/2022		
10/31/2022	0.00455	
11/1/2022		0.0309
11/2/2022		
4/3/2023		
4/4/2023		
4/5/2023		
4/24/2023	0.00442	0.000458
8/7/2023		
8/8/2023	0.0046	0.0234
8/9/2023		

Time Series

Constituent: Cobalt (mg/L) Analysis Run 10/22/2023 12:54 PM View: Descriptive

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-22H	BY-AP-MW-23H	BY-AP-MW-23V	BY-AP-MW-24H	BY-AP-MW-25H	BY-AP-MW-25V	BY-AP-MW-3	BY-AP-MW-4	BY-AP-MW-5
3/1/2016								<0.005	<0.005
3/2/2016							<0.005		
4/19/2016							<0.005	<0.005	
4/20/2016									<0.005
6/7/2016							<0.005	0.00424 (J)	<0.005
8/30/2016								0.00262 (J)	<0.005
8/31/2016							<0.005		
10/18/2016									<0.005
10/19/2016							<0.005	0.00469 (J)	
1/31/2017							<0.005	0.0127	<0.005
5/2/2017							<0.005	0.00891 (J)	
5/3/2017									<0.005
6/6/2017							<0.005	0.00217 (J)	
6/7/2017									<0.005
1/24/2018							<0.005	<0.005	<0.005
5/1/2018							<0.005	0.0126	
5/2/2018									<0.005
11/27/2018							<0.005	0.00363 (J)	<0.005
11/28/2018									
1/8/2019				0.00243 (J)					
5/29/2019							<0.005	0.00549	<0.005
7/31/2019	0.00233 (J)	0.0031 (J)							
10/1/2019	0.00268 (J)	0.00201 (J)					<0.005	<0.005	<0.005
10/2/2019				0.00513					
3/31/2020				0.00528			<0.005	0.0205	<0.005
4/1/2020		0.0206							
9/1/2020	0.00294 (J)	0.0273	<0.005				<0.005	0.00657	<0.005
9/2/2020				0.0061	0.00246 (J)	<0.005			
5/17/2021			0.000217						
5/18/2021							0.000196 (J)	0.018	
5/24/2021		0.00682			0.00156	0.000422			
5/25/2021	0.00264			0.00542					
10/26/2021	0.00285	0.00495	<0.005	0.00591					
11/1/2021							0.00016 (J)	0.00478	
11/2/2021					0.00146	0.00037			0.00197
5/24/2022	0.0027			0.00571					
5/25/2022		0.002	<0.005		0.00132	0.00028	0.00028	0.00455	0.00184
10/31/2022	0.00274				0.00135			0.00319	0.0015
11/1/2022		0.00076	0.000236			0.000337	0.000152 (J)		
11/2/2022				0.00575					
4/3/2023				0.00563	0.00113	0.000304			
4/4/2023		0.000522	0.0375				0.000108 (J)	0.0031	0.00112
4/24/2023	0.00275								
8/7/2023									0.000923
8/8/2023	0.00275	0.000504	0.043	0.00581	0.00141	0.000272			
8/9/2023							0.000108 (J)	0.00259	

Time Series

Constituent: Cobalt (mg/L) Analysis Run 10/22/2023 12:54 PM View: Descriptive
Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-5V	BY-AP-MW-6
3/1/2016		<0.005
3/2/2016		
4/19/2016		<0.005
4/20/2016		
6/7/2016		<0.005
8/30/2016		<0.005
8/31/2016		
10/18/2016		
10/19/2016		<0.005
1/31/2017		<0.005
5/2/2017		
5/3/2017		<0.005
6/6/2017		
6/7/2017		<0.005
1/24/2018		<0.005
5/1/2018		
5/2/2018		<0.005
11/27/2018		
11/28/2018		<0.005
1/8/2019	<0.005	
5/29/2019		<0.005
7/31/2019		
10/1/2019		<0.005
10/2/2019	<0.005	
3/31/2020	<0.005	<0.005
4/1/2020		
9/1/2020	<0.005	
9/2/2020		<0.005
5/17/2021		0.000678
5/18/2021		
5/24/2021		
5/25/2021		
10/26/2021		
11/1/2021		
11/2/2021	0.00013 (J)	0.0006
5/24/2022		
5/25/2022	0.00106	0.00098
10/31/2022	9.5E-05 (J)	0.000588
11/1/2022		
11/2/2022		
4/3/2023		
4/4/2023	<0.005	0.000584
4/24/2023		
8/7/2023	<0.005	
8/8/2023		
8/9/2023		0.00065

Time Series

Constituent: Cobalt (mg/L) Analysis Run 10/22/2023 12:54 PM View: Descriptive

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-7	BY-AP-MW-7V	BY-AP-MW-8	BY-AP-MW-8V	BY-AP-MW-9	BY-UP-MW-1 (bg)	BY-UP-MW-2 (bg)	BY-UP-MW-3 (bg)	BY-UP-MW-4 (bg)
2/23/2016						0.0035 (J)	<0.005	<0.005	<0.005
3/1/2016	0.011		<0.005		<0.005				
4/19/2016						0.0038 (J)	<0.005	<0.005	<0.005
4/20/2016	0.0148		<0.005		<0.005				
6/6/2016						0.00427 (J)			<0.005
6/7/2016	0.0172		<0.005				<0.005	<0.005	
6/8/2016					<0.005				
8/30/2016			<0.005			0.00348 (J)	<0.005	<0.005	<0.005
8/31/2016	0.0175				<0.005				
10/18/2016			<0.005			0.00338 (J)	<0.005	<0.005	<0.005
10/19/2016	0.0189				<0.005				
1/31/2017	0.0165		<0.005			0.00308 (J)	<0.005	<0.005	<0.005
2/1/2017					<0.005				
5/2/2017						0.00314 (J)	<0.005	<0.005	<0.005
5/3/2017	0.0172		<0.005		<0.005				
6/6/2017						0.0036 (J)	<0.005	<0.005	<0.005
6/7/2017	0.0173		<0.005		<0.005				
1/23/2018					<0.005	0.00586 (J)	0.0021 (J)	<0.005	<0.005
1/24/2018	0.0158		<0.005						
5/1/2018							<0.005	<0.005	<0.005
5/2/2018	0.0169		<0.005		<0.005	0.00702 (J)			
11/26/2018									<0.005
11/27/2018			<0.005			0.0157	0.00209 (J)	<0.005	
11/28/2018	0.0178				<0.005				
1/9/2019		<0.005		<0.005					
5/28/2019									<0.005
5/29/2019	0.0197		<0.005			0.0109	0.00248 (J)	<0.005	
5/30/2019					<0.005				
9/30/2019	0.0186		<0.005		<0.005				
10/1/2019		<0.005		<0.005					
10/2/2019						0.0129	0.00244 (J)	<0.005	<0.005
3/30/2020	0.0172	<0.005	<0.005	<0.005					
3/31/2020					<0.005	0.0123	0.00224 (J)	<0.005	<0.005
9/2/2020	0.0197	<0.005	<0.005	<0.005	<0.005				
9/8/2020									<0.005
9/9/2020						0.00697	0.00219 (J)	<0.005	
5/11/2021			0.000778				0.00194	0.00142	0.00137
5/12/2021						0.00611			
5/18/2021	0.0189	0.000139 (J)		0.000882	0.000725				
10/18/2021								0.00146	0.00139
10/19/2021						0.00517	0.00192		
10/26/2021			0.00079	0.00088					
10/27/2021	0.0206	0.00013 (J)			0.0007				
5/23/2022					0.00092				
5/24/2022	0.023	0.00011 (J)	0.00067		0.00069				
5/31/2022						0.00487	0.00194	0.00149	0.0015
10/31/2022	0.00239	7.8E-05 (J)		0.000614	0.000698				
11/1/2022						0.00394	0.0016	0.00143	0.00169
11/2/2022			0.00059						
4/3/2023	0.00492	0.000148 (J)	0.000153 (J)	0.000362					
4/4/2023					0.000737				
4/12/2023						0.00398	0.00157	0.0013	0.00127

Time Series

Constituent: Cobalt (mg/L) Analysis Run 10/22/2023 12:54 PM View: Descriptive
Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-7	BY-AP-MW-7V	BY-AP-MW-8	BY-AP-MW-8V	BY-AP-MW-9	BY-UP-MW-1 (bg)	BY-UP-MW-2 (bg)	BY-UP-MW-3 (bg)	BY-UP-MW-4 (bg)
8/7/2023	0.00447	9.5E-05 (J)	<0.005	0.000545	0.000514				
8/16/2023						0.0034	0.00157	0.00133	0.00161

Time Series

Constituent: Combined Radium 226 + 228 (pCi/L) Analysis Run 10/22/2023 12:54 PM View: Descriptive

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-1	BY-AP-MW-10	BY-AP-MW-10V	BY-AP-MW-11	BY-AP-MW-12	BY-AP-MW-12V	BY-AP-MW-13	BY-AP-MW-13V	BY-AP-MW-14
3/1/2016		<3		<3					
3/2/2016	<3				<3		<3		<3
4/19/2016	3.0268								
4/20/2016		<3		0.667	<3		0.398		<3
6/7/2016					1.08		0.812		
6/8/2016	1.59	1.06		0.704					0.631
8/30/2016									0.693
8/31/2016	2.19	0.871		0.726	0.528		0.46 (U)		
10/18/2016									0.626
10/19/2016		1.575 (D)		0.737	0.81		0.601		
1/31/2017	1.23						1.1		0.0723 (U)
2/1/2017		1		0.766	1.11				
5/2/2017	1.62								0.363 (U)
5/3/2017		1.07		0.515	0.639		0.832		
6/6/2017	1.24								0.198 (U)
6/7/2017		0.254 (U)		1.04	0.705		0.752		
1/22/2018							0.898 (U)		
1/23/2018		0.795 (U)		1.17 (U)	1.1 (U)				0.294 (U)
1/24/2018	1.96 (U)								
5/1/2018	1.6								
5/2/2018		0.405		0.505	1.11		0.752		0.522
11/27/2018									0.576
11/28/2018	1.48	0.609		0.232 (U)	0.846		0.523		
1/8/2019			1.35			1.04			
5/29/2019	2.25			0.726	2.06		1.01		0.437 (U)
5/30/2019		0.0949 (U)							
9/30/2019		0.965		0.489 (U)					
10/1/2019	2.84		1.99		0.984		1.07		1.11
10/2/2019						0.896			
3/30/2020	2.31								
3/31/2020		1.14	0.957	0.462 (U)	1.26	0.923	0.725		0.941
4/1/2020									
6/17/2020								1.22	
5/11/2021		1.12 (U)							
5/18/2021	2.99		1.66		1.11	1.31			
5/19/2021				1.15			1.15	0.783 (U)	
5/25/2021									0.978 (U)
10/26/2021							1.74	1.6	
10/27/2021		1.2 (U)	1.44 (U)						0.587 (U)
11/1/2021	2.22				1.79	0.814 (U)			
11/2/2021				0.504 (U)					
5/23/2022				0.452 (U)	1.4	0.962 (U)			
5/24/2022	2.12	1.36 (U)	1.2				0.915 (U)		
5/25/2022								0.951 (U)	1.25
11/1/2022			1.34	1.03	0.672 (U)	0.816 (U)	0.569 (U)	0.933 (U)	0.528 (U)
11/2/2022	1.96	0.886 (U)							
4/3/2023	1.84	0.75 (U)	1.24						
4/4/2023				0.562 (U)	1.42	1.48	0.885 (U)	0.957 (U)	
4/5/2023									0.746 (U)
8/7/2023		1.34	1.63	1.12					
8/8/2023	1.6				1.21	0.422 (U)			
8/9/2023							0.938 (U)	1.3	0.709 (U)

Time Series

Constituent: Combined Radium 226 + 228 (pCi/L) Analysis Run 10/22/2023 12:54 PM View: Descriptive
Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-14V	BY-AP-MW-15
3/1/2016		
3/2/2016		<3
4/19/2016		<3
4/20/2016		
6/7/2016		
6/8/2016		0.557
8/30/2016		
8/31/2016		0.765
10/18/2016		
10/19/2016		0.654
1/31/2017		0.402 (U)
2/1/2017		
5/2/2017		0.578
5/3/2017		
6/6/2017		0.128 (U)
6/7/2017		
1/22/2018		0.768 (U)
1/23/2018		
1/24/2018		
5/1/2018		0.651
5/2/2018		
11/27/2018		0.764
11/28/2018		
1/8/2019		
5/29/2019		0.433
5/30/2019		
9/30/2019		
10/1/2019		0.988
10/2/2019		
3/30/2020		
3/31/2020		
4/1/2020		0.527
6/17/2020	0.726	
5/11/2021		0.684 (U)
5/18/2021		
5/19/2021		
5/25/2021	0.859 (U)	
10/26/2021	1.34 (U)	1.95
10/27/2021		
11/1/2021		
11/2/2021		
5/23/2022		
5/24/2022	1.26	
5/25/2022		1.3
11/1/2022	1.38	1.15
11/2/2022		
4/3/2023		1.63
4/4/2023	1.23 (U)	
4/5/2023		
8/7/2023		
8/8/2023		0.921 (U)
8/9/2023	0.58 (U)	

Time Series

Constituent: Combined Radium 226 + 228 (pCi/L) Analysis Run 10/22/2023 12:54 PM View: Descriptive

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-15V	BY-AP-MW-16	BY-AP-MW-16V	BY-AP-MW-17H	BY-AP-MW-17V	BY-AP-MW-18H	BY-AP-MW-19H	BY-AP-MW-1V	BY-AP-MW-2
3/2/2016		<3							<3
4/19/2016		<3							<3
6/8/2016		0.344 (U)							0.121 (U)
8/31/2016		0.582							0.348 (U)
10/19/2016		0.448							0.48
1/31/2017		0.653							0.00333 (U)
5/2/2017		0.698							0.4 (U)
6/6/2017		0.548							0.083 (U)
1/23/2018		0.98 (U)							
1/24/2018									0.404 (U)
5/1/2018		0.623							0.457
11/27/2018		0.744							0.359 (U)
1/8/2019								1.06	
5/29/2019		2.51							1.18
7/31/2019	1.09 (D)			0.621 (D)			0.272 (UD)		
10/1/2019	1.51	0.443 (U)				0.6	0.817		0.284 (U)
10/2/2019				1.14				1.03	
3/30/2020								0.579	
3/31/2020		0.341 (U)							0.699
4/1/2020				0.797		1.05			
5/12/2020	1.67						0.691		
6/16/2020			0.642		2.17				
6/17/2020									
5/17/2021				1.64					
5/18/2021					1.05 (U)			0.814 (U)	0.72 (U)
5/19/2021		0.321 (U)	0.496 (U)			0.971 (U)			
5/25/2021	1.72						1.04 (U)		
10/25/2021				1.57	1.04 (U)	1.2	1.03 (U)		
10/26/2021	2.53		0.773 (U)						
11/1/2021		1.28						1.3 (U)	0.523 (U)
5/23/2022						1.03 (U)			
5/24/2022	1.85						1.06 (U)	2	0.732 (U)
5/25/2022		0.927 (U)	1.03 (U)	1.71	5.37				
10/31/2022				0.928 (U)	5.26	0.691 (U)	1.11		
11/1/2022		1.09	0.705 (U)					1.35	
11/2/2022	1.46								0.366 (U)
4/3/2023									0.24 (U)
4/4/2023			1.07	1.09 (U)	9.59			1.62	
4/5/2023		1.5				0.675 (U)			
4/24/2023	2.02						1.35		
8/7/2023			0.678 (U)						
8/8/2023	2.05	1.23		0.898 (U)	3.64	0.262 (U)	0.636 (U)		0.497 (U)
8/9/2023								0.576 (U)	

Time Series

Constituent: Combined Radium 226 + 228 (pCi/L) Analysis Run 10/22/2023 12:54 PM View: Descriptive
Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-20H	BY-AP-MW-20V
3/2/2016		
4/19/2016		
6/8/2016		
8/31/2016		
10/19/2016		
1/31/2017		
5/2/2017		
6/6/2017		
1/23/2018		
1/24/2018		
5/1/2018		
11/27/2018		
1/8/2019		
5/29/2019		
7/31/2019	0.268 (UD)	
10/1/2019	1.22	
10/2/2019		
3/30/2020		
3/31/2020		
4/1/2020	0.968	
5/12/2020		
6/16/2020		
6/17/2020		0.767
5/17/2021		
5/18/2021		
5/19/2021	1.03 (U)	1.43
5/25/2021		
10/25/2021		
10/26/2021	1.28 (U)	
11/1/2021		1.48
5/23/2022	0.657 (U)	
5/24/2022		0.97 (U)
5/25/2022		
10/31/2022	1.15	
11/1/2022		0.873
11/2/2022		
4/3/2023		
4/4/2023		
4/5/2023		
4/24/2023	1.17	0.605 (U)
8/7/2023		
8/8/2023	1.25	3.45
8/9/2023		

Time Series

Constituent: Combined Radium 226 + 228 (pCi/L) Analysis Run 10/22/2023 12:54 PM View: Descriptive

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-22H	BY-AP-MW-23H	BY-AP-MW-23V	BY-AP-MW-24H	BY-AP-MW-25H	BY-AP-MW-25V	BY-AP-MW-3	BY-AP-MW-4	BY-AP-MW-5
3/1/2016								<3	<3
3/2/2016							<3		
4/19/2016							<3	<3	
4/20/2016									3.0801
6/7/2016							0.455	0.287 (U)	1.5
8/30/2016								0.585	1.17
8/31/2016							0.329 (U)		
10/18/2016									1.93
10/19/2016							0.536	1.85	
1/31/2017							0.496	0.25 (U)	1
5/2/2017							0.149 (U)	0.391 (U)	
5/3/2017									1.48
6/6/2017							0.191 (U)	0.183 (U)	
6/7/2017									0.915
1/24/2018							0.543 (U)	0.622 (U)	1.74 (U)
5/1/2018							0.372 (U)	0.0917 (U)	
5/2/2018									0.58
11/27/2018							0.591	0.695	1.43
11/28/2018									
1/8/2019				1.49					
5/29/2019							2.31	0.947	2.16
7/31/2019	0.448 (D)	0.331 (UD)							
10/1/2019	0.508	1.05					1.52	0.7	2.14
10/2/2019				1.24					
3/31/2020				0.577			0.478 (U)	0.323 (U)	0.754
4/1/2020		0.618							
5/12/2020	0.61								
6/16/2020			0.752 (U)						
6/17/2020					0.554	0.479			
5/17/2021			0.374 (U)						
5/18/2021							0.749 (U)	0.734 (U)	
5/24/2021		1.1 (U)			0.545 (U)	0.531 (U)			
5/25/2021	1.26			0.695 (U)					
10/26/2021	1.52	1.13 (U)	0.285 (U)	0.987 (U)					
11/1/2021							0.688 (U)	0.888 (U)	
11/2/2021					0.707 (U)	1.05 (U)			2.06
5/24/2022	0.656 (U)			1.08 (U)					
5/25/2022		0.674 (U)	0.285 (U)		0.682 (U)	0.527 (U)	1.72	0.821 (U)	1.71
10/31/2022	0.454 (U)				0.793 (U)			0.927	0.75 (U)
11/1/2022		0.583 (U)	0.656 (U)			0.545 (U)	0.505 (U)		
11/2/2022				1.05					
4/3/2023				1.46	0.724 (U)	1.32			
4/4/2023		0.92 (U)	1.91				0.479 (U)	1.82	1.15
4/24/2023	1 (U)								
8/7/2023									0.539 (U)
8/8/2023	0.648 (U)	0.864 (U)	1.9	1.23	0.401 (U)	0.737 (U)			
8/9/2023							0.203 (U)	1.09 (U)	

Time Series

Constituent: Combined Radium 226 + 228 (pCi/L) Analysis Run 10/22/2023 12:54 PM View: Descriptive
Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-5V	BY-AP-MW-6
3/1/2016		<3
3/2/2016		
4/19/2016		<3
4/20/2016		
6/7/2016		0.353 (U)
8/30/2016		0.428 (U)
8/31/2016		
10/18/2016		
10/19/2016		0.449 (U)
1/31/2017		-0.0173 (U)
5/2/2017		
5/3/2017		0.447
6/6/2017		
6/7/2017		0.572
1/24/2018		1.09 (U)
5/1/2018		
5/2/2018		0.187 (U)
11/27/2018		
11/28/2018		0.478 (U)
1/8/2019	0.298 (U)	
5/29/2019		-0.276 (U)
7/31/2019		
10/1/2019		0.742
10/2/2019	0.206 (U)	
3/31/2020	0.024 (U)	0.291 (U)
4/1/2020		
5/12/2020		
6/16/2020		
6/17/2020		
5/17/2021		1.84
5/18/2021		
5/24/2021		
5/25/2021		
10/26/2021		
11/1/2021		
11/2/2021	0.158 (U)	0.773 (U)
5/24/2022		
5/25/2022	1.03 (U)	1.06 (U)
10/31/2022	0.7 (U)	0.925
11/1/2022		
11/2/2022		
4/3/2023		
4/4/2023	1.13 (U)	1.33
4/24/2023		
8/7/2023	0.198 (U)	
8/8/2023		
8/9/2023		0.212 (U)

Time Series

Constituent: Combined Radium 226 + 228 (pCi/L) Analysis Run 10/22/2023 12:54 PM View: Descriptive

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-7	BY-AP-MW-7V	BY-AP-MW-8	BY-AP-MW-8V	BY-AP-MW-9	BY-UP-MW-1 (bg)	BY-UP-MW-2 (bg)	BY-UP-MW-3 (bg)	BY-UP-MW-4 (bg)
2/23/2016						2.8971 (U)	3 (U)	3 (U)	2.1138
3/1/2016	<3		<3		<3				
4/19/2016						3 (U)	3 (U)	3 (U)	3 (U)
4/20/2016	<3		<3		<3				
6/6/2016						0.841			0.757
6/7/2016	0.555 (U)		0.853				0.652	0.342 (U)	
6/8/2016					0.837				
8/30/2016			0.669			1.74	0.411 (U)	0.702	0.992
8/31/2016	0.284 (U)				0.917				
10/18/2016			1.32			1.47	1	0.791	0.905
10/19/2016	0.557 (U)				1.41				
1/31/2017	0.0949 (U)		0.801			0.952	0.398 (U)	0.0613 (U)	1.08
2/1/2017					0.785				
5/2/2017						0.768	0.66	0.974	1.18
5/3/2017	0.53		0.648		1.33				
6/6/2017						1.04	0.639	0.748	1.1
6/7/2017	-0.231 (U)		0.408 (U)		0.758				
1/23/2018					1.06 (U)	0.513 (U)	0.669 (U)	0.558 (U)	1.32 (U)
1/24/2018	0.691 (U)		0.706 (U)						
5/1/2018							1.06	0.296 (U)	1.19
5/2/2018	0.535		0.572		0.983	0.916			
11/26/2018									0.863
11/27/2018			0.687			1.37	0.636	0.357 (U)	
11/28/2018	0.62				0.747				
1/9/2019		0.527		1.69					
5/28/2019									0.474 (U)
5/29/2019	0.244 (U)		0.627 (U)			1.57	0.579 (U)	0.275 (U)	
5/30/2019					1.08				
9/30/2019	0.388 (U)		0.321 (U)		0.58				
10/1/2019		1.01		1.66					
10/2/2019						0.905	1.33	0.458 (U)	0.624 (U)
3/30/2020	0.744	0.604	0.6	0.787					
3/31/2020					0.82	1.77	0.814	0.941	1.09
9/8/2020									1.27
9/9/2020						1.77	0.653 (U)	1.05	
5/11/2021			0.648 (U)				0.945 (U)	0.521 (U)	0.969 (U)
5/12/2021						0.639 (U)			
5/18/2021	0.597 (U)	0.199 (U)		0.975 (U)	0.98 (U)				
10/18/2021								1.75	2.19
10/19/2021						1.77	1.85		
10/26/2021			1.61	1.61					
10/27/2021	1.46 (U)	0.914 (U)			1.07 (U)				
5/23/2022				1.13					
5/24/2022	1.05 (U)	0.619 (U)	0.733 (U)		2.11				
5/31/2022						1.34	1.38	1.67	1.47
10/31/2022	0.932	0.332 (U)		1.12	1.64				
11/1/2022						1.11	1	0.53 (U)	1.36
11/2/2022			0.503 (U)						
4/3/2023	0.49 (U)	0.856 (U)	1.21	0.795 (U)					
4/4/2023					1.05 (U)				
4/12/2023						1.03 (U)	1.07	1.28	1.17
8/7/2023	0.826 (U)	0.164 (U)	0.789 (U)	0.8935 (UD)	0.578 (U)				

Time Series

Constituent: Combined Radium 226 + 228 (pCi/L) Analysis Run 10/22/2023 12:54 PM View: Descriptive
Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-7	BY-AP-MW-7V	BY-AP-MW-8	BY-AP-MW-8V	BY-AP-MW-9	BY-UP-MW-1 (bg)	BY-UP-MW-2 (bg)	BY-UP-MW-3 (bg)	BY-UP-MW-4 (bg)
8/16/2023						0.516 (U)	0.389 (U)	1.1 (U)	1.56

Time Series

Constituent: Fluoride, total (mg/L) Analysis Run 10/22/2023 12:54 PM View: Descriptive

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-1	BY-AP-MW-10	BY-AP-MW-10V	BY-AP-MW-11	BY-AP-MW-12	BY-AP-MW-12V	BY-AP-MW-13	BY-AP-MW-13V	BY-AP-MW-14
3/1/2016		0.02 (J)		0.06 (J)					
3/2/2016	0.03 (J)				0.04 (J)		0.05 (J)		0.07 (J)
4/19/2016	0.052 (J)								
4/20/2016		0.034 (J)		0.073 (J)	0.059 (J)		0.064 (J)		0.076 (J)
6/8/2016	0.069 (J)	0.061 (J)		0.085 (J)	0.08 (J)		0.082 (J)		0.105 (J)
8/30/2016									0.083 (J)
8/31/2016	0.043 (J)	0.04 (J)		0.064 (J)	0.059 (J)		0.062 (J)		
10/18/2016									0.067 (J)
10/19/2016	<0.1	0.03 (J)		0.05 (J)	0.045 (J)		0.049 (J)		
3/21/2017	0.04 (J)								
3/22/2017		<0.125		0.05 (J)	0.04 (J)		0.05 (J)		0.06 (J)
5/2/2017	0.05 (J)								0.08 (J)
5/3/2017		0.04 (J)		0.06 (J)	0.06 (J)		0.06 (J)		
6/6/2017	0.049 (J)								0.077 (J)
6/7/2017		0.04 (J)		0.06 (J)	0.06 (J)		0.07 (J)		
9/13/2017	<0.1 (U*)			<0.1 (U*)	<0.1 (U*)		<0.1 (U*)		<0.1 (U*)
9/14/2017		0.04 (J)							
1/22/2018							0.06 (J)		
1/23/2018		<0.125		0.06 (J)	0.05 (J)				0.08 (J)
1/24/2018	0.05 (J)								
5/1/2018	0.05 (J)								
5/2/2018		<0.125		0.06 (J)	0.06 (J)		0.07 (J)		0.08 (J)
11/27/2018									0.06 (J)
11/28/2018	<0.1	<0.125		0.05 (J)	0.04 (J)		0.05 (J)		
1/8/2019			0.123			0.0729 (J)			
5/29/2019	0.0858 (J)			0.0759 (J)	0.0677 (J)		0.0679 (J)		0.0781 (J)
5/30/2019		0.0573 (J)							
9/30/2019		<0.125		0.0733 (J)					
10/1/2019	0.0744 (J)		0.0517 (J)		0.0682 (J)		0.0703 (J)		0.0885 (J)
10/2/2019						0.12			
3/30/2020	0.0726 (J)								
3/31/2020		<0.125	<0.125	0.078 (J)	0.0755 (J)	0.0828 (J)	0.0665 (J)		0.0867 (J)
4/1/2020									
9/1/2020	0.194	0.0794 (J)	0.0695 (J)	0.0841 (J)	0.0845 (J)	0.0947 (J)	0.0757 (J)		
9/2/2020								0.0864 (J)	0.0957 (J)
5/11/2021		0.105							
5/18/2021	0.0884 (J)		<0.125		0.0614 (J)	0.0783 (J)			
5/19/2021				0.0994 (J)			0.0748 (J)	0.0884 (J)	
5/25/2021									0.0957 (J)
10/26/2021							0.0641 (J)	0.096 (J)	
10/27/2021		<0.125	<0.125						0.0651 (J)
11/1/2021	0.181				0.0928 (J)	0.123			
11/2/2021				0.101					
5/23/2022				0.0709 (J)	0.0873 (J)	<0.125			
5/24/2022	0.0801 (J)	<0.125 (D)	<0.125				0.0769 (J)		
5/25/2022								<0.125	0.0733 (J)
11/1/2022			0.0602 (J)	0.0612 (J)	0.0695 (J)	0.13	0.13	0.069 (J)	0.0685 (J)
11/2/2022	0.0665 (J)	<0.125							
4/3/2023	0.0717 (J)	<0.125	<0.125						
4/4/2023				0.126	0.081 (J)	0.126	0.187	0.0687 (J)	
4/5/2023									0.127
8/7/2023		<0.125	<0.125	0.099 (J)					

Time Series

Constituent: Fluoride, total (mg/L) Analysis Run 10/22/2023 12:54 PM View: Descriptive
Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-1	BY-AP-MW-10	BY-AP-MW-10V	BY-AP-MW-11	BY-AP-MW-12	BY-AP-MW-12V	BY-AP-MW-13	BY-AP-MW-13V	BY-AP-MW-14
8/8/2023	0.0612 (J)				0.0672 (J)	0.0731 (J)			
8/9/2023							0.0948 (J)	0.0755 (J)	0.0753 (J)

Time Series

Constituent: Fluoride, total (mg/L) Analysis Run 10/22/2023 12:54 PM View: Descriptive
Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-14V	BY-AP-MW-15
3/1/2016		
3/2/2016		0.18 (J)
4/19/2016		0.21 (J)
4/20/2016		
6/8/2016		0.223 (J)
8/30/2016		
8/31/2016		0.196 (J)
10/18/2016		
10/19/2016		0.166 (J)
3/21/2017		0.18
3/22/2017		
5/2/2017		0.18
5/3/2017		
6/6/2017		0.18
6/7/2017		
9/13/2017		<0.1 (U*)
9/14/2017		
1/22/2018		0.19
1/23/2018		
1/24/2018		
5/1/2018		0.19
5/2/2018		
11/27/2018		0.18
11/28/2018		
1/8/2019		
5/29/2019		0.168
5/30/2019		
9/30/2019		
10/1/2019		0.185
10/2/2019		
3/30/2020		
3/31/2020		
4/1/2020		0.187
9/1/2020		
9/2/2020	0.359	0.18
5/11/2021		0.214
5/18/2021		
5/19/2021		
5/25/2021	0.378	
10/26/2021	0.384	0.171
10/27/2021		
11/1/2021		
11/2/2021		
5/23/2022		
5/24/2022	0.291	
5/25/2022		0.214
11/1/2022	0.275	0.177
11/2/2022		
4/3/2023		0.26
4/4/2023	0.302	
4/5/2023		
8/7/2023		

Time Series

Constituent: Fluoride, total (mg/L) Analysis Run 10/22/2023 12:54 PM View: Descriptive
Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-14V	BY-AP-MW-15
8/8/2023		0.172
8/9/2023	0.27	

Time Series

Constituent: Fluoride, total (mg/L) Analysis Run 10/22/2023 12:54 PM View: Descriptive

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-15V	BY-AP-MW-16	BY-AP-MW-16V	BY-AP-MW-17H	BY-AP-MW-17V	BY-AP-MW-18H	BY-AP-MW-19H	BY-AP-MW-1V	BY-AP-MW-2
3/2/2016		0.04 (J)							0.04 (J)
4/19/2016		0.05 (J)							0.038 (J)
6/8/2016		0.073 (J)							0.067 (J)
8/31/2016		0.051 (J)							0.05 (J)
10/19/2016		<0.125							<0.125
3/21/2017		0.04 (J)							<0.125
5/2/2017		0.05 (J)							0.04 (J)
6/6/2017		0.053 (J)							0.04 (J)
9/12/2017									0.037 (J)
9/13/2017		<0.125 (U*)							
1/23/2018		0.05 (J)							
1/24/2018									<0.125
5/1/2018		0.05 (J)							<0.125
11/27/2018		<0.125							<0.125
1/8/2019								0.0548 (J)	
3/20/2019						0.215			
5/29/2019		0.0683 (J)							<0.125
7/31/2019	0.0515 (J)			0.178			0.153		
10/1/2019	0.0931 (J)	0.0774 (J)				0.071 (J)	0.0712 (J)		<0.125
10/2/2019				0.254				0.0595 (J)	
3/30/2020								<0.125	
3/31/2020		0.0602 (J)							<0.125
4/1/2020				0.151		0.0722 (J)			
8/31/2020									<0.125
9/1/2020	0.0624 (J)			0.196	0.144	0.0784 (J)	0.0752 (J)	<0.125	
9/2/2020		<0.125	<0.125						
5/17/2021				0.148					
5/18/2021					0.16			<0.125	<0.125
5/19/2021		0.0793 (J)	<0.125			0.0886 (J)			
5/25/2021	<0.125						0.0673 (J)		
10/25/2021				0.162	0.172	0.11	<0.125		
10/26/2021	0.0808 (J)		<0.125						
11/1/2021		0.0887 (J)						<0.125	<0.125
5/23/2022						0.0857 (J)			
5/24/2022	<0.125 (D)						<0.125	<0.125	<0.125
5/25/2022		<0.125	<0.125	0.138	0.0799 (J)				
10/31/2022				0.135	0.118 (J)	0.148	<0.125		
11/1/2022		0.112 (J)	<0.125					<0.125	
11/2/2022	<0.125								0.0711 (J)
4/3/2023									<0.125
4/4/2023			<0.125	0.176	0.108 (J)			<0.125	
4/5/2023		0.144				0.0765 (J)			
4/24/2023	<0.125						0.083 (J)		
8/7/2023			<0.125						
8/8/2023	0.0634 (J)	0.0772 (J)		0.137	0.109 (J)	0.0799 (J)	<0.125	<0.125	0.0705 (J)
8/9/2023								<0.125	

Time Series

Constituent: Fluoride, total (mg/L) Analysis Run 10/22/2023 12:54 PM View: Descriptive
Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-20H	BY-AP-MW-20V
3/2/2016		
4/19/2016		
6/8/2016		
8/31/2016		
10/19/2016		
3/21/2017		
5/2/2017		
6/6/2017		
9/12/2017		
9/13/2017		
1/23/2018		
1/24/2018		
5/1/2018		
11/27/2018		
1/8/2019		
3/20/2019		
5/29/2019		
7/31/2019	0.0934 (J)	
10/1/2019	0.0838 (J)	
10/2/2019		
3/30/2020		
3/31/2020		
4/1/2020	0.0793 (J)	
8/31/2020		
9/1/2020	0.0954 (J)	0.106
9/2/2020		
5/17/2021		
5/18/2021		
5/19/2021	0.0852 (J)	0.123
5/25/2021		
10/25/2021		
10/26/2021	0.114	
11/1/2021		0.14
5/23/2022	0.124 (J)	
5/24/2022		0.0811 (J)
5/25/2022		
10/31/2022	0.0822 (J)	
11/1/2022		0.0715 (J)
11/2/2022		
4/3/2023		
4/4/2023		
4/5/2023		
4/24/2023	0.0659 (J)	0.145
8/7/2023		
8/8/2023	0.103 (J)	0.0917 (J)
8/9/2023		

Time Series

Constituent: Fluoride, total (mg/L) Analysis Run 10/22/2023 12:54 PM View: Descriptive

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-22H	BY-AP-MW-23H	BY-AP-MW-23V	BY-AP-MW-24H	BY-AP-MW-25H	BY-AP-MW-25V	BY-AP-MW-3	BY-AP-MW-4	BY-AP-MW-5
3/1/2016								0.02 (J)	0.04 (J)
3/2/2016							0.01 (J)		
4/19/2016							0.014 (J)	0.016 (J)	
4/20/2016									0.043 (J)
6/7/2016							0.049 (J)	0.047 (J)	0.075 (J)
8/30/2016								0.035 (J)	0.057 (J)
8/31/2016							0.034 (J)		
10/18/2016									0.049 (J)
10/19/2016							0.023 (J)	0.025 (J)	
3/21/2017							<0.125	<0.125	
3/22/2017									0.04 (J)
5/2/2017							<0.125	<0.125	
5/3/2017									0.05 (J)
6/6/2017							<0.125	<0.125	
6/7/2017									0.05 (J)
9/12/2017							<0.125	<0.125	
9/14/2017									0.06 (J)
1/24/2018							<0.125	<0.125	0.05 (J)
5/1/2018							<0.125	<0.125	
5/2/2018									0.05 (J)
11/27/2018							<0.125	<0.125	<0.125
11/28/2018									
1/8/2019				0.147					
5/29/2019							<0.125	<0.125	0.0923 (J)
7/31/2019	0.257	0.0766 (J)							
10/1/2019	0.268	0.0804 (J)					<0.125	<0.125	0.0557 (J)
10/2/2019				0.183					
3/31/2020				0.148			<0.125	<0.125	0.0735 (J)
4/1/2020		0.0607 (J)							
9/1/2020	0.301	0.0919 (J)	0.401				<0.125	<0.125	0.0921 (J)
9/2/2020				0.158	<0.125	<0.125			
5/17/2021			0.379						
5/18/2021							<0.125	<0.125	
5/24/2021		0.0734 (J)			<0.125	<0.125			
5/25/2021	0.282			0.156					
10/26/2021	0.323	0.0709 (J)	0.445	0.158					
11/1/2021							<0.125	<0.125	
11/2/2021					<0.125	<0.125			0.0964 (J)
5/24/2022	0.318			0.135					
5/25/2022		<0.125	0.385		<0.125	<0.125	<0.125	<0.125	<0.125
10/31/2022	0.257				<0.125		<0.125	<0.125	0.0614 (J)
11/1/2022		<0.125	0.222			<0.125	<0.125		
11/2/2022				0.131					
4/3/2023				0.175	<0.125	<0.125			
4/4/2023		0.0744 (J)	0.0682 (J)				<0.125	<0.125	0.0631 (J)
4/24/2023	0.255								
8/7/2023									<0.125
8/8/2023	0.252	<0.125	0.0635 (J)	0.144	<0.125	<0.125			
8/9/2023							<0.125	<0.125	

Time Series

Constituent: Fluoride, total (mg/L) Analysis Run 10/22/2023 12:54 PM View: Descriptive
Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-5V	BY-AP-MW-6
3/1/2016		<0.125
3/2/2016		
4/19/2016		0.016 (J)
4/20/2016		
6/7/2016		0.048 (J)
8/30/2016		0.034 (J)
8/31/2016		
10/18/2016		
10/19/2016		0.023 (J)
3/21/2017		
3/22/2017		<0.125
5/2/2017		
5/3/2017		<0.125
6/6/2017		
6/7/2017		<0.125
9/12/2017		
9/14/2017		<0.125
1/24/2018		<0.125
5/1/2018		
5/2/2018		<0.125
11/27/2018		
11/28/2018		<0.125
1/8/2019	<0.125	
5/29/2019		<0.125
7/31/2019		
10/1/2019		<0.125
10/2/2019	0.0777 (J)	
3/31/2020	<0.125	<0.125
4/1/2020		
9/1/2020	0.0807 (J)	
9/2/2020		<0.125
5/17/2021		<0.125
5/18/2021		
5/24/2021		
5/25/2021		
10/26/2021		
11/1/2021		
11/2/2021	0.0627 (J)	<0.125
5/24/2022		
5/25/2022	<0.125	<0.125
10/31/2022	<0.125	<0.125
11/1/2022		
11/2/2022		
4/3/2023		
4/4/2023	<0.125	<0.125
4/24/2023		
8/7/2023	0.077 (J)	
8/8/2023		
8/9/2023		<0.125

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Constituent: Fluoride, total (mg/L) Analysis Run 10/22/2023 12:54 PM View: Descriptive

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-7	BY-AP-MW-7V	BY-AP-MW-8	BY-AP-MW-8V	BY-AP-MW-9	BY-UP-MW-1 (bg)	BY-UP-MW-2 (bg)	BY-UP-MW-3 (bg)	BY-UP-MW-4 (bg)
2/23/2016						0.03 (J)	0.02 (J)	0.02 (J)	0.02 (J)
3/1/2016	0.06 (J)		0.03 (J)		0.04 (J)				
4/19/2016						0.023 (J)	0.021 (J)	0.016 (J)	0.015 (J)
4/20/2016	0.078 (J)		0.043 (J)		0.052 (J)				
6/6/2016						0.062 (J)			0.05 (J)
6/7/2016	0.101 (J)		0.069 (J)				0.06 (J)	0.052 (J)	
6/8/2016					0.077 (J)				
8/30/2016			0.052 (J)			0.053 (J)	0.05 (J)	0.038 (J)	0.036 (J)
8/31/2016	0.086 (J)				0.056 (J)				
10/18/2016			0.042 (J)			0.042 (J)	0.04 (J)	0.03 (J)	0.025 (J)
10/19/2016	0.075 (J)				0.045 (J)				
3/20/2017						<0.125	<0.125	<0.125	<0.125
3/22/2017	0.06 (J)		<0.125		0.05 (J)				
5/2/2017						0.04 (J)	0.04 (J)	<0.125	<0.125
5/3/2017	0.08 (J)		0.05 (J)		0.06 (J)				
6/6/2017						<0.125	0.04 (J)	<0.125	<0.125
6/7/2017	0.08 (J)		0.05 (J)		0.06 (J)				
9/12/2017									<0.125
9/13/2017						0.04 (J)	0.043 (J)	<0.125	
9/14/2017	0.07 (J)		0.05 (J)		0.07 (J)				
1/23/2018					0.06 (J)	<0.125	0.04 (J)	<0.125	<0.125
1/24/2018	0.09 (J)		0.04 (J)						
5/1/2018							0.04 (J)	<0.125	<0.125
5/2/2018	0.08 (J)		0.04 (J)		0.05 (J)	0.04 (J)			
11/26/2018									<0.125
11/27/2018			<0.125			<0.125	<0.125	<0.125	
11/28/2018	0.07 (J)				0.04 (J)				
1/9/2019		0.139		0.0831 (J)					
5/28/2019									<0.125
5/29/2019	0.0937 (J)		0.0958 (J)			0.0502 (J)	<0.125	<0.125	
5/30/2019					0.0763 (J)				
9/30/2019	0.0925 (J)		0.0559 (J)		0.0679 (J)				
10/1/2019		0.0871 (J)		0.0832 (J)					
10/2/2019						<0.125	<0.125	<0.125	<0.125
3/30/2020	0.0933 (J)	0.127	0.0701 (J)	0.0935 (J)					
3/31/2020					0.0655 (J)	<0.125	<0.125	<0.125	<0.125
9/2/2020	0.109	0.126	<0.125	0.098 (J)	0.0804 (J)				
9/8/2020									<0.125
9/9/2020						<0.125	<0.125	<0.125	
5/11/2021			0.094 (J)				<0.125	<0.125	<0.125
5/12/2021						<0.125			
5/18/2021	0.11	0.112		0.0958 (J)	0.0709 (J)				
10/18/2021								<0.125	<0.125
10/19/2021						<0.125	<0.125		
10/26/2021			<0.125	0.107					
10/27/2021	0.0823 (J)	0.0795 (J)			0.0803 (J)				
5/23/2022				0.108 (J)					
5/24/2022	0.0724 (J)	0.0869 (J)	0.0713 (J)		<0.125				
5/31/2022						<0.125	<0.125	<0.125	<0.125
10/31/2022	0.381	0.428		0.0963 (J)	0.0788 (J)				
11/1/2022						<0.125	<0.125	<0.125	<0.125
11/2/2022			<0.125						

Time Series

Constituent: Fluoride, total (mg/L) Analysis Run 10/22/2023 12:54 PM View: Descriptive
Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-7	BY-AP-MW-7V	BY-AP-MW-8	BY-AP-MW-8V	BY-AP-MW-9	BY-UP-MW-1 (bg)	BY-UP-MW-2 (bg)	BY-UP-MW-3 (bg)	BY-UP-MW-4 (bg)
4/3/2023	0.171	0.418	0.0706 (J)	0.212					
4/4/2023					0.0797 (J)				
4/12/2023						<0.125	<0.125	<0.125	<0.125
8/7/2023	0.162	0.222	0.112 (J)	0.316	0.0808 (J)				
8/16/2023						<0.125	<0.125	<0.125	<0.125

Time Series

Constituent: Lead (mg/L) Analysis Run 10/22/2023 12:54 PM View: Descriptive

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-1	BY-AP-MW-10	BY-AP-MW-10V	BY-AP-MW-11	BY-AP-MW-12	BY-AP-MW-12V	BY-AP-MW-13	BY-AP-MW-13V	BY-AP-MW-14
3/1/2016		<0.000203		<0.000203					
3/2/2016	<0.000203				<0.000203		<0.000203		<0.000203
4/19/2016	<0.000203								
4/20/2016		<0.000203		<0.000203	<0.000203		<0.000203		<0.000203
6/8/2016	<0.000203	<0.000203		<0.000203	<0.000203		<0.000203		<0.000203
8/30/2016									<0.000203
8/31/2016	<0.000203	<0.000203		<0.000203	<0.000203		<0.000203		
10/18/2016									<0.000203
10/19/2016	<0.000203	<0.000203		<0.000203	<0.000203		<0.000203		
1/31/2017	<0.000203						<0.000203		<0.000203
2/1/2017		<0.000203		<0.000203	<0.000203				
5/2/2017	<0.000203								<0.000203
5/3/2017		<0.000203		<0.000203	<0.000203		<0.000203		
6/6/2017	<0.000203								<0.000203
6/7/2017		<0.000203		<0.000203	<0.000203		<0.000203		
1/22/2018							<0.000203		
1/23/2018		<0.000203		<0.000203	<0.000203				<0.000203
1/24/2018	<0.000203								
5/1/2018	<0.000203								
5/2/2018		<0.000203		<0.000203	<0.000203		<0.000203		<0.000203
11/27/2018									<0.000203
11/28/2018	<0.000203	<0.000203		<0.000203	<0.000203		<0.000203		
1/8/2019			<0.000203			<0.000203			
5/29/2019	<0.000203			<0.000203	<0.000203		<0.000203		<0.000203
5/30/2019		<0.000203							
9/30/2019		<0.000203		<0.000203					
10/1/2019	<0.000203		<0.000203		<0.000203		<0.000203		<0.000203
10/2/2019						<0.000203			
3/30/2020	<0.000203								
3/31/2020		<0.000203	<0.000203	<0.000203	<0.000203	<0.000203	<0.000203		<0.000203
4/1/2020									
9/1/2020	<0.000203	<0.000203	<0.000203	<0.000203	<0.000203	<0.000203	<0.000203		
9/2/2020								<0.000203	<0.000203
5/11/2021		<0.000203							
5/18/2021	<0.000203		<0.000203		0.000326	8.16E-05 (J)			
5/19/2021				0.000102 (J)			<0.000203	<0.000203	
5/25/2021									7.64E-05 (J)
10/26/2021							<0.000203	<0.000203	
10/27/2021		<0.000203	<0.000203						9E-05 (J)
11/1/2021	<0.000203				0.00029	<0.000203			
11/2/2021				0.00013 (J)					
5/23/2022				9E-05 (J)	0.00018 (J)	<0.000203			
5/24/2022	<0.000203	<0.000203	<0.000203				0.00015 (J)		
5/25/2022								<0.000203	0.0001 (J)
11/1/2022			<0.000203	7.8E-05 (J)	<0.000203	<0.000203	0.000151 (J)	<0.000203	8.3E-05 (J)
11/2/2022	9.2E-05 (J)	<0.000203							
4/3/2023	0.000122 (J)	<0.000203	<0.000203						
4/4/2023				6.9E-05 (J)	<0.000203	<0.000203	0.000101 (J)	<0.000203	
4/5/2023									0.00011 (J)
8/7/2023		<0.000203	<0.000203	<0.000203					
8/8/2023	0.000206				0.000572	0.000124 (J)			
8/9/2023							8E-05 (J)	<0.000203	0.000229

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Constituent: Lead (mg/L) Analysis Run 10/22/2023 12:54 PM View: Descriptive
Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-14V	BY-AP-MW-15
3/1/2016		
3/2/2016		<0.000203
4/19/2016		<0.000203
4/20/2016		
6/8/2016		<0.000203
8/30/2016		
8/31/2016		<0.000203
10/18/2016		
10/19/2016		<0.000203
1/31/2017		<0.000203
2/1/2017		
5/2/2017		<0.000203
5/3/2017		
6/6/2017		<0.000203
6/7/2017		
1/22/2018		<0.000203
1/23/2018		
1/24/2018		
5/1/2018		<0.000203
5/2/2018		
11/27/2018		<0.000203
11/28/2018		
1/8/2019		
5/29/2019		<0.000203
5/30/2019		
9/30/2019		
10/1/2019		<0.000203
10/2/2019		
3/30/2020		
3/31/2020		
4/1/2020		<0.000203
9/1/2020		
9/2/2020	<0.000203	<0.000203
5/11/2021		<0.000203
5/18/2021		
5/19/2021		
5/25/2021	7.24E-05 (J)	
10/26/2021	<0.000203	<0.000203
10/27/2021		
11/1/2021		
11/2/2021		
5/23/2022		
5/24/2022	<0.000203	
5/25/2022		<0.000203
11/1/2022	<0.000203	<0.000203
11/2/2022		
4/3/2023		<0.000203
4/4/2023	<0.000203	
4/5/2023		
8/7/2023		
8/8/2023		<0.000203
8/9/2023	<0.000203	

Time Series

Constituent: Lead (mg/L) Analysis Run 10/22/2023 12:54 PM View: Descriptive

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-15V	BY-AP-MW-16	BY-AP-MW-16V	BY-AP-MW-17H	BY-AP-MW-17V	BY-AP-MW-18H	BY-AP-MW-19H	BY-AP-MW-1V	BY-AP-MW-2
3/2/2016		<0.000203							<0.000203
4/19/2016		<0.000203							<0.000203
6/8/2016		<0.000203							<0.000203
8/31/2016		<0.000203							<0.000203
10/19/2016		<0.000203							<0.000203
1/31/2017		<0.000203							<0.000203
5/2/2017		<0.000203							<0.000203
6/6/2017		<0.000203							<0.000203
1/23/2018		<0.000203							<0.000203
1/24/2018									<0.000203
5/1/2018		<0.000203							<0.000203
11/27/2018		<0.000203							<0.000203
1/8/2019								<0.000203	
3/20/2019						<0.000203			
5/29/2019		<0.000203							<0.000203
7/31/2019	<0.000203			<0.000203			<0.000203		
10/1/2019	<0.000203	<0.000203				<0.000203	<0.000203		<0.000203
10/2/2019				<0.000203				<0.000203	
3/30/2020								<0.000203	
3/31/2020		<0.000203							<0.000203
4/1/2020				<0.000203		<0.000203			
8/31/2020									<0.000203
9/1/2020	<0.000203			<0.000203	<0.000203	<0.000203	<0.000203	<0.000203	
9/2/2020		<0.000203	<0.000203						
5/17/2021				9.09E-05 (J)					
5/18/2021					0.000137 (J)			<0.000203	<0.000203
5/19/2021		0.000191 (J)	<0.000203			<0.000203			
5/25/2021	<0.000203						<0.000203		
10/25/2021				<0.000203	<0.000203	<0.000203	<0.000203		
10/26/2021	<0.000203		<0.000203						
11/1/2021		<0.000203						<0.000203	<0.000203
5/23/2022						<0.000203			
5/24/2022	0.00011 (J)						<0.000203	<0.000203	<0.000203
5/25/2022		<0.000203	<0.000203	<0.000203	7E-05 (J)				
10/31/2022				<0.000203	<0.000203	<0.000203	<0.000203		
11/1/2022		<0.000203	<0.000203					<0.000203	
11/2/2022	<0.000203								<0.000203
4/3/2023									<0.000203
4/4/2023			0.000253	7.6E-05 (J)	<0.000203			<0.000203	
4/5/2023		<0.000203				<0.000203			
4/24/2023	<0.000203						<0.000203		
8/7/2023			0.000174 (J)						
8/8/2023	0.000303	0.000206		7.4E-05 (J)	0.000305	<0.000203	<0.000203		<0.000203
8/9/2023								<0.000203	

Time Series

Constituent: Lead (mg/L) Analysis Run 10/22/2023 12:54 PM View: Descriptive
Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-20H	BY-AP-MW-20V
3/2/2016		
4/19/2016		
6/8/2016		
8/31/2016		
10/19/2016		
1/31/2017		
5/2/2017		
6/6/2017		
1/23/2018		
1/24/2018		
5/1/2018		
11/27/2018		
1/8/2019		
3/20/2019		
5/29/2019		
7/31/2019	<0.000203	
10/1/2019	<0.000203	
10/2/2019		
3/30/2020		
3/31/2020		
4/1/2020	<0.000203	
8/31/2020		
9/1/2020	<0.000203	<0.000203
9/2/2020		
5/17/2021		
5/18/2021		
5/19/2021	0.000224	<0.000203
5/25/2021		
10/25/2021		
10/26/2021	<0.000203	
11/1/2021		<0.000203
5/23/2022	<0.000203	
5/24/2022		<0.000203
5/25/2022		
10/31/2022	<0.000203	
11/1/2022		<0.000203
11/2/2022		
4/3/2023		
4/4/2023		
4/5/2023		
4/24/2023	<0.000203	8.6E-05 (J)
8/7/2023		
8/8/2023	0.000116 (J)	0.000429
8/9/2023		

Time Series

Constituent: Lead (mg/L) Analysis Run 10/22/2023 12:54 PM View: Descriptive

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-22H	BY-AP-MW-23H	BY-AP-MW-23V	BY-AP-MW-24H	BY-AP-MW-25H	BY-AP-MW-25V	BY-AP-MW-3	BY-AP-MW-4	BY-AP-MW-5
3/1/2016								<0.000203	<0.000203
3/2/2016							<0.000203		
4/19/2016							<0.000203	<0.000203	
4/20/2016									<0.000203
6/7/2016							<0.000203	<0.000203	<0.000203
8/30/2016								<0.000203	<0.000203
8/31/2016							<0.000203		
10/18/2016									<0.000203
10/19/2016							<0.000203	<0.000203	
1/31/2017							<0.000203	<0.000203	<0.000203
5/2/2017							<0.000203	<0.000203	
5/3/2017									<0.000203
6/6/2017							<0.000203	<0.000203	
6/7/2017									<0.000203
1/24/2018							<0.000203	<0.000203	<0.000203
5/1/2018							<0.000203	<0.000203	
5/2/2018									<0.000203
11/27/2018							<0.000203	<0.000203	<0.000203
11/28/2018									
1/8/2019				<0.000203					
5/29/2019							<0.000203	<0.000203	<0.000203
7/31/2019	<0.000203	<0.000203							
10/1/2019	<0.000203	<0.000203					<0.000203	<0.000203	<0.000203
10/2/2019				<0.000203					
3/31/2020				<0.000203			<0.000203	<0.000203	<0.000203
4/1/2020		<0.000203							
9/1/2020	<0.000203	<0.000203	<0.000203				<0.000203	<0.000203	<0.000203
9/2/2020				<0.000203	<0.000203	<0.000203			
5/17/2021			0.000216						
5/18/2021							<0.000203	0.00013 (J)	
5/24/2021		<0.000203			<0.000203	<0.000203			
5/25/2021	<0.000203			<0.000203					
10/26/2021	<0.000203	<0.000203	0.0001 (J)	<0.000203					
11/1/2021							<0.000203	7E-05 (J)	
11/2/2021					<0.000203	<0.000203			<0.000203
5/24/2022	<0.000203			<0.000203					
5/25/2022		<0.000203	0.00012 (J)		<0.000203	<0.000203	<0.000203	0.00018 (J)	<0.000203
10/31/2022	<0.000203				<0.000203			0.000144 (J)	<0.000203
11/1/2022		<0.000203	<0.000203			<0.000203	<0.000203		
11/2/2022				<0.000203					
4/3/2023				<0.000203	<0.000203	<0.000203			
4/4/2023		<0.000203	<0.000203				<0.000203	8.5E-05 (J)	<0.000203
4/24/2023	<0.000203								
8/7/2023									<0.000203
8/8/2023	<0.000203	<0.000203	<0.000203	<0.000203	<0.000203	<0.000203			
8/9/2023							<0.000203	0.000149 (J)	

Time Series

Constituent: Lead (mg/L) Analysis Run 10/22/2023 12:54 PM View: Descriptive
Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-5V	BY-AP-MW-6
3/1/2016		<0.000203
3/2/2016		
4/19/2016		<0.000203
4/20/2016		
6/7/2016		<0.000203
8/30/2016		<0.000203
8/31/2016		
10/18/2016		
10/19/2016		<0.000203
1/31/2017		<0.000203
5/2/2017		
5/3/2017		<0.000203
6/6/2017		
6/7/2017		<0.000203
1/24/2018		<0.000203
5/1/2018		
5/2/2018		<0.000203
11/27/2018		
11/28/2018		<0.000203
1/8/2019	<0.000203	
5/29/2019		0.00185 (J)
7/31/2019		
10/1/2019		0.00545
10/2/2019	<0.000203	
3/31/2020	<0.000203	0.00276 (J)
4/1/2020		
9/1/2020	<0.000203	
9/2/2020		0.00171 (J)
5/17/2021		0.00162
5/18/2021		
5/24/2021		
5/25/2021		
10/26/2021		
11/1/2021		
11/2/2021	<0.000203	0.00336
5/24/2022		
5/25/2022	<0.000203	0.0112
10/31/2022	<0.000203	0.00148
11/1/2022		
11/2/2022		
4/3/2023		
4/4/2023	<0.000203	0.00183
4/24/2023		
8/7/2023	<0.000203	
8/8/2023		
8/9/2023		0.00149

Time Series

Constituent: Lead (mg/L) Analysis Run 10/22/2023 12:54 PM View: Descriptive

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-7	BY-AP-MW-7V	BY-AP-MW-8	BY-AP-MW-8V	BY-AP-MW-9	BY-UP-MW-1 (bg)	BY-UP-MW-2 (bg)	BY-UP-MW-3 (bg)	BY-UP-MW-4 (bg)
2/23/2016						<0.000203	<0.000203	<0.000203	<0.000203
3/1/2016	<0.000203		<0.000203		<0.000203				
4/19/2016						<0.000203	<0.000203	<0.000203	<0.000203
4/20/2016	<0.000203		<0.000203		<0.000203				
6/6/2016						<0.000203			<0.000203
6/7/2016	<0.000203		<0.000203				<0.000203	<0.000203	
6/8/2016					<0.000203				
8/30/2016			<0.000203			<0.000203	<0.000203	<0.000203	<0.000203
8/31/2016	<0.000203				<0.000203				
10/18/2016			<0.000203			<0.000203	<0.000203	<0.000203	<0.000203
10/19/2016	<0.000203				<0.000203				
1/31/2017	<0.000203		<0.000203			<0.000203	<0.000203	<0.000203	<0.000203
2/1/2017					<0.000203				
5/2/2017						<0.000203	<0.000203	<0.000203	<0.000203
5/3/2017	<0.000203		<0.000203		<0.000203				
6/6/2017						<0.000203	<0.000203	<0.000203	<0.000203
6/7/2017	<0.000203		<0.000203		<0.000203				
1/23/2018					<0.000203	<0.000203	<0.000203	<0.000203	<0.000203
1/24/2018	<0.000203		<0.000203						
5/1/2018							<0.000203	<0.000203	<0.000203
5/2/2018	<0.000203		<0.000203		<0.000203	<0.000203			
11/26/2018									<0.000203
11/27/2018			<0.000203			<0.000203	<0.000203	<0.000203	
11/28/2018	<0.000203				<0.000203				
1/9/2019		<0.000203		<0.000203					
5/28/2019									<0.000203
5/29/2019	<0.000203		<0.000203			<0.000203	<0.000203	<0.000203	
5/30/2019					0.00108 (J)				
9/30/2019	<0.000203		<0.000203		<0.000203				
10/1/2019		<0.000203		<0.000203					
10/2/2019						<0.000203	<0.000203	<0.000203	<0.000203
3/30/2020	<0.000203	<0.000203	<0.000203	<0.000203					
3/31/2020					<0.000203	<0.000203	<0.000203	<0.000203	0.00126 (J)
9/2/2020	<0.000203	<0.000203	<0.000203	<0.000203	<0.000203				
9/8/2020									<0.000203
9/9/2020						<0.000203	<0.000203	<0.000203	
5/11/2021			<0.000203				0.000118 (J)	<0.000203	0.000159 (J)
5/12/2021						9.79E-05 (J)			
5/18/2021	<0.000203	<0.000203		<0.000203	<0.000203				
10/18/2021								<0.000203	0.00012 (J)
10/19/2021						0.000115 (J)	0.0001 (J)		
10/26/2021			<0.000203	<0.000203					
10/27/2021	<0.000203	<0.000203			<0.000203				
5/23/2022				<0.000203					
5/24/2022	<0.000203	<0.000203	<0.000203		<0.000203				
5/31/2022						8.38E-05 (J)	7.81E-05 (J)	<0.000203	0.000173 (J)
10/31/2022	<0.000203	0.000114 (J)		<0.000203	<0.000203				
11/1/2022						0.00017 (J)	0.000411	<0.000203	8.6E-05 (J)
11/2/2022			<0.000203						
4/3/2023	<0.000203	0.000161 (J)	<0.000203	0.000158 (J)					
4/4/2023					<0.000203				
4/12/2023						7.57E-05 (J)	0.00014 (J)	8.25E-05 (J)	8.65E-05 (J)

Time Series

Constituent: Lead (mg/L) Analysis Run 10/22/2023 12:54 PM View: Descriptive

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-7	BY-AP-MW-7V	BY-AP-MW-8	BY-AP-MW-8V	BY-AP-MW-9	BY-UP-MW-1 (bg)	BY-UP-MW-2 (bg)	BY-UP-MW-3 (bg)	BY-UP-MW-4 (bg)
8/7/2023	<0.000203	0.000131 (J)	8.1E-05 (J)	0.0016	<0.000203				
8/16/2023						<0.000203	<0.000203	<0.000203	0.000177 (J)

Time Series

Constituent: Lithium (mg/L) Analysis Run 10/22/2023 12:54 PM View: Descriptive

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-1	BY-AP-MW-10	BY-AP-MW-10V	BY-AP-MW-11	BY-AP-MW-12	BY-AP-MW-12V	BY-AP-MW-13	BY-AP-MW-13V	BY-AP-MW-14
3/1/2016		<0.02		<0.02					
3/2/2016	<0.02				<0.02		<0.02		<0.02
4/19/2016	<0.02								
4/20/2016		<0.02		<0.02	<0.02		<0.02		<0.02
6/8/2016	<0.02	<0.02		<0.02	<0.02		<0.02		<0.02
8/30/2016									<0.02
8/31/2016	<0.02	<0.02		<0.02	<0.02		<0.02		
10/18/2016									<0.02
10/19/2016	<0.02	<0.02		<0.02	<0.02		<0.02		
1/31/2017	<0.02						<0.02		<0.02
2/1/2017		<0.02		<0.02	<0.02				
5/2/2017	<0.02								<0.02
5/3/2017		<0.02		<0.02	<0.02		<0.02		
6/6/2017	<0.02								<0.02
6/7/2017		<0.02		<0.02	<0.02		<0.02		
1/22/2018							<0.02		
1/23/2018		<0.02		<0.02	<0.02				<0.02
1/24/2018	<0.02								
5/1/2018	<0.02								
5/2/2018		<0.02		0.0384 (J)	<0.02		<0.02		<0.02
11/27/2018									<0.02
11/28/2018	<0.02	<0.02		0.0262	<0.02		<0.02		
1/8/2019			0.0313			0.0148 (J)			
5/29/2019	<0.02			0.0321	<0.02		<0.02		<0.02
5/30/2019		<0.02							
9/30/2019		<0.02		0.0228					
10/1/2019	<0.02		<0.02		<0.02		<0.02		<0.02
10/2/2019						<0.02			
3/30/2020	<0.02								
3/31/2020		<0.02	<0.02	0.022	<0.02	<0.02	<0.02		<0.02
4/1/2020									
9/1/2020	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02		
9/2/2020								<0.01999956	<0.02
5/11/2021		<0.02							
5/18/2021	<0.02		<0.02		<0.02	<0.02			
5/19/2021				0.00754 (J)			<0.02	<0.01999956	
5/25/2021									<0.02
10/26/2021							<0.02	0.0484	
10/27/2021		<0.02	<0.02						<0.02
11/1/2021	<0.02				<0.02	<0.02			
11/2/2021				<0.02					
5/23/2022				0.0269	<0.02	<0.02			
5/24/2022	<0.02	<0.02	<0.02				<0.02		
5/25/2022								0.0318	<0.02
11/1/2022			<0.02	0.0182 (J)	<0.02	<0.02	<0.02	0.0331	<0.02
11/2/2022	<0.02	<0.02							
4/3/2023	<0.02	<0.02	<0.02						
4/4/2023				0.034	<0.02	<0.02	<0.02	0.0351	
4/5/2023									<0.02
8/7/2023		<0.02	<0.02	0.0284					
8/8/2023	<0.02				<0.02	<0.02			
8/9/2023							<0.02	0.00949 (J)	<0.02

Time Series

Constituent: Lithium (mg/L) Analysis Run 10/22/2023 12:54 PM View: Descriptive
Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-14V	BY-AP-MW-15
3/1/2016		
3/2/2016		<0.02
4/19/2016		<0.02
4/20/2016		
6/8/2016		<0.02
8/30/2016		
8/31/2016		<0.02
10/18/2016		
10/19/2016		<0.02
1/31/2017		<0.02
2/1/2017		
5/2/2017		<0.02
5/3/2017		
6/6/2017		<0.02
6/7/2017		
1/22/2018		<0.02
1/23/2018		
1/24/2018		
5/1/2018		<0.02
5/2/2018		
11/27/2018		0.0169 (J)
11/28/2018		
1/8/2019		
5/29/2019		0.0254
5/30/2019		
9/30/2019		
10/1/2019		0.0248
10/2/2019		
3/30/2020		
3/31/2020		
4/1/2020		0.0174 (J)
9/1/2020		
9/2/2020	<0.02	<0.02
5/11/2021		0.00788 (J)
5/18/2021		
5/19/2021		
5/25/2021	<0.02	
10/26/2021	<0.02	0.0117 (J)
10/27/2021		
11/1/2021		
11/2/2021		
5/23/2022		
5/24/2022	<0.02	
5/25/2022		0.0118 (J)
11/1/2022	<0.02	<0.02
11/2/2022		
4/3/2023		0.0189 (J)
4/4/2023	<0.02	
4/5/2023		
8/7/2023		
8/8/2023		0.0107 (J)
8/9/2023	<0.02	

Time Series

Constituent: Lithium (mg/L) Analysis Run 10/22/2023 12:54 PM View: Descriptive

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-15V	BY-AP-MW-16	BY-AP-MW-16V	BY-AP-MW-17H	BY-AP-MW-17V	BY-AP-MW-18H	BY-AP-MW-19H	BY-AP-MW-1V	BY-AP-MW-2
3/2/2016		<0.02							<0.02
4/19/2016		<0.02							<0.02
6/8/2016		<0.02							<0.02
8/31/2016		<0.02							<0.02
10/19/2016		<0.02							<0.02
1/31/2017		<0.02							<0.02
5/2/2017		<0.02							<0.02
6/6/2017		<0.02							<0.02
1/23/2018		<0.02							<0.02
1/24/2018									<0.02
5/1/2018		<0.02							<0.02
11/27/2018		<0.02							<0.02
1/8/2019								0.0219	
3/20/2019						<0.02			
5/29/2019		<0.02							<0.02
7/31/2019	<0.02			<0.02			<0.02		
10/1/2019	<0.02	<0.02				<0.02	<0.02		<0.02
10/2/2019				<0.02				<0.02	
3/30/2020								<0.02	
3/31/2020		<0.02							<0.02
4/1/2020				<0.02		<0.02			
8/31/2020									<0.02
9/1/2020	<0.02			<0.02	<0.02	<0.02	<0.02	<0.02	
9/2/2020		<0.02	<0.02						
5/17/2021				<0.02					
5/18/2021					<0.02			<0.02	<0.02
5/19/2021		<0.02	<0.02			<0.02			
5/25/2021	<0.02						<0.02		
10/25/2021				<0.02	<0.02	<0.02	<0.02		
10/26/2021	<0.02		<0.02						
11/1/2021		<0.02						<0.02	<0.02
5/23/2022						<0.02			
5/24/2022	<0.02						<0.02	<0.02	<0.02
5/25/2022		<0.02	<0.02	<0.02	<0.02				
10/31/2022				<0.02	<0.02	<0.02	<0.02		
11/1/2022		<0.02	<0.02					<0.02	
11/2/2022	<0.02								<0.02
4/3/2023									<0.02
4/4/2023			<0.02	<0.02	<0.02			<0.02	
4/5/2023		<0.02				<0.02			
4/24/2023	<0.02						<0.02		
8/7/2023			<0.02						
8/8/2023	<0.02	<0.02		<0.02	<0.02	<0.02	<0.02		<0.02
8/9/2023								<0.02	

Time Series

Constituent: Lithium (mg/L) Analysis Run 10/22/2023 12:54 PM View: Descriptive
Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-20H	BY-AP-MW-20V
3/2/2016		
4/19/2016		
6/8/2016		
8/31/2016		
10/19/2016		
1/31/2017		
5/2/2017		
6/6/2017		
1/23/2018		
1/24/2018		
5/1/2018		
11/27/2018		
1/8/2019		
3/20/2019		
5/29/2019		
7/31/2019	<0.02	
10/1/2019	<0.02	
10/2/2019		
3/30/2020		
3/31/2020		
4/1/2020	<0.02	
8/31/2020		
9/1/2020	<0.02	<0.02
9/2/2020		
5/17/2021		
5/18/2021		
5/19/2021	<0.02	<0.02
5/25/2021		
10/25/2021		
10/26/2021	<0.02	
11/1/2021		<0.02
5/23/2022	<0.02	
5/24/2022		<0.02
5/25/2022		
10/31/2022	<0.02	
11/1/2022		<0.02
11/2/2022		
4/3/2023		
4/4/2023		
4/5/2023		
4/24/2023	<0.02	<0.02
8/7/2023		
8/8/2023	<0.02	<0.02
8/9/2023		

Time Series

Constituent: Lithium (mg/L) Analysis Run 10/22/2023 12:54 PM View: Descriptive

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-22H	BY-AP-MW-23H	BY-AP-MW-23V	BY-AP-MW-24H	BY-AP-MW-25H	BY-AP-MW-25V	BY-AP-MW-3	BY-AP-MW-4	BY-AP-MW-5
3/1/2016								<0.02	<0.02
3/2/2016							<0.02		
4/19/2016							<0.02	<0.02	
4/20/2016									<0.02
6/7/2016							<0.02	<0.02	<0.02
8/30/2016								<0.02	<0.02
8/31/2016							<0.02		
10/18/2016									<0.02
10/19/2016							<0.02	<0.02	
1/31/2017							<0.02	<0.02	<0.02
5/2/2017							<0.02	<0.02	
5/3/2017									<0.02
6/6/2017							<0.02	<0.02	
6/7/2017									<0.02
1/24/2018							<0.02	<0.02	<0.02
5/1/2018							<0.02	<0.02	
5/2/2018									<0.02
11/27/2018							<0.02	<0.02	<0.02
11/28/2018									
1/8/2019				0.0183 (J)					
5/29/2019							<0.02	<0.02	<0.02
7/31/2019	<0.02	<0.02							
10/1/2019	<0.02	<0.02					<0.02	<0.02	<0.02
10/2/2019				<0.02					
3/31/2020				<0.02			<0.02	<0.02	<0.02
4/1/2020		<0.02							
9/1/2020	<0.02	<0.02	<0.02				<0.02	<0.02	<0.02
9/2/2020				<0.02	<0.02	<0.02			
5/17/2021			<0.02						
5/18/2021							<0.02	<0.02	
5/24/2021		<0.02			<0.02	<0.02			
5/25/2021	<0.02			<0.02					
10/26/2021	<0.02	<0.02	<0.02	<0.02					
11/1/2021							<0.02	<0.02	
11/2/2021					<0.02	<0.02			<0.02
5/24/2022	<0.02			<0.02					
5/25/2022		<0.02	<0.02		<0.02	<0.02	<0.02	<0.02	<0.02
10/31/2022	<0.02				<0.02			<0.02	<0.02
11/1/2022		<0.02	<0.02			<0.02	<0.02		
11/2/2022				<0.02					
4/3/2023				<0.02	<0.02	<0.02			
4/4/2023		<0.02	<0.02				<0.02	<0.02	<0.02
4/24/2023	<0.02								
8/7/2023									<0.02
8/8/2023	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02			
8/9/2023							<0.02	<0.02	

Time Series

Constituent: Lithium (mg/L) Analysis Run 10/22/2023 12:54 PM View: Descriptive
Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-5V	BY-AP-MW-6
3/1/2016		<0.02
3/2/2016		
4/19/2016		<0.02
4/20/2016		
6/7/2016		<0.02
8/30/2016		<0.02
8/31/2016		
10/18/2016		
10/19/2016		<0.02
1/31/2017		<0.02
5/2/2017		
5/3/2017		<0.02
6/6/2017		
6/7/2017		<0.02
1/24/2018		<0.02
5/1/2018		
5/2/2018		<0.02
11/27/2018		
11/28/2018		<0.02
1/8/2019	<0.02	
5/29/2019		<0.02
7/31/2019		
10/1/2019		<0.02
10/2/2019	<0.02	
3/31/2020	<0.02	<0.02
4/1/2020		
9/1/2020	<0.02	
9/2/2020		<0.02
5/17/2021		<0.02
5/18/2021		
5/24/2021		
5/25/2021		
10/26/2021		
11/1/2021		
11/2/2021	<0.02	<0.02
5/24/2022		
5/25/2022	<0.02	<0.02
10/31/2022	<0.02	<0.02
11/1/2022		
11/2/2022		
4/3/2023		
4/4/2023	<0.02	<0.02
4/24/2023		
8/7/2023	<0.02	
8/8/2023		
8/9/2023		<0.02

Time Series

Constituent: Lithium (mg/L) Analysis Run 10/22/2023 12:54 PM View: Descriptive

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-7	BY-AP-MW-7V	BY-AP-MW-8	BY-AP-MW-8V	BY-AP-MW-9	BY-UP-MW-1 (bg)	BY-UP-MW-2 (bg)	BY-UP-MW-3 (bg)	BY-UP-MW-4 (bg)
2/23/2016						<0.02	<0.02	<0.02	<0.02
3/1/2016	<0.02		<0.02		<0.02				
4/19/2016						<0.02	<0.02	<0.02	<0.02
4/20/2016	<0.02		<0.02		<0.02				
6/6/2016						<0.02			<0.02
6/7/2016	<0.02		<0.02				<0.02	<0.02	
6/8/2016					<0.02				
8/30/2016			<0.02			<0.02	<0.02	<0.02	<0.02
8/31/2016	<0.02				<0.02				
10/18/2016			<0.02			<0.02	<0.02	<0.02	<0.02
10/19/2016	<0.02				<0.02				
1/31/2017	<0.02		<0.02			<0.02	<0.02	<0.02	<0.02
2/1/2017					<0.02				
5/2/2017						<0.02	<0.02	<0.02	<0.02
5/3/2017	<0.02		<0.02		<0.02				
6/6/2017						<0.02	<0.02	<0.02	<0.02
6/7/2017	<0.02		<0.02		<0.02				
1/23/2018					<0.02	<0.02	<0.02	<0.02	<0.02
1/24/2018	<0.02		<0.02						
5/1/2018							<0.02	<0.02	<0.02
5/2/2018	0.0108 (J)		<0.02		<0.02	<0.02			
11/26/2018									<0.02
11/27/2018			<0.02			<0.02	<0.02	<0.02	
11/28/2018	<0.02				<0.02				
1/9/2019		0.0662		0.0217					
5/28/2019									<0.02
5/29/2019	<0.02		<0.02			<0.02	<0.02	<0.02	
5/30/2019					<0.02				
9/30/2019	<0.02		<0.02		<0.02				
10/1/2019		<0.02		<0.02					
10/2/2019						<0.02	<0.02	<0.02	<0.02
12/2/2019		<0.02							
3/30/2020	0.0102 (J)	<0.02	<0.02	<0.02					
3/31/2020					<0.02	<0.02	<0.02	<0.02	<0.02
9/2/2020	<0.02	<0.02	<0.02	<0.02	<0.02				
9/8/2020									<0.02
9/9/2020						<0.02	<0.02	<0.02	
5/11/2021			<0.02				<0.02	<0.02	<0.02
5/12/2021						<0.02			
5/18/2021	0.0882	<0.02		<0.02	<0.02				
10/18/2021								<0.02	<0.02
10/19/2021						<0.02	<0.02		
10/26/2021			<0.02	<0.02					
10/27/2021	<0.02	0.00746 (J)			<0.02				
5/23/2022				<0.02					
5/24/2022	<0.02	<0.02	<0.02		<0.02				
5/31/2022						<0.02	<0.02	<0.02	<0.02
10/31/2022	<0.02	<0.02		<0.02	<0.02				
11/1/2022						<0.02	<0.02	<0.02	<0.02
11/2/2022			<0.02						
4/3/2023	<0.02	<0.02	<0.02	0.00904 (J)					
4/4/2023					<0.02				

Time Series

Constituent: Lithium (mg/L) Analysis Run 10/22/2023 12:54 PM View: Descriptive
Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-7	BY-AP-MW-7V	BY-AP-MW-8	BY-AP-MW-8V	BY-AP-MW-9	BY-UP-MW-1 (bg)	BY-UP-MW-2 (bg)	BY-UP-MW-3 (bg)	BY-UP-MW-4 (bg)
4/12/2023						<0.02	<0.02	<0.02	<0.02
8/7/2023	<0.02	0.00775 (J)	<0.02	<0.02	<0.02				
8/16/2023						<0.02	<0.02	<0.02	<0.02

Time Series

Constituent: Mercury (mg/L) Analysis Run 10/22/2023 12:54 PM View: Descriptive

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-1	BY-AP-MW-10	BY-AP-MW-10V	BY-AP-MW-11	BY-AP-MW-12	BY-AP-MW-12V	BY-AP-MW-13	BY-AP-MW-13V	BY-AP-MW-14
3/1/2016		<0.0005		<0.0005					
3/2/2016	<0.0005				<0.0005		<0.0005		<0.0005
4/19/2016	<0.0005								
4/20/2016		<0.0005		<0.0005	<0.0005		<0.0005		<0.0005
6/8/2016	<0.0005	<0.0005		<0.0005	<0.0005		<0.0005		<0.0005
8/30/2016									<0.0005
8/31/2016	<0.0005	<0.0005		<0.0005	<0.0005		<0.0005		
10/18/2016									<0.0005
10/19/2016	<0.0005	<0.0005		<0.0005	<0.0005		<0.0005		
1/31/2017	<0.0005						<0.0005		<0.0005
2/1/2017		<0.0005		<0.0005	<0.0005				
5/2/2017	<0.0005								<0.0005
5/3/2017		<0.0005		<0.0005	<0.0005		<0.0005		
6/6/2017	<0.0005								<0.0005
6/7/2017		<0.0005		<0.0005	<0.0005		<0.0005		
1/22/2018							<0.0005		
1/23/2018		<0.0005		<0.0005	<0.0005				<0.0005
1/24/2018	<0.0005								
5/1/2018	<0.0005								
5/2/2018		<0.0005		<0.0005	<0.0005		<0.0005		<0.0005
11/27/2018									<0.0005
11/28/2018	<0.0005	<0.0005		<0.0005	<0.0005		<0.0005		
1/8/2019			<0.0005			<0.0005			
5/29/2019	<0.0005			<0.0005	<0.0005		<0.0005		<0.0005
5/30/2019		<0.0005							
7/31/2019		<0.0005							
9/30/2019		<0.0005		<0.0005					
10/1/2019	<0.0005		<0.0005		<0.0005		<0.0005		<0.0005
10/2/2019						<0.0005			
3/30/2020	<0.0005								
3/31/2020		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005		<0.0005
4/1/2020									
9/1/2020	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005		
9/2/2020								<0.0005	<0.0005
5/11/2021		<0.0005							
5/18/2021	<0.0005		<0.0005		<0.0005	<0.0005			
5/19/2021				<0.0005			<0.0005	<0.0005	
5/25/2021									<0.0005
10/26/2021							<0.0005	<0.0005	
10/27/2021		<0.0005	<0.0005						<0.0005
11/1/2021	<0.0005				<0.0005	<0.0005			
11/2/2021				<0.0005					
5/23/2022				<0.0005	<0.0005	<0.0005			
5/24/2022	<0.0005	<0.0005	<0.0005				<0.0005		
5/25/2022								<0.0005	<0.0005
11/1/2022			<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
11/2/2022	<0.0005	<0.0005							
4/3/2023	<0.0005	<0.0005	<0.0005						
4/4/2023				<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	
4/5/2023									<0.0005
8/7/2023		<0.0005	<0.0005	<0.0005					
8/8/2023	<0.0005				<0.0005	<0.0005			

Time Series

Constituent: Mercury (mg/L) Analysis Run 10/22/2023 12:54 PM View: Descriptive
Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-1	BY-AP-MW-10	BY-AP-MW-10V	BY-AP-MW-11	BY-AP-MW-12	BY-AP-MW-12V	BY-AP-MW-13	BY-AP-MW-13V	BY-AP-MW-14
8/9/2023							<0.0005	<0.0005	<0.0005

Time Series

Constituent: Mercury (mg/L) Analysis Run 10/22/2023 12:54 PM View: Descriptive
Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-14V	BY-AP-MW-15
3/1/2016		
3/2/2016		<0.0005
4/19/2016		<0.0005
4/20/2016		
6/8/2016		<0.0005
8/30/2016		
8/31/2016		<0.0005
10/18/2016		
10/19/2016		<0.0005
1/31/2017		<0.0005
2/1/2017		
5/2/2017		<0.0005
5/3/2017		
6/6/2017		<0.0005
6/7/2017		
1/22/2018		<0.0005
1/23/2018		
1/24/2018		
5/1/2018		<0.0005
5/2/2018		
11/27/2018		<0.0005
11/28/2018		
1/8/2019		
5/29/2019		<0.0005
5/30/2019		
7/31/2019		
9/30/2019		
10/1/2019		<0.0005
10/2/2019		
3/30/2020		
3/31/2020		
4/1/2020		<0.0005
9/1/2020		
9/2/2020	<0.0005	<0.0005
5/11/2021		<0.0005
5/18/2021		
5/19/2021		
5/25/2021	<0.0005	
10/26/2021	<0.0005	<0.0005
10/27/2021		
11/1/2021		
11/2/2021		
5/23/2022		
5/24/2022	<0.0005	
5/25/2022		<0.0005
11/1/2022	<0.0005	<0.0005
11/2/2022		
4/3/2023		<0.0005
4/4/2023	<0.0005	
4/5/2023		
8/7/2023		
8/8/2023		<0.0005

Time Series

Constituent: Mercury (mg/L) Analysis Run 10/22/2023 12:54 PM View: Descriptive
Plant Barry Client: Southern Company Data: Barry Ash Pond

8/9/2023	BY-AP-MW-14V	BY-AP-MW-15	<0.0005
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Time Series

Constituent: Mercury (mg/L) Analysis Run 10/22/2023 12:54 PM View: Descriptive

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-15V	BY-AP-MW-16	BY-AP-MW-16V	BY-AP-MW-17H	BY-AP-MW-17V	BY-AP-MW-18H	BY-AP-MW-19H	BY-AP-MW-1V	BY-AP-MW-2
3/2/2016		<0.0005							<0.0005
4/19/2016		<0.0005							<0.0005
6/8/2016		<0.0005							<0.0005
8/31/2016		<0.0005							<0.0005
10/19/2016		<0.0005							<0.0005
1/31/2017		<0.0005							<0.0005
5/2/2017		<0.0005							<0.0005
6/6/2017		<0.0005							<0.0005
1/23/2018		<0.0005							<0.0005
1/24/2018									<0.0005
5/1/2018		<0.0005							<0.0005
11/27/2018		<0.0005							<0.0005
1/8/2019								<0.0005	
3/20/2019						<0.0005			
5/29/2019		<0.0005							<0.0005
7/31/2019	<0.0005			<0.0005			<0.0005		
10/1/2019	<0.0005	<0.0005				<0.0005	<0.0005		<0.0005
10/2/2019				<0.0005				<0.0005	
3/30/2020								<0.0005	
3/31/2020		<0.0005							<0.0005
4/1/2020				<0.0005		<0.0005			
8/31/2020									<0.0005
9/1/2020	<0.0005			<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	
9/2/2020		<0.0005	<0.0005						
5/17/2021				<0.0005					
5/18/2021					<0.0005			<0.0005	<0.0005
5/19/2021		<0.0005	<0.0005			<0.0005			
5/25/2021	<0.0005						<0.0005		
10/25/2021				<0.0005	<0.0005	<0.0005	<0.0005		
10/26/2021	<0.0005		<0.0005						
11/1/2021		<0.0005						<0.0005	<0.0005
5/23/2022						<0.0005			
5/24/2022	<0.0005						<0.0005	<0.0005	<0.0005
5/25/2022		<0.0005	<0.0005	<0.0005	<0.0005				
10/31/2022				<0.0005	<0.0005	<0.0005	<0.0005		
11/1/2022		<0.0005	<0.0005					<0.0005	
11/2/2022	<0.0005								<0.0005
4/3/2023									<0.0005
4/4/2023			<0.0005	<0.0005	<0.0005			<0.0005	
4/5/2023		<0.0005				<0.0005			
4/24/2023	<0.0005						<0.0005		
8/7/2023			<0.0005						
8/8/2023	<0.0005	<0.0005		<0.0005	<0.0005	<0.0005	<0.0005		<0.0005
8/9/2023								<0.0005	

Time Series

Constituent: Mercury (mg/L) Analysis Run 10/22/2023 12:54 PM View: Descriptive
Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-20H	BY-AP-MW-20V
3/2/2016		
4/19/2016		
6/8/2016		
8/31/2016		
10/19/2016		
1/31/2017		
5/2/2017		
6/6/2017		
1/23/2018		
1/24/2018		
5/1/2018		
11/27/2018		
1/8/2019		
3/20/2019		
5/29/2019		
7/31/2019	<0.0005	
10/1/2019	<0.0005	
10/2/2019		
3/30/2020		
3/31/2020		
4/1/2020	<0.0005	
8/31/2020		
9/1/2020	<0.0005	<0.0005
9/2/2020		
5/17/2021		
5/18/2021		
5/19/2021	<0.0005	<0.0005
5/25/2021		
10/25/2021		
10/26/2021	<0.0005	
11/1/2021		<0.0005
5/23/2022	<0.0005	
5/24/2022		<0.0005
5/25/2022		
10/31/2022	<0.0005	
11/1/2022		<0.0005
11/2/2022		
4/3/2023		
4/4/2023		
4/5/2023		
4/24/2023	<0.0005	<0.0005
8/7/2023		
8/8/2023	<0.0005	<0.0005
8/9/2023		

Time Series

Constituent: Mercury (mg/L) Analysis Run 10/22/2023 12:54 PM View: Descriptive

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-22H	BY-AP-MW-23H	BY-AP-MW-23V	BY-AP-MW-24H	BY-AP-MW-25H	BY-AP-MW-25V	BY-AP-MW-3	BY-AP-MW-4	BY-AP-MW-5
3/1/2016								<0.0005	<0.0005
3/2/2016							<0.0005		
4/19/2016							<0.0005	<0.0005	
4/20/2016									<0.0005
6/7/2016							<0.0005	<0.0005	<0.0005
8/30/2016								<0.0005	<0.0005
8/31/2016							<0.0005		
10/18/2016									<0.0005
10/19/2016							<0.0005	<0.0005	
1/31/2017							<0.0005	<0.0005	<0.0005
5/2/2017							<0.0005	<0.0005	
5/3/2017									<0.0005
6/6/2017							<0.0005	<0.0005	
6/7/2017									<0.0005
1/24/2018							<0.0005	<0.0005	<0.0005
5/1/2018							<0.0005	<0.0005	
5/2/2018									<0.0005
11/27/2018							<0.0005	<0.0005	<0.0005
11/28/2018									
1/8/2019				<0.0005					
5/29/2019							<0.0005	<0.0005	<0.0005
7/31/2019	<0.0005	<0.0005							
10/1/2019	<0.0005	<0.0005					<0.0005	<0.0005	<0.0005
10/2/2019				<0.0005					
3/31/2020				<0.0005			<0.0005	<0.0005	<0.0005
4/1/2020		<0.0005							
9/1/2020	<0.0005	<0.0005	<0.0005				<0.0005	<0.0005	<0.0005
9/2/2020				<0.0005	<0.0005	<0.0005			
5/17/2021			<0.0005						
5/18/2021							<0.0005	<0.0005	
5/24/2021		<0.0005			<0.0005	<0.0005			
5/25/2021	<0.0005			<0.0005					
10/26/2021	<0.0005	<0.0005	<0.0005	<0.0005					
11/1/2021							<0.0005	<0.0005	
11/2/2021					<0.0005	<0.0005			<0.0005
5/24/2022	<0.0005			<0.0005					
5/25/2022		<0.0005	<0.0005		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
10/31/2022	<0.0005				<0.0005		<0.0005	<0.0005	<0.0005
11/1/2022		<0.0005	<0.0005				<0.0005	<0.0005	
11/2/2022				<0.0005					
4/3/2023				<0.0005	<0.0005	<0.0005			
4/4/2023		<0.0005	<0.0005				<0.0005	<0.0005	<0.0005
4/24/2023	<0.0005								
8/7/2023									<0.0005
8/8/2023	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005			
8/9/2023							<0.0005	<0.0005	

Time Series

Constituent: Mercury (mg/L) Analysis Run 10/22/2023 12:54 PM View: Descriptive
Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-5V	BY-AP-MW-6
3/1/2016		<0.0005
3/2/2016		
4/19/2016		<0.0005
4/20/2016		
6/7/2016		<0.0005
8/30/2016		<0.0005
8/31/2016		
10/18/2016		
10/19/2016		<0.0005
1/31/2017		<0.0005
5/2/2017		
5/3/2017		<0.0005
6/6/2017		
6/7/2017		<0.0005
1/24/2018		<0.0005
5/1/2018		
5/2/2018		<0.0005
11/27/2018		
11/28/2018		<0.0005
1/8/2019	<0.0005	
5/29/2019		<0.0005
7/31/2019		
10/1/2019		<0.0005
10/2/2019	<0.0005	
3/31/2020	<0.0005	<0.0005
4/1/2020		
9/1/2020	<0.0005	
9/2/2020		<0.0005
5/17/2021		<0.0005
5/18/2021		
5/24/2021		
5/25/2021		
10/26/2021		
11/1/2021		
11/2/2021	<0.0005	<0.0005
5/24/2022		
5/25/2022	<0.0005	<0.0005
10/31/2022	<0.0005	<0.0005
11/1/2022		
11/2/2022		
4/3/2023		
4/4/2023	<0.0005	<0.0005
4/24/2023		
8/7/2023	<0.0005	
8/8/2023		
8/9/2023		<0.0005

Time Series

Constituent: Mercury (mg/L) Analysis Run 10/22/2023 12:54 PM View: Descriptive

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-7	BY-AP-MW-7V	BY-AP-MW-8	BY-AP-MW-8V	BY-AP-MW-9	BY-UP-MW-1 (bg)	BY-UP-MW-2 (bg)	BY-UP-MW-3 (bg)	BY-UP-MW-4 (bg)
2/23/2016						<0.0005	<0.0005	<0.0005	<0.0005
3/1/2016	<0.0005		<0.0005		<0.0005				
4/19/2016						<0.0005	<0.0005	<0.0005	<0.0005
4/20/2016	<0.0005		<0.0005		<0.0005				
6/6/2016						<0.0005			<0.0005
6/7/2016	<0.0005		<0.0005				<0.0005	<0.0005	
6/8/2016					<0.0005				
8/30/2016			<0.0005			<0.0005	<0.0005	<0.0005	<0.0005
8/31/2016	<0.0005				<0.0005				
10/18/2016			<0.0005			<0.0005	<0.0005	<0.0005	<0.0005
10/19/2016	<0.0005				<0.0005				
1/31/2017	<0.0005		<0.0005			<0.0005	<0.0005	<0.0005	<0.0005
2/1/2017					<0.0005				
5/2/2017						<0.0005	<0.0005	<0.0005	<0.0005
5/3/2017	<0.0005		<0.0005		<0.0005				
6/6/2017						<0.0005	<0.0005	<0.0005	<0.0005
6/7/2017	<0.0005		<0.0005		<0.0005				
1/23/2018					<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
1/24/2018	<0.0005		<0.0005						
5/1/2018							<0.0005	<0.0005	<0.0005
5/2/2018	<0.0005		<0.0005		<0.0005	<0.0005			
11/26/2018									<0.0005
11/27/2018			<0.0005			<0.0005	<0.0005	<0.0005	
11/28/2018	<0.0005				<0.0005				
1/9/2019		<0.0005		<0.0005					
5/28/2019									<0.0005
5/29/2019	<0.0005		<0.0005			<0.0005	<0.0005	<0.0005	
5/30/2019					<0.0005				
9/30/2019	<0.0005		<0.0005		<0.0005				
10/1/2019		<0.0005		<0.0005					
10/2/2019						<0.0005	<0.0005	<0.0005	<0.0005
3/30/2020	<0.0005	<0.0005	<0.0005	<0.0005					
3/31/2020					<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
9/2/2020	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005				
9/8/2020									<0.0005
9/9/2020						<0.0005	<0.0005	<0.0005	
5/11/2021			<0.0005				<0.0005	<0.0005	<0.0005
5/12/2021						<0.0005			
5/18/2021	<0.0005	<0.0005		<0.0005	<0.0005				
10/18/2021								<0.0005	<0.0005
10/19/2021						<0.0005	<0.0005		
10/26/2021			<0.0005	<0.0005					
10/27/2021	<0.0005	<0.0005			<0.0005				
5/23/2022				<0.0005					
5/24/2022	<0.0005	<0.0005	<0.0005		<0.0005				
5/31/2022						<0.0005	<0.0005	<0.0005	<0.0005
10/31/2022	<0.0005	<0.0005		<0.0005	<0.0005				
11/1/2022						<0.0005	<0.0005	<0.0005	<0.0005
11/2/2022			<0.0005						
4/3/2023	<0.0005	<0.0005	<0.0005	<0.0005					
4/4/2023					<0.0005				
4/12/2023						<0.0005	<0.0005	<0.0005	<0.0005

Time Series

Constituent: Mercury (mg/L) Analysis Run 10/22/2023 12:54 PM View: Descriptive
Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-7	BY-AP-MW-7V	BY-AP-MW-8	BY-AP-MW-8V	BY-AP-MW-9	BY-UP-MW-1 (bg)	BY-UP-MW-2 (bg)	BY-UP-MW-3 (bg)	BY-UP-MW-4 (bg)
8/7/2023	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005				
8/16/2023						<0.0005	<0.0005	<0.0005	<0.0005

Time Series

Constituent: Molybdenum (mg/L) Analysis Run 10/22/2023 12:54 PM View: Descriptive

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-1	BY-AP-MW-10	BY-AP-MW-10V	BY-AP-MW-11	BY-AP-MW-12	BY-AP-MW-12V	BY-AP-MW-13	BY-AP-MW-13V	BY-AP-MW-14
3/1/2016		<0.01015		<0.01015					
3/2/2016	<0.01015				<0.01015		<0.01015		<0.01015
4/19/2016	<0.01015								
4/20/2016		<0.01015		<0.01015	<0.01015		<0.01015		<0.01015
6/8/2016	<0.01015	<0.01015		<0.01015	<0.01015		<0.01015		<0.01015
8/30/2016									<0.01015
8/31/2016	<0.01015	<0.01015		<0.01015	<0.01015		<0.01015		
10/18/2016									<0.01015
10/19/2016	<0.01015	<0.01015		<0.01015	<0.01015		<0.01015		
1/31/2017	<0.01015						<0.01015		<0.01015
2/1/2017		<0.01015		<0.01015	<0.01015				
5/2/2017	<0.01015								<0.01015
5/3/2017		<0.01015		<0.01015	<0.01015		<0.01015		
6/6/2017	<0.01015								<0.01015
6/7/2017		<0.01015		<0.01015	<0.01015		<0.01015		
1/22/2018							<0.01015		
1/23/2018		<0.01015		<0.01015	<0.01015				<0.01015
1/24/2018	<0.01015								
5/1/2018	<0.01015								
5/2/2018		<0.01015		<0.01015	<0.01015		<0.01015		<0.01015
11/27/2018									<0.01015
11/28/2018	<0.01015	<0.01015		<0.01015	<0.01015		<0.01015		
1/8/2019			0.00335 (J)			0.00303 (J)			
5/29/2019	<0.01015			<0.01015	<0.01015		<0.01015		<0.01015
5/30/2019		<0.01015							
9/30/2019		<0.01015		<0.01015					
10/1/2019	<0.01015		<0.01015		<0.01015		<0.01015		<0.01015
10/2/2019						<0.01015			
3/30/2020	<0.01015								
3/31/2020		<0.01015	<0.01015	<0.01015	<0.01015	<0.01015	<0.01015		<0.01015
4/1/2020									
9/1/2020	<0.01015	<0.01015	<0.01015	<0.01015	<0.01015	<0.01015	<0.01015		
9/2/2020								<0.01015	<0.01015
5/11/2021		<0.01015							
5/18/2021	0.000106 (J)		0.000148 (J)		0.000947	0.00106			
5/19/2021				0.00652			0.000437	0.000642	
5/25/2021									0.000701
10/26/2021							0.00043	0.00135	
10/27/2021		<0.01015	0.00014 (J)						0.00053
11/1/2021	8E-05 (J)				0.00099	0.00118			
11/2/2021				0.00161					
5/23/2022				0.00141	0.00109	0.00123			
5/24/2022	<0.01015	<0.01015	0.00011 (J)				0.00356		
5/25/2022								0.0008	0.00052
11/1/2022			0.000103 (J)	0.000972	0.000942	0.00112	0.00585	0.000573	0.000643
11/2/2022	<0.01015	<0.01015							
4/3/2023	<0.01015	<0.01015	<0.01015						
4/4/2023				<0.01015	<0.01015	<0.01015	0.0108	<0.01015	
4/5/2023									<0.01015
8/7/2023		<0.01015	<0.01015	<0.01015					
8/8/2023	<0.01015				<0.01015	<0.01015			
8/9/2023							<0.01015	<0.01015	<0.01015

Time Series

Constituent: Molybdenum (mg/L) Analysis Run 10/22/2023 12:54 PM View: Descriptive
Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-14V	BY-AP-MW-15
3/1/2016		
3/2/2016		0.00238 (J)
4/19/2016		0.00203 (J)
4/20/2016		
6/8/2016		<0.01015
8/30/2016		
8/31/2016		<0.01015
10/18/2016		
10/19/2016		<0.01015
1/31/2017		<0.01015
2/1/2017		
5/2/2017		0.00201 (J)
5/3/2017		
6/6/2017		<0.01015
6/7/2017		
1/22/2018		0.00211 (J)
1/23/2018		
1/24/2018		
5/1/2018		<0.01015
5/2/2018		
11/27/2018		<0.01015
11/28/2018		
1/8/2019		
5/29/2019		<0.01015
5/30/2019		
9/30/2019		
10/1/2019		<0.01015
10/2/2019		
3/30/2020		
3/31/2020		
4/1/2020		<0.01015
9/1/2020		
9/2/2020	0.00229 (J)	0.00209 (J)
5/11/2021		0.00171
5/18/2021		
5/19/2021		
5/25/2021	0.00135	
10/26/2021	0.0012	0.00206
10/27/2021		
11/1/2021		
11/2/2021		
5/23/2022		
5/24/2022	0.0031	
5/25/2022		0.0018
11/1/2022	0.00119	0.00173
11/2/2022		
4/3/2023		<0.01015
4/4/2023	<0.01015	
4/5/2023		
8/7/2023		
8/8/2023		<0.01015
8/9/2023	<0.01015	

Time Series

Constituent: Molybdenum (mg/L) Analysis Run 10/22/2023 12:54 PM View: Descriptive

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-15V	BY-AP-MW-16	BY-AP-MW-16V	BY-AP-MW-17H	BY-AP-MW-17V	BY-AP-MW-18H	BY-AP-MW-19H	BY-AP-MW-1V	BY-AP-MW-2
3/2/2016		<0.01015							<0.01015
4/19/2016		<0.01015							<0.01015
6/8/2016		<0.01015							<0.01015
8/31/2016		<0.01015							<0.01015
10/19/2016		<0.01015							<0.01015
1/31/2017		<0.01015							<0.01015
5/2/2017		<0.01015							<0.01015
6/6/2017		<0.01015							<0.01015
1/23/2018		<0.01015							<0.01015
1/24/2018									<0.01015
5/1/2018		<0.01015							<0.01015
11/27/2018		<0.01015							<0.01015
1/8/2019								<0.01015	
3/20/2019						<0.01015			
5/29/2019		<0.01015							<0.01015
7/31/2019	<0.01015			<0.01015			<0.01015		
10/1/2019	<0.01015	<0.01015				<0.01015	<0.01015		<0.01015
10/2/2019				<0.01015				<0.01015	
3/30/2020								<0.01015	
3/31/2020		<0.01015							<0.01015
4/1/2020				<0.01015		<0.01015			
8/31/2020									<0.01015
9/1/2020	<0.01015			<0.01015	<0.01015	<0.01015	<0.01015	<0.01015	
9/2/2020		<0.01015	<0.01015						
5/17/2021				0.000469					
5/18/2021					0.000571			0.00018 (J)	<0.01015
5/19/2021		0.000136 (J)	<0.01015			0.00025			
5/25/2021	0.000106 (J)						0.000124 (J)		
10/25/2021				0.00078	0.00088	0.00025	8E-05 (J)		
10/26/2021	0.00011 (J)		<0.01015						
11/1/2021		<0.01015						0.00013 (J)	<0.01015
5/23/2022						0.00036			
5/24/2022	<0.01015						<0.01015	0.00011 (J)	<0.01015
5/25/2022		<0.01015	<0.01015	0.00045	0.00043				
10/31/2022				0.000432	0.000535	0.000165 (J)	0.000139 (J)		
11/1/2022		<0.01015	<0.01015					<0.01015	
11/2/2022	<0.01015								<0.01015
4/3/2023									<0.01015
4/4/2023			<0.01015	<0.01015	<0.01015			<0.01015	
4/5/2023		<0.01015				<0.01015			
4/24/2023	<0.01015						<0.01015		
8/7/2023			<0.01015						
8/8/2023	<0.01015	<0.01015		<0.01015	0.00662 (J)	<0.01015	<0.01015		<0.01015
8/9/2023								<0.01015	

Time Series

Constituent: Molybdenum (mg/L) Analysis Run 10/22/2023 12:54 PM View: Descriptive
Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-20H	BY-AP-MW-20V
3/2/2016		
4/19/2016		
6/8/2016		
8/31/2016		
10/19/2016		
1/31/2017		
5/2/2017		
6/6/2017		
1/23/2018		
1/24/2018		
5/1/2018		
11/27/2018		
1/8/2019		
3/20/2019		
5/29/2019		
7/31/2019	<0.01015	
10/1/2019	<0.01015	
10/2/2019		
3/30/2020		
3/31/2020		
4/1/2020	<0.01015	
8/31/2020		
9/1/2020	<0.01015	<0.01015
9/2/2020		
5/17/2021		
5/18/2021		
5/19/2021	0.000503	0.00155
5/25/2021		
10/25/2021		
10/26/2021	0.00048	
11/1/2021		0.00181
5/23/2022	0.00054	
5/24/2022		0.00164
5/25/2022		
10/31/2022	0.000556	
11/1/2022		0.00138
11/2/2022		
4/3/2023		
4/4/2023		
4/5/2023		
4/24/2023	<0.01015	<0.01015
8/7/2023		
8/8/2023	<0.01015	<0.01015
8/9/2023		

Time Series

Constituent: Molybdenum (mg/L) Analysis Run 10/22/2023 12:54 PM View: Descriptive

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-22H	BY-AP-MW-23H	BY-AP-MW-23V	BY-AP-MW-24H	BY-AP-MW-25H	BY-AP-MW-25V	BY-AP-MW-3	BY-AP-MW-4	BY-AP-MW-5
3/1/2016								<0.01015	<0.01015
3/2/2016							<0.01015		
4/19/2016							<0.01015	<0.01015	
4/20/2016									<0.01015
6/7/2016							<0.01015	<0.01015	<0.01015
8/30/2016								<0.01015	<0.01015
8/31/2016							<0.01015		
10/18/2016									<0.01015
10/19/2016							<0.01015	<0.01015	
1/31/2017							<0.01015	<0.01015	<0.01015
5/2/2017							<0.01015	<0.01015	
5/3/2017									<0.01015
6/6/2017							<0.01015	<0.01015	
6/7/2017									<0.01015
1/24/2018							<0.01015	<0.01015	<0.01015
5/1/2018							<0.01015	<0.01015	
5/2/2018									<0.01015
11/27/2018							<0.01015	<0.01015	<0.01015
11/28/2018									
1/8/2019				0.00399 (J)					
5/29/2019							<0.01015	<0.01015	<0.01015
7/31/2019	0.00426 (J)	<0.01015							
10/1/2019	<0.01015	<0.01015					<0.01015	<0.01015	<0.01015
10/2/2019				<0.01015					
3/31/2020				<0.01015			<0.01015	<0.01015	<0.01015
4/1/2020		<0.01015							
9/1/2020	<0.01015	<0.01015	<0.01015				<0.01015	<0.01015	<0.01015
9/2/2020				<0.01015	<0.01015	<0.01015			
5/17/2021			0.00147						
5/18/2021							<0.01015	<0.01015	
5/24/2021		0.00069			0.000102 (J)	9.23E-05 (J)			
5/25/2021	0.00137			0.000869					
10/26/2021	0.00136	0.00035	0.00124	0.00096					
11/1/2021							<0.01015	<0.01015	
11/2/2021					0.00014 (J)	<0.01015			0.00012 (J)
5/24/2022	0.00145			0.00092					
5/25/2022		0.00013 (J)	0.00142		0.0001 (J)	<0.01015	<0.01015	<0.01015	0.00011 (J)
10/31/2022	0.00132				0.000107 (J)		<0.01015	<0.01015	0.000344
11/1/2022		<0.01015	0.000634				<0.01015	<0.01015	
11/2/2022				0.00104					
4/3/2023				<0.01015	<0.01015	<0.01015			
4/4/2023		<0.01015	<0.01015				<0.01015	<0.01015	<0.01015
4/24/2023	<0.01015								
8/7/2023									<0.01015
8/8/2023	<0.01015	<0.01015	<0.01015	<0.01015	<0.01015	<0.01015			
8/9/2023							<0.01015	<0.01015	

Time Series

Constituent: Molybdenum (mg/L) Analysis Run 10/22/2023 12:54 PM View: Descriptive
Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-5V	BY-AP-MW-6
3/1/2016		<0.01015
3/2/2016		
4/19/2016		<0.01015
4/20/2016		
6/7/2016		<0.01015
8/30/2016		<0.01015
8/31/2016		
10/18/2016		
10/19/2016		<0.01015
1/31/2017		<0.01015
5/2/2017		
5/3/2017		<0.01015
6/6/2017		
6/7/2017		<0.01015
1/24/2018		<0.01015
5/1/2018		
5/2/2018		<0.01015
11/27/2018		
11/28/2018		<0.01015
1/8/2019	<0.01015	
5/29/2019		<0.01015
7/31/2019		
10/1/2019		<0.01015
10/2/2019	<0.01015	
3/31/2020	<0.01015	<0.01015
4/1/2020		
9/1/2020	<0.01015	
9/2/2020		<0.01015
5/17/2021		0.000117 (J)
5/18/2021		
5/24/2021		
5/25/2021		
10/26/2021		
11/1/2021		
11/2/2021	8E-05 (J)	0.00011 (J)
5/24/2022		
5/25/2022	<0.01015	0.00033
10/31/2022	<0.01015	0.000122 (J)
11/1/2022		
11/2/2022		
4/3/2023		
4/4/2023	<0.01015	<0.01015
4/24/2023		
8/7/2023	<0.01015	
8/8/2023		
8/9/2023		<0.01015

Time Series

Constituent: Molybdenum (mg/L) Analysis Run 10/22/2023 12:54 PM View: Descriptive

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-7	BY-AP-MW-7V	BY-AP-MW-8	BY-AP-MW-8V	BY-AP-MW-9	BY-UP-MW-1 (bg)	BY-UP-MW-2 (bg)	BY-UP-MW-3 (bg)	BY-UP-MW-4 (bg)
2/23/2016						<0.01015	<0.01015	<0.01015	<0.01015
3/1/2016	<0.01015		<0.01015		<0.01015				
4/19/2016						<0.01015	<0.01015	<0.01015	<0.01015
4/20/2016	<0.01015		<0.01015		<0.01015				
6/6/2016						<0.01015			<0.01015
6/7/2016	<0.01015		<0.01015				<0.01015	<0.01015	
6/8/2016					<0.01015				
8/30/2016			<0.01015			<0.01015	<0.01015	<0.01015	<0.01015
8/31/2016	<0.01015				<0.01015				
10/18/2016			<0.01015			<0.01015	<0.01015	<0.01015	<0.01015
10/19/2016	<0.01015				<0.01015				
1/31/2017	<0.01015		<0.01015			<0.01015	<0.01015	<0.01015	<0.01015
2/1/2017					<0.01015				
5/2/2017						<0.01015	<0.01015	<0.01015	<0.01015
5/3/2017	<0.01015		<0.01015		<0.01015				
6/6/2017						<0.01015	<0.01015	<0.01015	<0.01015
6/7/2017	<0.01015		<0.01015		<0.01015				
1/23/2018					<0.01015	<0.01015	<0.01015	<0.01015	<0.01015
1/24/2018	<0.01015		<0.01015						
5/1/2018							<0.01015	<0.01015	<0.01015
5/2/2018	<0.01015		<0.01015		<0.01015	<0.01015			
11/26/2018									<0.01015
11/27/2018			<0.01015			<0.01015	<0.01015	<0.01015	
11/28/2018	<0.01015				<0.01015				
1/9/2019		0.00511 (J)		0.00243 (J)					
5/28/2019									<0.01015
5/29/2019	<0.01015		<0.01015			<0.01015	<0.01015	<0.01015	
5/30/2019					<0.01015				
9/30/2019	<0.01015		<0.01015		<0.01015				
10/1/2019		<0.01015		<0.01015					
10/2/2019						<0.01015	<0.01015	<0.01015	<0.01015
3/30/2020	<0.01015	<0.01015	<0.01015	<0.01015					
3/31/2020					<0.01015	<0.01015	<0.01015	<0.01015	<0.01015
9/2/2020	<0.01015	<0.01015	<0.01015	<0.01015	<0.01015				
9/8/2020									<0.01015
9/9/2020						<0.01015	<0.01015	<0.01015	
5/11/2021			0.000321				<0.01015	<0.01015	<0.01015
5/12/2021						<0.01015			
5/18/2021	0.000214	0.00021		0.000363	0.00022				
10/18/2021								<0.01015	<0.01015
10/19/2021						<0.01015	<0.01015		
10/26/2021			0.00019 (J)	0.00028					
10/27/2021	0.00018 (J)	0.00046			0.00021				
5/23/2022				0.00029					
5/24/2022	0.00018 (J)	0.00074	0.00023		0.00024				
5/31/2022						<0.01015	<0.01015	<0.01015	<0.01015
10/31/2022	0.00289	0.00124		0.000222	0.000157 (J)				
11/1/2022						<0.01015	<0.01015	<0.01015	<0.01015
11/2/2022			0.000232						
4/3/2023	<0.01015	<0.01015	<0.01015	<0.01015					
4/4/2023					<0.01015				
4/12/2023						<0.01015	<0.01015	<0.01015	<0.01015

Time Series

Constituent: Molybdenum (mg/L) Analysis Run 10/22/2023 12:54 PM View: Descriptive
Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-7	BY-AP-MW-7V	BY-AP-MW-8	BY-AP-MW-8V	BY-AP-MW-9	BY-UP-MW-1 (bg)	BY-UP-MW-2 (bg)	BY-UP-MW-3 (bg)	BY-UP-MW-4 (bg)
8/7/2023	<0.01015	0.00832 (J)	<0.01015	<0.01015	<0.01015				
8/16/2023						<0.01015	<0.01015	<0.01015	<0.01015

Time Series

Constituent: pH, field (SU) Analysis Run 10/22/2023 12:54 PM View: Descriptive

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-1	BY-AP-MW-10	BY-AP-MW-10V	BY-AP-MW-11	BY-AP-MW-12	BY-AP-MW-12V	BY-AP-MW-13	BY-AP-MW-13V	BY-AP-MW-14
3/1/2016		6.33		6.34					
3/2/2016	5.78				6.16		6.1		6.08
4/19/2016	5.8								
4/20/2016		6.31		6.31	6.17		6.14		6.04
6/8/2016	5.83	6.34		6.33	6.25		6.11		6.13
8/30/2016									6.08
8/31/2016	5.85	6.35		6.29	6.23		6.1		
10/18/2016									6.13
10/19/2016	5.87	6.35		6.26	6.2		6.1		
1/31/2017	5.83						6.07		6.06
2/1/2017		6.27		6.22	6.08				
3/21/2017	5.83								
3/22/2017		6.29		6.22	6.12		6.07		6.09
5/2/2017	5.73								5.94
5/3/2017		6.23		6.15	6.12		6.1		
6/6/2017	5.83								6.1
6/7/2017		6.27		6.21	6.13		6.07		
9/13/2017	5.91			6.26	6.19		6.12		6.11
9/14/2017		6.27							
1/22/2018							6.12		
1/23/2018		6.32		6.28	6.17				6.12
1/24/2018	5.9								
5/1/2018	5.83								
5/2/2018		6.36		6.33	6.15		6.13		6.13
8/28/2018	5.78	6.31							
8/29/2018				6.3	6.19		6.1		6.14
11/27/2018									6.07
11/28/2018	5.82	6.32		6.28	6.11		6.04		
1/8/2019			6.5			6.48			
5/29/2019	5.82			6.24	6.13		6.01		6.07
5/30/2019		6.23							
9/30/2019		6.11		5.85					
10/1/2019	5.47		6.05		6		6.02		6.01
10/2/2019						5.9			
3/30/2020	5.79								
3/31/2020		6.37	6.38	6.26	6.21	6.33	5.98		5.76
4/1/2020									
9/1/2020	5.89	6.33	6.34	5.87	6.19	6.2	5.82		
9/2/2020								6.23	5.8
5/11/2021		6.4							
5/18/2021	5.86		6.34		5.58	5.92			
5/19/2021				6.33			5.79	6.2	
5/25/2021									5.82
10/26/2021							5.69	6.81	
10/27/2021		5.91	6.1						6.41
11/1/2021	6.01				5.75	6.09			
11/2/2021				5.84					
5/23/2022				6.32	6.12	6.22			
5/24/2022	5.44	5.81	5.77				5.5		
5/25/2022								6.3	6.14
11/1/2022			6.41	6.28	6.21	6.32	6.09	6.29	5.93
11/2/2022	5.56	6.39							

Time Series

Constituent: pH, field (SU) Analysis Run 10/22/2023 12:54 PM View: Descriptive
Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-1	BY-AP-MW-10	BY-AP-MW-10V	BY-AP-MW-11	BY-AP-MW-12	BY-AP-MW-12V	BY-AP-MW-13	BY-AP-MW-13V	BY-AP-MW-14
4/3/2023	5.78	6.05	6.38						
4/4/2023				6.27	5.76	6.22	6.06	6.24	
4/5/2023									5.93
8/7/2023		6.27	6.21	6.3					
8/8/2023	5.74				6.07	6.25			
8/9/2023							5.76	5.82	5.83

Time Series

Constituent: pH, field (SU) Analysis Run 10/22/2023 12:54 PM View: Descriptive
Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-14V	BY-AP-MW-15
3/1/2016		
3/2/2016		6.61
4/19/2016		6.75
4/20/2016		
6/8/2016		6.63
8/30/2016		
8/31/2016		6.71
10/18/2016		
10/19/2016		6.66
1/31/2017		6.73
2/1/2017		
3/21/2017		6.62
3/22/2017		
5/2/2017		6.49
5/3/2017		
6/6/2017		6.7
6/7/2017		
9/13/2017		6.66
9/14/2017		
1/22/2018		6.73
1/23/2018		
1/24/2018		
5/1/2018		6.62
5/2/2018		
8/28/2018		
8/29/2018		6.68
11/27/2018		6.58
11/28/2018		
1/8/2019		
5/29/2019		6.63
5/30/2019		
9/30/2019		
10/1/2019		6.2
10/2/2019		
3/30/2020		
3/31/2020		
4/1/2020		6.72
9/1/2020		
9/2/2020	7.02	6.57
5/11/2021		6.76
5/18/2021		
5/19/2021		
5/25/2021	7.2	
10/26/2021	6.91	6.7
10/27/2021		
11/1/2021		
11/2/2021		
5/23/2022		
5/24/2022	6.71	
5/25/2022		6.68
11/1/2022	6.9	6.64
11/2/2022		

Time Series

Constituent: pH, field (SU) Analysis Run 10/22/2023 12:54 PM View: Descriptive
Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-14V	BY-AP-MW-15
4/3/2023		6.63
4/4/2023	6.8	
4/5/2023		
8/7/2023		
8/8/2023		6.6
8/9/2023	6.75	

Time Series

Constituent: pH, field (SU) Analysis Run 10/22/2023 12:54 PM View: Descriptive
Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-20H	BY-AP-MW-20V
3/2/2016		
4/19/2016		
6/8/2016		
8/31/2016		
10/19/2016		
1/31/2017		
3/21/2017		
5/2/2017		
6/6/2017		
9/12/2017		
9/13/2017		
1/23/2018		
1/24/2018		
5/1/2018		
8/28/2018		
8/29/2018		
11/27/2018		
1/8/2019		
3/20/2019		
5/29/2019		
7/31/2019	6.22	
10/1/2019	6.24	
10/2/2019		
3/30/2020		
3/31/2020		
4/1/2020	6.45	
8/31/2020		
9/1/2020	6.15	6.03
9/2/2020		
5/17/2021		
5/18/2021		
5/19/2021	6.17	6.44
5/25/2021		
10/25/2021		
10/26/2021	6.49	
11/1/2021		6
5/23/2022	6.15	
5/24/2022		6.28
5/25/2022		
10/31/2022	6.12	
11/1/2022		6.3
11/2/2022		
4/3/2023		
4/4/2023		
4/5/2023		
4/24/2023	6.16	6.35
8/7/2023		
8/8/2023	6.25	6.42
8/9/2023		

Time Series

Constituent: pH, field (SU) Analysis Run 10/22/2023 12:54 PM View: Descriptive

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-22H	BY-AP-MW-23H	BY-AP-MW-23V	BY-AP-MW-24H	BY-AP-MW-25H	BY-AP-MW-25V	BY-AP-MW-3	BY-AP-MW-4	BY-AP-MW-5
3/1/2016								5.19	5.99
3/2/2016							5.14		
4/19/2016							5.06	5.06	
4/20/2016									5.96
6/7/2016							5.13	4.7	6.03
8/30/2016								4.77	6
8/31/2016							5.11		
10/18/2016									5.99
10/19/2016							5.05	4.67	
1/31/2017							5.14	4.42	5.96
3/21/2017							5.13	4.45	
3/22/2017									6.01
5/2/2017							4.85	4.46	
5/3/2017									5.99
6/6/2017							5.15	4.89	
6/7/2017									6.01
9/12/2017							4.96	4.71	
9/14/2017									6
1/24/2018							5.22	5.03	5.98
5/1/2018							5.11	4.44	
5/2/2018									5.99
8/28/2018							4.92	4.85	
8/29/2018									6.03
11/27/2018							5.05	4.78	6.01
11/28/2018									
1/8/2019				6.51					
5/29/2019							5.05	4.65	5.93
7/31/2019	6.54	6.08							
10/1/2019	6.6	6.03					4.37	4.28	5.47
10/2/2019				6.21					
3/31/2020				6.23			5.08	4.69	6.01
4/1/2020		6.44							
9/1/2020	6.48	6.14	7.98				4.24	4.23	5.93
9/2/2020				6.01	5.39	5.32			
5/17/2021			7.87						
5/18/2021							4.93	4.17	
5/24/2021		6.19			4.12	5.24			
5/25/2021	6.44			6.16					
10/26/2021	6.86	6.54	8.31	6.2					
11/1/2021							4.94	5.18	
11/2/2021					5.01	5.13			6.36
5/24/2022	6.57			6.22					
5/25/2022		5.92	7.44		5.23	5.45	4.64	4.6	5.99
10/31/2022	6.46				5.11			4.65	5.99
11/1/2022		6	7.36			4.22	5.01		
11/2/2022				6.05					
4/3/2023				6.08	4.65	4.8			
4/4/2023		5.94	6.73				5.31	4.55	5.84
4/24/2023	6.46								
8/7/2023									5.84
8/8/2023	6.22	6.13	6.59	5.99	4.95	4.79			
8/9/2023							5.45	4.55	

Time Series

Constituent: pH, field (SU) Analysis Run 10/22/2023 12:54 PM View: Descriptive
Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-5V	BY-AP-MW-6
3/1/2016		5.59
3/2/2016		
4/19/2016		5.55
4/20/2016		
6/7/2016		5.43
8/30/2016		5.39
8/31/2016		
10/18/2016		
10/19/2016		5.31
1/31/2017		5.26
3/21/2017		
3/22/2017		5.32
5/2/2017		
5/3/2017		5.35
6/6/2017		
6/7/2017		5.32
9/12/2017		
9/14/2017		5.29
1/24/2018		5.32
5/1/2018		
5/2/2018		5.33
8/28/2018		
8/29/2018		5.41
11/27/2018		
11/28/2018		5.46
1/8/2019	6.07	
5/29/2019		5.31
7/31/2019		
10/1/2019		4.7
10/2/2019	5.9	
3/31/2020	6.05	5.22
4/1/2020		
9/1/2020	5.7	
9/2/2020		5.16
5/17/2021		5.21
5/18/2021		
5/24/2021		
5/25/2021		
10/26/2021		
11/1/2021		
11/2/2021	6.35	5.59
5/24/2022		
5/25/2022	5.88	4.57
10/31/2022	5.9	4.9
11/1/2022		
11/2/2022		
4/3/2023		
4/4/2023	5.99	5.33
4/24/2023		
8/7/2023	5.89	
8/8/2023		
8/9/2023		5.05

Time Series

Constituent: pH, field (SU) Analysis Run 10/22/2023 12:54 PM View: Descriptive

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-7	BY-AP-MW-7V	BY-AP-MW-8	BY-AP-MW-8V	BY-AP-MW-9	BY-UP-MW-1 (bg)	BY-UP-MW-2 (bg)	BY-UP-MW-3 (bg)	BY-UP-MW-4 (bg)
2/23/2016						4.62	4.79	4.96	4.74
3/1/2016	6.36		6.21		6.26				
4/19/2016						4.74	4.84	4.94	4.86
4/20/2016	6.31		6.22		6.26				
6/6/2016						4.65			4.88
6/7/2016	6.3		6.26				4.81	4.96	
6/8/2016					6.25				
8/30/2016			6.21			4.64	4.76	4.92	4.91
8/31/2016	6.31				6.29				
10/18/2016			6.21			4.74	4.84	4.98	4.95
10/19/2016	6.23				6.22				
1/31/2017	6.26		6.17			4.54	4.6	4.74	4.71
2/1/2017					6.24				
3/20/2017						4.67	4.71	4.9	4.83
3/22/2017	6.32		6.22		6.28				
5/2/2017						4.79	4.8	4.98	4.93
5/3/2017	6.29		6.22		6.17				
6/6/2017						4.76	4.72	4.94	4.9
6/7/2017	6.27		6.21		6.24				
9/12/2017									4.82
9/13/2017						4.81	4.71	4.93	
9/14/2017	6.25		6.18		6.24				
1/23/2018					6.3	4.79	4.67	4.91	4.85
1/24/2018	6.35		6.16						
5/1/2018							4.61	4.87	4.8
5/2/2018	6.29		6.17		6.31	4.62			
8/28/2018					6.28				
8/29/2018			6.21						
11/26/2018									4.88
11/27/2018			6.18			4.73	4.72	4.94	
11/28/2018	6.33				6.32				
1/9/2019		7.12		6.38					
5/28/2019									4.73
5/29/2019	6.18		6.11			4.65	4.58	4.8	
5/30/2019					6.14				
9/30/2019	6.36		6.19		6.07				
10/1/2019		6.67		6.16					
10/2/2019						4.57	4.43	4.52	4.67
3/30/2020	6.32	6.69	6.2	6.2					
3/31/2020					6.31	4.64	4.6	4.4	4.51
9/2/2020	6.25	6.49	5.89	5.79	5.97				
9/8/2020									4.75
9/9/2020						4.65	4.67	4.76	
5/11/2021			6.25				4.29	4.53	4.67
5/12/2021						4.74			
5/18/2021	6.4	6.53		6.33	6.3				
10/18/2021								4.55	4.38
10/19/2021						4.67	4.6		
10/26/2021			6.26	6.26					
10/27/2021	6.35	6.78			6.13				
5/23/2022				6.08					
5/24/2022	6.32	6.92	5.6		6.03				

Time Series

Constituent: pH, field (SU) Analysis Run 10/22/2023 12:54 PM View: Descriptive

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-7	BY-AP-MW-7V	BY-AP-MW-8	BY-AP-MW-8V	BY-AP-MW-9	BY-UP-MW-1 (bg)	BY-UP-MW-2 (bg)	BY-UP-MW-3 (bg)	BY-UP-MW-4 (bg)
5/31/2022						3.89 (o)	3.31 (o)	3.54	3.97
10/31/2022	7.07	7.9		6.23	6.26				
11/1/2022						4.6	4.42	4.12	4.74
11/2/2022			6.28						
4/3/2023	6.53	7.67	6.34	6.5					
4/4/2023					6.15				
4/12/2023						4.77	4.67	4.83	4.73
8/7/2023	6.67	7.94	6.82	8.18	6.13				
8/16/2023						4.45	4.49	4.03	4.58

Time Series

Constituent: Selenium (mg/L) Analysis Run 10/22/2023 12:54 PM View: Descriptive

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-1	BY-AP-MW-10	BY-AP-MW-10V	BY-AP-MW-11	BY-AP-MW-12	BY-AP-MW-12V	BY-AP-MW-13	BY-AP-MW-13V	BY-AP-MW-14
3/1/2016		<0.001015		<0.001015					
3/2/2016	<0.001015				<0.001015		<0.001015		<0.001015
4/19/2016	<0.001015								
4/20/2016		<0.001015		<0.001015	<0.001015		<0.001015		<0.001015
6/8/2016	<0.001015	<0.001015		<0.001015	<0.001015		<0.001015		<0.001015
8/30/2016									<0.001015
8/31/2016	<0.001015	<0.001015		<0.001015	<0.001015		<0.001015		
10/18/2016									<0.001015
10/19/2016	<0.001015	<0.001015		<0.001015	<0.001015		<0.001015		
1/31/2017	<0.001015						<0.001015		<0.001015
2/1/2017		<0.001015		<0.001015	<0.001015				
5/2/2017	<0.001015								<0.001015
5/3/2017		<0.001015		<0.001015	<0.001015		<0.001015		
6/6/2017	<0.001015								<0.001015
6/7/2017		<0.001015		<0.001015	<0.001015		<0.001015		
1/22/2018							<0.001015		
1/23/2018		<0.001015		<0.001015	<0.001015				<0.001015
1/24/2018	<0.001015								
5/1/2018	<0.001015								
5/2/2018		<0.001015		<0.001015	<0.001015		<0.001015		<0.001015
11/27/2018									<0.001015
11/28/2018	<0.001015	<0.001015		<0.001015	<0.001015		<0.001015		
1/8/2019			<0.001015			<0.001015			
5/29/2019	<0.001015			<0.001015	<0.001015		<0.001015		<0.001015
5/30/2019		<0.001015							
9/30/2019		<0.001015		<0.001015					
10/1/2019	<0.001015		<0.001015		<0.001015		<0.001015		<0.001015
10/2/2019						<0.001015			
3/30/2020	<0.001015								
3/31/2020		<0.001015	<0.001015	<0.001015	<0.001015	<0.001015	<0.001015		<0.001015
4/1/2020									
9/1/2020	<0.001015	<0.001015	<0.001015	<0.001015	<0.001015	<0.001015	<0.001015		
9/2/2020								<0.001015	<0.001015
5/11/2021		<0.001015							
5/18/2021	<0.001015		<0.001015		<0.001015	<0.001015			
5/19/2021				<0.001015			<0.001015	<0.001015	
5/25/2021									<0.001015
10/26/2021							<0.001015	<0.001015	
10/27/2021		<0.001015	<0.001015						<0.001015
11/1/2021	<0.001015				<0.001015	<0.001015			
11/2/2021				<0.001015					
5/23/2022				<0.001015	<0.001015	<0.001015			
5/24/2022	<0.001015	<0.001015	<0.001015				0.00056 (J)		
5/25/2022								<0.001015	<0.001015
11/1/2022			<0.001015	<0.001015	<0.001015	<0.001015	0.000611 (J)	<0.001015	<0.001015
11/2/2022	<0.001015	<0.001015							
4/3/2023	<0.001015	<0.001015	<0.001015						
4/4/2023				<0.001015	<0.001015	<0.001015	0.000664 (J)	<0.001015	
4/5/2023									<0.001015
8/7/2023		<0.001015	<0.001015	<0.001015					
8/8/2023	<0.001015				<0.001015	<0.001015			
8/9/2023							<0.001015	<0.001015	<0.001015

Time Series

Constituent: Selenium (mg/L) Analysis Run 10/22/2023 12:54 PM View: Descriptive
Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-14V	BY-AP-MW-15
3/1/2016		
3/2/2016		<0.00102
4/19/2016		<0.00102
4/20/2016		
6/8/2016		<0.00102
8/30/2016		
8/31/2016		<0.00102
10/18/2016		
10/19/2016		<0.00102
1/31/2017		<0.00102
2/1/2017		
5/2/2017		<0.00102
5/3/2017		
6/6/2017		<0.00102
6/7/2017		
1/22/2018		<0.00102
1/23/2018		
1/24/2018		
5/1/2018		<0.00102
5/2/2018		
11/27/2018		<0.00102
11/28/2018		
1/8/2019		
5/29/2019		<0.00102
5/30/2019		
9/30/2019		
10/1/2019		<0.00102
10/2/2019		
3/30/2020		
3/31/2020		
4/1/2020		<0.00102
9/1/2020		
9/2/2020	<0.001015	<0.00102
5/11/2021		<0.00102
5/18/2021		
5/19/2021		
5/25/2021	<0.001015	
10/26/2021	<0.001015	<0.00102
10/27/2021		
11/1/2021		
11/2/2021		
5/23/2022		
5/24/2022	<0.001015	
5/25/2022		<0.00102
11/1/2022	<0.001015	<0.00102
11/2/2022		
4/3/2023		<0.00102
4/4/2023	<0.001015	
4/5/2023		
8/7/2023		
8/8/2023		<0.00102
8/9/2023	<0.001015	

Time Series

Constituent: Selenium (mg/L) Analysis Run 10/22/2023 12:54 PM View: Descriptive

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-15V	BY-AP-MW-16	BY-AP-MW-16V	BY-AP-MW-17H	BY-AP-MW-17V	BY-AP-MW-18H	BY-AP-MW-19H	BY-AP-MW-1V	BY-AP-MW-2
3/2/2016		<0.001015							<0.001015
4/19/2016		<0.001015							<0.001015
6/8/2016		<0.001015							<0.001015
8/31/2016		<0.001015							<0.001015
10/19/2016		<0.001015							<0.001015
1/31/2017		<0.001015							<0.001015
5/2/2017		<0.001015							<0.001015
6/6/2017		<0.001015							<0.001015
1/23/2018		<0.001015							<0.001015
1/24/2018									<0.001015
5/1/2018		<0.001015							<0.001015
11/27/2018		<0.001015							<0.001015
1/8/2019								<0.001015	
3/20/2019						<0.001015			
5/29/2019		<0.001015							<0.001015
7/31/2019	<0.001015			<0.001015			<0.001015		
10/1/2019	<0.001015	<0.001015				<0.001015	<0.001015		<0.001015
10/2/2019				<0.001015				<0.001015	
3/30/2020								<0.001015	
3/31/2020		<0.001015							<0.001015
4/1/2020				<0.001015		<0.001015			
8/31/2020									<0.001015
9/1/2020	<0.001015			<0.001015	<0.001015	<0.001015	<0.001015	<0.001015	
9/2/2020		<0.001015	<0.001015						
5/17/2021				<0.001015					
5/18/2021					<0.001015			<0.001015	<0.001015
5/19/2021		<0.001015	<0.001015			<0.001015			
5/25/2021	<0.001015						<0.001015		
10/25/2021				<0.001015	<0.001015	<0.001015	<0.001015		
10/26/2021	<0.001015		<0.001015						
11/1/2021		<0.001015						<0.001015	<0.001015
5/23/2022						<0.001015			
5/24/2022	<0.001015						<0.001015	<0.001015	<0.001015
5/25/2022		<0.001015	<0.001015	<0.001015	<0.001015				
10/31/2022				<0.001015	<0.001015	<0.001015	<0.001015		
11/1/2022		<0.001015	<0.001015					<0.001015	
11/2/2022	<0.001015								<0.001015
4/3/2023									<0.001015
4/4/2023			<0.001015	<0.001015	<0.001015			<0.001015	
4/5/2023		<0.001015				<0.001015			
4/24/2023	<0.001015						<0.001015		
8/7/2023			<0.001015						
8/8/2023	<0.001015	<0.001015		<0.001015	<0.001015	<0.001015	<0.001015		<0.001015
8/9/2023								<0.001015	

Time Series

Constituent: Selenium (mg/L) Analysis Run 10/22/2023 12:54 PM View: Descriptive
Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-20H	BY-AP-MW-20V
3/2/2016		
4/19/2016		
6/8/2016		
8/31/2016		
10/19/2016		
1/31/2017		
5/2/2017		
6/6/2017		
1/23/2018		
1/24/2018		
5/1/2018		
11/27/2018		
1/8/2019		
3/20/2019		
5/29/2019		
7/31/2019	<0.001015	
10/1/2019	<0.001015	
10/2/2019		
3/30/2020		
3/31/2020		
4/1/2020	<0.001015	
8/31/2020		
9/1/2020	<0.001015	<0.001015
9/2/2020		
5/17/2021		
5/18/2021		
5/19/2021	<0.001015	<0.001015
5/25/2021		
10/25/2021		
10/26/2021	<0.001015	
11/1/2021		<0.001015
5/23/2022	0.00054 (J)	
5/24/2022		<0.001015
5/25/2022		
10/31/2022	<0.001015	
11/1/2022		<0.001015
11/2/2022		
4/3/2023		
4/4/2023		
4/5/2023		
4/24/2023	<0.001015	<0.001015
8/7/2023		
8/8/2023	<0.001015	<0.001015
8/9/2023		

Time Series

Constituent: Selenium (mg/L) Analysis Run 10/22/2023 12:54 PM View: Descriptive

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-22H	BY-AP-MW-23H	BY-AP-MW-23V	BY-AP-MW-24H	BY-AP-MW-25H	BY-AP-MW-25V	BY-AP-MW-3	BY-AP-MW-4	BY-AP-MW-5
3/1/2016								<0.001015	<0.001015
3/2/2016							<0.001015		
4/19/2016							<0.001015	<0.001015	
4/20/2016									<0.001015
6/7/2016							<0.001015	<0.001015	<0.001015
8/30/2016								<0.001015	<0.001015
8/31/2016							<0.001015		
10/18/2016									<0.001015
10/19/2016							<0.001015	<0.001015	
1/31/2017							<0.001015	<0.001015	<0.001015
5/2/2017							<0.001015	<0.001015	
5/3/2017									<0.001015
6/6/2017							<0.001015	<0.001015	
6/7/2017									<0.001015
1/24/2018							<0.001015	<0.001015	<0.001015
5/1/2018							<0.001015	<0.001015	
5/2/2018									<0.001015
11/27/2018							<0.001015	<0.001015	<0.001015
11/28/2018									
1/8/2019				<0.001015					
5/29/2019							<0.001015	<0.001015	<0.001015
7/31/2019	<0.001015	<0.001015							
10/1/2019	<0.001015	<0.001015					<0.001015	<0.001015	<0.001015
10/2/2019				<0.001015					
3/31/2020				<0.001015			<0.001015	<0.001015	<0.001015
4/1/2020		<0.001015							
9/1/2020	<0.001015	<0.001015	<0.001015				<0.001015	<0.001015	<0.001015
9/2/2020				<0.001015	<0.001015	<0.001015			
5/17/2021			<0.001015						
5/18/2021							<0.001015	<0.001015	
5/24/2021		<0.001015			<0.001015	<0.001015			
5/25/2021	<0.001015			<0.001015					
10/26/2021	<0.001015	<0.001015	<0.001015	<0.001015					
11/1/2021							<0.001015	<0.001015	
11/2/2021					<0.001015	<0.001015			<0.001015
5/24/2022	<0.001015			<0.001015					
5/25/2022		<0.001015	<0.001015		<0.001015	<0.001015	<0.001015	<0.001015	<0.001015
10/31/2022	<0.001015				<0.001015		<0.001015	<0.001015	<0.001015
11/1/2022		<0.001015	<0.001015			<0.001015	<0.001015		
11/2/2022				<0.001015					
4/3/2023				<0.001015	<0.001015	<0.001015			
4/4/2023		<0.001015	<0.001015				<0.001015	<0.001015	<0.001015
4/24/2023	<0.001015								
8/7/2023									<0.001015
8/8/2023	<0.001015	<0.001015	<0.001015	<0.001015	<0.001015	<0.001015			
8/9/2023							<0.001015	<0.001015	

Time Series

Constituent: Selenium (mg/L) Analysis Run 10/22/2023 12:54 PM View: Descriptive
Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-5V	BY-AP-MW-6
3/1/2016		<0.001015
3/2/2016		
4/19/2016		<0.001015
4/20/2016		
6/7/2016		<0.001015
8/30/2016		<0.001015
8/31/2016		
10/18/2016		
10/19/2016		<0.001015
1/31/2017		<0.001015
5/2/2017		
5/3/2017		<0.001015
6/6/2017		
6/7/2017		<0.001015
1/24/2018		<0.001015
5/1/2018		
5/2/2018		<0.001015
11/27/2018		
11/28/2018		<0.001015
1/8/2019	<0.001015	
5/29/2019		<0.001015
7/31/2019		
10/1/2019		<0.001015
10/2/2019	<0.001015	
3/31/2020	<0.001015	<0.001015
4/1/2020		
9/1/2020	<0.001015	
9/2/2020		<0.001015
5/17/2021		<0.001015
5/18/2021		
5/24/2021		
5/25/2021		
10/26/2021		
11/1/2021		
11/2/2021	<0.001015	<0.001015
5/24/2022		
5/25/2022	<0.001015	<0.001015
10/31/2022	<0.001015	<0.001015
11/1/2022		
11/2/2022		
4/3/2023		
4/4/2023	<0.001015	<0.001015
4/24/2023		
8/7/2023	<0.001015	
8/8/2023		
8/9/2023		<0.001015

Time Series

Constituent: Selenium (mg/L) Analysis Run 10/22/2023 12:54 PM View: Descriptive

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-7	BY-AP-MW-7V	BY-AP-MW-8	BY-AP-MW-8V	BY-AP-MW-9	BY-UP-MW-1 (bg)	BY-UP-MW-2 (bg)	BY-UP-MW-3 (bg)	BY-UP-MW-4 (bg)
2/23/2016						<0.001015	<0.001015	<0.001015	<0.001015
3/1/2016	<0.001015		<0.001015		<0.001015				
4/19/2016						<0.001015	<0.001015	<0.001015	<0.001015
4/20/2016	<0.001015		<0.001015		<0.001015				
6/6/2016						<0.001015			<0.001015
6/7/2016	<0.001015		<0.001015				<0.001015	<0.001015	
6/8/2016					<0.001015				
8/30/2016			<0.001015			<0.001015	<0.001015	<0.001015	<0.001015
8/31/2016	<0.001015				<0.001015				
10/18/2016			<0.001015			<0.001015	<0.001015	<0.001015	<0.001015
10/19/2016	<0.001015				<0.001015				
1/31/2017	<0.001015		<0.001015			<0.001015	<0.001015	<0.001015	<0.001015
2/1/2017					<0.001015				
5/2/2017						<0.001015	<0.001015	<0.001015	<0.001015
5/3/2017	<0.001015		<0.001015		<0.001015				
6/6/2017						<0.001015	<0.001015	<0.001015	<0.001015
6/7/2017	<0.001015		<0.001015		<0.001015				
1/23/2018					<0.001015	<0.001015	<0.001015	<0.001015	<0.001015
1/24/2018	<0.001015		<0.001015						
5/1/2018							<0.001015	<0.001015	<0.001015
5/2/2018	<0.001015		<0.001015		<0.001015	<0.001015			
11/26/2018									<0.001015
11/27/2018			<0.001015			<0.001015	<0.001015	<0.001015	
11/28/2018	<0.001015				<0.001015				
1/9/2019		<0.001015		<0.001015					
5/28/2019									<0.001015
5/29/2019	<0.001015		<0.001015			<0.001015	<0.001015	<0.001015	
5/30/2019					<0.001015				
9/30/2019	<0.001015		<0.001015		<0.001015				
10/1/2019		<0.001015		<0.001015					
10/2/2019						<0.001015	<0.001015	<0.001015	<0.001015
3/30/2020	<0.001015	<0.001015	<0.001015	<0.001015					
3/31/2020					<0.001015	<0.001015	<0.001015	<0.001015	<0.001015
9/2/2020	<0.001015	<0.001015	<0.001015	<0.001015	<0.001015				
9/8/2020									<0.001015
9/9/2020						<0.001015	<0.001015	<0.001015	
5/11/2021			<0.001015				0.000602 (J)	<0.001015	<0.001015
5/12/2021						<0.001015			
5/18/2021	<0.001015	<0.001015		<0.001015	<0.001015				
10/18/2021								<0.001015	<0.001015
10/19/2021						<0.001015	<0.001015		
10/26/2021			<0.001015	<0.001015					
10/27/2021	<0.001015	<0.001015			<0.001015				
5/23/2022				<0.001015					
5/24/2022	<0.001015	<0.001015	<0.001015		<0.001015				
5/31/2022						<0.001015	0.000633 (J)	<0.001015	<0.001015
10/31/2022	<0.001015	<0.001015		<0.001015	<0.001015				
11/1/2022						<0.001015	0.000558 (J)	<0.001015	<0.001015
11/2/2022			<0.001015						
4/3/2023	<0.001015	<0.001015	<0.001015	<0.001015					
4/4/2023					<0.001015				
4/12/2023						<0.001015	0.000702 (J)	<0.001015	<0.001015

Time Series

Constituent: Selenium (mg/L) Analysis Run 10/22/2023 12:54 PM View: Descriptive

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-7	BY-AP-MW-7V	BY-AP-MW-8	BY-AP-MW-8V	BY-AP-MW-9	BY-UP-MW-1 (bg)	BY-UP-MW-2 (bg)	BY-UP-MW-3 (bg)	BY-UP-MW-4 (bg)
8/7/2023	<0.001015	0.00096 (J)	<0.001015	0.00281	<0.001015				
8/16/2023						<0.001015	0.000614 (J)	<0.001015	<0.001015

Time Series

Constituent: Sulfate as SO4 (mg/L) Analysis Run 10/22/2023 12:54 PM View: Descriptive

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-1	BY-AP-MW-10	BY-AP-MW-10V	BY-AP-MW-11	BY-AP-MW-12	BY-AP-MW-12V	BY-AP-MW-13	BY-AP-MW-13V	BY-AP-MW-14
3/1/2016		0.34 (J)		1.02					
3/2/2016	0.31 (J)				<5		<5		<5
4/19/2016	0.335 (J)								
4/20/2016		<5		1.1	<5		<5		<5
6/8/2016	0.556 (J)	0.538 (J)		0.701 (J)	0.511 (J)		0.496 (J)		0.514 (J)
8/30/2016									<5
8/31/2016	<5	<5		<5	<5		<5		
10/18/2016									<5
10/19/2016	<5	<5		<5	<5		<5		
3/21/2017	<5								
3/22/2017		<5		2.1 (J)	<5		6.9		<5
5/2/2017	6								1.8 (J)
5/3/2017		4.1 (J)		3.6 (J)	2.1 (J)		6.6		
6/6/2017	<5								<5
6/7/2017		<5		<5	<5		6		
9/13/2017	4.7 (J)			<5	<5		2.2 (J)		<5
9/14/2017		<5							
5/1/2018	<5								
5/2/2018		<5		<5	<5		4.1 (J)		1.6 (J)
8/28/2018	<5	<5							
8/29/2018				2.3 (J)	<5		<5		<5
11/27/2018									<5
11/28/2018	4.1 (J)	<5		<5	<50 (O)		4.9 (J)		
1/8/2019			93.7			10.3			
5/29/2019	5.75			24.1	7.04		49.5		67.6
5/30/2019		3.76							
9/30/2019		2.77		37.4					
10/1/2019	7.82		5.19		35.3		47.7		61.6
10/2/2019						7.18			
3/30/2020	28.4								
3/31/2020		20.1	20.3	57.5	35.8	61.1	23.2		34.7
4/1/2020									
9/1/2020	23.1	15.6	30.1	42.8	32.1	47.5	14.2		
9/2/2020								30.6	18.5
5/11/2021		13.2							
5/18/2021	16.5		24.9		25.1	32.8			
5/19/2021				16.5			50.4	39.7	
5/25/2021									59.2
10/26/2021							21	47.3	
10/27/2021		5.72	6.04						98.5
11/1/2021	10.9				27	10.9			
11/2/2021				133 (o)					
5/23/2022				29.3	13	6.64			
5/24/2022	21	14.7	5.73				38.3		
5/25/2022								122	105
11/1/2022			11.4	47.700001	15.3	12.3	86.9 (o)	136	86.099998
11/2/2022	12.1	10.2							
4/3/2023	34.200001	15	13						
4/4/2023				84.300003	39.599998	85.5	24.6	29.5	
4/5/2023									112
8/7/2023		17.799999	17.9	158					
8/8/2023	3.92				65.099998	110			

Time Series

Constituent: Sulfate as SO4 (mg/L) Analysis Run 10/22/2023 12:54 PM View: Descriptive
Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-1	BY-AP-MW-10	BY-AP-MW-10V	BY-AP-MW-11	BY-AP-MW-12	BY-AP-MW-12V	BY-AP-MW-13	BY-AP-MW-13V	BY-AP-MW-14
8/9/2023							23.5	34.099998	37.799999

Time Series

Constituent: Sulfate as SO4 (mg/L) Analysis Run 10/22/2023 12:54 PM View: Descriptive
Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-14V	BY-AP-MW-15
3/1/2016		
3/2/2016		<5
4/19/2016		<5
4/20/2016		
6/8/2016		0.489 (J)
8/30/2016		
8/31/2016		<5
10/18/2016		
10/19/2016		<5
3/21/2017		<5
3/22/2017		
5/2/2017		<5
5/3/2017		
6/6/2017		<5
6/7/2017		
9/13/2017		<5
9/14/2017		
5/1/2018		<5
5/2/2018		
8/28/2018		
8/29/2018		6.2
11/27/2018		<5
11/28/2018		
1/8/2019		
5/29/2019		3.27
5/30/2019		
9/30/2019		
10/1/2019		1.72
10/2/2019		
3/30/2020		
3/31/2020		
4/1/2020		7.5
9/1/2020		
9/2/2020	63.6	7.61
5/11/2021		7.54
5/18/2021		
5/19/2021		
5/25/2021	39.5	
10/26/2021	75.1	26.4 (o)
10/27/2021		
11/1/2021		
11/2/2021		
5/23/2022		
5/24/2022	13.6	
5/25/2022		1.8 (J)
11/1/2022	10.7	4.24
11/2/2022		
4/3/2023		8.28
4/4/2023	11.7	
4/5/2023		
8/7/2023		
8/8/2023		10.6

Time Series

Constituent: Sulfate as SO4 (mg/L) Analysis Run 10/22/2023 12:54 PM View: Descriptive
Plant Barry Client: Southern Company Data: Barry Ash Pond

8/9/2023	BY-AP-MW-14V	BY-AP-MW-15	36.299999
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Time Series

Constituent: Sulfate as SO4 (mg/L) Analysis Run 10/22/2023 12:54 PM View: Descriptive

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-15V	BY-AP-MW-16	BY-AP-MW-16V	BY-AP-MW-17H	BY-AP-MW-17V	BY-AP-MW-18H	BY-AP-MW-19H	BY-AP-MW-1V	BY-AP-MW-2
3/2/2016		<5							3.3
4/19/2016		<5							2.68
6/8/2016		0.514 (J)							1.1
8/31/2016		<5							<1
10/19/2016		<5							<1
3/21/2017		<5							<1
5/2/2017		<5							<1
6/6/2017		<5							<1
9/12/2017									<1
9/13/2017		2.6 (J)							
5/1/2018		<5							<1
8/28/2018									<1
8/29/2018		3.9 (J)							
11/27/2018		<5							<1
1/8/2019								20.9	
3/20/2019						12.8			
5/29/2019		6.72							0.885 (J)
7/31/2019	2.65			23			11.4		
10/1/2019	0.854 (J)	3.4				8.49	5.9		<1
10/2/2019				10.6				10.5	
3/30/2020								11.1	
3/31/2020		17.5							1.69
4/1/2020				19.4		24.2			
8/31/2020									0.576 (J)
9/1/2020	2.21			7.61	26.6	30.6	16.9	13	
9/2/2020		13.3	40						
5/17/2021				10.2					
5/18/2021					17.4			16	<1
5/19/2021		3.11	40.9			7.48			
5/25/2021	1.19						26.6		
10/25/2021				24.5	11	55	28.7		
10/26/2021	0.966 (J)		38.1						
11/1/2021		11.9						20.2	1.56
5/23/2022						9.46			
5/24/2022	2.35						34.7	21.1	0.615 (J)
5/25/2022		6.29	35.1	3.58	49.1				
10/31/2022				13.2	55.799999	12.1	23		
11/1/2022		7.46	29.9					23	
11/2/2022	6.26								1.17 (J)
4/3/2023									1.77 (J)
4/4/2023			34	17.200001	59			19	
4/5/2023		9.3				67			
4/24/2023	1.93 (J)						38.700001		
8/7/2023			30.5						
8/8/2023	3.44	31.6		14.4	59.700001	43.299999	18.299999		1.82 (J)
8/9/2023								20.299999	

Time Series

Constituent: Sulfate as SO4 (mg/L) Analysis Run 10/22/2023 12:54 PM View: Descriptive
Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-20H	BY-AP-MW-20V
3/2/2016		
4/19/2016		
6/8/2016		
8/31/2016		
10/19/2016		
3/21/2017		
5/2/2017		
6/6/2017		
9/12/2017		
9/13/2017		
5/1/2018		
8/28/2018		
8/29/2018		
11/27/2018		
1/8/2019		
3/20/2019		
5/29/2019		
7/31/2019	83.2	
10/1/2019	28.9	
10/2/2019		
3/30/2020		
3/31/2020		
4/1/2020	18.7	
8/31/2020		
9/1/2020	43.5	38.3
9/2/2020		
5/17/2021		
5/18/2021		
5/19/2021	59.5	1.93
5/25/2021		
10/25/2021		
10/26/2021	73.2	
11/1/2021		5.66
5/23/2022	95.1	
5/24/2022		3.79
5/25/2022		
10/31/2022	103	
11/1/2022		6.08
11/2/2022		
4/3/2023		
4/4/2023		
4/5/2023		
4/24/2023	63.599998	8.99
8/7/2023		
8/8/2023	84.099998	63.400002
8/9/2023		

Time Series

Constituent: Sulfate as SO4 (mg/L) Analysis Run 10/22/2023 12:54 PM View: Descriptive

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-22H	BY-AP-MW-23H	BY-AP-MW-23V	BY-AP-MW-24H	BY-AP-MW-25H	BY-AP-MW-25V	BY-AP-MW-3	BY-AP-MW-4	BY-AP-MW-5
3/1/2016								2.58	<5
3/2/2016							0.79 (J)		
4/19/2016							0.674 (J)	2.3	
4/20/2016									<5
6/7/2016							1	2.58	0.583 (J)
8/30/2016								2.81	<5
8/31/2016							0.702 (J)		
10/18/2016									<5
10/19/2016							0.739 (J)	5.06	
3/21/2017							<5	3.4 (J)	
3/22/2017									<5
5/2/2017							<5	2.7 (J)	
5/3/2017									<5
6/6/2017							<5	1.5 (J)	
6/7/2017									<5
9/12/2017							<5	1.9 (J)	
9/14/2017									<5
5/1/2018							<5	1.4 (J)	
5/2/2018									<5
8/28/2018							<5	<5	
8/29/2018									1.6 (J)
11/27/2018							<5	2.3 (J)	2.7 (J)
11/28/2018									
1/8/2019				31.2					
5/29/2019							0.747 (J)	2.92	5.51
7/31/2019	171	18.4							
10/1/2019	17.2	4.89					0.61 (J)	2.09	7.4
10/2/2019				92.3					
3/31/2020				84.5			1.02	4.12	23.7
4/1/2020		18.1							
9/1/2020	93.2	24.5	9.25				0.705 (J)	1.83	11
9/2/2020				59.7	4.39	2.26			
5/17/2021			6.92						
5/18/2021							0.883 (J)	4.43	
5/24/2021		3.99			4.94	2.59			
5/25/2021	72.3			17					
10/26/2021	140	29.5	4.23	122					
11/1/2021							1.01	3.34	
11/2/2021					4.28	2.08			15
5/24/2022	103			92.3					
5/25/2022		4.01	4.25		4.24	2.13	1.41 (J)	1.97 (J)	5.53
10/31/2022	110				4.57			1.02 (J)	15.2
11/1/2022		5.37	11			1.85 (J)	1.66 (J)		
11/2/2022				19.9					
4/3/2023				94	4.48	2.28			
4/4/2023		15.2	32.900002				2.92	2.33	43.9 (o)
4/24/2023	152								
8/7/2023									17.6
8/8/2023	214	14	35	253	4.88	2.47			
8/9/2023							3.04	2.28	

Time Series

Constituent: Sulfate as SO4 (mg/L) Analysis Run 10/22/2023 12:54 PM View: Descriptive
Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-5V	BY-AP-MW-6
3/1/2016		0.36 (J)
3/2/2016		
4/19/2016		0.435 (J)
4/20/2016		
6/7/2016		1.22
8/30/2016		1.08
8/31/2016		
10/18/2016		
10/19/2016		1.01
3/21/2017		
3/22/2017		<5
5/2/2017		
5/3/2017		1.4 (J)
6/6/2017		
6/7/2017		1.5 (J)
9/12/2017		
9/14/2017		1.8 (J)
5/1/2018		
5/2/2018		<5
8/28/2018		
8/29/2018		<5
11/27/2018		
11/28/2018		<5
1/8/2019	1.75	
5/29/2019		1.17
7/31/2019		
10/1/2019		1.04
10/2/2019	5.8	
3/31/2020	0.98 (J)	1.21
4/1/2020		
9/1/2020	1.47	
9/2/2020		1.02
5/17/2021		0.981 (J)
5/18/2021		
5/24/2021		
5/25/2021		
10/26/2021		
11/1/2021		
11/2/2021	1.34	1.37
5/24/2022		
5/25/2022	2.91	1.27 (J)
10/31/2022	7.44	1.22 (J)
11/1/2022		
11/2/2022		
4/3/2023		
4/4/2023	4.84	1.59 (J)
4/24/2023		
8/7/2023	7.84	
8/8/2023		
8/9/2023		1.61 (J)

Time Series

Constituent: Sulfate as SO4 (mg/L) Analysis Run 10/22/2023 12:54 PM View: Descriptive

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-7	BY-AP-MW-7V	BY-AP-MW-8	BY-AP-MW-8V	BY-AP-MW-9	BY-UP-MW-1 (bg)	BY-UP-MW-2 (bg)	BY-UP-MW-3 (bg)	BY-UP-MW-4 (bg)
2/23/2016						8.59	7.2	7.44	7.04
3/1/2016	0.3 (J)		<5		<5				
4/19/2016						8.27	7.22	7.66	6.74
4/20/2016	0.514 (J)		<5		<5				
6/6/2016						8.66			7.04
6/7/2016	0.971 (J)		0.504 (J)				7.92	8.16	
6/8/2016					0.51 (J)				
8/30/2016			<5			9.74	8.17	8.43	7.57
8/31/2016	0.445 (J)				<5				
10/18/2016			<5			10.2	7.99	8.47	6.62
10/19/2016	0.366 (J)				<5				
3/20/2017						8.3	6.1	7.4	7
3/22/2017	<5		<5		<5				
5/2/2017						6.6	5	6.3	5.6
5/3/2017	<5		2.7 (J)		2.7 (J)				
6/6/2017						7.6	5.3	7.1	6.6
6/7/2017	<5		<5		<5				
9/12/2017									7.2
9/13/2017						8.4	4.9 (J)	7.3	
9/14/2017	<5		<5		<5				
5/1/2018							4.2 (J)	6.9	5.9
5/2/2018	<5		<5		<5	5.9			
8/28/2018					<5				
8/29/2018			<5						
11/26/2018									5.1
11/27/2018			<5			22	3.7 (J)	6.5	
11/28/2018	<5				1.4 (J)				
1/9/2019		3.69		1.74					
5/28/2019									7.1
5/29/2019	2.77		6.01			23.3	5.94	7.81	
5/30/2019					5.91				
9/30/2019	2.51		5.29		3.77				
10/1/2019		2		7					
10/2/2019						17.5	6.04	7.62	6.88
3/30/2020	4.78	9.65	33.1	75.8					
3/31/2020					43.5 (o)	24.3	6.83	7.98	10.8
9/2/2020	3.59	6.7	15.8	24	21.9				
9/8/2020									6.52
9/9/2020						16.5	6.08	7.13	
5/11/2021			35.4				7.92	7.73	6.8
5/12/2021						16.3			
5/18/2021	4.6	5.53		19.6	27.7				
10/18/2021								7.36	6.58
10/19/2021						15.5	7.48		
10/26/2021			25.7	58.2					
10/27/2021	5.17	5.31			6.33				
5/23/2022				8.35					
5/24/2022	7.14	6.06	81.3 (o)		5.76				
5/31/2022						12.8	8.09	7.02	7.94
10/31/2022	33.8 (o)	6.09		10	11.4				
11/1/2022						11.3	7.11	6.83	4.59
11/2/2022			7.58						

Time Series

Constituent: Sulfate as SO4 (mg/L) Analysis Run 10/22/2023 12:54 PM View: Descriptive
Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-7	BY-AP-MW-7V	BY-AP-MW-8	BY-AP-MW-8V	BY-AP-MW-9	BY-UP-MW-1 (bg)	BY-UP-MW-2 (bg)	BY-UP-MW-3 (bg)	BY-UP-MW-4 (bg)
4/3/2023	14.8	5.29	32.099998	21.700001					
4/4/2023					25.299999				
4/12/2023						11.8	8.54	7.59	5.93
8/7/2023	25.9	54.7	38.599998	50.700001	30.4				
8/16/2023						9.38	8.28	7.26	7.05

Time Series

Constituent: TDS (mg/L) Analysis Run 10/22/2023 12:54 PM View: Descriptive

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-1	BY-AP-MW-10	BY-AP-MW-10V	BY-AP-MW-11	BY-AP-MW-12	BY-AP-MW-12V	BY-AP-MW-13	BY-AP-MW-13V	BY-AP-MW-14
3/1/2016		326		395					
3/2/2016	426				351		319		266
4/19/2016	442								
4/20/2016		366		376	353		305		311
6/8/2016	461	314		324	330		287		353
8/30/2016									328
8/31/2016	456	368		367	354		295		
10/18/2016									310
10/19/2016	444	381		367	354		305		
1/31/2017	422						325		312
2/1/2017		342		391	360				
5/2/2017	442								300
5/3/2017		369		373	341		306		
6/6/2017	433								335
6/7/2017		340		367	337		320		
9/13/2017	456			378	359		332		339
9/14/2017		391							
5/1/2018	416								
5/2/2018		343		330	310		320		301
8/28/2018	420	375							
8/29/2018				352	307		312		318
11/27/2018									295
11/28/2018	408	378		357	336		304		
1/8/2019			462			348			
5/29/2019	403			367	321		307		318
5/30/2019		377							
9/30/2019		361		399					
10/1/2019	430		393		344		290		317
10/2/2019						321			
3/30/2020	419								
3/31/2020		387	413	393	331	328	290		317
4/1/2020									
9/1/2020	454	392	403	399	356	338	285		
9/2/2020								361	327
5/11/2021		391							
5/18/2021	450		401		332	329			
5/19/2021				422			300	362	
5/25/2021									318
10/26/2021							280	355	
10/27/2021		373	400						327
11/1/2021	480				349	352			
11/2/2021				390					
5/23/2022				404	345	352			
5/24/2022	464	398	403				257		
5/25/2022								343	328
11/1/2022			452	419	363	365	313	340	347
11/2/2022	404	344							
4/3/2023	400	370	442						
4/4/2023				392	334	343	220	338	
4/5/2023									316
8/7/2023		359	404	409					
8/8/2023	393				351	327			

Time Series

Constituent: TDS (mg/L) Analysis Run 10/22/2023 12:54 PM View: Descriptive
Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-1	BY-AP-MW-10	BY-AP-MW-10V	BY-AP-MW-11	BY-AP-MW-12	BY-AP-MW-12V	BY-AP-MW-13	BY-AP-MW-13V	BY-AP-MW-14
8/9/2023						309		375	336

Time Series

Constituent: TDS (mg/L) Analysis Run 10/22/2023 12:54 PM View: Descriptive
Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-14V	BY-AP-MW-15
3/1/2016		
3/2/2016		182
4/19/2016		151
4/20/2016		
6/8/2016		168
8/30/2016		
8/31/2016		188
10/18/2016		
10/19/2016		180
1/31/2017		166
2/1/2017		
5/2/2017		183
5/3/2017		
6/6/2017		187
6/7/2017		
9/13/2017		202
9/14/2017		
5/1/2018		197
5/2/2018		
8/28/2018		
8/29/2018		192
11/27/2018		190
11/28/2018		
1/8/2019		
5/29/2019		198
5/30/2019		
9/30/2019		
10/1/2019		236
10/2/2019		
3/30/2020		
3/31/2020		
4/1/2020		231
9/1/2020		
9/2/2020	498	208
5/11/2021		279
5/18/2021		
5/19/2021		
5/25/2021	520	
10/26/2021	474	269
10/27/2021		
11/1/2021		
11/2/2021		
5/23/2022		
5/24/2022	508	
5/25/2022		255
11/1/2022	464	278
11/2/2022		
4/3/2023		285
4/4/2023	464	
4/5/2023		
8/7/2023		
8/8/2023		332

Time Series

Constituent: TDS (mg/L) Analysis Run 10/22/2023 12:54 PM View: Descriptive
Plant Barry Client: Southern Company Data: Barry Ash Pond

8/9/2023	BY-AP-MW-14V	BY-AP-MW-15
	488	

Time Series

Constituent: TDS (mg/L) Analysis Run 10/22/2023 12:55 PM View: Descriptive
Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-20H	BY-AP-MW-20V
3/2/2016		
4/19/2016		
6/8/2016		
8/31/2016		
10/19/2016		
1/31/2017		
5/2/2017		
6/6/2017		
9/12/2017		
9/13/2017		
5/1/2018		
8/28/2018		
8/29/2018		
11/27/2018		
1/8/2019		
3/20/2019		
5/29/2019		
7/31/2019	481	
10/1/2019	470	
10/2/2019		
3/30/2020		
3/31/2020		
4/1/2020	319	
8/31/2020		
9/1/2020	479	308
9/2/2020		
5/17/2021		
5/18/2021		
5/19/2021	479	271
5/25/2021		
10/25/2021		
10/26/2021	493	
11/1/2021		282
5/23/2022	462	
5/24/2022		296
5/25/2022		
10/31/2022	482	
11/1/2022		275
11/2/2022		
4/3/2023		
4/4/2023		
4/5/2023		
4/24/2023	473	161
8/7/2023		
8/8/2023	468	1040
8/9/2023		

Time Series

Constituent: TDS (mg/L) Analysis Run 10/22/2023 12:55 PM View: Descriptive

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-22H	BY-AP-MW-23H	BY-AP-MW-23V	BY-AP-MW-24H	BY-AP-MW-25H	BY-AP-MW-25V	BY-AP-MW-3	BY-AP-MW-4	BY-AP-MW-5
3/1/2016								27.3	273
3/2/2016							27.3		
4/19/2016							33.3	38	
4/20/2016									269
6/7/2016							44	48.7	272
8/30/2016								32.7	244
8/31/2016							29.3		
10/18/2016									238
10/19/2016							29.3	36	
1/31/2017							36.7	40.7	266
5/2/2017							28	30.7	
5/3/2017									259
6/6/2017							36.7	41.3	
6/7/2017									255
9/12/2017							35.3	34.7	
9/14/2017									276
5/1/2018							34.7	39.3	
5/2/2018									247
8/28/2018							34	26	
8/29/2018									263
11/27/2018							41.3	32	248
11/28/2018									
1/8/2019				504					
5/29/2019							40	39.3	259
7/31/2019	345	241							
10/1/2019	346	261					36.7	32	243
10/2/2019				430					
3/31/2020				418			37.3	42.7	243
4/1/2020		105							
9/1/2020	362	271	391				39.3	36	253
9/2/2020				471	36	34			
5/17/2021			386						
5/18/2021							38	47.3	
5/24/2021		244			39.3	26.7			
5/25/2021	378			420					
10/26/2021	362	252	362	448					
11/1/2021							35.3	32	
11/2/2021					34.7	36			297
5/24/2022	372			486					
5/25/2022		236	359		37.3	29.3	50.7	48.7	252
10/31/2022	363				40			71.300003	194
11/1/2022		228	858			32	40		
11/2/2022				446					
4/3/2023				462	40	29.299999			
4/4/2023		216	1370				43.299999	76.699997	151
4/24/2023	355								
8/7/2023									140
8/8/2023	390	221	1460	517	44	29.299999			
8/9/2023							67.300003	81.300003	

Time Series

Constituent: TDS (mg/L) Analysis Run 10/22/2023 12:55 PM View: Descriptive
Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-5V	BY-AP-MW-6
3/1/2016		45.3
3/2/2016		
4/19/2016		46
4/20/2016		
6/7/2016		46
8/30/2016		30
8/31/2016		
10/18/2016		
10/19/2016		37.3
1/31/2017		43.3
5/2/2017		
5/3/2017		44.7
6/6/2017		
6/7/2017		45.3
9/12/2017		
9/14/2017		48.7
5/1/2018		
5/2/2018		44
8/28/2018		
8/29/2018		50
11/27/2018		
11/28/2018		50.7
1/8/2019	76.7	
5/29/2019		48.7
7/31/2019		
10/1/2019		38
10/2/2019	98	
3/31/2020	81.3	42
4/1/2020		
9/1/2020	94	
9/2/2020		37.3
5/17/2021		46.7
5/18/2021		
5/24/2021		
5/25/2021		
10/26/2021		
11/1/2021		
11/2/2021	77.3	38
5/24/2022		
5/25/2022	75.3	40.7
10/31/2022	115	46
11/1/2022		
11/2/2022		
4/3/2023		
4/4/2023	120	40
4/24/2023		
8/7/2023	135	
8/8/2023		
8/9/2023		47.299999

Time Series

Constituent: TDS (mg/L) Analysis Run 10/22/2023 12:55 PM View: Descriptive

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-7	BY-AP-MW-7V	BY-AP-MW-8	BY-AP-MW-8V	BY-AP-MW-9	BY-UP-MW-1 (bg)	BY-UP-MW-2 (bg)	BY-UP-MW-3 (bg)	BY-UP-MW-4 (bg)
2/23/2016						26.7	30.7	40	<25
3/1/2016	129		309		314				
4/19/2016						<25	<25	32	<25
4/20/2016	128		324		338				
6/6/2016						32.7			28.7
6/7/2016	140		314				35.3	38.7	
6/8/2016					288				
8/30/2016			308			33.3	27.3	31.3	25.3
8/31/2016	112				334				
10/18/2016			295			27.3	<25	26.7	<25
10/19/2016	134				333				
1/31/2017	134		303			32	32.7	30	26
2/1/2017					330				
5/2/2017						31.3	30.7	30.7	<25
5/3/2017	127		300		338				
6/6/2017						35.3	34.7	32.7	42.7
6/7/2017	134		284		300				
9/12/2017									26.7
9/13/2017						36.7	39.3	38	
9/14/2017	141		325		350				
5/1/2018							42	35.3	34.7
5/2/2018	133		306		333	34			
8/28/2018					324				
8/29/2018			287						
11/26/2018									32.7
11/27/2018			303			50.7	31.3	36	
11/28/2018	138				330				
1/9/2019		240		276					
5/28/2019									31.3
5/29/2019	132		291			58	40	37.3	
5/30/2019					315				
9/30/2019	137		293		319				
10/1/2019		182		324					
10/2/2019						46	41.3	36.7	36
3/30/2020	135	204	310	328					
3/31/2020					330	53.3	40	39.3	36.7
9/2/2020	129	168	298	318	301				
9/8/2020									39.3
9/9/2020						42	40.7	42.7	
5/11/2021			318				35.3	44	46.7
5/12/2021						40.7			
5/18/2021	175	192		331	314				
10/18/2021								36	36
10/19/2021						40	36		
10/26/2021			332	350					
10/27/2021	123	169			302				
5/23/2022				331					
5/24/2022	148	228	303		268				
5/31/2022						32	30.7	35.3	36.7
10/31/2022	291	357		328	329				
11/1/2022						33.299999	36	36	31.299999
11/2/2022			293						

Time Series

Constituent: TDS (mg/L) Analysis Run 10/22/2023 12:55 PM View: Descriptive
Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-7	BY-AP-MW-7V	BY-AP-MW-8	BY-AP-MW-8V	BY-AP-MW-9	BY-UP-MW-1 (bg)	BY-UP-MW-2 (bg)	BY-UP-MW-3 (bg)	BY-UP-MW-4 (bg)
4/3/2023	198	311	107	616					
4/4/2023					317				
4/12/2023						<25	27.299999	30.700001	32
8/7/2023	203	241	90	200	224				
8/16/2023						29.299999	30	32.700001	35.299999

Time Series

Constituent: Thallium (mg/L) Analysis Run 10/22/2023 12:55 PM View: Descriptive

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-1	BY-AP-MW-10	BY-AP-MW-10V	BY-AP-MW-11	BY-AP-MW-12	BY-AP-MW-12V	BY-AP-MW-13	BY-AP-MW-13V	BY-AP-MW-14
3/1/2016		<0.000203		<0.000203					
3/2/2016	<0.000203				<0.000203		<0.000203		<0.000203
4/19/2016	<0.000203								
4/20/2016		<0.000203		<0.000203	<0.000203		<0.000203		<0.000203
6/8/2016	<0.000203	<0.000203		<0.000203	<0.000203		<0.000203		<0.000203
8/30/2016									<0.000203
8/31/2016	<0.000203	<0.000203		<0.000203	<0.000203		<0.000203		
10/18/2016									<0.000203
10/19/2016	<0.000203	<0.000203		<0.000203	<0.000203		<0.000203		
1/31/2017	<0.000203						<0.000203		<0.000203
2/1/2017		<0.000203		<0.000203	<0.000203				
5/2/2017	<0.000203								<0.000203
5/3/2017		<0.000203		<0.000203	<0.000203		<0.000203		
6/6/2017	<0.000203								<0.000203
6/7/2017		<0.000203		<0.000203	<0.000203		0.000878 (J)		
1/22/2018							<0.000203		
1/23/2018		<0.000203		<0.000203	<0.000203				<0.000203
1/24/2018	<0.000203								
5/1/2018	<0.000203								
5/2/2018		<0.000203		<0.000203	<0.000203		<0.000203		<0.000203
11/27/2018									<0.000203
11/28/2018	<0.000203	<0.000203		<0.000203	<0.000203		<0.000203		
1/8/2019			<0.000203			<0.000203			
5/29/2019	<0.000203			<0.000203	<0.000203		<0.000203		<0.000203
5/30/2019		<0.000203							
9/30/2019		<0.000203		<0.000203					
10/1/2019	<0.000203		<0.000203		<0.000203		<0.000203		<0.000203
10/2/2019						<0.000203			
3/30/2020	<0.000203								
3/31/2020		<0.000203	<0.000203	<0.000203	<0.000203	<0.000203	<0.000203		<0.000203
4/1/2020									
9/1/2020	<0.000203	<0.000203	<0.000203	<0.000203	<0.000203	<0.000203	<0.000203		
9/2/2020								<0.000203	<0.000203
5/11/2021		<0.000203							
5/18/2021	<0.000203		<0.000203		<0.000203	<0.000203			
5/19/2021				<0.000203			<0.000203	<0.000203	
5/25/2021									<0.000203
10/26/2021							<0.000203	<0.000203	
10/27/2021		<0.000203	<0.000203						<0.000203
11/1/2021	<0.000203				<0.000203	<0.000203			
11/2/2021				<0.000203					
5/23/2022				<0.000203	<0.000203	<0.000203			
5/24/2022	<0.000203	<0.000203	<0.000203				<0.000203		
5/25/2022								<0.000203	<0.000203
11/1/2022			<0.000203	<0.000203	<0.000203	<0.000203	<0.000203	<0.000203	<0.000203
11/2/2022	<0.000203	<0.000203							
4/3/2023	<0.000203	<0.000203	<0.000203						
4/4/2023				<0.000203	<0.000203	<0.000203	<0.000203	<0.000203	
4/5/2023									<0.000203
8/7/2023		<0.000203	<0.000203	<0.000203					
8/8/2023	<0.000203				<0.000203	<0.000203			
8/9/2023							<0.000203	<0.000203	<0.000203

Time Series

Constituent: Thallium (mg/L) Analysis Run 10/22/2023 12:55 PM View: Descriptive
Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-14V	BY-AP-MW-15
3/1/2016		
3/2/2016		<0.0002
4/19/2016		<0.0002
4/20/2016		
6/8/2016		<0.0002
8/30/2016		
8/31/2016		<0.0002
10/18/2016		
10/19/2016		<0.0002
1/31/2017		<0.0002
2/1/2017		
5/2/2017		<0.0002
5/3/2017		
6/6/2017		<0.0002
6/7/2017		
1/22/2018		<0.0002
1/23/2018		
1/24/2018		
5/1/2018		<0.0002
5/2/2018		
11/27/2018		<0.0002
11/28/2018		
1/8/2019		
5/29/2019		<0.0002
5/30/2019		
9/30/2019		
10/1/2019		<0.0002
10/2/2019		
3/30/2020		
3/31/2020		
4/1/2020		<0.0002
9/1/2020		
9/2/2020	<0.000203	<0.0002
5/11/2021		<0.0002
5/18/2021		
5/19/2021		
5/25/2021	<0.000203	
10/26/2021	<0.000203	<0.0002
10/27/2021		
11/1/2021		
11/2/2021		
5/23/2022		
5/24/2022	<0.000203	
5/25/2022		<0.0002
11/1/2022	<0.000203	<0.0002
11/2/2022		
4/3/2023		<0.0002
4/4/2023	<0.000203	
4/5/2023		
8/7/2023		
8/8/2023		<0.0002
8/9/2023	<0.000203	

Time Series

Constituent: Thallium (mg/L) Analysis Run 10/22/2023 12:55 PM View: Descriptive

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-15V	BY-AP-MW-16	BY-AP-MW-16V	BY-AP-MW-17H	BY-AP-MW-17V	BY-AP-MW-18H	BY-AP-MW-19H	BY-AP-MW-1V	BY-AP-MW-2
3/2/2016		<0.000203							<0.000203
4/19/2016		<0.000203							<0.000203
6/8/2016		<0.000203							<0.000203
8/31/2016		<0.000203							<0.000203
10/19/2016		<0.000203							<0.000203
1/31/2017		<0.000203							<0.000203
5/2/2017		<0.000203							<0.000203
6/6/2017		<0.000203							<0.000203
1/23/2018		<0.000203							<0.000203
1/24/2018									<0.000203
5/1/2018		<0.000203							<0.000203
11/27/2018		<0.000203							<0.000203
1/8/2019								<0.000203	
3/20/2019						<0.000203			
5/29/2019		<0.000203							<0.000203
7/31/2019	<0.001			<0.000203			<0.000203		
10/1/2019	<0.001	<0.000203				<0.000203	<0.000203		<0.000203
10/2/2019				<0.000203				<0.000203	
3/30/2020								<0.000203	
3/31/2020		<0.000203							<0.000203
4/1/2020				<0.000203		<0.000203			
8/31/2020									<0.000203
9/1/2020	<0.001			<0.000203	<0.0002	<0.000203	<0.000203	<0.000203	
9/2/2020		<0.000203	<0.001						
5/17/2021				<0.000203					
5/18/2021					<0.0002			<0.000203	<0.000203
5/19/2021		<0.000203	9.13E-05 (J)			<0.000203			
5/25/2021	8.49E-05 (J)						<0.000203		
10/25/2021				<0.000203	<0.0002	<0.000203	<0.000203		
10/26/2021	7E-05 (J)		0.0001 (J)						
11/1/2021		<0.000203						<0.000203	<0.000203
5/23/2022						<0.000203			
5/24/2022	0.00014 (J)						<0.000203	<0.000203	<0.000203
5/25/2022		<0.000203	9E-05 (J)	<0.000203	0.0001 (J)				
10/31/2022				<0.000203	0.000166 (J)	<0.000203	<0.000203		
11/1/2022		<0.000203	0.000112 (J)					<0.000203	
11/2/2022	0.000133 (J)								<0.000203
4/3/2023									<0.000203
4/4/2023			8.2E-05 (J)	<0.000203	0.000362			<0.000203	
4/5/2023		<0.000203				<0.000203			
4/24/2023	0.000107 (J)						<0.000203		
8/7/2023			7.6E-05 (J)						
8/8/2023	0.000114 (J)	<0.000203		<0.000203	0.000166 (J)	<0.000203	<0.000203		<0.000203
8/9/2023								<0.000203	

Time Series

Constituent: Thallium (mg/L) Analysis Run 10/22/2023 12:55 PM View: Descriptive
Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-20H	BY-AP-MW-20V
3/2/2016		
4/19/2016		
6/8/2016		
8/31/2016		
10/19/2016		
1/31/2017		
5/2/2017		
6/6/2017		
1/23/2018		
1/24/2018		
5/1/2018		
11/27/2018		
1/8/2019		
3/20/2019		
5/29/2019		
7/31/2019	<0.000203	
10/1/2019	<0.000203	
10/2/2019		
3/30/2020		
3/31/2020		
4/1/2020	<0.000203	
8/31/2020		
9/1/2020	<0.000203	<0.000203
9/2/2020		
5/17/2021		
5/18/2021		
5/19/2021	<0.000203	<0.000203
5/25/2021		
10/25/2021		
10/26/2021	<0.000203	
11/1/2021		<0.000203
5/23/2022	<0.000203	
5/24/2022		<0.000203
5/25/2022		
10/31/2022	<0.000203	
11/1/2022		<0.000203
11/2/2022		
4/3/2023		
4/4/2023		
4/5/2023		
4/24/2023	<0.000203	<0.000203
8/7/2023		
8/8/2023	<0.000203	<0.000203
8/9/2023		

Time Series

Constituent: Thallium (mg/L) Analysis Run 10/22/2023 12:55 PM View: Descriptive

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-22H	BY-AP-MW-23H	BY-AP-MW-23V	BY-AP-MW-24H	BY-AP-MW-25H	BY-AP-MW-25V	BY-AP-MW-3	BY-AP-MW-4	BY-AP-MW-5
3/1/2016								<0.000203	<0.000203
3/2/2016							<0.000203		
4/19/2016							<0.000203	<0.000203	
4/20/2016									<0.000203
6/7/2016							<0.000203	<0.000203	<0.000203
8/30/2016								<0.000203	<0.000203
8/31/2016							<0.000203		
10/18/2016									<0.000203
10/19/2016							<0.000203	<0.000203	
1/31/2017							<0.000203	<0.000203	<0.000203
5/2/2017							<0.000203	<0.000203	
5/3/2017									<0.000203
6/6/2017							<0.000203	<0.000203	
6/7/2017									<0.000203
1/24/2018							<0.000203	<0.000203	<0.000203
5/1/2018							<0.000203	<0.000203	
5/2/2018									<0.000203
11/27/2018							<0.000203	<0.000203	<0.000203
11/28/2018									
1/8/2019				<0.000203					
5/29/2019							<0.000203	<0.000203	<0.000203
7/31/2019	<0.000203	<0.000203							
10/1/2019	<0.000203	<0.000203					<0.000203	<0.000203	<0.000203
10/2/2019				<0.000203					
3/31/2020				<0.000203			<0.000203	<0.000203	<0.000203
4/1/2020		<0.000203							
9/1/2020	<0.000203	<0.000203	<0.000203				<0.000203	<0.000203	<0.000203
9/2/2020				<0.000203	<0.000203	<0.000203			
5/17/2021			<0.000203						
5/18/2021							<0.000203	<0.000203	
5/24/2021		<0.000203			<0.000203	<0.000203			
5/25/2021	<0.000203			<0.000203					
10/26/2021	<0.000203	<0.000203	<0.000203	<0.000203					
11/1/2021							<0.000203	<0.000203	
11/2/2021					<0.000203	<0.000203			<0.000203
5/24/2022	<0.000203			<0.000203					
5/25/2022		<0.000203	<0.000203		<0.000203	<0.000203	<0.000203	<0.000203	<0.000203
10/31/2022	<0.000203				<0.000203		<0.000203	<0.000203	<0.000203
11/1/2022		<0.000203	<0.000203				<0.000203	<0.000203	
11/2/2022				<0.000203					
4/3/2023				<0.000203	<0.000203	<0.000203			
4/4/2023		<0.000203	<0.000203				<0.000203	<0.000203	<0.000203
4/24/2023	<0.000203								
8/7/2023									<0.000203
8/8/2023	<0.000203	<0.000203	<0.000203	<0.000203	<0.000203	<0.000203			
8/9/2023							<0.000203	<0.000203	

Time Series

Constituent: Thallium (mg/L) Analysis Run 10/22/2023 12:55 PM View: Descriptive
Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-5V	BY-AP-MW-6
3/1/2016		<0.000203
3/2/2016		
4/19/2016		<0.000203
4/20/2016		
6/7/2016		<0.000203
8/30/2016		<0.000203
8/31/2016		
10/18/2016		
10/19/2016		<0.000203
1/31/2017		<0.000203
5/2/2017		
5/3/2017		<0.000203
6/6/2017		
6/7/2017		<0.000203
1/24/2018		<0.000203
5/1/2018		
5/2/2018		<0.000203
11/27/2018		
11/28/2018		<0.000203
1/8/2019	<0.000203	
5/29/2019		<0.000203
7/31/2019		
10/1/2019		<0.000203
10/2/2019	<0.000203	
3/31/2020	<0.000203	<0.000203
4/1/2020		
9/1/2020	<0.000203	
9/2/2020		<0.000203
5/17/2021		<0.000203
5/18/2021		
5/24/2021		
5/25/2021		
10/26/2021		
11/1/2021		
11/2/2021	<0.000203	<0.000203
5/24/2022		
5/25/2022	<0.000203	<0.000203
10/31/2022	<0.000203	<0.000203
11/1/2022		
11/2/2022		
4/3/2023		
4/4/2023	<0.000203	<0.000203
4/24/2023		
8/7/2023	<0.000203	
8/8/2023		
8/9/2023		<0.000203

Time Series

Constituent: Thallium (mg/L) Analysis Run 10/22/2023 12:55 PM View: Descriptive

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-7	BY-AP-MW-7V	BY-AP-MW-8	BY-AP-MW-8V	BY-AP-MW-9	BY-UP-MW-1 (bg)	BY-UP-MW-2 (bg)	BY-UP-MW-3 (bg)	BY-UP-MW-4 (bg)
2/23/2016						<0.000203	<0.000203	<0.000203	<0.000203
3/1/2016	<0.000203		<0.000203		<0.000203				
4/19/2016						<0.000203	<0.000203	<0.000203	<0.000203
4/20/2016	<0.000203		<0.000203		<0.000203				
6/6/2016						<0.000203			<0.000203
6/7/2016	<0.000203		<0.000203				<0.000203	<0.000203	
6/8/2016					<0.000203				
8/30/2016			<0.000203			<0.000203	<0.000203	<0.000203	<0.000203
8/31/2016	<0.000203				<0.000203				
10/18/2016			<0.000203			<0.000203	<0.000203	<0.000203	<0.000203
10/19/2016	<0.000203				<0.000203				
1/31/2017	<0.000203		<0.000203			<0.000203	<0.000203	<0.000203	<0.000203
2/1/2017					<0.000203				
5/2/2017						<0.000203	<0.000203	<0.000203	<0.000203
5/3/2017	<0.000203		<0.000203		<0.000203				
6/6/2017						<0.000203	<0.000203	<0.000203	<0.000203
6/7/2017	<0.000203		<0.000203		<0.000203				
1/23/2018					<0.000203	<0.000203	<0.000203	<0.000203	<0.000203
1/24/2018	<0.000203		<0.000203						
5/1/2018							<0.000203	<0.000203	<0.000203
5/2/2018	<0.000203		<0.000203		<0.000203	<0.000203			
11/26/2018									<0.000203
11/27/2018			<0.000203			<0.000203	<0.000203	<0.000203	
11/28/2018	<0.000203				<0.000203				
1/9/2019		<0.000203		<0.000203					
5/28/2019									<0.000203
5/29/2019	<0.000203		<0.000203			<0.000203	<0.000203	<0.000203	
5/30/2019					<0.000203				
9/30/2019	<0.000203		<0.000203		<0.000203				
10/1/2019		<0.000203		<0.000203					
10/2/2019						<0.000203	<0.000203	<0.000203	<0.000203
3/30/2020	<0.000203	<0.000203	<0.000203	<0.000203					
3/31/2020					<0.000203	<0.000203	<0.000203	<0.000203	<0.000203
9/2/2020	<0.000203	<0.000203	<0.000203	<0.000203	<0.000203				
9/8/2020									<0.000203
9/9/2020						<0.000203	<0.000203	<0.000203	
5/11/2021			<0.000203				<0.000203	<0.000203	<0.000203
5/12/2021						<0.000203			
5/18/2021	<0.000203	<0.000203		<0.000203	<0.000203				
10/18/2021								<0.000203	<0.000203
10/19/2021						<0.000203	<0.000203		
10/26/2021			<0.000203	<0.000203					
10/27/2021	<0.000203	<0.000203			<0.000203				
5/23/2022				<0.000203					
5/24/2022	<0.000203	<0.000203	<0.000203		<0.000203				
5/31/2022						<0.000203	<0.000203	<0.000203	<0.000203
10/31/2022	<0.000203	<0.000203		<0.000203	<0.000203				
11/1/2022						<0.000203	<0.000203	<0.000203	<0.000203
11/2/2022			<0.000203						
4/3/2023	<0.000203	<0.000203	<0.000203	<0.000203					
4/4/2023					<0.000203				
4/12/2023						<0.000203	<0.000203	<0.000203	<0.000203

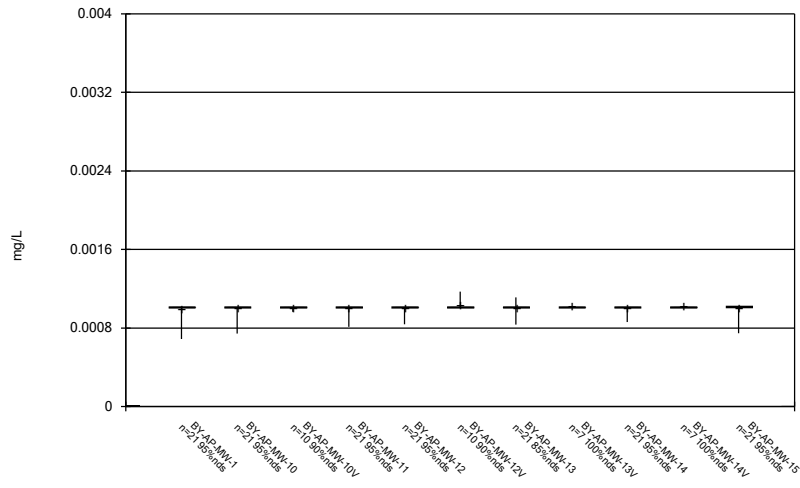
Time Series

Constituent: Thallium (mg/L) Analysis Run 10/22/2023 12:55 PM View: Descriptive
Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-7	BY-AP-MW-7V	BY-AP-MW-8	BY-AP-MW-8V	BY-AP-MW-9	BY-UP-MW-1 (bg)	BY-UP-MW-2 (bg)	BY-UP-MW-3 (bg)	BY-UP-MW-4 (bg)
8/7/2023	<0.000203	<0.000203	<0.000203	<0.000203	<0.000203				
8/16/2023						<0.000203	<0.000203	<0.000203	<0.000203

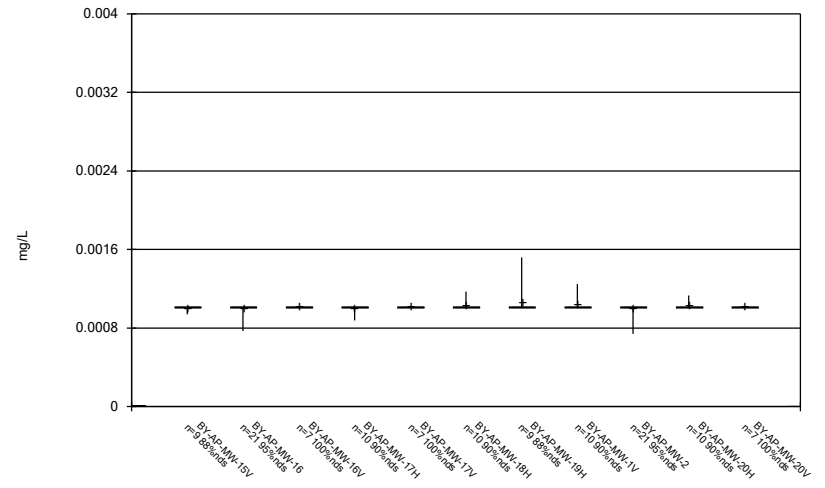
FIGURE B.

Box & Whiskers Plot



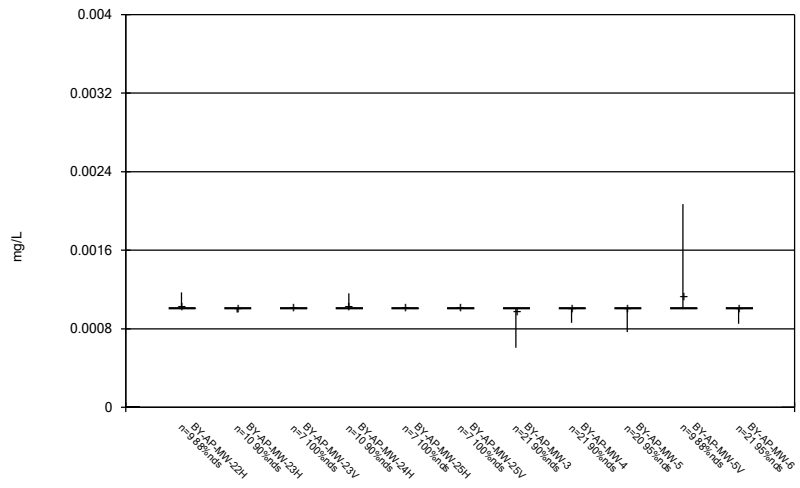
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 Plant Barry Client: Southern Company Data: Barry Ash Pond

Box & Whiskers Plot



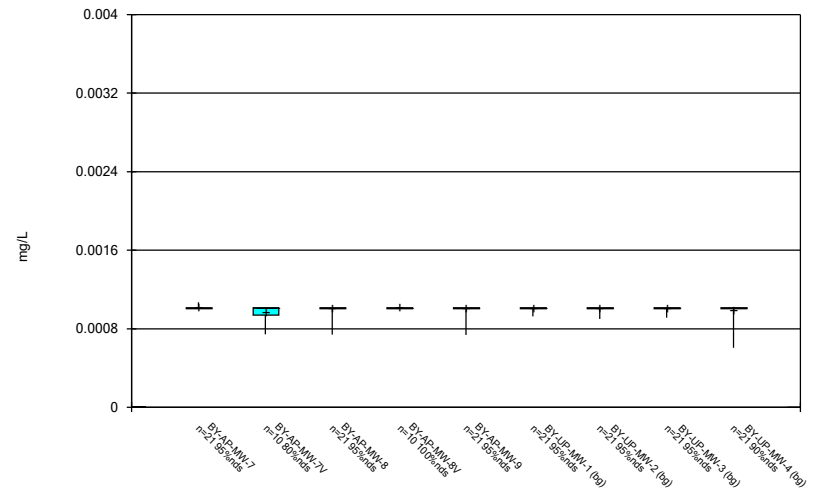
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 Plant Barry Client: Southern Company Data: Barry Ash Pond

Box & Whiskers Plot



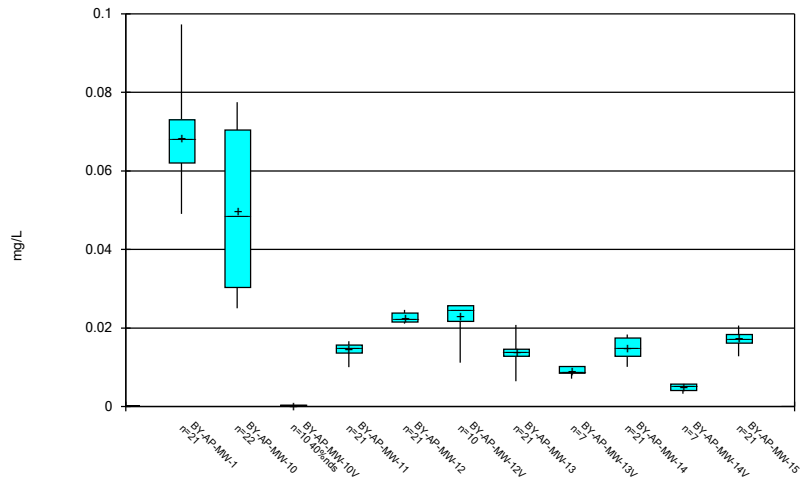
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 Plant Barry Client: Southern Company Data: Barry Ash Pond

Box & Whiskers Plot



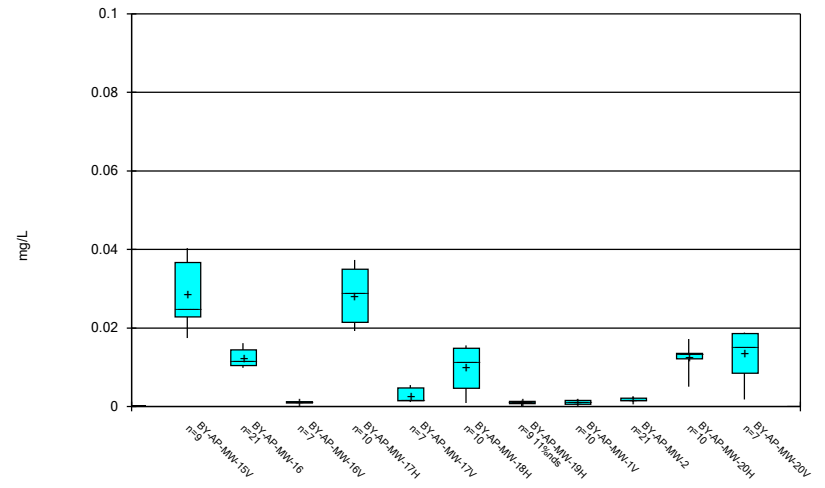
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 Plant Barry Client: Southern Company Data: Barry Ash Pond

Box & Whiskers Plot



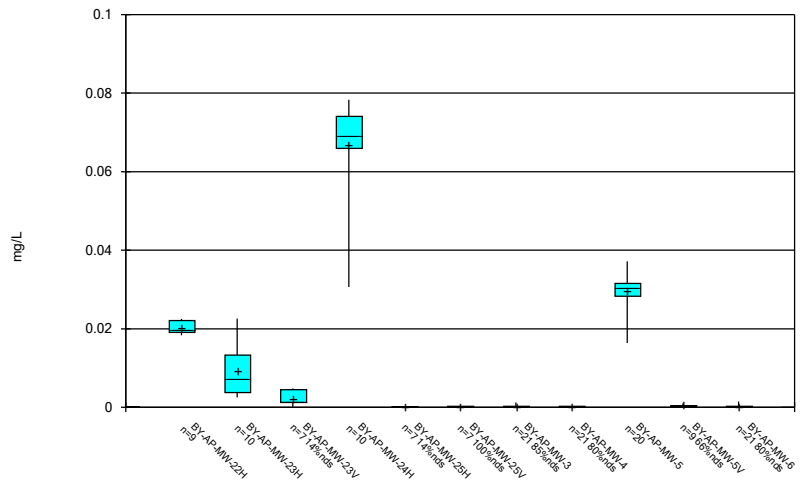
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 Plant Barry Client: Southern Company Data: Barry Ash Pond

Box & Whiskers Plot



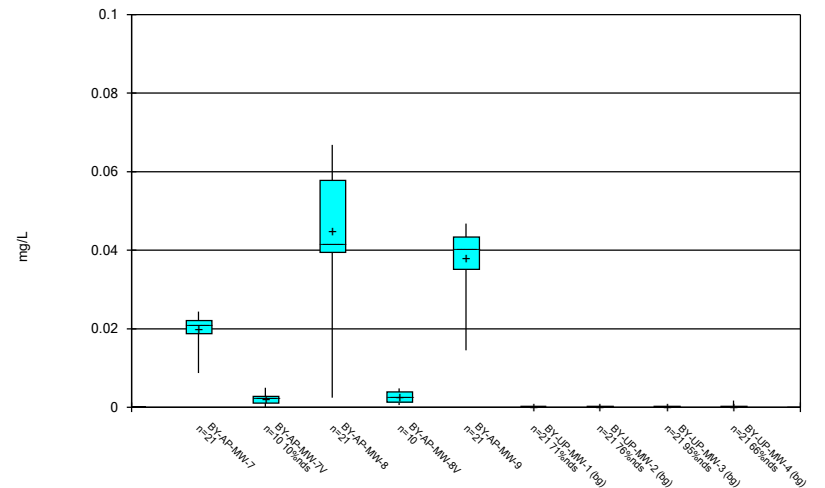
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 Plant Barry Client: Southern Company Data: Barry Ash Pond

Box & Whiskers Plot



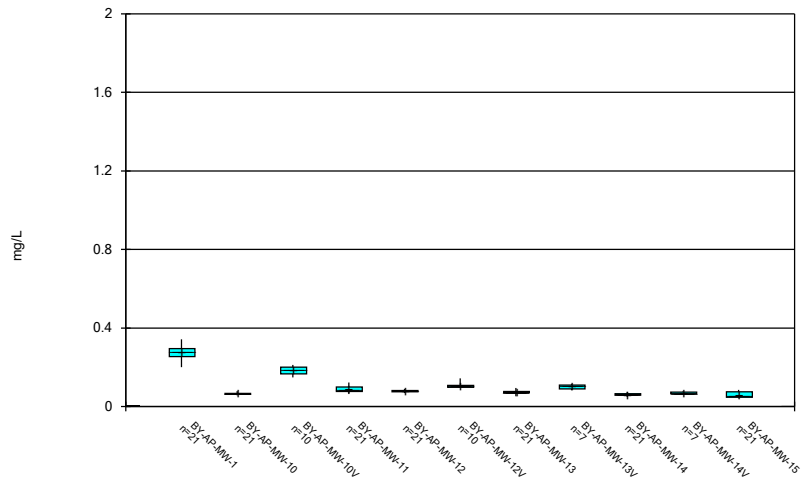
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 Plant Barry Client: Southern Company Data: Barry Ash Pond

Box & Whiskers Plot



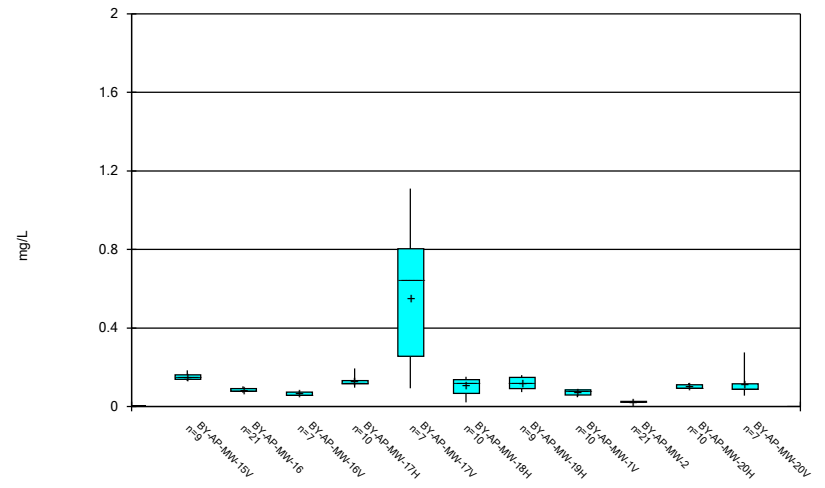
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 Plant Barry Client: Southern Company Data: Barry Ash Pond

Box & Whiskers Plot



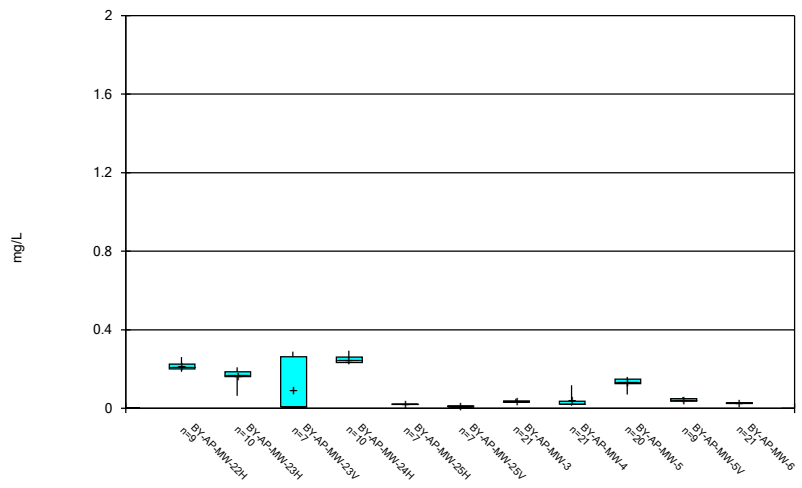
Constituent: Barium Analysis Run 10/22/2023 12:58 PM View: Descriptive
 Plant Barry Client: Southern Company Data: Barry Ash Pond

Box & Whiskers Plot



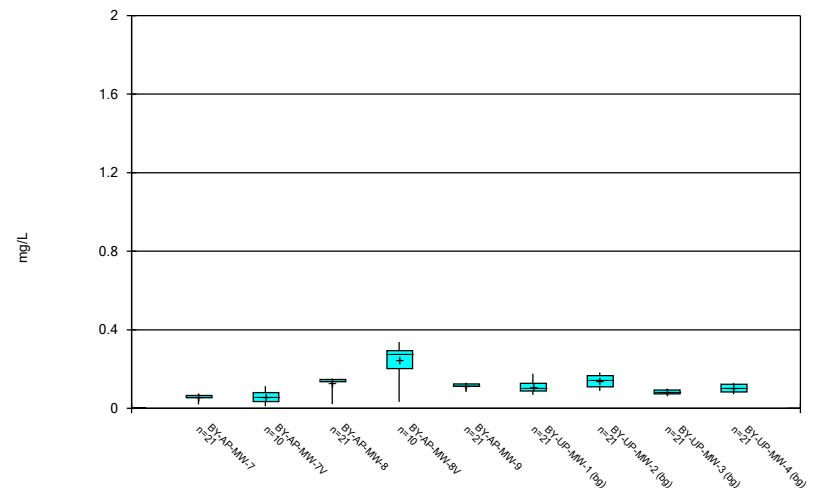
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 Plant Barry Client: Southern Company Data: Barry Ash Pond

Box & Whiskers Plot



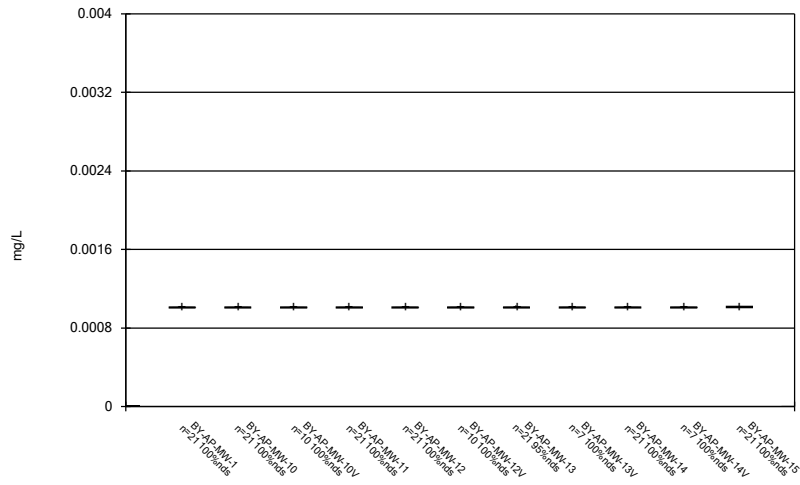
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 Plant Barry Client: Southern Company Data: Barry Ash Pond

Box & Whiskers Plot



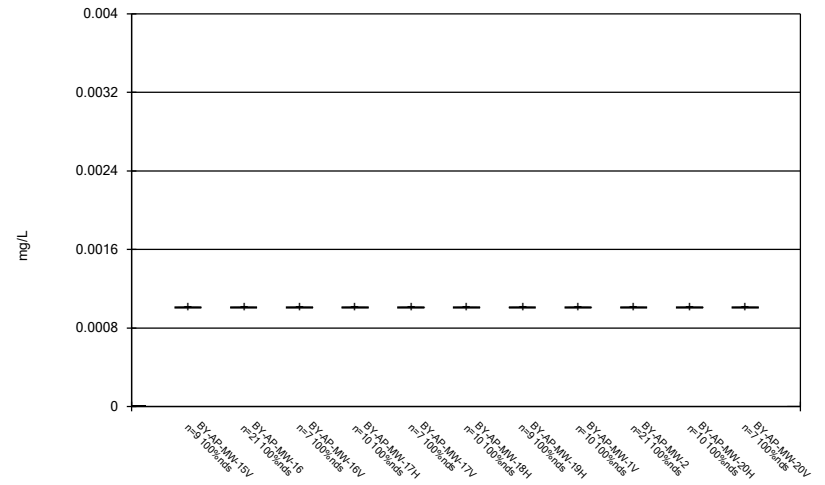
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 Plant Barry Client: Southern Company Data: Barry Ash Pond

Box & Whiskers Plot



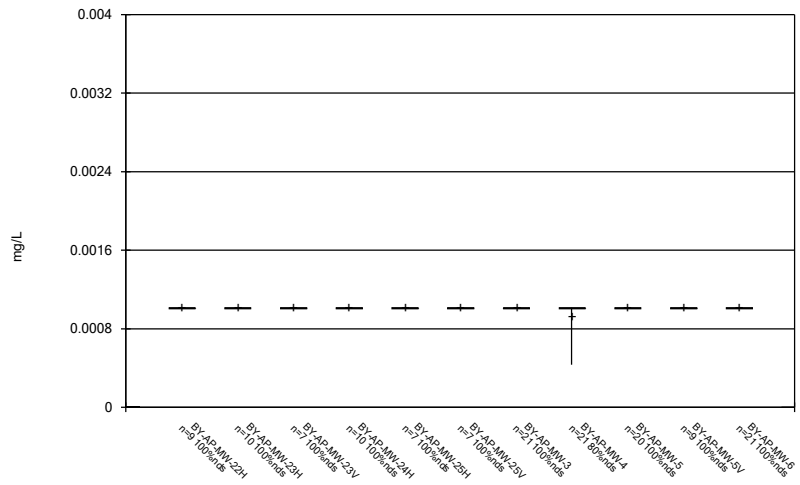
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 Plant Barry Client: Southern Company Data: Barry Ash Pond

Box & Whiskers Plot



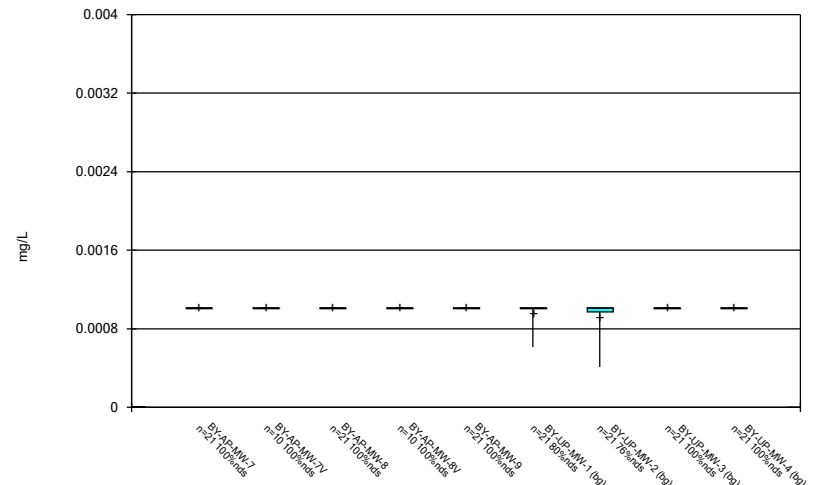
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 Plant Barry Client: Southern Company Data: Barry Ash Pond

Box & Whiskers Plot



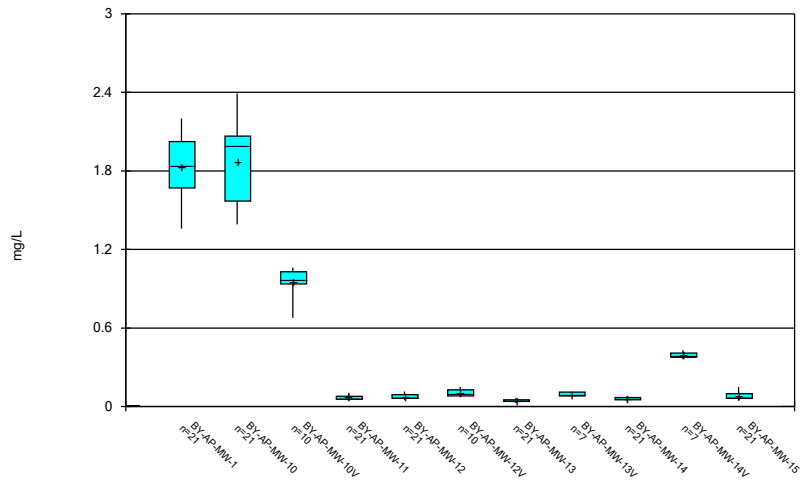
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 Plant Barry Client: Southern Company Data: Barry Ash Pond

Box & Whiskers Plot



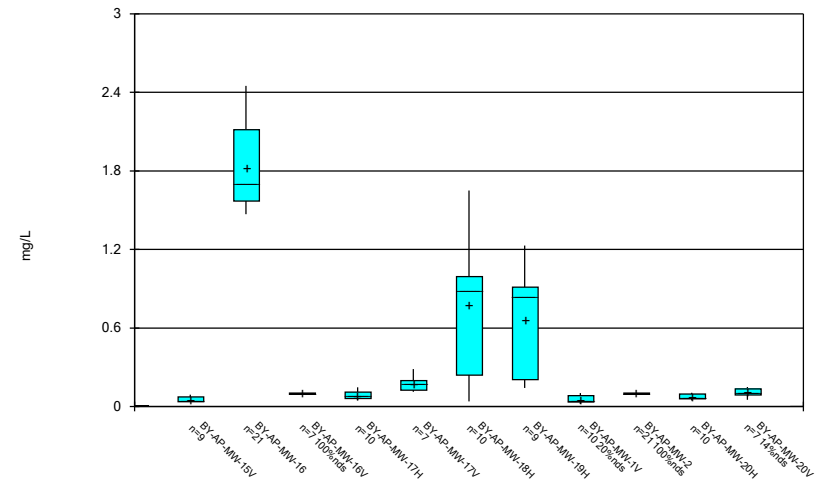
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 Plant Barry Client: Southern Company Data: Barry Ash Pond

Box & Whiskers Plot



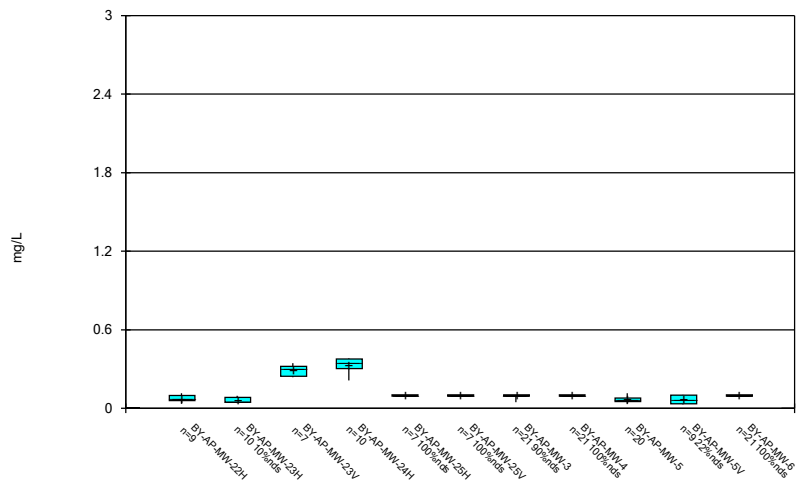
Constituent: Boron, total Analysis Run 10/22/2023 12:58 PM View: Descriptive
 Plant Barry Client: Southern Company Data: Barry Ash Pond

Box & Whiskers Plot



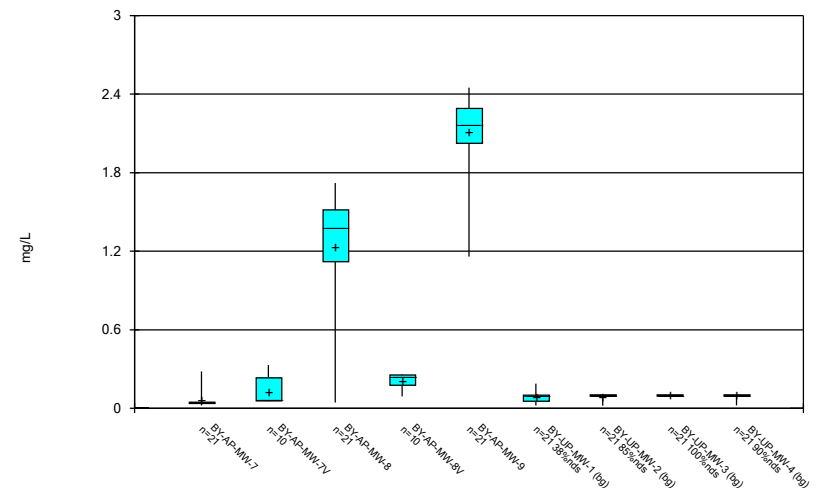
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 Plant Barry Client: Southern Company Data: Barry Ash Pond

Box & Whiskers Plot



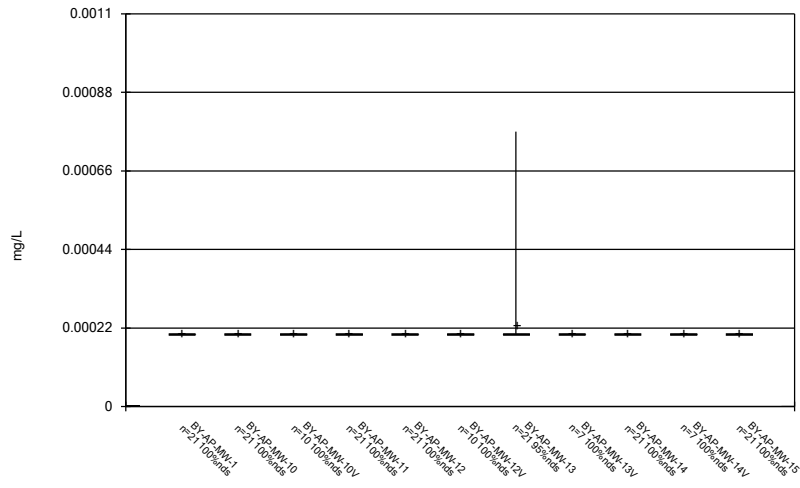
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 Plant Barry Client: Southern Company Data: Barry Ash Pond

Box & Whiskers Plot



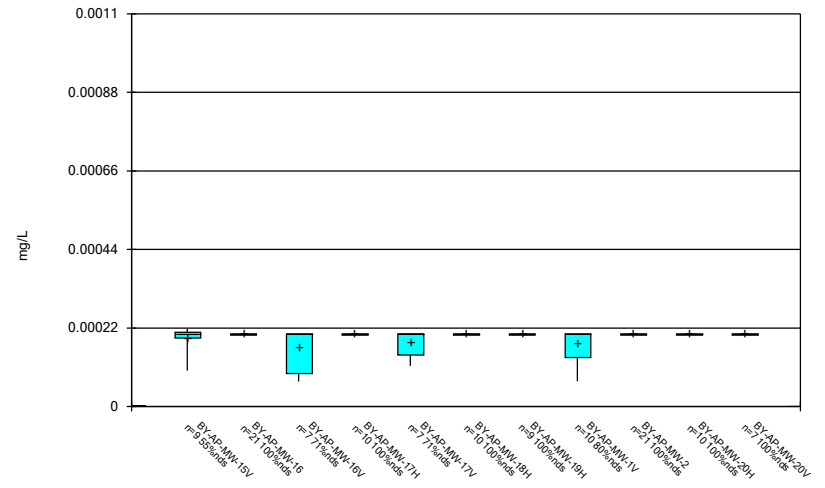
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 Plant Barry Client: Southern Company Data: Barry Ash Pond

Box & Whiskers Plot



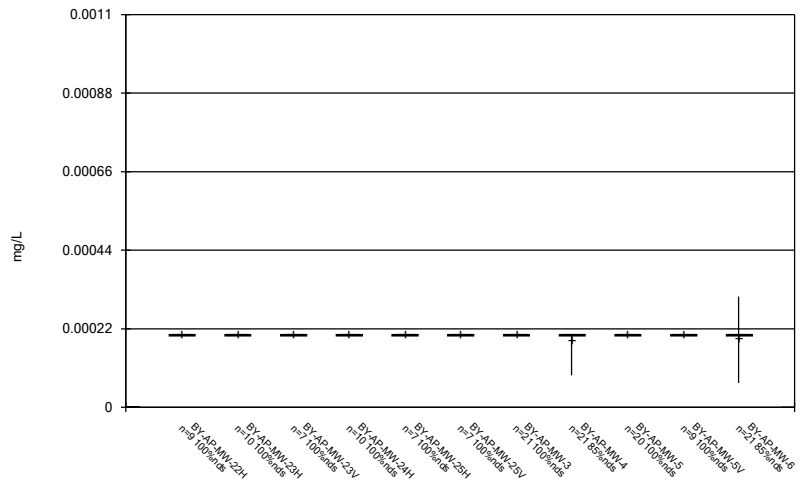
Constituent: Cadmium Analysis Run 10/22/2023 12:58 PM View: Descriptive
 Plant Barry Client: Southern Company Data: Barry Ash Pond

Box & Whiskers Plot



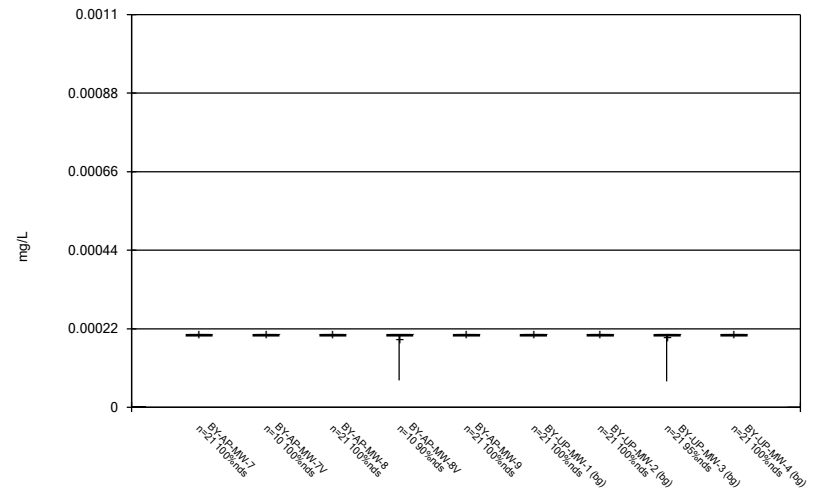
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 Plant Barry Client: Southern Company Data: Barry Ash Pond

Box & Whiskers Plot



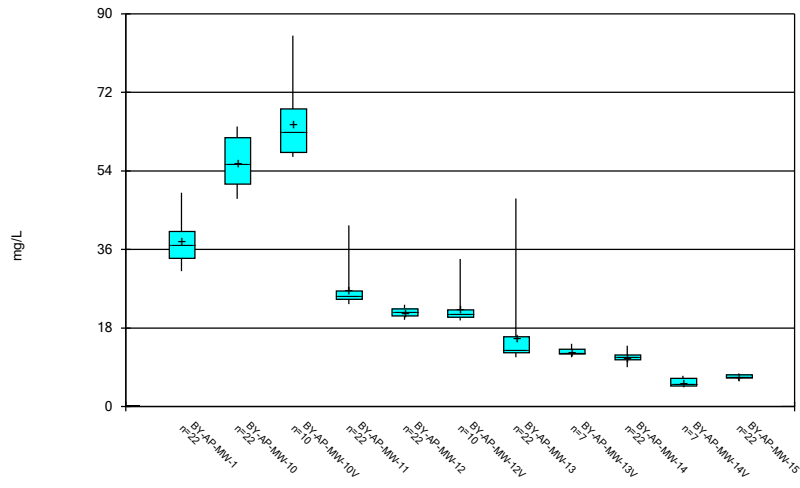
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 Plant Barry Client: Southern Company Data: Barry Ash Pond

Box & Whiskers Plot



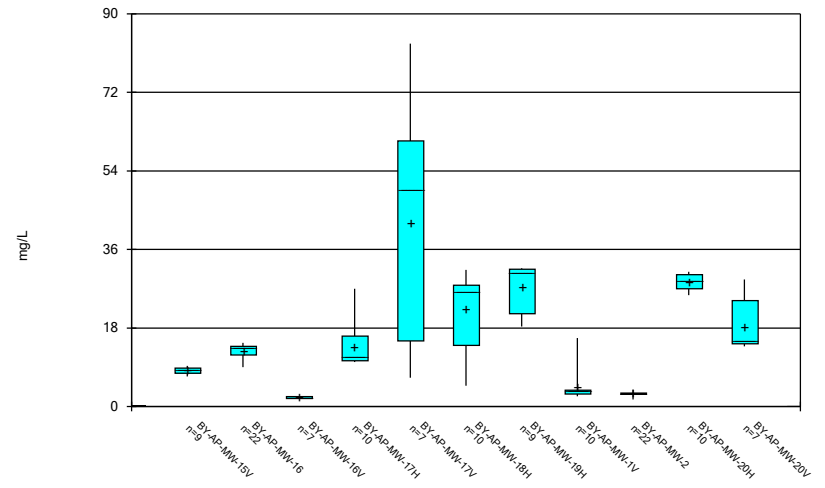
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 Plant Barry Client: Southern Company Data: Barry Ash Pond

Box & Whiskers Plot



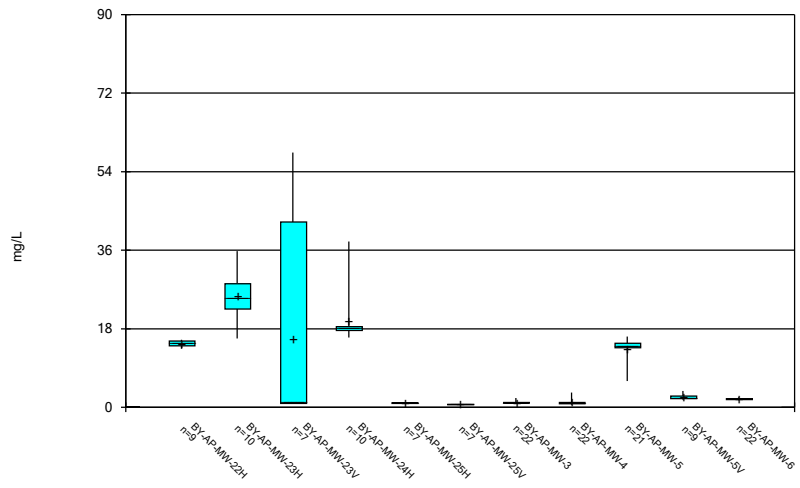
Constituent: Calcium, total Analysis Run 10/22/2023 12:58 PM View: Descriptive
 Plant Barry Client: Southern Company Data: Barry Ash Pond

Box & Whiskers Plot



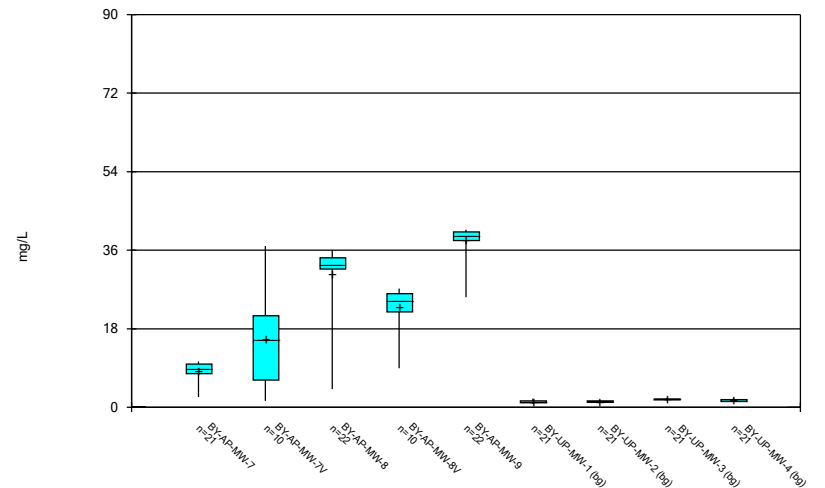
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 Plant Barry Client: Southern Company Data: Barry Ash Pond

Box & Whiskers Plot



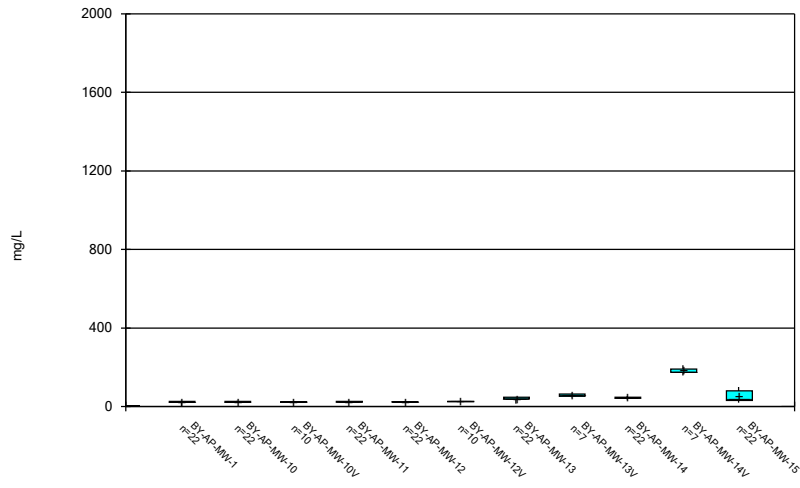
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 Plant Barry Client: Southern Company Data: Barry Ash Pond

Box & Whiskers Plot



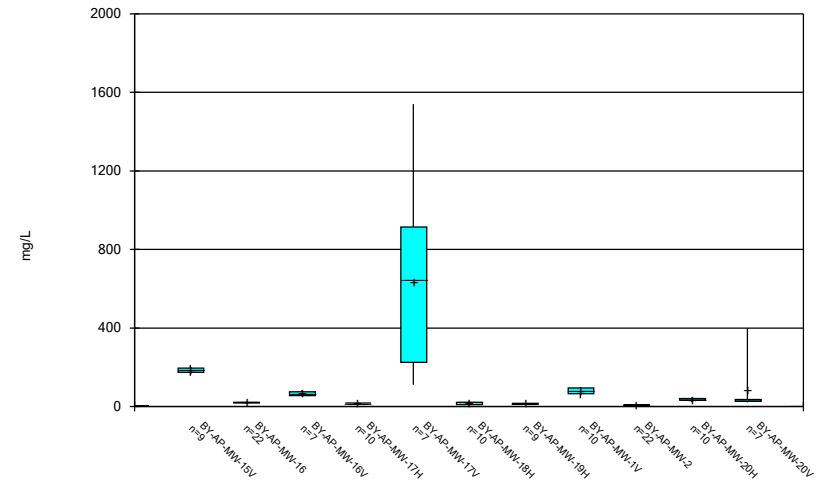
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 Plant Barry Client: Southern Company Data: Barry Ash Pond

Box & Whiskers Plot



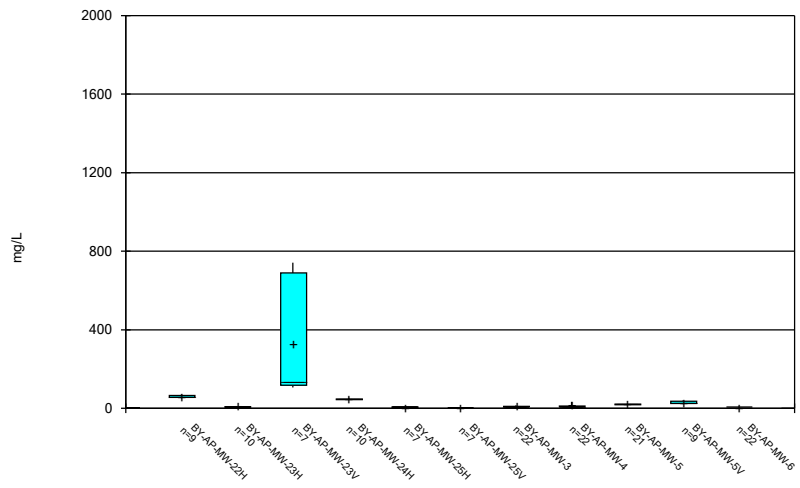
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Plant Barry Client: Southern Company Data: Barry Ash Pond

Box & Whiskers Plot



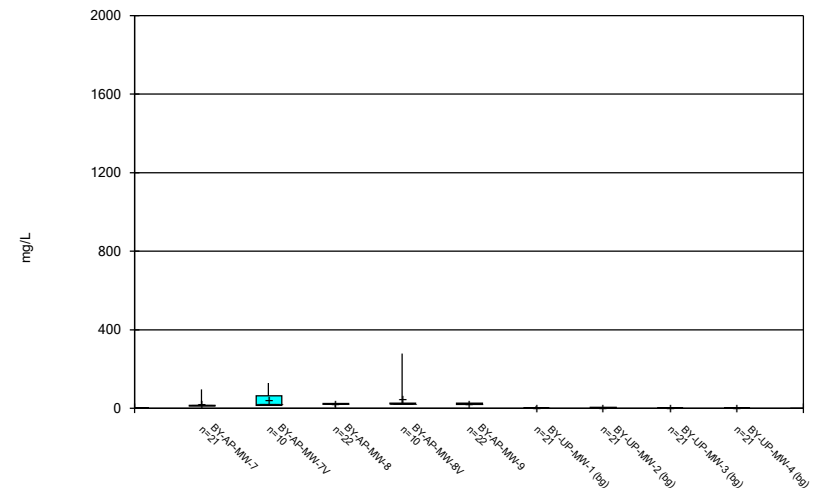
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Plant Barry Client: Southern Company Data: Barry Ash Pond

Box & Whiskers Plot



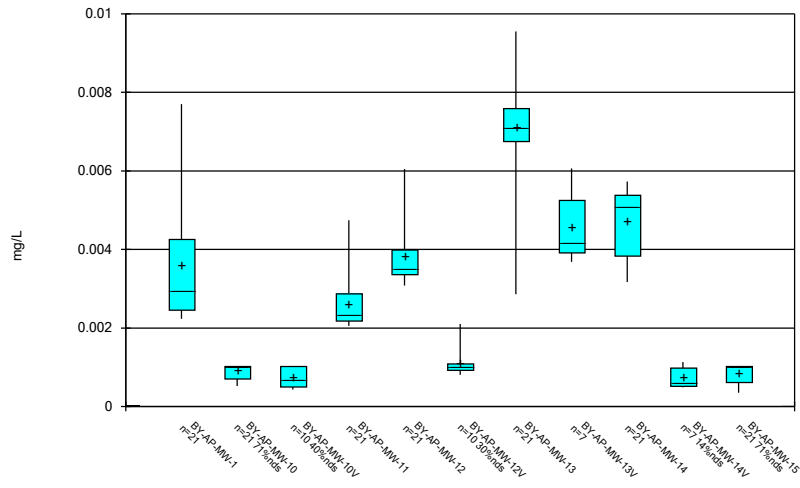
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Plant Barry Client: Southern Company Data: Barry Ash Pond

Box & Whiskers Plot



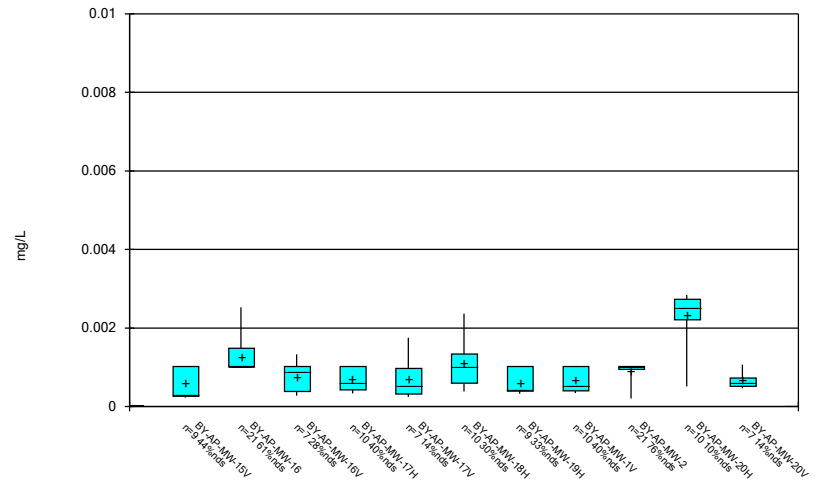
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Plant Barry Client: Southern Company Data: Barry Ash Pond

Box & Whiskers Plot



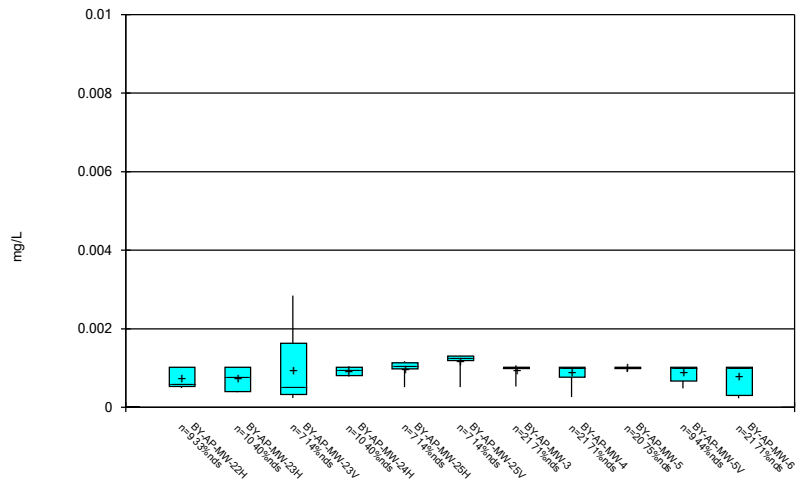
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Plant Barry Client: Southern Company Data: Barry Ash Pond

Box & Whiskers Plot



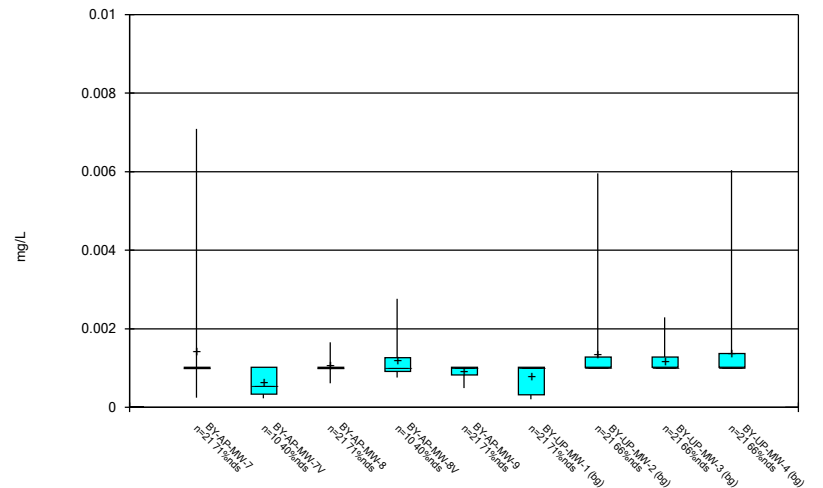
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Plant Barry Client: Southern Company Data: Barry Ash Pond

Box & Whiskers Plot



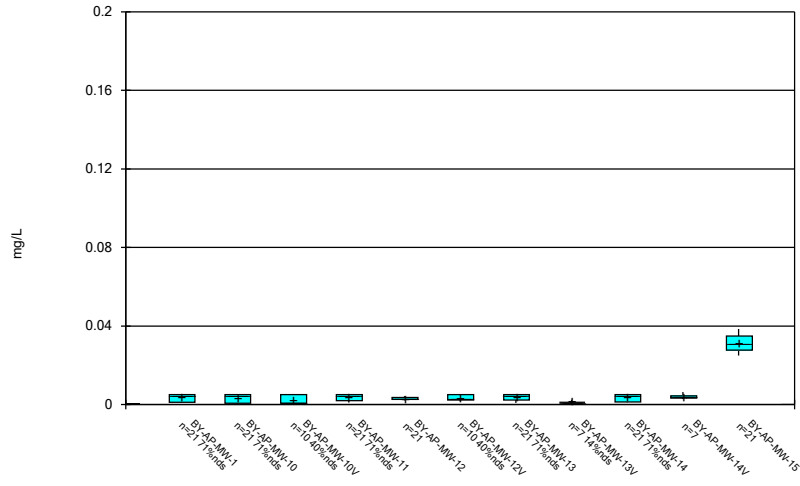
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Plant Barry Client: Southern Company Data: Barry Ash Pond

Box & Whiskers Plot



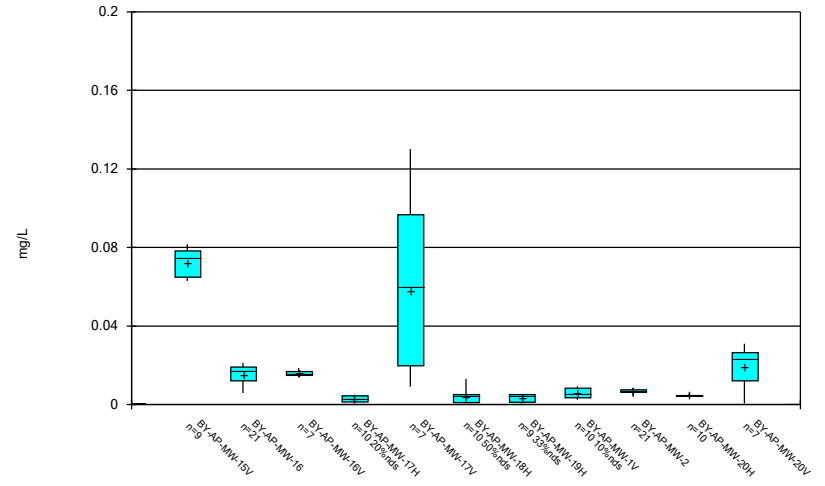
Constituent: Chromium Analysis Run 10/22/2023 12:58 PM View: Descriptive
Plant Barry Client: Southern Company Data: Barry Ash Pond

Box & Whiskers Plot



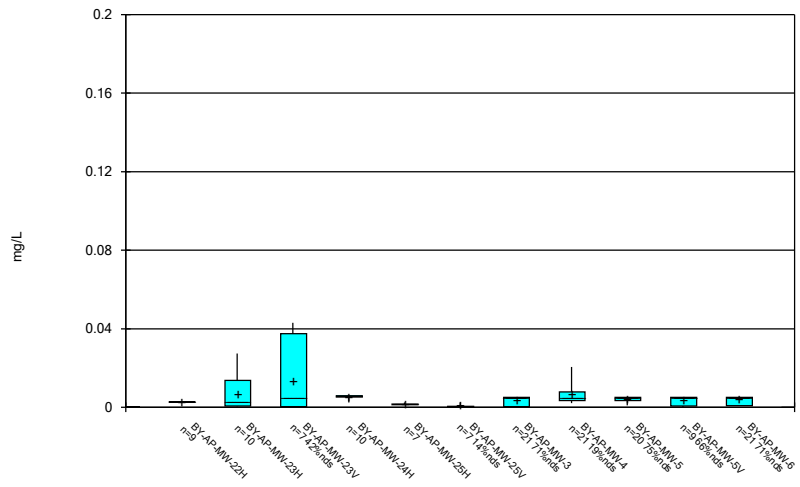
Constituent: Cobalt Analysis Run 10/22/2023 12:58 PM View: Descriptive
 Plant Barry Client: Southern Company Data: Barry Ash Pond

Box & Whiskers Plot



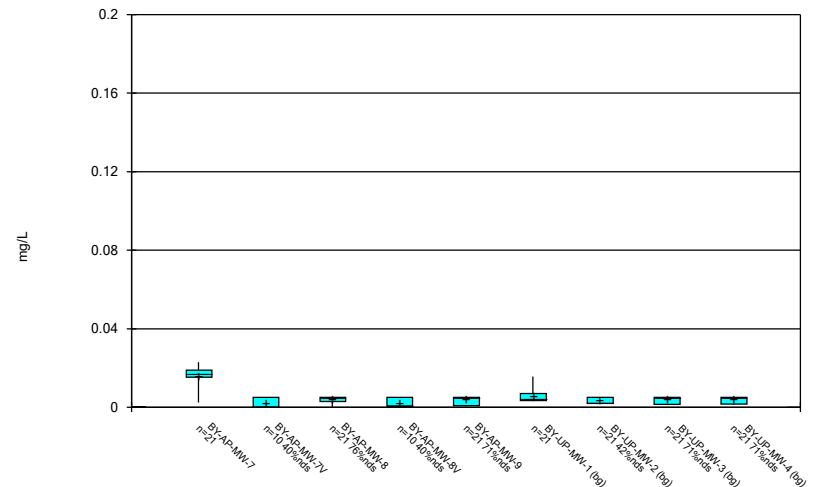
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 Plant Barry Client: Southern Company Data: Barry Ash Pond

Box & Whiskers Plot



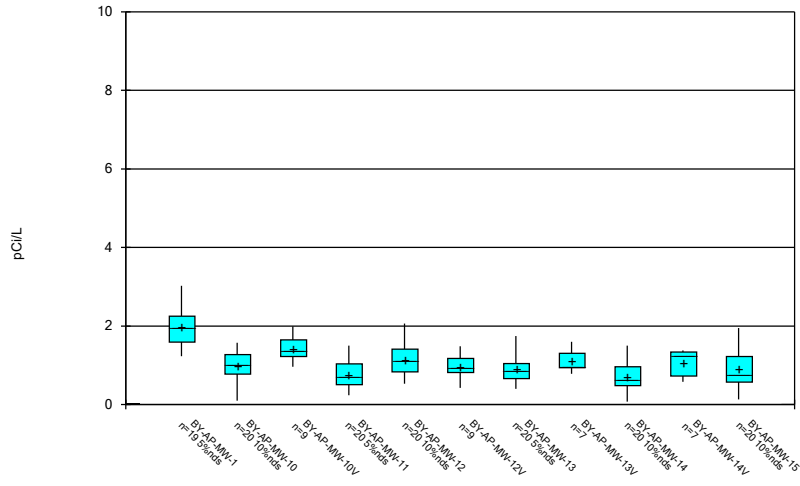
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 Plant Barry Client: Southern Company Data: Barry Ash Pond

Box & Whiskers Plot



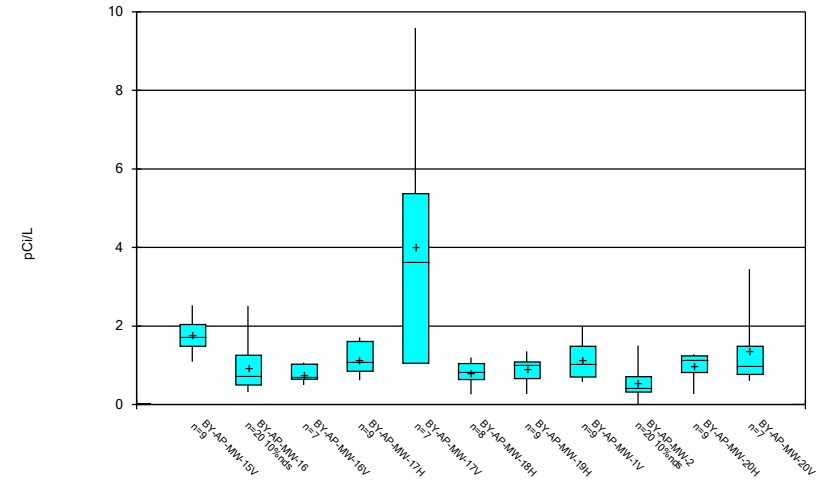
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 Plant Barry Client: Southern Company Data: Barry Ash Pond

Box & Whiskers Plot



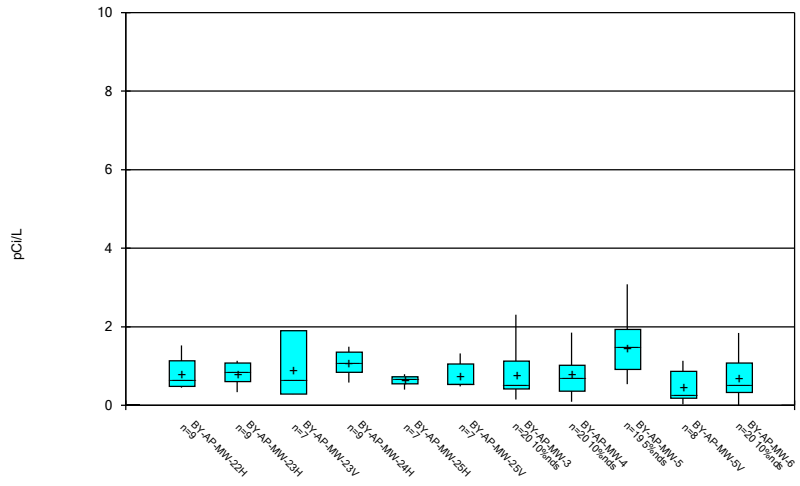
Constituent: Combined Radium 226 + 228 Analysis Run 10/22/2023 12:58 PM View: Descriptive
Plant Barry Client: Southern Company Data: Barry Ash Pond

Box & Whiskers Plot



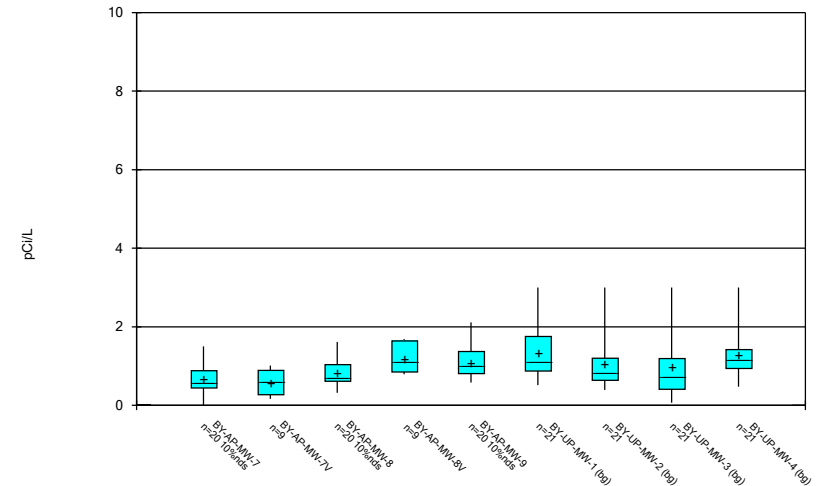
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Plant Barry Client: Southern Company Data: Barry Ash Pond

Box & Whiskers Plot



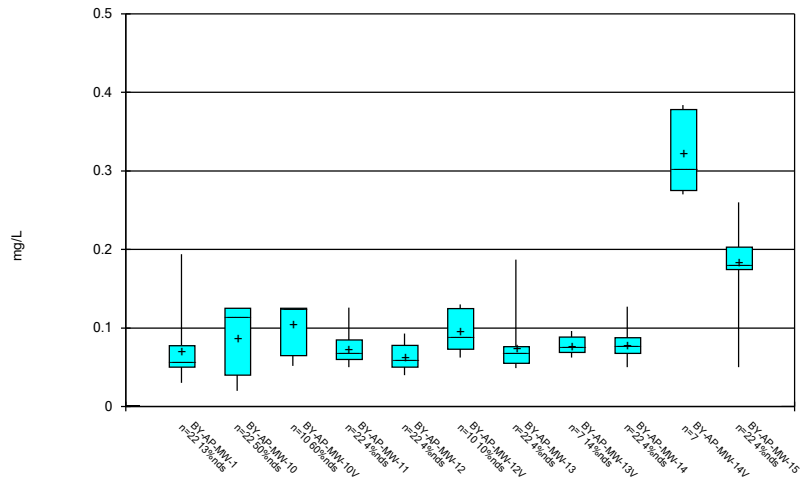
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Plant Barry Client: Southern Company Data: Barry Ash Pond

Box & Whiskers Plot



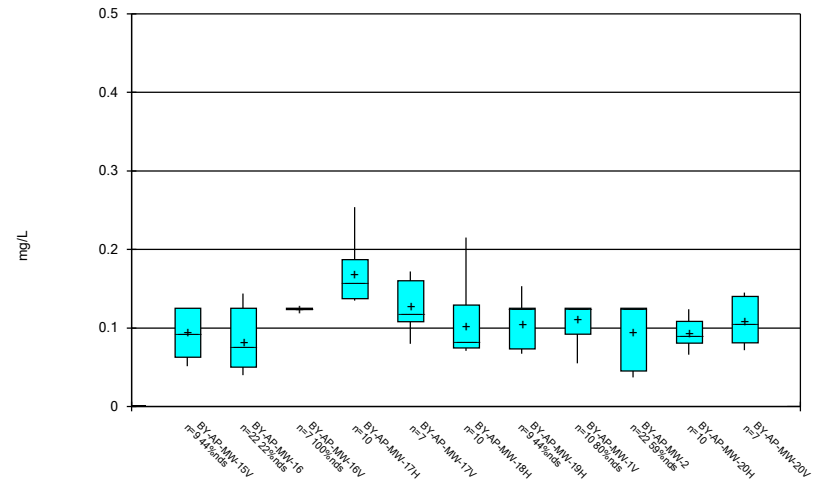
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Plant Barry Client: Southern Company Data: Barry Ash Pond

Box & Whiskers Plot



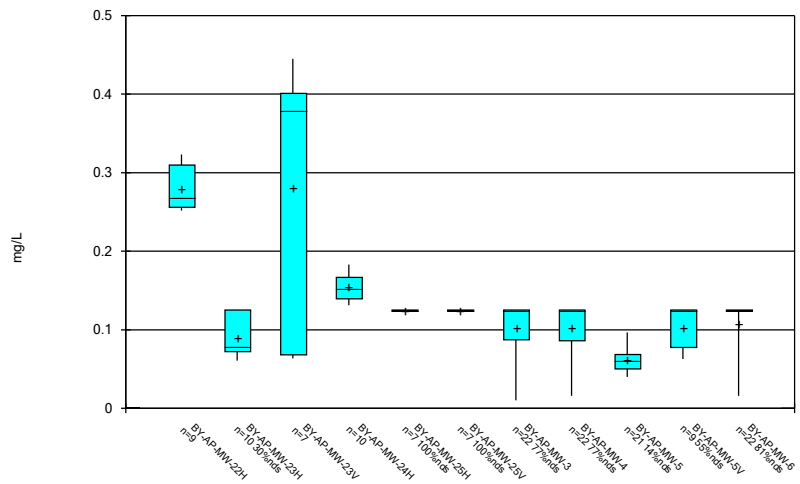
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 Plant Barry Client: Southern Company Data: Barry Ash Pond

Box & Whiskers Plot



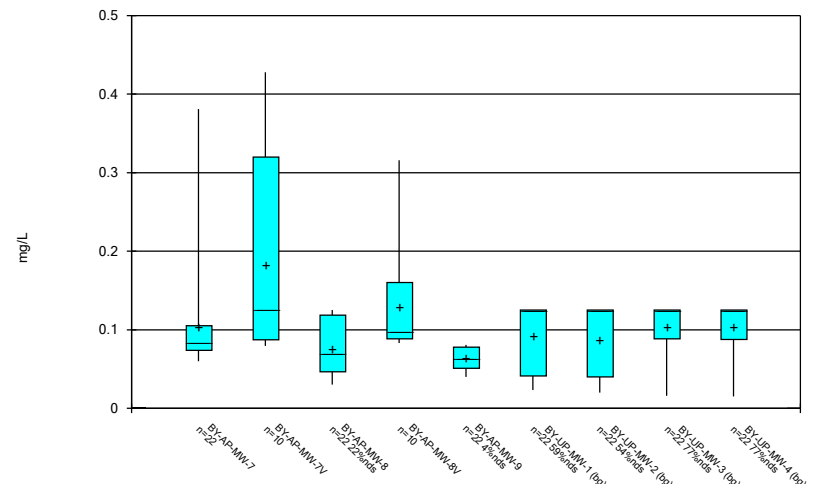
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 Plant Barry Client: Southern Company Data: Barry Ash Pond

Box & Whiskers Plot



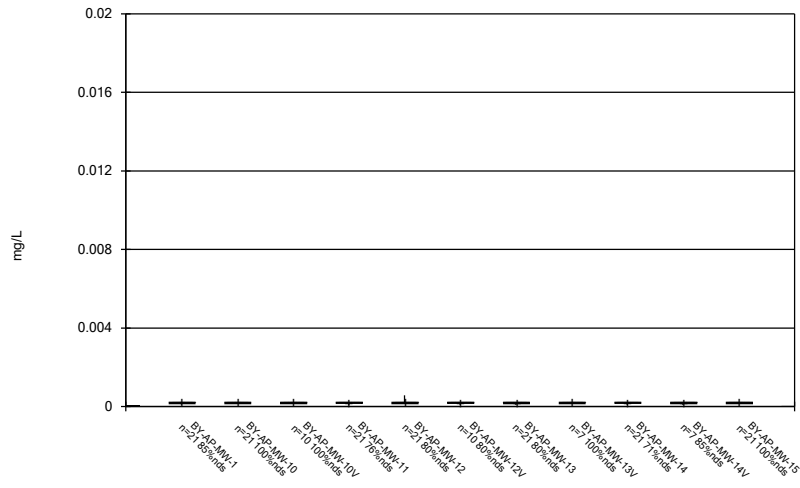
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 Plant Barry Client: Southern Company Data: Barry Ash Pond

Box & Whiskers Plot



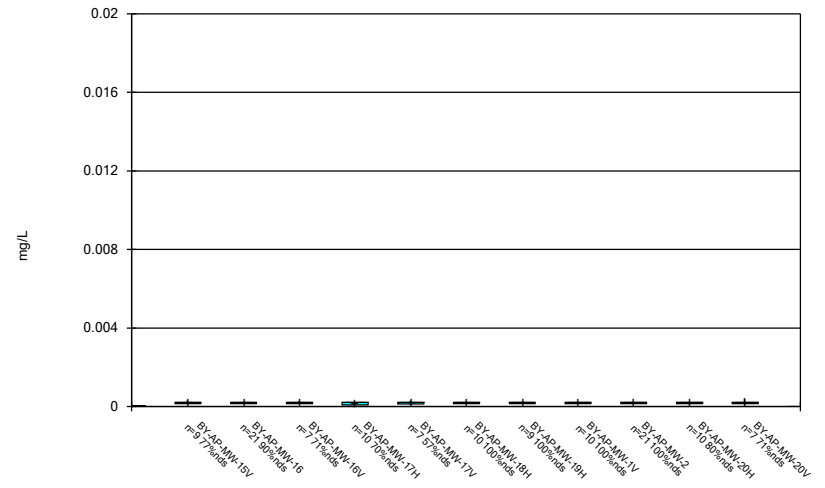
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 Plant Barry Client: Southern Company Data: Barry Ash Pond

Box & Whiskers Plot



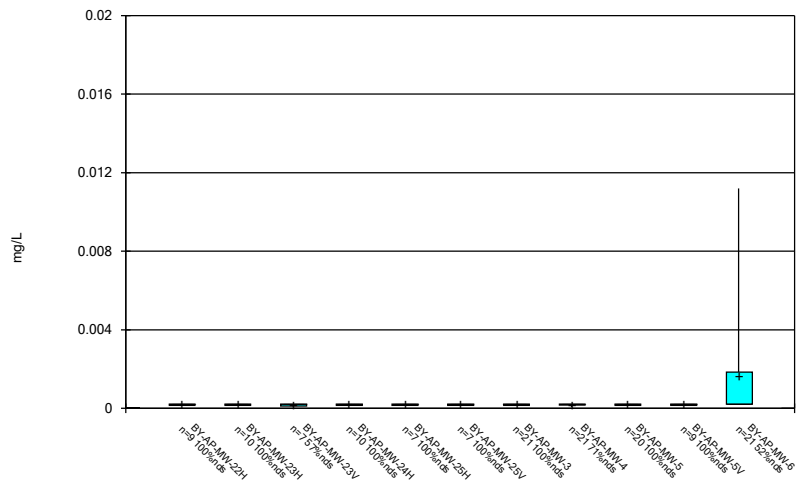
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Box & Whiskers Plot



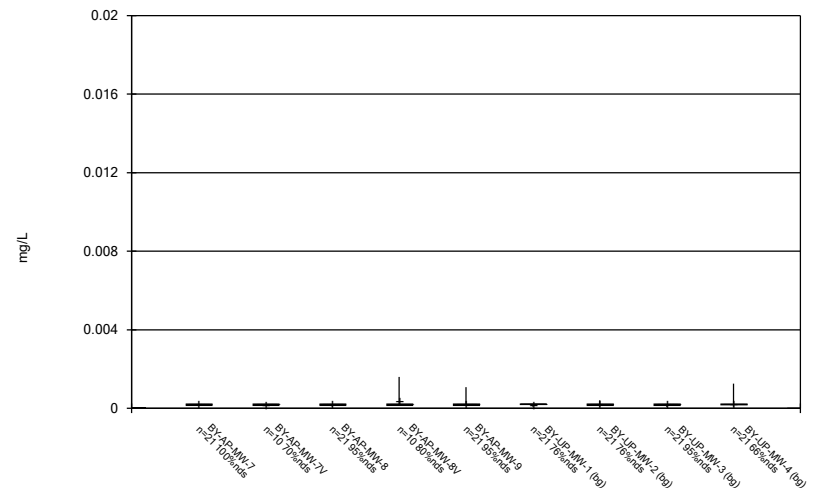
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Plant Barry Client: Southern Company Data: Barry Ash Pond

Box & Whiskers Plot



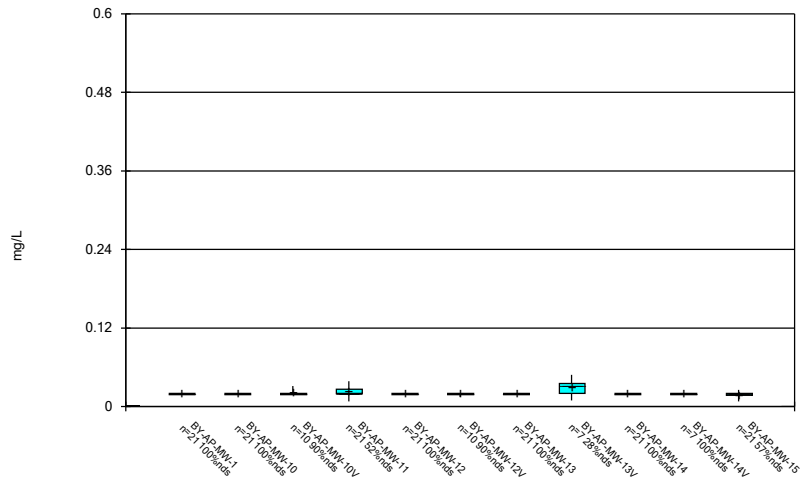
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Box & Whiskers Plot



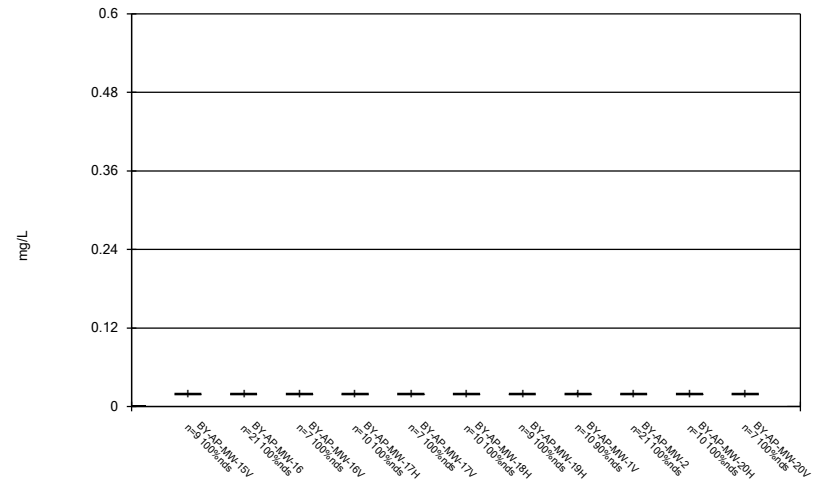
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Plant Barry Client: Southern Company Data: Barry Ash Pond

Box & Whiskers Plot



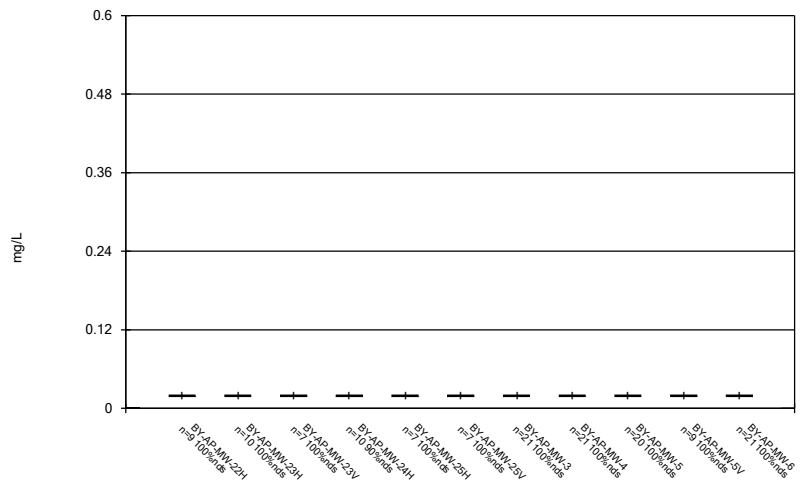
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Box & Whiskers Plot



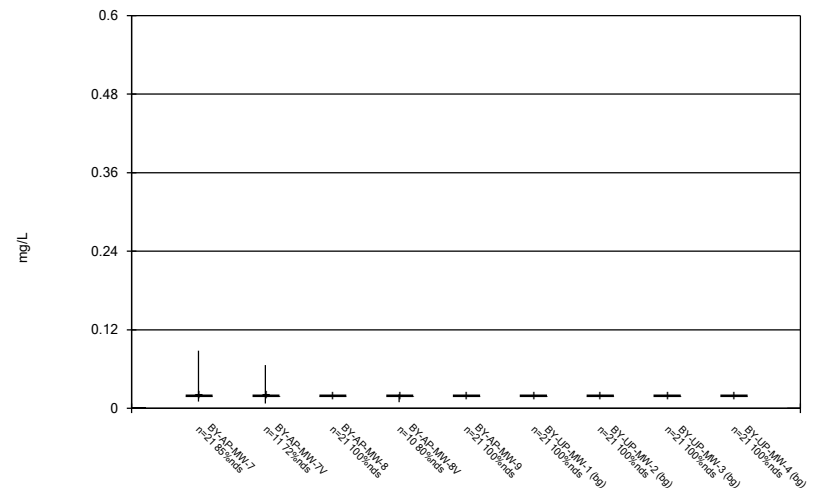
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Box & Whiskers Plot



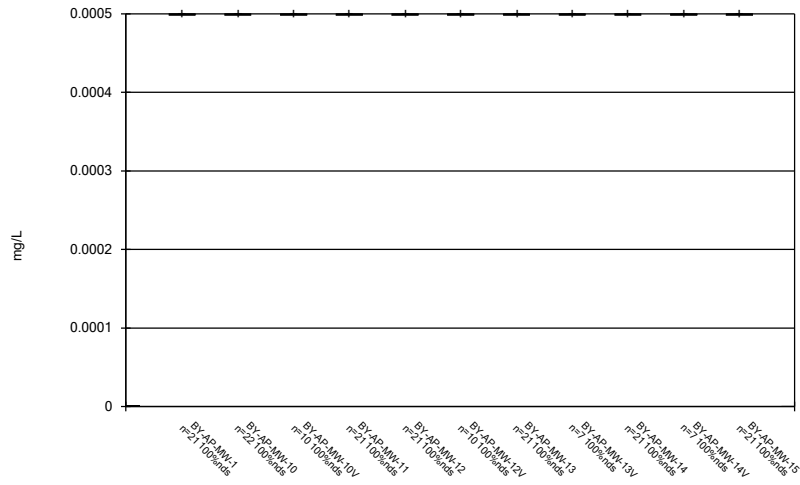
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 Plant Barry Client: Southern Company Data: Barry Ash Pond

Box & Whiskers Plot



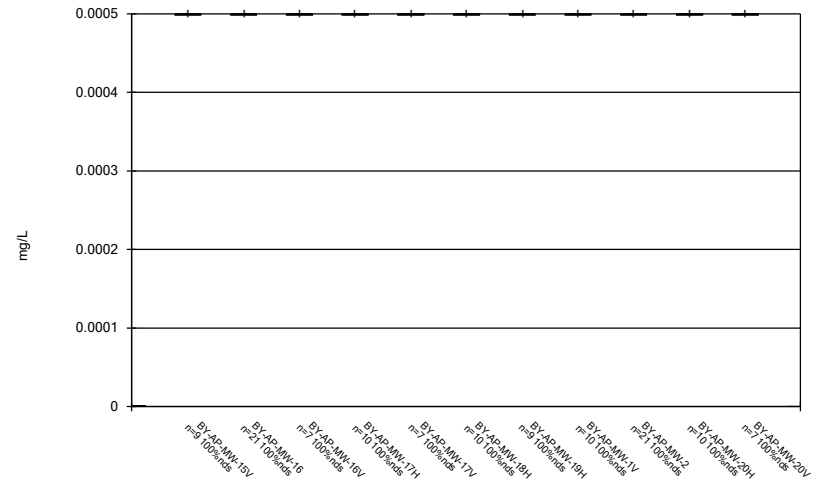
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 Plant Barry Client: Southern Company Data: Barry Ash Pond

Box & Whiskers Plot



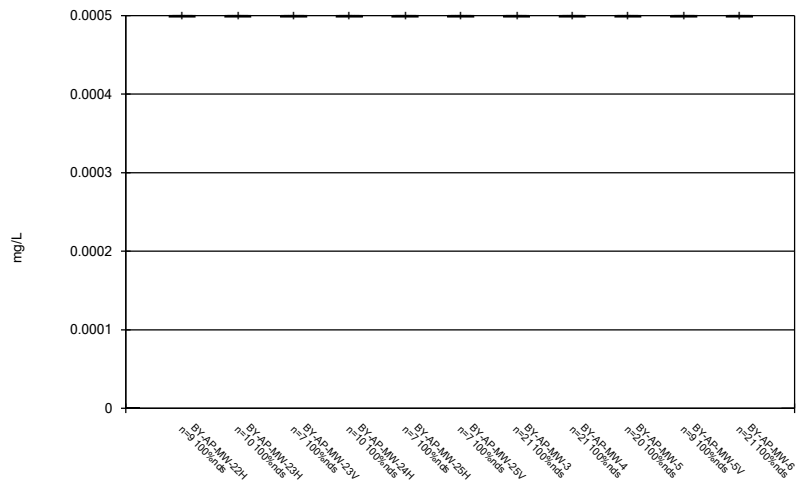
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 Plant Barry Client: Southern Company Data: Barry Ash Pond

Box & Whiskers Plot



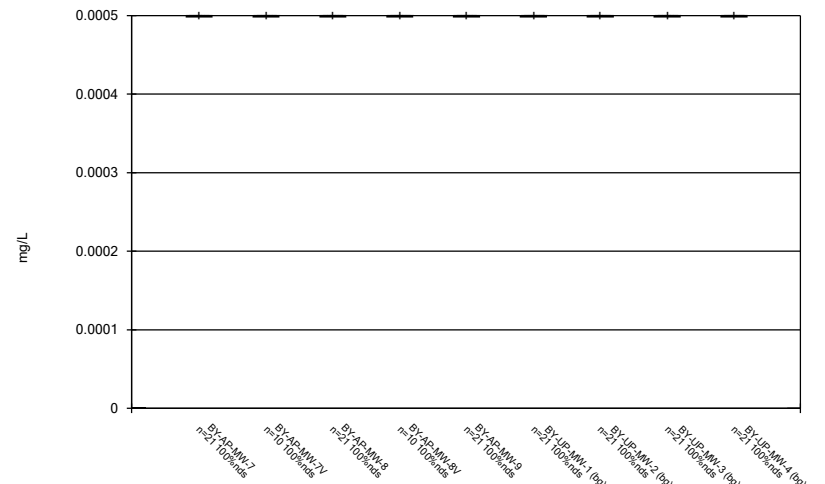
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 Plant Barry Client: Southern Company Data: Barry Ash Pond

Box & Whiskers Plot



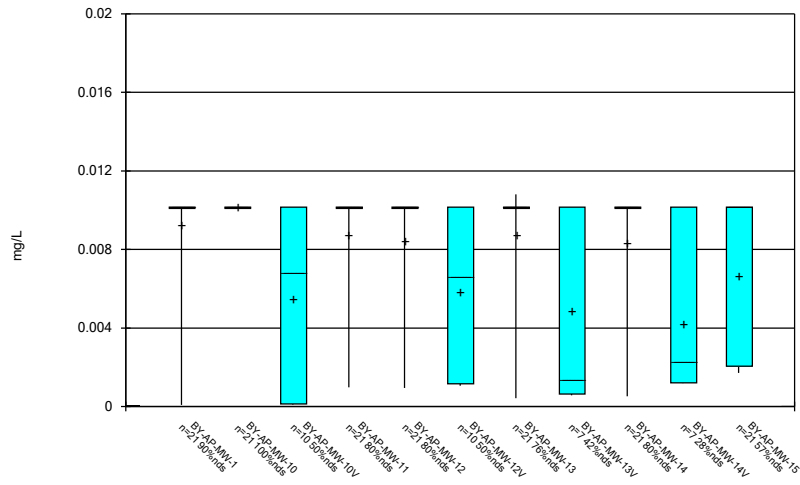
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 Plant Barry Client: Southern Company Data: Barry Ash Pond

Box & Whiskers Plot



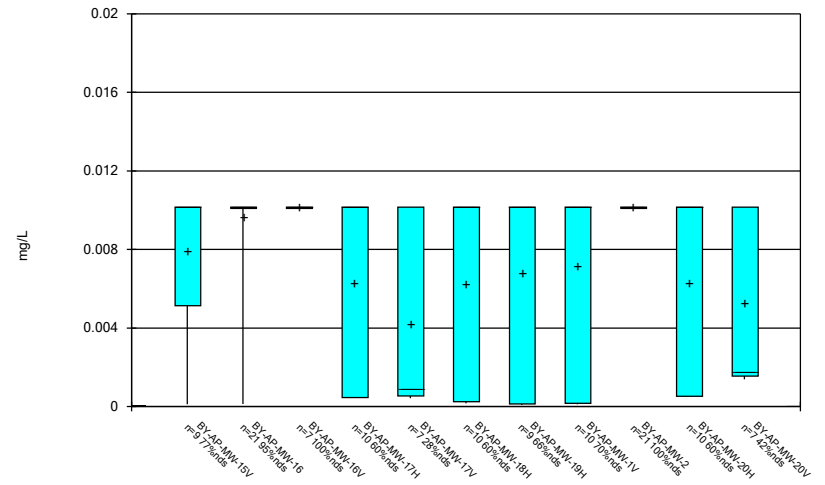
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 Plant Barry Client: Southern Company Data: Barry Ash Pond

Box & Whiskers Plot



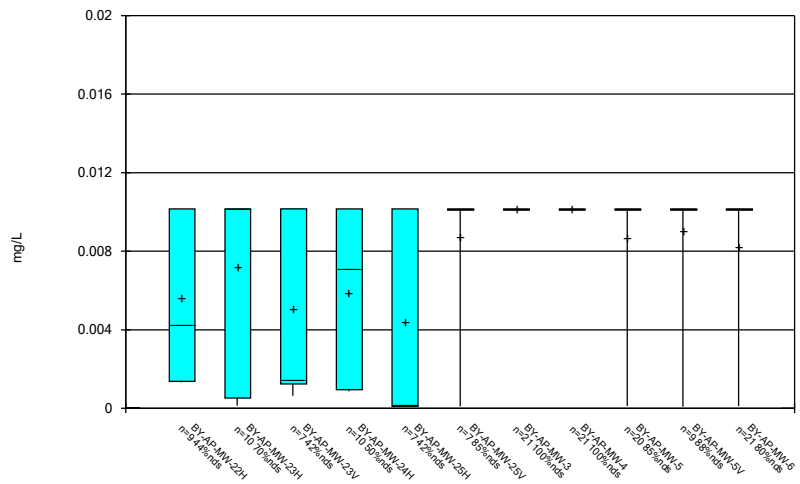
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 Plant Barry Client: Southern Company Data: Barry Ash Pond

Box & Whiskers Plot



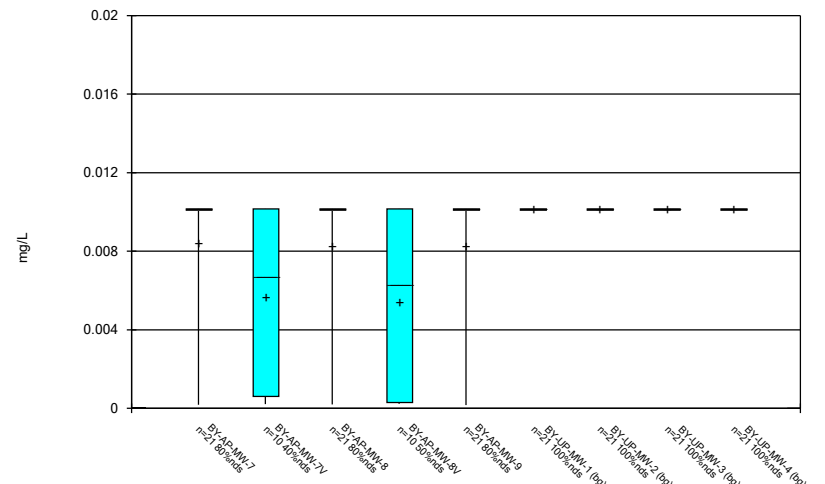
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 Plant Barry Client: Southern Company Data: Barry Ash Pond

Box & Whiskers Plot



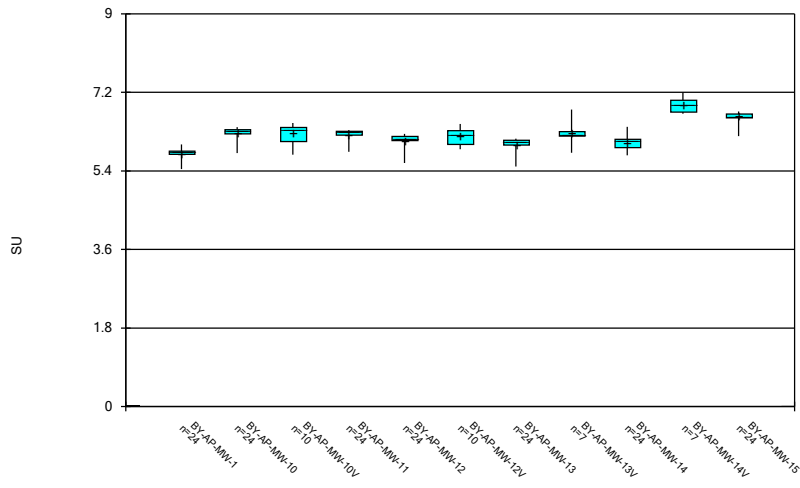
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Box & Whiskers Plot



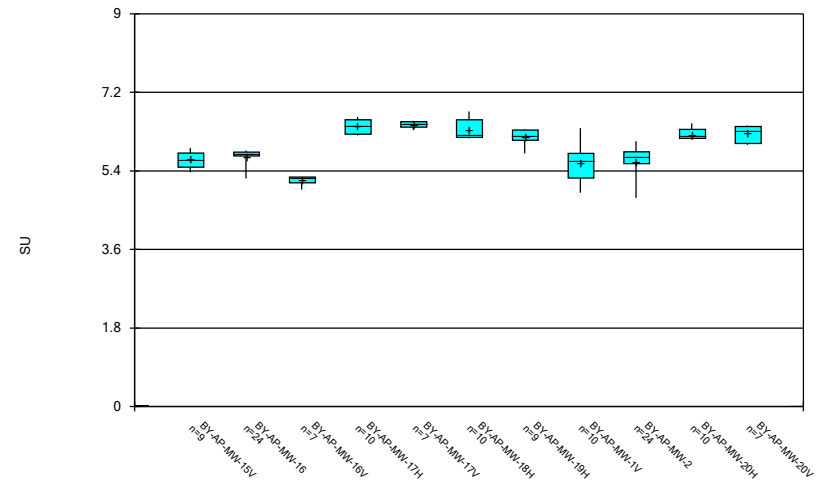
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 Plant Barry Client: Southern Company Data: Barry Ash Pond

Box & Whiskers Plot



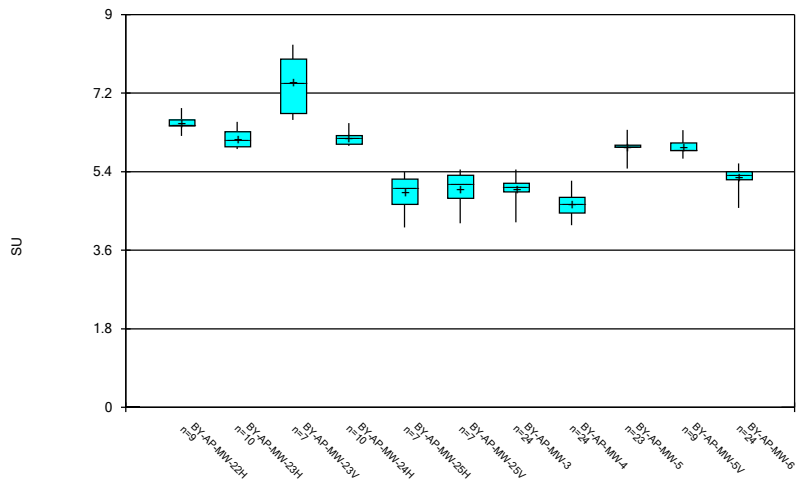
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 Plant Barry Client: Southern Company Data: Barry Ash Pond

Box & Whiskers Plot



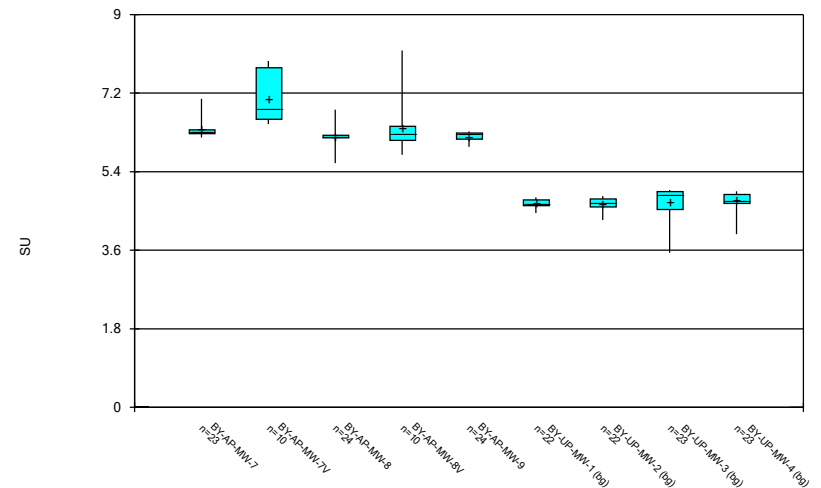
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 Plant Barry Client: Southern Company Data: Barry Ash Pond

Box & Whiskers Plot



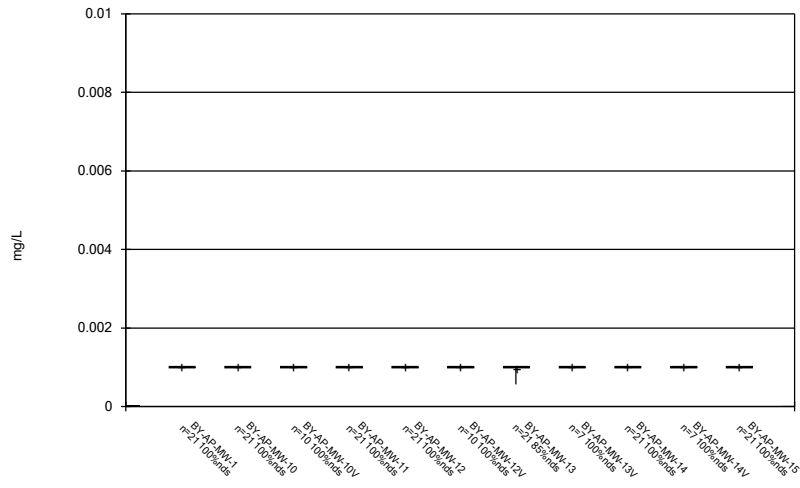
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 Plant Barry Client: Southern Company Data: Barry Ash Pond

Box & Whiskers Plot



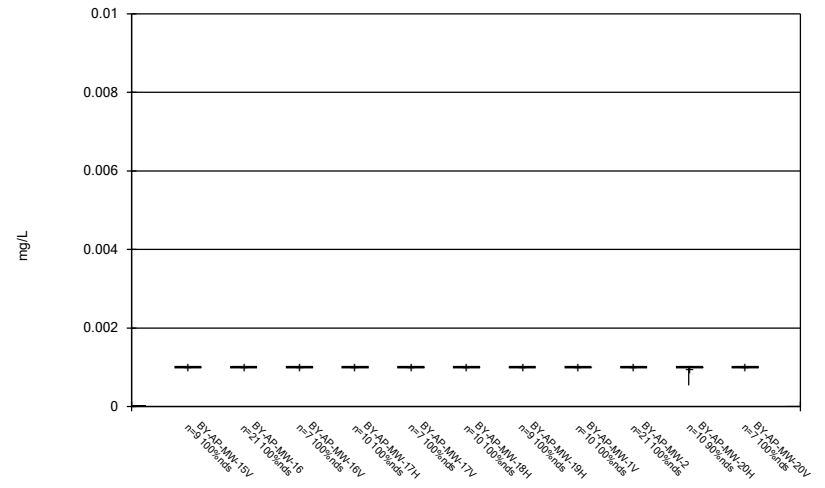
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 Plant Barry Client: Southern Company Data: Barry Ash Pond

Box & Whiskers Plot



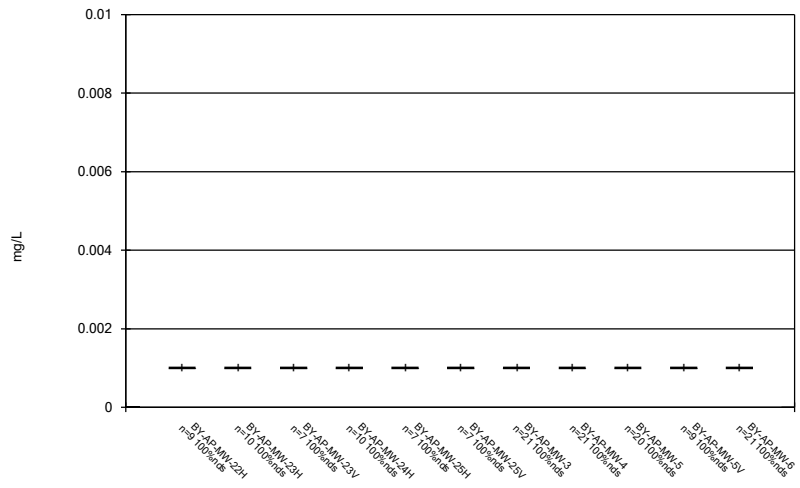
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Box & Whiskers Plot



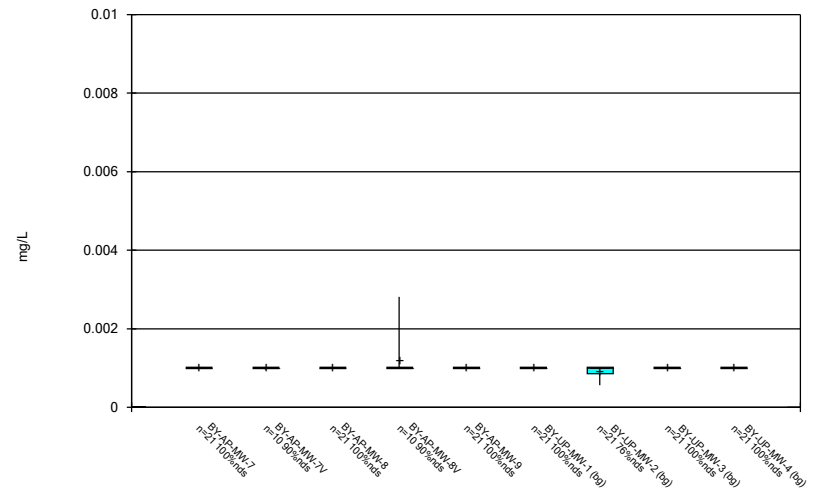
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Box & Whiskers Plot



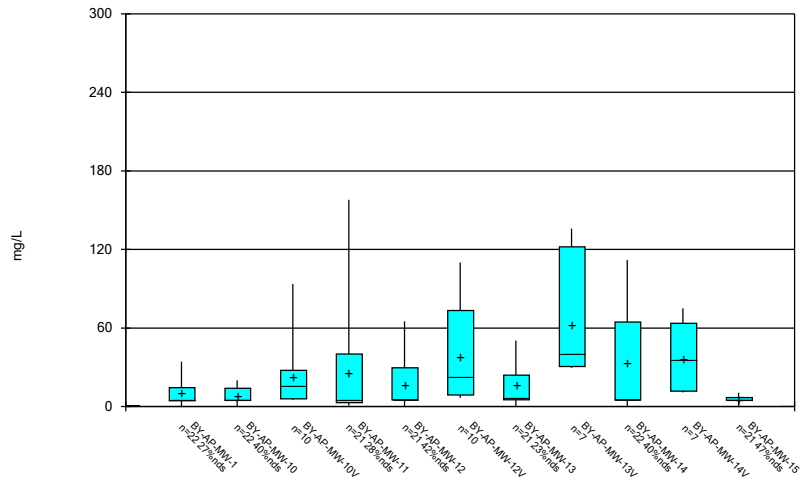
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Box & Whiskers Plot



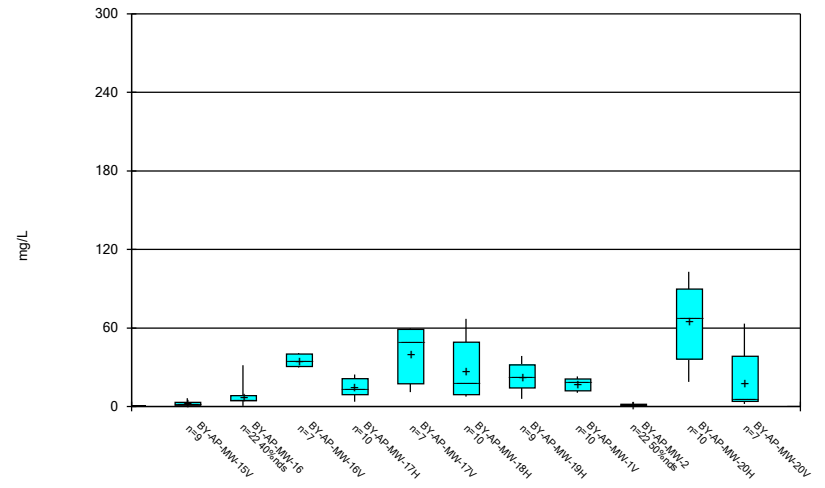
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Box & Whiskers Plot



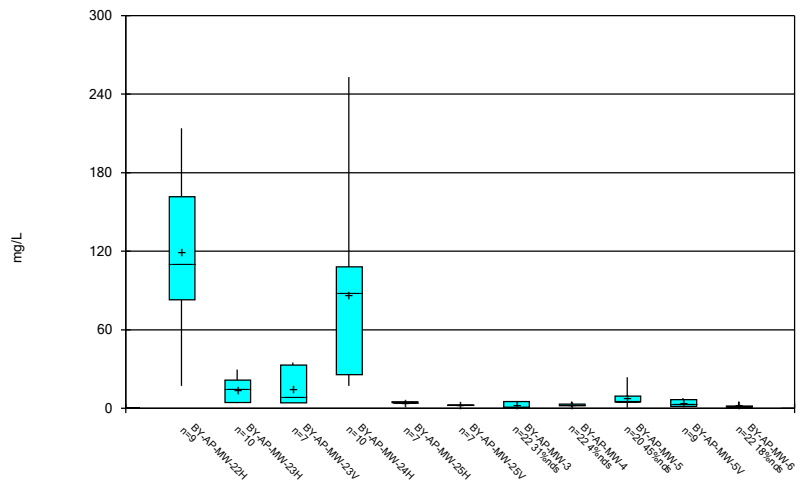
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 Plant Barry Client: Southern Company Data: Barry Ash Pond

Box & Whiskers Plot



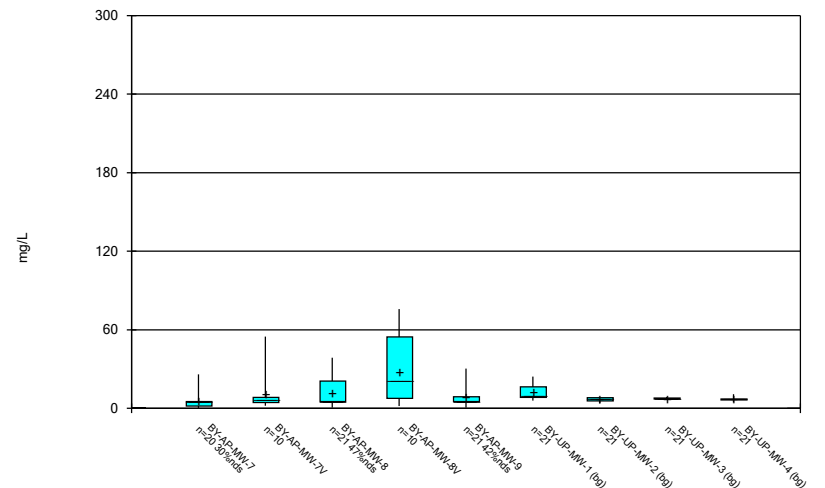
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 Plant Barry Client: Southern Company Data: Barry Ash Pond

Box & Whiskers Plot



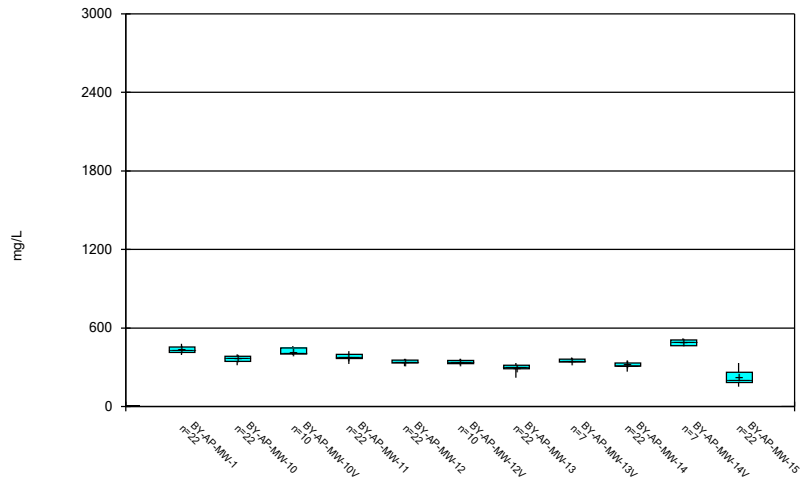
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 Plant Barry Client: Southern Company Data: Barry Ash Pond

Box & Whiskers Plot



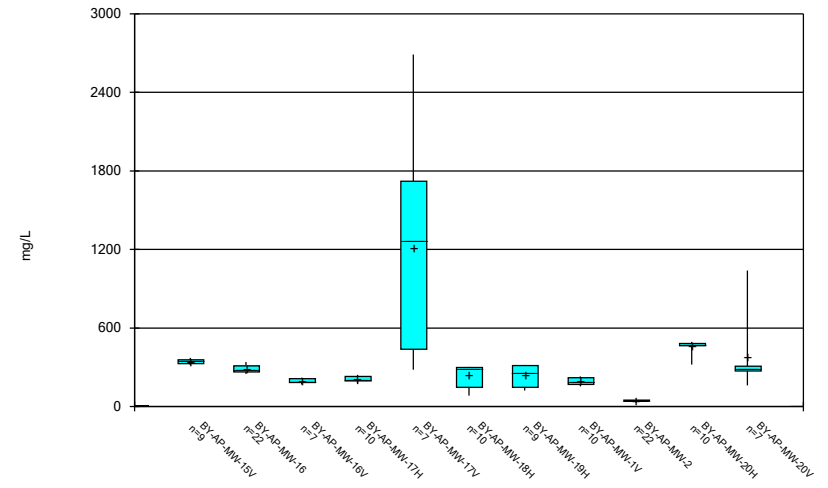
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 Plant Barry Client: Southern Company Data: Barry Ash Pond

Box & Whiskers Plot



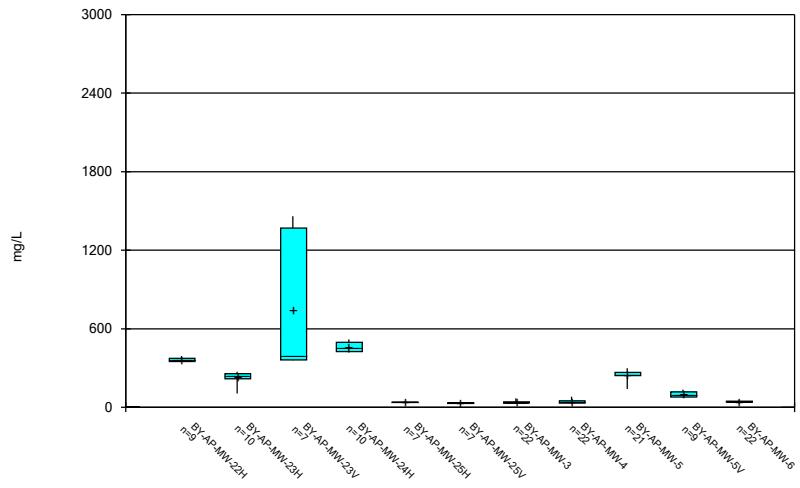
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Box & Whiskers Plot



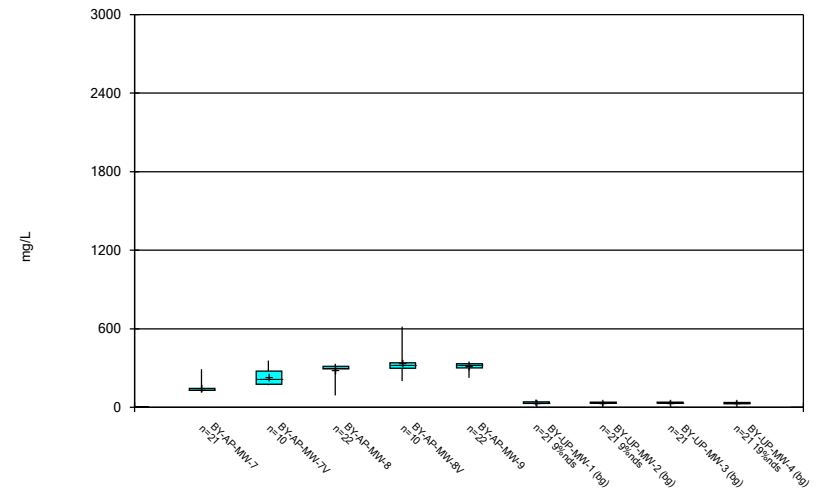
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Box & Whiskers Plot



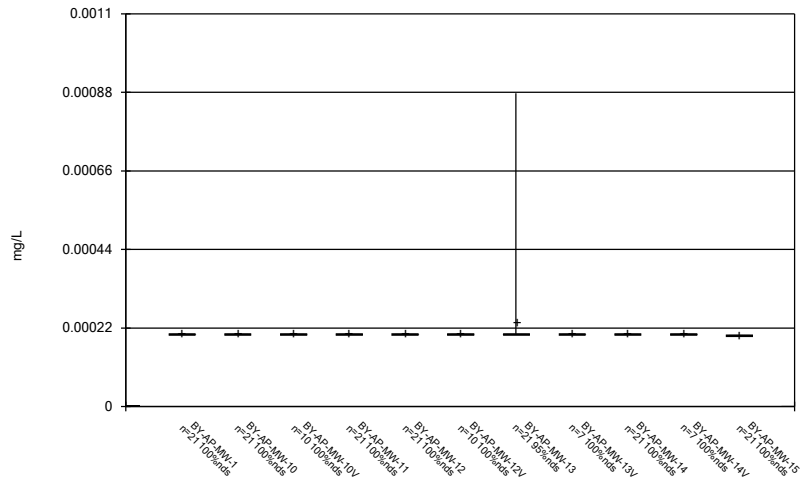
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 Plant Barry Client: Southern Company Data: Barry Ash Pond

Box & Whiskers Plot



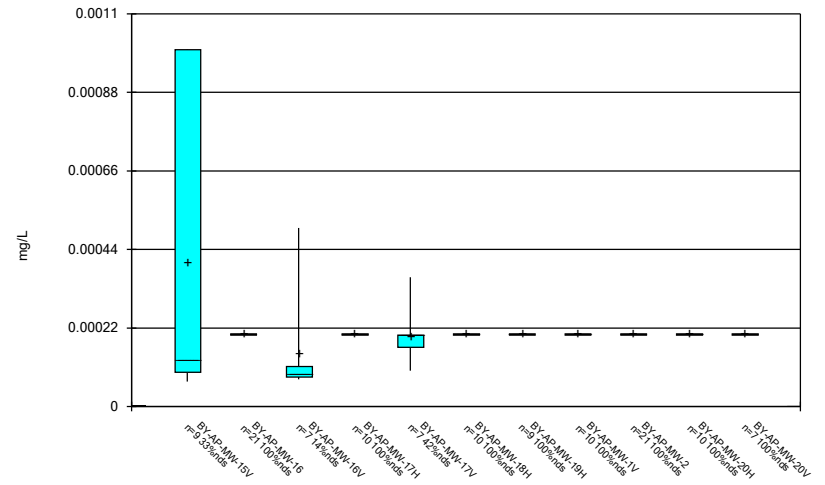
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 Plant Barry Client: Southern Company Data: Barry Ash Pond

Box & Whiskers Plot



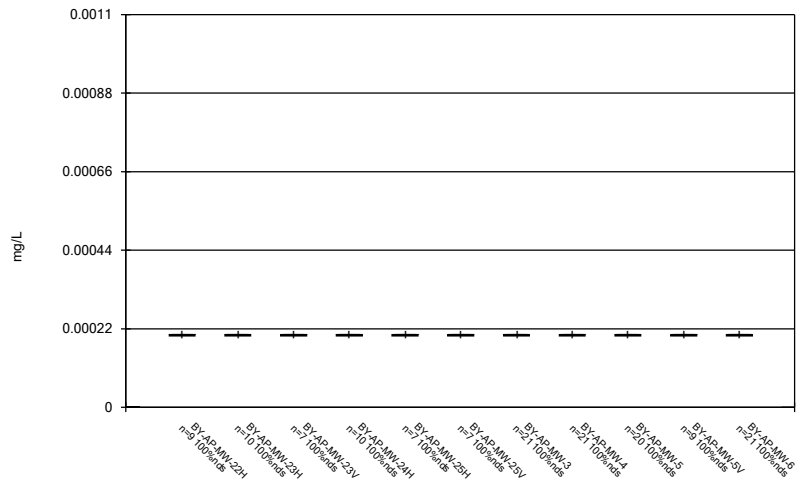
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Box & Whiskers Plot



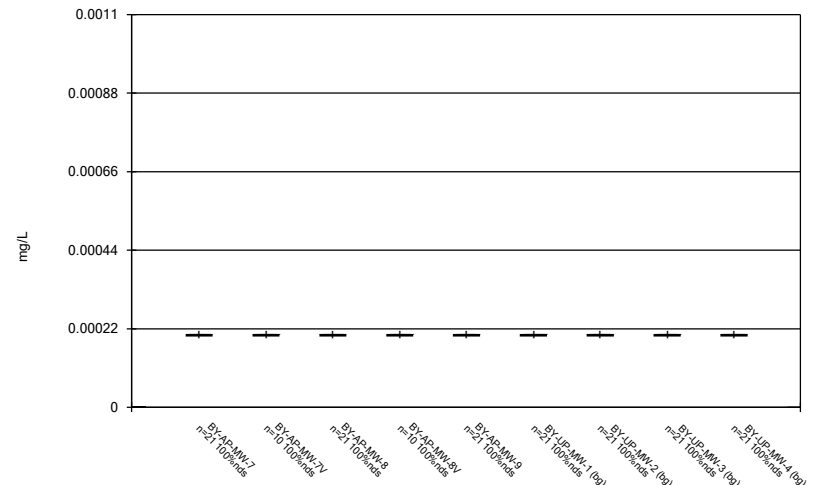
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Plant Barry Client: Southern Company Data: Barry Ash Pond

Box & Whiskers Plot



Constituent: Thallium Analysis Run 10/22/2023 12:59 PM View: Descriptive
Plant Barry Client: Southern Company Data: Barry Ash Pond

Box & Whiskers Plot



Constituent: Thallium Analysis Run 10/22/2023 12:59 PM View: Descriptive
Plant Barry Client: Southern Company Data: Barry Ash Pond

FIGURE C.

Outlier Summary

Plant Barry Client: Southern Company Data: Barry Ash Pond Printed 10/22/2023, 1:50 PM

	BY-UP-MW-1 pH, field (SU)	BY-UP-MW-2 pH, field (SU)	BY-AP-MW-11 Sulfate as SO4 (mg/L)	BY-AP-MW-12 Sulfate as SO4 (mg/L)	BY-AP-MW-13 Sulfate as SO4 (mg/L)	BY-AP-MW-15 Sulfate as SO4 (mg/L)	BY-AP-MW-5 Sulfate as SO4 (mg/L)	BY-AP-MW-7 Sulfate as SO4 (mg/L)	BY-AP-MW-8 Sulfate as SO4 (mg/L)	BY-AP-MW-9 Sulfate as SO4 (mg/L)
11/28/2018			<50 (O)							
3/31/2020									43.5 (o)	
10/26/2021				26.4 (o)						
11/2/2021		133 (o)								
5/24/2022								81.3 (o)		
5/31/2022	3.89 (o)	3.31 (o)								
10/31/2022							33.8 (o)			
11/1/2022				86.9 (o)						
4/4/2023							43.9 (o)			

Tukey's Outlier Test - Significant Results

Plant Barry Client: Southern Company Data: Barry Ash Pond Printed 10/5/2023, 11:08 AM

Constituent	Well	Outlier	Value(s)	Method	Alpha	N	Mean	Std. Dev.	Distribution	Normality Test
pH, field (SU)	BY-AP-MW-1	Yes	5.47,5.44	NP	NaN	23	5.792	0.1334	x^6	ShapiroWilk
pH, field (SU)	BY-AP-MW-11	Yes	5.85,5.87,5.84	NP	NaN	23	6.219	0.1519	x^6	ShapiroWilk
pH, field (SU)	BY-AP-MW-12	Yes	5.58,5.75,5.76	NP	NaN	23	6.097	0.17	x^6	ShapiroWilk
pH, field (SU)	BY-AP-MW-13	Yes	5.5	NP	NaN	23	6.014	0.1616	x^6	ShapiroWilk
pH, field (SU)	BY-AP-MW-15	Yes	6.2	NP	NaN	23	6.639	0.1152	x^6	ShapiroWilk
pH, field (SU)	BY-AP-MW-16	Yes	5.23,5.36	NP	NaN	23	5.741	0.1637	x^6	ShapiroWilk
pH, field (SU)	BY-AP-MW-5	Yes	5.47,6.36	NP	NaN	22	5.976	0.1447	x^5	ShapiroWilk
pH, field (SU)	BY-AP-MW-7	Yes	7.07	NP	NaN	22	6.348	0.1756	ln(x)	ShapiroWilk
pH, field (SU)	BY-AP-MW-8	Yes	5.89,5.6	NP	NaN	23	6.172	0.1489	x^6	ShapiroWilk
pH, field (SU)	BY-UP-MW-1 (bg)	Yes	3.89	NP	NaN	22	4.649	0.1856	x^6	ShapiroWilk
pH, field (SU)	BY-UP-MW-2 (bg)	Yes	3.31	NP	NaN	22	4.598	0.32	x^6	ShapiroWilk
Sulfate as SO4 (mg/L)	BY-AP-MW-15	Yes	0.489,26.4	NP	NaN	21	5.955	5.077	x^(1/3)	ShapiroWilk
Sulfate as SO4 (mg/L)	BY-AP-MW-16	Yes	0.514	NP	NaN	21	6.238	3.892	x^(1/3)	ShapiroWilk
Sulfate as SO4 (mg/L)	BY-AP-MW-5	Yes	0.583	NP	NaN	20	8.856	9.863	ln(x)	ShapiroWilk
Sulfate as SO4 (mg/L)	BY-AP-MW-9	Yes	0.51,43.5	NP	NaN	21	9.58	10.81	ln(x)	ShapiroWilk
Sulfate as SO4 (mg/L)	BY-UP-MW-4 (bg)	Yes	10.8	NP	NaN	20	6.778	1.241	ln(x)	ShapiroWilk

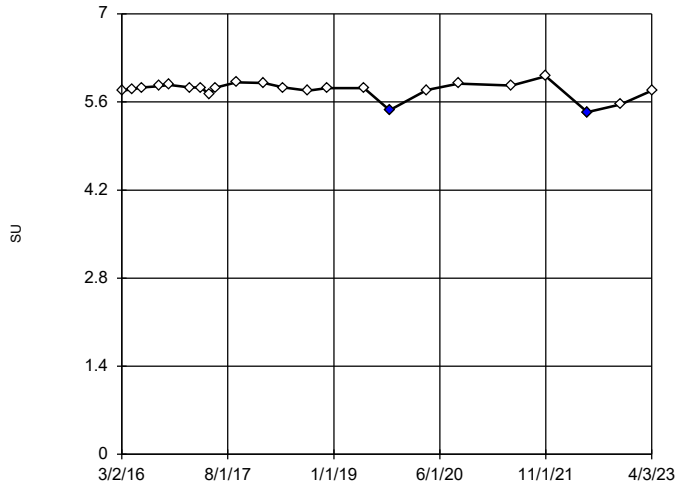
Tukey's Outlier Test - All Results

Plant Barry Client: Southern Company Data: Barry Ash Pond Printed 10/5/2023, 11:08 AM

Constituent	Well	Outlier	Value(s)	Method	Alpha	N	Mean	Std. Dev.	Distribution	Normality Test
pH, field (SU)	BY-AP-MW-1	Yes	5.47,5.44	NP	NaN	23	5.792	0.1334	x^6	ShapiroWilk
pH, field (SU)	BY-AP-MW-10	No	n/a	NP	NaN	23	6.257	0.1504	x^6	ShapiroWilk
pH, field (SU)	BY-AP-MW-11	Yes	5.85,5.87,5.84	NP	NaN	23	6.219	0.1519	x^6	ShapiroWilk
pH, field (SU)	BY-AP-MW-12	Yes	5.58,5.75,5.76	NP	NaN	23	6.097	0.17	x^6	ShapiroWilk
pH, field (SU)	BY-AP-MW-13	Yes	5.5	NP	NaN	23	6.014	0.1616	x^6	ShapiroWilk
pH, field (SU)	BY-AP-MW-14	No	n/a	NP	NaN	23	6.047	0.1385	ln(x)	ShapiroWilk
pH, field (SU)	BY-AP-MW-15	Yes	6.2	NP	NaN	23	6.639	0.1152	x^6	ShapiroWilk
pH, field (SU)	BY-AP-MW-16	Yes	5.23,5.36	NP	NaN	23	5.741	0.1637	x^6	ShapiroWilk
pH, field (SU)	BY-AP-MW-2	No	n/a	NP	NaN	23	5.633	0.3463	x^6	ShapiroWilk
pH, field (SU)	BY-AP-MW-3	No	n/a	NP	NaN	23	4.982	0.2538	x^6	ShapiroWilk
pH, field (SU)	BY-AP-MW-4	No	n/a	NP	NaN	23	4.67	0.2814	ln(x)	ShapiroWilk
pH, field (SU)	BY-AP-MW-5	Yes	5.47,6.36	NP	NaN	22	5.976	0.1447	x^5	ShapiroWilk
pH, field (SU)	BY-AP-MW-6	No	n/a	NP	NaN	23	5.275	0.2498	x^6	ShapiroWilk
pH, field (SU)	BY-AP-MW-7	Yes	7.07	NP	NaN	22	6.348	0.1756	ln(x)	ShapiroWilk
pH, field (SU)	BY-AP-MW-8	Yes	5.89,5.6	NP	NaN	23	6.172	0.1489	x^6	ShapiroWilk
pH, field (SU)	BY-AP-MW-9	No	n/a	NP	NaN	23	6.218	0.09557	x^6	ShapiroWilk
pH, field (SU)	BY-UP-MW-1 (bg)	Yes	3.89	NP	NaN	22	4.649	0.1856	x^6	ShapiroWilk
pH, field (SU)	BY-UP-MW-2 (bg)	Yes	3.31	NP	NaN	22	4.598	0.32	x^6	ShapiroWilk
pH, field (SU)	BY-UP-MW-3 (bg)	No	n/a	NP	NaN	22	4.728	0.3484	x^6	ShapiroWilk
pH, field (SU)	BY-UP-MW-4 (bg)	No	n/a	NP	NaN	22	4.737	0.2187	x^6	ShapiroWilk
Sulfate as SO4 (mg/L)	BY-AP-MW-1	No	n/a	NP	NaN	21	9.799	9.465	x^(1/3)	ShapiroWilk
Sulfate as SO4 (mg/L)	BY-AP-MW-10	No	n/a	NP	NaN	21	7.192	5.373	sqrt(x)	ShapiroWilk
Sulfate as SO4 (mg/L)	BY-AP-MW-11	No	n/a	NP	NaN	21	24.45	33.87	ln(x)	ShapiroWilk
Sulfate as SO4 (mg/L)	BY-AP-MW-12	No	n/a	NP	NaN	21	34.9	17.84	normal	ShapiroWilk
Sulfate as SO4 (mg/L)	BY-AP-MW-13	No	n/a	NP	NaN	21	19.62	22.68	ln(x)	ShapiroWilk
Sulfate as SO4 (mg/L)	BY-AP-MW-14	No	n/a	NP	NaN	21	32.96	39.7	ln(x)	ShapiroWilk
Sulfate as SO4 (mg/L)	BY-AP-MW-15	Yes	0.489,26.4	NP	NaN	21	5.955	5.077	x^(1/3)	ShapiroWilk
Sulfate as SO4 (mg/L)	BY-AP-MW-16	Yes	0.514	NP	NaN	21	6.238	3.892	x^(1/3)	ShapiroWilk
Sulfate as SO4 (mg/L)	BY-AP-MW-2	No	n/a	NP	NaN	21	1.255	0.6525	ln(x)	ShapiroWilk
Sulfate as SO4 (mg/L)	BY-AP-MW-3	No	n/a	NP	NaN	21	2.375	1.965	ln(x)	ShapiroWilk
Sulfate as SO4 (mg/L)	BY-AP-MW-4	No	n/a	NP	NaN	21	2.623	1.005	ln(x)	ShapiroWilk
Sulfate as SO4 (mg/L)	BY-AP-MW-5	Yes	0.583	NP	NaN	20	8.856	9.863	ln(x)	ShapiroWilk
Sulfate as SO4 (mg/L)	BY-AP-MW-6	No	n/a	NP	NaN	21	1.889	1.58	ln(x)	ShapiroWilk
Sulfate as SO4 (mg/L)	BY-AP-MW-7	No	n/a	NP	NaN	20	5.588	7.389	ln(x)	ShapiroWilk
Sulfate as SO4 (mg/L)	BY-AP-MW-8	No	n/a	NP	NaN	21	14.07	18.87	ln(x)	ShapiroWilk
Sulfate as SO4 (mg/L)	BY-AP-MW-9	Yes	0.51,43.5	NP	NaN	21	9.58	10.81	ln(x)	ShapiroWilk
Sulfate as SO4 (mg/L)	BY-UP-MW-1 (bg)	No	n/a	NP	NaN	20	12.68	5.664	ln(x)	ShapiroWilk
Sulfate as SO4 (mg/L)	BY-UP-MW-2 (bg)	No	n/a	NP	NaN	20	6.587	1.419	x^2	ShapiroWilk
Sulfate as SO4 (mg/L)	BY-UP-MW-3 (bg)	No	n/a	NP	NaN	20	7.437	0.5821	normal	ShapiroWilk
Sulfate as SO4 (mg/L)	BY-UP-MW-4 (bg)	Yes	10.8	NP	NaN	20	6.778	1.241	ln(x)	ShapiroWilk

Tukey's Outlier Screening

BY-AP-MW-1

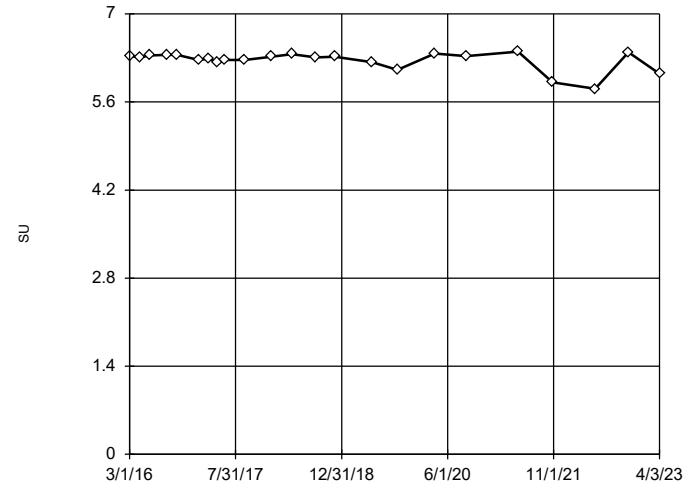


n = 23
Outliers are drawn as solid. Tukey's method selected by user.
Data were x*6 transformed to achieve best W statistic (graph shown in original units).
High cutoff = 6.072, low cutoff = 5.5, based on IQR multiplier of 3.

Constituent: pH, field Analysis Run 10/5/2023 11:06 AM View: Outliers - pH and Sulfate
Plant Barry Client: Southern Company Data: Barry Ash Pond

Tukey's Outlier Screening

BY-AP-MW-10

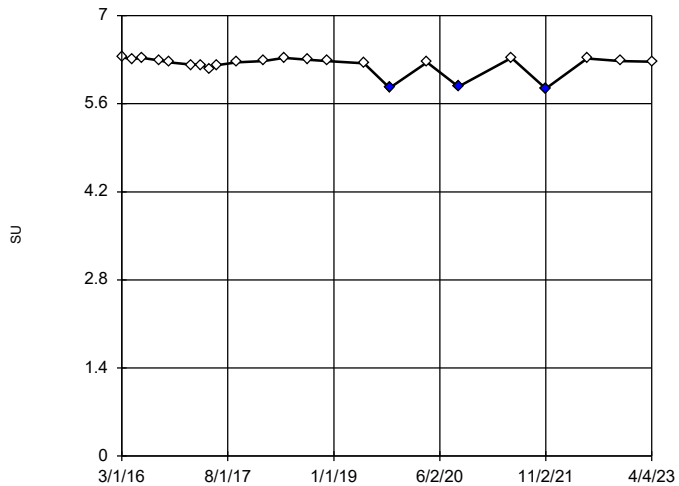


n = 23
No outliers found. Tukey's method selected by user.
Data were x*6 transformed to achieve best W statistic (graph shown in original units).
High cutoff = 6.654, low cutoff = 5.778, based on IQR multiplier of 3.

Constituent: pH, field Analysis Run 10/5/2023 11:06 AM View: Outliers - pH and Sulfate
Plant Barry Client: Southern Company Data: Barry Ash Pond

Tukey's Outlier Screening

BY-AP-MW-11

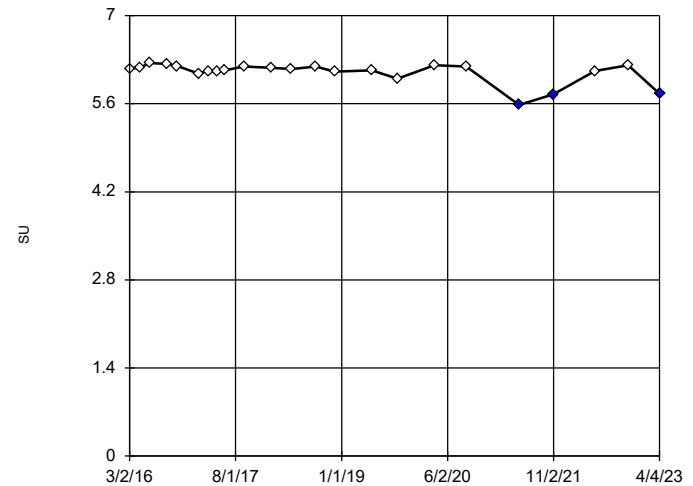


n = 23
Outliers are drawn as solid. Tukey's method selected by user.
Data were x*6 transformed to achieve best W statistic (graph shown in original units).
High cutoff = 6.547, low cutoff = 5.902, based on IQR multiplier of 3.

Constituent: pH, field Analysis Run 10/5/2023 11:06 AM View: Outliers - pH and Sulfate
Plant Barry Client: Southern Company Data: Barry Ash Pond

Tukey's Outlier Screening

BY-AP-MW-12

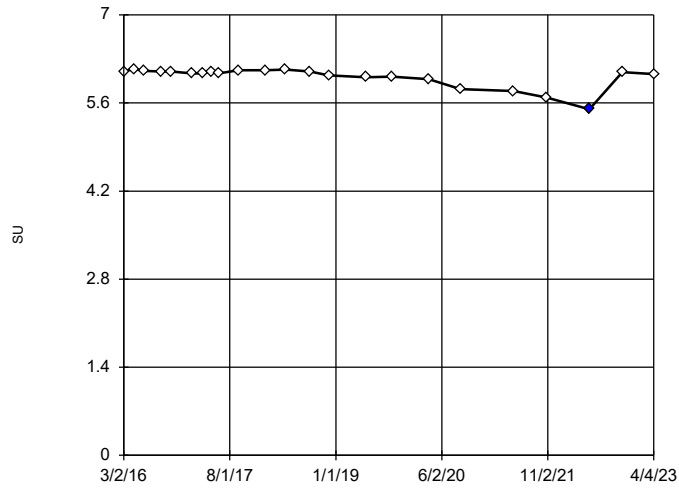


n = 23
Outliers are drawn as solid. Tukey's method selected by user.
Data were x*6 transformed to achieve best W statistic (graph shown in original units).
High cutoff = 6.403, low cutoff = 5.832, based on IQR multiplier of 3.

Constituent: pH, field Analysis Run 10/5/2023 11:06 AM View: Outliers - pH and Sulfate
Plant Barry Client: Southern Company Data: Barry Ash Pond

Tukey's Outlier Screening

BY-AP-MW-13

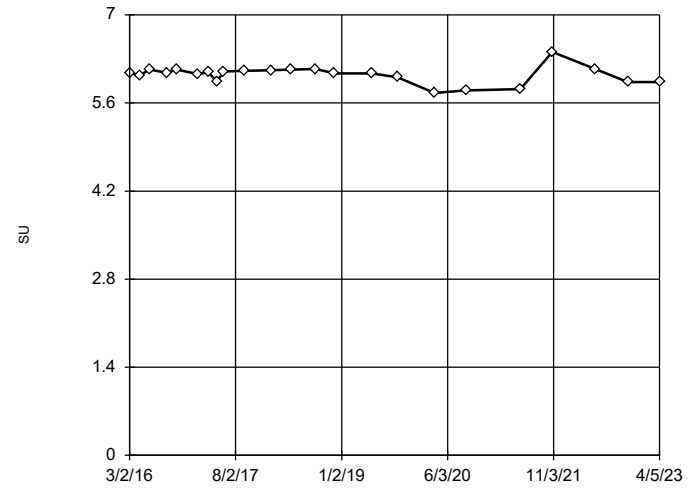


n = 23
 Outlier is drawn as solid. Tukey's method selected by user.
 Data were x⁶ transformed to achieve best W statistic (graph shown in original units).
 High cutoff = 6.336, low cutoff = 5.69, based on IQR multiplier of 3.

Constituent: pH, field Analysis Run 10/5/2023 11:06 AM View: Outliers - pH and Sulfate
 Plant Barry Client: Southern Company Data: Barry Ash Pond

Tukey's Outlier Screening

BY-AP-MW-14

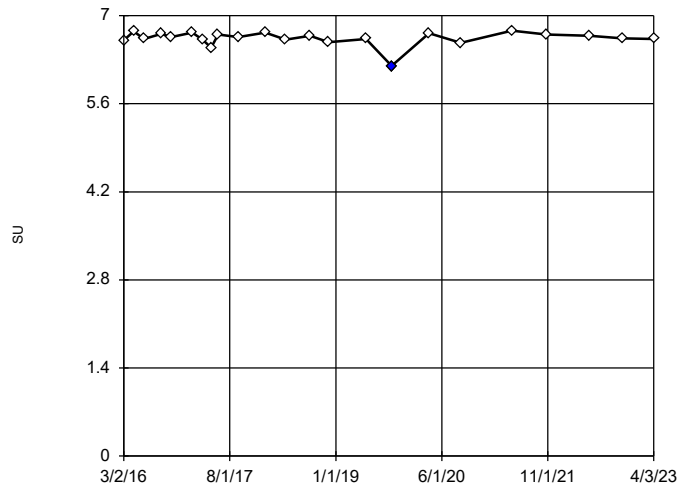


n = 23
 No outliers found. Tukey's method selected by user.
 Data were natural log transformed to achieve best W statistic (graph shown in original units).
 High cutoff = 6.737, low cutoff = 5.405, based on IQR multiplier of 3.

Constituent: pH, field Analysis Run 10/5/2023 11:06 AM View: Outliers - pH and Sulfate
 Plant Barry Client: Southern Company Data: Barry Ash Pond

Tukey's Outlier Screening

BY-AP-MW-15

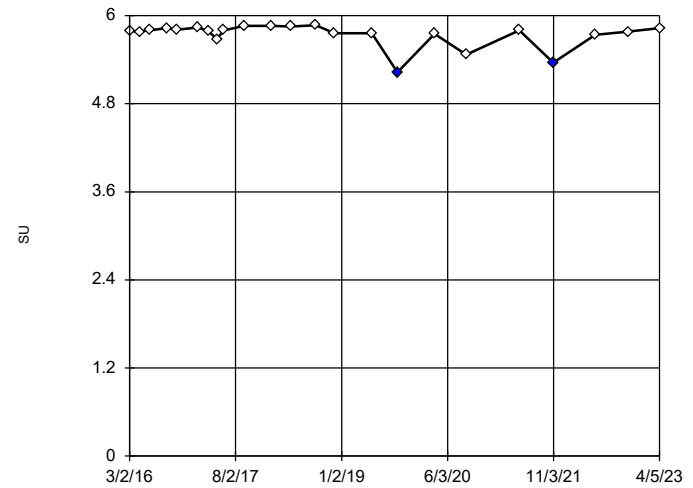


n = 23
 Outlier is drawn as solid. Tukey's method selected by user.
 Data were x⁶ transformed to achieve best W statistic (graph shown in original units).
 High cutoff = 6.949, low cutoff = 6.306, based on IQR multiplier of 3.

Constituent: pH, field Analysis Run 10/5/2023 11:06 AM View: Outliers - pH and Sulfate
 Plant Barry Client: Southern Company Data: Barry Ash Pond

Tukey's Outlier Screening

BY-AP-MW-16

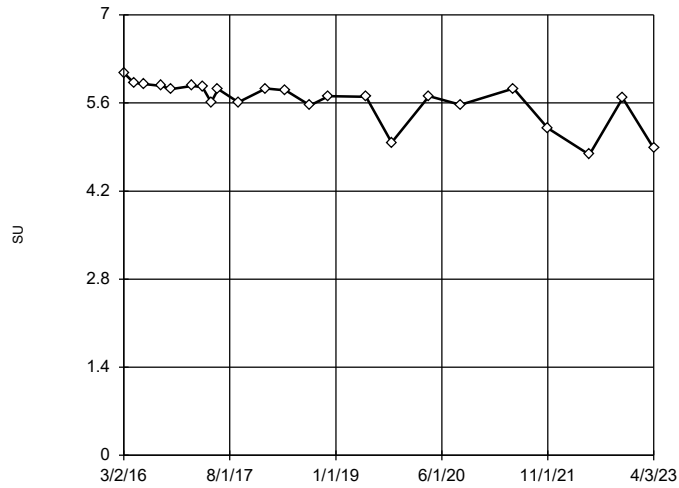


n = 23
 Outliers are drawn as solid. Tukey's method selected by user.
 Data were x⁶ transformed to achieve best W statistic (graph shown in original units).
 High cutoff = 6.042, low cutoff = 5.469, based on IQR multiplier of 3.

Constituent: pH, field Analysis Run 10/5/2023 11:06 AM View: Outliers - pH and Sulfate
 Plant Barry Client: Southern Company Data: Barry Ash Pond

Tukey's Outlier Screening

BY-AP-MW-2

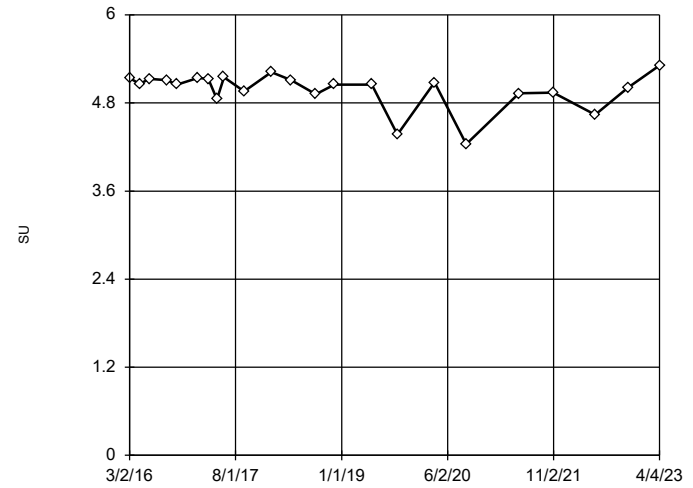


n = 23
 No outliers found.
 Tukey's method selected by user.
 Data were $\times 6$ transformed to achieve best W statistic (graph shown in original units).
 High cutoff = 6.431, low cutoff = -3.041, based on IQR multiplier of 3.

Constituent: pH, field Analysis Run 10/5/2023 11:06 AM View: Outliers - pH and Sulfate
 Plant Barry Client: Southern Company Data: Barry Ash Pond

Tukey's Outlier Screening

BY-AP-MW-3

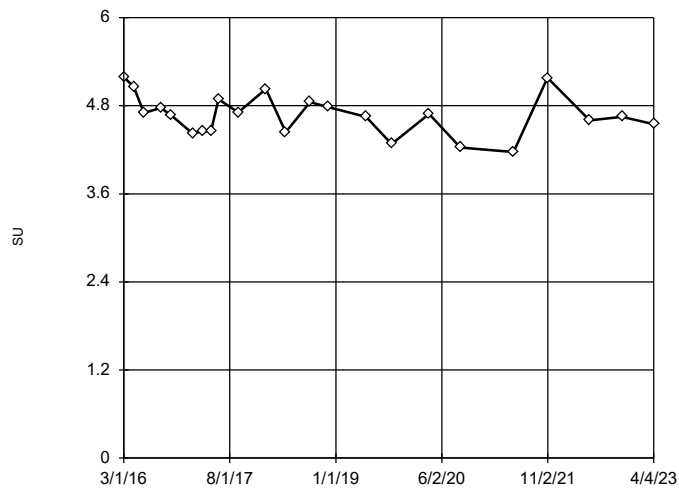


n = 23
 No outliers found.
 Tukey's method selected by user.
 Data were $\times 6$ transformed to achieve best W statistic (graph shown in original units).
 High cutoff = 5.569, low cutoff = 3.743, based on IQR multiplier of 3.

Constituent: pH, field Analysis Run 10/5/2023 11:06 AM View: Outliers - pH and Sulfate
 Plant Barry Client: Southern Company Data: Barry Ash Pond

Tukey's Outlier Screening

BY-AP-MW-4

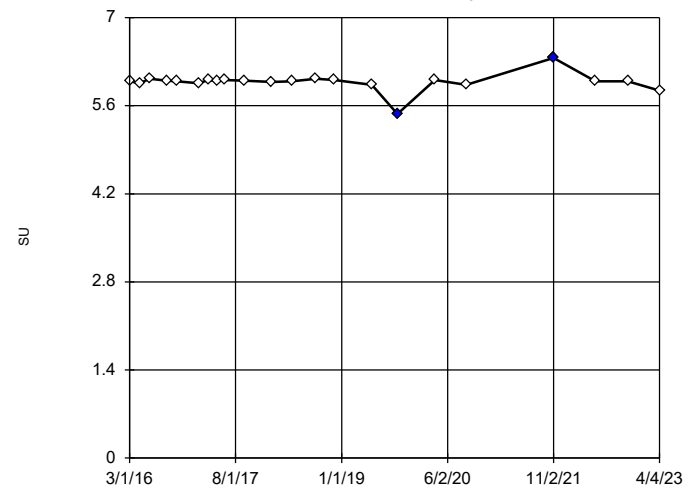


n = 23
 No outliers found.
 Tukey's method selected by user.
 Data were natural log transformed to achieve best W statistic (graph shown in original units).
 High cutoff = 6.279, low cutoff = 3.437, based on IQR multiplier of 3.

Constituent: pH, field Analysis Run 10/5/2023 11:06 AM View: Outliers - pH and Sulfate
 Plant Barry Client: Southern Company Data: Barry Ash Pond

Tukey's Outlier Screening

BY-AP-MW-5

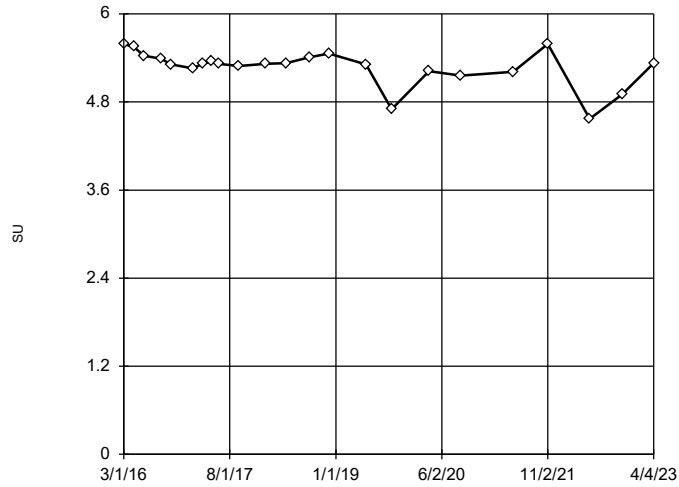


n = 22
 Outliers are drawn as solid.
 Tukey's method selected by user.
 Data were $\times 5$ transformed to achieve best W statistic (graph shown in original units).
 High cutoff = 6.151, low cutoff = 5.799, based on IQR multiplier of 3.

Constituent: pH, field Analysis Run 10/5/2023 11:06 AM View: Outliers - pH and Sulfate
 Plant Barry Client: Southern Company Data: Barry Ash Pond

Tukey's Outlier Screening

BY-AP-MW-6

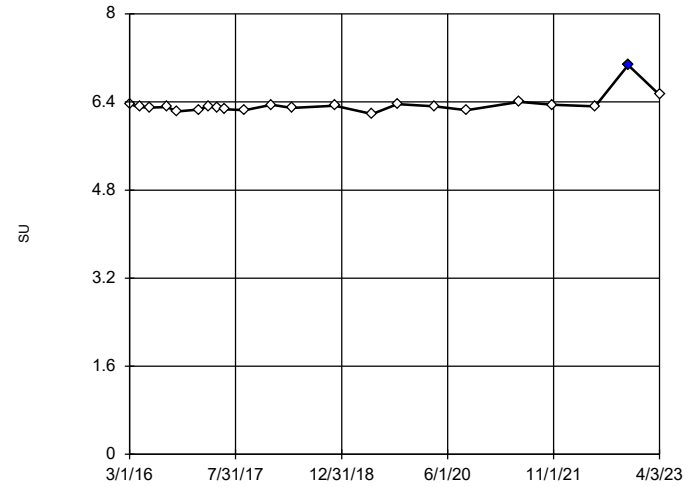


n = 23
 No outliers found.
 Tukey's method selected by user.
 Data were x⁶ transformed to achieve best W statistic (graph shown in original units).
 High cutoff = 5.838, low cutoff = 4.228, based on IQR multiplier of 3.

Constituent: pH, field Analysis Run 10/5/2023 11:06 AM View: Outliers - pH and Sulfate
 Plant Barry Client: Southern Company Data: Barry Ash Pond

Tukey's Outlier Screening

BY-AP-MW-7

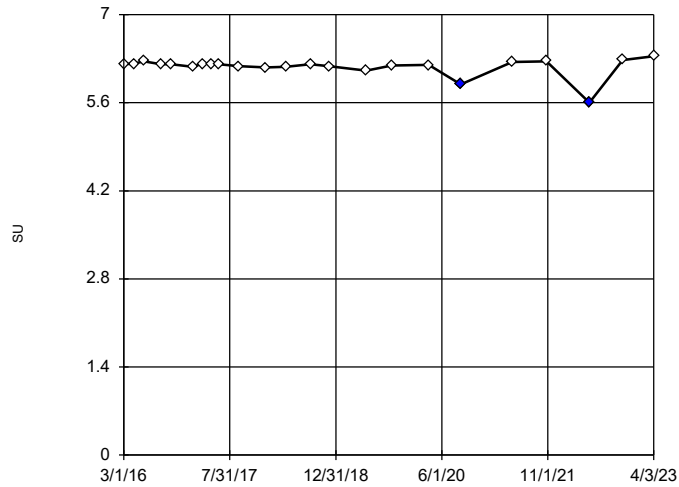


n = 22
 Outlier is drawn as solid.
 Tukey's method selected by user.
 Data were natural log transformed to achieve best W statistic (graph shown in original units).
 High cutoff = 6.633, low cutoff = 6.003, based on IQR multiplier of 3.

Constituent: pH, field Analysis Run 10/5/2023 11:06 AM View: Outliers - pH and Sulfate
 Plant Barry Client: Southern Company Data: Barry Ash Pond

Tukey's Outlier Screening

BY-AP-MW-8

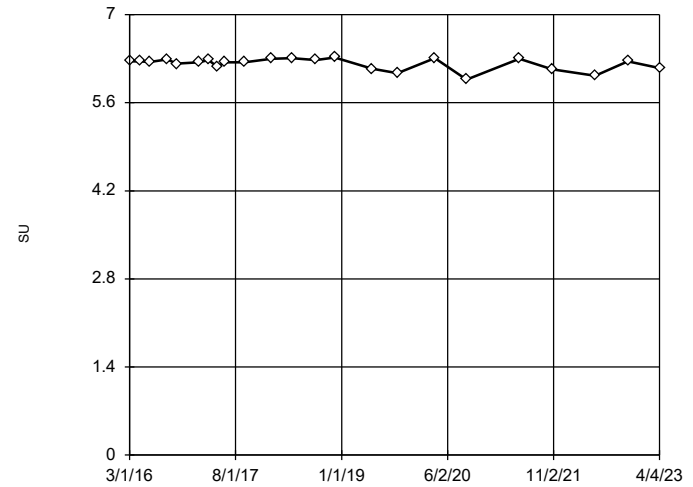


n = 23
 Outliers are drawn as solid.
 Tukey's method selected by user.
 Data were x⁶ transformed to achieve best W statistic (graph shown in original units).
 High cutoff = 6.359, low cutoff = 5.006, based on IQR multiplier of 3.

Constituent: pH, field Analysis Run 10/5/2023 11:06 AM View: Outliers - pH and Sulfate
 Plant Barry Client: Southern Company Data: Barry Ash Pond

Tukey's Outlier Screening

BY-AP-MW-9

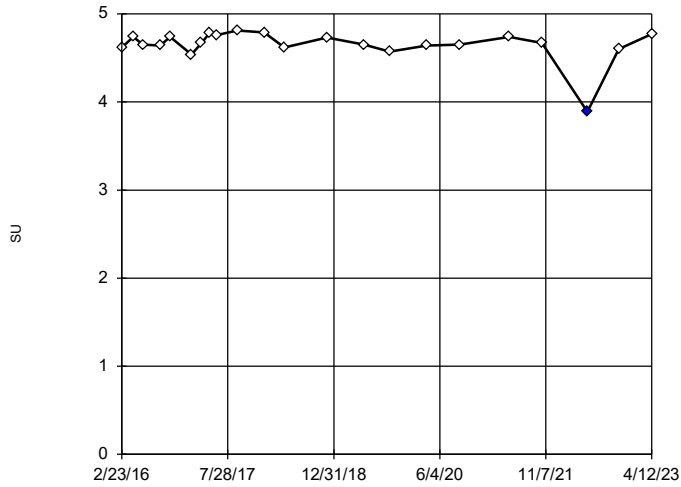


n = 23
 No outliers found.
 Tukey's method selected by user.
 Data were x⁶ transformed to achieve best W statistic (graph shown in original units).
 High cutoff = 6.636, low cutoff = 5.594, based on IQR multiplier of 3.

Constituent: pH, field Analysis Run 10/5/2023 11:06 AM View: Outliers - pH and Sulfate
 Plant Barry Client: Southern Company Data: Barry Ash Pond

Tukey's Outlier Screening

BY-UP-MW-1 (bg)

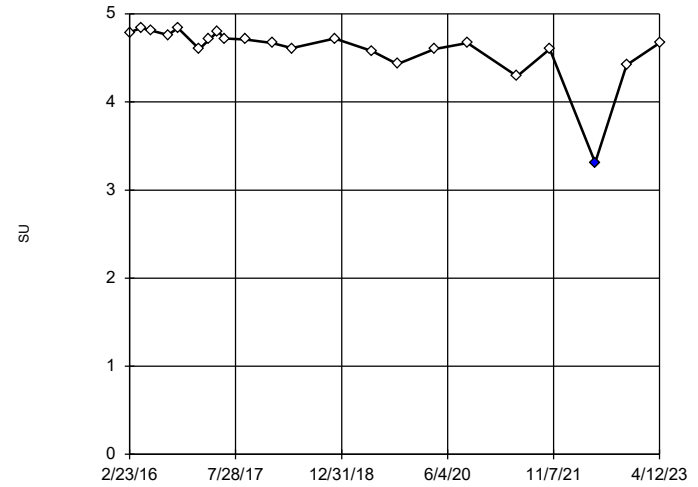


n = 22
Outlier is drawn as solid. Tukey's method selected by user.
Data were x⁶ transformed to achieve best W statistic (graph shown in original units).
High cutoff = 5.059, low cutoff = 4.054, based on IQR multiplier of 3.

Constituent: pH, field Analysis Run 10/5/2023 11:06 AM View: Outliers - pH and Sulfate
Plant Barry Client: Southern Company Data: Barry Ash Pond

Tukey's Outlier Screening

BY-UP-MW-2 (bg)

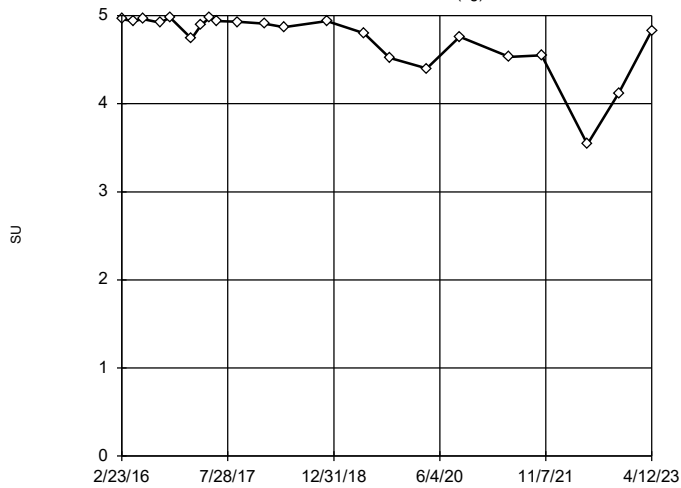


n = 22
Outlier is drawn as solid. Tukey's method selected by user.
Data were x⁶ transformed to achieve best W statistic (graph shown in original units).
High cutoff = 5.182, low cutoff = 3.501, based on IQR multiplier of 3.

Constituent: pH, field Analysis Run 10/5/2023 11:06 AM View: Outliers - pH and Sulfate
Plant Barry Client: Southern Company Data: Barry Ash Pond

Tukey's Outlier Screening

BY-UP-MW-3 (bg)

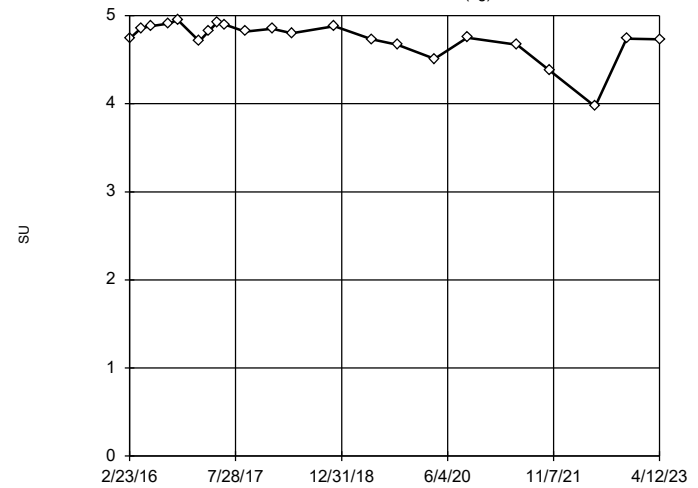


n = 22
No outliers found. Tukey's method selected by user.
Data were x⁶ transformed to achieve best W statistic (graph shown in original units).
High cutoff = 5.63, low cutoff = 4.524, based on IQR multiplier of 3.

Constituent: pH, field Analysis Run 10/5/2023 11:06 AM View: Outliers - pH and Sulfate
Plant Barry Client: Southern Company Data: Barry Ash Pond

Tukey's Outlier Screening

BY-UP-MW-4 (bg)

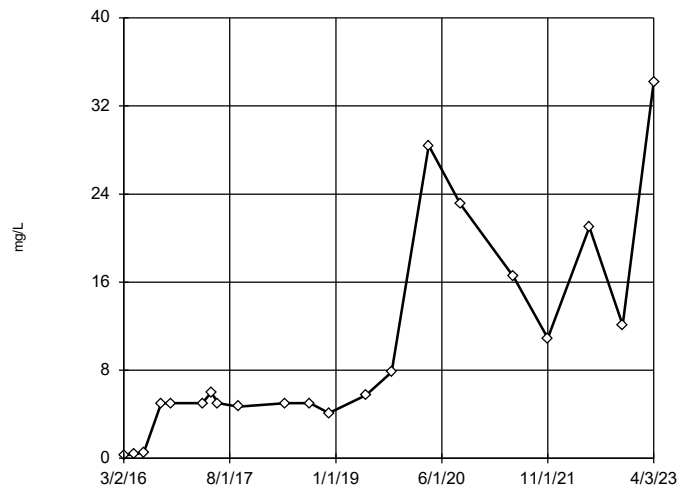


n = 22
No outliers found. Tukey's method selected by user.
Data were x⁶ transformed to achieve best W statistic (graph shown in original units).
High cutoff = 5.297, low cutoff = 3.568, based on IQR multiplier of 3.

Constituent: pH, field Analysis Run 10/5/2023 11:06 AM View: Outliers - pH and Sulfate
Plant Barry Client: Southern Company Data: Barry Ash Pond

Tukey's Outlier Screening

BY-AP-MW-1

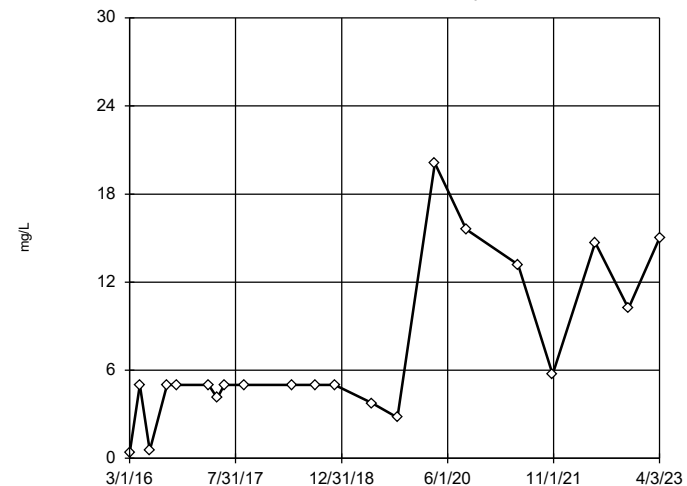


n = 21
 No outliers found.
 Tukey's method selected by user.
 Data were cube root transformed to achieve best W statistic (graph shown in original units).
 High cutoff = 97.69, low cutoff = -0.1193, based on IQR multiplier of 3.

Constituent: Sulfate as SO4 Analysis Run 10/5/2023 11:06 AM View: Outliers - pH and Sulfate
 Plant Barry Client: Southern Company Data: Barry Ash Pond

Tukey's Outlier Screening

BY-AP-MW-10

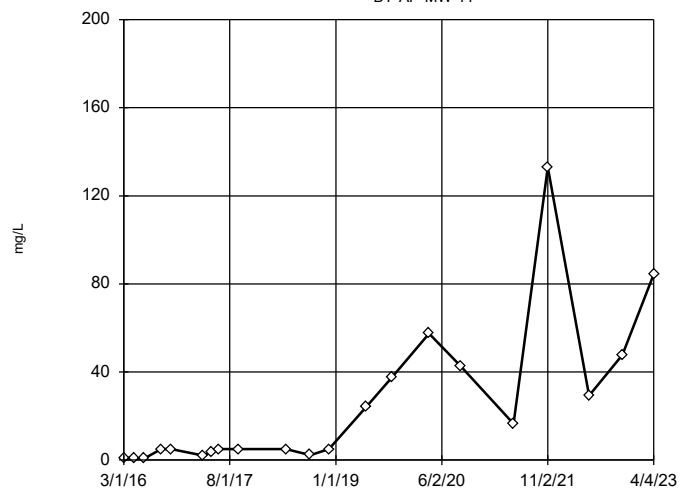


n = 21
 No outliers found.
 Tukey's method selected by user.
 Data were square root transformed to achieve best W statistic (graph shown in original units).
 High cutoff = 52.74, low cutoff = -2.953, based on IQR multiplier of 3.

Constituent: Sulfate as SO4 Analysis Run 10/5/2023 11:06 AM View: Outliers - pH and Sulfate
 Plant Barry Client: Southern Company Data: Barry Ash Pond

Tukey's Outlier Screening

BY-AP-MW-11

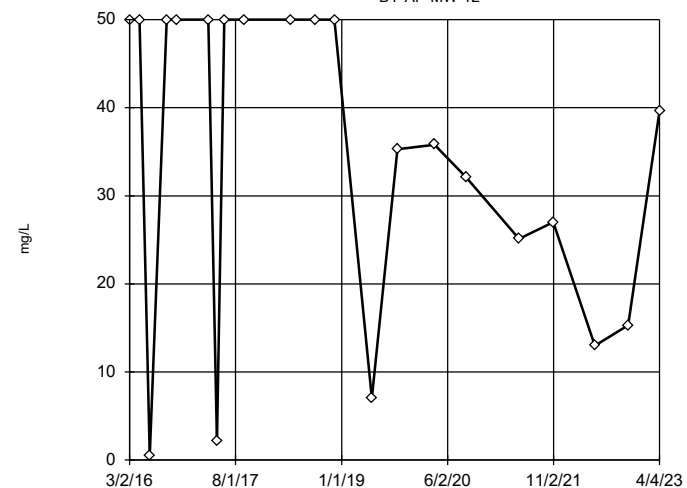


n = 21
 No outliers found.
 Tukey's method selected by user.
 Data were natural log transformed to achieve best W statistic (graph shown in original units).
 High cutoff = 107544, low cutoff = 0.001071, based on IQR multiplier of 3.

Constituent: Sulfate as SO4 Analysis Run 10/5/2023 11:06 AM View: Outliers - pH and Sulfate
 Plant Barry Client: Southern Company Data: Barry Ash Pond

Tukey's Outlier Screening

BY-AP-MW-12

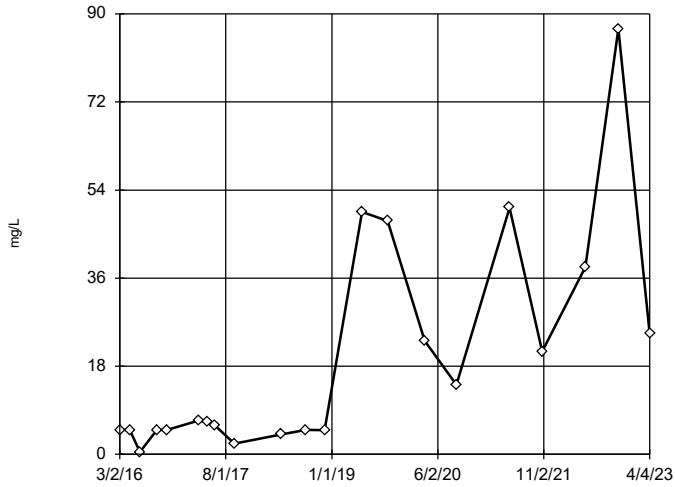


n = 21
 No outliers found.
 Tukey's method selected by user.
 Ladder of Powers transformations did not improve normality; analysis run on raw data.
 High cutoff = 139.4, low cutoff = -69.2, based on IQR multiplier of 3.

Constituent: Sulfate as SO4 Analysis Run 10/5/2023 11:06 AM View: Outliers - pH and Sulfate
 Plant Barry Client: Southern Company Data: Barry Ash Pond

Tukey's Outlier Screening

BY-AP-MW-13

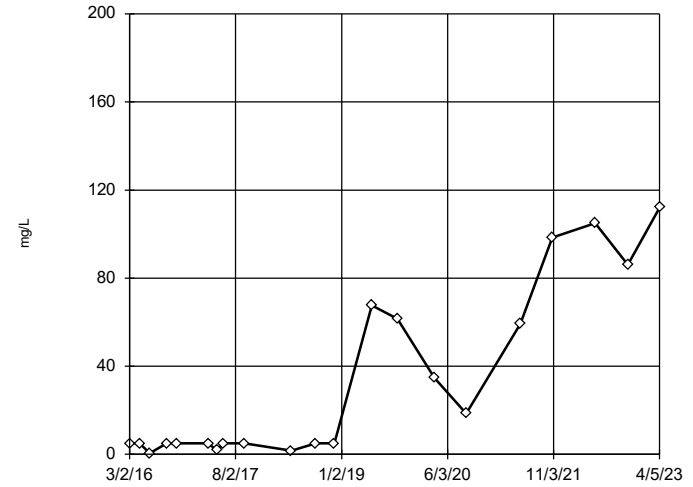


n = 21
 No outliers found. Tukey's method selected by user.
 Data were natural log transformed to achieve best W statistic (graph shown in original units).
 High cutoff = 7102, low cutoff = 0.02161, based on IQR multiplier of 3.

Constituent: Sulfate as SO4 Analysis Run 10/5/2023 11:06 AM View: Outliers - pH and Sulfate
 Plant Barry Client: Southern Company Data: Barry Ash Pond

Tukey's Outlier Screening

BY-AP-MW-14

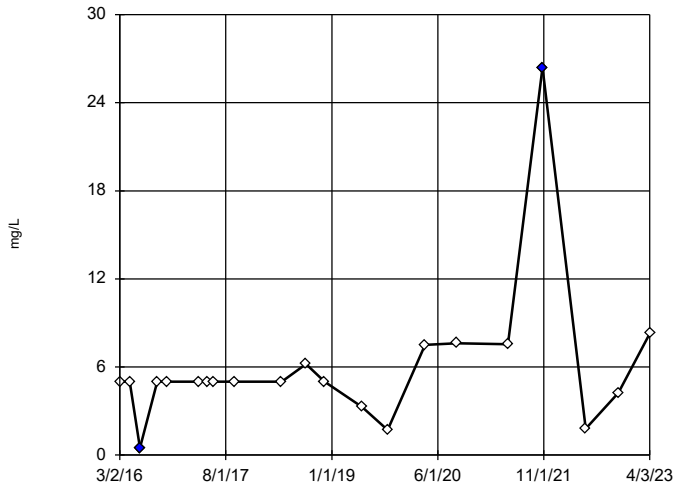


n = 21
 No outliers found. Tukey's method selected by user.
 Data were natural log transformed to achieve best W statistic (graph shown in original units).
 High cutoff = 138722, low cutoff = 0.002326, based on IQR multiplier of 3.

Constituent: Sulfate as SO4 Analysis Run 10/5/2023 11:06 AM View: Outliers - pH and Sulfate
 Plant Barry Client: Southern Company Data: Barry Ash Pond

Tukey's Outlier Screening

BY-AP-MW-15

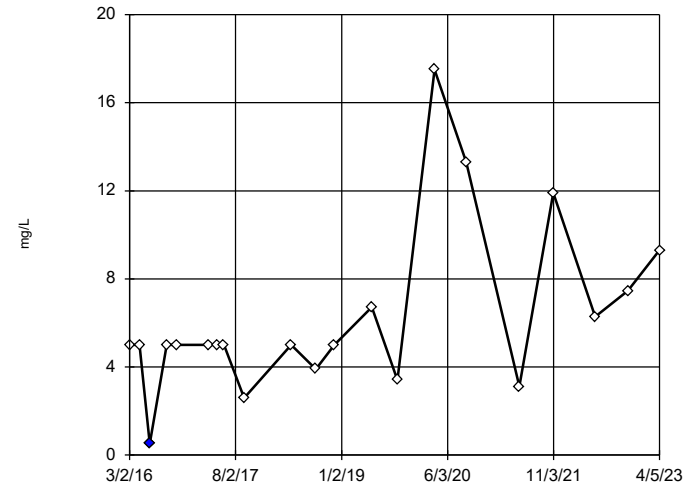


n = 21
 Outliers are drawn as solid. Tukey's method selected by user.
 Data were cube root transformed to achieve best W statistic (graph shown in original units).
 High cutoff = 17.5, low cutoff = 0.8993, based on IQR multiplier of 3.

Constituent: Sulfate as SO4 Analysis Run 10/5/2023 11:06 AM View: Outliers - pH and Sulfate
 Plant Barry Client: Southern Company Data: Barry Ash Pond

Tukey's Outlier Screening

BY-AP-MW-16

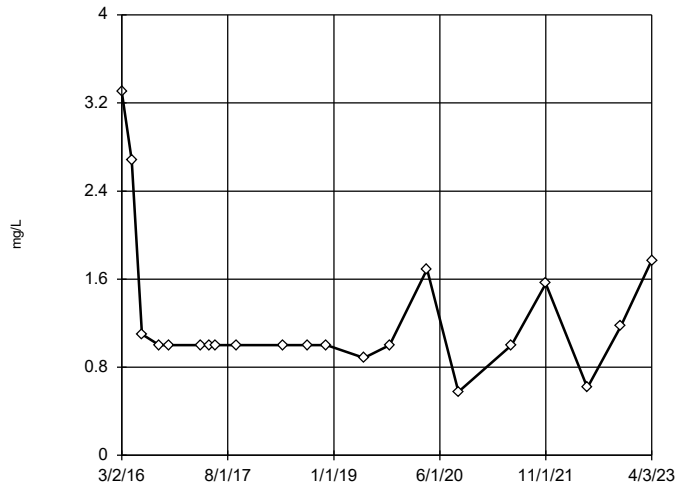


n = 21
 Outlier is drawn as solid. Tukey's method selected by user.
 Data were cube root transformed to achieve best W statistic (graph shown in original units).
 High cutoff = 20.93, low cutoff = 0.5247, based on IQR multiplier of 3.

Constituent: Sulfate as SO4 Analysis Run 10/5/2023 11:06 AM View: Outliers - pH and Sulfate
 Plant Barry Client: Southern Company Data: Barry Ash Pond

Tukey's Outlier Screening

BY-AP-MW-2

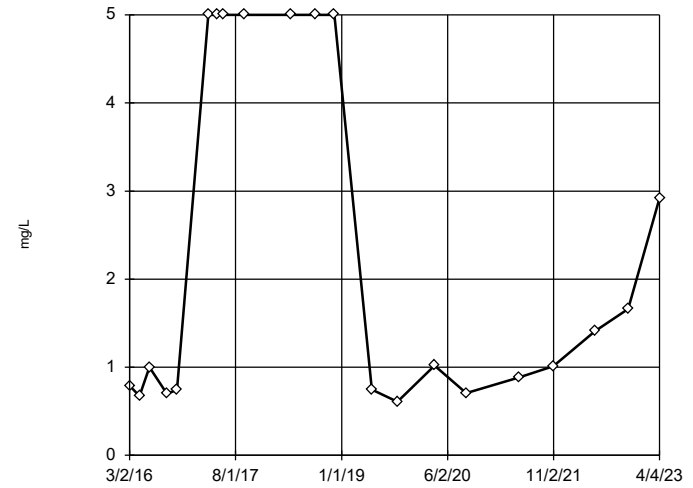


n = 21
 No outliers found.
 Tukey's method selected by user.
 Data were natural log transformed to achieve best W statistic (graph shown in original units).
 High cutoff = 3.331, low cutoff = 0.4055, based on IQR multiplier of 3.

Constituent: Sulfate as SO4 Analysis Run 10/5/2023 11:06 AM View: Outliers - pH and Sulfate
 Plant Barry Client: Southern Company Data: Barry Ash Pond

Tukey's Outlier Screening

BY-AP-MW-3

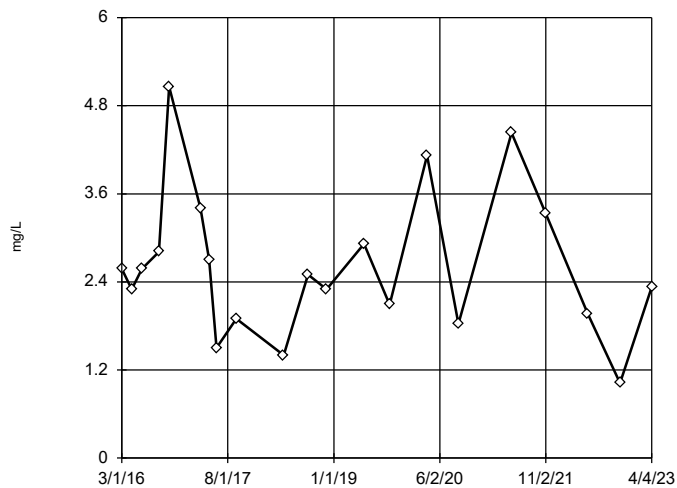


n = 21
 No outliers found.
 Tukey's method selected by user.
 Data were natural log transformed to achieve best W statistic (graph shown in original units).
 High cutoff = 1524, low cutoff = 0.002438, based on IQR multiplier of 3.

Constituent: Sulfate as SO4 Analysis Run 10/5/2023 11:06 AM View: Outliers - pH and Sulfate
 Plant Barry Client: Southern Company Data: Barry Ash Pond

Tukey's Outlier Screening

BY-AP-MW-4

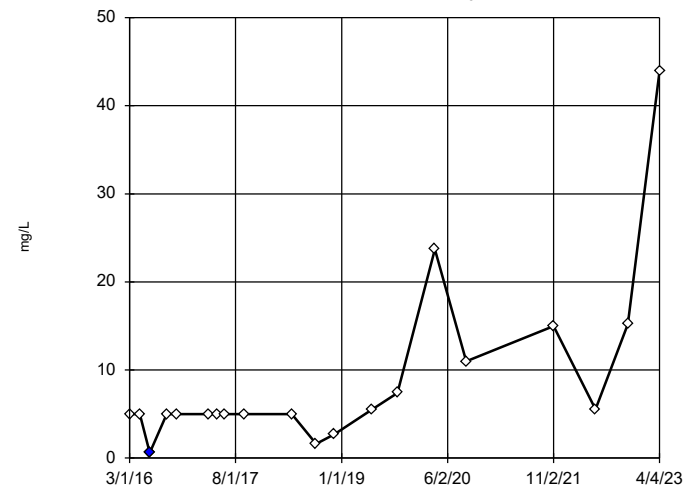


n = 21
 No outliers found.
 Tukey's method selected by user.
 Data were natural log transformed to achieve best W statistic (graph shown in original units).
 High cutoff = 13.13, low cutoff = 0.46, based on IQR multiplier of 3.

Constituent: Sulfate as SO4 Analysis Run 10/5/2023 11:06 AM View: Outliers - pH and Sulfate
 Plant Barry Client: Southern Company Data: Barry Ash Pond

Tukey's Outlier Screening

BY-AP-MW-5

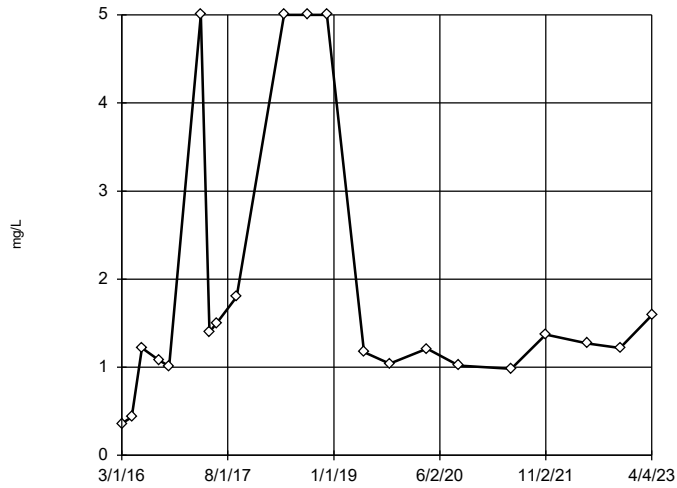


n = 20
 Outlier is drawn as solid.
 Tukey's method selected by user.
 Data were natural log transformed to achieve best W statistic (graph shown in original units).
 High cutoff = 53.01, low cutoff = 0.851, based on IQR multiplier of 3.

Constituent: Sulfate as SO4 Analysis Run 10/5/2023 11:06 AM View: Outliers - pH and Sulfate
 Plant Barry Client: Southern Company Data: Barry Ash Pond

Tukey's Outlier Screening

BY-AP-MW-6



n = 21

No outliers found. Tukey's method selected by user.

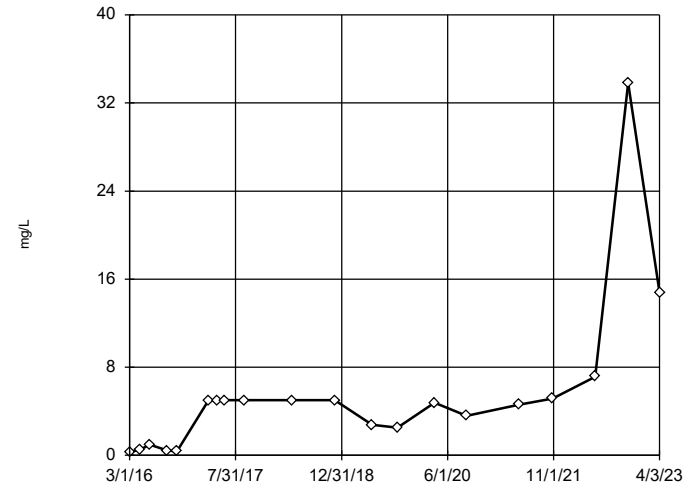
Data were natural log transformed to achieve best W statistic (graph shown in original units).

High cutoff = 7.497, low cutoff = 0.2324, based on IQR multiplier of 3.

Constituent: Sulfate as SO4 Analysis Run 10/5/2023 11:06 AM View: Outliers - pH and Sulfate
Plant Barry Client: Southern Company Data: Barry Ash Pond

Tukey's Outlier Screening

BY-AP-MW-7



n = 20

No outliers found. Tukey's method selected by user.

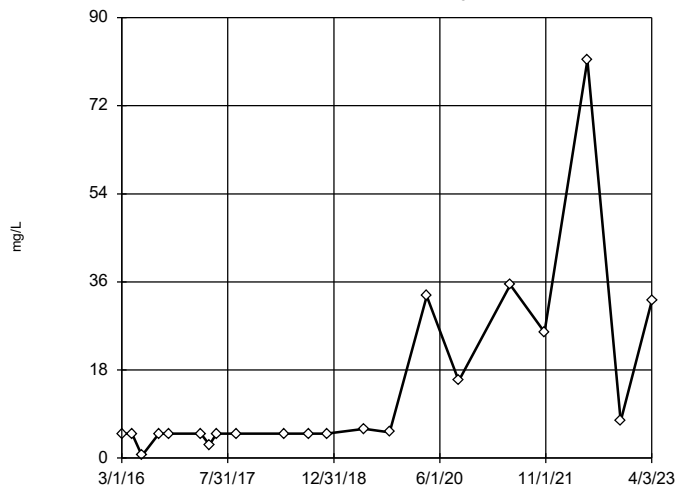
Data were natural log transformed to achieve best W statistic (graph shown in original units).

High cutoff = 164.3, low cutoff = 0.04752, based on IQR multiplier of 3.

Constituent: Sulfate as SO4 Analysis Run 10/5/2023 11:06 AM View: Outliers - pH and Sulfate
Plant Barry Client: Southern Company Data: Barry Ash Pond

Tukey's Outlier Screening

BY-AP-MW-8



n = 21

No outliers found. Tukey's method selected by user.

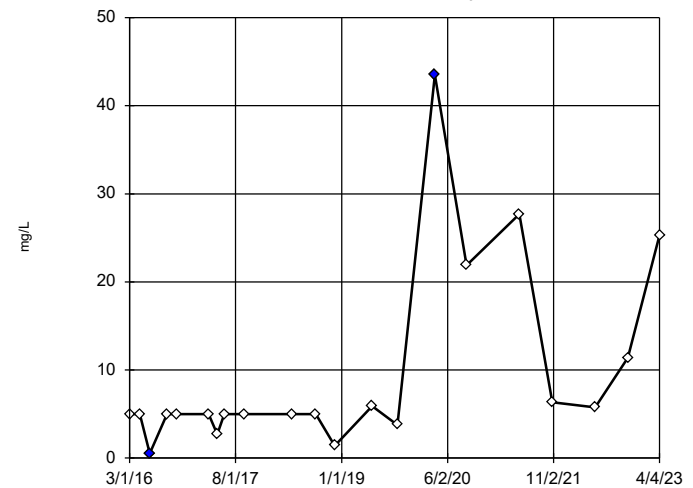
Data were natural log transformed to achieve best W statistic (graph shown in original units).

High cutoff = 1319, low cutoff = 0.07638, based on IQR multiplier of 3.

Constituent: Sulfate as SO4 Analysis Run 10/5/2023 11:06 AM View: Outliers - pH and Sulfate
Plant Barry Client: Southern Company Data: Barry Ash Pond

Tukey's Outlier Screening

BY-AP-MW-9



n = 21

Outliers are drawn as solid. Tukey's method selected by user.

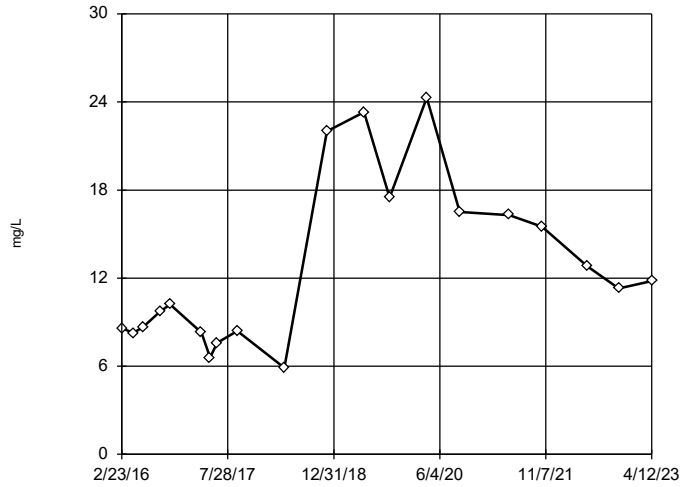
Data were natural log transformed to achieve best W statistic (graph shown in original units).

High cutoff = 41.66, low cutoff = 1.02, based on IQR multiplier of 3.

Constituent: Sulfate as SO4 Analysis Run 10/5/2023 11:06 AM View: Outliers - pH and Sulfate
Plant Barry Client: Southern Company Data: Barry Ash Pond

Tukey's Outlier Screening

BY-UP-MW-1 (bg)



n = 20

No outliers found. Tukey's method selected by user.

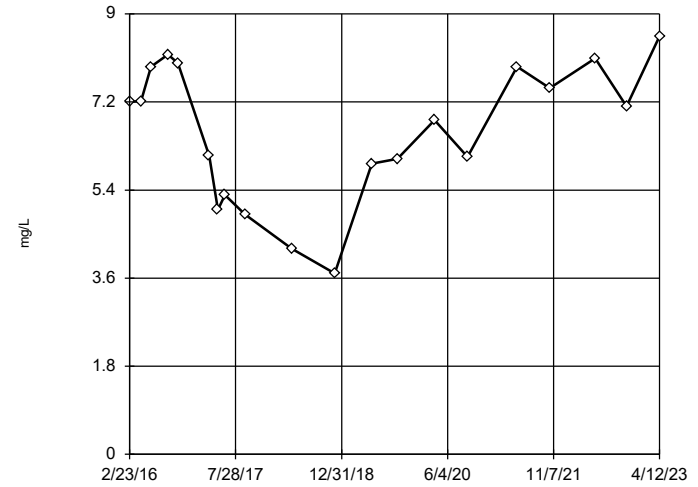
Data were natural log transformed to achieve best W statistic (graph shown in original units).

High cutoff = 124.3, low cutoff = 1.102, based on IQR multiplier of 3.

Constituent: Sulfate as SO4 Analysis Run 10/5/2023 11:06 AM View: Outliers - pH and Sulfate
Plant Barry Client: Southern Company Data: Barry Ash Pond

Tukey's Outlier Screening

BY-UP-MW-2 (bg)



n = 20

No outliers found. Tukey's method selected by user.

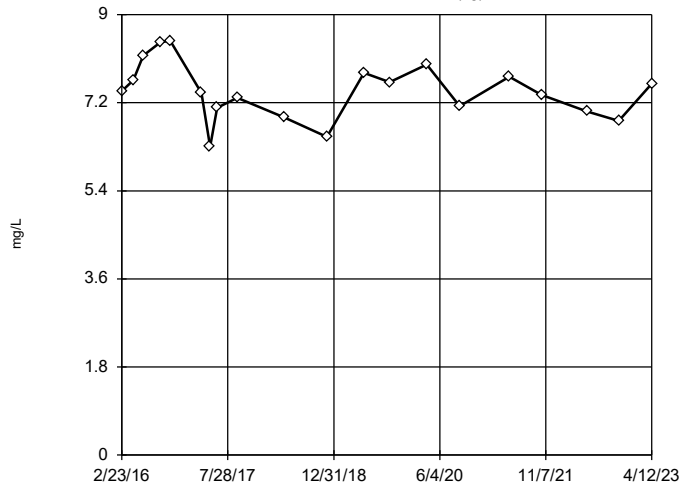
Data were square transformed to achieve best W statistic (graph shown in original units).

High cutoff = 12.48, low cutoff = -7.838, based on IQR multiplier of 3.

Constituent: Sulfate as SO4 Analysis Run 10/5/2023 11:06 AM View: Outliers - pH and Sulfate
Plant Barry Client: Southern Company Data: Barry Ash Pond

Tukey's Outlier Screening

BY-UP-MW-3 (bg)



n = 20

No outliers found. Tukey's method selected by user.

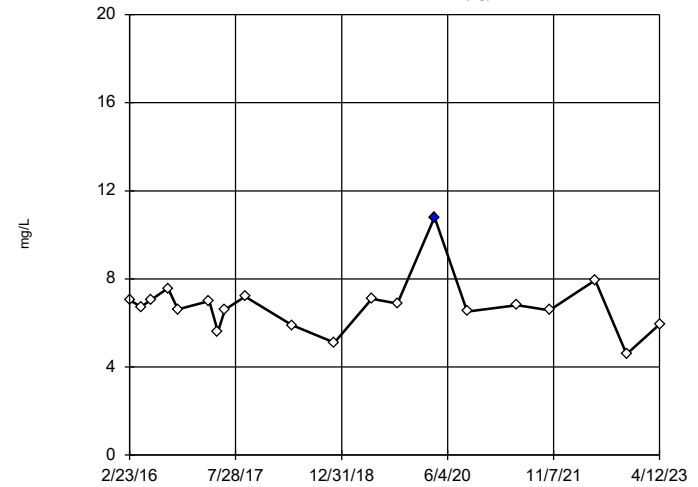
Ladder of Powers transformations did not improve normality; analysis run on raw data.

High cutoff = 9.9, low cutoff = 4.93, based on IQR multiplier of 3.

Constituent: Sulfate as SO4 Analysis Run 10/5/2023 11:06 AM View: Outliers - pH and Sulfate
Plant Barry Client: Southern Company Data: Barry Ash Pond

Tukey's Outlier Screening

BY-UP-MW-4 (bg)



n = 20

Outlier is drawn as solid. Tukey's method selected by user.

Data were natural log transformed to achieve best W statistic (graph shown in original units).

High cutoff = 10.39, low cutoff = 4.23, based on IQR multiplier of 3.

Constituent: Sulfate as SO4 Analysis Run 10/5/2023 11:06 AM View: Outliers - pH and Sulfate
Plant Barry Client: Southern Company Data: Barry Ash Pond

Tukey's Outlier Test - Upgradient Wells - Significant Results

Plant Barry Client: Southern Company Data: Barry Ash Pond Printed 10/3/2023, 2:15 PM

<u>Constituent</u>	<u>Well</u>	<u>Outlier</u>	<u>Value(s)</u>	<u>Method</u>	<u>Alpha</u>	<u>N</u>	<u>Mean</u>	<u>Std. Dev.</u>	<u>Distribution</u>	<u>Normality Test</u>
Chloride, Total (mg/L)	BY-UP-MW-1,BY-UP-...	Yes	9.9	NP	NaN	84	3.502	0.9941	ln(x)	ShapiroFrancia
TDS (mg/L)	BY-UP-MW-1,BY-UP-...	Yes	58	NP	NaN	84	33.29	8.977	x^2	ShapiroFrancia

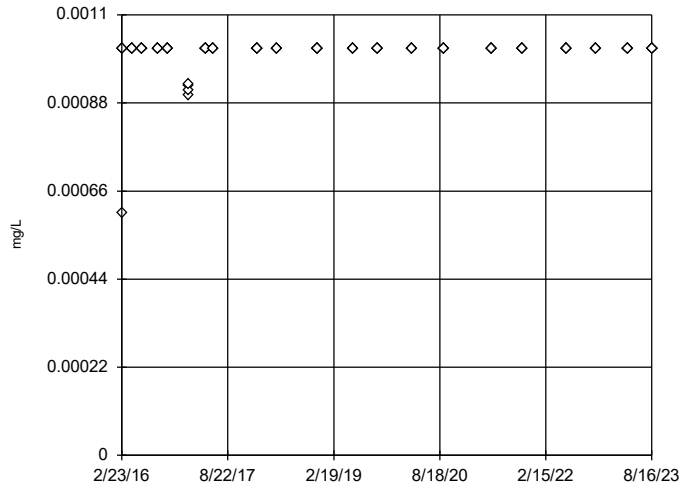
Tukey's Outlier Test - Upgradient Wells - All Results

Plant Barry Client: Southern Company Data: Barry Ash Pond Printed 10/3/2023, 2:15 PM

Constituent	Well	Outlier	Value(s)	Method	Alpha	N	Mean	Std. Dev.	Distribution	Normality Test
Antimony (mg/L)	BY-UP-MW-1,BY-UP-...	n/a	n/a	NP	NaN	84	0.001005	0.00004905	unknown	ShapiroFrancia
Arsenic (mg/L)	BY-UP-MW-1,BY-UP-...	n/a	n/a	NP	NaN	84	0.0002213	0.0001687	unknown	ShapiroFrancia
Barium (mg/L)	BY-UP-MW-1,BY-UP-...	No	n/a	NP	NaN	84	0.1087	0.03021	ln(x)	ShapiroFrancia
Beryllium (mg/L)	BY-UP-MW-1,BY-UP-...	n/a	n/a	NP	NaN	84	0.0009758	0.0001293	unknown	ShapiroFrancia
Boron, total (mg/L)	BY-UP-MW-1,BY-UP-...	n/a	n/a	NP	NaN	84	0.09365	0.02697	unknown	ShapiroFrancia
Cadmium (mg/L)	BY-UP-MW-1,BY-UP-...	n/a	n/a	NP	NaN	84	0.0002014	0.00001424	unknown	ShapiroFrancia
Calcium, total (mg/L)	BY-UP-MW-1,BY-UP-...	No	n/a	NP	NaN	84	1.487	0.3175	sqrt(x)	ShapiroFrancia
Chloride, Total (mg/L)	BY-UP-MW-1,BY-UP-...	Yes	9.9	NP	NaN	84	3.502	0.9941	ln(x)	ShapiroFrancia
Chromium (mg/L)	BY-UP-MW-1,BY-UP-...	No	n/a	NP	NaN	84	0.007274	0.004061	x^(1/3)	ShapiroFrancia
Cobalt (mg/L)	BY-UP-MW-1,BY-UP-...	No	n/a	NP	NaN	84	0.00433	0.002506	ln(x)	ShapiroFrancia
Combined Radium 226 + 228 (pCi/L)	BY-UP-MW-1,BY-UP-...	No	n/a	NP	NaN	80	1.17	0.7145	x^(1/3)	ShapiroFrancia
Fluoride, total (mg/L)	BY-UP-MW-1,BY-UP-...	No	n/a	NP	NaN	88	0.09604	0.0422	ln(x)	ShapiroFrancia
Lead (mg/L)	BY-UP-MW-1,BY-UP-...	n/a	n/a	NP	NaN	84	0.0002016	0.0001252	unknown	ShapiroFrancia
Lithium (mg/L)	BY-UP-MW-1,BY-UP-...	n/a	n/a	NP	NaN	84	0.02	0	unknown	ShapiroFrancia
Mercury (mg/L)	BY-UP-MW-1,BY-UP-...	n/a	n/a	NP	NaN	84	0.0005	0	unknown	ShapiroFrancia
Molybdenum (mg/L)	BY-UP-MW-1,BY-UP-...	n/a	n/a	NP	NaN	84	0.01015	0	unknown	ShapiroFrancia
Selenium (mg/L)	BY-UP-MW-1,BY-UP-...	n/a	n/a	NP	NaN	84	0.0009916	0.0000943	unknown	ShapiroFrancia
TDS (mg/L)	BY-UP-MW-1,BY-UP-...	Yes	58	NP	NaN	84	33.29	8.977	x^2	ShapiroFrancia
Thallium (mg/L)	BY-UP-MW-1,BY-UP-...	n/a	n/a	NP	NaN	84	0.000203	0	unknown	ShapiroFrancia

Tukey's Outlier Screening, Pooled Background

BY-UP-MW-1,BY-UP-MW-2,BY-UP-MW-3,BY-U...

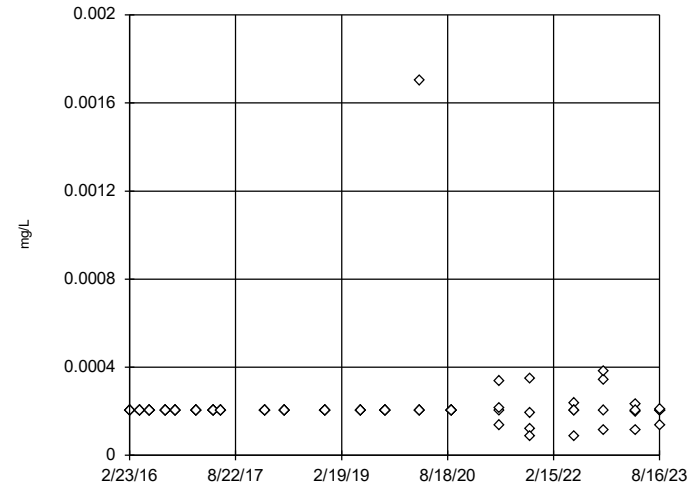


n = 84
 No outliers found. Tukey's method selected by user.
 Data were cube transformed to achieve best W statistic (graph shown in original units).
 The results were invalidated, because the lower and upper quartiles are equal.

Constituent: Antimony Analysis Run 10/3/2023 2:11 PM View: Outlier Tests - App III and IV
 Plant Barry Client: Southern Company Data: Barry Ash Pond

Tukey's Outlier Screening, Pooled Background

BY-UP-MW-1,BY-UP-MW-2,BY-UP-MW-3,BY-U...

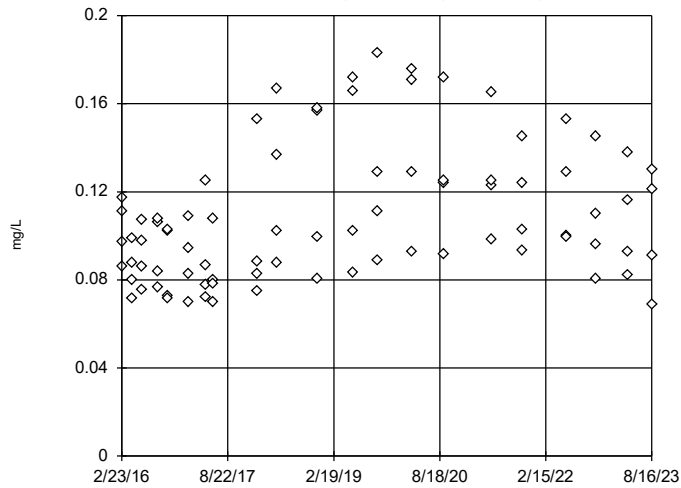


n = 84
 No outliers found. Tukey's method selected by user.
 Data were natural log transformed to achieve best W statistic (graph shown in original units).
 The results were invalidated, because the lower and upper quartiles are equal.

Constituent: Arsenic Analysis Run 10/3/2023 2:11 PM View: Outlier Tests - App III and IV
 Plant Barry Client: Southern Company Data: Barry Ash Pond

Tukey's Outlier Screening, Pooled Background

BY-UP-MW-1,BY-UP-MW-2,BY-UP-MW-3,BY-U...

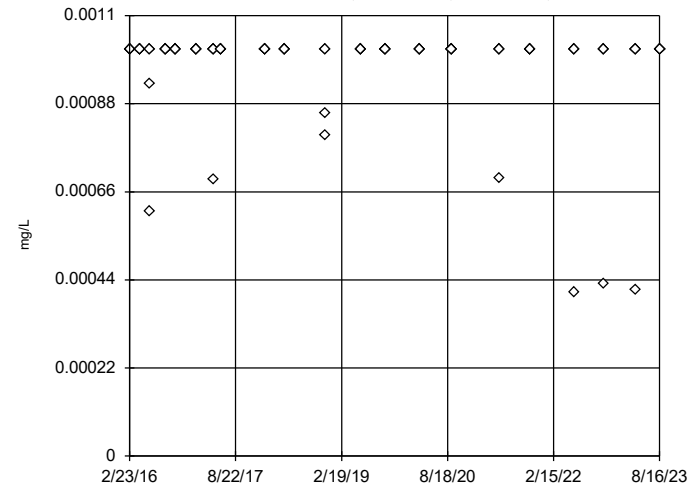


n = 84
 No outliers found. Tukey's method selected by user.
 Data were natural log transformed to achieve best W statistic (graph shown in original units).
 High cutoff = 0.3955, low cutoff = 0.02691, based on IQR multiplier of 3.

Constituent: Barium Analysis Run 10/3/2023 2:11 PM View: Outlier Tests - App III and IV
 Plant Barry Client: Southern Company Data: Barry Ash Pond

Tukey's Outlier Screening, Pooled Background

BY-UP-MW-1,BY-UP-MW-2,BY-UP-MW-3,BY-U...

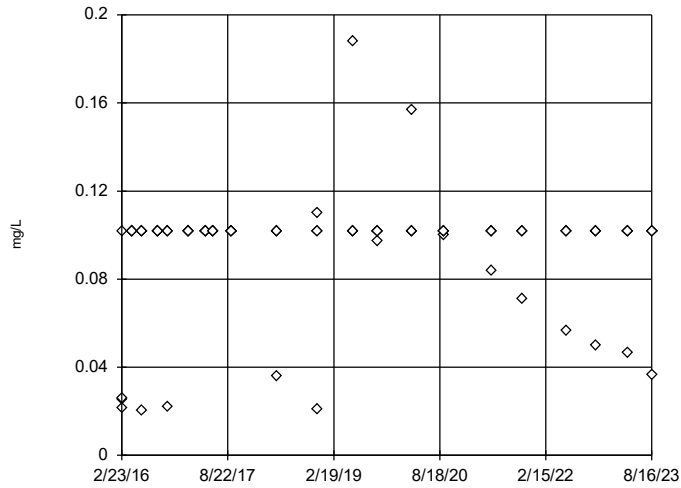


n = 84
 No outliers found. Tukey's method selected by user.
 Data were cube transformed to achieve best W statistic (graph shown in original units).
 The results were invalidated, because the lower and upper quartiles are equal.

Constituent: Beryllium Analysis Run 10/3/2023 2:11 PM View: Outlier Tests - App III and IV
 Plant Barry Client: Southern Company Data: Barry Ash Pond

Tukey's Outlier Screening, Pooled Background

BY-UP-MW-1,BY-UP-MW-2,BY-UP-MW-3,BY-U...

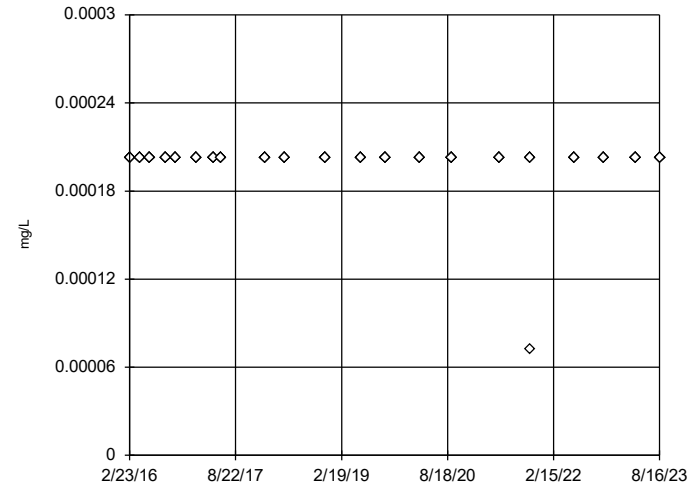


n = 84
 No outliers found.
 Tukey's method selected by user.
 Ladder of Powers transformations did not improve normality; analysis run on raw data.
 The results were invalidated, because the lower and upper quartiles are equal.

Constituent: Boron, total Analysis Run 10/3/2023 2:12 PM View: Outlier Tests - App III and IV
 Plant Barry Client: Southern Company Data: Barry Ash Pond

Tukey's Outlier Screening, Pooled Background

BY-UP-MW-1,BY-UP-MW-2,BY-UP-MW-3,BY-U...

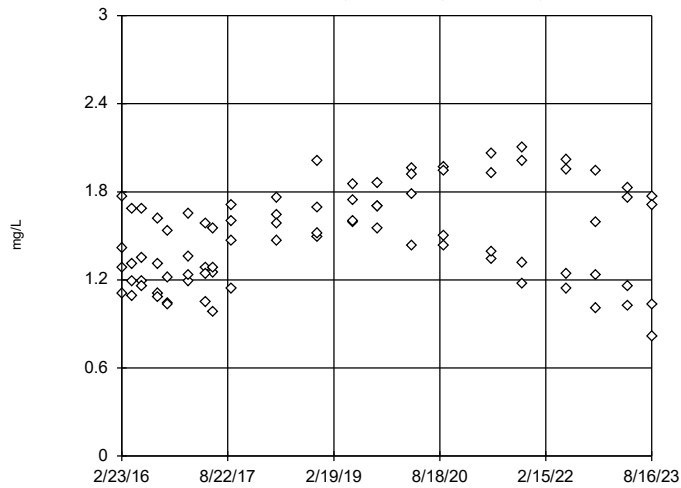


n = 84
 No outliers found.
 Tukey's method selected by user.
 Data were cube root transformed to achieve best W statistic (graph shown in original units).
 The results were invalidated, because the lower and upper quartiles are equal.

Constituent: Cadmium Analysis Run 10/3/2023 2:12 PM View: Outlier Tests - App III and IV
 Plant Barry Client: Southern Company Data: Barry Ash Pond

Tukey's Outlier Screening, Pooled Background

BY-UP-MW-1,BY-UP-MW-2,BY-UP-MW-3,BY-U...

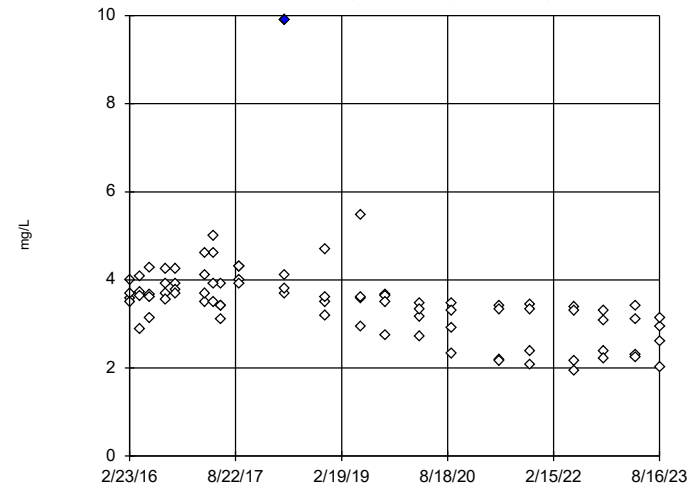


n = 84
 No outliers found.
 Tukey's method selected by user.
 Data were square root transformed to achieve best W statistic (graph shown in original units).
 High cutoff = 3.737, low cutoff = 0.2372, based on IQR multiplier of 3.

Constituent: Calcium, total Analysis Run 10/3/2023 2:12 PM View: Outlier Tests - App III and IV
 Plant Barry Client: Southern Company Data: Barry Ash Pond

Tukey's Outlier Screening, Pooled Background

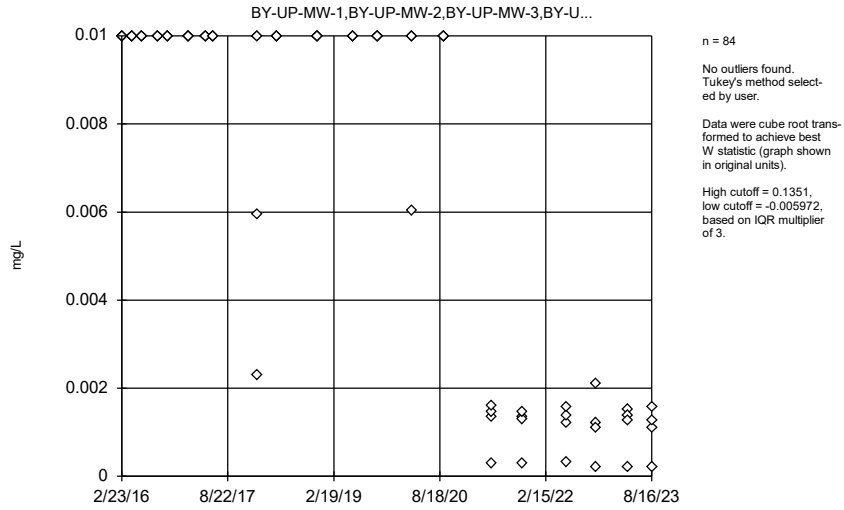
BY-UP-MW-1,BY-UP-MW-2,BY-UP-MW-3,BY-U...



n = 84
 Outlier is drawn as solid.
 Tukey's method selected by user.
 Data were natural log transformed to achieve best W statistic (graph shown in original units).
 High cutoff = 7.337, low cutoff = 1.629, based on IQR multiplier of 3.

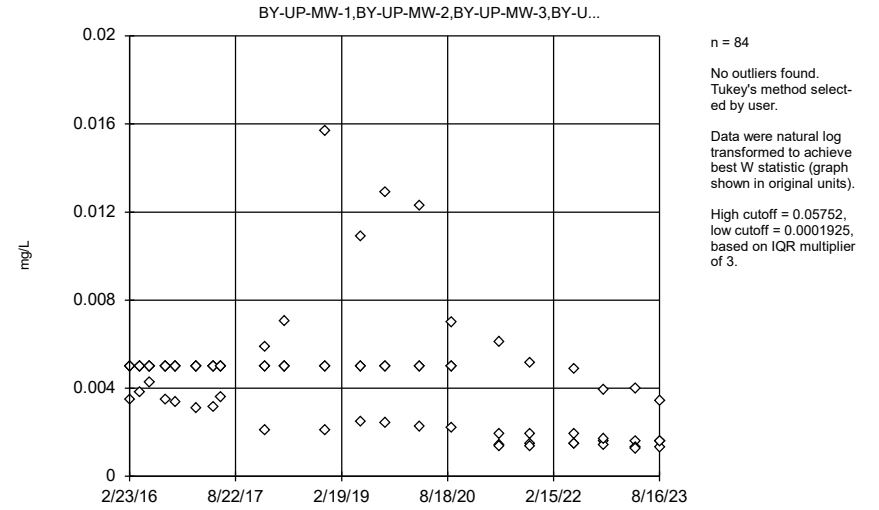
Constituent: Chloride, Total Analysis Run 10/3/2023 2:12 PM View: Outlier Tests - App III and IV
 Plant Barry Client: Southern Company Data: Barry Ash Pond

Tukey's Outlier Screening, Pooled Background



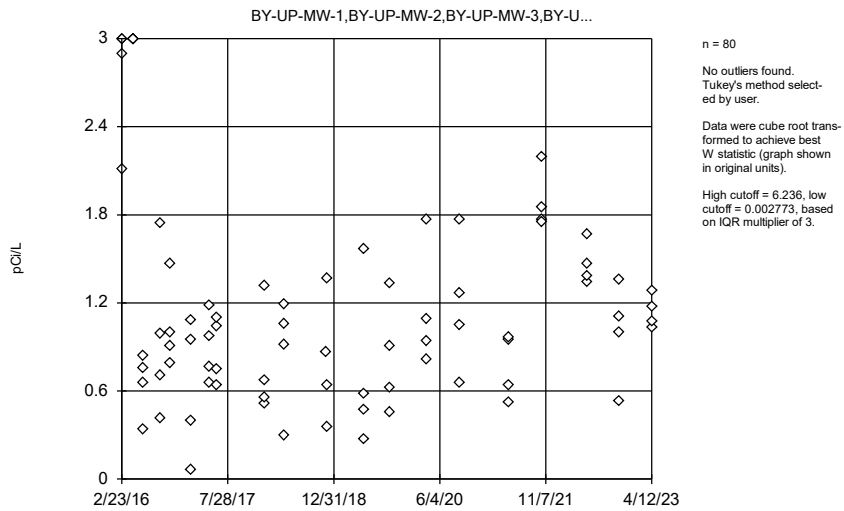
Constituent: Chromium Analysis Run 10/3/2023 2:12 PM View: Outlier Tests - App III and IV
 Plant Barry Client: Southern Company Data: Barry Ash Pond

Tukey's Outlier Screening, Pooled Background



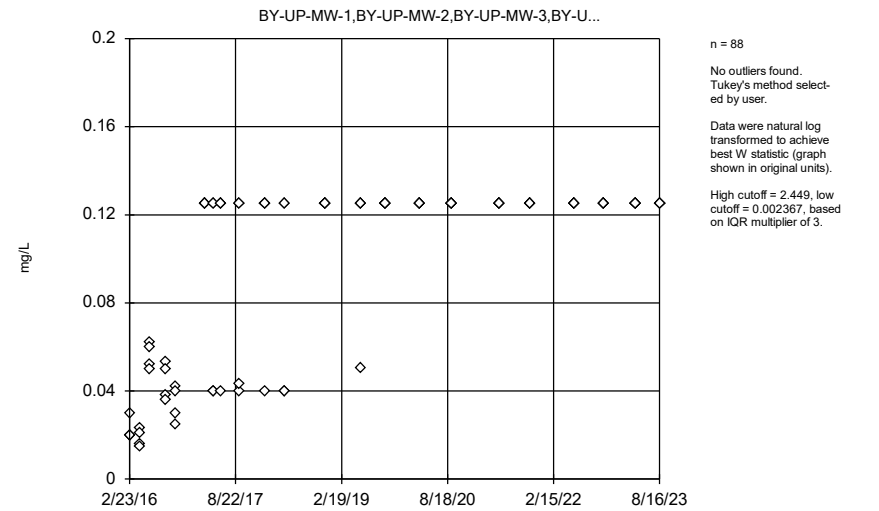
Constituent: Cobalt Analysis Run 10/3/2023 2:12 PM View: Outlier Tests - App III and IV
 Plant Barry Client: Southern Company Data: Barry Ash Pond

Tukey's Outlier Screening, Pooled Background



Constituent: Combined Radium 226 + 228 Analysis Run 10/3/2023 2:12 PM View: Outlier Tests - App III and IV
 Plant Barry Client: Southern Company Data: Barry Ash Pond

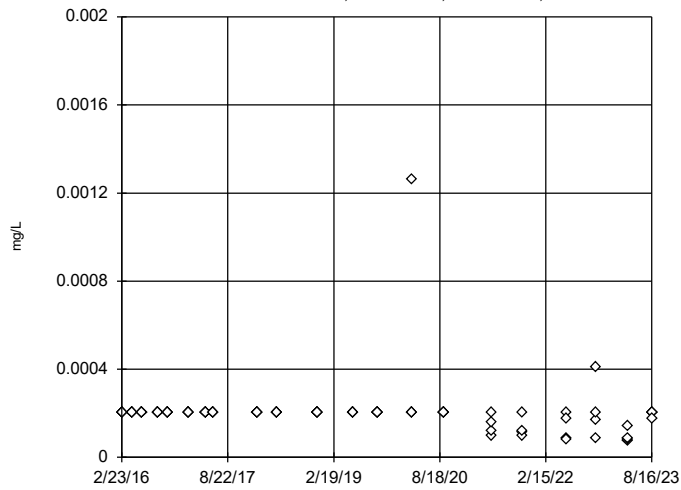
Tukey's Outlier Screening, Pooled Background



Constituent: Fluoride, total Analysis Run 10/3/2023 2:12 PM View: Outlier Tests - App III and IV
 Plant Barry Client: Southern Company Data: Barry Ash Pond

Tukey's Outlier Screening, Pooled Background

BY-UP-MW-1,BY-UP-MW-2,BY-UP-MW-3,BY-U...

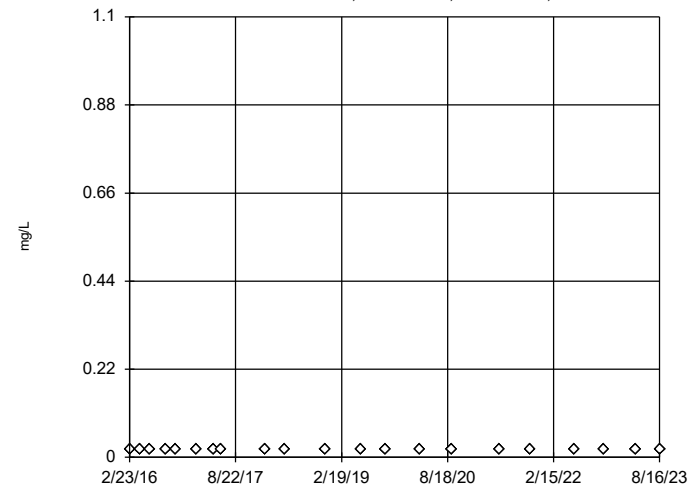


n = 84
 No outliers found.
 Tukey's method selected by user.
 Data were natural log transformed to achieve best W statistic (graph shown in original units).
 The results were invalidated, because the lower and upper quartiles are equal.

Constituent: Lead Analysis Run 10/3/2023 2:12 PM View: Outlier Tests - App III and IV
 Plant Barry Client: Southern Company Data: Barry Ash Pond

Tukey's Outlier Screening, Pooled Background

BY-UP-MW-1,BY-UP-MW-2,BY-UP-MW-3,BY-U...

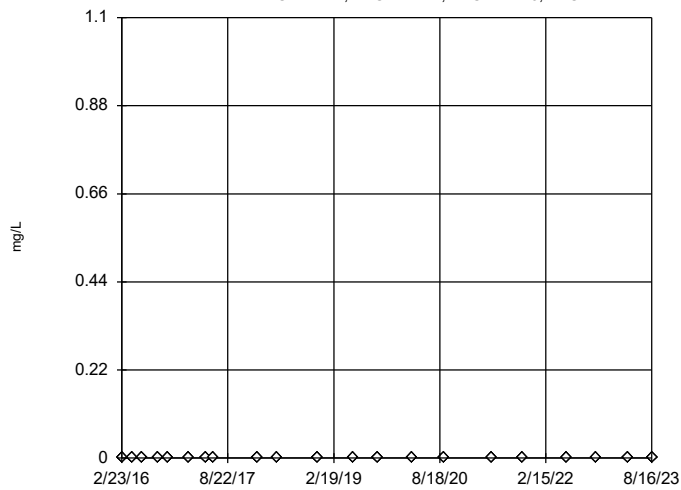


n = 84
 No outliers found.
 Tukey's method selected by user.
 Ladder of Powers transformations did not improve normality; analysis run on raw data.
 The results were invalidated, because the lower and upper quartiles are equal.

Constituent: Lithium Analysis Run 10/3/2023 2:12 PM View: Outlier Tests - App III and IV
 Plant Barry Client: Southern Company Data: Barry Ash Pond

Tukey's Outlier Screening, Pooled Background

BY-UP-MW-1,BY-UP-MW-2,BY-UP-MW-3,BY-U...

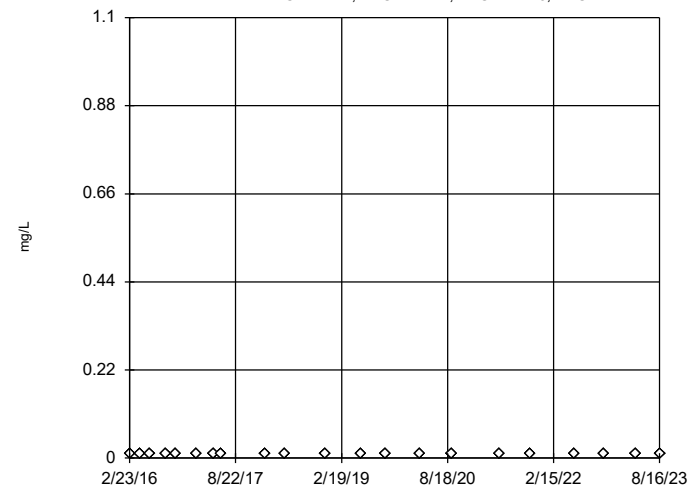


n = 84
 No outliers found.
 Tukey's method selected by user.
 Ladder of Powers transformations did not improve normality; analysis run on raw data.
 The results were invalidated, because the lower and upper quartiles are equal.

Constituent: Mercury Analysis Run 10/3/2023 2:12 PM View: Outlier Tests - App III and IV
 Plant Barry Client: Southern Company Data: Barry Ash Pond

Tukey's Outlier Screening, Pooled Background

BY-UP-MW-1,BY-UP-MW-2,BY-UP-MW-3,BY-U...

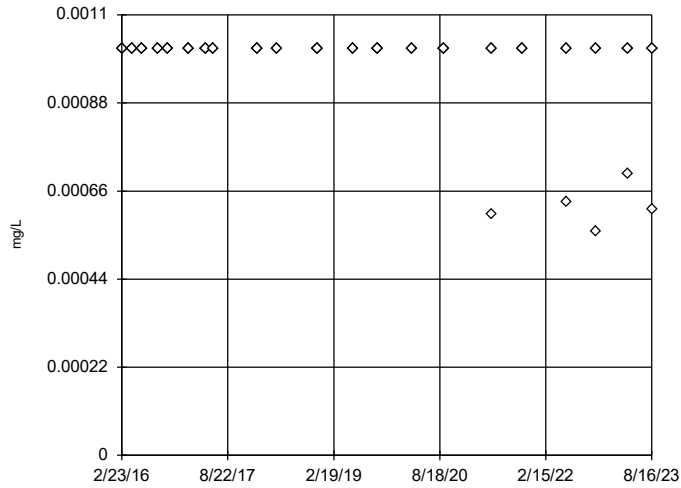


n = 84
 No outliers found.
 Tukey's method selected by user.
 Ladder of Powers transformations did not improve normality; analysis run on raw data.
 The results were invalidated, because the lower and upper quartiles are equal.

Constituent: Molybdenum Analysis Run 10/3/2023 2:12 PM View: Outlier Tests - App III and IV
 Plant Barry Client: Southern Company Data: Barry Ash Pond

Tukey's Outlier Screening, Pooled Background

BY-UP-MW-1,BY-UP-MW-2,BY-UP-MW-3,BY-U...

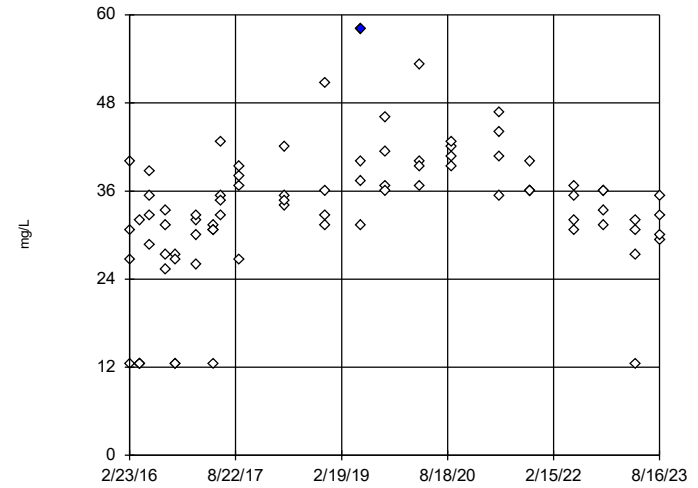


n = 84
 No outliers found.
 Tukey's method selected by user.
 Ladder of Powers transformations did not improve normality; analysis run on raw data.
 The results were invalidated, because the lower and upper quartiles are equal.

Constituent: Selenium Analysis Run 10/3/2023 2:12 PM View: Outlier Tests - App III and IV
 Plant Barry Client: Southern Company Data: Barry Ash Pond

Tukey's Outlier Screening, Pooled Background

BY-UP-MW-1,BY-UP-MW-2,BY-UP-MW-3,BY-U...

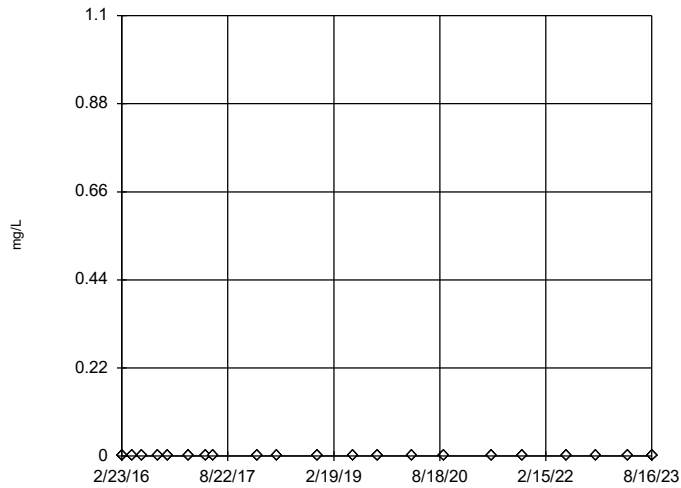


n = 84
 Outlier is drawn as solid.
 Tukey's method selected by user.
 Data were square transformed to achieve best W statistic (graph shown in original units).
 High cutoff = 55.28, low cutoff = -25.35, based on IQR multiplier of 3.

Constituent: TDS Analysis Run 10/3/2023 2:12 PM View: Outlier Tests - App III and IV
 Plant Barry Client: Southern Company Data: Barry Ash Pond

Tukey's Outlier Screening, Pooled Background

BY-UP-MW-1,BY-UP-MW-2,BY-UP-MW-3,BY-U...



n = 84
 No outliers found.
 Tukey's method selected by user.
 Ladder of Powers transformations did not improve normality; analysis run on raw data.
 The results were invalidated, because the lower and upper quartiles are equal.

Constituent: Thallium Analysis Run 10/3/2023 2:12 PM View: Outlier Tests - App III and IV
 Plant Barry Client: Southern Company Data: Barry Ash Pond

FIGURE D.

Welch's t-test/Mann-Whitney - Significant Results

Plant Barry Client: Southern Company Data: Barry Ash Pond Printed 10/4/2023, 11:23 AM

<u>Constituent</u>	<u>Well</u>	<u>Calc.</u>	<u>0.01</u>	<u>Alpha</u>	<u>Sig.</u>	<u>Method</u>
pH, field (SU)	BY-AP-MW-2	-2.639	Yes	0.01	Yes	Mann-W
Sulfate as SO4 (mg/L)	BY-AP-MW-1	3.773	Yes	0.01	Yes	Mann-W
Sulfate as SO4 (mg/L)	BY-AP-MW-10	3.054	Yes	0.01	Yes	Mann-W
Sulfate as SO4 (mg/L)	BY-AP-MW-11	3.533	Yes	0.01	Yes	Mann-W
Sulfate as SO4 (mg/L)	BY-AP-MW-12	3.842	Yes	0.01	Yes	Mann-W
Sulfate as SO4 (mg/L)	BY-AP-MW-13	3.114	Yes	0.01	Yes	Mann-W
Sulfate as SO4 (mg/L)	BY-AP-MW-14	3.125	Yes	0.01	Yes	Mann-W
Sulfate as SO4 (mg/L)	BY-AP-MW-7	2.669	Yes	0.01	Yes	Mann-W
Sulfate as SO4 (mg/L)	BY-AP-MW-8	3.725	Yes	0.01	Yes	Mann-W
Sulfate as SO4 (mg/L)	BY-AP-MW-9	2.825	Yes	0.01	Yes	Mann-W

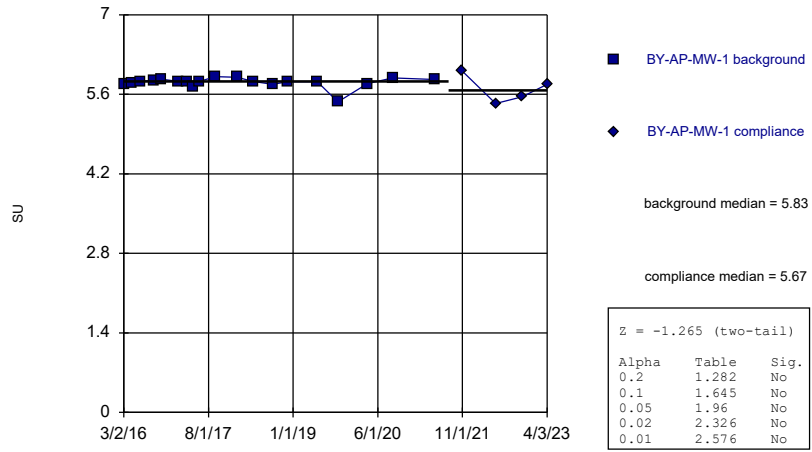
Welch's t-test/Mann-Whitney - All Results

Plant Barry Client: Southern Company Data: Barry Ash Pond Printed 10/4/2023, 11:23 AM

Constituent	Well	Calc.	0.01	Alpha	Sig.	Method
pH, field (SU)	BY-AP-MW-1	-1.265	No	0.01	No	Mann-W
pH, field (SU)	BY-AP-MW-10	-1.666	No	0.01	No	Mann-W
pH, field (SU)	BY-AP-MW-11	-0.2034	No	0.01	No	Mann-W
pH, field (SU)	BY-AP-MW-12	-1.22	No	0.01	No	Mann-W
pH, field (SU)	BY-AP-MW-13	-1.918	No	0.01	No	Mann-W
pH, field (SU)	BY-AP-MW-14	0.4064	No	0.01	No	Mann-W
pH, field (SU)	BY-AP-MW-15	0.2032	No	0.01	No	Mann-W
pH, field (SU)	BY-AP-MW-16	-1.179	No	0.01	No	Mann-W
pH, field (SU)	BY-AP-MW-2	-2.639	Yes	0.01	Yes	Mann-W
pH, field (SU)	BY-AP-MW-3	-0.5281	No	0.01	No	Mann-W
pH, field (SU)	BY-AP-MW-4	0.08113	No	0.01	No	Mann-W
pH, field (SU)	BY-AP-MW-5	-0.1295	No	0.01	No	Mann-W
pH, field (SU)	BY-AP-MW-6	-0.6094	No	0.01	No	Mann-W
pH, field (SU)	BY-AP-MW-7	2.219	No	0.01	No	Mann-W
pH, field (SU)	BY-AP-MW-8	1.47	No	0.01	No	Mann-W
pH, field (SU)	BY-AP-MW-9	-1.83	No	0.01	No	Mann-W
pH, field (SU)	BY-UP-MW-1 (bg)	-0.1009	No	0.01	No	Mann-W
pH, field (SU)	BY-UP-MW-2 (bg)	-1.563	No	0.01	No	Mann-W
pH, field (SU)	BY-UP-MW-3 (bg)	-2.345	No	0.01	No	Mann-W
pH, field (SU)	BY-UP-MW-4 (bg)	-2.258	No	0.01	No	Mann-W
Sulfate as SO4 (mg/L)	BY-AP-MW-1	3.773	Yes	0.01	Yes	Mann-W
Sulfate as SO4 (mg/L)	BY-AP-MW-10	3.054	Yes	0.01	Yes	Mann-W
Sulfate as SO4 (mg/L)	BY-AP-MW-11	3.533	Yes	0.01	Yes	Mann-W
Sulfate as SO4 (mg/L)	BY-AP-MW-12	3.842	Yes	0.01	Yes	Mann-W
Sulfate as SO4 (mg/L)	BY-AP-MW-13	3.114	Yes	0.01	Yes	Mann-W
Sulfate as SO4 (mg/L)	BY-AP-MW-14	3.125	Yes	0.01	Yes	Mann-W
Sulfate as SO4 (mg/L)	BY-AP-MW-15	-0.4524	No	0.01	No	Mann-W
Sulfate as SO4 (mg/L)	BY-AP-MW-16	2.285	No	0.01	No	Mann-W
Sulfate as SO4 (mg/L)	BY-AP-MW-2	0.919	No	0.01	No	Mann-W
Sulfate as SO4 (mg/L)	BY-AP-MW-3	0.4106	No	0.01	No	Mann-W
Sulfate as SO4 (mg/L)	BY-AP-MW-4	-0.941	No	0.01	No	Mann-W
Sulfate as SO4 (mg/L)	BY-AP-MW-5	2.187	No	0.01	No	Mann-W
Sulfate as SO4 (mg/L)	BY-AP-MW-6	0.6292	No	0.01	No	Mann-W
Sulfate as SO4 (mg/L)	BY-AP-MW-7	2.669	Yes	0.01	Yes	Mann-W
Sulfate as SO4 (mg/L)	BY-AP-MW-8	3.725	Yes	0.01	Yes	Mann-W
Sulfate as SO4 (mg/L)	BY-AP-MW-9	2.825	Yes	0.01	Yes	Mann-W
Sulfate as SO4 (mg/L)	BY-UP-MW-1 (bg)	0.7087	No	0.01	No	Mann-W
Sulfate as SO4 (mg/L)	BY-UP-MW-2 (bg)	1.938	No	0.01	No	Mann-W
Sulfate as SO4 (mg/L)	BY-UP-MW-3 (bg)	-1.276	No	0.01	No	Mann-W
Sulfate as SO4 (mg/L)	BY-UP-MW-4 (bg)	-0.9925	No	0.01	No	Mann-W

Mann-Whitney (Wilcoxon Rank Sum)

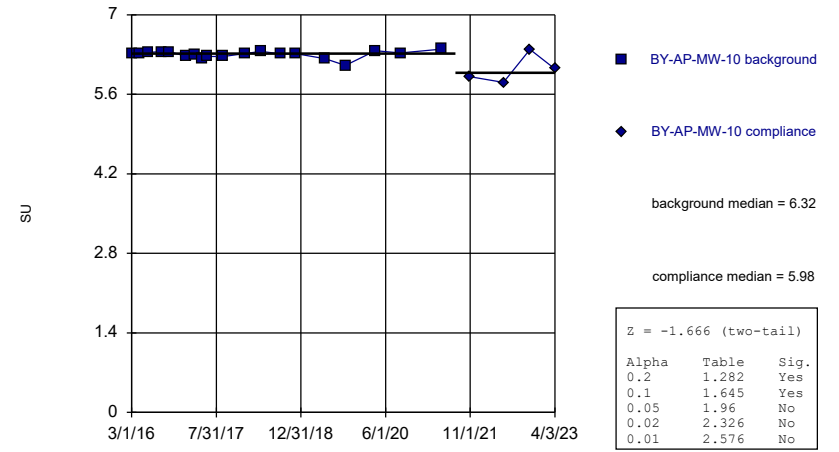
BY-AP-MW-1



Constituent: pH, field Analysis Run 10/4/2023 11:22 AM View: Mann Whitney
Plant Barry Client: Southern Company Data: Barry Ash Pond

Mann-Whitney (Wilcoxon Rank Sum)

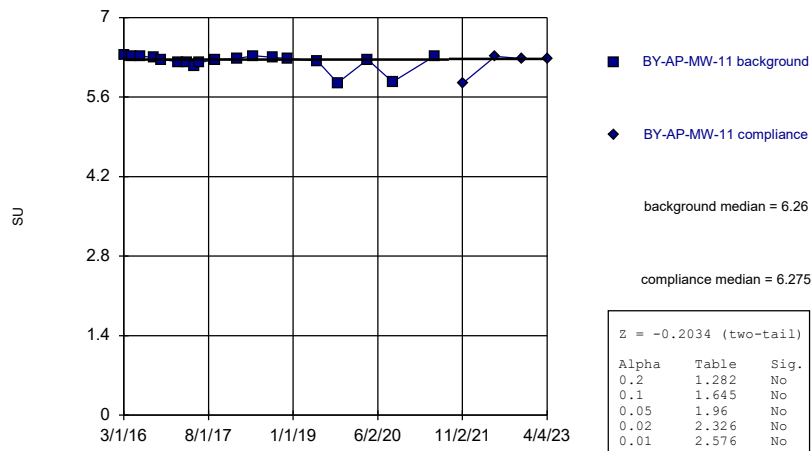
BY-AP-MW-10



Constituent: pH, field Analysis Run 10/4/2023 11:22 AM View: Mann Whitney
Plant Barry Client: Southern Company Data: Barry Ash Pond

Mann-Whitney (Wilcoxon Rank Sum)

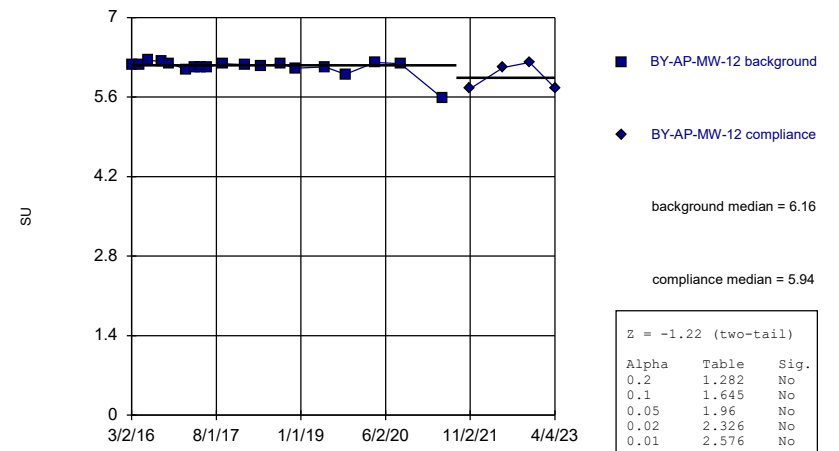
BY-AP-MW-11



Constituent: pH, field Analysis Run 10/4/2023 11:22 AM View: Mann Whitney
Plant Barry Client: Southern Company Data: Barry Ash Pond

Mann-Whitney (Wilcoxon Rank Sum)

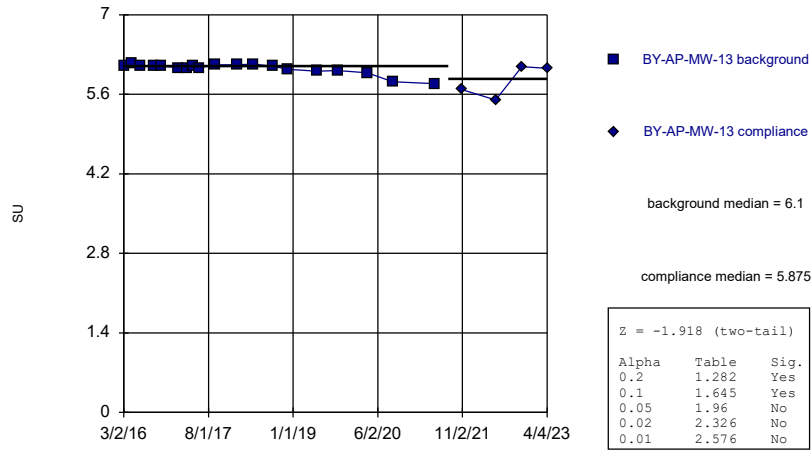
BY-AP-MW-12



Constituent: pH, field Analysis Run 10/4/2023 11:22 AM View: Mann Whitney
Plant Barry Client: Southern Company Data: Barry Ash Pond

Mann-Whitney (Wilcoxon Rank Sum)

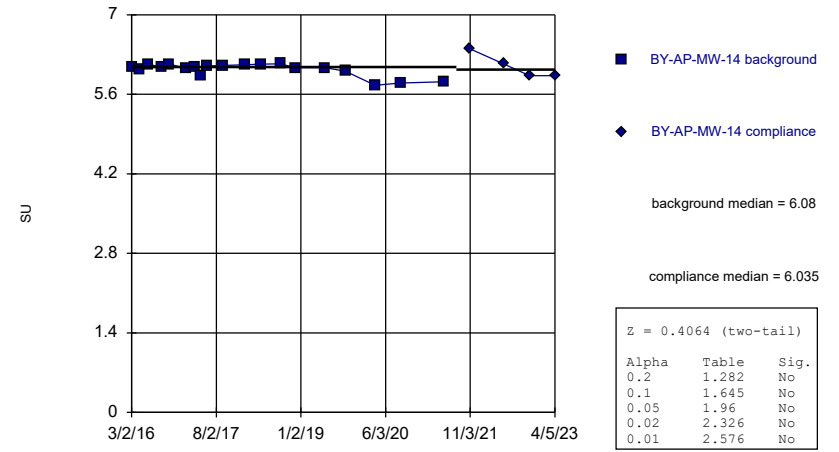
BY-AP-MW-13



Constituent: pH, field Analysis Run 10/4/2023 11:22 AM View: Mann Whitney
 Plant Barry Client: Southern Company Data: Barry Ash Pond

Mann-Whitney (Wilcoxon Rank Sum)

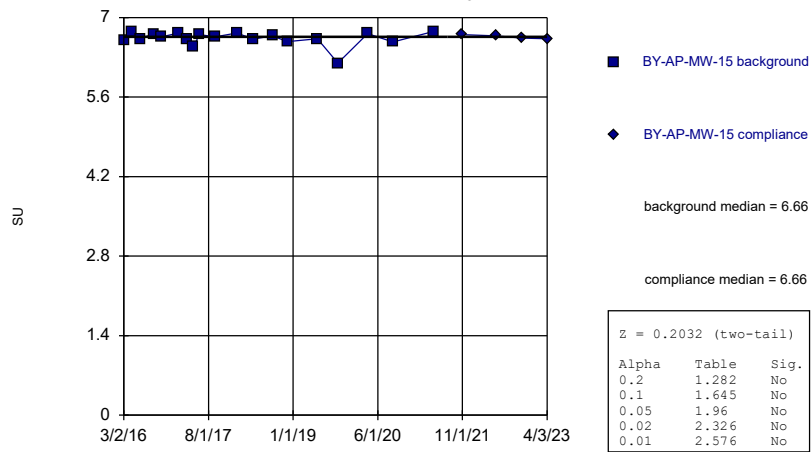
BY-AP-MW-14



Constituent: pH, field Analysis Run 10/4/2023 11:22 AM View: Mann Whitney
 Plant Barry Client: Southern Company Data: Barry Ash Pond

Mann-Whitney (Wilcoxon Rank Sum)

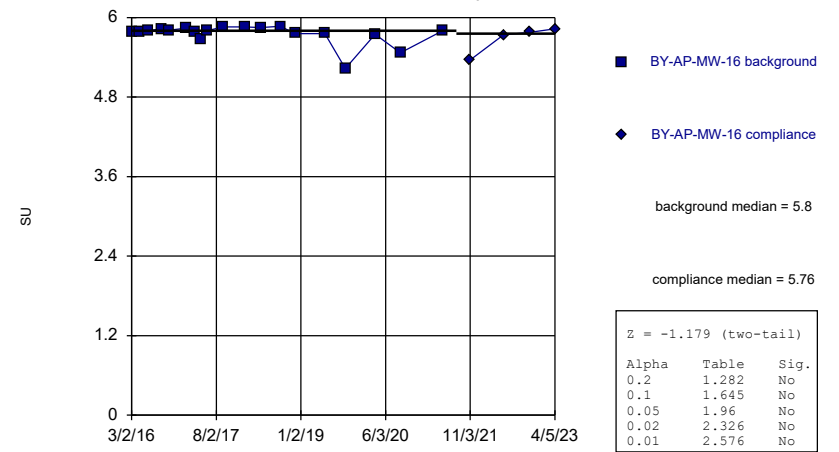
BY-AP-MW-15



Constituent: pH, field Analysis Run 10/4/2023 11:22 AM View: Mann Whitney
 Plant Barry Client: Southern Company Data: Barry Ash Pond

Mann-Whitney (Wilcoxon Rank Sum)

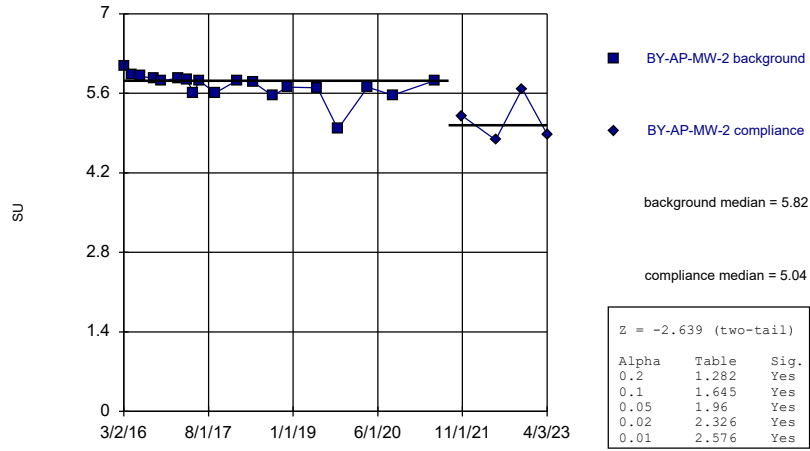
BY-AP-MW-16



Constituent: pH, field Analysis Run 10/4/2023 11:22 AM View: Mann Whitney
 Plant Barry Client: Southern Company Data: Barry Ash Pond

Mann-Whitney (Wilcoxon Rank Sum)

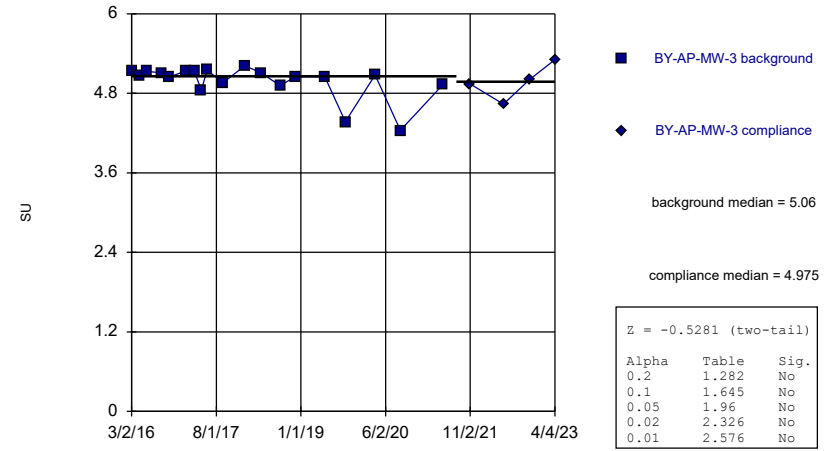
BY-AP-MW-2



Constituent: pH, field Analysis Run 10/4/2023 11:22 AM View: Mann Whitney
Plant Barry Client: Southern Company Data: Barry Ash Pond

Mann-Whitney (Wilcoxon Rank Sum)

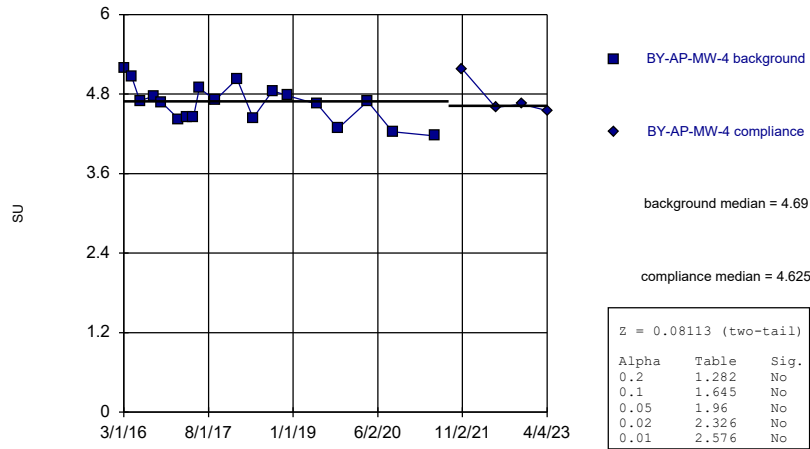
BY-AP-MW-3



Constituent: pH, field Analysis Run 10/4/2023 11:22 AM View: Mann Whitney
Plant Barry Client: Southern Company Data: Barry Ash Pond

Mann-Whitney (Wilcoxon Rank Sum)

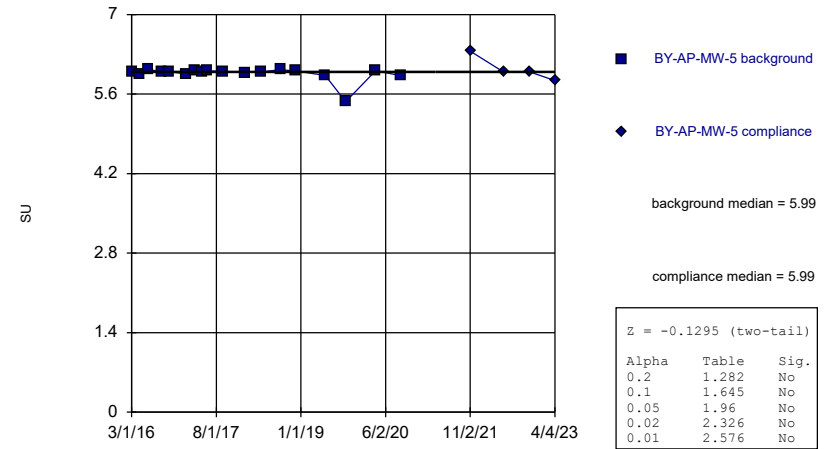
BY-AP-MW-4



Constituent: pH, field Analysis Run 10/4/2023 11:22 AM View: Mann Whitney
Plant Barry Client: Southern Company Data: Barry Ash Pond

Mann-Whitney (Wilcoxon Rank Sum)

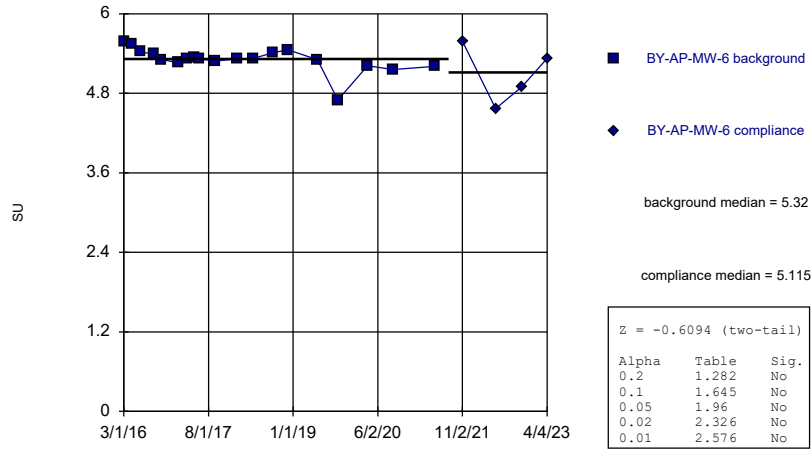
BY-AP-MW-5



Constituent: pH, field Analysis Run 10/4/2023 11:22 AM View: Mann Whitney
Plant Barry Client: Southern Company Data: Barry Ash Pond

Mann-Whitney (Wilcoxon Rank Sum)

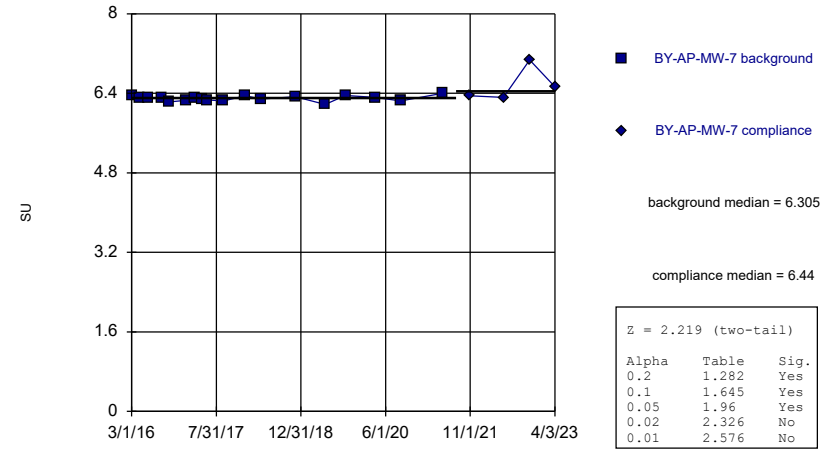
BY-AP-MW-6



Constituent: pH, field Analysis Run 10/4/2023 11:22 AM View: Mann Whitney
 Plant Barry Client: Southern Company Data: Barry Ash Pond

Mann-Whitney (Wilcoxon Rank Sum)

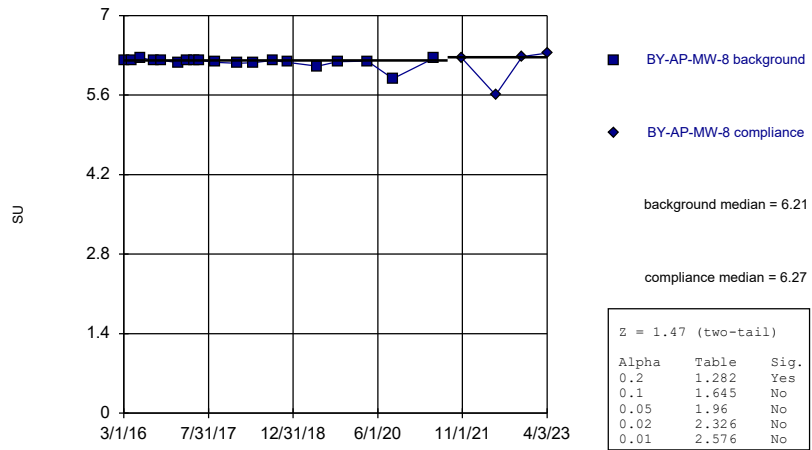
BY-AP-MW-7



Constituent: pH, field Analysis Run 10/4/2023 11:22 AM View: Mann Whitney
 Plant Barry Client: Southern Company Data: Barry Ash Pond

Mann-Whitney (Wilcoxon Rank Sum)

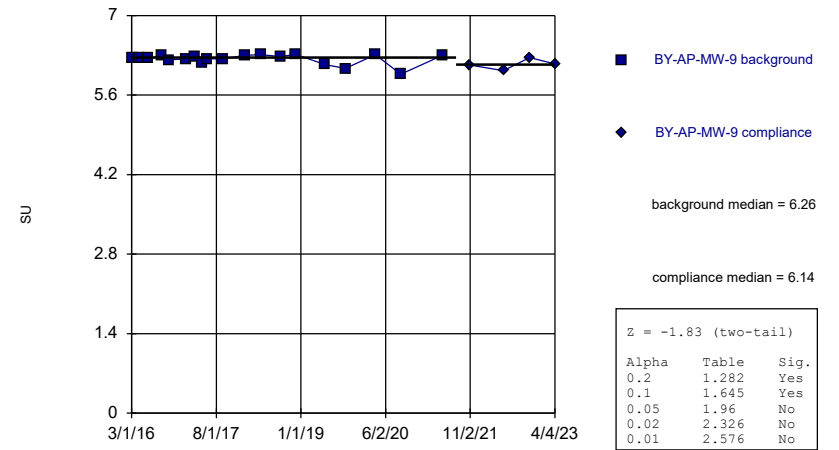
BY-AP-MW-8



Constituent: pH, field Analysis Run 10/4/2023 11:22 AM View: Mann Whitney
 Plant Barry Client: Southern Company Data: Barry Ash Pond

Mann-Whitney (Wilcoxon Rank Sum)

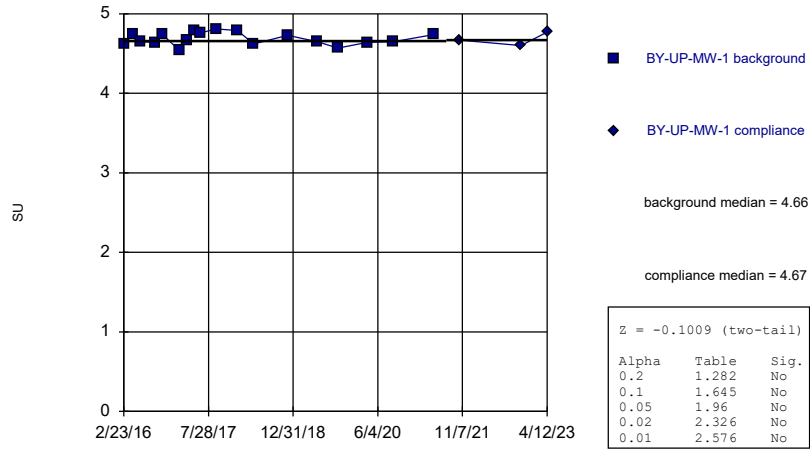
BY-AP-MW-9



Constituent: pH, field Analysis Run 10/4/2023 11:22 AM View: Mann Whitney
 Plant Barry Client: Southern Company Data: Barry Ash Pond

Mann-Whitney (Wilcoxon Rank Sum)

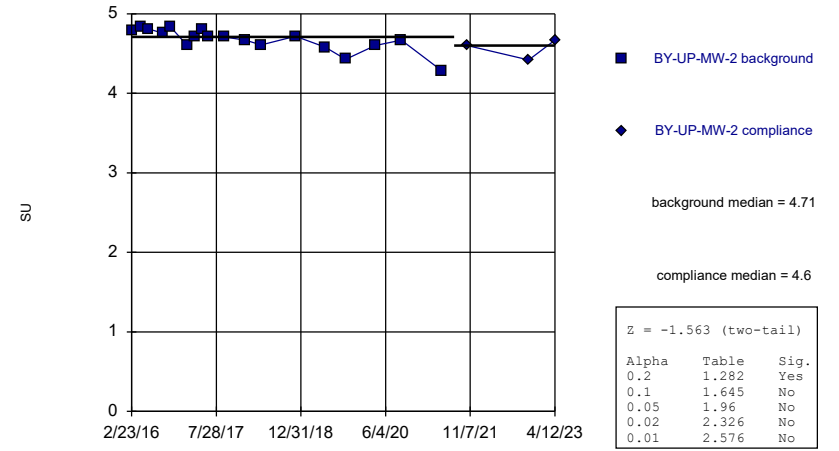
BY-UP-MW-1 (bg)



Constituent: pH, field Analysis Run 10/4/2023 11:22 AM View: Mann Whitney
 Plant Barry Client: Southern Company Data: Barry Ash Pond

Mann-Whitney (Wilcoxon Rank Sum)

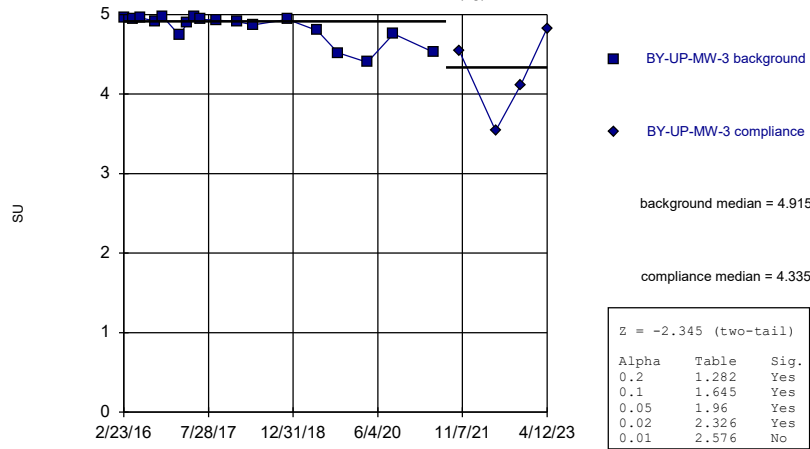
BY-UP-MW-2 (bg)



Constituent: pH, field Analysis Run 10/4/2023 11:22 AM View: Mann Whitney
 Plant Barry Client: Southern Company Data: Barry Ash Pond

Mann-Whitney (Wilcoxon Rank Sum)

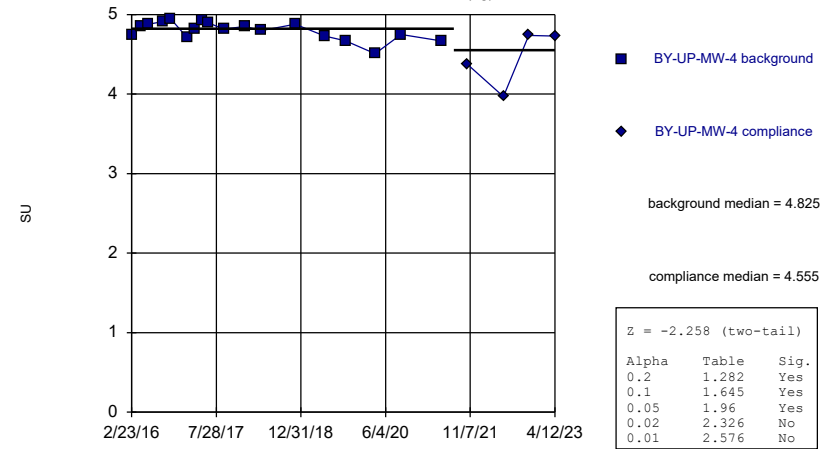
BY-UP-MW-3 (bg)



Constituent: pH, field Analysis Run 10/4/2023 11:22 AM View: Mann Whitney
 Plant Barry Client: Southern Company Data: Barry Ash Pond

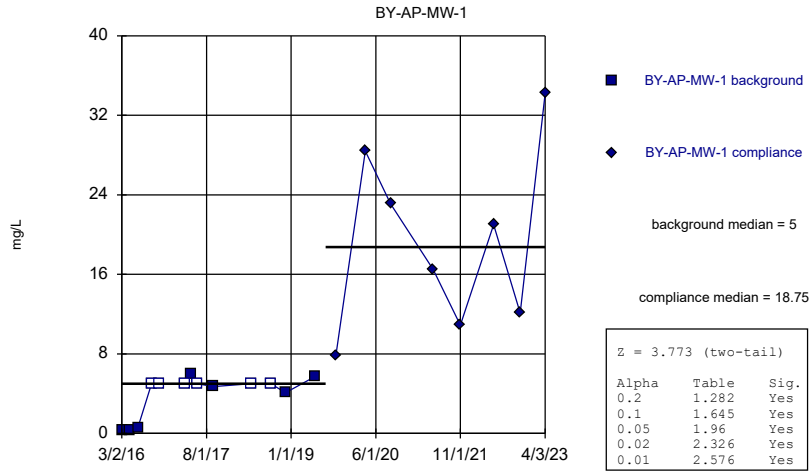
Mann-Whitney (Wilcoxon Rank Sum)

BY-UP-MW-4 (bg)



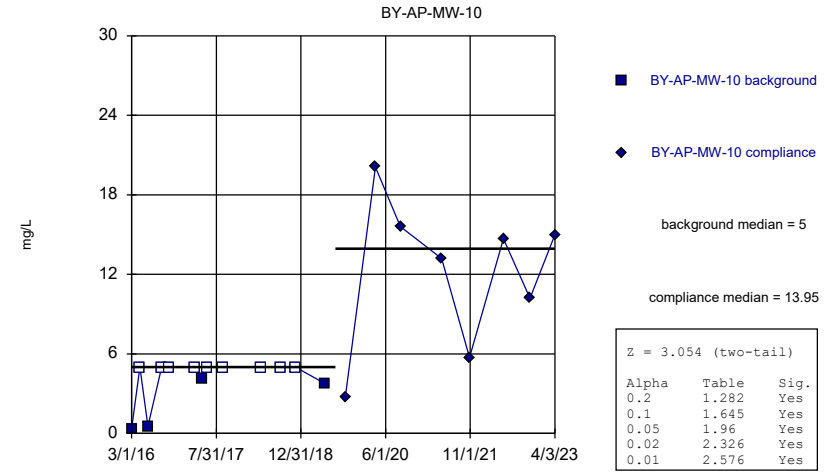
Constituent: pH, field Analysis Run 10/4/2023 11:22 AM View: Mann Whitney
 Plant Barry Client: Southern Company Data: Barry Ash Pond

Mann-Whitney (Wilcoxon Rank Sum)



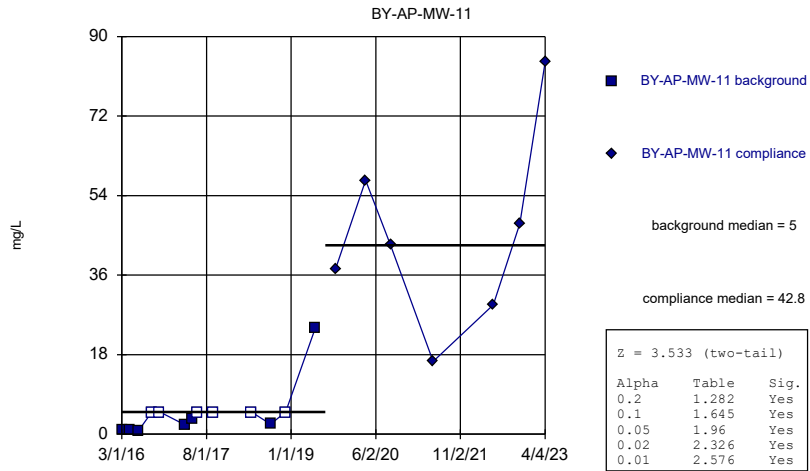
Constituent: Sulfate as SO4 Analysis Run 10/4/2023 11:22 AM View: Mann Whitney
Plant Barry Client: Southern Company Data: Barry Ash Pond

Mann-Whitney (Wilcoxon Rank Sum)



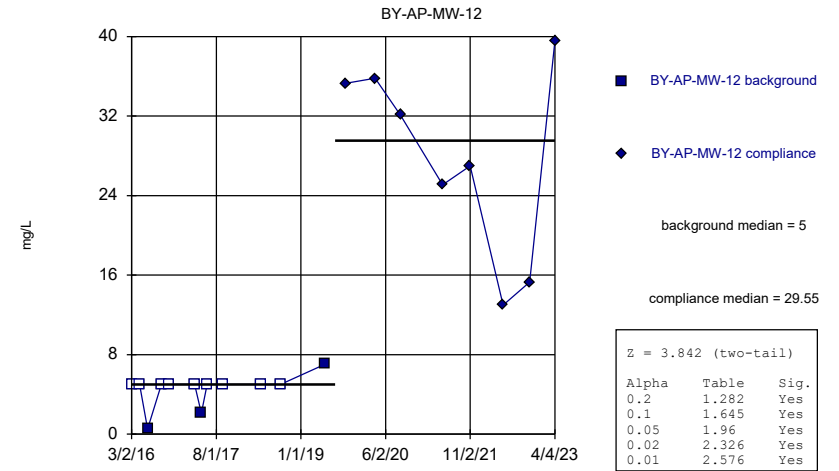
Constituent: Sulfate as SO4 Analysis Run 10/4/2023 11:22 AM View: Mann Whitney
Plant Barry Client: Southern Company Data: Barry Ash Pond

Mann-Whitney (Wilcoxon Rank Sum)



Constituent: Sulfate as SO4 Analysis Run 10/4/2023 11:22 AM View: Mann Whitney
Plant Barry Client: Southern Company Data: Barry Ash Pond

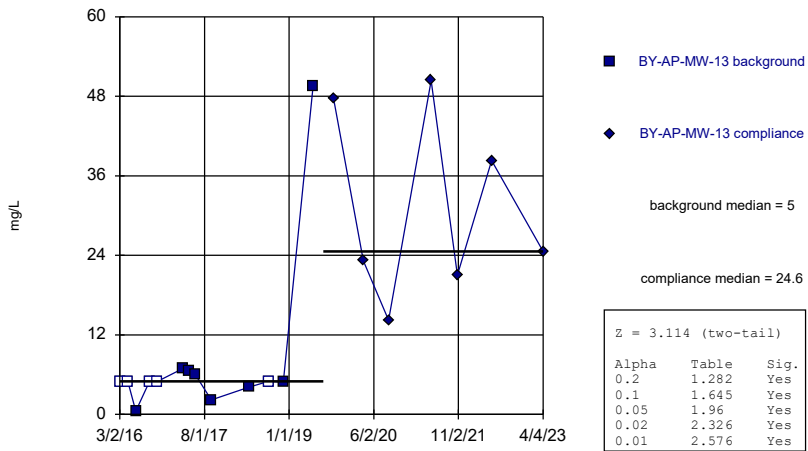
Mann-Whitney (Wilcoxon Rank Sum)



Constituent: Sulfate as SO4 Analysis Run 10/4/2023 11:22 AM View: Mann Whitney
Plant Barry Client: Southern Company Data: Barry Ash Pond

Mann-Whitney (Wilcoxon Rank Sum)

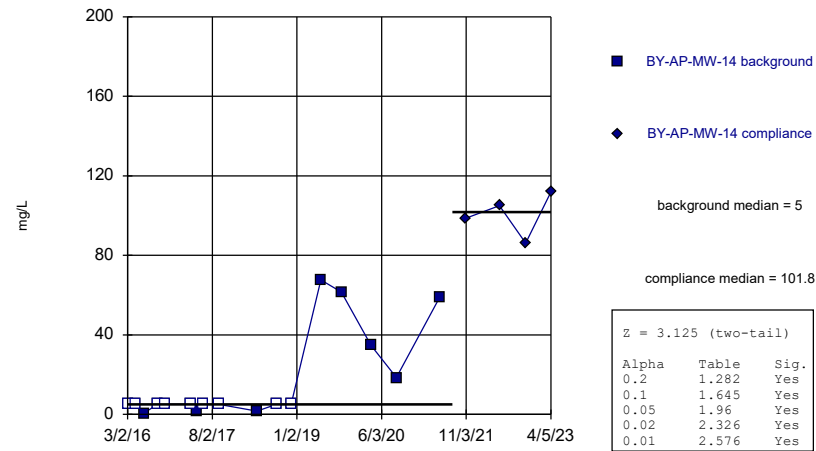
BY-AP-MW-13



Constituent: Sulfate as SO4 Analysis Run 10/4/2023 11:22 AM View: Mann Whitney
Plant Barry Client: Southern Company Data: Barry Ash Pond

Mann-Whitney (Wilcoxon Rank Sum)

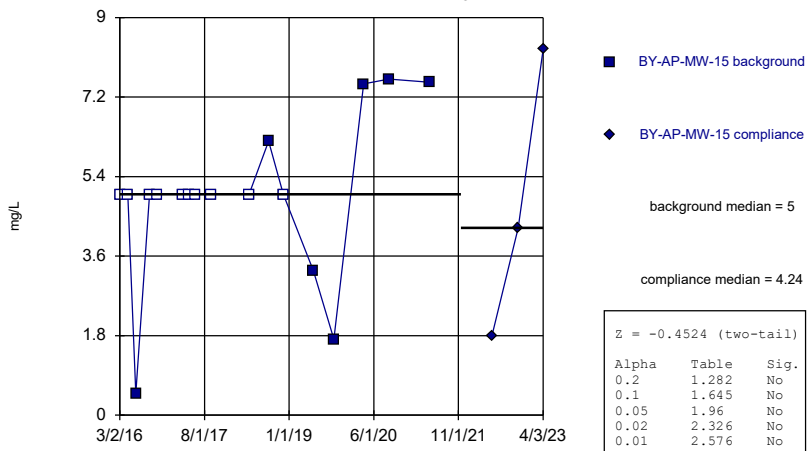
BY-AP-MW-14



Constituent: Sulfate as SO4 Analysis Run 10/4/2023 11:22 AM View: Mann Whitney
Plant Barry Client: Southern Company Data: Barry Ash Pond

Mann-Whitney (Wilcoxon Rank Sum)

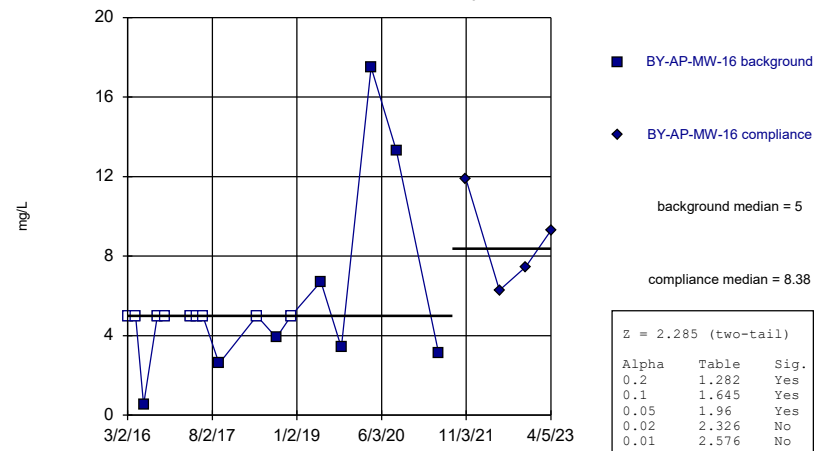
BY-AP-MW-15



Constituent: Sulfate as SO4 Analysis Run 10/4/2023 11:22 AM View: Mann Whitney
Plant Barry Client: Southern Company Data: Barry Ash Pond

Mann-Whitney (Wilcoxon Rank Sum)

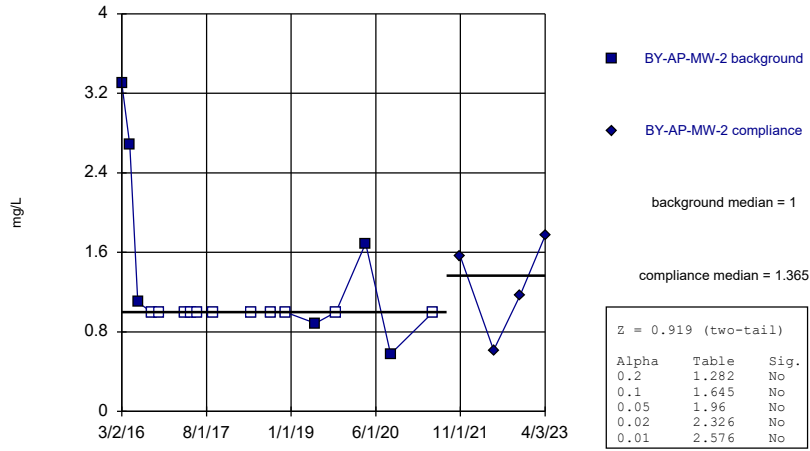
BY-AP-MW-16



Constituent: Sulfate as SO4 Analysis Run 10/4/2023 11:22 AM View: Mann Whitney
Plant Barry Client: Southern Company Data: Barry Ash Pond

Mann-Whitney (Wilcoxon Rank Sum)

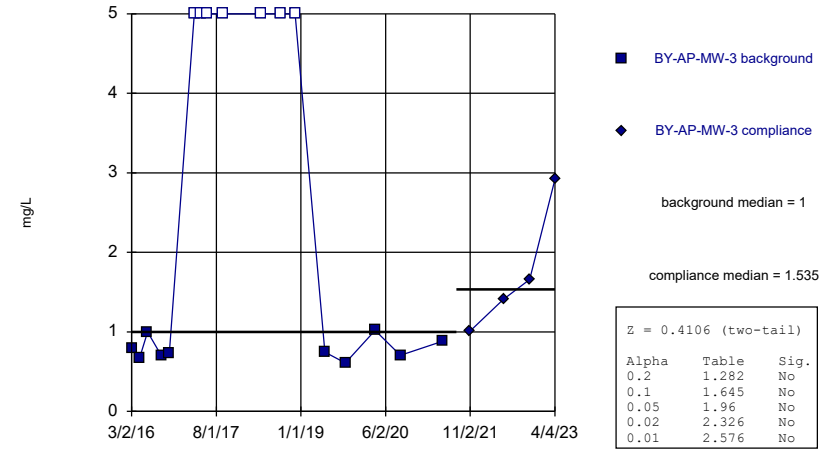
BY-AP-MW-2



Constituent: Sulfate as SO4 Analysis Run 10/4/2023 11:22 AM View: Mann Whitney
 Plant Barry Client: Southern Company Data: Barry Ash Pond

Mann-Whitney (Wilcoxon Rank Sum)

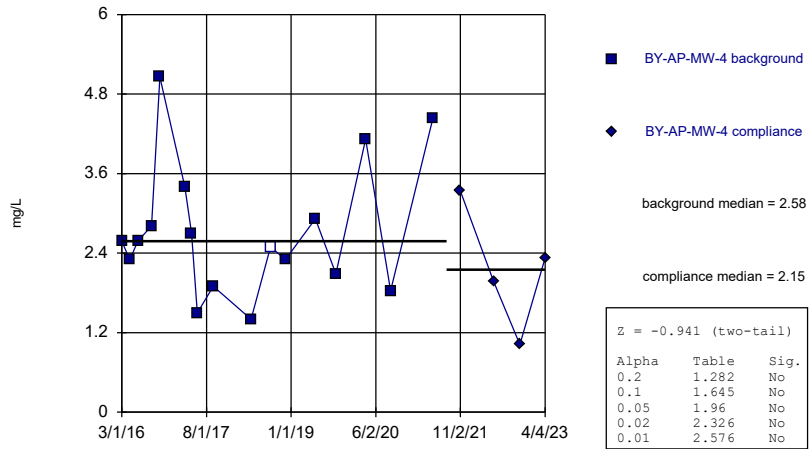
BY-AP-MW-3



Constituent: Sulfate as SO4 Analysis Run 10/4/2023 11:22 AM View: Mann Whitney
 Plant Barry Client: Southern Company Data: Barry Ash Pond

Mann-Whitney (Wilcoxon Rank Sum)

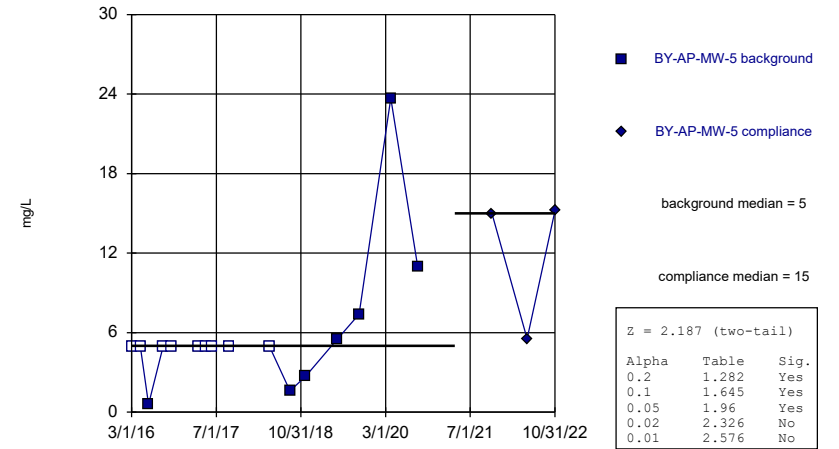
BY-AP-MW-4



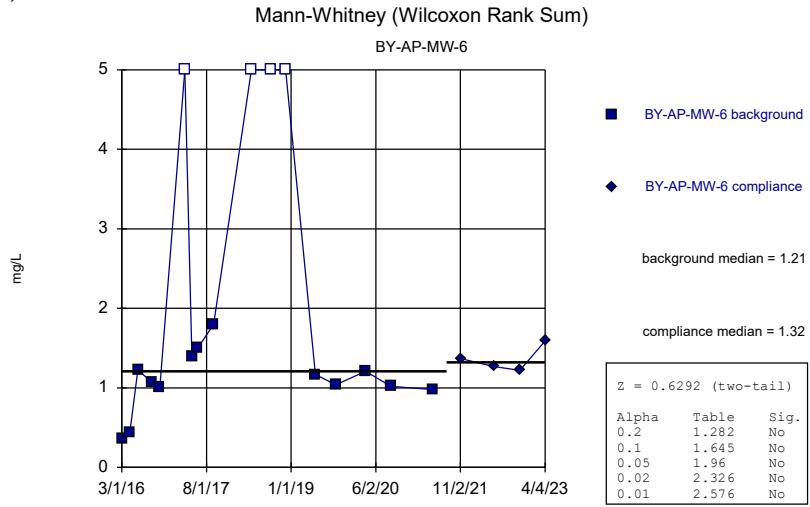
Constituent: Sulfate as SO4 Analysis Run 10/4/2023 11:22 AM View: Mann Whitney
 Plant Barry Client: Southern Company Data: Barry Ash Pond

Mann-Whitney (Wilcoxon Rank Sum)

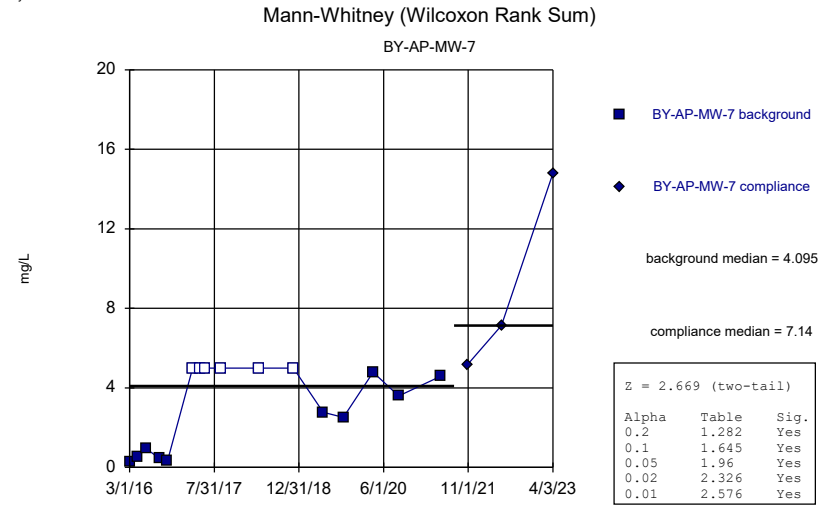
BY-AP-MW-5



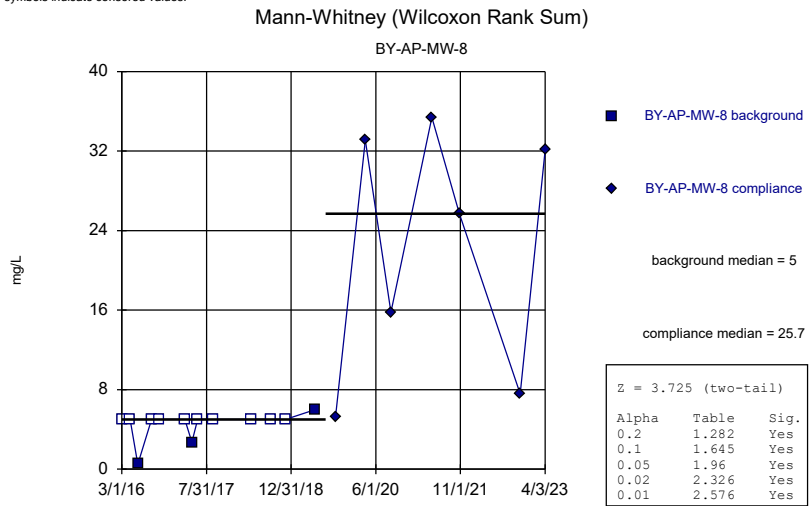
Constituent: Sulfate as SO4 Analysis Run 10/4/2023 11:22 AM View: Mann Whitney
 Plant Barry Client: Southern Company Data: Barry Ash Pond



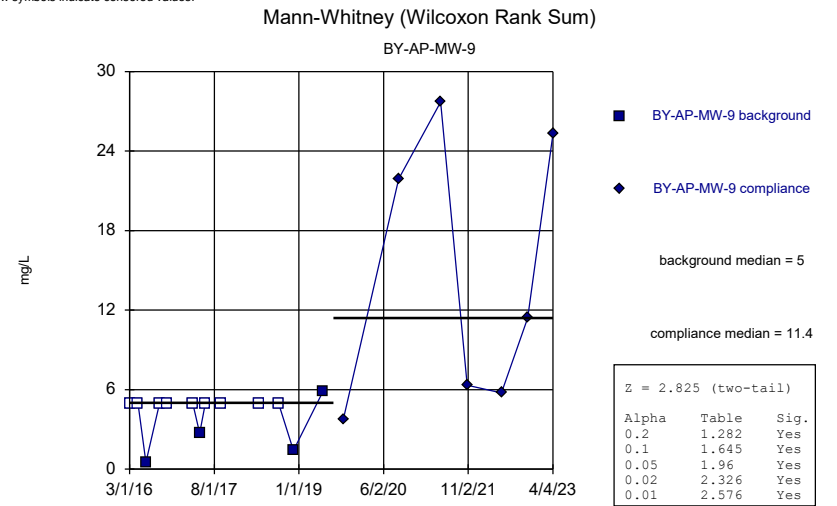
Constituent: Sulfate as SO4 Analysis Run 10/4/2023 11:23 AM View: Mann Whitney
Plant Barry Client: Southern Company Data: Barry Ash Pond



Constituent: Sulfate as SO4 Analysis Run 10/4/2023 11:23 AM View: Mann Whitney
Plant Barry Client: Southern Company Data: Barry Ash Pond



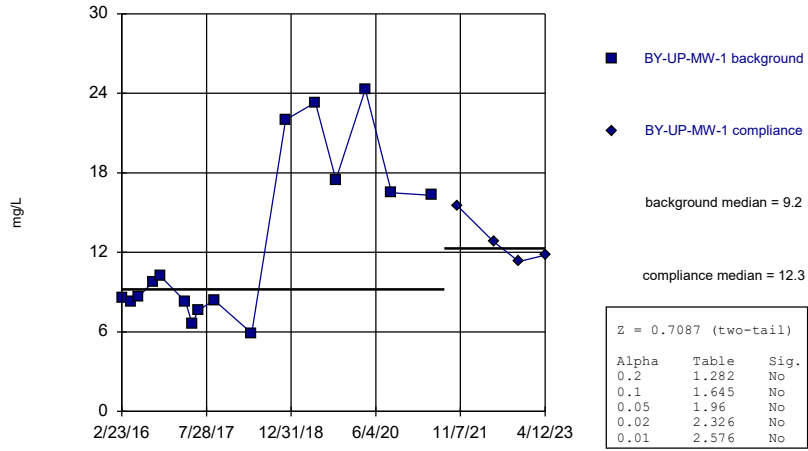
Constituent: Sulfate as SO4 Analysis Run 10/4/2023 11:23 AM View: Mann Whitney
Plant Barry Client: Southern Company Data: Barry Ash Pond



Constituent: Sulfate as SO4 Analysis Run 10/4/2023 11:23 AM View: Mann Whitney
Plant Barry Client: Southern Company Data: Barry Ash Pond

Mann-Whitney (Wilcoxon Rank Sum)

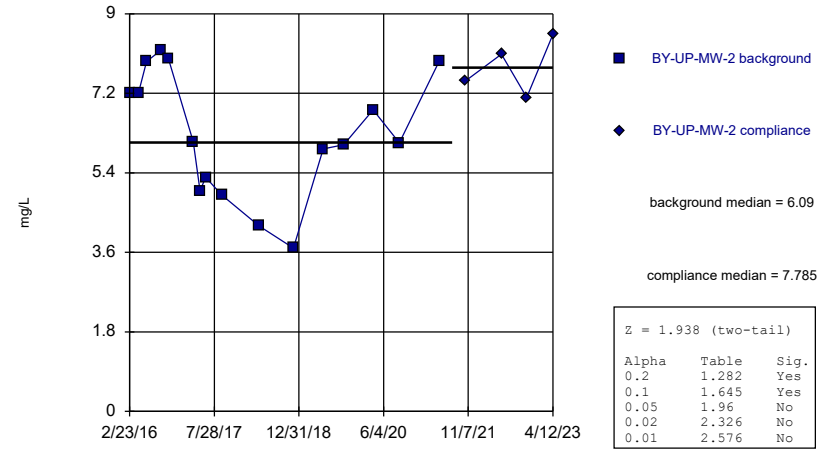
BY-UP-MW-1 (bg)



Constituent: Sulfate as SO4 Analysis Run 10/4/2023 11:23 AM View: Mann Whitney
Plant Barry Client: Southern Company Data: Barry Ash Pond

Mann-Whitney (Wilcoxon Rank Sum)

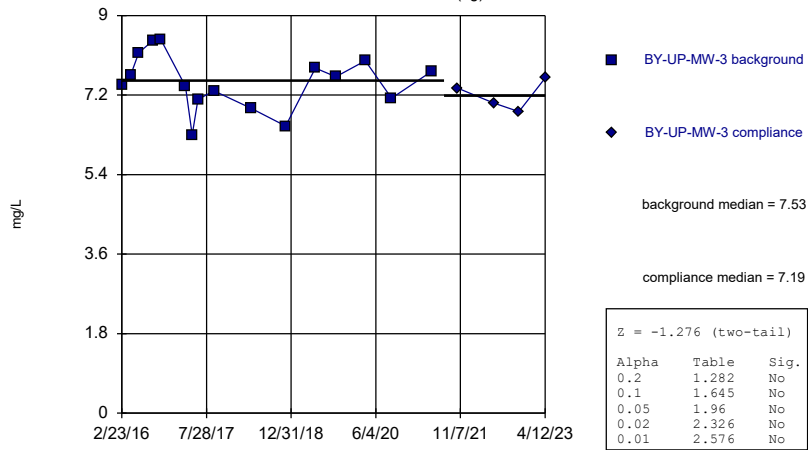
BY-UP-MW-2 (bg)



Constituent: Sulfate as SO4 Analysis Run 10/4/2023 11:23 AM View: Mann Whitney
Plant Barry Client: Southern Company Data: Barry Ash Pond

Mann-Whitney (Wilcoxon Rank Sum)

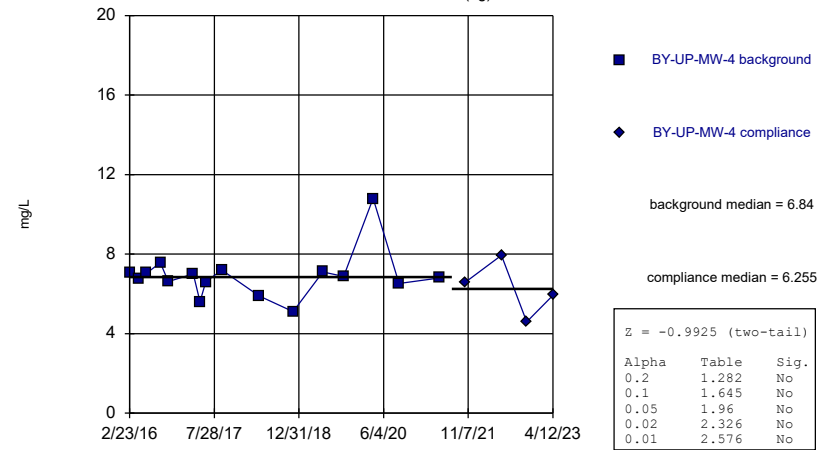
BY-UP-MW-3 (bg)



Constituent: Sulfate as SO4 Analysis Run 10/4/2023 11:23 AM View: Mann Whitney
Plant Barry Client: Southern Company Data: Barry Ash Pond

Mann-Whitney (Wilcoxon Rank Sum)

BY-UP-MW-4 (bg)



Constituent: Sulfate as SO4 Analysis Run 10/4/2023 11:23 AM View: Mann Whitney
Plant Barry Client: Southern Company Data: Barry Ash Pond

FIGURE E.

Trend Tests Upgradient Wells - Significant Results

Plant Barry Client: Southern Company Data: Barry Ash Pond Printed 10/4/2023, 10:31 AM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
Calcium, total (mg/L)	BY-UP-MW-3 (bg)	0.04639	104	87	Yes	21	0	n/a	n/a	0.01	NP
Calcium, total (mg/L)	BY-UP-MW-4 (bg)	0.09578	132	87	Yes	21	0	n/a	n/a	0.01	NP
Chloride, Total (mg/L)	BY-UP-MW-2 (bg)	-0.344	-147	-87	Yes	21	0	n/a	n/a	0.01	NP
Chloride, Total (mg/L)	BY-UP-MW-3 (bg)	-0.07532	-124	-87	Yes	21	0	n/a	n/a	0.01	NP
Chloride, Total (mg/L)	BY-UP-MW-4 (bg)	-0.05978	-110	-87	Yes	21	0	n/a	n/a	0.01	NP
Fluoride, total (mg/L)	BY-UP-MW-1 (bg)	0.008753	100	92	Yes	22	59.09	n/a	n/a	0.01	NP
Fluoride, total (mg/L)	BY-UP-MW-2 (bg)	0.01319	115	92	Yes	22	54.55	n/a	n/a	0.01	NP
TDS (mg/L)	BY-UP-MW-4 (bg)	1.443	101	87	Yes	21	19.05	n/a	n/a	0.01	NP

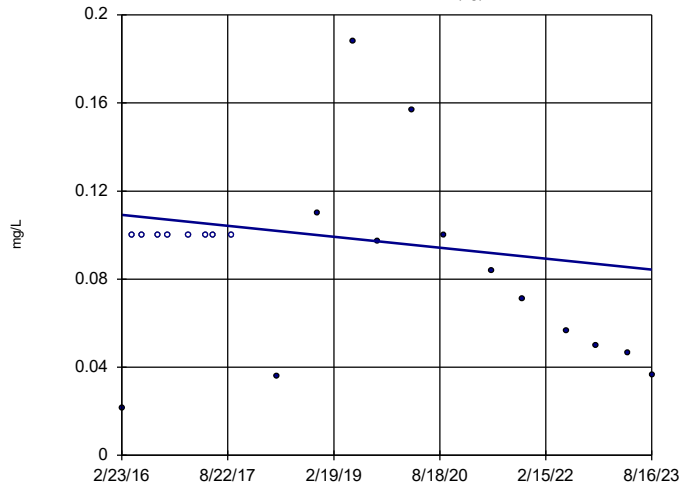
Trend Tests Upgradient Wells - All Results

Plant Barry Client: Southern Company Data: Barry Ash Pond Printed 10/4/2023, 10:31 AM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
Boron, total (mg/L)	BY-UP-MW-1 (bg)	-0.003302	-64	-87	No	21	38.1	n/a	n/a	0.01	NP
Boron, total (mg/L)	BY-UP-MW-2 (bg)	0	35	87	No	21	85.71	n/a	n/a	0.01	NP
Boron, total (mg/L)	BY-UP-MW-3 (bg)	0	0	87	No	21	100	n/a	n/a	0.01	NP
Boron, total (mg/L)	BY-UP-MW-4 (bg)	0	31	87	No	21	90.48	n/a	n/a	0.01	NP
Calcium, total (mg/L)	BY-UP-MW-1 (bg)	-0.02191	-32	-87	No	21	0	n/a	n/a	0.01	NP
Calcium, total (mg/L)	BY-UP-MW-2 (bg)	0.01469	21	87	No	21	0	n/a	n/a	0.01	NP
Calcium, total (mg/L)	BY-UP-MW-3 (bg)	0.04639	104	87	Yes	21	0	n/a	n/a	0.01	NP
Calcium, total (mg/L)	BY-UP-MW-4 (bg)	0.09578	132	87	Yes	21	0	n/a	n/a	0.01	NP
Chloride, Total (mg/L)	BY-UP-MW-1 (bg)	-0.1716	-72	-87	No	21	0	n/a	n/a	0.01	NP
Chloride, Total (mg/L)	BY-UP-MW-2 (bg)	-0.344	-147	-87	Yes	21	0	n/a	n/a	0.01	NP
Chloride, Total (mg/L)	BY-UP-MW-3 (bg)	-0.07532	-124	-87	Yes	21	0	n/a	n/a	0.01	NP
Chloride, Total (mg/L)	BY-UP-MW-4 (bg)	-0.05978	-110	-87	Yes	21	0	n/a	n/a	0.01	NP
Fluoride, total (mg/L)	BY-UP-MW-1 (bg)	0.008753	100	92	Yes	22	59.09	n/a	n/a	0.01	NP
Fluoride, total (mg/L)	BY-UP-MW-2 (bg)	0.01319	115	92	Yes	22	54.55	n/a	n/a	0.01	NP
Fluoride, total (mg/L)	BY-UP-MW-3 (bg)	0	87	92	No	22	77.27	n/a	n/a	0.01	NP
Fluoride, total (mg/L)	BY-UP-MW-4 (bg)	0	87	92	No	22	77.27	n/a	n/a	0.01	NP
TDS (mg/L)	BY-UP-MW-1 (bg)	1.366	39	87	No	21	9.524	n/a	n/a	0.01	NP
TDS (mg/L)	BY-UP-MW-2 (bg)	0.5823	36	87	No	21	9.524	n/a	n/a	0.01	NP
TDS (mg/L)	BY-UP-MW-3 (bg)	0.5158	24	87	No	21	0	n/a	n/a	0.01	NP
TDS (mg/L)	BY-UP-MW-4 (bg)	1.443	101	87	Yes	21	19.05	n/a	n/a	0.01	NP

Sen's Slope Estimator

BY-UP-MW-1 (bg)

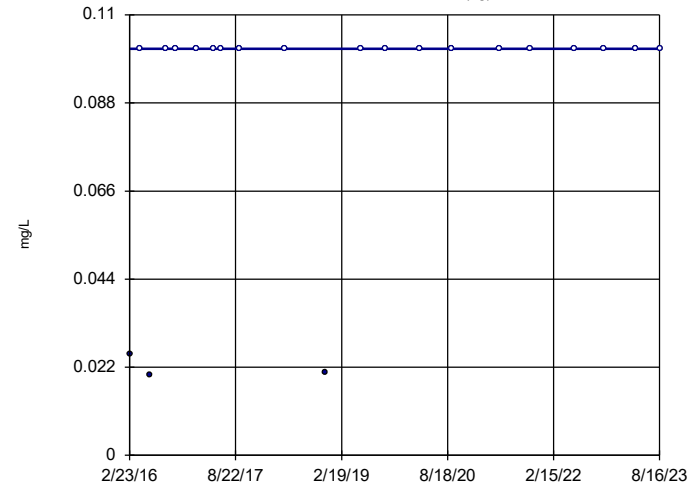


n = 21
 Slope = -0.003302 units per year.
 Mann-Kendall statistic = -64
 critical = -87
 Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Boron, total Analysis Run 10/4/2023 10:30 AM View: Trend Tests - Upgradient Wells
 Plant Barry Client: Southern Company Data: Barry Ash Pond

Sen's Slope Estimator

BY-UP-MW-2 (bg)

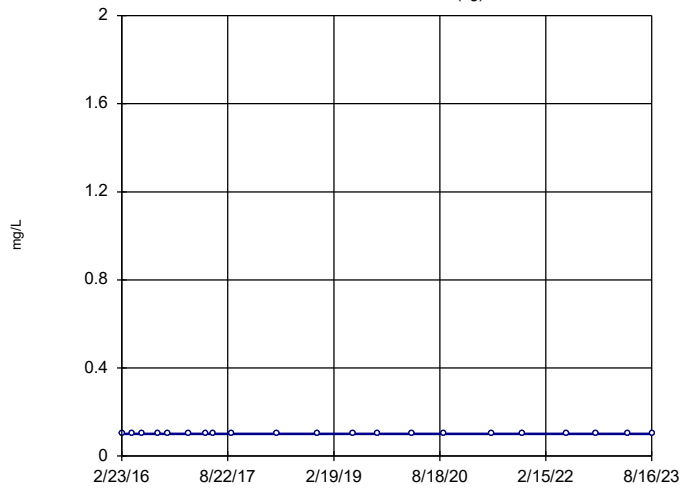


n = 21
 Slope = 0 units per year.
 Mann-Kendall statistic = 35
 critical = 87
 Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Boron, total Analysis Run 10/4/2023 10:30 AM View: Trend Tests - Upgradient Wells
 Plant Barry Client: Southern Company Data: Barry Ash Pond

Sen's Slope Estimator

BY-UP-MW-3 (bg)

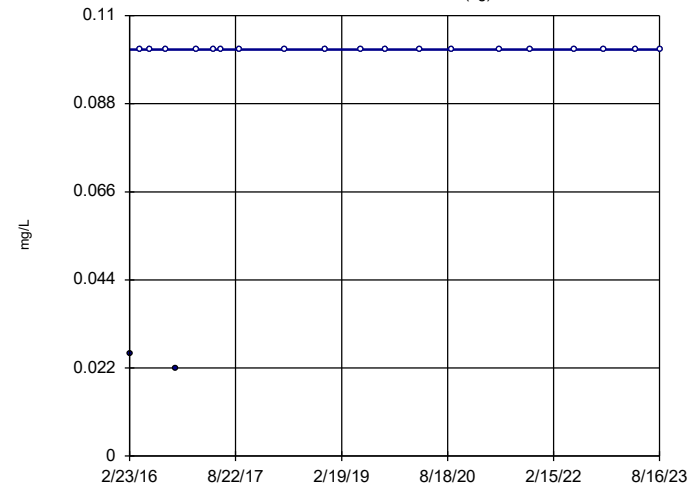


n = 21
 Slope = 0 units per year.
 Mann-Kendall statistic = 0
 critical = 87
 Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Boron, total Analysis Run 10/4/2023 10:30 AM View: Trend Tests - Upgradient Wells
 Plant Barry Client: Southern Company Data: Barry Ash Pond

Sen's Slope Estimator

BY-UP-MW-4 (bg)

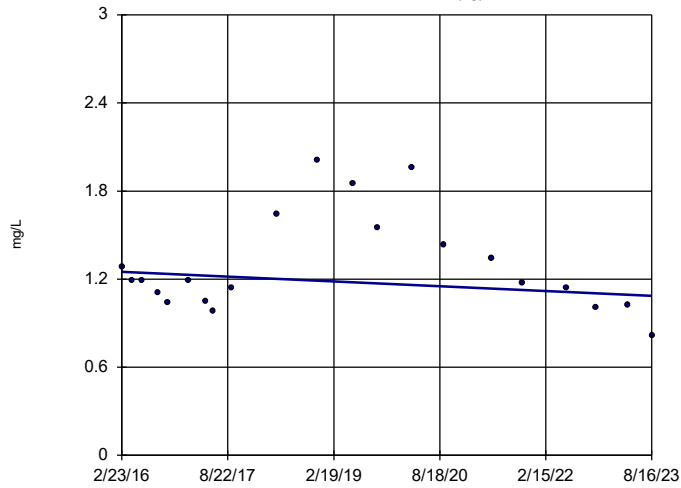


n = 21
 Slope = 0 units per year.
 Mann-Kendall statistic = 31
 critical = 87
 Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Boron, total Analysis Run 10/4/2023 10:30 AM View: Trend Tests - Upgradient Wells
 Plant Barry Client: Southern Company Data: Barry Ash Pond

Sen's Slope Estimator

BY-UP-MW-1 (bg)

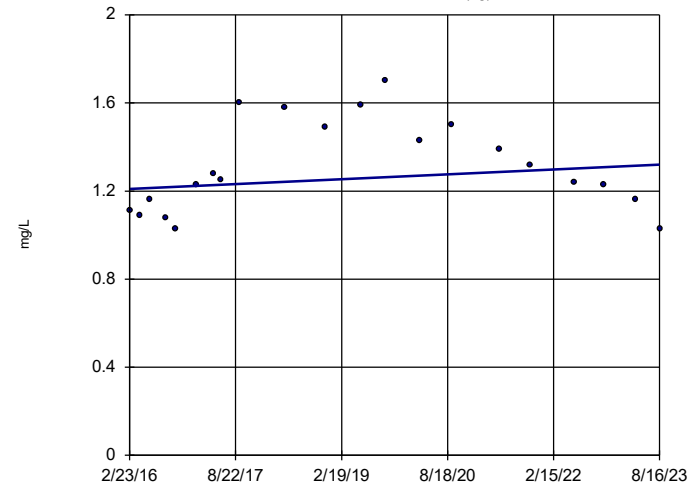


n = 21
 Slope = -0.02191
 units per year.
 Mann-Kendall
 statistic = -32
 critical = -87
 Trend not sig-
 nificant at 99%
 confidence level
 ($\alpha = 0.005$ per
 tail).

Constituent: Calcium, total Analysis Run 10/4/2023 10:30 AM View: Trend Tests - Upgradient Wells
 Plant Barry Client: Southern Company Data: Barry Ash Pond

Sen's Slope Estimator

BY-UP-MW-2 (bg)

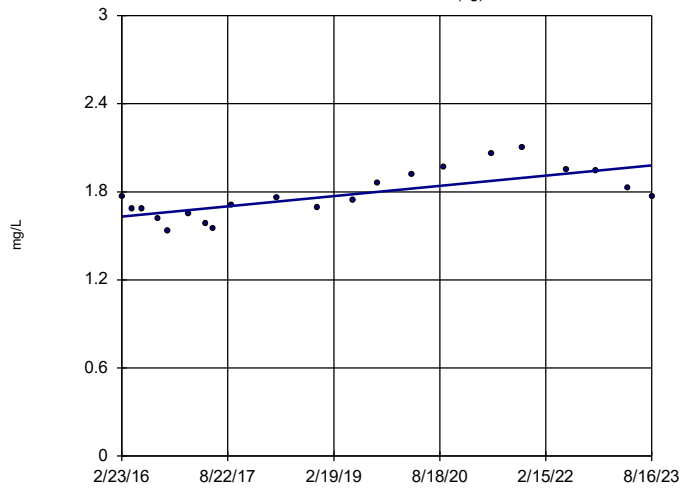


n = 21
 Slope = 0.01469
 units per year.
 Mann-Kendall
 statistic = 21
 critical = 87
 Trend not sig-
 nificant at 99%
 confidence level
 ($\alpha = 0.005$ per
 tail).

Constituent: Calcium, total Analysis Run 10/4/2023 10:30 AM View: Trend Tests - Upgradient Wells
 Plant Barry Client: Southern Company Data: Barry Ash Pond

Sen's Slope Estimator

BY-UP-MW-3 (bg)

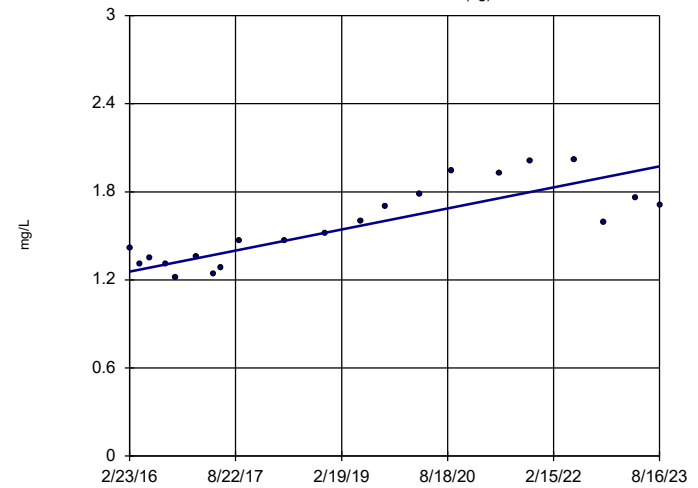


n = 21
 Slope = 0.04639
 units per year.
 Mann-Kendall
 statistic = 104
 critical = 87
 Increasing trend
 significant at 99%
 confidence level
 ($\alpha = 0.005$ per
 tail).

Constituent: Calcium, total Analysis Run 10/4/2023 10:30 AM View: Trend Tests - Upgradient Wells
 Plant Barry Client: Southern Company Data: Barry Ash Pond

Sen's Slope Estimator

BY-UP-MW-4 (bg)

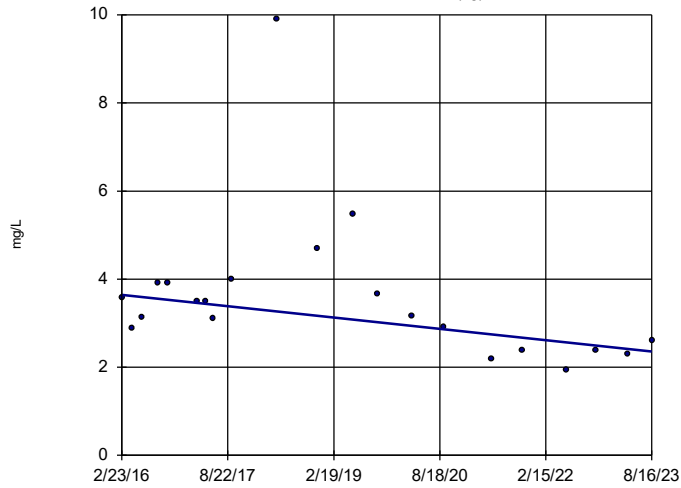


n = 21
 Slope = 0.09578
 units per year.
 Mann-Kendall
 statistic = 132
 critical = 87
 Increasing trend
 significant at 99%
 confidence level
 ($\alpha = 0.005$ per
 tail).

Constituent: Calcium, total Analysis Run 10/4/2023 10:30 AM View: Trend Tests - Upgradient Wells
 Plant Barry Client: Southern Company Data: Barry Ash Pond

Sen's Slope Estimator

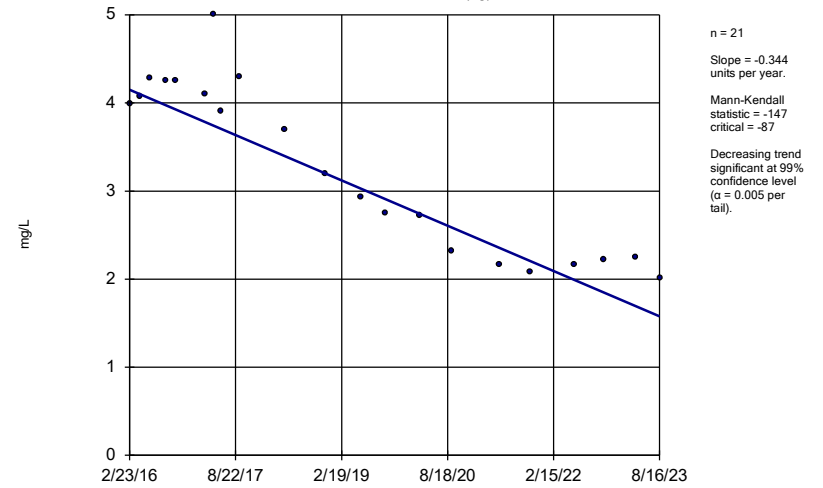
BY-UP-MW-1 (bg)



Constituent: Chloride, Total Analysis Run 10/4/2023 10:30 AM View: Trend Tests - Upgradient Wells
Plant Barry Client: Southern Company Data: Barry Ash Pond

Sen's Slope Estimator

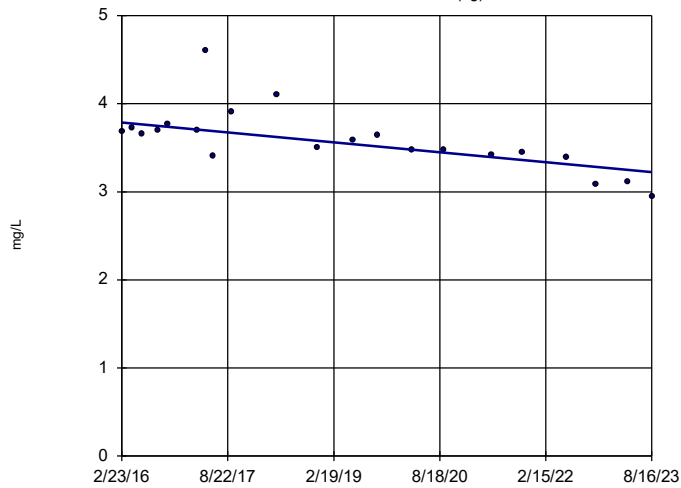
BY-UP-MW-2 (bg)



Constituent: Chloride, Total Analysis Run 10/4/2023 10:30 AM View: Trend Tests - Upgradient Wells
Plant Barry Client: Southern Company Data: Barry Ash Pond

Sen's Slope Estimator

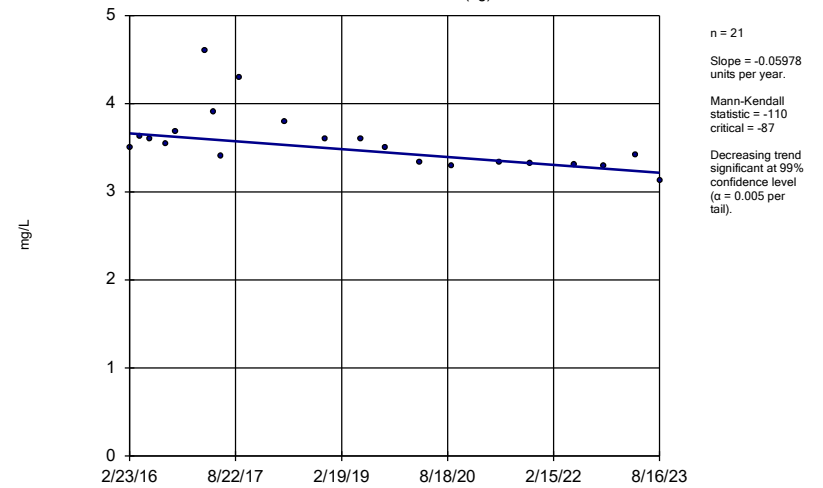
BY-UP-MW-3 (bg)



Constituent: Chloride, Total Analysis Run 10/4/2023 10:30 AM View: Trend Tests - Upgradient Wells
Plant Barry Client: Southern Company Data: Barry Ash Pond

Sen's Slope Estimator

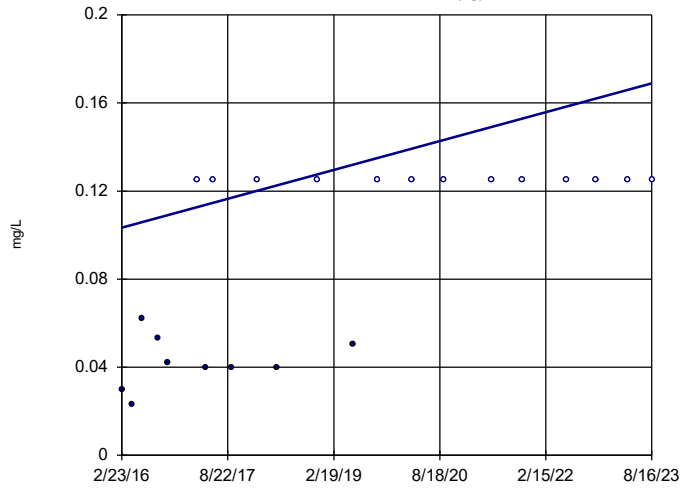
BY-UP-MW-4 (bg)



Constituent: Chloride, Total Analysis Run 10/4/2023 10:30 AM View: Trend Tests - Upgradient Wells
Plant Barry Client: Southern Company Data: Barry Ash Pond

Sen's Slope Estimator

BY-UP-MW-1 (bg)

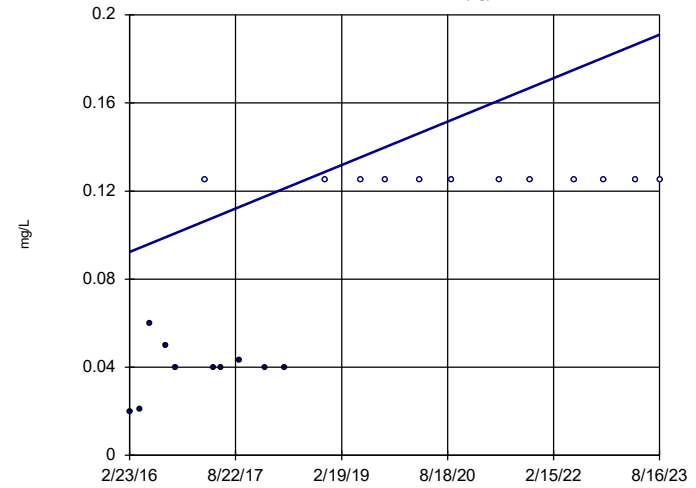


n = 22
Slope = 0.008753
units per year.
Mann-Kendall
statistic = 100
critical = 92
Increasing trend
significant at 99%
confidence level
($\alpha = 0.005$ per
tail).

Constituent: Fluoride, total Analysis Run 10/4/2023 10:30 AM View: Trend Tests - Upgradient Wells
Plant Barry Client: Southern Company Data: Barry Ash Pond

Sen's Slope Estimator

BY-UP-MW-2 (bg)

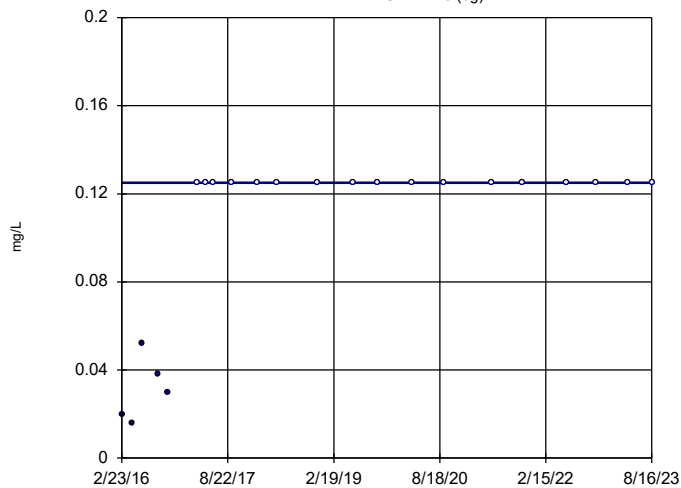


n = 22
Slope = 0.01319
units per year.
Mann-Kendall
statistic = 115
critical = 92
Increasing trend
significant at 99%
confidence level
($\alpha = 0.005$ per
tail).

Constituent: Fluoride, total Analysis Run 10/4/2023 10:30 AM View: Trend Tests - Upgradient Wells
Plant Barry Client: Southern Company Data: Barry Ash Pond

Sen's Slope Estimator

BY-UP-MW-3 (bg)

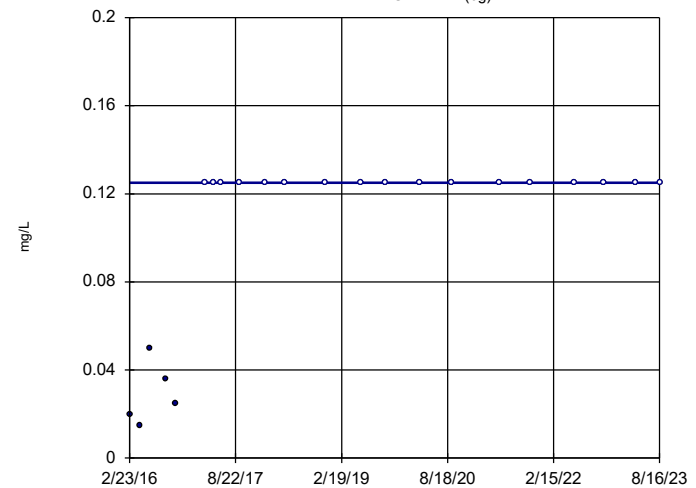


n = 22
Slope = 0
units per year.
Mann-Kendall
statistic = 87
critical = 92
Trend not sig-
nificant at 99%
confidence level
($\alpha = 0.005$ per
tail).

Constituent: Fluoride, total Analysis Run 10/4/2023 10:30 AM View: Trend Tests - Upgradient Wells
Plant Barry Client: Southern Company Data: Barry Ash Pond

Sen's Slope Estimator

BY-UP-MW-4 (bg)

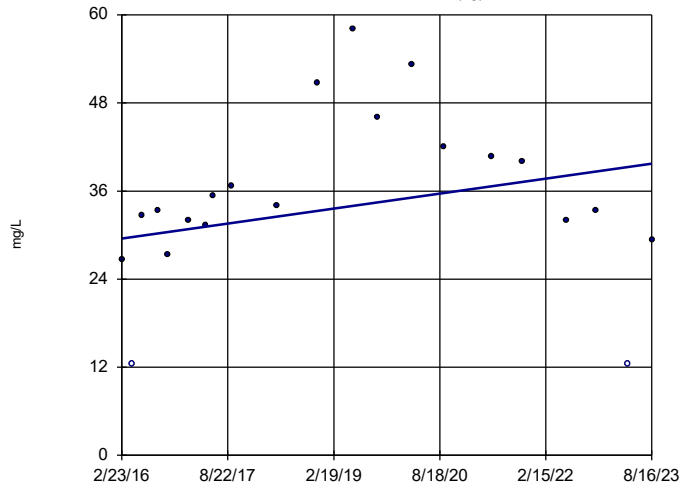


n = 22
Slope = 0
units per year.
Mann-Kendall
statistic = 87
critical = 92
Trend not sig-
nificant at 99%
confidence level
($\alpha = 0.005$ per
tail).

Constituent: Fluoride, total Analysis Run 10/4/2023 10:30 AM View: Trend Tests - Upgradient Wells
Plant Barry Client: Southern Company Data: Barry Ash Pond

Sen's Slope Estimator

BY-UP-MW-1 (bg)

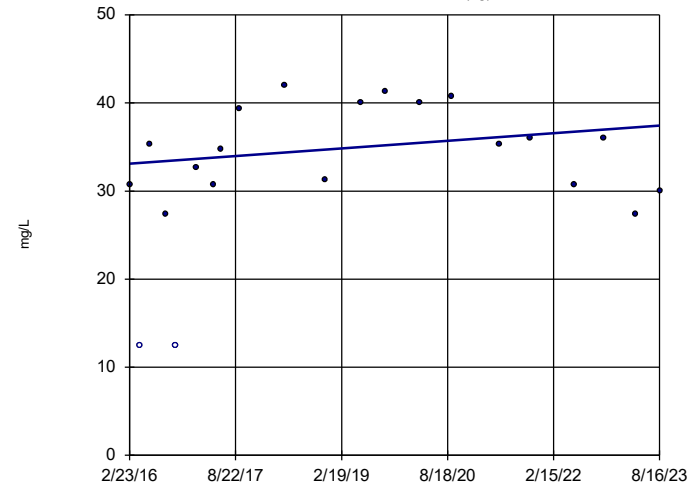


n = 21
Slope = 1.366
units per year.
Mann-Kendall
statistic = 39
critical = 87
Trend not sig-
nificant at 99%
confidence level
($\alpha = 0.005$ per
tail).

Constituent: TDS Analysis Run 10/4/2023 10:30 AM View: Trend Tests - Upgradient Wells
Plant Barry Client: Southern Company Data: Barry Ash Pond

Sen's Slope Estimator

BY-UP-MW-2 (bg)

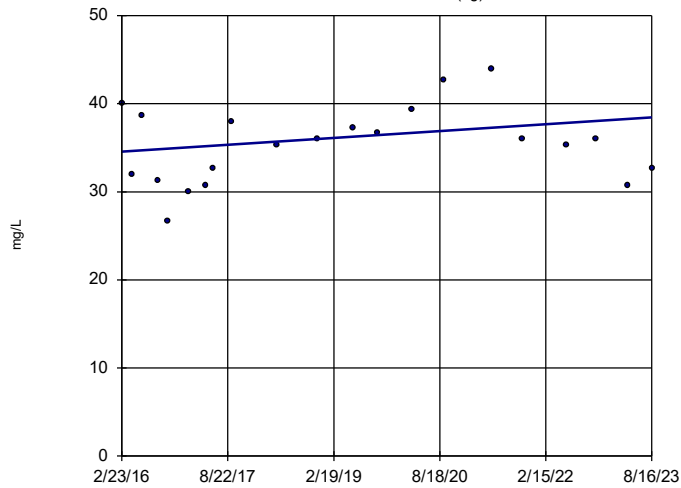


n = 21
Slope = 0.5823
units per year.
Mann-Kendall
statistic = 36
critical = 87
Trend not sig-
nificant at 99%
confidence level
($\alpha = 0.005$ per
tail).

Constituent: TDS Analysis Run 10/4/2023 10:30 AM View: Trend Tests - Upgradient Wells
Plant Barry Client: Southern Company Data: Barry Ash Pond

Sen's Slope Estimator

BY-UP-MW-3 (bg)

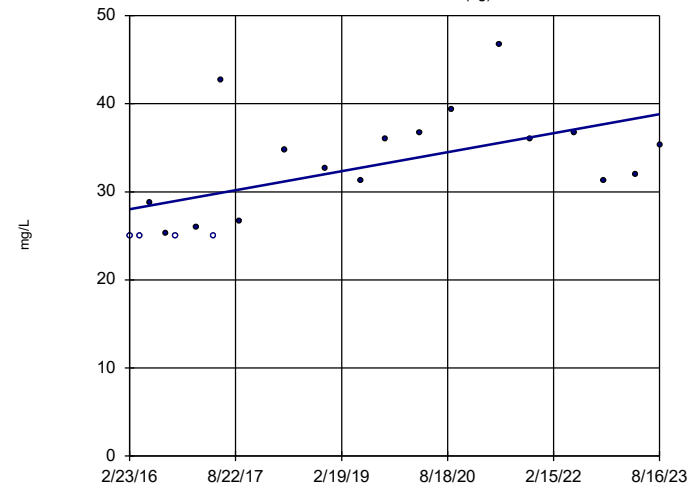


n = 21
Slope = 0.5158
units per year.
Mann-Kendall
statistic = 24
critical = 87
Trend not sig-
nificant at 99%
confidence level
($\alpha = 0.005$ per
tail).

Constituent: TDS Analysis Run 10/4/2023 10:30 AM View: Trend Tests - Upgradient Wells
Plant Barry Client: Southern Company Data: Barry Ash Pond

Sen's Slope Estimator

BY-UP-MW-4 (bg)



n = 21
Slope = 1.443
units per year.
Mann-Kendall
statistic = 101
critical = 87
Increasing trend
significant at 99%
confidence level
($\alpha = 0.005$ per
tail).

Constituent: TDS Analysis Run 10/4/2023 10:30 AM View: Trend Tests - Upgradient Wells
Plant Barry Client: Southern Company Data: Barry Ash Pond

FIGURE F.

Intrawell Prediction Limit Summary - Significant Results

Plant Barry Client: Southern Company Data: Barry Ash Pond Printed 10/22/2023, 12:32 PM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg.N	Bg Mean	Std. Dev.	%NDs	ND Adj.	TransformAlpha	Method
pH, field (SU)	BY-AP-MW-3	5.41	4.324	8/9/2023	5.45	Yes	23	15805	3912	0	None	x^6	0.0002351 Param Intra 1 of 2
pH, field (SU)	BY-AP-MW-8	6.34	5.6	8/7/2023	6.82	Yes	23	n/a	n/a	0	n/a	n/a	0.006831 NP Intra (normality) 1 of 2
pH, field (SU)	BY-UP-MW-1	4.872	4.499	8/16/2023	4.45	Yes	21	4.685	0.07737	0	None	No	0.0002351 Param Intra 1 of 2
Sulfate as SO4 (mg/L)	BY-AP-MW-10	5	n/a	8/7/2023	17.8	Yes	13	n/a	n/a	69.23	n/a	n/a	0.009692 NP Intra (NDs) 1 of 2
Sulfate as SO4 (mg/L)	BY-AP-MW-11	22.98	n/a	8/7/2023	158	Yes	13	0.6472	0.9082	46.15	Kaplan-Meier	ln(x)	0.0004702 Param Intra 1 of 2
Sulfate as SO4 (mg/L)	BY-AP-MW-12	7.04	n/a	8/8/2023	65.1	Yes	12	n/a	n/a	75	n/a	n/a	0.01077 NP Intra (NDs) 1 of 2
Sulfate as SO4 (mg/L)	BY-AP-MW-15	9.688	n/a	8/8/2023	10.6	Yes	20	3.584	2.514	50	Kaplan-Meier	No	0.0004702 Param Intra 1 of 2
Sulfate as SO4 (mg/L)	BY-AP-MW-16	18.2	n/a	8/8/2023	31.6	Yes	21	2.11	0.8952	42.86	Kaplan-Meier	sqrt(x)	0.0004702 Param Intra 1 of 2
Sulfate as SO4 (mg/L)	BY-AP-MW-7	5	n/a	8/7/2023	25.9	Yes	16	n/a	n/a	37.5	n/a	n/a	0.006456 NP Intra (normality) 1 of 2
Sulfate as SO4 (mg/L)	BY-AP-MW-8	6.01	n/a	8/7/2023	38.6	Yes	13	n/a	n/a	76.92	n/a	n/a	0.009692 NP Intra (NDs) 1 of 2
Sulfate as SO4 (mg/L)	BY-AP-MW-9	5.91	n/a	8/7/2023	30.4	Yes	13	n/a	n/a	69.23	n/a	n/a	0.009692 NP Intra (NDs) 1 of 2

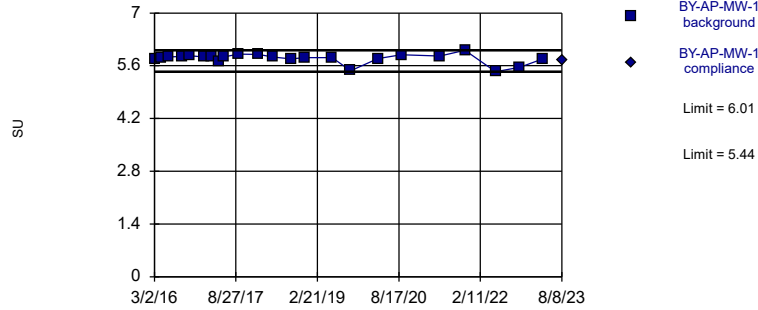
Intrawell Prediction Limit Summary - All Results

Plant Barry Client: Southern Company Data: Barry Ash Pond Printed 10/22/2023, 12:32 PM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	Bg Mean	Std. Dev.	%NDs	ND Adj.	TransformAlpha	Method
pH, field (SU)	BY-AP-MW-1	6.01	5.44	8/8/2023	5.74	No	23	n/a	n/a	0	n/a	n/a	0.006831 NP Intra (normality) 1 of 2
pH, field (SU)	BY-AP-MW-10	6.4	5.81	8/7/2023	6.27	No	23	n/a	n/a	0	n/a	n/a	0.006831 NP Intra (normality) 1 of 2
pH, field (SU)	BY-AP-MW-11	6.34	5.84	8/7/2023	6.3	No	23	n/a	n/a	0	n/a	n/a	0.006831 NP Intra (normality) 1 of 2
pH, field (SU)	BY-AP-MW-12	6.25	5.58	8/8/2023	6.07	No	23	n/a	n/a	0	n/a	n/a	0.006831 NP Intra (normality) 1 of 2
pH, field (SU)	BY-AP-MW-13	6.14	5.5	8/9/2023	5.76	No	23	n/a	n/a	0	n/a	n/a	0.006831 NP Intra (normality) 1 of 2
pH, field (SU)	BY-AP-MW-14	6.376	5.719	8/9/2023	5.83	No	23	6.047	0.1385	0	None	No	0.0002351 Param Intra 1 of 2
pH, field (SU)	BY-AP-MW-15	6.76	6.2	8/8/2023	6.6	No	23	n/a	n/a	0	n/a	n/a	0.006831 NP Intra (normality) 1 of 2
pH, field (SU)	BY-AP-MW-16	5.87	5.23	8/8/2023	5.39	No	23	n/a	n/a	0	n/a	n/a	0.006831 NP Intra (normality) 1 of 2
pH, field (SU)	BY-AP-MW-2	6.207	4.633	8/8/2023	4.91	No	23	33530	9978	0	None	x^6	0.0002351 Param Intra 1 of 2
pH, field (SU)	BY-AP-MW-3	5.41	4.324	8/9/2023	5.45	Yes	23	15805	3912	0	None	x^6	0.0002351 Param Intra 1 of 2
pH, field (SU)	BY-AP-MW-4	5.337	4.004	8/9/2023	4.55	No	23	4.67	0.2814	0	None	No	0.0002351 Param Intra 1 of 2
pH, field (SU)	BY-AP-MW-5	6.36	5.47	8/7/2023	5.84	No	22	n/a	n/a	0	n/a	n/a	0.007415 NP Intra (normality) 1 of 2
pH, field (SU)	BY-AP-MW-6	5.735	4.629	8/9/2023	5.05	No	23	4165	861	0	None	x^5	0.0002351 Param Intra 1 of 2
pH, field (SU)	BY-AP-MW-7	7.07	6.18	8/7/2023	6.67	No	22	n/a	n/a	0	n/a	n/a	0.007415 NP Intra (normality) 1 of 2
pH, field (SU)	BY-AP-MW-8	6.34	5.6	8/7/2023	6.82	Yes	23	n/a	n/a	0	n/a	n/a	0.006831 NP Intra (normality) 1 of 2
pH, field (SU)	BY-AP-MW-9	6.32	5.97	8/7/2023	6.13	No	23	n/a	n/a	0	n/a	n/a	0.006831 NP Intra (normality) 1 of 2
pH, field (SU)	BY-UP-MW-1	4.872	4.499	8/16/2023	4.45	Yes	21	4.685	0.07737	0	None	No	0.0002351 Param Intra 1 of 2
pH, field (SU)	BY-UP-MW-2	5.005	4.313	8/16/2023	4.49	No	21	4.659	0.1438	0	None	No	0.0002351 Param Intra 1 of 2
pH, field (SU)	BY-UP-MW-3	4.98	3.54	8/16/2023	4.03	No	22	n/a	n/a	0	n/a	n/a	0.007415 NP Intra (normality) 1 of 2
pH, field (SU)	BY-UP-MW-4	4.95	3.97	8/16/2023	4.58	No	22	n/a	n/a	0	n/a	n/a	0.007415 NP Intra (normality) 1 of 2
Sulfate as SO4 (mg/L)	BY-AP-MW-1	6.348	n/a	8/8/2023	3.92	No	13	52.17	74.33	46.15	Kaplan-Meier	x^3	0.0004702 Param Intra 1 of 2
Sulfate as SO4 (mg/L)	BY-AP-MW-10	5	n/a	8/7/2023	17.8	Yes	13	n/a	n/a	69.23	n/a	n/a	0.009692 NP Intra (NDs) 1 of 2
Sulfate as SO4 (mg/L)	BY-AP-MW-11	22.98	n/a	8/7/2023	158	Yes	13	0.6472	0.9082	46.15	Kaplan-Meier	ln(x)	0.0004702 Param Intra 1 of 2
Sulfate as SO4 (mg/L)	BY-AP-MW-12	7.04	n/a	8/8/2023	65.1	Yes	12	n/a	n/a	75	n/a	n/a	0.01077 NP Intra (NDs) 1 of 2
Sulfate as SO4 (mg/L)	BY-AP-MW-13	49.5	n/a	8/9/2023	23.5	No	13	n/a	n/a	38.46	n/a	n/a	0.009692 NP Intra (normality) 1 of 2
Sulfate as SO4 (mg/L)	BY-AP-MW-14	67.6	n/a	8/9/2023	37.8	No	17	n/a	n/a	52.94	n/a	n/a	0.005914 NP Intra (NDs) 1 of 2
Sulfate as SO4 (mg/L)	BY-AP-MW-15	9.688	n/a	8/8/2023	10.6	Yes	20	3.584	2.514	50	Kaplan-Meier	No	0.0004702 Param Intra 1 of 2
Sulfate as SO4 (mg/L)	BY-AP-MW-16	18.2	n/a	8/8/2023	31.6	Yes	21	2.11	0.8952	42.86	Kaplan-Meier	sqrt(x)	0.0004702 Param Intra 1 of 2
Sulfate as SO4 (mg/L)	BY-AP-MW-2	3.3	n/a	8/8/2023	1.82J	No	21	n/a	n/a	52.38	n/a	n/a	0.003999 NP Intra (NDs) 1 of 2
Sulfate as SO4 (mg/L)	BY-AP-MW-3	5	n/a	8/9/2023	3.04	No	21	n/a	n/a	33.33	n/a	n/a	0.003999 NP Intra (normality) 1 of 2
Sulfate as SO4 (mg/L)	BY-AP-MW-4	5.043	n/a	8/9/2023	2.28	No	21	2.623	1.005	4.762	None	No	0.0004702 Param Intra 1 of 2
Sulfate as SO4 (mg/L)	BY-AP-MW-5	23.7	n/a	8/7/2023	17.6	No	19	n/a	n/a	47.37	n/a	n/a	0.004832 NP Intra (normality) 1 of 2
Sulfate as SO4 (mg/L)	BY-AP-MW-6	5	n/a	8/9/2023	1.61J	No	21	n/a	n/a	19.05	n/a	n/a	0.003999 NP Intra (normality) 1 of 2
Sulfate as SO4 (mg/L)	BY-AP-MW-7	5	n/a	8/7/2023	25.9	Yes	16	n/a	n/a	37.5	n/a	n/a	0.006456 NP Intra (normality) 1 of 2
Sulfate as SO4 (mg/L)	BY-AP-MW-8	6.01	n/a	8/7/2023	38.6	Yes	13	n/a	n/a	76.92	n/a	n/a	0.009692 NP Intra (NDs) 1 of 2
Sulfate as SO4 (mg/L)	BY-AP-MW-9	5.91	n/a	8/7/2023	30.4	Yes	13	n/a	n/a	69.23	n/a	n/a	0.009692 NP Intra (NDs) 1 of 2
Sulfate as SO4 (mg/L)	BY-UP-MW-1	26.43	n/a	8/16/2023	9.38	No	20	12.68	5.664	0	None	No	0.0004702 Param Intra 1 of 2
Sulfate as SO4 (mg/L)	BY-UP-MW-2	10.03	n/a	8/16/2023	8.28	No	20	6.587	1.419	0	None	No	0.0004702 Param Intra 1 of 2
Sulfate as SO4 (mg/L)	BY-UP-MW-3	8.85	n/a	8/16/2023	7.26	No	20	7.437	0.5821	0	None	No	0.0004702 Param Intra 1 of 2
Sulfate as SO4 (mg/L)	BY-UP-MW-4	9.931	n/a	8/16/2023	7.05	No	20	2.594	0.2297	0	None	sqrt(x)	0.0004702 Param Intra 1 of 2

Within Limits

Prediction Limit Intrawell Non-parametric

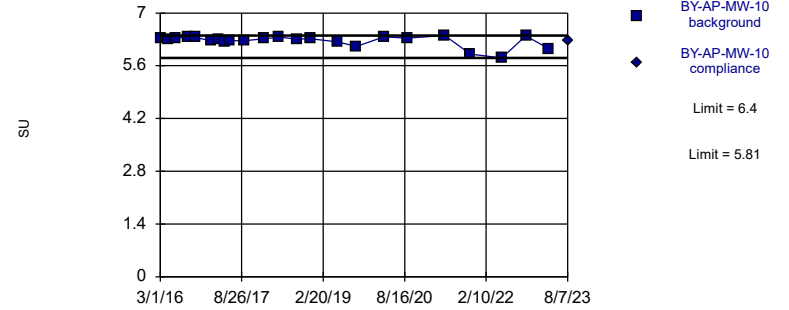


Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limits are highest and lowest of 23 background values. Well-constituent pair annual alpha = 0.01364. Individual comparison alpha = 0.006831 (1 of 2).

Constituent: pH, field Analysis Run 10/22/2023 12:24 PM View: Intrawell PLs
Plant Barry Client: Southern Company Data: Barry Ash Pond

Within Limits

Prediction Limit Intrawell Non-parametric

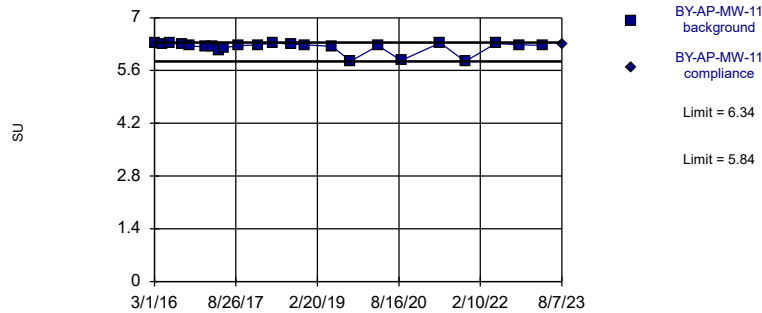


Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limits are highest and lowest of 23 background values. Well-constituent pair annual alpha = 0.01364. Individual comparison alpha = 0.006831 (1 of 2).

Constituent: pH, field Analysis Run 10/22/2023 12:25 PM View: Intrawell PLs
Plant Barry Client: Southern Company Data: Barry Ash Pond

Within Limits

Prediction Limit Intrawell Non-parametric

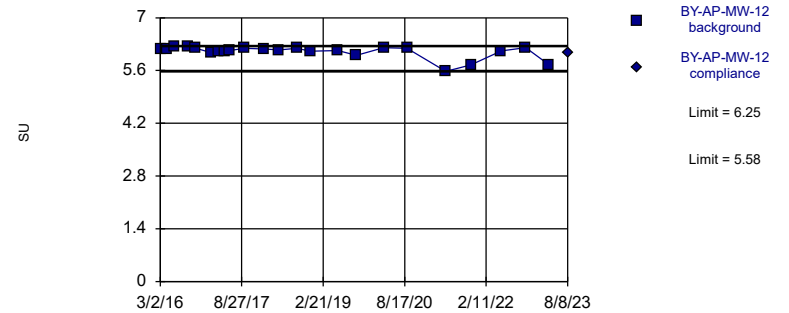


Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limits are highest and lowest of 23 background values. Well-constituent pair annual alpha = 0.01364. Individual comparison alpha = 0.006831 (1 of 2).

Constituent: pH, field Analysis Run 10/22/2023 12:25 PM View: Intrawell PLs
Plant Barry Client: Southern Company Data: Barry Ash Pond

Within Limits

Prediction Limit Intrawell Non-parametric

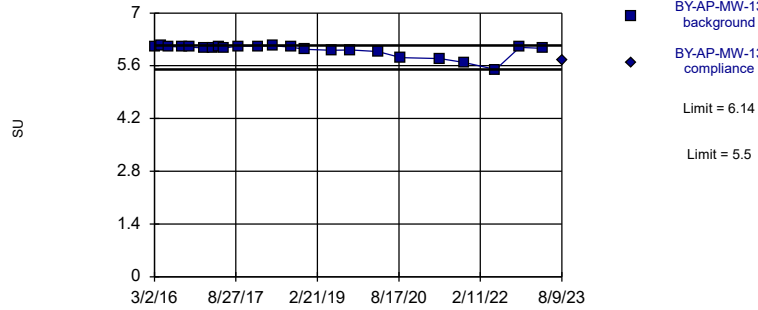


Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limits are highest and lowest of 23 background values. Well-constituent pair annual alpha = 0.01364. Individual comparison alpha = 0.006831 (1 of 2).

Constituent: pH, field Analysis Run 10/22/2023 12:25 PM View: Intrawell PLs
Plant Barry Client: Southern Company Data: Barry Ash Pond

Within Limits

Prediction Limit
Intrawell Non-parametric

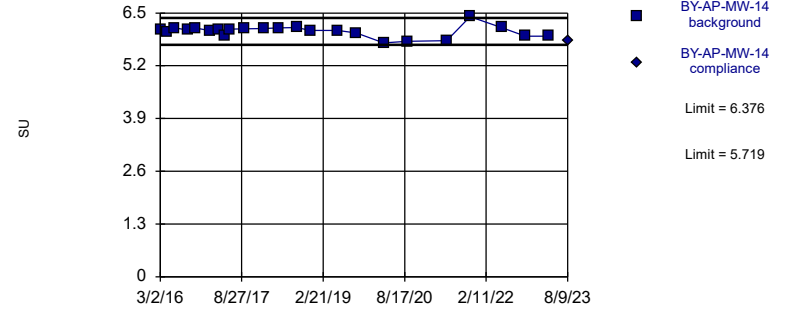


Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limits are highest and lowest of 23 background values. Well-constituent pair annual alpha = 0.01364. Individual comparison alpha = 0.006831 (1 of 2).

Constituent: pH, field Analysis Run 10/22/2023 12:25 PM View: Intrawell PLs
Plant Barry Client: Southern Company Data: Barry Ash Pond

Within Limits

Prediction Limit
Intrawell Parametric

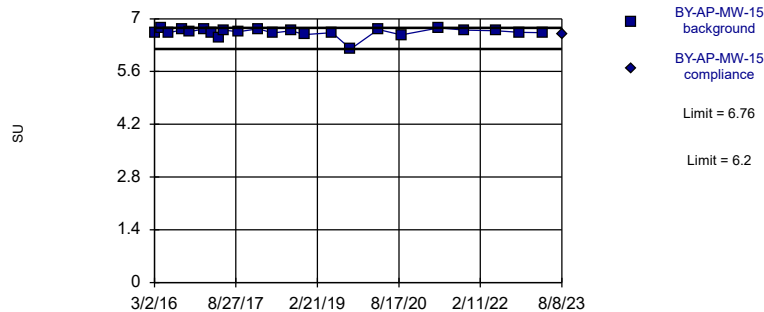


Background Data Summary: Mean=6.047, Std. Dev.=0.1385, n=23. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8925, critical = 0.881. Kappa = 2.369 (c=7, w=16, 1 of 2, event alpha = 0.05132). Report alpha = 0.0004702.

Constituent: pH, field Analysis Run 10/22/2023 12:25 PM View: Intrawell PLs
Plant Barry Client: Southern Company Data: Barry Ash Pond

Within Limits

Prediction Limit
Intrawell Non-parametric

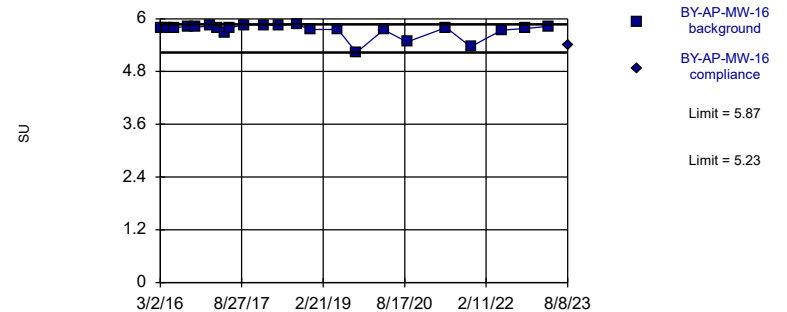


Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limits are highest and lowest of 23 background values. Well-constituent pair annual alpha = 0.01364. Individual comparison alpha = 0.006831 (1 of 2).

Constituent: pH, field Analysis Run 10/22/2023 12:25 PM View: Intrawell PLs
Plant Barry Client: Southern Company Data: Barry Ash Pond

Within Limits

Prediction Limit
Intrawell Non-parametric

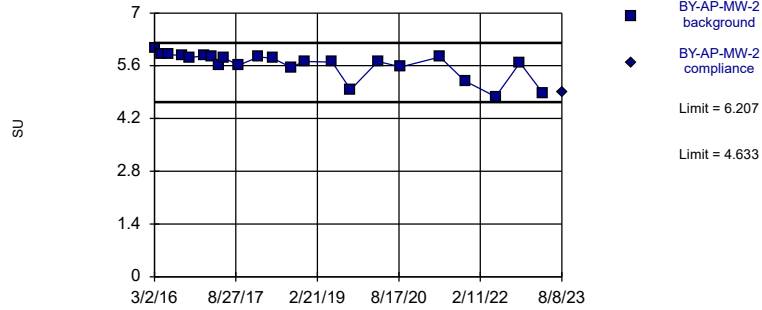


Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limits are highest and lowest of 23 background values. Well-constituent pair annual alpha = 0.01364. Individual comparison alpha = 0.006831 (1 of 2).

Constituent: pH, field Analysis Run 10/22/2023 12:25 PM View: Intrawell PLs
Plant Barry Client: Southern Company Data: Barry Ash Pond

Within Limits

Prediction Limit
Intrawell Parametric

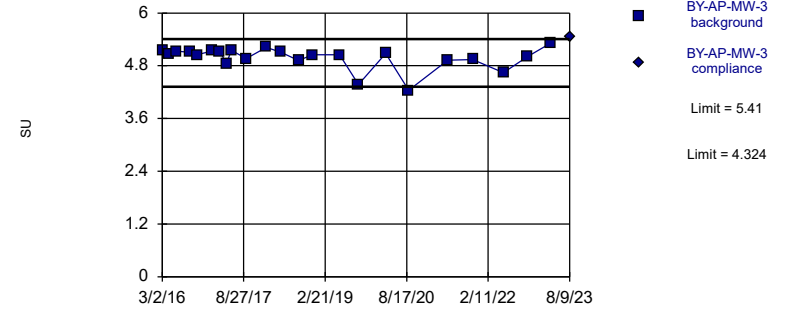


Background Data Summary (based on x⁶ transformation): Mean=33530, Std. Dev.=9978, n=23. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8904, critical = 0.881. Kappa = 2.369 (c=7, w=16, 1 of 2, event alpha = 0.05132). Report alpha = 0.0004702.

Constituent: pH, field Analysis Run 10/22/2023 12:25 PM View: Intrawell PLS
 Plant Barry Client: Southern Company Data: Barry Ash Pond

Exceeds Limits

Prediction Limit
Intrawell Parametric

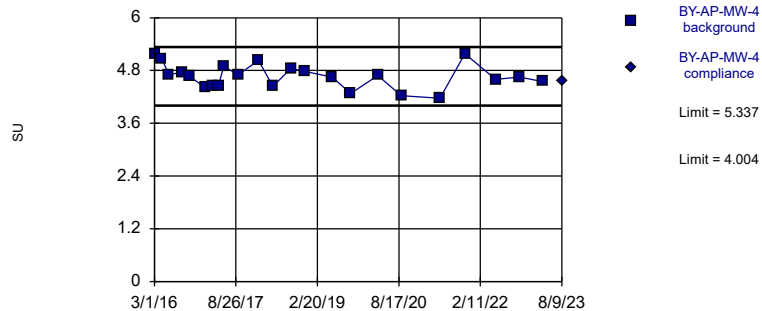


Background Data Summary (based on x⁶ transformation): Mean=15805, Std. Dev.=3912, n=23. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8885, critical = 0.881. Kappa = 2.369 (c=7, w=16, 1 of 2, event alpha = 0.05132). Report alpha = 0.0004702.

Constituent: pH, field Analysis Run 10/22/2023 12:25 PM View: Intrawell PLS
 Plant Barry Client: Southern Company Data: Barry Ash Pond

Within Limits

Prediction Limit
Intrawell Parametric

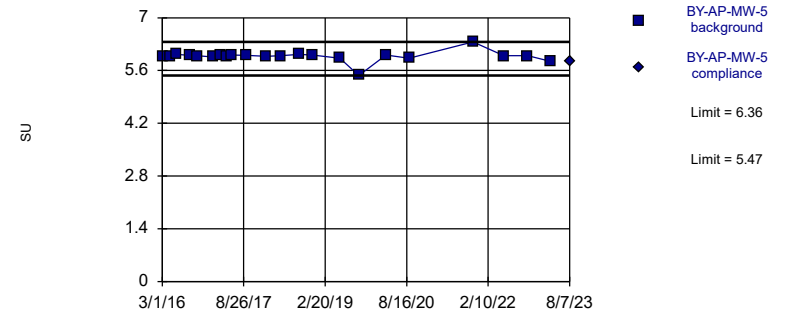


Background Data Summary: Mean=4.67, Std. Dev.=0.2814, n=23. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9707, critical = 0.881. Kappa = 2.369 (c=7, w=16, 1 of 2, event alpha = 0.05132). Report alpha = 0.0004702.

Constituent: pH, field Analysis Run 10/22/2023 12:25 PM View: Intrawell PLS
 Plant Barry Client: Southern Company Data: Barry Ash Pond

Within Limits

Prediction Limit
Intrawell Non-parametric

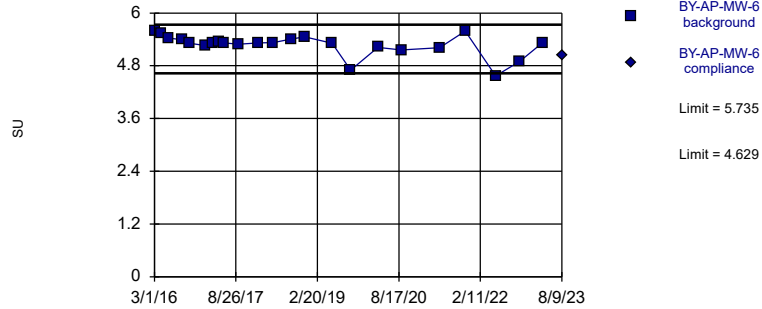


Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limits are highest and lowest of 22 background values. Well-constituent pair annual alpha = 0.0148. Individual comparison alpha = 0.007415 (1 of 2).

Constituent: pH, field Analysis Run 10/22/2023 12:25 PM View: Intrawell PLS
 Plant Barry Client: Southern Company Data: Barry Ash Pond

Within Limits

Prediction Limit
Intrawell Parametric

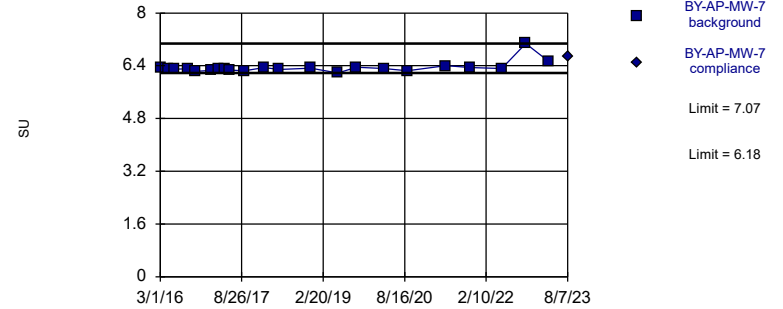


Background Data Summary (based on x^5 transformation): Mean=4165, Std. Dev.=861, n=23. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8896, critical = 0.881. Kappa = 2.369 (c=7, w=16, 1 of 2, event alpha = 0.05132). Report alpha = 0.0004702.

Constituent: pH, field Analysis Run 10/22/2023 12:25 PM View: Intrawell PLs
 Plant Barry Client: Southern Company Data: Barry Ash Pond

Within Limits

Prediction Limit
Intrawell Non-parametric

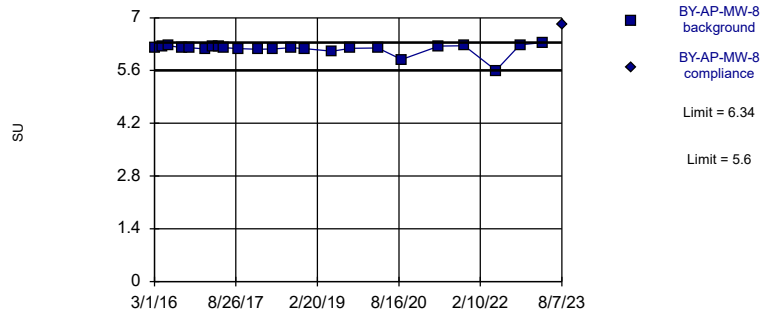


Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limits are highest and lowest of 22 background values. Well-constituent pair annual alpha = 0.0148. Individual comparison alpha = 0.007415 (1 of 2).

Constituent: pH, field Analysis Run 10/22/2023 12:25 PM View: Intrawell PLs
 Plant Barry Client: Southern Company Data: Barry Ash Pond

Exceeds Limits

Prediction Limit
Intrawell Non-parametric

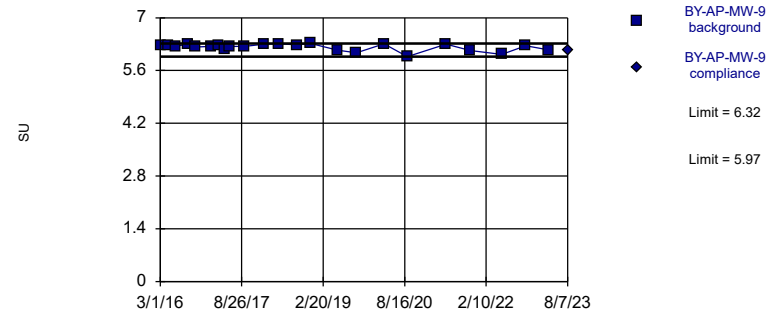


Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limits are highest and lowest of 23 background values. Well-constituent pair annual alpha = 0.01364. Individual comparison alpha = 0.006831 (1 of 2).

Constituent: pH, field Analysis Run 10/22/2023 12:25 PM View: Intrawell PLs
 Plant Barry Client: Southern Company Data: Barry Ash Pond

Within Limits

Prediction Limit
Intrawell Non-parametric

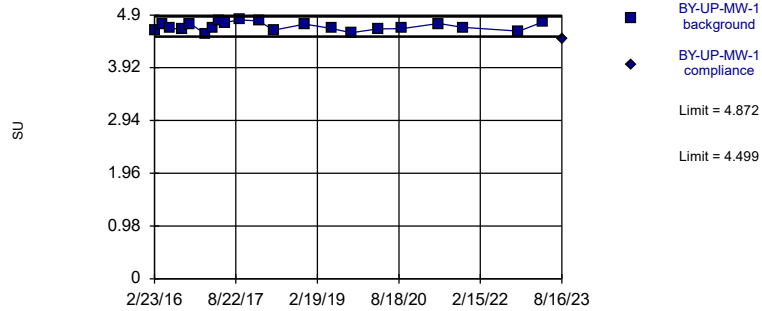


Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limits are highest and lowest of 23 background values. Well-constituent pair annual alpha = 0.01364. Individual comparison alpha = 0.006831 (1 of 2).

Constituent: pH, field Analysis Run 10/22/2023 12:25 PM View: Intrawell PLs
 Plant Barry Client: Southern Company Data: Barry Ash Pond

Exceeds Limits

Prediction Limit
Intrawell Parametric

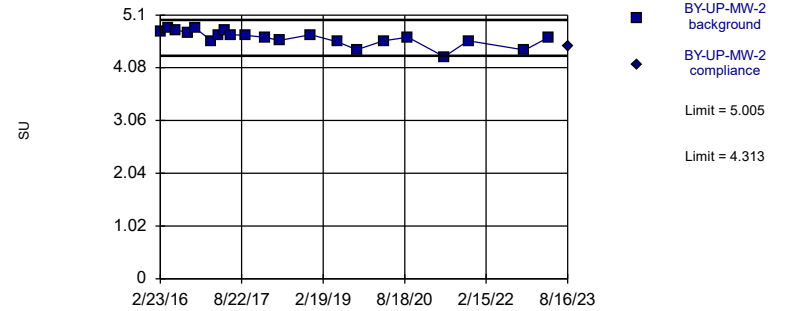


Background Data Summary: Mean=4.685, Std. Dev.=0.07737, n=21. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9509, critical = 0.873. Kappa = 2.408 (c=7, w=16, 1 of 2, event alpha = 0.05132). Report alpha = 0.0004702.

Constituent: pH, field Analysis Run 10/22/2023 12:25 PM View: Intrawell PLS
 Plant Barry Client: Southern Company Data: Barry Ash Pond

Within Limits

Prediction Limit
Intrawell Parametric

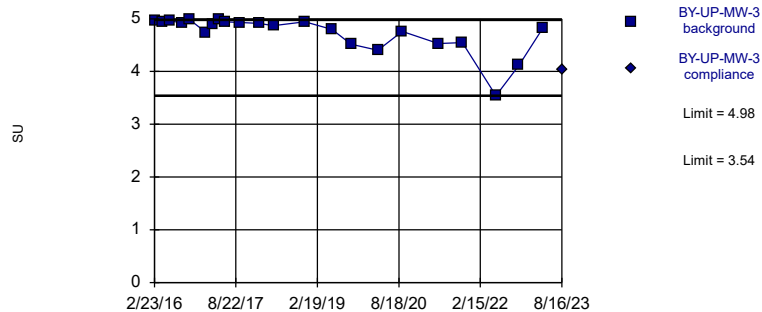


Background Data Summary: Mean=4.659, Std. Dev.=0.1438, n=21. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9126, critical = 0.873. Kappa = 2.408 (c=7, w=16, 1 of 2, event alpha = 0.05132). Report alpha = 0.0004702.

Constituent: pH, field Analysis Run 10/22/2023 12:25 PM View: Intrawell PLS
 Plant Barry Client: Southern Company Data: Barry Ash Pond

Within Limits

Prediction Limit
Intrawell Non-parametric

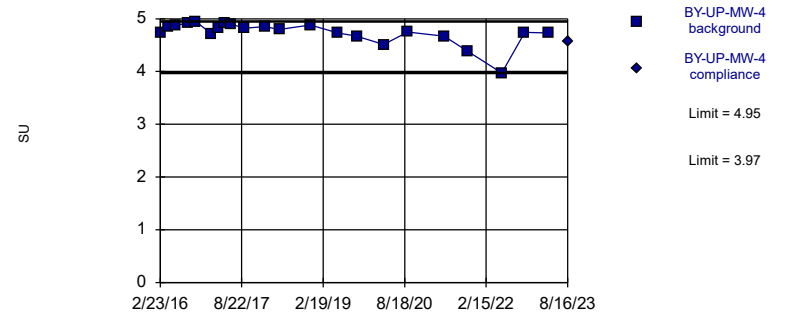


Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limits are highest and lowest of 22 background values. Well-constituent pair annual alpha = 0.0148. Individual comparison alpha = 0.007415 (1 of 2).

Constituent: pH, field Analysis Run 10/22/2023 12:25 PM View: Intrawell PLS
 Plant Barry Client: Southern Company Data: Barry Ash Pond

Within Limits

Prediction Limit
Intrawell Non-parametric

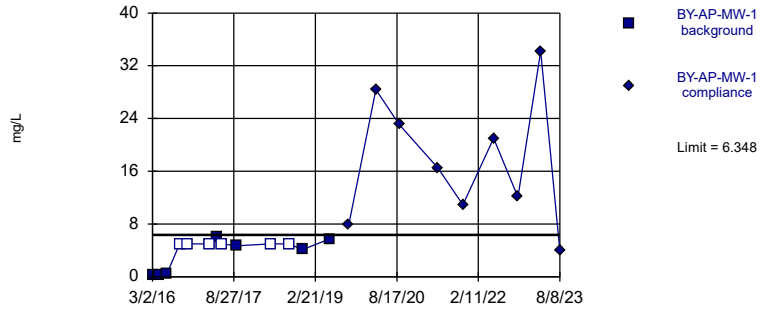


Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limits are highest and lowest of 22 background values. Well-constituent pair annual alpha = 0.0148. Individual comparison alpha = 0.007415 (1 of 2).

Constituent: pH, field Analysis Run 10/22/2023 12:25 PM View: Intrawell PLS
 Plant Barry Client: Southern Company Data: Barry Ash Pond

Within Limit

Prediction Limit
Intrawell Parametric

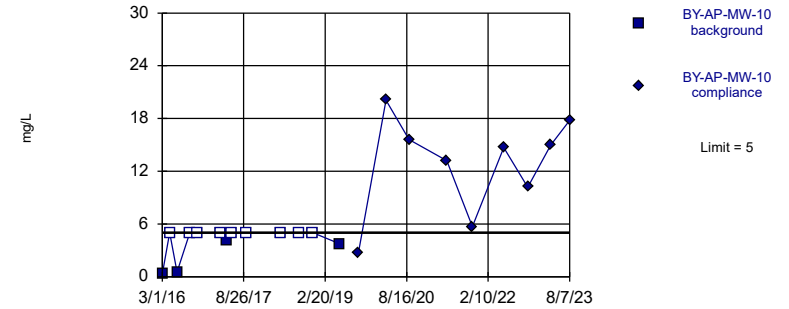


Background Data Summary (based on cube transformation) (after Kaplan-Meier Adjustment): Mean=52.17, Std. Dev.=74.33, n=13, 46.15% NDs. Normality test: Shapiro Wilk @alpha = 0.05, calculated = 0.8687, critical = 0.866. Kappa = 2.739 (c=7, w=16, 1 of 2, event alpha = 0.05132). Report alpha = 0.0004702.

Constituent: Sulfate as SO4 Analysis Run 10/22/2023 12:25 PM View: Intrawell PLs
Plant Barry Client: Southern Company Data: Barry Ash Pond

Exceeds Limit

Prediction Limit
Intrawell Non-parametric

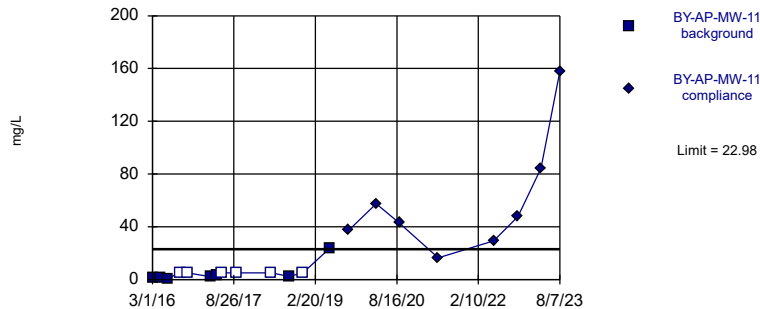


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 13 background values. 69.23% NDs. Well-constituent pair annual alpha = 0.01929. Individual comparison alpha = 0.009692 (1 of 2).

Constituent: Sulfate as SO4 Analysis Run 10/22/2023 12:25 PM View: Intrawell PLs
Plant Barry Client: Southern Company Data: Barry Ash Pond

Exceeds Limit

Prediction Limit
Intrawell Parametric

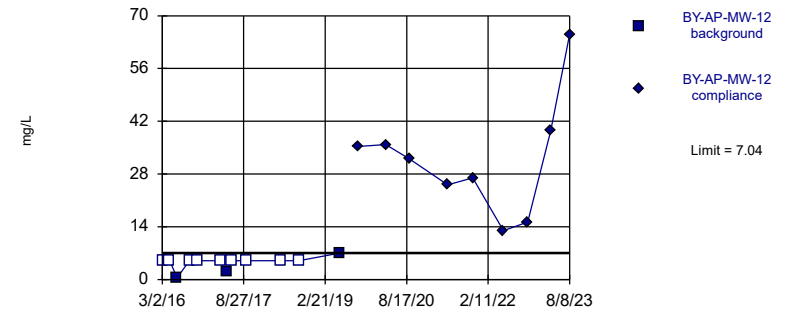


Background Data Summary (based on natural log transformation) (after Kaplan-Meier Adjustment): Mean=0.6472, Std. Dev.=0.9082, n=13, 46.15% NDs. Normality test: Shapiro Wilk @alpha = 0.05, calculated = 0.8962, critical = 0.866. Kappa = 2.739 (c=7, w=16, 1 of 2, event alpha = 0.05132). Report alpha = 0.0004702.

Constituent: Sulfate as SO4 Analysis Run 10/22/2023 12:25 PM View: Intrawell PLs
Plant Barry Client: Southern Company Data: Barry Ash Pond

Exceeds Limit

Prediction Limit
Intrawell Non-parametric

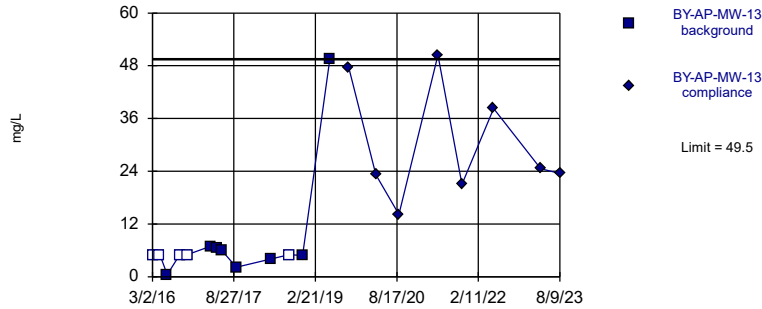


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 12 background values. 75% NDs. Well-constituent pair annual alpha = 0.02143. Individual comparison alpha = 0.01077 (1 of 2).

Constituent: Sulfate as SO4 Analysis Run 10/22/2023 12:25 PM View: Intrawell PLs
Plant Barry Client: Southern Company Data: Barry Ash Pond

Within Limit

Prediction Limit
Intrawell Non-parametric

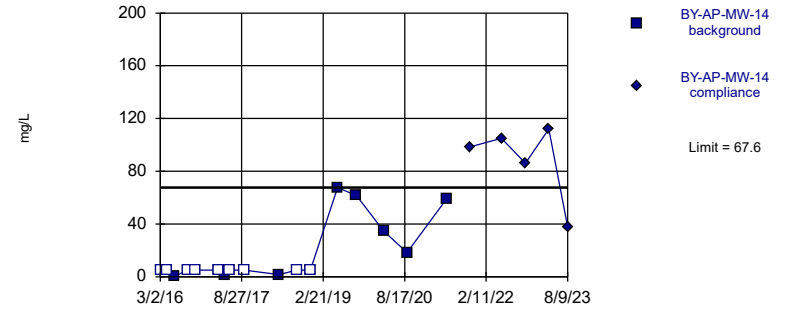


Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.05 alpha level. Limit is highest of 13 background values. 38.46% NDs. Well-constituent pair annual alpha = 0.01929. Individual comparison alpha = 0.009692 (1 of 2).

Constituent: Sulfate as SO4 Analysis Run 10/22/2023 12:25 PM View: Intrawell PLs
Plant Barry Client: Southern Company Data: Barry Ash Pond

Within Limit

Prediction Limit
Intrawell Non-parametric

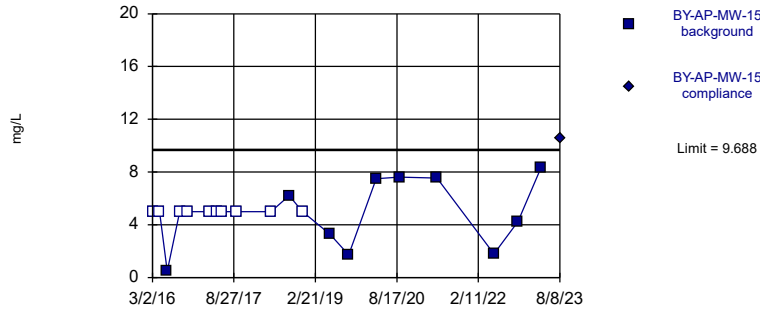


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 17 background values. 52.94% NDs. Well-constituent pair annual alpha = 0.01179. Individual comparison alpha = 0.005914 (1 of 2).

Constituent: Sulfate as SO4 Analysis Run 10/22/2023 12:25 PM View: Intrawell PLs
Plant Barry Client: Southern Company Data: Barry Ash Pond

Exceeds Limit

Prediction Limit
Intrawell Parametric

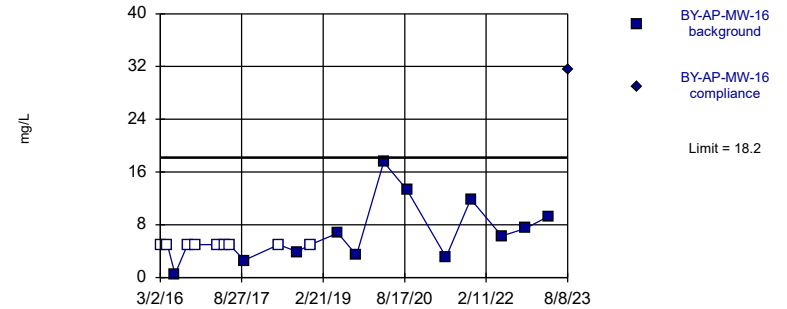


Background Data Summary (after Kaplan-Meier Adjustment): Mean=3.584, Std. Dev.=2.514, n=20, 50% NDs. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8923, critical = 0.868. Kappa = 2.428 (c=7, w=16, 1 of 2, event alpha = 0.05132). Report alpha = 0.0004702.

Constituent: Sulfate as SO4 Analysis Run 10/22/2023 12:25 PM View: Intrawell PLs
Plant Barry Client: Southern Company Data: Barry Ash Pond

Exceeds Limit

Prediction Limit
Intrawell Parametric

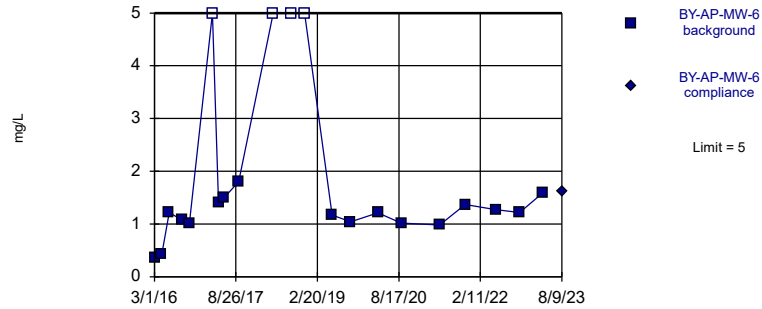


Background Data Summary (based on square root transformation) (after Kaplan-Meier Adjustment): Mean=2.11, Std. Dev.=0.8952, n=21, 42.86% NDs. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9065, critical = 0.873. Kappa = 2.408 (c=7, w=16, 1 of 2, event alpha = 0.05132). Report alpha = 0.0004702.

Constituent: Sulfate as SO4 Analysis Run 10/22/2023 12:25 PM View: Intrawell PLs
Plant Barry Client: Southern Company Data: Barry Ash Pond

Within Limit

Prediction Limit
Intrawell Non-parametric

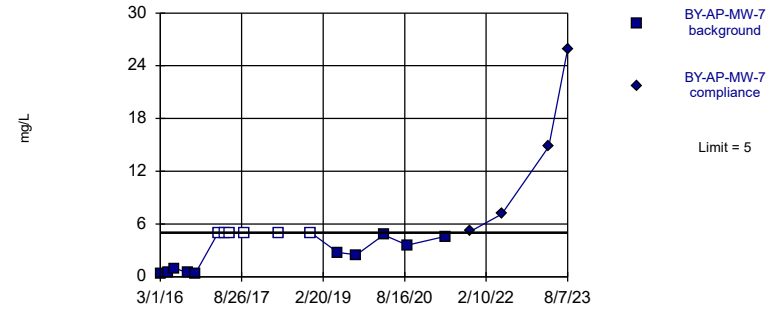


Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 21 background values. 19.05% NDs. Well-constituent pair annual alpha = 0.007982. Individual comparison alpha = 0.003999 (1 of 2).

Constituent: Sulfate as SO4 Analysis Run 10/22/2023 12:25 PM View: Intrawell PLs
Plant Barry Client: Southern Company Data: Barry Ash Pond

Exceeds Limit

Prediction Limit
Intrawell Non-parametric

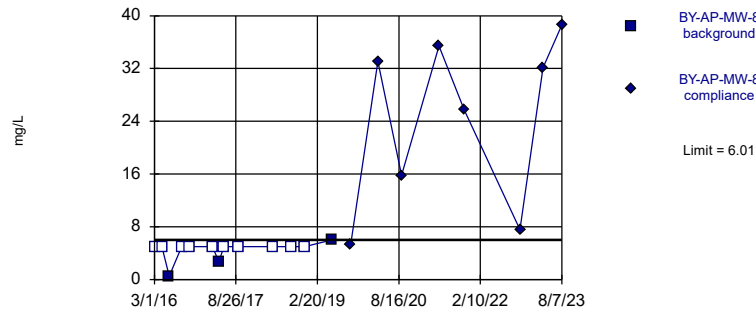


Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.05 alpha level. Limit is highest of 16 background values. 37.5% NDs. Well-constituent pair annual alpha = 0.01287. Individual comparison alpha = 0.006456 (1 of 2).

Constituent: Sulfate as SO4 Analysis Run 10/22/2023 12:25 PM View: Intrawell PLs
Plant Barry Client: Southern Company Data: Barry Ash Pond

Exceeds Limit

Prediction Limit
Intrawell Non-parametric

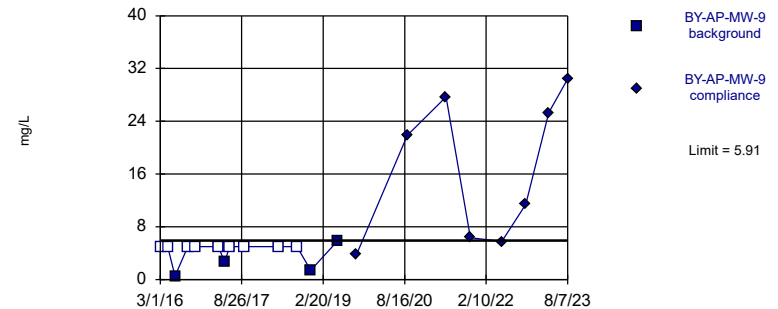


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 13 background values. 76.92% NDs. Well-constituent pair annual alpha = 0.01929. Individual comparison alpha = 0.009692 (1 of 2).

Constituent: Sulfate as SO4 Analysis Run 10/22/2023 12:25 PM View: Intrawell PLs
Plant Barry Client: Southern Company Data: Barry Ash Pond

Exceeds Limit

Prediction Limit
Intrawell Non-parametric

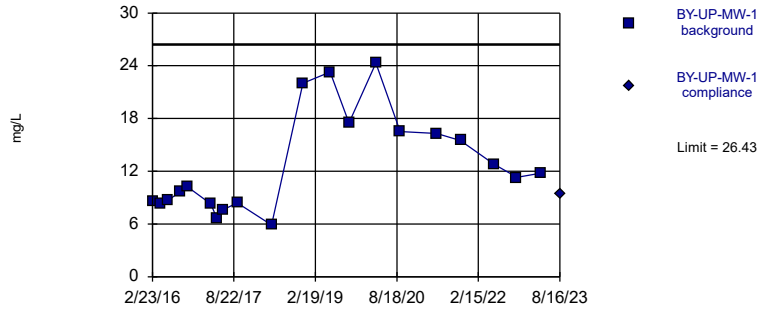


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 13 background values. 69.23% NDs. Well-constituent pair annual alpha = 0.01929. Individual comparison alpha = 0.009692 (1 of 2).

Constituent: Sulfate as SO4 Analysis Run 10/22/2023 12:25 PM View: Intrawell PLs
Plant Barry Client: Southern Company Data: Barry Ash Pond

Within Limit

Prediction Limit
Intrawell Parametric

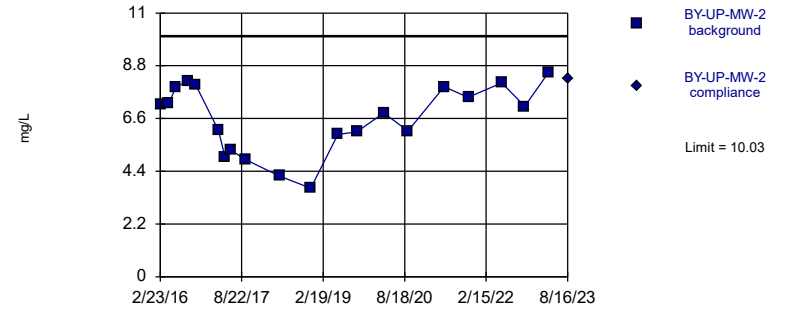


Background Data Summary: Mean=12.68, Std. Dev.=5.664, n=20. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8847, critical = 0.868. Kappa = 2.428 (c=7, w=16, 1 of 2, event alpha = 0.05132). Report alpha = 0.0004702.

Constituent: Sulfate as SO4 Analysis Run 10/22/2023 12:25 PM View: Intrawell PLs
Plant Barry Client: Southern Company Data: Barry Ash Pond

Within Limit

Prediction Limit
Intrawell Parametric

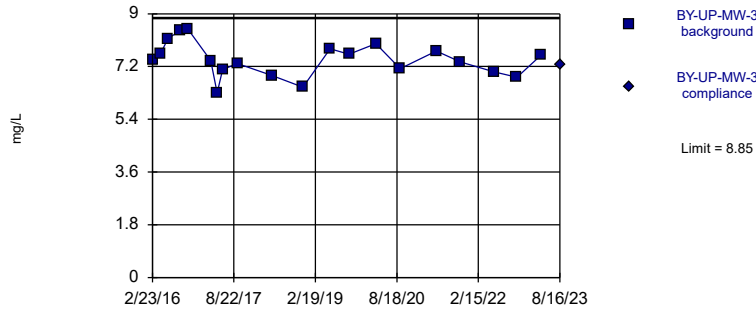


Background Data Summary: Mean=6.587, Std. Dev.=1.419, n=20. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9377, critical = 0.868. Kappa = 2.428 (c=7, w=16, 1 of 2, event alpha = 0.05132). Report alpha = 0.0004702.

Constituent: Sulfate as SO4 Analysis Run 10/22/2023 12:26 PM View: Intrawell PLs
Plant Barry Client: Southern Company Data: Barry Ash Pond

Within Limit

Prediction Limit
Intrawell Parametric

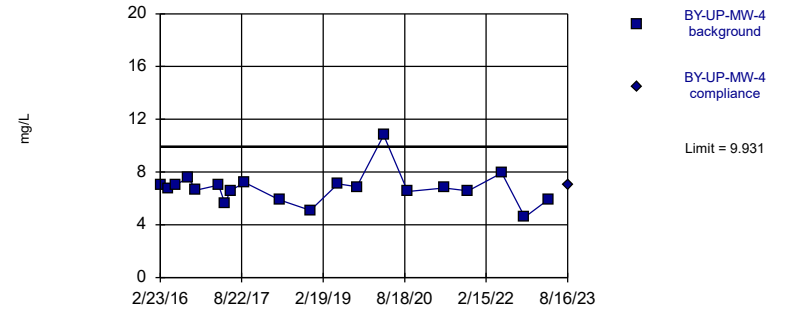


Background Data Summary: Mean=7.437, Std. Dev.=0.5821, n=20. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9843, critical = 0.868. Kappa = 2.428 (c=7, w=16, 1 of 2, event alpha = 0.05132). Report alpha = 0.0004702.

Constituent: Sulfate as SO4 Analysis Run 10/22/2023 12:26 PM View: Intrawell PLs
Plant Barry Client: Southern Company Data: Barry Ash Pond

Within Limit

Prediction Limit
Intrawell Parametric



Background Data Summary (based on square root transformation): Mean=2.594, Std. Dev.=0.2297, n=20. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8846, critical = 0.868. Kappa = 2.428 (c=7, w=16, 1 of 2, event alpha = 0.05132). Report alpha = 0.0004702.

Constituent: Sulfate as SO4 Analysis Run 10/22/2023 12:26 PM View: Intrawell PLs
Plant Barry Client: Southern Company Data: Barry Ash Pond

Prediction Limit

Constituent: pH, field (SU) Analysis Run 10/22/2023 12:32 PM View: IntraWell PLs

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-1	BY-AP-MW-1
3/2/2016	5.78	
4/19/2016	5.8	
6/8/2016	5.83	
8/31/2016	5.85	
10/19/2016	5.87	
1/31/2017	5.83	
3/21/2017	5.83	
5/2/2017	5.73	
6/6/2017	5.83	
9/13/2017	5.91	
1/24/2018	5.9	
5/1/2018	5.83	
8/28/2018	5.78	
11/28/2018	5.82	
5/29/2019	5.82	
10/1/2019	5.47	
3/30/2020	5.79	
9/1/2020	5.89	
5/18/2021	5.86	
11/1/2021	6.01	
5/24/2022	5.44	
11/2/2022	5.56	
4/3/2023	5.78	
8/8/2023		5.74

Prediction Limit

Constituent: pH, field (SU) Analysis Run 10/22/2023 12:32 PM View: IntraWell PLs

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-10	BY-AP-MW-10
3/1/2016	6.33	
4/20/2016	6.31	
6/8/2016	6.34	
8/31/2016	6.35	
10/19/2016	6.35	
2/1/2017	6.27	
3/22/2017	6.29	
5/3/2017	6.23	
6/7/2017	6.27	
9/14/2017	6.27	
1/23/2018	6.32	
5/2/2018	6.36	
8/28/2018	6.31	
11/28/2018	6.32	
5/30/2019	6.23	
9/30/2019	6.11	
3/31/2020	6.37	
9/1/2020	6.33	
5/11/2021	6.4	
10/27/2021	5.91	
5/24/2022	5.81	
11/2/2022	6.39	
4/3/2023	6.05	
8/7/2023		6.27

Prediction Limit

Constituent: pH, field (SU) Analysis Run 10/22/2023 12:32 PM View: IntraWell PLs

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-11	BY-AP-MW-11
3/1/2016	6.34	
4/20/2016	6.31	
6/8/2016	6.33	
8/31/2016	6.29	
10/19/2016	6.26	
2/1/2017	6.22	
3/22/2017	6.22	
5/3/2017	6.15	
6/7/2017	6.21	
9/13/2017	6.26	
1/23/2018	6.28	
5/2/2018	6.33	
8/29/2018	6.3	
11/28/2018	6.28	
5/29/2019	6.24	
9/30/2019	5.85	
3/31/2020	6.26	
9/1/2020	5.87	
5/19/2021	6.33	
11/2/2021	5.84	
5/23/2022	6.32	
11/1/2022	6.28	
4/4/2023	6.27	
8/7/2023		6.3

Prediction Limit

Constituent: pH, field (SU) Analysis Run 10/22/2023 12:32 PM View: IntraWell PLs

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-12	BY-AP-MW-12
3/2/2016	6.16	
4/20/2016	6.17	
6/8/2016	6.25	
8/31/2016	6.23	
10/19/2016	6.2	
2/1/2017	6.08	
3/22/2017	6.12	
5/3/2017	6.12	
6/7/2017	6.13	
9/13/2017	6.19	
1/23/2018	6.17	
5/2/2018	6.15	
8/29/2018	6.19	
11/28/2018	6.11	
5/29/2019	6.13	
10/1/2019	6	
3/31/2020	6.21	
9/1/2020	6.19	
5/18/2021	5.58	
11/1/2021	5.75	
5/23/2022	6.12	
11/1/2022	6.21	
4/4/2023	5.76	
8/8/2023		6.07

Prediction Limit

Constituent: pH, field (SU) Analysis Run 10/22/2023 12:32 PM View: IntraWell PLs

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-13	BY-AP-MW-13
3/2/2016	6.1	
4/20/2016	6.14	
6/8/2016	6.11	
8/31/2016	6.1	
10/19/2016	6.1	
1/31/2017	6.07	
3/22/2017	6.07	
5/3/2017	6.1	
6/7/2017	6.07	
9/13/2017	6.12	
1/22/2018	6.12	
5/2/2018	6.13	
8/29/2018	6.1	
11/28/2018	6.04	
5/29/2019	6.01	
10/1/2019	6.02	
3/31/2020	5.98	
9/1/2020	5.82	
5/19/2021	5.79	
10/26/2021	5.69	
5/24/2022	5.5	
11/1/2022	6.09	
4/4/2023	6.06	
8/9/2023		5.76

Prediction Limit

Constituent: pH, field (SU) Analysis Run 10/22/2023 12:32 PM View: IntraWell PLs

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-14	BY-AP-MW-14
3/2/2016	6.08	
4/20/2016	6.04	
6/8/2016	6.13	
8/30/2016	6.08	
10/18/2016	6.13	
1/31/2017	6.06	
3/22/2017	6.09	
5/2/2017	5.94	
6/6/2017	6.1	
9/13/2017	6.11	
1/23/2018	6.12	
5/2/2018	6.13	
8/29/2018	6.14	
11/27/2018	6.07	
5/29/2019	6.07	
10/1/2019	6.01	
3/31/2020	5.76	
9/2/2020	5.8	
5/25/2021	5.82	
10/27/2021	6.41	
5/25/2022	6.14	
11/1/2022	5.93	
4/5/2023	5.93	
8/9/2023		5.83

Prediction Limit

Constituent: pH, field (SU) Analysis Run 10/22/2023 12:32 PM View: IntraWell PLs

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-15	BY-AP-MW-15
3/2/2016	6.61	
4/19/2016	6.75	
6/8/2016	6.63	
8/31/2016	6.71	
10/19/2016	6.66	
1/31/2017	6.73	
3/21/2017	6.62	
5/2/2017	6.49	
6/6/2017	6.7	
9/13/2017	6.66	
1/22/2018	6.73	
5/1/2018	6.62	
8/29/2018	6.68	
11/27/2018	6.58	
5/29/2019	6.63	
10/1/2019	6.2	
4/1/2020	6.72	
9/2/2020	6.57	
5/11/2021	6.76	
10/26/2021	6.7	
5/25/2022	6.68	
11/1/2022	6.64	
4/3/2023	6.63	
8/8/2023		6.6

Prediction Limit

Constituent: pH, field (SU) Analysis Run 10/22/2023 12:32 PM View: IntraWell PLs

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-16	BY-AP-MW-16
3/2/2016	5.79	
4/19/2016	5.78	
6/8/2016	5.8	
8/31/2016	5.83	
10/19/2016	5.81	
1/31/2017	5.84	
3/21/2017	5.79	
5/2/2017	5.68	
6/6/2017	5.8	
9/13/2017	5.86	
1/23/2018	5.86	
5/1/2018	5.85	
8/29/2018	5.87	
11/27/2018	5.76	
5/29/2019	5.76	
10/1/2019	5.23	
3/31/2020	5.75	
9/2/2020	5.47	
5/19/2021	5.8	
11/1/2021	5.36	
5/25/2022	5.74	
11/1/2022	5.78	
4/5/2023	5.83	
8/8/2023		5.39

Prediction Limit

Constituent: pH, field (SU) Analysis Run 10/22/2023 12:32 PM View: IntraWell PLs

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-2	BY-AP-MW-2
3/2/2016	6.08	
4/19/2016	5.92	
6/8/2016	5.9	
8/31/2016	5.87	
10/19/2016	5.82	
1/31/2017	5.87	
3/21/2017	5.85	
5/2/2017	5.61	
6/6/2017	5.82	
9/12/2017	5.61	
1/24/2018	5.83	
5/1/2018	5.8	
8/28/2018	5.56	
11/27/2018	5.71	
5/29/2019	5.7	
10/1/2019	4.97	
3/31/2020	5.71	
8/31/2020	5.57	
5/18/2021	5.83	
11/1/2021	5.2	
5/24/2022	4.78	
11/2/2022	5.68	
4/3/2023	4.88	
8/8/2023		4.91

Prediction Limit

Constituent: pH, field (SU) Analysis Run 10/22/2023 12:32 PM View: IntraWell PLs

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-3	BY-AP-MW-3
3/2/2016	5.14	
4/19/2016	5.06	
6/7/2016	5.13	
8/31/2016	5.11	
10/19/2016	5.05	
1/31/2017	5.14	
3/21/2017	5.13	
5/2/2017	4.85	
6/6/2017	5.15	
9/12/2017	4.96	
1/24/2018	5.22	
5/1/2018	5.11	
8/28/2018	4.92	
11/27/2018	5.05	
5/29/2019	5.05	
10/1/2019	4.37	
3/31/2020	5.08	
9/1/2020	4.24	
5/18/2021	4.93	
11/1/2021	4.94	
5/25/2022	4.64	
11/1/2022	5.01	
4/4/2023	5.31	
8/9/2023		5.45

Prediction Limit

Constituent: pH, field (SU) Analysis Run 10/22/2023 12:32 PM View: IntraWell PLs
Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-4	BY-AP-MW-4
3/1/2016	5.19	
4/19/2016	5.06	
6/7/2016	4.7	
8/30/2016	4.77	
10/19/2016	4.67	
1/31/2017	4.42	
3/21/2017	4.45	
5/2/2017	4.46	
6/6/2017	4.89	
9/12/2017	4.71	
1/24/2018	5.03	
5/1/2018	4.44	
8/28/2018	4.85	
11/27/2018	4.78	
5/29/2019	4.65	
10/1/2019	4.28	
3/31/2020	4.69	
9/1/2020	4.23	
5/18/2021	4.17	
11/1/2021	5.18	
5/25/2022	4.6	
10/31/2022	4.65	
4/4/2023	4.55	
8/9/2023		4.55

Prediction Limit

Constituent: pH, field (SU) Analysis Run 10/22/2023 12:32 PM View: Intrawell PLs

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-5	BY-AP-MW-5
3/1/2016	5.99	
4/20/2016	5.96	
6/7/2016	6.03	
8/30/2016	6	
10/18/2016	5.99	
1/31/2017	5.96	
3/22/2017	6.01	
5/3/2017	5.99	
6/7/2017	6.01	
9/14/2017	6	
1/24/2018	5.98	
5/2/2018	5.99	
8/29/2018	6.03	
11/27/2018	6.01	
5/29/2019	5.93	
10/1/2019	5.47	
3/31/2020	6.01	
9/1/2020	5.93	
11/2/2021	6.36	
5/25/2022	5.99	
10/31/2022	5.99	
4/4/2023	5.84	
8/7/2023		5.84

Prediction Limit

Constituent: pH, field (SU) Analysis Run 10/22/2023 12:32 PM View: IntraWell PLs

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-6	BY-AP-MW-6
3/1/2016	5.59	
4/19/2016	5.55	
6/7/2016	5.43	
8/30/2016	5.39	
10/19/2016	5.31	
1/31/2017	5.26	
3/22/2017	5.32	
5/3/2017	5.35	
6/7/2017	5.32	
9/14/2017	5.29	
1/24/2018	5.32	
5/2/2018	5.33	
8/29/2018	5.41	
11/28/2018	5.46	
5/29/2019	5.31	
10/1/2019	4.7	
3/31/2020	5.22	
9/2/2020	5.16	
5/17/2021	5.21	
11/2/2021	5.59	
5/25/2022	4.57	
10/31/2022	4.9	
4/4/2023	5.33	
8/9/2023		5.05

Prediction Limit

Constituent: pH, field (SU) Analysis Run 10/22/2023 12:32 PM View: IntraWell PLs

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-7	BY-AP-MW-7
3/1/2016	6.36	
4/20/2016	6.31	
6/7/2016	6.3	
8/31/2016	6.31	
10/19/2016	6.23	
1/31/2017	6.26	
3/22/2017	6.32	
5/3/2017	6.29	
6/7/2017	6.27	
9/14/2017	6.25	
1/24/2018	6.35	
5/2/2018	6.29	
11/28/2018	6.33	
5/29/2019	6.18	
9/30/2019	6.36	
3/30/2020	6.32	
9/2/2020	6.25	
5/18/2021	6.4	
10/27/2021	6.35	
5/24/2022	6.32	
10/31/2022	7.07	
4/3/2023	6.53	
8/7/2023		6.67

Prediction Limit

Constituent: pH, field (SU) Analysis Run 10/22/2023 12:32 PM View: Intrawell PLs

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-8	BY-AP-MW-8
3/1/2016	6.21	
4/20/2016	6.22	
6/7/2016	6.26	
8/30/2016	6.21	
10/18/2016	6.21	
1/31/2017	6.17	
3/22/2017	6.22	
5/3/2017	6.22	
6/7/2017	6.21	
9/14/2017	6.18	
1/24/2018	6.16	
5/2/2018	6.17	
8/29/2018	6.21	
11/27/2018	6.18	
5/29/2019	6.11	
9/30/2019	6.19	
3/30/2020	6.2	
9/2/2020	5.89	
5/11/2021	6.25	
10/26/2021	6.26	
5/24/2022	5.6	
11/2/2022	6.28	
4/3/2023	6.34	
8/7/2023		6.82

Prediction Limit

Constituent: pH, field (SU) Analysis Run 10/22/2023 12:32 PM View: IntraWell PLs
Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-9	BY-AP-MW-9
3/1/2016	6.26	
4/20/2016	6.26	
6/8/2016	6.25	
8/31/2016	6.29	
10/19/2016	6.22	
2/1/2017	6.24	
3/22/2017	6.28	
5/3/2017	6.17	
6/7/2017	6.24	
9/14/2017	6.24	
1/23/2018	6.3	
5/2/2018	6.31	
8/28/2018	6.28	
11/28/2018	6.32	
5/30/2019	6.14	
9/30/2019	6.07	
3/31/2020	6.31	
9/2/2020	5.97	
5/18/2021	6.3	
10/27/2021	6.13	
5/24/2022	6.03	
10/31/2022	6.26	
4/4/2023	6.15	
8/7/2023		6.13

Prediction Limit

Constituent: pH, field (SU) Analysis Run 10/22/2023 12:32 PM View: IntraWell PLs

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-UP-MW-1	BY-UP-MW-1
2/23/2016	4.62	
4/19/2016	4.74	
6/6/2016	4.65	
8/30/2016	4.64	
10/18/2016	4.74	
1/31/2017	4.54	
3/20/2017	4.67	
5/2/2017	4.79	
6/6/2017	4.76	
9/13/2017	4.81	
1/23/2018	4.79	
5/2/2018	4.62	
11/27/2018	4.73	
5/29/2019	4.65	
10/2/2019	4.57	
3/31/2020	4.64	
9/9/2020	4.65	
5/12/2021	4.74	
10/19/2021	4.67	
5/31/2022	3.89 (o)	
11/1/2022	4.6	
4/12/2023	4.77	
8/16/2023		4.45

Prediction Limit

Constituent: pH, field (SU) Analysis Run 10/22/2023 12:32 PM View: IntraWell PLs

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-UP-MW-2	BY-UP-MW-2
2/23/2016	4.79	
4/19/2016	4.84	
6/7/2016	4.81	
8/30/2016	4.76	
10/18/2016	4.84	
1/31/2017	4.6	
3/20/2017	4.71	
5/2/2017	4.8	
6/6/2017	4.72	
9/13/2017	4.71	
1/23/2018	4.67	
5/1/2018	4.61	
11/27/2018	4.72	
5/29/2019	4.58	
10/2/2019	4.43	
3/31/2020	4.6	
9/9/2020	4.67	
5/11/2021	4.29	
10/19/2021	4.6	
5/31/2022	3.31 (o)	
11/1/2022	4.42	
4/12/2023	4.67	
8/16/2023		4.49

Prediction Limit

Constituent: pH, field (SU) Analysis Run 10/22/2023 12:32 PM View: IntraWell PLs

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-UP-MW-3	BY-UP-MW-3
2/23/2016	4.96	
4/19/2016	4.94	
6/7/2016	4.96	
8/30/2016	4.92	
10/18/2016	4.98	
1/31/2017	4.74	
3/20/2017	4.9	
5/2/2017	4.98	
6/6/2017	4.94	
9/13/2017	4.93	
1/23/2018	4.91	
5/1/2018	4.87	
11/27/2018	4.94	
5/29/2019	4.8	
10/2/2019	4.52	
3/31/2020	4.4	
9/9/2020	4.76	
5/11/2021	4.53	
10/18/2021	4.55	
5/31/2022	3.54	
11/1/2022	4.12	
4/12/2023	4.83	
8/16/2023		4.03

Prediction Limit

Constituent: pH, field (SU) Analysis Run 10/22/2023 12:32 PM View: IntraWell PLs

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-UP-MW-4	BY-UP-MW-4
2/23/2016	4.74	
4/19/2016	4.86	
6/6/2016	4.88	
8/30/2016	4.91	
10/18/2016	4.95	
1/31/2017	4.71	
3/20/2017	4.83	
5/2/2017	4.93	
6/6/2017	4.9	
9/12/2017	4.82	
1/23/2018	4.85	
5/1/2018	4.8	
11/26/2018	4.88	
5/28/2019	4.73	
10/2/2019	4.67	
3/31/2020	4.51	
9/8/2020	4.75	
5/11/2021	4.67	
10/18/2021	4.38	
5/31/2022	3.97	
11/1/2022	4.74	
4/12/2023	4.73	
8/16/2023		4.58

Prediction Limit

Constituent: Sulfate as SO4 (mg/L) Analysis Run 10/22/2023 12:32 PM View: IntraWell PLs

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-1	BY-AP-MW-1
3/2/2016	0.31 (J)	
4/19/2016	0.335 (J)	
6/8/2016	0.556 (J)	
8/31/2016	<5	
10/19/2016	<5	
3/21/2017	<5	
5/2/2017	6	
6/6/2017	<5	
9/13/2017	4.7 (J)	
5/1/2018	<5	
8/28/2018	<5	
11/28/2018	4.1 (J)	
5/29/2019	5.75	
10/1/2019		7.82
3/30/2020		28.4
9/1/2020		23.1
5/18/2021		16.5
11/1/2021		10.9
5/24/2022		21
11/2/2022		12.1
4/3/2023		34.200001
8/8/2023		3.92

Prediction Limit

Constituent: Sulfate as SO4 (mg/L) Analysis Run 10/22/2023 12:32 PM View: IntraWell PLs

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-10	BY-AP-MW-10
3/1/2016	0.34 (J)	
4/20/2016	<5	
6/8/2016	0.538 (J)	
8/31/2016	<5	
10/19/2016	<5	
3/22/2017	<5	
5/3/2017	4.1 (J)	
6/7/2017	<5	
9/14/2017	<5	
5/2/2018	<5	
8/28/2018	<5	
11/28/2018	<5	
5/30/2019	3.76	
9/30/2019		2.77
3/31/2020		20.1
9/1/2020		15.6
5/11/2021		13.2
10/27/2021		5.72
5/24/2022		14.7
11/2/2022		10.2
4/3/2023		15
8/7/2023		17.799999

Prediction Limit

Constituent: Sulfate as SO4 (mg/L) Analysis Run 10/22/2023 12:32 PM View: IntraWell PLs
Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-11	BY-AP-MW-11
3/1/2016	1.02	
4/20/2016	1.1	
6/8/2016	0.701 (J)	
8/31/2016	<5	
10/19/2016	<5	
3/22/2017	2.1 (J)	
5/3/2017	3.6 (J)	
6/7/2017	<5	
9/13/2017	<5	
5/2/2018	<5	
8/29/2018	2.3 (J)	
11/28/2018	<5	
5/29/2019	24.1	
9/30/2019		37.4
3/31/2020		57.5
9/1/2020		42.8
5/19/2021		16.5
11/2/2021	133 (o)	
5/23/2022		29.3
11/1/2022		47.700001
4/4/2023		84.300003
8/7/2023		158

Prediction Limit

Constituent: Sulfate as SO4 (mg/L) Analysis Run 10/22/2023 12:32 PM View: IntraWell PLs

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-12	BY-AP-MW-12
3/2/2016	<5	
4/20/2016	<5	
6/8/2016	0.511 (J)	
8/31/2016	<5	
10/19/2016	<5	
3/22/2017	<5	
5/3/2017	2.1 (J)	
6/7/2017	<5	
9/13/2017	<5	
5/2/2018	<5	
8/29/2018	<5	
11/28/2018	<50 (O)	
5/29/2019	7.04	
10/1/2019		35.3
3/31/2020		35.8
9/1/2020		32.1
5/18/2021		25.1
11/1/2021		27
5/23/2022		13
11/1/2022		15.3
4/4/2023		39.599998
8/8/2023		65.099998

Prediction Limit

Constituent: Sulfate as SO4 (mg/L) Analysis Run 10/22/2023 12:32 PM View: IntraWell PLs

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-13	BY-AP-MW-13
3/2/2016	<5	
4/20/2016	<5	
6/8/2016	0.496 (J)	
8/31/2016	<5	
10/19/2016	<5	
3/22/2017	6.9	
5/3/2017	6.6	
6/7/2017	6	
9/13/2017	2.2 (J)	
5/2/2018	4.1 (J)	
8/29/2018	<5	
11/28/2018	4.9 (J)	
5/29/2019	49.5	
10/1/2019		47.7
3/31/2020		23.2
9/1/2020		14.2
5/19/2021		50.4
10/26/2021		21
5/24/2022		38.3
11/1/2022	86.9 (o)	
4/4/2023		24.6
8/9/2023		23.5

Prediction Limit

Constituent: Sulfate as SO4 (mg/L) Analysis Run 10/22/2023 12:32 PM View: IntraWell PLs

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-14	BY-AP-MW-14
3/2/2016	<5	
4/20/2016	<5	
6/8/2016	0.514 (J)	
8/30/2016	<5	
10/18/2016	<5	
3/22/2017	<5	
5/2/2017	1.8 (J)	
6/6/2017	<5	
9/13/2017	<5	
5/2/2018	1.6 (J)	
8/29/2018	<5	
11/27/2018	<5	
5/29/2019	67.6	
10/1/2019	61.6	
3/31/2020	34.7	
9/2/2020	18.5	
5/25/2021	59.2	
10/27/2021		98.5
5/25/2022		105
11/1/2022		86.099998
4/5/2023		112
8/9/2023		37.799999

Prediction Limit

Constituent: Sulfate as SO4 (mg/L) Analysis Run 10/22/2023 12:32 PM View: IntraWell PLs

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-15	BY-AP-MW-15
3/2/2016	<5	
4/19/2016	<5	
6/8/2016	0.489 (J)	
8/31/2016	<5	
10/19/2016	<5	
3/21/2017	<5	
5/2/2017	<5	
6/6/2017	<5	
9/13/2017	<5	
5/1/2018	<5	
8/29/2018	6.2	
11/27/2018	<5	
5/29/2019	3.27	
10/1/2019	1.72	
4/1/2020	7.5	
9/2/2020	7.61	
5/11/2021	7.54	
10/26/2021	26.4 (o)	
5/25/2022	1.8 (J)	
11/1/2022	4.24	
4/3/2023	8.28	
8/8/2023		10.6

Prediction Limit

Constituent: Sulfate as SO4 (mg/L) Analysis Run 10/22/2023 12:32 PM View: IntraWell PLs
Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-16	BY-AP-MW-16
3/2/2016	<5	
4/19/2016	<5	
6/8/2016	0.514 (J)	
8/31/2016	<5	
10/19/2016	<5	
3/21/2017	<5	
5/2/2017	<5	
6/6/2017	<5	
9/13/2017	2.6 (J)	
5/1/2018	<5	
8/29/2018	3.9 (J)	
11/27/2018	<5	
5/29/2019	6.72	
10/1/2019	3.4	
3/31/2020	17.5	
9/2/2020	13.3	
5/19/2021	3.11	
11/1/2021	11.9	
5/25/2022	6.29	
11/1/2022	7.46	
4/5/2023	9.3	
8/8/2023		31.6

Prediction Limit

Constituent: Sulfate as SO4 (mg/L) Analysis Run 10/22/2023 12:32 PM View: IntraWell PLs
Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-2	BY-AP-MW-2
3/2/2016	3.3	
4/19/2016	2.68	
6/8/2016	1.1	
8/31/2016	<1	
10/19/2016	<1	
3/21/2017	<1	
5/2/2017	<1	
6/6/2017	<1	
9/12/2017	<1	
5/1/2018	<1	
8/28/2018	<1	
11/27/2018	<1	
5/29/2019	0.885 (J)	
10/1/2019	<1	
3/31/2020	1.69	
8/31/2020	0.576 (J)	
5/18/2021	<1	
11/1/2021	1.56	
5/24/2022	0.615 (J)	
11/2/2022	1.17 (J)	
4/3/2023	1.77 (J)	
8/8/2023		1.82 (J)

Prediction Limit

Constituent: Sulfate as SO4 (mg/L) Analysis Run 10/22/2023 12:32 PM View: IntraWell PLs

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-3	BY-AP-MW-3
3/2/2016	0.79 (J)	
4/19/2016	0.674 (J)	
6/7/2016	1	
8/31/2016	0.702 (J)	
10/19/2016	0.739 (J)	
3/21/2017	<5	
5/2/2017	<5	
6/6/2017	<5	
9/12/2017	<5	
5/1/2018	<5	
8/28/2018	<5	
11/27/2018	<5	
5/29/2019	0.747 (J)	
10/1/2019	0.61 (J)	
3/31/2020	1.02	
9/1/2020	0.705 (J)	
5/18/2021	0.883 (J)	
11/1/2021	1.01	
5/25/2022	1.41 (J)	
11/1/2022	1.66 (J)	
4/4/2023	2.92	
8/9/2023		3.04

Prediction Limit

Constituent: Sulfate as SO4 (mg/L) Analysis Run 10/22/2023 12:32 PM View: IntraWell PLs
Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-4	BY-AP-MW-4
3/1/2016	2.58	
4/19/2016	2.3	
6/7/2016	2.58	
8/30/2016	2.81	
10/19/2016	5.06	
3/21/2017	3.4 (J)	
5/2/2017	2.7 (J)	
6/6/2017	1.5 (J)	
9/12/2017	1.9 (J)	
5/1/2018	1.4 (J)	
8/28/2018	<5	
11/27/2018	2.3 (J)	
5/29/2019	2.92	
10/1/2019	2.09	
3/31/2020	4.12	
9/1/2020	1.83	
5/18/2021	4.43	
11/1/2021	3.34	
5/25/2022	1.97 (J)	
10/31/2022	1.02 (J)	
4/4/2023	2.33	
8/9/2023		2.28

Prediction Limit

Constituent: Sulfate as SO4 (mg/L) Analysis Run 10/22/2023 12:32 PM View: IntraWell PLs
Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-5	BY-AP-MW-5
3/1/2016	<5	
4/20/2016	<5	
6/7/2016	0.583 (J)	
8/30/2016	<5	
10/18/2016	<5	
3/22/2017	<5	
5/3/2017	<5	
6/7/2017	<5	
9/14/2017	<5	
5/2/2018	<5	
8/29/2018	1.6 (J)	
11/27/2018	2.7 (J)	
5/29/2019	5.51	
10/1/2019	7.4	
3/31/2020	23.7	
9/1/2020	11	
11/2/2021	15	
5/25/2022	5.53	
10/31/2022	15.2	
4/4/2023	43.9 (o)	
8/7/2023		17.6

Prediction Limit

Constituent: Sulfate as SO4 (mg/L) Analysis Run 10/22/2023 12:32 PM View: IntraWell PLs

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-6	BY-AP-MW-6
3/1/2016	0.36 (J)	
4/19/2016	0.435 (J)	
6/7/2016	1.22	
8/30/2016	1.08	
10/19/2016	1.01	
3/22/2017	<5	
5/3/2017	1.4 (J)	
6/7/2017	1.5 (J)	
9/14/2017	1.8 (J)	
5/2/2018	<5	
8/29/2018	<5	
11/28/2018	<5	
5/29/2019	1.17	
10/1/2019	1.04	
3/31/2020	1.21	
9/2/2020	1.02	
5/17/2021	0.981 (J)	
11/2/2021	1.37	
5/25/2022	1.27 (J)	
10/31/2022	1.22 (J)	
4/4/2023	1.59 (J)	
8/9/2023		1.61 (J)

Prediction Limit

Constituent: Sulfate as SO4 (mg/L) Analysis Run 10/22/2023 12:32 PM View: IntraWell PLs
Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-7	BY-AP-MW-7
3/1/2016	0.3 (J)	
4/20/2016	0.514 (J)	
6/7/2016	0.971 (J)	
8/31/2016	0.445 (J)	
10/19/2016	0.366 (J)	
3/22/2017	<5	
5/3/2017	<5	
6/7/2017	<5	
9/14/2017	<5	
5/2/2018	<5	
11/28/2018	<5	
5/29/2019	2.77	
9/30/2019	2.51	
3/30/2020	4.78	
9/2/2020	3.59	
5/18/2021	4.6	
10/27/2021		5.17
5/24/2022		7.14
10/31/2022	33.8 (o)	
4/3/2023		14.8
8/7/2023		25.9

Prediction Limit

Constituent: Sulfate as SO4 (mg/L) Analysis Run 10/22/2023 12:32 PM View: IntraWell PLs

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-8	BY-AP-MW-8
3/1/2016	<5	
4/20/2016	<5	
6/7/2016	0.504 (J)	
8/30/2016	<5	
10/18/2016	<5	
3/22/2017	<5	
5/3/2017	2.7 (J)	
6/7/2017	<5	
9/14/2017	<5	
5/2/2018	<5	
8/29/2018	<5	
11/27/2018	<5	
5/29/2019	6.01	
9/30/2019		5.29
3/30/2020		33.1
9/2/2020		15.8
5/11/2021		35.4
10/26/2021		25.7
5/24/2022	81.3 (o)	
11/2/2022		7.58
4/3/2023		32.099998
8/7/2023		38.599998

Prediction Limit

Constituent: Sulfate as SO4 (mg/L) Analysis Run 10/22/2023 12:32 PM View: IntraWell PLs
Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-9	BY-AP-MW-9
3/1/2016	<5	
4/20/2016	<5	
6/8/2016	0.51 (J)	
8/31/2016	<5	
10/19/2016	<5	
3/22/2017	<5	
5/3/2017	2.7 (J)	
6/7/2017	<5	
9/14/2017	<5	
5/2/2018	<5	
8/28/2018	<5	
11/28/2018	1.4 (J)	
5/30/2019	5.91	
9/30/2019		3.77
3/31/2020	43.5 (o)	
9/2/2020		21.9
5/18/2021		27.7
10/27/2021		6.33
5/24/2022		5.76
10/31/2022		11.4
4/4/2023		25.299999
8/7/2023		30.4

Prediction Limit

Constituent: Sulfate as SO4 (mg/L) Analysis Run 10/22/2023 12:32 PM View: IntraWell PLs

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-UP-MW-1	BY-UP-MW-1
2/23/2016	8.59	
4/19/2016	8.27	
6/6/2016	8.66	
8/30/2016	9.74	
10/18/2016	10.2	
3/20/2017	8.3	
5/2/2017	6.6	
6/6/2017	7.6	
9/13/2017	8.4	
5/2/2018	5.9	
11/27/2018	22	
5/29/2019	23.3	
10/2/2019	17.5	
3/31/2020	24.3	
9/9/2020	16.5	
5/12/2021	16.3	
10/19/2021	15.5	
5/31/2022	12.8	
11/1/2022	11.3	
4/12/2023	11.8	
8/16/2023		9.38

Prediction Limit

Constituent: Sulfate as SO4 (mg/L) Analysis Run 10/22/2023 12:32 PM View: IntraWell PLs

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-UP-MW-2	BY-UP-MW-2
2/23/2016	7.2	
4/19/2016	7.22	
6/7/2016	7.92	
8/30/2016	8.17	
10/18/2016	7.99	
3/20/2017	6.1	
5/2/2017	5	
6/6/2017	5.3	
9/13/2017	4.9 (J)	
5/1/2018	4.2 (J)	
11/27/2018	3.7 (J)	
5/29/2019	5.94	
10/2/2019	6.04	
3/31/2020	6.83	
9/9/2020	6.08	
5/11/2021	7.92	
10/19/2021	7.48	
5/31/2022	8.09	
11/1/2022	7.11	
4/12/2023	8.54	
8/16/2023		8.28

Prediction Limit

Constituent: Sulfate as SO4 (mg/L) Analysis Run 10/22/2023 12:32 PM View: IntraWell PLs

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-UP-MW-3	BY-UP-MW-3
2/23/2016	7.44	
4/19/2016	7.66	
6/7/2016	8.16	
8/30/2016	8.43	
10/18/2016	8.47	
3/20/2017	7.4	
5/2/2017	6.3	
6/6/2017	7.1	
9/13/2017	7.3	
5/1/2018	6.9	
11/27/2018	6.5	
5/29/2019	7.81	
10/2/2019	7.62	
3/31/2020	7.98	
9/9/2020	7.13	
5/11/2021	7.73	
10/18/2021	7.36	
5/31/2022	7.02	
11/1/2022	6.83	
4/12/2023	7.59	
8/16/2023		7.26

Prediction Limit

Constituent: Sulfate as SO4 (mg/L) Analysis Run 10/22/2023 12:32 PM View: IntraWell PLs

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-UP-MW-4	BY-UP-MW-4
2/23/2016	7.04	
4/19/2016	6.74	
6/6/2016	7.04	
8/30/2016	7.57	
10/18/2016	6.62	
3/20/2017	7	
5/2/2017	5.6	
6/6/2017	6.6	
9/12/2017	7.2	
5/1/2018	5.9	
11/26/2018	5.1	
5/28/2019	7.1	
10/2/2019	6.88	
3/31/2020	10.8	
9/8/2020	6.52	
5/11/2021	6.8	
10/18/2021	6.58	
5/31/2022	7.94	
11/1/2022	4.59	
4/12/2023	5.93	
8/16/2023		7.05

FIGURE G.

Interwell Prediction Limit Summary - Significant Results

Plant Barry Client: Southern Company Data: Barry Ash Pond Printed 10/22/2023, 12:43 PM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	Bg Mean	Std. Dev.	%NDs	ND Adj.	TransformAlpha	Method
Boron, total (mg/L)	BY-AP-MW-1	0.188	n/a	8/8/2023	1.36	Yes	84	n/a	n/a	78.57	n/a	n/a	0.0002707 NP (NDs) 1 of 2
Boron, total (mg/L)	BY-AP-MW-10	0.188	n/a	8/7/2023	1.68	Yes	84	n/a	n/a	78.57	n/a	n/a	0.0002707 NP (NDs) 1 of 2
Boron, total (mg/L)	BY-AP-MW-16	0.188	n/a	8/8/2023	2.45	Yes	84	n/a	n/a	78.57	n/a	n/a	0.0002707 NP (NDs) 1 of 2
Boron, total (mg/L)	BY-AP-MW-9	0.188	n/a	8/7/2023	1.16	Yes	84	n/a	n/a	78.57	n/a	n/a	0.0002707 NP (NDs) 1 of 2
Calcium, total (mg/L)	BY-AP-MW-1	2.151	n/a	8/8/2023	31	Yes	84	1.487	0.3175	0	None	No	0.0004702 Param 1 of 2
Calcium, total (mg/L)	BY-AP-MW-10	2.151	n/a	8/7/2023	58.4	Yes	84	1.487	0.3175	0	None	No	0.0004702 Param 1 of 2
Calcium, total (mg/L)	BY-AP-MW-11	2.151	n/a	8/7/2023	23.5	Yes	84	1.487	0.3175	0	None	No	0.0004702 Param 1 of 2
Calcium, total (mg/L)	BY-AP-MW-12	2.151	n/a	8/8/2023	21.9	Yes	84	1.487	0.3175	0	None	No	0.0004702 Param 1 of 2
Calcium, total (mg/L)	BY-AP-MW-13	2.151	n/a	8/9/2023	18.2	Yes	84	1.487	0.3175	0	None	No	0.0004702 Param 1 of 2
Calcium, total (mg/L)	BY-AP-MW-14	2.151	n/a	8/9/2023	11.6	Yes	84	1.487	0.3175	0	None	No	0.0004702 Param 1 of 2
Calcium, total (mg/L)	BY-AP-MW-15	2.151	n/a	8/8/2023	6.85	Yes	84	1.487	0.3175	0	None	No	0.0004702 Param 1 of 2
Calcium, total (mg/L)	BY-AP-MW-16	2.151	n/a	8/8/2023	8.99	Yes	84	1.487	0.3175	0	None	No	0.0004702 Param 1 of 2
Calcium, total (mg/L)	BY-AP-MW-4	2.151	n/a	8/9/2023	3.23	Yes	84	1.487	0.3175	0	None	No	0.0004702 Param 1 of 2
Calcium, total (mg/L)	BY-AP-MW-5	2.151	n/a	8/7/2023	6.02	Yes	84	1.487	0.3175	0	None	No	0.0004702 Param 1 of 2
Calcium, total (mg/L)	BY-AP-MW-6	2.151	n/a	8/9/2023	2.26	Yes	84	1.487	0.3175	0	None	No	0.0004702 Param 1 of 2
Calcium, total (mg/L)	BY-AP-MW-7	2.151	n/a	8/7/2023	3.21	Yes	84	1.487	0.3175	0	None	No	0.0004702 Param 1 of 2
Calcium, total (mg/L)	BY-AP-MW-8	2.151	n/a	8/7/2023	4.68	Yes	84	1.487	0.3175	0	None	No	0.0004702 Param 1 of 2
Calcium, total (mg/L)	BY-AP-MW-9	2.151	n/a	8/7/2023	25.2	Yes	84	1.487	0.3175	0	None	No	0.0004702 Param 1 of 2
Chloride, Total (mg/L)	BY-AP-MW-1	9.9	n/a	8/8/2023	20.9	Yes	84	n/a	n/a	0	n/a	n/a	0.0002707 NP (normality) 1 of 2
Chloride, Total (mg/L)	BY-AP-MW-10	9.9	n/a	8/7/2023	23.5	Yes	84	n/a	n/a	0	n/a	n/a	0.0002707 NP (normality) 1 of 2
Chloride, Total (mg/L)	BY-AP-MW-11	9.9	n/a	8/7/2023	24	Yes	84	n/a	n/a	0	n/a	n/a	0.0002707 NP (normality) 1 of 2
Chloride, Total (mg/L)	BY-AP-MW-12	9.9	n/a	8/8/2023	22.3	Yes	84	n/a	n/a	0	n/a	n/a	0.0002707 NP (normality) 1 of 2
Chloride, Total (mg/L)	BY-AP-MW-13	9.9	n/a	8/9/2023	40.5	Yes	84	n/a	n/a	0	n/a	n/a	0.0002707 NP (normality) 1 of 2
Chloride, Total (mg/L)	BY-AP-MW-14	9.9	n/a	8/9/2023	47.1	Yes	84	n/a	n/a	0	n/a	n/a	0.0002707 NP (normality) 1 of 2
Chloride, Total (mg/L)	BY-AP-MW-15	9.9	n/a	8/8/2023	90.2	Yes	84	n/a	n/a	0	n/a	n/a	0.0002707 NP (normality) 1 of 2
Chloride, Total (mg/L)	BY-AP-MW-16	9.9	n/a	8/8/2023	21.3	Yes	84	n/a	n/a	0	n/a	n/a	0.0002707 NP (normality) 1 of 2
Chloride, Total (mg/L)	BY-AP-MW-3	9.9	n/a	8/9/2023	10.7	Yes	84	n/a	n/a	0	n/a	n/a	0.0002707 NP (normality) 1 of 2
Chloride, Total (mg/L)	BY-AP-MW-4	9.9	n/a	8/9/2023	30.8	Yes	84	n/a	n/a	0	n/a	n/a	0.0002707 NP (normality) 1 of 2
Chloride, Total (mg/L)	BY-AP-MW-5	9.9	n/a	8/7/2023	15.9	Yes	84	n/a	n/a	0	n/a	n/a	0.0002707 NP (normality) 1 of 2
Chloride, Total (mg/L)	BY-AP-MW-7	9.9	n/a	8/7/2023	48.4	Yes	84	n/a	n/a	0	n/a	n/a	0.0002707 NP (normality) 1 of 2
Chloride, Total (mg/L)	BY-AP-MW-9	9.9	n/a	8/7/2023	15.7	Yes	84	n/a	n/a	0	n/a	n/a	0.0002707 NP (normality) 1 of 2
Fluoride, total (mg/L)	BY-AP-MW-15	0.125	n/a	8/8/2023	0.172	Yes	88	n/a	n/a	67.05	n/a	n/a	0.0002468 NP (NDs) 1 of 2
Fluoride, total (mg/L)	BY-AP-MW-7	0.125	n/a	8/7/2023	0.162	Yes	88	n/a	n/a	67.05	n/a	n/a	0.0002468 NP (NDs) 1 of 2
TDS (mg/L)	BY-AP-MW-1	58	n/a	8/8/2023	393	Yes	84	n/a	n/a	9.524	n/a	n/a	0.0002707 NP (normality) 1 of 2
TDS (mg/L)	BY-AP-MW-10	58	n/a	8/7/2023	359	Yes	84	n/a	n/a	9.524	n/a	n/a	0.0002707 NP (normality) 1 of 2
TDS (mg/L)	BY-AP-MW-11	58	n/a	8/7/2023	409	Yes	84	n/a	n/a	9.524	n/a	n/a	0.0002707 NP (normality) 1 of 2
TDS (mg/L)	BY-AP-MW-12	58	n/a	8/8/2023	351	Yes	84	n/a	n/a	9.524	n/a	n/a	0.0002707 NP (normality) 1 of 2
TDS (mg/L)	BY-AP-MW-13	58	n/a	8/9/2023	309	Yes	84	n/a	n/a	9.524	n/a	n/a	0.0002707 NP (normality) 1 of 2
TDS (mg/L)	BY-AP-MW-14	58	n/a	8/9/2023	336	Yes	84	n/a	n/a	9.524	n/a	n/a	0.0002707 NP (normality) 1 of 2
TDS (mg/L)	BY-AP-MW-15	58	n/a	8/8/2023	332	Yes	84	n/a	n/a	9.524	n/a	n/a	0.0002707 NP (normality) 1 of 2
TDS (mg/L)	BY-AP-MW-16	58	n/a	8/8/2023	340	Yes	84	n/a	n/a	9.524	n/a	n/a	0.0002707 NP (normality) 1 of 2
TDS (mg/L)	BY-AP-MW-3	58	n/a	8/9/2023	67.3	Yes	84	n/a	n/a	9.524	n/a	n/a	0.0002707 NP (normality) 1 of 2
TDS (mg/L)	BY-AP-MW-4	58	n/a	8/9/2023	81.3	Yes	84	n/a	n/a	9.524	n/a	n/a	0.0002707 NP (normality) 1 of 2
TDS (mg/L)	BY-AP-MW-5	58	n/a	8/7/2023	140	Yes	84	n/a	n/a	9.524	n/a	n/a	0.0002707 NP (normality) 1 of 2
TDS (mg/L)	BY-AP-MW-7	58	n/a	8/7/2023	203	Yes	84	n/a	n/a	9.524	n/a	n/a	0.0002707 NP (normality) 1 of 2
TDS (mg/L)	BY-AP-MW-8	58	n/a	8/7/2023	90	Yes	84	n/a	n/a	9.524	n/a	n/a	0.0002707 NP (normality) 1 of 2
TDS (mg/L)	BY-AP-MW-9	58	n/a	8/7/2023	224	Yes	84	n/a	n/a	9.524	n/a	n/a	0.0002707 NP (normality) 1 of 2

Interwell Prediction Limit Summary - All Results

Plant Barry Client: Southern Company Data: Barry Ash Pond Printed 10/22/2023, 12:43 PM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg.N	Bg Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Boron, total (mg/L)	BY-AP-MW-1	0.188	n/a	8/8/2023	1.36	Yes	84	n/a	n/a	78.57	n/a	n/a	0.0002707	NP (NDs) 1 of 2
Boron, total (mg/L)	BY-AP-MW-10	0.188	n/a	8/7/2023	1.68	Yes	84	n/a	n/a	78.57	n/a	n/a	0.0002707	NP (NDs) 1 of 2
Boron, total (mg/L)	BY-AP-MW-11	0.188	n/a	8/7/2023	0.0562J	No	84	n/a	n/a	78.57	n/a	n/a	0.0002707	NP (NDs) 1 of 2
Boron, total (mg/L)	BY-AP-MW-12	0.188	n/a	8/8/2023	0.0641J	No	84	n/a	n/a	78.57	n/a	n/a	0.0002707	NP (NDs) 1 of 2
Boron, total (mg/L)	BY-AP-MW-13	0.188	n/a	8/9/2023	0.0538J	No	84	n/a	n/a	78.57	n/a	n/a	0.0002707	NP (NDs) 1 of 2
Boron, total (mg/L)	BY-AP-MW-14	0.188	n/a	8/9/2023	0.0724J	No	84	n/a	n/a	78.57	n/a	n/a	0.0002707	NP (NDs) 1 of 2
Boron, total (mg/L)	BY-AP-MW-15	0.188	n/a	8/8/2023	0.0792J	No	84	n/a	n/a	78.57	n/a	n/a	0.0002707	NP (NDs) 1 of 2
Boron, total (mg/L)	BY-AP-MW-16	0.188	n/a	8/8/2023	2.45	Yes	84	n/a	n/a	78.57	n/a	n/a	0.0002707	NP (NDs) 1 of 2
Boron, total (mg/L)	BY-AP-MW-2	0.188	n/a	8/8/2023	0.1015ND	No	84	n/a	n/a	78.57	n/a	n/a	0.0002707	NP (NDs) 1 of 2
Boron, total (mg/L)	BY-AP-MW-3	0.188	n/a	8/9/2023	0.106	No	84	n/a	n/a	78.57	n/a	n/a	0.0002707	NP (NDs) 1 of 2
Boron, total (mg/L)	BY-AP-MW-4	0.188	n/a	8/9/2023	0.1015ND	No	84	n/a	n/a	78.57	n/a	n/a	0.0002707	NP (NDs) 1 of 2
Boron, total (mg/L)	BY-AP-MW-5	0.188	n/a	8/7/2023	0.0327J	No	84	n/a	n/a	78.57	n/a	n/a	0.0002707	NP (NDs) 1 of 2
Boron, total (mg/L)	BY-AP-MW-6	0.188	n/a	8/9/2023	0.1015ND	No	84	n/a	n/a	78.57	n/a	n/a	0.0002707	NP (NDs) 1 of 2
Boron, total (mg/L)	BY-AP-MW-7	0.188	n/a	8/7/2023	0.174	No	84	n/a	n/a	78.57	n/a	n/a	0.0002707	NP (NDs) 1 of 2
Boron, total (mg/L)	BY-AP-MW-8	0.188	n/a	8/7/2023	0.0437J	No	84	n/a	n/a	78.57	n/a	n/a	0.0002707	NP (NDs) 1 of 2
Boron, total (mg/L)	BY-AP-MW-9	0.188	n/a	8/7/2023	1.16	Yes	84	n/a	n/a	78.57	n/a	n/a	0.0002707	NP (NDs) 1 of 2
Calcium, total (mg/L)	BY-AP-MW-1	2.151	n/a	8/8/2023	31	Yes	84	1.487	0.3175	0	None	No	0.0004702	Param 1 of 2
Calcium, total (mg/L)	BY-AP-MW-10	2.151	n/a	8/7/2023	58.4	Yes	84	1.487	0.3175	0	None	No	0.0004702	Param 1 of 2
Calcium, total (mg/L)	BY-AP-MW-11	2.151	n/a	8/7/2023	23.5	Yes	84	1.487	0.3175	0	None	No	0.0004702	Param 1 of 2
Calcium, total (mg/L)	BY-AP-MW-12	2.151	n/a	8/8/2023	21.9	Yes	84	1.487	0.3175	0	None	No	0.0004702	Param 1 of 2
Calcium, total (mg/L)	BY-AP-MW-13	2.151	n/a	8/9/2023	18.2	Yes	84	1.487	0.3175	0	None	No	0.0004702	Param 1 of 2
Calcium, total (mg/L)	BY-AP-MW-14	2.151	n/a	8/9/2023	11.6	Yes	84	1.487	0.3175	0	None	No	0.0004702	Param 1 of 2
Calcium, total (mg/L)	BY-AP-MW-15	2.151	n/a	8/8/2023	6.85	Yes	84	1.487	0.3175	0	None	No	0.0004702	Param 1 of 2
Calcium, total (mg/L)	BY-AP-MW-16	2.151	n/a	8/8/2023	8.99	Yes	84	1.487	0.3175	0	None	No	0.0004702	Param 1 of 2
Calcium, total (mg/L)	BY-AP-MW-2	2.151	n/a	8/8/2023	1.59	No	84	1.487	0.3175	0	None	No	0.0004702	Param 1 of 2
Calcium, total (mg/L)	BY-AP-MW-3	2.151	n/a	8/9/2023	2.13	No	84	1.487	0.3175	0	None	No	0.0004702	Param 1 of 2
Calcium, total (mg/L)	BY-AP-MW-4	2.151	n/a	8/9/2023	3.23	Yes	84	1.487	0.3175	0	None	No	0.0004702	Param 1 of 2
Calcium, total (mg/L)	BY-AP-MW-5	2.151	n/a	8/7/2023	6.02	Yes	84	1.487	0.3175	0	None	No	0.0004702	Param 1 of 2
Calcium, total (mg/L)	BY-AP-MW-6	2.151	n/a	8/9/2023	2.26	Yes	84	1.487	0.3175	0	None	No	0.0004702	Param 1 of 2
Calcium, total (mg/L)	BY-AP-MW-7	2.151	n/a	8/7/2023	3.21	Yes	84	1.487	0.3175	0	None	No	0.0004702	Param 1 of 2
Calcium, total (mg/L)	BY-AP-MW-8	2.151	n/a	8/7/2023	4.68	Yes	84	1.487	0.3175	0	None	No	0.0004702	Param 1 of 2
Calcium, total (mg/L)	BY-AP-MW-9	2.151	n/a	8/7/2023	25.2	Yes	84	1.487	0.3175	0	None	No	0.0004702	Param 1 of 2
Chloride, Total (mg/L)	BY-AP-MW-1	9.9	n/a	8/8/2023	20.9	Yes	84	n/a	n/a	0	n/a	n/a	0.0002707	NP (normality) 1 of 2
Chloride, Total (mg/L)	BY-AP-MW-10	9.9	n/a	8/7/2023	23.5	Yes	84	n/a	n/a	0	n/a	n/a	0.0002707	NP (normality) 1 of 2
Chloride, Total (mg/L)	BY-AP-MW-11	9.9	n/a	8/7/2023	24	Yes	84	n/a	n/a	0	n/a	n/a	0.0002707	NP (normality) 1 of 2
Chloride, Total (mg/L)	BY-AP-MW-12	9.9	n/a	8/8/2023	22.3	Yes	84	n/a	n/a	0	n/a	n/a	0.0002707	NP (normality) 1 of 2
Chloride, Total (mg/L)	BY-AP-MW-13	9.9	n/a	8/9/2023	40.5	Yes	84	n/a	n/a	0	n/a	n/a	0.0002707	NP (normality) 1 of 2
Chloride, Total (mg/L)	BY-AP-MW-14	9.9	n/a	8/9/2023	47.1	Yes	84	n/a	n/a	0	n/a	n/a	0.0002707	NP (normality) 1 of 2
Chloride, Total (mg/L)	BY-AP-MW-15	9.9	n/a	8/8/2023	90.2	Yes	84	n/a	n/a	0	n/a	n/a	0.0002707	NP (normality) 1 of 2
Chloride, Total (mg/L)	BY-AP-MW-16	9.9	n/a	8/8/2023	21.3	Yes	84	n/a	n/a	0	n/a	n/a	0.0002707	NP (normality) 1 of 2
Chloride, Total (mg/L)	BY-AP-MW-2	9.9	n/a	8/8/2023	7.04	No	84	n/a	n/a	0	n/a	n/a	0.0002707	NP (normality) 1 of 2
Chloride, Total (mg/L)	BY-AP-MW-3	9.9	n/a	8/9/2023	10.7	Yes	84	n/a	n/a	0	n/a	n/a	0.0002707	NP (normality) 1 of 2
Chloride, Total (mg/L)	BY-AP-MW-4	9.9	n/a	8/9/2023	30.8	Yes	84	n/a	n/a	0	n/a	n/a	0.0002707	NP (normality) 1 of 2
Chloride, Total (mg/L)	BY-AP-MW-5	9.9	n/a	8/7/2023	15.9	Yes	84	n/a	n/a	0	n/a	n/a	0.0002707	NP (normality) 1 of 2
Chloride, Total (mg/L)	BY-AP-MW-6	9.9	n/a	8/9/2023	8.06	No	84	n/a	n/a	0	n/a	n/a	0.0002707	NP (normality) 1 of 2
Chloride, Total (mg/L)	BY-AP-MW-7	9.9	n/a	8/7/2023	48.4	Yes	84	n/a	n/a	0	n/a	n/a	0.0002707	NP (normality) 1 of 2
Chloride, Total (mg/L)	BY-AP-MW-8	9.9	n/a	8/7/2023	6.63	No	84	n/a	n/a	0	n/a	n/a	0.0002707	NP (normality) 1 of 2
Chloride, Total (mg/L)	BY-AP-MW-9	9.9	n/a	8/7/2023	15.7	Yes	84	n/a	n/a	0	n/a	n/a	0.0002707	NP (normality) 1 of 2
Fluoride, total (mg/L)	BY-AP-MW-1	0.125	n/a	8/8/2023	0.0612J	No	88	n/a	n/a	67.05	n/a	n/a	0.0002468	NP (NDs) 1 of 2
Fluoride, total (mg/L)	BY-AP-MW-10	0.125	n/a	8/7/2023	0.125ND	No	88	n/a	n/a	67.05	n/a	n/a	0.0002468	NP (NDs) 1 of 2
Fluoride, total (mg/L)	BY-AP-MW-11	0.125	n/a	8/7/2023	0.099J	No	88	n/a	n/a	67.05	n/a	n/a	0.0002468	NP (NDs) 1 of 2
Fluoride, total (mg/L)	BY-AP-MW-12	0.125	n/a	8/8/2023	0.0672J	No	88	n/a	n/a	67.05	n/a	n/a	0.0002468	NP (NDs) 1 of 2
Fluoride, total (mg/L)	BY-AP-MW-13	0.125	n/a	8/9/2023	0.0948J	No	88	n/a	n/a	67.05	n/a	n/a	0.0002468	NP (NDs) 1 of 2
Fluoride, total (mg/L)	BY-AP-MW-14	0.125	n/a	8/9/2023	0.0753J	No	88	n/a	n/a	67.05	n/a	n/a	0.0002468	NP (NDs) 1 of 2
Fluoride, total (mg/L)	BY-AP-MW-15	0.125	n/a	8/8/2023	0.172	Yes	88	n/a	n/a	67.05	n/a	n/a	0.0002468	NP (NDs) 1 of 2
Fluoride, total (mg/L)	BY-AP-MW-16	0.125	n/a	8/8/2023	0.0772J	No	88	n/a	n/a	67.05	n/a	n/a	0.0002468	NP (NDs) 1 of 2

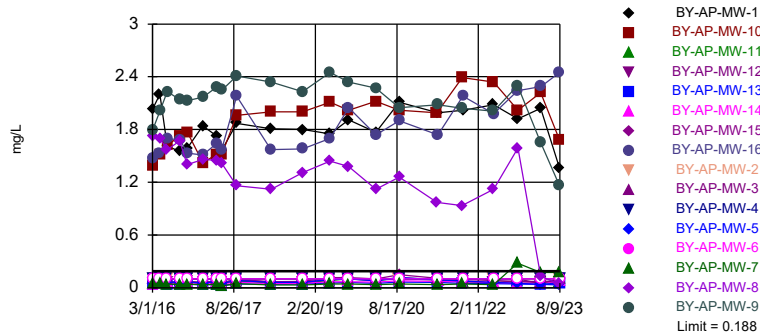
Interwell Prediction Limit Summary - All Results

Plant Barry Client: Southern Company Data: Barry Ash Pond Printed 10/22/2023, 12:43 PM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg.N	Bg Mean	Std. Dev.	%NDs	ND Adj.	TransformAlpha	Method
Fluoride, total (mg/L)	BY-AP-MW-2	0.125	n/a	8/8/2023	0.0705J	No	88	n/a	n/a	67.05	n/a	n/a	0.0002468 NP (NDs) 1 of 2
Fluoride, total (mg/L)	BY-AP-MW-3	0.125	n/a	8/9/2023	0.125ND	No	88	n/a	n/a	67.05	n/a	n/a	0.0002468 NP (NDs) 1 of 2
Fluoride, total (mg/L)	BY-AP-MW-4	0.125	n/a	8/9/2023	0.125ND	No	88	n/a	n/a	67.05	n/a	n/a	0.0002468 NP (NDs) 1 of 2
Fluoride, total (mg/L)	BY-AP-MW-5	0.125	n/a	8/7/2023	0.125ND	No	88	n/a	n/a	67.05	n/a	n/a	0.0002468 NP (NDs) 1 of 2
Fluoride, total (mg/L)	BY-AP-MW-6	0.125	n/a	8/9/2023	0.125ND	No	88	n/a	n/a	67.05	n/a	n/a	0.0002468 NP (NDs) 1 of 2
Fluoride, total (mg/L)	BY-AP-MW-7	0.125	n/a	8/7/2023	0.162	Yes	88	n/a	n/a	67.05	n/a	n/a	0.0002468 NP (NDs) 1 of 2
Fluoride, total (mg/L)	BY-AP-MW-8	0.125	n/a	8/7/2023	0.112J	No	88	n/a	n/a	67.05	n/a	n/a	0.0002468 NP (NDs) 1 of 2
Fluoride, total (mg/L)	BY-AP-MW-9	0.125	n/a	8/7/2023	0.0808J	No	88	n/a	n/a	67.05	n/a	n/a	0.0002468 NP (NDs) 1 of 2
TDS (mg/L)	BY-AP-MW-1	58	n/a	8/8/2023	393	Yes	84	n/a	n/a	9.524	n/a	n/a	0.0002707 NP (normality) 1 of 2
TDS (mg/L)	BY-AP-MW-10	58	n/a	8/7/2023	359	Yes	84	n/a	n/a	9.524	n/a	n/a	0.0002707 NP (normality) 1 of 2
TDS (mg/L)	BY-AP-MW-11	58	n/a	8/7/2023	409	Yes	84	n/a	n/a	9.524	n/a	n/a	0.0002707 NP (normality) 1 of 2
TDS (mg/L)	BY-AP-MW-12	58	n/a	8/8/2023	351	Yes	84	n/a	n/a	9.524	n/a	n/a	0.0002707 NP (normality) 1 of 2
TDS (mg/L)	BY-AP-MW-13	58	n/a	8/9/2023	309	Yes	84	n/a	n/a	9.524	n/a	n/a	0.0002707 NP (normality) 1 of 2
TDS (mg/L)	BY-AP-MW-14	58	n/a	8/9/2023	336	Yes	84	n/a	n/a	9.524	n/a	n/a	0.0002707 NP (normality) 1 of 2
TDS (mg/L)	BY-AP-MW-15	58	n/a	8/8/2023	332	Yes	84	n/a	n/a	9.524	n/a	n/a	0.0002707 NP (normality) 1 of 2
TDS (mg/L)	BY-AP-MW-16	58	n/a	8/8/2023	340	Yes	84	n/a	n/a	9.524	n/a	n/a	0.0002707 NP (normality) 1 of 2
TDS (mg/L)	BY-AP-MW-2	58	n/a	8/8/2023	44	No	84	n/a	n/a	9.524	n/a	n/a	0.0002707 NP (normality) 1 of 2
TDS (mg/L)	BY-AP-MW-3	58	n/a	8/9/2023	67.3	Yes	84	n/a	n/a	9.524	n/a	n/a	0.0002707 NP (normality) 1 of 2
TDS (mg/L)	BY-AP-MW-4	58	n/a	8/9/2023	81.3	Yes	84	n/a	n/a	9.524	n/a	n/a	0.0002707 NP (normality) 1 of 2
TDS (mg/L)	BY-AP-MW-5	58	n/a	8/7/2023	140	Yes	84	n/a	n/a	9.524	n/a	n/a	0.0002707 NP (normality) 1 of 2
TDS (mg/L)	BY-AP-MW-6	58	n/a	8/9/2023	47.3	No	84	n/a	n/a	9.524	n/a	n/a	0.0002707 NP (normality) 1 of 2
TDS (mg/L)	BY-AP-MW-7	58	n/a	8/7/2023	203	Yes	84	n/a	n/a	9.524	n/a	n/a	0.0002707 NP (normality) 1 of 2
TDS (mg/L)	BY-AP-MW-8	58	n/a	8/7/2023	90	Yes	84	n/a	n/a	9.524	n/a	n/a	0.0002707 NP (normality) 1 of 2
TDS (mg/L)	BY-AP-MW-9	58	n/a	8/7/2023	224	Yes	84	n/a	n/a	9.524	n/a	n/a	0.0002707 NP (normality) 1 of 2

Exceeds Limit: BY-AP-MW-1, BY-AP-MW-10, BY-AP-MW-16, BY-AP-MW-9

Prediction Limit
Interwell Non-parametric

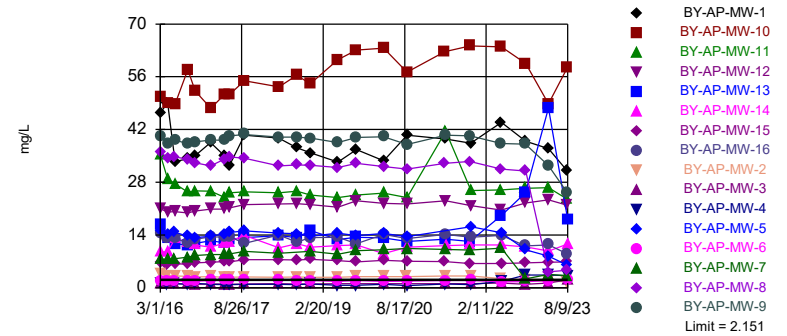


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 84 background values. 78.57% NDs. Annual per-constituent alpha = 0.008626. Individual comparison alpha = 0.0002707 (1 of 2). Comparing 16 points to limit.

Constituent: Boron, total Analysis Run 10/22/2023 12:38 PM View: Interwell PLs
Plant Barry Client: Southern Company Data: Barry Ash Pond

Exceeds Limit: BY-AP-MW-1, BY-AP-MW-10, BY-AP-MW-11, BY-AP-MW-12, BY-AP-MW-13, BY-AP-MW-14, BY-AP-MW-15,...

Prediction Limit
Interwell Parametric

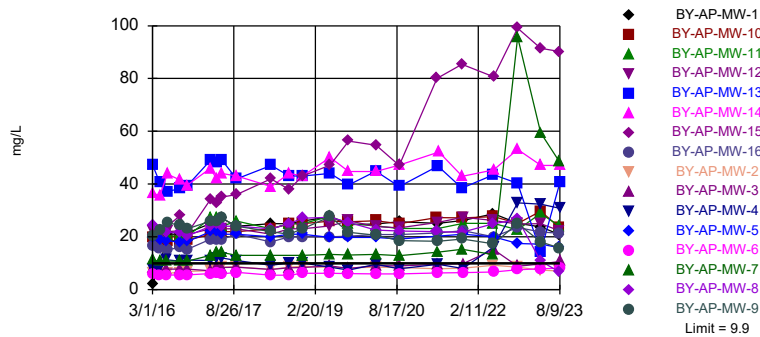


Background Data Summary: Mean=1.487, Std. Dev.=0.3175, n=84. Normality test: Shapiro Francia @alpha = 0.01, calculated = 0.9775, critical = 0.96. Kappa = 2.09 (c=7, w=16, 1 of 2, event alpha = 0.05132). Report alpha = 0.007498. Individual comparison alpha = 0.0004702. Comparing 16 points to limit.

Constituent: Calcium, total Analysis Run 10/22/2023 12:38 PM View: Interwell PLs
Plant Barry Client: Southern Company Data: Barry Ash Pond

Exceeds Limit: BY-AP-MW-1, BY-AP-MW-10, BY-AP-MW-11, BY-AP-MW-12, BY-AP-MW-13, BY-AP-MW-14, BY-AP-MW-15,...

Prediction Limit
Interwell Non-parametric

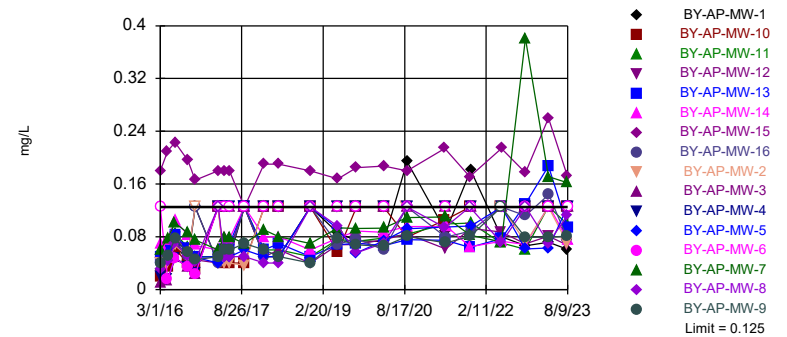


Non-parametric test used in lieu of parametric prediction limit because the Shapiro Francia normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 84 background values. Annual per-constituent alpha = 0.008626. Individual comparison alpha = 0.0002707 (1 of 2). Comparing 16 points to limit.

Constituent: Chloride, Total Analysis Run 10/22/2023 12:38 PM View: Interwell PLs
Plant Barry Client: Southern Company Data: Barry Ash Pond

Exceeds Limit: BY-AP-MW-15, BY-AP-MW-7

Prediction Limit
Interwell Non-parametric

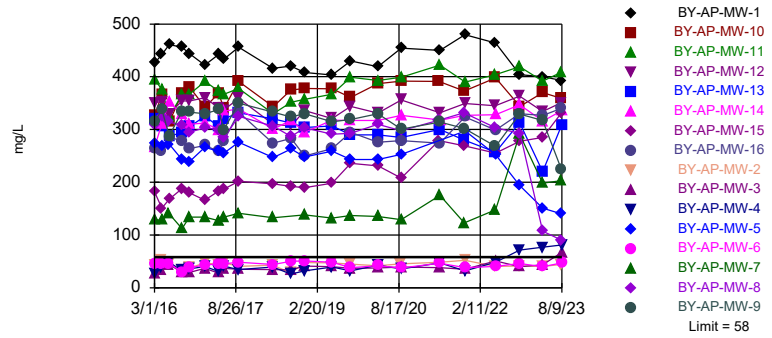


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 88 background values. 67.05% NDs. Annual per-constituent alpha = 0.007866. Individual comparison alpha = 0.0002468 (1 of 2). Comparing 16 points to limit.

Constituent: Fluoride, total Analysis Run 10/22/2023 12:38 PM View: Interwell PLs
Plant Barry Client: Southern Company Data: Barry Ash Pond

Exceeds Limit: BY-AP-MW-1, BY-AP-MW-10, BY-AP-MW-11, BY-AP-MW-12, BY-AP-MW-13, BY-AP-MW-14, BY-AP-MW-15,...

Prediction Limit
Interwell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because the Shapiro Francia normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 84 background values. 9.524% NDs. Annual per-constituent alpha = 0.008626. Individual comparison alpha = 0.0002707 (1 of 2). Comparing 16 points to limit.

Constituent: TDS Analysis Run 10/22/2023 12:38 PM View: Interwell PLs
Plant Barry Client: Southern Company Data: Barry Ash Pond

Prediction Limit

Constituent: Boron, total (mg/L) Analysis Run 10/22/2023 12:43 PM View: Interwell PLs

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-UP-MW-2 (bg)	BY-UP-MW-1 (bg)	BY-UP-MW-3 (bg)	BY-UP-MW-4 (bg)	BY-AP-MW-10	BY-AP-MW-11	BY-AP-MW-6	BY-AP-MW-9	BY-AP-MW-5
2/23/2016	0.0252 (J)	0.0212 (J)	<0.1015	0.0257 (J)					
3/1/2016					1.39	0.0482 (J)	<0.1015	1.79	0.0462 (J)
3/2/2016									
4/19/2016	<0.1015	<0.1015	<0.1015	<0.1015			<0.1015		
4/20/2016					1.51	0.059 (J)		2.01	0.0719 (J)
6/6/2016		<0.1015		<0.1015					
6/7/2016	0.0202 (J)		<0.1015				<0.1015		0.0591 (J)
6/8/2016					1.62	0.0568 (J)		2.23	
8/30/2016	<0.1015	<0.1015	<0.1015	<0.1015			<0.1015		0.0675 (J)
8/31/2016					1.73	0.0651 (J)		2.14	
10/18/2016	<0.1015	<0.1015	<0.1015	0.022 (J)					0.0699 (J)
10/19/2016					1.77	0.06 (J)	<0.1015	2.13	
1/31/2017	<0.1015	<0.1015	<0.1015	<0.1015			<0.1015		0.0518 (J)
2/1/2017					1.42	0.0638 (J)		2.17	
5/2/2017	<0.1015	<0.1015	<0.1015	<0.1015					
5/3/2017					1.52	0.0655 (J)	<0.1015	2.28	0.0737 (J)
6/6/2017	<0.1015	<0.1015	<0.1015	<0.1015					
6/7/2017					1.52	0.0468 (J)	<0.1015	2.25	0.0518 (J)
9/12/2017				<0.1015					
9/13/2017	<0.1015	<0.1015	<0.1015			0.0751 (J)			
9/14/2017					1.96		<0.1015	2.41	0.0825 (J)
5/1/2018	<0.1015		<0.1015	<0.1015					
5/2/2018		0.0362 (J)			2	0.0545 (J)	<0.1015	2.34	0.0603 (J)
11/26/2018				<0.1015					
11/27/2018	0.0207 (J)	0.11	<0.1015						0.0613 (J)
11/28/2018					2	0.0545 (J)	<0.1015	2.23	
5/28/2019				<0.1015					
5/29/2019	<0.1015	0.188	<0.1015			0.082 (J)	<0.1015		0.0946 (J)
5/30/2019					2.11			2.45	
9/30/2019					2.02	0.103		2.34	
10/1/2019							<0.1015		0.103
10/2/2019	<0.1015	0.097 (J)	<0.1015	<0.1015					
3/30/2020									
3/31/2020	<0.1015	0.157	<0.1015	<0.1015	2.12	0.0815 (J)	<0.1015	2.27	0.0782 (J)
4/1/2020									
8/31/2020									
9/1/2020					2.02	0.104			0.115
9/2/2020							<0.1015	2.05	
9/8/2020				<0.1015					
9/9/2020	<0.1015	0.0999 (J)	<0.1015						
5/11/2021	<0.1015		<0.1015	<0.1015	1.99				
5/12/2021		0.0841 (J)							
5/17/2021							<0.1015		
5/18/2021								2.08	
5/19/2021						0.0856 (J)			
5/25/2021									
10/18/2021			<0.1015	<0.1015					
10/19/2021	<0.1015	0.0708 (J)							
10/26/2021									
10/27/2021					2.39			2.04	
11/1/2021									
11/2/2021						0.0691 (J)	<0.1015		0.0755 (J)

Prediction Limit

Constituent: Boron, total (mg/L) Analysis Run 10/22/2023 12:43 PM View: Interwell PLs
Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-UP-MW-2 (bg)	BY-UP-MW-1 (bg)	BY-UP-MW-3 (bg)	BY-UP-MW-4 (bg)	BY-AP-MW-10	BY-AP-MW-11	BY-AP-MW-6	BY-AP-MW-9	BY-AP-MW-5
5/23/2022						0.0558 (J)			
5/24/2022					2.34			2.01	
5/25/2022							<0.1015		0.063 (J)
5/31/2022	<0.1015	0.0567 (J)	<0.1015	<0.1015					
10/31/2022							<0.1015	2.3	0.0515 (J)
11/1/2022	<0.1015	0.0501 (J)	<0.1015	<0.1015		0.0727 (J)			
11/2/2022					2.02				
4/3/2023					2.22				
4/4/2023						0.0581 (J)	<0.1015	1.65	0.0381 (J)
4/5/2023									
4/12/2023	<0.1015	0.0464 (J)	<0.1015	<0.1015					
8/7/2023					1.68	0.0562 (J)		1.16	0.0327 (J)
8/8/2023									
8/9/2023							<0.1015		
8/16/2023	<0.1015	0.0364 (J)	<0.1015	<0.1015					

Prediction Limit

Constituent: Boron, total (mg/L) Analysis Run 10/22/2023 12:43 PM View: Interwell PLs
 Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-7	BY-AP-MW-8	BY-AP-MW-4	BY-AP-MW-2	BY-AP-MW-15	BY-AP-MW-16	BY-AP-MW-13	BY-AP-MW-12	BY-AP-MW-1
2/23/2016									
3/1/2016	0.0546 (J)	1.72	<0.1015						
3/2/2016				<0.1015	0.0447 (J)	1.47	0.0328 (J)	0.0502 (J)	2.03
4/19/2016			<0.1015	<0.1015	0.0645 (J)	1.53			2.2
4/20/2016	0.0472 (J)	1.7					0.0434 (J)	0.0672 (J)	
6/6/2016									
6/7/2016	0.0417 (J)	1.57	<0.1015						
6/8/2016				<0.1015	0.0592 (J)	1.7	0.0391 (J)	0.0659 (J)	1.61
8/30/2016		1.67	<0.1015						
8/31/2016	0.036 (J)			<0.1015	0.0632 (J)	1.68	0.0401 (J)	0.065 (J)	1.55
10/18/2016		1.4							
10/19/2016	0.0386 (J)		<0.1015	<0.1015	0.0637 (J)	1.53	0.0427 (J)	0.0721 (J)	1.59
1/31/2017	0.0343 (J)	1.46	<0.1015	<0.1015	0.0536 (J)	1.51	0.034 (J)		1.84
2/1/2017								0.06 (J)	
5/2/2017			<0.1015	<0.1015	0.0775 (J)	1.64			1.73
5/3/2017	0.037 (J)	1.45					0.0416 (J)	0.0768 (J)	
6/6/2017			<0.1015	<0.1015	0.0535 (J)	1.57			1.56
6/7/2017	0.0227 (J)	1.41					0.0277 (J)	0.0625 (J)	
9/12/2017			<0.1015	<0.1015					
9/13/2017					0.0937 (J)	2.18	0.044 (J)	0.0926 (J)	1.87
9/14/2017	0.0471 (J)	1.16							
5/1/2018			<0.1015	<0.1015	0.0683 (J)	1.57			1.81
5/2/2018	0.0313 (J)	1.12					0.0393 (J)	0.064 (J)	
11/26/2018									
11/27/2018		1.31	<0.1015	<0.1015	0.0715 (J)	1.58			
11/28/2018	0.0311 (J)						0.0417 (J)	0.064 (J)	1.8
5/28/2019									
5/29/2019	0.042 (J)	1.44	<0.1015	<0.1015	0.116	1.7	0.0528 (J)	0.0952 (J)	1.75
5/30/2019									
9/30/2019	0.0418 (J)	1.38							
10/1/2019			<0.1015	<0.1015	0.116	2.05	0.0604 (J)	0.0967 (J)	1.91
10/2/2019									
3/30/2020	0.0369 (J)	1.12							1.77
3/31/2020			<0.1015	<0.1015		1.74	0.0505 (J)	0.0856 (J)	
4/1/2020					0.1				
8/31/2020				<0.1015					
9/1/2020			<0.1015				0.0642 (J)	0.115	2.11
9/2/2020	0.042 (J)	1.26			0.148	1.9			
9/8/2020									
9/9/2020									
5/11/2021		0.971			0.109				
5/12/2021									
5/17/2021									
5/18/2021	0.037 (J)		<0.1015	<0.1015				0.0927 (J)	1.99
5/19/2021						1.74	0.0604 (J)		
5/25/2021									
10/18/2021									
10/19/2021									
10/26/2021		0.933			0.0953 (J)		0.0511 (J)		
10/27/2021	0.0427 (J)								
11/1/2021			<0.1015	<0.1015		2.18		0.0769 (J)	2.02
11/2/2021									

Prediction Limit

Constituent: Boron, total (mg/L) Analysis Run 10/22/2023 12:43 PM View: Interwell PLs
Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-7	BY-AP-MW-8	BY-AP-MW-4	BY-AP-MW-2	BY-AP-MW-15	BY-AP-MW-16	BY-AP-MW-13	BY-AP-MW-12	BY-AP-MW-1
5/23/2022								0.0626 (J)	
5/24/2022	0.0369 (J)	1.12		<0.1015			0.0457 (J)		2.08
5/25/2022			<0.1015		0.0826 (J)	1.98			
5/31/2022									
10/31/2022	0.28		<0.1015						
11/1/2022					0.0712 (J)	2.24	0.0445 (J)	0.0777 (J)	
11/2/2022		1.59		<0.1015					1.92
4/3/2023	0.174	0.129		<0.1015	0.0713 (J)				2.04
4/4/2023			<0.1015				0.0391 (J)	0.0629 (J)	
4/5/2023						2.29			
4/12/2023									
8/7/2023	0.174	0.0437 (J)							
8/8/2023				<0.1015	0.0792 (J)	2.45		0.0641 (J)	1.36
8/9/2023			<0.1015				0.0538 (J)		
8/16/2023									

Prediction Limit

Constituent: Boron, total (mg/L) Analysis Run 10/22/2023 12:43 PM View: Interwell PLs
Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-14	BY-AP-MW-3
2/23/2016		
3/1/2016		
3/2/2016	0.0395 (J)	<0.1015
4/19/2016		<0.1015
4/20/2016	0.0549 (J)	
6/6/2016		
6/7/2016		<0.1015
6/8/2016	0.0593 (J)	
8/30/2016	0.0534 (J)	
8/31/2016		<0.1015
10/18/2016	0.0597 (J)	
10/19/2016		<0.1015
1/31/2017	0.0479 (J)	<0.1015
2/1/2017		
5/2/2017	0.0587 (J)	<0.1015
5/3/2017		
6/6/2017	0.0428 (J)	<0.1015
6/7/2017		
9/12/2017		<0.1015
9/13/2017	0.0647 (J)	
9/14/2017		
5/1/2018		<0.1015
5/2/2018	0.0484 (J)	
11/26/2018		
11/27/2018	0.0493 (J)	<0.1015
11/28/2018		
5/28/2019		
5/29/2019	0.0682 (J)	<0.1015
5/30/2019		
9/30/2019		
10/1/2019	0.0701 (J)	<0.1015
10/2/2019		
3/30/2020		
3/31/2020	0.0655 (J)	<0.1015
4/1/2020		
8/31/2020		
9/1/2020		<0.1015
9/2/2020	0.0789 (J)	
9/8/2020		
9/9/2020		
5/11/2021		
5/12/2021		
5/17/2021		
5/18/2021		<0.1015
5/19/2021		
5/25/2021	0.074 (J)	
10/18/2021		
10/19/2021		
10/26/2021		
10/27/2021	0.0677 (J)	
11/1/2021		<0.1015
11/2/2021		

Prediction Limit

Constituent: Boron, total (mg/L) Analysis Run 10/22/2023 12:43 PM View: Interwell PLs
Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-14	BY-AP-MW-3
5/23/2022		
5/24/2022		
5/25/2022	0.0618 (J)	<0.1015
5/31/2022		
10/31/2022		
11/1/2022	0.0519 (J)	<0.1015
11/2/2022		
4/3/2023		
4/4/2023		0.0468 (J)
4/5/2023	0.0587 (J)	
4/12/2023		
8/7/2023		
8/8/2023		
8/9/2023	0.0724 (J)	0.106
8/16/2023		

Prediction Limit

Constituent: Calcium, total (mg/L) Analysis Run 10/22/2023 12:43 PM View: Interwell PLs

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-UP-MW-4 (bg)	BY-UP-MW-2 (bg)	BY-UP-MW-1 (bg)	BY-UP-MW-3 (bg)	BY-AP-MW-5	BY-AP-MW-9	BY-AP-MW-7	BY-AP-MW-11	BY-AP-MW-6
2/23/2016	1.42	1.11	1.28	1.77					
3/1/2016					15	40.3	7.65	35.3	1.87
3/2/2016									
4/19/2016	1.31	1.09	1.19	1.68					1.69
4/20/2016					14.3	38.2	7.54	28.9	
6/6/2016	1.35		1.19						
6/7/2016		1.16		1.68	14.8		7.71		1.75
6/8/2016						39.2		27.6	
8/30/2016	1.31	1.08	1.11	1.62	13.7				1.77
8/31/2016						38.2	8.1	25.4	
10/18/2016	1.22	1.03	1.04	1.53	13.3				
10/19/2016						38.7	8.59	25.7	1.8
1/31/2017	1.36	1.23	1.19	1.65	13.7		8.78		1.98
2/1/2017						39.2		25.6	
5/2/2017	1.24	1.28	1.05	1.58					
5/3/2017					14.3	39.1	8.85	24	1.97
6/6/2017	1.28	1.25	0.978	1.55					
6/7/2017					14.7	40.3	8.99	25.2	1.98
9/12/2017	1.47								
9/13/2017		1.6	1.14	1.71				25.5	
9/14/2017					15.1	40.7	9.64		2.14
5/1/2018	1.47	1.58		1.76					
5/2/2018			1.64		14.5	40	9.14	25.2	2.13
8/28/2018						40			
8/29/2018					14.3			25.6	1.92
11/26/2018	1.52								
11/27/2018		1.49	2.01	1.69	13.7				
11/28/2018						39.7	9.66	24.6	1.91
5/28/2019	1.6								
5/29/2019		1.59	1.85	1.74	14.5		8.88	23.9	1.72
5/30/2019						38.5			
9/30/2019						39.9	9.8	24.6	
10/1/2019					13.8				1.92
10/2/2019	1.7	1.7	1.55	1.86					
3/30/2020							10.1		
3/31/2020	1.78	1.43	1.96	1.92	14.4	40.1		25.1	1.68
4/1/2020									
8/31/2020									
9/1/2020					13.6			23.9	
9/2/2020						38	10.4		1.8
9/8/2020	1.94								
9/9/2020		1.5	1.43	1.97					
5/11/2021	1.93	1.39		2.06					
5/12/2021			1.34						
5/17/2021									1.93
5/18/2021						40.5	10.2		
5/19/2021								41.5	
5/25/2021									
10/18/2021	2.01			2.1					
10/19/2021		1.32	1.17						
10/26/2021									
10/27/2021						40.3	10		

Prediction Limit

Constituent: Calcium, total (mg/L) Analysis Run 10/22/2023 12:43 PM View: Interwell PLs
Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-UP-MW-4 (bg)	BY-UP-MW-2 (bg)	BY-UP-MW-1 (bg)	BY-UP-MW-3 (bg)	BY-AP-MW-5	BY-AP-MW-9	BY-AP-MW-7	BY-AP-MW-11	BY-AP-MW-6
11/1/2021									
11/2/2021					16.2			25.8	1.97
5/23/2022								26	
5/24/2022						38.3	10.5		
5/25/2022					14.6				1.62
5/31/2022	2.02	1.24	1.14	1.95					
10/31/2022					10.1	38.099998	2.36		1.63
11/1/2022	1.59	1.23	1.01	1.94				26.4	
11/2/2022									
4/3/2023							3.52		
4/4/2023					8.36	32.400002		26.6	1.94
4/5/2023									
4/12/2023	1.76	1.16	1.02	1.83					
8/7/2023					6.02	25.200001	3.21	23.5	
8/8/2023									
8/9/2023									2.26
8/16/2023	1.71	1.03	0.816	1.77					

Prediction Limit

Constituent: Calcium, total (mg/L) Analysis Run 10/22/2023 12:43 PM View: Interwell PLs
 Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-4	BY-AP-MW-8	BY-AP-MW-10	BY-AP-MW-12	BY-AP-MW-14	BY-AP-MW-3	BY-AP-MW-2	BY-AP-MW-13	BY-AP-MW-16
2/23/2016									
3/1/2016	1.07	36.1	50.6						
3/2/2016				21	9.53	1.11	3.86	16.7	14.6
4/19/2016	0.969					1.01	3.22		13.3
4/20/2016		34.5	49.1	20.1	9.55			13.1	
6/6/2016									
6/7/2016	1.08	34.7				1.06			
6/8/2016			48.7	20.2	13.1		3.17	11.7	13.2
8/30/2016	0.952	34.1			12.1				
8/31/2016			57.9	19.9		0.978	3.07	11.3	11.8
10/18/2016		33.2			11.4				
10/19/2016	1.17		52.2	20.4		0.906	2.91	11.8	12.9
1/31/2017	0.946	32.3			10.8	1.04	2.94	12.5	13.5
2/1/2017			47.6	20.9					
5/2/2017	0.826				11.9	0.969	2.82		13.5
5/3/2017		34.1	51.3	20.9				12	
6/6/2017	0.834				12.2	0.902	2.79		13.6
6/7/2017		34.7	51.4	21.2				12.8	
9/12/2017	0.884					0.988	2.88		
9/13/2017				22.1	13.9			13.3	11.8
9/14/2017		34.4	54.9						
5/1/2018	0.921					1.07	2.82		14
5/2/2018		32.3	53.3	22.2	10.6			13.8	
8/28/2018	0.8		56.4			1.02	2.85		
8/29/2018		32.6		22.3	11.7			13.3	12.1
11/26/2018									
11/27/2018	1.01	32.5			10.8	0.999	2.8		13.3
11/28/2018			54.2	22.1				15.2	
5/28/2019									
5/29/2019	0.627	31.9		21.4	11.2	1.09	2.82	12.8	13.4
5/30/2019			60.5						
9/30/2019		33	63.1						
10/1/2019	0.645			23.1	11.4	1.08	2.94	13.4	11.7
10/2/2019									
3/30/2020		32.2							
3/31/2020	0.898		63.6	22.4	9.04	1.1	2.95	13.2	14.2
4/1/2020									
8/31/2020							3		
9/1/2020	0.566		57.2	22.2		1.08		12.3	
9/2/2020		31.5			10.8				13.1
9/8/2020									
9/9/2020									
5/11/2021		33	62.7						
5/12/2021									
5/17/2021									
5/18/2021	0.974			23.1		1.12	3.17		
5/19/2021								12.9	14.2
5/25/2021					11.2				
10/18/2021									
10/19/2021									
10/26/2021		33.5						12.3	
10/27/2021			64.2		11.4				

Prediction Limit

Constituent: Calcium, total (mg/L) Analysis Run 10/22/2023 12:43 PM View: Interwell PLs
Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-15	BY-AP-MW-1
2/23/2016		
3/1/2016		
3/2/2016	6.61	46.5
4/19/2016	5.97	49
4/20/2016		
6/6/2016		
6/7/2016		
6/8/2016	6.36	33.5
8/30/2016		
8/31/2016	6.28	34.2
10/18/2016		
10/19/2016	6.57	35.1
1/31/2017	6.77	38.5
2/1/2017		
5/2/2017	6.94	35.1
5/3/2017		
6/6/2017	6.88	32.4
6/7/2017		
9/12/2017		
9/13/2017	7.43	40.5
9/14/2017		
5/1/2018	7.42	39.7
5/2/2018		
8/28/2018		37.2
8/29/2018	7.37	
11/26/2018		
11/27/2018	7.58	
11/28/2018		35.8
5/28/2019		
5/29/2019	7.22	33.4
5/30/2019		
9/30/2019		
10/1/2019	6.9	36.7
10/2/2019		
3/30/2020		33.7
3/31/2020		
4/1/2020	7.32	
8/31/2020		
9/1/2020		40.5
9/2/2020	7.04	
9/8/2020		
9/9/2020		
5/11/2021	6.98	
5/12/2021		
5/17/2021		
5/18/2021		39.5
5/19/2021		
5/25/2021		
10/18/2021		
10/19/2021		
10/26/2021	6.46	
10/27/2021		

Prediction Limit

Constituent: Calcium, total (mg/L) Analysis Run 10/22/2023 12:43 PM View: Interwell PLs
Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-15	BY-AP-MW-1
11/1/2021		38.4
11/2/2021		
5/23/2022		
5/24/2022		43.9
5/25/2022	6.41	
5/31/2022		
10/31/2022		
11/1/2022	6.57	
11/2/2022		38.900002
4/3/2023	6.76	36.900002
4/4/2023		
4/5/2023		
4/12/2023		
8/7/2023		
8/8/2023	6.85	31
8/9/2023		
8/16/2023		

Prediction Limit

Constituent: Chloride, Total (mg/L) Analysis Run 10/22/2023 12:43 PM View: Interwell PLS

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-UP-MW-4 (bg)	BY-UP-MW-2 (bg)	BY-UP-MW-1 (bg)	BY-UP-MW-3 (bg)	BY-AP-MW-8	BY-AP-MW-7	BY-AP-MW-10	BY-AP-MW-6	BY-AP-MW-11
2/23/2016	3.5	3.99	3.59	3.68					
3/1/2016					24.5	11.2	19.6	5.77	21.7
3/2/2016									
4/19/2016	3.63	4.08	2.89	3.72				5.57	
4/20/2016					22.5	10.8	18.8		20.7
6/6/2016	3.6		3.12						
6/7/2016		4.28		3.66	21.6	10.8		5.52	
6/8/2016							18.6		20.4
8/30/2016	3.54	4.26	3.91	3.7	21.6			5.5	
8/31/2016						10.8	18.5		20.3
10/18/2016	3.68	4.26	3.9	3.77	20.2				
10/19/2016						10.8	18.7	5.55	20.3
3/20/2017	4.6	4.1	3.5	3.7					
3/21/2017									
3/22/2017					24	13	21	6	27
5/2/2017	3.9	5	3.5	4.6					
5/3/2017					25	14	22	6.4	27
6/6/2017	3.4	3.9	3.1	3.4					
6/7/2017					24	14	22	5.9	24
9/12/2017	4.3								
9/13/2017		4.3	4	3.9					26
9/14/2017					24	13	22	6.5	
5/1/2018	3.8	3.7		4.1					
5/2/2018			9.9		23	13	23	5.5	23
8/28/2018							25		
8/29/2018					25			5.4	25
11/26/2018	3.6								
11/27/2018		3.2	4.7	3.5	27				
11/28/2018						13	25	6.2	25
5/28/2019	3.6								
5/29/2019		2.93	5.48	3.58	27.4	13.3		6.15	27.8
5/30/2019							25.9		
9/30/2019					25.5	13.1	25.7		25
10/1/2019								5.99	
10/2/2019	3.5	2.75	3.65	3.64					
3/30/2020					22.6	13.3			
3/31/2020	3.34	2.72	3.17	3.47			26.1	5.94	24.1
4/1/2020									
8/31/2020									
9/1/2020							25		23.2
9/2/2020					22.2	12.9		5.94	
9/8/2020	3.29								
9/9/2020		2.32	2.92	3.47					
5/11/2021	3.33	2.16		3.42	21.9		27.3		
5/12/2021			2.18						
5/17/2021								6.26	
5/18/2021						14.2			
5/19/2021									23.1
5/25/2021									
10/18/2021	3.32			3.45					
10/19/2021		2.08	2.37						
10/26/2021					21.7				

Prediction Limit

Constituent: Chloride, Total (mg/L) Analysis Run 10/22/2023 12:43 PM View: Interwell PLS
Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-UP-MW-4 (bg)	BY-UP-MW-2 (bg)	BY-UP-MW-1 (bg)	BY-UP-MW-3 (bg)	BY-AP-MW-8	BY-AP-MW-7	BY-AP-MW-10	BY-AP-MW-6	BY-AP-MW-11
10/27/2021						15.3	27.2		
11/1/2021									
11/2/2021								6.4	25.1
5/23/2022									25.1
5/24/2022					25	13.2	27.7		
5/25/2022								6.63	
5/31/2022	3.31	2.17	1.93	3.39					
10/31/2022						95.699997		7.48	
11/1/2022	3.3	2.22	2.37	3.09					22.700001
11/2/2022					26.6		25.1		
4/3/2023					10.8	59.400002	29.700001		
4/4/2023								7.81	28.9
4/5/2023									
4/12/2023	3.42	2.25	2.31	3.11					
8/7/2023					6.63	48.400002	23.5		24
8/8/2023									
8/9/2023								8.06	
8/16/2023	3.12	2.01	2.61	2.94					

Prediction Limit

Constituent: Chloride, Total (mg/L) Analysis Run 10/22/2023 12:43 PM View: Interwell PLs

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-9	BY-AP-MW-4	BY-AP-MW-5	BY-AP-MW-15	BY-AP-MW-2	BY-AP-MW-1	BY-AP-MW-12	BY-AP-MW-13	BY-AP-MW-14
2/23/2016									
3/1/2016	20.4	7.74	19.7						
3/2/2016				20.9	6.08	2.18	22.2	47.3	36.6
4/19/2016		7.66		19.8	6.2	9.01			
4/20/2016	22.7		18.9				21.7	40.5	35.5
6/6/2016									
6/7/2016		11.3	18.5						
6/8/2016	25.3			24	6.2	21	22	37.2	43.8
8/30/2016		10.8	17.9						41.6
8/31/2016	24.4			28	6.51	21	22.3	38.2	
10/18/2016			18.2						39.5
10/19/2016	23	11.1		21.3	6.85	21.4	20.8	39.4	
3/20/2017									
3/21/2017		11		34	7.2	25			
3/22/2017	26		22				23	49	46
5/2/2017		12		33	8.3	26			42
5/3/2017	26		22				25	48	
6/6/2017		12		35	8.5	27			44
6/7/2017	27		21				23	49	
9/12/2017		11			8.6				
9/13/2017				36		24	23	42	43
9/14/2017	24		21						
5/1/2018		9.2		42	7.6	25			
5/2/2018	22		20				21	47	39
8/28/2018	21	10			8.5	25			
8/29/2018			21	38			23	43	44
11/26/2018									
11/27/2018		10	21	43	8.8				43
11/28/2018	23					26	23	43	
5/28/2019									
5/29/2019		8.53	19.7	47.2	8.31	27.6	24.1	44	50.1
5/30/2019	27.7								
9/30/2019	21.7								
10/1/2019		7.35	19.8	56.3	8.19	24.6	26.1	39.6	44.8
10/2/2019									
3/30/2020						24.9			
3/31/2020	20.6	9.54	19.8		8.48		23.9	44.9	44.7
4/1/2020				54.7					
8/31/2020					8.3				
9/1/2020		7.82	19.1			25.7	23.4	39.1	
9/2/2020	18.5			47					47.2
9/8/2020									
9/9/2020									
5/11/2021				80					
5/12/2021									
5/17/2021									
5/18/2021	18.3	9.53			7.89	25.1	25.4		
5/19/2021								46.8	
5/25/2021									52.1
10/18/2021									
10/19/2021									
10/26/2021				85.4			38.4		

Prediction Limit

Constituent: Chloride, Total (mg/L) Analysis Run 10/22/2023 12:43 PM View: Interwell PLs
Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-3	BY-AP-MW-16
2/23/2016		
3/1/2016		
3/2/2016	8.04	16.6
4/19/2016	7.6	15.7
4/20/2016		
6/6/2016		
6/7/2016	7.7	
6/8/2016		15.1
8/30/2016		
8/31/2016	7.7	15.9
10/18/2016		
10/19/2016	7.73	15.3
3/20/2017		
3/21/2017	7.2	19
3/22/2017		
5/2/2017	8.6	19
5/3/2017		
6/6/2017	8.3	19
6/7/2017		
9/12/2017	8.5	
9/13/2017		21
9/14/2017		
5/1/2018	7.6	18
5/2/2018		
8/28/2018	8.2	
8/29/2018		20
11/26/2018		
11/27/2018	8.4	20
11/28/2018		
5/28/2019		
5/29/2019	9.01	20
5/30/2019		
9/30/2019		
10/1/2019	8.05	20.3
10/2/2019		
3/30/2020		
3/31/2020	9.07	20.8
4/1/2020		
8/31/2020		
9/1/2020	8.97	
9/2/2020		20.8
9/8/2020		
9/9/2020		
5/11/2021		
5/12/2021		
5/17/2021		
5/18/2021	9.52	
5/19/2021		21.4
5/25/2021		
10/18/2021		
10/19/2021		
10/26/2021		

Prediction Limit

Constituent: Chloride, Total (mg/L) Analysis Run 10/22/2023 12:43 PM View: Interwell PLs
Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-3	BY-AP-MW-16
10/27/2021		
11/1/2021	9.76	22.3
11/2/2021		
5/23/2022		
5/24/2022		
5/25/2022	15.2	20
5/31/2022		
10/31/2022		
11/1/2022	8.88	23.5
11/2/2022		
4/3/2023		
4/4/2023	9.66	
4/5/2023		21.799999
4/12/2023		
8/7/2023		
8/8/2023		21.299999
8/9/2023	10.7	
8/16/2023		

Prediction Limit

Constituent: Fluoride, total (mg/L) Analysis Run 10/22/2023 12:43 PM View: Interwell PLs

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-UP-MW-3 (bg)	BY-UP-MW-2 (bg)	BY-UP-MW-1 (bg)	BY-UP-MW-4 (bg)	BY-AP-MW-5	BY-AP-MW-11	BY-AP-MW-9	BY-AP-MW-7	BY-AP-MW-6
2/23/2016	0.02 (J)	0.02 (J)	0.03 (J)	0.02 (J)					
3/1/2016					0.04 (J)	0.06 (J)	0.04 (J)	0.06 (J)	<0.125
3/2/2016									
4/19/2016	0.016 (J)	0.021 (J)	0.023 (J)	0.015 (J)					0.016 (J)
4/20/2016					0.043 (J)	0.073 (J)	0.052 (J)	0.078 (J)	
6/6/2016			0.062 (J)	0.05 (J)					
6/7/2016	0.052 (J)	0.06 (J)			0.075 (J)			0.101 (J)	0.048 (J)
6/8/2016						0.085 (J)	0.077 (J)		
8/30/2016	0.038 (J)	0.05 (J)	0.053 (J)	0.036 (J)	0.057 (J)				0.034 (J)
8/31/2016						0.064 (J)	0.056 (J)	0.086 (J)	
10/18/2016	0.03 (J)	0.04 (J)	0.042 (J)	0.025 (J)	0.049 (J)				
10/19/2016						0.05 (J)	0.045 (J)	0.075 (J)	0.023 (J)
3/20/2017	<0.125	<0.125	<0.125	<0.125					
3/21/2017									
3/22/2017					0.04 (J)	0.05 (J)	0.05 (J)	0.06 (J)	<0.125
5/2/2017	<0.125	0.04 (J)	0.04 (J)	<0.125					
5/3/2017					0.05 (J)	0.06 (J)	0.06 (J)	0.08 (J)	<0.125
6/6/2017	<0.125	0.04 (J)	<0.125	<0.125					
6/7/2017					0.05 (J)	0.06 (J)	0.06 (J)	0.08 (J)	<0.125
9/12/2017				<0.125					
9/13/2017	<0.125	0.043 (J)	0.04 (J)			<0.125 (U*)			
9/14/2017					0.06 (J)		0.07 (J)	0.07 (J)	<0.125
1/22/2018									
1/23/2018	<0.125	0.04 (J)	<0.125	<0.125		0.06 (J)	0.06 (J)		
1/24/2018					0.05 (J)			0.09 (J)	<0.125
5/1/2018	<0.125	0.04 (J)		<0.125					
5/2/2018			0.04 (J)		0.05 (J)	0.06 (J)	0.05 (J)	0.08 (J)	<0.125
11/26/2018				<0.125					
11/27/2018	<0.125	<0.125	<0.125		<0.125				
11/28/2018						0.05 (J)	0.04 (J)	0.07 (J)	<0.125
5/28/2019				<0.125					
5/29/2019	<0.125	<0.125	0.0502 (J)		0.0923 (J)	0.0759 (J)		0.0937 (J)	<0.125
5/30/2019							0.0763 (J)		
9/30/2019						0.0733 (J)	0.0679 (J)	0.0925 (J)	
10/1/2019					0.0557 (J)				<0.125
10/2/2019	<0.125	<0.125	<0.125	<0.125					
3/30/2020								0.0933 (J)	
3/31/2020	<0.125	<0.125	<0.125	<0.125	0.0735 (J)	0.078 (J)	0.0655 (J)		<0.125
4/1/2020									
8/31/2020									
9/1/2020					0.0921 (J)	0.0841 (J)			
9/2/2020							0.0804 (J)	0.109	<0.125
9/8/2020				<0.125					
9/9/2020	<0.125	<0.125	<0.125						
5/11/2021	<0.125	<0.125		<0.125					
5/12/2021			<0.125						
5/17/2021									<0.125
5/18/2021							0.0709 (J)	0.11	
5/19/2021						0.0994 (J)			
5/25/2021									
10/18/2021	<0.125			<0.125					
10/19/2021		<0.125	<0.125						

Prediction Limit

Constituent: Fluoride, total (mg/L) Analysis Run 10/22/2023 12:43 PM View: Interwell PLs
Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-UP-MW-3 (bg)	BY-UP-MW-2 (bg)	BY-UP-MW-1 (bg)	BY-UP-MW-4 (bg)	BY-AP-MW-5	BY-AP-MW-11	BY-AP-MW-9	BY-AP-MW-7	BY-AP-MW-6
10/26/2021									
10/27/2021							0.0803 (J)	0.0823 (J)	
11/1/2021									
11/2/2021					0.0964 (J)	0.101			<0.125
5/23/2022						0.0709 (J)			
5/24/2022							<0.125	0.0724 (J)	
5/25/2022					<0.125				<0.125
5/31/2022	<0.125	<0.125	<0.125	<0.125					
10/31/2022					0.0614 (J)		0.0788 (J)	0.381	<0.125
11/1/2022	<0.125	<0.125	<0.125	<0.125		0.0612 (J)			
11/2/2022									
4/3/2023								0.171	
4/4/2023					0.0631 (J)	0.126	0.0797 (J)		<0.125
4/5/2023									
4/12/2023	<0.125	<0.125	<0.125	<0.125					
8/7/2023					<0.125	0.099 (J)	0.0808 (J)	0.162	
8/8/2023									
8/9/2023									<0.125
8/16/2023	<0.125	<0.125	<0.125	<0.125					

Prediction Limit

Constituent: Fluoride, total (mg/L) Analysis Run 10/22/2023 12:43 PM View: Interwell PLs
 Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-4	BY-AP-MW-8	BY-AP-MW-10	BY-AP-MW-16	BY-AP-MW-15	BY-AP-MW-2	BY-AP-MW-14	BY-AP-MW-13	BY-AP-MW-3
2/23/2016									
3/1/2016	0.02 (J)	0.03 (J)	0.02 (J)						
3/2/2016				0.04 (J)	0.18 (J)	0.04 (J)	0.07 (J)	0.05 (J)	0.01 (J)
4/19/2016	0.016 (J)			0.05 (J)	0.21 (J)	0.038 (J)			0.014 (J)
4/20/2016		0.043 (J)	0.034 (J)				0.076 (J)	0.064 (J)	
6/6/2016									
6/7/2016	0.047 (J)	0.069 (J)							0.049 (J)
6/8/2016			0.061 (J)	0.073 (J)	0.223 (J)	0.067 (J)	0.105 (J)	0.082 (J)	
8/30/2016	0.035 (J)	0.052 (J)					0.083 (J)		
8/31/2016			0.04 (J)	0.051 (J)	0.196 (J)	0.05 (J)		0.062 (J)	0.034 (J)
10/18/2016		0.042 (J)					0.067 (J)		
10/19/2016	0.025 (J)		0.03 (J)	<0.125	0.166 (J)	<0.125		0.049 (J)	0.023 (J)
3/20/2017									
3/21/2017	<0.125			0.04 (J)	0.18	<0.125			<0.125
3/22/2017		<0.125	<0.125				0.06 (J)	0.05 (J)	
5/2/2017	<0.125			0.05 (J)	0.18	0.04 (J)	0.08 (J)		<0.125
5/3/2017		0.05 (J)	0.04 (J)					0.06 (J)	
6/6/2017	<0.125			0.053 (J)	0.18	0.04 (J)	0.077 (J)		<0.125
6/7/2017		0.05 (J)	0.04 (J)					0.07 (J)	
9/12/2017	<0.125					0.037 (J)			<0.125
9/13/2017				<0.125 (U*)	<0.125 (U*)		<0.125 (U*)	<0.125 (U*)	
9/14/2017		0.05 (J)	0.04 (J)						
1/22/2018					0.19			0.06 (J)	
1/23/2018			<0.125	0.05 (J)			0.08 (J)		
1/24/2018	<0.125	0.04 (J)				<0.125			<0.125
5/1/2018	<0.125			0.05 (J)	0.19	<0.125			<0.125
5/2/2018		0.04 (J)	<0.125				0.08 (J)	0.07 (J)	
11/26/2018									
11/27/2018	<0.125	<0.125		<0.125	0.18	<0.125	0.06 (J)		<0.125
11/28/2018			<0.125					0.05 (J)	
5/28/2019									
5/29/2019	<0.125	0.0958 (J)		0.0683 (J)	0.168	<0.125	0.0781 (J)	0.0679 (J)	<0.125
5/30/2019			0.0573 (J)						
9/30/2019		0.0559 (J)	<0.125						
10/1/2019	<0.125			0.0774 (J)	0.185	<0.125	0.0885 (J)	0.0703 (J)	<0.125
10/2/2019									
3/30/2020		0.0701 (J)							
3/31/2020	<0.125		<0.125	0.0602 (J)		<0.125	0.0867 (J)	0.0665 (J)	<0.125
4/1/2020					0.187				
8/31/2020						<0.125			
9/1/2020	<0.125		0.0794 (J)					0.0757 (J)	<0.125
9/2/2020		<0.125		<0.125	0.18		0.0957 (J)		
9/8/2020									
9/9/2020									
5/11/2021		0.094 (J)	0.105		0.214				
5/12/2021									
5/17/2021									
5/18/2021	<0.125					<0.125			<0.125
5/19/2021				0.0793 (J)				0.0748 (J)	
5/25/2021							0.0957 (J)		
10/18/2021									
10/19/2021									

Prediction Limit

Constituent: Fluoride, total (mg/L) Analysis Run 10/22/2023 12:43 PM View: Interwell PLs
 Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-4	BY-AP-MW-8	BY-AP-MW-10	BY-AP-MW-16	BY-AP-MW-15	BY-AP-MW-2	BY-AP-MW-14	BY-AP-MW-13	BY-AP-MW-3
10/26/2021		<0.125			0.171			0.0641 (J)	
10/27/2021			<0.125				0.0651 (J)		
11/1/2021	<0.125			0.0887 (J)		<0.125			<0.125
11/2/2021									
5/23/2022									
5/24/2022		0.0713 (J)	<0.125 (D)			<0.125		0.0769 (J)	
5/25/2022	<0.125			<0.125	0.214		0.0733 (J)		<0.125
5/31/2022									
10/31/2022	<0.125								
11/1/2022				0.112 (J)	0.177		0.0685 (J)	0.13	<0.125
11/2/2022		<0.125	<0.125			0.0711 (J)			
4/3/2023		0.0706 (J)	<0.125		0.26	<0.125			
4/4/2023	<0.125							0.187	<0.125
4/5/2023				0.144			0.127		
4/12/2023									
8/7/2023		0.112 (J)	<0.125						
8/8/2023				0.0772 (J)	0.172	0.0705 (J)			
8/9/2023	<0.125						0.0753 (J)	0.0948 (J)	<0.125
8/16/2023									

Prediction Limit

Constituent: Fluoride, total (mg/L) Analysis Run 10/22/2023 12:43 PM View: Interwell PLs
Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-12	BY-AP-MW-1
2/23/2016		
3/1/2016		
3/2/2016	0.04 (J)	0.03 (J)
4/19/2016		0.052 (J)
4/20/2016	0.059 (J)	
6/6/2016		
6/7/2016		
6/8/2016	0.08 (J)	0.069 (J)
8/30/2016		
8/31/2016	0.059 (J)	0.043 (J)
10/18/2016		
10/19/2016	0.045 (J)	<0.125
3/20/2017		
3/21/2017		0.04 (J)
3/22/2017	0.04 (J)	
5/2/2017		0.05 (J)
5/3/2017	0.06 (J)	
6/6/2017		0.049 (J)
6/7/2017	0.06 (J)	
9/12/2017		
9/13/2017	<0.125 (U*)	<0.125 (U*)
9/14/2017		
1/22/2018		
1/23/2018	0.05 (J)	
1/24/2018		0.05 (J)
5/1/2018		0.05 (J)
5/2/2018	0.06 (J)	
11/26/2018		
11/27/2018		
11/28/2018	0.04 (J)	<0.125
5/28/2019		
5/29/2019	0.0677 (J)	0.0858 (J)
5/30/2019		
9/30/2019		
10/1/2019	0.0682 (J)	0.0744 (J)
10/2/2019		
3/30/2020		0.0726 (J)
3/31/2020	0.0755 (J)	
4/1/2020		
8/31/2020		
9/1/2020	0.0845 (J)	0.194
9/2/2020		
9/8/2020		
9/9/2020		
5/11/2021		
5/12/2021		
5/17/2021		
5/18/2021	0.0614 (J)	0.0884 (J)
5/19/2021		
5/25/2021		
10/18/2021		
10/19/2021		

Prediction Limit

Constituent: Fluoride, total (mg/L) Analysis Run 10/22/2023 12:43 PM View: Interwell PLs
Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-12	BY-AP-MW-1
10/26/2021		
10/27/2021		
11/1/2021	0.0928 (J)	0.181
11/2/2021		
5/23/2022	0.0873 (J)	
5/24/2022		0.0801 (J)
5/25/2022		
5/31/2022		
10/31/2022		
11/1/2022	0.0695 (J)	
11/2/2022		0.0665 (J)
4/3/2023		0.0717 (J)
4/4/2023	0.081 (J)	
4/5/2023		
4/12/2023		
8/7/2023		
8/8/2023	0.0672 (J)	0.0612 (J)
8/9/2023		
8/16/2023		

Prediction Limit

Constituent: TDS (mg/L) Analysis Run 10/22/2023 12:43 PM View: Interwell PLs

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-UP-MW-4 (bg)	BY-UP-MW-2 (bg)	BY-UP-MW-1 (bg)	BY-UP-MW-3 (bg)	BY-AP-MW-5	BY-AP-MW-9	BY-AP-MW-7	BY-AP-MW-11	BY-AP-MW-6
2/23/2016	<25	30.7	26.7	40					
3/1/2016					273	314	129	395	45.3
3/2/2016									
4/19/2016	<25	<25	<25	32					46
4/20/2016					269	338	128	376	
6/6/2016	28.7		32.7						
6/7/2016		35.3		38.7	272		140		46
6/8/2016						288		324	
8/30/2016	25.3	27.3	33.3	31.3	244				30
8/31/2016						334	112	367	
10/18/2016	<25	<25	27.3	26.7	238				
10/19/2016						333	134	367	37.3
1/31/2017	26	32.7	32	30	266		134		43.3
2/1/2017						330		391	
5/2/2017	<25	30.7	31.3	30.7					
5/3/2017					259	338	127	373	44.7
6/6/2017	42.7	34.7	35.3	32.7					
6/7/2017					255	300	134	367	45.3
9/12/2017	26.7								
9/13/2017		39.3	36.7	38				378	
9/14/2017					276	350	141		48.7
5/1/2018	34.7	42		35.3					
5/2/2018			34		247	333	133	330	44
8/28/2018						324			
8/29/2018					263			352	50
11/26/2018	32.7								
11/27/2018		31.3	50.7	36	248				
11/28/2018						330	138	357	50.7
5/28/2019	31.3								
5/29/2019		40	58	37.3	259		132	367	48.7
5/30/2019						315			
9/30/2019						319	137	399	
10/1/2019					243				38
10/2/2019	36	41.3	46	36.7					
3/30/2020							135		
3/31/2020	36.7	40	53.3	39.3	243	330		393	42
4/1/2020									
8/31/2020									
9/1/2020					253			399	
9/2/2020						301	129		37.3
9/8/2020	39.3								
9/9/2020		40.7	42	42.7					
5/11/2021	46.7	35.3		44					
5/12/2021			40.7						
5/17/2021									46.7
5/18/2021						314	175		
5/19/2021								422	
5/25/2021									
10/18/2021	36			36					
10/19/2021		36	40						
10/26/2021									
10/27/2021						302	123		

Prediction Limit

Constituent: TDS (mg/L) Analysis Run 10/22/2023 12:43 PM View: Interwell PLs
 Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-UP-MW-4 (bg)	BY-UP-MW-2 (bg)	BY-UP-MW-1 (bg)	BY-UP-MW-3 (bg)	BY-AP-MW-5	BY-AP-MW-9	BY-AP-MW-7	BY-AP-MW-11	BY-AP-MW-6
11/1/2021									
11/2/2021					297			390	38
5/23/2022								404	
5/24/2022						268	148		
5/25/2022					252				40.7
5/31/2022	36.7	30.7	32	35.3					
10/31/2022					194	329	291		46
11/1/2022	31.299999	36	33.299999	36				419	
11/2/2022									
4/3/2023							198		
4/4/2023					151	317		392	40
4/5/2023									
4/12/2023	32	27.299999	<25	30.700001					
8/7/2023					140	224	203	409	
8/8/2023									
8/9/2023									47.299999
8/16/2023	35.299999	30	29.299999	32.700001					

Prediction Limit

Constituent: TDS (mg/L) Analysis Run 10/22/2023 12:43 PM View: Interwell PLs

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-4	BY-AP-MW-8	BY-AP-MW-10	BY-AP-MW-12	BY-AP-MW-14	BY-AP-MW-3	BY-AP-MW-2	BY-AP-MW-13	BY-AP-MW-16
2/23/2016									
3/1/2016	27.3	309	326						
3/2/2016				351	266	27.3	42	319	263
4/19/2016	38					33.3	51.3		259
4/20/2016		324	366	353	311			305	
6/6/2016									
6/7/2016	48.7	314				44			
6/8/2016			314	330	353		46.7	287	285
8/30/2016	32.7	308			328				
8/31/2016			368	354		29.3	32.7	295	279
10/18/2016		295			310				
10/19/2016	36		381	354		29.3	37.3	305	264
1/31/2017	40.7	303			312	36.7	47.3	325	270
2/1/2017			342	360					
5/2/2017	30.7				300	28	44		259
5/3/2017		300	369	341				306	
6/6/2017	41.3				335	36.7	48		278
6/7/2017		284	340	337				320	
9/12/2017	34.7					35.3	40.7		
9/13/2017				359	339			332	333
9/14/2017		325	391						
5/1/2018	39.3					34.7	42.7		274
5/2/2018		306	343	310	301			320	
8/28/2018	26		375			34	28		
8/29/2018		287		307	318			312	283
11/26/2018									
11/27/2018	32	303			295	41.3	48		250
11/28/2018			378	336				304	
5/28/2019									
5/29/2019	39.3	291		321	318	40	47.3	307	264
5/30/2019			377						
9/30/2019		293	361						
10/1/2019	32			344	317	36.7	44.7	290	295
10/2/2019									
3/30/2020		310							
3/31/2020	42.7		387	331	317	37.3	42	290	276
4/1/2020									
8/31/2020							45.3		
9/1/2020	36		392	356		39.3		285	
9/2/2020		298			327				279
9/8/2020									
9/9/2020									
5/11/2021		318	391						
5/12/2021									
5/17/2021									
5/18/2021	47.3			332		38	48.7		
5/19/2021								300	274
5/25/2021					318				
10/18/2021									
10/19/2021									
10/26/2021		332						280	
10/27/2021			373		327				

Prediction Limit

Constituent: TDS (mg/L) Analysis Run 10/22/2023 12:43 PM View: Interwell PLs
Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-15	BY-AP-MW-1
2/23/2016		
3/1/2016		
3/2/2016	182	426
4/19/2016	151	442
4/20/2016		
6/6/2016		
6/7/2016		
6/8/2016	168	461
8/30/2016		
8/31/2016	188	456
10/18/2016		
10/19/2016	180	444
1/31/2017	166	422
2/1/2017		
5/2/2017	183	442
5/3/2017		
6/6/2017	187	433
6/7/2017		
9/12/2017		
9/13/2017	202	456
9/14/2017		
5/1/2018	197	416
5/2/2018		
8/28/2018		420
8/29/2018	192	
11/26/2018		
11/27/2018	190	
11/28/2018		408
5/28/2019		
5/29/2019	198	403
5/30/2019		
9/30/2019		
10/1/2019	236	430
10/2/2019		
3/30/2020		419
3/31/2020		
4/1/2020	231	
8/31/2020		
9/1/2020		454
9/2/2020	208	
9/8/2020		
9/9/2020		
5/11/2021	279	
5/12/2021		
5/17/2021		
5/18/2021		450
5/19/2021		
5/25/2021		
10/18/2021		
10/19/2021		
10/26/2021	269	
10/27/2021		

Prediction Limit

Constituent: TDS (mg/L) Analysis Run 10/22/2023 12:43 PM View: Interwell PLs
Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-15	BY-AP-MW-1
11/1/2021		480
11/2/2021		
5/23/2022		
5/24/2022		464
5/25/2022	255	
5/31/2022		
10/31/2022		
11/1/2022	278	
11/2/2022		404
4/3/2023	285	400
4/4/2023		
4/5/2023		
4/12/2023		
8/7/2023		
8/8/2023	332	393
8/9/2023		
8/16/2023		

FIGURE H.

Trend Tests - Prediction Limit Exceedances - Significant Results

Plant Barry Client: Southern Company Data: Barry Ash Pond Printed 10/23/2023, 11:00 AM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
Boron, total (mg/L)	BY-AP-MW-10	0.1021	125	87	Yes	21	0	n/a	n/a	0.01	NP
Boron, total (mg/L)	BY-AP-MW-16	0.09303	141	87	Yes	21	0	n/a	n/a	0.01	NP
Calcium, total (mg/L)	BY-AP-MW-10	1.77	115	92	Yes	22	0	n/a	n/a	0.01	NP
Calcium, total (mg/L)	BY-AP-MW-12	0.3243	123	92	Yes	22	0	n/a	n/a	0.01	NP
Calcium, total (mg/L)	BY-AP-MW-8	-0.6482	-146	-92	Yes	22	0	n/a	n/a	0.01	NP
Calcium, total (mg/L)	BY-UP-MW-3 (bg)	0.04639	104	87	Yes	21	0	n/a	n/a	0.01	NP
Calcium, total (mg/L)	BY-UP-MW-4 (bg)	0.09578	132	87	Yes	21	0	n/a	n/a	0.01	NP
Chloride, Total (mg/L)	BY-AP-MW-10	1.361	165	92	Yes	22	0	n/a	n/a	0.01	NP
Chloride, Total (mg/L)	BY-AP-MW-12	0.4742	115	92	Yes	22	0	n/a	n/a	0.01	NP
Chloride, Total (mg/L)	BY-AP-MW-14	1.16	127	92	Yes	22	0	n/a	n/a	0.01	NP
Chloride, Total (mg/L)	BY-AP-MW-15	9.842	205	92	Yes	22	0	n/a	n/a	0.01	NP
Chloride, Total (mg/L)	BY-AP-MW-16	0.7781	163	92	Yes	22	0	n/a	n/a	0.01	NP
Chloride, Total (mg/L)	BY-AP-MW-3	0.318	149	92	Yes	22	0	n/a	n/a	0.01	NP
Chloride, Total (mg/L)	BY-AP-MW-7	0.7249	126	87	Yes	21	0	n/a	n/a	0.01	NP
Chloride, Total (mg/L)	BY-AP-MW-9	-0.9894	-99	-92	Yes	22	0	n/a	n/a	0.01	NP
Chloride, Total (mg/L)	BY-UP-MW-2 (bg)	-0.344	-147	-87	Yes	21	0	n/a	n/a	0.01	NP
Chloride, Total (mg/L)	BY-UP-MW-3 (bg)	-0.07532	-124	-87	Yes	21	0	n/a	n/a	0.01	NP
Chloride, Total (mg/L)	BY-UP-MW-4 (bg)	-0.05978	-110	-87	Yes	21	0	n/a	n/a	0.01	NP
Fluoride, total (mg/L)	BY-AP-MW-7	0.007285	106	92	Yes	22	0	n/a	n/a	0.01	NP
Fluoride, total (mg/L)	BY-UP-MW-1 (bg)	0.008753	100	92	Yes	22	59.09	n/a	n/a	0.01	NP
Fluoride, total (mg/L)	BY-UP-MW-2 (bg)	0.01319	115	92	Yes	22	54.55	n/a	n/a	0.01	NP
pH, field (SU)	BY-UP-MW-2 (bg)	-0.04795	-138	-92	Yes	22	0	n/a	n/a	0.01	NP
pH, field (SU)	BY-UP-MW-3 (bg)	-0.08243	-154	-98	Yes	23	0	n/a	n/a	0.01	NP
pH, field (SU)	BY-UP-MW-4 (bg)	-0.03972	-127	-98	Yes	23	0	n/a	n/a	0.01	NP
Sulfate as SO4 (mg/L)	BY-AP-MW-10	1.508	113	92	Yes	22	40.91	n/a	n/a	0.01	NP
Sulfate as SO4 (mg/L)	BY-AP-MW-11	7.846	153	87	Yes	21	28.57	n/a	n/a	0.01	NP
Sulfate as SO4 (mg/L)	BY-AP-MW-12	3.227	124	87	Yes	21	42.86	n/a	n/a	0.01	NP
Sulfate as SO4 (mg/L)	BY-AP-MW-7	0.9746	99	81	Yes	20	30	n/a	n/a	0.01	NP
Sulfate as SO4 (mg/L)	BY-AP-MW-8	2.016	131	87	Yes	21	47.62	n/a	n/a	0.01	NP
Sulfate as SO4 (mg/L)	BY-AP-MW-9	0.92	102	87	Yes	21	42.86	n/a	n/a	0.01	NP
TDS (mg/L)	BY-AP-MW-11	6.055	94	92	Yes	22	0	n/a	n/a	0.01	NP
TDS (mg/L)	BY-AP-MW-15	16.74	183	92	Yes	22	0	n/a	n/a	0.01	NP
TDS (mg/L)	BY-AP-MW-16	7.379	103	92	Yes	22	0	n/a	n/a	0.01	NP
TDS (mg/L)	BY-AP-MW-3	1.881	119	92	Yes	22	0	n/a	n/a	0.01	NP
TDS (mg/L)	BY-AP-MW-5	-7.278	-88	-87	Yes	21	0	n/a	n/a	0.01	NP
TDS (mg/L)	BY-UP-MW-4 (bg)	1.443	101	87	Yes	21	19.05	n/a	n/a	0.01	NP

Trend Tests - Prediction Limit Exceedances - All Results

Plant Barry Client: Southern Company Data: Barry Ash Pond Printed 10/23/2023, 11:00 AM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
Boron, total (mg/L)	BY-AP-MW-1	0.03666	44	87	No	21	0	n/a	n/a	0.01	NP
Boron, total (mg/L)	BY-AP-MW-10	0.1021	125	87	Yes	21	0	n/a	n/a	0.01	NP
Boron, total (mg/L)	BY-AP-MW-16	0.09303	141	87	Yes	21	0	n/a	n/a	0.01	NP
Boron, total (mg/L)	BY-AP-MW-9	-0.01865	-19	-87	No	21	0	n/a	n/a	0.01	NP
Boron, total (mg/L)	BY-UP-MW-1 (bg)	-0.003302	-64	-87	No	21	38.1	n/a	n/a	0.01	NP
Boron, total (mg/L)	BY-UP-MW-2 (bg)	0	35	87	No	21	85.71	n/a	n/a	0.01	NP
Boron, total (mg/L)	BY-UP-MW-3 (bg)	0	0	87	No	21	100	n/a	n/a	0.01	NP
Boron, total (mg/L)	BY-UP-MW-4 (bg)	0	31	87	No	21	90.48	n/a	n/a	0.01	NP
Calcium, total (mg/L)	BY-AP-MW-1	-0.03364	-5	-92	No	22	0	n/a	n/a	0.01	NP
Calcium, total (mg/L)	BY-AP-MW-10	1.77	115	92	Yes	22	0	n/a	n/a	0.01	NP
Calcium, total (mg/L)	BY-AP-MW-11	-0.2592	-41	-92	No	22	0	n/a	n/a	0.01	NP
Calcium, total (mg/L)	BY-AP-MW-12	0.3243	123	92	Yes	22	0	n/a	n/a	0.01	NP
Calcium, total (mg/L)	BY-AP-MW-13	0.5422	90	92	No	22	0	n/a	n/a	0.01	NP
Calcium, total (mg/L)	BY-AP-MW-14	-0.07199	-17	-92	No	22	0	n/a	n/a	0.01	NP
Calcium, total (mg/L)	BY-AP-MW-15	0.04114	28	92	No	22	0	n/a	n/a	0.01	NP
Calcium, total (mg/L)	BY-AP-MW-16	-0.1115	-40	-92	No	22	0	n/a	n/a	0.01	NP
Calcium, total (mg/L)	BY-AP-MW-4	0.00503	5	92	No	22	0	n/a	n/a	0.01	NP
Calcium, total (mg/L)	BY-AP-MW-5	-0.2232	-53	-87	No	21	0	n/a	n/a	0.01	NP
Calcium, total (mg/L)	BY-AP-MW-6	0.006145	13	92	No	22	0	n/a	n/a	0.01	NP
Calcium, total (mg/L)	BY-AP-MW-7	0.338	80	87	No	21	0	n/a	n/a	0.01	NP
Calcium, total (mg/L)	BY-AP-MW-8	-0.6482	-146	-92	Yes	22	0	n/a	n/a	0.01	NP
Calcium, total (mg/L)	BY-AP-MW-9	-0.1116	-37	-92	No	22	0	n/a	n/a	0.01	NP
Calcium, total (mg/L)	BY-UP-MW-1 (bg)	-0.02191	-32	-87	No	21	0	n/a	n/a	0.01	NP
Calcium, total (mg/L)	BY-UP-MW-2 (bg)	0.01469	21	87	No	21	0	n/a	n/a	0.01	NP
Calcium, total (mg/L)	BY-UP-MW-3 (bg)	0.04639	104	87	Yes	21	0	n/a	n/a	0.01	NP
Calcium, total (mg/L)	BY-UP-MW-4 (bg)	0.09578	132	87	Yes	21	0	n/a	n/a	0.01	NP
Chloride, Total (mg/L)	BY-AP-MW-1	0.6401	77	92	No	22	0	n/a	n/a	0.01	NP
Chloride, Total (mg/L)	BY-AP-MW-10	1.361	165	92	Yes	22	0	n/a	n/a	0.01	NP
Chloride, Total (mg/L)	BY-AP-MW-11	0.3659	52	92	No	22	0	n/a	n/a	0.01	NP
Chloride, Total (mg/L)	BY-AP-MW-12	0.4742	115	92	Yes	22	0	n/a	n/a	0.01	NP
Chloride, Total (mg/L)	BY-AP-MW-13	-0.5432	-36	-92	No	22	0	n/a	n/a	0.01	NP
Chloride, Total (mg/L)	BY-AP-MW-14	1.16	127	92	Yes	22	0	n/a	n/a	0.01	NP
Chloride, Total (mg/L)	BY-AP-MW-15	9.842	205	92	Yes	22	0	n/a	n/a	0.01	NP
Chloride, Total (mg/L)	BY-AP-MW-16	0.7781	163	92	Yes	22	0	n/a	n/a	0.01	NP
Chloride, Total (mg/L)	BY-AP-MW-3	0.318	149	92	Yes	22	0	n/a	n/a	0.01	NP
Chloride, Total (mg/L)	BY-AP-MW-4	0.3596	28	92	No	22	0	n/a	n/a	0.01	NP
Chloride, Total (mg/L)	BY-AP-MW-5	-0.2332	-42	-87	No	21	0	n/a	n/a	0.01	NP
Chloride, Total (mg/L)	BY-AP-MW-7	0.7249	126	87	Yes	21	0	n/a	n/a	0.01	NP
Chloride, Total (mg/L)	BY-AP-MW-9	-0.9894	-99	-92	Yes	22	0	n/a	n/a	0.01	NP
Chloride, Total (mg/L)	BY-UP-MW-1 (bg)	-0.1716	-72	-87	No	21	0	n/a	n/a	0.01	NP
Chloride, Total (mg/L)	BY-UP-MW-2 (bg)	-0.344	-147	-87	Yes	21	0	n/a	n/a	0.01	NP
Chloride, Total (mg/L)	BY-UP-MW-3 (bg)	-0.07532	-124	-87	Yes	21	0	n/a	n/a	0.01	NP
Chloride, Total (mg/L)	BY-UP-MW-4 (bg)	-0.05978	-110	-87	Yes	21	0	n/a	n/a	0.01	NP
Fluoride, total (mg/L)	BY-AP-MW-15	0	-4	-92	No	22	4.545	n/a	n/a	0.01	NP
Fluoride, total (mg/L)	BY-AP-MW-7	0.007285	106	92	Yes	22	0	n/a	n/a	0.01	NP
Fluoride, total (mg/L)	BY-UP-MW-1 (bg)	0.008753	100	92	Yes	22	59.09	n/a	n/a	0.01	NP
Fluoride, total (mg/L)	BY-UP-MW-2 (bg)	0.01319	115	92	Yes	22	54.55	n/a	n/a	0.01	NP
Fluoride, total (mg/L)	BY-UP-MW-3 (bg)	0	87	92	No	22	77.27	n/a	n/a	0.01	NP
Fluoride, total (mg/L)	BY-UP-MW-4 (bg)	0	87	92	No	22	77.27	n/a	n/a	0.01	NP
pH, field (SU)	BY-AP-MW-1	-0.007044	-44	-105	No	24	0	n/a	n/a	0.01	NP
pH, field (SU)	BY-AP-MW-3	-0.01972	-48	-105	No	24	0	n/a	n/a	0.01	NP
pH, field (SU)	BY-AP-MW-8	0	10	105	No	24	0	n/a	n/a	0.01	NP
pH, field (SU)	BY-UP-MW-1 (bg)	-0.003832	-17	-92	No	22	0	n/a	n/a	0.01	NP
pH, field (SU)	BY-UP-MW-2 (bg)	-0.04795	-138	-92	Yes	22	0	n/a	n/a	0.01	NP
pH, field (SU)	BY-UP-MW-3 (bg)	-0.08243	-154	-98	Yes	23	0	n/a	n/a	0.01	NP

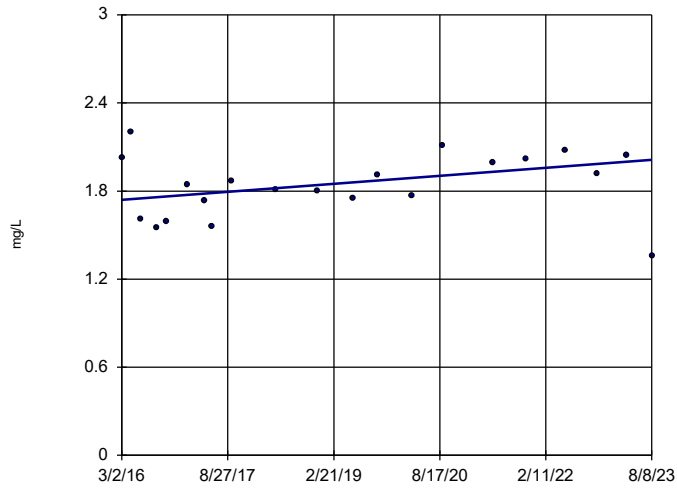
Trend Tests - Prediction Limit Exceedances - All Results

Plant Barry Client: Southern Company Data: Barry Ash Pond Printed 10/23/2023, 11:00 AM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
pH, field (SU)	BY-UP-MW-4 (bg)	-0.03972	-127	-98	Yes	23	0	n/a	n/a	0.01	NP
Sulfate as SO4 (mg/L)	BY-AP-MW-10	1.508	113	92	Yes	22	40.91	n/a	n/a	0.01	NP
Sulfate as SO4 (mg/L)	BY-AP-MW-11	7.846	153	87	Yes	21	28.57	n/a	n/a	0.01	NP
Sulfate as SO4 (mg/L)	BY-AP-MW-12	3.227	124	87	Yes	21	42.86	n/a	n/a	0.01	NP
Sulfate as SO4 (mg/L)	BY-AP-MW-15	0.2594	53	87	No	21	47.62	n/a	n/a	0.01	NP
Sulfate as SO4 (mg/L)	BY-AP-MW-16	0.6174	85	92	No	22	40.91	n/a	n/a	0.01	NP
Sulfate as SO4 (mg/L)	BY-AP-MW-7	0.9746	99	81	Yes	20	30	n/a	n/a	0.01	NP
Sulfate as SO4 (mg/L)	BY-AP-MW-8	2.016	131	87	Yes	21	47.62	n/a	n/a	0.01	NP
Sulfate as SO4 (mg/L)	BY-AP-MW-9	0.92	102	87	Yes	21	42.86	n/a	n/a	0.01	NP
Sulfate as SO4 (mg/L)	BY-UP-MW-1 (bg)	0.5327	46	87	No	21	0	n/a	n/a	0.01	NP
Sulfate as SO4 (mg/L)	BY-UP-MW-2 (bg)	0.1445	39	87	No	21	0	n/a	n/a	0.01	NP
Sulfate as SO4 (mg/L)	BY-UP-MW-3 (bg)	-0.06757	-44	-87	No	21	0	n/a	n/a	0.01	NP
Sulfate as SO4 (mg/L)	BY-UP-MW-4 (bg)	-0.04772	-25	-87	No	21	0	n/a	n/a	0.01	NP
TDS (mg/L)	BY-AP-MW-1	-4.348	-57	-92	No	22	0	n/a	n/a	0.01	NP
TDS (mg/L)	BY-AP-MW-10	4.538	70	92	No	22	0	n/a	n/a	0.01	NP
TDS (mg/L)	BY-AP-MW-11	6.055	94	92	Yes	22	0	n/a	n/a	0.01	NP
TDS (mg/L)	BY-AP-MW-12	-0.2738	-3	-92	No	22	0	n/a	n/a	0.01	NP
TDS (mg/L)	BY-AP-MW-13	-4.349	-68	-92	No	22	0	n/a	n/a	0.01	NP
TDS (mg/L)	BY-AP-MW-14	2.788	59	92	No	22	0	n/a	n/a	0.01	NP
TDS (mg/L)	BY-AP-MW-15	16.74	183	92	Yes	22	0	n/a	n/a	0.01	NP
TDS (mg/L)	BY-AP-MW-16	7.379	103	92	Yes	22	0	n/a	n/a	0.01	NP
TDS (mg/L)	BY-AP-MW-3	1.881	119	92	Yes	22	0	n/a	n/a	0.01	NP
TDS (mg/L)	BY-AP-MW-4	2.906	85	92	No	22	0	n/a	n/a	0.01	NP
TDS (mg/L)	BY-AP-MW-5	-7.278	-88	-87	Yes	21	0	n/a	n/a	0.01	NP
TDS (mg/L)	BY-AP-MW-7	4.151	84	87	No	21	0	n/a	n/a	0.01	NP
TDS (mg/L)	BY-AP-MW-8	-3.255	-61	-92	No	22	0	n/a	n/a	0.01	NP
TDS (mg/L)	BY-AP-MW-9	-4.242	-83	-92	No	22	0	n/a	n/a	0.01	NP
TDS (mg/L)	BY-UP-MW-1 (bg)	1.366	39	87	No	21	9.524	n/a	n/a	0.01	NP
TDS (mg/L)	BY-UP-MW-2 (bg)	0.5823	36	87	No	21	9.524	n/a	n/a	0.01	NP
TDS (mg/L)	BY-UP-MW-3 (bg)	0.5158	24	87	No	21	0	n/a	n/a	0.01	NP
TDS (mg/L)	BY-UP-MW-4 (bg)	1.443	101	87	Yes	21	19.05	n/a	n/a	0.01	NP

Sen's Slope Estimator

BY-AP-MW-1

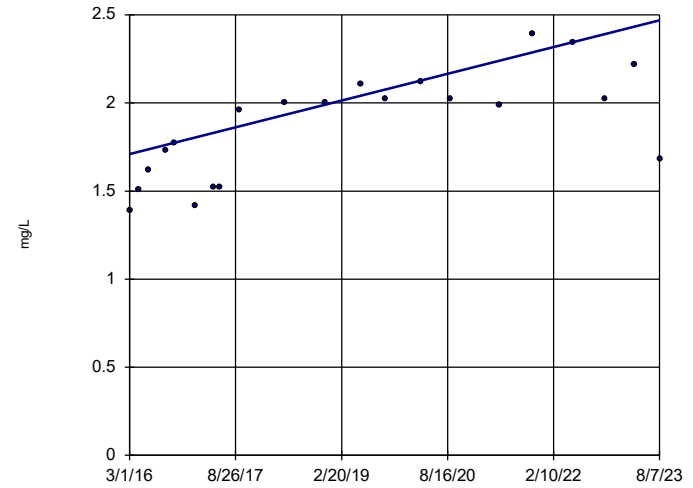


n = 21
 Slope = 0.03666
 units per year.
 Mann-Kendall
 statistic = 44
 critical = 87
 Trend not sig-
 nificant at 99%
 confidence level
 ($\alpha = 0.005$ per
 tail).

Constituent: Boron, total Analysis Run 10/23/2023 10:57 AM View: Trend Tests - PL Exceedances
 Plant Barry Client: Southern Company Data: Barry Ash Pond

Sen's Slope Estimator

BY-AP-MW-10

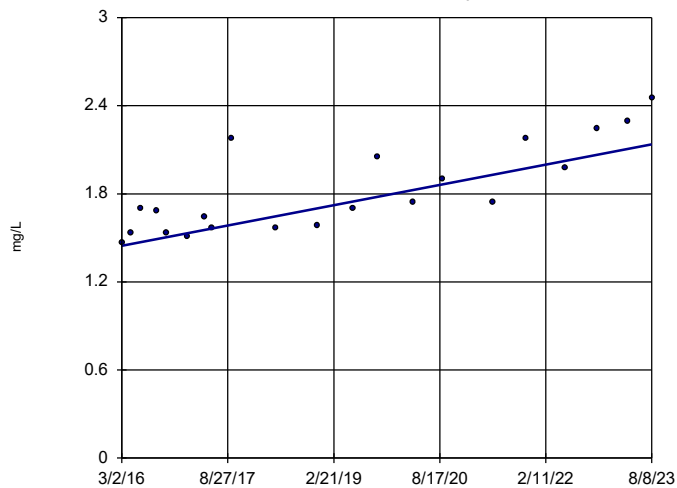


n = 21
 Slope = 0.1021
 units per year.
 Mann-Kendall
 statistic = 125
 critical = 87
 Increasing trend
 significant at 99%
 confidence level
 ($\alpha = 0.005$ per
 tail).

Constituent: Boron, total Analysis Run 10/23/2023 10:57 AM View: Trend Tests - PL Exceedances
 Plant Barry Client: Southern Company Data: Barry Ash Pond

Sen's Slope Estimator

BY-AP-MW-16

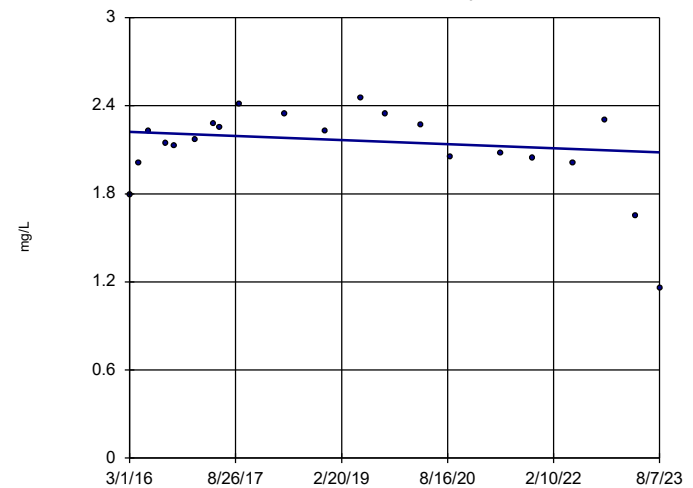


n = 21
 Slope = 0.09303
 units per year.
 Mann-Kendall
 statistic = 141
 critical = 87
 Increasing trend
 significant at 99%
 confidence level
 ($\alpha = 0.005$ per
 tail).

Constituent: Boron, total Analysis Run 10/23/2023 10:57 AM View: Trend Tests - PL Exceedances
 Plant Barry Client: Southern Company Data: Barry Ash Pond

Sen's Slope Estimator

BY-AP-MW-9

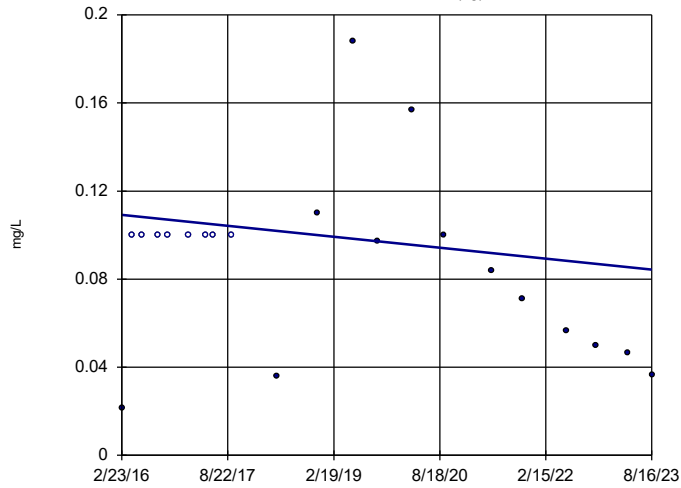


n = 21
 Slope = -0.01865
 units per year.
 Mann-Kendall
 statistic = -19
 critical = -87
 Trend not sig-
 nificant at 99%
 confidence level
 ($\alpha = 0.005$ per
 tail).

Constituent: Boron, total Analysis Run 10/23/2023 10:57 AM View: Trend Tests - PL Exceedances
 Plant Barry Client: Southern Company Data: Barry Ash Pond

Sen's Slope Estimator

BY-UP-MW-1 (bg)

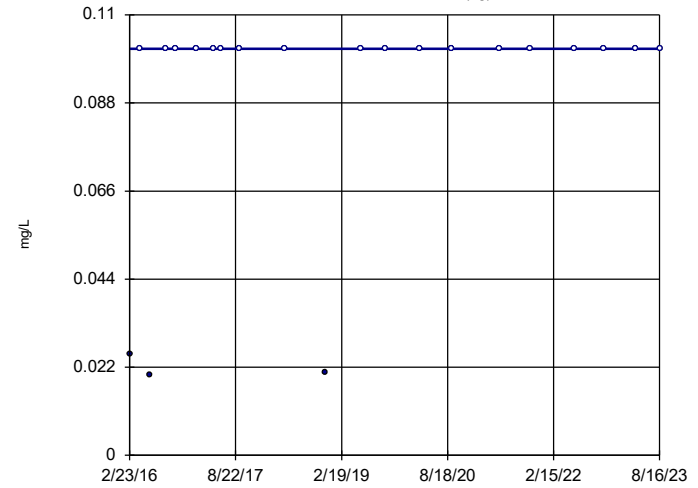


n = 21
Slope = -0.003302
units per year.
Mann-Kendall
statistic = -64
critical = -87
Trend not sig-
nificant at 99%
confidence level
($\alpha = 0.005$ per
tail).

Constituent: Boron, total Analysis Run 10/23/2023 10:57 AM View: Trend Tests - PL Exceedances
Plant Barry Client: Southern Company Data: Barry Ash Pond

Sen's Slope Estimator

BY-UP-MW-2 (bg)

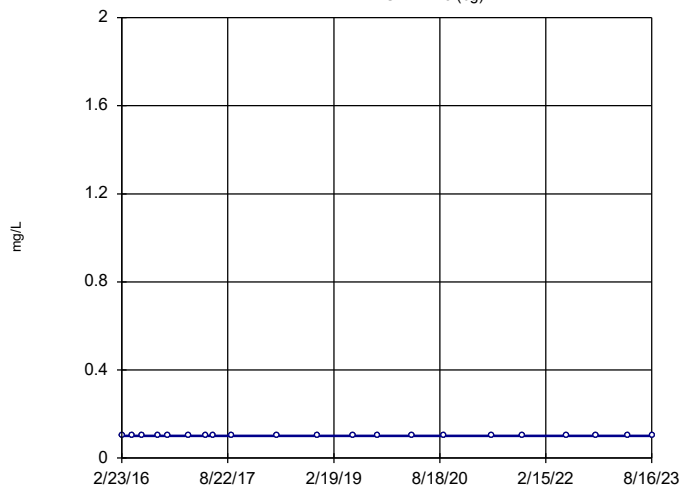


n = 21
Slope = 0
units per year.
Mann-Kendall
statistic = 35
critical = 87
Trend not sig-
nificant at 99%
confidence level
($\alpha = 0.005$ per
tail).

Constituent: Boron, total Analysis Run 10/23/2023 10:57 AM View: Trend Tests - PL Exceedances
Plant Barry Client: Southern Company Data: Barry Ash Pond

Sen's Slope Estimator

BY-UP-MW-3 (bg)

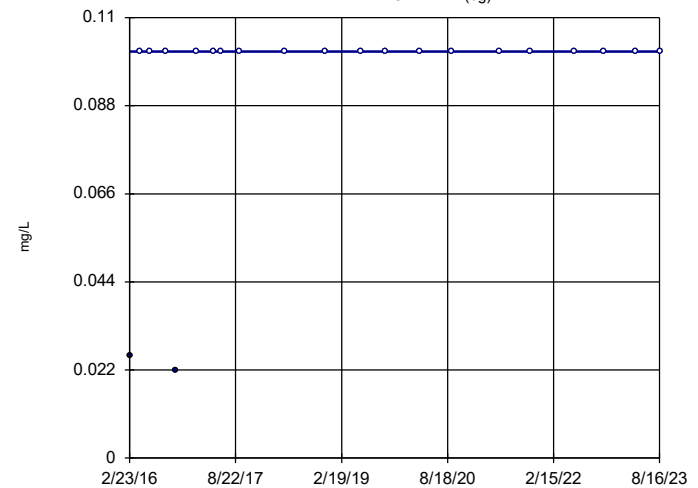


n = 21
Slope = 0
units per year.
Mann-Kendall
statistic = 0
critical = 87
Trend not sig-
nificant at 99%
confidence level
($\alpha = 0.005$ per
tail).

Constituent: Boron, total Analysis Run 10/23/2023 10:57 AM View: Trend Tests - PL Exceedances
Plant Barry Client: Southern Company Data: Barry Ash Pond

Sen's Slope Estimator

BY-UP-MW-4 (bg)

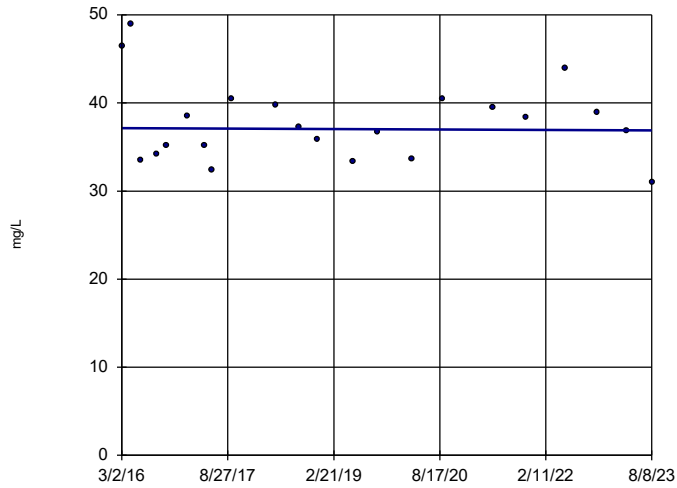


n = 21
Slope = 0
units per year.
Mann-Kendall
statistic = 31
critical = 87
Trend not sig-
nificant at 99%
confidence level
($\alpha = 0.005$ per
tail).

Constituent: Boron, total Analysis Run 10/23/2023 10:57 AM View: Trend Tests - PL Exceedances
Plant Barry Client: Southern Company Data: Barry Ash Pond

Sen's Slope Estimator

BY-AP-MW-1

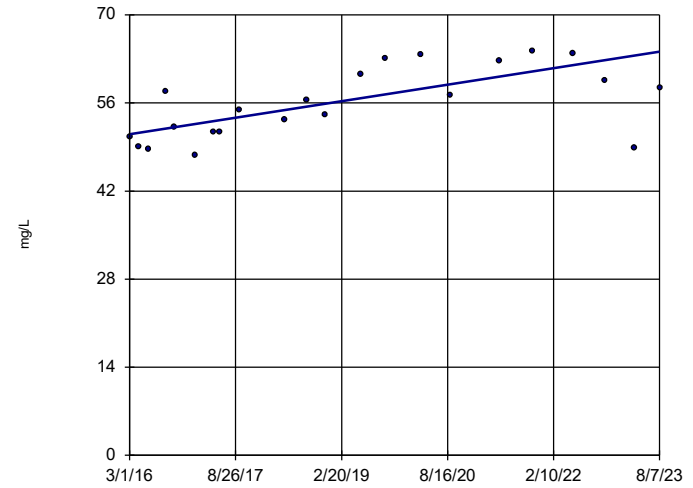


n = 22
 Slope = -0.03364 units per year.
 Mann-Kendall statistic = -5
 critical = -92
 Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Calcium, total Analysis Run 10/23/2023 10:57 AM View: Trend Tests - PL Exceedances
 Plant Barry Client: Southern Company Data: Barry Ash Pond

Sen's Slope Estimator

BY-AP-MW-10

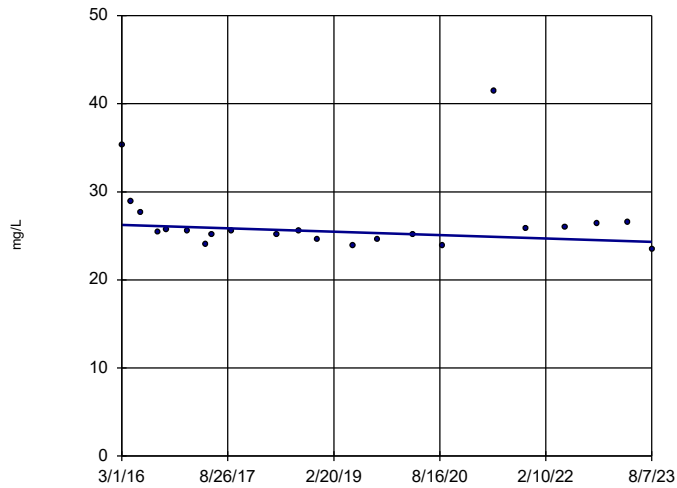


n = 22
 Slope = 1.77 units per year.
 Mann-Kendall statistic = 115
 critical = 92
 Increasing trend significant at 99% confidence level (α = 0.005 per tail).

Constituent: Calcium, total Analysis Run 10/23/2023 10:57 AM View: Trend Tests - PL Exceedances
 Plant Barry Client: Southern Company Data: Barry Ash Pond

Sen's Slope Estimator

BY-AP-MW-11

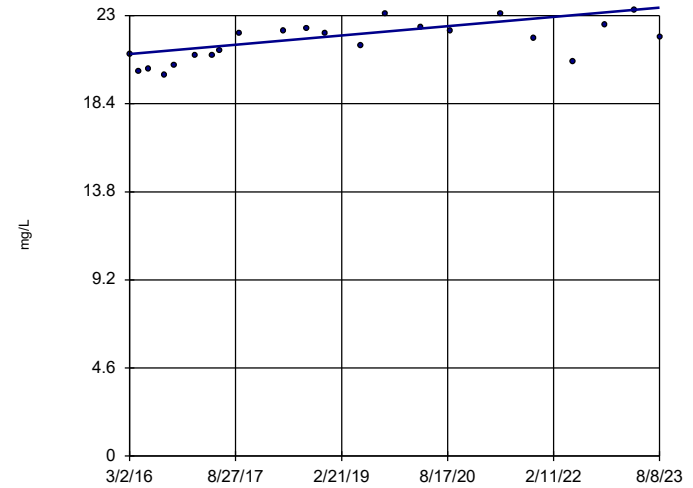


n = 22
 Slope = -0.2592 units per year.
 Mann-Kendall statistic = -41
 critical = -92
 Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Calcium, total Analysis Run 10/23/2023 10:57 AM View: Trend Tests - PL Exceedances
 Plant Barry Client: Southern Company Data: Barry Ash Pond

Sen's Slope Estimator

BY-AP-MW-12

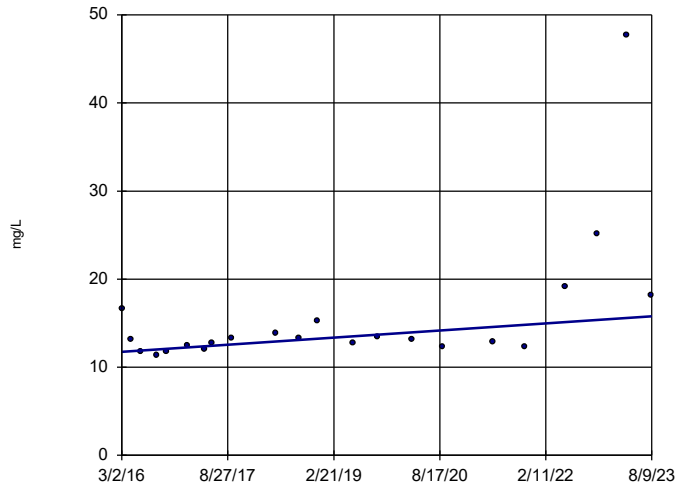


n = 22
 Slope = 0.3243 units per year.
 Mann-Kendall statistic = 123
 critical = 92
 Increasing trend significant at 99% confidence level (α = 0.005 per tail).

Constituent: Calcium, total Analysis Run 10/23/2023 10:57 AM View: Trend Tests - PL Exceedances
 Plant Barry Client: Southern Company Data: Barry Ash Pond

Sen's Slope Estimator

BY-AP-MW-13

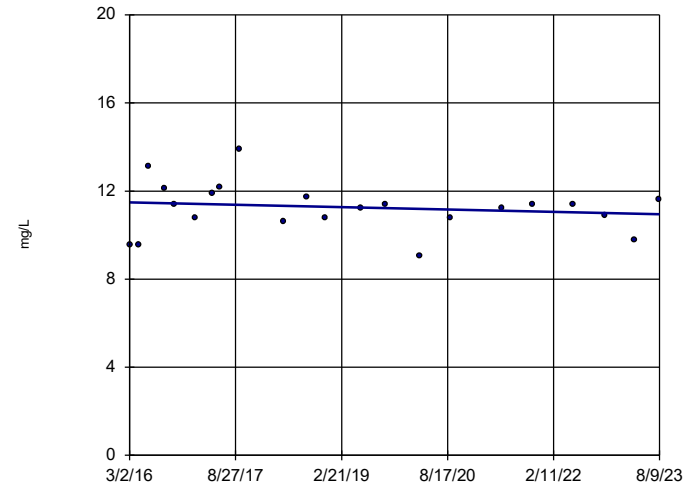


n = 22
 Slope = 0.5422
 units per year.
 Mann-Kendall
 statistic = 90
 critical = 92
 Trend not sig-
 nificant at 99%
 confidence level
 ($\alpha = 0.005$ per
 tail).

Constituent: Calcium, total Analysis Run 10/23/2023 10:58 AM View: Trend Tests - PL Exceedances
 Plant Barry Client: Southern Company Data: Barry Ash Pond

Sen's Slope Estimator

BY-AP-MW-14

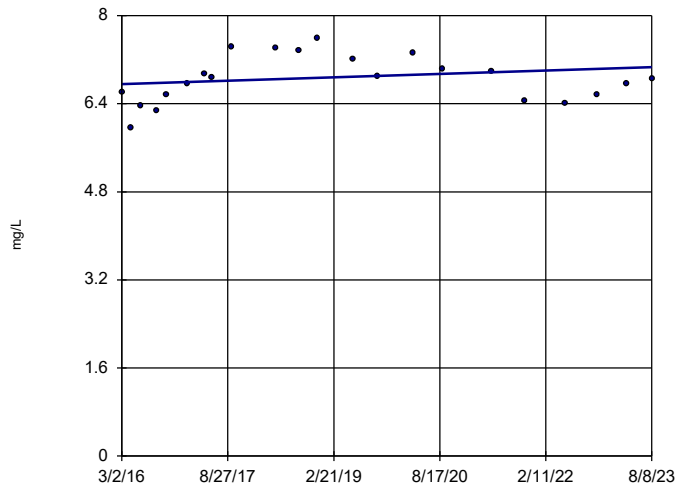


n = 22
 Slope = -0.07199
 units per year.
 Mann-Kendall
 statistic = -17
 critical = -92
 Trend not sig-
 nificant at 99%
 confidence level
 ($\alpha = 0.005$ per
 tail).

Constituent: Calcium, total Analysis Run 10/23/2023 10:58 AM View: Trend Tests - PL Exceedances
 Plant Barry Client: Southern Company Data: Barry Ash Pond

Sen's Slope Estimator

BY-AP-MW-15

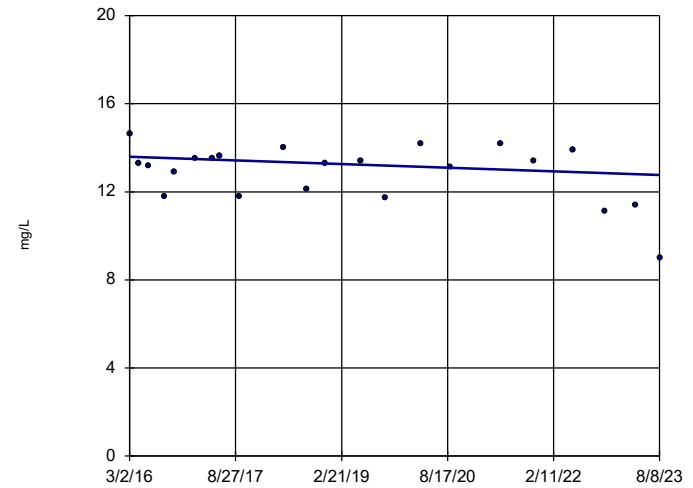


n = 22
 Slope = 0.04114
 units per year.
 Mann-Kendall
 statistic = 28
 critical = 92
 Trend not sig-
 nificant at 99%
 confidence level
 ($\alpha = 0.005$ per
 tail).

Constituent: Calcium, total Analysis Run 10/23/2023 10:58 AM View: Trend Tests - PL Exceedances
 Plant Barry Client: Southern Company Data: Barry Ash Pond

Sen's Slope Estimator

BY-AP-MW-16

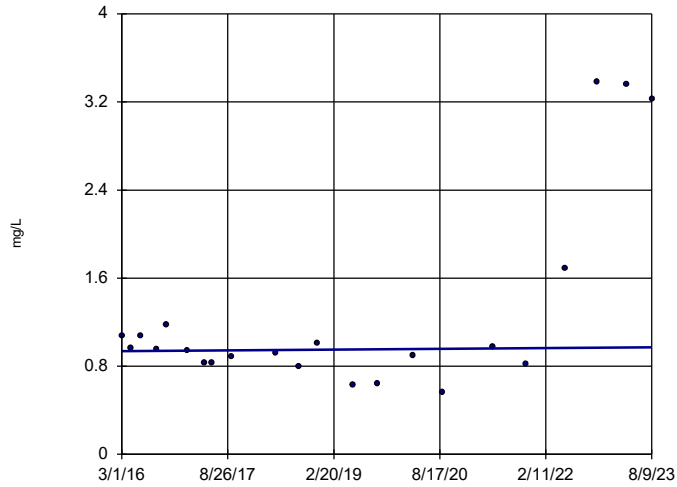


n = 22
 Slope = -0.1115
 units per year.
 Mann-Kendall
 statistic = -40
 critical = -92
 Trend not sig-
 nificant at 99%
 confidence level
 ($\alpha = 0.005$ per
 tail).

Constituent: Calcium, total Analysis Run 10/23/2023 10:58 AM View: Trend Tests - PL Exceedances
 Plant Barry Client: Southern Company Data: Barry Ash Pond

Sen's Slope Estimator

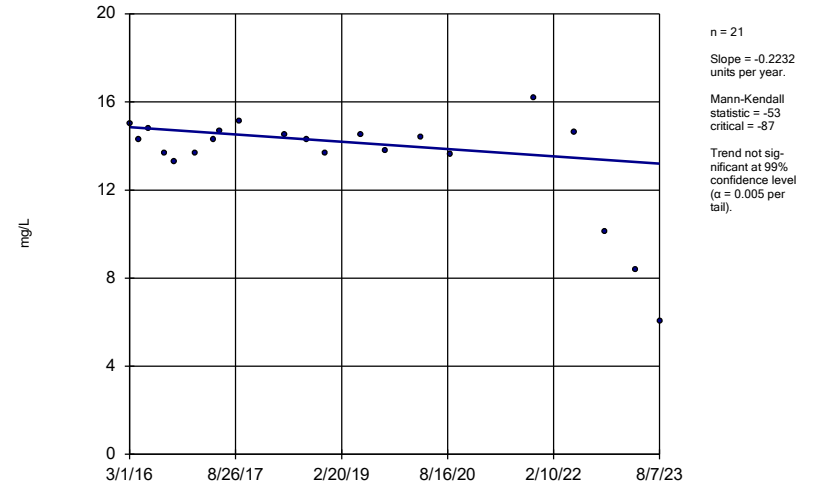
BY-AP-MW-4



Constituent: Calcium, total Analysis Run 10/23/2023 10:58 AM View: Trend Tests - PL Exceedances
 Plant Barry Client: Southern Company Data: Barry Ash Pond

Sen's Slope Estimator

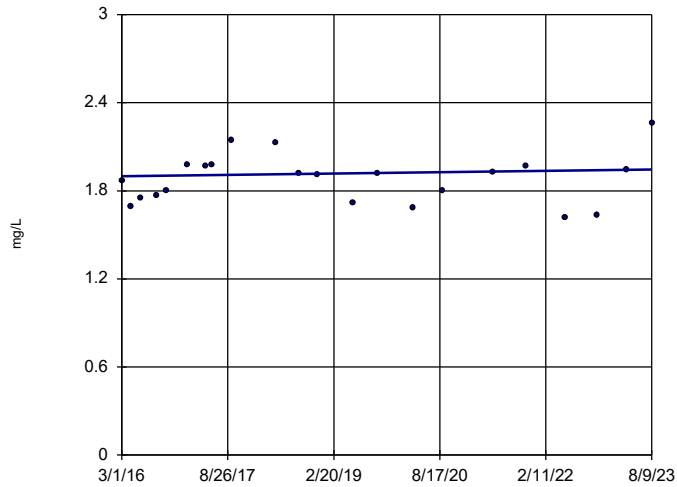
BY-AP-MW-5



Constituent: Calcium, total Analysis Run 10/23/2023 10:58 AM View: Trend Tests - PL Exceedances
 Plant Barry Client: Southern Company Data: Barry Ash Pond

Sen's Slope Estimator

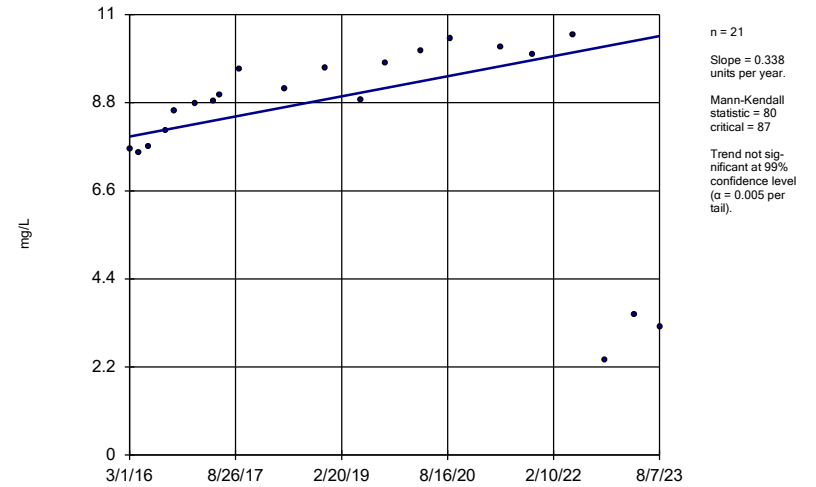
BY-AP-MW-6



Constituent: Calcium, total Analysis Run 10/23/2023 10:58 AM View: Trend Tests - PL Exceedances
 Plant Barry Client: Southern Company Data: Barry Ash Pond

Sen's Slope Estimator

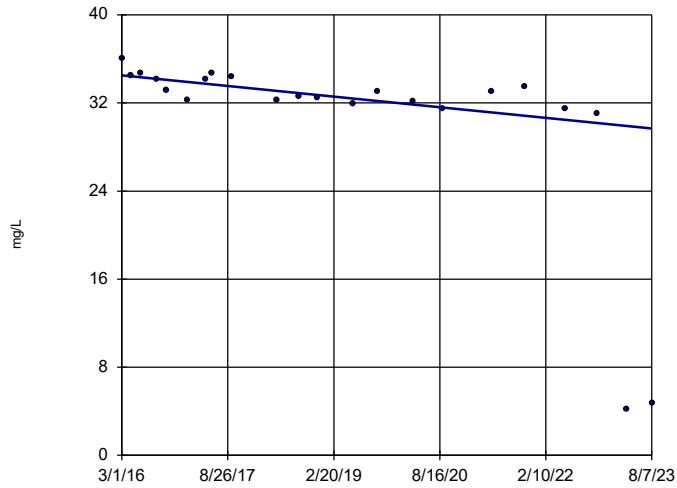
BY-AP-MW-7



Constituent: Calcium, total Analysis Run 10/23/2023 10:58 AM View: Trend Tests - PL Exceedances
 Plant Barry Client: Southern Company Data: Barry Ash Pond

Sen's Slope Estimator

BY-AP-MW-8

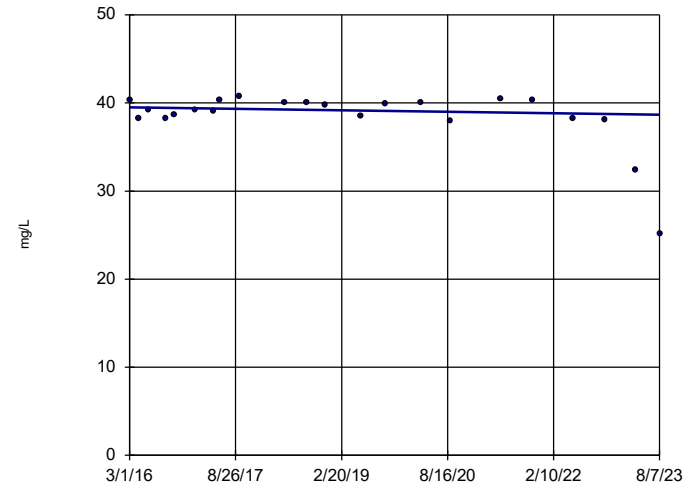


n = 22
 Slope = -0.6482
 units per year.
 Mann-Kendall
 statistic = -146
 critical = -92
 Decreasing trend
 significant at 99%
 confidence level
 ($\alpha = 0.005$ per
 tail).

Constituent: Calcium, total Analysis Run 10/23/2023 10:58 AM View: Trend Tests - PL Exceedances
 Plant Barry Client: Southern Company Data: Barry Ash Pond

Sen's Slope Estimator

BY-AP-MW-9

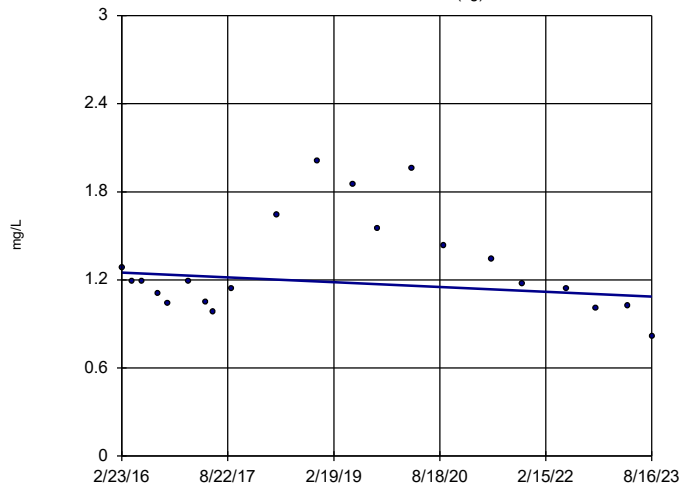


n = 22
 Slope = -0.1116
 units per year.
 Mann-Kendall
 statistic = -37
 critical = -92
 Trend not sig-
 nificant at 99%
 confidence level
 ($\alpha = 0.005$ per
 tail).

Constituent: Calcium, total Analysis Run 10/23/2023 10:58 AM View: Trend Tests - PL Exceedances
 Plant Barry Client: Southern Company Data: Barry Ash Pond

Sen's Slope Estimator

BY-UP-MW-1 (bg)

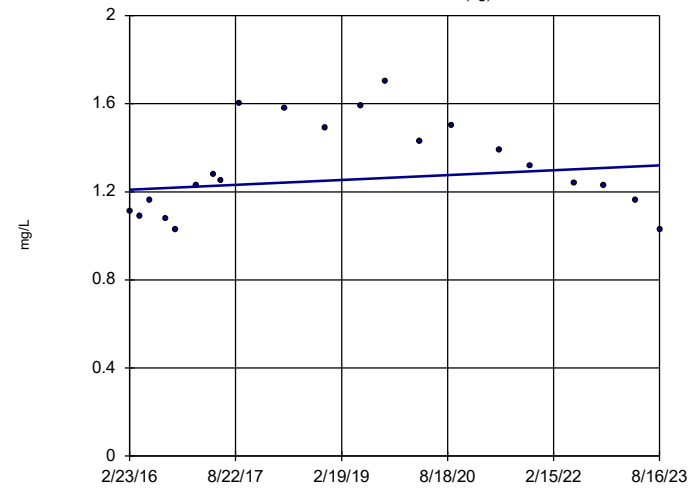


n = 21
 Slope = -0.02191
 units per year.
 Mann-Kendall
 statistic = -32
 critical = -87
 Trend not sig-
 nificant at 99%
 confidence level
 ($\alpha = 0.005$ per
 tail).

Constituent: Calcium, total Analysis Run 10/23/2023 10:58 AM View: Trend Tests - PL Exceedances
 Plant Barry Client: Southern Company Data: Barry Ash Pond

Sen's Slope Estimator

BY-UP-MW-2 (bg)

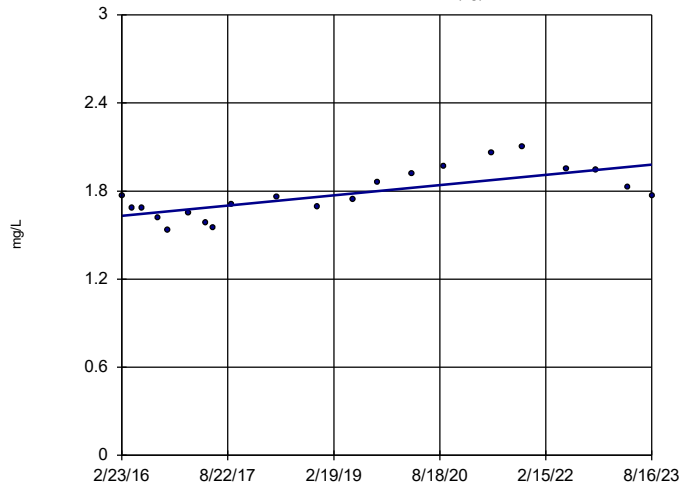


n = 21
 Slope = 0.01469
 units per year.
 Mann-Kendall
 statistic = 21
 critical = 87
 Trend not sig-
 nificant at 99%
 confidence level
 ($\alpha = 0.005$ per
 tail).

Constituent: Calcium, total Analysis Run 10/23/2023 10:58 AM View: Trend Tests - PL Exceedances
 Plant Barry Client: Southern Company Data: Barry Ash Pond

Sen's Slope Estimator

BY-UP-MW-3 (bg)

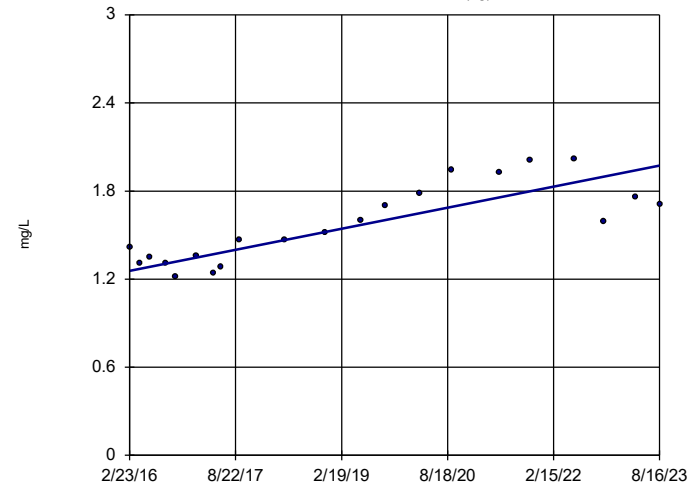


n = 21
 Slope = 0.04639
 units per year.
 Mann-Kendall
 statistic = 104
 critical = 87
 Increasing trend
 significant at 99%
 confidence level
 ($\alpha = 0.005$ per
 tail).

Constituent: Calcium, total Analysis Run 10/23/2023 10:58 AM View: Trend Tests - PL Exceedances
 Plant Barry Client: Southern Company Data: Barry Ash Pond

Sen's Slope Estimator

BY-UP-MW-4 (bg)

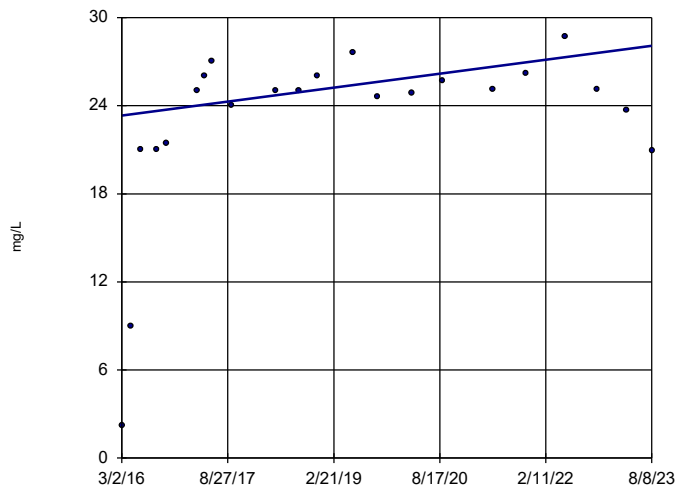


n = 21
 Slope = 0.09578
 units per year.
 Mann-Kendall
 statistic = 132
 critical = 87
 Increasing trend
 significant at 99%
 confidence level
 ($\alpha = 0.005$ per
 tail).

Constituent: Calcium, total Analysis Run 10/23/2023 10:58 AM View: Trend Tests - PL Exceedances
 Plant Barry Client: Southern Company Data: Barry Ash Pond

Sen's Slope Estimator

BY-AP-MW-1

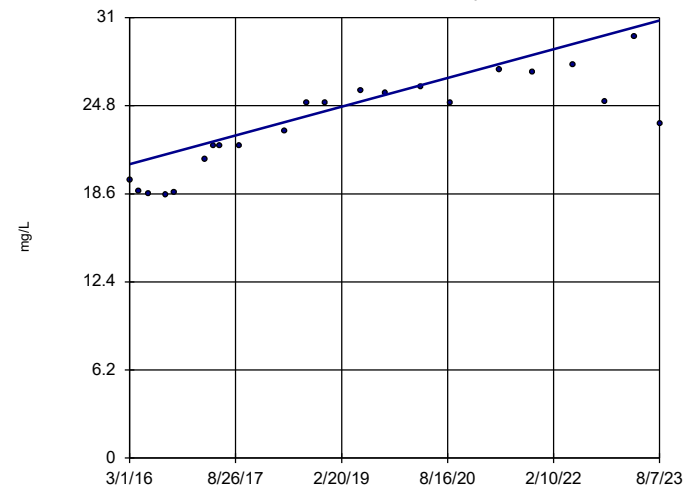


n = 22
 Slope = 0.6401
 units per year.
 Mann-Kendall
 statistic = 77
 critical = 92
 Trend not sig-
 nificant at 99%
 confidence level
 ($\alpha = 0.005$ per
 tail).

Constituent: Chloride, Total Analysis Run 10/23/2023 10:58 AM View: Trend Tests - PL Exceedances
 Plant Barry Client: Southern Company Data: Barry Ash Pond

Sen's Slope Estimator

BY-AP-MW-10

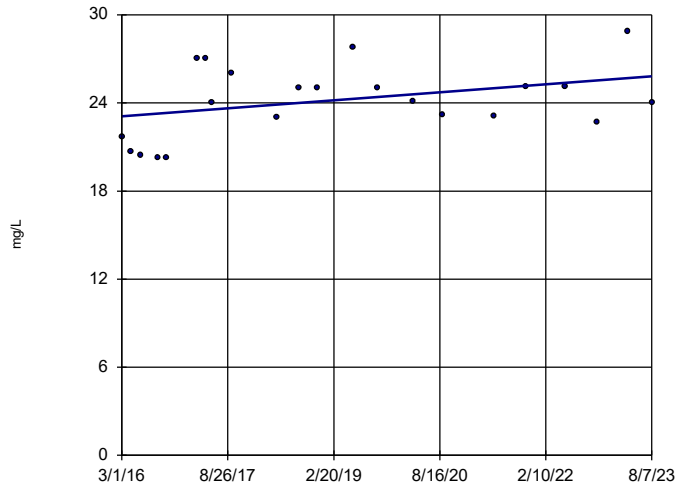


n = 22
 Slope = 1.361
 units per year.
 Mann-Kendall
 statistic = 165
 critical = 92
 Increasing trend
 significant at 99%
 confidence level
 ($\alpha = 0.005$ per
 tail).

Constituent: Chloride, Total Analysis Run 10/23/2023 10:58 AM View: Trend Tests - PL Exceedances
 Plant Barry Client: Southern Company Data: Barry Ash Pond

Sen's Slope Estimator

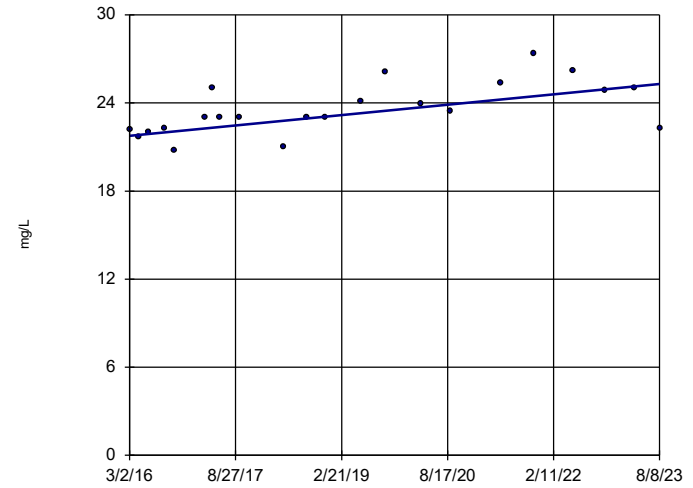
BY-AP-MW-11



n = 22
 Slope = 0.3659
 units per year.
 Mann-Kendall
 statistic = 52
 critical = 92
 Trend not sig-
 nificant at 99%
 confidence level
 ($\alpha = 0.005$ per
 tail).

Sen's Slope Estimator

BY-AP-MW-12



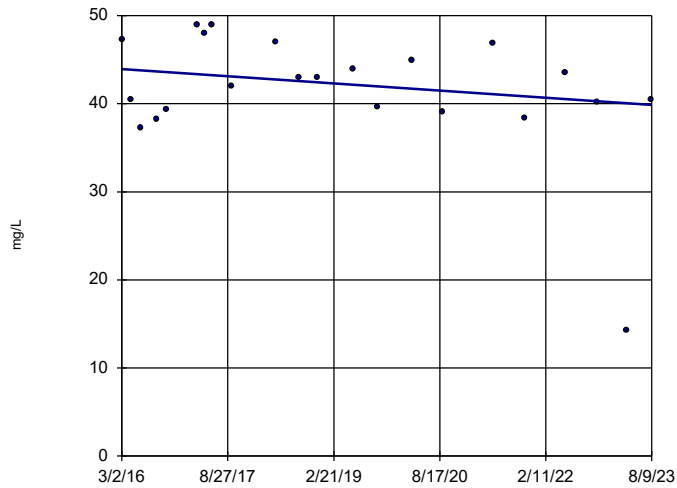
n = 22
 Slope = 0.4742
 units per year.
 Mann-Kendall
 statistic = 115
 critical = 92
 Increasing trend
 significant at 99%
 confidence level
 ($\alpha = 0.005$ per
 tail).

Constituent: Chloride, Total Analysis Run 10/23/2023 10:58 AM View: Trend Tests - PL Exceedances
 Plant Barry Client: Southern Company Data: Barry Ash Pond

Constituent: Chloride, Total Analysis Run 10/23/2023 10:58 AM View: Trend Tests - PL Exceedances
 Plant Barry Client: Southern Company Data: Barry Ash Pond

Sen's Slope Estimator

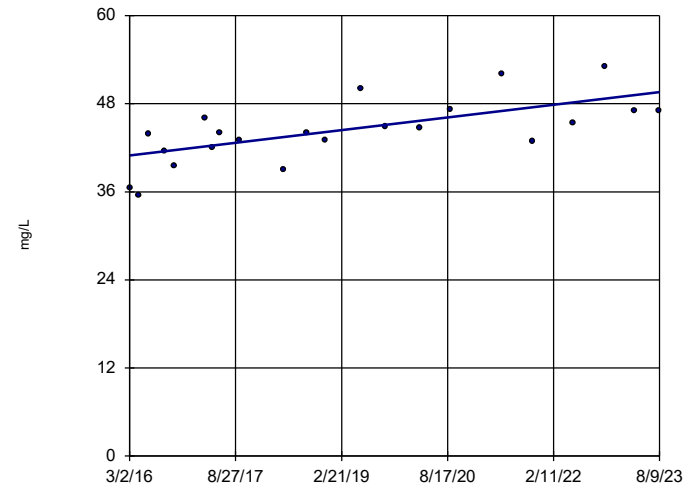
BY-AP-MW-13



n = 22
 Slope = -0.5432
 units per year.
 Mann-Kendall
 statistic = -36
 critical = -92
 Trend not sig-
 nificant at 99%
 confidence level
 ($\alpha = 0.005$ per
 tail).

Sen's Slope Estimator

BY-AP-MW-14



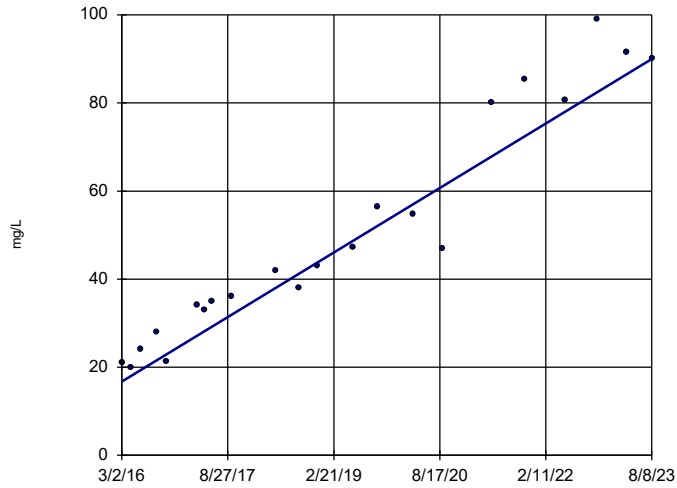
n = 22
 Slope = 1.16
 units per year.
 Mann-Kendall
 statistic = 127
 critical = 92
 Increasing trend
 significant at 99%
 confidence level
 ($\alpha = 0.005$ per
 tail).

Constituent: Chloride, Total Analysis Run 10/23/2023 10:58 AM View: Trend Tests - PL Exceedances
 Plant Barry Client: Southern Company Data: Barry Ash Pond

Constituent: Chloride, Total Analysis Run 10/23/2023 10:58 AM View: Trend Tests - PL Exceedances
 Plant Barry Client: Southern Company Data: Barry Ash Pond

Sen's Slope Estimator

BY-AP-MW-15

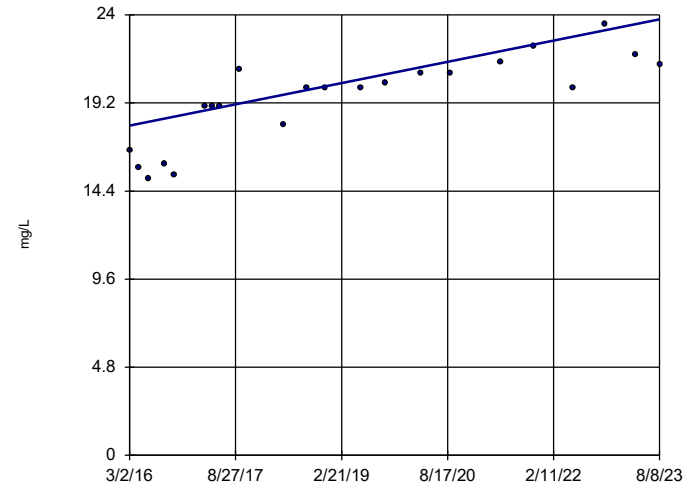


n = 22
 Slope = 9.842
 units per year.
 Mann-Kendall
 statistic = 205
 critical = 92
 Increasing trend
 significant at 99%
 confidence level
 ($\alpha = 0.005$ per
 tail).

Constituent: Chloride, Total Analysis Run 10/23/2023 10:58 AM View: Trend Tests - PL Exceedances
 Plant Barry Client: Southern Company Data: Barry Ash Pond

Sen's Slope Estimator

BY-AP-MW-16

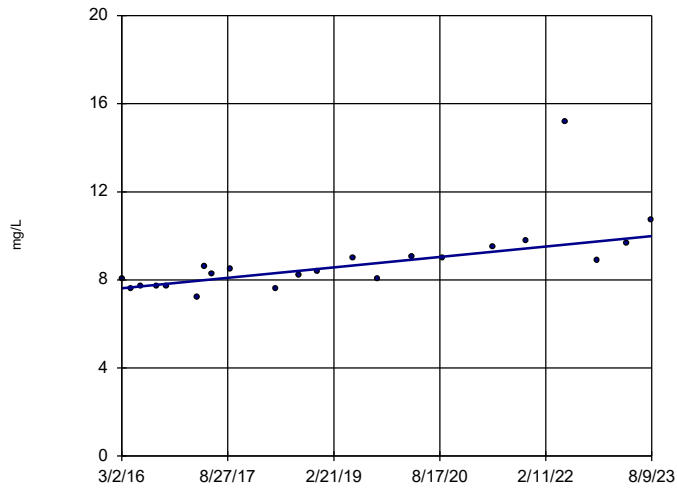


n = 22
 Slope = 0.7781
 units per year.
 Mann-Kendall
 statistic = 163
 critical = 92
 Increasing trend
 significant at 99%
 confidence level
 ($\alpha = 0.005$ per
 tail).

Constituent: Chloride, Total Analysis Run 10/23/2023 10:58 AM View: Trend Tests - PL Exceedances
 Plant Barry Client: Southern Company Data: Barry Ash Pond

Sen's Slope Estimator

BY-AP-MW-3

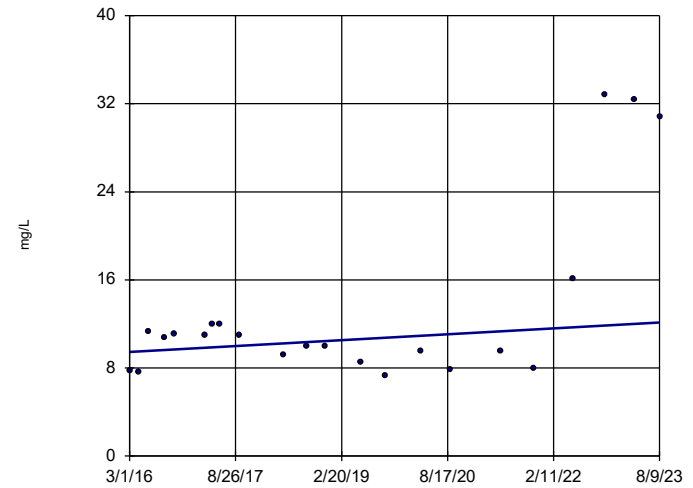


n = 22
 Slope = 0.318
 units per year.
 Mann-Kendall
 statistic = 149
 critical = 92
 Increasing trend
 significant at 99%
 confidence level
 ($\alpha = 0.005$ per
 tail).

Constituent: Chloride, Total Analysis Run 10/23/2023 10:58 AM View: Trend Tests - PL Exceedances
 Plant Barry Client: Southern Company Data: Barry Ash Pond

Sen's Slope Estimator

BY-AP-MW-4

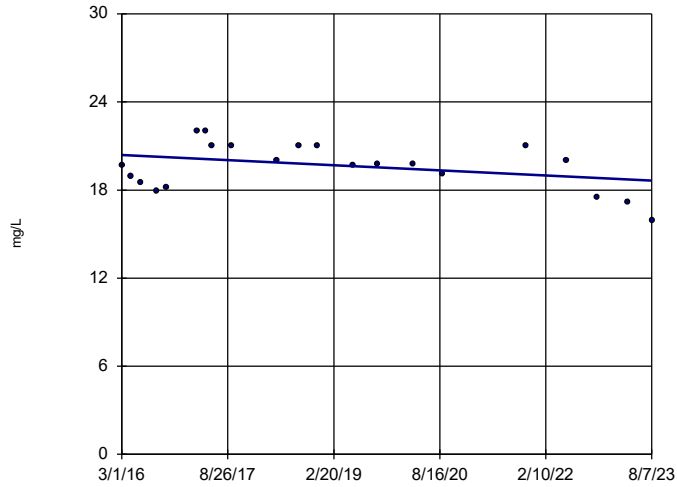


n = 22
 Slope = 0.3596
 units per year.
 Mann-Kendall
 statistic = 28
 critical = 92
 Trend not sig-
 nificant at 99%
 confidence level
 ($\alpha = 0.005$ per
 tail).

Constituent: Chloride, Total Analysis Run 10/23/2023 10:58 AM View: Trend Tests - PL Exceedances
 Plant Barry Client: Southern Company Data: Barry Ash Pond

Sen's Slope Estimator

BY-AP-MW-5

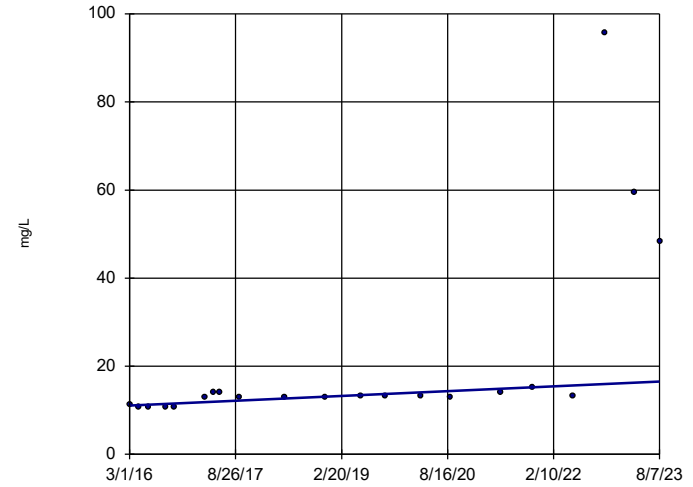


n = 21
 Slope = -0.2332
 units per year.
 Mann-Kendall
 statistic = -42
 critical = -87
 Trend not sig-
 nificant at 99%
 confidence level
 ($\alpha = 0.005$ per
 tail).

Constituent: Chloride, Total Analysis Run 10/23/2023 10:58 AM View: Trend Tests - PL Exceedances
 Plant Barry Client: Southern Company Data: Barry Ash Pond

Sen's Slope Estimator

BY-AP-MW-7

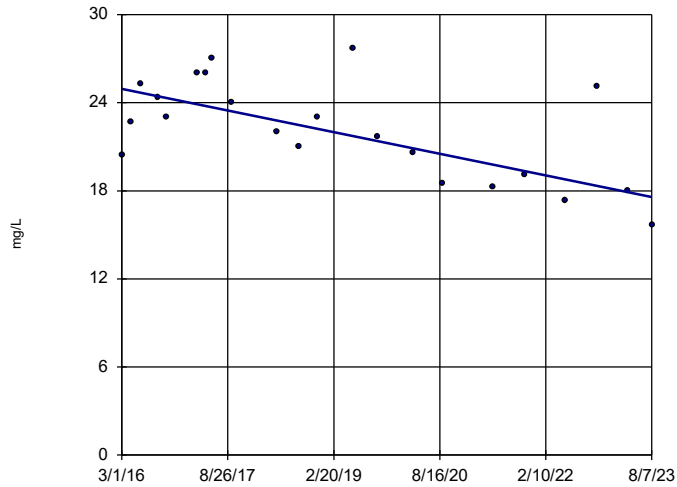


n = 21
 Slope = 0.7249
 units per year.
 Mann-Kendall
 statistic = 126
 critical = 87
 Increasing trend
 significant at 99%
 confidence level
 ($\alpha = 0.005$ per
 tail).

Constituent: Chloride, Total Analysis Run 10/23/2023 10:58 AM View: Trend Tests - PL Exceedances
 Plant Barry Client: Southern Company Data: Barry Ash Pond

Sen's Slope Estimator

BY-AP-MW-9

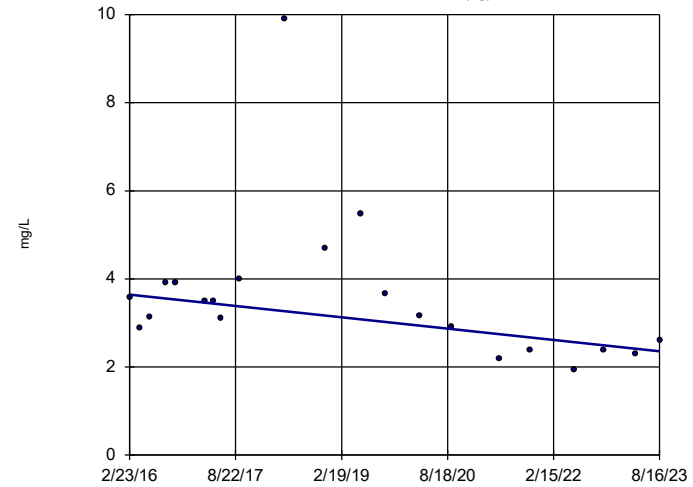


n = 22
 Slope = -0.9894
 units per year.
 Mann-Kendall
 statistic = -99
 critical = -92
 Decreasing trend
 significant at 99%
 confidence level
 ($\alpha = 0.005$ per
 tail).

Constituent: Chloride, Total Analysis Run 10/23/2023 10:58 AM View: Trend Tests - PL Exceedances
 Plant Barry Client: Southern Company Data: Barry Ash Pond

Sen's Slope Estimator

BY-UP-MW-1 (bg)

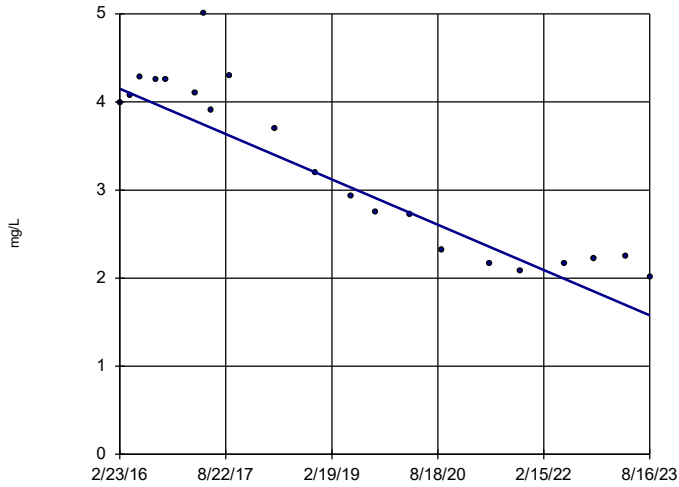


n = 21
 Slope = -0.1716
 units per year.
 Mann-Kendall
 statistic = -72
 critical = -87
 Trend not sig-
 nificant at 99%
 confidence level
 ($\alpha = 0.005$ per
 tail).

Constituent: Chloride, Total Analysis Run 10/23/2023 10:58 AM View: Trend Tests - PL Exceedances
 Plant Barry Client: Southern Company Data: Barry Ash Pond

Sen's Slope Estimator

BY-UP-MW-2 (bg)

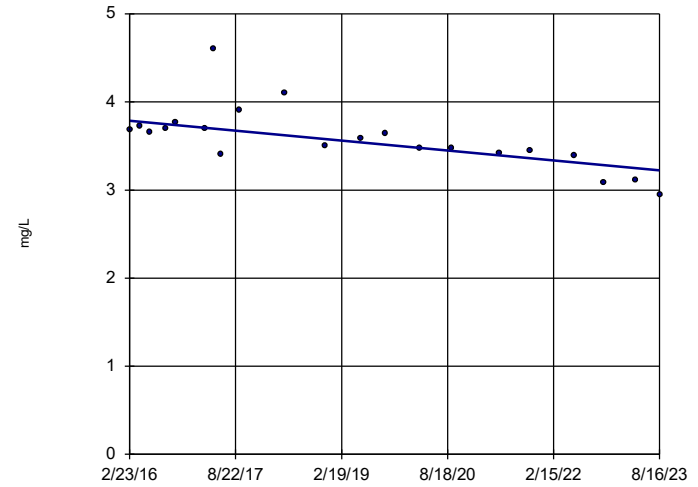


n = 21
 Slope = -0.344
 units per year.
 Mann-Kendall
 statistic = -147
 critical = -87
 Decreasing trend
 significant at 99%
 confidence level
 ($\alpha = 0.005$ per
 tail).

Constituent: Chloride, Total Analysis Run 10/23/2023 10:58 AM View: Trend Tests - PL Exceedances
 Plant Barry Client: Southern Company Data: Barry Ash Pond

Sen's Slope Estimator

BY-UP-MW-3 (bg)

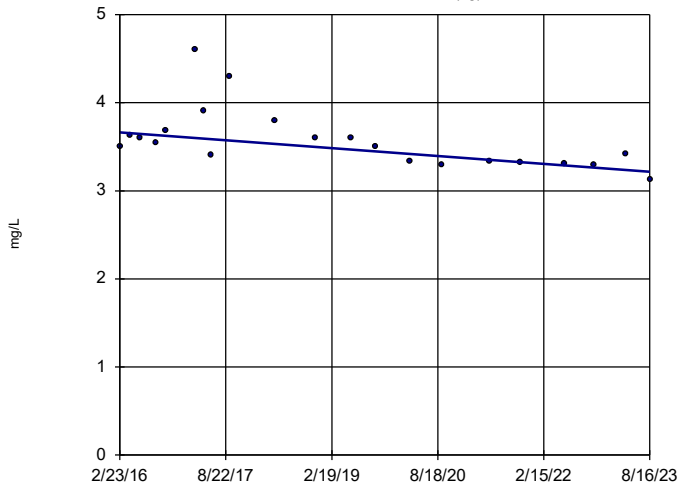


n = 21
 Slope = -0.07532
 units per year.
 Mann-Kendall
 statistic = -124
 critical = -87
 Decreasing trend
 significant at 99%
 confidence level
 ($\alpha = 0.005$ per
 tail).

Constituent: Chloride, Total Analysis Run 10/23/2023 10:58 AM View: Trend Tests - PL Exceedances
 Plant Barry Client: Southern Company Data: Barry Ash Pond

Sen's Slope Estimator

BY-UP-MW-4 (bg)

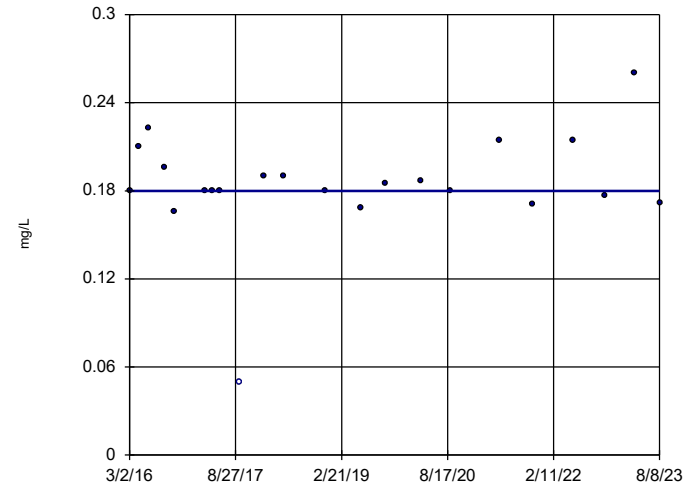


n = 21
 Slope = -0.05978
 units per year.
 Mann-Kendall
 statistic = -110
 critical = -87
 Decreasing trend
 significant at 99%
 confidence level
 ($\alpha = 0.005$ per
 tail).

Constituent: Chloride, Total Analysis Run 10/23/2023 10:58 AM View: Trend Tests - PL Exceedances
 Plant Barry Client: Southern Company Data: Barry Ash Pond

Sen's Slope Estimator

BY-AP-MW-15

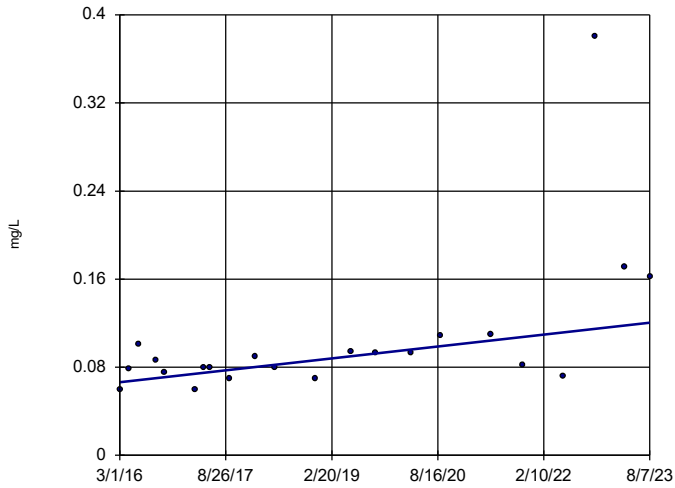


n = 22
 Slope = 0
 units per year.
 Mann-Kendall
 statistic = -4
 critical = -92
 Trend not sig-
 nificant at 99%
 confidence level
 ($\alpha = 0.005$ per
 tail).

Constituent: Fluoride, total Analysis Run 10/23/2023 10:58 AM View: Trend Tests - PL Exceedances
 Plant Barry Client: Southern Company Data: Barry Ash Pond

Sen's Slope Estimator

BY-AP-MW-7

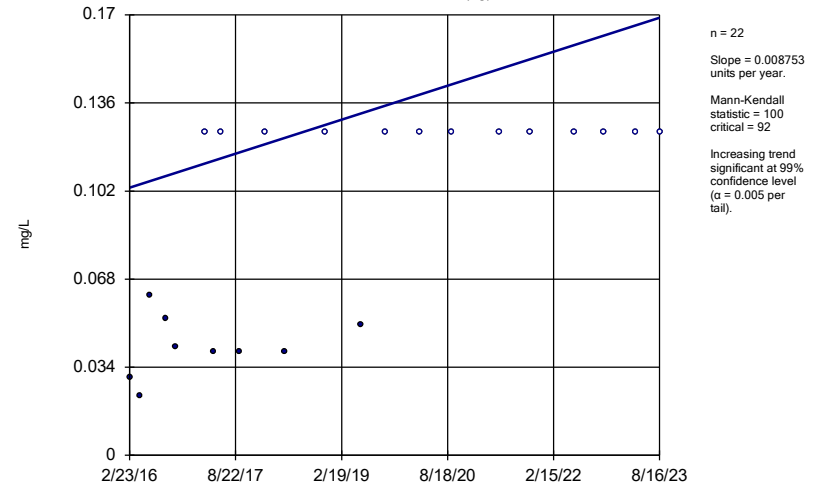


Constituent: Fluoride, total Analysis Run 10/23/2023 10:58 AM View: Trend Tests - PL Exceedances
Plant Barry Client: Southern Company Data: Barry Ash Pond

Hollow symbols indicate censored values.

Sen's Slope Estimator

BY-UP-MW-1 (bg)

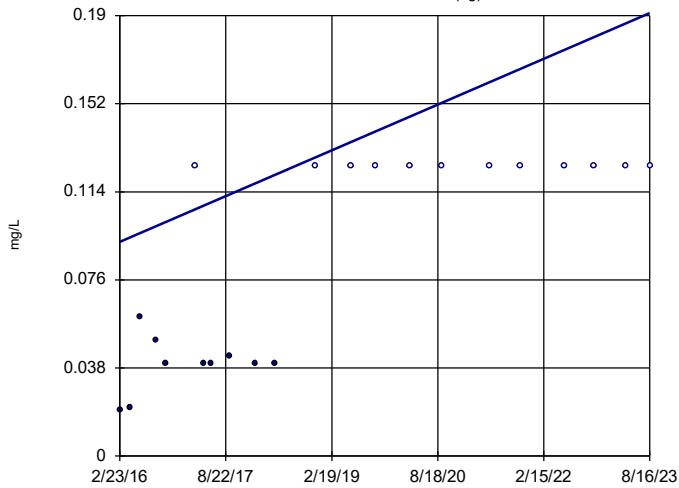


Constituent: Fluoride, total Analysis Run 10/23/2023 10:58 AM View: Trend Tests - PL Exceedances
Plant Barry Client: Southern Company Data: Barry Ash Pond

Hollow symbols indicate censored values.

Sen's Slope Estimator

BY-UP-MW-2 (bg)

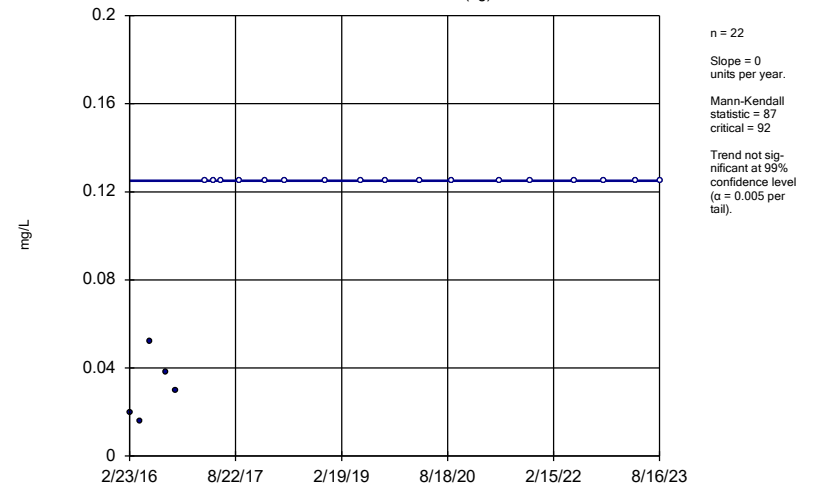


Constituent: Fluoride, total Analysis Run 10/23/2023 10:58 AM View: Trend Tests - PL Exceedances
Plant Barry Client: Southern Company Data: Barry Ash Pond

Hollow symbols indicate censored values.

Sen's Slope Estimator

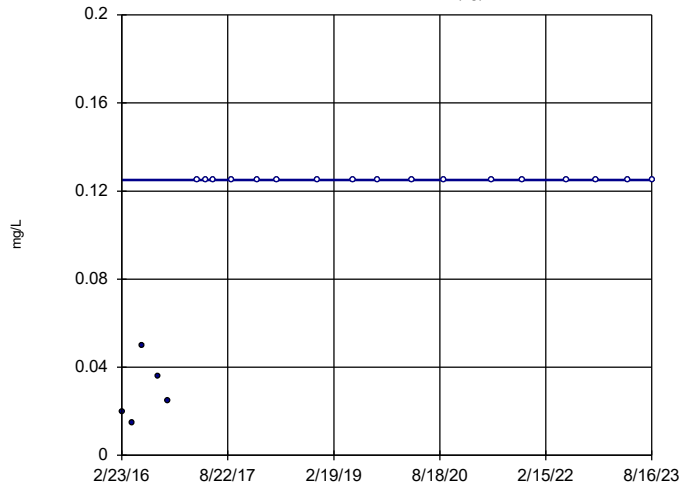
BY-UP-MW-3 (bg)



Constituent: Fluoride, total Analysis Run 10/23/2023 10:58 AM View: Trend Tests - PL Exceedances
Plant Barry Client: Southern Company Data: Barry Ash Pond

Sen's Slope Estimator

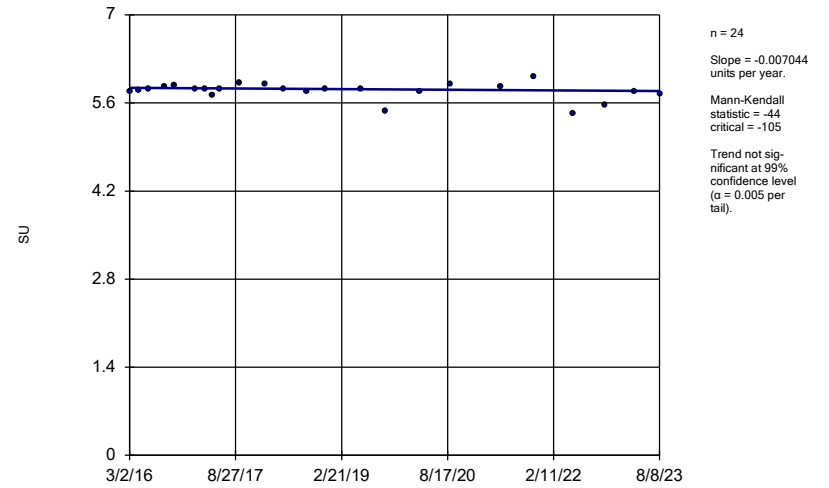
BY-UP-MW-4 (bg)



Constituent: Fluoride, total Analysis Run 10/23/2023 10:58 AM View: Trend Tests - PL Exceedances
 Plant Barry Client: Southern Company Data: Barry Ash Pond

Sen's Slope Estimator

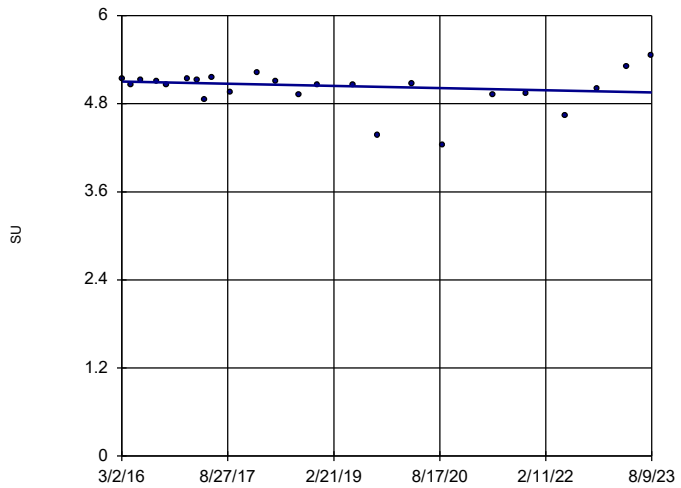
BY-AP-MW-1



Constituent: pH, field Analysis Run 10/23/2023 10:58 AM View: Trend Tests - PL Exceedances
 Plant Barry Client: Southern Company Data: Barry Ash Pond

Sen's Slope Estimator

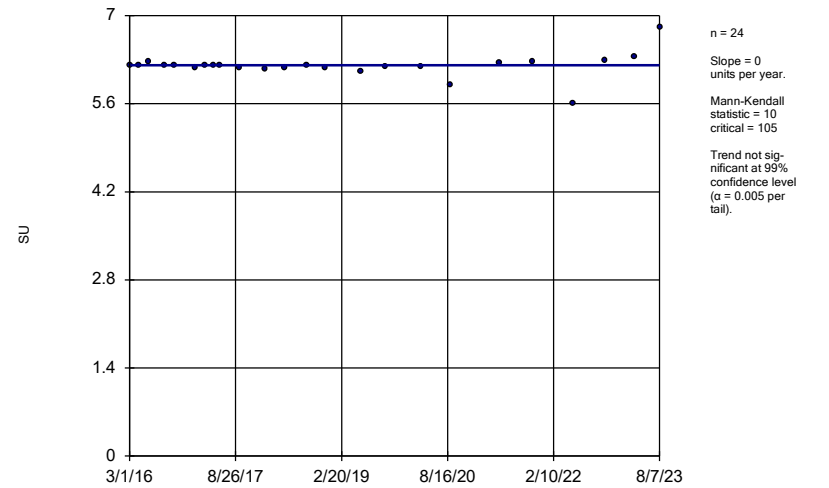
BY-AP-MW-3



Constituent: pH, field Analysis Run 10/23/2023 10:58 AM View: Trend Tests - PL Exceedances
 Plant Barry Client: Southern Company Data: Barry Ash Pond

Sen's Slope Estimator

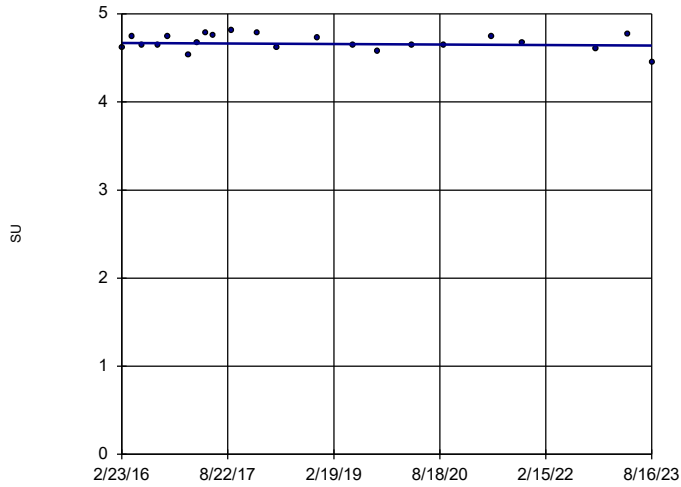
BY-AP-MW-8



Constituent: pH, field Analysis Run 10/23/2023 10:58 AM View: Trend Tests - PL Exceedances
 Plant Barry Client: Southern Company Data: Barry Ash Pond

Sen's Slope Estimator

BY-UP-MW-1 (bg)

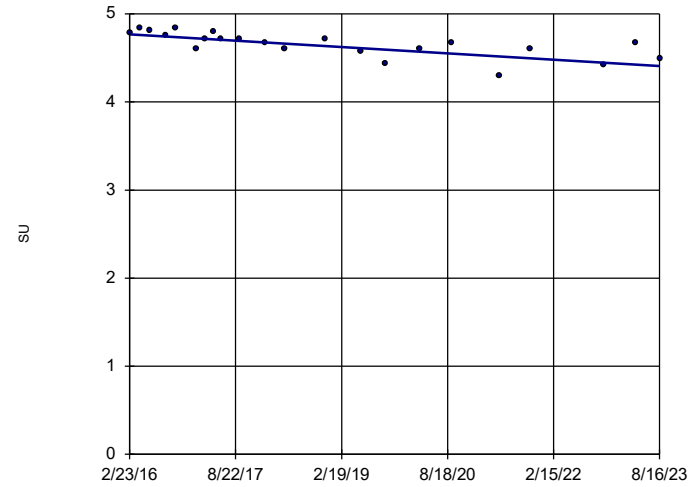


n = 22
 Slope = -0.003832 units per year.
 Mann-Kendall statistic = -17
 critical = -92
 Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: pH, field Analysis Run 10/23/2023 10:58 AM View: Trend Tests - PL Exceedances
 Plant Barry Client: Southern Company Data: Barry Ash Pond

Sen's Slope Estimator

BY-UP-MW-2 (bg)

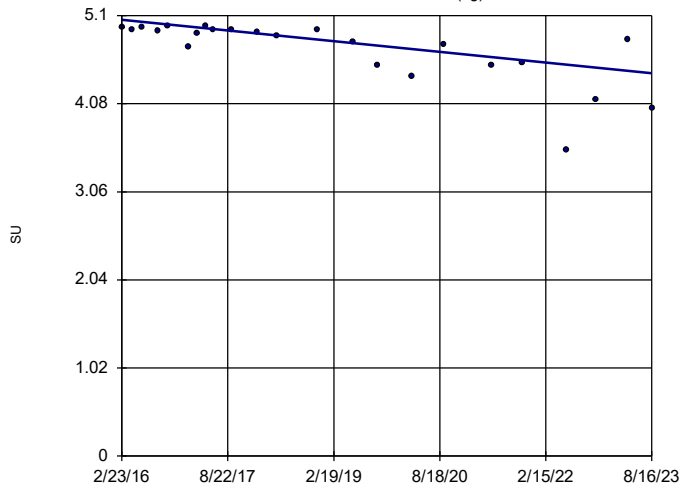


n = 22
 Slope = -0.04795 units per year.
 Mann-Kendall statistic = -138
 critical = -92
 Decreasing trend significant at 99% confidence level (α = 0.005 per tail).

Constituent: pH, field Analysis Run 10/23/2023 10:58 AM View: Trend Tests - PL Exceedances
 Plant Barry Client: Southern Company Data: Barry Ash Pond

Sen's Slope Estimator

BY-UP-MW-3 (bg)

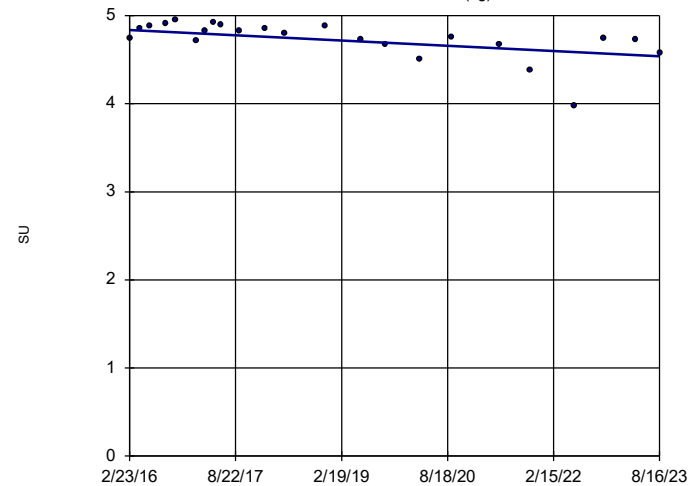


n = 23
 Slope = -0.08243 units per year.
 Mann-Kendall statistic = -154
 critical = -98
 Decreasing trend significant at 99% confidence level (α = 0.005 per tail).

Constituent: pH, field Analysis Run 10/23/2023 10:58 AM View: Trend Tests - PL Exceedances
 Plant Barry Client: Southern Company Data: Barry Ash Pond

Sen's Slope Estimator

BY-UP-MW-4 (bg)

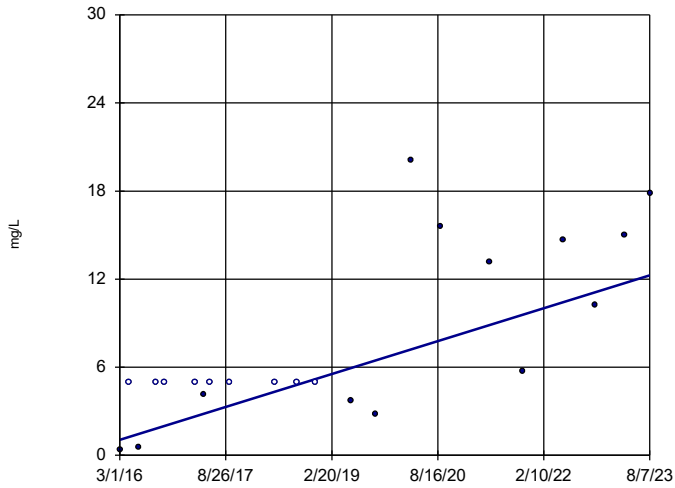


n = 23
 Slope = -0.03972 units per year.
 Mann-Kendall statistic = -127
 critical = -98
 Decreasing trend significant at 99% confidence level (α = 0.005 per tail).

Constituent: pH, field Analysis Run 10/23/2023 10:58 AM View: Trend Tests - PL Exceedances
 Plant Barry Client: Southern Company Data: Barry Ash Pond

Sen's Slope Estimator

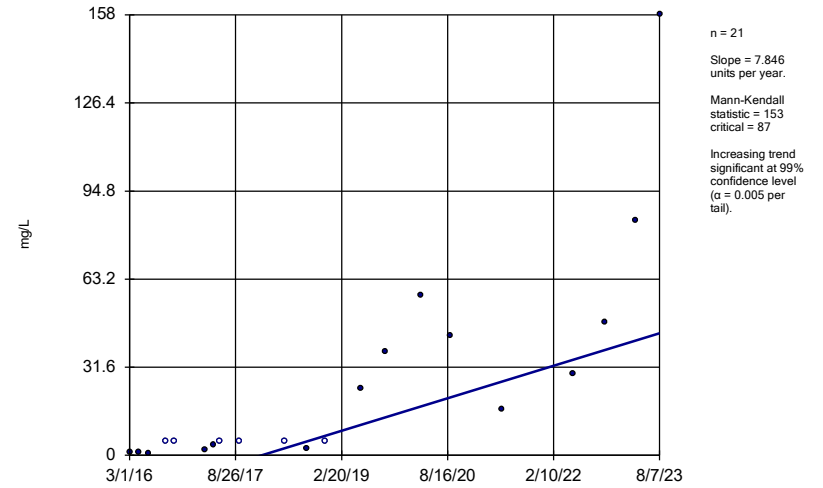
BY-AP-MW-10



Constituent: Sulfate as SO4 Analysis Run 10/23/2023 10:58 AM View: Trend Tests - PL Exceedances
Plant Barry Client: Southern Company Data: Barry Ash Pond

Sen's Slope Estimator

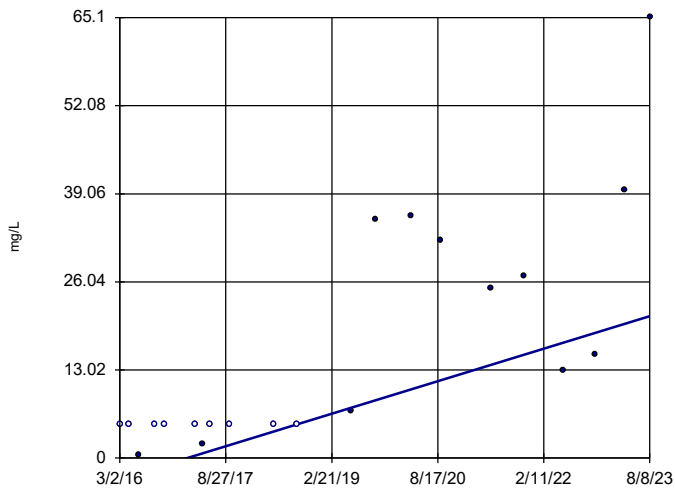
BY-AP-MW-11



Constituent: Sulfate as SO4 Analysis Run 10/23/2023 10:58 AM View: Trend Tests - PL Exceedances
Plant Barry Client: Southern Company Data: Barry Ash Pond

Sen's Slope Estimator

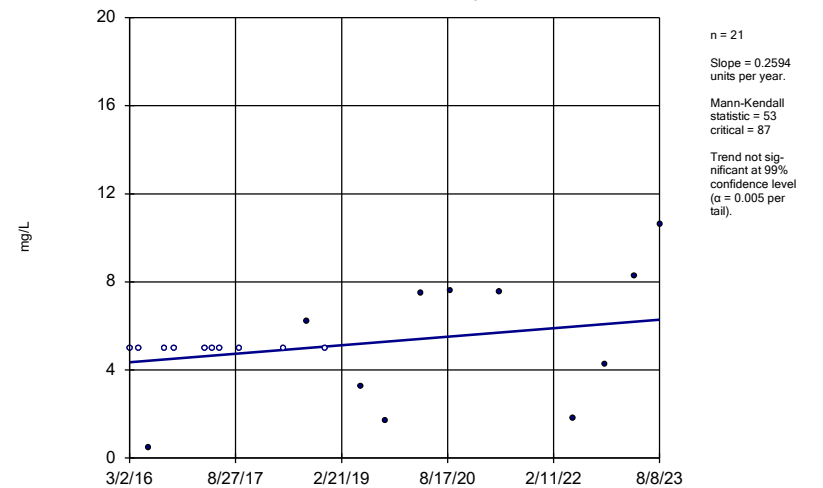
BY-AP-MW-12



Constituent: Sulfate as SO4 Analysis Run 10/23/2023 10:58 AM View: Trend Tests - PL Exceedances
Plant Barry Client: Southern Company Data: Barry Ash Pond

Sen's Slope Estimator

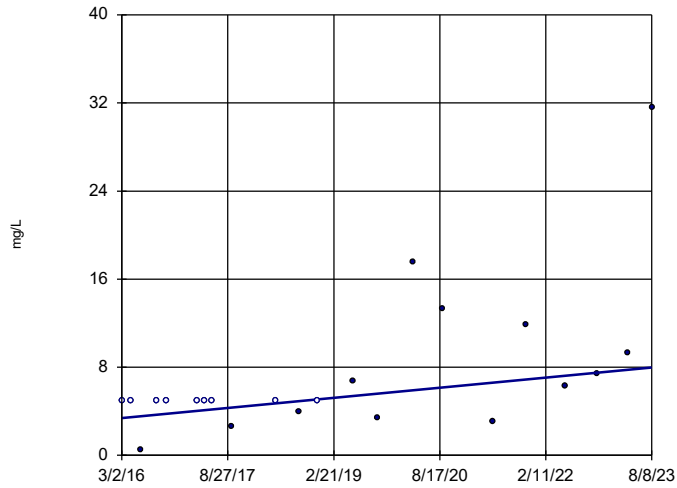
BY-AP-MW-15



Constituent: Sulfate as SO4 Analysis Run 10/23/2023 10:58 AM View: Trend Tests - PL Exceedances
Plant Barry Client: Southern Company Data: Barry Ash Pond

Sen's Slope Estimator

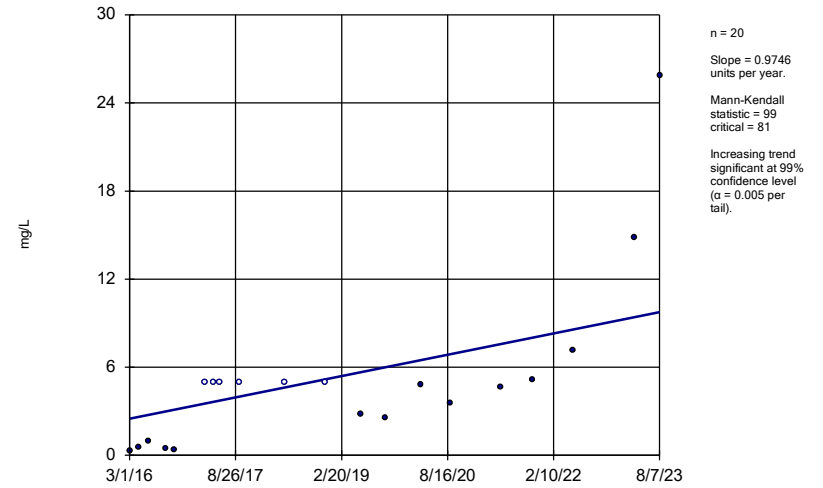
BY-AP-MW-16



Constituent: Sulfate as SO4 Analysis Run 10/23/2023 10:58 AM View: Trend Tests - PL Exceedances
Plant Barry Client: Southern Company Data: Barry Ash Pond

Sen's Slope Estimator

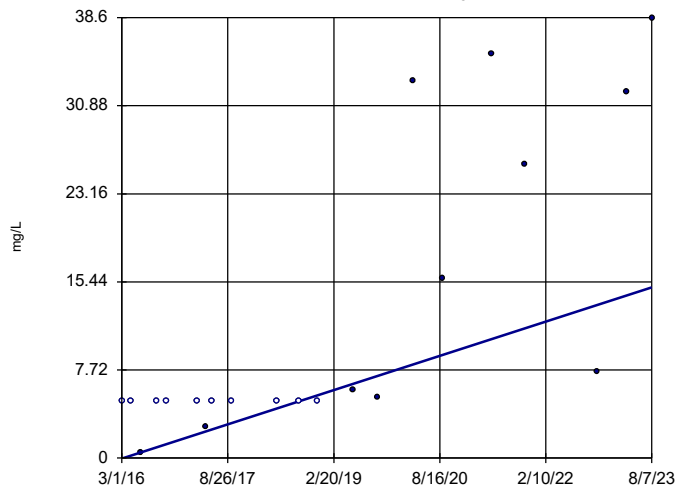
BY-AP-MW-7



Constituent: Sulfate as SO4 Analysis Run 10/23/2023 10:58 AM View: Trend Tests - PL Exceedances
Plant Barry Client: Southern Company Data: Barry Ash Pond

Sen's Slope Estimator

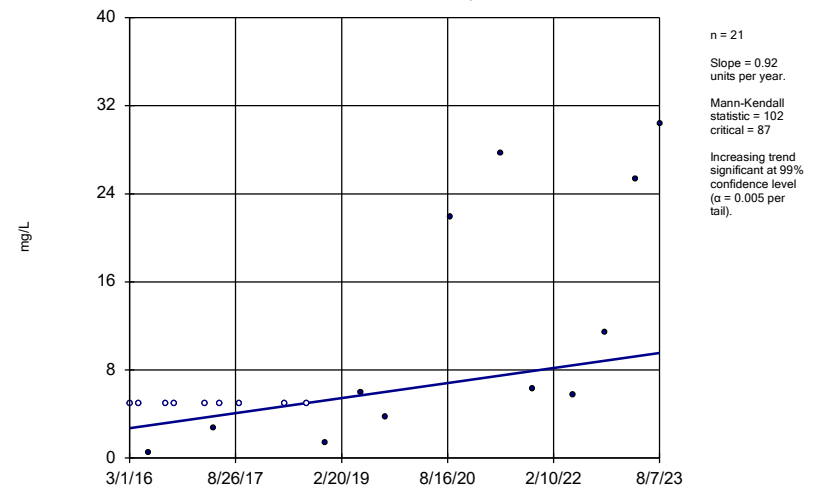
BY-AP-MW-8



Constituent: Sulfate as SO4 Analysis Run 10/23/2023 10:58 AM View: Trend Tests - PL Exceedances
Plant Barry Client: Southern Company Data: Barry Ash Pond

Sen's Slope Estimator

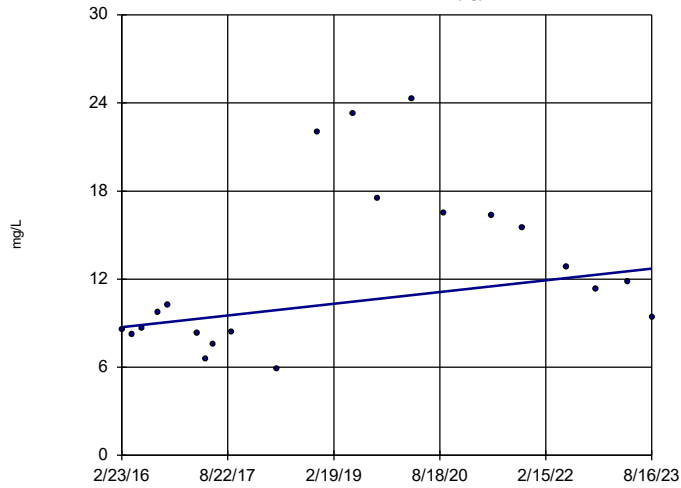
BY-AP-MW-9



Constituent: Sulfate as SO4 Analysis Run 10/23/2023 10:58 AM View: Trend Tests - PL Exceedances
Plant Barry Client: Southern Company Data: Barry Ash Pond

Sen's Slope Estimator

BY-UP-MW-1 (bg)

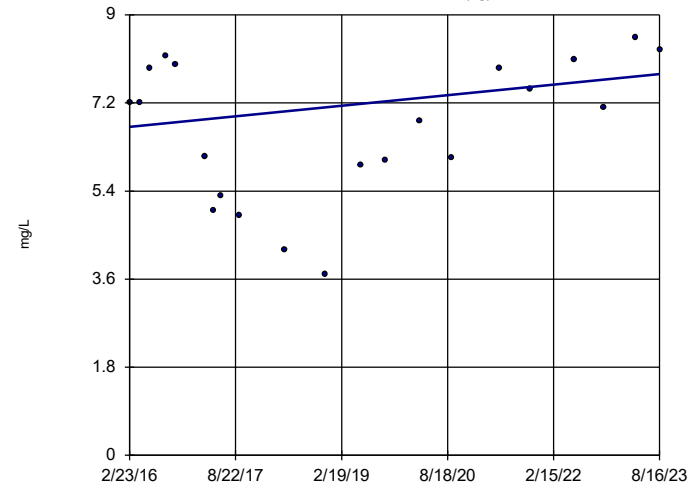


n = 21
 Slope = 0.5327
 units per year.
 Mann-Kendall
 statistic = 46
 critical = 87
 Trend not sig-
 nificant at 99%
 confidence level
 ($\alpha = 0.005$ per
 tail).

Constituent: Sulfate as SO4 Analysis Run 10/23/2023 10:58 AM View: Trend Tests - PL Exceedances
 Plant Barry Client: Southern Company Data: Barry Ash Pond

Sen's Slope Estimator

BY-UP-MW-2 (bg)

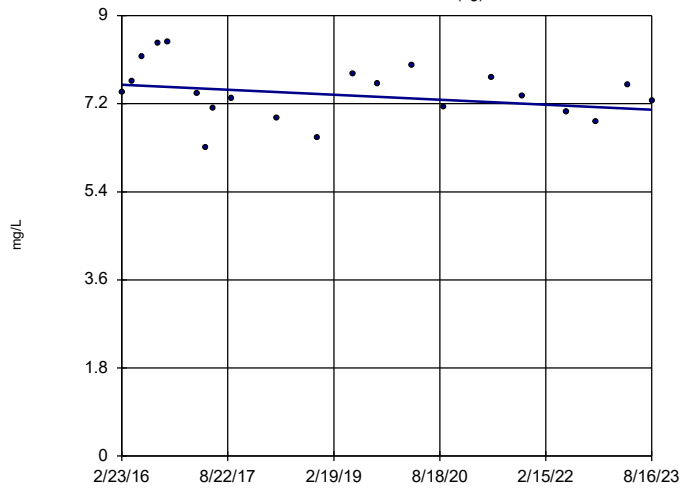


n = 21
 Slope = 0.1445
 units per year.
 Mann-Kendall
 statistic = 39
 critical = 87
 Trend not sig-
 nificant at 99%
 confidence level
 ($\alpha = 0.005$ per
 tail).

Constituent: Sulfate as SO4 Analysis Run 10/23/2023 10:58 AM View: Trend Tests - PL Exceedances
 Plant Barry Client: Southern Company Data: Barry Ash Pond

Sen's Slope Estimator

BY-UP-MW-3 (bg)

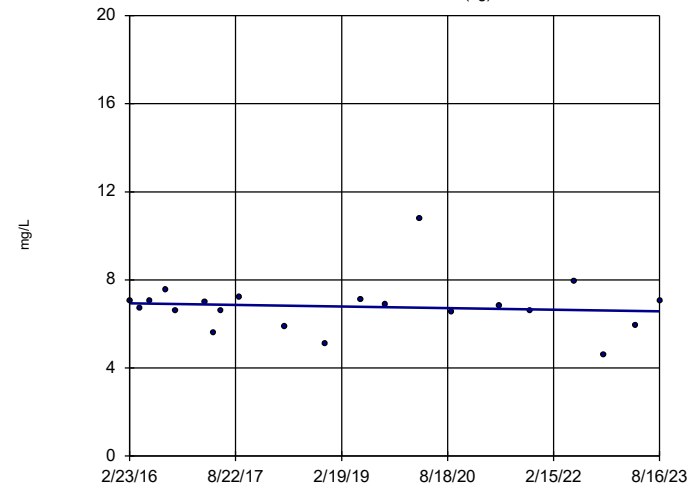


n = 21
 Slope = -0.06757
 units per year.
 Mann-Kendall
 statistic = -44
 critical = -87
 Trend not sig-
 nificant at 99%
 confidence level
 ($\alpha = 0.005$ per
 tail).

Constituent: Sulfate as SO4 Analysis Run 10/23/2023 10:58 AM View: Trend Tests - PL Exceedances
 Plant Barry Client: Southern Company Data: Barry Ash Pond

Sen's Slope Estimator

BY-UP-MW-4 (bg)

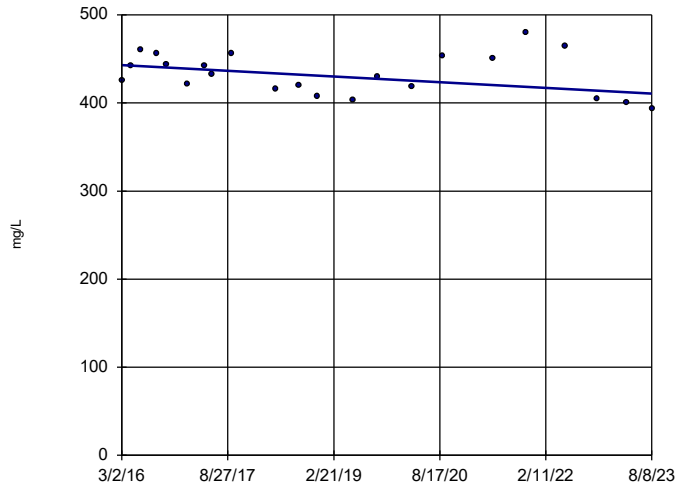


n = 21
 Slope = -0.04772
 units per year.
 Mann-Kendall
 statistic = -25
 critical = -87
 Trend not sig-
 nificant at 99%
 confidence level
 ($\alpha = 0.005$ per
 tail).

Constituent: Sulfate as SO4 Analysis Run 10/23/2023 10:58 AM View: Trend Tests - PL Exceedances
 Plant Barry Client: Southern Company Data: Barry Ash Pond

Sen's Slope Estimator

BY-AP-MW-1

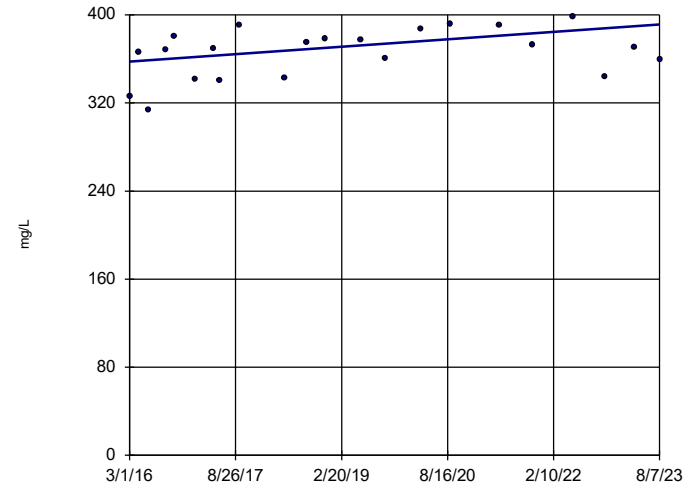


n = 22
 Slope = -4.348
 units per year.
 Mann-Kendall
 statistic = -57
 critical = -92
 Trend not sig-
 nificant at 99%
 confidence level
 ($\alpha = 0.005$ per
 tail).

Constituent: TDS Analysis Run 10/23/2023 10:58 AM View: Trend Tests - PL Exceedances
 Plant Barry Client: Southern Company Data: Barry Ash Pond

Sen's Slope Estimator

BY-AP-MW-10

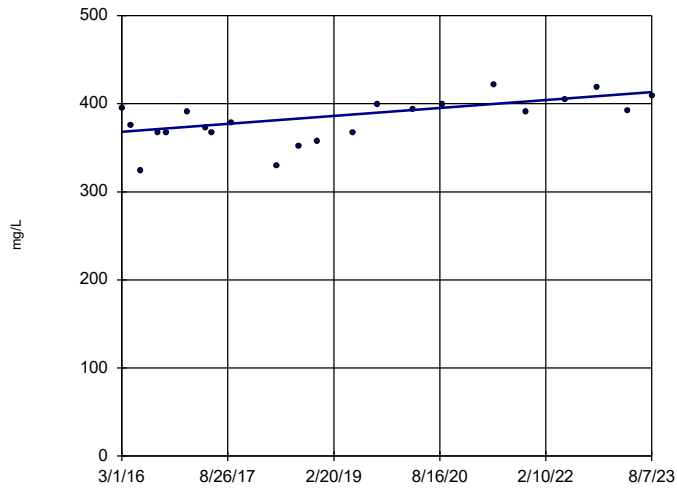


n = 22
 Slope = 4.538
 units per year.
 Mann-Kendall
 statistic = 70
 critical = 92
 Trend not sig-
 nificant at 99%
 confidence level
 ($\alpha = 0.005$ per
 tail).

Constituent: TDS Analysis Run 10/23/2023 10:58 AM View: Trend Tests - PL Exceedances
 Plant Barry Client: Southern Company Data: Barry Ash Pond

Sen's Slope Estimator

BY-AP-MW-11

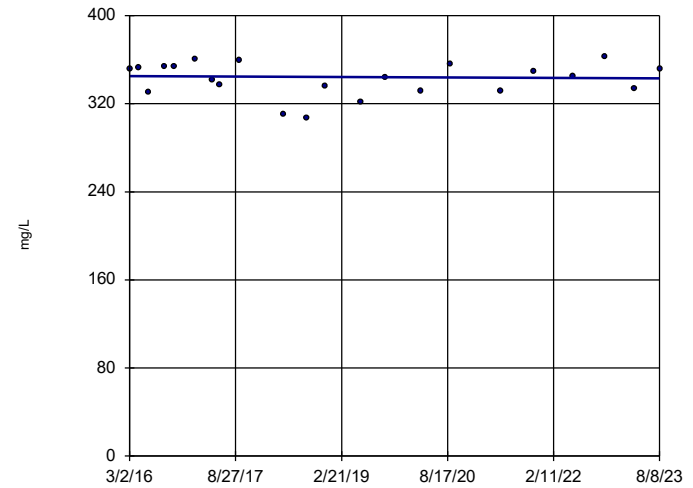


n = 22
 Slope = 6.055
 units per year.
 Mann-Kendall
 statistic = 94
 critical = 92
 Increasing trend
 significant at 99%
 confidence level
 ($\alpha = 0.005$ per
 tail).

Constituent: TDS Analysis Run 10/23/2023 10:58 AM View: Trend Tests - PL Exceedances
 Plant Barry Client: Southern Company Data: Barry Ash Pond

Sen's Slope Estimator

BY-AP-MW-12

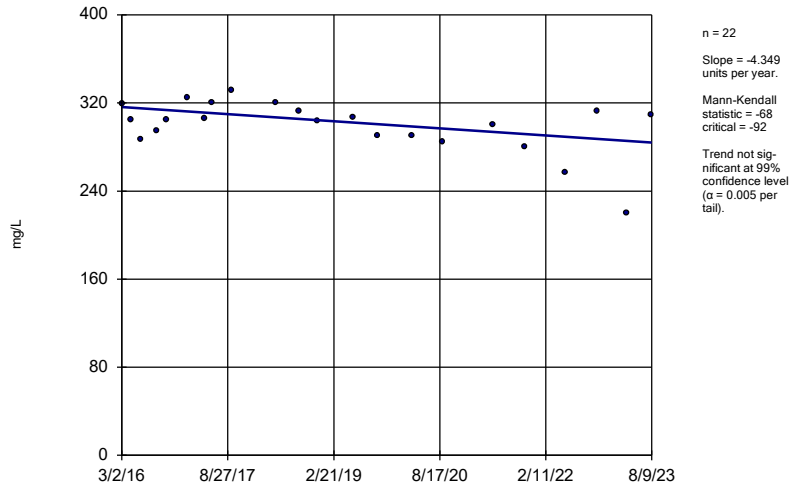


n = 22
 Slope = -0.2738
 units per year.
 Mann-Kendall
 statistic = -3
 critical = -92
 Trend not sig-
 nificant at 99%
 confidence level
 ($\alpha = 0.005$ per
 tail).

Constituent: TDS Analysis Run 10/23/2023 10:58 AM View: Trend Tests - PL Exceedances
 Plant Barry Client: Southern Company Data: Barry Ash Pond

Sen's Slope Estimator

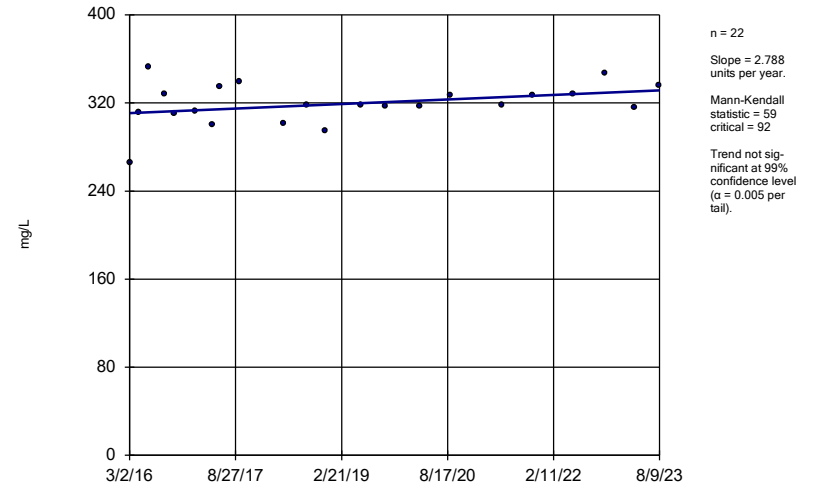
BY-AP-MW-13



Constituent: TDS Analysis Run 10/23/2023 10:59 AM View: Trend Tests - PL Exceedances
Plant Barry Client: Southern Company Data: Barry Ash Pond

Sen's Slope Estimator

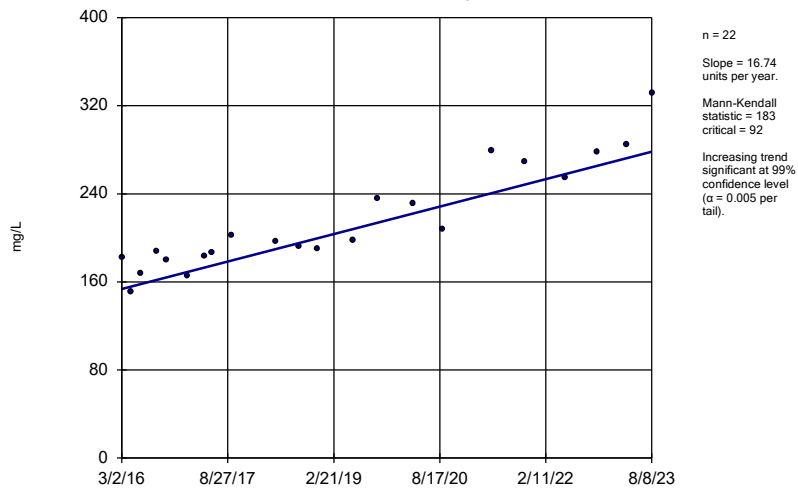
BY-AP-MW-14



Constituent: TDS Analysis Run 10/23/2023 10:59 AM View: Trend Tests - PL Exceedances
Plant Barry Client: Southern Company Data: Barry Ash Pond

Sen's Slope Estimator

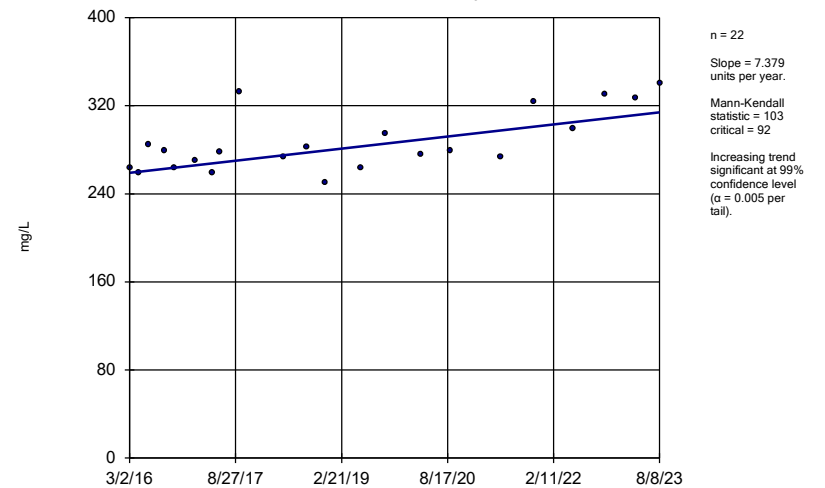
BY-AP-MW-15



Constituent: TDS Analysis Run 10/23/2023 10:59 AM View: Trend Tests - PL Exceedances
Plant Barry Client: Southern Company Data: Barry Ash Pond

Sen's Slope Estimator

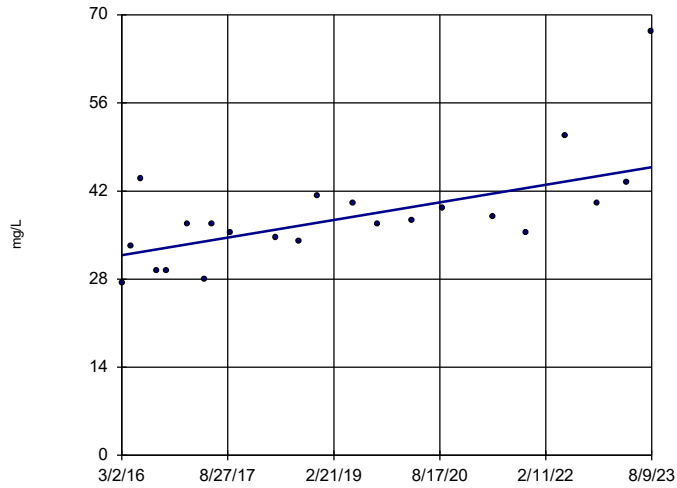
BY-AP-MW-16



Constituent: TDS Analysis Run 10/23/2023 10:59 AM View: Trend Tests - PL Exceedances
Plant Barry Client: Southern Company Data: Barry Ash Pond

Sen's Slope Estimator

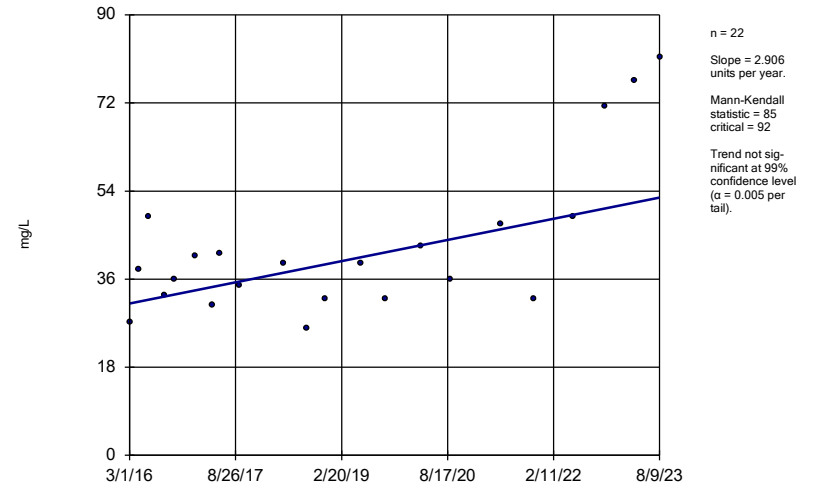
BY-AP-MW-3



Constituent: TDS Analysis Run 10/23/2023 10:59 AM View: Trend Tests - PL Exceedances
Plant Barry Client: Southern Company Data: Barry Ash Pond

Sen's Slope Estimator

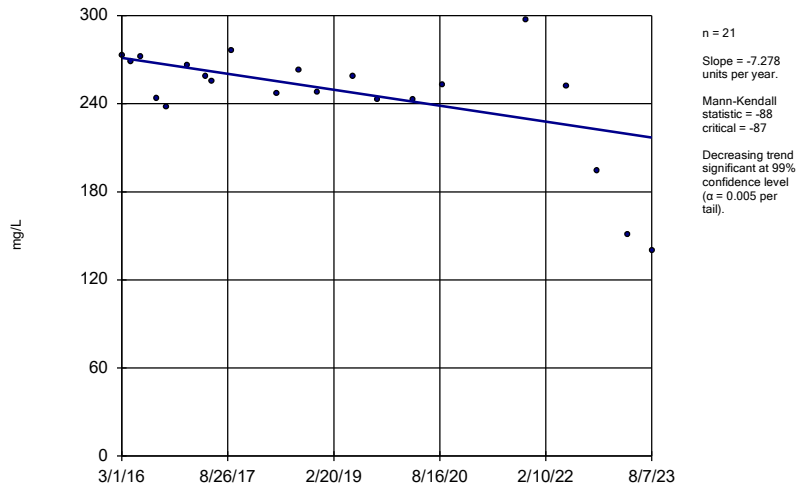
BY-AP-MW-4



Constituent: TDS Analysis Run 10/23/2023 10:59 AM View: Trend Tests - PL Exceedances
Plant Barry Client: Southern Company Data: Barry Ash Pond

Sen's Slope Estimator

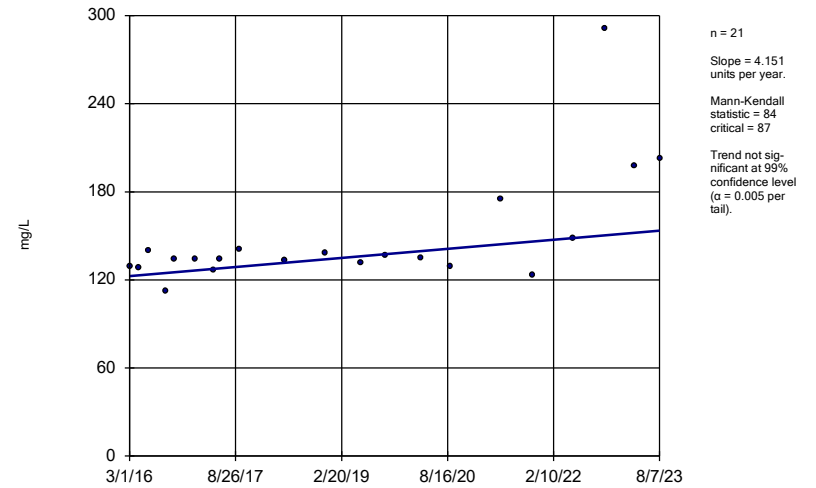
BY-AP-MW-5



Constituent: TDS Analysis Run 10/23/2023 10:59 AM View: Trend Tests - PL Exceedances
Plant Barry Client: Southern Company Data: Barry Ash Pond

Sen's Slope Estimator

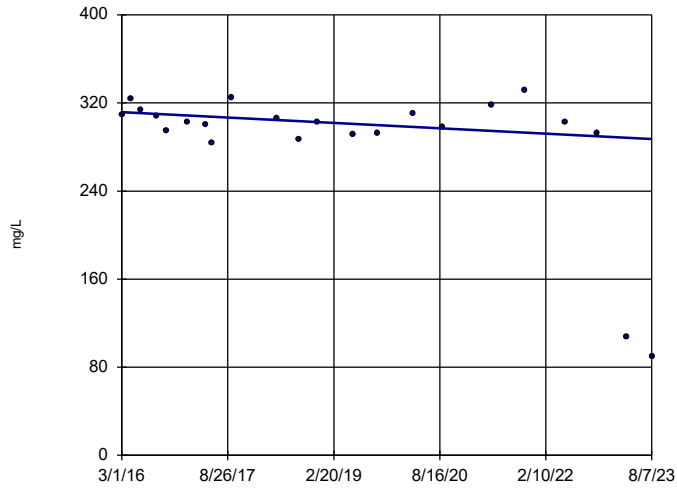
BY-AP-MW-7



Constituent: TDS Analysis Run 10/23/2023 10:59 AM View: Trend Tests - PL Exceedances
Plant Barry Client: Southern Company Data: Barry Ash Pond

Sen's Slope Estimator

BY-AP-MW-8

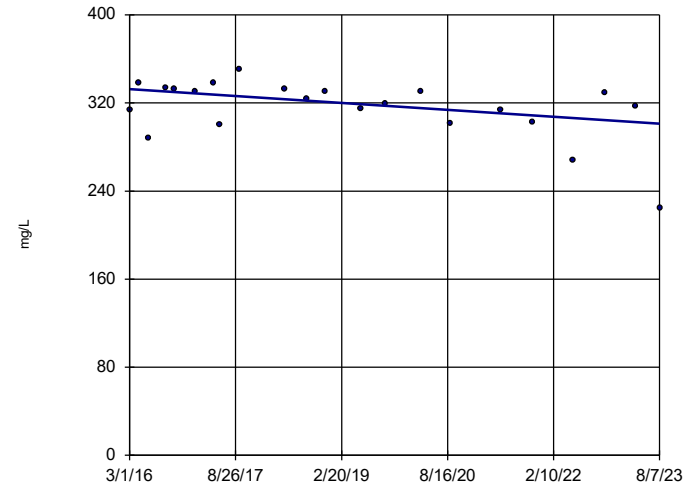


n = 22
 Slope = -3.255
 units per year.
 Mann-Kendall
 statistic = -.61
 critical = -.92
 Trend not sig-
 nificant at 99%
 confidence level
 (α = 0.005 per
 tail).

Constituent: TDS Analysis Run 10/23/2023 10:59 AM View: Trend Tests - PL Exceedances
 Plant Barry Client: Southern Company Data: Barry Ash Pond

Sen's Slope Estimator

BY-AP-MW-9

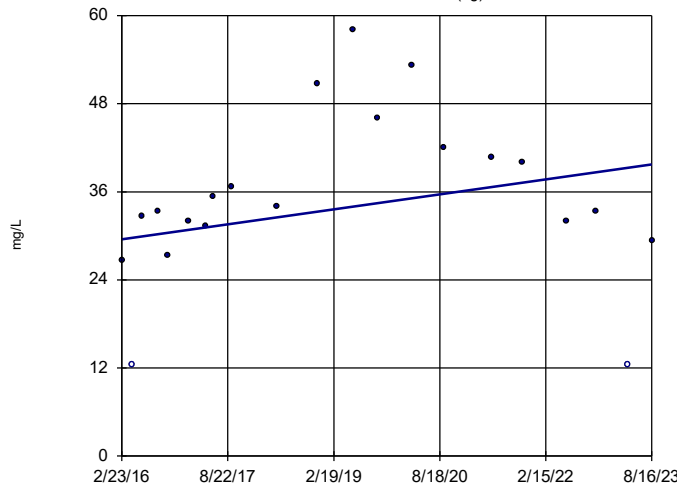


n = 22
 Slope = -4.242
 units per year.
 Mann-Kendall
 statistic = -.83
 critical = -.92
 Trend not sig-
 nificant at 99%
 confidence level
 (α = 0.005 per
 tail).

Constituent: TDS Analysis Run 10/23/2023 10:59 AM View: Trend Tests - PL Exceedances
 Plant Barry Client: Southern Company Data: Barry Ash Pond

Sen's Slope Estimator

BY-UP-MW-1 (bg)

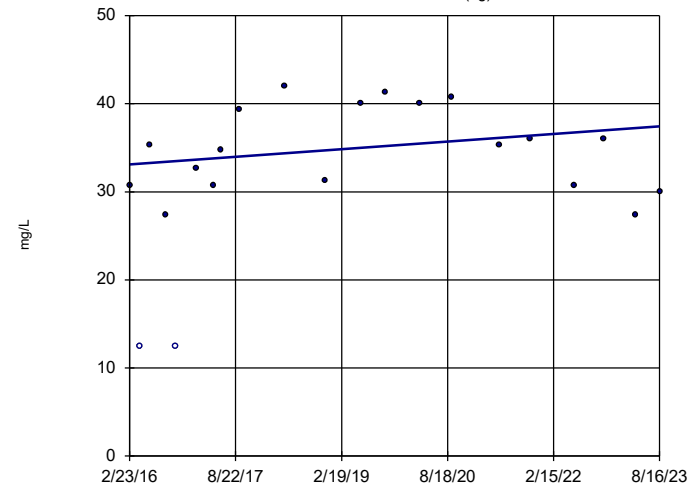


n = 21
 Slope = 1.366
 units per year.
 Mann-Kendall
 statistic = .39
 critical = .87
 Trend not sig-
 nificant at 99%
 confidence level
 (α = 0.005 per
 tail).

Constituent: TDS Analysis Run 10/23/2023 10:59 AM View: Trend Tests - PL Exceedances
 Plant Barry Client: Southern Company Data: Barry Ash Pond

Sen's Slope Estimator

BY-UP-MW-2 (bg)

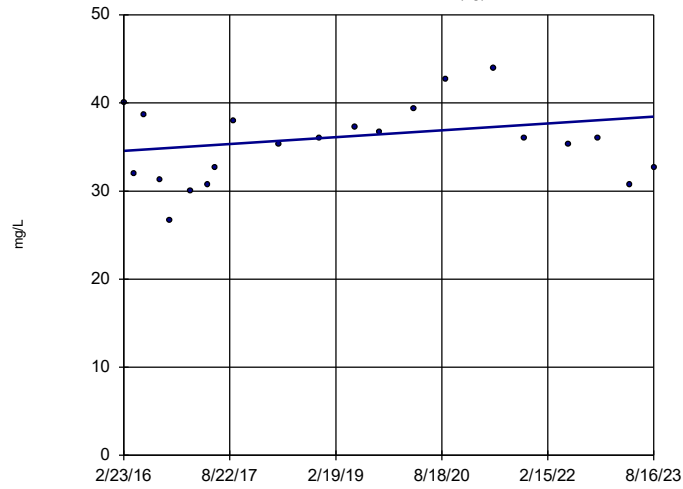


n = 21
 Slope = 0.5823
 units per year.
 Mann-Kendall
 statistic = .36
 critical = .87
 Trend not sig-
 nificant at 99%
 confidence level
 (α = 0.005 per
 tail).

Constituent: TDS Analysis Run 10/23/2023 10:59 AM View: Trend Tests - PL Exceedances
 Plant Barry Client: Southern Company Data: Barry Ash Pond

Sen's Slope Estimator

BY-UP-MW-3 (bg)

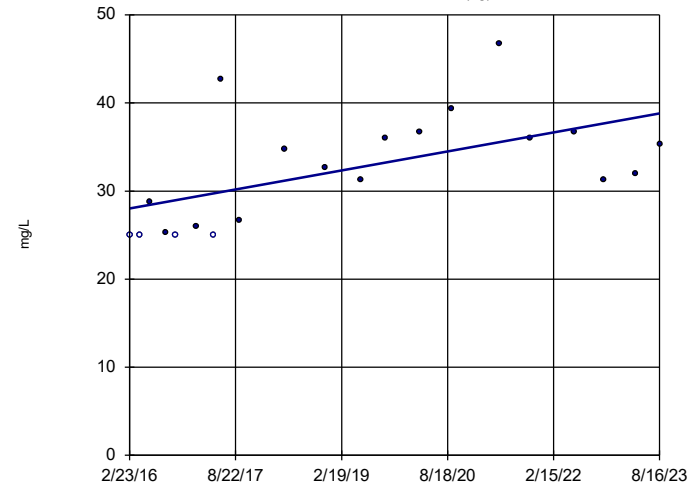


n = 21
Slope = 0.5158
units per year.
Mann-Kendall
statistic = 24
critical = 87
Trend not sig-
nificant at 99%
confidence level
($\alpha = 0.005$ per
tail).

Constituent: TDS Analysis Run 10/23/2023 10:59 AM View: Trend Tests - PL Exceedances
Plant Barry Client: Southern Company Data: Barry Ash Pond

Sen's Slope Estimator

BY-UP-MW-4 (bg)



n = 21
Slope = 1.443
units per year.
Mann-Kendall
statistic = 101
critical = 87
Increasing trend
significant at 99%
confidence level
($\alpha = 0.005$ per
tail).

Constituent: TDS Analysis Run 10/23/2023 10:59 AM View: Trend Tests - PL Exceedances
Plant Barry Client: Southern Company Data: Barry Ash Pond

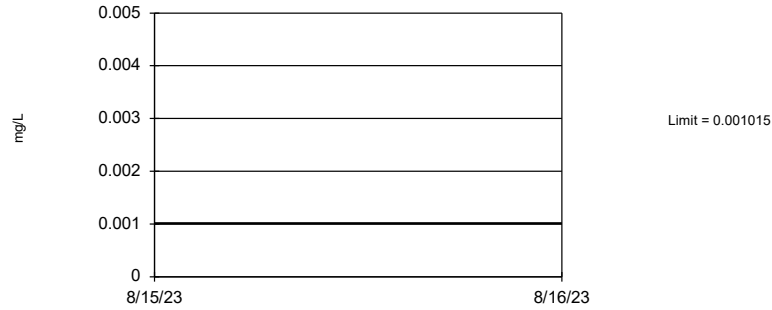
FIGURE I.

Upper Tolerance Limits

Plant Barry Client: Southern Company Data: Barry Ash Pond Printed 10/5/2023, 11:20 AM

<u>Constituent</u>	<u>Upper Lim.</u>	<u>Bg N</u>	<u>Bg Mean</u>	<u>Std. Dev.</u>	<u>%NDs</u>	<u>ND Adj.</u>	<u>Transform</u>	<u>Alpha</u>	<u>Method</u>
Antimony (mg/L)	0.001015	84	n/a	n/a	94.05	n/a	n/a	0.01345	NP Inter
Arsenic (mg/L)	0.0017	84	n/a	n/a	77.38	n/a	n/a	0.01345	NP Inter
Barium (mg/L)	0.183	84	n/a	n/a	0	n/a	n/a	0.01345	NP Inter
Beryllium (mg/L)	0.001015	84	n/a	n/a	89.29	n/a	n/a	0.01345	NP Inter
Cadmium (mg/L)	0.000203	84	n/a	n/a	98.81	n/a	n/a	0.01345	NP Inter
Chromium (mg/L)	0.00604	84	n/a	n/a	67.86	n/a	n/a	0.01345	NP Inter
Cobalt (mg/L)	0.0157	84	n/a	n/a	46.43	n/a	n/a	0.01345	NP Inter
Combined Radium 226 + 228 (pCi/L)	3	84	n/a	n/a	0	n/a	n/a	0.01345	NP Inter
Fluoride, total (mg/L)	0.125	88	n/a	n/a	67.05	n/a	n/a	0.01096	NP Inter
Lead (mg/L)	0.00126	84	n/a	n/a	78.57	n/a	n/a	0.01345	NP Inter
Lithium (mg/L)	0.02	84	n/a	n/a	100	n/a	n/a	0.01345	NP Inter
Mercury (mg/L)	0.0005	84	n/a	n/a	100	n/a	n/a	0.01345	NP Inter
Molybdenum (mg/L)	0.01015	84	n/a	n/a	100	n/a	n/a	0.01345	NP Inter
Selenium (mg/L)	0.001015	84	n/a	n/a	94.05	n/a	n/a	0.01345	NP Inter
Thallium (mg/L)	0.000203	84	n/a	n/a	100	n/a	n/a	0.01345	NP Inter

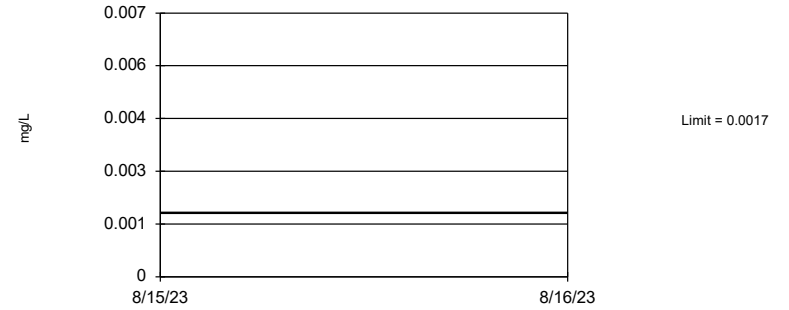
Tolerance Limit Interwell Non-parametric



NP test selected by user. Limit is highest of 84 background values. 94.05% NDs. 94.73% coverage at alpha=0.01; 96.68% coverage at alpha=0.05; 99.02% coverage at alpha=0.5. Report alpha = 0.01345.

Constituent: Antimony Analysis Run 10/23/2023 12:04 PM View: Appendix IV - UTLs
Plant Barry Client: Southern Company Data: Barry Ash Pond

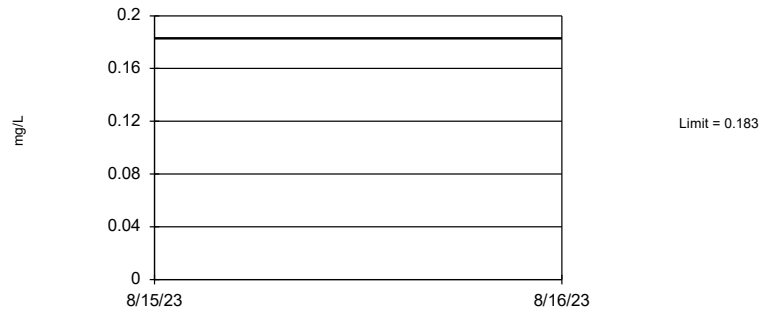
Tolerance Limit Interwell Non-parametric



NP test selected by user. Limit is highest of 84 background values. 77.38% NDs. 94.73% coverage at alpha=0.01; 96.68% coverage at alpha=0.05; 99.02% coverage at alpha=0.5. Report alpha = 0.01345.

Constituent: Arsenic Analysis Run 10/23/2023 12:04 PM View: Appendix IV - UTLs
Plant Barry Client: Southern Company Data: Barry Ash Pond

Tolerance Limit Interwell Non-parametric



NP test selected by user. Limit is highest of 84 background values. 94.73% coverage at alpha=0.01; 96.68% coverage at alpha=0.05; 99.02% coverage at alpha=0.5. Report alpha = 0.01345.

Constituent: Barium Analysis Run 10/23/2023 12:04 PM View: Appendix IV - UTLs
Plant Barry Client: Southern Company Data: Barry Ash Pond

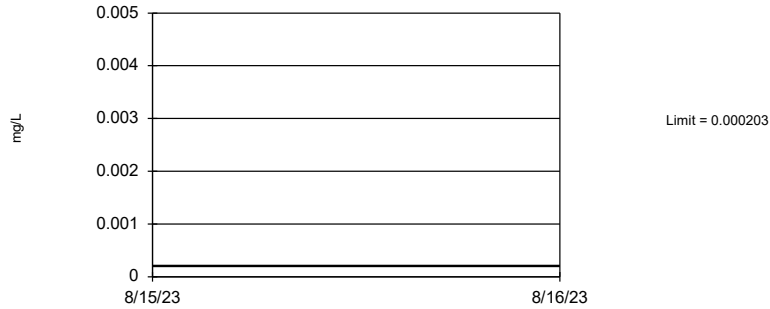
Tolerance Limit Interwell Non-parametric



NP test selected by user. Limit is highest of 84 background values. 89.29% NDs. 94.73% coverage at alpha=0.01; 96.68% coverage at alpha=0.05; 99.02% coverage at alpha=0.5. Report alpha = 0.01345.

Constituent: Beryllium Analysis Run 10/23/2023 12:04 PM View: Appendix IV - UTLs
Plant Barry Client: Southern Company Data: Barry Ash Pond

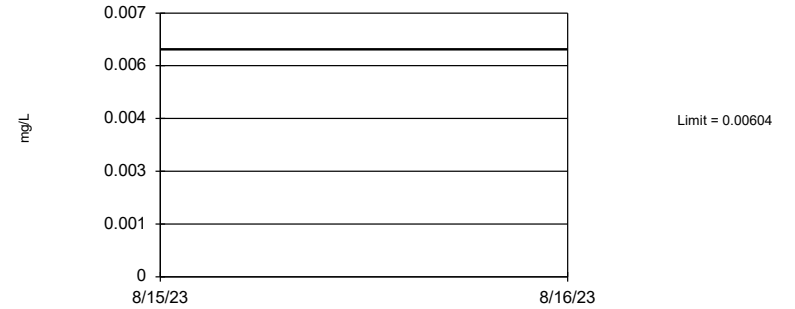
Tolerance Limit Interwell Non-parametric



NP test selected by user. Limit is highest of 84 background values. 98.81% NDs. 94.73% coverage at alpha=0.01; 96.68% coverage at alpha=0.05; 99.02% coverage at alpha=0.5. Report alpha = 0.01345.

Constituent: Cadmium Analysis Run 10/23/2023 12:04 PM View: Appendix IV - UTLs
Plant Barry Client: Southern Company Data: Barry Ash Pond

Tolerance Limit Interwell Non-parametric



NP test selected by user. Limit is highest of 84 background values. 67.86% NDs. 94.73% coverage at alpha=0.01; 96.68% coverage at alpha=0.05; 99.02% coverage at alpha=0.5. Report alpha = 0.01345.

Constituent: Chromium Analysis Run 10/23/2023 12:04 PM View: Appendix IV - UTLs
Plant Barry Client: Southern Company Data: Barry Ash Pond

Tolerance Limit Interwell Non-parametric



NP test selected by user. Limit is highest of 84 background values. 46.43% NDs. 94.73% coverage at alpha=0.01; 96.68% coverage at alpha=0.05; 99.02% coverage at alpha=0.5. Report alpha = 0.01345.

Constituent: Cobalt Analysis Run 10/23/2023 12:04 PM View: Appendix IV - UTLs
Plant Barry Client: Southern Company Data: Barry Ash Pond

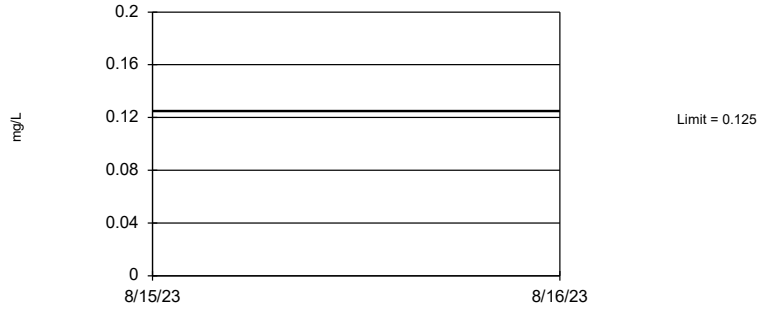
Tolerance Limit Interwell Non-parametric



NP test selected by user. Limit is highest of 80 background values. 94.34% coverage at alpha=0.01; 96.29% coverage at alpha=0.05; 99.02% coverage at alpha=0.5. Report alpha = 0.01652.

Constituent: Combined Radium 226 + 228 Analysis Run 10/23/2023 12:04 PM View: Appendix IV - UTLs
Plant Barry Client: Southern Company Data: Barry Ash Pond

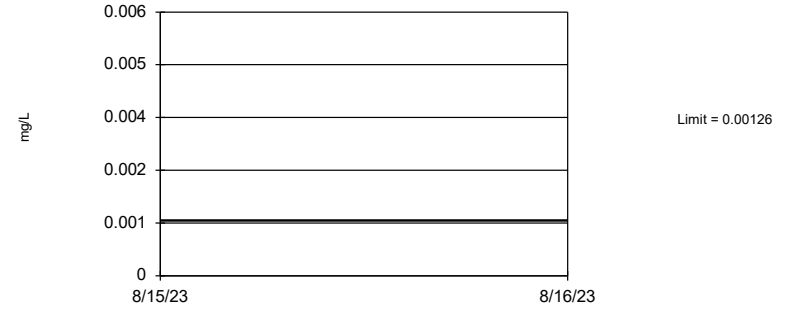
Tolerance Limit Interwell Non-parametric



NP test selected by user. Limit is highest of 88 background values. 67.05% NDs. 94.73% coverage at alpha=0.01; 96.68% coverage at alpha=0.05; 99.02% coverage at alpha=0.5. Report alpha = 0.01096.

Constituent: Fluoride, total Analysis Run 10/23/2023 12:04 PM View: Appendix IV - UTLs
Plant Barry Client: Southern Company Data: Barry Ash Pond

Tolerance Limit Interwell Non-parametric



NP test selected by user. Limit is highest of 84 background values. 78.57% NDs. 94.73% coverage at alpha=0.01; 96.68% coverage at alpha=0.05; 99.02% coverage at alpha=0.5. Report alpha = 0.01345.

Constituent: Lead Analysis Run 10/23/2023 12:04 PM View: Appendix IV - UTLs
Plant Barry Client: Southern Company Data: Barry Ash Pond

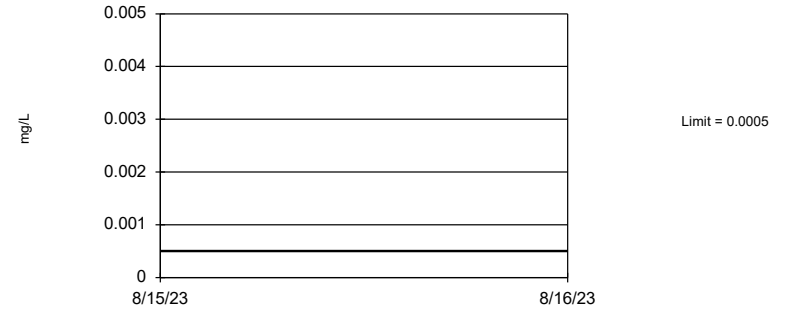
Tolerance Limit Interwell Non-parametric



NP test selected by user. All background values were censored; limit is most recent reporting limit. 94.73% coverage at alpha=0.01; 96.68% coverage at alpha=0.05; 99.02% coverage at alpha=0.5. Report alpha = 0.01345.

Constituent: Lithium Analysis Run 10/23/2023 12:04 PM View: Appendix IV - UTLs
Plant Barry Client: Southern Company Data: Barry Ash Pond

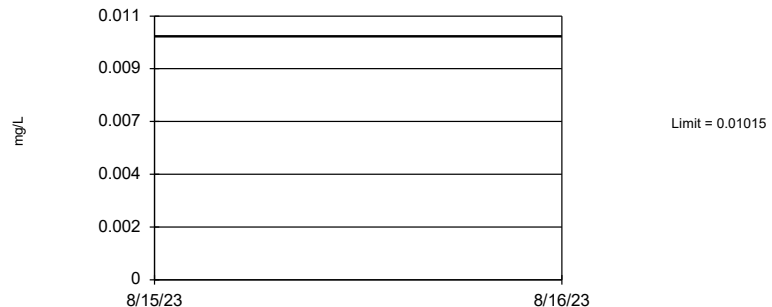
Tolerance Limit Interwell Non-parametric



NP test selected by user. All background values were censored; limit is most recent reporting limit. 94.73% coverage at alpha=0.01; 96.68% coverage at alpha=0.05; 99.02% coverage at alpha=0.5. Report alpha = 0.01345.

Constituent: Mercury Analysis Run 10/23/2023 12:04 PM View: Appendix IV - UTLs
Plant Barry Client: Southern Company Data: Barry Ash Pond

Tolerance Limit Interwell Non-parametric



NP test selected by user. All background values were censored; limit is most recent reporting limit. 94.73% coverage at alpha=0.01; 96.68% coverage at alpha=0.05; 99.02% coverage at alpha=0.5. Report alpha = 0.01345.

Constituent: Molybdenum Analysis Run 10/23/2023 12:04 PM View: Appendix IV - UTLs
Plant Barry Client: Southern Company Data: Barry Ash Pond

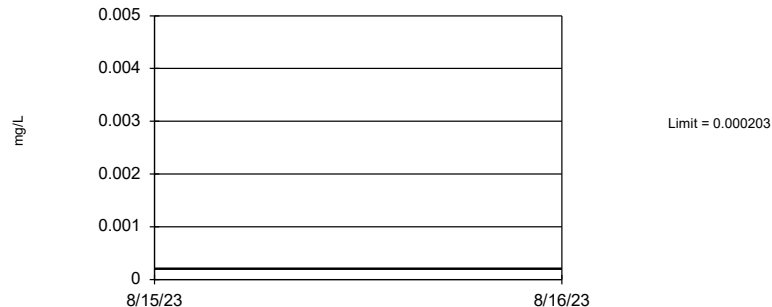
Tolerance Limit Interwell Non-parametric



NP test selected by user. Limit is highest of 84 background values. 94.05% NDs. 94.73% coverage at alpha=0.01; 96.68% coverage at alpha=0.05; 99.02% coverage at alpha=0.5. Report alpha = 0.01345.

Constituent: Selenium Analysis Run 10/23/2023 12:04 PM View: Appendix IV - UTLs
Plant Barry Client: Southern Company Data: Barry Ash Pond

Tolerance Limit Interwell Non-parametric



NP test selected by user. All background values were censored; limit is most recent reporting limit. 94.73% coverage at alpha=0.01; 96.68% coverage at alpha=0.05; 99.02% coverage at alpha=0.5. Report alpha = 0.01345.

Constituent: Thallium Analysis Run 10/23/2023 12:04 PM View: Appendix IV - UTLs
Plant Barry Client: Southern Company Data: Barry Ash Pond

FIGURE J.

BARRY ASH POND GWPS			
Analyte	Units	Background	GWPS
Antimony	mg/L	0.001015	0.006
Arsenic	mg/L	0.0017	0.01
Barium	mg/L	0.183	2
Beryllium	mg/L	0.001015	0.004
Cadmium	mg/L	0.000203	0.005
Chromium	mg/L	0.00604	0.1
Cobalt	mg/L	0.0157	0.0157
Combined Radium-226/228	pCi/L	3	5
Fluoride	mg/L	0.125	4
Lead	mg/L	0.00126	0.015
Lithium	mg/L	0.02	0.04
Mercury	mg/L	0.0005	0.002
Molybdenum	mg/L	0.01015	0.1
Selenium	mg/L	0.001015	0.05
Thallium	mg/L	0.000203	0.002

Notes:

1. mg/L - Milligrams per liter
2. pCi/L - Picocuries per liter
3. The background limits were used as the groundwater protection standard (GWPS) when appropriate under 40 CFR §257.95(h), ADEM Rule 335-13-15-.06(h), and the ADEM Variance.
4. GWPS established during second semi-annual sampling event in 2023.

FIGURE K.

Confidence Interval Summary Table - Significant Results

Plant Barry Client: Southern Company Data: Barry Ash Pond Printed 10/22/2023, 1:30 PM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig. N	Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Arsenic (mg/L)	BY-AP-MW-1	0.0781	0.05613	0.01	Yes 8	0.06711	0.01036	0	None	No	0.01	Param.
Arsenic (mg/L)	BY-AP-MW-10	0.07833	0.05715	0.01	Yes 8	0.06575	0.01783	0	None	x^4	0.01	Param.
Arsenic (mg/L)	BY-AP-MW-11	0.01656	0.01354	0.01	Yes 8	0.01505	0.00142	0	None	No	0.01	Param.
Arsenic (mg/L)	BY-AP-MW-12	0.0246	0.0218	0.01	Yes 8	0.02356	0.001184	0	None	No	0.004	NP (normality)
Arsenic (mg/L)	BY-AP-MW-14	0.01791	0.01709	0.01	Yes 8	0.0175	0.0003891	0	None	No	0.01	Param.
Arsenic (mg/L)	BY-AP-MW-15	0.01987	0.01763	0.01	Yes 8	0.01875	0.001053	0	None	No	0.01	Param.
Arsenic (mg/L)	BY-AP-MW-16	0.01595	0.01238	0.01	Yes 8	0.01416	0.001683	0	None	No	0.01	Param.
Arsenic (mg/L)	BY-AP-MW-5	0.03705	0.02115	0.01	Yes 8	0.0291	0.0075	0	None	No	0.01	Param.
Arsenic (mg/L)	BY-AP-MW-7	0.02404	0.01216	0.01	Yes 8	0.0181	0.005605	0	None	No	0.01	Param.
Arsenic (mg/L)	BY-AP-MW-8	0.06645	0.03222	0.01	Yes 8	0.04503	0.02712	0	None	x^3	0.01	Param.
Arsenic (mg/L)	BY-AP-MW-9	0.04731	0.02324	0.01	Yes 8	0.03528	0.01135	0	None	No	0.01	Param.
Cobalt (mg/L)	BY-AP-MW-15	0.0385	0.0344	0.0157	Yes 8	0.03558	0.001364	0	None	No	0.004	NP (normality)

Confidence Interval Summary Table - All Results

Plant Barry Client: Southern Company Data: Barry Ash Pond Printed 10/22/2023, 1:30 PM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig. N	Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Arsenic (mg/L)	BY-AP-MW-1	0.0781	0.05613	0.01	Yes 8	0.06711	0.01036	0	None	No	0.01	Param.
Arsenic (mg/L)	BY-AP-MW-10	0.07833	0.05715	0.01	Yes 8	0.06575	0.01783	0	None	x^4	0.01	Param.
Arsenic (mg/L)	BY-AP-MW-11	0.01656	0.01354	0.01	Yes 8	0.01505	0.00142	0	None	No	0.01	Param.
Arsenic (mg/L)	BY-AP-MW-12	0.0246	0.0218	0.01	Yes 8	0.02356	0.001184	0	None	No	0.004	NP (normality)
Arsenic (mg/L)	BY-AP-MW-13	0.01811	0.009774	0.01	No 8	0.01394	0.003934	0	None	No	0.01	Param.
Arsenic (mg/L)	BY-AP-MW-14	0.01791	0.01709	0.01	Yes 8	0.0175	0.0003891	0	None	No	0.01	Param.
Arsenic (mg/L)	BY-AP-MW-15	0.01987	0.01763	0.01	Yes 8	0.01875	0.001053	0	None	No	0.01	Param.
Arsenic (mg/L)	BY-AP-MW-16	0.01595	0.01238	0.01	Yes 8	0.01416	0.001683	0	None	No	0.01	Param.
Arsenic (mg/L)	BY-AP-MW-2	0.001788	0.001277	0.01	No 8	0.001533	0.0002408	0	None	No	0.01	Param.
Arsenic (mg/L)	BY-AP-MW-3	0.00125	0.000102	0.01	No 8	0.0003528	0.0003762	62.5	None	No	0.004	NP (NDs)
Arsenic (mg/L)	BY-AP-MW-4	0.000226	0.000099	0.01	No 8	0.0001828	0.00004497	50	None	No	0.004	NP (normality)
Arsenic (mg/L)	BY-AP-MW-5	0.03705	0.02115	0.01	Yes 8	0.0291	0.0075	0	None	No	0.01	Param.
Arsenic (mg/L)	BY-AP-MW-6	0.000203	0.0001	0.01	No 8	0.0001776	0.00004699	75	None	No	0.004	NP (NDs)
Arsenic (mg/L)	BY-AP-MW-7	0.02404	0.01216	0.01	Yes 8	0.0181	0.005605	0	None	No	0.01	Param.
Arsenic (mg/L)	BY-AP-MW-8	0.06645	0.03222	0.01	Yes 8	0.04503	0.02712	0	None	x^3	0.01	Param.
Arsenic (mg/L)	BY-AP-MW-9	0.04731	0.02324	0.01	Yes 8	0.03528	0.01135	0	None	No	0.01	Param.
Barium (mg/L)	BY-AP-MW-1	0.3423	0.2517	2	No 8	0.297	0.04277	0	None	No	0.01	Param.
Barium (mg/L)	BY-AP-MW-10	0.07494	0.06094	2	No 8	0.06794	0.006603	0	None	No	0.01	Param.
Barium (mg/L)	BY-AP-MW-11	0.09898	0.06567	2	No 8	0.08233	0.01571	0	None	No	0.01	Param.
Barium (mg/L)	BY-AP-MW-12	0.08763	0.07724	2	No 8	0.08244	0.004901	0	None	No	0.01	Param.
Barium (mg/L)	BY-AP-MW-13	0.07966	0.05974	2	No 8	0.0697	0.009394	0	None	No	0.01	Param.
Barium (mg/L)	BY-AP-MW-14	0.07146	0.06144	2	No 8	0.06645	0.004726	0	None	No	0.01	Param.
Barium (mg/L)	BY-AP-MW-15	0.08278	0.07227	2	No 8	0.07753	0.004961	0	None	No	0.01	Param.
Barium (mg/L)	BY-AP-MW-16	0.09974	0.08801	2	No 8	0.09388	0.005532	0	None	No	0.01	Param.
Barium (mg/L)	BY-AP-MW-2	0.02735	0.01877	2	No 8	0.02306	0.004045	0	None	No	0.01	Param.
Barium (mg/L)	BY-AP-MW-3	0.04433	0.02955	2	No 8	0.03694	0.006972	0	None	No	0.01	Param.
Barium (mg/L)	BY-AP-MW-4	0.118	0.0131	2	No 8	0.05844	0.04909	0	None	No	0.004	NP (normality)
Barium (mg/L)	BY-AP-MW-5	0.1592	0.09435	2	No 8	0.127	0.0352	0	None	x^3	0.01	Param.
Barium (mg/L)	BY-AP-MW-6	0.02959	0.02568	2	No 8	0.02764	0.001843	0	None	No	0.01	Param.
Barium (mg/L)	BY-AP-MW-7	0.07303	0.03138	2	No 8	0.05244	0.02263	0	None	x^3	0.01	Param.
Barium (mg/L)	BY-AP-MW-8	0.1509	0.1124	2	No 8	0.1137	0.05688	0	None	x^6	0.01	Param.
Barium (mg/L)	BY-AP-MW-9	0.1281	0.103	2	No 8	0.1155	0.01424	0	None	x^3	0.01	Param.
Beryllium (mg/L)	BY-AP-MW-4	0.001015	0.000432	0.004	No 8	0.000826	0.0002687	62.5	None	No	0.004	NP (NDs)
Cadmium (mg/L)	BY-AP-MW-4	0.000203	0.00009	0.005	No 8	0.0001638	0.00005431	62.5	None	No	0.004	NP (NDs)
Cadmium (mg/L)	BY-AP-MW-6	0.00031	0.000068	0.005	No 8	0.0001829	0.00007939	62.5	None	No	0.004	NP (NDs)
Chromium (mg/L)	BY-AP-MW-1	0.004863	0.002233	0.1	No 8	0.00352	0.001346	0	None	sqrt(x)	0.01	Param.
Chromium (mg/L)	BY-AP-MW-10	0.0007063	0.0005569	0.1	No 8	0.0007285	0.0001911	25	Kaplan-Meier	sqrt(x)	0.01	Param.
Chromium (mg/L)	BY-AP-MW-11	0.004	0.002355	0.1	No 8	0.003178	0.0007755	0	None	No	0.01	Param.
Chromium (mg/L)	BY-AP-MW-12	0.004933	0.003194	0.1	No 8	0.004064	0.0008202	0	None	No	0.01	Param.
Chromium (mg/L)	BY-AP-MW-13	0.009055	0.005475	0.1	No 8	0.007245	0.001998	0	None	x^2	0.01	Param.
Chromium (mg/L)	BY-AP-MW-14	0.004468	0.003172	0.1	No 8	0.00382	0.0006112	0	None	No	0.01	Param.
Chromium (mg/L)	BY-AP-MW-15	0.000604	0.0003785	0.1	No 8	0.0006229	0.0002638	25	Kaplan-Meier	sqrt(x)	0.01	Param.
Chromium (mg/L)	BY-AP-MW-16	0.001669	0.001073	0.1	No 8	0.001371	0.0003005	25	Kaplan-Meier	No	0.01	Param.
Chromium (mg/L)	BY-AP-MW-2	0.00102	0.000206	0.1	No 8	0.000641	0.0003733	37.5	None	No	0.004	NP (normality)
Chromium (mg/L)	BY-AP-MW-3	0.001024	0.0006013	0.1	No 8	0.0008847	0.0002194	25	Kaplan-Meier	x^4	0.01	Param.
Chromium (mg/L)	BY-AP-MW-4	0.0007516	0.0003624	0.1	No 8	0.0006727	0.0002736	25	Kaplan-Meier	No	0.01	Param.
Chromium (mg/L)	BY-AP-MW-5	0.00103	0.000894	0.1	No 8	0.0009814	0.00005716	37.5	None	No	0.004	NP (normality)
Chromium (mg/L)	BY-AP-MW-6	0.00102	0.00023	0.1	No 8	0.0004626	0.0003448	25	None	No	0.004	NP (normality)
Chromium (mg/L)	BY-AP-MW-7	0.002897	0.0001035	0.1	No 8	0.001791	0.002322	37.5	Kaplan-Meier	x^(1/3)	0.01	Param.
Chromium (mg/L)	BY-AP-MW-8	0.001491	0.0007243	0.1	No 8	0.001161	0.000334	25	Kaplan-Meier	No	0.01	Param.
Chromium (mg/L)	BY-AP-MW-9	0.0008183	0.0005664	0.1	No 8	0.0007742	0.0001874	25	Kaplan-Meier	No	0.01	Param.
Cobalt (mg/L)	BY-AP-MW-1	0.005	0.000897	0.0157	No 8	0.002008	0.001852	25	None	No	0.004	NP (normality)
Cobalt (mg/L)	BY-AP-MW-10	0.005	0.00054	0.0157	No 8	0.001708	0.002032	25	None	No	0.004	NP (normality)
Cobalt (mg/L)	BY-AP-MW-11	0.005	0.000946	0.0157	No 8	0.002242	0.001781	25	None	No	0.004	NP (normality)
Cobalt (mg/L)	BY-AP-MW-12	0.004099	0.003179	0.0157	No 8	0.003639	0.0004342	0	None	No	0.01	Param.

Confidence Interval Summary Table - All Results

Plant Barry Client: Southern Company Data: Barry Ash Pond Printed 10/22/2023, 1:30 PM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig. N	Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Cobalt (mg/L)	BY-AP-MW-13	0.002149	0.0008931	0.0157	No 8	0.002385	0.001718	25	Kaplan-Meier	sqrt(x)	0.01	Param.
Cobalt (mg/L)	BY-AP-MW-14	0.005	0.00119	0.0157	No 8	0.002172	0.001745	25	None	No	0.004	NP (normality)
Cobalt (mg/L)	BY-AP-MW-15	0.0385	0.0344	0.0157	Yes 8	0.03558	0.001364	0	None	No	0.004	NP (normality)
Cobalt (mg/L)	BY-AP-MW-16	0.01952	0.007449	0.0157	No 8	0.01348	0.005693	0	None	No	0.01	Param.
Cobalt (mg/L)	BY-AP-MW-2	0.007597	0.004413	0.0157	No 8	0.006005	0.001502	0	None	No	0.01	Param.
Cobalt (mg/L)	BY-AP-MW-3	0.005	0.000108	0.0157	No 8	0.001375	0.002238	25	None	No	0.004	NP (normality)
Cobalt (mg/L)	BY-AP-MW-4	0.01351	0.002523	0.0157	No 8	0.00791	0.007141	0	None	ln(x)	0.01	Param.
Cobalt (mg/L)	BY-AP-MW-5	0.00192	0.001039	0.0157	No 8	0.002794	0.001858	37.5	Kaplan-Meier	ln(x)	0.01	Param.
Cobalt (mg/L)	BY-AP-MW-6	0.005	0.000584	0.0157	No 8	0.00176	0.002004	25	None	No	0.004	NP (normality)
Cobalt (mg/L)	BY-AP-MW-7	0.02183	0.005881	0.0157	No 8	0.0139	0.008445	0	None	x^2	0.01	Param.
Cobalt (mg/L)	BY-AP-MW-8	0.0009974	0.0002687	0.0157	No 8	0.002248	0.002288	37.5	Kaplan-Meier	ln(x)	0.01	Param.
Cobalt (mg/L)	BY-AP-MW-9	0.005	0.000514	0.0157	No 8	0.001758	0.002002	25	None	No	0.004	NP (normality)
Combined Radium 226 + 228 (pCi/L)	BY-AP-MW-1	2.74	1.73	5	No 8	2.235	0.4766	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	BY-AP-MW-10	1.323	0.8673	5	No 8	1.095	0.215	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	BY-AP-MW-11	1.15	0.452	5	No 8	0.7211	0.3172	0	None	No	0.004	NP (normality)
Combined Radium 226 + 228 (pCi/L)	BY-AP-MW-12	1.581	0.8801	5	No 8	1.231	0.3308	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	BY-AP-MW-13	1.371	0.6273	5	No 8	0.999	0.3506	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	BY-AP-MW-14	1.127	0.5857	5	No 8	0.8561	0.2551	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	BY-AP-MW-15	1.647	0.6407	5	No 8	1.144	0.4746	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	BY-AP-MW-16	1.383	0.3998	5	No 8	0.8915	0.4639	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	BY-AP-MW-2	0.7174	0.2979	5	No 8	0.5076	0.1979	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	BY-AP-MW-3	1.335	0.2921	5	No 8	0.7928	0.5385	0	None	sqrt(x)	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	BY-AP-MW-4	1.368	0.4581	5	No 8	0.9129	0.4291	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	BY-AP-MW-5	2.136	0.6801	5	No 8	1.408	0.6866	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	BY-AP-MW-6	1.46	0.3329	5	No 8	0.8966	0.5318	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	BY-AP-MW-7	1.175	0.4469	5	No 8	0.8109	0.3434	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	BY-AP-MW-8	1.242	0.3612	5	No 8	0.8018	0.4157	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	BY-AP-MW-9	1.663	0.544	5	No 8	1.104	0.5279	0	None	No	0.01	Param.
Fluoride, total (mg/L)	BY-AP-MW-1	0.194	0.0612	4	No 8	0.1019	0.05355	0	None	No	0.004	NP (normality)
Fluoride, total (mg/L)	BY-AP-MW-10	0.125	0.0794	4	No 8	0.1168	0.01665	75	None	No	0.004	NP (NDs)
Fluoride, total (mg/L)	BY-AP-MW-11	0.1117	0.06816	4	No 8	0.08995	0.02056	0	None	No	0.01	Param.
Fluoride, total (mg/L)	BY-AP-MW-12	0.0889	0.0659	4	No 8	0.0774	0.01085	0	None	No	0.01	Param.
Fluoride, total (mg/L)	BY-AP-MW-13	0.187	0.0641	4	No 8	0.09623	0.04235	0	None	No	0.004	NP (normality)
Fluoride, total (mg/L)	BY-AP-MW-14	0.1074	0.06438	4	No 8	0.08591	0.02031	0	None	No	0.01	Param.
Fluoride, total (mg/L)	BY-AP-MW-15	0.26	0.171	4	No 8	0.1969	0.03079	0	None	No	0.004	NP (normality)
Fluoride, total (mg/L)	BY-AP-MW-16	0.1181	0.06397	4	No 8	0.1014	0.02921	25	Kaplan-Meier	No	0.01	Param.
Fluoride, total (mg/L)	BY-AP-MW-2	0.125	0.0705	4	No 8	0.1115	0.02509	75	Kaplan-Meier	No	0.004	NP (NDs)
Fluoride, total (mg/L)	BY-AP-MW-5	0.0964	0.0557	4	No 8	0.0709	0.01526	25	None	No	0.004	NP (normality)
Fluoride, total (mg/L)	BY-AP-MW-7	0.2248	0.07244	4	No 8	0.1476	0.1007	0	None	ln(x)	0.01	Param.
Fluoride, total (mg/L)	BY-AP-MW-8	0.125	0.0701	4	No 8	0.09913	0.02572	37.5	None	No	0.004	NP (normality)
Fluoride, total (mg/L)	BY-AP-MW-9	0.0808	0.0625	4	No 8	0.07486	0.00747	12.5	None	No	0.004	NP (normality)
Lead (mg/L)	BY-AP-MW-1	0.000206	0.000092	0.015	No 8	0.0001794	0.0000454	62.5	None	No	0.004	NP (NDs)
Lead (mg/L)	BY-AP-MW-11	0.0001155	0.00007254	0.015	No 8	0.0001348	0.0000593	37.5	Kaplan-Meier	ln(x)	0.01	Param.
Lead (mg/L)	BY-AP-MW-12	0.000572	0.00018	0.015	No 8	0.0002725	0.0001313	50	None	No	0.004	NP (normality)
Lead (mg/L)	BY-AP-MW-13	0.000203	0.00008	0.015	No 8	0.0001618	0.0000499	50	None	No	0.004	NP (normality)
Lead (mg/L)	BY-AP-MW-14	0.000229	0.0000764	0.015	No 8	0.0001368	0.00006333	25	None	No	0.004	NP (normality)
Lead (mg/L)	BY-AP-MW-16	0.000206	0.000191	0.015	No 8	0.0002019	0.00004518	75	None	No	0.004	NP (NDs)
Lead (mg/L)	BY-AP-MW-4	0.0001665	0.0000862	0.015	No 8	0.0001455	0.00004988	25	Kaplan-Meier	No	0.01	Param.
Lead (mg/L)	BY-AP-MW-6	0.0112	0.00148	0.015	No 8	0.003181	0.00331	0	None	No	0.004	NP (normality)
Lead (mg/L)	BY-AP-MW-8	0.000203	0.000081	0.015	No 8	0.0001878	0.00004313	87.5	None	No	0.004	NP (NDs)
Lithium (mg/L)	BY-AP-MW-11	0.02978	0.01091	0.04	No 8	0.02213	0.007932	25	Kaplan-Meier	No	0.01	Param.
Lithium (mg/L)	BY-AP-MW-15	0.01714	0.008986	0.04	No 8	0.0148	0.004795	25	Kaplan-Meier	No	0.01	Param.
Lithium (mg/L)	BY-AP-MW-7	0.0882	0.0102	0.04	No 8	0.0273	0.02485	75	Kaplan-Meier	No	0.004	NP (NDs)
Molybdenum (mg/L)	BY-AP-MW-1	0.01015	0.00008	0.1	No 8	0.007636	0.004655	75	None	No	0.004	NP (NDs)
Molybdenum (mg/L)	BY-AP-MW-11	0.01015	0.000972	0.1	No 8	0.006389	0.004368	50	None	No	0.004	NP (normality)

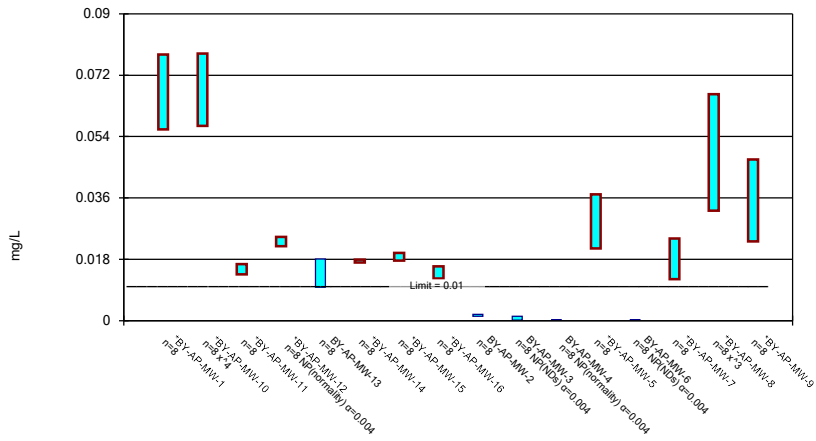
Confidence Interval Summary Table - All Results

Plant Barry Client: Southern Company Data: Barry Ash Pond Printed 10/22/2023, 1:30 PM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig. N	Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Molybdenum (mg/L)	BY-AP-MW-12	0.01015	0.000942	0.1	No 8	0.005571	0.004895	50	None	No	0.004	NP (normality)
Molybdenum (mg/L)	BY-AP-MW-13	0.0108	0.00043	0.1	No 8	0.006441	0.00449	37.5	None	No	0.004	NP (normality)
Molybdenum (mg/L)	BY-AP-MW-14	0.01015	0.00052	0.1	No 8	0.005374	0.005106	50	None	No	0.004	NP (normality)
Molybdenum (mg/L)	BY-AP-MW-15	0.01015	0.00171	0.1	No 8	0.00498	0.004283	37.5	None	No	0.004	NP (normality)
Molybdenum (mg/L)	BY-AP-MW-16	0.01015	0.000136	0.1	No 8	0.008898	0.00354	87.5	None	No	0.004	NP (NDs)
Molybdenum (mg/L)	BY-AP-MW-5	0.01015	0.00011	0.1	No 8	0.006416	0.005155	62.5	None	No	0.004	NP (NDs)
Molybdenum (mg/L)	BY-AP-MW-6	0.01015	0.00011	0.1	No 8	0.00516	0.005335	50	None	No	0.004	NP (normality)
Molybdenum (mg/L)	BY-AP-MW-7	0.01015	0.00018	0.1	No 8	0.005508	0.005041	50	None	No	0.004	NP (normality)
Molybdenum (mg/L)	BY-AP-MW-8	0.01015	0.00019	0.1	No 8	0.005197	0.005296	50	None	No	0.004	NP (normality)
Molybdenum (mg/L)	BY-AP-MW-9	0.01015	0.000157	0.1	No 8	0.005178	0.005315	50	None	No	0.004	NP (normality)
Selenium (mg/L)	BY-AP-MW-13	0.001015	0.00056	0.05	No 8	0.0008638	0.0002106	62.5	None	No	0.004	NP (NDs)

Parametric and Non-Parametric (NP) Confidence Interval

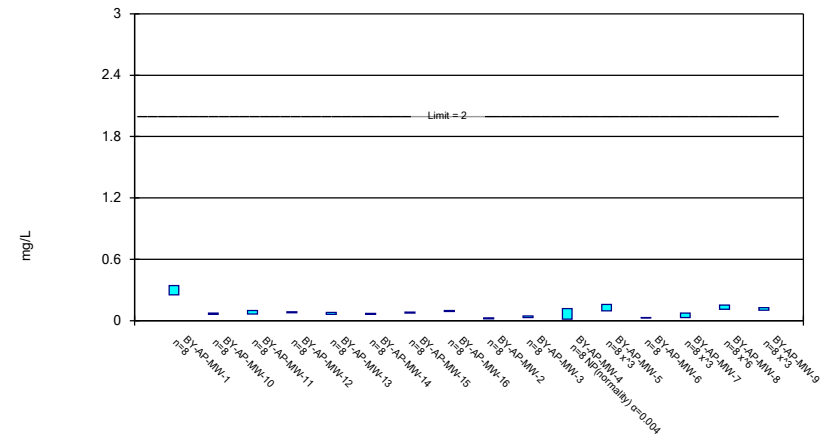
Compliance limit is exceeded.* Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Arsenic Analysis Run 10/22/2023 1:29 PM View: Confidence Intervals
Plant Barry Client: Southern Company Data: Barry Ash Pond

Parametric and Non-Parametric (NP) Confidence Interval

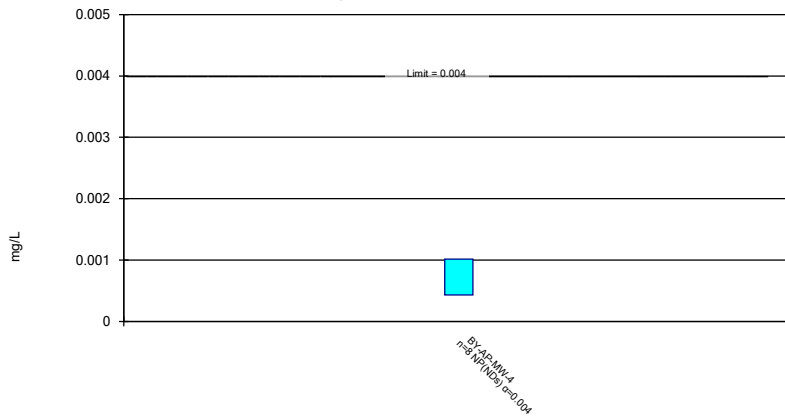
Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Barium Analysis Run 10/22/2023 1:29 PM View: Confidence Intervals
Plant Barry Client: Southern Company Data: Barry Ash Pond

Non-Parametric Confidence Interval

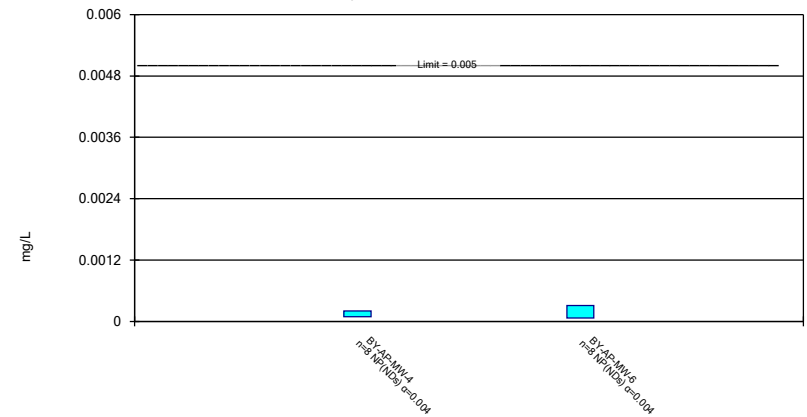
Compliance Limit is not exceeded.



Constituent: Beryllium Analysis Run 10/22/2023 1:29 PM View: Confidence Intervals
Plant Barry Client: Southern Company Data: Barry Ash Pond

Non-Parametric Confidence Interval

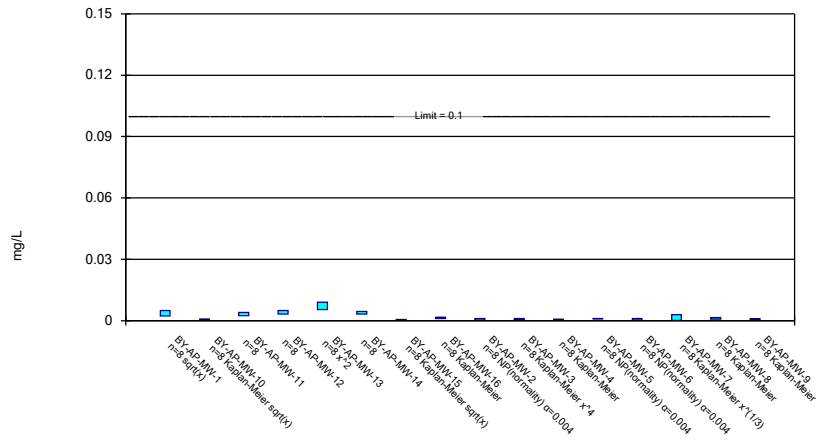
Compliance Limit is not exceeded.



Constituent: Cadmium Analysis Run 10/22/2023 1:29 PM View: Confidence Intervals
Plant Barry Client: Southern Company Data: Barry Ash Pond

Parametric and Non-Parametric (NP) Confidence Interval

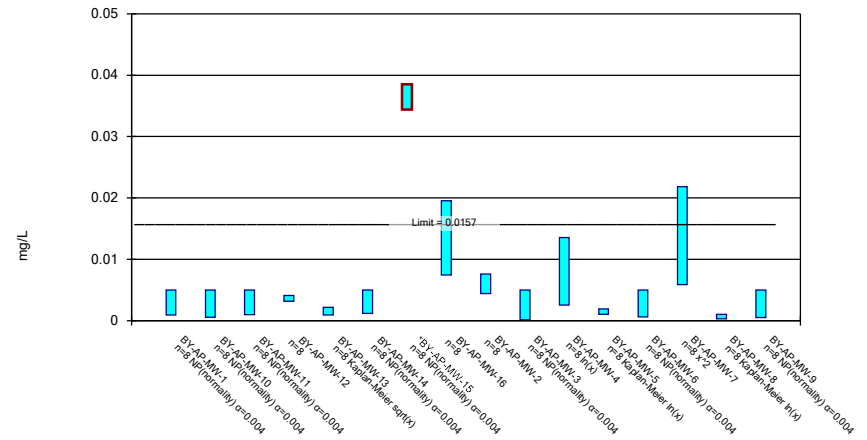
Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Chromium Analysis Run 10/22/2023 1:29 PM View: Confidence Intervals
 Plant Barry Client: Southern Company Data: Barry Ash Pond

Parametric and Non-Parametric (NP) Confidence Interval

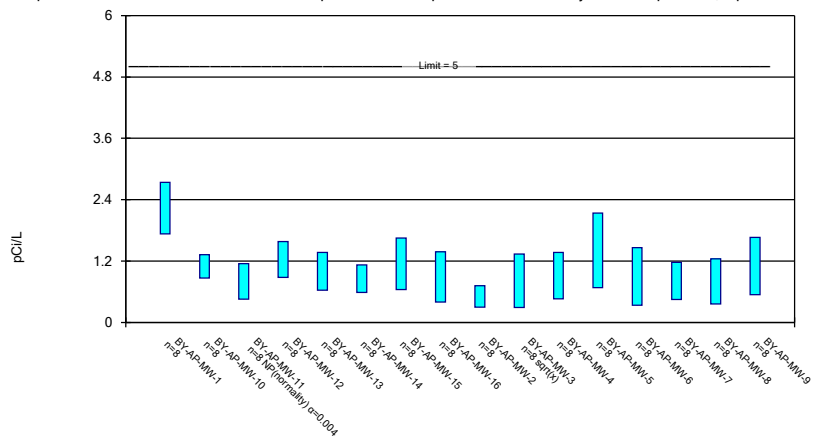
Compliance limit is exceeded.* Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Cobalt Analysis Run 10/22/2023 1:29 PM View: Confidence Intervals
 Plant Barry Client: Southern Company Data: Barry Ash Pond

Parametric and Non-Parametric (NP) Confidence Interval

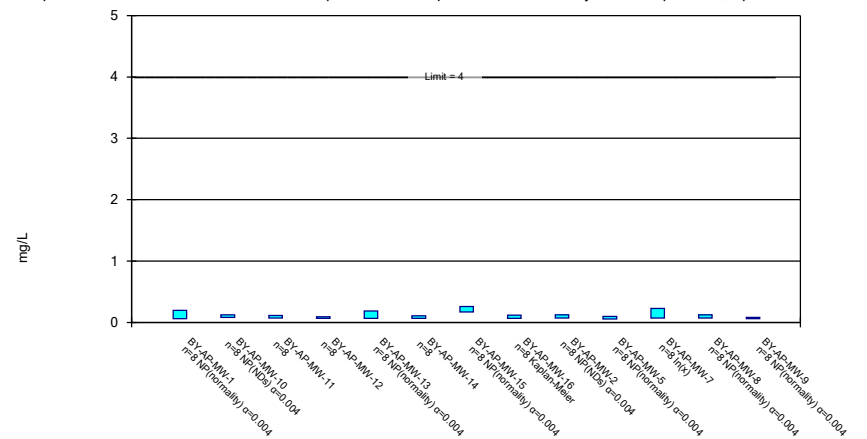
Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Combined Radium 226 + 228 Analysis Run 10/22/2023 1:29 PM View: Confidence Intervals
 Plant Barry Client: Southern Company Data: Barry Ash Pond

Parametric and Non-Parametric (NP) Confidence Interval

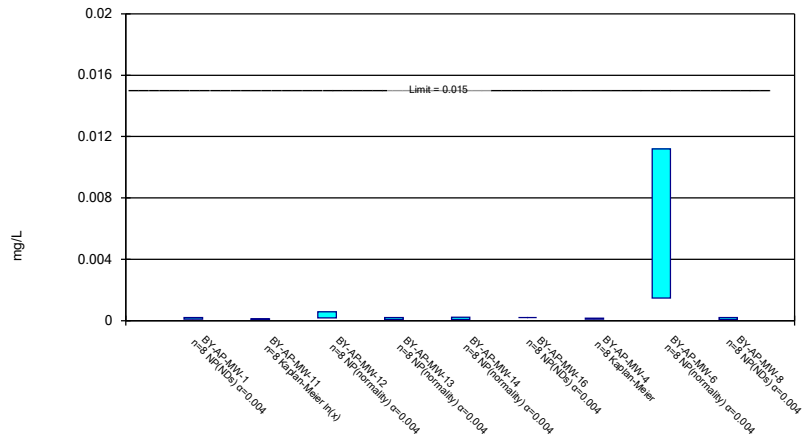
Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Fluoride, total Analysis Run 10/22/2023 1:29 PM View: Confidence Intervals
 Plant Barry Client: Southern Company Data: Barry Ash Pond

Parametric and Non-Parametric (NP) Confidence Interval

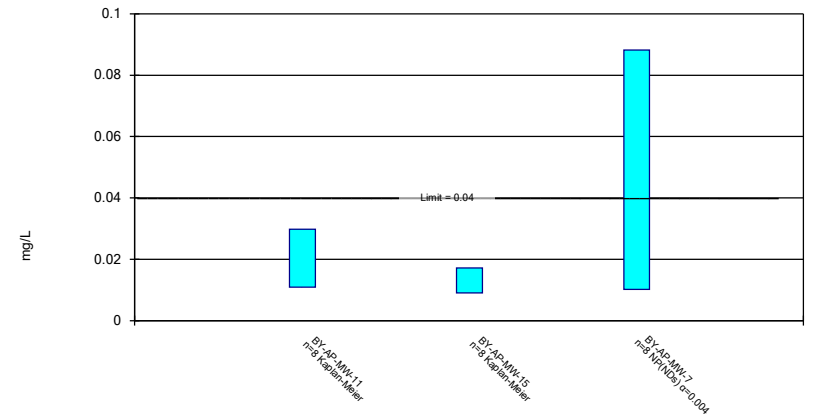
Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Lead Analysis Run 10/22/2023 1:29 PM View: Confidence Intervals
Plant Barry Client: Southern Company Data: Barry Ash Pond

Parametric and Non-Parametric (NP) Confidence Interval

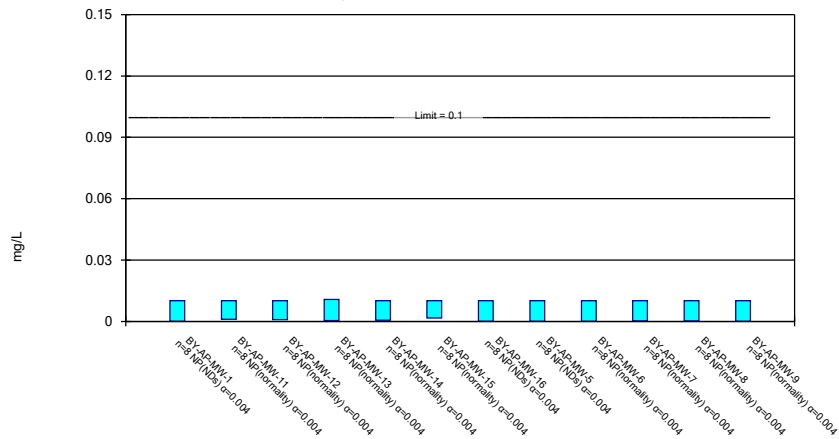
Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Lithium Analysis Run 10/22/2023 1:29 PM View: Confidence Intervals
Plant Barry Client: Southern Company Data: Barry Ash Pond

Non-Parametric Confidence Interval

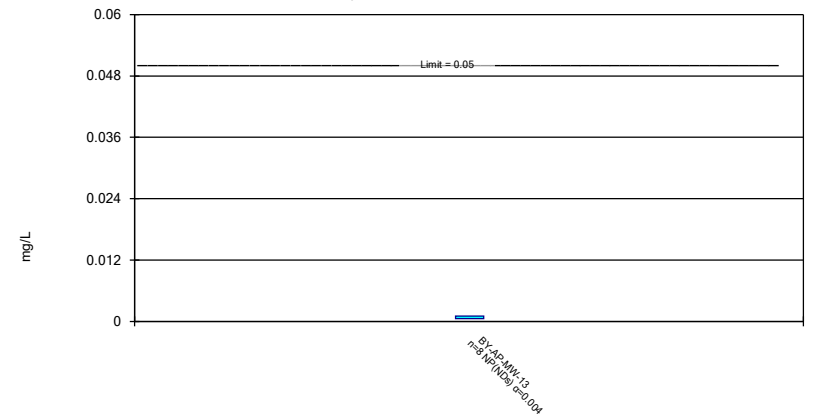
Compliance Limit is not exceeded.



Constituent: Molybdenum Analysis Run 10/22/2023 1:29 PM View: Confidence Intervals
Plant Barry Client: Southern Company Data: Barry Ash Pond

Non-Parametric Confidence Interval

Compliance Limit is not exceeded.



Constituent: Selenium Analysis Run 10/22/2023 1:29 PM View: Confidence Intervals
Plant Barry Client: Southern Company Data: Barry Ash Pond

Confidence Interval

Constituent: Arsenic (mg/L) Analysis Run 10/22/2023 1:30 PM View: Confidence Intervals

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-1	BY-AP-MW-10	BY-AP-MW-11	BY-AP-MW-12	BY-AP-MW-13	BY-AP-MW-14	BY-AP-MW-15	BY-AP-MW-16	BY-AP-MW-2
10/1/2019									
3/30/2020	0.0557								
3/31/2020		0.0702	0.0158	0.0246	0.0154	0.0177		0.012	0.00149 (J)
4/1/2020							0.0183		
8/31/2020									0.00176 (J)
9/1/2020	0.0811	0.0763	0.0165	0.0246	0.0148				
9/2/2020						0.0174	0.0206	0.0137	
5/11/2021		0.0762					0.0184		
5/17/2021									
5/18/2021	0.0687			0.0237					0.00159
5/19/2021			0.0166		0.014			0.0118	
5/25/2021						0.0172			
10/26/2021					0.013		0.0186		
10/27/2021		0.0705				0.0174			
11/1/2021	0.0694			0.0245				0.0151	0.00191
11/2/2021			0.0161						
5/23/2022			0.0142	0.0245					
5/24/2022	0.0767	0.0775			0.0128				0.00115
5/25/2022						0.0183	0.0176	0.0134	
10/31/2022									
11/1/2022			0.0148	0.0226	0.0208	0.0174	0.0177	0.0161	
11/2/2022	0.0682	0.0742							0.00151
4/3/2023	0.068	0.0561					0.02		0.00156
4/4/2023			0.0128	0.0218	0.00645				
4/5/2023						0.017		0.0156	
8/7/2023		0.025	0.0136						
8/8/2023	0.0491			0.0222			0.0188	0.0156	0.00129
8/9/2023					0.0143	0.0176			
Mean	0.06711	0.06575	0.01505	0.02356	0.01394	0.0175	0.01875	0.01416	0.001533
Std. Dev.	0.01036	0.01783	0.00142	0.001184	0.003934	0.0003891	0.001053	0.001683	0.0002408
Upper Lim.	0.0781	0.07833	0.01656	0.0246	0.01811	0.01791	0.01987	0.01595	0.001788
Lower Lim.	0.05613	0.05715	0.01354	0.0218	0.009774	0.01709	0.01763	0.01238	0.001277

Confidence Interval

Constituent: Arsenic (mg/L) Analysis Run 10/22/2023 1:30 PM View: Confidence Intervals
 Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-3	BY-AP-MW-4	BY-AP-MW-5	BY-AP-MW-6	BY-AP-MW-7	BY-AP-MW-8	BY-AP-MW-9
10/1/2019			0.0307				
3/30/2020					0.0215	0.0589	
3/31/2020	<0.000203	<0.000203	0.0329	<0.000203			0.0393
4/1/2020							
8/31/2020							
9/1/2020	<0.000203	<0.000203	0.0372				
9/2/2020				<0.000203	0.0234	0.0629	0.0432
5/11/2021						0.0659	
5/17/2021				0.000103 (J)			
5/18/2021	<0.000203	0.000125 (J)			0.0215		0.0435
5/19/2021							
5/25/2021							
10/26/2021						0.0668	
10/27/2021					0.0236		0.0468
11/1/2021	<0.000203	0.0002					
11/2/2021			0.0357	0.0001 (J)			
5/23/2022							
5/24/2022					0.0197	0.0583	0.0404
5/25/2022	<0.000203	<0.000203	0.0316	<0.000203			
10/31/2022		9.9E-05 (J)	0.0292	<0.000203	0.00873		0.023
11/1/2022	0.000102 (J)						
11/2/2022						0.0415	
4/3/2023					0.013	0.00353	
4/4/2023	0.000455	<0.000203	0.0191	<0.000203			0.0145
4/5/2023							
8/7/2023			0.0164		0.0134	0.0024	0.0315
8/8/2023							
8/9/2023	0.00125	0.000226		<0.000203			
Mean	0.0003528	0.0001828	0.0291	0.0001776	0.0181	0.04503	0.03528
Std. Dev.	0.0003762	4.497E-05	0.0075	4.699E-05	0.005605	0.02712	0.01135
Upper Lim.	0.00125	0.000226	0.03705	0.000203	0.02404	0.06645	0.04731
Lower Lim.	0.000102	9.9E-05	0.02115	0.0001	0.01216	0.03222	0.02324

Confidence Interval

Constituent: Barium (mg/L) Analysis Run 10/22/2023 1:30 PM View: Confidence Intervals

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-1	BY-AP-MW-10	BY-AP-MW-11	BY-AP-MW-12	BY-AP-MW-13	BY-AP-MW-14	BY-AP-MW-15	BY-AP-MW-16	BY-AP-MW-2
10/1/2019									
3/30/2020	0.279								
3/31/2020		0.0727	0.0842	0.0851	0.0728	0.0619		0.091	0.0264
4/1/2020							0.0697		
8/31/2020									0.0275
9/1/2020	0.33	0.078	0.0923	0.0827	0.0722				
9/2/2020						0.0687	0.0736	0.0954	
5/11/2021		0.0757					0.0762		
5/17/2021									
5/18/2021	0.339			0.0902					0.0259
5/19/2021			0.112		0.0817			0.102	
5/25/2021						0.0745			
10/26/2021					0.0667		0.0784		
10/27/2021		0.0638							
11/1/2021	0.322			0.0823				0.0988	0.0247
11/2/2021			0.0894						
5/23/2022			0.0691	0.0802					
5/24/2022	0.343	0.0618			0.0723				0.0248
5/25/2022						0.0693	0.0846	0.0977	
10/31/2022									
11/1/2022			0.078	0.079	0.0783	0.0681	0.0745	0.0905	
11/2/2022	0.279	0.0617							0.0201
4/3/2023	0.226	0.0628					0.081		0.018
4/4/2023			0.0699	0.074	0.0526				
4/5/2023						0.0594		0.0852	
8/7/2023		0.067	0.0637						
8/8/2023	0.258			0.086			0.0822	0.0904	0.0171
8/9/2023					0.061	0.0646			
Mean	0.297	0.06794	0.08233	0.08244	0.0697	0.06645	0.07753	0.09388	0.02306
Std. Dev.	0.04277	0.006603	0.01571	0.004901	0.009394	0.004726	0.004961	0.005532	0.004045
Upper Lim.	0.3423	0.07494	0.09898	0.08763	0.07966	0.07146	0.08278	0.09974	0.02735
Lower Lim.	0.2517	0.06094	0.06567	0.07724	0.05974	0.06144	0.07227	0.08801	0.01877

Confidence Interval

Constituent: Barium (mg/L) Analysis Run 10/22/2023 1:30 PM View: Confidence Intervals
 Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-3	BY-AP-MW-4	BY-AP-MW-5	BY-AP-MW-6	BY-AP-MW-7	BY-AP-MW-8	BY-AP-MW-9
10/1/2019			0.138				
3/30/2020					0.059	0.141	
3/31/2020	0.0393	0.0193	0.15	0.0244			0.119
4/1/2020							
8/31/2020							
9/1/2020	0.038	0.0131	0.154				
9/2/2020				0.0282	0.0745	0.151	0.124
5/11/2021						0.147	
5/17/2021				0.0305			
5/18/2021	0.0406	0.0225			0.07		0.125
5/19/2021							
5/25/2021							
10/26/2021						0.136	
10/27/2021					0.0664		0.117
11/1/2021	0.0371	0.0217					
11/2/2021			0.159	0.0286			
5/23/2022							
5/24/2022					0.0717	0.142	0.117
5/25/2022	0.0494	0.0399	0.155	0.0268			
10/31/2022		0.118	0.105	0.0263	0.0188		0.111
11/1/2022	0.0289						
11/2/2022						0.149	
4/3/2023					0.0288	0.0223	
4/4/2023	0.0271	0.118	0.0842	0.0275			0.128
4/5/2023							
8/7/2023			0.0707		0.0303	0.0215	0.0829
8/8/2023							
8/9/2023	0.0351	0.115		0.0288			
Mean	0.03694	0.05844	0.127	0.02764	0.05244	0.1137	0.1155
Std. Dev.	0.006972	0.04909	0.0352	0.001843	0.02263	0.05688	0.01424
Upper Lim.	0.04433	0.118	0.1592	0.02959	0.07303	0.1509	0.1281
Lower Lim.	0.02955	0.0131	0.09435	0.02568	0.03138	0.1124	0.103

Confidence Interval

Constituent: Beryllium (mg/L) Analysis Run 10/22/2023 1:30 PM View: Confidence Intervals

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-4
3/31/2020	<0.001015
9/1/2020	<0.001015
5/18/2021	<0.001015
11/1/2021	<0.001015
5/25/2022	0.00065 (J)
10/31/2022	0.000451 (J)
4/4/2023	0.000432 (J)
8/9/2023	<0.001015
Mean	0.000826
Std. Dev.	0.0002687
Upper Lim.	0.001015
Lower Lim.	0.000432

Confidence Interval

Constituent: Cadmium (mg/L) Analysis Run 10/22/2023 1:30 PM View: Confidence Intervals

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-4	BY-AP-MW-6
3/31/2020	<0.000203	<0.000203
9/1/2020	<0.000203	
9/2/2020		<0.000203
5/17/2021		<0.000203
5/18/2021	<0.000203	
11/1/2021	<0.000203	
11/2/2021		7E-05 (J)
5/25/2022	<0.000203	0.00031
10/31/2022	0.000102 (J)	6.8E-05 (J)
4/4/2023	9E-05 (J)	<0.000203
8/9/2023	0.000103 (J)	<0.000203
Mean	0.0001638	0.0001829
Std. Dev.	5.431E-05	7.939E-05
Upper Lim.	0.000203	0.00031
Lower Lim.	9E-05	6.8E-05

Confidence Interval

Constituent: Chromium (mg/L) Analysis Run 10/22/2023 1:30 PM View: Confidence Intervals

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-1	BY-AP-MW-10	BY-AP-MW-11	BY-AP-MW-12	BY-AP-MW-13	BY-AP-MW-14	BY-AP-MW-15	BY-AP-MW-16	BY-AP-MW-2
10/1/2019									
3/30/2020	0.00415 (J)								
3/31/2020		<0.00102	0.00358 (J)	0.0056 (J)	0.00955 (J)	0.00463 (J)		<0.00102	<0.00102
4/1/2020							<0.00102		
8/31/2020									<0.00102
9/1/2020	0.00242 (J)	<0.00102	0.00259 (J)	0.00332 (J)	0.00888 (J)				
9/2/2020						0.00482 (J)	<0.00102	<0.00102	
5/11/2021		0.000685 (J)					0.000581 (J)		
5/17/2021									
5/18/2021	0.00294			0.00377					0.000394 (J)
5/19/2021			0.00301		0.00692			0.00162	
5/25/2021						0.00365			
10/26/2021					0.00755		0.00052 (J)		
10/27/2021		0.00072 (J)				0.00401			
11/1/2021	0.00244			0.00423				0.0018	0.00029 (J)
11/2/2021			0.00348						
5/23/2022			0.00474	0.00374					
5/24/2022	0.00238	0.00052 (J)			0.00685				<0.00102
5/25/2022						0.00345	0.00049 (J)	0.00135	
10/31/2022									
11/1/2022			0.00316	0.00338	0.00772	0.00317	0.000361 (J)	0.00122	
11/2/2022	0.00371	0.000642 (J)							0.000206 (J)
4/3/2023	0.00638	0.00066 (J)					0.000638 (J)		0.000877 (J)
4/4/2023			0.00254	0.00351	0.00286				
4/5/2023						0.00336		0.00125	
8/7/2023		0.000561 (J)	0.00232						
8/8/2023	0.00374			0.00496			0.000353 (J)	0.00169	0.000301 (J)
8/9/2023					0.00763	0.00347			
Mean	0.00352	0.0007285	0.003178	0.004064	0.007245	0.00382	0.0006229	0.001371	0.000641
Std. Dev.	0.001346	0.0001911	0.0007755	0.0008202	0.001998	0.0006112	0.0002638	0.0003005	0.0003733
Upper Lim.	0.004863	0.0007063	0.004	0.004933	0.009055	0.004468	0.000604	0.001669	0.00102
Lower Lim.	0.002233	0.0005569	0.002355	0.003194	0.005475	0.003172	0.0003785	0.001073	0.000206

Confidence Interval

Constituent: Chromium (mg/L) Analysis Run 10/22/2023 1:30 PM View: Confidence Intervals
 Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-3	BY-AP-MW-4	BY-AP-MW-5	BY-AP-MW-6	BY-AP-MW-7	BY-AP-MW-8	BY-AP-MW-9
10/1/2019			<0.00102				
3/30/2020					<0.00102	<0.00102	
3/31/2020	<0.00102	<0.00102	<0.00102	<0.00102			<0.00102
4/1/2020							
8/31/2020							
9/1/2020	<0.00102	<0.00102	<0.00102				
9/2/2020				<0.00102	<0.00102	<0.00102	<0.00102
5/11/2021						0.00156	
5/17/2021				0.000313 (J)			
5/18/2021	0.000919 (J)	0.000544 (J)			0.00709		0.00078 (J)
5/19/2021							
5/25/2021							
10/26/2021						0.00165	
10/27/2021					0.00309		0.00087 (J)
11/1/2021	0.00093 (J)	0.00067 (J)					
11/2/2021			0.00101 (J)	0.00023 (J)			
5/23/2022							
5/24/2022					0.00058 (J)	0.00128	0.0007 (J)
5/25/2022	0.00104	0.00026 (J)	0.00103	0.00029 (J)			
10/31/2022		0.00057 (J)	0.00096 (J)	0.000281 (J)	0.000263 (J)		0.000692 (J)
11/1/2022	0.00107						
11/2/2022						0.001 (J)	
4/3/2023					0.000246 (J)	0.00115	
4/4/2023	0.00053 (J)	0.000444 (J)	0.000894 (J)	0.000267 (J)			0.00062 (J)
4/5/2023							
8/7/2023			0.000897 (J)		<0.00102	0.000611 (J)	0.000492 (J)
8/8/2023							
8/9/2023	0.000549 (J)	0.000854 (J)		0.00028 (J)			
Mean	0.0008847	0.0006727	0.0009814	0.0004626	0.001791	0.001161	0.0007742
Std. Dev.	0.0002194	0.0002736	5.716E-05	0.0003448	0.002322	0.000334	0.0001874
Upper Lim.	0.001024	0.0007516	0.00103	0.00102	0.002897	0.001491	0.0008183
Lower Lim.	0.0006013	0.0003624	0.000894	0.00023	0.0001035	0.0007243	0.0005664

Confidence Interval

Constituent: Cobalt (mg/L) Analysis Run 10/22/2023 1:30 PM View: Confidence Intervals

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-1	BY-AP-MW-10	BY-AP-MW-11	BY-AP-MW-12	BY-AP-MW-13	BY-AP-MW-14	BY-AP-MW-15	BY-AP-MW-16	BY-AP-MW-2
10/1/2019									
3/30/2020	<0.005								
3/31/2020		<0.005	<0.005	0.00364 (J)	<0.005	<0.005		0.0199	0.00716
4/1/2020							0.0344		
8/31/2020									0.00751
9/1/2020	<0.005	<0.005	<0.005	0.0031 (J)	<0.005				
9/2/2020						<0.005	0.0385	0.0192	
5/11/2021		0.000636					0.0349		
5/17/2021									
5/18/2021	0.000996			0.00336					0.00746
5/19/2021			0.00257		0.00113			0.0182	
5/25/2021						0.00124			
10/26/2021					0.00122		0.0347		
10/27/2021		0.00065				0.00125			
11/1/2021	0.00091			0.0037				0.0139	0.00706
11/2/2021			0.00118						
5/23/2022			0.00118	0.00428					
5/24/2022	0.00091	0.00054			0.00189				0.00582
5/25/2022						0.00125	0.0364	0.0155	
10/31/2022									
11/1/2022			0.00105	0.00406	0.00274	0.0012	0.0357	0.00812	
11/2/2022	0.00102	0.000605							0.00497
4/3/2023	0.00133	0.000622					0.0345		0.0042
4/4/2023			0.000946	0.00309	0.000801				
4/5/2023						0.00119		0.00721	
8/7/2023		0.00061	0.00101						
8/8/2023	0.000897			0.00388			0.0355	0.00584	0.00386
8/9/2023					0.0013	0.00125			
Mean	0.002008	0.001708	0.002242	0.003639	0.002385	0.002172	0.03558	0.01348	0.006005
Std. Dev.	0.001852	0.002032	0.001781	0.0004342	0.001718	0.001745	0.001364	0.005693	0.001502
Upper Lim.	0.005	0.005	0.005	0.004099	0.002149	0.005	0.0385	0.01952	0.007597
Lower Lim.	0.000897	0.00054	0.000946	0.003179	0.0008931	0.00119	0.0344	0.007449	0.004413

Confidence Interval

Constituent: Cobalt (mg/L) Analysis Run 10/22/2023 1:31 PM View: Confidence Intervals
 Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-3	BY-AP-MW-4	BY-AP-MW-5	BY-AP-MW-6	BY-AP-MW-7	BY-AP-MW-8	BY-AP-MW-9
10/1/2019			<0.005				
3/30/2020					0.0172	<0.005	
3/31/2020	<0.005	0.0205	<0.005	<0.005			<0.005
4/1/2020							
8/31/2020							
9/1/2020	<0.005	0.00657	<0.005				
9/2/2020				<0.005	0.0197	<0.005	<0.005
5/11/2021						0.000778	
5/17/2021				0.000678			
5/18/2021	0.000196 (J)	0.018			0.0189		0.000725
5/19/2021							
5/25/2021							
10/26/2021						0.00079	
10/27/2021					0.0206		0.0007
11/1/2021	0.00016 (J)	0.00478					
11/2/2021			0.00197	0.0006			
5/23/2022							
5/24/2022					0.023	0.00067	0.00069
5/25/2022	0.00028	0.00455	0.00184	0.00098			
10/31/2022		0.00319	0.0015	0.000588	0.00239		0.000698
11/1/2022	0.000152 (J)						
11/2/2022						0.00059	
4/3/2023					0.00492	0.000153 (J)	
4/4/2023	0.000108 (J)	0.0031	0.00112	0.000584			0.000737
4/5/2023							
8/7/2023			0.000923		0.00447	<0.005	0.000514
8/8/2023							
8/9/2023	0.000108 (J)	0.00259		0.00065			
Mean	0.001375	0.00791	0.002794	0.00176	0.0139	0.002248	0.001758
Std. Dev.	0.002238	0.007141	0.001858	0.002004	0.008445	0.002288	0.002002
Upper Lim.	0.005	0.01351	0.00192	0.005	0.02183	0.0009974	0.005
Lower Lim.	0.000108	0.002523	0.001039	0.000584	0.005881	0.0002687	0.000514

Confidence Interval

Constituent: Combined Radium 226 + 228 (pCi/L) Analysis Run 10/22/2023 1:31 PM View: Confidence Intervals

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-1	BY-AP-MW-10	BY-AP-MW-11	BY-AP-MW-12	BY-AP-MW-13	BY-AP-MW-14	BY-AP-MW-15	BY-AP-MW-16	BY-AP-MW-2
5/29/2019									
9/30/2019		0.965	0.489 (U)						
10/1/2019	2.84			0.984	1.07	1.11	0.988	0.443 (U)	0.284 (U)
3/30/2020	2.31								
3/31/2020		1.14	0.462 (U)	1.26	0.725	0.941		0.341 (U)	0.699
4/1/2020							0.527		
5/11/2021		1.12 (U)					0.684 (U)		
5/17/2021									
5/18/2021	2.99			1.11					0.72 (U)
5/19/2021			1.15		1.15			0.321 (U)	
5/25/2021						0.978 (U)			
10/26/2021					1.74		1.95		
10/27/2021		1.2 (U)				0.587 (U)			
11/1/2021	2.22			1.79				1.28	0.523 (U)
11/2/2021			0.504 (U)						
5/23/2022			0.452 (U)	1.4					
5/24/2022	2.12	1.36 (U)			0.915 (U)				0.732 (U)
5/25/2022						1.25	1.3	0.927 (U)	
10/31/2022									
11/1/2022			1.03	0.672 (U)	0.569 (U)	0.528 (U)	1.15	1.09	
11/2/2022	1.96	0.886 (U)							0.366 (U)
4/3/2023	1.84	0.75 (U)					1.63		0.24 (U)
4/4/2023			0.562 (U)	1.42	0.885 (U)				
4/5/2023						0.746 (U)		1.5	
8/7/2023		1.34	1.12						
8/8/2023	1.6			1.21			0.921 (U)	1.23	0.497 (U)
8/9/2023					0.938 (U)	0.709 (U)			
Mean	2.235	1.095	0.7211	1.231	0.999	0.8561	1.144	0.8915	0.5076
Std. Dev.	0.4766	0.215	0.3172	0.3308	0.3506	0.2551	0.4746	0.4639	0.1979
Upper Lim.	2.74	1.323	1.15	1.581	1.371	1.127	1.647	1.383	0.7174
Lower Lim.	1.73	0.8673	0.452	0.8801	0.6273	0.5857	0.6407	0.3998	0.2979

Confidence Interval

Constituent: Combined Radium 226 + 228 (pCi/L) Analysis Run 10/22/2023 1:31 PM View: Confidence Intervals

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-3	BY-AP-MW-4	BY-AP-MW-5	BY-AP-MW-6	BY-AP-MW-7	BY-AP-MW-8	BY-AP-MW-9
5/29/2019			2.16				
9/30/2019					0.388 (U)	0.321 (U)	0.58
10/1/2019	1.52	0.7	2.14	0.742			
3/30/2020					0.744	0.6	
3/31/2020	0.478 (U)	0.323 (U)	0.754	0.291 (U)			0.82
4/1/2020							
5/11/2021						0.648 (U)	
5/17/2021				1.84			
5/18/2021	0.749 (U)	0.734 (U)			0.597 (U)		0.98 (U)
5/19/2021							
5/25/2021							
10/26/2021						1.61	
10/27/2021					1.46 (U)		1.07 (U)
11/1/2021	0.688 (U)	0.888 (U)					
11/2/2021			2.06	0.773 (U)			
5/23/2022							
5/24/2022					1.05 (U)	0.733 (U)	2.11
5/25/2022	1.72	0.821 (U)	1.71	1.06 (U)			
10/31/2022		0.927	0.75 (U)	0.925	0.932		1.64
11/1/2022	0.505 (U)						
11/2/2022						0.503 (U)	
4/3/2023					0.49 (U)	1.21	
4/4/2023	0.479 (U)	1.82	1.15	1.33			1.05 (U)
4/5/2023							
8/7/2023			0.539 (U)		0.826 (U)	0.789 (U)	0.578 (U)
8/8/2023							
8/9/2023	0.203 (U)	1.09 (U)		0.212 (U)			
Mean	0.7928	0.9129	1.408	0.8966	0.8109	0.8018	1.104
Std. Dev.	0.5385	0.4291	0.6866	0.5318	0.3434	0.4157	0.5279
Upper Lim.	1.335	1.368	2.136	1.46	1.175	1.242	1.663
Lower Lim.	0.2921	0.4581	0.6801	0.3329	0.4469	0.3612	0.544

Confidence Interval

Constituent: Fluoride, total (mg/L) Analysis Run 10/22/2023 1:31 PM View: Confidence Intervals

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-1	BY-AP-MW-10	BY-AP-MW-11	BY-AP-MW-12	BY-AP-MW-13	BY-AP-MW-14	BY-AP-MW-15	BY-AP-MW-16	BY-AP-MW-2
10/1/2019									
3/30/2020	0.0726 (J)								
3/31/2020		<0.125	0.078 (J)	0.0755 (J)	0.0665 (J)	0.0867 (J)		0.0602 (J)	<0.125
4/1/2020							0.187		
8/31/2020									<0.125
9/1/2020	0.194	0.0794 (J)	0.0841 (J)	0.0845 (J)	0.0757 (J)				
9/2/2020						0.0957 (J)	0.18	<0.125	
5/11/2021		0.105					0.214		
5/18/2021	0.0884 (J)			0.0614 (J)					<0.125
5/19/2021			0.0994 (J)		0.0748 (J)			0.0793 (J)	
5/25/2021						0.0957 (J)			
10/26/2021					0.0641 (J)		0.171		
10/27/2021		<0.125				0.0651 (J)			
11/1/2021	0.181			0.0928 (J)				0.0887 (J)	<0.125
11/2/2021			0.101						
5/23/2022			0.0709 (J)	0.0873 (J)					
5/24/2022	0.0801 (J)	<0.125 (D)			0.0769 (J)				<0.125
5/25/2022						0.0733 (J)	0.214	<0.125	
10/31/2022									
11/1/2022			0.0612 (J)	0.0695 (J)	0.13	0.0685 (J)	0.177	0.112 (J)	
11/2/2022	0.0665 (J)	<0.125							0.0711 (J)
4/3/2023	0.0717 (J)	<0.125					0.26		<0.125
4/4/2023			0.126	0.081 (J)	0.187				
4/5/2023						0.127		0.144	
8/7/2023		<0.125	0.099 (J)						
8/8/2023	0.0612 (J)			0.0672 (J)			0.172	0.0772 (J)	0.0705 (J)
8/9/2023					0.0948 (J)	0.0753 (J)			
Mean	0.1019	0.1168	0.08995	0.0774	0.09623	0.08591	0.1969	0.1014	0.1115
Std. Dev.	0.05355	0.01665	0.02056	0.01085	0.04235	0.02031	0.03079	0.02921	0.02509
Upper Lim.	0.194	0.125	0.1117	0.0889	0.187	0.1074	0.26	0.1181	0.125
Lower Lim.	0.0612	0.0794	0.06816	0.0659	0.0641	0.06438	0.171	0.06397	0.0705

Confidence Interval

Constituent: Fluoride, total (mg/L) Analysis Run 10/22/2023 1:31 PM View: Confidence Intervals
 Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-5	BY-AP-MW-7	BY-AP-MW-8	BY-AP-MW-9
10/1/2019	0.0557 (J)			
3/30/2020		0.0933 (J)	0.0701 (J)	
3/31/2020	0.0735 (J)			0.0655 (J)
4/1/2020				
8/31/2020				
9/1/2020	0.0921 (J)			
9/2/2020		0.109	<0.125	0.0804 (J)
5/11/2021			0.094 (J)	
5/18/2021		0.11		0.0709 (J)
5/19/2021				
5/25/2021				
10/26/2021			<0.125	
10/27/2021		0.0823 (J)		0.0803 (J)
11/1/2021				
11/2/2021	0.0964 (J)			
5/23/2022				
5/24/2022		0.0724 (J)	0.0713 (J)	<0.125
5/25/2022	<0.125			
10/31/2022	0.0614 (J)	0.381		0.0788 (J)
11/1/2022				
11/2/2022			<0.125	
4/3/2023		0.171	0.0706 (J)	
4/4/2023	0.0631 (J)			0.0797 (J)
4/5/2023				
8/7/2023	<0.125	0.162	0.112 (J)	0.0808 (J)
8/8/2023				
8/9/2023				
Mean	0.0709	0.1476	0.09913	0.07486
Std. Dev.	0.01526	0.1007	0.02572	0.00747
Upper Lim.	0.0964	0.2248	0.125	0.0808
Lower Lim.	0.0557	0.07244	0.0701	0.0625

Confidence Interval

Constituent: Lead (mg/L) Analysis Run 10/22/2023 1:31 PM View: Confidence Intervals

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-1	BY-AP-MW-11	BY-AP-MW-12	BY-AP-MW-13	BY-AP-MW-14	BY-AP-MW-16	BY-AP-MW-4	BY-AP-MW-6	BY-AP-MW-8
3/30/2020	<0.000203								<0.000203
3/31/2020		<0.000203	<0.000203	<0.000203	<0.000203	<0.000203	<0.000203	0.00276 (J)	
9/1/2020	<0.000203	<0.000203	<0.000203	<0.000203			<0.000203		
9/2/2020					<0.000203	<0.000203		0.00171 (J)	<0.000203
5/11/2021									<0.000203
5/17/2021								0.00162	
5/18/2021	<0.000203		0.000326				0.00013 (J)		
5/19/2021		0.000102 (J)		<0.000203		0.000191 (J)			
5/25/2021					7.64E-05 (J)				
10/26/2021				<0.000203					<0.000203
10/27/2021					9E-05 (J)				
11/1/2021	<0.000203		0.00029			<0.000203	7E-05 (J)		
11/2/2021		0.00013 (J)						0.00336	
5/23/2022		9E-05 (J)	0.00018 (J)						
5/24/2022	<0.000203			0.00015 (J)					<0.000203
5/25/2022					0.0001 (J)	<0.000203	0.00018 (J)	0.0112	
10/31/2022							0.000144 (J)	0.00148	
11/1/2022		7.8E-05 (J)	<0.000203	0.000151 (J)	8.3E-05 (J)	<0.000203			
11/2/2022	9.2E-05 (J)								<0.000203
4/3/2023	0.000122 (J)								<0.000203
4/4/2023		6.9E-05 (J)	<0.000203	0.000101 (J)			8.5E-05 (J)	0.00183	
4/5/2023					0.00011 (J)	<0.000203			
8/7/2023		<0.000203							8.1E-05 (J)
8/8/2023	0.000206		0.000572			0.000206			
8/9/2023				8E-05 (J)	0.000229		0.000149 (J)	0.00149	
Mean	0.0001794	0.0001348	0.0002725	0.0001618	0.0001368	0.0002019	0.0001455	0.003181	0.0001878
Std. Dev.	4.54E-05	5.93E-05	0.0001313	4.99E-05	6.333E-05	4.518E-06	4.988E-05	0.00331	4.313E-05
Upper Lim.	0.000206	0.0001155	0.000572	0.000203	0.000229	0.000206	0.0001665	0.0112	0.000203
Lower Lim.	9.2E-05	7.254E-05	0.00018	8E-05	7.64E-05	0.000191	8.62E-05	0.00148	8.1E-05

Confidence Interval

Constituent: Lithium (mg/L) Analysis Run 10/22/2023 1:31 PM View: Confidence Intervals
Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-11	BY-AP-MW-15	BY-AP-MW-7
3/30/2020			0.0102 (J)
3/31/2020	0.022		
4/1/2020		0.0174 (J)	
9/1/2020	<0.02		
9/2/2020		<0.02	<0.02
5/11/2021		0.00788 (J)	
5/18/2021			0.0882
5/19/2021	0.00754 (J)		
10/26/2021		0.0117 (J)	
10/27/2021			<0.02
11/2/2021	<0.02		
5/23/2022	0.0269		
5/24/2022			<0.02
5/25/2022		0.0118 (J)	
10/31/2022			<0.02
11/1/2022	0.0182 (J)	<0.02	
4/3/2023		0.0189 (J)	<0.02
4/4/2023	0.034		
8/7/2023	0.0284		<0.02
8/8/2023		0.0107 (J)	
Mean	0.02213	0.0148	0.0273
Std. Dev.	0.007932	0.004795	0.02485
Upper Lim.	0.02978	0.01714	0.0882
Lower Lim.	0.01091	0.008986	0.0102

Confidence Interval

Constituent: Molybdenum (mg/L) Analysis Run 10/22/2023 1:31 PM View: Confidence Intervals

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-1	BY-AP-MW-11	BY-AP-MW-12	BY-AP-MW-13	BY-AP-MW-14	BY-AP-MW-15	BY-AP-MW-16	BY-AP-MW-5	BY-AP-MW-6
10/1/2019								<0.01015	
3/30/2020	<0.01015								
3/31/2020		<0.01015	<0.01015	<0.01015	<0.01015		<0.01015	<0.01015	<0.01015
4/1/2020						<0.01015			
9/1/2020	<0.01015	<0.01015	<0.01015	<0.01015				<0.01015	
9/2/2020					<0.01015	0.00209 (J)	<0.01015		<0.01015
5/11/2021						0.00171			
5/17/2021									0.000117 (J)
5/18/2021	0.000106 (J)		0.000947						
5/19/2021		0.00652		0.000437			0.000136 (J)		
5/25/2021					0.000701				
10/26/2021				0.00043		0.00206			
10/27/2021					0.00053				
11/1/2021	8E-05 (J)		0.00099				<0.01015		
11/2/2021		0.00161						0.00012 (J)	0.00011 (J)
5/23/2022		0.00141	0.00109						
5/24/2022	<0.01015			0.00356					
5/25/2022					0.00052	0.0018	<0.01015	0.00011 (J)	0.00033
10/31/2022								0.000344	0.000122 (J)
11/1/2022		0.000972	0.000942	0.00585	0.000643	0.00173	<0.01015		
11/2/2022	<0.01015								
4/3/2023	<0.01015					<0.01015			
4/4/2023		<0.01015	<0.01015	0.0108				<0.01015	<0.01015
4/5/2023					<0.01015		<0.01015		
8/7/2023		<0.01015						<0.01015	
8/8/2023	<0.01015		<0.01015			<0.01015	<0.01015		
8/9/2023				<0.01015	<0.01015				<0.01015
Mean	0.007636	0.006389	0.005571	0.006441	0.005374	0.00498	0.008898	0.006416	0.00516
Std. Dev.	0.004655	0.004368	0.004895	0.00449	0.005106	0.004283	0.00354	0.005155	0.005335
Upper Lim.	0.01015	0.01015	0.01015	0.0108	0.01015	0.01015	0.01015	0.01015	0.01015
Lower Lim.	8E-05	0.000972	0.000942	0.00043	0.00052	0.00171	0.000136	0.00011	0.00011

Confidence Interval

Constituent: Molybdenum (mg/L) Analysis Run 10/22/2023 1:31 PM View: Confidence Intervals
Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-7	BY-AP-MW-8	BY-AP-MW-9
10/1/2019			
3/30/2020	<0.01015	<0.01015	
3/31/2020			<0.01015
4/1/2020			
9/1/2020			
9/2/2020	<0.01015	<0.01015	<0.01015
5/11/2021		0.000321	
5/17/2021			
5/18/2021	0.000214		0.00022
5/19/2021			
5/25/2021			
10/26/2021		0.00019 (J)	
10/27/2021	0.00018 (J)		0.00021
11/1/2021			
11/2/2021			
5/23/2022			
5/24/2022	0.00018 (J)	0.00023	0.00024
5/25/2022			
10/31/2022	0.00289		0.000157 (J)
11/1/2022			
11/2/2022		0.000232	
4/3/2023	<0.01015	<0.01015	
4/4/2023			<0.01015
4/5/2023			
8/7/2023	<0.01015	<0.01015	<0.01015
8/8/2023			
8/9/2023			
Mean	0.005508	0.005197	0.005178
Std. Dev.	0.005041	0.005296	0.005315
Upper Lim.	0.01015	0.01015	0.01015
Lower Lim.	0.00018	0.00019	0.000157

Confidence Interval

Constituent: Selenium (mg/L) Analysis Run 10/22/2023 1:31 PM View: Confidence Intervals
Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-13
3/31/2020	<0.001015
9/1/2020	<0.001015
5/19/2021	<0.001015
10/26/2021	<0.001015
5/24/2022	0.00056 (J)
11/1/2022	0.000611 (J)
4/4/2023	0.000664 (J)
8/9/2023	<0.001015
Mean	0.0008638
Std. Dev.	0.0002106
Upper Lim.	0.001015
Lower Lim.	0.00056

FIGURE L.

Trend Tests (Confidence Interval Exceedances) - Significant Results

Plant Barry Client: Southern Company Data: Barry Ash Pond Printed 10/22/2023, 1:42 PM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
Arsenic (mg/L)	BY-AP-MW-10	0.007782	130	71	Yes	22	0	n/a	n/a	0.05	NP
Arsenic (mg/L)	BY-AP-MW-14	0.0009533	156	66	Yes	21	0	n/a	n/a	0.05	NP
Arsenic (mg/L)	BY-AP-MW-15	0.0003814	112	66	Yes	21	0	n/a	n/a	0.05	NP
Arsenic (mg/L)	BY-AP-MW-16	0.000693	122	66	Yes	21	0	n/a	n/a	0.05	NP
Arsenic (mg/L)	BY-AP-MW-8	0.003354	71	66	Yes	21	0	n/a	n/a	0.05	NP
Cobalt (mg/L)	BY-AP-MW-15	0.00137	143	66	Yes	21	0	n/a	n/a	0.05	NP
Cobalt (mg/L)	BY-UP-MW-2 (bg)	-0.0004787	-152	-66	Yes	21	42.86	n/a	n/a	0.05	NP
Cobalt (mg/L)	BY-UP-MW-3 (bg)	0	-95	-66	Yes	21	71.43	n/a	n/a	0.05	NP
Cobalt (mg/L)	BY-UP-MW-4 (bg)	0	-85	-66	Yes	21	71.43	n/a	n/a	0.05	NP

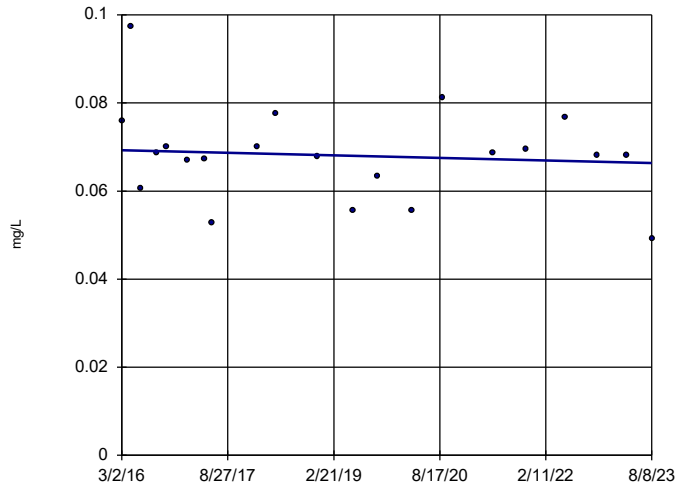
Trend Tests (Confidence Interval Exceedances) - All Results

Plant Barry Client: Southern Company Data: Barry Ash Pond Printed 10/22/2023, 1:42 PM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
Arsenic (mg/L)	BY-AP-MW-1	-0.0003887	-27	-66	No	21	0	n/a	n/a	0.05	NP
Arsenic (mg/L)	BY-AP-MW-10	0.007782	130	71	Yes	22	0	n/a	n/a	0.05	NP
Arsenic (mg/L)	BY-AP-MW-11	0.000207	40	66	No	21	0	n/a	n/a	0.05	NP
Arsenic (mg/L)	BY-AP-MW-12	0.0001874	63	66	No	21	0	n/a	n/a	0.05	NP
Arsenic (mg/L)	BY-AP-MW-14	0.0009533	156	66	Yes	21	0	n/a	n/a	0.05	NP
Arsenic (mg/L)	BY-AP-MW-15	0.0003814	112	66	Yes	21	0	n/a	n/a	0.05	NP
Arsenic (mg/L)	BY-AP-MW-16	0.000693	122	66	Yes	21	0	n/a	n/a	0.05	NP
Arsenic (mg/L)	BY-AP-MW-5	0.0001147	6	62	No	20	0	n/a	n/a	0.05	NP
Arsenic (mg/L)	BY-AP-MW-7	-0.0002797	-28	-66	No	21	0	n/a	n/a	0.05	NP
Arsenic (mg/L)	BY-AP-MW-8	0.003354	71	66	Yes	21	0	n/a	n/a	0.05	NP
Arsenic (mg/L)	BY-AP-MW-9	0.00009057	2	66	No	21	0	n/a	n/a	0.05	NP
Arsenic (mg/L)	BY-UP-MW-1 (bg)	0	51	66	No	21	71.43	n/a	n/a	0.05	NP
Arsenic (mg/L)	BY-UP-MW-2 (bg)	0	-40	-66	No	21	76.19	n/a	n/a	0.05	NP
Arsenic (mg/L)	BY-UP-MW-3 (bg)	0	-12	-66	No	21	95.24	n/a	n/a	0.05	NP
Arsenic (mg/L)	BY-UP-MW-4 (bg)	0	-13	-66	No	21	66.67	n/a	n/a	0.05	NP
Cobalt (mg/L)	BY-AP-MW-15	0.00137	143	66	Yes	21	0	n/a	n/a	0.05	NP
Cobalt (mg/L)	BY-UP-MW-1 (bg)	0.00009261	30	66	No	21	0	n/a	n/a	0.05	NP
Cobalt (mg/L)	BY-UP-MW-2 (bg)	-0.0004787	-152	-66	Yes	21	42.86	n/a	n/a	0.05	NP
Cobalt (mg/L)	BY-UP-MW-3 (bg)	0	-95	-66	Yes	21	71.43	n/a	n/a	0.05	NP
Cobalt (mg/L)	BY-UP-MW-4 (bg)	0	-85	-66	Yes	21	71.43	n/a	n/a	0.05	NP

Sen's Slope Estimator

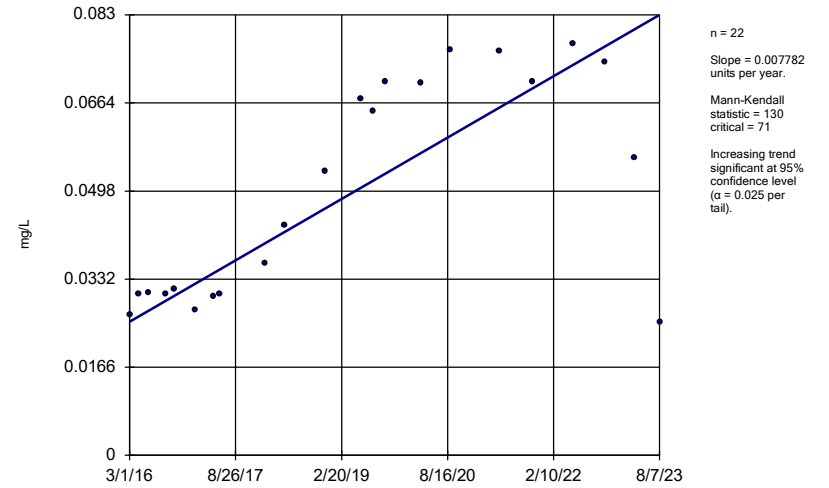
BY-AP-MW-1



Constituent: Arsenic Analysis Run 10/22/2023 1:38 PM View: Trend Tests - Confidence Interval Exceedan
Plant Barry Client: Southern Company Data: Barry Ash Pond

Sen's Slope Estimator

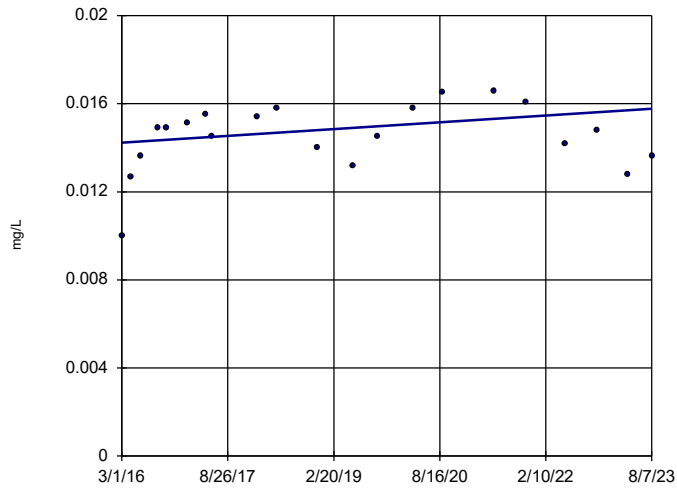
BY-AP-MW-10



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Plant Barry Client: Southern Company Data: Barry Ash Pond

Sen's Slope Estimator

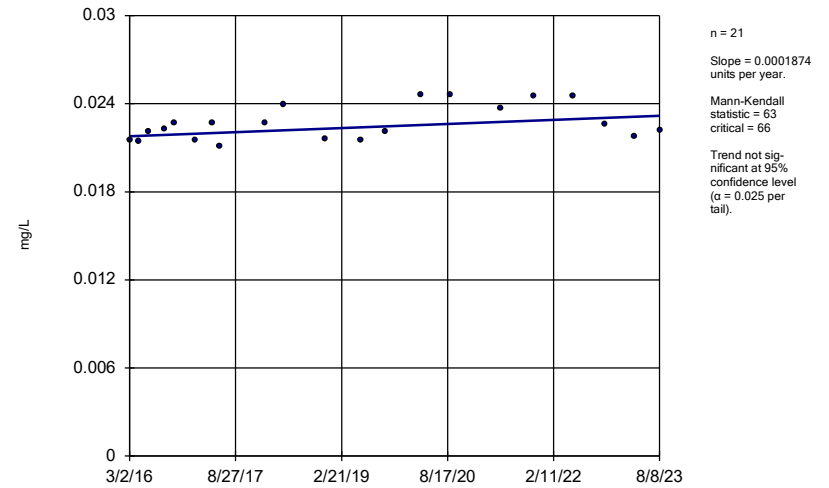
BY-AP-MW-11



Constituent: Arsenic Analysis Run 10/22/2023 1:38 PM View: Trend Tests - Confidence Interval Exceedan
Plant Barry Client: Southern Company Data: Barry Ash Pond

Sen's Slope Estimator

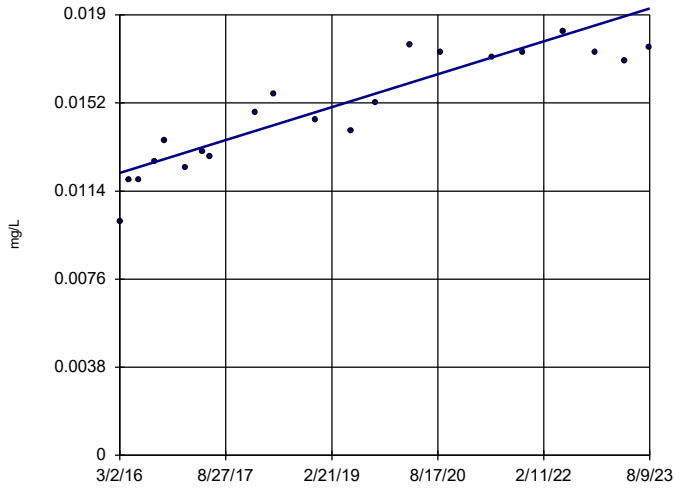
BY-AP-MW-12



Constituent: Arsenic Analysis Run 10/22/2023 1:38 PM View: Trend Tests - Confidence Interval Exceedan
Plant Barry Client: Southern Company Data: Barry Ash Pond

Sen's Slope Estimator

BY-AP-MW-14

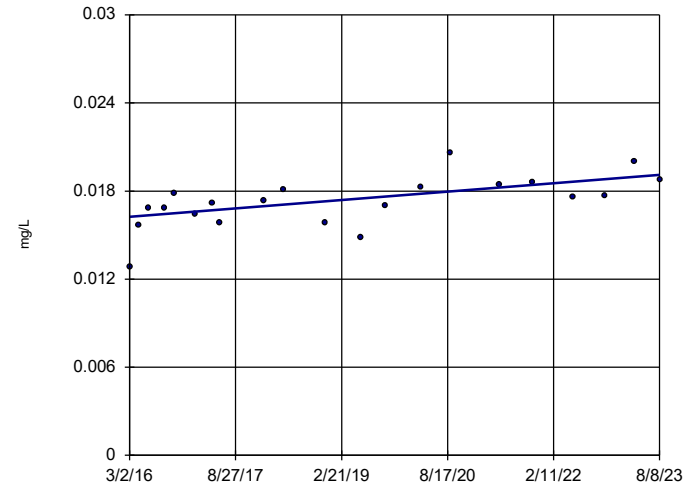


n = 21
 Slope = 0.0009533
 units per year.
 Mann-Kendall
 statistic = 156
 critical = 66
 Increasing trend
 significant at 95%
 confidence level
 ($\alpha = 0.025$ per
 tail).

Constituent: Arsenic Analysis Run 10/22/2023 1:38 PM View: Trend Tests - Confidence Interval Exceedan
 Plant Barry Client: Southern Company Data: Barry Ash Pond

Sen's Slope Estimator

BY-AP-MW-15

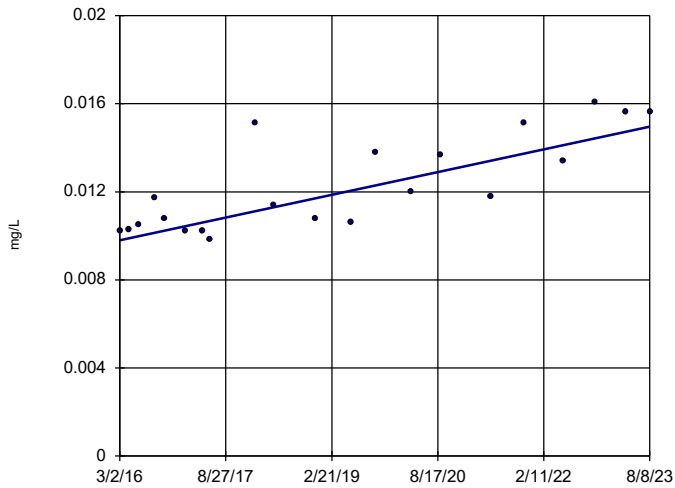


n = 21
 Slope = 0.0003814
 units per year.
 Mann-Kendall
 statistic = 112
 critical = 66
 Increasing trend
 significant at 95%
 confidence level
 ($\alpha = 0.025$ per
 tail).

Constituent: Arsenic Analysis Run 10/22/2023 1:38 PM View: Trend Tests - Confidence Interval Exceedan
 Plant Barry Client: Southern Company Data: Barry Ash Pond

Sen's Slope Estimator

BY-AP-MW-16

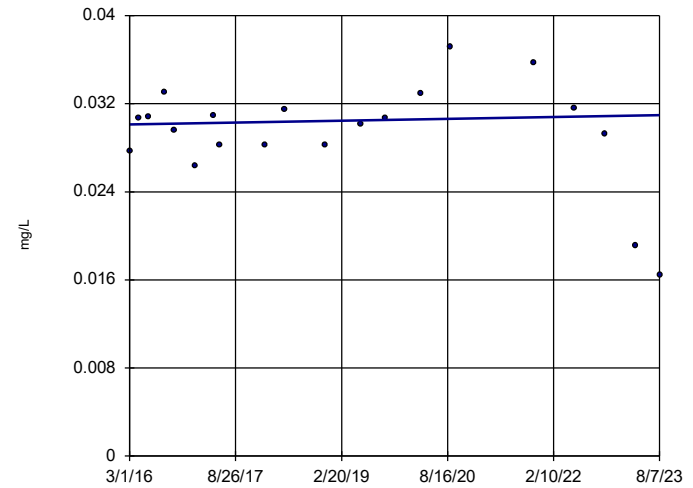


n = 21
 Slope = 0.000693
 units per year.
 Mann-Kendall
 statistic = 122
 critical = 66
 Increasing trend
 significant at 95%
 confidence level
 ($\alpha = 0.025$ per
 tail).

Constituent: Arsenic Analysis Run 10/22/2023 1:38 PM View: Trend Tests - Confidence Interval Exceedan
 Plant Barry Client: Southern Company Data: Barry Ash Pond

Sen's Slope Estimator

BY-AP-MW-5

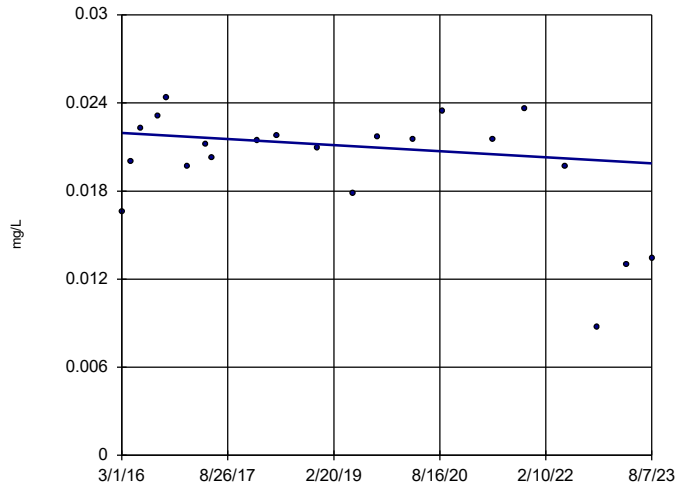


n = 20
 Slope = 0.0001147
 units per year.
 Mann-Kendall
 statistic = 6
 critical = 62
 Trend not sig-
 nificant at 95%
 confidence level
 ($\alpha = 0.025$ per
 tail).

Constituent: Arsenic Analysis Run 10/22/2023 1:38 PM View: Trend Tests - Confidence Interval Exceedan
 Plant Barry Client: Southern Company Data: Barry Ash Pond

Sen's Slope Estimator

BY-AP-MW-7

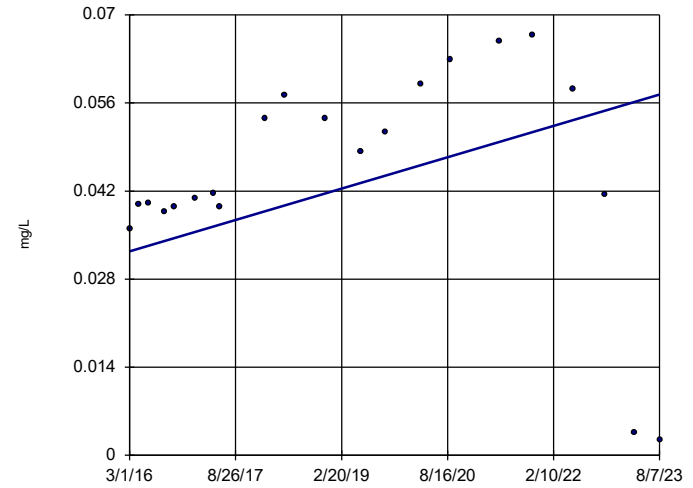


n = 21
 Slope = -0.0002797
 units per year.
 Mann-Kendall
 statistic = -28
 critical = -66
 Trend not sig-
 nificant at 95%
 confidence level
 (α = 0.025 per
 tail).

Constituent: Arsenic Analysis Run 10/22/2023 1:38 PM View: Trend Tests - Confidence Interval Exceedan
 Plant Barry Client: Southern Company Data: Barry Ash Pond

Sen's Slope Estimator

BY-AP-MW-8

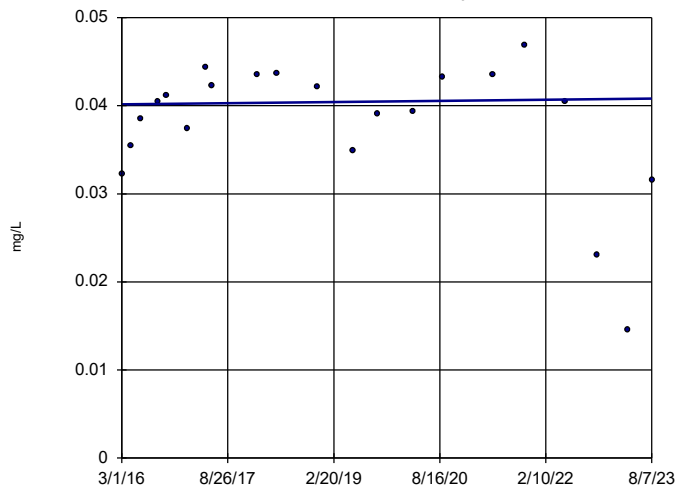


n = 21
 Slope = 0.003354
 units per year.
 Mann-Kendall
 statistic = 71
 critical = 66
 Increasing trend
 significant at 95%
 confidence level
 (α = 0.025 per
 tail).

Constituent: Arsenic Analysis Run 10/22/2023 1:38 PM View: Trend Tests - Confidence Interval Exceedan
 Plant Barry Client: Southern Company Data: Barry Ash Pond

Sen's Slope Estimator

BY-AP-MW-9

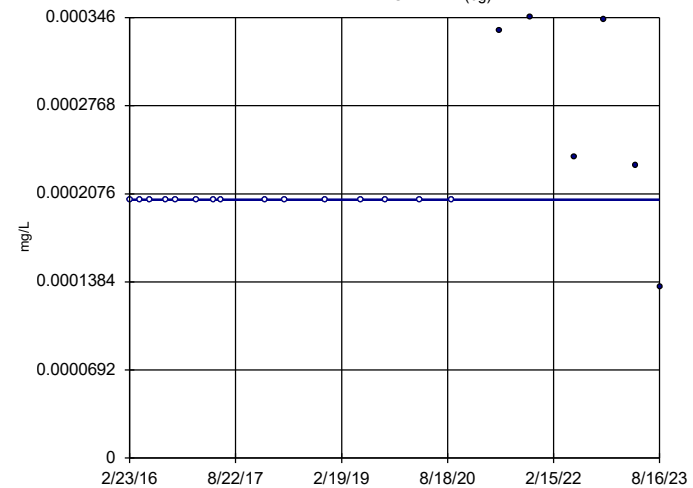


n = 21
 Slope = 0.00009057
 units per year.
 Mann-Kendall
 statistic = 2
 critical = 66
 Trend not sig-
 nificant at 95%
 confidence level
 (α = 0.025 per
 tail).

Constituent: Arsenic Analysis Run 10/22/2023 1:38 PM View: Trend Tests - Confidence Interval Exceedan
 Plant Barry Client: Southern Company Data: Barry Ash Pond

Sen's Slope Estimator

BY-UP-MW-1 (bg)

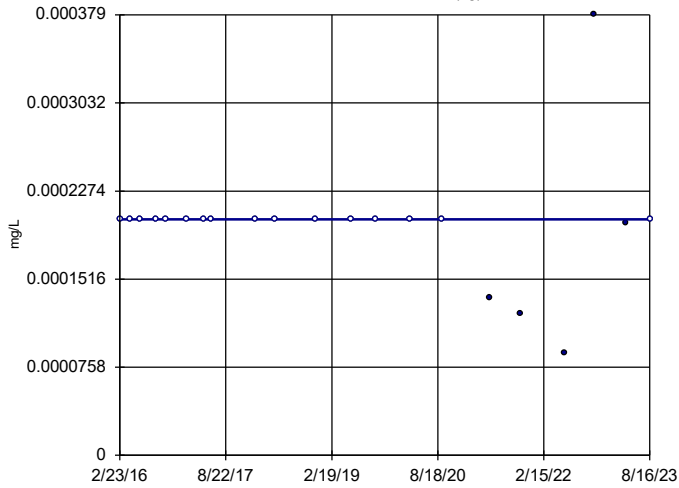


n = 21
 Slope = 0
 units per year.
 Mann-Kendall
 statistic = 51
 critical = 66
 Trend not sig-
 nificant at 95%
 confidence level
 (α = 0.025 per
 tail).

Constituent: Arsenic Analysis Run 10/22/2023 1:38 PM View: Trend Tests - Confidence Interval Exceedan
 Plant Barry Client: Southern Company Data: Barry Ash Pond

Sen's Slope Estimator

BY-UP-MW-2 (bg)

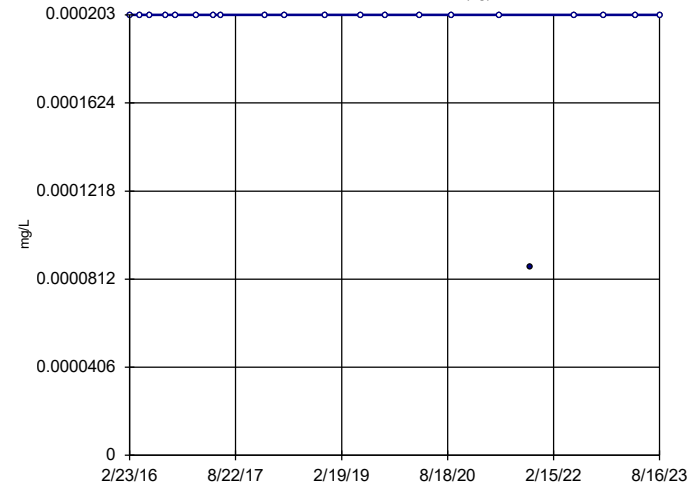


n = 21
Slope = 0
units per year.
Mann-Kendall
statistic = -40
critical = -66
Trend not sig-
nificant at 95%
confidence level
($\alpha = 0.025$ per
tail).

Constituent: Arsenic Analysis Run 10/22/2023 1:38 PM View: Trend Tests - Confidence Interval Exceedan
Plant Barry Client: Southern Company Data: Barry Ash Pond

Sen's Slope Estimator

BY-UP-MW-3 (bg)

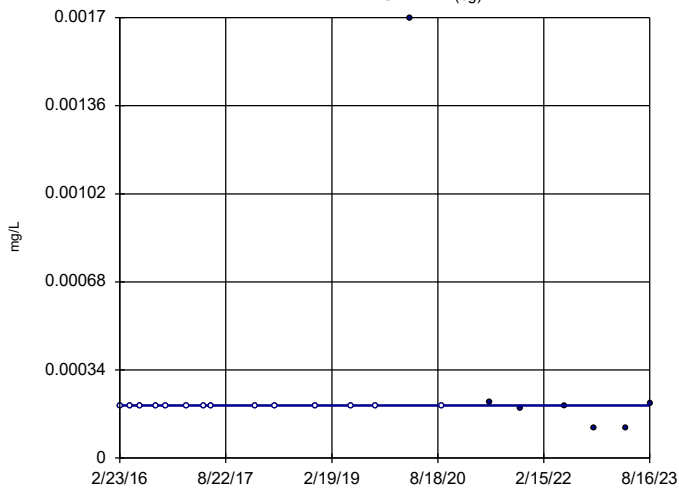


n = 21
Slope = 0
units per year.
Mann-Kendall
statistic = -12
critical = -66
Trend not sig-
nificant at 95%
confidence level
($\alpha = 0.025$ per
tail).

Constituent: Arsenic Analysis Run 10/22/2023 1:38 PM View: Trend Tests - Confidence Interval Exceedan
Plant Barry Client: Southern Company Data: Barry Ash Pond

Sen's Slope Estimator

BY-UP-MW-4 (bg)

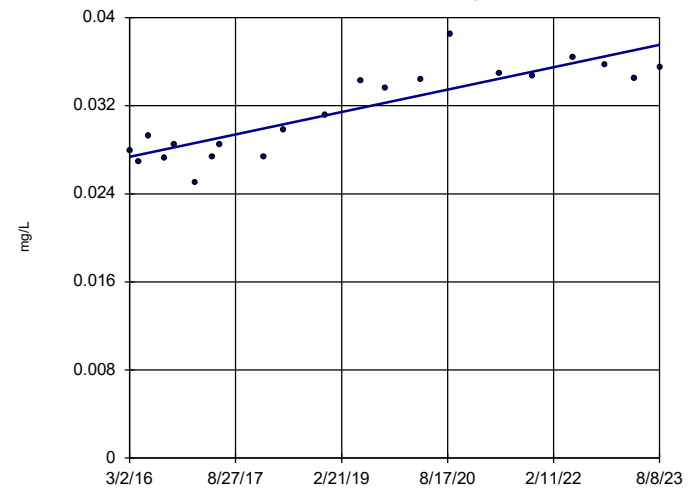


n = 21
Slope = 0
units per year.
Mann-Kendall
statistic = -13
critical = -66
Trend not sig-
nificant at 95%
confidence level
($\alpha = 0.025$ per
tail).

Constituent: Arsenic Analysis Run 10/22/2023 1:38 PM View: Trend Tests - Confidence Interval Exceedan
Plant Barry Client: Southern Company Data: Barry Ash Pond

Sen's Slope Estimator

BY-AP-MW-15

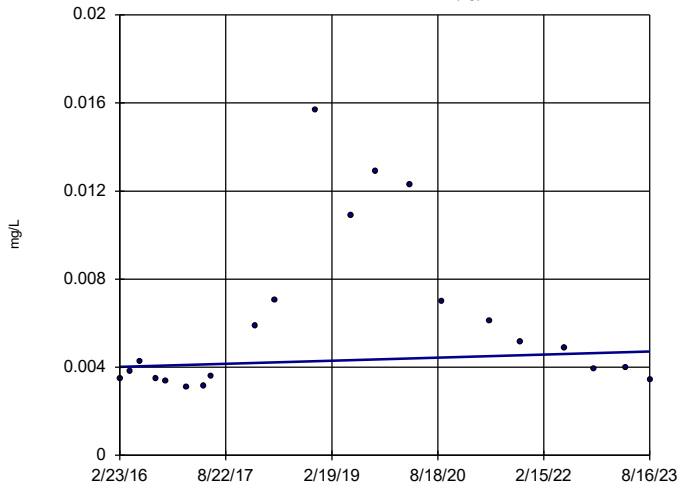


n = 21
Slope = 0.00137
units per year.
Mann-Kendall
statistic = 143
critical = 66
Increasing trend
significant at 95%
confidence level
($\alpha = 0.025$ per
tail).

Constituent: Cobalt Analysis Run 10/22/2023 1:38 PM View: Trend Tests - Confidence Interval Exceedanc
Plant Barry Client: Southern Company Data: Barry Ash Pond

Sen's Slope Estimator

BY-UP-MW-1 (bg)



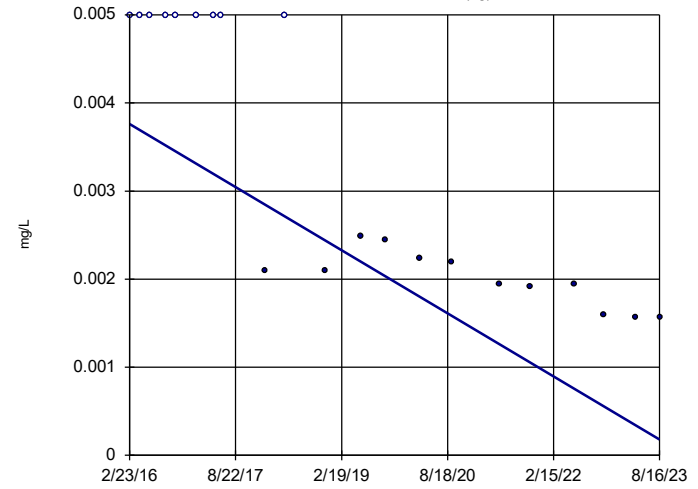
n = 21
 Slope = 0.00009261 units per year.
 Mann-Kendall statistic = 30
 critical = 66
 Trend not significant at 95% confidence level (α = 0.025 per tail).

Constituent: Cobalt Analysis Run 10/22/2023 1:38 PM View: Trend Tests - Confidence Interval Exceedanc
 Plant Barry Client: Southern Company Data: Barry Ash Pond

Hollow symbols indicate censored values.

Sen's Slope Estimator

BY-UP-MW-2 (bg)



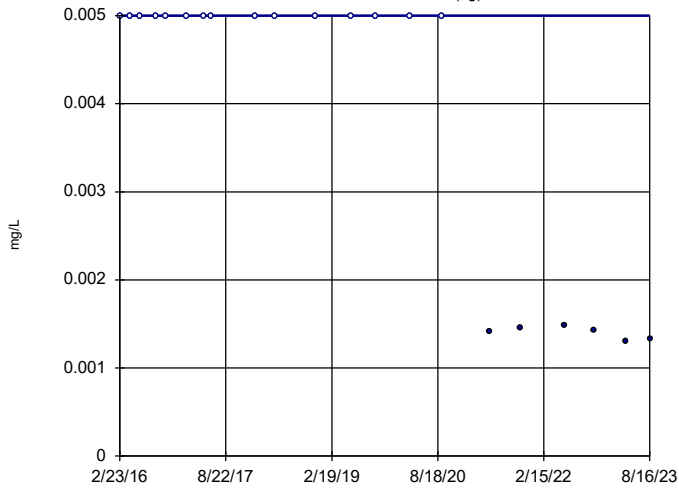
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 Mann-Kendall statistic = -152
 critical = -66
 Decreasing trend significant at 95% confidence level (α = 0.025 per tail).

Constituent: Cobalt Analysis Run 10/22/2023 1:38 PM View: Trend Tests - Confidence Interval Exceedanc
 Plant Barry Client: Southern Company Data: Barry Ash Pond

Hollow symbols indicate censored values.

Sen's Slope Estimator

BY-UP-MW-3 (bg)



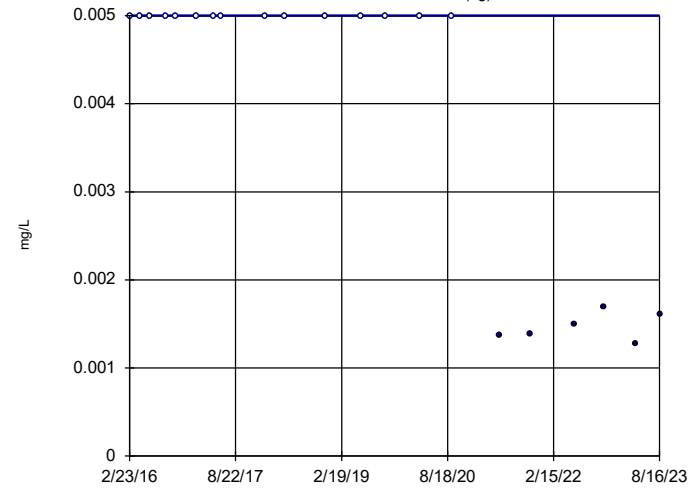
n = 21
 Slope = 0 units per year.
 Mann-Kendall statistic = -95
 critical = -66
 Decreasing trend significant at 95% confidence level (α = 0.025 per tail).

Constituent: Cobalt Analysis Run 10/22/2023 1:38 PM View: Trend Tests - Confidence Interval Exceedanc
 Plant Barry Client: Southern Company Data: Barry Ash Pond

Hollow symbols indicate censored values.

Sen's Slope Estimator

BY-UP-MW-4 (bg)



n = 21
 Slope = 0 units per year.
 Mann-Kendall statistic = -85
 critical = -66
 Decreasing trend significant at 95% confidence level (α = 0.025 per tail).

Constituent: Cobalt Analysis Run 10/22/2023 1:38 PM View: Trend Tests - Confidence Interval Exceedanc
 Plant Barry Client: Southern Company Data: Barry Ash Pond

Appendix F



January 2024
Plant Barry



Laboratory Treatability Study Results

Prepared for Alabama Power Company

January 2024
Plant Barry

Laboratory Treatability Study Results

Prepared for
Alabama Power Company
600 18th Street North
Birmingham, Alabama 35203

Prepared by
Anchor QEA
6720 South Macadam Avenue, Suite 125
Portland, Oregon 97219

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APPENDIX

Appendix A	Laboratory Analytical Reports
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ABBREVIATIONS

$\mu\text{g/L}$	microgram per liter
APCEL	APC Environmental Laboratory
BaCl_2	barium chloride
cm	centimeter
COI	constituent of interest
DO	dissolved oxygen
EGL	Anchor QEA Environmental Geochemistry Laboratory
FerroBlack	FerroBlack-Fe+
FeCl_3	ferric chloride
$\text{Fe}(\text{OH})_3$	ferrihydrate
FeS	ferrous sulfide
FeSO_4	ferrous sulfate
GWPS	groundwater protection standard
KMnO_4	potassium permanganate
M	molar
mg/kg	milligram per kilogram
MnCl_2	manganese chloride
mL	milliliter
N_2	nitrogen
Na_2CO_3	sodium carbonate
$\text{Na}_2\text{HAsO}_4 \cdot 7\text{H}_2\text{O}$	sodium arsenate heptahydrate
NaHCO_3	sodium bicarbonate
NaSO_4	sodium sulfate
ORP	oxidation reduction potential
Plant Barry	James M. Barry Electric Generating Plant
PV	pore volume
SC	specific conductivity
Site	Plant Barry Ash Pond
SSE	selective sequential extraction
USEPA	U.S. Environmental Protection Agency

Executive Summary

As described in the *Groundwater Remedy Selection Report* (Anchor QEA 2021a), geochemical manipulation via injections was selected as one corrective measure for arsenic and cobalt in groundwater at the James M. Barry Electric Generating Plant (Plant Barry) Ash Pond (Site) located in northeastern Mobile County, Alabama. Geochemical manipulation was selected because of its effectiveness, ease of implementation, versatility (ability to treat more than one constituent of interest [COI]), ability to implement in areas with limited working space, and because it produces no byproducts that would require further treatment or disposal. Treatability studies were performed to determine the optimum reagents and their doses and to provide information for the required underground injection control permit and design of the injection treatment at the Site.

Treatability studies for injection treatment (geochemical manipulation) at the Site consisted of the following steps:

- Sampling and characterization of aquifer soil and groundwater
- Batch tests, both screening and optimization
- Column tests, including treatment effectiveness and post-treatment leaching to determine stability
- Selective sequential extraction (SSE) on post-treatment soils

Aquifer soil and groundwater samples were collected from multiple areas, based on the number and concentrations of COIs, to help select areas for field pilot testing. Geochemical characterization of aquifer soils was performed to support the design and interpretation of the treatability testing. Homogenized soil samples were analyzed for the COIs (arsenic and cobalt), other Appendix IV parameters, iron, manganese, sulfide, fluoride, and total organic carbon. Extractable aluminum, iron, and manganese oxides, and cation exchange capacity in aquifer soils were also measured. Physical testing included percent moisture content and grain size distribution (gravel, sand, silt, and clay).

Groundwater samples were analyzed for major cations, anions, COIs and other Appendix III/IV parameters, and water quality parameters influencing the chemical behavior of the COIs. Prior to beginning treatability testing, confirmatory analysis of the COIs and dissolved iron and manganese concentrations was performed. Aquifer soil samples were paired with their respective groundwater samples based on their sampling location proximity. Those pairs were used throughout batch and column testing.

Based on previous successful treatability studies at other sites and geochemical studies performed as part of remedy selection (Anchor QEA 2021a), a series of batch tests was performed to determine the effectiveness and to rank the performance of the selected reagents in reducing the COI concentrations in Site groundwater and groundwater-soil slurries. All batch tests were conducted with the following two configurations: 1) groundwater batch tests; and 2) slurry batch tests. In

groundwater batch tests, reagents were added to test bottles filled with Site groundwater only. In slurry batch tests, the paired aquifer soils were mixed with the Site groundwaters to prepare slurries in test bottles, and then reagents were added to the test bottles. Slurry tests were performed because the aquifer solids could influence the performance of the tested reagents.

Four of the groundwater samples tested (BY-AP-MW-1, BY-AP-MW-8, BY-AP-MW-10, and BY-AP-MW-24H) contained arsenic as the sole COI. The groundwater collected at BY-AP-MW-15V had both arsenic and cobalt as COIs.

In the screening batch tests, 11 reagents and aeration were initially tested. More than one reagent effectively removed arsenic and cobalt from Site groundwater and slurries. Aeration generally removed arsenic though was unsuccessful in removing cobalt. Potassium permanganate (KMnO_4) and ferrous sulfate (FeSO_4) were two of the most promising reagents for removing both arsenic and cobalt in the screening batch tests. Optimization batch tests were conducted to determine the best pH buffering reagent and dose to achieve maximum arsenic and cobalt removal. The best removal of arsenic and cobalt was achieved using KMnO_4 buffered with sodium bicarbonate (NaHCO_3) and FeSO_4 buffered with NaHCO_3 and sodium carbonate (Na_2CO_3). The aeration treatment with a NaHCO_3 buffer did not lower arsenic concentrations to less than the groundwater protection standard (GWPS). The $\text{KMnO}_4 + \text{NaHCO}_3$ treatment was retained for column tests for the four arsenic-only groundwater samples. The $\text{KMnO}_4 + \text{NaHCO}_3$ and $\text{FeSO}_4 + \text{NaHCO}_3 + \text{Na}_2\text{CO}_3$ treatments were included in column tests for the groundwater containing both arsenic and cobalt as COIs.

Column tests were conducted to simulate injection applications of the selected reagent mixes and to evaluate the COI removal performance of aquifer soils treated with the selected reagent mixes under flow conditions. Column tests more closely simulate treatment under groundwater flow conditions than batch tests and provide information on removal efficiency, as well as capacity and the stability of the reagents under field conditions. Column test results were also used to provide data to support pilot test design and confirm the selected reagents will not inadvertently increase concentrations of other Appendix III/IV constituents above the GWPS due to, for example, release from the aquifer matrix. The two reagent mixes selected from the batch tests ($\text{KMnO}_4 + \text{NaHCO}_3$ and $\text{FeSO}_4 + \text{NaHCO}_3 + \text{Na}_2\text{CO}_3$) were mixed with aquifer soils to produce treated soils. Impacted groundwater was then run through the treated soils in columns to assess removal efficiency and capacity for treatment.

The $\text{KMnO}_4 + \text{NaHCO}_3$ reagent mix effectively removed arsenic from impacted groundwater during column studies, removing >94% of the influent mass. The $\text{KMnO}_4 + \text{NaHCO}_3$ reagent mix was more effective than $\text{FeSO}_4 + \text{NaHCO}_3 + \text{Na}_2\text{CO}_3$ at removing cobalt during the BY-AP-MW-15 column study. The $\text{KMnO}_4 + \text{NaHCO}_3$ reagent mix removed 96% of the influent mass, and the concentration was reduced to less than the GWPS for the duration of the study. The $\text{FeSO}_4 + \text{NaHCO}_3 + \text{Na}_2\text{CO}_3$

reagent mix lowered the arsenic concentration to less than the GWPS but did not achieve the GWPS for cobalt. Injection treatment is only one component of the remedy, as source control (consolidation and capping) and natural attenuation are also expected to reduce concentrations of COIs in groundwater (Anchor QEA 2021a).

After column studies were complete, Site background groundwater was run through the columns to determine the stability of each treatment. During this phase of testing, the COI concentrations in the effluents were lower than those from the previous treatment phase and decreased over time.

Therefore, treatment is expected to be stable, and Appendix III/IV constituents are not expected to be mobilized from aquifer soils by ambient groundwater flow after treatment.

Following completion of the column tests, the treated aquifer soils were tested to help evaluate the long-term stability of sequestered COIs using a five-step SSE procedure. In SSE, the treated aquifer soils are extracted by increasingly aggressive solutions formulated to target specific binding forms and help determine the mechanisms, strength of binding, and stability (or reversibility) of the COI uptake by host solids.

SSE results indicate that arsenic and cobalt are bound almost exclusively (>93%) in stable solid phases—specifically, through chemical bonding to, or incorporation into, metal oxides and hydroxides, such as iron and manganese oxides, and residual phases (dissolved only by concentrated strong acids). The associations with metal oxides and hydroxides were expected and indicate successful treatment, as the metals were major components of the treatment solutions. Less than 3% of arsenic and <7% of cobalt were in the water-soluble fraction of the treated soil solids.

Overall, the $\text{KMnO}_4 + \text{NaHCO}_3$ reagent mix effectively treated arsenic and cobalt in Site groundwater and is the recommended single-solution treatment for pilot-scale testing.

1 Introduction

As discussed in the *Groundwater Remedy Selection Report* (Anchor QEA 2021a), geochemical manipulation via injections was selected as one corrective measure for constituents of interest (COIs) at the James M. Barry Electric Generating Plant (Plant Barry) Ash Pond (Site) located in northeastern Mobile County, Alabama. COIs at the Site are arsenic and cobalt. Geochemical manipulation removes COIs from groundwater and immobilizes them in situ through the creation of solid precipitates formed from injection of treatment solutions (reagents). COIs adhere to the solid surfaces and are incorporated into the solid structures. Geochemical manipulation was selected because of its effectiveness, ease of implementation, versatility (ability to treat more than one COI), ability to implement in areas with limited working space, and because it produces no byproducts that would require further treatment or disposal. Before geochemical manipulation via injection treatment can be implemented, laboratory treatability studies need to be performed using the Site aquifer media (soil) and impacted groundwater.

The site-specific treatability studies discussed herein were conducted to evaluate reagent selection, dosing, and injection sequencing for in situ groundwater remediation. The treatability study approach includes the following:

- Sampling and characterization (analysis) of aquifer soil and groundwater
- Batch tests (screening batch tests, followed by optimization batch tests) to identify and rank reagents and reagent mixes for removal of COIs from Site groundwater
- Selection of the two best-performing reagents (or reagent mixes) for column testing to do the following:
 - Assess COI removal efficiency
 - Determine COI uptake capacity of reagent-treated aquifer soil to support pilot test design
- Confirm the selected reagents (or reagent mixes) will not inadvertently increase concentrations of other Appendix III/IV constituents above the groundwater protection standard (GWPS) due to, for example, release from the aquifer matrix.
- Determine the stability of each treatment by doing the following:
 - Running Site background groundwater through treated soils in the columns to assess potential for rerelease of COIs
 - Selective sequential extraction (SSE) of post-column-treated soil to provide information on the mechanisms and stability of COI sequestration

2 Selection of Reagents

Selection and formulation of reagents that can be injected to treat site-specific COIs were based on site-specific soil and groundwater geochemistry, previous Site work, and prior experience from successful treatability studies performed by Anchor QEA, for the same COIs at other sites for confidential clients. The *Monitored Natural Attenuation Demonstration* (Anchor QEA 2021b) documented key geochemical attenuation mechanisms occurring at the Site, including the following:

- Sorption on and/or coprecipitation with iron oxides and hydroxides for arsenic and cobalt
- Cation exchange on clay minerals for cobalt
- Potential precipitation of barium arsenate for arsenic (predicted by geochemical modeling)

Iron and manganese oxides are strong sorbents for many metals and metalloids, including arsenic (Dixit and Hering 2003; Manning et al. 2003; Mohan and Pittman 2007; Ouvard et al. 2002) and cobalt (Ainsworth et al. 1994). Subsurface geochemical conditions at the Site are generally favorable for formation of iron oxides. Therefore, the treatability studies were initially focused on reagents (or mixtures of reagents) with the potential to increase the abundance and stability of iron and/or manganese oxides and hydroxides in the subsurface. Based on Site conditions and treatability studies previously completed for other sites, the following reagent and reagent mixes were initially selected for treatability testing:

- Ferrous sulfate (FeSO_4)
- Ferric chloride (FeCl_3)
- CleanER-10 (injectable zero-valent iron)
- FerroBlack-Fe+ (FerroBlack; injectable iron sulfide)
- Potassium permanganate (KMnO_4)
- Ferrous sulfate and potassium permanganate ($\text{FeSO}_4 + \text{KMnO}_4$)
- Ferric chloride with potassium permanganate and manganese chloride ($\text{FeCl}_3 + \text{KMnO}_4 + \text{MnCl}_2$)
- Barium chloride (BaCl_2)
- Barium chloride and sodium sulfate (NaSO_4)
- Aeration
- KMnO_4 with pH adjusted to 9.5 (BY-AP-MW-15V only)
- FeSO_4 and KMnO_4 with pH adjusted to 9.5 (BY-AP-MW-15V only)
- FeCl_3 with KMnO_4 and MnCl_2 with pH adjusted to 9.5 (BY-AP-MW-15V only)

Soluble iron reagents such as FeSO_4 and FeCl_3 are acidic and form iron oxides/hydroxides such as ferrihydrite ($\text{Fe}(\text{OH})_3$) when neutralized. Iron oxides/hydroxides can adsorb and/or coprecipitate with arsenic and cobalt. Zero-valent iron, specifically CleanER-10, was tested because it oxidizes to form

iron oxides/hydroxides over time that can remove arsenic (Biterna et al. 2007) and heavy metals (Moraci and Calabrò 2010).

FerroBlack is a proprietary amendment from Redox Solutions. The active ingredient in FerroBlack is likely iron monosulfide, which immobilizes arsenic through adsorption at low arsenic concentrations and precipitation/mineralization of arsenic sulfides at higher arsenic concentrations (Niazi and Burton 2016). Cobalt is also likely to be removed through similar mechanisms by ferrous sulfide (FeS).

Permanganate has been widely used for in situ chemical oxidation. Permanganate reacts with soil components to produce manganese oxides, which can adsorb and incorporate COIs (Hou et al. 2017; Al Abdullah et al. 2016; Le and Phuc 2015).

Barium chloride was included in the reagent list because geochemical modeling indicated conditions were favorable for barium arsenate precipitation from groundwater. Increasing the dissolved barium concentration would, therefore, be expected to reduce arsenic concentrations.

Aeration was also included since Site groundwater generally contains high concentrations of dissolved iron (Section 3.1.2). Oxidation of dissolved iron by dissolved oxygen (DO) promotes iron oxide and hydroxide formation and COI removal.

The full list of reagents (or reagent mixes) tested and vendor sources is included in Table 1. The effectiveness of these treatments on COI removal was screened and evaluated through a series of batch tests. The most promising reagents (or reagent mixes) were selected for column testing.

3 Sampling and Initial Characterization

Groundwater samples and aquifer soils were collected from the Site for treatability testing conducted at the Anchor QEA Environmental Geochemistry Laboratory (EGL) in Portland, Oregon.

3.1 Groundwater

3.1.1 Sample Collection

Groundwater samples were collected by Alabama Power Company with support from Anchor QEA from wells BY-AP-MW-1, BY-AP-MW-8, BY-AP-MW-10, BY-AP-MW-15V, BY-AP-MW-15, and BY-AP-MW-24H (Figure 1). Five gallons of groundwater were collected from each well (except BY-AP-MW-15) on May 24 and November 2, 2022, for batch tests. An additional 10 gallons of groundwater from each well except BY-AP-MW-15V (plus an upgradient well BY-AP-MW-2) were collected on April 4, 2023, for column testing. Note that samples collected from BY-AP-MW-15V and BY-AP-MW-15 were used for the batch tests and column tests, respectively.

Prior to sampling, monitoring wells were purged until water quality parameters (pH, temperature, specific conductivity [SC], oxidation reduction potential [ORP], and DO) stabilized. Then, groundwater samples were collected in low-density polyethylene Cubitainers. Cubitainers were filled with zero headspace and packed in Mylar barrier bags containing oxygen-absorbent packets to minimize potential changes in redox conditions during transport to the EGL. Anaerobic conditions were maintained during sample handling at the EGL.

3.1.2 Sample Analysis and Results

Groundwater samples collected in the field were also sent directly to APC Environmental Laboratory (APCEL) in Calera, Alabama, and Pace Analytical Services, LLC and analyzed for major cations, anions, COIs, other Appendix III/IV parameters, and water quality parameters influencing the chemical behavior of the COIs (Table 2). Prior to commencing treatability testing at the EGL, groundwater samples in the received Cubitainers were subsampled and submitted to ALS Environmental in Kelso, Washington, for confirmatory analysis of COI and dissolved iron and manganese concentrations (Table 2). Laboratory analytical reports are included in Appendix A. Water quality parameters including pH, ORP, and DO were measured at the EGL and are provided in Table 2. Although almost all parameters were similar to the initial characterization results from groundwater samples sent directly from the field to APCEL, dissolved arsenic concentrations in BY-AP-MW-1, BY-AP-MW-8, BY-AP-MW-10, BY-AP-MW-15V, BY-AP-MW-15, and BY-AP-MW-24H decreased after the groundwater samples were shipped to the EGL. This is likely due to the high dissolved iron concentrations in groundwater samples. Despite the precautions taken to prevent oxidation, some precipitation of hydrous iron oxides in the sample containers had occurred during shipping as noted by the presence of orange-brown coloration on the inside surfaces of the Cubitainers upon receipt at the EGL.

Hydrous iron oxides are a strong sink for arsenic. Thus, groundwater samples used for batch and column testing were spiked with arsenic to ensure arsenic partitioning between groundwater and solids could be measured.

3.2 Aquifer Soils

3.2.1 Sample Collection

Aquifer soil samples were collected on March 1 and 2, 2022, from potential pilot test locations BY-AP-PT-1, BY-AP-PT-2, BY-AP-PT-3, and BY-AP-PT-5 at the Site (Figure 1). The aquifer soil samples were collected using sonic drilling technology from areas and depths where elevated concentrations of arsenic and cobalt have been identified and injection treatment will be implemented. The samples were selected in the field, packaged to preserve field redox conditions (airtight containers packed in Mylar bags with oxygen-absorbent packets), and shipped on ice to the EGL. Upon arrival at the EGL, aquifer soil samples were inspected and checked against the chain of custody and then stored under refrigeration until further processing.

3.2.2 Sample Analysis and Results

Geochemical characterization of aquifer soils was performed to support the design and interpretation of the treatability testing. Aquifer soil samples were composited and homogenized under a nitrogen atmosphere. The homogenized soil samples were subsampled and submitted to Apex Laboratories in Tigard, Oregon, for bulk chemical analyses, which include the COIs, arsenic and cobalt, other Appendix IV parameters, iron, manganese, sulfide, fluoride, and total organic carbon (Table 3). Extractable aluminum, iron, and manganese oxides and cation exchange capacity of aquifer soils were also measured (Tables 4 and 5) to characterize potential for intrinsic COI removal by soils and help with interpretation of batch test results.

Additional analyses included percent moisture content and grain size distribution (gravel, sand, silt, and clay; Table 6). Laboratory analytical reports are included in Appendix A. The surficial aquifer soil at the Site consists mostly of sand (92% to 99%), with minor silt and clay, and thus the surficial aquifer is hydraulically suitable for injection. Aquifer soil samples were paired with their respective groundwater samples based on their sampling location proximity. Those pairs were used throughout batch and column testing (Table 7). The concentrations of arsenic and cobalt were below detection in the aquifer soils selected for batch and column testing (Table 3). The concentrations of other Appendix IV constituents in the aquifer soils were very low or not detected (Table 3). Bulk iron concentrations of aquifer soils range from 518 to 1,250 milligrams per kilogram (mg/kg) (Table 3). Extractable iron oxides loosely correlate with bulk iron concentrations and account for 20% to 52% of iron in soils, indicating a variable but potentially significant intrinsic capacity of soils to remove COIs such as arsenic and cobalt.

4 Batch Tests

4.1 Methodology

A series of batch tests were performed to determine and rank the performance of the selected reagents in reducing the COI concentrations in Site groundwater. All batch tests were conducted with the following two configurations: 1) groundwater batch tests; and 2) groundwater-soil slurry batch tests. The slurry tests were included to assess the potential effect of the aquifer matrix on treatment effectiveness. In groundwater batch tests, reagents were added to test bottles filled with only Site groundwater. In slurry batch tests, the paired aquifer soils were mixed with the Site groundwater (Table 7) to prepare slurries in test bottles at a liquid-to-solid ratio of 10:1, then reagents were added to the test bottles. Control samples containing groundwater only, or groundwater plus aquifer soils for the slurry batch tests, were prepared for each groundwater to compare efficacy of the reagents. The performance of the reagents was evaluated in terms of the COI removal efficiency and the final COI concentrations relative to their GWPS.

The batch tests were divided into the following two stages: 1) screening batch tests to assess and compare the effectiveness of all the reagents to remove the COIs; and 2) optimization batch tests to improve performance of reagents retained from the screening batch tests by modifying reagent dose, combining reagents, and/or adjusting pH.

Except for aeration, the batch tests were performed under a nitrogen atmosphere in an anaerobic chamber to prevent changes in redox due to exposure to air. The general procedure for the batch tests is described in the following steps:

1. Test bottles were prepared in a controlled atmosphere glove box with 200 milliliters (mL) of groundwater or slurries of 200 mL of groundwater and 20 grams of aquifer soil (dry weight basis) for a liquid-to-solid ratio of 10:1. The initial arsenic concentrations in all the Site groundwater as received at the EGL were generally lower than expected based on historical data. This was attributed to the partial oxidation of dissolved iron in the groundwaters (present at much higher concentrations than arsenic) and precipitation of iron oxides, which removed dissolved arsenic. The Site groundwater samples were spiked with arsenic to provide initial arsenic concentrations to enable evaluation of treatment performance for arsenic. An arsenic stock solution was prepared from sodium arsenate heptahydrate ($\text{Na}_2\text{HAsO}_4 \cdot 7\text{H}_2\text{O}$) and used to spike the Site groundwater used for the batch tests. The target spiked dissolved arsenic concentration was 500 micrograms per liter ($\mu\text{g/L}$). Spiking of cobalt was not necessary because the initial cobalt concentrations were consistent with historical data.
2. Reagents or reagent mixes were added to the test bottles at a predetermined dose based on groundwater chemistry and previous successful treatability studies at other sites. The reagents are presented in Table 8. Controls without any reagent were also prepared for each groundwater

and slurry. The test bottles were sealed in Mylar bags with oxygen-absorbent packets and placed on a shaker table for 7 days. The aeration test bottles were placed on the countertop with caps open for 7 days.

3. Supernatants were collected from the test bottles at the end of the reaction period, filtered using 0.45-micron polyethersulfone syringe filters, and preserved with nitric acid. The filtered water samples were submitted to ALS Environmental and analyzed for dissolved COIs by U.S. Environmental Protection Agency (USEPA) Method 200.8 (inductively coupled plasma mass spectrometry). Water quality parameters including pH, ORP, and SC were also measured at the time of collection.
4. The solid fractions from each test jar were recovered and archived for possible future characterization.

4.2 Screening Batch Test Results

Tables 9 and 10 and Figures 2 through 8 show the results of the screening batch tests, specifically the following:

- Arsenic: All reagents and aeration generally reduced dissolved arsenic concentrations in groundwater. Five of the reagents/mixes, KMnO_4 , $\text{FeSO}_4 + \text{KMnO}_4$, $\text{BaCl}_2 + \text{NaSO}_4$, CleanER-10, and FerroBlack decreased arsenic concentrations to less than the GWPS in all groundwaters tested ($10 \mu\text{g/L}$; Tables 9 and 10). FeSO_4 , FeCl_3 , and BaCl_2 resulted in varied decreases in arsenic concentrations, and the GWPS was not reached using these reagents in BY-AP-MW-15V, BY-AP-MW-8, and BY-AP-MW-24H, respectively.
- Cobalt: Cobalt is a COI in BY-AP-MW-15V. KMnO_4 , KMnO_4 at pH 9.5, $\text{FeSO}_4 + \text{KMnO}_4$ at pH 9.5, $\text{FeCl}_3 + \text{KMnO}_4 + \text{MnCl}_2$ at pH 9.5, and FerroBlack reduced cobalt concentrations to less than the GWPS (Figures 5 and 8).

Laboratory analytical reports are included in Appendix A.

4.3 Optimization Batch Tests

In the screening batch tests, KMnO_4 , FeSO_4 , $\text{FeSO}_4 + \text{KMnO}_4$ at pH 9.5, and FerroBlack effectively removed arsenic and cobalt from Site groundwater and slurries. Optimization tests included increasing doses of selected reagents and including different pH buffering reagents. Although FerroBlack was effective for arsenic and cobalt removal in the screening batch test, it was not selected for further testing because of potential concern for increasing molybdenum concentrations in groundwater, as was observed in other treatability studies. Based on the screening batch test results and previous treatability studies performed by Anchor QEA for other coal combustion

residuals sites, the following reagents were selected and tested to achieve better arsenic and cobalt removal:

- KMnO_4
- FeSO_4
- Aeration

The three reagents (including aeration) were tested with addition of sodium bicarbonate (NaHCO_3) and sodium carbonate (Na_2CO_3) to buffer the final pH for higher cobalt removal than was achieved in the screening batch test. KMnO_4 was tested at three different (i.e., low, intermediate, and high) doses, with the high dose being approximately four times higher than low dose, in combination with two buffers, NaHCO_3 (Buffer 1) and $\text{NaHCO}_3 + \text{Na}_2\text{CO}_3$ (Buffer 2). FeSO_4 was tested with Buffer 1 and Buffer 2, which were implemented as two-solution treatments. Aeration with Buffer 1 was the final treatment tested. These treatments are summarized in Table 11.

Results of the optimization batch tests are summarized in Figures 9 through 13, the data are provided in Table 12, and the laboratory analytical reports are included in Appendix A. Table 13 summarizes the performance of all tested treatments to remove the COIs from Site groundwater and groundwater-soil slurries. Overall, the three tested reagents plus buffer(s) effectively reduced arsenic and cobalt concentrations in Site groundwater and slurries, although their performance varied slightly in different groundwater samples and slurries. $\text{KMnO}_4 + \text{Buffer 1}$ and $\text{FeSO}_4 + \text{Buffer 2}$ both decreased the arsenic and cobalt concentrations to below the GWPS, and $\text{KMnO}_4 + \text{Buffer 1}$ achieved the lowest arsenic and cobalt concentrations overall. Aeration + Buffer 1 achieved the GWPS for arsenic in BY-AP-MW-1 only and for cobalt in BY-AP-MW-15V. Adding buffers improved cobalt removal as the solubility of cobalt decreases with increasing pH. However, a higher pH increases arsenic solubility. Thus, buffer addition slightly reduced the effectiveness of FeSO_4 and aeration in removing arsenic from solution. The $\text{KMnO}_4 + \text{Buffer 1}$ (NaHCO_3) treatment was able to maximize both cobalt and arsenic removal.

Based on the optimization batch test results, the $\text{KMnO}_4 + \text{NaHCO}_3$ reagent mix was selected for column testing using all groundwater samples. The $\text{FeSO}_4 + \text{NaHCO}_3 + \text{Na}_2\text{CO}_3$ mix was selected for column testing using groundwater BY-AP-MW-15 that contained both arsenic and cobalt COIs.

5 Column Tests

Column tests were conducted to simulate injection applications and to evaluate the COI removal performance of aquifer soils treated with selected reagents under flow conditions. Column tests simulate treatment under groundwater flow conditions better than batch tests because they provide information on removal efficiency, capacity, and stability. Column test results can also confirm whether selected reagents will inadvertently increase concentrations of Appendix III/IV constituents above the GWPS, for example, due to release from the aquifer matrix.

5.1 Methodology

A total of six column tests were performed; the five groundwater samples were used as the column influents, and six treated soil columns were prepared for the Site groundwater samples (two different reagent-treated soils received BY-AP-MW-15 influent groundwater). A summary of the column test setup is provided in Table 14.

The initial arsenic concentrations in the Site groundwater samples collected for column testing were lower than expected based on historical data (Table 2). The groundwater samples in the influent reservoirs were, therefore, spiked with arsenic. An arsenic stock solution was prepared from $\text{Na}_2\text{HAsO}_4 \cdot 7\text{H}_2\text{O}$ and added to the influent reservoirs of BY-AP-MW-1, BY-AP-MW-8, BY-AP-MW-10, BY-AP-MW-15, and BY-AP-MW-24H to produce influent concentrations of approximately 1000 $\mu\text{g/L}$.

The two best-performing reagents selected from the batch tests were KMnO_4 and FeSO_4 , with pH buffer. $\text{KMnO}_4 + \text{NaHCO}_3$ was prepared by mixing the reagents in deionized water to create a stock solution. Stock solution $\text{KMnO}_4 + \text{NaHCO}_3$ (single-solution treatment) was mixed with the aquifer soils to produce $\text{KMnO}_4 + \text{NaHCO}_3$ treated soils. The dose of $\text{KMnO}_4 + \text{NaHCO}_3$ was determined by soil oxidant demand and dissolved iron concentrations in groundwater. FeSO_4 and the pH buffer were prepared separately (two-solution treatment) to avoid precipitation of iron oxides prior to injection into the aquifer soils to produce treated soils. The FeSO_4 dose was determined by targeting a molar (M) ratio of approximately 1:100 arsenic to iron. Bulk chemical composition data of technical-grade KMnO_4 , FeSO_4 , NaHCO_3 , and Na_2CO_3 were not collected before the column testing but will be tested prior to field injection. Since other Appendix IV constituents in the aquifer soils were very low (Table 3), only dissolved concentrations of arsenic, cobalt, iron, and manganese were analyzed.

These reagent mixes were mixed with aquifer soils to produce treated soils that were packed into columns. The treated soils were packed into 22-centimeter (cm)-long, 4.2-cm-diameter polypropylene columns to achieve a total depth (length) of 22 cm. Impacted groundwater was then run through the treated soil columns to assess removal efficiency and capacity for treatment.

The Site groundwater containing the COIs was pumped in an upflow direction through the columns at a constant flow rate of approximately 0.8 mL per minute for up to 60 pore volumes (PVs) using a peristaltic pump with a multichannel pump head. Flow rates were regularly checked and adjusted as needed to maintain a constant flow rate. During the column test, the average flow rate in the effluent samples was 0.65 mL per minute. Table 15 provides a summary of the column test operating conditions. The laboratory column apparatus is shown in Figure 14, and a detailed schematic is provided in Figure 15.

The laboratory column tests were operated at a higher linear velocity (67.1 cm per day) than the groundwater flow conditions in the vicinity of the Site, which is 0.40 cm per day (SCS 2023). As a result, the hydraulic residence time in the columns was shorter than the hydraulic residence time expected in the field, where longer residence times may be expected to result in greater extent of removal. The attenuation measured in the columns, therefore, provides a conservative estimate of the COI removal in the field.

Column influent and effluent solutions were sampled periodically (two to three times a day for the duration of the column test), and water quality parameters including pH, ORP, and SC were measured at the EGL. The cumulative flow volume was also recorded at the time of sampling and used to calculate the total number of PVs treated. Column influent and effluent samples were filtered using 0.45-micron polyethersulfone syringe filters and preserved with nitric acid. The samples were submitted to ALS Environmental for analysis of dissolved arsenic and cobalt and treatment reagent constituents, including iron and manganese.

After treatment-phase column tests were complete, Site background groundwater (BY-AP-MW-2) was run through the columns to determine the stability of each treatment. The column was run at a constant flow rate for approximately 20 to 30 PVs, and column influents and effluents were sampled at intervals. Samples were analyzed for dissolved COIs and constituents of the treatment reagents used (e.g., iron, manganese, and sulfate). These samples were not analyzed for other Appendix III/IV constituents because they were not detected or present at very low levels in Site soils used for the column tests (Table 3).

In addition, following completion of the column tests, the treated aquifer soils were tested to help evaluate the long-term stability of sequestered COIs using a five-step SSE procedure. In SSE, the treated aquifer soils are extracted by increasingly aggressive solutions formulated to target specific binding forms and help determine the mechanisms, strength of binding, and stability (or reversibility) of the COI uptake by host solids.

5.2 Column Test Results

Column test results are included in Table 16 and Appendix A. Influent and effluent concentrations of the COIs for the five Site groundwater samples are also shown in Figures 16 through 20. The cumulative COI mass uptake of the six treated soils in the columns are also plotted against the cumulative COI mass loading in Figures 21 and 22 for arsenic and cobalt, respectively.

Arsenic concentrations in the influent reservoirs were not stable and decreased over time, despite spiking of dissolved arsenic at 1,000 µg/L (Figures 16 through 20). Although the influent reservoirs were purged with nitrogen (N₂) and kept in sealed Mylar bags with oxygen-absorbing packets during the column tests, orange-brown iron oxide precipitates were observed to form inside the influent reservoirs over time, likely due to ongoing slow iron oxidation under anaerobic conditions. The dissolved arsenic concentrations in the BY-AP-MW-1, BY-AP-MW-10, and BY-AP-MW-24H influent reservoirs ranged from slightly above to lower than the GWPS throughout the column test (Figures 16, 18, and 20). The effluent solutions of these KMnO₄ + NaHCO₃-treated columns all contained arsenic concentrations lower than the corresponding influent solutions and GWPS. Dissolved arsenic concentrations in the BY-AP-MW-15 groundwater reservoir were above or near the GWPS for the first approximately 10 to 20 PVs of column flow for the two treated aquifer soil columns, and the effluent solutions contained arsenic concentrations lower than the GWPS (Figure 19). Dissolved arsenic concentrations in the BY-AP-MW-8 groundwater reservoir remained above approximately 640 µg/L for the duration of the column study (Figure 17). The KMnO₄ + NaHCO₃-treated column achieved >96% removal of the influent mass of arsenic for approximately 10 PVs, corresponding to approximately 3 mg/kg arsenic uptake capacity in the treated soils (Figures 17 and 21). Due to the arsenic depletion in BY-AP-MW-1, BY-AP-MW-10, BY-AP-MW-15, and BY-AP-MW-24H influent reservoirs, arsenic uptake capacity could not be estimated for these locations.

Cobalt concentrations in the BY-AP-MW-15 groundwater reservoir were greater than approximately 80 µg/L for the duration of the column study (Figure 19). The KMnO₄ + NaHCO₃-treated column achieved >96% removal of the influent mass of cobalt throughout the duration of the test (approximately 66 PVs; Figures 19 and 22). In contrast, the FeSO₄ + NaHCO₃ + Na₂CO₃-treated column achieved only approximately 50% to 60% removal of the influent mass of cobalt through 7 PVs and decreased to 24% removal by 70 PVs (Figures 19 and 22).

Overall, the KMnO₄ + NaHCO₃ treatment was most effective and successfully removed both arsenic and cobalt from Site groundwater based on the column studies.

6 Mechanisms and Stability of Treatment

Mechanisms and stability of treatment were assessed by flushing the columns with background groundwater and performing SSE on solids recovered from the columns at the end of the tests.

6.1 Column Tests to Assess Treatment Stability

Following completion of the column tests using impacted groundwater, the column influents were switched to background groundwater (BY-AP-MW-2) to assess the reversibility of the COI removal by the treated soils. Background groundwater was run through the columns for up to approximately 30 PVs. During this flushing phase of the column test, the measured COI concentrations in the effluents indicate the stability of the treatments were not reversible. In the $\text{KMnO}_4 + \text{NaHCO}_3$ -treated BY-AP-MW-15 column, arsenic and cobalt concentrations in the effluent remained below the GWPS for both the treatment and flushing phases of the column tests, indicating the treatment was not reversible. Similarly, in the $\text{KMnO}_4 + \text{NaHCO}_3$ -treated BY-AP-MW-8 column, the arsenic concentrations in the effluent from the flushing-phase test were comparable to those in the effluent during the first 10 PVs of treatment, indicating the treatment was not reversible. These results demonstrate the irreversibility of COI treatment by the $\text{KMnO}_4 + \text{NaHCO}_3$ single-solution treatment. Column test results for the flushing phase are included in Table 17 and Appendix A.

6.2 SSE on Post-Column Aquifer Soils

SSE quantifies the distribution of the sequestered COIs among different solid phases in the treated and COI-loaded aquifer soils. SSE results provide insights into the COI removal mechanisms, potential for remobilization of COIs, and long-term stability of the sequestered COIs. Specifically, SSE categorizes the target constituents into five operationally defined fractions, F1 through F5, which require increasingly aggressive chemical reagents to extract. The chemical extractions and what they represent are as follows:

Fraction No.	Fraction Name	Extraction Fluid	Targeted Phases
F1	Soluble	1 M magnesium chloride adjusted to pH 7	Dissolved and weakly sorbed
F2	Exchangeable	1 M monosodium phosphate at pH 5	Strongly sorbed, e.g., on clay minerals and iron compounds
F3	Reducible	0.1 M hydroxylamine/hydrochloric acid adjusted to pH 2 with nitric acid	Poorly crystalline metal oxides such as iron and manganese oxides
F4	Strong acid/oxidizable	16 M nitric acid	Crystalline oxide and crystalline sulfide minerals
F5	Residual	Digestion by USEPA Method 3050B	Relict silicate phases from the aquifer matrix

SSE was performed in accordance with the EGL standard operating procedure modified from Tessier et al. (1979). First, the bottom 6 cm of treated soil in the column was recovered and thoroughly homogenized under a nitrogen atmosphere in an anaerobic glove box. Approximately 1 gram (dry weight) of the recovered column media was weighed into a 50-mL centrifuge tube and extracted with the solutions in sequence described above. SSE was only performed on BY-AP-MW-8 and BY-AP-MW-15 solids, as these columns contained the highest arsenic concentrations in the influent, and BY-AP-MW-15 contained both arsenic and cobalt as COIs.

The SSE results are summarized in Figures 23 through 26 and Table 18; the analytical data are included in Appendix A. SSE results indicate arsenic and cobalt are almost completely (94% to $\geq 98\%$) associated with F2 through F5 fractions. Arsenic was present mostly in F2 and F4 in the BY-AP-MW-15 column solids, on which a low mass of arsenic was loaded (Figure 23). The column solids for BY-AP-MW-8 had a similar amount of arsenic in F4 as was measured for BY-AP-MW-15 column solids. However, the BY-AP-MW-8 column solids had higher masses of arsenic in F2 and F3, suggesting most of the groundwater arsenic accumulated in these two fractions. The F2 and F3 fractions include arsenic strongly adsorbed to and incorporated in iron and manganese oxides (Figures 25 and 26). The mass balance of arsenic in the BY-AP-MW-8 $\text{KMnO}_4 + \text{NaHCO}_3$ -treated column indicates approximately 3 mg/kg of arsenic was removed (Figure 21), whereas the sum of fractions is higher (approximately 6 mg/kg; Figure 23). The difference in solid-phase concentrations results from the arsenic preferentially accumulating at the inlet of the column (where samples were retrieved for SSE analysis).

The $\text{KMnO}_4 + \text{NaHCO}_3$ treatment and the $\text{FeSO}_4 + \text{NaHCO}_3 + \text{Na}_2\text{CO}_3$ treatment accumulated approximately 0.9 and approximately 0.2 mg/kg of cobalt in the BY-AP-MW-15 column solids, respectively (Figure 22). The masses of cobalt in F4 and F5 are similar for the treated columns, whereas the masses of cobalt in F2 and F3 are higher for the $\text{KMnO}_4 + \text{NaHCO}_3$ -treated column, suggesting cobalt is strongly adsorbed to and incorporated in iron and manganese oxides (Figures 25 and 26).

Overall, the strong association of arsenic and cobalt with iron and manganese oxides was expected and indicates successful treatment, as iron and manganese were major components of the treatment reagent mixes. The SSE results corroborate the column test flushing-phase results, showing stability of the COIs within the treated soils.

7 Conclusions and Recommendations

Batch and column tests were performed to evaluate the effectiveness of reagents and reagent mixes in removing the COIs (i.e., arsenic and cobalt) from Site groundwater. Performance criteria evaluated included the COI removal efficiency, treatment capacity, stability of the sequestered COIs, and potential for unintended consequences such as release of Appendix III/IV constituents from the aquifer matrix. Major conclusions of the treatability studies are as follows:

- The $\text{KMnO}_4 + \text{NaHCO}_3$ reagent mix performed well for arsenic and cobalt removal in batch tests.
- The GWPS was achieved for both arsenic and cobalt during column tests. Column test results showed >95% removal of arsenic and cobalt mass in the groundwater is achievable with the $\text{KMnO}_4 + \text{NaHCO}_3$ treatment for ≥ 10 PVs.
- After column studies using impacted groundwater were complete, Site background groundwater was pumped through the columns to determine the reversibility of treatment. These effluent concentrations were similar to or lower than effluent concentrations measured for the PVs of successful treatment, indicating treatment is not reversible under Site conditions.
- Following completion of the column tests, the column media (aquifer soils) were recovered to evaluate the long-term stability of sequestered COIs to remobilization using a five-step SSE procedure. SSE results indicate arsenic and cobalt are associated with and bound to manganese and iron oxide phases formed by the treatment.

Recommendations based on the laboratory treatability studies are as follows:

- Test $\text{KMnO}_4 + \text{NaHCO}_3$ single-solution reagent mix in injection field pilot studies at the Site where arsenic or arsenic plus cobalt are COIs in groundwater.
- Following selection of pilot locations and prior to implementation of field pilot tests, groundwater chemistry data should be reviewed, especially if a pilot test location is at a different location than that of the wells tested in this laboratory treatability study. If significant differences in groundwater chemistry are identified, confirmatory batch testing is recommended to confirm treatment performance and, if necessary, adjust the proposed injection reagent mix.

8 References

- Ainsworth, C.C., J.L. Pilon, P.L. Gassman, and W.G. Van Der Sluys, 1994. "Cobalt, Cadmium, and Lead Sorption to Hydrous Iron Oxide: Residence Time Effect." *Soil Science Society of America Journal* 58:1615–1623.
- Al Abdullah, J., A.G. Al Lafi, W. Al Masri, Y. Amin, and T. Alnama, 2016. "Adsorption of Cesium, Cobalt, and Lead onto a Synthetic Nano Manganese Oxide: Behavior and Mechanism." *Water, Air, & Soil Pollution* 227(7):1–14.
- Anchor QEA (Anchor QEA), 2021a. *Groundwater Remedy Selection Report*. Plant Barry. Prepared for Alabama Power Company. October 2021.
- Anchor QEA, 2021b. *Monitored Natural Attenuation Demonstration*. Plant Barry. Prepared for Alabama Power Company. October 2021.
- Biterna, M., A. Arditoglou, and E. Tsikouras, 2007. "Arsenate Removal by Zero Valent Iron: Batch and Column Tests." *Journal of Hazardous Materials* 149:548–552.
- Dixit, S., and J.G. Hering, 2003. "Comparison of Arsenic(V) and Arsenic(III) Sorption onto Iron Oxide Minerals: Implication for Arsenic Mobility." *Environmental Science and Technology* 37:4182–4189.
- Hou, J., J. Luo, S. Song, Y. Li, and Q. Li, 2017. "The Remarkable Effect of the Coexisting Arsenite and Arsenate Species Ratios on Arsenic Removal by Manganese Oxide." *Chemical Engineering Journal* 315:159–166.
- Le, N.C., and D.V. Phuc, 2015. "Sorption of Lead (II), Cobalt (II) and Copper (II) Ions from Aqueous Solutions by γ -MnO₂ Nanostructure." *Advances in Natural Sciences: Nanoscience and Nanotechnology* 6(2):025014.
- Manning, BA., S.E. Fendorf, B. Bostick, and D.L. Suarez, 2003. "Arsenic (III) Oxidation and Arsenic (V) Adsorption Reactions on Synthetic Birnessite." *Environmental Science and Technology* 36: 976–981.
- Mohan, D., and C.U. Pittman Jr., 2007. "Arsenic Removal from Water/Wastewater Using Adsorbents – A Critical Review." *Journal of Hazardous Materials* 142:1–53.
- Moraci, N., and P.S. Calabrò, 2010. "Heavy Metals Removal and Hydraulic Performance in Zero-Valent Iron/Pumice Permeable Reactive Barriers." *Journal of Environmental Management* 91:2336–2341.

- Niazi, K.N., and E.D. Burton, 2016. "Arsenic Sorption to Nanoparticle Mackinawite (FeS): An Examination of Phosphate Competition." *Environmental Pollution* 218:111–117.
- Ouward, S., M. Simonnot, and M. Sardin, 2002. "Reactive Behavior of Natural Manganese Oxides Toward the Adsorption of Phosphate and Arsenate." *Industrial Engineering and Chemical Research* 41:2785–2791.
- SCS (Southern Company Services, Inc.), 2023. *2023 Semi-Annual Groundwater Monitoring and Corrective Action Report*. Plant Barry Ash Pond. Prepared for Alabama Power Company. July 31, 2023.
- Tessier, A., P.G.C. Campbell, and M. Bisson, 1979. "Sequential Extraction Procedure for the Speciation of Particulate Trace Metals." *Analytical Chemistry* 51(7):844-851.

Tables

Table 1
Reagents Tested and Vendor Sources

No.	Reagent Tested	Abbreviation	Vendor	Notes
1	Ferrous sulfate	FeSO ₄	Acros Organics	ACS grade
2	Ferric chloride	FeCl ₃	Acros Organics	ACS grade
3	CleanER-10	CleanER	Höganäs Environment Solutions ²	Injectable zero-valent iron; D50: 7–8 µm
4	FerroBlack-Fe+	FB-Fe+	Redox Solutions	Injectable iron sulfide
5	Potassium permanganate ¹	KMnO ₄	Fisher Chemical	ACS grade
6	Ferrous sulfate and potassium permanganate ¹	FeSO ₄ + KMnO ₄	Acros Organics (FeSO ₄) and Fisher Chemical (KMnO ₄)	≥99% for analysis (FeSO ₄); ACS grade (KMnO ₄)
7	Ferric chloride with potassium permanganate and manganese chloride ¹	FeCl ₃ + KMnO ₄ + MnCl ₂	Acros Organics (FeCl ₃), Fisher Chemical (KMnO ₄), and ChemProducts (MnCl ₂)	99% for Analysis (FeCl ₃); ACS grade (KMnO ₄); ACS Grade (MnCl ₂)
8	Barium chloride	BaCl ₂	Sigma Aldrich	99.9% trace metals basis
9	Barium chloride and sodium sulphate anhydrous	BaCl ₂ + NaSO ₄	Sigma Aldrich ('BaCl ₂) and Fisher Chemical (NaSO ₄)	99.9% trace metals basis
10	Aeration	Aeration	--	Passive aeration
11	Potassium permanganate dose 1 with sodium bicarbonate	KMnO ₄ Dose 1 + Buffer 1	Fisher Chemical (KMnO ₄) and ChemProducts (NaHCO ₃)	Dose 1 is ACS grade KMnO ₄ ; Buffer 1 is sodium bicarbonate (NaHCO ₃).
12	Potassium permanganate dose 2 with sodium bicarbonate	KMnO ₄ Dose 2 + Buffer 1	Fisher Chemical (KMnO ₄) and ChemProducts (NaHCO ₃)	Dose 2 is ACS grade KMnO ₄ ; Buffer 1 is sodium bicarbonate (NaHCO ₃).
13	Potassium permanganate dose 2 with sodium bicarbonate/sodium carbonate mixture	KMnO ₄ Dose 2 + Buffer 2	Fisher Chemical (KMnO ₄), ChemProducts (NaHCO ₃), and Fisher Chemical (Na ₂ CO ₃)	Dose 2 is ACS grade KMnO ₄ ; Buffer 2 is sodium bicarbonate/sodium carbonate mixture (NaHCO ₃ /Na ₂ CO ₃).
14	Potassium permanganate dose 3 with sodium bicarbonate	KMnO ₄ Dose 3 + Buffer 1	Fisher Chemical (KMnO ₄) and ChemProducts (NaHCO ₃)	Dose 3 is ACS grade KMnO ₄ ; Buffer 1 is sodium bicarbonate (NaHCO ₃).
15	Ferrous sulfate with sodium bicarbonate	FeSO ₄ + Buffer 1	Acros Organics (FeSO ₄) and ChemProducts (NaHCO ₃)	ACS grade (FeSO ₄); Buffer 1 is sodium bicarbonate (NaHCO ₃).
16	Ferrous sulfate with sodium bicarbonate/sodium carbonate mixture	FeSO ₄ + Buffer 2	Acros Organics (FeSO ₄), ChemProducts (NaHCO ₃), and Fisher Chemical (Na ₂ CO ₃)	ACS grade (FeSO ₄); Buffer 2 is sodium bicarbonate/sodium carbonate mixture (NaHCO ₃ /Na ₂ CO ₃).
17	Aeration with sodium bicarbonate	Aeration + Buffer 1	ChemProducts (NaHCO ₃)	Passive aeration; Buffer 1 is sodium bicarbonate (NaHCO ₃).

Notes:

1. Indicates this reagent was tested at neutral pH and at pH 9.5 (adjusted by sodium hydroxide) for BY-AP-MW-15V only.

2. Indicates reagent may no longer be commercially available by the vendor.

--: not applicable

µm: micrometer

ACS: American Chemical Society

D50: median diameter

Table 2
Initial Groundwater Characterization Results

Parameter	Unit	BY-AP-MW-1						BY-AP-MW-2		BY-AP-MW-8					
		May 24, 2022	May 27, 2022	November 2, 2022	November 4, 2022	April 3, 2023	April 4, 2023	April 3, 2023	April 4, 2023	May 24, 2022	May 27, 2022	November 2, 2022	November 4, 2022	April 3, 2023	April 4, 2023
Arsenic, dissolved	µg/L	77.9	46.1	70.3	42.0	75.1	47.6	1.51	1.40	59.1	23.1	41.2	39.3	3.20	2.92
Arsenic, total	µg/L	76.7	73.8	68.2	68.1	68	66.9	1.56	1.49	58.3	49.1	41.5	42.9	3.53	3.05
Cobalt, dissolved	µg/L	1.09	0.754	0.872	0.843	1.21	0.994	4.56	4.06	0.71	0.563	0.542	0.556	0.149 J	0.126
Cobalt, total	µg/L	0.914	0.835	1.02	0.969	1.33	1.05	4.20	4.04	0.666	0.599	0.59	0.565	0.153 J	0.139
Iron, dissolved	mg/L	150	140	142	120	115	105	0.234	0.304	73.6	56.1	84.1	71.3	12.5	11.9
Iron, total	mg/L	155	149	134	130	110	112	0.250	0.298	74.0	71.2	87.1	79.6	12.4	11.8
Manganese, dissolved	mg/L	0.966	0.900	0.819	0.837	0.706	0.779	0.200	0.193	1.77	1.72	1.78	1.81	0.211	0.2
Manganese, total	mg/L	0.946	0.908	0.871	0.831	0.713	0.772	0.195	0.192	1.78	1.76	1.9	1.82	0.211	0.201
pH	SU	5.44	5.87	5.56	5.64	5.78	5.97	4.88	6.00	5.60	6.14	6.28	5.71	6.34	6.35
Dissolved oxygen	mg/L	0.120	2.96	0.100	3.05	0.170	2.36	0.53	4.83	0.190	3.65	0.020	3.19	0.120	3.54
ORP	mV	-8.45	6.30	-26.3	29.1	-55.8	132	139	138	-16.2	25.6	-89.7	12.0	-106	246
Specific conductivity	µS/cm	758	752	782	676	689	812	46.4	108	508	433	530	455	154	221
Alkalinity	mg/L	402	--	302	--	266	--	10.2	--	228	--	160	--	25.1	--
Aluminum, dissolved	mg/L	0.008	--	0.012	--	0.017	--	0.05075 U	--	0.01015 U	--	0.01015 U	--	0.05075 U	--
Aluminum, total	mg/L	0.026	--	0.075	--	0.157	--	0.0187 J	--	0.009	--	0.001015 U	--	0.0369 J	--
Antimony, dissolved	mg/L	0.001015 U	--	0.001015 U	--	0.001015 U	--	0.001015 U	--	0.001015 U	--	0.001015 U	--	0.001015 U	--
Antimony, total	mg/L	0.001015 U	--	0.001015 U	--	0.001015 U	--	0.001015 U	--	0.001015 U	--	0.001015 U	--	0.001015 U	--
Barium, dissolved	mg/L	0.328	--	0.271	--	0.222	--	0.0193	--	0.148	--	0.147	--	0.023	--
Barium, total	mg/L	0.343	--	0.279	--	0.226	--	0.018	--	0.142	--	0.149	--	0.022	--
Beryllium, dissolved	mg/L	0.001015 U	--	0.001015 U	--	0.001015 U	--	0.001015 U	--	0.001015 U	--	0.001015 U	--	0.001015 U	--
Beryllium, total	mg/L	0.001015 U	--	0.001015 U	--	0.001015 U	--	0.001015 U	--	0.001015 U	--	0.001015 U	--	0.001015 U	--
Bicarbonate alkalinity	mg/L	402	--	302	--	266	--	10.2	--	228	--	160	--	25.1	--
Boron, dissolved	mg/L	2.07	--	1.95	--	1.97	--	0.102	--	1.11	--	1.63	--	0.134	--
Boron, total	mg/L	2.08	--	1.92	--	2.04	--	0.102	--	1.12	--	1.59	--	0.129	--
Cadmium, dissolved	mg/L	0.000203 U	--	0.000203 U	--	0.000203 U	--	0.000203 U	--	0.000203 U	--	0.000203 U	--	0.000203 U	--
Cadmium, total	mg/L	0.000203 U	--	0.000203 U	--	0.000203 U	--	0.000203 U	--	0.000203 U	--	0.000203 U	--	0.000203 U	--
Calcium, dissolved	mg/L	44.3	--	40.5	--	36.4	--	1.77	--	31.5	--	32.2	--	3.99	--
Calcium, total	mg/L	43.9	--	38.9	--	36.9	--	1.79	--	31.5	--	31.0	--	4.21	--
Carbonate alkalinity	mg/L	0.5 U	--	0.5 U	--	0.5 U	--	0.5 U	--	0.5 U	--	0.5 U	--	0.5 U	--
Chloride	mg/L	28.7	--	25.1	--	23.7	--	7.35	--	25.0	--	26.6	--	10.8	--
Chromium, dissolved	mg/L	0.003	--	0.003	--	0.006	--	0.000209 J	--	0.001	--	0.000888 J	--	0.000805 J	--
Chromium, total	mg/L	0.002	--	0.004	--	0.006	--	0.000877 J	--	0.001	--	0.001 J	--	0.001	--
Radium 226 + 228	pCi/L	2.12	--	1.96	--	1.84	--	0.240	--	0.733	--	0.503	--	1.21	--
Fluoride	mg/L	0.125	--	0.067	--	0.072	--	0.125	--	0.101 J	--	0.125 U	--	0.0706 J	--
Lead, dissolved	mg/L	0.000203 U	--	0.000203 U	--	0.000203 U	--	0.000203 U	--	0.000203 U	--	0.000203 U	--	0.000203 U	--
Lead, total	mg/L	0.000203 U	--	0.000092 J	--	0.000122 J	--	0.000203 U	--	0.000203 U	--	0.000203 U	--	0.000203 U	--
Lithium, dissolved	µg/L	20 U	--	20 U	--	20 U	--	20 U	--	20 U	--	20 U	--	20 U	--
Lithium, total	µg/L	20 U	--	20 U	--	20 U	--	20 U	--	20 U	--	20 U	--	20 U	--
Magnesium, dissolved	mg/L	13.0	--	12.2	--	11.5	--	1.17	--	9.89	--	9.56	--	1.49	--
Magnesium, total	mg/L	13.1	--	12.3	--	11.6	--	1.16	--	10.0	--	9.67	--	1.54	--
Mercury	mg/L	0.0005 U	--	0.0005 U	--	0.0005 U	--	0.0005 U	--	0.0005 U	--	0.0005 U	--	0.0005 U	--
Molybdenum, dissolved	mg/L	0.000203 U	--	0.000203 U	--	0.01015	--	0.001015 U	--	0.000258	--	0.000193 J	--	0.01015 U	--
Molybdenum, total	mg/L	0.000203 U	--	0.000203 U	--	0.01015 U	--	0.001015 U	--	0.000234	--	0.000232	--	0.01015 U	--
Nitrate nitrite as N	mg/L as N	0.3 U	--	0.384	--	0.245 J	--	0.3 U	--	0.3 U	--	0.319	--	0.3 U	--
Potassium, total	mg/L	2.25	--	2.16	--	2.11	--	0.829	--	0.802	--	0.728	--	0.546	--
Selenium, dissolved	mg/L	0.001015 U	--	0.001015 U	--	0.001015 U	--	0.001015 U	--	0.001015 U	--	0.001015 U	--	0.001015 U	--
Selenium, total	mg/L	0.001015 U	--	0.001015 U	--	0.001015 U	--	0.001015 U	--	0.001015 U	--	0.001015 U	--	0.001015 U	--
Silica, dissolved	mg/L	23.1	--	24.2	--	24.0	--	16.3	--	32.3	--	29.7	--	13.7	--
Silica, total	mg/L	23.3	--	24.0	--	24.0	--	16.1	--	32.7	--	29.1	--	13.6	--
Silicon, dissolved	mg/L	10.8	--	11.3	--	11.2	--	7.63	--	15.1	--	13.9	--	6.41	--

Table 2
Initial Groundwater Characterization Results

Parameter	Unit	BY-AP-MW-10						BY-AP-MW-15V				BY-AP-MW-15		BY-AP-MW-24H					
		May 24, 2022	May 27, 2022	November 2, 2022	November 4, 2022	April 3, 2023	April 4, 2023	May 24, 2022	May 27, 2022	November 2, 2022	November 4, 2022	April 3, 2023	April 4, 2023	May 24, 2022	May 27, 2022	November 2, 2022	November 4, 2022	April 3, 2023	April 4, 2023
Arsenic, dissolved	µg/L	78.0	33.0	72.1	55.2	64.7	40.3	25.5	22.6	36.5	33.6	21.9	2.31	71.2	24.0	68.1	43.2	76.2	31.7
Arsenic, total	µg/L	77.5	74.3	74.2	72.6	56.1	57.6	33.3	23.2	40.3	33.2	20	16.0	71.8	68.7	66.4	71.6	69.4	70.1
Cobalt, dissolved	µg/L	0.626	0.465	0.583	0.543	0.699	0.533	78.8	72.8	69.7	73.8	37.6	34.4	5.70	5.05	5.38	5.49	5.71	5.28
Cobalt, total	µg/L	0.543	0.516	0.605	0.546	0.622	0.586	76.4	72.8	74.8	72.7	34.5	34.7	5.71	5.28	5.75	5.68	5.63	5.4
Iron, dissolved	mg/L	65.2	52	68.6	56.0	72.5	59.2	47.7	47.2	53.7	46.3	98.0	76.5	111	91.9	113	97.1	109	90.7
Iron, total	mg/L	68.0	66.3	77.0	62.1	70.7	65.4	53.7	47.4	53.2	46.6	99.0	91.8	113	110	114	104	113	103
Manganese, dissolved	mg/L	1.79	1.82	1.49	1.52	1.21	1.21	1.09	1.04	0.991	1.03	0.632	0.672	0.217	0.206	0.206	0.209	0.197	0.202
Manganese, total	mg/L	1.82	1.79	1.68	1.54	1.18	1.22	1.13	1.04	1.05	1.01	0.628	0.674	0.220	0.208	0.211	0.207	0.208	0.204
pH	SU	5.81	6.31	6.39	5.83	6.05	6.34	5.70	5.71	5.38	5.46	6.63	6.36	6.22	6.25	6.05	5.73	6.08	6.36
Dissolved oxygen	mg/L	0.32	3.00	0.040	3.21	0.170	2.78	0.26	5.01	0.090	6.47	0.020	2.23	0.100	2.07	0.13	3.21	0.03	1.7
ORP	mV	-17.1	-1.40	-83.4	0.200	-62.3	325	44.5	105	30.8	81.0	-124	82.0	-80.0	-17.3	-61.3	-10.3	-75.5	57.2
Specific conductivity	µS/cm	680	612	619	558	644	728	594	660	829	577	593	615	793	678	894	619	804	847
Alkalinity	mg/L	339	--	244	--	234	--	37.0	--	28.7	--	67.3	--	356	--	229	--	251	--
Aluminum, dissolved	mg/L	0.01015 U	--	0.01015 U	--	0.05075 U	--	0.01015 U	--	0.01015 U	--	0.05075 U	--	0.01015 U	--	0.01015 U	--	0.05075 U	--
Aluminum, total	mg/L	0.001015 U	--	0.001015 U	--	0.05075 U	--	0.0497	--	0.00648 J	--	0.05075 U	--	0.0262	--	0.0141	--	0.05075 U	--
Antimony, dissolved	mg/L	0.001015 U	--	0.001015 U	--	0.001015 U	--	0.001015 U	--	0.001015 U	--	0.001015 U	--	0.001015 U	--	0.001015 U	--	0.001015 U	--
Antimony, total	mg/L	0.001015 U	--	0.001015 U	--	0.001015 U	--	0.001015 U	--	0.001015 U	--	0.001015 U	--	0.001015 U	--	0.001015 U	--	0.001015 U	--
Barium, dissolved	mg/L	0.065	--	0.059	--	0.068	--	0.159	--	0.139	--	0.088	--	0.246	--	0.229	--	0.232	--
Barium, total	mg/L	0.062	--	0.062	--	0.063	--	0.156	--	0.153	--	0.081	--	0.245	--	0.230	--	0.235	--
Beryllium, dissolved	mg/L	0.001015 U	--	0.001015 U	--	0.001015 U	--	0.001015 U	--	0.001015 U	--	0.001015 U	--	0.001015 U	--	0.001015 U	--	0.001015 U	--
Beryllium, total	mg/L	0.001015 U	--	0.001015 U	--	0.001015 U	--	0.001015 U	--	0.001015 U	--	0.001015 U	--	0.001015 U	--	0.001015 U	--	0.001015 U	--
Bicarbonate alkalinity	mg/L	339	--	244	--	234	--	37.0	--	28.7	--	67.3	--	356	--	229	--	251	--
Boron, dissolved	mg/L	2.30	--	2.07	--	2.23	--	0.035 J	--	0.0344 J	--	0.0825 J	--	0.347	--	0.339	--	0.382	--
Boron, total	mg/L	2.34	--	2.02	--	2.22	--	0.0376 J	--	0.033 J	--	0.0713 J	--	0.351	--	0.337	--	0.381	--
Cadmium, dissolved	mg/L	0.000203 U	--	0.000203 U	--	0.000203 U	--	0.000201	--	0.000081 J	--	0.000203 U	--	0.000203 U	--	0.000203 U	--	0.000203 U	--
Cadmium, total	mg/L	0.000203 U	--	0.000203 U	--	0.000203 U	--	0.000180	--	0.0001 J	--	0.000203 U	--	0.000203 U	--	0.000203 U	--	0.000203 U	--
Calcium, dissolved	mg/L	62.6	--	58.4	--	46.2	--	8.26	--	7.49	--	6.62	--	17.5	--	17.0	--	17.7	--
Calcium, total	mg/L	63.9	--	59.5	--	48.8	--	8.10	--	7.84	--	6.76	--	17.9	--	17.6	--	17.8	--
Carbonate alkalinity	mg/L	0.5 U	--	0.5 U	--	0.5 U	--	0.5 U	--	0.5 U	--	0.5 U	--	0.5 U	--	0.5 U	--	0.5 U	--
Chloride	mg/L	27.7	--	25.1	--	29.7	--	212	--	179	--	91.5	--	45.7	--	45.4	--	45.5	--
Chromium, dissolved	mg/L	0.00064 J	--	0.000457 J	--	0.000727 J	--	0.000207 J	--	0.001015 U	--	0.000225 J	--	0.000881 J	--	0.000675 J	--	0.000766 J	--
Chromium, total	mg/L	0.000522 J	--	0.000642 J	--	0.00066 J	--	0.000234 J	--	0.001015 U	--	0.000638 J	--	0.000809 J	--	0.000799 J	--	0.000781 J	--
Radium 226 + 228	pCi/L	1.36	--	0.886	--	0.75	--	1.85	--	1.46	--	1.63	--	1.08	--	1.05	--	1.46	--
Fluoride	mg/L	0.125	--	0.125	--	0.125	--	0.125	--	0.125 U	--	0.26	--	0.149	--	0.131	--	0.175	--
Lead, dissolved	mg/L	0.000203 U	--	0.000203 U	--	0.000203 U	--	0.000203 U	--	0.000203 U	--	0.000203 U	--	0.000203 U	--	0.000203 U	--	0.000203 U	--
Lead, total	mg/L	0.000203 U	--	0.000203 U	--	0.000203 U	--	0.000111 J	--	0.000203 U	--	0.000203 U	--	0.000203 U	--	0.000203 U	--	0.000203 U	--
Lithium, dissolved	µg/L	20 U	--	20 U	--	20 U	--	20 U	--	20 U	--	17.2 J	--	20 U	--	20 U	--	20 U	--
Lithium, total	µg/L	20 U	--	20 U	--	20 U	--	20 U	--	20 U	--	18.9 J	--	20 U	--	20 U	--	20 U	--
Magnesium, dissolved	mg/L	17.3	--	16.0	--	14.8	--	5.55	--	5.30	--	5.39	--	16.7	--	16.6	--	16.4	--
Magnesium, total	mg/L	17.6	--	15.7	--	14.4	--	5.58	--	5.19	--	5.38	--	16.7	--	16.4	--	16.4	--
Mercury	mg/L	0.0005 U	--	0.0005 U	--	0.0005 U	--	0.0005 U	--	0.0005 U	--	0.0005 U	--	0.0005 U	--	0.0005 U	--	0.0005 U	--
Molybdenum, dissolved	mg/L	0.000203 U	--	0.000203 U	--	0.01015 U	--	0.000203 U	--	0.000203 U	--	0.01015 U	--	0.001	--	0.01015 U	--	0.01015 U	--
Molybdenum, total	mg/L	0.000203 U	--	0.000203 U	--	0.01015 U	--	0.000203 U	--	0.000203 U	--	0.01015 U	--	0.0009	--	0.001	--	0.01015 U	--
Nitrate nitrite as N	mg/L as N	0.3 U	--	0.341	--	0.23 J	--	0.300 U	--	0.268 J	--	0.228 J	--	0.300 U	--	0.373	--	0.274 J	--
Potassium, total	mg/L	1.46	--	1.59	--	1.70	--	3.25	--	3.20	--	4.80	--	2.55	--	2.48	--	2.53	--
Selenium, dissolved	mg/L	0.001015 U	--	0.001015 U	--	0.001015 U	--	0.001015 U	--	0.001015 U	--	0.001015 U	--	0.001015 U	--	0.001015 U	--	0.001015 U	--
Selenium, total	mg/L	0.001015 U	--	0.001015 U	--	0.001015 U	--	0.001015 U	--	0.001015 U	--	0.001015 U	--	0.001015 U	--	0.001015 U	--	0.001015 U	--
Silica, dissolved	mg/L	25.3	--	25.9	--	25.0	--	16.7	--	17.2	--	13.2	--	23.8	--	23.5	--	23.5	--
Silica, total	mg/L	25.9	--	25.0	--	25.0	--	17.2	--	17.1	--	13.0	--	23.8	--	23.5	--	23.3	--
Silicon, dissolved	mg/L	11.8	--	12.1	--	11.7	--	7.79	--	8.04	--	6.18	--	11.1	--	11.0	--	11.0	--

Table 2
Initial Groundwater Characterization Results

Parameter	Unit	BY-AP-MW-1						BY-AP-MW-2		BY-AP-MW-8					
		May 24, 2022	May 27, 2022	November 2, 2022	November 4, 2022	April 3, 2023	April 4, 2023	April 3, 2023	April 4, 2023	May 24, 2022	May 27, 2022	November 2, 2022	November 4, 2022	April 3, 2023	April 4, 2023
Silicon, total	mg/L	10.9	--	11.2	--	11.2	--	7.54	--	15.3	--	13.6	--	6.36	--
Sodium, dissolved	mg/L	24.2	--	25.3	--	23.9	--	4.28	--	19.5	--	20.2	--	18.5	--
Sodium, total	mg/L	24.4	--	24.9	--	23.4	--	4.15	--	19.4	--	20.1	--	18.4	--
Sulfate	mg/L	21.0	--	12.1	--	34.2	--	1.77	--	81.3	--	7.58	--	32.1	--
Sulfide	mg/L	0	--	0	--	0	--	0	--	0	--	0	--	0	--
Total dissolved solids	mg/L	409	--	404	--	400	--	40.7	--	254	--	293	--	107	--
Temperature (field)	°C	21.7	--	22.0	--	21.6	--	21.7	--	21.8	--	20.3	--	19.4	--
Thallium, dissolved	mg/L	0.000203 U	--	0.000203 U	--	0.000203 U	--	0.000203 U	--	0.000203 U	--	0.000203 U	--	0.000203 U	--
Thallium, total	mg/L	0.000203 U	--	0.000203 U	--	0.000203 U	--	0.000203 U	--	0.000203 U	--	0.000203 U	--	0.000203 U	--
Total organic carbon	mg/L	14.6	--	21.8	--	13.6	--	2.00	--	12.5	--	25.5	--	4.99	--
Turbidity (field)	NTU	2.83	--	4.28	--	4.85	--	1.38	--	3.51	--	1.02	--	5.38	--

Table 2
Initial Groundwater Characterization Results

Parameter	Unit	BY-AP-MW-10						BY-AP-MW-15V				BY-AP-MW-15		BY-AP-MW-24H					
		May 24, 2022	May 27, 2022	November 2, 2022	November 4, 2022	April 3, 2023	April 4, 2023	May 24, 2022	May 27, 2022	November 2, 2022	November 4, 2022	April 3, 2023	April 4, 2023	May 24, 2022	May 27, 2022	November 2, 2022	November 4, 2022	April 3, 2023	April 4, 2023
Silicon, total	mg/L	12.1	--	11.7	--	11.7	--	8.04	--	7.97	--	6.07	--	11.1	--	11.0	--	10.9	--
Sodium, dissolved	mg/L	25.4	--	27.4	--	23.9	--	77.9	--	75.5	--	38.5	--	73.7	--	69.0	--	68.1	--
Sodium, total	mg/L	26.2	--	26.1	--	23.6	--	77.9	--	76.3	--	39.0	--	71.9	--	72.1	--	65.7	--
Sulfate	mg/L	14.7	--	10.2	--	15.0	--	2.35	--	6.26	--	8.28	--	92.3	--	19.9	--	94.0	--
Sulfide	mg/L	0	--	0	--	0	--	0	--	0	--	0	--	0	--	0	--	0	--
Total dissolved solids	mg/L	357	--	344	--	370	--	348	--	358	--	285	--	383	--	446	--	462	--
Temperature (field)	°C	21.4	--	21.3	--	21.8	--	21.1	--	20.6	--	21.2	--	21.7	--	21.3	--	21.9	--
Thallium, dissolved	mg/L	0.000203 U	--	0.000203 U	--	0.000203 U	--	0.00014 J	--	0.000104 J	--	0.000203 U	--	0.000203 U	--	0.000203 U	--	0.000203 U	--
Thallium, total	mg/L	0.000203 U	--	0.000203 U	--	0.000203 U	--	0.00014 J	--	0.000133 J	--	0.000203 U	--	0.000203 U	--	0.000203 U	--	0.000203 U	--
Total organic carbon	mg/L	12.8	--	26.9	--	11.4	--	1.26 J	--	5.73	--	4.96	--	23.6	--	27.4	--	25.2	--
Turbidity (field)	NTU	0.200	--	1.92	--	2.92	--	6.89	--	3.20	--	8.81	--	2.50	--	2.66	--	7.19	--

Table 2
Initial Groundwater Characterization Results

Notes:

Samples were field filtered with a 0.45-micron filter at the time of collection and filtered again prior to analysis for dissolved constituents.

Samples collected on May 24, 2022; November 2, 2022; and April 3, 2023, were sent directly to the analytical laboratories from the field.

Samples collected in May 2022 were used in the initial screening batch test.

Samples collected in November 2022 were used in the optimization batch test.

Samples collected in April 2023 were used in the column test.

Groundwater from BY-AP-MW-15V was used in the initial screening and optimization batch tests.

Groundwater from BY-AP-MW-15 was used in the column tests.

Background groundwater from BY-AP-MW-2 was used in the column desorption test.

--: not measured

µg/L: microgram per liter

µS/cm: microsiemen per centimeter

J: indicates the result is an estimated value

mg/L: milligram per liter

mV: millivolt

NTU: nephelometric turbidity unit

ORP: oxidation reduction potential

pCi/L: picocurie per liter

SU: standard unit

U: indicates the compound was analyzed for but not detected (Value was set to practical quantitation limit.)

Table 3
Bulk Chemistry Results of Aquifer Soils

Parameters	Unit	BY-AP-PT-1	BY-AP-PT-1	BY-AP-PT-2	BY-AP-PT-2 (Duplicate)	BY-AP-PT-2	BY-AP-PT-3	BY-AP-PT-5
Depth interval	ft bgs	55.0–68.0	75.0–85.0	65.0–70.0	65.0–70.0	75.0–80.0	33.0–40.0	50.0–70.0
Arsenic, total	mg/kg dry	0.569 U	0.596 U	0.604 U	0.612 U	0.628 U	0.603 U	0.624 U
Cobalt, total	mg/kg dry	0.569 U	0.596 U	0.604 U	0.612 U	0.628 U	0.603 U	0.624 U
Iron, total	mg/kg dry	685	1250	708	518	1150	914	837
Manganese, total	mg/kg dry	6.82	22.1	5.89	4.49	9.91	2.79	5.19
Antimony, total	mg/kg dry	0.569 U	0.596 U	0.604 U	0.612 U	0.628 U	0.603 U	0.624 U
Barium, total	mg/kg dry	2.03	2.66	4.72	4.45	4.73	4.72	3.06
Beryllium, total	mg/kg dry	0.114 U	0.119 U	0.121 U	0.122 U	0.126 U	0.121 U	0.125 U
Cadmium, total	mg/kg dry	0.114 U	0.119 U	0.121 U	0.122 U	0.126 U	0.121 U	0.125 U
Chromium, total	mg/kg dry	0.885	1.05	2.89	2.36	3.95	4.62	2.10
Lead, total	mg/kg dry	0.343	0.466	0.950	0.871	0.606	1.26	0.636
Mercury, total	mg/kg dry	0.0455 U	0.0477 U	0.0483	0.0489 U	0.0502 U	0.0483 U	0.0499 U
Molybdenum, total	mg/kg dry	0.569 U	0.596 U	0.604 U	0.612 U	0.628 U	0.603 U	0.624 U
Selenium, total	mg/kg dry	0.569 U	0.596 U	0.604 U	0.612 U	0.628 U	0.603 U	0.624 U
Thallium, total	mg/kg dry	0.114 U	0.119 U	0.121 U	0.122 U	0.126 U	0.121 U	0.125 U
Sulfide	mg/kg dry	1.20 U	1.31 U	1.26 U	1.27 U	1.26 U	1.09 U	1.21 U
Fluoride	mg/kg dry	0.561 U	0.575 U	0.592 U	0.588 U	0.575 U	0.584 U	0.561 U
Total organic carbon	mg/kg dry	310	280	250	220	340	1200	300

Notes:

All results are reported on a dry weight basis.

ft bgs: feet below ground surface

mg/kg: milligram per kilogram

U: indicates the compound was analyzed for but not detected. Value is set to instrument detection limit.

Table 4
Extractable Aluminum, Iron, and Manganese Oxides in Aquifer Soils

Sample ID	Boring Location	Depth Interval (ft bgs)	Extractable Oxides (mg/kg)			Simultaneously Extractable Metals (mg/kg)	
			Aluminum ¹	Iron ¹	Manganese ²	Arsenic ¹	Cobalt ¹
BY-AP-PT-1	PT-1	55.0–68.0	26.6	204	0.704	0.141	0.485
BY-AP-PT-1	PT-1	75.0–85.0	33.5	329	1.23	0.181	0.617
BY-AP-PT-2	PT-2	65.0–70.0	18.3	270	2.54	0.232	0.613
BY-AP-PT-2 (DUP)	PT-2	65.0–70.0	16.2	268	2.17	0.221	0.594
BY-AP-PT-2	PT-2	75.0–80.0	19.8	703	5.36	0.234	0.656
BY-AP-PT-3	PT-3	33.0–40.0	29.9	188	0.737	0.284	0.443
BY-AP-PT-5	PT-5	50.0–70.0	12.7	201	1.38	0.194 J	0.528

Notes:

Bold indicates detected values.

1. Determined by acid ammonium oxalate method

2. Extracted by 0.1 modular hydroxylamine hydrochloride in 0.01 modular nitric acid

DUP: duplicate

ft bgs: foot below ground surface

mg/kg: milligram per kilogram

J: indicates the result is an estimated value

Table 5
Cation Exchange Capacity of Aquifer Soils

Sample Name	Boring Location	Depth Interval (ft bgs)	Major Exchangeable Cations (mEq/kg)				Simultaneously Extracted Ions (mEq/kg)		CEC (mEq/kg)
			Magnesium	Potassium	Sodium	Calcium	Arsenic	Cobalt	
BY-AP-PT-1	PT-1	55–68	0.855	0.055	0.081	39.3	0.0006	0.0005	40.2
BY-AP-PT-1	PT-1	75–85	0.417	0.058	0.113	1.07	0.00031 J	0.0033	1.66
BY-AP-PT-2	PT-2	65–70	0.699 J	0.128 U	0.419 J	1.5 U	0.002 U	0.0048	1.12
BY-AP-PT-2 (Dup)	PT-2	65–70	0.617 U	0.128 U	0.338 J	1.5 U	0.002 U	0.0038	0.341
BY-AP-PT-2	PT-2	75–80	0.617 U	0.158 J	0.272 J	1.65 J	0.002 U	0.0058	2.09
BY-AP-PT-3	PT-3	33–40	0.710 J	0.128 U	0.217 U	1.80 J	0.002 U	0.0017 U	2.51
BY-AP-PT-5	PT-5	50–70	0.617 U	0.128 U	0.218 U	2.09 J	0.002 U	0.002 J	2.09

Notes:

Bold indicates detected values.

Dup: duplicate

CEC: cation exchange capacity (Value is calculated by summing all detected exchangeable cations [mEq/kg].)

ft bgs: foot below ground surface

J: estimated value

mEq/kg: milliequivalent per kilogram

U: indicates compound analyzed but not detected above detection limit (Value is set to method detection limit.)

Table 6
Moisture Content and Grain Size Distribution of Aquifer Soils

Sample ID	Depth Interval (ft bgs)	Moisture Content (%)	Gravel (%) (>2.00 mm)	Sand (%) (0.063–2.00 mm)	Silt (%) (0.005–0.063 mm)	Clay (%) (<0.005 mm)
BY-AP-PT-1	55.0–68.0	14.8	1.8	97.4	0.7	0.1
BY-AP-PT-1	75.0–85.0	16.7	0.1	98.7	1.1	0.1
BY-AP-PT-2	65.0–70.0	15.4	1.9	94.8	2.9	0.5
BY-AP-PT-2 (Dup)	65.0–70.0	15.5	1.5	95.0	3.1	0.5
BY-AP-PT-2	75.0–80.0	12.7	0.4	92.3	5.2	2.1
BY-AP-PT-3	33.0–40.0	14.9	0.7	94.8	2.5	2.1
BY-AP-PT-5	50.0–70.0	13.5	3.6	94.4	2.0	0.1

Notes:

Clay fraction was measured using a hydrometer (ASTM D 422m).

Moisture content was measured in triplicate for each sample.

Dup: duplicate

ft bgs: foot below ground surface

mm: millimeter

Table 7
Pairs of Groundwater and Aquifer Soils Used in the Treatability Studies

Groundwater ID	Soil Sample ID	Depth Interval (ft bgs)	COI(s) in Groundwater
BY-AP-MW-1	BY-AP-PT-3	33.0–40.0	Arsenic
BY-AP-MW-8	BY-AP-PT-5	50.0–70.0	Arsenic
BY-AP-MW-10	BY-AP-PT-1	55.0–68.0	Arsenic
BY-AP-MW-15V/ BY-AP-MW-15	BY-AP-PT-2	75.0–80.0	Arsenic and Cobalt
BY-AP-MW-24H	BY-AP-PT-2	65.0–70.0	Arsenic

Notes:

COI: constituent of interest

ft bgs: foot below ground surface

Table 8
Reagents Used in Screening Batch Tests

Reagent	Abbreviation	Notes
Ferrous sulfate	FeSO ₄	--
Ferric chloride	FeCl ₃	--
CleanER-10	CleanER	--
FerroBlack	FB-Fe+	The dose was specified by the vendor (Redox Solutions).
Potassium permanganate	KMnO ₄	--
Ferrous sulfate and potassium permanganate	FeSO ₄ + KMnO ₄	--
Ferric chloride, potassium permanganate, and manganese chloride	FeCl ₃ /KMnO ₄ + MnCl ₂	--
Barium chloride	BaCl ₂	--
Barium chloride and sodium sulfate	BaCl ₂ + NaSO ₄	--
Aeration	Aeration	No reagents; bottles were passively aerated during the batch test.

Note:

--: not applicable

Table 9
Screening Batch Test Results

Groundwater ID	Test	Reagent	Initial Dissolved Metals Concentrations (µg/L)		Dissolved Metals After Treatment (µg/L)		pH	SC (µS/cm)	ORP (mV)
			Arsenic ¹ (GWPS: 10)	Cobalt (GWPS: 15.7)	Arsenic (GWPS: 10)	Cobalt (GWPS: 15.7)			
BY-AP-MW-1	Groundwater	Control	500	--	0.37 J	--	5.82	417	87.5
		Aeration	500	--	0.44 J	--	6.72	419	86.2
		KMnO ₄	500	--	0.25 J	--	5.83	539	132
		FeSO ₄	500	--	1.04	--	5.84	668	27.1
		FeSO ₄ (Dup)	500	--	1.58	--	5.81	617	103
		FeSO ₄ + KMnO ₄	500	--	0.62	--	5.61	552	125
		FeCl ₃	500	--	0.49 J	--	5.72	707	28.9
		FeCl ₃ + KMnO ₄ + MnCl ₂	500	--	1.03	--	5.54	659	117
		CleanER	500	--	2.74	--	5.92	492	9.20
		BaCl ₂	500	--	1.53	--	5.85	709	103
	BaCl ₂ + NaSO ₄	500	--	0.72	--	6.01	793	78.6	
	Slurry	Control	500	--	1.90	--	5.74	430	41.0
		Aeration	500	--	0.78	--	6.53	405	61.9
		KMnO ₄	500	--	0.44 J	--	6.11	511	33.1
		FeSO ₄	500	--	2.67	--	5.75	416	88.0
		FeSO ₄ (Dup)	500	--	8.25	--	5.82	702	43.1
		FeSO ₄ + KMnO ₄	500	--	0.47 J	--	5.80	574	45.2
		FeCl ₃	500	--	0.98	--	5.53	702	72.8
		FeCl ₃ + KMnO ₄ + MnCl ₂	500	--	0.34 J	--	5.64	627	62.3
		CleanER	500	--	2.45	--	6.04	566	36.6
BaCl ₂		500	--	1.78	--	5.89	810	13.5	
BaCl ₂ + NaSO ₄	500	--	5.58	--	6.04	801	34.0		
BY-AP-MW-8	Groundwater	Control	500	--	0.46 J	--	6.84	315	363
		Aeration	500	--	0.44 J	--	7.16	304	384
		KMnO ₄	500	--	1.00	--	6.13	404	120
		FeSO ₄	500	--	0.42 J	--	5.96	363	70.8
		FeSO ₄ (Dup)	500	--	0.47 J	--	6.99	357	359
		FeSO ₄ + KMnO ₄	500	--	1.10	--	6.50	443	122
		FeCl ₃	500	--	318	--	3.84	570	142
		FeCl ₃ + KMnO ₄ + MnCl ₂	500	--	1.00	--	6.20	467	470
		CleanER	500	--	0.97	--	6.01	299	104
		BaCl ₂	500	--	0.75	--	6.50	603	408
	BaCl ₂ + NaSO ₄	500	--	1.72	--	6.75	602	371	
	Slurry	Control	500	--	2.53	--	6.29	318	376
		Aeration	500	--	6.47	--	7.01	307	420
		KMnO ₄	500	--	0.50	--	6.36	431	494
		FeSO ₄	500	--	1.53	--	6.23	425	362
		FeSO ₄ (Dup)	500	--	4.09	--	6.10	468	412
		FeSO ₄ + KMnO ₄	500	--	0.88	--	6.09	415	429
		FeCl ₃	500	--	2.49	--	5.20	561	409
		FeCl ₃ + KMnO ₄ + MnCl ₂	500	--	0.54	--	5.78	483	453
		CleanER	500	--	9.74	--	6.36	373	352
BaCl ₂		500	--	4.20	--	6.37	607	444	
BaCl ₂ + NaSO ₄	500	--	1.28	--	6.45	371	387		
BY-AP-MW-10	Groundwater	Control	500	--	3.50	--	6.19	508	403
		Aeration	500	--	14.8	--	6.25	493	385
		KMnO ₄	500	--	0.33 J	--	6.06	628	560
		FeSO ₄	500	--	4.76	--	6.13	565	376
		FeSO ₄ (Dup)	500	--	1.38	--	6.16	533	405
		FeSO ₄ + KMnO ₄	500	--	0.74	--	5.86	589	448
		FeCl ₃	500	--	0.55	--	5.58	644	378
		FeCl ₃ + KMnO ₄ + MnCl ₂	500	--	0.60	--	5.70	642	436
		CleanER	500	--	6.57	--	6.05	492	355
		BaCl ₂	500	--	2.48	--	6.12	776	434
	BaCl ₂ + NaSO ₄	500	--	2.71	--	6.21	781	409	
	Slurry	Control	500	--	1.58	--	6.19	557	375
		Aeration	500	--	15.00	--	6.85	476	377
		KMnO ₄	500	--	0.63	--	6.18	715	444
		FeSO ₄	500	--	14.3	--	5.85	816	-19.1
		FeSO ₄ (Dup)	500	--	0.47 J	--	6.29	684	388
		FeSO ₄ + KMnO ₄	500	--	1.11	--	6.07	691	430
		FeCl ₃	500	--	1.40	--	5.65	861	-12.0
		FeCl ₃ + KMnO ₄ + MnCl ₂	500	--	1.55	--	6.02	793	414
		CleanER	500	--	0.26 J	--	6.20	607	7.60
BaCl ₂		500	--	3.79	--	6.16	807	404	
BaCl ₂ + NaSO ₄	500	--	6.58	--	6.25	826	380		

Table 9
Screening Batch Test Results

Groundwater ID	Test	Reagent	Initial Dissolved Metals Concentrations (µg/L)		Dissolved Metals After Treatment (µg/L)		pH	SC (µS/cm)	ORP (mV)
			Arsenic ¹ (GWPS: 10)	Cobalt (GWPS: 15.7)	Arsenic (GWPS: 10)	Cobalt (GWPS: 15.7)			
BY-AP-MW-15V	Groundwater	Control	500	72.8	0.78	71.6	3.18	648	605
		Aeration	500	72.8	2.48	71.7	3.43	665	636
		KMnO ₄	500	72.8	6.71	33.7	2.41	898	862
		KMnO ₄ - pH - 9.5	500	72.8	26.1	0.009 U	5.55	909	618
		FeSO ₄	500	72.8	1.34	70.2	3.23	872	318
		FeSO ₄ (Dup)	500	72.8	1.69	69.2	2.71	864	627
		FeSO ₄ + KMnO ₄	500	72.8	1.50	69.9	2.25	1093	663
		FeSO ₄ + KMnO ₄ - pH - 9.5	500	72.8	6.46	0.242	6.57	997	576
		FeCl ₃	500	72.8	411	71.6	2.17	1856	368
		FeCl ₃ + KMnO ₄ + MnCl ₂	500	72.8	63.3	68.9	2.20	1617	724
		FeCl ₃ + KMnO ₄ + MnCl ₂ - pH - 9.5	500	72.8	11.2	0.029	7.10	1153	515
		CleanER	500	72.8	1.09	62.4	3.77	665	234
		BaCl ₂	500	72.8	0.62	70.0	3.11	1002	657
		BaCl ₂ + NaSO ₄	500	72.8	1.71	68.9	3.37	926	602
	Slurry	Control	500	72.8	1.96	91.7	2.57	804	558
		Aeration	500	72.8	1.78	94.2	2.65	805	575
		KMnO ₄	500	72.8	0.09 U	0.092	3.79	743	572
		KMnO ₄ - pH - 9.5	500	72.8	48.2	0.018 J	4.96	839	523
		FeSO ₄	500	72.8	1.60	91.3	5.54	931	19.6
		FeSO ₄ (Dup)	500	72.8	1.62	90.6	2.80	951	547
		FeSO ₄ + KMnO ₄	500	72.8	0.94	92.7	2.58	904	610
		FeSO ₄ + KMnO ₄ - pH - 9.5	500	72.8	9.57	0.100	5.32	918	494
		FeCl ₃	500	72.8	0.90	97.5	2.62	1633	228
		FeCl ₃ + KMnO ₄ + MnCl ₂	500	72.8	46.6	96.5	2.33	1399	610
FeCl ₃ + KMnO ₄ + MnCl ₂ - pH - 9.5	500	72.8	22.7	0.132	5.70	1046	485		
CleanER	500	72.8	0.39 J	50.1	4.34	666	148		
BaCl ₂	500	72.8	1.14	90.4	2.78	1067	579		
BaCl ₂ + NaSO ₄	500	72.8	1.61	88.6	2.68	1053	547		
BY-AP-MW-24H	Groundwater	Control	500	--	2.01	--	6.17	498	391
		Aeration	500	--	4.83	--	6.80	496	395
		KMnO ₄	500	--	0.27 J	--	5.90	600	408
		FeSO ₄	500	--	0.70	--	5.92	600	376
		FeSO ₄ (Dup)	500	--	0.87	--	6.06	619	403
		FeSO ₄ + KMnO ₄	500	--	1.19	--	6.05	586	429
		FeCl ₃	500	--	0.32 J	--	5.53	638	377
		FeCl ₃ + KMnO ₄ + MnCl ₂	500	--	0.60	--	6.06	668	424
		CleanER	500	--	0.66	--	5.76	519	375
		BaCl ₂	500	--	2.75	--	6.40	750	409
	BaCl ₂ + NaSO ₄	500	--	0.83	--	6.20	762	403	
	Slurry	Control	500	--	1.04	--	5.82	474	383
		Aeration	500	--	1.46	--	6.63	477	397
		KMnO ₄	500	--	0.40 J	--	5.87	580	416
		FeSO ₄	500	--	1.21	--	5.64	604	419
		FeSO ₄ (Dup)	500	--	3.49	--	6.67	662	404
		FeSO ₄ + KMnO ₄	500	--	0.46 J	--	5.66	593	419
		FeCl ₃	500	--	0.47 J	--	5.67	657	414
		FeCl ₃ + KMnO ₄ + MnCl ₂	500	--	4.37	--	5.54	658	426
		CleanER	500	--	1.30	--	5.82	509	401
BaCl ₂		500	--	16.5	--	5.70	750	417	
BaCl ₂ + NaSO ₄	500	--	1.91	--	5.98	755	388		

Notes:
 Reaction time was 7 days.
 1. Arsenic was spiked to a target of 500 ug/L in each groundwater sample under anaerobic conditions.
 --: not applicable
 µg/L: microgram per liter
 µS/cm: microsiemen per centimeter
 BaCl₂: barium chloride
 CleanER: CleanER-10
 Control: no reagent added
 Dup: duplicate
 FeCl₃: ferric chloride
 FeCl₃ + KMnO₄ + MnCl₂: ferric chloride with potassium permanganate and manganese chloride
 FeSO₄: ferrous sulfate
 FeSO₄ + KMnO₄: ferrous sulfate with potassium permanganate
 GWPS: groundwater protection standard
 J: indicates the result is an estimated value
 KMnO₄: potassium permanganate
 mV: millivolt
 ORP: oxidation reduction potential
 SC: specific conductivity
 U: indicates the value was analyzed for but not detected (Value is set to method detection limit.)

Table 10
Screening Batch Test Results for FerroBlack-Fe+

GW ID	Test	Reagent	Initial Dissolved Metals Concentrations (µg/L)		Dissolved Metals After Treatment (µg/L)		pH	SC (µS/cm)	ORP (mV)
			Arsenic ¹ (GWPS: 10)	Cobalt (GWPS: 15.7)	Arsenic (GWPS: 10)	Cobalt (GWPS: 15.7)			
BY-AP-MW-1	GW (MW-1)	Control	261	--	0.69	--	6.32	725	518
		Ferroblack-Fe+	261	--	0.47 J	--	6.73	11677	-43.3
	Slurry (GW: MW-1; soil: PT-3)	Control	261	--	0.55	--	6.31	553	477.3
		Ferroblack-Fe+	261	--	0.51	--	6.71	11803	9.4
BY-AP-MW-8	GW (MW-8)	Control	298	--	1.47	--	6.61	602	466
		Ferroblack-Fe+	298	--	2.51	--	7.23	12290	371
	Slurry (GW: MW-8; soil: PT-5)	Control	298	--	1.12	--	6.58	440	427
		Ferroblack-Fe+	298	--	2.39	--	8.28	11458	298
BY-AP-MW-10	GW (MW-10)	Control	433	--	1.55	--	7.00	685	380
		Ferroblack-Fe+	433	--	2.33	--	7.85	12545	261
	Slurry (GW: MW-10; soil: PT-1)	Control	433	--	1.88	--	7.05	724	403
		Ferroblack-Fe+	433	--	3.31	--	8.23	11893	250
BY-AP-MW-15V	GW (MW-15V)	Control	472	73.8	1.89	67.6	6.3	795	476.6
		Ferroblack-Fe+	472	73.8	2.30	0.223	11.3	12822	72.7
		Ferroblack-Fe+ (Dup)	472	73.8	2.30	0.249	11.4	13450	59.4
	Slurry (GW: MW-15V; soil: PT-2)	Control	472	73.8	1.98	90	3.7	884	724.7
		Ferroblack-Fe+	472	73.8	1.56	0.334	11.0	13798	62.5
		Ferroblack-Fe+ (Dup)	472	73.8	1.44	0.343	11.1	13901	60.1
BY-AP-MW-24H	GW (MW-24H)	Control	412	--	0.38	--	6.74	550	602
		Ferroblack-Fe+	412	--	3.65	--	8.41	10935	478
	Slurry (GW: MW-24H; soil: PT-2)	Control	412	--	2.48	--	6.61	519	467
		Ferroblack-Fe+	412	--	2.30	--	8.50	10663	390

Notes:

Reaction time was 7 days.

1. Arsenic was spiked to a target of 500 ug/L in each groundwater sample under anaerobic conditions. A subsample was collected immediately after spiking for dissolved arsenic concentrations.

--: not applicable

µg/L: microgram per liter

µS/cm: microsiemen per centimeter

Dup: duplicate

GW: groundwater

GWPS: groundwater protection standard

mV: millivolt

ORP: oxidation reduction potential

SC: specific conductivity

Table 11
Reagents Used in Optimization Batch Tests

Reagent	Dose	Notes
KMnO ₄ + Buffer 1	Dose 1	Tested for BY-AP-MW-15V only
	Dose 2	--
	Dose 3	Tested for BY-AP-MW-15V only
KMnO ₄ + Buffer 2	Dose 2	--
FeSO ₄ + Buffer 1	--	--
FeSO ₄ + Buffer 2	--	--
Aeration + Buffer 1	--	Cap opened and kept under air.

Notes:

--: not applicable

Table 12
Optimization Batch Test Results

Groundwater ID	Test	Treatment	Initial Dissolved Metals Concentrations (µg/L)		Dissolved Metals After Treatment (µg/L)		pH	SC (µS/cm)	ORP (mV)
			Arsenic ¹ (GWPS: 10)	Cobalt (GWPS: 15.7)	Arsenic (GWPS: 10)	Cobalt (GWPS: 15.7)			
BY-AP-MW-1	Groundwater	Control	261	--	0.69	--	6.32	725	518
		Aeration + Buffer 1	261	--	3.30	--	7.99	1730	408
		KMnO ₄ (Dose 2) + Buffer 1	261	--	0.33 J	--	6.74	3724	660
		KMnO ₄ (Dose 2) + Buffer 1 (Dup)	261	--	0.37 J	--	6.76	2185	674
		KMnO ₄ (Dose 2) + Buffer 2	261	--	0.51	--	7.11	2459	650
		FeSO ₄ + Buffer 1	261	--	0.85	--	6.58	1803	504
		FeSO ₄ + Buffer 2	261	--	2.76	--	6.83	2093	498
	Slurry	Control	261	--	0.55	--	6.31	553	477
		Aeration + Buffer 1	261	--	3.15	--	8.17	1559	331
		KMnO ₄ (Dose 2) + Buffer 1	261	--	0.62	--	6.77	1754	602
		KMnO ₄ (Dose 2) + Buffer 1 (Dup)	261	--	0.64	--	6.74	1907	625
		KMnO ₄ (Dose 2) + Buffer 2	261	--	0.86	--	7.07	2074	611
		FeSO ₄ + Buffer 1	261	--	0.79	--	6.56	1646	488
		FeSO ₄ + Buffer 2	261	--	1.41	--	6.87	2085	435
BY-AP-MW-8	Groundwater	Control	298	--	1.47	--	6.61	602	466
		Aeration + Buffer 1	298	--	12.7	--	8.54	1443	451
		KMnO ₄ (Dose 2) + Buffer 1	298	--	0.51	--	7.06	1723	618
		KMnO ₄ (Dose 2) + Buffer 1 (Dup)	298	--	0.60	--	7.13	1669	632
		KMnO ₄ (Dose 2) + Buffer 2	298	--	2.62	--	8.13	2029	581
		FeSO ₄ + Buffer 1	298	--	1.18	--	6.87	1563	500
		FeSO ₄ + Buffer 2	298	--	8.51	--	7.31	1939	414
	Slurry	Control	298	--	1.12	--	6.58	440	427
		Aeration + Buffer 1	298	--	11.8	--	8.42	1446	270
		KMnO ₄ (Dose 2) + Buffer 1	298	--	0.87	--	7.42	1702	630
		KMnO ₄ (Dose 2) + Buffer 1 (Dup)	298	--	0.67	--	7.14	11611	636
		KMnO ₄ (Dose 2) + Buffer 2	298	--	2.55	--	7.99	1991	599
		FeSO ₄ + Buffer 1	298	--	1.10	--	6.87	1519	493
		FeSO ₄ + Buffer 2	298	--	1.40	--	7.27	1887	399
BY-AP-MW-10	Groundwater	Control	433	--	1.55	--	7.00	685	380
		Aeration + Buffer 1	433	--	17.7	--	8.50	1565	273
		KMnO ₄ (Dose 2) + Buffer 1	433	--	1.60	--	7.28	1838	610
		KMnO ₄ (Dose 2) + Buffer 1 (Dup)	433	--	1.61	--	7.32	1844	621
		KMnO ₄ (Dose 2) + Buffer 2	433	--	8.21	--	8.02	2039	567
		FeSO ₄ + Buffer 1	433	--	1.21	--	7.02	1731	396
		FeSO ₄ + Buffer 2	433	--	1.40	--	7.51	2084	334
	Slurry	Control	433	--	1.88	--	7.05	724	403
		Aeration + Buffer 1	433	--	21.3	--	8.64	1432	348
		KMnO ₄ (Dose 2) + Buffer 1	433	--	3.64	--	8.11	1755	599
		KMnO ₄ (Dose 2) + Buffer 1 (Dup)	433	--	1.59	--	7.39	1829	635
		KMnO ₄ (Dose 2) + Buffer 2	433	--	7.20	--	8.09	2053	591
		FeSO ₄ + Buffer 1	433	--	0.86	--	7.31	1762	510
		FeSO ₄ + Buffer 2	433	--	2.43	--	7.49	1780	402
BY-AP-MW-15V	Groundwater	Control	472	73.8	1.89	67.6	6.33	795	477
		Aeration + Buffer 1	472	73.8	27.3	4.04	8.77	1768	530
		KMnO ₄ (Dose 1) + Buffer 1	472	73.8	1.33	0.01 J	7.47	1902	631
		KMnO ₄ (Dose 2) + Buffer 1	472	73.8	0.39 J	0.009 U	7.73	1936	644
		KMnO ₄ (Dose 2) + Buffer 1 (Dup)	472	73.8	0.43 J	0.009 U	7.58	1958	645
		KMnO ₄ (Dose 2) + Buffer 2	472	73.8	27.7	0.009 U	9.66	2410	538
		KMnO ₄ (Dose 3) + Buffer 1	472	73.8	0.59	0.009 U	7.65	2138	651
		FeSO ₄ + Buffer 1	472	73.8	1.24	28.2	7.06	1831	656
		FeSO ₄ + Buffer 2	472	73.8	1.19	1.10	7.98	2242	580
	Slurry	Control	472	73.8	1.98	90.0	3.65	884	725
		Aeration + Buffer 1	472	73.8	27.5	1.63	8.72	1787	345
		KMnO ₄ (Dose 1) + Buffer 1	472	73.8	1.29	0.010	7.44	1938	640
		KMnO ₄ (Dose 2) + Buffer 1	472	73.8	0.79	0.009 U	7.34	1947	649
		KMnO ₄ (Dose 2) + Buffer 1 (Dup)	472	73.8	0.65	0.009 U	7.32	1949	643
		KMnO ₄ (Dose 2) + Buffer 2	472	73.8	26.2	0.009 U	9.48	2404	533
		KMnO ₄ (Dose 3) + Buffer 1	472	73.8	0.56	0.009 U	7.33	2143	648
		FeSO ₄ + Buffer 1	472	73.8	0.81	23.1	6.80	1833	442
FeSO ₄ + Buffer 2	472	73.8	0.66	4.29	7.59	2258	373		

Table 12
Optimization Batch Test Results

Groundwater ID	Test	Treatment	Initial Dissolved Metals Concentrations (µg/L)		Dissolved Metals After Treatment (µg/L)		pH	SC (µS/cm)	ORP (mV)
			Arsenic ¹ (GWPS: 10)	Cobalt (GWPS: 15.7)	Arsenic (GWPS: 10)	Cobalt (GWPS: 15.7)			
BY-AP-MW-24H	Groundwater	Control	412	--	0.38	--	6.74	550	602
		Aeration + Buffer 1	412	--	26.1	--	8.71	1397	504
		KMnO ₄ (Dose 2) + Buffer 1	412	--	1.13	--	7.14	1613	654
		KMnO ₄ (Dose 2) + Buffer 1 (Dup)	412	--	1.06	--	7.15	1543	658
		KMnO ₄ (Dose 2) + Buffer 2	412	--	3.35	--	7.98	1882	620
		FeSO ₄ + Buffer 1	412	--	1.78	--	6.98	1462	637
		FeSO ₄ + Buffer 2	412	--	8.04	--	7.46	1778	596
	Slurry	Control	412	--	2.48	--	6.61	519	467
		Aeration + Buffer 1	412	--	29.3	--	8.72	1360	314
		KMnO ₄ (Dose 2) + Buffer 1	412	--	0.95	--	7.14	1512	660
		KMnO ₄ (Dose 2) + Buffer 1 (Dup)	412	--	0.80	--	7.21	1560	655
		KMnO ₄ (Dose 2) + Buffer 2	412	--	1.88	--	7.86	1852	617
		FeSO ₄ + Buffer 1	412	--	1.08	--	7.02	1462	475
		FeSO ₄ + Buffer 2	412	--	1.11	--	7.47	1743	411

Notes:

1. Arsenic was spiked to a target of 500 µg/L in each groundwater sample under anaerobic conditions. A subsample was collected immediately after spiking for dissolved arsenic concentrations.

Reaction time was 7 days.

--: not applicable

µg/L: microgram per liter

µS/cm: microsiemen per centimeter

Buffer 1: sodium bicarbonate

Buffer 2: sodium bicarbonate and sodium carbonate

Control: no reagent added

Dup: duplicate

GWPS: groundwater protection standard

J: indicates the result is an estimated value

mV: millivolt

ORP: oxidation-reduction potential

SC: specific conductivity

U: indicates the compound was analyzed for but not detected (Value is set to method detection limit.)

Table 13
Summary of Performance of Tested Reagents in Batch Testing

Reagent	BY-AP-MW-1	BY-AP-MW-8	BY-AP-MW-10	BY-AP-MW-15V		BY-AP-MW-24H
	As	As	As	As	Co	As
FeSO ₄						
FeCl ₃						
CleanER						
KMnO ₄						
KMnO ₄ at pH 9.5	N/T	N/T	N/T			N/T
FeSO ₄ + KMnO ₄						
FeSO ₄ + KMnO ₄ at pH 9.5	N/T	N/T	N/T			N/T
FeCl ₃ + KMnO ₄ + MnCl ₂						
FeCl ₃ + KMnO ₄ + MnCl ₂ at pH 9.5	N/T	N/T	N/T			N/T
BaCl ₂ + NaSO ₄						
BaCl ₂						
Aeration + Buffer						
FerroBlack						
KMnO ₄ (Dose 1) + Buffer 1	N/T	N/T	N/T			N/T
KMnO ₄ (Dose 2) + Buffer 1						
KMnO ₄ (Dose 2) + Buffer 2						
KMnO ₄ (Dose 3) + Buffer 1	N/T	N/T	N/T			N/T
FeSO ₄ + Buffer 1						
FeSO ₄ + Buffer 2						
Aeration + Buffer 1						

Notes:

Green cells indicate the concentration was decreased to less than the GWPS.

Yellow cells indicate the concentration was decreased by >50%, but the GWPS was not reached.

Orange cells indicate the concentration was decreased by <50%, and the GWPS was not reached.

As: arsenic

BaCl₂: barium chloride

BaCl₂ + NaSO₄: barium chloride with sodium sulfate

Buffer 1: sodium bicarbonate

Buffer 2: sodium bicarbonate and sodium carbonate

CleanER: CleanER-10

Co: cobalt

FeCl₃: ferric chloride

FeCl₃ + KMnO₄ + MnCl₂: ferric chloride with potassium permanganate and manganese chloride

FeSO₄: ferrous sulfate

FeSO₄ + KMnO₄: ferrous sulfate with potassium permanganate

GWPS: groundwater protection standard

KMnO₄: potassium permanganate

N/T: not tested

Table 14
Column Test Setup

Column No.	Reagent	Groundwater ID	Aquifer Soil ID (depth; feet)	COI
1	KMnO ₄ + NaHCO ₃	BY-AP-MW-1	BY-AP-PT-3 (33.0–40.0)	As
2	KMnO ₄ + NaHCO ₃	BY-AP-MW-8	BY-AP-PT-5 (50.0–70.0)	As
3	KMnO ₄ + NaHCO ₃	BY-AP-MW-10	BY-AP-PT-1 (55.0–68.0)	As
4	KMnO ₄ + NaHCO ₃	BY-AP-MW-15	BY-AP-PT-2 (75.0–80.0)	As and Co
5	FeSO ₄ + Na ₂ CO ₃ /NaHCO ₃	BY-AP-MW-15	BY-AP-PT-2 (75.0–80.0)	As and Co
6	KMnO ₄ + NaHCO ₃	BY-AP-MW-24H	BY-AP-PT-2 (65.0–70.0)	As

Notes:

--: not applicable

As: arsenic

Co: cobalt

COI: constituent of interest

KMnO₄ + NaHCO₃: potassium permanganate with sodium bicarbonate

FeSO₄ + Na₂CO₃/NaHCO₃: ferrous sulfate with sodium bicarbonate and sodium carbonate

Table 15
Column Test Operating Conditions

Parameter	Value	Unit
Column media depth	22.0	cm
Column inner diameter	4.2	cm
Flow rate ¹	0.65	mL/min
Porosity	33	%
Hydraulic residence time ¹	2.6	hours
Superficial velocity ¹	67.1	cm/day
Test duration	7 (+3 leaching test)	days
Pore volumes treated	60–70	--

Notes:

1. Values are based on the average measured flow rates of all columns during the duration of the column experiment.

--: not applicable

cm: centimeter

cm/day: centimeter per day

mL/min: milliliter per minute

Table 16
Column Test Results

Sample	Sampling Date and Time	Elapsed Time (days)	Flow Rate (mL/min)	Pore Volume Treated	Dissolved COIs (µg/L)		Dissolved Amendment Constituents (mg/L)		Water Quality Parameters		
					Arsenic	Cobalt	Iron	Manganese	pH	SC (µS/cm)	ORP (mV)
Influent (BY-AP-MW-1)	5/1/2023 17:25	0.10	--	--	8.52	--	80.8	0.849	6.23	726	92.2
	5/2/2023 10:40	0.80	--	--	12.9	--	84.1	0.769	6.05	763	213
	5/2/2023 12:00	0.80	--	--	11.5	--	90.5	0.777	6.20	838	57.3
	5/2/2023 16:10	1.00	--	--	10.4	--	91.4	0.765	6.18	983	11.3
	5/3/2023 9:30	1.70	--	--	8.35	--	88.3	0.785	6.14	683	85.3
	5/3/2023 11:20	1.80	--	--	7.88	--	87.8	0.790	6.17	703	62.3
	5/3/2023 15:00	2.00	--	--	7.28	--	87.5	0.749	6.34	676	70.2
	5/4/2023 9:00	2.70	--	--	4.88	--	79.5	0.749	6.32	626	68.7
	5/4/2023 12:00	2.80	--	--	7.63	--	87.4	0.780	6.23	710	58.3
	5/4/2023 15:15	3.00	--	--	7.68	--	83.9	0.770	6.21	728	29.1
5/5/2023 10:00	3.80	--	--	6.66	--	87.2	0.749	6.25	635	72.6	
5/5/2023 15:00	4.00	--	--	6.69	--	87.6	0.761	6.25	627	79.0	
5/8/2023 8:38	6.70	--	--	3.22	--	44.5	0.735	6.48	936	176	
5/8/2023 14:09	6.90	--	--	2.19	--	43.8	0.732	6.55	975	101	
Effluent (BY-AP-MW-1, permanganate column)	5/1/2023 17:30	0.10	0.67	0.60	16.3	--	0.566	0.513	8.66	7294	331
	5/2/2023 9:25	0.70	0.67	7.20	0.37 J	--	2.18	22.3	6.32	936	528
	5/2/2023 12:15	0.80	0.72	8.40	0.35 J	--	6.13	19.1	6.76	955	159
	5/2/2023 16:15	1.00	0.71	10.2	0.34 J	--	3.12	21.8	6.48	684	109
	5/3/2023 8:15	1.70	0.66	16.7	0.34 J	--	18.9	20.1	6.17	615	135
	5/3/2023 11:38	1.80	0.69	18.1	0.35 J	--	17.3	19.5	6.24	602	128
	5/3/2023 15:20	2.00	0.68	19.7	0.36 J	--	17.9	17.9	6.34	573	134
	5/4/2023 9:10	2.70	0.69	27.2	0.40 J	--	19.7	13.5	6.67	554	78.5
	5/4/2023 12:18	2.80	0.56	28.3	0.45 J	--	26.2	13.9	6.78	656	79.5
	5/4/2023 15:42	3.00	0.66	29.6	0.42 J	--	30.5	14.1	6.55	889	22.1
5/5/2023 10:30	3.80	0.66	37.2	0.43 J	--	35.9	11.0	6.64	771	204	
5/5/2023 15:10	4.00	0.68	39.1	0.45 J	--	34.4	11.6	6.33	595	127	
5/8/2023 7:31	6.60	0.67	65.6	0.46 J	--	18.6	5.20	6.29	842	142	
5/8/2023 13:08	6.90	0.70	68.0	0.42 J	--	15.6	5.18	6.42	847	131	
Influent (BY-AP-MW-8)	5/1/2023 17:25	0.10	--	--	857	--	11.8	0.198	5.67	229	131
	5/2/2023 10:40	0.80	--	--	808	--	11.8	0.198	6.5	236	164
	5/2/2023 12:00	0.80	--	--	834	--	11.7	0.198	6.39	232	141
	5/2/2023 16:10	1.00	--	--	802	--	11.5	0.197	6.56	238	112
	5/3/2023 9:31	1.70	--	--	690	--	11.0	0.202	6.57	218	130
	5/3/2023 11:20	1.80	--	--	672	--	10.7	0.203	6.64	217	78.9
	5/3/2023 15:00	2.00	--	--	651	--	10.3	0.191	6.70	216	127
	5/4/2023 9:00	2.70	--	--	641	--	10.1	0.190	6.51	212	328
	5/4/2023 12:00	2.80	--	--	648	--	10.6	0.197	6.74	226	11.5
	5/4/2023 15:15	3.00	--	--	654	--	10.4	0.203	6.72	236	76.5
5/5/2023 10:00	3.80	--	--	642	--	10.2	0.195	6.69	209	111	
5/5/2023 15:00	4.00	--	--	645	--	10.3	0.193	6.58	211	98.1	
5/8/2023 8:38	6.70	--	--	638	--	10.2	0.189	6.74	369	161	
5/8/2023 14:09	6.90	--	--	652	--	10.6	0.193	6.70	235	155	
Effluent (BY-AP-MW-8, permanganate column)	5/1/2023 17:30	0.10	0.67	0.60	9.09	--	0.037	0.022	8.68	7585	315
	5/2/2023 9:25	0.70	0.67	7.10	31.8	--	0.326	0.004	7.98	350	522
	5/2/2023 12:15	0.80	0.48	7.90	13.0	--	0.117	0.005	7.76	368	156
	5/2/2023 16:15	1.00	0.73	9.70	6.53	--	0.148	0.013	7.33	288	108
	5/3/2023 8:15	1.70	0.71	16.6	210	--	3.90	0.073	6.57	243	158
	5/3/2023 11:38	1.80	0.70	18.1	240	--	4.42	0.076	6.81	227	161
	5/3/2023 15:20	2.00	0.68	19.6	328	--	5.66	0.090	6.74	223	153
	5/4/2023 9:10	2.70	0.68	27.0	490	--	8.36	0.174	6.62	216	647
	5/4/2023 12:18	2.80	0.69	28.3	529	--	8.93	0.196	6.90	260	135
	5/4/2023 15:42	3.00	0.68	29.7	503	--	8.76	0.214	7.12	255	56.9
5/5/2023 10:30	3.80	0.65	37.2	529	--	9.27	0.285	7.06	222	120	
5/5/2023 15:10	4.00	0.67	39.1	529	--	9.18	0.314	6.46	267	156	
5/8/2023 7:31	6.60	0.66	65.2	544	--	9.44	0.751	6.81	303	171	
5/8/2023 13:08	6.90	0.68	67.5	535	--	9.29	0.735	6.79	318	207	
Influent (BY-AP-MW-10)	5/1/2023 17:25	0.10	--	--	13.1	--	46.3	1.18	6.32	681	111
	5/2/2023 10:40	0.80	--	--	7.61	--	42.7	1.18	6.48	654	99.5
	5/2/2023 12:00	0.80	--	--	6.47	--	40.0	1.15	6.58	616	83.6
	5/2/2023 16:10	1.00	--	--	5.25	--	36.6	1.19	6.43	606	114
	5/3/2023 9:32	1.70	--	--	3.37	--	30.3	1.15	6.52	602	94.0
	5/3/2023 11:20	1.80	--	--	3.33	--	30.2	1.15	6.54	596	125
	5/3/2023 15:00	2.00	--	--	2.91	--	26.4	1.14	7.25	551	154
	5/4/2023 9:00	2.70	--	--	1.94	--	17.4	1.14	6.49	566	23.0
	5/4/2023 12:00	2.80	--	--	1.73	--	16.4	1.13	6.66	577	106
	5/4/2023 15:15	3.00	--	--	1.77	--	14.6	1.14	6.50	556	92.3
5/5/2023 10:00	3.80	--	--	1.03	--	0.733	1.07	6.51	507	135	
5/5/2023 15:00	4.00	--	--	0.92	--	0.481	1.07	6.51	502	117	
5/8/2023 8:38	6.70	--	--	2.61	--	0.027	1.03	6.64	819	190	
5/8/2023 14:09	6.90	--	--	2.17	--	0.007	1.00	6.76	831	228	
Effluent (BY-AP-MW-10, permanganate column)	5/1/2023 17:30	0.10	0.61	0.50	6.96	--	0.006	8.94	8.67	4940	492
	5/2/2023 9:25	0.70	0.61	6.20	0.52	--	0.002	0.004	6.97	1026	523
	5/2/2023 12:15	0.80	0.55	7.10	0.53	--	0.003	0.132	7.13	924	195
	5/2/2023 16:15	1.00	0.66	8.60	0.56	--	0.002	2.85	7.04	812	127
	5/3/2023 8:15	1.70	0.69	15.1	0.51	--	0.009	2.75	6.69	748	171
	5/3/2023 11:38	1.80	0.48	16.0	0.52	--	0.002	2.59	6.84	743	166
	5/3/2023 15:20	2.00	0.56	17.2	0.64	--	0.003	2.13	6.90	720	155
	5/4/2023 9:10	2.70	0.60	23.5	0.51	--	0.001	1.95	7.12	713	111
	5/4/2023 12:18	2.80	0.68	24.7	0.49 J	--	0.002	1.92	6.61	645	124
	5/4/2023 15:42	3.00	0.68	26.0	0.56	--	0.004	1.71	7.12	672	83.5
5/5/2023 10:30	3.80	0.48	31.3	0.60	--	0.002	1.75	7.31	720	144	
5/5/2023 15:10	4.00	0.61	32.9	0.09 U	--	0.002	5.19	5.98	385	210	
5/8/2023 7:31	6.60	0.66	57.5	0.53	--	0.002	1.36	6.67	931	194	
5/8/2023 13:08	6.90	0.69	59.7	0.55	--	0.002	1.39	7.15	942	229	

Table 17
Column Desorption Test Results

Sample	Sampling Date and Time	Collection Duration (minutes)	Flow Rate ¹ (mL/min)	Pore Volumes Flushed	Arsenic (µg/L)	Cobalt (µg/L)	pH	SC (µS/cm)	ORP (mV)
MW-1 permanganate desorption column effluent	5/9/2023 6:56	60.0	0.68	6.3	0.09 U	--	7.90	89	239
	5/10/2023 6:53	60.0	0.68	16.2	0.09 U	--	7.32	73	315
	5/11/2023 9:58	60.0	0.65	26.2	0.09 U	--	7.42	31	300
MW-8 permanganate desorption column effluent	5/9/2023 6:56	60.0	0.68	6.2	13.3	--	7.72	78	244
	5/10/2023 6:53	60.0	0.68	16.1	12.0	--	7.10	80	320
	5/11/2023 9:58	60.0	0.65	26.2	10.3	--	7.38	26	297
MW-10 permanganate desorption column effluent	5/9/2023 6:56	60.0	0.68	5.9	0.31 J	--	7.71	275	239
	5/10/2023 6:53	60.0	0.67	15.2	0.31 J	--	7.25	209	311
	5/11/2023 9:58	60.0	0.61	23.3	0.21 J	--	7.36	143	291
MW-15 permanganate desorption column effluent	5/9/2023 6:56	60.0	0.71	6.8	0.09 U	1.01	6.76	88	266
	5/10/2023 6:53	60.0	0.70	17.2	0.09 U	1.39	7.11	28	331
	5/11/2023 9:58	60.0	0.70	29.4	0.09 U	1.37	7.34	20	295
MW-15 ferrous sulfate desorption column effluent	5/9/2023 6:56	60.0	0.67	6.4	0.09 U	13.8	6.84	77	285
	5/10/2023 6:53	60.0	0.68	16.7	0.1 J	15.6	6.94	15	337
	5/11/2023 9:58	60.0	0.68	28.3	0.09 U	13.7	7.25	19	306
MW-24H permanganate desorption column effluent	5/9/2023 6:56	60.0	0.65	5.6	0.1 J	--	6.91	97	268
	5/10/2023 6:53	60.0	0.65	14.5	0.09 U	--	6.68	DNM	346
	5/11/2023 9:58	60.0	0.66	24.9	0.09 U	--	7.15	16	311
MW-2 column influent	5/9/2023 7:57	--	--	--	1.18	4.04	8.52	83	236
	5/10/2023 7:54	--	--	--	1.13	4.15	7.67	101	314
	5/11/2023 10:59	--	--	--	1.11	3.59	6.95	19	33.0

Notes:

1. Flow rate was measured in effluent samples only.

--: not applicable

µg/L: microgram per liter

µS/cm: microsiemen per centimeter

DNM: did not measure

J: indicates the result is an estimated value

mL/min: milliliter per minute

mV: millivolt

ORP: oxidation reduction potential

SC: specific conductivity

U: indicates the compound was analyzed for but not detected (Value is set to instrument detection limit.)

Table 18
SSE Results

Sample	Arsenic (mg/kg)					Cobalt (mg/kg)					Iron (mg/kg)					Manganese (mg/kg)				
	F1	F2	F3	F4	F5	F1	F2	F3	F4	F5	F1	F2	F3	F4	F5	F1	F2	F3	F4	F5
FeSO ₄ + NaHCO ₃ + Na ₂ CO ₃ (BY-AP-MW-15)	0.01	0.2	0.01 J	0.15	0.06 U	0.02	0.10	0.02	0.14	0.08	0.05	80.9	181	800	108	0.58	1.82	0.20	1.17	0.93
KMnO ₄ + NaHCO ₃ (BY-AP-MW-15)	0.01 J	0.21	0.02 J	0.23	0.06 U	0.03	0.16	0.08	0.17	0.11	0.28	82.9	270	805	75.0	1.55	5.17	2.96	2.36	0.67
KMnO ₄ + NaHCO ₃ (BY-AP-MW-15) (Dup)	0.01	0.21	0.02 J	0.21	0.06 U	0.03	0.15	0.07	0.13	0.08	0.14	78.9	249	795	94.8	1.42	5.29	2.79	2.40	0.88
KMnO ₄ + NaHCO ₃ (BY-AP-MW-8)	0.09	5.03	0.33	0.24	0.18 J	DNM	DNM	DNM	DNM	DNM	0.15	61.5	69.2	70.9	443	0.29	26.0	57.0	0.58	2.14

Notes:

All results are reported on a dry weight basis.

DNM: did not measure

Dup: duplicate

F1: Water soluble, weakly sorbed (extracted by 1 M magnesium chloride to pH 7)

F2: Exchangeable, strongly sorbed, e.g., on clay minerals (extracted by 1 M monosodium phosphate at pH 5)

F3: Reducible, e.g., poorly crystalline metal oxides such as iron and manganese oxides (extracted by 0.1 M hydroxylamine/hydrogen chloride adjusted to pH 2 with nitric acid)

F4: Oxidizable, e.g., crystalline oxide and crystalline sulfide minerals (extracted by 16 M nitric acid)

F5: Residual, e.g., relict silicate phases from the aquifer matrix (prepared by U.S. Environmental Protection Agency Method 3050B)

FeSO₄ + NaHCO₃ + Na₂CO₃: ferrous sulfate with sodium bicarbonate and sodium carbonate

J: indicates the result is an estimated value

KMnO₄ + NaHCO₃: potassium permanganate with sodium bicarbonate

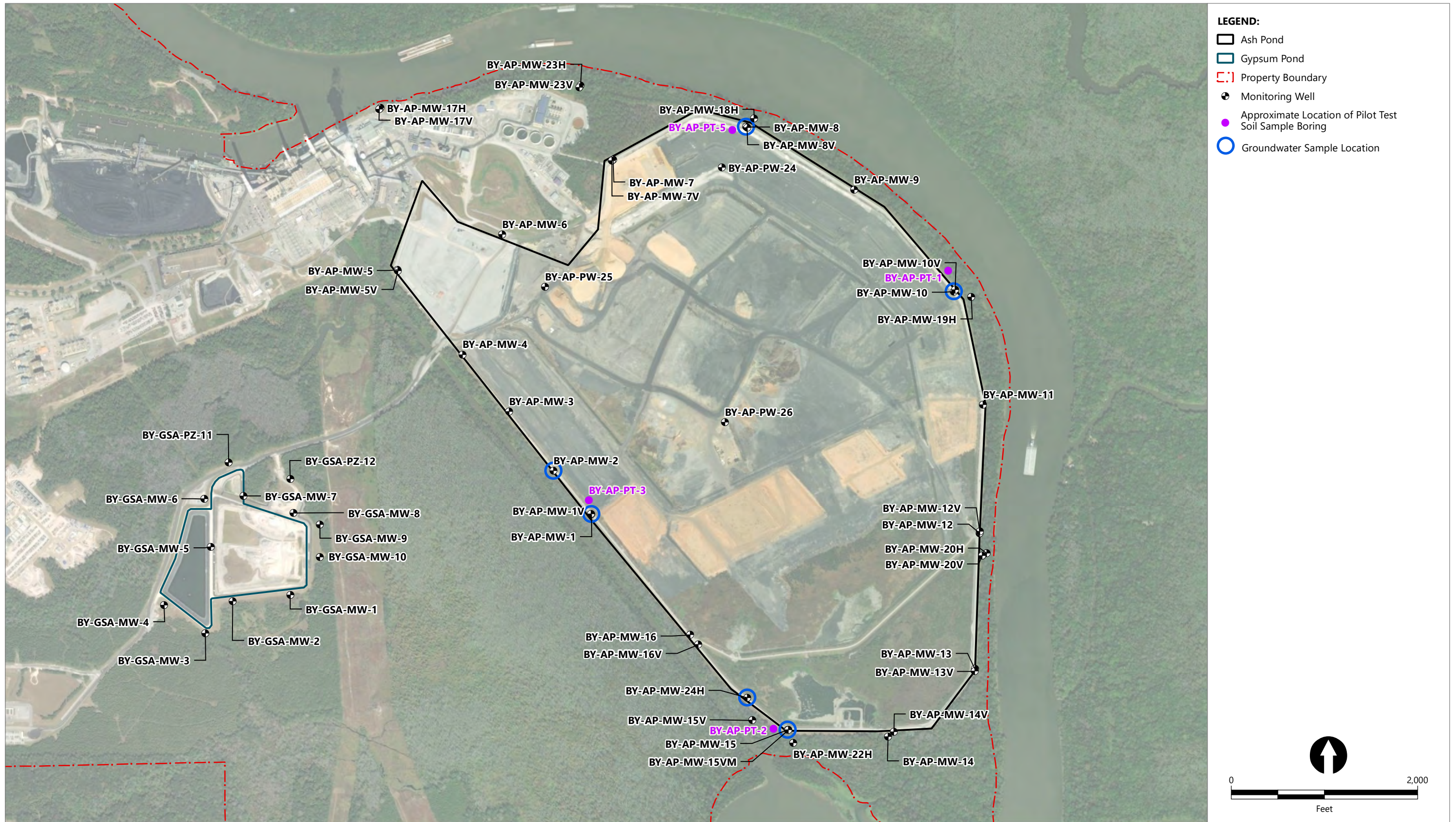
M: molar

mg/kg: milligram per kilogram

SSE: selective sequential extraction

U: indicates the compound was analyzed for but not detected (Value is set to instrument detection limit.)

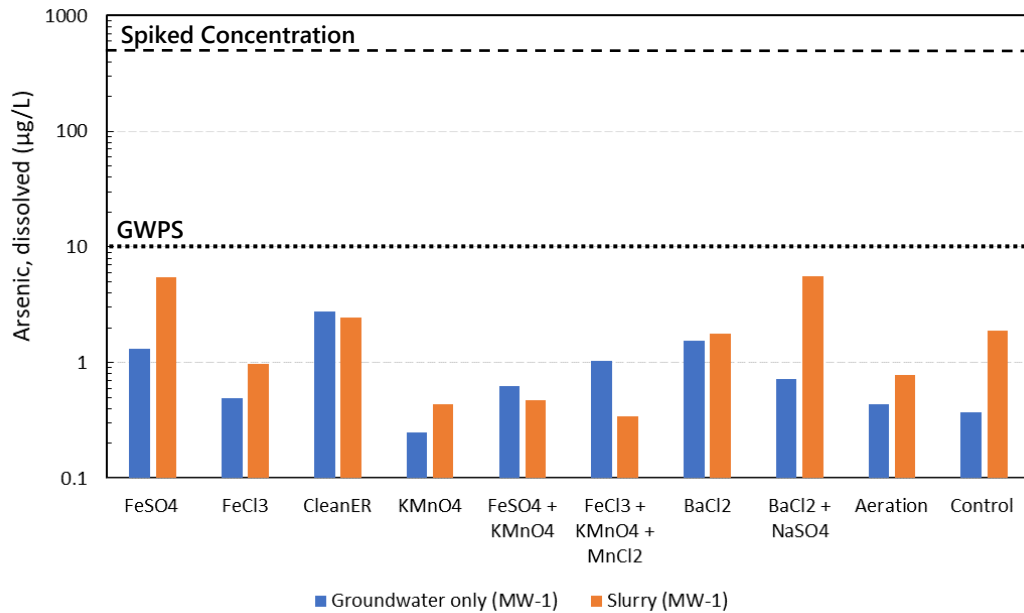
Figures



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Figure 1
Sampling Locations
 Laboratory Treatability Study Results
 Plant Barry



Notes:

Average result is shown for FeSO4, which had a duplicate sample.

µg/L: microgram per liter

BaCl2: barium chloride

CleanER: CleanER-10 (injectable zero-valent iron)

FeCl3: ferric chloride

FeSO4: ferrous sulfate

GWPS: groundwater protection standard

KMnO4: potassium permanganate

MnCl2: manganese chloride

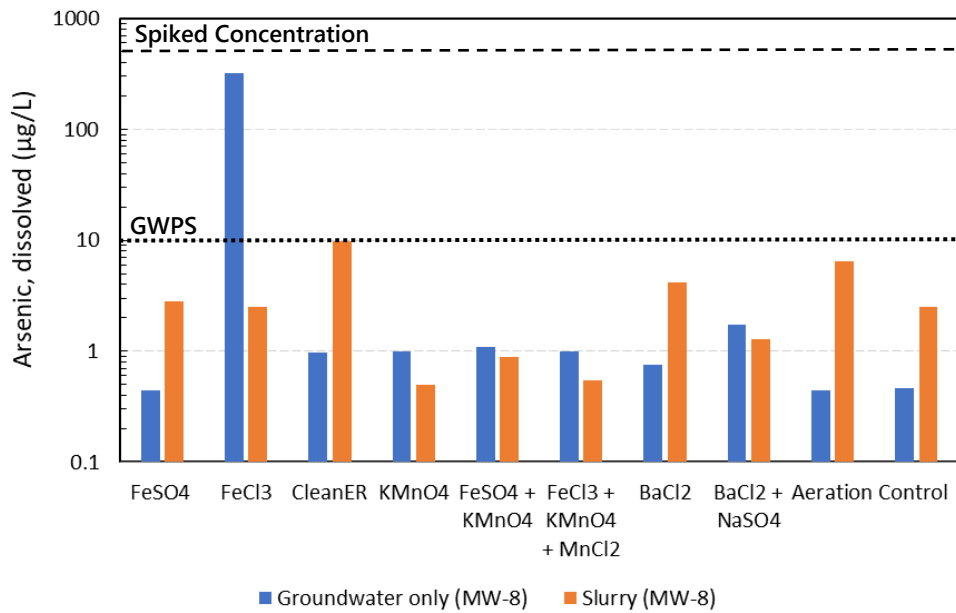
NaSO4: sodium sulfate

Filepath: \\Wcl-fs1\mobile\Projects\Southern Company\Alabama Power ACMS - PRIVILEGED & CONFIDENTIAL\Treatability Studies\Reports\Barry\Figures\Figure 2 - Screening Batch Test Results for BY-AP-MW-1.docx



Figure 2
Screening Batch Test Results for BY-AP-MW-1

Laboratory Treatability Study Results
Plant Barry



Notes:

Average result is shown for FeSO4, which had a duplicate sample.

µg/L: microgram per liter

BaCl2: barium chloride

CleanER: CleanER-10 (injectable zero-valent iron)

FeCl3: ferric chloride

FeSO4: ferrous sulfate

GWPS: groundwater protection standard

KMnO4: potassium permanganate

MnCl2: manganese chloride

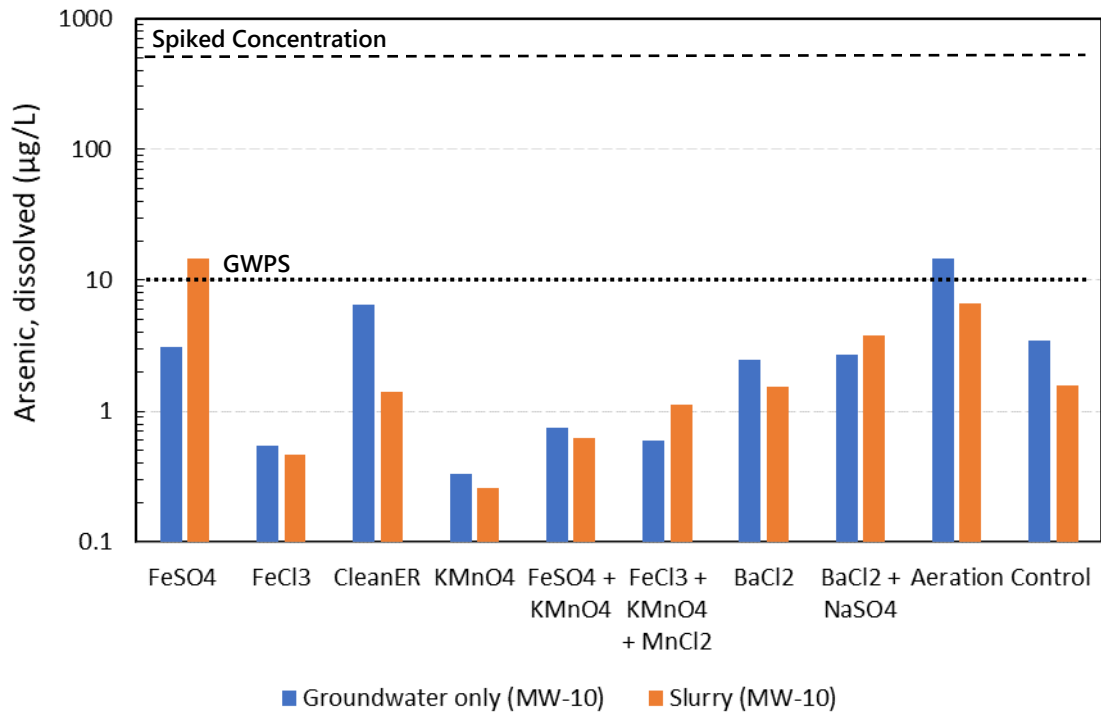
NaSO4: sodium sulfate

Filepath: \\Wcl-fs1\mobile\Projects\Southern Company\Alabama Power ACMS - PRIVILEGED & CONFIDENTIAL\Treatability Studies\Reports\Barry\Figures\Figure 3 - Screening Batch Test Results for BY-AP-MW-8.docx



Figure 3
Screening Batch Test Results for BY-AP-MW-8

Laboratory Treatability Study Results
Plant Barry



Notes:

Average result is shown for FeSO4, which had a duplicate sample.

µg/L: microgram per liter

BaCl2: barium chloride

CleanER: CleanER-10 (injectable zero-valent iron)

FeCl3: ferric chloride

FeSO4: ferrous sulfate

GWPS: groundwater protection standard

KMnO4: potassium permanganate

MnCl2: manganese chloride

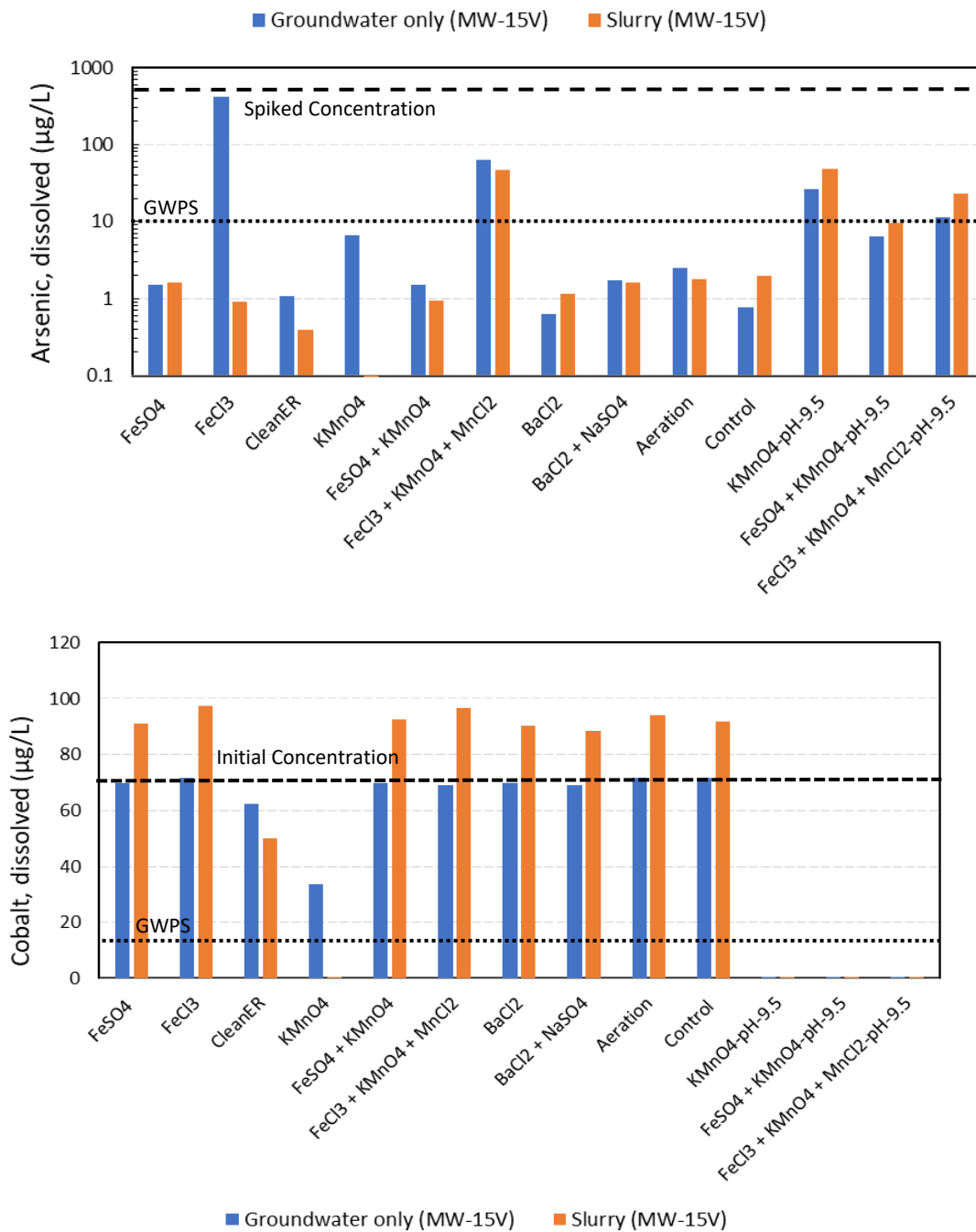
NaSO4: sodium sulfate

Filepath: \\Wcl-fs1\mobile\Projects\Southern Company\Alabama Power ACMS - PRIVILEGED & CONFIDENTIAL\Treatability Studies\Reports\Barry\Figures\Figure 4 - Screening Batch Test Results for BY-AP-MW-10.docx



Figure 4
Screening Batch Test Results for BY-AP-MW-10

Laboratory Treatability Study Results
Plant Barry



Notes:

All treatments shown on graph were tested as part of the screening batch tests. Results not visible indicate that concentrations were either less than the detection limit or were detected at concentrations too low to be seen on the graph.

Average result is shown for FeSO4, which had a duplicate sample.

µg/L: microgram per liter

BaCl2: barium chloride

CleanER: CleanER-10 (injectable zero-valent iron)

FeCl3: ferric chloride

FeSO4: ferrous sulfate

GWPS: groundwater protection standard

KMnO4: potassium permanganate

MnCl2: manganese chloride

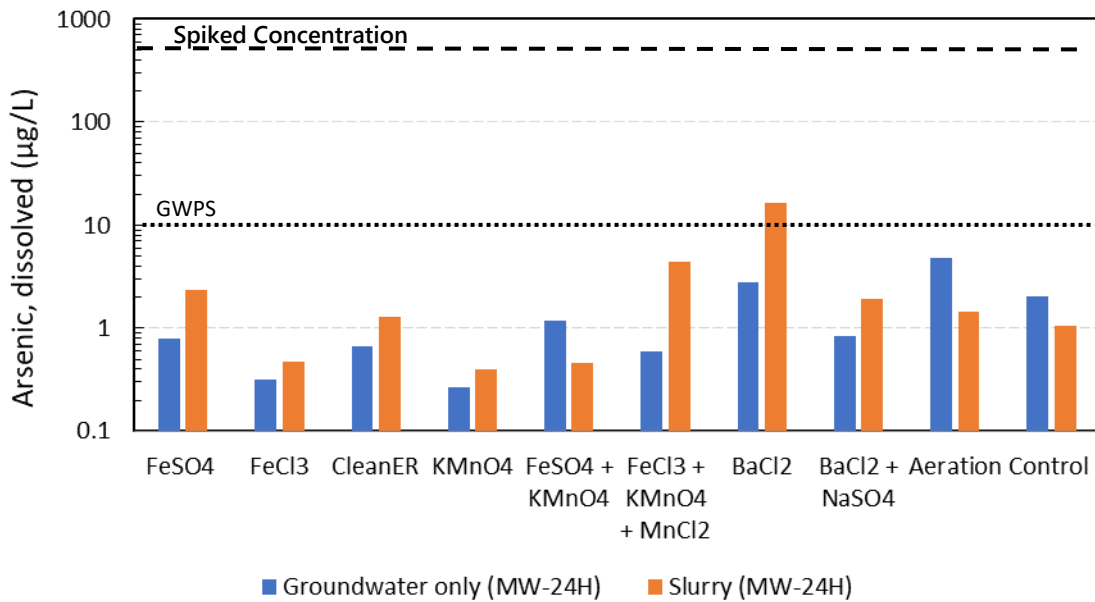
NaSO4: sodium sulfate

Filepath: \\Wcl-fs1\mobile\Projects\Southern Company\Alabama Power ACMS - PRIVILEGED & CONFIDENTIAL\Treatability Studies\Reports\Barry\Figures\Figure 5 - Screening Batch Test Results for BY-AP-MW-15V.docx



Figure 5
Screening Batch Test Results for BY-AP-MW-15V

Laboratory Treatability Study Results
Plant Barry



Notes:

Average result is shown for FeSO4, which had a duplicate sample.

µg/L: microgram per liter

BaCl2: barium chloride

CleanER: CleanER-10 (injectable zero-valent iron)

FeCl3: ferric chloride

FeSO4: ferrous sulfate

GWPS: groundwater protection standard

KMnO4: potassium permanganate

MnCl2: manganese chloride

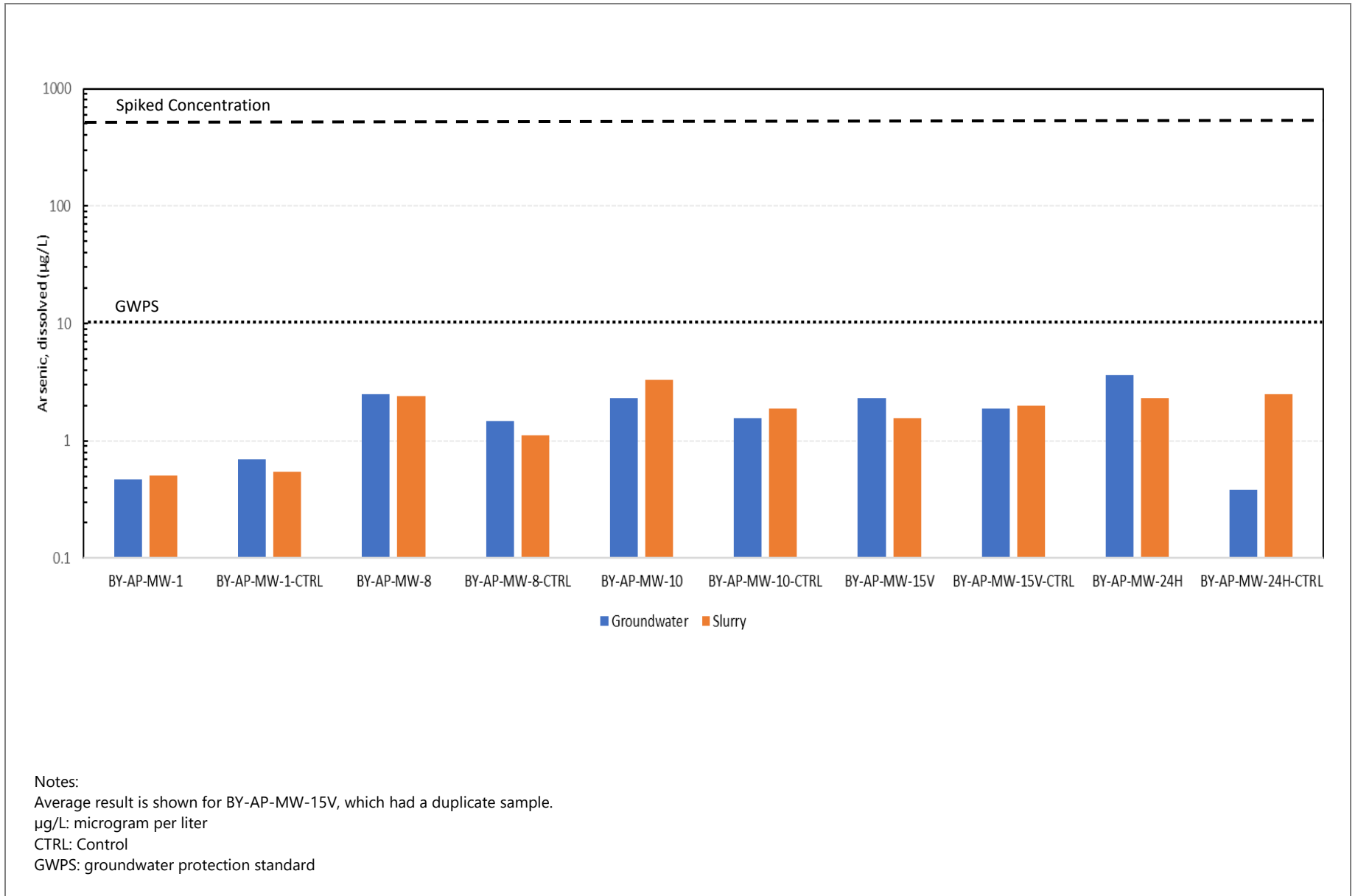
NaSO4: sodium sulfate

Filepath: \\Wcl-fs1\mobile\Projects\Southern Company\Alabama Power ACMS - PRIVILEGED & CONFIDENTIAL\Treatability Studies\Reports\Barry\Figures\Figure 6 - Screening Batch Test Results for BY-AP-MW-24H.docx



Figure 6
Screening Batch Test Results for BY-AP-MW-24H

Laboratory Treatability Study Results
Plant Barry

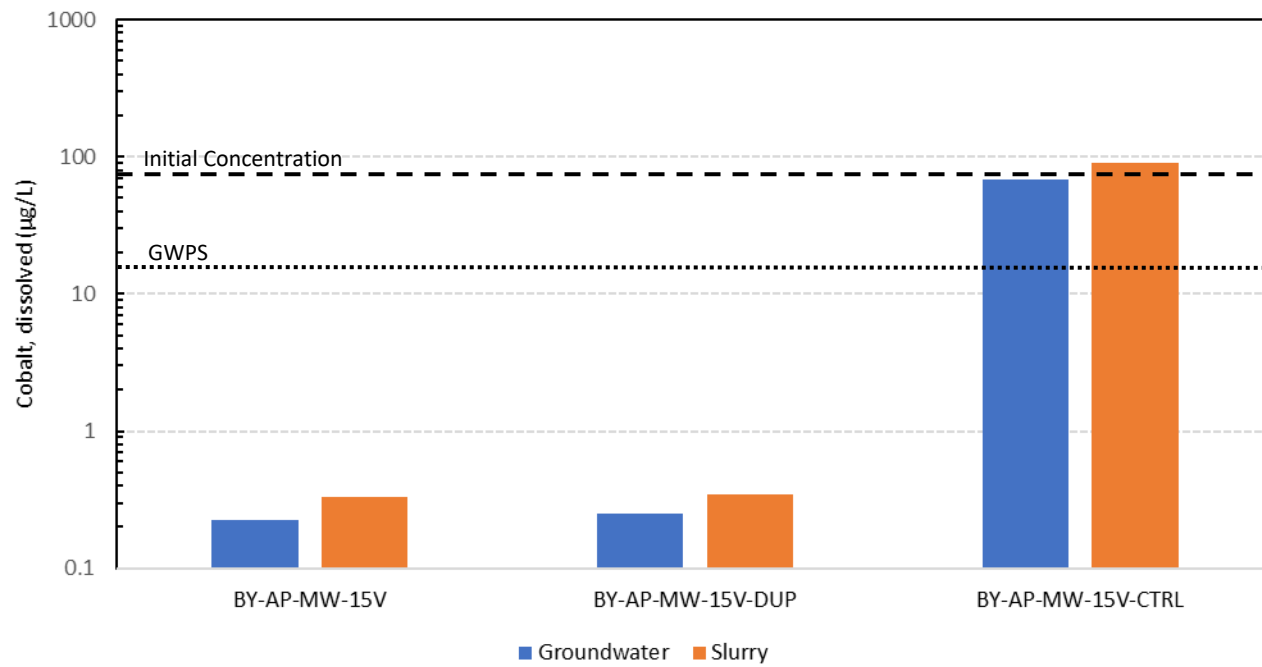


Filepath: \\Wcl-fs1\mobile\Projects\Southern Company\Alabama Power ACMS - PRIVILEGED & CONFIDENTIAL\Treatability Studies\Reports\Barry\Figures\Figure 7 - Screening Batch Tests Results of FerroBlack-Fe+ for As.docx



Figure 7
Screening Batch Test Results of FerroBlack-Fe+ for Arsenic

Laboratory Treatability Study Results
Plant Barry



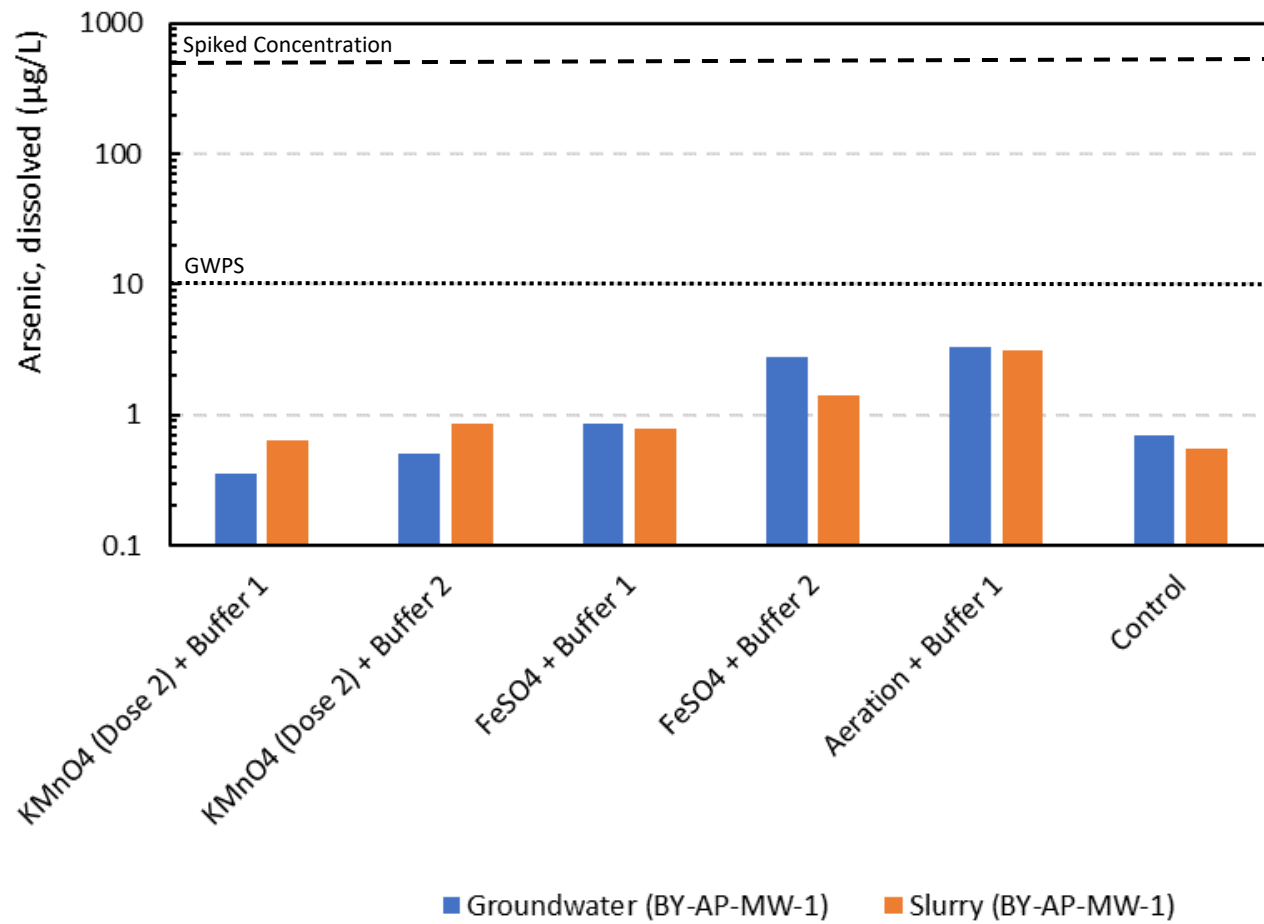
Notes:
 µg/L: microgram per liter
 DUP: duplicate
 CTRL: Control
 GWPS: groundwater protection standard

Filepath: \\Wcl-fs1\mobile\Projects\Southern Company\Alabama Power ACMS - PRIVILEGED & CONFIDENTIAL\Treatability Studies\Reports\Barry\Figures\Figure 8 - Screening Batch Tests Results of FerroBlack-Fe+ for Co.docx



Figure 8
Screening Batch Test Results of FerroBlack-Fe+ for Cobalt

Laboratory Treatability Study Results
 Plant Barry



Notes:

Average result is shown for KMnO4 (Dose 2) + Buffer 1, which had a duplicate sample.

µg/L: microgram per liter

FeSO4: ferrous sulfate

GWPS: groundwater protection standard

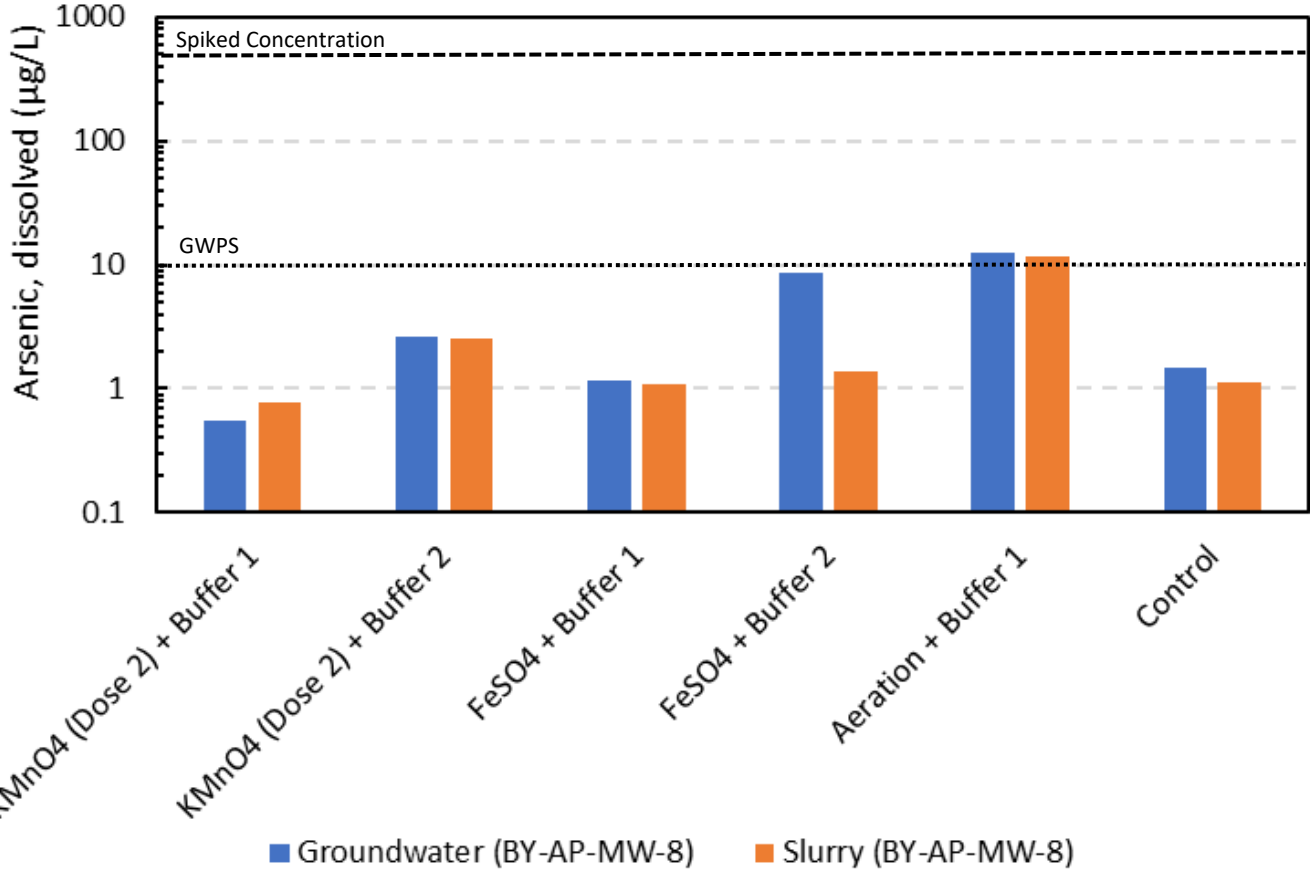
KMnO4: potassium permanganate

Filepath: \\Wcl-fs1\mobile\Projects\Southern Company\Alabama Power ACMS - PRIVILEGED & CONFIDENTIAL\Treatability Studies\Reports\Barry\Figures\Figure 9 - Optimization Batch Test Results for BY-AP-MW-1.docx



Figure 9
Optimization Batch Test Results for BY-AP-MW-1

Laboratory Treatability Study Results
Plant Barry



Notes:

Average result is shown for KMnO4 (Dose 2) + Buffer 1, which had a duplicate sample.

µg/L: microgram per liter

FeSO4: ferrous sulfate

GWPS: groundwater protection standard

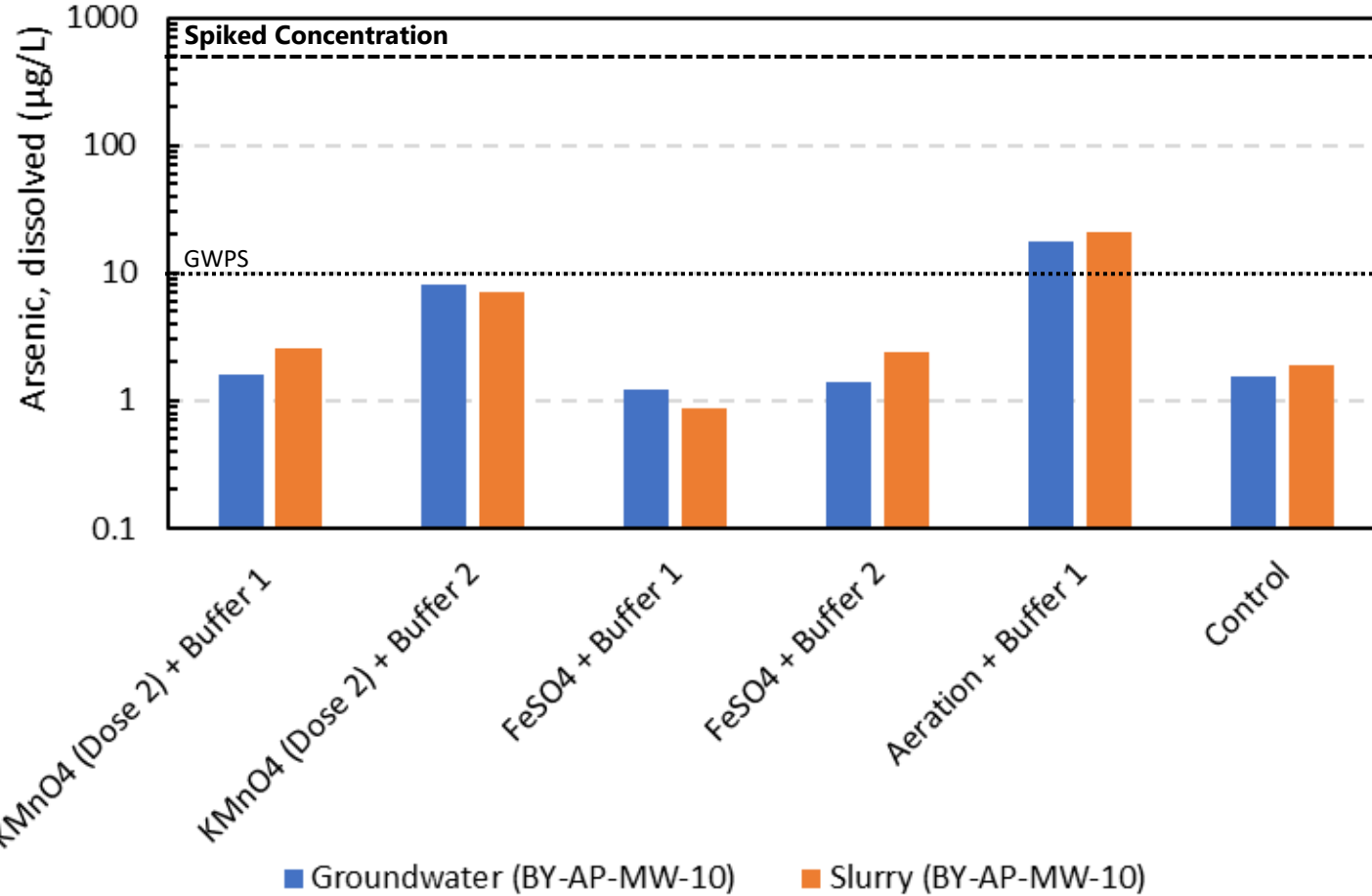
KMnO4: potassium permanganate

Filepath: \\Wcl-fs1\mobile\Projects\Southern Company\Alabama Power ACMS - PRIVILEGED & CONFIDENTIAL\Treatability Studies\Reports\Barry\Figures



Figure 10
Optimization Batch Test Results for BY-AP-MW-8

Laboratory Treatability Study Results
Plant Barry



Notes:

Average result is shown for KMnO4 (Dose 2) + Buffer 1, which had a duplicate sample.

µg/L: microgram per liter

FeSO4: ferrous sulfate

GWPS: groundwater protection standard

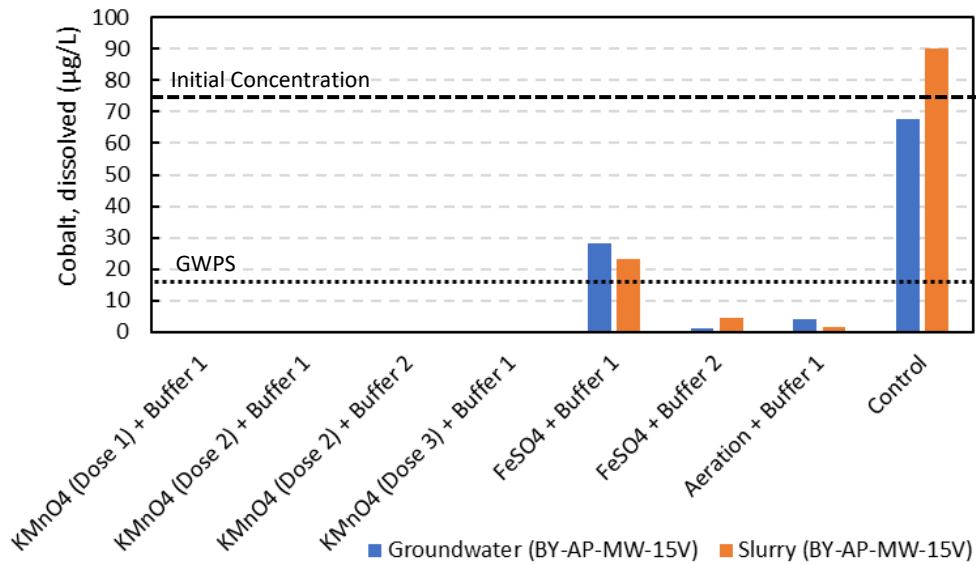
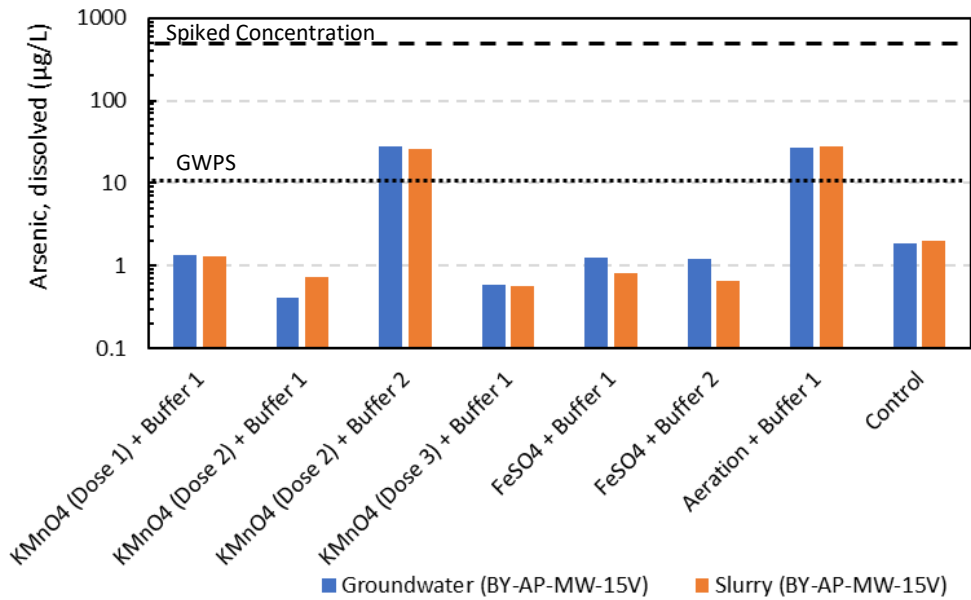
KMnO4: potassium permanganate

Filepath: \\Wcl-fs1\mobile\Projects\Southern Company\Alabama Power ACMS - PRIVILEGED & CONFIDENTIAL\Treatability Studies\Reports\Barry\Figures



Figure 11
Optimization Batch Test Results for BY-AP-MW-10

Laboratory Treatability Study Results
Plant Barry



Notes:

All treatments shown on graph were tested as part of the optimization batch tests. Results not visible indicate that concentrations were either less than the detection limit or were detected at concentrations too low to be seen on the graph.

Average result are shown for KMnO4 (Dose 2) + Buffer 1, which had a duplicate sample.

µg/L: microgram per liter

FeSO4: ferrous sulfate

GWPS: groundwater protection standard

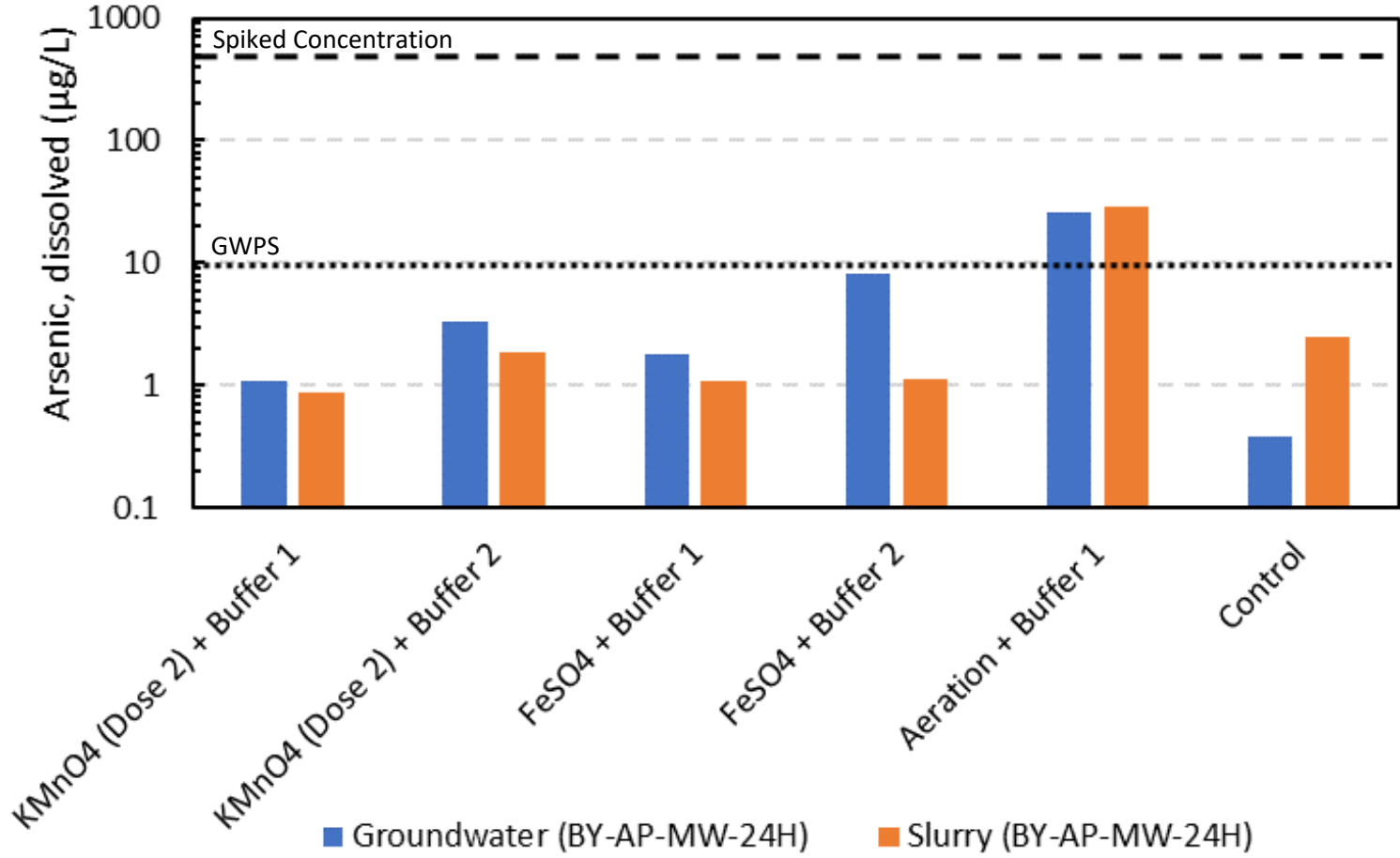
KMnO4: potassium permanganate

Filepath: \\Wcl-fs1\mobile\Projects\Southern Company\Alabama Power ACMS - PRIVILEGED & CONFIDENTIAL\Treatability Studies\Reports\Barry\Figures



Figure 12
Optimization Batch Test Results for BY-AP-MW-15V

Laboratory Treatability Study Results
Plant Barry



Notes:

Average result is shown for KMnO4 (Dose 2) + Buffer 1, which had a duplicate sample.

µg/L: microgram per liter

FeSO4: ferrous sulfate

GWPS: groundwater protection standard

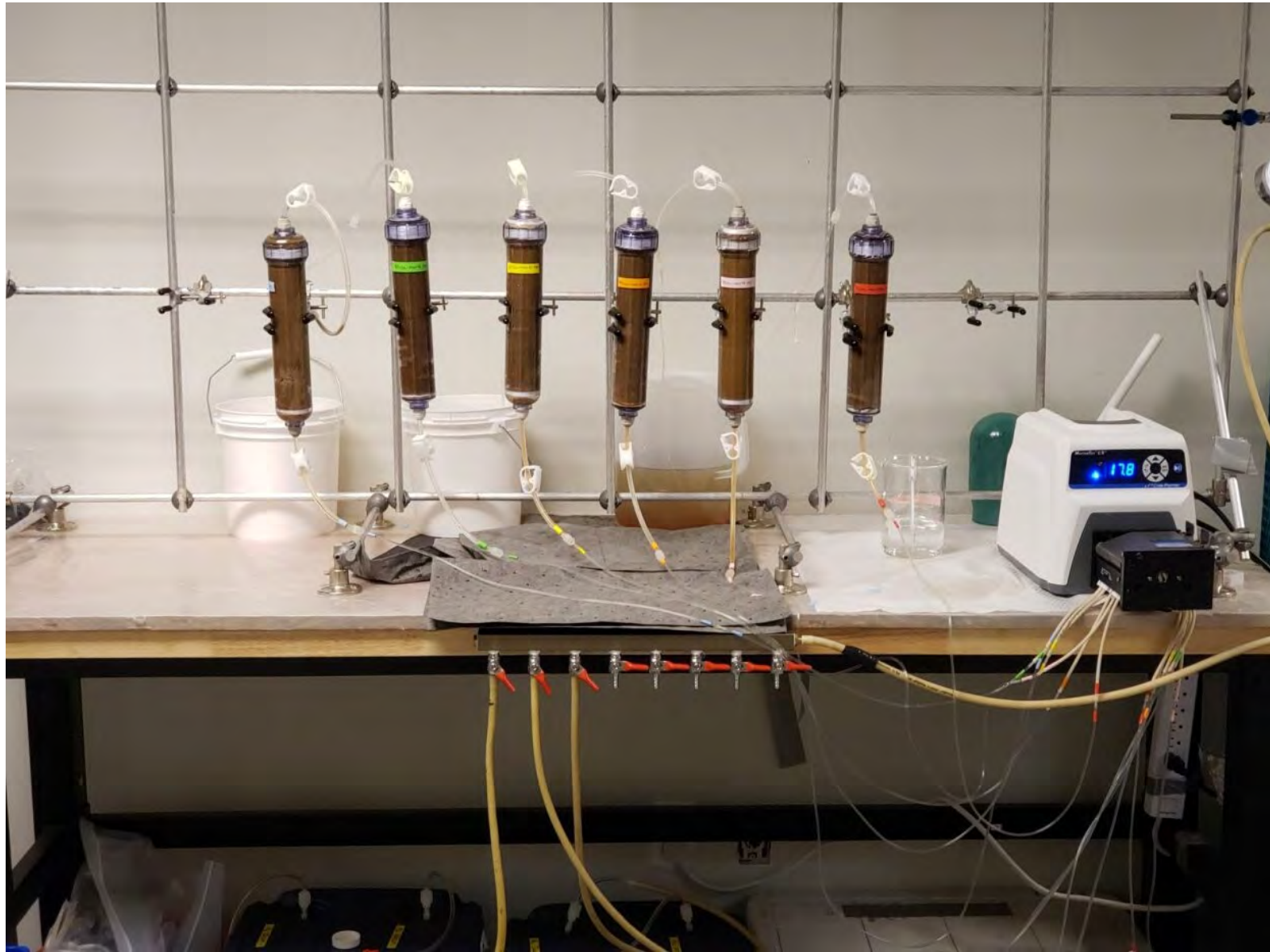
KMnO4: potassium permanganate

Filepath: \\Wcl-fs1\mobile\Projects\Southern Company\Alabama Power ACMS - PRIVILEGED & CONFIDENTIAL\Treatability Studies\Reports\Barry\Figures



Figure 13
Optimization Batch Test Results for BY-AP-MW-24H

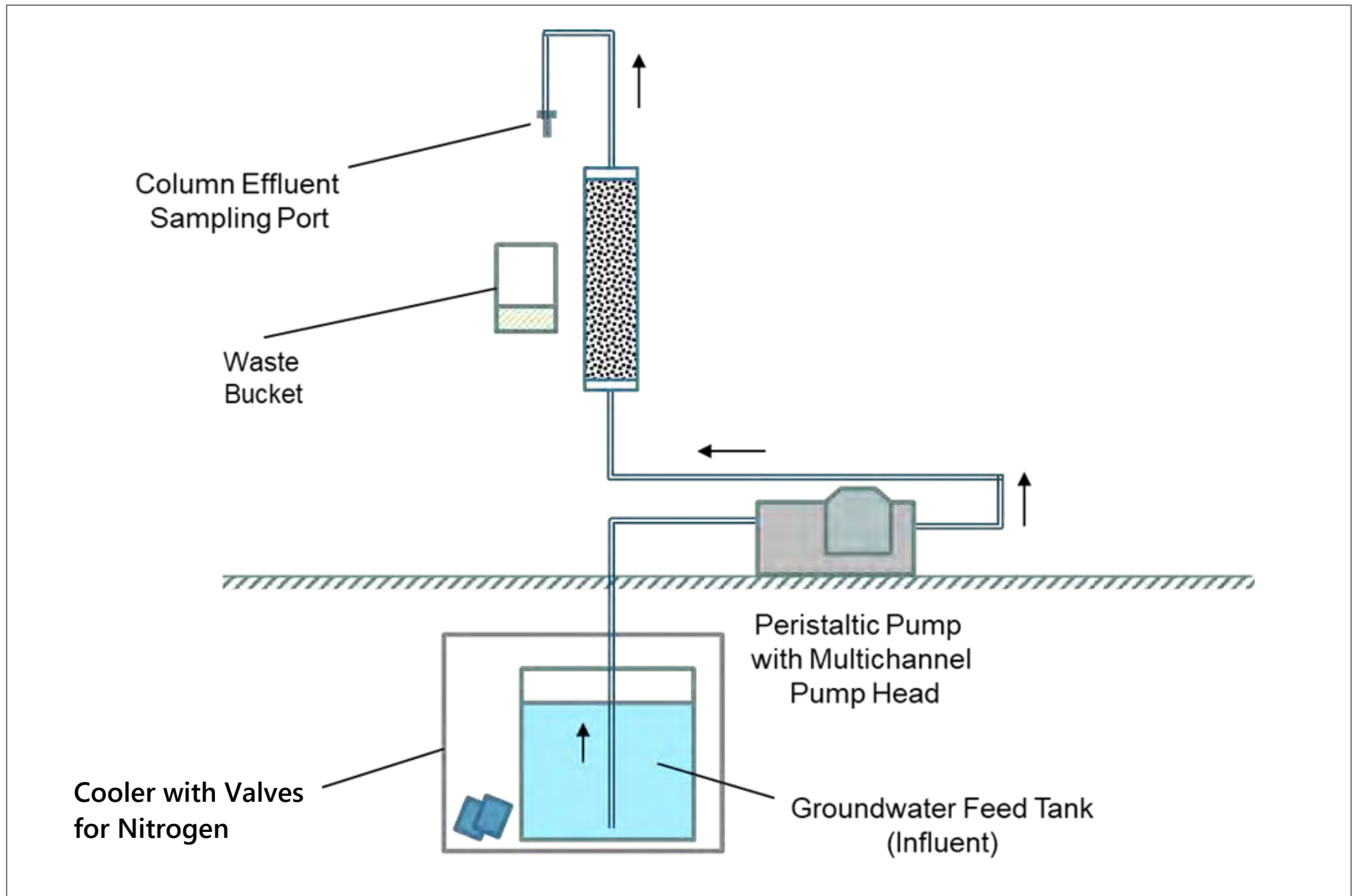
Laboratory Treatability Study Results
Plant Barry



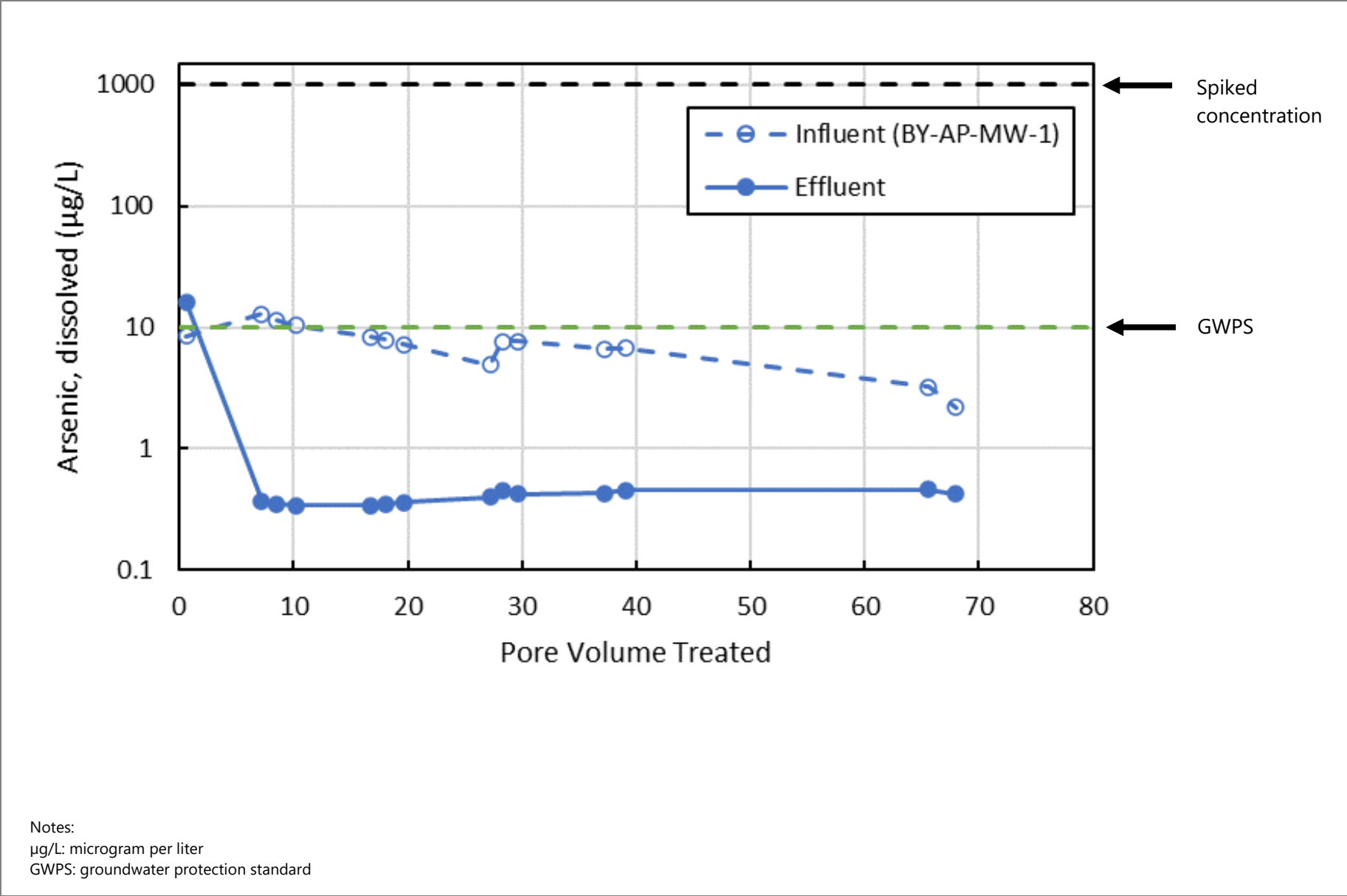
Filepath: \\Wcl-fs1\mobile\Projects\Southern Company\Alabama Power ACMS - PRIVILEGED & CONFIDENTIAL\Treatability Studies\Reports\Barry\Figures



Figure 14
Column Test Equipment Setup
Laboratory Treatability Study Results
Plant Barry



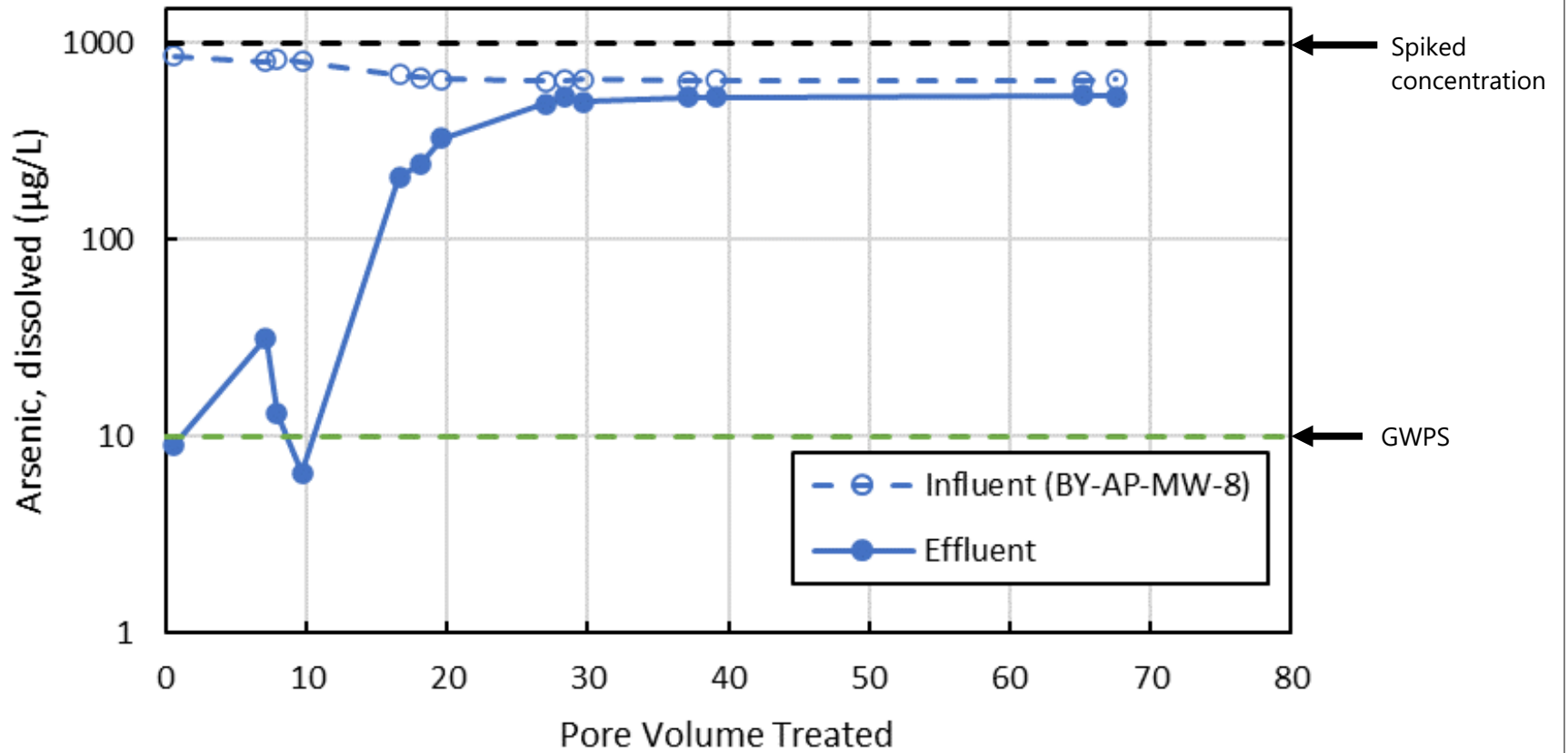
Filepath: \\Wcl-fs1\mobile\Projects\Southern Company\Alabama Power ACMS - PRIVILEGED & CONFIDENTIAL\Treatability Studies\Reports\Barry\Figures



Filepath: \\Wcl-fs1\mobile\Projects\Southern Company\Alabama Power ACMS - PRIVILEGED & CONFIDENTIAL\Treatability Studies\Reports\Barry\Figures



Figure 16
Column Breakthrough Curve for BY-AP-MW-1
 Laboratory Treatability Study Results
 Plant Barry



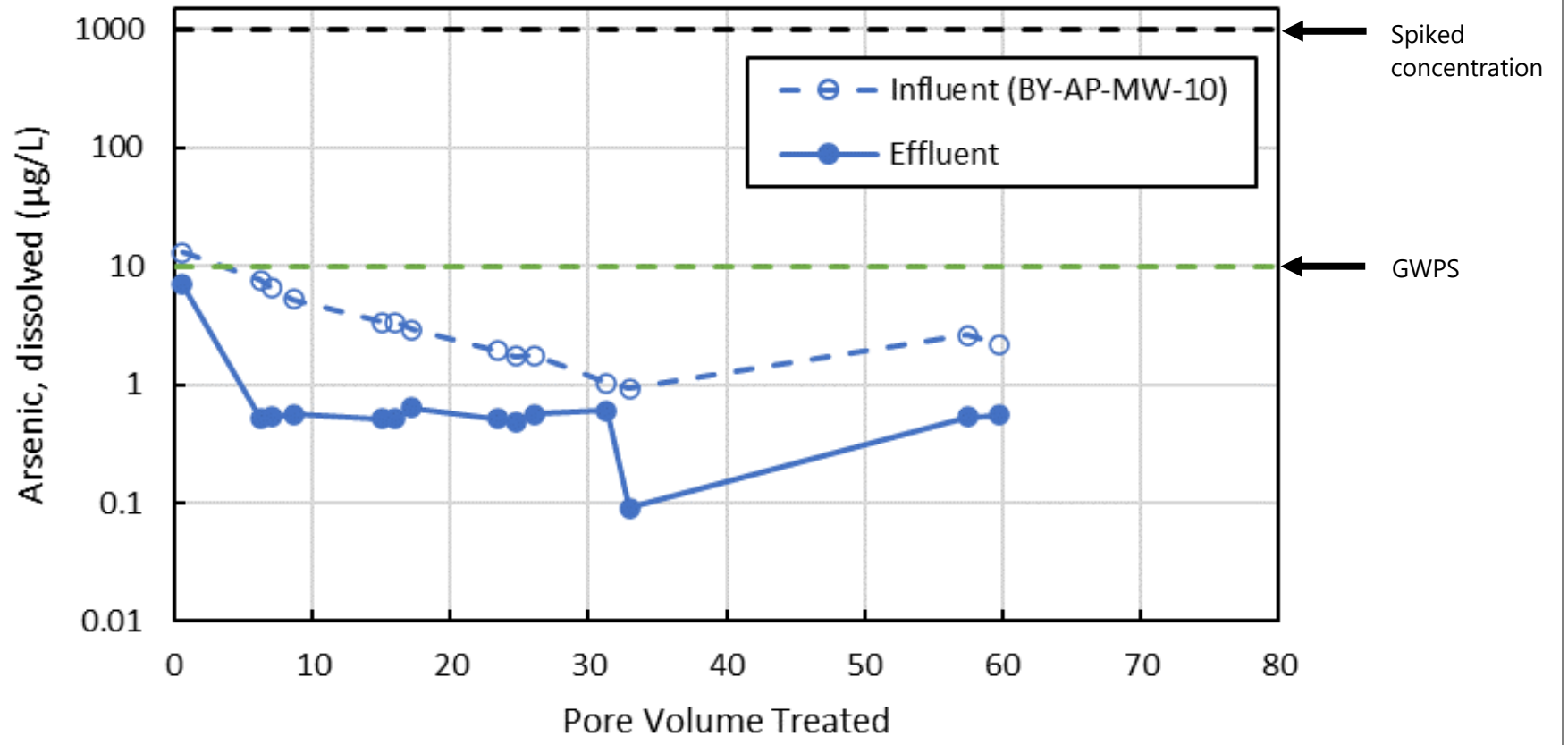
Notes:
 µg/L: microgram per liter
 GWPS: groundwater protection standard

Filepath: \\wcl-fs1\mobile\Projects\Southern Company\Alabama Power ACMS - PRIVILEGED & CONFIDENTIAL\Treatability Studies\Reports\Barry\Figures



Figure 17
Column Breakthrough Curve for BY-AP-MW-8

Laboratory Treatability Study Results
 Plant Barry

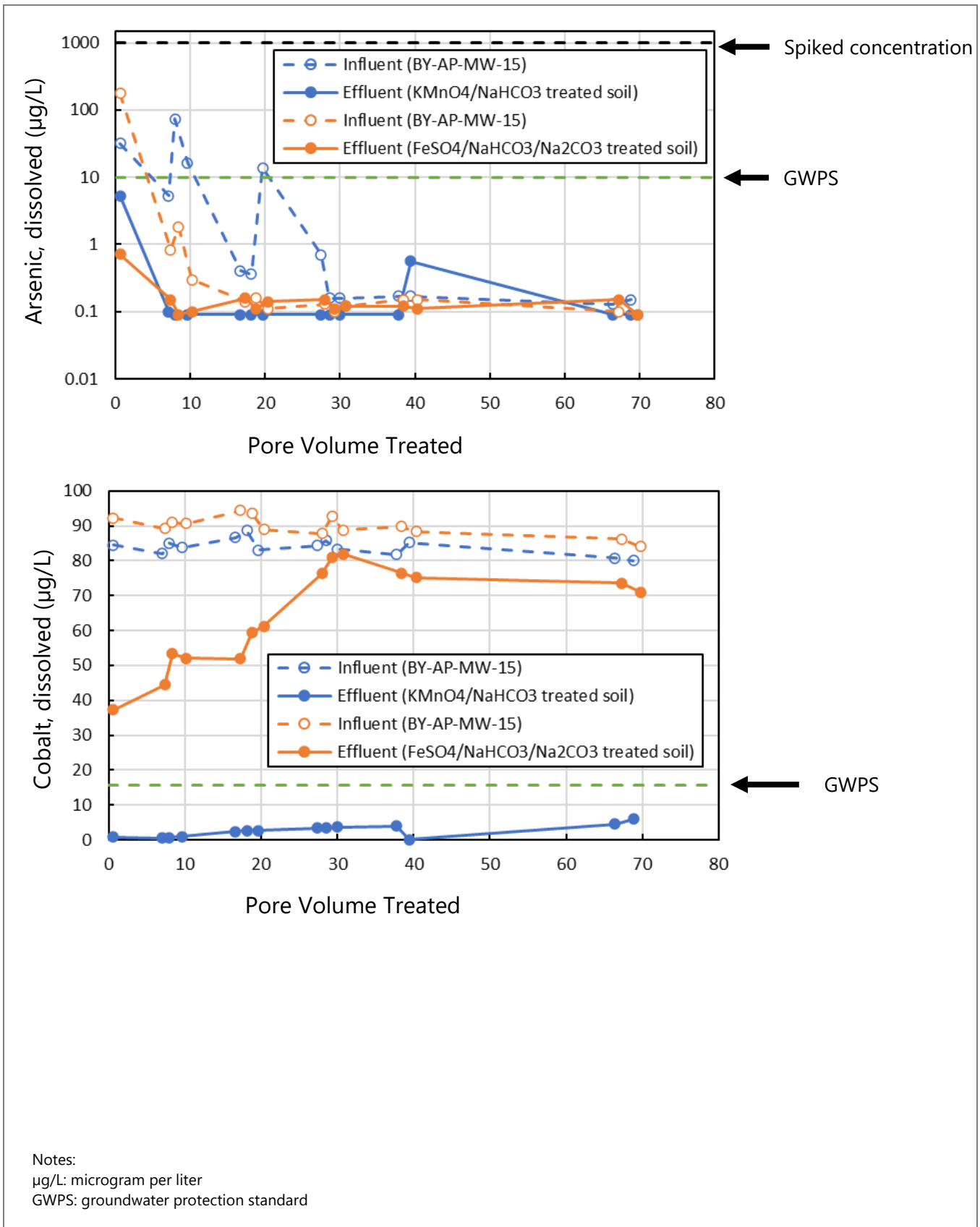


Notes:
 µg/L: microgram per liter
 GWPS: groundwater protection standard

Filepath: \\Wcl-fs1\mobile\Projects\Southern Company\Alabama Power ACMS - PRIVILEGED & CONFIDENTIAL\Treatability Studies\Reports\Barry\Figures



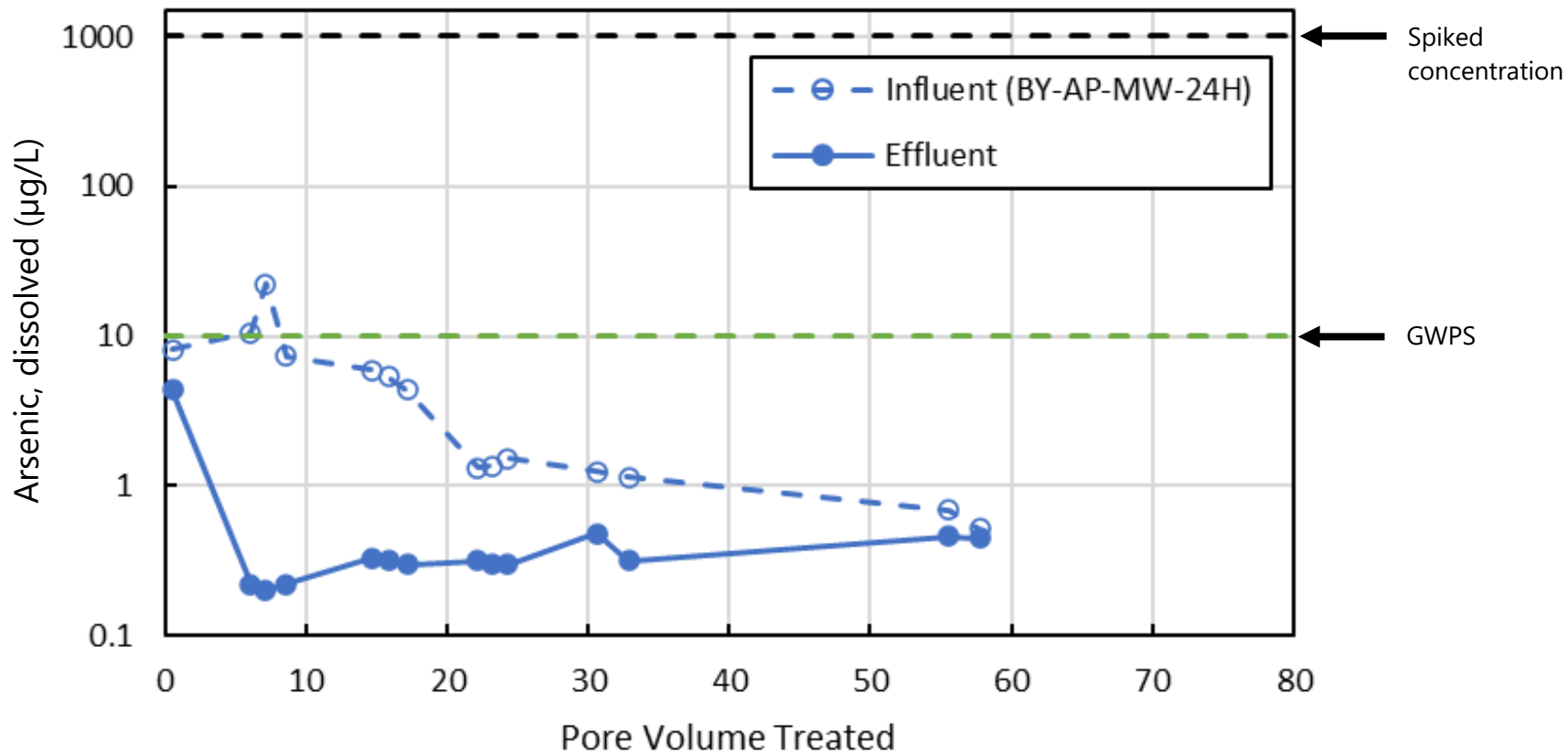
Figure 18
Column Breakthrough Curve for BY-AP-MW-10
 Laboratory Treatability Study Results
 Plant Barry



Filepath: \\Wcl-fs1\mobile\Projects\Southern Company\Alabama Power ACMS - PRIVILEGED & CONFIDENTIAL\Treatability Studies\Reports\Barry\Figures\Figure 19 - Column Breakthrough Curves for BY-AP-MW-15.docx



Figure 19
Column Breakthrough Curves for BY-AP-MW-15
 Laboratory Treatability Study Results
 Plant Barry

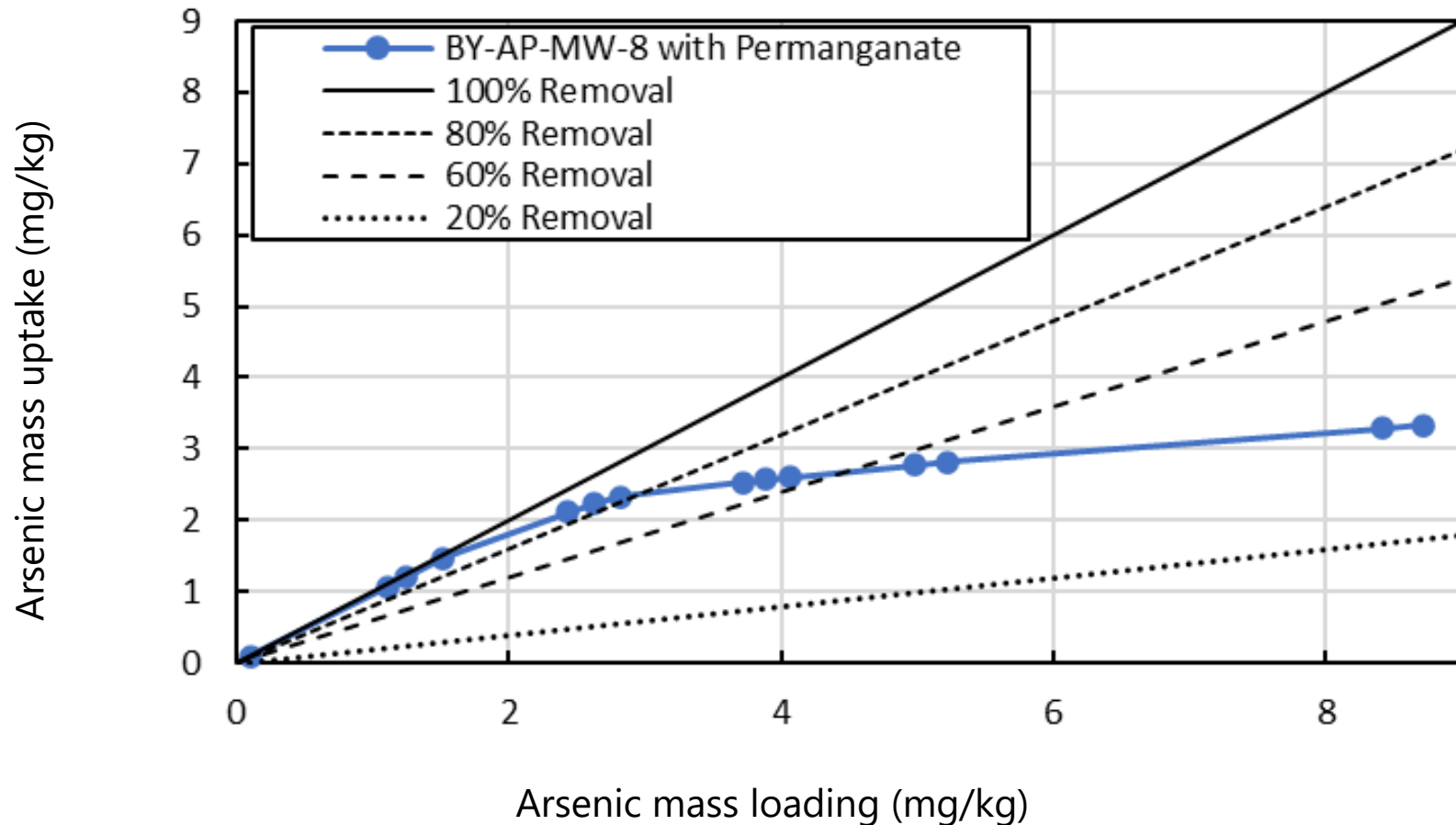


Notes:
 µg/L: microgram per liter
 GWPS: groundwater protection standard

Filepath: \\Wcl-fs1\mobile\Projects\Southern Company\Alabama Power ACMS - PRIVILEGED & CONFIDENTIAL\Treatability Studies\Reports\Barry\Figures



Figure 20
Column Breakthrough Curve for BY-AP-MW-24H
 Laboratory Treatability Study Results
 Plant Barry



Notes:

Influent arsenic concentration in the BY-AP-MW-1, BY-AP-MW-10, BY-AP-MW-15, and BY-AP-MW-24H columns ranged from slightly above to lower than the groundwater protection standard. Effluent solutions from these columns all contained arsenic concentrations lower than the corresponding influent solutions. Arsenic uptake capacity could not be estimated for these wells due to arsenic removal in the influent reservoirs.

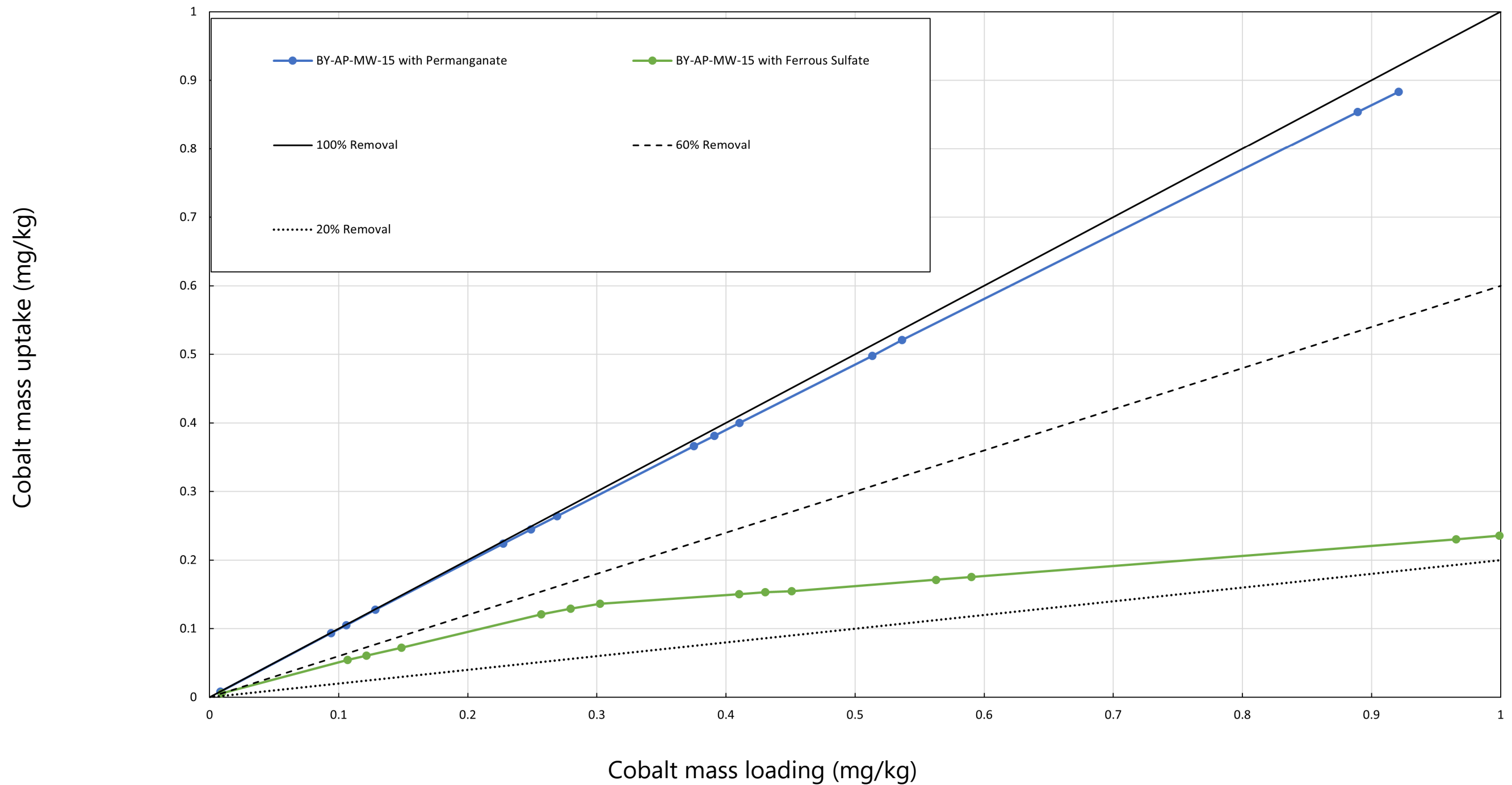
mg/kg: milligram per kilogram

Filepath: \\Wcl-fs1\mobile\Projects\Southern Company\Alabama Power ACMS - PRIVILEGED & CONFIDENTIAL\Treatability Studies\Reports\Barry\Figures\Figure 21 - Arsenic Mass Uptake Versus Arsenic Mass Loading.docx

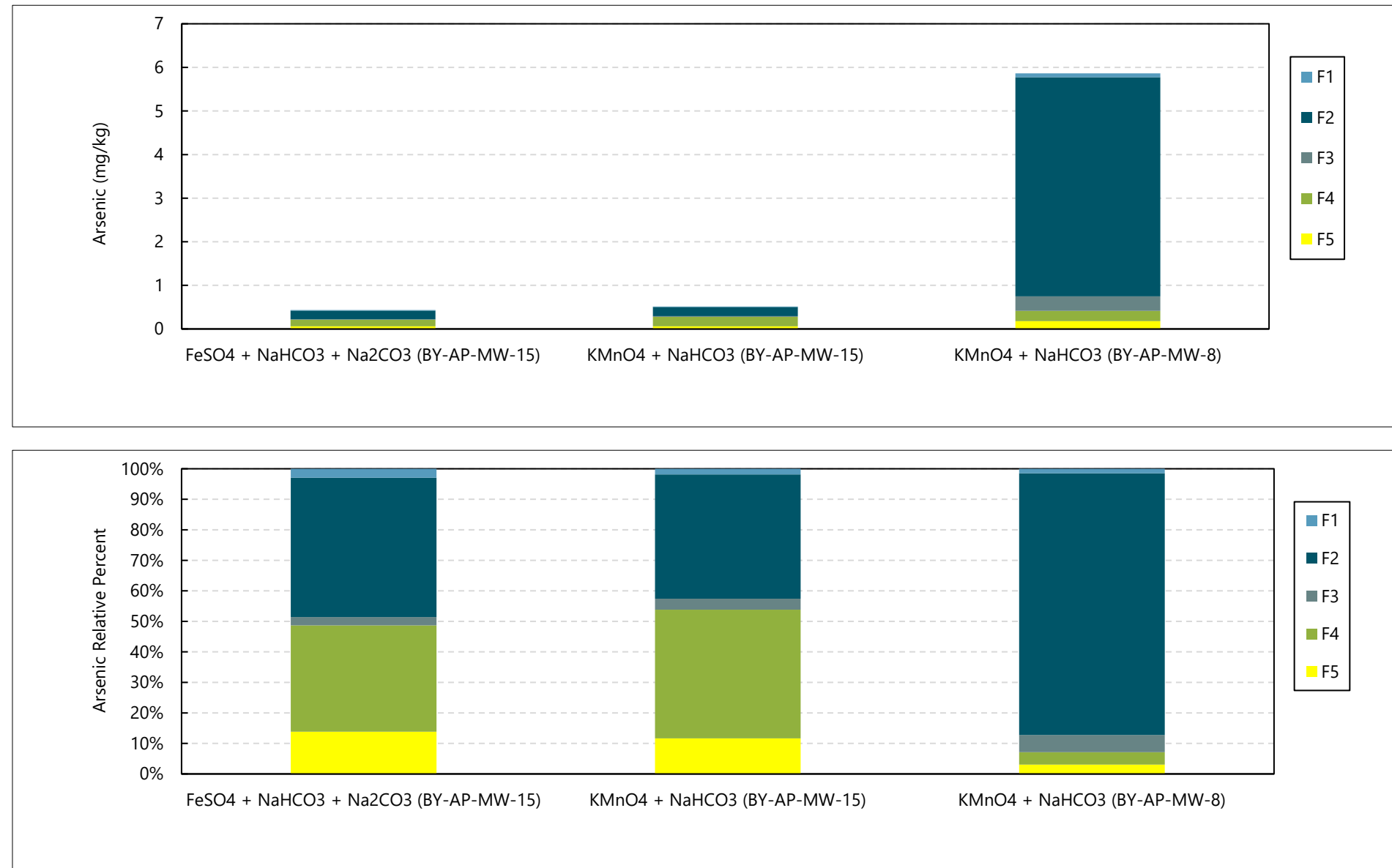


Figure 21
Arsenic Mass Uptake Versus Arsenic Mass Loading

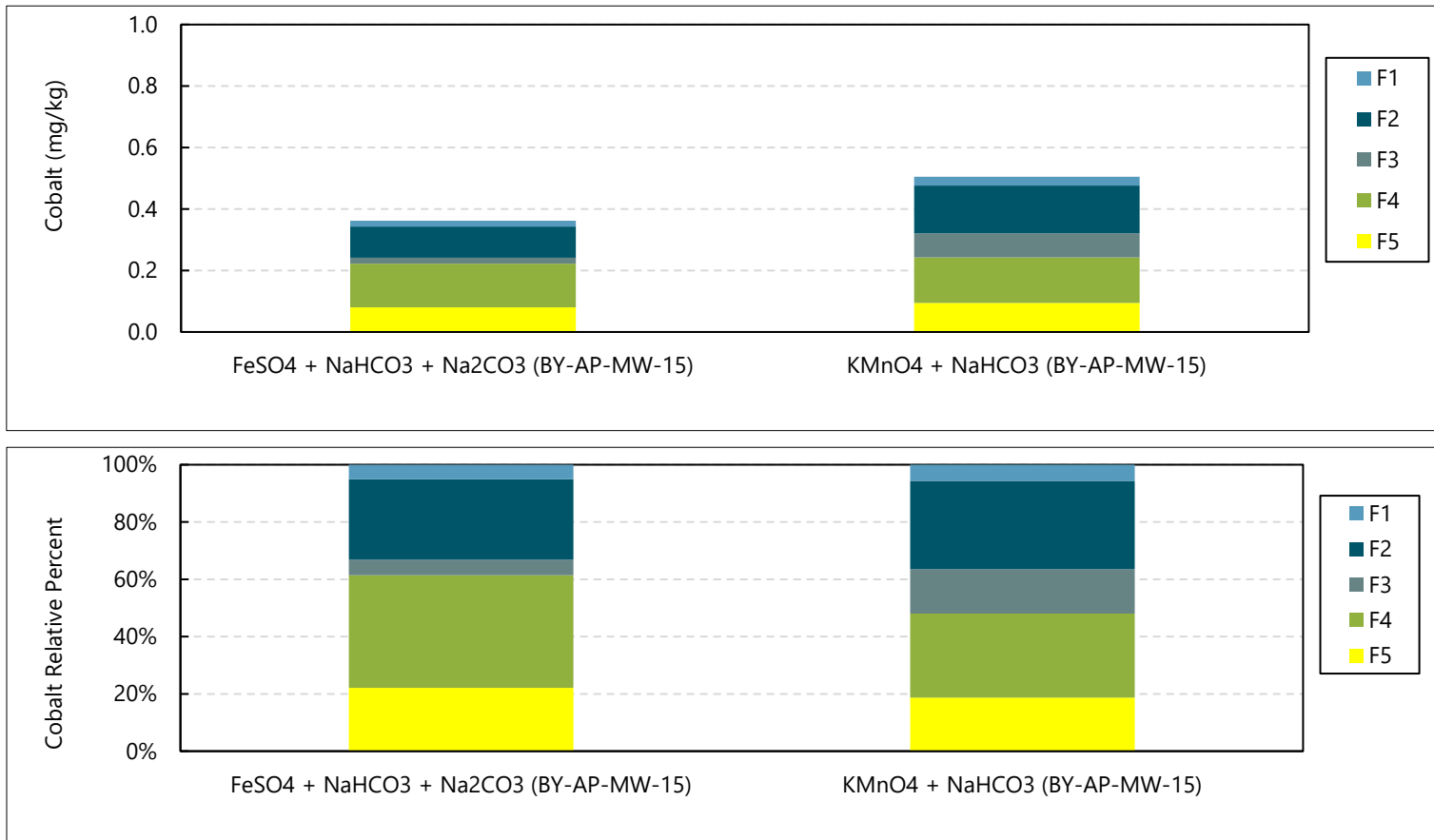
Laboratory Treatability Study Results
Plant Barry



Note:
mg/kg: milligram per kilogram



Notes:
 KMnO4 + NaHCO3 (BY-AP-MW-15) was tested in duplicate. The average of the two results is shown here.
 F1: Water soluble, weakly sorbed (extracted by 1 M magnesium chloride to pH 7)
 F2: Exchangeable, strongly sorbed, e.g., on clay minerals (extracted by 1 M monosodium phosphate at pH 5)
 F3: Reducible, e.g., poorly crystalline metal oxides such as iron and manganese oxides (extracted by 0.1 M hydroxylamine/hydrogen chloride adjusted to pH 2 with nitric acid)
 F4: Oxidizable, e.g., crystalline oxide and crystalline sulfide minerals (extracted by 16 M nitric acid)
 F5: Residual, e.g., relict silicate phases from the aquifer matrix (prepared by U.S. Environmental Protection Agency Method 3050B)
 M: molar
 mg/kg: milligram per kilogram



Notes:

KMnO₄ + NaHCO₃ (BY-AP-MW-15) was tested in duplicate. The average of the two results is shown here.

F1: Water soluble, weakly sorbed (extracted by 1 M magnesium chloride to pH 7)

F2: Exchangeable, strongly sorbed, e.g., on clay minerals (extracted by 1 M monosodium phosphate at pH 5)

F3: Reducible, e.g., poorly crystalline metal oxides such as iron and manganese oxides (extracted by 0.1 M hydroxylamine/hydrogen chloride adjusted to pH 2 with nitric acid)

F4: Oxidizable, e.g., crystalline oxide and crystalline sulfide minerals (extracted by 16 M nitric acid)

F5: Residual, e.g., relict silicate phases from the aquifer matrix (prepared by U.S. Environmental Protection Agency Method 3050B)

M: molar

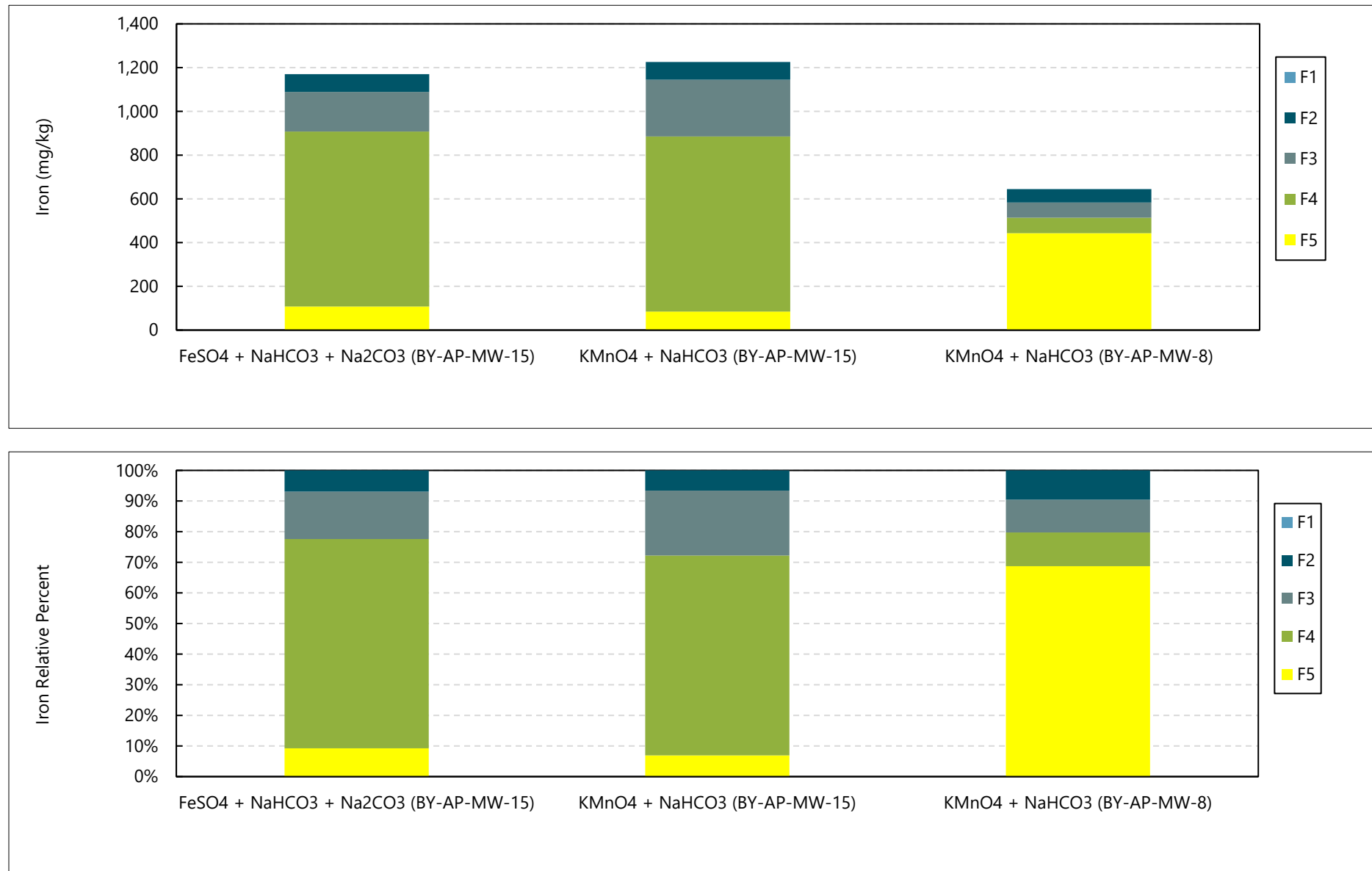
mg/kg: milligram per kilogram

Filepath: \\wcl-fs1\mobile\Projects\Southern Company\Alabama Power ACMS - PRIVILEGED & CONFIDENTIAL\Treatability Studies\Reports\Barry\Figures\Figure 24 - Selective Sequential Extraction Results of Cobalt for Post-Column Test Media.docx



Figure 24
Selective Sequential Extraction Results of Cobalt for Post-Column Test Media

Laboratory Treatability Study Results
Plant Barry



Notes:

KMnO4 + NaHCO3 (BY-AP-MW-15) was tested in duplicate. The average of the two results is shown here.

F1: Water soluble, weakly sorbed (extracted by 1 M magnesium chloride to pH 7)

F2: Exchangeable, strongly sorbed, e.g., on clay minerals (extracted by 1 M monosodium phosphate at pH 5)

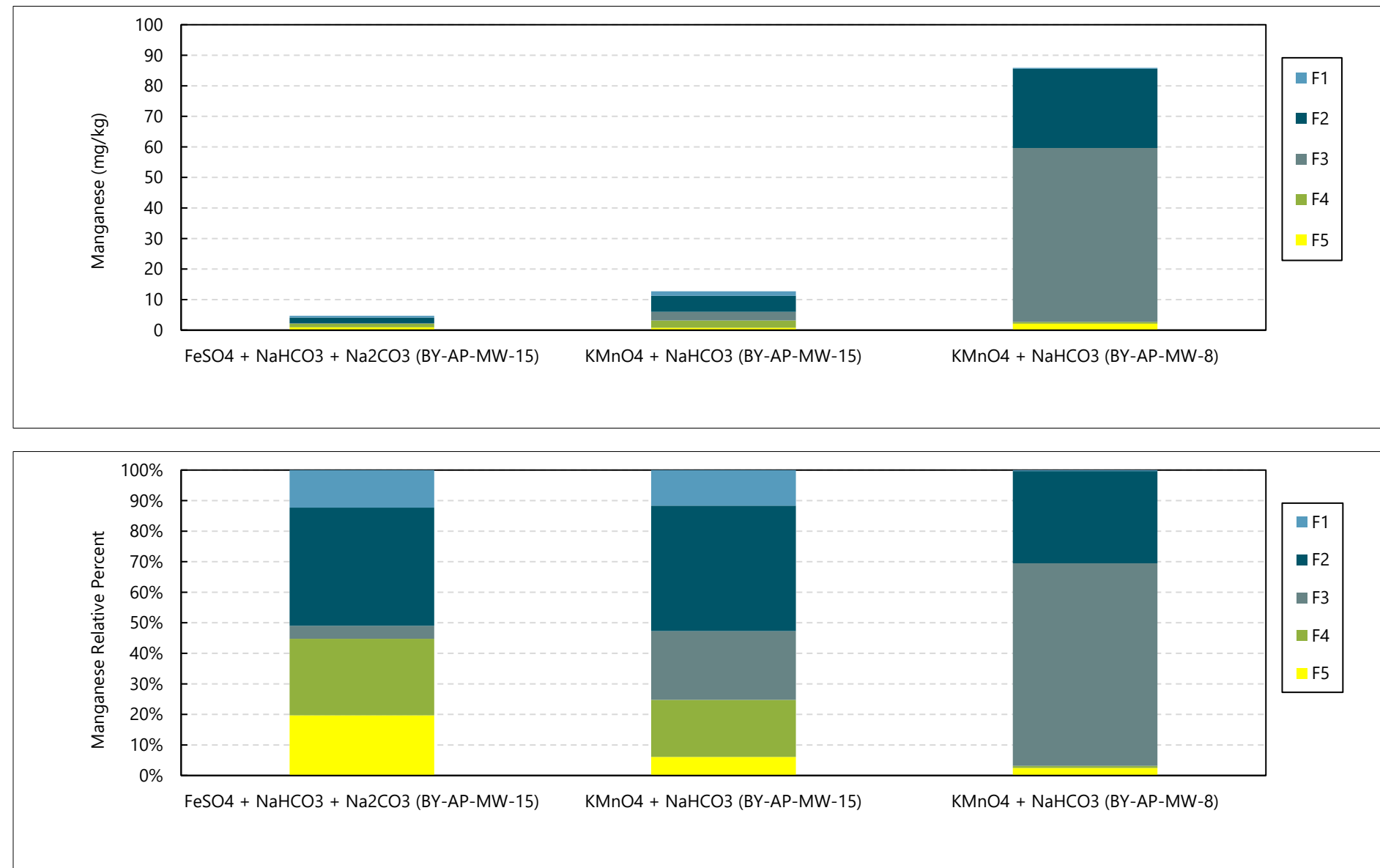
F3: Reducible, e.g., poorly crystalline metal oxides such as iron and manganese oxides (extracted by 0.1 M hydroxylamine/hydrogen chloride adjusted to pH 2 with nitric acid)

F4: Oxidizable, e.g., crystalline oxide and crystalline sulfide minerals (extracted by 16 M nitric acid)

F5: Residual, e.g., relict silicate phases from the aquifer matrix (prepared by U.S. Environmental Protection Agency Method 3050B)

M: molar

mg/kg: milligram per kilogram



Notes:
 KMnO4 + NaHCO3 (BY-AP-MW-15) was tested in duplicate. The average of the two results is shown here.
 F1: Water soluble, weakly sorbed (extracted by 1 M magnesium chloride to pH 7)
 F2: Exchangeable, strongly sorbed, e.g., on clay minerals (extracted by 1 M monosodium phosphate at pH 5)
 F3: Reducible, e.g., poorly crystalline metal oxides such as iron and manganese oxides (extracted by 0.1 M hydroxylamine/hydrogen chloride adjusted to pH 2 with nitric acid)
 F4: Oxidizable, e.g., crystalline oxide and crystalline sulfide minerals (extracted by 16 M nitric acid)
 F5: Residual, e.g., relict silicate phases from the aquifer matrix (prepared by U.S. Environmental Protection Agency Method 3050B)
 M: molar
 mg/kg: milligram per kilogram

Appendix A

Laboratory Analytical Reports



June 03, 2022

Service Request No:K2205825

Masa Kanematsu
Anchor QEA, LLC
6720 SW Macadam Avenue
Suite 125
Portland, OR 97219

Laboratory Results for: Barry

Dear Masa,

Enclosed are the results of the sample(s) submitted to our laboratory May 27, 2022
For your reference, these analyses have been assigned our service request number **K2205825**.

Analyses were performed according to our laboratory's NELAP-approved quality assurance program. The test results meet requirements of the current NELAP standards, where applicable, and except as noted in the laboratory case narrative provided. For a specific list of NELAP-accredited analytes, refer to the certifications section at www.alsglobal.com. All results are intended to be considered in their entirety, and ALS Group USA Corp. dba ALS Environmental (ALS) is not responsible for use of less than the complete report. Results apply only to the items submitted to the laboratory for analysis and individual items (samples) analyzed, as listed in the report.

Please contact me if you have any questions. My extension is 3376. You may also contact me via email at Mark.Harris@alsglobal.com.

Respectfully submitted,

ALS Group USA, Corp. dba ALS Environmental

for Mark Harris
Project Manager

ADDRESS 1317 S. 13th Avenue, Kelso, WA 98626
PHONE +1 360 577 7222 | FAX +1 360 636 1068
ALS Group USA, Corp.
dba ALS Environmental



Narrative Documents

ALS Environmental—Kelso Laboratory
1317 South 13th Avenue, Kelso, WA 98626
Phone (360) 577-7222 Fax (360) 425-9096
www.alsglobal.com



Client: Anchor QEA, LLC
Project: Barry
Sample Matrix: Water

Service Request: K2205825
Date Received: 05/27/2022

CASE NARRATIVE

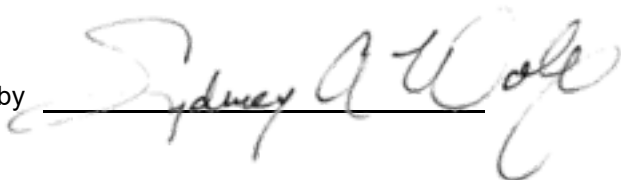
All analyses were performed consistent with the quality assurance program of ALS Environmental. This report contains analytical results for samples for the Tier II level requested by the client.

Sample Receipt:

Seven water samples were received for analysis at ALS Environmental on 05/27/2022. Any discrepancies upon initial sample inspection are annotated on the sample receipt and preservation form included within this report. The samples were stored at minimum in accordance with the analytical method requirements.

Metals:

No significant anomalies were noted with this analysis.

Approved by  Date 06/03/2022



SAMPLE DETECTION SUMMARY

This form includes only detections above the reporting levels. For a full listing of sample results, continue to the Sample Results section of this Report.

CLIENT ID: BY-AP-MW-1	Lab ID: K2205825-001
------------------------------	-----------------------------

Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	46.1		0.09	0.50	ug/L	200.8
Cobalt, Dissolved	0.754		0.009	0.020	ug/L	200.8
Iron, Dissolved	140000		2	10	ug/L	200.8
Manganese, Dissolved	900		0.04	0.20	ug/L	200.8
Arsenic	73.8		0.09	0.50	ug/L	200.8
Cobalt	0.835		0.009	0.020	ug/L	200.8
Iron	149000		2	10	ug/L	200.8
Manganese	908		0.04	0.20	ug/L	200.8

CLIENT ID: BY-AP-MW-8	Lab ID: K2205825-002
------------------------------	-----------------------------

Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	23.1		0.09	0.50	ug/L	200.8
Cobalt, Dissolved	0.563		0.009	0.020	ug/L	200.8
Iron, Dissolved	56100		2	10	ug/L	200.8
Manganese, Dissolved	1720		0.04	0.20	ug/L	200.8
Arsenic	49.1		0.09	0.50	ug/L	200.8
Cobalt	0.599		0.009	0.020	ug/L	200.8
Iron	71200		2	10	ug/L	200.8
Manganese	1760		0.04	0.20	ug/L	200.8

CLIENT ID: BY-AP-MW-10	Lab ID: K2205825-003
-------------------------------	-----------------------------

Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	33.0		0.09	0.50	ug/L	200.8
Cobalt, Dissolved	0.465		0.009	0.020	ug/L	200.8
Iron, Dissolved	52000		2	10	ug/L	200.8
Manganese, Dissolved	1820		0.04	0.20	ug/L	200.8
Arsenic	74.3		0.09	0.50	ug/L	200.8
Cobalt	0.516		0.009	0.020	ug/L	200.8
Iron	66300		2	10	ug/L	200.8
Manganese	1790		0.04	0.20	ug/L	200.8

CLIENT ID: BY-AP-MW-15V	Lab ID: K2205825-004
--------------------------------	-----------------------------

Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	22.6		0.09	0.50	ug/L	200.8
Cobalt, Dissolved	72.8		0.009	0.020	ug/L	200.8
Iron, Dissolved	47200		2	10	ug/L	200.8
Manganese, Dissolved	1040		0.04	0.20	ug/L	200.8
Arsenic	23.2		0.09	0.50	ug/L	200.8
Cobalt	72.8		0.009	0.020	ug/L	200.8
Iron	47400		2	10	ug/L	200.8
Manganese	1040		0.04	0.20	ug/L	200.8



SAMPLE DETECTION SUMMARY

This form includes only detections above the reporting levels. For a full listing of sample results, continue to the Sample Results section of this Report.

CLIENT ID: BY-AP-MW-24H **Lab ID: K2205825-005**

Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	24.0		0.09	0.50	ug/L	200.8
Cobalt, Dissolved	5.05		0.009	0.020	ug/L	200.8
Iron, Dissolved	91900		2	10	ug/L	200.8
Manganese, Dissolved	206		0.04	0.20	ug/L	200.8
Arsenic	68.7		0.09	0.50	ug/L	200.8
Cobalt	5.28		0.009	0.020	ug/L	200.8
Iron	110000		2	10	ug/L	200.8
Manganese	208		0.04	0.20	ug/L	200.8

CLIENT ID: BY-AP-MW-24H-DUP **Lab ID: K2205825-006**

Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	23.9		0.09	0.50	ug/L	200.8
Cobalt, Dissolved	5.21		0.009	0.020	ug/L	200.8
Iron, Dissolved	92700		2	10	ug/L	200.8
Manganese, Dissolved	208		0.04	0.20	ug/L	200.8
Arsenic	69.7		0.09	0.50	ug/L	200.8
Cobalt	5.35		0.009	0.020	ug/L	200.8
Iron	112000		2	10	ug/L	200.8
Manganese	208		0.04	0.20	ug/L	200.8

CLIENT ID: BY-AP-MB **Lab ID: K2205825-007**

Analyte	Results	Flag	MDL	MRL	Units	Method
Iron, Dissolved	2.7		0.3	2.0	ug/L	200.8
Cobalt	0.009	J	0.009	0.020	ug/L	200.8
Iron	42.4		0.3	2.0	ug/L	200.8
Manganese	0.16	J	0.04	0.20	ug/L	200.8



Sample Receipt Information

ALS Environmental—Kelso Laboratory
1317 South 13th Avenue, Kelso, WA 98626
Phone (360) 577-7222 Fax (360) 425-9096
www.alsglobal.com

Client: Anchor QEA, LLC
Project: Barry/201114-01.02 Task 09


Service Request:K2205825

SAMPLE CROSS-REFERENCE

<u>SAMPLE #</u>	<u>CLIENT SAMPLE ID</u>	<u>DATE</u>	<u>TIME</u>
K2205825-001	BY-AP-MW-1	5/26/2022	1020
K2205825-002	BY-AP-MW-8	5/26/2022	1030
K2205825-003	BY-AP-MW-10	5/26/2022	1040
K2205825-004	BY-AP-MW-15V	5/26/2022	1050
K2205825-005	BY-AP-MW-24H	5/26/2022	1100
K2205825-006	BY-AP-MW-24H-DUP	5/26/2022	1101
K2205825-007	BY-AP-MB	5/27/2022	0855

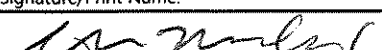
Chain of Custody Record & Laboratory Analysis Request


K 2205825



Laboratory Number: 503-972-5019					No. of Containers	Parameters										 ANCHOR QEA Jessica Goin 6720 SW Macadam Ave Suite 125 Portland OR 97219 Comments/Preservation							
Date:	5/26/2022					Dissolved Metals (As, Co, Fe, Mn)	Total Metals (As, Co, Fe, Mn)																
Project Name:	Barry																						
Project Number:	201114-01.02 Task 09																						
Project Manager:	Masa Kanematsu																						
Phone Number:	503-972-5001 (backup number: 971.334.8193)																						
Shipment Method:	ALS Carrier																						
Line	Field Sample ID	Collection		Matrix	No. of Containers	Dissolved Metals (As, Co, Fe, Mn)	Total Metals (As, Co, Fe, Mn)	Parameters												Comments/Preservation			
		Date	Time																				
1	BY-AP-MW-1	5/26/2022	5/26/22 10:20	Water	2	X	X																
2	BY-AP-MW-8	5/26/2022	5/26/22 10:30	Water	2	X	X																
3	BY-AP-MW-10	5/26/2022	5/26/22 10:40	Water	2	X	X																
4	BY-AP-MW-15V	5/26/2022	5/26/22 10:50	Water	2	X	X																
5	BY-AP-MW-24H	5/26/2022	5/26/22 11:00	Water	2	X	X																
6	BY-AP-MW-24H-DUP	5/26/2022	5/26/22 11:01	Water	2	X	X																
7	BY-AP-MB	5/27/2022	5/27/22 8:55	Water	2	X	X																
8																							
9																							
10																							
11																							
12																							
13																							
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16																							

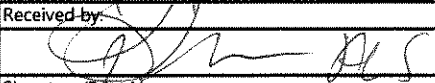
HNO3 preserved. Each sample has one filtered and one unfiltered bottle for dissolved and total metals, respectively. 5 Day TAT on Dissolved metals.

Notes: Please Contact Masa (503-972-5001) if running > 10X dilution

Relinquished by:	Company:
Emma Nordlund	Anchor QEA
Signature/Print Name:	Date/Time:
	5/26 ^{EP} 5/27/22 9:00AM

Received by:

Signature/Print Name:
5/27/22 11:00

Relinquished by:	Company:
 ALS	
Signature/Print Name:	Date/Time:
	5/27/22 1300

Received by:

Signature/Print Name:
ALS - 5/27/22 1300

Distribution: A copy will be made for the laboratory and client. The Project file will retain the original.

Cooler Receipt and Preservation Form

Client Anchovy Service Request K22 05825
Received: 5/27/22 Opened: 5/27/22 By: [Signature] Unloaded: 5/27/22 By: [Signature]

- 1. Samples were received via? USPS Fed Ex UPS DHL PDX Courier Hand Delivered
- 2. Samples were received in: (circle) Cooler Box Envelope Other NA
- 3. Were custody seals on coolers? NA Y N If yes, how many and where? _____
If present, were custody seals intact? Y N If present, were they signed and dated? Y N

Temp Blank	Sample Temp	IR Gun	Cooler #/COC ID / NA	Out of temp indicate with "X"	PM Notified If out of temp	Tracking Number NA	Filed
<u>3.9</u>		<u>IR02</u>					

- 4. Was a Temperature Blank present in cooler? NA Y N If yes, notate the temperature in the appropriate column above:
If no, take the temperature of a representative sample bottle contained within the cooler; notate in the column "Sample Temp":
- 5. Were samples received within the method specified temperature ranges? NA Y N
If no, were they received on ice and same day as collected? If not, notate the cooler # below and notify the PM. NA Y N
- If applicable, tissue samples were received: Frozen Partially Thawed Thawed
- 6. Packing material: Inserts Baggies Bubble Wrap Gel Packs Wet Ice Dry Ice Sleeves _____
- 7. Were custody papers properly filled out (ink, signed, etc.)? NA Y N
- 8. Were samples received in good condition (unbroken) NA Y N
- 9. Were all sample labels complete (ie, analysis, preservation, etc.)? NA Y N
- 10. Did all sample labels and tags agree with custody papers? NA Y N
- 11. Were appropriate bottles/containers and volumes received for the tests indicated? NA Y N
- 12. Were the pH-preserved bottles (see SMO GEN SOP) received at the appropriate pH? Indicate in the table below NA Y N
- 13. Were VOA vials received without headspace? Indicate in the table below. NA Y N
- 14. Was C12/Res negative? NA Y N
- 15. Were 100ml sterile microbiology bottles filled exactly to the 100ml mark? NA Y N Under filled Overfilled

Sample ID on Bottle	Sample ID on COC	Identified by:

Sample ID	Bottle Count	Head-space	Broke	pH	Reagent	Volume added	Reagent Lot Number	Initials	Time

Notes, Discrepancies, Resolutions: _____



Miscellaneous Forms

ALS Environmental—Kelso Laboratory
1317 South 13th Avenue, Kelso, WA 98626
Phone (360) 577-7222 Fax (360) 425-9096
www.alsglobal.com

Inorganic Data Qualifiers

- * The result is an outlier. See case narrative.
- # The control limit criteria is not applicable.
- B The analyte was found in the associated method blank at a level that is significant relative to the sample result as defined by the DOD or NELAC standards.
- E The result is an estimate amount because the value exceeded the instrument calibration range.
- J The result is an estimated value.
- U The analyte was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL.
DOD-QSM 4.2 definition : Analyte was not detected and is reported as less than the LOD or as defined by the project. The detection limit is adjusted for dilution.
- i The MRL/MDL or LOQ/LOD is elevated due to a matrix interference.
- X See case narrative.
- Q See case narrative. One or more quality control criteria was outside the limits.
- H The holding time for this test is immediately following sample collection. The samples were analyzed as soon as possible after receipt by the laboratory.

Metals Data Qualifiers

- # The control limit criteria is not applicable.
- J The result is an estimated value.
- E The percent difference for the serial dilution was greater than 10%, indicating a possible matrix interference in the sample.
- M The duplicate injection precision was not met.
- N The Matrix Spike sample recovery is not within control limits. See case narrative.
- S The reported value was determined by the Method of Standard Additions (MSA).
- U The analyte was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL.
DOD-QSM 4.2 definition : Analyte was not detected and is reported as less than the LOD or as defined by the project. The detection limit is adjusted for dilution.
- W The post-digestion spike for furnace AA analysis is out of control limits, while sample absorbance is less than 50% of spike absorbance.
 - i The MRL/MDL or LOQ/LOD is elevated due to a matrix interference.
- X See case narrative.
- + The correlation coefficient for the MSA is less than 0.995.
- Q See case narrative. One or more quality control criteria was outside the limits.

Organic Data Qualifiers

- * The result is an outlier. See case narrative.
- # The control limit criteria is not applicable. See case narrative.
- A A tentatively identified compound, a suspected aldol-condensation product.
- B The analyte was found in the associated method blank at a level that is significant relative to the sample result as defined by the DOD or NELAC standards.
- C The analyte was qualitatively confirmed using GC/MS techniques, pattern recognition, or by comparing to historical data.
- D The reported result is from a dilution.
- E The result is an estimated value.
- J The result is an estimated value.
- N The result is presumptive. The analyte was tentatively identified, but a confirmation analysis was not performed.
- P The GC or HPLC confirmation criteria was exceeded. The relative percent difference is greater than 40% between the two analytical results.
- U The analyte was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL.
DOD-QSM 4.2 definition : Analyte was not detected and is reported as less than the LOD or as defined by the project. The detection limit is adjusted for dilution.
 - i The MRL/MDL or LOQ/LOD is elevated due to a chromatographic interference.
- X See case narrative.
- Q See case narrative. One or more quality control criteria was outside the limits.

Additional Petroleum Hydrocarbon Specific Qualifiers

- F The chromatographic fingerprint of the sample matches the elution pattern of the calibration standard.
- L The chromatographic fingerprint of the sample resembles a petroleum product, but the elution pattern indicates the presence of a greater amount of lighter molecular weight constituents than the calibration standard.
- H The chromatographic fingerprint of the sample resembles a petroleum product, but the elution pattern indicates the presence of a greater amount of heavier molecular weight constituents than the calibration standard.
- O The chromatographic fingerprint of the sample resembles an oil, but does not match the calibration standard.
- Y The chromatographic fingerprint of the sample resembles a petroleum product eluting in approximately the correct carbon range, but the elution pattern does not match the calibration standard.
- Z The chromatographic fingerprint does not resemble a petroleum product.

**ALS Group USA Corp. dba ALS Environmental (ALS) - Kelso
State Certifications, Accreditations, and Licenses**

Agency	Web Site	Number
Alaska DEH	http://dec.alaska.gov/eh/lab/cs/csapproval.htm	UST-040
Arizona DHS	http://www.azdhs.gov/lab/license/env.htm	AZ0339
Arkansas - DEQ	http://www.adeq.state.ar.us/techsvs/labcert.htm	88-0637
California DHS (ELAP)	http://www.cdph.ca.gov/certlic/labs/Pages/ELAP.aspx	2795
DOD ELAP	http://www.denix.osd.mil/edqw/Accreditation/AccreditedLabs.cfm	L16-58-R4
Florida DOH	http://www.doh.state.fl.us/lab/EnvLabCert/WaterCert.htm	E87412
Hawaii DOH	http://health.hawaii.gov/	-
ISO 17025	http://www.pjllabs.com/	L16-57
Louisiana DEQ	http://www.deq.louisiana.gov/page/la-lab-accreditation	03016
Maine DHS	http://www.maine.gov/dhhs/	WA01276
Minnesota DOH	http://www.health.state.mn.us/accreditation	053-999-457
Nevada DEP	http://ndep.nv.gov/bsdw/labservice.htm	WA01276
New Jersey DEP	http://www.nj.gov/dep/enforcement/oqa.html	WA005
New York - DOH	https://www.wadsworth.org/regulatory/elap	12060
North Carolina DEQ	https://deq.nc.gov/about/divisions/water-resources/water-resources-data/water-sciences-home-page/laboratory-certification-branch/non-field-lab-certification	605
Oklahoma DEQ	http://www.deq.state.ok.us/CSDnew/labcert.htm	9801
Oregon – DEQ (NELAP)	http://public.health.oregon.gov/LaboratoryServices/EnvironmentalLaboratoryAccreditation/Pages/index.aspx	WA100010
South Carolina DHEC	http://www.scdhec.gov/environment/EnvironmentalLabCertification/	61002
Texas CEQ	http://www.tceq.texas.gov/field/qa/env_lab_accreditation.html	T104704427
Washington DOE	http://www.ecy.wa.gov/programs/eap/labs/lab-accreditation.html	C544
Wyoming (EPA Region 8)	https://www.epa.gov/region8-waterops/epa-region-8-certified-drinking-water	-
Kelso Laboratory Website	www.alsglobal.com	NA

Analyses were performed according to our laboratory's NELAP-approved quality assurance program. A complete listing of specific NELAP-certified analytes, can be found in the certification section at www.ALSGlobal.com or at the accreditation bodies web site.

Please refer to the certification and/or accreditation body's web site if samples are submitted for compliance purposes. The states highlighted above, require the analysis be listed on the state certification if used for compliance purposes and if the method/analyte is offered by that state.

Acronyms

ASTM	American Society for Testing and Materials
A2LA	American Association for Laboratory Accreditation
CARB	California Air Resources Board
CAS Number	Chemical Abstract Service registry Number
CFC	Chlorofluorocarbon
CFU	Colony-Forming Unit
DEC	Department of Environmental Conservation
DEQ	Department of Environmental Quality
DHS	Department of Health Services
DOE	Department of Ecology
DOH	Department of Health
EPA	U. S. Environmental Protection Agency
ELAP	Environmental Laboratory Accreditation Program
GC	Gas Chromatography
GC/MS	Gas Chromatography/Mass Spectrometry
LOD	Limit of Detection
LOQ	Limit of Quantitation
LUFT	Leaking Underground Fuel Tank
M	Modified
MCL	Maximum Contaminant Level is the highest permissible concentration of a substance allowed in drinking water as established by the USEPA.
MDL	Method Detection Limit
MPN	Most Probable Number
MRL	Method Reporting Limit
NA	Not Applicable
NC	Not Calculated
NCASI	National Council of the Paper Industry for Air and Stream Improvement
ND	Not Detected
NIOSH	National Institute for Occupational Safety and Health
PQL	Practical Quantitation Limit
RCRA	Resource Conservation and Recovery Act
SIM	Selected Ion Monitoring
TPH	Total Petroleum Hydrocarbons
tr	Trace level is the concentration of an analyte that is less than the PQL but greater than or equal to the MDL.

ALS Group USA, Corp.
dba ALS Environmental

Analyst Summary report

Client: Anchor QEA, LLC
Project: Barry/201114-01.02 Task 09

Service Request: K2205825

Sample Name: BY-AP-MW-1
Lab Code: K2205825-001
Sample Matrix: Water

Date Collected: 05/26/22
Date Received: 05/27/22

Analysis Method
200.8

Extracted/Digested By
SSOLADEY

Analyzed By
EMCALLISTER

Sample Name: BY-AP-MW-1
Lab Code: K2205825-001.R01
Sample Matrix: Water

Date Collected: 05/26/22
Date Received: 05/27/22

Analysis Method
200.8

Extracted/Digested By
SSOLADEY

Analyzed By
EMCALLISTER

Sample Name: BY-AP-MW-8
Lab Code: K2205825-002
Sample Matrix: Water

Date Collected: 05/26/22
Date Received: 05/27/22

Analysis Method
200.8

Extracted/Digested By
SSOLADEY

Analyzed By
EMCALLISTER

Sample Name: BY-AP-MW-8
Lab Code: K2205825-002.R01
Sample Matrix: Water

Date Collected: 05/26/22
Date Received: 05/27/22

Analysis Method
200.8

Extracted/Digested By
SSOLADEY

Analyzed By
EMCALLISTER

Sample Name: BY-AP-MW-10
Lab Code: K2205825-003
Sample Matrix: Water

Date Collected: 05/26/22
Date Received: 05/27/22

Analysis Method
200.8

Extracted/Digested By
SSOLADEY

Analyzed By
EMCALLISTER

ALS Group USA, Corp.
dba ALS Environmental

Analyst Summary report

Client: Anchor QEA, LLC
Project: Barry/201114-01.02 Task 09

Service Request: K2205825

Sample Name: BY-AP-MW-10
Lab Code: K2205825-003.R01
Sample Matrix: Water

Date Collected: 05/26/22
Date Received: 05/27/22

Analysis Method
200.8

Extracted/Digested By
SSOLADEY

Analyzed By
EMCALLISTER

Sample Name: BY-AP-MW-15V
Lab Code: K2205825-004
Sample Matrix: Water

Date Collected: 05/26/22
Date Received: 05/27/22

Analysis Method
200.8

Extracted/Digested By
SSOLADEY

Analyzed By
EMCALLISTER

Sample Name: BY-AP-MW-15V
Lab Code: K2205825-004.R01
Sample Matrix: Water

Date Collected: 05/26/22
Date Received: 05/27/22

Analysis Method
200.8

Extracted/Digested By
SSOLADEY

Analyzed By
EMCALLISTER

Sample Name: BY-AP-MW-24H
Lab Code: K2205825-005
Sample Matrix: Water

Date Collected: 05/26/22
Date Received: 05/27/22

Analysis Method
200.8

Extracted/Digested By
SSOLADEY

Analyzed By
EMCALLISTER

Sample Name: BY-AP-MW-24H
Lab Code: K2205825-005.R01
Sample Matrix: Water

Date Collected: 05/26/22
Date Received: 05/27/22

Analysis Method
200.8

Extracted/Digested By
SSOLADEY

Analyzed By
EMCALLISTER

ALS Group USA, Corp.
dba ALS Environmental

Analyst Summary report

Client: Anchor QEA, LLC
Project: Barry/201114-01.02 Task 09

Service Request: K2205825

Sample Name: BY-AP-MW-24H-DUP
Lab Code: K2205825-006
Sample Matrix: Water

Date Collected: 05/26/22
Date Received: 05/27/22

Analysis Method
200.8

Extracted/Digested By
SSOLADEY

Analyzed By
EMCALLISTER

Sample Name: BY-AP-MW-24H-DUP
Lab Code: K2205825-006.R01
Sample Matrix: Water

Date Collected: 05/26/22
Date Received: 05/27/22

Analysis Method
200.8

Extracted/Digested By
SSOLADEY

Analyzed By
EMCALLISTER

Sample Name: BY-AP-MB
Lab Code: K2205825-007
Sample Matrix: Water

Date Collected: 05/27/22
Date Received: 05/27/22

Analysis Method
200.8

Extracted/Digested By
SSOLADEY

Analyzed By
EMCALLISTER



Sample Results

ALS Environmental—Kelso Laboratory
1317 South 13th Avenue, Kelso, WA 98626
Phone (360) 577-7222 Fax (360) 425-9096
www.alsglobal.com



Metals

ALS Environmental—Kelso Laboratory
1317 South 13th Avenue, Kelso, WA 98626
Phone (360) 577-7222 Fax (360) 425-9096
www.alsglobal.com

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Analytical Report

Client: Anchor QEA, LLC
Project: Barry/201114-01.02 Task 09
Sample Matrix: Water
Sample Name: BY-AP-MW-1
Lab Code: K2205825-001

Service Request: K2205825
Date Collected: 05/26/22 10:20
Date Received: 05/27/22 13:00
Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	46.1	ug/L	0.50	0.09	1	06/01/22 18:21	05/31/22	
Cobalt	200.8	0.754	ug/L	0.020	0.009	1	06/01/22 18:21	05/31/22	
Iron	200.8	140000	ug/L	10	2	5	06/02/22 15:24	05/31/22	
Manganese	200.8	900	ug/L	0.20	0.04	1	06/01/22 18:21	05/31/22	

ALS Group USA, Corp.
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Analytical Report

Client: Anchor QEA, LLC
Project: Barry/201114-01.02 Task 09
Sample Matrix: Water
Sample Name: BY-AP-MW-1
Lab Code: K2205825-001

Service Request: K2205825
Date Collected: 05/26/22 10:20
Date Received: 05/27/22 13:00
Basis: NA

Total Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	73.8	ug/L	0.50	0.09	1	06/01/22 18:05	05/31/22	
Cobalt	200.8	0.835	ug/L	0.020	0.009	1	06/01/22 18:05	05/31/22	
Iron	200.8	149000	ug/L	10	2	5	06/02/22 15:16	05/31/22	
Manganese	200.8	908	ug/L	0.20	0.04	1	06/01/22 18:05	05/31/22	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Anchor QEA, LLC
Project: Barry/201114-01.02 Task 09
Sample Matrix: Water
Sample Name: BY-AP-MW-8
Lab Code: K2205825-002

Service Request: K2205825
Date Collected: 05/26/22 10:30
Date Received: 05/27/22 13:00
Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	23.1	ug/L	0.50	0.09	1	06/01/22 18:30	05/31/22	
Cobalt	200.8	0.563	ug/L	0.020	0.009	1	06/01/22 18:30	05/31/22	
Iron	200.8	56100	ug/L	10	2	5	06/02/22 15:25	05/31/22	
Manganese	200.8	1720	ug/L	0.20	0.04	1	06/01/22 18:30	05/31/22	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Anchor QEA, LLC
Project: Barry/201114-01.02 Task 09
Sample Matrix: Water
Sample Name: BY-AP-MW-8
Lab Code: K2205825-002

Service Request: K2205825
Date Collected: 05/26/22 10:30
Date Received: 05/27/22 13:00
Basis: NA

Total Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	49.1	ug/L	0.50	0.09	1	06/01/22 18:07	05/31/22	
Cobalt	200.8	0.599	ug/L	0.020	0.009	1	06/01/22 18:07	05/31/22	
Iron	200.8	71200	ug/L	10	2	5	06/02/22 15:17	05/31/22	
Manganese	200.8	1760	ug/L	0.20	0.04	1	06/01/22 18:07	05/31/22	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Anchor QEA, LLC
Project: Barry/201114-01.02 Task 09
Sample Matrix: Water
Sample Name: BY-AP-MW-10
Lab Code: K2205825-003

Service Request: K2205825
Date Collected: 05/26/22 10:40
Date Received: 05/27/22 13:00
Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	33.0	ug/L	0.50	0.09	1	06/01/22 18:32	05/31/22	
Cobalt	200.8	0.465	ug/L	0.020	0.009	1	06/01/22 18:32	05/31/22	
Iron	200.8	52000	ug/L	10	2	5	06/02/22 15:26	05/31/22	
Manganese	200.8	1820	ug/L	0.20	0.04	1	06/01/22 18:32	05/31/22	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Anchor QEA, LLC
Project: Barry/201114-01.02 Task 09
Sample Matrix: Water
Sample Name: BY-AP-MW-10
Lab Code: K2205825-003

Service Request: K2205825
Date Collected: 05/26/22 10:40
Date Received: 05/27/22 13:00
Basis: NA

Total Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	74.3	ug/L	0.50	0.09	1	06/01/22 18:09	05/31/22	
Cobalt	200.8	0.516	ug/L	0.020	0.009	1	06/01/22 18:09	05/31/22	
Iron	200.8	66300	ug/L	10	2	5	06/02/22 15:18	05/31/22	
Manganese	200.8	1790	ug/L	0.20	0.04	1	06/01/22 18:09	05/31/22	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Anchor QEA, LLC
Project: Barry/201114-01.02 Task 09
Sample Matrix: Water
Sample Name: BY-AP-MW-15V
Lab Code: K2205825-004

Service Request: K2205825
Date Collected: 05/26/22 10:50
Date Received: 05/27/22 13:00
Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	22.6	ug/L	0.50	0.09	1	06/01/22 18:34	05/31/22	
Cobalt	200.8	72.8	ug/L	0.020	0.009	1	06/01/22 18:34	05/31/22	
Iron	200.8	47200	ug/L	10	2	5	06/02/22 15:27	05/31/22	
Manganese	200.8	1040	ug/L	0.20	0.04	1	06/01/22 18:34	05/31/22	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Anchor QEA, LLC
Project: Barry/201114-01.02 Task 09
Sample Matrix: Water
Sample Name: BY-AP-MW-15V
Lab Code: K2205825-004

Service Request: K2205825
Date Collected: 05/26/22 10:50
Date Received: 05/27/22 13:00
Basis: NA

Total Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	23.2	ug/L	0.50	0.09	1	06/01/22 18:11	05/31/22	
Cobalt	200.8	72.8	ug/L	0.020	0.009	1	06/01/22 18:11	05/31/22	
Iron	200.8	47400	ug/L	10	2	5	06/02/22 15:20	05/31/22	
Manganese	200.8	1040	ug/L	0.20	0.04	1	06/01/22 18:11	05/31/22	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Anchor QEA, LLC
Project: Barry/201114-01.02 Task 09
Sample Matrix: Water
Sample Name: BY-AP-MW-24H
Lab Code: K2205825-005

Service Request: K2205825
Date Collected: 05/26/22 11:00
Date Received: 05/27/22 13:00
Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	24.0	ug/L	0.50	0.09	1	06/01/22 18:37	05/31/22	
Cobalt	200.8	5.05	ug/L	0.020	0.009	1	06/01/22 18:37	05/31/22	
Iron	200.8	91900	ug/L	10	2	5	06/02/22 15:31	05/31/22	
Manganese	200.8	206	ug/L	0.20	0.04	1	06/01/22 18:37	05/31/22	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Anchor QEA, LLC
Project: Barry/201114-01.02 Task 09
Sample Matrix: Water
Sample Name: BY-AP-MW-24H
Lab Code: K2205825-005

Service Request: K2205825
Date Collected: 05/26/22 11:00
Date Received: 05/27/22 13:00

Basis: NA

Total Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	68.7	ug/L	0.50	0.09	1	06/01/22 18:14	05/31/22	
Cobalt	200.8	5.28	ug/L	0.020	0.009	1	06/01/22 18:14	05/31/22	
Iron	200.8	110000	ug/L	10	2	5	06/02/22 15:21	05/31/22	
Manganese	200.8	208	ug/L	0.20	0.04	1	06/01/22 18:14	05/31/22	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Anchor QEA, LLC
Project: Barry/201114-01.02 Task 09
Sample Matrix: Water
Sample Name: BY-AP-MW-24H-DUP
Lab Code: K2205825-006

Service Request: K2205825
Date Collected: 05/26/22 11:01
Date Received: 05/27/22 13:00
Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	23.9	ug/L	0.50	0.09	1	06/01/22 18:39	05/31/22	
Cobalt	200.8	5.21	ug/L	0.020	0.009	1	06/01/22 18:39	05/31/22	
Iron	200.8	92700	ug/L	10	2	5	06/02/22 15:33	05/31/22	
Manganese	200.8	208	ug/L	0.20	0.04	1	06/01/22 18:39	05/31/22	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Anchor QEA, LLC
Project: Barry/201114-01.02 Task 09
Sample Matrix: Water
Sample Name: BY-AP-MW-24H-DUP
Lab Code: K2205825-006

Service Request: K2205825
Date Collected: 05/26/22 11:01
Date Received: 05/27/22 13:00
Basis: NA

Total Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	69.7	ug/L	0.50	0.09	1	06/01/22 18:16	05/31/22	
Cobalt	200.8	5.35	ug/L	0.020	0.009	1	06/01/22 18:16	05/31/22	
Iron	200.8	112000	ug/L	10	2	5	06/02/22 15:22	05/31/22	
Manganese	200.8	208	ug/L	0.20	0.04	1	06/01/22 18:16	05/31/22	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Anchor QEA, LLC
Project: Barry/201114-01.02 Task 09
Sample Matrix: Water
Sample Name: BY-AP-MB
Lab Code: K2205825-007

Service Request: K2205825
Date Collected: 05/27/22 08:55
Date Received: 05/27/22 13:00

Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	ND U	ug/L	0.50	0.09	1	06/01/22 18:41	05/31/22	
Cobalt	200.8	ND U	ug/L	0.020	0.009	1	06/01/22 18:41	05/31/22	
Iron	200.8	2.7	ug/L	2.0	0.3	1	06/01/22 18:41	05/31/22	
Manganese	200.8	ND U	ug/L	0.20	0.04	1	06/01/22 18:41	05/31/22	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Anchor QEA, LLC
Project: Barry/201114-01.02 Task 09
Sample Matrix: Water
Sample Name: BY-AP-MB
Lab Code: K2205825-007

Service Request: K2205825
Date Collected: 05/27/22 08:55
Date Received: 05/27/22 13:00
Basis: NA

Total Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	ND U	ug/L	0.50	0.09	1	06/01/22 18:18	05/31/22	
Cobalt	200.8	0.009 J	ug/L	0.020	0.009	1	06/01/22 18:18	05/31/22	
Iron	200.8	42.4	ug/L	2.0	0.3	1	06/01/22 18:18	05/31/22	
Manganese	200.8	0.16 J	ug/L	0.20	0.04	1	06/01/22 18:18	05/31/22	



QC Summary Forms

ALS Environmental—Kelso Laboratory
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Metals

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ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Anchor QEA, LLC
Project: Barry/201114-01.02 Task 09
Sample Matrix: Water
Sample Name: Method Blank
Lab Code: KQ2208952-01

Service Request: K2205825
Date Collected: NA
Date Received: NA
Basis: NA

Total Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	ND U	ug/L	0.50	0.09	1	06/01/22 17:22	05/31/22	
Cobalt	200.8	ND U	ug/L	0.020	0.009	1	06/01/22 17:22	05/31/22	
Iron	200.8	0.6 J	ug/L	2.0	0.3	1	06/01/22 17:22	05/31/22	
Manganese	200.8	ND U	ug/L	0.20	0.04	1	06/01/22 17:22	05/31/22	

ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client: Anchor QEA, LLC
Project: Barry/201114-01.02 Task 09
Sample Matrix: Water

Service Request: K2205825
Date Analyzed: 06/01/22

Lab Control Sample Summary
Total Metals

Units:ug/L
Basis:NA

Lab Control Sample
KQ2208952-02

Analyte Name	Analytical Method	Result	Spike Amount	% Rec	% Rec Limits
Arsenic	200.8	50.7	50.0	101	85-115
Cobalt	200.8	25.5	25.0	102	85-115
Iron	200.8	51.0	50.0	102	85-115
Manganese	200.8	25.6	25.0	103	85-115



November 18, 2022

Service Request No:K2213120

Masa Kanematsu
Anchor QEA, LLC
6720 SW Macadam Avenue
Suite 125
Portland, OR 97219

Laboratory Results for: Barry

Dear Masa,

Enclosed are the results of the sample(s) submitted to our laboratory November 07, 2022
For your reference, these analyses have been assigned our service request number **K2213120**.

Analyses were performed according to our laboratory's NELAP-approved quality assurance program. The test results meet requirements of the current NELAP standards, where applicable, and except as noted in the laboratory case narrative provided. For a specific list of NELAP-accredited analytes, refer to the certifications section at www.alsglobal.com. All results are intended to be considered in their entirety, and ALS Group USA Corp. dba ALS Environmental (ALS) is not responsible for use of less than the complete report. Results apply only to the items submitted to the laboratory for analysis and individual items (samples) analyzed, as listed in the report.

Please contact me if you have any questions. My extension is 3376. You may also contact me via email at Mark.Harris@alsglobal.com.

Respectfully submitted,

ALS Group USA, Corp. dba ALS Environmental

Mark Harris
Project Manager

ADDRESS 1317 S. 13th Avenue, Kelso, WA 98626
PHONE +1 360 577 7222 | FAX +1 360 636 1068
ALS Group USA, Corp.
dba ALS Environmental



Narrative Documents

ALS Environmental—Kelso Laboratory
1317 South 13th Avenue, Kelso, WA 98626
Phone (360) 577-7222 Fax (360) 425-9096
www.alsglobal.com



Client: Anchor QEA, LLC
Project: Barry
Sample Matrix: Water

Service Request: K2213120
Date Received: 11/07/2022

CASE NARRATIVE

All analyses were performed consistent with the quality assurance program of ALS Environmental. This report contains analytical results for samples for the Tier II level requested by the client.

Sample Receipt:

Eight water samples were received for analysis at ALS Environmental on 11/07/2022. Any discrepancies upon initial sample inspection are annotated on the sample receipt and preservation form included within this report. The samples were stored at minimum in accordance with the analytical method requirements.

Metals:

No significant anomalies were noted with this analysis.

Approved by _____

Date 11/18/2022



SAMPLE DETECTION SUMMARY

This form includes only detections above the reporting levels. For a full listing of sample results, continue to the Sample Results section of this Report.

CLIENT ID: BY-AP-MW-1-20221104	Lab ID: K2213120-001
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Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic	68.1		0.09	0.50	ug/L	200.8
Arsenic, Dissolved	42.0		0.09	0.50	ug/L	200.8
Cobalt	0.969		0.009	0.020	ug/L	200.8
Cobalt, Dissolved	0.843		0.009	0.020	ug/L	200.8
Iron	130000		6	40	ug/L	200.8
Iron, Dissolved	120000		6	40	ug/L	200.8
Manganese	831		0.04	0.20	ug/L	200.8
Manganese, Dissolved	837		0.04	0.20	ug/L	200.8

CLIENT ID: BY-AP-MW-8-20221104	Lab ID: K2213120-002
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Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic	42.9		0.09	0.50	ug/L	200.8
Arsenic, Dissolved	39.3		0.09	0.50	ug/L	200.8
Cobalt	0.565		0.009	0.020	ug/L	200.8
Cobalt, Dissolved	0.556		0.009	0.020	ug/L	200.8
Iron	79600		6	40	ug/L	200.8
Iron, Dissolved	71300		6	40	ug/L	200.8
Manganese	1820		0.04	0.20	ug/L	200.8
Manganese, Dissolved	1810		0.04	0.20	ug/L	200.8

CLIENT ID: BY-AP-MW-10-20221104	Lab ID: K2213120-003
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Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic	72.6		0.09	0.50	ug/L	200.8
Arsenic, Dissolved	55.2		0.09	0.50	ug/L	200.8
Cobalt	0.546		0.009	0.020	ug/L	200.8
Cobalt, Dissolved	0.543		0.009	0.020	ug/L	200.8
Iron	62100		6	40	ug/L	200.8
Iron, Dissolved	56000		6	40	ug/L	200.8
Manganese	1540		0.04	0.20	ug/L	200.8
Manganese, Dissolved	1520		0.04	0.20	ug/L	200.8

CLIENT ID: BY-AP-MW-15V-20221104	Lab ID: K2213120-004
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Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic	33.2		0.09	0.50	ug/L	200.8
Arsenic, Dissolved	33.6		0.09	0.50	ug/L	200.8
Cobalt	72.7		0.009	0.020	ug/L	200.8
Cobalt, Dissolved	73.8		0.009	0.020	ug/L	200.8
Iron	46600		6	40	ug/L	200.8
Iron, Dissolved	46300		6	40	ug/L	200.8
Manganese	1010		0.04	0.20	ug/L	200.8
Manganese, Dissolved	1030		0.04	0.20	ug/L	200.8



SAMPLE DETECTION SUMMARY

This form includes only detections above the reporting levels. For a full listing of sample results, continue to the Sample Results section of this Report.

CLIENT ID: BY-AP-MW-24H-20221104	Lab ID: K2213120-005
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Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic	71.6		0.09	0.50	ug/L	200.8
Arsenic, Dissolved	43.2		0.09	0.50	ug/L	200.8
Cobalt	5.68		0.009	0.020	ug/L	200.8
Cobalt, Dissolved	5.49		0.009	0.020	ug/L	200.8
Iron	104000		6	40	ug/L	200.8
Iron, Dissolved	97100		6	40	ug/L	200.8
Manganese	207		0.04	0.20	ug/L	200.8
Manganese, Dissolved	209		0.04	0.20	ug/L	200.8

CLIENT ID: BY-AP-MW-24H-DUP-20221104	Lab ID: K2213120-006
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Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic	71.7		0.09	0.50	ug/L	200.8
Arsenic, Dissolved	44.1		0.09	0.50	ug/L	200.8
Cobalt	5.65		0.009	0.020	ug/L	200.8
Cobalt, Dissolved	5.60		0.009	0.020	ug/L	200.8
Iron	108000		6	40	ug/L	200.8
Iron, Dissolved	98500		6	40	ug/L	200.8
Manganese	211		0.04	0.20	ug/L	200.8
Manganese, Dissolved	214		0.04	0.20	ug/L	200.8

CLIENT ID: BY-AP-MW-2-20221104	Lab ID: K2213120-008
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Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic	1.40		0.09	0.50	ug/L	200.8
Arsenic, Dissolved	1.44		0.09	0.50	ug/L	200.8
Cobalt	4.77		0.009	0.020	ug/L	200.8
Cobalt, Dissolved	4.81		0.009	0.020	ug/L	200.8
Iron	254		0.3	2.0	ug/L	200.8
Iron, Dissolved	249		0.3	2.0	ug/L	200.8
Manganese	223		0.04	0.20	ug/L	200.8
Manganese, Dissolved	222		0.04	0.20	ug/L	200.8

CLIENT ID: BY-AP-MB-20221104	Lab ID: K2213120-007
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Analyte	Results	Flag	MDL	MRL	Units	Method
Iron	0.9	J	0.3	2.0	ug/L	200.8
Iron, Dissolved	0.5	J	0.3	2.0	ug/L	200.8
Manganese	0.14	J	0.04	0.20	ug/L	200.8



Sample Receipt Information

ALS Environmental—Kelso Laboratory
1317 South 13th Avenue, Kelso, WA 98626
Phone (360) 577-7222 Fax (360) 425-9096
www.alsglobal.com

Client: Anchor QEA, LLC
Project: Barry/221114-08.01 Task 04


Service Request:K2213120

SAMPLE CROSS-REFERENCE

<u>SAMPLE #</u>	<u>CLIENT SAMPLE ID</u>	<u>DATE</u>	<u>TIME</u>
K2213120-001	BY-AP-MW-1-20221104	11/4/2022	1300
K2213120-002	BY-AP-MW-8-20221104	11/4/2022	1305
K2213120-003	BY-AP-MW-10-20221104	11/4/2022	1310
K2213120-004	BY-AP-MW-15V-20221104	11/4/2022	1315
K2213120-005	BY-AP-MW-24H-20221104	11/4/2022	1320
K2213120-006	BY-AP-MW-24H-DUP-20221104	11/4/2022	1321
K2213120-007	BY-AP-MB-20221104	11/4/2022	1325
K2213120-008	BY-AP-MW-2-20221104	11/4/2022	1330

42213120

Chain of Custody Record & Laboratory Analysis Request

Laboratory Number: 503-972-5019					Parameters													 Jessica Goin 6720 SW Macadam Ave Suite 125 Portland OR 97219								
Date:	11/7/2022				No. of Containers	Dissolved Metals (As, Co, Fe, Mn)	Total Metals (As, Co, Fe, Mn)																			
Project Name:	Barry																									
Project Number:	221114-08.01 Task 04																									
Project Manager:	Masa Kanematsu																									
Phone Number:	503-972-5001 (backup number: 971.334.8193)																									
Shipment Method:	ALS Carrier																									
Line	Field Sample ID	Collection		Matrix																						
		Date	Time																							
1	BY-AP-MW-1-20221104	11/4/2022	13:00	Water	2	X	X																			
2	BY-AP-MW-8-20221104	11/4/2022	13:05	Water	2	X	X																			
3	BY-AP-MW-10-20221104	11/4/2022	13:10	Water	2	X	X																			
4	BY-AP-MW-15V-20221104	11/4/2022	13:15	Water	2	X	X																			
5	BY-AP-MW-24H-20221104	11/4/2022	13:20	Water	2	X	X																			
6	BY-AP-MW-24H-DUP-20221104	11/4/2022	13:21	Water	2	X	X																			
7	BY-AP-MB-20221104	11/4/2022	13:25	Water	2	X	X																			
8	BY-AP-MW-2-20221104	11/4/2022	13:30	Water	2	X	X																			
9																										
10																										
11																										
12																										
13																										
14																										
15																										
16																										

HNO3 preserved. Each sample has one filtered and one unfiltered bottle for dissolved and total metals, respectively.

Notes: Please Contact Masa (503-972-5001) if running > 10X dilution

Relinquished by:	Company:
Emma Nordlund	Anchor QEA
Signature/Print Name:	Date/Time:
<i>Emma Nordlund</i>	09:25 11/7/22

Received by:
<i>Greg Rich</i>
Signature/Print Name:
<i>Greg Rich</i>

Relinquished by:	Company:
<i>Greg Rich</i>	ALS
Signature/Print Name:	Date/Time:
<i>Greg Rich</i>	11/7/22 0100

Received by:
<i>Masa Kanematsu</i>
Signature/Print Name:
<i>Masa Kanematsu</i>

Distribution: A copy will be made for the laboratory and client. The Project file will retain the original.

Cooler Receipt and Preservation Form

Client ANCHOR Service Request K22 13120
 Received: 11/7/22 Opened: 11/7/22 By: VM Unloaded: 11/7/22 By: VM

1. Samples were received via? USPS Fed Ex UPS DHL PDX Courier Hand Delivered
 2. Samples were received in: (circle) Cooler Box Envelope Other NA
 3. Were custody seals on coolers? NA Y N If yes, how many and where? _____
 If present, were custody seals intact? Y N If present, were they signed and dated? Y N

Temp Blank	Sample Temp	IR Gun	Cooler #/COC ID / NA	Out of temp indicate with "X"	PM Notified If out of temp	Tracking Number NA	Filed
<u>5.4</u>		<u>IR01</u>					

4. Was a Temperature Blank present in cooler? NA Y N If yes, notate the temperature in the appropriate column above:
 If no, take the temperature of a representative sample bottle contained within the cooler; notate in the column "Sample Temp":
 5. Were samples received within the method specified temperature ranges? NA Y N
 If no, were they received on ice and same day as collected? If not, notate the cooler # below and notify the PM. NA Y N

If applicable, tissue samples were received: Frozen Partially Thawed Thawed

6. Packing material: Inserts Baggies Bubble Wrap Gel Packs Wet Ice Dry Ice Sleeves _____
 7. Were custody papers properly filled out (ink, signed, etc.)? NA Y N
 8. Were samples received in good condition (unbroken) NA Y N
 9. Were all sample labels complete (ie, analysis, preservation, etc.)? NA Y N
 10. Did all sample labels and tags agree with custody papers? NA Y N
 11. Were appropriate bottles/containers and volumes received for the tests indicated? NA Y N
 12. Were the pH-preserved bottles (see SMO GEN SOP) received at the appropriate pH? Indicate in the table below NA Y N
 13. Were VOA vials received without headspace? Indicate in the table below. NA Y N
 14. Was C12/Res negative? NA Y N
 15. Were 100ml sterile microbiology bottles filled exactly to the 100ml mark? NA Y N Under filled Overfilled

Sample ID on Bottle	Sample ID on COC	Identified by:

Sample ID	Bottle Count	Bottle Type	Head-space	Broke	pH	Reagent	Volume added	Reagent Lot Number	Initials	Time
<u>APC-GSD-AP-MW-2VA-20221103</u>	<u>1</u>	<u>2.5ml plastic</u>	<u>NA</u>	<u>NA</u>	<u>X</u>	<u>HNO3</u>	<u>0.5ml</u>	<u>REI-62-0</u>	<u>VM</u>	<u>1430</u>
<u>BY-AP-MW-B-20221104</u>	<u>"</u>	<u>"</u>			<u>X</u>	<u>HNO3</u>	<u>0.5ml</u>	<u>REI-62-0</u>	<u>VM</u>	<u>1430</u>
<u>BY-AP-MW-10-20221104</u>	<u>"</u>	<u>"</u>			<u>X</u>	<u>HNO3</u>	<u>0.5ml</u>	<u>REI-62-0</u>	<u>VM</u>	<u>1430</u>
<u>BY-AP-MW-24H-DUP-20221104</u>	<u>"</u>	<u>"</u>			<u>X</u>	<u>HNO3</u>	<u>0.5ml</u>	<u>REI-62-0</u>	<u>VM</u>	<u>1430</u>

Notes, Discrepancies, Resolutions: _____



Cooler Receipt and Preservation Form

Client ANCHOR

Service Request K22

Temp Blank	Sample Temp	IR Gun	Cooler #/COC ID / NA	Out of temp indicate with 'X'	PM Notified If out of temp	Tracking Number NA	Filed

Sample ID on Bottle	Sample ID on COC	Identified by:

Sample ID	Bottle Count Bottle Type	Out of Temp	Head-space	Broke	pH	Reagent	Volume added	Reagent Lot Number	Initials	Time
BY-AP-MW-24H-20221104	125ML PLASTIC				X	HNO3	0.5ML	REI-62-0	JU	1430
BY-AP-MW-1-20221104	125ML PLASTIC				X	HNO3	0.5ML	REI-62-0	JU	1430

Notes, Discrepancies & Resolutions: SAMPLES "BY-AP-MW-24H-20221104" AND "BY-AP-MW-1-20221104" STILL DID NOT PH PROPERLY AFTER 1.5ML OF HNO3 WAS ADDED



Miscellaneous Forms

ALS Environmental—Kelso Laboratory
1317 South 13th Avenue, Kelso, WA 98626
Phone (360) 577-7222 Fax (360) 425-9096
www.alsglobal.com

Inorganic Data Qualifiers

- * The result is an outlier. See case narrative.
- # The control limit criteria is not applicable.
- B The analyte was found in the associated method blank at a level that is significant relative to the sample result as defined by the DOD or NELAC standards.
- E The result is an estimate amount because the value exceeded the instrument calibration range.
- J The result is an estimated value.
- U The analyte was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL.
DOD-QSM 4.2 definition : Analyte was not detected and is reported as less than the LOD or as defined by the project. The detection limit is adjusted for dilution.
- i The MRL/MDL or LOQ/LOD is elevated due to a matrix interference.
- X See case narrative.
- Q See case narrative. One or more quality control criteria was outside the limits.
- H The holding time for this test is immediately following sample collection. The samples were analyzed as soon as possible after receipt by the laboratory.

Metals Data Qualifiers

- # The control limit criteria is not applicable.
- J The result is an estimated value.
- E The percent difference for the serial dilution was greater than 10%, indicating a possible matrix interference in the sample.
- M The duplicate injection precision was not met.
- N The Matrix Spike sample recovery is not within control limits. See case narrative.
- S The reported value was determined by the Method of Standard Additions (MSA).
- U The analyte was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL.
DOD-QSM 4.2 definition : Analyte was not detected and is reported as less than the LOD or as defined by the project. The detection limit is adjusted for dilution.
- W The post-digestion spike for furnace AA analysis is out of control limits, while sample absorbance is less than 50% of spike absorbance.
 - i The MRL/MDL or LOQ/LOD is elevated due to a matrix interference.
- X See case narrative.
- + The correlation coefficient for the MSA is less than 0.995.
- Q See case narrative. One or more quality control criteria was outside the limits.

Organic Data Qualifiers

- * The result is an outlier. See case narrative.
- # The control limit criteria is not applicable. See case narrative.
- A A tentatively identified compound, a suspected aldol-condensation product.
- B The analyte was found in the associated method blank at a level that is significant relative to the sample result as defined by the DOD or NELAC standards.
- C The analyte was qualitatively confirmed using GC/MS techniques, pattern recognition, or by comparing to historical data.
- D The reported result is from a dilution.
- E The result is an estimated value.
- J The result is an estimated value.
- N The result is presumptive. The analyte was tentatively identified, but a confirmation analysis was not performed.
- P The GC or HPLC confirmation criteria was exceeded. The relative percent difference is greater than 40% between the two analytical results.
- U The analyte was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL.
DOD-QSM 4.2 definition : Analyte was not detected and is reported as less than the LOD or as defined by the project. The detection limit is adjusted for dilution.
 - i The MRL/MDL or LOQ/LOD is elevated due to a chromatographic interference.
- X See case narrative.
- Q See case narrative. One or more quality control criteria was outside the limits.

Additional Petroleum Hydrocarbon Specific Qualifiers

- F The chromatographic fingerprint of the sample matches the elution pattern of the calibration standard.
- L The chromatographic fingerprint of the sample resembles a petroleum product, but the elution pattern indicates the presence of a greater amount of lighter molecular weight constituents than the calibration standard.
- H The chromatographic fingerprint of the sample resembles a petroleum product, but the elution pattern indicates the presence of a greater amount of heavier molecular weight constituents than the calibration standard.
- O The chromatographic fingerprint of the sample resembles an oil, but does not match the calibration standard.
- Y The chromatographic fingerprint of the sample resembles a petroleum product eluting in approximately the correct carbon range, but the elution pattern does not match the calibration standard.
- Z The chromatographic fingerprint does not resemble a petroleum product.

**ALS Group USA Corp. dba ALS Environmental (ALS) - Kelso
State Certifications, Accreditations, and Licenses**

Agency	Web Site	Number
Alaska DEH	http://dec.alaska.gov/eh/lab/cs/csapproval.htm	UST-040
Arizona DHS	http://www.azdhs.gov/lab/license/env.htm	AZ0339
Arkansas - DEQ	http://www.adeq.state.ar.us/techsvs/labcert.htm	88-0637
California DHS (ELAP)	http://www.cdph.ca.gov/certlic/labs/Pages/ELAP.aspx	2795
DOD ELAP	http://www.denix.osd.mil/edqw/Accreditation/AccreditedLabs.cfm	L16-58-R4
Florida DOH	http://www.doh.state.fl.us/lab/EnvLabCert/WaterCert.htm	E87412
Hawaii DOH	http://health.hawaii.gov/	-
ISO 17025	http://www.pjllabs.com/	L16-57
Louisiana DEQ	http://www.deq.louisiana.gov/page/la-lab-accreditation	03016
Maine DHS	http://www.maine.gov/dhhs/	WA01276
Minnesota DOH	http://www.health.state.mn.us/accreditation	053-999-457
Nevada DEP	http://ndep.nv.gov/bsdw/labservice.htm	WA01276
New Jersey DEP	http://www.nj.gov/dep/enforcement/oqa.html	WA005
New York - DOH	https://www.wadsworth.org/regulatory/elap	12060
North Carolina DEQ	https://deq.nc.gov/about/divisions/water-resources/water-resources-data/water-sciences-home-page/laboratory-certification-branch/non-field-lab-certification	605
Oklahoma DEQ	http://www.deq.state.ok.us/CSDnew/labcert.htm	9801
Oregon – DEQ (NELAP)	http://public.health.oregon.gov/LaboratoryServices/EnvironmentalLaboratoryAccreditation/Pages/index.aspx	WA100010
South Carolina DHEC	http://www.scdhec.gov/environment/EnvironmentalLabCertification/	61002
Texas CEQ	http://www.tceq.texas.gov/field/qa/env_lab_accreditation.html	T104704427
Washington DOE	http://www.ecy.wa.gov/programs/eap/labs/lab-accreditation.html	C544
Wyoming (EPA Region 8)	https://www.epa.gov/region8-waterops/epa-region-8-certified-drinking-water	-
Kelso Laboratory Website	www.alsglobal.com	NA

Analyses were performed according to our laboratory's NELAP-approved quality assurance program. A complete listing of specific NELAP-certified analytes, can be found in the certification section at www.ALSGlobal.com or at the accreditation bodies web site.

Please refer to the certification and/or accreditation body's web site if samples are submitted for compliance purposes. The states highlighted above, require the analysis be listed on the state certification if used for compliance purposes and if the method/analyte is offered by that state.

Acronyms

ASTM	American Society for Testing and Materials
A2LA	American Association for Laboratory Accreditation
CARB	California Air Resources Board
CAS Number	Chemical Abstract Service registry Number
CFC	Chlorofluorocarbon
CFU	Colony-Forming Unit
DEC	Department of Environmental Conservation
DEQ	Department of Environmental Quality
DHS	Department of Health Services
DOE	Department of Ecology
DOH	Department of Health
EPA	U. S. Environmental Protection Agency
ELAP	Environmental Laboratory Accreditation Program
GC	Gas Chromatography
GC/MS	Gas Chromatography/Mass Spectrometry
LOD	Limit of Detection
LOQ	Limit of Quantitation
LUFT	Leaking Underground Fuel Tank
M	Modified
MCL	Maximum Contaminant Level is the highest permissible concentration of a substance allowed in drinking water as established by the USEPA.
MDL	Method Detection Limit
MPN	Most Probable Number
MRL	Method Reporting Limit
NA	Not Applicable
NC	Not Calculated
NCASI	National Council of the Paper Industry for Air and Stream Improvement
ND	Not Detected
NIOSH	National Institute for Occupational Safety and Health
PQL	Practical Quantitation Limit
RCRA	Resource Conservation and Recovery Act
SIM	Selected Ion Monitoring
TPH	Total Petroleum Hydrocarbons
tr	Trace level is the concentration of an analyte that is less than the PQL but greater than or equal to the MDL.

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Analyst Summary report

Client: Anchor QEA, LLC
Project: Barry/221114-08.01 Task 04

Service Request: K2213120

Sample Name: BY-AP-MW-1-20221104
Lab Code: K2213120-001
Sample Matrix: Water

Date Collected: 11/4/22
Date Received: 11/7/22

Analysis Method
200.8

Extracted/Digested By
SSOLADEY

Analyzed By
EMCALLISTER

Sample Name: BY-AP-MW-8-20221104
Lab Code: K2213120-002
Sample Matrix: Water

Date Collected: 11/4/22
Date Received: 11/7/22

Analysis Method
200.8

Extracted/Digested By
SSOLADEY

Analyzed By
EMCALLISTER

Sample Name: BY-AP-MW-10-20221104
Lab Code: K2213120-003
Sample Matrix: Water

Date Collected: 11/4/22
Date Received: 11/7/22

Analysis Method
200.8

Extracted/Digested By
SSOLADEY

Analyzed By
EMCALLISTER

Sample Name: BY-AP-MW-15V-20221104
Lab Code: K2213120-004
Sample Matrix: Water

Date Collected: 11/4/22
Date Received: 11/7/22

Analysis Method
200.8

Extracted/Digested By
SSOLADEY

Analyzed By
EMCALLISTER

Sample Name: BY-AP-MW-24H-20221104
Lab Code: K2213120-005
Sample Matrix: Water

Date Collected: 11/4/22
Date Received: 11/7/22

Analysis Method
200.8

Extracted/Digested By
SSOLADEY

Analyzed By
EMCALLISTER

ALS Group USA, Corp.
dba ALS Environmental

Analyst Summary report

Client: Anchor QEA, LLC
Project: Barry/221114-08.01 Task 04

Service Request: K2213120

Sample Name: BY-AP-MW-24H-DUP-20221104
Lab Code: K2213120-006
Sample Matrix: Water

Date Collected: 11/4/22
Date Received: 11/7/22

Analysis Method
200.8

Extracted/Digested By
SSOLADEY

Analyzed By
EMCALLISTER

Sample Name: BY-AP-MB-20221104
Lab Code: K2213120-007
Sample Matrix: Water

Date Collected: 11/4/22
Date Received: 11/7/22

Analysis Method
200.8

Extracted/Digested By
SSOLADEY

Analyzed By
EMCALLISTER

Sample Name: BY-AP-MW-2-20221104
Lab Code: K2213120-008
Sample Matrix: Water

Date Collected: 11/4/22
Date Received: 11/7/22

Analysis Method
200.8

Extracted/Digested By
SSOLADEY

Analyzed By
EMCALLISTER



Sample Results

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Metals

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Analytical Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.01 Task 04
Sample Matrix: Water
Sample Name: BY-AP-MW-1-20221104
Lab Code: K2213120-001

Service Request: K2213120
Date Collected: 11/04/22 13:00
Date Received: 11/07/22 13:00
Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	42.0	ug/L	0.50	0.09	1	11/15/22 14:52	11/11/22	
Cobalt	200.8	0.843	ug/L	0.020	0.009	1	11/15/22 14:52	11/11/22	
Iron	200.8	120000	ug/L	40	6	20	11/15/22 15:26	11/11/22	
Manganese	200.8	837	ug/L	0.20	0.04	1	11/15/22 14:52	11/11/22	

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Analytical Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.01 Task 04
Sample Matrix: Water
Sample Name: BY-AP-MW-1-20221104
Lab Code: K2213120-001

Service Request: K2213120
Date Collected: 11/04/22 13:00
Date Received: 11/07/22 13:00

Basis: NA

Total Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	68.1	ug/L	0.50	0.09	1	11/15/22 14:29	11/11/22	
Cobalt	200.8	0.969	ug/L	0.020	0.009	1	11/15/22 14:29	11/11/22	
Iron	200.8	130000	ug/L	40	6	20	11/15/22 15:08	11/11/22	
Manganese	200.8	831	ug/L	0.20	0.04	1	11/15/22 14:29	11/11/22	

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Analytical Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.01 Task 04
Sample Matrix: Water
Sample Name: BY-AP-MW-8-20221104
Lab Code: K2213120-002

Service Request: K2213120
Date Collected: 11/04/22 13:05
Date Received: 11/07/22 13:00
Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	39.3	ug/L	0.50	0.09	1	11/15/22 14:54	11/11/22	
Cobalt	200.8	0.556	ug/L	0.020	0.009	1	11/15/22 14:54	11/11/22	
Iron	200.8	71300	ug/L	40	6	20	11/15/22 15:27	11/11/22	
Manganese	200.8	1810	ug/L	0.20	0.04	1	11/15/22 14:54	11/11/22	

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Analytical Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.01 Task 04
Sample Matrix: Water
Sample Name: BY-AP-MW-8-20221104
Lab Code: K2213120-002

Service Request: K2213120
Date Collected: 11/04/22 13:05
Date Received: 11/07/22 13:00

Basis: NA

Total Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	42.9	ug/L	0.50	0.09	1	11/15/22 14:33	11/11/22	
Cobalt	200.8	0.565	ug/L	0.020	0.009	1	11/15/22 14:33	11/11/22	
Iron	200.8	79600	ug/L	40	6	20	11/15/22 15:12	11/11/22	
Manganese	200.8	1820	ug/L	0.20	0.04	1	11/15/22 14:33	11/11/22	

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Analytical Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.01 Task 04
Sample Matrix: Water
Sample Name: BY-AP-MW-10-20221104
Lab Code: K2213120-003

Service Request: K2213120
Date Collected: 11/04/22 13:10
Date Received: 11/07/22 13:00
Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	55.2	ug/L	0.50	0.09	1	11/15/22 14:55	11/11/22	
Cobalt	200.8	0.543	ug/L	0.020	0.009	1	11/15/22 14:55	11/11/22	
Iron	200.8	56000	ug/L	40	6	20	11/15/22 15:28	11/11/22	
Manganese	200.8	1520	ug/L	0.20	0.04	1	11/15/22 14:55	11/11/22	

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Analytical Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.01 Task 04
Sample Matrix: Water
Sample Name: BY-AP-MW-10-20221104
Lab Code: K2213120-003

Service Request: K2213120
Date Collected: 11/04/22 13:10
Date Received: 11/07/22 13:00
Basis: NA

Total Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	72.6	ug/L	0.50	0.09	1	11/15/22 14:46	11/11/22	
Cobalt	200.8	0.546	ug/L	0.020	0.009	1	11/15/22 14:46	11/11/22	
Iron	200.8	62100	ug/L	40	6	20	11/15/22 15:20	11/11/22	
Manganese	200.8	1540	ug/L	0.20	0.04	1	11/15/22 14:46	11/11/22	

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Analytical Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.01 Task 04
Sample Matrix: Water
Sample Name: BY-AP-MW-15V-20221104
Lab Code: K2213120-004

Service Request: K2213120
Date Collected: 11/04/22 13:15
Date Received: 11/07/22 13:00
Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	33.6	ug/L	0.50	0.09	1	11/15/22 15:03	11/11/22	
Cobalt	200.8	73.8	ug/L	0.020	0.009	1	11/15/22 15:03	11/11/22	
Iron	200.8	46300	ug/L	40	6	20	11/15/22 15:30	11/11/22	
Manganese	200.8	1030	ug/L	0.20	0.04	1	11/15/22 15:03	11/11/22	

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Analytical Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.01 Task 04
Sample Matrix: Water
Sample Name: BY-AP-MW-15V-20221104
Lab Code: K2213120-004

Service Request: K2213120
Date Collected: 11/04/22 13:15
Date Received: 11/07/22 13:00
Basis: NA

Total Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	33.2	ug/L	0.50	0.09	1	11/15/22 14:47	11/11/22	
Cobalt	200.8	72.7	ug/L	0.020	0.009	1	11/15/22 14:47	11/11/22	
Iron	200.8	46600	ug/L	40	6	20	11/15/22 15:22	11/11/22	
Manganese	200.8	1010	ug/L	0.20	0.04	1	11/15/22 14:47	11/11/22	

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Analytical Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.01 Task 04
Sample Matrix: Water
Sample Name: BY-AP-MW-24H-20221104
Lab Code: K2213120-005

Service Request: K2213120
Date Collected: 11/04/22 13:20
Date Received: 11/07/22 13:00

Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	43.2	ug/L	0.50	0.09	1	11/15/22 15:19	11/11/22	
Cobalt	200.8	5.49	ug/L	0.020	0.009	1	11/15/22 15:19	11/11/22	
Iron	200.8	97100	ug/L	40	6	20	11/15/22 15:31	11/11/22	
Manganese	200.8	209	ug/L	0.20	0.04	1	11/15/22 15:19	11/11/22	

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Analytical Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.01 Task 04
Sample Matrix: Water
Sample Name: BY-AP-MW-24H-20221104
Lab Code: K2213120-005

Service Request: K2213120
Date Collected: 11/04/22 13:20
Date Received: 11/07/22 13:00
Basis: NA

Total Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	71.6	ug/L	0.50	0.09	1	11/15/22 14:48	11/11/22	
Cobalt	200.8	5.68	ug/L	0.020	0.009	1	11/15/22 14:48	11/11/22	
Iron	200.8	104000	ug/L	40	6	20	11/15/22 15:23	11/11/22	
Manganese	200.8	207	ug/L	0.20	0.04	1	11/15/22 14:48	11/11/22	

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Analytical Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.01 Task 04
Sample Matrix: Water

Service Request: K2213120
Date Collected: 11/04/22 13:21
Date Received: 11/07/22 13:00

Sample Name: BY-AP-MW-24H-DUP-20221104
Lab Code: K2213120-006

Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	44.1	ug/L	0.50	0.09	1	11/15/22 15:05	11/11/22	
Cobalt	200.8	5.60	ug/L	0.020	0.009	1	11/15/22 15:05	11/11/22	
Iron	200.8	98500	ug/L	40	6	20	11/15/22 15:35	11/11/22	
Manganese	200.8	214	ug/L	0.20	0.04	1	11/15/22 15:05	11/11/22	

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Analytical Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.01 Task 04
Sample Matrix: Water

Service Request: K2213120
Date Collected: 11/04/22 13:21
Date Received: 11/07/22 13:00

Sample Name: BY-AP-MW-24H-DUP-20221104
Lab Code: K2213120-006

Basis: NA

Total Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	71.7	ug/L	0.50	0.09	1	11/15/22 14:50	11/11/22	
Cobalt	200.8	5.65	ug/L	0.020	0.009	1	11/15/22 14:50	11/11/22	
Iron	200.8	108000	ug/L	40	6	20	11/15/22 15:24	11/11/22	
Manganese	200.8	211	ug/L	0.20	0.04	1	11/15/22 14:50	11/11/22	

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Analytical Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.01 Task 04
Sample Matrix: Water
Sample Name: BY-AP-MB-20221104
Lab Code: K2213120-007

Service Request: K2213120
Date Collected: 11/04/22 13:25
Date Received: 11/07/22 13:00
Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	ND U	ug/L	0.50	0.09	1	11/15/22 14:24	11/11/22	
Cobalt	200.8	ND U	ug/L	0.020	0.009	1	11/15/22 14:24	11/11/22	
Iron	200.8	0.5 J	ug/L	2.0	0.3	1	11/15/22 14:24	11/11/22	
Manganese	200.8	ND U	ug/L	0.20	0.04	1	11/15/22 14:24	11/11/22	

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Analytical Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.01 Task 04
Sample Matrix: Water
Sample Name: BY-AP-MB-20221104
Lab Code: K2213120-007

Service Request: K2213120
Date Collected: 11/04/22 13:25
Date Received: 11/07/22 13:00

Basis: NA

Total Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	ND U	ug/L	0.50	0.09	1	11/15/22 14:22	11/11/22	
Cobalt	200.8	ND U	ug/L	0.020	0.009	1	11/15/22 14:22	11/11/22	
Iron	200.8	0.9 J	ug/L	2.0	0.3	1	11/15/22 14:22	11/11/22	
Manganese	200.8	0.14 J	ug/L	0.20	0.04	1	11/15/22 14:22	11/11/22	

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Analytical Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.01 Task 04
Sample Matrix: Water
Sample Name: BY-AP-MW-2-20221104
Lab Code: K2213120-008

Service Request: K2213120
Date Collected: 11/04/22 13:30
Date Received: 11/07/22 13:00

Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	1.44	ug/L	0.50	0.09	1	11/15/22 15:07	11/11/22	
Cobalt	200.8	4.81	ug/L	0.020	0.009	1	11/15/22 15:07	11/11/22	
Iron	200.8	249	ug/L	2.0	0.3	1	11/15/22 15:07	11/11/22	
Manganese	200.8	222	ug/L	0.20	0.04	1	11/15/22 15:07	11/11/22	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.01 Task 04
Sample Matrix: Water
Sample Name: BY-AP-MW-2-20221104
Lab Code: K2213120-008

Service Request: K2213120
Date Collected: 11/04/22 13:30
Date Received: 11/07/22 13:00
Basis: NA

Total Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	1.40	ug/L	0.50	0.09	1	11/15/22 14:51	11/11/22	
Cobalt	200.8	4.77	ug/L	0.020	0.009	1	11/15/22 14:51	11/11/22	
Iron	200.8	254	ug/L	2.0	0.3	1	11/15/22 14:51	11/11/22	
Manganese	200.8	223	ug/L	0.20	0.04	1	11/15/22 14:51	11/11/22	



QC Summary Forms

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Analytical Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.01 Task 04
Sample Matrix: Water
Sample Name: Method Blank
Lab Code: KQ2219707-01

Service Request: K2213120
Date Collected: NA
Date Received: NA
Basis: NA

Total Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	ND U	ug/L	0.50	0.09	1	11/15/22 14:21	11/11/22	
Cobalt	200.8	ND U	ug/L	0.020	0.009	1	11/15/22 14:21	11/11/22	
Iron	200.8	ND U	ug/L	2.0	0.3	1	11/15/22 14:21	11/11/22	
Manganese	200.8	0.06 J	ug/L	0.20	0.04	1	11/15/22 14:21	11/11/22	

ALS Group USA, Corp.
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QA/QC Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.01 Task 04
Sample Matrix: Water

Service Request: K2213120
Date Collected: 11/04/22
Date Received: 11/07/22
Date Analyzed: 11/15/22
Date Extracted: 11/11/22

Matrix Spike Summary
Total Metals

Sample Name: BY-AP-MW-1-20221104
Lab Code: K2213120-001
Analysis Method: 200.8
Prep Method: EPA CLP ILM04.0

Units: ug/L
Basis: NA

Matrix Spike
KQ2219707-03

Analyte Name	Sample Result	Result	Spike Amount	% Rec	% Rec Limits
Arsenic	68.1	116	50.0	96	70-130
Cobalt	0.969	26.3	25.0	102	70-130
Iron	130000	130000	50	-26 #	70-130
Manganese	831	865	25.0	136 #	70-130

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

Matrix Spike and Matrix Spike Duplicate Data is presented for information purposes only. The matrix may or may not be relevant to samples reported in this report. The laboratory evaluates system performance based on the LCS and LCSD control limits.

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QA/QC Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.01 Task 04
Sample Matrix: Water

Service Request: K2213120
Date Collected: 11/04/22
Date Received: 11/07/22
Date Analyzed: 11/15/22
Date Extracted: 11/11/22

Matrix Spike Summary
Total Metals

Sample Name: BY-AP-MW-8-20221104
Lab Code: K2213120-002
Analysis Method: 200.8
Prep Method: EPA CLP ILM04.0

Units: ug/L
Basis: NA

Matrix Spike
KQ2219707-05

Analyte Name	Sample Result	Result	Spike Amount	% Rec	% Rec Limits
Arsenic	42.9	90.6	50.0	95	70-130
Cobalt	0.565	26.1	25.0	102	70-130
Iron	79600	77100	50	-4851 #	70-130
Manganese	1820	1830	25.0	26 #	70-130

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

Matrix Spike and Matrix Spike Duplicate Data is presented for information purposes only. The matrix may or may not be relevant to samples reported in this report. The laboratory evaluates system performance based on the LCS and LCSD control limits.

ALS Group USA, Corp.

dba ALS Environmental

QA/QC Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.01 Task 04
Sample Matrix: Water

Service Request: K2213120
Date Collected: 11/04/22
Date Received: 11/07/22
Date Analyzed: 11/15/22

Replicate Sample Summary

Total Metals

Sample Name: BY-AP-MW-1-20221104
Lab Code: K2213120-001

Units: ug/L
Basis: NA

Table with 9 columns: Analyte Name, Analysis Method, MRL, MDL, Sample Result, Duplicate Sample KQ2219707-04 Result, Average, RPD, RPD Limit. Rows include Arsenic, Cobalt, Iron, and Manganese.

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

ALS Group USA, Corp.

dba ALS Environmental

QA/QC Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.01 Task 04
Sample Matrix: Water

Service Request: K2213120
Date Collected: 11/04/22
Date Received: 11/07/22
Date Analyzed: 11/15/22

Replicate Sample Summary

Total Metals

Sample Name: BY-AP-MW-8-20221104
Lab Code: K2213120-002

Units: ug/L
Basis: NA

Table with 9 columns: Analyte Name, Analysis Method, MRL, MDL, Sample Result, Duplicate Sample KQ2219707-06 Result, Average, RPD, RPD Limit. Rows include Arsenic, Cobalt, Iron, and Manganese.

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.01 Task 04
Sample Matrix: Water

Service Request: K2213120
Date Analyzed: 11/15/22

Lab Control Sample Summary
Total Metals

Units:ug/L
Basis:NA

Lab Control Sample
KQ2219707-02

Analyte Name	Analytical Method	Result	Spike Amount	% Rec	% Rec Limits
Arsenic	200.8	50.1	50.0	100	85-115
Cobalt	200.8	26.5	25.0	106	85-115
Iron	200.8	50.2	50.0	100	85-115
Manganese	200.8	25.4	25.0	102	85-115



April 14, 2023

Service Request No:K2304153

Masa Kanematsu
Anchor QEA, LLC
6720 SW Macadam Avenue
Suite 125
Portland, OR 97219

Laboratory Results for: Barry 2023-2024

Dear Masa,

Enclosed are the results of the sample(s) submitted to our laboratory April 07, 2023
For your reference, these analyses have been assigned our service request number **K2304153**.

Analyses were performed according to our laboratory's NELAP-approved quality assurance program. The test results meet requirements of the current NELAP standards, where applicable, and except as noted in the laboratory case narrative provided. For a specific list of NELAP-accredited analytes, refer to the certifications section at www.alsglobal.com. All results are intended to be considered in their entirety, and ALS Group USA Corp. dba ALS Environmental (ALS) is not responsible for use of less than the complete report. Results apply only to the items submitted to the laboratory for analysis and individual items (samples) analyzed, as listed in the report.

Please contact me if you have any questions. My extension is 3376. You may also contact me via email at Mark.Harris@alsglobal.com.

Respectfully submitted,

ALS Group USA, Corp. dba ALS Environmental

Mark Harris
Project Manager

ADDRESS 1317 S. 13th Avenue, Kelso, WA 98626
PHONE +1 360 577 7222 | FAX +1 360 636 1068
ALS Group USA, Corp.
dba ALS Environmental



Narrative Documents

ALS Environmental—Kelso Laboratory
1317 South 13th Avenue, Kelso, WA 98626
Phone (360) 577-7222 Fax (360) 425-9096
www.alsglobal.com



Client: Anchor QEA, LLC
Project: Barry 2023-2024
Sample Matrix: Water

Service Request: K2304153
Date Received: 04/07/2023

CASE NARRATIVE

All analyses were performed consistent with the quality assurance program of ALS Environmental. This report contains analytical results for samples for the Tier II level requested by the client.

Sample Receipt:

Eight water samples were received for analysis at ALS Environmental on 04/07/2023. Any discrepancies upon initial sample inspection are annotated on the sample receipt and preservation form included within this report. The samples were stored at minimum in accordance with the analytical method requirements.

Metals:

No significant anomalies were noted with this analysis.

Noel D. O'Connell

Approved by _____

Date 04/14/2023



SAMPLE DETECTION SUMMARY

This form includes only detections above the reporting levels. For a full listing of sample results, continue to the Sample Results section of this Report.

CLIENT ID: BY-AP-MW-1-20230404	Lab ID: K2304153-001
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Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic	66.9		0.09	0.50	ug/L	200.8
Arsenic, Dissolved	47.6		0.09	0.50	ug/L	200.8
Cobalt	1.05		0.009	0.020	ug/L	200.8
Cobalt, Dissolved	0.994		0.009	0.020	ug/L	200.8
Iron	112000		6	40	ug/L	200.8
Iron, Dissolved	105000		6	80	ug/L	200.8
Manganese	772		0.04	0.20	ug/L	200.8
Manganese, Dissolved	779		0.04	0.20	ug/L	200.8

CLIENT ID: BY-AP-MW-8-20230404	Lab ID: K2304153-002
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Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic	3.05		0.09	0.50	ug/L	200.8
Arsenic, Dissolved	2.92		0.09	0.50	ug/L	200.8
Cobalt	0.139		0.009	0.020	ug/L	200.8
Cobalt, Dissolved	0.126		0.009	0.020	ug/L	200.8
Iron	11800		0.3	2.0	ug/L	200.8
Iron, Dissolved	11900		0.3	4.0	ug/L	200.8
Manganese	201		0.04	0.20	ug/L	200.8
Manganese, Dissolved	200		0.04	0.20	ug/L	200.8

CLIENT ID: BY-AP-MW-10-20230404	Lab ID: K2304153-003
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Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic	57.6		0.09	0.50	ug/L	200.8
Arsenic, Dissolved	40.3		0.09	0.50	ug/L	200.8
Cobalt	0.586		0.009	0.020	ug/L	200.8
Cobalt, Dissolved	0.533		0.009	0.020	ug/L	200.8
Iron	65400		6	80	ug/L	200.8
Iron, Dissolved	59200		6	80	ug/L	200.8
Manganese	1220		0.04	0.20	ug/L	200.8
Manganese, Dissolved	1210		0.04	0.20	ug/L	200.8

CLIENT ID: BY-AP-MW-15V-20230404	Lab ID: K2304153-004
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Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic	16.0		0.09	0.50	ug/L	200.8
Arsenic, Dissolved	2.31		0.09	0.50	ug/L	200.8
Cobalt	34.7		0.009	0.020	ug/L	200.8
Cobalt, Dissolved	34.4		0.009	0.020	ug/L	200.8
Iron	91800		6	80	ug/L	200.8
Iron, Dissolved	76500		6	80	ug/L	200.8
Manganese	674		0.04	0.20	ug/L	200.8
Manganese, Dissolved	672		0.04	0.20	ug/L	200.8



SAMPLE DETECTION SUMMARY

This form includes only detections above the reporting levels. For a full listing of sample results, continue to the Sample Results section of this Report.

CLIENT ID: BY-AP-MW-15V-DUP-20230404	Lab ID: K2304153-005
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Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic	15.5		0.09	0.50	ug/L	200.8
Arsenic, Dissolved	2.48		0.09	0.50	ug/L	200.8
Cobalt	34.5		0.009	0.020	ug/L	200.8
Cobalt, Dissolved	33.6		0.009	0.020	ug/L	200.8
Iron	89500		6	80	ug/L	200.8
Iron, Dissolved	78100		6	80	ug/L	200.8
Manganese	669		0.04	0.20	ug/L	200.8
Manganese, Dissolved	661		0.04	0.20	ug/L	200.8

CLIENT ID: BY-AP-MW-24H-20230404	Lab ID: K2304153-006
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Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic	70.1		0.09	0.50	ug/L	200.8
Arsenic, Dissolved	31.7		0.09	0.50	ug/L	200.8
Cobalt	5.40		0.009	0.020	ug/L	200.8
Cobalt, Dissolved	5.28		0.009	0.020	ug/L	200.8
Iron	103000		6	80	ug/L	200.8
Iron, Dissolved	90700		6	80	ug/L	200.8
Manganese	204		0.04	0.20	ug/L	200.8
Manganese, Dissolved	202		0.04	0.20	ug/L	200.8

CLIENT ID: BY-AP-MW-2-20230404	Lab ID: K2304153-007
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Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic	1.49		0.09	0.50	ug/L	200.8
Arsenic, Dissolved	1.40		0.09	0.50	ug/L	200.8
Cobalt	4.04		0.009	0.020	ug/L	200.8
Cobalt, Dissolved	4.06		0.009	0.020	ug/L	200.8
Iron	298		0.3	2.0	ug/L	200.8
Iron, Dissolved	304		0.3	4.0	ug/L	200.8
Manganese	192		0.04	0.20	ug/L	200.8
Manganese, Dissolved	193		0.04	0.20	ug/L	200.8

CLIENT ID: BY-AP-MB	Lab ID: K2304153-008
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Analyte	Results	Flag	MDL	MRL	Units	Method
Iron	31.3		0.3	2.0	ug/L	200.8
Iron, Dissolved	32.5		0.3	4.0	ug/L	200.8
Manganese	0.27		0.04	0.20	ug/L	200.8
Manganese, Dissolved	0.30		0.04	0.20	ug/L	200.8



Sample Receipt Information

ALS Environmental—Kelso Laboratory
1317 South 13th Avenue, Kelso, WA 98626
Phone (360) 577-7222 Fax (360) 425-9096
www.alsglobal.com

Client: Anchor QEA, LLC
Project: Barry 2023-2024/221114-08.02 Task 06

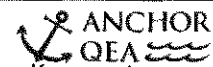
Service Request:K2304153

SAMPLE CROSS-REFERENCE

<u>SAMPLE #</u>	<u>CLIENT SAMPLE ID</u>	<u>DATE</u>	<u>TIME</u>
K2304153-001	BY-AP-MW-1-20230404	4/4/2023	1015
K2304153-002	BY-AP-MW-8-20230404	4/4/2023	1020
K2304153-003	BY-AP-MW-10-20230404	4/4/2023	1025
K2304153-004	BY-AP-MW-15V-20230404	4/4/2023	1030
K2304153-005	BY-AP-MW-15V-DUP-20230404	4/4/2023	1035
K2304153-006	BY-AP-MW-24H-20230404	4/4/2023	1040
K2304153-007	BY-AP-MW-2-20230404	4/4/2023	1045
K2304153-008	BY-AP-MB	4/4/2023	1050

Chain of Custody Record & Laboratory Analysis Request

K2304153

Laboratory Number: 503-972-5019					No. of Containers	Parameters											 ANCHOR QEA Masa Kanematsu 6720 SW Macadam Ave Suite 125 Portland OR 97219 Comments/Preservation									
Date:		4/7/2023																								
Project Name:		Barry 2023-2024																								
Project Number:		221114-08.02 Task 06																								
Project Manager:		Masa Kanematsu																								
Phone Number:		503-972-5001 (backup number: 503-798-3456)																								
Shipment Method:		ALS Carrier																								
Line	Field Sample ID	Collection		Matrix	Dissolved As, Co, Fe, Mn	Total As, Co, Fe, Mn																				
		Date	Time																							
1	BY-AP-MW-1-20230404	4/4/2023	10:15	Water	2	X	X																			HNO3-preserved. 1 bottle 0.45um filtered.
2	BY-AP-MW-8-20230404	4/4/2023	10:20	Water	2	X	X																			HNO3-preserved. 1 bottle 0.45um filtered.
3	BY-AP-MW-10-20230404	4/4/2023	10:25	Water	2	X	X																			HNO3-preserved. 1 bottle 0.45um filtered.
4	BY-AP-MW-15V-20230404	4/4/2023	10:30	Water	2	X	X																			HNO3-preserved. 1 bottle 0.45um filtered.
5	BY-AP-MW-15V-DUP-20230404	4/4/2023	10:35	Water	2	X	X																			HNO3-preserved. 1 bottle 0.45um filtered.
6	BY-AP-MW-24H-20230404	4/4/2023	10:40	Water	2	X	X																			HNO3-preserved. 1 bottle 0.45um filtered.
7	BY-AP-MW-2-20230404	4/4/2023	10:45	Water	2	X	X																			HNO3-preserved. 1 bottle 0.45um filtered.
8	BY-AP-MB	4/4/2023	10:50	Water	2	X	X																			HNO3-preserved. 1 bottle 0.45um filtered.
9																										
10																										
11																										
12																										
13																										
14																										
15																										
16																										
17																										
18																										
19																										
20																										

Notes: Please Contact Masa (503-972-5001, mkanematsu@anchorqea.com) if running > 10X dilution. Please analyze by ICP-MS method 200.8 to achieve the MDL < 1 ppb. Please analyze on a ~~5-DAY~~ TAT.

5-DAY!

Relinquished by: Emma Nordlund	Company: Anchor QEA
Signature/Print Name: <i>Emma Nordlund</i>	Date/Time: 4/7/23 10:15 AM
Relinquished by: <i>Jessica Phelps</i>	Company: ALS
Signature/Print Name: <i>Jessica Phelps</i>	Date/Time: 4/7/23 1:35

Received by: <i>Jessica Phelps</i>	Company: ALS
Signature/Print Name: <i>Jessica Phelps</i>	Date/Time: 04/07/23 10:46
Received by: <i>Josh McGovern</i>	Company: ALS
Signature/Print Name: <i>Josh McGovern</i>	Date/Time: 4-7-23 1335

Distribution: A copy will be made for the laboratory and client. The Project file will retain the original.

PM MH

Cooler Receipt and Preservation Form

Client Anchor QEA Service Request K23 04153
Received: 4-7-23 Opened: 4-7-23 By: JM Unloaded: 4-7-23 By: JM

- 1. Samples were received via? USPS Fed Ex UPS DHL PDX Courier Hand Delivered
- 2. Samples were received in: (circle) Cooler Box Envelope Other NA
- 3. Were custody seals on coolers? NA Y N If yes, how many and where? _____
If present, were custody seals intact? Y N If present, were they signed and dated? Y N

Temp Blank	Sample Temp	IR Gun	Cooler #/COC ID / NA	Out of temp Indicate with "X"	PM Notified If out of temp	Tracking Number NA	Filed
1.9		J201					

- 4. Was a Temperature Blank present in cooler? NA Y N If yes, notate the temperature in the appropriate column above:
If no, take the temperature of a representative sample bottle contained within the cooler; notate in the column "Sample Temp":
- 5. Were samples received within the method specified temperature ranges? NA Y N
If no, were they received on ice and same day as collected? If not, notate the cooler # above and notify the PM. NA Y N

If applicable, tissue samples were received: Frozen Partially Thawed Thawed

- 6. Packing material: Inserts Baggies Bubble Wrap Gel Packs Wet Ice Dry Ice Sleeves _____
- 7. Were custody papers properly filled out (ink, signed, etc.)? NA Y N
- 8. Were samples received in good condition (unbroken) NA Y N
- 9. Were all sample labels complete (ie, analysis, preservation, etc.)? NA Y N
- 10. Did all sample labels and tags agree with custody papers? NA Y N
- 11. Were appropriate bottles/containers and volumes received for the tests indicated? NA Y N
- 12. Were the pH-preserved bottles (see SMO GEN SOP) received at the appropriate pH? Indicate in the table below NA Y N
- 13. Were VOA vials received without headspace? Indicate in the table below. NA Y N
- 14. Was C12/Res negative? NA Y N
- 15. Were samples received within the method specified time limit? If not, notate the error below and notify the PM NA Y N
- 16. Were 100ml sterile microbiology bottles filled exactly to the 100ml mark? NA Y N Underfilled Overfilled

Sample ID on Bottle	Sample ID on COC	Identified by:

Sample ID	Bottle Count	Bottle Type	Head-space	Broke	pH	Reagent	Volume added	Reagent Lot Number	Initials	Time

Notes, Discrepancies, Resolutions: _____



Miscellaneous Forms

ALS Environmental—Kelso Laboratory
1317 South 13th Avenue, Kelso, WA 98626
Phone (360) 577-7222 Fax (360) 425-9096
www.alsglobal.com

Inorganic Data Qualifiers

- * The result is an outlier. See case narrative.
- # The control limit criteria is not applicable.
- B The analyte was found in the associated method blank at a level that is significant relative to the sample result as defined by the DOD or NELAC standards.
- E The result is an estimate amount because the value exceeded the instrument calibration range.
- J The result is an estimated value.
- U The analyte was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL.
DOD-QSM 4.2 definition : Analyte was not detected and is reported as less than the LOD or as defined by the project. The detection limit is adjusted for dilution.
- i The MRL/MDL or LOQ/LOD is elevated due to a matrix interference.
- X See case narrative.
- Q See case narrative. One or more quality control criteria was outside the limits.
- H The holding time for this test is immediately following sample collection. The samples were analyzed as soon as possible after receipt by the laboratory.

Metals Data Qualifiers

- # The control limit criteria is not applicable.
- J The result is an estimated value.
- E The percent difference for the serial dilution was greater than 10%, indicating a possible matrix interference in the sample.
- M The duplicate injection precision was not met.
- N The Matrix Spike sample recovery is not within control limits. See case narrative.
- S The reported value was determined by the Method of Standard Additions (MSA).
- U The analyte was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL.
DOD-QSM 4.2 definition : Analyte was not detected and is reported as less than the LOD or as defined by the project. The detection limit is adjusted for dilution.
- W The post-digestion spike for furnace AA analysis is out of control limits, while sample absorbance is less than 50% of spike absorbance.
 - i The MRL/MDL or LOQ/LOD is elevated due to a matrix interference.
- X See case narrative.
- + The correlation coefficient for the MSA is less than 0.995.
- Q See case narrative. One or more quality control criteria was outside the limits.

Organic Data Qualifiers

- * The result is an outlier. See case narrative.
- # The control limit criteria is not applicable. See case narrative.
- A A tentatively identified compound, a suspected aldol-condensation product.
- B The analyte was found in the associated method blank at a level that is significant relative to the sample result as defined by the DOD or NELAC standards.
- C The analyte was qualitatively confirmed using GC/MS techniques, pattern recognition, or by comparing to historical data.
- D The reported result is from a dilution.
- E The result is an estimated value.
- J The result is an estimated value.
- N The result is presumptive. The analyte was tentatively identified, but a confirmation analysis was not performed.
- P The GC or HPLC confirmation criteria was exceeded. The relative percent difference is greater than 40% between the two analytical results.
- U The analyte was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL.
DOD-QSM 4.2 definition : Analyte was not detected and is reported as less than the LOD or as defined by the project. The detection limit is adjusted for dilution.
 - i The MRL/MDL or LOQ/LOD is elevated due to a chromatographic interference.
- X See case narrative.
- Q See case narrative. One or more quality control criteria was outside the limits.

Additional Petroleum Hydrocarbon Specific Qualifiers

- F The chromatographic fingerprint of the sample matches the elution pattern of the calibration standard.
- L The chromatographic fingerprint of the sample resembles a petroleum product, but the elution pattern indicates the presence of a greater amount of lighter molecular weight constituents than the calibration standard.
- H The chromatographic fingerprint of the sample resembles a petroleum product, but the elution pattern indicates the presence of a greater amount of heavier molecular weight constituents than the calibration standard.
- O The chromatographic fingerprint of the sample resembles an oil, but does not match the calibration standard.
- Y The chromatographic fingerprint of the sample resembles a petroleum product eluting in approximately the correct carbon range, but the elution pattern does not match the calibration standard.
- Z The chromatographic fingerprint does not resemble a petroleum product.

**ALS Group USA Corp. dba ALS Environmental (ALS) - Kelso
State Certifications, Accreditations, and Licenses**

Agency	Web Site	Number
Alaska DEH	http://dec.alaska.gov/eh/lab/cs/csapproval.htm	UST-040
Arizona DHS	http://www.azdhs.gov/lab/license/env.htm	AZ0339
Arkansas - DEQ	http://www.adeq.state.ar.us/techsvs/labcert.htm	88-0637
California DHS (ELAP)	http://www.cdph.ca.gov/certlic/labs/Pages/ELAP.aspx	2795
DOD ELAP	http://www.denix.osd.mil/edqw/Accreditation/AccreditedLabs.cfm	L16-58-R4
Florida DOH	http://www.doh.state.fl.us/lab/EnvLabCert/WaterCert.htm	E87412
Hawaii DOH	http://health.hawaii.gov/	-
ISO 17025	http://www.pjllabs.com/	L16-57
Louisiana DEQ	http://www.deq.louisiana.gov/page/la-lab-accreditation	03016
Maine DHS	http://www.maine.gov/dhhs/	WA01276
Minnesota DOH	http://www.health.state.mn.us/accreditation	053-999-457
Nevada DEP	http://ndep.nv.gov/bsdw/labservice.htm	WA01276
New Jersey DEP	http://www.nj.gov/dep/enforcement/oqa.html	WA005
New York - DOH	https://www.wadsworth.org/regulatory/elap	12060
North Carolina DEQ	https://deq.nc.gov/about/divisions/water-resources/water-resources-data/water-sciences-home-page/laboratory-certification-branch/non-field-lab-certification	605
Oklahoma DEQ	http://www.deq.state.ok.us/CSDnew/labcert.htm	9801
Oregon – DEQ (NELAP)	http://public.health.oregon.gov/LaboratoryServices/EnvironmentalLaboratoryAccreditation/Pages/index.aspx	WA100010
South Carolina DHEC	http://www.scdhec.gov/environment/EnvironmentalLabCertification/	61002
Texas CEQ	http://www.tceq.texas.gov/field/qa/env_lab_accreditation.html	T104704427
Washington DOE	http://www.ecy.wa.gov/programs/eap/labs/lab-accreditation.html	C544
Wyoming (EPA Region 8)	https://www.epa.gov/region8-waterops/epa-region-8-certified-drinking-water	-
Kelso Laboratory Website	www.alsglobal.com	NA

Analyses were performed according to our laboratory's NELAP-approved quality assurance program. A complete listing of specific NELAP-certified analytes, can be found in the certification section at www.ALSGlobal.com or at the accreditation bodies web site.

Please refer to the certification and/or accreditation body's web site if samples are submitted for compliance purposes. The states highlighted above, require the analysis be listed on the state certification if used for compliance purposes and if the method/analyte is offered by that state.

Acronyms

ASTM	American Society for Testing and Materials
A2LA	American Association for Laboratory Accreditation
CARB	California Air Resources Board
CAS Number	Chemical Abstract Service registry Number
CFC	Chlorofluorocarbon
CFU	Colony-Forming Unit
DEC	Department of Environmental Conservation
DEQ	Department of Environmental Quality
DHS	Department of Health Services
DOE	Department of Ecology
DOH	Department of Health
EPA	U. S. Environmental Protection Agency
ELAP	Environmental Laboratory Accreditation Program
GC	Gas Chromatography
GC/MS	Gas Chromatography/Mass Spectrometry
LOD	Limit of Detection
LOQ	Limit of Quantitation
LUFT	Leaking Underground Fuel Tank
M	Modified
MCL	Maximum Contaminant Level is the highest permissible concentration of a substance allowed in drinking water as established by the USEPA.
MDL	Method Detection Limit
MPN	Most Probable Number
MRL	Method Reporting Limit
NA	Not Applicable
NC	Not Calculated
NCASI	National Council of the Paper Industry for Air and Stream Improvement
ND	Not Detected
NIOSH	National Institute for Occupational Safety and Health
PQL	Practical Quantitation Limit
RCRA	Resource Conservation and Recovery Act
SIM	Selected Ion Monitoring
TPH	Total Petroleum Hydrocarbons
tr	Trace level is the concentration of an analyte that is less than the PQL but greater than or equal to the MDL.

ALS Group USA, Corp.
dba ALS Environmental

Analyst Summary report

Client: Anchor QEA, LLC
Project: Barry 2023-2024/221114-08.02 Task 06

Service Request: K2304153

Sample Name: BY-AP-MW-1-20230404
Lab Code: K2304153-001
Sample Matrix: Water

Date Collected: 04/4/23
Date Received: 04/7/23

Analysis Method
200.8

Extracted/Digested By
ACOUCH

Analyzed By
EMCALLISTER

Sample Name: BY-AP-MW-8-20230404
Lab Code: K2304153-002
Sample Matrix: Water

Date Collected: 04/4/23
Date Received: 04/7/23

Analysis Method
200.8

Extracted/Digested By
ACOUCH

Analyzed By
EMCALLISTER

Sample Name: BY-AP-MW-10-20230404
Lab Code: K2304153-003
Sample Matrix: Water

Date Collected: 04/4/23
Date Received: 04/7/23

Analysis Method
200.8

Extracted/Digested By
ACOUCH

Analyzed By
EMCALLISTER

Sample Name: BY-AP-MW-15V-20230404
Lab Code: K2304153-004
Sample Matrix: Water

Date Collected: 04/4/23
Date Received: 04/7/23

Analysis Method
200.8

Extracted/Digested By
ACOUCH

Analyzed By
EMCALLISTER

Sample Name: BY-AP-MW-15V-DUP-20230404
Lab Code: K2304153-005
Sample Matrix: Water

Date Collected: 04/4/23
Date Received: 04/7/23

Analysis Method
200.8

Extracted/Digested By
ACOUCH

Analyzed By
EMCALLISTER

ALS Group USA, Corp.
dba ALS Environmental

Analyst Summary report

Client: Anchor QEA, LLC
Project: Barry 2023-2024/221114-08.02 Task 06

Service Request: K2304153

Sample Name: BY-AP-MW-24H-20230404
Lab Code: K2304153-006
Sample Matrix: Water

Date Collected: 04/4/23
Date Received: 04/7/23

Analysis Method
200.8

Extracted/Digested By
ACOUCH

Analyzed By
EMCALLISTER

Sample Name: BY-AP-MW-2-20230404
Lab Code: K2304153-007
Sample Matrix: Water

Date Collected: 04/4/23
Date Received: 04/7/23

Analysis Method
200.8

Extracted/Digested By
ACOUCH

Analyzed By
EMCALLISTER

Sample Name: BY-AP-MB
Lab Code: K2304153-008
Sample Matrix: Water

Date Collected: 04/4/23
Date Received: 04/7/23

Analysis Method
200.8

Extracted/Digested By
ACOUCH

Analyzed By
EMCALLISTER



Sample Results

ALS Environmental—Kelso Laboratory
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Metals

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www.alsglobal.com

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Anchor QEA, LLC
Project: Barry 2023-2024/221114-08.02 Task 06
Sample Matrix: Water
Sample Name: BY-AP-MW-1-20230404
Lab Code: K2304153-001

Service Request: K2304153
Date Collected: 04/04/23 10:15
Date Received: 04/07/23 13:35
Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	47.6	ug/L	0.50	0.09	1	04/13/23 12:45	04/12/23	
Cobalt	200.8	0.994	ug/L	0.020	0.009	1	04/13/23 12:45	04/12/23	
Iron	200.8	105000	ug/L	80	6	20	04/13/23 13:18	04/12/23	
Manganese	200.8	779	ug/L	0.20	0.04	1	04/13/23 12:45	04/12/23	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Anchor QEA, LLC
Project: Barry 2023-2024/221114-08.02 Task 06
Sample Matrix: Water
Sample Name: BY-AP-MW-1-20230404
Lab Code: K2304153-001

Service Request: K2304153
Date Collected: 04/04/23 10:15
Date Received: 04/07/23 13:35
Basis: NA

Total Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	66.9	ug/L	0.50	0.09	1	04/13/23 12:03	04/12/23	
Cobalt	200.8	1.05	ug/L	0.020	0.009	1	04/13/23 12:03	04/12/23	
Iron	200.8	112000	ug/L	40	6	20	04/13/23 11:53	04/12/23	
Manganese	200.8	772	ug/L	0.20	0.04	1	04/13/23 12:03	04/12/23	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Anchor QEA, LLC
Project: Barry 2023-2024/221114-08.02 Task 06
Sample Matrix: Water
Sample Name: BY-AP-MW-8-20230404
Lab Code: K2304153-002

Service Request: K2304153
Date Collected: 04/04/23 10:20
Date Received: 04/07/23 13:35
Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	2.92	ug/L	0.50	0.09	1	04/13/23 12:46	04/12/23	
Cobalt	200.8	0.126	ug/L	0.020	0.009	1	04/13/23 12:46	04/12/23	
Iron	200.8	11900	ug/L	4.0	0.3	1	04/13/23 12:46	04/12/23	
Manganese	200.8	200	ug/L	0.20	0.04	1	04/13/23 12:46	04/12/23	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Anchor QEA, LLC
Project: Barry 2023-2024/221114-08.02 Task 06
Sample Matrix: Water
Sample Name: BY-AP-MW-8-20230404
Lab Code: K2304153-002

Service Request: K2304153
Date Collected: 04/04/23 10:20
Date Received: 04/07/23 13:35

Basis: NA

Total Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	3.05	ug/L	0.50	0.09	1	04/13/23 12:08	04/12/23	
Cobalt	200.8	0.139	ug/L	0.020	0.009	1	04/13/23 12:08	04/12/23	
Iron	200.8	11800	ug/L	2.0	0.3	1	04/13/23 12:08	04/12/23	
Manganese	200.8	201	ug/L	0.20	0.04	1	04/13/23 12:08	04/12/23	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Anchor QEA, LLC
Project: Barry 2023-2024/221114-08.02 Task 06
Sample Matrix: Water
Sample Name: BY-AP-MW-10-20230404
Lab Code: K2304153-003

Service Request: K2304153
Date Collected: 04/04/23 10:25
Date Received: 04/07/23 13:35
Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	40.3	ug/L	0.50	0.09	1	04/13/23 12:48	04/12/23	
Cobalt	200.8	0.533	ug/L	0.020	0.009	1	04/13/23 12:48	04/12/23	
Iron	200.8	59200	ug/L	80	6	20	04/13/23 13:19	04/12/23	
Manganese	200.8	1210	ug/L	0.20	0.04	1	04/13/23 12:48	04/12/23	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Anchor QEA, LLC
Project: Barry 2023-2024/221114-08.02 Task 06
Sample Matrix: Water
Sample Name: BY-AP-MW-10-20230404
Lab Code: K2304153-003

Service Request: K2304153
Date Collected: 04/04/23 10:25
Date Received: 04/07/23 13:35
Basis: NA

Total Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	57.6	ug/L	0.50	0.09	1	04/13/23 12:09	04/12/23	
Cobalt	200.8	0.586	ug/L	0.020	0.009	1	04/13/23 12:09	04/12/23	
Iron	200.8	65400	ug/L	80	6	20	04/13/23 12:58	04/12/23	
Manganese	200.8	1220	ug/L	0.20	0.04	1	04/13/23 12:09	04/12/23	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Anchor QEA, LLC
Project: Barry 2023-2024/221114-08.02 Task 06
Sample Matrix: Water
Sample Name: BY-AP-MW-15V-20230404
Lab Code: K2304153-004

Service Request: K2304153
Date Collected: 04/04/23 10:30
Date Received: 04/07/23 13:35
Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	2.31	ug/L	0.50	0.09	1	04/13/23 12:50	04/12/23	
Cobalt	200.8	34.4	ug/L	0.020	0.009	1	04/13/23 12:50	04/12/23	
Iron	200.8	76500	ug/L	80	6	20	04/13/23 13:21	04/12/23	
Manganese	200.8	672	ug/L	0.20	0.04	1	04/13/23 12:50	04/12/23	

ALS Group USA, Corp.
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Analytical Report

Client: Anchor QEA, LLC
Project: Barry 2023-2024/221114-08.02 Task 06
Sample Matrix: Water
Sample Name: BY-AP-MW-15V-20230404
Lab Code: K2304153-004

Service Request: K2304153
Date Collected: 04/04/23 10:30
Date Received: 04/07/23 13:35
Basis: NA

Total Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	16.0	ug/L	0.50	0.09	1	04/13/23 12:11	04/12/23	
Cobalt	200.8	34.7	ug/L	0.020	0.009	1	04/13/23 12:11	04/12/23	
Iron	200.8	91800	ug/L	80	6	20	04/13/23 12:59	04/12/23	
Manganese	200.8	674	ug/L	0.20	0.04	1	04/13/23 12:11	04/12/23	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Anchor QEA, LLC
Project: Barry 2023-2024/221114-08.02 Task 06
Sample Matrix: Water
Sample Name: BY-AP-MW-15V-DUP-20230404
Lab Code: K2304153-005

Service Request: K2304153
Date Collected: 04/04/23 10:35
Date Received: 04/07/23 13:35
Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	2.48	ug/L	0.50	0.09	1	04/13/23 12:52	04/12/23	
Cobalt	200.8	33.6	ug/L	0.020	0.009	1	04/13/23 12:52	04/12/23	
Iron	200.8	78100	ug/L	80	6	20	04/13/23 13:22	04/12/23	
Manganese	200.8	661	ug/L	0.20	0.04	1	04/13/23 12:52	04/12/23	

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Analytical Report

Client: Anchor QEA, LLC
Project: Barry 2023-2024/221114-08.02 Task 06
Sample Matrix: Water
Sample Name: BY-AP-MW-15V-DUP-20230404
Lab Code: K2304153-005

Service Request: K2304153
Date Collected: 04/04/23 10:35
Date Received: 04/07/23 13:35
Basis: NA

Total Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	15.5	ug/L	0.50	0.09	1	04/13/23 12:13	04/12/23	
Cobalt	200.8	34.5	ug/L	0.020	0.009	1	04/13/23 12:13	04/12/23	
Iron	200.8	89500	ug/L	80	6	20	04/13/23 13:15	04/12/23	
Manganese	200.8	669	ug/L	0.20	0.04	1	04/13/23 12:13	04/12/23	

ALS Group USA, Corp.
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Analytical Report

Client: Anchor QEA, LLC
Project: Barry 2023-2024/221114-08.02 Task 06
Sample Matrix: Water
Sample Name: BY-AP-MW-24H-20230404
Lab Code: K2304153-006

Service Request: K2304153
Date Collected: 04/04/23 10:40
Date Received: 04/07/23 13:35
Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	31.7	ug/L	0.50	0.09	1	04/13/23 12:53	04/12/23	
Cobalt	200.8	5.28	ug/L	0.020	0.009	1	04/13/23 12:53	04/12/23	
Iron	200.8	90700	ug/L	80	6	20	04/13/23 13:24	04/12/23	
Manganese	200.8	202	ug/L	0.20	0.04	1	04/13/23 12:53	04/12/23	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Anchor QEA, LLC
Project: Barry 2023-2024/221114-08.02 Task 06
Sample Matrix: Water
Sample Name: BY-AP-MW-24H-20230404
Lab Code: K2304153-006

Service Request: K2304153
Date Collected: 04/04/23 10:40
Date Received: 04/07/23 13:35
Basis: NA

Total Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	70.1	ug/L	0.50	0.09	1	04/13/23 12:15	04/12/23	
Cobalt	200.8	5.40	ug/L	0.020	0.009	1	04/13/23 12:15	04/12/23	
Iron	200.8	103000	ug/L	80	6	20	04/13/23 13:16	04/12/23	
Manganese	200.8	204	ug/L	0.20	0.04	1	04/13/23 12:15	04/12/23	

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Analytical Report

Client: Anchor QEA, LLC
Project: Barry 2023-2024/221114-08.02 Task 06
Sample Matrix: Water
Sample Name: BY-AP-MW-2-20230404
Lab Code: K2304153-007

Service Request: K2304153
Date Collected: 04/04/23 10:45
Date Received: 04/07/23 13:35

Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	1.40	ug/L	0.50	0.09	1	04/13/23 12:55	04/12/23	
Cobalt	200.8	4.06	ug/L	0.020	0.009	1	04/13/23 12:55	04/12/23	
Iron	200.8	304	ug/L	4.0	0.3	1	04/13/23 12:55	04/12/23	
Manganese	200.8	193	ug/L	0.20	0.04	1	04/13/23 12:55	04/12/23	

ALS Group USA, Corp.
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Analytical Report

Client: Anchor QEA, LLC
Project: Barry 2023-2024/221114-08.02 Task 06
Sample Matrix: Water
Sample Name: BY-AP-MW-2-20230404
Lab Code: K2304153-007

Service Request: K2304153
Date Collected: 04/04/23 10:45
Date Received: 04/07/23 13:35
Basis: NA

Total Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	1.49	ug/L	0.50	0.09	1	04/13/23 12:16	04/12/23	
Cobalt	200.8	4.04	ug/L	0.020	0.009	1	04/13/23 12:16	04/12/23	
Iron	200.8	298	ug/L	2.0	0.3	1	04/13/23 12:16	04/12/23	
Manganese	200.8	192	ug/L	0.20	0.04	1	04/13/23 12:16	04/12/23	

ALS Group USA, Corp.
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Analytical Report

Client: Anchor QEA, LLC
Project: Barry 2023-2024/221114-08.02 Task 06
Sample Matrix: Water
Sample Name: BY-AP-MB
Lab Code: K2304153-008

Service Request: K2304153
Date Collected: 04/04/23 10:50
Date Received: 04/07/23 13:35
Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	ND U	ug/L	0.50	0.09	1	04/13/23 12:56	04/12/23	
Cobalt	200.8	ND U	ug/L	0.020	0.009	1	04/13/23 12:56	04/12/23	
Iron	200.8	32.5	ug/L	4.0	0.3	1	04/13/23 12:56	04/12/23	
Manganese	200.8	0.30	ug/L	0.20	0.04	1	04/13/23 12:56	04/12/23	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Anchor QEA, LLC
Project: Barry 2023-2024/221114-08.02 Task 06
Sample Matrix: Water
Sample Name: BY-AP-MB
Lab Code: K2304153-008

Service Request: K2304153
Date Collected: 04/04/23 10:50
Date Received: 04/07/23 13:35
Basis: NA

Total Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	ND U	ug/L	0.50	0.09	1	04/13/23 12:18	04/12/23	
Cobalt	200.8	ND U	ug/L	0.020	0.009	1	04/13/23 12:18	04/12/23	
Iron	200.8	31.3	ug/L	2.0	0.3	1	04/13/23 12:18	04/12/23	
Manganese	200.8	0.27	ug/L	0.20	0.04	1	04/13/23 12:18	04/12/23	



QC Summary Forms

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Metals

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1317 South 13th Avenue, Kelso, WA 98626
Phone (360) 577-7222 Fax (360) 425-9096
www.alsglobal.com

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Anchor QEA, LLC
Project: Barry 2023-2024/221114-08.02 Task 06
Sample Matrix: Water
Sample Name: Method Blank
Lab Code: KQ2306478-01

Service Request: K2304153
Date Collected: NA
Date Received: NA
Basis: NA

Total Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	ND U	ug/L	0.50	0.09	1	04/13/23 11:25	04/12/23	
Cobalt	200.8	ND U	ug/L	0.020	0.009	1	04/13/23 11:25	04/12/23	
Iron	200.8	ND U	ug/L	2.0	0.3	1	04/13/23 11:25	04/12/23	
Manganese	200.8	ND U	ug/L	0.20	0.04	1	04/13/23 11:25	04/12/23	

ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client: Anchor QEA, LLC
Project: Barry 2023-2024/221114-08.02 Task 06
Sample Matrix: Water

Service Request: K2304153
Date Collected: 04/04/23
Date Received: 04/07/23
Date Analyzed: 04/13/23
Date Extracted: 04/12/23

Matrix Spike Summary
Total Metals

Sample Name: BY-AP-MW-1-20230404
Lab Code: K2304153-001
Analysis Method: 200.8
Prep Method: EPA CLP ILM04.0

Units: ug/L
Basis: NA

Matrix Spike
KQ2306478-05

Analyte Name	Sample Result	Result	Spike Amount	% Rec	% Rec Limits
Arsenic	66.9	114	50.0	95	70-130
Cobalt	1.05	24.9	25.0	95	70-130
Iron	112000	112000	50	48 #	70-130
Manganese	772	802	25.0	121 #	70-130

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

Matrix Spike and Matrix Spike Duplicate Data is presented for information purposes only. The matrix may or may not be relevant to samples reported in this report. The laboratory evaluates system performance based on the LCS and LCSD control limits.

ALS Group USA, Corp.

dba ALS Environmental

QA/QC Report

Client: Anchor QEA, LLC
Project: Barry 2023-2024/221114-08.02 Task 06
Sample Matrix: Water

Service Request: K2304153
Date Collected: 04/04/23
Date Received: 04/07/23
Date Analyzed: 04/13/23

Replicate Sample Summary
Total Metals

Sample Name: BY-AP-MW-1-20230404
Lab Code: K2304153-001

Units: ug/L
Basis: NA

Table with 9 columns: Analyte Name, Analysis Method, MRL, MDL, Sample Result, Duplicate Sample KQ2306478-06 Result, Average, RPD, RPD Limit. Rows include Arsenic, Cobalt, Iron, and Manganese.

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client: Anchor QEA, LLC
Project: Barry 2023-2024/221114-08.02 Task 06
Sample Matrix: Water

Service Request: K2304153
Date Analyzed: 04/13/23

Lab Control Sample Summary
Total Metals

Units:ug/L
Basis:NA

Lab Control Sample
KQ2306478-02

Analyte Name	Analytical Method	Result	Spike Amount	% Rec	% Rec Limits
Arsenic	200.8	48.4	50.0	97	85-115
Cobalt	200.8	24.8	25.0	99	85-115
Iron	200.8	48.5	50.0	97	85-115
Manganese	200.8	25.3	25.0	101	85-115



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062

Thursday, May 19, 2022

Jessica Goin, PhD
Anchor QEA, LLC
6720 SW Macadam Ave. Suite 125
Portland, OR 97219

RE: A2D0996 - Barry 2022 - 201114-01.02

Thank you for using Apex Laboratories. We greatly appreciate your business and strive to provide the highest quality services to the environmental industry.

Enclosed are the results of analyses for work order A2D0996, which was received by the laboratory on 4/25/2022 at 12:44:00PM.

If you have any questions concerning this report or the services we offer, please feel free to contact me by email at: dthomas@apex-labs.com, or by phone at 503-718-2323.

Please note: All samples will be disposed of within 30 days of sample receipt, unless prior arrangements have been made.

Cooler Receipt Information

(See Cooler Receipt Form for details)

Cooler #1 3.9 degC



DRAFT REPORT

The results provided in this report are PRELIMINARY and are subject to change based on subsequent analysis, QC validation or final data review. Please use these results with the understanding that they may have not been finalized by the laboratory.



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062

Anchor QEA, LLC 6720 SW Macadam Ave. Suite 125 Portland, OR 97219	Project: Barry 2022 Project Number: 201114-01.02 Project Manager: Jessica Goin, PhD	Report ID: A2D0996 - 05 19 22 1407
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ANALYTICAL REPORT FOR SAMPLES

SAMPLE INFORMATION

Client Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
BY-AP-PT-1-(55-68)	A2D0996-01	Soil	04/25/22 08:00	04/25/22 12:44
BY-AP-PT-1-(75-85)	A2D0996-02	Soil	04/25/22 08:15	04/25/22 12:44
BY-AP-PT-2-(65-70)	A2D0996-03	Soil	04/25/22 08:30	04/25/22 12:44
BY-AP-PT-2-(75-80)	A2D0996-04	Soil	04/25/22 08:45	04/25/22 12:44
BY-AP-PT-2-(65-70)-DUP	A2D0996-05	Soil	04/25/22 09:00	04/25/22 12:44
BY-AP-PT-3	A2D0996-06	Soil	04/25/22 09:15	04/25/22 12:44
BY-AP-PT-5-(50-70)	A2D0996-07	Soil	04/25/22 09:30	04/25/22 12:44

DRAFT REPORT

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ANALYTICAL REPORT

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503-718-2323
ORELAP ID: OR100062

Anchor QEA, LLC 6720 SW Macadam Ave. Suite 125 Portland, OR 97219	Project: Barry 2022 Project Number: 201114-01.02 Project Manager: Jessica Goin, PhD	Report ID: A2D0996 - 05 19 22 1407
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ANALYTICAL SAMPLE RESULTS

Total Metals by EPA 6020B (ICPMS)

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
BY-AP-PT-1-(55-68) (A2D0996-01)				Matrix: Soil				
Batch: 22E0219								
Antimony	ND	0.569	1.14	mg/kg dry	10	05/10/22 04:46	EPA 6020B	
Arsenic	ND	0.569	1.14	mg/kg dry	10	05/10/22 04:46	EPA 6020B	
Barium	2.03	0.569	1.14	mg/kg dry	10	05/10/22 04:46	EPA 6020B	
Beryllium	ND	0.114	0.228	mg/kg dry	10	05/10/22 04:46	EPA 6020B	
Cadmium	ND	0.114	0.228	mg/kg dry	10	05/10/22 04:46	EPA 6020B	
Chromium	0.885	0.569	1.14	mg/kg dry	10	05/10/22 04:46	EPA 6020B	J
Cobalt	ND	0.569	1.14	mg/kg dry	10	05/10/22 04:46	EPA 6020B	
Iron	685	28.5	56.9	mg/kg dry	10	05/10/22 04:46	EPA 6020B	
Lead	0.343	0.114	0.228	mg/kg dry	10	05/10/22 04:46	EPA 6020B	
Manganese	6.82	0.569	1.14	mg/kg dry	10	05/10/22 04:46	EPA 6020B	
Mercury	ND	0.0455	0.0910	mg/kg dry	10	05/10/22 04:46	EPA 6020B	
Molybdenum	ND	0.569	1.14	mg/kg dry	10	05/10/22 04:46	EPA 6020B	
Selenium	ND	0.569	1.14	mg/kg dry	10	05/10/22 04:46	EPA 6020B	
Thallium	ND	0.114	0.228	mg/kg dry	10	05/10/22 04:46	EPA 6020B	
BY-AP-PT-1-(75-85) (A2D0996-02)				Matrix: Soil				
Batch: 22E0219								
Antimony	ND	0.596	1.19	mg/kg dry	10	05/10/22 05:01	EPA 6020B	
Arsenic	ND	0.596	1.19	mg/kg dry	10	05/10/22 05:01	EPA 6020B	
Barium	2.66	0.596	1.19	mg/kg dry	10	05/10/22 05:01	EPA 6020B	
Beryllium	ND	0.119	0.238	mg/kg dry	10	05/10/22 05:01	EPA 6020B	
Cadmium	ND	0.119	0.238	mg/kg dry	10	05/10/22 05:01	EPA 6020B	
Chromium	1.05	0.596	1.19	mg/kg dry	10	05/10/22 05:01	EPA 6020B	J
Cobalt	ND	0.596	1.19	mg/kg dry	10	05/10/22 05:01	EPA 6020B	
Iron	1250	29.8	59.6	mg/kg dry	10	05/10/22 05:01	EPA 6020B	
Lead	0.466	0.119	0.238	mg/kg dry	10	05/10/22 05:01	EPA 6020B	
Manganese	22.1	0.596	1.19	mg/kg dry	10	05/10/22 05:01	EPA 6020B	
Mercury	ND	0.0477	0.0953	mg/kg dry	10	05/10/22 05:01	EPA 6020B	
Molybdenum	ND	0.596	1.19	mg/kg dry	10	05/10/22 05:01	EPA 6020B	
Selenium	ND	0.596	1.19	mg/kg dry	10	05/10/22 05:01	EPA 6020B	
Thallium	ND	0.119	0.238	mg/kg dry	10	05/10/22 05:01	EPA 6020B	
BY-AP-PT-2-(65-70) (A2D0996-03)				Matrix: Soil				

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ANALYTICAL SAMPLE RESULTS

Total Metals by EPA 6020B (ICPMS)

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
BY-AP-PT-2-(65-70) (A2D0996-03)				Matrix: Soil				
Batch: 22E0219								
Antimony	ND	0.604	1.21	mg/kg dry	10	05/10/22 05:07	EPA 6020B	
Arsenic	ND	0.604	1.21	mg/kg dry	10	05/10/22 05:07	EPA 6020B	
Barium	4.72	0.604	1.21	mg/kg dry	10	05/10/22 05:07	EPA 6020B	
Beryllium	ND	0.121	0.241	mg/kg dry	10	05/10/22 05:07	EPA 6020B	
Cadmium	ND	0.121	0.241	mg/kg dry	10	05/10/22 05:07	EPA 6020B	
Chromium	2.89	0.604	1.21	mg/kg dry	10	05/10/22 05:07	EPA 6020B	
Cobalt	ND	0.604	1.21	mg/kg dry	10	05/10/22 05:07	EPA 6020B	
Iron	708	30.2	60.4	mg/kg dry	10	05/10/22 05:07	EPA 6020B	
Lead	0.950	0.121	0.241	mg/kg dry	10	05/10/22 05:07	EPA 6020B	
Manganese	5.89	0.604	1.21	mg/kg dry	10	05/10/22 05:07	EPA 6020B	
Mercury	ND	0.0483	0.0966	mg/kg dry	10	05/10/22 05:07	EPA 6020B	
Molybdenum	ND	0.604	1.21	mg/kg dry	10	05/10/22 05:07	EPA 6020B	
Selenium	ND	0.604	1.21	mg/kg dry	10	05/10/22 05:07	EPA 6020B	
Thallium	ND	0.121	0.241	mg/kg dry	10	05/10/22 05:07	EPA 6020B	
BY-AP-PT-2-(75-80) (A2D0996-04)				Matrix: Soil				
Batch: 22E0219								
Antimony	ND	0.628	1.26	mg/kg dry	10	05/10/22 05:12	EPA 6020B	
Arsenic	ND	0.628	1.26	mg/kg dry	10	05/10/22 05:12	EPA 6020B	
Barium	4.73	0.628	1.26	mg/kg dry	10	05/10/22 05:12	EPA 6020B	
Beryllium	ND	0.126	0.251	mg/kg dry	10	05/10/22 05:12	EPA 6020B	
Cadmium	ND	0.126	0.251	mg/kg dry	10	05/10/22 05:12	EPA 6020B	
Chromium	3.95	0.628	1.26	mg/kg dry	10	05/10/22 05:12	EPA 6020B	
Cobalt	ND	0.628	1.26	mg/kg dry	10	05/10/22 05:12	EPA 6020B	
Iron	1150	31.4	62.8	mg/kg dry	10	05/10/22 05:12	EPA 6020B	
Manganese	9.91	0.628	1.26	mg/kg dry	10	05/10/22 05:12	EPA 6020B	
Mercury	ND	0.0502	0.100	mg/kg dry	10	05/10/22 05:12	EPA 6020B	
Molybdenum	ND	0.628	1.26	mg/kg dry	10	05/10/22 05:12	EPA 6020B	
Selenium	ND	0.628	1.26	mg/kg dry	10	05/10/22 05:12	EPA 6020B	
Thallium	ND	0.126	0.251	mg/kg dry	10	05/10/22 05:12	EPA 6020B	
BY-AP-PT-2-(75-80) (A2D0996-04RE1)				Matrix: Soil				
Batch: 22E0219								

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ANALYTICAL SAMPLE RESULTS

Total Metals by EPA 6020B (ICPMS)

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
BY-AP-PT-2-(75-80) (A2D0996-04RE1)				Matrix: Soil				
Lead	0.606	0.126	0.251	mg/kg dry	10	05/10/22 12:31	EPA 6020B	
BY-AP-PT-2-(65-70)-DUP (A2D0996-05)				Matrix: Soil				
Batch: 22E0219								
Antimony	ND	0.612	1.22	mg/kg dry	10	05/10/22 05:17	EPA 6020B	
Arsenic	ND	0.612	1.22	mg/kg dry	10	05/10/22 05:17	EPA 6020B	
Barium	4.45	0.612	1.22	mg/kg dry	10	05/10/22 05:17	EPA 6020B	
Beryllium	ND	0.122	0.245	mg/kg dry	10	05/10/22 05:17	EPA 6020B	
Cadmium	ND	0.122	0.245	mg/kg dry	10	05/10/22 05:17	EPA 6020B	
Chromium	2.36	0.612	1.22	mg/kg dry	10	05/10/22 05:17	EPA 6020B	
Cobalt	ND	0.612	1.22	mg/kg dry	10	05/10/22 05:17	EPA 6020B	
Iron	518	30.6	61.2	mg/kg dry	10	05/10/22 05:17	EPA 6020B	
Lead	0.871	0.122	0.245	mg/kg dry	10	05/10/22 05:17	EPA 6020B	
Manganese	4.49	0.612	1.22	mg/kg dry	10	05/10/22 05:17	EPA 6020B	
Mercury	ND	0.0489	0.0978	mg/kg dry	10	05/10/22 05:17	EPA 6020B	
Molybdenum	ND	0.612	1.22	mg/kg dry	10	05/10/22 05:17	EPA 6020B	
Selenium	ND	0.612	1.22	mg/kg dry	10	05/10/22 05:17	EPA 6020B	
Thallium	ND	0.122	0.245	mg/kg dry	10	05/10/22 05:17	EPA 6020B	
BY-AP-PT-3 (A2D0996-06)				Matrix: Soil				
Batch: 22E0219								
Antimony	ND	0.603	1.21	mg/kg dry	10	05/10/22 05:22	EPA 6020B	
Arsenic	ND	0.603	1.21	mg/kg dry	10	05/10/22 05:22	EPA 6020B	
Barium	4.72	0.603	1.21	mg/kg dry	10	05/10/22 05:22	EPA 6020B	
Beryllium	ND	0.121	0.241	mg/kg dry	10	05/10/22 05:22	EPA 6020B	
Cadmium	ND	0.121	0.241	mg/kg dry	10	05/10/22 05:22	EPA 6020B	
Chromium	4.62	0.603	1.21	mg/kg dry	10	05/10/22 05:22	EPA 6020B	
Cobalt	ND	0.603	1.21	mg/kg dry	10	05/10/22 05:22	EPA 6020B	
Iron	914	30.2	60.3	mg/kg dry	10	05/10/22 05:22	EPA 6020B	
Lead	1.26	0.121	0.241	mg/kg dry	10	05/10/22 05:22	EPA 6020B	
Manganese	2.79	0.603	1.21	mg/kg dry	10	05/10/22 05:22	EPA 6020B	
Mercury	ND	0.0483	0.0965	mg/kg dry	10	05/10/22 05:22	EPA 6020B	
Molybdenum	ND	0.603	1.21	mg/kg dry	10	05/10/22 05:22	EPA 6020B	
Selenium	ND	0.603	1.21	mg/kg dry	10	05/10/22 05:22	EPA 6020B	

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ANALYTICAL SAMPLE RESULTS

Total Metals by EPA 6020B (ICPMS)

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
BY-AP-PT-3 (A2D0996-06)				Matrix: Soil				
Thallium	ND	0.121	0.241	mg/kg dry	10	05/10/22 05:22	EPA 6020B	
BY-AP-PT-5-(50-70) (A2D0996-07)				Matrix: Soil				
Batch: 22E0219								
Antimony	ND	0.624	1.25	mg/kg dry	10	05/10/22 05:27	EPA 6020B	
Arsenic	ND	0.624	1.25	mg/kg dry	10	05/10/22 05:27	EPA 6020B	
Barium	3.06	0.624	1.25	mg/kg dry	10	05/10/22 05:27	EPA 6020B	
Beryllium	ND	0.125	0.249	mg/kg dry	10	05/10/22 05:27	EPA 6020B	
Cadmium	ND	0.125	0.249	mg/kg dry	10	05/10/22 05:27	EPA 6020B	
Chromium	2.10	0.624	1.25	mg/kg dry	10	05/10/22 05:27	EPA 6020B	
Cobalt	ND	0.624	1.25	mg/kg dry	10	05/10/22 05:27	EPA 6020B	
Iron	837	31.2	62.4	mg/kg dry	10	05/10/22 05:27	EPA 6020B	
Lead	0.636	0.125	0.249	mg/kg dry	10	05/10/22 05:27	EPA 6020B	
Manganese	5.19	0.624	1.25	mg/kg dry	10	05/10/22 05:27	EPA 6020B	
Mercury	ND	0.0499	0.0998	mg/kg dry	10	05/10/22 05:27	EPA 6020B	
Molybdenum	ND	0.624	1.25	mg/kg dry	10	05/10/22 05:27	EPA 6020B	
Selenium	ND	0.624	1.25	mg/kg dry	10	05/10/22 05:27	EPA 6020B	
Thallium	ND	0.125	0.249	mg/kg dry	10	05/10/22 05:27	EPA 6020B	

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ANALYTICAL SAMPLE RESULTS

Anions by Ion Chromatography - Low Level

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
BY-AP-PT-1-(55-68) (A2D0996-01)				Matrix: Soil				
Batch: 22D1129								
Fluoride	ND	0.561	1.12	mg/kg dry	1	04/29/22 22:35	EPA 9056A LL	
BY-AP-PT-1-(75-85) (A2D0996-02)				Matrix: Soil				
Batch: 22D1129								
Fluoride	ND	0.575	1.15	mg/kg dry	1	04/29/22 22:56	EPA 9056A LL	
BY-AP-PT-2-(65-70) (A2D0996-03)				Matrix: Soil				
Batch: 22D1129								
Fluoride	ND	0.592	1.18	mg/kg dry	1	04/29/22 23:18	EPA 9056A LL	
BY-AP-PT-2-(75-80) (A2D0996-04)				Matrix: Soil				
Batch: 22D1129								
Fluoride	ND	0.575	1.15	mg/kg dry	1	04/30/22 01:06	EPA 9056A LL	
BY-AP-PT-2-(65-70)-DUP (A2D0996-05)				Matrix: Soil				
Batch: 22D1129								
Fluoride	ND	0.588	1.18	mg/kg dry	1	04/30/22 01:27	EPA 9056A LL	
BY-AP-PT-3 (A2D0996-06)				Matrix: Soil				
Batch: 22D1129								
Fluoride	ND	0.584	1.17	mg/kg dry	1	04/30/22 01:49	EPA 9056A LL	
BY-AP-PT-5-(50-70) (A2D0996-07)				Matrix: Soil				
Batch: 22D1129								
Fluoride	ND	0.561	1.12	mg/kg dry	1	04/30/22 02:10	EPA 9056A LL	

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ANALYTICAL SAMPLE RESULTS

Demand Parameters

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
BY-AP-PT-1-(55-68) (A2D0996-01)				Matrix: Soil				
Batch: 22E0048								
Total Organic Carbon	310	200	200	mg/kg	1	05/05/22 14:00	EPA 9060Amod	
BY-AP-PT-1-(75-85) (A2D0996-02)				Matrix: Soil				
Batch: 22E0048								
Total Organic Carbon	280	200	200	mg/kg	1	05/05/22 14:11	EPA 9060Amod	
BY-AP-PT-2-(65-70) (A2D0996-03)				Matrix: Soil				
Batch: 22E0048								
Total Organic Carbon	250	200	200	mg/kg	1	05/05/22 14:44	EPA 9060Amod	
BY-AP-PT-2-(75-80) (A2D0996-04)				Matrix: Soil				
Batch: 22E0048								
Total Organic Carbon	340	200	200	mg/kg	1	05/05/22 14:55	EPA 9060Amod	
BY-AP-PT-2-(65-70)-DUP (A2D0996-05)				Matrix: Soil				
Batch: 22E0048								
Total Organic Carbon	220	200	200	mg/kg	1	05/05/22 15:05	EPA 9060Amod	
BY-AP-PT-3 (A2D0996-06)				Matrix: Soil				
Batch: 22E0048								
Total Organic Carbon	1200	200	200	mg/kg	1	05/05/22 15:16	EPA 9060Amod	
BY-AP-PT-5-(50-70) (A2D0996-07RE2)				Matrix: Soil				
Batch: 22E0467								
Total Organic Carbon	300	200	200	mg/kg	1	05/12/22 11:07	EPA 9060Amod	

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ANALYTICAL SAMPLE RESULTS

Grain Size by ASTM D 422m/RSET Parameters

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
BY-AP-PT-1-(55-68) (A2D0996-01)				Matrix: Soil		Batch: 22E0089		
Gravel (>2.00mm)	1.83	0.01	0.01	% of Total	1	05/11/22 17:36	D422mod	GS-01
% Retained 4.75 mm sieve (#4)	0.03	0.01	0.01	% of Total	1	05/11/22 17:36	D422mod	GS-01
% Retained 2.00 mm sieve (#10)	1.80	0.01	0.01	% of Total	1	05/11/22 17:36	D422mod	GS-01
Sand (0.063mm - 2.00mm)	97.4	0.01	0.01	% of Total	1	05/11/22 17:36	D422mod	GS-01
% Retained 0.85 mm sieve (#20)	8.61	0.01	0.01	% of Total	1	05/11/22 17:36	D422mod	GS-01
% Retained 0.425 mm sieve (#40)	58.9	0.01	0.01	% of Total	1	05/11/22 17:36	D422mod	GS-01
% Retained 0.250 mm sieve (#60)	27.1	0.01	0.01	% of Total	1	05/11/22 17:36	D422mod	GS-01
% Retained 0.150 mm sieve (#100)	2.04	0.01	0.01	% of Total	1	05/11/22 17:36	D422mod	GS-01
% Retained 0.106 mm sieve (#140)	0.44	0.01	0.01	% of Total	1	05/11/22 17:36	D422mod	GS-01
% Retained 0.075 mm sieve (#200)	0.19	0.01	0.01	% of Total	1	05/11/22 17:36	D422mod	GS-01
% Retained 0.063 mm sieve (#230)	0.08	0.01	0.01	% of Total	1	05/11/22 17:36	D422mod	GS-01
Silt (0.005mm < 0.063mm)	0.70	0.01	0.01	% of Total	1	05/11/22 17:36	D422mod	GS-01
Clay (< 0.005 mm)	0.10	0.01	0.01	% of Total	1	05/11/22 17:36	D422mod	GS-01
BY-AP-PT-1-(75-85) (A2D0996-02)				Matrix: Soil		Batch: 22E0089		
Gravel (>2.00mm)	0.09	0.01	0.01	% of Total	1	05/11/22 17:36	D422mod	GS-01
% Retained 4.75 mm sieve (#4)	ND	0.01	0.01	% of Total	1	05/11/22 17:36	D422mod	GS-01
% Retained 2.00 mm sieve (#10)	0.09	0.01	0.01	% of Total	1	05/11/22 17:36	D422mod	GS-01
Sand (0.063mm - 2.00mm)	98.7	0.01	0.01	% of Total	1	05/11/22 17:36	D422mod	GS-01
% Retained 0.85 mm sieve (#20)	0.48	0.01	0.01	% of Total	1	05/11/22 17:36	D422mod	GS-01
% Retained 0.425 mm sieve (#40)	9.42	0.01	0.01	% of Total	1	05/11/22 17:36	D422mod	GS-01
% Retained 0.250 mm sieve (#60)	72.6	0.01	0.01	% of Total	1	05/11/22 17:36	D422mod	GS-01
% Retained 0.150 mm sieve (#100)	14.7	0.01	0.01	% of Total	1	05/11/22 17:36	D422mod	GS-01
% Retained 0.106 mm sieve (#140)	0.97	0.01	0.01	% of Total	1	05/11/22 17:36	D422mod	GS-01
% Retained 0.075 mm sieve (#200)	0.39	0.01	0.01	% of Total	1	05/11/22 17:36	D422mod	GS-01
% Retained 0.063 mm sieve (#230)	0.15	0.01	0.01	% of Total	1	05/11/22 17:36	D422mod	GS-01
Silt (0.005mm < 0.063mm)	1.10	0.01	0.01	% of Total	1	05/11/22 17:36	D422mod	GS-01
Clay (< 0.005 mm)	0.10	0.01	0.01	% of Total	1	05/11/22 17:36	D422mod	GS-01
BY-AP-PT-2-(65-70) (A2D0996-03)				Matrix: Soil		Batch: 22E0089		
Gravel (>2.00mm)	1.93	0.01	0.01	% of Total	1	05/11/22 17:36	D422mod	GS-01
% Retained 4.75 mm sieve (#4)	1.32	0.01	0.01	% of Total	1	05/11/22 17:36	D422mod	GS-01
% Retained 2.00 mm sieve (#10)	0.61	0.01	0.01	% of Total	1	05/11/22 17:36	D422mod	GS-01

DRAFT REPORT

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ANALYTICAL REPORT

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ORELAP ID: OR100062

Anchor QEA, LLC 6720 SW Macadam Ave. Suite 125 Portland, OR 97219	Project: Barry 2022 Project Number: 201114-01.02 Project Manager: Jessica Goin, PhD	Report ID: A2D0996 - 05 19 22 1407
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ANALYTICAL SAMPLE RESULTS

Grain Size by ASTM D 422m/RSET Parameters

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
BY-AP-PT-2-(65-70) (A2D0996-03)				Matrix: Soil		Batch: 22E0089		
Sand (0.063mm - 2.00mm)	94.8	0.01	0.01	% of Total	1	05/11/22 17:36	D422mod	GS-01
% Retained 0.85 mm sieve (#20)	1.81	0.01	0.01	% of Total	1	05/11/22 17:36	D422mod	GS-01
% Retained 0.425 mm sieve (#40)	11.1	0.01	0.01	% of Total	1	05/11/22 17:36	D422mod	GS-01
% Retained 0.250 mm sieve (#60)	36.0	0.01	0.01	% of Total	1	05/11/22 17:36	D422mod	GS-01
% Retained 0.150 mm sieve (#100)	36.9	0.01	0.01	% of Total	1	05/11/22 17:36	D422mod	GS-01
% Retained 0.106 mm sieve (#140)	6.72	0.01	0.01	% of Total	1	05/11/22 17:36	D422mod	GS-01
% Retained 0.075 mm sieve (#200)	1.71	0.01	0.01	% of Total	1	05/11/22 17:36	D422mod	GS-01
% Retained 0.063 mm sieve (#230)	0.53	0.01	0.01	% of Total	1	05/11/22 17:36	D422mod	GS-01
Silt (0.005mm < 0.063mm)	2.90	0.01	0.01	% of Total	1	05/11/22 17:36	D422mod	GS-01
Clay (< 0.005 mm)	0.50	0.01	0.01	% of Total	1	05/11/22 17:36	D422mod	GS-01
BY-AP-PT-2-(75-80) (A2D0996-04)				Matrix: Soil		Batch: 22E0089		
Gravel (>2.00mm)	0.41	0.01	0.01	% of Total	1	05/11/22 17:36	D422mod	GS-01
% Retained 4.75 mm sieve (#4)	ND	0.01	0.01	% of Total	1	05/11/22 17:36	D422mod	GS-01
% Retained 2.00 mm sieve (#10)	0.41	0.01	0.01	% of Total	1	05/11/22 17:36	D422mod	GS-01
Sand (0.063mm - 2.00mm)	92.3	0.01	0.01	% of Total	1	05/11/22 17:36	D422mod	GS-01
% Retained 0.85 mm sieve (#20)	2.30	0.01	0.01	% of Total	1	05/11/22 17:36	D422mod	GS-01
% Retained 0.425 mm sieve (#40)	14.3	0.01	0.01	% of Total	1	05/11/22 17:36	D422mod	GS-01
% Retained 0.250 mm sieve (#60)	42.6	0.01	0.01	% of Total	1	05/11/22 17:36	D422mod	GS-01
% Retained 0.150 mm sieve (#100)	26.0	0.01	0.01	% of Total	1	05/11/22 17:36	D422mod	GS-01
% Retained 0.106 mm sieve (#140)	4.55	0.01	0.01	% of Total	1	05/11/22 17:36	D422mod	GS-01
% Retained 0.075 mm sieve (#200)	1.90	0.01	0.01	% of Total	1	05/11/22 17:36	D422mod	GS-01
% Retained 0.063 mm sieve (#230)	0.77	0.01	0.01	% of Total	1	05/11/22 17:36	D422mod	GS-01
Silt (0.005mm < 0.063mm)	5.20	0.01	0.01	% of Total	1	05/11/22 17:36	D422mod	GS-01
Clay (< 0.005 mm)	2.10	0.01	0.01	% of Total	1	05/11/22 17:36	D422mod	GS-01
BY-AP-PT-2-(65-70)-DUP (A2D0996-05)				Matrix: Soil		Batch: 22E0089		
Gravel (>2.00mm)	1.46	0.01	0.01	% of Total	1	05/11/22 17:36	D422mod	GS-01
% Retained 4.75 mm sieve (#4)	0.83	0.01	0.01	% of Total	1	05/11/22 17:36	D422mod	GS-01
% Retained 2.00 mm sieve (#10)	0.63	0.01	0.01	% of Total	1	05/11/22 17:36	D422mod	GS-01
Sand (0.063mm - 2.00mm)	95.0	0.01	0.01	% of Total	1	05/11/22 17:36	D422mod	GS-01
% Retained 0.85 mm sieve (#20)	1.74	0.01	0.01	% of Total	1	05/11/22 17:36	D422mod	GS-01
% Retained 0.425 mm sieve (#40)	12.0	0.01	0.01	% of Total	1	05/11/22 17:36	D422mod	GS-01

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ANALYTICAL SAMPLE RESULTS

Grain Size by ASTM D 422m/RSET Parameters

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
BY-AP-PT-2-(65-70)-DUP (A2D0996-05)				Matrix: Soil		Batch: 22E0089		
% Retained 0.250 mm sieve (#60)	36.5	0.01	0.01	% of Total	1	05/11/22 17:36	D422mod	GS-01
% Retained 0.150 mm sieve (#100)	35.9	0.01	0.01	% of Total	1	05/11/22 17:36	D422mod	GS-01
% Retained 0.106 mm sieve (#140)	6.70	0.01	0.01	% of Total	1	05/11/22 17:36	D422mod	GS-01
% Retained 0.075 mm sieve (#200)	1.70	0.01	0.01	% of Total	1	05/11/22 17:36	D422mod	GS-01
% Retained 0.063 mm sieve (#230)	0.49	0.01	0.01	% of Total	1	05/11/22 17:36	D422mod	GS-01
Silt (0.005mm < 0.063mm)	3.10	0.01	0.01	% of Total	1	05/11/22 17:36	D422mod	GS-01
Clay (< 0.005 mm)	0.50	0.01	0.01	% of Total	1	05/11/22 17:36	D422mod	GS-01
BY-AP-PT-3 (A2D0996-06)				Matrix: Soil		Batch: 22E0089		
Gravel (>2.00mm)	0.69	0.01	0.01	% of Total	1	05/11/22 17:36	D422mod	GS-01
% Retained 4.75 mm sieve (#4)	ND	0.01	0.01	% of Total	1	05/11/22 17:36	D422mod	GS-01
% Retained 2.00 mm sieve (#10)	0.69	0.01	0.01	% of Total	1	05/11/22 17:36	D422mod	GS-01
Sand (0.063mm - 2.00mm)	94.8	0.01	0.01	% of Total	1	05/11/22 17:36	D422mod	GS-01
% Retained 0.85 mm sieve (#20)	5.59	0.01	0.01	% of Total	1	05/11/22 17:36	D422mod	GS-01
% Retained 0.425 mm sieve (#40)	27.4	0.01	0.01	% of Total	1	05/11/22 17:36	D422mod	GS-01
% Retained 0.250 mm sieve (#60)	39.8	0.01	0.01	% of Total	1	05/11/22 17:36	D422mod	GS-01
% Retained 0.150 mm sieve (#100)	17.4	0.01	0.01	% of Total	1	05/11/22 17:36	D422mod	GS-01
% Retained 0.106 mm sieve (#140)	2.92	0.01	0.01	% of Total	1	05/11/22 17:36	D422mod	GS-01
% Retained 0.075 mm sieve (#200)	1.19	0.01	0.01	% of Total	1	05/11/22 17:36	D422mod	GS-01
% Retained 0.063 mm sieve (#230)	0.42	0.01	0.01	% of Total	1	05/11/22 17:36	D422mod	GS-01
Silt (0.005mm < 0.063mm)	2.50	0.01	0.01	% of Total	1	05/11/22 17:36	D422mod	GS-01
Clay (< 0.005 mm)	2.10	0.01	0.01	% of Total	1	05/11/22 17:36	D422mod	GS-01
BY-AP-PT-5-(50-70) (A2D0996-07)				Matrix: Soil		Batch: 22E0089		
Gravel (>2.00mm)	3.55	0.01	0.01	% of Total	1	05/11/22 17:36	D422mod	GS-01
% Retained 4.75 mm sieve (#4)	2.51	0.01	0.01	% of Total	1	05/11/22 17:36	D422mod	GS-01
% Retained 2.00 mm sieve (#10)	1.04	0.01	0.01	% of Total	1	05/11/22 17:36	D422mod	GS-01
Sand (0.063mm - 2.00mm)	94.4	0.01	0.01	% of Total	1	05/11/22 17:36	D422mod	GS-01
% Retained 0.85 mm sieve (#20)	3.39	0.01	0.01	% of Total	1	05/11/22 17:36	D422mod	GS-01
% Retained 0.425 mm sieve (#40)	33.4	0.01	0.01	% of Total	1	05/11/22 17:36	D422mod	GS-01
% Retained 0.250 mm sieve (#60)	51.9	0.01	0.01	% of Total	1	05/11/22 17:36	D422mod	GS-01
% Retained 0.150 mm sieve (#100)	3.95	0.01	0.01	% of Total	1	05/11/22 17:36	D422mod	GS-01
% Retained 0.106 mm sieve (#140)	0.91	0.01	0.01	% of Total	1	05/11/22 17:36	D422mod	GS-01

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ANALYTICAL SAMPLE RESULTS

Grain Size by ASTM D 422m/RSET Parameters

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
BY-AP-PT-5-(50-70) (A2D0996-07)				Matrix: Soil		Batch: 22E0089		
% Retained 0.075 mm sieve (#200)	0.60	0.01	0.01	% of Total	1	05/11/22 17:36	D422mod	GS-01
% Retained 0.063 mm sieve (#230)	0.29	0.01	0.01	% of Total	1	05/11/22 17:36	D422mod	GS-01
Silt (0.005mm < 0.063mm)	2.00	0.01	0.01	% of Total	1	05/11/22 17:36	D422mod	GS-01
Clay (< 0.005 mm)	0.10	0.01	0.01	% of Total	1	05/11/22 17:36	D422mod	GS-01

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ANALYTICAL SAMPLE RESULTS

Percent Dry Weight

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
BY-AP-PT-1-(55-68) (A2D0996-01)				Matrix: Soil		Batch: 22D1035		
% Solids	88.8	1.00	1.00	%	1	04/28/22 10:27	EPA 8000D	
BY-AP-PT-1-(75-85) (A2D0996-02)				Matrix: Soil		Batch: 22D1035		
% Solids	86.2	1.00	1.00	%	1	04/28/22 10:27	EPA 8000D	
BY-AP-PT-2-(65-70) (A2D0996-03)				Matrix: Soil		Batch: 22D1035		
% Solids	84.3	1.00	1.00	%	1	04/28/22 10:27	EPA 8000D	
BY-AP-PT-2-(75-80) (A2D0996-04)				Matrix: Soil		Batch: 22D1035		
% Solids	87.0	1.00	1.00	%	1	04/28/22 10:27	EPA 8000D	
BY-AP-PT-2-(65-70)-DUP (A2D0996-05)				Matrix: Soil		Batch: 22D1035		
% Solids	84.6	1.00	1.00	%	1	04/28/22 10:27	EPA 8000D	
BY-AP-PT-3 (A2D0996-06)				Matrix: Soil		Batch: 22D1035		
% Solids	85.1	1.00	1.00	%	1	04/28/22 10:27	EPA 8000D	
BY-AP-PT-5-(50-70) (A2D0996-07)				Matrix: Soil		Batch: 22D1035		
% Solids	88.1	1.00	1.00	%	1	04/28/22 10:27	EPA 8000D	

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Analytical Resources, LLC

ANALYTICAL SAMPLE RESULTS (Subcontracted)

Wet Chemistry

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
BY-AP-PT-1-(55-68) (A2D0996-01)				Matrix: Soil		Batch: BKD0807		
Batch: BKD0807								
Total Solids, Sulfide	77.32	0.04	0.04	%	1	04/27/22 13:40	PSEP 1986	
Batch: BKD0823								
Sulfide	ND	1.20	1.20	mg/kg dry	1	04/29/22 11:52	SM 4500-S2 D-00	U
BY-AP-PT-1-(75-85) (A2D0996-02)				Matrix: Soil		Batch: BKD0807		
Batch: BKD0807								
Total Solids, Sulfide	75.26	0.04	0.04	%	1	04/27/22 13:40	PSEP 1986	
Batch: BKD0823								
Sulfide	ND	1.31	1.31	mg/kg dry	1	04/29/22 11:52	SM 4500-S2 D-00	U
BY-AP-PT-2-(65-70) (A2D0996-03)				Matrix: Soil		Batch: BKD0807		
Batch: BKD0807								
Total Solids, Sulfide	76.01	0.04	0.04	%	1	04/27/22 13:40	PSEP 1986	
Batch: BKD0823								
Sulfide	ND	1.26	1.26	mg/kg dry	1	04/29/22 11:53	SM 4500-S2 D-00	U
BY-AP-PT-2-(75-80) (A2D0996-04)				Matrix: Soil		Batch: BKD0807		
Batch: BKD0807								
Total Solids, Sulfide	78.80	0.04	0.04	%	1	04/27/22 13:40	PSEP 1986	
Batch: BKD0823								
Sulfide	ND	1.26	1.26	mg/kg dry	1	04/29/22 11:54	SM 4500-S2 D-00	U
BY-AP-PT-2-(65-70)-DUP (A2D0996-05)				Matrix: Soil		Batch: BKD0807		
Batch: BKD0807								
Total Solids, Sulfide	76.03	0.04	0.04	%	1	04/27/22 13:40	PSEP 1986	
Batch: BKD0823								
Sulfide	ND	1.27	1.27	mg/kg dry	1	04/29/22 11:55	SM 4500-S2 D-00	U
BY-AP-PT-3 (A2D0996-06)				Matrix: Soil		Batch: BKD0807		
Batch: BKD0807								
Total Solids, Sulfide	77.17	0.04	0.04	%	1	04/27/22 13:40	PSEP 1986	
Batch: BKD0823								
Sulfide	ND	1.09	1.09	mg/kg dry	1	04/29/22 11:55	SM 4500-S2 D-00	U

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Analytical Resources, LLC

ANALYTICAL SAMPLE RESULTS (Subcontracted)

Wet Chemistry

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
BY-AP-PT-5-(50-70) (A2D0996-07)				Matrix: Soil		Batch: BKD0807		
Batch: BKD0807								
Total Solids, Sulfide	77.65	0.04	0.04	%	1	04/27/22 13:40	PSEP 1986	
Batch: BKD0823								
Sulfide	ND	1.21	1.21	mg/kg dry	1	04/29/22 11:56	SM 4500-S2 D-00	U

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QUALITY CONTROL (QC) SAMPLE RESULTS

Total Metals by EPA 6020B (ICPMS)

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 22E0219 - EPA 3051A						Soil						
Blank (22E0219-BLK1)			Prepared: 05/06/22 09:00 Analyzed: 05/10/22 03:05									
EPA 6020B												
Antimony	ND	0.481	0.962	mg/kg wet	10	---	---	---	---	---	---	
Arsenic	ND	0.481	0.962	mg/kg wet	10	---	---	---	---	---	---	
Barium	ND	0.481	0.962	mg/kg wet	10	---	---	---	---	---	---	
Beryllium	ND	0.0962	0.192	mg/kg wet	10	---	---	---	---	---	---	
Cadmium	ND	0.0962	0.192	mg/kg wet	10	---	---	---	---	---	---	
Chromium	ND	0.481	0.962	mg/kg wet	10	---	---	---	---	---	---	
Cobalt	ND	0.481	0.962	mg/kg wet	10	---	---	---	---	---	---	
Iron	ND	24.0	48.1	mg/kg wet	10	---	---	---	---	---	---	
Lead	ND	0.0962	0.192	mg/kg wet	10	---	---	---	---	---	---	
Manganese	ND	0.481	0.962	mg/kg wet	10	---	---	---	---	---	---	
Mercury	ND	0.0385	0.0769	mg/kg wet	10	---	---	---	---	---	---	
Molybdenum	ND	0.481	0.962	mg/kg wet	10	---	---	---	---	---	---	
Selenium	ND	0.481	0.962	mg/kg wet	10	---	---	---	---	---	---	
Thallium	ND	0.0962	0.192	mg/kg wet	10	---	---	---	---	---	---	
LCS (22E0219-BS1)						Prepared: 05/06/22 09:00 Analyzed: 05/10/22 03:10						
EPA 6020B												
Antimony	24.2	0.500	1.00	mg/kg wet	10	25.0	---	97	80-120%	---	---	
Arsenic	47.7	0.500	1.00	mg/kg wet	10	50.0	---	95	80-120%	---	---	
Barium	48.9	0.500	1.00	mg/kg wet	10	50.0	---	98	80-120%	---	---	
Beryllium	24.0	0.100	0.200	mg/kg wet	10	25.0	---	96	80-120%	---	---	
Cadmium	47.2	0.100	0.200	mg/kg wet	10	50.0	---	94	80-120%	---	---	
Chromium	46.7	0.500	1.00	mg/kg wet	10	50.0	---	93	80-120%	---	---	
Cobalt	47.7	0.500	1.00	mg/kg wet	10	50.0	---	95	80-120%	---	---	
Iron	2430	25.0	50.0	mg/kg wet	10	2500	---	97	80-120%	---	---	
Lead	45.5	0.100	0.200	mg/kg wet	10	50.0	---	91	80-120%	---	---	
Manganese	46.4	0.500	1.00	mg/kg wet	10	50.0	---	93	80-120%	---	---	
Mercury	0.880	0.0400	0.0800	mg/kg wet	10	1.00	---	88	80-120%	---	---	
Molybdenum	23.7	0.500	1.00	mg/kg wet	10	25.0	---	95	80-120%	---	---	
Selenium	22.2	0.500	1.00	mg/kg wet	10	25.0	---	89	80-120%	---	---	
Thallium	21.9	0.100	0.200	mg/kg wet	10	25.0	---	88	80-120%	---	---	
Duplicate (22E0219-DUP1)						Prepared: 05/06/22 09:00 Analyzed: 05/10/22 03:20						

DRAFT REPORT

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ANALYTICAL REPORT

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503-718-2323
ORELAP ID: OR100062

Anchor QEA, LLC 6720 SW Macadam Ave. Suite 125 Portland, OR 97219	Project: Barry 2022 Project Number: 201114-01.02 Project Manager: Jessica Goin, PhD	Report ID: A2D0996 - 05 19 22 1407
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QUALITY CONTROL (QC) SAMPLE RESULTS

Total Metals by EPA 6020B (ICPMS)

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 22E0219 - EPA 3051A						Soil						
Duplicate (22E0219-DUP1)			Prepared: 05/06/22 09:00 Analyzed: 05/10/22 03:20									
QC Source Sample: Non-SDG (A2D0953-01)												
Antimony	ND	0.648	1.30	mg/kg dry	10	---	ND	---	---	---	20%	
Arsenic	4.51	0.648	1.30	mg/kg dry	10	---	5.05	---	---	11	20%	
Barium	173	0.648	1.30	mg/kg dry	10	---	206	---	---	17	20%	
Beryllium	0.580	0.130	0.259	mg/kg dry	10	---	0.659	---	---	13	20%	
Cadmium	0.438	0.130	0.259	mg/kg dry	10	---	0.388	---	---	12	20%	
Chromium	19.8	0.648	1.30	mg/kg dry	10	---	22.5	---	---	13	20%	
Cobalt	12.6	0.648	1.30	mg/kg dry	10	---	15.1	---	---	18	20%	
Iron	28400	32.4	64.8	mg/kg dry	10	---	34800	---	---	20	20%	
Lead	50.5	0.130	0.259	mg/kg dry	10	---	42.8	---	---	17	20%	
Manganese	599	0.648	1.30	mg/kg dry	10	---	756	---	---	23	20%	Q-04
Mercury	0.0660	0.0518	0.104	mg/kg dry	10	---	0.0749	---	---	13	20%	J
Molybdenum	ND	0.648	1.30	mg/kg dry	10	---	0.825	---	---	***	20%	
Selenium	ND	0.648	1.30	mg/kg dry	10	---	ND	---	---	---	20%	
Thallium	0.131	0.130	0.259	mg/kg dry	10	---	ND	---	---	20%		J

Matrix Spike (22E0219-MS1)			Prepared: 05/06/22 09:00 Analyzed: 05/10/22 03:25									
QC Source Sample: Non-SDG (A2D0953-01)												
EPA 6020B												
Antimony	31.9	0.693	1.39	mg/kg dry	10	34.7	ND	92	75-125%	---	---	
Arsenic	73.3	0.693	1.39	mg/kg dry	10	69.3	5.05	98	75-125%	---	---	
Barium	245	0.693	1.39	mg/kg dry	10	69.3	206	57	75-125%	---	---	Q-04
Beryllium	33.7	0.139	0.277	mg/kg dry	10	34.7	0.659	95	75-125%	---	---	
Cadmium	68.6	0.139	0.277	mg/kg dry	10	69.3	0.388	98	75-125%	---	---	
Chromium	89.7	0.693	1.39	mg/kg dry	10	69.3	22.5	97	75-125%	---	---	
Cobalt	82.9	0.693	1.39	mg/kg dry	10	69.3	15.1	98	75-125%	---	---	
Iron	33500	34.7	69.3	mg/kg dry	10	3470	34800	-37	75-125%	---	---	Q-04
Lead	112	0.139	0.277	mg/kg dry	10	69.3	42.8	99	75-125%	---	---	
Manganese	668	0.693	1.39	mg/kg dry	10	69.3	756	-127	75-125%	---	---	Q-04
Mercury	1.27	0.0555	0.111	mg/kg dry	10	1.39	0.0749	86	75-125%	---	---	
Molybdenum	33.9	0.693	1.39	mg/kg dry	10	34.7	0.825	95	75-125%	---	---	
Selenium	30.7	0.693	1.39	mg/kg dry	10	34.7	ND	89	75-125%	---	---	
Thallium	31.1	0.139	0.277	mg/kg dry	10	34.7	ND	90	75-125%	---	---	

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Anchor QEA, LLC 6720 SW Macadam Ave. Suite 125 Portland, OR 97219	Project: Barry 2022 Project Number: 201114-01.02 Project Manager: Jessica Goin, PhD	Report ID: A2D0996 - 05 19 22 1407
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QUALITY CONTROL (QC) SAMPLE RESULTS

Anions by Ion Chromatography - Low Level

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 22D1129 - DI Leach						Soil						
Blank (22D1129-BLK1)						Prepared: 04/29/22 10:46 Analyzed: 04/29/22 20:47						
<u>EPA 9056A LL</u>												
Fluoride	ND	0.500	1.00	mg/kg wet	1	---	---	---	---	---	---	
LCS (22D1129-BS1)						Prepared: 04/29/22 10:46 Analyzed: 04/29/22 21:08						
<u>EPA 9056A LL</u>												
Fluoride	86.6	0.500	1.00	mg/kg wet	1	80.0	---	108	90-110%	---	---	
Duplicate (22D1129-DUP1)						Prepared: 04/29/22 10:46 Analyzed: 04/29/22 23:39						
<u>QC Source Sample: BY-AP-PT-2-(65-70) (A2D0996-03)</u>												
<u>EPA 9056A LL</u>												
Fluoride	ND	0.590	1.18	mg/kg dry	1	---	ND	---	---	---	15%	
Matrix Spike (22D1129-MS1)						Prepared: 04/29/22 10:46 Analyzed: 04/30/22 00:01						
<u>QC Source Sample: BY-AP-PT-2-(65-70) (A2D0996-03)</u>												
<u>EPA 9056A LL</u>												
Fluoride	101	0.589	1.18	mg/kg dry	1	94.3	ND	107	80-120%	---	---	

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QUALITY CONTROL (QC) SAMPLE RESULTS

Demand Parameters

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 22E0048 - PSEP-5310B TOC						Soil						
Blank (22E0048-BLK1)			Prepared: 05/02/22 14:19 Analyzed: 05/05/22 13:17									
<u>EPA 9060Amod</u>												
Total Organic Carbon	ND	200	200	mg/kg	1	---	---	---	---	---	---	
LCS (22E0048-BS1)			Prepared: 05/02/22 14:19 Analyzed: 05/05/22 13:28									
<u>EPA 9060Amod</u>												
Total Organic Carbon	9600	200	200	mg/kg	1	10000	---	96	88-111%	---	---	
Duplicate (22E0048-DUP1)			Prepared: 05/02/22 14:19 Analyzed: 05/05/22 14:22									
<u>QC Source Sample: BY-AP-PT-1-(75-85) (A2D0996-02)</u>												
<u>EPA 9060Amod</u>												
Total Organic Carbon	200	200	200	mg/kg	1	---	280	---	---	200	27%	Q-05
Duplicate (22E0048-DUP2)			Prepared: 05/02/22 14:19 Analyzed: 05/05/22 14:33									
<u>QC Source Sample: BY-AP-PT-1-(75-85) (A2D0996-02)</u>												
<u>EPA 9060Amod</u>												
Total Organic Carbon	250	200	200	mg/kg	1	---	280	---	---	12	27%	

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QUALITY CONTROL (QC) SAMPLE RESULTS

Demand Parameters

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 22E0190 - PSEP-5310B TOC						Soil						
Blank (22E0190-BLK1)						Prepared: 05/05/22 11:46 Analyzed: 05/09/22 16:26						
<u>EPA 9060Amod</u>												
Total Organic Carbon	ND	200	200	mg/kg	1	---	---	---	---	---	---	B-02
LCS (22E0190-BS1)						Prepared: 05/05/22 11:46 Analyzed: 05/09/22 16:37						
<u>EPA 9060Amod</u>												
Total Organic Carbon	10000	200	200	mg/kg	1	10000	---	104	88-111%	---	---	
Duplicate (22E0190-DUP1)						Prepared: 05/05/22 11:46 Analyzed: 05/09/22 18:47						
<u>QC Source Sample: Non-SDG (A2D0950-10)</u>												
Total Organic Carbon	3500	200	200	mg/kg	1	---	4000	---	---	12	27%	B-02, H-08
Duplicate (22E0190-DUP2)						Prepared: 05/05/22 11:46 Analyzed: 05/09/22 18:57						
<u>QC Source Sample: Non-SDG (A2D0950-10)</u>												
Total Organic Carbon	3500	200	200	mg/kg	1	---	4000	---	---	12	27%	B-02, H-08

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QUALITY CONTROL (QC) SAMPLE RESULTS

Demand Parameters

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 22E0443 - EPA 9060A						Soil						
Blank (22E0443-BLK1)						Prepared: 05/11/22 15:05 Analyzed: 05/11/22 19:44						
<u>EPA 9060Amod</u>												
Total Organic Carbon	ND	200	200	mg/kg	1	---	---	---	---	---	---	B-02
LCS (22E0443-BS1)						Prepared: 05/11/22 15:05 Analyzed: 05/11/22 19:55						
<u>EPA 9060Amod</u>												
Total Organic Carbon	10000	200	200	mg/kg	1	10000	---	104	88-111%	---	---	

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QUALITY CONTROL (QC) SAMPLE RESULTS

Demand Parameters

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 22E0467 - EPA 9060A						Soil						
Blank (22E0467-BLK1)			Prepared: 05/12/22 08:46 Analyzed: 05/12/22 10:45									
<u>EPA 9060Amod</u>												
Total Organic Carbon	ND	200	200	mg/kg	1	---	---	---	---	---	---	
LCS (22E0467-BS1)			Prepared: 05/12/22 08:46 Analyzed: 05/12/22 10:56									
<u>EPA 9060Amod</u>												
Total Organic Carbon	10000	200	200	mg/kg	1	10000	---	102	88-111%	---	---	
Duplicate (22E0467-DUP1)			Prepared: 05/12/22 08:46 Analyzed: 05/12/22 11:18									
<u>QC Source Sample: BY-AP-PT-5-(50-70) (A2D0996-07RE2)</u>												
<u>EPA 9060Amod</u>												
Total Organic Carbon	390	200	200	mg/kg	1	---	300	---	---	26	27%	
Duplicate (22E0467-DUP2)			Prepared: 05/12/22 08:46 Analyzed: 05/12/22 11:28									
<u>QC Source Sample: BY-AP-PT-5-(50-70) (A2D0996-07RE2)</u>												
<u>EPA 9060Amod</u>												
Total Organic Carbon	340	200	200	mg/kg	1	---	300	---	---	11	27%	

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QUALITY CONTROL (QC) SAMPLE RESULTS

Percent Dry Weight

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes	
Batch 22D1035 - Total Solids (Dry Weight)						Soil							
Duplicate (22D1035-DUP1)			Prepared: 04/27/22 10:41 Analyzed: 04/28/22 10:27						H-01				
<u>QC Source Sample: Non-SDG (A2C0243-13)</u>													
% Solids	78.3	1.00	1.00	%	1	---	77.6	---	---	0.8	10%		
Duplicate (22D1035-DUP2)			Prepared: 04/27/22 10:41 Analyzed: 04/28/22 10:27						H-01				
<u>QC Source Sample: Non-SDG (A2C0243-14)</u>													
% Solids	80.1	1.00	1.00	%	1	---	81.4	---	---	2	10%		
Duplicate (22D1035-DUP3)			Prepared: 04/27/22 10:41 Analyzed: 04/28/22 10:27						H-01				
<u>QC Source Sample: Non-SDG (A2C0243-15)</u>													
% Solids	80.0	1.00	1.00	%	1	---	79.9	---	---	0.1	10%		
Duplicate (22D1035-DUP4)			Prepared: 04/27/22 10:41 Analyzed: 04/28/22 10:27						H-01				
<u>QC Source Sample: Non-SDG (A2C0243-16)</u>													
% Solids	80.6	1.00	1.00	%	1	---	80.9	---	---	0.4	10%		
Duplicate (22D1035-DUP5)			Prepared: 04/27/22 10:41 Analyzed: 04/28/22 10:27						H-01				
<u>QC Source Sample: Non-SDG (A2C0373-13)</u>													
% Solids	86.2	1.00	1.00	%	1	---	85.9	---	---	0.4	10%		
Duplicate (22D1035-DUP6)			Prepared: 04/27/22 10:41 Analyzed: 04/28/22 10:27						H-01				
<u>QC Source Sample: Non-SDG (A2C0373-14)</u>													
% Solids	82.6	1.00	1.00	%	1	---	82.0	---	---	0.7	10%		
Duplicate (22D1035-DUP7)			Prepared: 04/27/22 10:41 Analyzed: 04/28/22 10:27						H-01				
<u>QC Source Sample: Non-SDG (A2C0373-15)</u>													
% Solids	78.3	1.00	1.00	%	1	---	78.5	---	---	0.3	10%		
Duplicate (22D1035-DUP8)			Prepared: 04/27/22 10:41 Analyzed: 04/28/22 10:27						H-01				
<u>QC Source Sample: Non-SDG (A2C0373-16)</u>													
% Solids	83.8	1.00	1.00	%	1	---	83.7	---	---	0.1	10%		

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QUALITY CONTROL (QC) SAMPLE RESULTS

Percent Dry Weight

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes	
Batch 22D1035 - Total Solids (Dry Weight)							Soil						
Duplicate (22D1035-DUP9)			Prepared: 04/27/22 10:41 Analyzed: 04/28/22 10:27						H-01				
<u>QC Source Sample: Non-SDG (A2C0373-17)</u>													
% Solids	83.9	1.00	1.00	%	1	---	83.0	---	---	1	10%		
Duplicate (22D1035-DUPA)			Prepared: 04/27/22 20:21 Analyzed: 04/28/22 10:27										
<u>QC Source Sample: Non-SDG (A2D1073-01)</u>													
% Solids	92.0	1.00	1.00	%	1	---	90.7	---	---	1	10%		

No Client related Batch QC samples analyzed for this batch. See notes page for more information.

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Analytical Resources, LLC

QUALITY CONTROL (QC) SAMPLE RESULTS

Wet Chemistry

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch BKD0807 - No Prep Wet Chem						Solid						
Blank (BKD0807-BLK1)					Prepared: 04/27/22 13:35 Analyzed: 04/27/22 13:40							
<u>PSEP 1986</u>												
Total Solids, Sulfide	ND	0.04	0.04	%	1	---	---	---	---	---	---	U

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Analytical Resources, LLC

QUALITY CONTROL (QC) SAMPLE RESULTS

Wet Chemistry

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch BKD0823 - EPA 9030B						Solid						
Blank (BKD0823-BLK1)						Prepared: 04/28/22 08:54 Analyzed: 04/29/22 11:10						
<u>SM 4500-S2 D-00</u>												
Sulfide	ND	1.00	1.00	mg/kg wet	1	---	---	---	---	---	---	U
LCS (BKD0823-BS1)						Prepared: 04/28/22 08:54 Analyzed: 04/29/22 11:10						
<u>SM 4500-S2 D-00</u>												
Sulfide	144	20.0	20.0	mg/kg wet	20	159.43	---	90.6	75-125%	---	---	D

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SAMPLE PREPARATION INFORMATION

Total Metals by EPA 6020B (ICPMS)

<u>Prep: EPA 3051A</u>					Sample	Default	RL Prep
Lab Number	Matrix	Method	Sampled	Prepared	Initial/Final	Initial/Final	Factor
<u>Batch: 22E0219</u>							
A2D0996-01	Soil	EPA 6020B	04/25/22 08:00	05/06/22 09:00	0.495g/50mL	0.5g/50mL	1.01
A2D0996-02	Soil	EPA 6020B	04/25/22 08:15	05/06/22 09:00	0.487g/50mL	0.5g/50mL	1.03
A2D0996-03	Soil	EPA 6020B	04/25/22 08:30	05/06/22 09:00	0.491g/50mL	0.5g/50mL	1.02
A2D0996-04	Soil	EPA 6020B	04/25/22 08:45	05/06/22 09:00	0.458g/50mL	0.5g/50mL	1.09
A2D0996-04RE1	Soil	EPA 6020B	04/25/22 08:45	05/06/22 09:00	0.458g/50mL	0.5g/50mL	1.09
A2D0996-05	Soil	EPA 6020B	04/25/22 09:00	05/06/22 09:00	0.483g/50mL	0.5g/50mL	1.04
A2D0996-06	Soil	EPA 6020B	04/25/22 09:15	05/06/22 09:00	0.487g/50mL	0.5g/50mL	1.03
A2D0996-07	Soil	EPA 6020B	04/25/22 09:30	05/06/22 09:00	0.455g/50mL	0.5g/50mL	1.10

Anions by Ion Chromatography - Low Level

<u>Prep: DI Leach</u>					Sample	Default	RL Prep
Lab Number	Matrix	Method	Sampled	Prepared	Initial/Final	Initial/Final	Factor
<u>Batch: 22D1129</u>							
A2D0996-01	Soil	EPA 9056A LL	04/25/22 08:00	04/29/22 10:46	5.0241g/50mL	5g/50mL	1.00
A2D0996-02	Soil	EPA 9056A LL	04/25/22 08:15	04/29/22 10:46	5.0467g/50mL	5g/50mL	0.99
A2D0996-03	Soil	EPA 9056A LL	04/25/22 08:30	04/29/22 10:46	5.008g/50mL	5g/50mL	1.00
A2D0996-04	Soil	EPA 9056A LL	04/25/22 08:45	04/29/22 10:46	5.0039g/50mL	5g/50mL	1.00
A2D0996-05	Soil	EPA 9056A LL	04/25/22 09:00	04/29/22 10:46	5.0224g/50mL	5g/50mL	1.00
A2D0996-06	Soil	EPA 9056A LL	04/25/22 09:15	04/29/22 10:46	5.0322g/50mL	5g/50mL	0.99
A2D0996-07	Soil	EPA 9056A LL	04/25/22 09:30	04/29/22 10:46	5.0585g/50mL	5g/50mL	0.99

Demand Parameters

<u>Prep: EPA 9060A</u>					Sample	Default	RL Prep
Lab Number	Matrix	Method	Sampled	Prepared	Initial/Final	Initial/Final	Factor
<u>Batch: 22E0467</u>							
A2D0996-07RE2	Soil	EPA 9060Amod	04/25/22 09:30	05/12/22 08:46			NA

Prep: PSEP-5310B TOC

Lab Number	Matrix	Method	Sampled	Prepared	Sample	Default	RL Prep
					Initial/Final	Initial/Final	Factor
<u>Batch: 22E0048</u>							
A2D0996-01	Soil	EPA 9060Amod	04/25/22 08:00	05/02/22 14:19			NA
A2D0996-02	Soil	EPA 9060Amod	04/25/22 08:15	05/02/22 14:19			NA
A2D0996-03	Soil	EPA 9060Amod	04/25/22 08:30	05/02/22 14:19			NA
A2D0996-04	Soil	EPA 9060Amod	04/25/22 08:45	05/02/22 14:19			NA

DRAFT REPORT

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ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062

Anchor QEA, LLC 6720 SW Macadam Ave. Suite 125 Portland, OR 97219	Project: Barry 2022 Project Number: 201114-01.02 Project Manager: Jessica Goin, PhD	Report ID: A2D0996 - 05 19 22 1407
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SAMPLE PREPARATION INFORMATION

Demand Parameters

<u>Prep: PSEP-5310B TOC</u>					Sample	Default	RL Prep
Lab Number	Matrix	Method	Sampled	Prepared	Initial/Final	Initial/Final	Factor
A2D0996-05	Soil	EPA 9060Amod	04/25/22 09:00	05/02/22 14:19			NA
A2D0996-06	Soil	EPA 9060Amod	04/25/22 09:15	05/02/22 14:19			NA

Grain Size by ASTM D 422m/RSET Parameters

<u>Prep: ASTM D 421</u>					Sample	Default	RL Prep
Lab Number	Matrix	Method	Sampled	Prepared	Initial/Final	Initial/Final	Factor
<u>Batch: 22E0089</u>							
A2D0996-01	Soil	D422mod	04/25/22 08:00	05/05/22 10:26			NA
A2D0996-02	Soil	D422mod	04/25/22 08:15	05/05/22 10:40			NA
A2D0996-03	Soil	D422mod	04/25/22 08:30	05/05/22 11:51			NA
A2D0996-04	Soil	D422mod	04/25/22 08:45	05/05/22 10:49			NA
A2D0996-05	Soil	D422mod	04/25/22 09:00	05/05/22 12:03			NA
A2D0996-06	Soil	D422mod	04/25/22 09:15	05/05/22 10:59			NA
A2D0996-07	Soil	D422mod	04/25/22 09:30	05/05/22 11:10			NA

Percent Dry Weight

<u>Prep: Total Solids (Dry Weight)</u>					Sample	Default	RL Prep
Lab Number	Matrix	Method	Sampled	Prepared	Initial/Final	Initial/Final	Factor
<u>Batch: 22D1035</u>							
A2D0996-01	Soil	EPA 8000D	04/25/22 08:00	04/27/22 10:41			NA
A2D0996-02	Soil	EPA 8000D	04/25/22 08:15	04/27/22 10:41			NA
A2D0996-03	Soil	EPA 8000D	04/25/22 08:30	04/27/22 10:41			NA
A2D0996-04	Soil	EPA 8000D	04/25/22 08:45	04/27/22 10:41			NA
A2D0996-05	Soil	EPA 8000D	04/25/22 09:00	04/27/22 10:41			NA
A2D0996-06	Soil	EPA 8000D	04/25/22 09:15	04/27/22 10:41			NA
A2D0996-07	Soil	EPA 8000D	04/25/22 09:30	04/27/22 10:41			NA

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Anchor QEA, LLC 6720 SW Macadam Ave. Suite 125 Portland, OR 97219	Project: Barry 2022 Project Number: 201114-01.02 Project Manager: Jessica Goin, PhD	Report ID: A2D0996 - 05 19 22 1407
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Analytical Resources, LLC

SAMPLE PREPARATION INFORMATION

Wet Chemistry

Prep: EPA 9030B

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
<u>Batch: BKD0823</u>							
A2D0996-01	Soil	SM 4500-S2 D-00	04/25/22 08:00	04/28/22 08:54	5.388g/100mL	5g/100mL	0.93
A2D0996-02	Soil	SM 4500-S2 D-00	04/25/22 08:15	04/28/22 08:54	5.083g/100mL	5g/100mL	0.98
A2D0996-03	Soil	SM 4500-S2 D-00	04/25/22 08:30	04/28/22 08:54	5.208g/100mL	5g/100mL	0.96
A2D0996-04	Soil	SM 4500-S2 D-00	04/25/22 08:45	04/28/22 08:54	5.025g/100mL	5g/100mL	1.00
A2D0996-05	Soil	SM 4500-S2 D-00	04/25/22 09:00	04/28/22 08:54	5.185g/100mL	5g/100mL	0.96
A2D0996-06	Soil	SM 4500-S2 D-00	04/25/22 09:15	04/28/22 08:54	5.939g/100mL	5g/100mL	0.84
A2D0996-07	Soil	SM 4500-S2 D-00	04/25/22 09:30	04/28/22 08:54	5.34g/100mL	5g/100mL	0.94

Prep: No Prep Wet Chem

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
<u>Batch: BKD0807</u>							
A2D0996-01	Soil	PSEP 1986	04/25/22 08:00	04/27/22 13:35	5g/5g	5g/5g	1.00
A2D0996-02	Soil	PSEP 1986	04/25/22 08:15	04/27/22 13:35	5g/5g	5g/5g	1.00
A2D0996-03	Soil	PSEP 1986	04/25/22 08:30	04/27/22 13:35	5g/5g	5g/5g	1.00
A2D0996-04	Soil	PSEP 1986	04/25/22 08:45	04/27/22 13:35	5g/5g	5g/5g	1.00
A2D0996-05	Soil	PSEP 1986	04/25/22 09:00	04/27/22 13:35	5g/5g	5g/5g	1.00
A2D0996-06	Soil	PSEP 1986	04/25/22 09:15	04/27/22 13:35	5g/5g	5g/5g	1.00
A2D0996-07	Soil	PSEP 1986	04/25/22 09:30	04/27/22 13:35	5g/5g	5g/5g	1.00

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Anchor QEA, LLC 6720 SW Macadam Ave. Suite 125 Portland, OR 97219	Project: Barry 2022 Project Number: 201114-01.02 Project Manager: Jessica Goin, PhD	Report ID: A2D0996 - 05 19 22 1407
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QUALIFIER DEFINITIONS

Client Sample and Quality Control (QC) Sample Qualifier Definitions:

Apex Laboratories

- B-02** Analyte detected in an associated blank at a level between one-half the MRL and the MRL. (See Notes and Conventions below.)
- GS-01** See detailed Particle Size Analysis results, accumulation curves, and Case Narratives at the end of this report.
- H-01** This sample was analyzed outside the recommended holding time.
- H-08** Sample hold time extended by freezing at -18 degrees C. Total time at 4 degrees C was less than the method hold time.
- J** Estimated Result. Result detected below the lowest point of the calibration curve, but above the specified MDL.
- Q-04** Spike recovery and/or RPD is outside control limits due to a non-homogeneous sample matrix.
- Q-05** Analyses are not controlled on RPD values from sample and duplicate concentrations that are below 5 times the reporting level.

Analytical Resources, LLC

- D** The reported value is from a dilution
- U** This analyte is not detected above the reporting limit (RL) or if noted, not detected above the limit of detection (LOD).

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REPORTING NOTES AND CONVENTIONS:

Abbreviations:

- DET Analyte DETECTED at or above the detection or reporting limit.
- ND Analyte NOT DETECTED at or above the detection or reporting limit.
- NR Result Not Reported
- RPD Relative Percent Difference. RPDs for Matrix Spikes and Matrix Spike Duplicates are based on concentration, not recovery.

Detection Limits: Limit of Detection (LOD)

Limits of Detection (LODs) are normally set at a level of one half the validated Limit of Quantitation (LOQ).
If no value is listed ('-----'), then the data has not been evaluated below the Reporting Limit.

Reporting Limits: Limit of Quantitation (LOQ)

Validated Limits of Quantitation (LOQs) are reported as the Reporting Limits for all analyses where the LOQ, MRL, PQL or CRL are requested. The LOQ represents a level at or above the low point of the calibration curve, that has been validated according to Apex Laboratories' comprehensive LOQ policies and procedures.

Reporting Conventions:

- Basis: Results for soil samples are generally reported on a 100% dry weight basis.
The Result Basis is listed following the units as " dry", " wet", or " " (blank) designation.
- " dry" Sample results and Reporting Limits are reported on a dry weight basis. (i.e. "ug/kg dry")
See Percent Solids section for details of dry weight analysis.
- " wet" Sample results and Reporting Limits for this analysis are normally dry weight corrected, but have not been modified in this case.
- " " Results without 'wet' or 'dry' designation are not normally dry weight corrected. These results are considered 'As Received'.

QC Source:

In cases where there is insufficient sample provided for Sample Duplicates and/or Matrix Spikes, a Lab Control Sample Duplicate (LCS Dup) may be analyzed to demonstrate accuracy and precision of the extraction batch.

Non-Client Batch QC Samples (Duplicates and Matrix Spike/Duplicates) may not be included in this report. Please request a Full QC report if this data is required.

Miscellaneous Notes:

- " --- " QC results are not applicable. For example, % Recoveries for Blanks and Duplicates, % RPD for Blanks, Blank Spikes and Matrix Spikes, etc.
- " *** " Used to indicate a possible discrepancy with the Sample and Sample Duplicate results when the %RPD is not available. In this case, either the Sample or the Sample Duplicate has a reportable result for this analyte, while the other is Non Detect (ND).

Blanks:

Standard practice is to evaluate the results from Blank QC Samples down to a level equal to ½ the Reporting Limit (RL).
-For Blank hits falling between ½ the RL and the RL (J flagged hits), the associated sample and QC data will receive a 'B-02' qualifier.
-For Blank hits above the RL, the associated sample and QC data will receive a 'B' qualifier, per Apex Laboratories' Blank Policy.
For further details, please request a copy of this document.

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ORELAP ID: OR100062

Table with 3 columns: Client (Anchor QEA, LLC), Project (Barry 2022), and Report ID (A2D0996 - 05 19 22 1407)

REPORTING NOTES AND CONVENTIONS (Cont.):

Blanks (Cont.):

Sample results flagged with a 'B' or 'B-02' qualifier are potentially biased high if the sample results are less than ten times the level found in the blank for inorganic analyses, or less than five times the level found in the blank for organic analyses.

'B' and 'B-02' qualifications are only applied to sample results detected above the Reporting Level.

Preparation Notes:

Mixed Matrix Samples:

Water Samples:

Water samples containing significant amounts of sediment are decanted or separated prior to extraction, and only the water portion analyzed, unless otherwise directed by the client.

Soil and Sediment Samples:

Soil and Sediment samples containing significant amounts of water are decanted prior to extraction, and only the solid portion analyzed, unless otherwise directed by the client.

Sampling and Preservation Notes:

Certain regulatory programs, such as National Pollutant Discharge Elimination System (NPDES), require that activities such as sample filtration (for dissolved metals, orthophosphate, hexavalent chromium, etc.) and testing of short hold analytes (pH, Dissolved Oxygen, etc.) be performed in the field (on-site) within a short time window.

Data users should be aware of which regulations pertain to the samples they submit for testing. If related sample collection activities are not approved for a particular regulatory program, results should be considered estimates.

Samples that have been filtered and preserved at Apex Laboratories per client request are listed in the preparation section of the report with the date and time of filtration listed.

Apex Laboratories maintains detailed records on sample receipt, including client label verification, cooler temperature, sample preservation, hold time compliance and field filtration. Data is qualified as necessary, and the lack of qualification indicates compliance with required parameters.



ANALYTICAL REPORT

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Table with 3 columns: Client (Anchor QEA, LLC), Project (Barry 2022), and Report ID (A2D0996 - 05 19 22 1407)

LABORATORY ACCREDITATION INFORMATION

ORELAP Certification ID: OR100062 (Primary Accreditation) -
EPA ID: OR01039

All methods and analytes reported from work performed at Apex Laboratories are included on Apex Laboratories' ORELAP Scope of Certification, with the exception of any analyte(s) listed below:

Apex Laboratories

Table header with columns: Matrix, Analysis, TNI_ID, Analyte, TNI_ID, Accreditation

All reported analytes are included in Apex Laboratories' current ORELAP scope.

Secondary Accreditations

Apex Laboratories also maintains reciprocal accreditation with non-TNI states (Washington DOE), as well as other state specific accreditations not listed here.

Subcontract Laboratory Accreditations

Subcontracted data falls outside of Apex Laboratories' Scope of Accreditation. Please see the Subcontract Laboratory report for full details, or contact your Project Manager for more information.

Field Testing Parameters

Results for Field Tested data are provided by the client or sampler, and fall outside of Apex Laboratories' Scope of Accreditation.



ANALYTICAL REPORT

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Anchor QEA, LLC 6720 SW Macadam Ave. Suite 125 Portland, OR 97219	Project: Barry 2022 Project Number: 201114-01.02 Project Manager: Jessica Goin, PhD	Report ID: A2D0996 - 05 19 22 1407
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A2D0996

ANCHOR QEA

Chain of Custody Record & Laboratory Analysis Request			Test Parameters		Comments/Preservation
Line	Field Sample ID	Collection Date/Time	Matrix	No. of Containers	
1	BY-AP-PT-1-(55-68)	4/25/2022	8:00 Soil	3	Please preserve sulfide samples upon receipt
2	BY-AP-PT-1-(75-85)	4/25/2022	8:15 Soil	3	
3	BY-AP-PT-2-(65-70)	4/25/2022	8:30 Soil	3	
4	BY-AP-PT-2-(75-80)	4/25/2022	8:45 Soil	3	
5	BY-AP-PT-2-(65-70)-DUP	4/25/2022	9:00 Soil	3	
6	BY-AP-PT-3	4/25/2022	9:15 Soil	3	
7	BY-AP-PT-5-(50-70)	4/25/2022	9:30 Soil	3	
8					
9					
10					
11					
12					
13					
14					
15					

Company: Anchor QEA
 Date: 4/25/2022
 Project Name: Barry
 Project Number: 201114-01.02
 Project Manager: Jessica Goin jgoin@anchorage.com
 Phone Number: 503.972.5019
 Shipment Method: FedEx
 Samplers: Emily DeVore

Relinquished By: Emily DeVore
 Signature/Printed Name: Emily DeVore
 Date/Time: 04/25/2022 13:07PM

Received By: Andy Muzoria
 Signature/Printed Name: Andy Muzoria
 Date/Time: 4/25/22 12:44

Relinquished By: _____
 Signature/Printed Name: _____
 Date/Time: _____

Received By: _____
 Signature/Printed Name: _____
 Date/Time: _____

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Anchor QEA, LLC 6720 SW Macadam Ave. Suite 125 Portland, OR 97219	Project: Barry 2022 Project Number: 201114-01.02 Project Manager: Jessica Goin, PhD	Report ID: A2D0996 - 05 19 22 1407
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APEX LABS COOLER RECEIPT FORM

Client: Anchor QEA Element WO#: A2 D0996

Project/Project #: Barry / 201114-01.02

Delivery Info:
 Date/time received: 4/25/22 @ 12:44 By: AM
 Delivered by: Apex Client ESS FedEx UPS Swift Senvoy SDS Other

Cooler Inspection Date/time inspected: 4/25/22 @ 13:55 By: AM
 Chain of Custody included? Yes No Custody seals? Yes No
 Signed/dated by client? Yes No
 Signed/dated by Apex? Yes No

	Cooler #1	Cooler #2	Cooler #3	Cooler #4	Cooler #5	Cooler #6	Cooler #7
Temperature (°C)	<u>3.9</u>						
Received on ice? (Y/N)	<u>Y</u>						
Temp. blanks? (Y/N)	<u>Y</u>						
Ice type: (Gel/Real/Other)	<u>Real</u>						
Condition:	<u>Good</u>						

Cooler out of temp? (Y/N) Possible reason why: _____
 Green dots applied to out of temperature samples? Yes No
 Out of temperature samples form initiated? Yes No
Sample Inspection: Date/time inspected: 4/25/22 @ 1842 By: AKC
 All samples intact? Yes No Comments: _____

 Bottle labels/COCs agree? Yes No Comments: _____

 COC/container discrepancies form initiated? Yes No
 Containers/volumes received appropriate for analysis? Yes No Comments: _____

 Do VOA vials have visible headspace? Yes No NA
 Comments: _____
 Water samples: pH checked: Yes No NA pH appropriate? Yes No NA
 Comments: _____

 Additional information: zinc acetate added 4/25/22 @ 1840

Labeled by: AKC Witness: KAM Cooler Inspected by: AKC

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ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street
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503-718-2323
ORELAP ID: OR100062

Wednesday, May 25, 2022

Masakazu Kanematsu
Anchor QEA, LLC
6720 SW Macadam Ave. Suite 125
Portland, OR 97219

RE: A2E0189 - Barry 2022 - 201114-01.02 Task 09

Thank you for using Apex Laboratories. We greatly appreciate your business and strive to provide the highest quality services to the environmental industry.

Enclosed are the results of analyses for work order A2E0189, which was received by the laboratory on 5/5/2022 at 2:02:00PM.

If you have any questions concerning this report or the services we offer, please feel free to contact me by email at: dthomas@apex-labs.com, or by phone at 503-718-2323.

Please note: All samples will be disposed of within 30 days of sample receipt, unless prior arrangements have been made.

Cooler Receipt Information

(See Cooler Receipt Form for details)

Cooler #1	3.9 degC
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<p>Anchor QEA, LLC 6720 SW Macadam Ave. Suite 125 Portland, OR 97219</p>	<p>Project: Barry 2022 Project Number: 201114-01.02 Task 09 Project Manager: Masakazu Kanematsu</p>	<p style="text-align: right;">Report ID: A2E0189 - 05 25 22 0356</p>
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ANALYTICAL REPORT FOR SAMPLES

SAMPLE INFORMATION

Client Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
BY-AP-PT-1-(55-68)-AAO	A2E0189-01	Water	05/05/22 11:20	05/05/22 14:02
BY-AP-PT-1-(75-85)-AAO	A2E0189-02	Water	05/05/22 11:25	05/05/22 14:02
BY-AP-PT-2-(65-70)-AAO	A2E0189-03	Water	05/05/22 11:30	05/05/22 14:02
BY-AP-PT-2-(75-80)-AAO	A2E0189-04	Water	05/05/22 11:40	05/05/22 14:02
BY-AP-PT-2-(65-70)-DUP-AAO	A2E0189-05	Water	05/05/22 11:35	05/05/22 14:02
BY-AP-PT-3-AAO	A2E0189-06	Water	05/05/22 11:45	05/05/22 14:02
BY-AP-PT-5(50-70)-AAO	A2E0189-07	Water	05/05/22 11:50	05/05/22 14:02
BY-AP-MB-AAO	A2E0189-08	Water	05/05/22 11:55	05/05/22 14:02
BY-AP-PT-1-(55-68)-CEC	A2E0189-09	Water	05/05/22 08:00	05/05/22 14:02
BY-AP-PT-1-(75-85)-CEC	A2E0189-10	Water	05/05/22 08:05	05/05/22 14:02
BY-AP-PT-2-(65-70)-CEC	A2E0189-11	Water	05/05/22 08:10	05/05/22 14:02
BY-AP-PT-2-(75-80)-CEC	A2E0189-12	Water	05/05/22 08:20	05/05/22 14:02
BY-AP-PT-2-(65-70)-DUP-CEC	A2E0189-13	Water	05/05/22 08:15	05/05/22 14:02
BY-AP-PT-3-CEC	A2E0189-14	Water	05/05/22 08:25	05/05/22 14:02
BY-AP-PT-5-(50-70)-CEC	A2E0189-15	Water	05/05/22 08:30	05/05/22 14:02
BY-AP-MB-CEC	A2E0189-16	Water	05/05/22 08:35	05/05/22 14:02

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Anchor QEA, LLC 6720 SW Macadam Ave. Suite 125 Portland, OR 97219	Project: Barry 2022 Project Number: 201114-01.02 Task 09 Project Manager: Masakazu Kanematsu	Report ID: A2E0189 - 05 25 22 0356
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ANALYTICAL SAMPLE RESULTS

Dissolved Metals by EPA 6020B (ICPMS)

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
BY-AP-PT-1-(55-68)-AAO (A2E0189-01) Matrix: Water								
Batch: 22E0536								
Aluminum	227	25.0	50.0	ug/L	1	05/13/22 19:06	EPA 6020B (Diss)	
Arsenic	1.20	0.500	1.00	ug/L	1	05/13/22 19:06	EPA 6020B (Diss)	
Cobalt	4.13	0.500	1.00	ug/L	1	05/13/22 19:06	EPA 6020B (Diss)	
Iron	1740	25.0	50.0	ug/L	1	05/13/22 19:06	EPA 6020B (Diss)	
BY-AP-PT-1-(75-85)-AAO (A2E0189-02) Matrix: Water								
Batch: 22E0536								
Aluminum	287	25.0	50.0	ug/L	1	05/13/22 19:12	EPA 6020B (Diss)	
Arsenic	1.55	0.500	1.00	ug/L	1	05/13/22 19:12	EPA 6020B (Diss)	
Cobalt	5.29	0.500	1.00	ug/L	1	05/13/22 19:12	EPA 6020B (Diss)	
Iron	2820	25.0	50.0	ug/L	1	05/13/22 19:12	EPA 6020B (Diss)	
BY-AP-PT-2-(65-70)-AAO (A2E0189-03) Matrix: Water								
Batch: 22E0536								
Aluminum	152	25.0	50.0	ug/L	1	05/13/22 19:17	EPA 6020B (Diss)	
Arsenic	1.92	0.500	1.00	ug/L	1	05/13/22 19:17	EPA 6020B (Diss)	
Cobalt	5.08	0.500	1.00	ug/L	1	05/13/22 19:17	EPA 6020B (Diss)	
Iron	2240	25.0	50.0	ug/L	1	05/13/22 19:17	EPA 6020B (Diss)	
BY-AP-PT-2-(75-80)-AAO (A2E0189-04) Matrix: Water								
Batch: 22E0536								
Aluminum	166	25.0	50.0	ug/L	1	05/13/22 19:22	EPA 6020B (Diss)	
Arsenic	1.96	0.500	1.00	ug/L	1	05/13/22 19:22	EPA 6020B (Diss)	
Cobalt	5.49	0.500	1.00	ug/L	1	05/13/22 19:22	EPA 6020B (Diss)	
Iron	5890	25.0	50.0	ug/L	1	05/13/22 19:22	EPA 6020B (Diss)	
BY-AP-PT-2-(65-70)-DUP-AAO (A2E0189-05) Matrix: Water								
Batch: 22E0536								
Aluminum	136	25.0	50.0	ug/L	1	05/13/22 19:27	EPA 6020B (Diss)	
Arsenic	1.86	0.500	1.00	ug/L	1	05/13/22 19:27	EPA 6020B (Diss)	
Cobalt	4.99	0.500	1.00	ug/L	1	05/13/22 19:27	EPA 6020B (Diss)	
Iron	2250	25.0	50.0	ug/L	1	05/13/22 19:27	EPA 6020B (Diss)	
BY-AP-PT-3-AAO (A2E0189-06) Matrix: Water								

DRAFT REPORT

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ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062

Anchor QEA, LLC 6720 SW Macadam Ave. Suite 125 Portland, OR 97219	Project: Barry 2022 Project Number: 201114-01.02 Task 09 Project Manager: Masakazu Kanematsu	Report ID: A2E0189 - 05 25 22 0356
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ANALYTICAL SAMPLE RESULTS

Dissolved Metals by EPA 6020B (ICPMS)

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes	
BY-AP-PT-3-AAO (A2E0189-06)					Matrix: Water				
Batch: 22E0536									
Aluminum	253	25.0	50.0	ug/L	1	05/13/22 19:32	EPA 6020B (Diss)		
Arsenic	2.41	0.500	1.00	ug/L	1	05/13/22 19:32	EPA 6020B (Diss)		
Cobalt	3.76	0.500	1.00	ug/L	1	05/13/22 19:32	EPA 6020B (Diss)		
Iron	1600	25.0	50.0	ug/L	1	05/13/22 19:32	EPA 6020B (Diss)		
BY-AP-PT-5(50-70)-AAO (A2E0189-07)					Matrix: Water				
Batch: 22E0536									
Aluminum	105	25.0	50.0	ug/L	1	05/13/22 19:47	EPA 6020B (Diss)		
Arsenic	1.61	0.500	1.00	ug/L	1	05/13/22 19:47	EPA 6020B (Diss)		
Cobalt	4.38	0.500	1.00	ug/L	1	05/13/22 19:47	EPA 6020B (Diss)		
Iron	1670	25.0	50.0	ug/L	1	05/13/22 19:47	EPA 6020B (Diss)		
BY-AP-MB-AAO (A2E0189-08)					Matrix: Water				
Batch: 22E0536									
Aluminum	ND	25.0	50.0	ug/L	1	05/13/22 19:52	EPA 6020B (Diss)		
Arsenic	0.936	0.500	1.00	ug/L	1	05/13/22 19:52	EPA 6020B (Diss)	J	
Cobalt	3.27	0.500	1.00	ug/L	1	05/13/22 19:52	EPA 6020B (Diss)		
Iron	147	25.0	50.0	ug/L	1	05/13/22 19:52	EPA 6020B (Diss)		
BY-AP-PT-1-(55-68)-CEC (A2E0189-09)					Matrix: Water				
Batch: 22E0536									
Arsenic	1.37	0.500	1.00	ug/L	1	05/13/22 19:57	EPA 6020B (Diss)	A-02	
Cobalt	1.46	0.500	1.00	ug/L	1	05/13/22 19:57	EPA 6020B (Diss)	A-02	
Magnesium	1040	75.0	150	ug/L	1	05/13/22 19:57	EPA 6020B (Diss)	A-02	
Potassium	215	50.0	100	ug/L	1	05/13/22 19:57	EPA 6020B (Diss)	A-02	
Sodium	187	50.0	100	ug/L	1	05/13/22 19:57	EPA 6020B (Diss)	A-02	
BY-AP-PT-1-(55-68)-CEC (A2E0189-09RE1)					Matrix: Water				
Batch: 22E0536									
Calcium	78700	3000	6000	ug/L	10	05/16/22 16:31	EPA 6020B (Diss)		
BY-AP-PT-1-(75-85)-CEC (A2E0189-10)					Matrix: Water				
Batch: 22E0536									
Arsenic	0.771	0.500	1.00	ug/L	1	05/13/22 20:02	EPA 6020B (Diss)	J, A-02	

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Anchor QEA, LLC 6720 SW Macadam Ave. Suite 125 Portland, OR 97219	Project: Barry 2022 Project Number: 201114-01.02 Task 09 Project Manager: Masakazu Kanematsu	Report ID: A2E0189 - 05 25 22 0356
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ANALYTICAL SAMPLE RESULTS

Dissolved Metals by EPA 6020B (ICPMS)

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
BY-AP-PT-1-(75-85)-CEC (A2E0189-10)				Matrix: Water				
Calcium	2150	300	600	ug/L	1	05/13/22 20:02	EPA 6020B (Diss)	A-02
Cobalt	9.75	0.500	1.00	ug/L	1	05/13/22 20:02	EPA 6020B (Diss)	A-02
Magnesium	507	75.0	150	ug/L	1	05/13/22 20:02	EPA 6020B (Diss)	A-02
Potassium	225	50.0	100	ug/L	1	05/13/22 20:02	EPA 6020B (Diss)	A-02
Sodium	260	50.0	100	ug/L	1	05/13/22 20:02	EPA 6020B (Diss)	A-02
BY-AP-PT-2-(65-70)-CEC (A2E0189-11RE1)				Matrix: Water				
Batch: 22E0586								
Arsenic	ND	5.00	10.0	ug/L	10	05/17/22 11:31	EPA 6020B (Diss)	A-01
Calcium	ND	3000	6000	ug/L	10	05/17/22 11:31	EPA 6020B (Diss)	A-01, Q-42
Cobalt	14.0	5.00	10.0	ug/L	10	05/17/22 11:31	EPA 6020B (Diss)	A-01
Magnesium	849	750	1500	ug/L	10	05/17/22 11:31	EPA 6020B (Diss)	J, A-01
Potassium	ND	500	1000	ug/L	10	05/17/22 11:31	EPA 6020B (Diss)	A-01
Sodium	964	500	1000	ug/L	10	05/17/22 11:31	EPA 6020B (Diss)	J, A-01
BY-AP-PT-2-(75-80)-CEC (A2E0189-12RE1)				Matrix: Water				
Batch: 22E0586								
Arsenic	ND	5.00	10.0	ug/L	10	05/17/22 11:47	EPA 6020B (Diss)	A-01
Calcium	3310	3000	6000	ug/L	10	05/17/22 11:47	EPA 6020B (Diss)	J, A-01
Cobalt	17.0	5.00	10.0	ug/L	10	05/17/22 11:47	EPA 6020B (Diss)	A-01
Magnesium	ND	750	1500	ug/L	10	05/17/22 11:47	EPA 6020B (Diss)	A-01
Potassium	619	500	1000	ug/L	10	05/17/22 11:47	EPA 6020B (Diss)	J, A-01
Sodium	626	500	1000	ug/L	10	05/17/22 11:47	EPA 6020B (Diss)	J, A-01
BY-AP-PT-2-(65-70)-DUP-CEC (A2E0189-13RE1)				Matrix: Water				
Batch: 22E0586								
Arsenic	ND	5.00	10.0	ug/L	10	05/17/22 11:52	EPA 6020B (Diss)	A-01
Calcium	ND	3000	6000	ug/L	10	05/17/22 11:52	EPA 6020B (Diss)	A-01
Cobalt	11.1	5.00	10.0	ug/L	10	05/17/22 11:52	EPA 6020B (Diss)	A-01
Magnesium	ND	750	1500	ug/L	10	05/17/22 11:52	EPA 6020B (Diss)	A-01
Potassium	ND	500	1000	ug/L	10	05/17/22 11:52	EPA 6020B (Diss)	A-01
Sodium	776	500	1000	ug/L	10	05/17/22 11:52	EPA 6020B (Diss)	J, A-01
BY-AP-PT-3-CEC (A2E0189-14RE1)				Matrix: Water				
Batch: 22E0586								

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ANALYTICAL SAMPLE RESULTS

Dissolved Metals by EPA 6020B (ICPMS)

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes	
BY-AP-PT-3-CEC (A2E0189-14RE1)				Matrix: Water					
Arsenic	ND	5.00	10.0	ug/L	10	05/17/22 11:57	EPA 6020B (Diss)	A-01	
Calcium	3610	3000	6000	ug/L	10	05/17/22 11:57	EPA 6020B (Diss)	J, A-01	
Cobalt	ND	5.00	10.0	ug/L	10	05/17/22 11:57	EPA 6020B (Diss)	A-01	
Magnesium	863	750	1500	ug/L	10	05/17/22 11:57	EPA 6020B (Diss)	J, A-01	
Potassium	ND	500	1000	ug/L	10	05/17/22 11:57	EPA 6020B (Diss)	A-01	
Sodium	ND	500	1000	ug/L	10	05/17/22 11:57	EPA 6020B (Diss)	A-01	

BY-AP-PT-5-(50-70)-CEC (A2E0189-15RE1)				Matrix: Water					
Batch: 22E0586									
Arsenic	ND	5.00	10.0	ug/L	10	05/17/22 12:03	EPA 6020B (Diss)	A-01	
Calcium	4180	3000	6000	ug/L	10	05/17/22 12:03	EPA 6020B (Diss)	J, A-01	
Cobalt	5.90	5.00	10.0	ug/L	10	05/17/22 12:03	EPA 6020B (Diss)	J, A-01	
Magnesium	ND	750	1500	ug/L	10	05/17/22 12:03	EPA 6020B (Diss)	A-01	
Potassium	ND	500	1000	ug/L	10	05/17/22 12:03	EPA 6020B (Diss)	A-01	
Sodium	ND	500	1000	ug/L	10	05/17/22 12:03	EPA 6020B (Diss)	A-01	

BY-AP-MB-CEC (A2E0189-16RE1)				Matrix: Water					
Batch: 22E0586									
Arsenic	ND	5.00	10.0	ug/L	10	05/17/22 12:08	EPA 6020B (Diss)	A-01	
Calcium	ND	3000	6000	ug/L	10	05/17/22 12:08	EPA 6020B (Diss)	A-01	
Cobalt	ND	5.00	10.0	ug/L	10	05/17/22 12:08	EPA 6020B (Diss)	A-01	
Magnesium	ND	750	1500	ug/L	10	05/17/22 12:08	EPA 6020B (Diss)	A-01	
Potassium	ND	500	1000	ug/L	10	05/17/22 12:08	EPA 6020B (Diss)	A-01	
Sodium	ND	500	1000	ug/L	10	05/17/22 12:08	EPA 6020B (Diss)	A-01	

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QUALITY CONTROL (QC) SAMPLE RESULTS

Dissolved Metals by EPA 6020B (ICPMS)

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 22E0536 - Matrix Matched Direct Inject						Water						
Blank (22E0536-BLK1)						Prepared: 05/13/22 10:38 Analyzed: 05/13/22 14:42						
<u>EPA 6020B (Diss)</u>												
Aluminum	ND	25.0	50.0	ug/L	1	---	---	---	---	---	---	
Arsenic	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
Calcium	ND	300	600	ug/L	1	---	---	---	---	---	---	
Cobalt	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
Iron	ND	25.0	50.0	ug/L	1	---	---	---	---	---	---	
Magnesium	ND	75.0	150	ug/L	1	---	---	---	---	---	---	
Potassium	ND	50.0	100	ug/L	1	---	---	---	---	---	---	
Sodium	ND	50.0	100	ug/L	1	---	---	---	---	---	---	
LCS (22E0536-BS1)												
						Prepared: 05/13/22 10:38 Analyzed: 05/13/22 14:47						
<u>EPA 6020B (Diss)</u>												
Aluminum	2430	25.0	50.0	ug/L	1	2780	---	87	80-120%	---	---	
Arsenic	50.8	0.500	1.00	ug/L	1	55.6	---	92	80-120%	---	---	
Calcium	2640	300	600	ug/L	1	2780	---	95	80-120%	---	---	
Cobalt	52.7	0.500	1.00	ug/L	1	55.6	---	95	80-120%	---	---	
Iron	2510	25.0	50.0	ug/L	1	2780	---	90	80-120%	---	---	
Magnesium	2380	75.0	150	ug/L	1	2780	---	86	80-120%	---	---	
Potassium	2490	50.0	100	ug/L	1	2780	---	90	80-120%	---	---	
Sodium	2430	50.0	100	ug/L	1	2780	---	87	80-120%	---	---	
Duplicate (22E0536-DUP1)												
						Prepared: 05/13/22 10:38 Analyzed: 05/13/22 15:23						
<u>QC Source Sample: Non-SDG (A2E0183-05)</u>												
Aluminum	ND	25.0	50.0	ug/L	1	---	ND	---	---	---	20%	A-01a
Arsenic	4.87	0.500	1.00	ug/L	1	---	5.15	---	---	6	20%	A-01a
Cobalt	2.27	0.500	1.00	ug/L	1	---	2.35	---	---	3	20%	A-01a
Iron	35.8	25.0	50.0	ug/L	1	---	34.8	---	---	3	20%	A-01a, J
Magnesium	6730	75.0	150	ug/L	1	---	6830	---	---	2	20%	A-01a
Potassium	1790	50.0	100	ug/L	1	---	1840	---	---	3	20%	A-01a
Sodium	646	50.0	100	ug/L	1	---	653	---	---	1	20%	A-01a
Duplicate (22E0536-DUP2)												
						Prepared: 05/13/22 10:38 Analyzed: 05/13/22 20:17						
<u>QC Source Sample: Non-SDG (A2E0183-05RE1)</u>												

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QUALITY CONTROL (QC) SAMPLE RESULTS

Dissolved Metals by EPA 6020B (ICPMS)

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 22E0536 - Matrix Matched Direct Inject						Water						
Duplicate (22E0536-DUP2)						Prepared: 05/13/22 10:38 Analyzed: 05/13/22 20:17						
QC Source Sample: Non-SDG (A2E0183-05RE1)												
Calcium	127000	3000	6000	ug/L	10	---	121000	---	---	5	20%	Q-16
Matrix Spike (22E0536-MS1)						Prepared: 05/13/22 10:38 Analyzed: 05/13/22 18:51						
QC Source Sample: Non-SDG (A2E0183-06)												
EPA 6020B (Diss)												
Aluminum	2490	25.0	50.0	ug/L	1	2780	ND	90	75-125%	---	---	A-01a
Calcium	8650	300	600	ug/L	1	2780	6270	86	75-125%	---	---	A-01a
Iron	2540	25.0	50.0	ug/L	1	2780	ND	92	75-125%	---	---	A-01a
Magnesium	3620	75.0	150	ug/L	1	2780	1200	87	75-125%	---	---	A-01a
Potassium	3990	50.0	100	ug/L	1	2780	1490	90	75-125%	---	---	A-01a
Sodium	3070	50.0	100	ug/L	1	2780	634	88	75-125%	---	---	A-01a
Matrix Spike (22E0536-MS3)						Prepared: 05/13/22 10:38 Analyzed: 05/16/22 16:15						
QC Source Sample: Non-SDG (A2E0183-06)												
EPA 6020B (Diss)												
Arsenic	120	0.500	1.00	ug/L	1	55.6	5.94	206	75-125%	---	---	Q-02, Q-16
Cobalt	64.6	0.500	1.00	ug/L	1	55.6	13.1	93	75-125%	---	---	Q-16

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QUALITY CONTROL (QC) SAMPLE RESULTS

Dissolved Metals by EPA 6020B (ICPMS)

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 22E0586 - Matrix Matched Direct Inject						Water						
Blank (22E0586-BLK1)						Prepared: 05/16/22 11:31 Analyzed: 05/16/22 17:45						
<u>EPA 6020B (Diss)</u>												
Arsenic	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
Calcium	ND	300	600	ug/L	1	---	---	---	---	---	---	
Cobalt	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
Magnesium	ND	75.0	150	ug/L	1	---	---	---	---	---	---	
Potassium	ND	50.0	100	ug/L	1	---	---	---	---	---	---	
Sodium	ND	50.0	100	ug/L	1	---	---	---	---	---	---	
LCS (22E0586-BS1)						Prepared: 05/16/22 11:31 Analyzed: 05/16/22 17:51						
<u>EPA 6020B (Diss)</u>												
Arsenic	50.7	0.500	1.00	ug/L	1	55.6	---	91	80-120%	---	---	
Calcium	2490	300	600	ug/L	1	2780	---	90	80-120%	---	---	
Cobalt	54.7	0.500	1.00	ug/L	1	55.6	---	98	80-120%	---	---	
Magnesium	2280	75.0	150	ug/L	1	2780	---	82	80-120%	---	---	
Potassium	2390	50.0	100	ug/L	1	2780	---	86	80-120%	---	---	
Sodium	2360	50.0	100	ug/L	1	2780	---	85	80-120%	---	---	
Duplicate (22E0586-DUP2)						Prepared: 05/16/22 11:31 Analyzed: 05/17/22 11:36						
<u>QC Source Sample: BY-AP-PT-2-(65-70)-CEC (A2E0189-11RE1)</u>												
<u>EPA 6020B (Diss)</u>												
Arsenic	ND	5.00	10.0	ug/L	10	---	ND	---	---	---	20%	A-01, Q-16
Calcium	ND	3000	6000	ug/L	10	---	ND	---	---	---	20%	A-01, Q-16
Cobalt	13.8	5.00	10.0	ug/L	10	---	14.0	---	---	2	20%	A-01, Q-16
Magnesium	852	750	1500	ug/L	10	---	849	---	---	0.3	20%	J, A-01, Q-16
Potassium	ND	500	1000	ug/L	10	---	ND	---	---	---	20%	A-01, Q-16
Sodium	963	500	1000	ug/L	10	---	964	---	---	0.03	20%	J, A-01, Q-16
Matrix Spike (22E0586-MS2)						Prepared: 05/16/22 11:31 Analyzed: 05/17/22 11:41						
<u>QC Source Sample: BY-AP-PT-2-(65-70)-CEC (A2E0189-11RE1)</u>												
<u>EPA 6020B (Diss)</u>												
Arsenic	55.6	5.00	10.0	ug/L	10	55.6	ND	100	75-125%	---	---	A-01, Q-16
Calcium	4580	3000	6000	ug/L	10	2780	ND	165	75-125%	---	---	J, A-01, Q-01, Q-16
Cobalt	62.6	5.00	10.0	ug/L	10	55.6	14.0	88	75-125%	---	---	A-01, Q-16

DRAFT REPORT

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ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street
 Tigard, OR 97223
 503-718-2323
 ORELAP ID: OR100062

Anchor QEA, LLC 6720 SW Macadam Ave. Suite 125 Portland, OR 97219	Project: Barry 2022 Project Number: 201114-01.02 Task 09 Project Manager: Masakazu Kanematsu	Report ID: A2E0189 - 05 25 22 0356
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QUALITY CONTROL (QC) SAMPLE RESULTS

Dissolved Metals by EPA 6020B (ICPMS)

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 22E0586 - Matrix Matched Direct Inject						Water						
Matrix Spike (22E0586-MS2)						Prepared: 05/16/22 11:31 Analyzed: 05/17/22 11:41						
QC Source Sample: BY-AP-PT-2-(65-70)-CEC (A2E0189-11RE1)												
Magnesium	3260	750	1500	ug/L	10	2780	849	87	75-125%	---	---	A-01, Q-16
Potassium	2970	500	1000	ug/L	10	2780	ND	107	75-125%	---	---	A-01, Q-16
Sodium	3250	500	1000	ug/L	10	2780	964	82	75-125%	---	---	A-01, Q-16

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SAMPLE PREPARATION INFORMATION

Dissolved Metals by EPA 6020B (ICPMS)

Prep: Matrix Matched Direct Inject					Sample	Default	RL Prep
Lab Number	Matrix	Method	Sampled	Prepared	Initial/Final	Initial/Final	Factor
<u>Batch: 22E0536</u>							
A2E0189-01	Water	EPA 6020B (Diss)	05/05/22 11:20	05/13/22 10:38	45mL/50mL	45mL/50mL	1.00
A2E0189-02	Water	EPA 6020B (Diss)	05/05/22 11:25	05/13/22 10:38	45mL/50mL	45mL/50mL	1.00
A2E0189-03	Water	EPA 6020B (Diss)	05/05/22 11:30	05/13/22 10:38	45mL/50mL	45mL/50mL	1.00
A2E0189-04	Water	EPA 6020B (Diss)	05/05/22 11:40	05/13/22 10:38	45mL/50mL	45mL/50mL	1.00
A2E0189-05	Water	EPA 6020B (Diss)	05/05/22 11:35	05/13/22 10:38	45mL/50mL	45mL/50mL	1.00
A2E0189-06	Water	EPA 6020B (Diss)	05/05/22 11:45	05/13/22 10:38	45mL/50mL	45mL/50mL	1.00
A2E0189-07	Water	EPA 6020B (Diss)	05/05/22 11:50	05/13/22 10:38	45mL/50mL	45mL/50mL	1.00
A2E0189-08	Water	EPA 6020B (Diss)	05/05/22 11:55	05/13/22 10:38	45mL/50mL	45mL/50mL	1.00
A2E0189-09	Water	EPA 6020B (Diss)	05/05/22 08:00	05/13/22 10:38	45mL/50mL	45mL/50mL	1.00
A2E0189-09RE1	Water	EPA 6020B (Diss)	05/05/22 08:00	05/13/22 10:38	45mL/50mL	45mL/50mL	1.00
A2E0189-10	Water	EPA 6020B (Diss)	05/05/22 08:05	05/13/22 10:38	45mL/50mL	45mL/50mL	1.00
<u>Batch: 22E0586</u>							
A2E0189-11RE1	Water	EPA 6020B (Diss)	05/05/22 08:10	05/16/22 11:31	45mL/50mL	45mL/50mL	1.00
A2E0189-12RE1	Water	EPA 6020B (Diss)	05/05/22 08:20	05/16/22 11:31	45mL/50mL	45mL/50mL	1.00
A2E0189-13RE1	Water	EPA 6020B (Diss)	05/05/22 08:15	05/16/22 11:31	45mL/50mL	45mL/50mL	1.00
A2E0189-14RE1	Water	EPA 6020B (Diss)	05/05/22 08:25	05/16/22 11:31	45mL/50mL	45mL/50mL	1.00
A2E0189-15RE1	Water	EPA 6020B (Diss)	05/05/22 08:30	05/16/22 11:31	45mL/50mL	45mL/50mL	1.00
A2E0189-16RE1	Water	EPA 6020B (Diss)	05/05/22 08:35	05/16/22 11:31	45mL/50mL	45mL/50mL	1.00

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ORELAP ID: **OR100062**

<u>Anchor QEA, LLC</u> 6720 SW Macadam Ave. Suite 125 Portland, OR 97219	Project: <u>Barry 2022</u> Project Number: 201114-01.02 Task 09 Project Manager: Masakazu Kanematsu	<u>Report ID:</u> A2E0189 - 05 25 22 0356
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QUALIFIER DEFINITIONS

Client Sample and Quality Control (QC) Sample Qualifier Definitions:

Apex Laboratories

- A-01** pH >2 after additional acid preservation.
- A-01a** pH of 7. No change after preservation.
- A-02** pH > 2. No change after preservation.
- J** Estimated Result. Result detected below the lowest point of the calibration curve, but above the specified MDL.
- Q-01** Spike recovery and/or RPD is outside acceptance limits.
- Q-02** Spike recovery is outside of established control limits due to matrix interference.
- Q-16** Reanalysis of an original Batch QC sample.
- Q-42** Matrix Spike and/or Duplicate analysis was performed on this sample. % Recovery or RPD for this analyte is outside laboratory control limits. (Refer to the QC Section of Analytical Report.)

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REPORTING NOTES AND CONVENTIONS:

Abbreviations:

- DET Analyte DETECTED at or above the detection or reporting limit.
- ND Analyte NOT DETECTED at or above the detection or reporting limit.
- NR Result Not Reported
- RPD Relative Percent Difference. RPDs for Matrix Spikes and Matrix Spike Duplicates are based on concentration, not recovery.

Detection Limits: Limit of Detection (LOD)

Limits of Detection (LODs) are normally set at a level of one half the validated Limit of Quantitation (LOQ).
If no value is listed ('-----'), then the data has not been evaluated below the Reporting Limit.

Reporting Limits: Limit of Quantitation (LOQ)

Validated Limits of Quantitation (LOQs) are reported as the Reporting Limits for all analyses where the LOQ, MRL, PQL or CRL are requested. The LOQ represents a level at or above the low point of the calibration curve, that has been validated according to Apex Laboratories' comprehensive LOQ policies and procedures.

Reporting Conventions:

- Basis: Results for soil samples are generally reported on a 100% dry weight basis.
The Result Basis is listed following the units as " dry", " wet", or " " (blank) designation.
- " dry" Sample results and Reporting Limits are reported on a dry weight basis. (i.e. "ug/kg dry")
See Percent Solids section for details of dry weight analysis.
- " wet" Sample results and Reporting Limits for this analysis are normally dry weight corrected, but have not been modified in this case.
- " " Results without 'wet' or 'dry' designation are not normally dry weight corrected. These results are considered 'As Received'.

QC Source:

In cases where there is insufficient sample provided for Sample Duplicates and/or Matrix Spikes, a Lab Control Sample Duplicate (LCS Dup) may be analyzed to demonstrate accuracy and precision of the extraction batch.

Non-Client Batch QC Samples (Duplicates and Matrix Spike/Duplicates) may not be included in this report. Please request a Full QC report if this data is required.

Miscellaneous Notes:

- " --- " QC results are not applicable. For example, % Recoveries for Blanks and Duplicates, % RPD for Blanks, Blank Spikes and Matrix Spikes, etc.
- " *** " Used to indicate a possible discrepancy with the Sample and Sample Duplicate results when the %RPD is not available. In this case, either the Sample or the Sample Duplicate has a reportable result for this analyte, while the other is Non Detect (ND).

Blanks:

Standard practice is to evaluate the results from Blank QC Samples down to a level equal to ½ the Reporting Limit (RL).
-For Blank hits falling between ½ the RL and the RL (J flagged hits), the associated sample and QC data will receive a 'B-02' qualifier.
-For Blank hits above the RL, the associated sample and QC data will receive a 'B' qualifier, per Apex Laboratories' Blank Policy.
For further details, please request a copy of this document.

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REPORTING NOTES AND CONVENTIONS (Cont.):

Blanks (Cont.):

Sample results flagged with a 'B' or 'B-02' qualifier are potentially biased high if the sample results are less than ten times the level found in the blank for inorganic analyses, or less than five times the level found in the blank for organic analyses.

'B' and 'B-02' qualifications are only applied to sample results detected above the Reporting Level.

Preparation Notes:

Mixed Matrix Samples:

Water Samples:

Water samples containing significant amounts of sediment are decanted or separated prior to extraction, and only the water portion analyzed, unless otherwise directed by the client.

Soil and Sediment Samples:

Soil and Sediment samples containing significant amounts of water are decanted prior to extraction, and only the solid portion analyzed, unless otherwise directed by the client.

Sampling and Preservation Notes:

Certain regulatory programs, such as National Pollutant Discharge Elimination System (NPDES), require that activities such as sample filtration (for dissolved metals, orthophosphate, hexavalent chromium, etc.) and testing of short hold analytes (pH, Dissolved Oxygen, etc.) be performed in the field (on-site) within a short time window. In addition, sample matrix spikes are required for some analyses, and sufficient volume must be provided, and billable site specific QC requested, if this is required. All regulatory permits should be reviewed to ensure that these requirements are being met.

Data users should be aware of which regulations pertain to the samples they submit for testing. If related sample collection activities are not approved for a particular regulatory program, results should be considered estimates. Apex Laboratories will qualify these analytes according to the most stringent requirements, however results for samples that are for non-regulatory purposes may be acceptable.

Samples that have been filtered and preserved at Apex Laboratories per client request are listed in the preparation section of the report with the date and time of filtration listed.

Apex Laboratories maintains detailed records on sample receipt, including client label verification, cooler temperature, sample preservation, hold time compliance and field filtration. Data is qualified as necessary, and the lack of qualification indicates compliance with required parameters.



ANALYTICAL REPORT

Apex Laboratories, LLC
6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062

Table with 3 columns: Client (Anchor QEA, LLC), Project (Barry 2022), and Report ID (A2E0189 - 05 25 22 0356).

LABORATORY ACCREDITATION INFORMATION

ORELAP Certification ID: OR100062 (Primary Accreditation) - EPA ID: OR01039

All methods and analytes reported from work performed at Apex Laboratories are included on Apex Laboratories' ORELAP Scope of Certification, with the exception of any analyte(s) listed below:

Apex Laboratories

Table with 6 columns: Matrix, Analysis, TNI_ID, Analyte, TNI_ID, Accreditation. Content: All reported analytes are included in Apex Laboratories' current ORELAP scope.

Secondary Accreditations

Apex Laboratories also maintains reciprocal accreditation with non-TNI states (Washington DOE), as well as other state specific accreditations not listed here.

Subcontract Laboratory Accreditations

Subcontracted data falls outside of Apex Laboratories' Scope of Accreditation. Please see the Subcontract Laboratory report for full details, or contact your Project Manager for more information.

Field Testing Parameters

Results for Field Tested data are provided by the client or sampler, and fall outside of Apex Laboratories' Scope of Accreditation.



ANALYTICAL REPORT

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Anchor QEA, LLC 6720 SW Macadam Ave. Suite 125 Portland, OR 97219	Project: Barry 2022 Project Number: 201114-01.02 Task 09 Project Manager: Masakazu Kanematsu	Report ID: A2E0189 - 05 25 22 0356
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A2E0189

ANCHOR QEA LLC

Jessica Goin
6720 SW Macadam Ave
Suite 125
Portland OR 97219

Parameters

Dissolved Ions (Na, Ca, Mg, K)	Dissolved Metals (Fe, Al)
X	X

Chain of Custody Record & Laboratory Analysis Request

Laboratory Number: 503-972-5019

Date: 5/5/2022

Project Name: Barry

Project Number: 201114-01.02 Task 09

Project Manager: Masa Kanematsu

Phone Number: 503-972-5001 (backup number: 971-334.8193)

Shipment Method: Apex Carrier

Line	Field Sample ID	Collection		Matrix	No. of Containers	Comments/Preservation
		Date	Time			
1	BY-AP-PT-1-655-681-AAO	5/5/2022	5/5/22 11:20	Water	1	0.45um filtered, HNO3 preserved.
2	BY-AP-PT-1-175-483-AAO	5/5/2022	5/5/22 11:25	Water	1	0.45um filtered, HNO3 preserved.
3	BY-AP-PT-2-665-70-AAO	5/5/2022	5/5/22 11:30	Water	1	0.45um filtered, HNO3 preserved.
4	BY-AP-PT-2-75-80-AAO	5/5/2022	5/5/22 11:40	Water	1	0.45um filtered, HNO3 preserved.
5	BY-AP-PT-2-665-70-DUP-AAO	5/5/2022	5/5/22 11:35	Water	1	0.45um filtered, HNO3 preserved.
6	BY-AP-PT-3-AAO	5/5/2022	5/5/22 11:45	Water	1	0.45um filtered, HNO3 preserved.
7	BY-AP-PT-5-60-70-AAO	5/5/2022	5/5/22 11:50	Water	1	0.45um filtered, HNO3 preserved.
8	BY-AP-MB-AAO	5/5/2022	5/5/22 11:55	Water	1	0.45um filtered, HNO3 preserved.
9	BY-AP-PT-1-655-681-CEC	5/5/2022	5/5/22 8:00	Water	1	0.45um filtered, HNO3 preserved.
10	BY-AP-PT-1-175-483-CEC	5/5/2022	5/5/22 8:05	Water	1	0.45um filtered, HNO3 preserved.
11	BY-AP-PT-2-665-70-CEC	5/5/2022	5/5/22 8:10	Water	1	0.45um filtered, HNO3 preserved.
12	BY-AP-PT-2-75-80-CEC	5/5/2022	5/5/22 8:20	Water	1	0.45um filtered, HNO3 preserved.
13	BY-AP-PT-2-665-70-DUP-CEC	5/5/2022	5/5/22 8:15	Water	1	0.45um filtered, HNO3 preserved.
14	BY-AP-PT-3-CEC	5/5/2022	5/5/22 8:25	Water	1	0.45um filtered, HNO3 preserved.
15	BY-AP-PT-5-60-70-CEC	5/5/2022	5/5/22 8:30	Water	1	0.45um filtered, HNO3 preserved.
16	BY-AP-MB-CEC	5/5/2022	5/5/22 8:35	Water	1	0.45um filtered, HNO3 preserved.

Notes: Please Contact Masa if running > 10X dilution

Requisitioned by: Emma Nordlund

Signature/Print Name: *Emma Nordlund*

Date/Time: 5/5/22 11:45

Company: Anchor QEA

Received by: *Andy Macipessa*

Signature/Print Name: *Andy Macipessa*

Date/Time: 5/5/22 14:02

Company: Apex

Page 1 of 1

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ANALYTICAL REPORT

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503-718-2323
ORELAP ID: OR100062

Anchor QEA, LLC
6720 SW Macadam Ave. Suite 125
Portland, OR 97219

Project: Barry 2022
Project Number: 201114-01.02 Task 09
Project Manager: Masakazu Kanematsu

Report ID:
A2E0189 - 05 25 22 0356

Chain of Custody Record & Laboratory Analysis Request
Laboratory Number: 503-972-5019
Date: 5/5/2022
Project Name: Barry
Project Number: 201114-01.02 Task 09
Project Manager: Masa Kanematsu
Phone Number: 503-972-5001 (backup number: 971.334.8193)
Shipment Method: Apex Carrier
Parameters table with columns: Line, Field Sample ID, Date, Time, Matrix, No. of Containers, Dissolved Metals (As, Co), Dissolved Metals (Al, Fe, As, Co), Comments/Preservation.

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Anchor QEA, LLC 6720 SW Macadam Ave. Suite 125 Portland, OR 97219	Project: Barry 2022 Project Number: 201114-01.02 Task 09 Project Manager: Masakazu Kanematsu	Report ID: A2E0189 - 05 25 22 0356
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APEX LABS COOLER RECEIPT FORM

Client: Anchor QEA Element WO#: A2E0189

Project/Project #: Barry / 201114-01.02 Task 09

Delivery Info:
 Date/time received: 5/5/22 @ 14:02 By: AM
 Delivered by: Apex Client ESS FedEx UPS Swift Senvoy SDS Other

Cooler Inspection Date/time inspected: 5/5/22 @ 15:39 By: AM

Chain of Custody included? Yes No Custody seals? Yes No

Signed/dated by client? Yes No

Signed/dated by Apex? Yes No

	Cooler #1	Cooler #2	Cooler #3	Cooler #4	Cooler #5	Cooler #6	Cooler #7
Temperature (°C)	<u>3.9</u>						
Received on ice? (Y/N)	<u>Y</u>						
Temp. blanks? (Y/N)	<u>Y</u>						
Ice type: (Gel/Real/Other)	<u>Gel</u>						
Condition:	<u>Good</u>						

Cooler out of temp? (Y/N) Y Possible reason why: _____
 Green dots applied to out of temperature samples? Yes No
 Out of temperature samples form initiated? Yes No

Sample Inspection: Date/time inspected: 5-5-22 @ 16:15 By: DSS

All samples intact? Yes No Comments: _____

Bottle labels/COCs agree? Yes No Comments: _____

COC/container discrepancies form initiated? Yes No

Containers/volumes received appropriate for analysis? Yes No Comments: _____

Do VOA vials have visible headspace? Yes No NA

Comments: _____

Water samples: pH checked: Yes No NA pH appropriate? Yes No NA

Comments: _____

Additional information: Sample BY-AP-PT-1(55-68)-CEL through BY-AP-MB-CEL
DSS sample 5-5-22 pH=7 No color change after presentation

Labeled by: DSS Witness: AKC Cooler Inspected by: DSS

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ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street
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503-718-2323
ORELAP ID: OR100062

Thursday, June 2, 2022
Masakazu Kanematsu
Anchor QEA, LLC
6720 SW Macadam Ave. Suite 125
Portland, OR 97219

RE: A2E0493 - Barry 2022 - 201114-01.02 Task 09

Thank you for using Apex Laboratories. We greatly appreciate your business and strive to provide the highest quality services to the environmental industry.

Enclosed are the results of analyses for work order A2E0493, which was received by the laboratory on 5/11/2022 at 11:32:00AM.

If you have any questions concerning this report or the services we offer, please feel free to contact me by email at: dthomas@apex-labs.com, or by phone at 503-718-2323.

Please note: All samples will be disposed of within 30 days of sample receipt, unless prior arrangements have been made.

Cooler Receipt Information

(See Cooler Receipt Form for details)

Cooler #1 2.5 degC



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ORELAP ID: OR100062

Anchor QEA, LLC 6720 SW Macadam Ave. Suite 125 Portland, OR 97219	Project: Barry 2022 Project Number: 201114-01.02 Task 09 Project Manager: Masakazu Kanematsu	Report ID: A2E0493 - 06 02 22 1444
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ANALYTICAL REPORT FOR SAMPLES

SAMPLE INFORMATION

Client Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
BY-AP-PT-1-(55-68)-ExtMn	A2E0493-01	Water	05/06/22 10:45	05/11/22 11:32
BY-AP-PT-1-(75-85)-ExtMn	A2E0493-02	Water	05/06/22 10:50	05/11/22 11:32
BY-AP-PT-2-(65-70)-ExtMn	A2E0493-03	Water	05/06/22 10:55	05/11/22 11:32
BY-AP-PT-2-(75-80)-ExtMn	A2E0493-04	Water	05/06/22 11:05	05/11/22 11:32
BY-AP-PT-2-(65-70)-DUP-ExtMn	A2E0493-05	Water	05/06/22 11:00	05/11/22 11:32
BY-AP-PT-3-ExtMn	A2E0493-06	Water	05/06/22 11:10	05/11/22 11:32
BY-AP-PT-5-(50-70)-ExtMn	A2E0493-07	Water	05/06/22 11:15	05/11/22 11:32
BY-AP-MB-ExtMn	A2E0493-08	Water	05/06/22 11:20	05/11/22 11:32

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ANALYTICAL SAMPLE RESULTS

Dissolved Metals by EPA 6020B (ICPMS)

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
BY-AP-PT-1-(55-68)-ExtMn (A2E0493-01)				Matrix: Water				
Batch: 22E0586								
Manganese	14.6	0.500	1.00	ug/L	1	05/16/22 19:30	EPA 6020B (Diss)	
BY-AP-PT-1-(75-85)-ExtMn (A2E0493-02)				Matrix: Water				
Batch: 22E0586								
Manganese	25.8	0.500	1.00	ug/L	1	05/16/22 19:35	EPA 6020B (Diss)	
BY-AP-PT-2-(65-70)-ExtMn (A2E0493-03)				Matrix: Water				
Batch: 22E0586								
Manganese	51.9	0.500	1.00	ug/L	1	05/16/22 19:40	EPA 6020B (Diss)	
BY-AP-PT-2-(75-80)-ExtMn (A2E0493-04)				Matrix: Water				
Batch: 22E0586								
Manganese	111	0.500	1.00	ug/L	1	05/16/22 19:46	EPA 6020B (Diss)	
BY-AP-PT-2-(65-70)-DUP-ExtMn (A2E0493-05)				Matrix: Water				
Batch: 22E0586								
Manganese	45.6	0.500	1.00	ug/L	1	05/16/22 19:51	EPA 6020B (Diss)	
BY-AP-PT-3-ExtMn (A2E0493-06)				Matrix: Water				
Batch: 22E0586								
Manganese	16.0	0.500	1.00	ug/L	1	05/16/22 19:56	EPA 6020B (Diss)	
BY-AP-PT-5-(50-70)-ExtMn (A2E0493-07)				Matrix: Water				
Batch: 22E0586								
Manganese	28.3	0.500	1.00	ug/L	1	05/16/22 20:02	EPA 6020B (Diss)	
BY-AP-MB-ExtMn (A2E0493-08)				Matrix: Water				
Batch: 22E0586								
Manganese	ND	0.500	1.00	ug/L	1	05/16/22 20:07	EPA 6020B (Diss)	

DRAFT REPORT

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ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062

Anchor QEA, LLC 6720 SW Macadam Ave. Suite 125 Portland, OR 97219	Project: Barry 2022 Project Number: 201114-01.02 Task 09 Project Manager: Masakazu Kanematsu	Report ID: A2E0493 - 06 02 22 1444
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QUALITY CONTROL (QC) SAMPLE RESULTS

Dissolved Metals by EPA 6020B (ICPMS)

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 22E0586 - Matrix Matched Direct Inject						Water						
Blank (22E0586-BLK1)						Prepared: 05/16/22 11:31 Analyzed: 05/16/22 17:45						
<u>EPA 6020B (Diss)</u>												
Manganese	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
LCS (22E0586-BS1)						Prepared: 05/16/22 11:31 Analyzed: 05/16/22 17:51						
<u>EPA 6020B (Diss)</u>												
Manganese	50.7	0.500	1.00	ug/L	1	55.6	---	91	80-120%	---	---	
Duplicate (22E0586-DUP2)						Prepared: 05/16/22 11:31 Analyzed: 05/17/22 11:36						
<u>QC Source Sample: Non-SDG (A2E0189-11RE1)</u>												
Manganese	290	5.00	10.0	ug/L	10	---	287	---	---	1	20%	A-01, Q-16
Matrix Spike (22E0586-MS2)						Prepared: 05/16/22 11:31 Analyzed: 05/17/22 11:41						
<u>QC Source Sample: Non-SDG (A2E0189-11RE1)</u>												
<u>EPA 6020B (Diss)</u>												
Manganese	331	5.00	10.0	ug/L	10	55.6	287	80	75-125%	---	---	A-01, Q-16

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SAMPLE PREPARATION INFORMATION

Dissolved Metals by EPA 6020B (ICPMS)

Prep: Matrix Matched Direct Inject					Sample	Default	RL Prep
Lab Number	Matrix	Method	Sampled	Prepared	Initial/Final	Initial/Final	Factor
<u>Batch: 22E0586</u>							
A2E0493-01	Water	EPA 6020B (Diss)	05/06/22 10:45	05/16/22 11:31	45mL/50mL	45mL/50mL	1.00
A2E0493-02	Water	EPA 6020B (Diss)	05/06/22 10:50	05/16/22 11:31	45mL/50mL	45mL/50mL	1.00
A2E0493-03	Water	EPA 6020B (Diss)	05/06/22 10:55	05/16/22 11:31	45mL/50mL	45mL/50mL	1.00
A2E0493-04	Water	EPA 6020B (Diss)	05/06/22 11:05	05/16/22 11:31	45mL/50mL	45mL/50mL	1.00
A2E0493-05	Water	EPA 6020B (Diss)	05/06/22 11:00	05/16/22 11:31	45mL/50mL	45mL/50mL	1.00
A2E0493-06	Water	EPA 6020B (Diss)	05/06/22 11:10	05/16/22 11:31	45mL/50mL	45mL/50mL	1.00
A2E0493-07	Water	EPA 6020B (Diss)	05/06/22 11:15	05/16/22 11:31	45mL/50mL	45mL/50mL	1.00
A2E0493-08	Water	EPA 6020B (Diss)	05/06/22 11:20	05/16/22 11:31	45mL/50mL	45mL/50mL	1.00

DRAFT REPORT

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QUALIFIER DEFINITIONS

Client Sample and Quality Control (QC) Sample Qualifier Definitions:

Apex Laboratories

- A-01 pH >2 after additional acid preservation.
- Q-16 Reanalysis of an original Batch QC sample.

DRAFT REPORT

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REPORTING NOTES AND CONVENTIONS:

Abbreviations:

- DET Analyte DETECTED at or above the detection or reporting limit.
- ND Analyte NOT DETECTED at or above the detection or reporting limit.
- NR Result Not Reported
- RPD Relative Percent Difference. RPDs for Matrix Spikes and Matrix Spike Duplicates are based on concentration, not recovery.

Detection Limits: Limit of Detection (LOD)

Limits of Detection (LODs) are normally set at a level of one half the validated Limit of Quantitation (LOQ).
If no value is listed ('-----'), then the data has not been evaluated below the Reporting Limit.

Reporting Limits: Limit of Quantitation (LOQ)

Validated Limits of Quantitation (LOQs) are reported as the Reporting Limits for all analyses where the LOQ, MRL, PQL or CRL are requested. The LOQ represents a level at or above the low point of the calibration curve, that has been validated according to Apex Laboratories' comprehensive LOQ policies and procedures.

Reporting Conventions:

- Basis: Results for soil samples are generally reported on a 100% dry weight basis.
The Result Basis is listed following the units as " dry", " wet", or " " (blank) designation.
- " dry" Sample results and Reporting Limits are reported on a dry weight basis. (i.e. "ug/kg dry")
See Percent Solids section for details of dry weight analysis.
- " wet" Sample results and Reporting Limits for this analysis are normally dry weight corrected, but have not been modified in this case.
- " " Results without 'wet' or 'dry' designation are not normally dry weight corrected. These results are considered 'As Received'.

QC Source:

In cases where there is insufficient sample provided for Sample Duplicates and/or Matrix Spikes, a Lab Control Sample Duplicate (LCS Dup) may be analyzed to demonstrate accuracy and precision of the extraction batch.

Non-Client Batch QC Samples (Duplicates and Matrix Spike/Duplicates) may not be included in this report. Please request a Full QC report if this data is required.

Miscellaneous Notes:

- " --- " QC results are not applicable. For example, % Recoveries for Blanks and Duplicates, % RPD for Blanks, Blank Spikes and Matrix Spikes, etc.
- " *** " Used to indicate a possible discrepancy with the Sample and Sample Duplicate results when the %RPD is not available. In this case, either the Sample or the Sample Duplicate has a reportable result for this analyte, while the other is Non Detect (ND).

Blanks:

Standard practice is to evaluate the results from Blank QC Samples down to a level equal to 1/2 the Reporting Limit (RL).
-For Blank hits falling between 1/2 the RL and the RL (J flagged hits), the associated sample and QC data will receive a 'B-02' qualifier.
-For Blank hits above the RL, the associated sample and QC data will receive a 'B' qualifier, per Apex Laboratories' Blank Policy.
For further details, please request a copy of this document.

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REPORTING NOTES AND CONVENTIONS (Cont.):

Blanks (Cont.):

Sample results flagged with a 'B' or 'B-02' qualifier are potentially biased high if the sample results are less than ten times the level found in the blank for inorganic analyses, or less than five times the level found in the blank for organic analyses.

'B' and 'B-02' qualifications are only applied to sample results detected above the Reporting Level.

Preparation Notes:

Mixed Matrix Samples:

Water Samples:

Water samples containing significant amounts of sediment are decanted or separated prior to extraction, and only the water portion analyzed, unless otherwise directed by the client.

Soil and Sediment Samples:

Soil and Sediment samples containing significant amounts of water are decanted prior to extraction, and only the solid portion analyzed, unless otherwise directed by the client.

Sampling and Preservation Notes:

Certain regulatory programs, such as National Pollutant Discharge Elimination System (NPDES), require that activities such as sample filtration (for dissolved metals, orthophosphate, hexavalent chromium, etc.) and testing of short hold analytes (pH, Dissolved Oxygen, etc.) be performed in the field (on-site) within a short time window. In addition, sample matrix spikes are required for some analyses, and sufficient volume must be provided, and billable site specific QC requested, if this is required. All regulatory permits should be reviewed to ensure that these requirements are being met.

Data users should be aware of which regulations pertain to the samples they submit for testing. If related sample collection activities are not approved for a particular regulatory program, results should be considered estimates. Apex Laboratories will qualify these analytes according to the most stringent requirements, however results for samples that are for non-regulatory purposes may be acceptable.

Samples that have been filtered and preserved at Apex Laboratories per client request are listed in the preparation section of the report with the date and time of filtration listed.

Apex Laboratories maintains detailed records on sample receipt, including client label verification, cooler temperature, sample preservation, hold time compliance and field filtration. Data is qualified as necessary, and the lack of qualification indicates compliance with required parameters.



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062

Table with 3 columns: Client (Anchor QEA, LLC), Project (Barry 2022), and Report ID (A2E0493 - 06 02 22 1444).

LABORATORY ACCREDITATION INFORMATION

ORELAP Certification ID: OR100062 (Primary Accreditation) -
EPA ID: OR01039

All methods and analytes reported from work performed at Apex Laboratories are included on Apex Laboratories' ORELAP Scope of Certification, with the exception of any analyte(s) listed below:

Apex Laboratories

Table with 6 columns: Matrix, Analysis, TNI_ID, Analyte, TNI_ID, Accreditation. Content: All reported analytes are included in Apex Laboratories' current ORELAP scope.

Secondary Accreditations

Apex Laboratories also maintains reciprocal accreditation with non-TNI states (Washington DOE), as well as other state specific accreditations not listed here.

Subcontract Laboratory Accreditations

Subcontracted data falls outside of Apex Laboratories' Scope of Accreditation. Please see the Subcontract Laboratory report for full details, or contact your Project Manager for more information.

Field Testing Parameters

Results for Field Tested data are provided by the client or sampler, and fall outside of Apex Laboratories' Scope of Accreditation.



ANALYTICAL REPORT

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Anchor QEA, LLC 6720 SW Macadam Ave. Suite 125 Portland, OR 97219	Project: Barry 2022 Project Number: 201114-01.02 Task 09 Project Manager: Masakazu Kanematsu	Report ID: A2E0493 - 06 02 22 1444
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A2E0493

Chain of Custody Record & Laboratory Analysis Request

Laboratory Number: 503-972-5019
 Date: 5/10/2022
 Project Name: Barry
 Project Number: 201114-01.02 Task 09
 Project Manager: Masa Kanematsu
 Phone Number: 503-972-5001 (backup number: 971-334-8193)
 Shipment Method: Apex Carrier

ANCHOR QEA
 Jessica Goin
 6720 SW Macadam Ave
 Suite 125
 Portland OR 97219

Line	Field Sample ID	Collection		Matrix	No. of Containers	Disolved metals (Mn)	Comments/Preservation
		Date	Time				
1	BY-AP-PT-1-(65-68)-ExtMn	5/6/2022	5/6/22 10:45	Water	1	X	0.45um filtered. HNO3 preserved.
2	BY-AP-PT-1-(75-85)-ExtMn	5/6/2022	5/6/22 10:50	Water	1	X	0.45um filtered. HNO3 preserved.
3	BY-AP-PT-2-(65-70)-ExtMn	5/6/2022	5/6/22 10:55	Water	1	X	0.45um filtered. HNO3 preserved.
4	BY-AP-PT-2-(75-80)-ExtMn	5/6/2022	5/6/22 11:05	Water	1	X	0.45um filtered. HNO3 preserved.
5	BY-AP-PT-2-(65-70)-DUP-ExtMn	5/6/2022	5/6/22 11:00	Water	1	X	0.45um filtered. HNO3 preserved.
6	BY-AP-PT-3-ExtMn	5/6/2022	5/6/22 11:10	Water	1	X	0.45um filtered. HNO3 preserved.
7	BY-AP-PT-5-(50-70)-ExtMn	5/6/2022	5/6/22 11:15	Water	1	X	0.45um filtered. HNO3 preserved.
8	BY-AP-MB-ExtMn	5/6/2022	5/6/22 11:20	Water	1	X	0.45um filtered. HNO3 preserved.
9							
10							
11							
12							
13							
14							
15							

Notes: Please Contact Masa (503-972-5001) if running > 10X dilution.

Relinquished by: Emma Nordlund	Company: Anchor QEA
Signature/Print Name: <i>Emma Nordlund</i>	Date/Time: 5/11/22 11:00 AM
Relinquished by: <i>Andy Kanematsu</i>	Company: Apex
Signature/Print Name: <i>Andy Kanematsu</i>	Date/Time: 5/11/22 11:32

Distribution: A copy will be made for the laboratory and client. The Project file will retain the original. Page 1 of 1

DRAFT REPORT

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ANALYTICAL REPORT

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Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062

Anchor QEA, LLC 6720 SW Macadam Ave. Suite 125 Portland, OR 97219	Project: Barry 2022 Project Number: 201114-01.02 Task 09 Project Manager: Masakazu Kanematsu	Report ID: A2E0493 - 06 02 22 1444
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APEX LABS COOLER RECEIPT FORM

Client: Anchor QEA Element WO#: A2E0493

Project/Project #: Barry / 201114-01.02 Task 09

Delivery Info:
 Date/time received: 5-11-22 @ 11:32 By: AM
 Delivered by: Apex Client ESS FedEx UPS Swift Senvoy SDS Other

Cooler Inspection Date/time inspected: 5-11-22 @ 12:15 By: AM
 Chain of Custody included? Yes No Custody seals? Yes No
 Signed/dated by client? Yes No
 Signed/dated by Apex? Yes No

	Cooler #1	Cooler #2	Cooler #3	Cooler #4	Cooler #5	Cooler #6	Cooler #7
Temperature (°C)	<u>2.5</u>						
Received on ice? (Y/N)	<u>Y</u>						
Temp. blanks? (Y/N)	<u>Y</u>						
Ice type: (Gel/Real/Other)	<u>Real</u>						
Condition:	<u>Good</u>						

Cooler out of temp? (Y/N) Possible reason why: _____
 Green dots applied to out of temperature samples? Yes No
 Out of temperature samples form initiated? Yes No
Sample Inspection: Date/time inspected: 5/13/22 @ 1329 By: HAS
 All samples intact? Yes No Comments: _____

 Bottle labels/COCs agree? Yes No Comments: _____

 COC/container discrepancies form initiated? Yes No
 Containers/volumes received appropriate for analysis? Yes No Comments: _____

 Do VOA vials have visible headspace? Yes No NA
 Comments: _____
 Water samples: pH checked: Yes No NA pH appropriate? Yes No NA
 Comments: _____

Additional information:

Labeled by: HAS Witness: [Signature] Cooler Inspected by: AM

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July 19, 2022

Service Request No:K2207158

Masa Kanematsu
Anchor QEA, LLC
6720 SW Macadam Avenue
Suite 125
Portland, OR 97219

Laboratory Results for: Barry

Dear Masa,

Enclosed are the results of the sample(s) submitted to our laboratory June 27, 2022
For your reference, these analyses have been assigned our service request number **K2207158**.

Analyses were performed according to our laboratory's NELAP-approved quality assurance program. The test results meet requirements of the current NELAP standards, where applicable, and except as noted in the laboratory case narrative provided. For a specific list of NELAP-accredited analytes, refer to the certifications section at www.alsglobal.com. All results are intended to be considered in their entirety, and ALS Group USA Corp. dba ALS Environmental (ALS) is not responsible for use of less than the complete report. Results apply only to the items submitted to the laboratory for analysis and individual items (samples) analyzed, as listed in the report.

Please contact me if you have any questions. My extension is 3376. You may also contact me via email at Mark.Harris@alsglobal.com.

Respectfully submitted,

ALS Group USA, Corp. dba ALS Environmental

Mark Harris
Project Manager

ADDRESS 1317 S. 13th Avenue, Kelso, WA 98626
PHONE +1 360 577 7222 | FAX +1 360 636 1068
ALS Group USA, Corp.
dba ALS Environmental



Narrative Documents

ALS Environmental—Kelso Laboratory
1317 South 13th Avenue, Kelso, WA 98626
Phone (360) 577-7222 Fax (360) 425-9096
www.alsglobal.com



Client: Anchor QEA, LLC
Project: Barry
Sample Matrix: Water

Service Request: K2207158
Date Received: 06/27/2022

CASE NARRATIVE

All analyses were performed consistent with the quality assurance program of ALS Environmental. This report contains analytical results for samples for the Tier II level requested by the client.

Sample Receipt:

Eleven water samples were received for analysis at ALS Environmental on 06/27/2022. Any discrepancies upon initial sample inspection are annotated on the sample receipt and preservation form included within this report. The samples were stored at minimum in accordance with the analytical method requirements.

Metals:

No significant anomalies were noted with this analysis.

Approved by _____

Date 07/19/2022



SAMPLE DETECTION SUMMARY

This form includes only detections above the reporting levels. For a full listing of sample results, continue to the Sample Results section of this Report.

CLIENT ID: BY-SBT-MW-8-FS		Lab ID: K2207158-001				
Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	1.53		0.09	0.50	ug/L	200.8
CLIENT ID: BY-SBT-MW-8-FC		Lab ID: K2207158-002				
Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	2.49		0.09	0.50	ug/L	200.8
CLIENT ID: BY-SBT-MW-8-CER		Lab ID: K2207158-003				
Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	9.74		0.09	0.50	ug/L	200.8
CLIENT ID: BY-SBT-MW-8-PM		Lab ID: K2207158-004				
Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	0.50		0.09	0.50	ug/L	200.8
CLIENT ID: BY-SBT-MW-8-FS-PM		Lab ID: K2207158-005				
Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	0.88		0.09	0.50	ug/L	200.8
CLIENT ID: BY-SBT-MW-8-FC-PM-MC		Lab ID: K2207158-006				
Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	0.54		0.09	0.50	ug/L	200.8
CLIENT ID: BY-SBT-MW-8-BC		Lab ID: K2207158-007				
Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	4.20		0.09	0.50	ug/L	200.8
CLIENT ID: BY-SBT-MW-8-AIR		Lab ID: K2207158-008				
Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	6.47		0.09	0.50	ug/L	200.8
CLIENT ID: BY-SBT-MW-8-FS-DUP		Lab ID: K2207158-009				
Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	4.09		0.09	0.50	ug/L	200.8
CLIENT ID: BY-SBT-MW-8-CTRL		Lab ID: K2207158-010				
Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	2.53		0.09	0.50	ug/L	200.8
CLIENT ID: BY-SBT-MW-8-BC-NaSO4		Lab ID: K2207158-011				
Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	1.28		0.09	0.50	ug/L	200.8



Sample Receipt Information

ALS Environmental—Kelso Laboratory
1317 South 13th Avenue, Kelso, WA 98626
Phone (360) 577-7222 Fax (360) 425-9096
www.alsglobal.com

Client: Anchor QEA, LLC
Project: Barry/201114-01.02 Task 09


Service Request:K2207158

SAMPLE CROSS-REFERENCE



<u>SAMPLE #</u>	<u>CLIENT SAMPLE ID</u>	<u>DATE</u>	<u>TIME</u>
K2207158-001	BY-SBT-MW-8-FS	6/22/2022	0950
K2207158-002	BY-SBT-MW-8-FC	6/22/2022	0955
K2207158-003	BY-SBT-MW-8-CER	6/22/2022	1000
K2207158-004	BY-SBT-MW-8-PM	6/22/2022	1005
K2207158-005	BY-SBT-MW-8-FS-PM	6/22/2022	1010
K2207158-006	BY-SBT-MW-8-FC-PM-MC	6/22/2022	1015
K2207158-007	BY-SBT-MW-8-BC	6/22/2022	1020
K2207158-008	BY-SBT-MW-8-AIR	6/22/2022	1025
K2207158-009	BY-SBT-MW-8-FS-DUP	6/22/2022	1030
K2207158-010	BY-SBT-MW-8-CTRL	6/22/2022	1035
K2207158-011	BY-SBT-MW-8-BC-NaSO4	6/22/2022	1040



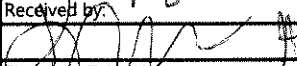
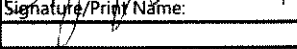
Chain of Custody Record & Laboratory Analysis Request

12207158

Laboratory Number: 503-972-5019					No. of Containers	Parameters										 Jessica Goin 6720 SW Macadam Ave Suite 125 Portland OR 97219 Comments/Preservation							
Date:	6/27/2022					As (dissolved)																	
Project Name:	Bary																						
Project Number:	201114-01.02 Task 09																						
Project Manager:	Masa Kanematsu																						
Phone Number:	503-972-5001 (backup number: 971.334.8193)																						
Shipment Method:	ALS Carrier																						
Line	Field Sample ID	Collection		Matrix	No. of Containers	As (dissolved)														Comments/Preservation			
		Date	Time																				
1	BY-SBT-MW-8-FS	6/22/2022	6/22/22 9:50	Water	1	X															HNO3 preserved. Field Filtered.		
2	BY-SBT-MW-8-FC	6/22/2022	6/22/22 9:55	Water	1	X															HNO3 preserved. Field Filtered.		
3	BY-SBT-MW-8-CER	6/22/2022	6/22/22 10:00	Water	1	X															HNO3 preserved. Field Filtered.		
4	BY-SBT-MW-8-PM	6/22/2022	6/22/22 10:05	Water	1	X															HNO3 preserved. Field Filtered. KMnO4 added		
5	BY-SBT-MW-8-FS-PM	6/22/2022	6/22/22 10:10	Water	1	X															HNO3 preserved. Field Filtered. KMnO4 added		
6	BY-SBT-MW-8-FC-PM-MC	6/22/2022	6/22/22 10:15	Water	1	X															HNO3 preserved. Field Filtered. KMnO4 added		
7	BY-SBT-MW-8-BC	6/22/2022	6/22/22 10:20	Water	1	X															HNO3 preserved. Field Filtered.		
8	BY-SBT-MW-8-AIR	6/22/2022	6/22/22 10:25	Water	1	X															HNO3 preserved. Field Filtered.		
9	BY-SBT-MW-8-FS-DUP	6/22/2022	6/22/22 10:30	Water	1	X															HNO3 preserved. Field Filtered.		
10	BY-SBT-MW-8-CTRL	6/22/2022	6/22/22 10:35	Water	1	X															HNO3 preserved. Field Filtered.		
11	BY-SBT-MW-8-BC-NaSO4	6/22/2022	6/22/22 10:40	Water	1	X															HNO3 preserved. Field Filtered.		
12																							
13																							
14																							
15																							
16																							

Notes: Please Contact Masa (503-972-5001, mkanematsu@anchorqea.com) if running > 10X dilution. Please analyze by ICP-MS method 200.8 to achieve the MDL < 1 ppb. Some samples may have residual purple color associated with potassium permanganate (KMnO4). If those samples need to be diluted in order to not damage the ICP-MS, please do so and let Masa know the dilution factor.

Relinquished by:	Company:
Emily DeVore	Anchor QEA
Signature/Print Name:	Date/Time:
	6/27/22 8:00am
Relinquished by:	Company:
	ALS
Signature/Print Name:	Date/Time:
	6/27/22 1020

Received by:

Signature/Print Name:

Received by:

Signature/Print Name:


Cooler Receipt and Preservation Form

Client Anchor QEA Service Request K2207158
 Received: 6/27/22 Opened: 6/27/22 By: [Signature] Unloaded: 6/27/22 By: [Signature]

- Samples were received via? **USPS** Fed Ex **UPS** **DHL** **PDX** Courier **Hand Delivered**
- Samples were received in: (circle) Cooler **Box** **Envelope** **Other** NA
- Were custody seals on coolers? **NA** **Y** N If yes, how many and where? _____
 If present, were custody seals intact? **Y** **N** If present, were they signed and dated? **Y** **N**

Temp Blank	Sample Temp	IR Gun	Cooler #/COC ID / NA	Out of temp Indicate with 'X'	PM Notified If out of temp	Tracking Number NA	Filed
<u>5.3</u>		<u>IR01</u>					

- Was a Temperature Blank present in cooler? **NA** Y **N** If yes, notate the temperature in the appropriate column above:
 If no, take the temperature of a representative sample bottle contained within the cooler; notate in the column "Sample Temp":
- Were samples received within the method specified temperature ranges? **NA** Y **N**
 If no, were they received on ice and same day as collected? If not, notate the cooler # below and notify the PM. NA **Y** **N**

- If applicable, tissue samples were received: **Frozen** **Partially Thawed** **Thawed**
- Packing material: Inserts **Baggies** **Bubble Wrap** **Gel Packs** **Wet Ice** **Dry Ice** **Sleeves** _____
 - Were custody papers properly filled out (ink, signed, etc.)? **NA** Y **N**
 - Were samples received in good condition (unbroken) **NA** Y **N**
 - Were all sample labels complete (ie, analysis, preservation, etc.)? **NA** Y **N**
 - Did all sample labels and tags agree with custody papers? **NA** Y **N**
 - Were appropriate bottles/containers and volumes received for the tests indicated? **NA** Y **N**
 - Were the pH-preserved bottles (see SMO GEN SOP) received at the appropriate pH? Indicate in the table below **NA** Y **N**
 - Were VOA vials received without headspace? Indicate in the table below. **NA** Y **N**
 - Was C12/Res negative? **NA** Y **N**
 - Were 100ml sterile microbiology bottles filled exactly to the 100ml mark? NA **Y** **N** Under filled Overfilled

Sample ID on Bottle	Sample ID on COC	Identified by:

Sample ID	Bottle Count	Bottle Type	Head-space	Broke	pH	Reagent	Volume added	Reagent Lot Number	Initials	Time

Notes, Discrepancies, Resolutions: _____



Miscellaneous Forms

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Inorganic Data Qualifiers

- * The result is an outlier. See case narrative.
- # The control limit criteria is not applicable.
- B The analyte was found in the associated method blank at a level that is significant relative to the sample result as defined by the DOD or NELAC standards.
- E The result is an estimate amount because the value exceeded the instrument calibration range.
- J The result is an estimated value.
- U The analyte was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL.
DOD-QSM 4.2 definition : Analyte was not detected and is reported as less than the LOD or as defined by the project. The detection limit is adjusted for dilution.
- i The MRL/MDL or LOQ/LOD is elevated due to a matrix interference.
- X See case narrative.
- Q See case narrative. One or more quality control criteria was outside the limits.
- H The holding time for this test is immediately following sample collection. The samples were analyzed as soon as possible after receipt by the laboratory.

Metals Data Qualifiers

- # The control limit criteria is not applicable.
- J The result is an estimated value.
- E The percent difference for the serial dilution was greater than 10%, indicating a possible matrix interference in the sample.
- M The duplicate injection precision was not met.
- N The Matrix Spike sample recovery is not within control limits. See case narrative.
- S The reported value was determined by the Method of Standard Additions (MSA).
- U The analyte was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL.
DOD-QSM 4.2 definition : Analyte was not detected and is reported as less than the LOD or as defined by the project. The detection limit is adjusted for dilution.
- W The post-digestion spike for furnace AA analysis is out of control limits, while sample absorbance is less than 50% of spike absorbance.
 - i The MRL/MDL or LOQ/LOD is elevated due to a matrix interference.
- X See case narrative.
- + The correlation coefficient for the MSA is less than 0.995.
- Q See case narrative. One or more quality control criteria was outside the limits.

Organic Data Qualifiers

- * The result is an outlier. See case narrative.
- # The control limit criteria is not applicable. See case narrative.
- A A tentatively identified compound, a suspected aldol-condensation product.
- B The analyte was found in the associated method blank at a level that is significant relative to the sample result as defined by the DOD or NELAC standards.
- C The analyte was qualitatively confirmed using GC/MS techniques, pattern recognition, or by comparing to historical data.
- D The reported result is from a dilution.
- E The result is an estimated value.
- J The result is an estimated value.
- N The result is presumptive. The analyte was tentatively identified, but a confirmation analysis was not performed.
- P The GC or HPLC confirmation criteria was exceeded. The relative percent difference is greater than 40% between the two analytical results.
- U The analyte was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL.
DOD-QSM 4.2 definition : Analyte was not detected and is reported as less than the LOD or as defined by the project. The detection limit is adjusted for dilution.
 - i The MRL/MDL or LOQ/LOD is elevated due to a chromatographic interference.
- X See case narrative.
- Q See case narrative. One or more quality control criteria was outside the limits.

Additional Petroleum Hydrocarbon Specific Qualifiers

- F The chromatographic fingerprint of the sample matches the elution pattern of the calibration standard.
- L The chromatographic fingerprint of the sample resembles a petroleum product, but the elution pattern indicates the presence of a greater amount of lighter molecular weight constituents than the calibration standard.
- H The chromatographic fingerprint of the sample resembles a petroleum product, but the elution pattern indicates the presence of a greater amount of heavier molecular weight constituents than the calibration standard.
- O The chromatographic fingerprint of the sample resembles an oil, but does not match the calibration standard.
- Y The chromatographic fingerprint of the sample resembles a petroleum product eluting in approximately the correct carbon range, but the elution pattern does not match the calibration standard.
- Z The chromatographic fingerprint does not resemble a petroleum product.

**ALS Group USA Corp. dba ALS Environmental (ALS) - Kelso
State Certifications, Accreditations, and Licenses**

Agency	Web Site	Number
Alaska DEH	http://dec.alaska.gov/eh/lab/cs/csapproval.htm	UST-040
Arizona DHS	http://www.azdhs.gov/lab/license/env.htm	AZ0339
Arkansas - DEQ	http://www.adeq.state.ar.us/techsvs/labcert.htm	88-0637
California DHS (ELAP)	http://www.cdph.ca.gov/certlic/labs/Pages/ELAP.aspx	2795
DOD ELAP	http://www.denix.osd.mil/edqw/Accreditation/AccreditedLabs.cfm	L16-58-R4
Florida DOH	http://www.doh.state.fl.us/lab/EnvLabCert/WaterCert.htm	E87412
Hawaii DOH	http://health.hawaii.gov/	-
ISO 17025	http://www.pjllabs.com/	L16-57
Louisiana DEQ	http://www.deq.louisiana.gov/page/la-lab-accreditation	03016
Maine DHS	http://www.maine.gov/dhhs/	WA01276
Minnesota DOH	http://www.health.state.mn.us/accreditation	053-999-457
Nevada DEP	http://ndep.nv.gov/bsdw/labservice.htm	WA01276
New Jersey DEP	http://www.nj.gov/dep/enforcement/oqa.html	WA005
New York - DOH	https://www.wadsworth.org/regulatory/elap	12060
North Carolina DEQ	https://deq.nc.gov/about/divisions/water-resources/water-resources-data/water-sciences-home-page/laboratory-certification-branch/non-field-lab-certification	605
Oklahoma DEQ	http://www.deq.state.ok.us/CSDnew/labcert.htm	9801
Oregon – DEQ (NELAP)	http://public.health.oregon.gov/LaboratoryServices/EnvironmentalLaboratoryAccreditation/Pages/index.aspx	WA100010
South Carolina DHEC	http://www.scdhec.gov/environment/EnvironmentalLabCertification/	61002
Texas CEQ	http://www.tceq.texas.gov/field/qa/env_lab_accreditation.html	T104704427
Washington DOE	http://www.ecy.wa.gov/programs/eap/labs/lab-accreditation.html	C544
Wyoming (EPA Region 8)	https://www.epa.gov/region8-waterops/epa-region-8-certified-drinking-water	-
Kelso Laboratory Website	www.alsglobal.com	NA

Analyses were performed according to our laboratory's NELAP-approved quality assurance program. A complete listing of specific NELAP-certified analytes, can be found in the certification section at www.ALSGlobal.com or at the accreditation bodies web site.

Please refer to the certification and/or accreditation body's web site if samples are submitted for compliance purposes. The states highlighted above, require the analysis be listed on the state certification if used for compliance purposes and if the method/analyte is offered by that state.

Acronyms

ASTM	American Society for Testing and Materials
A2LA	American Association for Laboratory Accreditation
CARB	California Air Resources Board
CAS Number	Chemical Abstract Service registry Number
CFC	Chlorofluorocarbon
CFU	Colony-Forming Unit
DEC	Department of Environmental Conservation
DEQ	Department of Environmental Quality
DHS	Department of Health Services
DOE	Department of Ecology
DOH	Department of Health
EPA	U. S. Environmental Protection Agency
ELAP	Environmental Laboratory Accreditation Program
GC	Gas Chromatography
GC/MS	Gas Chromatography/Mass Spectrometry
LOD	Limit of Detection
LOQ	Limit of Quantitation
LUFT	Leaking Underground Fuel Tank
M	Modified
MCL	Maximum Contaminant Level is the highest permissible concentration of a substance allowed in drinking water as established by the USEPA.
MDL	Method Detection Limit
MPN	Most Probable Number
MRL	Method Reporting Limit
NA	Not Applicable
NC	Not Calculated
NCASI	National Council of the Paper Industry for Air and Stream Improvement
ND	Not Detected
NIOSH	National Institute for Occupational Safety and Health
PQL	Practical Quantitation Limit
RCRA	Resource Conservation and Recovery Act
SIM	Selected Ion Monitoring
TPH	Total Petroleum Hydrocarbons
tr	Trace level is the concentration of an analyte that is less than the PQL but greater than or equal to the MDL.

ALS Group USA, Corp.
dba ALS Environmental

Analyst Summary report

Client: Anchor QEA, LLC
Project: Barry/201114-01.02 Task 09

Service Request: K2207158

Sample Name: BY-SBT-MW-8-FS
Lab Code: K2207158-001
Sample Matrix: Water

Date Collected: 06/22/22
Date Received: 06/27/22

Analysis Method
200.8

Extracted/Digested By
SSOLADEY

Analyzed By
JCHAN

Sample Name: BY-SBT-MW-8-FC
Lab Code: K2207158-002
Sample Matrix: Water

Date Collected: 06/22/22
Date Received: 06/27/22

Analysis Method
200.8

Extracted/Digested By
SSOLADEY

Analyzed By
JCHAN

Sample Name: BY-SBT-MW-8-CER
Lab Code: K2207158-003
Sample Matrix: Water

Date Collected: 06/22/22
Date Received: 06/27/22

Analysis Method
200.8

Extracted/Digested By
SSOLADEY

Analyzed By
JCHAN

Sample Name: BY-SBT-MW-8-PM
Lab Code: K2207158-004
Sample Matrix: Water

Date Collected: 06/22/22
Date Received: 06/27/22

Analysis Method
200.8

Extracted/Digested By
SSOLADEY

Analyzed By
JCHAN

Sample Name: BY-SBT-MW-8-FS-PM
Lab Code: K2207158-005
Sample Matrix: Water

Date Collected: 06/22/22
Date Received: 06/27/22

Analysis Method
200.8

Extracted/Digested By
SSOLADEY

Analyzed By
JCHAN

ALS Group USA, Corp.
dba ALS Environmental

Analyst Summary report

Client: Anchor QEA, LLC
Project: Barry/201114-01.02 Task 09

Service Request: K2207158

Sample Name: BY-SBT-MW-8-FC-PM-MC
Lab Code: K2207158-006
Sample Matrix: Water

Date Collected: 06/22/22
Date Received: 06/27/22

Analysis Method
200.8

Extracted/Digested By
SSOLADEY

Analyzed By
JCHAN

Sample Name: BY-SBT-MW-8-BC
Lab Code: K2207158-007
Sample Matrix: Water

Date Collected: 06/22/22
Date Received: 06/27/22

Analysis Method
200.8

Extracted/Digested By
SSOLADEY

Analyzed By
JCHAN

Sample Name: BY-SBT-MW-8-AIR
Lab Code: K2207158-008
Sample Matrix: Water

Date Collected: 06/22/22
Date Received: 06/27/22

Analysis Method
200.8

Extracted/Digested By
SSOLADEY

Analyzed By
JCHAN

Sample Name: BY-SBT-MW-8-FS-DUP
Lab Code: K2207158-009
Sample Matrix: Water

Date Collected: 06/22/22
Date Received: 06/27/22

Analysis Method
200.8

Extracted/Digested By
SSOLADEY

Analyzed By
JCHAN

Sample Name: BY-SBT-MW-8-CTRL
Lab Code: K2207158-010
Sample Matrix: Water

Date Collected: 06/22/22
Date Received: 06/27/22

Analysis Method
200.8

Extracted/Digested By
SSOLADEY

Analyzed By
JCHAN

ALS Group USA, Corp.
dba ALS Environmental

Analyst Summary report

Client: Anchor QEA, LLC
Project: Barry/201114-01.02 Task 09

Service Request: K2207158

Sample Name: BY-SBT-MW-8-BC-NaSO4
Lab Code: K2207158-011
Sample Matrix: Water

Date Collected: 06/22/22
Date Received: 06/27/22

Analysis Method
200.8

Extracted/Digested By
SSOLADEY

Analyzed By
EMCALLISTER



Sample Results

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Metals

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www.alsglobal.com

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Anchor QEA, LLC
Project: Barry/201114-01.02 Task 09
Sample Matrix: Water
Sample Name: BY-SBT-MW-8-FS
Lab Code: K2207158-001

Service Request: K2207158
Date Collected: 06/22/22 09:50
Date Received: 06/27/22 10:20
Basis: NA

Dissolved Metals

<u>Analyte Name</u>	<u>Analysis Method</u>	<u>Result</u>	<u>Units</u>	<u>MRL</u>	<u>MDL</u>	<u>Dil.</u>	<u>Date Analyzed</u>	<u>Date Extracted</u>	<u>Q</u>
Arsenic	200.8	1.53	ug/L	0.50	0.09	1	07/15/22 14:38	07/14/22	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Anchor QEA, LLC
Project: Barry/201114-01.02 Task 09
Sample Matrix: Water
Sample Name: BY-SBT-MW-8-FC
Lab Code: K2207158-002

Service Request: K2207158
Date Collected: 06/22/22 09:55
Date Received: 06/27/22 10:20
Basis: NA

Dissolved Metals

<u>Analyte Name</u>	<u>Analysis Method</u>	<u>Result</u>	<u>Units</u>	<u>MRL</u>	<u>MDL</u>	<u>Dil.</u>	<u>Date Analyzed</u>	<u>Date Extracted</u>	<u>Q</u>
Arsenic	200.8	2.49	ug/L	0.50	0.09	1	07/15/22 14:42	07/14/22	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Anchor QEA, LLC
Project: Barry/201114-01.02 Task 09
Sample Matrix: Water
Sample Name: BY-SBT-MW-8-CER
Lab Code: K2207158-003

Service Request: K2207158
Date Collected: 06/22/22 10:00
Date Received: 06/27/22 10:20
Basis: NA

Dissolved Metals

<u>Analyte Name</u>	<u>Analysis Method</u>	<u>Result</u>	<u>Units</u>	<u>MRL</u>	<u>MDL</u>	<u>Dil.</u>	<u>Date Analyzed</u>	<u>Date Extracted</u>	<u>Q</u>
Arsenic	200.8	9.74	ug/L	0.50	0.09	1	07/15/22 14:47	07/14/22	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Anchor QEA, LLC
Project: Barry/201114-01.02 Task 09
Sample Matrix: Water
Sample Name: BY-SBT-MW-8-PM
Lab Code: K2207158-004

Service Request: K2207158
Date Collected: 06/22/22 10:05
Date Received: 06/27/22 10:20
Basis: NA

Dissolved Metals

<u>Analyte Name</u>	<u>Analysis Method</u>	<u>Result</u>	<u>Units</u>	<u>MRL</u>	<u>MDL</u>	<u>Dil.</u>	<u>Date Analyzed</u>	<u>Date Extracted</u>	<u>Q</u>
Arsenic	200.8	0.50	ug/L	0.50	0.09	1	07/15/22 14:48	07/14/22	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Anchor QEA, LLC
Project: Barry/201114-01.02 Task 09
Sample Matrix: Water
Sample Name: BY-SBT-MW-8-FS-PM
Lab Code: K2207158-005

Service Request: K2207158
Date Collected: 06/22/22 10:10
Date Received: 06/27/22 10:20
Basis: NA

Dissolved Metals

<u>Analyte Name</u>	<u>Analysis Method</u>	<u>Result</u>	<u>Units</u>	<u>MRL</u>	<u>MDL</u>	<u>Dil.</u>	<u>Date Analyzed</u>	<u>Date Extracted</u>	<u>Q</u>
Arsenic	200.8	0.88	ug/L	0.50	0.09	1	07/15/22 14:50	07/14/22	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Anchor QEA, LLC
Project: Barry/201114-01.02 Task 09
Sample Matrix: Water
Sample Name: BY-SBT-MW-8-FC-PM-MC
Lab Code: K2207158-006

Service Request: K2207158
Date Collected: 06/22/22 10:15
Date Received: 06/27/22 10:20
Basis: NA

Dissolved Metals

<u>Analyte Name</u>	<u>Analysis Method</u>	<u>Result</u>	<u>Units</u>	<u>MRL</u>	<u>MDL</u>	<u>Dil.</u>	<u>Date Analyzed</u>	<u>Date Extracted</u>	<u>Q</u>
Arsenic	200.8	0.54	ug/L	0.50	0.09	1	07/15/22 14:51	07/14/22	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Anchor QEA, LLC
Project: Barry/201114-01.02 Task 09
Sample Matrix: Water
Sample Name: BY-SBT-MW-8-BC
Lab Code: K2207158-007

Service Request: K2207158
Date Collected: 06/22/22 10:20
Date Received: 06/27/22 10:20
Basis: NA

Dissolved Metals

<u>Analyte Name</u>	<u>Analysis Method</u>	<u>Result</u>	<u>Units</u>	<u>MRL</u>	<u>MDL</u>	<u>Dil.</u>	<u>Date Analyzed</u>	<u>Date Extracted</u>	<u>Q</u>
Arsenic	200.8	4.20	ug/L	0.50	0.09	1	07/15/22 14:53	07/14/22	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Anchor QEA, LLC
Project: Barry/201114-01.02 Task 09
Sample Matrix: Water
Sample Name: BY-SBT-MW-8-AIR
Lab Code: K2207158-008

Service Request: K2207158
Date Collected: 06/22/22 10:25
Date Received: 06/27/22 10:20
Basis: NA

Dissolved Metals

<u>Analyte Name</u>	<u>Analysis Method</u>	<u>Result</u>	<u>Units</u>	<u>MRL</u>	<u>MDL</u>	<u>Dil.</u>	<u>Date Analyzed</u>	<u>Date Extracted</u>	<u>Q</u>
Arsenic	200.8	6.47	ug/L	0.50	0.09	1	07/15/22 14:54	07/14/22	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Anchor QEA, LLC
Project: Barry/201114-01.02 Task 09
Sample Matrix: Water
Sample Name: BY-SBT-MW-8-FS-DUP
Lab Code: K2207158-009

Service Request: K2207158
Date Collected: 06/22/22 10:30
Date Received: 06/27/22 10:20
Basis: NA

Dissolved Metals

<u>Analyte Name</u>	<u>Analysis Method</u>	<u>Result</u>	<u>Units</u>	<u>MRL</u>	<u>MDL</u>	<u>Dil.</u>	<u>Date Analyzed</u>	<u>Date Extracted</u>	<u>Q</u>
Arsenic	200.8	4.09	ug/L	0.50	0.09	1	07/15/22 14:56	07/14/22	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Anchor QEA, LLC
Project: Barry/201114-01.02 Task 09
Sample Matrix: Water
Sample Name: BY-SBT-MW-8-CTRL
Lab Code: K2207158-010

Service Request: K2207158
Date Collected: 06/22/22 10:35
Date Received: 06/27/22 10:20
Basis: NA

Dissolved Metals

<u>Analyte Name</u>	<u>Analysis Method</u>	<u>Result</u>	<u>Units</u>	<u>MRL</u>	<u>MDL</u>	<u>Dil.</u>	<u>Date Analyzed</u>	<u>Date Extracted</u>	<u>Q</u>
Arsenic	200.8	2.53	ug/L	0.50	0.09	1	07/15/22 14:57	07/14/22	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Anchor QEA, LLC
Project: Barry/201114-01.02 Task 09
Sample Matrix: Water
Sample Name: BY-SBT-MW-8-BC-NaSO4
Lab Code: K2207158-011

Service Request: K2207158
Date Collected: 06/22/22 10:40
Date Received: 06/27/22 10:20
Basis: NA

Dissolved Metals

<u>Analyte Name</u>	<u>Analysis Method</u>	<u>Result</u>	<u>Units</u>	<u>MRL</u>	<u>MDL</u>	<u>Dil.</u>	<u>Date Analyzed</u>	<u>Date Extracted</u>	<u>Q</u>
Arsenic	200.8	1.28	ug/L	0.50	0.09	1	07/19/22 12:02	07/15/22	



QC Summary Forms

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dba ALS Environmental

Analytical Report

Client: Anchor QEA, LLC
Project: Barry/201114-01.02 Task 09
Sample Matrix: Water
Sample Name: Method Blank
Lab Code: KQ2210532-01

Service Request: K2207158
Date Collected: NA
Date Received: NA
Basis: NA

Dissolved Metals

<u>Analyte Name</u>	<u>Analysis Method</u>	<u>Result</u>	<u>Units</u>	<u>MRL</u>	<u>MDL</u>	<u>Dil.</u>	<u>Date Analyzed</u>	<u>Date Extracted</u>	<u>Q</u>
Arsenic	200.8	ND U	ug/L	0.50	0.09	1	07/15/22 14:35	07/14/22	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Anchor QEA, LLC
Project: Barry/201114-01.02 Task 09
Sample Matrix: Water
Sample Name: Method Blank
Lab Code: KQ2210685-06

Service Request: K2207158
Date Collected: NA
Date Received: NA
Basis: NA

Dissolved Metals

<u>Analyte Name</u>	<u>Analysis Method</u>	<u>Result</u>	<u>Units</u>	<u>MRL</u>	<u>MDL</u>	<u>Dil.</u>	<u>Date Analyzed</u>	<u>Date Extracted</u>	<u>Q</u>
Arsenic	200.8	ND U	ug/L	0.50	0.09	1	07/19/22 11:59	07/15/22	

ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client: Anchor QEA, LLC
Project: Barry/201114-01.02 Task 09
Sample Matrix: Water

Service Request: K2207158
Date Collected: 06/22/22
Date Received: 06/27/22
Date Analyzed: 07/15/22
Date Extracted: 07/14/22

Matrix Spike Summary
Dissolved Metals

Sample Name: BY-SBT-MW-8-FS
Lab Code: K2207158-001
Analysis Method: 200.8
Prep Method: EPA CLP ILM04.0

Units: ug/L
Basis: NA

Matrix Spike
KQ2210532-03

<u>Analyte Name</u>	<u>Sample Result</u>	<u>Result</u>	<u>Spike Amount</u>	<u>% Rec</u>	<u>% Rec Limits</u>
Arsenic	1.53	50.9	50.0	99	70-130

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

Matrix Spike and Matrix Spike Duplicate Data is presented for information purposes only. The matrix may or may not be relevant to samples reported in this report. The laboratory evaluates system performance based on the LCS and LCSD control limits.

ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client: Anchor QEA, LLC
Project: Barry/201114-01.02 Task 09
Sample Matrix: Water

Service Request: K2207158
Date Collected: 06/22/22
Date Received: 06/27/22
Date Analyzed: 07/19/22
Date Extracted: 07/15/22

Matrix Spike Summary
Dissolved Metals

Sample Name: BY-SBT-MW-8-BC-NaSO4
Lab Code: K2207158-011
Analysis Method: 200.8
Prep Method: EPA CLP ILM04.0

Units: ug/L
Basis: NA

Matrix Spike
KQ2210685-02

<u>Analyte Name</u>	<u>Sample Result</u>	<u>Result</u>	<u>Spike Amount</u>	<u>% Rec</u>	<u>% Rec Limits</u>
Arsenic	1.28	47.6	50.0	93	70-130

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

Matrix Spike and Matrix Spike Duplicate Data is presented for information purposes only. The matrix may or may not be relevant to samples reported in this report. The laboratory evaluates system performance based on the LCS and LCSD control limits.

ALS Group USA, Corp.

dba ALS Environmental

QA/QC Report

Client: Anchor QEA, LLC
Project: Barry/201114-01.02 Task 09
Sample Matrix: Water

Service Request: K2207158
Date Collected: 06/22/22
Date Received: 06/27/22
Date Analyzed: 07/15/22

Replicate Sample Summary
Dissolved Metals

Sample Name: BY-SBT-MW-8-FS
Lab Code: K2207158-001

Units: ug/L
Basis: NA

Table with 9 columns: Analyte Name, Analysis Method, MRL, MDL, Sample Result, Duplicate Sample KQ2210532-04 Result, Average, RPD, RPD Limit. Row 1: Arsenic, 200.8, 0.50, 0.09, 1.53, 1.54, 1.54, <1, 20.

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

ALS Group USA, Corp.

dba ALS Environmental

QA/QC Report

Client: Anchor QEA, LLC
Project: Barry/201114-01.02 Task 09
Sample Matrix: Water

Service Request: K2207158
Date Collected: 06/22/22
Date Received: 06/27/22
Date Analyzed: 07/19/22

Replicate Sample Summary
Dissolved Metals

Sample Name: BY-SBT-MW-8-BC-NaSO4
Lab Code: K2207158-011

Units: ug/L
Basis: NA

Table with 9 columns: Analyte Name, Analysis Method, MRL, MDL, Sample Result, Duplicate Sample KQ2210685-03 Result, Average, RPD, RPD Limit. Row 1: Arsenic, 200.8, 0.50, 0.09, 1.28, 1.37, 1.33, 7, 20.

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client: Anchor QEA, LLC
Project: Barry/201114-01.02 Task 09
Sample Matrix: Water

Service Request: K2207158
Date Analyzed: 07/15/22

Lab Control Sample Summary
Dissolved Metals

Units:ug/L
Basis:NA

Lab Control Sample
KQ2210532-02

Analyte Name	Analytical Method	Result	Spike Amount	% Rec	% Rec Limits
Arsenic	200.8	50.0	50.0	100	85-115

ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client: Anchor QEA, LLC
Project: Barry/201114-01.02 Task 09
Sample Matrix: Water

Service Request: K2207158
Date Analyzed: 07/19/22

Lab Control Sample Summary
Dissolved Metals

Units:ug/L
Basis:NA

Lab Control Sample
KQ2210685-07

Analyte Name	Analytical Method	Result	Spike Amount	% Rec	% Rec Limits
Arsenic	200.8	48.7	50.0	97	85-115



July 19, 2022

Service Request No:K2207159

Masa Kanematsu
Anchor QEA, LLC
6720 SW Macadam Avenue
Suite 125
Portland, OR 97219

Laboratory Results for: Barry

Dear Masa,

Enclosed are the results of the sample(s) submitted to our laboratory June 27, 2022
For your reference, these analyses have been assigned our service request number **K2207159**.

Analyses were performed according to our laboratory's NELAP-approved quality assurance program. The test results meet requirements of the current NELAP standards, where applicable, and except as noted in the laboratory case narrative provided. For a specific list of NELAP-accredited analytes, refer to the certifications section at www.alsglobal.com. All results are intended to be considered in their entirety, and ALS Group USA Corp. dba ALS Environmental (ALS) is not responsible for use of less than the complete report. Results apply only to the items submitted to the laboratory for analysis and individual items (samples) analyzed, as listed in the report.

Please contact me if you have any questions. My extension is 3376. You may also contact me via email at Mark.Harris@alsglobal.com.

Respectfully submitted,

ALS Group USA, Corp. dba ALS Environmental

Mark Harris
Project Manager

ADDRESS 1317 S. 13th Avenue, Kelso, WA 98626
PHONE +1 360 577 7222 | FAX +1 360 636 1068
ALS Group USA, Corp.
dba ALS Environmental



Narrative Documents

ALS Environmental—Kelso Laboratory
1317 South 13th Avenue, Kelso, WA 98626
Phone (360) 577-7222 Fax (360) 425-9096
www.alsglobal.com



Client: Anchor QEA, LLC
Project: Barry
Sample Matrix: Water

Service Request: K2207159
Date Received: 06/27/2022

CASE NARRATIVE

All analyses were performed consistent with the quality assurance program of ALS Environmental. This report contains analytical results for samples for the Tier II level requested by the client.

Sample Receipt:

Twelve water samples were received for analysis at ALS Environmental on 06/27/2022. Any discrepancies upon initial sample inspection are annotated on the sample receipt and preservation form included within this report. The samples were stored at minimum in accordance with the analytical method requirements.

Metals:

No significant anomalies were noted with this analysis.

Approved by _____

Date 07/19/2022



SAMPLE DETECTION SUMMARY

This form includes only detections above the reporting levels. For a full listing of sample results, continue to the Sample Results section of this Report.

CLIENT ID: BY-GBT-MW-24H-FS		Lab ID: K2207159-001				
Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	0.70		0.09	0.50	ug/L	200.8
CLIENT ID: BY-GBT-MW-24H-FC		Lab ID: K2207159-002				
Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	0.32	J	0.09	0.50	ug/L	200.8
CLIENT ID: BY-GBT-MW-24H-CER		Lab ID: K2207159-003				
Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	0.66		0.09	0.50	ug/L	200.8
CLIENT ID: BY-GBT-MW-24H-PM		Lab ID: K2207159-004				
Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	0.27	J	0.09	0.50	ug/L	200.8
CLIENT ID: BY-GBT-MW-24H-FS-PM		Lab ID: K2207159-005				
Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	1.19		0.09	0.50	ug/L	200.8
CLIENT ID: BY-GBT-MW-24H-FC-PM-MC		Lab ID: K2207159-006				
Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	0.60		0.09	0.50	ug/L	200.8
CLIENT ID: BY-GBT-MW-24H-BC		Lab ID: K2207159-007				
Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	2.75		0.09	0.50	ug/L	200.8
CLIENT ID: BY-GBT-MW-24H-AIR		Lab ID: K2207159-008				
Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	4.83		0.09	0.50	ug/L	200.8
CLIENT ID: BY-GBT-MW-24H-FS-DUP		Lab ID: K2207159-009				
Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	0.87		0.09	0.50	ug/L	200.8
CLIENT ID: BY-GBT-MW-24H-CTRL		Lab ID: K2207159-010				
Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	2.01		0.09	0.50	ug/L	200.8
CLIENT ID: BY-GBT-MW-24H-BC-NaSO4		Lab ID: K2207159-011				
Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	0.83		0.09	0.50	ug/L	200.8



Sample Receipt Information

ALS Environmental—Kelso Laboratory
1317 South 13th Avenue, Kelso, WA 98626
Phone (360) 577-7222 Fax (360) 425-9096
www.alsglobal.com

Client: Anchor QEA, LLC
Project: Barry/201114-01.02 Task 09


Service Request:K2207159

SAMPLE CROSS-REFERENCE



<u>SAMPLE #</u>	<u>CLIENT SAMPLE ID</u>	<u>DATE</u>	<u>TIME</u>
K2207159-001	BY-GBT-MW-24H-FS	6/23/2022	1045
K2207159-002	BY-GBT-MW-24H-FC	6/23/2022	1050
K2207159-003	BY-GBT-MW-24H-CER	6/23/2022	1055
K2207159-004	BY-GBT-MW-24H-PM	6/23/2022	1100
K2207159-005	BY-GBT-MW-24H-FS-PM	6/23/2022	1105
K2207159-006	BY-GBT-MW-24H-FC-PM-MC	6/23/2022	1110
K2207159-007	BY-GBT-MW-24H-BC	6/23/2022	1115
K2207159-008	BY-GBT-MW-24H-AIR	6/23/2022	1120
K2207159-009	BY-GBT-MW-24H-FS-DUP	6/23/2022	1125
K2207159-010	BY-GBT-MW-24H-CTRL	6/23/2022	1130
K2207159-011	BY-GBT-MW-24H-BC-NaSO4	6/23/2022	1135
K2207159-012	BY-GBT-Method-BLK	6/23/2022	1020

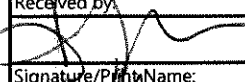
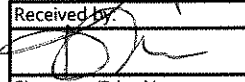
K2207159

Chain of Custody Record & Laboratory Analysis Request

Laboratory Number: 503-972-5019					No. of Containers	Parameters										 <p>Jessica Goin 6720 SW Macadam Ave Suite 125 Portland OR 97219</p> <p>Comments/Preservation</p>							
Date:	6/27/2022					As (dissolved)	Co (Dissolved)																
Project Name:	Barry																						
Project Number:	201114-01.02 Task 09																						
Project Manager:	Masa Kanematsu																						
Phone Number:	503-972-5001 (backup number: 971.334.8193)																						
Shipment Method:	ALS Carrier																						
Line	Field Sample ID	Collection		Matrix	No. of Containers	As (dissolved)	Co (Dissolved)	Parameters												Comments/Preservation			
		Date	Time																				
1	BY-GBT-MW-24H-FS	6/24/2022	6/23/22 10:45	Water	1	X														HNO3 preserved. Field Filtered.			
2	BY-GBT-MW-24H-FC	6/24/2022	6/23/22 10:50	Water	1	X														HNO3 preserved. Field Filtered.			
3	BY-GBT-MW-24H-CER	6/24/2022	6/23/22 10:55	Water	1	X														HNO3 preserved. Field Filtered.			
4	BY-GBT-MW-24H-PM	6/24/2022	6/23/22 11:00	Water	1	X														HNO3 preserved. Field Filtered. KMnO4 added			
5	BY-GBT-MW-24H-FS-PM	6/24/2022	6/23/22 11:05	Water	1	X														HNO3 preserved. Field Filtered. KMnO4 added			
6	BY-GBT-MW-24H-FC-PM-MC	6/24/2022	6/23/22 11:10	Water	1	X														HNO3 preserved. Field Filtered. KMnO4 added			
7	BY-GBT-MW-24H-BC	6/24/2022	6/23/22 11:15	Water	1	X														HNO3 preserved. Field Filtered.			
8	BY-GBT-MW-24H-AIR	6/24/2022	6/23/22 11:20	Water	1	X														HNO3 preserved. Field Filtered.			
9	BY-GBT-MW-24H-FS-DUP	6/24/2022	6/23/22 11:25	Water	1	X														HNO3 preserved. Field Filtered.			
10	BY-GBT-MW-24H-CTRL	6/24/2022	6/23/22 11:30	Water	1	X														HNO3 preserved. Field Filtered.			
11	BY-GBT-MW-24H-BC-NaSO4	6/24/2022	6/23/22 11:35	Water	1	X														HNO3 preserved. Field Filtered.			
12	BY-GBT-Method-BLK	6/24/2022	6/24/22 10:20	Water	1	X	X													HNO3 preserved. Field Filtered.			
13		all 6/23/2022																					
14		- EN																					
15																							
16																							

Notes: Please Contact Masa (503-972-5001, mkanematsu@anchorqea.com) if running > 10X dilution. Please analyze by ICP-MS method 200.8 to achieve the MDL < 1 ppb. Some samples may have residual purple color associated with potassium permanganate (KMnO4). If those samples need to be diluted in order to not damage the ICP-MS, please do so and let Masa know the dilution factor.

Relinquished by:	Company:
Emily DeVore	Anchor QEA
Signature/Print Name:	Date/Time:
 Emily DeVore	6/27/22 8:00am
Relinquished by:	Company:
 ALS	ALS
Signature/Print Name:	Date/Time:
	6/27/22 1020

Received by:

Signature/Print Name:
ALS
Received by:

Signature/Print Name:
ALS

Cooler Receipt and Preservation Form

Client: Anchor QEA Service Request K22 07159
 Received: 6/27/22 Opened: 6/27/22 By: [Signature] Unloaded: 6/27/22 By: [Signature]

Samples were received via? USPS Fed Ex UPS DHL PDX Courier Hand Delivered
 Samples were received in: (circle) Cooler Box Envelope Other NA
 Were custody seals on coolers? NA Y N If yes, how many and where? _____
 If present, were custody seals intact? Y N If present, were they signed and dated? Y N

Temp Blank	Sample Temp	IR Gun	Cooler #/COC ID / NA	Out of temp Indicate with "X"	PM Notified If out of temp	Tracking Number NA	Filed
<u>5.3</u>		<u>TR01</u>					

Was a Temperature Blank present in cooler? NA Y N If yes, notate the temperature in the appropriate column above:

If no, take the temperature of a representative sample bottle contained within the cooler; notate in the column "Sample Temp":

Were samples received within the method specified temperature ranges? NA Y N

If no, were they received on ice and same day as collected? If not, notate the cooler # below and notify the PM. NA Y N

applicable, tissue samples were received: Frozen Partially Thawed Thawed

Packing material: Inserts Baggies Bubble Wrap Gel Packs Wet Ice Dry Ice Sleeves

Were custody papers properly filled out (ink, signed, etc.)? NA Y N

Were samples received in good condition (unbroken) NA Y N

Were all sample labels complete (ie, analysis, preservation, etc.)? NA Y N

Did all sample labels and tags agree with custody papers? NA Y N

Were appropriate bottles/containers and volumes received for the tests indicated? NA Y N

Were the pH-preserved bottles (see SMO GEN SOP) received at the appropriate pH? Indicate in the table below NA Y N

Were VOA vials received without headspace? Indicate in the table below NA Y N

Was C12/Res negative? NA Y N

Were 100ml sterile microbiology bottles filled exactly to the 100ml mark? NA Y N Under filled Overfilled

Sample ID on Bottle	Sample ID on COC	Identified by:

Sample ID	Bottle Count	Bottle Type	Head-space	Broke	pH	Reagent	Volume added	Reagent Lot Number	Initials	Time

Notes, Discrepancies, Resolutions: _____



Miscellaneous Forms

ALS Environmental—Kelso Laboratory
1317 South 13th Avenue, Kelso, WA 98626
Phone (360) 577-7222 Fax (360) 425-9096
www.alsglobal.com

Inorganic Data Qualifiers

- * The result is an outlier. See case narrative.
- # The control limit criteria is not applicable.
- B The analyte was found in the associated method blank at a level that is significant relative to the sample result as defined by the DOD or NELAC standards.
- E The result is an estimate amount because the value exceeded the instrument calibration range.
- J The result is an estimated value.
- U The analyte was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL.
DOD-QSM 4.2 definition : Analyte was not detected and is reported as less than the LOD or as defined by the project. The detection limit is adjusted for dilution.
- i The MRL/MDL or LOQ/LOD is elevated due to a matrix interference.
- X See case narrative.
- Q See case narrative. One or more quality control criteria was outside the limits.
- H The holding time for this test is immediately following sample collection. The samples were analyzed as soon as possible after receipt by the laboratory.

Metals Data Qualifiers

- # The control limit criteria is not applicable.
- J The result is an estimated value.
- E The percent difference for the serial dilution was greater than 10%, indicating a possible matrix interference in the sample.
- M The duplicate injection precision was not met.
- N The Matrix Spike sample recovery is not within control limits. See case narrative.
- S The reported value was determined by the Method of Standard Additions (MSA).
- U The analyte was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL.
DOD-QSM 4.2 definition : Analyte was not detected and is reported as less than the LOD or as defined by the project. The detection limit is adjusted for dilution.
- W The post-digestion spike for furnace AA analysis is out of control limits, while sample absorbance is less than 50% of spike absorbance.
 - i The MRL/MDL or LOQ/LOD is elevated due to a matrix interference.
- X See case narrative.
- + The correlation coefficient for the MSA is less than 0.995.
- Q See case narrative. One or more quality control criteria was outside the limits.

Organic Data Qualifiers

- * The result is an outlier. See case narrative.
- # The control limit criteria is not applicable. See case narrative.
- A A tentatively identified compound, a suspected aldol-condensation product.
- B The analyte was found in the associated method blank at a level that is significant relative to the sample result as defined by the DOD or NELAC standards.
- C The analyte was qualitatively confirmed using GC/MS techniques, pattern recognition, or by comparing to historical data.
- D The reported result is from a dilution.
- E The result is an estimated value.
- J The result is an estimated value.
- N The result is presumptive. The analyte was tentatively identified, but a confirmation analysis was not performed.
- P The GC or HPLC confirmation criteria was exceeded. The relative percent difference is greater than 40% between the two analytical results.
- U The analyte was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL.
DOD-QSM 4.2 definition : Analyte was not detected and is reported as less than the LOD or as defined by the project. The detection limit is adjusted for dilution.
 - i The MRL/MDL or LOQ/LOD is elevated due to a chromatographic interference.
- X See case narrative.
- Q See case narrative. One or more quality control criteria was outside the limits.

Additional Petroleum Hydrocarbon Specific Qualifiers

- F The chromatographic fingerprint of the sample matches the elution pattern of the calibration standard.
- L The chromatographic fingerprint of the sample resembles a petroleum product, but the elution pattern indicates the presence of a greater amount of lighter molecular weight constituents than the calibration standard.
- H The chromatographic fingerprint of the sample resembles a petroleum product, but the elution pattern indicates the presence of a greater amount of heavier molecular weight constituents than the calibration standard.
- O The chromatographic fingerprint of the sample resembles an oil, but does not match the calibration standard.
- Y The chromatographic fingerprint of the sample resembles a petroleum product eluting in approximately the correct carbon range, but the elution pattern does not match the calibration standard.
- Z The chromatographic fingerprint does not resemble a petroleum product.

**ALS Group USA Corp. dba ALS Environmental (ALS) - Kelso
State Certifications, Accreditations, and Licenses**

Agency	Web Site	Number
Alaska DEH	http://dec.alaska.gov/eh/lab/cs/csapproval.htm	UST-040
Arizona DHS	http://www.azdhs.gov/lab/license/env.htm	AZ0339
Arkansas - DEQ	http://www.adeq.state.ar.us/techsvs/labcert.htm	88-0637
California DHS (ELAP)	http://www.cdph.ca.gov/certlic/labs/Pages/ELAP.aspx	2795
DOD ELAP	http://www.denix.osd.mil/edqw/Accreditation/AccreditedLabs.cfm	L16-58-R4
Florida DOH	http://www.doh.state.fl.us/lab/EnvLabCert/WaterCert.htm	E87412
Hawaii DOH	http://health.hawaii.gov/	-
ISO 17025	http://www.pjllabs.com/	L16-57
Louisiana DEQ	http://www.deq.louisiana.gov/page/la-lab-accreditation	03016
Maine DHS	http://www.maine.gov/dhhs/	WA01276
Minnesota DOH	http://www.health.state.mn.us/accreditation	053-999-457
Nevada DEP	http://ndep.nv.gov/bsdwlabservice.htm	WA01276
New Jersey DEP	http://www.nj.gov/dep/enforcement/oqa.html	WA005
New York - DOH	https://www.wadsworth.org/regulatory/elap	12060
North Carolina DEQ	https://deq.nc.gov/about/divisions/water-resources/water-resources-data/water-sciences-home-page/laboratory-certification-branch/non-field-lab-certification	605
Oklahoma DEQ	http://www.deq.state.ok.us/CSDnew/labcert.htm	9801
Oregon – DEQ (NELAP)	http://public.health.oregon.gov/LaboratoryServices/EnvironmentalLaboratoryAccreditation/Pages/index.aspx	WA100010
South Carolina DHEC	http://www.scdhec.gov/environment/EnvironmentalLabCertification/	61002
Texas CEQ	http://www.tceq.texas.gov/field/qa/env_lab_accreditation.html	T104704427
Washington DOE	http://www.ecy.wa.gov/programs/eap/labs/lab-accreditation.html	C544
Wyoming (EPA Region 8)	https://www.epa.gov/region8-waterops/epa-region-8-certified-drinking-water	-
Kelso Laboratory Website	www.alsglobal.com	NA

Analyses were performed according to our laboratory's NELAP-approved quality assurance program. A complete listing of specific NELAP-certified analytes, can be found in the certification section at www.ALSGlobal.com or at the accreditation bodies web site.

Please refer to the certification and/or accreditation body's web site if samples are submitted for compliance purposes. The states highlighted above, require the analysis be listed on the state certification if used for compliance purposes and if the method/analyte is offered by that state.

Acronyms

ASTM	American Society for Testing and Materials
A2LA	American Association for Laboratory Accreditation
CARB	California Air Resources Board
CAS Number	Chemical Abstract Service registry Number
CFC	Chlorofluorocarbon
CFU	Colony-Forming Unit
DEC	Department of Environmental Conservation
DEQ	Department of Environmental Quality
DHS	Department of Health Services
DOE	Department of Ecology
DOH	Department of Health
EPA	U. S. Environmental Protection Agency
ELAP	Environmental Laboratory Accreditation Program
GC	Gas Chromatography
GC/MS	Gas Chromatography/Mass Spectrometry
LOD	Limit of Detection
LOQ	Limit of Quantitation
LUFT	Leaking Underground Fuel Tank
M	Modified
MCL	Maximum Contaminant Level is the highest permissible concentration of a substance allowed in drinking water as established by the USEPA.
MDL	Method Detection Limit
MPN	Most Probable Number
MRL	Method Reporting Limit
NA	Not Applicable
NC	Not Calculated
NCASI	National Council of the Paper Industry for Air and Stream Improvement
ND	Not Detected
NIOSH	National Institute for Occupational Safety and Health
PQL	Practical Quantitation Limit
RCRA	Resource Conservation and Recovery Act
SIM	Selected Ion Monitoring
TPH	Total Petroleum Hydrocarbons
tr	Trace level is the concentration of an analyte that is less than the PQL but greater than or equal to the MDL.

ALS Group USA, Corp.
dba ALS Environmental

Analyst Summary report

Client: Anchor QEA, LLC
Project: Barry/201114-01.02 Task 09

Service Request: K2207159

Sample Name: BY-GBT-MW-24H-FS
Lab Code: K2207159-001
Sample Matrix: Water

Date Collected: 06/23/22
Date Received: 06/27/22

Analysis Method
200.8

Extracted/Digested By
SSOLADEY

Analyzed By
JCHAN

Sample Name: BY-GBT-MW-24H-FC
Lab Code: K2207159-002
Sample Matrix: Water

Date Collected: 06/23/22
Date Received: 06/27/22

Analysis Method
200.8

Extracted/Digested By
SSOLADEY

Analyzed By
JCHAN

Sample Name: BY-GBT-MW-24H-CER
Lab Code: K2207159-003
Sample Matrix: Water

Date Collected: 06/23/22
Date Received: 06/27/22

Analysis Method
200.8

Extracted/Digested By
SSOLADEY

Analyzed By
JCHAN

Sample Name: BY-GBT-MW-24H-PM
Lab Code: K2207159-004
Sample Matrix: Water

Date Collected: 06/23/22
Date Received: 06/27/22

Analysis Method
200.8

Extracted/Digested By
SSOLADEY

Analyzed By
JCHAN

Sample Name: BY-GBT-MW-24H-FS-PM
Lab Code: K2207159-005
Sample Matrix: Water

Date Collected: 06/23/22
Date Received: 06/27/22

Analysis Method
200.8

Extracted/Digested By
SSOLADEY

Analyzed By
JCHAN

ALS Group USA, Corp.
dba ALS Environmental

Analyst Summary report

Client: Anchor QEA, LLC
Project: Barry/201114-01.02 Task 09

Service Request: K2207159

Sample Name: BY-GBT-MW-24H-FC-PM-MC
Lab Code: K2207159-006
Sample Matrix: Water

Date Collected: 06/23/22
Date Received: 06/27/22

Analysis Method
200.8

Extracted/Digested By
SSOLADEY

Analyzed By
JCHAN

Sample Name: BY-GBT-MW-24H-BC
Lab Code: K2207159-007
Sample Matrix: Water

Date Collected: 06/23/22
Date Received: 06/27/22

Analysis Method
200.8

Extracted/Digested By
SSOLADEY

Analyzed By
JCHAN

Sample Name: BY-GBT-MW-24H-AIR
Lab Code: K2207159-008
Sample Matrix: Water

Date Collected: 06/23/22
Date Received: 06/27/22

Analysis Method
200.8

Extracted/Digested By
SSOLADEY

Analyzed By
JCHAN

Sample Name: BY-GBT-MW-24H-FS-DUP
Lab Code: K2207159-009
Sample Matrix: Water

Date Collected: 06/23/22
Date Received: 06/27/22

Analysis Method
200.8

Extracted/Digested By
SSOLADEY

Analyzed By
JCHAN

Sample Name: BY-GBT-MW-24H-CTRL
Lab Code: K2207159-010
Sample Matrix: Water

Date Collected: 06/23/22
Date Received: 06/27/22

Analysis Method
200.8

Extracted/Digested By
SSOLADEY

Analyzed By
JCHAN

ALS Group USA, Corp.
dba ALS Environmental

Analyst Summary report

Client: Anchor QEA, LLC
Project: Barry/201114-01.02 Task 09

Service Request: K2207159

Sample Name: BY-GBT-MW-24H-BC-NaSO4
Lab Code: K2207159-011
Sample Matrix: Water

Date Collected: 06/23/22
Date Received: 06/27/22

Analysis Method
200.8

Extracted/Digested By
SSOLADEY

Analyzed By
EMCALLISTER

Sample Name: BY-GBT-Method-BLK
Lab Code: K2207159-012
Sample Matrix: Water

Date Collected: 06/23/22
Date Received: 06/27/22

Analysis Method
200.8

Extracted/Digested By
SSOLADEY

Analyzed By
EMCALLISTER



Sample Results

ALS Environmental—Kelso Laboratory
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Metals

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ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Anchor QEA, LLC
Project: Barry/201114-01.02 Task 09
Sample Matrix: Water
Sample Name: BY-GBT-MW-24H-FS
Lab Code: K2207159-001

Service Request: K2207159
Date Collected: 06/23/22 10:45
Date Received: 06/27/22 10:20
Basis: NA

Dissolved Metals

<u>Analyte Name</u>	<u>Analysis Method</u>	<u>Result</u>	<u>Units</u>	<u>MRL</u>	<u>MDL</u>	<u>Dil.</u>	<u>Date Analyzed</u>	<u>Date Extracted</u>	<u>Q</u>
Arsenic	200.8	0.70	ug/L	0.50	0.09	1	07/15/22 14:59	07/14/22	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Anchor QEA, LLC
Project: Barry/201114-01.02 Task 09
Sample Matrix: Water
Sample Name: BY-GBT-MW-24H-FC
Lab Code: K2207159-002

Service Request: K2207159
Date Collected: 06/23/22 10:50
Date Received: 06/27/22 10:20
Basis: NA

Dissolved Metals

<u>Analyte Name</u>	<u>Analysis Method</u>	<u>Result</u>	<u>Units</u>	<u>MRL</u>	<u>MDL</u>	<u>Dil.</u>	<u>Date Analyzed</u>	<u>Date Extracted</u>	<u>Q</u>
Arsenic	200.8	0.32 J	ug/L	0.50	0.09	1	07/15/22 15:06	07/14/22	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Anchor QEA, LLC
Project: Barry/201114-01.02 Task 09
Sample Matrix: Water
Sample Name: BY-GBT-MW-24H-CER
Lab Code: K2207159-003

Service Request: K2207159
Date Collected: 06/23/22 10:55
Date Received: 06/27/22 10:20
Basis: NA

Dissolved Metals

<u>Analyte Name</u>	<u>Analysis Method</u>	<u>Result</u>	<u>Units</u>	<u>MRL</u>	<u>MDL</u>	<u>Dil.</u>	<u>Date Analyzed</u>	<u>Date Extracted</u>	<u>Q</u>
Arsenic	200.8	0.66	ug/L	0.50	0.09	1	07/15/22 15:08	07/14/22	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Anchor QEA, LLC
Project: Barry/201114-01.02 Task 09
Sample Matrix: Water
Sample Name: BY-GBT-MW-24H-PM
Lab Code: K2207159-004

Service Request: K2207159
Date Collected: 06/23/22 11:00
Date Received: 06/27/22 10:20
Basis: NA

Dissolved Metals

<u>Analyte Name</u>	<u>Analysis Method</u>	<u>Result</u>	<u>Units</u>	<u>MRL</u>	<u>MDL</u>	<u>Dil.</u>	<u>Date Analyzed</u>	<u>Date Extracted</u>	<u>Q</u>
Arsenic	200.8	0.27 J	ug/L	0.50	0.09	1	07/15/22 15:09	07/14/22	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Anchor QEA, LLC
Project: Barry/201114-01.02 Task 09
Sample Matrix: Water
Sample Name: BY-GBT-MW-24H-FS-PM
Lab Code: K2207159-005

Service Request: K2207159
Date Collected: 06/23/22 11:05
Date Received: 06/27/22 10:20
Basis: NA

Dissolved Metals

<u>Analyte Name</u>	<u>Analysis Method</u>	<u>Result</u>	<u>Units</u>	<u>MRL</u>	<u>MDL</u>	<u>Dil.</u>	<u>Date Analyzed</u>	<u>Date Extracted</u>	<u>Q</u>
Arsenic	200.8	1.19	ug/L	0.50	0.09	1	07/15/22 15:11	07/14/22	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Anchor QEA, LLC
Project: Barry/201114-01.02 Task 09
Sample Matrix: Water
Sample Name: BY-GBT-MW-24H-FC-PM-MC
Lab Code: K2207159-006

Service Request: K2207159
Date Collected: 06/23/22 11:10
Date Received: 06/27/22 10:20
Basis: NA

Dissolved Metals

<u>Analyte Name</u>	<u>Analysis Method</u>	<u>Result</u>	<u>Units</u>	<u>MRL</u>	<u>MDL</u>	<u>Dil.</u>	<u>Date Analyzed</u>	<u>Date Extracted</u>	<u>Q</u>
Arsenic	200.8	0.60	ug/L	0.50	0.09	1	07/15/22 15:12	07/14/22	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Anchor QEA, LLC
Project: Barry/201114-01.02 Task 09
Sample Matrix: Water
Sample Name: BY-GBT-MW-24H-BC
Lab Code: K2207159-007

Service Request: K2207159
Date Collected: 06/23/22 11:15
Date Received: 06/27/22 10:20
Basis: NA

Dissolved Metals

<u>Analyte Name</u>	<u>Analysis Method</u>	<u>Result</u>	<u>Units</u>	<u>MRL</u>	<u>MDL</u>	<u>Dil.</u>	<u>Date Analyzed</u>	<u>Date Extracted</u>	<u>Q</u>
Arsenic	200.8	2.75	ug/L	0.50	0.09	1	07/15/22 15:14	07/14/22	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Anchor QEA, LLC
Project: Barry/201114-01.02 Task 09
Sample Matrix: Water
Sample Name: BY-GBT-MW-24H-AIR
Lab Code: K2207159-008

Service Request: K2207159
Date Collected: 06/23/22 11:20
Date Received: 06/27/22 10:20
Basis: NA

Dissolved Metals

<u>Analyte Name</u>	<u>Analysis Method</u>	<u>Result</u>	<u>Units</u>	<u>MRL</u>	<u>MDL</u>	<u>Dil.</u>	<u>Date Analyzed</u>	<u>Date Extracted</u>	<u>Q</u>
Arsenic	200.8	4.83	ug/L	0.50	0.09	1	07/15/22 15:15	07/14/22	

ALS Group USA, Corp.
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Analytical Report

Client: Anchor QEA, LLC
Project: Barry/201114-01.02 Task 09
Sample Matrix: Water
Sample Name: BY-GBT-MW-24H-FS-DUP
Lab Code: K2207159-009

Service Request: K2207159
Date Collected: 06/23/22 11:25
Date Received: 06/27/22 10:20
Basis: NA

Dissolved Metals

<u>Analyte Name</u>	<u>Analysis Method</u>	<u>Result</u>	<u>Units</u>	<u>MRL</u>	<u>MDL</u>	<u>Dil.</u>	<u>Date Analyzed</u>	<u>Date Extracted</u>	<u>Q</u>
Arsenic	200.8	0.87	ug/L	0.50	0.09	1	07/15/22 15:17	07/14/22	

ALS Group USA, Corp.
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Analytical Report

Client: Anchor QEA, LLC
Project: Barry/201114-01.02 Task 09
Sample Matrix: Water
Sample Name: BY-GBT-MW-24H-CTRL
Lab Code: K2207159-010

Service Request: K2207159
Date Collected: 06/23/22 11:30
Date Received: 06/27/22 10:20
Basis: NA

Dissolved Metals

<u>Analyte Name</u>	<u>Analysis Method</u>	<u>Result</u>	<u>Units</u>	<u>MRL</u>	<u>MDL</u>	<u>Dil.</u>	<u>Date Analyzed</u>	<u>Date Extracted</u>	<u>Q</u>
Arsenic	200.8	2.01	ug/L	0.50	0.09	1	07/15/22 15:18	07/14/22	

ALS Group USA, Corp.
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Analytical Report

Client: Anchor QEA, LLC
Project: Barry/201114-01.02 Task 09
Sample Matrix: Water
Sample Name: BY-GBT-MW-24H-BC-NaSO4
Lab Code: K2207159-011

Service Request: K2207159
Date Collected: 06/23/22 11:35
Date Received: 06/27/22 10:20
Basis: NA

Dissolved Metals

<u>Analyte Name</u>	<u>Analysis Method</u>	<u>Result</u>	<u>Units</u>	<u>MRL</u>	<u>MDL</u>	<u>Dil.</u>	<u>Date Analyzed</u>	<u>Date Extracted</u>	<u>Q</u>
Arsenic	200.8	0.83	ug/L	0.50	0.09	1	07/19/22 12:06	07/15/22	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Anchor QEA, LLC
Project: Barry/201114-01.02 Task 09
Sample Matrix: Water
Sample Name: BY-GBT-Method-BLK
Lab Code: K2207159-012

Service Request: K2207159
Date Collected: 06/23/22 10:20
Date Received: 06/27/22 10:20
Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	ND U	ug/L	0.50	0.09	1	07/19/22 12:10	07/15/22	
Cobalt	200.8	ND U	ug/L	0.020	0.009	1	07/19/22 12:10	07/15/22	



QC Summary Forms

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ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Anchor QEA, LLC
Project: Barry/201114-01.02 Task 09
Sample Matrix: Water
Sample Name: Method Blank
Lab Code: KQ2210532-01

Service Request: K2207159
Date Collected: NA
Date Received: NA
Basis: NA

Dissolved Metals

<u>Analyte Name</u>	<u>Analysis Method</u>	<u>Result</u>	<u>Units</u>	<u>MRL</u>	<u>MDL</u>	<u>Dil.</u>	<u>Date Analyzed</u>	<u>Date Extracted</u>	<u>Q</u>
Arsenic	200.8	ND U	ug/L	0.50	0.09	1	07/15/22 14:35	07/14/22	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Anchor QEA, LLC
Project: Barry/201114-01.02 Task 09
Sample Matrix: Water
Sample Name: Method Blank
Lab Code: KQ2210685-06

Service Request: K2207159
Date Collected: NA
Date Received: NA
Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	ND U	ug/L	0.50	0.09	1	07/19/22 11:59	07/15/22	
Cobalt	200.8	ND U	ug/L	0.020	0.009	1	07/19/22 11:59	07/15/22	

ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client: Anchor QEA, LLC
Project: Barry/201114-01.02 Task 09
Sample Matrix: Water

Service Request: K2207159
Date Collected: 06/23/22
Date Received: 06/27/22
Date Analyzed: 07/15/22
Date Extracted: 07/14/22

Matrix Spike Summary
Dissolved Metals

Sample Name: BY-GBT-MW-24H-FS
Lab Code: K2207159-001
Analysis Method: 200.8
Prep Method: EPA CLP ILM04.0

Units: ug/L
Basis: NA

Matrix Spike
KQ2210532-05

<u>Analyte Name</u>	<u>Sample Result</u>	<u>Result</u>	<u>Spike Amount</u>	<u>% Rec</u>	<u>% Rec Limits</u>
Arsenic	0.70	50.2	50.0	99	70-130

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

Matrix Spike and Matrix Spike Duplicate Data is presented for information purposes only. The matrix may or may not be relevant to samples reported in this report. The laboratory evaluates system performance based on the LCS and LCSD control limits.

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dba ALS Environmental

QA/QC Report

Client: Anchor QEA, LLC
Project: Barry/201114-01.02 Task 09
Sample Matrix: Water

Service Request: K2207159
Date Collected: 06/23/22
Date Received: 06/27/22
Date Analyzed: 07/19/22
Date Extracted: 07/15/22

Matrix Spike Summary
Dissolved Metals

Sample Name: BY-GBT-MW-24H-BC-NaSO4
Lab Code: K2207159-011
Analysis Method: 200.8
Prep Method: EPA CLP ILM04.0

Units: ug/L
Basis: NA

Matrix Spike
KQ2210685-04

Analyte Name	Sample Result	Result	Spike Amount	% Rec	% Rec Limits
Arsenic	0.83	48.3	50.0	95	70-130
Cobalt	2.21	25.8	25.0	94	70-130

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

Matrix Spike and Matrix Spike Duplicate Data is presented for information purposes only. The matrix may or may not be relevant to samples reported in this report. The laboratory evaluates system performance based on the LCS and LCSD control limits.

ALS Group USA, Corp.

dba ALS Environmental

QA/QC Report

Client: Anchor QEA, LLC
Project: Barry/201114-01.02 Task 09
Sample Matrix: Water

Service Request: K2207159
Date Collected: 06/23/22
Date Received: 06/27/22
Date Analyzed: 07/15/22

Replicate Sample Summary

Dissolved Metals

Sample Name: BY-GBT-MW-24H-FS
Lab Code: K2207159-001

Units: ug/L
Basis: NA

Table with 9 columns: Analyte Name, Analysis Method, MRL, MDL, Sample Result, Duplicate Sample KQ2210532-06 Result, Average, RPD, RPD Limit. Row 1: Arsenic, 200.8, 0.50, 0.09, 0.70, 0.70, 0.70, <1, 20.

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

ALS Group USA, Corp.

dba ALS Environmental

QA/QC Report

Client: Anchor QEA, LLC
Project: Barry/201114-01.02 Task 09
Sample Matrix: Water

Service Request: K2207159
Date Collected: 06/23/22
Date Received: 06/27/22
Date Analyzed: 07/19/22

Replicate Sample Summary

Dissolved Metals

Sample Name: BY-GBT-MW-24H-BC-NaSO4
Lab Code: K2207159-011

Units: ug/L
Basis: NA

Table with 9 columns: Analyte Name, Analysis Method, MRL, MDL, Sample Result, Duplicate Sample KQ2210685-05 Result, Average, RPD, RPD Limit. Rows include Arsenic and Cobalt.

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client: Anchor QEA, LLC
Project: Barry/201114-01.02 Task 09
Sample Matrix: Water

Service Request: K2207159
Date Analyzed: 07/15/22

Lab Control Sample Summary
Dissolved Metals

Units:ug/L
Basis:NA

Lab Control Sample
KQ2210532-02

Analyte Name	Analytical Method	Result	Spike Amount	% Rec	% Rec Limits
Arsenic	200.8	50.0	50.0	100	85-115

ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client: Anchor QEA, LLC
Project: Barry/201114-01.02 Task 09
Sample Matrix: Water

Service Request: K2207159
Date Analyzed: 07/19/22

Lab Control Sample Summary
Dissolved Metals

Units:ug/L
Basis:NA

Lab Control Sample
KQ2210685-07

Analyte Name	Analytical Method	Result	Spike Amount	% Rec	% Rec Limits
Arsenic	200.8	48.7	50.0	97	85-115
Cobalt	200.8	24.7	25.0	99	85-115



July 19, 2022

Service Request No:K2207160

Masa Kanematsu
Anchor QEA, LLC
6720 SW Macadam Avenue
Suite 125
Portland, OR 97219

Laboratory Results for: Barry

Dear Masa,

Enclosed are the results of the sample(s) submitted to our laboratory June 27, 2022
For your reference, these analyses have been assigned our service request number **K2207160**.

Analyses were performed according to our laboratory's NELAP-approved quality assurance program. The test results meet requirements of the current NELAP standards, where applicable, and except as noted in the laboratory case narrative provided. For a specific list of NELAP-accredited analytes, refer to the certifications section at www.alsglobal.com. All results are intended to be considered in their entirety, and ALS Group USA Corp. dba ALS Environmental (ALS) is not responsible for use of less than the complete report. Results apply only to the items submitted to the laboratory for analysis and individual items (samples) analyzed, as listed in the report.

Please contact me if you have any questions. My extension is 3376. You may also contact me via email at Mark.Harris@alsglobal.com.

Respectfully submitted,

ALS Group USA, Corp. dba ALS Environmental

Mark Harris
Project Manager

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ALS Group USA, Corp.
dba ALS Environmental



Narrative Documents

ALS Environmental—Kelso Laboratory
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Phone (360) 577-7222 Fax (360) 425-9096
www.alsglobal.com



Client: Anchor QEA, LLC
Project: Barry
Sample Matrix: Water

Service Request: K2207160
Date Received: 06/27/2022

CASE NARRATIVE

All analyses were performed consistent with the quality assurance program of ALS Environmental. This report contains analytical results for samples for the Tier II level requested by the client.

Sample Receipt:

Eleven water samples were received for analysis at ALS Environmental on 06/27/2022. Any discrepancies upon initial sample inspection are annotated on the sample receipt and preservation form included within this report. The samples were stored at minimum in accordance with the analytical method requirements.

Metals:

No significant anomalies were noted with this analysis.

Noel D. O'Connell

Approved by _____

Date 07/19/2022



SAMPLE DETECTION SUMMARY

This form includes only detections above the reporting levels. For a full listing of sample results, continue to the Sample Results section of this Report.

CLIENT ID: BY-GBT-MW-1-FS		Lab ID: K2207160-001				
Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	1.04		0.09	0.50	ug/L	200.8
CLIENT ID: BY-GBT-MW-1-FC		Lab ID: K2207160-002				
Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	0.49	J	0.09	0.50	ug/L	200.8
CLIENT ID: BY-GBT-MW-1-CER		Lab ID: K2207160-003				
Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	2.74		0.09	0.50	ug/L	200.8
CLIENT ID: BY-GBT-MW-1-PM		Lab ID: K2207160-004				
Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	0.25	J	0.09	0.50	ug/L	200.8
CLIENT ID: BY-GBT-MW-1-FS-PM		Lab ID: K2207160-005				
Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	0.62		0.09	0.50	ug/L	200.8
CLIENT ID: BY-GBT-MW-1-FC-PM-MC		Lab ID: K2207160-006				
Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	1.03		0.09	0.50	ug/L	200.8
CLIENT ID: BY-GBT-MW-1-BC		Lab ID: K2207160-007				
Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	1.53		0.09	0.50	ug/L	200.8
CLIENT ID: BY-GBT-MW-1-AIR		Lab ID: K2207160-008				
Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	0.44	J	0.09	0.50	ug/L	200.8
CLIENT ID: BY-GBT-MW-1-FS-DUP		Lab ID: K2207160-009				
Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	1.58		0.09	0.50	ug/L	200.8
CLIENT ID: BY-GBT-MW-1-CTRL		Lab ID: K2207160-010				
Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	0.37	J	0.09	0.50	ug/L	200.8
CLIENT ID: BY-GBT-MW-1-BC-NaSO4		Lab ID: K2207160-011				
Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	0.72		0.09	0.50	ug/L	200.8



Sample Receipt Information

ALS Environmental—Kelso Laboratory
1317 South 13th Avenue, Kelso, WA 98626
Phone (360) 577-7222 Fax (360) 425-9096
www.alsglobal.com

Client: Anchor QEA, LLC
Project: Barry/201114-01.02 Task 09


Service Request:K2207160

SAMPLE CROSS-REFERENCE


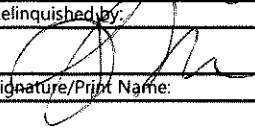
<u>SAMPLE #</u>	<u>CLIENT SAMPLE ID</u>	<u>DATE</u>	<u>TIME</u>
K2207160-001	BY-GBT-MW-1-FS	6/22/2022	0855
K2207160-002	BY-GBT-MW-1-FC	6/22/2022	0900
K2207160-003	BY-GBT-MW-1-CER	6/22/2022	0905
K2207160-004	BY-GBT-MW-1-PM	6/22/2022	0910
K2207160-005	BY-GBT-MW-1-FS-PM	6/22/2022	0915
K2207160-006	BY-GBT-MW-1-FC-PM-MC	6/22/2022	0920
K2207160-007	BY-GBT-MW-1-BC	6/22/2022	0925
K2207160-008	BY-GBT-MW-1-AIR	6/22/2022	0930
K2207160-009	BY-GBT-MW-1-FS-DUP	6/22/2022	0935
K2207160-010	BY-GBT-MW-1-CTRL	6/22/2022	0940
K2207160-011	BY-GBT-MW-1-BC-NaSO4	6/22/2022	0945

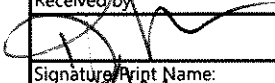
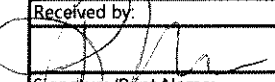
Chain of Custody Record & Laboratory Analysis Request

12207160

Laboratory Number: 503-972-5019					No. of Containers	Parameters										 Jessica Goin 6720 SW Macadam Ave Suite 125 Portland OR 97219						
Date:	6/27/2022					As (dissolved)																
Project Name:	Barry																					
Project Number:	201114-01.02 Task 09																					
Project Manager:	Masa Kanematsu																					
Phone Number:	503-972-5001 (backup number: 971.334.8193)																					
Shipment Method:	ALS Carrier																					
Line	Field Sample ID	Collection		Matrix	No. of Containers															Comments/Preservation		
		Date	Time																			
1	BY-GBT-MW-1-FS	6/22/2022	6/22/22 8:55	Water	1	X														HNO3 preserved. Field Filtered.		
2	BY-GBT-MW-1-FC	6/22/2022	6/22/22 9:00	Water	1	X														HNO3 preserved. Field Filtered.		
3	BY-GBT-MW-1-CER	6/22/2022	6/22/22 9:05	Water	1	X														HNO3 preserved. Field Filtered.		
4	BY-GBT-MW-1-PM	6/22/2022	6/22/22 9:10	Water	1	X														HNO3 preserved. Field Filtered. KMnO4 added		
5	BY-GBT-MW-1-FS-PM	6/22/2022	6/22/22 9:15	Water	1	X														HNO3 preserved. Field Filtered. KMnO4 added		
6	BY-GBT-MW-1-FC-PM-MC	6/22/2022	6/22/22 9:20	Water	1	X														HNO3 preserved. Field Filtered. KMnO4 added		
7	BY-GBT-MW-1-BC	6/22/2022	6/22/22 9:25	Water	1	X														HNO3 preserved. Field Filtered.		
8	BY-GBT-MW-1-AIR	6/22/2022	6/22/22 9:30	Water	1	X														HNO3 preserved. Field Filtered.		
9	BY-GBT-MW-1-FS-DUP	6/22/2022	6/22/22 9:35	Water	1	X														HNO3 preserved. Field Filtered.		
10	BY-GBT-MW-1-CTRL	6/22/2022	6/22/22 9:40	Water	1	X														HNO3 preserved. Field Filtered.		
11	BY-GBT-MW-1-BC-NaSO4	6/22/2022	6/22/22 9:45	Water	1	X														HNO3 preserved. Field Filtered.		
12																						
13																						
14																						
15																						
16																						

Notes: Please Contact Masa (503-972-5001, mkanematsu@anchorqea.com) if running > 10X dilution. Please analyze by ICP-MS method 200.8 to achieve the MDL < 1 ppb. Some samples may have residual purple color associated with potassium permanganate (KMnO4). If those samples need to be diluted in order to not damage the ICP-MS, please do so and let Masa know the dilution factor.

Relinquished by:	Company:
Emily DeVore	Anchor QEA
Signature/Print Name:	Date/Time:
	6/27/22 8:00 am
Relinquished by:	Company:
	ALS
Signature/Print Name:	Date/Time:
	6/27/22 1020

Received by:

Signature/Print Name:
ALS
Date/Time:
6/27/22 0820
Received by:

Signature/Print Name:
ALS
Date/Time:
6/27/22 1020

Distribution: A copy will be made for the laboratory and client. The Project file will retain the original.

PM MH

Cooler Receipt and Preservation Form

Client: Anchor QEA Service Request K2207160
 Received: 6/27/22 Opened: 6/27/22 By: [Signature] Unloaded: 6/27/22 By: [Signature]

Samples were received via? USPS Fed Ex UPS DHL PDX Courier Hand Delivered
 Samples were received in: (circle) Cooler Box Envelope Other NA
 Were custody seals on coolers? NA Y N If yes, how many and where? _____
 If present, were custody seals intact? Y N If present, were they signed and dated? Y N

Temp Blank	Sample Temp	IR Gun	Cooler #/COC ID / NA	Out of temp indicate with "X"	PM Notified If out of temp	Tracking Number NA	Filed
<u>5.3</u>		<u>IR01</u>					

Was a Temperature Blank present in cooler? NA Y N If yes, notate the temperature in the appropriate column above:

If no, take the temperature of a representative sample bottle contained within the cooler; notate in the column "Sample Temp":

Were samples received within the method specified temperature ranges? NA Y N
 If no, were they received on ice and same day as collected? If not, notate the cooler # below and notify the PM. NA Y N

applicable, tissue samples were received: Frozen, Partially Thawed, Thawed

Packing material: Inserts Baggies Bubble Wrap Gel Packs Wet Ice Dry Ice Sleeves

Were custody papers properly filled out (ink, signed, etc.)? NA Y N
 Were samples received in good condition (unbroken) NA Y N
 Were all sample labels complete (ie, analysis, preservation, etc.)? NA Y N
 Did all sample labels and tags agree with custody papers? NA Y N
 Were appropriate bottles/containers and volumes received for the tests indicated? NA Y N
 Were the pH-preserved bottles (see SMO GEN SOP) received at the appropriate pH? Indicate in the table below NA Y N
 Were VOA vials received without headspace? Indicate in the table below. NA Y N
 Was C12/Res negative? NA Y N
 Were 100ml sterile microbiology bottles filled exactly to the 100ml mark? NA Y N Under filled Overfilled

Sample ID on Bottle	Sample ID on COC	Identified by:

Sample ID	Bottle Count	Bottle Type	Head-space	Broke	pH	Reagent	Volume added	Reagent Lot Number	Initials	Time

Notes, Discrepancies, Resolutions: _____



Miscellaneous Forms

ALS Environmental—Kelso Laboratory
1317 South 13th Avenue, Kelso, WA 98626
Phone (360) 577-7222 Fax (360) 425-9096
www.alsglobal.com

Inorganic Data Qualifiers

- * The result is an outlier. See case narrative.
- # The control limit criteria is not applicable.
- B The analyte was found in the associated method blank at a level that is significant relative to the sample result as defined by the DOD or NELAC standards.
- E The result is an estimate amount because the value exceeded the instrument calibration range.
- J The result is an estimated value.
- U The analyte was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL.
DOD-QSM 4.2 definition : Analyte was not detected and is reported as less than the LOD or as defined by the project. The detection limit is adjusted for dilution.
- i The MRL/MDL or LOQ/LOD is elevated due to a matrix interference.
- X See case narrative.
- Q See case narrative. One or more quality control criteria was outside the limits.
- H The holding time for this test is immediately following sample collection. The samples were analyzed as soon as possible after receipt by the laboratory.

Metals Data Qualifiers

- # The control limit criteria is not applicable.
- J The result is an estimated value.
- E The percent difference for the serial dilution was greater than 10%, indicating a possible matrix interference in the sample.
- M The duplicate injection precision was not met.
- N The Matrix Spike sample recovery is not within control limits. See case narrative.
- S The reported value was determined by the Method of Standard Additions (MSA).
- U The analyte was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL.
DOD-QSM 4.2 definition : Analyte was not detected and is reported as less than the LOD or as defined by the project. The detection limit is adjusted for dilution.
- W The post-digestion spike for furnace AA analysis is out of control limits, while sample absorbance is less than 50% of spike absorbance.
 - i The MRL/MDL or LOQ/LOD is elevated due to a matrix interference.
- X See case narrative.
- + The correlation coefficient for the MSA is less than 0.995.
- Q See case narrative. One or more quality control criteria was outside the limits.

Organic Data Qualifiers

- * The result is an outlier. See case narrative.
- # The control limit criteria is not applicable. See case narrative.
- A A tentatively identified compound, a suspected aldol-condensation product.
- B The analyte was found in the associated method blank at a level that is significant relative to the sample result as defined by the DOD or NELAC standards.
- C The analyte was qualitatively confirmed using GC/MS techniques, pattern recognition, or by comparing to historical data.
- D The reported result is from a dilution.
- E The result is an estimated value.
- J The result is an estimated value.
- N The result is presumptive. The analyte was tentatively identified, but a confirmation analysis was not performed.
- P The GC or HPLC confirmation criteria was exceeded. The relative percent difference is greater than 40% between the two analytical results.
- U The analyte was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL.
DOD-QSM 4.2 definition : Analyte was not detected and is reported as less than the LOD or as defined by the project. The detection limit is adjusted for dilution.
 - i The MRL/MDL or LOQ/LOD is elevated due to a chromatographic interference.
- X See case narrative.
- Q See case narrative. One or more quality control criteria was outside the limits.

Additional Petroleum Hydrocarbon Specific Qualifiers

- F The chromatographic fingerprint of the sample matches the elution pattern of the calibration standard.
- L The chromatographic fingerprint of the sample resembles a petroleum product, but the elution pattern indicates the presence of a greater amount of lighter molecular weight constituents than the calibration standard.
- H The chromatographic fingerprint of the sample resembles a petroleum product, but the elution pattern indicates the presence of a greater amount of heavier molecular weight constituents than the calibration standard.
- O The chromatographic fingerprint of the sample resembles an oil, but does not match the calibration standard.
- Y The chromatographic fingerprint of the sample resembles a petroleum product eluting in approximately the correct carbon range, but the elution pattern does not match the calibration standard.
- Z The chromatographic fingerprint does not resemble a petroleum product.

**ALS Group USA Corp. dba ALS Environmental (ALS) - Kelso
State Certifications, Accreditations, and Licenses**

Agency	Web Site	Number
Alaska DEH	http://dec.alaska.gov/eh/lab/cs/csapproval.htm	UST-040
Arizona DHS	http://www.azdhs.gov/lab/license/env.htm	AZ0339
Arkansas - DEQ	http://www.adeq.state.ar.us/techsvs/labcert.htm	88-0637
California DHS (ELAP)	http://www.cdph.ca.gov/certlic/labs/Pages/ELAP.aspx	2795
DOD ELAP	http://www.denix.osd.mil/edqw/Accreditation/AccreditedLabs.cfm	L16-58-R4
Florida DOH	http://www.doh.state.fl.us/lab/EnvLabCert/WaterCert.htm	E87412
Hawaii DOH	http://health.hawaii.gov/	-
ISO 17025	http://www.pjllabs.com/	L16-57
Louisiana DEQ	http://www.deq.louisiana.gov/page/la-lab-accreditation	03016
Maine DHS	http://www.maine.gov/dhhs/	WA01276
Minnesota DOH	http://www.health.state.mn.us/accreditation	053-999-457
Nevada DEP	http://ndep.nv.gov/bsdw/labservice.htm	WA01276
New Jersey DEP	http://www.nj.gov/dep/enforcement/oqa.html	WA005
New York - DOH	https://www.wadsworth.org/regulatory/elap	12060
North Carolina DEQ	https://deq.nc.gov/about/divisions/water-resources/water-resources-data/water-sciences-home-page/laboratory-certification-branch/non-field-lab-certification	605
Oklahoma DEQ	http://www.deq.state.ok.us/CSDnew/labcert.htm	9801
Oregon – DEQ (NELAP)	http://public.health.oregon.gov/LaboratoryServices/EnvironmentalLaboratoryAccreditation/Pages/index.aspx	WA100010
South Carolina DHEC	http://www.scdhec.gov/environment/EnvironmentalLabCertification/	61002
Texas CEQ	http://www.tceq.texas.gov/field/qa/env_lab_accreditation.html	T104704427
Washington DOE	http://www.ecy.wa.gov/programs/eap/labs/lab-accreditation.html	C544
Wyoming (EPA Region 8)	https://www.epa.gov/region8-waterops/epa-region-8-certified-drinking-water	-
Kelso Laboratory Website	www.alsglobal.com	NA

Analyses were performed according to our laboratory's NELAP-approved quality assurance program. A complete listing of specific NELAP-certified analytes, can be found in the certification section at www.ALSGlobal.com or at the accreditation bodies web site.

Please refer to the certification and/or accreditation body's web site if samples are submitted for compliance purposes. The states highlighted above, require the analysis be listed on the state certification if used for compliance purposes and if the method/analyte is offered by that state.

Acronyms

ASTM	American Society for Testing and Materials
A2LA	American Association for Laboratory Accreditation
CARB	California Air Resources Board
CAS Number	Chemical Abstract Service registry Number
CFC	Chlorofluorocarbon
CFU	Colony-Forming Unit
DEC	Department of Environmental Conservation
DEQ	Department of Environmental Quality
DHS	Department of Health Services
DOE	Department of Ecology
DOH	Department of Health
EPA	U. S. Environmental Protection Agency
ELAP	Environmental Laboratory Accreditation Program
GC	Gas Chromatography
GC/MS	Gas Chromatography/Mass Spectrometry
LOD	Limit of Detection
LOQ	Limit of Quantitation
LUFT	Leaking Underground Fuel Tank
M	Modified
MCL	Maximum Contaminant Level is the highest permissible concentration of a substance allowed in drinking water as established by the USEPA.
MDL	Method Detection Limit
MPN	Most Probable Number
MRL	Method Reporting Limit
NA	Not Applicable
NC	Not Calculated
NCASI	National Council of the Paper Industry for Air and Stream Improvement
ND	Not Detected
NIOSH	National Institute for Occupational Safety and Health
PQL	Practical Quantitation Limit
RCRA	Resource Conservation and Recovery Act
SIM	Selected Ion Monitoring
TPH	Total Petroleum Hydrocarbons
tr	Trace level is the concentration of an analyte that is less than the PQL but greater than or equal to the MDL.

ALS Group USA, Corp.
dba ALS Environmental

Analyst Summary report

Client: Anchor QEA, LLC
Project: Barry/201114-01.02 Task 09

Service Request: K2207160

Sample Name: BY-GBT-MW-1-FS
Lab Code: K2207160-001
Sample Matrix: Water

Date Collected: 06/22/22
Date Received: 06/27/22

Analysis Method
200.8

Extracted/Digested By
SSOLADEY

Analyzed By
JCHAN

Sample Name: BY-GBT-MW-1-FC
Lab Code: K2207160-002
Sample Matrix: Water

Date Collected: 06/22/22
Date Received: 06/27/22

Analysis Method
200.8

Extracted/Digested By
SSOLADEY

Analyzed By
JCHAN

Sample Name: BY-GBT-MW-1-CER
Lab Code: K2207160-003
Sample Matrix: Water

Date Collected: 06/22/22
Date Received: 06/27/22

Analysis Method
200.8

Extracted/Digested By
SSOLADEY

Analyzed By
JCHAN

Sample Name: BY-GBT-MW-1-PM
Lab Code: K2207160-004
Sample Matrix: Water

Date Collected: 06/22/22
Date Received: 06/27/22

Analysis Method
200.8

Extracted/Digested By
SSOLADEY

Analyzed By
JCHAN

Sample Name: BY-GBT-MW-1-FS-PM
Lab Code: K2207160-005
Sample Matrix: Water

Date Collected: 06/22/22
Date Received: 06/27/22

Analysis Method
200.8

Extracted/Digested By
SSOLADEY

Analyzed By
JCHAN

ALS Group USA, Corp.
dba ALS Environmental

Analyst Summary report

Client: Anchor QEA, LLC
Project: Barry/201114-01.02 Task 09

Service Request: K2207160

Sample Name: BY-GBT-MW-1-FC-PM-MC
Lab Code: K2207160-006
Sample Matrix: Water

Date Collected: 06/22/22
Date Received: 06/27/22

Analysis Method
200.8

Extracted/Digested By
SSOLADEY

Analyzed By
JCHAN

Sample Name: BY-GBT-MW-1-BC
Lab Code: K2207160-007
Sample Matrix: Water

Date Collected: 06/22/22
Date Received: 06/27/22

Analysis Method
200.8

Extracted/Digested By
SSOLADEY

Analyzed By
JCHAN

Sample Name: BY-GBT-MW-1-AIR
Lab Code: K2207160-008
Sample Matrix: Water

Date Collected: 06/22/22
Date Received: 06/27/22

Analysis Method
200.8

Extracted/Digested By
SSOLADEY

Analyzed By
JCHAN

Sample Name: BY-GBT-MW-1-FS-DUP
Lab Code: K2207160-009
Sample Matrix: Water

Date Collected: 06/22/22
Date Received: 06/27/22

Analysis Method
200.8

Extracted/Digested By
SSOLADEY

Analyzed By
JCHAN

Sample Name: BY-GBT-MW-1-CTRL
Lab Code: K2207160-010
Sample Matrix: Water

Date Collected: 06/22/22
Date Received: 06/27/22

Analysis Method
200.8

Extracted/Digested By
SSOLADEY

Analyzed By
JCHAN

ALS Group USA, Corp.
dba ALS Environmental

Analyst Summary report

Client: Anchor QEA, LLC
Project: Barry/201114-01.02 Task 09

Service Request: K2207160

Sample Name: BY-GBT-MW-1-BC-NaSO4
Lab Code: K2207160-011
Sample Matrix: Water

Date Collected: 06/22/22
Date Received: 06/27/22

Analysis Method
200.8

Extracted/Digested By
SSOLADEY

Analyzed By
EMCALLISTER



Sample Results

ALS Environmental—Kelso Laboratory
1317 South 13th Avenue, Kelso, WA 98626
Phone (360) 577-7222 Fax (360) 425-9096
www.alsglobal.com



Metals

ALS Environmental—Kelso Laboratory
1317 South 13th Avenue, Kelso, WA 98626
Phone (360) 577-7222 Fax (360) 425-9096
www.alsglobal.com

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Anchor QEA, LLC
Project: Barry/201114-01.02 Task 09
Sample Matrix: Water
Sample Name: BY-GBT-MW-1-FS
Lab Code: K2207160-001

Service Request: K2207160
Date Collected: 06/22/22 08:55
Date Received: 06/27/22 10:20
Basis: NA

Dissolved Metals

<u>Analyte Name</u>	<u>Analysis Method</u>	<u>Result</u>	<u>Units</u>	<u>MRL</u>	<u>MDL</u>	<u>Dil.</u>	<u>Date Analyzed</u>	<u>Date Extracted</u>	<u>Q</u>
Arsenic	200.8	1.04	ug/L	0.50	0.09	1	07/15/22 15:28	07/14/22	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Anchor QEA, LLC
Project: Barry/201114-01.02 Task 09
Sample Matrix: Water
Sample Name: BY-GBT-MW-1-FC
Lab Code: K2207160-002

Service Request: K2207160
Date Collected: 06/22/22 09:00
Date Received: 06/27/22 10:20
Basis: NA

Dissolved Metals

<u>Analyte Name</u>	<u>Analysis Method</u>	<u>Result</u>	<u>Units</u>	<u>MRL</u>	<u>MDL</u>	<u>Dil.</u>	<u>Date Analyzed</u>	<u>Date Extracted</u>	<u>Q</u>
Arsenic	200.8	0.49 J	ug/L	0.50	0.09	1	07/15/22 15:32	07/14/22	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Anchor QEA, LLC
Project: Barry/201114-01.02 Task 09
Sample Matrix: Water
Sample Name: BY-GBT-MW-1-CER
Lab Code: K2207160-003

Service Request: K2207160
Date Collected: 06/22/22 09:05
Date Received: 06/27/22 10:20
Basis: NA

Dissolved Metals

<u>Analyte Name</u>	<u>Analysis Method</u>	<u>Result</u>	<u>Units</u>	<u>MRL</u>	<u>MDL</u>	<u>Dil.</u>	<u>Date Analyzed</u>	<u>Date Extracted</u>	<u>Q</u>
Arsenic	200.8	2.74	ug/L	0.50	0.09	1	07/15/22 15:34	07/14/22	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Anchor QEA, LLC
Project: Barry/201114-01.02 Task 09
Sample Matrix: Water
Sample Name: BY-GBT-MW-1-PM
Lab Code: K2207160-004

Service Request: K2207160
Date Collected: 06/22/22 09:10
Date Received: 06/27/22 10:20
Basis: NA

Dissolved Metals

<u>Analyte Name</u>	<u>Analysis Method</u>	<u>Result</u>	<u>Units</u>	<u>MRL</u>	<u>MDL</u>	<u>Dil.</u>	<u>Date Analyzed</u>	<u>Date Extracted</u>	<u>Q</u>
Arsenic	200.8	0.25 J	ug/L	0.50	0.09	1	07/15/22 15:35	07/14/22	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Anchor QEA, LLC
Project: Barry/201114-01.02 Task 09
Sample Matrix: Water
Sample Name: BY-GBT-MW-1-FS-PM
Lab Code: K2207160-005

Service Request: K2207160
Date Collected: 06/22/22 09:15
Date Received: 06/27/22 10:20
Basis: NA

Dissolved Metals

<u>Analyte Name</u>	<u>Analysis Method</u>	<u>Result</u>	<u>Units</u>	<u>MRL</u>	<u>MDL</u>	<u>Dil.</u>	<u>Date Analyzed</u>	<u>Date Extracted</u>	<u>Q</u>
Arsenic	200.8	0.62	ug/L	0.50	0.09	1	07/15/22 15:37	07/14/22	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Anchor QEA, LLC
Project: Barry/201114-01.02 Task 09
Sample Matrix: Water
Sample Name: BY-GBT-MW-1-FC-PM-MC
Lab Code: K2207160-006

Service Request: K2207160
Date Collected: 06/22/22 09:20
Date Received: 06/27/22 10:20
Basis: NA

Dissolved Metals

<u>Analyte Name</u>	<u>Analysis Method</u>	<u>Result</u>	<u>Units</u>	<u>MRL</u>	<u>MDL</u>	<u>Dil.</u>	<u>Date Analyzed</u>	<u>Date Extracted</u>	<u>Q</u>
Arsenic	200.8	1.03	ug/L	0.50	0.09	1	07/15/22 15:38	07/14/22	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Anchor QEA, LLC
Project: Barry/201114-01.02 Task 09
Sample Matrix: Water
Sample Name: BY-GBT-MW-1-BC
Lab Code: K2207160-007

Service Request: K2207160
Date Collected: 06/22/22 09:25
Date Received: 06/27/22 10:20
Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	1.53	ug/L	0.50	0.09	1	07/15/22 15:43	07/14/22	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Anchor QEA, LLC
Project: Barry/201114-01.02 Task 09
Sample Matrix: Water
Sample Name: BY-GBT-MW-1-AIR
Lab Code: K2207160-008

Service Request: K2207160
Date Collected: 06/22/22 09:30
Date Received: 06/27/22 10:20
Basis: NA

Dissolved Metals

<u>Analyte Name</u>	<u>Analysis Method</u>	<u>Result</u>	<u>Units</u>	<u>MRL</u>	<u>MDL</u>	<u>Dil.</u>	<u>Date Analyzed</u>	<u>Date Extracted</u>	<u>Q</u>
Arsenic	200.8	0.44 J	ug/L	0.50	0.09	1	07/15/22 15:44	07/14/22	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Anchor QEA, LLC
Project: Barry/201114-01.02 Task 09
Sample Matrix: Water
Sample Name: BY-GBT-MW-1-FS-DUP
Lab Code: K2207160-009

Service Request: K2207160
Date Collected: 06/22/22 09:35
Date Received: 06/27/22 10:20
Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	1.58	ug/L	0.50	0.09	1	07/15/22 15:46	07/14/22	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Anchor QEA, LLC
Project: Barry/201114-01.02 Task 09
Sample Matrix: Water
Sample Name: BY-GBT-MW-1-CTRL
Lab Code: K2207160-010

Service Request: K2207160
Date Collected: 06/22/22 09:40
Date Received: 06/27/22 10:20
Basis: NA

Dissolved Metals

<u>Analyte Name</u>	<u>Analysis Method</u>	<u>Result</u>	<u>Units</u>	<u>MRL</u>	<u>MDL</u>	<u>Dil.</u>	<u>Date Analyzed</u>	<u>Date Extracted</u>	<u>Q</u>
Arsenic	200.8	0.37 J	ug/L	0.50	0.09	1	07/15/22 15:47	07/14/22	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Anchor QEA, LLC
Project: Barry/201114-01.02 Task 09
Sample Matrix: Water
Sample Name: BY-GBT-MW-1-BC-NaSO4
Lab Code: K2207160-011

Service Request: K2207160
Date Collected: 06/22/22 09:45
Date Received: 06/27/22 10:20
Basis: NA

Dissolved Metals

<u>Analyte Name</u>	<u>Analysis Method</u>	<u>Result</u>	<u>Units</u>	<u>MRL</u>	<u>MDL</u>	<u>Dil.</u>	<u>Date Analyzed</u>	<u>Date Extracted</u>	<u>Q</u>
Arsenic	200.8	0.72	ug/L	0.50	0.09	1	07/19/22 12:11	07/15/22	



QC Summary Forms

ALS Environmental—Kelso Laboratory
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Metals

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ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Anchor QEA, LLC
Project: Barry/201114-01.02 Task 09
Sample Matrix: Water
Sample Name: Method Blank
Lab Code: KQ2210533-01

Service Request: K2207160
Date Collected: NA
Date Received: NA
Basis: NA

Dissolved Metals

<u>Analyte Name</u>	<u>Analysis Method</u>	<u>Result</u>	<u>Units</u>	<u>MRL</u>	<u>MDL</u>	<u>Dil.</u>	<u>Date Analyzed</u>	<u>Date Extracted</u>	<u>Q</u>
Arsenic	200.8	ND U	ug/L	0.50	0.09	1	07/15/22 15:25	07/14/22	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Anchor QEA, LLC
Project: Barry/201114-01.02 Task 09
Sample Matrix: Water
Sample Name: Method Blank
Lab Code: KQ2210685-06

Service Request: K2207160
Date Collected: NA
Date Received: NA
Basis: NA

Dissolved Metals

<u>Analyte Name</u>	<u>Analysis Method</u>	<u>Result</u>	<u>Units</u>	<u>MRL</u>	<u>MDL</u>	<u>Dil.</u>	<u>Date Analyzed</u>	<u>Date Extracted</u>	<u>Q</u>
Arsenic	200.8	ND U	ug/L	0.50	0.09	1	07/19/22 11:59	07/15/22	

ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client: Anchor QEA, LLC
Project: Barry/201114-01.02 Task 09
Sample Matrix: Water

Service Request: K2207160
Date Collected: 06/22/22
Date Received: 06/27/22
Date Analyzed: 07/15/22
Date Extracted: 07/14/22

Matrix Spike Summary
Dissolved Metals

Sample Name: BY-GBT-MW-1-FS
Lab Code: K2207160-001
Analysis Method: 200.8
Prep Method: EPA CLP ILM04.0

Units: ug/L
Basis: NA

Matrix Spike
KQ2210533-03

<u>Analyte Name</u>	<u>Sample Result</u>	<u>Result</u>	<u>Spike Amount</u>	<u>% Rec</u>	<u>% Rec Limits</u>
Arsenic	1.04	50.9	50.0	100	70-130

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

Matrix Spike and Matrix Spike Duplicate Data is presented for information purposes only. The matrix may or may not be relevant to samples reported in this report. The laboratory evaluates system performance based on the LCS and LCSD control limits.

ALS Group USA, Corp.

dba ALS Environmental

QA/QC Report

Client: Anchor QEA, LLC
Project: Barry/201114-01.02 Task 09
Sample Matrix: Water

Service Request: K2207160
Date Collected: 06/22/22
Date Received: 06/27/22
Date Analyzed: 07/15/22

Replicate Sample Summary
Dissolved Metals

Sample Name: BY-GBT-MW-1-FS
Lab Code: K2207160-001

Units: ug/L
Basis: NA

Table with 9 columns: Analyte Name, Analysis Method, MRL, MDL, Sample Result, Duplicate Sample KQ2210533-04 Result, Average, RPD, RPD Limit. Row 1: Arsenic, 200.8, 0.50, 0.09, 1.04, 0.95, 1.00, 9, 20.

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

ALS Group USA, Corp.

dba ALS Environmental

QA/QC Report

Client: Anchor QEA, LLC
Project: Barry/201114-01.02 Task 09
Sample Matrix: Water

Service Request: K2207160

Date Analyzed: 07/15/22

Lab Control Sample Summary
Dissolved Metals

Units:ug/L

Basis:NA

Lab Control Sample

KQ2210533-02

Analyte Name	Analytical Method	Result	Spike Amount	% Rec	% Rec Limits
Arsenic	200.8	49.9	50.0	100	85-115

ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client: Anchor QEA, LLC
Project: Barry/201114-01.02 Task 09
Sample Matrix: Water

Service Request: K2207160
Date Analyzed: 07/19/22

Lab Control Sample Summary
Dissolved Metals

Units:ug/L
Basis:NA

Lab Control Sample
KQ2210685-07

Analyte Name	Analytical Method	Result	Spike Amount	% Rec	% Rec Limits
Arsenic	200.8	48.7	50.0	97	85-115



July 19, 2022

Service Request No:K2207161

Masa Kanematsu
Anchor QEA, LLC
6720 SW Macadam Avenue
Suite 125
Portland, OR 97219

Laboratory Results for: Barry

Dear Masa,

Enclosed are the results of the sample(s) submitted to our laboratory June 27, 2022
For your reference, these analyses have been assigned our service request number **K2207161**.

Analyses were performed according to our laboratory's NELAP-approved quality assurance program. The test results meet requirements of the current NELAP standards, where applicable, and except as noted in the laboratory case narrative provided. For a specific list of NELAP-accredited analytes, refer to the certifications section at www.alsglobal.com. All results are intended to be considered in their entirety, and ALS Group USA Corp. dba ALS Environmental (ALS) is not responsible for use of less than the complete report. Results apply only to the items submitted to the laboratory for analysis and individual items (samples) analyzed, as listed in the report.

Please contact me if you have any questions. My extension is 3376. You may also contact me via email at Mark.Harris@alsglobal.com.

Respectfully submitted,

ALS Group USA, Corp. dba ALS Environmental

Mark Harris
Project Manager

ADDRESS 1317 S. 13th Avenue, Kelso, WA 98626
PHONE +1 360 577 7222 | FAX +1 360 636 1068
ALS Group USA, Corp.
dba ALS Environmental



Narrative Documents

ALS Environmental—Kelso Laboratory
1317 South 13th Avenue, Kelso, WA 98626
Phone (360) 577-7222 Fax (360) 425-9096
www.alsglobal.com



Client: Anchor QEA, LLC
Project: Barry
Sample Matrix: Water

Service Request: K2207161
Date Received: 06/27/2022

CASE NARRATIVE

All analyses were performed consistent with the quality assurance program of ALS Environmental. This report contains analytical results for samples for the Tier II level requested by the client.

Sample Receipt:

Eleven water samples were received for analysis at ALS Environmental on 06/27/2022. Any discrepancies upon initial sample inspection are annotated on the sample receipt and preservation form included within this report. The samples were stored at minimum in accordance with the analytical method requirements.

Metals:

No significant anomalies were noted with this analysis.

Approved by *Noel D. Dault*

Date 07/19/2022



SAMPLE DETECTION SUMMARY

This form includes only detections above the reporting levels. For a full listing of sample results, continue to the Sample Results section of this Report.

CLIENT ID: BY-SBT-MW-24H-FS		Lab ID: K2207161-001				
Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	1.21		0.09	0.50	ug/L	200.8
CLIENT ID: BY-SBT-MW-24H-FC		Lab ID: K2207161-002				
Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	0.47	J	0.09	0.50	ug/L	200.8
CLIENT ID: BY-SBT-MW-24H-CER		Lab ID: K2207161-003				
Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	1.30		0.09	0.50	ug/L	200.8
CLIENT ID: BY-SBT-MW-24H-PM		Lab ID: K2207161-004				
Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	0.40	J	0.09	0.50	ug/L	200.8
CLIENT ID: BY-SBT-MW-24H-FS-PM		Lab ID: K2207161-005				
Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	0.46	J	0.09	0.50	ug/L	200.8
CLIENT ID: BY-SBT-MW-24H-FC-PM-MC		Lab ID: K2207161-006				
Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	4.37		0.09	0.50	ug/L	200.8
CLIENT ID: BY-SBT-MW-24H-BC		Lab ID: K2207161-007				
Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	16.5		0.09	0.50	ug/L	200.8
CLIENT ID: BY-SBT-MW-24H-AIR		Lab ID: K2207161-008				
Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	1.46		0.09	0.50	ug/L	200.8
CLIENT ID: BY-SBT-MW-24H-FS-DUP		Lab ID: K2207161-009				
Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	3.49		0.09	0.50	ug/L	200.8
CLIENT ID: BY-SBT-MW-24H-CTRL		Lab ID: K2207161-010				
Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	1.04		0.09	0.50	ug/L	200.8
CLIENT ID: BY-SBT-MW-24H-BC-NaSO4		Lab ID: K2207161-011				
Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	1.91		0.09	0.50	ug/L	200.8



Sample Receipt Information

ALS Environmental—Kelso Laboratory
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Phone (360) 577-7222 Fax (360) 425-9096
www.alsglobal.com

Client: Anchor QEA, LLC
Project: Barry/201114-01.02 Task 09


Service Request:K2207161

SAMPLE CROSS-REFERENCE

<u>SAMPLE #</u>	<u>CLIENT SAMPLE ID</u>	<u>DATE</u>	<u>TIME</u>
K2207161-001	BY-SBT-MW-24H-FS	6/23/2022	0950
K2207161-002	BY-SBT-MW-24H-FC	6/23/2022	0955
K2207161-003	BY-SBT-MW-24H-CER	6/23/2022	1000
K2207161-004	BY-SBT-MW-24H-PM	6/23/2022	1005
K2207161-005	BY-SBT-MW-24H-FS-PM	6/23/2022	1010
K2207161-006	BY-SBT-MW-24H-FC-PM-MC	6/23/2022	1015
K2207161-007	BY-SBT-MW-24H-BC	6/23/2022	1020
K2207161-008	BY-SBT-MW-24H-AIR	6/23/2022	1025
K2207161-009	BY-SBT-MW-24H-FS-DUP	6/23/2022	1030
K2207161-010	BY-SBT-MW-24H-CTRL	6/23/2022	1035
K2207161-011	BY-SBT-MW-24H-BC-NaSO4	6/23/2022	1040

K2207161

Chain of Custody Record & Laboratory Analysis Request

Laboratory Number: 503-972-5019					No. of Containers	Parameters										 Jessica Goin 6720 SW Macadam Ave Suite 125 Portland OR 97219									
Date:	6/27/2022					As (dissolved)																			
Project Name:	Barry																								
Project Number:	201114-01.02 Task 09																								
Project Manager:	Masa Kanematsu																								
Phone Number:	503-972-5001 (backup number: 971.334.8193)																								
Shipment Method:	ALS Carrier																								
Line	Field Sample ID	Collection		Matrix	No. of Containers	As (dissolved)														Comments/Preservation					
		Date	Time																						
1	BY-SBT-MW-24H-FS	6/24/2022	6/23/22 9:50	Water	1	X																			HNO3 preserved. Field Filtered.
2	BY-SBT-MW-24H-FC	6/24/2022	6/23/22 9:55	Water	1	X																			HNO3 preserved. Field Filtered.
3	BY-SBT-MW-24H-CER	6/24/2022	6/23/22 10:00	Water	1	X																			HNO3 preserved. Field Filtered.
4	BY-SBT-MW-24H-PM	6/24/2022	6/23/22 10:05	Water	1	X																			HNO3 preserved. Field Filtered. KMnO4 added
5	BY-SBT-MW-24H-FS-PM	6/24/2022	6/23/22 10:10	Water	1	X																			HNO3 preserved. Field Filtered. KMnO4 added
6	BY-SBT-MW-24H-FC-PM-MC	6/24/2022	6/23/22 10:15	Water	1	X																			HNO3 preserved. Field Filtered. KMnO4 added
7	BY-SBT-MW-24H-BC	6/24/2022	6/23/22 10:20	Water	1	X																			HNO3 preserved. Field Filtered.
8	BY-SBT-MW-24H-AIR	6/24/2022	6/23/22 10:25	Water	1	X																			HNO3 preserved. Field Filtered.
9	BY-SBT-MW-24H-FS-DUP	6/24/2022	6/23/22 10:30	Water	1	X																			HNO3 preserved. Field Filtered.
10	BY-SBT-MW-24H-CTRL	6/24/2022	6/23/22 10:35	Water	1	X																			HNO3 preserved. Field Filtered.
11	BY-SBT-MW-24H-BC-NaSO4	6/24/2022	6/23/22 10:40	Water	1	X																			HNO3 preserved. Field Filtered.
12		all 6/23/2022																							
13		-EN																							
14																									
15																									
16																									

Notes: Please Contact Masa (503-972-5001, mkanematsu@anchorqea.com) if running > 10X dilution. Please analyze by ICP-MS method 200.8 to achieve the MDL < 1 ppb. Some samples may have residual purple color associated with potassium permanganate (KMnO4). If those samples need to be diluted in order to not damage the ICP-MS, please do so and let Masa know the dilution factor.

Relinquished by:	Company:
Emily DeVore	Anchor QEA
Signature/Print Name:	Date/Time:
<i>Emily DeVore</i>	6/27/22 8:00am
Relinquished by:	Company:
<i>[Signature]</i>	ALS
Signature/Print Name:	Date/Time:
	6/27/22 1020

Received by:
<i>[Signature]</i>
Signature/Print Name:
<i>K. W. [Signature]</i> ALS 6/27/22 0820
Received by:
<i>[Signature]</i>
Signature/Print Name:
<i>[Signature]</i> ALS 6/27/22 1020

Cooler Receipt and Preservation Form

Client: Anchor QEA Service Request K22 07161
 Received: 6/27/22 Opened: 6/27/22 By: [Signature] Unloaded: 6/27/22 By: [Signature]

- Samples were received via? USPS Fed Ex UPS DHL PDX Courier Hand Delivered
 Samples were received in: (circle) Cooler Box Envelope Other NA
 Were custody seals on coolers? NA Y N If yes, how many and where? _____
 If present, were custody seals intact? Y N If present, were they signed and dated? Y N

Temp Blank	Sample Temp	IR Gun	Cooler #/COC ID / NA	Out of temp indicate with "X"	PM Notified If out of temp	Tracking Number NA	Filed
<u>5.3</u>		<u>IR 01</u>	<u>NA</u>				

Was a Temperature Blank present in cooler? NA Y N If yes, notate the temperature in the appropriate column above:
 If no, take the temperature of a representative sample bottle contained within the cooler; notate in the column "Sample Temp":
 Were samples received within the method specified temperature ranges? NA Y N
 If no, were they received on ice and same day as collected? If not, notate the cooler # below and notify the PM. NA Y N

applicable, tissue samples were received: Frozen, Partially Thawed, Thawed
 Packing material: Inserts Baggies Bubble Wrap Gel Packs Wet Ice Dry Ice Sleeves
 Were custody papers properly filled out (ink, signed, etc.)? NA Y N
 Were samples received in good condition (unbroken) NA Y N
 Were all sample labels complete (ie, analysis, preservation, etc.)? NA Y N
 Did all sample labels and tags agree with custody papers? NA Y N
 Were appropriate bottles/containers and volumes received for the tests indicated? NA Y N
 Were the pH-preserved bottles (see SMO GEN SOP) received at the appropriate pH? Indicate in the table below NA Y N
 Were VOA vials received without headspace? Indicate in the table below. NA Y N
 Was C12/Res negative? NA Y N
 Were 100ml sterile microbiology bottles filled exactly to the 100ml mark? NA Y N Under filled Overfilled

Sample ID on Bottle	Sample ID on COC	Identified by:

Sample ID	Bottle Count	Bottle Type	Head-space	Broke	pH	Reagent	Volume added	Reagent Lot Number	Initials	Time

Notes, Discrepancies, Resolutions: _____



Miscellaneous Forms

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Inorganic Data Qualifiers

- * The result is an outlier. See case narrative.
- # The control limit criteria is not applicable.
- B The analyte was found in the associated method blank at a level that is significant relative to the sample result as defined by the DOD or NELAC standards.
- E The result is an estimate amount because the value exceeded the instrument calibration range.
- J The result is an estimated value.
- U The analyte was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL.
DOD-QSM 4.2 definition : Analyte was not detected and is reported as less than the LOD or as defined by the project. The detection limit is adjusted for dilution.
- i The MRL/MDL or LOQ/LOD is elevated due to a matrix interference.
- X See case narrative.
- Q See case narrative. One or more quality control criteria was outside the limits.
- H The holding time for this test is immediately following sample collection. The samples were analyzed as soon as possible after receipt by the laboratory.

Metals Data Qualifiers

- # The control limit criteria is not applicable.
- J The result is an estimated value.
- E The percent difference for the serial dilution was greater than 10%, indicating a possible matrix interference in the sample.
- M The duplicate injection precision was not met.
- N The Matrix Spike sample recovery is not within control limits. See case narrative.
- S The reported value was determined by the Method of Standard Additions (MSA).
- U The analyte was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL.
DOD-QSM 4.2 definition : Analyte was not detected and is reported as less than the LOD or as defined by the project. The detection limit is adjusted for dilution.
- W The post-digestion spike for furnace AA analysis is out of control limits, while sample absorbance is less than 50% of spike absorbance.
 - i The MRL/MDL or LOQ/LOD is elevated due to a matrix interference.
- X See case narrative.
- + The correlation coefficient for the MSA is less than 0.995.
- Q See case narrative. One or more quality control criteria was outside the limits.

Organic Data Qualifiers

- * The result is an outlier. See case narrative.
- # The control limit criteria is not applicable. See case narrative.
- A A tentatively identified compound, a suspected aldol-condensation product.
- B The analyte was found in the associated method blank at a level that is significant relative to the sample result as defined by the DOD or NELAC standards.
- C The analyte was qualitatively confirmed using GC/MS techniques, pattern recognition, or by comparing to historical data.
- D The reported result is from a dilution.
- E The result is an estimated value.
- J The result is an estimated value.
- N The result is presumptive. The analyte was tentatively identified, but a confirmation analysis was not performed.
- P The GC or HPLC confirmation criteria was exceeded. The relative percent difference is greater than 40% between the two analytical results.
- U The analyte was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL.
DOD-QSM 4.2 definition : Analyte was not detected and is reported as less than the LOD or as defined by the project. The detection limit is adjusted for dilution.
 - i The MRL/MDL or LOQ/LOD is elevated due to a chromatographic interference.
- X See case narrative.
- Q See case narrative. One or more quality control criteria was outside the limits.

Additional Petroleum Hydrocarbon Specific Qualifiers

- F The chromatographic fingerprint of the sample matches the elution pattern of the calibration standard.
- L The chromatographic fingerprint of the sample resembles a petroleum product, but the elution pattern indicates the presence of a greater amount of lighter molecular weight constituents than the calibration standard.
- H The chromatographic fingerprint of the sample resembles a petroleum product, but the elution pattern indicates the presence of a greater amount of heavier molecular weight constituents than the calibration standard.
- O The chromatographic fingerprint of the sample resembles an oil, but does not match the calibration standard.
- Y The chromatographic fingerprint of the sample resembles a petroleum product eluting in approximately the correct carbon range, but the elution pattern does not match the calibration standard.
- Z The chromatographic fingerprint does not resemble a petroleum product.

**ALS Group USA Corp. dba ALS Environmental (ALS) - Kelso
State Certifications, Accreditations, and Licenses**

Agency	Web Site	Number
Alaska DEH	http://dec.alaska.gov/eh/lab/cs/csapproval.htm	UST-040
Arizona DHS	http://www.azdhs.gov/lab/license/env.htm	AZ0339
Arkansas - DEQ	http://www.adeq.state.ar.us/techsvs/labcert.htm	88-0637
California DHS (ELAP)	http://www.cdph.ca.gov/certlic/labs/Pages/ELAP.aspx	2795
DOD ELAP	http://www.denix.osd.mil/edqw/Accreditation/AccreditedLabs.cfm	L16-58-R4
Florida DOH	http://www.doh.state.fl.us/lab/EnvLabCert/WaterCert.htm	E87412
Hawaii DOH	http://health.hawaii.gov/	-
ISO 17025	http://www.pjllabs.com/	L16-57
Louisiana DEQ	http://www.deq.louisiana.gov/page/la-lab-accreditation	03016
Maine DHS	http://www.maine.gov/dhhs/	WA01276
Minnesota DOH	http://www.health.state.mn.us/accreditation	053-999-457
Nevada DEP	http://ndep.nv.gov/bsdw/labservice.htm	WA01276
New Jersey DEP	http://www.nj.gov/dep/enforcement/oqa.html	WA005
New York - DOH	https://www.wadsworth.org/regulatory/elap	12060
North Carolina DEQ	https://deq.nc.gov/about/divisions/water-resources/water-resources-data/water-sciences-home-page/laboratory-certification-branch/non-field-lab-certification	605
Oklahoma DEQ	http://www.deq.state.ok.us/CSDnew/labcert.htm	9801
Oregon – DEQ (NELAP)	http://public.health.oregon.gov/LaboratoryServices/EnvironmentalLaboratoryAccreditation/Pages/index.aspx	WA100010
South Carolina DHEC	http://www.scdhec.gov/environment/EnvironmentalLabCertification/	61002
Texas CEQ	http://www.tceq.texas.gov/field/qa/env_lab_accreditation.html	T104704427
Washington DOE	http://www.ecy.wa.gov/programs/eap/labs/lab-accreditation.html	C544
Wyoming (EPA Region 8)	https://www.epa.gov/region8-waterops/epa-region-8-certified-drinking-water	-
Kelso Laboratory Website	www.alsglobal.com	NA

Analyses were performed according to our laboratory's NELAP-approved quality assurance program. A complete listing of specific NELAP-certified analytes, can be found in the certification section at www.ALSGlobal.com or at the accreditation bodies web site.

Please refer to the certification and/or accreditation body's web site if samples are submitted for compliance purposes. The states highlighted above, require the analysis be listed on the state certification if used for compliance purposes and if the method/analyte is offered by that state.

Acronyms

ASTM	American Society for Testing and Materials
A2LA	American Association for Laboratory Accreditation
CARB	California Air Resources Board
CAS Number	Chemical Abstract Service registry Number
CFC	Chlorofluorocarbon
CFU	Colony-Forming Unit
DEC	Department of Environmental Conservation
DEQ	Department of Environmental Quality
DHS	Department of Health Services
DOE	Department of Ecology
DOH	Department of Health
EPA	U. S. Environmental Protection Agency
ELAP	Environmental Laboratory Accreditation Program
GC	Gas Chromatography
GC/MS	Gas Chromatography/Mass Spectrometry
LOD	Limit of Detection
LOQ	Limit of Quantitation
LUFT	Leaking Underground Fuel Tank
M	Modified
MCL	Maximum Contaminant Level is the highest permissible concentration of a substance allowed in drinking water as established by the USEPA.
MDL	Method Detection Limit
MPN	Most Probable Number
MRL	Method Reporting Limit
NA	Not Applicable
NC	Not Calculated
NCASI	National Council of the Paper Industry for Air and Stream Improvement
ND	Not Detected
NIOSH	National Institute for Occupational Safety and Health
PQL	Practical Quantitation Limit
RCRA	Resource Conservation and Recovery Act
SIM	Selected Ion Monitoring
TPH	Total Petroleum Hydrocarbons
tr	Trace level is the concentration of an analyte that is less than the PQL but greater than or equal to the MDL.

ALS Group USA, Corp.
dba ALS Environmental

Analyst Summary report

Client: Anchor QEA, LLC
Project: Barry/201114-01.02 Task 09

Service Request: K2207161

Sample Name: BY-SBT-MW-24H-FS
Lab Code: K2207161-001
Sample Matrix: Water

Date Collected: 06/23/22
Date Received: 06/27/22

Analysis Method
200.8

Extracted/Digested By
SSOLADEY

Analyzed By
JCHAN

Sample Name: BY-SBT-MW-24H-FC
Lab Code: K2207161-002
Sample Matrix: Water

Date Collected: 06/23/22
Date Received: 06/27/22

Analysis Method
200.8

Extracted/Digested By
SSOLADEY

Analyzed By
JCHAN

Sample Name: BY-SBT-MW-24H-CER
Lab Code: K2207161-003
Sample Matrix: Water

Date Collected: 06/23/22
Date Received: 06/27/22

Analysis Method
200.8

Extracted/Digested By
SSOLADEY

Analyzed By
JCHAN

Sample Name: BY-SBT-MW-24H-PM
Lab Code: K2207161-004
Sample Matrix: Water

Date Collected: 06/23/22
Date Received: 06/27/22

Analysis Method
200.8

Extracted/Digested By
SSOLADEY

Analyzed By
JCHAN

Sample Name: BY-SBT-MW-24H-FS-PM
Lab Code: K2207161-005
Sample Matrix: Water

Date Collected: 06/23/22
Date Received: 06/27/22

Analysis Method
200.8

Extracted/Digested By
SSOLADEY

Analyzed By
JCHAN

ALS Group USA, Corp.
dba ALS Environmental

Analyst Summary report

Client: Anchor QEA, LLC
Project: Barry/201114-01.02 Task 09

Service Request: K2207161

Sample Name: BY-SBT-MW-24H-FC-PM-MC
Lab Code: K2207161-006
Sample Matrix: Water

Date Collected: 06/23/22
Date Received: 06/27/22

Analysis Method
200.8

Extracted/Digested By
SSOLADEY

Analyzed By
JCHAN

Sample Name: BY-SBT-MW-24H-BC
Lab Code: K2207161-007
Sample Matrix: Water

Date Collected: 06/23/22
Date Received: 06/27/22

Analysis Method
200.8

Extracted/Digested By
SSOLADEY

Analyzed By
JCHAN

Sample Name: BY-SBT-MW-24H-AIR
Lab Code: K2207161-008
Sample Matrix: Water

Date Collected: 06/23/22
Date Received: 06/27/22

Analysis Method
200.8

Extracted/Digested By
SSOLADEY

Analyzed By
JCHAN

Sample Name: BY-SBT-MW-24H-FS-DUP
Lab Code: K2207161-009
Sample Matrix: Water

Date Collected: 06/23/22
Date Received: 06/27/22

Analysis Method
200.8

Extracted/Digested By
SSOLADEY

Analyzed By
JCHAN

Sample Name: BY-SBT-MW-24H-CTRL
Lab Code: K2207161-010
Sample Matrix: Water

Date Collected: 06/23/22
Date Received: 06/27/22

Analysis Method
200.8

Extracted/Digested By
SSOLADEY

Analyzed By
JCHAN

ALS Group USA, Corp.
dba ALS Environmental

Analyst Summary report

Client: Anchor QEA, LLC
Project: Barry/201114-01.02 Task 09

Service Request: K2207161

Sample Name: BY-SBT-MW-24H-BC-NaSO4
Lab Code: K2207161-011
Sample Matrix: Water

Date Collected: 06/23/22
Date Received: 06/27/22

Analysis Method
200.8

Extracted/Digested By
SSOLADEY

Analyzed By
EMCALLISTER



Sample Results

ALS Environmental—Kelso Laboratory
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Metals

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www.alsglobal.com

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Anchor QEA, LLC
Project: Barry/201114-01.02 Task 09
Sample Matrix: Water
Sample Name: BY-SBT-MW-24H-FS
Lab Code: K2207161-001

Service Request: K2207161
Date Collected: 06/23/22 09:50
Date Received: 06/27/22 10:20
Basis: NA

Dissolved Metals

<u>Analyte Name</u>	<u>Analysis Method</u>	<u>Result</u>	<u>Units</u>	<u>MRL</u>	<u>MDL</u>	<u>Dil.</u>	<u>Date Analyzed</u>	<u>Date Extracted</u>	<u>Q</u>
Arsenic	200.8	1.21	ug/L	0.50	0.09	1	07/15/22 15:49	07/14/22	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Anchor QEA, LLC
Project: Barry/201114-01.02 Task 09
Sample Matrix: Water
Sample Name: BY-SBT-MW-24H-FC
Lab Code: K2207161-002

Service Request: K2207161
Date Collected: 06/23/22 09:55
Date Received: 06/27/22 10:20
Basis: NA

Dissolved Metals

<u>Analyte Name</u>	<u>Analysis Method</u>	<u>Result</u>	<u>Units</u>	<u>MRL</u>	<u>MDL</u>	<u>Dil.</u>	<u>Date Analyzed</u>	<u>Date Extracted</u>	<u>Q</u>
Arsenic	200.8	0.47 J	ug/L	0.50	0.09	1	07/15/22 15:53	07/14/22	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Anchor QEA, LLC
Project: Barry/201114-01.02 Task 09
Sample Matrix: Water
Sample Name: BY-SBT-MW-24H-CER
Lab Code: K2207161-003

Service Request: K2207161
Date Collected: 06/23/22 10:00
Date Received: 06/27/22 10:20
Basis: NA

Dissolved Metals

<u>Analyte Name</u>	<u>Analysis Method</u>	<u>Result</u>	<u>Units</u>	<u>MRL</u>	<u>MDL</u>	<u>Dil.</u>	<u>Date Analyzed</u>	<u>Date Extracted</u>	<u>Q</u>
Arsenic	200.8	1.30	ug/L	0.50	0.09	1	07/15/22 15:55	07/14/22	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Anchor QEA, LLC
Project: Barry/201114-01.02 Task 09
Sample Matrix: Water
Sample Name: BY-SBT-MW-24H-PM
Lab Code: K2207161-004

Service Request: K2207161
Date Collected: 06/23/22 10:05
Date Received: 06/27/22 10:20
Basis: NA

Dissolved Metals

<u>Analyte Name</u>	<u>Analysis Method</u>	<u>Result</u>	<u>Units</u>	<u>MRL</u>	<u>MDL</u>	<u>Dil.</u>	<u>Date Analyzed</u>	<u>Date Extracted</u>	<u>Q</u>
Arsenic	200.8	0.40 J	ug/L	0.50	0.09	1	07/15/22 15:56	07/14/22	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Anchor QEA, LLC
Project: Barry/201114-01.02 Task 09
Sample Matrix: Water
Sample Name: BY-SBT-MW-24H-FS-PM
Lab Code: K2207161-005

Service Request: K2207161
Date Collected: 06/23/22 10:10
Date Received: 06/27/22 10:20
Basis: NA

Dissolved Metals

<u>Analyte Name</u>	<u>Analysis Method</u>	<u>Result</u>	<u>Units</u>	<u>MRL</u>	<u>MDL</u>	<u>Dil.</u>	<u>Date Analyzed</u>	<u>Date Extracted</u>	<u>Q</u>
Arsenic	200.8	0.46 J	ug/L	0.50	0.09	1	07/15/22 16:01	07/14/22	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Anchor QEA, LLC
Project: Barry/201114-01.02 Task 09
Sample Matrix: Water
Sample Name: BY-SBT-MW-24H-FC-PM-MC
Lab Code: K2207161-006

Service Request: K2207161
Date Collected: 06/23/22 10:15
Date Received: 06/27/22 10:20
Basis: NA

Dissolved Metals

<u>Analyte Name</u>	<u>Analysis Method</u>	<u>Result</u>	<u>Units</u>	<u>MRL</u>	<u>MDL</u>	<u>Dil.</u>	<u>Date Analyzed</u>	<u>Date Extracted</u>	<u>Q</u>
Arsenic	200.8	4.37	ug/L	0.50	0.09	1	07/15/22 16:02	07/14/22	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Anchor QEA, LLC
Project: Barry/201114-01.02 Task 09
Sample Matrix: Water
Sample Name: BY-SBT-MW-24H-BC
Lab Code: K2207161-007

Service Request: K2207161
Date Collected: 06/23/22 10:20
Date Received: 06/27/22 10:20
Basis: NA

Dissolved Metals

<u>Analyte Name</u>	<u>Analysis Method</u>	<u>Result</u>	<u>Units</u>	<u>MRL</u>	<u>MDL</u>	<u>Dil.</u>	<u>Date Analyzed</u>	<u>Date Extracted</u>	<u>Q</u>
Arsenic	200.8	16.5	ug/L	0.50	0.09	1	07/15/22 16:04	07/14/22	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Anchor QEA, LLC
Project: Barry/201114-01.02 Task 09
Sample Matrix: Water
Sample Name: BY-SBT-MW-24H-AIR
Lab Code: K2207161-008

Service Request: K2207161
Date Collected: 06/23/22 10:25
Date Received: 06/27/22 10:20
Basis: NA

Dissolved Metals

<u>Analyte Name</u>	<u>Analysis Method</u>	<u>Result</u>	<u>Units</u>	<u>MRL</u>	<u>MDL</u>	<u>Dil.</u>	<u>Date Analyzed</u>	<u>Date Extracted</u>	<u>Q</u>
Arsenic	200.8	1.46	ug/L	0.50	0.09	1	07/15/22 16:05	07/14/22	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Anchor QEA, LLC
Project: Barry/201114-01.02 Task 09
Sample Matrix: Water
Sample Name: BY-SBT-MW-24H-FS-DUP
Lab Code: K2207161-009

Service Request: K2207161
Date Collected: 06/23/22 10:30
Date Received: 06/27/22 10:20
Basis: NA

Dissolved Metals

<u>Analyte Name</u>	<u>Analysis Method</u>	<u>Result</u>	<u>Units</u>	<u>MRL</u>	<u>MDL</u>	<u>Dil.</u>	<u>Date Analyzed</u>	<u>Date Extracted</u>	<u>Q</u>
Arsenic	200.8	3.49	ug/L	0.50	0.09	1	07/15/22 16:07	07/14/22	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Anchor QEA, LLC
Project: Barry/201114-01.02 Task 09
Sample Matrix: Water
Sample Name: BY-SBT-MW-24H-CTRL
Lab Code: K2207161-010

Service Request: K2207161
Date Collected: 06/23/22 10:35
Date Received: 06/27/22 10:20
Basis: NA

Dissolved Metals

<u>Analyte Name</u>	<u>Analysis Method</u>	<u>Result</u>	<u>Units</u>	<u>MRL</u>	<u>MDL</u>	<u>Dil.</u>	<u>Date Analyzed</u>	<u>Date Extracted</u>	<u>Q</u>
Arsenic	200.8	1.04	ug/L	0.50	0.09	1	07/15/22 16:08	07/14/22	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Anchor QEA, LLC
Project: Barry/201114-01.02 Task 09
Sample Matrix: Water
Sample Name: BY-SBT-MW-24H-BC-NaSO4
Lab Code: K2207161-011

Service Request: K2207161
Date Collected: 06/23/22 10:40
Date Received: 06/27/22 10:20
Basis: NA

Dissolved Metals

<u>Analyte Name</u>	<u>Analysis Method</u>	<u>Result</u>	<u>Units</u>	<u>MRL</u>	<u>MDL</u>	<u>Dil.</u>	<u>Date Analyzed</u>	<u>Date Extracted</u>	<u>Q</u>
Arsenic	200.8	1.91	ug/L	0.50	0.09	1	07/19/22 12:16	07/15/22	



QC Summary Forms

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ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Anchor QEA, LLC
Project: Barry/201114-01.02 Task 09
Sample Matrix: Water
Sample Name: Method Blank
Lab Code: KQ2210533-01

Service Request: K2207161
Date Collected: NA
Date Received: NA
Basis: NA

Dissolved Metals

<u>Analyte Name</u>	<u>Analysis Method</u>	<u>Result</u>	<u>Units</u>	<u>MRL</u>	<u>MDL</u>	<u>Dil.</u>	<u>Date Analyzed</u>	<u>Date Extracted</u>	<u>Q</u>
Arsenic	200.8	ND U	ug/L	0.50	0.09	1	07/15/22 15:25	07/14/22	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Anchor QEA, LLC
Project: Barry/201114-01.02 Task 09
Sample Matrix: Water
Sample Name: Method Blank
Lab Code: KQ2210685-06

Service Request: K2207161
Date Collected: NA
Date Received: NA
Basis: NA

Dissolved Metals

<u>Analyte Name</u>	<u>Analysis Method</u>	<u>Result</u>	<u>Units</u>	<u>MRL</u>	<u>MDL</u>	<u>Dil.</u>	<u>Date Analyzed</u>	<u>Date Extracted</u>	<u>Q</u>
Arsenic	200.8	ND U	ug/L	0.50	0.09	1	07/19/22 11:59	07/15/22	

ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client: Anchor QEA, LLC
Project: Barry/201114-01.02 Task 09
Sample Matrix: Water

Service Request: K2207161
Date Collected: 06/23/22
Date Received: 06/27/22
Date Analyzed: 07/15/22
Date Extracted: 07/14/22

Matrix Spike Summary
Dissolved Metals

Sample Name: BY-SBT-MW-24H-FS
Lab Code: K2207161-001
Analysis Method: 200.8
Prep Method: EPA CLP ILM04.0

Units: ug/L
Basis: NA

Matrix Spike
KQ2210533-05

<u>Analyte Name</u>	<u>Sample Result</u>	<u>Result</u>	<u>Spike Amount</u>	<u>% Rec</u>	<u>% Rec Limits</u>
Arsenic	1.21	50.8	50.0	99	70-130

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

Matrix Spike and Matrix Spike Duplicate Data is presented for information purposes only. The matrix may or may not be relevant to samples reported in this report. The laboratory evaluates system performance based on the LCS and LCSD control limits.

ALS Group USA, Corp.

dba ALS Environmental

QA/QC Report

Client: Anchor QEA, LLC
Project: Barry/201114-01.02 Task 09
Sample Matrix: Water

Service Request: K2207161
Date Collected: 06/23/22
Date Received: 06/27/22
Date Analyzed: 07/15/22

Replicate Sample Summary

Dissolved Metals

Sample Name: BY-SBT-MW-24H-FS
Lab Code: K2207161-001

Units: ug/L
Basis: NA

Analyte Name	Analysis Method	MRL	MDL	Sample Result	Duplicate	Average	RPD	RPD Limit
					Sample KQ2210533-06 Result			
Arsenic	200.8	0.50	0.09	1.21	1.13	1.17	7	20

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

ALS Group USA, Corp.

dba ALS Environmental

QA/QC Report

Client: Anchor QEA, LLC
Project: Barry/201114-01.02 Task 09
Sample Matrix: Water

Service Request: K2207161

Date Analyzed: 07/15/22

Lab Control Sample Summary
Dissolved Metals

Units:ug/L

Basis:NA

Lab Control Sample

KQ2210533-02

Analyte Name	Analytical Method	Result	Spike Amount	% Rec	% Rec Limits
Arsenic	200.8	49.9	50.0	100	85-115

ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client: Anchor QEA, LLC
Project: Barry/201114-01.02 Task 09
Sample Matrix: Water

Service Request: K2207161
Date Analyzed: 07/19/22

Lab Control Sample Summary
Dissolved Metals

Units:ug/L
Basis:NA

Lab Control Sample
KQ2210685-07

Analyte Name	Analytical Method	Result	Spike Amount	% Rec	% Rec Limits
Arsenic	200.8	48.7	50.0	97	85-115



July 19, 2022

Service Request No:K2207162

Masa Kanematsu
Anchor QEA, LLC
6720 SW Macadam Avenue
Suite 125
Portland, OR 97219

Laboratory Results for: Barry

Dear Masa,

Enclosed are the results of the sample(s) submitted to our laboratory June 27, 2022
For your reference, these analyses have been assigned our service request number **K2207162**.

Analyses were performed according to our laboratory's NELAP-approved quality assurance program. The test results meet requirements of the current NELAP standards, where applicable, and except as noted in the laboratory case narrative provided. For a specific list of NELAP-accredited analytes, refer to the certifications section at www.alsglobal.com. All results are intended to be considered in their entirety, and ALS Group USA Corp. dba ALS Environmental (ALS) is not responsible for use of less than the complete report. Results apply only to the items submitted to the laboratory for analysis and individual items (samples) analyzed, as listed in the report.

Please contact me if you have any questions. My extension is 3376. You may also contact me via email at Mark.Harris@alsglobal.com.

Respectfully submitted,

ALS Group USA, Corp. dba ALS Environmental

Mark Harris
Project Manager

ADDRESS 1317 S. 13th Avenue, Kelso, WA 98626
PHONE +1 360 577 7222 | FAX +1 360 636 1068
ALS Group USA, Corp.
dba ALS Environmental



Narrative Documents

ALS Environmental—Kelso Laboratory
1317 South 13th Avenue, Kelso, WA 98626
Phone (360) 577-7222 Fax (360) 425-9096
www.alsglobal.com



Client: Anchor QEA, LLC
Project: Barry
Sample Matrix: Water

Service Request: K2207162
Date Received: 06/27/2022

CASE NARRATIVE

All analyses were performed consistent with the quality assurance program of ALS Environmental. This report contains analytical results for samples for the Tier II level requested by the client.

Sample Receipt:

Eleven water samples were received for analysis at ALS Environmental on 06/27/2022. Any discrepancies upon initial sample inspection are annotated on the sample receipt and preservation form included within this report. The samples were stored at minimum in accordance with the analytical method requirements.

Metals:

No significant anomalies were noted with this analysis.

Approved by _____

Date 07/19/2022



SAMPLE DETECTION SUMMARY

This form includes only detections above the reporting levels. For a full listing of sample results, continue to the Sample Results section of this Report.

CLIENT ID: BY-GBT-MW-10-FS		Lab ID: K2207162-001				
Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	4.76		0.09	0.50	ug/L	200.8
CLIENT ID: BY-GBT-MW-10-FC		Lab ID: K2207162-002				
Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	0.55		0.09	0.50	ug/L	200.8
CLIENT ID: BY-GBT-MW-10-CER		Lab ID: K2207162-003				
Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	6.57		0.09	0.50	ug/L	200.8
CLIENT ID: BY-GBT-MW-10-PM		Lab ID: K2207162-004				
Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	0.33	J	0.09	0.50	ug/L	200.8
CLIENT ID: BY-GBT-MW-10-FS-PM		Lab ID: K2207162-005				
Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	0.74		0.09	0.50	ug/L	200.8
CLIENT ID: BY-GBT-MW-10-FC-PM-MC		Lab ID: K2207162-006				
Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	0.60		0.09	0.50	ug/L	200.8
CLIENT ID: BY-GBT-MW-10-BC		Lab ID: K2207162-007				
Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	2.48		0.09	0.50	ug/L	200.8
CLIENT ID: BY-GBT-MW-10-AIR		Lab ID: K2207162-008				
Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	14.8		0.09	0.50	ug/L	200.8
CLIENT ID: BY-GBT-MW-10-FS-DUP		Lab ID: K2207162-009				
Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	1.38		0.09	0.50	ug/L	200.8
CLIENT ID: BY-GBT-MW-10-CTRL		Lab ID: K2207162-010				
Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	3.50		0.09	0.50	ug/L	200.8
CLIENT ID: BY-GBT-MW-10-BC-NaSO4		Lab ID: K2207162-011				
Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	2.71		0.09	0.50	ug/L	200.8



Sample Receipt Information

ALS Environmental—Kelso Laboratory
1317 South 13th Avenue, Kelso, WA 98626
Phone (360) 577-7222 Fax (360) 425-9096
www.alsglobal.com

Client: Anchor QEA, LLC
Project: Barry/201114-01.02 Task 09


Service Request:K2207162

SAMPLE CROSS-REFERENCE

<u>SAMPLE #</u>	<u>CLIENT SAMPLE ID</u>	<u>DATE</u>	<u>TIME</u>
K2207162-001	BY-GBT-MW-10-FS	6/23/2022	0855
K2207162-002	BY-GBT-MW-10-FC	6/23/2022	0900
K2207162-003	BY-GBT-MW-10-CER	6/23/2022	0905
K2207162-004	BY-GBT-MW-10-PM	6/23/2022	0910
K2207162-005	BY-GBT-MW-10-FS-PM	6/23/2022	0915
K2207162-006	BY-GBT-MW-10-FC-PM-MC	6/23/2022	0920
K2207162-007	BY-GBT-MW-10-BC	6/23/2022	0925
K2207162-008	BY-GBT-MW-10-AIR	6/23/2022	0930
K2207162-009	BY-GBT-MW-10-FS-DUP	6/23/2022	0935
K2207162-010	BY-GBT-MW-10-CTRL	6/23/2022	0940
K2207162-011	BY-GBT-MW-10-BC-NaSO4	6/23/2022	0945

K2207162

Chain of Custody Record & Laboratory Analysis Request

Laboratory Number: 503-972-5019					No. of Containers	Parameters										 Jessica Goin 6720 SW Macadam Ave Suite 125 Portland OR 97219							
Date:	6/27/2022					As (dissolved)																	
Project Name:	Barry																						
Project Number:	201114-01.02 Task 09																						
Project Manager:	Masa Kanematsu																						
Phone Number:	503-972-5001 (backup number: 971.334.8193)																						
Shipment Method:	ALS Carrier																						
Line	Field Sample ID	Collection		Matrix	No. of Containers	As (dissolved)											Comments/Preservation						
		Date	Time																				
1	BY-GBT-MW-10-FS	6/23/2022	6/23/22 8:55	Water	1	X																	HNO3 preserved. Field Filtered.
2	BY-GBT-MW-10-FC	6/23/2022	6/23/22 9:00	Water	1	X																	HNO3 preserved. Field Filtered.
3	BY-GBT-MW-10-CER	6/23/2022	6/23/22 9:05	Water	1	X																	HNO3 preserved. Field Filtered.
4	BY-GBT-MW-10-PM	6/23/2022	6/23/22 9:10	Water	1	X																	HNO3 preserved. Field Filtered. KMnO4 added
5	BY-GBT-MW-10-FS-PM	6/23/2022	6/23/22 9:15	Water	1	X																	HNO3 preserved. Field Filtered. KMnO4 added
6	BY-GBT-MW-10-FC-PM-MC	6/23/2022	6/23/22 9:20	Water	1	X																	HNO3 preserved. Field Filtered. KMnO4 added
7	BY-GBT-MW-10-BC	6/23/2022	6/23/22 9:25	Water	1	X																	HNO3 preserved. Field Filtered.
8	BY-GBT-MW-10-AIR	6/23/2022	6/23/22 9:30	Water	1	X																	HNO3 preserved. Field Filtered.
9	BY-GBT-MW-10-FS-DUP	6/23/2022	6/23/22 9:35	Water	1	X																	HNO3 preserved. Field Filtered.
10	BY-GBT-MW-10-CTRL	6/23/2022	6/23/22 9:40	Water	1	X																	HNO3 preserved. Field Filtered.
11	BY-GBT-MW-10-BC-NaSO4	6/23/2022	6/23/22 9:45	Water	1	X																	HNO3 preserved. Field Filtered.
12																							
13																							
14																							
15																							
16																							

Notes: Please Contact Masa (503-972-5001, mkanematsu@anchorqea.com) if running > 10X dilution. Please analyze by ICP-MS method 200.8 to achieve the MDL < 1 ppb. Some samples may have residual purple color associated with potassium permanganate (KMnO4). If those samples need to be diluted in order to not damage the ICP-MS, please do so and let Masa know the dilution factor.

Relinquished by:	Company:
Emily DeVore	Anchor QEA
Signature/Print Name:	Date/Time:
<i>Emily DeVore</i>	6/27/22 8:00am
Relinquished by:	Company:
<i>[Signature]</i>	ALS
Signature/Print Name:	Date/Time:
	6/27/22 1020

Received by:
<i>[Signature]</i>
Signature/Print Name:
K Morrow ALS 6/27/22 0820
Received by:
<i>[Signature]</i>
Signature/Print Name:
ALS 6/27/22 1020

Cooler Receipt and Preservation Form

Client: Anchor QEM Service Request K22 07162
 Received: 6/27/22 Opened: 6/27/22 By: [Signature] Unloaded: 6/27/22 By: [Signature]

Samples were received via? **USPS** Cooler **Fed Ex** **UPS** **DHL** **PDX** Courier **Hand Delivered**
 Samples were received in: (circle) Cooler **Box** **Envelope** **Other** NA
 Were custody seals on coolers? **NA** **Y** N If yes, how many and where? _____
 If present, were custody seals intact? **Y** **N** If present, were they signed and dated? **Y** **N**

Temp Blank	Sample Temp	IR Gun	Cooler #/COC ID / NA	Out of temp Indicate with "X"	PM Notified If out of temp	Tracking Number	Filed
<u>5.3</u>		<u>IR01</u>	<u>NA</u>			<u>NA</u>	

Was a Temperature Blank present in cooler? **NA** Y **N** If yes, notate the temperature in the appropriate column above:
 If no, take the temperature of a representative sample bottle contained within the cooler; notate in the column "Sample Temp":
 Were samples received within the method specified temperature ranges? **NA** Y **N**
 If no, were they received on ice and same day as collected? If not, notate the cooler # below and notify the PM. **NA** Y **N**

applicable, tissue samples were received: **Frozen** **Partially Thawed** Thawed
 Packing material: **Inserts** Baggies **Bubble Wrap** **Gel Packs** Wet Ice **Dry Ice** **Sleeves**
 Were custody papers properly filled out (ink, signed, etc.)? **NA** Y **N**
 Were samples received in good condition (unbroken) **NA** Y **N**
 Were all sample labels complete (ie, analysis, preservation, etc.)? **NA** Y **N**
 Did all sample labels and tags agree with custody papers? **NA** Y **N**
 Were appropriate bottles/containers and volumes received for the tests indicated? **NA** Y **N**
 Were the pH-preserved bottles (see SMO GEN SOP) received at the appropriate pH? Indicate in the table below **NA** Y **N**
 Were VOA vials received without headspace? Indicate in the table below. **NA** Y **N**
 Was C12/Res negative? **NA** Y **N**
 Were 100ml sterile microbiology bottles filled exactly to the 100ml mark? NA **Y** **N** Under filled Overfilled

Sample ID on Bottle	Sample ID on COC	Identified by:

Sample ID	Bottle Count	Bottle Type	Head-space	Broke	pH	Reagent	Volume added	Reagent Lot Number	Initials	Time

Notes, Discrepancies, Resolutions: _____



Miscellaneous Forms

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Inorganic Data Qualifiers

- * The result is an outlier. See case narrative.
- # The control limit criteria is not applicable.
- B The analyte was found in the associated method blank at a level that is significant relative to the sample result as defined by the DOD or NELAC standards.
- E The result is an estimate amount because the value exceeded the instrument calibration range.
- J The result is an estimated value.
- U The analyte was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL.
DOD-QSM 4.2 definition : Analyte was not detected and is reported as less than the LOD or as defined by the project. The detection limit is adjusted for dilution.
- i The MRL/MDL or LOQ/LOD is elevated due to a matrix interference.
- X See case narrative.
- Q See case narrative. One or more quality control criteria was outside the limits.
- H The holding time for this test is immediately following sample collection. The samples were analyzed as soon as possible after receipt by the laboratory.

Metals Data Qualifiers

- # The control limit criteria is not applicable.
- J The result is an estimated value.
- E The percent difference for the serial dilution was greater than 10%, indicating a possible matrix interference in the sample.
- M The duplicate injection precision was not met.
- N The Matrix Spike sample recovery is not within control limits. See case narrative.
- S The reported value was determined by the Method of Standard Additions (MSA).
- U The analyte was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL.
DOD-QSM 4.2 definition : Analyte was not detected and is reported as less than the LOD or as defined by the project. The detection limit is adjusted for dilution.
- W The post-digestion spike for furnace AA analysis is out of control limits, while sample absorbance is less than 50% of spike absorbance.
 - i The MRL/MDL or LOQ/LOD is elevated due to a matrix interference.
- X See case narrative.
- + The correlation coefficient for the MSA is less than 0.995.
- Q See case narrative. One or more quality control criteria was outside the limits.

Organic Data Qualifiers

- * The result is an outlier. See case narrative.
- # The control limit criteria is not applicable. See case narrative.
- A A tentatively identified compound, a suspected aldol-condensation product.
- B The analyte was found in the associated method blank at a level that is significant relative to the sample result as defined by the DOD or NELAC standards.
- C The analyte was qualitatively confirmed using GC/MS techniques, pattern recognition, or by comparing to historical data.
- D The reported result is from a dilution.
- E The result is an estimated value.
- J The result is an estimated value.
- N The result is presumptive. The analyte was tentatively identified, but a confirmation analysis was not performed.
- P The GC or HPLC confirmation criteria was exceeded. The relative percent difference is greater than 40% between the two analytical results.
- U The analyte was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL.
DOD-QSM 4.2 definition : Analyte was not detected and is reported as less than the LOD or as defined by the project. The detection limit is adjusted for dilution.
 - i The MRL/MDL or LOQ/LOD is elevated due to a chromatographic interference.
- X See case narrative.
- Q See case narrative. One or more quality control criteria was outside the limits.

Additional Petroleum Hydrocarbon Specific Qualifiers

- F The chromatographic fingerprint of the sample matches the elution pattern of the calibration standard.
- L The chromatographic fingerprint of the sample resembles a petroleum product, but the elution pattern indicates the presence of a greater amount of lighter molecular weight constituents than the calibration standard.
- H The chromatographic fingerprint of the sample resembles a petroleum product, but the elution pattern indicates the presence of a greater amount of heavier molecular weight constituents than the calibration standard.
- O The chromatographic fingerprint of the sample resembles an oil, but does not match the calibration standard.
- Y The chromatographic fingerprint of the sample resembles a petroleum product eluting in approximately the correct carbon range, but the elution pattern does not match the calibration standard.
- Z The chromatographic fingerprint does not resemble a petroleum product.

**ALS Group USA Corp. dba ALS Environmental (ALS) - Kelso
State Certifications, Accreditations, and Licenses**

Agency	Web Site	Number
Alaska DEH	http://dec.alaska.gov/eh/lab/cs/csapproval.htm	UST-040
Arizona DHS	http://www.azdhs.gov/lab/license/env.htm	AZ0339
Arkansas - DEQ	http://www.adeq.state.ar.us/techsvs/labcert.htm	88-0637
California DHS (ELAP)	http://www.cdph.ca.gov/certlic/labs/Pages/ELAP.aspx	2795
DOD ELAP	http://www.denix.osd.mil/edqw/Accreditation/AccreditedLabs.cfm	L16-58-R4
Florida DOH	http://www.doh.state.fl.us/lab/EnvLabCert/WaterCert.htm	E87412
Hawaii DOH	http://health.hawaii.gov/	-
ISO 17025	http://www.pjllabs.com/	L16-57
Louisiana DEQ	http://www.deq.louisiana.gov/page/la-lab-accreditation	03016
Maine DHS	http://www.maine.gov/dhhs/	WA01276
Minnesota DOH	http://www.health.state.mn.us/accreditation	053-999-457
Nevada DEP	http://ndep.nv.gov/bsdw/labservice.htm	WA01276
New Jersey DEP	http://www.nj.gov/dep/enforcement/oqa.html	WA005
New York - DOH	https://www.wadsworth.org/regulatory/elap	12060
North Carolina DEQ	https://deq.nc.gov/about/divisions/water-resources/water-resources-data/water-sciences-home-page/laboratory-certification-branch/non-field-lab-certification	605
Oklahoma DEQ	http://www.deq.state.ok.us/CSDnew/labcert.htm	9801
Oregon – DEQ (NELAP)	http://public.health.oregon.gov/LaboratoryServices/EnvironmentalLaboratoryAccreditation/Pages/index.aspx	WA100010
South Carolina DHEC	http://www.scdhec.gov/environment/EnvironmentalLabCertification/	61002
Texas CEQ	http://www.tceq.texas.gov/field/qa/env_lab_accreditation.html	T104704427
Washington DOE	http://www.ecy.wa.gov/programs/eap/labs/lab-accreditation.html	C544
Wyoming (EPA Region 8)	https://www.epa.gov/region8-waterops/epa-region-8-certified-drinking-water	-
Kelso Laboratory Website	www.alsglobal.com	NA

Analyses were performed according to our laboratory's NELAP-approved quality assurance program. A complete listing of specific NELAP-certified analytes, can be found in the certification section at www.ALSGlobal.com or at the accreditation bodies web site.

Please refer to the certification and/or accreditation body's web site if samples are submitted for compliance purposes. The states highlighted above, require the analysis be listed on the state certification if used for compliance purposes and if the method/analyte is offered by that state.

Acronyms

ASTM	American Society for Testing and Materials
A2LA	American Association for Laboratory Accreditation
CARB	California Air Resources Board
CAS Number	Chemical Abstract Service registry Number
CFC	Chlorofluorocarbon
CFU	Colony-Forming Unit
DEC	Department of Environmental Conservation
DEQ	Department of Environmental Quality
DHS	Department of Health Services
DOE	Department of Ecology
DOH	Department of Health
EPA	U. S. Environmental Protection Agency
ELAP	Environmental Laboratory Accreditation Program
GC	Gas Chromatography
GC/MS	Gas Chromatography/Mass Spectrometry
LOD	Limit of Detection
LOQ	Limit of Quantitation
LUFT	Leaking Underground Fuel Tank
M	Modified
MCL	Maximum Contaminant Level is the highest permissible concentration of a substance allowed in drinking water as established by the USEPA.
MDL	Method Detection Limit
MPN	Most Probable Number
MRL	Method Reporting Limit
NA	Not Applicable
NC	Not Calculated
NCASI	National Council of the Paper Industry for Air and Stream Improvement
ND	Not Detected
NIOSH	National Institute for Occupational Safety and Health
PQL	Practical Quantitation Limit
RCRA	Resource Conservation and Recovery Act
SIM	Selected Ion Monitoring
TPH	Total Petroleum Hydrocarbons
tr	Trace level is the concentration of an analyte that is less than the PQL but greater than or equal to the MDL.

ALS Group USA, Corp.
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Analyst Summary report

Client: Anchor QEA, LLC
Project: Barry/201114-01.02 Task 09

Service Request: K2207162

Sample Name: BY-GBT-MW-10-FS
Lab Code: K2207162-001
Sample Matrix: Water

Date Collected: 06/23/22
Date Received: 06/27/22

Analysis Method
200.8

Extracted/Digested By
SSOLADEY

Analyzed By
EMCALLISTER

Sample Name: BY-GBT-MW-10-FC
Lab Code: K2207162-002
Sample Matrix: Water

Date Collected: 06/23/22
Date Received: 06/27/22

Analysis Method
200.8

Extracted/Digested By
SSOLADEY

Analyzed By
EMCALLISTER

Sample Name: BY-GBT-MW-10-CER
Lab Code: K2207162-003
Sample Matrix: Water

Date Collected: 06/23/22
Date Received: 06/27/22

Analysis Method
200.8

Extracted/Digested By
SSOLADEY

Analyzed By
EMCALLISTER

Sample Name: BY-GBT-MW-10-PM
Lab Code: K2207162-004
Sample Matrix: Water

Date Collected: 06/23/22
Date Received: 06/27/22

Analysis Method
200.8

Extracted/Digested By
SSOLADEY

Analyzed By
EMCALLISTER

Sample Name: BY-GBT-MW-10-FS-PM
Lab Code: K2207162-005
Sample Matrix: Water

Date Collected: 06/23/22
Date Received: 06/27/22

Analysis Method
200.8

Extracted/Digested By
SSOLADEY

Analyzed By
EMCALLISTER

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Analyst Summary report

Client: Anchor QEA, LLC
Project: Barry/201114-01.02 Task 09

Service Request: K2207162

Sample Name: BY-GBT-MW-10-FC-PM-MC
Lab Code: K2207162-006
Sample Matrix: Water

Date Collected: 06/23/22
Date Received: 06/27/22

Analysis Method
200.8

Extracted/Digested By
SSOLADEY

Analyzed By
EMCALLISTER

Sample Name: BY-GBT-MW-10-BC
Lab Code: K2207162-007
Sample Matrix: Water

Date Collected: 06/23/22
Date Received: 06/27/22

Analysis Method
200.8

Extracted/Digested By
SSOLADEY

Analyzed By
EMCALLISTER

Sample Name: BY-GBT-MW-10-AIR
Lab Code: K2207162-008
Sample Matrix: Water

Date Collected: 06/23/22
Date Received: 06/27/22

Analysis Method
200.8

Extracted/Digested By
SSOLADEY

Analyzed By
EMCALLISTER

Sample Name: BY-GBT-MW-10-FS-DUP
Lab Code: K2207162-009
Sample Matrix: Water

Date Collected: 06/23/22
Date Received: 06/27/22

Analysis Method
200.8

Extracted/Digested By
SSOLADEY

Analyzed By
EMCALLISTER

Sample Name: BY-GBT-MW-10-CTRL
Lab Code: K2207162-010
Sample Matrix: Water

Date Collected: 06/23/22
Date Received: 06/27/22

Analysis Method
200.8

Extracted/Digested By
SSOLADEY

Analyzed By
EMCALLISTER

ALS Group USA, Corp.
dba ALS Environmental

Analyst Summary report

Client: Anchor QEA, LLC
Project: Barry/201114-01.02 Task 09

Service Request: K2207162

Sample Name: BY-GBT-MW-10-BC-NaSO4
Lab Code: K2207162-011
Sample Matrix: Water

Date Collected: 06/23/22
Date Received: 06/27/22

Analysis Method
200.8

Extracted/Digested By
SSOLADEY

Analyzed By
EMCALLISTER



Sample Results

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Analytical Report

Client: Anchor QEA, LLC
Project: Barry/201114-01.02 Task 09
Sample Matrix: Water
Sample Name: BY-GBT-MW-10-FS
Lab Code: K2207162-001

Service Request: K2207162
Date Collected: 06/23/22 08:55
Date Received: 06/27/22 10:20
Basis: NA

Dissolved Metals

<u>Analyte Name</u>	<u>Analysis Method</u>	<u>Result</u>	<u>Units</u>	<u>MRL</u>	<u>MDL</u>	<u>Dil.</u>	<u>Date Analyzed</u>	<u>Date Extracted</u>	<u>Q</u>
Arsenic	200.8	4.76	ug/L	0.50	0.09	1	07/19/22 12:41	07/14/22	

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Analytical Report

Client: Anchor QEA, LLC
Project: Barry/201114-01.02 Task 09
Sample Matrix: Water
Sample Name: BY-GBT-MW-10-FC
Lab Code: K2207162-002

Service Request: K2207162
Date Collected: 06/23/22 09:00
Date Received: 06/27/22 10:20
Basis: NA

Dissolved Metals

<u>Analyte Name</u>	<u>Analysis Method</u>	<u>Result</u>	<u>Units</u>	<u>MRL</u>	<u>MDL</u>	<u>Dil.</u>	<u>Date Analyzed</u>	<u>Date Extracted</u>	<u>Q</u>
Arsenic	200.8	0.55	ug/L	0.50	0.09	1	07/19/22 12:45	07/14/22	

ALS Group USA, Corp.
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Analytical Report

Client: Anchor QEA, LLC
Project: Barry/201114-01.02 Task 09
Sample Matrix: Water
Sample Name: BY-GBT-MW-10-CER
Lab Code: K2207162-003

Service Request: K2207162
Date Collected: 06/23/22 09:05
Date Received: 06/27/22 10:20
Basis: NA

Dissolved Metals

<u>Analyte Name</u>	<u>Analysis Method</u>	<u>Result</u>	<u>Units</u>	<u>MRL</u>	<u>MDL</u>	<u>Dil.</u>	<u>Date Analyzed</u>	<u>Date Extracted</u>	<u>Q</u>
Arsenic	200.8	6.57	ug/L	0.50	0.09	1	07/19/22 12:46	07/14/22	

ALS Group USA, Corp.
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Analytical Report

Client: Anchor QEA, LLC
Project: Barry/201114-01.02 Task 09
Sample Matrix: Water
Sample Name: BY-GBT-MW-10-PM
Lab Code: K2207162-004

Service Request: K2207162
Date Collected: 06/23/22 09:10
Date Received: 06/27/22 10:20
Basis: NA

Dissolved Metals

<u>Analyte Name</u>	<u>Analysis Method</u>	<u>Result</u>	<u>Units</u>	<u>MRL</u>	<u>MDL</u>	<u>Dil.</u>	<u>Date Analyzed</u>	<u>Date Extracted</u>	<u>Q</u>
Arsenic	200.8	0.33 J	ug/L	0.50	0.09	1	07/19/22 12:48	07/14/22	

ALS Group USA, Corp.
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Analytical Report

Client: Anchor QEA, LLC
Project: Barry/201114-01.02 Task 09
Sample Matrix: Water
Sample Name: BY-GBT-MW-10-FS-PM
Lab Code: K2207162-005

Service Request: K2207162
Date Collected: 06/23/22 09:15
Date Received: 06/27/22 10:20
Basis: NA

Dissolved Metals

<u>Analyte Name</u>	<u>Analysis Method</u>	<u>Result</u>	<u>Units</u>	<u>MRL</u>	<u>MDL</u>	<u>Dil.</u>	<u>Date Analyzed</u>	<u>Date Extracted</u>	<u>Q</u>
Arsenic	200.8	0.74	ug/L	0.50	0.09	1	07/19/22 12:49	07/14/22	

ALS Group USA, Corp.
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Analytical Report

Client: Anchor QEA, LLC
Project: Barry/201114-01.02 Task 09
Sample Matrix: Water
Sample Name: BY-GBT-MW-10-FC-PM-MC
Lab Code: K2207162-006

Service Request: K2207162
Date Collected: 06/23/22 09:20
Date Received: 06/27/22 10:20
Basis: NA

Dissolved Metals

<u>Analyte Name</u>	<u>Analysis Method</u>	<u>Result</u>	<u>Units</u>	<u>MRL</u>	<u>MDL</u>	<u>Dil.</u>	<u>Date Analyzed</u>	<u>Date Extracted</u>	<u>Q</u>
Arsenic	200.8	0.60	ug/L	0.50	0.09	1	07/19/22 12:50	07/14/22	

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Analytical Report

Client: Anchor QEA, LLC
Project: Barry/201114-01.02 Task 09
Sample Matrix: Water
Sample Name: BY-GBT-MW-10-BC
Lab Code: K2207162-007

Service Request: K2207162
Date Collected: 06/23/22 09:25
Date Received: 06/27/22 10:20
Basis: NA

Dissolved Metals

<u>Analyte Name</u>	<u>Analysis Method</u>	<u>Result</u>	<u>Units</u>	<u>MRL</u>	<u>MDL</u>	<u>Dil.</u>	<u>Date Analyzed</u>	<u>Date Extracted</u>	<u>Q</u>
Arsenic	200.8	2.48	ug/L	0.50	0.09	1	07/19/22 12:54	07/14/22	

ALS Group USA, Corp.
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Analytical Report

Client: Anchor QEA, LLC
Project: Barry/201114-01.02 Task 09
Sample Matrix: Water
Sample Name: BY-GBT-MW-10-AIR
Lab Code: K2207162-008

Service Request: K2207162
Date Collected: 06/23/22 09:30
Date Received: 06/27/22 10:20
Basis: NA

Dissolved Metals

<u>Analyte Name</u>	<u>Analysis Method</u>	<u>Result</u>	<u>Units</u>	<u>MRL</u>	<u>MDL</u>	<u>Dil.</u>	<u>Date Analyzed</u>	<u>Date Extracted</u>	<u>Q</u>
Arsenic	200.8	14.8	ug/L	0.50	0.09	1	07/19/22 12:56	07/14/22	

ALS Group USA, Corp.
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Analytical Report

Client: Anchor QEA, LLC
Project: Barry/201114-01.02 Task 09
Sample Matrix: Water
Sample Name: BY-GBT-MW-10-FS-DUP
Lab Code: K2207162-009

Service Request: K2207162
Date Collected: 06/23/22 09:35
Date Received: 06/27/22 10:20
Basis: NA

Dissolved Metals

<u>Analyte Name</u>	<u>Analysis Method</u>	<u>Result</u>	<u>Units</u>	<u>MRL</u>	<u>MDL</u>	<u>Dil.</u>	<u>Date Analyzed</u>	<u>Date Extracted</u>	<u>Q</u>
Arsenic	200.8	1.38	ug/L	0.50	0.09	1	07/19/22 12:57	07/14/22	

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Analytical Report

Client: Anchor QEA, LLC
Project: Barry/201114-01.02 Task 09
Sample Matrix: Water
Sample Name: BY-GBT-MW-10-CTRL
Lab Code: K2207162-010

Service Request: K2207162
Date Collected: 06/23/22 09:40
Date Received: 06/27/22 10:20
Basis: NA

Dissolved Metals

<u>Analyte Name</u>	<u>Analysis Method</u>	<u>Result</u>	<u>Units</u>	<u>MRL</u>	<u>MDL</u>	<u>Dil.</u>	<u>Date Analyzed</u>	<u>Date Extracted</u>	<u>Q</u>
Arsenic	200.8	3.50	ug/L	0.50	0.09	1	07/19/22 12:58	07/14/22	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Anchor QEA, LLC
Project: Barry/201114-01.02 Task 09
Sample Matrix: Water
Sample Name: BY-GBT-MW-10-BC-NaSO4
Lab Code: K2207162-011

Service Request: K2207162
Date Collected: 06/23/22 09:45
Date Received: 06/27/22 10:20
Basis: NA

Dissolved Metals

<u>Analyte Name</u>	<u>Analysis Method</u>	<u>Result</u>	<u>Units</u>	<u>MRL</u>	<u>MDL</u>	<u>Dil.</u>	<u>Date Analyzed</u>	<u>Date Extracted</u>	<u>Q</u>
Arsenic	200.8	2.71	ug/L	0.50	0.09	1	07/19/22 12:17	07/15/22	



QC Summary Forms

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dba ALS Environmental

Analytical Report

Client: Anchor QEA, LLC
Project: Barry/201114-01.02 Task 09
Sample Matrix: Water
Sample Name: Method Blank
Lab Code: KQ2210588-01

Service Request: K2207162
Date Collected: NA
Date Received: NA
Basis: NA

Dissolved Metals

<u>Analyte Name</u>	<u>Analysis Method</u>	<u>Result</u>	<u>Units</u>	<u>MRL</u>	<u>MDL</u>	<u>Dil.</u>	<u>Date Analyzed</u>	<u>Date Extracted</u>	<u>Q</u>
Arsenic	200.8	ND U	ug/L	0.50	0.09	1	07/19/22 12:38	07/14/22	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Anchor QEA, LLC
Project: Barry/201114-01.02 Task 09
Sample Matrix: Water
Sample Name: Method Blank
Lab Code: KQ2210685-06

Service Request: K2207162
Date Collected: NA
Date Received: NA
Basis: NA

Dissolved Metals

<u>Analyte Name</u>	<u>Analysis Method</u>	<u>Result</u>	<u>Units</u>	<u>MRL</u>	<u>MDL</u>	<u>Dil.</u>	<u>Date Analyzed</u>	<u>Date Extracted</u>	<u>Q</u>
Arsenic	200.8	ND U	ug/L	0.50	0.09	1	07/19/22 11:59	07/15/22	

ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client: Anchor QEA, LLC
Project: Barry/201114-01.02 Task 09
Sample Matrix: Water

Service Request: K2207162
Date Collected: 06/23/22
Date Received: 06/27/22
Date Analyzed: 07/19/22
Date Extracted: 07/14/22

Matrix Spike Summary
Dissolved Metals

Sample Name: BY-GBT-MW-10-FS
Lab Code: K2207162-001
Analysis Method: 200.8
Prep Method: EPA CLP ILM04.0

Units: ug/L
Basis: NA

Matrix Spike
KQ2210588-03

<u>Analyte Name</u>	<u>Sample Result</u>	<u>Result</u>	<u>Spike Amount</u>	<u>% Rec</u>	<u>% Rec Limits</u>
Arsenic	4.76	52.3	50.0	95	70-130

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

Matrix Spike and Matrix Spike Duplicate Data is presented for information purposes only. The matrix may or may not be relevant to samples reported in this report. The laboratory evaluates system performance based on the LCS and LCSD control limits.

ALS Group USA, Corp.

dba ALS Environmental

QA/QC Report

Client: Anchor QEA, LLC
Project Barry/201114-01.02 Task 09
Sample Matrix: Water

Service Request: K2207162
Date Collected: 06/23/22
Date Received: 06/27/22
Date Analyzed: 07/19/22

Replicate Sample Summary
Dissolved Metals

Sample Name: BY-GBT-MW-10-FS
Lab Code: K2207162-001

Units: ug/L
Basis: NA

Analyte Name	Analysis Method	MRL	MDL	Sample Result	Duplicate	Average	RPD	RPD Limit
					Sample KQ2210588-04 Result			
Arsenic	200.8	0.50	0.09	4.76	4.79	4.78	<1	20

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client: Anchor QEA, LLC
Project: Barry/201114-01.02 Task 09
Sample Matrix: Water

Service Request: K2207162
Date Analyzed: 07/19/22

Lab Control Sample Summary
Dissolved Metals

Units:ug/L
Basis:NA

Lab Control Sample
KQ2210588-02

Analyte Name	Analytical Method	Result	Spike Amount	% Rec	% Rec Limits
Arsenic	200.8	48.4	50.0	97	85-115

ALS Group USA, Corp.

dba ALS Environmental

QA/QC Report

Client: Anchor QEA, LLC
Project: Barry/201114-01.02 Task 09
Sample Matrix: Water

Service Request: K2207162

Date Analyzed: 07/19/22

Lab Control Sample Summary
Dissolved Metals

Units:ug/L

Basis:NA

Lab Control Sample

KQ2210685-07

Analyte Name	Analytical Method	Result	Spike Amount	% Rec	% Rec Limits
Arsenic	200.8	48.7	50.0	97	85-115



July 19, 2022

Service Request No:K2207163

Masa Kanematsu
Anchor QEA, LLC
6720 SW Macadam Avenue
Suite 125
Portland, OR 97219

Laboratory Results for: Barry

Dear Masa,

Enclosed are the results of the sample(s) submitted to our laboratory June 27, 2022
For your reference, these analyses have been assigned our service request number **K2207163**.

Analyses were performed according to our laboratory's NELAP-approved quality assurance program. The test results meet requirements of the current NELAP standards, where applicable, and except as noted in the laboratory case narrative provided. For a specific list of NELAP-accredited analytes, refer to the certifications section at www.alsglobal.com. All results are intended to be considered in their entirety, and ALS Group USA Corp. dba ALS Environmental (ALS) is not responsible for use of less than the complete report. Results apply only to the items submitted to the laboratory for analysis and individual items (samples) analyzed, as listed in the report.

Please contact me if you have any questions. My extension is 3376. You may also contact me via email at Mark.Harris@alsglobal.com.

Respectfully submitted,

ALS Group USA, Corp. dba ALS Environmental

Mark Harris
Project Manager

ADDRESS 1317 S. 13th Avenue, Kelso, WA 98626
PHONE +1 360 577 7222 | FAX +1 360 636 1068
ALS Group USA, Corp.
dba ALS Environmental



Narrative Documents

ALS Environmental—Kelso Laboratory
1317 South 13th Avenue, Kelso, WA 98626
Phone (360) 577-7222 Fax (360) 425-9096
www.alsglobal.com



Client: Anchor QEA, LLC
Project: Barry
Sample Matrix: Water

Service Request: K2207163
Date Received: 06/27/2022

CASE NARRATIVE

All analyses were performed consistent with the quality assurance program of ALS Environmental. This report contains analytical results for samples for the Tier II level requested by the client.

Sample Receipt:

Eleven water samples were received for analysis at ALS Environmental on 06/27/2022. Any discrepancies upon initial sample inspection are annotated on the sample receipt and preservation form included within this report. The samples were stored at minimum in accordance with the analytical method requirements.

Metals:

No significant anomalies were noted with this analysis.

Approved by _____

Date 07/19/2022



SAMPLE DETECTION SUMMARY

This form includes only detections above the reporting levels. For a full listing of sample results, continue to the Sample Results section of this Report.

CLIENT ID: BY-SBT-MW-10-FS		Lab ID: K2207163-001				
Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	14.3		0.09	0.50	ug/L	200.8
CLIENT ID: BY-SBT-MW-10-FC		Lab ID: K2207163-002				
Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	0.47	J	0.09	0.50	ug/L	200.8
CLIENT ID: BY-SBT-MW-10-CER		Lab ID: K2207163-003				
Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	1.40		0.09	0.50	ug/L	200.8
CLIENT ID: BY-SBT-MW-10-PM		Lab ID: K2207163-004				
Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	0.26	J	0.09	0.50	ug/L	200.8
CLIENT ID: BY-SBT-MW-10-FS-PM		Lab ID: K2207163-005				
Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	0.63		0.09	0.50	ug/L	200.8
CLIENT ID: BY-SBT-MW-10-FC-PM-MC		Lab ID: K2207163-006				
Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	1.11		0.09	0.50	ug/L	200.8
CLIENT ID: BY-SBT-MW-10-BC		Lab ID: K2207163-007				
Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	1.55		0.09	0.50	ug/L	200.8
CLIENT ID: BY-SBT-MW-10-AIR		Lab ID: K2207163-008				
Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	6.58		0.09	0.50	ug/L	200.8
CLIENT ID: BY-SBT-MW-10-FS-DUP		Lab ID: K2207163-009				
Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	15.0		0.09	0.50	ug/L	200.8
CLIENT ID: BY-SBT-MW-10-CTRL		Lab ID: K2207163-010				
Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	1.58		0.09	0.50	ug/L	200.8
CLIENT ID: BY-SBT-MW-10-BC-NaSO4		Lab ID: K2207163-011				
Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	3.79		0.09	0.50	ug/L	200.8



Sample Receipt Information

ALS Environmental—Kelso Laboratory
1317 South 13th Avenue, Kelso, WA 98626
Phone (360) 577-7222 Fax (360) 425-9096
www.alsglobal.com

Client: Anchor QEA, LLC
Project: Barry/201114-01.02 Task 09


Service Request:K2207163

SAMPLE CROSS-REFERENCE

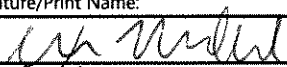
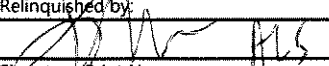
<u>SAMPLE #</u>	<u>CLIENT SAMPLE ID</u>	<u>DATE</u>	<u>TIME</u>
K2207163-001	BY-SBT-MW-10-FS	6/23/2022	0800
K2207163-002	BY-SBT-MW-10-FC	6/23/2022	0805
K2207163-003	BY-SBT-MW-10-CER	6/23/2022	0810
K2207163-004	BY-SBT-MW-10-PM	6/23/2022	0815
K2207163-005	BY-SBT-MW-10-FS-PM	6/23/2022	0820
K2207163-006	BY-SBT-MW-10-FC-PM-MC	6/23/2022	0825
K2207163-007	BY-SBT-MW-10-BC	6/23/2022	0830
K2207163-008	BY-SBT-MW-10-AIR	6/23/2022	0835
K2207163-009	BY-SBT-MW-10-FS-DUP	6/23/2022	0840
K2207163-010	BY-SBT-MW-10-CTRL	6/23/2022	0845
K2207163-011	BY-SBT-MW-10-BC-NaSO4	6/23/2022	0850

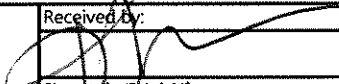
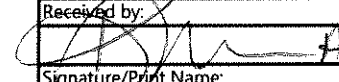
K2207163

Chain of Custody Record & Laboratory Analysis Request

Laboratory Number: 503-972-5019					No. of Containers	Parameters										 Jessica Goin 6720 SW Macadam Ave Suite 125 Portland OR 97219 Comments/Preservation							
Date:	6/27/2022					As (dissolved)																	
Project Name:	Barry																						
Project Number:	201114-01.02 Task 09																						
Project Manager:	Masa Kanematsu																						
Phone Number:	503-972-5001 (backup number: 971.334.8193)																						
Shipment Method:	ALS Carrier																						
Line	Field Sample ID	Collection		Matrix	No. of Containers	As (dissolved)														Comments/Preservation			
		Date	Time																				
1	BY-SBT-MW-10-FS	6/23/2022	6/23/22 8:00	Water	1	X															HNO3 preserved. Field Filtered.		
2	BY-SBT-MW-10-FC	6/23/2022	6/23/22 8:05	Water	1	X															HNO3 preserved. Field Filtered.		
3	BY-SBT-MW-10-CER	6/23/2022	6/23/22 8:10	Water	1	X															HNO3 preserved. Field Filtered.		
4	BY-SBT-MW-10-PM	6/23/2022	6/23/22 8:15	Water	1	X															HNO3 preserved. Field Filtered. KMnO4 added		
5	BY-SBT-MW-10-FS-PM	6/23/2022	6/23/22 8:20	Water	1	X															HNO3 preserved. Field Filtered. KMnO4 added		
6	BY-SBT-MW-10-FC-PM-MC	6/23/2022	6/23/22 8:25	Water	1	X															HNO3 preserved. Field Filtered. KMnO4 added		
7	BY-SBT-MW-10-BC	6/23/2022	6/23/22 8:30	Water	1	X															HNO3 preserved. Field Filtered.		
8	BY-SBT-MW-10-AIR	6/23/2022	6/23/22 8:35	Water	1	X															HNO3 preserved. Field Filtered.		
9	BY-SBT-MW-10-FS-DUP	6/23/2022	6/23/22 8:40	Water	1	X															HNO3 preserved. Field Filtered.		
10	BY-SBT-MW-10-CTRL	6/23/2022	6/23/22 8:45	Water	1	X															HNO3 preserved. Field Filtered.		
11	BY-SBT-MW-10-BC-NaSO4	6/23/2022	6/23/22 8:50	Water	1	X															HNO3 preserved. Field Filtered.		
12																							
13																							
14																							
15																							
16																							

Notes: Please Contact Masa (503-972-5001, mkanematsu@anchorqea.com) if running > 10X dilution. Please analyze by ICP-MS method 200.8 to achieve the MDL < 1 ppb. Some samples may have residual purple color associated with potassium permanganate (KMnO4). If those samples need to be diluted in order to not damage the ICP-MS, please do so and let Masa know the dilution factor.

Relinquished by:	Company:
Emma Nordlund	Anchor QEA
Signature/Print Name:	Date/Time:
	6/27/22 08:00
Relinquished by:	Company:
 ALS	ALS
Signature/Print Name:	Date/Time:
	6/27/22 1020

Received by:

Signature/Print Name:
KANON ALS 6/27/22 0820
Received by:

Signature/Print Name:
ALS 6/27/22 1020

Distribution: A copy will be made for the laboratory and client. The Project file will retain the original.

Cooler Receipt and Preservation Form

Client: Anchor QEA Service Request K22 07163
 Received: 6/27/22 Opened: 6/27/22 By: [Signature] Unloaded: 6/27/22 By: [Signature]

Samples were received via? USPS Fed Ex UPS DHL PDX Courier Hand Delivered
 Samples were received in: (circle) Cooler Box Envelope Other NA
 Were custody seals on coolers? NA Y N If yes, how many and where? _____
 If present, were custody seals intact? Y N If present, were they signed and dated? Y N

Temp Blank	Sample Temp	IR Gun	Cooler #/COC ID / NA	Out of temp indicate with 'X'	PM Notified If out of temp	Tracking Number NA	Filed
<u>5.3</u>		<u>IR01</u>					

Was a Temperature Blank present in cooler? NA Y N If yes, notate the temperature in the appropriate column above:
 If no, take the temperature of a representative sample bottle contained within the cooler; notate in the column "Sample Temp":
 Were samples received within the method specified temperature ranges? NA Y N
 If no, were they received on ice and same day as collected? If not, notate the cooler # below and notify the PM. NA Y N

applicable, tissue samples were received: Frozen Partially Thawed Thawed
 Packing material: Inserts Baggies Bubble Wrap Gel Packs Wet Ice Dry Ice Sleeves
 Were custody papers properly filled out (ink, signed, etc.)? NA Y N
 Were samples received in good condition (unbroken) NA Y N
 Were all sample labels complete (ie, analysis, preservation, etc.)? NA Y N
 Did all sample labels and tags agree with custody papers? NA Y N
 Were appropriate bottles/containers and volumes received for the tests indicated? NA Y N
 Were the pH-preserved bottles (see SMO GEN SOP) received at the appropriate pH? Indicate in the table below NA Y N
 Were VOA vials received without headspace? Indicate in the table below. NA Y N
 Was C12/Res negative? NA Y N
 Were 100ml sterile microbiology bottles filled exactly to the 100ml mark? NA Y N Under filled Overfilled

Sample ID on Bottle	Sample ID on COC	Identified by:

Sample ID	Bottle Count	Bottle Type	Head-space	Broke	pH	Reagent	Volume added	Reagent Lot Number	Initials	Time

Notes, Discrepancies, Resolutions: _____



Miscellaneous Forms

ALS Environmental—Kelso Laboratory
1317 South 13th Avenue, Kelso, WA 98626
Phone (360) 577-7222 Fax (360) 425-9096
www.alsglobal.com

Inorganic Data Qualifiers

- * The result is an outlier. See case narrative.
- # The control limit criteria is not applicable.
- B The analyte was found in the associated method blank at a level that is significant relative to the sample result as defined by the DOD or NELAC standards.
- E The result is an estimate amount because the value exceeded the instrument calibration range.
- J The result is an estimated value.
- U The analyte was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL.
DOD-QSM 4.2 definition : Analyte was not detected and is reported as less than the LOD or as defined by the project. The detection limit is adjusted for dilution.
- i The MRL/MDL or LOQ/LOD is elevated due to a matrix interference.
- X See case narrative.
- Q See case narrative. One or more quality control criteria was outside the limits.
- H The holding time for this test is immediately following sample collection. The samples were analyzed as soon as possible after receipt by the laboratory.

Metals Data Qualifiers

- # The control limit criteria is not applicable.
- J The result is an estimated value.
- E The percent difference for the serial dilution was greater than 10%, indicating a possible matrix interference in the sample.
- M The duplicate injection precision was not met.
- N The Matrix Spike sample recovery is not within control limits. See case narrative.
- S The reported value was determined by the Method of Standard Additions (MSA).
- U The analyte was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL.
DOD-QSM 4.2 definition : Analyte was not detected and is reported as less than the LOD or as defined by the project. The detection limit is adjusted for dilution.
- W The post-digestion spike for furnace AA analysis is out of control limits, while sample absorbance is less than 50% of spike absorbance.
 - i The MRL/MDL or LOQ/LOD is elevated due to a matrix interference.
- X See case narrative.
- + The correlation coefficient for the MSA is less than 0.995.
- Q See case narrative. One or more quality control criteria was outside the limits.

Organic Data Qualifiers

- * The result is an outlier. See case narrative.
- # The control limit criteria is not applicable. See case narrative.
- A A tentatively identified compound, a suspected aldol-condensation product.
- B The analyte was found in the associated method blank at a level that is significant relative to the sample result as defined by the DOD or NELAC standards.
- C The analyte was qualitatively confirmed using GC/MS techniques, pattern recognition, or by comparing to historical data.
- D The reported result is from a dilution.
- E The result is an estimated value.
- J The result is an estimated value.
- N The result is presumptive. The analyte was tentatively identified, but a confirmation analysis was not performed.
- P The GC or HPLC confirmation criteria was exceeded. The relative percent difference is greater than 40% between the two analytical results.
- U The analyte was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL.
DOD-QSM 4.2 definition : Analyte was not detected and is reported as less than the LOD or as defined by the project. The detection limit is adjusted for dilution.
 - i The MRL/MDL or LOQ/LOD is elevated due to a chromatographic interference.
- X See case narrative.
- Q See case narrative. One or more quality control criteria was outside the limits.

Additional Petroleum Hydrocarbon Specific Qualifiers

- F The chromatographic fingerprint of the sample matches the elution pattern of the calibration standard.
- L The chromatographic fingerprint of the sample resembles a petroleum product, but the elution pattern indicates the presence of a greater amount of lighter molecular weight constituents than the calibration standard.
- H The chromatographic fingerprint of the sample resembles a petroleum product, but the elution pattern indicates the presence of a greater amount of heavier molecular weight constituents than the calibration standard.
- O The chromatographic fingerprint of the sample resembles an oil, but does not match the calibration standard.
- Y The chromatographic fingerprint of the sample resembles a petroleum product eluting in approximately the correct carbon range, but the elution pattern does not match the calibration standard.
- Z The chromatographic fingerprint does not resemble a petroleum product.

**ALS Group USA Corp. dba ALS Environmental (ALS) - Kelso
State Certifications, Accreditations, and Licenses**

Agency	Web Site	Number
Alaska DEH	http://dec.alaska.gov/eh/lab/cs/csapproval.htm	UST-040
Arizona DHS	http://www.azdhs.gov/lab/license/env.htm	AZ0339
Arkansas - DEQ	http://www.adeq.state.ar.us/techsvs/labcert.htm	88-0637
California DHS (ELAP)	http://www.cdph.ca.gov/certlic/labs/Pages/ELAP.aspx	2795
DOD ELAP	http://www.denix.osd.mil/edqw/Accreditation/AccreditedLabs.cfm	L16-58-R4
Florida DOH	http://www.doh.state.fl.us/lab/EnvLabCert/WaterCert.htm	E87412
Hawaii DOH	http://health.hawaii.gov/	-
ISO 17025	http://www.pjllabs.com/	L16-57
Louisiana DEQ	http://www.deq.louisiana.gov/page/la-lab-accreditation	03016
Maine DHS	http://www.maine.gov/dhhs/	WA01276
Minnesota DOH	http://www.health.state.mn.us/accreditation	053-999-457
Nevada DEP	http://ndep.nv.gov/bsdw/labservice.htm	WA01276
New Jersey DEP	http://www.nj.gov/dep/enforcement/oqa.html	WA005
New York - DOH	https://www.wadsworth.org/regulatory/elap	12060
North Carolina DEQ	https://deq.nc.gov/about/divisions/water-resources/water-resources-data/water-sciences-home-page/laboratory-certification-branch/non-field-lab-certification	605
Oklahoma DEQ	http://www.deq.state.ok.us/CSDnew/labcert.htm	9801
Oregon – DEQ (NELAP)	http://public.health.oregon.gov/LaboratoryServices/EnvironmentalLaboratoryAccreditation/Pages/index.aspx	WA100010
South Carolina DHEC	http://www.scdhec.gov/environment/EnvironmentalLabCertification/	61002
Texas CEQ	http://www.tceq.texas.gov/field/qa/env_lab_accreditation.html	T104704427
Washington DOE	http://www.ecy.wa.gov/programs/eap/labs/lab-accreditation.html	C544
Wyoming (EPA Region 8)	https://www.epa.gov/region8-waterops/epa-region-8-certified-drinking-water	-
Kelso Laboratory Website	www.alsglobal.com	NA

Analyses were performed according to our laboratory's NELAP-approved quality assurance program. A complete listing of specific NELAP-certified analytes, can be found in the certification section at www.ALSGlobal.com or at the accreditation bodies web site.

Please refer to the certification and/or accreditation body's web site if samples are submitted for compliance purposes. The states highlighted above, require the analysis be listed on the state certification if used for compliance purposes and if the method/analyte is offered by that state.

Acronyms

ASTM	American Society for Testing and Materials
A2LA	American Association for Laboratory Accreditation
CARB	California Air Resources Board
CAS Number	Chemical Abstract Service registry Number
CFC	Chlorofluorocarbon
CFU	Colony-Forming Unit
DEC	Department of Environmental Conservation
DEQ	Department of Environmental Quality
DHS	Department of Health Services
DOE	Department of Ecology
DOH	Department of Health
EPA	U. S. Environmental Protection Agency
ELAP	Environmental Laboratory Accreditation Program
GC	Gas Chromatography
GC/MS	Gas Chromatography/Mass Spectrometry
LOD	Limit of Detection
LOQ	Limit of Quantitation
LUFT	Leaking Underground Fuel Tank
M	Modified
MCL	Maximum Contaminant Level is the highest permissible concentration of a substance allowed in drinking water as established by the USEPA.
MDL	Method Detection Limit
MPN	Most Probable Number
MRL	Method Reporting Limit
NA	Not Applicable
NC	Not Calculated
NCASI	National Council of the Paper Industry for Air and Stream Improvement
ND	Not Detected
NIOSH	National Institute for Occupational Safety and Health
PQL	Practical Quantitation Limit
RCRA	Resource Conservation and Recovery Act
SIM	Selected Ion Monitoring
TPH	Total Petroleum Hydrocarbons
tr	Trace level is the concentration of an analyte that is less than the PQL but greater than or equal to the MDL.

ALS Group USA, Corp.
dba ALS Environmental

Analyst Summary report

Client: Anchor QEA, LLC
Project: Barry/201114-01.02 Task 09

Service Request: K2207163

Sample Name: BY-SBT-MW-10-FS
Lab Code: K2207163-001
Sample Matrix: Water

Date Collected: 06/23/22
Date Received: 06/27/22

Analysis Method
200.8

Extracted/Digested By
SSOLADEY

Analyzed By
EMCALLISTER

Sample Name: BY-SBT-MW-10-FC
Lab Code: K2207163-002
Sample Matrix: Water

Date Collected: 06/23/22
Date Received: 06/27/22

Analysis Method
200.8

Extracted/Digested By
SSOLADEY

Analyzed By
EMCALLISTER

Sample Name: BY-SBT-MW-10-CER
Lab Code: K2207163-003
Sample Matrix: Water

Date Collected: 06/23/22
Date Received: 06/27/22

Analysis Method
200.8

Extracted/Digested By
SSOLADEY

Analyzed By
EMCALLISTER

Sample Name: BY-SBT-MW-10-PM
Lab Code: K2207163-004
Sample Matrix: Water

Date Collected: 06/23/22
Date Received: 06/27/22

Analysis Method
200.8

Extracted/Digested By
SSOLADEY

Analyzed By
EMCALLISTER

Sample Name: BY-SBT-MW-10-FS-PM
Lab Code: K2207163-005
Sample Matrix: Water

Date Collected: 06/23/22
Date Received: 06/27/22

Analysis Method
200.8

Extracted/Digested By
SSOLADEY

Analyzed By
EMCALLISTER

ALS Group USA, Corp.
dba ALS Environmental

Analyst Summary report

Client: Anchor QEA, LLC
Project: Barry/201114-01.02 Task 09

Service Request: K2207163

Sample Name: BY-SBT-MW-10-FC-PM-MC
Lab Code: K2207163-006
Sample Matrix: Water

Date Collected: 06/23/22
Date Received: 06/27/22

Analysis Method
200.8

Extracted/Digested By
SSOLADEY

Analyzed By
EMCALLISTER

Sample Name: BY-SBT-MW-10-BC
Lab Code: K2207163-007
Sample Matrix: Water

Date Collected: 06/23/22
Date Received: 06/27/22

Analysis Method
200.8

Extracted/Digested By
SSOLADEY

Analyzed By
EMCALLISTER

Sample Name: BY-SBT-MW-10-AIR
Lab Code: K2207163-008
Sample Matrix: Water

Date Collected: 06/23/22
Date Received: 06/27/22

Analysis Method
200.8

Extracted/Digested By
SSOLADEY

Analyzed By
EMCALLISTER

Sample Name: BY-SBT-MW-10-FS-DUP
Lab Code: K2207163-009
Sample Matrix: Water

Date Collected: 06/23/22
Date Received: 06/27/22

Analysis Method
200.8

Extracted/Digested By
SSOLADEY

Analyzed By
EMCALLISTER

Sample Name: BY-SBT-MW-10-CTRL
Lab Code: K2207163-010
Sample Matrix: Water

Date Collected: 06/23/22
Date Received: 06/27/22

Analysis Method
200.8

Extracted/Digested By
SSOLADEY

Analyzed By
EMCALLISTER

ALS Group USA, Corp.
dba ALS Environmental

Analyst Summary report

Client: Anchor QEA, LLC
Project: Barry/201114-01.02 Task 09

Service Request: K2207163

Sample Name: BY-SBT-MW-10-BC-NaSO4
Lab Code: K2207163-011
Sample Matrix: Water

Date Collected: 06/23/22
Date Received: 06/27/22

Analysis Method
200.8

Extracted/Digested By
SSOLADEY

Analyzed By
EMCALLISTER



Sample Results

ALS Environmental—Kelso Laboratory
1317 South 13th Avenue, Kelso, WA 98626
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Metals

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ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Anchor QEA, LLC
Project: Barry/201114-01.02 Task 09
Sample Matrix: Water
Sample Name: BY-SBT-MW-10-FS
Lab Code: K2207163-001

Service Request: K2207163
Date Collected: 06/23/22 08:00
Date Received: 06/27/22 10:20
Basis: NA

Dissolved Metals

<u>Analyte Name</u>	<u>Analysis Method</u>	<u>Result</u>	<u>Units</u>	<u>MRL</u>	<u>MDL</u>	<u>Dil.</u>	<u>Date Analyzed</u>	<u>Date Extracted</u>	<u>Q</u>
Arsenic	200.8	14.3	ug/L	0.50	0.09	1	07/19/22 13:00	07/14/22	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Anchor QEA, LLC
Project: Barry/201114-01.02 Task 09
Sample Matrix: Water
Sample Name: BY-SBT-MW-10-FC
Lab Code: K2207163-002

Service Request: K2207163
Date Collected: 06/23/22 08:05
Date Received: 06/27/22 10:20
Basis: NA

Dissolved Metals

<u>Analyte Name</u>	<u>Analysis Method</u>	<u>Result</u>	<u>Units</u>	<u>MRL</u>	<u>MDL</u>	<u>Dil.</u>	<u>Date Analyzed</u>	<u>Date Extracted</u>	<u>Q</u>
Arsenic	200.8	0.47 J	ug/L	0.50	0.09	1	07/19/22 13:04	07/14/22	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Anchor QEA, LLC
Project: Barry/201114-01.02 Task 09
Sample Matrix: Water
Sample Name: BY-SBT-MW-10-CER
Lab Code: K2207163-003

Service Request: K2207163
Date Collected: 06/23/22 08:10
Date Received: 06/27/22 10:20
Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	1.40	ug/L	0.50	0.09	1	07/19/22 13:05	07/14/22	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Anchor QEA, LLC
Project: Barry/201114-01.02 Task 09
Sample Matrix: Water
Sample Name: BY-SBT-MW-10-PM
Lab Code: K2207163-004

Service Request: K2207163
Date Collected: 06/23/22 08:15
Date Received: 06/27/22 10:20
Basis: NA

Dissolved Metals

<u>Analyte Name</u>	<u>Analysis Method</u>	<u>Result</u>	<u>Units</u>	<u>MRL</u>	<u>MDL</u>	<u>Dil.</u>	<u>Date Analyzed</u>	<u>Date Extracted</u>	<u>Q</u>
Arsenic	200.8	0.26 J	ug/L	0.50	0.09	1	07/19/22 13:06	07/14/22	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Anchor QEA, LLC
Project: Barry/201114-01.02 Task 09
Sample Matrix: Water
Sample Name: BY-SBT-MW-10-FS-PM
Lab Code: K2207163-005

Service Request: K2207163
Date Collected: 06/23/22 08:20
Date Received: 06/27/22 10:20
Basis: NA

Dissolved Metals

<u>Analyte Name</u>	<u>Analysis Method</u>	<u>Result</u>	<u>Units</u>	<u>MRL</u>	<u>MDL</u>	<u>Dil.</u>	<u>Date Analyzed</u>	<u>Date Extracted</u>	<u>Q</u>
Arsenic	200.8	0.63	ug/L	0.50	0.09	1	07/19/22 13:11	07/14/22	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Anchor QEA, LLC
Project: Barry/201114-01.02 Task 09
Sample Matrix: Water
Sample Name: BY-SBT-MW-10-FC-PM-MC
Lab Code: K2207163-006

Service Request: K2207163
Date Collected: 06/23/22 08:25
Date Received: 06/27/22 10:20
Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	1.11	ug/L	0.50	0.09	1	07/19/22 13:12	07/14/22	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Anchor QEA, LLC
Project: Barry/201114-01.02 Task 09
Sample Matrix: Water
Sample Name: BY-SBT-MW-10-BC
Lab Code: K2207163-007

Service Request: K2207163
Date Collected: 06/23/22 08:30
Date Received: 06/27/22 10:20
Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	1.55	ug/L	0.50	0.09	1	07/19/22 13:13	07/14/22	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Anchor QEA, LLC
Project: Barry/201114-01.02 Task 09
Sample Matrix: Water
Sample Name: BY-SBT-MW-10-AIR
Lab Code: K2207163-008

Service Request: K2207163
Date Collected: 06/23/22 08:35
Date Received: 06/27/22 10:20
Basis: NA

Dissolved Metals

<u>Analyte Name</u>	<u>Analysis Method</u>	<u>Result</u>	<u>Units</u>	<u>MRL</u>	<u>MDL</u>	<u>Dil.</u>	<u>Date Analyzed</u>	<u>Date Extracted</u>	<u>Q</u>
Arsenic	200.8	6.58	ug/L	0.50	0.09	1	07/19/22 13:15	07/14/22	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Anchor QEA, LLC
Project: Barry/201114-01.02 Task 09
Sample Matrix: Water
Sample Name: BY-SBT-MW-10-FS-DUP
Lab Code: K2207163-009

Service Request: K2207163
Date Collected: 06/23/22 08:40
Date Received: 06/27/22 10:20
Basis: NA

Dissolved Metals

<u>Analyte Name</u>	<u>Analysis Method</u>	<u>Result</u>	<u>Units</u>	<u>MRL</u>	<u>MDL</u>	<u>Dil.</u>	<u>Date Analyzed</u>	<u>Date Extracted</u>	<u>Q</u>
Arsenic	200.8	15.0	ug/L	0.50	0.09	1	07/19/22 13:16	07/14/22	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Anchor QEA, LLC
Project: Barry/201114-01.02 Task 09
Sample Matrix: Water
Sample Name: BY-SBT-MW-10-CTRL
Lab Code: K2207163-010

Service Request: K2207163
Date Collected: 06/23/22 08:45
Date Received: 06/27/22 10:20
Basis: NA

Dissolved Metals

<u>Analyte Name</u>	<u>Analysis Method</u>	<u>Result</u>	<u>Units</u>	<u>MRL</u>	<u>MDL</u>	<u>Dil.</u>	<u>Date Analyzed</u>	<u>Date Extracted</u>	<u>Q</u>
Arsenic	200.8	1.58	ug/L	0.50	0.09	1	07/19/22 13:17	07/14/22	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Anchor QEA, LLC
Project: Barry/201114-01.02 Task 09
Sample Matrix: Water
Sample Name: BY-SBT-MW-10-BC-NaSO4
Lab Code: K2207163-011

Service Request: K2207163
Date Collected: 06/23/22 08:50
Date Received: 06/27/22 10:20
Basis: NA

Dissolved Metals

<u>Analyte Name</u>	<u>Analysis Method</u>	<u>Result</u>	<u>Units</u>	<u>MRL</u>	<u>MDL</u>	<u>Dil.</u>	<u>Date Analyzed</u>	<u>Date Extracted</u>	<u>Q</u>
Arsenic	200.8	3.79	ug/L	0.50	0.09	1	07/19/22 12:18	07/15/22	



QC Summary Forms

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ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Anchor QEA, LLC
Project: Barry/201114-01.02 Task 09
Sample Matrix: Water
Sample Name: Method Blank
Lab Code: KQ2210588-01

Service Request: K2207163
Date Collected: NA
Date Received: NA
Basis: NA

Dissolved Metals

<u>Analyte Name</u>	<u>Analysis Method</u>	<u>Result</u>	<u>Units</u>	<u>MRL</u>	<u>MDL</u>	<u>Dil.</u>	<u>Date Analyzed</u>	<u>Date Extracted</u>	<u>Q</u>
Arsenic	200.8	ND U	ug/L	0.50	0.09	1	07/19/22 12:38	07/14/22	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Anchor QEA, LLC
Project: Barry/201114-01.02 Task 09
Sample Matrix: Water
Sample Name: Method Blank
Lab Code: KQ2210685-06

Service Request: K2207163
Date Collected: NA
Date Received: NA
Basis: NA

Dissolved Metals

<u>Analyte Name</u>	<u>Analysis Method</u>	<u>Result</u>	<u>Units</u>	<u>MRL</u>	<u>MDL</u>	<u>Dil.</u>	<u>Date Analyzed</u>	<u>Date Extracted</u>	<u>Q</u>
Arsenic	200.8	ND U	ug/L	0.50	0.09	1	07/19/22 11:59	07/15/22	

ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client: Anchor QEA, LLC
Project: Barry/201114-01.02 Task 09
Sample Matrix: Water

Service Request: K2207163
Date Collected: 06/23/22
Date Received: 06/27/22
Date Analyzed: 07/19/22
Date Extracted: 07/14/22

Matrix Spike Summary
Dissolved Metals

Sample Name: BY-SBT-MW-10-FS
Lab Code: K2207163-001
Analysis Method: 200.8
Prep Method: EPA CLP ILM04.0

Units: ug/L
Basis: NA

Matrix Spike
KQ2210588-05

<u>Analyte Name</u>	<u>Sample Result</u>	<u>Result</u>	<u>Spike Amount</u>	<u>% Rec</u>	<u>% Rec Limits</u>
Arsenic	14.3	62.3	50.0	96	70-130

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

Matrix Spike and Matrix Spike Duplicate Data is presented for information purposes only. The matrix may or may not be relevant to samples reported in this report. The laboratory evaluates system performance based on the LCS and LCSD control limits.

ALS Group USA, Corp.

dba ALS Environmental

QA/QC Report

Client: Anchor QEA, LLC
Project: Barry/201114-01.02 Task 09
Sample Matrix: Water

Service Request: K2207163
Date Collected: 06/23/22
Date Received: 06/27/22
Date Analyzed: 07/19/22

Replicate Sample Summary

Dissolved Metals

Sample Name: BY-SBT-MW-10-FS
Lab Code: K2207163-001

Units: ug/L
Basis: NA

Table with 9 columns: Analyte Name, Analysis Method, MRL, MDL, Sample Result, Duplicate Sample KQ2210588-06 Result, Average, RPD, RPD Limit. Row 1: Arsenic, 200.8, 0.50, 0.09, 14.3, 14.0, 14.2, 2, 20.

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

ALS Group USA, Corp.

dba ALS Environmental

QA/QC Report

Client: Anchor QEA, LLC
Project: Barry/201114-01.02 Task 09
Sample Matrix: Water

Service Request: K2207163

Date Analyzed: 07/19/22

Lab Control Sample Summary
Dissolved Metals

Units:ug/L

Basis:NA

Lab Control Sample

KQ2210588-02

Analyte Name	Analytical Method	Result	Spike Amount	% Rec	% Rec Limits
Arsenic	200.8	48.4	50.0	97	85-115

ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client: Anchor QEA, LLC
Project: Barry/201114-01.02 Task 09
Sample Matrix: Water

Service Request: K2207163
Date Analyzed: 07/19/22

Lab Control Sample Summary
Dissolved Metals

Units:ug/L
Basis:NA

Lab Control Sample
KQ2210685-07

Analyte Name	Analytical Method	Result	Spike Amount	% Rec	% Rec Limits
Arsenic	200.8	48.7	50.0	97	85-115



July 19, 2022

Service Request No:K2207166

Masa Kanematsu
Anchor QEA, LLC
6720 SW Macadam Avenue
Suite 125
Portland, OR 97219

Laboratory Results for: Barry

Dear Masa,

Enclosed are the results of the sample(s) submitted to our laboratory June 27, 2022
For your reference, these analyses have been assigned our service request number **K2207166**.

Analyses were performed according to our laboratory's NELAP-approved quality assurance program. The test results meet requirements of the current NELAP standards, where applicable, and except as noted in the laboratory case narrative provided. For a specific list of NELAP-accredited analytes, refer to the certifications section at www.alsglobal.com. All results are intended to be considered in their entirety, and ALS Group USA Corp. dba ALS Environmental (ALS) is not responsible for use of less than the complete report. Results apply only to the items submitted to the laboratory for analysis and individual items (samples) analyzed, as listed in the report.

Please contact me if you have any questions. My extension is 3376. You may also contact me via email at Mark.Harris@alsglobal.com.

Respectfully submitted,

ALS Group USA, Corp. dba ALS Environmental

Mark Harris
Project Manager

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ALS Group USA, Corp.
dba ALS Environmental



Narrative Documents

ALS Environmental—Kelso Laboratory
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www.alsglobal.com



Client: Anchor QEA, LLC
Project: Barry
Sample Matrix: Water

Service Request: K2207166
Date Received: 06/27/2022

CASE NARRATIVE

All analyses were performed consistent with the quality assurance program of ALS Environmental. This report contains analytical results for samples for the Tier II level requested by the client.

Sample Receipt:

Fourteen water samples were received for analysis at ALS Environmental on 06/27/2022. Any discrepancies upon initial sample inspection are annotated on the sample receipt and preservation form included within this report. The samples were stored at minimum in accordance with the analytical method requirements.

Metals:

No significant anomalies were noted with this analysis.

Noel D. O'Connell

Approved by _____

Date 07/19/2022



SAMPLE DETECTION SUMMARY

This form includes only detections above the reporting levels. For a full listing of sample results, continue to the Sample Results section of this Report.

CLIENT ID: BY-GBT-MW-15V-FS	Lab ID: K2207166-001
------------------------------------	-----------------------------

Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	1.34		0.09	0.50	ug/L	200.8
Cobalt, Dissolved	70.2		0.009	0.020	ug/L	200.8

CLIENT ID: BY-GBT-MW-15V-FC	Lab ID: K2207166-002
------------------------------------	-----------------------------

Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	411		0.09	0.50	ug/L	200.8
Cobalt, Dissolved	71.6		0.009	0.020	ug/L	200.8

CLIENT ID: BY-GBT-MW-15V-CER	Lab ID: K2207166-003
-------------------------------------	-----------------------------

Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	1.09		0.09	0.50	ug/L	200.8
Cobalt, Dissolved	62.4		0.009	0.020	ug/L	200.8

CLIENT ID: BY-GBT-MW-15V-PM	Lab ID: K2207166-004
------------------------------------	-----------------------------

Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	6.71		0.09	0.50	ug/L	200.8
Cobalt, Dissolved	33.7		0.009	0.020	ug/L	200.8

CLIENT ID: BY-GBT-MW-15V-FS-PM	Lab ID: K2207166-005
---------------------------------------	-----------------------------

Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	1.50		0.09	0.50	ug/L	200.8
Cobalt, Dissolved	69.9		0.009	0.020	ug/L	200.8

CLIENT ID: BY-GBT-MW-15V-FC-PM-MC	Lab ID: K2207166-006
--	-----------------------------

Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	63.3		0.09	0.50	ug/L	200.8
Cobalt, Dissolved	68.9		0.009	0.020	ug/L	200.8

CLIENT ID: BY-GBT-MW-15V-BC	Lab ID: K2207166-007
------------------------------------	-----------------------------

Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	0.62		0.09	0.50	ug/L	200.8
Cobalt, Dissolved	70.0		0.009	0.020	ug/L	200.8

CLIENT ID: BY-GBT-MW-15V-AIR	Lab ID: K2207166-008
-------------------------------------	-----------------------------

Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	2.48		0.09	0.50	ug/L	200.8
Cobalt, Dissolved	71.7		0.009	0.020	ug/L	200.8

CLIENT ID: BY-GBT-MW-15V-FS-DUP	Lab ID: K2207166-009
--	-----------------------------

Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	1.69		0.09	0.50	ug/L	200.8
Cobalt, Dissolved	69.2		0.009	0.020	ug/L	200.8



SAMPLE DETECTION SUMMARY

This form includes only detections above the reporting levels. For a full listing of sample results, continue to the Sample Results section of this Report.

CLIENT ID: BY-GBT-MW-15V-CTRL	Lab ID: K2207166-010
--------------------------------------	-----------------------------

Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	0.78		0.09	0.50	ug/L	200.8
Cobalt, Dissolved	71.6		0.009	0.020	ug/L	200.8

CLIENT ID: BY-GBT-MW-15V-BC-NaSO4	Lab ID: K2207166-011
--	-----------------------------

Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	1.71		0.09	0.50	ug/L	200.8
Cobalt, Dissolved	68.9		0.009	0.020	ug/L	200.8

CLIENT ID: BY-GBT-MW-15V-PM-pH-9.5	Lab ID: K2207166-012
---	-----------------------------

Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	26.1		0.09	0.50	ug/L	200.8

CLIENT ID: BY-GBT-MW-15V-FS-PM-pH-9.5	Lab ID: K2207166-013
--	-----------------------------

Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	6.46		0.09	0.50	ug/L	200.8
Cobalt, Dissolved	0.242		0.009	0.020	ug/L	200.8

CLIENT ID: BY-GBT-MW-15V-FC-PM-MC-pH-9.5	Lab ID: K2207166-014
---	-----------------------------

Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	11.2		0.09	0.50	ug/L	200.8
Cobalt, Dissolved	0.029		0.009	0.020	ug/L	200.8



Sample Receipt Information

ALS Environmental—Kelso Laboratory
1317 South 13th Avenue, Kelso, WA 98626
Phone (360) 577-7222 Fax (360) 425-9096
www.alsglobal.com

Client: Anchor QEA, LLC
Project: Barry/201114-01.02 Task 09


Service Request:K2207166

SAMPLE CROSS-REFERENCE

<u>SAMPLE #</u>	<u>CLIENT SAMPLE ID</u>	<u>DATE</u>	<u>TIME</u>
K2207166-001	BY-GBT-MW-15V-FS	6/24/2022	0910
K2207166-002	BY-GBT-MW-15V-FC	6/24/2022	0915
K2207166-003	BY-GBT-MW-15V-CER	6/24/2022	0920
K2207166-004	BY-GBT-MW-15V-PM	6/24/2022	0925
K2207166-005	BY-GBT-MW-15V-FS-PM	6/24/2022	0930
K2207166-006	BY-GBT-MW-15V-FC-PM-MC	6/24/2022	0935
K2207166-007	BY-GBT-MW-15V-BC	6/24/2022	0940
K2207166-008	BY-GBT-MW-15V-AIR	6/24/2022	0945
K2207166-009	BY-GBT-MW-15V-FS-DUP	6/24/2022	0950
K2207166-010	BY-GBT-MW-15V-CTRL	6/24/2022	0955
K2207166-011	BY-GBT-MW-15V-BC-NaSO4	6/24/2022	1000
K2207166-012	BY-GBT-MW-15V-PM-pH-9.5	6/24/2022	1005
K2207166-013	BY-GBT-MW-15V-FS-PM-pH-9.5	6/24/2022	1010
K2207166-014	BY-GBT-MW-15V-FC-PM-MC-pH-9.5	6/24/2022	1015

K2207166

Chain of Custody Record & Laboratory Analysis Request

Laboratory Number: 503-972-5019					No. of Containers	Parameters												 Jessica Goin 6720 SW Macadam Ave Suite 125 Portland OR 97219					
Date:		6/27/2022																					
Project Name:		Barry																					
Project Number:		201114-01.02 Task 09																					
Project Manager:		Masa Kanematsu																					
Phone Number:		503-972-5001 (backup number: 971.334.8193)																					
Shipment Method:		ALS Carrier																					
Line	Field Sample ID	Collection		Matrix	As (dissolved)	Co (dissolved)															Comments/Preservation		
		Date	Time																				
1	BY-GBT-MW-15V-FS	6/24/2022	6/24/22 9:10	Water	1	X	X															HNO3 preserved. Field Filtered.	
2	BY-GBT-MW-15V-FC	6/24/2022	6/24/22 9:15	Water	1	X	X																HNO3 preserved. Field Filtered.
3	BY-GBT-MW-15V-CER	6/24/2022	6/24/22 9:20	Water	1	X	X																HNO3 preserved. Field Filtered.
4	BY-GBT-MW-15V-PM	6/24/2022	6/24/22 9:25	Water	1	X	X																HNO3 preserved. Field Filtered. KMnO4 added
5	BY-GBT-MW-15V-FS-PM	6/24/2022	6/24/22 9:30	Water	1	X	X																HNO3 preserved. Field Filtered. KMnO4 added
6	BY-GBT-MW-15V-FC-PM-MC	6/24/2022	6/24/22 9:35	Water	1	X	X																HNO3 preserved. Field Filtered. KMnO4 added
7	BY-GBT-MW-15V-BC	6/24/2022	6/24/22 9:40	Water	1	X	X																HNO3 preserved. Field Filtered.
8	BY-GBT-MW-15V-AIR	6/24/2022	6/24/22 9:45	Water	1	X	X																HNO3 preserved. Field Filtered.
9	BY-GBT-MW-15V-FS-DUP	6/24/2022	6/24/22 9:50	Water	1	X	X																HNO3 preserved. Field Filtered.
10	BY-GBT-MW-15V-CTRL	6/24/2022	6/24/22 9:55	Water	1	X	X																HNO3 preserved. Field Filtered.
11	BY-GBT-MW-15V-BC-NaSO4	6/24/2022	6/24/22 10:00	Water	1	X	X																HNO3 preserved. Field Filtered.
12	BY-GBT-MW-15V-PM-pH-9.5	6/24/2022	6/24/22 10:05	Water	1	X	X																HNO3 preserved. Field Filtered. KMnO4 added
13	BY-GBT-MW-15V-FS-PM-pH-9.5	6/24/2022	6/24/22 10:10	Water	1	X	X																HNO3 preserved. Field Filtered. KMnO4 added
14	BY-GBT-MW-15V-FC-PM-MC-pH-9.5	6/24/2022	6/24/22 10:15	Water	1	X	X																HNO3 preserved. Field Filtered. KMnO4 added
15																							
16																							

Notes: Please Contact Masa (503-972-5001, mkanematsu@anchorqea.com) if running > 10X dilution. Please analyze by ICP-MS method 200.8 to achieve the MDL < 1 ppb. Some samples may have residual purple color associated with potassium permanganate (KMnO4). If those samples need to be diluted in order to not damage the ICP-MS, please do so and let Masa know the dilution factor.

Relinquished by:	Company:
Emily DeVore	Anchor QEA
Signature/Print Name:	Date/Time:
<i>Emily DeVore</i>	6/27/22 8:00am
Relinquished by:	Company:
<i>[Signature]</i>	ALS
Signature/Print Name:	Date/Time:
	6/27/22 10:00

Received by:
<i>[Signature]</i>
Signature/Print Name:
<i>Anchor ALS 6/27/22 0820</i>
Received by:
<i>[Signature]</i>
Signature/Print Name:
<i>Anchor ALS 6/27/22 1020</i>

Cooler Receipt and Preservation Form

Client: Anchor QEM Service Request K2207166
Received: 6/27/22 Opened: 6/27/22 By: [Signature] Unloaded: 6/27/22 By: [Signature]

Samples were received via? **USPS** Fed Ex **UPS** **DHL** **PDX** Courier **Hand Delivered**
Samples were received in: (circle) Cooler **Box** **Envelope** **Other** NA
Were custody seals on coolers? **NA** **Y** N If yes, how many and where? _____
If present, were custody seals intact? **Y** **N** If present, were they signed and dated? **Y** **N**

Temp Blank	Sample Temp	IR Gun	Cooler #/COC ID / NA	Out of temp indicate with "X"	PM Notified if out of temp	Tracking Number NA	Filed
<u>5.3</u>		<u>IR01</u>	<u>NA</u>			<u>NA</u>	

Was a Temperature Blank present in cooler? **NA** Y **N** If yes, notate the temperature in the appropriate column above:
If no, take the temperature of a representative sample bottle contained within the cooler; notate in the column "Sample Temp":
Were samples received within the method specified temperature ranges? **NA** Y **N**
If no, were they received on ice and same day as collected? If not, notate the cooler # below and notify the PM. NA **Y** **N**

applicable, tissue samples were received: **Frozen** **Partially Thawed** Thawed
Packing material: **Inserts** Baggies **Bubble Wrap** **Gel Packs** Wet Ice **Dry Ice** **Sleeves**
Were custody papers properly filled out (ink, signed, etc.)? **NA** Y **N**
Were samples received in good condition (unbroken) **NA** Y **N**
Were all sample labels complete (ie, analysis, preservation, etc.)? **NA** Y **N**
Did all sample labels and tags agree with custody papers? **NA** Y **N**
1. Were appropriate bottles/containers and volumes received for the tests indicated? **NA** Y **N**
2. Were the pH-preserved bottles (see SMO GEN SOP) received at the appropriate pH? Indicate in the table below **NA** Y **N**
3. Were VOA vials received without headspace? Indicate in the table below. **NA** Y **N**
4. Was C12/Res negative? **NA** Y **N**
5. Were 100ml sterile microbiology bottles filled exactly to the 100ml mark? NA **Y** **N** Under filled Overfilled

Sample ID on Bottle	Sample ID on COC	Identified by:

Sample ID	Bottle Count	Bottle Type	Head-space	Broke	pH	Reagent	Volume added	Reagent Lot Number	Initials	Time

Notes, Discrepancies, Resolutions: _____



Miscellaneous Forms

ALS Environmental—Kelso Laboratory
1317 South 13th Avenue, Kelso, WA 98626
Phone (360) 577-7222 Fax (360) 425-9096
www.alsglobal.com

Inorganic Data Qualifiers

- * The result is an outlier. See case narrative.
- # The control limit criteria is not applicable.
- B The analyte was found in the associated method blank at a level that is significant relative to the sample result as defined by the DOD or NELAC standards.
- E The result is an estimate amount because the value exceeded the instrument calibration range.
- J The result is an estimated value.
- U The analyte was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL.
DOD-QSM 4.2 definition : Analyte was not detected and is reported as less than the LOD or as defined by the project. The detection limit is adjusted for dilution.
- i The MRL/MDL or LOQ/LOD is elevated due to a matrix interference.
- X See case narrative.
- Q See case narrative. One or more quality control criteria was outside the limits.
- H The holding time for this test is immediately following sample collection. The samples were analyzed as soon as possible after receipt by the laboratory.

Metals Data Qualifiers

- # The control limit criteria is not applicable.
- J The result is an estimated value.
- E The percent difference for the serial dilution was greater than 10%, indicating a possible matrix interference in the sample.
- M The duplicate injection precision was not met.
- N The Matrix Spike sample recovery is not within control limits. See case narrative.
- S The reported value was determined by the Method of Standard Additions (MSA).
- U The analyte was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL.
DOD-QSM 4.2 definition : Analyte was not detected and is reported as less than the LOD or as defined by the project. The detection limit is adjusted for dilution.
- W The post-digestion spike for furnace AA analysis is out of control limits, while sample absorbance is less than 50% of spike absorbance.
 - i The MRL/MDL or LOQ/LOD is elevated due to a matrix interference.
- X See case narrative.
- + The correlation coefficient for the MSA is less than 0.995.
- Q See case narrative. One or more quality control criteria was outside the limits.

Organic Data Qualifiers

- * The result is an outlier. See case narrative.
- # The control limit criteria is not applicable. See case narrative.
- A A tentatively identified compound, a suspected aldol-condensation product.
- B The analyte was found in the associated method blank at a level that is significant relative to the sample result as defined by the DOD or NELAC standards.
- C The analyte was qualitatively confirmed using GC/MS techniques, pattern recognition, or by comparing to historical data.
- D The reported result is from a dilution.
- E The result is an estimated value.
- J The result is an estimated value.
- N The result is presumptive. The analyte was tentatively identified, but a confirmation analysis was not performed.
- P The GC or HPLC confirmation criteria was exceeded. The relative percent difference is greater than 40% between the two analytical results.
- U The analyte was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL.
DOD-QSM 4.2 definition : Analyte was not detected and is reported as less than the LOD or as defined by the project. The detection limit is adjusted for dilution.
 - i The MRL/MDL or LOQ/LOD is elevated due to a chromatographic interference.
- X See case narrative.
- Q See case narrative. One or more quality control criteria was outside the limits.

Additional Petroleum Hydrocarbon Specific Qualifiers

- F The chromatographic fingerprint of the sample matches the elution pattern of the calibration standard.
- L The chromatographic fingerprint of the sample resembles a petroleum product, but the elution pattern indicates the presence of a greater amount of lighter molecular weight constituents than the calibration standard.
- H The chromatographic fingerprint of the sample resembles a petroleum product, but the elution pattern indicates the presence of a greater amount of heavier molecular weight constituents than the calibration standard.
- O The chromatographic fingerprint of the sample resembles an oil, but does not match the calibration standard.
- Y The chromatographic fingerprint of the sample resembles a petroleum product eluting in approximately the correct carbon range, but the elution pattern does not match the calibration standard.
- Z The chromatographic fingerprint does not resemble a petroleum product.

**ALS Group USA Corp. dba ALS Environmental (ALS) - Kelso
State Certifications, Accreditations, and Licenses**

Agency	Web Site	Number
Alaska DEH	http://dec.alaska.gov/eh/lab/cs/csapproval.htm	UST-040
Arizona DHS	http://www.azdhs.gov/lab/license/env.htm	AZ0339
Arkansas - DEQ	http://www.adeq.state.ar.us/techsvs/labcert.htm	88-0637
California DHS (ELAP)	http://www.cdph.ca.gov/certlic/labs/Pages/ELAP.aspx	2795
DOD ELAP	http://www.denix.osd.mil/edqw/Accreditation/AccreditedLabs.cfm	L16-58-R4
Florida DOH	http://www.doh.state.fl.us/lab/EnvLabCert/WaterCert.htm	E87412
Hawaii DOH	http://health.hawaii.gov/	-
ISO 17025	http://www.pjllabs.com/	L16-57
Louisiana DEQ	http://www.deq.louisiana.gov/page/la-lab-accreditation	03016
Maine DHS	http://www.maine.gov/dhhs/	WA01276
Minnesota DOH	http://www.health.state.mn.us/accreditation	053-999-457
Nevada DEP	http://ndep.nv.gov/bsdw/labservice.htm	WA01276
New Jersey DEP	http://www.nj.gov/dep/enforcement/oqa.html	WA005
New York - DOH	https://www.wadsworth.org/regulatory/elap	12060
North Carolina DEQ	https://deq.nc.gov/about/divisions/water-resources/water-resources-data/water-sciences-home-page/laboratory-certification-branch/non-field-lab-certification	605
Oklahoma DEQ	http://www.deq.state.ok.us/CSDnew/labcert.htm	9801
Oregon – DEQ (NELAP)	http://public.health.oregon.gov/LaboratoryServices/EnvironmentalLaboratoryAccreditation/Pages/index.aspx	WA100010
South Carolina DHEC	http://www.scdhec.gov/environment/EnvironmentalLabCertification/	61002
Texas CEQ	http://www.tceq.texas.gov/field/qa/env_lab_accreditation.html	T104704427
Washington DOE	http://www.ecy.wa.gov/programs/eap/labs/lab-accreditation.html	C544
Wyoming (EPA Region 8)	https://www.epa.gov/region8-waterops/epa-region-8-certified-drinking-water	-
Kelso Laboratory Website	www.alsglobal.com	NA

Analyses were performed according to our laboratory's NELAP-approved quality assurance program. A complete listing of specific NELAP-certified analytes, can be found in the certification section at www.ALSGlobal.com or at the accreditation bodies web site.

Please refer to the certification and/or accreditation body's web site if samples are submitted for compliance purposes. The states highlighted above, require the analysis be listed on the state certification if used for compliance purposes and if the method/analyte is offered by that state.

Acronyms

ASTM	American Society for Testing and Materials
A2LA	American Association for Laboratory Accreditation
CARB	California Air Resources Board
CAS Number	Chemical Abstract Service registry Number
CFC	Chlorofluorocarbon
CFU	Colony-Forming Unit
DEC	Department of Environmental Conservation
DEQ	Department of Environmental Quality
DHS	Department of Health Services
DOE	Department of Ecology
DOH	Department of Health
EPA	U. S. Environmental Protection Agency
ELAP	Environmental Laboratory Accreditation Program
GC	Gas Chromatography
GC/MS	Gas Chromatography/Mass Spectrometry
LOD	Limit of Detection
LOQ	Limit of Quantitation
LUFT	Leaking Underground Fuel Tank
M	Modified
MCL	Maximum Contaminant Level is the highest permissible concentration of a substance allowed in drinking water as established by the USEPA.
MDL	Method Detection Limit
MPN	Most Probable Number
MRL	Method Reporting Limit
NA	Not Applicable
NC	Not Calculated
NCASI	National Council of the Paper Industry for Air and Stream Improvement
ND	Not Detected
NIOSH	National Institute for Occupational Safety and Health
PQL	Practical Quantitation Limit
RCRA	Resource Conservation and Recovery Act
SIM	Selected Ion Monitoring
TPH	Total Petroleum Hydrocarbons
tr	Trace level is the concentration of an analyte that is less than the PQL but greater than or equal to the MDL.

ALS Group USA, Corp.
dba ALS Environmental

Analyst Summary report

Client: Anchor QEA, LLC
Project: Barry/201114-01.02 Task 09

Service Request: K2207166

Sample Name: BY-GBT-MW-15V-FS
Lab Code: K2207166-001
Sample Matrix: Water

Date Collected: 06/24/22
Date Received: 06/27/22

Analysis Method
200.8

Extracted/Digested By
SSOLADEY

Analyzed By
EMCALLISTER

Sample Name: BY-GBT-MW-15V-FC
Lab Code: K2207166-002
Sample Matrix: Water

Date Collected: 06/24/22
Date Received: 06/27/22

Analysis Method
200.8

Extracted/Digested By
SSOLADEY

Analyzed By
EMCALLISTER

Sample Name: BY-GBT-MW-15V-CER
Lab Code: K2207166-003
Sample Matrix: Water

Date Collected: 06/24/22
Date Received: 06/27/22

Analysis Method
200.8

Extracted/Digested By
SSOLADEY

Analyzed By
EMCALLISTER

Sample Name: BY-GBT-MW-15V-PM
Lab Code: K2207166-004
Sample Matrix: Water

Date Collected: 06/24/22
Date Received: 06/27/22

Analysis Method
200.8

Extracted/Digested By
SSOLADEY

Analyzed By
EMCALLISTER

Sample Name: BY-GBT-MW-15V-FS-PM
Lab Code: K2207166-005
Sample Matrix: Water

Date Collected: 06/24/22
Date Received: 06/27/22

Analysis Method
200.8

Extracted/Digested By
SSOLADEY

Analyzed By
EMCALLISTER

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Analyst Summary report

Client: Anchor QEA, LLC
Project: Barry/201114-01.02 Task 09

Service Request: K2207166

Sample Name: BY-GBT-MW-15V-FC-PM-MC
Lab Code: K2207166-006
Sample Matrix: Water

Date Collected: 06/24/22
Date Received: 06/27/22

Analysis Method
200.8

Extracted/Digested By
SSOLADEY

Analyzed By
EMCALLISTER

Sample Name: BY-GBT-MW-15V-BC
Lab Code: K2207166-007
Sample Matrix: Water

Date Collected: 06/24/22
Date Received: 06/27/22

Analysis Method
200.8

Extracted/Digested By
SSOLADEY

Analyzed By
EMCALLISTER

Sample Name: BY-GBT-MW-15V-AIR
Lab Code: K2207166-008
Sample Matrix: Water

Date Collected: 06/24/22
Date Received: 06/27/22

Analysis Method
200.8

Extracted/Digested By
SSOLADEY

Analyzed By
EMCALLISTER

Sample Name: BY-GBT-MW-15V-FS-DUP
Lab Code: K2207166-009
Sample Matrix: Water

Date Collected: 06/24/22
Date Received: 06/27/22

Analysis Method
200.8

Extracted/Digested By
SSOLADEY

Analyzed By
EMCALLISTER

Sample Name: BY-GBT-MW-15V-CTRL
Lab Code: K2207166-010
Sample Matrix: Water

Date Collected: 06/24/22
Date Received: 06/27/22

Analysis Method
200.8

Extracted/Digested By
SSOLADEY

Analyzed By
EMCALLISTER

ALS Group USA, Corp.
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Analyst Summary report

Client: Anchor QEA, LLC
Project: Barry/201114-01.02 Task 09

Service Request: K2207166

Sample Name: BY-GBT-MW-15V-BC-NaSO4
Lab Code: K2207166-011
Sample Matrix: Water

Date Collected: 06/24/22
Date Received: 06/27/22

Analysis Method
200.8

Extracted/Digested By
SSOLADEY

Analyzed By
EMCALLISTER

Sample Name: BY-GBT-MW-15V-PM-pH-9.5
Lab Code: K2207166-012
Sample Matrix: Water

Date Collected: 06/24/22
Date Received: 06/27/22

Analysis Method
200.8

Extracted/Digested By
SSOLADEY

Analyzed By
EMCALLISTER

Sample Name: BY-GBT-MW-15V-FS-PM-pH-9.5
Lab Code: K2207166-013
Sample Matrix: Water

Date Collected: 06/24/22
Date Received: 06/27/22

Analysis Method
200.8

Extracted/Digested By
SSOLADEY

Analyzed By
EMCALLISTER

Sample Name: BY-GBT-MW-15V-FC-PM-MC-pH-9.5
Lab Code: K2207166-014
Sample Matrix: Water

Date Collected: 06/24/22
Date Received: 06/27/22

Analysis Method
200.8

Extracted/Digested By
SSOLADEY

Analyzed By
EMCALLISTER



Sample Results

ALS Environmental—Kelso Laboratory
1317 South 13th Avenue, Kelso, WA 98626
Phone (360) 577-7222 Fax (360) 425-9096
www.alsglobal.com



Metals

ALS Environmental—Kelso Laboratory
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Phone (360) 577-7222 Fax (360) 425-9096
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Analytical Report

Client: Anchor QEA, LLC
Project: Barry/201114-01.02 Task 09
Sample Matrix: Water
Sample Name: BY-GBT-MW-15V-FS
Lab Code: K2207166-001

Service Request: K2207166
Date Collected: 06/24/22 09:10
Date Received: 06/27/22 10:20
Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	1.34	ug/L	0.50	0.09	1	07/19/22 11:19	07/15/22	
Cobalt	200.8	70.2	ug/L	0.020	0.009	1	07/19/22 11:19	07/15/22	

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Analytical Report

Client: Anchor QEA, LLC
Project: Barry/201114-01.02 Task 09
Sample Matrix: Water
Sample Name: BY-GBT-MW-15V-FC
Lab Code: K2207166-002

Service Request: K2207166
Date Collected: 06/24/22 09:15
Date Received: 06/27/22 10:20
Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	411	ug/L	0.50	0.09	1	07/19/22 11:23	07/15/22	
Cobalt	200.8	71.6	ug/L	0.020	0.009	1	07/19/22 11:23	07/15/22	

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Analytical Report

Client: Anchor QEA, LLC
Project: Barry/201114-01.02 Task 09
Sample Matrix: Water
Sample Name: BY-GBT-MW-15V-CER
Lab Code: K2207166-003

Service Request: K2207166
Date Collected: 06/24/22 09:20
Date Received: 06/27/22 10:20

Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	1.09	ug/L	0.50	0.09	1	07/19/22 11:25	07/15/22	
Cobalt	200.8	62.4	ug/L	0.020	0.009	1	07/19/22 11:25	07/15/22	

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Analytical Report

Client: Anchor QEA, LLC
Project: Barry/201114-01.02 Task 09
Sample Matrix: Water
Sample Name: BY-GBT-MW-15V-PM
Lab Code: K2207166-004

Service Request: K2207166
Date Collected: 06/24/22 09:25
Date Received: 06/27/22 10:20
Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	6.71	ug/L	0.50	0.09	1	07/19/22 11:26	07/15/22	
Cobalt	200.8	33.7	ug/L	0.020	0.009	1	07/19/22 11:26	07/15/22	

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Analytical Report

Client: Anchor QEA, LLC
Project: Barry/201114-01.02 Task 09
Sample Matrix: Water
Sample Name: BY-GBT-MW-15V-FS-PM
Lab Code: K2207166-005

Service Request: K2207166
Date Collected: 06/24/22 09:30
Date Received: 06/27/22 10:20
Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	1.50	ug/L	0.50	0.09	1	07/19/22 11:27	07/15/22	
Cobalt	200.8	69.9	ug/L	0.020	0.009	1	07/19/22 11:27	07/15/22	

ALS Group USA, Corp.
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Analytical Report

Client: Anchor QEA, LLC
Project: Barry/201114-01.02 Task 09
Sample Matrix: Water
Sample Name: BY-GBT-MW-15V-FC-PM-MC
Lab Code: K2207166-006

Service Request: K2207166
Date Collected: 06/24/22 09:35
Date Received: 06/27/22 10:20
Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	63.3	ug/L	0.50	0.09	1	07/19/22 11:29	07/15/22	
Cobalt	200.8	68.9	ug/L	0.020	0.009	1	07/19/22 11:29	07/15/22	

ALS Group USA, Corp.
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Analytical Report

Client: Anchor QEA, LLC
Project: Barry/201114-01.02 Task 09
Sample Matrix: Water
Sample Name: BY-GBT-MW-15V-BC
Lab Code: K2207166-007

Service Request: K2207166
Date Collected: 06/24/22 09:40
Date Received: 06/27/22 10:20
Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	0.62	ug/L	0.50	0.09	1	07/19/22 11:33	07/15/22	
Cobalt	200.8	70.0	ug/L	0.020	0.009	1	07/19/22 11:33	07/15/22	

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Analytical Report

Client: Anchor QEA, LLC
Project: Barry/201114-01.02 Task 09
Sample Matrix: Water
Sample Name: BY-GBT-MW-15V-AIR
Lab Code: K2207166-008

Service Request: K2207166
Date Collected: 06/24/22 09:45
Date Received: 06/27/22 10:20
Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	2.48	ug/L	0.50	0.09	1	07/19/22 11:34	07/15/22	
Cobalt	200.8	71.7	ug/L	0.020	0.009	1	07/19/22 11:34	07/15/22	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Anchor QEA, LLC
Project: Barry/201114-01.02 Task 09
Sample Matrix: Water
Sample Name: BY-GBT-MW-15V-FS-DUP
Lab Code: K2207166-009

Service Request: K2207166
Date Collected: 06/24/22 09:50
Date Received: 06/27/22 10:20
Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	1.69	ug/L	0.50	0.09	1	07/19/22 11:35	07/15/22	
Cobalt	200.8	69.2	ug/L	0.020	0.009	1	07/19/22 11:35	07/15/22	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Anchor QEA, LLC
Project: Barry/201114-01.02 Task 09
Sample Matrix: Water
Sample Name: BY-GBT-MW-15V-CTRL
Lab Code: K2207166-010

Service Request: K2207166
Date Collected: 06/24/22 09:55
Date Received: 06/27/22 10:20
Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	0.78	ug/L	0.50	0.09	1	07/19/22 11:37	07/15/22	
Cobalt	200.8	71.6	ug/L	0.020	0.009	1	07/19/22 11:37	07/15/22	

ALS Group USA, Corp.
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Analytical Report

Client: Anchor QEA, LLC
Project: Barry/201114-01.02 Task 09
Sample Matrix: Water
Sample Name: BY-GBT-MW-15V-BC-NaSO4
Lab Code: K2207166-011

Service Request: K2207166
Date Collected: 06/24/22 10:00
Date Received: 06/27/22 10:20
Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	1.71	ug/L	0.50	0.09	1	07/19/22 12:20	07/15/22	
Cobalt	200.8	68.9	ug/L	0.020	0.009	1	07/19/22 12:20	07/15/22	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Anchor QEA, LLC
Project: Barry/201114-01.02 Task 09
Sample Matrix: Water
Sample Name: BY-GBT-MW-15V-PM-pH-9.5
Lab Code: K2207166-012

Service Request: K2207166
Date Collected: 06/24/22 10:05
Date Received: 06/27/22 10:20
Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	26.1	ug/L	0.50	0.09	1	07/19/22 12:21	07/15/22	
Cobalt	200.8	ND U	ug/L	0.020	0.009	1	07/19/22 12:21	07/15/22	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Anchor QEA, LLC
Project: Barry/201114-01.02 Task 09
Sample Matrix: Water

Service Request: K2207166
Date Collected: 06/24/22 10:10
Date Received: 06/27/22 10:20

Sample Name: BY-GBT-MW-15V-FS-PM-pH-9.5
Lab Code: K2207166-013

Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	6.46	ug/L	0.50	0.09	1	07/19/22 12:22	07/15/22	
Cobalt	200.8	0.242	ug/L	0.020	0.009	1	07/19/22 12:22	07/15/22	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Anchor QEA, LLC
Project: Barry/201114-01.02 Task 09
Sample Matrix: Water

Service Request: K2207166
Date Collected: 06/24/22 10:15
Date Received: 06/27/22 10:20

Sample Name: BY-GBT-MW-15V-FC-PM-MC-pH-9.5
Lab Code: K2207166-014

Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	11.2	ug/L	0.50	0.09	1	07/19/22 12:24	07/15/22	
Cobalt	200.8	0.029	ug/L	0.020	0.009	1	07/19/22 12:24	07/15/22	



QC Summary Forms

ALS Environmental—Kelso Laboratory
1317 South 13th Avenue, Kelso, WA 98626
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www.alsglobal.com



Metals

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1317 South 13th Avenue, Kelso, WA 98626
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www.alsglobal.com

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Anchor QEA, LLC
Project: Barry/201114-01.02 Task 09
Sample Matrix: Water
Sample Name: Method Blank
Lab Code: KQ2210593-01

Service Request: K2207166
Date Collected: NA
Date Received: NA
Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	ND U	ug/L	0.50	0.09	1	07/19/22 11:17	07/15/22	
Cobalt	200.8	ND U	ug/L	0.020	0.009	1	07/19/22 11:17	07/15/22	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Anchor QEA, LLC
Project: Barry/201114-01.02 Task 09
Sample Matrix: Water
Sample Name: Method Blank
Lab Code: KQ2210685-06

Service Request: K2207166
Date Collected: NA
Date Received: NA
Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	ND U	ug/L	0.50	0.09	1	07/19/22 11:59	07/15/22	
Cobalt	200.8	ND U	ug/L	0.020	0.009	1	07/19/22 11:59	07/15/22	

ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client: Anchor QEA, LLC
Project: Barry/201114-01.02 Task 09
Sample Matrix: Water

Service Request: K2207166
Date Analyzed: 07/19/22

Lab Control Sample Summary
Dissolved Metals

Units:ug/L
Basis:NA

Lab Control Sample
KQ2210593-02

Analyte Name	Analytical Method	Result	Spike Amount	% Rec	% Rec Limits
Arsenic	200.8	48.2	50.0	96	85-115
Cobalt	200.8	24.5	25.0	98	85-115

ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client: Anchor QEA, LLC
Project: Barry/201114-01.02 Task 09
Sample Matrix: Water

Service Request: K2207166
Date Analyzed: 07/19/22

Lab Control Sample Summary
Dissolved Metals

Units:ug/L
Basis:NA

Lab Control Sample
KQ2210685-07

Analyte Name	Analytical Method	Result	Spike Amount	% Rec	% Rec Limits
Arsenic	200.8	48.7	50.0	97	85-115
Cobalt	200.8	24.7	25.0	99	85-115



July 19, 2022

Service Request No:K2207168

Masa Kanematsu
Anchor QEA, LLC
6720 SW Macadam Avenue
Suite 125
Portland, OR 97219

Laboratory Results for: Barry

Dear Masa,

Enclosed are the results of the sample(s) submitted to our laboratory June 27, 2022
For your reference, these analyses have been assigned our service request number **K2207168**.

Analyses were performed according to our laboratory's NELAP-approved quality assurance program. The test results meet requirements of the current NELAP standards, where applicable, and except as noted in the laboratory case narrative provided. For a specific list of NELAP-accredited analytes, refer to the certifications section at www.alsglobal.com. All results are intended to be considered in their entirety, and ALS Group USA Corp. dba ALS Environmental (ALS) is not responsible for use of less than the complete report. Results apply only to the items submitted to the laboratory for analysis and individual items (samples) analyzed, as listed in the report.

Please contact me if you have any questions. My extension is 3376. You may also contact me via email at Mark.Harris@alsglobal.com.

Respectfully submitted,

ALS Group USA, Corp. dba ALS Environmental

Mark Harris
Project Manager

ADDRESS 1317 S. 13th Avenue, Kelso, WA 98626
PHONE +1 360 577 7222 | FAX +1 360 636 1068
ALS Group USA, Corp.
dba ALS Environmental



Narrative Documents

ALS Environmental—Kelso Laboratory
1317 South 13th Avenue, Kelso, WA 98626
Phone (360) 577-7222 Fax (360) 425-9096
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Client: Anchor QEA, LLC
Project: Barry
Sample Matrix: Water

Service Request: K2207168
Date Received: 06/27/2022

CASE NARRATIVE

All analyses were performed consistent with the quality assurance program of ALS Environmental. This report contains analytical results for samples for the Tier II level requested by the client.

Sample Receipt:

Fourteen water samples were received for analysis at ALS Environmental on 06/27/2022. Any discrepancies upon initial sample inspection are annotated on the sample receipt and preservation form included within this report. The samples were stored at minimum in accordance with the analytical method requirements.

Metals:

No significant anomalies were noted with this analysis.

Approved by _____

Date 07/19/2022



SAMPLE DETECTION SUMMARY

This form includes only detections above the reporting levels. For a full listing of sample results, continue to the Sample Results section of this Report.

CLIENT ID: BY-SBT-MW-15V-FS	Lab ID: K2207168-001
------------------------------------	-----------------------------

Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	1.60		0.09	0.50	ug/L	200.8
Cobalt, Dissolved	91.3		0.009	0.020	ug/L	200.8

CLIENT ID: BY-SBT-MW-15V-FC	Lab ID: K2207168-002
------------------------------------	-----------------------------

Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	0.90		0.09	0.50	ug/L	200.8
Cobalt, Dissolved	97.5		0.009	0.020	ug/L	200.8

CLIENT ID: BY-SBT-MW-15V-CER	Lab ID: K2207168-003
-------------------------------------	-----------------------------

Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	0.39	J	0.09	0.50	ug/L	200.8
Cobalt, Dissolved	50.1		0.009	0.020	ug/L	200.8

CLIENT ID: BY-SBT-MW-15V-PM	Lab ID: K2207168-004
------------------------------------	-----------------------------

Analyte	Results	Flag	MDL	MRL	Units	Method
Cobalt, Dissolved	0.092		0.009	0.020	ug/L	200.8

CLIENT ID: BY-SBT-MW-15V-FS-PM	Lab ID: K2207168-005
---------------------------------------	-----------------------------

Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	0.94		0.09	0.50	ug/L	200.8
Cobalt, Dissolved	92.7		0.009	0.020	ug/L	200.8

CLIENT ID: BY-SBT-MW-15V-FC-PM-MC	Lab ID: K2207168-006
--	-----------------------------

Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	46.6		0.09	0.50	ug/L	200.8
Cobalt, Dissolved	96.5		0.009	0.020	ug/L	200.8

CLIENT ID: BY-SBT-MW-15V-BC	Lab ID: K2207168-007
------------------------------------	-----------------------------

Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	1.14		0.09	0.50	ug/L	200.8
Cobalt, Dissolved	90.4		0.009	0.020	ug/L	200.8

CLIENT ID: BY-SBT-MW-15V-AIR	Lab ID: K2207168-008
-------------------------------------	-----------------------------

Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	1.78		0.09	0.50	ug/L	200.8
Cobalt, Dissolved	94.2		0.009	0.020	ug/L	200.8

CLIENT ID: BY-SBT-MW-15V-FS-DUP	Lab ID: K2207168-009
--	-----------------------------

Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	1.62		0.09	0.50	ug/L	200.8
Cobalt, Dissolved	90.6		0.009	0.020	ug/L	200.8

CLIENT ID: BY-SBT-MW-15V-CTRL	Lab ID: K2207168-010
--------------------------------------	-----------------------------

Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	1.96		0.09	0.50	ug/L	200.8



SAMPLE DETECTION SUMMARY

This form includes only detections above the reporting levels. For a full listing of sample results, continue to the Sample Results section of this Report.

CLIENT ID: BY-SBT-MW-15V-CTRL	Lab ID: K2207168-010
--------------------------------------	-----------------------------

Analyte	Results	Flag	MDL	MRL	Units	Method
Cobalt, Dissolved	91.7		0.009	0.020	ug/L	200.8

CLIENT ID: BY-SBT-MW-15V-BC-NaSO4	Lab ID: K2207168-011
--	-----------------------------

Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	1.61		0.09	0.50	ug/L	200.8
Cobalt, Dissolved	88.6		0.009	0.020	ug/L	200.8

CLIENT ID: BY-SBT-MW-15V-PM-pH-9.5	Lab ID: K2207168-012
---	-----------------------------

Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	48.2		0.09	0.50	ug/L	200.8
Cobalt, Dissolved	0.018	J	0.009	0.020	ug/L	200.8

CLIENT ID: BY-SBT-MW-15V-FS-PM-pH-9.5	Lab ID: K2207168-013
--	-----------------------------

Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	9.57		0.09	0.50	ug/L	200.8
Cobalt, Dissolved	0.100		0.009	0.020	ug/L	200.8

CLIENT ID: BY-SBT-MW-15V-FC-PM-MC-pH-9.5	Lab ID: K2207168-014
---	-----------------------------

Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	22.7		0.09	0.50	ug/L	200.8
Cobalt, Dissolved	0.132		0.009	0.020	ug/L	200.8



Sample Receipt Information

ALS Environmental—Kelso Laboratory
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Phone (360) 577-7222 Fax (360) 425-9096
www.alsglobal.com

Client: Anchor QEA, LLC
Project: Barry/201114-01.02 Task 09


Service Request:K2207168

SAMPLE CROSS-REFERENCE

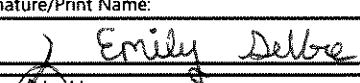
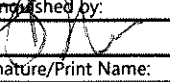
<u>SAMPLE #</u>	<u>CLIENT SAMPLE ID</u>	<u>DATE</u>	<u>TIME</u>
K2207168-001	BY-SBT-MW-15V-FS	6/24/2022	0800
K2207168-002	BY-SBT-MW-15V-FC	6/24/2022	0805
K2207168-003	BY-SBT-MW-15V-CER	6/24/2022	0810
K2207168-004	BY-SBT-MW-15V-PM	6/24/2022	0815
K2207168-005	BY-SBT-MW-15V-FS-PM	6/24/2022	0820
K2207168-006	BY-SBT-MW-15V-FC-PM-MC	6/24/2022	0825
K2207168-007	BY-SBT-MW-15V-BC	6/24/2022	0830
K2207168-008	BY-SBT-MW-15V-AIR	6/24/2022	0835
K2207168-009	BY-SBT-MW-15V-FS-DUP	6/24/2022	0840
K2207168-010	BY-SBT-MW-15V-CTRL	6/24/2022	0845
K2207168-011	BY-SBT-MW-15V-BC-NaSO4	6/24/2022	0850
K2207168-012	BY-SBT-MW-15V-PM-pH-9.5	6/24/2022	0855
K2207168-013	BY-SBT-MW-15V-FS-PM-pH-9.5	6/24/2022	0900
K2207168-014	BY-SBT-MW-15V-FC-PM-MC-pH-9.5	6/24/2022	0905

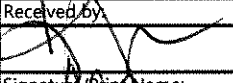
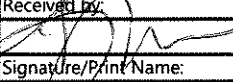
K2207168

Chain of Custody Record & Laboratory Analysis Request

Laboratory Number: 503-972-5019					No. of Containers	Parameters													 Jessica Goin 6720 SW Macadam Ave Suite 125 Portland OR 97219
Date:	6/27/2022																		
Project Name:	Bary																		
Project Number:	201114-01.02 Task 09																		
Project Manager:	Masa Kanematsu																		
Phone Number:	503-972-5001 (backup number: 971.334.8193)																		
Shipment Method:	ALS Carrier																		
Line	Field Sample ID	Collection		Matrix	As (dissolved)	Co (dissolved)													Comments/Preservation
		Date	Time																
1	BY-SBT-MW-15V-FS	6/24/2022	6/24/22 8:00	Water	1	X	X												HNO3 preserved. Field Filtered.
2	BY-SBT-MW-15V-FC	6/24/2022	6/24/22 8:05	Water	1	X	X												HNO3 preserved. Field Filtered.
3	BY-SBT-MW-15V-CER	6/24/2022	6/24/22 8:10	Water	1	X	X												HNO3 preserved. Field Filtered.
4	BY-SBT-MW-15V-PM	6/24/2022	6/24/22 8:15	Water	1	X	X												HNO3 preserved. Field Filtered. KMnO4 added
5	BY-SBT-MW-15V-FS-PM	6/24/2022	6/24/22 8:20	Water	1	X	X												HNO3 preserved. Field Filtered. KMnO4 added
6	BY-SBT-MW-15V-FC-PM-MC	6/24/2022	6/24/22 8:25	Water	1	X	X												HNO3 preserved. Field Filtered. KMnO4 added
7	BY-SBT-MW-15V-BC	6/24/2022	6/24/22 8:30	Water	1	X	X												HNO3 preserved. Field Filtered.
8	BY-SBT-MW-15V-AIR	6/24/2022	6/24/22 8:35	Water	1	X	X												HNO3 preserved. Field Filtered.
9	BY-SBT-MW-15V-FS-DUP	6/24/2022	6/24/22 8:40	Water	1	X	X												HNO3 preserved. Field Filtered.
10	BY-SBT-MW-15V-CTRL	6/24/2022	6/24/22 8:45	Water	1	X	X												HNO3 preserved. Field Filtered.
11	BY-SBT-MW-15V-BC-NaSO4	6/24/2022	6/24/22 8:50	Water	1	X	X												HNO3 preserved. Field Filtered.
12	BY-SBT-MW-15V-PM-pH-9.5	6/24/2022	6/24/22 8:55	Water	1	X	X												HNO3 preserved. Field Filtered. KMnO4 added
13	BY-SBT-MW-15V-FS-PM-pH-9.5	6/24/2022	6/24/22 9:00	Water	1	X	X												HNO3 preserved. Field Filtered. KMnO4 added
14	BY-SBT-MW-15V-FC-PM-MC-pH-9.5	6/24/2022	6/24/22 9:05	Water	1	X	X												HNO3 preserved. Field Filtered. KMnO4 added
15																			
16																			

Notes: Please Contact Masa (503-972-5001, mkanematsu@anchorqea.com) if running > 10X dilution. Please analyze by ICP-MS method 200.8 to achieve the MDL < 1 ppb. Some samples may have residual purple color associated with potassium permanganate (KMnO4). If those samples need to be diluted in order to not damage the ICP-MS, please do so and let Masa know the dilution factor.

Relinquished by:	Company:
Emily DeVore	Anchor QEA
Signature/Print Name:	Date/Time:
	6/27/22 8:00am
Relinquished by:	Company:
	ALS
Signature/Print Name:	Date/Time:
	6/27/22 1020

Received by:

Signature/Print Name:
JGoin 6/27/22 2820
Received by:

Signature/Print Name:
ALS 6/27/22 1020

Cooler Receipt and Preservation Form

Client: Anchor QEA Service Request K22 07168
 Received: 6/27/22 Opened: 6/27/22 By: [Signature] Unloaded: 6/27/22 By: [Signature]

- Samples were received via? USPS **Fed Ex** UPS DHL PDX **Courier** Hand Delivered
- Samples were received in: (circle) **Cooler** **Bex** Envelope Other _____ NA
- Were custody seals on coolers? NA Y **N** If yes, how many and where? _____
- If present, were custody seals intact? Y N If present, were they signed and dated? Y N

Temp Blank	Sample Temp	IR Gun	Cooler #/COC ID / NA	Out of temp Indicate with "X"	PM Notified If out of temp	Tracking Number NA	Filed
<u>5.3</u>		<u>IR01</u>					

Was a Temperature Blank present in cooler? NA **Y** N If yes, notate the temperature in the appropriate column above:
 If no, take the temperature of a representative sample bottle contained within the cooler; notate in the column "Sample Temp":
 Were samples received within the method specified temperature ranges? NA **Y** N
 If no, were they received on ice and same day as collected? If not, notate the cooler # below and notify the PM. NA Y N

applicable, tissue samples were received: Frozen Partially Thawed **Thawed**

Packing material: Inserts **Baggies** Bubble Wrap Gel Packs **Wet Ice** Dry Ice Sleeves

Were custody papers properly filled out (ink, signed, etc.)? NA **Y** N

Were samples received in good condition (unbroken) NA **Y** N

Were all sample labels complete (ie, analysis, preservation, etc.)? NA **Y** N

Did all sample labels and tags agree with custody papers? NA **Y** N

Were appropriate bottles/containers and volumes received for the tests indicated? NA **Y** N

Were the pH-preserved bottles (see SMO GEN SOP) received at the appropriate pH? Indicate in the table below NA **Y** N

Were VOA vials received without headspace? Indicate in the table below. NA Y N

Was C12/Res negative? **NA** Y N

Were 100ml sterile microbiology bottles filled exactly to the 100ml mark? **NA** Y N Under filled Overfilled

Sample ID on Bottle	Sample ID on COC	Identified by:

Sample ID	Bottle Count	Bottle Type	Head-space	Broke	pH	Reagent	Volume added	Reagent Lot Number	Initials	Time

Notes, Discrepancies, Resolutions: _____



Miscellaneous Forms

ALS Environmental—Kelso Laboratory
1317 South 13th Avenue, Kelso, WA 98626
Phone (360) 577-7222 Fax (360) 425-9096
www.alsglobal.com

Inorganic Data Qualifiers

- * The result is an outlier. See case narrative.
- # The control limit criteria is not applicable.
- B The analyte was found in the associated method blank at a level that is significant relative to the sample result as defined by the DOD or NELAC standards.
- E The result is an estimate amount because the value exceeded the instrument calibration range.
- J The result is an estimated value.
- U The analyte was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL.
DOD-QSM 4.2 definition : Analyte was not detected and is reported as less than the LOD or as defined by the project. The detection limit is adjusted for dilution.
- i The MRL/MDL or LOQ/LOD is elevated due to a matrix interference.
- X See case narrative.
- Q See case narrative. One or more quality control criteria was outside the limits.
- H The holding time for this test is immediately following sample collection. The samples were analyzed as soon as possible after receipt by the laboratory.

Metals Data Qualifiers

- # The control limit criteria is not applicable.
- J The result is an estimated value.
- E The percent difference for the serial dilution was greater than 10%, indicating a possible matrix interference in the sample.
- M The duplicate injection precision was not met.
- N The Matrix Spike sample recovery is not within control limits. See case narrative.
- S The reported value was determined by the Method of Standard Additions (MSA).
- U The analyte was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL.
DOD-QSM 4.2 definition : Analyte was not detected and is reported as less than the LOD or as defined by the project. The detection limit is adjusted for dilution.
- W The post-digestion spike for furnace AA analysis is out of control limits, while sample absorbance is less than 50% of spike absorbance.
 - i The MRL/MDL or LOQ/LOD is elevated due to a matrix interference.
- X See case narrative.
- + The correlation coefficient for the MSA is less than 0.995.
- Q See case narrative. One or more quality control criteria was outside the limits.

Organic Data Qualifiers

- * The result is an outlier. See case narrative.
- # The control limit criteria is not applicable. See case narrative.
- A A tentatively identified compound, a suspected aldol-condensation product.
- B The analyte was found in the associated method blank at a level that is significant relative to the sample result as defined by the DOD or NELAC standards.
- C The analyte was qualitatively confirmed using GC/MS techniques, pattern recognition, or by comparing to historical data.
- D The reported result is from a dilution.
- E The result is an estimated value.
- J The result is an estimated value.
- N The result is presumptive. The analyte was tentatively identified, but a confirmation analysis was not performed.
- P The GC or HPLC confirmation criteria was exceeded. The relative percent difference is greater than 40% between the two analytical results.
- U The analyte was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL.
DOD-QSM 4.2 definition : Analyte was not detected and is reported as less than the LOD or as defined by the project. The detection limit is adjusted for dilution.
- i The MRL/MDL or LOQ/LOD is elevated due to a chromatographic interference.
- X See case narrative.
- Q See case narrative. One or more quality control criteria was outside the limits.

Additional Petroleum Hydrocarbon Specific Qualifiers

- F The chromatographic fingerprint of the sample matches the elution pattern of the calibration standard.
- L The chromatographic fingerprint of the sample resembles a petroleum product, but the elution pattern indicates the presence of a greater amount of lighter molecular weight constituents than the calibration standard.
- H The chromatographic fingerprint of the sample resembles a petroleum product, but the elution pattern indicates the presence of a greater amount of heavier molecular weight constituents than the calibration standard.
- O The chromatographic fingerprint of the sample resembles an oil, but does not match the calibration standard.
- Y The chromatographic fingerprint of the sample resembles a petroleum product eluting in approximately the correct carbon range, but the elution pattern does not match the calibration standard.
- Z The chromatographic fingerprint does not resemble a petroleum product.

**ALS Group USA Corp. dba ALS Environmental (ALS) - Kelso
State Certifications, Accreditations, and Licenses**

Agency	Web Site	Number
Alaska DEH	http://dec.alaska.gov/eh/lab/cs/csapproval.htm	UST-040
Arizona DHS	http://www.azdhs.gov/lab/license/env.htm	AZ0339
Arkansas - DEQ	http://www.adeq.state.ar.us/techsvs/labcert.htm	88-0637
California DHS (ELAP)	http://www.cdph.ca.gov/certlic/labs/Pages/ELAP.aspx	2795
DOD ELAP	http://www.denix.osd.mil/edqw/Accreditation/AccreditedLabs.cfm	L16-58-R4
Florida DOH	http://www.doh.state.fl.us/lab/EnvLabCert/WaterCert.htm	E87412
Hawaii DOH	http://health.hawaii.gov/	-
ISO 17025	http://www.pjllabs.com/	L16-57
Louisiana DEQ	http://www.deq.louisiana.gov/page/la-lab-accreditation	03016
Maine DHS	http://www.maine.gov/dhhs/	WA01276
Minnesota DOH	http://www.health.state.mn.us/accreditation	053-999-457
Nevada DEP	http://ndep.nv.gov/bsdw/labservice.htm	WA01276
New Jersey DEP	http://www.nj.gov/dep/enforcement/oqa.html	WA005
New York - DOH	https://www.wadsworth.org/regulatory/elap	12060
North Carolina DEQ	https://deq.nc.gov/about/divisions/water-resources/water-resources-data/water-sciences-home-page/laboratory-certification-branch/non-field-lab-certification	605
Oklahoma DEQ	http://www.deq.state.ok.us/CSDnew/labcert.htm	9801
Oregon – DEQ (NELAP)	http://public.health.oregon.gov/LaboratoryServices/EnvironmentalLaboratoryAccreditation/Pages/index.aspx	WA100010
South Carolina DHEC	http://www.scdhec.gov/environment/EnvironmentalLabCertification/	61002
Texas CEQ	http://www.tceq.texas.gov/field/qa/env_lab_accreditation.html	T104704427
Washington DOE	http://www.ecy.wa.gov/programs/eap/labs/lab-accreditation.html	C544
Wyoming (EPA Region 8)	https://www.epa.gov/region8-waterops/epa-region-8-certified-drinking-water	-
Kelso Laboratory Website	www.alsglobal.com	NA

Analyses were performed according to our laboratory's NELAP-approved quality assurance program. A complete listing of specific NELAP-certified analytes, can be found in the certification section at www.ALSGlobal.com or at the accreditation bodies web site.

Please refer to the certification and/or accreditation body's web site if samples are submitted for compliance purposes. The states highlighted above, require the analysis be listed on the state certification if used for compliance purposes and if the method/analyte is offered by that state.

Acronyms

ASTM	American Society for Testing and Materials
A2LA	American Association for Laboratory Accreditation
CARB	California Air Resources Board
CAS Number	Chemical Abstract Service registry Number
CFC	Chlorofluorocarbon
CFU	Colony-Forming Unit
DEC	Department of Environmental Conservation
DEQ	Department of Environmental Quality
DHS	Department of Health Services
DOE	Department of Ecology
DOH	Department of Health
EPA	U. S. Environmental Protection Agency
ELAP	Environmental Laboratory Accreditation Program
GC	Gas Chromatography
GC/MS	Gas Chromatography/Mass Spectrometry
LOD	Limit of Detection
LOQ	Limit of Quantitation
LUFT	Leaking Underground Fuel Tank
M	Modified
MCL	Maximum Contaminant Level is the highest permissible concentration of a substance allowed in drinking water as established by the USEPA.
MDL	Method Detection Limit
MPN	Most Probable Number
MRL	Method Reporting Limit
NA	Not Applicable
NC	Not Calculated
NCASI	National Council of the Paper Industry for Air and Stream Improvement
ND	Not Detected
NIOSH	National Institute for Occupational Safety and Health
PQL	Practical Quantitation Limit
RCRA	Resource Conservation and Recovery Act
SIM	Selected Ion Monitoring
TPH	Total Petroleum Hydrocarbons
tr	Trace level is the concentration of an analyte that is less than the PQL but greater than or equal to the MDL.

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Analyst Summary report

Client: Anchor QEA, LLC
Project: Barry/201114-01.02 Task 09

Service Request: K2207168

Sample Name: BY-SBT-MW-15V-FS
Lab Code: K2207168-001
Sample Matrix: Water

Date Collected: 06/24/22
Date Received: 06/27/22

Analysis Method
200.8

Extracted/Digested By
SSOLADEY

Analyzed By
EMCALLISTER

Sample Name: BY-SBT-MW-15V-FC
Lab Code: K2207168-002
Sample Matrix: Water

Date Collected: 06/24/22
Date Received: 06/27/22

Analysis Method
200.8

Extracted/Digested By
SSOLADEY

Analyzed By
EMCALLISTER

Sample Name: BY-SBT-MW-15V-CER
Lab Code: K2207168-003
Sample Matrix: Water

Date Collected: 06/24/22
Date Received: 06/27/22

Analysis Method
200.8

Extracted/Digested By
SSOLADEY

Analyzed By
EMCALLISTER

Sample Name: BY-SBT-MW-15V-PM
Lab Code: K2207168-004
Sample Matrix: Water

Date Collected: 06/24/22
Date Received: 06/27/22

Analysis Method
200.8

Extracted/Digested By
SSOLADEY

Analyzed By
EMCALLISTER

Sample Name: BY-SBT-MW-15V-FS-PM
Lab Code: K2207168-005
Sample Matrix: Water

Date Collected: 06/24/22
Date Received: 06/27/22

Analysis Method
200.8

Extracted/Digested By
SSOLADEY

Analyzed By
EMCALLISTER

ALS Group USA, Corp.
dba ALS Environmental

Analyst Summary report

Client: Anchor QEA, LLC
Project: Barry/201114-01.02 Task 09

Service Request: K2207168

Sample Name: BY-SBT-MW-15V-FC-PM-MC
Lab Code: K2207168-006
Sample Matrix: Water

Date Collected: 06/24/22
Date Received: 06/27/22

Analysis Method
200.8

Extracted/Digested By
SSOLADEY

Analyzed By
EMCALLISTER

Sample Name: BY-SBT-MW-15V-BC
Lab Code: K2207168-007
Sample Matrix: Water

Date Collected: 06/24/22
Date Received: 06/27/22

Analysis Method
200.8

Extracted/Digested By
SSOLADEY

Analyzed By
EMCALLISTER

Sample Name: BY-SBT-MW-15V-AIR
Lab Code: K2207168-008
Sample Matrix: Water

Date Collected: 06/24/22
Date Received: 06/27/22

Analysis Method
200.8

Extracted/Digested By
SSOLADEY

Analyzed By
EMCALLISTER

Sample Name: BY-SBT-MW-15V-FS-DUP
Lab Code: K2207168-009
Sample Matrix: Water

Date Collected: 06/24/22
Date Received: 06/27/22

Analysis Method
200.8

Extracted/Digested By
SSOLADEY

Analyzed By
EMCALLISTER

Sample Name: BY-SBT-MW-15V-CTRL
Lab Code: K2207168-010
Sample Matrix: Water

Date Collected: 06/24/22
Date Received: 06/27/22

Analysis Method
200.8

Extracted/Digested By
SSOLADEY

Analyzed By
EMCALLISTER

ALS Group USA, Corp.
dba ALS Environmental

Analyst Summary report

Client: Anchor QEA, LLC
Project: Barry/201114-01.02 Task 09

Service Request: K2207168

Sample Name: BY-SBT-MW-15V-BC-NaSO4
Lab Code: K2207168-011
Sample Matrix: Water

Date Collected: 06/24/22
Date Received: 06/27/22

Analysis Method
200.8

Extracted/Digested By
SSOLADEY

Analyzed By
EMCALLISTER

Sample Name: BY-SBT-MW-15V-PM-pH-9.5
Lab Code: K2207168-012
Sample Matrix: Water

Date Collected: 06/24/22
Date Received: 06/27/22

Analysis Method
200.8

Extracted/Digested By
SSOLADEY

Analyzed By
EMCALLISTER

Sample Name: BY-SBT-MW-15V-FS-PM-pH-9.5
Lab Code: K2207168-013
Sample Matrix: Water

Date Collected: 06/24/22
Date Received: 06/27/22

Analysis Method
200.8

Extracted/Digested By
SSOLADEY

Analyzed By
EMCALLISTER

Sample Name: BY-SBT-MW-15V-FC-PM-MC-pH-9.5
Lab Code: K2207168-014
Sample Matrix: Water

Date Collected: 06/24/22
Date Received: 06/27/22

Analysis Method
200.8

Extracted/Digested By
SSOLADEY

Analyzed By
EMCALLISTER



Sample Results

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ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Anchor QEA, LLC
Project: Barry/201114-01.02 Task 09
Sample Matrix: Water
Sample Name: BY-SBT-MW-15V-FS
Lab Code: K2207168-001

Service Request: K2207168
Date Collected: 06/24/22 08:00
Date Received: 06/27/22 10:20
Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	1.60	ug/L	0.50	0.09	1	07/19/22 11:38	07/15/22	
Cobalt	200.8	91.3	ug/L	0.020	0.009	1	07/19/22 11:38	07/15/22	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Anchor QEA, LLC
Project: Barry/201114-01.02 Task 09
Sample Matrix: Water
Sample Name: BY-SBT-MW-15V-FC
Lab Code: K2207168-002

Service Request: K2207168
Date Collected: 06/24/22 08:05
Date Received: 06/27/22 10:20
Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	0.90	ug/L	0.50	0.09	1	07/19/22 11:42	07/15/22	
Cobalt	200.8	97.5	ug/L	0.020	0.009	1	07/19/22 11:42	07/15/22	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Anchor QEA, LLC
Project: Barry/201114-01.02 Task 09
Sample Matrix: Water
Sample Name: BY-SBT-MW-15V-CER
Lab Code: K2207168-003

Service Request: K2207168
Date Collected: 06/24/22 08:10
Date Received: 06/27/22 10:20
Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	0.39 J	ug/L	0.50	0.09	1	07/19/22 11:43	07/15/22	
Cobalt	200.8	50.1	ug/L	0.020	0.009	1	07/19/22 11:43	07/15/22	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Anchor QEA, LLC
Project: Barry/201114-01.02 Task 09
Sample Matrix: Water
Sample Name: BY-SBT-MW-15V-PM
Lab Code: K2207168-004

Service Request: K2207168
Date Collected: 06/24/22 08:15
Date Received: 06/27/22 10:20
Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	ND U	ug/L	0.50	0.09	1	07/19/22 11:45	07/15/22	
Cobalt	200.8	0.092	ug/L	0.020	0.009	1	07/19/22 11:45	07/15/22	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Anchor QEA, LLC
Project: Barry/201114-01.02 Task 09
Sample Matrix: Water
Sample Name: BY-SBT-MW-15V-FS-PM
Lab Code: K2207168-005

Service Request: K2207168
Date Collected: 06/24/22 08:20
Date Received: 06/27/22 10:20
Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	0.94	ug/L	0.50	0.09	1	07/19/22 11:49	07/15/22	
Cobalt	200.8	92.7	ug/L	0.020	0.009	1	07/19/22 11:49	07/15/22	

ALS Group USA, Corp.
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Analytical Report

Client: Anchor QEA, LLC
Project: Barry/201114-01.02 Task 09
Sample Matrix: Water
Sample Name: BY-SBT-MW-15V-FC-PM-MC
Lab Code: K2207168-006

Service Request: K2207168
Date Collected: 06/24/22 08:25
Date Received: 06/27/22 10:20
Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	46.6	ug/L	0.50	0.09	1	07/19/22 11:50	07/15/22	
Cobalt	200.8	96.5	ug/L	0.020	0.009	1	07/19/22 11:50	07/15/22	

ALS Group USA, Corp.
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Analytical Report

Client: Anchor QEA, LLC
Project: Barry/201114-01.02 Task 09
Sample Matrix: Water
Sample Name: BY-SBT-MW-15V-BC
Lab Code: K2207168-007

Service Request: K2207168
Date Collected: 06/24/22 08:30
Date Received: 06/27/22 10:20
Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	1.14	ug/L	0.50	0.09	1	07/19/22 11:51	07/15/22	
Cobalt	200.8	90.4	ug/L	0.020	0.009	1	07/19/22 11:51	07/15/22	

ALS Group USA, Corp.
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Analytical Report

Client: Anchor QEA, LLC
Project: Barry/201114-01.02 Task 09
Sample Matrix: Water
Sample Name: BY-SBT-MW-15V-AIR
Lab Code: K2207168-008

Service Request: K2207168
Date Collected: 06/24/22 08:35
Date Received: 06/27/22 10:20
Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	1.78	ug/L	0.50	0.09	1	07/19/22 11:53	07/15/22	
Cobalt	200.8	94.2	ug/L	0.020	0.009	1	07/19/22 11:53	07/15/22	

ALS Group USA, Corp.
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Analytical Report

Client: Anchor QEA, LLC
Project: Barry/201114-01.02 Task 09
Sample Matrix: Water
Sample Name: BY-SBT-MW-15V-FS-DUP
Lab Code: K2207168-009

Service Request: K2207168
Date Collected: 06/24/22 08:40
Date Received: 06/27/22 10:20
Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	1.62	ug/L	0.50	0.09	1	07/19/22 11:54	07/15/22	
Cobalt	200.8	90.6	ug/L	0.020	0.009	1	07/19/22 11:54	07/15/22	

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Analytical Report

Client: Anchor QEA, LLC
Project: Barry/201114-01.02 Task 09
Sample Matrix: Water
Sample Name: BY-SBT-MW-15V-CTRL
Lab Code: K2207168-010

Service Request: K2207168
Date Collected: 06/24/22 08:45
Date Received: 06/27/22 10:20
Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	1.96	ug/L	0.50	0.09	1	07/19/22 11:55	07/15/22	
Cobalt	200.8	91.7	ug/L	0.020	0.009	1	07/19/22 11:55	07/15/22	

ALS Group USA, Corp.
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Analytical Report

Client: Anchor QEA, LLC
Project: Barry/201114-01.02 Task 09
Sample Matrix: Water
Sample Name: BY-SBT-MW-15V-BC-NaSO4
Lab Code: K2207168-011

Service Request: K2207168
Date Collected: 06/24/22 08:50
Date Received: 06/27/22 10:20
Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	1.61	ug/L	0.50	0.09	1	07/19/22 12:25	07/15/22	
Cobalt	200.8	88.6	ug/L	0.020	0.009	1	07/19/22 12:25	07/15/22	

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Analytical Report

Client: Anchor QEA, LLC
Project: Barry/201114-01.02 Task 09
Sample Matrix: Water
Sample Name: BY-SBT-MW-15V-PM-pH-9.5
Lab Code: K2207168-012

Service Request: K2207168
Date Collected: 06/24/22 08:55
Date Received: 06/27/22 10:20
Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	48.2	ug/L	0.50	0.09	1	07/19/22 12:26	07/15/22	
Cobalt	200.8	0.018 J	ug/L	0.020	0.009	1	07/19/22 12:26	07/15/22	

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Analytical Report

Client: Anchor QEA, LLC
Project: Barry/201114-01.02 Task 09
Sample Matrix: Water

Service Request: K2207168
Date Collected: 06/24/22 09:00
Date Received: 06/27/22 10:20

Sample Name: BY-SBT-MW-15V-FS-PM-pH-9.5
Lab Code: K2207168-013

Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	9.57	ug/L	0.50	0.09	1	07/19/22 12:28	07/15/22	
Cobalt	200.8	0.100	ug/L	0.020	0.009	1	07/19/22 12:28	07/15/22	

ALS Group USA, Corp.
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Analytical Report

Client: Anchor QEA, LLC
Project: Barry/201114-01.02 Task 09
Sample Matrix: Water

Service Request: K2207168
Date Collected: 06/24/22 09:05
Date Received: 06/27/22 10:20

Sample Name: BY-SBT-MW-15V-FC-PM-MC-pH-9.5
Lab Code: K2207168-014

Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	22.7	ug/L	0.50	0.09	1	07/19/22 12:32	07/15/22	
Cobalt	200.8	0.132	ug/L	0.020	0.009	1	07/19/22 12:32	07/15/22	



QC Summary Forms

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ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Anchor QEA, LLC
Project: Barry/201114-01.02 Task 09
Sample Matrix: Water
Sample Name: Method Blank
Lab Code: KQ2210593-01

Service Request: K2207168
Date Collected: NA
Date Received: NA
Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	ND U	ug/L	0.50	0.09	1	07/19/22 11:17	07/15/22	
Cobalt	200.8	ND U	ug/L	0.020	0.009	1	07/19/22 11:17	07/15/22	

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Analytical Report

Client: Anchor QEA, LLC
Project: Barry/201114-01.02 Task 09
Sample Matrix: Water
Sample Name: Method Blank
Lab Code: KQ2210685-06

Service Request: K2207168
Date Collected: NA
Date Received: NA
Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	ND U	ug/L	0.50	0.09	1	07/19/22 11:59	07/15/22	
Cobalt	200.8	ND U	ug/L	0.020	0.009	1	07/19/22 11:59	07/15/22	

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QA/QC Report

Client: Anchor QEA, LLC
Project: Barry/201114-01.02 Task 09
Sample Matrix: Water

Service Request: K2207168
Date Collected: 06/24/22
Date Received: 06/27/22
Date Analyzed: 07/19/22
Date Extracted: 07/15/22

Matrix Spike Summary
Dissolved Metals

Sample Name: BY-SBT-MW-15V-FS
Lab Code: K2207168-001
Analysis Method: 200.8
Prep Method: EPA CLP ILM04.0

Units: ug/L
Basis: NA

Matrix Spike
KQ2210593-05

Analyte Name	Sample Result	Result	Spike Amount	% Rec	% Rec Limits
Arsenic	1.60	49.3	50.0	95	70-130
Cobalt	91.3	117	25.0	102	70-130

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

Matrix Spike and Matrix Spike Duplicate Data is presented for information purposes only. The matrix may or may not be relevant to samples reported in this report. The laboratory evaluates system performance based on the LCS and LCSD control limits.

ALS Group USA, Corp.

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QA/QC Report

Client: Anchor QEA, LLC
Project: Barry/201114-01.02 Task 09
Sample Matrix: Water

Service Request: K2207168
Date Collected: 06/24/22
Date Received: 06/27/22
Date Analyzed: 07/19/22

Replicate Sample Summary

Dissolved Metals

Sample Name: BY-SBT-MW-15V-FS
Lab Code: K2207168-001

Units: ug/L
Basis: NA

Analyte Name	Analysis Method	MRL	MDL	Sample Result	Duplicate	Average	RPD	RPD Limit
					Sample KQ2210593-06 Result			
Arsenic	200.8	0.50	0.09	1.60	1.63	1.62	2	20
Cobalt	200.8	0.020	0.009	91.3	90.9	91.1	<1	20

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

ALS Group USA, Corp.
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QA/QC Report

Client: Anchor QEA, LLC
Project: Barry/201114-01.02 Task 09
Sample Matrix: Water

Service Request: K2207168
Date Analyzed: 07/19/22

Lab Control Sample Summary
Dissolved Metals

Units:ug/L
Basis:NA

Lab Control Sample
KQ2210593-02

Analyte Name	Analytical Method	Result	Spike Amount	% Rec	% Rec Limits
Arsenic	200.8	48.2	50.0	96	85-115
Cobalt	200.8	24.5	25.0	98	85-115

ALS Group USA, Corp.

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QA/QC Report

Client: Anchor QEA, LLC
Project: Barry/201114-01.02 Task 09
Sample Matrix: Water

Service Request: K2207168
Date Analyzed: 07/19/22

Lab Control Sample Summary
Dissolved Metals

Units:ug/L

Basis:NA

Lab Control Sample

KQ2210685-07

Analyte Name	Analytical Method	Result	Spike Amount	% Rec	% Rec Limits
Arsenic	200.8	48.7	50.0	97	85-115
Cobalt	200.8	24.7	25.0	99	85-115



July 19, 2022

Service Request No:K2207169

Masa Kanematsu
Anchor QEA, LLC
6720 SW Macadam Avenue
Suite 125
Portland, OR 97219

Laboratory Results for: Barry

Dear Masa,

Enclosed are the results of the sample(s) submitted to our laboratory June 27, 2022
For your reference, these analyses have been assigned our service request number **K2207169**.

Analyses were performed according to our laboratory's NELAP-approved quality assurance program. The test results meet requirements of the current NELAP standards, where applicable, and except as noted in the laboratory case narrative provided. For a specific list of NELAP-accredited analytes, refer to the certifications section at www.alsglobal.com. All results are intended to be considered in their entirety, and ALS Group USA Corp. dba ALS Environmental (ALS) is not responsible for use of less than the complete report. Results apply only to the items submitted to the laboratory for analysis and individual items (samples) analyzed, as listed in the report.

Please contact me if you have any questions. My extension is 3376. You may also contact me via email at Mark.Harris@alsglobal.com.

Respectfully submitted,

ALS Group USA, Corp. dba ALS Environmental

Mark Harris
Project Manager

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ALS Group USA, Corp.
dba ALS Environmental



Narrative Documents

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Client: Anchor QEA, LLC
Project: Barry
Sample Matrix: Water

Service Request: K2207169
Date Received: 06/27/2022

CASE NARRATIVE

All analyses were performed consistent with the quality assurance program of ALS Environmental. This report contains analytical results for samples for the Tier II level requested by the client.

Sample Receipt:

Eleven water samples were received for analysis at ALS Environmental on 06/27/2022. Any discrepancies upon initial sample inspection are annotated on the sample receipt and preservation form included within this report. The samples were stored at minimum in accordance with the analytical method requirements.

Metals:

No significant anomalies were noted with this analysis.

Noel D. O'Connell

Approved by _____

Date 07/19/2022



SAMPLE DETECTION SUMMARY

This form includes only detections above the reporting levels. For a full listing of sample results, continue to the Sample Results section of this Report.

CLIENT ID: BY-GBT-MW-8-FS		Lab ID: K2207169-001				
Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	0.42	J	0.09	0.50	ug/L	200.8
CLIENT ID: BY-GBT-MW-8-FC		Lab ID: K2207169-002				
Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	318		0.09	0.50	ug/L	200.8
CLIENT ID: BY-GBT-MW-8-CER		Lab ID: K2207169-003				
Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	0.97		0.09	0.50	ug/L	200.8
CLIENT ID: BY-GBT-MW-8-PM		Lab ID: K2207169-004				
Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	1.00		0.09	0.50	ug/L	200.8
CLIENT ID: BY-GBT-MW-8-FS-PM		Lab ID: K2207169-005				
Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	1.10		0.09	0.50	ug/L	200.8
CLIENT ID: BY-GBT-MW-8-FC-PM-MC		Lab ID: K2207169-006				
Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	1.00		0.09	0.50	ug/L	200.8
CLIENT ID: BY-GBT-MW-8-BC		Lab ID: K2207169-007				
Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	0.75		0.09	0.50	ug/L	200.8
CLIENT ID: BY-GBT-MW-8-AIR		Lab ID: K2207169-008				
Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	0.44	J	0.09	0.50	ug/L	200.8
CLIENT ID: BY-GBT-MW-8-FS-DUP		Lab ID: K2207169-009				
Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	0.47	J	0.09	0.50	ug/L	200.8
CLIENT ID: BY-GBT-MW-8-CTRL		Lab ID: K2207169-010				
Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	0.46	J	0.09	0.50	ug/L	200.8
CLIENT ID: BY-GBT-MW-8-BC-NaSO4		Lab ID: K2207169-011				
Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	1.72		0.09	0.50	ug/L	200.8



Sample Receipt Information

ALS Environmental—Kelso Laboratory
1317 South 13th Avenue, Kelso, WA 98626
Phone (360) 577-7222 Fax (360) 425-9096
www.alsglobal.com

Client: Anchor QEA, LLC
Project: Barry/201114-01.02 Task 09


Service Request:K2207169

SAMPLE CROSS-REFERENCE

<u>SAMPLE #</u>	<u>CLIENT SAMPLE ID</u>	<u>DATE</u>	<u>TIME</u>
K2207169-001	BY-GBT-MW-8-FS	6/22/2022	1045
K2207169-002	BY-GBT-MW-8-FC	6/22/2022	1050
K2207169-003	BY-GBT-MW-8-CER	6/22/2022	1055
K2207169-004	BY-GBT-MW-8-PM	6/22/2022	1100
K2207169-005	BY-GBT-MW-8-FS-PM	6/22/2022	1105
K2207169-006	BY-GBT-MW-8-FC-PM-MC	6/22/2022	1110
K2207169-007	BY-GBT-MW-8-BC	6/22/2022	1115
K2207169-008	BY-GBT-MW-8-AIR	6/22/2022	1120
K2207169-009	BY-GBT-MW-8-FS-DUP	6/22/2022	1125
K2207169-010	BY-GBT-MW-8-CTRL	6/22/2022	1130
K2207169-011	BY-GBT-MW-8-BC-NaSO4	6/22/2022	1135

K220769

Chain of Custody Record & Laboratory Analysis Request

Laboratory Number: 503-972-5019					No. of Containers	Parameters										 Jessica Goin 6720 SW Macadam Ave Suite 125 Portland OR 97219 Comments/Preservation							
Date:	6/27/2022					As (dissolved)																	
Project Name:	Barry																						
Project Number:	201114-01.02 Task 09																						
Project Manager:	Masa Kanematsu																						
Phone Number:	503-972-5001 (backup number: 971.334.8193)																						
Shipment Method:	ALS Carrier																						
Line	Field Sample ID	Collection		Matrix	No. of Containers	As (dissolved)														Comments/Preservation			
		Date	Time																				
1	BY-GBT-MW-8-FS	6/22/2022	6/22/22 10:45	Water	1	X																HNO3 preserved. Field Filtered.	
2	BY-GBT-MW-8-FC	6/22/2022	6/22/22 10:50	Water	1	X																HNO3 preserved. Field Filtered.	
3	BY-GBT-MW-8-CER	6/22/2022	6/22/22 10:55	Water	1	X																HNO3 preserved. Field Filtered.	
4	BY-GBT-MW-8-PM	6/22/2022	6/22/22 11:00	Water	1	X																HNO3 preserved. Field Filtered. KMnO4 added	
5	BY-GBT-MW-8-FS-PM	6/22/2022	6/22/22 11:05	Water	1	X																HNO3 preserved. Field Filtered. KMnO4 added	
6	BY-GBT-MW-8-FC-PM-MC	6/22/2022	6/22/22 11:10	Water	1	X																HNO3 preserved. Field Filtered. KMnO4 added	
7	BY-GBT-MW-8-BC	6/22/2022	6/22/22 11:15	Water	1	X																HNO3 preserved. Field Filtered.	
8	BY-GBT-MW-8-AIR	6/22/2022	6/22/22 11:20	Water	1	X																HNO3 preserved. Field Filtered.	
9	BY-GBT-MW-8-FS-DUP	6/22/2022	6/22/22 11:25	Water	1	X																HNO3 preserved. Field Filtered.	
10	BY-GBT-MW-8-CTRL	6/22/2022	6/22/22 11:30	Water	1	X																HNO3 preserved. Field Filtered.	
11	BY-GBT-MW-8-BC-NaSO4	6/22/2022	6/22/22 11:35	Water	1	X																HNO3 preserved. Field Filtered.	
12																							
13																							
14																							
15																							
16																							

Notes: Please Contact Masa (503-972-5001, mkanematsu@anchorqea.com) if running > 10X dilution. Please analyze by ICP-MS method 200.8 to achieve the MDL < 1 ppb. Some samples may have residual purple color associated with potassium permanganate (KMnO4). If those samples need to be diluted in order to not damage the ICP-MS, please do so and let Masa know the dilution factor.

Relinquished by:	Company:
Emily DeVore	Anchor QEA
Signature/Print Name:	Date/Time:
<i>Emily DeVore</i>	6/27/22 8:00 am
Relinquished by:	Company:
<i>[Signature]</i> ACS	6/27/22 1020
Signature/Print Name:	Date/Time:

Received by:
<i>[Signature]</i>
Signature/Print Name:
<i>K. Morrow ACS 6/27/22 0820</i>
Received by:
<i>[Signature]</i>
Signature/Print Name:
<i>[Signature] ACS 6/27/22 1020</i>

Cooler Receipt and Preservation Form

Client: Anchor QEA Service Request K22 07169
 Received: 6/27/22 Opened: 6/27/22 By: [Signature] Unloaded: 6/27/22 By: [Signature]

- Samples were received via? USPS Fed Ex UPS DHL PDX Courier Hand Delivered
- Samples were received in: (circle) Cooler Box Envelope Other NA
- Were custody seals on coolers? NA Y N If yes, how many and where? _____
 If present, were custody seals intact? Y N If present, were they signed and dated? Y N

Temp Blank	Sample Temp	IR Gun	Cooler #/COC ID / NA	Out of temp Indicate with "X"	PM Notified If out of temp	Tracking Number	Filed
5.3		IR01				NA	

- Was a Temperature Blank present in cooler? NA Y N If yes, note the temperature in the appropriate column above:
 If no, take the temperature of a representative sample bottle contained within the cooler; notate in the column "Sample Temp":
- Were samples received within the method specified temperature ranges? NA Y N
 If no, were they received on ice and same day as collected? If not, note the cooler # below and notify the PM. NA Y N

- If applicable, tissue samples were received: Frozen Partially Thawed Thawed
- Packing material: Inserts Baggies Bubble Wrap Gel Packs Wet Ice Dry Ice Sleeves
 - Were custody papers properly filled out (ink, signed, etc.)? NA Y N
 - Were samples received in good condition (unbroken) NA Y N
 - Were all sample labels complete (ie, analysis, preservation, etc.)? NA Y N
 - Did all sample labels and tags agree with custody papers? NA Y N
 - Were appropriate bottles/containers and volumes received for the tests indicated? NA Y N
 - Were the pH-preserved bottles (see SMO GEN SOP) received at the appropriate pH? Indicate in the table below NA Y N
 - Were VOA vials received without headspace? Indicate in the table below NA Y N
 - Was C12/Res negative? NA Y N
 - Were 100ml sterile microbiology bottles filled exactly to the 100ml mark? NA Y N Under filled Overfilled

Sample ID on Bottle	Sample ID on COC	Identified by:

Sample ID	Bottle Count	Bottle Type	Head-space	Broke	pH	Reagent	Volume added	Reagent Lot Number	Initials	Time

Notes, Discrepancies, Resolutions: _____



Miscellaneous Forms

ALS Environmental—Kelso Laboratory
1317 South 13th Avenue, Kelso, WA 98626
Phone (360) 577-7222 Fax (360) 425-9096
www.alsglobal.com

Inorganic Data Qualifiers

- * The result is an outlier. See case narrative.
- # The control limit criteria is not applicable.
- B The analyte was found in the associated method blank at a level that is significant relative to the sample result as defined by the DOD or NELAC standards.
- E The result is an estimate amount because the value exceeded the instrument calibration range.
- J The result is an estimated value.
- U The analyte was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL.
DOD-QSM 4.2 definition : Analyte was not detected and is reported as less than the LOD or as defined by the project. The detection limit is adjusted for dilution.
- i The MRL/MDL or LOQ/LOD is elevated due to a matrix interference.
- X See case narrative.
- Q See case narrative. One or more quality control criteria was outside the limits.
- H The holding time for this test is immediately following sample collection. The samples were analyzed as soon as possible after receipt by the laboratory.

Metals Data Qualifiers

- # The control limit criteria is not applicable.
- J The result is an estimated value.
- E The percent difference for the serial dilution was greater than 10%, indicating a possible matrix interference in the sample.
- M The duplicate injection precision was not met.
- N The Matrix Spike sample recovery is not within control limits. See case narrative.
- S The reported value was determined by the Method of Standard Additions (MSA).
- U The analyte was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL.
DOD-QSM 4.2 definition : Analyte was not detected and is reported as less than the LOD or as defined by the project. The detection limit is adjusted for dilution.
- W The post-digestion spike for furnace AA analysis is out of control limits, while sample absorbance is less than 50% of spike absorbance.
 - i The MRL/MDL or LOQ/LOD is elevated due to a matrix interference.
- X See case narrative.
- + The correlation coefficient for the MSA is less than 0.995.
- Q See case narrative. One or more quality control criteria was outside the limits.

Organic Data Qualifiers

- * The result is an outlier. See case narrative.
- # The control limit criteria is not applicable. See case narrative.
- A A tentatively identified compound, a suspected aldol-condensation product.
- B The analyte was found in the associated method blank at a level that is significant relative to the sample result as defined by the DOD or NELAC standards.
- C The analyte was qualitatively confirmed using GC/MS techniques, pattern recognition, or by comparing to historical data.
- D The reported result is from a dilution.
- E The result is an estimated value.
- J The result is an estimated value.
- N The result is presumptive. The analyte was tentatively identified, but a confirmation analysis was not performed.
- P The GC or HPLC confirmation criteria was exceeded. The relative percent difference is greater than 40% between the two analytical results.
- U The analyte was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL.
DOD-QSM 4.2 definition : Analyte was not detected and is reported as less than the LOD or as defined by the project. The detection limit is adjusted for dilution.
 - i The MRL/MDL or LOQ/LOD is elevated due to a chromatographic interference.
- X See case narrative.
- Q See case narrative. One or more quality control criteria was outside the limits.

Additional Petroleum Hydrocarbon Specific Qualifiers

- F The chromatographic fingerprint of the sample matches the elution pattern of the calibration standard.
- L The chromatographic fingerprint of the sample resembles a petroleum product, but the elution pattern indicates the presence of a greater amount of lighter molecular weight constituents than the calibration standard.
- H The chromatographic fingerprint of the sample resembles a petroleum product, but the elution pattern indicates the presence of a greater amount of heavier molecular weight constituents than the calibration standard.
- O The chromatographic fingerprint of the sample resembles an oil, but does not match the calibration standard.
- Y The chromatographic fingerprint of the sample resembles a petroleum product eluting in approximately the correct carbon range, but the elution pattern does not match the calibration standard.
- Z The chromatographic fingerprint does not resemble a petroleum product.

**ALS Group USA Corp. dba ALS Environmental (ALS) - Kelso
State Certifications, Accreditations, and Licenses**

Agency	Web Site	Number
Alaska DEH	http://dec.alaska.gov/eh/lab/cs/csapproval.htm	UST-040
Arizona DHS	http://www.azdhs.gov/lab/license/env.htm	AZ0339
Arkansas - DEQ	http://www.adeq.state.ar.us/techsvs/labcert.htm	88-0637
California DHS (ELAP)	http://www.cdph.ca.gov/certlic/labs/Pages/ELAP.aspx	2795
DOD ELAP	http://www.denix.osd.mil/edqw/Accreditation/AccreditedLabs.cfm	L16-58-R4
Florida DOH	http://www.doh.state.fl.us/lab/EnvLabCert/WaterCert.htm	E87412
Hawaii DOH	http://health.hawaii.gov/	-
ISO 17025	http://www.pjllabs.com/	L16-57
Louisiana DEQ	http://www.deq.louisiana.gov/page/la-lab-accreditation	03016
Maine DHS	http://www.maine.gov/dhhs/	WA01276
Minnesota DOH	http://www.health.state.mn.us/accreditation	053-999-457
Nevada DEP	http://ndep.nv.gov/bsdw/labservice.htm	WA01276
New Jersey DEP	http://www.nj.gov/dep/enforcement/oqa.html	WA005
New York - DOH	https://www.wadsworth.org/regulatory/elap	12060
North Carolina DEQ	https://deq.nc.gov/about/divisions/water-resources/water-resources-data/water-sciences-home-page/laboratory-certification-branch/non-field-lab-certification	605
Oklahoma DEQ	http://www.deq.state.ok.us/CSDnew/labcert.htm	9801
Oregon – DEQ (NELAP)	http://public.health.oregon.gov/LaboratoryServices/EnvironmentalLaboratoryAccreditation/Pages/index.aspx	WA100010
South Carolina DHEC	http://www.scdhec.gov/environment/EnvironmentalLabCertification/	61002
Texas CEQ	http://www.tceq.texas.gov/field/qa/env_lab_accreditation.html	T104704427
Washington DOE	http://www.ecy.wa.gov/programs/eap/labs/lab-accreditation.html	C544
Wyoming (EPA Region 8)	https://www.epa.gov/region8-waterops/epa-region-8-certified-drinking-water	-
Kelso Laboratory Website	www.alsglobal.com	NA

Analyses were performed according to our laboratory's NELAP-approved quality assurance program. A complete listing of specific NELAP-certified analytes, can be found in the certification section at www.ALSGlobal.com or at the accreditation bodies web site.

Please refer to the certification and/or accreditation body's web site if samples are submitted for compliance purposes. The states highlighted above, require the analysis be listed on the state certification if used for compliance purposes and if the method/analyte is offered by that state.

Acronyms

ASTM	American Society for Testing and Materials
A2LA	American Association for Laboratory Accreditation
CARB	California Air Resources Board
CAS Number	Chemical Abstract Service registry Number
CFC	Chlorofluorocarbon
CFU	Colony-Forming Unit
DEC	Department of Environmental Conservation
DEQ	Department of Environmental Quality
DHS	Department of Health Services
DOE	Department of Ecology
DOH	Department of Health
EPA	U. S. Environmental Protection Agency
ELAP	Environmental Laboratory Accreditation Program
GC	Gas Chromatography
GC/MS	Gas Chromatography/Mass Spectrometry
LOD	Limit of Detection
LOQ	Limit of Quantitation
LUFT	Leaking Underground Fuel Tank
M	Modified
MCL	Maximum Contaminant Level is the highest permissible concentration of a substance allowed in drinking water as established by the USEPA.
MDL	Method Detection Limit
MPN	Most Probable Number
MRL	Method Reporting Limit
NA	Not Applicable
NC	Not Calculated
NCASI	National Council of the Paper Industry for Air and Stream Improvement
ND	Not Detected
NIOSH	National Institute for Occupational Safety and Health
PQL	Practical Quantitation Limit
RCRA	Resource Conservation and Recovery Act
SIM	Selected Ion Monitoring
TPH	Total Petroleum Hydrocarbons
tr	Trace level is the concentration of an analyte that is less than the PQL but greater than or equal to the MDL.

ALS Group USA, Corp.
dba ALS Environmental

Analyst Summary report

Client: Anchor QEA, LLC
Project: Barry/201114-01.02 Task 09

Service Request: K2207169

Sample Name: BY-GBT-MW-8-FS
Lab Code: K2207169-001
Sample Matrix: Water

Date Collected: 06/22/22
Date Received: 06/27/22

Analysis Method
200.8

Extracted/Digested By
SSOLADEY

Analyzed By
EMCALLISTER

Sample Name: BY-GBT-MW-8-FC
Lab Code: K2207169-002
Sample Matrix: Water

Date Collected: 06/22/22
Date Received: 06/27/22

Analysis Method
200.8

Extracted/Digested By
SSOLADEY

Analyzed By
EMCALLISTER

Sample Name: BY-GBT-MW-8-CER
Lab Code: K2207169-003
Sample Matrix: Water

Date Collected: 06/22/22
Date Received: 06/27/22

Analysis Method
200.8

Extracted/Digested By
SSOLADEY

Analyzed By
EMCALLISTER

Sample Name: BY-GBT-MW-8-PM
Lab Code: K2207169-004
Sample Matrix: Water

Date Collected: 06/22/22
Date Received: 06/27/22

Analysis Method
200.8

Extracted/Digested By
SSOLADEY

Analyzed By
EMCALLISTER

Sample Name: BY-GBT-MW-8-FS-PM
Lab Code: K2207169-005
Sample Matrix: Water

Date Collected: 06/22/22
Date Received: 06/27/22

Analysis Method
200.8

Extracted/Digested By
SSOLADEY

Analyzed By
EMCALLISTER

ALS Group USA, Corp.
dba ALS Environmental

Analyst Summary report

Client: Anchor QEA, LLC
Project: Barry/201114-01.02 Task 09

Service Request: K2207169

Sample Name: BY-GBT-MW-8-FC-PM-MC
Lab Code: K2207169-006
Sample Matrix: Water

Date Collected: 06/22/22
Date Received: 06/27/22

Analysis Method
200.8

Extracted/Digested By
SSOLADEY

Analyzed By
EMCALLISTER

Sample Name: BY-GBT-MW-8-BC
Lab Code: K2207169-007
Sample Matrix: Water

Date Collected: 06/22/22
Date Received: 06/27/22

Analysis Method
200.8

Extracted/Digested By
SSOLADEY

Analyzed By
EMCALLISTER

Sample Name: BY-GBT-MW-8-AIR
Lab Code: K2207169-008
Sample Matrix: Water

Date Collected: 06/22/22
Date Received: 06/27/22

Analysis Method
200.8

Extracted/Digested By
SSOLADEY

Analyzed By
EMCALLISTER

Sample Name: BY-GBT-MW-8-FS-DUP
Lab Code: K2207169-009
Sample Matrix: Water

Date Collected: 06/22/22
Date Received: 06/27/22

Analysis Method
200.8

Extracted/Digested By
SSOLADEY

Analyzed By
EMCALLISTER

Sample Name: BY-GBT-MW-8-CTRL
Lab Code: K2207169-010
Sample Matrix: Water

Date Collected: 06/22/22
Date Received: 06/27/22

Analysis Method
200.8

Extracted/Digested By
SSOLADEY

Analyzed By
EMCALLISTER

ALS Group USA, Corp.

dba ALS Environmental

Analyst Summary report

Client: Anchor QEA, LLC
Project: Barry/201114-01.02 Task 09

Service Request: K2207169

Sample Name: BY-GBT-MW-8-BC-NaSO4
Lab Code: K2207169-011
Sample Matrix: Water

Date Collected: 06/22/22
Date Received: 06/27/22

Analysis Method
200.8

Extracted/Digested By
SSOLADEY

Analyzed By
EMCALLISTER



Sample Results

ALS Environmental—Kelso Laboratory
1317 South 13th Avenue, Kelso, WA 98626
Phone (360) 577-7222 Fax (360) 425-9096
www.alsglobal.com



Metals

ALS Environmental—Kelso Laboratory
1317 South 13th Avenue, Kelso, WA 98626
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www.alsglobal.com

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Anchor QEA, LLC
Project: Barry/201114-01.02 Task 09
Sample Matrix: Water
Sample Name: BY-GBT-MW-8-FS
Lab Code: K2207169-001

Service Request: K2207169
Date Collected: 06/22/22 10:45
Date Received: 06/27/22 10:20
Basis: NA

Dissolved Metals

<u>Analyte Name</u>	<u>Analysis Method</u>	<u>Result</u>	<u>Units</u>	<u>MRL</u>	<u>MDL</u>	<u>Dil.</u>	<u>Date Analyzed</u>	<u>Date Extracted</u>	<u>Q</u>
Arsenic	200.8	0.42 J	ug/L	0.50	0.09	1	07/19/22 13:24	07/15/22	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Anchor QEA, LLC
Project: Barry/201114-01.02 Task 09
Sample Matrix: Water
Sample Name: BY-GBT-MW-8-FC
Lab Code: K2207169-002

Service Request: K2207169
Date Collected: 06/22/22 10:50
Date Received: 06/27/22 10:20
Basis: NA

Dissolved Metals

<u>Analyte Name</u>	<u>Analysis Method</u>	<u>Result</u>	<u>Units</u>	<u>MRL</u>	<u>MDL</u>	<u>Dil.</u>	<u>Date Analyzed</u>	<u>Date Extracted</u>	<u>Q</u>
Arsenic	200.8	318	ug/L	0.50	0.09	1	07/19/22 13:28	07/15/22	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Anchor QEA, LLC
Project: Barry/201114-01.02 Task 09
Sample Matrix: Water
Sample Name: BY-GBT-MW-8-CER
Lab Code: K2207169-003

Service Request: K2207169
Date Collected: 06/22/22 10:55
Date Received: 06/27/22 10:20
Basis: NA

Dissolved Metals

<u>Analyte Name</u>	<u>Analysis Method</u>	<u>Result</u>	<u>Units</u>	<u>MRL</u>	<u>MDL</u>	<u>Dil.</u>	<u>Date Analyzed</u>	<u>Date Extracted</u>	<u>Q</u>
Arsenic	200.8	0.97	ug/L	0.50	0.09	1	07/19/22 13:29	07/15/22	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Anchor QEA, LLC
Project: Barry/201114-01.02 Task 09
Sample Matrix: Water
Sample Name: BY-GBT-MW-8-PM
Lab Code: K2207169-004

Service Request: K2207169
Date Collected: 06/22/22 11:00
Date Received: 06/27/22 10:20
Basis: NA

Dissolved Metals

<u>Analyte Name</u>	<u>Analysis Method</u>	<u>Result</u>	<u>Units</u>	<u>MRL</u>	<u>MDL</u>	<u>Dil.</u>	<u>Date Analyzed</u>	<u>Date Extracted</u>	<u>Q</u>
Arsenic	200.8	1.00	ug/L	0.50	0.09	1	07/19/22 13:31	07/15/22	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Anchor QEA, LLC
Project: Barry/201114-01.02 Task 09
Sample Matrix: Water
Sample Name: BY-GBT-MW-8-FS-PM
Lab Code: K2207169-005

Service Request: K2207169
Date Collected: 06/22/22 11:05
Date Received: 06/27/22 10:20
Basis: NA

Dissolved Metals

<u>Analyte Name</u>	<u>Analysis Method</u>	<u>Result</u>	<u>Units</u>	<u>MRL</u>	<u>MDL</u>	<u>Dil.</u>	<u>Date Analyzed</u>	<u>Date Extracted</u>	<u>Q</u>
Arsenic	200.8	1.10	ug/L	0.50	0.09	1	07/19/22 13:32	07/15/22	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Anchor QEA, LLC
Project: Barry/201114-01.02 Task 09
Sample Matrix: Water
Sample Name: BY-GBT-MW-8-FC-PM-MC
Lab Code: K2207169-006

Service Request: K2207169
Date Collected: 06/22/22 11:10
Date Received: 06/27/22 10:20
Basis: NA

Dissolved Metals

<u>Analyte Name</u>	<u>Analysis Method</u>	<u>Result</u>	<u>Units</u>	<u>MRL</u>	<u>MDL</u>	<u>Dil.</u>	<u>Date Analyzed</u>	<u>Date Extracted</u>	<u>Q</u>
Arsenic	200.8	1.00	ug/L	0.50	0.09	1	07/19/22 13:33	07/15/22	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Anchor QEA, LLC
Project: Barry/201114-01.02 Task 09
Sample Matrix: Water
Sample Name: BY-GBT-MW-8-BC
Lab Code: K2207169-007

Service Request: K2207169
Date Collected: 06/22/22 11:15
Date Received: 06/27/22 10:20
Basis: NA

Dissolved Metals

<u>Analyte Name</u>	<u>Analysis Method</u>	<u>Result</u>	<u>Units</u>	<u>MRL</u>	<u>MDL</u>	<u>Dil.</u>	<u>Date Analyzed</u>	<u>Date Extracted</u>	<u>Q</u>
Arsenic	200.8	0.75	ug/L	0.50	0.09	1	07/19/22 13:37	07/15/22	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Anchor QEA, LLC
Project: Barry/201114-01.02 Task 09
Sample Matrix: Water
Sample Name: BY-GBT-MW-8-AIR
Lab Code: K2207169-008

Service Request: K2207169
Date Collected: 06/22/22 11:20
Date Received: 06/27/22 10:20
Basis: NA

Dissolved Metals

<u>Analyte Name</u>	<u>Analysis Method</u>	<u>Result</u>	<u>Units</u>	<u>MRL</u>	<u>MDL</u>	<u>Dil.</u>	<u>Date Analyzed</u>	<u>Date Extracted</u>	<u>Q</u>
Arsenic	200.8	0.44 J	ug/L	0.50	0.09	1	07/19/22 13:39	07/15/22	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Anchor QEA, LLC
Project: Barry/201114-01.02 Task 09
Sample Matrix: Water
Sample Name: BY-GBT-MW-8-FS-DUP
Lab Code: K2207169-009

Service Request: K2207169
Date Collected: 06/22/22 11:25
Date Received: 06/27/22 10:20
Basis: NA

Dissolved Metals

<u>Analyte Name</u>	<u>Analysis Method</u>	<u>Result</u>	<u>Units</u>	<u>MRL</u>	<u>MDL</u>	<u>Dil.</u>	<u>Date Analyzed</u>	<u>Date Extracted</u>	<u>Q</u>
Arsenic	200.8	0.47 J	ug/L	0.50	0.09	1	07/19/22 13:40	07/15/22	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Anchor QEA, LLC
Project: Barry/201114-01.02 Task 09
Sample Matrix: Water
Sample Name: BY-GBT-MW-8-CTRL
Lab Code: K2207169-010

Service Request: K2207169
Date Collected: 06/22/22 11:30
Date Received: 06/27/22 10:20
Basis: NA

Dissolved Metals

<u>Analyte Name</u>	<u>Analysis Method</u>	<u>Result</u>	<u>Units</u>	<u>MRL</u>	<u>MDL</u>	<u>Dil.</u>	<u>Date Analyzed</u>	<u>Date Extracted</u>	<u>Q</u>
Arsenic	200.8	0.46 J	ug/L	0.50	0.09	1	07/19/22 13:41	07/15/22	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Anchor QEA, LLC
Project: Barry/201114-01.02 Task 09
Sample Matrix: Water
Sample Name: BY-GBT-MW-8-BC-NaSO4
Lab Code: K2207169-011

Service Request: K2207169
Date Collected: 06/22/22 11:35
Date Received: 06/27/22 10:20
Basis: NA

Dissolved Metals

<u>Analyte Name</u>	<u>Analysis Method</u>	<u>Result</u>	<u>Units</u>	<u>MRL</u>	<u>MDL</u>	<u>Dil.</u>	<u>Date Analyzed</u>	<u>Date Extracted</u>	<u>Q</u>
Arsenic	200.8	1.72	ug/L	0.50	0.09	1	07/19/22 12:33	07/15/22	



QC Summary Forms

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Metals

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ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Anchor QEA, LLC
Project: Barry/201114-01.02 Task 09
Sample Matrix: Water
Sample Name: Method Blank
Lab Code: KQ2210594-01

Service Request: K2207169
Date Collected: NA
Date Received: NA
Basis: NA

Dissolved Metals

<u>Analyte Name</u>	<u>Analysis Method</u>	<u>Result</u>	<u>Units</u>	<u>MRL</u>	<u>MDL</u>	<u>Dil.</u>	<u>Date Analyzed</u>	<u>Date Extracted</u>	<u>Q</u>
Arsenic	200.8	ND U	ug/L	0.50	0.09	1	07/19/22 13:21	07/15/22	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Anchor QEA, LLC
Project: Barry/201114-01.02 Task 09
Sample Matrix: Water
Sample Name: Method Blank
Lab Code: KQ2210685-06

Service Request: K2207169
Date Collected: NA
Date Received: NA
Basis: NA

Dissolved Metals

<u>Analyte Name</u>	<u>Analysis Method</u>	<u>Result</u>	<u>Units</u>	<u>MRL</u>	<u>MDL</u>	<u>Dil.</u>	<u>Date Analyzed</u>	<u>Date Extracted</u>	<u>Q</u>
Arsenic	200.8	ND U	ug/L	0.50	0.09	1	07/19/22 11:59	07/15/22	

ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client: Anchor QEA, LLC
Project: Barry/201114-01.02 Task 09
Sample Matrix: Water

Service Request: K2207169
Date Collected: 06/22/22
Date Received: 06/27/22
Date Analyzed: 07/19/22
Date Extracted: 07/15/22

Matrix Spike Summary
Dissolved Metals

Sample Name: BY-GBT-MW-8-FS
Lab Code: K2207169-001
Analysis Method: 200.8
Prep Method: EPA CLP ILM04.0

Units: ug/L
Basis: NA

Matrix Spike
KQ2210594-03

<u>Analyte Name</u>	<u>Sample Result</u>	<u>Result</u>	<u>Spike Amount</u>	<u>% Rec</u>	<u>% Rec Limits</u>
Arsenic	0.42 J	47.2	50.0	94	70-130

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

Matrix Spike and Matrix Spike Duplicate Data is presented for information purposes only. The matrix may or may not be relevant to samples reported in this report. The laboratory evaluates system performance based on the LCS and LCSD control limits.

ALS Group USA, Corp.

dba ALS Environmental

QA/QC Report

Client: Anchor QEA, LLC
Project: Barry/201114-01.02 Task 09
Sample Matrix: Water

Service Request: K2207169
Date Collected: 06/22/22
Date Received: 06/27/22
Date Analyzed: 07/19/22

Replicate Sample Summary
Dissolved Metals

Sample Name: BY-GBT-MW-8-FS
Lab Code: K2207169-001

Units: ug/L
Basis: NA

Table with 9 columns: Analyte Name, Analysis Method, MRL, MDL, Sample Result, Duplicate Sample KQ2210594-04 Result, Average, RPD, RPD Limit. Row 1: Arsenic, 200.8, 0.50, 0.09, 0.42 J, 0.42 J, 0.42, <1, 20.

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

ALS Group USA, Corp.

dba ALS Environmental

QA/QC Report

Client: Anchor QEA, LLC
Project: Barry/201114-01.02 Task 09
Sample Matrix: Water

Service Request: K2207169

Date Analyzed: 07/19/22

Lab Control Sample Summary
Dissolved Metals

Units:ug/L

Basis:NA

Lab Control Sample

KQ2210594-02

Analyte Name	Analytical Method	Result	Spike Amount	% Rec	% Rec Limits
Arsenic	200.8	48.3	50.0	97	85-115

ALS Group USA, Corp.

dba ALS Environmental

QA/QC Report

Client: Anchor QEA, LLC
Project: Barry/201114-01.02 Task 09
Sample Matrix: Water

Service Request: K2207169

Date Analyzed: 07/19/22

Lab Control Sample Summary
Dissolved Metals

Units:ug/L

Basis:NA

Lab Control Sample

KQ2210685-07

Analyte Name	Analytical Method	Result	Spike Amount	% Rec	% Rec Limits
Arsenic	200.8	48.7	50.0	97	85-115



July 19, 2022

Service Request No:K2207170

Masa Kanematsu
Anchor QEA, LLC
6720 SW Macadam Avenue
Suite 125
Portland, OR 97219

Laboratory Results for: 2022-Barry

Dear Masa,

Enclosed are the results of the sample(s) submitted to our laboratory June 27, 2022
For your reference, these analyses have been assigned our service request number **K2207170**.

Analyses were performed according to our laboratory's NELAP-approved quality assurance program. The test results meet requirements of the current NELAP standards, where applicable, and except as noted in the laboratory case narrative provided. For a specific list of NELAP-accredited analytes, refer to the certifications section at www.alsglobal.com. All results are intended to be considered in their entirety, and ALS Group USA Corp. dba ALS Environmental (ALS) is not responsible for use of less than the complete report. Results apply only to the items submitted to the laboratory for analysis and individual items (samples) analyzed, as listed in the report.

Please contact me if you have any questions. My extension is 3376. You may also contact me via email at Mark.Harris@alsglobal.com.

Respectfully submitted,

ALS Group USA, Corp. dba ALS Environmental

Mark Harris
Project Manager

ADDRESS 1317 S. 13th Avenue, Kelso, WA 98626
PHONE +1 360 577 7222 | FAX +1 360 636 1068
ALS Group USA, Corp.
dba ALS Environmental



Narrative Documents

ALS Environmental—Kelso Laboratory
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Phone (360) 577-7222 Fax (360) 425-9096
www.alsglobal.com



Client: Anchor QEA, LLC
Project: 2022-Barry
Sample Matrix: Water

Service Request: K2207170
Date Received: 06/27/2022

CASE NARRATIVE

All analyses were performed consistent with the quality assurance program of ALS Environmental. This report contains analytical results for samples for the Tier II level requested by the client.

Sample Receipt:

Eleven water samples were received for analysis at ALS Environmental on 06/27/2022. Any discrepancies upon initial sample inspection are annotated on the sample receipt and preservation form included within this report. The samples were stored at minimum in accordance with the analytical method requirements.

Metals:

No significant anomalies were noted with this analysis.

Noel D. O'Connell

Approved by _____

Date 07/19/2022



SAMPLE DETECTION SUMMARY

This form includes only detections above the reporting levels. For a full listing of sample results, continue to the Sample Results section of this Report.

CLIENT ID: BY-SBT-MW-1-FS		Lab ID: K2207170-001				
Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	2.67		0.09	0.50	ug/L	200.8
CLIENT ID: BY-SBT-MW-1-FC		Lab ID: K2207170-002				
Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	0.98		0.09	0.50	ug/L	200.8
CLIENT ID: BY-SBT-MW-1-CER		Lab ID: K2207170-003				
Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	2.45		0.09	0.50	ug/L	200.8
CLIENT ID: BY-SBT-MW-1-PM		Lab ID: K2207170-004				
Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	0.44	J	0.09	0.50	ug/L	200.8
CLIENT ID: BY-SBT-MW-1-FS-PM		Lab ID: K2207170-005				
Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	0.47	J	0.09	0.50	ug/L	200.8
CLIENT ID: BY-SBT-MW-1-FC-PM-MC		Lab ID: K2207170-006				
Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	0.34	J	0.09	0.50	ug/L	200.8
CLIENT ID: BY-SBT-MW-1-BC		Lab ID: K2207170-007				
Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	1.78		0.09	0.50	ug/L	200.8
CLIENT ID: BY-SBT-MW-1-AIR		Lab ID: K2207170-008				
Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	0.78		0.09	0.50	ug/L	200.8
CLIENT ID: BY-SBT-MW-1-FS-DUP		Lab ID: K2207170-009				
Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	8.25		0.09	0.50	ug/L	200.8
CLIENT ID: BY-SBT-MW-1-CTRL		Lab ID: K2207170-010				
Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	1.90		0.09	0.50	ug/L	200.8
CLIENT ID: BY-SBT-MW-1-BC-NaSO4		Lab ID: K2207170-011				
Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	5.58		0.09	0.50	ug/L	200.8



Sample Receipt Information

ALS Environmental—Kelso Laboratory
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Phone (360) 577-7222 Fax (360) 425-9096
www.alsglobal.com

Client: Anchor QEA, LLC
Project: 2022-Barry/201114-01.02 Task 09


Service Request:K2207170

SAMPLE CROSS-REFERENCE

<u>SAMPLE #</u>	<u>CLIENT SAMPLE ID</u>	<u>DATE</u>	<u>TIME</u>
K2207170-001	BY-SBT-MW-1-FS	6/22/2022	0800
K2207170-002	BY-SBT-MW-1-FC	6/22/2022	0805
K2207170-003	BY-SBT-MW-1-CER	6/22/2022	0810
K2207170-004	BY-SBT-MW-1-PM	6/22/2022	0815
K2207170-005	BY-SBT-MW-1-FS-PM	6/22/2022	0820
K2207170-006	BY-SBT-MW-1-FC-PM-MC	6/22/2022	0825
K2207170-007	BY-SBT-MW-1-BC	6/22/2022	0830
K2207170-008	BY-SBT-MW-1-AIR	6/22/2022	0835
K2207170-009	BY-SBT-MW-1-FS-DUP	6/22/2022	0840
K2207170-010	BY-SBT-MW-1-CTRL	6/22/2022	0845
K2207170-011	BY-SBT-MW-1-BC-NaS04	6/22/2022	0850

K2207170

Chain of Custody Record & Laboratory Analysis Request

Laboratory Number: 503-972-5019					No. of Containers	Parameters												 Jessica Goin 6720 SW Macadam Ave Suite 125 Portland OR 97219	
Date:	6/27/2022					As (dissolved)													
Project Name:	Barry																		
Project Number:	201114-01.02 Task 09																		
Project Manager:	Masa Kanematsu																		
Phone Number:	503-972-5001 (backup number: 971.334.8193)																		
Shipment Method:	ALS Carrier																Comments/Preservation HNO3 preserved. Field Filtered. HNO3 preserved. Field Filtered. HNO3 preserved. Field Filtered. HNO3 preserved. Field Filtered. KMnO4 added HNO3 preserved. Field Filtered. KMnO4 added HNO3 preserved. Field Filtered. KMnO4 added HNO3 preserved. Field Filtered. HNO3 preserved. Field Filtered. HNO3 preserved. Field Filtered. HNO3 preserved. Field Filtered.		
Line	Field Sample ID	Collection		Matrix															
		Date	Time																
1	BY-SBT-MW-1-FS	6/22/2022	6/22/22 8:00	Water	1	X													
2	BY-SBT-MW-1-FC	6/22/2022	6/22/22 8:05	Water	1	X													
3	BY-SBT-MW-1-CER	6/22/2022	6/22/22 8:10	Water	1	X													
4	BY-SBT-MW-1-PM	6/22/2022	6/22/22 8:15	Water	1	X													
5	BY-SBT-MW-1-FS-PM	6/22/2022	6/22/22 8:20	Water	1	X													
6	BY-SBT-MW-1-FC-PM-MC	6/22/2022	6/22/22 8:25	Water	1	X													
7	BY-SBT-MW-1-BC	6/22/2022	6/22/22 8:30	Water	1	X													
8	BY-SBT-MW-1-AIR	6/22/2022	6/22/22 8:35	Water	1	X													
9	BY-SBT-MW-1-FS-DUP	6/22/2022	6/22/22 8:40	Water	1	X													
10	BY-SBT-MW-1-CTRL	6/22/2022	6/22/22 8:45	Water	1	X													
11	BY-SBT-MW-1-BC-NaSO4	6/22/2022	6/22/22 8:50	Water	1	X													
12																			
13																			
14																			
15																			
16																			

Notes: Please Contact Masa (503-972-5001, mkanematsu@anchorqea.com) if running > 10X dilution. Please analyze by ICP-MS method 200.8 to achieve the MDL < 1 ppb. Some samples may have residual purple color associated with potassium permanganate (KMnO4). If those samples need to be diluted in order to not damage the ICP-MS, please do so and let Masa know the dilution factor.

Relinquished by:	Company:
Emily DeVore	Anchor QEA
Signature/Print Name:	Date/Time:
<i>Emily DeVore</i>	6/27/22 8:00 am
Relinquished by:	Company:
<i>[Signature]</i>	ALS
Signature/Print Name:	Date/Time:
<i>[Signature]</i>	6/27/22 10:20

Received by:
<i>[Signature]</i>
Signature/Print Name:
<i>[Signature]</i> ALS 6/27/22 0820
Received by:
<i>[Signature]</i>
Signature/Print Name:
<i>[Signature]</i> ALS 6/27/22 1020

Distribution: A copy will be made for the laboratory and client. The Project file will retain the original.

Cooler Receipt and Preservation Form

Client Anchor QEA Service Request K22 07170
Received: 6/27/22 Opened: 6/27/22 By: [Signature] Unloaded: 6/27/22 By: [Signature]

- 1. Samples were received via? USPS Fed Ex UPS DHL PDX Courier Hand Delivered
- 2. Samples were received in: (circle) Cooler Box Envelope Other NA
- 3. Were custody seals on coolers? NA Y N If yes, how many and where? _____
If present, were custody seals intact? Y N If present, were they signed and dated? Y N

Temp Blank	Sample Temp	IR Gun	Cooler #/COC ID / NA	Out of temp indicate with "X"	PM Notified if out of temp	Tracking Number	Filed
<u>5.3</u>		<u>TR01</u>				<u>NA</u>	

- 4. Was a Temperature Blank present in cooler? NA Y N If yes, note the temperature in the appropriate column above:
If no, take the temperature of a representative sample bottle contained within the cooler; note in the column "Sample Temp":
- 5. Were samples received within the method specified temperature ranges? NA Y N
If no, were they received on ice and same day as collected? If not, note the cooler # below and notify the PM. NA Y N

- If applicable, tissue samples were received: Frozen Partially Thawed Thawed
- 6. Packing material: Inserts Baggies Bubble Wrap Gel Packs Wet Ice Dry Ice Sleeves
- 7. Were custody papers properly filled out (ink, signed, etc.)? NA Y N
- 8. Were samples received in good condition (unbroken) NA Y N
- 9. Were all sample labels complete (ie, analysis, preservation, etc.)? NA Y N
- 10. Did all sample labels and tags agree with custody papers? NA Y N
- 11. Were appropriate bottles/containers and volumes received for the tests indicated? NA Y N
- 12. Were the pH-preserved bottles (see SMO GEN SOP) received at the appropriate pH? Indicate in the table below NA Y N
- 13. Were VOA vials received without headspace? Indicate in the table below. NA Y N
- 14. Was C12/Res negative? NA Y N
- 15. Were 100ml sterile microbiology bottles filled exactly to the 100ml mark? NA Y N Under filled Overfilled

Sample ID on Bottle	Sample ID on COC	Identified by:

Sample ID	Bottle Count	Bottle Type	Head-space	Broke	pH	Reagent	Volume added	Reagent Lot Number	Initials	Time

Notes, Discrepancies, Resolutions: _____



Miscellaneous Forms

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Inorganic Data Qualifiers

- * The result is an outlier. See case narrative.
- # The control limit criteria is not applicable.
- B The analyte was found in the associated method blank at a level that is significant relative to the sample result as defined by the DOD or NELAC standards.
- E The result is an estimate amount because the value exceeded the instrument calibration range.
- J The result is an estimated value.
- U The analyte was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL.
DOD-QSM 4.2 definition : Analyte was not detected and is reported as less than the LOD or as defined by the project. The detection limit is adjusted for dilution.
- i The MRL/MDL or LOQ/LOD is elevated due to a matrix interference.
- X See case narrative.
- Q See case narrative. One or more quality control criteria was outside the limits.
- H The holding time for this test is immediately following sample collection. The samples were analyzed as soon as possible after receipt by the laboratory.

Metals Data Qualifiers

- # The control limit criteria is not applicable.
- J The result is an estimated value.
- E The percent difference for the serial dilution was greater than 10%, indicating a possible matrix interference in the sample.
- M The duplicate injection precision was not met.
- N The Matrix Spike sample recovery is not within control limits. See case narrative.
- S The reported value was determined by the Method of Standard Additions (MSA).
- U The analyte was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL.
DOD-QSM 4.2 definition : Analyte was not detected and is reported as less than the LOD or as defined by the project. The detection limit is adjusted for dilution.
- W The post-digestion spike for furnace AA analysis is out of control limits, while sample absorbance is less than 50% of spike absorbance.
 - i The MRL/MDL or LOQ/LOD is elevated due to a matrix interference.
- X See case narrative.
- + The correlation coefficient for the MSA is less than 0.995.
- Q See case narrative. One or more quality control criteria was outside the limits.

Organic Data Qualifiers

- * The result is an outlier. See case narrative.
- # The control limit criteria is not applicable. See case narrative.
- A A tentatively identified compound, a suspected aldol-condensation product.
- B The analyte was found in the associated method blank at a level that is significant relative to the sample result as defined by the DOD or NELAC standards.
- C The analyte was qualitatively confirmed using GC/MS techniques, pattern recognition, or by comparing to historical data.
- D The reported result is from a dilution.
- E The result is an estimated value.
- J The result is an estimated value.
- N The result is presumptive. The analyte was tentatively identified, but a confirmation analysis was not performed.
- P The GC or HPLC confirmation criteria was exceeded. The relative percent difference is greater than 40% between the two analytical results.
- U The analyte was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL.
DOD-QSM 4.2 definition : Analyte was not detected and is reported as less than the LOD or as defined by the project. The detection limit is adjusted for dilution.
 - i The MRL/MDL or LOQ/LOD is elevated due to a chromatographic interference.
- X See case narrative.
- Q See case narrative. One or more quality control criteria was outside the limits.

Additional Petroleum Hydrocarbon Specific Qualifiers

- F The chromatographic fingerprint of the sample matches the elution pattern of the calibration standard.
- L The chromatographic fingerprint of the sample resembles a petroleum product, but the elution pattern indicates the presence of a greater amount of lighter molecular weight constituents than the calibration standard.
- H The chromatographic fingerprint of the sample resembles a petroleum product, but the elution pattern indicates the presence of a greater amount of heavier molecular weight constituents than the calibration standard.
- O The chromatographic fingerprint of the sample resembles an oil, but does not match the calibration standard.
- Y The chromatographic fingerprint of the sample resembles a petroleum product eluting in approximately the correct carbon range, but the elution pattern does not match the calibration standard.
- Z The chromatographic fingerprint does not resemble a petroleum product.

**ALS Group USA Corp. dba ALS Environmental (ALS) - Kelso
State Certifications, Accreditations, and Licenses**

Agency	Web Site	Number
Alaska DEH	http://dec.alaska.gov/eh/lab/cs/csapproval.htm	UST-040
Arizona DHS	http://www.azdhs.gov/lab/license/env.htm	AZ0339
Arkansas - DEQ	http://www.adeq.state.ar.us/techsvs/labcert.htm	88-0637
California DHS (ELAP)	http://www.cdph.ca.gov/certlic/labs/Pages/ELAP.aspx	2795
DOD ELAP	http://www.denix.osd.mil/edqw/Accreditation/AccreditedLabs.cfm	L16-58-R4
Florida DOH	http://www.doh.state.fl.us/lab/EnvLabCert/WaterCert.htm	E87412
Hawaii DOH	http://health.hawaii.gov/	-
ISO 17025	http://www.pjllabs.com/	L16-57
Louisiana DEQ	http://www.deq.louisiana.gov/page/la-lab-accreditation	03016
Maine DHS	http://www.maine.gov/dhhs/	WA01276
Minnesota DOH	http://www.health.state.mn.us/accreditation	053-999-457
Nevada DEP	http://ndep.nv.gov/bsdw/labservice.htm	WA01276
New Jersey DEP	http://www.nj.gov/dep/enforcement/oqa.html	WA005
New York - DOH	https://www.wadsworth.org/regulatory/elap	12060
North Carolina DEQ	https://deq.nc.gov/about/divisions/water-resources/water-resources-data/water-sciences-home-page/laboratory-certification-branch/non-field-lab-certification	605
Oklahoma DEQ	http://www.deq.state.ok.us/CSDnew/labcert.htm	9801
Oregon – DEQ (NELAP)	http://public.health.oregon.gov/LaboratoryServices/EnvironmentalLaboratoryAccreditation/Pages/index.aspx	WA100010
South Carolina DHEC	http://www.scdhec.gov/environment/EnvironmentalLabCertification/	61002
Texas CEQ	http://www.tceq.texas.gov/field/qa/env_lab_accreditation.html	T104704427
Washington DOE	http://www.ecy.wa.gov/programs/eap/labs/lab-accreditation.html	C544
Wyoming (EPA Region 8)	https://www.epa.gov/region8-waterops/epa-region-8-certified-drinking-water	-
Kelso Laboratory Website	www.alsglobal.com	NA

Analyses were performed according to our laboratory's NELAP-approved quality assurance program. A complete listing of specific NELAP-certified analytes, can be found in the certification section at www.ALSGlobal.com or at the accreditation bodies web site.

Please refer to the certification and/or accreditation body's web site if samples are submitted for compliance purposes. The states highlighted above, require the analysis be listed on the state certification if used for compliance purposes and if the method/analyte is offered by that state.

Acronyms

ASTM	American Society for Testing and Materials
A2LA	American Association for Laboratory Accreditation
CARB	California Air Resources Board
CAS Number	Chemical Abstract Service registry Number
CFC	Chlorofluorocarbon
CFU	Colony-Forming Unit
DEC	Department of Environmental Conservation
DEQ	Department of Environmental Quality
DHS	Department of Health Services
DOE	Department of Ecology
DOH	Department of Health
EPA	U. S. Environmental Protection Agency
ELAP	Environmental Laboratory Accreditation Program
GC	Gas Chromatography
GC/MS	Gas Chromatography/Mass Spectrometry
LOD	Limit of Detection
LOQ	Limit of Quantitation
LUFT	Leaking Underground Fuel Tank
M	Modified
MCL	Maximum Contaminant Level is the highest permissible concentration of a substance allowed in drinking water as established by the USEPA.
MDL	Method Detection Limit
MPN	Most Probable Number
MRL	Method Reporting Limit
NA	Not Applicable
NC	Not Calculated
NCASI	National Council of the Paper Industry for Air and Stream Improvement
ND	Not Detected
NIOSH	National Institute for Occupational Safety and Health
PQL	Practical Quantitation Limit
RCRA	Resource Conservation and Recovery Act
SIM	Selected Ion Monitoring
TPH	Total Petroleum Hydrocarbons
tr	Trace level is the concentration of an analyte that is less than the PQL but greater than or equal to the MDL.

ALS Group USA, Corp.
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Analyst Summary report

Client: Anchor QEA, LLC
Project: 2022-Barry/201114-01.02 Task 09

Service Request: K2207170

Sample Name: BY-SBT-MW-1-FS
Lab Code: K2207170-001
Sample Matrix: Water

Date Collected: 06/22/22
Date Received: 06/27/22

Analysis Method
200.8

Extracted/Digested By
SSOLADEY

Analyzed By
EMCALLISTER

Sample Name: BY-SBT-MW-1-FC
Lab Code: K2207170-002
Sample Matrix: Water

Date Collected: 06/22/22
Date Received: 06/27/22

Analysis Method
200.8

Extracted/Digested By
SSOLADEY

Analyzed By
EMCALLISTER

Sample Name: BY-SBT-MW-1-CER
Lab Code: K2207170-003
Sample Matrix: Water

Date Collected: 06/22/22
Date Received: 06/27/22

Analysis Method
200.8

Extracted/Digested By
SSOLADEY

Analyzed By
EMCALLISTER

Sample Name: BY-SBT-MW-1-PM
Lab Code: K2207170-004
Sample Matrix: Water

Date Collected: 06/22/22
Date Received: 06/27/22

Analysis Method
200.8

Extracted/Digested By
SSOLADEY

Analyzed By
EMCALLISTER

Sample Name: BY-SBT-MW-1-FS-PM
Lab Code: K2207170-005
Sample Matrix: Water

Date Collected: 06/22/22
Date Received: 06/27/22

Analysis Method
200.8

Extracted/Digested By
SSOLADEY

Analyzed By
EMCALLISTER

ALS Group USA, Corp.
dba ALS Environmental

Analyst Summary report

Client: Anchor QEA, LLC
Project: 2022-Barry/201114-01.02 Task 09

Service Request: K2207170

Sample Name: BY-SBT-MW-1-FC-PM-MC
Lab Code: K2207170-006
Sample Matrix: Water

Date Collected: 06/22/22
Date Received: 06/27/22

Analysis Method
200.8

Extracted/Digested By
SSOLADEY

Analyzed By
EMCALLISTER

Sample Name: BY-SBT-MW-1-BC
Lab Code: K2207170-007
Sample Matrix: Water

Date Collected: 06/22/22
Date Received: 06/27/22

Analysis Method
200.8

Extracted/Digested By
SSOLADEY

Analyzed By
EMCALLISTER

Sample Name: BY-SBT-MW-1-AIR
Lab Code: K2207170-008
Sample Matrix: Water

Date Collected: 06/22/22
Date Received: 06/27/22

Analysis Method
200.8

Extracted/Digested By
SSOLADEY

Analyzed By
EMCALLISTER

Sample Name: BY-SBT-MW-1-FS-DUP
Lab Code: K2207170-009
Sample Matrix: Water

Date Collected: 06/22/22
Date Received: 06/27/22

Analysis Method
200.8

Extracted/Digested By
SSOLADEY

Analyzed By
EMCALLISTER

Sample Name: BY-SBT-MW-1-CTRL
Lab Code: K2207170-010
Sample Matrix: Water

Date Collected: 06/22/22
Date Received: 06/27/22

Analysis Method
200.8

Extracted/Digested By
SSOLADEY

Analyzed By
EMCALLISTER

ALS Group USA, Corp.
dba ALS Environmental

Analyst Summary report

Client: Anchor QEA, LLC
Project: 2022-Barry/201114-01.02 Task 09

Service Request: K2207170

Sample Name: BY-SBT-MW-1-BC-NaS04
Lab Code: K2207170-011
Sample Matrix: Water

Date Collected: 06/22/22
Date Received: 06/27/22

Analysis Method
200.8

Extracted/Digested By
SSOLADEY

Analyzed By
EMCALLISTER



Sample Results

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ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Anchor QEA, LLC
Project: 2022-Barry/201114-01.02 Task 09
Sample Matrix: Water
Sample Name: BY-SBT-MW-1-FS
Lab Code: K2207170-001

Service Request: K2207170
Date Collected: 06/22/22 08:00
Date Received: 06/27/22 10:20
Basis: NA

Dissolved Metals

<u>Analyte Name</u>	<u>Analysis Method</u>	<u>Result</u>	<u>Units</u>	<u>MRL</u>	<u>MDL</u>	<u>Dil.</u>	<u>Date Analyzed</u>	<u>Date Extracted</u>	<u>Q</u>
Arsenic	200.8	2.67	ug/L	0.50	0.09	1	07/19/22 13:43	07/15/22	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Anchor QEA, LLC
Project: 2022-Barry/201114-01.02 Task 09
Sample Matrix: Water
Sample Name: BY-SBT-MW-1-FC
Lab Code: K2207170-002

Service Request: K2207170
Date Collected: 06/22/22 08:05
Date Received: 06/27/22 10:20
Basis: NA

Dissolved Metals

<u>Analyte Name</u>	<u>Analysis Method</u>	<u>Result</u>	<u>Units</u>	<u>MRL</u>	<u>MDL</u>	<u>Dil.</u>	<u>Date Analyzed</u>	<u>Date Extracted</u>	<u>Q</u>
Arsenic	200.8	0.98	ug/L	0.50	0.09	1	07/19/22 13:47	07/15/22	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Anchor QEA, LLC
Project: 2022-Barry/201114-01.02 Task 09
Sample Matrix: Water
Sample Name: BY-SBT-MW-1-CER
Lab Code: K2207170-003

Service Request: K2207170
Date Collected: 06/22/22 08:10
Date Received: 06/27/22 10:20
Basis: NA

Dissolved Metals

<u>Analyte Name</u>	<u>Analysis Method</u>	<u>Result</u>	<u>Units</u>	<u>MRL</u>	<u>MDL</u>	<u>Dil.</u>	<u>Date Analyzed</u>	<u>Date Extracted</u>	<u>Q</u>
Arsenic	200.8	2.45	ug/L	0.50	0.09	1	07/19/22 13:48	07/15/22	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Anchor QEA, LLC
Project: 2022-Barry/201114-01.02 Task 09
Sample Matrix: Water
Sample Name: BY-SBT-MW-1-PM
Lab Code: K2207170-004

Service Request: K2207170
Date Collected: 06/22/22 08:15
Date Received: 06/27/22 10:20
Basis: NA

Dissolved Metals

<u>Analyte Name</u>	<u>Analysis Method</u>	<u>Result</u>	<u>Units</u>	<u>MRL</u>	<u>MDL</u>	<u>Dil.</u>	<u>Date Analyzed</u>	<u>Date Extracted</u>	<u>Q</u>
Arsenic	200.8	0.44 J	ug/L	0.50	0.09	1	07/19/22 13:49	07/15/22	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Anchor QEA, LLC
Project: 2022-Barry/201114-01.02 Task 09
Sample Matrix: Water
Sample Name: BY-SBT-MW-1-FS-PM
Lab Code: K2207170-005

Service Request: K2207170
Date Collected: 06/22/22 08:20
Date Received: 06/27/22 10:20
Basis: NA

Dissolved Metals

<u>Analyte Name</u>	<u>Analysis Method</u>	<u>Result</u>	<u>Units</u>	<u>MRL</u>	<u>MDL</u>	<u>Dil.</u>	<u>Date Analyzed</u>	<u>Date Extracted</u>	<u>Q</u>
Arsenic	200.8	0.47 J	ug/L	0.50	0.09	1	07/19/22 13:53	07/15/22	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Anchor QEA, LLC
Project: 2022-Barry/201114-01.02 Task 09
Sample Matrix: Water
Sample Name: BY-SBT-MW-1-FC-PM-MC
Lab Code: K2207170-006

Service Request: K2207170
Date Collected: 06/22/22 08:25
Date Received: 06/27/22 10:20
Basis: NA

Dissolved Metals

<u>Analyte Name</u>	<u>Analysis Method</u>	<u>Result</u>	<u>Units</u>	<u>MRL</u>	<u>MDL</u>	<u>Dil.</u>	<u>Date Analyzed</u>	<u>Date Extracted</u>	<u>Q</u>
Arsenic	200.8	0.34 J	ug/L	0.50	0.09	1	07/19/22 13:55	07/15/22	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Anchor QEA, LLC
Project: 2022-Barry/201114-01.02 Task 09
Sample Matrix: Water
Sample Name: BY-SBT-MW-1-BC
Lab Code: K2207170-007

Service Request: K2207170
Date Collected: 06/22/22 08:30
Date Received: 06/27/22 10:20
Basis: NA

Dissolved Metals

<u>Analyte Name</u>	<u>Analysis Method</u>	<u>Result</u>	<u>Units</u>	<u>MRL</u>	<u>MDL</u>	<u>Dil.</u>	<u>Date Analyzed</u>	<u>Date Extracted</u>	<u>Q</u>
Arsenic	200.8	1.78	ug/L	0.50	0.09	1	07/19/22 13:56	07/15/22	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Anchor QEA, LLC
Project: 2022-Barry/201114-01.02 Task 09
Sample Matrix: Water
Sample Name: BY-SBT-MW-1-AIR
Lab Code: K2207170-008

Service Request: K2207170
Date Collected: 06/22/22 08:35
Date Received: 06/27/22 10:20
Basis: NA

Dissolved Metals

<u>Analyte Name</u>	<u>Analysis Method</u>	<u>Result</u>	<u>Units</u>	<u>MRL</u>	<u>MDL</u>	<u>Dil.</u>	<u>Date Analyzed</u>	<u>Date Extracted</u>	<u>Q</u>
Arsenic	200.8	0.78	ug/L	0.50	0.09	1	07/19/22 13:57	07/15/22	

ALS Group USA, Corp.
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Analytical Report

Client: Anchor QEA, LLC
Project: 2022-Barry/201114-01.02 Task 09
Sample Matrix: Water
Sample Name: BY-SBT-MW-1-FS-DUP
Lab Code: K2207170-009

Service Request: K2207170
Date Collected: 06/22/22 08:40
Date Received: 06/27/22 10:20
Basis: NA

Dissolved Metals

<u>Analyte Name</u>	<u>Analysis Method</u>	<u>Result</u>	<u>Units</u>	<u>MRL</u>	<u>MDL</u>	<u>Dil.</u>	<u>Date Analyzed</u>	<u>Date Extracted</u>	<u>Q</u>
Arsenic	200.8	8.25	ug/L	0.50	0.09	1	07/19/22 13:59	07/15/22	

ALS Group USA, Corp.
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Analytical Report

Client: Anchor QEA, LLC
Project: 2022-Barry/201114-01.02 Task 09
Sample Matrix: Water
Sample Name: BY-SBT-MW-1-CTRL
Lab Code: K2207170-010

Service Request: K2207170
Date Collected: 06/22/22 08:45
Date Received: 06/27/22 10:20
Basis: NA

Dissolved Metals

<u>Analyte Name</u>	<u>Analysis Method</u>	<u>Result</u>	<u>Units</u>	<u>MRL</u>	<u>MDL</u>	<u>Dil.</u>	<u>Date Analyzed</u>	<u>Date Extracted</u>	<u>Q</u>
Arsenic	200.8	1.90	ug/L	0.50	0.09	1	07/19/22 14:00	07/15/22	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Anchor QEA, LLC
Project: 2022-Barry/201114-01.02 Task 09
Sample Matrix: Water
Sample Name: BY-SBT-MW-1-BC-NaS04
Lab Code: K2207170-011

Service Request: K2207170
Date Collected: 06/22/22 08:50
Date Received: 06/27/22 10:20
Basis: NA

Dissolved Metals

<u>Analyte Name</u>	<u>Analysis Method</u>	<u>Result</u>	<u>Units</u>	<u>MRL</u>	<u>MDL</u>	<u>Dil.</u>	<u>Date Analyzed</u>	<u>Date Extracted</u>	<u>Q</u>
Arsenic	200.8	5.58	ug/L	0.50	0.09	1	07/19/22 12:34	07/15/22	



QC Summary Forms

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ALS Group USA, Corp.
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Analytical Report

Client: Anchor QEA, LLC
Project: 2022-Barry/201114-01.02 Task 09
Sample Matrix: Water
Sample Name: Method Blank
Lab Code: KQ2210594-01

Service Request: K2207170
Date Collected: NA
Date Received: NA
Basis: NA

Dissolved Metals

<u>Analyte Name</u>	<u>Analysis Method</u>	<u>Result</u>	<u>Units</u>	<u>MRL</u>	<u>MDL</u>	<u>Dil.</u>	<u>Date Analyzed</u>	<u>Date Extracted</u>	<u>Q</u>
Arsenic	200.8	ND U	ug/L	0.50	0.09	1	07/19/22 13:21	07/15/22	

ALS Group USA, Corp.
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Analytical Report

Client: Anchor QEA, LLC
Project: 2022-Barry/201114-01.02 Task 09
Sample Matrix: Water
Sample Name: Method Blank
Lab Code: KQ2210685-06

Service Request: K2207170
Date Collected: NA
Date Received: NA
Basis: NA

Dissolved Metals

<u>Analyte Name</u>	<u>Analysis Method</u>	<u>Result</u>	<u>Units</u>	<u>MRL</u>	<u>MDL</u>	<u>Dil.</u>	<u>Date Analyzed</u>	<u>Date Extracted</u>	<u>Q</u>
Arsenic	200.8	ND U	ug/L	0.50	0.09	1	07/19/22 11:59	07/15/22	

ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client: Anchor QEA, LLC
Project: 2022-Barry/201114-01.02 Task 09
Sample Matrix: Water

Service Request: K2207170
Date Collected: 06/22/22
Date Received: 06/27/22
Date Analyzed: 07/19/22
Date Extracted: 07/15/22

Matrix Spike Summary
Dissolved Metals

Sample Name: BY-SBT-MW-1-FS
Lab Code: K2207170-001
Analysis Method: 200.8
Prep Method: EPA CLP ILM04.0

Units: ug/L
Basis: NA

Matrix Spike
KQ2210594-05

<u>Analyte Name</u>	<u>Sample Result</u>	<u>Result</u>	<u>Spike Amount</u>	<u>% Rec</u>	<u>% Rec Limits</u>
Arsenic	2.67	50.4	50.0	95	70-130

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

Matrix Spike and Matrix Spike Duplicate Data is presented for information purposes only. The matrix may or may not be relevant to samples reported in this report. The laboratory evaluates system performance based on the LCS and LCSD control limits.

ALS Group USA, Corp.

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QA/QC Report

Client: Anchor QEA, LLC
Project: 2022-Barry/201114-01.02 Task 09
Sample Matrix: Water

Service Request: K2207170
Date Collected: 06/22/22
Date Received: 06/27/22
Date Analyzed: 07/19/22

Replicate Sample Summary

Dissolved Metals

Sample Name: BY-SBT-MW-1-FS
Lab Code: K2207170-001

Units: ug/L
Basis: NA

Table with 9 columns: Analyte Name, Analysis Method, MRL, MDL, Sample Result, Duplicate Sample KQ2210594-06 Result, Average, RPD, RPD Limit. Row 1: Arsenic, 200.8, 0.50, 0.09, 2.67, 2.72, 2.70, 2, 20.

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

ALS Group USA, Corp.

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QA/QC Report

Client: Anchor QEA, LLC
Project: 2022-Barry/201114-01.02 Task 09
Sample Matrix: Water

Service Request: K2207170

Date Analyzed: 07/19/22

Lab Control Sample Summary
Dissolved Metals

Units:ug/L

Basis:NA

Lab Control Sample

KQ2210594-02

Analyte Name	Analytical Method	Result	Spike Amount	% Rec	% Rec Limits
Arsenic	200.8	48.3	50.0	97	85-115

ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client: Anchor QEA, LLC
Project: 2022-Barry/201114-01.02 Task 09
Sample Matrix: Water

Service Request: K2207170
Date Analyzed: 07/19/22

Lab Control Sample Summary
Dissolved Metals

Units:ug/L
Basis:NA

Lab Control Sample
KQ2210685-07

Analyte Name	Analytical Method	Result	Spike Amount	% Rec	% Rec Limits
Arsenic	200.8	48.7	50.0	97	85-115



November 01, 2022

Service Request No:K2212582

Masa Kanematsu
Anchor QEA, LLC
6720 SW Macadam Avenue
Suite 125
Portland, OR 97219

Laboratory Results for: Barry

Dear Masa,

Enclosed are the results of the sample(s) submitted to our laboratory October 26, 2022
For your reference, these analyses have been assigned our service request number **K2212582**.

Analyses were performed according to our laboratory's NELAP-approved quality assurance program. The test results meet requirements of the current NELAP standards, where applicable, and except as noted in the laboratory case narrative provided. For a specific list of NELAP-accredited analytes, refer to the certifications section at www.alsglobal.com. All results are intended to be considered in their entirety, and ALS Group USA Corp. dba ALS Environmental (ALS) is not responsible for use of less than the complete report. Results apply only to the items submitted to the laboratory for analysis and individual items (samples) analyzed, as listed in the report.

Please contact me if you have any questions. My extension is 3376. You may also contact me via email at Mark.Harris@alsglobal.com.

Respectfully submitted,

ALS Group USA, Corp. dba ALS Environmental

Mark Harris
Project Manager

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ALS Group USA, Corp.
dba ALS Environmental



Narrative Documents

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Phone (360) 577-7222 Fax (360) 425-9096
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Client: Anchor QEA, LLC
Project: Barry
Sample Matrix: Water

Service Request: K2212582
Date Received: 10/26/2022

CASE NARRATIVE

All analyses were performed consistent with the quality assurance program of ALS Environmental. This report contains analytical results for samples for the Tier II level requested by the client.

Sample Receipt:

Twenty water samples were received for analysis at ALS Environmental on 10/26/2022. Any discrepancies upon initial sample inspection are annotated on the sample receipt and preservation form included within this report. The samples were stored at minimum in accordance with the analytical method requirements.

Metals:

No significant anomalies were noted with this analysis.

Approved by _____

Date 11/01/2022



SAMPLE DETECTION SUMMARY

This form includes only detections above the reporting levels. For a full listing of sample results, continue to the Sample Results section of this Report.

CLIENT ID: BY-GBT-MW-24H-KMnO4-D1	Lab ID: K2212582-001
--	-----------------------------

Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	122		0.09	0.50	ug/L	200.8
Iron, Dissolved	14.2		0.3	2.0	ug/L	200.8
Manganese, Dissolved	164		0.04	0.20	ug/L	200.8

CLIENT ID: BY-SBT-MW-24H-KMnO4-D1	Lab ID: K2212582-002
--	-----------------------------

Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	58.0		0.09	0.50	ug/L	200.8
Iron, Dissolved	46.4		0.3	2.0	ug/L	200.8
Manganese, Dissolved	270		0.04	0.20	ug/L	200.8

CLIENT ID: BY-GBT-MW-24H-KMnO4-D2	Lab ID: K2212582-003
--	-----------------------------

Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	112		0.09	0.50	ug/L	200.8
Iron, Dissolved	6.5		0.3	2.0	ug/L	200.8
Manganese, Dissolved	145		0.04	0.20	ug/L	200.8

CLIENT ID: BY-SBT-MW-24H-KMnO4-D2	Lab ID: K2212582-004
--	-----------------------------

Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	57.1		0.09	0.50	ug/L	200.8
Iron, Dissolved	73.1		0.3	2.0	ug/L	200.8
Manganese, Dissolved	268		0.04	0.20	ug/L	200.8

CLIENT ID: BY-GBT-MW-24H-KMnO4-D3	Lab ID: K2212582-005
--	-----------------------------

Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	129		0.09	0.50	ug/L	200.8
Iron, Dissolved	27.8		0.3	2.0	ug/L	200.8
Manganese, Dissolved	153		0.04	0.20	ug/L	200.8

CLIENT ID: BY-SBT-MW-24H-KMnO4-D3	Lab ID: K2212582-006
--	-----------------------------

Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	69.8		0.09	0.50	ug/L	200.8
Iron, Dissolved	351		0.3	2.0	ug/L	200.8
Manganese, Dissolved	252		0.04	0.20	ug/L	200.8

CLIENT ID: BY-GBT-MW-8-KMnO4-D1	Lab ID: K2212582-007
--	-----------------------------

Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	789		0.09	0.50	ug/L	200.8
Iron, Dissolved	1.4	J	0.3	2.0	ug/L	200.8
Manganese, Dissolved	123		0.04	0.20	ug/L	200.8

CLIENT ID: BY-SBT-MW-8-KMnO4-D1	Lab ID: K2212582-008
--	-----------------------------

Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	429		0.09	0.50	ug/L	200.8
Iron, Dissolved	25.9		0.3	2.0	ug/L	200.8



SAMPLE DETECTION SUMMARY

This form includes only detections above the reporting levels. For a full listing of sample results, continue to the Sample Results section of this Report.

CLIENT ID: BY-SBT-MW-8-KMnO4-D1	Lab ID: K2212582-008
--	-----------------------------

Analyte	Results	Flag	MDL	MRL	Units	Method
Manganese, Dissolved	386		0.04	0.20	ug/L	200.8

CLIENT ID: BY-GBT-MW-8-KMnO4-D2	Lab ID: K2212582-009
--	-----------------------------

Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	720		0.09	0.50	ug/L	200.8
Iron, Dissolved	1.0	J	0.3	2.0	ug/L	200.8
Manganese, Dissolved	6.06		0.04	0.20	ug/L	200.8

CLIENT ID: BY-SBT-MW-8-KMnO4-D2	Lab ID: K2212582-010
--	-----------------------------

Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	449		0.09	0.50	ug/L	200.8
Iron, Dissolved	4.8		0.3	2.0	ug/L	200.8
Manganese, Dissolved	148		0.04	0.20	ug/L	200.8

CLIENT ID: BY-GBT-MW-8-KMnO4-D3	Lab ID: K2212582-011
--	-----------------------------

Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	795		0.09	0.50	ug/L	200.8
Iron, Dissolved	1.7	J	0.3	2.0	ug/L	200.8
Manganese, Dissolved	546		0.04	0.20	ug/L	200.8

CLIENT ID: BY-SBT-MW-8-KMnO4-D3	Lab ID: K2212582-012
--	-----------------------------

Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	479		0.09	0.50	ug/L	200.8
Iron, Dissolved	6.4		0.3	2.0	ug/L	200.8
Manganese, Dissolved	676		0.04	0.20	ug/L	200.8

CLIENT ID: BY-MW-1-KMnO4-CTRL	Lab ID: K2212582-013
--------------------------------------	-----------------------------

Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	50.9		0.09	0.50	ug/L	200.8
Iron, Dissolved	55.3		0.3	2.0	ug/L	200.8
Manganese, Dissolved	54.2		0.04	0.20	ug/L	200.8

CLIENT ID: BY-MW-10-KMnO4-CTRL	Lab ID: K2212582-014
---------------------------------------	-----------------------------

Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	426		0.09	0.50	ug/L	200.8
Iron, Dissolved	3.0		0.3	2.0	ug/L	200.8
Manganese, Dissolved	671		0.04	0.20	ug/L	200.8

CLIENT ID: BY-MW-15V-KMnO4-CTRL	Lab ID: K2212582-015
--	-----------------------------

Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	39.4		0.09	0.50	ug/L	200.8
Cobalt, Dissolved	25.8		0.009	0.020	ug/L	200.8
Iron, Dissolved	7.3		0.3	2.0	ug/L	200.8
Manganese, Dissolved	741		0.04	0.20	ug/L	200.8



SAMPLE DETECTION SUMMARY

This form includes only detections above the reporting levels. For a full listing of sample results, continue to the Sample Results section of this Report.

CLIENT ID: BY-MW-15V-KMnO4-CTRL Lab ID: K2212582-015

Analyte	Results	Flag	MDL	MRL	Units	Method
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CLIENT ID: BY-MW-24H-KMnO4-CTRL Lab ID: K2212582-016

Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	134		0.09	0.50	ug/L	200.8
Iron, Dissolved	56.4		0.3	2.0	ug/L	200.8
Manganese, Dissolved	69.5		0.04	0.20	ug/L	200.8

CLIENT ID: BY-MW-8-KMnO4-CTRL Lab ID: K2212582-017

Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	849		0.09	0.50	ug/L	200.8
Iron, Dissolved	4.3		0.3	2.0	ug/L	200.8
Manganese, Dissolved	1140		0.04	0.20	ug/L	200.8

CLIENT ID: BY-GBT-MW-1-KMnO4-D1_DUP Lab ID: K2212582-018

Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	23.7		0.09	0.50	ug/L	200.8
Iron, Dissolved	2.2		0.3	2.0	ug/L	200.8
Manganese, Dissolved	103		0.04	0.20	ug/L	200.8

CLIENT ID: BY-SBT-MW1-KMnO4-D1_DUP Lab ID: K2212582-019

Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	22.5		0.09	0.50	ug/L	200.8
Iron, Dissolved	55.8		0.3	2.0	ug/L	200.8
Manganese, Dissolved	366		0.04	0.20	ug/L	200.8

CLIENT ID: BY-MB-2 Lab ID: K2212582-020

Analyte	Results	Flag	MDL	MRL	Units	Method
Iron, Dissolved	0.7	J	0.3	2.0	ug/L	200.8



Sample Receipt Information

ALS Environmental—Kelso Laboratory
1317 South 13th Avenue, Kelso, WA 98626
Phone (360) 577-7222 Fax (360) 425-9096
www.alsglobal.com

Client: Anchor QEA, LLC
Project: Barry/221114-08.01


Service Request:K2212582

SAMPLE CROSS-REFERENCE

<u>SAMPLE #</u>	<u>CLIENT SAMPLE ID</u>	<u>DATE</u>	<u>TIME</u>
K2212582-001	BY-GBT-MW-24H-KMnO4-D1	10/25/2022	1100
K2212582-002	BY-SBT-MW-24H-KMnO4-D1	10/25/2022	1105
K2212582-003	BY-GBT-MW-24H-KMnO4-D2	10/25/2022	1110
K2212582-004	BY-SBT-MW-24H-KMnO4-D2	10/25/2022	1115
K2212582-005	BY-GBT-MW-24H-KMnO4-D3	10/25/2022	1120
K2212582-006	BY-SBT-MW-24H-KMnO4-D3	10/25/2022	1125
K2212582-007	BY-GBT-MW-8-KMnO4-D1	10/25/2022	1130
K2212582-008	BY-SBT-MW-8-KMnO4-D1	10/25/2022	1135
K2212582-009	BY-GBT-MW-8-KMnO4-D2	10/25/2022	1140
K2212582-010	BY-SBT-MW-8-KMnO4-D2	10/25/2022	1145
K2212582-011	BY-GBT-MW-8-KMnO4-D3	10/25/2022	1150
K2212582-012	BY-SBT-MW-8-KMnO4-D3	10/25/2022	1155
K2212582-013	BY-MW-1-KMnO4-CTRL	10/25/2022	1200
K2212582-014	BY-MW-10-KMnO4-CTRL	10/25/2022	1205
K2212582-015	BY-MW-15V-KMnO4-CTRL	10/25/2022	1210
K2212582-016	BY-MW-24H-KMnO4-CTRL	10/25/2022	1215
K2212582-017	BY-MW-8-KMnO4-CTRL	10/25/2022	1220
K2212582-018	BY-GBT-MW-1-KMnO4-D1_DUP	10/25/2022	1225
K2212582-019	BY-SBT-MW1-KMnO4-D1_DUP	10/25/2022	1230
K2212582-020	BY-MB-2	10/25/2022	1235

h2212582

Chain of Custody Record & Laboratory Analysis Request

Company: Anchor QEA Date: 10/25/2022 Project Name: Barry Project Number: 221114-08.01 Project Manager: Masa Kanematsu, mkanematsu@anchorqea.com Phone Number: 503.972.5001 Shipment Method: Courier Samplers: Gillian Williams, Heather Kish, Sumant Avasaraia	Test Parameters
	

Line	Field Sample ID	Collection Date/Time	Matrix	No. of Containers	Dissolved metals (As, Fe, Mn)	Dissolved metals (Co)														Comments/Preservation
1	BY-GBT-MW-24H-KMnO4-D1	10/25/2022 11:00	Water	1	X															HNO3-preserved, field filtered
2	BY-SBT-MW-24H-KMnO4-D1	10/25/2022 11:05	Water	1	X															HNO3-preserved, field filtered
3	BY-GBT-MW-24H-KMnO4-D2	10/25/2022 11:10	Water	1	X															HNO3-preserved, field filtered
4	BY-SBT-MW-24H-KMnO4-D2	10/25/2022 11:15	Water	1	X															HNO3-preserved, field filtered
5	BY-GBT-MW-24H-KMnO4-D3	10/25/2022 11:20	Water	1	X															HNO3-preserved, field filtered
6	BY-SBT-MW-24H-KMnO4-D3	10/25/2022 11:25	Water	1	X															HNO3-preserved, field filtered
7	BY-GBT-MW-8-KMnO4-D1	10/25/2022 11:30	Water	1	X															HNO3-preserved, field filtered
8	BY-SBT-MW-8-KMnO4-D1	10/25/2022 11:35	Water	1	X															HNO3-preserved, field filtered
9	BY-GBT-MW-8-KMnO4-D2	10/25/2022 11:40	Water	1	X															HNO3-preserved, field filtered
10	BY-SBT-MW-8-KMnO4-D2	10/25/2022 11:45	Water	1	X															HNO3-preserved, field filtered
11	BY-GBT-MW-8-KMnO4-D3	10/25/2022 11:50	Water	1	X															HNO3-preserved, field filtered
12	BY-SBT-MW-8-KMnO4-D3	10/25/2022 11:55	Water	1	X															HNO3-preserved, field filtered
13	BY- MW-1-KMnO4-CTRL	10/25/2022 12:00	Water	1	X															HNO3-preserved, field filtered
14	BY- MW-10-KMnO4-CTRL	10/25/2022 12:05	Water	1	X															HNO3-preserved, field filtered
15	BY- MW-15V-KMnO4-CTRL	10/25/2022 12:10	Water	1	X	X														HNO3-preserved, field filtered
16	BY- MW-24H-KMnO4-CTRL	10/25/2022 12:15	Water	1	X															HNO3-preserved, field filtered
17	BY- MW-8-KMnO4-CTRL	10/25/2022 12:20	Water	1	X															HNO3-preserved, field filtered
18	BY-GBT-MW-1-KMnO4-D1_DUP	10/25/2022 12:25	Water	1	X															HNO3-preserved, field filtered
19	BY-SBT-MW-1-KMnO4-D1_DUP	10/25/2022 12:30	Water	1	X															HNO3-preserved, field filtered
20	BY-MB-2	10/25/2022 12:35	Water	1	X	X														HNO3-preserved, field filtered

Notes If running > 10X Dilution please contact Masa (503-972-5001, mkanematsu@anchorqea.com). Please analyze by ICP-MS (Method 200.8) to achieve the MDL < 1 ppb. Some samples may have purple color associated with potassium permanganate (KMnO4). If those samples need to be diluted not to damage ICP-MS, please do so and let Masa know the dilution factor.

Relinquished By: GILLIAN WILLIAMS
 Signature/Printed Name: Gillian Williams
 Date/Time: 10/26/2022 11:00
 Company: Anchor QEA

Received By: [Signature]
 Signature/Printed Name: K Monrow
 Date/Time: 10/26/22 1102
 Company: ALS

Relinquished By: [Signature]
 Signature/Printed Name: ALS
 Date/Time: 10/26/22 13:10
 Company: ALS

Received By: [Signature]
 Signature/Printed Name: K Monrow
 Date/Time: 10/26/22 13:10
 Company: ALS

Cooler Receipt and Preservation Form

Client ANCHOR

Service Request K2212582

Received: 10-26-22

Opened: 10-26-22

By: [Signature]

Unloaded: 10-26-22

By: [Signature]

- 1. Samples were received via? USPS Fed Ex UPS DHL PDX Courier Hand Delivered
- 2. Samples were received in: (circle) Cooler Box Envelope Other _____ NA
- 3. Were custody seals on coolers? NA Y N If yes, how many and where? _____
 If present, were custody seals intact? Y N If present, were they signed and dated? Y N

Temp Blank	Sample Temp	IR Gun	Cooler #/COC ID / NA	Out of temp Indicate with 'X'	PM Notified If out of temp	Tracking Number NA	Filed
<u>4.7</u>		<u>IR05</u>					

- 4. Was a Temperature Blank present in cooler? NA Y N If yes, note the temperature in the appropriate column above:
 If no, take the temperature of a representative sample bottle contained within the cooler; notate in the column "Sample Temp":
- 5. Were samples received within the method specified temperature ranges? NA Y N
 If no, were they received on ice and same day as collected? If not, notate the cooler # below and notify the PM. NA Y N

If applicable, tissue samples were received: Frozen Partially Thawed Thawed

- 6. Packing material: Inserts Buggies Bubble Wrap Gel Packs Wet Ice Dry Ice Sleeves _____
- 7. Were custody papers properly filled out (ink, signed, etc.)? NA Y N
- 8. Were samples received in good condition (unbroken) NA Y N
- 9. Were all sample labels complete (ie, analysis, preservation, etc.)? NA Y N
- 10. Did all sample labels and tags agree with custody papers? NA Y N
- 11. Were appropriate bottles/containers and volumes received for the tests indicated? NA Y N
- 12. Were the pH-preserved bottles (see SMO GEN SOP) received at the appropriate pH? Indicate in the table below NA Y N
- 13. Were VOA vials received without headspace? Indicate in the table below. NA Y N
- 14. Was C12/Res negative? NA Y N
- 15. Were 100ml sterile microbiology bottles filled exactly to the 100ml mark? NA Y N Under filled Overfilled

Sample ID on Bottle	Sample ID on COC	Identified by:

Sample ID	Bottle Count	Bottle Type	Head-space	Broke	pH	Reagent	Volume added	Reagent Lot Number	Initials	Time

Notes, Discrepancies, Resolutions: COULD NOT PH DUE TO LOW VOLUME



Miscellaneous Forms

ALS Environmental—Kelso Laboratory
1317 South 13th Avenue, Kelso, WA 98626
Phone (360) 577-7222 Fax (360) 425-9096
www.alsglobal.com

Inorganic Data Qualifiers

- * The result is an outlier. See case narrative.
- # The control limit criteria is not applicable.
- B The analyte was found in the associated method blank at a level that is significant relative to the sample result as defined by the DOD or NELAC standards.
- E The result is an estimate amount because the value exceeded the instrument calibration range.
- J The result is an estimated value.
- U The analyte was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL.
DOD-QSM 4.2 definition : Analyte was not detected and is reported as less than the LOD or as defined by the project. The detection limit is adjusted for dilution.
- i The MRL/MDL or LOQ/LOD is elevated due to a matrix interference.
- X See case narrative.
- Q See case narrative. One or more quality control criteria was outside the limits.
- H The holding time for this test is immediately following sample collection. The samples were analyzed as soon as possible after receipt by the laboratory.

Metals Data Qualifiers

- # The control limit criteria is not applicable.
- J The result is an estimated value.
- E The percent difference for the serial dilution was greater than 10%, indicating a possible matrix interference in the sample.
- M The duplicate injection precision was not met.
- N The Matrix Spike sample recovery is not within control limits. See case narrative.
- S The reported value was determined by the Method of Standard Additions (MSA).
- U The analyte was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL.
DOD-QSM 4.2 definition : Analyte was not detected and is reported as less than the LOD or as defined by the project. The detection limit is adjusted for dilution.
- W The post-digestion spike for furnace AA analysis is out of control limits, while sample absorbance is less than 50% of spike absorbance.
 - i The MRL/MDL or LOQ/LOD is elevated due to a matrix interference.
- X See case narrative.
- + The correlation coefficient for the MSA is less than 0.995.
- Q See case narrative. One or more quality control criteria was outside the limits.

Organic Data Qualifiers

- * The result is an outlier. See case narrative.
- # The control limit criteria is not applicable. See case narrative.
- A A tentatively identified compound, a suspected aldol-condensation product.
- B The analyte was found in the associated method blank at a level that is significant relative to the sample result as defined by the DOD or NELAC standards.
- C The analyte was qualitatively confirmed using GC/MS techniques, pattern recognition, or by comparing to historical data.
- D The reported result is from a dilution.
- E The result is an estimated value.
- J The result is an estimated value.
- N The result is presumptive. The analyte was tentatively identified, but a confirmation analysis was not performed.
- P The GC or HPLC confirmation criteria was exceeded. The relative percent difference is greater than 40% between the two analytical results.
- U The analyte was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL.
DOD-QSM 4.2 definition : Analyte was not detected and is reported as less than the LOD or as defined by the project. The detection limit is adjusted for dilution.
 - i The MRL/MDL or LOQ/LOD is elevated due to a chromatographic interference.
- X See case narrative.
- Q See case narrative. One or more quality control criteria was outside the limits.

Additional Petroleum Hydrocarbon Specific Qualifiers

- F The chromatographic fingerprint of the sample matches the elution pattern of the calibration standard.
- L The chromatographic fingerprint of the sample resembles a petroleum product, but the elution pattern indicates the presence of a greater amount of lighter molecular weight constituents than the calibration standard.
- H The chromatographic fingerprint of the sample resembles a petroleum product, but the elution pattern indicates the presence of a greater amount of heavier molecular weight constituents than the calibration standard.
- O The chromatographic fingerprint of the sample resembles an oil, but does not match the calibration standard.
- Y The chromatographic fingerprint of the sample resembles a petroleum product eluting in approximately the correct carbon range, but the elution pattern does not match the calibration standard.
- Z The chromatographic fingerprint does not resemble a petroleum product.

**ALS Group USA Corp. dba ALS Environmental (ALS) - Kelso
State Certifications, Accreditations, and Licenses**

Agency	Web Site	Number
Alaska DEH	http://dec.alaska.gov/eh/lab/cs/csapproval.htm	UST-040
Arizona DHS	http://www.azdhs.gov/lab/license/env.htm	AZ0339
Arkansas - DEQ	http://www.adeq.state.ar.us/techsvs/labcert.htm	88-0637
California DHS (ELAP)	http://www.cdph.ca.gov/certlic/labs/Pages/ELAP.aspx	2795
DOD ELAP	http://www.denix.osd.mil/edqw/Accreditation/AccreditedLabs.cfm	L16-58-R4
Florida DOH	http://www.doh.state.fl.us/lab/EnvLabCert/WaterCert.htm	E87412
Hawaii DOH	http://health.hawaii.gov/	-
ISO 17025	http://www.pjllabs.com/	L16-57
Louisiana DEQ	http://www.deq.louisiana.gov/page/la-lab-accreditation	03016
Maine DHS	http://www.maine.gov/dhhs/	WA01276
Minnesota DOH	http://www.health.state.mn.us/accreditation	053-999-457
Nevada DEP	http://ndep.nv.gov/bsdw/labservice.htm	WA01276
New Jersey DEP	http://www.nj.gov/dep/enforcement/oqa.html	WA005
New York - DOH	https://www.wadsworth.org/regulatory/elap	12060
North Carolina DEQ	https://deq.nc.gov/about/divisions/water-resources/water-resources-data/water-sciences-home-page/laboratory-certification-branch/non-field-lab-certification	605
Oklahoma DEQ	http://www.deq.state.ok.us/CSDnew/labcert.htm	9801
Oregon – DEQ (NELAP)	http://public.health.oregon.gov/LaboratoryServices/EnvironmentalLaboratoryAccreditation/Pages/index.aspx	WA100010
South Carolina DHEC	http://www.scdhec.gov/environment/EnvironmentalLabCertification/	61002
Texas CEQ	http://www.tceq.texas.gov/field/qa/env_lab_accreditation.html	T104704427
Washington DOE	http://www.ecy.wa.gov/programs/eap/labs/lab-accreditation.html	C544
Wyoming (EPA Region 8)	https://www.epa.gov/region8-waterops/epa-region-8-certified-drinking-water	-
Kelso Laboratory Website	www.alsglobal.com	NA

Analyses were performed according to our laboratory's NELAP-approved quality assurance program. A complete listing of specific NELAP-certified analytes, can be found in the certification section at www.ALSGlobal.com or at the accreditation bodies web site.

Please refer to the certification and/or accreditation body's web site if samples are submitted for compliance purposes. The states highlighted above, require the analysis be listed on the state certification if used for compliance purposes and if the method/analyte is offered by that state.

Acronyms

ASTM	American Society for Testing and Materials
A2LA	American Association for Laboratory Accreditation
CARB	California Air Resources Board
CAS Number	Chemical Abstract Service registry Number
CFC	Chlorofluorocarbon
CFU	Colony-Forming Unit
DEC	Department of Environmental Conservation
DEQ	Department of Environmental Quality
DHS	Department of Health Services
DOE	Department of Ecology
DOH	Department of Health
EPA	U. S. Environmental Protection Agency
ELAP	Environmental Laboratory Accreditation Program
GC	Gas Chromatography
GC/MS	Gas Chromatography/Mass Spectrometry
LOD	Limit of Detection
LOQ	Limit of Quantitation
LUFT	Leaking Underground Fuel Tank
M	Modified
MCL	Maximum Contaminant Level is the highest permissible concentration of a substance allowed in drinking water as established by the USEPA.
MDL	Method Detection Limit
MPN	Most Probable Number
MRL	Method Reporting Limit
NA	Not Applicable
NC	Not Calculated
NCASI	National Council of the Paper Industry for Air and Stream Improvement
ND	Not Detected
NIOSH	National Institute for Occupational Safety and Health
PQL	Practical Quantitation Limit
RCRA	Resource Conservation and Recovery Act
SIM	Selected Ion Monitoring
TPH	Total Petroleum Hydrocarbons
tr	Trace level is the concentration of an analyte that is less than the PQL but greater than or equal to the MDL.

ALS Group USA, Corp.
dba ALS Environmental

Analyst Summary report

Client: Anchor QEA, LLC
Project: Barry/221114-08.01

Service Request: K2212582

Sample Name: BY-GBT-MW-24H-KMnO4-D1
Lab Code: K2212582-001
Sample Matrix: Water

Date Collected: 10/25/22
Date Received: 10/26/22

Analysis Method
200.8

Extracted/Digested By
ABOYER

Analyzed By
EMCALLISTER

Sample Name: BY-GBT-MW-24H-KMnO4-D1
Lab Code: K2212582-001.R01
Sample Matrix: Water

Date Collected: 10/25/22
Date Received: 10/26/22

Analysis Method
200.8

Extracted/Digested By
SSOLADEY

Analyzed By
EMCALLISTER

Sample Name: BY-SBT-MW-24H-KMnO4-D1
Lab Code: K2212582-002
Sample Matrix: Water

Date Collected: 10/25/22
Date Received: 10/26/22

Analysis Method
200.8

Extracted/Digested By
ABOYER

Analyzed By
EMCALLISTER

Sample Name: BY-SBT-MW-24H-KMnO4-D1
Lab Code: K2212582-002.R01
Sample Matrix: Water

Date Collected: 10/25/22
Date Received: 10/26/22

Analysis Method
200.8

Extracted/Digested By
SSOLADEY

Analyzed By
EMCALLISTER

Sample Name: BY-GBT-MW-24H-KMnO4-D2
Lab Code: K2212582-003
Sample Matrix: Water

Date Collected: 10/25/22
Date Received: 10/26/22

Analysis Method
200.8

Extracted/Digested By
ABOYER

Analyzed By
EMCALLISTER

ALS Group USA, Corp.
dba ALS Environmental

Analyst Summary report

Client: Anchor QEA, LLC
Project: Barry/221114-08.01

Service Request: K2212582

Sample Name: BY-GBT-MW-24H-KMnO4-D2
Lab Code: K2212582-003.R01
Sample Matrix: Water

Date Collected: 10/25/22
Date Received: 10/26/22

Analysis Method
200.8

Extracted/Digested By
SSOLADEY

Analyzed By
EMCALLISTER

Sample Name: BY-SBT-MW-24H-KMnO4-D2
Lab Code: K2212582-004
Sample Matrix: Water

Date Collected: 10/25/22
Date Received: 10/26/22

Analysis Method
200.8

Extracted/Digested By
ABOYER

Analyzed By
EMCALLISTER

Sample Name: BY-SBT-MW-24H-KMnO4-D2
Lab Code: K2212582-004.R01
Sample Matrix: Water

Date Collected: 10/25/22
Date Received: 10/26/22

Analysis Method
200.8

Extracted/Digested By
SSOLADEY

Analyzed By
EMCALLISTER

Sample Name: BY-GBT-MW-24H-KMnO4-D3
Lab Code: K2212582-005
Sample Matrix: Water

Date Collected: 10/25/22
Date Received: 10/26/22

Analysis Method
200.8

Extracted/Digested By
ABOYER

Analyzed By
EMCALLISTER

Sample Name: BY-GBT-MW-24H-KMnO4-D3
Lab Code: K2212582-005.R01
Sample Matrix: Water

Date Collected: 10/25/22
Date Received: 10/26/22

Analysis Method
200.8

Extracted/Digested By
SSOLADEY

Analyzed By
EMCALLISTER

ALS Group USA, Corp.
dba ALS Environmental

Analyst Summary report

Client: Anchor QEA, LLC
Project: Barry/221114-08.01

Service Request: K2212582

Sample Name: BY-SBT-MW-24H-KMnO4-D3
Lab Code: K2212582-006
Sample Matrix: Water

Date Collected: 10/25/22
Date Received: 10/26/22

Analysis Method
200.8

Extracted/Digested By
ABOYER

Analyzed By
EMCALLISTER

Sample Name: BY-SBT-MW-24H-KMnO4-D3
Lab Code: K2212582-006.R01
Sample Matrix: Water

Date Collected: 10/25/22
Date Received: 10/26/22

Analysis Method
200.8

Extracted/Digested By
SSOLADEY

Analyzed By
EMCALLISTER

Sample Name: BY-GBT-MW-8-KMnO4-D1
Lab Code: K2212582-007
Sample Matrix: Water

Date Collected: 10/25/22
Date Received: 10/26/22

Analysis Method
200.8

Extracted/Digested By
ABOYER

Analyzed By
EMCALLISTER

Sample Name: BY-GBT-MW-8-KMnO4-D1
Lab Code: K2212582-007.R01
Sample Matrix: Water

Date Collected: 10/25/22
Date Received: 10/26/22

Analysis Method
200.8

Extracted/Digested By
SSOLADEY

Analyzed By
EMCALLISTER

Sample Name: BY-SBT-MW-8-KMnO4-D1
Lab Code: K2212582-008
Sample Matrix: Water

Date Collected: 10/25/22
Date Received: 10/26/22

Analysis Method
200.8

Extracted/Digested By
ABOYER

Analyzed By
EMCALLISTER

ALS Group USA, Corp.
dba ALS Environmental

Analyst Summary report

Client: Anchor QEA, LLC
Project: Barry/221114-08.01

Service Request: K2212582

Sample Name: BY-SBT-MW-8-KMnO4-D1
Lab Code: K2212582-008.R01
Sample Matrix: Water

Date Collected: 10/25/22
Date Received: 10/26/22

Analysis Method
200.8

Extracted/Digested By
SSOLADEY

Analyzed By
EMCALLISTER

Sample Name: BY-GBT-MW-8-KMnO4-D2
Lab Code: K2212582-009
Sample Matrix: Water

Date Collected: 10/25/22
Date Received: 10/26/22

Analysis Method
200.8

Extracted/Digested By
ABOYER

Analyzed By
EMCALLISTER

Sample Name: BY-GBT-MW-8-KMnO4-D2
Lab Code: K2212582-009.R01
Sample Matrix: Water

Date Collected: 10/25/22
Date Received: 10/26/22

Analysis Method
200.8

Extracted/Digested By
SSOLADEY

Analyzed By
EMCALLISTER

Sample Name: BY-SBT-MW-8-KMnO4-D2
Lab Code: K2212582-010
Sample Matrix: Water

Date Collected: 10/25/22
Date Received: 10/26/22

Analysis Method
200.8

Extracted/Digested By
ABOYER

Analyzed By
EMCALLISTER

Sample Name: BY-SBT-MW-8-KMnO4-D2
Lab Code: K2212582-010.R01
Sample Matrix: Water

Date Collected: 10/25/22
Date Received: 10/26/22

Analysis Method
200.8

Extracted/Digested By
SSOLADEY

Analyzed By
EMCALLISTER

ALS Group USA, Corp.
dba ALS Environmental

Analyst Summary report

Client: Anchor QEA, LLC
Project: Barry/221114-08.01

Service Request: K2212582

Sample Name: BY-GBT-MW-8-KMnO4-D3
Lab Code: K2212582-011
Sample Matrix: Water

Date Collected: 10/25/22
Date Received: 10/26/22

Analysis Method
200.8

Extracted/Digested By
ABOYER

Analyzed By
EMCALLISTER

Sample Name: BY-GBT-MW-8-KMnO4-D3
Lab Code: K2212582-011.R01
Sample Matrix: Water

Date Collected: 10/25/22
Date Received: 10/26/22

Analysis Method
200.8

Extracted/Digested By
SSOLADEY

Analyzed By
EMCALLISTER

Sample Name: BY-SBT-MW-8-KMnO4-D3
Lab Code: K2212582-012
Sample Matrix: Water

Date Collected: 10/25/22
Date Received: 10/26/22

Analysis Method
200.8

Extracted/Digested By
ABOYER

Analyzed By
EMCALLISTER

Sample Name: BY-SBT-MW-8-KMnO4-D3
Lab Code: K2212582-012.R01
Sample Matrix: Water

Date Collected: 10/25/22
Date Received: 10/26/22

Analysis Method
200.8

Extracted/Digested By
SSOLADEY

Analyzed By
EMCALLISTER

Sample Name: BY-MW-1-KMnO4-CTRL
Lab Code: K2212582-013
Sample Matrix: Water

Date Collected: 10/25/22
Date Received: 10/26/22

Analysis Method
200.8

Extracted/Digested By
ABOYER

Analyzed By
EMCALLISTER

ALS Group USA, Corp.
dba ALS Environmental

Analyst Summary report

Client: Anchor QEA, LLC
Project: Barry/221114-08.01

Service Request: K2212582

Sample Name: BY-MW-1-KMnO4-CTRL
Lab Code: K2212582-013.R01
Sample Matrix: Water

Date Collected: 10/25/22
Date Received: 10/26/22

Analysis Method
200.8

Extracted/Digested By
SSOLADEY

Analyzed By
EMCALLISTER

Sample Name: BY-MW-10-KMnO4-CTRL
Lab Code: K2212582-014
Sample Matrix: Water

Date Collected: 10/25/22
Date Received: 10/26/22

Analysis Method
200.8

Extracted/Digested By
ABOYER

Analyzed By
EMCALLISTER

Sample Name: BY-MW-10-KMnO4-CTRL
Lab Code: K2212582-014.R01
Sample Matrix: Water

Date Collected: 10/25/22
Date Received: 10/26/22

Analysis Method
200.8

Extracted/Digested By
SSOLADEY

Analyzed By
EMCALLISTER

Sample Name: BY-MW-15V-KMnO4-CTRL
Lab Code: K2212582-015
Sample Matrix: Water

Date Collected: 10/25/22
Date Received: 10/26/22

Analysis Method
200.8

Extracted/Digested By
ABOYER

Analyzed By
EMCALLISTER

Sample Name: BY-MW-15V-KMnO4-CTRL
Lab Code: K2212582-015.R01
Sample Matrix: Water

Date Collected: 10/25/22
Date Received: 10/26/22

Analysis Method
200.8

Extracted/Digested By
SSOLADEY

Analyzed By
EMCALLISTER

ALS Group USA, Corp.
dba ALS Environmental

Analyst Summary report

Client: Anchor QEA, LLC
Project: Barry/221114-08.01

Service Request: K2212582

Sample Name: BY-MW-24H-KMnO4-CTRL
Lab Code: K2212582-016
Sample Matrix: Water

Date Collected: 10/25/22
Date Received: 10/26/22

Analysis Method
200.8

Extracted/Digested By
ABOYER

Analyzed By
EMCALLISTER

Sample Name: BY-MW-24H-KMnO4-CTRL
Lab Code: K2212582-016.R01
Sample Matrix: Water

Date Collected: 10/25/22
Date Received: 10/26/22

Analysis Method
200.8

Extracted/Digested By
SSOLADEY

Analyzed By
EMCALLISTER

Sample Name: BY-MW-8-KMnO4-CTRL
Lab Code: K2212582-017
Sample Matrix: Water

Date Collected: 10/25/22
Date Received: 10/26/22

Analysis Method
200.8

Extracted/Digested By
ABOYER

Analyzed By
EMCALLISTER

Sample Name: BY-MW-8-KMnO4-CTRL
Lab Code: K2212582-017.R01
Sample Matrix: Water

Date Collected: 10/25/22
Date Received: 10/26/22

Analysis Method
200.8

Extracted/Digested By
SSOLADEY

Analyzed By
EMCALLISTER

Sample Name: BY-GBT-MW-1-KMnO4-D1_DUP
Lab Code: K2212582-018
Sample Matrix: Water

Date Collected: 10/25/22
Date Received: 10/26/22

Analysis Method
200.8

Extracted/Digested By
ABOYER

Analyzed By
EMCALLISTER

ALS Group USA, Corp.
dba ALS Environmental

Analyst Summary report

Client: Anchor QEA, LLC
Project: Barry/221114-08.01

Service Request: K2212582

Sample Name: BY-GBT-MW-1-KMnO4-D1_DUP
Lab Code: K2212582-018.R01
Sample Matrix: Water

Date Collected: 10/25/22
Date Received: 10/26/22

Analysis Method
200.8

Extracted/Digested By
SSOLADEY

Analyzed By
EMCALLISTER

Sample Name: BY-SBT-MW1-KMnO4-D1_DUP
Lab Code: K2212582-019
Sample Matrix: Water

Date Collected: 10/25/22
Date Received: 10/26/22

Analysis Method
200.8

Extracted/Digested By
ABOYER

Analyzed By
EMCALLISTER

Sample Name: BY-SBT-MW1-KMnO4-D1_DUP
Lab Code: K2212582-019.R01
Sample Matrix: Water

Date Collected: 10/25/22
Date Received: 10/26/22

Analysis Method
200.8

Extracted/Digested By
SSOLADEY

Analyzed By
EMCALLISTER

Sample Name: BY-MB-2
Lab Code: K2212582-020
Sample Matrix: Water

Date Collected: 10/25/22
Date Received: 10/26/22

Analysis Method
200.8

Extracted/Digested By
ABOYER

Analyzed By
EMCALLISTER

Sample Name: BY-MB-2
Lab Code: K2212582-020.R01
Sample Matrix: Water

Date Collected: 10/25/22
Date Received: 10/26/22

Analysis Method
200.8

Extracted/Digested By
SSOLADEY

Analyzed By
EMCALLISTER



Sample Results

ALS Environmental—Kelso Laboratory
1317 South 13th Avenue, Kelso, WA 98626
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Metals

ALS Environmental—Kelso Laboratory
1317 South 13th Avenue, Kelso, WA 98626
Phone (360) 577-7222 Fax (360) 425-9096
www.alsglobal.com

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.01
Sample Matrix: Water
Sample Name: BY-GBT-MW-24H-KMnO4-D1
Lab Code: K2212582-001

Service Request: K2212582
Date Collected: 10/25/22 11:00
Date Received: 10/26/22 13:10
Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	122	ug/L	0.50	0.09	1	10/28/22 16:22	10/28/22	
Iron	200.8	14.2	ug/L	2.0	0.3	1	11/01/22 11:49	10/31/22	
Manganese	200.8	164	ug/L	0.20	0.04	1	10/28/22 16:22	10/28/22	

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dba ALS Environmental

Analytical Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.01
Sample Matrix: Water
Sample Name: BY-SBT-MW-24H-KMnO4-D1
Lab Code: K2212582-002

Service Request: K2212582
Date Collected: 10/25/22 11:05
Date Received: 10/26/22 13:10
Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	58.0	ug/L	0.50	0.09	1	10/28/22 16:27	10/28/22	
Iron	200.8	46.4	ug/L	2.0	0.3	1	11/01/22 11:51	10/31/22	
Manganese	200.8	270	ug/L	0.20	0.04	1	10/28/22 16:27	10/28/22	

ALS Group USA, Corp.
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Analytical Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.01
Sample Matrix: Water
Sample Name: BY-GBT-MW-24H-KMnO4-D2
Lab Code: K2212582-003

Service Request: K2212582
Date Collected: 10/25/22 11:10
Date Received: 10/26/22 13:10
Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	112	ug/L	0.50	0.09	1	10/28/22 16:31	10/28/22	
Iron	200.8	6.5	ug/L	2.0	0.3	1	11/01/22 11:52	10/31/22	
Manganese	200.8	145	ug/L	0.20	0.04	1	10/28/22 16:31	10/28/22	

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Analytical Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.01
Sample Matrix: Water
Sample Name: BY-SBT-MW-24H-KMnO4-D2
Lab Code: K2212582-004

Service Request: K2212582
Date Collected: 10/25/22 11:15
Date Received: 10/26/22 13:10
Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	57.1	ug/L	0.50	0.09	1	10/28/22 16:32	10/28/22	
Iron	200.8	73.1	ug/L	2.0	0.3	1	11/01/22 11:56	10/31/22	
Manganese	200.8	268	ug/L	0.20	0.04	1	10/28/22 16:32	10/28/22	

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dba ALS Environmental

Analytical Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.01
Sample Matrix: Water
Sample Name: BY-GBT-MW-24H-KMnO4-D3
Lab Code: K2212582-005

Service Request: K2212582
Date Collected: 10/25/22 11:20
Date Received: 10/26/22 13:10
Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	129	ug/L	0.50	0.09	1	10/28/22 16:37	10/28/22	
Iron	200.8	27.8	ug/L	2.0	0.3	1	11/01/22 12:02	10/31/22	
Manganese	200.8	153	ug/L	0.20	0.04	1	10/28/22 16:37	10/28/22	

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Analytical Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.01
Sample Matrix: Water
Sample Name: BY-SBT-MW-24H-KMnO4-D3
Lab Code: K2212582-006

Service Request: K2212582
Date Collected: 10/25/22 11:25
Date Received: 10/26/22 13:10

Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	69.8	ug/L	0.50	0.09	1	10/28/22 16:38	10/28/22	
Iron	200.8	351	ug/L	2.0	0.3	1	11/01/22 12:03	10/31/22	
Manganese	200.8	252	ug/L	0.20	0.04	1	10/28/22 16:38	10/28/22	

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Analytical Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.01
Sample Matrix: Water
Sample Name: BY-GBT-MW-8-KMnO4-D1
Lab Code: K2212582-007

Service Request: K2212582
Date Collected: 10/25/22 11:30
Date Received: 10/26/22 13:10
Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	789	ug/L	0.50	0.09	1	10/28/22 16:40	10/28/22	
Iron	200.8	1.4 J	ug/L	2.0	0.3	1	11/01/22 12:04	10/31/22	
Manganese	200.8	123	ug/L	0.20	0.04	1	10/28/22 16:40	10/28/22	

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dba ALS Environmental

Analytical Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.01
Sample Matrix: Water
Sample Name: BY-SBT-MW-8-KMnO4-D1
Lab Code: K2212582-008

Service Request: K2212582
Date Collected: 10/25/22 11:35
Date Received: 10/26/22 13:10
Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	429	ug/L	0.50	0.09	1	10/28/22 16:41	10/28/22	
Iron	200.8	25.9	ug/L	2.0	0.3	1	11/01/22 12:05	10/31/22	
Manganese	200.8	386	ug/L	0.20	0.04	1	10/28/22 16:41	10/28/22	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.01
Sample Matrix: Water
Sample Name: BY-GBT-MW-8-KMnO4-D2
Lab Code: K2212582-009

Service Request: K2212582
Date Collected: 10/25/22 11:40
Date Received: 10/26/22 13:10
Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	720	ug/L	0.50	0.09	1	10/28/22 16:42	10/28/22	
Iron	200.8	1.0 J	ug/L	2.0	0.3	1	11/01/22 12:07	10/31/22	
Manganese	200.8	6.06	ug/L	0.20	0.04	1	10/28/22 16:42	10/28/22	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.01
Sample Matrix: Water
Sample Name: BY-SBT-MW-8-KMnO4-D2
Lab Code: K2212582-010

Service Request: K2212582
Date Collected: 10/25/22 11:45
Date Received: 10/26/22 13:10
Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	449	ug/L	0.50	0.09	1	10/28/22 16:44	10/28/22	
Iron	200.8	4.8	ug/L	2.0	0.3	1	11/01/22 12:08	10/31/22	
Manganese	200.8	148	ug/L	0.20	0.04	1	10/28/22 16:44	10/28/22	

ALS Group USA, Corp.
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Analytical Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.01
Sample Matrix: Water
Sample Name: BY-GBT-MW-8-KMnO4-D3
Lab Code: K2212582-011

Service Request: K2212582
Date Collected: 10/25/22 11:50
Date Received: 10/26/22 13:10
Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	795	ug/L	0.50	0.09	1	10/28/22 16:45	10/28/22	
Iron	200.8	1.7 J	ug/L	2.0	0.3	1	11/01/22 12:09	10/31/22	
Manganese	200.8	546	ug/L	0.20	0.04	1	10/28/22 16:45	10/28/22	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.01
Sample Matrix: Water
Sample Name: BY-SBT-MW-8-KMnO4-D3
Lab Code: K2212582-012

Service Request: K2212582
Date Collected: 10/25/22 11:55
Date Received: 10/26/22 13:10
Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	479	ug/L	0.50	0.09	1	10/28/22 16:47	10/28/22	
Iron	200.8	6.4	ug/L	2.0	0.3	1	11/01/22 12:10	10/31/22	
Manganese	200.8	676	ug/L	0.20	0.04	1	10/28/22 16:47	10/28/22	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.01
Sample Matrix: Water
Sample Name: BY-MW-1-KMnO4-CTRL
Lab Code: K2212582-013

Service Request: K2212582
Date Collected: 10/25/22 12:00
Date Received: 10/26/22 13:10
Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	50.9	ug/L	0.50	0.09	1	10/28/22 16:48	10/28/22	
Iron	200.8	55.3	ug/L	2.0	0.3	1	11/01/22 12:12	10/31/22	
Manganese	200.8	54.2	ug/L	0.20	0.04	1	10/28/22 16:48	10/28/22	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.01
Sample Matrix: Water
Sample Name: BY-MW-10-KMnO4-CTRL
Lab Code: K2212582-014

Service Request: K2212582
Date Collected: 10/25/22 12:05
Date Received: 10/26/22 13:10
Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	426	ug/L	0.50	0.09	1	10/28/22 16:50	10/28/22	
Iron	200.8	3.0	ug/L	2.0	0.3	1	11/01/22 12:13	10/31/22	
Manganese	200.8	671	ug/L	0.20	0.04	1	10/28/22 16:50	10/28/22	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.01
Sample Matrix: Water
Sample Name: BY-MW-15V-KMnO4-CTRL
Lab Code: K2212582-015

Service Request: K2212582
Date Collected: 10/25/22 12:10
Date Received: 10/26/22 13:10
Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	39.4	ug/L	0.50	0.09	1	10/28/22 16:57	10/28/22	
Cobalt	200.8	25.8	ug/L	0.020	0.009	1	10/28/22 16:57	10/28/22	
Iron	200.8	7.3	ug/L	2.0	0.3	1	11/01/22 12:17	10/31/22	
Manganese	200.8	741	ug/L	0.20	0.04	1	10/28/22 16:57	10/28/22	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.01
Sample Matrix: Water
Sample Name: BY-MW-24H-KMnO4-CTRL
Lab Code: K2212582-016

Service Request: K2212582
Date Collected: 10/25/22 12:15
Date Received: 10/26/22 13:10
Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	134	ug/L	0.50	0.09	1	10/28/22 16:58	10/28/22	
Iron	200.8	56.4	ug/L	2.0	0.3	1	11/01/22 12:18	10/31/22	
Manganese	200.8	69.5	ug/L	0.20	0.04	1	10/28/22 16:58	10/28/22	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.01
Sample Matrix: Water
Sample Name: BY-MW-8-KMnO4-CTRL
Lab Code: K2212582-017

Service Request: K2212582
Date Collected: 10/25/22 12:20
Date Received: 10/26/22 13:10
Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	849	ug/L	0.50	0.09	1	10/28/22 17:00	10/28/22	
Iron	200.8	4.3	ug/L	2.0	0.3	1	11/01/22 12:19	10/31/22	
Manganese	200.8	1140	ug/L	0.20	0.04	1	10/28/22 17:00	10/28/22	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.01
Sample Matrix: Water

Service Request: K2212582
Date Collected: 10/25/22 12:25
Date Received: 10/26/22 13:10

Sample Name: BY-GBT-MW-1-KMnO4-D1_DUP
Lab Code: K2212582-018

Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	23.7	ug/L	0.50	0.09	1	10/28/22 17:01	10/28/22	
Iron	200.8	2.2	ug/L	2.0	0.3	1	11/01/22 12:20	10/31/22	
Manganese	200.8	103	ug/L	0.20	0.04	1	10/28/22 17:01	10/28/22	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.01
Sample Matrix: Water

Service Request: K2212582
Date Collected: 10/25/22 12:30
Date Received: 10/26/22 13:10

Sample Name: BY-SBT-MW1-KMnO4-D1_DUP
Lab Code: K2212582-019

Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	22.5	ug/L	0.50	0.09	1	10/28/22 17:02	10/28/22	
Iron	200.8	55.8	ug/L	2.0	0.3	1	11/01/22 12:22	10/31/22	
Manganese	200.8	366	ug/L	0.20	0.04	1	10/28/22 17:02	10/28/22	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.01
Sample Matrix: Water
Sample Name: BY-MB-2
Lab Code: K2212582-020

Service Request: K2212582
Date Collected: 10/25/22 12:35
Date Received: 10/26/22 13:10
Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	ND U	ug/L	0.50	0.09	1	10/28/22 17:04	10/28/22	
Cobalt	200.8	ND U	ug/L	0.020	0.009	1	10/28/22 17:04	10/28/22	
Iron	200.8	0.7 J	ug/L	2.0	0.3	1	11/01/22 12:23	10/31/22	
Manganese	200.8	ND U	ug/L	0.20	0.04	1	10/28/22 17:04	10/28/22	



QC Summary Forms

ALS Environmental—Kelso Laboratory
1317 South 13th Avenue, Kelso, WA 98626
Phone (360) 577-7222 Fax (360) 425-9096
www.alsglobal.com



Metals

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Phone (360) 577-7222 Fax (360) 425-9096
www.alsglobal.com

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.01
Sample Matrix: Water
Sample Name: Method Blank
Lab Code: KQ2218852-01

Service Request: K2212582
Date Collected: NA
Date Received: NA
Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	ND U	ug/L	0.50	0.09	1	10/28/22 16:19	10/28/22	
Cobalt	200.8	ND U	ug/L	0.020	0.009	1	10/28/22 16:19	10/28/22	
Manganese	200.8	ND U	ug/L	0.20	0.04	1	10/28/22 16:19	10/28/22	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.01
Sample Matrix: Water
Sample Name: Method Blank
Lab Code: KQ2219102-01

Service Request: K2212582
Date Collected: NA
Date Received: NA
Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Iron	200.8	ND U	ug/L	2.0	0.3	1	11/01/22 11:47	10/31/22	

ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.01
Sample Matrix: Water

Service Request: K2212582
Date Collected: 10/25/22
Date Received: 10/26/22
Date Analyzed: 10/28/22
Date Extracted: 10/28/22

Matrix Spike Summary
Dissolved Metals

Sample Name: BY-GBT-MW-24H-KMnO4-D1
Lab Code: K2212582-001
Analysis Method: 200.8
Prep Method: EPA CLP ILM04.0

Units: ug/L
Basis: NA

Matrix Spike
KQ2218852-03

Analyte Name	Sample Result	Result	Spike Amount	% Rec	% Rec Limits
Arsenic	122	168	50.0	92	70-130
Cobalt	0.771	26.1	25.0	101	70-130
Manganese	164	187	25.0	92 #	70-130

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

Matrix Spike and Matrix Spike Duplicate Data is presented for information purposes only. The matrix may or may not be relevant to samples reported in this report. The laboratory evaluates system performance based on the LCS and LCSD control limits.

ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.01
Sample Matrix: Water

Service Request: K2212582
Date Collected: 10/25/22
Date Received: 10/26/22
Date Analyzed: 10/28/22
Date Extracted: 10/28/22

Matrix Spike Summary
Dissolved Metals

Sample Name: BY-SBT-MW-24H-KMnO4-D1
Lab Code: K2212582-002
Analysis Method: 200.8
Prep Method: EPA CLP ILM04.0

Units: ug/L
Basis: NA

Matrix Spike
KQ2218852-05

Analyte Name	Sample Result	Result	Spike Amount	% Rec	% Rec Limits
Arsenic	58.0	105	50.0	95	70-130
Cobalt	2.14	27.0	25.0	99	70-130
Manganese	270	295	25.0	99 #	70-130

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

Matrix Spike and Matrix Spike Duplicate Data is presented for information purposes only. The matrix may or may not be relevant to samples reported in this report. The laboratory evaluates system performance based on the LCS and LCSD control limits.

ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.01
Sample Matrix: Water

Service Request: K2212582
Date Collected: 10/25/22
Date Received: 10/26/22
Date Analyzed: 11/1/22
Date Extracted: 10/31/22

Matrix Spike Summary
Dissolved Metals

Sample Name: BY-GBT-MW-24H-KMnO4-D2
Lab Code: K2212582-003
Analysis Method: 200.8
Prep Method: EPA CLP ILM04.0

Units: ug/L
Basis: NA

Matrix Spike
KQ2219102-04

<u>Analyte Name</u>	<u>Sample Result</u>	<u>Result</u>	<u>Spike Amount</u>	<u>% Rec</u>	<u>% Rec Limits</u>
Iron	6.5	55.7	50.0	99	70-130

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

Matrix Spike and Matrix Spike Duplicate Data is presented for information purposes only. The matrix may or may not be relevant to samples reported in this report. The laboratory evaluates system performance based on the LCS and LCSD control limits.

ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.01
Sample Matrix: Water

Service Request: K2212582
Date Collected: 10/25/22
Date Received: 10/26/22
Date Analyzed: 11/1/22
Date Extracted: 10/31/22

Matrix Spike Summary
Dissolved Metals

Sample Name: BY-SBT-MW-24H-KMnO4-D2
Lab Code: K2212582-004
Analysis Method: 200.8
Prep Method: EPA CLP ILM04.0

Units: ug/L
Basis: NA

Matrix Spike
KQ2219102-06

<u>Analyte Name</u>	<u>Sample Result</u>	<u>Result</u>	<u>Spike Amount</u>	<u>% Rec</u>	<u>% Rec Limits</u>
Iron	73.1	121	50.0	96	70-130

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

Matrix Spike and Matrix Spike Duplicate Data is presented for information purposes only. The matrix may or may not be relevant to samples reported in this report. The laboratory evaluates system performance based on the LCS and LCSD control limits.

ALS Group USA, Corp.

dba ALS Environmental

QA/QC Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.01
Sample Matrix: Water

Service Request: K2212582
Date Collected: 10/25/22
Date Received: 10/26/22
Date Analyzed: 10/28/22

Replicate Sample Summary
Dissolved Metals

Sample Name: BY-GBT-MW-24H-KMnO4-D1
Lab Code: K2212582-001

Units: ug/L
Basis: NA

Table with 9 columns: Analyte Name, Analysis Method, MRL, MDL, Sample Result, Duplicate Sample KQ2218852-04 Result, Average, RPD, RPD Limit. Rows include Arsenic, Cobalt, and Manganese.

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

ALS Group USA, Corp.

dba ALS Environmental

QA/QC Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.01
Sample Matrix: Water

Service Request: K2212582
Date Collected: 10/25/22
Date Received: 10/26/22
Date Analyzed: 10/28/22

Replicate Sample Summary
Dissolved Metals

Sample Name: BY-SBT-MW-24H-KMnO4-D1
Lab Code: K2212582-002

Units: ug/L
Basis: NA

Table with 9 columns: Analyte Name, Analysis Method, MRL, MDL, Sample Result, Duplicate Sample KQ2218852-06 Result, Average, RPD, RPD Limit. Rows include Arsenic, Cobalt, and Manganese.

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

ALS Group USA, Corp.

dba ALS Environmental

QA/QC Report

Client: Anchor QEA, LLC
Project Barry/221114-08.01
Sample Matrix: Water

Service Request: K2212582
Date Collected: 10/25/22
Date Received: 10/26/22
Date Analyzed: 11/01/22

Replicate Sample Summary

Dissolved Metals

Sample Name: BY-GBT-MW-24H-KMnO4-D2
Lab Code: K2212582-003

Units: ug/L
Basis: NA

Analyte Name	Analysis Method	MRL	MDL	Sample Result	Duplicate Sample	Average	RPD	RPD Limit
					KQ2219102-03 Result			
Iron	200.8	2.0	0.3	6.5	6.1	6.3	6	20

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

ALS Group USA, Corp.

dba ALS Environmental

QA/QC Report

Client: Anchor QEA, LLC
Project Barry/221114-08.01
Sample Matrix: Water

Service Request: K2212582
Date Collected: 10/25/22
Date Received: 10/26/22
Date Analyzed: 11/01/22

Replicate Sample Summary

Dissolved Metals

Sample Name: BY-SBT-MW-24H-KMnO4-D2
Lab Code: K2212582-004

Units: ug/L
Basis: NA

Analyte Name	Analysis Method	MRL	MDL	Sample Result	Duplicate Sample	Average	RPD	RPD Limit
					KQ2219102-05 Result			
Iron	200.8	2.0	0.3	73.1	72.6	72.9	<1	20

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.01
Sample Matrix: Water

Service Request: K2212582
Date Analyzed: 10/28/22

Lab Control Sample Summary
Dissolved Metals

Units:ug/L
Basis:NA

Lab Control Sample
KQ2218852-02

Analyte Name	Analytical Method	Result	Spike Amount	% Rec	% Rec Limits
Arsenic	200.8	49.0	50.0	98	85-115
Cobalt	200.8	26.8	25.0	107	85-115
Manganese	200.8	26.4	25.0	106	85-115

ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.01
Sample Matrix: Water

Service Request: K2212582
Date Analyzed: 11/01/22

Lab Control Sample Summary
Dissolved Metals

Units:ug/L
Basis:NA

Lab Control Sample
KQ2219102-02

Analyte Name	Analytical Method	Result	Spike Amount	% Rec	% Rec Limits
Iron	200.8	53.2	50.0	106	85-115



October 31, 2022

Service Request No:K2212585

Masa Kanematsu
Anchor QEA, LLC
6720 SW Macadam Avenue
Suite 125
Portland, OR 97219

Laboratory Results for: Barry

Dear Masa,

Enclosed are the results of the sample(s) submitted to our laboratory October 26, 2022
For your reference, these analyses have been assigned our service request number **K2212585**.

Analyses were performed according to our laboratory's NELAP-approved quality assurance program. The test results meet requirements of the current NELAP standards, where applicable, and except as noted in the laboratory case narrative provided. For a specific list of NELAP-accredited analytes, refer to the certifications section at www.alsglobal.com. All results are intended to be considered in their entirety, and ALS Group USA Corp. dba ALS Environmental (ALS) is not responsible for use of less than the complete report. Results apply only to the items submitted to the laboratory for analysis and individual items (samples) analyzed, as listed in the report.

Please contact me if you have any questions. My extension is 3376. You may also contact me via email at Mark.Harris@alsglobal.com.

Respectfully submitted,

ALS Group USA, Corp. dba ALS Environmental

Mark Harris
Project Manager

ADDRESS 1317 S. 13th Avenue, Kelso, WA 98626
PHONE +1 360 577 7222 | FAX +1 360 636 1068
ALS Group USA, Corp.
dba ALS Environmental



Narrative Documents

ALS Environmental—Kelso Laboratory
1317 South 13th Avenue, Kelso, WA 98626
Phone (360) 577-7222 Fax (360) 425-9096
www.alsglobal.com



Client: Anchor QEA, LLC
Project: Barry
Sample Matrix: Water

Service Request: K2212585
Date Received: 10/26/2022

CASE NARRATIVE

All analyses were performed consistent with the quality assurance program of ALS Environmental. This report contains analytical results for samples for the Tier II level requested by the client.

Sample Receipt:

Twelve water samples were received for analysis at ALS Environmental on 10/26/2022. Any discrepancies upon initial sample inspection are annotated on the sample receipt and preservation form included within this report. The samples were stored at minimum in accordance with the analytical method requirements.

Metals:

No significant anomalies were noted with this analysis.

Noel D. O'Connell

Approved by _____

Date 10/31/2022



SAMPLE DETECTION SUMMARY

This form includes only detections above the reporting levels. For a full listing of sample results, continue to the Sample Results section of this Report.

CLIENT ID: BY-GBT-MW-1-Aeration	Lab ID: K2212585-001
--	-----------------------------

Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	71.1		0.09	0.50	ug/L	200.8
Iron, Dissolved	1.6	J	0.3	2.0	ug/L	200.8
Manganese, Dissolved	11.8		0.04	0.20	ug/L	200.8

CLIENT ID: BY-SBT-MW-1-Aeration	Lab ID: K2212585-002
--	-----------------------------

Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	50.1		0.09	0.50	ug/L	200.8
Iron, Dissolved	14.1		0.3	2.0	ug/L	200.8
Manganese, Dissolved	95.6		0.04	0.20	ug/L	200.8

CLIENT ID: BY-GBT-MW-10-Aeration	Lab ID: K2212585-003
---	-----------------------------

Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	673		0.09	0.50	ug/L	200.8
Iron, Dissolved	1.5	J	0.3	2.0	ug/L	200.8
Manganese, Dissolved	21.0		0.04	0.20	ug/L	200.8

CLIENT ID: BY-SBT-MW-10-Aeration	Lab ID: K2212585-004
---	-----------------------------

Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	405		0.09	0.50	ug/L	200.8
Iron, Dissolved	8.4		0.3	2.0	ug/L	200.8
Manganese, Dissolved	3.99		0.04	0.20	ug/L	200.8

CLIENT ID: BY-GBT-MW-15V-Aeration	Lab ID: K2212585-005
--	-----------------------------

Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	4.75		0.09	0.50	ug/L	200.8
Cobalt, Dissolved	76.4		0.009	0.020	ug/L	200.8
Iron, Dissolved	18100		0.3	2.0	ug/L	200.8
Manganese, Dissolved	1040		0.04	0.20	ug/L	200.8

CLIENT ID: BY-SBT-MW-15V-Aeration	Lab ID: K2212585-006
--	-----------------------------

Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	3.48		0.09	0.50	ug/L	200.8
Cobalt, Dissolved	101		0.009	0.020	ug/L	200.8
Iron, Dissolved	9080		0.3	2.0	ug/L	200.8
Manganese, Dissolved	1700		0.04	0.20	ug/L	200.8

CLIENT ID: BY-GBT-MW-24H-Aeration	Lab ID: K2212585-007
--	-----------------------------

Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	199		0.09	0.50	ug/L	200.8
Iron, Dissolved	5.3		0.3	2.0	ug/L	200.8
Manganese, Dissolved	51.2		0.04	0.20	ug/L	200.8



SAMPLE DETECTION SUMMARY

This form includes only detections above the reporting levels. For a full listing of sample results, continue to the Sample Results section of this Report.

CLIENT ID: BY-SBT-MW-24H-Aeration	Lab ID: K2212585-008
--	-----------------------------

Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	195		0.09	0.50	ug/L	200.8
Iron, Dissolved	11.1		0.3	2.0	ug/L	200.8
Manganese, Dissolved	68.4		0.04	0.20	ug/L	200.8

CLIENT ID: BY-GBT-MW-8-Aeration	Lab ID: K2212585-009
--	-----------------------------

Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	958		0.09	0.50	ug/L	200.8
Iron, Dissolved	3.5		0.3	2.0	ug/L	200.8
Manganese, Dissolved	16.4		0.04	0.20	ug/L	200.8

CLIENT ID: BY-SBT-MW-8-Aeration	Lab ID: K2212585-010
--	-----------------------------

Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	670		0.09	0.50	ug/L	200.8
Iron, Dissolved	4.0		0.3	2.0	ug/L	200.8
Manganese, Dissolved	89.6		0.04	0.20	ug/L	200.8

CLIENT ID: BY-GBT-MW-1-Aeration_DUP	Lab ID: K2212585-011
--	-----------------------------

Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	73.9		0.09	0.50	ug/L	200.8
Iron, Dissolved	1.1	J	0.3	2.0	ug/L	200.8
Manganese, Dissolved	16.3		0.04	0.20	ug/L	200.8

CLIENT ID: BY-SBT-MW-1-Aeration_DUP	Lab ID: K2212585-012
--	-----------------------------

Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	51.4		0.09	0.50	ug/L	200.8
Iron, Dissolved	23.1		0.3	2.0	ug/L	200.8
Manganese, Dissolved	124		0.04	0.20	ug/L	200.8



Sample Receipt Information

ALS Environmental—Kelso Laboratory
1317 South 13th Avenue, Kelso, WA 98626
Phone (360) 577-7222 Fax (360) 425-9096
www.alsglobal.com

Client: Anchor QEA, LLC
Project: Barry/22114-08.01

Service Request:K2212585

SAMPLE CROSS-REFERENCE

<u>SAMPLE #</u>	<u>CLIENT SAMPLE ID</u>	<u>DATE</u>	<u>TIME</u>
K2212585-001	BY-GBT-MW-1-Aeration	10/25/2022	1240
K2212585-002	BY-SBT-MW-1-Aeration	10/25/2022	1245
K2212585-003	BY-GBT-MW-10-Aeration	10/25/2022	1250
K2212585-004	BY-SBT-MW-10-Aeration	10/25/2022	1255
K2212585-005	BY-GBT-MW-15V-Aeration	10/25/2022	1300
K2212585-006	BY-SBT-MW-15V-Aeration	10/25/2022	1305
K2212585-007	BY-GBT-MW-24H-Aeration	10/25/2022	1310
K2212585-008	BY-SBT-MW-24H-Aeration	10/25/2022	1315
K2212585-009	BY-GBT-MW-8-Aeration	10/25/2022	1320
K2212585-010	BY-SBT-MW-8-Aeration	10/25/2022	1325
K2212585-011	BY-GBT-MW-1-Aeration_DUP	10/25/2022	1330
K2212585-012	BY-SBT-MW-1-Aeration_DUP	10/25/2022	1335

V2212585

Chain of Custody Record & Laboratory Analysis Request

Company: Anchor QEA Date: 10/25/2022 Project Name: Barry Project Number: 221114-08.01 Project Manager: Masa Kanematsu, mkanematsu@anchorqea.com Phone Number: 503.972.5001 Shipment Method: Courier Samplers: Gillian Williams, Heather Kish, Sumant Avasarala					Test Parameters												Comments/Preservation			
Line	Field Sample ID	Collection Date/Time	Matrix	No. of Containers	Dissolved metals (As, Fe, Mn)	Dissolved metals (Co)														
1	BY-GBT-MW-1-Aeration	10/25/2022 12:40	Water	1	X															HNO3-preserved, field filtered
2	BY-SBT-MW-1-Aeration	10/25/2022 12:45	Water	1	X															HNO3-preserved, field filtered
3	BY-GBT-MW-10-Aeration	10/25/2022 12:50	Water	1	X															HNO3-preserved, field filtered
4	BY-SBT-MW-10-Aeration	10/25/2022 12:55	Water	1	X															HNO3-preserved, field filtered
5	BY-GBT-MW-15V-Aeration	10/25/2022 13:00	Water	1	X	X														HNO3-preserved, field filtered
6	BY-SBT-MW-15V-Aeration	10/25/2022 13:05	Water	1	X	X														HNO3-preserved, field filtered
7	BY-GBT-MW-24H-Aeration	10/25/2022 13:10	Water	1	X															HNO3-preserved, field filtered
8	BY-SBT-MW-24H-Aeration	10/25/2022 13:15	Water	1	X															HNO3-preserved, field filtered
9	BY-GBT-MW-8-Aeration	10/25/2022 13:20	Water	1	X															HNO3-preserved, field filtered
10	BY-SBT-MW-8-Aeration	10/25/2022 13:25	Water	1	X															HNO3-preserved, field filtered
11	BY-GBT-MW-1-Aeration_DUP	10/25/2022 13:30	Water	1	X															HNO3-preserved, field filtered
12	BY-SBT-MW-1-Aeration_DUP	10/25/2022 13:35	Water	1	X															HNO3-preserved, field filtered
13																				
14																				
15																				
16																				
17																				
18																				



Notes If running > 10X Dilution please contact Masa (503-972-5001, mkanematsu@anchorqea.com), Please analyze by ICP-MS (Method 200.8) to achieve the MDL < 1 ppb.

Relinquished By: GILLIAN WILLIAMS Company: ANCHOR QEA
 Signature/Printed Name: [Signature] Date/Time: 10/26/2022 4:00

Received By: [Signature] Company: ALS
 Signature/Printed Name: [Signature] Date/Time: 10/26/22 1102

Relinquished By: [Signature] Company: ALS
 Signature/Printed Name: [Signature] Date/Time: 10/26/22 1310

Received By: [Signature] Company: ALS
 Signature/Printed Name: Josh McPherson Date/Time: 10/26/22 1310

PM MH

Cooler Receipt and Preservation Form

Client Anchor Service Request K22 12585
Received: 10-26-22 Opened: 10-26-22 By: [Signature] Unloaded: 10-26-22 By: [Signature]

- 1. Samples were received via? USPS Fed Ex UPS DHL PDX Courier Hand Delivered
- 2. Samples were received in: (circle) Cooler Box Envelope Other NA
- 3. Were custody seals on coolers? NA Y N If yes, how many and where? _____
If present, were custody seals intact? Y N If present, were they signed and dated? Y N

Temp Blank	Sample Temp	IR Gun	Cooler #/COC ID / NA	Out of temp indicate with 'X'	PM Notified if out of temp	Tracking Number NA	Filed
<u>4.7</u>		<u>IVLOS</u>					

- 4. Was a Temperature Blank present in cooler? NA Y N If yes, notate the temperature in the appropriate column above:
If no, take the temperature of a representative sample bottle contained within the cooler; notate in the column "Sample Temp":
- 5. Were samples received within the method specified temperature ranges? NA Y N
If no, were they received on ice and same day as collected? If not, notate the cooler # below and notify the PM. NA Y N

If applicable, tissue samples were received: Frozen Partially Thawed Thawed

- 6. Packing material: Inserts Buggies Bubble Wrap Gel Packs Wet Ice Dry Ice Sleeves _____
- 7. Were custody papers properly filled out (ink, signed, etc.)? NA Y N
- 8. Were samples received in good condition (unbroken) NA Y N
- 9. Were all sample labels complete (ie, analysis, preservation, etc.)? NA Y N
- 10. Did all sample labels and tags agree with custody papers? NA Y N
- 11. Were appropriate bottles/containers and volumes received for the tests indicated? NA Y N
- 12. Were the pH-preserved bottles (see SMO GEN SOP) received at the appropriate pH? Indicate in the table below NA Y N
- 13. Were VOA vials received without headspace? Indicate in the table below. NA Y N
- 14. Was C12/Res negative? NA Y N
- 15. Were 100ml sterile microbiology bottles filled exactly to the 100ml mark? NA Y N Under filled Overfilled

Sample ID on Bottle	Sample ID on COC	Identified by:

Sample ID	Bottle Count	Bottle Type	Head-space	Brake	pH	Reagent	Volume added	Reagent Lot Number	Initials	Time

Notes, Discrepancies, Resolutions: COULD NOT PH DUE TO LOW VOLUME



Miscellaneous Forms

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Inorganic Data Qualifiers

- * The result is an outlier. See case narrative.
- # The control limit criteria is not applicable.
- B The analyte was found in the associated method blank at a level that is significant relative to the sample result as defined by the DOD or NELAC standards.
- E The result is an estimate amount because the value exceeded the instrument calibration range.
- J The result is an estimated value.
- U The analyte was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL.
DOD-QSM 4.2 definition : Analyte was not detected and is reported as less than the LOD or as defined by the project. The detection limit is adjusted for dilution.
- i The MRL/MDL or LOQ/LOD is elevated due to a matrix interference.
- X See case narrative.
- Q See case narrative. One or more quality control criteria was outside the limits.
- H The holding time for this test is immediately following sample collection. The samples were analyzed as soon as possible after receipt by the laboratory.

Metals Data Qualifiers

- # The control limit criteria is not applicable.
- J The result is an estimated value.
- E The percent difference for the serial dilution was greater than 10%, indicating a possible matrix interference in the sample.
- M The duplicate injection precision was not met.
- N The Matrix Spike sample recovery is not within control limits. See case narrative.
- S The reported value was determined by the Method of Standard Additions (MSA).
- U The analyte was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL.
DOD-QSM 4.2 definition : Analyte was not detected and is reported as less than the LOD or as defined by the project. The detection limit is adjusted for dilution.
- W The post-digestion spike for furnace AA analysis is out of control limits, while sample absorbance is less than 50% of spike absorbance.
 - i The MRL/MDL or LOQ/LOD is elevated due to a matrix interference.
- X See case narrative.
- + The correlation coefficient for the MSA is less than 0.995.
- Q See case narrative. One or more quality control criteria was outside the limits.

Organic Data Qualifiers

- * The result is an outlier. See case narrative.
- # The control limit criteria is not applicable. See case narrative.
- A A tentatively identified compound, a suspected aldol-condensation product.
- B The analyte was found in the associated method blank at a level that is significant relative to the sample result as defined by the DOD or NELAC standards.
- C The analyte was qualitatively confirmed using GC/MS techniques, pattern recognition, or by comparing to historical data.
- D The reported result is from a dilution.
- E The result is an estimated value.
- J The result is an estimated value.
- N The result is presumptive. The analyte was tentatively identified, but a confirmation analysis was not performed.
- P The GC or HPLC confirmation criteria was exceeded. The relative percent difference is greater than 40% between the two analytical results.
- U The analyte was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL.
DOD-QSM 4.2 definition : Analyte was not detected and is reported as less than the LOD or as defined by the project. The detection limit is adjusted for dilution.
 - i The MRL/MDL or LOQ/LOD is elevated due to a chromatographic interference.
- X See case narrative.
- Q See case narrative. One or more quality control criteria was outside the limits.

Additional Petroleum Hydrocarbon Specific Qualifiers

- F The chromatographic fingerprint of the sample matches the elution pattern of the calibration standard.
- L The chromatographic fingerprint of the sample resembles a petroleum product, but the elution pattern indicates the presence of a greater amount of lighter molecular weight constituents than the calibration standard.
- H The chromatographic fingerprint of the sample resembles a petroleum product, but the elution pattern indicates the presence of a greater amount of heavier molecular weight constituents than the calibration standard.
- O The chromatographic fingerprint of the sample resembles an oil, but does not match the calibration standard.
- Y The chromatographic fingerprint of the sample resembles a petroleum product eluting in approximately the correct carbon range, but the elution pattern does not match the calibration standard.
- Z The chromatographic fingerprint does not resemble a petroleum product.

**ALS Group USA Corp. dba ALS Environmental (ALS) - Kelso
State Certifications, Accreditations, and Licenses**

Agency	Web Site	Number
Alaska DEH	http://dec.alaska.gov/eh/lab/cs/csapproval.htm	UST-040
Arizona DHS	http://www.azdhs.gov/lab/license/env.htm	AZ0339
Arkansas - DEQ	http://www.adeq.state.ar.us/techsvs/labcert.htm	88-0637
California DHS (ELAP)	http://www.cdph.ca.gov/certlic/labs/Pages/ELAP.aspx	2795
DOD ELAP	http://www.denix.osd.mil/edqw/Accreditation/AccreditedLabs.cfm	L16-58-R4
Florida DOH	http://www.doh.state.fl.us/lab/EnvLabCert/WaterCert.htm	E87412
Hawaii DOH	http://health.hawaii.gov/	-
ISO 17025	http://www.pjllabs.com/	L16-57
Louisiana DEQ	http://www.deq.louisiana.gov/page/la-lab-accreditation	03016
Maine DHS	http://www.maine.gov/dhhs/	WA01276
Minnesota DOH	http://www.health.state.mn.us/accreditation	053-999-457
Nevada DEP	http://ndep.nv.gov/bsdwlabservice.htm	WA01276
New Jersey DEP	http://www.nj.gov/dep/enforcement/oqa.html	WA005
New York - DOH	https://www.wadsworth.org/regulatory/elap	12060
North Carolina DEQ	https://deq.nc.gov/about/divisions/water-resources/water-resources-data/water-sciences-home-page/laboratory-certification-branch/non-field-lab-certification	605
Oklahoma DEQ	http://www.deq.state.ok.us/CSDnew/labcert.htm	9801
Oregon – DEQ (NELAP)	http://public.health.oregon.gov/LaboratoryServices/EnvironmentalLaboratoryAccreditation/Pages/index.aspx	WA100010
South Carolina DHEC	http://www.scdhec.gov/environment/EnvironmentalLabCertification/	61002
Texas CEQ	http://www.tceq.texas.gov/field/qa/env_lab_accreditation.html	T104704427
Washington DOE	http://www.ecy.wa.gov/programs/eap/labs/lab-accreditation.html	C544
Wyoming (EPA Region 8)	https://www.epa.gov/region8-waterops/epa-region-8-certified-drinking-water	-
Kelso Laboratory Website	www.alsglobal.com	NA

Analyses were performed according to our laboratory's NELAP-approved quality assurance program. A complete listing of specific NELAP-certified analytes, can be found in the certification section at www.ALSGlobal.com or at the accreditation bodies web site.

Please refer to the certification and/or accreditation body's web site if samples are submitted for compliance purposes. The states highlighted above, require the analysis be listed on the state certification if used for compliance purposes and if the method/analyte is offered by that state.

Acronyms

ASTM	American Society for Testing and Materials
A2LA	American Association for Laboratory Accreditation
CARB	California Air Resources Board
CAS Number	Chemical Abstract Service registry Number
CFC	Chlorofluorocarbon
CFU	Colony-Forming Unit
DEC	Department of Environmental Conservation
DEQ	Department of Environmental Quality
DHS	Department of Health Services
DOE	Department of Ecology
DOH	Department of Health
EPA	U. S. Environmental Protection Agency
ELAP	Environmental Laboratory Accreditation Program
GC	Gas Chromatography
GC/MS	Gas Chromatography/Mass Spectrometry
LOD	Limit of Detection
LOQ	Limit of Quantitation
LUFT	Leaking Underground Fuel Tank
M	Modified
MCL	Maximum Contaminant Level is the highest permissible concentration of a substance allowed in drinking water as established by the USEPA.
MDL	Method Detection Limit
MPN	Most Probable Number
MRL	Method Reporting Limit
NA	Not Applicable
NC	Not Calculated
NCASI	National Council of the Paper Industry for Air and Stream Improvement
ND	Not Detected
NIOSH	National Institute for Occupational Safety and Health
PQL	Practical Quantitation Limit
RCRA	Resource Conservation and Recovery Act
SIM	Selected Ion Monitoring
TPH	Total Petroleum Hydrocarbons
tr	Trace level is the concentration of an analyte that is less than the PQL but greater than or equal to the MDL.

ALS Group USA, Corp.
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Analyst Summary report

Client: Anchor QEA, LLC
Project: Barry/22114-08.01

Service Request: K2212585

Sample Name: BY-GBT-MW-1-Aeration
Lab Code: K2212585-001
Sample Matrix: Water

Date Collected: 10/25/22
Date Received: 10/26/22

Analysis Method
200.8

Extracted/Digested By
SSOLADEY

Analyzed By
EMCALLISTER

Sample Name: BY-SBT-MW-1-Aeration
Lab Code: K2212585-002
Sample Matrix: Water

Date Collected: 10/25/22
Date Received: 10/26/22

Analysis Method
200.8

Extracted/Digested By
SSOLADEY

Analyzed By
EMCALLISTER

Sample Name: BY-GBT-MW-10-Aeration
Lab Code: K2212585-003
Sample Matrix: Water

Date Collected: 10/25/22
Date Received: 10/26/22

Analysis Method
200.8

Extracted/Digested By
SSOLADEY

Analyzed By
EMCALLISTER

Sample Name: BY-SBT-MW-10-Aeration
Lab Code: K2212585-004
Sample Matrix: Water

Date Collected: 10/25/22
Date Received: 10/26/22

Analysis Method
200.8

Extracted/Digested By
SSOLADEY

Analyzed By
EMCALLISTER

Sample Name: BY-GBT-MW-15V-Aeration
Lab Code: K2212585-005
Sample Matrix: Water

Date Collected: 10/25/22
Date Received: 10/26/22

Analysis Method
200.8

Extracted/Digested By
SSOLADEY

Analyzed By
EMCALLISTER

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Analyst Summary report

Client: Anchor QEA, LLC
Project: Barry/22114-08.01

Service Request: K2212585

Sample Name: BY-SBT-MW-15V-Aeration
Lab Code: K2212585-006
Sample Matrix: Water

Date Collected: 10/25/22
Date Received: 10/26/22

Analysis Method
200.8

Extracted/Digested By
SSOLADEY

Analyzed By
EMCALLISTER

Sample Name: BY-GBT-MW-24H-Aeration
Lab Code: K2212585-007
Sample Matrix: Water

Date Collected: 10/25/22
Date Received: 10/26/22

Analysis Method
200.8

Extracted/Digested By
SSOLADEY

Analyzed By
EMCALLISTER

Sample Name: BY-SBT-MW-24H-Aeration
Lab Code: K2212585-008
Sample Matrix: Water

Date Collected: 10/25/22
Date Received: 10/26/22

Analysis Method
200.8

Extracted/Digested By
SSOLADEY

Analyzed By
EMCALLISTER

Sample Name: BY-GBT-MW-8-Aeration
Lab Code: K2212585-009
Sample Matrix: Water

Date Collected: 10/25/22
Date Received: 10/26/22

Analysis Method
200.8

Extracted/Digested By
SSOLADEY

Analyzed By
EMCALLISTER

Sample Name: BY-SBT-MW-8-Aeration
Lab Code: K2212585-010
Sample Matrix: Water

Date Collected: 10/25/22
Date Received: 10/26/22

Analysis Method
200.8

Extracted/Digested By
SSOLADEY

Analyzed By
EMCALLISTER

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Analyst Summary report

Client: Anchor QEA, LLC
Project: Barry/22114-08.01

Service Request: K2212585

Sample Name: BY-GBT-MW-1-Aeration_DUP
Lab Code: K2212585-011
Sample Matrix: Water

Date Collected: 10/25/22
Date Received: 10/26/22

Analysis Method
200.8

Extracted/Digested By
SSOLADEY

Analyzed By
EMCALLISTER

Sample Name: BY-SBT-MW-1-Aeration_DUP
Lab Code: K2212585-012
Sample Matrix: Water

Date Collected: 10/25/22
Date Received: 10/26/22

Analysis Method
200.8

Extracted/Digested By
SSOLADEY

Analyzed By
EMCALLISTER



Sample Results

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Analytical Report

Client: Anchor QEA, LLC
Project: Barry/22114-08.01
Sample Matrix: Water
Sample Name: BY-GBT-MW-1-Aeration
Lab Code: K2212585-001

Service Request: K2212585
Date Collected: 10/25/22 12:40
Date Received: 10/26/22 13:10
Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	71.1	ug/L	0.50	0.09	1	10/31/22 15:05	10/28/22	
Iron	200.8	1.6 J	ug/L	2.0	0.3	1	10/31/22 15:05	10/28/22	
Manganese	200.8	11.8	ug/L	0.20	0.04	1	10/31/22 15:05	10/28/22	

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Analytical Report

Client: Anchor QEA, LLC
Project: Barry/22114-08.01
Sample Matrix: Water
Sample Name: BY-SBT-MW-1-Aeration
Lab Code: K2212585-002

Service Request: K2212585
Date Collected: 10/25/22 12:45
Date Received: 10/26/22 13:10
Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	50.1	ug/L	0.50	0.09	1	10/31/22 15:11	10/28/22	
Iron	200.8	14.1	ug/L	2.0	0.3	1	10/31/22 15:11	10/28/22	
Manganese	200.8	95.6	ug/L	0.20	0.04	1	10/31/22 15:11	10/28/22	

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Analytical Report

Client: Anchor QEA, LLC

Project: Barry/22114-08.01

Sample Matrix: Water

Sample Name: BY-GBT-MW-10-Aeration

Lab Code: K2212585-003

Service Request: K2212585

Date Collected: 10/25/22 12:50

Date Received: 10/26/22 13:10

Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	673	ug/L	0.50	0.09	1	10/31/22 15:14	10/28/22	
Iron	200.8	1.5 J	ug/L	2.0	0.3	1	10/31/22 15:14	10/28/22	
Manganese	200.8	21.0	ug/L	0.20	0.04	1	10/31/22 15:14	10/28/22	

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Analytical Report

Client: Anchor QEA, LLC
Project: Barry/22114-08.01
Sample Matrix: Water
Sample Name: BY-SBT-MW-10-Aeration
Lab Code: K2212585-004

Service Request: K2212585
Date Collected: 10/25/22 12:55
Date Received: 10/26/22 13:10

Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	405	ug/L	0.50	0.09	1	10/31/22 15:16	10/28/22	
Iron	200.8	8.4	ug/L	2.0	0.3	1	10/31/22 15:16	10/28/22	
Manganese	200.8	3.99	ug/L	0.20	0.04	1	10/31/22 15:16	10/28/22	

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Analytical Report

Client: Anchor QEA, LLC
Project: Barry/22114-08.01
Sample Matrix: Water
Sample Name: BY-GBT-MW-15V-Aeration
Lab Code: K2212585-005

Service Request: K2212585
Date Collected: 10/25/22 13:00
Date Received: 10/26/22 13:10

Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	4.75	ug/L	0.50	0.09	1	10/31/22 15:18	10/28/22	
Cobalt	200.8	76.4	ug/L	0.020	0.009	1	10/31/22 15:18	10/28/22	
Iron	200.8	18100	ug/L	2.0	0.3	1	10/31/22 15:18	10/28/22	
Manganese	200.8	1040	ug/L	0.20	0.04	1	10/31/22 15:18	10/28/22	

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Analytical Report

Client: Anchor QEA, LLC
Project: Barry/22114-08.01
Sample Matrix: Water

Service Request: K2212585
Date Collected: 10/25/22 13:05
Date Received: 10/26/22 13:10

Sample Name: BY-SBT-MW-15V-Aeration
Lab Code: K2212585-006

Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	3.48	ug/L	0.50	0.09	1	10/31/22 15:20	10/28/22	
Cobalt	200.8	101	ug/L	0.020	0.009	1	10/31/22 15:20	10/28/22	
Iron	200.8	9080	ug/L	2.0	0.3	1	10/31/22 15:20	10/28/22	
Manganese	200.8	1700	ug/L	0.20	0.04	1	10/31/22 15:20	10/28/22	

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Analytical Report

Client: Anchor QEA, LLC
Project: Barry/22114-08.01
Sample Matrix: Water
Sample Name: BY-GBT-MW-24H-Aeration
Lab Code: K2212585-007

Service Request: K2212585
Date Collected: 10/25/22 13:10
Date Received: 10/26/22 13:10
Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	199	ug/L	0.50	0.09	1	10/31/22 15:22	10/28/22	
Iron	200.8	5.3	ug/L	2.0	0.3	1	10/31/22 15:22	10/28/22	
Manganese	200.8	51.2	ug/L	0.20	0.04	1	10/31/22 15:22	10/28/22	

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Analytical Report

Client: Anchor QEA, LLC
Project: Barry/22114-08.01
Sample Matrix: Water

Service Request: K2212585
Date Collected: 10/25/22 13:15
Date Received: 10/26/22 13:10

Sample Name: BY-SBT-MW-24H-Aeration
Lab Code: K2212585-008

Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	195	ug/L	0.50	0.09	1	10/31/22 15:29	10/28/22	
Iron	200.8	11.1	ug/L	2.0	0.3	1	10/31/22 15:29	10/28/22	
Manganese	200.8	68.4	ug/L	0.20	0.04	1	10/31/22 15:29	10/28/22	

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Analytical Report

Client: Anchor QEA, LLC
Project: Barry/22114-08.01
Sample Matrix: Water
Sample Name: BY-GBT-MW-8-Aeration
Lab Code: K2212585-009

Service Request: K2212585
Date Collected: 10/25/22 13:20
Date Received: 10/26/22 13:10
Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	958	ug/L	0.50	0.09	1	10/31/22 15:31	10/28/22	
Iron	200.8	3.5	ug/L	2.0	0.3	1	10/31/22 15:31	10/28/22	
Manganese	200.8	16.4	ug/L	0.20	0.04	1	10/31/22 15:31	10/28/22	

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Analytical Report

Client: Anchor QEA, LLC
Project: Barry/22114-08.01
Sample Matrix: Water
Sample Name: BY-SBT-MW-8-Aeration
Lab Code: K2212585-010

Service Request: K2212585
Date Collected: 10/25/22 13:25
Date Received: 10/26/22 13:10
Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	670	ug/L	0.50	0.09	1	10/31/22 15:33	10/28/22	
Iron	200.8	4.0	ug/L	2.0	0.3	1	10/31/22 15:33	10/28/22	
Manganese	200.8	89.6	ug/L	0.20	0.04	1	10/31/22 15:33	10/28/22	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Anchor QEA, LLC
Project: Barry/22114-08.01
Sample Matrix: Water
Sample Name: BY-GBT-MW-1-Aeration_DUP
Lab Code: K2212585-011

Service Request: K2212585
Date Collected: 10/25/22 13:30
Date Received: 10/26/22 13:10
Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	73.9	ug/L	0.50	0.09	1	10/31/22 15:35	10/28/22	
Iron	200.8	1.1 J	ug/L	2.0	0.3	1	10/31/22 15:35	10/28/22	
Manganese	200.8	16.3	ug/L	0.20	0.04	1	10/31/22 15:35	10/28/22	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Anchor QEA, LLC
Project: Barry/22114-08.01
Sample Matrix: Water

Service Request: K2212585
Date Collected: 10/25/22 13:35
Date Received: 10/26/22 13:10

Sample Name: BY-SBT-MW-1-Aeration_DUP
Lab Code: K2212585-012

Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	51.4	ug/L	0.50	0.09	1	10/31/22 15:37	10/28/22	
Iron	200.8	23.1	ug/L	2.0	0.3	1	10/31/22 15:37	10/28/22	
Manganese	200.8	124	ug/L	0.20	0.04	1	10/31/22 15:37	10/28/22	



QC Summary Forms

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Analytical Report

Client: Anchor QEA, LLC
Project: Barry/22114-08.01
Sample Matrix: Water
Sample Name: Method Blank
Lab Code: KQ2218853-01

Service Request: K2212585
Date Collected: NA
Date Received: NA
Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	ND U	ug/L	0.50	0.09	1	10/31/22 14:37	10/28/22	
Cobalt	200.8	ND U	ug/L	0.020	0.009	1	10/31/22 14:37	10/28/22	
Iron	200.8	ND U	ug/L	2.0	0.3	1	10/31/22 14:37	10/28/22	
Manganese	200.8	ND U	ug/L	0.20	0.04	1	10/31/22 14:37	10/28/22	

ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client: Anchor QEA, LLC
Project: Barry/22114-08.01
Sample Matrix: Water

Service Request: K2212585
Date Collected: 10/25/22
Date Received: 10/26/22
Date Analyzed: 10/31/22
Date Extracted: 10/28/22

Matrix Spike Summary
Dissolved Metals

Sample Name: BY-GBT-MW-1-Aeration
Lab Code: K2212585-001
Analysis Method: 200.8
Prep Method: EPA CLP ILM04.0

Units: ug/L
Basis: NA

Matrix Spike
KQ2218853-05

Analyte Name	Sample Result	Result	Spike Amount	% Rec	% Rec Limits
Arsenic	71.1	119	50.0	96	70-130
Cobalt	0.224	24.9	25.0	99	70-130
Iron	1.6 J	48.9	50.0	95	70-130
Manganese	11.8	35.9	25.0	96	70-130

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

Matrix Spike and Matrix Spike Duplicate Data is presented for information purposes only. The matrix may or may not be relevant to samples reported in this report. The laboratory evaluates system performance based on the LCS and LCSD control limits.

ALS Group USA, Corp.

dba ALS Environmental

QA/QC Report

Client: Anchor QEA, LLC
Project: Barry/22114-08.01
Sample Matrix: Water

Service Request: K2212585
Date Collected: 10/25/22
Date Received: 10/26/22
Date Analyzed: 10/31/22

Replicate Sample Summary
Dissolved Metals

Sample Name: BY-GBT-MW-1-Aeration
Lab Code: K2212585-001

Units: ug/L
Basis: NA

Analyte Name	Analysis Method	MRL	MDL	Sample Result	Duplicate	Average	RPD	RPD Limit
					Sample KQ2218853-06 Result			
Arsenic	200.8	0.50	0.09	71.1	71.5	71.3	<1	20
Cobalt	200.8	0.020	0.009	0.224	0.237	0.231	6	20
Iron	200.8	2.0	0.3	1.6 J	1.4 J	1.5	13	20
Manganese	200.8	0.20	0.04	11.8	11.8	11.8	<1	20

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client: Anchor QEA, LLC
Project: Barry/22114-08.01
Sample Matrix: Water

Service Request: K2212585
Date Analyzed: 10/31/22

Lab Control Sample Summary
Dissolved Metals

Units:ug/L
Basis:NA

Lab Control Sample
KQ2218853-02

Analyte Name	Analytical Method	Result	Spike Amount	% Rec	% Rec Limits
Arsenic	200.8	49.3	50.0	99	85-115
Cobalt	200.8	26.5	25.0	106	85-115
Iron	200.8	50.2	50.0	100	85-115
Manganese	200.8	25.7	25.0	103	85-115



October 31, 2022

Service Request No:K2212586

Masa Kanematsu
Anchor QEA, LLC
6720 SW Macadam Avenue
Suite 125
Portland, OR 97219

Laboratory Results for: Barry

Dear Masa,

Enclosed are the results of the sample(s) submitted to our laboratory October 26, 2022
For your reference, these analyses have been assigned our service request number **K2212586**.

Analyses were performed according to our laboratory's NELAP-approved quality assurance program. The test results meet requirements of the current NELAP standards, where applicable, and except as noted in the laboratory case narrative provided. For a specific list of NELAP-accredited analytes, refer to the certifications section at www.alsglobal.com. All results are intended to be considered in their entirety, and ALS Group USA Corp. dba ALS Environmental (ALS) is not responsible for use of less than the complete report. Results apply only to the items submitted to the laboratory for analysis and individual items (samples) analyzed, as listed in the report.

Please contact me if you have any questions. My extension is 3376. You may also contact me via email at Mark.Harris@alsglobal.com.

Respectfully submitted,

ALS Group USA, Corp. dba ALS Environmental

Mark Harris
Project Manager

ADDRESS 1317 S. 13th Avenue, Kelso, WA 98626
PHONE +1 360 577 7222 | FAX +1 360 636 1068
ALS Group USA, Corp.
dba ALS Environmental



Narrative Documents

ALS Environmental—Kelso Laboratory
1317 South 13th Avenue, Kelso, WA 98626
Phone (360) 577-7222 Fax (360) 425-9096
www.alsglobal.com



Client: Anchor QEA, LLC
Project: Barry
Sample Matrix: Water

Service Request: K2212586
Date Received: 10/26/2022

CASE NARRATIVE

All analyses were performed consistent with the quality assurance program of ALS Environmental. This report contains analytical results for samples for the Tier II level requested by the client.

Sample Receipt:

Eighteen water samples were received for analysis at ALS Environmental on 10/26/2022. Any discrepancies upon initial sample inspection are annotated on the sample receipt and preservation form included within this report. The samples were stored at minimum in accordance with the analytical method requirements.

Metals:

No significant anomalies were noted with this analysis.

Noel D. O'Connell

Approved by _____

Date 10/31/2022



SAMPLE DETECTION SUMMARY

This form includes only detections above the reporting levels. For a full listing of sample results, continue to the Sample Results section of this Report.

CLIENT ID: BY-GBT-MW-1-KMnO4-D1	Lab ID: K2212586-001
--	-----------------------------

Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	26.5		0.09	0.50	ug/L	200.8
Iron, Dissolved	142		0.3	2.0	ug/L	200.8
Manganese, Dissolved	107		0.04	0.20	ug/L	200.8

CLIENT ID: BY-SBT-MW-1-KMnO4-D1	Lab ID: K2212586-002
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Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	34.6		0.09	0.50	ug/L	200.8
Iron, Dissolved	31.2		0.3	2.0	ug/L	200.8
Manganese, Dissolved	210		0.04	0.20	ug/L	200.8

CLIENT ID: BY-GBT-MW-1-KMnO4-D2	Lab ID: K2212586-003
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Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	18.9		0.09	0.50	ug/L	200.8
Iron, Dissolved	14.7		0.3	2.0	ug/L	200.8
Manganese, Dissolved	98.5		0.04	0.20	ug/L	200.8

CLIENT ID: BY-SBT-MW-1-KMnO4-D2	Lab ID: K2212586-004
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Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	23.5		0.09	0.50	ug/L	200.8
Iron, Dissolved	68.2		0.3	2.0	ug/L	200.8
Manganese, Dissolved	350		0.04	0.20	ug/L	200.8

CLIENT ID: BY-GBT-MW-1-KMnO4-D3	Lab ID: K2212586-005
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Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	21.4		0.09	0.50	ug/L	200.8
Iron, Dissolved	2.2		0.3	2.0	ug/L	200.8
Manganese, Dissolved	300		0.04	0.20	ug/L	200.8

CLIENT ID: BY-SBT-MW-1-KMnO4-D3	Lab ID: K2212586-006
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Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	21.8		0.09	0.50	ug/L	200.8
Iron, Dissolved	122		0.3	2.0	ug/L	200.8
Manganese, Dissolved	406		0.04	0.20	ug/L	200.8

CLIENT ID: BY-GBT-MW-10-KMnO4-D1	Lab ID: K2212586-007
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Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	428		0.09	0.50	ug/L	200.8
Iron, Dissolved	1.0	J	0.3	2.0	ug/L	200.8
Manganese, Dissolved	106		0.04	0.20	ug/L	200.8

CLIENT ID: BY-SBT-MW-10-KMnO4-D1	Lab ID: K2212586-008
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Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	315		0.09	0.50	ug/L	200.8
Iron, Dissolved	8.4		0.3	2.0	ug/L	200.8



SAMPLE DETECTION SUMMARY

This form includes only detections above the reporting levels. For a full listing of sample results, continue to the Sample Results section of this Report.

CLIENT ID: BY-SBT-MW-10-KMnO4-D1	Lab ID: K2212586-008
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Analyte	Results	Flag	MDL	MRL	Units	Method
Manganese, Dissolved	128		0.04	0.20	ug/L	200.8

CLIENT ID: BY-GBT-MW-10-KMnO4-D2	Lab ID: K2212586-009
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Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	350		0.09	0.50	ug/L	200.8
Iron, Dissolved	0.9	J	0.3	2.0	ug/L	200.8
Manganese, Dissolved	100		0.04	0.20	ug/L	200.8

CLIENT ID: BY-SBT-MW-10-KMnO4-D2	Lab ID: K2212586-010
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Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	338		0.09	0.50	ug/L	200.8
Iron, Dissolved	2.0		0.3	2.0	ug/L	200.8
Manganese, Dissolved	48.0		0.04	0.20	ug/L	200.8

CLIENT ID: BY-GBT-MW-10-KMnO4-D3	Lab ID: K2212586-011
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Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	395		0.09	0.50	ug/L	200.8
Iron, Dissolved	1.2	J	0.3	2.0	ug/L	200.8
Manganese, Dissolved	168		0.04	0.20	ug/L	200.8

CLIENT ID: BY-SBT-MW-10-KMnO4-D3	Lab ID: K2212586-012
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Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	647		0.09	0.50	ug/L	200.8
Iron, Dissolved	3.4		0.3	2.0	ug/L	200.8
Manganese, Dissolved	179		0.04	0.20	ug/L	200.8

CLIENT ID: BY-GBT-MW-15V-KMnO4-D1	Lab ID: K2212586-013
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Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	35.4		0.09	0.50	ug/L	200.8
Cobalt, Dissolved	25.6		0.009	0.020	ug/L	200.8
Iron, Dissolved	27.1		0.3	2.0	ug/L	200.8
Manganese, Dissolved	1330		0.04	0.20	ug/L	200.8

CLIENT ID: BY-SBT-MW-15V-KMnO4-D1	Lab ID: K2212586-014
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Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	20.5		0.09	0.50	ug/L	200.8
Cobalt, Dissolved	14.4		0.009	0.020	ug/L	200.8
Iron, Dissolved	7.3		0.3	2.0	ug/L	200.8
Manganese, Dissolved	1130		0.04	0.20	ug/L	200.8

CLIENT ID: BY-GBT-MW-15V-KMnO4-D2	Lab ID: K2212586-015
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Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	35.4		0.09	0.50	ug/L	200.8
Cobalt, Dissolved	24.7		0.009	0.020	ug/L	200.8



SAMPLE DETECTION SUMMARY

This form includes only detections above the reporting levels. For a full listing of sample results, continue to the Sample Results section of this Report.

CLIENT ID: BY-GBT-MW-15V-KMnO4-D2 Lab ID: K2212586-015

Analyte	Results	Flag	MDL	MRL	Units	Method
Iron, Dissolved	10.3		0.3	2.0	ug/L	200.8
Manganese, Dissolved	1880		0.04	0.20	ug/L	200.8

CLIENT ID: BY-SBT-MW-15V-KMnO4-D2 Lab ID: K2212586-016

Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	26.0		0.09	0.50	ug/L	200.8
Cobalt, Dissolved	10.2		0.009	0.020	ug/L	200.8
Iron, Dissolved	54.2		0.3	2.0	ug/L	200.8
Manganese, Dissolved	1330		0.04	0.20	ug/L	200.8

CLIENT ID: BY-GBT-MW-15V-KMnO4-D3 Lab ID: K2212586-017

Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	36.0		0.09	0.50	ug/L	200.8
Cobalt, Dissolved	25.1		0.009	0.020	ug/L	200.8
Iron, Dissolved	11.8		0.3	2.0	ug/L	200.8
Manganese, Dissolved	1010		0.04	0.20	ug/L	200.8

CLIENT ID: BY-SBT-MW-15V-KMnO4-D3 Lab ID: K2212586-018

Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	26.4		0.09	0.50	ug/L	200.8
Cobalt, Dissolved	13.0		0.009	0.020	ug/L	200.8
Iron, Dissolved	7.7		0.3	2.0	ug/L	200.8
Manganese, Dissolved	915		0.04	0.20	ug/L	200.8



Sample Receipt Information

ALS Environmental—Kelso Laboratory
1317 South 13th Avenue, Kelso, WA 98626
Phone (360) 577-7222 Fax (360) 425-9096
www.alsglobal.com

Client: Anchor QEA, LLC
Project: Barry/22114-08.01

Service Request:K2212586

SAMPLE CROSS-REFERENCE

<u>SAMPLE #</u>	<u>CLIENT SAMPLE ID</u>	<u>DATE</u>	<u>TIME</u>
K2212586-001	BY-GBT-MW-1-KMnO4-D1	10/25/2022	0930
K2212586-002	BY-SBT-MW-1-KMnO4-D1	10/25/2022	0935
K2212586-003	BY-GBT-MW-1-KMnO4-D2	10/25/2022	0940
K2212586-004	BY-SBT-MW-1-KMnO4-D2	10/25/2022	0945
K2212586-005	BY-GBT-MW-1-KMnO4-D3	10/25/2022	0950
K2212586-006	BY-SBT-MW-1-KMnO4-D3	10/25/2022	0955
K2212586-007	BY-GBT-MW-10-KMnO4-D1	10/25/2022	1000
K2212586-008	BY-SBT-MW-10-KMnO4-D1	10/25/2022	1005
K2212586-009	BY-GBT-MW-10-KMnO4-D2	10/25/2022	1010
K2212586-010	BY-SBT-MW-10-KMnO4-D2	10/25/2022	1015
K2212586-011	BY-GBT-MW-10-KMnO4-D3	10/25/2022	1020
K2212586-012	BY-SBT-MW-10-KMnO4-D3	10/25/2022	1025
K2212586-013	BY-GBT-MW-15V-KMnO4-D1	10/25/2022	1030
K2212586-014	BY-SBT-MW-15V-KMnO4-D1	10/25/2022	1035
K2212586-015	BY-GBT-MW-15V-KMnO4-D2	10/25/2022	1040
K2212586-016	BY-SBT-MW-15V-KMnO4-D2	10/25/2022	1045
K2212586-017	BY-GBT-MW-15V-KMnO4-D3	10/25/2022	1050
K2212586-018	BY-SBT-MW-15V-KMnO4-D3	10/25/2022	1055

V22-12584

Chain of Custody Record & Laboratory Analysis Request

Company: Anchor QEA
Date: 10/25/2022
Project Name: Barry
Project Number: 221114-08.01
Project Manager: Masa Kanematsu, mkanematsu@anchorqea.com
Phone Number: 503.972.5001
Shipment Method: ALS Carrier
Samplers: Gillian Williams, Heather Kish, Sumant Avasarala

Test Parameters



Table with columns: Line, Field Sample ID, Collection Date/Time, Matrix, No. of Containers, Dissolved metals (As, Fe, Mn), Dissolved metals (Co), and Comments/Preservation. Rows 1-18 contain sample data.

Notes: If running > 10X Dilution please contact Masa (503-972-5001, mkanematsu@anchorqea.com). Please analyze by ICP-MS (Method 200.8) to achieve the MDL < 1 ppb. Some samples may have purple color associated with potassium permanganate (KMnO4). If those samples need to be diluted not to damage ICP-MS, please do so and let Masa know the dilution factor.

Relinquished By: Gillian Williams
Signature/Printed Name: Gillian Williams
Date/Time: 10/26/2022

Received By: [Signature]
Signature/Printed Name: [Signature]
Date/Time: 10/26/22 11:00

Relinquished By: [Signature] ALS
Signature/Printed Name: [Signature] ALS
Date/Time: 10/26/22 1310

Received By: [Signature]
Signature/Printed Name: [Signature]
Date/Time: 10/26/22 1310

PM MIT

Cooler Receipt and Preservation Form

Client ANCHOR Service Request K22 12586
Received: 10-26-22 Opened: 10-26-22 By: Y Unloaded: 10-26-22 By: Y

- 1. Samples were received via? USPS Fed Ex UPS DHL PDX Courier Hand Delivered
- 2. Samples were received in: (circle) Cooler Box Envelope Other NA
- 3. Were custody seals on coolers? NA Y N If yes, how many and where? _____
If present, were custody seals intact? Y N If present, were they signed and dated? Y N

Temp Blank	Sample Temp	IR Gun	Cooler #/COC ID / NA	Out of temp indicate with X	PM Notified if out of temp	Tracking Number NA	Filed
<u>4.7</u>		<u>I 205</u>					

- 4. Was a Temperature Blank present in cooler? NA Y N If yes, note the temperature in the appropriate column above:
If no, take the temperature of a representative sample bottle contained within the cooler; note in the column "Sample Temp":
- 5. Were samples received within the method specified temperature ranges? NA Y N
If no, were they received on ice and same day as collected? If not, note the cooler # below and notify the PM. NA Y N

If applicable, tissue samples were received: Frozen Partially Thawed Thawed

- 6. Packing material: Inserts Duggies Bubble Wrap Gel Packs Wet Ice Dry Ice Sleeves
- 7. Were custody papers properly filled out (ink, signed, etc.)? NA Y N
- 8. Were samples received in good condition (unbroken) NA Y N
- 9. Were all sample labels complete (ie, analysis, preservation, etc.)? NA Y N
- 10. Did all sample labels and tags agree with custody papers? NA Y N
- 11. Were appropriate bottles/containers and volumes received for the tests indicated? NA Y N
- 12. Were the pH-preserved bottles (see SMO GEN SOP) received at the appropriate pH? Indicate in the table below NA Y N
- 13. Were VOA vials received without headspace? Indicate in the table below. NA Y N
- 14. Was C12/Res negative? NA Y N
- 15. Were 100ml sterile microbiology bottles filled exactly to the 100ml mark? NA Y N Under filled Overfilled

Sample ID on Bottle	Sample ID on COC	Identified by:

Sample ID	Bottle Count	Bottle Type	Head-space	Broke	pH	Reagent	Volume added	Reagent Lot Number	Initials	Time

Notes, Discrepancies, Resolutions: could not pH due to low volume



Miscellaneous Forms

ALS Environmental—Kelso Laboratory
1317 South 13th Avenue, Kelso, WA 98626
Phone (360) 577-7222 Fax (360) 425-9096
www.alsglobal.com

Inorganic Data Qualifiers

- * The result is an outlier. See case narrative.
- # The control limit criteria is not applicable.
- B The analyte was found in the associated method blank at a level that is significant relative to the sample result as defined by the DOD or NELAC standards.
- E The result is an estimate amount because the value exceeded the instrument calibration range.
- J The result is an estimated value.
- U The analyte was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL.
DOD-QSM 4.2 definition : Analyte was not detected and is reported as less than the LOD or as defined by the project. The detection limit is adjusted for dilution.
- i The MRL/MDL or LOQ/LOD is elevated due to a matrix interference.
- X See case narrative.
- Q See case narrative. One or more quality control criteria was outside the limits.
- H The holding time for this test is immediately following sample collection. The samples were analyzed as soon as possible after receipt by the laboratory.

Metals Data Qualifiers

- # The control limit criteria is not applicable.
- J The result is an estimated value.
- E The percent difference for the serial dilution was greater than 10%, indicating a possible matrix interference in the sample.
- M The duplicate injection precision was not met.
- N The Matrix Spike sample recovery is not within control limits. See case narrative.
- S The reported value was determined by the Method of Standard Additions (MSA).
- U The analyte was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL.
DOD-QSM 4.2 definition : Analyte was not detected and is reported as less than the LOD or as defined by the project. The detection limit is adjusted for dilution.
- W The post-digestion spike for furnace AA analysis is out of control limits, while sample absorbance is less than 50% of spike absorbance.
 - i The MRL/MDL or LOQ/LOD is elevated due to a matrix interference.
- X See case narrative.
- + The correlation coefficient for the MSA is less than 0.995.
- Q See case narrative. One or more quality control criteria was outside the limits.

Organic Data Qualifiers

- * The result is an outlier. See case narrative.
- # The control limit criteria is not applicable. See case narrative.
- A A tentatively identified compound, a suspected aldol-condensation product.
- B The analyte was found in the associated method blank at a level that is significant relative to the sample result as defined by the DOD or NELAC standards.
- C The analyte was qualitatively confirmed using GC/MS techniques, pattern recognition, or by comparing to historical data.
- D The reported result is from a dilution.
- E The result is an estimated value.
- J The result is an estimated value.
- N The result is presumptive. The analyte was tentatively identified, but a confirmation analysis was not performed.
- P The GC or HPLC confirmation criteria was exceeded. The relative percent difference is greater than 40% between the two analytical results.
- U The analyte was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL.
DOD-QSM 4.2 definition : Analyte was not detected and is reported as less than the LOD or as defined by the project. The detection limit is adjusted for dilution.
- i The MRL/MDL or LOQ/LOD is elevated due to a chromatographic interference.
- X See case narrative.
- Q See case narrative. One or more quality control criteria was outside the limits.

Additional Petroleum Hydrocarbon Specific Qualifiers

- F The chromatographic fingerprint of the sample matches the elution pattern of the calibration standard.
- L The chromatographic fingerprint of the sample resembles a petroleum product, but the elution pattern indicates the presence of a greater amount of lighter molecular weight constituents than the calibration standard.
- H The chromatographic fingerprint of the sample resembles a petroleum product, but the elution pattern indicates the presence of a greater amount of heavier molecular weight constituents than the calibration standard.
- O The chromatographic fingerprint of the sample resembles an oil, but does not match the calibration standard.
- Y The chromatographic fingerprint of the sample resembles a petroleum product eluting in approximately the correct carbon range, but the elution pattern does not match the calibration standard.
- Z The chromatographic fingerprint does not resemble a petroleum product.

**ALS Group USA Corp. dba ALS Environmental (ALS) - Kelso
State Certifications, Accreditations, and Licenses**

Agency	Web Site	Number
Alaska DEH	http://dec.alaska.gov/eh/lab/cs/csapproval.htm	UST-040
Arizona DHS	http://www.azdhs.gov/lab/license/env.htm	AZ0339
Arkansas - DEQ	http://www.adeq.state.ar.us/techsvs/labcert.htm	88-0637
California DHS (ELAP)	http://www.cdph.ca.gov/certlic/labs/Pages/ELAP.aspx	2795
DOD ELAP	http://www.denix.osd.mil/edqw/Accreditation/AccreditedLabs.cfm	L16-58-R4
Florida DOH	http://www.doh.state.fl.us/lab/EnvLabCert/WaterCert.htm	E87412
Hawaii DOH	http://health.hawaii.gov/	-
ISO 17025	http://www.pjllabs.com/	L16-57
Louisiana DEQ	http://www.deq.louisiana.gov/page/la-lab-accreditation	03016
Maine DHS	http://www.maine.gov/dhhs/	WA01276
Minnesota DOH	http://www.health.state.mn.us/accreditation	053-999-457
Nevada DEP	http://ndep.nv.gov/bsdw/labservice.htm	WA01276
New Jersey DEP	http://www.nj.gov/dep/enforcement/oqa.html	WA005
New York - DOH	https://www.wadsworth.org/regulatory/elap	12060
North Carolina DEQ	https://deq.nc.gov/about/divisions/water-resources/water-resources-data/water-sciences-home-page/laboratory-certification-branch/non-field-lab-certification	605
Oklahoma DEQ	http://www.deq.state.ok.us/CSDnew/labcert.htm	9801
Oregon – DEQ (NELAP)	http://public.health.oregon.gov/LaboratoryServices/EnvironmentalLaboratoryAccreditation/Pages/index.aspx	WA100010
South Carolina DHEC	http://www.scdhec.gov/environment/EnvironmentalLabCertification/	61002
Texas CEQ	http://www.tceq.texas.gov/field/qa/env_lab_accreditation.html	T104704427
Washington DOE	http://www.ecy.wa.gov/programs/eap/labs/lab-accreditation.html	C544
Wyoming (EPA Region 8)	https://www.epa.gov/region8-waterops/epa-region-8-certified-drinking-water	-
Kelso Laboratory Website	www.alsglobal.com	NA

Analyses were performed according to our laboratory's NELAP-approved quality assurance program. A complete listing of specific NELAP-certified analytes, can be found in the certification section at www.ALSGlobal.com or at the accreditation bodies web site.

Please refer to the certification and/or accreditation body's web site if samples are submitted for compliance purposes. The states highlighted above, require the analysis be listed on the state certification if used for compliance purposes and if the method/analyte is offered by that state.

Acronyms

ASTM	American Society for Testing and Materials
A2LA	American Association for Laboratory Accreditation
CARB	California Air Resources Board
CAS Number	Chemical Abstract Service registry Number
CFC	Chlorofluorocarbon
CFU	Colony-Forming Unit
DEC	Department of Environmental Conservation
DEQ	Department of Environmental Quality
DHS	Department of Health Services
DOE	Department of Ecology
DOH	Department of Health
EPA	U. S. Environmental Protection Agency
ELAP	Environmental Laboratory Accreditation Program
GC	Gas Chromatography
GC/MS	Gas Chromatography/Mass Spectrometry
LOD	Limit of Detection
LOQ	Limit of Quantitation
LUFT	Leaking Underground Fuel Tank
M	Modified
MCL	Maximum Contaminant Level is the highest permissible concentration of a substance allowed in drinking water as established by the USEPA.
MDL	Method Detection Limit
MPN	Most Probable Number
MRL	Method Reporting Limit
NA	Not Applicable
NC	Not Calculated
NCASI	National Council of the Paper Industry for Air and Stream Improvement
ND	Not Detected
NIOSH	National Institute for Occupational Safety and Health
PQL	Practical Quantitation Limit
RCRA	Resource Conservation and Recovery Act
SIM	Selected Ion Monitoring
TPH	Total Petroleum Hydrocarbons
tr	Trace level is the concentration of an analyte that is less than the PQL but greater than or equal to the MDL.

ALS Group USA, Corp.
dba ALS Environmental

Analyst Summary report

Client: Anchor QEA, LLC
Project: Barry/22114-08.01

Service Request: K2212586

Sample Name: BY-GBT-MW-1-KMnO4-D1
Lab Code: K2212586-001
Sample Matrix: Water

Date Collected: 10/25/22
Date Received: 10/26/22

Analysis Method
200.8

Extracted/Digested By
SSOLADEY

Analyzed By
EMCALLISTER

Sample Name: BY-SBT-MW-1-KMnO4-D1
Lab Code: K2212586-002
Sample Matrix: Water

Date Collected: 10/25/22
Date Received: 10/26/22

Analysis Method
200.8

Extracted/Digested By
SSOLADEY

Analyzed By
EMCALLISTER

Sample Name: BY-GBT-MW-1-KMnO4-D2
Lab Code: K2212586-003
Sample Matrix: Water

Date Collected: 10/25/22
Date Received: 10/26/22

Analysis Method
200.8

Extracted/Digested By
SSOLADEY

Analyzed By
EMCALLISTER

Sample Name: BY-SBT-MW-1-KMnO4-D2
Lab Code: K2212586-004
Sample Matrix: Water

Date Collected: 10/25/22
Date Received: 10/26/22

Analysis Method
200.8

Extracted/Digested By
SSOLADEY

Analyzed By
EMCALLISTER

Sample Name: BY-GBT-MW-1-KMnO4-D3
Lab Code: K2212586-005
Sample Matrix: Water

Date Collected: 10/25/22
Date Received: 10/26/22

Analysis Method
200.8

Extracted/Digested By
SSOLADEY

Analyzed By
EMCALLISTER

ALS Group USA, Corp.
dba ALS Environmental

Analyst Summary report

Client: Anchor QEA, LLC
Project: Barry/22114-08.01

Service Request: K2212586

Sample Name: BY-SBT-MW-1-KMnO4-D3
Lab Code: K2212586-006
Sample Matrix: Water

Date Collected: 10/25/22
Date Received: 10/26/22

Analysis Method
200.8

Extracted/Digested By
SSOLADEY

Analyzed By
EMCALLISTER

Sample Name: BY-GBT-MW-10-KMnO4-D1
Lab Code: K2212586-007
Sample Matrix: Water

Date Collected: 10/25/22
Date Received: 10/26/22

Analysis Method
200.8

Extracted/Digested By
SSOLADEY

Analyzed By
EMCALLISTER

Sample Name: BY-SBT-MW-10-KMnO4-D1
Lab Code: K2212586-008
Sample Matrix: Water

Date Collected: 10/25/22
Date Received: 10/26/22

Analysis Method
200.8

Extracted/Digested By
SSOLADEY

Analyzed By
EMCALLISTER

Sample Name: BY-GBT-MW-10-KMnO4-D2
Lab Code: K2212586-009
Sample Matrix: Water

Date Collected: 10/25/22
Date Received: 10/26/22

Analysis Method
200.8

Extracted/Digested By
SSOLADEY

Analyzed By
EMCALLISTER

Sample Name: BY-SBT-MW-10-KMnO4-D2
Lab Code: K2212586-010
Sample Matrix: Water

Date Collected: 10/25/22
Date Received: 10/26/22

Analysis Method
200.8

Extracted/Digested By
SSOLADEY

Analyzed By
EMCALLISTER

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dba ALS Environmental

Analyst Summary report

Client: Anchor QEA, LLC
Project: Barry/22114-08.01

Service Request: K2212586

Sample Name: BY-GBT-MW-10-KMnO4-D3
Lab Code: K2212586-011
Sample Matrix: Water

Date Collected: 10/25/22
Date Received: 10/26/22

Analysis Method
200.8

Extracted/Digested By
SSOLADEY

Analyzed By
EMCALLISTER

Sample Name: BY-SBT-MW-10-KMnO4-D3
Lab Code: K2212586-012
Sample Matrix: Water

Date Collected: 10/25/22
Date Received: 10/26/22

Analysis Method
200.8

Extracted/Digested By
SSOLADEY

Analyzed By
EMCALLISTER

Sample Name: BY-GBT-MW-15V-KMnO4-D1
Lab Code: K2212586-013
Sample Matrix: Water

Date Collected: 10/25/22
Date Received: 10/26/22

Analysis Method
200.8

Extracted/Digested By
SSOLADEY

Analyzed By
EMCALLISTER

Sample Name: BY-SBT-MW-15V-KMnO4-D1
Lab Code: K2212586-014
Sample Matrix: Water

Date Collected: 10/25/22
Date Received: 10/26/22

Analysis Method
200.8

Extracted/Digested By
SSOLADEY

Analyzed By
EMCALLISTER

Sample Name: BY-GBT-MW-15V-KMnO4-D2
Lab Code: K2212586-015
Sample Matrix: Water

Date Collected: 10/25/22
Date Received: 10/26/22

Analysis Method
200.8

Extracted/Digested By
SSOLADEY

Analyzed By
EMCALLISTER

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Analyst Summary report

Client: Anchor QEA, LLC
Project: Barry/22114-08.01

Service Request: K2212586

Sample Name: BY-SBT-MW-15V-KMnO4-D2
Lab Code: K2212586-016
Sample Matrix: Water

Date Collected: 10/25/22
Date Received: 10/26/22

Analysis Method
200.8

Extracted/Digested By
SSOLADEY

Analyzed By
EMCALLISTER

Sample Name: BY-GBT-MW-15V-KMnO4-D3
Lab Code: K2212586-017
Sample Matrix: Water

Date Collected: 10/25/22
Date Received: 10/26/22

Analysis Method
200.8

Extracted/Digested By
SSOLADEY

Analyzed By
EMCALLISTER

Sample Name: BY-SBT-MW-15V-KMnO4-D3
Lab Code: K2212586-018
Sample Matrix: Water

Date Collected: 10/25/22
Date Received: 10/26/22

Analysis Method
200.8

Extracted/Digested By
SSOLADEY

Analyzed By
EMCALLISTER



Sample Results

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Analytical Report

Client: Anchor QEA, LLC
Project: Barry/22114-08.01
Sample Matrix: Water
Sample Name: BY-GBT-MW-1-KMnO4-D1
Lab Code: K2212586-001

Service Request: K2212586
Date Collected: 10/25/22 09:30
Date Received: 10/26/22 13:10

Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	26.5	ug/L	0.50	0.09	1	10/28/22 15:39	10/28/22	
Iron	200.8	142	ug/L	2.0	0.3	1	10/28/22 15:39	10/28/22	
Manganese	200.8	107	ug/L	0.20	0.04	1	10/28/22 15:39	10/28/22	

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Analytical Report

Client: Anchor QEA, LLC
Project: Barry/22114-08.01
Sample Matrix: Water

Service Request: K2212586
Date Collected: 10/25/22 09:35
Date Received: 10/26/22 13:10

Sample Name: BY-SBT-MW-1-KMnO4-D1
Lab Code: K2212586-002

Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	34.6	ug/L	0.50	0.09	1	10/28/22 15:44	10/28/22	
Iron	200.8	31.2	ug/L	2.0	0.3	1	10/28/22 15:44	10/28/22	
Manganese	200.8	210	ug/L	0.20	0.04	1	10/28/22 15:44	10/28/22	

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Analytical Report

Client: Anchor QEA, LLC
Project: Barry/22114-08.01
Sample Matrix: Water
Sample Name: BY-GBT-MW-1-KMnO4-D2
Lab Code: K2212586-003

Service Request: K2212586
Date Collected: 10/25/22 09:40
Date Received: 10/26/22 13:10
Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	18.9	ug/L	0.50	0.09	1	10/28/22 15:48	10/28/22	
Iron	200.8	14.7	ug/L	2.0	0.3	1	10/28/22 15:48	10/28/22	
Manganese	200.8	98.5	ug/L	0.20	0.04	1	10/28/22 15:48	10/28/22	

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Analytical Report

Client: Anchor QEA, LLC
Project: Barry/22114-08.01
Sample Matrix: Water
Sample Name: BY-SBT-MW-1-KMnO4-D2
Lab Code: K2212586-004

Service Request: K2212586
Date Collected: 10/25/22 09:45
Date Received: 10/26/22 13:10
Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	23.5	ug/L	0.50	0.09	1	10/28/22 15:49	10/28/22	
Iron	200.8	68.2	ug/L	2.0	0.3	1	10/28/22 15:49	10/28/22	
Manganese	200.8	350	ug/L	0.20	0.04	1	10/28/22 15:49	10/28/22	

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Analytical Report

Client: Anchor QEA, LLC
Project: Barry/22114-08.01
Sample Matrix: Water
Sample Name: BY-GBT-MW-1-KMnO4-D3
Lab Code: K2212586-005

Service Request: K2212586
Date Collected: 10/25/22 09:50
Date Received: 10/26/22 13:10
Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	21.4	ug/L	0.50	0.09	1	10/28/22 15:54	10/28/22	
Iron	200.8	2.2	ug/L	2.0	0.3	1	10/28/22 15:54	10/28/22	
Manganese	200.8	300	ug/L	0.20	0.04	1	10/28/22 15:54	10/28/22	

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Analytical Report

Client: Anchor QEA, LLC
Project: Barry/22114-08.01
Sample Matrix: Water
Sample Name: BY-SBT-MW-1-KMnO4-D3
Lab Code: K2212586-006

Service Request: K2212586
Date Collected: 10/25/22 09:55
Date Received: 10/26/22 13:10
Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	21.8	ug/L	0.50	0.09	1	10/28/22 15:55	10/28/22	
Iron	200.8	122	ug/L	2.0	0.3	1	10/28/22 15:55	10/28/22	
Manganese	200.8	406	ug/L	0.20	0.04	1	10/28/22 15:55	10/28/22	

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Analytical Report

Client: Anchor QEA, LLC
Project: Barry/22114-08.01
Sample Matrix: Water

Service Request: K2212586
Date Collected: 10/25/22 10:00
Date Received: 10/26/22 13:10

Sample Name: BY-GBT-MW-10-KMnO4-D1
Lab Code: K2212586-007

Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	428	ug/L	0.50	0.09	1	10/28/22 15:57	10/28/22	
Iron	200.8	1.0 J	ug/L	2.0	0.3	1	10/28/22 15:57	10/28/22	
Manganese	200.8	106	ug/L	0.20	0.04	1	10/28/22 15:57	10/28/22	

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Analytical Report

Client: Anchor QEA, LLC
Project: Barry/22114-08.01
Sample Matrix: Water

Service Request: K2212586
Date Collected: 10/25/22 10:05
Date Received: 10/26/22 13:10

Sample Name: BY-SBT-MW-10-KMnO4-D1
Lab Code: K2212586-008

Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	315	ug/L	0.50	0.09	1	10/28/22 15:58	10/28/22	
Iron	200.8	8.4	ug/L	2.0	0.3	1	10/28/22 15:58	10/28/22	
Manganese	200.8	128	ug/L	0.20	0.04	1	10/28/22 15:58	10/28/22	

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Analytical Report

Client: Anchor QEA, LLC
Project: Barry/22114-08.01
Sample Matrix: Water
Sample Name: BY-GBT-MW-10-KMnO4-D2
Lab Code: K2212586-009

Service Request: K2212586
Date Collected: 10/25/22 10:10
Date Received: 10/26/22 13:10
Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	350	ug/L	0.50	0.09	1	10/28/22 15:59	10/28/22	
Iron	200.8	0.9 J	ug/L	2.0	0.3	1	10/28/22 15:59	10/28/22	
Manganese	200.8	100	ug/L	0.20	0.04	1	10/28/22 15:59	10/28/22	

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Analytical Report

Client: Anchor QEA, LLC
Project: Barry/22114-08.01
Sample Matrix: Water

Service Request: K2212586
Date Collected: 10/25/22 10:15
Date Received: 10/26/22 13:10

Sample Name: BY-SBT-MW-10-KMnO4-D2
Lab Code: K2212586-010

Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	338	ug/L	0.50	0.09	1	10/28/22 16:01	10/28/22	
Iron	200.8	2.0	ug/L	2.0	0.3	1	10/28/22 16:01	10/28/22	
Manganese	200.8	48.0	ug/L	0.20	0.04	1	10/28/22 16:01	10/28/22	

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Analytical Report

Client: Anchor QEA, LLC
Project: Barry/22114-08.01
Sample Matrix: Water

Service Request: K2212586
Date Collected: 10/25/22 10:20
Date Received: 10/26/22 13:10

Sample Name: BY-GBT-MW-10-KMnO4-D3
Lab Code: K2212586-011

Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	395	ug/L	0.50	0.09	1	10/28/22 16:02	10/28/22	
Iron	200.8	1.2 J	ug/L	2.0	0.3	1	10/28/22 16:02	10/28/22	
Manganese	200.8	168	ug/L	0.20	0.04	1	10/28/22 16:02	10/28/22	

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Analytical Report

Client: Anchor QEA, LLC
Project: Barry/22114-08.01
Sample Matrix: Water

Service Request: K2212586
Date Collected: 10/25/22 10:25
Date Received: 10/26/22 13:10

Sample Name: BY-SBT-MW-10-KMnO4-D3
Lab Code: K2212586-012

Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	647	ug/L	0.50	0.09	1	10/28/22 16:04	10/28/22	
Iron	200.8	3.4	ug/L	2.0	0.3	1	10/28/22 16:04	10/28/22	
Manganese	200.8	179	ug/L	0.20	0.04	1	10/28/22 16:04	10/28/22	

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Analytical Report

Client: Anchor QEA, LLC
Project: Barry/22114-08.01
Sample Matrix: Water

Service Request: K2212586
Date Collected: 10/25/22 10:30
Date Received: 10/26/22 13:10

Sample Name: BY-GBT-MW-15V-KMnO4-D1
Lab Code: K2212586-013

Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	35.4	ug/L	0.50	0.09	1	10/28/22 16:05	10/28/22	
Cobalt	200.8	25.6	ug/L	0.020	0.009	1	10/28/22 16:05	10/28/22	
Iron	200.8	27.1	ug/L	2.0	0.3	1	10/28/22 16:05	10/28/22	
Manganese	200.8	1330	ug/L	0.20	0.04	1	10/28/22 16:05	10/28/22	

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Analytical Report

Client: Anchor QEA, LLC
Project: Barry/22114-08.01
Sample Matrix: Water

Service Request: K2212586
Date Collected: 10/25/22 10:35
Date Received: 10/26/22 13:10

Sample Name: BY-SBT-MW-15V-KMnO4-D1
Lab Code: K2212586-014

Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	20.5	ug/L	0.50	0.09	1	10/28/22 16:07	10/28/22	
Cobalt	200.8	14.4	ug/L	0.020	0.009	1	10/28/22 16:07	10/28/22	
Iron	200.8	7.3	ug/L	2.0	0.3	1	10/28/22 16:07	10/28/22	
Manganese	200.8	1130	ug/L	0.20	0.04	1	10/28/22 16:07	10/28/22	

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Analytical Report

Client: Anchor QEA, LLC
Project: Barry/22114-08.01
Sample Matrix: Water

Service Request: K2212586
Date Collected: 10/25/22 10:40
Date Received: 10/26/22 13:10

Sample Name: BY-GBT-MW-15V-KMnO4-D2
Lab Code: K2212586-015

Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	35.4	ug/L	0.50	0.09	1	10/28/22 16:11	10/28/22	
Cobalt	200.8	24.7	ug/L	0.020	0.009	1	10/28/22 16:11	10/28/22	
Iron	200.8	10.3	ug/L	2.0	0.3	1	10/28/22 16:11	10/28/22	
Manganese	200.8	1880	ug/L	0.20	0.04	1	10/28/22 16:11	10/28/22	

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Analytical Report

Client: Anchor QEA, LLC
Project: Barry/22114-08.01
Sample Matrix: Water

Service Request: K2212586
Date Collected: 10/25/22 10:45
Date Received: 10/26/22 13:10

Sample Name: BY-SBT-MW-15V-KMnO4-D2
Lab Code: K2212586-016

Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	26.0	ug/L	0.50	0.09	1	10/28/22 16:12	10/28/22	
Cobalt	200.8	10.2	ug/L	0.020	0.009	1	10/28/22 16:12	10/28/22	
Iron	200.8	54.2	ug/L	2.0	0.3	1	10/28/22 16:12	10/28/22	
Manganese	200.8	1330	ug/L	0.20	0.04	1	10/28/22 16:12	10/28/22	

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Analytical Report

Client: Anchor QEA, LLC
Project: Barry/22114-08.01
Sample Matrix: Water

Service Request: K2212586
Date Collected: 10/25/22 10:50
Date Received: 10/26/22 13:10

Sample Name: BY-GBT-MW-15V-KMnO4-D3
Lab Code: K2212586-017

Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	36.0	ug/L	0.50	0.09	1	10/28/22 16:14	10/28/22	
Cobalt	200.8	25.1	ug/L	0.020	0.009	1	10/28/22 16:14	10/28/22	
Iron	200.8	11.8	ug/L	2.0	0.3	1	10/28/22 16:14	10/28/22	
Manganese	200.8	1010	ug/L	0.20	0.04	1	10/28/22 16:14	10/28/22	

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Analytical Report

Client: Anchor QEA, LLC
Project: Barry/22114-08.01
Sample Matrix: Water

Service Request: K2212586
Date Collected: 10/25/22 10:55
Date Received: 10/26/22 13:10

Sample Name: BY-SBT-MW-15V-KMnO4-D3
Lab Code: K2212586-018

Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	26.4	ug/L	0.50	0.09	1	10/28/22 16:15	10/28/22	
Cobalt	200.8	13.0	ug/L	0.020	0.009	1	10/28/22 16:15	10/28/22	
Iron	200.8	7.7	ug/L	2.0	0.3	1	10/28/22 16:15	10/28/22	
Manganese	200.8	915	ug/L	0.20	0.04	1	10/28/22 16:15	10/28/22	



QC Summary Forms

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dba ALS Environmental

Analytical Report

Client: Anchor QEA, LLC
Project: Barry/22114-08.01
Sample Matrix: Water
Sample Name: Method Blank
Lab Code: KQ2218843-01

Service Request: K2212586
Date Collected: NA
Date Received: NA
Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	ND U	ug/L	0.50	0.09	1	10/28/22 15:37	10/28/22	
Cobalt	200.8	ND U	ug/L	0.020	0.009	1	10/28/22 15:37	10/28/22	
Iron	200.8	ND U	ug/L	2.0	0.3	1	10/28/22 15:37	10/28/22	
Manganese	200.8	0.05 J	ug/L	0.20	0.04	1	10/28/22 15:37	10/28/22	

ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client: Anchor QEA, LLC
Project: Barry/22114-08.01
Sample Matrix: Water

Service Request: K2212586
Date Collected: 10/25/22
Date Received: 10/26/22
Date Analyzed: 10/28/22
Date Extracted: 10/28/22

Matrix Spike Summary
Dissolved Metals

Sample Name: BY-GBT-MW-1-KMnO4-D1
Lab Code: K2212586-001
Analysis Method: 200.8
Prep Method: EPA CLP ILM04.0

Units: ug/L
Basis: NA

Matrix Spike
KQ2218843-03

Analyte Name	Sample Result	Result	Spike Amount	% Rec	% Rec Limits
Arsenic	26.5	74.1	50.0	95	70-130
Cobalt	0.093	24.1	25.0	96	70-130
Iron	142	184	50.0	85	70-130
Manganese	107	128	25.0	83 #	70-130

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

Matrix Spike and Matrix Spike Duplicate Data is presented for information purposes only. The matrix may or may not be relevant to samples reported in this report. The laboratory evaluates system performance based on the LCS and LCSD control limits.

ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client: Anchor QEA, LLC
Project: Barry/22114-08.01
Sample Matrix: Water

Service Request: K2212586
Date Collected: 10/25/22
Date Received: 10/26/22
Date Analyzed: 10/28/22
Date Extracted: 10/28/22

Matrix Spike Summary
Dissolved Metals

Sample Name: BY-SBT-MW-1-KMnO4-D1
Lab Code: K2212586-002
Analysis Method: 200.8
Prep Method: EPA CLP ILM04.0

Units: ug/L
Basis: NA

Matrix Spike
KQ2218843-05

Analyte Name	Sample Result	Result	Spike Amount	% Rec	% Rec Limits
Arsenic	34.6	84.0	50.0	99	70-130
Cobalt	0.326	25.5	25.0	101	70-130
Iron	31.2	78.9	50.0	96	70-130
Manganese	210	235	25.0	100 #	70-130

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

Matrix Spike and Matrix Spike Duplicate Data is presented for information purposes only. The matrix may or may not be relevant to samples reported in this report. The laboratory evaluates system performance based on the LCS and LCSD control limits.

ALS Group USA, Corp.

dba ALS Environmental

QA/QC Report

Client: Anchor QEA, LLC
Project: Barry/22114-08.01
Sample Matrix: Water

Service Request: K2212586
Date Collected: 10/25/22
Date Received: 10/26/22
Date Analyzed: 10/28/22

Replicate Sample Summary
Dissolved Metals

Sample Name: BY-GBT-MW-1-KMnO4-D1
Lab Code: K2212586-001

Units: ug/L
Basis: NA

Analyte Name	Analysis Method	MRL	MDL	Sample Result	Duplicate	Average	RPD	RPD Limit
					Sample KQ2218843-04 Result			
Arsenic	200.8	0.50	0.09	26.5	26.0	26.3	2	20
Cobalt	200.8	0.020	0.009	0.093	0.068	0.081	31 #	20
Iron	200.8	2.0	0.3	142	139	141	2	20
Manganese	200.8	0.20	0.04	107	106	107	<1	20

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

ALS Group USA, Corp.

dba ALS Environmental

QA/QC Report

Client: Anchor QEA, LLC
Project: Barry/22114-08.01
Sample Matrix: Water

Service Request: K2212586
Date Collected: 10/25/22
Date Received: 10/26/22
Date Analyzed: 10/28/22

Replicate Sample Summary

Dissolved Metals

Sample Name: BY-SBT-MW-1-KMnO4-D1
Lab Code: K2212586-002

Units: ug/L
Basis: NA

Analyte Name	Analysis Method	MRL	MDL	Sample Result	Duplicate	Average	RPD	RPD Limit
					Sample KQ2218843-06 Result			
Arsenic	200.8	0.50	0.09	34.6	34.6	34.6	<1	20
Cobalt	200.8	0.020	0.009	0.326	0.297	0.312	9	20
Iron	200.8	2.0	0.3	31.2	31.0	31.1	<1	20
Manganese	200.8	0.20	0.04	210	213	212	1	20

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client: Anchor QEA, LLC
Project: Barry/22114-08.01
Sample Matrix: Water

Service Request: K2212586
Date Analyzed: 10/28/22

Lab Control Sample Summary
Dissolved Metals

Units:ug/L
Basis:NA

Lab Control Sample
KQ2218843-02

Analyte Name	Analytical Method	Result	Spike Amount	% Rec	% Rec Limits
Arsenic	200.8	48.6	50.0	97	85-115
Cobalt	200.8	26.2	25.0	105	85-115
Iron	200.8	49.7	50.0	99	85-115
Manganese	200.8	25.0	25.0	100	85-115



October 31, 2022

Service Request No:K2212589

Masa Kanematsu
Anchor QEA, LLC
6720 SW Macadam Avenue
Suite 125
Portland, OR 97219

Laboratory Results for: Barry

Dear Masa,

Enclosed are the results of the sample(s) submitted to our laboratory October 26, 2022
For your reference, these analyses have been assigned our service request number **K2212589**.

Analyses were performed according to our laboratory's NELAP-approved quality assurance program. The test results meet requirements of the current NELAP standards, where applicable, and except as noted in the laboratory case narrative provided. For a specific list of NELAP-accredited analytes, refer to the certifications section at www.alsglobal.com. All results are intended to be considered in their entirety, and ALS Group USA Corp. dba ALS Environmental (ALS) is not responsible for use of less than the complete report. Results apply only to the items submitted to the laboratory for analysis and individual items (samples) analyzed, as listed in the report.

Please contact me if you have any questions. My extension is 3376. You may also contact me via email at Mark.Harris@alsglobal.com.

Respectfully submitted,

ALS Group USA, Corp. dba ALS Environmental

Mark Harris
Project Manager

ADDRESS 1317 S. 13th Avenue, Kelso, WA 98626
PHONE +1 360 577 7222 | FAX +1 360 636 1068
ALS Group USA, Corp.
dba ALS Environmental



Narrative Documents

ALS Environmental—Kelso Laboratory
1317 South 13th Avenue, Kelso, WA 98626
Phone (360) 577-7222 Fax (360) 425-9096
www.alsglobal.com



Client: Anchor QEA, LLC
Project: Barry
Sample Matrix: Water

Service Request: K2212589
Date Received: 10/26/2022

CASE NARRATIVE

All analyses were performed consistent with the quality assurance program of ALS Environmental. This report contains analytical results for samples for the Tier II level requested by the client.

Sample Receipt:

Eighteen water samples were received for analysis at ALS Environmental on 10/26/2022. Any discrepancies upon initial sample inspection are annotated on the sample receipt and preservation form included within this report. The samples were stored at minimum in accordance with the analytical method requirements.

Metals:

No significant anomalies were noted with this analysis.

Noel D. O'Connell

Approved by _____

Date 10/31/2022



SAMPLE DETECTION SUMMARY

This form includes only detections above the reporting levels. For a full listing of sample results, continue to the Sample Results section of this Report.

CLIENT ID: BY-GBT-MW-1-FB	Lab ID: K2212589-001
----------------------------------	-----------------------------

Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	9.76		0.09	0.50	ug/L	200.8
Iron, Dissolved	8.1		0.3	2.0	ug/L	200.8
Manganese, Dissolved	0.36		0.04	0.20	ug/L	200.8

CLIENT ID: BY-SBT-MW-1-FB	Lab ID: K2212589-002
----------------------------------	-----------------------------

Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	4.65		0.09	0.50	ug/L	200.8
Iron, Dissolved	35.9		0.3	2.0	ug/L	200.8
Manganese, Dissolved	1.49		0.04	0.20	ug/L	200.8

CLIENT ID: BY-GBT-MW-10-FB	Lab ID: K2212589-003
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Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	394		0.09	0.50	ug/L	200.8
Iron, Dissolved	15.4		0.3	2.0	ug/L	200.8
Manganese, Dissolved	2.04		0.04	0.20	ug/L	200.8

CLIENT ID: BY-SBT-MW-10-FB	Lab ID: K2212589-004
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Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	369		0.09	0.50	ug/L	200.8
Iron, Dissolved	14.2		0.3	2.0	ug/L	200.8
Manganese, Dissolved	0.31		0.04	0.20	ug/L	200.8

CLIENT ID: BY-GBT-MW-15V-FB	Lab ID: K2212589-005
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Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	5.55		0.09	0.50	ug/L	200.8
Cobalt, Dissolved	0.525		0.009	0.020	ug/L	200.8
Iron, Dissolved	15.9		0.3	2.0	ug/L	200.8
Manganese, Dissolved	0.15	J	0.04	0.20	ug/L	200.8

CLIENT ID: BY-SBT-MW-15V-FB	Lab ID: K2212589-006
------------------------------------	-----------------------------

Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	2.82		0.09	0.50	ug/L	200.8
Cobalt, Dissolved	0.315		0.009	0.020	ug/L	200.8
Iron, Dissolved	22.5		0.3	2.0	ug/L	200.8
Manganese, Dissolved	0.07	J	0.04	0.20	ug/L	200.8

CLIENT ID: BY-GBT-MW-24H-FB	Lab ID: K2212589-007
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Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	21.0		0.09	0.50	ug/L	200.8
Iron, Dissolved	38.3		0.3	2.0	ug/L	200.8
Manganese, Dissolved	0.52		0.04	0.20	ug/L	200.8



SAMPLE DETECTION SUMMARY

This form includes only detections above the reporting levels. For a full listing of sample results, continue to the Sample Results section of this Report.

CLIENT ID: BY-SBT-MW-24H-FB	Lab ID: K2212589-008
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Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	42.1		0.09	0.50	ug/L	200.8
Iron, Dissolved	28.8		0.3	2.0	ug/L	200.8
Manganese, Dissolved	0.41		0.04	0.20	ug/L	200.8

CLIENT ID: BY-GBT-MW-8-FB	Lab ID: K2212589-009
----------------------------------	-----------------------------

Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	6.64		0.09	0.50	ug/L	200.8
Iron, Dissolved	44.6		0.3	2.0	ug/L	200.8
Manganese, Dissolved	0.45		0.04	0.20	ug/L	200.8

CLIENT ID: BY-SBT-MW-8-FB	Lab ID: K2212589-010
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Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	20.0		0.09	0.50	ug/L	200.8
Iron, Dissolved	116		0.3	2.0	ug/L	200.8
Manganese, Dissolved	1.14		0.04	0.20	ug/L	200.8

CLIENT ID: BY-MW-1-FB-CTRL	Lab ID: K2212589-011
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Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	4.03		0.09	0.50	ug/L	200.8
Iron, Dissolved	2.2		0.3	2.0	ug/L	200.8
Manganese, Dissolved	743		0.04	0.20	ug/L	200.8

CLIENT ID: BY-MW-10-FB-CTRL	Lab ID: K2212589-012
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Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	607		0.09	0.50	ug/L	200.8
Iron, Dissolved	4.1		0.3	2.0	ug/L	200.8
Manganese, Dissolved	1490		0.04	0.20	ug/L	200.8

CLIENT ID: BY-MW-15V-FB-CTRL	Lab ID: K2212589-013
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Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	131		0.09	0.50	ug/L	200.8
Cobalt, Dissolved	75.3		0.009	0.020	ug/L	200.8
Iron, Dissolved	13800		0.3	2.0	ug/L	200.8
Manganese, Dissolved	1060		0.04	0.20	ug/L	200.8

CLIENT ID: BY-MW-24H-FB-CTRL	Lab ID: K2212589-014
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Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	26.2		0.09	0.50	ug/L	200.8
Iron, Dissolved	11.9		0.3	2.0	ug/L	200.8
Manganese, Dissolved	102		0.04	0.20	ug/L	200.8

CLIENT ID: BY-MW-8-FB-CTRL	Lab ID: K2212589-015
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Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	202		0.09	0.50	ug/L	200.8



SAMPLE DETECTION SUMMARY

This form includes only detections above the reporting levels. For a full listing of sample results, continue to the Sample Results section of this Report.

CLIENT ID: BY-MW-8-FB-CTRL	Lab ID: K2212589-015
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Analyte	Results	Flag	MDL	MRL	Units	Method
Iron, Dissolved	3.7		0.3	2.0	ug/L	200.8
Manganese, Dissolved	1340		0.04	0.20	ug/L	200.8

CLIENT ID: BY-GBT-MW-1-FB_DUP	Lab ID: K2212589-016
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Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	7.54		0.09	0.50	ug/L	200.8
Iron, Dissolved	70.6		0.3	2.0	ug/L	200.8
Manganese, Dissolved	1.12		0.04	0.20	ug/L	200.8

CLIENT ID: BY-SBT-MW-1-FB_DUP	Lab ID: K2212589-017
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Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	7.49		0.09	0.50	ug/L	200.8
Iron, Dissolved	202		0.3	2.0	ug/L	200.8
Manganese, Dissolved	3.56		0.04	0.20	ug/L	200.8

CLIENT ID: BY-MB-1	Lab ID: K2212589-018
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Analyte	Results	Flag	MDL	MRL	Units	Method
Iron, Dissolved	0.6	J	0.3	2.0	ug/L	200.8



Sample Receipt Information

ALS Environmental—Kelso Laboratory
1317 South 13th Avenue, Kelso, WA 98626
Phone (360) 577-7222 Fax (360) 425-9096
www.alsglobal.com

Client: Anchor QEA, LLC
Project: Barry/22114-08.01

Service Request:K2212589

SAMPLE CROSS-REFERENCE

<u>SAMPLE #</u>	<u>CLIENT SAMPLE ID</u>	<u>DATE</u>	<u>TIME</u>
K2212589-001	BY-GBT-MW-1-FB	10/25/2022	0800
K2212589-002	BY-SBT-MW-1-FB	10/25/2022	0805
K2212589-003	BY-GBT-MW-10-FB	10/25/2022	0810
K2212589-004	BY-SBT-MW-10-FB	10/25/2022	0815
K2212589-005	BY-GBT-MW-15V-FB	10/25/2022	0820
K2212589-006	BY-SBT-MW-15V-FB	10/25/2022	0825
K2212589-007	BY-GBT-MW-24H-FB	10/25/2022	0830
K2212589-008	BY-SBT-MW-24H-FB	10/25/2022	0835
K2212589-009	BY-GBT-MW-8-FB	10/25/2022	0840
K2212589-010	BY-SBT-MW-8-FB	10/25/2022	0845
K2212589-011	BY-MW-1-FB-CTRL	10/25/2022	0850
K2212589-012	BY-MW-10-FB-CTRL	10/25/2022	0855
K2212589-013	BY-MW-15V-FB-CTRL	10/25/2022	0900
K2212589-014	BY-MW-24H-FB-CTRL	10/25/2022	0905
K2212589-015	BY-MW-8-FB-CTRL	10/25/2022	0910
K2212589-016	BY-GBT-MW-1-FB_DUP	10/25/2022	0915
K2212589-017	BY-SBT-MW-1-FB_DUP	10/25/2022	0920
K2212589-018	BY-MB-1	10/25/2022	0925

W2212589

Chain of Custody Record & Laboratory Analysis Request

Company: Anchor QEA Date: 10/25/2022 Project Name: Barry Project Number: 221114-08.01 Lab Project Manager: Masa Kanematsu, mkanematsu@anchorqea.com Phone Number: 503.972.5001 Shipment Method: Courier Samplers: Gillian Williams, Heather Kish, Sumant Avasarala						Test Parameters <table border="1"> <tr> <th colspan="2">No. of Containers</th> <th colspan="13"></th> </tr> <tr> <th>Dissolved metals (As, Fe, Mn)</th> <th>Dissolved metals (Co)</th> <th></th><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th></th> </tr> </table>													No. of Containers															Dissolved metals (As, Fe, Mn)	Dissolved metals (Co)																			
No. of Containers																																																						
Dissolved metals (As, Fe, Mn)	Dissolved metals (Co)																																																					
Line	Field Sample ID	Collection Date/Time	Matrix	No. of Containers	Dissolved metals (As, Fe, Mn)	Dissolved metals (Co)																Comments/Preservation																																
1	BY-GBT-MW-1-FB	10/25/2022 8:00	Water	1	X																	HNO3-preserved, field filtered																																
2	BY-SBT-MW-1-FB	10/25/2022 8:05	Water	1	X																	HNO3-preserved, field filtered																																
3	BY-GBT-MW-10-FB	10/25/2022 8:10	Water	1	X																	HNO3-preserved, field filtered																																
4	BY-SBT-MW-10-FB	10/25/2022 8:15	Water	1	X																	HNO3-preserved, field filtered																																
5	BY-GBT-MW-15V-FB	10/25/2022 8:20	Water	1	X	X																HNO3-preserved, field filtered																																
6	BY-SBT-MW-15V-FB	10/25/2022 8:25	Water	1	X	X																HNO3-preserved, field filtered																																
7	BY-GBT-MW-24H-FB	10/25/2022 8:30	Water	1	X																	HNO3-preserved, field filtered																																
8	BY-SBT-MW-24H-FB	10/25/2022 8:35	Water	1	X																	HNO3-preserved, field filtered																																
9	BY-GBT-MW-8-FB	10/25/2022 8:40	Water	1	X																	HNO3-preserved, field filtered																																
10	BY-SBT-MW-8-FB	10/25/2022 8:45	Water	1	X																	HNO3-preserved, field filtered																																
11	BY- MW-1-FB-CTRL	10/25/2022 8:50	Water	1	X																	HNO3-preserved, field filtered																																
12	BY- MW-10-FB-CTRL	10/25/2022 8:55	Water	1	X																	HNO3-preserved, field filtered																																
13	BY-MW-15V-FB-CTRL	10/25/2022 9:00	Water	1	X	X																HNO3-preserved, field filtered																																
14	BY-MW-24H-FB-CTRL	10/25/2022 9:05	Water	1	X																	HNO3-preserved, field filtered																																
15	BY-MW-8-FB-CTRL	10/25/2022 9:10	Water	1	X																	HNO3-preserved, field filtered																																
16	BY-GBT-MW-1-FB_DUP	10/25/2022 9:15	Water	1	X																	HNO3-preserved, field filtered																																
17	BY-SBT-MW-1-FB_DUP	10/25/2022 9:20	Water	1	X																	HNO3-preserved, field filtered																																
18	BY-MB-1	10/25/2022 9:25	Water	1	X																	HNO3-preserved, field filtered																																

Notes If running > 10X Dilution please contact Masa (503-972-5001, mkanematsu@anchorqea.com). Please analyze by ICP-MS (Method 200.8) to achieve the MDL < 1 ppb.

Relinquished By: Gillian Williams Company: Anchor QEA
 Signature/Printed Name: Gillian Williams Date/Time: 10/26/2022 11:00

Relinquished By: ALS Company: ALS
 Signature/Printed Name: Josh Morrow Date/Time: 10/26/22 1310

Received By: ALS Company: ALS
 Signature/Printed Name: Josh Morrow Date/Time: 10/26/22 1102

Received By: ALS Company: ALS
 Signature/Printed Name: Josh Morrow Date/Time: 10/26/22 1310

Cooler Receipt and Preservation Form

Client ANCHOR Service Request K2212589
 Received: 10-26-22 Opened: 10-26-22 By: [Signature] Unloaded: 10-26-22 By: [Signature]

- Samples were received via? USPS Fed Ex UPS DHL PDX Courier Hand Delivered
- Samples were received in: (circle) Cooler Box Envelope Other NA
- Were custody seals on coolers? NA Y N If yes, how many and where? _____
 If present, were custody seals intact? Y N If present, were they signed and dated? Y N

Temp Blank	Sample Temp	IR Gun	Cooler #/COC ID / NA	Out of temp Indicate with 'X'	PM Notified if out of temp	Tracking Number NA	Filed
<u>4.7</u>		<u>I205</u>					

- Was a Temperature Blank present in cooler? NA Y N If yes, notate the temperature in the appropriate column above:
 If no, take the temperature of a representative sample bottle contained within the cooler; notate in the column "Sample Temp":
- Were samples received within the method specified temperature ranges? NA Y N
 If no, were they received on ice and same day as collected? If not, notate the cooler # below and notify the PM. NA Y N

If applicable, tissue samples were received: Frozen Partially Thawed Thawed

- Packing material: Inserts Ruggies Bubble Wrap Gel Packs Wet Ice Dry Ice Sleeves
- Were custody papers properly filled out (ink, signed, etc.)? NA Y N
- Were samples received in good condition (unbroken) NA Y N
- Were all sample labels complete (ic, analysis, preservation, etc.)? NA Y N
- Did all sample labels and tags agree with custody papers? NA Y N
- Were appropriate bottles/containers and volumes received for the tests indicated? NA Y N
- Were the pH-preserved bottles (see SMO GEN SOP) received at the appropriate pH? Indicate in the table below NA Y N
- Were VOA vials received without headspace? Indicate in the table below NA Y N
- Was C12/Res negative? NA Y N
- Were 100ml sterile microbiology bottles filled exactly to the 100ml mark? NA Y N Under filled Overfilled

Sample ID on Bottle	Sample ID on COC	Identified by:

Sample ID	Bottle Count	Bottle Type	Head-space	Break	pH	Reagent	Volume added	Reagent Lot Number	Initials	Time

Notes, Discrepancies, Resolutions: could not PH due to low volume



Miscellaneous Forms

ALS Environmental—Kelso Laboratory
1317 South 13th Avenue, Kelso, WA 98626
Phone (360) 577-7222 Fax (360) 425-9096
www.alsglobal.com

Inorganic Data Qualifiers

- * The result is an outlier. See case narrative.
- # The control limit criteria is not applicable.
- B The analyte was found in the associated method blank at a level that is significant relative to the sample result as defined by the DOD or NELAC standards.
- E The result is an estimate amount because the value exceeded the instrument calibration range.
- J The result is an estimated value.
- U The analyte was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL.
DOD-QSM 4.2 definition : Analyte was not detected and is reported as less than the LOD or as defined by the project. The detection limit is adjusted for dilution.
- i The MRL/MDL or LOQ/LOD is elevated due to a matrix interference.
- X See case narrative.
- Q See case narrative. One or more quality control criteria was outside the limits.
- H The holding time for this test is immediately following sample collection. The samples were analyzed as soon as possible after receipt by the laboratory.

Metals Data Qualifiers

- # The control limit criteria is not applicable.
- J The result is an estimated value.
- E The percent difference for the serial dilution was greater than 10%, indicating a possible matrix interference in the sample.
- M The duplicate injection precision was not met.
- N The Matrix Spike sample recovery is not within control limits. See case narrative.
- S The reported value was determined by the Method of Standard Additions (MSA).
- U The analyte was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL.
DOD-QSM 4.2 definition : Analyte was not detected and is reported as less than the LOD or as defined by the project. The detection limit is adjusted for dilution.
- W The post-digestion spike for furnace AA analysis is out of control limits, while sample absorbance is less than 50% of spike absorbance.
 - i The MRL/MDL or LOQ/LOD is elevated due to a matrix interference.
- X See case narrative.
- + The correlation coefficient for the MSA is less than 0.995.
- Q See case narrative. One or more quality control criteria was outside the limits.

Organic Data Qualifiers

- * The result is an outlier. See case narrative.
- # The control limit criteria is not applicable. See case narrative.
- A A tentatively identified compound, a suspected aldol-condensation product.
- B The analyte was found in the associated method blank at a level that is significant relative to the sample result as defined by the DOD or NELAC standards.
- C The analyte was qualitatively confirmed using GC/MS techniques, pattern recognition, or by comparing to historical data.
- D The reported result is from a dilution.
- E The result is an estimated value.
- J The result is an estimated value.
- N The result is presumptive. The analyte was tentatively identified, but a confirmation analysis was not performed.
- P The GC or HPLC confirmation criteria was exceeded. The relative percent difference is greater than 40% between the two analytical results.
- U The analyte was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL.
DOD-QSM 4.2 definition : Analyte was not detected and is reported as less than the LOD or as defined by the project. The detection limit is adjusted for dilution.
- i The MRL/MDL or LOQ/LOD is elevated due to a chromatographic interference.
- X See case narrative.
- Q See case narrative. One or more quality control criteria was outside the limits.

Additional Petroleum Hydrocarbon Specific Qualifiers

- F The chromatographic fingerprint of the sample matches the elution pattern of the calibration standard.
- L The chromatographic fingerprint of the sample resembles a petroleum product, but the elution pattern indicates the presence of a greater amount of lighter molecular weight constituents than the calibration standard.
- H The chromatographic fingerprint of the sample resembles a petroleum product, but the elution pattern indicates the presence of a greater amount of heavier molecular weight constituents than the calibration standard.
- O The chromatographic fingerprint of the sample resembles an oil, but does not match the calibration standard.
- Y The chromatographic fingerprint of the sample resembles a petroleum product eluting in approximately the correct carbon range, but the elution pattern does not match the calibration standard.
- Z The chromatographic fingerprint does not resemble a petroleum product.

**ALS Group USA Corp. dba ALS Environmental (ALS) - Kelso
State Certifications, Accreditations, and Licenses**

Agency	Web Site	Number
Alaska DEH	http://dec.alaska.gov/eh/lab/cs/csapproval.htm	UST-040
Arizona DHS	http://www.azdhs.gov/lab/license/env.htm	AZ0339
Arkansas - DEQ	http://www.adeq.state.ar.us/techsvs/labcert.htm	88-0637
California DHS (ELAP)	http://www.cdph.ca.gov/certlic/labs/Pages/ELAP.aspx	2795
DOD ELAP	http://www.denix.osd.mil/edqw/Accreditation/AccreditedLabs.cfm	L16-58-R4
Florida DOH	http://www.doh.state.fl.us/lab/EnvLabCert/WaterCert.htm	E87412
Hawaii DOH	http://health.hawaii.gov/	-
ISO 17025	http://www.pjllabs.com/	L16-57
Louisiana DEQ	http://www.deq.louisiana.gov/page/la-lab-accreditation	03016
Maine DHS	http://www.maine.gov/dhhs/	WA01276
Minnesota DOH	http://www.health.state.mn.us/accreditation	053-999-457
Nevada DEP	http://ndep.nv.gov/bsdw/labservice.htm	WA01276
New Jersey DEP	http://www.nj.gov/dep/enforcement/oqa.html	WA005
New York - DOH	https://www.wadsworth.org/regulatory/elap	12060
North Carolina DEQ	https://deq.nc.gov/about/divisions/water-resources/water-resources-data/water-sciences-home-page/laboratory-certification-branch/non-field-lab-certification	605
Oklahoma DEQ	http://www.deq.state.ok.us/CSDnew/labcert.htm	9801
Oregon – DEQ (NELAP)	http://public.health.oregon.gov/LaboratoryServices/EnvironmentalLaboratoryAccreditation/Pages/index.aspx	WA100010
South Carolina DHEC	http://www.scdhec.gov/environment/EnvironmentalLabCertification/	61002
Texas CEQ	http://www.tceq.texas.gov/field/qa/env_lab_accreditation.html	T104704427
Washington DOE	http://www.ecy.wa.gov/programs/eap/labs/lab-accreditation.html	C544
Wyoming (EPA Region 8)	https://www.epa.gov/region8-waterops/epa-region-8-certified-drinking-water	-
Kelso Laboratory Website	www.alsglobal.com	NA

Analyses were performed according to our laboratory's NELAP-approved quality assurance program. A complete listing of specific NELAP-certified analytes, can be found in the certification section at www.ALSGlobal.com or at the accreditation bodies web site.

Please refer to the certification and/or accreditation body's web site if samples are submitted for compliance purposes. The states highlighted above, require the analysis be listed on the state certification if used for compliance purposes and if the method/analyte is offered by that state.

Acronyms

ASTM	American Society for Testing and Materials
A2LA	American Association for Laboratory Accreditation
CARB	California Air Resources Board
CAS Number	Chemical Abstract Service registry Number
CFC	Chlorofluorocarbon
CFU	Colony-Forming Unit
DEC	Department of Environmental Conservation
DEQ	Department of Environmental Quality
DHS	Department of Health Services
DOE	Department of Ecology
DOH	Department of Health
EPA	U. S. Environmental Protection Agency
ELAP	Environmental Laboratory Accreditation Program
GC	Gas Chromatography
GC/MS	Gas Chromatography/Mass Spectrometry
LOD	Limit of Detection
LOQ	Limit of Quantitation
LUFT	Leaking Underground Fuel Tank
M	Modified
MCL	Maximum Contaminant Level is the highest permissible concentration of a substance allowed in drinking water as established by the USEPA.
MDL	Method Detection Limit
MPN	Most Probable Number
MRL	Method Reporting Limit
NA	Not Applicable
NC	Not Calculated
NCASI	National Council of the Paper Industry for Air and Stream Improvement
ND	Not Detected
NIOSH	National Institute for Occupational Safety and Health
PQL	Practical Quantitation Limit
RCRA	Resource Conservation and Recovery Act
SIM	Selected Ion Monitoring
TPH	Total Petroleum Hydrocarbons
tr	Trace level is the concentration of an analyte that is less than the PQL but greater than or equal to the MDL.

ALS Group USA, Corp.
dba ALS Environmental

Analyst Summary report

Client: Anchor QEA, LLC
Project: Barry/22114-08.01

Service Request: K2212589

Sample Name: BY-GBT-MW-1-FB
Lab Code: K2212589-001
Sample Matrix: Water

Date Collected: 10/25/22
Date Received: 10/26/22

Analysis Method
200.8

Extracted/Digested By
SSOLADEY

Analyzed By
EMCALLISTER

Sample Name: BY-SBT-MW-1-FB
Lab Code: K2212589-002
Sample Matrix: Water

Date Collected: 10/25/22
Date Received: 10/26/22

Analysis Method
200.8

Extracted/Digested By
SSOLADEY

Analyzed By
EMCALLISTER

Sample Name: BY-GBT-MW-10-FB
Lab Code: K2212589-003
Sample Matrix: Water

Date Collected: 10/25/22
Date Received: 10/26/22

Analysis Method
200.8

Extracted/Digested By
SSOLADEY

Analyzed By
EMCALLISTER

Sample Name: BY-SBT-MW-10-FB
Lab Code: K2212589-004
Sample Matrix: Water

Date Collected: 10/25/22
Date Received: 10/26/22

Analysis Method
200.8

Extracted/Digested By
SSOLADEY

Analyzed By
EMCALLISTER

Sample Name: BY-GBT-MW-15V-FB
Lab Code: K2212589-005
Sample Matrix: Water

Date Collected: 10/25/22
Date Received: 10/26/22

Analysis Method
200.8

Extracted/Digested By
SSOLADEY

Analyzed By
EMCALLISTER

ALS Group USA, Corp.
dba ALS Environmental

Analyst Summary report

Client: Anchor QEA, LLC
Project: Barry/22114-08.01

Service Request: K2212589

Sample Name: BY-SBT-MW-15V-FB
Lab Code: K2212589-006
Sample Matrix: Water

Date Collected: 10/25/22
Date Received: 10/26/22

Analysis Method
200.8

Extracted/Digested By
SSOLADEY

Analyzed By
EMCALLISTER

Sample Name: BY-GBT-MW-24H-FB
Lab Code: K2212589-007
Sample Matrix: Water

Date Collected: 10/25/22
Date Received: 10/26/22

Analysis Method
200.8

Extracted/Digested By
SSOLADEY

Analyzed By
EMCALLISTER

Sample Name: BY-SBT-MW-24H-FB
Lab Code: K2212589-008
Sample Matrix: Water

Date Collected: 10/25/22
Date Received: 10/26/22

Analysis Method
200.8

Extracted/Digested By
SSOLADEY

Analyzed By
EMCALLISTER

Sample Name: BY-GBT-MW-8-FB
Lab Code: K2212589-009
Sample Matrix: Water

Date Collected: 10/25/22
Date Received: 10/26/22

Analysis Method
200.8

Extracted/Digested By
SSOLADEY

Analyzed By
EMCALLISTER

Sample Name: BY-SBT-MW-8-FB
Lab Code: K2212589-010
Sample Matrix: Water

Date Collected: 10/25/22
Date Received: 10/26/22

Analysis Method
200.8

Extracted/Digested By
SSOLADEY

Analyzed By
EMCALLISTER

ALS Group USA, Corp.
dba ALS Environmental

Analyst Summary report

Client: Anchor QEA, LLC
Project: Barry/22114-08.01

Service Request: K2212589

Sample Name: BY-MW-1-FB-CTRL
Lab Code: K2212589-011
Sample Matrix: Water

Date Collected: 10/25/22
Date Received: 10/26/22

Analysis Method
200.8

Extracted/Digested By
SSOLADEY

Analyzed By
EMCALLISTER

Sample Name: BY-MW-10-FB-CTRL
Lab Code: K2212589-012
Sample Matrix: Water

Date Collected: 10/25/22
Date Received: 10/26/22

Analysis Method
200.8

Extracted/Digested By
SSOLADEY

Analyzed By
EMCALLISTER

Sample Name: BY-MW-15V-FB-CTRL
Lab Code: K2212589-013
Sample Matrix: Water

Date Collected: 10/25/22
Date Received: 10/26/22

Analysis Method
200.8

Extracted/Digested By
SSOLADEY

Analyzed By
EMCALLISTER

Sample Name: BY-MW-24H-FB-CTRL
Lab Code: K2212589-014
Sample Matrix: Water

Date Collected: 10/25/22
Date Received: 10/26/22

Analysis Method
200.8

Extracted/Digested By
SSOLADEY

Analyzed By
EMCALLISTER

Sample Name: BY-MW-8-FB-CTRL
Lab Code: K2212589-015
Sample Matrix: Water

Date Collected: 10/25/22
Date Received: 10/26/22

Analysis Method
200.8

Extracted/Digested By
SSOLADEY

Analyzed By
EMCALLISTER

ALS Group USA, Corp.
dba ALS Environmental

Analyst Summary report

Client: Anchor QEA, LLC
Project: Barry/22114-08.01

Service Request: K2212589

Sample Name: BY-GBT-MW-1-FB_DUP
Lab Code: K2212589-016
Sample Matrix: Water

Date Collected: 10/25/22
Date Received: 10/26/22

Analysis Method
200.8

Extracted/Digested By
SSOLADEY

Analyzed By
EMCALLISTER

Sample Name: BY-SBT-MW-1-FB_DUP
Lab Code: K2212589-017
Sample Matrix: Water

Date Collected: 10/25/22
Date Received: 10/26/22

Analysis Method
200.8

Extracted/Digested By
SSOLADEY

Analyzed By
EMCALLISTER

Sample Name: BY-MB-1
Lab Code: K2212589-018
Sample Matrix: Water

Date Collected: 10/25/22
Date Received: 10/26/22

Analysis Method
200.8

Extracted/Digested By
SSOLADEY

Analyzed By
EMCALLISTER



Sample Results

ALS Environmental—Kelso Laboratory
1317 South 13th Avenue, Kelso, WA 98626
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www.alsglobal.com



Metals

ALS Environmental—Kelso Laboratory
1317 South 13th Avenue, Kelso, WA 98626
Phone (360) 577-7222 Fax (360) 425-9096
www.alsglobal.com

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Anchor QEA, LLC
Project: Barry/22114-08.01
Sample Matrix: Water
Sample Name: BY-GBT-MW-1-FB
Lab Code: K2212589-001

Service Request: K2212589
Date Collected: 10/25/22 08:00
Date Received: 10/26/22 13:10
Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	9.76	ug/L	0.50	0.09	1	10/28/22 17:11	10/28/22	
Iron	200.8	8.1	ug/L	2.0	0.3	1	10/28/22 17:11	10/28/22	
Manganese	200.8	0.36	ug/L	0.20	0.04	1	10/28/22 17:11	10/28/22	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Anchor QEA, LLC
Project: Barry/22114-08.01
Sample Matrix: Water
Sample Name: BY-SBT-MW-1-FB
Lab Code: K2212589-002

Service Request: K2212589
Date Collected: 10/25/22 08:05
Date Received: 10/26/22 13:10

Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	4.65	ug/L	0.50	0.09	1	10/28/22 17:15	10/28/22	
Iron	200.8	35.9	ug/L	2.0	0.3	1	10/28/22 17:15	10/28/22	
Manganese	200.8	1.49	ug/L	0.20	0.04	1	10/28/22 17:15	10/28/22	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Anchor QEA, LLC
Project: Barry/22114-08.01
Sample Matrix: Water
Sample Name: BY-GBT-MW-10-FB
Lab Code: K2212589-003

Service Request: K2212589
Date Collected: 10/25/22 08:10
Date Received: 10/26/22 13:10
Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	394	ug/L	0.50	0.09	1	10/28/22 17:19	10/28/22	
Iron	200.8	15.4	ug/L	2.0	0.3	1	10/28/22 17:19	10/28/22	
Manganese	200.8	2.04	ug/L	0.20	0.04	1	10/28/22 17:19	10/28/22	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Anchor QEA, LLC
Project: Barry/22114-08.01
Sample Matrix: Water
Sample Name: BY-SBT-MW-10-FB
Lab Code: K2212589-004

Service Request: K2212589
Date Collected: 10/25/22 08:15
Date Received: 10/26/22 13:10
Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	369	ug/L	0.50	0.09	1	10/28/22 17:21	10/28/22	
Iron	200.8	14.2	ug/L	2.0	0.3	1	10/28/22 17:21	10/28/22	
Manganese	200.8	0.31	ug/L	0.20	0.04	1	10/28/22 17:21	10/28/22	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Anchor QEA, LLC
Project: Barry/22114-08.01
Sample Matrix: Water
Sample Name: BY-GBT-MW-15V-FB
Lab Code: K2212589-005

Service Request: K2212589
Date Collected: 10/25/22 08:20
Date Received: 10/26/22 13:10
Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	5.55	ug/L	0.50	0.09	1	10/28/22 17:25	10/28/22	
Cobalt	200.8	0.525	ug/L	0.020	0.009	1	10/28/22 17:25	10/28/22	
Iron	200.8	15.9	ug/L	2.0	0.3	1	10/28/22 17:25	10/28/22	
Manganese	200.8	0.15 J	ug/L	0.20	0.04	1	10/28/22 17:25	10/28/22	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Anchor QEA, LLC
Project: Barry/22114-08.01
Sample Matrix: Water
Sample Name: BY-SBT-MW-15V-FB
Lab Code: K2212589-006

Service Request: K2212589
Date Collected: 10/25/22 08:25
Date Received: 10/26/22 13:10
Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	2.82	ug/L	0.50	0.09	1	10/28/22 17:26	10/28/22	
Cobalt	200.8	0.315	ug/L	0.020	0.009	1	10/28/22 17:26	10/28/22	
Iron	200.8	22.5	ug/L	2.0	0.3	1	10/28/22 17:26	10/28/22	
Manganese	200.8	0.07 J	ug/L	0.20	0.04	1	10/28/22 17:26	10/28/22	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Anchor QEA, LLC
Project: Barry/22114-08.01
Sample Matrix: Water
Sample Name: BY-GBT-MW-24H-FB
Lab Code: K2212589-007

Service Request: K2212589
Date Collected: 10/25/22 08:30
Date Received: 10/26/22 13:10
Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	21.0	ug/L	0.50	0.09	1	10/28/22 17:28	10/28/22	
Iron	200.8	38.3	ug/L	2.0	0.3	1	10/28/22 17:28	10/28/22	
Manganese	200.8	0.52	ug/L	0.20	0.04	1	10/28/22 17:28	10/28/22	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Anchor QEA, LLC
Project: Barry/22114-08.01
Sample Matrix: Water
Sample Name: BY-SBT-MW-24H-FB
Lab Code: K2212589-008

Service Request: K2212589
Date Collected: 10/25/22 08:35
Date Received: 10/26/22 13:10
Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	42.1	ug/L	0.50	0.09	1	10/28/22 17:29	10/28/22	
Iron	200.8	28.8	ug/L	2.0	0.3	1	10/28/22 17:29	10/28/22	
Manganese	200.8	0.41	ug/L	0.20	0.04	1	10/28/22 17:29	10/28/22	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Anchor QEA, LLC
Project: Barry/22114-08.01
Sample Matrix: Water
Sample Name: BY-GBT-MW-8-FB
Lab Code: K2212589-009

Service Request: K2212589
Date Collected: 10/25/22 08:40
Date Received: 10/26/22 13:10
Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	6.64	ug/L	0.50	0.09	1	10/28/22 17:31	10/28/22	
Iron	200.8	44.6	ug/L	2.0	0.3	1	10/28/22 17:31	10/28/22	
Manganese	200.8	0.45	ug/L	0.20	0.04	1	10/28/22 17:31	10/28/22	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Anchor QEA, LLC
Project: Barry/22114-08.01
Sample Matrix: Water
Sample Name: BY-SBT-MW-8-FB
Lab Code: K2212589-010

Service Request: K2212589
Date Collected: 10/25/22 08:45
Date Received: 10/26/22 13:10

Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	20.0	ug/L	0.50	0.09	1	10/28/22 17:32	10/28/22	
Iron	200.8	116	ug/L	2.0	0.3	1	10/28/22 17:32	10/28/22	
Manganese	200.8	1.14	ug/L	0.20	0.04	1	10/28/22 17:32	10/28/22	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Anchor QEA, LLC
Project: Barry/22114-08.01
Sample Matrix: Water
Sample Name: BY-MW-1-FB-CTRL
Lab Code: K2212589-011

Service Request: K2212589
Date Collected: 10/25/22 08:50
Date Received: 10/26/22 13:10
Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	4.03	ug/L	0.50	0.09	1	10/28/22 17:33	10/28/22	
Iron	200.8	2.2	ug/L	2.0	0.3	1	10/28/22 17:33	10/28/22	
Manganese	200.8	743	ug/L	0.20	0.04	1	10/28/22 17:33	10/28/22	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Anchor QEA, LLC
Project: Barry/22114-08.01
Sample Matrix: Water
Sample Name: BY-MW-10-FB-CTRL
Lab Code: K2212589-012

Service Request: K2212589
Date Collected: 10/25/22 08:55
Date Received: 10/26/22 13:10
Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	607	ug/L	0.50	0.09	1	10/28/22 17:35	10/28/22	
Iron	200.8	4.1	ug/L	2.0	0.3	1	10/28/22 17:35	10/28/22	
Manganese	200.8	1490	ug/L	0.20	0.04	1	10/28/22 17:35	10/28/22	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Anchor QEA, LLC
Project: Barry/22114-08.01
Sample Matrix: Water
Sample Name: BY-MW-15V-FB-CTRL
Lab Code: K2212589-013

Service Request: K2212589
Date Collected: 10/25/22 09:00
Date Received: 10/26/22 13:10

Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	131	ug/L	0.50	0.09	1	10/28/22 17:36	10/28/22	
Cobalt	200.8	75.3	ug/L	0.020	0.009	1	10/28/22 17:36	10/28/22	
Iron	200.8	13800	ug/L	2.0	0.3	1	10/28/22 17:36	10/28/22	
Manganese	200.8	1060	ug/L	0.20	0.04	1	10/28/22 17:36	10/28/22	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Anchor QEA, LLC
Project: Barry/22114-08.01
Sample Matrix: Water
Sample Name: BY-MW-24H-FB-CTRL
Lab Code: K2212589-014

Service Request: K2212589
Date Collected: 10/25/22 09:05
Date Received: 10/26/22 13:10

Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	26.2	ug/L	0.50	0.09	1	10/28/22 17:38	10/28/22	
Iron	200.8	11.9	ug/L	2.0	0.3	1	10/28/22 17:38	10/28/22	
Manganese	200.8	102	ug/L	0.20	0.04	1	10/28/22 17:38	10/28/22	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Anchor QEA, LLC
Project: Barry/22114-08.01
Sample Matrix: Water
Sample Name: BY-MW-8-FB-CTRL
Lab Code: K2212589-015

Service Request: K2212589
Date Collected: 10/25/22 09:10
Date Received: 10/26/22 13:10
Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	202	ug/L	0.50	0.09	1	10/28/22 17:42	10/28/22	
Iron	200.8	3.7	ug/L	2.0	0.3	1	10/28/22 17:42	10/28/22	
Manganese	200.8	1340	ug/L	0.20	0.04	1	10/28/22 17:42	10/28/22	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Anchor QEA, LLC
Project: Barry/22114-08.01
Sample Matrix: Water
Sample Name: BY-GBT-MW-1-FB_DUP
Lab Code: K2212589-016

Service Request: K2212589
Date Collected: 10/25/22 09:15
Date Received: 10/26/22 13:10
Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	7.54	ug/L	0.50	0.09	1	10/28/22 17:43	10/28/22	
Iron	200.8	70.6	ug/L	2.0	0.3	1	10/28/22 17:43	10/28/22	
Manganese	200.8	1.12	ug/L	0.20	0.04	1	10/28/22 17:43	10/28/22	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Anchor QEA, LLC
Project: Barry/22114-08.01
Sample Matrix: Water
Sample Name: BY-SBT-MW-1-FB_DUP
Lab Code: K2212589-017

Service Request: K2212589
Date Collected: 10/25/22 09:20
Date Received: 10/26/22 13:10
Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	7.49	ug/L	0.50	0.09	1	10/28/22 17:45	10/28/22	
Iron	200.8	202	ug/L	2.0	0.3	1	10/28/22 17:45	10/28/22	
Manganese	200.8	3.56	ug/L	0.20	0.04	1	10/28/22 17:45	10/28/22	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Anchor QEA, LLC
Project: Barry/22114-08.01
Sample Matrix: Water
Sample Name: BY-MB-1
Lab Code: K2212589-018

Service Request: K2212589
Date Collected: 10/25/22 09:25
Date Received: 10/26/22 13:10
Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	ND U	ug/L	0.50	0.09	1	10/28/22 17:46	10/28/22	
Iron	200.8	0.6 J	ug/L	2.0	0.3	1	10/28/22 17:46	10/28/22	
Manganese	200.8	ND U	ug/L	0.20	0.04	1	10/28/22 17:46	10/28/22	



QC Summary Forms

ALS Environmental—Kelso Laboratory
1317 South 13th Avenue, Kelso, WA 98626
Phone (360) 577-7222 Fax (360) 425-9096
www.alsglobal.com



Metals

ALS Environmental—Kelso Laboratory
1317 South 13th Avenue, Kelso, WA 98626
Phone (360) 577-7222 Fax (360) 425-9096
www.alsglobal.com

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Anchor QEA, LLC
Project: Barry/22114-08.01
Sample Matrix: Water
Sample Name: Method Blank
Lab Code: KQ2218850-01

Service Request: K2212589
Date Collected: NA
Date Received: NA
Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	ND U	ug/L	0.50	0.09	1	10/28/22 17:08	10/28/22	
Cobalt	200.8	ND U	ug/L	0.020	0.009	1	10/28/22 17:08	10/28/22	
Iron	200.8	ND U	ug/L	2.0	0.3	1	10/28/22 17:08	10/28/22	
Manganese	200.8	ND U	ug/L	0.20	0.04	1	10/28/22 17:08	10/28/22	

ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client: Anchor QEA, LLC
Project: Barry/22114-08.01
Sample Matrix: Water

Service Request: K2212589
Date Collected: 10/25/22
Date Received: 10/26/22
Date Analyzed: 10/28/22
Date Extracted: 10/28/22

Matrix Spike Summary
Dissolved Metals

Sample Name: BY-GBT-MW-1-FB
Lab Code: K2212589-001
Analysis Method: 200.8
Prep Method: EPA CLP ILM04.0

Units: ug/L
Basis: NA

Matrix Spike
KQ2218850-03

Analyte Name	Sample Result	Result	Spike Amount	% Rec	% Rec Limits
Arsenic	9.76	59.4	50.0	99	70-130
Cobalt	0.062	25.2	25.0	100	70-130
Iron	8.1	56.3	50.0	97	70-130
Manganese	0.36	25.6	25.0	101	70-130

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

Matrix Spike and Matrix Spike Duplicate Data is presented for information purposes only. The matrix may or may not be relevant to samples reported in this report. The laboratory evaluates system performance based on the LCS and LCSD control limits.

ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client: Anchor QEA, LLC
Project: Barry/22114-08.01
Sample Matrix: Water

Service Request: K2212589
Date Collected: 10/25/22
Date Received: 10/26/22
Date Analyzed: 10/28/22
Date Extracted: 10/28/22

Matrix Spike Summary
Dissolved Metals

Sample Name: BY-SBT-MW-1-FB
Lab Code: K2212589-002
Analysis Method: 200.8
Prep Method: EPA CLP ILM04.0

Units: ug/L
Basis: NA

Matrix Spike
KQ2218850-05

Analyte Name	Sample Result	Result	Spike Amount	% Rec	% Rec Limits
Arsenic	4.65	55.2	50.0	101	70-130
Cobalt	0.117	24.7	25.0	99	70-130
Iron	35.9	84.5	50.0	97	70-130
Manganese	1.49	26.7	25.0	101	70-130

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

Matrix Spike and Matrix Spike Duplicate Data is presented for information purposes only. The matrix may or may not be relevant to samples reported in this report. The laboratory evaluates system performance based on the LCS and LCSD control limits.

ALS Group USA, Corp.

dba ALS Environmental

QA/QC Report

Client: Anchor QEA, LLC
Project Barry/22114-08.01
Sample Matrix: Water

Service Request: K2212589
Date Collected: 10/25/22
Date Received: 10/26/22
Date Analyzed: 10/28/22

Replicate Sample Summary
Dissolved Metals

Sample Name: BY-GBT-MW-1-FB
Lab Code: K2212589-001

Units: ug/L
Basis: NA

Analyte Name	Analysis Method	MRL	MDL	Sample Result	Duplicate	Average	RPD	RPD Limit
					Sample KQ2218850-04 Result			
Arsenic	200.8	0.50	0.09	9.76	9.45	9.61	3	20
Cobalt	200.8	0.020	0.009	0.062	0.056	0.059	10	20
Iron	200.8	2.0	0.3	8.1	8.0	8.1	1	20
Manganese	200.8	0.20	0.04	0.36	0.34	0.35	6	20

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

ALS Group USA, Corp.

dba ALS Environmental

QA/QC Report

Client: Anchor QEA, LLC
Project: Barry/22114-08.01
Sample Matrix: Water

Service Request: K2212589
Date Collected: 10/25/22
Date Received: 10/26/22
Date Analyzed: 10/28/22

Replicate Sample Summary
Dissolved Metals

Sample Name: BY-SBT-MW-1-FB
Lab Code: K2212589-002

Units: ug/L
Basis: NA

Table with 9 columns: Analyte Name, Analysis Method, MRL, MDL, Sample Result, Duplicate Sample KQ2218850-06 Result, Average, RPD, RPD Limit. Rows include Arsenic, Cobalt, Iron, and Manganese.

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client: Anchor QEA, LLC
Project: Barry/22114-08.01
Sample Matrix: Water

Service Request: K2212589
Date Analyzed: 10/28/22

Lab Control Sample Summary
Dissolved Metals

Units:ug/L
Basis:NA

Lab Control Sample
KQ2218850-02

Analyte Name	Analytical Method	Result	Spike Amount	% Rec	% Rec Limits
Arsenic	200.8	48.4	50.0	97	85-115
Cobalt	200.8	26.8	25.0	107	85-115
Iron	200.8	50.8	50.0	102	85-115
Manganese	200.8	25.7	25.0	103	85-115



December 28, 2022

Service Request No:K2214979

Masa Kanematsu
Anchor QEA, LLC
6720 SW Macadam Avenue
Suite 125
Portland, OR 97219

Laboratory Results for: Barry

Dear Masa,

Enclosed are the results of the sample(s) submitted to our laboratory December 16, 2022
For your reference, these analyses have been assigned our service request number **K2214979**.

Analyses were performed according to our laboratory's NELAP-approved quality assurance program. The test results meet requirements of the current NELAP standards, where applicable, and except as noted in the laboratory case narrative provided. For a specific list of NELAP-accredited analytes, refer to the certifications section at www.alsglobal.com. All results are intended to be considered in their entirety, and ALS Group USA Corp. dba ALS Environmental (ALS) is not responsible for use of less than the complete report. Results apply only to the items submitted to the laboratory for analysis and individual items (samples) analyzed, as listed in the report.

Please contact me if you have any questions. My extension is 3376. You may also contact me via email at Mark.Harris@alsglobal.com.

Respectfully submitted,

ALS Group USA, Corp. dba ALS Environmental

Mark Harris
Project Manager

ADDRESS 1317 S. 13th Avenue, Kelso, WA 98626
PHONE +1 360 577 7222 | FAX +1 360 636 1068
ALS Group USA, Corp.
dba ALS Environmental



Narrative Documents

ALS Environmental—Kelso Laboratory
1317 South 13th Avenue, Kelso, WA 98626
Phone (360) 577-7222 Fax (360) 425-9096
www.alsglobal.com



Client: Anchor QEA, LLC
Project: Barry
Sample Matrix: Water

Service Request: K2214979
Date Received: 12/16/2022

CASE NARRATIVE

All analyses were performed consistent with the quality assurance program of ALS Environmental. This report contains analytical results for samples for the Tier II level requested by the client.

Sample Receipt:

Seventeen water samples were received for analysis at ALS Environmental on 12/16/2022. Any discrepancies upon initial sample inspection are annotated on the sample receipt and preservation form included within this report. The samples were stored at minimum in accordance with the analytical method requirements.

Metals:

No significant anomalies were noted with this analysis.

Approved by *Noel D. O'Neil*

Date 12/28/2022



SAMPLE DETECTION SUMMARY

This form includes only detections above the reporting levels. For a full listing of sample results, continue to the Sample Results section of this Report.

CLIENT ID: BY-MW-1-As-Spiked	Lab ID: K2214979-001
-------------------------------------	-----------------------------

Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	261		0.09	0.50	ug/L	200.8

CLIENT ID: BY-MW-8-As-Spiked	Lab ID: K2214979-002
-------------------------------------	-----------------------------

Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	298		0.09	0.50	ug/L	200.8

CLIENT ID: BY-MW-10-As-Spiked	Lab ID: K2214979-003
--------------------------------------	-----------------------------

Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	433		0.09	0.50	ug/L	200.8

CLIENT ID: BY-MW-15V-As-Spiked	Lab ID: K2214979-004
---------------------------------------	-----------------------------

Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	472		0.09	0.50	ug/L	200.8

CLIENT ID: BY-MW-24H-As-Spiked	Lab ID: K2214979-005
---------------------------------------	-----------------------------

Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	412		0.09	0.50	ug/L	200.8

CLIENT ID: BY-GBT-MW-1-FB	Lab ID: K2214979-006
----------------------------------	-----------------------------

Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	0.47	J	0.09	0.50	ug/L	200.8
Iron, Dissolved	28100		0.3	2.0	ug/L	200.8
Manganese, Dissolved	3150		0.04	0.20	ug/L	200.8

CLIENT ID: BY-SBT-MW-1-FB	Lab ID: K2214979-007
----------------------------------	-----------------------------

Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	0.51		0.09	0.50	ug/L	200.8
Iron, Dissolved	28100		0.3	2.0	ug/L	200.8
Manganese, Dissolved	3210		0.04	0.20	ug/L	200.8

CLIENT ID: BY-GBT-MW-8-FB	Lab ID: K2214979-008
----------------------------------	-----------------------------

Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	2.51		0.09	0.50	ug/L	200.8
Iron, Dissolved	12.7		0.3	2.0	ug/L	200.8
Manganese, Dissolved	10.6		0.04	0.20	ug/L	200.8

CLIENT ID: BY-SBT-MW-8-FB	Lab ID: K2214979-009
----------------------------------	-----------------------------

Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	2.39		0.09	0.50	ug/L	200.8
Iron, Dissolved	27.6		0.3	2.0	ug/L	200.8
Manganese, Dissolved	31.1		0.04	0.20	ug/L	200.8

CLIENT ID: BY-GBT-MW-10-FB	Lab ID: K2214979-010
-----------------------------------	-----------------------------

Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	2.33		0.09	0.50	ug/L	200.8



SAMPLE DETECTION SUMMARY

This form includes only detections above the reporting levels. For a full listing of sample results, continue to the Sample Results section of this Report.

CLIENT ID: BY-GBT-MW-10-FB	Lab ID: K2214979-010
-----------------------------------	-----------------------------

Analyte	Results	Flag	MDL	MRL	Units	Method
Iron, Dissolved	5.8		0.3	2.0	ug/L	200.8
Manganese, Dissolved	18.8		0.04	0.20	ug/L	200.8

CLIENT ID: BY-SBT-MW-10-FB	Lab ID: K2214979-011
-----------------------------------	-----------------------------

Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	3.31		0.09	0.50	ug/L	200.8
Iron, Dissolved	43.4		0.3	2.0	ug/L	200.8
Manganese, Dissolved	31.5		0.04	0.20	ug/L	200.8

CLIENT ID: BY-GBT-MW-15V-FB	Lab ID: K2214979-012
------------------------------------	-----------------------------

Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	2.30		0.09	0.50	ug/L	200.8
Cobalt, Dissolved	0.223		0.009	0.020	ug/L	200.8
Iron, Dissolved	13.6		0.3	2.0	ug/L	200.8
Manganese, Dissolved	0.15	J	0.04	0.20	ug/L	200.8

CLIENT ID: BY-GBT-MW-15V-FB-DUP	Lab ID: K2214979-013
--	-----------------------------

Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	2.30		0.09	0.50	ug/L	200.8
Cobalt, Dissolved	0.249		0.009	0.020	ug/L	200.8
Iron, Dissolved	11.9		0.3	2.0	ug/L	200.8
Manganese, Dissolved	0.11	J	0.04	0.20	ug/L	200.8

CLIENT ID: BY-SBT-MW-15V-FB	Lab ID: K2214979-014
------------------------------------	-----------------------------

Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	1.56		0.09	0.50	ug/L	200.8
Cobalt, Dissolved	0.334		0.009	0.020	ug/L	200.8
Iron, Dissolved	18.5		0.3	2.0	ug/L	200.8
Manganese, Dissolved	0.20		0.04	0.20	ug/L	200.8

CLIENT ID: BY-SBT-MW-15V-FB-DUP	Lab ID: K2214979-015
--	-----------------------------

Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	1.44		0.09	0.50	ug/L	200.8
Cobalt, Dissolved	0.343		0.009	0.020	ug/L	200.8
Iron, Dissolved	15.4		0.3	2.0	ug/L	200.8
Manganese, Dissolved	2.34		0.04	0.20	ug/L	200.8

CLIENT ID: BY-GBT-MW-24H-FB	Lab ID: K2214979-016
------------------------------------	-----------------------------

Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	3.65		0.09	0.50	ug/L	200.8
Iron, Dissolved	5.3		0.3	2.0	ug/L	200.8
Manganese, Dissolved	26.0		0.04	0.20	ug/L	200.8



SAMPLE DETECTION SUMMARY

This form includes only detections above the reporting levels. For a full listing of sample results, continue to the Sample Results section of this Report.

CLIENT ID: BY-SBT-MW-24H-FB		Lab ID: K2214979-017				
Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	2.30		0.09	0.50	ug/L	200.8
Iron, Dissolved	14.9		0.3	2.0	ug/L	200.8
Manganese, Dissolved	77.9		0.04	0.20	ug/L	200.8



Sample Receipt Information

ALS Environmental—Kelso Laboratory
1317 South 13th Avenue, Kelso, WA 98626
Phone (360) 577-7222 Fax (360) 425-9096
www.alsglobal.com

Client: Anchor QEA, LLC
Project: Barry/221114-08.01 Task 04


Service Request:K2214979

SAMPLE CROSS-REFERENCE

<u>SAMPLE #</u>	<u>CLIENT SAMPLE ID</u>	<u>DATE</u>	<u>TIME</u>
K2214979-001	BY-MW-1-As-Spiked	12/6/2022	0800
K2214979-002	BY-MW-8-As-Spiked	12/6/2022	0830
K2214979-003	BY-MW-10-As-Spiked	12/7/2022	0800
K2214979-004	BY-MW-15V-As-Spiked	12/7/2022	0830
K2214979-005	BY-MW-24H-As-Spiked	12/8/2022	0800
K2214979-006	BY-GBT-MW-1-FB	12/13/2022	0800
K2214979-007	BY-SBT-MW-1-FB	12/13/2022	0805
K2214979-008	BY-GBT-MW-8-FB	12/13/2022	0920
K2214979-009	BY-SBT-MW-8-FB	12/13/2022	0925
K2214979-010	BY-GBT-MW-10-FB	12/14/2022	0800
K2214979-011	BY-SBT-MW-10-FB	12/14/2022	0805
K2214979-012	BY-GBT-MW-15V-FB	12/14/2022	0920
K2214979-013	BY-GBT-MW-15V-FB-DUP	12/14/2022	0925
K2214979-014	BY-SBT-MW-15V-FB	12/14/2022	0930
K2214979-015	BY-SBT-MW-15V-FB-DUP	12/14/2022	0935
K2214979-016	BY-GBT-MW-24H-FB	12/15/2022	0800
K2214979-017	BY-SBT-MW-24H-FB	12/15/2022	0805


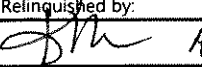
Chain of Custody Record & Laboratory Analysis Request

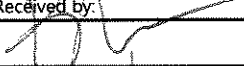
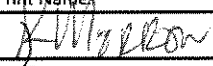

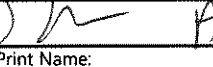
V2214979

Laboratory Number: 503-972-5019					No. of Containers	Parameters												 <p>Masa Kanematsu 6720 SW Macadam Ave Suite 125 Portland OR 97219</p>							
Date:		12/16/2022				Dissolved Metals (As)																			
Project Name:		Barry																							
Project Number:		221114-08.01 Task 04																							
Project Manager:		Masa Kanematsu																							
Phone Number:		503-972-5001 (backup number: 503-798-3456)																							
Shipment Method:		ALS Carrier																							
Line	Field Sample ID	Collection		Matrix	No. of Containers	Dissolved Metals (As)	Parameters															Comments/Preservation			
		Date	Time																						
1	BY-MW-1-As-Spiked	12/6/2022	8:00	Water	1	X																			
2	BY-MW-8-As-Spiked	12/6/2022	8:30	Water	1	X																			
3	BY-MW-10-As-Spiked	12/7/2022	8:00	Water	1	X																			
4	BY-MW-15V-As-Spiked	12/7/2022	8:30	Water	1	X																			
5	BY-MW-24H-As-Spiked	12/8/2022	8:00	Water	1	X																			
6																									
7																									
8																									
9																									
10																									
11																									
12																									
13																									
14																									
15																									

HNO3 preserved. Field Filtered. Approx. 500 µg/L As in all samples.

Notes: Please Contact Masa (503-972-5001, mkanematsu@anchorqea.com) if running > 10X dilution. Please analyze by ICP-MS method 200.8.


Relinquished by:	Company:
Emma Nordlund	Anchor QEA
Signature/Print Name:	Date/Time:
	9:30 12/16/22
Relinquished by:	Company:
 ACS	12/16/22 12:15
Signature/Print Name:	Date/Time:

Received by:

Signature/Print Name:
 ACS 12/16/22 10:15
Received by:

Signature/Print Name:
 ACS 12/16/22 12:15

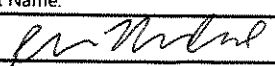
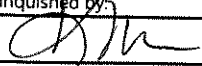
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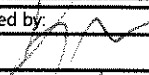
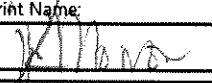
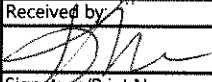

V12214979

Chain of Custody Record & Laboratory Analysis Request

Laboratory Number: 503-972-5019					No. of Containers	Parameters										 <p>Masa Kanematsu 6720 SW Macadam Ave Suite 125 Portland OR 97219</p>								
Date:	12/16/2022					Dissolved Metals (As, Fe, Mn)	Dissolved Metals (As, Co, Fe, Mn)																	
Project Name:	Barry																							
Project Number:	221114-08.01 Task 04																							
Project Manager:	Masa Kanematsu																							
Phone Number:	503-972-5001 (backup number: 503-798-3456)																							
Shipment Method:	ALS Carrier																							
Line	Field Sample ID	Collection		Matrix	No. of Containers	Dissolved Metals (As, Fe, Mn)	Dissolved Metals (As, Co, Fe, Mn)	Parameters												Comments/Preservation				
		Date	Time																					
1	BY-GBT-MW-1-FB	12/13/2022	8:00	Water	1	X																		HNO3 preserved. Field Filtered.
2	BY-SBT-MW-1-FB	12/13/2022	8:05	Water	1	X																		HNO3 preserved. Field Filtered.
3	BY-GBT-MW-8-FB	12/13/2022	9:20	Water	1	X																		HNO3 preserved. Field Filtered.
4	BY-SBT-MW-8-FB	12/13/2022	9:25	Water	1	X																		HNO3 preserved. Field Filtered.
5	BY-GBT-MW-10-FB	12/14/2022	8:00	Water	1	X																		HNO3 preserved. Field Filtered.
6	BY-SBT-MW-10-FB	12/14/2022	8:05	Water	1	X																		HNO3 preserved. Field Filtered.
7	BY-GBT-MW-15V-FB	12/14/2022	9:20	Water	1		X																	HNO3 preserved. Field Filtered.
8	BY-GBT-MW-15V-FB-DUP	12/14/2022	9:25	Water	1		X																	HNO3 preserved. Field Filtered.
9	BY-SBT-MW-15V-FB	12/14/2022	9:30	Water	1		X																	HNO3 preserved. Field Filtered.
10	BY-SBT-MW-15V-FB-DUP	12/14/2022	9:35	Water	1		X																	HNO3 preserved. Field Filtered.
11	BY-GBT-MW-24H-FB	12/15/2022	8:00	Water	1	X																		HNO3 preserved. Field Filtered.
12	BY-SBT-MW-24H-FB	12/15/2022	8:05	Water	1	X																		HNO3 preserved. Field Filtered.
13																								
14																								
15																								
16																								

Notes: Please Contact Masa (503-972-5001, mkanematsu@anchorqea.com) if running > 10X dilution. Please analyze by ICP-MS method 200.8 to achieve the MDL < 1 ppb.

Relinquished by:	Company:
Emma Nordlund	Anchor QEA
Signature/Print Name:	Date/Time:
	9:30 12/16/22
Relinquished by:	Company:
 ALS	
Signature/Print Name:	Date/Time:
	12/16/22 1215

Received by:

Signature/Print Name:
 ALS 12/16/22 1025
Received by:

Signature/Print Name:
 ALS 12/16/22 1215

Distribution: A copy will be made for the laboratory and client. The Project file will retain the original.

PM MH

Cooler Receipt and Preservation Form

Client Anchovy QEA Service Request K22 14979
Received: 12/16/22 Opened: 12/16/22 By: [Signature] Unloaded: 12/16/22 By: [Signature]

- 1. Samples were received via? USPS Fed Ex UPS DHL PDX Courier Hand Delivered
- 2. Samples were received in: (circle) Cooler Box Envelope Other NA
- 3. Were custody seals on coolers? NA Y N If yes, how many and where? _____
If present, were custody seals intact? Y N If present, were they signed and dated? Y N

Temp Blank	Sample Temp	IR Gun	Cooler #/COC ID / NA	Out of temp indicate with "X"	PM Notified If out of temp	Tracking Number NA	Filed
<u>4.6</u>		<u>IR01</u>		—	—		
<u>5.0</u>		<u>u</u>		—	—		
<u>4.2</u>		<u>u</u>		—	—		

4. Was a Temperature Blank present in cooler? NA Y N If yes, notate the temperature in the appropriate column above:
If no, take the temperature of a representative sample bottle contained within the cooler; notate in the column "Sample Temp":

5. Were samples received within the method specified temperature ranges? NA Y N
If no, were they received on ice and same day as collected? If not, notate the cooler # above and notify the PM. NA Y N

If applicable, tissue samples were received: Frozen Partially Thawed Thawed

6. Packing material: Inserts Baggies Bubble Wrap Gel Packs Wet Ice Dry Ice Sleeves

- 7. Were custody papers properly filled out (ink, signed, etc.)? NA Y N
- 8. Were samples received in good condition (unbroken) NA Y N
- 9. Were all sample labels complete (ie, analysis, preservation, etc.)? NA Y N
- 10. Did all sample labels and tags agree with custody papers? NA Y N
- 11. Were appropriate bottles/containers and volumes received for the tests indicated? NA Y N
- 12. Were the pH-preserved bottles (see SMO GEN SOP) received at the appropriate pH? Indicate in the table below NA Y N
- 13. Were VOA vials received without headspace? Indicate in the table below. NA Y N
- 14. Was C12/Res negative? NA Y N
- 15. Were samples received within the method specified time limit? If not, notate the error below and notify the PM NA Y N
- 16. Were 100ml sterile microbiology bottles filled exactly to the 100ml mark? NA Y N Underfilled Overfilled

Sample ID on Bottle	Sample ID on COC	Identified by:

Sample ID	Bottle Count	Bottle Type	Head-space	Broke	pH	Reagent	Volume added	Reagent Lot Number	Initials	Time

Notes, Discrepancies, Resolutions: Didn't pH due to limited sample volume. Rec'd (1) sample
BY-OSBT-MW-15V-PM-DI-BUF not on COC
SOP: SMO-GEN



Miscellaneous Forms

ALS Environmental—Kelso Laboratory
1317 South 13th Avenue, Kelso, WA 98626
Phone (360) 577-7222 Fax (360) 425-9096
www.alsglobal.com

Inorganic Data Qualifiers

- * The result is an outlier. See case narrative.
- # The control limit criteria is not applicable.
- B The analyte was found in the associated method blank at a level that is significant relative to the sample result as defined by the DOD or NELAC standards.
- E The result is an estimate amount because the value exceeded the instrument calibration range.
- J The result is an estimated value.
- U The analyte was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL.
DOD-QSM 4.2 definition : Analyte was not detected and is reported as less than the LOD or as defined by the project. The detection limit is adjusted for dilution.
- i The MRL/MDL or LOQ/LOD is elevated due to a matrix interference.
- X See case narrative.
- Q See case narrative. One or more quality control criteria was outside the limits.
- H The holding time for this test is immediately following sample collection. The samples were analyzed as soon as possible after receipt by the laboratory.

Metals Data Qualifiers

- # The control limit criteria is not applicable.
- J The result is an estimated value.
- E The percent difference for the serial dilution was greater than 10%, indicating a possible matrix interference in the sample.
- M The duplicate injection precision was not met.
- N The Matrix Spike sample recovery is not within control limits. See case narrative.
- S The reported value was determined by the Method of Standard Additions (MSA).
- U The analyte was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL.
DOD-QSM 4.2 definition : Analyte was not detected and is reported as less than the LOD or as defined by the project. The detection limit is adjusted for dilution.
- W The post-digestion spike for furnace AA analysis is out of control limits, while sample absorbance is less than 50% of spike absorbance.
 - i The MRL/MDL or LOQ/LOD is elevated due to a matrix interference.
- X See case narrative.
- + The correlation coefficient for the MSA is less than 0.995.
- Q See case narrative. One or more quality control criteria was outside the limits.

Organic Data Qualifiers

- * The result is an outlier. See case narrative.
- # The control limit criteria is not applicable. See case narrative.
- A A tentatively identified compound, a suspected aldol-condensation product.
- B The analyte was found in the associated method blank at a level that is significant relative to the sample result as defined by the DOD or NELAC standards.
- C The analyte was qualitatively confirmed using GC/MS techniques, pattern recognition, or by comparing to historical data.
- D The reported result is from a dilution.
- E The result is an estimated value.
- J The result is an estimated value.
- N The result is presumptive. The analyte was tentatively identified, but a confirmation analysis was not performed.
- P The GC or HPLC confirmation criteria was exceeded. The relative percent difference is greater than 40% between the two analytical results.
- U The analyte was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL.
DOD-QSM 4.2 definition : Analyte was not detected and is reported as less than the LOD or as defined by the project. The detection limit is adjusted for dilution.
 - i The MRL/MDL or LOQ/LOD is elevated due to a chromatographic interference.
- X See case narrative.
- Q See case narrative. One or more quality control criteria was outside the limits.

Additional Petroleum Hydrocarbon Specific Qualifiers

- F The chromatographic fingerprint of the sample matches the elution pattern of the calibration standard.
- L The chromatographic fingerprint of the sample resembles a petroleum product, but the elution pattern indicates the presence of a greater amount of lighter molecular weight constituents than the calibration standard.
- H The chromatographic fingerprint of the sample resembles a petroleum product, but the elution pattern indicates the presence of a greater amount of heavier molecular weight constituents than the calibration standard.
- O The chromatographic fingerprint of the sample resembles an oil, but does not match the calibration standard.
- Y The chromatographic fingerprint of the sample resembles a petroleum product eluting in approximately the correct carbon range, but the elution pattern does not match the calibration standard.
- Z The chromatographic fingerprint does not resemble a petroleum product.

**ALS Group USA Corp. dba ALS Environmental (ALS) - Kelso
State Certifications, Accreditations, and Licenses**

Agency	Web Site	Number
Alaska DEH	http://dec.alaska.gov/eh/lab/cs/csapproval.htm	UST-040
Arizona DHS	http://www.azdhs.gov/lab/license/env.htm	AZ0339
Arkansas - DEQ	http://www.adeq.state.ar.us/techsvs/labcert.htm	88-0637
California DHS (ELAP)	http://www.cdph.ca.gov/certlic/labs/Pages/ELAP.aspx	2795
DOD ELAP	http://www.denix.osd.mil/edqw/Accreditation/AccreditedLabs.cfm	L16-58-R4
Florida DOH	http://www.doh.state.fl.us/lab/EnvLabCert/WaterCert.htm	E87412
Hawaii DOH	http://health.hawaii.gov/	-
ISO 17025	http://www.pjllabs.com/	L16-57
Louisiana DEQ	http://www.deq.louisiana.gov/page/la-lab-accreditation	03016
Maine DHS	http://www.maine.gov/dhhs/	WA01276
Minnesota DOH	http://www.health.state.mn.us/accreditation	053-999-457
Nevada DEP	http://ndep.nv.gov/bsdw/labservice.htm	WA01276
New Jersey DEP	http://www.nj.gov/dep/enforcement/oqa.html	WA005
New York - DOH	https://www.wadsworth.org/regulatory/elap	12060
North Carolina DEQ	https://deq.nc.gov/about/divisions/water-resources/water-resources-data/water-sciences-home-page/laboratory-certification-branch/non-field-lab-certification	605
Oklahoma DEQ	http://www.deq.state.ok.us/CSDnew/labcert.htm	9801
Oregon – DEQ (NELAP)	http://public.health.oregon.gov/LaboratoryServices/EnvironmentalLaboratoryAccreditation/Pages/index.aspx	WA100010
South Carolina DHEC	http://www.scdhec.gov/environment/EnvironmentalLabCertification/	61002
Texas CEQ	http://www.tceq.texas.gov/field/qa/env_lab_accreditation.html	T104704427
Washington DOE	http://www.ecy.wa.gov/programs/eap/labs/lab-accreditation.html	C544
Wyoming (EPA Region 8)	https://www.epa.gov/region8-waterops/epa-region-8-certified-drinking-water	-
Kelso Laboratory Website	www.alsglobal.com	NA

Analyses were performed according to our laboratory's NELAP-approved quality assurance program. A complete listing of specific NELAP-certified analytes, can be found in the certification section at www.ALSGlobal.com or at the accreditation bodies web site.

Please refer to the certification and/or accreditation body's web site if samples are submitted for compliance purposes. The states highlighted above, require the analysis be listed on the state certification if used for compliance purposes and if the method/analyte is offered by that state.

Acronyms

ASTM	American Society for Testing and Materials
A2LA	American Association for Laboratory Accreditation
CARB	California Air Resources Board
CAS Number	Chemical Abstract Service registry Number
CFC	Chlorofluorocarbon
CFU	Colony-Forming Unit
DEC	Department of Environmental Conservation
DEQ	Department of Environmental Quality
DHS	Department of Health Services
DOE	Department of Ecology
DOH	Department of Health
EPA	U. S. Environmental Protection Agency
ELAP	Environmental Laboratory Accreditation Program
GC	Gas Chromatography
GC/MS	Gas Chromatography/Mass Spectrometry
LOD	Limit of Detection
LOQ	Limit of Quantitation
LUFT	Leaking Underground Fuel Tank
M	Modified
MCL	Maximum Contaminant Level is the highest permissible concentration of a substance allowed in drinking water as established by the USEPA.
MDL	Method Detection Limit
MPN	Most Probable Number
MRL	Method Reporting Limit
NA	Not Applicable
NC	Not Calculated
NCASI	National Council of the Paper Industry for Air and Stream Improvement
ND	Not Detected
NIOSH	National Institute for Occupational Safety and Health
PQL	Practical Quantitation Limit
RCRA	Resource Conservation and Recovery Act
SIM	Selected Ion Monitoring
TPH	Total Petroleum Hydrocarbons
tr	Trace level is the concentration of an analyte that is less than the PQL but greater than or equal to the MDL.

ALS Group USA, Corp.
dba ALS Environmental

Analyst Summary report

Client: Anchor QEA, LLC
Project: Barry/221114-08.01 Task 04

Service Request: K2214979

Sample Name: BY-MW-1-As-Spiked
Lab Code: K2214979-001
Sample Matrix: Water

Date Collected: 12/6/22
Date Received: 12/16/22

Analysis Method
200.8

Extracted/Digested By
ACOUCH

Analyzed By
EMCALLISTER

Sample Name: BY-MW-8-As-Spiked
Lab Code: K2214979-002
Sample Matrix: Water

Date Collected: 12/6/22
Date Received: 12/16/22

Analysis Method
200.8

Extracted/Digested By
ACOUCH

Analyzed By
EMCALLISTER

Sample Name: BY-MW-10-As-Spiked
Lab Code: K2214979-003
Sample Matrix: Water

Date Collected: 12/7/22
Date Received: 12/16/22

Analysis Method
200.8

Extracted/Digested By
ACOUCH

Analyzed By
EMCALLISTER

Sample Name: BY-MW-15V-As-Spiked
Lab Code: K2214979-004
Sample Matrix: Water

Date Collected: 12/7/22
Date Received: 12/16/22

Analysis Method
200.8

Extracted/Digested By
ACOUCH

Analyzed By
EMCALLISTER

Sample Name: BY-MW-24H-As-Spiked
Lab Code: K2214979-005
Sample Matrix: Water

Date Collected: 12/8/22
Date Received: 12/16/22

Analysis Method
200.8

Extracted/Digested By
ACOUCH

Analyzed By
EMCALLISTER

ALS Group USA, Corp.
dba ALS Environmental

Analyst Summary report

Client: Anchor QEA, LLC
Project: Barry/221114-08.01 Task 04

Service Request: K2214979

Sample Name: BY-GBT-MW-1-FB
Lab Code: K2214979-006
Sample Matrix: Water

Date Collected: 12/13/22
Date Received: 12/16/22

Analysis Method
200.8

Extracted/Digested By
ACOUCH

Analyzed By
EMCALLISTER

Sample Name: BY-SBT-MW-1-FB
Lab Code: K2214979-007
Sample Matrix: Water

Date Collected: 12/13/22
Date Received: 12/16/22

Analysis Method
200.8

Extracted/Digested By
ACOUCH

Analyzed By
EMCALLISTER

Sample Name: BY-GBT-MW-8-FB
Lab Code: K2214979-008
Sample Matrix: Water

Date Collected: 12/13/22
Date Received: 12/16/22

Analysis Method
200.8

Extracted/Digested By
ACOUCH

Analyzed By
EMCALLISTER

Sample Name: BY-SBT-MW-8-FB
Lab Code: K2214979-009
Sample Matrix: Water

Date Collected: 12/13/22
Date Received: 12/16/22

Analysis Method
200.8

Extracted/Digested By
ACOUCH

Analyzed By
EMCALLISTER

Sample Name: BY-GBT-MW-10-FB
Lab Code: K2214979-010
Sample Matrix: Water

Date Collected: 12/14/22
Date Received: 12/16/22

Analysis Method
200.8

Extracted/Digested By
ACOUCH

Analyzed By
EMCALLISTER

ALS Group USA, Corp.
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Analyst Summary report

Client: Anchor QEA, LLC
Project: Barry/221114-08.01 Task 04

Service Request: K2214979

Sample Name: BY-SBT-MW-10-FB
Lab Code: K2214979-011
Sample Matrix: Water

Date Collected: 12/14/22
Date Received: 12/16/22

Analysis Method
200.8

Extracted/Digested By
ACOUC

Analyzed By
EMCALLISTER

Sample Name: BY-GBT-MW-15V-FB
Lab Code: K2214979-012
Sample Matrix: Water

Date Collected: 12/14/22
Date Received: 12/16/22

Analysis Method
200.8

Extracted/Digested By
ACOUC

Analyzed By
EMCALLISTER

Sample Name: BY-GBT-MW-15V-FB-DUP
Lab Code: K2214979-013
Sample Matrix: Water

Date Collected: 12/14/22
Date Received: 12/16/22

Analysis Method
200.8

Extracted/Digested By
ACOUC

Analyzed By
EMCALLISTER

Sample Name: BY-SBT-MW-15V-FB
Lab Code: K2214979-014
Sample Matrix: Water

Date Collected: 12/14/22
Date Received: 12/16/22

Analysis Method
200.8

Extracted/Digested By
ACOUC

Analyzed By
EMCALLISTER

Sample Name: BY-SBT-MW-15V-FB-DUP
Lab Code: K2214979-015
Sample Matrix: Water

Date Collected: 12/14/22
Date Received: 12/16/22

Analysis Method
200.8

Extracted/Digested By
ACOUC

Analyzed By
EMCALLISTER

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Analyst Summary report

Client: Anchor QEA, LLC
Project: Barry/221114-08.01 Task 04

Service Request: K2214979

Sample Name: BY-GBT-MW-24H-FB
Lab Code: K2214979-016
Sample Matrix: Water

Date Collected: 12/15/22
Date Received: 12/16/22

Analysis Method
200.8

Extracted/Digested By
ACOUCH

Analyzed By
EMCALLISTER

Sample Name: BY-SBT-MW-24H-FB
Lab Code: K2214979-017
Sample Matrix: Water

Date Collected: 12/15/22
Date Received: 12/16/22

Analysis Method
200.8

Extracted/Digested By
ACOUCH

Analyzed By
EMCALLISTER



Sample Results

ALS Environmental—Kelso Laboratory
1317 South 13th Avenue, Kelso, WA 98626
Phone (360) 577-7222 Fax (360) 425-9096
www.alsglobal.com



Metals

ALS Environmental—Kelso Laboratory
1317 South 13th Avenue, Kelso, WA 98626
Phone (360) 577-7222 Fax (360) 425-9096
www.alsglobal.com

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.01 Task 04
Sample Matrix: Water
Sample Name: BY-MW-1-As-Spiked
Lab Code: K2214979-001

Service Request: K2214979
Date Collected: 12/06/22 08:00
Date Received: 12/16/22 12:15
Basis: NA

Dissolved Metals

<u>Analyte Name</u>	<u>Analysis Method</u>	<u>Result</u>	<u>Units</u>	<u>MRL</u>	<u>MDL</u>	<u>Dil.</u>	<u>Date Analyzed</u>	<u>Date Extracted</u>	<u>Q</u>
Arsenic	200.8	261	ug/L	0.50	0.09	1	12/27/22 13:12	12/21/22	

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Analytical Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.01 Task 04
Sample Matrix: Water
Sample Name: BY-MW-8-As-Spiked
Lab Code: K2214979-002

Service Request: K2214979
Date Collected: 12/06/22 08:30
Date Received: 12/16/22 12:15
Basis: NA

Dissolved Metals

<u>Analyte Name</u>	<u>Analysis Method</u>	<u>Result</u>	<u>Units</u>	<u>MRL</u>	<u>MDL</u>	<u>Dil.</u>	<u>Date Analyzed</u>	<u>Date Extracted</u>	<u>Q</u>
Arsenic	200.8	298	ug/L	0.50	0.09	1	12/27/22 13:14	12/21/22	

ALS Group USA, Corp.
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Analytical Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.01 Task 04
Sample Matrix: Water
Sample Name: BY-MW-10-As-Spiked
Lab Code: K2214979-003

Service Request: K2214979
Date Collected: 12/07/22 08:00
Date Received: 12/16/22 12:15
Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	433	ug/L	0.50	0.09	1	12/27/22 13:21	12/21/22	

ALS Group USA, Corp.
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Analytical Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.01 Task 04
Sample Matrix: Water
Sample Name: BY-MW-15V-As-Spiked
Lab Code: K2214979-004

Service Request: K2214979
Date Collected: 12/07/22 08:30
Date Received: 12/16/22 12:15
Basis: NA

Dissolved Metals

<u>Analyte Name</u>	<u>Analysis Method</u>	<u>Result</u>	<u>Units</u>	<u>MRL</u>	<u>MDL</u>	<u>Dil.</u>	<u>Date Analyzed</u>	<u>Date Extracted</u>	<u>Q</u>
Arsenic	200.8	472	ug/L	0.50	0.09	1	12/27/22 13:22	12/21/22	

ALS Group USA, Corp.
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Analytical Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.01 Task 04
Sample Matrix: Water
Sample Name: BY-MW-24H-As-Spiked
Lab Code: K2214979-005

Service Request: K2214979
Date Collected: 12/08/22 08:00
Date Received: 12/16/22 12:15
Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	412	ug/L	0.50	0.09	1	12/27/22 13:23	12/21/22	

ALS Group USA, Corp.
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Analytical Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.01 Task 04
Sample Matrix: Water
Sample Name: BY-GBT-MW-1-FB
Lab Code: K2214979-006

Service Request: K2214979
Date Collected: 12/13/22 08:00
Date Received: 12/16/22 12:15
Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	0.47 J	ug/L	0.50	0.09	1	12/27/22 12:50	12/21/22	
Iron	200.8	28100	ug/L	2.0	0.3	1	12/27/22 12:50	12/21/22	
Manganese	200.8	3150	ug/L	0.20	0.04	1	12/27/22 12:50	12/21/22	

ALS Group USA, Corp.
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Analytical Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.01 Task 04
Sample Matrix: Water
Sample Name: BY-SBT-MW-1-FB
Lab Code: K2214979-007

Service Request: K2214979
Date Collected: 12/13/22 08:05
Date Received: 12/16/22 12:15
Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	0.51	ug/L	0.50	0.09	1	12/27/22 12:51	12/21/22	
Iron	200.8	28100	ug/L	2.0	0.3	1	12/27/22 12:51	12/21/22	
Manganese	200.8	3210	ug/L	0.20	0.04	1	12/27/22 12:51	12/21/22	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.01 Task 04
Sample Matrix: Water
Sample Name: BY-GBT-MW-8-FB
Lab Code: K2214979-008

Service Request: K2214979
Date Collected: 12/13/22 09:20
Date Received: 12/16/22 12:15
Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	2.51	ug/L	0.50	0.09	1	12/27/22 12:53	12/21/22	
Iron	200.8	12.7	ug/L	2.0	0.3	1	12/27/22 12:53	12/21/22	
Manganese	200.8	10.6	ug/L	0.20	0.04	1	12/27/22 12:53	12/21/22	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.01 Task 04
Sample Matrix: Water
Sample Name: BY-SBT-MW-8-FB
Lab Code: K2214979-009

Service Request: K2214979
Date Collected: 12/13/22 09:25
Date Received: 12/16/22 12:15
Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	2.39	ug/L	0.50	0.09	1	12/27/22 12:57	12/21/22	
Iron	200.8	27.6	ug/L	2.0	0.3	1	12/27/22 12:57	12/21/22	
Manganese	200.8	31.1	ug/L	0.20	0.04	1	12/27/22 12:57	12/21/22	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.01 Task 04
Sample Matrix: Water
Sample Name: BY-GBT-MW-10-FB
Lab Code: K2214979-010

Service Request: K2214979
Date Collected: 12/14/22 08:00
Date Received: 12/16/22 12:15
Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	2.33	ug/L	0.50	0.09	1	12/27/22 12:58	12/21/22	
Iron	200.8	5.8	ug/L	2.0	0.3	1	12/27/22 12:58	12/21/22	
Manganese	200.8	18.8	ug/L	0.20	0.04	1	12/27/22 12:58	12/21/22	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.01 Task 04
Sample Matrix: Water
Sample Name: BY-SBT-MW-10-FB
Lab Code: K2214979-011

Service Request: K2214979
Date Collected: 12/14/22 08:05
Date Received: 12/16/22 12:15
Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	3.31	ug/L	0.50	0.09	1	12/27/22 13:00	12/21/22	
Iron	200.8	43.4	ug/L	2.0	0.3	1	12/27/22 13:00	12/21/22	
Manganese	200.8	31.5	ug/L	0.20	0.04	1	12/27/22 13:00	12/21/22	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.01 Task 04
Sample Matrix: Water
Sample Name: BY-GBT-MW-15V-FB
Lab Code: K2214979-012

Service Request: K2214979
Date Collected: 12/14/22 09:20
Date Received: 12/16/22 12:15

Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	2.30	ug/L	0.50	0.09	1	12/27/22 13:04	12/21/22	
Cobalt	200.8	0.223	ug/L	0.020	0.009	1	12/27/22 13:04	12/21/22	
Iron	200.8	13.6	ug/L	2.0	0.3	1	12/27/22 13:04	12/21/22	
Manganese	200.8	0.15 J	ug/L	0.20	0.04	1	12/27/22 13:04	12/21/22	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.01 Task 04
Sample Matrix: Water
Sample Name: BY-GBT-MW-15V-FB-DUP
Lab Code: K2214979-013

Service Request: K2214979
Date Collected: 12/14/22 09:25
Date Received: 12/16/22 12:15
Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	2.30	ug/L	0.50	0.09	1	12/27/22 13:05	12/21/22	
Cobalt	200.8	0.249	ug/L	0.020	0.009	1	12/27/22 13:05	12/21/22	
Iron	200.8	11.9	ug/L	2.0	0.3	1	12/27/22 13:05	12/21/22	
Manganese	200.8	0.11 J	ug/L	0.20	0.04	1	12/27/22 13:05	12/21/22	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.01 Task 04
Sample Matrix: Water
Sample Name: BY-SBT-MW-15V-FB
Lab Code: K2214979-014

Service Request: K2214979
Date Collected: 12/14/22 09:30
Date Received: 12/16/22 12:15
Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	1.56	ug/L	0.50	0.09	1	12/27/22 13:07	12/21/22	
Cobalt	200.8	0.334	ug/L	0.020	0.009	1	12/27/22 13:07	12/21/22	
Iron	200.8	18.5	ug/L	2.0	0.3	1	12/27/22 13:07	12/21/22	
Manganese	200.8	0.20	ug/L	0.20	0.04	1	12/27/22 13:07	12/21/22	

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Analytical Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.01 Task 04
Sample Matrix: Water
Sample Name: BY-SBT-MW-15V-FB-DUP
Lab Code: K2214979-015

Service Request: K2214979
Date Collected: 12/14/22 09:35
Date Received: 12/16/22 12:15
Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	1.44	ug/L	0.50	0.09	1	12/27/22 13:08	12/21/22	
Cobalt	200.8	0.343	ug/L	0.020	0.009	1	12/27/22 13:08	12/21/22	
Iron	200.8	15.4	ug/L	2.0	0.3	1	12/27/22 13:08	12/21/22	
Manganese	200.8	2.34	ug/L	0.20	0.04	1	12/27/22 13:08	12/21/22	

ALS Group USA, Corp.
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Analytical Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.01 Task 04
Sample Matrix: Water
Sample Name: BY-GBT-MW-24H-FB
Lab Code: K2214979-016

Service Request: K2214979
Date Collected: 12/15/22 08:00
Date Received: 12/16/22 12:15
Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	3.65	ug/L	0.50	0.09	1	12/27/22 13:09	12/21/22	
Iron	200.8	5.3	ug/L	2.0	0.3	1	12/27/22 13:09	12/21/22	
Manganese	200.8	26.0	ug/L	0.20	0.04	1	12/27/22 13:09	12/21/22	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.01 Task 04
Sample Matrix: Water
Sample Name: BY-SBT-MW-24H-FB
Lab Code: K2214979-017

Service Request: K2214979
Date Collected: 12/15/22 08:05
Date Received: 12/16/22 12:15
Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	2.30	ug/L	0.50	0.09	1	12/27/22 13:11	12/21/22	
Iron	200.8	14.9	ug/L	2.0	0.3	1	12/27/22 13:11	12/21/22	
Manganese	200.8	77.9	ug/L	0.20	0.04	1	12/27/22 13:11	12/21/22	



QC Summary Forms

ALS Environmental—Kelso Laboratory
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Metals

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1317 South 13th Avenue, Kelso, WA 98626
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www.alsglobal.com

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.01 Task 04
Sample Matrix: Water
Sample Name: Method Blank
Lab Code: KQ2222455-01

Service Request: K2214979
Date Collected: NA
Date Received: NA
Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	ND U	ug/L	0.50	0.09	1	12/27/22 12:47	12/21/22	
Cobalt	200.8	ND U	ug/L	0.020	0.009	1	12/27/22 12:47	12/21/22	
Iron	200.8	ND U	ug/L	2.0	0.3	1	12/27/22 12:47	12/21/22	
Manganese	200.8	ND U	ug/L	0.20	0.04	1	12/27/22 12:47	12/21/22	

ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.01 Task 04
Sample Matrix: Water

Service Request: K2214979
Date Collected: 12/06/22
Date Received: 12/16/22
Date Analyzed: 12/27/22
Date Extracted: 12/21/22

Matrix Spike Summary
Dissolved Metals

Sample Name: BY-MW-8-As-Spiked
Lab Code: K2214979-002
Analysis Method: 200.8
Prep Method: EPA CLP ILM04.0

Units: ug/L
Basis: NA

Matrix Spike
KQ2222455-05

Analyte Name	Sample Result	Result	Spike Amount	% Rec	% Rec Limits
Arsenic	298	341	50.0	87 #	70-130
Cobalt	0.439	23.6	25.0	93	70-130
Iron	35100	34600	50.0	-1061 #	70-130
Manganese	1820	1810	25.0	-18 #	70-130

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

Matrix Spike and Matrix Spike Duplicate Data is presented for information purposes only. The matrix may or may not be relevant to samples reported in this report. The laboratory evaluates system performance based on the LCS and LCSD control limits.

ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.01 Task 04
Sample Matrix: Water

Service Request: K2214979
Date Collected: 12/13/22
Date Received: 12/16/22
Date Analyzed: 12/27/22
Date Extracted: 12/21/22

Matrix Spike Summary
Dissolved Metals

Sample Name: BY-GBT-MW-8-FB
Lab Code: K2214979-008
Analysis Method: 200.8
Prep Method: EPA CLP ILM04.0

Units: ug/L
Basis: NA

Matrix Spike
KQ2222455-07

Analyte Name	Sample Result	Result	Spike Amount	% Rec	% Rec Limits
Arsenic	2.51	54.1	50.0	103	70-130
Cobalt	0.073	23.4	25.0	93	70-130
Iron	12.7	59.3	50.0	93	70-130
Manganese	10.6	35.8	25.0	101	70-130

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

Matrix Spike and Matrix Spike Duplicate Data is presented for information purposes only. The matrix may or may not be relevant to samples reported in this report. The laboratory evaluates system performance based on the LCS and LCSD control limits.

ALS Group USA, Corp.

dba ALS Environmental

QA/QC Report

Client: Anchor QEA, LLC
Project Barry/221114-08.01 Task 04
Sample Matrix: Water

Service Request: K2214979
Date Collected: 12/06/22
Date Received: 12/16/22
Date Analyzed: 12/27/22

Replicate Sample Summary
Dissolved Metals

Sample Name: BY-MW-8-As-Spiked
Lab Code: K2214979-002

Units: ug/L
Basis: NA

Analyte Name	Analysis Method	MRL	MDL	Sample Result	Duplicate	Average	RPD	RPD Limit
					Sample KQ2222455-06 Result			
Arsenic	200.8	0.50	0.09	298	301	300	1	20
Cobalt	200.8	0.020	0.009	0.439	0.423	0.431	4	20
Iron	200.8	2.0	0.3	35100	35100	35100	<1	20
Manganese	200.8	0.20	0.04	1820	1810	1820	<1	20

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

ALS Group USA, Corp.

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QA/QC Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.01 Task 04
Sample Matrix: Water

Service Request: K2214979
Date Collected: 12/13/22
Date Received: 12/16/22
Date Analyzed: 12/27/22

Replicate Sample Summary
Dissolved Metals

Sample Name: BY-GBT-MW-8-FB
Lab Code: K2214979-008

Units: ug/L
Basis: NA

Table with 9 columns: Analyte Name, Analysis Method, MRL, MDL, Sample Result, Duplicate Sample KQ2222455-08 Result, Average, RPD, RPD Limit. Rows include Arsenic, Cobalt, Iron, and Manganese.

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

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dba ALS Environmental

QA/QC Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.01 Task 04
Sample Matrix: Water

Service Request: K2214979
Date Analyzed: 12/27/22

Lab Control Sample Summary
Dissolved Metals

Units:ug/L
Basis:NA

Lab Control Sample
KQ2222455-02

Analyte Name	Analytical Method	Result	Spike Amount	% Rec	% Rec Limits
Arsenic	200.8	48.0	50.0	96	85-115
Cobalt	200.8	24.1	25.0	96	85-115
Iron	200.8	47.7	50.0	95	85-115
Manganese	200.8	24.1	25.0	96	85-115



December 28, 2022

Service Request No:K2214981

Masa Kanematsu
Anchor QEA, LLC
6720 SW Macadam Avenue
Suite 125
Portland, OR 97219

Laboratory Results for: Barry

Dear Masa,

Enclosed are the results of the sample(s) submitted to our laboratory December 16, 2022
For your reference, these analyses have been assigned our service request number **K2214981**.

Analyses were performed according to our laboratory's NELAP-approved quality assurance program. The test results meet requirements of the current NELAP standards, where applicable, and except as noted in the laboratory case narrative provided. For a specific list of NELAP-accredited analytes, refer to the certifications section at www.alsglobal.com. All results are intended to be considered in their entirety, and ALS Group USA Corp. dba ALS Environmental (ALS) is not responsible for use of less than the complete report. Results apply only to the items submitted to the laboratory for analysis and individual items (samples) analyzed, as listed in the report.

Please contact me if you have any questions. My extension is 3376. You may also contact me via email at Mark.Harris@alsglobal.com.

Respectfully submitted,

ALS Group USA, Corp. dba ALS Environmental

Mark Harris
Project Manager

ADDRESS 1317 S. 13th Avenue, Kelso, WA 98626
PHONE +1 360 577 7222 | FAX +1 360 636 1068
ALS Group USA, Corp.
dba ALS Environmental



Narrative Documents

ALS Environmental—Kelso Laboratory
1317 South 13th Avenue, Kelso, WA 98626
Phone (360) 577-7222 Fax (360) 425-9096
www.alsglobal.com



Client: Anchor QEA, LLC
Project: Barry
Sample Matrix: Water

Service Request: K2214981
Date Received: 12/16/2022

CASE NARRATIVE

All analyses were performed consistent with the quality assurance program of ALS Environmental. This report contains analytical results for samples for the Tier II level requested by the client.

Sample Receipt:

Fourteen water samples were received for analysis at ALS Environmental on 12/16/2022. Any discrepancies upon initial sample inspection are annotated on the sample receipt and preservation form included within this report. The samples were stored at minimum in accordance with the analytical method requirements.

Metals:

No significant anomalies were noted with this analysis.

Noel D. O'Connell

Approved by _____

Date 12/28/2022



SAMPLE DETECTION SUMMARY

This form includes only detections above the reporting levels. For a full listing of sample results, continue to the Sample Results section of this Report.

CLIENT ID: BY-OGBT-MW-1-PM-D2-BUF	Lab ID: K2214981-001
--	-----------------------------

Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	0.33	J	0.09	0.50	ug/L	200.8
Manganese, Dissolved	750		0.04	0.20	ug/L	200.8

CLIENT ID: BY-OGBT-MW-1-PM-D2-BUF-DUP	Lab ID: K2214981-002
--	-----------------------------

Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	0.37	J	0.09	0.50	ug/L	200.8
Manganese, Dissolved	1730		0.04	0.20	ug/L	200.8

CLIENT ID: BY-OGBT-MW-1-PM-D2-BUF2	Lab ID: K2214981-003
---	-----------------------------

Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	0.51		0.09	0.50	ug/L	200.8
Manganese, Dissolved	863		0.04	0.20	ug/L	200.8

CLIENT ID: BY-OGBT-MW-1-FS-BUF	Lab ID: K2214981-004
---------------------------------------	-----------------------------

Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	0.85		0.09	0.50	ug/L	200.8
Iron, Dissolved	9330		0.3	2.0	ug/L	200.8
Manganese, Dissolved	848		0.04	0.20	ug/L	200.8

CLIENT ID: BY-OGBT-MW-1-FS-BUF2	Lab ID: K2214981-005
--	-----------------------------

Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	2.76		0.09	0.50	ug/L	200.8
Iron, Dissolved	256		0.3	2.0	ug/L	200.8
Manganese, Dissolved	578		0.04	0.20	ug/L	200.8

CLIENT ID: BY-OGBT-MW-1-AIR-BUF	Lab ID: K2214981-006
--	-----------------------------

Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	3.30		0.09	0.50	ug/L	200.8
Iron, Dissolved	8.8		0.3	2.0	ug/L	200.8
Manganese, Dissolved	332		0.04	0.20	ug/L	200.8

CLIENT ID: BY-OGBT-MW-1-CTRL	Lab ID: K2214981-007
-------------------------------------	-----------------------------

Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	0.69		0.09	0.50	ug/L	200.8
Iron, Dissolved	3.4		0.3	2.0	ug/L	200.8
Manganese, Dissolved	779		0.04	0.20	ug/L	200.8

CLIENT ID: BY-OSBT-MW-1-PM-D2-BUF	Lab ID: K2214981-008
--	-----------------------------

Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	0.62		0.09	0.50	ug/L	200.8
Iron, Dissolved	1.7	J	0.3	2.0	ug/L	200.8
Manganese, Dissolved	5760		0.04	0.20	ug/L	200.8



SAMPLE DETECTION SUMMARY

This form includes only detections above the reporting levels. For a full listing of sample results, continue to the Sample Results section of this Report.

CLIENT ID: BY-OSBT-MW-1-PM-D2-BUF-DUP	Lab ID: K2214981-009
--	-----------------------------

Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	0.64		0.09	0.50	ug/L	200.8
Iron, Dissolved	8.3		0.3	2.0	ug/L	200.8
Manganese, Dissolved	5760		0.04	0.20	ug/L	200.8

CLIENT ID: BY-OSBT-MW-1-PM-D2-BUF2	Lab ID: K2214981-010
---	-----------------------------

Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	0.86		0.09	0.50	ug/L	200.8
Iron, Dissolved	1.9	J	0.3	2.0	ug/L	200.8
Manganese, Dissolved	6730		0.04	0.20	ug/L	200.8

CLIENT ID: BY-OSBT-MW-1-FS-BUF	Lab ID: K2214981-011
---------------------------------------	-----------------------------

Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	0.79		0.09	0.50	ug/L	200.8
Iron, Dissolved	994		0.3	2.0	ug/L	200.8
Manganese, Dissolved	766		0.04	0.20	ug/L	200.8

CLIENT ID: BY-OSBT-MW-1-FS-BUF2	Lab ID: K2214981-012
--	-----------------------------

Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	1.41		0.09	0.50	ug/L	200.8
Iron, Dissolved	7080		0.3	2.0	ug/L	200.8
Manganese, Dissolved	758		0.04	0.20	ug/L	200.8

CLIENT ID: BY-OSBT-MW-1-AIR-BUF	Lab ID: K2214981-013
--	-----------------------------

Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	3.15		0.09	0.50	ug/L	200.8
Iron, Dissolved	26.4		0.3	2.0	ug/L	200.8
Manganese, Dissolved	226		0.04	0.20	ug/L	200.8

CLIENT ID: BY-OSBT-MW-1-CTRL	Lab ID: K2214981-014
-------------------------------------	-----------------------------

Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	0.55		0.09	0.50	ug/L	200.8
Iron, Dissolved	8.3		0.3	2.0	ug/L	200.8
Manganese, Dissolved	723		0.04	0.20	ug/L	200.8



Sample Receipt Information

ALS Environmental—Kelso Laboratory
1317 South 13th Avenue, Kelso, WA 98626
Phone (360) 577-7222 Fax (360) 425-9096
www.alsglobal.com

Client: Anchor QEA, LLC
Project: Barry/221114-08.01 Task 04


Service Request:K2214981

SAMPLE CROSS-REFERENCE


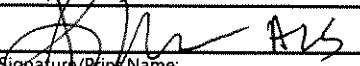
<u>SAMPLE #</u>	<u>CLIENT SAMPLE ID</u>	<u>DATE</u>	<u>TIME</u>
K2214981-001	BY-OGBT-MW-1-PM-D2-BUF	12/13/2022	0810
K2214981-002	BY-OGBT-MW-1-PM-D2-BUF-DUP	12/13/2022	0820
K2214981-003	BY-OGBT-MW-1-PM-D2-BUF2	12/13/2022	0830
K2214981-004	BY-OGBT-MW-1-FS-BUF	12/13/2022	0840
K2214981-005	BY-OGBT-MW-1-FS-BUF2	12/13/2022	0850
K2214981-006	BY-OGBT-MW-1-AIR-BUF	12/13/2022	0900
K2214981-007	BY-OGBT-MW-1-CTRL	12/13/2022	0910
K2214981-008	BY-OSBT-MW-1-PM-D2-BUF	12/13/2022	0815
K2214981-009	BY-OSBT-MW-1-PM-D2-BUF-DUP	12/13/2022	0825
K2214981-010	BY-OSBT-MW-1-PM-D2-BUF2	12/13/2022	0835
K2214981-011	BY-OSBT-MW-1-FS-BUF	12/13/2022	0845
K2214981-012	BY-OSBT-MW-1-FS-BUF2	12/13/2022	0855
K2214981-013	BY-OSBT-MW-1-AIR-BUF	12/13/2022	0905
K2214981-014	BY-OSBT-MW-1-CTRL	12/13/2022	0915


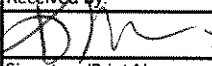
12214981

Chain of Custody Record & Laboratory Analysis Request

Laboratory Number: 503-972-5019					No. of Containers	Parameters												 Masa Kanematsu 6720 SW Macadam Ave Suite 125 Portland OR 97219								
Date:	12/16/2022					Dissolved Metals (As, Fe, Mn)																				
Project Name:	Barry																									
Project Number:	221114-08.01 Task 04																									
Project Manager:	Masa Kanematsu																									
Phone Number:	503-972-5001 (backup number: 503-798-3456)																									
Shipment Method:	ALS Carrier																									
Line	Field Sample ID	Collection		Matrix	No. of Containers	Parameters												Comments/Preservation								
		Date	Time																							
1	BY-OGBT-MW-1-PM-D2-BUF	12/13/2022	8:10	Water	1	X																		HNO3 preserved. Field Filtered. KMnO4 added		
2	BY-OGBT-MW-1-PM-D2-BUF-DUP	12/13/2022	8:20	Water	1	X																		HNO3 preserved. Field Filtered. KMnO4 added		
3	BY-OGBT-MW-1-PM-D2-BUF2	12/13/2022	8:30	Water	1	X																		HNO3 preserved. Field Filtered. KMnO4 added		
4	BY-OGBT-MW-1-FS-BUF	12/13/2022	8:40	Water	1	X																		HNO3 preserved. Field Filtered.		
5	BY-OGBT-MW-1-FS-BUF2	12/13/2022	8:50	Water	1	X																		HNO3 preserved. Field Filtered.		
6	BY-OGBT-MW-1-AIR-BUF	12/13/2022	9:00	Water	1	X																		HNO3 preserved. Field Filtered.		
7	BY-OGBT-MW-1-CTRL	12/13/2022	9:10	Water	1	X																		HNO3 preserved. Field Filtered.		
8	BY-OSBT-MW-1-PM-D2-BUF	12/13/2022	8:15	Water	1	X																		HNO3 preserved. Field Filtered. KMnO4 added		
9	BY-OSBT-MW-1-PM-D2-BUF-DUP	12/13/2022	8:25	Water	1	X																		HNO3 preserved. Field Filtered. KMnO4 added		
10	BY-OSBT-MW-1-PM-D2-BUF2	12/13/2022	8:35	Water	1	X																		HNO3 preserved. Field Filtered. KMnO4 added		
11	BY-OSBT-MW-1-FS-BUF	12/13/2022	8:45	Water	1	X																		HNO3 preserved. Field Filtered.		
12	BY-OSBT-MW-1-FS-BUF2	12/13/2022	8:55	Water	1	X																		HNO3 preserved. Field Filtered.		
13	BY-OSBT-MW-1-AIR-BUF	12/13/2022	9:05	Water	1	X																		HNO3 preserved. Field Filtered.		
14	BY-OSBT-MW-1-CTRL	12/13/2022	9:15	Water	1	X																		HNO3 preserved. Field Filtered.		
15																										
16																										

Notes: Please Contact Masa (503-972-5001, mkanematsu@anchorqea.com) if running > 10X dilution. Please analyze by ICP-MS method 200.8 to achieve the MDL < 1 ppb. Some samples may have residual purple color associated with potassium permanganate (KMnO4). If those samples need to be diluted in order to not damage the ICP-MS, please do so and let Masa know the dilution factor.

Relinquished by:	Company:
Emma Nordlund	Anchor QEA
Signature/Print Name:	Date/Time:
	9:30 12/16/22
Relinquished by:	Company:
	ALS
Signature/Print Name:	Date/Time:
	12/16/22 1215

Received by:

Signature/Print Name:
Kevin ALS 12/16/22 1025
Received by:

Signature/Print Name:
ALS 12/16/22 1215

Distribution: A copy will be made for the laboratory and client. The Project file will retain the original.

Cooler Receipt and Preservation Form

Client Anchovy QEA Service Request K22 14981

Received: 12/16/22 Opened: 12/16/22 By: [Signature] Unloaded: 12/16/22 By: [Signature]

- 1. Samples were received via? USPS Fed Ex UPS DHL PDX Courier Hand Delivered
- 2. Samples were received in: (circle) Cooler Box Envelope Other NA
- 3. Were custody seals on coolers? NA Y N If yes, how many and where? _____
If present, were custody seals intact? Y N If present, were they signed and dated? Y N

Temp Blank	Sample Temp	IR Gun	Cooler #/COC ID/NA	Out of temp indicate with "X"	PM Notified if out of temp	Tracking Number NA	Filed
4.6		JLO1		—	—		
5.0		u		—	—		
4.2		lc		—	—		

- 4. Was a Temperature Blank present in cooler? NA Y N If yes, notate the temperature in the appropriate column above:
If no, take the temperature of a representative sample bottle contained within the cooler; notate in the column "Sample Temp":
- 5. Were samples received within the method specified temperature ranges? NA Y N
If no, were they received on ice and same day as collected? If not, notate the cooler # above and notify the PM. NA Y N
- If applicable, tissue samples were received: Frozen Partially Thawed Thawed
- 6. Packing material: Inserts Baggies Bubble Wrap Gel Packs Wet Ice Dry Ice Sleeves _____
- 7. Were custody papers properly filled out (ink, signed, etc.)? NA Y N
- 8. Were samples received in good condition (unbroken) NA Y N
- 9. Were all sample labels complete (ie, analysis, preservation, etc.)? NA Y N
- 10. Did all sample labels and tags agree with custody papers? NA Y N
- 11. Were appropriate bottles/containers and volumes received for the tests indicated? NA Y N
- 12. Were the pH-preserved bottles (see SMO GEN SOP) received at the appropriate pH? Indicate in the table below NA Y N
- 13. Were VOA vials received without headspace? Indicate in the table below. NA Y N
- 14. Was C12/Res negative? NA Y N
- 15. Were samples received within the method specified time limit? If not, notate the error below and notify the PM NA Y N
- 16. Were 100ml sterile microbiology bottles filled exactly to the 100ml mark? NA Y N Underfilled Overfilled

Sample ID on Bottle	Sample ID on COC	Identified by:

Sample ID	Bottle Count	Bottle Type	Head-space	Broke	pH	Reagent	Volume added	Reagent Lot Number	Initials	Time

Notes, Discrepancies, Resolutions: Didn't pH due to limited sample volume. Rec'd (1) sample
BY-OSBT-MW-15V-PM-DI-BUF not on COC



Miscellaneous Forms

ALS Environmental—Kelso Laboratory
1317 South 13th Avenue, Kelso, WA 98626
Phone (360) 577-7222 Fax (360) 425-9096
www.alsglobal.com

Inorganic Data Qualifiers

- * The result is an outlier. See case narrative.
- # The control limit criteria is not applicable.
- B The analyte was found in the associated method blank at a level that is significant relative to the sample result as defined by the DOD or NELAC standards.
- E The result is an estimate amount because the value exceeded the instrument calibration range.
- J The result is an estimated value.
- U The analyte was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL.
DOD-QSM 4.2 definition : Analyte was not detected and is reported as less than the LOD or as defined by the project. The detection limit is adjusted for dilution.
- i The MRL/MDL or LOQ/LOD is elevated due to a matrix interference.
- X See case narrative.
- Q See case narrative. One or more quality control criteria was outside the limits.
- H The holding time for this test is immediately following sample collection. The samples were analyzed as soon as possible after receipt by the laboratory.

Metals Data Qualifiers

- # The control limit criteria is not applicable.
- J The result is an estimated value.
- E The percent difference for the serial dilution was greater than 10%, indicating a possible matrix interference in the sample.
- M The duplicate injection precision was not met.
- N The Matrix Spike sample recovery is not within control limits. See case narrative.
- S The reported value was determined by the Method of Standard Additions (MSA).
- U The analyte was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL.
DOD-QSM 4.2 definition : Analyte was not detected and is reported as less than the LOD or as defined by the project. The detection limit is adjusted for dilution.
- W The post-digestion spike for furnace AA analysis is out of control limits, while sample absorbance is less than 50% of spike absorbance.
 - i The MRL/MDL or LOQ/LOD is elevated due to a matrix interference.
- X See case narrative.
- + The correlation coefficient for the MSA is less than 0.995.
- Q See case narrative. One or more quality control criteria was outside the limits.

Organic Data Qualifiers

- * The result is an outlier. See case narrative.
- # The control limit criteria is not applicable. See case narrative.
- A A tentatively identified compound, a suspected aldol-condensation product.
- B The analyte was found in the associated method blank at a level that is significant relative to the sample result as defined by the DOD or NELAC standards.
- C The analyte was qualitatively confirmed using GC/MS techniques, pattern recognition, or by comparing to historical data.
- D The reported result is from a dilution.
- E The result is an estimated value.
- J The result is an estimated value.
- N The result is presumptive. The analyte was tentatively identified, but a confirmation analysis was not performed.
- P The GC or HPLC confirmation criteria was exceeded. The relative percent difference is greater than 40% between the two analytical results.
- U The analyte was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL.
DOD-QSM 4.2 definition : Analyte was not detected and is reported as less than the LOD or as defined by the project. The detection limit is adjusted for dilution.
 - i The MRL/MDL or LOQ/LOD is elevated due to a chromatographic interference.
- X See case narrative.
- Q See case narrative. One or more quality control criteria was outside the limits.

Additional Petroleum Hydrocarbon Specific Qualifiers

- F The chromatographic fingerprint of the sample matches the elution pattern of the calibration standard.
- L The chromatographic fingerprint of the sample resembles a petroleum product, but the elution pattern indicates the presence of a greater amount of lighter molecular weight constituents than the calibration standard.
- H The chromatographic fingerprint of the sample resembles a petroleum product, but the elution pattern indicates the presence of a greater amount of heavier molecular weight constituents than the calibration standard.
- O The chromatographic fingerprint of the sample resembles an oil, but does not match the calibration standard.
- Y The chromatographic fingerprint of the sample resembles a petroleum product eluting in approximately the correct carbon range, but the elution pattern does not match the calibration standard.
- Z The chromatographic fingerprint does not resemble a petroleum product.

**ALS Group USA Corp. dba ALS Environmental (ALS) - Kelso
State Certifications, Accreditations, and Licenses**

Agency	Web Site	Number
Alaska DEH	http://dec.alaska.gov/eh/lab/cs/csapproval.htm	UST-040
Arizona DHS	http://www.azdhs.gov/lab/license/env.htm	AZ0339
Arkansas - DEQ	http://www.adeq.state.ar.us/techsvs/labcert.htm	88-0637
California DHS (ELAP)	http://www.cdph.ca.gov/certlic/labs/Pages/ELAP.aspx	2795
DOD ELAP	http://www.denix.osd.mil/edqw/Accreditation/AccreditedLabs.cfm	L16-58-R4
Florida DOH	http://www.doh.state.fl.us/lab/EnvLabCert/WaterCert.htm	E87412
Hawaii DOH	http://health.hawaii.gov/	-
ISO 17025	http://www.pjllabs.com/	L16-57
Louisiana DEQ	http://www.deq.louisiana.gov/page/la-lab-accreditation	03016
Maine DHS	http://www.maine.gov/dhhs/	WA01276
Minnesota DOH	http://www.health.state.mn.us/accreditation	053-999-457
Nevada DEP	http://ndep.nv.gov/bsdw/labservice.htm	WA01276
New Jersey DEP	http://www.nj.gov/dep/enforcement/oqa.html	WA005
New York - DOH	https://www.wadsworth.org/regulatory/elap	12060
North Carolina DEQ	https://deq.nc.gov/about/divisions/water-resources/water-resources-data/water-sciences-home-page/laboratory-certification-branch/non-field-lab-certification	605
Oklahoma DEQ	http://www.deq.state.ok.us/CSDnew/labcert.htm	9801
Oregon – DEQ (NELAP)	http://public.health.oregon.gov/LaboratoryServices/EnvironmentalLaboratoryAccreditation/Pages/index.aspx	WA100010
South Carolina DHEC	http://www.scdhec.gov/environment/EnvironmentalLabCertification/	61002
Texas CEQ	http://www.tceq.texas.gov/field/qa/env_lab_accreditation.html	T104704427
Washington DOE	http://www.ecy.wa.gov/programs/eap/labs/lab-accreditation.html	C544
Wyoming (EPA Region 8)	https://www.epa.gov/region8-waterops/epa-region-8-certified-drinking-water	-
Kelso Laboratory Website	www.alsglobal.com	NA

Analyses were performed according to our laboratory's NELAP-approved quality assurance program. A complete listing of specific NELAP-certified analytes, can be found in the certification section at www.ALSGlobal.com or at the accreditation bodies web site.

Please refer to the certification and/or accreditation body's web site if samples are submitted for compliance purposes. The states highlighted above, require the analysis be listed on the state certification if used for compliance purposes and if the method/analyte is offered by that state.

Acronyms

ASTM	American Society for Testing and Materials
A2LA	American Association for Laboratory Accreditation
CARB	California Air Resources Board
CAS Number	Chemical Abstract Service registry Number
CFC	Chlorofluorocarbon
CFU	Colony-Forming Unit
DEC	Department of Environmental Conservation
DEQ	Department of Environmental Quality
DHS	Department of Health Services
DOE	Department of Ecology
DOH	Department of Health
EPA	U. S. Environmental Protection Agency
ELAP	Environmental Laboratory Accreditation Program
GC	Gas Chromatography
GC/MS	Gas Chromatography/Mass Spectrometry
LOD	Limit of Detection
LOQ	Limit of Quantitation
LUFT	Leaking Underground Fuel Tank
M	Modified
MCL	Maximum Contaminant Level is the highest permissible concentration of a substance allowed in drinking water as established by the USEPA.
MDL	Method Detection Limit
MPN	Most Probable Number
MRL	Method Reporting Limit
NA	Not Applicable
NC	Not Calculated
NCASI	National Council of the Paper Industry for Air and Stream Improvement
ND	Not Detected
NIOSH	National Institute for Occupational Safety and Health
PQL	Practical Quantitation Limit
RCRA	Resource Conservation and Recovery Act
SIM	Selected Ion Monitoring
TPH	Total Petroleum Hydrocarbons
tr	Trace level is the concentration of an analyte that is less than the PQL but greater than or equal to the MDL.

ALS Group USA, Corp.
dba ALS Environmental

Analyst Summary report

Client: Anchor QEA, LLC
Project: Barry/221114-08.01 Task 04

Service Request: K2214981

Sample Name: BY-OGBT-MW-1-PM-D2-BUF
Lab Code: K2214981-001
Sample Matrix: Water

Date Collected: 12/13/22
Date Received: 12/16/22

Analysis Method
200.8

Extracted/Digested By
ACOUCH

Analyzed By
EMCALLISTER

Sample Name: BY-OGBT-MW-1-PM-D2-BUF-DUP
Lab Code: K2214981-002
Sample Matrix: Water

Date Collected: 12/13/22
Date Received: 12/16/22

Analysis Method
200.8

Extracted/Digested By
ACOUCH

Analyzed By
EMCALLISTER

Sample Name: BY-OGBT-MW-1-PM-D2-BUF2
Lab Code: K2214981-003
Sample Matrix: Water

Date Collected: 12/13/22
Date Received: 12/16/22

Analysis Method
200.8

Extracted/Digested By
ACOUCH

Analyzed By
EMCALLISTER

Sample Name: BY-OGBT-MW-1-FS-BUF
Lab Code: K2214981-004
Sample Matrix: Water

Date Collected: 12/13/22
Date Received: 12/16/22

Analysis Method
200.8

Extracted/Digested By
ACOUCH

Analyzed By
EMCALLISTER

Sample Name: BY-OGBT-MW-1-FS-BUF2
Lab Code: K2214981-005
Sample Matrix: Water

Date Collected: 12/13/22
Date Received: 12/16/22

Analysis Method
200.8

Extracted/Digested By
ACOUCH

Analyzed By
EMCALLISTER

ALS Group USA, Corp.
dba ALS Environmental

Analyst Summary report

Client: Anchor QEA, LLC
Project: Barry/221114-08.01 Task 04

Service Request: K2214981

Sample Name: BY-OGBT-MW-1-AIR-BUF
Lab Code: K2214981-006
Sample Matrix: Water

Date Collected: 12/13/22
Date Received: 12/16/22

Analysis Method
200.8

Extracted/Digested By
ACOUCH

Analyzed By
EMCALLISTER

Sample Name: BY-OGBT-MW-1-CTRL
Lab Code: K2214981-007
Sample Matrix: Water

Date Collected: 12/13/22
Date Received: 12/16/22

Analysis Method
200.8

Extracted/Digested By
ACOUCH

Analyzed By
EMCALLISTER

Sample Name: BY-OSBT-MW-1-PM-D2-BUF
Lab Code: K2214981-008
Sample Matrix: Water

Date Collected: 12/13/22
Date Received: 12/16/22

Analysis Method
200.8

Extracted/Digested By
ACOUCH

Analyzed By
EMCALLISTER

Sample Name: BY-OSBT-MW-1-PM-D2-BUF-DUP
Lab Code: K2214981-009
Sample Matrix: Water

Date Collected: 12/13/22
Date Received: 12/16/22

Analysis Method
200.8

Extracted/Digested By
ACOUCH

Analyzed By
EMCALLISTER

Sample Name: BY-OSBT-MW-1-PM-D2-BUF2
Lab Code: K2214981-010
Sample Matrix: Water

Date Collected: 12/13/22
Date Received: 12/16/22

Analysis Method
200.8

Extracted/Digested By
ACOUCH

Analyzed By
EMCALLISTER

ALS Group USA, Corp.
dba ALS Environmental

Analyst Summary report

Client: Anchor QEA, LLC
Project: Barry/221114-08.01 Task 04

Service Request: K2214981

Sample Name: BY-OSBT-MW-1-FS-BUF
Lab Code: K2214981-011
Sample Matrix: Water

Date Collected: 12/13/22
Date Received: 12/16/22

Analysis Method
200.8

Extracted/Digested By
ACOUCH

Analyzed By
EMCALLISTER

Sample Name: BY-OSBT-MW-1-FS-BUF2
Lab Code: K2214981-012
Sample Matrix: Water

Date Collected: 12/13/22
Date Received: 12/16/22

Analysis Method
200.8

Extracted/Digested By
ACOUCH

Analyzed By
EMCALLISTER

Sample Name: BY-OSBT-MW-1-AIR-BUF
Lab Code: K2214981-013
Sample Matrix: Water

Date Collected: 12/13/22
Date Received: 12/16/22

Analysis Method
200.8

Extracted/Digested By
ACOUCH

Analyzed By
EMCALLISTER

Sample Name: BY-OSBT-MW-1-CTRL
Lab Code: K2214981-014
Sample Matrix: Water

Date Collected: 12/13/22
Date Received: 12/16/22

Analysis Method
200.8

Extracted/Digested By
ACOUCH

Analyzed By
EMCALLISTER



Sample Results

ALS Environmental—Kelso Laboratory
1317 South 13th Avenue, Kelso, WA 98626
Phone (360) 577-7222 Fax (360) 425-9096
www.alsglobal.com



Metals

ALS Environmental—Kelso Laboratory
1317 South 13th Avenue, Kelso, WA 98626
Phone (360) 577-7222 Fax (360) 425-9096
www.alsglobal.com

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.01 Task 04
Sample Matrix: Water
Sample Name: BY-OGBT-MW-1-PM-D2-BUF
Lab Code: K2214981-001

Service Request: K2214981
Date Collected: 12/13/22 08:10
Date Received: 12/16/22 12:15
Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	0.33 J	ug/L	0.50	0.09	1	12/27/22 15:11	12/22/22	
Iron	200.8	ND U	ug/L	2.0	0.3	1	12/27/22 15:11	12/22/22	
Manganese	200.8	750	ug/L	0.20	0.04	1	12/27/22 15:11	12/22/22	

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Analytical Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.01 Task 04
Sample Matrix: Water

Service Request: K2214981
Date Collected: 12/13/22 08:20
Date Received: 12/16/22 12:15

Sample Name: BY-OGBT-MW-1-PM-D2-BUF-DUP
Lab Code: K2214981-002

Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	0.37 J	ug/L	0.50	0.09	1	12/27/22 15:12	12/22/22	
Iron	200.8	ND U	ug/L	2.0	0.3	1	12/27/22 15:12	12/22/22	
Manganese	200.8	1730	ug/L	0.20	0.04	1	12/27/22 15:12	12/22/22	

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Analytical Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.01 Task 04
Sample Matrix: Water

Service Request: K2214981
Date Collected: 12/13/22 08:30
Date Received: 12/16/22 12:15

Sample Name: BY-OGBT-MW-1-PM-D2-BUF2
Lab Code: K2214981-003

Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	0.51	ug/L	0.50	0.09	1	12/27/22 15:14	12/22/22	
Iron	200.8	ND U	ug/L	2.0	0.3	1	12/27/22 15:14	12/22/22	
Manganese	200.8	863	ug/L	0.20	0.04	1	12/27/22 15:14	12/22/22	

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dba ALS Environmental

Analytical Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.01 Task 04
Sample Matrix: Water
Sample Name: BY-OGBT-MW-1-FS-BUF
Lab Code: K2214981-004

Service Request: K2214981
Date Collected: 12/13/22 08:40
Date Received: 12/16/22 12:15
Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	0.85	ug/L	0.50	0.09	1	12/27/22 15:15	12/22/22	
Iron	200.8	9330	ug/L	2.0	0.3	1	12/27/22 15:15	12/22/22	
Manganese	200.8	848	ug/L	0.20	0.04	1	12/27/22 15:15	12/22/22	

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Analytical Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.01 Task 04
Sample Matrix: Water
Sample Name: BY-OGBT-MW-1-FS-BUF2
Lab Code: K2214981-005

Service Request: K2214981
Date Collected: 12/13/22 08:50
Date Received: 12/16/22 12:15
Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	2.76	ug/L	0.50	0.09	1	12/27/22 15:19	12/22/22	
Iron	200.8	256	ug/L	2.0	0.3	1	12/27/22 15:19	12/22/22	
Manganese	200.8	578	ug/L	0.20	0.04	1	12/27/22 15:19	12/22/22	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.01 Task 04
Sample Matrix: Water
Sample Name: BY-OGBT-MW-1-AIR-BUF
Lab Code: K2214981-006

Service Request: K2214981
Date Collected: 12/13/22 09:00
Date Received: 12/16/22 12:15
Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	3.30	ug/L	0.50	0.09	1	12/27/22 15:26	12/22/22	
Iron	200.8	8.8	ug/L	2.0	0.3	1	12/27/22 15:26	12/22/22	
Manganese	200.8	332	ug/L	0.20	0.04	1	12/27/22 15:26	12/22/22	

ALS Group USA, Corp.
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Analytical Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.01 Task 04
Sample Matrix: Water
Sample Name: BY-OGBT-MW-1-CTRL
Lab Code: K2214981-007

Service Request: K2214981
Date Collected: 12/13/22 09:10
Date Received: 12/16/22 12:15
Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	0.69	ug/L	0.50	0.09	1	12/27/22 15:28	12/22/22	
Iron	200.8	3.4	ug/L	2.0	0.3	1	12/27/22 15:28	12/22/22	
Manganese	200.8	779	ug/L	0.20	0.04	1	12/27/22 15:28	12/22/22	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.01 Task 04
Sample Matrix: Water
Sample Name: BY-OSBT-MW-1-PM-D2-BUF
Lab Code: K2214981-008

Service Request: K2214981
Date Collected: 12/13/22 08:15
Date Received: 12/16/22 12:15
Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	0.62	ug/L	0.50	0.09	1	12/27/22 15:29	12/22/22	
Iron	200.8	1.7 J	ug/L	2.0	0.3	1	12/27/22 15:29	12/22/22	
Manganese	200.8	5760	ug/L	0.20	0.04	1	12/27/22 15:29	12/22/22	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.01 Task 04
Sample Matrix: Water

Service Request: K2214981
Date Collected: 12/13/22 08:25
Date Received: 12/16/22 12:15

Sample Name: BY-OSBT-MW-1-PM-D2-BUF-DUP
Lab Code: K2214981-009

Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	0.64	ug/L	0.50	0.09	1	12/27/22 15:30	12/22/22	
Iron	200.8	8.3	ug/L	2.0	0.3	1	12/27/22 15:30	12/22/22	
Manganese	200.8	5760	ug/L	0.20	0.04	1	12/27/22 15:30	12/22/22	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.01 Task 04
Sample Matrix: Water

Service Request: K2214981
Date Collected: 12/13/22 08:35
Date Received: 12/16/22 12:15

Sample Name: BY-OSBT-MW-1-PM-D2-BUF2
Lab Code: K2214981-010

Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	0.86	ug/L	0.50	0.09	1	12/27/22 15:32	12/22/22	
Iron	200.8	1.9 J	ug/L	2.0	0.3	1	12/27/22 15:32	12/22/22	
Manganese	200.8	6730	ug/L	0.20	0.04	1	12/27/22 15:32	12/22/22	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.01 Task 04
Sample Matrix: Water
Sample Name: BY-OSBT-MW-1-FS-BUF
Lab Code: K2214981-011

Service Request: K2214981
Date Collected: 12/13/22 08:45
Date Received: 12/16/22 12:15
Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	0.79	ug/L	0.50	0.09	1	12/27/22 15:33	12/22/22	
Iron	200.8	994	ug/L	2.0	0.3	1	12/27/22 15:33	12/22/22	
Manganese	200.8	766	ug/L	0.20	0.04	1	12/27/22 15:33	12/22/22	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.01 Task 04
Sample Matrix: Water
Sample Name: BY-OSBT-MW-1-FS-BUF2
Lab Code: K2214981-012

Service Request: K2214981
Date Collected: 12/13/22 08:55
Date Received: 12/16/22 12:15
Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	1.41	ug/L	0.50	0.09	1	12/27/22 15:35	12/22/22	
Iron	200.8	7080	ug/L	2.0	0.3	1	12/27/22 15:35	12/22/22	
Manganese	200.8	758	ug/L	0.20	0.04	1	12/27/22 15:35	12/22/22	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.01 Task 04
Sample Matrix: Water
Sample Name: BY-OSBT-MW-1-AIR-BUF
Lab Code: K2214981-013

Service Request: K2214981
Date Collected: 12/13/22 09:05
Date Received: 12/16/22 12:15
Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	3.15	ug/L	0.50	0.09	1	12/27/22 15:36	12/22/22	
Iron	200.8	26.4	ug/L	2.0	0.3	1	12/27/22 15:36	12/22/22	
Manganese	200.8	226	ug/L	0.20	0.04	1	12/27/22 15:36	12/22/22	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.01 Task 04
Sample Matrix: Water
Sample Name: BY-OSBT-MW-1-CTRL
Lab Code: K2214981-014

Service Request: K2214981
Date Collected: 12/13/22 09:15
Date Received: 12/16/22 12:15
Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	0.55	ug/L	0.50	0.09	1	12/27/22 15:38	12/22/22	
Iron	200.8	8.3	ug/L	2.0	0.3	1	12/27/22 15:38	12/22/22	
Manganese	200.8	723	ug/L	0.20	0.04	1	12/27/22 15:38	12/22/22	



QC Summary Forms

ALS Environmental—Kelso Laboratory
1317 South 13th Avenue, Kelso, WA 98626
Phone (360) 577-7222 Fax (360) 425-9096
www.alsglobal.com



Metals

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1317 South 13th Avenue, Kelso, WA 98626
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www.alsglobal.com

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.01 Task 04
Sample Matrix: Water
Sample Name: Method Blank
Lab Code: KQ2222475-01

Service Request: K2214981
Date Collected: NA
Date Received: NA
Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	ND U	ug/L	0.50	0.09	1	12/27/22 15:08	12/22/22	
Iron	200.8	0.7 J	ug/L	2.0	0.3	1	12/27/22 15:08	12/22/22	
Manganese	200.8	0.13 J	ug/L	0.20	0.04	1	12/27/22 15:08	12/22/22	

ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.01 Task 04
Sample Matrix: Water

Service Request: K2214981
Date Collected: 12/13/22
Date Received: 12/16/22
Date Analyzed: 12/27/22
Date Extracted: 12/22/22

Matrix Spike Summary
Dissolved Metals

Sample Name: BY-OGBT-MW-1-FS-BUF
Lab Code: K2214981-004
Analysis Method: 200.8
Prep Method: EPA CLP ILM04.0

Units: ug/L
Basis: NA

Matrix Spike
KQ2222475-03

Analyte Name	Sample Result	Result	Spike Amount	% Rec	% Rec Limits
Arsenic	0.85	48.7	50.0	96	70-130
Iron	9330	9520	50.0	363 #	70-130
Manganese	848	876	25.0	115 #	70-130

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

Matrix Spike and Matrix Spike Duplicate Data is presented for information purposes only. The matrix may or may not be relevant to samples reported in this report. The laboratory evaluates system performance based on the LCS and LCSD control limits.

ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.01 Task 04
Sample Matrix: Water

Service Request: K2214981
Date Collected: 12/13/22
Date Received: 12/16/22
Date Analyzed: 12/27/22
Date Extracted: 12/22/22

Matrix Spike Summary
Dissolved Metals

Sample Name: BY-OGBT-MW-1-FS-BUF2
Lab Code: K2214981-005
Analysis Method: 200.8
Prep Method: EPA CLP ILM04.0

Units: ug/L
Basis: NA

Matrix Spike
KQ2222475-05

Analyte Name	Sample Result	Result	Spike Amount	% Rec	% Rec Limits
Arsenic	2.76	50.3	50.0	95	70-130
Iron	256	309	50.0	108 #	70-130
Manganese	578	599	25.0	84 #	70-130

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

Matrix Spike and Matrix Spike Duplicate Data is presented for information purposes only. The matrix may or may not be relevant to samples reported in this report. The laboratory evaluates system performance based on the LCS and LCSD control limits.

ALS Group USA, Corp.

dba ALS Environmental

QA/QC Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.01 Task 04
Sample Matrix: Water

Service Request: K2214981
Date Collected: 12/13/22
Date Received: 12/16/22
Date Analyzed: 12/27/22

Replicate Sample Summary
Dissolved Metals

Sample Name: BY-OGBT-MW-1-FS-BUF
Lab Code: K2214981-004

Units: ug/L
Basis: NA

Table with 9 columns: Analyte Name, Analysis Method, MRL, MDL, Sample Result, Duplicate Sample KQ2222475-04 Result, Average, RPD, RPD Limit. Rows include Arsenic, Iron, and Manganese.

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

ALS Group USA, Corp.

dba ALS Environmental

QA/QC Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.01 Task 04
Sample Matrix: Water

Service Request: K2214981
Date Collected: 12/13/22
Date Received: 12/16/22
Date Analyzed: 12/27/22

Replicate Sample Summary
Dissolved Metals

Sample Name: BY-OGBT-MW-1-FS-BUF2
Lab Code: K2214981-005

Units: ug/L
Basis: NA

Table with 9 columns: Analyte Name, Analysis Method, MRL, MDL, Sample Result, Duplicate Sample KQ2222475-06 Result, Average, RPD, RPD Limit. Rows include Arsenic, Iron, and Manganese.

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.01 Task 04
Sample Matrix: Water

Service Request: K2214981
Date Analyzed: 12/27/22

Lab Control Sample Summary
Dissolved Metals

Units:ug/L
Basis:NA

Lab Control Sample
KQ2222475-02

Analyte Name	Analytical Method	Result	Spike Amount	% Rec	% Rec Limits
Arsenic	200.8	48.2	50.0	96	85-115
Iron	200.8	50.4	50.0	101	85-115
Manganese	200.8	24.9	25.0	99	85-115



December 28, 2022

Service Request No:K2214985

Masa Kanematsu
Anchor QEA, LLC
6720 SW Macadam Avenue
Suite 125
Portland, OR 97219

Laboratory Results for: Barry

Dear Masa,

Enclosed are the results of the sample(s) submitted to our laboratory December 16, 2022
For your reference, these analyses have been assigned our service request number **K2214985**.

Analyses were performed according to our laboratory's NELAP-approved quality assurance program. The test results meet requirements of the current NELAP standards, where applicable, and except as noted in the laboratory case narrative provided. For a specific list of NELAP-accredited analytes, refer to the certifications section at www.alsglobal.com. All results are intended to be considered in their entirety, and ALS Group USA Corp. dba ALS Environmental (ALS) is not responsible for use of less than the complete report. Results apply only to the items submitted to the laboratory for analysis and individual items (samples) analyzed, as listed in the report.

Please contact me if you have any questions. My extension is 3376. You may also contact me via email at Mark.Harris@alsglobal.com.

Respectfully submitted,

ALS Group USA, Corp. dba ALS Environmental

Mark Harris
Project Manager

ADDRESS 1317 S. 13th Avenue, Kelso, WA 98626
PHONE +1 360 577 7222 | FAX +1 360 636 1068
ALS Group USA, Corp.
dba ALS Environmental



Narrative Documents

ALS Environmental—Kelso Laboratory
1317 South 13th Avenue, Kelso, WA 98626
Phone (360) 577-7222 Fax (360) 425-9096
www.alsglobal.com



Client: Anchor QEA, LLC
Project: Barry
Sample Matrix: Water

Service Request: K2214985
Date Received: 12/16/2022

CASE NARRATIVE

All analyses were performed consistent with the quality assurance program of ALS Environmental. This report contains analytical results for samples for the Tier II level requested by the client.

Sample Receipt:

Fifteen water samples were received for analysis at ALS Environmental on 12/16/2022. Any discrepancies upon initial sample inspection are annotated on the sample receipt and preservation form included within this report. The samples were stored at minimum in accordance with the analytical method requirements.

Metals:

No significant anomalies were noted with this analysis.

A handwritten signature in black ink, appearing to read "Noel D. O'Connell".

Approved by _____

Date 12/28/2022



SAMPLE DETECTION SUMMARY

This form includes only detections above the reporting levels. For a full listing of sample results, continue to the Sample Results section of this Report.

CLIENT ID: BY-OGBT-MW-24H-PM-D2-BUF	Lab ID: K2214985-001
--	-----------------------------

Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	1.13		0.09	0.50	ug/L	200.8
Iron, Dissolved	0.4	J	0.3	2.0	ug/L	200.8
Manganese, Dissolved	4070		0.04	0.20	ug/L	200.8

CLIENT ID: BY-OGBT-MW-24H-PM-D2-BUF-DUP	Lab ID: K2214985-002
--	-----------------------------

Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	1.06		0.09	0.50	ug/L	200.8
Manganese, Dissolved	3930		0.04	0.20	ug/L	200.8

CLIENT ID: BY-OGBT-MW-24H-PM-D2-BUF2	Lab ID: K2214985-003
---	-----------------------------

Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	3.35		0.09	0.50	ug/L	200.8
Manganese, Dissolved	3440		0.04	0.20	ug/L	200.8

CLIENT ID: BY-OGBT-MW-24H-FS-BUF	Lab ID: K2214985-004
---	-----------------------------

Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	1.78		0.09	0.50	ug/L	200.8
Iron, Dissolved	149		0.3	2.0	ug/L	200.8
Manganese, Dissolved	274		0.04	0.20	ug/L	200.8

CLIENT ID: BY-OGBT-MW-24H-FS-BUF2	Lab ID: K2214985-005
--	-----------------------------

Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	8.04		0.09	0.50	ug/L	200.8
Iron, Dissolved	643		0.3	2.0	ug/L	200.8
Manganese, Dissolved	195		0.04	0.20	ug/L	200.8

CLIENT ID: BY-OGBT-MW-24H-AIR-BUF	Lab ID: K2214985-006
--	-----------------------------

Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	26.1		0.09	0.50	ug/L	200.8
Iron, Dissolved	12.5		0.3	2.0	ug/L	200.8
Manganese, Dissolved	57.9		0.04	0.20	ug/L	200.8

CLIENT ID: BY-OGBT-MW-24H-CTRL	Lab ID: K2214985-007
---------------------------------------	-----------------------------

Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	0.38	J	0.09	0.50	ug/L	200.8
Iron, Dissolved	120		0.3	2.0	ug/L	200.8
Manganese, Dissolved	189		0.04	0.20	ug/L	200.8

CLIENT ID: BY-OSBT-MW-24H-PM-D2-BUF	Lab ID: K2214985-008
--	-----------------------------

Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	0.95		0.09	0.50	ug/L	200.8
Manganese, Dissolved	4350		0.04	0.20	ug/L	200.8



SAMPLE DETECTION SUMMARY

This form includes only detections above the reporting levels. For a full listing of sample results, continue to the Sample Results section of this Report.

CLIENT ID: BY-OSBT-MW-24H-PM-D2-BUF-DUP	Lab ID: K2214985-009
--	-----------------------------

Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	0.80		0.09	0.50	ug/L	200.8
Manganese, Dissolved	6350		0.04	0.20	ug/L	200.8

CLIENT ID: BY-OSBT-MW-24H-PM-D2-BUF2	Lab ID: K2214985-010
---	-----------------------------

Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	1.88		0.09	0.50	ug/L	200.8
Manganese, Dissolved	7060		0.04	0.20	ug/L	200.8

CLIENT ID: BY-OSBT-MW-24H-FS-BUF	Lab ID: K2214985-011
---	-----------------------------

Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	1.08		0.09	0.50	ug/L	200.8
Iron, Dissolved	6210		0.3	2.0	ug/L	200.8
Manganese, Dissolved	811		0.04	0.20	ug/L	200.8

CLIENT ID: BY-OSBT-MW-24H-FS-BUF2	Lab ID: K2214985-012
--	-----------------------------

Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	1.11		0.09	0.50	ug/L	200.8
Iron, Dissolved	1360		0.3	2.0	ug/L	200.8
Manganese, Dissolved	619		0.04	0.20	ug/L	200.8

CLIENT ID: BY-OSBT-MW-24H-AIR-BUF	Lab ID: K2214985-013
--	-----------------------------

Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	29.3		0.09	0.50	ug/L	200.8
Iron, Dissolved	13.6		0.3	2.0	ug/L	200.8
Manganese, Dissolved	128		0.04	0.20	ug/L	200.8

CLIENT ID: BY-OSBT-MW-24H-CTRL	Lab ID: K2214985-014
---------------------------------------	-----------------------------

Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	2.48		0.09	0.50	ug/L	200.8
Iron, Dissolved	69.0		0.3	2.0	ug/L	200.8
Manganese, Dissolved	422		0.04	0.20	ug/L	200.8

CLIENT ID: BY-OBT-MB	Lab ID: K2214985-015
-----------------------------	-----------------------------

Analyte	Results	Flag	MDL	MRL	Units	Method
Cobalt, Dissolved	0.010	J	0.009	0.020	ug/L	200.8
Iron, Dissolved	1.9	J	0.3	2.0	ug/L	200.8
Manganese, Dissolved	0.18	J	0.04	0.20	ug/L	200.8



Sample Receipt Information

ALS Environmental—Kelso Laboratory
1317 South 13th Avenue, Kelso, WA 98626
Phone (360) 577-7222 Fax (360) 425-9096
www.alsglobal.com

Client: Anchor QEA, LLC
Project: Barry/221114-08.01 Task 04


Service Request:K2214985

SAMPLE CROSS-REFERENCE

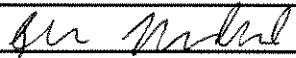

<u>SAMPLE #</u>	<u>CLIENT SAMPLE ID</u>	<u>DATE</u>	<u>TIME</u>
K2214985-001	BY-OGBT-MW-24H-PM-D2-BUF	12/15/2022	0810
K2214985-002	BY-OGBT-MW-24H-PM-D2-BUF-DUP	12/15/2022	0820
K2214985-003	BY-OGBT-MW-24H-PM-D2-BUF2	12/15/2022	0830
K2214985-004	BY-OGBT-MW-24H-FS-BUF	12/15/2022	0840
K2214985-005	BY-OGBT-MW-24H-FS-BUF2	12/15/2022	0850
K2214985-006	BY-OGBT-MW-24H-AIR-BUF	12/15/2022	0900
K2214985-007	BY-OGBT-MW-24H-CTRL	12/15/2022	0910
K2214985-008	BY-OSBT-MW-24H-PM-D2-BUF	12/15/2022	0815
K2214985-009	BY-OSBT-MW-24H-PM-D2-BUF-DUP	12/15/2022	0825
K2214985-010	BY-OSBT-MW-24H-PM-D2-BUF2	12/15/2022	0835
K2214985-011	BY-OSBT-MW-24H-FS-BUF	12/15/2022	0845
K2214985-012	BY-OSBT-MW-24H-FS-BUF2	12/15/2022	0855
K2214985-013	BY-OSBT-MW-24H-AIR-BUF	12/15/2022	0905
K2214985-014	BY-OSBT-MW-24H-CTRL	12/15/2022	0915
K2214985-015	BY-OBT-MB	12/15/2022	0920

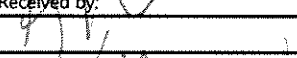
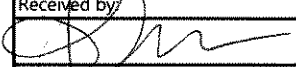
Chain of Custody Record & Laboratory Analysis Request

12214985

Laboratory Number: 503-972-5019					No. of Containers	Parameters										 Masa Kanematsu 6720 SW Macadam Ave Suite 125 Portland OR 97219 Comments/Preservation			
Date:		12/16/2022				Dissolved Metals (As, Fe, Mn)	Dissolved Metals (As, Co, Fe, Mn)												
Project Name:		Barry																	
Project Number:		221114-08.01 Task 04																	
Project Manager:		Masa Kanematsu																	
Phone Number:		503-972-5001 (backup number: 503-798-3456)																	
Shipment Method:		ALS Carrier																	
Line	Field Sample ID	Collection		Matrix	No. of Containers	Dissolved Metals (As, Fe, Mn)	Dissolved Metals (As, Co, Fe, Mn)												
		Date	Time																
1	BY-OGBT-MW-24H-PM-D2-BUF	12/15/2022	8:10	Water	1	X													HNO3 preserved. Field Filtered. KMnO4 added
2	BY-OGBT-MW-24H-PM-D2-BUF-DUP	12/15/2022	8:20	Water	1	X													HNO3 preserved. Field Filtered. KMnO4 added
3	BY-OGBT-MW-24H-PM-D2-BUF2	12/15/2022	8:30	Water	1	X													HNO3 preserved. Field Filtered. KMnO4 added
4	BY-OGBT-MW-24H-FS-BUF	12/15/2022	8:40	Water	1	X													HNO3 preserved. Field Filtered.
5	BY-OGBT-MW-24H-FS-BUF2	12/15/2022	8:50	Water	1	X													HNO3 preserved. Field Filtered.
6	BY-OGBT-MW-24H-AIR-BUF	12/15/2022	9:00	Water	1	X													HNO3 preserved. Field Filtered.
7	BY-OGBT-MW-24H-CTRL	12/15/2022	9:10	Water	1	X													HNO3 preserved. Field Filtered.
8	BY-OSBT-MW-24H-PM-D2-BUF	12/15/2022	8:15	Water	1	X													HNO3 preserved. Field Filtered. KMnO4 added
9	BY-OSBT-MW-24H-PM-D2-BUF-DUP	12/15/2022	8:25	Water	1	X													HNO3 preserved. Field Filtered. KMnO4 added
10	BY-OSBT-MW-24H-PM-D2-BUF2	12/15/2022	8:35	Water	1	X													HNO3 preserved. Field Filtered. KMnO4 added
11	BY-OSBT-MW-24H-FS-BUF	12/15/2022	8:45	Water	1	X													HNO3 preserved. Field Filtered.
12	BY-OSBT-MW-24H-FS-BUF2	12/15/2022	8:55	Water	1	X													HNO3 preserved. Field Filtered.
13	BY-OSBT-MW-24H-AIR-BUF	12/15/2022	9:05	Water	1	X													HNO3 preserved. Field Filtered.
14	BY-OSBT-MW-24H-CTRL	12/15/2022	9:15	Water	1	X													HNO3 preserved. Field Filtered.
15	BY-OBT-MB	12/15/2022	9:20	Water	1		X												HNO3 preserved. Field Filtered.
16																			

Notes: Please Contact Masa (503-972-5001, mkanematsu@anchorqea.com) if running > 10X dilution. Please analyze by ICP-MS method 200.8 to achieve the MDL < 1 ppb. Some samples may have residual purple color associated with potassium permanganate (KMnO4). If those samples need to be diluted in order to not damage the ICP-MS, please do so and let Masa know the dilution factor.

Relinquished by:	Company:
Emma Nordlund	Anchor QEA
Signature/Print Name:	Date/Time:
	9:30 12/16/22
Relinquished by:	Company:
 ALS	
Signature/Print Name:	Date/Time:
	12/16/22 12:15

Received by:

Signature/Print Name:
ANTHONY ALS 12/16/22 10:45
Received by:

Signature/Print Name:
ALS 12/16/22 12:15

Cooler Receipt and Preservation Form

Client Anchovy QEA Service Request K22 14985

Received: 12/16/22 Opened: 12/16/22 By: [Signature] Unloaded: 12/16/22 By: [Signature]

- 1. Samples were received via? USPS Fed Ex UPS DHL PDX Courier Hand Delivered
- 2. Samples were received in: (circle) Cooler Box Envelope Other NA
- 3. Were custody seals on coolers? NA Y N If yes, how many and where? _____
If present, were custody seals intact? Y N If present, were they signed and dated? Y N

Temp Blank	Sample Temp	IR Gun	Cooler #/COC ID/NA	Out of temp indicate with "X"	PM Notified If out of temp	Tracking Number NA	Filed
4.6		JRO1		—	—		
5.0		"		—	—		
4.2		"		—	—		

- 4. Was a Temperature Blank present in cooler? NA Y N If yes, notate the temperature in the appropriate column above:
If no, take the temperature of a representative sample bottle contained within the cooler; notate in the column "Sample Temp":
- 5. Were samples received within the method specified temperature ranges? NA Y N
If no, were they received on ice and same day as collected? If not, notate the cooler # above and notify the PM. NA Y N
- If applicable, tissue samples were received: Frozen Partially Thawed Thawed
- 6. Packing material: Inserts Baggies Bubble Wrap Gel Packs Wet Ice Dry Ice Sleeves _____
- 7. Were custody papers properly filled out (ink, signed, etc.)? NA Y N
- 8. Were samples received in good condition (unbroken) NA Y N
- 9. Were all sample labels complete (ie, analysis, preservation, etc.)? NA Y N
- 10. Did all sample labels and tags agree with custody papers? NA Y N
- 11. Were appropriate bottles/containers and volumes received for the tests indicated? NA Y N
- 12. Were the pH-preserved bottles (see SMO GEN SOP) received at the appropriate pH? Indicate in the table below NA Y N
- 13. Were VOA vials received without headspace? Indicate in the table below. NA Y N
- 14. Was C12/Res negative? NA Y N
- 15. Were samples received within the method specified time limit? If not, notate the error below and notify the PM NA Y N
- 16. Were 100ml sterile microbiology bottles filled exactly to the 100ml mark? NA Y N Underfilled Overfilled

Sample ID on Bottle	Sample ID on COC	Identified by:

Sample ID	Bottle Count	Bottle Type	Head-space	Broke	pH	Reagent	Volume added	Reagent Lot Number	Initials	Time

Notes, Discrepancies, Resolutions: Didn't pH due to limited sample volume. Rec'd (1) sample
BY-OSBT-MW-15V-PM-DI-BUF not on COC
 G:\SMO\2022 Forms SOP: SMO-GEN Reviewed: 12/9/2022



Miscellaneous Forms

ALS Environmental—Kelso Laboratory
1317 South 13th Avenue, Kelso, WA 98626
Phone (360) 577-7222 Fax (360) 425-9096
www.alsglobal.com

Inorganic Data Qualifiers

- * The result is an outlier. See case narrative.
- # The control limit criteria is not applicable.
- B The analyte was found in the associated method blank at a level that is significant relative to the sample result as defined by the DOD or NELAC standards.
- E The result is an estimate amount because the value exceeded the instrument calibration range.
- J The result is an estimated value.
- U The analyte was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL.
DOD-QSM 4.2 definition : Analyte was not detected and is reported as less than the LOD or as defined by the project. The detection limit is adjusted for dilution.
- i The MRL/MDL or LOQ/LOD is elevated due to a matrix interference.
- X See case narrative.
- Q See case narrative. One or more quality control criteria was outside the limits.
- H The holding time for this test is immediately following sample collection. The samples were analyzed as soon as possible after receipt by the laboratory.

Metals Data Qualifiers

- # The control limit criteria is not applicable.
- J The result is an estimated value.
- E The percent difference for the serial dilution was greater than 10%, indicating a possible matrix interference in the sample.
- M The duplicate injection precision was not met.
- N The Matrix Spike sample recovery is not within control limits. See case narrative.
- S The reported value was determined by the Method of Standard Additions (MSA).
- U The analyte was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL.
DOD-QSM 4.2 definition : Analyte was not detected and is reported as less than the LOD or as defined by the project. The detection limit is adjusted for dilution.
- W The post-digestion spike for furnace AA analysis is out of control limits, while sample absorbance is less than 50% of spike absorbance.
 - i The MRL/MDL or LOQ/LOD is elevated due to a matrix interference.
- X See case narrative.
- + The correlation coefficient for the MSA is less than 0.995.
- Q See case narrative. One or more quality control criteria was outside the limits.

Organic Data Qualifiers

- * The result is an outlier. See case narrative.
- # The control limit criteria is not applicable. See case narrative.
- A A tentatively identified compound, a suspected aldol-condensation product.
- B The analyte was found in the associated method blank at a level that is significant relative to the sample result as defined by the DOD or NELAC standards.
- C The analyte was qualitatively confirmed using GC/MS techniques, pattern recognition, or by comparing to historical data.
- D The reported result is from a dilution.
- E The result is an estimated value.
- J The result is an estimated value.
- N The result is presumptive. The analyte was tentatively identified, but a confirmation analysis was not performed.
- P The GC or HPLC confirmation criteria was exceeded. The relative percent difference is greater than 40% between the two analytical results.
- U The analyte was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL.
DOD-QSM 4.2 definition : Analyte was not detected and is reported as less than the LOD or as defined by the project. The detection limit is adjusted for dilution.
- i The MRL/MDL or LOQ/LOD is elevated due to a chromatographic interference.
- X See case narrative.
- Q See case narrative. One or more quality control criteria was outside the limits.

Additional Petroleum Hydrocarbon Specific Qualifiers

- F The chromatographic fingerprint of the sample matches the elution pattern of the calibration standard.
- L The chromatographic fingerprint of the sample resembles a petroleum product, but the elution pattern indicates the presence of a greater amount of lighter molecular weight constituents than the calibration standard.
- H The chromatographic fingerprint of the sample resembles a petroleum product, but the elution pattern indicates the presence of a greater amount of heavier molecular weight constituents than the calibration standard.
- O The chromatographic fingerprint of the sample resembles an oil, but does not match the calibration standard.
- Y The chromatographic fingerprint of the sample resembles a petroleum product eluting in approximately the correct carbon range, but the elution pattern does not match the calibration standard.
- Z The chromatographic fingerprint does not resemble a petroleum product.

**ALS Group USA Corp. dba ALS Environmental (ALS) - Kelso
State Certifications, Accreditations, and Licenses**

Agency	Web Site	Number
Alaska DEH	http://dec.alaska.gov/eh/lab/cs/csapproval.htm	UST-040
Arizona DHS	http://www.azdhs.gov/lab/license/env.htm	AZ0339
Arkansas - DEQ	http://www.adeq.state.ar.us/techsvs/labcert.htm	88-0637
California DHS (ELAP)	http://www.cdph.ca.gov/certlic/labs/Pages/ELAP.aspx	2795
DOD ELAP	http://www.denix.osd.mil/edqw/Accreditation/AccreditedLabs.cfm	L16-58-R4
Florida DOH	http://www.doh.state.fl.us/lab/EnvLabCert/WaterCert.htm	E87412
Hawaii DOH	http://health.hawaii.gov/	-
ISO 17025	http://www.pjllabs.com/	L16-57
Louisiana DEQ	http://www.deq.louisiana.gov/page/la-lab-accreditation	03016
Maine DHS	http://www.maine.gov/dhhs/	WA01276
Minnesota DOH	http://www.health.state.mn.us/accreditation	053-999-457
Nevada DEP	http://ndep.nv.gov/bsdw/labservice.htm	WA01276
New Jersey DEP	http://www.nj.gov/dep/enforcement/oqa.html	WA005
New York - DOH	https://www.wadsworth.org/regulatory/elap	12060
North Carolina DEQ	https://deq.nc.gov/about/divisions/water-resources/water-resources-data/water-sciences-home-page/laboratory-certification-branch/non-field-lab-certification	605
Oklahoma DEQ	http://www.deq.state.ok.us/CSDnew/labcert.htm	9801
Oregon – DEQ (NELAP)	http://public.health.oregon.gov/LaboratoryServices/EnvironmentalLaboratoryAccreditation/Pages/index.aspx	WA100010
South Carolina DHEC	http://www.scdhec.gov/environment/EnvironmentalLabCertification/	61002
Texas CEQ	http://www.tceq.texas.gov/field/qa/env_lab_accreditation.html	T104704427
Washington DOE	http://www.ecy.wa.gov/programs/eap/labs/lab-accreditation.html	C544
Wyoming (EPA Region 8)	https://www.epa.gov/region8-waterops/epa-region-8-certified-drinking-water	-
Kelso Laboratory Website	www.alsglobal.com	NA

Analyses were performed according to our laboratory's NELAP-approved quality assurance program. A complete listing of specific NELAP-certified analytes, can be found in the certification section at www.ALSGlobal.com or at the accreditation bodies web site.

Please refer to the certification and/or accreditation body's web site if samples are submitted for compliance purposes. The states highlighted above, require the analysis be listed on the state certification if used for compliance purposes and if the method/analyte is offered by that state.

Acronyms

ASTM	American Society for Testing and Materials
A2LA	American Association for Laboratory Accreditation
CARB	California Air Resources Board
CAS Number	Chemical Abstract Service registry Number
CFC	Chlorofluorocarbon
CFU	Colony-Forming Unit
DEC	Department of Environmental Conservation
DEQ	Department of Environmental Quality
DHS	Department of Health Services
DOE	Department of Ecology
DOH	Department of Health
EPA	U. S. Environmental Protection Agency
ELAP	Environmental Laboratory Accreditation Program
GC	Gas Chromatography
GC/MS	Gas Chromatography/Mass Spectrometry
LOD	Limit of Detection
LOQ	Limit of Quantitation
LUFT	Leaking Underground Fuel Tank
M	Modified
MCL	Maximum Contaminant Level is the highest permissible concentration of a substance allowed in drinking water as established by the USEPA.
MDL	Method Detection Limit
MPN	Most Probable Number
MRL	Method Reporting Limit
NA	Not Applicable
NC	Not Calculated
NCASI	National Council of the Paper Industry for Air and Stream Improvement
ND	Not Detected
NIOSH	National Institute for Occupational Safety and Health
PQL	Practical Quantitation Limit
RCRA	Resource Conservation and Recovery Act
SIM	Selected Ion Monitoring
TPH	Total Petroleum Hydrocarbons
tr	Trace level is the concentration of an analyte that is less than the PQL but greater than or equal to the MDL.

ALS Group USA, Corp.
dba ALS Environmental

Analyst Summary report

Client: Anchor QEA, LLC
Project: Barry/221114-08.01 Task 04

Service Request: K2214985

Sample Name: BY-OGBT-MW-24H-PM-D2-BUF
Lab Code: K2214985-001
Sample Matrix: Water

Date Collected: 12/15/22
Date Received: 12/16/22

Analysis Method
200.8

Extracted/Digested By
ACOUCH

Analyzed By
EMCALLISTER

Sample Name: BY-OGBT-MW-24H-PM-D2-BUF-DUP
Lab Code: K2214985-002
Sample Matrix: Water

Date Collected: 12/15/22
Date Received: 12/16/22

Analysis Method
200.8

Extracted/Digested By
ACOUCH

Analyzed By
EMCALLISTER

Sample Name: BY-OGBT-MW-24H-PM-D2-BUF2
Lab Code: K2214985-003
Sample Matrix: Water

Date Collected: 12/15/22
Date Received: 12/16/22

Analysis Method
200.8

Extracted/Digested By
ACOUCH

Analyzed By
EMCALLISTER

Sample Name: BY-OGBT-MW-24H-FS-BUF
Lab Code: K2214985-004
Sample Matrix: Water

Date Collected: 12/15/22
Date Received: 12/16/22

Analysis Method
200.8

Extracted/Digested By
ACOUCH

Analyzed By
EMCALLISTER

Sample Name: BY-OGBT-MW-24H-FS-BUF2
Lab Code: K2214985-005
Sample Matrix: Water

Date Collected: 12/15/22
Date Received: 12/16/22

Analysis Method
200.8

Extracted/Digested By
ACOUCH

Analyzed By
EMCALLISTER

ALS Group USA, Corp.
dba ALS Environmental

Analyst Summary report

Client: Anchor QEA, LLC
Project: Barry/221114-08.01 Task 04

Service Request: K2214985

Sample Name: BY-OGBT-MW-24H-AIR-BUF
Lab Code: K2214985-006
Sample Matrix: Water

Date Collected: 12/15/22
Date Received: 12/16/22

Analysis Method
200.8

Extracted/Digested By
ACOUCH

Analyzed By
EMCALLISTER

Sample Name: BY-OGBT-MW-24H-CTRL
Lab Code: K2214985-007
Sample Matrix: Water

Date Collected: 12/15/22
Date Received: 12/16/22

Analysis Method
200.8

Extracted/Digested By
ACOUCH

Analyzed By
EMCALLISTER

Sample Name: BY-OSBT-MW-24H-PM-D2-BUF
Lab Code: K2214985-008
Sample Matrix: Water

Date Collected: 12/15/22
Date Received: 12/16/22

Analysis Method
200.8

Extracted/Digested By
ACOUCH

Analyzed By
EMCALLISTER

Sample Name: BY-OSBT-MW-24H-PM-D2-BUF-DUP
Lab Code: K2214985-009
Sample Matrix: Water

Date Collected: 12/15/22
Date Received: 12/16/22

Analysis Method
200.8

Extracted/Digested By
ACOUCH

Analyzed By
EMCALLISTER

Sample Name: BY-OSBT-MW-24H-PM-D2-BUF2
Lab Code: K2214985-010
Sample Matrix: Water

Date Collected: 12/15/22
Date Received: 12/16/22

Analysis Method
200.8

Extracted/Digested By
ACOUCH

Analyzed By
EMCALLISTER

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Analyst Summary report

Client: Anchor QEA, LLC
Project: Barry/221114-08.01 Task 04

Service Request: K2214985

Sample Name: BY-OSBT-MW-24H-FS-BUF
Lab Code: K2214985-011
Sample Matrix: Water

Date Collected: 12/15/22
Date Received: 12/16/22

Analysis Method
200.8

Extracted/Digested By
ACOUCH

Analyzed By
EMCALLISTER

Sample Name: BY-OSBT-MW-24H-FS-BUF2
Lab Code: K2214985-012
Sample Matrix: Water

Date Collected: 12/15/22
Date Received: 12/16/22

Analysis Method
200.8

Extracted/Digested By
ACOUCH

Analyzed By
EMCALLISTER

Sample Name: BY-OSBT-MW-24H-AIR-BUF
Lab Code: K2214985-013
Sample Matrix: Water

Date Collected: 12/15/22
Date Received: 12/16/22

Analysis Method
200.8

Extracted/Digested By
ACOUCH

Analyzed By
EMCALLISTER

Sample Name: BY-OSBT-MW-24H-CTRL
Lab Code: K2214985-014
Sample Matrix: Water

Date Collected: 12/15/22
Date Received: 12/16/22

Analysis Method
200.8

Extracted/Digested By
ACOUCH

Analyzed By
EMCALLISTER

Sample Name: BY-OBT-MB
Lab Code: K2214985-015
Sample Matrix: Water

Date Collected: 12/15/22
Date Received: 12/16/22

Analysis Method
200.8

Extracted/Digested By
ACOUCH

Analyzed By
EMCALLISTER



Sample Results

ALS Environmental—Kelso Laboratory
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Metals

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Analytical Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.01 Task 04
Sample Matrix: Water

Service Request: K2214985
Date Collected: 12/15/22 08:10
Date Received: 12/16/22 12:15

Sample Name: BY-OGBT-MW-24H-PM-D2-BUF
Lab Code: K2214985-001

Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	1.13	ug/L	0.50	0.09	1	12/27/22 13:32	12/21/22	
Iron	200.8	0.4 J	ug/L	2.0	0.3	1	12/27/22 13:32	12/21/22	
Manganese	200.8	4070	ug/L	0.20	0.04	1	12/27/22 13:32	12/21/22	

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Analytical Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.01 Task 04
Sample Matrix: Water
Sample Name: BY-OGBT-MW-24H-PM-D2-BUF-DUP
Lab Code: K2214985-002

Service Request: K2214985
Date Collected: 12/15/22 08:20
Date Received: 12/16/22 12:15
Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	1.06	ug/L	0.50	0.09	1	12/27/22 13:33	12/21/22	
Iron	200.8	ND U	ug/L	2.0	0.3	1	12/27/22 13:33	12/21/22	
Manganese	200.8	3930	ug/L	0.20	0.04	1	12/27/22 13:33	12/21/22	

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Analytical Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.01 Task 04
Sample Matrix: Water

Service Request: K2214985
Date Collected: 12/15/22 08:30
Date Received: 12/16/22 12:15

Sample Name: BY-OGBT-MW-24H-PM-D2-BUF2
Lab Code: K2214985-003

Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	3.35	ug/L	0.50	0.09	1	12/27/22 13:35	12/21/22	
Iron	200.8	ND U	ug/L	2.0	0.3	1	12/27/22 13:35	12/21/22	
Manganese	200.8	3440	ug/L	0.20	0.04	1	12/27/22 13:35	12/21/22	

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Analytical Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.01 Task 04
Sample Matrix: Water
Sample Name: BY-OGBT-MW-24H-FS-BUF
Lab Code: K2214985-004

Service Request: K2214985
Date Collected: 12/15/22 08:40
Date Received: 12/16/22 12:15
Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	1.78	ug/L	0.50	0.09	1	12/27/22 13:36	12/21/22	
Iron	200.8	149	ug/L	2.0	0.3	1	12/27/22 13:36	12/21/22	
Manganese	200.8	274	ug/L	0.20	0.04	1	12/27/22 13:36	12/21/22	

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Analytical Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.01 Task 04
Sample Matrix: Water
Sample Name: BY-OGBT-MW-24H-FS-BUF2
Lab Code: K2214985-005

Service Request: K2214985
Date Collected: 12/15/22 08:50
Date Received: 12/16/22 12:15
Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	8.04	ug/L	0.50	0.09	1	12/27/22 13:40	12/21/22	
Iron	200.8	643	ug/L	2.0	0.3	1	12/27/22 13:40	12/21/22	
Manganese	200.8	195	ug/L	0.20	0.04	1	12/27/22 13:40	12/21/22	

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Analytical Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.01 Task 04
Sample Matrix: Water
Sample Name: BY-OGBT-MW-24H-AIR-BUF
Lab Code: K2214985-006

Service Request: K2214985
Date Collected: 12/15/22 09:00
Date Received: 12/16/22 12:15

Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	26.1	ug/L	0.50	0.09	1	12/27/22 13:47	12/21/22	
Iron	200.8	12.5	ug/L	2.0	0.3	1	12/27/22 13:47	12/21/22	
Manganese	200.8	57.9	ug/L	0.20	0.04	1	12/27/22 13:47	12/21/22	

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Analytical Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.01 Task 04
Sample Matrix: Water
Sample Name: BY-OGBT-MW-24H-CTRL
Lab Code: K2214985-007

Service Request: K2214985
Date Collected: 12/15/22 09:10
Date Received: 12/16/22 12:15
Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	0.38 J	ug/L	0.50	0.09	1	12/27/22 13:49	12/21/22	
Iron	200.8	120	ug/L	2.0	0.3	1	12/27/22 13:49	12/21/22	
Manganese	200.8	189	ug/L	0.20	0.04	1	12/27/22 13:49	12/21/22	

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Analytical Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.01 Task 04
Sample Matrix: Water

Service Request: K2214985
Date Collected: 12/15/22 08:15
Date Received: 12/16/22 12:15

Sample Name: BY-OSBT-MW-24H-PM-D2-BUF
Lab Code: K2214985-008

Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	0.95	ug/L	0.50	0.09	1	12/27/22 13:50	12/21/22	
Iron	200.8	ND U	ug/L	2.0	0.3	1	12/27/22 13:50	12/21/22	
Manganese	200.8	4350	ug/L	0.20	0.04	1	12/27/22 13:50	12/21/22	

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Analytical Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.01 Task 04
Sample Matrix: Water

Service Request: K2214985
Date Collected: 12/15/22 08:25
Date Received: 12/16/22 12:15

Sample Name: BY-OSBT-MW-24H-PM-D2-BUF-DUP
Lab Code: K2214985-009

Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	0.80	ug/L	0.50	0.09	1	12/27/22 13:51	12/21/22	
Iron	200.8	ND U	ug/L	2.0	0.3	1	12/27/22 13:51	12/21/22	
Manganese	200.8	6350	ug/L	0.20	0.04	1	12/27/22 13:51	12/21/22	

ALS Group USA, Corp.
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Analytical Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.01 Task 04
Sample Matrix: Water

Service Request: K2214985
Date Collected: 12/15/22 08:35
Date Received: 12/16/22 12:15

Sample Name: BY-OSBT-MW-24H-PM-D2-BUF2
Lab Code: K2214985-010

Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	1.88	ug/L	0.50	0.09	1	12/27/22 13:53	12/21/22	
Iron	200.8	ND U	ug/L	2.0	0.3	1	12/27/22 13:53	12/21/22	
Manganese	200.8	7060	ug/L	0.20	0.04	1	12/27/22 13:53	12/21/22	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.01 Task 04
Sample Matrix: Water
Sample Name: BY-OSBT-MW-24H-FS-BUF
Lab Code: K2214985-011

Service Request: K2214985
Date Collected: 12/15/22 08:45
Date Received: 12/16/22 12:15
Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	1.08	ug/L	0.50	0.09	1	12/27/22 13:54	12/21/22	
Iron	200.8	6210	ug/L	2.0	0.3	1	12/27/22 13:54	12/21/22	
Manganese	200.8	811	ug/L	0.20	0.04	1	12/27/22 13:54	12/21/22	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.01 Task 04
Sample Matrix: Water
Sample Name: BY-OSBT-MW-24H-FS-BUF2
Lab Code: K2214985-012

Service Request: K2214985
Date Collected: 12/15/22 08:55
Date Received: 12/16/22 12:15
Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	1.11	ug/L	0.50	0.09	1	12/27/22 13:56	12/21/22	
Iron	200.8	1360	ug/L	2.0	0.3	1	12/27/22 13:56	12/21/22	
Manganese	200.8	619	ug/L	0.20	0.04	1	12/27/22 13:56	12/21/22	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.01 Task 04
Sample Matrix: Water
Sample Name: BY-OSBT-MW-24H-AIR-BUF
Lab Code: K2214985-013

Service Request: K2214985
Date Collected: 12/15/22 09:05
Date Received: 12/16/22 12:15
Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	29.3	ug/L	0.50	0.09	1	12/27/22 13:57	12/21/22	
Iron	200.8	13.6	ug/L	2.0	0.3	1	12/27/22 13:57	12/21/22	
Manganese	200.8	128	ug/L	0.20	0.04	1	12/27/22 13:57	12/21/22	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.01 Task 04
Sample Matrix: Water
Sample Name: BY-OSBT-MW-24H-CTRL
Lab Code: K2214985-014

Service Request: K2214985
Date Collected: 12/15/22 09:15
Date Received: 12/16/22 12:15
Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	2.48	ug/L	0.50	0.09	1	12/27/22 14:03	12/21/22	
Iron	200.8	69.0	ug/L	2.0	0.3	1	12/27/22 14:03	12/21/22	
Manganese	200.8	422	ug/L	0.20	0.04	1	12/27/22 14:03	12/21/22	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.01 Task 04
Sample Matrix: Water
Sample Name: BY-OBT-MB
Lab Code: K2214985-015

Service Request: K2214985
Date Collected: 12/15/22 09:20
Date Received: 12/16/22 12:15

Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	ND U	ug/L	0.50	0.09	1	12/27/22 13:29	12/21/22	
Cobalt	200.8	0.010 J	ug/L	0.020	0.009	1	12/27/22 13:29	12/21/22	
Iron	200.8	1.9 J	ug/L	2.0	0.3	1	12/27/22 13:29	12/21/22	
Manganese	200.8	0.18 J	ug/L	0.20	0.04	1	12/27/22 13:29	12/21/22	



QC Summary Forms

ALS Environmental—Kelso Laboratory
1317 South 13th Avenue, Kelso, WA 98626
Phone (360) 577-7222 Fax (360) 425-9096
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Metals

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1317 South 13th Avenue, Kelso, WA 98626
Phone (360) 577-7222 Fax (360) 425-9096
www.alsglobal.com

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.01 Task 04
Sample Matrix: Water
Sample Name: Method Blank
Lab Code: KQ2222478-01

Service Request: K2214985
Date Collected: NA
Date Received: NA
Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	ND U	ug/L	0.50	0.09	1	12/27/22 14:01	12/21/22	
Cobalt	200.8	ND U	ug/L	0.020	0.009	1	12/27/22 14:01	12/21/22	
Iron	200.8	1.5 J	ug/L	2.0	0.3	1	12/27/22 14:01	12/21/22	
Manganese	200.8	0.11 J	ug/L	0.20	0.04	1	12/27/22 14:01	12/21/22	

ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.01 Task 04
Sample Matrix: Water

Service Request: K2214985
Date Collected: 12/15/22
Date Received: 12/16/22
Date Analyzed: 12/27/22
Date Extracted: 12/21/22

Matrix Spike Summary
Dissolved Metals

Sample Name: BY-OGBT-MW-24H-FS-BUF
Lab Code: K2214985-004
Analysis Method: 200.8
Prep Method: EPA CLP ILM04.0

Units: ug/L
Basis: NA

Matrix Spike
KQ2222478-03

Analyte Name	Sample Result	Result	Spike Amount	% Rec	% Rec Limits
Arsenic	1.78	48.6	50.0	94	70-130
Cobalt	2.11	24.2	25.0	88	70-130
Iron	149	193	50.0	86	70-130
Manganese	274	294	25.0	81 #	70-130

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

Matrix Spike and Matrix Spike Duplicate Data is presented for information purposes only. The matrix may or may not be relevant to samples reported in this report. The laboratory evaluates system performance based on the LCS and LCSD control limits.

ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.01 Task 04
Sample Matrix: Water

Service Request: K2214985
Date Collected: 12/15/22
Date Received: 12/16/22
Date Analyzed: 12/27/22
Date Extracted: 12/21/22

Matrix Spike Summary
Dissolved Metals

Sample Name: BY-OGBT-MW-24H-FS-BUF2
Lab Code: K2214985-005
Analysis Method: 200.8
Prep Method: EPA CLP ILM04.0

Units: ug/L
Basis: NA

Matrix Spike
KQ2222478-05

Analyte Name	Sample Result	Result	Spike Amount	% Rec	% Rec Limits
Arsenic	8.04	57.2	50.0	98	70-130
Cobalt	1.00	24.3	25.0	93	70-130
Iron	643	700	50.0	114 #	70-130
Manganese	195	218	25.0	90 #	70-130

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

Matrix Spike and Matrix Spike Duplicate Data is presented for information purposes only. The matrix may or may not be relevant to samples reported in this report. The laboratory evaluates system performance based on the LCS and LCSD control limits.

ALS Group USA, Corp.

dba ALS Environmental

QA/QC Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.01 Task 04
Sample Matrix: Water

Service Request: K2214985
Date Collected: 12/15/22
Date Received: 12/16/22
Date Analyzed: 12/27/22

Replicate Sample Summary
Dissolved Metals

Sample Name: BY-OGBT-MW-24H-FS-BUF
Lab Code: K2214985-004

Units: ug/L
Basis: NA

Table with 9 columns: Analyte Name, Analysis Method, MRL, MDL, Sample Result, Duplicate Sample KQ2222478-04 Result, Average, RPD, RPD Limit. Rows include Arsenic, Cobalt, Iron, and Manganese.

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

ALS Group USA, Corp.

dba ALS Environmental

QA/QC Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.01 Task 04
Sample Matrix: Water

Service Request: K2214985
Date Collected: 12/15/22
Date Received: 12/16/22
Date Analyzed: 12/27/22

Replicate Sample Summary
Dissolved Metals

Sample Name: BY-OGBT-MW-24H-FS-BUF2
Lab Code: K2214985-005

Units: ug/L
Basis: NA

Table with 9 columns: Analyte Name, Analysis Method, MRL, MDL, Sample Result, Duplicate Sample KQ2222478-06 Result, Average, RPD, RPD Limit. Rows include Arsenic, Cobalt, Iron, and Manganese.

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.01 Task 04
Sample Matrix: Water

Service Request: K2214985
Date Analyzed: 12/27/22

Lab Control Sample Summary
Dissolved Metals

Units:ug/L
Basis:NA

Lab Control Sample
KQ2222478-02

Analyte Name	Analytical Method	Result	Spike Amount	% Rec	% Rec Limits
Arsenic	200.8	44.5	50.0	89	85-115
Cobalt	200.8	23.0	25.0	92	85-115
Iron	200.8	47.4	50.0	95	85-115
Manganese	200.8	24.3	25.0	97	85-115



December 28, 2022

Service Request No:K2214987

Masa Kanematsu
Anchor QEA, LLC
6720 SW Macadam Avenue
Suite 125
Portland, OR 97219

Laboratory Results for: Barry

Dear Masa,

Enclosed are the results of the sample(s) submitted to our laboratory December 16, 2022
For your reference, these analyses have been assigned our service request number **K2214987**.

Analyses were performed according to our laboratory's NELAP-approved quality assurance program. The test results meet requirements of the current NELAP standards, where applicable, and except as noted in the laboratory case narrative provided. For a specific list of NELAP-accredited analytes, refer to the certifications section at www.alsglobal.com. All results are intended to be considered in their entirety, and ALS Group USA Corp. dba ALS Environmental (ALS) is not responsible for use of less than the complete report. Results apply only to the items submitted to the laboratory for analysis and individual items (samples) analyzed, as listed in the report.

Please contact me if you have any questions. My extension is 3376. You may also contact me via email at Mark.Harris@alsglobal.com.

Respectfully submitted,

ALS Group USA, Corp. dba ALS Environmental

Mark Harris
Project Manager

ADDRESS 1317 S. 13th Avenue, Kelso, WA 98626
PHONE +1 360 577 7222 | FAX +1 360 636 1068
ALS Group USA, Corp.
dba ALS Environmental



Narrative Documents

ALS Environmental—Kelso Laboratory
1317 South 13th Avenue, Kelso, WA 98626
Phone (360) 577-7222 Fax (360) 425-9096
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Client: Anchor QEA, LLC
Project: Barry
Sample Matrix: Water

Service Request: K2214987
Date Received: 12/16/2022

CASE NARRATIVE

All analyses were performed consistent with the quality assurance program of ALS Environmental. This report contains analytical results for samples for the Tier II level requested by the client.

Sample Receipt:

Fourteen water samples were received for analysis at ALS Environmental on 12/16/2022. Any discrepancies upon initial sample inspection are annotated on the sample receipt and preservation form included within this report. The samples were stored at minimum in accordance with the analytical method requirements.

Metals:

No significant anomalies were noted with this analysis.

Noel D. O'Connell

Approved by _____

Date 12/28/2022



SAMPLE DETECTION SUMMARY

This form includes only detections above the reporting levels. For a full listing of sample results, continue to the Sample Results section of this Report.

CLIENT ID: BY-OGBT-MW-10-PM-D2-BUF	Lab ID: K2214987-001
---	-----------------------------

Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	1.60		0.09	0.50	ug/L	200.8
Manganese, Dissolved	6610		0.04	0.20	ug/L	200.8

CLIENT ID: BY-OGBT-MW-10-PM-D2-BUF-DUP	Lab ID: K2214987-002
---	-----------------------------

Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	1.61		0.09	0.50	ug/L	200.8
Manganese, Dissolved	4910		0.04	0.20	ug/L	200.8

CLIENT ID: BY-OGBT-MW-10-PM-D2-BUF2	Lab ID: K2214987-003
--	-----------------------------

Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	8.21		0.09	0.50	ug/L	200.8
Manganese, Dissolved	7340		0.04	0.20	ug/L	200.8

CLIENT ID: BY-OGBT-MW-10-FS-BUF	Lab ID: K2214987-004
--	-----------------------------

Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	1.21		0.09	0.50	ug/L	200.8
Iron, Dissolved	12800		0.3	2.0	ug/L	200.8
Manganese, Dissolved	1480		0.04	0.20	ug/L	200.8

CLIENT ID: BY-OGBT-MW-10-FS-BUF2	Lab ID: K2214987-005
---	-----------------------------

Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	1.40		0.09	0.50	ug/L	200.8
Iron, Dissolved	60.1		0.3	2.0	ug/L	200.8
Manganese, Dissolved	957		0.04	0.20	ug/L	200.8

CLIENT ID: BY-OGBT-MW-10-AIR-BUF	Lab ID: K2214987-006
---	-----------------------------

Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	17.7		0.09	0.50	ug/L	200.8
Iron, Dissolved	8.1		0.3	2.0	ug/L	200.8
Manganese, Dissolved	395		0.04	0.20	ug/L	200.8

CLIENT ID: BY-OGBT-MW-10-CTRL	Lab ID: K2214987-007
--------------------------------------	-----------------------------

Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	1.55		0.09	0.50	ug/L	200.8
Iron, Dissolved	3.2		0.3	2.0	ug/L	200.8
Manganese, Dissolved	1460		0.04	0.20	ug/L	200.8

CLIENT ID: BY-OSBT-MW-10-PM-D2-BUF	Lab ID: K2214987-008
---	-----------------------------

Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	3.64		0.09	0.50	ug/L	200.8
Manganese, Dissolved	6770		0.04	0.20	ug/L	200.8



SAMPLE DETECTION SUMMARY

This form includes only detections above the reporting levels. For a full listing of sample results, continue to the Sample Results section of this Report.

CLIENT ID: BY-OSBT-MW-10-PM-D2-BUF-DUP	Lab ID: K2214987-009
---	-----------------------------

Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	1.59		0.09	0.50	ug/L	200.8
Manganese, Dissolved	6200		0.04	0.20	ug/L	200.8

CLIENT ID: BY-OSBT-MW-10-PM-D2-BUF2	Lab ID: K2214987-010
--	-----------------------------

Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	7.20		0.09	0.50	ug/L	200.8
Manganese, Dissolved	6010		0.04	0.20	ug/L	200.8

CLIENT ID: BY-OSBT-MW-10-FS-BUF	Lab ID: K2214987-011
--	-----------------------------

Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	0.86		0.09	0.50	ug/L	200.8
Iron, Dissolved	2110		0.3	2.0	ug/L	200.8
Manganese, Dissolved	1310		0.04	0.20	ug/L	200.8

CLIENT ID: BY-OSBT-MW-10-FS-BUF2	Lab ID: K2214987-012
---	-----------------------------

Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	2.43		0.09	0.50	ug/L	200.8
Iron, Dissolved	102		0.3	2.0	ug/L	200.8
Manganese, Dissolved	829		0.04	0.20	ug/L	200.8

CLIENT ID: BY-OSBT-MW-10-AIR-BUF	Lab ID: K2214987-013
---	-----------------------------

Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	21.3		0.09	0.50	ug/L	200.8
Iron, Dissolved	5.0		0.3	2.0	ug/L	200.8
Manganese, Dissolved	13.4		0.04	0.20	ug/L	200.8

CLIENT ID: BY-OSBT-MW-10-CTRL	Lab ID: K2214987-014
--------------------------------------	-----------------------------

Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	1.88		0.09	0.50	ug/L	200.8
Iron, Dissolved	3.9		0.3	2.0	ug/L	200.8
Manganese, Dissolved	1240		0.04	0.20	ug/L	200.8



Sample Receipt Information

ALS Environmental—Kelso Laboratory
1317 South 13th Avenue, Kelso, WA 98626
Phone (360) 577-7222 Fax (360) 425-9096
www.alsglobal.com

Client: Anchor QEA, LLC
Project: Barry/221114-08.01 Task 04


Service Request:K2214987

SAMPLE CROSS-REFERENCE

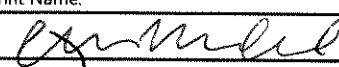
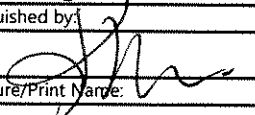
<u>SAMPLE #</u>	<u>CLIENT SAMPLE ID</u>	<u>DATE</u>	<u>TIME</u>
K2214987-001	BY-OGBT-MW-10-PM-D2-BUF	12/14/2022	0810
K2214987-002	BY-OGBT-MW-10-PM-D2-BUF-DUP	12/14/2022	0820
K2214987-003	BY-OGBT-MW-10-PM-D2-BUF2	12/14/2022	0830
K2214987-004	BY-OGBT-MW-10-FS-BUF	12/14/2022	0840
K2214987-005	BY-OGBT-MW-10-FS-BUF2	12/14/2022	0850
K2214987-006	BY-OGBT-MW-10-AIR-BUF	12/14/2022	0900
K2214987-007	BY-OGBT-MW-10-CTRL	12/14/2022	0910
K2214987-008	BY-OSBT-MW-10-PM-D2-BUF	12/14/2022	0815
K2214987-009	BY-OSBT-MW-10-PM-D2-BUF-DUP	12/14/2022	0825
K2214987-010	BY-OSBT-MW-10-PM-D2-BUF2	12/14/2022	0835
K2214987-011	BY-OSBT-MW-10-FS-BUF	12/14/2022	0845
K2214987-012	BY-OSBT-MW-10-FS-BUF2	12/14/2022	0855
K2214987-013	BY-OSBT-MW-10-AIR-BUF	12/14/2022	0905
K2214987-014	BY-OSBT-MW-10-CTRL	12/14/2022	0915

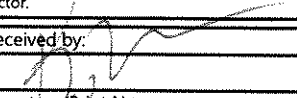
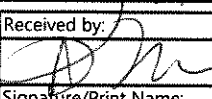
Chain of Custody Record & Laboratory Analysis Request

12214987

Laboratory Number: 503-972-5019					Parameters													 ANCHOR QEA Masa Kanematsu 6720 SW Macadam Ave Suite 125 Portland OR 97219				
Date:	12/16/2022																					
Project Name:	Barry																					
Project Number:	221114-08.01 Task 04																					
Project Manager:	Masa Kanematsu																					
Phone Number:	503-972-5001 (backup number: 503-798-3456)																					
Shipment Method:	ALS Carrier				No. of Containers Dissolved Metals (As, Fe, Mn)														Comments/Preservation			
Line	Field Sample ID	Collection		Matrix		1	X															
		Date	Time																			
1	BY-OGBT-MW-10-PM-D2-BUF	12/14/2022	8:10	Water																		
2	BY-OGBT-MW-10-PM-D2-BUF-DUP	12/14/2022	8:20	Water																		
3	BY-OGBT-MW-10-PM-D2-BUF2	12/14/2022	8:30	Water																		
4	BY-OGBT-MW-10-FS-BUF	12/14/2022	8:40	Water																		
5	BY-OGBT-MW-10-FS-BUF2	12/14/2022	8:50	Water																		
6	BY-OGBT-MW-10-AIR-BUF	12/14/2022	9:00	Water																		
7	BY-OGBT-MW-10-CTRL	12/14/2022	9:10	Water																		
8	BY-OSBT-MW-10-PM-D2-BUF	12/14/2022	8:15	Water																		
9	BY-OSBT-MW-10-PM-D2-BUF-DUP	12/14/2022	8:25	Water																		
10	BY-OSBT-MW-10-PM-D2-BUF2	12/14/2022	8:35	Water																		
11	BY-OSBT-MW-10-FS-BUF	12/14/2022	8:45	Water																		
12	BY-OSBT-MW-10-FS-BUF2	12/14/2022	8:55	Water																		
13	BY-OSBT-MW-10-AIR-BUF	12/14/2022	9:05	Water																		
14	BY-OSBT-MW-10-CTRL	12/14/2022	9:15	Water																		
15																						
16																						

Notes: Please Contact Masa (503-972-5001, mkanematsu@anchorqea.com) if running > 10X dilution. Please analyze by ICP-MS method 200.8 to achieve the MDL < 1 ppb. Some samples may have residual purple color associated with potassium permanganate (KMnO4). If those samples need to be diluted in order to not damage the ICP-MS, please do so and let Masa know the dilution factor.

Relinquished by:	Company:
Emma Nordlund	Anchor QEA
Signature/Print Name:	Date/Time:
	9:30 12/16/22
Relinquished by:	Company:
 ALS	12/16/22 1215
Signature/Print Name:	Date/Time:

Received by:

Signature/Print Name:
ALISON ALS 12/16/22 1025
Received by:

Signature/Print Name:
ALS 12/16/22 1215

Distribution: A copy will be made for the laboratory and client. The Project file will retain the original.

Cooler Receipt and Preservation Form

Client Anchor QEA Service Request K22 14987

Received: 12/16/22 Opened: 12/16/22 By: [Signature] Unloaded: 12/16/22 By: [Signature]

- 1. Samples were received via? USPS Fed Ex UPS DHL PDX Courier Hand Delivered
- 2. Samples were received in: (circle) Cooler Box Envelope Other NA
- 3. Were custody seals on coolers? NA Y N If yes, how many and where? _____
If present, were custody seals intact? Y N If present, were they signed and dated? Y N

Temp Blank	Sample Temp	IR Gun	Cooler #/COC ID / NA	Out of temp indicate with "X"	PM Notified If out of temp	Tracking Number NA	Filed
4.6		IR01		—	—		
5.0		u		—	—		
4.2		ic		—	—		

- 4. Was a Temperature Blank present in cooler? NA Y N If yes, notate the temperature in the appropriate column above:
If no, take the temperature of a representative sample bottle contained within the cooler; notate in the column "Sample Temp":
- 5. Were samples received within the method specified temperature ranges? NA Y N
If no, were they received on ice and same day as collected? If not, notate the cooler # above and notify the PM. NA Y N
- If applicable, tissue samples were received: Frozen Partially Thawed Thawed
- 6. Packing material: Inserts Baggies Bubble Wrap Gel Packs Wet Ice Dry Ice Sleeves _____
- 7. Were custody papers properly filled out (ink, signed, etc.)? NA Y N
- 8. Were samples received in good condition (unbroken) NA Y N
- 9. Were all sample labels complete (ie, analysis, preservation, etc.)? NA Y N
- 10. Did all sample labels and tags agree with custody papers? NA Y N
- 11. Were appropriate bottles/containers and volumes received for the tests indicated? NA Y N
- 12. Were the pH-preserved bottles (*see SMO GEN SOP*) received at the appropriate pH? Indicate in the table below
- 13. Were VOA vials received without headspace? Indicate in the table below.
- 14. Was C12/Res negative? NA Y N
- 15. Were samples received within the method specified time limit? If not, notate the error below and notify the PM NA Y N
- 16. Were 100ml sterile microbiology bottles filled exactly to the 100ml mark? NA Y N Underfilled Overfilled

Sample ID on Bottle	Sample ID on COC	Identified by:

Sample ID	Bottle Count	Bottle Type	Head-space	Broke	pH	Reagent	Volume added	Reagent Lot Number	Initials	Time

Notes, Discrepancies, Resolutions: Didn't pH due to limited sample volume. Rec'd (1) sample
BY OSBT-MW-15V-PM-DJ-BUF not on Coc.
 SOP: SMO-GEN



Miscellaneous Forms

ALS Environmental—Kelso Laboratory
1317 South 13th Avenue, Kelso, WA 98626
Phone (360) 577-7222 Fax (360) 425-9096
www.alsglobal.com

Inorganic Data Qualifiers

- * The result is an outlier. See case narrative.
- # The control limit criteria is not applicable.
- B The analyte was found in the associated method blank at a level that is significant relative to the sample result as defined by the DOD or NELAC standards.
- E The result is an estimate amount because the value exceeded the instrument calibration range.
- J The result is an estimated value.
- U The analyte was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL.
DOD-QSM 4.2 definition : Analyte was not detected and is reported as less than the LOD or as defined by the project. The detection limit is adjusted for dilution.
- i The MRL/MDL or LOQ/LOD is elevated due to a matrix interference.
- X See case narrative.
- Q See case narrative. One or more quality control criteria was outside the limits.
- H The holding time for this test is immediately following sample collection. The samples were analyzed as soon as possible after receipt by the laboratory.

Metals Data Qualifiers

- # The control limit criteria is not applicable.
- J The result is an estimated value.
- E The percent difference for the serial dilution was greater than 10%, indicating a possible matrix interference in the sample.
- M The duplicate injection precision was not met.
- N The Matrix Spike sample recovery is not within control limits. See case narrative.
- S The reported value was determined by the Method of Standard Additions (MSA).
- U The analyte was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL.
DOD-QSM 4.2 definition : Analyte was not detected and is reported as less than the LOD or as defined by the project. The detection limit is adjusted for dilution.
- W The post-digestion spike for furnace AA analysis is out of control limits, while sample absorbance is less than 50% of spike absorbance.
 - i The MRL/MDL or LOQ/LOD is elevated due to a matrix interference.
- X See case narrative.
- + The correlation coefficient for the MSA is less than 0.995.
- Q See case narrative. One or more quality control criteria was outside the limits.

Organic Data Qualifiers

- * The result is an outlier. See case narrative.
- # The control limit criteria is not applicable. See case narrative.
- A A tentatively identified compound, a suspected aldol-condensation product.
- B The analyte was found in the associated method blank at a level that is significant relative to the sample result as defined by the DOD or NELAC standards.
- C The analyte was qualitatively confirmed using GC/MS techniques, pattern recognition, or by comparing to historical data.
- D The reported result is from a dilution.
- E The result is an estimated value.
- J The result is an estimated value.
- N The result is presumptive. The analyte was tentatively identified, but a confirmation analysis was not performed.
- P The GC or HPLC confirmation criteria was exceeded. The relative percent difference is greater than 40% between the two analytical results.
- U The analyte was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL.
DOD-QSM 4.2 definition : Analyte was not detected and is reported as less than the LOD or as defined by the project. The detection limit is adjusted for dilution.
 - i The MRL/MDL or LOQ/LOD is elevated due to a chromatographic interference.
- X See case narrative.
- Q See case narrative. One or more quality control criteria was outside the limits.

Additional Petroleum Hydrocarbon Specific Qualifiers

- F The chromatographic fingerprint of the sample matches the elution pattern of the calibration standard.
- L The chromatographic fingerprint of the sample resembles a petroleum product, but the elution pattern indicates the presence of a greater amount of lighter molecular weight constituents than the calibration standard.
- H The chromatographic fingerprint of the sample resembles a petroleum product, but the elution pattern indicates the presence of a greater amount of heavier molecular weight constituents than the calibration standard.
- O The chromatographic fingerprint of the sample resembles an oil, but does not match the calibration standard.
- Y The chromatographic fingerprint of the sample resembles a petroleum product eluting in approximately the correct carbon range, but the elution pattern does not match the calibration standard.
- Z The chromatographic fingerprint does not resemble a petroleum product.

**ALS Group USA Corp. dba ALS Environmental (ALS) - Kelso
State Certifications, Accreditations, and Licenses**

Agency	Web Site	Number
Alaska DEH	http://dec.alaska.gov/eh/lab/cs/csapproval.htm	UST-040
Arizona DHS	http://www.azdhs.gov/lab/license/env.htm	AZ0339
Arkansas - DEQ	http://www.adeq.state.ar.us/techsvs/labcert.htm	88-0637
California DHS (ELAP)	http://www.cdph.ca.gov/certlic/labs/Pages/ELAP.aspx	2795
DOD ELAP	http://www.denix.osd.mil/edqw/Accreditation/AccreditedLabs.cfm	L16-58-R4
Florida DOH	http://www.doh.state.fl.us/lab/EnvLabCert/WaterCert.htm	E87412
Hawaii DOH	http://health.hawaii.gov/	-
ISO 17025	http://www.pjllabs.com/	L16-57
Louisiana DEQ	http://www.deq.louisiana.gov/page/la-lab-accreditation	03016
Maine DHS	http://www.maine.gov/dhhs/	WA01276
Minnesota DOH	http://www.health.state.mn.us/accreditation	053-999-457
Nevada DEP	http://ndep.nv.gov/bsdw/labservice.htm	WA01276
New Jersey DEP	http://www.nj.gov/dep/enforcement/oqa.html	WA005
New York - DOH	https://www.wadsworth.org/regulatory/elap	12060
North Carolina DEQ	https://deq.nc.gov/about/divisions/water-resources/water-resources-data/water-sciences-home-page/laboratory-certification-branch/non-field-lab-certification	605
Oklahoma DEQ	http://www.deq.state.ok.us/CSDnew/labcert.htm	9801
Oregon – DEQ (NELAP)	http://public.health.oregon.gov/LaboratoryServices/EnvironmentalLaboratoryAccreditation/Pages/index.aspx	WA100010
South Carolina DHEC	http://www.scdhec.gov/environment/EnvironmentalLabCertification/	61002
Texas CEQ	http://www.tceq.texas.gov/field/qa/env_lab_accreditation.html	T104704427
Washington DOE	http://www.ecy.wa.gov/programs/eap/labs/lab-accreditation.html	C544
Wyoming (EPA Region 8)	https://www.epa.gov/region8-waterops/epa-region-8-certified-drinking-water	-
Kelso Laboratory Website	www.alsglobal.com	NA

Analyses were performed according to our laboratory's NELAP-approved quality assurance program. A complete listing of specific NELAP-certified analytes, can be found in the certification section at www.ALSGlobal.com or at the accreditation bodies web site.

Please refer to the certification and/or accreditation body's web site if samples are submitted for compliance purposes. The states highlighted above, require the analysis be listed on the state certification if used for compliance purposes and if the method/analyte is offered by that state.

Acronyms

ASTM	American Society for Testing and Materials
A2LA	American Association for Laboratory Accreditation
CARB	California Air Resources Board
CAS Number	Chemical Abstract Service registry Number
CFC	Chlorofluorocarbon
CFU	Colony-Forming Unit
DEC	Department of Environmental Conservation
DEQ	Department of Environmental Quality
DHS	Department of Health Services
DOE	Department of Ecology
DOH	Department of Health
EPA	U. S. Environmental Protection Agency
ELAP	Environmental Laboratory Accreditation Program
GC	Gas Chromatography
GC/MS	Gas Chromatography/Mass Spectrometry
LOD	Limit of Detection
LOQ	Limit of Quantitation
LUFT	Leaking Underground Fuel Tank
M	Modified
MCL	Maximum Contaminant Level is the highest permissible concentration of a substance allowed in drinking water as established by the USEPA.
MDL	Method Detection Limit
MPN	Most Probable Number
MRL	Method Reporting Limit
NA	Not Applicable
NC	Not Calculated
NCASI	National Council of the Paper Industry for Air and Stream Improvement
ND	Not Detected
NIOSH	National Institute for Occupational Safety and Health
PQL	Practical Quantitation Limit
RCRA	Resource Conservation and Recovery Act
SIM	Selected Ion Monitoring
TPH	Total Petroleum Hydrocarbons
tr	Trace level is the concentration of an analyte that is less than the PQL but greater than or equal to the MDL.

ALS Group USA, Corp.
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Analyst Summary report

Client: Anchor QEA, LLC
Project: Barry/221114-08.01 Task 04

Service Request: K2214987

Sample Name: BY-OGBT-MW-10-PM-D2-BUF
Lab Code: K2214987-001
Sample Matrix: Water

Date Collected: 12/14/22
Date Received: 12/16/22

Analysis Method
200.8

Extracted/Digested By
ACOUCH

Analyzed By
EMCALLISTER

Sample Name: BY-OGBT-MW-10-PM-D2-BUF-DUP
Lab Code: K2214987-002
Sample Matrix: Water

Date Collected: 12/14/22
Date Received: 12/16/22

Analysis Method
200.8

Extracted/Digested By
ACOUCH

Analyzed By
EMCALLISTER

Sample Name: BY-OGBT-MW-10-PM-D2-BUF2
Lab Code: K2214987-003
Sample Matrix: Water

Date Collected: 12/14/22
Date Received: 12/16/22

Analysis Method
200.8

Extracted/Digested By
ACOUCH

Analyzed By
EMCALLISTER

Sample Name: BY-OGBT-MW-10-FS-BUF
Lab Code: K2214987-004
Sample Matrix: Water

Date Collected: 12/14/22
Date Received: 12/16/22

Analysis Method
200.8

Extracted/Digested By
ACOUCH

Analyzed By
EMCALLISTER

Sample Name: BY-OGBT-MW-10-FS-BUF2
Lab Code: K2214987-005
Sample Matrix: Water

Date Collected: 12/14/22
Date Received: 12/16/22

Analysis Method
200.8

Extracted/Digested By
ACOUCH

Analyzed By
EMCALLISTER

ALS Group USA, Corp.
dba ALS Environmental

Analyst Summary report

Client: Anchor QEA, LLC
Project: Barry/221114-08.01 Task 04

Service Request: K2214987

Sample Name: BY-OGBT-MW-10-AIR-BUF
Lab Code: K2214987-006
Sample Matrix: Water

Date Collected: 12/14/22
Date Received: 12/16/22

Analysis Method
200.8

Extracted/Digested By
ACOUCH

Analyzed By
EMCALLISTER

Sample Name: BY-OGBT-MW-10-CTRL
Lab Code: K2214987-007
Sample Matrix: Water

Date Collected: 12/14/22
Date Received: 12/16/22

Analysis Method
200.8

Extracted/Digested By
ACOUCH

Analyzed By
EMCALLISTER

Sample Name: BY-OSBT-MW-10-PM-D2-BUF
Lab Code: K2214987-008
Sample Matrix: Water

Date Collected: 12/14/22
Date Received: 12/16/22

Analysis Method
200.8

Extracted/Digested By
ACOUCH

Analyzed By
EMCALLISTER

Sample Name: BY-OSBT-MW-10-PM-D2-BUF-DUP
Lab Code: K2214987-009
Sample Matrix: Water

Date Collected: 12/14/22
Date Received: 12/16/22

Analysis Method
200.8

Extracted/Digested By
ACOUCH

Analyzed By
EMCALLISTER

Sample Name: BY-OSBT-MW-10-PM-D2-BUF2
Lab Code: K2214987-010
Sample Matrix: Water

Date Collected: 12/14/22
Date Received: 12/16/22

Analysis Method
200.8

Extracted/Digested By
ACOUCH

Analyzed By
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Analyst Summary report

Client: Anchor QEA, LLC
Project: Barry/221114-08.01 Task 04

Service Request: K2214987

Sample Name: BY-OSBT-MW-10-FS-BUF
Lab Code: K2214987-011
Sample Matrix: Water

Date Collected: 12/14/22
Date Received: 12/16/22

Analysis Method
200.8

Extracted/Digested By
ACOUCH

Analyzed By
EMCALLISTER

Sample Name: BY-OSBT-MW-10-FS-BUF2
Lab Code: K2214987-012
Sample Matrix: Water

Date Collected: 12/14/22
Date Received: 12/16/22

Analysis Method
200.8

Extracted/Digested By
ACOUCH

Analyzed By
EMCALLISTER

Sample Name: BY-OSBT-MW-10-AIR-BUF
Lab Code: K2214987-013
Sample Matrix: Water

Date Collected: 12/14/22
Date Received: 12/16/22

Analysis Method
200.8

Extracted/Digested By
ACOUCH

Analyzed By
EMCALLISTER

Sample Name: BY-OSBT-MW-10-CTRL
Lab Code: K2214987-014
Sample Matrix: Water

Date Collected: 12/14/22
Date Received: 12/16/22

Analysis Method
200.8

Extracted/Digested By
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Analyzed By
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Sample Results

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Analytical Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.01 Task 04
Sample Matrix: Water

Service Request: K2214987
Date Collected: 12/14/22 08:10
Date Received: 12/16/22 12:15

Sample Name: BY-OGBT-MW-10-PM-D2-BUF
Lab Code: K2214987-001

Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	1.60	ug/L	0.50	0.09	1	12/27/22 15:45	12/21/22	
Iron	200.8	ND U	ug/L	2.0	0.3	1	12/27/22 15:45	12/21/22	
Manganese	200.8	6610	ug/L	0.20	0.04	1	12/27/22 15:45	12/21/22	

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Analytical Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.01 Task 04
Sample Matrix: Water

Service Request: K2214987
Date Collected: 12/14/22 08:20
Date Received: 12/16/22 12:15

Sample Name: BY-OGBT-MW-10-PM-D2-BUF-DUP
Lab Code: K2214987-002

Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	1.61	ug/L	0.50	0.09	1	12/27/22 16:15	12/21/22	
Iron	200.8	ND U	ug/L	2.0	0.3	1	12/27/22 16:15	12/21/22	
Manganese	200.8	4910	ug/L	0.20	0.04	1	12/27/22 16:15	12/21/22	

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Analytical Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.01 Task 04
Sample Matrix: Water

Service Request: K2214987
Date Collected: 12/14/22 08:30
Date Received: 12/16/22 12:15

Sample Name: BY-OGBT-MW-10-PM-D2-BUF2
Lab Code: K2214987-003

Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	8.21	ug/L	0.50	0.09	1	12/27/22 15:47	12/21/22	
Iron	200.8	ND U	ug/L	2.0	0.3	1	12/27/22 15:47	12/21/22	
Manganese	200.8	7340	ug/L	0.20	0.04	1	12/27/22 15:47	12/21/22	

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Analytical Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.01 Task 04
Sample Matrix: Water
Sample Name: BY-OGBT-MW-10-FS-BUF
Lab Code: K2214987-004

Service Request: K2214987
Date Collected: 12/14/22 08:40
Date Received: 12/16/22 12:15
Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	1.21	ug/L	0.50	0.09	1	12/27/22 15:49	12/21/22	
Iron	200.8	12800	ug/L	2.0	0.3	1	12/27/22 15:49	12/21/22	
Manganese	200.8	1480	ug/L	0.20	0.04	1	12/27/22 15:49	12/21/22	

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Analytical Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.01 Task 04
Sample Matrix: Water
Sample Name: BY-OGBT-MW-10-FS-BUF2
Lab Code: K2214987-005

Service Request: K2214987
Date Collected: 12/14/22 08:50
Date Received: 12/16/22 12:15
Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	1.40	ug/L	0.50	0.09	1	12/27/22 15:53	12/21/22	
Iron	200.8	60.1	ug/L	2.0	0.3	1	12/27/22 15:53	12/21/22	
Manganese	200.8	957	ug/L	0.20	0.04	1	12/27/22 15:53	12/21/22	

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Analytical Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.01 Task 04
Sample Matrix: Water
Sample Name: BY-OGBT-MW-10-AIR-BUF
Lab Code: K2214987-006

Service Request: K2214987
Date Collected: 12/14/22 09:00
Date Received: 12/16/22 12:15
Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	17.7	ug/L	0.50	0.09	1	12/27/22 16:00	12/21/22	
Iron	200.8	8.1	ug/L	2.0	0.3	1	12/27/22 16:00	12/21/22	
Manganese	200.8	395	ug/L	0.20	0.04	1	12/27/22 16:00	12/21/22	

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Analytical Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.01 Task 04
Sample Matrix: Water
Sample Name: BY-OGBT-MW-10-CTRL
Lab Code: K2214987-007

Service Request: K2214987
Date Collected: 12/14/22 09:10
Date Received: 12/16/22 12:15
Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	1.55	ug/L	0.50	0.09	1	12/27/22 16:01	12/21/22	
Iron	200.8	3.2	ug/L	2.0	0.3	1	12/27/22 16:01	12/21/22	
Manganese	200.8	1460	ug/L	0.20	0.04	1	12/27/22 16:01	12/21/22	

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Analytical Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.01 Task 04
Sample Matrix: Water
Sample Name: BY-OSBT-MW-10-PM-D2-BUF
Lab Code: K2214987-008

Service Request: K2214987
Date Collected: 12/14/22 08:15
Date Received: 12/16/22 12:15
Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	3.64	ug/L	0.50	0.09	1	12/27/22 16:03	12/21/22	
Iron	200.8	ND U	ug/L	2.0	0.3	1	12/27/22 16:03	12/21/22	
Manganese	200.8	6770	ug/L	0.20	0.04	1	12/27/22 16:03	12/21/22	

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Analytical Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.01 Task 04
Sample Matrix: Water

Service Request: K2214987
Date Collected: 12/14/22 08:25
Date Received: 12/16/22 12:15

Sample Name: BY-OSBT-MW-10-PM-D2-BUF-DUP
Lab Code: K2214987-009

Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	1.59	ug/L	0.50	0.09	1	12/27/22 16:04	12/21/22	
Iron	200.8	ND U	ug/L	2.0	0.3	1	12/27/22 16:04	12/21/22	
Manganese	200.8	6200	ug/L	0.20	0.04	1	12/27/22 16:04	12/21/22	

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Analytical Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.01 Task 04
Sample Matrix: Water

Service Request: K2214987
Date Collected: 12/14/22 08:35
Date Received: 12/16/22 12:15

Sample Name: BY-OSBT-MW-10-PM-D2-BUF2
Lab Code: K2214987-010

Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	7.20	ug/L	0.50	0.09	1	12/27/22 16:06	12/21/22	
Iron	200.8	ND U	ug/L	2.0	0.3	1	12/27/22 16:06	12/21/22	
Manganese	200.8	6010	ug/L	0.20	0.04	1	12/27/22 16:06	12/21/22	

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Analytical Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.01 Task 04
Sample Matrix: Water
Sample Name: BY-OSBT-MW-10-FS-BUF
Lab Code: K2214987-011

Service Request: K2214987
Date Collected: 12/14/22 08:45
Date Received: 12/16/22 12:15
Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	0.86	ug/L	0.50	0.09	1	12/27/22 16:07	12/21/22	
Iron	200.8	2110	ug/L	2.0	0.3	1	12/27/22 16:07	12/21/22	
Manganese	200.8	1310	ug/L	0.20	0.04	1	12/27/22 16:07	12/21/22	

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Analytical Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.01 Task 04
Sample Matrix: Water
Sample Name: BY-OSBT-MW-10-FS-BUF2
Lab Code: K2214987-012

Service Request: K2214987
Date Collected: 12/14/22 08:55
Date Received: 12/16/22 12:15
Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	2.43	ug/L	0.50	0.09	1	12/27/22 16:08	12/21/22	
Iron	200.8	102	ug/L	2.0	0.3	1	12/27/22 16:08	12/21/22	
Manganese	200.8	829	ug/L	0.20	0.04	1	12/27/22 16:08	12/21/22	

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Analytical Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.01 Task 04
Sample Matrix: Water
Sample Name: BY-OSBT-MW-10-AIR-BUF
Lab Code: K2214987-013

Service Request: K2214987
Date Collected: 12/14/22 09:05
Date Received: 12/16/22 12:15
Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	21.3	ug/L	0.50	0.09	1	12/27/22 16:10	12/21/22	
Iron	200.8	5.0	ug/L	2.0	0.3	1	12/27/22 16:10	12/21/22	
Manganese	200.8	13.4	ug/L	0.20	0.04	1	12/27/22 16:10	12/21/22	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.01 Task 04
Sample Matrix: Water
Sample Name: BY-OSBT-MW-10-CTRL
Lab Code: K2214987-014

Service Request: K2214987
Date Collected: 12/14/22 09:15
Date Received: 12/16/22 12:15
Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	1.88	ug/L	0.50	0.09	1	12/27/22 16:11	12/21/22	
Iron	200.8	3.9	ug/L	2.0	0.3	1	12/27/22 16:11	12/21/22	
Manganese	200.8	1240	ug/L	0.20	0.04	1	12/27/22 16:11	12/21/22	



QC Summary Forms

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Analytical Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.01 Task 04
Sample Matrix: Water
Sample Name: Method Blank
Lab Code: KQ2222479-01

Service Request: K2214987
Date Collected: NA
Date Received: NA
Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	ND U	ug/L	0.50	0.09	1	12/27/22 15:42	12/21/22	
Iron	200.8	0.6 J	ug/L	2.0	0.3	1	12/27/22 15:42	12/21/22	
Manganese	200.8	0.16 J	ug/L	0.20	0.04	1	12/27/22 15:42	12/21/22	

ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.01 Task 04
Sample Matrix: Water

Service Request: K2214987
Date Collected: 12/14/22
Date Received: 12/16/22
Date Analyzed: 12/27/22
Date Extracted: 12/21/22

Matrix Spike Summary
Dissolved Metals

Sample Name: BY-OGBT-MW-10-FS-BUF
Lab Code: K2214987-004
Analysis Method: 200.8
Prep Method: EPA CLP ILM04.0

Units: ug/L
Basis: NA

Matrix Spike
KQ2222479-03

Analyte Name	Sample Result	Result	Spike Amount	% Rec	% Rec Limits
Arsenic	1.21	48.6	50.0	95	70-130
Iron	12800	12700	50.0	-264 #	70-130
Manganese	1480	1520	25.0	133 #	70-130

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

Matrix Spike and Matrix Spike Duplicate Data is presented for information purposes only. The matrix may or may not be relevant to samples reported in this report. The laboratory evaluates system performance based on the LCS and LCSD control limits.

ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.01 Task 04
Sample Matrix: Water

Service Request: K2214987
Date Collected: 12/14/22
Date Received: 12/16/22
Date Analyzed: 12/27/22
Date Extracted: 12/21/22

Matrix Spike Summary
Dissolved Metals

Sample Name: BY-OGBT-MW-10-FS-BUF2
Lab Code: K2214987-005
Analysis Method: 200.8
Prep Method: EPA CLP ILM04.0

Units: ug/L
Basis: NA

Matrix Spike
KQ2222479-05

Analyte Name	Sample Result	Result	Spike Amount	% Rec	% Rec Limits
Arsenic	1.40	49.9	50.0	97	70-130
Iron	60.1	105	50.0	90	70-130
Manganese	957	977	25.0	82 #	70-130

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

Matrix Spike and Matrix Spike Duplicate Data is presented for information purposes only. The matrix may or may not be relevant to samples reported in this report. The laboratory evaluates system performance based on the LCS and LCSD control limits.

ALS Group USA, Corp.

dba ALS Environmental

QA/QC Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.01 Task 04
Sample Matrix: Water

Service Request: K2214987
Date Collected: 12/14/22
Date Received: 12/16/22
Date Analyzed: 12/27/22

Replicate Sample Summary

Dissolved Metals

Sample Name: BY-OGBT-MW-10-FS-BUF
Lab Code: K2214987-004

Units: ug/L
Basis: NA

Table with 9 columns: Analyte Name, Analysis Method, MRL, MDL, Sample Result, Duplicate Sample KQ2222479-04 Result, Average, RPD, RPD Limit. Rows include Arsenic, Iron, and Manganese.

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

ALS Group USA, Corp.

dba ALS Environmental

QA/QC Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.01 Task 04
Sample Matrix: Water

Service Request: K2214987
Date Collected: 12/14/22
Date Received: 12/16/22
Date Analyzed: 12/27/22

Replicate Sample Summary

Dissolved Metals

Sample Name: BY-OGBT-MW-10-FS-BUF2
Lab Code: K2214987-005

Units: ug/L
Basis: NA

Table with 9 columns: Analyte Name, Analysis Method, MRL, MDL, Sample Result, Duplicate Sample KQ2222479-06 Result, Average, RPD, RPD Limit. Rows include Arsenic, Iron, and Manganese.

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.01 Task 04
Sample Matrix: Water

Service Request: K2214987
Date Analyzed: 12/27/22

Lab Control Sample Summary
Dissolved Metals

Units:ug/L
Basis:NA

Lab Control Sample
KQ2222479-02

Analyte Name	Analytical Method	Result	Spike Amount	% Rec	% Rec Limits
Arsenic	200.8	47.7	50.0	95	85-115
Iron	200.8	47.7	50.0	95	85-115
Manganese	200.8	24.5	25.0	98	85-115



December 28, 2022

Service Request No:K2214991

Masa Kanematsu
Anchor QEA, LLC
6720 SW Macadam Avenue
Suite 125
Portland, OR 97219

Laboratory Results for: Barry

Dear Masa,

Enclosed are the results of the sample(s) submitted to our laboratory December 16, 2022
For your reference, these analyses have been assigned our service request number **K2214991**.

Analyses were performed according to our laboratory's NELAP-approved quality assurance program. The test results meet requirements of the current NELAP standards, where applicable, and except as noted in the laboratory case narrative provided. For a specific list of NELAP-accredited analytes, refer to the certifications section at www.alsglobal.com. All results are intended to be considered in their entirety, and ALS Group USA Corp. dba ALS Environmental (ALS) is not responsible for use of less than the complete report. Results apply only to the items submitted to the laboratory for analysis and individual items (samples) analyzed, as listed in the report.

Please contact me if you have any questions. My extension is 3376. You may also contact me via email at Mark.Harris@alsglobal.com.

Respectfully submitted,

ALS Group USA, Corp. dba ALS Environmental

Mark Harris
Project Manager

ADDRESS 1317 S. 13th Avenue, Kelso, WA 98626
PHONE +1 360 577 7222 | FAX +1 360 636 1068
ALS Group USA, Corp.
dba ALS Environmental



Narrative Documents

ALS Environmental—Kelso Laboratory
1317 South 13th Avenue, Kelso, WA 98626
Phone (360) 577-7222 Fax (360) 425-9096
www.alsglobal.com



Client: Anchor QEA, LLC
Project: Barry
Sample Matrix: Water

Service Request: K2214991
Date Received: 12/16/2022

CASE NARRATIVE

All analyses were performed consistent with the quality assurance program of ALS Environmental. This report contains analytical results for samples for the Tier II level requested by the client.

Sample Receipt:

Eighteen water samples were received for analysis at ALS Environmental on 12/16/2022. Any discrepancies upon initial sample inspection are annotated on the sample receipt and preservation form included within this report. The samples were stored at minimum in accordance with the analytical method requirements.

Metals:

No significant anomalies were noted with this analysis.

Approved by Noel D. O'Connell

Date 12/28/2022



SAMPLE DETECTION SUMMARY

This form includes only detections above the reporting levels. For a full listing of sample results, continue to the Sample Results section of this Report.

CLIENT ID: BY-OGBT-MW-15V-PM-D1-BUF	Lab ID: K2214991-001
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Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	1.33		0.09	0.50	ug/L	200.8
Cobalt, Dissolved	0.010	J	0.009	0.020	ug/L	200.8
Manganese, Dissolved	1470		0.04	0.20	ug/L	200.8

CLIENT ID: BY-OGBT-MW-15V-PM-D2-BUF	Lab ID: K2214991-002
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Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	0.39	J	0.09	0.50	ug/L	200.8
Manganese, Dissolved	8920		0.8	4.0	ug/L	200.8

CLIENT ID: BY-OGBT-MW-15V-PM-D2-BUF-DUP	Lab ID: K2214991-003
--	-----------------------------

Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	0.43	J	0.09	0.50	ug/L	200.8
Manganese, Dissolved	6880		0.04	0.20	ug/L	200.8

CLIENT ID: BY-OGBT-MW-15V-PM-D2-BUF2	Lab ID: K2214991-004
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Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	27.7		0.09	0.50	ug/L	200.8
Manganese, Dissolved	4040		0.04	0.20	ug/L	200.8

CLIENT ID: BY-OGBT-MW-15V-PM-D3-BUF	Lab ID: K2214991-005
--	-----------------------------

Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	0.59		0.09	0.50	ug/L	200.8
Manganese, Dissolved	13200		0.8	4.0	ug/L	200.8

CLIENT ID: BY-OGBT-MW-15V-FS-BUF	Lab ID: K2214991-006
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Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	1.24		0.09	0.50	ug/L	200.8
Cobalt, Dissolved	28.2		0.009	0.020	ug/L	200.8
Iron, Dissolved	724		0.3	2.0	ug/L	200.8
Manganese, Dissolved	938		0.04	0.20	ug/L	200.8

CLIENT ID: BY-OGBT-MW-15V-FS-BUF2	Lab ID: K2214991-007
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Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	1.19		0.09	0.50	ug/L	200.8
Cobalt, Dissolved	1.10		0.009	0.020	ug/L	200.8
Iron, Dissolved	159		0.3	2.0	ug/L	200.8
Manganese, Dissolved	262		0.04	0.20	ug/L	200.8

CLIENT ID: BY-OGBT-MW-15V-AIR-BUF	Lab ID: K2214991-008
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Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	27.3		0.09	0.50	ug/L	200.8
Cobalt, Dissolved	4.04		0.009	0.020	ug/L	200.8
Iron, Dissolved	18.4		0.3	2.0	ug/L	200.8
Manganese, Dissolved	278		0.04	0.20	ug/L	200.8



SAMPLE DETECTION SUMMARY

This form includes only detections above the reporting levels. For a full listing of sample results, continue to the Sample Results section of this Report.

CLIENT ID: BY-OGBT-MW-15V-AIR-BUF	Lab ID: K2214991-008
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Analyte	Results	Flag	MDL	MRL	Units	Method
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CLIENT ID: BY-OGBT-MW-15V-CTRL	Lab ID: K2214991-009
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Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	1.89		0.09	0.50	ug/L	200.8
Cobalt, Dissolved	67.6		0.009	0.020	ug/L	200.8
Iron, Dissolved	28000		0.3	2.0	ug/L	200.8
Manganese, Dissolved	1020		0.04	0.20	ug/L	200.8

CLIENT ID: BY-OSBT-MW-15V-PM-D1-BUF	Lab ID: K2214991-010
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Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	1.29		0.09	0.50	ug/L	200.8
Cobalt, Dissolved	0.010	J	0.009	0.020	ug/L	200.8
Iron, Dissolved	1.4	J	0.3	2.0	ug/L	200.8
Manganese, Dissolved	3150		0.04	0.20	ug/L	200.8

CLIENT ID: BY-OSBT-MW-15V-PM-D2-BUF	Lab ID: K2214991-011
--	-----------------------------

Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	0.79		0.09	0.50	ug/L	200.8
Manganese, Dissolved	6250		0.04	0.20	ug/L	200.8

CLIENT ID: BY-OSBT-MW-15V-PM-D2-BUF-DUP	Lab ID: K2214991-012
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Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	0.65		0.09	0.50	ug/L	200.8
Manganese, Dissolved	7250		0.04	0.20	ug/L	200.8

CLIENT ID: BY-OSBT-MW-15V-PM-D2-BUF2	Lab ID: K2214991-013
---	-----------------------------

Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	26.2		0.09	0.50	ug/L	200.8
Manganese, Dissolved	5040		0.04	0.20	ug/L	200.8

CLIENT ID: BY-OSBT-MW-15V-PM-D3-BUF	Lab ID: K2214991-014
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Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	0.56		0.09	0.50	ug/L	200.8
Manganese, Dissolved	3480		0.04	0.20	ug/L	200.8

CLIENT ID: BY-OSBT-MW-15V-FS-BUF	Lab ID: K2214991-015
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Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	0.81		0.09	0.50	ug/L	200.8
Cobalt, Dissolved	23.1		0.009	0.020	ug/L	200.8
Iron, Dissolved	50.5		0.3	2.0	ug/L	200.8
Manganese, Dissolved	874		0.04	0.20	ug/L	200.8



SAMPLE DETECTION SUMMARY

This form includes only detections above the reporting levels. For a full listing of sample results, continue to the Sample Results section of this Report.

CLIENT ID: BY-OSBT-MW-15V-FS-BUF2 **Lab ID: K2214991-016**

Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	0.66		0.09	0.50	ug/L	200.8
Cobalt, Dissolved	4.29		0.009	0.020	ug/L	200.8
Iron, Dissolved	83.2		0.3	2.0	ug/L	200.8
Manganese, Dissolved	532		0.04	0.20	ug/L	200.8

CLIENT ID: BY-OSBT-MW-15V-AIR-BUF **Lab ID: K2214991-017**

Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	27.5		0.09	0.50	ug/L	200.8
Cobalt, Dissolved	1.63		0.009	0.020	ug/L	200.8
Iron, Dissolved	141		0.3	2.0	ug/L	200.8
Manganese, Dissolved	164		0.04	0.20	ug/L	200.8

CLIENT ID: BY-OSBT-MW-15V-CTRL **Lab ID: K2214991-018**

Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	1.98		0.09	0.50	ug/L	200.8
Cobalt, Dissolved	90.0		0.009	0.020	ug/L	200.8
Iron, Dissolved	8510		0.3	2.0	ug/L	200.8
Manganese, Dissolved	1600		0.04	0.20	ug/L	200.8



Sample Receipt Information

ALS Environmental—Kelso Laboratory
1317 South 13th Avenue, Kelso, WA 98626
Phone (360) 577-7222 Fax (360) 425-9096
www.alsglobal.com

Client: Anchor QEA, LLC
Project: Barry/221114-08.01 Task 04


Service Request:K2214991

SAMPLE CROSS-REFERENCE

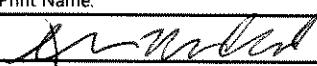
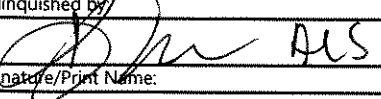
<u>SAMPLE #</u>	<u>CLIENT SAMPLE ID</u>	<u>DATE</u>	<u>TIME</u>
K2214991-001	BY-OGBT-MW-15V-PM-D1-BUF	12/14/2022	0940
K2214991-002	BY-OGBT-MW-15V-PM-D2-BUF	12/14/2022	0950
K2214991-003	BY-OGBT-MW-15V-PM-D2-BUF-DUP	12/14/2022	0955
K2214991-004	BY-OGBT-MW-15V-PM-D2-BUF2	12/14/2022	1010
K2214991-005	BY-OGBT-MW-15V-PM-D3-BUF	12/14/2022	1020
K2214991-006	BY-OGBT-MW-15V-FS-BUF	12/14/2022	1030
K2214991-007	BY-OGBT-MW-15V-FS-BUF2	12/14/2022	1040
K2214991-008	BY-OGBT-MW-15V-AIR-BUF	12/14/2022	1050
K2214991-009	BY-OGBT-MW-15V-CTRL	12/14/2022	1100
K2214991-010	BY-OSBT-MW-15V-PM-D1-BUF	12/14/2022	0945
K2214991-011	BY-OSBT-MW-15V-PM-D2-BUF	12/14/2022	1000
K2214991-012	BY-OSBT-MW-15V-PM-D2-BUF-DUP	12/14/2022	1005
K2214991-013	BY-OSBT-MW-15V-PM-D2-BUF2	12/14/2022	1015
K2214991-014	BY-OSBT-MW-15V-PM-D3-BUF	12/14/2022	1025
K2214991-015	BY-OSBT-MW-15V-FS-BUF	12/14/2022	1035
K2214991-016	BY-OSBT-MW-15V-FS-BUF2	12/14/2022	1045
K2214991-017	BY-OSBT-MW-15V-AIR-BUF	12/14/2022	1055
K2214991-018	BY-OSBT-MW-15V-CTRL	12/14/2022	1105

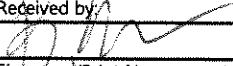

Chain of Custody Record & Laboratory Analysis Request

W2214091

Laboratory Number: 503-972-5019					No. of Containers	Parameters										 Masa Kanematsu 6720 SW Macadam Ave Suite 125 Portland OR 97219							
Date:	12/16/2022					Dissolved Metals (As, Co, Fe, Mn)																	
Project Name:	Barry																						
Project Number:	221114-08.01 Task 04																						
Project Manager:	Masa Kanematsu																						
Phone Number:	503-972-5001 (backup number: 503-798-3456)																						
Shipment Method:	ALS Carrier																						
Line	Field Sample ID	Collection		Matrix	No. of Containers															Comments/Preservation			
		Date	Time																				
1	BY-OGBT-MW-15V-PM-D1-BUF	12/14/2022	9:40	Water	1	X																HNO3 preserved. Field Filtered. KMnO4 added	
2	BY-OGBT-MW-15V-PM-D2-BUF	12/14/2022	9:50	Water	1	X																HNO3 preserved. Field Filtered. KMnO4 added	
3	BY-OGBT-MW-15V-PM-D2-BUF-DUP	12/14/2022	9:55	Water	1	X																HNO3 preserved. Field Filtered. KMnO4 added	
4	BY-OGBT-MW-15V-PM-D2-BUF2	12/14/2022	10:10	Water	1	X																HNO3 preserved. Field Filtered. KMnO4 added	
5	BY-OGBT-MW-15V-PM-D3-BUF	12/14/2022	10:20	Water	1	X																HNO3 preserved. Field Filtered. KMnO4 added	
6	BY-OGBT-MW-15V-FS-BUF	12/14/2022	10:30	Water	1	X																HNO3 preserved. Field Filtered.	
7	BY-OGBT-MW-15V-FS-BUF2	12/14/2022	10:40	Water	1	X																HNO3 preserved. Field Filtered.	
8	BY-OGBT-MW-15V-AIR-BUF	12/14/2022	10:50	Water	1	X																HNO3 preserved. Field Filtered.	
9	BY-OGBT-MW-15V-CTRL	12/14/2022	11:00	Water	1	X																HNO3 preserved. Field Filtered.	
10																							
11																							
12																							
13																							
14																							
15																							
16																							

Notes: Please Contact Masa (503-972-5001, mkanematsu@anchorqea.com) if running > 10X dilution. Please analyze by ICP-MS method 200.8 to achieve the MDL < 1 ppb. Some samples may have residual purple color associated with potassium permanganate (KMnO4). If those samples need to be diluted in order to not damage the ICP-MS, please do so and let Masa know the dilution factor.


Relinquished by:	Company:
Emma Nordlund	Anchor QEA
Signature/Print Name:	Date/Time:
	9:30 12/16/22
Relinquished by:	Company:
 ALS	12/16/22 1215
Signature/Print Name:	Date/Time:

Received by:

Signature/Print Name:
ALS 12/16/22 1025
Received by:

Signature/Print Name:
ALS 12/16/22 1215

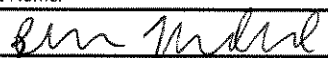
Distribution: A copy will be made for the laboratory and client. The Project file will retain the original.

Chain of Custody Record & Laboratory Analysis Request

62214991

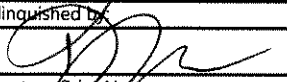
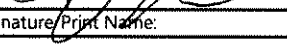
Laboratory Number: 503-972-5019					No. of Containers	Parameters												 Masa Kanematsu 6720 SW Macadam Ave Suite 125 Portland OR 97219	
Date:	12/16/2022																		
Project Name:	Barry																		
Project Number:	221114-08.01 Task 04																		
Project Manager:	Masa Kanematsu																		
Phone Number:	503-972-5001 (backup number: 503-798-3456)																		
Shipment Method:	ALS Carrier																		
Line	Field Sample ID	Collection		Matrix	No. of Containers	Dissolved Metals (As, Co, Fe, Mn)													Comments/Preservation
		Date	Time																
1	BY-OSBT-MW-15V-PM-D1-BUF	12/14/2022	9:45	Water	1	X													HNO3 preserved. Field Filtered. KMnO4 added
2	BY-OSBT-MW-15V-PM-D2-BUF	12/14/2022	10:00	Water	1	X													HNO3 preserved. Field Filtered. KMnO4 added
3	BY-OSBT-MW-15V-PM-D2-BUF-DUP	12/14/2022	10:05	Water	1	X													HNO3 preserved. Field Filtered. KMnO4 added
4	BY-OSBT-MW-15V-PM-D2-BUF2	12/14/2022	10:15	Water	1	X													HNO3 preserved. Field Filtered. KMnO4 added
5	BY-OSBT-MW-15V-PM-D3-BUF	12/14/2022	10:25	Water	1	X													HNO3 preserved. Field Filtered. KMnO4 added
6	BY-OSBT-MW-15V-FS-BUF	12/14/2022	10:35	Water	1	X													HNO3 preserved. Field Filtered.
7	BY-OSBT-MW-15V-FS-BUF2	12/14/2022	10:45	Water	1	X													HNO3 preserved. Field Filtered.
8	BY-OSBT-MW-15V-AIR-BUF	12/14/2022	10:55	Water	1	X													HNO3 preserved. Field Filtered.
9	BY-OSBT-MW-15V-CTRL	12/14/2022	11:05	Water	1	X													HNO3 preserved. Field Filtered.
10																			
11																			
12																			
13																			
14																			
15																			
16																			


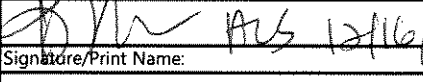
Notes: Please Contact Masa (503-972-5001, mkanematsu@anchorqea.com) if running > 10X dilution. Please analyze by ICP-MS method 200.8 to achieve the MDL < 1 ppb. Some samples may have residual purple color associated with potassium permanganate (KMnO4). If those samples need to be diluted in order to not damage the ICP-MS, please do so and let Masa know the dilution factor.

Relinquished by:	Company:
Emma Nordlund	Anchor QEA
Signature/Print Name:	Date/Time:
	9:30 12/16/22

Received by:

Signature/Print Name:
 ALS 12/16/22 1020

Relinquished by:	Company:
	ALS
Signature/Print Name:	Date/Time:
	12/16/22 1215

Received by:

Signature/Print Name:
 ALS 12/16/22 1215

Distribution: A copy will be made for the laboratory and client. The Project file will retain the original

PM MH

Cooler Receipt and Preservation Form

Client Anchovy QEA Service Request K22 14991
Received: 12/16/22 Opened: 12/16/22 By: [Signature] Unloaded: 12/16/22 By: [Signature]

- 1. Samples were received via? USPS Fed Ex UPS DHL PDX Courier Hand Delivered
- 2. Samples were received in: (circle) Cooler Box Envelope Other NA
- 3. Were custody seals on coolers? NA Y N If yes, how many and where? _____
If present, were custody seals intact? Y N If present, were they signed and dated? Y N

Temp Blank	Sample Temp	IR Gun	Cooler #/COC ID/NA	Out of temp indicate with "X"	PM Notified if out of temp	Tracking Number NA	Filed
4.6		JPO1		—	—		
5.0		u		—	—		
4.2		u		—	—		

- 4. Was a Temperature Blank present in cooler? NA Y N If yes, notate the temperature in the appropriate column above:
If no, take the temperature of a representative sample bottle contained within the cooler; notate in the column "Sample Temp":
- 5. Were samples received within the method specified temperature ranges? NA Y N
If no, were they received on ice and same day as collected? If not, notate the cooler # above and notify the PM. NA Y N
- If applicable, tissue samples were received: Frozen Partially Thawed Thawed
- 6. Packing material: Inserts Baggies Bubble Wrap Gel Packs Wet Ice Dry Ice Sleeves _____
- 7. Were custody papers properly filled out (ink, signed, etc.)? NA Y N
- 8. Were samples received in good condition (unbroken) NA Y N
- 9. Were all sample labels complete (ie, analysis, preservation, etc.)? NA Y N
- 10. Did all sample labels and tags agree with custody papers? NA Y N
- 11. Were appropriate bottles/containers and volumes received for the tests indicated? NA Y N
- 12. Were the pH-preserved bottles (see.SMO GEN SOP) received at the appropriate pH? Indicate in the table below NA Y N
- 13. Were VOA vials received without headspace? Indicate in the table below NA Y N
- 14. Was C12/Res negative? NA Y N
- 15. Were samples received within the method specified time limit? If not, notate the error below and notify the PM NA Y N
- 16. Were 100ml sterile microbiology bottles filled exactly to the 100ml mark? NA Y N Underfilled Overfilled

Sample ID on Bottle	Sample ID on COC	Identified by:

Sample ID	Bottle Count	Bottle Type	Head-space	Broke	pH	Reagent	Volume added	Reagent Lot Number	Initials	Time

Notes, Discrepancies, Resolutions: Didn't pH due to limited sample volume. Rec'd (1) sample
BY OSBT MW 15V PM-DI-BUF not on COC
 G:\SMO\2022 Forms SOP: SMO-GEN 12/19/22 Reviewed: 12/9/2022



Miscellaneous Forms

ALS Environmental—Kelso Laboratory
1317 South 13th Avenue, Kelso, WA 98626
Phone (360) 577-7222 Fax (360) 425-9096
www.alsglobal.com

Inorganic Data Qualifiers

- * The result is an outlier. See case narrative.
- # The control limit criteria is not applicable.
- B The analyte was found in the associated method blank at a level that is significant relative to the sample result as defined by the DOD or NELAC standards.
- E The result is an estimate amount because the value exceeded the instrument calibration range.
- J The result is an estimated value.
- U The analyte was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL.
DOD-QSM 4.2 definition : Analyte was not detected and is reported as less than the LOD or as defined by the project. The detection limit is adjusted for dilution.
- i The MRL/MDL or LOQ/LOD is elevated due to a matrix interference.
- X See case narrative.
- Q See case narrative. One or more quality control criteria was outside the limits.
- H The holding time for this test is immediately following sample collection. The samples were analyzed as soon as possible after receipt by the laboratory.

Metals Data Qualifiers

- # The control limit criteria is not applicable.
- J The result is an estimated value.
- E The percent difference for the serial dilution was greater than 10%, indicating a possible matrix interference in the sample.
- M The duplicate injection precision was not met.
- N The Matrix Spike sample recovery is not within control limits. See case narrative.
- S The reported value was determined by the Method of Standard Additions (MSA).
- U The analyte was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL.
DOD-QSM 4.2 definition : Analyte was not detected and is reported as less than the LOD or as defined by the project. The detection limit is adjusted for dilution.
- W The post-digestion spike for furnace AA analysis is out of control limits, while sample absorbance is less than 50% of spike absorbance.
 - i The MRL/MDL or LOQ/LOD is elevated due to a matrix interference.
- X See case narrative.
- + The correlation coefficient for the MSA is less than 0.995.
- Q See case narrative. One or more quality control criteria was outside the limits.

Organic Data Qualifiers

- * The result is an outlier. See case narrative.
- # The control limit criteria is not applicable. See case narrative.
- A A tentatively identified compound, a suspected aldol-condensation product.
- B The analyte was found in the associated method blank at a level that is significant relative to the sample result as defined by the DOD or NELAC standards.
- C The analyte was qualitatively confirmed using GC/MS techniques, pattern recognition, or by comparing to historical data.
- D The reported result is from a dilution.
- E The result is an estimated value.
- J The result is an estimated value.
- N The result is presumptive. The analyte was tentatively identified, but a confirmation analysis was not performed.
- P The GC or HPLC confirmation criteria was exceeded. The relative percent difference is greater than 40% between the two analytical results.
- U The analyte was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL.
DOD-QSM 4.2 definition : Analyte was not detected and is reported as less than the LOD or as defined by the project. The detection limit is adjusted for dilution.
 - i The MRL/MDL or LOQ/LOD is elevated due to a chromatographic interference.
- X See case narrative.
- Q See case narrative. One or more quality control criteria was outside the limits.

Additional Petroleum Hydrocarbon Specific Qualifiers

- F The chromatographic fingerprint of the sample matches the elution pattern of the calibration standard.
- L The chromatographic fingerprint of the sample resembles a petroleum product, but the elution pattern indicates the presence of a greater amount of lighter molecular weight constituents than the calibration standard.
- H The chromatographic fingerprint of the sample resembles a petroleum product, but the elution pattern indicates the presence of a greater amount of heavier molecular weight constituents than the calibration standard.
- O The chromatographic fingerprint of the sample resembles an oil, but does not match the calibration standard.
- Y The chromatographic fingerprint of the sample resembles a petroleum product eluting in approximately the correct carbon range, but the elution pattern does not match the calibration standard.
- Z The chromatographic fingerprint does not resemble a petroleum product.

**ALS Group USA Corp. dba ALS Environmental (ALS) - Kelso
State Certifications, Accreditations, and Licenses**

Agency	Web Site	Number
Alaska DEH	http://dec.alaska.gov/eh/lab/cs/csapproval.htm	UST-040
Arizona DHS	http://www.azdhs.gov/lab/license/env.htm	AZ0339
Arkansas - DEQ	http://www.adeq.state.ar.us/techsvs/labcert.htm	88-0637
California DHS (ELAP)	http://www.cdph.ca.gov/certlic/labs/Pages/ELAP.aspx	2795
DOD ELAP	http://www.denix.osd.mil/edqw/Accreditation/AccreditedLabs.cfm	L16-58-R4
Florida DOH	http://www.doh.state.fl.us/lab/EnvLabCert/WaterCert.htm	E87412
Hawaii DOH	http://health.hawaii.gov/	-
ISO 17025	http://www.pjllabs.com/	L16-57
Louisiana DEQ	http://www.deq.louisiana.gov/page/la-lab-accreditation	03016
Maine DHS	http://www.maine.gov/dhhs/	WA01276
Minnesota DOH	http://www.health.state.mn.us/accreditation	053-999-457
Nevada DEP	http://ndep.nv.gov/bsdw/labservice.htm	WA01276
New Jersey DEP	http://www.nj.gov/dep/enforcement/oqa.html	WA005
New York - DOH	https://www.wadsworth.org/regulatory/elap	12060
North Carolina DEQ	https://deq.nc.gov/about/divisions/water-resources/water-resources-data/water-sciences-home-page/laboratory-certification-branch/non-field-lab-certification	605
Oklahoma DEQ	http://www.deq.state.ok.us/CSDnew/labcert.htm	9801
Oregon – DEQ (NELAP)	http://public.health.oregon.gov/LaboratoryServices/EnvironmentalLaboratoryAccreditation/Pages/index.aspx	WA100010
South Carolina DHEC	http://www.scdhec.gov/environment/EnvironmentalLabCertification/	61002
Texas CEQ	http://www.tceq.texas.gov/field/qa/env_lab_accreditation.html	T104704427
Washington DOE	http://www.ecy.wa.gov/programs/eap/labs/lab-accreditation.html	C544
Wyoming (EPA Region 8)	https://www.epa.gov/region8-waterops/epa-region-8-certified-drinking-water	-
Kelso Laboratory Website	www.alsglobal.com	NA

Analyses were performed according to our laboratory's NELAP-approved quality assurance program. A complete listing of specific NELAP-certified analytes, can be found in the certification section at www.ALSGlobal.com or at the accreditation bodies web site.

Please refer to the certification and/or accreditation body's web site if samples are submitted for compliance purposes. The states highlighted above, require the analysis be listed on the state certification if used for compliance purposes and if the method/analyte is offered by that state.

Acronyms

ASTM	American Society for Testing and Materials
A2LA	American Association for Laboratory Accreditation
CARB	California Air Resources Board
CAS Number	Chemical Abstract Service registry Number
CFC	Chlorofluorocarbon
CFU	Colony-Forming Unit
DEC	Department of Environmental Conservation
DEQ	Department of Environmental Quality
DHS	Department of Health Services
DOE	Department of Ecology
DOH	Department of Health
EPA	U. S. Environmental Protection Agency
ELAP	Environmental Laboratory Accreditation Program
GC	Gas Chromatography
GC/MS	Gas Chromatography/Mass Spectrometry
LOD	Limit of Detection
LOQ	Limit of Quantitation
LUFT	Leaking Underground Fuel Tank
M	Modified
MCL	Maximum Contaminant Level is the highest permissible concentration of a substance allowed in drinking water as established by the USEPA.
MDL	Method Detection Limit
MPN	Most Probable Number
MRL	Method Reporting Limit
NA	Not Applicable
NC	Not Calculated
NCASI	National Council of the Paper Industry for Air and Stream Improvement
ND	Not Detected
NIOSH	National Institute for Occupational Safety and Health
PQL	Practical Quantitation Limit
RCRA	Resource Conservation and Recovery Act
SIM	Selected Ion Monitoring
TPH	Total Petroleum Hydrocarbons
tr	Trace level is the concentration of an analyte that is less than the PQL but greater than or equal to the MDL.

ALS Group USA, Corp.
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Analyst Summary report

Client: Anchor QEA, LLC
Project: Barry/221114-08.01 Task 04

Service Request: K2214991

Sample Name: BY-OGBT-MW-15V-PM-D1-BUF
Lab Code: K2214991-001
Sample Matrix: Water

Date Collected: 12/14/22
Date Received: 12/16/22

Analysis Method
200.8

Extracted/Digested By
ACOUCH

Analyzed By
EMCALLISTER

Sample Name: BY-OGBT-MW-15V-PM-D2-BUF
Lab Code: K2214991-002
Sample Matrix: Water

Date Collected: 12/14/22
Date Received: 12/16/22

Analysis Method
200.8

Extracted/Digested By
ACOUCH

Analyzed By
EMCALLISTER

Sample Name: BY-OGBT-MW-15V-PM-D2-BUF-DUP
Lab Code: K2214991-003
Sample Matrix: Water

Date Collected: 12/14/22
Date Received: 12/16/22

Analysis Method
200.8

Extracted/Digested By
ACOUCH

Analyzed By
EMCALLISTER

Sample Name: BY-OGBT-MW-15V-PM-D2-BUF2
Lab Code: K2214991-004
Sample Matrix: Water

Date Collected: 12/14/22
Date Received: 12/16/22

Analysis Method
200.8

Extracted/Digested By
ACOUCH

Analyzed By
EMCALLISTER

Sample Name: BY-OGBT-MW-15V-PM-D3-BUF
Lab Code: K2214991-005
Sample Matrix: Water

Date Collected: 12/14/22
Date Received: 12/16/22

Analysis Method
200.8

Extracted/Digested By
ACOUCH

Analyzed By
EMCALLISTER

ALS Group USA, Corp.
dba ALS Environmental

Analyst Summary report

Client: Anchor QEA, LLC
Project: Barry/221114-08.01 Task 04

Service Request: K2214991

Sample Name: BY-OGBT-MW-15V-FS-BUF
Lab Code: K2214991-006
Sample Matrix: Water

Date Collected: 12/14/22
Date Received: 12/16/22

Analysis Method
200.8

Extracted/Digested By
ACOUCH

Analyzed By
EMCALLISTER

Sample Name: BY-OGBT-MW-15V-FS-BUF2
Lab Code: K2214991-007
Sample Matrix: Water

Date Collected: 12/14/22
Date Received: 12/16/22

Analysis Method
200.8

Extracted/Digested By
ACOUCH

Analyzed By
EMCALLISTER

Sample Name: BY-OGBT-MW-15V-AIR-BUF
Lab Code: K2214991-008
Sample Matrix: Water

Date Collected: 12/14/22
Date Received: 12/16/22

Analysis Method
200.8

Extracted/Digested By
ACOUCH

Analyzed By
EMCALLISTER

Sample Name: BY-OGBT-MW-15V-CTRL
Lab Code: K2214991-009
Sample Matrix: Water

Date Collected: 12/14/22
Date Received: 12/16/22

Analysis Method
200.8

Extracted/Digested By
ACOUCH

Analyzed By
EMCALLISTER

Sample Name: BY-OSBT-MW-15V-PM-D1-BUF
Lab Code: K2214991-010
Sample Matrix: Water

Date Collected: 12/14/22
Date Received: 12/16/22

Analysis Method
200.8

Extracted/Digested By
ACOUCH

Analyzed By
EMCALLISTER

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Analyst Summary report

Client: Anchor QEA, LLC
Project: Barry/221114-08.01 Task 04

Service Request: K2214991

Sample Name: BY-OSBT-MW-15V-PM-D2-BUF
Lab Code: K2214991-011
Sample Matrix: Water

Date Collected: 12/14/22
Date Received: 12/16/22

Analysis Method
200.8

Extracted/Digested By
ACOUCH

Analyzed By
EMCALLISTER

Sample Name: BY-OSBT-MW-15V-PM-D2-BUF-DUP
Lab Code: K2214991-012
Sample Matrix: Water

Date Collected: 12/14/22
Date Received: 12/16/22

Analysis Method
200.8

Extracted/Digested By
ACOUCH

Analyzed By
EMCALLISTER

Sample Name: BY-OSBT-MW-15V-PM-D2-BUF2
Lab Code: K2214991-013
Sample Matrix: Water

Date Collected: 12/14/22
Date Received: 12/16/22

Analysis Method
200.8

Extracted/Digested By
ACOUCH

Analyzed By
EMCALLISTER

Sample Name: BY-OSBT-MW-15V-PM-D3-BUF
Lab Code: K2214991-014
Sample Matrix: Water

Date Collected: 12/14/22
Date Received: 12/16/22

Analysis Method
200.8

Extracted/Digested By
ACOUCH

Analyzed By
EMCALLISTER

Sample Name: BY-OSBT-MW-15V-FS-BUF
Lab Code: K2214991-015
Sample Matrix: Water

Date Collected: 12/14/22
Date Received: 12/16/22

Analysis Method
200.8

Extracted/Digested By
ACOUCH

Analyzed By
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Analyst Summary report

Client: Anchor QEA, LLC
Project: Barry/221114-08.01 Task 04

Service Request: K2214991

Sample Name: BY-OSBT-MW-15V-FS-BUF2
Lab Code: K2214991-016
Sample Matrix: Water

Date Collected: 12/14/22
Date Received: 12/16/22

Analysis Method
200.8

Extracted/Digested By
ACOUCH

Analyzed By
EMCALLISTER

Sample Name: BY-OSBT-MW-15V-AIR-BUF
Lab Code: K2214991-017
Sample Matrix: Water

Date Collected: 12/14/22
Date Received: 12/16/22

Analysis Method
200.8

Extracted/Digested By
ACOUCH

Analyzed By
EMCALLISTER

Sample Name: BY-OSBT-MW-15V-CTRL
Lab Code: K2214991-018
Sample Matrix: Water

Date Collected: 12/14/22
Date Received: 12/16/22

Analysis Method
200.8

Extracted/Digested By
ACOUCH

Analyzed By
EMCALLISTER



Sample Results

ALS Environmental—Kelso Laboratory
1317 South 13th Avenue, Kelso, WA 98626
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www.alsglobal.com



Metals

ALS Environmental—Kelso Laboratory
1317 South 13th Avenue, Kelso, WA 98626
Phone (360) 577-7222 Fax (360) 425-9096
www.alsglobal.com

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Analytical Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.01 Task 04
Sample Matrix: Water

Service Request: K2214991
Date Collected: 12/14/22 09:40
Date Received: 12/16/22 12:15

Sample Name: BY-OGBT-MW-15V-PM-D1-BUF
Lab Code: K2214991-001

Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	1.33	ug/L	0.50	0.09	1	12/27/22 14:11	12/21/22	
Cobalt	200.8	0.010 J	ug/L	0.020	0.009	1	12/27/22 14:11	12/21/22	
Iron	200.8	ND U	ug/L	2.0	0.3	1	12/27/22 14:11	12/21/22	
Manganese	200.8	1470	ug/L	0.20	0.04	1	12/27/22 14:11	12/21/22	

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Analytical Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.01 Task 04
Sample Matrix: Water

Service Request: K2214991
Date Collected: 12/14/22 09:50
Date Received: 12/16/22 12:15

Sample Name: BY-OGBT-MW-15V-PM-D2-BUF
Lab Code: K2214991-002

Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	0.39 J	ug/L	0.50	0.09	1	12/27/22 14:13	12/21/22	
Cobalt	200.8	ND U	ug/L	0.020	0.009	1	12/27/22 14:13	12/21/22	
Iron	200.8	ND U	ug/L	2.0	0.3	1	12/27/22 14:13	12/21/22	
Manganese	200.8	8920	ug/L	4.0	0.8	20	12/27/22 15:02	12/21/22	

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Analytical Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.01 Task 04
Sample Matrix: Water

Service Request: K2214991
Date Collected: 12/14/22 09:55
Date Received: 12/16/22 12:15

Sample Name: BY-OGBT-MW-15V-PM-D2-BUF-DUP
Lab Code: K2214991-003

Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	0.43 J	ug/L	0.50	0.09	1	12/27/22 14:14	12/21/22	
Cobalt	200.8	ND U	ug/L	0.020	0.009	1	12/27/22 14:14	12/21/22	
Iron	200.8	ND U	ug/L	2.0	0.3	1	12/27/22 14:14	12/21/22	
Manganese	200.8	6880	ug/L	0.20	0.04	1	12/27/22 14:14	12/21/22	

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Analytical Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.01 Task 04
Sample Matrix: Water

Service Request: K2214991
Date Collected: 12/14/22 10:10
Date Received: 12/16/22 12:15

Sample Name: BY-OGBT-MW-15V-PM-D2-BUF2
Lab Code: K2214991-004

Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	27.7	ug/L	0.50	0.09	1	12/27/22 14:15	12/21/22	
Cobalt	200.8	ND U	ug/L	0.020	0.009	1	12/27/22 14:15	12/21/22	
Iron	200.8	ND U	ug/L	2.0	0.3	1	12/27/22 14:15	12/21/22	
Manganese	200.8	4040	ug/L	0.20	0.04	1	12/27/22 14:15	12/21/22	

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Analytical Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.01 Task 04
Sample Matrix: Water

Service Request: K2214991
Date Collected: 12/14/22 10:20
Date Received: 12/16/22 12:15

Sample Name: BY-OGBT-MW-15V-PM-D3-BUF
Lab Code: K2214991-005

Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	0.59	ug/L	0.50	0.09	1	12/27/22 14:17	12/21/22	
Cobalt	200.8	ND U	ug/L	0.020	0.009	1	12/27/22 14:17	12/21/22	
Iron	200.8	ND U	ug/L	2.0	0.3	1	12/27/22 14:17	12/21/22	
Manganese	200.8	13200	ug/L	4.0	0.8	20	12/27/22 15:04	12/21/22	

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Analytical Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.01 Task 04
Sample Matrix: Water
Sample Name: BY-OGBT-MW-15V-FS-BUF
Lab Code: K2214991-006

Service Request: K2214991
Date Collected: 12/14/22 10:30
Date Received: 12/16/22 12:15
Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	1.24	ug/L	0.50	0.09	1	12/27/22 14:18	12/21/22	
Cobalt	200.8	28.2	ug/L	0.020	0.009	1	12/27/22 14:18	12/21/22	
Iron	200.8	724	ug/L	2.0	0.3	1	12/27/22 14:18	12/21/22	
Manganese	200.8	938	ug/L	0.20	0.04	1	12/27/22 14:18	12/21/22	

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Analytical Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.01 Task 04
Sample Matrix: Water
Sample Name: BY-OGBT-MW-15V-FS-BUF2
Lab Code: K2214991-007

Service Request: K2214991
Date Collected: 12/14/22 10:40
Date Received: 12/16/22 12:15

Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	1.19	ug/L	0.50	0.09	1	12/27/22 14:32	12/21/22	
Cobalt	200.8	1.10	ug/L	0.020	0.009	1	12/27/22 14:32	12/21/22	
Iron	200.8	159	ug/L	2.0	0.3	1	12/27/22 14:32	12/21/22	
Manganese	200.8	262	ug/L	0.20	0.04	1	12/27/22 14:32	12/21/22	

ALS Group USA, Corp.
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Analytical Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.01 Task 04
Sample Matrix: Water
Sample Name: BY-OGBT-MW-15V-AIR-BUF
Lab Code: K2214991-008

Service Request: K2214991
Date Collected: 12/14/22 10:50
Date Received: 12/16/22 12:15

Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	27.3	ug/L	0.50	0.09	1	12/27/22 14:36	12/21/22	
Cobalt	200.8	4.04	ug/L	0.020	0.009	1	12/27/22 14:36	12/21/22	
Iron	200.8	18.4	ug/L	2.0	0.3	1	12/27/22 14:36	12/21/22	
Manganese	200.8	278	ug/L	0.20	0.04	1	12/27/22 14:36	12/21/22	

ALS Group USA, Corp.
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Analytical Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.01 Task 04
Sample Matrix: Water
Sample Name: BY-OGBT-MW-15V-CTRL
Lab Code: K2214991-009

Service Request: K2214991
Date Collected: 12/14/22 11:00
Date Received: 12/16/22 12:15
Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	1.89	ug/L	0.50	0.09	1	12/27/22 14:38	12/21/22	
Cobalt	200.8	67.6	ug/L	0.020	0.009	1	12/27/22 14:38	12/21/22	
Iron	200.8	28000	ug/L	2.0	0.3	1	12/27/22 14:38	12/21/22	
Manganese	200.8	1020	ug/L	0.20	0.04	1	12/27/22 14:38	12/21/22	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.01 Task 04
Sample Matrix: Water

Service Request: K2214991
Date Collected: 12/14/22 09:45
Date Received: 12/16/22 12:15

Sample Name: BY-OSBT-MW-15V-PM-D1-BUF
Lab Code: K2214991-010

Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	1.29	ug/L	0.50	0.09	1	12/27/22 14:39	12/21/22	
Cobalt	200.8	0.010 J	ug/L	0.020	0.009	1	12/27/22 14:39	12/21/22	
Iron	200.8	1.4 J	ug/L	2.0	0.3	1	12/27/22 14:39	12/21/22	
Manganese	200.8	3150	ug/L	0.20	0.04	1	12/27/22 14:39	12/21/22	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.01 Task 04
Sample Matrix: Water

Service Request: K2214991
Date Collected: 12/14/22 10:00
Date Received: 12/16/22 12:15

Sample Name: BY-OSBT-MW-15V-PM-D2-BUF
Lab Code: K2214991-011

Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	0.79	ug/L	0.50	0.09	1	12/27/22 14:40	12/21/22	
Cobalt	200.8	ND U	ug/L	0.020	0.009	1	12/27/22 14:40	12/21/22	
Iron	200.8	ND U	ug/L	2.0	0.3	1	12/27/22 14:40	12/21/22	
Manganese	200.8	6250	ug/L	0.20	0.04	1	12/27/22 14:40	12/21/22	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.01 Task 04
Sample Matrix: Water

Service Request: K2214991
Date Collected: 12/14/22 10:05
Date Received: 12/16/22 12:15

Sample Name: BY-OSBT-MW-15V-PM-D2-BUF-DUP
Lab Code: K2214991-012

Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	0.65	ug/L	0.50	0.09	1	12/27/22 14:42	12/21/22	
Cobalt	200.8	ND U	ug/L	0.020	0.009	1	12/27/22 14:42	12/21/22	
Iron	200.8	ND U	ug/L	2.0	0.3	1	12/27/22 14:42	12/21/22	
Manganese	200.8	7250	ug/L	0.20	0.04	1	12/27/22 14:42	12/21/22	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.01 Task 04
Sample Matrix: Water

Service Request: K2214991
Date Collected: 12/14/22 10:15
Date Received: 12/16/22 12:15

Sample Name: BY-OSBT-MW-15V-PM-D2-BUF2
Lab Code: K2214991-013

Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	26.2	ug/L	0.50	0.09	1	12/27/22 14:43	12/21/22	
Cobalt	200.8	ND U	ug/L	0.020	0.009	1	12/27/22 14:43	12/21/22	
Iron	200.8	ND U	ug/L	2.0	0.3	1	12/27/22 14:43	12/21/22	
Manganese	200.8	5040	ug/L	0.20	0.04	1	12/27/22 14:43	12/21/22	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.01 Task 04
Sample Matrix: Water

Service Request: K2214991
Date Collected: 12/14/22 10:25
Date Received: 12/16/22 12:15

Sample Name: BY-OSBT-MW-15V-PM-D3-BUF
Lab Code: K2214991-014

Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	0.56	ug/L	0.50	0.09	1	12/27/22 14:45	12/21/22	
Cobalt	200.8	ND U	ug/L	0.020	0.009	1	12/27/22 14:45	12/21/22	
Iron	200.8	ND U	ug/L	2.0	0.3	1	12/27/22 14:45	12/21/22	
Manganese	200.8	3480	ug/L	0.20	0.04	1	12/27/22 14:45	12/21/22	

ALS Group USA, Corp.
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Analytical Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.01 Task 04
Sample Matrix: Water
Sample Name: BY-OSBT-MW-15V-FS-BUF
Lab Code: K2214991-015

Service Request: K2214991
Date Collected: 12/14/22 10:35
Date Received: 12/16/22 12:15
Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	0.81	ug/L	0.50	0.09	1	12/27/22 14:57	12/21/22	
Cobalt	200.8	23.1	ug/L	0.020	0.009	1	12/27/22 14:57	12/21/22	
Iron	200.8	50.5	ug/L	2.0	0.3	1	12/27/22 14:57	12/21/22	
Manganese	200.8	874	ug/L	0.20	0.04	1	12/27/22 14:57	12/21/22	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.01 Task 04
Sample Matrix: Water
Sample Name: BY-OSBT-MW-15V-FS-BUF2
Lab Code: K2214991-016

Service Request: K2214991
Date Collected: 12/14/22 10:45
Date Received: 12/16/22 12:15
Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	0.66	ug/L	0.50	0.09	1	12/27/22 14:58	12/21/22	
Cobalt	200.8	4.29	ug/L	0.020	0.009	1	12/27/22 14:58	12/21/22	
Iron	200.8	83.2	ug/L	2.0	0.3	1	12/27/22 14:58	12/21/22	
Manganese	200.8	532	ug/L	0.20	0.04	1	12/27/22 14:58	12/21/22	

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dba ALS Environmental

Analytical Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.01 Task 04
Sample Matrix: Water
Sample Name: BY-OSBT-MW-15V-AIR-BUF
Lab Code: K2214991-017

Service Request: K2214991
Date Collected: 12/14/22 10:55
Date Received: 12/16/22 12:15

Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	27.5	ug/L	0.50	0.09	1	12/27/22 15:00	12/21/22	
Cobalt	200.8	1.63	ug/L	0.020	0.009	1	12/27/22 15:00	12/21/22	
Iron	200.8	141	ug/L	2.0	0.3	1	12/27/22 15:00	12/21/22	
Manganese	200.8	164	ug/L	0.20	0.04	1	12/27/22 15:00	12/21/22	

ALS Group USA, Corp.
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Analytical Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.01 Task 04
Sample Matrix: Water
Sample Name: BY-OSBT-MW-15V-CTRL
Lab Code: K2214991-018

Service Request: K2214991
Date Collected: 12/14/22 11:05
Date Received: 12/16/22 12:15
Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	1.98	ug/L	0.50	0.09	1	12/27/22 15:01	12/21/22	
Cobalt	200.8	90.0	ug/L	0.020	0.009	1	12/27/22 15:01	12/21/22	
Iron	200.8	8510	ug/L	2.0	0.3	1	12/27/22 15:01	12/21/22	
Manganese	200.8	1600	ug/L	0.20	0.04	1	12/27/22 15:01	12/21/22	



QC Summary Forms

ALS Environmental—Kelso Laboratory
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Metals

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ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.01 Task 04
Sample Matrix: Water
Sample Name: Method Blank
Lab Code: KQ2222458-01

Service Request: K2214991
Date Collected: NA
Date Received: NA
Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	ND U	ug/L	0.50	0.09	1	12/27/22 14:08	12/21/22	
Cobalt	200.8	ND U	ug/L	0.020	0.009	1	12/27/22 14:08	12/21/22	
Iron	200.8	0.5 J	ug/L	2.0	0.3	1	12/27/22 14:08	12/21/22	
Manganese	200.8	0.05 J	ug/L	0.20	0.04	1	12/27/22 14:08	12/21/22	

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dba ALS Environmental

QA/QC Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.01 Task 04
Sample Matrix: Water

Service Request: K2214991
Date Collected: 12/14/22
Date Received: 12/16/22
Date Analyzed: 12/27/22
Date Extracted: 12/21/22

Matrix Spike Summary
Dissolved Metals

Sample Name: BY-OGBT-MW-15V-FS-BUF
Lab Code: K2214991-006
Analysis Method: 200.8
Prep Method: EPA CLP ILM04.0

Units: ug/L
Basis: NA

Matrix Spike
KQ2222458-03

Analyte Name	Sample Result	Result	Spike Amount	% Rec	% Rec Limits
Arsenic	1.24	50.8	50.0	99	70-130
Cobalt	28.2	52.5	25.0	97	70-130
Iron	724	800	50.0	152 #	70-130
Manganese	938	981	25.0	170 #	70-130

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

Matrix Spike and Matrix Spike Duplicate Data is presented for information purposes only. The matrix may or may not be relevant to samples reported in this report. The laboratory evaluates system performance based on the LCS and LCSD control limits.

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QA/QC Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.01 Task 04
Sample Matrix: Water

Service Request: K2214991
Date Collected: 12/14/22
Date Received: 12/16/22
Date Analyzed: 12/27/22
Date Extracted: 12/21/22

Matrix Spike Summary
Dissolved Metals

Sample Name: BY-OGBT-MW-15V-FS-BUF2
Lab Code: K2214991-007
Analysis Method: 200.8
Prep Method: EPA CLP ILM04.0

Units: ug/L
Basis: NA

Matrix Spike
KQ2222458-05

Analyte Name	Sample Result	Result	Spike Amount	% Rec	% Rec Limits
Arsenic	1.19	51.8	50.0	101	70-130
Cobalt	1.10	25.3	25.0	97	70-130
Iron	159	211	50.0	105	70-130
Manganese	262	286	25.0	97 #	70-130

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

Matrix Spike and Matrix Spike Duplicate Data is presented for information purposes only. The matrix may or may not be relevant to samples reported in this report. The laboratory evaluates system performance based on the LCS and LCSD control limits.

ALS Group USA, Corp.

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QA/QC Report

Client: Anchor QEA, LLC
Project Barry/221114-08.01 Task 04
Sample Matrix: Water

Service Request: K2214991
Date Collected: 12/14/22
Date Received: 12/16/22
Date Analyzed: 12/27/22

Replicate Sample Summary
Dissolved Metals

Sample Name: BY-OGBT-MW-15V-FS-BUF
Lab Code: K2214991-006

Units: ug/L
Basis: NA

Analyte Name	Analysis Method	MRL	MDL	Sample Result	Duplicate	Average	RPD	RPD Limit
					Sample KQ2222458-04 Result			
Arsenic	200.8	0.50	0.09	1.24	1.20	1.22	3	20
Cobalt	200.8	0.020	0.009	28.2	28.3	28.3	<1	20
Iron	200.8	2.0	0.3	724	731	728	<1	20
Manganese	200.8	0.20	0.04	938	934	936	<1	20

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

ALS Group USA, Corp.

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QA/QC Report

Client: Anchor QEA, LLC
Project Barry/221114-08.01 Task 04
Sample Matrix: Water

Service Request: K2214991
Date Collected: 12/14/22
Date Received: 12/16/22
Date Analyzed: 12/27/22

Replicate Sample Summary
Dissolved Metals

Sample Name: BY-OGBT-MW-15V-FS-BUF2
Lab Code: K2214991-007

Units: ug/L
Basis: NA

Analyte Name	Analysis Method	MRL	MDL	Sample Result	Duplicate Sample	Average	RPD	RPD Limit
					KQ2222458-06 Result			
Arsenic	200.8	0.50	0.09	1.19	1.17	1.18	2	20
Cobalt	200.8	0.020	0.009	1.10	1.13	1.12	3	20
Iron	200.8	2.0	0.3	159	161	160	1	20
Manganese	200.8	0.20	0.04	262	262	262	<1	20

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.01 Task 04
Sample Matrix: Water

Service Request: K2214991
Date Analyzed: 12/27/22

Lab Control Sample Summary
Dissolved Metals

Units:ug/L
Basis:NA

Lab Control Sample
KQ2222458-02

Analyte Name	Analytical Method	Result	Spike Amount	% Rec	% Rec Limits
Arsenic	200.8	47.7	50.0	95	85-115
Cobalt	200.8	23.5	25.0	94	85-115
Iron	200.8	47.9	50.0	96	85-115
Manganese	200.8	24.5	25.0	98	85-115



May 25, 2023

Service Request No:K2305465

Masa Kanematsu
Anchor QEA, LLC
6720 SW Macadam Avenue
Suite 125
Portland, OR 97219

Laboratory Results for: Barry

Dear Masa,

Enclosed are the results of the sample(s) submitted to our laboratory May 11, 2023
For your reference, these analyses have been assigned our service request number **K2305465**.

Analyses were performed according to our laboratory's NELAP-approved quality assurance program. The test results meet requirements of the current NELAP standards, where applicable, and except as noted in the laboratory case narrative provided. For a specific list of NELAP-accredited analytes, refer to the certifications section at www.alsglobal.com. All results are intended to be considered in their entirety, and ALS Group USA Corp. dba ALS Environmental (ALS) is not responsible for use of less than the complete report. Results apply only to the items submitted to the laboratory for analysis and individual items (samples) analyzed, as listed in the report.

Please contact me if you have any questions. My extension is 3376. You may also contact me via email at Mark.Harris@alsglobal.com.

Respectfully submitted,

ALS Group USA, Corp. dba ALS Environmental

for Mark Harris
Project Manager

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ALS Group USA, Corp.
dba ALS Environmental



Narrative Documents

ALS Environmental—Kelso Laboratory
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Phone (360) 577-7222 Fax (360) 425-9096
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Client: Anchor QEA, LLC
Project: Barry
Sample Matrix: Water

Service Request: K2305465
Date Received: 05/11/2023

CASE NARRATIVE

All analyses were performed consistent with the quality assurance program of ALS Environmental. This report contains analytical results for samples for the Tier II level requested by the client.

Sample Receipt:

Twenty four water samples were received for analysis at ALS Environmental on 05/11/2023. Any discrepancies upon initial sample inspection are annotated on the sample receipt and preservation form included within this report. The samples were stored at minimum in accordance with the analytical method requirements.

Metals:

No significant anomalies were noted with this analysis.

Noel D. O'Connell

Approved by _____

Date 05/25/2023



SAMPLE DETECTION SUMMARY

This form includes only detections above the reporting levels. For a full listing of sample results, continue to the Sample Results section of this Report.

CLIENT ID: BY-COL-MW-1-PM-1	Lab ID: K2305465-001
------------------------------------	-----------------------------

Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	16.3		0.09	0.50	ug/L	200.8
Iron, Dissolved	566		0.3	2.0	ug/L	200.8
Manganese, Dissolved	513		0.04	0.40	ug/L	200.8

CLIENT ID: BY-COL-MW-8-PM-1	Lab ID: K2305465-002
------------------------------------	-----------------------------

Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	9.09		0.09	0.50	ug/L	200.8
Iron, Dissolved	36.8		0.3	2.0	ug/L	200.8
Manganese, Dissolved	21.8		0.04	0.40	ug/L	200.8

CLIENT ID: BY-COL-MW-10-PM-1	Lab ID: K2305465-003
-------------------------------------	-----------------------------

Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	6.96		0.09	0.50	ug/L	200.8
Iron, Dissolved	5.9		0.3	2.0	ug/L	200.8
Manganese, Dissolved	8940		0.04	0.40	ug/L	200.8

CLIENT ID: BY-COL-MW-15-PM-1	Lab ID: K2305465-004
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Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	5.33		0.09	0.50	ug/L	200.8
Cobalt, Dissolved	0.822		0.009	0.020	ug/L	200.8
Iron, Dissolved	12.7		0.3	2.0	ug/L	200.8
Manganese, Dissolved	33.7		0.04	0.40	ug/L	200.8

CLIENT ID: BY-COL-MW-15-FS-1	Lab ID: K2305465-005
-------------------------------------	-----------------------------

Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	0.71		0.09	0.50	ug/L	200.8
Cobalt, Dissolved	37.3		0.009	0.020	ug/L	200.8
Iron, Dissolved	1200		0.3	2.0	ug/L	200.8
Manganese, Dissolved	5680		0.04	0.40	ug/L	200.8

CLIENT ID: BY-COL-MW-24H-PM-1	Lab ID: K2305465-006
--------------------------------------	-----------------------------

Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	4.37		0.09	0.50	ug/L	200.8
Iron, Dissolved	4.8		0.3	2.0	ug/L	200.8
Manganese, Dissolved	118000		4	40	ug/L	200.8

CLIENT ID: BY-COL-MW-1-INF-1	Lab ID: K2305465-007
-------------------------------------	-----------------------------

Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	8.52		0.09	0.50	ug/L	200.8
Iron, Dissolved	80800		6	40	ug/L	200.8
Manganese, Dissolved	849		0.04	0.40	ug/L	200.8



SAMPLE DETECTION SUMMARY

This form includes only detections above the reporting levels. For a full listing of sample results, continue to the Sample Results section of this Report.

CLIENT ID: BY-COL-MW-8-INF-1	Lab ID: K2305465-008
-------------------------------------	-----------------------------

Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	857		0.09	0.50	ug/L	200.8
Iron, Dissolved	11800		0.3	2.0	ug/L	200.8
Manganese, Dissolved	198		0.04	0.40	ug/L	200.8

CLIENT ID: BY-COL-MW-10-INF-1	Lab ID: K2305465-009
--------------------------------------	-----------------------------

Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	13.1		0.09	0.50	ug/L	200.8
Iron, Dissolved	46300		6	40	ug/L	200.8
Manganese, Dissolved	1180		0.04	0.40	ug/L	200.8

CLIENT ID: BY-COL-MW-15-PM-INF-1	Lab ID: K2305465-010
---	-----------------------------

Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	32.0		0.09	0.50	ug/L	200.8
Cobalt, Dissolved	84.5		0.009	0.020	ug/L	200.8
Iron, Dissolved	47900		6	40	ug/L	200.8
Manganese, Dissolved	651		0.04	0.40	ug/L	200.8

CLIENT ID: BY-COL-MW-15-FS-INF-1	Lab ID: K2305465-011
---	-----------------------------

Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	177		0.09	0.50	ug/L	200.8
Cobalt, Dissolved	92.2		0.009	0.020	ug/L	200.8
Iron, Dissolved	42700		0.3	2.0	ug/L	200.8
Manganese, Dissolved	683		0.04	0.40	ug/L	200.8

CLIENT ID: BY-COL-MW-24H-INF-1	Lab ID: K2305465-012
---------------------------------------	-----------------------------

Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	8.14		0.09	0.50	ug/L	200.8
Iron, Dissolved	63900		6	40	ug/L	200.8
Manganese, Dissolved	214		0.04	0.40	ug/L	200.8

CLIENT ID: BY-COL-MW-1-PM-2	Lab ID: K2305465-013
------------------------------------	-----------------------------

Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	0.37	J	0.09	0.50	ug/L	200.8
Iron, Dissolved	2180		0.3	2.0	ug/L	200.8
Manganese, Dissolved	22300		0.8	8.0	ug/L	200.8

CLIENT ID: BY-COL-MW-8-PM-2	Lab ID: K2305465-014
------------------------------------	-----------------------------

Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	31.8		0.09	0.50	ug/L	200.8
Iron, Dissolved	326		0.3	2.0	ug/L	200.8
Manganese, Dissolved	4.00		0.04	0.40	ug/L	200.8



SAMPLE DETECTION SUMMARY

This form includes only detections above the reporting levels. For a full listing of sample results, continue to the Sample Results section of this Report.

CLIENT ID: BY-COL-MW-10-PM-2	Lab ID: K2305465-015
-------------------------------------	-----------------------------

Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	0.52		0.09	0.50	ug/L	200.8
Iron, Dissolved	1.9	J	0.3	2.0	ug/L	200.8
Manganese, Dissolved	4.40		0.04	0.40	ug/L	200.8

CLIENT ID: BY-COL-MW-15-PM-2	Lab ID: K2305465-016
-------------------------------------	-----------------------------

Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	0.10	J	0.09	0.50	ug/L	200.8
Cobalt, Dissolved	0.535		0.009	0.020	ug/L	200.8
Iron, Dissolved	22.2		0.3	2.0	ug/L	200.8
Manganese, Dissolved	1460		0.04	0.40	ug/L	200.8

CLIENT ID: BY-COL-MW-15-FS-2	Lab ID: K2305465-017
-------------------------------------	-----------------------------

Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	0.15	J	0.09	0.50	ug/L	200.8
Cobalt, Dissolved	44.4		0.009	0.020	ug/L	200.8
Iron, Dissolved	15800		0.3	2.0	ug/L	200.8
Manganese, Dissolved	3390		0.04	0.40	ug/L	200.8

CLIENT ID: BY-COL-MW-24H-PM-2	Lab ID: K2305465-018
--------------------------------------	-----------------------------

Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	0.22	J	0.09	0.50	ug/L	200.8
Iron, Dissolved	7.8		0.3	2.0	ug/L	200.8
Manganese, Dissolved	5.21		0.04	0.40	ug/L	200.8

CLIENT ID: BY-COL-MW-1-INF-2	Lab ID: K2305465-019
-------------------------------------	-----------------------------

Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	12.9		0.09	0.50	ug/L	200.8
Iron, Dissolved	84100		6	40	ug/L	200.8
Manganese, Dissolved	769		0.04	0.40	ug/L	200.8

CLIENT ID: BY-COL-MW-8-INF-2	Lab ID: K2305465-020
-------------------------------------	-----------------------------

Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	808		0.09	0.50	ug/L	200.8
Iron, Dissolved	11800		0.3	2.0	ug/L	200.8
Manganese, Dissolved	198		0.04	0.40	ug/L	200.8

CLIENT ID: BY-COL-MW-10-INF-2	Lab ID: K2305465-021
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Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	7.61		0.09	0.50	ug/L	200.8
Iron, Dissolved	42700		0.3	2.0	ug/L	200.8
Manganese, Dissolved	1180		0.04	0.20	ug/L	200.8



SAMPLE DETECTION SUMMARY

This form includes only detections above the reporting levels. For a full listing of sample results, continue to the Sample Results section of this Report.

CLIENT ID: BY-COL-MW-15-PM-INF-2	Lab ID: K2305465-022
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Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	5.26		0.09	0.50	ug/L	200.8
Cobalt, Dissolved	82.1		0.009	0.020	ug/L	200.8
Iron, Dissolved	48600		20	100	ug/L	200.8
Manganese, Dissolved	615		0.04	0.20	ug/L	200.8

CLIENT ID: BY-COL-MW-15-FS-INF-2	Lab ID: K2305465-023
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Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	0.84		0.09	0.50	ug/L	200.8
Cobalt, Dissolved	89.2		0.009	0.020	ug/L	200.8
Iron, Dissolved	38400		0.3	2.0	ug/L	200.8
Manganese, Dissolved	639		0.04	0.20	ug/L	200.8

CLIENT ID: BY-COL-MW-24H-INF-2	Lab ID: K2305465-024
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Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	10.5		0.09	0.50	ug/L	200.8
Iron, Dissolved	69500		20	100	ug/L	200.8
Manganese, Dissolved	198		0.04	0.20	ug/L	200.8



Sample Receipt Information

ALS Environmental—Kelso Laboratory
1317 South 13th Avenue, Kelso, WA 98626
Phone (360) 577-7222 Fax (360) 425-9096
www.alsglobal.com

Client: Anchor QEA, LLC
Project: Barry/221114-08.02 Task 06

Service Request:K2305465

SAMPLE CROSS-REFERENCE

<u>SAMPLE #</u>	<u>CLIENT SAMPLE ID</u>	<u>DATE</u>	<u>TIME</u>
K2305465-001	BY-COL-MW-1-PM-1	5/1/2023	1900
K2305465-002	BY-COL-MW-8-PM-1	5/1/2023	1905
K2305465-003	BY-COL-MW-10-PM-1	5/1/2023	1910
K2305465-004	BY-COL-MW-15-PM-1	5/1/2023	1915
K2305465-005	BY-COL-MW-15-FS-1	5/1/2023	1920
K2305465-006	BY-COL-MW-24H-PM-1	5/1/2023	1925
K2305465-007	BY-COL-MW-1-INF-1	5/1/2023	1730
K2305465-008	BY-COL-MW-8-INF-1	5/1/2023	1731
K2305465-009	BY-COL-MW-10-INF-1	5/1/2023	1732
K2305465-010	BY-COL-MW-15-PM-INF-1	5/1/2023	1733
K2305465-011	BY-COL-MW-15-FS-INF-1	5/1/2023	1734
K2305465-012	BY-COL-MW-24H-INF-1	5/1/2023	1735
K2305465-013	BY-COL-MW-1-PM-2	5/2/2023	0800
K2305465-014	BY-COL-MW-8-PM-2	5/2/2023	0801
K2305465-015	BY-COL-MW-10-PM-2	5/2/2023	0802
K2305465-016	BY-COL-MW-15-PM-2	5/2/2023	0803
K2305465-017	BY-COL-MW-15-FS-2	5/2/2023	0804
K2305465-018	BY-COL-MW-24H-PM-2	5/2/2023	0805
K2305465-019	BY-COL-MW-1-INF-2	5/2/2023	1100
K2305465-020	BY-COL-MW-8-INF-2	5/2/2023	1101
K2305465-021	BY-COL-MW-10-INF-2	5/2/2023	1102
K2305465-022	BY-COL-MW-15-PM-INF-2	5/2/2023	1103
K2305465-023	BY-COL-MW-15-FS-INF-2	5/2/2023	1104
K2305465-024	BY-COL-MW-24H-INF-2	5/2/2023	1105

Chain of Custody Record & Laboratory Analysis Request

K2305465

Laboratory Number: 503-972-5019					No. of Containers	Parameters															 ANCHOR QEA Masa Kanematsu 6720 SW Macadam Ave Suite 125 Portland OR 97219 Comments/Preservation											
Date:	5/11/2023					Dissolved Metals (As, Fe, Mn)	Dissolved Metals (As, Co, Fe, Mn)																									
Project Name:	Bary																															
Project Number:	221114-08.02 Task 06																															
Project Manager:	Masa Kanematsu																															
Phone Number:	503-972-5001 (backup number: 503-798-3456)																															
Shipment Method:	ALS Carrier																															
Line	Field Sample ID	Collection		Matrix	No.																Comments/Preservation											
		Date	Time																													
1	BY-COL-MW-1-PM-1	5/1/2023	19:00	Water	1	X																									HNO3-Preserved; 0.45um-filtered.	
2	BY-COL-MW-8-PM-1	5/1/2023	19:05	Water	1	X																									HNO3-Preserved; 0.45um-filtered.	
3	BY-COL-MW-10-PM-1	5/1/2023	19:10	Water	1	X																									HNO3-Preserved; 0.45um-filtered.	
4	BY-COL-MW-15-PM-1	5/1/2023	19:15	Water	1			X																							HNO3-Preserved; 0.45um-filtered.	
5	BY-COL-MW-15-FS-1	5/1/2023	19:20	Water	1			X																							HNO3-Preserved; 0.45um-filtered.	
6	BY-COL-MW-24H-PM-1	5/1/2023	19:25	Water	1	X																									HNO3-Preserved; 0.45um-filtered.	
7	BY-COL-MW-1-INF-1	5/1/2023	17:30	Water	1	X																									HNO3-Preserved; 0.45um-filtered.	
8	BY-COL-MW-8-INF-1	5/1/2023	17:31	Water	1	X																									HNO3-Preserved; 0.45um-filtered.	
9	BY-COL-MW-10-INF-1	5/1/2023	17:32	Water	1	X																									HNO3-Preserved; 0.45um-filtered.	
10	BY-COL-MW-15-PM-INF-1	5/1/2023	17:33	Water	1			X																							HNO3-Preserved; 0.45um-filtered.	
11	BY-COL-MW-15-FS-INF-1	5/1/2023	17:34	Water	1			X																							HNO3-Preserved; 0.45um-filtered.	
12	BY-COL-MW-24H-INF-1	5/1/2023	17:35	Water	1	X																									HNO3-Preserved; 0.45um-filtered.	
13																																
14																																
15																																
16																																
17																																
18																																
19																																
20																																

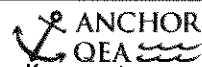
Notes: Please Contact Masa (503-972-5001, mkanematsu@anchorqea.com) if running > 10X dilution. Please analyze by ICP-MS method 200.8 to achieve the MDL < 1 ppb.

Relinquished by: Emma Nordlund	Company: Anchor QEA
Signature/Print Name:	Date/Time: 5/11/23 8:00 AM
Relinquished by:	Company: ALS
Signature/Print Name: Greg Rich	Date/Time: 5-11-23 1345

Received by:
Signature/Print Name: Greg Rich 5-11-23 1015
Received by:
Signature/Print Name: Greg Rich 5/11/23 1345

Chain of Custody Record & Laboratory Analysis Request

162305465

Laboratory Number: 503-972-5019					No. of Containers	Parameters										 ANCHOR QEA Masa Kanematsu 6720 SW Macadam Ave Suite 125 Portland OR 97219								
Date:	5/11/2023					Dissolved Metals (As, Fe, Mn)	Dissolved Metals (As, Co, Fe, Mn)																	
Project Name:	Barry																							
Project Number:	221114-08.02 Task 06																							
Project Manager:	Masa Kanematsu																							
Phone Number:	503-972-5001 (backup number: 503-798-3456)																							
Shipment Method:	ALS Carrier																							
Line	Field Sample ID	Collection		Matrix																			Comments/Preservation	
		Date	Time																					
1	BY-COL-MW-1-PM-2	5/2/2023	8:00	Water	1	X																	HNO3-Preserved; 0.45um-filtered.	
2	BY-COL-MW-8-PM-2	5/2/2023	8:01	Water	1	X																	HNO3-Preserved; 0.45um-filtered.	
3	BY-COL-MW-10-PM-2	5/2/2023	8:02	Water	1	X																	HNO3-Preserved; 0.45um-filtered.	
4	BY-COL-MW-15-PM-2	5/2/2023	8:03	Water	1		X																HNO3-Preserved; 0.45um-filtered.	
5	BY-COL-MW-15-FS-2	5/2/2023	8:04	Water	1		X																HNO3-Preserved; 0.45um-filtered.	
6	BY-COL-MW-24H-PM-2	5/2/2023	8:05	Water	1	X																	HNO3-Preserved; 0.45um-filtered.	
7	BY-COL-MW-1-INF-2	5/2/2023	11:00	Water	1	X																	HNO3-Preserved; 0.45um-filtered.	
8	BY-COL-MW-8-INF-2	5/2/2023	11:01	Water	1	X																	HNO3-Preserved; 0.45um-filtered.	
9	BY-COL-MW-10-INF-2	5/2/2023	11:02	Water	1	X																	HNO3-Preserved; 0.45um-filtered.	
10	BY-COL-MW-15-PM-INF-2	5/2/2023	11:03	Water	1		X																HNO3-Preserved; 0.45um-filtered.	
11	BY-COL-MW-15-FS-INF-2	5/2/2023	11:04	Water	1		X																HNO3-Preserved; 0.45um-filtered.	
12	BY-COL-MW-24H-INF-2	5/2/2023	11:05	Water	1	X																	HNO3-Preserved; 0.45um-filtered.	
13																								
14																								
15																								
16																								
17																								
18																								
19																								
20																								

Notes: Please Contact Masa (503-972-5001, mkanematsu@anchorqea.com) if running > 10X dilution. Please analyze by ICP-MS method 200.8 to achieve the MDL < 1 ppb.

Relinquished by: Emma Nordlund	Company: Anchor QEA
Signature/Print Name: <i>Emma Nordlund</i>	Date/Time: 5/11/23 8:00 AM
Relinquished by: <i>Greg Rich</i>	Company: ALS
Signature/Print Name: <i>Greg Rich</i>	Date/Time: 5-11-23 1345

Received by: <i>Greg Rich</i>
Signature/Print Name: <i>Greg Rich 5-11-23 1015</i>
Received by: <i>[Signature]</i>
Signature/Print Name: <i>[Signature] 5/11/23 1345</i>

Distribution: A copy will be made for the laboratory and client. The Project file will retain the original.

PM Mark

Cooler Receipt and Preservation Form

Client: Anchor Service Request K23 05465
Received: 5/11/23 Opened: 5/11/23 By: JA Unloaded: 5/11/23 By: JA

- 1. Samples were received via? USPS Fed Ex UPS DHL PDX Courier Hand Delivered
- 2. Samples were received in: (circle) Cooler Box Envelope Other NA
- 3. Were custody seals on coolers? NA Y N If yes, how many and where? _____
If present, were custody seals intact? Y N If present, were they signed and dated? Y N

Temp Blank	Sample Temp	IR Gun	Cooler #/COC ID / NA	Out of temp indicate with "X"	PM Notified if out of temp	Tracking Number <u>(NA)</u>	Filed
	<u>24.0</u>	<u>IR02</u>	<u>1054</u>				
<u>S.6</u>		<u>IR02</u>	<u>2054</u>				
<u>S.1</u>		<u>IR02</u>	<u>3054</u>				
<u>#8</u>		<u>IR02</u>	<u>4054</u>				

- 4. Was a Temperature Blank present in cooler? NA Y N If yes, notate the temperature in the appropriate column above:
If no, take the temperature of a representative sample bottle contained within the cooler; notate in the column "Sample Temp":
- 5. Were samples received within the method specified temperature ranges? NA Y N
If no, were they received on ice and same day as collected? If not, notate the cooler # above and notify the PM. NA Y N

If applicable, tissue samples were received: Frozen Partially Thawed Thawed

- 6. Packing material: Inserts Raggies Bubble Wrap Gel Packs Wet Ice Dry Ice Sleeves _____
- 7. Were custody papers properly filled out (ink, signed, etc.)? NA Y N
- 8. Were samples received in good condition (unbroken) NA Y N
- 9. Were all sample labels complete (ie, analysis, preservation, etc.)? NA Y N
- 10. Did all sample labels and tags agree with custody papers? NA Y N
- 11. Were appropriate bottles/containers and volumes received for the tests indicated? NA Y N
- 12. Were the pH-preserved bottles (see SMO GEN SOP) received at the appropriate pH? Indicate in the table below NA Y N
- 13. Were VOA vials received without headspace? Indicate in the table below NA Y N
- 14. Was C12/Res negative? NA Y N
- 15. Were samples received within the method specified time limit? If not, notate the error below and notify the PM NA Y N
- 16. Were 100ml sterile microbiology bottles filled exactly to the 100ml mark? NA Y N Underfilled Overfilled

Sample ID on Bottle	Sample ID on COC	Identified by:

Sample ID	Bottle Count	Bottle Type	Head-space	Broke	pH	Reagent	Volume added	Reagent Lot Number	Initials	Time

Notes, Discrepancies, Resolutions: Temp not an issue, samples for metals analysis



Miscellaneous Forms

ALS Environmental—Kelso Laboratory
1317 South 13th Avenue, Kelso, WA 98626
Phone (360) 577-7222 Fax (360) 425-9096
www.alsglobal.com

Inorganic Data Qualifiers

- * The result is an outlier. See case narrative.
- # The control limit criteria is not applicable.
- B The analyte was found in the associated method blank at a level that is significant relative to the sample result as defined by the DOD or NELAC standards.
- E The result is an estimate amount because the value exceeded the instrument calibration range.
- J The result is an estimated value.
- U The analyte was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL.
DOD-QSM 4.2 definition : Analyte was not detected and is reported as less than the LOD or as defined by the project. The detection limit is adjusted for dilution.
- i The MRL/MDL or LOQ/LOD is elevated due to a matrix interference.
- X See case narrative.
- Q See case narrative. One or more quality control criteria was outside the limits.
- H The holding time for this test is immediately following sample collection. The samples were analyzed as soon as possible after receipt by the laboratory.

Metals Data Qualifiers

- # The control limit criteria is not applicable.
- J The result is an estimated value.
- E The percent difference for the serial dilution was greater than 10%, indicating a possible matrix interference in the sample.
- M The duplicate injection precision was not met.
- N The Matrix Spike sample recovery is not within control limits. See case narrative.
- S The reported value was determined by the Method of Standard Additions (MSA).
- U The analyte was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL.
DOD-QSM 4.2 definition : Analyte was not detected and is reported as less than the LOD or as defined by the project. The detection limit is adjusted for dilution.
- W The post-digestion spike for furnace AA analysis is out of control limits, while sample absorbance is less than 50% of spike absorbance.
 - i The MRL/MDL or LOQ/LOD is elevated due to a matrix interference.
- X See case narrative.
- + The correlation coefficient for the MSA is less than 0.995.
- Q See case narrative. One or more quality control criteria was outside the limits.

Organic Data Qualifiers

- * The result is an outlier. See case narrative.
- # The control limit criteria is not applicable. See case narrative.
- A A tentatively identified compound, a suspected aldol-condensation product.
- B The analyte was found in the associated method blank at a level that is significant relative to the sample result as defined by the DOD or NELAC standards.
- C The analyte was qualitatively confirmed using GC/MS techniques, pattern recognition, or by comparing to historical data.
- D The reported result is from a dilution.
- E The result is an estimated value.
- J The result is an estimated value.
- N The result is presumptive. The analyte was tentatively identified, but a confirmation analysis was not performed.
- P The GC or HPLC confirmation criteria was exceeded. The relative percent difference is greater than 40% between the two analytical results.
- U The analyte was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL.
DOD-QSM 4.2 definition : Analyte was not detected and is reported as less than the LOD or as defined by the project. The detection limit is adjusted for dilution.
 - i The MRL/MDL or LOQ/LOD is elevated due to a chromatographic interference.
- X See case narrative.
- Q See case narrative. One or more quality control criteria was outside the limits.

Additional Petroleum Hydrocarbon Specific Qualifiers

- F The chromatographic fingerprint of the sample matches the elution pattern of the calibration standard.
- L The chromatographic fingerprint of the sample resembles a petroleum product, but the elution pattern indicates the presence of a greater amount of lighter molecular weight constituents than the calibration standard.
- H The chromatographic fingerprint of the sample resembles a petroleum product, but the elution pattern indicates the presence of a greater amount of heavier molecular weight constituents than the calibration standard.
- O The chromatographic fingerprint of the sample resembles an oil, but does not match the calibration standard.
- Y The chromatographic fingerprint of the sample resembles a petroleum product eluting in approximately the correct carbon range, but the elution pattern does not match the calibration standard.
- Z The chromatographic fingerprint does not resemble a petroleum product.

**ALS Group USA Corp. dba ALS Environmental (ALS) - Kelso
State Certifications, Accreditations, and Licenses**

Agency	Web Site	Number
Alaska DEH	http://dec.alaska.gov/eh/lab/cs/csapproval.htm	UST-040
Arizona DHS	http://www.azdhs.gov/lab/license/env.htm	AZ0339
Arkansas - DEQ	http://www.adeq.state.ar.us/techsvs/labcert.htm	88-0637
California DHS (ELAP)	http://www.cdph.ca.gov/certlic/labs/Pages/ELAP.aspx	2795
DOD ELAP	http://www.denix.osd.mil/edqw/Accreditation/AccreditedLabs.cfm	L16-58-R4
Florida DOH	http://www.doh.state.fl.us/lab/EnvLabCert/WaterCert.htm	E87412
Hawaii DOH	http://health.hawaii.gov/	-
ISO 17025	http://www.pjlabs.com/	L16-57
Louisiana DEQ	http://www.deq.louisiana.gov/page/la-lab-accreditation	03016
Maine DHS	http://www.maine.gov/dhhs/	WA01276
Minnesota DOH	http://www.health.state.mn.us/accreditation	053-999-457
Nevada DEP	http://ndep.nv.gov/bsdw/labservice.htm	WA01276
New Jersey DEP	http://www.nj.gov/dep/enforcement/oqa.html	WA005
New York - DOH	https://www.wadsworth.org/regulatory/elap	12060
North Carolina DEQ	https://deq.nc.gov/about/divisions/water-resources/water-resources-data/water-sciences-home-page/laboratory-certification-branch/non-field-lab-certification	605
Oklahoma DEQ	http://www.deq.state.ok.us/CSDnew/labcert.htm	9801
Oregon – DEQ (NELAP)	http://public.health.oregon.gov/LaboratoryServices/EnvironmentalLaboratoryAccreditation/Pages/index.aspx	WA100010
South Carolina DHEC	http://www.scdhec.gov/environment/EnvironmentalLabCertification/	61002
Texas CEQ	http://www.tceq.texas.gov/field/qa/env_lab_accreditation.html	T104704427
Washington DOE	http://www.ecy.wa.gov/programs/eap/labs/lab-accreditation.html	C544
Wyoming (EPA Region 8)	https://www.epa.gov/region8-waterops/epa-region-8-certified-drinking-water	-
Kelso Laboratory Website	www.alsglobal.com	NA

Analyses were performed according to our laboratory's NELAP-approved quality assurance program. A complete listing of specific NELAP-certified analytes, can be found in the certification section at www.ALSGlobal.com or at the accreditation bodies web site.

Please refer to the certification and/or accreditation body's web site if samples are submitted for compliance purposes. The states highlighted above, require the analysis be listed on the state certification if used for compliance purposes and if the method/analyte is offered by that state.

Acronyms

ASTM	American Society for Testing and Materials
A2LA	American Association for Laboratory Accreditation
CARB	California Air Resources Board
CAS Number	Chemical Abstract Service registry Number
CFC	Chlorofluorocarbon
CFU	Colony-Forming Unit
DEC	Department of Environmental Conservation
DEQ	Department of Environmental Quality
DHS	Department of Health Services
DOE	Department of Ecology
DOH	Department of Health
EPA	U. S. Environmental Protection Agency
ELAP	Environmental Laboratory Accreditation Program
GC	Gas Chromatography
GC/MS	Gas Chromatography/Mass Spectrometry
LOD	Limit of Detection
LOQ	Limit of Quantitation
LUFT	Leaking Underground Fuel Tank
M	Modified
MCL	Maximum Contaminant Level is the highest permissible concentration of a substance allowed in drinking water as established by the USEPA.
MDL	Method Detection Limit
MPN	Most Probable Number
MRL	Method Reporting Limit
NA	Not Applicable
NC	Not Calculated
NCASI	National Council of the Paper Industry for Air and Stream Improvement
ND	Not Detected
NIOSH	National Institute for Occupational Safety and Health
PQL	Practical Quantitation Limit
RCRA	Resource Conservation and Recovery Act
SIM	Selected Ion Monitoring
TPH	Total Petroleum Hydrocarbons
tr	Trace level is the concentration of an analyte that is less than the PQL but greater than or equal to the MDL.

ALS Group USA, Corp.
dba ALS Environmental

Analyst Summary report

Client: Anchor QEA, LLC
Project: Barry/221114-08.02 Task 06

Service Request: K2305465

Sample Name: BY-COL-MW-1-PM-1
Lab Code: K2305465-001
Sample Matrix: Water

Date Collected: 05/1/23
Date Received: 05/11/23

Analysis Method
200.8

Extracted/Digested By
ABOYER

Analyzed By
EMCALLISTER

Sample Name: BY-COL-MW-8-PM-1
Lab Code: K2305465-002
Sample Matrix: Water

Date Collected: 05/1/23
Date Received: 05/11/23

Analysis Method
200.8

Extracted/Digested By
ABOYER

Analyzed By
EMCALLISTER

Sample Name: BY-COL-MW-10-PM-1
Lab Code: K2305465-003
Sample Matrix: Water

Date Collected: 05/1/23
Date Received: 05/11/23

Analysis Method
200.8

Extracted/Digested By
ABOYER

Analyzed By
EMCALLISTER

Sample Name: BY-COL-MW-15-PM-1
Lab Code: K2305465-004
Sample Matrix: Water

Date Collected: 05/1/23
Date Received: 05/11/23

Analysis Method
200.8

Extracted/Digested By
ABOYER

Analyzed By
EMCALLISTER

Sample Name: BY-COL-MW-15-FS-1
Lab Code: K2305465-005
Sample Matrix: Water

Date Collected: 05/1/23
Date Received: 05/11/23

Analysis Method
200.8

Extracted/Digested By
ABOYER

Analyzed By
EMCALLISTER

ALS Group USA, Corp.
dba ALS Environmental

Analyst Summary report

Client: Anchor QEA, LLC
Project: Barry/221114-08.02 Task 06

Service Request: K2305465

Sample Name: BY-COL-MW-24H-PM-1
Lab Code: K2305465-006
Sample Matrix: Water

Date Collected: 05/1/23
Date Received: 05/11/23

Analysis Method
200.8

Extracted/Digested By
ABOYER

Analyzed By
EMCALLISTER

Sample Name: BY-COL-MW-1-INF-1
Lab Code: K2305465-007
Sample Matrix: Water

Date Collected: 05/1/23
Date Received: 05/11/23

Analysis Method
200.8

Extracted/Digested By
ABOYER

Analyzed By
EMCALLISTER

Sample Name: BY-COL-MW-8-INF-1
Lab Code: K2305465-008
Sample Matrix: Water

Date Collected: 05/1/23
Date Received: 05/11/23

Analysis Method
200.8

Extracted/Digested By
ABOYER

Analyzed By
EMCALLISTER

Sample Name: BY-COL-MW-10-INF-1
Lab Code: K2305465-009
Sample Matrix: Water

Date Collected: 05/1/23
Date Received: 05/11/23

Analysis Method
200.8

Extracted/Digested By
ABOYER

Analyzed By
EMCALLISTER

Sample Name: BY-COL-MW-15-PM-INF-1
Lab Code: K2305465-010
Sample Matrix: Water

Date Collected: 05/1/23
Date Received: 05/11/23

Analysis Method
200.8

Extracted/Digested By
ABOYER

Analyzed By
EMCALLISTER

ALS Group USA, Corp.
dba ALS Environmental

Analyst Summary report

Client: Anchor QEA, LLC
Project: Barry/221114-08.02 Task 06

Service Request: K2305465

Sample Name: BY-COL-MW-15-FS-INF-1
Lab Code: K2305465-011
Sample Matrix: Water

Date Collected: 05/1/23
Date Received: 05/11/23

Analysis Method
200.8

Extracted/Digested By
ABOYER

Analyzed By
EMCALLISTER

Sample Name: BY-COL-MW-24H-INF-1
Lab Code: K2305465-012
Sample Matrix: Water

Date Collected: 05/1/23
Date Received: 05/11/23

Analysis Method
200.8

Extracted/Digested By
ABOYER

Analyzed By
EMCALLISTER

Sample Name: BY-COL-MW-1-PM-2
Lab Code: K2305465-013
Sample Matrix: Water

Date Collected: 05/2/23
Date Received: 05/11/23

Analysis Method
200.8

Extracted/Digested By
ABOYER

Analyzed By
EMCALLISTER

Sample Name: BY-COL-MW-8-PM-2
Lab Code: K2305465-014
Sample Matrix: Water

Date Collected: 05/2/23
Date Received: 05/11/23

Analysis Method
200.8

Extracted/Digested By
ABOYER

Analyzed By
EMCALLISTER

Sample Name: BY-COL-MW-10-PM-2
Lab Code: K2305465-015
Sample Matrix: Water

Date Collected: 05/2/23
Date Received: 05/11/23

Analysis Method
200.8

Extracted/Digested By
ABOYER

Analyzed By
EMCALLISTER

ALS Group USA, Corp.
dba ALS Environmental

Analyst Summary report

Client: Anchor QEA, LLC
Project: Barry/221114-08.02 Task 06

Service Request: K2305465

Sample Name: BY-COL-MW-15-PM-2
Lab Code: K2305465-016
Sample Matrix: Water

Date Collected: 05/2/23
Date Received: 05/11/23

Analysis Method
200.8

Extracted/Digested By
ABOYER

Analyzed By
EMCALLISTER

Sample Name: BY-COL-MW-15-FS-2
Lab Code: K2305465-017
Sample Matrix: Water

Date Collected: 05/2/23
Date Received: 05/11/23

Analysis Method
200.8

Extracted/Digested By
ABOYER

Analyzed By
EMCALLISTER

Sample Name: BY-COL-MW-24H-PM-2
Lab Code: K2305465-018
Sample Matrix: Water

Date Collected: 05/2/23
Date Received: 05/11/23

Analysis Method
200.8

Extracted/Digested By
ABOYER

Analyzed By
EMCALLISTER

Sample Name: BY-COL-MW-1-INF-2
Lab Code: K2305465-019
Sample Matrix: Water

Date Collected: 05/2/23
Date Received: 05/11/23

Analysis Method
200.8

Extracted/Digested By
ABOYER

Analyzed By
EMCALLISTER

Sample Name: BY-COL-MW-8-INF-2
Lab Code: K2305465-020
Sample Matrix: Water

Date Collected: 05/2/23
Date Received: 05/11/23

Analysis Method
200.8

Extracted/Digested By
ABOYER

Analyzed By
EMCALLISTER

ALS Group USA, Corp.
dba ALS Environmental

Analyst Summary report

Client: Anchor QEA, LLC
Project: Barry/221114-08.02 Task 06

Service Request: K2305465

Sample Name: BY-COL-MW-10-INF-2
Lab Code: K2305465-021
Sample Matrix: Water

Date Collected: 05/2/23
Date Received: 05/11/23

Analysis Method
200.8

Extracted/Digested By
ABOYER

Analyzed By
JCHAN

Sample Name: BY-COL-MW-15-PM-INF-2
Lab Code: K2305465-022
Sample Matrix: Water

Date Collected: 05/2/23
Date Received: 05/11/23

Analysis Method
200.8

Extracted/Digested By
ABOYER

Analyzed By
JCHAN

Sample Name: BY-COL-MW-15-FS-INF-2
Lab Code: K2305465-023
Sample Matrix: Water

Date Collected: 05/2/23
Date Received: 05/11/23

Analysis Method
200.8

Extracted/Digested By
ABOYER

Analyzed By
JCHAN

Sample Name: BY-COL-MW-24H-INF-2
Lab Code: K2305465-024
Sample Matrix: Water

Date Collected: 05/2/23
Date Received: 05/11/23

Analysis Method
200.8

Extracted/Digested By
ABOYER

Analyzed By
JCHAN



Sample Results

ALS Environmental—Kelso Laboratory
1317 South 13th Avenue, Kelso, WA 98626
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www.alsglobal.com



Metals

ALS Environmental—Kelso Laboratory
1317 South 13th Avenue, Kelso, WA 98626
Phone (360) 577-7222 Fax (360) 425-9096
www.alsglobal.com

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.02 Task 06
Sample Matrix: Water
Sample Name: BY-COL-MW-1-PM-1
Lab Code: K2305465-001

Service Request: K2305465
Date Collected: 05/01/23 19:00
Date Received: 05/11/23 13:45
Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	16.3	ug/L	0.50	0.09	1	05/18/23 16:37	05/15/23	
Iron	200.8	566	ug/L	2.0	0.3	1	05/18/23 16:37	05/15/23	
Manganese	200.8	513	ug/L	0.40	0.04	1	05/18/23 16:37	05/15/23	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.02 Task 06
Sample Matrix: Water
Sample Name: BY-COL-MW-8-PM-1
Lab Code: K2305465-002

Service Request: K2305465
Date Collected: 05/01/23 19:05
Date Received: 05/11/23 13:45
Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	9.09	ug/L	0.50	0.09	1	05/18/23 16:39	05/15/23	
Iron	200.8	36.8	ug/L	2.0	0.3	1	05/18/23 16:39	05/15/23	
Manganese	200.8	21.8	ug/L	0.40	0.04	1	05/18/23 16:39	05/15/23	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.02 Task 06
Sample Matrix: Water
Sample Name: BY-COL-MW-10-PM-1
Lab Code: K2305465-003

Service Request: K2305465
Date Collected: 05/01/23 19:10
Date Received: 05/11/23 13:45
Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	6.96	ug/L	0.50	0.09	1	05/18/23 16:55	05/15/23	
Iron	200.8	5.9	ug/L	2.0	0.3	1	05/18/23 16:55	05/15/23	
Manganese	200.8	8940	ug/L	0.40	0.04	1	05/18/23 16:55	05/15/23	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.02 Task 06
Sample Matrix: Water
Sample Name: BY-COL-MW-15-PM-1
Lab Code: K2305465-004

Service Request: K2305465
Date Collected: 05/01/23 19:15
Date Received: 05/11/23 13:45
Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	5.33	ug/L	0.50	0.09	1	05/18/23 16:57	05/15/23	
Cobalt	200.8	0.822	ug/L	0.020	0.009	1	05/18/23 16:57	05/15/23	
Iron	200.8	12.7	ug/L	2.0	0.3	1	05/18/23 16:57	05/15/23	
Manganese	200.8	33.7	ug/L	0.40	0.04	1	05/18/23 16:57	05/15/23	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.02 Task 06
Sample Matrix: Water
Sample Name: BY-COL-MW-15-FS-1
Lab Code: K2305465-005

Service Request: K2305465
Date Collected: 05/01/23 19:20
Date Received: 05/11/23 13:45
Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	0.71	ug/L	0.50	0.09	1	05/18/23 16:58	05/15/23	
Cobalt	200.8	37.3	ug/L	0.020	0.009	1	05/18/23 16:58	05/15/23	
Iron	200.8	1200	ug/L	2.0	0.3	1	05/18/23 16:58	05/15/23	
Manganese	200.8	5680	ug/L	0.40	0.04	1	05/18/23 16:58	05/15/23	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.02 Task 06
Sample Matrix: Water
Sample Name: BY-COL-MW-24H-PM-1
Lab Code: K2305465-006

Service Request: K2305465
Date Collected: 05/01/23 19:25
Date Received: 05/11/23 13:45
Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	4.37	ug/L	0.50	0.09	1	05/18/23 16:59	05/15/23	
Iron	200.8	4.8	ug/L	2.0	0.3	1	05/18/23 16:59	05/15/23	
Manganese	200.8	118000	ug/L	40	4	100	05/18/23 17:54	05/15/23	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.02 Task 06
Sample Matrix: Water
Sample Name: BY-COL-MW-1-INF-1
Lab Code: K2305465-007

Service Request: K2305465
Date Collected: 05/01/23 17:30
Date Received: 05/11/23 13:45
Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	8.52	ug/L	0.50	0.09	1	05/18/23 17:01	05/15/23	
Iron	200.8	80800	ug/L	40	6	20	05/18/23 18:02	05/15/23	
Manganese	200.8	849	ug/L	0.40	0.04	1	05/18/23 17:01	05/15/23	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.02 Task 06
Sample Matrix: Water
Sample Name: BY-COL-MW-8-INF-1
Lab Code: K2305465-008

Service Request: K2305465
Date Collected: 05/01/23 17:31
Date Received: 05/11/23 13:45
Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	857	ug/L	0.50	0.09	1	05/18/23 16:29	05/15/23	
Iron	200.8	11800	ug/L	2.0	0.3	1	05/18/23 16:29	05/15/23	
Manganese	200.8	198	ug/L	0.40	0.04	1	05/18/23 16:29	05/15/23	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.02 Task 06
Sample Matrix: Water
Sample Name: BY-COL-MW-10-INF-1
Lab Code: K2305465-009

Service Request: K2305465
Date Collected: 05/01/23 17:32
Date Received: 05/11/23 13:45
Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	13.1	ug/L	0.50	0.09	1	05/18/23 17:03	05/15/23	
Iron	200.8	46300	ug/L	40	6	20	05/18/23 18:03	05/15/23	
Manganese	200.8	1180	ug/L	0.40	0.04	1	05/18/23 17:03	05/15/23	

ALS Group USA, Corp.
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Analytical Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.02 Task 06
Sample Matrix: Water
Sample Name: BY-COL-MW-15-PM-INF-1
Lab Code: K2305465-010

Service Request: K2305465
Date Collected: 05/01/23 17:33
Date Received: 05/11/23 13:45

Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	32.0	ug/L	0.50	0.09	1	05/18/23 17:06	05/15/23	
Cobalt	200.8	84.5	ug/L	0.020	0.009	1	05/18/23 17:06	05/15/23	
Iron	200.8	47900	ug/L	40	6	20	05/18/23 18:05	05/15/23	
Manganese	200.8	651	ug/L	0.40	0.04	1	05/18/23 17:06	05/15/23	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.02 Task 06
Sample Matrix: Water
Sample Name: BY-COL-MW-15-FS-INF-1
Lab Code: K2305465-011

Service Request: K2305465
Date Collected: 05/01/23 17:34
Date Received: 05/11/23 13:45
Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	177	ug/L	0.50	0.09	1	05/18/23 17:10	05/15/23	
Cobalt	200.8	92.2	ug/L	0.020	0.009	1	05/18/23 17:10	05/15/23	
Iron	200.8	42700	ug/L	2.0	0.3	1	05/18/23 17:10	05/15/23	
Manganese	200.8	683	ug/L	0.40	0.04	1	05/18/23 17:10	05/15/23	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.02 Task 06
Sample Matrix: Water
Sample Name: BY-COL-MW-24H-INF-1
Lab Code: K2305465-012

Service Request: K2305465
Date Collected: 05/01/23 17:35
Date Received: 05/11/23 13:45
Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	8.14	ug/L	0.50	0.09	1	05/18/23 17:11	05/15/23	
Iron	200.8	63900	ug/L	40	6	20	05/18/23 18:06	05/15/23	
Manganese	200.8	214	ug/L	0.40	0.04	1	05/18/23 17:11	05/15/23	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.02 Task 06
Sample Matrix: Water
Sample Name: BY-COL-MW-1-PM-2
Lab Code: K2305465-013

Service Request: K2305465
Date Collected: 05/02/23 08:00
Date Received: 05/11/23 13:45
Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	0.37 J	ug/L	0.50	0.09	1	05/18/23 17:13	05/15/23	
Iron	200.8	2180	ug/L	2.0	0.3	1	05/18/23 17:13	05/15/23	
Manganese	200.8	22300	ug/L	8.0	0.8	20	05/18/23 18:07	05/15/23	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.02 Task 06
Sample Matrix: Water
Sample Name: BY-COL-MW-8-PM-2
Lab Code: K2305465-014

Service Request: K2305465
Date Collected: 05/02/23 08:01
Date Received: 05/11/23 13:45
Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	31.8	ug/L	0.50	0.09	1	05/18/23 17:42	05/15/23	
Iron	200.8	326	ug/L	2.0	0.3	1	05/18/23 17:42	05/15/23	
Manganese	200.8	4.00	ug/L	0.40	0.04	1	05/18/23 17:42	05/15/23	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.02 Task 06
Sample Matrix: Water
Sample Name: BY-COL-MW-10-PM-2
Lab Code: K2305465-015

Service Request: K2305465
Date Collected: 05/02/23 08:02
Date Received: 05/11/23 13:45
Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	0.52	ug/L	0.50	0.09	1	05/18/23 17:43	05/15/23	
Iron	200.8	1.9 J	ug/L	2.0	0.3	1	05/18/23 17:43	05/15/23	
Manganese	200.8	4.40	ug/L	0.40	0.04	1	05/18/23 17:43	05/15/23	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.02 Task 06
Sample Matrix: Water
Sample Name: BY-COL-MW-15-PM-2
Lab Code: K2305465-016

Service Request: K2305465
Date Collected: 05/02/23 08:03
Date Received: 05/11/23 13:45
Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	0.10 J	ug/L	0.50	0.09	1	05/18/23 17:44	05/15/23	
Cobalt	200.8	0.535	ug/L	0.020	0.009	1	05/18/23 17:44	05/15/23	
Iron	200.8	22.2	ug/L	2.0	0.3	1	05/18/23 17:44	05/15/23	
Manganese	200.8	1460	ug/L	0.40	0.04	1	05/18/23 17:44	05/15/23	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.02 Task 06
Sample Matrix: Water
Sample Name: BY-COL-MW-15-FS-2
Lab Code: K2305465-017

Service Request: K2305465
Date Collected: 05/02/23 08:04
Date Received: 05/11/23 13:45
Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	0.15 J	ug/L	0.50	0.09	1	05/18/23 17:46	05/15/23	
Cobalt	200.8	44.4	ug/L	0.020	0.009	1	05/18/23 17:46	05/15/23	
Iron	200.8	15800	ug/L	2.0	0.3	1	05/18/23 17:46	05/15/23	
Manganese	200.8	3390	ug/L	0.40	0.04	1	05/18/23 17:46	05/15/23	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.02 Task 06
Sample Matrix: Water
Sample Name: BY-COL-MW-24H-PM-2
Lab Code: K2305465-018

Service Request: K2305465
Date Collected: 05/02/23 08:05
Date Received: 05/11/23 13:45
Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	0.22 J	ug/L	0.50	0.09	1	05/18/23 17:47	05/15/23	
Iron	200.8	7.8	ug/L	2.0	0.3	1	05/18/23 17:47	05/15/23	
Manganese	200.8	5.21	ug/L	0.40	0.04	1	05/18/23 17:47	05/15/23	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.02 Task 06
Sample Matrix: Water
Sample Name: BY-COL-MW-1-INF-2
Lab Code: K2305465-019

Service Request: K2305465
Date Collected: 05/02/23 11:00
Date Received: 05/11/23 13:45
Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	12.9	ug/L	0.50	0.09	1	05/18/23 16:33	05/15/23	
Iron	200.8	84100	ug/L	40	6	20	05/18/23 17:50	05/15/23	
Manganese	200.8	769	ug/L	0.40	0.04	1	05/18/23 16:33	05/15/23	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.02 Task 06
Sample Matrix: Water
Sample Name: BY-COL-MW-8-INF-2
Lab Code: K2305465-020

Service Request: K2305465
Date Collected: 05/02/23 11:01
Date Received: 05/11/23 13:45
Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	808	ug/L	0.50	0.09	1	05/18/23 17:48	05/15/23	
Iron	200.8	11800	ug/L	2.0	0.3	1	05/18/23 17:48	05/15/23	
Manganese	200.8	198	ug/L	0.40	0.04	1	05/18/23 17:48	05/15/23	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.02 Task 06
Sample Matrix: Water
Sample Name: BY-COL-MW-10-INF-2
Lab Code: K2305465-021

Service Request: K2305465
Date Collected: 05/02/23 11:02
Date Received: 05/11/23 13:45
Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	7.61	ug/L	0.50	0.09	1	05/24/23 08:03	05/16/23	
Iron	200.8	42700	ug/L	2.0	0.3	1	05/24/23 08:03	05/16/23	
Manganese	200.8	1180	ug/L	0.20	0.04	1	05/24/23 08:03	05/16/23	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.02 Task 06
Sample Matrix: Water
Sample Name: BY-COL-MW-15-PM-INF-2
Lab Code: K2305465-022

Service Request: K2305465
Date Collected: 05/02/23 11:03
Date Received: 05/11/23 13:45
Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	5.26	ug/L	0.50	0.09	1	05/24/23 08:07	05/16/23	
Cobalt	200.8	82.1	ug/L	0.020	0.009	1	05/24/23 08:07	05/16/23	
Iron	200.8	48600	ug/L	100	20	50	05/24/23 09:04	05/16/23	
Manganese	200.8	615	ug/L	0.20	0.04	1	05/24/23 08:07	05/16/23	

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Analytical Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.02 Task 06
Sample Matrix: Water
Sample Name: BY-COL-MW-15-FS-INF-2
Lab Code: K2305465-023

Service Request: K2305465
Date Collected: 05/02/23 11:04
Date Received: 05/11/23 13:45
Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	0.84	ug/L	0.50	0.09	1	05/24/23 08:08	05/16/23	
Cobalt	200.8	89.2	ug/L	0.020	0.009	1	05/24/23 08:08	05/16/23	
Iron	200.8	38400	ug/L	2.0	0.3	1	05/24/23 08:08	05/16/23	
Manganese	200.8	639	ug/L	0.20	0.04	1	05/24/23 08:08	05/16/23	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.02 Task 06
Sample Matrix: Water
Sample Name: BY-COL-MW-24H-INF-2
Lab Code: K2305465-024

Service Request: K2305465
Date Collected: 05/02/23 11:05
Date Received: 05/11/23 13:45
Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	10.5	ug/L	0.50	0.09	1	05/24/23 08:10	05/16/23	
Iron	200.8	69500	ug/L	100	20	50	05/24/23 09:06	05/16/23	
Manganese	200.8	198	ug/L	0.20	0.04	1	05/24/23 08:10	05/16/23	



QC Summary Forms

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www.alsglobal.com

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.02 Task 06
Sample Matrix: Water
Sample Name: Method Blank
Lab Code: KQ2308647-01

Service Request: K2305465
Date Collected: NA
Date Received: NA
Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	ND U	ug/L	0.50	0.09	1	05/18/23 16:27	05/15/23	
Cobalt	200.8	ND U	ug/L	0.020	0.009	1	05/18/23 16:27	05/15/23	
Iron	200.8	ND U	ug/L	2.0	0.3	1	05/18/23 16:27	05/15/23	
Manganese	200.8	0.05 J	ug/L	0.40	0.04	1	05/18/23 16:27	05/15/23	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.02 Task 06
Sample Matrix: Water
Sample Name: Method Blank
Lab Code: KQ2308649-01

Service Request: K2305465
Date Collected: NA
Date Received: NA
Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	ND U	ug/L	0.50	0.09	1	05/24/23 08:00	05/16/23	
Cobalt	200.8	ND U	ug/L	0.020	0.009	1	05/24/23 08:00	05/16/23	
Iron	200.8	ND U	ug/L	2.0	0.3	1	05/24/23 08:00	05/16/23	
Manganese	200.8	0.08 J	ug/L	0.20	0.04	1	05/24/23 08:00	05/16/23	

ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.02 Task 06
Sample Matrix: Water

Service Request: K2305465
Date Collected: 05/01/23
Date Received: 05/11/23
Date Analyzed: 05/18/23
Date Extracted: 05/15/23

Matrix Spike Summary
Dissolved Metals

Sample Name: BY-COL-MW-8-INF-1
Lab Code: K2305465-008
Analysis Method: 200.8
Prep Method: EPA CLP ILM04.0

Units: ug/L
Basis: NA

Matrix Spike
KQ2308647-04

Analyte Name	Sample Result	Result	Spike Amount	% Rec	% Rec Limits
Arsenic	857	913	50.0	113 #	70-130
Cobalt	0.136	26.9	25.0	107	70-130
Iron	11800	11900	50.0	325 #	70-130
Manganese	198	225	25.0	110 #	70-130

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

Matrix Spike and Matrix Spike Duplicate Data is presented for information purposes only. The matrix may or may not be relevant to samples reported in this report. The laboratory evaluates system performance based on the LCS and LCSD control limits.

ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.02 Task 06
Sample Matrix: Water

Service Request: K2305465
Date Collected: 05/02/23
Date Received: 05/11/23
Date Analyzed: 05/18/23
Date Extracted: 05/15/23

Matrix Spike Summary
Dissolved Metals

Sample Name: BY-COL-MW-1-INF-2
Lab Code: K2305465-019
Analysis Method: 200.8
Prep Method: EPA CLP ILM04.0

Units: ug/L
Basis: NA

Matrix Spike
KQ2308647-06

Analyte Name	Sample Result	Result	Spike Amount	% Rec	% Rec Limits
Arsenic	12.9	60.3	50.0	95	70-130
Cobalt	0.970	26.2	25.0	101	70-130
Iron	84100	84100	50	67 #	70-130
Manganese	769	795	25.0	102 #	70-130

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

Matrix Spike and Matrix Spike Duplicate Data is presented for information purposes only. The matrix may or may not be relevant to samples reported in this report. The laboratory evaluates system performance based on the LCS and LCSD control limits.

ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.02 Task 06
Sample Matrix: Water

Service Request: K2305465
Date Collected: 05/02/23
Date Received: 05/11/23
Date Analyzed: 05/24/23
Date Extracted: 05/16/23

Matrix Spike Summary
Dissolved Metals

Sample Name: BY-COL-MW-10-INF-2
Lab Code: K2305465-021
Analysis Method: 200.8
Prep Method: EPA CLP ILM04.0

Units: ug/L
Basis: NA

Matrix Spike
KQ2308649-04

Analyte Name	Sample Result	Result	Spike Amount	% Rec	% Rec Limits
Arsenic	7.61	56.2	50.0	97	70-130
Cobalt	0.504	24.8	25.0	97	70-130
Iron	42700	43400	50.0	1400 #	70-130
Manganese	1180	1230	25.0	172 #	70-130

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

Matrix Spike and Matrix Spike Duplicate Data is presented for information purposes only. The matrix may or may not be relevant to samples reported in this report. The laboratory evaluates system performance based on the LCS and LCSD control limits.

ALS Group USA, Corp.

dba ALS Environmental

QA/QC Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.02 Task 06
Sample Matrix: Water

Service Request: K2305465
Date Collected: 05/01/23
Date Received: 05/11/23
Date Analyzed: 05/18/23

Replicate Sample Summary
Dissolved Metals

Sample Name: BY-COL-MW-8-INF-1
Lab Code: K2305465-008

Units: ug/L
Basis: NA

Table with 9 columns: Analyte Name, Analysis Method, MRL, MDL, Sample Result, Duplicate Sample KQ2308647-03 Result, Average, RPD, RPD Limit. Rows include Arsenic, Cobalt, Iron, and Manganese.

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

ALS Group USA, Corp.

dba ALS Environmental

QA/QC Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.02 Task 06
Sample Matrix: Water

Service Request: K2305465
Date Collected: 05/02/23
Date Received: 05/11/23
Date Analyzed: 05/18/23

Replicate Sample Summary
Dissolved Metals

Sample Name: BY-COL-MW-1-INF-2
Lab Code: K2305465-019

Units: ug/L
Basis: NA

Table with 9 columns: Analyte Name, Analysis Method, MRL, MDL, Sample Result, Duplicate Sample KQ2308647-05 Result, Average, RPD, RPD Limit. Rows include Arsenic, Cobalt, Iron, and Manganese.

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

ALS Group USA, Corp.

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QA/QC Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.02 Task 06
Sample Matrix: Water

Service Request: K2305465
Date Collected: 05/02/23
Date Received: 05/11/23
Date Analyzed: 05/24/23

Replicate Sample Summary
Dissolved Metals

Sample Name: BY-COL-MW-10-INF-2
Lab Code: K2305465-021

Units: ug/L
Basis: NA

Table with 9 columns: Analyte Name, Analysis Method, MRL, MDL, Sample Result, Duplicate Sample KQ2308649-03 Result, Average, RPD, RPD Limit. Rows include Arsenic, Cobalt, Iron, and Manganese.

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

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QA/QC Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.02 Task 06
Sample Matrix: Water

Service Request: K2305465
Date Analyzed: 05/18/23

Lab Control Sample Summary
Dissolved Metals

Units:ug/L
Basis:NA

Lab Control Sample
KQ2308647-02

Analyte Name	Analytical Method	Result	Spike Amount	% Rec	% Rec Limits
Arsenic	200.8	46.6	50.0	93	85-115
Cobalt	200.8	24.7	25.0	99	85-115
Iron	200.8	49.6	50.0	99	85-115
Manganese	200.8	24.3	25.0	97	85-115

ALS Group USA, Corp.
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QA/QC Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.02 Task 06
Sample Matrix: Water

Service Request: K2305465
Date Analyzed: 05/24/23

Lab Control Sample Summary
Dissolved Metals

Units:ug/L
Basis:NA

Lab Control Sample
KQ2308649-02

Analyte Name	Analytical Method	Result	Spike Amount	% Rec	% Rec Limits
Arsenic	200.8	48.2	50.0	96	85-115
Cobalt	200.8	24.5	25.0	98	85-115
Iron	200.8	48.2	50.0	96	85-115
Manganese	200.8	24.7	25.0	99	85-115



May 31, 2023

Service Request No:K2305466

Masa Kanematsu
Anchor QEA, LLC
6720 SW Macadam Avenue
Suite 125
Portland, OR 97219

Laboratory Results for: Barry

Dear Masa,

Enclosed are the results of the sample(s) submitted to our laboratory May 11, 2023
For your reference, these analyses have been assigned our service request number **K2305466**.

Analyses were performed according to our laboratory's NELAP-approved quality assurance program. The test results meet requirements of the current NELAP standards, where applicable, and except as noted in the laboratory case narrative provided. For a specific list of NELAP-accredited analytes, refer to the certifications section at www.alsglobal.com. All results are intended to be considered in their entirety, and ALS Group USA Corp. dba ALS Environmental (ALS) is not responsible for use of less than the complete report. Results apply only to the items submitted to the laboratory for analysis and individual items (samples) analyzed, as listed in the report.

Please contact me if you have any questions. My extension is 3376. You may also contact me via email at Mark.Harris@alsglobal.com.

Respectfully submitted,

ALS Group USA, Corp. dba ALS Environmental

for Mark Harris
Project Manager

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dba ALS Environmental



Narrative Documents

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Client: Anchor QEA, LLC
Project: Barry
Sample Matrix: Water

Service Request: K2305466
Date Received: 05/11/2023

CASE NARRATIVE

All analyses were performed consistent with the quality assurance program of ALS Environmental. This report contains analytical results for samples for the Tier II level requested by the client.

Sample Receipt:

Twenty four water samples were received for analysis at ALS Environmental on 05/11/2023. Any discrepancies upon initial sample inspection are annotated on the sample receipt and preservation form included within this report. The samples were stored at minimum in accordance with the analytical method requirements.

Metals:

No significant anomalies were noted with this analysis.

Approved by Karen Melorine

Date 05/31/2023



SAMPLE DETECTION SUMMARY

This form includes only detections above the reporting levels. For a full listing of sample results, continue to the Sample Results section of this Report.

CLIENT ID: BY-COL-MW-1-INF-3	Lab ID: K2305466-001
-------------------------------------	-----------------------------

Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	11.5		0.09	0.50	ug/L	200.8
Iron, Dissolved	90500		6	40	ug/L	200.8
Manganese, Dissolved	777		0.04	0.20	ug/L	200.8

CLIENT ID: BY-COL-MW-8-INF-3	Lab ID: K2305466-002
-------------------------------------	-----------------------------

Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	834		0.09	0.50	ug/L	200.8
Iron, Dissolved	11700		0.3	2.0	ug/L	200.8
Manganese, Dissolved	198		0.08	0.40	ug/L	200.8

CLIENT ID: BY-COL-MW-10-INF-3	Lab ID: K2305466-003
--------------------------------------	-----------------------------

Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	6.47		0.09	0.50	ug/L	200.8
Iron, Dissolved	40000		0.3	2.0	ug/L	200.8
Manganese, Dissolved	1150		0.04	0.20	ug/L	200.8

CLIENT ID: BY-COL-MW-15-PM-INF-3	Lab ID: K2305466-004
---	-----------------------------

Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	73.7		0.09	0.50	ug/L	200.8
Cobalt, Dissolved	85.1		0.009	0.020	ug/L	200.8
Iron, Dissolved	52100		6	40	ug/L	200.8
Manganese, Dissolved	644		0.04	0.20	ug/L	200.8

CLIENT ID: BY-COL-MW-15-FS-INF-3	Lab ID: K2305466-005
---	-----------------------------

Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	1.84		0.09	0.50	ug/L	200.8
Cobalt, Dissolved	91.0		0.009	0.020	ug/L	200.8
Iron, Dissolved	39300		0.3	2.0	ug/L	200.8
Manganese, Dissolved	650		0.04	0.20	ug/L	200.8

CLIENT ID: BY-COL-MW-24H-INF-3	Lab ID: K2305466-006
---------------------------------------	-----------------------------

Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	22.4		0.09	0.50	ug/L	200.8
Iron, Dissolved	80200		6	40	ug/L	200.8
Manganese, Dissolved	202		0.04	0.20	ug/L	200.8

CLIENT ID: BY-COL-MW-1-PM-3	Lab ID: K2305466-007
------------------------------------	-----------------------------

Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	0.35	J	0.09	0.50	ug/L	200.8
Iron, Dissolved	6130		0.3	2.0	ug/L	200.8
Manganese, Dissolved	19100		0.8	4.0	ug/L	200.8



SAMPLE DETECTION SUMMARY

This form includes only detections above the reporting levels. For a full listing of sample results, continue to the Sample Results section of this Report.

CLIENT ID: BY-COL-MW-8-PM-3	Lab ID: K2305466-008
------------------------------------	-----------------------------

Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	13.0		0.09	0.50	ug/L	200.8
Iron, Dissolved	117		0.3	2.0	ug/L	200.8
Manganese, Dissolved	4.94		0.04	0.20	ug/L	200.8

CLIENT ID: BY-COL-MW-10-PM-3	Lab ID: K2305466-009
-------------------------------------	-----------------------------

Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	0.53		0.09	0.50	ug/L	200.8
Iron, Dissolved	3.1		0.3	2.0	ug/L	200.8
Manganese, Dissolved	132		0.04	0.20	ug/L	200.8

CLIENT ID: BY-COL-MW-24H-PM-3	Lab ID: K2305466-012
--------------------------------------	-----------------------------

Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	0.20	J	0.09	0.50	ug/L	200.8
Iron, Dissolved	3.7		0.3	2.0	ug/L	200.8
Manganese, Dissolved	6.55		0.04	0.20	ug/L	200.8

CLIENT ID: BY-COL-MW-1-PM-4	Lab ID: K2305466-013
------------------------------------	-----------------------------

Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	0.34	J	0.09	0.50	ug/L	200.8
Iron, Dissolved	3120		0.3	2.0	ug/L	200.8
Manganese, Dissolved	21800		0.8	4.0	ug/L	200.8

CLIENT ID: BY-COL-MW-8-PM-4	Lab ID: K2305466-014
------------------------------------	-----------------------------

Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	6.53		0.09	0.50	ug/L	200.8
Iron, Dissolved	148		0.3	2.0	ug/L	200.8
Manganese, Dissolved	12.5		0.04	0.20	ug/L	200.8

CLIENT ID: BY-COL-MW-10-PM-4	Lab ID: K2305466-015
-------------------------------------	-----------------------------

Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	0.56		0.09	0.50	ug/L	200.8
Iron, Dissolved	2.0	J	0.3	2.0	ug/L	200.8
Manganese, Dissolved	2850		0.04	0.20	ug/L	200.8

CLIENT ID: BY-COL-MW-15-FS-4	Lab ID: K2305466-017
-------------------------------------	-----------------------------

Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	0.10	J	0.09	0.50	ug/L	200.8
Cobalt, Dissolved	52.1		0.009	0.020	ug/L	200.8
Iron, Dissolved	35900		0.3	2.0	ug/L	200.8
Manganese, Dissolved	1860		0.04	0.20	ug/L	200.8

CLIENT ID: BY-COL-MW-24H-PM-4	Lab ID: K2305466-018
--------------------------------------	-----------------------------

Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	0.22	J	0.09	0.50	ug/L	200.8



SAMPLE DETECTION SUMMARY

This form includes only detections above the reporting levels. For a full listing of sample results, continue to the Sample Results section of this Report.

CLIENT ID: BY-COL-MW-24H-PM-4	Lab ID: K2305466-018
--------------------------------------	-----------------------------

Analyte	Results	Flag	MDL	MRL	Units	Method
Iron, Dissolved	3.7		0.3	2.0	ug/L	200.8
Manganese, Dissolved	6.71		0.04	0.20	ug/L	200.8

CLIENT ID: BY-COL-MW-1-INF-4	Lab ID: K2305466-019
-------------------------------------	-----------------------------

Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	10.4		0.09	0.50	ug/L	200.8
Iron, Dissolved	91400		6	40	ug/L	200.8
Manganese, Dissolved	765		0.04	0.20	ug/L	200.8

CLIENT ID: BY-COL-MW-8-INF-4	Lab ID: K2305466-020
-------------------------------------	-----------------------------

Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	802		0.09	0.50	ug/L	200.8
Iron, Dissolved	11500		0.3	2.0	ug/L	200.8
Manganese, Dissolved	197		0.04	0.20	ug/L	200.8

CLIENT ID: BY-COL-MW-10-INF-4	Lab ID: K2305466-021
--------------------------------------	-----------------------------

Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	5.25		0.09	0.50	ug/L	200.8
Iron, Dissolved	36600		0.3	2.0	ug/L	200.8
Manganese, Dissolved	1190		0.04	0.20	ug/L	200.8

CLIENT ID: BY-COL-MW-15-PM-INF-4	Lab ID: K2305466-022
---	-----------------------------

Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	16.3		0.09	0.50	ug/L	200.8
Cobalt, Dissolved	83.8		0.009	0.020	ug/L	200.8
Iron, Dissolved	50900		20	100	ug/L	200.8
Manganese, Dissolved	626		0.04	0.20	ug/L	200.8

CLIENT ID: BY-COL-MW-15-FS-INF-4	Lab ID: K2305466-023
---	-----------------------------

Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	0.30	J	0.09	0.50	ug/L	200.8
Cobalt, Dissolved	90.7		0.009	0.020	ug/L	200.8
Iron, Dissolved	38800		0.3	2.0	ug/L	200.8
Manganese, Dissolved	654		0.04	0.20	ug/L	200.8

CLIENT ID: BY-COL-MW-24H-INF-4	Lab ID: K2305466-024
---------------------------------------	-----------------------------

Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	7.37		0.09	0.50	ug/L	200.8
Iron, Dissolved	80200		20	100	ug/L	200.8
Manganese, Dissolved	197		0.04	0.20	ug/L	200.8

CLIENT ID: BY-COL-MW-15-PM-3	Lab ID: K2305466-010
-------------------------------------	-----------------------------

Analyte	Results	Flag	MDL	MRL	Units	Method
Cobalt, Dissolved	0.633		0.009	0.020	ug/L	200.8



SAMPLE DETECTION SUMMARY

This form includes only detections above the reporting levels. For a full listing of sample results, continue to the Sample Results section of this Report.

CLIENT ID: BY-COL-MW-15-PM-3	Lab ID: K2305466-010
-------------------------------------	-----------------------------

Analyte	Results	Flag	MDL	MRL	Units	Method
Iron, Dissolved	2.2		0.3	2.0	ug/L	200.8
Manganese, Dissolved	2160		0.04	0.20	ug/L	200.8

CLIENT ID: BY-COL-MW-15-FS-3	Lab ID: K2305466-011
-------------------------------------	-----------------------------

Analyte	Results	Flag	MDL	MRL	Units	Method
Cobalt, Dissolved	53.3		0.009	0.020	ug/L	200.8
Iron, Dissolved	32300		0.3	2.0	ug/L	200.8
Manganese, Dissolved	2540		0.04	0.20	ug/L	200.8

CLIENT ID: BY-COL-MW-15-PM-4	Lab ID: K2305466-016
-------------------------------------	-----------------------------

Analyte	Results	Flag	MDL	MRL	Units	Method
Cobalt, Dissolved	0.890		0.009	0.020	ug/L	200.8
Iron, Dissolved	1.5	J	0.3	2.0	ug/L	200.8
Manganese, Dissolved	3010		0.04	0.20	ug/L	200.8



Sample Receipt Information

ALS Environmental—Kelso Laboratory
1317 South 13th Avenue, Kelso, WA 98626
Phone (360) 577-7222 Fax (360) 425-9096
www.alsglobal.com

Client: Anchor QEA, LLC
Project: Barry/221114-08.02 Task 06

Service Request:K2305466

SAMPLE CROSS-REFERENCE

<u>SAMPLE #</u>	<u>CLIENT SAMPLE ID</u>	<u>DATE</u>	<u>TIME</u>
K2305466-001	BY-COL-MW-1-INF-3	5/2/2023	1200
K2305466-002	BY-COL-MW-8-INF-3	5/2/2023	1201
K2305466-003	BY-COL-MW-10-INF-3	5/2/2023	1202
K2305466-004	BY-COL-MW-15-PM-INF-3	5/2/2023	1203
K2305466-005	BY-COL-MW-15-FS-INF-3	5/2/2023	1204
K2305466-006	BY-COL-MW-24H-INF-3	5/2/2023	1205
K2305466-007	BY-COL-MW-1-PM-3	5/2/2023	1215
K2305466-008	BY-COL-MW-8-PM-3	5/2/2023	1216
K2305466-009	BY-COL-MW-10-PM-3	5/2/2023	1217
K2305466-010	BY-COL-MW-15-PM-3	5/2/2023	1218
K2305466-011	BY-COL-MW-15-FS-3	5/2/2023	1219
K2305466-012	BY-COL-MW-24H-PM-3	5/2/2023	1220
K2305466-013	BY-COL-MW-1-PM-4	5/2/2023	1615
K2305466-014	BY-COL-MW-8-PM-4	5/2/2023	1616
K2305466-015	BY-COL-MW-10-PM-4	5/2/2023	1617
K2305466-016	BY-COL-MW-15-PM-4	5/2/2023	1618
K2305466-017	BY-COL-MW-15-FS-4	5/2/2023	1619
K2305466-018	BY-COL-MW-24H-PM-4	5/2/2023	1620
K2305466-019	BY-COL-MW-1-INF-4	5/2/2023	1610
K2305466-020	BY-COL-MW-8-INF-4	5/2/2023	1611
K2305466-021	BY-COL-MW-10-INF-4	5/2/2023	1612
K2305466-022	BY-COL-MW-15-PM-INF-4	5/2/2023	1613
K2305466-023	BY-COL-MW-15-FS-INF-4	5/2/2023	1614
K2305466-024	BY-COL-MW-24H-INF-4	5/2/2023	1615

K23054106

Chain of Custody Record & Laboratory Analysis Request

Laboratory Number: 503-972-5019					No. of Containers	Parameters													ANCHOR QEA Masa Kanematsu 6720 SW Macadam Ave Suite 125 Portland OR 97219 Comments/Preservation
Date:	5/11/2023					Dissolved Metals (As, Fe, Mn)													
Project Name:	Barry																		
Project Number:	221114-08.02 Task 06																		
Project Manager:	Masa Kanematsu																		
Phone Number:	503-972-5001 (backup number: 503-798-3456)																		
Shipment Method:	ALS Carrier																		
Line	Field Sample ID	Collection		Matrix		X													
		Date	Time																
1	BY-COL-MW-1-INF-3	5/2/2023	12:00	Water	1	X													
2	BY-COL-MW-8-INF-3	5/2/2023	12:01	Water	1	X													
3	BY-COL-MW-10-INF-3	5/2/2023	12:02	Water	1	X													
4	BY-COL-MW-15-PM-INF-3	5/2/2023	12:03	Water	1		X												
5	BY-COL-MW-15-FS-INF-3	5/2/2023	12:04	Water	1		X												
6	BY-COL-MW-24H-INF-3	5/2/2023	12:05	Water	1	X													
7	BY-COL-MW-1-PM-3	5/2/2023	12:15	Water	1	X													
8	BY-COL-MW-8-PM-3	5/2/2023	12:16	Water	1	X													
9	BY-COL-MW-10-PM-3	5/2/2023	12:17	Water	1	X													
10	BY-COL-MW-15-PM-3	5/2/2023	12:18	Water	1		X												
11	BY-COL-MW-15-FS-3	5/2/2023	12:19	Water	1		X												
12	BY-COL-MW-24H-PM-3	5/2/2023	12:20	Water	1	X													
13																			
14																			
15																			
16																			
17																			
18																			
19																			
20																			


Notes: Please Contact Masa (503-972-5001, mkanematsu@anchorqea.com) if running > 10X dilution. Please analyze by ICP-MS method 200.8 to achieve the MDL < 1 ppb.

Relinquished by: Emma Nordlund		Company: Anchor QEA	
Signature/Print Name: <i>Emma Nordlund</i>	Date/Time: 5/11/23 8:00 AM	Received by: <i>Greg Rich</i>	Signature/Print Name: <i>Greg Rich 5-11-23 1015</i>
Relinquished by: <i>Greg Rich</i>		Company: ALS	
Signature/Print Name: <i>Greg Rich</i>	Date/Time: 5-11-23 1345	Received by: <i>[Signature]</i>	Signature/Print Name: <i>[Signature] 5/11/23 1345</i>

Distribution: A copy will be made for the laboratory and client. The Project file will retain the original.

K2305466

Chain of Custody Record & Laboratory Analysis Request

Laboratory Number: 503-972-5019					No. of Containers	Parameters										 ANCHOR QEA Masa Kanematsu 6720 SW Macadam Ave Suite 125 Portland OR 97219 Comments/Preservation						
Date:	5/11/2023					Dissolved Metals (As, Fe, Mn)	Dissolved Metals (As, Co, Fe, Mn)															
Project Name:	Barry																					
Project Number:	221114-08.02 Task 06																					
Project Manager:	Masa Kanematsu																					
Phone Number:	503-972-5001 (backup number: 503-798-3456)																					
Shipment Method:	ALS Carrier																					
Line	Field Sample ID	Collection		Matrix	No. of Containers	Dissolved Metals (As, Fe, Mn)	Dissolved Metals (As, Co, Fe, Mn)															
		Date	Time																			
1	BY-COL-MW-1-PM-4	5/2/2023	16:15	Water	1	X																HNO3-Preserved; 0.45um-filtered.
2	BY-COL-MW-8-PM-4	5/2/2023	16:16	Water	1	X																HNO3-Preserved; 0.45um-filtered.
3	BY-COL-MW-10-PM-4	5/2/2023	16:17	Water	1	X																HNO3-Preserved; 0.45um-filtered.
4	BY-COL-MW-15-PM-4	5/2/2023	16:18	Water	1		X															HNO3-Preserved; 0.45um-filtered.
5	BY-COL-MW-15-FS-4	5/2/2023	16:19	Water	1		X															HNO3-Preserved; 0.45um-filtered.
6	BY-COL-MW-24H-PM-4	5/2/2023	16:20	Water	1	X																HNO3-Preserved; 0.45um-filtered.
7	BY-COL-MW-1-INF-4	5/2/2023	16:10	Water	1	X																HNO3-Preserved; 0.45um-filtered.
8	BY-COL-MW-8-INF-4	5/2/2023	16:11	Water	1	X																HNO3-Preserved; 0.45um-filtered.
9	BY-COL-MW-10-INF-4	5/2/2023	16:12	Water	1	X																HNO3-Preserved; 0.45um-filtered.
10	BY-COL-MW-15-PM-INF-4	5/2/2023	16:13	Water	1		X															HNO3-Preserved; 0.45um-filtered.
11	BY-COL-MW-15-FS-INF-4	5/2/2023	16:14	Water	1		X															HNO3-Preserved; 0.45um-filtered.
12	BY-COL-MW-24H-INF-4	5/2/2023	16:15	Water	1	X																HNO3-Preserved; 0.45um-filtered.
13																						
14																						
15																						
16																						
17																						
18																						
19																						
20																						

Notes: Please Contact Masa (503-972-5001, mkanematsu@anchorqea.com) if running > 10X dilution. Please analyze by ICP-MS method 200.8 to achieve the MDL < 1 ppb. There are two samples that were taken at the same time (BY-COL-MW-1-PM-4 and BY-COL-MW-24H-INF-4).

Relinquished by: Emma Nordlund	Company: Anchor QEA
Signature/Print Name: <i>Emma Nordlund</i>	Date/Time: 5/11/23 8:00 AM
Relinquished by: <i>Greg Rich</i>	Company: ALS
Signature/Print Name: <i>Greg Rich</i>	Date/Time: 5-11-23 1345

Received by: <i>Greg Rich</i>
Signature/Print Name: <i>Greg Rich 5-11-23 1015</i>
Received by: <i>Greg Rich</i>
Signature/Print Name: <i>Greg Rich 5/11/23 1345</i>

Cooler Receipt and Preservation Form

Client Ancher Service Request K23 054666
 Received: 5/11/23 Opened: 5/11/23 By: SA Unloaded: 5/11/23 By: SA

1. Samples were received via? USPS Fed Ex UPS DHL PDX Courier Hand Delivered
2. Samples were received in: (circle) Cooler Box Envelope Other NA
3. Were custody seals on coolers? NA Y N If yes, how many and where? _____
 If present, were custody seals intact? Y N If present, were they signed and dated? Y N

Temp Blank	Sample Temp	IR Gun	Cooler #/COC ID / NA	Out of temp indicate with "X"	PM Notified if out of temp	Tracking Number <u>NA</u>	Filed
	<u>24.0</u>	<u>1202</u>	<u>1054</u>				
<u>S.6</u>		<u>1202</u>	<u>2054</u>				
<u>S.1</u>		<u>1202</u>	<u>3054</u>				
<u>U.8</u>		<u>1202</u>	<u>4054</u>				

4. Was a Temperature Blank present in cooler? NA Y N If yes, note the temperature in the appropriate column above:
 If no, take the temperature of a representative sample bottle contained within the cooler; notate in the column "Sample Temp":
5. Were samples received within the method specified temperature ranges? NA Y N
 If no, were they received on ice and same day as collected? If not, notate the cooler # above and notify the PM. NA Y N
 If applicable, tissue samples were received: Frozen Partially Thawed Thawed
6. Packing material: Inserts Baggies Bubble Wrap Gel Packs Wet Ice Dry Ice Sleeves _____
7. Were custody papers properly filled out (ink, signed, etc.)? NA Y N
8. Were samples received in good condition (unbroken) NA Y N
9. Were all sample labels complete (ie, analysis, preservation, etc.)? NA Y N
10. Did all sample labels and tags agree with custody papers? NA Y N
11. Were appropriate bottles/containers and volumes received for the tests indicated? NA Y N
12. Were the pH-preserved bottles (see SMO GEN SOP) received at the appropriate pH? Indicate in the table below NA Y N
13. Were VOA vials received without headspace? Indicate in the table below NA Y N
14. Was C12/Res negative? NA Y N
15. Were samples received within the method specified time limit? If not, notate the error below and notify the PM NA Y N
16. Were 100ml sterile microbiology bottles filled exactly to the 100ml mark? NA Y N Underfilled Overfilled

Sample ID on Bottle	Sample ID on COC	Identified by:

Sample ID	Bottle Count	Bottle Type	Head-space	Broke	pH	Reagent	Volume added	Reagent Lot Number	Initials	Time

Notes, Discrepancies, Resolutions: Temp not an issue, samples for metals analysis



Miscellaneous Forms

ALS Environmental—Kelso Laboratory
1317 South 13th Avenue, Kelso, WA 98626
Phone (360) 577-7222 Fax (360) 425-9096
www.alsglobal.com

Inorganic Data Qualifiers

- * The result is an outlier. See case narrative.
- # The control limit criteria is not applicable.
- B The analyte was found in the associated method blank at a level that is significant relative to the sample result as defined by the DOD or NELAC standards.
- E The result is an estimate amount because the value exceeded the instrument calibration range.
- J The result is an estimated value.
- U The analyte was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL.
DOD-QSM 4.2 definition : Analyte was not detected and is reported as less than the LOD or as defined by the project. The detection limit is adjusted for dilution.
- i The MRL/MDL or LOQ/LOD is elevated due to a matrix interference.
- X See case narrative.
- Q See case narrative. One or more quality control criteria was outside the limits.
- H The holding time for this test is immediately following sample collection. The samples were analyzed as soon as possible after receipt by the laboratory.

Metals Data Qualifiers

- # The control limit criteria is not applicable.
- J The result is an estimated value.
- E The percent difference for the serial dilution was greater than 10%, indicating a possible matrix interference in the sample.
- M The duplicate injection precision was not met.
- N The Matrix Spike sample recovery is not within control limits. See case narrative.
- S The reported value was determined by the Method of Standard Additions (MSA).
- U The analyte was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL.
DOD-QSM 4.2 definition : Analyte was not detected and is reported as less than the LOD or as defined by the project. The detection limit is adjusted for dilution.
- W The post-digestion spike for furnace AA analysis is out of control limits, while sample absorbance is less than 50% of spike absorbance.
 - i The MRL/MDL or LOQ/LOD is elevated due to a matrix interference.
- X See case narrative.
- + The correlation coefficient for the MSA is less than 0.995.
- Q See case narrative. One or more quality control criteria was outside the limits.

Organic Data Qualifiers

- * The result is an outlier. See case narrative.
- # The control limit criteria is not applicable. See case narrative.
- A A tentatively identified compound, a suspected aldol-condensation product.
- B The analyte was found in the associated method blank at a level that is significant relative to the sample result as defined by the DOD or NELAC standards.
- C The analyte was qualitatively confirmed using GC/MS techniques, pattern recognition, or by comparing to historical data.
- D The reported result is from a dilution.
- E The result is an estimated value.
- J The result is an estimated value.
- N The result is presumptive. The analyte was tentatively identified, but a confirmation analysis was not performed.
- P The GC or HPLC confirmation criteria was exceeded. The relative percent difference is greater than 40% between the two analytical results.
- U The analyte was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL.
DOD-QSM 4.2 definition : Analyte was not detected and is reported as less than the LOD or as defined by the project. The detection limit is adjusted for dilution.
 - i The MRL/MDL or LOQ/LOD is elevated due to a chromatographic interference.
- X See case narrative.
- Q See case narrative. One or more quality control criteria was outside the limits.

Additional Petroleum Hydrocarbon Specific Qualifiers

- F The chromatographic fingerprint of the sample matches the elution pattern of the calibration standard.
- L The chromatographic fingerprint of the sample resembles a petroleum product, but the elution pattern indicates the presence of a greater amount of lighter molecular weight constituents than the calibration standard.
- H The chromatographic fingerprint of the sample resembles a petroleum product, but the elution pattern indicates the presence of a greater amount of heavier molecular weight constituents than the calibration standard.
- O The chromatographic fingerprint of the sample resembles an oil, but does not match the calibration standard.
- Y The chromatographic fingerprint of the sample resembles a petroleum product eluting in approximately the correct carbon range, but the elution pattern does not match the calibration standard.
- Z The chromatographic fingerprint does not resemble a petroleum product.

**ALS Group USA Corp. dba ALS Environmental (ALS) - Kelso
State Certifications, Accreditations, and Licenses**

Agency	Web Site	Number
Alaska DEH	http://dec.alaska.gov/eh/lab/cs/csapproval.htm	UST-040
Arizona DHS	http://www.azdhs.gov/lab/license/env.htm	AZ0339
Arkansas - DEQ	http://www.adeq.state.ar.us/techsvs/labcert.htm	88-0637
California DHS (ELAP)	http://www.cdph.ca.gov/certlic/labs/Pages/ELAP.aspx	2795
DOD ELAP	http://www.denix.osd.mil/edqw/Accreditation/AccreditedLabs.cfm	L16-58-R4
Florida DOH	http://www.doh.state.fl.us/lab/EnvLabCert/WaterCert.htm	E87412
Hawaii DOH	http://health.hawaii.gov/	-
ISO 17025	http://www.pjllabs.com/	L16-57
Louisiana DEQ	http://www.deq.louisiana.gov/page/la-lab-accreditation	03016
Maine DHS	http://www.maine.gov/dhhs/	WA01276
Minnesota DOH	http://www.health.state.mn.us/accreditation	053-999-457
Nevada DEP	http://ndep.nv.gov/bsdw/labservice.htm	WA01276
New Jersey DEP	http://www.nj.gov/dep/enforcement/oqa.html	WA005
New York - DOH	https://www.wadsworth.org/regulatory/elap	12060
North Carolina DEQ	https://deq.nc.gov/about/divisions/water-resources/water-resources-data/water-sciences-home-page/laboratory-certification-branch/non-field-lab-certification	605
Oklahoma DEQ	http://www.deq.state.ok.us/CSDnew/labcert.htm	9801
Oregon – DEQ (NELAP)	http://public.health.oregon.gov/LaboratoryServices/EnvironmentalLaboratoryAccreditation/Pages/index.aspx	WA100010
South Carolina DHEC	http://www.scdhec.gov/environment/EnvironmentalLabCertification/	61002
Texas CEQ	http://www.tceq.texas.gov/field/qa/env_lab_accreditation.html	T104704427
Washington DOE	http://www.ecy.wa.gov/programs/eap/labs/lab-accreditation.html	C544
Wyoming (EPA Region 8)	https://www.epa.gov/region8-waterops/epa-region-8-certified-drinking-water	-
Kelso Laboratory Website	www.alsglobal.com	NA

Analyses were performed according to our laboratory's NELAP-approved quality assurance program. A complete listing of specific NELAP-certified analytes, can be found in the certification section at www.ALSGlobal.com or at the accreditation bodies web site.

Please refer to the certification and/or accreditation body's web site if samples are submitted for compliance purposes. The states highlighted above, require the analysis be listed on the state certification if used for compliance purposes and if the method/analyte is offered by that state.

Acronyms

ASTM	American Society for Testing and Materials
A2LA	American Association for Laboratory Accreditation
CARB	California Air Resources Board
CAS Number	Chemical Abstract Service registry Number
CFC	Chlorofluorocarbon
CFU	Colony-Forming Unit
DEC	Department of Environmental Conservation
DEQ	Department of Environmental Quality
DHS	Department of Health Services
DOE	Department of Ecology
DOH	Department of Health
EPA	U. S. Environmental Protection Agency
ELAP	Environmental Laboratory Accreditation Program
GC	Gas Chromatography
GC/MS	Gas Chromatography/Mass Spectrometry
LOD	Limit of Detection
LOQ	Limit of Quantitation
LUFT	Leaking Underground Fuel Tank
M	Modified
MCL	Maximum Contaminant Level is the highest permissible concentration of a substance allowed in drinking water as established by the USEPA.
MDL	Method Detection Limit
MPN	Most Probable Number
MRL	Method Reporting Limit
NA	Not Applicable
NC	Not Calculated
NCASI	National Council of the Paper Industry for Air and Stream Improvement
ND	Not Detected
NIOSH	National Institute for Occupational Safety and Health
PQL	Practical Quantitation Limit
RCRA	Resource Conservation and Recovery Act
SIM	Selected Ion Monitoring
TPH	Total Petroleum Hydrocarbons
tr	Trace level is the concentration of an analyte that is less than the PQL but greater than or equal to the MDL.

ALS Group USA, Corp.
dba ALS Environmental

Analyst Summary report

Client: Anchor QEA, LLC
Project: Barry/221114-08.02 Task 06

Service Request: K2305466

Sample Name: BY-COL-MW-1-INF-3
Lab Code: K2305466-001
Sample Matrix: Water

Date Collected: 05/2/23
Date Received: 05/11/23

Analysis Method
200.8

Extracted/Digested By
ABOYER

Analyzed By
EMCALLISTER

Sample Name: BY-COL-MW-1-INF-3
Lab Code: K2305466-001.R01
Sample Matrix: Water

Date Collected: 05/2/23
Date Received: 05/11/23

Analysis Method
200.8

Extracted/Digested By
ABOYER

Analyzed By
EMCALLISTER

Sample Name: BY-COL-MW-8-INF-3
Lab Code: K2305466-002
Sample Matrix: Water

Date Collected: 05/2/23
Date Received: 05/11/23

Analysis Method
200.8

Extracted/Digested By
ABOYER

Analyzed By
EMCALLISTER

Sample Name: BY-COL-MW-8-INF-3
Lab Code: K2305466-002.R01
Sample Matrix: Water

Date Collected: 05/2/23
Date Received: 05/11/23

Analysis Method
200.8

Extracted/Digested By
ABOYER

Analyzed By
EMCALLISTER

Sample Name: BY-COL-MW-10-INF-3
Lab Code: K2305466-003
Sample Matrix: Water

Date Collected: 05/2/23
Date Received: 05/11/23

Analysis Method
200.8

Extracted/Digested By
ABOYER

Analyzed By
EMCALLISTER

ALS Group USA, Corp.
dba ALS Environmental

Analyst Summary report

Client: Anchor QEA, LLC
Project: Barry/221114-08.02 Task 06

Service Request: K2305466

Sample Name: BY-COL-MW-10-INF-3
Lab Code: K2305466-003.R01
Sample Matrix: Water

Date Collected: 05/2/23
Date Received: 05/11/23

Analysis Method
200.8

Extracted/Digested By
ABOYER

Analyzed By
EMCALLISTER

Sample Name: BY-COL-MW-15-PM-INF-3
Lab Code: K2305466-004
Sample Matrix: Water

Date Collected: 05/2/23
Date Received: 05/11/23

Analysis Method
200.8

Extracted/Digested By
ABOYER

Analyzed By
EMCALLISTER

Sample Name: BY-COL-MW-15-PM-INF-3
Lab Code: K2305466-004.R01
Sample Matrix: Water

Date Collected: 05/2/23
Date Received: 05/11/23

Analysis Method
200.8

Extracted/Digested By
ABOYER

Analyzed By
EMCALLISTER

Sample Name: BY-COL-MW-15-PM-INF-3
Lab Code: K2305466-004.R02
Sample Matrix: Water

Date Collected: 05/2/23
Date Received: 05/11/23

Analysis Method
200.8

Extracted/Digested By
ABOYER

Analyzed By
EMCALLISTER

Sample Name: BY-COL-MW-15-FS-INF-3
Lab Code: K2305466-005
Sample Matrix: Water

Date Collected: 05/2/23
Date Received: 05/11/23

Analysis Method
200.8

Extracted/Digested By
ABOYER

Analyzed By
EMCALLISTER

ALS Group USA, Corp.
dba ALS Environmental

Analyst Summary report

Client: Anchor QEA, LLC
Project: Barry/221114-08.02 Task 06

Service Request: K2305466

Sample Name: BY-COL-MW-15-FS-INF-3
Lab Code: K2305466-005.R01
Sample Matrix: Water

Date Collected: 05/2/23
Date Received: 05/11/23

Analysis Method
200.8

Extracted/Digested By
ABOYER

Analyzed By
EMCALLISTER

Sample Name: BY-COL-MW-24H-INF-3
Lab Code: K2305466-006
Sample Matrix: Water

Date Collected: 05/2/23
Date Received: 05/11/23

Analysis Method
200.8

Extracted/Digested By
ABOYER

Analyzed By
EMCALLISTER

Sample Name: BY-COL-MW-24H-INF-3
Lab Code: K2305466-006.R01
Sample Matrix: Water

Date Collected: 05/2/23
Date Received: 05/11/23

Analysis Method
200.8

Extracted/Digested By
ABOYER

Analyzed By
EMCALLISTER

Sample Name: BY-COL-MW-24H-INF-3
Lab Code: K2305466-006.R02
Sample Matrix: Water

Date Collected: 05/2/23
Date Received: 05/11/23

Analysis Method
200.8

Extracted/Digested By
ABOYER

Analyzed By
EMCALLISTER

Sample Name: BY-COL-MW-1-PM-3
Lab Code: K2305466-007
Sample Matrix: Water

Date Collected: 05/2/23
Date Received: 05/11/23

Analysis Method
200.8

Extracted/Digested By
ABOYER

Analyzed By
EMCALLISTER

ALS Group USA, Corp.
dba ALS Environmental

Analyst Summary report

Client: Anchor QEA, LLC
Project: Barry/221114-08.02 Task 06

Service Request: K2305466

Sample Name: BY-COL-MW-1-PM-3
Lab Code: K2305466-007.R01
Sample Matrix: Water

Date Collected: 05/2/23
Date Received: 05/11/23

Analysis Method
200.8

Extracted/Digested By
ABOYER

Analyzed By
EMCALLISTER

Sample Name: BY-COL-MW-8-PM-3
Lab Code: K2305466-008
Sample Matrix: Water

Date Collected: 05/2/23
Date Received: 05/11/23

Analysis Method
200.8

Extracted/Digested By
ABOYER

Analyzed By
EMCALLISTER

Sample Name: BY-COL-MW-8-PM-3
Lab Code: K2305466-008.R01
Sample Matrix: Water

Date Collected: 05/2/23
Date Received: 05/11/23

Analysis Method
200.8

Extracted/Digested By
ABOYER

Analyzed By
EMCALLISTER

Sample Name: BY-COL-MW-10-PM-3
Lab Code: K2305466-009
Sample Matrix: Water

Date Collected: 05/2/23
Date Received: 05/11/23

Analysis Method
200.8

Extracted/Digested By
ABOYER

Analyzed By
EMCALLISTER

Sample Name: BY-COL-MW-10-PM-3
Lab Code: K2305466-009.R01
Sample Matrix: Water

Date Collected: 05/2/23
Date Received: 05/11/23

Analysis Method
200.8

Extracted/Digested By
ABOYER

Analyzed By
EMCALLISTER

ALS Group USA, Corp.
dba ALS Environmental

Analyst Summary report

Client: Anchor QEA, LLC
Project: Barry/221114-08.02 Task 06

Service Request: K2305466

Sample Name: BY-COL-MW-15-PM-3
Lab Code: K2305466-010
Sample Matrix: Water

Date Collected: 05/2/23
Date Received: 05/11/23

Analysis Method
200.8

Extracted/Digested By
ABOYER

Analyzed By
EMCALLISTER

Sample Name: BY-COL-MW-15-PM-3
Lab Code: K2305466-010.R01
Sample Matrix: Water

Date Collected: 05/2/23
Date Received: 05/11/23

Analysis Method
200.8

Extracted/Digested By
ABOYER

Analyzed By
EMCALLISTER

Sample Name: BY-COL-MW-15-FS-3
Lab Code: K2305466-011
Sample Matrix: Water

Date Collected: 05/2/23
Date Received: 05/11/23

Analysis Method
200.8

Extracted/Digested By
ABOYER

Analyzed By
EMCALLISTER

Sample Name: BY-COL-MW-15-FS-3
Lab Code: K2305466-011.R01
Sample Matrix: Water

Date Collected: 05/2/23
Date Received: 05/11/23

Analysis Method
200.8

Extracted/Digested By
ABOYER

Analyzed By
EMCALLISTER

Sample Name: BY-COL-MW-24H-PM-3
Lab Code: K2305466-012
Sample Matrix: Water

Date Collected: 05/2/23
Date Received: 05/11/23

Analysis Method
200.8

Extracted/Digested By
ABOYER

Analyzed By
EMCALLISTER

ALS Group USA, Corp.
dba ALS Environmental

Analyst Summary report

Client: Anchor QEA, LLC
Project: Barry/221114-08.02 Task 06

Service Request: K2305466

Sample Name: BY-COL-MW-24H-PM-3
Lab Code: K2305466-012.R01
Sample Matrix: Water

Date Collected: 05/2/23
Date Received: 05/11/23

Analysis Method
200.8

Extracted/Digested By
ABOYER

Analyzed By
EMCALLISTER

Sample Name: BY-COL-MW-1-PM-4
Lab Code: K2305466-013
Sample Matrix: Water

Date Collected: 05/2/23
Date Received: 05/11/23

Analysis Method
200.8

Extracted/Digested By
ABOYER

Analyzed By
EMCALLISTER

Sample Name: BY-COL-MW-1-PM-4
Lab Code: K2305466-013.R01
Sample Matrix: Water

Date Collected: 05/2/23
Date Received: 05/11/23

Analysis Method
200.8

Extracted/Digested By
ABOYER

Analyzed By
EMCALLISTER

Sample Name: BY-COL-MW-8-PM-4
Lab Code: K2305466-014
Sample Matrix: Water

Date Collected: 05/2/23
Date Received: 05/11/23

Analysis Method
200.8

Extracted/Digested By
ABOYER

Analyzed By
EMCALLISTER

Sample Name: BY-COL-MW-8-PM-4
Lab Code: K2305466-014.R01
Sample Matrix: Water

Date Collected: 05/2/23
Date Received: 05/11/23

Analysis Method
200.8

Extracted/Digested By
ABOYER

Analyzed By
EMCALLISTER

ALS Group USA, Corp.
dba ALS Environmental

Analyst Summary report

Client: Anchor QEA, LLC
Project: Barry/221114-08.02 Task 06

Service Request: K2305466

Sample Name: BY-COL-MW-10-PM-4
Lab Code: K2305466-015
Sample Matrix: Water

Date Collected: 05/2/23
Date Received: 05/11/23

Analysis Method
200.8

Extracted/Digested By
ABOYER

Analyzed By
EMCALLISTER

Sample Name: BY-COL-MW-10-PM-4
Lab Code: K2305466-015.R01
Sample Matrix: Water

Date Collected: 05/2/23
Date Received: 05/11/23

Analysis Method
200.8

Extracted/Digested By
ABOYER

Analyzed By
EMCALLISTER

Sample Name: BY-COL-MW-15-PM-4
Lab Code: K2305466-016
Sample Matrix: Water

Date Collected: 05/2/23
Date Received: 05/11/23

Analysis Method
200.8

Extracted/Digested By
ABOYER

Analyzed By
EMCALLISTER

Sample Name: BY-COL-MW-15-PM-4
Lab Code: K2305466-016.R01
Sample Matrix: Water

Date Collected: 05/2/23
Date Received: 05/11/23

Analysis Method
200.8

Extracted/Digested By
ABOYER

Analyzed By
EMCALLISTER

Sample Name: BY-COL-MW-15-FS-4
Lab Code: K2305466-017
Sample Matrix: Water

Date Collected: 05/2/23
Date Received: 05/11/23

Analysis Method
200.8

Extracted/Digested By
ABOYER

Analyzed By
EMCALLISTER

ALS Group USA, Corp.
dba ALS Environmental

Analyst Summary report

Client: Anchor QEA, LLC
Project: Barry/221114-08.02 Task 06

Service Request: K2305466

Sample Name: BY-COL-MW-15-FS-4
Lab Code: K2305466-017.R01
Sample Matrix: Water

Date Collected: 05/2/23
Date Received: 05/11/23

Analysis Method
200.8

Extracted/Digested By
ABOYER

Analyzed By
EMCALLISTER

Sample Name: BY-COL-MW-24H-PM-4
Lab Code: K2305466-018
Sample Matrix: Water

Date Collected: 05/2/23
Date Received: 05/11/23

Analysis Method
200.8

Extracted/Digested By
ABOYER

Analyzed By
EMCALLISTER

Sample Name: BY-COL-MW-24H-PM-4
Lab Code: K2305466-018.R01
Sample Matrix: Water

Date Collected: 05/2/23
Date Received: 05/11/23

Analysis Method
200.8

Extracted/Digested By
ABOYER

Analyzed By
EMCALLISTER

Sample Name: BY-COL-MW-1-INF-4
Lab Code: K2305466-019
Sample Matrix: Water

Date Collected: 05/2/23
Date Received: 05/11/23

Analysis Method
200.8

Extracted/Digested By
ABOYER

Analyzed By
EMCALLISTER

Sample Name: BY-COL-MW-1-INF-4
Lab Code: K2305466-019.R01
Sample Matrix: Water

Date Collected: 05/2/23
Date Received: 05/11/23

Analysis Method
200.8

Extracted/Digested By
ABOYER

Analyzed By
EMCALLISTER

ALS Group USA, Corp.
dba ALS Environmental

Analyst Summary report

Client: Anchor QEA, LLC
Project: Barry/221114-08.02 Task 06

Service Request: K2305466

Sample Name: BY-COL-MW-1-INF-4
Lab Code: K2305466-019.R02
Sample Matrix: Water

Date Collected: 05/2/23
Date Received: 05/11/23

Analysis Method
200.8

Extracted/Digested By
ABOYER

Analyzed By
EMCALLISTER

Sample Name: BY-COL-MW-8-INF-4
Lab Code: K2305466-020
Sample Matrix: Water

Date Collected: 05/2/23
Date Received: 05/11/23

Analysis Method
200.8

Extracted/Digested By
ABOYER

Analyzed By
EMCALLISTER

Sample Name: BY-COL-MW-8-INF-4
Lab Code: K2305466-020.R01
Sample Matrix: Water

Date Collected: 05/2/23
Date Received: 05/11/23

Analysis Method
200.8

Extracted/Digested By
ABOYER

Analyzed By
EMCALLISTER

Sample Name: BY-COL-MW-10-INF-4
Lab Code: K2305466-021
Sample Matrix: Water

Date Collected: 05/2/23
Date Received: 05/11/23

Analysis Method
200.8

Extracted/Digested By
ABOYER

Analyzed By
JCHAN

Sample Name: BY-COL-MW-15-PM-INF-4
Lab Code: K2305466-022
Sample Matrix: Water

Date Collected: 05/2/23
Date Received: 05/11/23

Analysis Method
200.8

Extracted/Digested By
ABOYER

Analyzed By
JCHAN

ALS Group USA, Corp.
dba ALS Environmental

Analyst Summary report

Client: Anchor QEA, LLC
Project: Barry/221114-08.02 Task 06

Service Request: K2305466

Sample Name: BY-COL-MW-15-FS-INF-4
Lab Code: K2305466-023
Sample Matrix: Water

Date Collected: 05/2/23
Date Received: 05/11/23

Analysis Method
200.8

Extracted/Digested By
ABOYER

Analyzed By
JCHAN

Sample Name: BY-COL-MW-24H-INF-4
Lab Code: K2305466-024
Sample Matrix: Water

Date Collected: 05/2/23
Date Received: 05/11/23

Analysis Method
200.8

Extracted/Digested By
ABOYER

Analyzed By
JCHAN



Sample Results

ALS Environmental—Kelso Laboratory
1317 South 13th Avenue, Kelso, WA 98626
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www.alsglobal.com



Metals

ALS Environmental—Kelso Laboratory
1317 South 13th Avenue, Kelso, WA 98626
Phone (360) 577-7222 Fax (360) 425-9096
www.alsglobal.com

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.02 Task 06
Sample Matrix: Water
Sample Name: BY-COL-MW-1-INF-3
Lab Code: K2305466-001

Service Request: K2305466
Date Collected: 05/02/23 12:00
Date Received: 05/11/23 13:45
Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	11.5	ug/L	0.50	0.09	1	05/23/23 17:16	05/15/23	
Iron	200.8	90500	ug/L	40	6	20	05/23/23 17:57	05/15/23	
Manganese	200.8	777	ug/L	0.20	0.04	1	05/30/23 16:44	05/26/23	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.02 Task 06
Sample Matrix: Water
Sample Name: BY-COL-MW-8-INF-3
Lab Code: K2305466-002

Service Request: K2305466
Date Collected: 05/02/23 12:01
Date Received: 05/11/23 13:45
Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	834	ug/L	0.50	0.09	1	05/23/23 17:20	05/15/23	
Iron	200.8	11700	ug/L	2.0	0.3	1	05/23/23 17:20	05/15/23	
Manganese	200.8	198	ug/L	0.40	0.08	1	05/30/23 16:45	05/26/23	

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Analytical Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.02 Task 06
Sample Matrix: Water
Sample Name: BY-COL-MW-10-INF-3
Lab Code: K2305466-003

Service Request: K2305466
Date Collected: 05/02/23 12:02
Date Received: 05/11/23 13:45
Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	6.47	ug/L	0.50	0.09	1	05/23/23 17:25	05/15/23	
Iron	200.8	40000	ug/L	2.0	0.3	1	05/23/23 17:25	05/15/23	
Manganese	200.8	1150	ug/L	0.20	0.04	1	05/30/23 16:46	05/26/23	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.02 Task 06
Sample Matrix: Water
Sample Name: BY-COL-MW-15-PM-INF-3
Lab Code: K2305466-004

Service Request: K2305466
Date Collected: 05/02/23 12:03
Date Received: 05/11/23 13:45
Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	73.7	ug/L	0.50	0.09	1	05/23/23 17:26	05/15/23	
Cobalt	200.8	85.1	ug/L	0.020	0.009	1	05/23/23 17:26	05/15/23	
Iron	200.8	52100	ug/L	40	6	20	05/24/23 14:48	05/15/23	
Manganese	200.8	644	ug/L	0.20	0.04	1	05/30/23 16:47	05/26/23	

ALS Group USA, Corp.
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Analytical Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.02 Task 06
Sample Matrix: Water
Sample Name: BY-COL-MW-15-FS-INF-3
Lab Code: K2305466-005

Service Request: K2305466
Date Collected: 05/02/23 12:04
Date Received: 05/11/23 13:45
Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	1.84	ug/L	0.50	0.09	1	05/23/23 17:32	05/15/23	
Cobalt	200.8	91.0	ug/L	0.020	0.009	1	05/23/23 17:32	05/15/23	
Iron	200.8	39300	ug/L	2.0	0.3	1	05/23/23 17:32	05/15/23	
Manganese	200.8	650	ug/L	0.20	0.04	1	05/30/23 16:51	05/26/23	

ALS Group USA, Corp.
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Analytical Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.02 Task 06
Sample Matrix: Water
Sample Name: BY-COL-MW-24H-INF-3
Lab Code: K2305466-006

Service Request: K2305466
Date Collected: 05/02/23 12:05
Date Received: 05/11/23 13:45
Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	22.4	ug/L	0.50	0.09	1	05/23/23 17:33	05/15/23	
Iron	200.8	80200	ug/L	40	6	20	05/24/23 14:52	05/15/23	
Manganese	200.8	202	ug/L	0.20	0.04	1	05/30/23 16:53	05/26/23	

ALS Group USA, Corp.
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Analytical Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.02 Task 06
Sample Matrix: Water
Sample Name: BY-COL-MW-1-PM-3
Lab Code: K2305466-007

Service Request: K2305466
Date Collected: 05/02/23 12:15
Date Received: 05/11/23 13:45
Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	0.35 J	ug/L	0.50	0.09	1	05/23/23 17:35	05/15/23	
Iron	200.8	6130	ug/L	2.0	0.3	1	05/23/23 17:35	05/15/23	
Manganese	200.8	19100	ug/L	4.0	0.8	20	05/30/23 16:57	05/26/23	

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Analytical Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.02 Task 06
Sample Matrix: Water
Sample Name: BY-COL-MW-8-PM-3
Lab Code: K2305466-008

Service Request: K2305466
Date Collected: 05/02/23 12:16
Date Received: 05/11/23 13:45
Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	13.0	ug/L	0.50	0.09	1	05/23/23 17:36	05/15/23	
Iron	200.8	117	ug/L	2.0	0.3	1	05/23/23 17:36	05/15/23	
Manganese	200.8	4.94	ug/L	0.20	0.04	1	05/30/23 16:58	05/26/23	

ALS Group USA, Corp.
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Analytical Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.02 Task 06
Sample Matrix: Water
Sample Name: BY-COL-MW-10-PM-3
Lab Code: K2305466-009

Service Request: K2305466
Date Collected: 05/02/23 12:17
Date Received: 05/11/23 13:45
Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	0.53	ug/L	0.50	0.09	1	05/23/23 17:37	05/15/23	
Iron	200.8	3.1	ug/L	2.0	0.3	1	05/23/23 17:37	05/15/23	
Manganese	200.8	132	ug/L	0.20	0.04	1	05/30/23 16:59	05/26/23	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.02 Task 06
Sample Matrix: Water
Sample Name: BY-COL-MW-15-PM-3
Lab Code: K2305466-010

Service Request: K2305466
Date Collected: 05/02/23 12:18
Date Received: 05/11/23 13:45
Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	ND U	ug/L	0.50	0.09	1	05/23/23 17:39	05/15/23	
Cobalt	200.8	0.633	ug/L	0.020	0.009	1	05/23/23 17:39	05/15/23	
Iron	200.8	2.2	ug/L	2.0	0.3	1	05/23/23 17:39	05/15/23	
Manganese	200.8	2160	ug/L	0.20	0.04	1	05/30/23 17:00	05/26/23	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.02 Task 06
Sample Matrix: Water
Sample Name: BY-COL-MW-15-FS-3
Lab Code: K2305466-011

Service Request: K2305466
Date Collected: 05/02/23 12:19
Date Received: 05/11/23 13:45
Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	ND U	ug/L	0.50	0.09	1	05/23/23 17:40	05/15/23	
Cobalt	200.8	53.3	ug/L	0.020	0.009	1	05/23/23 17:40	05/15/23	
Iron	200.8	32300	ug/L	2.0	0.3	1	05/23/23 17:40	05/15/23	
Manganese	200.8	2540	ug/L	0.20	0.04	1	05/30/23 17:02	05/26/23	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.02 Task 06
Sample Matrix: Water
Sample Name: BY-COL-MW-24H-PM-3
Lab Code: K2305466-012

Service Request: K2305466
Date Collected: 05/02/23 12:20
Date Received: 05/11/23 13:45
Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	0.20 J	ug/L	0.50	0.09	1	05/23/23 17:42	05/15/23	
Iron	200.8	3.7	ug/L	2.0	0.3	1	05/23/23 17:42	05/15/23	
Manganese	200.8	6.55	ug/L	0.20	0.04	1	05/30/23 17:03	05/26/23	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.02 Task 06
Sample Matrix: Water
Sample Name: BY-COL-MW-1-PM-4
Lab Code: K2305466-013

Service Request: K2305466
Date Collected: 05/02/23 16:15
Date Received: 05/11/23 13:45
Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	0.34 J	ug/L	0.50	0.09	1	05/23/23 17:43	05/15/23	
Iron	200.8	3120	ug/L	2.0	0.3	1	05/23/23 17:43	05/15/23	
Manganese	200.8	21800	ug/L	4.0	0.8	20	05/30/23 17:04	05/26/23	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.02 Task 06
Sample Matrix: Water
Sample Name: BY-COL-MW-8-PM-4
Lab Code: K2305466-014

Service Request: K2305466
Date Collected: 05/02/23 16:16
Date Received: 05/11/23 13:45
Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	6.53	ug/L	0.50	0.09	1	05/23/23 17:47	05/15/23	
Iron	200.8	148	ug/L	2.0	0.3	1	05/23/23 17:47	05/15/23	
Manganese	200.8	12.5	ug/L	0.20	0.04	1	05/30/23 17:06	05/26/23	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.02 Task 06
Sample Matrix: Water
Sample Name: BY-COL-MW-10-PM-4
Lab Code: K2305466-015

Service Request: K2305466
Date Collected: 05/02/23 16:17
Date Received: 05/11/23 13:45
Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	0.56	ug/L	0.50	0.09	1	05/23/23 17:49	05/15/23	
Iron	200.8	2.0 J	ug/L	2.0	0.3	1	05/23/23 17:49	05/15/23	
Manganese	200.8	2850	ug/L	0.20	0.04	1	05/30/23 17:07	05/26/23	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.02 Task 06
Sample Matrix: Water
Sample Name: BY-COL-MW-15-PM-4
Lab Code: K2305466-016

Service Request: K2305466
Date Collected: 05/02/23 16:18
Date Received: 05/11/23 13:45
Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	ND U	ug/L	0.50	0.09	1	05/23/23 17:50	05/15/23	
Cobalt	200.8	0.890	ug/L	0.020	0.009	1	05/23/23 17:50	05/15/23	
Iron	200.8	1.5 J	ug/L	2.0	0.3	1	05/23/23 17:50	05/15/23	
Manganese	200.8	3010	ug/L	0.20	0.04	1	05/30/23 17:08	05/26/23	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.02 Task 06
Sample Matrix: Water
Sample Name: BY-COL-MW-15-FS-4
Lab Code: K2305466-017

Service Request: K2305466
Date Collected: 05/02/23 16:19
Date Received: 05/11/23 13:45
Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	0.10 J	ug/L	0.50	0.09	1	05/23/23 17:52	05/15/23	
Cobalt	200.8	52.1	ug/L	0.020	0.009	1	05/23/23 17:52	05/15/23	
Iron	200.8	35900	ug/L	2.0	0.3	1	05/23/23 17:52	05/15/23	
Manganese	200.8	1860	ug/L	0.20	0.04	1	05/30/23 17:12	05/26/23	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.02 Task 06
Sample Matrix: Water
Sample Name: BY-COL-MW-24H-PM-4
Lab Code: K2305466-018

Service Request: K2305466
Date Collected: 05/02/23 16:20
Date Received: 05/11/23 13:45
Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	0.22 J	ug/L	0.50	0.09	1	05/23/23 17:53	05/15/23	
Iron	200.8	3.7	ug/L	2.0	0.3	1	05/23/23 17:53	05/15/23	
Manganese	200.8	6.71	ug/L	0.20	0.04	1	05/30/23 17:13	05/26/23	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.02 Task 06
Sample Matrix: Water
Sample Name: BY-COL-MW-1-INF-4
Lab Code: K2305466-019

Service Request: K2305466
Date Collected: 05/02/23 16:10
Date Received: 05/11/23 13:45
Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	10.4	ug/L	0.50	0.09	1	05/23/23 17:54	05/15/23	
Iron	200.8	91400	ug/L	40	6	20	05/24/23 14:53	05/15/23	
Manganese	200.8	765	ug/L	0.20	0.04	1	05/30/23 17:15	05/26/23	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.02 Task 06
Sample Matrix: Water
Sample Name: BY-COL-MW-8-INF-4
Lab Code: K2305466-020

Service Request: K2305466
Date Collected: 05/02/23 16:11
Date Received: 05/11/23 13:45
Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	802	ug/L	0.50	0.09	1	05/23/23 17:56	05/15/23	
Iron	200.8	11500	ug/L	2.0	0.3	1	05/23/23 17:56	05/15/23	
Manganese	200.8	197	ug/L	0.20	0.04	1	05/30/23 17:18	05/26/23	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.02 Task 06
Sample Matrix: Water
Sample Name: BY-COL-MW-10-INF-4
Lab Code: K2305466-021

Service Request: K2305466
Date Collected: 05/02/23 16:12
Date Received: 05/11/23 13:45
Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	5.25	ug/L	0.50	0.09	1	05/24/23 08:11	05/16/23	
Iron	200.8	36600	ug/L	2.0	0.3	1	05/24/23 08:11	05/16/23	
Manganese	200.8	1190	ug/L	0.20	0.04	1	05/24/23 08:11	05/16/23	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.02 Task 06
Sample Matrix: Water
Sample Name: BY-COL-MW-15-PM-INF-4
Lab Code: K2305466-022

Service Request: K2305466
Date Collected: 05/02/23 16:13
Date Received: 05/11/23 13:45
Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	16.3	ug/L	0.50	0.09	1	05/24/23 08:13	05/16/23	
Cobalt	200.8	83.8	ug/L	0.020	0.009	1	05/24/23 08:13	05/16/23	
Iron	200.8	50900	ug/L	100	20	50	05/24/23 09:07	05/16/23	
Manganese	200.8	626	ug/L	0.20	0.04	1	05/24/23 08:13	05/16/23	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.02 Task 06
Sample Matrix: Water
Sample Name: BY-COL-MW-15-FS-INF-4
Lab Code: K2305466-023

Service Request: K2305466
Date Collected: 05/02/23 16:14
Date Received: 05/11/23 13:45
Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	0.30 J	ug/L	0.50	0.09	1	05/24/23 08:17	05/16/23	
Cobalt	200.8	90.7	ug/L	0.020	0.009	1	05/24/23 08:17	05/16/23	
Iron	200.8	38800	ug/L	2.0	0.3	1	05/24/23 08:17	05/16/23	
Manganese	200.8	654	ug/L	0.20	0.04	1	05/24/23 08:17	05/16/23	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.02 Task 06
Sample Matrix: Water
Sample Name: BY-COL-MW-24H-INF-4
Lab Code: K2305466-024

Service Request: K2305466
Date Collected: 05/02/23 16:15
Date Received: 05/11/23 13:45
Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	7.37	ug/L	0.50	0.09	1	05/24/23 08:18	05/16/23	
Iron	200.8	80200	ug/L	100	20	50	05/24/23 09:09	05/16/23	
Manganese	200.8	197	ug/L	0.20	0.04	1	05/24/23 08:18	05/16/23	



QC Summary Forms

ALS Environmental—Kelso Laboratory
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Metals

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ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.02 Task 06
Sample Matrix: Water
Sample Name: Method Blank
Lab Code: KQ2308649-01

Service Request: K2305466
Date Collected: NA
Date Received: NA
Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	ND U	ug/L	0.50	0.09	1	05/24/23 08:00	05/16/23	
Cobalt	200.8	ND U	ug/L	0.020	0.009	1	05/24/23 08:00	05/16/23	
Iron	200.8	ND U	ug/L	2.0	0.3	1	05/24/23 08:00	05/16/23	
Manganese	200.8	0.08 J	ug/L	0.20	0.04	1	05/24/23 08:00	05/16/23	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.02 Task 06
Sample Matrix: Water
Sample Name: Method Blank
Lab Code: KQ2308661-01

Service Request: K2305466
Date Collected: NA
Date Received: NA
Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	ND U	ug/L	0.50	0.09	1	05/23/23 17:13	05/15/23	
Cobalt	200.8	ND U	ug/L	0.020	0.009	1	05/23/23 17:13	05/15/23	
Iron	200.8	ND U	ug/L	2.0	0.3	1	05/23/23 17:13	05/15/23	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.02 Task 06
Sample Matrix: Water
Sample Name: Method Blank
Lab Code: KQ2309386-01

Service Request: K2305466
Date Collected: NA
Date Received: NA
Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Manganese	200.8	ND U	ug/L	0.20	0.04	1	05/30/23 16:41	05/26/23	

ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.02 Task 06
Sample Matrix: Water

Service Request: K2305466
Date Collected: 05/02/23
Date Received: 05/11/23
Date Analyzed: 05/24/23
Date Extracted: 05/16/23

Matrix Spike Summary
Dissolved Metals

Sample Name: BY-COL-MW-24H-INF-4
Lab Code: K2305466-024
Analysis Method: 200.8
Prep Method: EPA CLP ILM04.0

Units: ug/L
Basis: NA

Matrix Spike
KQ2308649-06

Analyte Name	Sample Result	Result	Spike Amount	% Rec	% Rec Limits
Arsenic	7.37	56.7	50.0	99	70-130
Cobalt	4.97	29.3	25.0	97	70-130
Iron	80200	80600	50	712 #	70-130
Manganese	197	224	25.0	108 #	70-130

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

Matrix Spike and Matrix Spike Duplicate Data is presented for information purposes only. The matrix may or may not be relevant to samples reported in this report. The laboratory evaluates system performance based on the LCS and LCSD control limits.

ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.02 Task 06
Sample Matrix: Water

Service Request: K2305466
Date Collected: 05/02/23
Date Received: 05/11/23
Date Analyzed: 05/23/23
Date Extracted: 05/15/23

Matrix Spike Summary
Dissolved Metals

Sample Name: BY-COL-MW-1-INF-3
Lab Code: K2305466-001
Analysis Method: 200.8
Prep Method: EPA CLP ILM04.0

Units: ug/L
Basis: NA

Matrix Spike
KQ2308661-04

Analyte Name	Sample Result	Result	Spike Amount	% Rec	% Rec Limits
Arsenic	11.5	59.5	50.0	96	70-130
Cobalt	0.942	25.5	25.0	98	70-130
Iron	90500	88500	50	-3889 #	70-130

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

Matrix Spike and Matrix Spike Duplicate Data is presented for information purposes only. The matrix may or may not be relevant to samples reported in this report. The laboratory evaluates system performance based on the LCS and LCSD control limits.

ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.02 Task 06
Sample Matrix: Water

Service Request: K2305466
Date Collected: 05/02/23
Date Received: 05/11/23
Date Analyzed: 05/23/23
Date Extracted: 05/15/23

Matrix Spike Summary
Dissolved Metals

Sample Name: BY-COL-MW-8-INF-3
Lab Code: K2305466-002
Analysis Method: 200.8
Prep Method: EPA CLP ILM04.0

Units: ug/L
Basis: NA

Matrix Spike
KQ2308661-06

Analyte Name	Sample Result	Result	Spike Amount	% Rec	% Rec Limits
Arsenic	834	871	50.0	73 #	70-130
Cobalt	0.129	25.3	25.0	101	70-130
Iron	11700	11500	50.0	-442 #	70-130

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

Matrix Spike and Matrix Spike Duplicate Data is presented for information purposes only. The matrix may or may not be relevant to samples reported in this report. The laboratory evaluates system performance based on the LCS and LCSD control limits.

ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.02 Task 06
Sample Matrix: Water

Service Request: K2305466
Date Collected: 05/02/23
Date Received: 05/11/23
Date Analyzed: 05/30/23
Date Extracted: 05/26/23

Matrix Spike Summary
Dissolved Metals

Sample Name: BY-COL-MW-15-PM-INF-3
Lab Code: K2305466-004
Analysis Method: 200.8
Prep Method: EPA CLP ILM04.0

Units: ug/L
Basis: NA

Matrix Spike
KQ2309386-06

<u>Analyte Name</u>	<u>Sample Result</u>	<u>Result</u>	<u>Spike Amount</u>	<u>% Rec</u>	<u>% Rec Limits</u>
Manganese	644	663	25.0	76 #	70-130

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

Matrix Spike and Matrix Spike Duplicate Data is presented for information purposes only. The matrix may or may not be relevant to samples reported in this report. The laboratory evaluates system performance based on the LCS and LCSD control limits.

ALS Group USA, Corp.
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QA/QC Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.02 Task 06
Sample Matrix: Water

Service Request: K2305466
Date Collected: 05/02/23
Date Received: 05/11/23
Date Analyzed: 05/30/23
Date Extracted: 05/26/23

Matrix Spike Summary
Dissolved Metals

Sample Name: BY-COL-MW-1-INF-4
Lab Code: K2305466-019
Analysis Method: 200.8
Prep Method: EPA CLP ILM04.0

Units: ug/L
Basis: NA

Matrix Spike
KQ2309386-08

<u>Analyte Name</u>	<u>Sample Result</u>	<u>Result</u>	<u>Spike Amount</u>	<u>% Rec</u>	<u>% Rec Limits</u>
Manganese	765	788	25.0	93 #	70-130

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

Matrix Spike and Matrix Spike Duplicate Data is presented for information purposes only. The matrix may or may not be relevant to samples reported in this report. The laboratory evaluates system performance based on the LCS and LCSD control limits.

ALS Group USA, Corp.

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QA/QC Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.02 Task 06
Sample Matrix: Water

Service Request: K2305466
Date Collected: 05/02/23
Date Received: 05/11/23
Date Analyzed: 05/24/23

Replicate Sample Summary

Dissolved Metals

Sample Name: BY-COL-MW-24H-INF-4
Lab Code: K2305466-024

Units: ug/L
Basis: NA

Table with 9 columns: Analyte Name, Analysis Method, MRL, MDL, Sample Result, Duplicate Sample KQ2308649-05 Result, Average, RPD, RPD Limit. Rows include Arsenic, Cobalt, Iron, and Manganese.

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

ALS Group USA, Corp.

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QA/QC Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.02 Task 06
Sample Matrix: Water

Service Request: K2305466
Date Collected: 05/02/23
Date Received: 05/11/23
Date Analyzed: 05/23/23

Replicate Sample Summary

Dissolved Metals

Sample Name: BY-COL-MW-1-INF-3
Lab Code: K2305466-001

Units: ug/L
Basis: NA

Analyte Name	Analysis Method	MRL	MDL	Sample Result	Duplicate Sample	Average	RPD	RPD Limit
					KQ2308661-03 Result			
Arsenic	200.8	0.50	0.09	11.5	11.3	11.4	2	20
Cobalt	200.8	0.020	0.009	0.942	0.912	0.927	3	20
Iron	200.8	40	6	90500	89900	90200	<1	20

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

ALS Group USA, Corp.

dba ALS Environmental

QA/QC Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.02 Task 06
Sample Matrix: Water

Service Request: K2305466
Date Collected: 05/02/23
Date Received: 05/11/23
Date Analyzed: 05/23/23

Replicate Sample Summary

Dissolved Metals

Sample Name: BY-COL-MW-8-INF-3
Lab Code: K2305466-002

Units: ug/L
Basis: NA

Table with 9 columns: Analyte Name, Analysis Method, MRL, MDL, Sample Result, Duplicate Sample KQ2308661-05 Result, Average, RPD, RPD Limit. Rows include Arsenic, Cobalt, and Iron.

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

ALS Group USA, Corp.

dba ALS Environmental

QA/QC Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.02 Task 06
Sample Matrix: Water

Service Request: K2305466
Date Collected: 05/02/23
Date Received: 05/11/23
Date Analyzed: 05/30/23

Replicate Sample Summary

Dissolved Metals

Sample Name: BY-COL-MW-15-PM-INF-3
Lab Code: K2305466-004

Units: ug/L
Basis: NA

Analyte Name	Analysis Method	MRL	MDL	Sample Result	Duplicate Sample	Average	RPD	RPD Limit
					KQ2309386-05 Result			
Manganese	200.8	0.20	0.04	644	633	639	2	20

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

ALS Group USA, Corp.

dba ALS Environmental

QA/QC Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.02 Task 06
Sample Matrix: Water

Service Request: K2305466
Date Collected: 05/02/23
Date Received: 05/11/23
Date Analyzed: 05/30/23

Replicate Sample Summary

Dissolved Metals

Sample Name: BY-COL-MW-1-INF-4
Lab Code: K2305466-019

Units: ug/L
Basis: NA

Table with 9 columns: Analyte Name, Analysis Method, MRL, MDL, Sample Result, Duplicate Sample KQ2309386-07 Result, Average, RPD, RPD Limit. Row 1: Manganese, 200.8, 0.20, 0.04, 765, 774, 770, 1, 20.

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.02 Task 06
Sample Matrix: Water

Service Request: K2305466
Date Analyzed: 05/24/23

Lab Control Sample Summary
Dissolved Metals

Units:ug/L
Basis:NA

Lab Control Sample
KQ2308649-02

Analyte Name	Analytical Method	Result	Spike Amount	% Rec	% Rec Limits
Arsenic	200.8	48.2	50.0	96	85-115
Cobalt	200.8	24.5	25.0	98	85-115
Iron	200.8	48.2	50.0	96	85-115
Manganese	200.8	24.7	25.0	99	85-115

ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.02 Task 06
Sample Matrix: Water

Service Request: K2305466
Date Analyzed: 05/23/23

Lab Control Sample Summary
Dissolved Metals

Units:ug/L
Basis:NA

Lab Control Sample
KQ2308661-02

Analyte Name	Analytical Method	Result	Spike Amount	% Rec	% Rec Limits
Arsenic	200.8	48.1	50.0	96	85-115
Cobalt	200.8	25.1	25.0	100	85-115
Iron	200.8	49.2	50.0	98	85-115

ALS Group USA, Corp.

dba ALS Environmental

QA/QC Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.02 Task 06
Sample Matrix: Water

Service Request: K2305466

Date Analyzed: 05/30/23

Lab Control Sample Summary
Dissolved Metals

Units:ug/L

Basis:NA

Lab Control Sample

KQ2309386-02

Analyte Name	Analytical Method	Result	Spike Amount	% Rec	% Rec Limits
Manganese	200.8	25.5	25.0	102	85-115



May 25, 2023

Service Request No:K2305469

Masa Kanematsu
Anchor QEA, LLC
6720 SW Macadam Avenue
Suite 125
Portland, OR 97219

Laboratory Results for: Barry

Dear Masa,

Enclosed are the results of the sample(s) submitted to our laboratory May 11, 2023
For your reference, these analyses have been assigned our service request number **K2305469**.

Analyses were performed according to our laboratory's NELAP-approved quality assurance program. The test results meet requirements of the current NELAP standards, where applicable, and except as noted in the laboratory case narrative provided. For a specific list of NELAP-accredited analytes, refer to the certifications section at www.alsglobal.com. All results are intended to be considered in their entirety, and ALS Group USA Corp. dba ALS Environmental (ALS) is not responsible for use of less than the complete report. Results apply only to the items submitted to the laboratory for analysis and individual items (samples) analyzed, as listed in the report.

Please contact me if you have any questions. My extension is 3376. You may also contact me via email at Mark.Harris@alsglobal.com.

Respectfully submitted,

ALS Group USA, Corp. dba ALS Environmental

for Mark Harris
Project Manager

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dba ALS Environmental



Narrative Documents

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www.alsglobal.com



Client: Anchor QEA, LLC
Project: Barry
Sample Matrix: Water

Service Request: K2305469
Date Received: 05/11/2023

CASE NARRATIVE

All analyses were performed consistent with the quality assurance program of ALS Environmental. This report contains analytical results for samples for the Tier II level requested by the client.

Sample Receipt:

Twenty four water samples were received for analysis at ALS Environmental on 05/11/2023. Any discrepancies upon initial sample inspection are annotated on the sample receipt and preservation form included within this report. The samples were stored at minimum in accordance with the analytical method requirements.

Metals:

No significant anomalies were noted with this analysis.

Noel D. O'Connell

Approved by _____

Date 05/25/2023



SAMPLE DETECTION SUMMARY

This form includes only detections above the reporting levels. For a full listing of sample results, continue to the Sample Results section of this Report.

CLIENT ID: BY-COL-MW-1-PM-9	Lab ID: K2305469-001
------------------------------------	-----------------------------

Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	0.49	J	0.09	0.50	ug/L	200.8
Iron, Dissolved	1.5	J	0.3	2.0	ug/L	200.8
Manganese, Dissolved	1920		0.04	0.20	ug/L	200.8

CLIENT ID: BY-COL-MW-8-PM-9	Lab ID: K2305469-002
------------------------------------	-----------------------------

Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	529		0.09	0.50	ug/L	200.8
Iron, Dissolved	8930		0.3	2.0	ug/L	200.8
Manganese, Dissolved	196		0.04	0.20	ug/L	200.8

CLIENT ID: BY-COL-MW-10-PM-9	Lab ID: K2305469-003
-------------------------------------	-----------------------------

Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	0.45	J	0.09	0.50	ug/L	200.8
Iron, Dissolved	26200		0.3	2.0	ug/L	200.8
Manganese, Dissolved	13900		0.8	4.0	ug/L	200.8

CLIENT ID: BY-COL-MW-15-FS-9	Lab ID: K2305469-005
-------------------------------------	-----------------------------

Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	0.11	J	0.09	0.50	ug/L	200.8
Cobalt, Dissolved	80.9		0.009	0.020	ug/L	200.8
Iron, Dissolved	8740		0.3	2.0	ug/L	200.8
Manganese, Dissolved	651		0.04	0.20	ug/L	200.8

CLIENT ID: BY-COL-MW-24H-PM-9	Lab ID: K2305469-006
--------------------------------------	-----------------------------

Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	0.30	J	0.09	0.50	ug/L	200.8
Iron, Dissolved	2.9		0.3	2.0	ug/L	200.8
Manganese, Dissolved	15600		0.8	4.0	ug/L	200.8

CLIENT ID: BY-COL-MW-1-INF-9	Lab ID: K2305469-007
-------------------------------------	-----------------------------

Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	7.63		0.09	0.50	ug/L	200.8
Iron, Dissolved	87400		6	40	ug/L	200.8
Manganese, Dissolved	780		0.04	0.20	ug/L	200.8

CLIENT ID: BY-COL-MW-8-INF-9	Lab ID: K2305469-008
-------------------------------------	-----------------------------

Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	648		0.09	0.50	ug/L	200.8
Iron, Dissolved	10600		0.3	2.0	ug/L	200.8
Manganese, Dissolved	197		0.04	0.20	ug/L	200.8

CLIENT ID: BY-COL-MW-10-INF-9	Lab ID: K2305469-009
--------------------------------------	-----------------------------

Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	1.73		0.09	0.50	ug/L	200.8



SAMPLE DETECTION SUMMARY

This form includes only detections above the reporting levels. For a full listing of sample results, continue to the Sample Results section of this Report.

CLIENT ID: BY-COL-MW-10-INF-9	Lab ID: K2305469-009
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Analyte	Results	Flag	MDL	MRL	Units	Method
Iron, Dissolved	16400		0.3	2.0	ug/L	200.8
Manganese, Dissolved	1130		0.04	0.20	ug/L	200.8

CLIENT ID: BY-COL-MW-15-PM-INF-9	Lab ID: K2305469-010
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Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	0.16	J	0.09	0.50	ug/L	200.8
Cobalt, Dissolved	85.8		0.009	0.020	ug/L	200.8
Iron, Dissolved	32600		0.3	2.0	ug/L	200.8
Manganese, Dissolved	640		0.04	0.20	ug/L	200.8

CLIENT ID: BY-COL-MW-15-FS-INF-9	Lab ID: K2305469-011
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Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	0.10	J	0.09	0.50	ug/L	200.8
Cobalt, Dissolved	92.6		0.009	0.020	ug/L	200.8
Iron, Dissolved	27500		0.3	2.0	ug/L	200.8
Manganese, Dissolved	658		0.04	0.20	ug/L	200.8

CLIENT ID: BY-COL-MW-24H-INF-9	Lab ID: K2305469-012
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Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	1.36		0.09	0.50	ug/L	200.8
Iron, Dissolved	72700		6	40	ug/L	200.8
Manganese, Dissolved	199		0.04	0.20	ug/L	200.8

CLIENT ID: BY-COL-MW-1-PM-10	Lab ID: K2305469-013
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Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	0.42	J	0.09	0.50	ug/L	200.8
Iron, Dissolved	30500		0.3	2.0	ug/L	200.8
Manganese, Dissolved	14100		0.8	4.0	ug/L	200.8

CLIENT ID: BY-COL-MW-8-PM-10	Lab ID: K2305469-014
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Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	503		0.09	0.50	ug/L	200.8
Iron, Dissolved	8760		0.3	2.0	ug/L	200.8
Manganese, Dissolved	214		0.04	0.20	ug/L	200.8

CLIENT ID: BY-COL-MW-10-PM-10	Lab ID: K2305469-015
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Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	0.56		0.09	0.50	ug/L	200.8
Iron, Dissolved	4.1		0.3	2.0	ug/L	200.8
Manganese, Dissolved	1710		0.04	0.20	ug/L	200.8

CLIENT ID: BY-COL-MW-15-FS-10	Lab ID: K2305469-017
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Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	0.12	J	0.09	0.50	ug/L	200.8



SAMPLE DETECTION SUMMARY

This form includes only detections above the reporting levels. For a full listing of sample results, continue to the Sample Results section of this Report.

CLIENT ID: BY-COL-MW-15-FS-10	Lab ID: K2305469-017
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Analyte	Results	Flag	MDL	MRL	Units	Method
Cobalt, Dissolved	81.9		0.009	0.020	ug/L	200.8
Iron, Dissolved	8170		0.3	2.0	ug/L	200.8
Manganese, Dissolved	645		0.04	0.20	ug/L	200.8

CLIENT ID: BY-COL-MW-24H-PM-10	Lab ID: K2305469-018
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Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	0.30	J	0.09	0.50	ug/L	200.8
Iron, Dissolved	3.2		0.3	2.0	ug/L	200.8
Manganese, Dissolved	13100		0.8	4.0	ug/L	200.8

CLIENT ID: BY-COL-MW-1-INF-10	Lab ID: K2305469-019
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Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	7.68		0.09	0.50	ug/L	200.8
Iron, Dissolved	83900		6	40	ug/L	200.8
Manganese, Dissolved	770		0.04	0.20	ug/L	200.8

CLIENT ID: BY-COL-MW-8-INF-10	Lab ID: K2305469-020
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Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	654		0.09	0.50	ug/L	200.8
Iron, Dissolved	10400		0.3	2.0	ug/L	200.8
Manganese, Dissolved	203		0.04	0.20	ug/L	200.8

CLIENT ID: BY-COL-MW-10-INF-10	Lab ID: K2305469-021
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Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	1.77		0.09	0.50	ug/L	200.8
Iron, Dissolved	14600		0.3	2.0	ug/L	200.8
Manganese, Dissolved	1140		0.04	0.20	ug/L	200.8

CLIENT ID: BY-COL-MW-15-PM-INF-10	Lab ID: K2305469-022
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Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	0.16	J	0.09	0.50	ug/L	200.8
Cobalt, Dissolved	83.3		0.009	0.020	ug/L	200.8
Iron, Dissolved	30900		0.3	2.0	ug/L	200.8
Manganese, Dissolved	628		0.04	0.20	ug/L	200.8

CLIENT ID: BY-COL-MW-15-FS-INF-10	Lab ID: K2305469-023
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Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	0.12	J	0.09	0.50	ug/L	200.8
Cobalt, Dissolved	88.8		0.009	0.020	ug/L	200.8
Iron, Dissolved	26000		0.3	2.0	ug/L	200.8
Manganese, Dissolved	640		0.04	0.20	ug/L	200.8



SAMPLE DETECTION SUMMARY

This form includes only detections above the reporting levels. For a full listing of sample results, continue to the Sample Results section of this Report.

CLIENT ID: BY-COL-MW-24H-INF-10	Lab ID: K2305469-024
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Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	1.53		0.09	0.50	ug/L	200.8
Iron, Dissolved	74400		20	100	ug/L	200.8
Manganese, Dissolved	194		0.04	0.20	ug/L	200.8

CLIENT ID: BY-COL-MW-15-PM-9	Lab ID: K2305469-004
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Analyte	Results	Flag	MDL	MRL	Units	Method
Cobalt, Dissolved	3.43		0.009	0.020	ug/L	200.8
Iron, Dissolved	3.6		0.3	2.0	ug/L	200.8
Manganese, Dissolved	8630		0.04	0.20	ug/L	200.8

CLIENT ID: BY-COL-MW-15-PM-10	Lab ID: K2305469-016
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Analyte	Results	Flag	MDL	MRL	Units	Method
Cobalt, Dissolved	3.61		0.009	0.020	ug/L	200.8
Iron, Dissolved	1.9	J	0.3	2.0	ug/L	200.8
Manganese, Dissolved	8140		0.04	0.20	ug/L	200.8



Sample Receipt Information

ALS Environmental—Kelso Laboratory
1317 South 13th Avenue, Kelso, WA 98626
Phone (360) 577-7222 Fax (360) 425-9096
www.alsglobal.com

Client: Anchor QEA, LLC
Project: Barry/221114-08.02 Task 06


Service Request:K2305469

SAMPLE CROSS-REFERENCE

<u>SAMPLE #</u>	<u>CLIENT SAMPLE ID</u>	<u>DATE</u>	<u>TIME</u>
K2305469-001	BY-COL-MW-1-PM-9	5/4/2023	1215
K2305469-002	BY-COL-MW-8-PM-9	5/4/2023	1216
K2305469-003	BY-COL-MW-10-PM-9	5/4/2023	1217
K2305469-004	BY-COL-MW-15-PM-9	5/4/2023	1218
K2305469-005	BY-COL-MW-15-FS-9	5/4/2023	1219
K2305469-006	BY-COL-MW-24H-PM-9	5/4/2023	1220
K2305469-007	BY-COL-MW-1-INF-9	5/4/2023	1200
K2305469-008	BY-COL-MW-8-INF-9	5/4/2023	1201
K2305469-009	BY-COL-MW-10-INF-9	5/4/2023	1202
K2305469-010	BY-COL-MW-15-PM-INF-9	5/4/2023	1203
K2305469-011	BY-COL-MW-15-FS-INF-9	5/4/2023	1204
K2305469-012	BY-COL-MW-24H-INF-9	5/4/2023	1205
K2305469-013	BY-COL-MW-1-PM-10	5/4/2023	1530
K2305469-014	BY-COL-MW-8-PM-10	5/4/2023	1531
K2305469-015	BY-COL-MW-10-PM-10	5/4/2023	1532
K2305469-016	BY-COL-MW-15-PM-10	5/4/2023	1533
K2305469-017	BY-COL-MW-15-FS-10	5/4/2023	1534
K2305469-018	BY-COL-MW-24H-PM-10	5/4/2023	1535
K2305469-019	BY-COL-MW-1-INF-10	5/4/2023	1515
K2305469-020	BY-COL-MW-8-INF-10	5/4/2023	1516
K2305469-021	BY-COL-MW-10-INF-10	5/4/2023	1517
K2305469-022	BY-COL-MW-15-PM-INF-10	5/4/2023	1518
K2305469-023	BY-COL-MW-15-FS-INF-10	5/4/2023	1519
K2305469-024	BY-COL-MW-24H-INF-10	5/4/2023	1520

K2305469

Chain of Custody Record & Laboratory Analysis Request

Laboratory Number: 503-972-5019					No. of Containers	Parameters										 ANCHOR QEA Masa Kanematsu 6720 SW Macadam Ave Suite 125 Portland OR 97219
Date:	5/11/2023															
Project Name:	Barry															
Project Number:	221114-08.02 Task 06															
Project Manager:	Masa Kanematsu															
Phone Number:	503-972-5001 (backup number: 503-798-3456)															
Shipment Method:	ALS Carrier															

Line	Field Sample ID	Collection		Matrix	No. of Containers	Parameters										Comments/Preservation			
		Date	Time			Dissolved Metals (As, Fe, Mn)	Dissolved Metals (As, Co, Fe, Mn)												
1	BY-COL-MW-1-PM-9	5/4/2023	12:15	Water	1	X													HNO3-Preserved; 0.45um-filtered.
2	BY-COL-MW-8-PM-9	5/4/2023	12:16	Water	1	X													HNO3-Preserved; 0.45um-filtered.
3	BY-COL-MW-10-PM-9	5/4/2023	12:17	Water	1	X													HNO3-Preserved; 0.45um-filtered.
4	BY-COL-MW-15-PM-9	5/4/2023	12:18	Water	1		X												HNO3-Preserved; 0.45um-filtered.
5	BY-COL-MW-15-FS-9	5/4/2023	12:19	Water	1		X												HNO3-Preserved; 0.45um-filtered.
6	BY-COL-MW-24H-PM-9	5/4/2023	12:20	Water	1	X													HNO3-Preserved; 0.45um-filtered.
7	BY-COL-MW-1-INF-9	5/4/2023	12:00	Water	1	X													HNO3-Preserved; 0.45um-filtered.
8	BY-COL-MW-8-INF-9	5/4/2023	12:01	Water	1	X													HNO3-Preserved; 0.45um-filtered.
9	BY-COL-MW-10-INF-9	5/4/2023	12:02	Water	1	X													HNO3-Preserved; 0.45um-filtered.
10	BY-COL-MW-15-PM-INF-9	5/4/2023	12:03	Water	1		X												HNO3-Preserved; 0.45um-filtered.
11	BY-COL-MW-15-FS-INF-9	5/4/2023	12:04	Water	1		X												HNO3-Preserved; 0.45um-filtered.
12	BY-COL-MW-24H-INF-9	5/4/2023	12:05	Water	1	X													HNO3-Preserved; 0.45um-filtered.
13																			
14																			
15																			
16																			
17																			
18																			
19																			
20																			


Notes: Please Contact Masa (503-972-5001, mkanematsu@anchorqea.com) if running > 10X dilution. Please analyze by ICP-MS method 200.8 to achieve the MDL < 1 ppb.

Relinquished by: Emma Nordlund	Company: Anchor QEA	Received by: <i>Greg Rich</i>
Signature/Print Name: <i>Emma Nordlund</i>	Date/Time: 5/11/23 8:00AM	Signature/Print Name: <i>Greg Rich 5-11-23 1015</i>
Relinquished by: <i>Greg Rich</i>	Company: ALS	Received by: <i>Greg Rich</i>
Signature/Print Name: <i>Greg Rich</i>	Date/Time: 5-11-23 1345	Signature/Print Name: <i>Greg Rich 5/11/23 1345</i>

Distribution: A copy will be made for the laboratory and client. The Project file will retain the original.

112305469

Chain of Custody Record & Laboratory Analysis Request

Laboratory Number: 503-972-5019					Parameters												 ANCHOR QEA Masa Kanematsu 6720 SW Macadam Ave Suite 125 Portland OR 97219									
Date:	5/11/2023																									
Project Name:	Barry																									
Project Number:	221114-08.02 Task 06																									
Project Manager:	Masa Kanematsu																									
Phone Number:	503-972-5001 (backup number: 503-798-3456)																									
Shipment Method:	ALS Carrier																									
Line	Field Sample ID	Collection		Matrix	No. of Containers	Parameters												Comments/Preservation								
		Date	Time			Dissolved Metals (As, Fe, Mn)	Dissolved Metals (As, Co, Fe, Mn)																			
1	BY-COL-MW-1-PM-10	5/4/2023	15:30	Water	1	X																			HNO3-Preserved; 0.45um-filtered.	
2	BY-COL-MW-8-PM-10	5/4/2023	15:31	Water	1	X																			HNO3-Preserved; 0.45um-filtered.	
3	BY-COL-MW-10-PM-10	5/4/2023	15:32	Water	1	X																			HNO3-Preserved; 0.45um-filtered.	
4	BY-COL-MW-15-PM-10	5/4/2023	15:33	Water	1		X																		HNO3-Preserved; 0.45um-filtered.	
5	BY-COL-MW-15-FS-10	5/4/2023	15:34	Water	1		X																		HNO3-Preserved; 0.45um-filtered.	
6	BY-COL-MW-24H-PM-10	5/4/2023	15:35	Water	1	X																			HNO3-Preserved; 0.45um-filtered.	
7	BY-COL-MW-1-INF-10	5/4/2023	15:15	Water	1	X																			HNO3-Preserved; 0.45um-filtered.	
8	BY-COL-MW-8-INF-10	5/4/2023	15:16	Water	1	X																			HNO3-Preserved; 0.45um-filtered.	
9	BY-COL-MW-10-INF-10	5/4/2023	15:17	Water	1	X																			HNO3-Preserved; 0.45um-filtered.	
10	BY-COL-MW-15-PM-INF-10	5/4/2023	15:18	Water	1		X																		HNO3-Preserved; 0.45um-filtered.	
11	BY-COL-MW-15-FS-INF-10	5/4/2023	15:19	Water	1		X																		HNO3-Preserved; 0.45um-filtered.	
12	BY-COL-MW-24H-INF-10	5/4/2023	15:20	Water	1	X																			HNO3-Preserved; 0.45um-filtered.	
13																										
14																										
15																										
16																										
17																										
18																										
19																										
20																										

Notes: Please Contact Masa (503-972-5001, mkanematsu@anchorqea.com) if running > 10X dilution. Please analyze by ICP-MS method 200.8 to achieve the MDL < 1 ppb.

Relinquished by: Emma Nordlund	Company: Anchor QEA
Signature/Print Name: <i>Emma Nordlund</i>	Date/Time: 5/11/23 8:00 AM
Relinquished by: <i>Greg Rich</i>	Company: ALS
Signature/Print Name: <i>Greg Rich</i>	Date/Time: 5-11-23 1345

Received by: <i>Greg Rich</i>
Signature/Print Name: <i>Greg Rich 571-23 1015</i>
Received by: <i>[Signature]</i>
Signature/Print Name: <i>[Signature] 5/11/23 1345</i>

Distribution: A copy will be made for the laboratory and client. The Project file will retain the original.

Cooler Receipt and Preservation Form

Client Ancher

Service Request K23

0546a

Received: 5/11/23

Opened: 5/11/23

By: JA

Unloaded: 5/11/23

By: JA

Samples were received via? **USPS** **Fed Ex** **UPS** **DHL** **PDX** Courier **Hand Delivered**

Samples were received in: (circle) Cooler **Box** **Envelope** **Other** **NA**

Were custody seals on coolers? **NA** **Y** N If yes, how many and where? _____

If present, were custody seals intact? **Y** **N** If present, were they signed and dated? **Y** **N**

Temp Blank	Sample Temp	IR Gun	Cooler #/COC ID / NA	Out of temp Indicate with "X"	PM Notified If out of temp	Tracking Number <u>NA</u>	Filed
	<u>24.0</u>	<u>IR02</u>	<u>1054</u>				
<u>S.6</u>		<u>IR02</u>	<u>2054</u>				
<u>S.1</u>		<u>IR02</u>	<u>3054</u>				
<u>S.8</u>		<u>IR02</u>	<u>4054</u>				

Was a Temperature Blank present in cooler? **NA** Y **N** If yes, notate the temperature in the appropriate column above:

If no, take the temperature of a representative sample bottle contained within the cooler; notate in the column "Sample Temp":

Were samples received within the method specified temperature ranges? **NA** Y **N**

If no, were they received on ice and same day as collected? If not, notate the cooler # above and notify the PM. NA **Y** **N**

If applicable, tissue samples were received: **Frozen** **Partially Thawed** **Thawed**

Packing material: **Inserts** Raggies Bubble Wrap **Gel Packs** **Wet Ice** **Dry Ice** **Sleeves** _____

Were custody papers properly filled out (ink, signed, etc.)? **NA** Y **N**

Were samples received in good condition (unbroken) **NA** Y **N**

Were all sample labels complete (ie, analysis, preservation, etc.)? **NA** Y **N**

Did all sample labels and tags agree with custody papers? **NA** Y **N**

Were appropriate bottles/containers and volumes received for the tests indicated? **NA** Y **N**

Were the pH-preserved bottles (see SMO GEN SOP) received at the appropriate pH? Indicate in the table below NA **Y** **N**

Were VOA vials received without headspace? Indicate in the table below NA **Y** **N**

Was C12/Res negative? NA **Y** **N**

Were samples received within the method specified time limit? If not, notate the error below and notify the PM NA **Y** **N**

Were 100ml sterile microbiology bottles filled exactly to the 100ml mark? NA **Y** **N** Underfilled Overfilled

Sample ID on Bottle	Sample ID on COC	Identified by:

Sample ID	Bottle Count	Bottle Type	Head-space	Broke	pH	Reagent	Volume added	Reagent Lot Number	Initials	Time

Notes, Discrepancies, Resolutions: Temp not an issue, samples for metals analysis

Not enough volume to pH.



Miscellaneous Forms

ALS Environmental—Kelso Laboratory
1317 South 13th Avenue, Kelso, WA 98626
Phone (360) 577-7222 Fax (360) 425-9096
www.alsglobal.com

Inorganic Data Qualifiers

- * The result is an outlier. See case narrative.
- # The control limit criteria is not applicable.
- B The analyte was found in the associated method blank at a level that is significant relative to the sample result as defined by the DOD or NELAC standards.
- E The result is an estimate amount because the value exceeded the instrument calibration range.
- J The result is an estimated value.
- U The analyte was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL.
DOD-QSM 4.2 definition : Analyte was not detected and is reported as less than the LOD or as defined by the project. The detection limit is adjusted for dilution.
- i The MRL/MDL or LOQ/LOD is elevated due to a matrix interference.
- X See case narrative.
- Q See case narrative. One or more quality control criteria was outside the limits.
- H The holding time for this test is immediately following sample collection. The samples were analyzed as soon as possible after receipt by the laboratory.

Metals Data Qualifiers

- # The control limit criteria is not applicable.
- J The result is an estimated value.
- E The percent difference for the serial dilution was greater than 10%, indicating a possible matrix interference in the sample.
- M The duplicate injection precision was not met.
- N The Matrix Spike sample recovery is not within control limits. See case narrative.
- S The reported value was determined by the Method of Standard Additions (MSA).
- U The analyte was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL.
DOD-QSM 4.2 definition : Analyte was not detected and is reported as less than the LOD or as defined by the project. The detection limit is adjusted for dilution.
- W The post-digestion spike for furnace AA analysis is out of control limits, while sample absorbance is less than 50% of spike absorbance.
 - i The MRL/MDL or LOQ/LOD is elevated due to a matrix interference.
- X See case narrative.
- + The correlation coefficient for the MSA is less than 0.995.
- Q See case narrative. One or more quality control criteria was outside the limits.

Organic Data Qualifiers

- * The result is an outlier. See case narrative.
- # The control limit criteria is not applicable. See case narrative.
- A A tentatively identified compound, a suspected aldol-condensation product.
- B The analyte was found in the associated method blank at a level that is significant relative to the sample result as defined by the DOD or NELAC standards.
- C The analyte was qualitatively confirmed using GC/MS techniques, pattern recognition, or by comparing to historical data.
- D The reported result is from a dilution.
- E The result is an estimated value.
- J The result is an estimated value.
- N The result is presumptive. The analyte was tentatively identified, but a confirmation analysis was not performed.
- P The GC or HPLC confirmation criteria was exceeded. The relative percent difference is greater than 40% between the two analytical results.
- U The analyte was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL.
DOD-QSM 4.2 definition : Analyte was not detected and is reported as less than the LOD or as defined by the project. The detection limit is adjusted for dilution.
 - i The MRL/MDL or LOQ/LOD is elevated due to a chromatographic interference.
- X See case narrative.
- Q See case narrative. One or more quality control criteria was outside the limits.

Additional Petroleum Hydrocarbon Specific Qualifiers

- F The chromatographic fingerprint of the sample matches the elution pattern of the calibration standard.
- L The chromatographic fingerprint of the sample resembles a petroleum product, but the elution pattern indicates the presence of a greater amount of lighter molecular weight constituents than the calibration standard.
- H The chromatographic fingerprint of the sample resembles a petroleum product, but the elution pattern indicates the presence of a greater amount of heavier molecular weight constituents than the calibration standard.
- O The chromatographic fingerprint of the sample resembles an oil, but does not match the calibration standard.
- Y The chromatographic fingerprint of the sample resembles a petroleum product eluting in approximately the correct carbon range, but the elution pattern does not match the calibration standard.
- Z The chromatographic fingerprint does not resemble a petroleum product.

**ALS Group USA Corp. dba ALS Environmental (ALS) - Kelso
State Certifications, Accreditations, and Licenses**

Agency	Web Site	Number
Alaska DEH	http://dec.alaska.gov/eh/lab/cs/csapproval.htm	UST-040
Arizona DHS	http://www.azdhs.gov/lab/license/env.htm	AZ0339
Arkansas - DEQ	http://www.adeq.state.ar.us/techsvs/labcert.htm	88-0637
California DHS (ELAP)	http://www.cdph.ca.gov/certlic/labs/Pages/ELAP.aspx	2795
DOD ELAP	http://www.denix.osd.mil/edqw/Accreditation/AccreditedLabs.cfm	L16-58-R4
Florida DOH	http://www.doh.state.fl.us/lab/EnvLabCert/WaterCert.htm	E87412
Hawaii DOH	http://health.hawaii.gov/	-
ISO 17025	http://www.pjllabs.com/	L16-57
Louisiana DEQ	http://www.deq.louisiana.gov/page/la-lab-accreditation	03016
Maine DHS	http://www.maine.gov/dhhs/	WA01276
Minnesota DOH	http://www.health.state.mn.us/accreditation	053-999-457
Nevada DEP	http://ndep.nv.gov/bsdw/labservice.htm	WA01276
New Jersey DEP	http://www.nj.gov/dep/enforcement/oqa.html	WA005
New York - DOH	https://www.wadsworth.org/regulatory/elap	12060
North Carolina DEQ	https://deq.nc.gov/about/divisions/water-resources/water-resources-data/water-sciences-home-page/laboratory-certification-branch/non-field-lab-certification	605
Oklahoma DEQ	http://www.deq.state.ok.us/CSDnew/labcert.htm	9801
Oregon – DEQ (NELAP)	http://public.health.oregon.gov/LaboratoryServices/EnvironmentalLaboratoryAccreditation/Pages/index.aspx	WA100010
South Carolina DHEC	http://www.scdhec.gov/environment/EnvironmentalLabCertification/	61002
Texas CEQ	http://www.tceq.texas.gov/field/qa/env_lab_accreditation.html	T104704427
Washington DOE	http://www.ecy.wa.gov/programs/eap/labs/lab-accreditation.html	C544
Wyoming (EPA Region 8)	https://www.epa.gov/region8-waterops/epa-region-8-certified-drinking-water	-
Kelso Laboratory Website	www.alsglobal.com	NA

Analyses were performed according to our laboratory's NELAP-approved quality assurance program. A complete listing of specific NELAP-certified analytes, can be found in the certification section at www.ALSGlobal.com or at the accreditation bodies web site.

Please refer to the certification and/or accreditation body's web site if samples are submitted for compliance purposes. The states highlighted above, require the analysis be listed on the state certification if used for compliance purposes and if the method/analyte is offered by that state.

Acronyms

ASTM	American Society for Testing and Materials
A2LA	American Association for Laboratory Accreditation
CARB	California Air Resources Board
CAS Number	Chemical Abstract Service registry Number
CFC	Chlorofluorocarbon
CFU	Colony-Forming Unit
DEC	Department of Environmental Conservation
DEQ	Department of Environmental Quality
DHS	Department of Health Services
DOE	Department of Ecology
DOH	Department of Health
EPA	U. S. Environmental Protection Agency
ELAP	Environmental Laboratory Accreditation Program
GC	Gas Chromatography
GC/MS	Gas Chromatography/Mass Spectrometry
LOD	Limit of Detection
LOQ	Limit of Quantitation
LUFT	Leaking Underground Fuel Tank
M	Modified
MCL	Maximum Contaminant Level is the highest permissible concentration of a substance allowed in drinking water as established by the USEPA.
MDL	Method Detection Limit
MPN	Most Probable Number
MRL	Method Reporting Limit
NA	Not Applicable
NC	Not Calculated
NCASI	National Council of the Paper Industry for Air and Stream Improvement
ND	Not Detected
NIOSH	National Institute for Occupational Safety and Health
PQL	Practical Quantitation Limit
RCRA	Resource Conservation and Recovery Act
SIM	Selected Ion Monitoring
TPH	Total Petroleum Hydrocarbons
tr	Trace level is the concentration of an analyte that is less than the PQL but greater than or equal to the MDL.

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Analyst Summary report

Client: Anchor QEA, LLC
Project: Barry/221114-08.02 Task 06

Service Request: K2305469

Sample Name: BY-COL-MW-1-PM-9
Lab Code: K2305469-001
Sample Matrix: Water

Date Collected: 05/4/23
Date Received: 05/11/23

Analysis Method
200.8

Extracted/Digested By
ABOYER

Analyzed By
EMCALLISTER

Sample Name: BY-COL-MW-8-PM-9
Lab Code: K2305469-002
Sample Matrix: Water

Date Collected: 05/4/23
Date Received: 05/11/23

Analysis Method
200.8

Extracted/Digested By
ABOYER

Analyzed By
EMCALLISTER

Sample Name: BY-COL-MW-10-PM-9
Lab Code: K2305469-003
Sample Matrix: Water

Date Collected: 05/4/23
Date Received: 05/11/23

Analysis Method
200.8

Extracted/Digested By
ABOYER

Analyzed By
EMCALLISTER

Sample Name: BY-COL-MW-15-PM-9
Lab Code: K2305469-004
Sample Matrix: Water

Date Collected: 05/4/23
Date Received: 05/11/23

Analysis Method
200.8

Extracted/Digested By
ABOYER

Analyzed By
EMCALLISTER

Sample Name: BY-COL-MW-15-FS-9
Lab Code: K2305469-005
Sample Matrix: Water

Date Collected: 05/4/23
Date Received: 05/11/23

Analysis Method
200.8

Extracted/Digested By
ABOYER

Analyzed By
EMCALLISTER

ALS Group USA, Corp.
dba ALS Environmental

Analyst Summary report

Client: Anchor QEA, LLC
Project: Barry/221114-08.02 Task 06

Service Request: K2305469

Sample Name: BY-COL-MW-24H-PM-9
Lab Code: K2305469-006
Sample Matrix: Water

Date Collected: 05/4/23
Date Received: 05/11/23

Analysis Method
200.8

Extracted/Digested By
ABOYER

Analyzed By
EMCALLISTER

Sample Name: BY-COL-MW-1-INF-9
Lab Code: K2305469-007
Sample Matrix: Water

Date Collected: 05/4/23
Date Received: 05/11/23

Analysis Method
200.8

Extracted/Digested By
ABOYER

Analyzed By
EMCALLISTER

Sample Name: BY-COL-MW-8-INF-9
Lab Code: K2305469-008
Sample Matrix: Water

Date Collected: 05/4/23
Date Received: 05/11/23

Analysis Method
200.8

Extracted/Digested By
ABOYER

Analyzed By
EMCALLISTER

Sample Name: BY-COL-MW-10-INF-9
Lab Code: K2305469-009
Sample Matrix: Water

Date Collected: 05/4/23
Date Received: 05/11/23

Analysis Method
200.8

Extracted/Digested By
ABOYER

Analyzed By
EMCALLISTER

Sample Name: BY-COL-MW-15-PM-INF-9
Lab Code: K2305469-010
Sample Matrix: Water

Date Collected: 05/4/23
Date Received: 05/11/23

Analysis Method
200.8

Extracted/Digested By
ABOYER

Analyzed By
EMCALLISTER

ALS Group USA, Corp.
dba ALS Environmental

Analyst Summary report

Client: Anchor QEA, LLC
Project: Barry/221114-08.02 Task 06

Service Request: K2305469

Sample Name: BY-COL-MW-15-FS-INF-9
Lab Code: K2305469-011
Sample Matrix: Water

Date Collected: 05/4/23
Date Received: 05/11/23

Analysis Method
200.8

Extracted/Digested By
ABOYER

Analyzed By
EMCALLISTER

Sample Name: BY-COL-MW-24H-INF-9
Lab Code: K2305469-012
Sample Matrix: Water

Date Collected: 05/4/23
Date Received: 05/11/23

Analysis Method
200.8

Extracted/Digested By
ABOYER

Analyzed By
EMCALLISTER

Sample Name: BY-COL-MW-1-PM-10
Lab Code: K2305469-013
Sample Matrix: Water

Date Collected: 05/4/23
Date Received: 05/11/23

Analysis Method
200.8

Extracted/Digested By
ABOYER

Analyzed By
EMCALLISTER

Sample Name: BY-COL-MW-8-PM-10
Lab Code: K2305469-014
Sample Matrix: Water

Date Collected: 05/4/23
Date Received: 05/11/23

Analysis Method
200.8

Extracted/Digested By
ABOYER

Analyzed By
EMCALLISTER

Sample Name: BY-COL-MW-10-PM-10
Lab Code: K2305469-015
Sample Matrix: Water

Date Collected: 05/4/23
Date Received: 05/11/23

Analysis Method
200.8

Extracted/Digested By
ABOYER

Analyzed By
EMCALLISTER

ALS Group USA, Corp.
dba ALS Environmental

Analyst Summary report

Client: Anchor QEA, LLC
Project: Barry/221114-08.02 Task 06

Service Request: K2305469

Sample Name: BY-COL-MW-15-PM-10
Lab Code: K2305469-016
Sample Matrix: Water

Date Collected: 05/4/23
Date Received: 05/11/23

Analysis Method
200.8

Extracted/Digested By
ABOYER

Analyzed By
EMCALLISTER

Sample Name: BY-COL-MW-15-FS-10
Lab Code: K2305469-017
Sample Matrix: Water

Date Collected: 05/4/23
Date Received: 05/11/23

Analysis Method
200.8

Extracted/Digested By
ABOYER

Analyzed By
EMCALLISTER

Sample Name: BY-COL-MW-24H-PM-10
Lab Code: K2305469-018
Sample Matrix: Water

Date Collected: 05/4/23
Date Received: 05/11/23

Analysis Method
200.8

Extracted/Digested By
ABOYER

Analyzed By
EMCALLISTER

Sample Name: BY-COL-MW-1-INF-10
Lab Code: K2305469-019
Sample Matrix: Water

Date Collected: 05/4/23
Date Received: 05/11/23

Analysis Method
200.8

Extracted/Digested By
ABOYER

Analyzed By
EMCALLISTER

Sample Name: BY-COL-MW-8-INF-10
Lab Code: K2305469-020
Sample Matrix: Water

Date Collected: 05/4/23
Date Received: 05/11/23

Analysis Method
200.8

Extracted/Digested By
ABOYER

Analyzed By
EMCALLISTER

ALS Group USA, Corp.
dba ALS Environmental

Analyst Summary report

Client: Anchor QEA, LLC
Project: Barry/221114-08.02 Task 06

Service Request: K2305469

Sample Name: BY-COL-MW-10-INF-10
Lab Code: K2305469-021
Sample Matrix: Water

Date Collected: 05/4/23
Date Received: 05/11/23

Analysis Method
200.8

Extracted/Digested By
ABOYER

Analyzed By
JCHAN

Sample Name: BY-COL-MW-15-PM-INF-10
Lab Code: K2305469-022
Sample Matrix: Water

Date Collected: 05/4/23
Date Received: 05/11/23

Analysis Method
200.8

Extracted/Digested By
ABOYER

Analyzed By
JCHAN

Sample Name: BY-COL-MW-15-FS-INF-10
Lab Code: K2305469-023
Sample Matrix: Water

Date Collected: 05/4/23
Date Received: 05/11/23

Analysis Method
200.8

Extracted/Digested By
ABOYER

Analyzed By
JCHAN

Sample Name: BY-COL-MW-24H-INF-10
Lab Code: K2305469-024
Sample Matrix: Water

Date Collected: 05/4/23
Date Received: 05/11/23

Analysis Method
200.8

Extracted/Digested By
ABOYER

Analyzed By
JCHAN



Sample Results

ALS Environmental—Kelso Laboratory
1317 South 13th Avenue, Kelso, WA 98626
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www.alsglobal.com



Metals

ALS Environmental—Kelso Laboratory
1317 South 13th Avenue, Kelso, WA 98626
Phone (360) 577-7222 Fax (360) 425-9096
www.alsglobal.com

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.02 Task 06
Sample Matrix: Water
Sample Name: BY-COL-MW-1-PM-9
Lab Code: K2305469-001

Service Request: K2305469
Date Collected: 05/04/23 12:15
Date Received: 05/11/23 13:45
Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	0.49 J	ug/L	0.50	0.09	1	05/24/23 13:36	05/16/23	
Iron	200.8	1.5 J	ug/L	2.0	0.3	1	05/24/23 13:36	05/16/23	
Manganese	200.8	1920	ug/L	0.20	0.04	1	05/24/23 13:36	05/16/23	

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Analytical Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.02 Task 06
Sample Matrix: Water
Sample Name: BY-COL-MW-8-PM-9
Lab Code: K2305469-002

Service Request: K2305469
Date Collected: 05/04/23 12:16
Date Received: 05/11/23 13:45
Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	529	ug/L	0.50	0.09	1	05/24/23 13:38	05/16/23	
Iron	200.8	8930	ug/L	2.0	0.3	1	05/24/23 13:38	05/16/23	
Manganese	200.8	196	ug/L	0.20	0.04	1	05/24/23 13:38	05/16/23	

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Analytical Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.02 Task 06
Sample Matrix: Water
Sample Name: BY-COL-MW-10-PM-9
Lab Code: K2305469-003

Service Request: K2305469
Date Collected: 05/04/23 12:17
Date Received: 05/11/23 13:45
Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	0.45 J	ug/L	0.50	0.09	1	05/24/23 13:39	05/16/23	
Iron	200.8	26200	ug/L	2.0	0.3	1	05/24/23 13:39	05/16/23	
Manganese	200.8	13900	ug/L	4.0	0.8	20	05/24/23 14:35	05/16/23	

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Analytical Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.02 Task 06
Sample Matrix: Water
Sample Name: BY-COL-MW-15-PM-9
Lab Code: K2305469-004

Service Request: K2305469
Date Collected: 05/04/23 12:18
Date Received: 05/11/23 13:45

Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	ND U	ug/L	0.50	0.09	1	05/24/23 13:40	05/16/23	
Cobalt	200.8	3.43	ug/L	0.020	0.009	1	05/24/23 13:40	05/16/23	
Iron	200.8	3.6	ug/L	2.0	0.3	1	05/24/23 13:40	05/16/23	
Manganese	200.8	8630	ug/L	0.20	0.04	1	05/24/23 13:40	05/16/23	

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Analytical Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.02 Task 06
Sample Matrix: Water
Sample Name: BY-COL-MW-15-FS-9
Lab Code: K2305469-005

Service Request: K2305469
Date Collected: 05/04/23 12:19
Date Received: 05/11/23 13:45
Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	0.11 J	ug/L	0.50	0.09	1	05/24/23 13:42	05/16/23	
Cobalt	200.8	80.9	ug/L	0.020	0.009	1	05/24/23 13:42	05/16/23	
Iron	200.8	8740	ug/L	2.0	0.3	1	05/24/23 13:42	05/16/23	
Manganese	200.8	651	ug/L	0.20	0.04	1	05/24/23 13:42	05/16/23	

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Analytical Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.02 Task 06
Sample Matrix: Water
Sample Name: BY-COL-MW-24H-PM-9
Lab Code: K2305469-006

Service Request: K2305469
Date Collected: 05/04/23 12:20
Date Received: 05/11/23 13:45
Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	0.30 J	ug/L	0.50	0.09	1	05/24/23 13:43	05/16/23	
Iron	200.8	2.9	ug/L	2.0	0.3	1	05/24/23 13:43	05/16/23	
Manganese	200.8	15600	ug/L	4.0	0.8	20	05/24/23 14:36	05/16/23	

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Analytical Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.02 Task 06
Sample Matrix: Water
Sample Name: BY-COL-MW-1-INF-9
Lab Code: K2305469-007

Service Request: K2305469
Date Collected: 05/04/23 12:00
Date Received: 05/11/23 13:45
Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	7.63	ug/L	0.50	0.09	1	05/24/23 13:45	05/16/23	
Iron	200.8	87400	ug/L	40	6	20	05/24/23 14:38	05/16/23	
Manganese	200.8	780	ug/L	0.20	0.04	1	05/24/23 13:45	05/16/23	

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Analytical Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.02 Task 06
Sample Matrix: Water
Sample Name: BY-COL-MW-8-INF-9
Lab Code: K2305469-008

Service Request: K2305469
Date Collected: 05/04/23 12:01
Date Received: 05/11/23 13:45
Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	648	ug/L	0.50	0.09	1	05/24/23 13:52	05/16/23	
Iron	200.8	10600	ug/L	2.0	0.3	1	05/24/23 13:52	05/16/23	
Manganese	200.8	197	ug/L	0.20	0.04	1	05/24/23 13:52	05/16/23	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.02 Task 06
Sample Matrix: Water
Sample Name: BY-COL-MW-10-INF-9
Lab Code: K2305469-009

Service Request: K2305469
Date Collected: 05/04/23 12:02
Date Received: 05/11/23 13:45
Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	1.73	ug/L	0.50	0.09	1	05/24/23 13:53	05/16/23	
Iron	200.8	16400	ug/L	2.0	0.3	1	05/24/23 13:53	05/16/23	
Manganese	200.8	1130	ug/L	0.20	0.04	1	05/24/23 13:53	05/16/23	

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dba ALS Environmental

Analytical Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.02 Task 06
Sample Matrix: Water
Sample Name: BY-COL-MW-15-PM-INF-9
Lab Code: K2305469-010

Service Request: K2305469
Date Collected: 05/04/23 12:03
Date Received: 05/11/23 13:45

Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	0.16 J	ug/L	0.50	0.09	1	05/24/23 13:55	05/16/23	
Cobalt	200.8	85.8	ug/L	0.020	0.009	1	05/24/23 13:55	05/16/23	
Iron	200.8	32600	ug/L	2.0	0.3	1	05/24/23 13:55	05/16/23	
Manganese	200.8	640	ug/L	0.20	0.04	1	05/24/23 13:55	05/16/23	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.02 Task 06
Sample Matrix: Water
Sample Name: BY-COL-MW-15-FS-INF-9
Lab Code: K2305469-011

Service Request: K2305469
Date Collected: 05/04/23 12:04
Date Received: 05/11/23 13:45

Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	0.10 J	ug/L	0.50	0.09	1	05/24/23 13:56	05/16/23	
Cobalt	200.8	92.6	ug/L	0.020	0.009	1	05/24/23 13:56	05/16/23	
Iron	200.8	27500	ug/L	2.0	0.3	1	05/24/23 13:56	05/16/23	
Manganese	200.8	658	ug/L	0.20	0.04	1	05/24/23 13:56	05/16/23	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.02 Task 06
Sample Matrix: Water
Sample Name: BY-COL-MW-24H-INF-9
Lab Code: K2305469-012

Service Request: K2305469
Date Collected: 05/04/23 12:05
Date Received: 05/11/23 13:45
Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	1.36	ug/L	0.50	0.09	1	05/24/23 13:57	05/16/23	
Iron	200.8	72700	ug/L	40	6	20	05/24/23 14:42	05/16/23	
Manganese	200.8	199	ug/L	0.20	0.04	1	05/24/23 13:57	05/16/23	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.02 Task 06
Sample Matrix: Water
Sample Name: BY-COL-MW-1-PM-10
Lab Code: K2305469-013

Service Request: K2305469
Date Collected: 05/04/23 15:30
Date Received: 05/11/23 13:45
Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	0.42 J	ug/L	0.50	0.09	1	05/24/23 13:59	05/16/23	
Iron	200.8	30500	ug/L	2.0	0.3	1	05/24/23 13:59	05/16/23	
Manganese	200.8	14100	ug/L	4.0	0.8	20	05/24/23 14:43	05/16/23	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.02 Task 06
Sample Matrix: Water
Sample Name: BY-COL-MW-8-PM-10
Lab Code: K2305469-014

Service Request: K2305469
Date Collected: 05/04/23 15:31
Date Received: 05/11/23 13:45
Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	503	ug/L	0.50	0.09	1	05/24/23 14:00	05/16/23	
Iron	200.8	8760	ug/L	2.0	0.3	1	05/24/23 14:00	05/16/23	
Manganese	200.8	214	ug/L	0.20	0.04	1	05/24/23 14:00	05/16/23	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.02 Task 06
Sample Matrix: Water
Sample Name: BY-COL-MW-10-PM-10
Lab Code: K2305469-015

Service Request: K2305469
Date Collected: 05/04/23 15:32
Date Received: 05/11/23 13:45
Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	0.56	ug/L	0.50	0.09	1	05/24/23 14:02	05/16/23	
Iron	200.8	4.1	ug/L	2.0	0.3	1	05/24/23 14:02	05/16/23	
Manganese	200.8	1710	ug/L	0.20	0.04	1	05/24/23 14:02	05/16/23	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.02 Task 06
Sample Matrix: Water
Sample Name: BY-COL-MW-15-PM-10
Lab Code: K2305469-016

Service Request: K2305469
Date Collected: 05/04/23 15:33
Date Received: 05/11/23 13:45

Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	ND U	ug/L	0.50	0.09	1	05/24/23 14:03	05/16/23	
Cobalt	200.8	3.61	ug/L	0.020	0.009	1	05/24/23 14:03	05/16/23	
Iron	200.8	1.9 J	ug/L	2.0	0.3	1	05/24/23 14:03	05/16/23	
Manganese	200.8	8140	ug/L	0.20	0.04	1	05/24/23 14:03	05/16/23	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.02 Task 06
Sample Matrix: Water
Sample Name: BY-COL-MW-15-FS-10
Lab Code: K2305469-017

Service Request: K2305469
Date Collected: 05/04/23 15:34
Date Received: 05/11/23 13:45
Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	0.12 J	ug/L	0.50	0.09	1	05/24/23 14:07	05/16/23	
Cobalt	200.8	81.9	ug/L	0.020	0.009	1	05/24/23 14:07	05/16/23	
Iron	200.8	8170	ug/L	2.0	0.3	1	05/24/23 14:07	05/16/23	
Manganese	200.8	645	ug/L	0.20	0.04	1	05/24/23 14:07	05/16/23	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.02 Task 06
Sample Matrix: Water
Sample Name: BY-COL-MW-24H-PM-10
Lab Code: K2305469-018

Service Request: K2305469
Date Collected: 05/04/23 15:35
Date Received: 05/11/23 13:45
Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	0.30 J	ug/L	0.50	0.09	1	05/24/23 14:09	05/16/23	
Iron	200.8	3.2	ug/L	2.0	0.3	1	05/24/23 14:09	05/16/23	
Manganese	200.8	13100	ug/L	4.0	0.8	20	05/24/23 14:45	05/16/23	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.02 Task 06
Sample Matrix: Water
Sample Name: BY-COL-MW-1-INF-10
Lab Code: K2305469-019

Service Request: K2305469
Date Collected: 05/04/23 15:15
Date Received: 05/11/23 13:45
Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	7.68	ug/L	0.50	0.09	1	05/24/23 14:10	05/16/23	
Iron	200.8	83900	ug/L	40	6	20	05/24/23 14:46	05/16/23	
Manganese	200.8	770	ug/L	0.20	0.04	1	05/24/23 14:10	05/16/23	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.02 Task 06
Sample Matrix: Water
Sample Name: BY-COL-MW-8-INF-10
Lab Code: K2305469-020

Service Request: K2305469
Date Collected: 05/04/23 15:16
Date Received: 05/11/23 13:45
Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	654	ug/L	0.50	0.09	1	05/24/23 14:12	05/16/23	
Iron	200.8	10400	ug/L	2.0	0.3	1	05/24/23 14:12	05/16/23	
Manganese	200.8	203	ug/L	0.20	0.04	1	05/24/23 14:12	05/16/23	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.02 Task 06
Sample Matrix: Water
Sample Name: BY-COL-MW-10-INF-10
Lab Code: K2305469-021

Service Request: K2305469
Date Collected: 05/04/23 15:17
Date Received: 05/11/23 13:45
Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	1.77	ug/L	0.50	0.09	1	05/24/23 08:23	05/16/23	
Iron	200.8	14600	ug/L	2.0	0.3	1	05/24/23 08:23	05/16/23	
Manganese	200.8	1140	ug/L	0.20	0.04	1	05/24/23 08:23	05/16/23	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.02 Task 06
Sample Matrix: Water
Sample Name: BY-COL-MW-15-PM-INF-10
Lab Code: K2305469-022

Service Request: K2305469
Date Collected: 05/04/23 15:18
Date Received: 05/11/23 13:45

Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	0.16 J	ug/L	0.50	0.09	1	05/24/23 08:24	05/16/23	
Cobalt	200.8	83.3	ug/L	0.020	0.009	1	05/24/23 08:24	05/16/23	
Iron	200.8	30900	ug/L	2.0	0.3	1	05/24/23 08:24	05/16/23	
Manganese	200.8	628	ug/L	0.20	0.04	1	05/24/23 08:24	05/16/23	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.02 Task 06
Sample Matrix: Water
Sample Name: BY-COL-MW-15-FS-INF-10
Lab Code: K2305469-023

Service Request: K2305469
Date Collected: 05/04/23 15:19
Date Received: 05/11/23 13:45
Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	0.12 J	ug/L	0.50	0.09	1	05/24/23 08:25	05/16/23	
Cobalt	200.8	88.8	ug/L	0.020	0.009	1	05/24/23 08:25	05/16/23	
Iron	200.8	26000	ug/L	2.0	0.3	1	05/24/23 08:25	05/16/23	
Manganese	200.8	640	ug/L	0.20	0.04	1	05/24/23 08:25	05/16/23	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.02 Task 06
Sample Matrix: Water
Sample Name: BY-COL-MW-24H-INF-10
Lab Code: K2305469-024

Service Request: K2305469
Date Collected: 05/04/23 15:20
Date Received: 05/11/23 13:45
Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	1.53	ug/L	0.50	0.09	1	05/24/23 08:27	05/16/23	
Iron	200.8	74400	ug/L	100	20	50	05/24/23 09:16	05/16/23	
Manganese	200.8	194	ug/L	0.20	0.04	1	05/24/23 08:27	05/16/23	



QC Summary Forms

ALS Environmental—Kelso Laboratory
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Metals

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1317 South 13th Avenue, Kelso, WA 98626
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ALS Group USA, Corp.
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Analytical Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.02 Task 06
Sample Matrix: Water
Sample Name: Method Blank
Lab Code: KQ2308649-01

Service Request: K2305469
Date Collected: NA
Date Received: NA
Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	ND U	ug/L	0.50	0.09	1	05/24/23 08:00	05/16/23	
Cobalt	200.8	ND U	ug/L	0.020	0.009	1	05/24/23 08:00	05/16/23	
Iron	200.8	ND U	ug/L	2.0	0.3	1	05/24/23 08:00	05/16/23	
Manganese	200.8	0.08 J	ug/L	0.20	0.04	1	05/24/23 08:00	05/16/23	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.02 Task 06
Sample Matrix: Water
Sample Name: Method Blank
Lab Code: KQ2308662-01

Service Request: K2305469
Date Collected: NA
Date Received: NA
Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	ND U	ug/L	0.50	0.09	1	05/24/23 13:33	05/16/23	
Cobalt	200.8	ND U	ug/L	0.020	0.009	1	05/24/23 13:33	05/16/23	
Iron	200.8	ND U	ug/L	2.0	0.3	1	05/24/23 13:33	05/16/23	
Manganese	200.8	ND U	ug/L	0.20	0.04	1	05/24/23 13:33	05/16/23	

ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.02 Task 06
Sample Matrix: Water

Service Request: K2305469
Date Collected: 05/04/23
Date Received: 05/11/23
Date Analyzed: 05/24/23
Date Extracted: 05/16/23

Matrix Spike Summary
Dissolved Metals

Sample Name: BY-COL-MW-1-INF-9
Lab Code: K2305469-007
Analysis Method: 200.8
Prep Method: EPA CLP ILM04.0

Units: ug/L
Basis: NA

Matrix Spike
KQ2308662-04

Analyte Name	Sample Result	Result	Spike Amount	% Rec	% Rec Limits
Arsenic	7.63	56.3	50.0	97	70-130
Cobalt	0.953	25.7	25.0	99	70-130
Iron	87400	86000	50	-2832 #	70-130
Manganese	780	792	25.0	49 #	70-130

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

Matrix Spike and Matrix Spike Duplicate Data is presented for information purposes only. The matrix may or may not be relevant to samples reported in this report. The laboratory evaluates system performance based on the LCS and LCSD control limits.

ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.02 Task 06
Sample Matrix: Water

Service Request: K2305469
Date Collected: 05/04/23
Date Received: 05/11/23
Date Analyzed: 05/24/23
Date Extracted: 05/16/23

Matrix Spike Summary
Dissolved Metals

Sample Name: BY-COL-MW-8-INF-10
Lab Code: K2305469-020
Analysis Method: 200.8
Prep Method: EPA CLP ILM04.0

Units: ug/L
Basis: NA

Matrix Spike
KQ2308662-06

Analyte Name	Sample Result	Result	Spike Amount	% Rec	% Rec Limits
Arsenic	654	696	50.0	83 #	70-130
Cobalt	0.130	25.1	25.0	100	70-130
Iron	10400	10400	50.0	25 #	70-130
Manganese	203	227	25.0	96 #	70-130

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

Matrix Spike and Matrix Spike Duplicate Data is presented for information purposes only. The matrix may or may not be relevant to samples reported in this report. The laboratory evaluates system performance based on the LCS and LCSD control limits.

ALS Group USA, Corp.

dba ALS Environmental

QA/QC Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.02 Task 06
Sample Matrix: Water

Service Request: K2305469
Date Collected: 05/04/23
Date Received: 05/11/23
Date Analyzed: 05/24/23

Replicate Sample Summary
Dissolved Metals

Sample Name: BY-COL-MW-1-INF-9
Lab Code: K2305469-007

Units: ug/L
Basis: NA

Table with 9 columns: Analyte Name, Analysis Method, MRL, MDL, Sample Result, Duplicate Sample KQ2308662-03 Result, Average, RPD, RPD Limit. Rows include Arsenic, Cobalt, Iron, and Manganese.

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

ALS Group USA, Corp.

dba ALS Environmental

QA/QC Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.02 Task 06
Sample Matrix: Water

Service Request: K2305469
Date Collected: 05/04/23
Date Received: 05/11/23
Date Analyzed: 05/24/23

Replicate Sample Summary
Dissolved Metals

Sample Name: BY-COL-MW-8-INF-10
Lab Code: K2305469-020

Units: ug/L
Basis: NA

Analyte Name	Analysis Method	MRL	MDL	Sample Result	Duplicate	Average	RPD	RPD Limit
					Sample KQ2308662-05 Result			
Arsenic	200.8	0.50	0.09	654	646	650	1	20
Cobalt	200.8	0.020	0.009	0.130	0.112	0.121	15	20
Iron	200.8	2.0	0.3	10400	10400	10400	<1	20
Manganese	200.8	0.20	0.04	203	199	201	2	20

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.02 Task 06
Sample Matrix: Water

Service Request: K2305469
Date Analyzed: 05/24/23

Lab Control Sample Summary
Dissolved Metals

Units:ug/L
Basis:NA

Lab Control Sample
KQ2308649-02

Analyte Name	Analytical Method	Result	Spike Amount	% Rec	% Rec Limits
Arsenic	200.8	48.2	50.0	96	85-115
Cobalt	200.8	24.5	25.0	98	85-115
Iron	200.8	48.2	50.0	96	85-115
Manganese	200.8	24.7	25.0	99	85-115

ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.02 Task 06
Sample Matrix: Water

Service Request: K2305469
Date Analyzed: 05/24/23

Lab Control Sample Summary
Dissolved Metals

Units:ug/L
Basis:NA

Lab Control Sample
KQ2308662-02

Analyte Name	Analytical Method	Result	Spike Amount	% Rec	% Rec Limits
Arsenic	200.8	50.3	50.0	101	85-115
Cobalt	200.8	25.9	25.0	104	85-115
Iron	200.8	50.7	50.0	101	85-115
Manganese	200.8	25.9	25.0	104	85-115



May 25, 2023

Service Request No:K2305470

Masa Kanematsu
Anchor QEA, LLC
6720 SW Macadam Avenue
Suite 125
Portland, OR 97219

Laboratory Results for: Barry

Dear Masa,

Enclosed are the results of the sample(s) submitted to our laboratory May 11, 2023
For your reference, these analyses have been assigned our service request number **K2305470**.

Analyses were performed according to our laboratory's NELAP-approved quality assurance program. The test results meet requirements of the current NELAP standards, where applicable, and except as noted in the laboratory case narrative provided. For a specific list of NELAP-accredited analytes, refer to the certifications section at www.alsglobal.com. All results are intended to be considered in their entirety, and ALS Group USA Corp. dba ALS Environmental (ALS) is not responsible for use of less than the complete report. Results apply only to the items submitted to the laboratory for analysis and individual items (samples) analyzed, as listed in the report.

Please contact me if you have any questions. My extension is 3376. You may also contact me via email at Mark.Harris@alsglobal.com.

Respectfully submitted,

ALS Group USA, Corp. dba ALS Environmental

for Mark Harris
Project Manager

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ALS Group USA, Corp.
dba ALS Environmental



Narrative Documents

ALS Environmental—Kelso Laboratory
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Phone (360) 577-7222 Fax (360) 425-9096
www.alsglobal.com



Client: Anchor QEA, LLC
Project: Barry
Sample Matrix: Water

Service Request: K2305470
Date Received: 05/11/2023

CASE NARRATIVE

All analyses were performed consistent with the quality assurance program of ALS Environmental. This report contains analytical results for samples for the Tier II level requested by the client.

Sample Receipt:

Twenty four water samples were received for analysis at ALS Environmental on 05/11/2023. Any discrepancies upon initial sample inspection are annotated on the sample receipt and preservation form included within this report. The samples were stored at minimum in accordance with the analytical method requirements.

Metals:

No significant anomalies were noted with this analysis.

Noel D. O'Connell

Approved by _____

Date 05/25/2023



SAMPLE DETECTION SUMMARY

This form includes only detections above the reporting levels. For a full listing of sample results, continue to the Sample Results section of this Report.

CLIENT ID: BY-COL-MW-1-PM-6	Lab ID: K2305470-001
------------------------------------	-----------------------------

Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	0.35	J	0.09	0.50	ug/L	200.8
Iron, Dissolved	17300		0.3	2.0	ug/L	200.8
Manganese, Dissolved	19500		0.8	4.0	ug/L	200.8

CLIENT ID: BY-COL-MW-8-PM-6	Lab ID: K2305470-002
------------------------------------	-----------------------------

Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	240		0.09	0.50	ug/L	200.8
Iron, Dissolved	4420		0.3	2.0	ug/L	200.8
Manganese, Dissolved	76.1		0.04	0.20	ug/L	200.8

CLIENT ID: BY-COL-MW-10-PM-6	Lab ID: K2305470-003
-------------------------------------	-----------------------------

Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	0.52		0.09	0.50	ug/L	200.8
Iron, Dissolved	2.1		0.3	2.0	ug/L	200.8
Manganese, Dissolved	2590		0.04	0.20	ug/L	200.8

CLIENT ID: BY-COL-MW-15-FS-6	Lab ID: K2305470-005
-------------------------------------	-----------------------------

Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	0.11	J	0.09	0.50	ug/L	200.8
Cobalt, Dissolved	59.3		0.009	0.020	ug/L	200.8
Iron, Dissolved	17800		0.3	2.0	ug/L	200.8
Manganese, Dissolved	909		0.04	0.20	ug/L	200.8

CLIENT ID: BY-COL-MW-24H-PM-6	Lab ID: K2305470-006
--------------------------------------	-----------------------------

Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	0.32	J	0.09	0.50	ug/L	200.8
Iron, Dissolved	3.0		0.3	2.0	ug/L	200.8
Manganese, Dissolved	13000		0.8	4.0	ug/L	200.8

CLIENT ID: BY-COL-MW-1-INF-6	Lab ID: K2305470-007
-------------------------------------	-----------------------------

Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	7.88		0.09	0.50	ug/L	200.8
Iron, Dissolved	87800		6	40	ug/L	200.8
Manganese, Dissolved	790		0.04	0.20	ug/L	200.8

CLIENT ID: BY-COL-MW-8-INF-6	Lab ID: K2305470-008
-------------------------------------	-----------------------------

Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	672		0.09	0.50	ug/L	200.8
Iron, Dissolved	10700		0.3	2.0	ug/L	200.8
Manganese, Dissolved	203		0.04	0.20	ug/L	200.8

CLIENT ID: BY-COL-MW-10-INF-6	Lab ID: K2305470-009
--------------------------------------	-----------------------------

Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	3.33		0.09	0.50	ug/L	200.8



SAMPLE DETECTION SUMMARY

This form includes only detections above the reporting levels. For a full listing of sample results, continue to the Sample Results section of this Report.

CLIENT ID: BY-COL-MW-10-INF-6	Lab ID: K2305470-009
--------------------------------------	-----------------------------

Analyte	Results	Flag	MDL	MRL	Units	Method
Iron, Dissolved	30200		0.3	2.0	ug/L	200.8
Manganese, Dissolved	1150		0.04	0.20	ug/L	200.8

CLIENT ID: BY-COL-MW-15-PM-INF-6	Lab ID: K2305470-010
---	-----------------------------

Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	0.36	J	0.09	0.50	ug/L	200.8
Cobalt, Dissolved	88.6		0.009	0.020	ug/L	200.8
Iron, Dissolved	45500		6	40	ug/L	200.8
Manganese, Dissolved	655		0.04	0.20	ug/L	200.8

CLIENT ID: BY-COL-MW-15-FS-INF-6	Lab ID: K2305470-011
---	-----------------------------

Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	0.16	J	0.09	0.50	ug/L	200.8
Cobalt, Dissolved	93.6		0.009	0.020	ug/L	200.8
Iron, Dissolved	33200		0.3	2.0	ug/L	200.8
Manganese, Dissolved	656		0.04	0.20	ug/L	200.8

CLIENT ID: BY-COL-MW-24H-INF-6	Lab ID: K2305470-012
---------------------------------------	-----------------------------

Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	5.38		0.09	0.50	ug/L	200.8
Iron, Dissolved	76700		6	40	ug/L	200.8
Manganese, Dissolved	202		0.04	0.20	ug/L	200.8

CLIENT ID: BY-COL-MW-1-INF-5	Lab ID: K2305470-013
-------------------------------------	-----------------------------

Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	8.35		0.09	0.50	ug/L	200.8
Iron, Dissolved	88300		6	40	ug/L	200.8
Manganese, Dissolved	785		0.04	0.20	ug/L	200.8

CLIENT ID: BY-COL-MW-8-INF-5	Lab ID: K2305470-014
-------------------------------------	-----------------------------

Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	690		0.09	0.50	ug/L	200.8
Iron, Dissolved	11000		0.3	2.0	ug/L	200.8
Manganese, Dissolved	202		0.04	0.20	ug/L	200.8

CLIENT ID: BY-COL-MW-10-INF-5	Lab ID: K2305470-015
--------------------------------------	-----------------------------

Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	3.37		0.09	0.50	ug/L	200.8
Iron, Dissolved	30300		0.3	2.0	ug/L	200.8
Manganese, Dissolved	1150		0.04	0.20	ug/L	200.8

CLIENT ID: BY-COL-MW-15-PM-INF-5	Lab ID: K2305470-016
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Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	0.41	J	0.09	0.50	ug/L	200.8



SAMPLE DETECTION SUMMARY

This form includes only detections above the reporting levels. For a full listing of sample results, continue to the Sample Results section of this Report.

CLIENT ID: BY-COL-MW-15-PM-INF-5	Lab ID: K2305470-016
---	-----------------------------

Analyte	Results	Flag	MDL	MRL	Units	Method
Cobalt, Dissolved	86.6		0.009	0.020	ug/L	200.8
Iron, Dissolved	44800		0.3	2.0	ug/L	200.8
Manganese, Dissolved	640		0.04	0.20	ug/L	200.8

CLIENT ID: BY-COL-MW-15-FS-INF-5	Lab ID: K2305470-017
---	-----------------------------

Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	0.14	J	0.09	0.50	ug/L	200.8
Cobalt, Dissolved	94.4		0.009	0.020	ug/L	200.8
Iron, Dissolved	33700		0.3	2.0	ug/L	200.8
Manganese, Dissolved	666		0.04	0.20	ug/L	200.8

CLIENT ID: BY-COL-MW-24H-INF-5	Lab ID: K2305470-018
---------------------------------------	-----------------------------

Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	5.90		0.09	0.50	ug/L	200.8
Iron, Dissolved	77000		6	40	ug/L	200.8
Manganese, Dissolved	203		0.04	0.20	ug/L	200.8

CLIENT ID: BY-COL-MW-1-PM-5	Lab ID: K2305470-019
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Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	0.34	J	0.09	0.50	ug/L	200.8
Iron, Dissolved	18900		0.3	2.0	ug/L	200.8
Manganese, Dissolved	20100		0.8	4.0	ug/L	200.8

CLIENT ID: BY-COL-MW-8-PM-5	Lab ID: K2305470-020
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Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	210		0.09	0.50	ug/L	200.8
Iron, Dissolved	3900		0.3	2.0	ug/L	200.8
Manganese, Dissolved	72.8		0.04	0.20	ug/L	200.8

CLIENT ID: BY-COL-MW-10-PM-5	Lab ID: K2305470-021
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Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	0.51		0.09	0.50	ug/L	200.8
Iron, Dissolved	8.7		0.3	2.0	ug/L	200.8
Manganese, Dissolved	2750		0.04	0.20	ug/L	200.8

CLIENT ID: BY-COL-MW-15-FS-5	Lab ID: K2305470-023
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Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	0.16	J	0.09	0.50	ug/L	200.8
Cobalt, Dissolved	51.9		0.009	0.020	ug/L	200.8
Iron, Dissolved	20100		0.3	2.0	ug/L	200.8
Manganese, Dissolved	1030		0.04	0.20	ug/L	200.8



SAMPLE DETECTION SUMMARY

This form includes only detections above the reporting levels. For a full listing of sample results, continue to the Sample Results section of this Report.

CLIENT ID: BY-COL-MW-24H-PM-5	Lab ID: K2305470-024
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Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	0.33	J	0.09	0.50	ug/L	200.8
Iron, Dissolved	2.4		0.3	2.0	ug/L	200.8
Manganese, Dissolved	11400		2	10	ug/L	200.8

CLIENT ID: BY-COL-MW-15-PM-6	Lab ID: K2305470-004
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Analyte	Results	Flag	MDL	MRL	Units	Method
Cobalt, Dissolved	2.61		0.009	0.020	ug/L	200.8
Iron, Dissolved	0.9	J	0.3	2.0	ug/L	200.8
Manganese, Dissolved	8270		0.04	0.20	ug/L	200.8

CLIENT ID: BY-COL-MW-15-PM-5	Lab ID: K2305470-022
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Analyte	Results	Flag	MDL	MRL	Units	Method
Cobalt, Dissolved	2.36		0.009	0.020	ug/L	200.8
Iron, Dissolved	1.6	J	0.3	2.0	ug/L	200.8
Manganese, Dissolved	7440		2	10	ug/L	200.8



Sample Receipt Information

ALS Environmental—Kelso Laboratory
1317 South 13th Avenue, Kelso, WA 98626
Phone (360) 577-7222 Fax (360) 425-9096
www.alsglobal.com

Client: Anchor QEA, LLC
Project: Barry/221114-08.02 Task 06


Service Request:K2305470

SAMPLE CROSS-REFERENCE

<u>SAMPLE #</u>	<u>CLIENT SAMPLE ID</u>	<u>DATE</u>	<u>TIME</u>
K2305470-001	BY-COL-MW-1-PM-6	5/3/2023	1130
K2305470-002	BY-COL-MW-8-PM-6	5/3/2023	1131
K2305470-003	BY-COL-MW-10-PM-6	5/3/2023	0807
K2305470-004	BY-COL-MW-15-PM-6	5/3/2023	0808
K2305470-005	BY-COL-MW-15-FS-6	5/3/2023	0809
K2305470-006	BY-COL-MW-24H-PM-6	5/3/2023	0810
K2305470-007	BY-COL-MW-1-INF-6	5/3/2023	1115
K2305470-008	BY-COL-MW-8-INF-6	5/3/2023	1116
K2305470-009	BY-COL-MW-10-INF-6	5/3/2023	1117
K2305470-010	BY-COL-MW-15-PM-INF-6	5/3/2023	1118
K2305470-011	BY-COL-MW-15-FS-INF-6	5/3/2023	1119
K2305470-012	BY-COL-MW-24H-INF-6	5/3/2023	1120
K2305470-013	BY-COL-MW-1-INF-5	5/3/2023	0800
K2305470-014	BY-COL-MW-8-INF-5	5/3/2023	0801
K2305470-015	BY-COL-MW-10-INF-5	5/3/2023	0802
K2305470-016	BY-COL-MW-15-PM-INF-5	5/3/2023	0803
K2305470-017	BY-COL-MW-15-FS-INF-5	5/3/2023	0804
K2305470-018	BY-COL-MW-24H-INF-5	5/3/2023	0805
K2305470-019	BY-COL-MW-1-PM-5	5/2/2023	0805
K2305470-020	BY-COL-MW-8-PM-5	5/2/2023	0806
K2305470-021	BY-COL-MW-10-PM-5	5/2/2023	0807
K2305470-022	BY-COL-MW-15-PM-5	5/2/2023	0808
K2305470-023	BY-COL-MW-15-FS-5	5/2/2023	0809
K2305470-024	BY-COL-MW-24H-PM-5	5/2/2023	0810

K23 05470

Chain of Custody Record & Laboratory Analysis Request

Laboratory Number: 503-972-5019					Parameters										 ANCHOR QEA Masa Kanematsu 6720 SW Macadam Ave Suite 125 Portland OR 97219										
Date:	5/11/2023																								
Project Name:	Barry																								
Project Number:	221114-08.02 Task 06																								
Project Manager:	Masa Kanematsu																								
Phone Number:	503-972-5001 (backup number: 503-798-3456)																								
Shipment Method:	ALS Carrier				No. of Containers	Dissolved Metals (As, Fe, Mn)	Dissolved Metals (As, Co, Fe, Mn)											Comments/Preservation							
Line	Field Sample ID	Collection		Matrix																					
		Date	Time																						
1	BY-COL-MW-1-INF-5	5/3/2023	8:00	Water				1	X															HNO3-Preserved; 0.45um-filtered.	
2	BY-COL-MW-8-INF-5	5/3/2023	8:01	Water				1	X																HNO3-Preserved; 0.45um-filtered.
3	BY-COL-MW-10-INF-5	5/3/2023	8:02	Water				1	X																HNO3-Preserved; 0.45um-filtered.
4	BY-COL-MW-15-PM-INF-5	5/3/2023	8:03	Water				1		X															HNO3-Preserved; 0.45um-filtered.
5	BY-COL-MW-15-FS-INF-5	5/3/2023	8:04	Water				1		X															HNO3-Preserved; 0.45um-filtered.
6	BY-COL-MW-24H-INF-5	5/3/2023	8:05	Water				1	X																HNO3-Preserved; 0.45um-filtered.
7	BY-COL-MW-1-PM-5	5/2/2023	8:05	Water				1	X																HNO3-Preserved; 0.45um-filtered.
8	BY-COL-MW-8-PM-5	5/2/2023	8:06	Water				1	X																HNO3-Preserved; 0.45um-filtered.
9	BY-COL-MW-10-PM-5	5/2/2023	8:07	Water				1	X																HNO3-Preserved; 0.45um-filtered.
10	BY-COL-MW-15-PM-5	5/2/2023	8:08	Water				1		X															HNO3-Preserved; 0.45um-filtered.
11	BY-COL-MW-15-FS-5	5/2/2023	8:09	Water	1		X														HNO3-Preserved; 0.45um-filtered.				
12	BY-COL-MW-24H-PM-5	5/2/2023	8:10	Water	1	X															HNO3-Preserved; 0.45um-filtered.				
13																									
14																									
15																									
16																									
17																									
18																									
19																									
20																									

Notes: Please Contact Masa (503-972-5001, mkanematsu@anchorqea.com) if running > 10X dilution. Please analyze by ICP-MS method 200.8 to achieve the MDL < 1 ppb. There are two samples that were taken at the same time (BY-COL-MW-24H-INF-5 and BY-COL-MW-1-PM-5).

Relinquished by: Emma Nordlund	Company: Anchor QEA
Signature/Print Name: <i>Emma Nordlund</i>	Date/Time: 5/11/23 8:00 AM
Relinquished by: <i>Greg Rich</i>	Company: ALS
Signature/Print Name: <i>Greg Rich</i>	Date/Time: 5-11-23 1345

Received by: <i>Greg Rich</i>
Signature/Print Name: <i>Greg Rich 5-11-23 1015</i>
Received by: <i>[Signature]</i>
Signature/Print Name: <i>[Signature] 5/11/23 1345</i>

Cooler Receipt and Preservation Form

Client: Ancher Service Request K23 05470
Received: 5/11/23 Opened: 5/11/23 By: SA Unloaded: 5/11/23 By: SA

Samples were received via? USPS Fed Ex UPS DHL PDX Courier Hand Delivered
Samples were received in: (circle) Cooler Box Envelope Other NA
Were custody seals on coolers? NA Y N If yes, how many and where? _____
If present, were custody seals intact? Y N If present, were they signed and dated? Y N

Temp Blank	Sample Temp	IR Gun	Cooler #/COC ID / NA	Out of temp Indicate with "X"	PM Notified If out of temp	Tracking Number <u>(NA)</u>	Filed
	<u>24.0</u>	<u>1202</u>	<u>1054</u>				
<u>S.6</u>		<u>1202</u>	<u>2054</u>				
<u>S.1</u>		<u>1202</u>	<u>3054</u>				
<u>S.8</u>		<u>1202</u>	<u>4054</u>				

Was a Temperature Blank present in cooler? NA Y N If yes, notate the temperature in the appropriate column above:

If no, take the temperature of a representative sample bottle contained within the cooler; notate in the column "Sample Temp":

Were samples received within the method specified temperature ranges? NA Y N

If no, were they received on ice and same day as collected? If not, notate the cooler # above and notify the PM. NA Y N

If applicable, tissue samples were received: Frozen Partially Thawed Thawed

Packing material: Inserts Raggies Bubble Wrap Gel Packs Wet Ice Dry Ice Sleeves _____

Were custody papers properly filled out (ink, signed, etc.)? NA Y N

Were samples received in good condition (unbroken) NA Y N

Were all sample labels complete (ie, analysis, preservation, etc.)? NA Y N

Did all sample labels and tags agree with custody papers? NA Y N

Were appropriate bottles/containers and volumes received for the tests indicated? NA Y N

Were the pH-preserved bottles (see SMO GEN SOP) received at the appropriate pH? Indicate in the table below NA Y N

Were VOA vials received without headspace? Indicate in the table below. NA Y N

Was C12/Res negative? NA Y N

Were samples received within the method specified time limit? If not, notate the error below and notify the PM NA Y N

Were 100ml sterile microbiology bottles filled exactly to the 100ml mark? NA Y N Underfilled Overfilled

Sample ID on Bottle	Sample ID on COC	Identified by:

Sample ID	Bottle Count Bottle Type	Head- space	Broke	pH	Reagent	Volume added	Reagent Lot Number	Initials	Time

Notes, Discrepancies, Resolutions: Temp not an issue, samples for metals analysis



Miscellaneous Forms

ALS Environmental—Kelso Laboratory
1317 South 13th Avenue, Kelso, WA 98626
Phone (360) 577-7222 Fax (360) 425-9096
www.alsglobal.com

Inorganic Data Qualifiers

- * The result is an outlier. See case narrative.
- # The control limit criteria is not applicable.
- B The analyte was found in the associated method blank at a level that is significant relative to the sample result as defined by the DOD or NELAC standards.
- E The result is an estimate amount because the value exceeded the instrument calibration range.
- J The result is an estimated value.
- U The analyte was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL.
DOD-QSM 4.2 definition : Analyte was not detected and is reported as less than the LOD or as defined by the project. The detection limit is adjusted for dilution.
- i The MRL/MDL or LOQ/LOD is elevated due to a matrix interference.
- X See case narrative.
- Q See case narrative. One or more quality control criteria was outside the limits.
- H The holding time for this test is immediately following sample collection. The samples were analyzed as soon as possible after receipt by the laboratory.

Metals Data Qualifiers

- # The control limit criteria is not applicable.
- J The result is an estimated value.
- E The percent difference for the serial dilution was greater than 10%, indicating a possible matrix interference in the sample.
- M The duplicate injection precision was not met.
- N The Matrix Spike sample recovery is not within control limits. See case narrative.
- S The reported value was determined by the Method of Standard Additions (MSA).
- U The analyte was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL.
DOD-QSM 4.2 definition : Analyte was not detected and is reported as less than the LOD or as defined by the project. The detection limit is adjusted for dilution.
- W The post-digestion spike for furnace AA analysis is out of control limits, while sample absorbance is less than 50% of spike absorbance.
 - i The MRL/MDL or LOQ/LOD is elevated due to a matrix interference.
- X See case narrative.
- + The correlation coefficient for the MSA is less than 0.995.
- Q See case narrative. One or more quality control criteria was outside the limits.

Organic Data Qualifiers

- * The result is an outlier. See case narrative.
- # The control limit criteria is not applicable. See case narrative.
- A A tentatively identified compound, a suspected aldol-condensation product.
- B The analyte was found in the associated method blank at a level that is significant relative to the sample result as defined by the DOD or NELAC standards.
- C The analyte was qualitatively confirmed using GC/MS techniques, pattern recognition, or by comparing to historical data.
- D The reported result is from a dilution.
- E The result is an estimated value.
- J The result is an estimated value.
- N The result is presumptive. The analyte was tentatively identified, but a confirmation analysis was not performed.
- P The GC or HPLC confirmation criteria was exceeded. The relative percent difference is greater than 40% between the two analytical results.
- U The analyte was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL.
DOD-QSM 4.2 definition : Analyte was not detected and is reported as less than the LOD or as defined by the project. The detection limit is adjusted for dilution.
 - i The MRL/MDL or LOQ/LOD is elevated due to a chromatographic interference.
- X See case narrative.
- Q See case narrative. One or more quality control criteria was outside the limits.

Additional Petroleum Hydrocarbon Specific Qualifiers

- F The chromatographic fingerprint of the sample matches the elution pattern of the calibration standard.
- L The chromatographic fingerprint of the sample resembles a petroleum product, but the elution pattern indicates the presence of a greater amount of lighter molecular weight constituents than the calibration standard.
- H The chromatographic fingerprint of the sample resembles a petroleum product, but the elution pattern indicates the presence of a greater amount of heavier molecular weight constituents than the calibration standard.
- O The chromatographic fingerprint of the sample resembles an oil, but does not match the calibration standard.
- Y The chromatographic fingerprint of the sample resembles a petroleum product eluting in approximately the correct carbon range, but the elution pattern does not match the calibration standard.
- Z The chromatographic fingerprint does not resemble a petroleum product.

**ALS Group USA Corp. dba ALS Environmental (ALS) - Kelso
State Certifications, Accreditations, and Licenses**

Agency	Web Site	Number
Alaska DEH	http://dec.alaska.gov/eh/lab/cs/csapproval.htm	UST-040
Arizona DHS	http://www.azdhs.gov/lab/license/env.htm	AZ0339
Arkansas - DEQ	http://www.adeq.state.ar.us/techsvs/labcert.htm	88-0637
California DHS (ELAP)	http://www.cdph.ca.gov/certlic/labs/Pages/ELAP.aspx	2795
DOD ELAP	http://www.denix.osd.mil/edqw/Accreditation/AccreditedLabs.cfm	L16-58-R4
Florida DOH	http://www.doh.state.fl.us/lab/EnvLabCert/WaterCert.htm	E87412
Hawaii DOH	http://health.hawaii.gov/	-
ISO 17025	http://www.pjllabs.com/	L16-57
Louisiana DEQ	http://www.deq.louisiana.gov/page/la-lab-accreditation	03016
Maine DHS	http://www.maine.gov/dhhs/	WA01276
Minnesota DOH	http://www.health.state.mn.us/accreditation	053-999-457
Nevada DEP	http://ndep.nv.gov/bsdw/labservice.htm	WA01276
New Jersey DEP	http://www.nj.gov/dep/enforcement/oqa.html	WA005
New York - DOH	https://www.wadsworth.org/regulatory/elap	12060
North Carolina DEQ	https://deq.nc.gov/about/divisions/water-resources/water-resources-data/water-sciences-home-page/laboratory-certification-branch/non-field-lab-certification	605
Oklahoma DEQ	http://www.deq.state.ok.us/CSDnew/labcert.htm	9801
Oregon – DEQ (NELAP)	http://public.health.oregon.gov/LaboratoryServices/EnvironmentalLaboratoryAccreditation/Pages/index.aspx	WA100010
South Carolina DHEC	http://www.scdhec.gov/environment/EnvironmentalLabCertification/	61002
Texas CEQ	http://www.tceq.texas.gov/field/qa/env_lab_accreditation.html	T104704427
Washington DOE	http://www.ecy.wa.gov/programs/eap/labs/lab-accreditation.html	C544
Wyoming (EPA Region 8)	https://www.epa.gov/region8-waterops/epa-region-8-certified-drinking-water	-
Kelso Laboratory Website	www.alsglobal.com	NA

Analyses were performed according to our laboratory's NELAP-approved quality assurance program. A complete listing of specific NELAP-certified analytes, can be found in the certification section at www.ALSGlobal.com or at the accreditation bodies web site.

Please refer to the certification and/or accreditation body's web site if samples are submitted for compliance purposes. The states highlighted above, require the analysis be listed on the state certification if used for compliance purposes and if the method/analyte is offered by that state.

Acronyms

ASTM	American Society for Testing and Materials
A2LA	American Association for Laboratory Accreditation
CARB	California Air Resources Board
CAS Number	Chemical Abstract Service registry Number
CFC	Chlorofluorocarbon
CFU	Colony-Forming Unit
DEC	Department of Environmental Conservation
DEQ	Department of Environmental Quality
DHS	Department of Health Services
DOE	Department of Ecology
DOH	Department of Health
EPA	U. S. Environmental Protection Agency
ELAP	Environmental Laboratory Accreditation Program
GC	Gas Chromatography
GC/MS	Gas Chromatography/Mass Spectrometry
LOD	Limit of Detection
LOQ	Limit of Quantitation
LUFT	Leaking Underground Fuel Tank
M	Modified
MCL	Maximum Contaminant Level is the highest permissible concentration of a substance allowed in drinking water as established by the USEPA.
MDL	Method Detection Limit
MPN	Most Probable Number
MRL	Method Reporting Limit
NA	Not Applicable
NC	Not Calculated
NCASI	National Council of the Paper Industry for Air and Stream Improvement
ND	Not Detected
NIOSH	National Institute for Occupational Safety and Health
PQL	Practical Quantitation Limit
RCRA	Resource Conservation and Recovery Act
SIM	Selected Ion Monitoring
TPH	Total Petroleum Hydrocarbons
tr	Trace level is the concentration of an analyte that is less than the PQL but greater than or equal to the MDL.

ALS Group USA, Corp.
dba ALS Environmental

Analyst Summary report

Client: Anchor QEA, LLC
Project: Barry/221114-08.02 Task 06

Service Request: K2305470

Sample Name: BY-COL-MW-1-PM-6
Lab Code: K2305470-001
Sample Matrix: Water

Date Collected: 05/3/23
Date Received: 05/11/23

Analysis Method
200.8

Extracted/Digested By
ABOYER

Analyzed By
EMCALLISTER

Sample Name: BY-COL-MW-8-PM-6
Lab Code: K2305470-002
Sample Matrix: Water

Date Collected: 05/3/23
Date Received: 05/11/23

Analysis Method
200.8

Extracted/Digested By
ABOYER

Analyzed By
EMCALLISTER

Sample Name: BY-COL-MW-10-PM-6
Lab Code: K2305470-003
Sample Matrix: Water

Date Collected: 05/3/23
Date Received: 05/11/23

Analysis Method
200.8

Extracted/Digested By
ABOYER

Analyzed By
EMCALLISTER

Sample Name: BY-COL-MW-15-PM-6
Lab Code: K2305470-004
Sample Matrix: Water

Date Collected: 05/3/23
Date Received: 05/11/23

Analysis Method
200.8

Extracted/Digested By
ABOYER

Analyzed By
EMCALLISTER

Sample Name: BY-COL-MW-15-FS-6
Lab Code: K2305470-005
Sample Matrix: Water

Date Collected: 05/3/23
Date Received: 05/11/23

Analysis Method
200.8

Extracted/Digested By
ABOYER

Analyzed By
EMCALLISTER

ALS Group USA, Corp.
dba ALS Environmental

Analyst Summary report

Client: Anchor QEA, LLC
Project: Barry/221114-08.02 Task 06

Service Request: K2305470

Sample Name: BY-COL-MW-24H-PM-6
Lab Code: K2305470-006
Sample Matrix: Water

Date Collected: 05/3/23
Date Received: 05/11/23

Analysis Method
200.8

Extracted/Digested By
ABOYER

Analyzed By
EMCALLISTER

Sample Name: BY-COL-MW-1-INF-6
Lab Code: K2305470-007
Sample Matrix: Water

Date Collected: 05/3/23
Date Received: 05/11/23

Analysis Method
200.8

Extracted/Digested By
ABOYER

Analyzed By
EMCALLISTER

Sample Name: BY-COL-MW-8-INF-6
Lab Code: K2305470-008
Sample Matrix: Water

Date Collected: 05/3/23
Date Received: 05/11/23

Analysis Method
200.8

Extracted/Digested By
ABOYER

Analyzed By
EMCALLISTER

Sample Name: BY-COL-MW-10-INF-6
Lab Code: K2305470-009
Sample Matrix: Water

Date Collected: 05/3/23
Date Received: 05/11/23

Analysis Method
200.8

Extracted/Digested By
ABOYER

Analyzed By
EMCALLISTER

Sample Name: BY-COL-MW-15-PM-INF-6
Lab Code: K2305470-010
Sample Matrix: Water

Date Collected: 05/3/23
Date Received: 05/11/23

Analysis Method
200.8

Extracted/Digested By
ABOYER

Analyzed By
EMCALLISTER

ALS Group USA, Corp.
dba ALS Environmental

Analyst Summary report

Client: Anchor QEA, LLC
Project: Barry/221114-08.02 Task 06

Service Request: K2305470

Sample Name: BY-COL-MW-15-FS-INF-6
Lab Code: K2305470-011
Sample Matrix: Water

Date Collected: 05/3/23
Date Received: 05/11/23

Analysis Method
200.8

Extracted/Digested By
ABOYER

Analyzed By
EMCALLISTER

Sample Name: BY-COL-MW-24H-INF-6
Lab Code: K2305470-012
Sample Matrix: Water

Date Collected: 05/3/23
Date Received: 05/11/23

Analysis Method
200.8

Extracted/Digested By
ABOYER

Analyzed By
EMCALLISTER

Sample Name: BY-COL-MW-1-INF-5
Lab Code: K2305470-013
Sample Matrix: Water

Date Collected: 05/3/23
Date Received: 05/11/23

Analysis Method
200.8

Extracted/Digested By
ABOYER

Analyzed By
EMCALLISTER

Sample Name: BY-COL-MW-8-INF-5
Lab Code: K2305470-014
Sample Matrix: Water

Date Collected: 05/3/23
Date Received: 05/11/23

Analysis Method
200.8

Extracted/Digested By
ABOYER

Analyzed By
EMCALLISTER

Sample Name: BY-COL-MW-10-INF-5
Lab Code: K2305470-015
Sample Matrix: Water

Date Collected: 05/3/23
Date Received: 05/11/23

Analysis Method
200.8

Extracted/Digested By
ABOYER

Analyzed By
EMCALLISTER

ALS Group USA, Corp.
dba ALS Environmental

Analyst Summary report

Client: Anchor QEA, LLC
Project: Barry/221114-08.02 Task 06

Service Request: K2305470

Sample Name: BY-COL-MW-15-PM-INF-5
Lab Code: K2305470-016
Sample Matrix: Water

Date Collected: 05/3/23
Date Received: 05/11/23

Analysis Method
200.8

Extracted/Digested By
ABOYER

Analyzed By
EMCALLISTER

Sample Name: BY-COL-MW-15-FS-INF-5
Lab Code: K2305470-017
Sample Matrix: Water

Date Collected: 05/3/23
Date Received: 05/11/23

Analysis Method
200.8

Extracted/Digested By
ABOYER

Analyzed By
EMCALLISTER

Sample Name: BY-COL-MW-24H-INF-5
Lab Code: K2305470-018
Sample Matrix: Water

Date Collected: 05/3/23
Date Received: 05/11/23

Analysis Method
200.8

Extracted/Digested By
ABOYER

Analyzed By
EMCALLISTER

Sample Name: BY-COL-MW-1-PM-5
Lab Code: K2305470-019
Sample Matrix: Water

Date Collected: 05/2/23
Date Received: 05/11/23

Analysis Method
200.8

Extracted/Digested By
ABOYER

Analyzed By
EMCALLISTER

Sample Name: BY-COL-MW-8-PM-5
Lab Code: K2305470-020
Sample Matrix: Water

Date Collected: 05/2/23
Date Received: 05/11/23

Analysis Method
200.8

Extracted/Digested By
ABOYER

Analyzed By
EMCALLISTER

ALS Group USA, Corp.
dba ALS Environmental

Analyst Summary report

Client: Anchor QEA, LLC
Project: Barry/221114-08.02 Task 06

Service Request: K2305470

Sample Name: BY-COL-MW-10-PM-5
Lab Code: K2305470-021
Sample Matrix: Water

Date Collected: 05/2/23
Date Received: 05/11/23

Analysis Method
200.8

Extracted/Digested By
ABOYER

Analyzed By
JCHAN

Sample Name: BY-COL-MW-15-PM-5
Lab Code: K2305470-022
Sample Matrix: Water

Date Collected: 05/2/23
Date Received: 05/11/23

Analysis Method
200.8

Extracted/Digested By
ABOYER

Analyzed By
JCHAN

Sample Name: BY-COL-MW-15-FS-5
Lab Code: K2305470-023
Sample Matrix: Water

Date Collected: 05/2/23
Date Received: 05/11/23

Analysis Method
200.8

Extracted/Digested By
ABOYER

Analyzed By
JCHAN

Sample Name: BY-COL-MW-24H-PM-5
Lab Code: K2305470-024
Sample Matrix: Water

Date Collected: 05/2/23
Date Received: 05/11/23

Analysis Method
200.8

Extracted/Digested By
ABOYER

Analyzed By
JCHAN



Sample Results

ALS Environmental—Kelso Laboratory
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Metals

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1317 South 13th Avenue, Kelso, WA 98626
Phone (360) 577-7222 Fax (360) 425-9096
www.alsglobal.com

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.02 Task 06
Sample Matrix: Water
Sample Name: BY-COL-MW-1-PM-6
Lab Code: K2305470-001

Service Request: K2305470
Date Collected: 05/03/23 11:30
Date Received: 05/11/23 13:45
Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	0.35 J	ug/L	0.50	0.09	1	05/24/23 15:01	05/16/23	
Iron	200.8	17300	ug/L	2.0	0.3	1	05/24/23 15:01	05/16/23	
Manganese	200.8	19500	ug/L	4.0	0.8	20	05/24/23 15:42	05/16/23	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.02 Task 06
Sample Matrix: Water
Sample Name: BY-COL-MW-8-PM-6
Lab Code: K2305470-002

Service Request: K2305470
Date Collected: 05/03/23 11:31
Date Received: 05/11/23 13:45
Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	240	ug/L	0.50	0.09	1	05/24/23 15:02	05/16/23	
Iron	200.8	4420	ug/L	2.0	0.3	1	05/24/23 15:02	05/16/23	
Manganese	200.8	76.1	ug/L	0.20	0.04	1	05/24/23 15:02	05/16/23	

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Analytical Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.02 Task 06
Sample Matrix: Water
Sample Name: BY-COL-MW-10-PM-6
Lab Code: K2305470-003

Service Request: K2305470
Date Collected: 05/03/23 08:07
Date Received: 05/11/23 13:45
Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	0.52	ug/L	0.50	0.09	1	05/24/23 15:03	05/16/23	
Iron	200.8	2.1	ug/L	2.0	0.3	1	05/24/23 15:03	05/16/23	
Manganese	200.8	2590	ug/L	0.20	0.04	1	05/24/23 15:03	05/16/23	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.02 Task 06
Sample Matrix: Water
Sample Name: BY-COL-MW-15-PM-6
Lab Code: K2305470-004

Service Request: K2305470
Date Collected: 05/03/23 08:08
Date Received: 05/11/23 13:45
Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	ND U	ug/L	0.50	0.09	1	05/24/23 15:05	05/16/23	
Cobalt	200.8	2.61	ug/L	0.020	0.009	1	05/24/23 15:05	05/16/23	
Iron	200.8	0.9 J	ug/L	2.0	0.3	1	05/24/23 15:05	05/16/23	
Manganese	200.8	8270	ug/L	0.20	0.04	1	05/24/23 15:05	05/16/23	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.02 Task 06
Sample Matrix: Water
Sample Name: BY-COL-MW-15-FS-6
Lab Code: K2305470-005

Service Request: K2305470
Date Collected: 05/03/23 08:09
Date Received: 05/11/23 13:45
Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	0.11 J	ug/L	0.50	0.09	1	05/24/23 15:06	05/16/23	
Cobalt	200.8	59.3	ug/L	0.020	0.009	1	05/24/23 15:06	05/16/23	
Iron	200.8	17800	ug/L	2.0	0.3	1	05/24/23 15:06	05/16/23	
Manganese	200.8	909	ug/L	0.20	0.04	1	05/24/23 15:06	05/16/23	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.02 Task 06
Sample Matrix: Water
Sample Name: BY-COL-MW-24H-PM-6
Lab Code: K2305470-006

Service Request: K2305470
Date Collected: 05/03/23 08:10
Date Received: 05/11/23 13:45
Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	0.32 J	ug/L	0.50	0.09	1	05/24/23 15:08	05/16/23	
Iron	200.8	3.0	ug/L	2.0	0.3	1	05/24/23 15:08	05/16/23	
Manganese	200.8	13000	ug/L	4.0	0.8	20	05/24/23 15:44	05/16/23	

ALS Group USA, Corp.
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Analytical Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.02 Task 06
Sample Matrix: Water
Sample Name: BY-COL-MW-1-INF-6
Lab Code: K2305470-007

Service Request: K2305470
Date Collected: 05/03/23 11:15
Date Received: 05/11/23 13:45
Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	7.88	ug/L	0.50	0.09	1	05/24/23 15:09	05/16/23	
Iron	200.8	87800	ug/L	40	6	20	05/24/23 15:45	05/16/23	
Manganese	200.8	790	ug/L	0.20	0.04	1	05/24/23 15:09	05/16/23	

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Analytical Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.02 Task 06
Sample Matrix: Water
Sample Name: BY-COL-MW-8-INF-6
Lab Code: K2305470-008

Service Request: K2305470
Date Collected: 05/03/23 11:16
Date Received: 05/11/23 13:45
Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	672	ug/L	0.50	0.09	1	05/24/23 15:10	05/16/23	
Iron	200.8	10700	ug/L	2.0	0.3	1	05/24/23 15:10	05/16/23	
Manganese	200.8	203	ug/L	0.20	0.04	1	05/24/23 15:10	05/16/23	

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dba ALS Environmental

Analytical Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.02 Task 06
Sample Matrix: Water
Sample Name: BY-COL-MW-10-INF-6
Lab Code: K2305470-009

Service Request: K2305470
Date Collected: 05/03/23 11:17
Date Received: 05/11/23 13:45
Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	3.33	ug/L	0.50	0.09	1	05/24/23 15:18	05/16/23	
Iron	200.8	30200	ug/L	2.0	0.3	1	05/24/23 15:18	05/16/23	
Manganese	200.8	1150	ug/L	0.20	0.04	1	05/24/23 15:18	05/16/23	

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Analytical Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.02 Task 06
Sample Matrix: Water
Sample Name: BY-COL-MW-15-PM-INF-6
Lab Code: K2305470-010

Service Request: K2305470
Date Collected: 05/03/23 11:18
Date Received: 05/11/23 13:45
Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	0.36 J	ug/L	0.50	0.09	1	05/24/23 15:19	05/16/23	
Cobalt	200.8	88.6	ug/L	0.020	0.009	1	05/24/23 15:19	05/16/23	
Iron	200.8	45500	ug/L	40	6	20	05/24/23 15:47	05/16/23	
Manganese	200.8	655	ug/L	0.20	0.04	1	05/24/23 15:19	05/16/23	

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Analytical Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.02 Task 06
Sample Matrix: Water
Sample Name: BY-COL-MW-15-FS-INF-6
Lab Code: K2305470-011

Service Request: K2305470
Date Collected: 05/03/23 11:19
Date Received: 05/11/23 13:45
Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	0.16 J	ug/L	0.50	0.09	1	05/24/23 15:20	05/16/23	
Cobalt	200.8	93.6	ug/L	0.020	0.009	1	05/24/23 15:20	05/16/23	
Iron	200.8	33200	ug/L	2.0	0.3	1	05/24/23 15:20	05/16/23	
Manganese	200.8	656	ug/L	0.20	0.04	1	05/24/23 15:20	05/16/23	

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Analytical Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.02 Task 06
Sample Matrix: Water
Sample Name: BY-COL-MW-24H-INF-6
Lab Code: K2305470-012

Service Request: K2305470
Date Collected: 05/03/23 11:20
Date Received: 05/11/23 13:45
Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	5.38	ug/L	0.50	0.09	1	05/24/23 15:25	05/16/23	
Iron	200.8	76700	ug/L	40	6	20	05/24/23 15:51	05/16/23	
Manganese	200.8	202	ug/L	0.20	0.04	1	05/24/23 15:25	05/16/23	

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Analytical Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.02 Task 06
Sample Matrix: Water
Sample Name: BY-COL-MW-1-INF-5
Lab Code: K2305470-013

Service Request: K2305470
Date Collected: 05/03/23 08:00
Date Received: 05/11/23 13:45
Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	8.35	ug/L	0.50	0.09	1	05/24/23 15:26	05/16/23	
Iron	200.8	88300	ug/L	40	6	20	05/24/23 15:53	05/16/23	
Manganese	200.8	785	ug/L	0.20	0.04	1	05/24/23 15:26	05/16/23	

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dba ALS Environmental

Analytical Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.02 Task 06
Sample Matrix: Water
Sample Name: BY-COL-MW-8-INF-5
Lab Code: K2305470-014

Service Request: K2305470
Date Collected: 05/03/23 08:01
Date Received: 05/11/23 13:45
Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	690	ug/L	0.50	0.09	1	05/24/23 15:28	05/16/23	
Iron	200.8	11000	ug/L	2.0	0.3	1	05/24/23 15:28	05/16/23	
Manganese	200.8	202	ug/L	0.20	0.04	1	05/24/23 15:28	05/16/23	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.02 Task 06
Sample Matrix: Water
Sample Name: BY-COL-MW-10-INF-5
Lab Code: K2305470-015

Service Request: K2305470
Date Collected: 05/03/23 08:02
Date Received: 05/11/23 13:45
Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	3.37	ug/L	0.50	0.09	1	05/24/23 15:32	05/16/23	
Iron	200.8	30300	ug/L	2.0	0.3	1	05/24/23 15:32	05/16/23	
Manganese	200.8	1150	ug/L	0.20	0.04	1	05/24/23 15:32	05/16/23	

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dba ALS Environmental

Analytical Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.02 Task 06
Sample Matrix: Water
Sample Name: BY-COL-MW-15-PM-INF-5
Lab Code: K2305470-016

Service Request: K2305470
Date Collected: 05/03/23 08:03
Date Received: 05/11/23 13:45

Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	0.41 J	ug/L	0.50	0.09	1	05/24/23 15:33	05/16/23	
Cobalt	200.8	86.6	ug/L	0.020	0.009	1	05/24/23 15:33	05/16/23	
Iron	200.8	44800	ug/L	2.0	0.3	1	05/24/23 15:33	05/16/23	
Manganese	200.8	640	ug/L	0.20	0.04	1	05/24/23 15:33	05/16/23	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.02 Task 06
Sample Matrix: Water
Sample Name: BY-COL-MW-15-FS-INF-5
Lab Code: K2305470-017

Service Request: K2305470
Date Collected: 05/03/23 08:04
Date Received: 05/11/23 13:45
Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	0.14 J	ug/L	0.50	0.09	1	05/24/23 15:35	05/16/23	
Cobalt	200.8	94.4	ug/L	0.020	0.009	1	05/24/23 15:35	05/16/23	
Iron	200.8	33700	ug/L	2.0	0.3	1	05/24/23 15:35	05/16/23	
Manganese	200.8	666	ug/L	0.20	0.04	1	05/24/23 15:35	05/16/23	

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Analytical Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.02 Task 06
Sample Matrix: Water
Sample Name: BY-COL-MW-24H-INF-5
Lab Code: K2305470-018

Service Request: K2305470
Date Collected: 05/03/23 08:05
Date Received: 05/11/23 13:45
Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	5.90	ug/L	0.50	0.09	1	05/24/23 15:36	05/16/23	
Iron	200.8	77000	ug/L	40	6	20	05/24/23 15:54	05/16/23	
Manganese	200.8	203	ug/L	0.20	0.04	1	05/24/23 15:36	05/16/23	

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Analytical Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.02 Task 06
Sample Matrix: Water
Sample Name: BY-COL-MW-1-PM-5
Lab Code: K2305470-019

Service Request: K2305470
Date Collected: 05/02/23 08:05
Date Received: 05/11/23 13:45
Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	0.34 J	ug/L	0.50	0.09	1	05/24/23 15:38	05/16/23	
Iron	200.8	18900	ug/L	2.0	0.3	1	05/24/23 15:38	05/16/23	
Manganese	200.8	20100	ug/L	4.0	0.8	20	05/24/23 15:55	05/16/23	

ALS Group USA, Corp.
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Analytical Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.02 Task 06
Sample Matrix: Water
Sample Name: BY-COL-MW-8-PM-5
Lab Code: K2305470-020

Service Request: K2305470
Date Collected: 05/02/23 08:06
Date Received: 05/11/23 13:45
Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	210	ug/L	0.50	0.09	1	05/24/23 15:39	05/16/23	
Iron	200.8	3900	ug/L	2.0	0.3	1	05/24/23 15:39	05/16/23	
Manganese	200.8	72.8	ug/L	0.20	0.04	1	05/24/23 15:39	05/16/23	

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Analytical Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.02 Task 06
Sample Matrix: Water
Sample Name: BY-COL-MW-10-PM-5
Lab Code: K2305470-021

Service Request: K2305470
Date Collected: 05/02/23 08:07
Date Received: 05/11/23 13:45
Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	0.51	ug/L	0.50	0.09	1	05/24/23 08:28	05/16/23	
Iron	200.8	8.7	ug/L	2.0	0.3	1	05/24/23 08:28	05/16/23	
Manganese	200.8	2750	ug/L	0.20	0.04	1	05/24/23 08:28	05/16/23	

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dba ALS Environmental

Analytical Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.02 Task 06
Sample Matrix: Water
Sample Name: BY-COL-MW-15-PM-5
Lab Code: K2305470-022

Service Request: K2305470
Date Collected: 05/02/23 08:08
Date Received: 05/11/23 13:45
Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	ND U	ug/L	0.50	0.09	1	05/24/23 08:30	05/16/23	
Cobalt	200.8	2.36	ug/L	0.020	0.009	1	05/24/23 08:30	05/16/23	
Iron	200.8	1.6 J	ug/L	2.0	0.3	1	05/24/23 08:30	05/16/23	
Manganese	200.8	7440	ug/L	10	2	50	05/24/23 09:17	05/16/23	

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Analytical Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.02 Task 06
Sample Matrix: Water
Sample Name: BY-COL-MW-15-FS-5
Lab Code: K2305470-023

Service Request: K2305470
Date Collected: 05/02/23 08:09
Date Received: 05/11/23 13:45
Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	0.16 J	ug/L	0.50	0.09	1	05/24/23 08:34	05/16/23	
Cobalt	200.8	51.9	ug/L	0.020	0.009	1	05/24/23 08:34	05/16/23	
Iron	200.8	20100	ug/L	2.0	0.3	1	05/24/23 08:34	05/16/23	
Manganese	200.8	1030	ug/L	0.20	0.04	1	05/24/23 08:34	05/16/23	

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Analytical Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.02 Task 06
Sample Matrix: Water
Sample Name: BY-COL-MW-24H-PM-5
Lab Code: K2305470-024

Service Request: K2305470
Date Collected: 05/02/23 08:10
Date Received: 05/11/23 13:45
Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	0.33 J	ug/L	0.50	0.09	1	05/24/23 08:35	05/16/23	
Iron	200.8	2.4	ug/L	2.0	0.3	1	05/24/23 08:35	05/16/23	
Manganese	200.8	11400	ug/L	10	2	50	05/24/23 09:19	05/16/23	



QC Summary Forms

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Analytical Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.02 Task 06
Sample Matrix: Water
Sample Name: Method Blank
Lab Code: KQ2308649-01

Service Request: K2305470
Date Collected: NA
Date Received: NA
Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	ND U	ug/L	0.50	0.09	1	05/24/23 08:00	05/16/23	
Cobalt	200.8	ND U	ug/L	0.020	0.009	1	05/24/23 08:00	05/16/23	
Iron	200.8	ND U	ug/L	2.0	0.3	1	05/24/23 08:00	05/16/23	
Manganese	200.8	0.08 J	ug/L	0.20	0.04	1	05/24/23 08:00	05/16/23	

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dba ALS Environmental

Analytical Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.02 Task 06
Sample Matrix: Water
Sample Name: Method Blank
Lab Code: KQ2308663-01

Service Request: K2305470
Date Collected: NA
Date Received: NA
Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	ND U	ug/L	0.50	0.09	1	05/24/23 14:58	05/16/23	
Cobalt	200.8	ND U	ug/L	0.020	0.009	1	05/24/23 14:58	05/16/23	
Iron	200.8	ND U	ug/L	2.0	0.3	1	05/24/23 14:58	05/16/23	
Manganese	200.8	ND U	ug/L	0.20	0.04	1	05/24/23 14:58	05/16/23	

ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.02 Task 06
Sample Matrix: Water

Service Request: K2305470
Date Collected: 05/03/23
Date Received: 05/11/23
Date Analyzed: 05/24/23
Date Extracted: 05/16/23

Matrix Spike Summary
Dissolved Metals

Sample Name: BY-COL-MW-8-INF-6
Lab Code: K2305470-008
Analysis Method: 200.8
Prep Method: EPA CLP ILM04.0

Units: ug/L
Basis: NA

Matrix Spike
KQ2308663-04

Analyte Name	Sample Result	Result	Spike Amount	% Rec	% Rec Limits
Arsenic	672	708	50.0	72 #	70-130
Cobalt	0.130	25.2	25.0	100	70-130
Iron	10700	10700	50.0	8 #	70-130
Manganese	203	224	25.0	83 #	70-130

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

Matrix Spike and Matrix Spike Duplicate Data is presented for information purposes only. The matrix may or may not be relevant to samples reported in this report. The laboratory evaluates system performance based on the LCS and LCSD control limits.

ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.02 Task 06
Sample Matrix: Water

Service Request: K2305470
Date Collected: 05/03/23
Date Received: 05/11/23
Date Analyzed: 05/24/23
Date Extracted: 05/16/23

Matrix Spike Summary
Dissolved Metals

Sample Name: BY-COL-MW-15-FS-INF-6
Lab Code: K2305470-011
Analysis Method: 200.8
Prep Method: EPA CLP ILM04.0

Units: ug/L
Basis: NA

Matrix Spike
KQ2308663-06

Analyte Name	Sample Result	Result	Spike Amount	% Rec	% Rec Limits
Arsenic	0.16 J	50.0	50.0	100	70-130
Cobalt	93.6	119	25.0	102	70-130
Iron	33200	33800	50.0	1299 #	70-130
Manganese	656	687	25.0	124 #	70-130

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

Matrix Spike and Matrix Spike Duplicate Data is presented for information purposes only. The matrix may or may not be relevant to samples reported in this report. The laboratory evaluates system performance based on the LCS and LCSD control limits.

ALS Group USA, Corp.

dba ALS Environmental

QA/QC Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.02 Task 06
Sample Matrix: Water

Service Request: K2305470
Date Collected: 05/03/23
Date Received: 05/11/23
Date Analyzed: 05/24/23

Replicate Sample Summary
Dissolved Metals

Sample Name: BY-COL-MW-8-INF-6
Lab Code: K2305470-008

Units: ug/L
Basis: NA

Table with 9 columns: Analyte Name, Analysis Method, MRL, MDL, Sample Result, Duplicate Sample KQ2308663-03 Result, Average, RPD, RPD Limit. Rows include Arsenic, Cobalt, Iron, and Manganese.

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

ALS Group USA, Corp.

dba ALS Environmental

QA/QC Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.02 Task 06
Sample Matrix: Water

Service Request: K2305470
Date Collected: 05/03/23
Date Received: 05/11/23
Date Analyzed: 05/24/23

Replicate Sample Summary
Dissolved Metals

Sample Name: BY-COL-MW-15-FS-INF-6
Lab Code: K2305470-011

Units: ug/L
Basis: NA

Table with 9 columns: Analyte Name, Analysis Method, MRL, MDL, Sample Result, Duplicate Sample KQ2308663-05 Result, Average, RPD, RPD Limit. Rows include Arsenic, Cobalt, Iron, and Manganese.

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.02 Task 06
Sample Matrix: Water

Service Request: K2305470
Date Analyzed: 05/24/23

Lab Control Sample Summary
Dissolved Metals

Units:ug/L
Basis:NA

Lab Control Sample
KQ2308649-02

Analyte Name	Analytical Method	Result	Spike Amount	% Rec	% Rec Limits
Arsenic	200.8	48.2	50.0	96	85-115
Cobalt	200.8	24.5	25.0	98	85-115
Iron	200.8	48.2	50.0	96	85-115
Manganese	200.8	24.7	25.0	99	85-115

ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.02 Task 06
Sample Matrix: Water

Service Request: K2305470
Date Analyzed: 05/24/23

Lab Control Sample Summary
Dissolved Metals

Units:ug/L
Basis:NA

Lab Control Sample
KQ2308663-02

Analyte Name	Analytical Method	Result	Spike Amount	% Rec	% Rec Limits
Arsenic	200.8	49.4	50.0	99	85-115
Cobalt	200.8	25.9	25.0	104	85-115
Iron	200.8	51.1	50.0	102	85-115
Manganese	200.8	25.7	25.0	103	85-115



May 25, 2023

Service Request No:K2305471

Masa Kanematsu
Anchor QEA, LLC
6720 SW Macadam Avenue
Suite 125
Portland, OR 97219

Laboratory Results for: Barry

Dear Masa,

Enclosed are the results of the sample(s) submitted to our laboratory May 11, 2023
For your reference, these analyses have been assigned our service request number **K2305471**.

Analyses were performed according to our laboratory's NELAP-approved quality assurance program. The test results meet requirements of the current NELAP standards, where applicable, and except as noted in the laboratory case narrative provided. For a specific list of NELAP-accredited analytes, refer to the certifications section at www.alsglobal.com. All results are intended to be considered in their entirety, and ALS Group USA Corp. dba ALS Environmental (ALS) is not responsible for use of less than the complete report. Results apply only to the items submitted to the laboratory for analysis and individual items (samples) analyzed, as listed in the report.

Please contact me if you have any questions. My extension is 3376. You may also contact me via email at Mark.Harris@alsglobal.com.

Respectfully submitted,

ALS Group USA, Corp. dba ALS Environmental

for Mark Harris
Project Manager

ADDRESS 1317 S. 13th Avenue, Kelso, WA 98626
PHONE +1 360 577 7222 | FAX +1 360 636 1068
ALS Group USA, Corp.
dba ALS Environmental



Narrative Documents

ALS Environmental—Kelso Laboratory
1317 South 13th Avenue, Kelso, WA 98626
Phone (360) 577-7222 Fax (360) 425-9096
www.alsglobal.com



Client: Anchor QEA, LLC
Project: Barry
Sample Matrix: Water

Service Request: K2305471
Date Received: 05/11/2023

CASE NARRATIVE

All analyses were performed consistent with the quality assurance program of ALS Environmental. This report contains analytical results for samples for the Tier II level requested by the client.

Sample Receipt:

Twenty four water samples were received for analysis at ALS Environmental on 05/11/2023. Any discrepancies upon initial sample inspection are annotated on the sample receipt and preservation form included within this report. The samples were stored at minimum in accordance with the analytical method requirements.

Metals:

No significant anomalies were noted with this analysis.

Noel D. O'Connell

Approved by _____

Date 05/25/2023



SAMPLE DETECTION SUMMARY

This form includes only detections above the reporting levels. For a full listing of sample results, continue to the Sample Results section of this Report.

CLIENT ID: BY-COL-MW-1-PM-11	Lab ID: K2305471-001
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Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	0.43	J	0.09	0.50	ug/L	200.8
Iron, Dissolved	35900		0.3	2.0	ug/L	200.8
Manganese, Dissolved	11000		2	10	ug/L	200.8

CLIENT ID: BY-COL-MW-8-PM-11	Lab ID: K2305471-002
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Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	529		0.09	0.50	ug/L	200.8
Iron, Dissolved	9270		0.3	2.0	ug/L	200.8
Manganese, Dissolved	285		0.04	0.20	ug/L	200.8

CLIENT ID: BY-COL-MW-10-PM-11	Lab ID: K2305471-003
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Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	0.60		0.09	0.50	ug/L	200.8
Iron, Dissolved	1.6	J	0.3	2.0	ug/L	200.8
Manganese, Dissolved	1750		0.04	0.20	ug/L	200.8

CLIENT ID: BY-COL-MW-15-FS-11	Lab ID: K2305471-005
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Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	0.12	J	0.09	0.50	ug/L	200.8
Cobalt, Dissolved	76.4		0.009	0.020	ug/L	200.8
Iron, Dissolved	5230		0.3	2.0	ug/L	200.8
Manganese, Dissolved	607		0.04	0.20	ug/L	200.8

CLIENT ID: BY-COL-MW-24H-PM-11	Lab ID: K2305471-006
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Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	0.48	J	0.09	0.50	ug/L	200.8
Iron, Dissolved	1.9	J	0.3	2.0	ug/L	200.8
Manganese, Dissolved	10800		2	10	ug/L	200.8

CLIENT ID: BY-COL-MW-1-INF-11	Lab ID: K2305471-007
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Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	6.66		0.09	0.50	ug/L	200.8
Iron, Dissolved	87200		20	100	ug/L	200.8
Manganese, Dissolved	749		0.04	0.20	ug/L	200.8

CLIENT ID: BY-COL-MW-8-INF-11	Lab ID: K2305471-008
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Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	642		0.09	0.50	ug/L	200.8
Iron, Dissolved	10200		0.3	2.0	ug/L	200.8
Manganese, Dissolved	195		0.04	0.20	ug/L	200.8

CLIENT ID: BY-COL-MW-10-INF-11	Lab ID: K2305471-009
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Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	1.03		0.09	0.50	ug/L	200.8



SAMPLE DETECTION SUMMARY

This form includes only detections above the reporting levels. For a full listing of sample results, continue to the Sample Results section of this Report.

CLIENT ID: BY-COL-MW-10-INF-11	Lab ID: K2305471-009
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Analyte	Results	Flag	MDL	MRL	Units	Method
Iron, Dissolved	733		0.3	2.0	ug/L	200.8
Manganese, Dissolved	1070		0.04	0.20	ug/L	200.8

CLIENT ID: BY-COL-MW-15-PM-INF-11	Lab ID: K2305471-010
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Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	0.17	J	0.09	0.50	ug/L	200.8
Cobalt, Dissolved	81.8		0.009	0.020	ug/L	200.8
Iron, Dissolved	24100		0.3	2.0	ug/L	200.8
Manganese, Dissolved	617		0.04	0.20	ug/L	200.8

CLIENT ID: BY-COL-MW-15-FS-INF-11	Lab ID: K2305471-011
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Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	0.15	J	0.09	0.50	ug/L	200.8
Cobalt, Dissolved	89.8		0.009	0.020	ug/L	200.8
Iron, Dissolved	22600		0.3	2.0	ug/L	200.8
Manganese, Dissolved	655		0.04	0.20	ug/L	200.8

CLIENT ID: BY-COL-MW-24H-INF-11	Lab ID: K2305471-012
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Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	1.25		0.09	0.50	ug/L	200.8
Iron, Dissolved	68800		20	100	ug/L	200.8
Manganese, Dissolved	193		0.04	0.20	ug/L	200.8

CLIENT ID: BY-COL-MW-1-PM-12	Lab ID: K2305471-013
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Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	0.45	J	0.09	0.50	ug/L	200.8
Iron, Dissolved	34400		0.3	2.0	ug/L	200.8
Manganese, Dissolved	11600		2	10	ug/L	200.8

CLIENT ID: BY-COL-MW-8-PM-12	Lab ID: K2305471-014
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Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	529		0.09	0.50	ug/L	200.8
Iron, Dissolved	9180		0.3	2.0	ug/L	200.8
Manganese, Dissolved	314		0.04	0.20	ug/L	200.8

CLIENT ID: BY-COL-MW-15-PM-12	Lab ID: K2305471-016
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Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	0.56		0.09	0.50	ug/L	200.8
Cobalt, Dissolved	0.136		0.009	0.020	ug/L	200.8
Iron, Dissolved	1.9	J	0.3	2.0	ug/L	200.8
Manganese, Dissolved	1570		0.04	0.20	ug/L	200.8



SAMPLE DETECTION SUMMARY

This form includes only detections above the reporting levels. For a full listing of sample results, continue to the Sample Results section of this Report.

CLIENT ID: BY-COL-MW-15-FS-12	Lab ID: K2305471-017
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Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	0.11	J	0.09	0.50	ug/L	200.8
Cobalt, Dissolved	75.2		0.009	0.020	ug/L	200.8
Iron, Dissolved	4100		0.3	2.0	ug/L	200.8
Manganese, Dissolved	622		0.04	0.20	ug/L	200.8

CLIENT ID: BY-COL-MW-24H-PM-12	Lab ID: K2305471-018
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Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	0.32	J	0.09	0.50	ug/L	200.8
Iron, Dissolved	11.1		0.3	2.0	ug/L	200.8
Manganese, Dissolved	14700		2	10	ug/L	200.8

CLIENT ID: BY-COL-MW-1-INF-12	Lab ID: K2305471-019
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Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	6.69		0.09	0.50	ug/L	200.8
Iron, Dissolved	87600		20	100	ug/L	200.8
Manganese, Dissolved	761		0.04	0.20	ug/L	200.8

CLIENT ID: BY-COL-MW-8-INF-12	Lab ID: K2305471-020
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Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	645		0.09	0.50	ug/L	200.8
Iron, Dissolved	10300		0.3	2.0	ug/L	200.8
Manganese, Dissolved	193		0.04	0.20	ug/L	200.8

CLIENT ID: BY-COL-MW-10-INF-12	Lab ID: K2305471-021
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Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	0.92		0.09	0.50	ug/L	200.8
Iron, Dissolved	481		0.3	2.0	ug/L	200.8
Manganese, Dissolved	1070		0.04	0.20	ug/L	200.8

CLIENT ID: BY-COL-MW-15-PM-INF-12	Lab ID: K2305471-022
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Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	0.17	J	0.09	0.50	ug/L	200.8
Cobalt, Dissolved	85.2		0.009	0.020	ug/L	200.8
Iron, Dissolved	23600		0.3	2.0	ug/L	200.8
Manganese, Dissolved	639		0.04	0.20	ug/L	200.8

CLIENT ID: BY-COL-MW-15-FS-INF-12	Lab ID: K2305471-023
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Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	0.15	J	0.09	0.50	ug/L	200.8
Cobalt, Dissolved	88.4		0.009	0.020	ug/L	200.8
Iron, Dissolved	21500		0.3	2.0	ug/L	200.8
Manganese, Dissolved	644		0.04	0.20	ug/L	200.8



SAMPLE DETECTION SUMMARY

This form includes only detections above the reporting levels. For a full listing of sample results, continue to the Sample Results section of this Report.

CLIENT ID: BY-COL-MW-24H-INF-12 **Lab ID: K2305471-024**

Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	1.14		0.09	0.50	ug/L	200.8
Iron, Dissolved	68600		20	100	ug/L	200.8
Manganese, Dissolved	197		0.04	0.20	ug/L	200.8

CLIENT ID: BY-COL-MW-15-PM-11 **Lab ID: K2305471-004**

Analyte	Results	Flag	MDL	MRL	Units	Method
Cobalt, Dissolved	3.92		0.009	0.020	ug/L	200.8
Iron, Dissolved	0.5	J	0.3	2.0	ug/L	200.8
Manganese, Dissolved	5640		2	10	ug/L	200.8

CLIENT ID: BY-COL-MW10-PM-12 **Lab ID: K2305471-015**

Analyte	Results	Flag	MDL	MRL	Units	Method
Iron, Dissolved	1.7	J	0.3	2.0	ug/L	200.8
Manganese, Dissolved	5190		2	10	ug/L	200.8



Sample Receipt Information

ALS Environmental—Kelso Laboratory
1317 South 13th Avenue, Kelso, WA 98626
Phone (360) 577-7222 Fax (360) 425-9096
www.alsglobal.com

Client: Anchor QEA, LLC
Project: Barry/221114-08.02 Task 06


Service Request:K2305471

SAMPLE CROSS-REFERENCE

<u>SAMPLE #</u>	<u>CLIENT SAMPLE ID</u>	<u>DATE</u>	<u>TIME</u>
K2305471-001	BY-COL-MW-1-PM-11	5/5/2023	1000
K2305471-002	BY-COL-MW-8-PM-11	5/5/2023	1001
K2305471-003	BY-COL-MW-10-PM-11	5/5/2023	1002
K2305471-004	BY-COL-MW-15-PM-11	5/5/2023	1003
K2305471-005	BY-COL-MW-15-FS-11	5/5/2023	1004
K2305471-006	BY-COL-MW-24H-PM-11	5/5/2023	1005
K2305471-007	BY-COL-MW-1-INF-11	5/5/2023	0955
K2305471-008	BY-COL-MW-8-INF-11	5/5/2023	0956
K2305471-009	BY-COL-MW-10-INF-11	5/5/2023	0957
K2305471-010	BY-COL-MW-15-PM-INF-11	5/5/2023	0958
K2305471-011	BY-COL-MW-15-FS-INF-11	5/5/2023	0959
K2305471-012	BY-COL-MW-24H-INF-11	5/5/2023	1000
K2305471-013	BY-COL-MW-1-PM-12	5/5/2023	1515
K2305471-014	BY-COL-MW-8-PM-12	5/5/2023	1516
K2305471-015	BY-COL-MW10-PM-12	5/5/2023	1517
K2305471-016	BY-COL-MW-15-PM-12	5/5/2023	1518
K2305471-017	BY-COL-MW-15-FS-12	5/5/2023	1519
K2305471-018	BY-COL-MW-24H-PM-12	5/5/2023	1520
K2305471-019	BY-COL-MW-1-INF-12	5/2/2023	1501
K2305471-020	BY-COL-MW-8-INF-12	5/2/2023	1502
K2305471-021	BY-COL-MW-10-INF-12	5/2/2023	1503
K2305471-022	BY-COL-MW-15-PM-INF-12	5/2/2023	1504
K2305471-023	BY-COL-MW-15-FS-INF-12	5/2/2023	1505
K2305471-024	BY-COL-MW-24H-INF-12	5/2/2023	1506

K2305471

Chain of Custody Record & Laboratory Analysis Request

Laboratory Number: 503-972-5019						 ANCHOR QEA Masa Kanematsu 6720 SW Macadam Ave Suite 125 Portland OR 97219 Comments/Preservation																				
Date:		5/11/2023				No. of Containers	Dissolved Metals (As, Fe, Mn)																			
Project Name:		Barry																								
Project Number:		221114-08.02 Task 06																								
Project Manager:		Masa Kanematsu																								
Phone Number:		503-972-5001 (backup number: 503-798-3456)																								
Shipment Method:		ALS Carrier																								
Line	Field Sample ID	Collection		Matrix	No. of Containers	Dissolved Metals (As, Fe, Mn)																				
		Date	Time																							
1	BY-COL-MW-1-PM-11	5/5/2023	10:00	Water	1	X																				HNO3-Preserved; 0.45um-filtered.
2	BY-COL-MW-8-PM-11	5/5/2023	10:01	Water	1	X																				HNO3-Preserved; 0.45um-filtered.
3	BY-COL-MW-10-PM-11	5/5/2023	10:02	Water	1	X																				HNO3-Preserved; 0.45um-filtered.
4	BY-COL-MW-15-PM-11	5/5/2023	10:03	Water	1		X																			HNO3-Preserved; 0.45um-filtered.
5	BY-COL-MW-15-FS-11	5/5/2023	10:04	Water	1		X																			HNO3-Preserved; 0.45um-filtered.
6	BY-COL-MW-24H-PM-11	5/5/2023	10:05	Water	1	X																				HNO3-Preserved; 0.45um-filtered.
7	BY-COL-MW-1-INF-11	5/5/2023	9:55	Water	1	X																				HNO3-Preserved; 0.45um-filtered.
8	BY-COL-MW-8-INF-11	5/5/2023	9:56	Water	1	X																				HNO3-Preserved; 0.45um-filtered.
9	BY-COL-MW-10-INF-11	5/5/2023	9:57	Water	1	X																				HNO3-Preserved; 0.45um-filtered.
10	BY-COL-MW-15-PM-INF-11	5/5/2023	9:58	Water	1		X																			HNO3-Preserved; 0.45um-filtered.
11	BY-COL-MW-15-FS-INF-11	5/5/2023	9:59	Water	1		X																			HNO3-Preserved; 0.45um-filtered.
12	BY-COL-MW-24H-INF-11	5/5/2023	10:00	Water	1	X																				HNO3-Preserved; 0.45um-filtered.
13																										
14																										
15																										
16																										
17																										
18																										
19																										
20																										

Notes: Please Contact Masa (503-972-5001, mkanematsu@anchorqea.com) if running > 10X dilution. Please analyze by ICP-MS method 200.8 to achieve the MDL < 1 ppb. There are two samples that were taken at the same time (BY-COL-MW-1-PM-11 and BY-COL-MW-24H-INF-11).

Relinquished by: Emma Nordlund Company: Anchor QEA
 Signature/Print Name: *Emma Nordlund* Date/Time: 5/11/23 8:00 AM


Relinquished by: *Greg Rich* Company: ALS
 Signature/Print Name: *Greg Rich* Date/Time: 5-11-23 1345

Received by: *Greg Rich*
 Signature/Print Name: *Greg Rich 5-11-23 1015*

Received by: *Greg Rich*
 Signature/Print Name: *Greg Rich 5/11/23 1345*

12305471

Chain of Custody Record & Laboratory Analysis Request

Laboratory Number: 503-972-5019				No. of Containers	Parameters										 ANCHOR QEA Masa Kanematsu 6720 SW Macadam Ave Suite 125 Portland OR 97219 Comments/Preservation			
Date:		5/11/2023			Dissolved Metals (As, Fe, Mn)													
Project Name:		Barry			Dissolved Metals (As, Co, Fe, Mn)													
Project Number:		221114-08.02 Task 06																
Project Manager:		Masa Kanematsu																
Phone Number:		503-972-5001 (backup number: 503-798-3456)																
Shipment Method:		ALS Carrier																
Line	Field Sample ID	Collection		Matrix	No. of Containers	Dissolved Metals (As, Fe, Mn)	Dissolved Metals (As, Co, Fe, Mn)											
		Date	Time															
1	BY-COL-MW-1-PM-12	5/5/2023	15:15	Water	1	X											HNO3-Preserved; 0.45um-filtered.	
2	BY-COL-MW-8-PM-12	5/5/2023	15:16	Water	1	X											HNO3-Preserved; 0.45um-filtered.	
3	BY-COL-MW-10-PM-12	5/5/2023	15:17	Water	1	X											HNO3-Preserved; 0.45um-filtered.	
4	BY-COL-MW-15-PM-12	5/5/2023	15:18	Water	1		X										HNO3-Preserved; 0.45um-filtered.	
5	BY-COL-MW-15-FS-12	5/5/2023	15:19	Water	1		X										HNO3-Preserved; 0.45um-filtered.	
6	BY-COL-MW-24H-PM-12	5/5/2023	15:20	Water	1	X											HNO3-Preserved; 0.45um-filtered.	
7	BY-COL-MW-1-INF-12	5/2/2023	15:01	Water	1	X											HNO3-Preserved; 0.45um-filtered.	
8	BY-COL-MW-8-INF-12	5/2/2023	15:02	Water	1	X											HNO3-Preserved; 0.45um-filtered.	
9	BY-COL-MW-10-INF-12	5/2/2023	15:03	Water	1	X											HNO3-Preserved; 0.45um-filtered.	
10	BY-COL-MW-15-PM-INF-12	5/2/2023	15:04	Water	1		X										HNO3-Preserved; 0.45um-filtered.	
11	BY-COL-MW-15-FS-INF-12	5/2/2023	15:05	Water	1		X										HNO3-Preserved; 0.45um-filtered.	
12	BY-COL-MW-24H-INF-12	5/2/2023	15:06	Water	1	X											HNO3-Preserved; 0.45um-filtered.	
13																		
14																		
15																		
16																		
17																		
18																		
19																		
20																		

Notes: Please Contact Masa (503-972-5001, mkanematsu@anchorqea.com) if running > 10X dilution. Please analyze by ICP-MS method 200.8 to achieve the MDL < 1 ppb.

Relinquished by: Emma Nordlund	Company: Anchor QEA
Signature/Print Name: <i>Emma Nordlund</i>	Date/Time: 5/11/23 8:00 AM
Relinquished by: <i>Greg Rich</i>	Company: ALS
Signature/Print Name: <i>Greg Rich</i>	Date/Time: 5-11-23 1345

Received by: <i>Greg Rich</i>
Signature/Print Name: <i>Greg Rich 5-11-23 1015</i>
Received by: <i>[Signature]</i>
Signature/Print Name: <i>[Signature] 5/11/23 1345</i>

Distribution: A copy will be made for the laboratory and client. The Project file will retain the original.

PM MH

Cooler Receipt and Preservation Form

Client: Anchor Service Request K23 05471
 Received: 5/11/23 Opened: 5/11/23 By: JA Unloaded: 5/11/23 By: JA

Samples were received via? USPS Fed Ex UPS DHL PDX Courier Hand Delivered
 Samples were received in: (circle) Cooler Box Envelope Other NA
 Were custody seals on coolers? NA Y N If yes, how many and where? _____
 If present, were custody seals intact? Y N If present, were they signed and dated? Y N

Temp Blank	Sample Temp	IR Gun	Cooler #/COC ID / NA	Out of temp Indicate with "X"	PM Notified If out of temp	Tracking Number (NA)	Filed
	<u>24.0</u>	<u>1202</u>	<u>1054</u>				
<u>5.6</u>		<u>1202</u>	<u>2054</u>				
<u>5.1</u>		<u>1202</u>	<u>3054</u>				
<u>4.8</u>		<u>1202</u>	<u>4054</u>				

Was a Temperature Blank present in cooler? NA Y N If yes, notate the temperature in the appropriate column above:
 If no, take the temperature of a representative sample bottle contained within the cooler; notate in the column "Sample Temp":
 Were samples received within the method specified temperature ranges? NA Y N
 If no, were they received on ice and same day as collected? If not, notate the cooler # above and notify the PM. NA Y N

If applicable, tissue samples were received: Frozen Partially Thawed Thawed
 Packing material: Inserts Raggies Bubble Wrap Gel Packs Wet Ice Dry Ice Sleeves
 7. Were custody papers properly filled out (ink, signed, etc.)? NA Y N
 8. Were samples received in good condition (unbroken) NA Y N
 9. Were all sample labels complete (ie, analysis, preservation, etc.)? NA Y N
 10. Did all sample labels and tags agree with custody papers? NA Y N
 11. Were appropriate bottles/containers and volumes received for the tests indicated? NA Y N
 12. Were the pH-preserved bottles (see SMO GEN SOP) received at the appropriate pH? Indicate in the table below NA Y N
 13. Were VOA vials received without headspace? Indicate in the table below NA Y N
 14. Was C12/Res negative? NA Y N
 15. Were samples received within the method specified time limit? If not, notate the error below and notify the PM NA Y N
 16. Were 100ml sterile microbiology bottles filled exactly to the 100ml mark? NA Y N Underfilled Overfilled

Sample ID on Bottle	Sample ID on COC	Identified by:

Sample ID	Bottle Count	Bottle Type	Head-space	Broke	pH	Reagent	Volume added	Reagent Lot Number	Initials	Time

Notes, Discrepancies, Resolutions: Temp not an issue, samples for metals analysis



Miscellaneous Forms

ALS Environmental—Kelso Laboratory
1317 South 13th Avenue, Kelso, WA 98626
Phone (360) 577-7222 Fax (360) 425-9096
www.alsglobal.com

Inorganic Data Qualifiers

- * The result is an outlier. See case narrative.
- # The control limit criteria is not applicable.
- B The analyte was found in the associated method blank at a level that is significant relative to the sample result as defined by the DOD or NELAC standards.
- E The result is an estimate amount because the value exceeded the instrument calibration range.
- J The result is an estimated value.
- U The analyte was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL.
DOD-QSM 4.2 definition : Analyte was not detected and is reported as less than the LOD or as defined by the project. The detection limit is adjusted for dilution.
- i The MRL/MDL or LOQ/LOD is elevated due to a matrix interference.
- X See case narrative.
- Q See case narrative. One or more quality control criteria was outside the limits.
- H The holding time for this test is immediately following sample collection. The samples were analyzed as soon as possible after receipt by the laboratory.

Metals Data Qualifiers

- # The control limit criteria is not applicable.
- J The result is an estimated value.
- E The percent difference for the serial dilution was greater than 10%, indicating a possible matrix interference in the sample.
- M The duplicate injection precision was not met.
- N The Matrix Spike sample recovery is not within control limits. See case narrative.
- S The reported value was determined by the Method of Standard Additions (MSA).
- U The analyte was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL.
DOD-QSM 4.2 definition : Analyte was not detected and is reported as less than the LOD or as defined by the project. The detection limit is adjusted for dilution.
- W The post-digestion spike for furnace AA analysis is out of control limits, while sample absorbance is less than 50% of spike absorbance.
 - i The MRL/MDL or LOQ/LOD is elevated due to a matrix interference.
- X See case narrative.
- + The correlation coefficient for the MSA is less than 0.995.
- Q See case narrative. One or more quality control criteria was outside the limits.

Organic Data Qualifiers

- * The result is an outlier. See case narrative.
- # The control limit criteria is not applicable. See case narrative.
- A A tentatively identified compound, a suspected aldol-condensation product.
- B The analyte was found in the associated method blank at a level that is significant relative to the sample result as defined by the DOD or NELAC standards.
- C The analyte was qualitatively confirmed using GC/MS techniques, pattern recognition, or by comparing to historical data.
- D The reported result is from a dilution.
- E The result is an estimated value.
- J The result is an estimated value.
- N The result is presumptive. The analyte was tentatively identified, but a confirmation analysis was not performed.
- P The GC or HPLC confirmation criteria was exceeded. The relative percent difference is greater than 40% between the two analytical results.
- U The analyte was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL.
DOD-QSM 4.2 definition : Analyte was not detected and is reported as less than the LOD or as defined by the project. The detection limit is adjusted for dilution.
 - i The MRL/MDL or LOQ/LOD is elevated due to a chromatographic interference.
- X See case narrative.
- Q See case narrative. One or more quality control criteria was outside the limits.

Additional Petroleum Hydrocarbon Specific Qualifiers

- F The chromatographic fingerprint of the sample matches the elution pattern of the calibration standard.
- L The chromatographic fingerprint of the sample resembles a petroleum product, but the elution pattern indicates the presence of a greater amount of lighter molecular weight constituents than the calibration standard.
- H The chromatographic fingerprint of the sample resembles a petroleum product, but the elution pattern indicates the presence of a greater amount of heavier molecular weight constituents than the calibration standard.
- O The chromatographic fingerprint of the sample resembles an oil, but does not match the calibration standard.
- Y The chromatographic fingerprint of the sample resembles a petroleum product eluting in approximately the correct carbon range, but the elution pattern does not match the calibration standard.
- Z The chromatographic fingerprint does not resemble a petroleum product.

**ALS Group USA Corp. dba ALS Environmental (ALS) - Kelso
State Certifications, Accreditations, and Licenses**

Agency	Web Site	Number
Alaska DEH	http://dec.alaska.gov/eh/lab/cs/csapproval.htm	UST-040
Arizona DHS	http://www.azdhs.gov/lab/license/env.htm	AZ0339
Arkansas - DEQ	http://www.adeq.state.ar.us/techsvs/labcert.htm	88-0637
California DHS (ELAP)	http://www.cdph.ca.gov/certlic/labs/Pages/ELAP.aspx	2795
DOD ELAP	http://www.denix.osd.mil/edqw/Accreditation/AccreditedLabs.cfm	L16-58-R4
Florida DOH	http://www.doh.state.fl.us/lab/EnvLabCert/WaterCert.htm	E87412
Hawaii DOH	http://health.hawaii.gov/	-
ISO 17025	http://www.pjllabs.com/	L16-57
Louisiana DEQ	http://www.deq.louisiana.gov/page/la-lab-accreditation	03016
Maine DHS	http://www.maine.gov/dhhs/	WA01276
Minnesota DOH	http://www.health.state.mn.us/accreditation	053-999-457
Nevada DEP	http://ndep.nv.gov/bsdw/labservice.htm	WA01276
New Jersey DEP	http://www.nj.gov/dep/enforcement/oqa.html	WA005
New York - DOH	https://www.wadsworth.org/regulatory/elap	12060
North Carolina DEQ	https://deq.nc.gov/about/divisions/water-resources/water-resources-data/water-sciences-home-page/laboratory-certification-branch/non-field-lab-certification	605
Oklahoma DEQ	http://www.deq.state.ok.us/CSDnew/labcert.htm	9801
Oregon – DEQ (NELAP)	http://public.health.oregon.gov/LaboratoryServices/EnvironmentalLaboratoryAccreditation/Pages/index.aspx	WA100010
South Carolina DHEC	http://www.scdhec.gov/environment/EnvironmentalLabCertification/	61002
Texas CEQ	http://www.tceq.texas.gov/field/qa/env_lab_accreditation.html	T104704427
Washington DOE	http://www.ecy.wa.gov/programs/eap/labs/lab-accreditation.html	C544
Wyoming (EPA Region 8)	https://www.epa.gov/region8-waterops/epa-region-8-certified-drinking-water	-
Kelso Laboratory Website	www.alsglobal.com	NA

Analyses were performed according to our laboratory's NELAP-approved quality assurance program. A complete listing of specific NELAP-certified analytes, can be found in the certification section at www.ALSGlobal.com or at the accreditation bodies web site.

Please refer to the certification and/or accreditation body's web site if samples are submitted for compliance purposes. The states highlighted above, require the analysis be listed on the state certification if used for compliance purposes and if the method/analyte is offered by that state.

Acronyms

ASTM	American Society for Testing and Materials
A2LA	American Association for Laboratory Accreditation
CARB	California Air Resources Board
CAS Number	Chemical Abstract Service registry Number
CFC	Chlorofluorocarbon
CFU	Colony-Forming Unit
DEC	Department of Environmental Conservation
DEQ	Department of Environmental Quality
DHS	Department of Health Services
DOE	Department of Ecology
DOH	Department of Health
EPA	U. S. Environmental Protection Agency
ELAP	Environmental Laboratory Accreditation Program
GC	Gas Chromatography
GC/MS	Gas Chromatography/Mass Spectrometry
LOD	Limit of Detection
LOQ	Limit of Quantitation
LUFT	Leaking Underground Fuel Tank
M	Modified
MCL	Maximum Contaminant Level is the highest permissible concentration of a substance allowed in drinking water as established by the USEPA.
MDL	Method Detection Limit
MPN	Most Probable Number
MRL	Method Reporting Limit
NA	Not Applicable
NC	Not Calculated
NCASI	National Council of the Paper Industry for Air and Stream Improvement
ND	Not Detected
NIOSH	National Institute for Occupational Safety and Health
PQL	Practical Quantitation Limit
RCRA	Resource Conservation and Recovery Act
SIM	Selected Ion Monitoring
TPH	Total Petroleum Hydrocarbons
tr	Trace level is the concentration of an analyte that is less than the PQL but greater than or equal to the MDL.

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Analyst Summary report

Client: Anchor QEA, LLC
Project: Barry/221114-08.02 Task 06

Service Request: K2305471

Sample Name: BY-COL-MW-1-PM-11
Lab Code: K2305471-001
Sample Matrix: Water

Date Collected: 05/5/23
Date Received: 05/11/23

Analysis Method
200.8

Extracted/Digested By
ABOYER

Analyzed By
JCHAN

Sample Name: BY-COL-MW-8-PM-11
Lab Code: K2305471-002
Sample Matrix: Water

Date Collected: 05/5/23
Date Received: 05/11/23

Analysis Method
200.8

Extracted/Digested By
ABOYER

Analyzed By
JCHAN

Sample Name: BY-COL-MW-10-PM-11
Lab Code: K2305471-003
Sample Matrix: Water

Date Collected: 05/5/23
Date Received: 05/11/23

Analysis Method
200.8

Extracted/Digested By
ABOYER

Analyzed By
JCHAN

Sample Name: BY-COL-MW-15-PM-11
Lab Code: K2305471-004
Sample Matrix: Water

Date Collected: 05/5/23
Date Received: 05/11/23

Analysis Method
200.8

Extracted/Digested By
ABOYER

Analyzed By
JCHAN

Sample Name: BY-COL-MW-15-FS-11
Lab Code: K2305471-005
Sample Matrix: Water

Date Collected: 05/5/23
Date Received: 05/11/23

Analysis Method
200.8

Extracted/Digested By
ABOYER

Analyzed By
JCHAN

ALS Group USA, Corp.
dba ALS Environmental

Analyst Summary report

Client: Anchor QEA, LLC
Project: Barry/221114-08.02 Task 06

Service Request: K2305471

Sample Name: BY-COL-MW-24H-PM-11
Lab Code: K2305471-006
Sample Matrix: Water

Date Collected: 05/5/23
Date Received: 05/11/23

Analysis Method
200.8

Extracted/Digested By
ABOYER

Analyzed By
JCHAN

Sample Name: BY-COL-MW-1-INF-11
Lab Code: K2305471-007
Sample Matrix: Water

Date Collected: 05/5/23
Date Received: 05/11/23

Analysis Method
200.8

Extracted/Digested By
ABOYER

Analyzed By
JCHAN

Sample Name: BY-COL-MW-8-INF-11
Lab Code: K2305471-008
Sample Matrix: Water

Date Collected: 05/5/23
Date Received: 05/11/23

Analysis Method
200.8

Extracted/Digested By
ABOYER

Analyzed By
JCHAN

Sample Name: BY-COL-MW-10-INF-11
Lab Code: K2305471-009
Sample Matrix: Water

Date Collected: 05/5/23
Date Received: 05/11/23

Analysis Method
200.8

Extracted/Digested By
ABOYER

Analyzed By
JCHAN

Sample Name: BY-COL-MW-15-PM-INF-11
Lab Code: K2305471-010
Sample Matrix: Water

Date Collected: 05/5/23
Date Received: 05/11/23

Analysis Method
200.8

Extracted/Digested By
ABOYER

Analyzed By
JCHAN

ALS Group USA, Corp.
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Analyst Summary report

Client: Anchor QEA, LLC
Project: Barry/221114-08.02 Task 06

Service Request: K2305471

Sample Name: BY-COL-MW-15-FS-INF-11
Lab Code: K2305471-011
Sample Matrix: Water

Date Collected: 05/5/23
Date Received: 05/11/23

Analysis Method
200.8

Extracted/Digested By
ABOYER

Analyzed By
JCHAN

Sample Name: BY-COL-MW-24H-INF-11
Lab Code: K2305471-012
Sample Matrix: Water

Date Collected: 05/5/23
Date Received: 05/11/23

Analysis Method
200.8

Extracted/Digested By
ABOYER

Analyzed By
JCHAN

Sample Name: BY-COL-MW-1-PM-12
Lab Code: K2305471-013
Sample Matrix: Water

Date Collected: 05/5/23
Date Received: 05/11/23

Analysis Method
200.8

Extracted/Digested By
ABOYER

Analyzed By
JCHAN

Sample Name: BY-COL-MW-8-PM-12
Lab Code: K2305471-014
Sample Matrix: Water

Date Collected: 05/5/23
Date Received: 05/11/23

Analysis Method
200.8

Extracted/Digested By
ABOYER

Analyzed By
JCHAN

Sample Name: BY-COL-MW10-PM-12
Lab Code: K2305471-015
Sample Matrix: Water

Date Collected: 05/5/23
Date Received: 05/11/23

Analysis Method
200.8

Extracted/Digested By
ABOYER

Analyzed By
JCHAN

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Analyst Summary report

Client: Anchor QEA, LLC
Project: Barry/221114-08.02 Task 06

Service Request: K2305471

Sample Name: BY-COL-MW-15-PM-12
Lab Code: K2305471-016
Sample Matrix: Water

Date Collected: 05/5/23
Date Received: 05/11/23

Analysis Method
200.8

Extracted/Digested By
ABOYER

Analyzed By
JCHAN

Sample Name: BY-COL-MW-15-FS-12
Lab Code: K2305471-017
Sample Matrix: Water

Date Collected: 05/5/23
Date Received: 05/11/23

Analysis Method
200.8

Extracted/Digested By
ABOYER

Analyzed By
JCHAN

Sample Name: BY-COL-MW-24H-PM-12
Lab Code: K2305471-018
Sample Matrix: Water

Date Collected: 05/5/23
Date Received: 05/11/23

Analysis Method
200.8

Extracted/Digested By
ABOYER

Analyzed By
JCHAN

Sample Name: BY-COL-MW-1-INF-12
Lab Code: K2305471-019
Sample Matrix: Water

Date Collected: 05/2/23
Date Received: 05/11/23

Analysis Method
200.8

Extracted/Digested By
ABOYER

Analyzed By
JCHAN

Sample Name: BY-COL-MW-8-INF-12
Lab Code: K2305471-020
Sample Matrix: Water

Date Collected: 05/2/23
Date Received: 05/11/23

Analysis Method
200.8

Extracted/Digested By
ABOYER

Analyzed By
JCHAN

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Analyst Summary report

Client: Anchor QEA, LLC
Project: Barry/221114-08.02 Task 06

Service Request: K2305471

Sample Name: BY-COL-MW-10-INF-12
Lab Code: K2305471-021
Sample Matrix: Water

Date Collected: 05/2/23
Date Received: 05/11/23

Analysis Method
200.8

Extracted/Digested By
ABOYER

Analyzed By
JCHAN

Sample Name: BY-COL-MW-15-PM-INF-12
Lab Code: K2305471-022
Sample Matrix: Water

Date Collected: 05/2/23
Date Received: 05/11/23

Analysis Method
200.8

Extracted/Digested By
ABOYER

Analyzed By
JCHAN

Sample Name: BY-COL-MW-15-FS-INF-12
Lab Code: K2305471-023
Sample Matrix: Water

Date Collected: 05/2/23
Date Received: 05/11/23

Analysis Method
200.8

Extracted/Digested By
ABOYER

Analyzed By
JCHAN

Sample Name: BY-COL-MW-24H-INF-12
Lab Code: K2305471-024
Sample Matrix: Water

Date Collected: 05/2/23
Date Received: 05/11/23

Analysis Method
200.8

Extracted/Digested By
ABOYER

Analyzed By
JCHAN



Sample Results

ALS Environmental—Kelso Laboratory
1317 South 13th Avenue, Kelso, WA 98626
Phone (360) 577-7222 Fax (360) 425-9096
www.alsglobal.com



Metals

ALS Environmental—Kelso Laboratory
1317 South 13th Avenue, Kelso, WA 98626
Phone (360) 577-7222 Fax (360) 425-9096
www.alsglobal.com

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.02 Task 06
Sample Matrix: Water
Sample Name: BY-COL-MW-1-PM-11
Lab Code: K2305471-001

Service Request: K2305471
Date Collected: 05/05/23 10:00
Date Received: 05/11/23 13:45
Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	0.43 J	ug/L	0.50	0.09	1	05/24/23 09:28	05/16/23	
Iron	200.8	35900	ug/L	2.0	0.3	1	05/24/23 09:28	05/16/23	
Manganese	200.8	11000	ug/L	10	2	50	05/24/23 10:39	05/16/23	

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Analytical Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.02 Task 06
Sample Matrix: Water
Sample Name: BY-COL-MW-8-PM-11
Lab Code: K2305471-002

Service Request: K2305471
Date Collected: 05/05/23 10:01
Date Received: 05/11/23 13:45
Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	529	ug/L	0.50	0.09	1	05/24/23 09:29	05/16/23	
Iron	200.8	9270	ug/L	2.0	0.3	1	05/24/23 09:29	05/16/23	
Manganese	200.8	285	ug/L	0.20	0.04	1	05/24/23 09:29	05/16/23	

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Analytical Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.02 Task 06
Sample Matrix: Water
Sample Name: BY-COL-MW-10-PM-11
Lab Code: K2305471-003

Service Request: K2305471
Date Collected: 05/05/23 10:02
Date Received: 05/11/23 13:45
Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	0.60	ug/L	0.50	0.09	1	05/24/23 09:31	05/16/23	
Iron	200.8	1.6 J	ug/L	2.0	0.3	1	05/24/23 09:31	05/16/23	
Manganese	200.8	1750	ug/L	0.20	0.04	1	05/24/23 09:31	05/16/23	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.02 Task 06
Sample Matrix: Water
Sample Name: BY-COL-MW-15-PM-11
Lab Code: K2305471-004

Service Request: K2305471
Date Collected: 05/05/23 10:03
Date Received: 05/11/23 13:45
Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	ND U	ug/L	0.50	0.09	1	05/24/23 09:32	05/16/23	
Cobalt	200.8	3.92	ug/L	0.020	0.009	1	05/24/23 09:32	05/16/23	
Iron	200.8	0.5 J	ug/L	2.0	0.3	1	05/24/23 09:32	05/16/23	
Manganese	200.8	5640	ug/L	10	2	50	05/24/23 10:40	05/16/23	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.02 Task 06
Sample Matrix: Water
Sample Name: BY-COL-MW-15-FS-11
Lab Code: K2305471-005

Service Request: K2305471
Date Collected: 05/05/23 10:04
Date Received: 05/11/23 13:45

Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	0.12 J	ug/L	0.50	0.09	1	05/24/23 09:33	05/16/23	
Cobalt	200.8	76.4	ug/L	0.020	0.009	1	05/24/23 09:33	05/16/23	
Iron	200.8	5230	ug/L	2.0	0.3	1	05/24/23 09:33	05/16/23	
Manganese	200.8	607	ug/L	0.20	0.04	1	05/24/23 09:33	05/16/23	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.02 Task 06
Sample Matrix: Water
Sample Name: BY-COL-MW-24H-PM-11
Lab Code: K2305471-006

Service Request: K2305471
Date Collected: 05/05/23 10:05
Date Received: 05/11/23 13:45
Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	0.48 J	ug/L	0.50	0.09	1	05/24/23 09:35	05/16/23	
Iron	200.8	1.9 J	ug/L	2.0	0.3	1	05/24/23 09:35	05/16/23	
Manganese	200.8	10800	ug/L	10	2	50	05/24/23 10:41	05/16/23	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.02 Task 06
Sample Matrix: Water
Sample Name: BY-COL-MW-1-INF-11
Lab Code: K2305471-007

Service Request: K2305471
Date Collected: 05/05/23 09:55
Date Received: 05/11/23 13:45
Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	6.66	ug/L	0.50	0.09	1	05/24/23 09:36	05/16/23	
Iron	200.8	87200	ug/L	100	20	50	05/24/23 10:43	05/16/23	
Manganese	200.8	749	ug/L	0.20	0.04	1	05/24/23 09:36	05/16/23	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.02 Task 06
Sample Matrix: Water
Sample Name: BY-COL-MW-8-INF-11
Lab Code: K2305471-008

Service Request: K2305471
Date Collected: 05/05/23 09:56
Date Received: 05/11/23 13:45
Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	642	ug/L	0.50	0.09	1	05/24/23 09:38	05/16/23	
Iron	200.8	10200	ug/L	2.0	0.3	1	05/24/23 09:38	05/16/23	
Manganese	200.8	195	ug/L	0.20	0.04	1	05/24/23 09:38	05/16/23	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.02 Task 06
Sample Matrix: Water
Sample Name: BY-COL-MW-10-INF-11
Lab Code: K2305471-009

Service Request: K2305471
Date Collected: 05/05/23 09:57
Date Received: 05/11/23 13:45
Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	1.03	ug/L	0.50	0.09	1	05/24/23 09:45	05/16/23	
Iron	200.8	733	ug/L	2.0	0.3	1	05/24/23 09:45	05/16/23	
Manganese	200.8	1070	ug/L	0.20	0.04	1	05/24/23 09:45	05/16/23	

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dba ALS Environmental

Analytical Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.02 Task 06
Sample Matrix: Water
Sample Name: BY-COL-MW-15-PM-INF-11
Lab Code: K2305471-010

Service Request: K2305471
Date Collected: 05/05/23 09:58
Date Received: 05/11/23 13:45
Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	0.17 J	ug/L	0.50	0.09	1	05/24/23 09:46	05/16/23	
Cobalt	200.8	81.8	ug/L	0.020	0.009	1	05/24/23 09:46	05/16/23	
Iron	200.8	24100	ug/L	2.0	0.3	1	05/24/23 09:46	05/16/23	
Manganese	200.8	617	ug/L	0.20	0.04	1	05/24/23 09:46	05/16/23	

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Analytical Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.02 Task 06
Sample Matrix: Water
Sample Name: BY-COL-MW-15-FS-INF-11
Lab Code: K2305471-011

Service Request: K2305471
Date Collected: 05/05/23 09:59
Date Received: 05/11/23 13:45
Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	0.15 J	ug/L	0.50	0.09	1	05/24/23 09:48	05/16/23	
Cobalt	200.8	89.8	ug/L	0.020	0.009	1	05/24/23 09:48	05/16/23	
Iron	200.8	22600	ug/L	2.0	0.3	1	05/24/23 09:48	05/16/23	
Manganese	200.8	655	ug/L	0.20	0.04	1	05/24/23 09:48	05/16/23	

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dba ALS Environmental

Analytical Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.02 Task 06
Sample Matrix: Water
Sample Name: BY-COL-MW-24H-INF-11
Lab Code: K2305471-012

Service Request: K2305471
Date Collected: 05/05/23 10:00
Date Received: 05/11/23 13:45
Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	1.25	ug/L	0.50	0.09	1	05/24/23 09:49	05/16/23	
Iron	200.8	68800	ug/L	100	20	50	05/24/23 10:47	05/16/23	
Manganese	200.8	193	ug/L	0.20	0.04	1	05/24/23 09:49	05/16/23	

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Analytical Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.02 Task 06
Sample Matrix: Water
Sample Name: BY-COL-MW-1-PM-12
Lab Code: K2305471-013

Service Request: K2305471
Date Collected: 05/05/23 15:15
Date Received: 05/11/23 13:45
Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	0.45 J	ug/L	0.50	0.09	1	05/24/23 09:50	05/16/23	
Iron	200.8	34400	ug/L	2.0	0.3	1	05/24/23 09:50	05/16/23	
Manganese	200.8	11600	ug/L	10	2	50	05/24/23 10:48	05/16/23	

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Analytical Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.02 Task 06
Sample Matrix: Water
Sample Name: BY-COL-MW-8-PM-12
Lab Code: K2305471-014

Service Request: K2305471
Date Collected: 05/05/23 15:16
Date Received: 05/11/23 13:45
Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	529	ug/L	0.50	0.09	1	05/24/23 09:52	05/16/23	
Iron	200.8	9180	ug/L	2.0	0.3	1	05/24/23 09:52	05/16/23	
Manganese	200.8	314	ug/L	0.20	0.04	1	05/24/23 09:52	05/16/23	

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Analytical Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.02 Task 06
Sample Matrix: Water
Sample Name: BY-COL-MW10-PM-12
Lab Code: K2305471-015

Service Request: K2305471
Date Collected: 05/05/23 15:17
Date Received: 05/11/23 13:45
Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	ND U	ug/L	0.50	0.09	1	05/24/23 09:53	05/16/23	
Iron	200.8	1.7 J	ug/L	2.0	0.3	1	05/24/23 09:53	05/16/23	
Manganese	200.8	5190	ug/L	10	2	50	05/24/23 10:50	05/16/23	

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Analytical Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.02 Task 06
Sample Matrix: Water
Sample Name: BY-COL-MW-15-PM-12
Lab Code: K2305471-016

Service Request: K2305471
Date Collected: 05/05/23 15:18
Date Received: 05/11/23 13:45
Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	0.56	ug/L	0.50	0.09	1	05/24/23 09:55	05/16/23	
Cobalt	200.8	0.136	ug/L	0.020	0.009	1	05/24/23 09:55	05/16/23	
Iron	200.8	1.9 J	ug/L	2.0	0.3	1	05/24/23 09:55	05/16/23	
Manganese	200.8	1570	ug/L	0.20	0.04	1	05/24/23 09:55	05/16/23	

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dba ALS Environmental

Analytical Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.02 Task 06
Sample Matrix: Water
Sample Name: BY-COL-MW-15-FS-12
Lab Code: K2305471-017

Service Request: K2305471
Date Collected: 05/05/23 15:19
Date Received: 05/11/23 13:45
Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	0.11 J	ug/L	0.50	0.09	1	05/24/23 09:59	05/16/23	
Cobalt	200.8	75.2	ug/L	0.020	0.009	1	05/24/23 09:59	05/16/23	
Iron	200.8	4100	ug/L	2.0	0.3	1	05/24/23 09:59	05/16/23	
Manganese	200.8	622	ug/L	0.20	0.04	1	05/24/23 09:59	05/16/23	

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Analytical Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.02 Task 06
Sample Matrix: Water
Sample Name: BY-COL-MW-24H-PM-12
Lab Code: K2305471-018

Service Request: K2305471
Date Collected: 05/05/23 15:20
Date Received: 05/11/23 13:45
Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	0.32 J	ug/L	0.50	0.09	1	05/24/23 10:00	05/16/23	
Iron	200.8	11.1	ug/L	2.0	0.3	1	05/24/23 10:00	05/16/23	
Manganese	200.8	14700	ug/L	10	2	50	05/24/23 10:51	05/16/23	

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Analytical Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.02 Task 06
Sample Matrix: Water
Sample Name: BY-COL-MW-1-INF-12
Lab Code: K2305471-019

Service Request: K2305471
Date Collected: 05/02/23 15:01
Date Received: 05/11/23 13:45
Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	6.69	ug/L	0.50	0.09	1	05/24/23 10:02	05/16/23	
Iron	200.8	87600	ug/L	100	20	50	05/24/23 10:53	05/16/23	
Manganese	200.8	761	ug/L	0.20	0.04	1	05/24/23 10:02	05/16/23	

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Analytical Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.02 Task 06
Sample Matrix: Water
Sample Name: BY-COL-MW-8-INF-12
Lab Code: K2305471-020

Service Request: K2305471
Date Collected: 05/02/23 15:02
Date Received: 05/11/23 13:45
Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	645	ug/L	0.50	0.09	1	05/24/23 10:03	05/16/23	
Iron	200.8	10300	ug/L	2.0	0.3	1	05/24/23 10:03	05/16/23	
Manganese	200.8	193	ug/L	0.20	0.04	1	05/24/23 10:03	05/16/23	

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Analytical Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.02 Task 06
Sample Matrix: Water
Sample Name: BY-COL-MW-10-INF-12
Lab Code: K2305471-021

Service Request: K2305471
Date Collected: 05/02/23 15:03
Date Received: 05/11/23 13:45
Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	0.92	ug/L	0.50	0.09	1	05/24/23 08:37	05/16/23	
Iron	200.8	481	ug/L	2.0	0.3	1	05/24/23 08:37	05/16/23	
Manganese	200.8	1070	ug/L	0.20	0.04	1	05/24/23 08:37	05/16/23	

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Analytical Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.02 Task 06
Sample Matrix: Water
Sample Name: BY-COL-MW-15-PM-INF-12
Lab Code: K2305471-022

Service Request: K2305471
Date Collected: 05/02/23 15:04
Date Received: 05/11/23 13:45

Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	0.17 J	ug/L	0.50	0.09	1	05/24/23 08:38	05/16/23	
Cobalt	200.8	85.2	ug/L	0.020	0.009	1	05/24/23 08:38	05/16/23	
Iron	200.8	23600	ug/L	2.0	0.3	1	05/24/23 08:38	05/16/23	
Manganese	200.8	639	ug/L	0.20	0.04	1	05/24/23 08:38	05/16/23	

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Analytical Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.02 Task 06
Sample Matrix: Water
Sample Name: BY-COL-MW-15-FS-INF-12
Lab Code: K2305471-023

Service Request: K2305471
Date Collected: 05/02/23 15:05
Date Received: 05/11/23 13:45
Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	0.15 J	ug/L	0.50	0.09	1	05/24/23 08:40	05/16/23	
Cobalt	200.8	88.4	ug/L	0.020	0.009	1	05/24/23 08:40	05/16/23	
Iron	200.8	21500	ug/L	2.0	0.3	1	05/24/23 08:40	05/16/23	
Manganese	200.8	644	ug/L	0.20	0.04	1	05/24/23 08:40	05/16/23	

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Analytical Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.02 Task 06
Sample Matrix: Water
Sample Name: BY-COL-MW-24H-INF-12
Lab Code: K2305471-024

Service Request: K2305471
Date Collected: 05/02/23 15:06
Date Received: 05/11/23 13:45
Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	1.14	ug/L	0.50	0.09	1	05/24/23 08:41	05/16/23	
Iron	200.8	68600	ug/L	100	20	50	05/24/23 09:20	05/16/23	
Manganese	200.8	197	ug/L	0.20	0.04	1	05/24/23 08:41	05/16/23	



QC Summary Forms

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Metals

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Analytical Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.02 Task 06
Sample Matrix: Water
Sample Name: Method Blank
Lab Code: KQ2308649-01

Service Request: K2305471
Date Collected: NA
Date Received: NA
Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	ND U	ug/L	0.50	0.09	1	05/24/23 08:00	05/16/23	
Cobalt	200.8	ND U	ug/L	0.020	0.009	1	05/24/23 08:00	05/16/23	
Iron	200.8	ND U	ug/L	2.0	0.3	1	05/24/23 08:00	05/16/23	
Manganese	200.8	0.08 J	ug/L	0.20	0.04	1	05/24/23 08:00	05/16/23	

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Analytical Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.02 Task 06
Sample Matrix: Water
Sample Name: Method Blank
Lab Code: KQ2308664-01

Service Request: K2305471
Date Collected: NA
Date Received: NA
Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	ND U	ug/L	0.50	0.09	1	05/24/23 09:25	05/16/23	
Cobalt	200.8	ND U	ug/L	0.020	0.009	1	05/24/23 09:25	05/16/23	
Iron	200.8	ND U	ug/L	2.0	0.3	1	05/24/23 09:25	05/16/23	
Manganese	200.8	0.20 J	ug/L	0.20	0.04	1	05/24/23 09:25	05/16/23	

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QA/QC Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.02 Task 06
Sample Matrix: Water

Service Request: K2305471
Date Collected: 05/05/23
Date Received: 05/11/23
Date Analyzed: 05/24/23
Date Extracted: 05/16/23

Matrix Spike Summary
Dissolved Metals

Sample Name: BY-COL-MW-8-INF-11
Lab Code: K2305471-008
Analysis Method: 200.8
Prep Method: EPA CLP ILM04.0

Units: ug/L
Basis: NA

Matrix Spike
KQ2308664-04

Analyte Name	Sample Result	Result	Spike Amount	% Rec	% Rec Limits
Arsenic	642	679	50.0	74 #	70-130
Cobalt	0.139	24.4	25.0	97	70-130
Iron	10200	10200	50.0	-6 #	70-130
Manganese	195	212	25.0	67 #	70-130

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

Matrix Spike and Matrix Spike Duplicate Data is presented for information purposes only. The matrix may or may not be relevant to samples reported in this report. The laboratory evaluates system performance based on the LCS and LCSD control limits.

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QA/QC Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.02 Task 06
Sample Matrix: Water

Service Request: K2305471
Date Collected: 05/02/23
Date Received: 05/11/23
Date Analyzed: 05/24/23
Date Extracted: 05/16/23

Matrix Spike Summary
Dissolved Metals

Sample Name: BY-COL-MW-8-INF-12
Lab Code: K2305471-020
Analysis Method: 200.8
Prep Method: EPA CLP ILM04.0

Units: ug/L
Basis: NA

Matrix Spike
KQ2308664-06

Analyte Name	Sample Result	Result	Spike Amount	% Rec	% Rec Limits
Arsenic	645	694	50.0	97 #	70-130
Cobalt	0.127	24.5	25.0	97	70-130
Iron	10300	10400	50.0	313 #	70-130
Manganese	193	218	25.0	98 #	70-130

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

Matrix Spike and Matrix Spike Duplicate Data is presented for information purposes only. The matrix may or may not be relevant to samples reported in this report. The laboratory evaluates system performance based on the LCS and LCSD control limits.

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QA/QC Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.02 Task 06
Sample Matrix: Water

Service Request: K2305471
Date Collected: 05/05/23
Date Received: 05/11/23
Date Analyzed: 05/24/23

Replicate Sample Summary
Dissolved Metals

Sample Name: BY-COL-MW-8-INF-11
Lab Code: K2305471-008

Units: ug/L
Basis: NA

Table with 9 columns: Analyte Name, Analysis Method, MRL, MDL, Sample Result, Duplicate Sample KQ2308664-03 Result, Average, RPD, RPD Limit. Rows include Arsenic, Cobalt, Iron, and Manganese.

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

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QA/QC Report

Client: Anchor QEA, LLC
Project Barry/221114-08.02 Task 06
Sample Matrix: Water

Service Request: K2305471
Date Collected: 05/02/23
Date Received: 05/11/23
Date Analyzed: 05/24/23

Replicate Sample Summary
Dissolved Metals

Sample Name: BY-COL-MW-8-INF-12
Lab Code: K2305471-020

Units: ug/L
Basis: NA

Analyte Name	Analysis Method	MRL	MDL	Sample Result	Duplicate	Average	RPD	RPD Limit
					Sample KQ2308664-05 Result			
Arsenic	200.8	0.50	0.09	645	644	645	<1	20
Cobalt	200.8	0.020	0.009	0.127	0.123	0.125	3	20
Iron	200.8	2.0	0.3	10300	10300	10300	<1	20
Manganese	200.8	0.20	0.04	193	194	194	<1	20

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

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QA/QC Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.02 Task 06
Sample Matrix: Water

Service Request: K2305471
Date Analyzed: 05/24/23

Lab Control Sample Summary
Dissolved Metals

Units:ug/L
Basis:NA

Lab Control Sample
KQ2308649-02

Analyte Name	Analytical Method	Result	Spike Amount	% Rec	% Rec Limits
Arsenic	200.8	48.2	50.0	96	85-115
Cobalt	200.8	24.5	25.0	98	85-115
Iron	200.8	48.2	50.0	96	85-115
Manganese	200.8	24.7	25.0	99	85-115

ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.02 Task 06
Sample Matrix: Water

Service Request: K2305471
Date Analyzed: 05/24/23

Lab Control Sample Summary
Dissolved Metals

Units:ug/L
Basis:NA

Lab Control Sample
KQ2308664-02

Analyte Name	Analytical Method	Result	Spike Amount	% Rec	% Rec Limits
Arsenic	200.8	48.5	50.0	97	85-115
Cobalt	200.8	24.5	25.0	98	85-115
Iron	200.8	48.1	50.0	96	85-115
Manganese	200.8	25.1	25.0	100	85-115



May 25, 2023

Service Request No:K2305472

Masa Kanematsu
Anchor QEA, LLC
6720 SW Macadam Avenue
Suite 125
Portland, OR 97219

Laboratory Results for: Barry

Dear Masa,

Enclosed are the results of the sample(s) submitted to our laboratory May 11, 2023
For your reference, these analyses have been assigned our service request number **K2305472**.

Analyses were performed according to our laboratory's NELAP-approved quality assurance program. The test results meet requirements of the current NELAP standards, where applicable, and except as noted in the laboratory case narrative provided. For a specific list of NELAP-accredited analytes, refer to the certifications section at www.alsglobal.com. All results are intended to be considered in their entirety, and ALS Group USA Corp. dba ALS Environmental (ALS) is not responsible for use of less than the complete report. Results apply only to the items submitted to the laboratory for analysis and individual items (samples) analyzed, as listed in the report.

Please contact me if you have any questions. My extension is 3376. You may also contact me via email at Mark.Harris@alsglobal.com.

Respectfully submitted,

ALS Group USA, Corp. dba ALS Environmental

for Mark Harris
Project Manager

ADDRESS 1317 S. 13th Avenue, Kelso, WA 98626
PHONE +1 360 577 7222 | FAX +1 360 636 1068
ALS Group USA, Corp.
dba ALS Environmental



Narrative Documents

ALS Environmental—Kelso Laboratory
1317 South 13th Avenue, Kelso, WA 98626
Phone (360) 577-7222 Fax (360) 425-9096
www.alsglobal.com



Client: Anchor QEA, LLC
Project: Barry
Sample Matrix: Water

Service Request: K2305472
Date Received: 05/11/2023

CASE NARRATIVE

All analyses were performed consistent with the quality assurance program of ALS Environmental. This report contains analytical results for samples for the Tier II level requested by the client.

Sample Receipt:

Twenty four water samples were received for analysis at ALS Environmental on 05/11/2023. Any discrepancies upon initial sample inspection are annotated on the sample receipt and preservation form included within this report. The samples were stored at minimum in accordance with the analytical method requirements.

Metals:

No significant anomalies were noted with this analysis.

SMO:

No significant anomalies were noted with this analysis.

Approved by _____

Date 05/25/2023



SAMPLE DETECTION SUMMARY

This form includes only detections above the reporting levels. For a full listing of sample results, continue to the Sample Results section of this Report.

CLIENT ID: BY-COL-MW-1-PM-8	Lab ID: K2305472-001
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Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	0.40	J	0.09	0.50	ug/L	200.8
Iron, Dissolved	19700		0.3	2.0	ug/L	200.8
Manganese, Dissolved	13500		2	10	ug/L	200.8

CLIENT ID: BY-COL-MW-8-PM-8	Lab ID: K2305472-002
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Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	490		0.09	0.50	ug/L	200.8
Iron, Dissolved	8360		0.3	2.0	ug/L	200.8
Manganese, Dissolved	174		0.04	0.20	ug/L	200.8

CLIENT ID: BY-COL-MW-10-PM-8	Lab ID: K2305472-003
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Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	0.51		0.09	0.50	ug/L	200.8
Iron, Dissolved	1.3	J	0.3	2.0	ug/L	200.8
Manganese, Dissolved	1950		0.04	0.20	ug/L	200.8

CLIENT ID: BY-COL-MW-15-FS-8	Lab ID: K2305472-005
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Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	0.15	J	0.09	0.50	ug/L	200.8
Cobalt, Dissolved	76.3		0.009	0.020	ug/L	200.8
Iron, Dissolved	9330		0.3	2.0	ug/L	200.8
Manganese, Dissolved	633		0.04	0.20	ug/L	200.8

CLIENT ID: BY-COL-MW-24H-PM-8	Lab ID: K2305472-006
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Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	0.32	J	0.09	0.50	ug/L	200.8
Iron, Dissolved	2.4		0.3	2.0	ug/L	200.8
Manganese, Dissolved	17300		2	10	ug/L	200.8

CLIENT ID: BY-COL-MW-1-INF-8	Lab ID: K2305472-007
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Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	4.88		0.09	0.50	ug/L	200.8
Iron, Dissolved	79500		20	100	ug/L	200.8
Manganese, Dissolved	749		0.04	0.20	ug/L	200.8

CLIENT ID: BY-COL-MW-8-INF-8	Lab ID: K2305472-008
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Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	641		0.09	0.50	ug/L	200.8
Iron, Dissolved	10100		0.3	2.0	ug/L	200.8
Manganese, Dissolved	190		0.04	0.20	ug/L	200.8

CLIENT ID: BY-COL-MW-10-INF-8	Lab ID: K2305472-009
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Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	1.94		0.09	0.50	ug/L	200.8



SAMPLE DETECTION SUMMARY

This form includes only detections above the reporting levels. For a full listing of sample results, continue to the Sample Results section of this Report.

CLIENT ID: BY-COL-MW-10-INF-8	Lab ID: K2305472-009
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Analyte	Results	Flag	MDL	MRL	Units	Method
Iron, Dissolved	17400		0.3	2.0	ug/L	200.8
Manganese, Dissolved	1140		0.04	0.20	ug/L	200.8

CLIENT ID: BY-COL-MW-15-PM-INF-8	Lab ID: K2305472-010
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Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	0.70		0.09	0.50	ug/L	200.8
Cobalt, Dissolved	84.3		0.009	0.020	ug/L	200.8
Iron, Dissolved	33800		0.3	2.0	ug/L	200.8
Manganese, Dissolved	634		0.04	0.20	ug/L	200.8

CLIENT ID: BY-COL-MW-15-FS-INF-8	Lab ID: K2305472-011
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Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	0.13	J	0.09	0.50	ug/L	200.8
Cobalt, Dissolved	87.8		0.009	0.020	ug/L	200.8
Iron, Dissolved	27100		0.3	2.0	ug/L	200.8
Manganese, Dissolved	635		0.04	0.20	ug/L	200.8

CLIENT ID: BY-COL-MW-24H-INF-8	Lab ID: K2305472-012
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Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	1.33		0.09	0.50	ug/L	200.8
Iron, Dissolved	70100		20	100	ug/L	200.8
Manganese, Dissolved	198		0.04	0.20	ug/L	200.8

CLIENT ID: BY-COL-MW-1-PM-7	Lab ID: K2305472-013
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Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	0.36	J	0.09	0.50	ug/L	200.8
Iron, Dissolved	17900		0.3	2.0	ug/L	200.8
Manganese, Dissolved	17900		2	10	ug/L	200.8

CLIENT ID: BY-COL-MW-8-PM-7	Lab ID: K2305472-014
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Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	328		0.09	0.50	ug/L	200.8
Iron, Dissolved	5660		0.3	2.0	ug/L	200.8
Manganese, Dissolved	89.6		0.04	0.20	ug/L	200.8

CLIENT ID: BY-COL-MW-10-PM-7	Lab ID: K2305472-015
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Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	0.64		0.09	0.50	ug/L	200.8
Iron, Dissolved	2.5		0.3	2.0	ug/L	200.8
Manganese, Dissolved	2130		0.04	0.20	ug/L	200.8

CLIENT ID: BY-COL-MW-15-FS-7	Lab ID: K2305472-017
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Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	0.14	J	0.09	0.50	ug/L	200.8



SAMPLE DETECTION SUMMARY

This form includes only detections above the reporting levels. For a full listing of sample results, continue to the Sample Results section of this Report.

CLIENT ID: BY-COL-MW-15-FS-7	Lab ID: K2305472-017
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Analyte	Results	Flag	MDL	MRL	Units	Method
Cobalt, Dissolved	61.3		0.009	0.020	ug/L	200.8
Iron, Dissolved	14800		0.3	2.0	ug/L	200.8
Manganese, Dissolved	771		0.04	0.20	ug/L	200.8

CLIENT ID: BY-COL-MW-24H-PM-7	Lab ID: K2305472-018
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Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	0.30	J	0.09	0.50	ug/L	200.8
Iron, Dissolved	4.0		0.3	2.0	ug/L	200.8
Manganese, Dissolved	13800		2	10	ug/L	200.8

CLIENT ID: BY-COL-MW-1-INF-7	Lab ID: K2305472-019
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Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	7.28		0.09	0.50	ug/L	200.8
Iron, Dissolved	87500		20	100	ug/L	200.8
Manganese, Dissolved	749		0.04	0.20	ug/L	200.8

CLIENT ID: BY-COL-MW-8-INF-7	Lab ID: K2305472-020
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Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	651		0.09	0.50	ug/L	200.8
Iron, Dissolved	10300		0.3	2.0	ug/L	200.8
Manganese, Dissolved	191		0.04	0.20	ug/L	200.8

CLIENT ID: BY-COL-MW-10-INF-7	Lab ID: K2305472-021
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Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	2.91		0.09	0.50	ug/L	200.8
Iron, Dissolved	26400		0.3	2.0	ug/L	200.8
Manganese, Dissolved	1140		0.04	0.20	ug/L	200.8

CLIENT ID: BY-COL-MW-15-PM-INF-7	Lab ID: K2305472-022
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Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	13.8		0.09	0.50	ug/L	200.8
Cobalt, Dissolved	83.0		0.009	0.020	ug/L	200.8
Iron, Dissolved	41200		0.3	2.0	ug/L	200.8
Manganese, Dissolved	618		0.04	0.20	ug/L	200.8

CLIENT ID: BY-COL-MW-15-FS-INF-7	Lab ID: K2305472-023
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Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	0.11	J	0.09	0.50	ug/L	200.8
Cobalt, Dissolved	88.9		0.009	0.020	ug/L	200.8
Iron, Dissolved	31400		0.3	2.0	ug/L	200.8
Manganese, Dissolved	642		0.04	0.20	ug/L	200.8



SAMPLE DETECTION SUMMARY

This form includes only detections above the reporting levels. For a full listing of sample results, continue to the Sample Results section of this Report.

CLIENT ID: BY-COL-MW-24H-INF-7 **Lab ID: K2305472-024**

Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	4.37		0.09	0.50	ug/L	200.8
Iron, Dissolved	76200		20	100	ug/L	200.8
Manganese, Dissolved	194		0.04	0.20	ug/L	200.8

CLIENT ID: BY-COL-MW-15-PM-8 **Lab ID: K2305472-004**

Analyte	Results	Flag	MDL	MRL	Units	Method
Cobalt, Dissolved	3.33		0.009	0.020	ug/L	200.8
Iron, Dissolved	2.6		0.3	2.0	ug/L	200.8
Manganese, Dissolved	8580		2	10	ug/L	200.8

CLIENT ID: BY-COL-MW-15-PM-7 **Lab ID: K2305472-016**

Analyte	Results	Flag	MDL	MRL	Units	Method
Cobalt, Dissolved	2.66		0.009	0.020	ug/L	200.8
Iron, Dissolved	2.7		0.3	2.0	ug/L	200.8
Manganese, Dissolved	8240		2	10	ug/L	200.8



Sample Receipt Information

ALS Environmental—Kelso Laboratory
1317 South 13th Avenue, Kelso, WA 98626
Phone (360) 577-7222 Fax (360) 425-9096
www.alsglobal.com

Client: Anchor QEA, LLC
Project: Barry/221114-08.02 Task 06

Service Request:K2305472

SAMPLE CROSS-REFERENCE

<u>SAMPLE #</u>	<u>CLIENT SAMPLE ID</u>	<u>DATE</u>	<u>TIME</u>
K2305472-001	BY-COL-MW-1-PM-8	5/4/2023	0800
K2305472-002	BY-COL-MW-8-PM-8	5/4/2023	0801
K2305472-003	BY-COL-MW-10-PM-8	5/4/2023	0802
K2305472-004	BY-COL-MW-15-PM-8	5/4/2023	0803
K2305472-005	BY-COL-MW-15-FS-8	5/4/2023	0804
K2305472-006	BY-COL-MW-24H-PM-8	5/4/2023	0805
K2305472-007	BY-COL-MW-1-INF-8	5/4/2023	0755
K2305472-008	BY-COL-MW-8-INF-8	5/4/2023	0756
K2305472-009	BY-COL-MW-10-INF-8	5/4/2023	0757
K2305472-010	BY-COL-MW-15-PM-INF-8	5/4/2023	0758
K2305472-011	BY-COL-MW-15-FS-INF-8	5/4/2023	0759
K2305472-012	BY-COL-MW-24H-INF-8	5/4/2023	0800
K2305472-013	BY-COL-MW-1-PM-7	5/3/2023	1515
K2305472-014	BY-COL-MW-8-PM-7	5/3/2023	1516
K2305472-015	BY-COL-MW-10-PM-7	5/3/2023	1517
K2305472-016	BY-COL-MW-15-PM-7	5/3/2023	1518
K2305472-017	BY-COL-MW-15-FS-7	5/3/2023	1519
K2305472-018	BY-COL-MW-24H-PM-7	5/3/2023	1520
K2305472-019	BY-COL-MW-1-INF-7	5/4/2023	1500
K2305472-020	BY-COL-MW-8-INF-7	5/2/2023	1501
K2305472-021	BY-COL-MW-10-INF-7	5/2/2023	1502
K2305472-022	BY-COL-MW-15-PM-INF-7	5/2/2023	1503
K2305472-023	BY-COL-MW-15-FS-INF-7	5/2/2023	1504
K2305472-024	BY-COL-MW-24H-INF-7	5/2/2023	1505

Chain of Custody Record & Laboratory Analysis Request

Laboratory Number: 503-972-5019					No. of Containers	Dissolved Metals (As, Fe, Mn)	Dissolved Metals (As, Co, Fe, Mn)	Parameters												ANCHOR QEA Masa Kanematsu 6720 SW Macadam Ave Suite 125 Portland OR 97219
Date:	5/11/2023																			
Project Name:	Barry																			
Project Number:	221114-08.02 Task 06																			
Project Manager:	Masa Kanematsu																			
Phone Number:	503-972-5001 (backup number: 503-798-3456)																			
Shipment Method:	ALS Carrier																			
Line	Field Sample ID	Collection		Matrix	No. of Containers	Dissolved Metals (As, Fe, Mn)	Dissolved Metals (As, Co, Fe, Mn)	Parameters												Comments/Preservation
		Date	Time																	
1	BY-COL-MW-1-PM-8	5/4/2023	8:00	Water	1	X														HNO3-Preserved; 0.45um-filtered.
2	BY-COL-MW-8-PM-8	5/4/2023	8:01	Water	1	X														HNO3-Preserved; 0.45um-filtered.
3	BY-COL-MW-10-PM-8	5/4/2023	8:02	Water	1	X														HNO3-Preserved; 0.45um-filtered.
4	BY-COL-MW-15-PM-8	5/4/2023	8:03	Water	1		X													HNO3-Preserved; 0.45um-filtered.
5	BY-COL-MW-15-FS-8	5/4/2023	8:04	Water	1		X													HNO3-Preserved; 0.45um-filtered.
6	BY-COL-MW-24H-PM-8	5/4/2023	8:05	Water	1	X														HNO3-Preserved; 0.45um-filtered.
7	BY-COL-MW-1-INF-8	5/4/2023	7:55	Water	1	X														HNO3-Preserved; 0.45um-filtered.
8	BY-COL-MW-8-INF-8	5/4/2023	7:56	Water	1	X														HNO3-Preserved; 0.45um-filtered.
9	BY-COL-MW-10-INF-8	5/4/2023	7:57	Water	1	X														HNO3-Preserved; 0.45um-filtered.
10	BY-COL-MW-15-PM-INF-8	5/4/2023	7:58	Water	1		X													HNO3-Preserved; 0.45um-filtered.
11	BY-COL-MW-15-FS-INF-8	5/4/2023	7:59	Water	1		X													HNO3-Preserved; 0.45um-filtered.
12	BY-COL-MW-24H-INF-8	5/4/2023	8:00	Water	1	X														HNO3-Preserved; 0.45um-filtered.
13																				
14																				
15																				
16																				
17																				
18																				
19																				
20																				

Notes: Please Contact Masa (503-972-5001, mkanematsu@anchorqea.com) if running > 10X dilution. Please analyze by ICP-MS method 200.8 to achieve the MDL < 1 ppb. There are two samples that were taken at the same time (BY-COL-MW-1-PM-8 and BY-COL-MW-24H-8).

Relinquished by: Emma Nordlund
 Signature/Print Name: *[Signature]*
 Date/Time: 5/11/23 8:00 AM
 Company: Anchor QEA


Relinquished by: *[Signature]*
 Signature/Print Name: Greg Rich
 Date/Time: 5-11-23 1345
 Company: ALS

Received by: *[Signature]*
 Signature/Print Name: Greg Rich 5-11-23 1015

Received by: *[Signature]*
 Signature/Print Name: *[Signature]* 5/11/23 1345

Distribution: A copy will be made for the laboratory and client. The Project file will retain the original.

Chain of Custody Record & Laboratory Analysis Request

Laboratory Number: 503-972-5019				No. of Containers	Parameters											 ANCHOR QEA Masa Kanematsu 6720 SW Macadam Ave Suite 125 Portland OR 97219 Comments/Preservation	
Date:	5/11/2023				As, Fe, Mn												
Project Name:	Barry				As, Co, Fe, Mn												
Project Number:	221114-08.02 Task 06																
Project Manager:	Masa Kanematsu																
Phone Number:	503-972-5001 (backup number: 503-798-3456)																
Shipment Method:	ALS Carrier																
Line	Field Sample ID	Collection		Matrix	No. of Containers	Parameters											Comments/Preservation
		Date	Time			As, Fe, Mn	As, Co, Fe, Mn										
1	BY-COL-MW-1-PM-7	5/3/2023	15:15	Water	1	X											HNO3-Preserved; 0.45um-filtered.
2	BY-COL-MW-8-PM-7	5/3/2023	15:16	Water	1	X											HNO3-Preserved; 0.45um-filtered.
3	BY-COL-MW-10-PM-7	5/3/2023	15:17	Water	1	X											HNO3-Preserved; 0.45um-filtered.
4	BY-COL-MW-15-PM-7	5/3/2023	15:18	Water	1		X										HNO3-Preserved; 0.45um-filtered.
5	BY-COL-MW-15-FS-7	5/3/2023	15:19	Water	1		X										HNO3-Preserved; 0.45um-filtered.
6	BY-COL-MW-24H-PM-7	5/3/2023	15:20	Water	1	X											HNO3-Preserved; 0.45um-filtered.
7	BY-COL-MW-1-INF-7	5/2/2023	15:00	Water	1	X											HNO3-Preserved; 0.45um-filtered.
8	BY-COL-MW-8-INF-7	5/2/2023	15:01	Water	1	X											HNO3-Preserved; 0.45um-filtered.
9	BY-COL-MW-10-INF-7	5/2/2023	15:02	Water	1	X											HNO3-Preserved; 0.45um-filtered.
10	BY-COL-MW-15-PM-INF-7	5/2/2023	15:03	Water	1		X										HNO3-Preserved; 0.45um-filtered.
11	BY-COL-MW-15-FS-INF-7	5/2/2023	15:04	Water	1		X										HNO3-Preserved; 0.45um-filtered.
12	BY-COL-MW-24H-INF-7	5/2/2023	15:05	Water	1	X											HNO3-Preserved; 0.45um-filtered.
13																	
14																	
15																	
16																	
17																	
18																	
19																	
20																	

Notes: Please Contact Masa (503-972-5001, mkanematsu@anchorqea.com) if running > 10X dilution. Please analyze by ICP-MS method 200.8 to achieve the MDL < 1 ppb.

Relinquished by: Emma Nordlund
 Signature/Print Name: *Emma Nordlund*
 Company: Anchor QEA
 Date/Time: 5/11/23 8:00 AM
 Relinquished by: *Greg Rich*
 Signature/Print Name: *Greg Rich*
 Company: ALS
 Date/Time: 5-11-23 1345

Received by: *Greg Rich*
 Signature/Print Name: *Greg Rich 5-11-23 1015*
 Received by: *[Signature]*
 Signature/Print Name: *[Signature] 5/11/23 1345*

Distribution: A copy will be made for the laboratory and client. The Project file will retain the original.

Cooler Receipt and Preservation Form

Client: Anchor Service Request K23 05472
Received: 5/11/23 Opened: 5/11/23 By: JA Unloaded: 5/11/23 By: JA

Samples were received via? **USPS** **Fed Ex** **UPS** **DHL** **PDX** Courier **Hand Delivered**
Samples were received in: (circle) Cooler **Box** **Envelope** **Other** **NA**
Were custody seals on coolers? **NA** **Y** N If yes, how many and where? _____
If present, were custody seals intact? **Y** **N** If present, were they signed and dated? **Y** **N**

Temp Blank	Sample Temp	IR Gun	Cooler #/COC ID / NA	Out of temp indicate with "X"	PM Notified if out of temp	Tracking Number (NA)	Filed
	24.0	1202	1054				
S.6		1202	2054				
S.1		1202	3054				
S.8		1202	4054				

Was a Temperature Blank present in cooler? **NA** Y **N** If yes, notate the temperature in the appropriate column above:
If no, take the temperature of a representative sample bottle contained within the cooler; notate in the column "Sample Temp":
Were samples received within the method specified temperature ranges? **NA** Y **N**
If no, were they received on ice and same day as collected? If not, notate the cooler # above and notify the PM. NA **Y** **N**

If applicable, tissue samples were received: **Frozen** **Partially Thawed** **Thawed**
Packing material: **Inserts** Raggies Bubble Wrap **Gel Packs** **Wet Ice** **Dry Ice** **Sleeves** _____
Were custody papers properly filled out (ink, signed, etc.)? **NA** Y **N**
Were samples received in good condition (unbroken) **NA** Y **N**
Were all sample labels complete (ie, analysis, preservation, etc.)? **NA** Y **N**
Did all sample labels and tags agree with custody papers? **NA** Y **N**
Were appropriate bottles/containers and volumes received for the tests indicated? **NA** Y **N**
Were the pH-preserved bottles (see SMO GEN SOP) received at the appropriate pH? Indicate in the table below NA **Y** **N**
Were VOA vials received without headspace? Indicate in the table below NA **Y** **N**
Was C12/Res negative? NA **Y** **N**
Were samples received within the method specified time limit? If not, notate the error below and notify the PM NA **Y** **N**
Were 100ml sterile microbiology bottles filled exactly to the 100ml mark? NA **Y** **N** Underfilled Overfilled

Sample ID on Bottle	Sample ID on COC	Identified by:

Sample ID	Bottle Count	Bottle Type	Head-space	Broke	pH	Reagent	Volume added	Reagent Lot Number	Initials	Time

Notes, Discrepancies, Resolutions: Temp not an issue, samples for metals analysis



Miscellaneous Forms

ALS Environmental—Kelso Laboratory
1317 South 13th Avenue, Kelso, WA 98626
Phone (360) 577-7222 Fax (360) 425-9096
www.alsglobal.com

Inorganic Data Qualifiers

- * The result is an outlier. See case narrative.
- # The control limit criteria is not applicable.
- B The analyte was found in the associated method blank at a level that is significant relative to the sample result as defined by the DOD or NELAC standards.
- E The result is an estimate amount because the value exceeded the instrument calibration range.
- J The result is an estimated value.
- U The analyte was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL.
DOD-QSM 4.2 definition : Analyte was not detected and is reported as less than the LOD or as defined by the project. The detection limit is adjusted for dilution.
- i The MRL/MDL or LOQ/LOD is elevated due to a matrix interference.
- X See case narrative.
- Q See case narrative. One or more quality control criteria was outside the limits.
- H The holding time for this test is immediately following sample collection. The samples were analyzed as soon as possible after receipt by the laboratory.

Metals Data Qualifiers

- # The control limit criteria is not applicable.
- J The result is an estimated value.
- E The percent difference for the serial dilution was greater than 10%, indicating a possible matrix interference in the sample.
- M The duplicate injection precision was not met.
- N The Matrix Spike sample recovery is not within control limits. See case narrative.
- S The reported value was determined by the Method of Standard Additions (MSA).
- U The analyte was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL.
DOD-QSM 4.2 definition : Analyte was not detected and is reported as less than the LOD or as defined by the project. The detection limit is adjusted for dilution.
- W The post-digestion spike for furnace AA analysis is out of control limits, while sample absorbance is less than 50% of spike absorbance.
 - i The MRL/MDL or LOQ/LOD is elevated due to a matrix interference.
- X See case narrative.
- + The correlation coefficient for the MSA is less than 0.995.
- Q See case narrative. One or more quality control criteria was outside the limits.

Organic Data Qualifiers

- * The result is an outlier. See case narrative.
- # The control limit criteria is not applicable. See case narrative.
- A A tentatively identified compound, a suspected aldol-condensation product.
- B The analyte was found in the associated method blank at a level that is significant relative to the sample result as defined by the DOD or NELAC standards.
- C The analyte was qualitatively confirmed using GC/MS techniques, pattern recognition, or by comparing to historical data.
- D The reported result is from a dilution.
- E The result is an estimated value.
- J The result is an estimated value.
- N The result is presumptive. The analyte was tentatively identified, but a confirmation analysis was not performed.
- P The GC or HPLC confirmation criteria was exceeded. The relative percent difference is greater than 40% between the two analytical results.
- U The analyte was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL.
DOD-QSM 4.2 definition : Analyte was not detected and is reported as less than the LOD or as defined by the project. The detection limit is adjusted for dilution.
 - i The MRL/MDL or LOQ/LOD is elevated due to a chromatographic interference.
- X See case narrative.
- Q See case narrative. One or more quality control criteria was outside the limits.

Additional Petroleum Hydrocarbon Specific Qualifiers

- F The chromatographic fingerprint of the sample matches the elution pattern of the calibration standard.
- L The chromatographic fingerprint of the sample resembles a petroleum product, but the elution pattern indicates the presence of a greater amount of lighter molecular weight constituents than the calibration standard.
- H The chromatographic fingerprint of the sample resembles a petroleum product, but the elution pattern indicates the presence of a greater amount of heavier molecular weight constituents than the calibration standard.
- O The chromatographic fingerprint of the sample resembles an oil, but does not match the calibration standard.
- Y The chromatographic fingerprint of the sample resembles a petroleum product eluting in approximately the correct carbon range, but the elution pattern does not match the calibration standard.
- Z The chromatographic fingerprint does not resemble a petroleum product.

**ALS Group USA Corp. dba ALS Environmental (ALS) - Kelso
State Certifications, Accreditations, and Licenses**

Agency	Web Site	Number
Alaska DEH	http://dec.alaska.gov/eh/lab/cs/csapproval.htm	UST-040
Arizona DHS	http://www.azdhs.gov/lab/license/env.htm	AZ0339
Arkansas - DEQ	http://www.adeq.state.ar.us/techsvs/labcert.htm	88-0637
California DHS (ELAP)	http://www.cdph.ca.gov/certlic/labs/Pages/ELAP.aspx	2795
DOD ELAP	http://www.denix.osd.mil/edqw/Accreditation/AccreditedLabs.cfm	L16-58-R4
Florida DOH	http://www.doh.state.fl.us/lab/EnvLabCert/WaterCert.htm	E87412
Hawaii DOH	http://health.hawaii.gov/	-
ISO 17025	http://www.pjlabs.com/	L16-57
Louisiana DEQ	http://www.deq.louisiana.gov/page/la-lab-accreditation	03016
Maine DHS	http://www.maine.gov/dhhs/	WA01276
Minnesota DOH	http://www.health.state.mn.us/accreditation	053-999-457
Nevada DEP	http://ndep.nv.gov/bsdw/labservice.htm	WA01276
New Jersey DEP	http://www.nj.gov/dep/enforcement/oqa.html	WA005
New York - DOH	https://www.wadsworth.org/regulatory/elap	12060
North Carolina DEQ	https://deq.nc.gov/about/divisions/water-resources/water-resources-data/water-sciences-home-page/laboratory-certification-branch/non-field-lab-certification	605
Oklahoma DEQ	http://www.deq.state.ok.us/CSDnew/labcert.htm	9801
Oregon – DEQ (NELAP)	http://public.health.oregon.gov/LaboratoryServices/EnvironmentalLaboratoryAccreditation/Pages/index.aspx	WA100010
South Carolina DHEC	http://www.scdhec.gov/environment/EnvironmentalLabCertification/	61002
Texas CEQ	http://www.tceq.texas.gov/field/qa/env_lab_accreditation.html	T104704427
Washington DOE	http://www.ecy.wa.gov/programs/eap/labs/lab-accreditation.html	C544
Wyoming (EPA Region 8)	https://www.epa.gov/region8-waterops/epa-region-8-certified-drinking-water	-
Kelso Laboratory Website	www.alsglobal.com	NA

Analyses were performed according to our laboratory's NELAP-approved quality assurance program. A complete listing of specific NELAP-certified analytes, can be found in the certification section at www.ALSGlobal.com or at the accreditation bodies web site.

Please refer to the certification and/or accreditation body's web site if samples are submitted for compliance purposes. The states highlighted above, require the analysis be listed on the state certification if used for compliance purposes and if the method/analyte is offered by that state.

Acronyms

ASTM	American Society for Testing and Materials
A2LA	American Association for Laboratory Accreditation
CARB	California Air Resources Board
CAS Number	Chemical Abstract Service registry Number
CFC	Chlorofluorocarbon
CFU	Colony-Forming Unit
DEC	Department of Environmental Conservation
DEQ	Department of Environmental Quality
DHS	Department of Health Services
DOE	Department of Ecology
DOH	Department of Health
EPA	U. S. Environmental Protection Agency
ELAP	Environmental Laboratory Accreditation Program
GC	Gas Chromatography
GC/MS	Gas Chromatography/Mass Spectrometry
LOD	Limit of Detection
LOQ	Limit of Quantitation
LUFT	Leaking Underground Fuel Tank
M	Modified
MCL	Maximum Contaminant Level is the highest permissible concentration of a substance allowed in drinking water as established by the USEPA.
MDL	Method Detection Limit
MPN	Most Probable Number
MRL	Method Reporting Limit
NA	Not Applicable
NC	Not Calculated
NCASI	National Council of the Paper Industry for Air and Stream Improvement
ND	Not Detected
NIOSH	National Institute for Occupational Safety and Health
PQL	Practical Quantitation Limit
RCRA	Resource Conservation and Recovery Act
SIM	Selected Ion Monitoring
TPH	Total Petroleum Hydrocarbons
tr	Trace level is the concentration of an analyte that is less than the PQL but greater than or equal to the MDL.

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Analyst Summary report

Client: Anchor QEA, LLC
Project: Barry/221114-08.02 Task 06

Service Request: K2305472

Sample Name: BY-COL-MW-1-PM-8
Lab Code: K2305472-001
Sample Matrix: Water

Date Collected: 05/4/23
Date Received: 05/11/23

Analysis Method
200.8

Extracted/Digested By
ABOYER

Analyzed By
JCHAN

Sample Name: BY-COL-MW-8-PM-8
Lab Code: K2305472-002
Sample Matrix: Water

Date Collected: 05/4/23
Date Received: 05/11/23

Analysis Method
200.8

Extracted/Digested By
ABOYER

Analyzed By
JCHAN

Sample Name: BY-COL-MW-10-PM-8
Lab Code: K2305472-003
Sample Matrix: Water

Date Collected: 05/4/23
Date Received: 05/11/23

Analysis Method
200.8

Extracted/Digested By
ABOYER

Analyzed By
JCHAN

Sample Name: BY-COL-MW-15-PM-8
Lab Code: K2305472-004
Sample Matrix: Water

Date Collected: 05/4/23
Date Received: 05/11/23

Analysis Method
200.8

Extracted/Digested By
ABOYER

Analyzed By
JCHAN

Sample Name: BY-COL-MW-15-FS-8
Lab Code: K2305472-005
Sample Matrix: Water

Date Collected: 05/4/23
Date Received: 05/11/23

Analysis Method
200.8

Extracted/Digested By
ABOYER

Analyzed By
JCHAN

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Analyst Summary report

Client: Anchor QEA, LLC
Project: Barry/221114-08.02 Task 06

Service Request: K2305472

Sample Name: BY-COL-MW-24H-PM-8
Lab Code: K2305472-006
Sample Matrix: Water

Date Collected: 05/4/23
Date Received: 05/11/23

Analysis Method
200.8

Extracted/Digested By
ABOYER

Analyzed By
JCHAN

Sample Name: BY-COL-MW-1-INF-8
Lab Code: K2305472-007
Sample Matrix: Water

Date Collected: 05/4/23
Date Received: 05/11/23

Analysis Method
200.8

Extracted/Digested By
ABOYER

Analyzed By
JCHAN

Sample Name: BY-COL-MW-8-INF-8
Lab Code: K2305472-008
Sample Matrix: Water

Date Collected: 05/4/23
Date Received: 05/11/23

Analysis Method
200.8

Extracted/Digested By
ABOYER

Analyzed By
JCHAN

Sample Name: BY-COL-MW-10-INF-8
Lab Code: K2305472-009
Sample Matrix: Water

Date Collected: 05/4/23
Date Received: 05/11/23

Analysis Method
200.8

Extracted/Digested By
ABOYER

Analyzed By
JCHAN

Sample Name: BY-COL-MW-15-PM-INF-8
Lab Code: K2305472-010
Sample Matrix: Water

Date Collected: 05/4/23
Date Received: 05/11/23

Analysis Method
200.8

Extracted/Digested By
ABOYER

Analyzed By
JCHAN

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Analyst Summary report

Client: Anchor QEA, LLC
Project: Barry/221114-08.02 Task 06

Service Request: K2305472

Sample Name: BY-COL-MW-15-FS-INF-8
Lab Code: K2305472-011
Sample Matrix: Water

Date Collected: 05/4/23
Date Received: 05/11/23

Analysis Method
200.8

Extracted/Digested By
ABOYER

Analyzed By
JCHAN

Sample Name: BY-COL-MW-24H-INF-8
Lab Code: K2305472-012
Sample Matrix: Water

Date Collected: 05/4/23
Date Received: 05/11/23

Analysis Method
200.8

Extracted/Digested By
ABOYER

Analyzed By
JCHAN

Sample Name: BY-COL-MW-1-PM-7
Lab Code: K2305472-013
Sample Matrix: Water

Date Collected: 05/3/23
Date Received: 05/11/23

Analysis Method
200.8

Extracted/Digested By
ABOYER

Analyzed By
JCHAN

Sample Name: BY-COL-MW-8-PM-7
Lab Code: K2305472-014
Sample Matrix: Water

Date Collected: 05/3/23
Date Received: 05/11/23

Analysis Method
200.8

Extracted/Digested By
ABOYER

Analyzed By
JCHAN

Sample Name: BY-COL-MW-10-PM-7
Lab Code: K2305472-015
Sample Matrix: Water

Date Collected: 05/3/23
Date Received: 05/11/23

Analysis Method
200.8

Extracted/Digested By
ABOYER

Analyzed By
JCHAN

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Analyst Summary report

Client: Anchor QEA, LLC
Project: Barry/221114-08.02 Task 06

Service Request: K2305472

Sample Name: BY-COL-MW-15-PM-7
Lab Code: K2305472-016
Sample Matrix: Water

Date Collected: 05/3/23
Date Received: 05/11/23

Analysis Method
200.8

Extracted/Digested By
ABOYER

Analyzed By
JCHAN

Sample Name: BY-COL-MW-15-FS-7
Lab Code: K2305472-017
Sample Matrix: Water

Date Collected: 05/3/23
Date Received: 05/11/23

Analysis Method
200.8

Extracted/Digested By
ABOYER

Analyzed By
JCHAN

Sample Name: BY-COL-MW-24H-PM-7
Lab Code: K2305472-018
Sample Matrix: Water

Date Collected: 05/3/23
Date Received: 05/11/23

Analysis Method
200.8

Extracted/Digested By
ABOYER

Analyzed By
JCHAN

Sample Name: BY-COL-MW-1-INF-7
Lab Code: K2305472-019
Sample Matrix: Water

Date Collected: 05/4/23
Date Received: 05/11/23

Analysis Method
200.8

Extracted/Digested By
ABOYER

Analyzed By
JCHAN

Sample Name: BY-COL-MW-8-INF-7
Lab Code: K2305472-020
Sample Matrix: Water

Date Collected: 05/2/23
Date Received: 05/11/23

Analysis Method
200.8

Extracted/Digested By
ABOYER

Analyzed By
JCHAN

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Analyst Summary report

Client: Anchor QEA, LLC
Project: Barry/221114-08.02 Task 06

Service Request: K2305472

Sample Name: BY-COL-MW-10-INF-7
Lab Code: K2305472-021
Sample Matrix: Water

Date Collected: 05/2/23
Date Received: 05/11/23

Analysis Method
200.8

Extracted/Digested By
SSOLADEY

Analyzed By
JCHAN

Sample Name: BY-COL-MW-15-PM-INF-7
Lab Code: K2305472-022
Sample Matrix: Water

Date Collected: 05/2/23
Date Received: 05/11/23

Analysis Method
200.8

Extracted/Digested By
SSOLADEY

Analyzed By
JCHAN

Sample Name: BY-COL-MW-15-FS-INF-7
Lab Code: K2305472-023
Sample Matrix: Water

Date Collected: 05/2/23
Date Received: 05/11/23

Analysis Method
200.8

Extracted/Digested By
SSOLADEY

Analyzed By
JCHAN

Sample Name: BY-COL-MW-24H-INF-7
Lab Code: K2305472-024
Sample Matrix: Water

Date Collected: 05/2/23
Date Received: 05/11/23

Analysis Method
200.8

Extracted/Digested By
SSOLADEY

Analyzed By
JCHAN



Sample Results

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Metals

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Analytical Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.02 Task 06
Sample Matrix: Water
Sample Name: BY-COL-MW-1-PM-8
Lab Code: K2305472-001

Service Request: K2305472
Date Collected: 05/04/23 08:00
Date Received: 05/11/23 13:45
Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	0.40 J	ug/L	0.50	0.09	1	05/24/23 11:10	05/16/23	
Iron	200.8	19700	ug/L	2.0	0.3	1	05/24/23 11:10	05/16/23	
Manganese	200.8	13500	ug/L	10	2	50	05/24/23 11:56	05/16/23	

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Analytical Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.02 Task 06
Sample Matrix: Water
Sample Name: BY-COL-MW-8-PM-8
Lab Code: K2305472-002

Service Request: K2305472
Date Collected: 05/04/23 08:01
Date Received: 05/11/23 13:45
Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	490	ug/L	0.50	0.09	1	05/24/23 11:11	05/16/23	
Iron	200.8	8360	ug/L	2.0	0.3	1	05/24/23 11:11	05/16/23	
Manganese	200.8	174	ug/L	0.20	0.04	1	05/24/23 11:11	05/16/23	

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Analytical Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.02 Task 06
Sample Matrix: Water
Sample Name: BY-COL-MW-10-PM-8
Lab Code: K2305472-003

Service Request: K2305472
Date Collected: 05/04/23 08:02
Date Received: 05/11/23 13:45
Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	0.51	ug/L	0.50	0.09	1	05/24/23 11:21	05/16/23	
Iron	200.8	1.3 J	ug/L	2.0	0.3	1	05/24/23 11:21	05/16/23	
Manganese	200.8	1950	ug/L	0.20	0.04	1	05/24/23 11:21	05/16/23	

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Analytical Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.02 Task 06
Sample Matrix: Water
Sample Name: BY-COL-MW-15-PM-8
Lab Code: K2305472-004

Service Request: K2305472
Date Collected: 05/04/23 08:03
Date Received: 05/11/23 13:45
Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	ND U	ug/L	0.50	0.09	1	05/24/23 11:22	05/16/23	
Cobalt	200.8	3.33	ug/L	0.020	0.009	1	05/24/23 11:22	05/16/23	
Iron	200.8	2.6	ug/L	2.0	0.3	1	05/24/23 11:22	05/16/23	
Manganese	200.8	8580	ug/L	10	2	50	05/24/23 11:57	05/16/23	

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Analytical Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.02 Task 06
Sample Matrix: Water
Sample Name: BY-COL-MW-15-FS-8
Lab Code: K2305472-005

Service Request: K2305472
Date Collected: 05/04/23 08:04
Date Received: 05/11/23 13:45
Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	0.15 J	ug/L	0.50	0.09	1	05/24/23 11:24	05/16/23	
Cobalt	200.8	76.3	ug/L	0.020	0.009	1	05/24/23 11:24	05/16/23	
Iron	200.8	9330	ug/L	2.0	0.3	1	05/24/23 11:24	05/16/23	
Manganese	200.8	633	ug/L	0.20	0.04	1	05/24/23 11:24	05/16/23	

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Analytical Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.02 Task 06
Sample Matrix: Water
Sample Name: BY-COL-MW-24H-PM-8
Lab Code: K2305472-006

Service Request: K2305472
Date Collected: 05/04/23 08:05
Date Received: 05/11/23 13:45
Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	0.32 J	ug/L	0.50	0.09	1	05/24/23 11:25	05/16/23	
Iron	200.8	2.4	ug/L	2.0	0.3	1	05/24/23 11:25	05/16/23	
Manganese	200.8	17300	ug/L	10	2	50	05/24/23 12:02	05/16/23	

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Analytical Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.02 Task 06
Sample Matrix: Water
Sample Name: BY-COL-MW-1-INF-8
Lab Code: K2305472-007

Service Request: K2305472
Date Collected: 05/04/23 07:55
Date Received: 05/11/23 13:45
Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	4.88	ug/L	0.50	0.09	1	05/24/23 11:27	05/16/23	
Iron	200.8	79500	ug/L	100	20	50	05/24/23 12:03	05/16/23	
Manganese	200.8	749	ug/L	0.20	0.04	1	05/24/23 11:27	05/16/23	

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dba ALS Environmental

Analytical Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.02 Task 06
Sample Matrix: Water
Sample Name: BY-COL-MW-8-INF-8
Lab Code: K2305472-008

Service Request: K2305472
Date Collected: 05/04/23 07:56
Date Received: 05/11/23 13:45
Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	641	ug/L	0.50	0.09	1	05/24/23 11:00	05/16/23	
Iron	200.8	10100	ug/L	2.0	0.3	1	05/24/23 11:00	05/16/23	
Manganese	200.8	190	ug/L	0.20	0.04	1	05/24/23 11:00	05/16/23	

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dba ALS Environmental

Analytical Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.02 Task 06
Sample Matrix: Water
Sample Name: BY-COL-MW-10-INF-8
Lab Code: K2305472-009

Service Request: K2305472
Date Collected: 05/04/23 07:57
Date Received: 05/11/23 13:45
Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	1.94	ug/L	0.50	0.09	1	05/24/23 11:28	05/16/23	
Iron	200.8	17400	ug/L	2.0	0.3	1	05/24/23 11:28	05/16/23	
Manganese	200.8	1140	ug/L	0.20	0.04	1	05/24/23 11:28	05/16/23	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.02 Task 06
Sample Matrix: Water
Sample Name: BY-COL-MW-15-PM-INF-8
Lab Code: K2305472-010

Service Request: K2305472
Date Collected: 05/04/23 07:58
Date Received: 05/11/23 13:45

Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	0.70	ug/L	0.50	0.09	1	05/24/23 11:29	05/16/23	
Cobalt	200.8	84.3	ug/L	0.020	0.009	1	05/24/23 11:29	05/16/23	
Iron	200.8	33800	ug/L	2.0	0.3	1	05/24/23 11:29	05/16/23	
Manganese	200.8	634	ug/L	0.20	0.04	1	05/24/23 11:29	05/16/23	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.02 Task 06
Sample Matrix: Water
Sample Name: BY-COL-MW-15-FS-INF-8
Lab Code: K2305472-011

Service Request: K2305472
Date Collected: 05/04/23 07:59
Date Received: 05/11/23 13:45
Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	0.13 J	ug/L	0.50	0.09	1	05/24/23 11:31	05/16/23	
Cobalt	200.8	87.8	ug/L	0.020	0.009	1	05/24/23 11:31	05/16/23	
Iron	200.8	27100	ug/L	2.0	0.3	1	05/24/23 11:31	05/16/23	
Manganese	200.8	635	ug/L	0.20	0.04	1	05/24/23 11:31	05/16/23	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.02 Task 06
Sample Matrix: Water
Sample Name: BY-COL-MW-24H-INF-8
Lab Code: K2305472-012

Service Request: K2305472
Date Collected: 05/04/23 08:00
Date Received: 05/11/23 13:45
Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	1.33	ug/L	0.50	0.09	1	05/24/23 11:35	05/16/23	
Iron	200.8	70100	ug/L	100	20	50	05/24/23 12:05	05/16/23	
Manganese	200.8	198	ug/L	0.20	0.04	1	05/24/23 11:35	05/16/23	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.02 Task 06
Sample Matrix: Water
Sample Name: BY-COL-MW-1-PM-7
Lab Code: K2305472-013

Service Request: K2305472
Date Collected: 05/03/23 15:15
Date Received: 05/11/23 13:45
Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	0.36 J	ug/L	0.50	0.09	1	05/24/23 11:37	05/16/23	
Iron	200.8	17900	ug/L	2.0	0.3	1	05/24/23 11:37	05/16/23	
Manganese	200.8	17900	ug/L	10	2	50	05/24/23 12:06	05/16/23	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.02 Task 06
Sample Matrix: Water
Sample Name: BY-COL-MW-8-PM-7
Lab Code: K2305472-014

Service Request: K2305472
Date Collected: 05/03/23 15:16
Date Received: 05/11/23 13:45
Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	328	ug/L	0.50	0.09	1	05/24/23 11:38	05/16/23	
Iron	200.8	5660	ug/L	2.0	0.3	1	05/24/23 11:38	05/16/23	
Manganese	200.8	89.6	ug/L	0.20	0.04	1	05/24/23 11:38	05/16/23	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.02 Task 06
Sample Matrix: Water
Sample Name: BY-COL-MW-10-PM-7
Lab Code: K2305472-015

Service Request: K2305472
Date Collected: 05/03/23 15:17
Date Received: 05/11/23 13:45
Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	0.64	ug/L	0.50	0.09	1	05/24/23 11:39	05/16/23	
Iron	200.8	2.5	ug/L	2.0	0.3	1	05/24/23 11:39	05/16/23	
Manganese	200.8	2130	ug/L	0.20	0.04	1	05/24/23 11:39	05/16/23	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.02 Task 06
Sample Matrix: Water
Sample Name: BY-COL-MW-15-PM-7
Lab Code: K2305472-016

Service Request: K2305472
Date Collected: 05/03/23 15:18
Date Received: 05/11/23 13:45
Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	ND U	ug/L	0.50	0.09	1	05/24/23 11:41	05/16/23	
Cobalt	200.8	2.66	ug/L	0.020	0.009	1	05/24/23 11:41	05/16/23	
Iron	200.8	2.7	ug/L	2.0	0.3	1	05/24/23 11:41	05/16/23	
Manganese	200.8	8240	ug/L	10	2	50	05/24/23 12:07	05/16/23	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.02 Task 06
Sample Matrix: Water
Sample Name: BY-COL-MW-15-FS-7
Lab Code: K2305472-017

Service Request: K2305472
Date Collected: 05/03/23 15:19
Date Received: 05/11/23 13:45
Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	0.14 J	ug/L	0.50	0.09	1	05/24/23 11:42	05/16/23	
Cobalt	200.8	61.3	ug/L	0.020	0.009	1	05/24/23 11:42	05/16/23	
Iron	200.8	14800	ug/L	2.0	0.3	1	05/24/23 11:42	05/16/23	
Manganese	200.8	771	ug/L	0.20	0.04	1	05/24/23 11:42	05/16/23	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.02 Task 06
Sample Matrix: Water
Sample Name: BY-COL-MW-24H-PM-7
Lab Code: K2305472-018

Service Request: K2305472
Date Collected: 05/03/23 15:20
Date Received: 05/11/23 13:45
Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	0.30 J	ug/L	0.50	0.09	1	05/24/23 11:44	05/16/23	
Iron	200.8	4.0	ug/L	2.0	0.3	1	05/24/23 11:44	05/16/23	
Manganese	200.8	13800	ug/L	10	2	50	05/24/23 12:09	05/16/23	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.02 Task 06
Sample Matrix: Water
Sample Name: BY-COL-MW-1-INF-7
Lab Code: K2305472-019

Service Request: K2305472
Date Collected: 05/04/23 15:00
Date Received: 05/11/23 13:45
Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	7.28	ug/L	0.50	0.09	1	05/24/23 11:45	05/16/23	
Iron	200.8	87500	ug/L	100	20	50	05/24/23 12:10	05/16/23	
Manganese	200.8	749	ug/L	0.20	0.04	1	05/24/23 11:45	05/16/23	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.02 Task 06
Sample Matrix: Water
Sample Name: BY-COL-MW-8-INF-7
Lab Code: K2305472-020

Service Request: K2305472
Date Collected: 05/02/23 15:01
Date Received: 05/11/23 13:45
Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	651	ug/L	0.50	0.09	1	05/24/23 11:06	05/16/23	
Iron	200.8	10300	ug/L	2.0	0.3	1	05/24/23 11:06	05/16/23	
Manganese	200.8	191	ug/L	0.20	0.04	1	05/24/23 11:06	05/16/23	

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dba ALS Environmental

Analytical Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.02 Task 06
Sample Matrix: Water
Sample Name: BY-COL-MW-10-INF-7
Lab Code: K2305472-021

Service Request: K2305472
Date Collected: 05/02/23 15:02
Date Received: 05/11/23 13:45
Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	2.91	ug/L	0.50	0.09	1	05/24/23 13:53	05/17/23	
Iron	200.8	26400	ug/L	2.0	0.3	1	05/24/23 13:53	05/17/23	
Manganese	200.8	1140	ug/L	0.20	0.04	1	05/24/23 13:53	05/17/23	

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dba ALS Environmental

Analytical Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.02 Task 06
Sample Matrix: Water
Sample Name: BY-COL-MW-15-PM-INF-7
Lab Code: K2305472-022

Service Request: K2305472
Date Collected: 05/02/23 15:03
Date Received: 05/11/23 13:45
Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	13.8	ug/L	0.50	0.09	1	05/24/23 13:54	05/17/23	
Cobalt	200.8	83.0	ug/L	0.020	0.009	1	05/24/23 13:54	05/17/23	
Iron	200.8	41200	ug/L	2.0	0.3	1	05/24/23 13:54	05/17/23	
Manganese	200.8	618	ug/L	0.20	0.04	1	05/24/23 13:54	05/17/23	

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Analytical Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.02 Task 06
Sample Matrix: Water
Sample Name: BY-COL-MW-15-FS-INF-7
Lab Code: K2305472-023

Service Request: K2305472
Date Collected: 05/02/23 15:04
Date Received: 05/11/23 13:45
Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	0.11 J	ug/L	0.50	0.09	1	05/24/23 13:55	05/17/23	
Cobalt	200.8	88.9	ug/L	0.020	0.009	1	05/24/23 13:55	05/17/23	
Iron	200.8	31400	ug/L	2.0	0.3	1	05/24/23 13:55	05/17/23	
Manganese	200.8	642	ug/L	0.20	0.04	1	05/24/23 13:55	05/17/23	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.02 Task 06
Sample Matrix: Water
Sample Name: BY-COL-MW-24H-INF-7
Lab Code: K2305472-024

Service Request: K2305472
Date Collected: 05/02/23 15:05
Date Received: 05/11/23 13:45
Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	4.37	ug/L	0.50	0.09	1	05/24/23 13:48	05/17/23	
Iron	200.8	76200	ug/L	100	20	50	05/24/23 14:25	05/17/23	
Manganese	200.8	194	ug/L	0.20	0.04	1	05/24/23 13:48	05/17/23	



QC Summary Forms

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Metals

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ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.02 Task 06
Sample Matrix: Water
Sample Name: Method Blank
Lab Code: KQ2308680-01

Service Request: K2305472
Date Collected: NA
Date Received: NA
Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	ND U	ug/L	0.50	0.09	1	05/24/23 11:18	05/16/23	
Cobalt	200.8	ND U	ug/L	0.020	0.009	1	05/24/23 11:18	05/16/23	
Iron	200.8	ND U	ug/L	2.0	0.3	1	05/24/23 11:18	05/16/23	
Manganese	200.8	0.41	ug/L	0.20	0.04	1	05/24/23 11:18	05/16/23	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.02 Task 06
Sample Matrix: Water
Sample Name: Method Blank
Lab Code: KQ2308685-01

Service Request: K2305472
Date Collected: NA
Date Received: NA
Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	ND U	ug/L	0.50	0.09	1	05/24/23 13:46	05/17/23	
Cobalt	200.8	ND U	ug/L	0.020	0.009	1	05/24/23 13:46	05/17/23	
Iron	200.8	ND U	ug/L	2.0	0.3	1	05/24/23 13:46	05/17/23	
Manganese	200.8	0.07 J	ug/L	0.20	0.04	1	05/24/23 13:46	05/17/23	

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dba ALS Environmental

QA/QC Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.02 Task 06
Sample Matrix: Water

Service Request: K2305472
Date Collected: 05/04/23
Date Received: 05/11/23
Date Analyzed: 05/24/23
Date Extracted: 05/16/23

Matrix Spike Summary
Dissolved Metals

Sample Name: BY-COL-MW-8-INF-8
Lab Code: K2305472-008
Analysis Method: 200.8
Prep Method: EPA CLP ILM04.0

Units: ug/L
Basis: NA

Matrix Spike
KQ2308680-04

Analyte Name	Sample Result	Result	Spike Amount	% Rec	% Rec Limits
Arsenic	641	710	50.0	139 #	70-130
Cobalt	0.118	24.7	25.0	98	70-130
Iron	10100	10400	50.0	563 #	70-130
Manganese	190	218	25.0	112 #	70-130

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

Matrix Spike and Matrix Spike Duplicate Data is presented for information purposes only. The matrix may or may not be relevant to samples reported in this report. The laboratory evaluates system performance based on the LCS and LCSD control limits.

ALS Group USA, Corp.
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QA/QC Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.02 Task 06
Sample Matrix: Water

Service Request: K2305472
Date Collected: 05/02/23
Date Received: 05/11/23
Date Analyzed: 05/24/23
Date Extracted: 05/16/23

Matrix Spike Summary
Dissolved Metals

Sample Name: BY-COL-MW-8-INF-7
Lab Code: K2305472-020
Analysis Method: 200.8
Prep Method: EPA CLP ILM04.0

Units: ug/L
Basis: NA

Matrix Spike
KQ2308680-06

Analyte Name	Sample Result	Result	Spike Amount	% Rec	% Rec Limits
Arsenic	651	696	50.0	90 #	70-130
Cobalt	0.115	23.7	25.0	94	70-130
Iron	10300	10200	50.0	-45 #	70-130
Manganese	191	214	25.0	89 #	70-130

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

Matrix Spike and Matrix Spike Duplicate Data is presented for information purposes only. The matrix may or may not be relevant to samples reported in this report. The laboratory evaluates system performance based on the LCS and LCSD control limits.

ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.02 Task 06
Sample Matrix: Water

Service Request: K2305472
Date Collected: 05/02/23
Date Received: 05/11/23
Date Analyzed: 05/24/23
Date Extracted: 05/17/23

Matrix Spike Summary
Dissolved Metals

Sample Name: BY-COL-MW-24H-INF-7
Lab Code: K2305472-024
Analysis Method: 200.8
Prep Method: EPA CLP ILM04.0

Units: ug/L
Basis: NA

Matrix Spike
KQ2308685-04

Analyte Name	Sample Result	Result	Spike Amount	% Rec	% Rec Limits
Arsenic	4.37	51.5	50.0	94	70-130
Cobalt	4.86	27.8	25.0	92	70-130
Iron	76200	77000	50	1748 #	70-130
Manganese	194	214	25.0	81 #	70-130

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

Matrix Spike and Matrix Spike Duplicate Data is presented for information purposes only. The matrix may or may not be relevant to samples reported in this report. The laboratory evaluates system performance based on the LCS and LCSD control limits.

ALS Group USA, Corp.

dba ALS Environmental

QA/QC Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.02 Task 06
Sample Matrix: Water

Service Request: K2305472
Date Collected: 05/04/23
Date Received: 05/11/23
Date Analyzed: 05/24/23

Replicate Sample Summary
Dissolved Metals

Sample Name: BY-COL-MW-8-INF-8
Lab Code: K2305472-008

Units: ug/L
Basis: NA

Analyte Name	Analysis Method	MRL	MDL	Sample Result	Duplicate	Average	RPD	RPD Limit
					Sample KQ2308680-03 Result			
Arsenic	200.8	0.50	0.09	641	644	643	<1	20
Cobalt	200.8	0.020	0.009	0.118	0.123	0.121	4	20
Iron	200.8	2.0	0.3	10100	10300	10200	2	20
Manganese	200.8	0.20	0.04	190	191	191	<1	20

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

ALS Group USA, Corp.

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QA/QC Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.02 Task 06
Sample Matrix: Water

Service Request: K2305472
Date Collected: 05/02/23
Date Received: 05/11/23
Date Analyzed: 05/24/23

Replicate Sample Summary
Dissolved Metals

Sample Name: BY-COL-MW-8-INF-7
Lab Code: K2305472-020

Units: ug/L
Basis: NA

Analyte Name	Analysis Method	MRL	MDL	Sample Result	Duplicate	Average	RPD	RPD Limit
					Sample KQ2308680-05 Result			
Arsenic	200.8	0.50	0.09	651	654	653	<1	20
Cobalt	200.8	0.020	0.009	0.115	0.118	0.117	3	20
Iron	200.8	2.0	0.3	10300	10300	10300	<1	20
Manganese	200.8	0.20	0.04	191	193	192	1	20

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

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dba ALS Environmental

QA/QC Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.02 Task 06
Sample Matrix: Water

Service Request: K2305472
Date Collected: 05/02/23
Date Received: 05/11/23
Date Analyzed: 05/24/23

Replicate Sample Summary
Dissolved Metals

Sample Name: BY-COL-MW-24H-INF-7
Lab Code: K2305472-024

Units: ug/L
Basis: NA

Table with 9 columns: Analyte Name, Analysis Method, MRL, MDL, Sample Result, Duplicate Sample KQ2308685-03 Result, Average, RPD, RPD Limit. Rows include Arsenic, Cobalt, Iron, and Manganese.

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

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dba ALS Environmental

QA/QC Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.02 Task 06
Sample Matrix: Water

Service Request: K2305472
Date Analyzed: 05/24/23

Lab Control Sample Summary
Dissolved Metals

Units:ug/L
Basis:NA

Lab Control Sample
KQ2308680-02

Analyte Name	Analytical Method	Result	Spike Amount	% Rec	% Rec Limits
Arsenic	200.8	48.6	50.0	97	85-115
Cobalt	200.8	24.2	25.0	97	85-115
Iron	200.8	47.8	50.0	96	85-115
Manganese	200.8	24.4	25.0	98	85-115

ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.02 Task 06
Sample Matrix: Water

Service Request: K2305472
Date Analyzed: 05/24/23

Lab Control Sample Summary
Dissolved Metals

Units:ug/L
Basis:NA

Lab Control Sample
KQ2308685-02

Analyte Name	Analytical Method	Result	Spike Amount	% Rec	% Rec Limits
Arsenic	200.8	48.0	50.0	96	85-115
Cobalt	200.8	23.7	25.0	95	85-115
Iron	200.8	46.7	50.0	93	85-115
Manganese	200.8	23.5	25.0	94	85-115



May 25, 2023

Service Request No:K2305473

Masa Kanematsu
Anchor QEA, LLC
6720 SW Macadam Avenue
Suite 125
Portland, OR 97219

Laboratory Results for: Barry

Dear Masa,

Enclosed are the results of the sample(s) submitted to our laboratory May 11, 2023
For your reference, these analyses have been assigned our service request number **K2305473**.

Analyses were performed according to our laboratory's NELAP-approved quality assurance program. The test results meet requirements of the current NELAP standards, where applicable, and except as noted in the laboratory case narrative provided. For a specific list of NELAP-accredited analytes, refer to the certifications section at www.alsglobal.com. All results are intended to be considered in their entirety, and ALS Group USA Corp. dba ALS Environmental (ALS) is not responsible for use of less than the complete report. Results apply only to the items submitted to the laboratory for analysis and individual items (samples) analyzed, as listed in the report.

Please contact me if you have any questions. My extension is 3376. You may also contact me via email at Mark.Harris@alsglobal.com.

Respectfully submitted,

ALS Group USA, Corp. dba ALS Environmental

for Mark Harris
Project Manager

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ALS Group USA, Corp.
dba ALS Environmental



Narrative Documents

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www.alsglobal.com



Client: Anchor QEA, LLC
Project: Barry
Sample Matrix: Water

Service Request: K2305473
Date Received: 05/11/2023

CASE NARRATIVE

All analyses were performed consistent with the quality assurance program of ALS Environmental. This report contains analytical results for samples for the Tier II level requested by the client.

Sample Receipt:

Twenty four water samples were received for analysis at ALS Environmental on 05/11/2023. Any discrepancies upon initial sample inspection are annotated on the sample receipt and preservation form included within this report. The samples were stored at minimum in accordance with the analytical method requirements.

Metals:

No significant anomalies were noted with this analysis.

Noel D. O'Connell

Approved by _____

Date 05/25/2023



SAMPLE DETECTION SUMMARY

This form includes only detections above the reporting levels. For a full listing of sample results, continue to the Sample Results section of this Report.

CLIENT ID: BY-COL-MW-1-PM-13	Lab ID: K2305473-001
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Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	0.46	J	0.09	0.50	ug/L	200.8
Iron, Dissolved	18600		0.3	2.0	ug/L	200.8
Manganese, Dissolved	5200		2	10	ug/L	200.8

CLIENT ID: BY-COL-MW-8-PM-13	Lab ID: K2305473-002
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Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	544		0.09	0.50	ug/L	200.8
Iron, Dissolved	9440		0.3	2.0	ug/L	200.8
Manganese, Dissolved	751		0.04	0.20	ug/L	200.8

CLIENT ID: BY-COL-MW-10-PM-13	Lab ID: K2305473-003
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Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	0.53		0.09	0.50	ug/L	200.8
Iron, Dissolved	2.0		0.3	2.0	ug/L	200.8
Manganese, Dissolved	1360		0.04	0.20	ug/L	200.8

CLIENT ID: BY-COL-MW-15-FS-13	Lab ID: K2305473-005
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Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	0.15	J	0.09	0.50	ug/L	200.8
Cobalt, Dissolved	73.6		0.009	0.020	ug/L	200.8
Iron, Dissolved	77.6		0.3	2.0	ug/L	200.8
Manganese, Dissolved	587		0.04	0.20	ug/L	200.8

CLIENT ID: BY-COL-MW-24H-PM-13	Lab ID: K2305473-006
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Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	0.46	J	0.09	0.50	ug/L	200.8
Iron, Dissolved	15800		0.3	2.0	ug/L	200.8
Manganese, Dissolved	2440		0.04	0.20	ug/L	200.8

CLIENT ID: BY-COL-MW-1-INF-13	Lab ID: K2305473-007
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Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	3.22		0.09	0.50	ug/L	200.8
Iron, Dissolved	44500		0.3	2.0	ug/L	200.8
Manganese, Dissolved	735		0.04	0.20	ug/L	200.8

CLIENT ID: BY-COL-MW-8-INF-13	Lab ID: K2305473-008
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Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	638		0.09	0.50	ug/L	200.8
Iron, Dissolved	10200		0.3	2.0	ug/L	200.8
Manganese, Dissolved	189		0.04	0.20	ug/L	200.8

CLIENT ID: BY-COL-MW-10-INF-13	Lab ID: K2305473-009
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Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	2.61		0.09	0.50	ug/L	200.8



SAMPLE DETECTION SUMMARY

This form includes only detections above the reporting levels. For a full listing of sample results, continue to the Sample Results section of this Report.

CLIENT ID: BY-COL-MW-10-INF-13	Lab ID: K2305473-009
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Analyte	Results	Flag	MDL	MRL	Units	Method
Iron, Dissolved	26.8		0.3	2.0	ug/L	200.8
Manganese, Dissolved	1030		0.04	0.20	ug/L	200.8

CLIENT ID: BY-COL-MW-15-PM-INF-13	Lab ID: K2305473-010
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Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	0.13	J	0.09	0.50	ug/L	200.8
Cobalt, Dissolved	80.8		0.009	0.020	ug/L	200.8
Iron, Dissolved	8750		0.3	2.0	ug/L	200.8
Manganese, Dissolved	618		0.04	0.20	ug/L	200.8

CLIENT ID: BY-COL-MW-15-FS-INF-13	Lab ID: K2305473-011
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Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	0.10	J	0.09	0.50	ug/L	200.8
Cobalt, Dissolved	86.2		0.009	0.020	ug/L	200.8
Iron, Dissolved	8040		0.3	2.0	ug/L	200.8
Manganese, Dissolved	644		0.04	0.20	ug/L	200.8

CLIENT ID: BY-COL-MW-24H-INF-13	Lab ID: K2305473-012
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Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	0.69		0.09	0.50	ug/L	200.8
Iron, Dissolved	17600		0.3	2.0	ug/L	200.8
Manganese, Dissolved	180		0.04	0.20	ug/L	200.8

CLIENT ID: BY-COL-MW-1-PM-14	Lab ID: K2305473-013
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Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	0.42	J	0.09	0.50	ug/L	200.8
Iron, Dissolved	15600		0.3	2.0	ug/L	200.8
Manganese, Dissolved	5180		2	10	ug/L	200.8

CLIENT ID: BY-COL-MW-8-PM-14	Lab ID: K2305473-014
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Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	535		0.09	0.50	ug/L	200.8
Iron, Dissolved	9290		0.3	2.0	ug/L	200.8
Manganese, Dissolved	735		0.04	0.20	ug/L	200.8

CLIENT ID: BY-COL-MW-10-PM-14	Lab ID: K2305473-015
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Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	0.55		0.09	0.50	ug/L	200.8
Iron, Dissolved	1.7	J	0.3	2.0	ug/L	200.8
Manganese, Dissolved	1390		0.04	0.20	ug/L	200.8

CLIENT ID: BY-COL-MW-24H-PM-14	Lab ID: K2305473-018
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Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	0.45	J	0.09	0.50	ug/L	200.8



SAMPLE DETECTION SUMMARY

This form includes only detections above the reporting levels. For a full listing of sample results, continue to the Sample Results section of this Report.

CLIENT ID: BY-COL-MW-24H-PM-14	Lab ID: K2305473-018
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Analyte	Results	Flag	MDL	MRL	Units	Method
Iron, Dissolved	14600		0.3	2.0	ug/L	200.8
Manganese, Dissolved	1830		0.04	0.20	ug/L	200.8

CLIENT ID: BY-COL-MW-1-INF-14	Lab ID: K2305473-019
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Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	2.19		0.09	0.50	ug/L	200.8
Iron, Dissolved	43800		0.3	2.0	ug/L	200.8
Manganese, Dissolved	732		0.04	0.20	ug/L	200.8

CLIENT ID: BY-COL-MW-8-INF-14	Lab ID: K2305473-020
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Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	652		0.09	0.50	ug/L	200.8
Iron, Dissolved	10600		0.3	2.0	ug/L	200.8
Manganese, Dissolved	193		0.04	0.20	ug/L	200.8

CLIENT ID: BY-COL-MW-10-INF-14	Lab ID: K2305473-021
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Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	2.17		0.09	0.50	ug/L	200.8
Iron, Dissolved	7.3		0.3	2.0	ug/L	200.8
Manganese, Dissolved	1000		0.04	0.20	ug/L	200.8

CLIENT ID: BY-COL-MW-15-PM-INF-14	Lab ID: K2305473-022
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Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	0.15	J	0.09	0.50	ug/L	200.8
Cobalt, Dissolved	80.1		0.009	0.020	ug/L	200.8
Iron, Dissolved	7740		0.3	2.0	ug/L	200.8
Manganese, Dissolved	609		0.04	0.20	ug/L	200.8

CLIENT ID: BY-COL-MW-24H-INF-14	Lab ID: K2305473-024
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Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	0.52		0.09	0.50	ug/L	200.8
Iron, Dissolved	15100		0.3	2.0	ug/L	200.8
Manganese, Dissolved	177		0.04	0.20	ug/L	200.8

CLIENT ID: BY-COL-MW-15-PM-13	Lab ID: K2305473-004
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Analyte	Results	Flag	MDL	MRL	Units	Method
Cobalt, Dissolved	4.51		0.009	0.020	ug/L	200.8
Iron, Dissolved	1.3	J	0.3	2.0	ug/L	200.8
Manganese, Dissolved	1340		0.04	0.20	ug/L	200.8

CLIENT ID: BY-COL-MW-15-PM-14	Lab ID: K2305473-016
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Analyte	Results	Flag	MDL	MRL	Units	Method
Cobalt, Dissolved	5.95		0.009	0.020	ug/L	200.8
Iron, Dissolved	0.8	J	0.3	2.0	ug/L	200.8



SAMPLE DETECTION SUMMARY

This form includes only detections above the reporting levels. For a full listing of sample results, continue to the Sample Results section of this Report.

CLIENT ID: BY-COL-MW-15-PM-14	Lab ID: K2305473-016
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Analyte	Results	Flag	MDL	MRL	Units	Method
Manganese, Dissolved	1310		0.04	0.20	ug/L	200.8

CLIENT ID: BY-COL-MW-15-FS-14	Lab ID: K2305473-017
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Analyte	Results	Flag	MDL	MRL	Units	Method
Cobalt, Dissolved	71.0		0.009	0.020	ug/L	200.8
Iron, Dissolved	56.0		0.3	2.0	ug/L	200.8
Manganese, Dissolved	586		0.04	0.20	ug/L	200.8

CLIENT ID: BY-COL-MW-15-FS-INF-14	Lab ID: K2305473-023
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Analyte	Results	Flag	MDL	MRL	Units	Method
Cobalt, Dissolved	84.1		0.009	0.020	ug/L	200.8
Iron, Dissolved	6390		0.3	2.0	ug/L	200.8
Manganese, Dissolved	628		0.04	0.20	ug/L	200.8



Sample Receipt Information

ALS Environmental—Kelso Laboratory
1317 South 13th Avenue, Kelso, WA 98626
Phone (360) 577-7222 Fax (360) 425-9096
www.alsglobal.com


Client: Anchor QEA, LLC
Project: Barry/221114-08.02 Task 06

Service Request:K2305473

SAMPLE CROSS-REFERENCE

<u>SAMPLE #</u>	<u>CLIENT SAMPLE ID</u>	<u>DATE</u>	<u>TIME</u>
K2305473-001	BY-COL-MW-1-PM-13	5/8/2023	0831
K2305473-002	BY-COL-MW-8-PM-13	5/8/2023	0832
K2305473-003	BY-COL-MW-10-PM-13	5/8/2023	0833
K2305473-004	BY-COL-MW-15-PM-13	5/8/2023	0834
K2305473-005	BY-COL-MW-15-FS-13	5/8/2023	0835
K2305473-006	BY-COL-MW-24H-PM-13	5/8/2023	0836
K2305473-007	BY-COL-MW-1-INF-13	5/8/2023	0837
K2305473-008	BY-COL-MW-8-INF-13	5/8/2023	0838
K2305473-009	BY-COL-MW-10-INF-13	5/8/2023	0839
K2305473-010	BY-COL-MW-15-PM-INF-13	5/8/2023	0840
K2305473-011	BY-COL-MW-15-FS-INF-13	5/8/2023	0841
K2305473-012	BY-COL-MW-24H-INF-13	5/8/2023	0842
K2305473-013	BY-COL-MW-1-PM-14	5/8/2023	1408
K2305473-014	BY-COL-MW-8-PM-14	5/8/2023	1409
K2305473-015	BY-COL-MW-10-PM-14	5/8/2023	1410
K2305473-016	BY-COL-MW-15-PM-14	5/8/2023	1411
K2305473-017	BY-COL-MW-15-FS-14	5/8/2023	1412
K2305473-018	BY-COL-MW-24H-PM-14	5/8/2023	1413
K2305473-019	BY-COL-MW-1-INF-14	5/8/2023	1414
K2305473-020	BY-COL-MW-8-INF-14	5/8/2023	1415
K2305473-021	BY-COL-MW-10-INF-14	5/8/2023	1416
K2305473-022	BY-COL-MW-15-PM-INF-14	5/8/2023	1417
K2305473-023	BY-COL-MW-15-FS-INF-14	5/8/2023	1418
K2305473-024	BY-COL-MW-24H-INF-14	5/8/2023	1419

Chain of Custody Record & Laboratory Analysis Request

Laboratory Number: 503-972-5019					Parameters												 ANCHOR QEA Masa Kanematsu 6720 SW Macadam Ave Suite 125 Portland OR 97219		
Date:		5/11/2023			No. of Containers Dissolved Metals (As, Fe, Mn) Dissolved Metals (As, Co, Fe, Mn)														
Project Name:		Barry																	
Project Number:		221114-08.02 Task 06																	
Project Manager:		Masa Kanematsu																	
Phone Number:		503-972-5001 (backup number: 503-798-3456)																	
Shipment Method:		ALS Carrier																	
Line	Field Sample ID	Collection		Matrix	No. of Containers	Parameters												Comments/Preservation	
		Date	Time			Dissolved Metals (As, Fe, Mn)	Dissolved Metals (As, Co, Fe, Mn)												
1	BY-COL-MW-1-PM-13	5/8/2023	8:31	Water	1	X													HNO3-Preserved; 0.45um-filtered.
2	BY-COL-MW-8-PM-13	5/8/2023	8:32	Water	1	X													HNO3-Preserved; 0.45um-filtered.
3	BY-COL-MW-10-PM-13	5/8/2023	8:33	Water	1	X													HNO3-Preserved; 0.45um-filtered.
4	BY-COL-MW-15-PM-13	5/8/2023	8:34	Water	1		X												HNO3-Preserved; 0.45um-filtered.
5	BY-COL-MW-15-FS-13	5/8/2023	8:35	Water	1		X												HNO3-Preserved; 0.45um-filtered.
6	BY-COL-MW-24H-PM-13	5/8/2023	8:36	Water	1	X													HNO3-Preserved; 0.45um-filtered.
7	BY-COL-MW-1-INF-13	5/8/2023	8:37	Water	1	X													HNO3-Preserved; 0.45um-filtered.
8	BY-COL-MW-8-INF-13	5/8/2023	8:38	Water	1	X													HNO3-Preserved; 0.45um-filtered.
9	BY-COL-MW-10-INF-13	5/8/2023	8:39	Water	1	X													HNO3-Preserved; 0.45um-filtered.
10	BY-COL-MW-15-PM-INF-13	5/8/2023	8:40	Water	1		X												HNO3-Preserved; 0.45um-filtered.
11	BY-COL-MW-15-FS-INF-13	5/8/2023	8:41	Water	1		X												HNO3-Preserved; 0.45um-filtered.
12	BY-COL-MW-24H-INF-13	5/8/2023	8:42	Water	1	X													HNO3-Preserved; 0.45um-filtered.
13																			
14																			
15																			
16																			
17																			
18																			
19																			
20																			

Notes: Please Contact Masa (503-972-5001, mkanematsu@anchorqea.com) if running > 10X dilution. Please analyze by ICP-MS method 200.8 to achieve the MDL < 1 ppb.

Relinquished by: Emma Nordlund
 Signature/Print Name: *emma nordlund*
 Company: Anchor QEA
 Date/Time: 5/11/23 8:00 AM


Relinquished by: *Greg Rich*
 Signature/Print Name: *Greg Rich*
 Company: ALS
 Date/Time: 5-11-23 1345

Received by: *Greg Rich*
 Signature/Print Name: *Greg Rich 5-11-23 1015*

Received by: *Greg Rich*
 Signature/Print Name: *Greg Rich 5/11/23 1345*

Distribution: A copy will be made for the laboratory and client. The Project file will retain the original.

Chain of Custody Record & Laboratory Analysis Request

Laboratory Number: 503-972-5019					No. of Containers	Parameters												 ANCHOR QEA Masa Kanematsu 6720 SW Macadam Ave Suite 125 Portland OR 97219							
Date:	5/11/2023					Dissolved Metals (As, Fe, Mn)	Dissolved Metals (As, Co, Fe, Mn)																		
Project Name:	Barry																								
Project Number:	221114-08.02 Task 06																								
Project Manager:	Masa Kanematsu																								
Phone Number:	503-972-5001 (backup number: 503-798-3456)																								
Shipment Method:	ALS Carrier																								
Line	Field Sample ID	Collection		Matrix	No. of Containers	Dissolved Metals (As, Fe, Mn)	Dissolved Metals (As, Co, Fe, Mn)	Parameters														Comments/Preservation			
		Date	Time																						
1	BY-COL-MW-1-PM-14	5/8/2023	14:08	Water	1	X																			HNO3-Preserved; 0.45um-filtered.
2	BY-COL-MW-8-PM-14	5/8/2023	14:09	Water	1	X																			HNO3-Preserved; 0.45um-filtered.
3	BY-COL-MW-10-PM-14	5/8/2023	14:10	Water	1	X																			HNO3-Preserved; 0.45um-filtered.
4	BY-COL-MW-15-PM-14	5/8/2023	14:11	Water	1		X																		HNO3-Preserved; 0.45um-filtered.
5	BY-COL-MW-15-FS-14	5/8/2023	14:12	Water	1		X																		HNO3-Preserved; 0.45um-filtered.
6	BY-COL-MW-24H-PM-14	5/8/2023	14:13	Water	1	X																			HNO3-Preserved; 0.45um-filtered.
7	BY-COL-MW-1-INF-14	5/8/2023	14:14	Water	1	X																			HNO3-Preserved; 0.45um-filtered.
8	BY-COL-MW-8-INF-14	5/8/2023	14:15	Water	1	X																			HNO3-Preserved; 0.45um-filtered.
9	BY-COL-MW-10-INF-14	5/8/2023	14:16	Water	1	X																			HNO3-Preserved; 0.45um-filtered.
10	BY-COL-MW-15-PM-INF-14	5/8/2023	14:17	Water	1		X																		HNO3-Preserved; 0.45um-filtered.
11	BY-COL-MW-15-FS-INF-14	5/8/2023	14:18	Water	1		X																		HNO3-Preserved; 0.45um-filtered.
12	BY-COL-MW-24H-INF-14	5/8/2023	14:19	Water	1	X																			HNO3-Preserved; 0.45um-filtered.
13																									
14																									
15																									
16																									
17																									
18																									
19																									
20																									

Notes: Please Contact Masa (503-972-5001, mkanematsu@anchorqea.com) if running > 10X dilution. Please analyze by ICP-MS method 200.8 to achieve the MDL < 1 ppb.

Relinquished by: Emma Nordlund	Company: Anchor QEA
Signature/Print Name: <i>Emma Nordlund</i>	Date/Time: 5/11/23 8:00 AM
Relinquished by: <i>Greg Rich</i>	Company: ALS
Signature/Print Name: <i>Greg Rich</i>	Date/Time: 5-11-23 1345

Received by: <i>Greg Rich</i>
Signature/Print Name: <i>Greg Rich 5-11-23 1015</i>
Received by: <i>Emma Nordlund</i>
Signature/Print Name: <i>Emma Nordlund 5/11/23 1345</i>

Distribution: A copy will be made for the laboratory and client. The Project file will retain the original.

Cooler Receipt and Preservation Form

Client: Ancher Service Request K23
Received: 5/11/23 Opened: 5/11/23 By: JA Unloaded: 5/11/23 By: JA

Samples were received via? USPS Fed Ex UPS DHL PDX Courier Hand Delivered
Samples were received in: (circle) Cooler Box Envelope Other NA
Were custody seals on coolers? NA Y N If yes, how many and where? _____
If present, were custody seals intact? Y N If present, were they signed and dated? Y N

Temp Blank	Sample Temp	IR Gun	Cooler #/COC ID / NA	Out of temp indicate with "X"	PM Notified If out of temp	Tracking Number (NA)	Filed
	<u>24.0</u>	<u>1202</u>	<u>1054</u>				
<u>5.6</u>		<u>1202</u>	<u>2054</u>				
<u>5.1</u>		<u>1202</u>	<u>3054</u>				
<u>5.8</u>		<u>1202</u>	<u>4054</u>				

Was a Temperature Blank present in cooler? NA Y N If yes, notate the temperature in the appropriate column above:
If no, take the temperature of a representative sample bottle contained within the cooler; notate in the column "Sample Temp":
Were samples received within the method specified temperature ranges? NA Y N
If no, were they received on ice and same day as collected? If not, notate the cooler # above and notify the PM. NA Y N

If applicable, tissue samples were received: Frozen Partially Thawed Thawed

Packing material: Inserts Raggies Bubble Wrap Gel Packs Wet Ice Dry Ice Sleeves _____

- 7. Were custody papers properly filled out (ink, signed, etc.)? NA Y N
- 8. Were samples received in good condition (unbroken) NA Y N
- 9. Were all sample labels complete (ie, analysis, preservation, etc.)? NA Y N
- 10. Did all sample labels and tags agree with custody papers? NA Y N
- 11. Were appropriate bottles/containers and volumes received for the tests indicated? NA Y N
- 12. Were the pH-preserved bottles (see SMO GEN SOP) received at the appropriate pH? Indicate in the table below NA Y N
- 13. Were VOA vials received without headspace? Indicate in the table below NA Y N
- 14. Was C12/Res negative? NA Y N
- 15. Were samples received within the method specified time limit? If not, notate the error below and notify the PM NA Y N
- 16. Were 100ml sterile microbiology bottles filled exactly to the 100ml mark? NA Y N Underfilled Overfilled

Sample ID on Bottle	Sample ID on COC	Identified by:

Sample ID	Bottle Count	Bottle Type	Head-space	Broke	pH	Reagent	Volume added	Reagent Lot Number	Initials	Time

Notes, Discrepancies, Resolutions: Temp not an issue, samples for metals analysis



Miscellaneous Forms

ALS Environmental—Kelso Laboratory
1317 South 13th Avenue, Kelso, WA 98626
Phone (360) 577-7222 Fax (360) 425-9096
www.alsglobal.com

Inorganic Data Qualifiers

- * The result is an outlier. See case narrative.
- # The control limit criteria is not applicable.
- B The analyte was found in the associated method blank at a level that is significant relative to the sample result as defined by the DOD or NELAC standards.
- E The result is an estimate amount because the value exceeded the instrument calibration range.
- J The result is an estimated value.
- U The analyte was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL.
DOD-QSM 4.2 definition : Analyte was not detected and is reported as less than the LOD or as defined by the project. The detection limit is adjusted for dilution.
- i The MRL/MDL or LOQ/LOD is elevated due to a matrix interference.
- X See case narrative.
- Q See case narrative. One or more quality control criteria was outside the limits.
- H The holding time for this test is immediately following sample collection. The samples were analyzed as soon as possible after receipt by the laboratory.

Metals Data Qualifiers

- # The control limit criteria is not applicable.
- J The result is an estimated value.
- E The percent difference for the serial dilution was greater than 10%, indicating a possible matrix interference in the sample.
- M The duplicate injection precision was not met.
- N The Matrix Spike sample recovery is not within control limits. See case narrative.
- S The reported value was determined by the Method of Standard Additions (MSA).
- U The analyte was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL.
DOD-QSM 4.2 definition : Analyte was not detected and is reported as less than the LOD or as defined by the project. The detection limit is adjusted for dilution.
- W The post-digestion spike for furnace AA analysis is out of control limits, while sample absorbance is less than 50% of spike absorbance.
 - i The MRL/MDL or LOQ/LOD is elevated due to a matrix interference.
- X See case narrative.
- + The correlation coefficient for the MSA is less than 0.995.
- Q See case narrative. One or more quality control criteria was outside the limits.

Organic Data Qualifiers

- * The result is an outlier. See case narrative.
- # The control limit criteria is not applicable. See case narrative.
- A A tentatively identified compound, a suspected aldol-condensation product.
- B The analyte was found in the associated method blank at a level that is significant relative to the sample result as defined by the DOD or NELAC standards.
- C The analyte was qualitatively confirmed using GC/MS techniques, pattern recognition, or by comparing to historical data.
- D The reported result is from a dilution.
- E The result is an estimated value.
- J The result is an estimated value.
- N The result is presumptive. The analyte was tentatively identified, but a confirmation analysis was not performed.
- P The GC or HPLC confirmation criteria was exceeded. The relative percent difference is greater than 40% between the two analytical results.
- U The analyte was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL.
DOD-QSM 4.2 definition : Analyte was not detected and is reported as less than the LOD or as defined by the project. The detection limit is adjusted for dilution.
 - i The MRL/MDL or LOQ/LOD is elevated due to a chromatographic interference.
- X See case narrative.
- Q See case narrative. One or more quality control criteria was outside the limits.

Additional Petroleum Hydrocarbon Specific Qualifiers

- F The chromatographic fingerprint of the sample matches the elution pattern of the calibration standard.
- L The chromatographic fingerprint of the sample resembles a petroleum product, but the elution pattern indicates the presence of a greater amount of lighter molecular weight constituents than the calibration standard.
- H The chromatographic fingerprint of the sample resembles a petroleum product, but the elution pattern indicates the presence of a greater amount of heavier molecular weight constituents than the calibration standard.
- O The chromatographic fingerprint of the sample resembles an oil, but does not match the calibration standard.
- Y The chromatographic fingerprint of the sample resembles a petroleum product eluting in approximately the correct carbon range, but the elution pattern does not match the calibration standard.
- Z The chromatographic fingerprint does not resemble a petroleum product.

**ALS Group USA Corp. dba ALS Environmental (ALS) - Kelso
State Certifications, Accreditations, and Licenses**

Agency	Web Site	Number
Alaska DEH	http://dec.alaska.gov/eh/lab/cs/csapproval.htm	UST-040
Arizona DHS	http://www.azdhs.gov/lab/license/env.htm	AZ0339
Arkansas - DEQ	http://www.adeq.state.ar.us/techsvs/labcert.htm	88-0637
California DHS (ELAP)	http://www.cdph.ca.gov/certlic/labs/Pages/ELAP.aspx	2795
DOD ELAP	http://www.denix.osd.mil/edqw/Accreditation/AccreditedLabs.cfm	L16-58-R4
Florida DOH	http://www.doh.state.fl.us/lab/EnvLabCert/WaterCert.htm	E87412
Hawaii DOH	http://health.hawaii.gov/	-
ISO 17025	http://www.pjllabs.com/	L16-57
Louisiana DEQ	http://www.deq.louisiana.gov/page/la-lab-accreditation	03016
Maine DHS	http://www.maine.gov/dhhs/	WA01276
Minnesota DOH	http://www.health.state.mn.us/accreditation	053-999-457
Nevada DEP	http://ndep.nv.gov/bsdwlabservice.htm	WA01276
New Jersey DEP	http://www.nj.gov/dep/enforcement/oqa.html	WA005
New York - DOH	https://www.wadsworth.org/regulatory/elap	12060
North Carolina DEQ	https://deq.nc.gov/about/divisions/water-resources/water-resources-data/water-sciences-home-page/laboratory-certification-branch/non-field-lab-certification	605
Oklahoma DEQ	http://www.deq.state.ok.us/CSDnew/labcert.htm	9801
Oregon – DEQ (NELAP)	http://public.health.oregon.gov/LaboratoryServices/EnvironmentalLaboratoryAccreditation/Pages/index.aspx	WA100010
South Carolina DHEC	http://www.scdhec.gov/environment/EnvironmentalLabCertification/	61002
Texas CEQ	http://www.tceq.texas.gov/field/qa/env_lab_accreditation.html	T104704427
Washington DOE	http://www.ecy.wa.gov/programs/eap/labs/lab-accreditation.html	C544
Wyoming (EPA Region 8)	https://www.epa.gov/region8-waterops/epa-region-8-certified-drinking-water	-
Kelso Laboratory Website	www.alsglobal.com	NA

Analyses were performed according to our laboratory's NELAP-approved quality assurance program. A complete listing of specific NELAP-certified analytes, can be found in the certification section at www.ALSGlobal.com or at the accreditation bodies web site.

Please refer to the certification and/or accreditation body's web site if samples are submitted for compliance purposes. The states highlighted above, require the analysis be listed on the state certification if used for compliance purposes and if the method/analyte is offered by that state.

Acronyms

ASTM	American Society for Testing and Materials
A2LA	American Association for Laboratory Accreditation
CARB	California Air Resources Board
CAS Number	Chemical Abstract Service registry Number
CFC	Chlorofluorocarbon
CFU	Colony-Forming Unit
DEC	Department of Environmental Conservation
DEQ	Department of Environmental Quality
DHS	Department of Health Services
DOE	Department of Ecology
DOH	Department of Health
EPA	U. S. Environmental Protection Agency
ELAP	Environmental Laboratory Accreditation Program
GC	Gas Chromatography
GC/MS	Gas Chromatography/Mass Spectrometry
LOD	Limit of Detection
LOQ	Limit of Quantitation
LUFT	Leaking Underground Fuel Tank
M	Modified
MCL	Maximum Contaminant Level is the highest permissible concentration of a substance allowed in drinking water as established by the USEPA.
MDL	Method Detection Limit
MPN	Most Probable Number
MRL	Method Reporting Limit
NA	Not Applicable
NC	Not Calculated
NCASI	National Council of the Paper Industry for Air and Stream Improvement
ND	Not Detected
NIOSH	National Institute for Occupational Safety and Health
PQL	Practical Quantitation Limit
RCRA	Resource Conservation and Recovery Act
SIM	Selected Ion Monitoring
TPH	Total Petroleum Hydrocarbons
tr	Trace level is the concentration of an analyte that is less than the PQL but greater than or equal to the MDL.

ALS Group USA, Corp.
dba ALS Environmental

Analyst Summary report

Client: Anchor QEA, LLC
Project: Barry/221114-08.02 Task 06

Service Request: K2305473

Sample Name: BY-COL-MW-1-PM-13
Lab Code: K2305473-001
Sample Matrix: Water

Date Collected: 05/8/23
Date Received: 05/11/23

Analysis Method
200.8

Extracted/Digested By
SSOLADEY

Analyzed By
JCHAN

Sample Name: BY-COL-MW-8-PM-13
Lab Code: K2305473-002
Sample Matrix: Water

Date Collected: 05/8/23
Date Received: 05/11/23

Analysis Method
200.8

Extracted/Digested By
SSOLADEY

Analyzed By
JCHAN

Sample Name: BY-COL-MW-10-PM-13
Lab Code: K2305473-003
Sample Matrix: Water

Date Collected: 05/8/23
Date Received: 05/11/23

Analysis Method
200.8

Extracted/Digested By
SSOLADEY

Analyzed By
JCHAN

Sample Name: BY-COL-MW-15-PM-13
Lab Code: K2305473-004
Sample Matrix: Water

Date Collected: 05/8/23
Date Received: 05/11/23

Analysis Method
200.8

Extracted/Digested By
SSOLADEY

Analyzed By
JCHAN

Sample Name: BY-COL-MW-15-FS-13
Lab Code: K2305473-005
Sample Matrix: Water

Date Collected: 05/8/23
Date Received: 05/11/23

Analysis Method
200.8

Extracted/Digested By
SSOLADEY

Analyzed By
JCHAN

ALS Group USA, Corp.
dba ALS Environmental

Analyst Summary report

Client: Anchor QEA, LLC
Project: Barry/221114-08.02 Task 06

Service Request: K2305473

Sample Name: BY-COL-MW-24H-PM-13
Lab Code: K2305473-006
Sample Matrix: Water

Date Collected: 05/8/23
Date Received: 05/11/23

Analysis Method
200.8

Extracted/Digested By
SSOLADEY

Analyzed By
JCHAN

Sample Name: BY-COL-MW-1-INF-13
Lab Code: K2305473-007
Sample Matrix: Water

Date Collected: 05/8/23
Date Received: 05/11/23

Analysis Method
200.8

Extracted/Digested By
SSOLADEY

Analyzed By
JCHAN

Sample Name: BY-COL-MW-8-INF-13
Lab Code: K2305473-008
Sample Matrix: Water

Date Collected: 05/8/23
Date Received: 05/11/23

Analysis Method
200.8

Extracted/Digested By
SSOLADEY

Analyzed By
JCHAN

Sample Name: BY-COL-MW-10-INF-13
Lab Code: K2305473-009
Sample Matrix: Water

Date Collected: 05/8/23
Date Received: 05/11/23

Analysis Method
200.8

Extracted/Digested By
SSOLADEY

Analyzed By
JCHAN

Sample Name: BY-COL-MW-15-PM-INF-13
Lab Code: K2305473-010
Sample Matrix: Water

Date Collected: 05/8/23
Date Received: 05/11/23

Analysis Method
200.8

Extracted/Digested By
SSOLADEY

Analyzed By
JCHAN

ALS Group USA, Corp.
dba ALS Environmental

Analyst Summary report

Client: Anchor QEA, LLC
Project: Barry/221114-08.02 Task 06

Service Request: K2305473

Sample Name: BY-COL-MW-15-FS-INF-13
Lab Code: K2305473-011
Sample Matrix: Water

Date Collected: 05/8/23
Date Received: 05/11/23

Analysis Method
200.8

Extracted/Digested By
SSOLADEY

Analyzed By
JCHAN

Sample Name: BY-COL-MW-24H-INF-13
Lab Code: K2305473-012
Sample Matrix: Water

Date Collected: 05/8/23
Date Received: 05/11/23

Analysis Method
200.8

Extracted/Digested By
SSOLADEY

Analyzed By
JCHAN

Sample Name: BY-COL-MW-1-PM-14
Lab Code: K2305473-013
Sample Matrix: Water

Date Collected: 05/8/23
Date Received: 05/11/23

Analysis Method
200.8

Extracted/Digested By
SSOLADEY

Analyzed By
JCHAN

Sample Name: BY-COL-MW-8-PM-14
Lab Code: K2305473-014
Sample Matrix: Water

Date Collected: 05/8/23
Date Received: 05/11/23

Analysis Method
200.8

Extracted/Digested By
SSOLADEY

Analyzed By
JCHAN

Sample Name: BY-COL-MW-10-PM-14
Lab Code: K2305473-015
Sample Matrix: Water

Date Collected: 05/8/23
Date Received: 05/11/23

Analysis Method
200.8

Extracted/Digested By
SSOLADEY

Analyzed By
JCHAN

ALS Group USA, Corp.
dba ALS Environmental

Analyst Summary report

Client: Anchor QEA, LLC
Project: Barry/221114-08.02 Task 06

Service Request: K2305473

Sample Name: BY-COL-MW-15-PM-14
Lab Code: K2305473-016
Sample Matrix: Water

Date Collected: 05/8/23
Date Received: 05/11/23

Analysis Method
200.8

Extracted/Digested By
SSOLADEY

Analyzed By
JCHAN

Sample Name: BY-COL-MW-15-FS-14
Lab Code: K2305473-017
Sample Matrix: Water

Date Collected: 05/8/23
Date Received: 05/11/23

Analysis Method
200.8

Extracted/Digested By
SSOLADEY

Analyzed By
JCHAN

Sample Name: BY-COL-MW-24H-PM-14
Lab Code: K2305473-018
Sample Matrix: Water

Date Collected: 05/8/23
Date Received: 05/11/23

Analysis Method
200.8

Extracted/Digested By
SSOLADEY

Analyzed By
JCHAN

Sample Name: BY-COL-MW-1-INF-14
Lab Code: K2305473-019
Sample Matrix: Water

Date Collected: 05/8/23
Date Received: 05/11/23

Analysis Method
200.8

Extracted/Digested By
SSOLADEY

Analyzed By
JCHAN

Sample Name: BY-COL-MW-8-INF-14
Lab Code: K2305473-020
Sample Matrix: Water

Date Collected: 05/8/23
Date Received: 05/11/23

Analysis Method
200.8

Extracted/Digested By
SSOLADEY

Analyzed By
JCHAN

ALS Group USA, Corp.
dba ALS Environmental

Analyst Summary report

Client: Anchor QEA, LLC
Project: Barry/221114-08.02 Task 06

Service Request: K2305473

Sample Name: BY-COL-MW-10-INF-14
Lab Code: K2305473-021
Sample Matrix: Water

Date Collected: 05/8/23
Date Received: 05/11/23

Analysis Method
200.8

Extracted/Digested By
SSOLADEY

Analyzed By
JCHAN

Sample Name: BY-COL-MW-15-PM-INF-14
Lab Code: K2305473-022
Sample Matrix: Water

Date Collected: 05/8/23
Date Received: 05/11/23

Analysis Method
200.8

Extracted/Digested By
SSOLADEY

Analyzed By
JCHAN

Sample Name: BY-COL-MW-15-FS-INF-14
Lab Code: K2305473-023
Sample Matrix: Water

Date Collected: 05/8/23
Date Received: 05/11/23

Analysis Method
200.8

Extracted/Digested By
SSOLADEY

Analyzed By
JCHAN

Sample Name: BY-COL-MW-24H-INF-14
Lab Code: K2305473-024
Sample Matrix: Water

Date Collected: 05/8/23
Date Received: 05/11/23

Analysis Method
200.8

Extracted/Digested By
SSOLADEY

Analyzed By
JCHAN



Sample Results

ALS Environmental—Kelso Laboratory
1317 South 13th Avenue, Kelso, WA 98626
Phone (360) 577-7222 Fax (360) 425-9096
www.alsglobal.com



Metals

ALS Environmental—Kelso Laboratory
1317 South 13th Avenue, Kelso, WA 98626
Phone (360) 577-7222 Fax (360) 425-9096
www.alsglobal.com

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.02 Task 06
Sample Matrix: Water
Sample Name: BY-COL-MW-1-PM-13
Lab Code: K2305473-001

Service Request: K2305473
Date Collected: 05/08/23 08:31
Date Received: 05/11/23 13:45
Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	0.46 J	ug/L	0.50	0.09	1	05/24/23 12:48	05/17/23	
Iron	200.8	18600	ug/L	2.0	0.3	1	05/24/23 12:48	05/17/23	
Manganese	200.8	5200	ug/L	10	2	50	05/24/23 13:26	05/17/23	

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Analytical Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.02 Task 06
Sample Matrix: Water
Sample Name: BY-COL-MW-8-PM-13
Lab Code: K2305473-002

Service Request: K2305473
Date Collected: 05/08/23 08:32
Date Received: 05/11/23 13:45
Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	544	ug/L	0.50	0.09	1	05/24/23 12:50	05/17/23	
Iron	200.8	9440	ug/L	2.0	0.3	1	05/24/23 12:50	05/17/23	
Manganese	200.8	751	ug/L	0.20	0.04	1	05/24/23 12:50	05/17/23	

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Analytical Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.02 Task 06
Sample Matrix: Water
Sample Name: BY-COL-MW-10-PM-13
Lab Code: K2305473-003

Service Request: K2305473
Date Collected: 05/08/23 08:33
Date Received: 05/11/23 13:45
Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	0.53	ug/L	0.50	0.09	1	05/24/23 12:57	05/17/23	
Iron	200.8	2.0	ug/L	2.0	0.3	1	05/24/23 12:57	05/17/23	
Manganese	200.8	1360	ug/L	0.20	0.04	1	05/24/23 12:57	05/17/23	

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Analytical Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.02 Task 06
Sample Matrix: Water
Sample Name: BY-COL-MW-15-PM-13
Lab Code: K2305473-004

Service Request: K2305473
Date Collected: 05/08/23 08:34
Date Received: 05/11/23 13:45
Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	ND U	ug/L	0.50	0.09	1	05/24/23 12:58	05/17/23	
Cobalt	200.8	4.51	ug/L	0.020	0.009	1	05/24/23 12:58	05/17/23	
Iron	200.8	1.3 J	ug/L	2.0	0.3	1	05/24/23 12:58	05/17/23	
Manganese	200.8	1340	ug/L	0.20	0.04	1	05/24/23 12:58	05/17/23	

ALS Group USA, Corp.
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Analytical Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.02 Task 06
Sample Matrix: Water
Sample Name: BY-COL-MW-15-FS-13
Lab Code: K2305473-005

Service Request: K2305473
Date Collected: 05/08/23 08:35
Date Received: 05/11/23 13:45

Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	0.15 J	ug/L	0.50	0.09	1	05/24/23 13:00	05/17/23	
Cobalt	200.8	73.6	ug/L	0.020	0.009	1	05/24/23 13:00	05/17/23	
Iron	200.8	77.6	ug/L	2.0	0.3	1	05/24/23 13:00	05/17/23	
Manganese	200.8	587	ug/L	0.20	0.04	1	05/24/23 13:00	05/17/23	

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Analytical Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.02 Task 06
Sample Matrix: Water
Sample Name: BY-COL-MW-24H-PM-13
Lab Code: K2305473-006

Service Request: K2305473
Date Collected: 05/08/23 08:36
Date Received: 05/11/23 13:45
Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	0.46 J	ug/L	0.50	0.09	1	05/24/23 13:01	05/17/23	
Iron	200.8	15800	ug/L	2.0	0.3	1	05/24/23 13:01	05/17/23	
Manganese	200.8	2440	ug/L	0.20	0.04	1	05/24/23 13:01	05/17/23	

ALS Group USA, Corp.
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Analytical Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.02 Task 06
Sample Matrix: Water
Sample Name: BY-COL-MW-1-INF-13
Lab Code: K2305473-007

Service Request: K2305473
Date Collected: 05/08/23 08:37
Date Received: 05/11/23 13:45
Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	3.22	ug/L	0.50	0.09	1	05/24/23 13:02	05/17/23	
Iron	200.8	44500	ug/L	2.0	0.3	1	05/24/23 13:02	05/17/23	
Manganese	200.8	735	ug/L	0.20	0.04	1	05/24/23 13:02	05/17/23	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.02 Task 06
Sample Matrix: Water
Sample Name: BY-COL-MW-8-INF-13
Lab Code: K2305473-008

Service Request: K2305473
Date Collected: 05/08/23 08:38
Date Received: 05/11/23 13:45
Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	638	ug/L	0.50	0.09	1	05/24/23 12:55	05/17/23	
Iron	200.8	10200	ug/L	2.0	0.3	1	05/24/23 12:55	05/17/23	
Manganese	200.8	189	ug/L	0.20	0.04	1	05/24/23 12:55	05/17/23	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.02 Task 06
Sample Matrix: Water
Sample Name: BY-COL-MW-10-INF-13
Lab Code: K2305473-009

Service Request: K2305473
Date Collected: 05/08/23 08:39
Date Received: 05/11/23 13:45
Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	2.61	ug/L	0.50	0.09	1	05/24/23 13:04	05/17/23	
Iron	200.8	26.8	ug/L	2.0	0.3	1	05/24/23 13:04	05/17/23	
Manganese	200.8	1030	ug/L	0.20	0.04	1	05/24/23 13:04	05/17/23	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.02 Task 06
Sample Matrix: Water
Sample Name: BY-COL-MW-15-PM-INF-13
Lab Code: K2305473-010

Service Request: K2305473
Date Collected: 05/08/23 08:40
Date Received: 05/11/23 13:45

Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	0.13 J	ug/L	0.50	0.09	1	05/24/23 13:05	05/17/23	
Cobalt	200.8	80.8	ug/L	0.020	0.009	1	05/24/23 13:05	05/17/23	
Iron	200.8	8750	ug/L	2.0	0.3	1	05/24/23 13:05	05/17/23	
Manganese	200.8	618	ug/L	0.20	0.04	1	05/24/23 13:05	05/17/23	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.02 Task 06
Sample Matrix: Water
Sample Name: BY-COL-MW-15-FS-INF-13
Lab Code: K2305473-011

Service Request: K2305473
Date Collected: 05/08/23 08:41
Date Received: 05/11/23 13:45
Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	0.10 J	ug/L	0.50	0.09	1	05/24/23 13:07	05/17/23	
Cobalt	200.8	86.2	ug/L	0.020	0.009	1	05/24/23 13:07	05/17/23	
Iron	200.8	8040	ug/L	2.0	0.3	1	05/24/23 13:07	05/17/23	
Manganese	200.8	644	ug/L	0.20	0.04	1	05/24/23 13:07	05/17/23	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.02 Task 06
Sample Matrix: Water
Sample Name: BY-COL-MW-24H-INF-13
Lab Code: K2305473-012

Service Request: K2305473
Date Collected: 05/08/23 08:42
Date Received: 05/11/23 13:45
Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	0.69	ug/L	0.50	0.09	1	05/24/23 13:08	05/17/23	
Iron	200.8	17600	ug/L	2.0	0.3	1	05/24/23 13:08	05/17/23	
Manganese	200.8	180	ug/L	0.20	0.04	1	05/24/23 13:08	05/17/23	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.02 Task 06
Sample Matrix: Water
Sample Name: BY-COL-MW-1-PM-14
Lab Code: K2305473-013

Service Request: K2305473
Date Collected: 05/08/23 14:08
Date Received: 05/11/23 13:45
Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	0.42 J	ug/L	0.50	0.09	1	05/24/23 13:12	05/17/23	
Iron	200.8	15600	ug/L	2.0	0.3	1	05/24/23 13:12	05/17/23	
Manganese	200.8	5180	ug/L	10	2	50	05/24/23 13:28	05/17/23	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.02 Task 06
Sample Matrix: Water
Sample Name: BY-COL-MW-8-PM-14
Lab Code: K2305473-014

Service Request: K2305473
Date Collected: 05/08/23 14:09
Date Received: 05/11/23 13:45
Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	535	ug/L	0.50	0.09	1	05/24/23 13:14	05/17/23	
Iron	200.8	9290	ug/L	2.0	0.3	1	05/24/23 13:14	05/17/23	
Manganese	200.8	735	ug/L	0.20	0.04	1	05/24/23 13:14	05/17/23	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.02 Task 06
Sample Matrix: Water
Sample Name: BY-COL-MW-10-PM-14
Lab Code: K2305473-015

Service Request: K2305473
Date Collected: 05/08/23 14:10
Date Received: 05/11/23 13:45
Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	0.55	ug/L	0.50	0.09	1	05/24/23 13:15	05/17/23	
Iron	200.8	1.7 J	ug/L	2.0	0.3	1	05/24/23 13:15	05/17/23	
Manganese	200.8	1390	ug/L	0.20	0.04	1	05/24/23 13:15	05/17/23	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.02 Task 06
Sample Matrix: Water
Sample Name: BY-COL-MW-15-PM-14
Lab Code: K2305473-016

Service Request: K2305473
Date Collected: 05/08/23 14:11
Date Received: 05/11/23 13:45

Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	ND U	ug/L	0.50	0.09	1	05/24/23 13:17	05/17/23	
Cobalt	200.8	5.95	ug/L	0.020	0.009	1	05/24/23 13:17	05/17/23	
Iron	200.8	0.8 J	ug/L	2.0	0.3	1	05/24/23 13:17	05/17/23	
Manganese	200.8	1310	ug/L	0.20	0.04	1	05/24/23 13:17	05/17/23	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.02 Task 06
Sample Matrix: Water
Sample Name: BY-COL-MW-15-FS-14
Lab Code: K2305473-017

Service Request: K2305473
Date Collected: 05/08/23 14:12
Date Received: 05/11/23 13:45
Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	ND U	ug/L	0.50	0.09	1	05/24/23 13:18	05/17/23	
Cobalt	200.8	71.0	ug/L	0.020	0.009	1	05/24/23 13:18	05/17/23	
Iron	200.8	56.0	ug/L	2.0	0.3	1	05/24/23 13:18	05/17/23	
Manganese	200.8	586	ug/L	0.20	0.04	1	05/24/23 13:18	05/17/23	

ALS Group USA, Corp.
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Analytical Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.02 Task 06
Sample Matrix: Water
Sample Name: BY-COL-MW-24H-PM-14
Lab Code: K2305473-018

Service Request: K2305473
Date Collected: 05/08/23 14:13
Date Received: 05/11/23 13:45
Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	0.45 J	ug/L	0.50	0.09	1	05/24/23 13:19	05/17/23	
Iron	200.8	14600	ug/L	2.0	0.3	1	05/24/23 13:19	05/17/23	
Manganese	200.8	1830	ug/L	0.20	0.04	1	05/24/23 13:19	05/17/23	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.02 Task 06
Sample Matrix: Water
Sample Name: BY-COL-MW-1-INF-14
Lab Code: K2305473-019

Service Request: K2305473
Date Collected: 05/08/23 14:14
Date Received: 05/11/23 13:45
Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	2.19	ug/L	0.50	0.09	1	05/24/23 13:21	05/17/23	
Iron	200.8	43800	ug/L	2.0	0.3	1	05/24/23 13:21	05/17/23	
Manganese	200.8	732	ug/L	0.20	0.04	1	05/24/23 13:21	05/17/23	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.02 Task 06
Sample Matrix: Water
Sample Name: BY-COL-MW-8-INF-14
Lab Code: K2305473-020

Service Request: K2305473
Date Collected: 05/08/23 14:15
Date Received: 05/11/23 13:45
Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	652	ug/L	0.50	0.09	1	05/24/23 12:44	05/17/23	
Iron	200.8	10600	ug/L	2.0	0.3	1	05/24/23 12:44	05/17/23	
Manganese	200.8	193	ug/L	0.20	0.04	1	05/24/23 12:44	05/17/23	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.02 Task 06
Sample Matrix: Water
Sample Name: BY-COL-MW-10-INF-14
Lab Code: K2305473-021

Service Request: K2305473
Date Collected: 05/08/23 14:16
Date Received: 05/11/23 13:45
Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	2.17	ug/L	0.50	0.09	1	05/24/23 13:57	05/17/23	
Iron	200.8	7.3	ug/L	2.0	0.3	1	05/24/23 13:57	05/17/23	
Manganese	200.8	1000	ug/L	0.20	0.04	1	05/24/23 13:57	05/17/23	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.02 Task 06
Sample Matrix: Water
Sample Name: BY-COL-MW-15-PM-INF-14
Lab Code: K2305473-022

Service Request: K2305473
Date Collected: 05/08/23 14:17
Date Received: 05/11/23 13:45
Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	0.15 J	ug/L	0.50	0.09	1	05/24/23 13:58	05/17/23	
Cobalt	200.8	80.1	ug/L	0.020	0.009	1	05/24/23 13:58	05/17/23	
Iron	200.8	7740	ug/L	2.0	0.3	1	05/24/23 13:58	05/17/23	
Manganese	200.8	609	ug/L	0.20	0.04	1	05/24/23 13:58	05/17/23	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.02 Task 06
Sample Matrix: Water
Sample Name: BY-COL-MW-15-FS-INF-14
Lab Code: K2305473-023

Service Request: K2305473
Date Collected: 05/08/23 14:18
Date Received: 05/11/23 13:45
Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	ND U	ug/L	0.50	0.09	1	05/24/23 14:03	05/17/23	
Cobalt	200.8	84.1	ug/L	0.020	0.009	1	05/24/23 14:03	05/17/23	
Iron	200.8	6390	ug/L	2.0	0.3	1	05/24/23 14:03	05/17/23	
Manganese	200.8	628	ug/L	0.20	0.04	1	05/24/23 14:03	05/17/23	

ALS Group USA, Corp.
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Analytical Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.02 Task 06
Sample Matrix: Water
Sample Name: BY-COL-MW-24H-INF-14
Lab Code: K2305473-024

Service Request: K2305473
Date Collected: 05/08/23 14:19
Date Received: 05/11/23 13:45
Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	0.52	ug/L	0.50	0.09	1	05/24/23 14:04	05/17/23	
Iron	200.8	15100	ug/L	2.0	0.3	1	05/24/23 14:04	05/17/23	
Manganese	200.8	177	ug/L	0.20	0.04	1	05/24/23 14:04	05/17/23	



QC Summary Forms

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Metals

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Analytical Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.02 Task 06
Sample Matrix: Water
Sample Name: Method Blank
Lab Code: KQ2308681-01

Service Request: K2305473
Date Collected: NA
Date Received: NA
Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	ND U	ug/L	0.50	0.09	1	05/24/23 12:37	05/17/23	
Cobalt	200.8	ND U	ug/L	0.020	0.009	1	05/24/23 12:37	05/17/23	
Iron	200.8	ND U	ug/L	2.0	0.3	1	05/24/23 12:37	05/17/23	
Manganese	200.8	0.37	ug/L	0.20	0.04	1	05/24/23 12:37	05/17/23	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.02 Task 06
Sample Matrix: Water
Sample Name: Method Blank
Lab Code: KQ2308685-01

Service Request: K2305473
Date Collected: NA
Date Received: NA
Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	ND U	ug/L	0.50	0.09	1	05/24/23 13:46	05/17/23	
Cobalt	200.8	ND U	ug/L	0.020	0.009	1	05/24/23 13:46	05/17/23	
Iron	200.8	ND U	ug/L	2.0	0.3	1	05/24/23 13:46	05/17/23	
Manganese	200.8	0.07 J	ug/L	0.20	0.04	1	05/24/23 13:46	05/17/23	

ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.02 Task 06
Sample Matrix: Water

Service Request: K2305473
Date Collected: 05/08/23
Date Received: 05/11/23
Date Analyzed: 05/24/23
Date Extracted: 05/17/23

Matrix Spike Summary
Dissolved Metals

Sample Name: BY-COL-MW-8-INF-13
Lab Code: K2305473-008
Analysis Method: 200.8
Prep Method: EPA CLP ILM04.0

Units: ug/L
Basis: NA

Matrix Spike
KQ2308681-04

Analyte Name	Sample Result	Result	Spike Amount	% Rec	% Rec Limits
Arsenic	638	670	50.0	64 #	70-130
Cobalt	0.123	24.5	25.0	98	70-130
Iron	10200	9990	50.0	-442 #	70-130
Manganese	189	213	25.0	94 #	70-130

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

Matrix Spike and Matrix Spike Duplicate Data is presented for information purposes only. The matrix may or may not be relevant to samples reported in this report. The laboratory evaluates system performance based on the LCS and LCSD control limits.

ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.02 Task 06
Sample Matrix: Water

Service Request: K2305473
Date Collected: 05/08/23
Date Received: 05/11/23
Date Analyzed: 05/24/23
Date Extracted: 05/17/23

Matrix Spike Summary
Dissolved Metals

Sample Name: BY-COL-MW-8-INF-14
Lab Code: K2305473-020
Analysis Method: 200.8
Prep Method: EPA CLP ILM04.0

Units: ug/L
Basis: NA

Matrix Spike
KQ2308681-06

Analyte Name	Sample Result	Result	Spike Amount	% Rec	% Rec Limits
Arsenic	652	678	50.0	50 #	70-130
Cobalt	0.123	23.7	25.0	94	70-130
Iron	10600	10200	50.0	-821 #	70-130
Manganese	193	211	25.0	69 #	70-130

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

Matrix Spike and Matrix Spike Duplicate Data is presented for information purposes only. The matrix may or may not be relevant to samples reported in this report. The laboratory evaluates system performance based on the LCS and LCSD control limits.

ALS Group USA, Corp.

dba ALS Environmental

QA/QC Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.02 Task 06
Sample Matrix: Water

Service Request: K2305473
Date Collected: 05/08/23
Date Received: 05/11/23
Date Analyzed: 05/24/23

Replicate Sample Summary
Dissolved Metals

Sample Name: BY-COL-MW-8-INF-13
Lab Code: K2305473-008

Units: ug/L
Basis: NA

Analyte Name	Analysis Method	MRL	MDL	Sample Result	Duplicate	Average	RPD	RPD Limit
					Sample KQ2308681-03 Result			
Arsenic	200.8	0.50	0.09	638	628	633	2	20
Cobalt	200.8	0.020	0.009	0.123	0.123	0.123	<1	20
Iron	200.8	2.0	0.3	10200	10100	10200	<1	20
Manganese	200.8	0.20	0.04	189	190	190	<1	20

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

ALS Group USA, Corp.

dba ALS Environmental

QA/QC Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.02 Task 06
Sample Matrix: Water

Service Request: K2305473
Date Collected: 05/08/23
Date Received: 05/11/23
Date Analyzed: 05/24/23

Replicate Sample Summary
Dissolved Metals

Sample Name: BY-COL-MW-8-INF-14
Lab Code: K2305473-020

Units: ug/L
Basis: NA

Table with 9 columns: Analyte Name, Analysis Method, MRL, MDL, Sample Result, Duplicate Sample KQ2308681-05 Result, Average, RPD, RPD Limit. Rows include Arsenic, Cobalt, Iron, and Manganese.

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.02 Task 06
Sample Matrix: Water

Service Request: K2305473
Date Analyzed: 05/24/23

Lab Control Sample Summary
Dissolved Metals

Units:ug/L
Basis:NA

Lab Control Sample
KQ2308681-02

Analyte Name	Analytical Method	Result	Spike Amount	% Rec	% Rec Limits
Arsenic	200.8	49.2	50.0	98	85-115
Cobalt	200.8	24.2	25.0	97	85-115
Iron	200.8	48.4	50.0	97	85-115
Manganese	200.8	24.2	25.0	97	85-115

ALS Group USA, Corp.
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QA/QC Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.02 Task 06
Sample Matrix: Water

Service Request: K2305473
Date Analyzed: 05/24/23

Lab Control Sample Summary
Dissolved Metals

Units:ug/L
Basis:NA

Lab Control Sample
KQ2308685-02

Analyte Name	Analytical Method	Result	Spike Amount	% Rec	% Rec Limits
Arsenic	200.8	48.0	50.0	96	85-115
Cobalt	200.8	23.7	25.0	95	85-115
Iron	200.8	46.7	50.0	93	85-115
Manganese	200.8	23.5	25.0	94	85-115



May 25, 2023

Service Request No:K2305517

Masa Kanematsu
Anchor QEA, LLC
6720 SW Macadam Avenue
Suite 125
Portland, OR 97219

Laboratory Results for: Barry

Dear Masa,

Enclosed are the results of the sample(s) submitted to our laboratory May 12, 2023
For your reference, these analyses have been assigned our service request number **K2305517**.

Analyses were performed according to our laboratory's NELAP-approved quality assurance program. The test results meet requirements of the current NELAP standards, where applicable, and except as noted in the laboratory case narrative provided. For a specific list of NELAP-accredited analytes, refer to the certifications section at www.alsglobal.com. All results are intended to be considered in their entirety, and ALS Group USA Corp. dba ALS Environmental (ALS) is not responsible for use of less than the complete report. Results apply only to the items submitted to the laboratory for analysis and individual items (samples) analyzed, as listed in the report.

Please contact me if you have any questions. My extension is 3376. You may also contact me via email at Mark.Harris@alsglobal.com.

Respectfully submitted,

ALS Group USA, Corp. dba ALS Environmental

for Mark Harris
Project Manager

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dba ALS Environmental



Narrative Documents

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Client: Anchor QEA, LLC
Project: Barry
Sample Matrix: Water

Service Request: K2305517
Date Received: 05/12/2023

CASE NARRATIVE

All analyses were performed consistent with the quality assurance program of ALS Environmental. This report contains analytical results for samples for the Tier II level requested by the client.

Sample Receipt:

Twenty one water samples were received for analysis at ALS Environmental on 05/12/2023. Any discrepancies upon initial sample inspection are annotated on the sample receipt and preservation form included within this report. The samples were stored at minimum in accordance with the analytical method requirements.

Metals:

No significant anomalies were noted with this analysis.

Noel D. O'Connell

Approved by _____

Date 05/25/2023



SAMPLE DETECTION SUMMARY

This form includes only detections above the reporting levels. For a full listing of sample results, continue to the Sample Results section of this Report.

CLIENT ID: BY-COL-DT-MW-8-PM-1	Lab ID: K2305517-002
---------------------------------------	-----------------------------

Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	13.3		0.09	0.50	ug/L	200.8
Iron, Dissolved	71.1		0.3	2.0	ug/L	200.8
Manganese, Dissolved	819		0.04	0.20	ug/L	200.8

CLIENT ID: BY-COL-DT-MW-10-PM-1	Lab ID: K2305517-003
--	-----------------------------

Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	0.31	J	0.09	0.50	ug/L	200.8
Iron, Dissolved	2.6		0.3	2.0	ug/L	200.8
Manganese, Dissolved	71.4		0.04	0.20	ug/L	200.8

CLIENT ID: BY-COL-DT-MW-24H-PM-1	Lab ID: K2305517-006
---	-----------------------------

Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	0.10	J	0.09	0.50	ug/L	200.8
Iron, Dissolved	2740		0.3	2.0	ug/L	200.8
Manganese, Dissolved	655		0.04	0.20	ug/L	200.8

CLIENT ID: BY-COL-DT-MW-2-INF-1	Lab ID: K2305517-007
--	-----------------------------

Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	1.18		0.09	0.50	ug/L	200.8
Cobalt, Dissolved	4.04		0.009	0.020	ug/L	200.8
Iron, Dissolved	1.4	J	0.3	2.0	ug/L	200.8
Manganese, Dissolved	190		0.04	0.20	ug/L	200.8

CLIENT ID: BY-COL-DT-MW-8-PM-2	Lab ID: K2305517-009
---------------------------------------	-----------------------------

Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	12.0		0.09	0.50	ug/L	200.8
Iron, Dissolved	35.4		0.3	2.0	ug/L	200.8
Manganese, Dissolved	785		0.04	0.20	ug/L	200.8

CLIENT ID: BY-COL-DT-MW-10-PM-2	Lab ID: K2305517-010
--	-----------------------------

Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	0.31	J	0.09	0.50	ug/L	200.8
Iron, Dissolved	1.7	J	0.3	2.0	ug/L	200.8
Manganese, Dissolved	131		0.04	0.20	ug/L	200.8

CLIENT ID: BY-COL-DT-MW-15-FS-2	Lab ID: K2305517-012
--	-----------------------------

Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	0.10	J	0.09	0.50	ug/L	200.8
Cobalt, Dissolved	15.6		0.009	0.020	ug/L	200.8
Iron, Dissolved	4.0		0.3	2.0	ug/L	200.8
Manganese, Dissolved	140		0.04	0.20	ug/L	200.8



SAMPLE DETECTION SUMMARY

This form includes only detections above the reporting levels. For a full listing of sample results, continue to the Sample Results section of this Report.

CLIENT ID: BY-COL-DT-MW-2-INF-2	Lab ID: K2305517-014
--	-----------------------------

Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	1.13		0.09	0.50	ug/L	200.8
Cobalt, Dissolved	4.15		0.009	0.020	ug/L	200.8
Iron, Dissolved	3.5		0.3	2.0	ug/L	200.8
Manganese, Dissolved	195		0.04	0.20	ug/L	200.8

CLIENT ID: BY-COL-DT-MW-8-PM-3	Lab ID: K2305517-016
---------------------------------------	-----------------------------

Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	10.3		0.09	0.50	ug/L	200.8
Iron, Dissolved	21.5		0.3	2.0	ug/L	200.8
Manganese, Dissolved	729		0.04	0.20	ug/L	200.8

CLIENT ID: BY-COL-DT-MW-10-PM-3	Lab ID: K2305517-017
--	-----------------------------

Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	0.21	J	0.09	0.50	ug/L	200.8
Iron, Dissolved	4.1		0.3	2.0	ug/L	200.8
Manganese, Dissolved	359		0.04	0.20	ug/L	200.8

CLIENT ID: BY-COL-DT-MW-15-FS-3	Lab ID: K2305517-019
--	-----------------------------

Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	0.09	J	0.09	0.50	ug/L	200.8
Cobalt, Dissolved	13.7		0.009	0.020	ug/L	200.8
Iron, Dissolved	2.8		0.3	2.0	ug/L	200.8
Manganese, Dissolved	135		0.04	0.20	ug/L	200.8

CLIENT ID: BY-COL-DT-MW-2-INF-3	Lab ID: K2305517-021
--	-----------------------------

Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	1.11		0.09	0.50	ug/L	200.8
Cobalt, Dissolved	3.59		0.009	0.020	ug/L	200.8
Iron, Dissolved	2.3		0.3	2.0	ug/L	200.8
Manganese, Dissolved	174		0.04	0.20	ug/L	200.8

CLIENT ID: BY-COL-DT-MW-15-PM-1	Lab ID: K2305517-004
--	-----------------------------

Analyte	Results	Flag	MDL	MRL	Units	Method
Cobalt, Dissolved	1.01		0.009	0.020	ug/L	200.8
Iron, Dissolved	0.7	J	0.3	2.0	ug/L	200.8
Manganese, Dissolved	271		0.04	0.20	ug/L	200.8

CLIENT ID: BY-COL-DT-MW-15-FS-1	Lab ID: K2305517-005
--	-----------------------------

Analyte	Results	Flag	MDL	MRL	Units	Method
Cobalt, Dissolved	13.8		0.009	0.020	ug/L	200.8
Iron, Dissolved	9.9		0.3	2.0	ug/L	200.8
Manganese, Dissolved	111		0.04	0.20	ug/L	200.8



SAMPLE DETECTION SUMMARY

This form includes only detections above the reporting levels. For a full listing of sample results, continue to the Sample Results section of this Report.

CLIENT ID: BY-COL-DT-MW-15-PM-2	Lab ID: K2305517-011
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Analyte	Results	Flag	MDL	MRL	Units	Method
Cobalt, Dissolved	1.39		0.009	0.020	ug/L	200.8
Iron, Dissolved	1.6	J	0.3	2.0	ug/L	200.8
Manganese, Dissolved	341		0.04	0.20	ug/L	200.8

CLIENT ID: BY-COL-DT-MW-15-PM-3	Lab ID: K2305517-018
--	-----------------------------

Analyte	Results	Flag	MDL	MRL	Units	Method
Cobalt, Dissolved	1.37		0.009	0.020	ug/L	200.8
Iron, Dissolved	1.3	J	0.3	2.0	ug/L	200.8
Manganese, Dissolved	344		0.04	0.20	ug/L	200.8

CLIENT ID: BY-COL-DT-MW-1-PM-1	Lab ID: K2305517-001
---------------------------------------	-----------------------------

Analyte	Results	Flag	MDL	MRL	Units	Method
Iron, Dissolved	186		0.3	2.0	ug/L	200.8
Manganese, Dissolved	1190		0.04	0.20	ug/L	200.8

CLIENT ID: BY-COL-DT-MW-1-PM-2	Lab ID: K2305517-008
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Analyte	Results	Flag	MDL	MRL	Units	Method
Iron, Dissolved	34.5		0.3	2.0	ug/L	200.8
Manganese, Dissolved	752		0.04	0.20	ug/L	200.8

CLIENT ID: BY-COL-DT-MW-24H-PM-2	Lab ID: K2305517-013
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Analyte	Results	Flag	MDL	MRL	Units	Method
Iron, Dissolved	420		0.3	2.0	ug/L	200.8
Manganese, Dissolved	141		0.04	0.20	ug/L	200.8

CLIENT ID: BY-COL-DT-MW-1-PM-3	Lab ID: K2305517-015
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Analyte	Results	Flag	MDL	MRL	Units	Method
Iron, Dissolved	30.2		0.3	2.0	ug/L	200.8
Manganese, Dissolved	676		0.04	0.20	ug/L	200.8

CLIENT ID: BY-COL-DT-MW-24H-PM-3	Lab ID: K2305517-020
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Analyte	Results	Flag	MDL	MRL	Units	Method
Iron, Dissolved	80.1		0.3	2.0	ug/L	200.8
Manganese, Dissolved	291		0.04	0.20	ug/L	200.8



Sample Receipt Information

ALS Environmental—Kelso Laboratory
1317 South 13th Avenue, Kelso, WA 98626
Phone (360) 577-7222 Fax (360) 425-9096
www.alsglobal.com

Client: Anchor QEA, LLC
Project: Barry/221114-08.02 Task 06

Service Request:K2305517

SAMPLE CROSS-REFERENCE

<u>SAMPLE #</u>	<u>CLIENT SAMPLE ID</u>	<u>DATE</u>	<u>TIME</u>
K2305517-001	BY-COL-DT-MW-1-PM-1	5/9/2023	0856
K2305517-002	BY-COL-DT-MW-8-PM-1	5/9/2023	0857
K2305517-003	BY-COL-DT-MW-10-PM-1	5/9/2023	0858
K2305517-004	BY-COL-DT-MW-15-PM-1	5/9/2023	0859
K2305517-005	BY-COL-DT-MW-15-FS-1	5/9/2023	0900
K2305517-006	BY-COL-DT-MW-24H-PM-1	5/9/2023	0901
K2305517-007	BY-COL-DT-MW-2-INF-1	5/9/2023	0902
K2305517-008	BY-COL-DT-MW-1-PM-2	5/10/2023	0753
K2305517-009	BY-COL-DT-MW-8-PM-2	5/10/2023	0754
K2305517-010	BY-COL-DT-MW-10-PM-2	5/10/2023	0755
K2305517-011	BY-COL-DT-MW-15-PM-2	5/10/2023	0756
K2305517-012	BY-COL-DT-MW-15-FS-2	5/10/2023	0757
K2305517-013	BY-COL-DT-MW-24H-PM-2	5/10/2023	0758
K2305517-014	BY-COL-DT-MW-2-INF-2	5/10/2023	0759
K2305517-015	BY-COL-DT-MW-1-PM-3	5/11/2023	1058
K2305517-016	BY-COL-DT-MW-8-PM-3	5/11/2023	1059
K2305517-017	BY-COL-DT-MW-10-PM-3	5/11/2023	1100
K2305517-018	BY-COL-DT-MW-15-PM-3	5/11/2023	1101
K2305517-019	BY-COL-DT-MW-15-FS-3	5/11/2023	1102
K2305517-020	BY-COL-DT-MW-24H-PM-3	5/11/2023	1103
K2305517-021	BY-COL-DT-MW-2-INF-3	5/11/2023	1104

Chain of Custody Record & Laboratory Analysis Request

K2305517

Laboratory Number: 503-972-5019					No. of Containers Dissolved Metals (As, Fe, Mn) Dissolved Metals (As, Co, Fe, Mn)	Parameters												ANCHOR QEA Masa Kanematsu 6720 SW Macadam Ave Suite 125 Portland OR 97219 Comments/Preservation
Date:	5/12/2023																	
Project Name:	Barry																	
Project Number:	221114-08.02 Task 06																	
Project Manager:	Masa Kanematsu																	
Phone Number:	503-972-5001 (backup number: 503-798-3456)																	
Shipment Method:	ALS Carrier																	
Line	Field Sample ID	Collection		Matrix														
		Date	Time															
1	BY-COL-DT-MW-1-PM-3	5/11/2023	10:58	Water	1	X												HNO3-Preserved; 0.45um-filtered.
2	BY-COL-DT-MW-8-PM-3	5/11/2023	10:59	Water	1	X												HNO3-Preserved; 0.45um-filtered.
3	BY-COL-DT-MW-10-PM-3	5/11/2023	11:00	Water	1	X												HNO3-Preserved; 0.45um-filtered.
4	BY-COL-DT-MW-15-PM-3	5/11/2023	11:01	Water	1		X											HNO3-Preserved; 0.45um-filtered.
5	BY-COL-DT-MW-15-FS-3	5/11/2023	11:02	Water	1		X											HNO3-Preserved; 0.45um-filtered.
6	BY-COL-DT-MW-24H-PM-3	5/11/2023	11:03	Water	1	X												HNO3-Preserved; 0.45um-filtered.
7	BY-COL-DT-MW-2-INF-3	5/11/2023	11:04	Water	1		X											HNO3-Preserved; 0.45um-filtered.
8																		
9																		
10																		
11																		
12																		
13																		
14																		
15																		
16																		
17																		
18																		
19																		
20																		

Notes: Please Contact Masa (503-972-5001, mkanematsu@anchorqea.com) if running > 10X dilution. Please analyze by ICP-MS method 200.8 to achieve the MDL < 1 ppb.


Relinquished by: Emma Nordlund	Company: Anchor QEA
Signature/Print Name: <i>Emma Nordlund</i>	Date/Time: 5/12/23 8:22 AM
Relinquished by: <i>Greg Rich</i>	Company: ALS
Signature/Print Name: <i>Greg Rich</i>	Date/Time: 5-12-23 1305

Received by: <i>Greg Rich</i>
Signature/Print Name: <i>Greg Rich 5-12-23 1305</i>
Received by: <i>J Holland</i>
Signature/Print Name: <i>J Holland 5/12/23 1305</i>

Distribution: A copy will be made for the laboratory and client. The Project file will retain the original.

Chain of Custody Record & Laboratory Analysis Request

K2305517

Laboratory Number: 503-972-5019					No. of Containers		Parameters										 ANCHOR QEA Masa Kanematsu 6720 SW Macadam Ave Suite 125 Portland OR 97219 Comments/Preservation		
Date:	5/12/2023																		
Project Name:	Barry																		
Project Number:	221114-08.02 Task 06																		
Project Manager:	Masa Kanematsu																		
Phone Number:	503-972-5001 (backup number: 503-798-3456)																		
Shipment Method:	ALS Carrier																		
Line	Field Sample ID	Collection		Matrix	No.	Dissolved Metals (As, Fe, Min)										Comments/Preservation			
		Date	Time			As	Fe	Min	As	Co	Fe	Min	As	Co	Fe		Min		
1	BY-COL-DT-MW-1-PM-1	5/9/2023	8:56	Water	1	X													HNO3-Preserved; 0.45um-filtered.
2	BY-COL-DT-MW-8-PM-1	5/9/2023	8:57	Water	1	X													HNO3-Preserved; 0.45um-filtered.
3	BY-COL-DT-MW-10-PM-1	5/9/2023	8:58	Water	1	X													HNO3-Preserved; 0.45um-filtered.
4	BY-COL-DT-MW-15-PM-1	5/9/2023	8:59	Water	1		X												HNO3-Preserved; 0.45um-filtered.
5	BY-COL-DT-MW-15-FS-1	5/9/2023	9:00	Water	1		X												HNO3-Preserved; 0.45um-filtered.
6	BY-COL-DT-MW-24H-PM-1	5/9/2023	9:01	Water	1	X													HNO3-Preserved; 0.45um-filtered.
7	BY-COL-DT-MW-2-INF-1	5/9/2023	9:02	Water	1		X												HNO3-Preserved; 0.45um-filtered.
8	BY-COL-DT-MW-1-PM-2	5/10/2023	7:53	Water	1	X													HNO3-Preserved; 0.45um-filtered.
9	BY-COL-DT-MW-8-PM-2	5/10/2023	7:54	Water	1	X													HNO3-Preserved; 0.45um-filtered.
10	BY-COL-DT-MW-10-PM-2	5/10/2023	7:55	Water	1	X													HNO3-Preserved; 0.45um-filtered.
11	BY-COL-DT-MW-15-PM-2	5/10/2023	7:56	Water	1		X												HNO3-Preserved; 0.45um-filtered.
12	BY-COL-DT-MW-15-FS-2	5/10/2023	7:57	Water	1		X												HNO3-Preserved; 0.45um-filtered.
13	BY-COL-DT-MW-24H-PM-2	5/10/2023	7:58	Water	1	X													HNO3-Preserved; 0.45um-filtered.
14	BY-COL-DT-MW-2-INF-2	5/10/2023	7:59	Water	1		X												HNO3-Preserved; 0.45um-filtered.
15																			
16																			
17																			
18																			
19																			
20																			

Notes: Please Contact Masa (503-972-5001, mkanematsu@anchorqea.com) if running > 10X dilution. Please analyze by ICP-MS method 200.8 to achieve the MDL < 1 ppb.

Relinquished by: Emma Nordlund Signature/Print Name: <i>Emma Nordlund</i>	Company: Anchor QEA Date/Time: 5/12/23 8:22 AM	Received by: <i>Greg Rich</i> Signature/Print Name: Greg Rich 5-23 10:45
Relinquished by: <i>Greg Rich</i> Signature/Print Name: Greg Rich	Company: ALS Date/Time: 5-12-23 1:30	Received by: <i>[Signature]</i> Signature/Print Name: <i>[Signature]</i> 5/12/23 1:30

Distribution: A copy will be made for the laboratory and client. The Project file will retain the original. Page 1 of 2

Cooler Receipt and Preservation Form

Client Ancher

Service Request K2305517

Received: 5/12/23 Opened: 5/12/23 By: [Signature] Unloaded: 5/12/23 By: [Signature]

1. Samples were received via? USPS Fed Ex UPS DHL PDX Courier Hand Delivered
2. Samples were received in: (circle) Cooler Box Envelope Other NA
3. Were custody seals on coolers? NA Y N If yes, how many and where? _____
- If present, were custody seals intact? Y N If present, were they signed and dated? Y N

Temp Blank	Sample Temp	IR Gun	Cooler #/COC ID / NA	Out of temp indicate with "X"	PM Notified If out of temp	Tracking Number, <u>NA</u>	Filed
<u>S.S</u>		<u>ROZ</u>					

4. Was a Temperature Blank present in cooler? NA Y N If yes, notate the temperature in the appropriate column above:
 If no, take the temperature of a representative sample bottle contained within the cooler; notate in the column "Sample Temp":

5. Were samples received within the method specified temperature ranges? NA Y N
 If no, were they received on ice and same day as collected? If not, notate the cooler # above and notify the PM. NA Y N

If applicable, tissue samples were received: Frozen Partially Thawed Thawed

6. Packing material: Inserts Baggies Bubble Wrap Gel Packs Wet Ice Dry Ice Sleeves
7. Were custody papers properly filled out (ink, signed, etc.)? NA Y N
8. Were samples received in good condition (unbroken) NA Y N
9. Were all sample labels complete (ie, analysis, preservation, etc.)? NA Y N
10. Did all sample labels and tags agree with custody papers? NA Y N
11. Were appropriate bottles/containers and volumes received for the tests indicated? NA Y N
12. Were the pH-preserved bottles (see SMO GEN SOP) received at the appropriate pH? Indicate in the table below NA Y N
13. Were VOA vials received without headspace? Indicate in the table below. NA Y N
14. Was C12/Res negative? NA Y N
15. Were samples received within the method specified time limit? If not, notate the error below and notify the PM NA Y N
16. Were 100ml sterile microbiology bottles filled exactly to the 100ml mark? NA Y N Underfilled Overfilled

Sample ID on Bottle	Sample ID on COC	Identified by:

Sample ID	Bottle Count	Bottle Type	Head-space	Broke	pH	Reagent	Volume added	Reagent Lot Number	Initials	Time

Notes, Discrepancies, Resolutions: _____



Miscellaneous Forms

ALS Environmental—Kelso Laboratory
1317 South 13th Avenue, Kelso, WA 98626
Phone (360) 577-7222 Fax (360) 425-9096
www.alsglobal.com

Inorganic Data Qualifiers

- * The result is an outlier. See case narrative.
- # The control limit criteria is not applicable.
- B The analyte was found in the associated method blank at a level that is significant relative to the sample result as defined by the DOD or NELAC standards.
- E The result is an estimate amount because the value exceeded the instrument calibration range.
- J The result is an estimated value.
- U The analyte was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL.
DOD-QSM 4.2 definition : Analyte was not detected and is reported as less than the LOD or as defined by the project. The detection limit is adjusted for dilution.
- i The MRL/MDL or LOQ/LOD is elevated due to a matrix interference.
- X See case narrative.
- Q See case narrative. One or more quality control criteria was outside the limits.
- H The holding time for this test is immediately following sample collection. The samples were analyzed as soon as possible after receipt by the laboratory.

Metals Data Qualifiers

- # The control limit criteria is not applicable.
- J The result is an estimated value.
- E The percent difference for the serial dilution was greater than 10%, indicating a possible matrix interference in the sample.
- M The duplicate injection precision was not met.
- N The Matrix Spike sample recovery is not within control limits. See case narrative.
- S The reported value was determined by the Method of Standard Additions (MSA).
- U The analyte was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL.
DOD-QSM 4.2 definition : Analyte was not detected and is reported as less than the LOD or as defined by the project. The detection limit is adjusted for dilution.
- W The post-digestion spike for furnace AA analysis is out of control limits, while sample absorbance is less than 50% of spike absorbance.
 - i The MRL/MDL or LOQ/LOD is elevated due to a matrix interference.
- X See case narrative.
- + The correlation coefficient for the MSA is less than 0.995.
- Q See case narrative. One or more quality control criteria was outside the limits.

Organic Data Qualifiers

- * The result is an outlier. See case narrative.
- # The control limit criteria is not applicable. See case narrative.
- A A tentatively identified compound, a suspected aldol-condensation product.
- B The analyte was found in the associated method blank at a level that is significant relative to the sample result as defined by the DOD or NELAC standards.
- C The analyte was qualitatively confirmed using GC/MS techniques, pattern recognition, or by comparing to historical data.
- D The reported result is from a dilution.
- E The result is an estimated value.
- J The result is an estimated value.
- N The result is presumptive. The analyte was tentatively identified, but a confirmation analysis was not performed.
- P The GC or HPLC confirmation criteria was exceeded. The relative percent difference is greater than 40% between the two analytical results.
- U The analyte was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL.
DOD-QSM 4.2 definition : Analyte was not detected and is reported as less than the LOD or as defined by the project. The detection limit is adjusted for dilution.
 - i The MRL/MDL or LOQ/LOD is elevated due to a chromatographic interference.
- X See case narrative.
- Q See case narrative. One or more quality control criteria was outside the limits.

Additional Petroleum Hydrocarbon Specific Qualifiers

- F The chromatographic fingerprint of the sample matches the elution pattern of the calibration standard.
- L The chromatographic fingerprint of the sample resembles a petroleum product, but the elution pattern indicates the presence of a greater amount of lighter molecular weight constituents than the calibration standard.
- H The chromatographic fingerprint of the sample resembles a petroleum product, but the elution pattern indicates the presence of a greater amount of heavier molecular weight constituents than the calibration standard.
- O The chromatographic fingerprint of the sample resembles an oil, but does not match the calibration standard.
- Y The chromatographic fingerprint of the sample resembles a petroleum product eluting in approximately the correct carbon range, but the elution pattern does not match the calibration standard.
- Z The chromatographic fingerprint does not resemble a petroleum product.

**ALS Group USA Corp. dba ALS Environmental (ALS) - Kelso
State Certifications, Accreditations, and Licenses**

Agency	Web Site	Number
Alaska DEH	http://dec.alaska.gov/eh/lab/cs/csapproval.htm	UST-040
Arizona DHS	http://www.azdhs.gov/lab/license/env.htm	AZ0339
Arkansas - DEQ	http://www.adeq.state.ar.us/techsvs/labcert.htm	88-0637
California DHS (ELAP)	http://www.cdph.ca.gov/certlic/labs/Pages/ELAP.aspx	2795
DOD ELAP	http://www.denix.osd.mil/edqw/Accreditation/AccreditedLabs.cfm	L16-58-R4
Florida DOH	http://www.doh.state.fl.us/lab/EnvLabCert/WaterCert.htm	E87412
Hawaii DOH	http://health.hawaii.gov/	-
ISO 17025	http://www.pjllabs.com/	L16-57
Louisiana DEQ	http://www.deq.louisiana.gov/page/la-lab-accreditation	03016
Maine DHS	http://www.maine.gov/dhhs/	WA01276
Minnesota DOH	http://www.health.state.mn.us/accreditation	053-999-457
Nevada DEP	http://ndep.nv.gov/bsdw/labservice.htm	WA01276
New Jersey DEP	http://www.nj.gov/dep/enforcement/oqa.html	WA005
New York - DOH	https://www.wadsworth.org/regulatory/elap	12060
North Carolina DEQ	https://deq.nc.gov/about/divisions/water-resources/water-resources-data/water-sciences-home-page/laboratory-certification-branch/non-field-lab-certification	605
Oklahoma DEQ	http://www.deq.state.ok.us/CSDnew/labcert.htm	9801
Oregon – DEQ (NELAP)	http://public.health.oregon.gov/LaboratoryServices/EnvironmentalLaboratoryAccreditation/Pages/index.aspx	WA100010
South Carolina DHEC	http://www.scdhec.gov/environment/EnvironmentalLabCertification/	61002
Texas CEQ	http://www.tceq.texas.gov/field/qa/env_lab_accreditation.html	T104704427
Washington DOE	http://www.ecy.wa.gov/programs/eap/labs/lab-accreditation.html	C544
Wyoming (EPA Region 8)	https://www.epa.gov/region8-waterops/epa-region-8-certified-drinking-water	-
Kelso Laboratory Website	www.alsglobal.com	NA

Analyses were performed according to our laboratory's NELAP-approved quality assurance program. A complete listing of specific NELAP-certified analytes, can be found in the certification section at www.ALSGlobal.com or at the accreditation bodies web site.

Please refer to the certification and/or accreditation body's web site if samples are submitted for compliance purposes. The states highlighted above, require the analysis be listed on the state certification if used for compliance purposes and if the method/analyte is offered by that state.

Acronyms

ASTM	American Society for Testing and Materials
A2LA	American Association for Laboratory Accreditation
CARB	California Air Resources Board
CAS Number	Chemical Abstract Service registry Number
CFC	Chlorofluorocarbon
CFU	Colony-Forming Unit
DEC	Department of Environmental Conservation
DEQ	Department of Environmental Quality
DHS	Department of Health Services
DOE	Department of Ecology
DOH	Department of Health
EPA	U. S. Environmental Protection Agency
ELAP	Environmental Laboratory Accreditation Program
GC	Gas Chromatography
GC/MS	Gas Chromatography/Mass Spectrometry
LOD	Limit of Detection
LOQ	Limit of Quantitation
LUFT	Leaking Underground Fuel Tank
M	Modified
MCL	Maximum Contaminant Level is the highest permissible concentration of a substance allowed in drinking water as established by the USEPA.
MDL	Method Detection Limit
MPN	Most Probable Number
MRL	Method Reporting Limit
NA	Not Applicable
NC	Not Calculated
NCASI	National Council of the Paper Industry for Air and Stream Improvement
ND	Not Detected
NIOSH	National Institute for Occupational Safety and Health
PQL	Practical Quantitation Limit
RCRA	Resource Conservation and Recovery Act
SIM	Selected Ion Monitoring
TPH	Total Petroleum Hydrocarbons
tr	Trace level is the concentration of an analyte that is less than the PQL but greater than or equal to the MDL.

ALS Group USA, Corp.
dba ALS Environmental

Analyst Summary report

Client: Anchor QEA, LLC
Project: Barry/221114-08.02 Task 06

Service Request: K2305517

Sample Name: BY-COL-DT-MW-1-PM-1
Lab Code: K2305517-001
Sample Matrix: Water

Date Collected: 05/9/23
Date Received: 05/12/23

Analysis Method
200.8

Extracted/Digested By
SSOLADEY

Analyzed By
EMCALLISTER

Sample Name: BY-COL-DT-MW-8-PM-1
Lab Code: K2305517-002
Sample Matrix: Water

Date Collected: 05/9/23
Date Received: 05/12/23

Analysis Method
200.8

Extracted/Digested By
SSOLADEY

Analyzed By
EMCALLISTER

Sample Name: BY-COL-DT-MW-10-PM-1
Lab Code: K2305517-003
Sample Matrix: Water

Date Collected: 05/9/23
Date Received: 05/12/23

Analysis Method
200.8

Extracted/Digested By
SSOLADEY

Analyzed By
EMCALLISTER

Sample Name: BY-COL-DT-MW-15-PM-1
Lab Code: K2305517-004
Sample Matrix: Water

Date Collected: 05/9/23
Date Received: 05/12/23

Analysis Method
200.8

Extracted/Digested By
SSOLADEY

Analyzed By
EMCALLISTER

Sample Name: BY-COL-DT-MW-15-FS-1
Lab Code: K2305517-005
Sample Matrix: Water

Date Collected: 05/9/23
Date Received: 05/12/23

Analysis Method
200.8

Extracted/Digested By
SSOLADEY

Analyzed By
EMCALLISTER

ALS Group USA, Corp.
dba ALS Environmental

Analyst Summary report

Client: Anchor QEA, LLC
Project: Barry/221114-08.02 Task 06

Service Request: K2305517

Sample Name: BY-COL-DT-MW-24H-PM-1
Lab Code: K2305517-006
Sample Matrix: Water

Date Collected: 05/9/23
Date Received: 05/12/23

Analysis Method
200.8

Extracted/Digested By
SSOLADEY

Analyzed By
EMCALLISTER

Sample Name: BY-COL-DT-MW-2-INF-1
Lab Code: K2305517-007
Sample Matrix: Water

Date Collected: 05/9/23
Date Received: 05/12/23

Analysis Method
200.8

Extracted/Digested By
SSOLADEY

Analyzed By
EMCALLISTER

Sample Name: BY-COL-DT-MW-1-PM-2
Lab Code: K2305517-008
Sample Matrix: Water

Date Collected: 05/10/23
Date Received: 05/12/23

Analysis Method
200.8

Extracted/Digested By
SSOLADEY

Analyzed By
EMCALLISTER

Sample Name: BY-COL-DT-MW-8-PM-2
Lab Code: K2305517-009
Sample Matrix: Water

Date Collected: 05/10/23
Date Received: 05/12/23

Analysis Method
200.8

Extracted/Digested By
SSOLADEY

Analyzed By
EMCALLISTER

Sample Name: BY-COL-DT-MW-10-PM-2
Lab Code: K2305517-010
Sample Matrix: Water

Date Collected: 05/10/23
Date Received: 05/12/23

Analysis Method
200.8

Extracted/Digested By
SSOLADEY

Analyzed By
EMCALLISTER

ALS Group USA, Corp.
dba ALS Environmental

Analyst Summary report

Client: Anchor QEA, LLC
Project: Barry/221114-08.02 Task 06

Service Request: K2305517

Sample Name: BY-COL-DT-MW-15-PM-2
Lab Code: K2305517-011
Sample Matrix: Water

Date Collected: 05/10/23
Date Received: 05/12/23

Analysis Method
200.8

Extracted/Digested By
SSOLADEY

Analyzed By
EMCALLISTER

Sample Name: BY-COL-DT-MW-15-FS-2
Lab Code: K2305517-012
Sample Matrix: Water

Date Collected: 05/10/23
Date Received: 05/12/23

Analysis Method
200.8

Extracted/Digested By
SSOLADEY

Analyzed By
EMCALLISTER

Sample Name: BY-COL-DT-MW-24H-PM-2
Lab Code: K2305517-013
Sample Matrix: Water

Date Collected: 05/10/23
Date Received: 05/12/23

Analysis Method
200.8

Extracted/Digested By
SSOLADEY

Analyzed By
EMCALLISTER

Sample Name: BY-COL-DT-MW-2-INF-2
Lab Code: K2305517-014
Sample Matrix: Water

Date Collected: 05/10/23
Date Received: 05/12/23

Analysis Method
200.8

Extracted/Digested By
SSOLADEY

Analyzed By
EMCALLISTER

Sample Name: BY-COL-DT-MW-1-PM-3
Lab Code: K2305517-015
Sample Matrix: Water

Date Collected: 05/11/23
Date Received: 05/12/23

Analysis Method
200.8

Extracted/Digested By
SSOLADEY

Analyzed By
EMCALLISTER

ALS Group USA, Corp.
dba ALS Environmental

Analyst Summary report

Client: Anchor QEA, LLC
Project: Barry/221114-08.02 Task 06

Service Request: K2305517

Sample Name: BY-COL-DT-MW-8-PM-3
Lab Code: K2305517-016
Sample Matrix: Water

Date Collected: 05/11/23
Date Received: 05/12/23

Analysis Method
200.8

Extracted/Digested By
SSOLADEY

Analyzed By
EMCALLISTER

Sample Name: BY-COL-DT-MW-10-PM-3
Lab Code: K2305517-017
Sample Matrix: Water

Date Collected: 05/11/23
Date Received: 05/12/23

Analysis Method
200.8

Extracted/Digested By
SSOLADEY

Analyzed By
EMCALLISTER

Sample Name: BY-COL-DT-MW-15-PM-3
Lab Code: K2305517-018
Sample Matrix: Water

Date Collected: 05/11/23
Date Received: 05/12/23

Analysis Method
200.8

Extracted/Digested By
SSOLADEY

Analyzed By
EMCALLISTER

Sample Name: BY-COL-DT-MW-15-FS-3
Lab Code: K2305517-019
Sample Matrix: Water

Date Collected: 05/11/23
Date Received: 05/12/23

Analysis Method
200.8

Extracted/Digested By
SSOLADEY

Analyzed By
EMCALLISTER

Sample Name: BY-COL-DT-MW-24H-PM-3
Lab Code: K2305517-020
Sample Matrix: Water

Date Collected: 05/11/23
Date Received: 05/12/23

Analysis Method
200.8

Extracted/Digested By
SSOLADEY

Analyzed By
EMCALLISTER

ALS Group USA, Corp.
dba ALS Environmental

Analyst Summary report

Client: Anchor QEA, LLC
Project: Barry/221114-08.02 Task 06

Service Request: K2305517

Sample Name: BY-COL-DT-MW-2-INF-3
Lab Code: K2305517-021
Sample Matrix: Water

Date Collected: 05/11/23
Date Received: 05/12/23

Analysis Method
200.8

Extracted/Digested By
SSOLADEY

Analyzed By
JCHAN



Sample Results

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Metals

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www.alsglobal.com

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.02 Task 06
Sample Matrix: Water
Sample Name: BY-COL-DT-MW-1-PM-1
Lab Code: K2305517-001

Service Request: K2305517
Date Collected: 05/09/23 08:56
Date Received: 05/12/23 13:05
Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	ND U	ug/L	0.50	0.09	1	05/24/23 16:03	05/17/23	
Iron	200.8	186	ug/L	2.0	0.3	1	05/24/23 16:03	05/17/23	
Manganese	200.8	1190	ug/L	0.20	0.04	1	05/24/23 16:03	05/17/23	

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dba ALS Environmental

Analytical Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.02 Task 06
Sample Matrix: Water
Sample Name: BY-COL-DT-MW-8-PM-1
Lab Code: K2305517-002

Service Request: K2305517
Date Collected: 05/09/23 08:57
Date Received: 05/12/23 13:05
Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	13.3	ug/L	0.50	0.09	1	05/24/23 16:04	05/17/23	
Iron	200.8	71.1	ug/L	2.0	0.3	1	05/24/23 16:04	05/17/23	
Manganese	200.8	819	ug/L	0.20	0.04	1	05/24/23 16:04	05/17/23	

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Analytical Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.02 Task 06
Sample Matrix: Water
Sample Name: BY-COL-DT-MW-10-PM-1
Lab Code: K2305517-003

Service Request: K2305517
Date Collected: 05/09/23 08:58
Date Received: 05/12/23 13:05
Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	0.31 J	ug/L	0.50	0.09	1	05/24/23 16:05	05/17/23	
Iron	200.8	2.6	ug/L	2.0	0.3	1	05/24/23 16:05	05/17/23	
Manganese	200.8	71.4	ug/L	0.20	0.04	1	05/24/23 16:05	05/17/23	

ALS Group USA, Corp.
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Analytical Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.02 Task 06
Sample Matrix: Water
Sample Name: BY-COL-DT-MW-15-PM-1
Lab Code: K2305517-004

Service Request: K2305517
Date Collected: 05/09/23 08:59
Date Received: 05/12/23 13:05
Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	ND U	ug/L	0.50	0.09	1	05/24/23 16:07	05/17/23	
Cobalt	200.8	1.01	ug/L	0.020	0.009	1	05/24/23 16:07	05/17/23	
Iron	200.8	0.7 J	ug/L	2.0	0.3	1	05/24/23 16:07	05/17/23	
Manganese	200.8	271	ug/L	0.20	0.04	1	05/24/23 16:07	05/17/23	

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dba ALS Environmental

Analytical Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.02 Task 06
Sample Matrix: Water
Sample Name: BY-COL-DT-MW-15-FS-1
Lab Code: K2305517-005

Service Request: K2305517
Date Collected: 05/09/23 09:00
Date Received: 05/12/23 13:05

Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	ND U	ug/L	0.50	0.09	1	05/24/23 16:08	05/17/23	
Cobalt	200.8	13.8	ug/L	0.020	0.009	1	05/24/23 16:08	05/17/23	
Iron	200.8	9.9	ug/L	2.0	0.3	1	05/24/23 16:08	05/17/23	
Manganese	200.8	111	ug/L	0.20	0.04	1	05/24/23 16:08	05/17/23	

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Analytical Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.02 Task 06
Sample Matrix: Water
Sample Name: BY-COL-DT-MW-24H-PM-1
Lab Code: K2305517-006

Service Request: K2305517
Date Collected: 05/09/23 09:01
Date Received: 05/12/23 13:05

Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	0.10 J	ug/L	0.50	0.09	1	05/24/23 16:10	05/17/23	
Iron	200.8	2740	ug/L	2.0	0.3	1	05/24/23 16:10	05/17/23	
Manganese	200.8	655	ug/L	0.20	0.04	1	05/24/23 16:10	05/17/23	

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Analytical Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.02 Task 06
Sample Matrix: Water
Sample Name: BY-COL-DT-MW-2-INF-1
Lab Code: K2305517-007

Service Request: K2305517
Date Collected: 05/09/23 09:02
Date Received: 05/12/23 13:05
Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	1.18	ug/L	0.50	0.09	1	05/24/23 16:11	05/17/23	
Cobalt	200.8	4.04	ug/L	0.020	0.009	1	05/24/23 16:11	05/17/23	
Iron	200.8	1.4 J	ug/L	2.0	0.3	1	05/24/23 16:11	05/17/23	
Manganese	200.8	190	ug/L	0.20	0.04	1	05/24/23 16:11	05/17/23	

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Analytical Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.02 Task 06
Sample Matrix: Water
Sample Name: BY-COL-DT-MW-1-PM-2
Lab Code: K2305517-008

Service Request: K2305517
Date Collected: 05/10/23 07:53
Date Received: 05/12/23 13:05
Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	ND U	ug/L	0.50	0.09	1	05/24/23 16:18	05/17/23	
Iron	200.8	34.5	ug/L	2.0	0.3	1	05/24/23 16:18	05/17/23	
Manganese	200.8	752	ug/L	0.20	0.04	1	05/24/23 16:18	05/17/23	

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Analytical Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.02 Task 06
Sample Matrix: Water
Sample Name: BY-COL-DT-MW-8-PM-2
Lab Code: K2305517-009

Service Request: K2305517
Date Collected: 05/10/23 07:54
Date Received: 05/12/23 13:05
Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	12.0	ug/L	0.50	0.09	1	05/24/23 16:20	05/17/23	
Iron	200.8	35.4	ug/L	2.0	0.3	1	05/24/23 16:20	05/17/23	
Manganese	200.8	785	ug/L	0.20	0.04	1	05/24/23 16:20	05/17/23	

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Analytical Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.02 Task 06
Sample Matrix: Water
Sample Name: BY-COL-DT-MW-10-PM-2
Lab Code: K2305517-010

Service Request: K2305517
Date Collected: 05/10/23 07:55
Date Received: 05/12/23 13:05
Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	0.31 J	ug/L	0.50	0.09	1	05/24/23 16:21	05/17/23	
Iron	200.8	1.7 J	ug/L	2.0	0.3	1	05/24/23 16:21	05/17/23	
Manganese	200.8	131	ug/L	0.20	0.04	1	05/24/23 16:21	05/17/23	

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Analytical Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.02 Task 06
Sample Matrix: Water
Sample Name: BY-COL-DT-MW-15-PM-2
Lab Code: K2305517-011

Service Request: K2305517
Date Collected: 05/10/23 07:56
Date Received: 05/12/23 13:05
Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	ND U	ug/L	0.50	0.09	1	05/24/23 16:23	05/17/23	
Cobalt	200.8	1.39	ug/L	0.020	0.009	1	05/24/23 16:23	05/17/23	
Iron	200.8	1.6 J	ug/L	2.0	0.3	1	05/24/23 16:23	05/17/23	
Manganese	200.8	341	ug/L	0.20	0.04	1	05/24/23 16:23	05/17/23	

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Analytical Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.02 Task 06
Sample Matrix: Water
Sample Name: BY-COL-DT-MW-15-FS-2
Lab Code: K2305517-012

Service Request: K2305517
Date Collected: 05/10/23 07:57
Date Received: 05/12/23 13:05
Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	0.10 J	ug/L	0.50	0.09	1	05/24/23 16:24	05/17/23	
Cobalt	200.8	15.6	ug/L	0.020	0.009	1	05/24/23 16:24	05/17/23	
Iron	200.8	4.0	ug/L	2.0	0.3	1	05/24/23 16:24	05/17/23	
Manganese	200.8	140	ug/L	0.20	0.04	1	05/24/23 16:24	05/17/23	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.02 Task 06
Sample Matrix: Water
Sample Name: BY-COL-DT-MW-24H-PM-2
Lab Code: K2305517-013

Service Request: K2305517
Date Collected: 05/10/23 07:58
Date Received: 05/12/23 13:05
Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	ND U	ug/L	0.50	0.09	1	05/24/23 16:25	05/17/23	
Iron	200.8	420	ug/L	2.0	0.3	1	05/24/23 16:25	05/17/23	
Manganese	200.8	141	ug/L	0.20	0.04	1	05/24/23 16:25	05/17/23	

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Analytical Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.02 Task 06
Sample Matrix: Water
Sample Name: BY-COL-DT-MW-2-INF-2
Lab Code: K2305517-014

Service Request: K2305517
Date Collected: 05/10/23 07:59
Date Received: 05/12/23 13:05
Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	1.13	ug/L	0.50	0.09	1	05/24/23 16:27	05/17/23	
Cobalt	200.8	4.15	ug/L	0.020	0.009	1	05/24/23 16:27	05/17/23	
Iron	200.8	3.5	ug/L	2.0	0.3	1	05/24/23 16:27	05/17/23	
Manganese	200.8	195	ug/L	0.20	0.04	1	05/24/23 16:27	05/17/23	

ALS Group USA, Corp.
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Analytical Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.02 Task 06
Sample Matrix: Water
Sample Name: BY-COL-DT-MW-1-PM-3
Lab Code: K2305517-015

Service Request: K2305517
Date Collected: 05/11/23 10:58
Date Received: 05/12/23 13:05
Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	ND U	ug/L	0.50	0.09	1	05/24/23 16:34	05/17/23	
Iron	200.8	30.2	ug/L	2.0	0.3	1	05/24/23 16:34	05/17/23	
Manganese	200.8	676	ug/L	0.20	0.04	1	05/24/23 16:34	05/17/23	

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dba ALS Environmental

Analytical Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.02 Task 06
Sample Matrix: Water
Sample Name: BY-COL-DT-MW-8-PM-3
Lab Code: K2305517-016

Service Request: K2305517
Date Collected: 05/11/23 10:59
Date Received: 05/12/23 13:05
Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	10.3	ug/L	0.50	0.09	1	05/24/23 16:36	05/17/23	
Iron	200.8	21.5	ug/L	2.0	0.3	1	05/24/23 16:36	05/17/23	
Manganese	200.8	729	ug/L	0.20	0.04	1	05/24/23 16:36	05/17/23	

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Analytical Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.02 Task 06
Sample Matrix: Water
Sample Name: BY-COL-DT-MW-10-PM-3
Lab Code: K2305517-017

Service Request: K2305517
Date Collected: 05/11/23 11:00
Date Received: 05/12/23 13:05
Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	0.21 J	ug/L	0.50	0.09	1	05/24/23 16:37	05/17/23	
Iron	200.8	4.1	ug/L	2.0	0.3	1	05/24/23 16:37	05/17/23	
Manganese	200.8	359	ug/L	0.20	0.04	1	05/24/23 16:37	05/17/23	

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Analytical Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.02 Task 06
Sample Matrix: Water
Sample Name: BY-COL-DT-MW-15-PM-3
Lab Code: K2305517-018

Service Request: K2305517
Date Collected: 05/11/23 11:01
Date Received: 05/12/23 13:05

Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	ND U	ug/L	0.50	0.09	1	05/24/23 16:38	05/17/23	
Cobalt	200.8	1.37	ug/L	0.020	0.009	1	05/24/23 16:38	05/17/23	
Iron	200.8	1.3 J	ug/L	2.0	0.3	1	05/24/23 16:38	05/17/23	
Manganese	200.8	344	ug/L	0.20	0.04	1	05/24/23 16:38	05/17/23	

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dba ALS Environmental

Analytical Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.02 Task 06
Sample Matrix: Water
Sample Name: BY-COL-DT-MW-15-FS-3
Lab Code: K2305517-019

Service Request: K2305517
Date Collected: 05/11/23 11:02
Date Received: 05/12/23 13:05
Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	0.09 J	ug/L	0.50	0.09	1	05/24/23 16:40	05/17/23	
Cobalt	200.8	13.7	ug/L	0.020	0.009	1	05/24/23 16:40	05/17/23	
Iron	200.8	2.8	ug/L	2.0	0.3	1	05/24/23 16:40	05/17/23	
Manganese	200.8	135	ug/L	0.20	0.04	1	05/24/23 16:40	05/17/23	

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Analytical Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.02 Task 06
Sample Matrix: Water
Sample Name: BY-COL-DT-MW-24H-PM-3
Lab Code: K2305517-020

Service Request: K2305517
Date Collected: 05/11/23 11:03
Date Received: 05/12/23 13:05
Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	ND U	ug/L	0.50	0.09	1	05/24/23 16:41	05/17/23	
Iron	200.8	80.1	ug/L	2.0	0.3	1	05/24/23 16:41	05/17/23	
Manganese	200.8	291	ug/L	0.20	0.04	1	05/24/23 16:41	05/17/23	

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Analytical Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.02 Task 06
Sample Matrix: Water
Sample Name: BY-COL-DT-MW-2-INF-3
Lab Code: K2305517-021

Service Request: K2305517
Date Collected: 05/11/23 11:04
Date Received: 05/12/23 13:05
Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	1.11	ug/L	0.50	0.09	1	05/24/23 14:05	05/17/23	
Cobalt	200.8	3.59	ug/L	0.020	0.009	1	05/24/23 14:05	05/17/23	
Iron	200.8	2.3	ug/L	2.0	0.3	1	05/24/23 14:05	05/17/23	
Manganese	200.8	174	ug/L	0.20	0.04	1	05/24/23 14:05	05/17/23	



QC Summary Forms

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Analytical Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.02 Task 06
Sample Matrix: Water
Sample Name: Method Blank
Lab Code: KQ2308684-01

Service Request: K2305517
Date Collected: NA
Date Received: NA
Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	ND U	ug/L	0.50	0.09	1	05/24/23 16:00	05/17/23	
Cobalt	200.8	ND U	ug/L	0.020	0.009	1	05/24/23 16:00	05/17/23	
Iron	200.8	0.6 J	ug/L	2.0	0.3	1	05/24/23 16:00	05/17/23	
Manganese	200.8	1.10	ug/L	0.20	0.04	1	05/24/23 16:00	05/17/23	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.02 Task 06
Sample Matrix: Water
Sample Name: Method Blank
Lab Code: KQ2308685-01

Service Request: K2305517
Date Collected: NA
Date Received: NA
Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	ND U	ug/L	0.50	0.09	1	05/24/23 13:46	05/17/23	
Cobalt	200.8	ND U	ug/L	0.020	0.009	1	05/24/23 13:46	05/17/23	
Iron	200.8	ND U	ug/L	2.0	0.3	1	05/24/23 13:46	05/17/23	
Manganese	200.8	0.07 J	ug/L	0.20	0.04	1	05/24/23 13:46	05/17/23	

ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.02 Task 06
Sample Matrix: Water

Service Request: K2305517
Date Collected: 05/09/23
Date Received: 05/12/23
Date Analyzed: 05/24/23
Date Extracted: 05/17/23

Matrix Spike Summary
Dissolved Metals

Sample Name: BY-COL-DT-MW-2-INF-1
Lab Code: K2305517-007
Analysis Method: 200.8
Prep Method: EPA CLP ILM04.0

Units: ug/L
Basis: NA

Matrix Spike
KQ2308684-04

Analyte Name	Sample Result	Result	Spike Amount	% Rec	% Rec Limits
Arsenic	1.18	50.3	50.0	98	70-130
Cobalt	4.04	29.9	25.0	103	70-130
Iron	1.4 J	52.0	50.0	101	70-130
Manganese	190	219	25.0	116 #	70-130

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

Matrix Spike and Matrix Spike Duplicate Data is presented for information purposes only. The matrix may or may not be relevant to samples reported in this report. The laboratory evaluates system performance based on the LCS and LCSD control limits.

ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.02 Task 06
Sample Matrix: Water

Service Request: K2305517
Date Collected: 05/10/23
Date Received: 05/12/23
Date Analyzed: 05/24/23
Date Extracted: 05/17/23

Matrix Spike Summary
Dissolved Metals

Sample Name: BY-COL-DT-MW-2-INF-2
Lab Code: K2305517-014
Analysis Method: 200.8
Prep Method: EPA CLP ILM04.0

Units: ug/L
Basis: NA

Matrix Spike
KQ2308684-06

Analyte Name	Sample Result	Result	Spike Amount	% Rec	% Rec Limits
Arsenic	1.13	49.8	50.0	97	70-130
Cobalt	4.15	29.5	25.0	101	70-130
Iron	3.5	53.3	50.0	100	70-130
Manganese	195	220	25.0	98 #	70-130

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

Matrix Spike and Matrix Spike Duplicate Data is presented for information purposes only. The matrix may or may not be relevant to samples reported in this report. The laboratory evaluates system performance based on the LCS and LCSD control limits.

ALS Group USA, Corp.

dba ALS Environmental

QA/QC Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.02 Task 06
Sample Matrix: Water

Service Request: K2305517
Date Collected: 05/09/23
Date Received: 05/12/23
Date Analyzed: 05/24/23

Replicate Sample Summary
Dissolved Metals

Sample Name: BY-COL-DT-MW-2-INF-1
Lab Code: K2305517-007

Units: ug/L
Basis: NA

Analyte Name	Analysis Method	MRL	MDL	Sample Result	Duplicate	Average	RPD	RPD Limit
					Sample KQ2308684-03			
Arsenic	200.8	0.50	0.09	1.18	1.18	1.18	<1	20
Cobalt	200.8	0.020	0.009	4.04	4.07	4.06	<1	20
Iron	200.8	2.0	0.3	1.4 J	1.1 J	1.3	24 #	20
Manganese	200.8	0.20	0.04	190	192	191	1	20

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

ALS Group USA, Corp.

dba ALS Environmental

QA/QC Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.02 Task 06
Sample Matrix: Water

Service Request: K2305517
Date Collected: 05/10/23
Date Received: 05/12/23
Date Analyzed: 05/24/23

Replicate Sample Summary

Dissolved Metals

Sample Name: BY-COL-DT-MW-2-INF-2
Lab Code: K2305517-014

Units: ug/L
Basis: NA

Table with 9 columns: Analyte Name, Analysis Method, MRL, MDL, Sample Result, Duplicate Sample KQ2308684-05 Result, Average, RPD, RPD Limit. Rows include Arsenic, Cobalt, Iron, and Manganese.

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.02 Task 06
Sample Matrix: Water

Service Request: K2305517
Date Analyzed: 05/24/23

Lab Control Sample Summary
Dissolved Metals

Units:ug/L
Basis:NA

Lab Control Sample
KQ2308684-02

Analyte Name	Analytical Method	Result	Spike Amount	% Rec	% Rec Limits
Arsenic	200.8	48.9	50.0	98	85-115
Cobalt	200.8	25.4	25.0	102	85-115
Iron	200.8	52.1	50.0	104	85-115
Manganese	200.8	25.0	25.0	100	85-115

ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client: Anchor QEA, LLC
Project: Barry/221114-08.02 Task 06
Sample Matrix: Water

Service Request: K2305517
Date Analyzed: 05/24/23

Lab Control Sample Summary
Dissolved Metals

Units:ug/L
Basis:NA

Lab Control Sample
KQ2308685-02

Analyte Name	Analytical Method	Result	Spike Amount	% Rec	% Rec Limits
Arsenic	200.8	48.0	50.0	96	85-115
Cobalt	200.8	23.7	25.0	95	85-115
Iron	200.8	46.7	50.0	93	85-115
Manganese	200.8	23.5	25.0	94	85-115



June 29, 2023

Service Request No:K2306335

Masa Kanematsu
Anchor QEA, LLC
6720 SW Macadam Avenue
Suite 125
Portland, OR 97219

Laboratory Results for: 2023-Barry

Dear Masa,

Enclosed are the results of the sample(s) submitted to our laboratory June 06, 2023
For your reference, these analyses have been assigned our service request number **K2306335**.

Analyses were performed according to our laboratory's NELAP-approved quality assurance program. The test results meet requirements of the current NELAP standards, where applicable, and except as noted in the laboratory case narrative provided. For a specific list of NELAP-accredited analytes, refer to the certifications section at www.alsglobal.com. All results are intended to be considered in their entirety, and ALS Group USA Corp. dba ALS Environmental (ALS) is not responsible for use of less than the complete report. Results apply only to the items submitted to the laboratory for analysis and individual items (samples) analyzed, as listed in the report.

Please contact me if you have any questions. My extension is 3376. You may also contact me via email at Mark.Harris@alsglobal.com.

Respectfully submitted,

ALS Group USA, Corp. dba ALS Environmental

Mark Harris
Project Manager

ADDRESS 1317 S. 13th Avenue, Kelso, WA 98626
PHONE +1 360 577 7222 | FAX +1 360 636 1068
ALS Group USA, Corp.
dba ALS Environmental



Narrative Documents

ALS Environmental—Kelso Laboratory
1317 South 13th Avenue, Kelso, WA 98626
Phone (360) 577-7222 Fax (360) 425-9096
www.alsglobal.com



Client: Anchor QEA, LLC
Project: 2023-Barry
Sample Matrix: Water

Service Request: K2306335
Date Received: 06/06/2023

CASE NARRATIVE

All analyses were performed consistent with the quality assurance program of ALS Environmental. This report contains analytical results for samples for the Tier II level requested by the client.

Sample Receipt:

Twenty eight water samples were received for analysis at ALS Environmental on 06/06/2023. Any discrepancies upon initial sample inspection are annotated on the sample receipt and preservation form included within this report. The samples were stored at minimum in accordance with the analytical method requirements.

Metals:

No significant anomalies were noted with this analysis.

Noel D. O'Connell

Approved by _____

Date 06/29/2023



SAMPLE DETECTION SUMMARY

This form includes only detections above the reporting levels. For a full listing of sample results, continue to the Sample Results section of this Report.

CLIENT ID: BY-COL-SSE-MW-15-FS_F1	Lab ID: K2306335-001
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Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	0.68		0.09	0.50	ug/L	200.8
Cobalt, Dissolved	0.979		0.009	0.020	ug/L	200.8
Iron, Dissolved	2.7		0.3	2.0	ug/L	200.8
Manganese, Dissolved	30.7		0.04	0.20	ug/L	200.8

CLIENT ID: BY-COL-SSE-MW-15-FS_F2	Lab ID: K2306335-002
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Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	11.0		0.09	0.50	ug/L	200.8
Cobalt, Dissolved	5.65		0.009	0.020	ug/L	200.8
Iron, Dissolved	4500		0.3	2.0	ug/L	200.8
Manganese, Dissolved	101		0.04	0.20	ug/L	200.8

CLIENT ID: BY-COL-SSE-MW-15-FS_F3	Lab ID: K2306335-003
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Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	0.25	J	0.09	0.50	ug/L	200.8
Cobalt, Dissolved	0.411		0.009	0.020	ug/L	200.8
Iron, Dissolved	3790		0.3	2.0	ug/L	200.8
Manganese, Dissolved	4.19		0.04	0.20	ug/L	200.8

CLIENT ID: BY-COL-SSE-MW-15-FS_F4	Lab ID: K2306335-004
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Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	3.38		0.09	0.50	ug/L	200.8
Cobalt, Dissolved	3.18		0.009	0.020	ug/L	200.8
Iron, Dissolved	17900		0.3	2.0	ug/L	200.8
Manganese, Dissolved	26.3		0.04	0.20	ug/L	200.8

CLIENT ID: BY-COL-SSE-MW-15-PM_DUP-F1	Lab ID: K2306335-005
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Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	0.52		0.09	0.50	ug/L	200.8
Cobalt, Dissolved	1.50		0.009	0.020	ug/L	200.8
Iron, Dissolved	7.9		0.3	2.0	ug/L	200.8
Manganese, Dissolved	77.7		0.04	0.20	ug/L	200.8

CLIENT ID: BY-COL-SSE-MW-15-PM_DUP-F2	Lab ID: K2306335-006
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Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	11.8		0.09	0.50	ug/L	200.8
Cobalt, Dissolved	8.40		0.009	0.020	ug/L	200.8
Iron, Dissolved	4400		0.3	2.0	ug/L	200.8
Manganese, Dissolved	295		0.04	0.20	ug/L	200.8

CLIENT ID: BY-COL-SSE-MW-15-PM_DUP-F3	Lab ID: K2306335-007
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Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	0.37	J	0.09	0.50	ug/L	200.8



SAMPLE DETECTION SUMMARY

This form includes only detections above the reporting levels. For a full listing of sample results, continue to the Sample Results section of this Report.

CLIENT ID: BY-COL-SSE-MW-15-PM_DUP-F3	Lab ID: K2306335-007
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Analyte	Results	Flag	MDL	MRL	Units	Method
Cobalt, Dissolved	1.57		0.009	0.020	ug/L	200.8
Iron, Dissolved	5280		0.3	2.0	ug/L	200.8
Manganese, Dissolved	59.1		0.04	0.20	ug/L	200.8

CLIENT ID: BY-COL-SSE-MW-15-PM_DUP-F4	Lab ID: K2306335-008
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Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	4.77		0.09	0.50	ug/L	200.8
Cobalt, Dissolved	2.92		0.009	0.020	ug/L	200.8
Iron, Dissolved	18100		0.3	2.0	ug/L	200.8
Manganese, Dissolved	54.7		0.04	0.20	ug/L	200.8

CLIENT ID: BY-COL-SSE-MW-15-PM_F1	Lab ID: K2306335-009
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Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	0.50	J	0.09	0.50	ug/L	200.8
Cobalt, Dissolved	1.56		0.009	0.020	ug/L	200.8
Iron, Dissolved	14.8		0.3	2.0	ug/L	200.8
Manganese, Dissolved	81.6		0.04	2.0	ug/L	200.8

CLIENT ID: BY-COL-SSE-MW-15-PM_F2	Lab ID: K2306335-010
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Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	11.5		0.09	0.50	ug/L	200.8
Cobalt, Dissolved	8.88		0.009	0.020	ug/L	200.8
Iron, Dissolved	4590		0.3	2.0	ug/L	200.8
Manganese, Dissolved	286		0.04	2.0	ug/L	200.8

CLIENT ID: BY-COL-SSE-MW-15-PM_F3	Lab ID: K2306335-011
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Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	0.41	J	0.09	0.50	ug/L	200.8
Cobalt, Dissolved	1.72		0.009	0.020	ug/L	200.8
Iron, Dissolved	5620		0.3	2.0	ug/L	200.8
Manganese, Dissolved	61.5		0.04	2.0	ug/L	200.8

CLIENT ID: BY-COL-SSE-MW-15-PM_F4	Lab ID: K2306335-012
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Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	4.95		0.09	0.50	ug/L	200.8
Cobalt, Dissolved	3.68		0.009	0.020	ug/L	200.8
Iron, Dissolved	17700		0.3	2.0	ug/L	200.8
Manganese, Dissolved	51.8		0.04	2.0	ug/L	200.8

CLIENT ID: BY-COL-SSE-MW-8-PM_F1	Lab ID: K2306335-013
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Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	4.78		0.09	0.50	ug/L	200.8
Iron, Dissolved	8.3		0.3	2.0	ug/L	200.8



SAMPLE DETECTION SUMMARY

This form includes only detections above the reporting levels. For a full listing of sample results, continue to the Sample Results section of this Report.

CLIENT ID: BY-COL-SSE-MW-8-PM_F1	Lab ID: K2306335-013
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Analyte	Results	Flag	MDL	MRL	Units	Method
Manganese, Dissolved	16.1		0.04	2.0	ug/L	200.8

CLIENT ID: BY-COL-SSE-MW-8-PM_F2	Lab ID: K2306335-014
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Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	283		0.09	0.50	ug/L	200.8
Iron, Dissolved	3460		0.3	2.0	ug/L	200.8
Manganese, Dissolved	1460		0.04	2.0	ug/L	200.8

CLIENT ID: BY-COL-SSE-MW-8-PM_F3	Lab ID: K2306335-015
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Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	7.03		0.09	0.50	ug/L	200.8
Iron, Dissolved	1470		0.3	2.0	ug/L	200.8
Manganese, Dissolved	1210		0.04	2.0	ug/L	200.8

CLIENT ID: BY-COL-SSE-MW-8-PM_F4	Lab ID: K2306335-016
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Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	5.41		0.09	0.50	ug/L	200.8
Iron, Dissolved	1620		0.3	2.0	ug/L	200.8
Manganese, Dissolved	13.3		0.04	2.0	ug/L	200.8

CLIENT ID: BY-COL-SSE-MB-F1	Lab ID: K2306335-017
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Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	0.28	J	0.09	0.50	ug/L	200.8
Cobalt, Dissolved	0.096		0.009	0.020	ug/L	200.8
Iron, Dissolved	8.5		0.3	2.0	ug/L	200.8
Manganese, Dissolved	5.2		0.04	2.0	ug/L	200.8

CLIENT ID: BY-COL-SSE-MB-F2	Lab ID: K2306335-018
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Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	5.0		0.5	2.5	ug/L	200.8
Cobalt, Dissolved	0.06	J	0.05	0.10	ug/L	200.8
Iron, Dissolved	120		2	10	ug/L	200.8
Manganese, Dissolved	8	J	0.2	10	ug/L	200.8

CLIENT ID: BY-COL-SSE-MB-F4	Lab ID: K2306335-020
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Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	0.47	J	0.09	0.50	ug/L	200.8
Cobalt, Dissolved	0.278		0.009	0.020	ug/L	200.8
Iron, Dissolved	14.6		0.3	2.0	ug/L	200.8
Manganese, Dissolved	2.2		0.04	2.0	ug/L	200.8

CLIENT ID: BY-COL-SSE-MW-15V-UT-F1	Lab ID: K2306335-021
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Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	0.35	J	0.09	0.50	ug/L	200.8



SAMPLE DETECTION SUMMARY

This form includes only detections above the reporting levels. For a full listing of sample results, continue to the Sample Results section of this Report.

CLIENT ID: BY-COL-SSE-MW-15V-UT-F1	Lab ID: K2306335-021
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Analyte	Results	Flag	MDL	MRL	Units	Method
Cobalt, Dissolved	4.21		0.009	0.020	ug/L	200.8
Iron, Dissolved	3.6		0.3	2.0	ug/L	200.8
Manganese, Dissolved	148		0.04	2.0	ug/L	200.8

CLIENT ID: BY-COL-SSE-MW-15V-UT-F2	Lab ID: K2306335-022
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Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	10.7		0.5	2.5	ug/L	200.8
Cobalt, Dissolved	9.03		0.05	0.10	ug/L	200.8
Iron, Dissolved	4860		2	10	ug/L	200.8
Manganese, Dissolved	162		0.2	10	ug/L	200.8

CLIENT ID: BY-COL-SSE-MW-15V-UT-F3	Lab ID: K2306335-023
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Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	0.27	J	0.09	0.50	ug/L	200.8
Cobalt, Dissolved	0.258		0.009	0.020	ug/L	200.8
Iron, Dissolved	4100		0.3	2.0	ug/L	200.8
Manganese, Dissolved	8.9		0.04	2.0	ug/L	200.8

CLIENT ID: BY-COL-SSE-MW-15V-UT-F4	Lab ID: K2306335-024
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Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	1.70		0.09	0.50	ug/L	200.8
Cobalt, Dissolved	1.46		0.009	0.020	ug/L	200.8
Iron, Dissolved	9030		0.3	2.0	ug/L	200.8
Manganese, Dissolved	19.4		0.04	2.0	ug/L	200.8

CLIENT ID: BY-COL-SSE-MW-8-UT-F1	Lab ID: K2306335-025
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Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	0.24	J	0.09	0.50	ug/L	200.8
Iron, Dissolved	9.7		0.3	2.0	ug/L	200.8
Manganese, Dissolved	16.5		0.04	2.0	ug/L	200.8

CLIENT ID: BY-COL-SSE-MW-8-UT-F2	Lab ID: K2306335-026
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Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	10.0		0.5	2.5	ug/L	200.8
Iron, Dissolved	3640		2	10	ug/L	200.8
Manganese, Dissolved	71		0.2	10	ug/L	200.8

CLIENT ID: BY-COL-SSE-MW-8-UT-F3	Lab ID: K2306335-027
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Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	0.27	J	0.09	0.50	ug/L	200.8
Iron, Dissolved	599		0.3	2.0	ug/L	200.8
Manganese, Dissolved	3.4		0.04	2.0	ug/L	200.8



SAMPLE DETECTION SUMMARY

This form includes only detections above the reporting levels. For a full listing of sample results, continue to the Sample Results section of this Report.

CLIENT ID: BY-COL-SSE-MW-8-UT-F4	Lab ID: K2306335-028
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Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic, Dissolved	1.59		0.09	0.50	ug/L	200.8
Iron, Dissolved	1300		0.3	2.0	ug/L	200.8
Manganese, Dissolved	6.2		0.04	2.0	ug/L	200.8

CLIENT ID: BY-COL-SSE-MB-F3	Lab ID: K2306335-019
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Analyte	Results	Flag	MDL	MRL	Units	Method
Iron, Dissolved	7.9		0.3	2.0	ug/L	200.8
Manganese, Dissolved	1.5	J	0.04	2.0	ug/L	200.8



Sample Receipt Information

ALS Environmental—Kelso Laboratory
1317 South 13th Avenue, Kelso, WA 98626
Phone (360) 577-7222 Fax (360) 425-9096
www.alsglobal.com

Client: Anchor QEA, LLC
Project: 2023-Barry/221114-08.02 Task 06


Service Request:K2306335

SAMPLE CROSS-REFERENCE

<u>SAMPLE #</u>	<u>CLIENT SAMPLE ID</u>	<u>DATE</u>	<u>TIME</u>
K2306335-001	BY-COL-SSE-MW-15-FS_F1	5/22/2023	1520
K2306335-002	BY-COL-SSE-MW-15-FS_F2	5/23/2023	1520
K2306335-003	BY-COL-SSE-MW-15-FS_F3	5/25/2023	1520
K2306335-004	BY-COL-SSE-MW-15-FS_F4	5/26/2023	1520
K2306335-005	BY-COL-SSE-MW-15-PM_DUP-F1	5/22/2023	1555
K2306335-006	BY-COL-SSE-MW-15-PM_DUP-F2	5/23/2023	1555
K2306335-007	BY-COL-SSE-MW-15-PM_DUP-F3	5/25/2023	1555
K2306335-008	BY-COL-SSE-MW-15-PM_DUP-F4	5/26/2023	1555
K2306335-009	BY-COL-SSE-MW-15-PM_F1	5/22/2023	1515
K2306335-010	BY-COL-SSE-MW-15-PM_F2	5/23/2023	1515
K2306335-011	BY-COL-SSE-MW-15-PM_F3	5/25/2023	1515
K2306335-012	BY-COL-SSE-MW-15-PM_F4	5/26/2023	1515
K2306335-013	BY-COL-SSE-MW-8-PM_F1	5/22/2023	1505
K2306335-014	BY-COL-SSE-MW-8-PM_F2	5/23/2023	1505
K2306335-015	BY-COL-SSE-MW-8-PM_F3	5/25/2023	1505
K2306335-016	BY-COL-SSE-MW-8-PM_F4	5/26/2023	1505
K2306335-017	BY-COL-SSE-MB-F1	5/22/2023	1500
K2306335-018	BY-COL-SSE-MB-F2	5/23/2023	1500
K2306335-019	BY-COL-SSE-MB-F3	5/25/2023	1500
K2306335-020	BY-COL-SSE-MB-F4	5/26/2023	1500
K2306335-021	BY-COL-SSE-MW-15V-UT-F1	5/22/2023	1545
K2306335-022	BY-COL-SSE-MW-15V-UT-F2	5/23/2023	1545
K2306335-023	BY-COL-SSE-MW-15V-UT-F3	5/25/2023	1545
K2306335-024	BY-COL-SSE-MW-15V-UT-F4	5/26/2023	1545
K2306335-025	BY-COL-SSE-MW-8-UT-F1	5/22/2023	1535
K2306335-026	BY-COL-SSE-MW-8-UT-F2	5/23/2023	1535
K2306335-027	BY-COL-SSE-MW-8-UT-F3	5/25/2023	1535
K2306335-028	BY-COL-SSE-MW-8-UT-F4	5/26/2023	1535

K2300335

Chain of Custody Record & Laboratory Analysis Request

Laboratory Number: 503-972-5019					No. of Containers	Parameters												 ANCHOR QEA Masa Kanematsu 6720 SW Macadam Ave Suite 300 Portland OR 97219						
Date:	6/5/2023					Dissolved Metals (As, Fe, Mn)	Dissolved Metals (As, Co, Fe, Mn)																	
Project Name:	Barry																							
Project Number:	221114-08.02 Task 06																							
Project Manager:	Masa Kanematsu																							
Phone Number:	503-972-5001 (backup number: 503-798-3456)																							
Shipment Method:	ALS Carrier																							
Line	Field Sample ID	Collection		Matrix																				
		Date	Time																					
1	BY-COL-SSE-MW-15-FS_F1	5/22/2023	15:20	Water	1		X																HNO3-Preserved; 0.45um-filtered.	
2	BY-COL-SSE-MW-15-FS_F2	5/23/2023	15:20	Water	1		X																HNO3-Preserved; 0.45um-filtered.	
3	BY-COL-SSE-MW-15-FS_F3	5/25/2023	15:20	Water	1		X																HNO3-Preserved; 0.45um-filtered.	
4	BY-COL-SSE-MW-15-FS-F4	5/26/2023	15:20	Water	1		X																HNO3-Preserved; 0.45um-filtered.	
5	BY-COL-SSE-MW-15-PM_DUP-F1	5/22/2023	15:55	Water	1		X																HNO3-Preserved; 0.45um-filtered.	
6	BY-COL-SSE-MW-15-PM_DUP-F2	5/23/2023	15:55	Water	1		X																HNO3-Preserved; 0.45um-filtered.	
7	BY-COL-SSE-MW-15-PM_DUP-F3	5/25/2023	15:55	Water	1		X																HNO3-Preserved; 0.45um-filtered.	
8	BY-COL-SSE-MW-15-PM-DUP-F4	5/26/2023	15:55	Water	1		X																HNO3-Preserved; 0.45um-filtered.	
9	BY-COL-SSE-MW-15-PM_F1	5/22/2023	15:15	Water	1		X																HNO3-Preserved; 0.45um-filtered.	
10	BY-COL-SSE-MW-15-PM_F2	5/23/2023	15:15	Water	1		X																HNO3-Preserved; 0.45um-filtered.	
11	BY-COL-SSE-MW-15-PM_F3	5/25/2023	15:15	Water	1		X																HNO3-Preserved; 0.45um-filtered.	
12	BY-COL-SSE-MW-15-PM-F4	5/26/2023	15:15	Water	1		X																HNO3-Preserved; 0.45um-filtered.	
13	BY-COL-SSE-MW-8-PM_F1	5/22/2023	15:05	Water	1	X																	HNO3-Preserved; 0.45um-filtered.	
14	BY-COL-SSE-MW-8-PM_F2	5/23/2023	15:05	Water	1	X																	HNO3-Preserved; 0.45um-filtered.	
15	BY-COL-SSE-MW-8-PM_F3	5/25/2023	15:05	Water	1	X																	HNO3-Preserved; 0.45um-filtered.	
16	BY-COL-SSE-MW-8-PM-F4	5/26/2023	15:05	Water	1	X																	HNO3-Preserved; 0.45um-filtered.	

Notes: Please Contact Masa (503-972-5001, mkanematsu@anchorqea.com) if running > 10X dilution. Please analyze by ICP-MS method 200.8 to achieve the MDL < 1 ppb.


Relinquished by: Sumant Avasarala	Company: Anchor QEA
Signature/Print Name: <i>[Signature]</i>	Date/Time: 06/06/2023 12:05pm
Relinquished by: <i>Greg Rich</i>	Company: ALS
Signature/Print Name: <i>Greg Rich</i>	Date/Time: 6-6-23 1455

Received by: <i>Greg Rich</i>
Signature/Print Name: <i>Greg Rich 6-6-23 1205pm</i>
Received by: <i>MS ALS</i>
Signature/Print Name: <i>Kathryn Matalo 6/6/23 1455</i>



Distribution: A copy will be made for the laboratory and client. The Project file will retain the original.

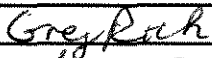
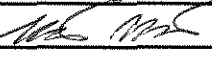
K2306325

Chain of Custody Record & Laboratory Analysis Request

Laboratory Number: 503-972-5019					No. of Containers	Parameters										 Masa Kanematsu 6720 SW Macadam Ave Suite 300 Portland OR 97219 Comments/Preservation						
Date:	6/5/2023					Dissolved Metals (As, Fe, Mn)	Dissolved Metals (As, Co, Fe, Mn)															
Project Name:	Barry																					
Project Number:	221114-08.02 Task 06																					
Project Manager:	Masa Kanematsu																					
Phone Number:	503-972-5001 (backup number: 503-798-3456)																					
Shipment Method:	ALS Carrier																					
Line	Field Sample ID	Collection		Matrix	No. of Containers	Dissolved Metals (As, Fe, Mn)	Dissolved Metals (As, Co, Fe, Mn)	Parameters												Comments/Preservation		
		Date	Time																			
17	BY-COL-SSE-MB-F1	5/22/2023	15:00	Water	1		X													HNO3-Preserved; 0.45um-filtered.		
18	BY-COL-SSE-MB-F2	5/23/2023	15:00	Water	1		X													HNO3-Preserved; 0.45um-filtered.		
19	BY-COL-SSE-MB-F3	5/25/2023	15:00	Water	1		X													HNO3-Preserved; 0.45um-filtered.		
20	BY-COL-SSE-MB-F4	5/26/2023	15:00	Water	1		X													HNO3-Preserved; 0.45um-filtered.		
21	BY-COL-SSE-MW-15V-UT-F1	5/22/2023	15:45	Water	1		X													HNO3-Preserved; 0.45um-filtered.		
22	BY-COL-SSE-MW-15V-UT-F2	5/23/2023	15:45	Water	1		X													HNO3-Preserved; 0.45um-filtered.		
23	BY-COL-SSE-MW-15V-UT-F3	5/25/2023	15:45	Water	1		X													HNO3-Preserved; 0.45um-filtered.		
24	BY-COL-SSE-MW-15V-UT-F4	5/26/2023	15:45	Water	1		X													HNO3-Preserved; 0.45um-filtered.		
25	BY-COL-SSE-MW-8-UT-F1	5/22/2023	15:35	Water	1	X														HNO3-Preserved; 0.45um-filtered.		
26	BY-COL-SSE-MW-8-UT-F2	5/23/2023	15:35	Water	1	X														HNO3-Preserved; 0.45um-filtered.		
27	BY-COL-SSE-MW-8-UT-F3	5/25/2023	15:35	Water	1	X														HNO3-Preserved; 0.45um-filtered.		
28	BY-COL-SSE-MW-8-UT-F4	5/26/2023	15:35	Water	1	X														HNO3-Preserved; 0.45um-filtered.		

Notes: Please Contact Masa (503-972-5001, mkanematsu@anchorqea.com) if running > 10X dilution. Please analyze by ICP-MS method 200.8 to achieve the MDL < 1 ppb.

Relinquished by: Sumant Avasarala	Company: Anchor QEA
Signature/Print Name: 	Date/Time: 06/06/2023 12:05 pm
Relinquished by: 	Company: ALS
Signature/Print Name: Greg Rich	Date/Time: 6-6-23 1455

Received by: 
Signature/Print Name: Greg Rich 6-6-23 12:05 pm
Received by: 
Signature/Print Name: Vahelyn Mitolo 6/6/23 1455

Distribution: A copy will be made for the laboratory and client. The Project file will retain the original.

PM MH

Cooler Receipt and Preservation Form

Client Anchoc Service Request K23 06325
Received: 6/6/23 Opened: 6/6/23 By: VMM Unloaded: 6/6/23 By: VMM

- 1. Samples were received via? USPS Fed Ex UPS DHL PDX Courier Hand Delivered
- 2. Samples were received in: (circle) Cooler Box Envelope Other NA
- 3. Were custody seals on coolers? NA Y N If yes, how many and where? _____
If present, were custody seals intact? Y N If present, were they signed and dated? Y N

Temp Blank	Sample Temp	IR Gun	Cooler #/COC ID / NA	Out of temp indicate with 'X'	PM Notified if out of temp	Tracking Number NA	Filed
<u>B-5</u>		<u>IR02</u>					

- 4. Was a Temperature Blank present in cooler? NA Y N If yes, notate the temperature in the appropriate column above:
If no, take the temperature of a representative sample bottle contained within the cooler; notate in the column "Sample Temp":
- 5. Were samples received within the method specified temperature ranges? NA Y N
If no, were they received on ice and same day as collected? If not, notate the cooler # above and notify the PM. NA Y N

If applicable, tissue samples were received: Frozen Partially Thawed Thawed

- 6. Packing material: Inserts Baggies Bubble Wrap Gel Packs Wet Ice Dry Ice Sleeves _____
- 7. Were custody papers properly filled out (ink, signed, etc.)? NA Y N
- 8. Were samples received in good condition (unbroken) NA Y N
- 9. Were all sample labels complete (ie, analysis, preservation, etc.)? NA Y N
- 10. Did all sample labels and tags agree with custody papers? NA Y N
- 11. Were appropriate bottles/containers and volumes received for the tests indicated? NA Y N
- 12. Were the pH-preserved bottles (see SMO GEN SOP) received at the appropriate pH? Indicate in the table below NA Y N
- 13. Were VOA vials received without headspace? Indicate in the table below. NA Y N
- 14. Was C12/Res negative? NA Y N
- 15. Were samples received within the method specified time limit? If not, notate the error below and notify the PM NA Y N
- 16. Were 100ml sterile microbiology bottles filled exactly to the 100ml mark? NA Y N Underfilled Overfilled

Sample ID on Bottle	Sample ID on COC	Identified by:

Sample ID	Bottle Count	Bottle Type	Head-space	Broke	pH	Reagent	Volume added	Reagent Lot Number	Initials	Time

Notes, Discrepancies, Resolutions: Right ph due to limited volume



Miscellaneous Forms

ALS Environmental—Kelso Laboratory
1317 South 13th Avenue, Kelso, WA 98626
Phone (360) 577-7222 Fax (360) 425-9096
www.alsglobal.com

Inorganic Data Qualifiers

- * The result is an outlier. See case narrative.
- # The control limit criteria is not applicable.
- B The analyte was found in the associated method blank at a level that is significant relative to the sample result as defined by the DOD or NELAC standards.
- E The result is an estimate amount because the value exceeded the instrument calibration range.
- J The result is an estimated value.
- U The analyte was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL.
DOD-QSM 4.2 definition : Analyte was not detected and is reported as less than the LOD or as defined by the project. The detection limit is adjusted for dilution.
- i The MRL/MDL or LOQ/LOD is elevated due to a matrix interference.
- X See case narrative.
- Q See case narrative. One or more quality control criteria was outside the limits.
- H The holding time for this test is immediately following sample collection. The samples were analyzed as soon as possible after receipt by the laboratory.

Metals Data Qualifiers

- # The control limit criteria is not applicable.
- J The result is an estimated value.
- E The percent difference for the serial dilution was greater than 10%, indicating a possible matrix interference in the sample.
- M The duplicate injection precision was not met.
- N The Matrix Spike sample recovery is not within control limits. See case narrative.
- S The reported value was determined by the Method of Standard Additions (MSA).
- U The analyte was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL.
DOD-QSM 4.2 definition : Analyte was not detected and is reported as less than the LOD or as defined by the project. The detection limit is adjusted for dilution.
- W The post-digestion spike for furnace AA analysis is out of control limits, while sample absorbance is less than 50% of spike absorbance.
 - i The MRL/MDL or LOQ/LOD is elevated due to a matrix interference.
- X See case narrative.
- + The correlation coefficient for the MSA is less than 0.995.
- Q See case narrative. One or more quality control criteria was outside the limits.

Organic Data Qualifiers

- * The result is an outlier. See case narrative.
- # The control limit criteria is not applicable. See case narrative.
- A A tentatively identified compound, a suspected aldol-condensation product.
- B The analyte was found in the associated method blank at a level that is significant relative to the sample result as defined by the DOD or NELAC standards.
- C The analyte was qualitatively confirmed using GC/MS techniques, pattern recognition, or by comparing to historical data.
- D The reported result is from a dilution.
- E The result is an estimated value.
- J The result is an estimated value.
- N The result is presumptive. The analyte was tentatively identified, but a confirmation analysis was not performed.
- P The GC or HPLC confirmation criteria was exceeded. The relative percent difference is greater than 40% between the two analytical results.
- U The analyte was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL.
DOD-QSM 4.2 definition : Analyte was not detected and is reported as less than the LOD or as defined by the project. The detection limit is adjusted for dilution.
 - i The MRL/MDL or LOQ/LOD is elevated due to a chromatographic interference.
- X See case narrative.
- Q See case narrative. One or more quality control criteria was outside the limits.

Additional Petroleum Hydrocarbon Specific Qualifiers

- F The chromatographic fingerprint of the sample matches the elution pattern of the calibration standard.
- L The chromatographic fingerprint of the sample resembles a petroleum product, but the elution pattern indicates the presence of a greater amount of lighter molecular weight constituents than the calibration standard.
- H The chromatographic fingerprint of the sample resembles a petroleum product, but the elution pattern indicates the presence of a greater amount of heavier molecular weight constituents than the calibration standard.
- O The chromatographic fingerprint of the sample resembles an oil, but does not match the calibration standard.
- Y The chromatographic fingerprint of the sample resembles a petroleum product eluting in approximately the correct carbon range, but the elution pattern does not match the calibration standard.
- Z The chromatographic fingerprint does not resemble a petroleum product.

**ALS Group USA Corp. dba ALS Environmental (ALS) - Kelso
State Certifications, Accreditations, and Licenses**

Agency	Web Site	Number
Alaska DEH	http://dec.alaska.gov/eh/lab/cs/csapproval.htm	UST-040
Arizona DHS	http://www.azdhs.gov/lab/license/env.htm	AZ0339
Arkansas - DEQ	http://www.adeq.state.ar.us/techsvs/labcert.htm	88-0637
California DHS (ELAP)	http://www.cdph.ca.gov/certlic/labs/Pages/ELAP.aspx	2795
DOD ELAP	http://www.denix.osd.mil/edqw/Accreditation/AccreditedLabs.cfm	L16-58-R4
Florida DOH	http://www.doh.state.fl.us/lab/EnvLabCert/WaterCert.htm	E87412
Hawaii DOH	http://health.hawaii.gov/	-
ISO 17025	http://www.pjllabs.com/	L16-57
Louisiana DEQ	http://www.deq.louisiana.gov/page/la-lab-accreditation	03016
Maine DHS	http://www.maine.gov/dhhs/	WA01276
Minnesota DOH	http://www.health.state.mn.us/accreditation	053-999-457
Nevada DEP	http://ndep.nv.gov/bsdw/labservice.htm	WA01276
New Jersey DEP	http://www.nj.gov/dep/enforcement/oqa.html	WA005
New York - DOH	https://www.wadsworth.org/regulatory/elap	12060
North Carolina DEQ	https://deq.nc.gov/about/divisions/water-resources/water-resources-data/water-sciences-home-page/laboratory-certification-branch/non-field-lab-certification	605
Oklahoma DEQ	http://www.deq.state.ok.us/CSDnew/labcert.htm	9801
Oregon – DEQ (NELAP)	http://public.health.oregon.gov/LaboratoryServices/EnvironmentalLaboratoryAccreditation/Pages/index.aspx	WA100010
South Carolina DHEC	http://www.scdhec.gov/environment/EnvironmentalLabCertification/	61002
Texas CEQ	http://www.tceq.texas.gov/field/qa/env_lab_accreditation.html	T104704427
Washington DOE	http://www.ecy.wa.gov/programs/eap/labs/lab-accreditation.html	C544
Wyoming (EPA Region 8)	https://www.epa.gov/region8-waterops/epa-region-8-certified-drinking-water	-
Kelso Laboratory Website	www.alsglobal.com	NA

Analyses were performed according to our laboratory's NELAP-approved quality assurance program. A complete listing of specific NELAP-certified analytes, can be found in the certification section at www.ALSGlobal.com or at the accreditation bodies web site.

Please refer to the certification and/or accreditation body's web site if samples are submitted for compliance purposes. The states highlighted above, require the analysis be listed on the state certification if used for compliance purposes and if the method/analyte is offered by that state.

Acronyms

ASTM	American Society for Testing and Materials
A2LA	American Association for Laboratory Accreditation
CARB	California Air Resources Board
CAS Number	Chemical Abstract Service registry Number
CFC	Chlorofluorocarbon
CFU	Colony-Forming Unit
DEC	Department of Environmental Conservation
DEQ	Department of Environmental Quality
DHS	Department of Health Services
DOE	Department of Ecology
DOH	Department of Health
EPA	U. S. Environmental Protection Agency
ELAP	Environmental Laboratory Accreditation Program
GC	Gas Chromatography
GC/MS	Gas Chromatography/Mass Spectrometry
LOD	Limit of Detection
LOQ	Limit of Quantitation
LUFT	Leaking Underground Fuel Tank
M	Modified
MCL	Maximum Contaminant Level is the highest permissible concentration of a substance allowed in drinking water as established by the USEPA.
MDL	Method Detection Limit
MPN	Most Probable Number
MRL	Method Reporting Limit
NA	Not Applicable
NC	Not Calculated
NCASI	National Council of the Paper Industry for Air and Stream Improvement
ND	Not Detected
NIOSH	National Institute for Occupational Safety and Health
PQL	Practical Quantitation Limit
RCRA	Resource Conservation and Recovery Act
SIM	Selected Ion Monitoring
TPH	Total Petroleum Hydrocarbons
tr	Trace level is the concentration of an analyte that is less than the PQL but greater than or equal to the MDL.

ALS Group USA, Corp.
dba ALS Environmental

Analyst Summary report

Client: Anchor QEA, LLC
Project: 2023-Barry/221114-08.02 Task 06

Service Request: K2306335

Sample Name: BY-COL-SSE-MW-15-FS_F1
Lab Code: K2306335-001
Sample Matrix: Water

Date Collected: 05/22/23
Date Received: 06/6/23

Analysis Method
200.8

Extracted/Digested By
ACOUC

Analyzed By
JCHAN

Sample Name: BY-COL-SSE-MW-15-FS_F1
Lab Code: K2306335-001.R01
Sample Matrix: Water

Date Collected: 05/22/23
Date Received: 06/6/23

Analysis Method
200.8

Extracted/Digested By
ACOUC

Analyzed By
EMCALLISTER

Sample Name: BY-COL-SSE-MW-15-FS_F2
Lab Code: K2306335-002
Sample Matrix: Water

Date Collected: 05/23/23
Date Received: 06/6/23

Analysis Method
200.8

Extracted/Digested By
ACOUC

Analyzed By
EMCALLISTER

Sample Name: BY-COL-SSE-MW-15-FS_F3
Lab Code: K2306335-003
Sample Matrix: Water

Date Collected: 05/25/23
Date Received: 06/6/23

Analysis Method
200.8

Extracted/Digested By
ACOUC

Analyzed By
EMCALLISTER

Sample Name: BY-COL-SSE-MW-15-FS_F4
Lab Code: K2306335-004
Sample Matrix: Water

Date Collected: 05/26/23
Date Received: 06/6/23

Analysis Method
200.8

Extracted/Digested By
ACOUC

Analyzed By
EMCALLISTER

ALS Group USA, Corp.
dba ALS Environmental

Analyst Summary report

Client: Anchor QEA, LLC
Project: 2023-Barry/221114-08.02 Task 06

Service Request: K2306335

Sample Name: BY-COL-SSE-MW-15-PM_DUP-F1
Lab Code: K2306335-005
Sample Matrix: Water

Date Collected: 05/22/23
Date Received: 06/6/23

Analysis Method
200.8

Extracted/Digested By
ACOUCH

Analyzed By
JCHAN

Sample Name: BY-COL-SSE-MW-15-PM_DUP-F1
Lab Code: K2306335-005.R01
Sample Matrix: Water

Date Collected: 05/22/23
Date Received: 06/6/23

Analysis Method
200.8

Extracted/Digested By
ACOUCH

Analyzed By
EMCALLISTER

Sample Name: BY-COL-SSE-MW-15-PM_DUP-F1
Lab Code: K2306335-005.R02
Sample Matrix: Water

Date Collected: 05/22/23
Date Received: 06/6/23

Analysis Method
200.8

Extracted/Digested By
ACOUCH

Analyzed By
EMCALLISTER

Sample Name: BY-COL-SSE-MW-15-PM_DUP-F2
Lab Code: K2306335-006
Sample Matrix: Water

Date Collected: 05/23/23
Date Received: 06/6/23

Analysis Method
200.8

Extracted/Digested By
ACOUCH

Analyzed By
EMCALLISTER

Sample Name: BY-COL-SSE-MW-15-PM_DUP-F3
Lab Code: K2306335-007
Sample Matrix: Water

Date Collected: 05/25/23
Date Received: 06/6/23

Analysis Method
200.8

Extracted/Digested By
ACOUCH

Analyzed By
EMCALLISTER

ALS Group USA, Corp.
dba ALS Environmental

Analyst Summary report

Client: Anchor QEA, LLC
Project: 2023-Barry/221114-08.02 Task 06

Service Request: K2306335

Sample Name: BY-COL-SSE-MW-15-PM_DUP-F4
Lab Code: K2306335-008
Sample Matrix: Water

Date Collected: 05/26/23
Date Received: 06/6/23

Analysis Method
200.8

Extracted/Digested By
ACOUCH

Analyzed By
EMCALLISTER

Sample Name: BY-COL-SSE-MW-15-PM_F1
Lab Code: K2306335-009
Sample Matrix: Water

Date Collected: 05/22/23
Date Received: 06/6/23

Analysis Method
200.8

Extracted/Digested By
ACOUCH

Analyzed By
EMCALLISTER

Sample Name: BY-COL-SSE-MW-15-PM_F2
Lab Code: K2306335-010
Sample Matrix: Water

Date Collected: 05/23/23
Date Received: 06/6/23

Analysis Method
200.8

Extracted/Digested By
ACOUCH

Analyzed By
EMCALLISTER

Sample Name: BY-COL-SSE-MW-15-PM_F3
Lab Code: K2306335-011
Sample Matrix: Water

Date Collected: 05/25/23
Date Received: 06/6/23

Analysis Method
200.8

Extracted/Digested By
ACOUCH

Analyzed By
EMCALLISTER

Sample Name: BY-COL-SSE-MW-15-PM_F4
Lab Code: K2306335-012
Sample Matrix: Water

Date Collected: 05/26/23
Date Received: 06/6/23

Analysis Method
200.8

Extracted/Digested By
ACOUCH

Analyzed By
EMCALLISTER

ALS Group USA, Corp.
dba ALS Environmental

Analyst Summary report

Client: Anchor QEA, LLC
Project: 2023-Barry/221114-08.02 Task 06

Service Request: K2306335

Sample Name: BY-COL-SSE-MW-8-PM_F1
Lab Code: K2306335-013
Sample Matrix: Water

Date Collected: 05/22/23
Date Received: 06/6/23

Analysis Method
200.8

Extracted/Digested By
ACOUCH

Analyzed By
EMCALLISTER

Sample Name: BY-COL-SSE-MW-8-PM_F2
Lab Code: K2306335-014
Sample Matrix: Water

Date Collected: 05/23/23
Date Received: 06/6/23

Analysis Method
200.8

Extracted/Digested By
ACOUCH

Analyzed By
EMCALLISTER

Sample Name: BY-COL-SSE-MW-8-PM_F3
Lab Code: K2306335-015
Sample Matrix: Water

Date Collected: 05/25/23
Date Received: 06/6/23

Analysis Method
200.8

Extracted/Digested By
ACOUCH

Analyzed By
EMCALLISTER

Sample Name: BY-COL-SSE-MW-8-PM_F4
Lab Code: K2306335-016
Sample Matrix: Water

Date Collected: 05/26/23
Date Received: 06/6/23

Analysis Method
200.8

Extracted/Digested By
ACOUCH

Analyzed By
EMCALLISTER

Sample Name: BY-COL-SSE-MB-F1
Lab Code: K2306335-017
Sample Matrix: Water

Date Collected: 05/22/23
Date Received: 06/6/23

Analysis Method
200.8

Extracted/Digested By
ACOUCH

Analyzed By
EMCALLISTER

ALS Group USA, Corp.
dba ALS Environmental

Analyst Summary report

Client: Anchor QEA, LLC
Project: 2023-Barry/221114-08.02 Task 06

Service Request: K2306335

Sample Name: BY-COL-SSE-MB-F2
Lab Code: K2306335-018
Sample Matrix: Water

Date Collected: 05/23/23
Date Received: 06/6/23

Analysis Method
200.8

Extracted/Digested By
ACOUCH

Analyzed By
EMCALLISTER

Sample Name: BY-COL-SSE-MB-F3
Lab Code: K2306335-019
Sample Matrix: Water

Date Collected: 05/25/23
Date Received: 06/6/23

Analysis Method
200.8

Extracted/Digested By
ACOUCH

Analyzed By
EMCALLISTER

Sample Name: BY-COL-SSE-MB-F4
Lab Code: K2306335-020
Sample Matrix: Water

Date Collected: 05/26/23
Date Received: 06/6/23

Analysis Method
200.8

Extracted/Digested By
ACOUCH

Analyzed By
EMCALLISTER

Sample Name: BY-COL-SSE-MW-15V-UT-F1
Lab Code: K2306335-021
Sample Matrix: Water

Date Collected: 05/22/23
Date Received: 06/6/23

Analysis Method
200.8

Extracted/Digested By
ACOUCH

Analyzed By
EMCALLISTER

Sample Name: BY-COL-SSE-MW-15V-UT-F2
Lab Code: K2306335-022
Sample Matrix: Water

Date Collected: 05/23/23
Date Received: 06/6/23

Analysis Method
200.8

Extracted/Digested By
ACOUCH

Analyzed By
EMCALLISTER

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dba ALS Environmental

Analyst Summary report

Client: Anchor QEA, LLC
Project: 2023-Barry/221114-08.02 Task 06

Service Request: K2306335

Sample Name: BY-COL-SSE-MW-15V-UT-F3
Lab Code: K2306335-023
Sample Matrix: Water

Date Collected: 05/25/23
Date Received: 06/6/23

Analysis Method
200.8

Extracted/Digested By
ACOUCH

Analyzed By
EMCALLISTER

Sample Name: BY-COL-SSE-MW-15V-UT-F4
Lab Code: K2306335-024
Sample Matrix: Water

Date Collected: 05/26/23
Date Received: 06/6/23

Analysis Method
200.8

Extracted/Digested By
ACOUCH

Analyzed By
EMCALLISTER

Sample Name: BY-COL-SSE-MW-8-UT-F1
Lab Code: K2306335-025
Sample Matrix: Water

Date Collected: 05/22/23
Date Received: 06/6/23

Analysis Method
200.8

Extracted/Digested By
ACOUCH

Analyzed By
EMCALLISTER

Sample Name: BY-COL-SSE-MW-8-UT-F2
Lab Code: K2306335-026
Sample Matrix: Water

Date Collected: 05/23/23
Date Received: 06/6/23

Analysis Method
200.8

Extracted/Digested By
ACOUCH

Analyzed By
EMCALLISTER

Sample Name: BY-COL-SSE-MW-8-UT-F3
Lab Code: K2306335-027
Sample Matrix: Water

Date Collected: 05/25/23
Date Received: 06/6/23

Analysis Method
200.8

Extracted/Digested By
ACOUCH

Analyzed By
EMCALLISTER

ALS Group USA, Corp.
dba ALS Environmental

Analyst Summary report

Client: Anchor QEA, LLC
Project: 2023-Barry/221114-08.02 Task 06

Service Request: K2306335

Sample Name: BY-COL-SSE-MW-8-UT-F4
Lab Code: K2306335-028
Sample Matrix: Water

Date Collected: 05/26/23
Date Received: 06/6/23

Analysis Method
200.8

Extracted/Digested By
ACOUCH

Analyzed By
EMCALLISTER



Sample Results

ALS Environmental—Kelso Laboratory
1317 South 13th Avenue, Kelso, WA 98626
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Metals

ALS Environmental—Kelso Laboratory
1317 South 13th Avenue, Kelso, WA 98626
Phone (360) 577-7222 Fax (360) 425-9096
www.alsglobal.com

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Anchor QEA, LLC
Project: 2023-Barry/221114-08.02 Task 06
Sample Matrix: Water
Sample Name: BY-COL-SSE-MW-15-FS_F1
Lab Code: K2306335-001

Service Request: K2306335
Date Collected: 05/22/23 15:20
Date Received: 06/06/23 14:55
Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	0.68	ug/L	0.50	0.09	1	06/15/23 18:54	06/09/23	
Cobalt	200.8	0.979	ug/L	0.020	0.009	1	06/15/23 18:54	06/09/23	
Iron	200.8	2.7	ug/L	2.0	0.3	1	06/20/23 14:15	06/20/23	
Manganese	200.8	30.7	ug/L	0.20	0.04	1	06/15/23 18:54	06/09/23	

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Analytical Report

Client: Anchor QEA, LLC
Project: 2023-Barry/221114-08.02 Task 06
Sample Matrix: Water
Sample Name: BY-COL-SSE-MW-15-FS_F2
Lab Code: K2306335-002

Service Request: K2306335
Date Collected: 05/23/23 15:20
Date Received: 06/06/23 14:55
Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	11.0	ug/L	0.50	0.09	1	06/15/23 18:55	06/09/23	
Cobalt	200.8	5.65	ug/L	0.020	0.009	1	06/15/23 18:55	06/09/23	
Iron	200.8	4500	ug/L	2.0	0.3	1	06/15/23 18:55	06/09/23	
Manganese	200.8	101	ug/L	0.20	0.04	1	06/15/23 18:55	06/09/23	

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Analytical Report

Client: Anchor QEA, LLC
Project: 2023-Barry/221114-08.02 Task 06
Sample Matrix: Water
Sample Name: BY-COL-SSE-MW-15-FS_F3
Lab Code: K2306335-003

Service Request: K2306335
Date Collected: 05/25/23 15:20
Date Received: 06/06/23 14:55
Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	0.25 J	ug/L	0.50	0.09	1	06/15/23 18:57	06/09/23	
Cobalt	200.8	0.411	ug/L	0.020	0.009	1	06/15/23 18:57	06/09/23	
Iron	200.8	3790	ug/L	2.0	0.3	1	06/15/23 18:57	06/09/23	
Manganese	200.8	4.19	ug/L	0.20	0.04	1	06/15/23 18:57	06/09/23	

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Analytical Report

Client: Anchor QEA, LLC
Project: 2023-Barry/221114-08.02 Task 06
Sample Matrix: Water
Sample Name: BY-COL-SSE-MW-15-FS_F4
Lab Code: K2306335-004

Service Request: K2306335
Date Collected: 05/26/23 15:20
Date Received: 06/06/23 14:55

Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	3.38	ug/L	0.50	0.09	1	06/15/23 18:59	06/09/23	
Cobalt	200.8	3.18	ug/L	0.020	0.009	1	06/15/23 18:59	06/09/23	
Iron	200.8	17900	ug/L	2.0	0.3	1	06/15/23 18:59	06/09/23	
Manganese	200.8	26.3	ug/L	0.20	0.04	1	06/15/23 18:59	06/09/23	

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Analytical Report

Client: Anchor QEA, LLC
Project: 2023-Barry/221114-08.02 Task 06
Sample Matrix: Water
Sample Name: BY-COL-SSE-MW-15-PM_DUP-F1
Lab Code: K2306335-005

Service Request: K2306335
Date Collected: 05/22/23 15:55
Date Received: 06/06/23 14:55
Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	0.52	ug/L	0.50	0.09	1	06/16/23 13:19	06/09/23	
Cobalt	200.8	1.50	ug/L	0.020	0.009	1	06/16/23 13:19	06/09/23	
Iron	200.8	7.9	ug/L	2.0	0.3	1	06/20/23 14:17	06/20/23	
Manganese	200.8	77.7	ug/L	0.20	0.04	1	06/16/23 13:19	06/09/23	

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Analytical Report

Client: Anchor QEA, LLC
Project: 2023-Barry/221114-08.02 Task 06
Sample Matrix: Water
Sample Name: BY-COL-SSE-MW-15-PM_DUP-F2
Lab Code: K2306335-006

Service Request: K2306335
Date Collected: 05/23/23 15:55
Date Received: 06/06/23 14:55
Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	11.8	ug/L	0.50	0.09	1	06/15/23 19:04	06/09/23	
Cobalt	200.8	8.40	ug/L	0.020	0.009	1	06/15/23 19:04	06/09/23	
Iron	200.8	4400	ug/L	2.0	0.3	1	06/15/23 19:04	06/09/23	
Manganese	200.8	295	ug/L	0.20	0.04	1	06/15/23 19:04	06/09/23	

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Analytical Report

Client: Anchor QEA, LLC
Project: 2023-Barry/221114-08.02 Task 06
Sample Matrix: Water
Sample Name: BY-COL-SSE-MW-15-PM_DUP-F3
Lab Code: K2306335-007

Service Request: K2306335
Date Collected: 05/25/23 15:55
Date Received: 06/06/23 14:55
Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	0.37 J	ug/L	0.50	0.09	1	06/15/23 19:06	06/09/23	
Cobalt	200.8	1.57	ug/L	0.020	0.009	1	06/15/23 19:06	06/09/23	
Iron	200.8	5280	ug/L	2.0	0.3	1	06/15/23 19:06	06/09/23	
Manganese	200.8	59.1	ug/L	0.20	0.04	1	06/15/23 19:06	06/09/23	

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Analytical Report

Client: Anchor QEA, LLC
Project: 2023-Barry/221114-08.02 Task 06
Sample Matrix: Water
Sample Name: BY-COL-SSE-MW-15-PM_DUP-F4
Lab Code: K2306335-008

Service Request: K2306335
Date Collected: 05/26/23 15:55
Date Received: 06/06/23 14:55

Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	4.77	ug/L	0.50	0.09	1	06/15/23 19:07	06/09/23	
Cobalt	200.8	2.92	ug/L	0.020	0.009	1	06/15/23 19:07	06/09/23	
Iron	200.8	18100	ug/L	2.0	0.3	1	06/15/23 19:07	06/09/23	
Manganese	200.8	54.7	ug/L	0.20	0.04	1	06/15/23 19:07	06/09/23	

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Analytical Report

Client: Anchor QEA, LLC
Project: 2023-Barry/221114-08.02 Task 06
Sample Matrix: Water
Sample Name: BY-COL-SSE-MW-15-PM_F1
Lab Code: K2306335-009

Service Request: K2306335
Date Collected: 05/22/23 15:15
Date Received: 06/06/23 14:55
Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	0.50 J	ug/L	0.50	0.09	1	06/28/23 13:31	06/09/23	
Cobalt	200.8	1.56	ug/L	0.020	0.009	1	06/28/23 13:31	06/09/23	
Iron	200.8	14.8	ug/L	2.0	0.3	1	06/28/23 13:31	06/09/23	
Manganese	200.8	81.6	ug/L	2.0	0.04	1	06/28/23 13:31	06/09/23	

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Analytical Report

Client: Anchor QEA, LLC
Project: 2023-Barry/221114-08.02 Task 06
Sample Matrix: Water
Sample Name: BY-COL-SSE-MW-15-PM_F2
Lab Code: K2306335-010

Service Request: K2306335
Date Collected: 05/23/23 15:15
Date Received: 06/06/23 14:55
Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	11.5	ug/L	0.50	0.09	1	06/28/23 13:32	06/09/23	
Cobalt	200.8	8.88	ug/L	0.020	0.009	1	06/28/23 13:32	06/09/23	
Iron	200.8	4590	ug/L	2.0	0.3	1	06/28/23 13:32	06/09/23	
Manganese	200.8	286	ug/L	2.0	0.04	1	06/28/23 13:32	06/09/23	

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Analytical Report

Client: Anchor QEA, LLC
Project: 2023-Barry/221114-08.02 Task 06
Sample Matrix: Water
Sample Name: BY-COL-SSE-MW-15-PM_F3
Lab Code: K2306335-011

Service Request: K2306335
Date Collected: 05/25/23 15:15
Date Received: 06/06/23 14:55
Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	0.41 J	ug/L	0.50	0.09	1	06/28/23 13:34	06/09/23	
Cobalt	200.8	1.72	ug/L	0.020	0.009	1	06/28/23 13:34	06/09/23	
Iron	200.8	5620	ug/L	2.0	0.3	1	06/28/23 13:34	06/09/23	
Manganese	200.8	61.5	ug/L	2.0	0.04	1	06/28/23 13:34	06/09/23	

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Analytical Report

Client: Anchor QEA, LLC
Project: 2023-Barry/221114-08.02 Task 06
Sample Matrix: Water
Sample Name: BY-COL-SSE-MW-15-PM_F4
Lab Code: K2306335-012

Service Request: K2306335
Date Collected: 05/26/23 15:15
Date Received: 06/06/23 14:55
Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	4.95	ug/L	0.50	0.09	1	06/28/23 13:45	06/09/23	
Cobalt	200.8	3.68	ug/L	0.020	0.009	1	06/28/23 13:45	06/09/23	
Iron	200.8	17700	ug/L	2.0	0.3	1	06/28/23 13:45	06/09/23	
Manganese	200.8	51.8	ug/L	2.0	0.04	1	06/28/23 13:45	06/09/23	

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Analytical Report

Client: Anchor QEA, LLC
Project: 2023-Barry/221114-08.02 Task 06
Sample Matrix: Water
Sample Name: BY-COL-SSE-MW-8-PM_F1
Lab Code: K2306335-013

Service Request: K2306335
Date Collected: 05/22/23 15:05
Date Received: 06/06/23 14:55
Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	4.78	ug/L	0.50	0.09	1	06/28/23 14:00	06/09/23	
Iron	200.8	8.3	ug/L	2.0	0.3	1	06/28/23 14:00	06/09/23	
Manganese	200.8	16.1	ug/L	2.0	0.04	1	06/28/23 14:00	06/09/23	

ALS Group USA, Corp.
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Analytical Report

Client: Anchor QEA, LLC
Project: 2023-Barry/221114-08.02 Task 06
Sample Matrix: Water
Sample Name: BY-COL-SSE-MW-8-PM_F2
Lab Code: K2306335-014

Service Request: K2306335
Date Collected: 05/23/23 15:05
Date Received: 06/06/23 14:55
Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	283	ug/L	0.50	0.09	1	06/28/23 14:02	06/09/23	
Iron	200.8	3460	ug/L	2.0	0.3	1	06/28/23 14:02	06/09/23	
Manganese	200.8	1460	ug/L	2.0	0.04	1	06/28/23 14:02	06/09/23	

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dba ALS Environmental

Analytical Report

Client: Anchor QEA, LLC
Project: 2023-Barry/221114-08.02 Task 06
Sample Matrix: Water
Sample Name: BY-COL-SSE-MW-8-PM_F3
Lab Code: K2306335-015

Service Request: K2306335
Date Collected: 05/25/23 15:05
Date Received: 06/06/23 14:55
Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	7.03	ug/L	0.50	0.09	1	06/28/23 14:05	06/09/23	
Iron	200.8	1470	ug/L	2.0	0.3	1	06/28/23 14:05	06/09/23	
Manganese	200.8	1210	ug/L	2.0	0.04	1	06/28/23 14:05	06/09/23	

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dba ALS Environmental

Analytical Report

Client: Anchor QEA, LLC
Project: 2023-Barry/221114-08.02 Task 06
Sample Matrix: Water
Sample Name: BY-COL-SSE-MW-8-PM_F4
Lab Code: K2306335-016

Service Request: K2306335
Date Collected: 05/26/23 15:05
Date Received: 06/06/23 14:55
Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	5.41	ug/L	0.50	0.09	1	06/28/23 14:06	06/09/23	
Iron	200.8	1620	ug/L	2.0	0.3	1	06/28/23 14:06	06/09/23	
Manganese	200.8	13.3	ug/L	2.0	0.04	1	06/28/23 14:06	06/09/23	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Anchor QEA, LLC
Project: 2023-Barry/221114-08.02 Task 06
Sample Matrix: Water
Sample Name: BY-COL-SSE-MB-F1
Lab Code: K2306335-017

Service Request: K2306335
Date Collected: 05/22/23 15:00
Date Received: 06/06/23 14:55

Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	0.28 J	ug/L	0.50	0.09	1	06/28/23 14:07	06/09/23	
Cobalt	200.8	0.096	ug/L	0.020	0.009	1	06/28/23 14:07	06/09/23	
Iron	200.8	8.5	ug/L	2.0	0.3	1	06/28/23 14:07	06/09/23	
Manganese	200.8	5.2	ug/L	2.0	0.04	1	06/28/23 14:07	06/09/23	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Anchor QEA, LLC
Project: 2023-Barry/221114-08.02 Task 06
Sample Matrix: Water
Sample Name: BY-COL-SSE-MB-F2
Lab Code: K2306335-018

Service Request: K2306335
Date Collected: 05/23/23 15:00
Date Received: 06/06/23 14:55

Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	5.0	ug/L	2.5	0.5	5	06/28/23 14:44	06/09/23	
Cobalt	200.8	0.06 J	ug/L	0.10	0.05	5	06/28/23 14:44	06/09/23	
Iron	200.8	120	ug/L	10	2	5	06/28/23 14:44	06/09/23	
Manganese	200.8	8 J	ug/L	10	0.2	5	06/28/23 14:44	06/09/23	

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Analytical Report

Client: Anchor QEA, LLC
Project: 2023-Barry/221114-08.02 Task 06
Sample Matrix: Water
Sample Name: BY-COL-SSE-MB-F3
Lab Code: K2306335-019

Service Request: K2306335
Date Collected: 05/25/23 15:00
Date Received: 06/06/23 14:55

Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	ND U	ug/L	0.50	0.09	1	06/28/23 14:10	06/09/23	
Cobalt	200.8	ND U	ug/L	0.020	0.009	1	06/28/23 14:10	06/09/23	
Iron	200.8	7.9	ug/L	2.0	0.3	1	06/28/23 14:10	06/09/23	
Manganese	200.8	1.5 J	ug/L	2.0	0.04	1	06/28/23 14:10	06/09/23	

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Analytical Report

Client: Anchor QEA, LLC
Project: 2023-Barry/221114-08.02 Task 06
Sample Matrix: Water
Sample Name: BY-COL-SSE-MB-F4
Lab Code: K2306335-020

Service Request: K2306335
Date Collected: 05/26/23 15:00
Date Received: 06/06/23 14:55

Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	0.47 J	ug/L	0.50	0.09	1	06/28/23 14:12	06/09/23	
Cobalt	200.8	0.278	ug/L	0.020	0.009	1	06/28/23 14:12	06/09/23	
Iron	200.8	14.6	ug/L	2.0	0.3	1	06/28/23 14:12	06/09/23	
Manganese	200.8	2.2	ug/L	2.0	0.04	1	06/28/23 14:12	06/09/23	

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Analytical Report

Client: Anchor QEA, LLC
Project: 2023-Barry/221114-08.02 Task 06
Sample Matrix: Water
Sample Name: BY-COL-SSE-MW-15V-UT-F1
Lab Code: K2306335-021

Service Request: K2306335
Date Collected: 05/22/23 15:45
Date Received: 06/06/23 14:55

Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	0.35 J	ug/L	0.50	0.09	1	06/28/23 14:13	06/09/23	
Cobalt	200.8	4.21	ug/L	0.020	0.009	1	06/28/23 14:13	06/09/23	
Iron	200.8	3.6	ug/L	2.0	0.3	1	06/28/23 14:13	06/09/23	
Manganese	200.8	148	ug/L	2.0	0.04	1	06/28/23 14:13	06/09/23	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Anchor QEA, LLC
Project: 2023-Barry/221114-08.02 Task 06
Sample Matrix: Water
Sample Name: BY-COL-SSE-MW-15V-UT-F2
Lab Code: K2306335-022

Service Request: K2306335
Date Collected: 05/23/23 15:45
Date Received: 06/06/23 14:55
Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	10.7	ug/L	2.5	0.5	5	06/28/23 14:46	06/09/23	
Cobalt	200.8	9.03	ug/L	0.10	0.05	5	06/28/23 14:46	06/09/23	
Iron	200.8	4860	ug/L	10	2	5	06/28/23 14:46	06/09/23	
Manganese	200.8	162	ug/L	10	0.2	5	06/28/23 14:46	06/09/23	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Anchor QEA, LLC
Project: 2023-Barry/221114-08.02 Task 06
Sample Matrix: Water
Sample Name: BY-COL-SSE-MW-15V-UT-F3
Lab Code: K2306335-023

Service Request: K2306335
Date Collected: 05/25/23 15:45
Date Received: 06/06/23 14:55
Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	0.27 J	ug/L	0.50	0.09	1	06/28/23 14:20	06/09/23	
Cobalt	200.8	0.258	ug/L	0.020	0.009	1	06/28/23 14:20	06/09/23	
Iron	200.8	4100	ug/L	2.0	0.3	1	06/28/23 14:20	06/09/23	
Manganese	200.8	8.9	ug/L	2.0	0.04	1	06/28/23 14:20	06/09/23	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Anchor QEA, LLC
Project: 2023-Barry/221114-08.02 Task 06
Sample Matrix: Water
Sample Name: BY-COL-SSE-MW-15V-UT-F4
Lab Code: K2306335-024

Service Request: K2306335
Date Collected: 05/26/23 15:45
Date Received: 06/06/23 14:55
Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	1.70	ug/L	0.50	0.09	1	06/28/23 14:21	06/09/23	
Cobalt	200.8	1.46	ug/L	0.020	0.009	1	06/28/23 14:21	06/09/23	
Iron	200.8	9030	ug/L	2.0	0.3	1	06/28/23 14:21	06/09/23	
Manganese	200.8	19.4	ug/L	2.0	0.04	1	06/28/23 14:21	06/09/23	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Anchor QEA, LLC
Project: 2023-Barry/221114-08.02 Task 06
Sample Matrix: Water
Sample Name: BY-COL-SSE-MW-8-UT-F1
Lab Code: K2306335-025

Service Request: K2306335
Date Collected: 05/22/23 15:35
Date Received: 06/06/23 14:55
Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	0.24 J	ug/L	0.50	0.09	1	06/28/23 14:23	06/09/23	
Iron	200.8	9.7	ug/L	2.0	0.3	1	06/28/23 14:23	06/09/23	
Manganese	200.8	16.5	ug/L	2.0	0.04	1	06/28/23 14:23	06/09/23	

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dba ALS Environmental

Analytical Report

Client: Anchor QEA, LLC
Project: 2023-Barry/221114-08.02 Task 06
Sample Matrix: Water
Sample Name: BY-COL-SSE-MW-8-UT-F2
Lab Code: K2306335-026

Service Request: K2306335
Date Collected: 05/23/23 15:35
Date Received: 06/06/23 14:55
Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	10.0	ug/L	2.5	0.5	5	06/28/23 14:47	06/09/23	
Iron	200.8	3640	ug/L	10	2	5	06/28/23 14:47	06/09/23	
Manganese	200.8	71	ug/L	10	0.2	5	06/28/23 14:47	06/09/23	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Anchor QEA, LLC
Project: 2023-Barry/221114-08.02 Task 06
Sample Matrix: Water
Sample Name: BY-COL-SSE-MW-8-UT-F3
Lab Code: K2306335-027

Service Request: K2306335
Date Collected: 05/25/23 15:35
Date Received: 06/06/23 14:55
Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	0.27 J	ug/L	0.50	0.09	1	06/28/23 14:25	06/09/23	
Iron	200.8	599	ug/L	2.0	0.3	1	06/28/23 14:25	06/09/23	
Manganese	200.8	3.4	ug/L	2.0	0.04	1	06/28/23 14:25	06/09/23	

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dba ALS Environmental

Analytical Report

Client: Anchor QEA, LLC
Project: 2023-Barry/221114-08.02 Task 06
Sample Matrix: Water
Sample Name: BY-COL-SSE-MW-8-UT-F4
Lab Code: K2306335-028

Service Request: K2306335
Date Collected: 05/26/23 15:35
Date Received: 06/06/23 14:55
Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	1.59	ug/L	0.50	0.09	1	06/28/23 14:27	06/09/23	
Iron	200.8	1300	ug/L	2.0	0.3	1	06/28/23 14:27	06/09/23	
Manganese	200.8	6.2	ug/L	2.0	0.04	1	06/28/23 14:27	06/09/23	



QC Summary Forms

ALS Environmental—Kelso Laboratory
1317 South 13th Avenue, Kelso, WA 98626
Phone (360) 577-7222 Fax (360) 425-9096
www.alsglobal.com



Metals

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1317 South 13th Avenue, Kelso, WA 98626
Phone (360) 577-7222 Fax (360) 425-9096
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Analytical Report

Client: Anchor QEA, LLC
Project: 2023-Barry/221114-08.02 Task 06
Sample Matrix: Water
Sample Name: Method Blank
Lab Code: KQ2310099-03

Service Request: K2306335
Date Collected: NA
Date Received: NA
Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	ND U	ug/L	0.50	0.09	1	06/15/23 18:18	06/09/23	
Cobalt	200.8	ND U	ug/L	0.020	0.009	1	06/15/23 18:18	06/09/23	
Iron	200.8	3.4	ug/L	2.0	0.3	1	06/15/23 18:18	06/09/23	
Manganese	200.8	ND U	ug/L	0.20	0.04	1	06/15/23 18:18	06/09/23	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Anchor QEA, LLC
Project: 2023-Barry/221114-08.02 Task 06
Sample Matrix: Water
Sample Name: Method Blank
Lab Code: KQ2310228-06

Service Request: K2306335
Date Collected: NA
Date Received: NA
Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	ND U	ug/L	0.50	0.09	1	06/28/23 13:28	06/09/23	
Cobalt	200.8	ND U	ug/L	0.020	0.009	1	06/28/23 13:28	06/09/23	
Iron	200.8	ND U	ug/L	2.0	0.3	1	06/28/23 13:28	06/09/23	
Manganese	200.8	ND U	ug/L	2.0	0.04	1	06/28/23 13:28	06/09/23	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Anchor QEA, LLC
Project: 2023-Barry/221114-08.02 Task 06
Sample Matrix: Water
Sample Name: Method Blank
Lab Code: KQ2310764-01

Service Request: K2306335
Date Collected: NA
Date Received: NA
Basis: NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Iron	200.8	ND U	ug/L	2.0	0.3	1	06/20/23 14:11	06/20/23	

ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client: Anchor QEA, LLC
Project: 2023-Barry/221114-08.02 Task 06
Sample Matrix: Water

Service Request: K2306335
Date Collected: 05/25/23
Date Received: 06/06/23
Date Analyzed: 06/28/23
Date Extracted: 06/9/23

Matrix Spike Summary
Dissolved Metals

Sample Name: BY-COL-SSE-MW-15-PM_F3
Lab Code: K2306335-011
Analysis Method: 200.8
Prep Method: EPA CLP ILM04.0

Units: ug/L
Basis: NA

Matrix Spike
KQ2310228-08

Analyte Name	Sample Result	Result	Spike Amount	% Rec	% Rec Limits
Arsenic	0.41 J	49.5	50.0	98	70-130
Cobalt	1.72	28.4	25.0	107	70-130
Iron	5620	5830	50.0	428 #	70-130
Manganese	61.5	86.4	25.0	100	70-130

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

Matrix Spike and Matrix Spike Duplicate Data is presented for information purposes only. The matrix may or may not be relevant to samples reported in this report. The laboratory evaluates system performance based on the LCS and LCSD control limits.

ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client: Anchor QEA, LLC
Project: 2023-Barry/221114-08.02 Task 06
Sample Matrix: Water

Service Request: K2306335
Date Collected: 05/26/23
Date Received: 06/06/23
Date Analyzed: 06/28/23
Date Extracted: 06/9/23

Matrix Spike Summary
Dissolved Metals

Sample Name: BY-COL-SSE-MW-15-PM_F4
Lab Code: K2306335-012
Analysis Method: 200.8
Prep Method: EPA CLP ILM04.0

Units: ug/L
Basis: NA

Matrix Spike
KQ2310228-10

Analyte Name	Sample Result	Result	Spike Amount	% Rec	% Rec Limits
Arsenic	4.95	48.0	50.0	86	70-130
Cobalt	3.68	29.6	25.0	104	70-130
Iron	17700	17900	50.0	496 #	70-130
Manganese	51.8	76.0	25.0	97	70-130

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

Matrix Spike and Matrix Spike Duplicate Data is presented for information purposes only. The matrix may or may not be relevant to samples reported in this report. The laboratory evaluates system performance based on the LCS and LCSD control limits.

ALS Group USA, Corp.

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QA/QC Report

Client: Anchor QEA, LLC
Project 2023-Barry/221114-08.02 Task 06
Sample Matrix: Water

Service Request: K2306335
Date Collected: 05/25/23
Date Received: 06/06/23
Date Analyzed: 06/28/23

Replicate Sample Summary
Dissolved Metals

Sample Name: BY-COL-SSE-MW-15-PM_F3
Lab Code: K2306335-011

Units: ug/L
Basis: NA

Analyte Name	Analysis Method	MRL	MDL	Sample Result	Duplicate	Average	RPD	RPD Limit
					Sample KQ2310228-09 Result			
Arsenic	200.8	0.50	0.09	0.41 J	0.33 J	0.37	22 #	20
Cobalt	200.8	0.020	0.009	1.72	1.81	1.77	5	20
Iron	200.8	2.0	0.3	5620	5950	5790	6	20
Manganese	200.8	2.0	0.04	61.5	62.8	62.2	2	20

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

ALS Group USA, Corp.

dba ALS Environmental

QA/QC Report

Client: Anchor QEA, LLC
Project: 2023-Barry/221114-08.02 Task 06
Sample Matrix: Water

Service Request: K2306335
Date Collected: 05/26/23
Date Received: 06/06/23
Date Analyzed: 06/28/23

Replicate Sample Summary
Dissolved Metals

Sample Name: BY-COL-SSE-MW-15-PM_F4
Lab Code: K2306335-012

Units: ug/L
Basis: NA

Table with 9 columns: Analyte Name, Analysis Method, MRL, MDL, Sample Result, Duplicate Sample KQ2310228-11 Result, Average, RPD, RPD Limit. Rows include Arsenic, Cobalt, Iron, and Manganese.

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

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QA/QC Report

Client: Anchor QEA, LLC
Project: 2023-Barry/221114-08.02 Task 06
Sample Matrix: Water

Service Request: K2306335
Date Analyzed: 06/15/23

Lab Control Sample Summary
Dissolved Metals

Units:ug/L
Basis:NA

Lab Control Sample
KQ2310099-04

Analyte Name	Analytical Method	Result	Spike Amount	% Rec	% Rec Limits
Arsenic	200.8	46.8	50.0	94	85-115
Cobalt	200.8	24.1	25.0	97	85-115
Iron	200.8	47.9	50.0	96	85-115
Manganese	200.8	24.5	25.0	98	85-115

ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client: Anchor QEA, LLC
Project: 2023-Barry/221114-08.02 Task 06
Sample Matrix: Water

Service Request: K2306335
Date Analyzed: 06/28/23

Lab Control Sample Summary
Dissolved Metals

Units:ug/L
Basis:NA

Lab Control Sample
KQ2310228-07

Analyte Name	Analytical Method	Result	Spike Amount	% Rec	% Rec Limits
Arsenic	200.8	50.0	50.0	100	85-115
Cobalt	200.8	25.9	25.0	104	85-115
Iron	200.8	50.3	50.0	101	85-115
Manganese	200.8	25.7	25.0	103	85-115

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QA/QC Report

Client: Anchor QEA, LLC
Project: 2023-Barry/221114-08.02 Task 06
Sample Matrix: Water

Service Request: K2306335
Date Analyzed: 06/20/23

Duplicate Lab Control Sample Summary
Dissolved Metals

Units:ug/L
Basis:NA

Lab Control Sample
KQ2310764-03

Duplicate Lab Control Sample
KQ2310764-04

Analyte Name	Analytical Method	Result	Spike Amount	% Rec	Result	Spike Amount	% Rec	% Rec Limits	RPD	RPD Limit
Iron	200.8	46.4	50.0	93	47.1	50.0	94	85-115	1	20



June 29, 2023

Service Request No:K2306532

Masa Kanematsu
Anchor QEA, LLC
6720 SW Macadam Avenue
Suite 125
Portland, OR 97219

Laboratory Results for: 2023-Barry

Dear Masa,

Enclosed are the results of the sample(s) submitted to our laboratory June 06, 2023
For your reference, these analyses have been assigned our service request number **K2306532**.

Analyses were performed according to our laboratory's NELAP-approved quality assurance program. The test results meet requirements of the current NELAP standards, where applicable, and except as noted in the laboratory case narrative provided. For a specific list of NELAP-accredited analytes, refer to the certifications section at www.alsglobal.com. All results are intended to be considered in their entirety, and ALS Group USA Corp. dba ALS Environmental (ALS) is not responsible for use of less than the complete report. Results apply only to the items submitted to the laboratory for analysis and individual items (samples) analyzed, as listed in the report.

Please contact me if you have any questions. My extension is 3376. You may also contact me via email at Mark.Harris@alsglobal.com.

Respectfully submitted,

ALS Group USA, Corp. dba ALS Environmental

Mark Harris
Project Manager

ADDRESS 1317 S. 13th Avenue, Kelso, WA 98626
PHONE +1 360 577 7222 | FAX +1 360 636 1068
ALS Group USA, Corp.
dba ALS Environmental



Narrative Documents

ALS Environmental—Kelso Laboratory
1317 South 13th Avenue, Kelso, WA 98626
Phone (360) 577-7222 Fax (360) 425-9096
www.alsglobal.com



Client: Anchor QEA, LLC
Project: 2023-Barry
Sample Matrix: Soil

Service Request: K2306532
Date Received: 06/06/2023

CASE NARRATIVE

All analyses were performed consistent with the quality assurance program of ALS Environmental. This report contains analytical results for samples for the Tier II level requested by the client.

Sample Receipt:

Six soil samples were received for analysis at ALS Environmental on 06/06/2023. Any discrepancies upon initial sample inspection are annotated on the sample receipt and preservation form included within this report. The samples were stored at minimum in accordance with the analytical method requirements.

Metals:

No significant anomalies were noted with this analysis.

Noel D. O'Connell

Approved by _____

Date 06/29/2023



SAMPLE DETECTION SUMMARY

This form includes only detections above the reporting levels. For a full listing of sample results, continue to the Sample Results section of this Report.

CLIENT ID: BY-COL-SSE-MW-8-PM-F5	Lab ID: K2306532-001
---	-----------------------------

Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic	0.18	J	0.06	0.50	mg/Kg	200.8
Iron	443		0.4	1.0	mg/Kg	200.8
Manganese	2.14		0.020	0.050	mg/Kg	200.8

CLIENT ID: BY-COL-SSE-MW-8-UT-F5	Lab ID: K2306532-004
---	-----------------------------

Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic	0.10	J	0.06	0.49	mg/Kg	200.8
Iron	292		0.39	0.99	mg/Kg	200.8
Manganese	1.63		0.020	0.049	mg/Kg	200.8

CLIENT ID: BY-COL-SSE-MW-15-PM-F5	Lab ID: K2306532-002
--	-----------------------------

Analyte	Results	Flag	MDL	MRL	Units	Method
Cobalt	0.110		0.006	0.020	mg/Kg	200.8
Iron	75.0		0.40	0.99	mg/Kg	200.8
Manganese	0.669		0.020	0.050	mg/Kg	200.8

CLIENT ID: BY-COL-SSE-MW-15-FS-F5	Lab ID: K2306532-003
--	-----------------------------

Analyte	Results	Flag	MDL	MRL	Units	Method
Cobalt	0.080		0.006	0.020	mg/Kg	200.8
Iron	108		0.39	0.98	mg/Kg	200.8
Manganese	0.925		0.020	0.049	mg/Kg	200.8

CLIENT ID: BY-COL-SSE-MW-15V-UT-F5	Lab ID: K2306532-005
---	-----------------------------

Analyte	Results	Flag	MDL	MRL	Units	Method
Cobalt	0.103		0.006	0.020	mg/Kg	200.8
Iron	130		0.39	0.98	mg/Kg	200.8
Manganese	1.10		0.020	0.049	mg/Kg	200.8

CLIENT ID: BY-COL-SSE-MW-15-PM_DUP-F5	Lab ID: K2306532-006
--	-----------------------------

Analyte	Results	Flag	MDL	MRL	Units	Method
Cobalt	0.079		0.006	0.020	mg/Kg	200.8
Iron	94.8		0.39	0.98	mg/Kg	200.8
Manganese	0.878		0.020	0.049	mg/Kg	200.8



Sample Receipt Information

ALS Environmental—Kelso Laboratory
1317 South 13th Avenue, Kelso, WA 98626
Phone (360) 577-7222 Fax (360) 425-9096
www.alsglobal.com

Client: Anchor QEA, LLC
Project: 2023-Barry/221114-08.02 Task 06


Service Request:K2306532

SAMPLE CROSS-REFERENCE

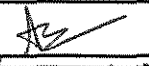
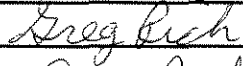
<u>SAMPLE #</u>	<u>CLIENT SAMPLE ID</u>	<u>DATE</u>	<u>TIME</u>
K2306532-001	BY-COL-SSE-MW-8-PM-F5	5/30/2023	1105
K2306532-002	BY-COL-SSE-MW-15-PM-F5	5/30/2023	1115
K2306532-003	BY-COL-SSE-MW-15-FS-F5	5/30/2023	1120
K2306532-004	BY-COL-SSE-MW-8-UT-F5	5/30/2023	1135
K2306532-005	BY-COL-SSE-MW-15V-UT-F5	5/30/2023	1145
K2306532-006	BY-COL-SSE-MW-15-PM_DUP-F5	5/30/2023	1155


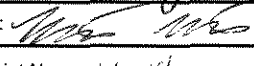
Chain of Custody Record & Laboratory Analysis Request

K2306532

Laboratory Number: 503-972-5019					Parameters												 ANCHOR QEA Masa Kanematsu 6720 SW Macadam Ave Suite 300 Portland OR 97219 Comments/Preservation			
Date:		6/5/2023			No. of Containers	Dissolved Metals (As, Fe, Mn)	Dissolved Metals (As, Co, Fe, Mn)													
Project Name:		Barry																		
Project Number:		221114-08.02 Task 06																		
Project Manager:		Masa Kanematsu																		
Phone Number:		503-972-5001 (backup number: 503-798-3456)																		
Shipment Method:		ALS Carrier																		
Line	Field Sample ID	Collection		Matrix																
		Date	Time																	
29	BY-COL-SSE-MW-8-PM-F5	5/30/2023	11:05	Solid	1	X														
30	BY-COL-SSE-MW-15-PM-F5	5/30/2023	11:15	Solid	1		X													
31	BY-COL-SSE-MW-15-FS-F5	5/30/2023	11:20	Solid	1		X													
32	BY-COL-SSE-MW-8-UT-F5	5/30/2023	11:35	Solid	1	X														
33	BY-COL-SSE-MW-15V-UT-F5	5/30/2023	11:45	Solid	1		X													
34	BY-COL-SSE-MW-15-PM DUP-F5	5/30/2023	11:55	Solid	1		X													

Notes: Please Contact Masa (503-972-5001, mkanematsu@anchorqea.com) if running > 10X dilution. Please analyze by ICP-MS method 200.8 to achieve the MDL < 1 ppb.

Relinquished by: Sumant Avasarala Signature/Print Name: 	Company: Anchor QEA Date/Time: 06/06/2023 12:05 pm
Relinquished by:  Signature/Print Name: Greg Rich	Company: ALS Date/Time: 6-6-23 1455

Received by:  Signature/Print Name: Greg Rich 6-6-23 12:05 PM
Received by:  Signature/Print Name: Michelyn Mfola 6/6/23 1455

PM MH

Cooler Receipt and Preservation Form

Client Anchoc Service Request K23 06532
Received: 6/6/23 Opened: 6/6/23 By: VNM Unloaded: 6/6/23 By: VNM

- 1. Samples were received via? USPS Fed Ex UPS DHL PDX Courier Hand Delivered
- 2. Samples were received in: (circle) Cooler Box Envelope Other NA
- 3. Were custody seals on coolers? NA Y N If yes, how many and where? _____
If present, were custody seals intact? Y N If present, were they signed and dated? Y N

Temp Blank	Sample Temp	IR Gun	Cooler #/COC ID / NA	Out of temp indicate with "X"	PM Notified If out of temp	Tracking Number NA	Filed
<u>3.5</u>		<u>IR02</u>					

4. Was a Temperature Blank present in cooler? NA Y N If yes, notate the temperature in the appropriate column above:
If no, take the temperature of a representative sample bottle contained within the cooler; notate in the column "Sample Temp":

5. Were samples received within the method specified temperature ranges? NA Y N
If no, were they received on ice and same day as collected? If not, notate the cooler # above and notify the PM. NA Y N
If applicable, tissue samples were received: Frozen Partially Thawed Thawed

6. Packing material: Inserts Buggies Bubble Wrap Gel Packs Wet Ice Dry Ice Sleeves

- 7. Were custody papers properly filled out (ink, signed, etc.)? NA Y N
- 8. Were samples received in good condition (unbroken) NA Y N
- 9. Were all sample labels complete (ie, analysis, preservation, etc.)? NA Y N
- 10. Did all sample labels and tags agree with custody papers? NA Y N
- 11. Were appropriate bottles/containers and volumes received for the tests indicated? NA Y N
- 12. Were the pH-preserved bottles (see SMO GEN SOP) received at the appropriate pH? Indicate in the table below NA Y N
- 13. Were VOA vials received without headspace? Indicate in the table below NA Y N
- 14. Was C12/Res negative? NA Y N
- 15. Were samples received within the method specified time limit? If not, notate the error below and notify the PM NA Y N
- 16. Were 100ml sterile microbiology bottles filled exactly to the 100ml mark? NA Y N Underfilled Overfilled

Sample ID on Bottle	Sample ID on COC	Identified by:

Sample ID	Bottle Count	Bottle Type	Head-space	Broke	pH	Reagent	Volume added	Reagent Lot Number	Initials	Time

Notes, Discrepancies, Resolutions: Samples are solids so we are assuming they are



Miscellaneous Forms

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Inorganic Data Qualifiers

- * The result is an outlier. See case narrative.
- # The control limit criteria is not applicable.
- B The analyte was found in the associated method blank at a level that is significant relative to the sample result as defined by the DOD or NELAC standards.
- E The result is an estimate amount because the value exceeded the instrument calibration range.
- J The result is an estimated value.
- U The analyte was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL.
DOD-QSM 4.2 definition : Analyte was not detected and is reported as less than the LOD or as defined by the project. The detection limit is adjusted for dilution.
- i The MRL/MDL or LOQ/LOD is elevated due to a matrix interference.
- X See case narrative.
- Q See case narrative. One or more quality control criteria was outside the limits.
- H The holding time for this test is immediately following sample collection. The samples were analyzed as soon as possible after receipt by the laboratory.

Metals Data Qualifiers

- # The control limit criteria is not applicable.
- J The result is an estimated value.
- E The percent difference for the serial dilution was greater than 10%, indicating a possible matrix interference in the sample.
- M The duplicate injection precision was not met.
- N The Matrix Spike sample recovery is not within control limits. See case narrative.
- S The reported value was determined by the Method of Standard Additions (MSA).
- U The analyte was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL.
DOD-QSM 4.2 definition : Analyte was not detected and is reported as less than the LOD or as defined by the project. The detection limit is adjusted for dilution.
- W The post-digestion spike for furnace AA analysis is out of control limits, while sample absorbance is less than 50% of spike absorbance.
 - i The MRL/MDL or LOQ/LOD is elevated due to a matrix interference.
- X See case narrative.
- + The correlation coefficient for the MSA is less than 0.995.
- Q See case narrative. One or more quality control criteria was outside the limits.

Organic Data Qualifiers

- * The result is an outlier. See case narrative.
- # The control limit criteria is not applicable. See case narrative.
- A A tentatively identified compound, a suspected aldol-condensation product.
- B The analyte was found in the associated method blank at a level that is significant relative to the sample result as defined by the DOD or NELAC standards.
- C The analyte was qualitatively confirmed using GC/MS techniques, pattern recognition, or by comparing to historical data.
- D The reported result is from a dilution.
- E The result is an estimated value.
- J The result is an estimated value.
- N The result is presumptive. The analyte was tentatively identified, but a confirmation analysis was not performed.
- P The GC or HPLC confirmation criteria was exceeded. The relative percent difference is greater than 40% between the two analytical results.
- U The analyte was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL.
DOD-QSM 4.2 definition : Analyte was not detected and is reported as less than the LOD or as defined by the project. The detection limit is adjusted for dilution.
 - i The MRL/MDL or LOQ/LOD is elevated due to a chromatographic interference.
- X See case narrative.
- Q See case narrative. One or more quality control criteria was outside the limits.

Additional Petroleum Hydrocarbon Specific Qualifiers

- F The chromatographic fingerprint of the sample matches the elution pattern of the calibration standard.
- L The chromatographic fingerprint of the sample resembles a petroleum product, but the elution pattern indicates the presence of a greater amount of lighter molecular weight constituents than the calibration standard.
- H The chromatographic fingerprint of the sample resembles a petroleum product, but the elution pattern indicates the presence of a greater amount of heavier molecular weight constituents than the calibration standard.
- O The chromatographic fingerprint of the sample resembles an oil, but does not match the calibration standard.
- Y The chromatographic fingerprint of the sample resembles a petroleum product eluting in approximately the correct carbon range, but the elution pattern does not match the calibration standard.
- Z The chromatographic fingerprint does not resemble a petroleum product.

**ALS Group USA Corp. dba ALS Environmental (ALS) - Kelso
State Certifications, Accreditations, and Licenses**

Agency	Web Site	Number
Alaska DEH	http://dec.alaska.gov/eh/lab/cs/csapproval.htm	UST-040
Arizona DHS	http://www.azdhs.gov/lab/license/env.htm	AZ0339
Arkansas - DEQ	http://www.adeq.state.ar.us/techsvs/labcert.htm	88-0637
California DHS (ELAP)	http://www.cdph.ca.gov/certlic/labs/Pages/ELAP.aspx	2795
DOD ELAP	http://www.denix.osd.mil/edqw/Accreditation/AccreditedLabs.cfm	L16-58-R4
Florida DOH	http://www.doh.state.fl.us/lab/EnvLabCert/WaterCert.htm	E87412
Hawaii DOH	http://health.hawaii.gov/	-
ISO 17025	http://www.pjllabs.com/	L16-57
Louisiana DEQ	http://www.deq.louisiana.gov/page/la-lab-accreditation	03016
Maine DHS	http://www.maine.gov/dhhs/	WA01276
Minnesota DOH	http://www.health.state.mn.us/accreditation	053-999-457
Nevada DEP	http://ndep.nv.gov/bsdw/labservice.htm	WA01276
New Jersey DEP	http://www.nj.gov/dep/enforcement/oqa.html	WA005
New York - DOH	https://www.wadsworth.org/regulatory/elap	12060
North Carolina DEQ	https://deq.nc.gov/about/divisions/water-resources/water-resources-data/water-sciences-home-page/laboratory-certification-branch/non-field-lab-certification	605
Oklahoma DEQ	http://www.deq.state.ok.us/CSDnew/labcert.htm	9801
Oregon – DEQ (NELAP)	http://public.health.oregon.gov/LaboratoryServices/EnvironmentalLaboratoryAccreditation/Pages/index.aspx	WA100010
South Carolina DHEC	http://www.scdhec.gov/environment/EnvironmentalLabCertification/	61002
Texas CEQ	http://www.tceq.texas.gov/field/qa/env_lab_accreditation.html	T104704427
Washington DOE	http://www.ecy.wa.gov/programs/eap/labs/lab-accreditation.html	C544
Wyoming (EPA Region 8)	https://www.epa.gov/region8-waterops/epa-region-8-certified-drinking-water	-
Kelso Laboratory Website	www.alsglobal.com	NA

Analyses were performed according to our laboratory's NELAP-approved quality assurance program. A complete listing of specific NELAP-certified analytes, can be found in the certification section at www.ALSGlobal.com or at the accreditation bodies web site.

Please refer to the certification and/or accreditation body's web site if samples are submitted for compliance purposes. The states highlighted above, require the analysis be listed on the state certification if used for compliance purposes and if the method/analyte is offered by that state.

Acronyms

ASTM	American Society for Testing and Materials
A2LA	American Association for Laboratory Accreditation
CARB	California Air Resources Board
CAS Number	Chemical Abstract Service registry Number
CFC	Chlorofluorocarbon
CFU	Colony-Forming Unit
DEC	Department of Environmental Conservation
DEQ	Department of Environmental Quality
DHS	Department of Health Services
DOE	Department of Ecology
DOH	Department of Health
EPA	U. S. Environmental Protection Agency
ELAP	Environmental Laboratory Accreditation Program
GC	Gas Chromatography
GC/MS	Gas Chromatography/Mass Spectrometry
LOD	Limit of Detection
LOQ	Limit of Quantitation
LUFT	Leaking Underground Fuel Tank
M	Modified
MCL	Maximum Contaminant Level is the highest permissible concentration of a substance allowed in drinking water as established by the USEPA.
MDL	Method Detection Limit
MPN	Most Probable Number
MRL	Method Reporting Limit
NA	Not Applicable
NC	Not Calculated
NCASI	National Council of the Paper Industry for Air and Stream Improvement
ND	Not Detected
NIOSH	National Institute for Occupational Safety and Health
PQL	Practical Quantitation Limit
RCRA	Resource Conservation and Recovery Act
SIM	Selected Ion Monitoring
TPH	Total Petroleum Hydrocarbons
tr	Trace level is the concentration of an analyte that is less than the PQL but greater than or equal to the MDL.

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Analyst Summary report

Client: Anchor QEA, LLC
Project: 2023-Barry/221114-08.02 Task 06

Service Request: K2306532

Sample Name: BY-COL-SSE-MW-8-PM-F5
Lab Code: K2306532-001
Sample Matrix: Soil

Date Collected: 05/30/23
Date Received: 06/6/23

Analysis Method
200.8

Extracted/Digested By
MSOLADEY

Analyzed By
JCHAN

Sample Name: BY-COL-SSE-MW-15-PM-F5
Lab Code: K2306532-002
Sample Matrix: Soil

Date Collected: 05/30/23
Date Received: 06/6/23

Analysis Method
200.8

Extracted/Digested By
MSOLADEY

Analyzed By
JCHAN

Sample Name: BY-COL-SSE-MW-15-FS-F5
Lab Code: K2306532-003
Sample Matrix: Soil

Date Collected: 05/30/23
Date Received: 06/6/23

Analysis Method
200.8

Extracted/Digested By
MSOLADEY

Analyzed By
JCHAN

Sample Name: BY-COL-SSE-MW-8-UT-F5
Lab Code: K2306532-004
Sample Matrix: Soil

Date Collected: 05/30/23
Date Received: 06/6/23

Analysis Method
200.8

Extracted/Digested By
MSOLADEY

Analyzed By
JCHAN

Sample Name: BY-COL-SSE-MW-15V-UT-F5
Lab Code: K2306532-005
Sample Matrix: Soil

Date Collected: 05/30/23
Date Received: 06/6/23

Analysis Method
200.8

Extracted/Digested By
MSOLADEY

Analyzed By
JCHAN

ALS Group USA, Corp.
dba ALS Environmental

Analyst Summary report

Client: Anchor QEA, LLC
Project: 2023-Barry/221114-08.02 Task 06

Service Request: K2306532

Sample Name: BY-COL-SSE-MW-15-PM_DUP-F5
Lab Code: K2306532-006
Sample Matrix: Soil

Date Collected: 05/30/23
Date Received: 06/6/23

Analysis Method
200.8

Extracted/Digested By
MSOLADEY

Analyzed By
JCHAN



Sample Results

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Metals

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Analytical Report

Client: Anchor QEA, LLC
Project: 2023-Barry/221114-08.02 Task 06
Sample Matrix: Soil
Sample Name: BY-COL-SSE-MW-8-PM-F5
Lab Code: K2306532-001

Service Request: K2306532
Date Collected: 05/30/23 11:05
Date Received: 06/06/23 14:55
Basis: As Received

Total Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	0.18 J	mg/Kg	0.50	0.06	5	06/28/23 11:42	06/13/23	
Iron	200.8	443	mg/Kg	1.0	0.4	5	06/28/23 11:42	06/13/23	
Manganese	200.8	2.14	mg/Kg	0.050	0.020	5	06/28/23 11:42	06/13/23	

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Analytical Report

Client: Anchor QEA, LLC
Project: 2023-Barry/221114-08.02 Task 06
Sample Matrix: Soil
Sample Name: BY-COL-SSE-MW-15-PM-F5
Lab Code: K2306532-002

Service Request: K2306532
Date Collected: 05/30/23 11:15
Date Received: 06/06/23 14:55
Basis: As Received

Total Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	ND U	mg/Kg	0.50	0.06	5	06/28/23 11:43	06/13/23	
Cobalt	200.8	0.110	mg/Kg	0.020	0.006	5	06/28/23 11:43	06/13/23	
Iron	200.8	75.0	mg/Kg	0.99	0.40	5	06/28/23 11:43	06/13/23	
Manganese	200.8	0.669	mg/Kg	0.050	0.020	5	06/28/23 11:43	06/13/23	

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Analytical Report

Client: Anchor QEA, LLC
Project: 2023-Barry/221114-08.02 Task 06
Sample Matrix: Soil
Sample Name: BY-COL-SSE-MW-15-FS-F5
Lab Code: K2306532-003

Service Request: K2306532
Date Collected: 05/30/23 11:20
Date Received: 06/06/23 14:55
Basis: As Received

Total Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	ND U	mg/Kg	0.49	0.06	5	06/28/23 11:45	06/13/23	
Cobalt	200.8	0.080	mg/Kg	0.020	0.006	5	06/28/23 11:45	06/13/23	
Iron	200.8	108	mg/Kg	0.98	0.39	5	06/28/23 11:45	06/13/23	
Manganese	200.8	0.925	mg/Kg	0.049	0.020	5	06/28/23 11:45	06/13/23	

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Analytical Report

Client: Anchor QEA, LLC
Project: 2023-Barry/221114-08.02 Task 06
Sample Matrix: Soil
Sample Name: BY-COL-SSE-MW-8-UT-F5
Lab Code: K2306532-004

Service Request: K2306532
Date Collected: 05/30/23 11:35
Date Received: 06/06/23 14:55
Basis: As Received

Total Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	0.10 J	mg/Kg	0.49	0.06	5	06/28/23 11:46	06/13/23	
Iron	200.8	292	mg/Kg	0.99	0.39	5	06/28/23 11:46	06/13/23	
Manganese	200.8	1.63	mg/Kg	0.049	0.020	5	06/28/23 11:46	06/13/23	

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Analytical Report

Client: Anchor QEA, LLC
Project: 2023-Barry/221114-08.02 Task 06
Sample Matrix: Soil
Sample Name: BY-COL-SSE-MW-15V-UT-F5
Lab Code: K2306532-005

Service Request: K2306532
Date Collected: 05/30/23 11:45
Date Received: 06/06/23 14:55
Basis: As Received

Total Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	ND U	mg/Kg	0.49	0.06	5	06/28/23 11:47	06/13/23	
Cobalt	200.8	0.103	mg/Kg	0.020	0.006	5	06/28/23 11:47	06/13/23	
Iron	200.8	130	mg/Kg	0.98	0.39	5	06/28/23 11:47	06/13/23	
Manganese	200.8	1.10	mg/Kg	0.049	0.020	5	06/28/23 11:47	06/13/23	

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Analytical Report

Client: Anchor QEA, LLC
Project: 2023-Barry/221114-08.02 Task 06
Sample Matrix: Soil
Sample Name: BY-COL-SSE-MW-15-PM_DUP-F5
Lab Code: K2306532-006

Service Request: K2306532
Date Collected: 05/30/23 11:55
Date Received: 06/06/23 14:55
Basis: As Received

Total Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	ND U	mg/Kg	0.49	0.06	5	06/28/23 11:49	06/13/23	
Cobalt	200.8	0.079	mg/Kg	0.020	0.006	5	06/28/23 11:49	06/13/23	
Iron	200.8	94.8	mg/Kg	0.98	0.39	5	06/28/23 11:49	06/13/23	
Manganese	200.8	0.878	mg/Kg	0.049	0.020	5	06/28/23 11:49	06/13/23	



QC Summary Forms

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dba ALS Environmental

Analytical Report

Client: Anchor QEA, LLC
Project: 2023-Barry/221114-08.02 Task 06
Sample Matrix: Soil
Sample Name: Method Blank
Lab Code: KQ2310419-01

Service Request: K2306532
Date Collected: NA
Date Received: NA

Basis: As Received

Total Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	200.8	ND U	mg/Kg	0.50	0.06	5	06/28/23 11:38	06/13/23	
Cobalt	200.8	ND U	mg/Kg	0.020	0.006	5	06/28/23 11:38	06/13/23	
Iron	200.8	0.4 J	mg/Kg	1.0	0.4	5	06/28/23 11:38	06/13/23	
Manganese	200.8	0.022 J	mg/Kg	0.050	0.020	5	06/28/23 11:38	06/13/23	

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dba ALS Environmental

QA/QC Report

Client: Anchor QEA, LLC
Project: 2023-Barry/221114-08.02 Task 06
Sample Matrix: Soil

Service Request: K2306532
Date Analyzed: 06/28/23

Duplicate Lab Control Sample Summary
Total Metals

Units:mg/Kg
Basis:As Received

Lab Control Sample
KQ2310419-02

Duplicate Lab Control Sample
KQ2310419-03

Analyte Name	Analytical Method	Result	Spike Amount	% Rec	Result	Spike Amount	% Rec	% Rec Limits	RPD	RPD Limit
Arsenic	200.8	92.1	100	92	93.2	100	93	85-115	1	30
Cobalt	200.8	91.2	100	91	95.2	100	95	85-115	4	30
Iron	200.8	186	200	93	192	200	96	85-115	3	30
Manganese	200.8	93.6	100	94	94.9	100	95	85-115	1	30