

**2019 ANNUAL GROUNDWATER MONITORING AND
CORRECTIVE ACTION REPORT**

**ALABAMA POWER COMPANY
PLANT BARRY
ASH POND**

January 31, 2020

Prepared for

Alabama Power Company
Birmingham, Alabama

By

Southern Company Services
Earth Science and Environmental Engineering



CERTIFICATION STATEMENT

This *Annual Groundwater Monitoring and Corrective Action Report, Alabama Power Company - Plant Barry Ash Pond* has been prepared in accordance with the United States Environmental Protection Agency's coal combustion residual rule (40 CFR Part 257, Subpart D) and ADEM Admin. Code Ch. 335-13-15 under the supervision of a licensed professional engineer in the State of Alabama. As such, I certify that the information contained herein is true and accurate to the best of my knowledge.

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EXECUTIVE SUMMARY

In accordance with the United States Environmental Protection Agency (EPA) coal combustion residual (CCR) rule (40 CFR Part 257, Subpart D) and the State of Alabama's ADEM Admin. Code Ch. 335-13-15, this 2019 Annual Groundwater Monitoring and Corrective Action Report has been prepared to document 2019 semi-annual assessment groundwater monitoring activities at the Plant Barry Ash Pond and to satisfy the requirements of § 257.90(e) and ADEM Admin. Code r. 335-13-15-.06(1)(f). Semi-annual assessment monitoring and associated reporting for Plant Barry Ash Pond is performed in accordance with the monitoring requirements § 257.90 through § 257.95 and ADEM Admin. Code r. 335-13-15-.06(1) through r. 335-13-15-.06(6). The following summarizes results obtained from 2019 groundwater monitoring activities at the site:

- The CCR unit began the monitoring period in assessment monitoring pursuant to EPA § 257.95 and ADEM Admin. Code r. 335-13-15-.06(6). Statistically significant increases (SSIs) of Appendix III constituents over background were identified in the results of the first detection monitoring event and assessment monitoring was initiated in January 2018.
- Statistically significant levels (SSLs) of Appendix IV parameters above groundwater protection standards (GWPS) have been identified during the 2019 semiannual monitoring events. Consequently, an assessment of corrective measures (ACM) was initiated on January 13, 2019 and completed on June 12, 2019 according to the requirements of § 257.96 and ADEM Admin. Code r. 335-13-15-.06(7). The ACM was subsequently submitted to the Agency and posted to the site's CCR compliance web site.
- The CCR Unit concluded the monitoring period in assessment monitoring and is evaluating potential groundwater remedies identified in the ACM. The following monitoring-related activities are planned for the CCR Unit:
 - Installation, sampling, and analyses of additional (Phase II) delineation wells,
 - Collect additional data to further evaluate remedies selected as feasible for the remediation of arsenic and cobalt as described in the ACM; and
 - Conduct the first semi-annual assessment monitoring sampling event in the April or May of 2020 and submit a semi-annual groundwater monitoring report summarizing findings by July 31, 2020.

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ABBREVIATIONS

ACM	Assessment of Corrective Measures
ADEM	Alabama Department of Environmental Management
AL	Alabama
APC	Alabama Power Company
APCEL	APC Environmental Laboratory
ASD	Alternate Source Demonstration
ASTM	American Society for Testing and Materials
BGS	below ground surface
CCR	Coal Combustion Residual
CFR	Code of Federal Regulations
COC	chain of custody
DO	dissolved oxygen
EPA	United States Environmental Protection Agency
ft	feet
GW	groundwater
GWPS	Groundwater Protection Standard(s)
LCL	Lower Confidence Limit(s)
m	meter
mg/L	milligram per liter
MSL	mean sea level
MW-	denotes "Monitoring Well"
NELAP	National Environmental Laboratory Accreditation Program
NTU	nephelometric turbidity unit
ORP	oxidation reduction potential
pCi/L	picocuries per liter
PE	Professional Engineer
PG	Professional Geologist
PL	prediction limits
PQL	practical quantitation limit
PVC	polymerizing vinyl chloride
QA/QC	quality assurance/quality control
RL	reporting limit
RPD	relative percent difference
SM	Standard Method(s)
SSI	statistically significant increase
SSL	statistically significant level
TAL	Test America, Inc.
TOC	top of casing
TDS	total dissolved solids
USGS	United States Geological Survey
UTLs	Upper Tolerance Limits

1.0 INTRODUCTION

In accordance with the United States Environmental Protection Agency (EPA) coal combustion residual (CCR) rule (40 CFR Part 257, Subpart D) and the State of Alabama's ADEM Admin. Code Ch. 335-13-15, this 2019 Annual Groundwater Monitoring and Corrective Action Report has been prepared to document 2019 semi-annual assessment groundwater monitoring activities at the Plant Barry Ash Pond and to satisfy the requirements of § 257.90(e) and ADEM Admin. Code r. 335-13-15-.06(1)(f). Semi-annual assessment monitoring and associated reporting for Plant Barry Ash Pond is performed in accordance with the monitoring requirements § 257.90 through § 257.95 and ADEM Admin. Code r. 335-13-15-.06(1) through r. 335-13-15-.06(6).

2.0 SITE LOCATION AND DESCRIPTION

APC's Plant James M. Barry Electric Generating Plant (Plant Barry) is in northeastern Mobile County, Alabama, approximately 23 miles north of Mobile, AL and 1 mile east of the city of Bucks, AL. The physical address is 15300 U.S. Highway 43 North, Bucks, Alabama 36512. Plant Barry lies in Section 36 of Township 1 North, Range 1 West, Sections 31 and 32 of Township 1 North, Range 1 East, Section 1 of Township 1 South, Range 1 West, and Sections 5 and 6 of Township 1 South, Range 1 East. Section/Township/Range data are based on visual inspection of USGS topographic quadrangle maps and GIS maps (USGS, 1980, 1982a, 1982b, 1983).

The Ash Pond is located east-southeast of the main plant, between the Mobile River and Plant Barry barge canal. **Figure 1, Site Location Map**, depicts the location of the Plant and Ash Pond with respect to the surrounding area.

2.1 SITE GEOLOGY AND HYDROGEOLOGY

2.1.1 Physical Setting

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

2.1.2 Geology and Hydrogeology

The geology of the site is characterized by sedimentary deposits ranging in age from Tertiary to Quaternary. The Pliocene age Citronelle formation, while present regionally, was not encountered at the site. Sedimentary alluvial and terrace deposits of the Quaternary Period overlie largely unconsolidated Tertiary deposits in and adjacent to the flood plains of the Mobile River. At the site, Holocene age alluvial and low

terrace deposits overlie undifferentiated Miocene Series sediments. Miocene Series sediments were primarily deposited in a regressive marine depositional environment. The Miocene Series is comprised of fine to very coarse-grained sand with interbedded sandy clays, silts, and shell fragments (Walter and Kidd, 1979). Siliciclastic sediments of the Miocene Series are often micaceous and pyritic, and contain wood fragments, shell debris, and heavy minerals (Chandler et al., 1985). Alluvial, low terrace, and coastal deposits reflect estuarine, deltaic, lagoonal, and shoreface deposition in lowland areas from late Pleistocene to Holocene time. These deposits consist of fine to coarse sand, which can be rich in heavy detrital minerals (Hsu, 1960), silt, sandy clay, clay, and shell fragments (Chandler et al., 1985). **Figure 3, Site Geologic Map**, illustrates the surface geology at the site and neighboring areas. **Figure 4a, Geologic Cross-Section A-A'** and **Figure 4b, Geologic Cross-Section B-B'**, provides an illustration of well screen intervals with respect to stratigraphy and elevation at the Site.

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

- Unit 1 is described as a mottled gray to dark gray and red fat clay with some interlayered sandy lean clays. Unit 1 extends from the base of fill materials to elevations of approximately -10 to -25 feet mean sea level (MSL).
- Unit 2 consists of mottled light gray, brownish yellow, and red sandy lean clay with medium plasticity and trace amounts of interlayered sand. Lenses of clayey sands and silty sands are also present within this unit. Unit 2 extends from the base of the organic clay layer to elevations of approximately -30 to -40 feet MSL grading into sand of Unit 3.
- Unit 3 comprises the uppermost aquifer for groundwater monitoring purposes at the site and is described as a pale brown or light gray poorly graded sand with silt content. Fine gravel appears in the lower portion of Unit 3. Lenses of sandy clay and clayey sand are present in the upper portions of Unit 3 but are not prevalent.

- Unit 4 likely corresponds to the transition to Miocene Series sediments and is described as a pale greenish blue, high plasticity fat clay. The top of Unit 4 generally appears between 90 and 120 feet below ground surface at the Site (-65 to -100 ft MSL) and select borings (BY-AP-MW-8V, BY-AP-MW-12V) indicate a thickness of at least 10 feet. The extent of Unit 4 has not been fully defined at this time.

2.1.3 Uppermost Aquifer

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

2.1.4 Flow Interpretation

Groundwater flow at the site is a subdued replica of the natural topography where gravity is the dominant force driving flow. Groundwater flows from higher topographic elevations west of the Ash Pond to lower topographic elevations to the east. Groundwater flow is accomplished via porous or Darcian flow mechanics through sands of the Watercourse Aquifer.

2.2 GROUNDWATER MONITORING SYSTEM

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

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

2.2.1 Monitoring Wells

The detection/compliance groundwater monitoring network consists of 20 monitoring wells installed around the perimeter of the Ash Pond. In December 2018 and August 2019, an additional 14 delineation wells were installed to delineate the horizontal and vertical extent of groundwater impacts. Monitoring and delineation well locations are presented on **Figure 5, Monitoring Well Location Map. Table 1, Groundwater Monitoring Well Network Details**, summarizes the monitoring and delineation well construction details and design purpose for the Ash Pond.

2.2.1.1 Upgradient Wells

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

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

To establish a clear and distinct background, monitoring well locations BY-GSA-MW-1 through BY-GSA-MW-4 now serve as upgradient locations for the Ash Pond. Groundwater generally flows semi-radially across the Ash Pond from the southwest to northeast with a northerly and southerly flow component. Upgradient wells are located south of the Gypsum Pond as determined by water level monitoring and potentiometric surface maps constructed for the Site. This re-designation of well locations will be detailed in a revised groundwater monitoring plan to be submitted to the Department by April 15th, 2020.

2.2.1.2 Downgradient Wells

Monitoring well locations BY-AP-MW-1 through BY-AP-MW-16 are utilized as compliance monitoring locations for the Ash Pond. Although located hydraulically upgradient of the Ash Pond, wells BY-AP-MW-1 through BY-AP-MW-3 are evaluated as downgradient compliance points.

2.2.1.3 Delineation Wells

Pursuant to § 257.95(g)(1), ADEM Admin. Code r. 335-13-15-.06(6)(g)2., and AO 18-094-GW additional delineation wells were installed to characterize the horizontal and vertical extent of GWPS exceedances identified during assessment monitoring. Seven horizontal delineation wells were installed to assess lateral extent of groundwater impact in the direction(s) of groundwater flow away from the facility. Seven vertical delineation wells were installed to assess potential vertical impacts to the uppermost aquifer proximal to the CCR waste boundary.

Field work and sampling was conducted between December 2018 and August 2019. Data and discussion of results were provided in the Plant Barry Ash Pond Groundwater Investigation Report submitted to ADEM in December 2019. These delineation wells were sampled again during the second semi-annual sampling event of 2019 and will continue to be sampled semi-annually as a part of the compliance network.

2.2.1.4 Monitoring Variances

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

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

2.2.2 Groundwater Monitoring History

Background groundwater monitoring was performed at the site from March 2016 through June 2017. Semi-annual compliance monitoring began in September 2017.

2.2.2.1 Available Monitoring Data

In accordance with § 257.94(b) and ADEM Admin. Code r. 335-13-15-.06(5)(b), eight (8) independent samples were collected from each background and downgradient well and analyzed for the constituents listed in Appendix III and IV prior to October 17, 2017. Background sampling was performed over the period of March 2016 to June 2017. Groundwater sampling for the first detection monitoring event after the background period was performed in September 2017.

Based on results of the 2017 Annual Groundwater and Corrective Action Monitoring Report, APC initiated an assessment monitoring program on January 15, 2018. Pursuant to 40 CFR § 257.95(a) and ADEM Admin. Code r. 335-13-15-.06(6)(a), monitoring wells were sampled for all Appendix IV parameters in January 2018, within 90 days of initiating the assessment monitoring program. Semi-annual assessment sampling has continued with sampling events in May and November of 2018 and May and September-October of 2019.

Tables summarizing analytical data from all previous groundwater monitoring events are included within **Appendix A, Groundwater Analytical Data.**

2.2.2.2 Historical Groundwater Flow

Groundwater flow at the site is a subdued replica of the natural topography where gravity is the dominant force driving flow. Groundwater flows from higher topographic elevations west of the Ash Pond to lower topographic elevations to the east.

Groundwater elevations fluctuate in response to rainfall. Seasonal variations of 5 to 7 feet are typical at the site. These fluctuations are consistent in monitoring wells across the site indicating a relatively uniform response to rainfall events.

2.2.3 Groundwater Sampling and Analysis

As required by § 257.90(e) and ADEM Admin. Code r. 335-13-15-.06(1)(f), the following describes monitoring-related activities performed during the preceding year. The Plant Barry Ash Pond entered an assessment monitoring program pursuant to 40 CFR § 257.95(a) and ADEM Admin. Code r. 335-13-15-.06(6)(a) in January 2018. Statistical evaluations of 2018 assessment monitoring data identified SSLs of Appendix IV constituents above the GWPS and the Site performed an Assessment of Corrective Measures. Pursuant to § 257.95(g)(1), ADEM Admin. Code r. 335-13-15-.06(6)(g)2., and AO 18-094-GW delineation wells were installed to characterize the horizontal and vertical extent of GWPS exceedances identified during assessment monitoring. These wells along with the compliance monitoring well network are sampled semi-annually.

2.2.3.1 Sampling Event Summary

Semi-annual Assessment Monitoring sampling events occurred in May 2019 and September - October 2019. Delineation wells installed at the Site were sampled semi-annually for the first time between January and August 2019 in order expedite delineation reporting and then moved back into the regular semi-annual sampling schedule during the second semi-annual sampling event in September 2019.

Groundwater samples were analyzed for the full list of Appendix III and Appendix IV parameters during each assessment monitoring event. Analytical data from the groundwater monitoring events is included as **Appendix B, Laboratory and Field Records**, in accordance with the requirements of §257.90(e)(3) and ADEM Admin. Code r. 335-13-15-.06(1)(f)3.

2.2.3.2 Groundwater Sample Collection

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

Groundwater samples were collected from monitoring wells using low-flow sampling procedures in accordance with §257.93(a) and ADEM Admin. Code r. 335-13-15-.06(4)(a). All monitoring wells at Plant

Barry are equipped with a dedicated pump. Monitoring wells were purged and sampled using low-flow sampling procedures whereby samples are collected when field water quality parameters (pH, turbidity, conductivity, and dissolved oxygen) were measured to determine stabilization. Groundwater samples were collected when the following stabilization criteria were met:

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

During purging and sampling a SmarTroll instrument was used to monitor and record field parameters. Once stabilization was achieved, samples were collected and submitted to the laboratory following standard chain-of-custody (COC) protocol. Field data recorded in support of groundwater sampling activities for the monitoring events are included in **Appendix B**.

2.2.3.3 Sample Preservation and Handling

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

Where temperature control was required, samples were placed in an ice-packed cooler and cooled to less than 4°C immediately after collection. Blue ice or other cooling packs were not used for cooling samples. An ice-packed cooler was on hand when samples were collected.

2.2.3.4 Chain of Custody

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

2.2.3.5 Laboratory Analysis

Laboratory analyses was performed by the APC Environmental Laboratory (APCEL) in Calera, Alabama or Eurofins Test America (TAL), of Pensacola, Florida and St. Louis, Missouri. Both APCEL and TAL

are accredited by National Environmental Laboratory Accreditation Program (NELAP) and maintain a NELAP certification for all parameters analyzed. **Table 2, Monitoring Parameters and Reporting Limits**, lists Assessment Monitoring constituents analyzed at the Site. Groundwater data and chain of custody records for the monitoring events are presented in **Appendix B**.

3.0 GROUNDWATER ELEVATIONS

3.1 GROUNDWATER ELEVATIONS AND FLOW

During the May 2019 sampling event, depths to water ranged from 10.14 to 26.28 feet below top of casing (BTOC) and groundwater elevations ranged from 1.60 to 4.33 feet above mean seal level (ft MSL). During the October 2019 sampling event, depths to water ranged from 10.85 to 27.13 ft BTOC and groundwater elevations ranged from 0.89 to 3.46 ft MSL. **Figure 6, Potentiometric Surface Contour Map (May 28, 2019)** and **Figure 7, Potentiometric Surface Contour Map (September 30, 2019)** depict groundwater elevations and inferred groundwater flow direction from higher elevation to lower. As shown on Figures 6 and 7 groundwater flows from south to north across the Site consistent with previous events. All available groundwater elevation data recorded since 2016 have been tabulated and included in **Table 3, Groundwater Elevations Summary**.

3.2 GROUNDWATER FLOW VELOCITY CALCULATIONS

Groundwater flow rates at the site were calculated based on hydraulic gradients, hydraulic conductivity from aquifer pump test results, and an estimated effective porosity of the screened horizon. Slug testing provided horizontal hydraulic conductivities for the Watercourse Aquifer (Unit 3) between 2.1×10^{-2} cm/sec and 6.75×10^{-3} cm/sec with an average of 1.0×10^{-2} cm/sec at the ash pond. Long duration pump testing of the Watercourse Aquifer revealed an average hydraulic conductivity of 3.3×10^{-3} cm/sec. The hydraulic gradient was calculated between well pairs shown on **Table 4, Horizontal Groundwater Flow Velocity Calculation**. The pumping test hydraulic conductivity value of 3.3×10^{-3} cm/sec or 9.4 ft/day was used because the larger volume of aquifer allows averaging of small-scale heterogeneities. Whereas slug tests are smaller in scale, which might allow some results to skew an average. An estimated effective porosity of 25% is used in the flow rate calculations.

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

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

Where:

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

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

i = Horizontal hydraulic gradient

n_e = Effective porosity

Using this equation, horizontal groundwater flow velocity is calculated for various areas of the site and is tabulated on **Table 4**. **Table 4** presents the estimated horizontal flow velocity calculated using groundwater elevation data from the sampling events in 2019.

4.0 EVALUATION OF GROUNDWATER QUALITY DATA

4.1 DATA VALIDATION – QUALITY ASSURANCE/QUALITY CONTROL

During each sampling event, quality assurance/quality control samples (QA/QC) were collected at a rate of one sample per every group of 10 well samples. Equipment blanks and duplicate samples were also collected during each sampling event.

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

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

Where:

RPD = Relative Percent Difference (%)

Conc1 = Higher concentration of the sample or field duplicate

Conc2 = Lower concentration of the sample or field duplicate

Where the relative percent differences below 20%, the difference is considered acceptable and no further action is needed. Where an RPD is greater than 20%, further evaluation is required to attempt to determine the cause of the difference and potentially result in qualified data. **Table 5, Relative Percent Difference Calculations**, provides the relative percent differences for sample and sample duplicates during 2019 sampling events. RPD greater than 20% were noted for sulfate in duplicates in both semi-annual events. However, both results reviewed were less than 5 times the reporting limit (RL) and differences between original and duplicate were less than the RL. Therefore, no validation flag or qualifier was necessary for sulfate results.

4.2 STATISTICAL METHODOLOGY AND TESTS

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

4.2.1 Appendix III Evaluation

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

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

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

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

4.2.2 Appendix IV Evaluation

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

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

As described in 40 CFR § 257.95(h)(1)-(3) and the ADEM Variance (see section **2.2.1.4**), the GWPS is:

- (1) The maximum contaminant level (MCL) established under 40 CFR §141.62 and 141.66.
- (2) Where an MCL has not been established:
 - (i) Cobalt 0.006 mg/L;
 - (ii) Lead 0.015 mg/L;
 - (iii) Lithium 0.040 mg/L; and
 - (iv) Molybdenum 0.100 mg/L.
- (3) Background levels for constituents where the background level is higher than the MCL or rule-specified GWPS.

In assessment monitoring, when the Lower Confidence Limit (LCL), or the entire confidence interval, exceeds the GWPS as discussed in the USEPA Unified Guidance (2009), the result is recorded as an SSL. Appendix IV constituents will be updated every two years beginning with the most recent event (Fall 2019). The next update to GWPS will occur no earlier than the Fall of 2021. Data from upgradient wells collected in between updates may still be used to support ASDs if merited.

4.3 STATISTICAL EXCEEDANCES

Analytical data from the 2019 semi-annual monitoring events in May and September-October were statistically analyzed in accordance with the PE-certified statistical analysis plan (October 2017). The statistical analysis plan was updated in September 2019 incorporating a data screening evaluation performed by Groundwater Stats Consulting. Appendix III statistical analysis was performed to determine if constituents have returned to background levels. Appendix IV assessment monitoring parameters were evaluated to determine if concentrations statistically exceeded the established groundwater protection standard.

4.3.1 Appendix III Constituents

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

4.3.2 Appendix IV Constituents

Table 6, Summary of Background Levels and Groundwater Protection Standards, summarizes the background limit established at each monitoring well and the GWPS. A summary table of the statistical limits accompanies the prediction limits in **Appendix C**.

The following subsections describe statistical exceedances during 2019 monitoring events. Statistical evaluations of the 2019 assessment monitoring data did not introduce new or additional SSLs beyond those previously identified and reported in the 2018 Groundwater Monitoring and Corrective Action Report.

4.3.2.1 First Semi-Annual Groundwater Monitoring Event

Statistical analysis of Appendix IV data identified the following statistically significant levels (SSLs) over GWPS at the listed wells:

- BY-AP-MW-1: Arsenic
- BY-AP-MW-5: Arsenic
- BY-AP-MW-7: Arsenic
- BY-AP-MW-8: Arsenic
- BY-AP-MW-9: Arsenic
- BY-AP-MW-10: Arsenic

- BY-AP-MW-11: Arsenic
- BY-AP-MW-12: Arsenic
- BY-AP-MW-13: Arsenic
- BY-AP-MW-14: Arsenic
- BY-AP-MW-15: Arsenic, Cobalt

Table 7, First Semi-Annual Monitoring Event Analytical Summary, provides a summary of all constituents for the first semi-annual sampling event. Statistical reporting output is included as **Appendix C**.

4.3.2.2 Second Semi-Annual Groundwater Monitoring Event

Statistical analysis of Appendix IV data identified the following statistically significant levels (SSLs) over GWPS at the listed wells:

- BY-AP-MW-1: Arsenic
- BY-AP-MW-5: Arsenic
- BY-AP-MW-7: Arsenic
- BY-AP-MW-8: Arsenic
- BY-AP-MW-9: Arsenic
- BY-AP-MW-10: Arsenic
- BY-AP-MW-11: Arsenic
- BY-AP-MW-12: Arsenic
- BY-AP-MW-13: Arsenic
- BY-AP-MW-14: Arsenic
- BY-AP-MW-15: Arsenic, Cobalt
- BY-AP-MW-16: Arsenic

Table 8, Second Semi-Annual Monitoring Event Analytical Summary, provides a summary of all constituents for the second semi-annual sampling event. Statistical reporting output is included as **Appendix C**,

Limited groundwater analytical data is available for delineation wells installed at the site in 2019; therefore, groundwater quality is simply compared to the GWPS. A review of analytical data derived from delineation wells revealed the following GWPS exceedances for the second semi-annual sampling event:

- BY-AP-MW-12V: Arsenic
- BY-AP-MW-15V: Arsenic, Cobalt
- BY-AP-MW-17H: Arsenic
- BY-AP-MW-18H: Arsenic
- BY-AP-MW-20H: Arsenic
- BY-AP-MW-22H: Arsenic
- BY-AP-MW-23H: Arsenic
- BY-AP-MW-24H: Arsenic, Cobalt

Details regarding the installation and sampling of these wells, and future proposed actions as a result of these exceedances, were submitted to the Department in a delineation report on December 15, 2019.

To address SSLs at the site an ACM was prepared to evaluate potential groundwater corrective measures for the occurrence of arsenic and cobalt in groundwater at the site in accordance with § 257.96, ADEM Admin. Code r. 335-13-15-.06(7), and ADEM Administrative Order AO 18-094-GW. The ACM was submitted to the Department and placed in the operating record on June 12, 2019.

5.0 MONITORING PROGRAM STATUS

The site is currently in assessment monitoring and evaluating groundwater corrective action alternatives. In accordance with § 257.94(e) and ADEM Admin. Code r. 335-13-15-.06(5)(e), APC implemented assessment monitoring in January 2018. SSIs of Appendix III and SSLs of Appendix IV parameters were identified at the Plant Barry Ash Pond during sampling events conducted in 2018. Alternate Source Demonstrations (ASDs) were not completed for all Appendix IV constituents exceeding the GWPS; therefore, in accordance with § 257.95(g)(3)(i) and ADEM Admin. Code r. 335-13-15-.06(6)(g)4.(i), APC implemented an assessment of corrective measures (ACM) as required by § 257.96, ADEM Admin. Code r. 335-13-15-.06(7), and ADEM Administrative Order AO 18-094-GW.

6.0 SUMMARY AND CONCLUSIONS

Semi-annual assessment monitoring events took place in May and September-October 2019. Statistical evaluations of the 2019 assessment monitoring data identified SSLs of Appendix IV constituents above the GWPS. The site remains in assessment monitoring while groundwater corrective remedies are being evaluated. Additional monitoring wells were installed to assess the horizontal and vertical extent of groundwater impacts at the site. The results of this investigation were submitted to ADEM in December 2019. These additional monitoring wells will continue to be sampled and analyzed as part of the ongoing assessment monitoring program.

An ACM was completed on June 12, 2019 to address SSLs of Appendix IV above groundwater protection standards.

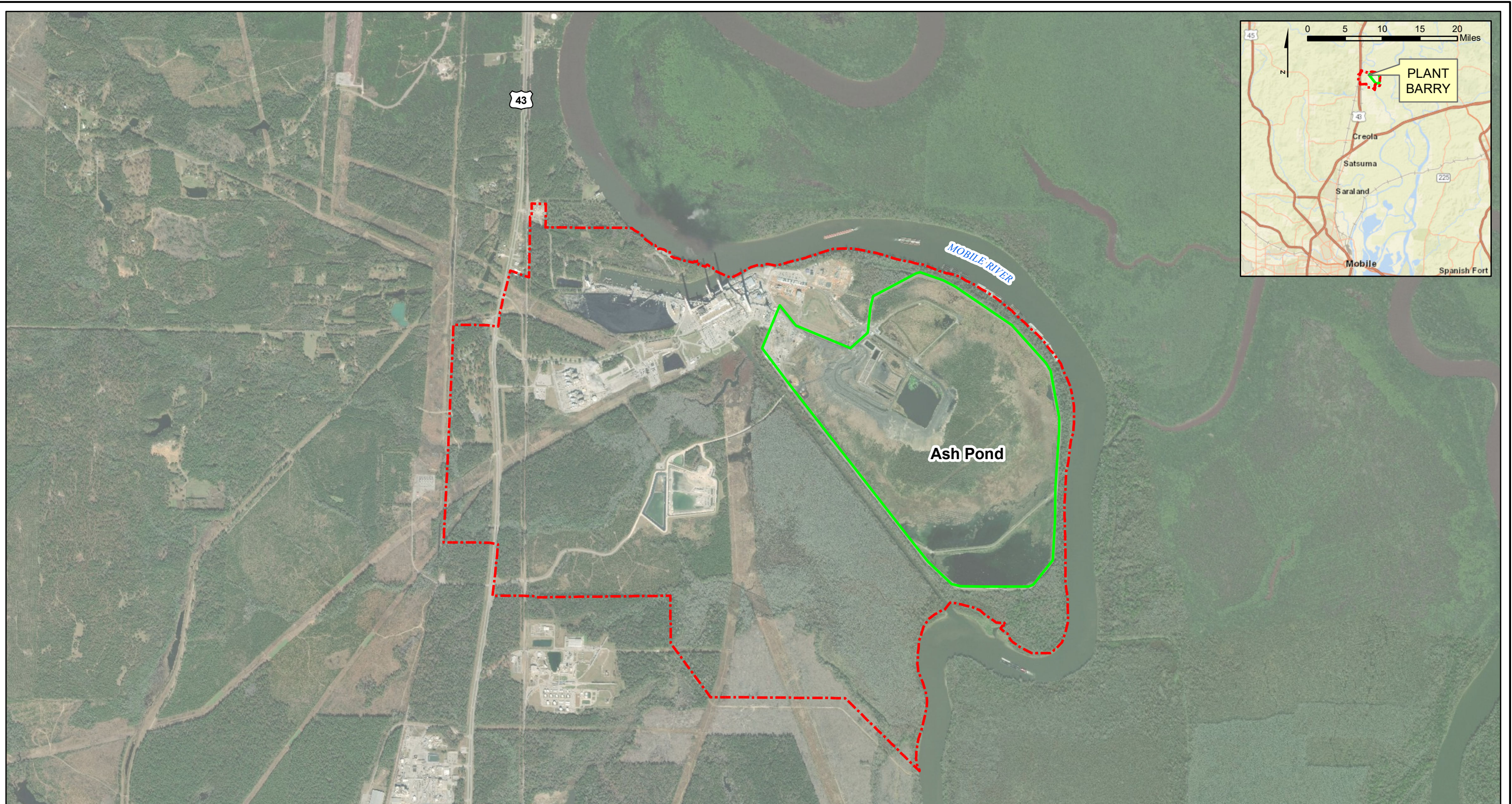
The following future actions will be taken or are recommended for the site:

- Installation, sampling, and analyses of additional (Phase II) delineation wells,
- Collect additional data to further evaluate remedies selected as feasible for the remediation of arsenic and cobalt as described in the ACM; and
- Conduct the first semi-annual assessment monitoring sampling event in April or May of 2020 and submit a semi-annual groundwater monitoring report summarizing findings by July 31, 2020.

7.0 REFERENCES

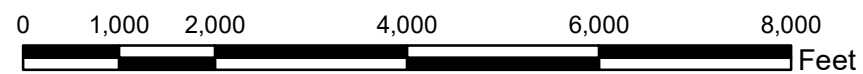
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- United States Geological Survey (USGS), 1982a (Photorevised 1985), Creola Alabama Quadrangle, 7.5 Minute Series Topographic Map
- United States Geological Survey (USGS), 1982b, Mount Vernon Alabama Quadrangle, 7.5 Minute Series Topographic Map
- United States Geological Survey (USGS), 1983, Stiggins Lake Alabama Quadrangle, 7.5 Minute Series Topographic Map
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Figures



Legend

- Property Boundary (Approximate)
- Ash Pond Boundary



SCALE 1:24000

DATE 12/12/2019

DRAWN BY KWR

CHECKED BY GBD

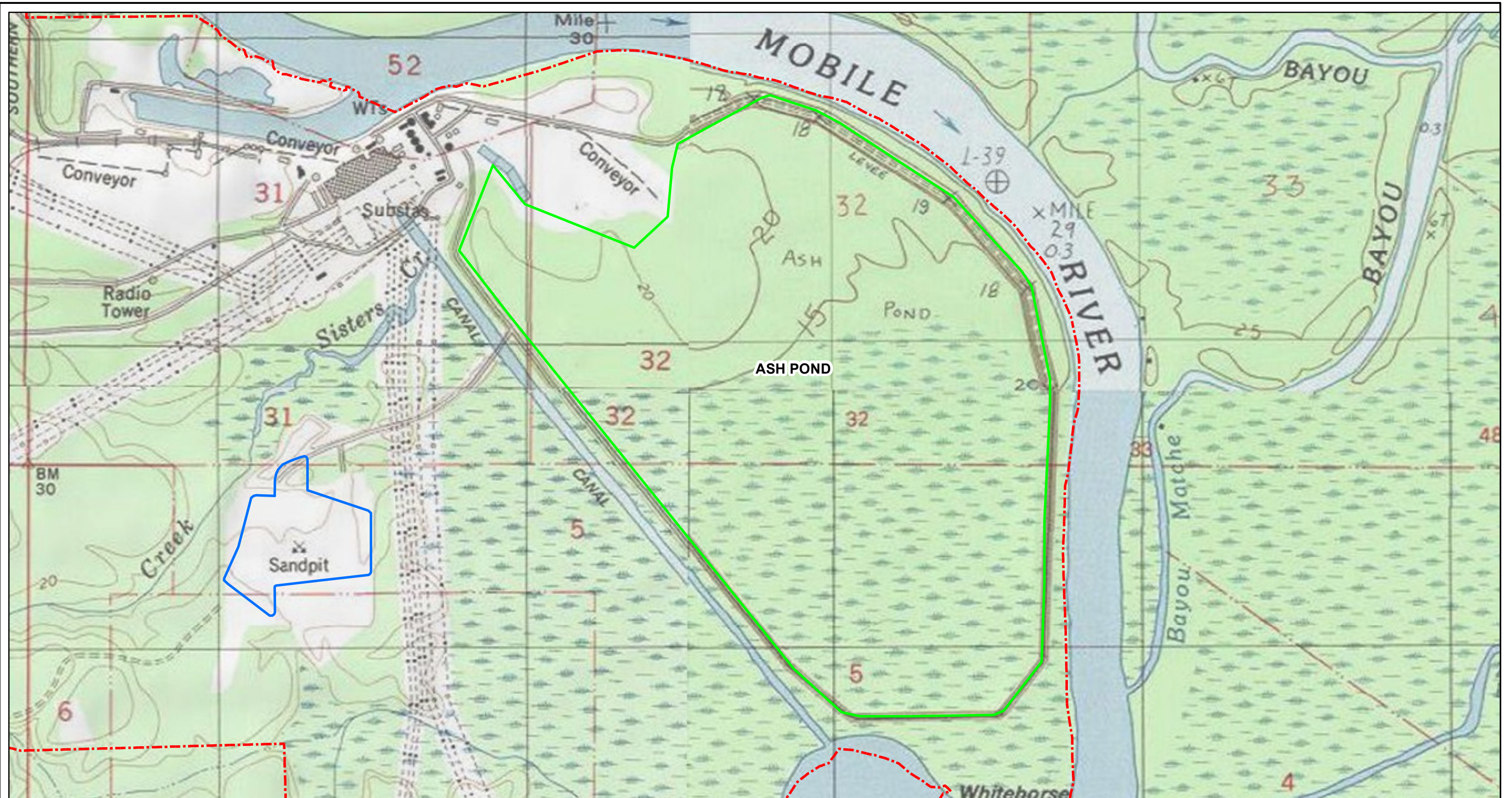
DRAWING TITLE

SITE LOCATION MAP
PLANT BARRY ASH POND

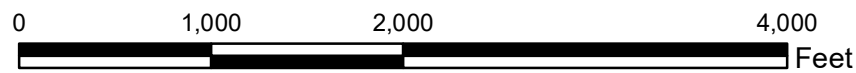
FIGURE NO

FIGURE 1





- Legend**
- Property Boundary (Approximate)
 - Ash Pond Boundary
 - Gypsum Storage Area Boundary



SCALE 1:12000

DATE 12/12/2019

DRAWN BY KWR

CHECKED BY GBD

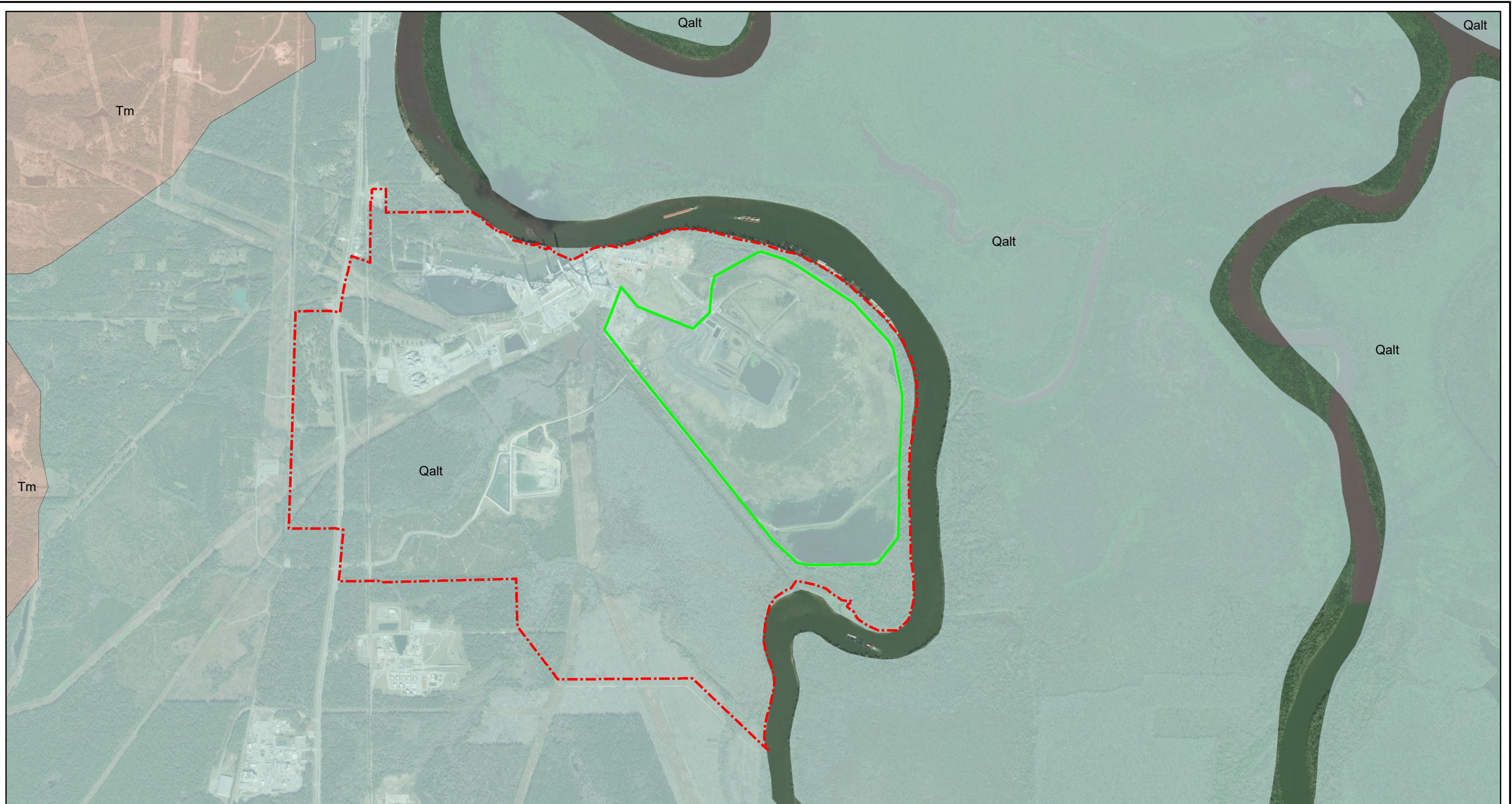
DRAWING TITLE

SITE TOPOGRAPHIC MAP
PLANT BARRY ASH POND

FIGURE NO

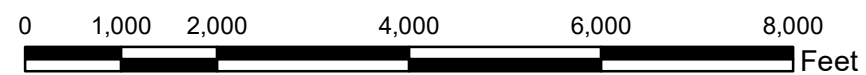
FIGURE 2





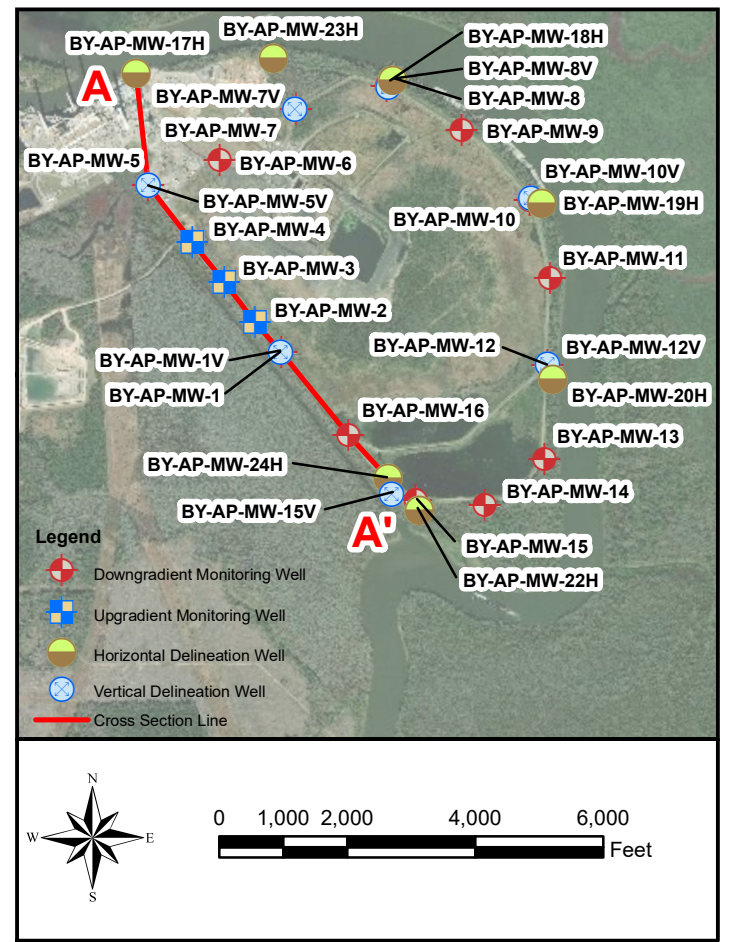
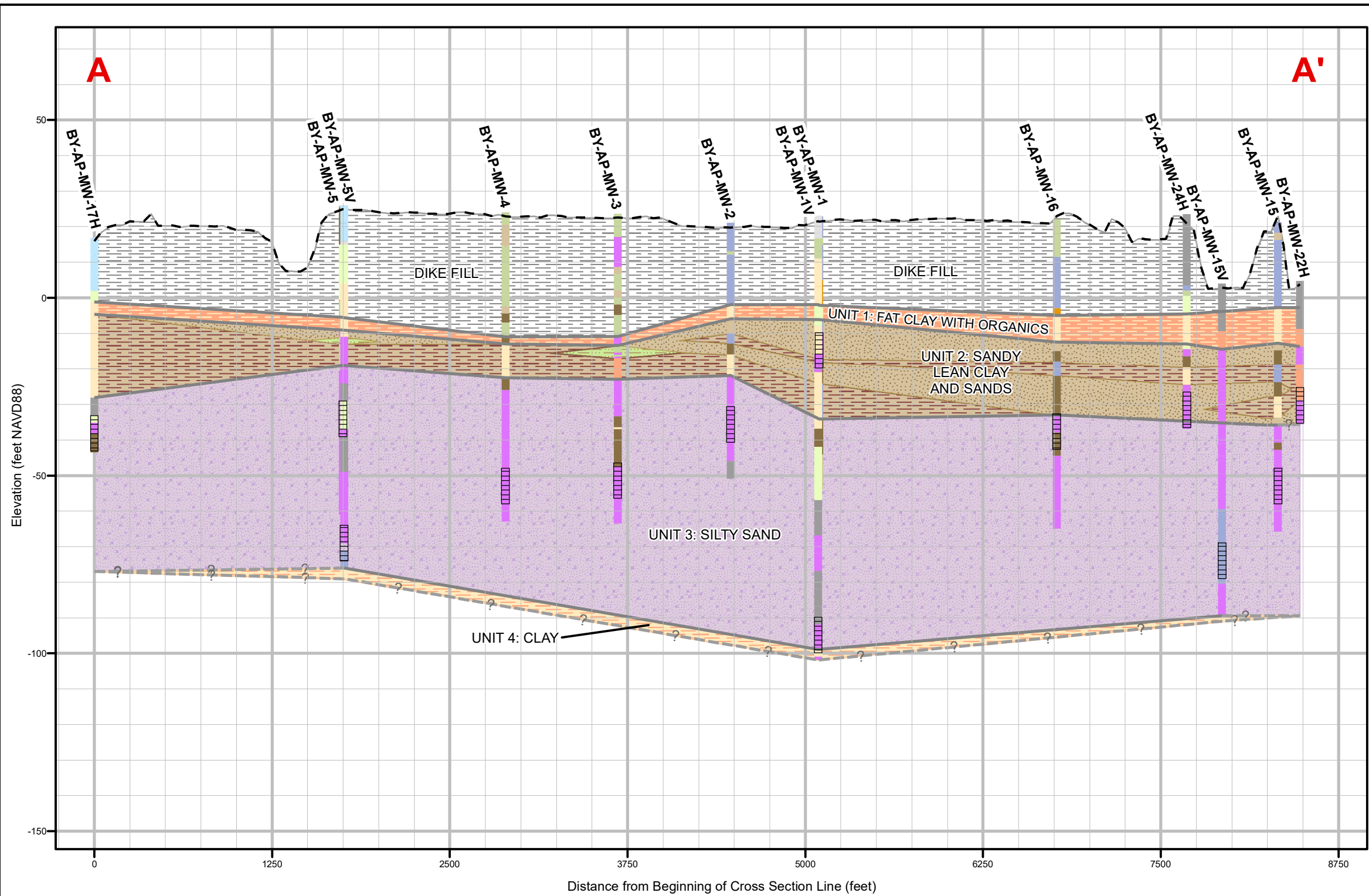
- Legend**
- Ash Pond Boundary
 - Property Boundary (Approximate)

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



SCALE	1:24000
DATE	1/2/2020
DRAWN BY	KWR
CHECKED BY	GBD

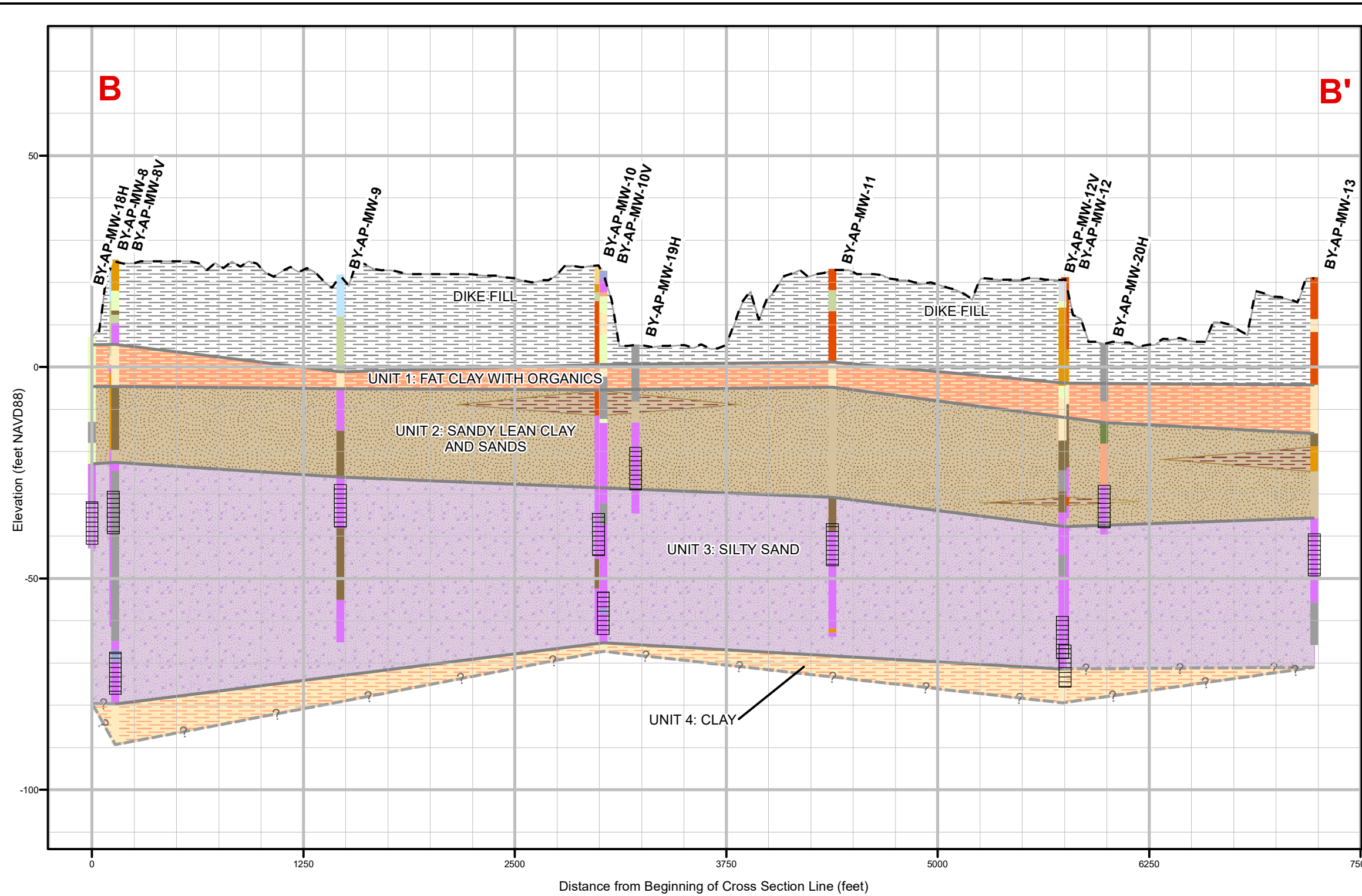
DRAWING TITLE	
SITE GEOLOGIC MAP PLANT BARRY ASH POND	
FIGURE NO	FIGURE 3
Southern Company	



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

Legend		Borehole Description		Geologic Unit	
	Screened Interval		Hydroexcavation		Silt
	Ground Surface Elevation		Fill		Sandy Silt
	Unit Boundary (inferred)		No Recovery		Clayey Sand
	Unit Boundary		Fat Clay		Silty Sand
			Lean Clay		Well-graded and Poorly-graded Sands
			Sandy Fat Clay		Well-graded and Poorly-graded Gravels
			Sandy Lean Clay		
			Fill		Unit 2: Silts
			Unit 1: Fat Clay with Organics		Unit 2: Sandy Lean Clay
			Unit 2: Sandy Lean Clay and Sands		Unit 3: Silty Sand
			Unit 2: Sandy Lean Clay and Sands		Unit 4: Clay

SCALE	As Shown	DRAWING TITLE
DATE	1/9/2020	
DRAWN BY	KWR	
CHECKED BY	GBD	
FIGURE NO		FIGURE 4a

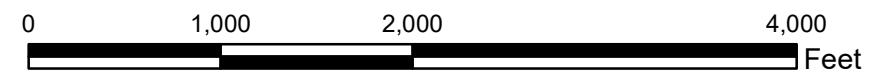


Notes: 1. Source of ground surface elevation data: Lidar
 2. NAVD88 indicates North American Vertical Datum of 1988.
 3. Vertical exaggeration: 25x.

Legend		Borehole Description		Geologic Unit		SCALE	DRAWING TITLE
[Symbol]	Screened Interval	[Symbol]	Hydroexcavation	[Symbol]	Silty Clay	As Shown	GEOLOGIC CROSS SECTION B - B' PLANT BARRY ASH POND
[Symbol]	Ground Elevation	[Symbol]	Fill	[Symbol]	Sandy Fat Clay	DATE	
[Symbol]	Unit Boundary (inferred)	[Symbol]	No Recovery	[Symbol]	Sandy Lean Clay	DRAWN BY	KWR
[Symbol]	Unit Boundary	[Symbol]	Organic Soil	[Symbol]	Silt	CHECKED BY	GBD
		[Symbol]	Fat Clay	[Symbol]	Sandy Silt		FIGURE NO
		[Symbol]	Lean Clay	[Symbol]	Clayey Sand		FIGURE 4b
		[Symbol]		[Symbol]	Fill		Southern Company
		[Symbol]		[Symbol]	Unit 1: Fat Clay with Organics		
		[Symbol]		[Symbol]	Unit 2: Sandy Lean Clay and Sands		
		[Symbol]		[Symbol]	Unit 2: Silts		
		[Symbol]		[Symbol]	Unit 2: Sandy Lean Clay		
		[Symbol]		[Symbol]	Unit 3: Silty Sand		
		[Symbol]		[Symbol]	Unit 4: Clay		

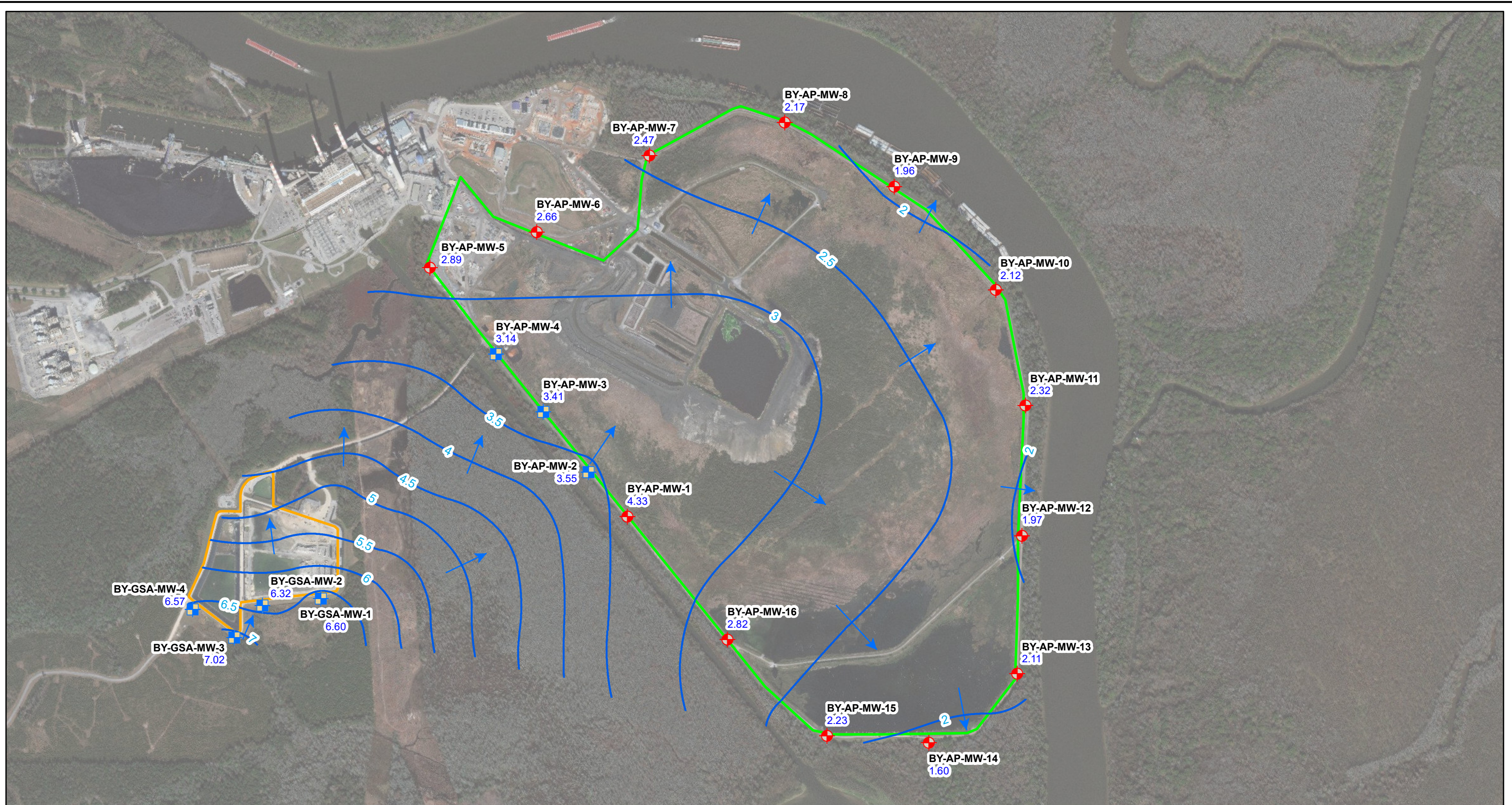


- Legend**
- ◆ Downgradient Monitoring Well
 - Horizontal Delineation Monitoring Well
 - Upgradient Monitoring Well
 - Vertical Delineation Monitoring Well
 - Ash Pond Boundary
 - Gypsum Pond Boundary

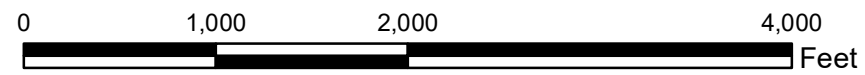


SCALE	1:12000
DATE	1/13/2020
DRAWN BY	KWR
CHECKED BY	GBD

DRAWING TITLE	
MONITORING WELL LOCATION MAP PLANT BARRY ASH POND	
FIGURE NO	FIGURE 5
Southern Company	



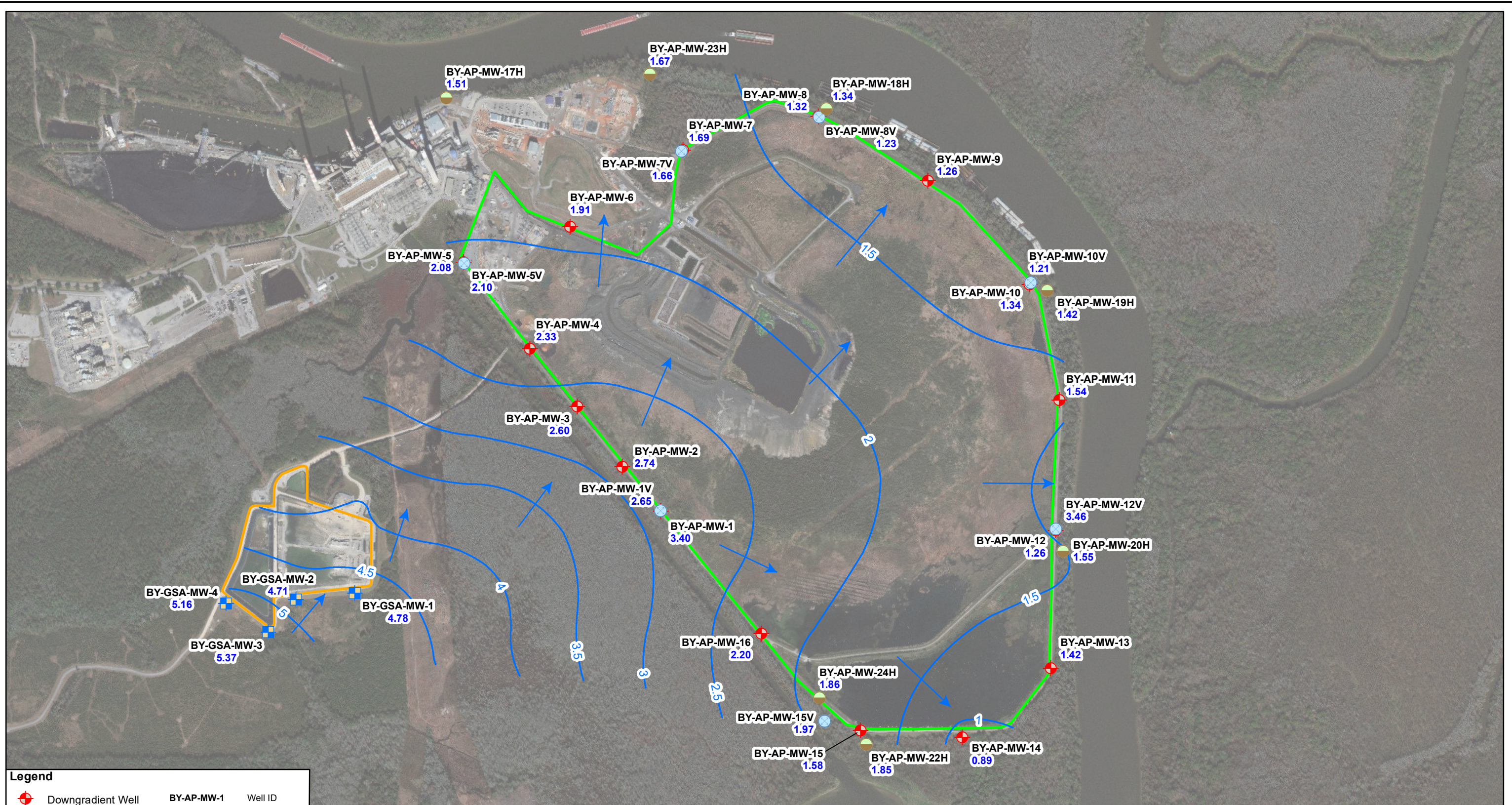
Legend	
	Downgradient Monitoring Well
	Upgradient Monitoring Well
	Potentiometric Surface Contour (ft NAVD88)
	Approximate Groundwater Flow Direction
	Ash Pond Boundary
	Gypsum Pond Boundary



NOTES:
 1. NAVD88 indicates North American Vertical Datum of 1988.
 2. MW-1 was not factored into groundwater elevation contours, because groundwater elevations observed in MW-1 indicate that screened interval is semi-confined from others in the network.

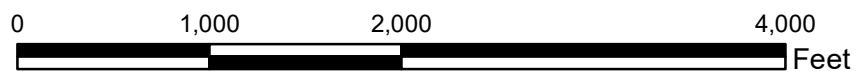
SCALE	1:12000
DATE	1/13/2020
DRAWN BY	KAR
CHECKED BY	GBD

DRAWING TITLE	
POTENTIOMETRIC SURFACE CONTOUR MAP MAY 28, 2019 PLANT BARRY ASH POND	
FIGURE NO	FIGURE 6



Legend

	Downgradient Well	BY-AP-MW-1	Well ID
	Upgradient Well	3.40	Groundwater Elevation
	Horizontal Delineation Well		
	Vertical Delineation Well		
	Approximate Groundwater Flow Direction		
	Potentiometric Surface Contour (ft NAVD88)		
	Ash Pond Boundary		
	Gypsum Pond Boundary		



NOTES:

1. BY-GSA-MW-1, BY-GSA-MW-2, BY-GSA-MW-3, and BY-GSA-MW-4 were measured on 10/02/2019.
2. NAVD88 indicates North American Vertical Datum of 1988.
3. MW-1 was not factored into groundwater elevation contours, because groundwater elevations observed in MW-1 indicate that screened interval is semi-confined from others in the network.
4. MW-12V was not factored into groundwater elevation contours, because of its anomalously high groundwater elevation. Because of this anomalously high groundwater elevation value, the accuracy of the surveyed top of casing elevation of MW-12V is being evaluated.

SCALE	1:12000
DATE	1/13/2020
DRAWN BY	KAR
CHECKED BY	GBD

DRAWING TITLE	
POTENTIOMETRIC SURFACE CONTOUR MAP SEPTEMBER 30, 2019 PLANT BARRY ASH POND	
FIGURE NO	FIGURE 7
Southern Company	

Tables

**Table 1.
Groundwater Monitoring Well Network Details**

Well Name	Purpose	Installation Completion Date	Northing	Easting	Ground Elevation	Top of Casing Elevation	Well Depth (ft.) Below Top of Casing	Top of Screen Elevation (ft MSL)	Bottom of Screen Elevation (ft MSL)	Screen Length
BY-GSA-MW-1	Upgradient	10/7/2015	362040.419	1808280.793	17.49	20.66	43.83	-12.77	-22.77	10
BY-GSA-MW-2	Upgradient	10/7/2015	361970.572	1807662.482	17.00	19.95	47.58	-17.23	-27.23	10
BY-GSA-MW-3	Upgradient	10/7/2015	361628.894	1807368.366	20.15	23.24	48.53	-14.89	-24.89	10
BY-GSA-MW-4	Upgradient	10/13/2015	361930.406	1806925.713	26.16	29.12	64.06	-24.54	-34.54	10
BY-AP-MW-1	Downgradient	10/7/2015	362905.452	1811513.200	22.91	25.80	46.10	-9.90	-19.90	10
BY-AP-MW-2	Downgradient	10/7/2015	363375.014	1811104.860	21.10	23.89	65.40	-31.11	-41.11	10
BY-AP-MW-3	Downgradient	10/7/2015	364009.973	1810627.965	23.60	26.61	83.19	-46.18	-56.18	10
BY-AP-MW-4	Downgradient	10/7/2015	364620.885	1810128.368	24.05	26.97	84.91	-47.54	-57.54	10
BY-AP-MW-5	Downgradient	10/7/2015	365528.959	1809431.284	25.97	28.93	68.95	-29.62	-39.62	10
BY-AP-MW-6	Downgradient	10/7/2015	365906.041	1810555.372	23.78	26.69	88.51	-51.42	-61.42	10
BY-AP-MW-7	Downgradient	10/7/2015	366714.007	1811745.255	22.90	25.94	89.92	-53.58	-63.58	10
BY-AP-MW-8	Downgradient	10/7/2015	367064.508	1813172.112	25.57	28.45	68.14	-29.29	-39.29	10
BY-AP-MW-9	Downgradient	10/7/2015	366387.185	1814330.505	21.91	24.39	62.71	-27.92	-37.92	10
BY-AP-MW-10	Downgradient	10/7/2015	365296.811	1815400.957	23.61	26.89	71.47	-34.18	-44.18	10
BY-AP-MW-11	Downgradient	10/7/2015	364079.137	1815715.187	23.20	26.08	74.08	-37.60	-47.60	10
BY-AP-MW-12	Downgradient	10/7/2015	362704.953	1815677.689	21.24	23.88	82.93	-48.65	-58.65	10
BY-AP-MW-13	Downgradient	10/7/2015	361251.169	1815627.420	21.29	24.22	73.51	-38.89	-48.89	10
BY-AP-MW-14	Downgradient	10/1/2013	360520.621	1814694.666	9.27	11.74	58.02	-35.88	-45.88	10
BY-AP-MW-15	Downgradient	10/7/2015	360594.416	1813618.877	21.23	23.89	82.68	-48.39	-58.39	10
BY-AP-MW-16	Downgradient	10/7/2015	361610.794	1812571.016	22.05	25.01	67.72	-32.31	-42.31	10
BY-AP-MW-1V	Vertical Delineation	12/18/2018	362911.600	1811509.850	23.13	26.23	126.50	-89.87	-99.87	10
BY-AP-MW-5V	Vertical Delineation	12/20/2018	365519.510	1809435.460	25.98	28.94	103.36	-64.02	-74.02	10
BY-AP-MW-7V	Vertical Delineation	12/12/2018	366702.900	1811730.160	22.73	25.54	107.21	-71.27	-81.27	10
BY-AP-MW-8V	Vertical Delineation	12/14/2018	367058.690	1813183.810	25.39	28.25	106.06	-67.41	-77.41	10
BY-AP-MW-10V	Vertical Delineation	12/16/2018	365317.930	1815416.560	22.76	25.39	89.03	-53.24	-63.24	10
BY-AP-MW-12V	Vertical Delineation	12/17/2018	362720.230	1815680.530	21.05	25.51	94.86	-58.95	-68.95	10
BY-AP-MW-15V	Vertical Delineation	7/23/2019	360693.280	1813239.130	4.05	7.03	86.28	-68.85	-78.85	10
BY-AP-MW-17H	Horizontal Delineation	12/21/2018	367266.280	1809249.170	16.88	19.83	63.35	-33.12	-43.12	10
BY-AP-MW-18H	Horizontal Delineation	12/15/2018	367152.710	1813259.550	7.08	10.30	52.62	-31.92	-41.92	10
BY-AP-MW-19H	Horizontal Delineation	7/18/2019	365236.720	1815589.070	6.39	9.40	38.41	-18.61	-28.61	10
BY-AP-MW-20H	Horizontal Delineation	7/18/2019	362486.830	1815755.460	6.51	9.40	47.39	-27.59	-37.59	10
BY-AP-MW-22H	Horizontal Delineation	7/24/2019	360449.450	1813680.090	4.73	7.85	43.12	-27.87	-37.87	10
BY-AP-MW-23H	Horizontal Delineation	7/18/2019	367511.290	1811396.550	7.92	10.63	45.11	-24.08	-34.08	10
BY-AP-MW-24H	Horizontal Delineation	12/19/2018	360936.040	1813185.890	23.51	26.28	63.17	-26.49	-36.49	10

Notes:

1. Northing and easting are in feet relative to the State Plane Alabama West North America Datum of 1983.
2. Elevations are in feet relative to the North American vertical Datum of 1988.
3. TOC indicates Top of Casing.

Table 2.
Monitoring Parameters and Reporting Limits

Parameter	Analytical Method	Reporting Limit (mg/L)
Appendix III Parameters		
Boron	EPA 200.7/200.8	0.05
Calcium	EPA 200.7/200.8	0.25
Chloride	EPA 300.0	2
Fluoride	EPA 300.0	0.1
pH	None	None
Sulfate	EPA 300.0	5
Total Dissolved Solids (TDS)	SM 2540C	5
Appendix IV Parameters		
Antimony	EPA 200.7/200.8	0.0025
Arsenic	EPA 200.7/200.8	0.00125
Barium	EPA 200.7/200.8	0.0025
Beryllium	EPA 200.7/200.8	0.0025
Cadmium	EPA 200.7/200.8	0.0025
Chromium	EPA 200.7/200.8	0.0025
Cobalt	EPA 200.7/200.8	0.0025
Fluoride	EPA 300.0	0.1
Lead	EPA 200.7/200.8	0.00125
Lithium	EPA 200.7/200.8	0.0025
Mercury	EPA 7470A	0.0002
Molybdenum	EPA 200.7/200.8	0.015
Selenium	EPA 200.7/200.8	0.00125
Thallium	EPA 200.7/200.8	0.0005
Radium 226 & 228 combined	EPA 9315/9320	1 pCi/L

Notes:

1. mg/L - Milligrams per liter

2. pCi/L - Picocuries per liter

**Table 3.
Groundwater Elevations Summary**

Well Name	Top of Casing Elevation	Groundwater Elevation															
		(ft) AMSL															
		2/28/2016	4/17/2016	6/6/2016	8/29/2016	10/16/2016	1/30/2017	3/19/2017	4/30/2017	6/4/2017	9/11/2017	1/21/2018	4/29/2018	11/26/2018	3/20/2019	5/28/2019	9/30/2019
BY-AP-MW-1	25.80	8.19	7.23	4.52	4.12	2.86	6.90	4.27	4.49	5.11	3.46	3.67	6.52	5.1	7.53	4.33	3.4
BY-AP-MW-2	23.89	7.59	6.58	3.51	3.03	2.61	5.79	2.99	3.95	4.13	2.49	2.47	5.84	4.26	6.99	3.55	2.74
BY-AP-MW-3	26.61	7.53	6.53	3.35	2.84	2.43	5.73	2.85	3.81	4.00	2.31	2.31	5.78	4.09	6.86	3.41	2.6
BY-AP-MW-4	26.97	7.41	6.36	3.12	2.68	2.10	5.56	2.62	3.54	3.73	2.88	2.58	5.62	3.84	6.63	3.14	2.33
BY-AP-MW-5	28.93	7.39	6.24	2.78	2.46	1.80	5.35	2.44	3.27	3.43	1.58	1.78	5.49	3.53	6.43	2.89	2.08
BY-AP-MW-6	26.69	7.48	6.34	2.87	2.46	1.66	5.36	2.33	3.20	3.36	1.36	1.63	5.58	3.6	6.45	2.66	1.91
BY-AP-MW-7	25.94	7.86	6.51	2.74	2.52	1.52	5.52	2.28	3.15	3.40	1.25	1.81	5.82	3.51	6.60	2.47	1.69
BY-AP-MW-8	28.45	7.90	6.36	2.48	2.34	1.19	5.35	2.06	2.91	3.16	0.92	1.32	5.56	3.17	6.37	2.17	1.32
BY-AP-MW-9	24.39	7.64	6.16	2.54	2.17	1.08	5.09	1.85	2.77	3.00	0.74	1.09	5.33	3.15	6.17	1.96	1.26
BY-AP-MW-10	26.89	7.77	6.29	2.74	1.35	1.19	5.19	2.01	2.88	3.14	0.88	1.26	5.47	3.09	6.26	2.12	1.34
BY-AP-MW-11	26.08	7.82	6.36	2.89	2.48	1.34	5.28	2.23	3.00	3.25	1.04	1.52	5.60	3.2	6.41	2.32	1.54
BY-AP-MW-12	23.88	7.43	6.00	2.56	2.16	1.07	4.93	1.91	2.67	2.93	0.73	1.19	5.23	2.86	5.98	1.97	1.26
BY-AP-MW-13	24.22	7.49	6.06	2.67	2.28	1.14	4.98	1.99	2.74	3.01	0.81	1.17	5.28	2.94	6.09	2.11	1.42
BY-AP-MW-14	11.74	6.89	5.49	2.66	1.72	0.73	4.49	1.44	2.29	2.54	0.36	0.61	4.66	2.51	5.49	1.6	0.89
BY-AP-MW-15	23.89	7.21	5.88	2.61	2.20	1.34	4.94	1.93	2.82	3.04	0.99	1.72	5.14	3.07	6.13	2.23	1.58
BY-AP-MW-16	25.01	7.34	6.17	2.94	2.52	2.04	5.31	2.38	3.40	3.52	1.76	1.93	5.40	3.7	6.47	2.82	2.2
BY-AP-MW-1V	26.23	--	--	--	--	--	--	--	--	--	--	--	--	--	6.9	--	2.65
BY-AP-MW-5V	28.94	--	--	--	--	--	--	--	--	--	--	--	--	--	6.43	--	2.1
BY-AP-MW-7V	25.54	--	--	--	--	--	--	--	--	--	--	--	--	--	6.54	--	1.66
BY-AP-MW-8V	28.25	--	--	--	--	--	--	--	--	--	--	--	--	--	6.18	--	1.23
BY-AP-MW-10V	25.39	--	--	--	--	--	--	--	--	--	--	--	--	--	6.09	--	1.21
BY-AP-MW-12V	25.51	--	--	--	--	--	--	--	--	--	--	--	--	--	8.15	--	3.46
BY-AP-MW-15V	7.03	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1.97
BY-AP-MW-17H	19.83	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1.51
BY-AP-MW-18H	10.30	--	--	--	--	--	--	--	--	--	--	--	--	--	6.33	--	1.34
BY-AP-MW-19H	9.40	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1.42
BY-AP-MW-20H	9.40	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1.55
BY-AP-MW-22H	7.85	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1.85
BY-AP-MW-23H	10.63	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1.67
BY-AP-MW-24H	26.28	--	--	--	--	--	--	--	--	--	--	--	--	--	6.31	--	1.86

Well Name	Top of Casing Elevation	Groundwater Elevation																	
		(ft)																	
		2/22/2016	4/18/2016	6/7/2016	8/29/2016	10/17/2016	1/30/2017	3/20/2017	5/1/2017	6/5/2017	9/12/2017	11/15/2017	1/21/2018	4/30/2018	8/27/2018	11/26/2018	5/28/2019	10/2/2019	
BY-GSA-MW-1	20.66	7.73	7.92	5.81	5.13	4.59	6.94	5.42	5.51	6.64	5.45	5.43	4.75	6.83	5.22	5.84	6.60	4.78	
BY-GSA-MW-2	19.95	7.55	7.77	5.75	5.04	4.50	6.82	5.30	5.48	6.45	5.30	5.28	4.68	6.66	5.06	5.73	6.32	4.71	
BY-GSA-MW-3	23.24	8.19	8.45	6.52	5.78	5.19	7.55	6.04	6.16	7.39	6.16	6.08	5.46	7.19	5.76	6.40	7.02	5.37	
BY-GSA-MW-4	29.12	7.83	8.13	6.21	5.47	4.93	7.25	5.71	5.98	6.87	5.74	5.69	5.18	6.99	5.47	6.13	6.57	5.16	

- Notes:
1. ft. AMSL - feet above mean sea level
2. -- Not Measured

**Table 4.
Horizontal Groundwater Flow Velocity Calculation**

SA01 2019								
Source	MW-1	MW-10	Distance	Hydraulic Gradient	Hydraulic Conductivity	Effective Porosity	Calculated Groundwater Flow Velocity	Calculated Groundwater Flow Velocity
5/28/2019	h_1 (ft)	h_2 (ft)	Δl (ft)	$\Delta h/\Delta l$ (ft/ft)	K	n	(ft/d)	(ft/yr)
Pump Testing	4.33	2.12	4564.34	0.00048	9.40	0.25	0.018	6.70

SA02 2019								
Source	MW-1	MW-10	Distance	Hydraulic Gradient	Hydraulic Conductivity	Effective Porosity	Calculated Groundwater Flow Velocity	Calculated Groundwater Flow Velocity
9/30/2019	h_1 (ft)	h_2 (ft)	Δl (ft)	$\Delta h/\Delta l$ (ft/ft)	K	n	(ft/d)	(ft/yr)
Pump Testing	3.4	1.34	4564.34	0.00045	9.40	0.25	0.017	6.20

Notes:

ft=feet

ft/d = feet/day

ft/ft = feet per foot

ft/yr = feet per year

**Table 5.
Relative Percent Difference Calculations**

2019 1st Semi-Annual Monitoring Event				
Parameter	Units	Monitoring Point Identification		Relative Percent Difference (RPD %)
		BY-AP-MW-4	BY-AP-MW-4 DUP	
Calcium	mg/L	0.627	0.622	0.8
Chloride	mg/L	8.53	8.52	0.1
Sulfate	mg/L	2.92	2.83	3.1
TDS	mg/L	39.3	36	8.8
Barium	mg/L	0.0203	0.0213	4.8
Cobalt	mg/L	0.00549	0.00576	4.8

Parameter	Units	Monitoring Point Identification		Relative Percent Difference (RPD %)
		BY-AP-MW-9	BY-AP-MW-9 DUP	
Boron	mg/L	2.45	2.44	0.4
Calcium	mg/L	38.5	38.3	0.5
Chloride	mg/L	27.7	27.3	1.5
Fluoride	mg/L	0.0763	0.0745	2.4
Sulfate	mg/L	5.91	4.69	23.0
TDS	mg/L	315	316	0.3
Arsenic	mg/L	0.0349	0.0383	9.3
Barium	mg/L	0.112	0.119	6.1
Lead	mg/L	0.00108	0.001	7.7

Table 5.
Relative Percent Difference Calculations

2019 2nd Semi-Annual Monitoring Event				
Parameter	Units	Monitoring Point Identification		Relative Percent Difference (RPD %)
		BY-AP-MW-13	BY-AP-MW-13 DUP	
Boron	mg/L	0.0604	0.06	0.7
Calcium	mg/L	13.4	13.4	0.0
Chloride	mg/L	39.6	39	1.5
Fluoride	mg/L	0.0703	0.0661	6.2
Sulfate	mg/L	47.7	48.1	0.8
TDS	mg/L	290	296	2.0
Arsenic	mg/L	0.0144	0.0144	0.0
Barium	mg/L	0.0696	0.0686	1.4
Chromium	mg/L	0.00764	0.00733	4.1

Parameter	Units	Monitoring Point Identification		Relative Percent Difference (RPD %)
		BY-AP-MW-10V	BY-AP-MW-10V DUP	
Boron	mg/L	1.02	1.03	1.0
Calcium	mg/L	61.2	62.5	2.1
Chloride	mg/L	20	20	0.0
Fluoride	mg/L	0.0517	0.05	3.3
Sulfate	mg/L	5.19	4.91	5.5
TDS	mg/L	393	393.0	0.0
Barium	mg/L	0.167	0.163	2.4

Parameter	Units	Monitoring Point Identification		Relative Percent Difference (RPD %)
		BY-AP-MW-12V	BY-AP-MW-12V DUP	
Boron	mg/L	0.134	0.131	2.3
Calcium	mg/L	22.2	21.8	1.8
Chloride	mg/L	28	28.1	0.4
Fluoride	mg/L	0.12	0.113	6.0
Sulfate	mg/L	7.18	9.34	26.2
TDS	mg/L	321	317	1.3
Arsenic	mg/L	0.022	0.0215	2.3
Barium	mg/L	0.101	0.0977	3.3

Table 6.
Summary of Background Levels and Groundwater Protection Standards

Analyte	Units	Background	Federal GWPS	State GWPS
Antimony	mg/L	0.003	0.006	0.006
Arsenic	mg/L	0.005	0.01	0.01
Barium	mg/L	0.03984; 0.183	2	2
Beryllium	mg/L	0.003	0.004	0.004
Cadmium	mg/L	0.001	0.005	0.005
Chromium	mg/L	0.01	0.1	0.1
Cobalt	mg/L	0.01794; 0.0157	0.006	0.0157
Combined Radium-226/228	pCi/L	3; 3.202	5	5
Fluoride	mg/L	0.3; 0.1	4	4
Lead	mg/L	0.005	0.015	0.015
Lithium	mg/L	0.02	0.04	0.04
Mercury	mg/L	0.0005	0.002	0.002
Molybdenum	mg/L	0.01	0.1	0.1
Selenium	mg/L	0.01	0.05	0.05
Thallium	mg/L	0.001	0.002	0.002

Notes:

1. mg/L - Milligrams per liter
2. pCi/L - Picocuries per liter
3. The background limits were used when determining the groundwater protection standard (GWPS) under 40 CFR §257.95(h) and ADEM Rule 335-13-15-.06(h)(i)
4. Where two numbers are present, they denote the different background levels for each of the two semiannual monitoring events in the order that they were determined.

**Table 7.
First Semi-Annual Monitoring Event Analytical Summary**

		APPENDIX III						
WELL	SAMPLE DATE	Boron	Calcium	Chloride	Fluoride	pH	Sulfate	TDS
GWPS		N/R	N/R	N/R	4	N/R	N/R	N/R
UNITS		mg/L	mg/L	mg/L	mg/L	SU	mg/L	mg/L
BY-AP-MW-1	5/29/2019	1.75	33.4	27.6	0.0858(J)	5.82	5.75	403
BY-AP-MW-2	5/29/2019	Non-Detect	2.82	8.31	Non-Detect	5.7	0.885(J)	47.3
BY-AP-MW-3	5/29/2019	Non-Detect	1.09	9.01	Non-Detect	5.05	0.747(J)	40
BY-AP-MW-4	5/29/2019	Non-Detect	0.627	8.53	Non-Detect	4.65	2.92	39.3
BY-AP-MW-5	5/29/2019	0.0946(J)	14.5	19.7	0.0923(J)	5.93	5.51	259
BY-AP-MW-6	5/29/2019	Non-Detect	1.72	6.15	Non-Detect	5.31	1.17	48.7
BY-AP-MW-7	5/29/2019	0.01794; 0.0157	8.88	0.0157	0.0937(J)	6.18	2.77	132
BY-AP-MW-8	5/29/2019	1.44	31.9	27.4	0.0958(J)	6.11	6.01	291
BY-AP-MW-9	5/30/2019	2.45	38.5	27.7	0.0763(J)	6.14	5.91	315
BY-AP-MW-10	5/30/2019	2.11	60.5	25.9	0.0573(J)	6.23	3.76	377
BY-AP-MW-11	5/29/2019	0.082(J)	23.9	27.8	0.0759(J)	6.24	24.1	367
BY-AP-MW-12	5/29/2019	0.0952(J)	21.4	24.1	0.0677(J)	6.13	7.04	321
BY-AP-MW-13	5/29/2019	0.0528(J)	12.8	44	0.0679(J)	6.01	49.5	307
BY-AP-MW-14	5/29/2019	0.0682(J)	11.2	50.1	0.0781(J)	6.07	67.6	318
BY-AP-MW-15	5/29/2019	0.116	7.22	47.2	0.168	6.63	3.27	198
BY-AP-MW-16	5/29/2019	1.7	13.4	20	0.0683(J)	5.76	6.72	264
BY-GSA-MW-1	5/29/2019	0.188	1.85	5.48	0.0502(J)	4.65	23.3	58
BY-GSA-MW-2	5/29/2019	Non-Detect	1.59	2.93	Non-Detect	4.58	5.94	40
BY-GSA-MW-3	5/29/2019	Non-Detect	1.74	3.58	Non-Detect	4.8	7.81	37.3
BY-GSA-MW-4	5/28/2019	Non-Detect	1.6	3.6	Non-Detect	4.73	7.1	31.3

Notes:

1. J value indicates the result is greater than or equal to the Method Detection Limit (MDL) and less than the Practical Quantitation Limit (PQL). Values are displayed as less than the PQL with a J.
2. Non-Detect indicates the result was not detected above the MDL and is considered a non-detect.
3. U - Radium data is a combination of radium isotopes 226 and 228. When results are reported below the MDC (Minimum Detectable Concentration), data is displayed with an accompanying U. The MDC varies depending upon the sample amount and elapsed time of the measurement.
4. TDS - Total Dissolved Solids
5. N/R indicates a substance does not have an MCL or SMCL, but will be further evaluated statistically at the conclusion of all the background sampling events, as required by EPA's CCR rule.

**Table 7.
First Semi-Annual Monitoring Event Analytical Summary**

		APPENDIX IV						
WELL	SAMPLE DATE	Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium	Cobalt
GWPS		0.006	0.01	2	0.004	0.005	0.1	0.01794
UNITS		mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
BY-AP-MW-1	5/29/2019	Non-Detect	0.0555	0.29	Non-Detect	Non-Detect	0.00223(J)	Non-Detect
BY-AP-MW-2	5/29/2019	Non-Detect	0.00132(J)	0.0232	Non-Detect	Non-Detect	Non-Detect	0.00745
BY-AP-MW-3	5/29/2019	Non-Detect	Non-Detect	0.037	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-4	5/29/2019	Non-Detect	Non-Detect	0.0203	Non-Detect	Non-Detect	Non-Detect	0.00549
BY-AP-MW-5	5/29/2019	Non-Detect	0.0301	0.146	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-6	5/29/2019	Non-Detect	Non-Detect	0.0244	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-7	5/29/2019	Non-Detect	0.0178	0.059	Non-Detect	Non-Detect	Non-Detect	0.0197
BY-AP-MW-8	5/29/2019	Non-Detect	0.0482	0.138	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-9	5/30/2019	Non-Detect	0.0349	0.112	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-10	5/30/2019	Non-Detect	0.0671	0.063	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-11	5/29/2019	Non-Detect	0.0132	0.0653	Non-Detect	Non-Detect	0.00211(J)	Non-Detect
BY-AP-MW-12	5/29/2019	Non-Detect	0.0215	0.0769	Non-Detect	Non-Detect	0.00333(J)	0.00358(J)
BY-AP-MW-13	5/29/2019	Non-Detect	0.0138	0.0704	Non-Detect	Non-Detect	0.00727(J)	Non-Detect
BY-AP-MW-14	5/29/2019	Non-Detect	0.014	0.0617	Non-Detect	Non-Detect	0.00455(J)	Non-Detect
BY-AP-MW-15	5/29/2019	Non-Detect	0.0148	0.0562	Non-Detect	Non-Detect	Non-Detect	0.0343
BY-AP-MW-16	5/29/2019	Non-Detect	0.0106	0.081	Non-Detect	Non-Detect	Non-Detect	0.0206
BY-GSA-MW-1	5/29/2019	Non-Detect	Non-Detect	0.166	Non-Detect	Non-Detect	Non-Detect	0.0109
BY-GSA-MW-2	5/29/2019	Non-Detect	Non-Detect	0.172	Non-Detect	Non-Detect	Non-Detect	0.00248(J)
BY-GSA-MW-3	5/29/2019	Non-Detect	Non-Detect	0.0831	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-GSA-MW-4	5/28/2019	Non-Detect	Non-Detect	0.102	Non-Detect	Non-Detect	Non-Detect	Non-Detect

Notes:

1. J value indicates the result is greater than or equal to the Method Detection Limit (MDL) and less than the Practical Quantitation Limit (PQL). Values are displayed as less than the PQL with a J.
2. Non-Detect indicates the result was not detected above the MDL and is considered a non-detect.
3. U - Radium data is a combination of radium isotopes 226 and 228. When results are reported below the MDC (Minimum Detectable Concentration), data is displayed with an accompanying U. The MDC varies depending upon the sample amount and elapsed time of the measurement.
4. TDS - Total Dissolved Solids
5. N/R indicates a substance does not have an MCL or SMCL, but will be further evaluated statistically at the conclusion of all the background sampling events, as required by EPA's CCR rule.

**Table 7.
First Semi-Annual Monitoring Event Analytical Summary**

		APPENDIX IV							
WELL	SAMPLE DATE	Combined Radium 226 + 228	Fluoride	Lead	Lithium	Mercury	Molybdenum	Selenium	Thallium
GWPS		5	4	0.015	0.04	0.002	0.1	0.05	0.002
UNITS		pCi/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
BY-AP-MW-1	5/29/2019	2.25	0.0858(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-2	5/29/2019	1.18	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-3	5/29/2019	2.31	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-4	5/29/2019	0.947	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-5	5/29/2019	2.16	0.0923(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-6	5/29/2019	-0.276(U)	Non-Detect	0.00185(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-7	5/29/2019	0.244(U)	0.0937(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-8	5/29/2019	0.627(U)	0.0958(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-9	5/30/2019	1.08	0.0763(J)	0.00108(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-10	5/30/2019	0.0949(U)	0.0573(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-11	5/29/2019	0.726	0.0759(J)	Non-Detect	0.0321	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-12	5/29/2019	2.06	0.0677(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-13	5/29/2019	1.01	0.0679(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-14	5/29/2019	0.437(U)	0.0781(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-15	5/29/2019	0.433	0.168	Non-Detect	0.0254	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-16	5/29/2019	2.51	0.0683(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-GSA-MW-1	5/29/2019	1.57	0.0502(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-GSA-MW-2	5/29/2019	0.579(U)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-GSA-MW-3	5/29/2019	0.275(U)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-GSA-MW-4	5/28/2019	0.474(U)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect

Notes:

1. J value indicates the result is greater than or equal to the Method Detection Limit (MDL) and less than the Practical Quantitation Limit (PQL). Values are displayed as less than the PQL with a J.
2. Non-Detect indicates the result was not detected above the MDL and is considered a non-detect.
3. U - Radium data is a combination of radium isotopes 226 and 228. When results are reported below the MDC (Minimum Detectable Concentration), data is displayed with an accompanying U. The MDC varies depending upon the sample amount and elapsed time of the measurement.
4. TDS - Total Dissolved Solids
5. N/R indicates a substance does not have an MCL or SMCL, but will be further evaluated statistically at the conclusion of all the background sampling events, as required by EPA's CCR rule.

Table 8.
Second Semi-Annual Monitoring Event Analytical Summary

APPENDIX III								
WELL	SAMPLE DATE	Boron	Calcium	Chloride	Fluoride	pH	Sulfate	TDS
GWPS		N/R	N/R	N/R	4	N/R	N/R	N/R
UNITS		mg/L	mg/L	mg/L	mg/L	SU	mg/L	mg/L
BY-AP-MW-1	10/1/2019	1.91	36.7	24.6	0.0744(J)	5.47	7.82	430
BY-AP-MW-2	10/1/2019	Non-Detect	2.94	8.19	Non-Detect	4.97	Non-Detect	44.7
BY-AP-MW-3	10/1/2019	Non-Detect	1.08	8.05	Non-Detect	4.37	0.61(J)	36.7
BY-AP-MW-4	10/1/2019	Non-Detect	0.645	7.35	Non-Detect	4.28	2.09	32
BY-AP-MW-5	10/1/2019	0.103	13.8	19.8	0.0557(J)	5.47	7.4	243
BY-AP-MW-6	10/1/2019	Non-Detect	1.92	5.99	Non-Detect	4.7	1.04	38
BY-AP-MW-7	9/30/2019	0.01794; 0.0157	9.8	0.0157	0.0925(J)	6.36	2.51	137
BY-AP-MW-8	9/30/2019	1.38	33	25.5	0.0559(J)	6.19	5.29	293
BY-AP-MW-9	9/30/2019	2.34	39.9	21.7	0.0679(J)	6.07	3.77	319
BY-AP-MW-10	9/30/2019	2.02	63.1	25.7	Non-Detect	6.11	2.77	361
BY-AP-MW-11	9/30/2019	0.103	24.6	25	0.0733(J)	5.85	37.4	399
BY-AP-MW-12	10/1/2019	0.0967(J)	23.1	26.1	0.0682(J)	6	35.3	344
BY-AP-MW-13	10/1/2019	0.0604(J)	13.4	39.6	0.0703(J)	6.02	47.7	290
BY-AP-MW-14	10/1/2019	0.0701(J)	11.4	44.8	0.0885(J)	6.01	61.6	317
BY-AP-MW-15	10/1/2019	0.116	6.9	56.3	0.185	6.2	1.72	236
BY-AP-MW-16	10/1/2019	2.05	11.7	20.3	0.0774(J)	5.23	3.4	295
BY-GSA-MW-1	10/2/2019	0.097(J)	1.55	3.65	Non-Detect	4.57	17.5	46
BY-GSA-MW-2	10/2/2019	Non-Detect	1.7	2.75	Non-Detect	4.43	6.04	41.3
BY-GSA-MW-3	10/2/2019	Non-Detect	1.86	3.64	Non-Detect	4.52	7.62	36.7
BY-GSA-MW-4	10/2/2019	Non-Detect	1.7	3.5	Non-Detect	4.67	6.88	36

Notes:

1. J value indicates the result is greater than or equal to the Method Detection Limit (MDL) and less than the Practical Quantitation Limit (PQL). Values are displayed as less than the PQL with a J.
2. Non-Detect indicates the result was not detected above the MDL and is considered a non-detect.
3. U - Radium data is a combination of radium isotopes 226 and 228. When results are reported below the MDC (Minimum Detectable Concentration), data is displayed with an accompanying U. The MDC varies depending upon the sample amount and elapsed time of the measurement.
4. TDS - Total Dissolved Solids
5. N/R indicates a substance does not have an MCL or SMCL, but will be further evaluated statistically at the conclusion of all the background sampling events, as required by EPA's CCR rule.

**Table 8.
Second Semi-Annual Monitoring Event Analytical Summary**

		APPENDIX IV						
WELL	SAMPLE DATE	Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium	Cobalt
GWPS		0.006	0.01	2	0.004	0.005	0.1	0.0157
UNITS		mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
BY-AP-MW-1	10/1/2019	Non-Detect	0.0635	0.293	Non-Detect	Non-Detect	0.00236(J)	Non-Detect
BY-AP-MW-2	10/1/2019	Non-Detect	0.0014(J)	0.0241	Non-Detect	Non-Detect	Non-Detect	0.00696
BY-AP-MW-3	10/1/2019	Non-Detect	Non-Detect	0.0356	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-4	10/1/2019	Non-Detect	Non-Detect	0.0207	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-5	10/1/2019	Non-Detect	0.0307	0.138	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-6	10/1/2019	Non-Detect	Non-Detect	0.0257	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-7	9/30/2019	Non-Detect	0.0217	0.0648	Non-Detect	Non-Detect	Non-Detect	0.0186
BY-AP-MW-8	9/30/2019	Non-Detect	0.0514	0.138	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-9	9/30/2019	Non-Detect	0.0391	0.117	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-10	9/30/2019	Non-Detect	0.0704	0.0669	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-11	9/30/2019	Non-Detect	0.0145	0.0759	Non-Detect	Non-Detect	0.00228(J)	Non-Detect
BY-AP-MW-12	10/1/2019	Non-Detect	0.0221	0.0795	Non-Detect	Non-Detect	0.00325(J)	0.00303(J)
BY-AP-MW-13	10/1/2019	Non-Detect	0.0144	0.0696	Non-Detect	Non-Detect	0.00764(J)	Non-Detect
BY-AP-MW-14	10/1/2019	Non-Detect	0.0152	0.0605	Non-Detect	Non-Detect	0.00508(J)	Non-Detect
BY-AP-MW-15	10/1/2019	Non-Detect	0.017	0.0628	Non-Detect	Non-Detect	Non-Detect	0.0336
BY-AP-MW-16	10/1/2019	Non-Detect	0.0138	0.0803	Non-Detect	Non-Detect	Non-Detect	0.0107
BY-GSA-MW-1	10/2/2019	Non-Detect	Non-Detect	0.129	Non-Detect	Non-Detect	Non-Detect	0.0129
BY-GSA-MW-2	10/2/2019	Non-Detect	Non-Detect	0.183	Non-Detect	Non-Detect	Non-Detect	0.00244(J)
BY-GSA-MW-3	10/2/2019	Non-Detect	Non-Detect	0.089	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-GSA-MW-4	10/2/2019	Non-Detect	Non-Detect	0.111	Non-Detect	Non-Detect	Non-Detect	Non-Detect

Notes:

1. J value indicates the result is greater than or equal to the Method Detection Limit (MDL) and less than the Practical Quantitation Limit (PQL). Values are displayed as less than the PQL with a J.
2. Non-Detect indicates the result was not detected above the MDL and is considered a non-detect.
3. U - Radium data is a combination of radium isotopes 226 and 228. When results are reported below the MDC (Minimum Detectable Concentration), data is displayed with an accompanying U. The MDC varies depending upon the sample amount and elapsed time of the measurement.
4. TDS - Total Dissolved Solids
5. N/R indicates a substance does not have an MCL or SMCL, but will be further evaluated statistically at the conclusion of all the background sampling events, as required by EPA's CCR rule.

**Table 8.
Second Semi-Annual Monitoring Event Analytical Summary**

		APPENDIX IV							
WELL	SAMPLE DATE	Combined Radium 226 + 228	Fluoride	Lead	Lithium	Mercury	Molybdenum	Selenium	Thallium
GWPS		5	4	0.015	0.04	0.002	0.1	0.05	0.002
UNITS		pCi/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
BY-AP-MW-1	10/1/2019	2.84	0.0744(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-2	10/1/2019	0.284(U)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-3	10/1/2019	1.52	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-4	10/1/2019	0.7	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-5	10/1/2019	2.14	0.0557(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-6	10/1/2019	0.742	Non-Detect	0.00545	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-7	9/30/2019	0.388(U)	0.0925(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-8	9/30/2019	0.321(U)	0.0559(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-9	9/30/2019	0.58	0.0679(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-10	9/30/2019	0.965	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-11	9/30/2019	0.489(U)	0.0733(J)	Non-Detect	0.0228	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-12	10/1/2019	0.984	0.0682(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-13	10/1/2019	1.07	0.0703(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-14	10/1/2019	1.11	0.0885(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-15	10/1/2019	0.988	0.185	Non-Detect	0.0248	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-16	10/1/2019	0.443(U)	0.0774(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-GSA-MW-1	10/2/2019	0.905	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-GSA-MW-2	10/2/2019	1.33	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-GSA-MW-3	10/2/2019	0.458(U)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-GSA-MW-4	10/2/2019	0.624(U)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect

Notes:

1. J value indicates the result is greater than or equal to the Method Detection Limit (MDL) and less than the Practical Quantitation Limit (PQL). Values are displayed as less than the PQL with a J.
2. Non-Detect indicates the result was not detected above the MDL and is considered a non-detect.
3. U - Radium data is a combination of radium isotopes 226 and 228. When results are reported below the MDC (Minimum Detectable Concentration), data is displayed with an accompanying U. The MDC varies depending upon the sample amount and elapsed time of the measurement.
5. N/R indicates a substance does not have an MCL or SMCL, but will be further evaluated statistically at the conclusion of all the background sampling events, as required by EPA's CCR rule.

Appendix A

Monitoring Network Status Summary

Well ID	Purpose	Summary of Sampling Events																	
		March 1-3, 2016	April 19-21, 2016	June 7-10, 2016	August 29 - September 1, 2016	October 17-21, 2016	January 30 - February 2, 2017	March 20-24, 2017	May 2-5, 2017	June 5-9, 2017	September 12-15, 2017	January 22-27, 2018	April 30 - May 3, 2018	November 26-30, 2018	January 7-10, 2019	March 20, 2019	May 28-31, 2019	July 29- August 2019	September 30 - October 4, 2019
Purpose of Sampling Event		Background	Background	Background	Background	Background	Background	Background Resample	Background	Background	Detection	Assessment	2018 Semi-Annual 01	2018 Semi-Annual 02	2019 Semi-Annual 01			2019 Semi-Annual 02	
BY-AP-MW-1	Downgradient	BKG01	BKG02	BKG03	BKG04	BKG05	BKG06	R06	BKG07	BKG08	DET01	S01	ASM01	ASM02	--	--	ASM03	--	ASM04
BY-AP-MW-2	Upgradient	BKG01	BKG02	BKG03	BKG04	BKG05	BKG06	R06	BKG07	BKG08	DET01	S01	ASM01	ASM02	--	--	ASM03	--	ASM04
BY-AP-MW-3	Upgradient	BKG01	BKG02	BKG03	BKG04	BKG05	BKG06	R06	BKG07	BKG08	DET01	S01	ASM01	ASM02	--	--	ASM03	--	ASM04
BY-AP-MW-4	Upgradient	BKG01	BKG02	BKG03	BKG04	BKG05	BKG06	R06	BKG07	BKG08	DET01	S01	ASM01	ASM02	--	--	ASM03	--	ASM04
BY-AP-MW-5	Downgradient	BKG01	BKG02	BKG03	BKG04	BKG05	BKG06	R06	BKG07	BKG08	DET01	S01	ASM01	ASM02	--	--	ASM03	--	ASM04
BY-AP-MW-6	Downgradient	BKG01	BKG02	BKG03	BKG04	BKG05	BKG06	R06	BKG07	BKG08	DET01	S01	ASM01	ASM02	--	--	ASM03	--	ASM04
BY-AP-MW-7	Downgradient	BKG01	BKG02	BKG03	BKG04	BKG05	BKG06	R06	BKG07	BKG08	DET01	S01	ASM01	ASM02	--	--	ASM03	--	ASM04
BY-AP-MW-8	Downgradient	BKG01	BKG02	BKG03	BKG04	BKG05	BKG06	R06	BKG07	BKG08	DET01	S01	ASM01	ASM02	--	--	ASM03	--	ASM04
BY-AP-MW-9	Downgradient	BKG01	BKG02	BKG03	BKG04	BKG05	BKG06	R06	BKG07	BKG08	DET01	S01	ASM01	ASM02	--	--	ASM03	--	ASM04
BY-AP-MW-10	Downgradient	BKG01	BKG02	BKG03	BKG04	BKG05	BKG06	R06	BKG07	BKG08	DET01	S01	ASM01	ASM02	--	--	ASM03	--	ASM04
BY-AP-MW-11	Downgradient	BKG01	BKG02	BKG03	BKG04	BKG05	BKG06	R06	BKG07	BKG08	DET01	S01	ASM01	ASM02	--	--	ASM03	--	ASM04
BY-AP-MW-12	Downgradient	BKG01	BKG02	BKG03	BKG04	BKG05	BKG06	R06	BKG07	BKG08	DET01	S01	ASM01	ASM02	--	--	ASM03	--	ASM04
BY-AP-MW-13	Downgradient	BKG01	BKG02	BKG03	BKG04	BKG05	BKG06	R06	BKG07	BKG08	DET01	S01	ASM01	ASM02	--	--	ASM03	--	ASM04
BY-AP-MW-14	Downgradient	BKG01	BKG02	BKG03	BKG04	BKG05	BKG06	R06	BKG07	BKG08	DET01	S01	ASM01	ASM02	--	--	ASM03	--	ASM04
BY-AP-MW-15	Downgradient	BKG01	BKG02	BKG03	BKG04	BKG05	BKG06	R06	BKG07	BKG08	DET01	S01	ASM01	ASM02	--	--	ASM03	--	ASM04
BY-AP-MW-16	Downgradient	BKG01	BKG02	BKG03	BKG04	BKG05	BKG06	R06	BKG07	BKG08	DET01	S01	ASM01	ASM02	--	--	ASM03	--	ASM04
BY-AP-MW-1V	Vertical Delineation	--	--	--	--	--	--	--	--	--	--	--	--	ASM03	--	--	--	--	ASM04
BY-AP-MW-5V	Vertical Delineation	--	--	--	--	--	--	--	--	--	--	--	--	ASM03	--	--	--	--	ASM04
BY-AP-MW-7V	Vertical Delineation	--	--	--	--	--	--	--	--	--	--	--	--	ASM03	--	--	--	--	ASM04
BY-AP-MW-8V	Vertical Delineation	--	--	--	--	--	--	--	--	--	--	--	--	ASM03	--	--	--	--	ASM04
BY-AP-MW-10V	Vertical Delineation	--	--	--	--	--	--	--	--	--	--	--	--	ASM03	--	--	--	--	ASM04
BY-AP-MW-12V	Vertical Delineation	--	--	--	--	--	--	--	--	--	--	--	--	ASM03	--	--	--	--	ASM04
BY-AP-MW-15V	Vertical Delineation	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	ASM03	ASM04	ASM04
BY-AP-MW-17H	Horizontal Delineation	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	ASM03	ASM04	ASM04
BY-AP-MW-18H	Horizontal Delineation	--	--	--	--	--	--	--	--	--	--	--	--	--	ASM03	--	--	ASM04	ASM04
BY-AP-MW-19H	Horizontal Delineation	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	ASM03	ASM04	ASM04
BY-AP-MW-20H	Horizontal Delineation	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	ASM03	ASM04	ASM04
BY-AP-MW-22H	Horizontal Delineation	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	ASM03	ASM04	ASM04
BY-AP-MW-23H	Horizontal Delineation	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	ASM03	ASM04	ASM04
BY-AP-MW-24H	Horizontal Delineation	--	--	--	--	--	--	--	--	--	--	--	--	ASM03	--	--	--	ASM04	ASM04

Appendix A

Abbreviations

1. mg/L - Milligrams per liter
2. pCi/L - Picocuries per liter
3. N/A indicates the constituent was not analyzed during the sampling event.
4. J value indicates the result is greater than or equal to the Method Detection Limit (MDL) and less than the Practical Quantitation Limit (PQL).
Values are displayed as less than the PQL with a J.
5. Non-Detect indicates the result was not detected above the MDL and is considered a non-detect.
6. GWPS is the Groundwater Protection Standard.
7. Radium data is a combination of radium isotopes 226 and 228. When results are reported below the MDC (Minimum Detectable Concentration), data is displayed with an accompanying U. The MDC varies depending upon the sample amount and elapsed time of the measurement.
8. Annual sampling for Appendix IV constituents only was completed following initiation of assessment monitoring. Appendix III constituents were not required during this monitoring event.

Analytical Data Summary Plant Barry Ash Pond Alabama Power Company

		APPENDIX III							APPENDIX IV														
WELL	SAMPLE DATE	Boron	Calcium	Chloride	Fluoride	pH	Sulfate	TDS	Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium	Cobalt	Combined Radium 226 + 228	Fluoride	Lead	Lithium	Mercury	Molybdenum	Selenium	Thallium
GWPS		N/R	N/R	N/R	4	N/R	N/R	N/R	0.006	0.01	2	0.004	0.005	0.1	0.0157	5	4	0.015	0.04	0.002	0.1	0.05	0.002
UNITS		mg/L	mg/L	mg/L	mg/L	SU	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	pCi/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
BY-AP-MW-5	3/1/2016	0.0462(J)	15	19.7	0.04(J)	5.99	Non-Detect	273	Non-Detect	0.0277	0.136	Non-Detect	Non-Detect	Non-Detect	Non-Detect	1.67764	0.04(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-5	4/20/2016	0.0719(J)	14.3	18.9	0.043(J)	5.96	Non-Detect	269	Non-Detect	0.0307	0.132	Non-Detect	Non-Detect	Non-Detect	Non-Detect	3.0801	0.043(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-5	6/7/2016	0.0591(J)	14.8	18.5	0.075(J)	6.03	0.583(J)	272	Non-Detect	0.0308	0.141	Non-Detect	Non-Detect	Non-Detect	Non-Detect	1.5	0.075(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-5	8/30/2016	0.0675(J)	13.7	17.9	0.057(J)	6	Non-Detect	244	Non-Detect	0.033	0.136	Non-Detect	Non-Detect	Non-Detect	Non-Detect	1.17	0.057(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-5	10/18/2016	0.0699(J)	13.3	18.2	0.049(J)	5.99	Non-Detect	238	Non-Detect	0.0296	0.125	Non-Detect	Non-Detect	Non-Detect	Non-Detect	1.93	0.049(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-5	1/31/2017	0.0518(J)	13.7	n/a	n/a	5.96	n/a	266	0.000765(J)	0.0264	0.125	Non-Detect	Non-Detect	Non-Detect	Non-Detect	1	n/a	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-5	3/22/2017	n/a	n/a	22	0.04(J)	6.01	Non-Detect	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	0.04(J)	n/a	n/a	n/a	n/a	n/a	n/a
BY-AP-MW-5	5/3/2017	0.0737(J)	14.3	22	0.05(J)	5.99	Non-Detect	259	Non-Detect	0.0309	0.146	Non-Detect	Non-Detect	Non-Detect	Non-Detect	1.48	0.05(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	
BY-AP-MW-5	6/7/2017	0.0518(J)	14.7	21	0.05(J)	6.01	Non-Detect	255	Non-Detect	0.0283	0.126	Non-Detect	Non-Detect	Non-Detect	Non-Detect	0.915	0.05(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	
BY-AP-MW-5	9/14/2017	0.0825(J)	15.1	21	0.06(J)	6	Non-Detect	276	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	0.06(J)	n/a	n/a	n/a	n/a	n/a	n/a
BY-AP-MW-5	1/24/2018	n/a	n/a	n/a	0.05(J)	5.98	n/a	n/a	Non-Detect	0.0282	0.127	Non-Detect	Non-Detect	Non-Detect	Non-Detect	1.74(L)	0.05(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-5	5/2/2018	0.0603(J)	14.5	20	0.05(J)	5.99	Non-Detect	247	Non-Detect	0.0315	0.154	Non-Detect	Non-Detect	Non-Detect	Non-Detect	0.58	0.05(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	
BY-AP-MW-5	11/7/2018	Non-Detect	13.7	21	Non-Detect	6.01	Non-Detect	248	Non-Detect	0.0283	0.139	Non-Detect	Non-Detect	Non-Detect	Non-Detect	1.43	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	
BY-AP-MW-5	5/29/2019	0.0946(J)	14.5	19.7	0.0923(J)	5.93	5.51	259	Non-Detect	0.0301	0.146	Non-Detect	Non-Detect	Non-Detect	Non-Detect	2.16	0.0923(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	
BY-AP-MW-5	10/1/2019	0.103	13.8	19.8	0.0557(J)	5.47	7.4	243	Non-Detect	0.0307	0.138	Non-Detect	Non-Detect	Non-Detect	Non-Detect	2.14	0.0557(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	

Analytical Data Summary

Plant Barry Ash Pond

Alabama Power Company

		APPENDIX III							APPENDIX IV															
WELL	SAMPLE DATE	Boron	Calcium	Chloride	Fluoride	pH	Sulfate	TDS	Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium	Cobalt	Combined Radium 226 + 228	Fluoride	Lead	Lithium	Mercury	Molybdenum	Selenium	Thallium	
GWPS		N/R	N/R	N/R	4	N/R	N/R	N/R	0.006	0.01	2	0.004	0.005	0.1	0.0157	5	4	0.015	0.04	0.002	0.1	0.05	0.002	
UNITS		mg/L	mg/L	mg/L	mg/L	SU	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	pCi/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	
BY-AP-MW-11	3/1/2016	0.0482(J)	35.3	21.7	0.06(J)	6.34	1.02	395	Non-Detect	0.01	0.122	Non-Detect	Non-Detect	0.00213(J)	Non-Detect	Non-Detect	0.06(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-11	4/20/2016	0.059(J)	28.9	20.7	0.073(J)	6.31	1.1	376	Non-Detect	0.0127	0.11	Non-Detect	Non-Detect	0.00214(J)	Non-Detect	0.667	0.073(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-11	6/8/2016	0.0568(J)	27.6	20.4	0.085(J)	6.33	0.701(J)	324	Non-Detect	0.0136	0.105	Non-Detect	Non-Detect	0.00205(J)	Non-Detect	0.704	0.085(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-11	8/31/2016	0.0651(J)	25.4	20.3	0.064(J)	6.29	Non-Detect	367	Non-Detect	0.0149	0.102	Non-Detect	Non-Detect	0.00221(J)	Non-Detect	0.726	0.064(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-11	10/19/2016	0.06(J)	25.7	20.3	0.05(J)	6.26	Non-Detect	367	Non-Detect	0.0149	0.0953	Non-Detect	Non-Detect	0.00213(J)	Non-Detect	0.737	0.05(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-11	2/1/2017	0.0638(J)	25.6	n/a	n/a	6.22	n/a	391	0.000812(J)	0.0151	0.0917	Non-Detect	Non-Detect	0.00228(J)	Non-Detect	0.766	n/a	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-11	3/22/2017	n/a	n/a	27	0.05(J)	6.22	2.1(J)	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	0.05(J)	n/a	n/a	n/a	n/a	n/a	n/a	n/a
BY-AP-MW-11	5/3/2017	0.065(J)	24	27	0.06(J)	6.15	3.6(J)	373	Non-Detect	0.0155	0.0951	Non-Detect	Non-Detect	0.00229(J)	Non-Detect	0.515	0.06(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-11	6/7/2017	0.0468(J)	25.2	24	0.06(J)	6.21	Non-Detect	367	Non-Detect	0.0145	0.0864	Non-Detect	Non-Detect	0.00233(J)	Non-Detect	1.04	0.06(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-11	9/13/2017	0.0751(J)	25.5	26	Non-Detect	6.26	Non-Detect	378	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	Non-Detect	n/a	n/a	n/a	n/a	n/a	n/a	n/a
BY-AP-MW-11	1/23/2018	n/a	n/a	n/a	0.06(J)	6.28	n/a	n/a	Non-Detect	0.0154	0.0868	Non-Detect	Non-Detect	0.00248(J)	Non-Detect	1.17(U)	0.06(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-11	5/2/2018	0.0545(J)	25.2	23	0.06(J)	6.33	Non-Detect	330	Non-Detect	0.0158	0.0816	Non-Detect	Non-Detect	0.00273(J)	Non-Detect	0.505	0.06(J)	Non-Detect	0.0384(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-11	1/28/2018	Non-Detect	24.6	25	Non-Detect	6.28	Non-Detect	357	Non-Detect	0.014	0.0796	Non-Detect	Non-Detect	Non-Detect	Non-Detect	0.232(U)	Non-Detect	Non-Detect	0.0262	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-11	5/29/2019	0.082(J)	23.9	27.8	0.0759(J)	6.24	24.1	367	Non-Detect	0.0132	0.0653	Non-Detect	Non-Detect	0.00211(J)	Non-Detect	0.726	0.0759(J)	Non-Detect	0.0321	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-11	9/30/2019	0.103	24.6	25	0.0733(J)	5.85	37.4	399	Non-Detect	0.0145	0.0759	Non-Detect	Non-Detect	0.00228(J)	Non-Detect	0.489(U)	0.0733(J)	Non-Detect	0.0228	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect

Analytical Data Summary

Plant Barry Ash Pond

Alabama Power Company

		APPENDIX III							APPENDIX IV														
WELL	SAMPLE DATE	Boron	Calcium	Chloride	Fluoride	pH	Sulfate	TDS	Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium	Cobalt	Combined Radium 226 + 228	Fluoride	Lead	Lithium	Mercury	Molybdenum	Selenium	Thallium
GWPS		N/R	N/R	N/R	4	N/R	N/R	N/R	0.006	0.01	2	0.004	0.005	0.1	0.0157	5	4	0.015	0.04	0.002	0.1	0.05	0.002
UNITS		mg/L	mg/L	mg/L	mg/L	SU	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	pCi/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
BY-AP-MW-15	3/2/2016	0.0447(J)	6.61	20.9	0.18(J)	6.61	Non-Detect	182	Non-Detect	0.0128	0.0468	Non-Detect	Non-Detect	Non-Detect	0.0279	Non-Detect	0.18(J)	Non-Detect	Non-Detect	Non-Detect	0.00238(J)	Non-Detect	Non-Detect
BY-AP-MW-15	4/19/2016	0.0645(J)	5.97	19.8	0.21(J)	6.75	Non-Detect	151	Non-Detect	0.0157	0.043	Non-Detect	Non-Detect	Non-Detect	0.0269	Non-Detect	0.21(J)	Non-Detect	Non-Detect	Non-Detect	0.00203(J)	Non-Detect	Non-Detect
BY-AP-MW-15	6/8/2016	0.0592(J)	6.36	24	0.223(J)	6.63	0.489(J)	168	Non-Detect	0.0168	0.0465	Non-Detect	Non-Detect	Non-Detect	0.0293	0.557	0.223(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-15	8/31/2016	0.0632(J)	6.28	28	0.196(J)	6.71	Non-Detect	188	Non-Detect	0.0168	0.0464	Non-Detect	Non-Detect	Non-Detect	0.0272	0.765	0.196(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-15	10/19/2016	0.0637(J)	6.57	21.3	0.166(J)	6.66	Non-Detect	180	Non-Detect	0.0178	0.0481	Non-Detect	Non-Detect	Non-Detect	0.0285	0.654	0.166(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-15	1/31/2017	0.0536(J)	6.77	n/a	n/a	6.73	n/a	166	0.000746(J)	0.0164	0.0427	Non-Detect	Non-Detect	Non-Detect	0.025	0.402(U)	n/a	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-15	3/21/2017	n/a	n/a	34	0.18	6.62	Non-Detect	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	0.18	n/a	n/a	n/a	n/a	n/a	n/a
BY-AP-MW-15	5/2/2017	0.0775(J)	6.94	33	0.18	6.49	Non-Detect	183	Non-Detect	0.0172	0.0473	Non-Detect	Non-Detect	Non-Detect	0.0274	0.578	0.18	Non-Detect	Non-Detect	Non-Detect	0.00201(J)	Non-Detect	Non-Detect
BY-AP-MW-15	6/6/2017	0.0535(J)	6.88	35	0.18	6.7	Non-Detect	187	Non-Detect	0.0158	0.0437	Non-Detect	Non-Detect	Non-Detect	0.0285	0.128(U)	0.18	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-15	9/13/2017	0.0937(J)	7.43	36	Non-Detect	6.66	Non-Detect	202	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	Non-Detect	n/a	n/a	n/a	n/a	n/a	n/a
BY-AP-MW-15	1/22/2018	n/a	n/a	n/a	0.19	6.73	n/a	n/a	Non-Detect	0.0173	0.0501	Non-Detect	Non-Detect	Non-Detect	0.0273	0.768(U)	0.19	Non-Detect	Non-Detect	Non-Detect	0.00211(J)	Non-Detect	Non-Detect
BY-AP-MW-15	5/1/2018	0.0683(J)	7.42	42	0.19	6.62	Non-Detect	197	Non-Detect	0.0181	0.0575	Non-Detect	Non-Detect	Non-Detect	0.0298	0.651	0.19	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-15	11/7/2018	Non-Detect	7.58	43	0.18	6.58	Non-Detect	190	Non-Detect	0.0158	0.0557	Non-Detect	Non-Detect	Non-Detect	0.0311	0.764	0.18	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-15	5/29/2019	0.116	7.22	47.2	0.168	6.63	3.27	198	Non-Detect	0.0148	0.0562	Non-Detect	Non-Detect	Non-Detect	0.0343	0.433	0.168	Non-Detect	0.0254	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-15	10/1/2019	0.116	6.9	56.3	0.185	6.2	1.72	236	Non-Detect	0.017	0.0628	Non-Detect	Non-Detect	Non-Detect	0.0336	0.988	0.185	Non-Detect	0.0248	Non-Detect	Non-Detect	Non-Detect	Non-Detect

Appendix B

1st
Delineation
Monitoring Event

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

Field Case Narrative



Plant Barry Ash Pond

Delineation Event 1

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

Field quality control procedures were performed as follows:

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

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

Analytical Report



Sample Group : WMWBARAP_1200
Project/Site : Barry Ash Pond
Bucks, AL 36512
For : Southern Company Services
3535 Colonnade Parkway
Birmingham, AL 35243
Attention : Dustin Brooks, Greg Dyer, & Lauren Parker
Released By : Laura Midkiff
lbmidkif@southernco.com
(205) 664-6197

The following data has been reviewed and approved by:

Quality Control:

Laura Midkiff

Digitally signed by Laura Midkiff
DN: cn=Laura Midkiff, o=Alabama Power
Company, ou=Environmental Affairs,
email=lbmidkif@southernco.com, c=US
Date: 2019.04.15 13:45:22 -0500

Supervision: T. Durant
Maske

Digitally signed by T. Durant Maske
DN: cn=T. Durant Maske, o=Alabama
Power Company, ou=Environmental
Affairs, email=tdmaske@southernco.com,
c=US
Date: 2019.04.15 15:19:49 -0500



Total Metals ICP

Barry Ash Pond

WMWBARAP_1200

1. This report consists of all MWs and corresponding Lab IDs listed on the Chain of Custody.
2. Refer to comments on Chain of Custody for information regarding sample receipt.
3. All standards and solutions are NIST/ISO/IEC/Guide 34 traceable and were used within their recommended shelf life.

<u>Sample ID</u>	<u>Batch ID</u>	<u>Project ID</u>
AZ00776	636018	WMWBARAP_1200
AZ00777	636018	WMWBARAP_1200
AZ00778	636018	WMWBARAP_1200
AZ00779	636018	WMWBARAP_1200
AZ00780	636018	WMWBARAP_1200
AZ00781	636018	WMWBARAP_1200
AZ00782	636018	WMWBARAP_1200
AZ00783	636018	WMWBARAP_1200
AZ00784	636018	WMWBARAP_1200
AZ00785	636018	WMWBARAP_1200
AZ07340	642946	WMWBARAP_1200
AZ07341	642946	WMWBARAP_1200
AZ07342	642946	WMWBARAP_1200
AZ07343	642946	WMWBARAP_1200

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

General Quality Control Procedures:

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



- The spectral interference check associated with EPA 200.7 was analyzed and all acceptance criteria were met, except for batch 636018. The spectral interference check was not analyzed because the sample was not poured into the sample vial for batch 636018.
- All sample internal standard criteria were met.
- The high standard readbacks associated with EPA 200.7 were within acceptance criteria.
- It is noted that the QC summary page typically provides the QC results from the original batch analytical sequence. If dilutions were subsequently performed to bring sample concentrations within the calibration range, any additional QC data from the dilution analyses may need to be obtained from the laboratory. Any qualifications applied to original analyses or dilution re-analyses are based upon QC data available at the time of review.

Matrix Specific Quality Control Procedures:

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

- A matrix spike and matrix spike duplicate were digested and analyzed with each ICP batch. All acceptance criteria for accuracy were met.
 - A matrix spike and matrix spike duplicate were digested and analyzed with each ICP batch. All acceptance criteria for precision were met.
7. All samples were analyzed at a x2.03 dilution to compensate for potential matrix effects. The following samples were diluted due to the analyzed sample concentration being greater than the high standard of the calibration curve:

<u>Sample ID</u>	<u>Analyte</u>	<u>Dilution Factor</u>
AZ00778	Iron	x10.15
AZ00779	Sodium	x10.15
AZ00779	Iron	x101.5
AZ00780	Iron	x101.5
AZ00781	Iron	x101.5
AZ00782	Sodium	x10.15
AZ00782	Iron	x101.5
AZ00783	Iron	x101.5
AZ00784	Iron	x10.15
AZ07341	Iron	x101.5
AZ07342	Iron	x101.5

8. The raw data results include results corrected for dilution.



Dissolved Metals ICP

Barry Ash Pond

WMWBARAP_1200

1. This report consists of all MWs and corresponding Lab IDs listed on the Chain of Custody.
2. Refer to comments on Chain of Custody for information regarding sample receipt.
3. All standards and solutions are NIST/ISO/IEC/Guide 34 traceable and were used within their recommended shelf life.

<u>Sample ID</u>	<u>Batch ID</u>	<u>Project ID</u>
AZ00776	636005	WMWBARAP_1200
AZ00777	636005	WMWBARAP_1200
AZ00778	636005	WMWBARAP_1200
AZ00779	636005	WMWBARAP_1200
AZ00780	636005	WMWBARAP_1200
AZ00781	636005	WMWBARAP_1200
AZ00782	636005	WMWBARAP_1200
AZ00783	636005	WMWBARAP_1200
AZ00784	636005	WMWBARAP_1200
AZ00785	636005	WMWBARAP_1200
AZ07340	642797	WMWBARAP_1200
AZ07341	642797	WMWBARAP_1200
AZ07342	642797	WMWBARAP_1200
AZ07343	642797	WMWBARAP_1200

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

General Quality Control Procedures:

- Prior to sample analysis, an initial calibration verification (ICV) was analyzed and all criteria were met.
- Following the ICV, an initial calibration blank (ICB) was analyzed and was below the limit of quantitation for all requested analytes.
- All continued calibration verification (CCV) were within the acceptance criteria for the requested analytes.
- All continued calibration blanks (CCB) were below the limit of quantitation for the requested analytes.
- Due to no filtered method blank (MB) or laboratory control sample (LCS) submitted with the sample set, an unfiltered MB and LCS were analyzed with the samples in each batch.
- All laboratory control sample criteria were met.
- The method blank associated with each batch passed all acceptance criteria for all requested analytes.



- The spectral interference check associated with EPA 200.7 was analyzed and all acceptance criteria were met, except for batch 636005. The spectral interference check was not analyzed because the sample was not poured into the sample vial for batch 636005.
- All sample internal standard criteria were met.
- The high standard readbacks associated with EPA 200.7 were within acceptance criteria.
- It is noted that the QC summary page typically provides the QC results from the original batch analytical sequence. If dilutions were subsequently performed to bring sample concentrations within the calibration range, any additional QC data from the dilution analyses may need to be obtained from the laboratory. Any qualifications applied to original analyses or dilution re-analyses are based upon QC data available at the time of review.

Matrix Specific Quality Control Procedures:

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

- A matrix spike and matrix spike duplicate were analyzed with each ICP batch. All acceptance criteria for accuracy were met.
 - A matrix spike and matrix spike duplicate were analyzed with each ICP batch. All acceptance criteria for precision were met.
7. All samples were analyzed at a x2.03 dilution to compensate for potential matrix effects. The following samples were diluted due to the analyzed sample concentration being greater than the high standard of the calibration curve:

<u>Sample ID</u>	<u>Analyte</u>	<u>Dilution Factor</u>
AZ00778	Iron	x10.15
AZ00779	Iron	x101.5
AZ00780	Iron	x101.5
AZ00781	Iron	x101.5
AZ00782	Iron	x101.5
AZ00783	Iron	x101.5
AZ00784	Iron	x10.15
AZ07341	Iron	x101.5
AZ07342	Iron	x101.5

8. The raw data results include results corrected for dilution.

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

Case Narrative

 Alabama Power





Total Metals ICPMS

Barry Ash Pond

WMWBARAP_1200

1. This report consists of all MWs and corresponding Lab IDs listed on the Chain of Custody.
2. Refer to comments on Chain of Custody for information regarding sample receipt.
3. All standards and solutions are NIST/ISO/IEC/Guide 34 traceable and were used within their recommended shelf life.

<u>Sample ID</u>	<u>Batch ID</u>	<u>Project ID</u>
AZ00776	636481	WMWBARAP_1200
AZ00777	636481	WMWBARAP_1200
AZ00778	636481	WMWBARAP_1200
AZ00779	636481	WMWBARAP_1200
AZ00780	636481	WMWBARAP_1200
AZ00781	636481	WMWBARAP_1200
AZ00782	636481	WMWBARAP_1200
AZ00783	636481	WMWBARAP_1200
AZ00784	636481	WMWBARAP_1200
AZ00785	636481	WMWBARAP_1200
AZ07340	642339	WMWBARAP_1200
AZ07341	642339	WMWBARAP_1200
AZ07342	642339	WMWBARAP_1200
AZ07343	642339	WMWBARAP_1200

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

General Quality Control Procedures:

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



- The method blank associated with each digestion batch passed all acceptance criteria for all requested analytes.
- The interference check samples associated with EPA 200.8 were analyzed and passed for all requested analytes.
- All sample internal standard criteria were met.

Matrix Specific Quality Control Procedures:

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

- A matrix spike and matrix spike duplicate were digested and analyzed with each ICPMS batch. All acceptance criteria for accuracy were met.
 - A matrix spike and matrix spike duplicate were digested and analyzed with each ICPMS batch. All acceptance criteria for precision were met.
7. All samples were analyzed at a x5.075 dilution to compensate for potential matrix effects.
 8. The raw data results are shown with dilution factors included.



Dissolved Metals ICPMS

Barry Ash Pond

WMWBARAP_1200

1. This report consists of all MWs and corresponding Lab IDs listed on the Chain of Custody.
2. Refer to comments on Chain of Custody for information regarding sample receipt.
3. All standards and solutions are NIST/ISO/IEC/Guide 34 traceable and were used within their recommended shelf life.

<u>Sample ID</u>	<u>Batch ID</u>	<u>Project ID</u>
AZ00776	636000	WMWBARAP_1200
AZ00777	636000	WMWBARAP_1200
AZ00778	636000	WMWBARAP_1200
AZ00779	636000	WMWBARAP_1200
AZ00780	636000	WMWBARAP_1200
AZ00781	636000	WMWBARAP_1200
AZ00782	636000	WMWBARAP_1200
AZ00783	636000	WMWBARAP_1200
AZ00784	636000	WMWBARAP_1200
AZ00785	636000	WMWBARAP_1200
AZ07340	642324	WMWBARAP_1200
AZ07341	642324	WMWBARAP_1200
AZ07342	642324	WMWBARAP_1200
AZ07343	642324	WMWBARAP_1200

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

General Quality Control Procedures:

- All tune and calibration met criteria for all requested analytes.
- Prior to sample analysis, an initial calibration verification (ICV) was analyzed and all criteria were met.
- Following the ICV, an initial calibration blank (ICB) was analyzed and was below the limit of quantitation for all requested analytes.
- All continued calibration verification (CCV) were within the acceptance criteria for the requested analytes.
- All continued calibration blanks (CCB) were below the limit of quantitation for the requested analytes.
- The interference check samples associated with EPA 200.8 were analyzed and passed for all requested analytes.
- All sample internal standard criteria were met.



Matrix Specific Quality Control Procedures:

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

- A matrix spike and matrix spike duplicate were analyzed with each ICPMS batch. All acceptance criteria for accuracy were met.
 - A matrix spike and matrix spike duplicate were analyzed with each ICPMS batch. All acceptance criteria for precision were met.
-
7. All samples were analyzed at a x5.075 dilution to compensate for potential matrix effects.
 8. The raw data results are shown with dilution factors included.



Mercury

Barry Ash Pond

WMWBARAP_1200

1. This report consists of all MWs and corresponding Lab IDs listed on the Chain of Custody.
2. Refer to comments on Chain of Custody for information regarding sample receipt.
3. All standards and solutions are NIST/ISO/IEC/Guide 34 traceable and were used within their recommended shelf life.

<u>Sample ID</u>	<u>Batch ID</u>	<u>Project ID</u>
AZ00776	636107	WMWBARAP_1200
AZ00777	636107	WMWBARAP_1200
AZ00778	636107	WMWBARAP_1200
AZ00779	636107	WMWBARAP_1200
AZ00780	636107	WMWBARAP_1200
AZ00781	636107	WMWBARAP_1200
AZ00782	636107	WMWBARAP_1200
AZ00783	636107	WMWBARAP_1200
AZ00784	636107	WMWBARAP_1200
AZ00785	636107	WMWBARAP_1200
AZ07340	643043	WMWBARAP_1200
AZ07341	643043	WMWBARAP_1200
AZ07342	643043	WMWBARAP_1200
AZ07343	643043	WMWBARAP_1200

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

General Quality Control Procedures:

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



- The method blank associated with each digestion batch was below the limit of quantitation for the requested analyte.
- All calibration met criteria for the requested analyte.
- All response signals were satisfactory.

Matrix Specific Quality Control Procedures:

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

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



TDS

Barry Ash Pond

WMWBARAP_1200

1. This report consists of all MWs and corresponding Lab IDs listed on the Chain of Custody.
2. Refer to comments on Chain of Custody for information regarding sample receipt.
3. All standards and solutions are NIST/ISO/IEC/Guide 34 traceable and were used within their recommended shelf life.

<u>Sample ID</u>	<u>Batch ID</u>	<u>Project ID</u>
AZ00776	636584	WMWBARAP_1200
AZ00777	636584	WMWBARAP_1200
AZ00778	636584	WMWBARAP_1200
AZ00779	636584	WMWBARAP_1200
AZ00780	636584	WMWBARAP_1200
AZ00781	636584	WMWBARAP_1200
AZ00782	636584	WMWBARAP_1200
AZ00783	636584	WMWBARAP_1200
AZ00784	636584	WMWBARAP_1200
AZ00785	636584	WMWBARAP_1200
AZ07340	642498	WMWBARAP_1200
AZ07341	642498	WMWBARAP_1200
AZ07342	642498	WMWBARAP_1200
AZ07343	642498	WMWBARAP_1200

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

General Quality Control Procedures:

- A Method Blank was analyzed with each batch. All criteria were met.
- All final weights of samples, standards, and blanks agreed within 0.5mg of the previous weight.
- A sample duplicate was analyzed with each batch. RPD/2 was less than 5%.
- A laboratory control sample was analyzed with each batch. All criteria were met.
- Samples were between 2.5mg and 200mg residue.
- All samples with residue <2.5mg had the maximum volume of 150mL filtered. Affected samples are as follows:
 - AZ00777
 - AZ00785
 - AZ07340
 - AZ07343



Alkalinity

Barry Ash Pond

WMWBARAP_1200

1. This report consists of all MWs and corresponding Lab IDs listed on the Chain of Custody.
2. Refer to comments on Chain of Custody for information regarding sample receipt.
3. All standards and solutions are NIST/ISO/IEC/Guide 34 traceable and were used within their recommended shelf life.

<u>Sample ID</u>	<u>Batch ID</u>	<u>Project ID</u>
AZ00776	636170 & 636171	WMWBARAP_1200
AZ00778	636170 & 636171	WMWBARAP_1200
AZ00779	636170 & 636171	WMWBARAP_1200
AZ00780	636170 & 636171	WMWBARAP_1200
AZ00781	636170 & 636171	WMWBARAP_1200
AZ00782	636170 & 636171	WMWBARAP_1200
AZ00783	636170 & 636171	WMWBARAP_1200
AZ00784	636170 & 636171	WMWBARAP_1200
AZ07341	643047 & 643048	WMWBARAP_1200
AZ07342	643047 & 643048	WMWBARAP_1200

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

General Quality Control Procedures:

- An initial pH check was analyzed with each batch. The acceptance criteria were met.
- A final pH check was analyzed with each batch. The acceptance criteria were met.
- An alkalinity laboratory control sample was analyzed with each batch. Range criteria of within 10% of true value was met.
- An alkalinity sample duplicate was analyzed with each batch. Precision criteria less than 10 RPD was met.



Anions

Barry Ash Pond

WMWBARAP_1200

1. This report consists of all MWs and corresponding Lab IDs listed on the Chain of Custody.
2. Refer to comments on Chain of Custody for information regarding sample receipt.
3. All standards and solutions are NIST/ISO/IEC/Guide 34 traceable and were used within their recommended shelf life.

<u>Sample ID</u>	<u>Batch ID</u>	<u>Project ID</u>
AZ00776	636858, 636860, & 637294	WMWBARAP_1200
AZ00777	636858, 636860, & 637294	WMWBARAP_1200
AZ00778	636858, 636860, & 637294	WMWBARAP_1200
AZ00779	636858, 636860, & 637294	WMWBARAP_1200
AZ00780	636858, 636860, & 637294	WMWBARAP_1200
AZ00781	636858, 636860, & 637294	WMWBARAP_1200
AZ00782	636858, 636860, & 637294	WMWBARAP_1200
AZ00783	636858, 636860, & 637294	WMWBARAP_1200
AZ00784	636858, 636860, & 637294	WMWBARAP_1200
AZ00785	636858, 636860, & 637294	WMWBARAP_1200
AZ07340	643068, 642210, & 643094	WMWBARAP_1200
AZ07341	643068, 642210, & 643094	WMWBARAP_1200
AZ07342	643068, 642210, & 643094	WMWBARAP_1200
AZ07343	643068, 642210, & 643094	WMWBARAP_1200

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

General Quality Control Procedures:

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



Matrix Specific Quality Control Procedures:

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

- A matrix spike was analyzed with each batch. Acceptance criteria for accuracy were met.
 - A sample duplicate was analyzed with each batch. Acceptance criteria for precision were met.
7. The following samples were diluted due to the analyzed sample concentration being greater than the high standard of the calibration curve:

<u>Sample ID</u>	<u>Analyte</u>	<u>Dilution Factor</u>
AZ00776	Cl	10
AZ00778	Cl	10
AZ00779	Cl	10
AZ00780	Cl	10
AZ00781	Cl	10
AZ00782	Cl	10
AZ00782	SO ₄	10
AZ00783	Cl	10

8. The raw data results are shown with dilution factors included.

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

Certificate Of Analysis  **Alabama Power**



To: Dustin Brooks
 Greg Dyer
 Lauren Parker

Customer Account: WMWBARAP
 Sample Date: 08-Jan-19
 Customer ID:
 Delivery Date: 10-Jan-19

Description: Barry Ash Pond - MW-5V

Laboratory ID Number: AZ00776

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q	Results	Units
Metals, Cyanide, Total Phenols										
* Arsenic, Total	DLJ	1/22/2019	EPA 200.8		5.075	0.001	0.005	U	Not Detected	mg/L
* Barium, Total	DLJ	1/22/2019	EPA 200.8		5.075	0.002	0.01		0.0372	mg/L
* Beryllium, Total	DLJ	1/22/2019	EPA 200.8		5.075	0.0006	0.003	U	Not Detected	mg/L
* Boron, Total	GAS	1/15/2019	EPA 200.7		2.03	0.02	0.1	J	0.0290	mg/L
* Calcium, Total	GAS	1/15/2019	EPA 200.7		2.03	0.1	0.5		3.70	mg/L
* Cadmium, Total	DLJ	1/22/2019	EPA 200.8		5.075	0.0003	0.001	U	Not Detected	mg/L
* Antimony, Total	DLJ	1/22/2019	EPA 200.8		5.075	0.0008	0.003	J	0.00207	mg/L
* Molybdenum, Total	DLJ	1/22/2019	EPA 200.8		5.075	0.002	0.01	U	Not Detected	mg/L
* Lead, Total	DLJ	1/22/2019	EPA 200.8		5.075	0.001	0.005	U	Not Detected	mg/L
* Cobalt, Total	DLJ	1/22/2019	EPA 200.8		5.075	0.002	0.005	U	Not Detected	mg/L
* Chromium, Total	DLJ	1/22/2019	EPA 200.8		5.075	0.002	0.01	U	Not Detected	mg/L
* Iron, Dissolved	GAS	1/15/2019	EPA 200.7		2.03	0.01	0.05		0.227	mg/L
* Iron, Total	GAS	1/15/2019	EPA 200.7		2.03	0.01	0.05		0.615	mg/L
* Mercury, Total by CVAA	ABB	1/17/2019	EPA 245.1		1	0.0003	0.0005	U	Not Detected	mg/L
* Lithium, Total	GAS	1/15/2019	EPA 200.7		2.03	0.01	0.02	U	Not Detected	mg/L
* Magnesium, Total	GAS	1/15/2019	EPA 200.7		2.03	0.1	0.5		1.46	mg/L
* Manganese, Dissolved	DLJ	1/14/2019	EPA 200.8		5.075	0.001	0.005		0.0298	mg/L
* Manganese, Total	DLJ	1/22/2019	EPA 200.8		5.075	0.001	0.005		0.0337	mg/L
* Potassium, Total	DLJ	1/22/2019	EPA 200.8		5.075	0.215	2.5	J	1.28	mg/L
* Sodium, Total	GAS	1/15/2019	EPA 200.7		2.03	0.1	0.5		18.4	mg/L
* Selenium, Total	DLJ	1/22/2019	EPA 200.8		5.075	0.002	0.01	U	Not Detected	mg/L
* Thallium, Total	DLJ	1/22/2019	EPA 200.8		5.075	0.0002	0.001	U	Not Detected	mg/L

General Characteristics

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

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

* Test results for these accredited parameters conform to the most current applicable TNI/NELAC requirements, with exceptions noted on this report.

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2019

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified. LBM 2/11/19

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

Certificate Of Analysis



To: Dustin Brooks
 Greg Dyer
 Lauren Parker

Customer Account: WMWBARAP
 Sample Date: 08-Jan-19
 Customer ID:
 Delivery Date: 10-Jan-19

Description: Barry Ash Pond - MW-5V

Laboratory ID Number: AZ00776

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
pH for Alkalinity	EMG	1/15/2019	SM 4500H+ B		1		4.00	6.28	SU
Alkalinity, Total as CaCO3	EMG	1/15/2019	SM 2320 B		1		0.1	27.1	mg/L
Carbonate Alkalinity, as CaCO3	EMG	1/15/2019	SM 4500CO2 D		1			0.01	mg/L
Bicarbonate Alkalinity, as CaCO3	EMG	1/15/2019	SM 4500CO2 D		1			27.1	mg/L
* Solids, Dissolved	CRB	1/23/2019	SM 2540C		1		25	76.7	mg/L
Filter Completion Date	CRB	1/15/2019	SM 2540C		1			01/15/2019	Date
* Chloride	JCC	1/24/2019	SM4500Cl E		10	5.00	10	20.9	mg/L
* Fluoride	JCC	1/25/2019	SM4500F C		1	0.05	0.1	U Not Detected	mg/L
* Sulfate	JCC	1/30/2019	SM4500SO4 E		1	0.50	1	1.75	mg/L

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2019

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

Batch QC Summary



To: Dustin Brooks
 Greg Dyer
 Lauren Parker

Customer Account: WMWBARAP
 Sample Date: 08-Jan-19
 Customer ID:
 Delivery Date: 10-Jan-19

Description: Barry Ash Pond - MW-5V

Laboratory ID Number: AZ00776

Sample	Analysis	Units	MB		Spike	MS	MSD	LCS	LCS		Rec		Prec	Limit
			Limit	MB					Limit	Rec	Limit	Prec		
AZ00785	Manganese, Total	mg/L	0.00000533	0.0022	0.10	0.0966	0.0997	0.0994	0.085 to 0.115	96.6	70 to 130	3.14	20	
AZ00785	Chromium, Total	mg/L	0.0000483	0.0044	0.10	0.100	0.101	0.102	0.085 to 0.115	100	70 to 130	1.09	20	
AZ00785	Molybdenum, Total	mg/L	0.00000450	0.0044	0.10	0.0900	0.0914	0.0917	0.085 to 0.115	90.0	70 to 130	1.53	20	
AZ00785	Beryllium, Total	mg/L	0.000000	0.00132	0.10	0.104	0.102	0.107	0.085 to 0.115	104	70 to 130	2.15	20	
AZ00785	Calcium, Total	mg/L	-0.0134	0.22	5.00	5.10	5.03	5.10	4.25 to 5.75	102	70 to 130	1.25	20	
AZ00785	Mercury, Total by CVAA	mg/L	0.000147	0.0005	0.004	0.00399	0.00403	0.00406	0.0034 to 0.0046	99.8	70 to 130	1.00	20	
AZ00785	Arsenic, Total	mg/L	0.00000715	0.0022	0.10	0.0995	0.0990	0.104	0.085 to 0.115	99.5	70 to 130	0.415	20	
AZ00785	Iron, Dissolved	mg/L	-0.000506	0.022	0.2	0.201	0.195	0.201	0.17 to 0.23	100	70 to 130	2.80	20	
AZ00785	Magnesium, Total	mg/L	0.000252	0.22	5.00	5.08	5.06	5.08	4.25 to 5.75	102	70 to 130	0.488	20	
AZ00785	Boron, Total	mg/L	0.000762	0.044	1.00	0.967	0.970	0.966	0.85 to 1.15	96.7	70 to 130	0.316	20	
AZ00785	Cobalt, Total	mg/L	0.00000337	0.0044	0.10	0.0970	0.102	0.107	0.085 to 0.115	97.0	70 to 130	4.51	20	
AZ00785	Iron, Total	mg/L	-0.0000498	0.022	0.2	0.201	0.200	0.204	0.17 to 0.23	101	70 to 130	0.734	20	
AZ00785	Potassium, Total	mg/L	0.00551	0.473	10.0	9.75	9.93	10.3	8.5 to 11.5	97.5	70 to 130	1.84	20	
AZ00785	Lithium, Total	mg/L	-0.0000565	0.022	0.20	0.196	0.196	0.192	0.17 to 0.23	98.2	70 to 130	0.180	20	
AZ00785	Thallium, Total	mg/L	0.00000364	0.00044	0.10	0.110	0.114	0.102	0.085 to 0.115	110	70 to 130	3.83	20	
AZ00785	Barium, Total	mg/L	-0.000320	0.0044	0.10	0.0913	0.0933	0.0974	0.085 to 0.115	91.3	70 to 130	2.13	20	
AZ00785	Lead, Total	mg/L	0.00000172	0.0022	0.10	0.108	0.112	0.107	0.085 to 0.115	108	70 to 130	2.96	20	
AZ00785	Selenium, Total	mg/L	0.0000579	0.0044	0.10	0.0965	0.0990	0.105	0.085 to 0.115	96.5	70 to 130	2.55	20	
AZ00785	Cadmium, Total	mg/L	0.00000463	0.00066	0.10	0.0957	0.0968	0.101	0.085 to 0.115	95.7	70 to 130	1.14	20	
AZ00785	Manganese, Dissolved	mg/L	-0.00000215	0.0022	0.10	0.0883	0.0889		0.085 to 0.115	88.3	70 to 130	0.672	20	
AZ00785	Sodium, Total	mg/L	0.00164	0.22	5.00	5.03	5.03	4.97	4.25 to 5.75	101	70 to 130	0.0403	20	
AZ00785	Antimony, Total	mg/L	0.000118	0.00176	0.10	0.0965	0.0989	0.0985	0.085 to 0.115	96.5	70 to 130	2.40	20	

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2019

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified. LBM 2/11/19

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

Batch QC Summary



To: Dustin Brooks
 Greg Dyer
 Lauren Parker

Customer Account: WMWBARAP
 Sample Date: 08-Jan-19
 Customer ID:
 Delivery Date: 10-Jan-19

Description: Barry Ash Pond - MW-5V

Laboratory ID Number: AZ00776

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	LCS	LCS Limit	Rec	Rec Limit	Prec	Prec Limit
AZ00785	Chloride	mg/L	0.0526	0.50	10.0	9.87	0.0848	9.98	9 to 11	98.7	80 to 120	0.00	20
AZ00776	Alkalinity, Total as CaCO3	mg/L					27.3	50.2	45.0 to 55.0			0.515	10
AZ00784	Solids, Dissolved	mg/L	0.0000	25			229	50.0	40 to 60			2.35	5
AZ00785	Fluoride	mg/L	0.0131	0.05	2.50	2.62	0.00736	2.60	2.25 to 2.75	105	80 to 120	0.00	20
AZ00776	pH for Alkalinity	SU						6.99	6.95 to 7.05				
AZ00785	Sulfate	mg/L	-0.398	0.50	20.0	20.3	-0.272	19.6	18 to 22	102	80 to 120	0.00	20

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Laboratory certification ID: E571114

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Expiration: June 30, 2019

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CC:

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

Certificate Of Analysis  **Alabama Power**



To: Dustin Brooks
 Greg Dyer
 Lauren Parker

Customer Account: WMWBARAPFB
 Sample Date: 08-Jan-19
 Customer ID:
 Delivery Date: 10-Jan-19

Description: Barry Ash Pond Field Blank

Laboratory ID Number: AZ00777

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Metals, Cyanide, Total Phenols									
* Arsenic, Total	DLJ	1/22/2019	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Barium, Total	DLJ	1/22/2019	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Beryllium, Total	DLJ	1/22/2019	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Boron, Total	GAS	1/15/2019	EPA 200.7		2.03	0.02	0.1	U Not Detected	mg/L
* Calcium, Total	GAS	1/15/2019	EPA 200.7		2.03	0.1	0.5	U Not Detected	mg/L
* Cadmium, Total	DLJ	1/22/2019	EPA 200.8		5.075	0.0003	0.001	U Not Detected	mg/L
* Antimony, Total	DLJ	1/22/2019	EPA 200.8		5.075	0.0008	0.003	J 0.00149	mg/L
* Molybdenum, Total	DLJ	1/22/2019	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Lead, Total	DLJ	1/22/2019	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Cobalt, Total	DLJ	1/22/2019	EPA 200.8		5.075	0.002	0.005	U Not Detected	mg/L
* Chromium, Total	DLJ	1/22/2019	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Iron, Dissolved	GAS	1/15/2019	EPA 200.7		2.03	0.01	0.05	U Not Detected	mg/L
* Iron, Total	GAS	1/15/2019	EPA 200.7		2.03	0.01	0.05	U Not Detected	mg/L
* Mercury, Total by CVAA	ABB	1/17/2019	EPA 245.1		1	0.0003	0.0005	U Not Detected	mg/L
* Lithium, Total	GAS	1/15/2019	EPA 200.7		2.03	0.01	0.02	U Not Detected	mg/L
* Magnesium, Total	GAS	1/15/2019	EPA 200.7		2.03	0.1	0.5	U Not Detected	mg/L
* Manganese, Dissolved	DLJ	1/14/2019	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Manganese, Total	DLJ	1/22/2019	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Potassium, Total	DLJ	1/22/2019	EPA 200.8		5.075	0.215	2.5	U Not Detected	mg/L
* Sodium, Total	GAS	1/15/2019	EPA 200.7		2.03	0.1	0.5	U Not Detected	mg/L
* Selenium, Total	DLJ	1/22/2019	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Thallium, Total	DLJ	1/22/2019	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L

General Characteristics

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2019

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified. LBM 2/11/19

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

Certificate Of Analysis Alabama Power



To: Dustin Brooks
 Greg Dyer
 Lauren Parker

Customer Account: WMWBARAPFB
 Sample Date: 08-Jan-19
 Customer ID:
 Delivery Date: 10-Jan-19

Description: Barry Ash Pond Field Blank

Laboratory ID Number: AZ00777

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
* Solids, Dissolved	CRB	1/23/2019	SM 2540C		1		25	U Not Detected	mg/L
Filter Completion Date	CRB	1/15/2019	SM 2540C		1			01/15/2019	Date
* Chloride	JCC	1/24/2019	SM4500Cl E		1	0.50	1	U Not Detected	mg/L
* Fluoride	JCC	1/25/2019	SM4500F C		1	0.05	0.1	U Not Detected	mg/L
* Sulfate	JCC	1/30/2019	SM4500SO4 E		1	0.50	1	U Not Detected	mg/L

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Batch QC Summary



To: Dustin Brooks
 Greg Dyer
 Lauren Parker

Customer Account: WMWBARAPFB
 Sample Date: 08-Jan-19
 Customer ID:
 Delivery Date: 10-Jan-19

Description: Barry Ash Pond Field Blank

Laboratory ID Number: AZ00777

Sample	Analysis	Units	MB	MB		MS	MSD	LCS	LCS		Rec		Prec	Limit
				Limit	Spike				Limit	Rec	Limit	Prec		
AZ00785	Manganese, Total	mg/L	0.00000533	0.0022	0.10	0.0966	0.0997	0.0994	0.085 to 0.115	96.6	70 to 130	3.14	20	
AZ00785	Beryllium, Total	mg/L	0.000000	0.00132	0.10	0.104	0.102	0.107	0.085 to 0.115	104	70 to 130	2.15	20	
AZ00785	Calcium, Total	mg/L	-0.0134	0.22	5.00	5.10	5.03	5.10	4.25 to 5.75	102	70 to 130	1.25	20	
AZ00785	Mercury, Total by CVAA	mg/L	0.000147	0.0005	0.004	0.00399	0.00403	0.00406	0.0034 to 0.0046	99.8	70 to 130	1.00	20	
AZ00785	Lithium, Total	mg/L	-0.0000565	0.022	0.20	0.196	0.196	0.192	0.17 to 0.23	98.2	70 to 130	0.180	20	
AZ00785	Thallium, Total	mg/L	0.00000364	0.00044	0.10	0.110	0.114	0.102	0.085 to 0.115	110	70 to 130	3.83	20	
AZ00785	Arsenic, Total	mg/L	0.00000715	0.0022	0.10	0.0995	0.0990	0.104	0.085 to 0.115	99.5	70 to 130	0.415	20	
AZ00785	Iron, Dissolved	mg/L	-0.000506	0.022	0.2	0.201	0.195	0.201	0.17 to 0.23	100	70 to 130	2.80	20	
AZ00785	Magnesium, Total	mg/L	0.000252	0.22	5.00	5.08	5.06	5.08	4.25 to 5.75	102	70 to 130	0.488	20	
AZ00785	Barium, Total	mg/L	-0.000320	0.0044	0.10	0.0913	0.0933	0.0974	0.085 to 0.115	91.3	70 to 130	2.13	20	
AZ00785	Lead, Total	mg/L	0.00000172	0.0022	0.10	0.108	0.112	0.107	0.085 to 0.115	108	70 to 130	2.96	20	
AZ00785	Selenium, Total	mg/L	0.0000579	0.0044	0.10	0.0965	0.0990	0.105	0.085 to 0.115	96.5	70 to 130	2.55	20	
AZ00785	Chromium, Total	mg/L	0.0000483	0.0044	0.10	0.100	0.101	0.102	0.085 to 0.115	100	70 to 130	1.09	20	
AZ00785	Molybdenum, Total	mg/L	0.000000450	0.0044	0.10	0.0900	0.0914	0.0917	0.085 to 0.115	90.0	70 to 130	1.53	20	
AZ00785	Boron, Total	mg/L	0.000762	0.044	1.00	0.967	0.970	0.966	0.85 to 1.15	96.7	70 to 130	0.316	20	
AZ00785	Cobalt, Total	mg/L	0.00000337	0.0044	0.10	0.0970	0.102	0.107	0.085 to 0.115	97.0	70 to 130	4.51	20	
AZ00785	Iron, Total	mg/L	-0.0000498	0.022	0.2	0.201	0.200	0.204	0.17 to 0.23	101	70 to 130	0.734	20	
AZ00785	Potassium, Total	mg/L	0.00551	0.473	10.0	9.75	9.93	10.3	8.5 to 11.5	97.5	70 to 130	1.84	20	
AZ00785	Cadmium, Total	mg/L	0.00000463	0.00066	0.10	0.0957	0.0968	0.101	0.085 to 0.115	95.7	70 to 130	1.14	20	
AZ00785	Manganese, Dissolved	mg/L	-0.00000215	0.0022	0.10	0.0883	0.0889		0.085 to 0.115	88.3	70 to 130	0.672	20	
AZ00785	Sodium, Total	mg/L	0.00164	0.22	5.00	5.03	5.03	4.97	4.25 to 5.75	101	70 to 130	0.0403	20	
AZ00785	Antimony, Total	mg/L	0.000118	0.00176	0.10	0.0965	0.0989	0.0985	0.085 to 0.115	96.5	70 to 130	2.40	20	

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2019

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified. LBM 2/11/19

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Batch QC Summary



To: Dustin Brooks
 Greg Dyer
 Lauren Parker

Customer Account: WMWBARAPFB
 Sample Date: 08-Jan-19
 Customer ID:
 Delivery Date: 10-Jan-19

Description: Barry Ash Pond Field Blank

Laboratory ID Number: AZ00777

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	LCS	LCS Limit	Rec	Rec Limit	Prec	Prec Limit
AZ00784	Solids, Dissolved	mg/L	0.0000	25			229	50.0	40 to 60			2.35	5
AZ00785	Sulfate	mg/L	-0.398	0.50	20.0	20.3	-0.272	19.6	18 to 22	102	80 to 120	0.00	20
AZ00785	Fluoride	mg/L	0.0131	0.05	2.50	2.62	0.00736	2.60	2.25 to 2.75	105	80 to 120	0.00	20
AZ00785	Chloride	mg/L	0.0526	0.50	10.0	9.87	0.0848	9.98	9 to 11	98.7	80 to 120	0.00	20

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CC:

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
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Certificate Of Analysis  **Alabama Power**



To: Dustin Brooks
 Greg Dyer
 Lauren Parker

Customer Account: WMWBARAP
 Sample Date: 08-Jan-19
 Customer ID:
 Delivery Date: 10-Jan-19

Description: Barry Ash Pond - MW-1V

Laboratory ID Number: AZ00778

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q	Results	Units
Metals, Cyanide, Total Phenols										
* Arsenic, Total	DLJ	1/22/2019	EPA 200.8		5.075	0.001	0.005	J	0.00109	mg/L
* Barium, Total	DLJ	1/22/2019	EPA 200.8		5.075	0.002	0.01		0.0826	mg/L
* Beryllium, Total	DLJ	1/22/2019	EPA 200.8		5.075	0.0006	0.003	U	Not Detected	mg/L
* Boron, Total	GAS	1/15/2019	EPA 200.7		2.03	0.02	0.1	J	0.0205	mg/L
* Calcium, Total	GAS	1/15/2019	EPA 200.7		2.03	0.1	0.5		15.7	mg/L
* Cadmium, Total	DLJ	1/22/2019	EPA 200.8		5.075	0.0003	0.001	U	Not Detected	mg/L
* Antimony, Total	DLJ	1/22/2019	EPA 200.8		5.075	0.0008	0.003	J	0.00125	mg/L
* Molybdenum, Total	DLJ	1/22/2019	EPA 200.8		5.075	0.002	0.01	U	Not Detected	mg/L
* Lead, Total	DLJ	1/22/2019	EPA 200.8		5.075	0.001	0.005	U	Not Detected	mg/L
* Cobalt, Total	DLJ	1/22/2019	EPA 200.8		5.075	0.002	0.005		0.00911	mg/L
* Chromium, Total	DLJ	1/22/2019	EPA 200.8		5.075	0.002	0.01	U	Not Detected	mg/L
* Iron, Dissolved	GAS	1/15/2019	EPA 200.7		10.15	0.1015	0.5075		15.3	mg/L
* Iron, Total	GAS	1/15/2019	EPA 200.7		10.15	0.1015	0.5075		15.7	mg/L
* Mercury, Total by CVAA	ABB	1/17/2019	EPA 245.1		1	0.0003	0.0005	U	Not Detected	mg/L
* Lithium, Total	GAS	1/15/2019	EPA 200.7		2.03	0.01	0.02		0.0219	mg/L
* Magnesium, Total	GAS	1/15/2019	EPA 200.7		2.03	0.1	0.5		3.00	mg/L
* Manganese, Dissolved	DLJ	1/14/2019	EPA 200.8		5.075	0.001	0.005		0.709	mg/L
* Manganese, Total	DLJ	1/22/2019	EPA 200.8		5.075	0.001	0.005		0.751	mg/L
* Potassium, Total	DLJ	1/22/2019	EPA 200.8		5.075	0.215	2.5	J	2.16	mg/L
* Sodium, Total	GAS	1/15/2019	EPA 200.7		2.03	0.1	0.5		34.7	mg/L
* Selenium, Total	DLJ	1/22/2019	EPA 200.8		5.075	0.002	0.01	U	Not Detected	mg/L
* Thallium, Total	DLJ	1/22/2019	EPA 200.8		5.075	0.0002	0.001	U	Not Detected	mg/L

General Characteristics

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2019

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified. LBM 2/11/19

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

Certificate Of Analysis



To: Dustin Brooks
 Greg Dyer
 Lauren Parker

Customer Account: WMWBARAP
 Sample Date: 08-Jan-19
 Customer ID:
 Delivery Date: 10-Jan-19

Description: Barry Ash Pond - MW-1V

Laboratory ID Number: AZ00778

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
pH for Alkalinity	EMG	1/15/2019	SM 4500H+ B		1		4.00	6.48	SU
Alkalinity, Total as CaCO3	EMG	1/15/2019	SM 2320 B		1		0.1	73.1	mg/L
Carbonate Alkalinity, as CaCO3	EMG	1/15/2019	SM 4500CO2 D		1			0.02	mg/L
Bicarbonate Alkalinity, as CaCO3	EMG	1/15/2019	SM 4500CO2 D		1			73.1	mg/L
* Solids, Dissolved	CRB	1/23/2019	SM 2540C		1		25	192	mg/L
Filter Completion Date	CRB	1/15/2019	SM 2540C		1			01/15/2019	Date
* Chloride	JCC	1/24/2019	SM4500Cl E		10	5.00	10	42.0	mg/L
* Fluoride	JCC	1/25/2019	SM4500F C		1	0.05	0.1	J 0.0548	mg/L
* Sulfate	JCC	1/30/2019	SM4500SO4 E		1	0.50	1	20.9	mg/L

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Batch QC Summary



To: Dustin Brooks
 Greg Dyer
 Lauren Parker

Customer Account: WMWBARAP
 Sample Date: 08-Jan-19
 Customer ID:
 Delivery Date: 10-Jan-19

Description: Barry Ash Pond - MW-1V

Laboratory ID Number: AZ00778

Sample	Analysis	Units	MB		Spike	MS	MSD	LCS	LCS		Rec		Prec	Limit
			MB	Limit					Limit	Rec	Limit	Prec		
AZ00785	Manganese, Total	mg/L	0.00000533	0.0022	0.10	0.0966	0.0997	0.0994	0.085 to 0.115		96.6	70 to 130	3.14	20
AZ00785	Chromium, Total	mg/L	0.0000483	0.0044	0.10	0.100	0.101	0.102	0.085 to 0.115		100	70 to 130	1.09	20
AZ00785	Molybdenum, Total	mg/L	0.00000450	0.0044	0.10	0.0900	0.0914	0.0917	0.085 to 0.115		90.0	70 to 130	1.53	20
AZ00785	Lithium, Total	mg/L	-0.0000565	0.022	0.20	0.196	0.196	0.192	0.17 to 0.23		98.2	70 to 130	0.180	20
AZ00785	Thallium, Total	mg/L	0.0000364	0.00044	0.10	0.110	0.114	0.102	0.085 to 0.115		110	70 to 130	3.83	20
AZ00785	Barium, Total	mg/L	-0.000320	0.0044	0.10	0.0913	0.0933	0.0974	0.085 to 0.115		91.3	70 to 130	2.13	20
AZ00785	Lead, Total	mg/L	0.00000172	0.0022	0.10	0.108	0.112	0.107	0.085 to 0.115		108	70 to 130	2.96	20
AZ00785	Selenium, Total	mg/L	0.0000579	0.0044	0.10	0.0965	0.0990	0.105	0.085 to 0.115		96.5	70 to 130	2.55	20
AZ00785	Cadmium, Total	mg/L	0.00000463	0.00066	0.10	0.0957	0.0968	0.101	0.085 to 0.115		95.7	70 to 130	1.14	20
AZ00785	Manganese, Dissolved	mg/L	-0.00000215	0.0022	0.10	0.0883	0.0889		0.085 to 0.115		88.3	70 to 130	0.672	20
AZ00785	Sodium, Total	mg/L	0.00164	0.22	5.00	5.03	5.03	4.97	4.25 to 5.75		101	70 to 130	0.0403	20
AZ00785	Antimony, Total	mg/L	0.000118	0.00176	0.10	0.0965	0.0989	0.0985	0.085 to 0.115		96.5	70 to 130	2.40	20
AZ00785	Arsenic, Total	mg/L	0.00000715	0.0022	0.10	0.0995	0.0990	0.104	0.085 to 0.115		99.5	70 to 130	0.415	20
AZ00785	Iron, Dissolved	mg/L	-0.000506	0.022	0.2	0.201	0.195	0.201	0.17 to 0.23		100	70 to 130	2.80	20
AZ00785	Magnesium, Total	mg/L	0.000252	0.22	5.00	5.08	5.06	5.08	4.25 to 5.75		102	70 to 130	0.488	20
AZ00785	Beryllium, Total	mg/L	0.000000	0.00132	0.10	0.104	0.102	0.107	0.085 to 0.115		104	70 to 130	2.15	20
AZ00785	Calcium, Total	mg/L	-0.0134	0.22	5.00	5.10	5.03	5.10	4.25 to 5.75		102	70 to 130	1.25	20
AZ00785	Mercury, Total by CVAA	mg/L	0.000147	0.0005	0.004	0.00399	0.00403	0.00406	0.0034 to 0.0046		99.8	70 to 130	1.00	20
AZ00785	Boron, Total	mg/L	0.000762	0.044	1.00	0.967	0.970	0.966	0.85 to 1.15		96.7	70 to 130	0.316	20
AZ00785	Cobalt, Total	mg/L	0.00000337	0.0044	0.10	0.0970	0.102	0.107	0.085 to 0.115		97.0	70 to 130	4.51	20
AZ00785	Iron, Total	mg/L	-0.0000498	0.022	0.2	0.201	0.200	0.204	0.17 to 0.23		101	70 to 130	0.734	20
AZ00785	Potassium, Total	mg/L	0.00551	0.473	10.0	9.75	9.93	10.3	8.5 to 11.5		97.5	70 to 130	1.84	20

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Expiration: June 30, 2019

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Batch QC Summary



To: Dustin Brooks
 Greg Dyer
 Lauren Parker

Customer Account: WMWBARAP
 Sample Date: 08-Jan-19
 Customer ID:
 Delivery Date: 10-Jan-19

Description: Barry Ash Pond - MW-1V

Laboratory ID Number: AZ00778

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	LCS	LCS Limit	Rec	Rec Limit	Prec	Prec Limit
AZ00785	Chloride	mg/L	0.0526	0.50	10.0	9.87	0.0848	9.98	9 to 11	98.7	80 to 120	0.00	20
AZ00776	Alkalinity, Total as CaCO3	mg/L					27.3	50.2	45.0 to 55.0			0.515	10
AZ00785	Fluoride	mg/L	0.0131	0.05	2.50	2.62	0.00736	2.60	2.25 to 2.75	105	80 to 120	0.00	20
AZ00784	Solids, Dissolved	mg/L	0.0000	25			229	50.0	40 to 60			2.35	5
AZ00776	pH for Alkalinity	SU						6.99	6.95 to 7.05				
AZ00785	Sulfate	mg/L	-0.398	0.50	20.0	20.3	-0.272	19.6	18 to 22	102	80 to 120	0.00	20

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Certificate Of Analysis  **Alabama Power**



To: Dustin Brooks
 Greg Dyer
 Lauren Parker

Customer Account: WMWBARAP
 Sample Date: 08-Jan-19
 Customer ID:
 Delivery Date: 10-Jan-19

Description: Barry Ash Pond - MW-24H

Laboratory ID Number: AZ00779

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Metals, Cyanide, Total Phenols									
* Arsenic, Total	DLJ	1/22/2019	EPA 200.8		5.075	0.001	0.005	0.0306	mg/L
* Barium, Total	DLJ	1/22/2019	EPA 200.8		5.075	0.002	0.01	0.294	mg/L
* Beryllium, Total	DLJ	1/22/2019	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Boron, Total	GAS	1/15/2019	EPA 200.7		2.03	0.02	0.1	0.213	mg/L
* Calcium, Total	GAS	1/15/2019	EPA 200.7		2.03	0.1	0.5	38.0	mg/L
* Cadmium, Total	DLJ	1/22/2019	EPA 200.8		5.075	0.0003	0.001	U Not Detected	mg/L
* Antimony, Total	DLJ	1/22/2019	EPA 200.8		5.075	0.0008	0.003	J 0.00116	mg/L
* Molybdenum, Total	DLJ	1/22/2019	EPA 200.8		5.075	0.002	0.01	J 0.00399	mg/L
* Lead, Total	DLJ	1/22/2019	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Cobalt, Total	DLJ	1/22/2019	EPA 200.8		5.075	0.002	0.005	J 0.00243	mg/L
* Chromium, Total	DLJ	1/22/2019	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Iron, Dissolved	GAS	1/15/2019	EPA 200.7		101.5	1.015	5.075	113	mg/L
* Iron, Total	GAS	1/15/2019	EPA 200.7		101.5	1.015	5.075	113	mg/L
* Mercury, Total by CVAA	ABB	1/17/2019	EPA 245.1		1	0.0003	0.0005	U Not Detected	mg/L
* Lithium, Total	GAS	1/15/2019	EPA 200.7		2.03	0.01	0.02	J 0.0183	mg/L
* Magnesium, Total	GAS	1/15/2019	EPA 200.7		2.03	0.1	0.5	16.6	mg/L
* Manganese, Dissolved	DLJ	1/14/2019	EPA 200.8		5.075	0.001	0.005	0.373	mg/L
* Manganese, Total	DLJ	1/22/2019	EPA 200.8		5.075	0.001	0.005	0.408	mg/L
* Potassium, Total	DLJ	1/22/2019	EPA 200.8		5.075	0.215	2.5	3.01	mg/L
* Sodium, Total	GAS	1/15/2019	EPA 200.7		10.15	1.015	5.075	88.4	mg/L
* Selenium, Total	DLJ	1/22/2019	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Thallium, Total	DLJ	1/22/2019	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L

General Characteristics

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2019

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified. LBM 2/11/19

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

Certificate Of Analysis



To: Dustin Brooks
 Greg Dyer
 Lauren Parker

Customer Account: WMWBARAP
 Sample Date: 08-Jan-19
 Customer ID:
 Delivery Date: 10-Jan-19

Description: Barry Ash Pond - MW-24H

Laboratory ID Number: AZ00779

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
pH for Alkalinity	EMG	1/15/2019	SM 4500H+ B		1		4.00	6.53	SU
Alkalinity, Total as CaCO3	EMG	1/15/2019	SM 2320 B		1		0.1	350	mg/L
Carbonate Alkalinity, as CaCO3	EMG	1/15/2019	SM 4500CO2 D		1			0.11	mg/L
Bicarbonate Alkalinity, as CaCO3	EMG	1/15/2019	SM 4500CO2 D		1			350	mg/L
* Solids, Dissolved	CRB	1/23/2019	SM 2540C		1		50	504	mg/L
Filter Completion Date	CRB	1/15/2019	SM 2540C		1			01/15/2019	Date
* Chloride	JCC	1/24/2019	SM4500CI E		10	5.00	10	44.6	mg/L
* Fluoride	JCC	1/25/2019	SM4500F C		1	0.05	0.1	0.147	mg/L
* Sulfate	JCC	1/30/2019	SM4500SO4 E		1	0.50	1	31.2	mg/L

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Batch QC Summary



To: Dustin Brooks
 Greg Dyer
 Lauren Parker

Customer Account: WMWBARAP
 Sample Date: 08-Jan-19
 Customer ID:
 Delivery Date: 10-Jan-19

Description: Barry Ash Pond - MW-24H

Laboratory ID Number: AZ00779

Sample	Analysis	Units	MB		Spike	MS	MSD	LCS	LCS		Rec		Prec	Limit
			MB	Limit					Limit	Rec	Limit	Prec		
AZ00785	Manganese, Total	mg/L	0.00000533	0.0022	0.10	0.0966	0.0997	0.0994	0.085 to 0.115	96.6	70 to 130	3.14	20	
AZ00785	Chromium, Total	mg/L	0.0000483	0.0044	0.10	0.100	0.101	0.102	0.085 to 0.115	100	70 to 130	1.09	20	
AZ00785	Molybdenum, Total	mg/L	0.00000450	0.0044	0.10	0.0900	0.0914	0.0917	0.085 to 0.115	90.0	70 to 130	1.53	20	
AZ00785	Barium, Total	mg/L	-0.000320	0.0044	0.10	0.0913	0.0933	0.0974	0.085 to 0.115	91.3	70 to 130	2.13	20	
AZ00785	Lead, Total	mg/L	0.00000172	0.0022	0.10	0.108	0.112	0.107	0.085 to 0.115	108	70 to 130	2.96	20	
AZ00785	Selenium, Total	mg/L	0.0000579	0.0044	0.10	0.0965	0.0990	0.105	0.085 to 0.115	96.5	70 to 130	2.55	20	
AZ00785	Boron, Total	mg/L	0.000762	0.044	1.00	0.967	0.970	0.966	0.85 to 1.15	96.7	70 to 130	0.316	20	
AZ00785	Cobalt, Total	mg/L	0.00000337	0.0044	0.10	0.0970	0.102	0.107	0.085 to 0.115	97.0	70 to 130	4.51	20	
AZ00785	Iron, Total	mg/L	-0.0000498	0.022	0.2	0.201	0.200	0.204	0.17 to 0.23	101	70 to 130	0.734	20	
AZ00785	Potassium, Total	mg/L	0.00551	0.473	10.0	9.75	9.93	10.3	8.5 to 11.5	97.5	70 to 130	1.84	20	
AZ00785	Lithium, Total	mg/L	-0.0000565	0.022	0.20	0.196	0.196	0.192	0.17 to 0.23	98.2	70 to 130	0.180	20	
AZ00785	Thallium, Total	mg/L	0.00000364	0.00044	0.10	0.110	0.114	0.102	0.085 to 0.115	110	70 to 130	3.83	20	
AZ00785	Beryllium, Total	mg/L	0.000000	0.00132	0.10	0.104	0.102	0.107	0.085 to 0.115	104	70 to 130	2.15	20	
AZ00785	Calcium, Total	mg/L	-0.0134	0.22	5.00	5.10	5.03	5.10	4.25 to 5.75	102	70 to 130	1.25	20	
AZ00785	Mercury, Total by CVAA	mg/L	0.000147	0.0005	0.004	0.00399	0.00403	0.00406	0.0034 to 0.0046	99.8	70 to 130	1.00	20	
AZ00785	Arsenic, Total	mg/L	0.00000715	0.0022	0.10	0.0995	0.0990	0.104	0.085 to 0.115	99.5	70 to 130	0.415	20	
AZ00785	Iron, Dissolved	mg/L	-0.000506	0.022	0.2	0.201	0.195	0.201	0.17 to 0.23	100	70 to 130	2.80	20	
AZ00785	Magnesium, Total	mg/L	0.000252	0.22	5.00	5.08	5.06	5.08	4.25 to 5.75	102	70 to 130	0.488	20	
AZ00785	Cadmium, Total	mg/L	0.00000463	0.00066	0.10	0.0957	0.0968	0.101	0.085 to 0.115	95.7	70 to 130	1.14	20	
AZ00785	Manganese, Dissolved	mg/L	-0.00000215	0.0022	0.10	0.0883	0.0889		0.085 to 0.115	88.3	70 to 130	0.672	20	
AZ00785	Sodium, Total	mg/L	0.00164	0.22	5.00	5.03	5.03	4.97	4.25 to 5.75	101	70 to 130	0.0403	20	
AZ00785	Antimony, Total	mg/L	0.000118	0.00176	0.10	0.0965	0.0989	0.0985	0.085 to 0.115	96.5	70 to 130	2.40	20	

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2019

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified. LBM 2/11/19

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

Batch QC Summary



To: Dustin Brooks
 Greg Dyer
 Lauren Parker

Customer Account: WMWBARAP
 Sample Date: 08-Jan-19
 Customer ID:
 Delivery Date: 10-Jan-19

Description: Barry Ash Pond - MW-24H

Laboratory ID Number: AZ00779

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	LCS	LCS Limit	Rec	Rec Limit	Prec	Prec Limit
AZ00784	Solids, Dissolved	mg/L	0.0000	25			229	50.0	40 to 60			2.35	5
AZ00785	Chloride	mg/L	0.0526	0.50	10.0	9.87	0.0848	9.98	9 to 11	98.7	80 to 120	0.00	20
AZ00776	Alkalinity, Total as CaCO3	mg/L					27.3	50.2	45.0 to 55.0			0.515	10
AZ00785	Fluoride	mg/L	0.0131	0.05	2.50	2.62	0.00736	2.60	2.25 to 2.75	105	80 to 120	0.00	20
AZ00776	pH for Alkalinity	SU						6.99	6.95 to 7.05				
AZ00785	Sulfate	mg/L	-0.398	0.50	20.0	20.3	-0.272	19.6	18 to 22	102	80 to 120	0.00	20

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CC:

Reported: 4/15/2019
 Version: 2.0

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
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Certificate Of Analysis  **Alabama Power**



To: Dustin Brooks
 Greg Dyer
 Lauren Parker

Customer Account: WMWBARAP
 Sample Date: 08-Jan-19
 Customer ID:
 Delivery Date: 10-Jan-19

Description: Barry Ash Pond - MW-12V

Laboratory ID Number: AZ00780

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Metals, Cyanide, Total Phenols									
* Arsenic, Total	DLJ	1/22/2019	EPA 200.8		5.075	0.001	0.005	0.0112	mg/L
* Barium, Total	DLJ	1/22/2019	EPA 200.8		5.075	0.002	0.01	0.144	mg/L
* Beryllium, Total	DLJ	1/22/2019	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Boron, Total	GAS	1/15/2019	EPA 200.7		2.03	0.02	0.1	J 0.0939	mg/L
* Calcium, Total	GAS	1/15/2019	EPA 200.7		2.03	0.1	0.5	33.8	mg/L
* Cadmium, Total	DLJ	1/22/2019	EPA 200.8		5.075	0.0003	0.001	U Not Detected	mg/L
* Antimony, Total	DLJ	1/22/2019	EPA 200.8		5.075	0.0008	0.003	J 0.00117	mg/L
* Molybdenum, Total	DLJ	1/22/2019	EPA 200.8		5.075	0.002	0.01	J 0.00303	mg/L
* Lead, Total	DLJ	1/22/2019	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Cobalt, Total	DLJ	1/22/2019	EPA 200.8		5.075	0.002	0.005	U Not Detected	mg/L
* Chromium, Total	DLJ	1/22/2019	EPA 200.8		5.075	0.002	0.01	J 0.00210	mg/L
* Iron, Dissolved	GAS	1/15/2019	EPA 200.7		101.5	1.015	5.075	91.6	mg/L
* Iron, Total	GAS	1/15/2019	EPA 200.7		101.5	1.015	5.075	93.4	mg/L
* Mercury, Total by CVAA	ABB	1/17/2019	EPA 245.1		1	0.0003	0.0005	U Not Detected	mg/L
* Lithium, Total	GAS	1/15/2019	EPA 200.7		2.03	0.01	0.02	J 0.0148	mg/L
* Magnesium, Total	GAS	1/15/2019	EPA 200.7		2.03	0.1	0.5	15.3	mg/L
* Manganese, Dissolved	DLJ	1/14/2019	EPA 200.8		5.075	0.001	0.005	1.31	mg/L
* Manganese, Total	DLJ	1/22/2019	EPA 200.8		5.075	0.001	0.005	1.30	mg/L
* Potassium, Total	DLJ	1/22/2019	EPA 200.8		5.075	0.215	2.5	2.85	mg/L
* Sodium, Total	GAS	1/15/2019	EPA 200.7		2.03	0.1	0.5	40.2	mg/L
* Selenium, Total	DLJ	1/22/2019	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Thallium, Total	DLJ	1/22/2019	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L

General Characteristics

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2019

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Alabama Power General Test Laboratory
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 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Certificate Of Analysis



To: Dustin Brooks
 Greg Dyer
 Lauren Parker

Customer Account: WMWBARAP
 Sample Date: 08-Jan-19
 Customer ID:
 Delivery Date: 10-Jan-19

Description: Barry Ash Pond - MW-12V

Laboratory ID Number: AZ00780

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
pH for Alkalinity	EMG	1/15/2019	SM 4500H+ B		1		4.00	6.51	SU
Alkalinity, Total as CaCO3	EMG	1/15/2019	SM 2320 B		1		0.1	274	mg/L
Carbonate Alkalinity, as CaCO3	EMG	1/15/2019	SM 4500CO2 D		1			0.08	mg/L
Bicarbonate Alkalinity, as CaCO3	EMG	1/15/2019	SM 4500CO2 D		1			274	mg/L
* Solids, Dissolved	CRB	1/23/2019	SM 2540C		1		25	348	mg/L
Filter Completion Date	CRB	1/15/2019	SM 2540C		1			01/15/2019	Date
* Chloride	JCC	1/24/2019	SM4500CI E		10	5.00	10	23.1	mg/L
* Fluoride	JCC	1/25/2019	SM4500F C		1	0.05	0.1	J 0.0729	mg/L
* Sulfate	JCC	1/30/2019	SM4500SO4 E		1	0.50	1	10.3	mg/L

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Batch QC Summary



To: Dustin Brooks
 Greg Dyer
 Lauren Parker

Customer Account: WMWBARAP
 Sample Date: 08-Jan-19
 Customer ID:
 Delivery Date: 10-Jan-19

Description: Barry Ash Pond - MW-12V

Laboratory ID Number: AZ00780

Sample	Analysis	Units	MB	MB		MS	MSD	LCS	LCS		Rec		Prec	Limit
				Limit	Spike				Limit	Rec	Limit	Prec		
AZ00785	Manganese, Total	mg/L	0.00000533	0.0022	0.10	0.0966	0.0997	0.0994	0.085 to 0.115	96.6	70 to 130	3.14	20	
AZ00785	Chromium, Total	mg/L	0.0000483	0.0044	0.10	0.100	0.101	0.102	0.085 to 0.115	100	70 to 130	1.09	20	
AZ00785	Molybdenum, Total	mg/L	0.00000450	0.0044	0.10	0.0900	0.0914	0.0917	0.085 to 0.115	90.0	70 to 130	1.53	20	
AZ00785	Beryllium, Total	mg/L	0.000000	0.00132	0.10	0.104	0.102	0.107	0.085 to 0.115	104	70 to 130	2.15	20	
AZ00785	Calcium, Total	mg/L	-0.0134	0.22	5.00	5.10	5.03	5.10	4.25 to 5.75	102	70 to 130	1.25	20	
AZ00785	Mercury, Total by CVAA	mg/L	0.000147	0.0005	0.004	0.00399	0.00403	0.00406	0.0034 to 0.0046	99.8	70 to 130	1.00	20	
AZ00785	Arsenic, Total	mg/L	0.00000715	0.0022	0.10	0.0995	0.0990	0.104	0.085 to 0.115	99.5	70 to 130	0.415	20	
AZ00785	Iron, Dissolved	mg/L	-0.000506	0.022	0.2	0.201	0.195	0.201	0.17 to 0.23	100	70 to 130	2.80	20	
AZ00785	Magnesium, Total	mg/L	0.000252	0.22	5.00	5.08	5.06	5.08	4.25 to 5.75	102	70 to 130	0.488	20	
AZ00785	Barium, Total	mg/L	-0.000320	0.0044	0.10	0.0913	0.0933	0.0974	0.085 to 0.115	91.3	70 to 130	2.13	20	
AZ00785	Lead, Total	mg/L	0.00000172	0.0022	0.10	0.108	0.112	0.107	0.085 to 0.115	108	70 to 130	2.96	20	
AZ00785	Selenium, Total	mg/L	0.0000579	0.0044	0.10	0.0965	0.0990	0.105	0.085 to 0.115	96.5	70 to 130	2.55	20	
AZ00785	Boron, Total	mg/L	0.000762	0.044	1.00	0.967	0.970	0.966	0.85 to 1.15	96.7	70 to 130	0.316	20	
AZ00785	Cobalt, Total	mg/L	0.00000337	0.0044	0.10	0.0970	0.102	0.107	0.085 to 0.115	97.0	70 to 130	4.51	20	
AZ00785	Iron, Total	mg/L	-0.0000498	0.022	0.2	0.201	0.200	0.204	0.17 to 0.23	101	70 to 130	0.734	20	
AZ00785	Potassium, Total	mg/L	0.00551	0.473	10.0	9.75	9.93	10.3	8.5 to 11.5	97.5	70 to 130	1.84	20	
AZ00785	Cadmium, Total	mg/L	0.00000463	0.00066	0.10	0.0957	0.0968	0.101	0.085 to 0.115	95.7	70 to 130	1.14	20	
AZ00785	Manganese, Dissolved	mg/L	-0.00000215	0.0022	0.10	0.0883	0.0889		0.085 to 0.115	88.3	70 to 130	0.672	20	
AZ00785	Sodium, Total	mg/L	0.00164	0.22	5.00	5.03	5.03	4.97	4.25 to 5.75	101	70 to 130	0.0403	20	
AZ00785	Antimony, Total	mg/L	0.000118	0.00176	0.10	0.0965	0.0989	0.0985	0.085 to 0.115	96.5	70 to 130	2.40	20	
AZ00785	Lithium, Total	mg/L	-0.0000565	0.022	0.20	0.196	0.196	0.192	0.17 to 0.23	98.2	70 to 130	0.180	20	
AZ00785	Thallium, Total	mg/L	0.00000364	0.00044	0.10	0.110	0.114	0.102	0.085 to 0.115	110	70 to 130	3.83	20	

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2019

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified. LBM 2/11/19

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Batch QC Summary



To: Dustin Brooks
 Greg Dyer
 Lauren Parker

Customer Account: WMWBARAP
 Sample Date: 08-Jan-19
 Customer ID:
 Delivery Date: 10-Jan-19

Description: Barry Ash Pond - MW-12V

Laboratory ID Number: AZ00780

Sample	Analysis	Units	MB	MB			Sample		LCS	Rec		Prec	
				Limit	Spike	MS	Duplicate	LCS	Limit	Rec	Limit	Prec	Limit
AZ00785	Chloride	mg/L	0.0526	0.50	10.0	9.87	0.0848	9.98	9 to 11	98.7	80 to 120	0.00	20
AZ00776	Alkalinity, Total as CaCO3	mg/L					27.3	50.2	45.0 to 55.0			0.515	10
AZ00784	Solids, Dissolved	mg/L	0.0000	25			229	50.0	40 to 60			2.35	5
AZ00785	Fluoride	mg/L	0.0131	0.05	2.50	2.62	0.00736	2.60	2.25 to 2.75	105	80 to 120	0.00	20
AZ00776	pH for Alkalinity	SU						6.99	6.95 to 7.05				
AZ00785	Sulfate	mg/L	-0.398	0.50	20.0	20.3	-0.272	19.6	18 to 22	102	80 to 120	0.00	20

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Expiration: June 30, 2019

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CC:

Reported: 4/15/2019
 Version: 2.0

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Certificate Of Analysis  **Alabama Power**



To: Dustin Brooks
 Greg Dyer
 Lauren Parker

Customer Account: WMWBARAP
 Sample Date: 08-Jan-19
 Customer ID:
 Delivery Date: 10-Jan-19

Description: Barry Ash Pond - MW-12V DUP

Laboratory ID Number: AZ00781

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q	Results	Units
Metals, Cyanide, Total Phenols										
* Arsenic, Total	DLJ	1/22/2019	EPA 200.8		5.075	0.001	0.005		0.0108	mg/L
* Barium, Total	DLJ	1/22/2019	EPA 200.8		5.075	0.002	0.01		0.140	mg/L
* Beryllium, Total	DLJ	1/22/2019	EPA 200.8		5.075	0.0006	0.003	U	Not Detected	mg/L
* Boron, Total	GAS	1/15/2019	EPA 200.7		2.03	0.02	0.1	J	0.0939	mg/L
* Calcium, Total	GAS	1/15/2019	EPA 200.7		2.03	0.1	0.5		33.3	mg/L
* Cadmium, Total	DLJ	1/22/2019	EPA 200.8		5.075	0.0003	0.001	U	Not Detected	mg/L
* Antimony, Total	DLJ	1/22/2019	EPA 200.8		5.075	0.0008	0.003	J	0.000960	mg/L
* Molybdenum, Total	DLJ	1/22/2019	EPA 200.8		5.075	0.002	0.01	J	0.00309	mg/L
* Lead, Total	DLJ	1/22/2019	EPA 200.8		5.075	0.001	0.005	U	Not Detected	mg/L
* Cobalt, Total	DLJ	1/22/2019	EPA 200.8		5.075	0.002	0.005	U	Not Detected	mg/L
* Chromium, Total	DLJ	1/22/2019	EPA 200.8		5.075	0.002	0.01	U	Not Detected	mg/L
* Iron, Dissolved	GAS	1/15/2019	EPA 200.7		101.5	1.015	5.075		95.2	mg/L
* Iron, Total	GAS	1/15/2019	EPA 200.7		101.5	1.015	5.075		76.4	mg/L
* Mercury, Total by CVAA	ABB	1/17/2019	EPA 245.1		1	0.0003	0.0005	U	Not Detected	mg/L
* Lithium, Total	GAS	1/15/2019	EPA 200.7		2.03	0.01	0.02	J	0.0144	mg/L
* Magnesium, Total	GAS	1/15/2019	EPA 200.7		2.03	0.1	0.5		15.2	mg/L
* Manganese, Dissolved	DLJ	1/14/2019	EPA 200.8		5.075	0.001	0.005		1.22	mg/L
* Manganese, Total	DLJ	1/22/2019	EPA 200.8		5.075	0.001	0.005		1.26	mg/L
* Potassium, Total	DLJ	1/22/2019	EPA 200.8		5.075	0.215	2.5		2.77	mg/L
* Sodium, Total	GAS	1/15/2019	EPA 200.7		2.03	0.1	0.5		40.1	mg/L
* Selenium, Total	DLJ	1/22/2019	EPA 200.8		5.075	0.002	0.01	U	Not Detected	mg/L
* Thallium, Total	DLJ	1/22/2019	EPA 200.8		5.075	0.0002	0.001	U	Not Detected	mg/L

General Characteristics

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2019

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified. LBM 2/11/19

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

Certificate Of Analysis  **Alabama Power**



To: Dustin Brooks
 Greg Dyer
 Lauren Parker

Customer Account: WMWBARAP
Sample Date: 08-Jan-19
Customer ID:
Delivery Date: 10-Jan-19

Description: Barry Ash Pond - MW-12V DUP

Laboratory ID Number: AZ00781

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
pH for Alkalinity	EMG	1/15/2019	SM 4500H+ B		1		4.00	6.53	SU
Alkalinity, Total as CaCO3	EMG	1/15/2019	SM 2320 B		1		0.1	250	mg/L
Carbonate Alkalinity, as CaCO3	EMG	1/15/2019	SM 4500CO2 D		1			0.08	mg/L
Bicarbonate Alkalinity, as CaCO3	EMG	1/15/2019	SM 4500CO2 D		1			250	mg/L
* Solids, Dissolved	CRB	1/23/2019	SM 2540C		1		25	346	mg/L
Filter Completion Date	CRB	1/15/2019	SM 2540C		1			01/15/2019	Date
* Chloride	JCC	1/24/2019	SM4500Cl E		10	5.00	10	23.7	mg/L
* Fluoride	JCC	1/25/2019	SM4500F C		1	0.05	0.1	J 0.0774	mg/L
* Sulfate	JCC	1/30/2019	SM4500SO4 E		1	0.50	1	10.4	mg/L

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Batch QC Summary



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 Lauren Parker

Customer Account: WMWBARAP
 Sample Date: 08-Jan-19
 Customer ID:
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Description: Barry Ash Pond - MW-12V DUP

Laboratory ID Number: AZ00781

Sample	Analysis	Units	MB		Spike	MS	MSD	LCS	LCS		Rec		Prec	Limit
			Limit	MB					Limit	Rec	Limit	Prec		
AZ00785	Manganese, Total	mg/L	0.00000533	0.0022	0.10	0.0966	0.0997	0.0994	0.085 to 0.115	96.6	70 to 130	3.14	20	
AZ00785	Lithium, Total	mg/L	-0.0000565	0.022	0.20	0.196	0.196	0.192	0.17 to 0.23	98.2	70 to 130	0.180	20	
AZ00785	Thallium, Total	mg/L	0.00000364	0.00044	0.10	0.110	0.114	0.102	0.085 to 0.115	110	70 to 130	3.83	20	
AZ00785	Barium, Total	mg/L	-0.000320	0.0044	0.10	0.0913	0.0933	0.0974	0.085 to 0.115	91.3	70 to 130	2.13	20	
AZ00785	Lead, Total	mg/L	0.00000172	0.0022	0.10	0.108	0.112	0.107	0.085 to 0.115	108	70 to 130	2.96	20	
AZ00785	Selenium, Total	mg/L	0.0000579	0.0044	0.10	0.0965	0.0990	0.105	0.085 to 0.115	96.5	70 to 130	2.55	20	
AZ00785	Chromium, Total	mg/L	0.0000483	0.0044	0.10	0.100	0.101	0.102	0.085 to 0.115	100	70 to 130	1.09	20	
AZ00785	Molybdenum, Total	mg/L	0.000000450	0.0044	0.10	0.0900	0.0914	0.0917	0.085 to 0.115	90.0	70 to 130	1.53	20	
AZ00785	Arsenic, Total	mg/L	0.00000715	0.0022	0.10	0.0995	0.0990	0.104	0.085 to 0.115	99.5	70 to 130	0.415	20	
AZ00785	Iron, Dissolved	mg/L	-0.000506	0.022	0.2	0.201	0.195	0.201	0.17 to 0.23	100	70 to 130	2.80	20	
AZ00785	Magnesium, Total	mg/L	0.000252	0.22	5.00	5.08	5.06	5.08	4.25 to 5.75	102	70 to 130	0.488	20	
AZ00785	Cadmium, Total	mg/L	0.00000463	0.00066	0.10	0.0957	0.0968	0.101	0.085 to 0.115	95.7	70 to 130	1.14	20	
AZ00785	Manganese, Dissolved	mg/L	-0.00000215	0.0022	0.10	0.0883	0.0889		0.085 to 0.115	88.3	70 to 130	0.672	20	
AZ00785	Sodium, Total	mg/L	0.00164	0.22	5.00	5.03	5.03	4.97	4.25 to 5.75	101	70 to 130	0.0403	20	
AZ00785	Antimony, Total	mg/L	0.000118	0.00176	0.10	0.0965	0.0989	0.0985	0.085 to 0.115	96.5	70 to 130	2.40	20	
AZ00785	Boron, Total	mg/L	0.000762	0.044	1.00	0.967	0.970	0.966	0.85 to 1.15	96.7	70 to 130	0.316	20	
AZ00785	Cobalt, Total	mg/L	0.00000337	0.0044	0.10	0.0970	0.102	0.107	0.085 to 0.115	97.0	70 to 130	4.51	20	
AZ00785	Iron, Total	mg/L	-0.0000498	0.022	0.2	0.201	0.200	0.204	0.17 to 0.23	101	70 to 130	0.734	20	
AZ00785	Potassium, Total	mg/L	0.00551	0.473	10.0	9.75	9.93	10.3	8.5 to 11.5	97.5	70 to 130	1.84	20	
AZ00785	Beryllium, Total	mg/L	0.000000	0.00132	0.10	0.104	0.102	0.107	0.085 to 0.115	104	70 to 130	2.15	20	
AZ00785	Calcium, Total	mg/L	-0.0134	0.22	5.00	5.10	5.03	5.10	4.25 to 5.75	102	70 to 130	1.25	20	
AZ00785	Mercury, Total by CVAA	mg/L	0.000147	0.0005	0.004	0.00399	0.00403	0.00406	0.0034 to 0.0046	99.8	70 to 130	1.00	20	

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2019

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Batch QC Summary



To: Dustin Brooks
 Greg Dyer
 Lauren Parker

Customer Account: WMWBARAP
 Sample Date: 08-Jan-19
 Customer ID:
 Delivery Date: 10-Jan-19

Description: Barry Ash Pond - MW-12V DUP

Laboratory ID Number: AZ00781

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	LCS	LCS Limit	Rec	Rec Limit	Prec	Prec Limit
AZ00784	Solids, Dissolved	mg/L	0.0000	25			229	50.0	40 to 60			2.35	5
AZ00776	Alkalinity, Total as CaCO3	mg/L					27.3	50.2	45.0 to 55.0			0.515	10
AZ00785	Fluoride	mg/L	0.0131	0.05	2.50	2.62	0.00736	2.60	2.25 to 2.75	105	80 to 120	0.00	20
AZ00785	Chloride	mg/L	0.0526	0.50	10.0	9.87	0.0848	9.98	9 to 11	98.7	80 to 120	0.00	20
AZ00776	pH for Alkalinity	SU						6.99	6.95 to 7.05				
AZ00785	Sulfate	mg/L	-0.398	0.50	20.0	20.3	-0.272	19.6	18 to 22	102	80 to 120	0.00	20

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CC:

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Certificate Of Analysis  **Alabama Power**



To: Dustin Brooks
 Greg Dyer
 Lauren Parker

Customer Account: WMWBARAP
 Sample Date: 08-Jan-19
 Customer ID:
 Delivery Date: 10-Jan-19

Description: Barry Ash Pond - MW-10V

Laboratory ID Number: AZ00782

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Metals, Cyanide, Total Phenols									
* Arsenic, Total	DLJ	1/22/2019	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Barium, Total	DLJ	1/22/2019	EPA 200.8		5.075	0.002	0.01	0.149	mg/L
* Beryllium, Total	DLJ	1/22/2019	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Boron, Total	GAS	1/15/2019	EPA 200.7		2.03	0.02	0.1	0.677	mg/L
* Calcium, Total	GAS	1/15/2019	EPA 200.7		2.03	0.1	0.5	57.2	mg/L
* Cadmium, Total	DLJ	1/22/2019	EPA 200.8		5.075	0.0003	0.001	U Not Detected	mg/L
* Antimony, Total	DLJ	1/22/2019	EPA 200.8		5.075	0.0008	0.003	J 0.000965	mg/L
* Molybdenum, Total	DLJ	1/22/2019	EPA 200.8		5.075	0.002	0.01	J 0.00335	mg/L
* Lead, Total	DLJ	1/22/2019	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Cobalt, Total	DLJ	1/22/2019	EPA 200.8		5.075	0.002	0.005	U Not Detected	mg/L
* Chromium, Total	DLJ	1/22/2019	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Iron, Dissolved	GAS	1/15/2019	EPA 200.7		101.5	1.015	5.075	79.1	mg/L
* Iron, Total	GAS	1/15/2019	EPA 200.7		101.5	1.015	5.075	77.3	mg/L
* Mercury, Total by CVAA	ABB	1/17/2019	EPA 245.1		1	0.0003	0.0005	U Not Detected	mg/L
* Lithium, Total	GAS	1/15/2019	EPA 200.7		2.03	0.01	0.02	0.0313	mg/L
* Magnesium, Total	GAS	1/15/2019	EPA 200.7		2.03	0.1	0.5	8.27	mg/L
* Manganese, Dissolved	DLJ	1/14/2019	EPA 200.8		5.075	0.001	0.005	0.624	mg/L
* Manganese, Total	DLJ	1/22/2019	EPA 200.8		5.075	0.001	0.005	0.640	mg/L
* Potassium, Total	DLJ	1/22/2019	EPA 200.8		5.075	0.215	2.5	J 2.28	mg/L
* Sodium, Total	GAS	1/15/2019	EPA 200.7		10.15	1.015	5.075	71.8	mg/L
* Selenium, Total	DLJ	1/22/2019	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Thallium, Total	DLJ	1/22/2019	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L

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Certificate Of Analysis



To: Dustin Brooks
 Greg Dyer
 Lauren Parker

Customer Account: WMWBARAP
 Sample Date: 08-Jan-19
 Customer ID:
 Delivery Date: 10-Jan-19

Description: Barry Ash Pond - MW-10V

Laboratory ID Number: AZ00782

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
pH for Alkalinity	EMG	1/15/2019	SM 4500H+ B		1		4.00	6.62	SU
Alkalinity, Total as CaCO3	EMG	1/15/2019	SM 2320 B		1		0.1	239	mg/L
Carbonate Alkalinity, as CaCO3	EMG	1/15/2019	SM 4500CO2 D		1			0.09	mg/L
Bicarbonate Alkalinity, as CaCO3	EMG	1/15/2019	SM 4500CO2 D		1			239	mg/L
* Solids, Dissolved	CRB	1/23/2019	SM 2540C		1		25	462	mg/L
Filter Completion Date	CRB	1/15/2019	SM 2540C		1			01/15/2019	Date
* Chloride	JCC	1/24/2019	SM4500CI E		10	5.00	10	21.3	mg/L
* Fluoride	JCC	1/25/2019	SM4500F C		1	0.05	0.1	0.123	mg/L
* Sulfate	JCC	1/30/2019	SM4500SO4 E		10	5.00	10	93.7	mg/L

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Description: Barry Ash Pond - MW-10V

Laboratory ID Number: AZ00782

Sample	Analysis	Units	MB		Spike	MS	MSD	LCS	LCS		Rec		Prec
			MB	Limit					Limit	Rec	Limit	Prec	
AZ00785	Manganese, Total	mg/L	0.00000533	0.0022	0.10	0.0966	0.0997	0.0994	0.085 to 0.115	96.6	70 to 130	3.14	20
AZ00785	Arsenic, Total	mg/L	0.00000715	0.0022	0.10	0.0995	0.0990	0.104	0.085 to 0.115	99.5	70 to 130	0.415	20
AZ00785	Iron, Dissolved	mg/L	-0.000506	0.022	0.2	0.201	0.195	0.201	0.17 to 0.23	100	70 to 130	2.80	20
AZ00785	Magnesium, Total	mg/L	0.000252	0.22	5.00	5.08	5.06	5.08	4.25 to 5.75	102	70 to 130	0.488	20
AZ00785	Chromium, Total	mg/L	0.0000483	0.0044	0.10	0.100	0.101	0.102	0.085 to 0.115	100	70 to 130	1.09	20
AZ00785	Molybdenum, Total	mg/L	0.000000450	0.0044	0.10	0.0900	0.0914	0.0917	0.085 to 0.115	90.0	70 to 130	1.53	20
AZ00785	Lithium, Total	mg/L	-0.0000565	0.022	0.20	0.196	0.196	0.192	0.17 to 0.23	98.2	70 to 130	0.180	20
AZ00785	Thallium, Total	mg/L	0.00000364	0.00044	0.10	0.110	0.114	0.102	0.085 to 0.115	110	70 to 130	3.83	20
AZ00785	Boron, Total	mg/L	0.000762	0.044	1.00	0.967	0.970	0.966	0.85 to 1.15	96.7	70 to 130	0.316	20
AZ00785	Cobalt, Total	mg/L	0.00000337	0.0044	0.10	0.0970	0.102	0.107	0.085 to 0.115	97.0	70 to 130	4.51	20
AZ00785	Iron, Total	mg/L	-0.0000498	0.022	0.2	0.201	0.200	0.204	0.17 to 0.23	101	70 to 130	0.734	20
AZ00785	Potassium, Total	mg/L	0.00551	0.473	10.0	9.75	9.93	10.3	8.5 to 11.5	97.5	70 to 130	1.84	20
AZ00785	Cadmium, Total	mg/L	0.00000463	0.00066	0.10	0.0957	0.0968	0.101	0.085 to 0.115	95.7	70 to 130	1.14	20
AZ00785	Manganese, Dissolved	mg/L	-0.00000215	0.0022	0.10	0.0883	0.0889		0.085 to 0.115	88.3	70 to 130	0.672	20
AZ00785	Sodium, Total	mg/L	0.00164	0.22	5.00	5.03	5.03	4.97	4.25 to 5.75	101	70 to 130	0.0403	20
AZ00785	Antimony, Total	mg/L	0.000118	0.00176	0.10	0.0965	0.0989	0.0985	0.085 to 0.115	96.5	70 to 130	2.40	20
AZ00785	Barium, Total	mg/L	-0.000320	0.0044	0.10	0.0913	0.0933	0.0974	0.085 to 0.115	91.3	70 to 130	2.13	20
AZ00785	Lead, Total	mg/L	0.00000172	0.0022	0.10	0.108	0.112	0.107	0.085 to 0.115	108	70 to 130	2.96	20
AZ00785	Selenium, Total	mg/L	0.0000579	0.0044	0.10	0.0965	0.0990	0.105	0.085 to 0.115	96.5	70 to 130	2.55	20
AZ00785	Beryllium, Total	mg/L	0.000000	0.00132	0.10	0.104	0.102	0.107	0.085 to 0.115	104	70 to 130	2.15	20
AZ00785	Calcium, Total	mg/L	-0.0134	0.22	5.00	5.10	5.03	5.10	4.25 to 5.75	102	70 to 130	1.25	20
AZ00785	Mercury, Total by CVAA	mg/L	0.000147	0.0005	0.004	0.00399	0.00403	0.00406	0.0034 to 0.0046	99.8	70 to 130	1.00	20

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Customer Account: WMWBARAP
 Sample Date: 08-Jan-19
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Description: Barry Ash Pond - MW-10V

Laboratory ID Number: AZ00782

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	LCS	LCS Limit	Rec	Rec Limit	Prec	Prec Limit
AZ00784	Solids, Dissolved	mg/L	0.0000	25			229	50.0	40 to 60			2.35	5
AZ00785	Chloride	mg/L	0.0526	0.50	10.0	9.87	0.0848	9.98	9 to 11	98.7	80 to 120	0.00	20
AZ00776	Alkalinity, Total as CaCO3	mg/L					27.3	50.2	45.0 to 55.0			0.515	10
AZ00785	Fluoride	mg/L	0.0131	0.05	2.50	2.62	0.00736	2.60	2.25 to 2.75	105	80 to 120	0.00	20
AZ00776	pH for Alkalinity	SU						6.99	6.95 to 7.05				
AZ00785	Sulfate	mg/L	-0.398	0.50	20.0	20.3	-0.272	19.6	18 to 22	102	80 to 120	0.00	20

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2019

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified. LBM 2/11/19

CC:

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

Certificate Of Analysis  **Alabama Power**



To: Dustin Brooks
 Greg Dyer
 Lauren Parker

Customer Account: WMWBARAP
 Sample Date: 09-Jan-19
 Customer ID:
 Delivery Date: 10-Jan-19

Description: Barry Ash Pond - MW-8V

Laboratory ID Number: AZ00783

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q	Results	Units
Metals, Cyanide, Total Phenols										
* Arsenic, Total	DLJ	1/22/2019	EPA 200.8		5.075	0.001	0.005	J	0.00121	mg/L
* Barium, Total	DLJ	1/22/2019	EPA 200.8		5.075	0.002	0.01		0.337	mg/L
* Beryllium, Total	DLJ	1/22/2019	EPA 200.8		5.075	0.0006	0.003	U	Not Detected	mg/L
* Boron, Total	GAS	1/15/2019	EPA 200.7		2.03	0.02	0.1		0.164	mg/L
* Calcium, Total	GAS	1/15/2019	EPA 200.7		2.03	0.1	0.5		27.2	mg/L
* Cadmium, Total	DLJ	1/22/2019	EPA 200.8		5.075	0.0003	0.001	U	Not Detected	mg/L
* Antimony, Total	DLJ	1/22/2019	EPA 200.8		5.075	0.0008	0.003	U	Not Detected	mg/L
* Molybdenum, Total	DLJ	1/22/2019	EPA 200.8		5.075	0.002	0.01	J	0.00243	mg/L
* Lead, Total	DLJ	1/22/2019	EPA 200.8		5.075	0.001	0.005	U	Not Detected	mg/L
* Cobalt, Total	DLJ	1/22/2019	EPA 200.8		5.075	0.002	0.005	U	Not Detected	mg/L
* Chromium, Total	DLJ	1/22/2019	EPA 200.8		5.075	0.002	0.01	U	Not Detected	mg/L
* Iron, Dissolved	GAS	1/15/2019	EPA 200.7		101.5	1.015	5.075		67.7	mg/L
* Iron, Total	GAS	1/15/2019	EPA 200.7		101.5	1.015	5.075		67.9	mg/L
* Mercury, Total by CVAA	ABB	1/17/2019	EPA 245.1		1	0.0003	0.0005	U	Not Detected	mg/L
* Lithium, Total	GAS	1/15/2019	EPA 200.7		2.03	0.01	0.02		0.0217	mg/L
* Magnesium, Total	GAS	1/15/2019	EPA 200.7		2.03	0.1	0.5		12.5	mg/L
* Manganese, Dissolved	DLJ	1/14/2019	EPA 200.8		5.075	0.001	0.005		0.627	mg/L
* Manganese, Total	DLJ	1/22/2019	EPA 200.8		5.075	0.001	0.005		0.670	mg/L
* Potassium, Total	DLJ	1/22/2019	EPA 200.8		5.075	0.215	2.5		2.96	mg/L
* Sodium, Total	GAS	1/15/2019	EPA 200.7		2.03	0.1	0.5		36.0	mg/L
* Selenium, Total	DLJ	1/22/2019	EPA 200.8		5.075	0.002	0.01	U	Not Detected	mg/L
* Thallium, Total	DLJ	1/22/2019	EPA 200.8		5.075	0.0002	0.001	U	Not Detected	mg/L

General Characteristics

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Issued By: State of Florida, Department of Health

Expiration: June 30, 2019

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Certificate Of Analysis



To: Dustin Brooks
 Greg Dyer
 Lauren Parker

Customer Account: WMWBARAP
 Sample Date: 09-Jan-19
 Customer ID:
 Delivery Date: 10-Jan-19

Description: Barry Ash Pond - MW-8V

Laboratory ID Number: AZ00783

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
pH for Alkalinity	EMG	1/15/2019	SM 4500H+ B		1		4.00	6.61	SU
Alkalinity, Total as CaCO3	EMG	1/15/2019	SM 2320 B		1		0.1	202	mg/L
Carbonate Alkalinity, as CaCO3	EMG	1/15/2019	SM 4500CO2 D		1			0.08	mg/L
Bicarbonate Alkalinity, as CaCO3	EMG	1/15/2019	SM 4500CO2 D		1			202	mg/L
* Solids, Dissolved	CRB	1/23/2019	SM 2540C		1		25	276	mg/L
Filter Completion Date	CRB	1/15/2019	SM 2540C		1			01/15/2019	Date
* Chloride	JCC	1/24/2019	SM4500CI E		10	5.00	10	21.9	mg/L
* Fluoride	JCC	1/25/2019	SM4500F C		1	0.05	0.1	J 0.0831	mg/L
* Sulfate	JCC	1/30/2019	SM4500SO4 E		1	0.50	1	1.74	mg/L

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Batch QC Summary



To: Dustin Brooks
 Greg Dyer
 Lauren Parker

Customer Account: WMWBARAP
 Sample Date: 09-Jan-19
 Customer ID:
 Delivery Date: 10-Jan-19

Description: Barry Ash Pond - MW-8V

Laboratory ID Number: AZ00783

Sample	Analysis	Units	MB		Spike	MS	MSD	LCS	LCS		Rec		Prec	Limit
			MB	Limit					Limit	Rec	Limit	Prec		
AZ00785	Manganese, Total	mg/L	0.00000533	0.0022	0.10	0.0966	0.0997	0.0994	0.085 to 0.115		96.6	70 to 130	3.14	20
AZ00785	Chromium, Total	mg/L	0.0000483	0.0044	0.10	0.100	0.101	0.102	0.085 to 0.115		100	70 to 130	1.09	20
AZ00785	Molybdenum, Total	mg/L	0.00000450	0.0044	0.10	0.0900	0.0914	0.0917	0.085 to 0.115		90.0	70 to 130	1.53	20
AZ00785	Cadmium, Total	mg/L	0.00000463	0.00066	0.10	0.0957	0.0968	0.101	0.085 to 0.115		95.7	70 to 130	1.14	20
AZ00785	Manganese, Dissolved	mg/L	-0.00000215	0.0022	0.10	0.0883	0.0889		0.085 to 0.115		88.3	70 to 130	0.672	20
AZ00785	Sodium, Total	mg/L	0.00164	0.22	5.00	5.03	5.03	4.97	4.25 to 5.75		101	70 to 130	0.0403	20
AZ00785	Antimony, Total	mg/L	0.000118	0.00176	0.10	0.0965	0.0989	0.0985	0.085 to 0.115		96.5	70 to 130	2.40	20
AZ00785	Lithium, Total	mg/L	-0.0000565	0.022	0.20	0.196	0.196	0.192	0.17 to 0.23		98.2	70 to 130	0.180	20
AZ00785	Thallium, Total	mg/L	0.00000364	0.00044	0.10	0.110	0.114	0.102	0.085 to 0.115		110	70 to 130	3.83	20
AZ00785	Barium, Total	mg/L	-0.000320	0.0044	0.10	0.0913	0.0933	0.0974	0.085 to 0.115		91.3	70 to 130	2.13	20
AZ00785	Lead, Total	mg/L	0.00000172	0.0022	0.10	0.108	0.112	0.107	0.085 to 0.115		108	70 to 130	2.96	20
AZ00785	Selenium, Total	mg/L	0.0000579	0.0044	0.10	0.0965	0.0990	0.105	0.085 to 0.115		96.5	70 to 130	2.55	20
AZ00785	Boron, Total	mg/L	0.000762	0.044	1.00	0.967	0.970	0.966	0.85 to 1.15		96.7	70 to 130	0.316	20
AZ00785	Cobalt, Total	mg/L	0.00000337	0.0044	0.10	0.0970	0.102	0.107	0.085 to 0.115		97.0	70 to 130	4.51	20
AZ00785	Iron, Total	mg/L	-0.0000498	0.022	0.2	0.201	0.200	0.204	0.17 to 0.23		101	70 to 130	0.734	20
AZ00785	Potassium, Total	mg/L	0.00551	0.473	10.0	9.75	9.93	10.3	8.5 to 11.5		97.5	70 to 130	1.84	20
AZ00785	Beryllium, Total	mg/L	0.000000	0.00132	0.10	0.104	0.102	0.107	0.085 to 0.115		104	70 to 130	2.15	20
AZ00785	Calcium, Total	mg/L	-0.0134	0.22	5.00	5.10	5.03	5.10	4.25 to 5.75		102	70 to 130	1.25	20
AZ00785	Mercury, Total by CVAA	mg/L	0.000147	0.0005	0.004	0.00399	0.00403	0.00406	0.0034 to 0.0046		99.8	70 to 130	1.00	20
AZ00785	Arsenic, Total	mg/L	0.00000715	0.0022	0.10	0.0995	0.0990	0.104	0.085 to 0.115		99.5	70 to 130	0.415	20
AZ00785	Iron, Dissolved	mg/L	-0.000506	0.022	0.2	0.201	0.195	0.201	0.17 to 0.23		100	70 to 130	2.80	20
AZ00785	Magnesium, Total	mg/L	0.000252	0.22	5.00	5.08	5.06	5.08	4.25 to 5.75		102	70 to 130	0.488	20

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Issued By: State of Florida, Department of Health

Expiration: June 30, 2019

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 Calera, AL 35040
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Batch QC Summary



To: Dustin Brooks
 Greg Dyer
 Lauren Parker

Customer Account: WMWBARAP
 Sample Date: 09-Jan-19
 Customer ID:
 Delivery Date: 10-Jan-19

Description: Barry Ash Pond - MW-8V

Laboratory ID Number: AZ00783

Sample	Analysis	Units	MB	Limit	Spike	MS	Sample Duplicate	LCS	LCS Limit	Rec	Rec Limit	Prec	Prec Limit
AZ00776	Alkalinity, Total as CaCO3	mg/L					27.3	50.2	45.0 to 55.0			0.515	10
AZ00785	Chloride	mg/L	0.0526	0.50	10.0	9.87	0.0848	9.98	9 to 11	98.7	80 to 120	0.00	20
AZ00785	Fluoride	mg/L	0.0131	0.05	2.50	2.62	0.00736	2.60	2.25 to 2.75	105	80 to 120	0.00	20
AZ00784	Solids, Dissolved	mg/L	0.0000	25			229	50.0	40 to 60			2.35	5
AZ00776	pH for Alkalinity	SU						6.99	6.95 to 7.05				
AZ00785	Sulfate	mg/L	-0.398	0.50	20.0	20.3	-0.272	19.6	18 to 22	102	80 to 120	0.00	20

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Certificate Of Analysis  **Alabama Power**



To: Dustin Brooks
 Greg Dyer
 Lauren Parker

Customer Account: WMWBARAP
 Sample Date: 09-Jan-19
 Customer ID:
 Delivery Date: 10-Jan-19

Description: Barry Ash Pond - MW-7V

Laboratory ID Number: AZ00784

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Metals, Cyanide, Total Phenols									
* Arsenic, Total	DLJ	1/22/2019	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Barium, Total	DLJ	1/22/2019	EPA 200.8		5.075	0.002	0.01	0.112	mg/L
* Beryllium, Total	DLJ	1/22/2019	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Boron, Total	GAS	1/15/2019	EPA 200.7		2.03	0.02	0.1	J 0.0615	mg/L
* Calcium, Total	GAS	1/15/2019	EPA 200.7		2.03	0.1	0.5	37.0	mg/L
* Cadmium, Total	DLJ	1/22/2019	EPA 200.8		5.075	0.0003	0.001	U Not Detected	mg/L
* Antimony, Total	DLJ	1/22/2019	EPA 200.8		5.075	0.0008	0.003	J 0.000861	mg/L
* Molybdenum, Total	DLJ	1/22/2019	EPA 200.8		5.075	0.002	0.01	J 0.00511	mg/L
* Lead, Total	DLJ	1/22/2019	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Cobalt, Total	DLJ	1/22/2019	EPA 200.8		5.075	0.002	0.005	U Not Detected	mg/L
* Chromium, Total	DLJ	1/22/2019	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Iron, Dissolved	GAS	1/15/2019	EPA 200.7		10.15	0.1015	0.5075	25.9	mg/L
* Iron, Total	GAS	1/15/2019	EPA 200.7		10.15	0.1015	0.5075	29.9	mg/L
* Mercury, Total by CVAA	ABB	1/17/2019	EPA 245.1		1	0.0003	0.0005	U Not Detected	mg/L
* Lithium, Total	GAS	1/15/2019	EPA 200.7		2.03	0.01	0.02	0.0662	mg/L
* Magnesium, Total	GAS	1/15/2019	EPA 200.7		2.03	0.1	0.5	13.1	mg/L
* Manganese, Dissolved	DLJ	1/14/2019	EPA 200.8		5.075	0.001	0.005	0.863	mg/L
* Manganese, Total	DLJ	1/22/2019	EPA 200.8		5.075	0.001	0.005	0.879	mg/L
* Potassium, Total	DLJ	1/22/2019	EPA 200.8		5.075	0.215	2.5	3.53	mg/L
* Sodium, Total	GAS	1/15/2019	EPA 200.7		2.03	0.1	0.5	35.0	mg/L
* Selenium, Total	DLJ	1/22/2019	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Thallium, Total	DLJ	1/22/2019	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L

General Characteristics

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Certificate Of Analysis



To: Dustin Brooks
 Greg Dyer
 Lauren Parker

Customer Account: WMWBARAP
 Sample Date: 09-Jan-19
 Customer ID:
 Delivery Date: 10-Jan-19

Description: Barry Ash Pond - MW-7V

Laboratory ID Number: AZ00784

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
pH for Alkalinity	EMG	1/15/2019	SM 4500H+ B		1		4.00	7.16	SU
Alkalinity, Total as CaCO3	EMG	1/15/2019	SM 2320 B		1		0.1	193	mg/L
Carbonate Alkalinity, as CaCO3	EMG	1/15/2019	SM 4500CO2 D		1			0.26	mg/L
Bicarbonate Alkalinity, as CaCO3	EMG	1/15/2019	SM 4500CO2 D		1			193	mg/L
* Solids, Dissolved	CRB	1/23/2019	SM 2540C		1		25	240	mg/L
Filter Completion Date	CRB	1/15/2019	SM 2540C		1			01/15/2019	Date
* Chloride	JCC	1/24/2019	SM4500CI E		1	0.50	1	16.9	mg/L
* Fluoride	JCC	1/25/2019	SM4500F C		1	0.05	0.1	0.139	mg/L
* Sulfate	JCC	1/30/2019	SM4500SO4 E		1	0.50	1	3.69	mg/L

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Description: Barry Ash Pond - MW-7V

Laboratory ID Number: AZ00784

Sample	Analysis	Units	MB		Spike	MS	MSD	LCS	LCS		Rec		Prec	Limit
			MB	Limit					Limit	Rec	Limit	Prec		
AZ00785	Manganese, Total	mg/L	0.00000533	0.0022	0.10	0.0966	0.0997	0.0994	0.085 to 0.115	96.6	70 to 130	3.14	20	
AZ00785	Boron, Total	mg/L	0.000762	0.044	1.00	0.967	0.970	0.966	0.85 to 1.15	96.7	70 to 130	0.316	20	
AZ00785	Cobalt, Total	mg/L	0.00000337	0.0044	0.10	0.0970	0.102	0.107	0.085 to 0.115	97.0	70 to 130	4.51	20	
AZ00785	Iron, Total	mg/L	-0.0000498	0.022	0.2	0.201	0.200	0.204	0.17 to 0.23	101	70 to 130	0.734	20	
AZ00785	Potassium, Total	mg/L	0.00551	0.473	10.0	9.75	9.93	10.3	8.5 to 11.5	97.5	70 to 130	1.84	20	
AZ00785	Arsenic, Total	mg/L	0.00000715	0.0022	0.10	0.0995	0.0990	0.104	0.085 to 0.115	99.5	70 to 130	0.415	20	
AZ00785	Iron, Dissolved	mg/L	-0.000506	0.022	0.2	0.201	0.195	0.201	0.17 to 0.23	100	70 to 130	2.80	20	
AZ00785	Magnesium, Total	mg/L	0.000252	0.22	5.00	5.08	5.06	5.08	4.25 to 5.75	102	70 to 130	0.488	20	
AZ00785	Chromium, Total	mg/L	0.0000483	0.0044	0.10	0.100	0.101	0.102	0.085 to 0.115	100	70 to 130	1.09	20	
AZ00785	Molybdenum, Total	mg/L	0.00000450	0.0044	0.10	0.0900	0.0914	0.0917	0.085 to 0.115	90.0	70 to 130	1.53	20	
AZ00785	Lithium, Total	mg/L	-0.0000565	0.022	0.20	0.196	0.196	0.192	0.17 to 0.23	98.2	70 to 130	0.180	20	
AZ00785	Thallium, Total	mg/L	0.00000364	0.00044	0.10	0.110	0.114	0.102	0.085 to 0.115	110	70 to 130	3.83	20	
AZ00785	Beryllium, Total	mg/L	0.000000	0.00132	0.10	0.104	0.102	0.107	0.085 to 0.115	104	70 to 130	2.15	20	
AZ00785	Calcium, Total	mg/L	-0.0134	0.22	5.00	5.10	5.03	5.10	4.25 to 5.75	102	70 to 130	1.25	20	
AZ00785	Mercury, Total by CVAA	mg/L	0.000147	0.0005	0.004	0.00399	0.00403	0.00406	0.0034 to 0.0046	99.8	70 to 130	1.00	20	
AZ00785	Barium, Total	mg/L	-0.000320	0.0044	0.10	0.0913	0.0933	0.0974	0.085 to 0.115	91.3	70 to 130	2.13	20	
AZ00785	Lead, Total	mg/L	0.00000172	0.0022	0.10	0.108	0.112	0.107	0.085 to 0.115	108	70 to 130	2.96	20	
AZ00785	Selenium, Total	mg/L	0.0000579	0.0044	0.10	0.0965	0.0990	0.105	0.085 to 0.115	96.5	70 to 130	2.55	20	
AZ00785	Cadmium, Total	mg/L	0.00000463	0.00066	0.10	0.0957	0.0968	0.101	0.085 to 0.115	95.7	70 to 130	1.14	20	
AZ00785	Manganese, Dissolved	mg/L	-0.00000215	0.0022	0.10	0.0883	0.0889		0.085 to 0.115	88.3	70 to 130	0.672	20	
AZ00785	Sodium, Total	mg/L	0.00164	0.22	5.00	5.03	5.03	4.97	4.25 to 5.75	101	70 to 130	0.0403	20	
AZ00785	Antimony, Total	mg/L	0.000118	0.00176	0.10	0.0965	0.0989	0.0985	0.085 to 0.115	96.5	70 to 130	2.40	20	

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Issued By: State of Florida, Department of Health

Expiration: June 30, 2019

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified. LBM 2/11/19

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

Batch QC Summary



To: Dustin Brooks
 Greg Dyer
 Lauren Parker

Customer Account: WMWBARAP
 Sample Date: 09-Jan-19
 Customer ID:
 Delivery Date: 10-Jan-19

Description: Barry Ash Pond - MW-7V

Laboratory ID Number: AZ00784

Sample	Analysis	Units	MB	Limit	Spike	MS	Sample Duplicate	LCS	LCS Limit	Rec	Rec Limit	Prec	Prec Limit
AZ00784	Solids, Dissolved	mg/L	0.0000	25			229	50.0	40 to 60			2.35	5
AZ00776	Alkalinity, Total as CaCO3	mg/L					27.3	50.2	45.0 to 55.0			0.515	10
AZ00785	Chloride	mg/L	0.0526	0.50	10.0	9.87	0.0848	9.98	9 to 11	98.7	80 to 120	0.00	20
AZ00785	Fluoride	mg/L	0.0131	0.05	2.50	2.62	0.00736	2.60	2.25 to 2.75	105	80 to 120	0.00	20
AZ00776	pH for Alkalinity	SU						6.99	6.95 to 7.05				
AZ00785	Sulfate	mg/L	-0.398	0.50	20.0	20.3	-0.272	19.6	18 to 22	102	80 to 120	0.00	20

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2019

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CC:

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

Certificate Of Analysis  **Alabama Power**



To: Dustin Brooks
 Greg Dyer
 Lauren Parker

Customer Account: WMWBARAPEB
 Sample Date: 09-Jan-19
 Customer ID:
 Delivery Date: 10-Jan-19

Description: Barry Ash Pond Equipment Blank

Laboratory ID Number: AZ00785

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Metals, Cyanide, Total Phenols									
* Arsenic, Total	DLJ	1/22/2019	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Barium, Total	DLJ	1/22/2019	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Beryllium, Total	DLJ	1/22/2019	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Boron, Total	GAS	1/15/2019	EPA 200.7		2.03	0.02	0.1	U Not Detected	mg/L
* Calcium, Total	GAS	1/15/2019	EPA 200.7		2.03	0.1	0.5	U Not Detected	mg/L
* Cadmium, Total	DLJ	1/22/2019	EPA 200.8		5.075	0.0003	0.001	U Not Detected	mg/L
* Antimony, Total	DLJ	1/22/2019	EPA 200.8		5.075	0.0008	0.003	U Not Detected	mg/L
* Molybdenum, Total	DLJ	1/22/2019	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Lead, Total	DLJ	1/22/2019	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Cobalt, Total	DLJ	1/22/2019	EPA 200.8		5.075	0.002	0.005	U Not Detected	mg/L
* Chromium, Total	DLJ	1/22/2019	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Iron, Dissolved	GAS	1/15/2019	EPA 200.7		2.03	0.01	0.05	U Not Detected	mg/L
* Iron, Total	GAS	1/15/2019	EPA 200.7		2.03	0.01	0.05	U Not Detected	mg/L
* Mercury, Total by CVAA	ABB	1/17/2019	EPA 245.1		1	0.0003	0.0005	U Not Detected	mg/L
* Lithium, Total	GAS	1/15/2019	EPA 200.7		2.03	0.01	0.02	U Not Detected	mg/L
* Magnesium, Total	GAS	1/15/2019	EPA 200.7		2.03	0.1	0.5	U Not Detected	mg/L
* Manganese, Dissolved	DLJ	1/14/2019	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Manganese, Total	DLJ	1/22/2019	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Potassium, Total	DLJ	1/22/2019	EPA 200.8		5.075	0.215	2.5	U Not Detected	mg/L
* Sodium, Total	GAS	1/15/2019	EPA 200.7		2.03	0.1	0.5	U Not Detected	mg/L
* Selenium, Total	DLJ	1/22/2019	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Thallium, Total	DLJ	1/22/2019	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L

General Characteristics

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2019

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified. LBM 2/11/19

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

Certificate Of Analysis



To: Dustin Brooks
 Greg Dyer
 Lauren Parker

Customer Account: WMWBARAPEB
 Sample Date: 09-Jan-19
 Customer ID:
 Delivery Date: 10-Jan-19

Description: Barry Ash Pond Equipment Blank

Laboratory ID Number: AZ00785

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
* Solids, Dissolved	CRB	1/23/2019	SM 2540C		1		25	U Not Detected	mg/L
Filter Completion Date	CRB	1/15/2019	SM 2540C		1			01/15/2019	Date
* Chloride	JCC	1/24/2019	SM4500Cl E		1	0.50	1	U Not Detected	mg/L
* Fluoride	JCC	1/25/2019	SM4500F C		1	0.05	0.1	U Not Detected	mg/L
* Sulfate	JCC	1/30/2019	SM4500SO4 E		1	0.50	1	U Not Detected	mg/L

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Batch QC Summary



To: Dustin Brooks
 Greg Dyer
 Lauren Parker

Customer Account: WMWBARAPEB
 Sample Date: 09-Jan-19
 Customer ID:
 Delivery Date: 10-Jan-19

Description: Barry Ash Pond Equipment Blank

Laboratory ID Number: AZ00785

Sample	Analysis	Units	MB		Spike	MS	MSD	LCS	LCS		Rec		Prec	Limit	
			MB	Limit					Limit	Rec	Limit	Prec			
AZ00785	Manganese, Total	mg/L	0.00000533	0.0022	0.10	0.0966	0.0997	0.0994	0.085 to 0.115		96.6	70 to 130		3.14	20
AZ00785	Lithium, Total	mg/L	-0.0000565	0.022	0.20	0.196	0.196	0.192	0.17 to 0.23		98.2	70 to 130		0.180	20
AZ00785	Thallium, Total	mg/L	0.00000364	0.00044	0.10	0.110	0.114	0.102	0.085 to 0.115		110	70 to 130		3.83	20
AZ00785	Chromium, Total	mg/L	0.0000483	0.0044	0.10	0.100	0.101	0.102	0.085 to 0.115		100	70 to 130		1.09	20
AZ00785	Molybdenum, Total	mg/L	0.000000450	0.0044	0.10	0.0900	0.0914	0.0917	0.085 to 0.115		90.0	70 to 130		1.53	20
AZ00785	Barium, Total	mg/L	-0.000320	0.0044	0.10	0.0913	0.0933	0.0974	0.085 to 0.115		91.3	70 to 130		2.13	20
AZ00785	Lead, Total	mg/L	0.00000172	0.0022	0.10	0.108	0.112	0.107	0.085 to 0.115		108	70 to 130		2.96	20
AZ00785	Selenium, Total	mg/L	0.0000579	0.0044	0.10	0.0965	0.0990	0.105	0.085 to 0.115		96.5	70 to 130		2.55	20
AZ00785	Arsenic, Total	mg/L	0.00000715	0.0022	0.10	0.0995	0.0990	0.104	0.085 to 0.115		99.5	70 to 130		0.415	20
AZ00785	Iron, Dissolved	mg/L	-0.000506	0.022	0.2	0.201	0.195	0.201	0.17 to 0.23		100	70 to 130		2.80	20
AZ00785	Magnesium, Total	mg/L	0.000252	0.22	5.00	5.08	5.06	5.08	4.25 to 5.75		102	70 to 130		0.488	20
AZ00785	Cadmium, Total	mg/L	0.00000463	0.00066	0.10	0.0957	0.0968	0.101	0.085 to 0.115		95.7	70 to 130		1.14	20
AZ00785	Manganese, Dissolved	mg/L	-0.00000215	0.0022	0.10	0.0883	0.0889		0.085 to 0.115		88.3	70 to 130		0.672	20
AZ00785	Sodium, Total	mg/L	0.00164	0.22	5.00	5.03	5.03	4.97	4.25 to 5.75		101	70 to 130		0.0403	20
AZ00785	Antimony, Total	mg/L	0.000118	0.00176	0.10	0.0965	0.0989	0.0985	0.085 to 0.115		96.5	70 to 130		2.40	20
AZ00785	Beryllium, Total	mg/L	0.000000	0.00132	0.10	0.104	0.102	0.107	0.085 to 0.115		104	70 to 130		2.15	20
AZ00785	Calcium, Total	mg/L	-0.0134	0.22	5.00	5.10	5.03	5.10	4.25 to 5.75		102	70 to 130		1.25	20
AZ00785	Mercury, Total by CVAA	mg/L	0.000147	0.0005	0.004	0.00399	0.00403	0.00406	0.0034 to 0.0046		99.8	70 to 130		1.00	20
AZ00785	Boron, Total	mg/L	0.000762	0.044	1.00	0.967	0.970	0.966	0.85 to 1.15		96.7	70 to 130		0.316	20
AZ00785	Cobalt, Total	mg/L	0.00000337	0.0044	0.10	0.0970	0.102	0.107	0.085 to 0.115		97.0	70 to 130		4.51	20
AZ00785	Iron, Total	mg/L	-0.0000498	0.022	0.2	0.201	0.200	0.204	0.17 to 0.23		101	70 to 130		0.734	20
AZ00785	Potassium, Total	mg/L	0.00551	0.473	10.0	9.75	9.93	10.3	8.5 to 11.5		97.5	70 to 130		1.84	20

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2019

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Alabama Power General Test Laboratory
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 Calera, AL 35040
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 FAX (205) 257-1654

Batch QC Summary



To: Dustin Brooks
 Greg Dyer
 Lauren Parker

Customer Account: WMWBARAPEB
 Sample Date: 09-Jan-19
 Customer ID:
 Delivery Date: 10-Jan-19

Description: Barry Ash Pond Equipment Blank

Laboratory ID Number: AZ00785

Sample	Analysis	Units	MB	MB			Sample		LCS	Rec			Prec
				Limit	Spike	MS	Duplicate	LCS	Limit	Rec	Limit	Prec	Limit
AZ00785	Chloride	mg/L	0.0526	0.50	10.0	9.87	0.0848	9.98	9 to 11	98.7	80 to 120	0.00	20
AZ00784	Solids, Dissolved	mg/L	0.0000	25			229	50.0	40 to 60			2.35	5
AZ00785	Sulfate	mg/L	-0.398	0.50	20.0	20.3	-0.272	19.6	18 to 22	102	80 to 120	0.00	20
AZ00785	Fluoride	mg/L	0.0131	0.05	2.50	2.62	0.00736	2.60	2.25 to 2.75	105	80 to 120	0.00	20

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Certificate Of Analysis  **Alabama Power**



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWBARAPFB
 Sample Date: 20-Mar-19
 Customer ID:
 Delivery Date: 21-Mar-19

Description: Barry Ash Pond Field Blank

Laboratory ID Number: AZ07340

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Metals, Cyanide, Total Phenols									
* Arsenic, Total	DLJ	3/26/2019	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Barium, Total	DLJ	3/26/2019	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Beryllium, Total	DLJ	3/26/2019	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Boron, Total	GAS	4/2/2019	EPA 200.7		2.03	0.02	0.1	U Not Detected	mg/L
* Calcium, Total	GAS	4/2/2019	EPA 200.7		2.03	0.1	0.5	U Not Detected	mg/L
* Cadmium, Total	DLJ	3/26/2019	EPA 200.8		5.075	0.0003	0.001	U Not Detected	mg/L
* Antimony, Total	DLJ	3/26/2019	EPA 200.8		5.075	0.0008	0.003	J 0.00144	mg/L
* Molybdenum, Total	DLJ	3/26/2019	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Lead, Total	DLJ	3/26/2019	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Cobalt, Total	DLJ	3/26/2019	EPA 200.8		5.075	0.002	0.005	U Not Detected	mg/L
* Chromium, Total	DLJ	3/26/2019	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Iron, Dissolved	GAS	4/1/2019	EPA 200.7		2.03	0.01	0.05	U Not Detected	mg/L
* Iron, Total	GAS	4/2/2019	EPA 200.7		2.03	0.01	0.05	U Not Detected	mg/L
* Mercury, Total by CVAA	ABB	4/3/2019	EPA 245.1		1	0.0003	0.0005	U Not Detected	mg/L
* Lithium, Total	GAS	4/2/2019	EPA 200.7		2.03	0.01	0.02	U Not Detected	mg/L
* Magnesium, Total	GAS	4/2/2019	EPA 200.7		2.03	0.1	0.5	U Not Detected	mg/L
* Manganese, Dissolved	DLJ	3/26/2019	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Manganese, Total	DLJ	3/26/2019	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Potassium, Total	DLJ	3/26/2019	EPA 200.8		5.075	0.215	2.5	U Not Detected	mg/L
* Sodium, Total	GAS	4/2/2019	EPA 200.7		2.03	0.1	0.5	U Not Detected	mg/L
* Selenium, Total	DLJ	3/26/2019	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Thallium, Total	DLJ	3/26/2019	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L

General Characteristics

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2019

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 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Certificate Of Analysis



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWBARAPFB
 Sample Date: 20-Mar-19
 Customer ID:
 Delivery Date: 21-Mar-19

Description: Barry Ash Pond Field Blank

Laboratory ID Number: AZ07340

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
* Solids, Dissolved	CES	3/28/2019	SM 2540C		1		25	U Not Detected	mg/L
Filter Completion Date	CRB	3/22/2019	SM 2540C		1			03/22/2019	Date
* Chloride	JCC	4/1/2019	SM4500Cl E		1	0.50	1	U Not Detected	mg/L
* Fluoride	JCC	3/25/2019	SM4500F C		1	0.05	0.1	U Not Detected	mg/L
* Sulfate	JCC	4/2/2019	SM4500SO4 E		1	0.50	1	U Not Detected	mg/L

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Batch QC Summary



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWBARAPFB
 Sample Date: 20-Mar-19
 Customer ID:
 Delivery Date: 21-Mar-19

Description: Barry Ash Pond Field Blank

Laboratory ID Number: AZ07340

Sample	Analysis	Units	MB		Spike	MS	MSD	LCS	LCS		Rec		Prec
			MB	Limit					Limit	Rec	Limit	Prec	
AZ07343	Antimony, Total	mg/L	0.000234	0.00176	0.10	0.105	0.105	0.104	0.085 to 0.115	104	70 to 130	0.354	20
AZ07343	Arsenic, Total	mg/L	0.00000836	0.0022	0.10	0.103	0.0999	0.106	0.085 to 0.115	103	70 to 130	2.85	20
AZ07343	Barium, Total	mg/L	0.00000074	0.0044	0.10	0.0996	0.101	0.0992	0.085 to 0.115	99.6	70 to 130	1.68	20
AZ07343	Cadmium, Total	mg/L	0.00000142	0.00066	0.10	0.100	0.0993	0.0994	0.085 to 0.115	100	70 to 130	0.985	20
AZ07343	Iron, Dissolved	mg/L	-0.000497	0.022	0.200	0.202	0.204	0.202	0.17 to 0.23	101	70 to 130	0.985	20
AZ07343	Boron, Total	mg/L	-0.00107	0.044	1.00	0.989	0.987	0.956	0.85 to 1.15	98.9	70 to 130	0.249	20
AZ07343	Potassium, Total	mg/L	-0.0125	0.473	10.0	10.1	10.1	10.2	8.5 to 11.5	101	70 to 130	0.666	20
AZ07343	Thallium, Total	mg/L	-0.00000303	0.00044	0.10	0.101	0.100	0.104	0.085 to 0.115	101	70 to 130	0.657	20
AZ07343	Calcium, Total	mg/L	-0.0190	0.22	5.00	5.21	5.15	5.08	4.25 to 5.75	104	70 to 130	0.987	20
AZ07343	Manganese, Total	mg/L	0.00000762	0.0022	0.10	0.105	0.106	0.106	0.085 to 0.115	105	70 to 130	0.508	20
AZ07343	Selenium, Total	mg/L	0.0000752	0.0044	0.10	0.104	0.103	0.104	0.085 to 0.115	104	70 to 130	1.31	20
AZ07343	Beryllium, Total	mg/L	0.00000712	0.00132	0.10	0.0992	0.102	0.0987	0.085 to 0.115	99.2	70 to 130	3.05	20
AZ07343	Iron, Total	mg/L	-0.000261	0.022	0.2	0.206	0.204	0.197	0.17 to 0.23	103	70 to 130	0.881	20
AZ07343	Mercury, Total by CVAA	mg/L	0.0000209	0.0005	0.004	0.00393	0.00391	0.00389	0.0034 to 0.0046	98.3	70 to 130	0.622	20
AZ07343	Lithium, Total	mg/L	-0.00000104	0.022	0.20	0.201	0.202	0.196	0.17 to 0.23	101	70 to 130	0.0357	20
AZ07343	Chromium, Total	mg/L	0.0000714	0.0044	0.10	0.104	0.104	0.102	0.085 to 0.115	104	70 to 130	0.231	20
AZ07343	Sodium, Total	mg/L	-0.00245	0.22	5.00	4.97	4.95	4.84	4.25 to 5.75	99.4	70 to 130	0.316	20
AZ07343	Lead, Total	mg/L	0.00000292	0.0022	0.10	0.106	0.107	0.107	0.085 to 0.115	106	70 to 130	0.741	20
AZ07343	Cobalt, Total	mg/L	-0.00000833	0.0044	0.10	0.105	0.105	0.105	0.085 to 0.115	105	70 to 130	0.789	20
AZ07343	Magnesium, Total	mg/L	-0.0160	0.22	5.00	5.37	5.32	5.16	4.25 to 5.75	107	70 to 130	0.876	20
AZ07343	Manganese, Dissolved	mg/L	0.00000492	0.0022	0.10	0.106	0.107		0.085 to 0.115	106	70 to 130	1.23	20
AZ07343	Molybdenum, Total	mg/L	0.00000209	0.0044	0.10	0.103	0.103	0.102	0.085 to 0.115	103	70 to 130	0.648	20

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2019

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified. LBM 4/10/19

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

Batch QC Summary



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWBARAPFB
 Sample Date: 20-Mar-19
 Customer ID:
 Delivery Date: 21-Mar-19

Description: Barry Ash Pond Field Blank

Laboratory ID Number: AZ07340

Sample	Analysis	Units	MB	MB			Sample		LCS	Rec			Prec
				Limit	Spike	MS	Duplicate	LCS	Limit	Rec	Limit	Prec	Limit
AZ07343	Sulfate	mg/L	-0.0291	0.50	20.0	21.3	-0.023	19.5	18 to 22	106	80 to 120	0.00	20
AZ07341	Solids, Dissolved	mg/L	0.0000	25			299	55.0	40 to 60			1.01	5
AZ07343	Chloride	mg/L	-0.0228	0.50	10.0	10.0	0.155	9.92	9 to 11	100	80 to 120	0.00	20
AZ07343	Fluoride	mg/L	0.038	0.05	2.50	2.63	0.0411	2.52	2.25 to 2.75	105	80 to 120	0.00	20

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Expiration: June 30, 2019

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CC:

Alabama Power General Test Laboratory
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 Calera, AL 35040
 (205) 664-6032 or 6171
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Certificate Of Analysis  **Alabama Power**



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWBARAP
 Sample Date: 20-Mar-19
 Customer ID:
 Delivery Date: 21-Mar-19

Description: Barry Ash Pond - MW-18H

Laboratory ID Number: AZ07341

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Metals, Cyanide, Total Phenols									
* Arsenic, Total	DLJ	3/26/2019	EPA 200.8		5.075	0.001	0.005	0.00831	mg/L
* Barium, Total	DLJ	3/26/2019	EPA 200.8		5.075	0.002	0.01	0.152	mg/L
* Beryllium, Total	DLJ	3/26/2019	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Boron, Total	GAS	4/2/2019	EPA 200.7		2.03	0.02	0.1	0.924	mg/L
* Calcium, Total	GAS	4/2/2019	EPA 200.7		2.03	0.1	0.5	28.4	mg/L
* Cadmium, Total	DLJ	3/26/2019	EPA 200.8		5.075	0.0003	0.001	U Not Detected	mg/L
* Antimony, Total	DLJ	3/26/2019	EPA 200.8		5.075	0.0008	0.003	J 0.00117	mg/L
* Molybdenum, Total	DLJ	3/26/2019	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Lead, Total	DLJ	3/26/2019	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Cobalt, Total	DLJ	3/26/2019	EPA 200.8		5.075	0.002	0.005	U Not Detected	mg/L
* Chromium, Total	DLJ	3/26/2019	EPA 200.8		5.075	0.002	0.01	J 0.00236	mg/L
* Iron, Dissolved	GAS	4/2/2019	EPA 200.7		101.5	1.015	5.075	K 77.6	mg/L
* Iron, Total	GAS	4/2/2019	EPA 200.7		101.5	1.015	5.075	70.1	mg/L
* Mercury, Total by CVAA	ABB	4/3/2019	EPA 245.1		1	0.0003	0.0005	U Not Detected	mg/L
* Lithium, Total	GAS	4/2/2019	EPA 200.7		2.03	0.01	0.02	U Not Detected	mg/L
* Magnesium, Total	GAS	4/2/2019	EPA 200.7		2.03	0.1	0.5	10.5	mg/L
* Manganese, Dissolved	DLJ	3/26/2019	EPA 200.8		5.075	0.001	0.005	K 1.27	mg/L
* Manganese, Total	DLJ	3/26/2019	EPA 200.8		5.075	0.001	0.005	1.25	mg/L
* Potassium, Total	DLJ	3/26/2019	EPA 200.8		5.075	0.215	2.5	J 1.39	mg/L
* Sodium, Total	GAS	4/2/2019	EPA 200.7		2.03	0.1	0.5	21.2	mg/L
* Selenium, Total	DLJ	3/26/2019	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Thallium, Total	DLJ	3/26/2019	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L

General Characteristics

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2019

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified. LBM 4/10/19

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

Certificate Of Analysis Alabama Power



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWBARAP
 Sample Date: 20-Mar-19
 Customer ID:
 Delivery Date: 21-Mar-19

Description: Barry Ash Pond - MW-18H

Laboratory ID Number: AZ07341

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
pH for Alkalinity	HRG	4/2/2019	SM 4500H+ B		1		4	6.21	SU
Alkalinity, Total as CaCO3	HRG	4/2/2019	SM 2320 B		1		0.1	177	mg/L
Carbonate Alkalinity, as CaCO3	HRG	4/2/2019	SM 4500CO2 D		1			0.03	mg/L
Bicarbonate Alkalinity, as CaCO3	HRG	4/2/2019	SM 4500CO2 D		1			177	mg/L
* Solids, Dissolved	CES	3/28/2019	SM 2540C		1		25	293	mg/L
Filter Completion Date	CRB	3/22/2019	SM 2540C		1			03/22/2019	Date
* Chloride	JCC	4/1/2019	SM4500CI E		1	0.50	1	17.6	mg/L
* Fluoride	JCC	3/25/2019	SM4500F C		1	0.05	0.1	0.215	mg/L
* Sulfate	JCC	4/2/2019	SM4500SO4 E		1	0.50	1	12.8	mg/L

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Issued By: State of Florida, Department of Health

Expiration: June 30, 2019

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 Calera, AL 35040
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Batch QC Summary



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWBARAP
 Sample Date: 20-Mar-19
 Customer ID:
 Delivery Date: 21-Mar-19

Description: Barry Ash Pond - MW-18H

Laboratory ID Number: AZ07341

Sample	Analysis	Units	MB		Spike	MS	MSD	LCS	LCS		Rec		Prec	Limit
			MB	Limit					Limit	Rec	Limit	Prec		
AZ07343	Antimony, Total	mg/L	0.000234	0.00176	0.10	0.105	0.105	0.104	0.085 to 0.115	104	70 to 130	0.354	20	
AZ07343	Calcium, Total	mg/L	-0.0190	0.22	5.00	5.21	5.15	5.08	4.25 to 5.75	104	70 to 130	0.987	20	
AZ07343	Manganese, Total	mg/L	0.00000762	0.0022	0.10	0.105	0.106	0.106	0.085 to 0.115	105	70 to 130	0.508	20	
AZ07343	Selenium, Total	mg/L	0.0000752	0.0044	0.10	0.104	0.103	0.104	0.085 to 0.115	104	70 to 130	1.31	20	
AZ07343	Chromium, Total	mg/L	0.0000714	0.0044	0.10	0.104	0.104	0.102	0.085 to 0.115	104	70 to 130	0.231	20	
AZ07343	Sodium, Total	mg/L	-0.00245	0.22	5.00	4.97	4.95	4.84	4.25 to 5.75	99.4	70 to 130	0.316	20	
AZ07343	Lead, Total	mg/L	0.00000292	0.0022	0.10	0.106	0.107	0.107	0.085 to 0.115	106	70 to 130	0.741	20	
AZ07343	Beryllium, Total	mg/L	0.00000712	0.00132	0.10	0.0992	0.102	0.0987	0.085 to 0.115	99.2	70 to 130	3.05	20	
AZ07343	Iron, Total	mg/L	-0.000261	0.022	0.2	0.206	0.204	0.197	0.17 to 0.23	103	70 to 130	0.881	20	
AZ07343	Mercury, Total by CVAA	mg/L	0.0000209	0.0005	0.004	0.00393	0.00391	0.00389	0.0034 to 0.0046	98.3	70 to 130	0.622	20	
AZ07343	Lithium, Total	mg/L	-0.00000104	0.022	0.20	0.201	0.202	0.196	0.17 to 0.23	101	70 to 130	0.0357	20	
AZ07343	Cobalt, Total	mg/L	-0.00000833	0.0044	0.10	0.105	0.105	0.105	0.085 to 0.115	105	70 to 130	0.789	20	
AZ07343	Magnesium, Total	mg/L	-0.0160	0.22	5.00	5.37	5.32	5.16	4.25 to 5.75	107	70 to 130	0.876	20	
AZ07343	Manganese, Dissolved	mg/L	0.00000492	0.0022	0.10	0.106	0.107		0.085 to 0.115	106	70 to 130	1.23	20	
AZ07343	Molybdenum, Total	mg/L	0.00000209	0.0044	0.10	0.103	0.103	0.102	0.085 to 0.115	103	70 to 130	0.648	20	
AZ07343	Arsenic, Total	mg/L	0.00000836	0.0022	0.10	0.103	0.0999	0.106	0.085 to 0.115	103	70 to 130	2.85	20	
AZ07343	Barium, Total	mg/L	0.00000074	0.0044	0.10	0.0996	0.101	0.0992	0.085 to 0.115	99.6	70 to 130	1.68	20	
AZ07343	Cadmium, Total	mg/L	0.00000142	0.00066	0.10	0.100	0.0993	0.0994	0.085 to 0.115	100	70 to 130	0.985	20	
AZ07343	Iron, Dissolved	mg/L	-0.000497	0.022	0.200	0.202	0.204	0.202	0.17 to 0.23	101	70 to 130	0.985	20	
AZ07343	Boron, Total	mg/L	-0.00107	0.044	1.00	0.989	0.987	0.956	0.85 to 1.15	98.9	70 to 130	0.249	20	
AZ07343	Potassium, Total	mg/L	-0.0125	0.473	10.0	10.1	10.1	10.2	8.5 to 11.5	101	70 to 130	0.666	20	
AZ07343	Thallium, Total	mg/L	-0.00000303	0.00044	0.10	0.101	0.100	0.104	0.085 to 0.115	101	70 to 130	0.657	20	

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2019

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

Batch QC Summary



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWBARAP
 Sample Date: 20-Mar-19
 Customer ID:
 Delivery Date: 21-Mar-19

Description: Barry Ash Pond - MW-18H

Laboratory ID Number: AZ07341

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	LCS	LCS Limit	Rec Rec	Rec Limit	Prec	Prec Limit
AZ07341	Solids, Dissolved	mg/L	0.0000	25			299	55.0	40 to 60			1.01	5
AZ07342	pH for Alkalinity	SU						7.03	6.95 to 7.05				
AZ07343	Chloride	mg/L	-0.0228	0.50	10.0	10.0	0.155	9.92	9 to 11	100	80 to 120	0.00	20
AZ07343	Fluoride	mg/L	0.038	0.05	2.50	2.63	0.0411	2.52	2.25 to 2.75	105	80 to 120	0.00	20
AZ07342	Alkalinity, Total as CaCO3	mg/L					172	50.4	45.0 to 55.0			3.84	10
AZ07343	Sulfate	mg/L	-0.0291	0.50	20.0	21.3	-0.023	19.5	18 to 22	106	80 to 120	0.00	20

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Certificate Of Analysis  **Alabama Power**



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWBARAP
 Sample Date: 20-Mar-19
 Customer ID:
 Delivery Date: 21-Mar-19

Description: Barry Ash Pond - MW-18H DUP

Laboratory ID Number: AZ07342

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Metals, Cyanide, Total Phenols									
* Arsenic, Total	DLJ	3/26/2019	EPA 200.8		5.075	0.001	0.005	0.00835	mg/L
* Barium, Total	DLJ	3/26/2019	EPA 200.8		5.075	0.002	0.01	0.154	mg/L
* Beryllium, Total	DLJ	3/26/2019	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Boron, Total	GAS	4/2/2019	EPA 200.7		2.03	0.02	0.1	0.924	mg/L
* Calcium, Total	GAS	4/2/2019	EPA 200.7		2.03	0.1	0.5	28.2	mg/L
* Cadmium, Total	DLJ	3/26/2019	EPA 200.8		5.075	0.0003	0.001	U Not Detected	mg/L
* Antimony, Total	DLJ	3/26/2019	EPA 200.8		5.075	0.0008	0.003	J 0.00110	mg/L
* Molybdenum, Total	DLJ	3/26/2019	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Lead, Total	DLJ	3/26/2019	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Cobalt, Total	DLJ	3/26/2019	EPA 200.8		5.075	0.002	0.005	U Not Detected	mg/L
* Chromium, Total	DLJ	3/26/2019	EPA 200.8		5.075	0.002	0.01	J 0.00243	mg/L
* Iron, Dissolved	GAS	4/3/2019	EPA 200.7		101.5	1.015	5.075	K 75.5	mg/L
* Iron, Total	GAS	4/2/2019	EPA 200.7		101.5	1.015	5.075	68.4	mg/L
* Mercury, Total by CVAA	ABB	4/3/2019	EPA 245.1		1	0.0003	0.0005	U Not Detected	mg/L
* Lithium, Total	GAS	4/2/2019	EPA 200.7		2.03	0.01	0.02	U Not Detected	mg/L
* Magnesium, Total	GAS	4/2/2019	EPA 200.7		2.03	0.1	0.5	10.5	mg/L
* Manganese, Dissolved	DLJ	3/26/2019	EPA 200.8		5.075	0.001	0.005	K 1.26	mg/L
* Manganese, Total	DLJ	3/26/2019	EPA 200.8		5.075	0.001	0.005	1.28	mg/L
* Potassium, Total	DLJ	3/26/2019	EPA 200.8		5.075	0.215	2.5	J 1.37	mg/L
* Sodium, Total	GAS	4/2/2019	EPA 200.7		2.03	0.1	0.5	20.9	mg/L
* Selenium, Total	DLJ	3/26/2019	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Thallium, Total	DLJ	3/26/2019	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L

General Characteristics

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Issued By: State of Florida, Department of Health

Expiration: June 30, 2019

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Certificate Of Analysis



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWBARAP
 Sample Date: 20-Mar-19
 Customer ID:
 Delivery Date: 21-Mar-19

Description: Barry Ash Pond - MW-18H DUP

Laboratory ID Number: AZ07342

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
pH for Alkalinity	HRG	4/2/2019	SM 4500H+ B		1		4	6.22	SU
Alkalinity, Total as CaCO3	HRG	4/2/2019	SM 2320 B		1		0.1	179	mg/L
Carbonate Alkalinity, as CaCO3	HRG	4/2/2019	SM 4500CO2 D		1			0.03	mg/L
Bicarbonate Alkalinity, as CaCO3	HRG	4/2/2019	SM 4500CO2 D		1			179	mg/L
* Solids, Dissolved	CES	3/28/2019	SM 2540C		1		50	308	mg/L
Filter Completion Date	CRB	3/22/2019	SM 2540C		1			03/22/2019	Date
* Chloride	JCC	4/1/2019	SM4500Cl E		1	0.50	1	17.6	mg/L
* Fluoride	JCC	3/25/2019	SM4500F C		1	0.05	0.1	0.126	mg/L
* Sulfate	JCC	4/2/2019	SM4500SO4 E		1	0.50	1	12.7	mg/L

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Batch QC Summary



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWBARAP
 Sample Date: 20-Mar-19
 Customer ID:
 Delivery Date: 21-Mar-19

Description: Barry Ash Pond - MW-18H DUP

Laboratory ID Number: AZ07342

Sample	Analysis	Units	MB		Spike	MS	MSD	LCS	LCS		Rec		Prec	Limit
			MB	Limit					Limit	Rec	Limit	Prec		
AZ07343	Antimony, Total	mg/L	0.000234	0.00176	0.10	0.105	0.105	0.104	0.085 to 0.115	104	70 to 130	0.354	20	
AZ07343	Chromium, Total	mg/L	0.0000714	0.0044	0.10	0.104	0.104	0.102	0.085 to 0.115	104	70 to 130	0.231	20	
AZ07343	Sodium, Total	mg/L	-0.00245	0.22	5.00	4.97	4.95	4.84	4.25 to 5.75	99.4	70 to 130	0.316	20	
AZ07343	Lead, Total	mg/L	0.00000292	0.0022	0.10	0.106	0.107	0.107	0.085 to 0.115	106	70 to 130	0.741	20	
AZ07343	Beryllium, Total	mg/L	0.00000712	0.00132	0.10	0.0992	0.102	0.0987	0.085 to 0.115	99.2	70 to 130	3.05	20	
AZ07343	Iron, Total	mg/L	-0.000261	0.022	0.2	0.206	0.204	0.197	0.17 to 0.23	103	70 to 130	0.881	20	
AZ07343	Mercury, Total by CVAA	mg/L	0.0000209	0.0005	0.004	0.00393	0.00391	0.00389	0.0034 to 0.0046	98.3	70 to 130	0.622	20	
AZ07343	Lithium, Total	mg/L	-0.00000104	0.022	0.20	0.201	0.202	0.196	0.17 to 0.23	101	70 to 130	0.0357	20	
AZ07343	Boron, Total	mg/L	-0.00107	0.044	1.00	0.989	0.987	0.956	0.85 to 1.15	98.9	70 to 130	0.249	20	
AZ07343	Potassium, Total	mg/L	-0.0125	0.473	10.0	10.1	10.1	10.2	8.5 to 11.5	101	70 to 130	0.666	20	
AZ07343	Thallium, Total	mg/L	-0.00000303	0.00044	0.10	0.101	0.100	0.104	0.085 to 0.115	101	70 to 130	0.657	20	
AZ07343	Arsenic, Total	mg/L	0.00000836	0.0022	0.10	0.103	0.0999	0.106	0.085 to 0.115	103	70 to 130	2.85	20	
AZ07343	Barium, Total	mg/L	0.00000074	0.0044	0.10	0.0996	0.101	0.0992	0.085 to 0.115	99.6	70 to 130	1.68	20	
AZ07343	Cadmium, Total	mg/L	0.00000142	0.00066	0.10	0.100	0.0993	0.0994	0.085 to 0.115	100	70 to 130	0.985	20	
AZ07343	Iron, Dissolved	mg/L	-0.000497	0.022	0.200	0.202	0.204	0.202	0.17 to 0.23	101	70 to 130	0.985	20	
AZ07343	Calcium, Total	mg/L	-0.0190	0.22	5.00	5.21	5.15	5.08	4.25 to 5.75	104	70 to 130	0.987	20	
AZ07343	Mangnese, Total	mg/L	0.00000762	0.0022	0.10	0.105	0.106	0.106	0.085 to 0.115	105	70 to 130	0.508	20	
AZ07343	Selenium, Total	mg/L	0.0000752	0.0044	0.10	0.104	0.103	0.104	0.085 to 0.115	104	70 to 130	1.31	20	
AZ07343	Cobalt, Total	mg/L	-0.00000833	0.0044	0.10	0.105	0.105	0.105	0.085 to 0.115	105	70 to 130	0.789	20	
AZ07343	Magnesium, Total	mg/L	-0.0160	0.22	5.00	5.37	5.32	5.16	4.25 to 5.75	107	70 to 130	0.876	20	
AZ07343	Mangnese, Dissolved	mg/L	0.00000492	0.0022	0.10	0.106	0.107		0.085 to 0.115	106	70 to 130	1.23	20	
AZ07343	Molybdenum, Total	mg/L	0.00000209	0.0044	0.10	0.103	0.103	0.102	0.085 to 0.115	103	70 to 130	0.648	20	

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2019

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified. LBM 4/10/19

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

Batch QC Summary



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWBARAP
 Sample Date: 20-Mar-19
 Customer ID:
 Delivery Date: 21-Mar-19

Description: Barry Ash Pond - MW-18H DUP

Laboratory ID Number: AZ07342

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	LCS	LCS Limit	Rec	Rec Limit	Prec	Prec Limit
AZ07341	Solids, Dissolved	mg/L	0.0000	25			299	55.0	40 to 60			1.01	5
AZ07342	pH for Alkalinity	SU						7.03	6.95 to 7.05				
AZ07342	Alkalinity, Total as CaCO3	mg/L					172	50.4	45.0 to 55.0			3.84	10
AZ07343	Sulfate	mg/L	-0.0291	0.50	20.0	21.3	-0.023	19.5	18 to 22	106	80 to 120	0.00	20
AZ07343	Chloride	mg/L	-0.0228	0.50	10.0	10.0	0.155	9.92	9 to 11	100	80 to 120	0.00	20
AZ07343	Fluoride	mg/L	0.038	0.05	2.50	2.63	0.0411	2.52	2.25 to 2.75	105	80 to 120	0.00	20

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CC:

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

Certificate Of Analysis  **Alabama Power**



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWBARAPEB
 Sample Date: 20-Mar-19
 Customer ID:
 Delivery Date: 21-Mar-19

Description: Barry Ash Pond Equipment Blank

Laboratory ID Number: AZ07343

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q	Results	Units
Metals, Cyanide, Total Phenols										
* Arsenic, Total	DLJ	3/26/2019	EPA 200.8		5.075	0.001	0.005	U	Not Detected	mg/L
* Barium, Total	DLJ	3/26/2019	EPA 200.8		5.075	0.002	0.01	U	Not Detected	mg/L
* Beryllium, Total	DLJ	3/26/2019	EPA 200.8		5.075	0.0006	0.003	U	Not Detected	mg/L
* Boron, Total	GAS	4/2/2019	EPA 200.7		2.03	0.02	0.1	U	Not Detected	mg/L
* Calcium, Total	GAS	4/2/2019	EPA 200.7		2.03	0.1	0.5	U	Not Detected	mg/L
* Cadmium, Total	DLJ	3/26/2019	EPA 200.8		5.075	0.0003	0.001	U	Not Detected	mg/L
* Antimony, Total	DLJ	3/26/2019	EPA 200.8		5.075	0.0008	0.003	J	0.00103	mg/L
* Molybdenum, Total	DLJ	3/26/2019	EPA 200.8		5.075	0.002	0.01	U	Not Detected	mg/L
* Lead, Total	DLJ	3/26/2019	EPA 200.8		5.075	0.001	0.005	U	Not Detected	mg/L
* Cobalt, Total	DLJ	3/26/2019	EPA 200.8		5.075	0.002	0.005	U	Not Detected	mg/L
* Chromium, Total	DLJ	3/26/2019	EPA 200.8		5.075	0.002	0.01	U	Not Detected	mg/L
* Iron, Dissolved	GAS	4/1/2019	EPA 200.7		2.03	0.01	0.05	U	Not Detected	mg/L
* Iron, Total	GAS	4/2/2019	EPA 200.7		2.03	0.01	0.05	U	Not Detected	mg/L
* Mercury, Total by CVAA	ABB	4/3/2019	EPA 245.1		1	0.0003	0.0005	U	Not Detected	mg/L
* Lithium, Total	GAS	4/2/2019	EPA 200.7		2.03	0.01	0.02	U	Not Detected	mg/L
* Magnesium, Total	GAS	4/2/2019	EPA 200.7		2.03	0.1	0.5	U	Not Detected	mg/L
* Manganese, Dissolved	DLJ	3/26/2019	EPA 200.8		5.075	0.001	0.005	U	Not Detected	mg/L
* Manganese, Total	DLJ	3/26/2019	EPA 200.8		5.075	0.001	0.005	U	Not Detected	mg/L
* Potassium, Total	DLJ	3/26/2019	EPA 200.8		5.075	0.215	2.5	U	Not Detected	mg/L
* Sodium, Total	GAS	4/2/2019	EPA 200.7		2.03	0.1	0.5	U	Not Detected	mg/L
* Selenium, Total	DLJ	3/26/2019	EPA 200.8		5.075	0.002	0.01	U	Not Detected	mg/L
* Thallium, Total	DLJ	3/26/2019	EPA 200.8		5.075	0.0002	0.001	U	Not Detected	mg/L

General Characteristics

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2019

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified. LBM 4/10/19

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

Certificate Of Analysis



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWBARAPEB
 Sample Date: 20-Mar-19
 Customer ID:
 Delivery Date: 21-Mar-19

Description: Barry Ash Pond Equipment Blank

Laboratory ID Number: AZ07343

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
* Solids, Dissolved	CES	3/28/2019	SM 2540C		1		25	U Not Detected	mg/L
Filter Completion Date	CRB	3/22/2019	SM 2540C		1			03/22/2019	Date
* Chloride	JCC	4/1/2019	SM4500Cl E		1	0.50	1	U Not Detected	mg/L
* Fluoride	JCC	3/25/2019	SM4500F C		1	0.05	0.1	U Not Detected	mg/L
* Sulfate	JCC	4/2/2019	SM4500SO4 E		1	0.50	1	U Not Detected	mg/L

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 Calera, AL 35040
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Batch QC Summary



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWBARAPEB
 Sample Date: 20-Mar-19
 Customer ID:
 Delivery Date: 21-Mar-19

Description: Barry Ash Pond Equipment Blank

Laboratory ID Number: AZ07343

Sample	Analysis	Units	MB		Spike	MS	MSD	LCS	LCS		Rec		Prec Limit
			Limit	MB					Limit	Rec	Limit	Prec	
AZ07343	Antimony, Total	mg/L	0.000234	0.00176	0.10	0.105	0.105	0.104	0.085 to 0.115	104	70 to 130	0.354	20
AZ07343	Boron, Total	mg/L	-0.00107	0.044	1.00	0.989	0.987	0.956	0.85 to 1.15	98.9	70 to 130	0.249	20
AZ07343	Potassium, Total	mg/L	-0.0125	0.473	10.0	10.1	10.1	10.2	8.5 to 11.5	101	70 to 130	0.666	20
AZ07343	Thallium, Total	mg/L	-0.00000303	0.00044	0.10	0.101	0.100	0.104	0.085 to 0.115	101	70 to 130	0.657	20
AZ07343	Beryllium, Total	mg/L	0.00000712	0.00132	0.10	0.0992	0.102	0.0987	0.085 to 0.115	99.2	70 to 130	3.05	20
AZ07343	Iron, Total	mg/L	-0.000261	0.022	0.2	0.206	0.204	0.197	0.17 to 0.23	103	70 to 130	0.881	20
AZ07343	Mercury, Total by CVAA	mg/L	0.0000209	0.0005	0.004	0.00393	0.00391	0.00389	0.0034 to 0.0046	98.3	70 to 130	0.622	20
AZ07343	Lithium, Total	mg/L	-0.00000104	0.022	0.20	0.201	0.202	0.196	0.17 to 0.23	101	70 to 130	0.0357	20
AZ07343	Cobalt, Total	mg/L	-0.00000833	0.0044	0.10	0.105	0.105	0.105	0.085 to 0.115	105	70 to 130	0.789	20
AZ07343	Magnesium, Total	mg/L	-0.0160	0.22	5.00	5.37	5.32	5.16	4.25 to 5.75	107	70 to 130	0.876	20
AZ07343	Mangnese, Dissolved	mg/L	0.00000492	0.0022	0.10	0.106	0.107		0.085 to 0.115	106	70 to 130	1.23	20
AZ07343	Molybdenum, Total	mg/L	0.00000209	0.0044	0.10	0.103	0.103	0.102	0.085 to 0.115	103	70 to 130	0.648	20
AZ07343	Arsenic, Total	mg/L	0.00000836	0.0022	0.10	0.103	0.0999	0.106	0.085 to 0.115	103	70 to 130	2.85	20
AZ07343	Barium, Total	mg/L	0.00000074	0.0044	0.10	0.0996	0.101	0.0992	0.085 to 0.115	99.6	70 to 130	1.68	20
AZ07343	Cadmium, Total	mg/L	0.00000142	0.00066	0.10	0.100	0.0993	0.0994	0.085 to 0.115	100	70 to 130	0.985	20
AZ07343	Iron, Dissolved	mg/L	-0.000497	0.022	0.200	0.202	0.204	0.202	0.17 to 0.23	101	70 to 130	0.985	20
AZ07343	Calcium, Total	mg/L	-0.0190	0.22	5.00	5.21	5.15	5.08	4.25 to 5.75	104	70 to 130	0.987	20
AZ07343	Mangnese, Total	mg/L	0.00000762	0.0022	0.10	0.105	0.106	0.106	0.085 to 0.115	105	70 to 130	0.508	20
AZ07343	Selenium, Total	mg/L	0.0000752	0.0044	0.10	0.104	0.103	0.104	0.085 to 0.115	104	70 to 130	1.31	20
AZ07343	Chromium, Total	mg/L	0.0000714	0.0044	0.10	0.104	0.104	0.102	0.085 to 0.115	104	70 to 130	0.231	20
AZ07343	Sodium, Total	mg/L	-0.00245	0.22	5.00	4.97	4.95	4.84	4.25 to 5.75	99.4	70 to 130	0.316	20
AZ07343	Lead, Total	mg/L	0.00000292	0.0022	0.10	0.106	0.107	0.107	0.085 to 0.115	106	70 to 130	0.741	20

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2019

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

Batch QC Summary



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWBARAPEB
 Sample Date: 20-Mar-19
 Customer ID:
 Delivery Date: 21-Mar-19

Description: Barry Ash Pond Equipment Blank

Laboratory ID Number: AZ07343

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	LCS	LCS Limit	Rec	Rec Limit	Prec	Prec Limit
AZ07341	Solids, Dissolved	mg/L	0.0000	25			299	55.0	40 to 60			1.01	5
AZ07343	Sulfate	mg/L	-0.0291	0.50	20.0	21.3	-0.023	19.5	18 to 22	106	80 to 120	0.00	20
AZ07343	Chloride	mg/L	-0.0228	0.50	10.0	10.0	0.155	9.92	9 to 11	100	80 to 120	0.00	20
AZ07343	Fluoride	mg/L	0.038	0.05	2.50	2.63	0.0411	2.52	2.25 to 2.75	105	80 to 120	0.00	20

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CC:



Abbreviation	Description
DF	Dilution Factor
LCS	Lab Control Sample
LFM	Lab Fortified Matrix
MB	Method Blank
MDL	Method Detection Limit; minimum concentration of an analyte that can be determined with 99% confidence that the concentration is greater than zero.
MS	Matrix Spike
MSD	Matrix Spike Duplicate
Prec	Precision (% RPD)
Q	Qualifier; comment used to note deviations or additional information associated with analytical results.
QC	Quality Control
Rec	Recovery of Matrix Spike
RL	Reporting Limit; lowest concentration at which an analyte can be quantitatively measured.
Vio Spec	Violation Specification; regulatory limit which has been exceeded by the sample analyzed.

Qualifier	Description
B	Analyte found in reagent blank. Indicates possible reagent or background contamination.
BA	Analyte found in reagent blank is = RL AND is > 1/10 the amount of the sample.
C	Analyte was verified by re-analysis.
D	All samples were stored at less than or equal to 6 °C and for no longer than 48 hours from time of sampling, unless otherwise noted.
E	Estimated reported value exceeded calibration range.
F	Water Field Group (WFG) qualifier; see comments for more information
FA	Field results were reviewed by the Water Field Group.
H	The holding time for this test is immediately following sample collection. The samples were analyzed as soon as possible after receipt by the laboratory.
J	Reported value is an estimate because concentration is less than reporting limit.
K	No MB or LCS were submitted with the sample for dissolved analysis.
L	Check standard is outside of specification limit.
LA	Analyte recovery in the check standard was above specification limit. Results may be biased high.
LL	Analyte recovery in the check standard was below specification limit. Results may be biased low.
M	LOQ verification analyzed with batch was outside of specification limit.
N	Organic constituents tentatively identified. Confirmation is needed.
P	Precision is out of specification limit.
R	Matrix spike recovery or matrix spike duplicate recovery is outside of specification limit.
RA	Matrix spike is invalid due to sample concentration.
S	Surrogate recovery is outside of specification limit.
T	Sample temperature is outside of specification limit.
U	Compound was analyzed, but not detected.



Chain of Custody Groundwater

APC General Testing Laboratory

Field Complete
 Lab Complete

Outside Lab

Lab ETA 03/21/2019 12:00

Requested Complete Date	Routine	Results To	Dustin Brooks, Greg Dyer, Lauren Parker
Site Representative	Tamala Davis	Requested By	Lauren Parker
Collector	Anthony Goggins	Location	Barry Ash Pond

Bottles	1	Metals	500 mL	3	TDS	500 mL	5	Anions	250 mL	7	N/A	N/A
	2	Hg	250 mL	4	Dissolved Meta	500 mL	6	Alkalinity	250 mL	8	N/A	N/A

Comments

Sample #	Date	Time	Bottle Count	Description	Lab Filter	Lab Id
FB-1	3/20/19	16:00	5	Field Blank		AZ07340
MW-18H	03/20/2019	16:10	6	Groundwater		AZ07341
MW-18HDUP	03/20/2019	16:10	6	Sample Duplicate		AZ07342
EB-1	03/20/2019	16:30	5	Equipment Blank		AZ07343

Relinquished By	Received By	Date/Time
		03/21/2019 13:33

SmarTroll ID	4696-23443-3-2	All metals and radiological bottles have pH < 2	<input checked="" type="checkbox"/>
Turbidity ID	5160-26211-1-1	Cooler Temp	0.3 degrees C
Sample Event	1200	Thermometer ID	5408-27568-2-2
		pH Strip ID	7260-39349-1-1



Chain of Custody
Groundwater
APC General Testing Laboratory

Field Complete
 Lab Complete

Outside Lab

Lab ETA **01/09/2019 17:00**

Requested Complete Date	Routine	Results To	Dustin Brooks,Greg Dyer,Lauren Parker
Site Representative	Tamala Davis	Requested By	Lauren Parker
Collector	Nick Pitts	Location	Barry Ash Pond

Bottles	1 Radium	1 L	3 N/A	N/A	5 N/A	N/A	7 N/A	N/A
	2 N/A	N/A	4 N/A	N/A	6 N/A	N/A	8 N/A	N/A

Comments Relinquished to secured locked shipping lab at 1700 on 1/9/19. Radium Duplicate on MW-1V. Received in secured shipping lab. LBM 1/10/19 Anions will be run in-house due to TNI Accreditation, LBM 1/11/19

Sample #	Date	Time	Bottle Count	Description	Lab Filter	Lab Id
MW-5V	1/8/19	09:55	1	Groundwater		AZ00786
FB-1	01/08/2019	13:15	1	Field Blank		AZ00787
MW-1V	01/08/2019	11:10	3	Groundwater		AZ00788
MW-24H	01/08/2019	12:53	1	Groundwater		AZ00789
MW-12V	01/08/2019	14:40	1	Groundwater		AZ00790
MW-12V Dup	01/08/2019	14:40	1	Sample Duplicate		AZ00791
MW-10V	01/08/2019	16:25	1	Groundwater		AZ00792
MW-8V	01/09/2019	09:25	1	Groundwater		AZ00793
MW-7V	01/09/2019	10:30	1	Groundwater		AZ00794
EB-1	01/09/2019	10:55	1	Equipment Blank		AZ00795

Relinquished By	Received By	Date/Time
	Laura Midkiff <small>Digitally signed by Laura Midkiff, cn=Laura Midkiff, ou=Alabama Power Company, ou=Environmental Affairs, email=lmidkiff@southernco.com, c=US Date: 2019.01.10 07:31:15 -06'00'</small>	01/10/2019 07:31

SmarTroll ID	7151-38850-2-2	All metals and radiological bottles have pH < 2 <input checked="" type="checkbox"/>
Turbidity ID	3901-20009-2-1	
Sample Event	1200	
Cooler Temp	0.6 degrees C	
Thermometer ID	5408-27568-2-2	
pH Strip ID	7114-38608-1-1	



Chain of Custody

Groundwater

APC General Testing Laboratory

Field Complete
 Lab Complete

Outside Lab

Lab ETA 03/21/2019 12:00

Requested Complete Date	Routine	Results To	Dustin Brooks, Greg Dyer, Lauren Parker
Site Representative	Tamala Davis	Requested By	Lauren Parker
Collector	Anthony Goggins	Location	Barry Ash Pond

Bottles	1	Radium	1 L	3	N/A	N/A	5	N/A	N/A	7	N/A	N/A
	2	N/A	N/A	4	N/A	N/A	6	N/A	N/A	8	N/A	N/A

Comments	Radium Duplicate collected at MW-18H
----------	--------------------------------------

Sample #	Date	Time	Bottle Count	Description	Lab Filter	Lab Id
FB-1	3/20/19	16:00	1	Field Blank		AZ07344
MW-18H	03/20/2019	16:10	3	Groundwater		AZ07345
MW-18HDUP	03/20/2019	16:10	1	Sample Duplicate		AZ07346
EB-1	03/20/2019	16:30	1	Equipment Blank		AZ07347

Relinquished By	Received By	Date/Time
		03/21/2019 13:33

SmarTroll ID	4696-23443-3-2
Turbidity ID	5160-26211-1-1
Sample Event	1200

All metals and radiological bottles have pH < 2

Cooler Temp	N/A
Thermometer ID	N/A
pH Strip ID	7260-39349-1-1

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Pensacola

3355 McLemore Drive

Pensacola, FL 32514

Tel: (850)474-1001

TestAmerica Job ID: 400-164717-1

TestAmerica Sample Delivery Group: Barry Ash Pond 1200

Client Project/Site: CCR Plant Barry

For:

Alabama Power General Test Laboratory

744 County Rd 87

GSC #8

Calera, Alabama 35040

Attn: Laura Midkiff



Authorized for release by:

2/8/2019 6:22:59 PM

Cheyenne Whitmire, Project Manager II

(850)471-6222

cheyenne.whitmire@testamericainc.com

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The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Case Narrative

Client: Alabama Power General Test Laboratory
Project/Site: CCR Plant Barry

TestAmerica Job ID: 400-164717-1
SDG: Barry Ash Pond 1200

Job ID: 400-164717-1

Laboratory: TestAmerica Pensacola

Narrative

Job Narrative 400-164717-1

RAD

Method(s) PrecSep_0: Radium 228 Prep Batch 160-410898: Sample 440-229696-2 aliquot reduced due to potential matrix interference. Sample contains a strong odor, floating particulates, and is opaque. Samples 400-164716 (1-6) and 400-164717(1-10) aliquots reduced due to limited sample aliquot. AZ00786 MW-5V (400-164717-1), AZ00787 FB-1 (400-164717-2), AZ00788 MW-1V (400-164717-3), AZ00788 MW-1V (400-164717-3[DU]), AZ00789 MW-24H (400-164717-4), AZ00790 MW-12V (400-164717-5), AZ00791 MW-12V DUP (400-164717-6), AZ00792 MW-10V (400-164717-7), AZ00793 MW-8V (400-164717-8), AZ00794 MW-7V (400-164717-9) and AZ00795 EB-1 (400-164717-10)

Method(s) PrecSep-21: Radium 226 Prep Batch 160-410879: Sample 440-229696-2 aliquot reduced due to potential matrix interference. Sample contains a strong odor, floating particulates, and is opaque. Samples 400-164716 (1-6) and 400-164717(1-10) aliquots reduced due to limited sample aliquot. AZ00786 MW-5V (400-164717-1), AZ00787 FB-1 (400-164717-2), AZ00788 MW-1V (400-164717-3), AZ00788 MW-1V (400-164717-3[DU]), AZ00789 MW-24H (400-164717-4), AZ00790 MW-12V (400-164717-5), AZ00791 MW-12V DUP (400-164717-6), AZ00792 MW-10V (400-164717-7), AZ00793 MW-8V (400-164717-8), AZ00794 MW-7V (400-164717-9) and AZ00795 EB-1 (400-164717-10)



Method Summary

Client: Alabama Power General Test Laboratory
Project/Site: CCR Plant Barry

TestAmerica Job ID: 400-164717-1
SDG: Barry Ash Pond 1200

Method	Method Description	Protocol	Laboratory
9315	Radium-226 (GFPC)	SW846	TAL SL
9320	Radium-228 (GFPC)	SW846	TAL SL
Ra226_Ra228	Combined Radium-226 and Radium-228	TAL-STL	TAL SL
PrecSep_0	Preparation, Precipitate Separation	None	TAL SL
PrecSep-21	Preparation, Precipitate Separation (21-Day In-Growth)	None	TAL SL

Protocol References:

None = None

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

TAL-STL = TestAmerica Laboratories, St. Louis, Facility Standard Operating Procedure.

Laboratory References:

TAL SL = TestAmerica St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

Sample Summary

Client: Alabama Power General Test Laboratory
Project/Site: CCR Plant Barry

TestAmerica Job ID: 400-164717-1
SDG: Barry Ash Pond 1200

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-164717-1	AZ00786 MW-5V	Water	01/08/19 09:55	01/14/19 16:10
400-164717-2	AZ00787 FB-1	Water	01/08/19 13:15	01/14/19 16:10
400-164717-3	AZ00788 MW-1V	Water	01/08/19 11:10	01/14/19 16:10
400-164717-4	AZ00789 MW-24H	Water	01/08/19 12:53	01/14/19 16:10
400-164717-5	AZ00790 MW-12V	Water	01/08/19 14:40	01/14/19 16:10
400-164717-6	AZ00791 MW-12V DUP	Water	01/08/19 14:40	01/14/19 16:10
400-164717-7	AZ00792 MW-10V	Water	01/08/19 16:25	01/14/19 16:10
400-164717-8	AZ00793 MW-8V	Water	01/09/19 09:25	01/14/19 16:10
400-164717-9	AZ00794 MW-7V	Water	01/09/19 10:30	01/14/19 16:10
400-164717-10	AZ00795 EB-1	Water	01/09/19 10:55	01/14/19 16:10

Client Sample Results

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Barry

TestAmerica Job ID: 400-164717-1
 SDG: Barry Ash Pond 1200

Client Sample ID: AZ00786 MW-5V

Lab Sample ID: 400-164717-1

Date Collected: 01/08/19 09:55

Matrix: Water

Date Received: 01/14/19 16:10

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.175		0.0930	0.0943	1.00	0.113	pCi/L	01/16/19 10:31	02/07/19 05:59	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	101		40 - 110					01/16/19 10:31	02/07/19 05:59	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.123	U	0.344	0.344	1.00	0.592	pCi/L	01/16/19 12:15	01/24/19 09:53	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	101		40 - 110					01/16/19 12:15	01/24/19 09:53	1
Y Carrier	79.3		40 - 110					01/16/19 12:15	01/24/19 09:53	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.298	U	0.356	0.357	5.00	0.592	pCi/L		02/07/19 19:05	1

Client Sample Results

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Barry

TestAmerica Job ID: 400-164717-1
 SDG: Barry Ash Pond 1200

Client Sample ID: AZ00787 FB-1

Lab Sample ID: 400-164717-2

Date Collected: 01/08/19 13:15

Matrix: Water

Date Received: 01/14/19 16:10

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0397	U	0.0602	0.0603	1.00	0.104	pCi/L	01/16/19 10:31	02/07/19 06:00	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	106		40 - 110					01/16/19 10:31	02/07/19 06:00	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.516		0.310	0.313	1.00	0.472	pCi/L	01/16/19 12:15	01/24/19 09:53	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	106		40 - 110					01/16/19 12:15	01/24/19 09:53	1
Y Carrier	83.0		40 - 110					01/16/19 12:15	01/24/19 09:53	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.556		0.316	0.319	5.00	0.472	pCi/L		02/07/19 19:05	1

Client Sample Results

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Barry

TestAmerica Job ID: 400-164717-1
 SDG: Barry Ash Pond 1200

Client Sample ID: AZ00788 MW-1V

Lab Sample ID: 400-164717-3

Date Collected: 01/08/19 11:10

Matrix: Water

Date Received: 01/14/19 16:10

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.348		0.122	0.125	1.00	0.113	pCi/L	01/16/19 10:31	02/07/19 06:00	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	97.3		40 - 110					01/16/19 10:31	02/07/19 06:00	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.711		0.377	0.383	1.00	0.567	pCi/L	01/16/19 12:15	01/24/19 09:53	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	97.3		40 - 110					01/16/19 12:15	01/24/19 09:53	1
Y Carrier	79.3		40 - 110					01/16/19 12:15	01/24/19 09:53	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	1.06		0.396	0.403	5.00	0.567	pCi/L		02/07/19 19:05	1

Client Sample Results

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Barry

TestAmerica Job ID: 400-164717-1
 SDG: Barry Ash Pond 1200

Client Sample ID: AZ00789 MW-24H

Lab Sample ID: 400-164717-4

Date Collected: 01/08/19 12:53

Matrix: Water

Date Received: 01/14/19 16:10

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.750		0.165	0.178	1.00	0.111	pCi/L	01/16/19 10:31	02/07/19 06:02	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	101		40 - 110					01/16/19 10:31	02/07/19 06:02	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.743		0.362	0.369	1.00	0.535	pCi/L	01/16/19 12:15	01/24/19 09:54	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	101		40 - 110					01/16/19 12:15	01/24/19 09:54	1
Y Carrier	80.7		40 - 110					01/16/19 12:15	01/24/19 09:54	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	1.49		0.398	0.410	5.00	0.535	pCi/L		02/07/19 19:05	1

Client Sample Results

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Barry

TestAmerica Job ID: 400-164717-1
 SDG: Barry Ash Pond 1200

Client Sample ID: AZ00790 MW-12V

Lab Sample ID: 400-164717-5

Date Collected: 01/08/19 14:40

Matrix: Water

Date Received: 01/14/19 16:10

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.503		0.139	0.146	1.00	0.113	pCi/L	01/16/19 10:31	02/07/19 06:02	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	104		40 - 110					01/16/19 10:31	02/07/19 06:02	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.539		0.331	0.335	1.00	0.505	pCi/L	01/16/19 12:15	01/24/19 09:54	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	104		40 - 110					01/16/19 12:15	01/24/19 09:54	1
Y Carrier	76.6		40 - 110					01/16/19 12:15	01/24/19 09:54	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	1.04		0.359	0.365	5.00	0.505	pCi/L		02/07/19 19:05	1

Client Sample Results

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Barry

TestAmerica Job ID: 400-164717-1
 SDG: Barry Ash Pond 1200

Client Sample ID: AZ00791 MW-12V DUP

Lab Sample ID: 400-164717-6

Date Collected: 01/08/19 14:40

Matrix: Water

Date Received: 01/14/19 16:10

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.566		0.147	0.155	1.00	0.108	pCi/L	01/16/19 10:31	02/07/19 06:02	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	98.8		40 - 110					01/16/19 10:31	02/07/19 06:02	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.616		0.333	0.337	1.00	0.493	pCi/L	01/16/19 12:15	01/24/19 09:54	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	98.8		40 - 110					01/16/19 12:15	01/24/19 09:54	1
Y Carrier	77.8		40 - 110					01/16/19 12:15	01/24/19 09:54	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	1.18		0.364	0.371	5.00	0.493	pCi/L		02/07/19 19:05	1

Client Sample Results

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Barry

TestAmerica Job ID: 400-164717-1
 SDG: Barry Ash Pond 1200

Client Sample ID: AZ00792 MW-10V

Lab Sample ID: 400-164717-7

Date Collected: 01/08/19 16:25

Matrix: Water

Date Received: 01/14/19 16:10

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.393		0.122	0.127	1.00	0.0985	pCi/L	01/16/19 10:31	02/07/19 06:02	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	99.1		40 - 110					01/16/19 10:31	02/07/19 06:02	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.956		0.351	0.362	1.00	0.469	pCi/L	01/16/19 12:15	01/24/19 09:54	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	99.1		40 - 110					01/16/19 12:15	01/24/19 09:54	1
Y Carrier	77.0		40 - 110					01/16/19 12:15	01/24/19 09:54	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	1.35		0.372	0.384	5.00	0.469	pCi/L		02/07/19 19:05	1

Client Sample Results

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Barry

TestAmerica Job ID: 400-164717-1
 SDG: Barry Ash Pond 1200

Client Sample ID: AZ00793 MW-8V

Lab Sample ID: 400-164717-8

Date Collected: 01/09/19 09:25

Matrix: Water

Date Received: 01/14/19 16:10

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.753		0.161	0.174	1.00	0.0811	pCi/L	01/16/19 10:31	02/07/19 06:02	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	101		40 - 110					01/16/19 10:31	02/07/19 06:02	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.941		0.368	0.378	1.00	0.514	pCi/L	01/16/19 12:15	01/24/19 09:54	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	101		40 - 110					01/16/19 12:15	01/24/19 09:54	1
Y Carrier	78.9		40 - 110					01/16/19 12:15	01/24/19 09:54	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	1.69		0.402	0.416	5.00	0.514	pCi/L		02/07/19 19:05	1

Client Sample Results

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Barry

TestAmerica Job ID: 400-164717-1
 SDG: Barry Ash Pond 1200

Client Sample ID: AZ00794 MW-7V

Lab Sample ID: 400-164717-9

Date Collected: 01/09/19 10:30

Matrix: Water

Date Received: 01/14/19 16:10

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.105		0.0750	0.0756	1.00	0.102	pCi/L	01/16/19 10:31	02/07/19 06:03	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	102		40 - 110					01/16/19 10:31	02/07/19 06:03	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.422		0.273	0.276	1.00	0.416	pCi/L	01/16/19 12:15	01/24/19 09:54	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	102		40 - 110					01/16/19 12:15	01/24/19 09:54	1
Y Carrier	84.5		40 - 110					01/16/19 12:15	01/24/19 09:54	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.527		0.283	0.286	5.00	0.416	pCi/L		02/07/19 19:05	1

Client Sample Results

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Barry

TestAmerica Job ID: 400-164717-1
 SDG: Barry Ash Pond 1200

Client Sample ID: AZ00795 EB-1

Lab Sample ID: 400-164717-10

Date Collected: 01/09/19 10:55

Matrix: Water

Date Received: 01/14/19 16:10

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0195	U	0.0534	0.0535	1.00	0.102	pCi/L	01/16/19 10:31	02/07/19 06:03	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	103		40 - 110					01/16/19 10:31	02/07/19 06:03	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.514		0.293	0.297	1.00	0.436	pCi/L	01/16/19 12:15	01/24/19 09:55	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	103		40 - 110					01/16/19 12:15	01/24/19 09:55	1
Y Carrier	80.0		40 - 110					01/16/19 12:15	01/24/19 09:55	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.533		0.298	0.302	5.00	0.436	pCi/L		02/07/19 19:05	1

Definitions/Glossary

Client: Alabama Power General Test Laboratory
Project/Site: CCR Plant Barry

TestAmerica Job ID: 400-164717-1
SDG: Barry Ash Pond 1200

Qualifiers

Rad

Qualifier	Qualifier Description
U	Result is less than the sample detection limit.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
▫	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Lab Chronicle

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Barry

TestAmerica Job ID: 400-164717-1
 SDG: Barry Ash Pond 1200

Client Sample ID: AZ00786 MW-5V

Lab Sample ID: 400-164717-1

Date Collected: 01/08/19 09:55

Matrix: Water

Date Received: 01/14/19 16:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			410879	01/16/19 10:31	SJC	TAL SL
Total/NA	Analysis	9315		1	413931	02/07/19 05:59	CDR	TAL SL
Total/NA	Prep	PrecSep_0			410898	01/16/19 12:15	SJC	TAL SL
Total/NA	Analysis	9320		1	412023	01/24/19 09:53	KLS	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	414062	02/07/19 19:05	CDR	TAL SL

Client Sample ID: AZ00787 FB-1

Lab Sample ID: 400-164717-2

Date Collected: 01/08/19 13:15

Matrix: Water

Date Received: 01/14/19 16:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			410879	01/16/19 10:31	SJC	TAL SL
Total/NA	Analysis	9315		1	413931	02/07/19 06:00	CDR	TAL SL
Total/NA	Prep	PrecSep_0			410898	01/16/19 12:15	SJC	TAL SL
Total/NA	Analysis	9320		1	412023	01/24/19 09:53	KLS	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	414062	02/07/19 19:05	CDR	TAL SL

Client Sample ID: AZ00788 MW-1V

Lab Sample ID: 400-164717-3

Date Collected: 01/08/19 11:10

Matrix: Water

Date Received: 01/14/19 16:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			410879	01/16/19 10:31	SJC	TAL SL
Total/NA	Analysis	9315		1	413931	02/07/19 06:00	CDR	TAL SL
Total/NA	Prep	PrecSep_0			410898	01/16/19 12:15	SJC	TAL SL
Total/NA	Analysis	9320		1	412023	01/24/19 09:53	KLS	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	414062	02/07/19 19:05	CDR	TAL SL

Client Sample ID: AZ00789 MW-24H

Lab Sample ID: 400-164717-4

Date Collected: 01/08/19 12:53

Matrix: Water

Date Received: 01/14/19 16:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			410879	01/16/19 10:31	SJC	TAL SL
Total/NA	Analysis	9315		1	413931	02/07/19 06:02	CDR	TAL SL
Total/NA	Prep	PrecSep_0			410898	01/16/19 12:15	SJC	TAL SL
Total/NA	Analysis	9320		1	412023	01/24/19 09:54	KLS	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	414062	02/07/19 19:05	CDR	TAL SL

Lab Chronicle

Client: Alabama Power General Test Laboratory
Project/Site: CCR Plant Barry

TestAmerica Job ID: 400-164717-1
SDG: Barry Ash Pond 1200

Client Sample ID: AZ00790 MW-12V

Lab Sample ID: 400-164717-5

Date Collected: 01/08/19 14:40

Matrix: Water

Date Received: 01/14/19 16:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			410879	01/16/19 10:31	SJC	TAL SL
Total/NA	Analysis	9315		1	413931	02/07/19 06:02	CDR	TAL SL
Total/NA	Prep	PrecSep_0			410898	01/16/19 12:15	SJC	TAL SL
Total/NA	Analysis	9320		1	412023	01/24/19 09:54	KLS	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	414062	02/07/19 19:05	CDR	TAL SL

Client Sample ID: AZ00791 MW-12V DUP

Lab Sample ID: 400-164717-6

Date Collected: 01/08/19 14:40

Matrix: Water

Date Received: 01/14/19 16:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			410879	01/16/19 10:31	SJC	TAL SL
Total/NA	Analysis	9315		1	413931	02/07/19 06:02	CDR	TAL SL
Total/NA	Prep	PrecSep_0			410898	01/16/19 12:15	SJC	TAL SL
Total/NA	Analysis	9320		1	412023	01/24/19 09:54	KLS	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	414062	02/07/19 19:05	CDR	TAL SL

Client Sample ID: AZ00792 MW-10V

Lab Sample ID: 400-164717-7

Date Collected: 01/08/19 16:25

Matrix: Water

Date Received: 01/14/19 16:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			410879	01/16/19 10:31	SJC	TAL SL
Total/NA	Analysis	9315		1	413930	02/07/19 06:02	CDR	TAL SL
Total/NA	Prep	PrecSep_0			410898	01/16/19 12:15	SJC	TAL SL
Total/NA	Analysis	9320		1	412023	01/24/19 09:54	KLS	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	414062	02/07/19 19:05	CDR	TAL SL

Client Sample ID: AZ00793 MW-8V

Lab Sample ID: 400-164717-8

Date Collected: 01/09/19 09:25

Matrix: Water

Date Received: 01/14/19 16:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			410879	01/16/19 10:31	SJC	TAL SL
Total/NA	Analysis	9315		1	413930	02/07/19 06:02	CDR	TAL SL
Total/NA	Prep	PrecSep_0			410898	01/16/19 12:15	SJC	TAL SL
Total/NA	Analysis	9320		1	412023	01/24/19 09:54	KLS	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	414062	02/07/19 19:05	CDR	TAL SL

Lab Chronicle

Client: Alabama Power General Test Laboratory
Project/Site: CCR Plant Barry

TestAmerica Job ID: 400-164717-1
SDG: Barry Ash Pond 1200

Client Sample ID: AZ00794 MW-7V

Lab Sample ID: 400-164717-9

Date Collected: 01/09/19 10:30

Matrix: Water

Date Received: 01/14/19 16:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			410879	01/16/19 10:31	SJC	TAL SL
Total/NA	Analysis	9315		1	413930	02/07/19 06:03	CDR	TAL SL
Total/NA	Prep	PrecSep_0			410898	01/16/19 12:15	SJC	TAL SL
Total/NA	Analysis	9320		1	412023	01/24/19 09:54	KLS	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	414062	02/07/19 19:05	CDR	TAL SL

Client Sample ID: AZ00795 EB-1

Lab Sample ID: 400-164717-10

Date Collected: 01/09/19 10:55

Matrix: Water

Date Received: 01/14/19 16:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			410879	01/16/19 10:31	SJC	TAL SL
Total/NA	Analysis	9315		1	413930	02/07/19 06:03	CDR	TAL SL
Total/NA	Prep	PrecSep_0			410898	01/16/19 12:15	SJC	TAL SL
Total/NA	Analysis	9320		1	412023	01/24/19 09:55	KLS	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	414062	02/07/19 19:05	CDR	TAL SL

Laboratory References:

TAL SL = TestAmerica St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

QC Association Summary

Client: Alabama Power General Test Laboratory
Project/Site: CCR Plant Barry

TestAmerica Job ID: 400-164717-1
SDG: Barry Ash Pond 1200

Rad

Prep Batch: 410879

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-164717-1	AZ00786 MW-5V	Total/NA	Water	PrecSep-21	
400-164717-2	AZ00787 FB-1	Total/NA	Water	PrecSep-21	
400-164717-3	AZ00788 MW-1V	Total/NA	Water	PrecSep-21	
400-164717-4	AZ00789 MW-24H	Total/NA	Water	PrecSep-21	
400-164717-5	AZ00790 MW-12V	Total/NA	Water	PrecSep-21	
400-164717-6	AZ00791 MW-12V DUP	Total/NA	Water	PrecSep-21	
400-164717-7	AZ00792 MW-10V	Total/NA	Water	PrecSep-21	
400-164717-8	AZ00793 MW-8V	Total/NA	Water	PrecSep-21	
400-164717-9	AZ00794 MW-7V	Total/NA	Water	PrecSep-21	
400-164717-10	AZ00795 EB-1	Total/NA	Water	PrecSep-21	
MB 160-410879/22-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-410879/1-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
400-164717-3 DU	AZ00788 MW-1V	Total/NA	Water	PrecSep-21	

Prep Batch: 410898

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-164717-1	AZ00786 MW-5V	Total/NA	Water	PrecSep_0	
400-164717-2	AZ00787 FB-1	Total/NA	Water	PrecSep_0	
400-164717-3	AZ00788 MW-1V	Total/NA	Water	PrecSep_0	
400-164717-4	AZ00789 MW-24H	Total/NA	Water	PrecSep_0	
400-164717-5	AZ00790 MW-12V	Total/NA	Water	PrecSep_0	
400-164717-6	AZ00791 MW-12V DUP	Total/NA	Water	PrecSep_0	
400-164717-7	AZ00792 MW-10V	Total/NA	Water	PrecSep_0	
400-164717-8	AZ00793 MW-8V	Total/NA	Water	PrecSep_0	
400-164717-9	AZ00794 MW-7V	Total/NA	Water	PrecSep_0	
400-164717-10	AZ00795 EB-1	Total/NA	Water	PrecSep_0	
MB 160-410898/22-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-410898/1-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
400-164717-3 DU	AZ00788 MW-1V	Total/NA	Water	PrecSep_0	

QC Sample Results

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Barry

TestAmerica Job ID: 400-164717-1
 SDG: Barry Ash Pond 1200

Method: 9315 - Radium-226 (GFPC)

Lab Sample ID: MB 160-410879/22-A
Matrix: Water
Analysis Batch: 413930

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 410879

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.06715	U	0.0692	0.0694	1.00	0.107	pCi/L	01/16/19 10:31	02/07/19 06:03	1
Carrier	MB %Yield	MB Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	90.3		40 - 110					01/16/19 10:31	02/07/19 06:03	1

Lab Sample ID: LCS 160-410879/1-A
Matrix: Water
Analysis Batch: 413931

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 410879

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits
Radium-226	15.1	16.22		1.63	1.00	0.0979	pCi/L	107	68 - 137
Carrier	LCS %Yield	LCS Qualifier	Limits						
Ba Carrier	103		40 - 110						

Lab Sample ID: 400-164717-3 DU
Matrix: Water
Analysis Batch: 413931

Client Sample ID: AZ00788 MW-1V
Prep Type: Total/NA
Prep Batch: 410879

Analyte	Sample Result	Sample Qual	DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	RER	RER Limit
Radium-226	0.348		0.2553		0.106	1.00	0.102	pCi/L	0.40	1
Carrier	DU %Yield	DU Qualifier	Limits							
Ba Carrier	101		40 - 110							

Method: 9320 - Radium-228 (GFPC)

Lab Sample ID: MB 160-410898/22-A
Matrix: Water
Analysis Batch: 412023

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 410898

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.2507	U	0.306	0.307	1.00	0.506	pCi/L	01/16/19 12:15	01/24/19 09:55	1
Carrier	MB %Yield	MB Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	90.3		40 - 110					01/16/19 12:15	01/24/19 09:55	1
Y Carrier	78.1		40 - 110					01/16/19 12:15	01/24/19 09:55	1

QC Sample Results

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Barry

TestAmerica Job ID: 400-164717-1
 SDG: Barry Ash Pond 1200

Method: 9320 - Radium-228 (GFPC) (Continued)

Lab Sample ID: LCS 160-410898/1-A
Matrix: Water
Analysis Batch: 412023

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 410898

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits
Radium-228	12.7	11.63		1.34	1.00	0.445	pCi/L	91	56 - 140

Carrier	LCS %Yield	LCS Qualifier	Limits
Ba Carrier	103		40 - 110
Y Carrier	84.5		40 - 110

Lab Sample ID: 400-164717-3 DU
Matrix: Water
Analysis Batch: 412023

Client Sample ID: AZ00788 MW-1V
Prep Type: Total/NA
Prep Batch: 410898

Analyte	Sample Result	Sample Qual	DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	RER	RER Limit
Radium-228	0.711		0.5603		0.360	1.00	0.547	pCi/L	0.20	1

Carrier	DU %Yield	DU Qualifier	Limits
Ba Carrier	101		40 - 110
Y Carrier	73.3		40 - 110

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Lab Sample ID: 400-164717-3 DU
Matrix: Water
Analysis Batch: 414062

Client Sample ID: AZ00788 MW-1V
Prep Type: Total/NA

Analyte	Sample Result	Sample Qual	DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	RER	RER Limit
Combined Radium 226 + 228	1.06		0.8157		0.375	5.00	0.547	pCi/L	0.31	

TestAmerica Pensacola
 3355 McLemore Drive
 Pensacola, FL 32514
 Phone (850) 474-1001 Fax (850) 478-2671

Chain of Custody Record

TestAmerica
 THE LEADER IN ENVIRONMENTAL TESTING



400-164717 COC

Client Information		Company: Alabama Power General Test Laboratory		COC No: 400-56525-24537.1	
Address: 744 County Rd 87 GSC #8		City: Calera		Page: Page 1 of 1	
State, Zip: AL, 35040		Phone: 205-684-6197(Tel)		Job #:	
Email: lbmidkiff@southernco.com		Project #: 40007143		Special Instructions/Note:	
Site: Barry Ash Pond 1200		SSOW#:		Total Number of Containers: X	
Due Date Requested:		TAT Requested (days):		Analysis Requested:	
Sample Date		Sample Time		Sample Matrix (Water, Solid, Dewatered, etc.)	
Sample Identification		Sample Type (C=Comp, G=grab)		Preservation Code:	
AZ00786	1/8/19	09:55	G	Water	1 MW-5V
AZ00787	1/8/19	13:15	G	Water	FB-1 (Field Blank)
AZ00788	1/8/19	11:10	G	Water	3 MW-1V
AZ00789	1/8/19	12:53	G	Water	1 MW-24H
AZ00790	1/8/19	14:40	G	Water	1 MW-12V
AZ00791	1/8/19	14:40	G	Water	1 MW-12V DUP (Sample Duplicate)
AZ00792	1/8/19	16:25	G	Water	1 MW-10V
AZ00793	1/9/19	09:25	G	Water	1 MW-8V
AZ00794	1/9/19	10:30	G	Water	1 MW-7V
AZ00795	1/9/19	10:55	G	Water	1 EB-1 (Equipment Blank)
Perform MS/MSD (Yes or No)		Field Filtered Sample (Yes or No)		Special Instructions/Note:	
SM 4500 F.C	N	N	D	9315 Ra226, 9320 Ra228, Ra226Ra228, GPC	
SM 4500 CLE	N	N	D		
SM 4500 SO4.E	N	N	D		
SAMPLER: Nick Pitts		Lab PW: Whitmire, Cheyenne R		Carrier Tracking Note:	
Phone:		E-Mail: Cheyenne.whitmire@testamericainc.com		Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)	
Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological <input type="checkbox"/>		Deliverable Requested: I, II, III, IV, Other (specify)		Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For: _____ Months	
Empty Kit Relinquished by:		Date:		Method of Shipment:	
Relinquished by: Laura Midkiff		07/10/2019 10:30AM		Received by: [Signature]	
Relinquished by:		Date/Time:		Date/Time:	
Relinquished by:		Date/Time:		Date/Time:	
Custody Seal Intact: A Yes A No		Custody Seal No. 1517°C JLR 8		Cooler Temperature (°C and Other Parameters):	

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13

Login Sample Receipt Checklist

Client: Alabama Power General Test Laboratory

Job Number: 400-164717-1
SDG Number: Barry Ash Pond 1200

Login Number: 164717

List Number: 1

Creator: Perez, Trina M

List Source: TestAmerica Pensacola

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	N/A	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	15.7°C IR-8
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



Login Sample Receipt Checklist

Client: Alabama Power General Test Laboratory

Job Number: 400-164717-1
SDG Number: Barry Ash Pond 1200

Login Number: 164717
List Number: 2
Creator: Press, Nicholas B

List Source: TestAmerica St. Louis
List Creation: 01/15/19 03:36 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	N/A	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	19.0
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



Accreditation/Certification Summary

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Barry

TestAmerica Job ID: 400-164717-1
 SDG: Barry Ash Pond 1200

Laboratory: TestAmerica Pensacola

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	EPA Region	Identification Number	Expiration Date
Alabama	State Program	4	40150	06-30-19
ANAB	ISO/IEC 17025		L2471	02-22-20
Arizona	State Program	9	AZ0710	01-12-20
Arkansas DEQ	State Program	6	88-0689	09-01-19
California	State Program	9	2510	06-30-19
Florida	NELAP	4	E81010	06-30-19
Georgia	State Program	4	E81010 (FL)	06-30-19
Illinois	NELAP	5	200041	10-09-19
Iowa	State Program	7	367	08-01-20
Kansas	NELAP	7	E-10253	10-31-19
Kentucky (UST)	State Program	4	53	06-30-19
Kentucky (WW)	State Program	4	98030	12-31-19
Louisiana	NELAP	6	30976	06-30-19
Louisiana (DW)	NELAP	6	LA017	12-31-19
Maryland	State Program	3	233	09-30-19
Massachusetts	State Program	1	M-FL094	06-30-19
Michigan	State Program	5	9912	06-30-19
New Jersey	NELAP	2	FL006	06-30-19
North Carolina (WW/SW)	State Program	4	314	12-31-19
Oklahoma	State Program	6	9810	08-31-19
Pennsylvania	NELAP	3	68-00467	01-31-20
Rhode Island	State Program	1	LAO00307	12-30-19
South Carolina	State Program	4	96026	06-30-19
Tennessee	State Program	4	TN02907	06-30-19
Texas	NELAP	6	T104704286-18-15	09-30-19
US Fish & Wildlife	Federal		LE058448-0	07-31-19
USDA	Federal		P330-18-00148	05-17-21
Virginia	NELAP	3	460166	06-14-19
Washington	State Program	10	C915	05-15-19
West Virginia DEP	State Program	3	136	07-31-19

Laboratory: TestAmerica St. Louis

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	EPA Region	Identification Number	Expiration Date
Alaska	State Program	10	MO00054	06-30-19
ANAB	DoD ELAP		L2305	04-06-19
Arizona	State Program	9	AZ0813	12-08-19
California	State Program	9	2886	06-30-19
Connecticut	State Program	1	PH-0241	03-31-19
Florida	NELAP	4	E87689	06-30-19
Illinois	NELAP	5	200023	11-30-19
Iowa	State Program	7	373	12-01-20
Kansas	NELAP	7	E-10236	10-31-19
Kentucky (DW)	State Program	4	90125	12-31-18 *
Louisiana	NELAP	6	04080	06-30-19
Louisiana (DW)	NELAP	6	LA011	12-31-19
Maryland	State Program	3	310	09-30-19
Michigan	State Program	5	9005	06-30-19
Missouri	State Program	7	780	06-30-19

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Accreditation/Certification Summary

Client: Alabama Power General Test Laboratory
Project/Site: CCR Plant Barry

TestAmerica Job ID: 400-164717-1
SDG: Barry Ash Pond 1200

Laboratory: TestAmerica St. Louis (Continued)

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	EPA Region	Identification Number	Expiration Date
Nevada	State Program	9	MO000542018-1	07-31-19
New Jersey	NELAP	2	MO002	06-30-19
New York	NELAP	2	11616	03-31-19
North Dakota	State Program	8	R207	06-30-19
NRC	NRC		24-24817-01	12-31-22
Oklahoma	State Program	6	9997	08-31-19
Pennsylvania	NELAP	3	68-00540	02-28-19 *
South Carolina	State Program	4	85002001	06-30-19
Texas	NELAP	6	T104704193-18-12	07-31-19
US Fish & Wildlife	Federal		058448	07-31-19
USDA	Federal		P330-17-0028	02-02-20
Utah	NELAP	8	MO000542018-10	07-31-19
Virginia	NELAP	3	460230	06-14-19
Washington	State Program	10	C592	08-30-19
West Virginia DEP	State Program	3	381	08-31-19

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

ANALYTICAL REPORT

Eurofins TestAmerica, Pensacola
3355 McLemore Drive
Pensacola, FL 32514
Tel: (850)474-1001

Laboratory Job ID: 400-167771-1

Laboratory Sample Delivery Group: Barry Ash Pond 1200
Client Project/Site: CCR Plant Barry

For:

Alabama Power General Test Laboratory
744 County Rd 87
GSC #8
Calera, Alabama 35040

Attn: Laura Midkiff



Authorized for release by:
5/3/2019 11:25:55 AM

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Results relate only to the items tested and the sample(s) as received by the laboratory.



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Case Narrative

Client: Alabama Power General Test Laboratory
Project/Site: CCR Plant Barry

Job ID: 400-167771-1
SDG: Barry Ash Pond 1200

Job ID: 400-167771-1

Laboratory: Eurofins TestAmerica, Pensacola

Narrative

Job Narrative 400-167771-1

RAD

Method(s) 9315: Radium-226 Prep Batch 160-423138. Any minimum detectable concentration (MDC), critical value (DLC), or Safe Drinking Water Act detection limit (SDWA DL) is sample-specific unless otherwise stated elsewhere in this narrative. Radiochemistry sample results are reported with the count date/time applied as the Activity Reference Date. AZ07344 FB-1 (400-167771-1), AZ07345 MW-18H (400-167771-2), AZ07345 MW-18H (400-167771-2[DU]), AZ07346 MW-18H DUP (400-167771-3), AZ07347 EB-1 (400-167771-4), (LCS 160-423138/1-A) and (MB 160-423138/18-A)

Method(s) 9320: Radium-228 Prep Batch 160-423142. The Radium-228 laboratory control sample (LCS) recovery (129%) associated with the following samples is outside the upper QC limit of 125%, indicating a potential positive bias for that analyte. This analyte was not observed above the RL in the associated samples; therefore the sample data is not adversely affected by this excursion. The data have been reported with this narrative. AZ07344 FB-1 (400-167771-1), AZ07345 MW-18H (400-167771-2), AZ07345 MW-18H (400-167771-2[DU]), AZ07346 MW-18H DUP (400-167771-3), AZ07347 EB-1 (400-167771-4), (LCS 160-423142/1-A) and (MB 160-423142/18-A)

Method(s) 9320: Radium-228 Prep Batch 160-423142. Any minimum detectable concentration (MDC), critical value (DLC), or Safe Drinking Water Act detection limit (SDWA DL) is sample-specific unless otherwise stated elsewhere in this narrative. Radiochemistry sample results are reported with the count date/time applied as the Activity Reference Date. AZ07344 FB-1 (400-167771-1), AZ07345 MW-18H (400-167771-2), AZ07345 MW-18H (400-167771-2[DU]), AZ07346 MW-18H DUP (400-167771-3), AZ07347 EB-1 (400-167771-4), (LCS 160-423142/1-A) and (MB 160-423142/18-A)

Method Summary

Client: Alabama Power General Test Laboratory
Project/Site: CCR Plant Barry

Job ID: 400-167771-1
SDG: Barry Ash Pond 1200

Method	Method Description	Protocol	Laboratory
9315	Radium-226 (GFPC)	SW846	TAL SL
9320	Radium-228 (GFPC)	SW846	TAL SL
Ra226_Ra228	Combined Radium-226 and Radium-228	TAL-STL	TAL SL
PrecSep_0	Preparation, Precipitate Separation	None	TAL SL
PrecSep-21	Preparation, Precipitate Separation (21-Day In-Growth)	None	TAL SL

Protocol References:

None = None

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

TAL-STL = TestAmerica Laboratories, St. Louis, Facility Standard Operating Procedure.

Laboratory References:

TAL SL = Eurofins TestAmerica, St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

Sample Summary

Client: Alabama Power General Test Laboratory
Project/Site: CCR Plant Barry

Job ID: 400-167771-1
SDG: Barry Ash Pond 1200

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-167771-1	AZ07344 FB-1	Water	03/20/19 16:00	03/25/19 16:00
400-167771-2	AZ07345 MW-18H	Water	03/20/19 16:10	03/25/19 16:00
400-167771-3	AZ07346 MW-18H DUP	Water	03/20/19 16:10	03/25/19 16:00
400-167771-4	AZ07347 EB-1	Water	03/20/19 16:30	03/25/19 16:00

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13

Client Sample Results

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Barry

Job ID: 400-167771-1
 SDG: Barry Ash Pond 1200

Client Sample ID: AZ07344 FB-1

Lab Sample ID: 400-167771-1

Date Collected: 03/20/19 16:00

Matrix: Water

Date Received: 03/25/19 16:00

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0607	U	0.0621	0.0623	1.00	0.0979	pCi/L	04/09/19 11:22	05/01/19 21:33	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	106		40 - 110					04/09/19 11:22	05/01/19 21:33	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.146	U *	0.225	0.225	1.00	0.378	pCi/L	04/09/19 11:39	04/16/19 16:03	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	106		40 - 110					04/09/19 11:39	04/16/19 16:03	1
Y Carrier	84.1		40 - 110					04/09/19 11:39	04/16/19 16:03	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.207	U	0.233	0.233	5.00	0.378	pCi/L		05/03/19 08:27	1

Client Sample Results

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Barry

Job ID: 400-167771-1
 SDG: Barry Ash Pond 1200

Client Sample ID: AZ07345 MW-18H

Lab Sample ID: 400-167771-2

Date Collected: 03/20/19 16:10

Matrix: Water

Date Received: 03/25/19 16:00

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.243		0.0881	0.0907	1.00	0.0803	pCi/L	04/09/19 11:22	05/01/19 21:33	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	104		40 - 110					04/09/19 11:22	05/01/19 21:33	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.230	U *	0.233	0.234	1.00	0.378	pCi/L	04/09/19 11:39	04/16/19 16:03	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	104		40 - 110					04/09/19 11:39	04/16/19 16:03	1
Y Carrier	83.0		40 - 110					04/09/19 11:39	04/16/19 16:03	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.473		0.249	0.251	5.00	0.378	pCi/L		05/03/19 08:27	1

Client Sample Results

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Barry

Job ID: 400-167771-1
 SDG: Barry Ash Pond 1200

Client Sample ID: AZ07346 MW-18H DUP

Lab Sample ID: 400-167771-3

Date Collected: 03/20/19 16:10

Matrix: Water

Date Received: 03/25/19 16:00

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.325		0.110	0.114	1.00	0.117	pCi/L	04/09/19 11:22	05/01/19 21:34	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	104		40 - 110					04/09/19 11:22	05/01/19 21:34	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.363	U *	0.268	0.270	1.00	0.422	pCi/L	04/09/19 11:39	04/16/19 16:06	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	104		40 - 110					04/09/19 11:39	04/16/19 16:06	1
Y Carrier	79.6		40 - 110					04/09/19 11:39	04/16/19 16:06	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.688		0.290	0.293	5.00	0.422	pCi/L		05/03/19 08:27	1

Client Sample Results

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Barry

Job ID: 400-167771-1
 SDG: Barry Ash Pond 1200

Client Sample ID: AZ07347 EB-1

Lab Sample ID: 400-167771-4

Date Collected: 03/20/19 16:30

Matrix: Water

Date Received: 03/25/19 16:00

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0101	U	0.0348	0.0349	1.00	0.0692	pCi/L	04/09/19 11:22	05/01/19 21:37	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	104		40 - 110					04/09/19 11:22	05/01/19 21:37	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.0434	U *	0.186	0.186	1.00	0.328	pCi/L	04/09/19 11:39	04/16/19 16:06	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	104		40 - 110					04/09/19 11:39	04/16/19 16:06	1
Y Carrier	87.1		40 - 110					04/09/19 11:39	04/16/19 16:06	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.0535	U	0.189	0.189	5.00	0.328	pCi/L		05/03/19 08:27	1

Definitions/Glossary

Client: Alabama Power General Test Laboratory
Project/Site: CCR Plant Barry

Job ID: 400-167771-1
SDG: Barry Ash Pond 1200

Qualifiers

Rad

Qualifier	Qualifier Description
*	LCS or LCSD is outside acceptance limits.
U	Result is less than the sample detection limit.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
▫	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Lab Chronicle

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Barry

Job ID: 400-167771-1
 SDG: Barry Ash Pond 1200

Client Sample ID: AZ07344 FB-1

Lab Sample ID: 400-167771-1

Date Collected: 03/20/19 16:00

Matrix: Water

Date Received: 03/25/19 16:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			423138	04/09/19 11:22	JLC	TAL SL
Total/NA	Analysis	9315		1	426359	05/01/19 21:33	CDR	TAL SL
Total/NA	Prep	PrecSep_0			423142	04/09/19 11:39	JLC	TAL SL
Total/NA	Analysis	9320		1	424031	04/16/19 16:03	CDR	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	426564	05/03/19 08:27	SMP	TAL SL

Client Sample ID: AZ07345 MW-18H

Lab Sample ID: 400-167771-2

Date Collected: 03/20/19 16:10

Matrix: Water

Date Received: 03/25/19 16:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			423138	04/09/19 11:22	JLC	TAL SL
Total/NA	Analysis	9315		1	426359	05/01/19 21:33	CDR	TAL SL
Total/NA	Prep	PrecSep_0			423142	04/09/19 11:39	JLC	TAL SL
Total/NA	Analysis	9320		1	424031	04/16/19 16:03	CDR	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	426564	05/03/19 08:27	SMP	TAL SL

Client Sample ID: AZ07346 MW-18H DUP

Lab Sample ID: 400-167771-3

Date Collected: 03/20/19 16:10

Matrix: Water

Date Received: 03/25/19 16:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			423138	04/09/19 11:22	JLC	TAL SL
Total/NA	Analysis	9315		1	426359	05/01/19 21:34	CDR	TAL SL
Total/NA	Prep	PrecSep_0			423142	04/09/19 11:39	JLC	TAL SL
Total/NA	Analysis	9320		1	424032	04/16/19 16:06	CDR	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	426564	05/03/19 08:27	SMP	TAL SL

Client Sample ID: AZ07347 EB-1

Lab Sample ID: 400-167771-4

Date Collected: 03/20/19 16:30

Matrix: Water

Date Received: 03/25/19 16:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			423138	04/09/19 11:22	JLC	TAL SL
Total/NA	Analysis	9315		1	426332	05/01/19 21:37	CDR	TAL SL
Total/NA	Prep	PrecSep_0			423142	04/09/19 11:39	JLC	TAL SL
Total/NA	Analysis	9320		1	424032	04/16/19 16:06	CDR	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	426564	05/03/19 08:27	SMP	TAL SL

Laboratory References:

TAL SL = Eurofins TestAmerica, St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

QC Association Summary

Client: Alabama Power General Test Laboratory
Project/Site: CCR Plant Barry

Job ID: 400-167771-1
SDG: Barry Ash Pond 1200

Rad

Prep Batch: 423138

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-167771-1	AZ07344 FB-1	Total/NA	Water	PrecSep-21	
400-167771-2	AZ07345 MW-18H	Total/NA	Water	PrecSep-21	
400-167771-3	AZ07346 MW-18H DUP	Total/NA	Water	PrecSep-21	
400-167771-4	AZ07347 EB-1	Total/NA	Water	PrecSep-21	
MB 160-423138/18-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-423138/1-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
400-167771-2 DU	AZ07345 MW-18H	Total/NA	Water	PrecSep-21	

Prep Batch: 423142

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-167771-1	AZ07344 FB-1	Total/NA	Water	PrecSep_0	
400-167771-2	AZ07345 MW-18H	Total/NA	Water	PrecSep_0	
400-167771-3	AZ07346 MW-18H DUP	Total/NA	Water	PrecSep_0	
400-167771-4	AZ07347 EB-1	Total/NA	Water	PrecSep_0	
MB 160-423142/18-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-423142/1-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
400-167771-2 DU	AZ07345 MW-18H	Total/NA	Water	PrecSep_0	

QC Sample Results

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Barry

Job ID: 400-167771-1
 SDG: Barry Ash Pond 1200

Method: 9315 - Radium-226 (GFPC)

Lab Sample ID: MB 160-423138/18-A
Matrix: Water
Analysis Batch: 426331

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 423138

Analyte	MB MB		Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
	Result	Qualifier	Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Radium-226	0.01499	U	0.0315	0.0315	1.00	0.0590	pCi/L	04/09/19 11:22	05/01/19 23:48	1
Carrier	MB MB		Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	%Yield	Qualifier	40 - 110					04/09/19 11:22	05/01/19 23:48	1
	108									

Lab Sample ID: LCS 160-423138/1-A
Matrix: Water
Analysis Batch: 426331

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 423138

Analyte	Spike Added	LCS Result	LCS Qual	Total	RL	MDC	Unit	%Rec	%Rec. Limits
				Uncert. (2σ+/-)					
Radium-226	11.4	8.462		0.918	1.00	0.0958	pCi/L	75	75 - 125
Carrier	LCS %Yield	LCS Qualifier	Limits						
Ba Carrier	74.3		40 - 110						

Lab Sample ID: 400-167771-2 DU
Matrix: Water
Analysis Batch: 426359

Client Sample ID: AZ07345 MW-18H
Prep Type: Total/NA
Prep Batch: 423138

Analyte	Sample Sample		DU	DU	Total	RL	MDC	Unit	RER	RER Limit
	Result	Qual	Result	Qual	Uncert. (2σ+/-)					
Radium-226	0.243		0.2803		0.0974	1.00	0.0838	pCi/L	0.20	1
Carrier	DU %Yield	DU Qualifier	Limits							
Ba Carrier	99.4		40 - 110							

Method: 9320 - Radium-228 (GFPC)

Lab Sample ID: MB 160-423142/18-A
Matrix: Water
Analysis Batch: 424048

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 423142

Analyte	MB MB		Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
	Result	Qualifier	Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Radium-228	0.1947	U	0.226	0.227	1.00	0.372	pCi/L	04/09/19 11:39	04/16/19 16:05	1
Carrier	MB MB		Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	%Yield	Qualifier	40 - 110					04/09/19 11:39	04/16/19 16:05	1
Y Carrier	81.9		40 - 110					04/09/19 11:39	04/16/19 16:05	1

QC Sample Results

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Barry

Job ID: 400-167771-1
 SDG: Barry Ash Pond 1200

Method: 9320 - Radium-228 (GFPC) (Continued)

Lab Sample ID: LCS 160-423142/1-A
Matrix: Water
Analysis Batch: 424031

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 423142

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits
Radium-228	9.29	11.96	*	1.42	1.00	0.540	pCi/L	129	75 - 125

Carrier	LCS %Yield	LCS Qualifier	Limits
Ba Carrier	74.3		40 - 110
Y Carrier	81.1		40 - 110

Lab Sample ID: 400-167771-2 DU
Matrix: Water
Analysis Batch: 424032

Client Sample ID: AZ07345 MW-18H
Prep Type: Total/NA
Prep Batch: 423142

Analyte	Sample Result	Sample Qual	DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	RER	RER Limit
Radium-228	0.230	U *	0.4222	U *	0.278	1.00	0.424	pCi/L	0.38	1

Carrier	DU %Yield	DU Qualifier	Limits
Ba Carrier	99.4		40 - 110
Y Carrier	80.4		40 - 110

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Lab Sample ID: 400-167771-2 DU
Matrix: Water
Analysis Batch: 426564

Client Sample ID: AZ07345 MW-18H
Prep Type: Total/NA

Analyte	Sample Result	Sample Qual	DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	RER	RER Limit
Combined Radium 226 + 228	0.473		0.7025		0.295	5.00	0.424	pCi/L	0.42	

TestAmerica Pensacola
 3355 McLemore Drive
 Pensacola, FL 32514
 Phone (850) 474-1001 Fax (850) 478-2671

Chain of Custody Record

TestAmerica
 THE SCIENCE OF ENVIRONMENTAL TESTING

Client Information Client Contact: Laura Midkiff Company: Alabama Power General Test Laboratory Address: 744 County Rd 87, GSC #8 City: Calera State, Zip: AL, 35040 Phone: 205-664-6197 (Tel) Email: lbmidkiff@southernco.com Project Name: CCR Site: Barry Ash Pond 1200		Sampler: Anthony Goggins Phone: _____ Lab PM: Whitmore, Cheyenne R E-Mail: cheyenne.whitmore@testamericainc.com		Carrier Tracking Note(s) COC No: 400-56525-24637.1 Page: Page 1 of 1 Job #:											
Due Date Requested: TAT Requested (days): PO #: WO #: Project #: CCR #: SSON #:		Analysis Requested Perform MS/MSD (Yes or No) <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Field Filtered Sample (Yes or No) <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Total Number of Containers: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Special Instructions/Note: 400-167771 COC [QR Code]													
Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (Water, Solid, BTF-Tissue, A&U)	Preservation Code:	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	SM 4500 F.C	SM 4500 C.E	SM 4500 S.O. ₄ , E	N	D	9315, Ra226, 9320, Ra228, Ra228Ra228, G.FPC	Total Number of Containers	Special Instructions/Note:
AZ07344	3/20/19	16:00	G	Water		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>							1	FB-1 (Field Blank)
AZ07345	3/20/19	16:10	G	Water		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>							3	MMW-18H
AZ07346	3/20/19	16:10	G	Water		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>							1	MMW-18H DUP (Sample Duplicate)
AZ07347	3/20/19	16:30	G	Water		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>							1	EB-1 (Equipment Blank)
						<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>							1	
						<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>							1	
						<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>							1	
						<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>							1	
<input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological Deliverable Requested I, II, III, IV, Other (specify) _____															
Empty Kit Relinquished by: Relinquished by: Laura Midkiff Date/Time: 3/22/2019 7:30 Relinquished by: _____ Date/Time: _____ Relinquished by: _____ Date/Time: _____															
Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months Special Instructions/QC Requirements: _____															
Method of Shipment: Date/Time: 3/25/19 16:00 Company: [Signature] Date/Time: _____ Company: _____ Date/Time: _____ Company: _____ Cooler Temperature(s) °C and Other Remarks: 21.0 °C TMS															
Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Custody Seal No.: _____															

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13

Login Sample Receipt Checklist

Client: Alabama Power General Test Laboratory

Job Number: 400-167771-1
SDG Number: Barry Ash Pond 1200

Login Number: 167771

List Number: 1

Creator: Perez, Trina M

List Source: Eurofins TestAmerica, Pensacola

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	N/A	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	21.6°C IR-8
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: Alabama Power General Test Laboratory

Job Number: 400-167771-1
SDG Number: Barry Ash Pond 1200

Login Number: 167771
List Number: 2
Creator: Hellm, Michael

List Source: Eurofins TestAmerica, St. Louis
List Creation: 03/28/19 08:34 AM

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	N/A	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	20.0
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	N/A	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	N/A	
Multiphasic samples are not present.	N/A	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Accreditation/Certification Summary

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Barry

Job ID: 400-167771-1
 SDG: Barry Ash Pond 1200

Laboratory: Eurofins TestAmerica, Pensacola

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	EPA Region	Identification Number	Expiration Date
Alabama	State Program	4	40150	06-30-19
ANAB	ISO/IEC 17025		L2471	02-22-20
Arizona	State Program	9	AZ0710	01-12-20
Arkansas DEQ	State Program	6	88-0689	09-01-19
California	State Program	9	2510	06-30-19
Florida	NELAP	4	E81010	06-30-19
Georgia	State Program	4	E81010 (FL)	06-30-19
Illinois	NELAP	5	200041	10-09-19
Iowa	State Program	7	367	08-01-20
Kansas	NELAP	7	E-10253	10-31-19
Kentucky (UST)	State Program	4	53	06-30-19
Kentucky (WW)	State Program	4	98030	12-31-19
Louisiana	NELAP	6	30976	06-30-19
Louisiana (DW)	NELAP	6	LA017	12-31-19
Maryland	State Program	3	233	09-30-19
Massachusetts	State Program	1	M-FL094	06-30-19
Michigan	State Program	5	9912	06-30-19
New Jersey	NELAP	2	FL006	06-30-19
North Carolina (WW/SW)	State Program	4	314	12-31-19
Oklahoma	State Program	6	9810	08-31-19
Pennsylvania	NELAP	3	68-00467	01-31-20
Rhode Island	State Program	1	LAO00307	12-30-19
South Carolina	State Program	4	96026	06-30-19
Tennessee	State Program	4	TN02907	06-30-19
Texas	NELAP	6	T104704286-18-15	09-30-19
US Fish & Wildlife	Federal		LE058448-0	07-31-19
USDA	Federal		P330-18-00148	05-17-21
Virginia	NELAP	3	460166	06-14-19
Washington	State Program	10	C915	05-15-20
West Virginia DEP	State Program	3	136	07-31-19

Accreditation/Certification Summary

Client: Alabama Power General Test Laboratory
Project/Site: CCR Plant Barry

Job ID: 400-167771-1
SDG: Barry Ash Pond 1200

Laboratory: Eurofins TestAmerica, St. Louis

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	EPA Region	Identification Number	Expiration Date
Alaska	State Program	10	MO00054	06-30-19
ANAB	DoD / DOE		L2305	04-06-22
Arizona	State Program	9	AZ0813	12-08-19
California	State Program	9	2886	06-30-19 *
Connecticut	State Program	1	PH-0241	03-31-21
Florida	NELAP	4	E87689	06-30-19 *
Hawaii	State Program	9	NA	06-30-19
Illinois	NELAP	5	200023	11-30-19
Iowa	State Program	7	373	12-01-20
Kansas	NELAP	7	E-10236	10-31-19
Kentucky (DW)	State Program	4	KY90125	12-31-19
Louisiana	NELAP	6	04080	06-30-19
Louisiana (DW)	NELAP	6	LA011	12-31-19
Maryland	State Program	3	310	09-30-19
Michigan	State Program	5	9005	06-30-19
Missouri	State Program	7	780	06-30-19
Nevada	State Program	9	MO000542018-1	07-31-19
New Jersey	NELAP	2	MO002	06-30-19 *
New York	NELAP	2	11616	03-31-20
North Dakota	State Program	8	R207	06-30-19 *
NRC	NRC		24-24817-01	12-31-22
Oklahoma	State Program	6	9997	08-31-19
Pennsylvania	NELAP	3	68-00540	02-28-20
South Carolina	State Program	4	85002001	06-30-19
Texas	NELAP	6	T104704193-18-13	07-31-19
US Fish & Wildlife	Federal		058448	07-31-19
USDA	Federal		P330-17-0028	02-02-20
Utah	NELAP	8	MO000542018-10	07-31-19
Virginia	NELAP	3	460230	06-14-19 *
Washington	State Program	10	C592	08-30-19
West Virginia DEP	State Program	3	381	08-31-19

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Eurofins TestAmerica, Pensacola

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

Field Case Narrative



Plant Barry Ash Pond

Delineation Event 2

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

Landscape crews were cutting grass on the levee near well MW-20H when pumping and sampling.

Field quality control procedures were performed as follows:

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

Alabama Power General Test Laboratory
744 County Road 87, GSC#8
Calera, AL 35040
(205) 664-6247 or 6171
FAX (205) 664-6108

Analytical Report




Sample Group : WMWBARAP_1234
Project/Site : Barry Ash Pond
Bucks, AL 36512
For : Southern Company Services
3535 Colonnade Parkway
Birmingham, AL 35243
Attention : Dustin Brooks, Greg Dyer, & Lauren Parker
Released By : Laura Midkiff
lbmidkif@southernco.com
(205) 664-6197

The following data has been reviewed and approved by:

Quality Control:  Laura Midkiff
Digitally signed by Laura Midkiff
DN: cn=Laura Midkiff, o=Alabama Power
Company, ou=Environmental Affairs,
email=lbmidkif@southernco.com, c=US
Date: 2019.08.15 14:56:29 -0500

Supervision: T. Durant
Maske

 Digitally signed by T. Durant Maske
DN: cn=T. Durant Maske, o=Alabama
Power Company, ou=Environmental
Affairs, email=tdmaske@southernco.com,
c=US
Date: 2019.08.16 09:55:17 -0500



Metals ICP

Barry Ash Pond

WMWBARAP_1234

1. This report consists of all MWs and corresponding Lab IDs listed on the Chain of Custody.
2. Refer to comments on Chain of Custody for information regarding sample receipt.
3. All standards and solutions are NIST/ISO/IEC/Guide 34 traceable and were used within their recommended shelf life.

<u>Sample ID</u>	<u>Batch ID</u>	<u>Project ID</u>
AZ17565	653136	WMWBARAP_1234
AZ17566	653136	WMWBARAP_1234
AZ17567	653136	WMWBARAP_1234
AZ17568	653136	WMWBARAP_1234
AZ17569	653136	WMWBARAP_1234
AZ17570	653136	WMWBARAP_1234
AZ17571	653136	WMWBARAP_1234
AZ17572	653136	WMWBARAP_1234
AZ17573	653136	WMWBARAP_1234

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

General Quality Control Procedures:

- Prior to sample analysis, an initial calibration verification (ICV) was analyzed and all criteria were met.
- Following the ICV, an initial calibration blank (ICB) was analyzed and was below the limit of quantitation for all requested analytes.
- All continued calibration verification (CCV) were within the acceptance criteria for the requested analytes.
- All continued calibration blanks (CCB) were below the limit of quantitation for the requested analytes.
- A preparation method blank and laboratory control sample were digested and analyzed with the samples in each digestion batch.
- All laboratory control sample criteria were met.
- The method blank associated with each digestion batch passed all acceptance criteria for all requested analytes.
- The spectral interference check associated with EPA 200.7 was analyzed and all acceptance criteria were met.
- All sample internal standard criteria were met.
- The high standard readbacks associated with EPA 200.7 were within acceptance criteria.



- It is noted that the QC summary page typically provides the QC results from the original batch analytical sequence. If dilutions were subsequently performed to bring sample concentrations within the calibration range, any additional QC data from the dilution analyses may need to be obtained from the laboratory. Any qualifications applied to original analyses or dilution re-analyses are based upon QC data available at the time of review.

Matrix Specific Quality Control Procedures:

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

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



Metals ICPMS

Barry Ash Pond

WMWBARAP_1234

1. This report consists of all MWs and corresponding Lab IDs listed on the Chain of Custody.
2. Refer to comments on Chain of Custody for information regarding sample receipt.
3. All standards and solutions are NIST/ISO/IEC/Guide 34 traceable and were used within their recommended shelf life.

<u>Sample ID</u>	<u>Batch ID</u>	<u>Project ID</u>
AZ17565	652862	WMWBARAP_1234
AZ17566	652862	WMWBARAP_1234
AZ17567	652862	WMWBARAP_1234
AZ17568	652862	WMWBARAP_1234
AZ17569	652862	WMWBARAP_1234
AZ17570	652862	WMWBARAP_1234
AZ17571	652862	WMWBARAP_1234
AZ17572	652862	WMWBARAP_1234
AZ17573	652862	WMWBARAP_1234

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

General Quality Control Procedures:

- All tune and calibration met criteria for all requested analytes.
- Prior to sample analysis, an initial calibration verification (ICV) was analyzed and all criteria were met.
- Following the ICV, an initial calibration blank (ICB) was analyzed and was below the limit of quantitation for all requested analytes.
- All continued calibration verification (CCV) were within the acceptance criteria for the requested analytes.
- All continued calibration blanks (CCB) were below the limit of quantitation for the requested analytes.
- A preparation method blank and laboratory control sample were digested and analyzed with the samples in each digestion batch.
- All laboratory control sample criteria were met.
- The method blank associated with each digestion batch passed all acceptance criteria for all requested analytes.
- The interference check samples associated with EPA 200.8 were analyzed and passed for all requested analytes.
- All sample internal standard criteria were met.



Matrix Specific Quality Control Procedures:

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

- A matrix spike and matrix spike duplicate were digested and analyzed with each ICPMS batch. All acceptance criteria for accuracy were met.
 - A matrix spike and matrix spike duplicate were digested and analyzed with each ICPMS batch. All acceptance criteria for precision were met.
-
7. All samples were analyzed at a x5.075 dilution to compensate for potential matrix effects.
 8. The raw data results are shown with dilution factors included.



Mercury

Barry Ash Pond

WMWBARAP_1234

1. This report consists of all MWs and corresponding Lab IDs listed on the Chain of Custody.
2. Refer to comments on Chain of Custody for information regarding sample receipt.
3. All standards and solutions are NIST/ISO/IEC/Guide 34 traceable and were used within their recommended shelf life.

<u>Sample ID</u>	<u>Batch ID</u>	<u>Project ID</u>
AZ17565	652591	WMWBARAP_1234
AZ17566	652591	WMWBARAP_1234
AZ17567	652591	WMWBARAP_1234
AZ17568	652591	WMWBARAP_1234
AZ17569	652591	WMWBARAP_1234
AZ17570	652591	WMWBARAP_1234
AZ17571	652591	WMWBARAP_1234
AZ17572	652591	WMWBARAP_1234
AZ17573	652591	WMWBARAP_1234

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

General Quality Control Procedures:

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



Matrix Specific Quality Control Procedures:

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

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



TDS

Barry Ash Pond

WMWBARAP_1234

1. This report consists of all MWs and corresponding Lab IDs listed on the Chain of Custody.
2. Refer to comments on Chain of Custody for information regarding sample receipt.
3. All standards and solutions are NIST/ISO/IEC/Guide 34 traceable and were used within their recommended shelf life.

<u>Sample ID</u>	<u>Batch ID</u>	<u>Project ID</u>
AZ17565	652698	WMWBARAP_1234
AZ17566	652698	WMWBARAP_1234
AZ17567	652698	WMWBARAP_1234
AZ17568	652698	WMWBARAP_1234
AZ17569	652698	WMWBARAP_1234
AZ17570	652698	WMWBARAP_1234
AZ17571	652698	WMWBARAP_1234
AZ17572	652698	WMWBARAP_1234
AZ17573	652698	WMWBARAP_1234

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

General Quality Control Procedures:

- A Method Blank was analyzed with each batch. All criteria were met.
- All final weights of samples, standards, and blanks agreed within 0.5mg of the previous weight.
- A sample duplicate was analyzed with each batch. RPD/2 was less than 5%.
- A laboratory control sample was analyzed with each batch. All criteria were met.
- Samples were between 2.5mg and 200mg residue.
- All samples with residue <2.5mg had the maximum volume of 150mL filtered. Affected samples are as follows:
 - AZ17569
 - AZ17572
- The QC sample for this batch (AZ17723) was not part of project WMWBARAP_1234.



Anions

Barry Ash Pond

WMWBARAP_1234

1. This report consists of all MWs and corresponding Lab IDs listed on the Chain of Custody.
2. Refer to comments on Chain of Custody for information regarding sample receipt.
3. All standards and solutions are NIST/ISO/IEC/Guide 34 traceable and were used within their recommended shelf life.

<u>Sample ID</u>	<u>Batch ID</u>	<u>Project ID</u>
AZ17565	652898, 652899, & 653044	WMWBARAP_1234
AZ17566	652898, 652899, & 653044	WMWBARAP_1234
AZ17567	652898, 652899, & 653044	WMWBARAP_1234
AZ17568	652898, 652899, & 653044	WMWBARAP_1234
AZ17569	652898, 652899, & 653044	WMWBARAP_1234
AZ17570	652898, 652899, & 653044	WMWBARAP_1234
AZ17571	652898, 652899, & 653044	WMWBARAP_1234
AZ17572	652898, 652899, & 653044	WMWBARAP_1234
AZ17573	652898, 652899, & 653044	WMWBARAP_1234

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

General Quality Control Procedures:

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



Matrix Specific Quality Control Procedures:

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

- A matrix spike was analyzed with each batch. Acceptance criteria for accuracy were met, except for the following:
 - AZ17573 Matrix spike recovery for Fluoride was out of specification.
 - A sample duplicate was analyzed with each batch. Acceptance criteria for precision were met.
7. The following samples were diluted due to the analyzed sample concentration being greater than high standard of the calibration curve:

<u>Sample ID</u>	<u>Analyte</u>	<u>Dilution Factor</u>
AZ17567	Chloride	x4
AZ17567	Sulfate	x20
AZ17568	Chloride	x2
AZ17568	Sulfate	x10
AZ17573	Chloride	x20

8. The raw data results are shown with dilution factors included.

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6247 or 6171
 FAX (205) 664-6108

Certificate Of Analysis  **Alabama Power**



To: Dustin Brooks
 Greg Dyer
 Lauren Parker

Customer Account: WMWBARAP
 Sample Date: 31-Jul-19
 Customer ID:
 Delivery Date: 01-Aug-19

Description: Barry Ash Pond - MW-19H

Laboratory ID Number: AZ17565

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q	Results	Units
Metals, Cyanide, Total Phenols										
* Arsenic, Total	DLJ	8/6/2019	EPA 200.8		5.075	0.001	0.005	J	0.00118	mg/L
* Barium, Total	DLJ	8/6/2019	EPA 200.8		5.075	0.002	0.01		0.140	mg/L
* Beryllium, Total	DLJ	8/6/2019	EPA 200.8		5.075	0.0006	0.003	U	Not Detected	mg/L
* Boron, Total	RDA	8/14/2019	EPA 200.7		1.015	0.03	0.1		0.835	mg/L
* Calcium, Total	RDA	8/14/2019	EPA 200.7		1.015	0.1	0.5		31.4	mg/L
* Cadmium, Total	DLJ	8/6/2019	EPA 200.8		5.075	0.0003	0.001	U	Not Detected	mg/L
* Antimony, Total	DLJ	8/6/2019	EPA 200.8		5.075	0.0008	0.003	J	0.00152	mg/L
* Cobalt, Total	DLJ	8/6/2019	EPA 200.8		5.075	0.002	0.005	U	Not Detected	mg/L
* Chromium, Total	DLJ	8/6/2019	EPA 200.8		5.075	0.002	0.01	U	Not Detected	mg/L
* Mercury, Total by CVAA	ELH	8/7/2019	EPA 245.1		1	0.0003	0.0005	U	Not Detected	mg/L
* Lithium, Total	RDA	8/14/2019	EPA 200.7		1.015	0.01	0.02	U	Not Detected	mg/L
* Molybdenum, Total	DLJ	8/6/2019	EPA 200.8		5.075	0.002	0.01	U	Not Detected	mg/L
* Lead, Total	DLJ	8/6/2019	EPA 200.8		5.075	0.001	0.005	U	Not Detected	mg/L
* Selenium, Total	DLJ	8/6/2019	EPA 200.8		5.075	0.002	0.01	U	Not Detected	mg/L
* Thallium, Total	DLJ	8/6/2019	EPA 200.8		5.075	0.0002	0.001	U	Not Detected	mg/L
General Characteristics										
* Solids, Dissolved	TJW	8/7/2019	SM 2540C		1		25		318	mg/L
Solids, Dissolved Filter Date	TJW	8/6/2019	SM 2540C		1				08/06/2019	Date
* Chloride	JCC	8/8/2019	SM4500Cl E		1	0.50	1		16.4	mg/L
* Fluoride	JCC	8/8/2019	SM4500F G 2017		1	0.05	0.1		0.153	mg/L
* Sulfate	JCC	8/9/2019	SM4500SO4 E		1	0.50	1		11.4	mg/L
Field Measurements										
pH	AWG	7/31/2019							FA 6.21	SU

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

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

* Test results for these accredited parameters conform to the most current applicable TNI/NELAC requirements, with exceptions noted on this report.

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2020

Comments:

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6247 or 6171
 FAX (205) 664-6108

Batch QC Summary



To: Dustin Brooks
 Greg Dyer
 Lauren Parker

Customer Account: WMWBARAP
 Sample Date: 31-Jul-19
 Customer ID:
 Delivery Date: 01-Aug-19

Description: Barry Ash Pond - MW-19H

Laboratory ID Number: AZ17565

Sample	Analysis	Units	MB	MB		MS	MSD	LCS	LCS		Rec		Prec	Limit
				Limit	Spike				Limit	Rec	Limit	Prec		
AZ17573	Arsenic, Total	mg/L	0.00000622	0.00044	0.10	0.104	0.105	0.0929	0.085 to 0.115		86.8	70 to 130	1.05	20
AZ17573	Barium, Total	mg/L	0.0000878	0.00088	0.10	0.228	0.230	0.0941	0.085 to 0.115		84.5	70 to 130	0.582	20
AZ17573	Beryllium, Total	mg/L	0.0000107	0.000264	0.10	0.0922	0.0907	0.0889	0.085 to 0.115		92.2	70 to 130	1.69	20
AZ17573	Boron, Total	mg/L	0.000977	0.065025	1.00	1.00	1.02	0.972	0.85 to 1.15		95.8	70 to 130	1.45	20
AZ17573	Calcium, Total	mg/L	-0.00207	0.216749	5.00	14.3	14.4	5.17	4.25 to 5.75		99.5	70 to 130	0.993	20
AZ17573	Cadmium, Total	mg/L	0.00000268	0.000132	0.10	0.0893	0.0911	0.0936	0.085 to 0.115		89.3	70 to 130	2.00	20
AZ17573	Cobalt, Total	mg/L	-0.00000302	0.00088	0.10	0.155	0.159	0.100	0.085 to 0.115		92.2	70 to 130	2.30	20
AZ17573	Chromium, Total	mg/L	-0.0000151	0.00088	0.10	0.0944	0.0946	0.0976	0.085 to 0.115		94.4	70 to 130	0.277	20
AZ17573	Mercury, Total by CVAA	mg/L	0.0000349	0.0005	0.004	0.00402	0.00398	0.00405	0.0034 to 0.0046		100	70 to 130	0.885	20
AZ17573	Lithium, Total	mg/L	-0.00000901	0.019704	0.20	0.213	0.218	0.194	0.17 to 0.23		106	70 to 130	2.30	20
AZ17573	Molybdenum, Total	mg/L	0.00000433	0.00088	0.10	0.0867	0.0899	0.0928	0.085 to 0.115		86.7	70 to 130	3.59	20
AZ17573	Lead, Total	mg/L	0.00000710	0.00044	0.10	0.101	0.101	0.0992	0.085 to 0.115		101	70 to 130	0.678	20
AZ17573	Antimony, Total	mg/L	0.0000642	0.000352	0.10	0.0872	0.0871	0.0881	0.085 to 0.115		86.2	70 to 130	0.0140	20
AZ17573	Selenium, Total	mg/L	0.0000678	0.00088	0.10	0.0921	0.0945	0.0965	0.085 to 0.115		92.1	70 to 130	2.52	20
AZ17573	Thallium, Total	mg/L	0.0000109	0.000088	0.10	0.0994	0.0997	0.102	0.085 to 0.115		99.4	70 to 130	0.232	20

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

* Test results for these accredited parameters conform to the most current applicable TNI/NELAC requirements, with exceptions noted on this report.

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2020

Comments:

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6247 or 6171
 FAX (205) 664-6108

Batch QC Summary



To: Dustin Brooks
 Greg Dyer
 Lauren Parker

Customer Account: WMWBARAP
 Sample Date: 31-Jul-19
 Customer ID:
 Delivery Date: 01-Aug-19

Description: Barry Ash Pond - MW-19H

Laboratory ID Number: AZ17565

Sample	Analysis	Units	MB	MB		Sample		LCS	Rec		Prec		
				Limit	Spike	MS	Duplicate	LCS	Limit	Rec	Limit	Prec	Limit
AZ17573	Chloride	mg/L	-0.0289	0.50	200	358	160	10.0	9 to 11	100	80 to 120	1.89	20
AZ17573	Fluoride	mg/L	0.022	0.05	2.50	1.81	0.0507	2.55	2.25 to 2.75	70.3	80 to 120	1.57	20
AZ17573	Sulfate	mg/L	-0.391	0.50	20.0	21.6	2.65	19.8	18 to 22	94.8	80 to 120	0.00	20
AZ17723	Solids, Dissolved	mg/L	1.00	25			260	54.0	40 to 60		80 to 120	0.00	5

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Issued By: State of Florida, Department of Health

Expiration: June 30, 2020

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CC:

Alabama Power General Test Laboratory
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 (205) 664-6247 or 6171
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Certificate Of Analysis Alabama Power



To: Dustin Brooks
 Greg Dyer
 Lauren Parker

Customer Account: WMWBARAP
 Sample Date: 31-Jul-19
 Customer ID:
 Delivery Date: 01-Aug-19

Description: Barry Ash Pond - MW-19H DUP

Laboratory ID Number: AZ17566

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q	Results	Units
Metals, Cyanide, Total Phenols										
* Arsenic, Total	DLJ	8/6/2019	EPA 200.8		5.075	0.001	0.005	U	Not Detected	mg/L
* Barium, Total	DLJ	8/6/2019	EPA 200.8		5.075	0.002	0.01		0.137	mg/L
* Beryllium, Total	DLJ	8/6/2019	EPA 200.8		5.075	0.0006	0.003	U	Not Detected	mg/L
* Boron, Total	RDA	8/14/2019	EPA 200.7		1.015	0.03	0.1		0.848	mg/L
* Calcium, Total	RDA	8/14/2019	EPA 200.7		1.015	0.1	0.5		31.8	mg/L
* Cadmium, Total	DLJ	8/6/2019	EPA 200.8		5.075	0.0003	0.001	U	Not Detected	mg/L
* Antimony, Total	DLJ	8/6/2019	EPA 200.8		5.075	0.0008	0.003	J	0.00137	mg/L
* Cobalt, Total	DLJ	8/6/2019	EPA 200.8		5.075	0.002	0.005	U	Not Detected	mg/L
* Chromium, Total	DLJ	8/6/2019	EPA 200.8		5.075	0.002	0.01	U	Not Detected	mg/L
* Mercury, Total by CVAA	ELH	8/7/2019	EPA 245.1		1	0.0003	0.0005	U	Not Detected	mg/L
* Lithium, Total	RDA	8/14/2019	EPA 200.7		1.015	0.01	0.02	U	Not Detected	mg/L
* Molybdenum, Total	DLJ	8/6/2019	EPA 200.8		5.075	0.002	0.01	U	Not Detected	mg/L
* Lead, Total	DLJ	8/6/2019	EPA 200.8		5.075	0.001	0.005	U	Not Detected	mg/L
* Selenium, Total	DLJ	8/6/2019	EPA 200.8		5.075	0.002	0.01	U	Not Detected	mg/L
* Thallium, Total	DLJ	8/6/2019	EPA 200.8		5.075	0.0002	0.001	U	Not Detected	mg/L
General Characteristics										
* Solids, Dissolved	TJW	8/7/2019	SM 2540C		1		25		312	mg/L
Solids, Dissolved Filter Date	TJW	8/6/2019	SM 2540C		1				08/06/2019	Date
* Chloride	JCC	8/8/2019	SM4500Cl E		1	0.50	1		16.4	mg/L
* Fluoride	JCC	8/8/2019	SM4500F G 2017		1	0.05	0.1	J	0.0890	mg/L
* Sulfate	JCC	8/9/2019	SM4500SO4 E		1	0.50	1		11.3	mg/L
Field Measurements										
pH	AWG	7/31/2019							FA 6.21	SU

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Comments:

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 744 County Road 87, GSC#8
 Calera, AL 35040
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 FAX (205) 664-6108

Batch QC Summary



To: Dustin Brooks
 Greg Dyer
 Lauren Parker

Customer Account: WMWBARAP
 Sample Date: 31-Jul-19
 Customer ID:
 Delivery Date: 01-Aug-19

Description: Barry Ash Pond - MW-19H DUP

Laboratory ID Number: AZ17566

Sample	Analysis	Units	MB	MB		MS	MSD	LCS	LCS		Rec		Prec	Limit
				Limit	Spike				Limit	Rec	Limit	Prec		
AZ17573	Arsenic, Total	mg/L	0.00000622	0.00044	0.10	0.104	0.105	0.0929	0.085 to 0.115		86.8	70 to 130	1.05	20
AZ17573	Barium, Total	mg/L	0.0000878	0.00088	0.10	0.228	0.230	0.0941	0.085 to 0.115		84.5	70 to 130	0.582	20
AZ17573	Beryllium, Total	mg/L	0.0000107	0.000264	0.10	0.0922	0.0907	0.0889	0.085 to 0.115		92.2	70 to 130	1.69	20
AZ17573	Boron, Total	mg/L	0.000977	0.065025	1.00	1.00	1.02	0.972	0.85 to 1.15		95.8	70 to 130	1.45	20
AZ17573	Calcium, Total	mg/L	-0.00207	0.216749	5.00	14.3	14.4	5.17	4.25 to 5.75		99.5	70 to 130	0.993	20
AZ17573	Cadmium, Total	mg/L	0.00000268	0.000132	0.10	0.0893	0.0911	0.0936	0.085 to 0.115		89.3	70 to 130	2.00	20
AZ17573	Cobalt, Total	mg/L	-0.00000302	0.00088	0.10	0.155	0.159	0.100	0.085 to 0.115		92.2	70 to 130	2.30	20
AZ17573	Chromium, Total	mg/L	-0.0000151	0.00088	0.10	0.0944	0.0946	0.0976	0.085 to 0.115		94.4	70 to 130	0.277	20
AZ17573	Mercury, Total by CVAA	mg/L	0.0000349	0.0005	0.004	0.00402	0.00398	0.00405	0.0034 to 0.0046		100	70 to 130	0.885	20
AZ17573	Lithium, Total	mg/L	-0.00000901	0.019704	0.20	0.213	0.218	0.194	0.17 to 0.23		106	70 to 130	2.30	20
AZ17573	Molybdenum, Total	mg/L	0.00000433	0.00088	0.10	0.0867	0.0899	0.0928	0.085 to 0.115		86.7	70 to 130	3.59	20
AZ17573	Lead, Total	mg/L	0.00000710	0.00044	0.10	0.101	0.101	0.0992	0.085 to 0.115		101	70 to 130	0.678	20
AZ17573	Antimony, Total	mg/L	0.0000642	0.000352	0.10	0.0872	0.0871	0.0881	0.085 to 0.115		86.2	70 to 130	0.0140	20
AZ17573	Selenium, Total	mg/L	0.0000678	0.00088	0.10	0.0921	0.0945	0.0965	0.085 to 0.115		92.1	70 to 130	2.52	20
AZ17573	Thallium, Total	mg/L	0.0000109	0.000088	0.10	0.0994	0.0997	0.102	0.085 to 0.115		99.4	70 to 130	0.232	20

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2020

Comments:

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6247 or 6171
 FAX (205) 664-6108

Batch QC Summary



To: Dustin Brooks
 Greg Dyer
 Lauren Parker

Customer Account: WMWBARAP
 Sample Date: 31-Jul-19
 Customer ID:
 Delivery Date: 01-Aug-19

Description: Barry Ash Pond - MW-19H DUP

Laboratory ID Number: AZ17566

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	LCS	LCS Limit	Rec	Rec Limit	Prec	Prec Limit
AZ17573	Chloride	mg/L	-0.0289	0.50	200	358	160	10.0	9 to 11	100	80 to 120	1.89	20
AZ17573	Fluoride	mg/L	0.022	0.05	2.50	1.81	0.0507	2.55	2.25 to 2.75	70.3	80 to 120	1.57	20
AZ17573	Sulfate	mg/L	-0.391	0.50	20.0	21.6	2.65	19.8	18 to 22	94.8	80 to 120	0.00	20
AZ17723	Solids, Dissolved	mg/L	1.00	25			260	54.0	40 to 60		80 to 120	0.00	5

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 FAX (205) 664-6108

Certificate Of Analysis Alabama Power



To: Dustin Brooks
 Greg Dyer
 Lauren Parker

Customer Account: WMWBARAP
 Sample Date: 31-Jul-19
 Customer ID:
 Delivery Date: 01-Aug-19

Description: Barry Ash Pond - MW-22H

Laboratory ID Number: AZ17567

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q	Results	Units
Metals, Cyanide, Total Phenols										
* Arsenic, Total	DLJ	8/6/2019	EPA 200.8		5.075	0.001	0.005		0.0225	mg/L
* Barium, Total	DLJ	8/6/2019	EPA 200.8		5.075	0.002	0.01		0.185	mg/L
* Beryllium, Total	DLJ	8/6/2019	EPA 200.8		5.075	0.0006	0.003	U	Not Detected	mg/L
* Boron, Total	RDA	8/14/2019	EPA 200.7		1.015	0.03	0.1	J	0.0643	mg/L
* Calcium, Total	RDA	8/14/2019	EPA 200.7		1.015	0.1	0.5		15.0	mg/L
* Cadmium, Total	DLJ	8/6/2019	EPA 200.8		5.075	0.0003	0.001	U	Not Detected	mg/L
* Antimony, Total	DLJ	8/6/2019	EPA 200.8		5.075	0.0008	0.003	J	0.00117	mg/L
* Cobalt, Total	DLJ	8/6/2019	EPA 200.8		5.075	0.002	0.005	J	0.00233	mg/L
* Chromium, Total	DLJ	8/6/2019	EPA 200.8		5.075	0.002	0.01	U	Not Detected	mg/L
* Mercury, Total by CVAA	ELH	8/7/2019	EPA 245.1		1	0.0003	0.0005	U	Not Detected	mg/L
* Lithium, Total	RDA	8/14/2019	EPA 200.7		1.015	0.01	0.02	U	Not Detected	mg/L
* Molybdenum, Total	DLJ	8/6/2019	EPA 200.8		5.075	0.002	0.01	J	0.00426	mg/L
* Lead, Total	DLJ	8/6/2019	EPA 200.8		5.075	0.001	0.005	U	Not Detected	mg/L
* Selenium, Total	DLJ	8/6/2019	EPA 200.8		5.075	0.002	0.01	U	Not Detected	mg/L
* Thallium, Total	DLJ	8/6/2019	EPA 200.8		5.075	0.0002	0.001	U	Not Detected	mg/L
General Characteristics										
* Solids, Dissolved	TJW	8/7/2019	SM 2540C		1		25		345	mg/L
Solids, Dissolved Filter Date	TJW	8/6/2019	SM 2540C		1				08/06/2019	Date
* Chloride	JCC	8/8/2019	SM4500CI E		4	2.00	4		60.3	mg/L
* Fluoride	JCC	8/8/2019	SM4500F G 2017		1	0.05	0.1		0.257	mg/L
* Sulfate	JCC	8/9/2019	SM4500SO4 E		20	10.00	20		171	mg/L
Field Measurements										
pH	AWG	7/31/2019							FA 6.54	SU

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Comments:

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 Calera, AL 35040
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Batch QC Summary



To: Dustin Brooks
 Greg Dyer
 Lauren Parker

Customer Account: WMWBARAP
 Sample Date: 31-Jul-19
 Customer ID:
 Delivery Date: 01-Aug-19

Description: Barry Ash Pond - MW-22H

Laboratory ID Number: AZ17567

Sample	Analysis	Units	MB	MB		MS	MSD	LCS	LCS		Rec		Prec	Limit
				Limit	Spike				Limit	Rec	Limit	Prec		
AZ17573	Arsenic, Total	mg/L	0.00000622	0.00044	0.10	0.104	0.105	0.0929	0.085 to 0.115		86.8	70 to 130	1.05	20
AZ17573	Barium, Total	mg/L	0.0000878	0.00088	0.10	0.228	0.230	0.0941	0.085 to 0.115		84.5	70 to 130	0.582	20
AZ17573	Beryllium, Total	mg/L	0.0000107	0.000264	0.10	0.0922	0.0907	0.0889	0.085 to 0.115		92.2	70 to 130	1.69	20
AZ17573	Boron, Total	mg/L	0.000977	0.065025	1.00	1.00	1.02	0.972	0.85 to 1.15		95.8	70 to 130	1.45	20
AZ17573	Calcium, Total	mg/L	-0.00207	0.216749	5.00	14.3	14.4	5.17	4.25 to 5.75		99.5	70 to 130	0.993	20
AZ17573	Cadmium, Total	mg/L	0.00000268	0.000132	0.10	0.0893	0.0911	0.0936	0.085 to 0.115		89.3	70 to 130	2.00	20
AZ17573	Cobalt, Total	mg/L	-0.00000302	0.00088	0.10	0.155	0.159	0.100	0.085 to 0.115		92.2	70 to 130	2.30	20
AZ17573	Chromium, Total	mg/L	-0.0000151	0.00088	0.10	0.0944	0.0946	0.0976	0.085 to 0.115		94.4	70 to 130	0.277	20
AZ17573	Mercury, Total by CVAA	mg/L	0.0000349	0.0005	0.004	0.00402	0.00398	0.00405	0.0034 to 0.0046		100	70 to 130	0.885	20
AZ17573	Lithium, Total	mg/L	-0.00000901	0.019704	0.20	0.213	0.218	0.194	0.17 to 0.23		106	70 to 130	2.30	20
AZ17573	Molybdenum, Total	mg/L	0.00000433	0.00088	0.10	0.0867	0.0899	0.0928	0.085 to 0.115		86.7	70 to 130	3.59	20
AZ17573	Lead, Total	mg/L	0.00000710	0.00044	0.10	0.101	0.101	0.0992	0.085 to 0.115		101	70 to 130	0.678	20
AZ17573	Antimony, Total	mg/L	0.0000642	0.000352	0.10	0.0872	0.0871	0.0881	0.085 to 0.115		86.2	70 to 130	0.0140	20
AZ17573	Selenium, Total	mg/L	0.0000678	0.00088	0.10	0.0921	0.0945	0.0965	0.085 to 0.115		92.1	70 to 130	2.52	20
AZ17573	Thallium, Total	mg/L	0.0000109	0.000088	0.10	0.0994	0.0997	0.102	0.085 to 0.115		99.4	70 to 130	0.232	20

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Laboratory certification ID: E571114

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Comments:

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Batch QC Summary



To: Dustin Brooks
 Greg Dyer
 Lauren Parker

Customer Account: WMWBARAP
 Sample Date: 31-Jul-19
 Customer ID:
 Delivery Date: 01-Aug-19

Description: Barry Ash Pond - MW-22H

Laboratory ID Number: AZ17567

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample		LCS Limit	Rec		Prec Limit	
							Duplicate	LCS		Rec	Limit		
AZ17573	Chloride	mg/L	-0.0289	0.50	200	358	160	10.0	9 to 11	100	80 to 120	1.89	20
AZ17573	Fluoride	mg/L	0.022	0.05	2.50	1.81	0.0507	2.55	2.25 to 2.75	70.3	80 to 120	1.57	20
AZ17573	Sulfate	mg/L	-0.391	0.50	20.0	21.6	2.65	19.8	18 to 22	94.8	80 to 120	0.00	20
AZ17723	Solids, Dissolved	mg/L	1.00	25			260	54.0	40 to 60		80 to 120	0.00	5

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2020

Comments:

CC:

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 (205) 664-6247 or 6171
 FAX (205) 664-6108

Certificate Of Analysis  **Alabama Power**



To: Dustin Brooks
 Greg Dyer
 Lauren Parker

Customer Account: WMWBARAP
 Sample Date: 31-Jul-19
 Customer ID:
 Delivery Date: 01-Aug-19

Description: Barry Ash Pond - MW-20H

Laboratory ID Number: AZ17568

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q	Results	Units
Metals, Cyanide, Total Phenols										
* Arsenic, Total	DLJ	8/6/2019	EPA 200.8		5.075	0.001	0.005		0.0112	mg/L
* Barium, Total	DLJ	8/6/2019	EPA 200.8		5.075	0.002	0.01		0.0928	mg/L
* Beryllium, Total	DLJ	8/6/2019	EPA 200.8		5.075	0.0006	0.003	U	Not Detected	mg/L
* Boron, Total	RDA	8/14/2019	EPA 200.7		1.015	0.03	0.1	J	0.0707	mg/L
* Calcium, Total	RDA	8/14/2019	EPA 200.7		1.015	0.1	0.5		30.3	mg/L
* Cadmium, Total	DLJ	8/6/2019	EPA 200.8		5.075	0.0003	0.001	U	Not Detected	mg/L
* Antimony, Total	DLJ	8/6/2019	EPA 200.8		5.075	0.0008	0.003	J	0.00113	mg/L
* Cobalt, Total	DLJ	8/6/2019	EPA 200.8		5.075	0.002	0.005	J	0.00433	mg/L
* Chromium, Total	DLJ	8/6/2019	EPA 200.8		5.075	0.002	0.01	J	0.00209	mg/L
* Mercury, Total by CVAA	ELH	8/7/2019	EPA 245.1		1	0.0003	0.0005	U	Not Detected	mg/L
* Lithium, Total	RDA	8/14/2019	EPA 200.7		1.015	0.01	0.02	U	Not Detected	mg/L
* Molybdenum, Total	DLJ	8/6/2019	EPA 200.8		5.075	0.002	0.01	U	Not Detected	mg/L
* Lead, Total	DLJ	8/6/2019	EPA 200.8		5.075	0.001	0.005	U	Not Detected	mg/L
* Selenium, Total	DLJ	8/6/2019	EPA 200.8		5.075	0.002	0.01	U	Not Detected	mg/L
* Thallium, Total	DLJ	8/6/2019	EPA 200.8		5.075	0.0002	0.001	U	Not Detected	mg/L
General Characteristics										
* Solids, Dissolved	TJW	8/7/2019	SM 2540C		1		25		481	mg/L
Solids, Dissolved Filter Date	TJW	8/6/2019	SM 2540C		1				08/06/2019	Date
* Chloride	JCC	8/8/2019	SM4500Cl E		2	1.00	2		33.4	mg/L
* Fluoride	JCC	8/8/2019	SM4500F G 2017		1	0.05	0.1	J	0.0934	mg/L
* Sulfate	JCC	8/9/2019	SM4500SO4 E		10	5.00	10		83.2	mg/L
Field Measurements										
pH	AWG	7/31/2019							FA 6.22	SU

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

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2020

Comments:

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6247 or 6171
 FAX (205) 664-6108

Batch QC Summary



To: Dustin Brooks
 Greg Dyer
 Lauren Parker

Customer Account: WMWBARAP
 Sample Date: 31-Jul-19
 Customer ID:
 Delivery Date: 01-Aug-19

Description: Barry Ash Pond - MW-20H

Laboratory ID Number: AZ17568

Sample	Analysis	Units	MB	MB		MS	MSD	LCS	LCS		Rec		Prec	Limit
				Limit	Spike				Limit	Rec	Limit	Prec		
AZ17573	Arsenic, Total	mg/L	0.0000622	0.00044	0.10	0.104	0.105	0.0929	0.085 to 0.115		86.8	70 to 130	1.05	20
AZ17573	Barium, Total	mg/L	0.0000878	0.00088	0.10	0.228	0.230	0.0941	0.085 to 0.115		84.5	70 to 130	0.582	20
AZ17573	Beryllium, Total	mg/L	0.0000107	0.000264	0.10	0.0922	0.0907	0.0889	0.085 to 0.115		92.2	70 to 130	1.69	20
AZ17573	Boron, Total	mg/L	0.000977	0.065025	1.00	1.00	1.02	0.972	0.85 to 1.15		95.8	70 to 130	1.45	20
AZ17573	Calcium, Total	mg/L	-0.00207	0.216749	5.00	14.3	14.4	5.17	4.25 to 5.75		99.5	70 to 130	0.993	20
AZ17573	Cadmium, Total	mg/L	0.0000268	0.000132	0.10	0.0893	0.0911	0.0936	0.085 to 0.115		89.3	70 to 130	2.00	20
AZ17573	Cobalt, Total	mg/L	-0.00000302	0.00088	0.10	0.155	0.159	0.100	0.085 to 0.115		92.2	70 to 130	2.30	20
AZ17573	Chromium, Total	mg/L	-0.0000151	0.00088	0.10	0.0944	0.0946	0.0976	0.085 to 0.115		94.4	70 to 130	0.277	20
AZ17573	Mercury, Total by CVAA	mg/L	0.0000349	0.0005	0.004	0.00402	0.00398	0.00405	0.0034 to 0.0046		100	70 to 130	0.885	20
AZ17573	Lithium, Total	mg/L	-0.00000901	0.019704	0.20	0.213	0.218	0.194	0.17 to 0.23		106	70 to 130	2.30	20
AZ17573	Molybdenum, Total	mg/L	0.00000433	0.00088	0.10	0.0867	0.0899	0.0928	0.085 to 0.115		86.7	70 to 130	3.59	20
AZ17573	Lead, Total	mg/L	0.00000710	0.00044	0.10	0.101	0.101	0.0992	0.085 to 0.115		101	70 to 130	0.678	20
AZ17573	Antimony, Total	mg/L	0.0000642	0.000352	0.10	0.0872	0.0871	0.0881	0.085 to 0.115		86.2	70 to 130	0.0140	20
AZ17573	Selenium, Total	mg/L	0.0000678	0.00088	0.10	0.0921	0.0945	0.0965	0.085 to 0.115		92.1	70 to 130	2.52	20
AZ17573	Thallium, Total	mg/L	0.0000109	0.000088	0.10	0.0994	0.0997	0.102	0.085 to 0.115		99.4	70 to 130	0.232	20

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2020

Comments:

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6247 or 6171
 FAX (205) 664-6108

Batch QC Summary



To: Dustin Brooks
 Greg Dyer
 Lauren Parker

Customer Account: WMWBARAP
 Sample Date: 31-Jul-19
 Customer ID:
 Delivery Date: 01-Aug-19

Description: Barry Ash Pond - MW-20H

Laboratory ID Number: AZ17568

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	LCS	LCS Limit	Rec	Rec Limit	Prec	Prec Limit
AZ17573	Chloride	mg/L	-0.0289	0.50	200	358	160	10.0	9 to 11	100	80 to 120	1.89	20
AZ17573	Fluoride	mg/L	0.022	0.05	2.50	1.81	0.0507	2.55	2.25 to 2.75	70.3	80 to 120	1.57	20
AZ17573	Sulfate	mg/L	-0.391	0.50	20.0	21.6	2.65	19.8	18 to 22	94.8	80 to 120	0.00	20
AZ17723	Solids, Dissolved	mg/L	1.00	25			260	54.0	40 to 60		80 to 120	0.00	5

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2020

Comments:

CC:

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6247 or 6171
 FAX (205) 664-6108

Certificate Of Analysis  **Alabama Power**



To: Dustin Brooks
 Greg Dyer
 Lauren Parker

Customer Account: WMWBARAPFB
 Sample Date: 31-Jul-19
 Customer ID:
 Delivery Date: 01-Aug-19

Description: Barry Ash Pond Field Blank

Laboratory ID Number: AZ17569

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q	Results	Units
Metals, Cyanide, Total Phenols										
* Arsenic, Total	DLJ	8/6/2019	EPA 200.8		5.075	0.001	0.005	U	Not Detected	mg/L
* Barium, Total	DLJ	8/6/2019	EPA 200.8		5.075	0.002	0.01	U	Not Detected	mg/L
* Beryllium, Total	DLJ	8/6/2019	EPA 200.8		5.075	0.0006	0.003	U	Not Detected	mg/L
* Boron, Total	RDA	8/14/2019	EPA 200.7		1.015	0.03	0.1	U	Not Detected	mg/L
* Calcium, Total	RDA	8/14/2019	EPA 200.7		1.015	0.1	0.5	U	Not Detected	mg/L
* Cadmium, Total	DLJ	8/6/2019	EPA 200.8		5.075	0.0003	0.001	U	Not Detected	mg/L
* Antimony, Total	DLJ	8/6/2019	EPA 200.8		5.075	0.0008	0.003	J	0.000996	mg/L
* Cobalt, Total	DLJ	8/6/2019	EPA 200.8		5.075	0.002	0.005	U	Not Detected	mg/L
* Chromium, Total	DLJ	8/6/2019	EPA 200.8		5.075	0.002	0.01	U	Not Detected	mg/L
* Mercury, Total by CVAA	ELH	8/7/2019	EPA 245.1		1	0.0003	0.0005	U	Not Detected	mg/L
* Lithium, Total	RDA	8/14/2019	EPA 200.7		1.015	0.01	0.02	U	Not Detected	mg/L
* Molybdenum, Total	DLJ	8/6/2019	EPA 200.8		5.075	0.002	0.01	U	Not Detected	mg/L
* Lead, Total	DLJ	8/6/2019	EPA 200.8		5.075	0.001	0.005	U	Not Detected	mg/L
* Selenium, Total	DLJ	8/6/2019	EPA 200.8		5.075	0.002	0.01	U	Not Detected	mg/L
* Thallium, Total	DLJ	8/6/2019	EPA 200.8		5.075	0.0002	0.001	U	Not Detected	mg/L
General Characteristics										
* Solids, Dissolved	TJW	8/7/2019	SM 2540C		1		25	U	Not Detected	mg/L
Solids, Dissolved Filter Date	TJW	8/6/2019	SM 2540C		1				08/06/2019	Date
* Chloride	JCC	8/8/2019	SM4500Cl E		1	0.50	1	U	Not Detected	mg/L
* Fluoride	JCC	8/8/2019	SM4500F G 2017		1	0.05	0.1	U	Not Detected	mg/L
* Sulfate	JCC	8/9/2019	SM4500SO4 E		1	0.50	1	U	Not Detected	mg/L

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2020

Comments:

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6247 or 6171
 FAX (205) 664-6108

Batch QC Summary



To: Dustin Brooks
 Greg Dyer
 Lauren Parker

Customer Account: WMWBARAPFB
 Sample Date: 31-Jul-19
 Customer ID:
 Delivery Date: 01-Aug-19

Description: Barry Ash Pond Field Blank

Laboratory ID Number: AZ17569

Sample	Analysis	Units	MB	MB		MS	MSD	LCS	LCS		Rec		Prec	Limit
				Limit	Spike				Limit	Rec	Limit	Prec		
AZ17573	Arsenic, Total	mg/L	0.00000622	0.00044	0.10	0.104	0.105	0.0929	0.085 to 0.115	86.8	70 to 130	1.05	20	
AZ17573	Barium, Total	mg/L	0.0000878	0.00088	0.10	0.228	0.230	0.0941	0.085 to 0.115	84.5	70 to 130	0.582	20	
AZ17573	Beryllium, Total	mg/L	0.0000107	0.000264	0.10	0.0922	0.0907	0.0889	0.085 to 0.115	92.2	70 to 130	1.69	20	
AZ17573	Boron, Total	mg/L	0.000977	0.065025	1.00	1.00	1.02	0.972	0.85 to 1.15	95.8	70 to 130	1.45	20	
AZ17573	Calcium, Total	mg/L	-0.00207	0.216749	5.00	14.3	14.4	5.17	4.25 to 5.75	99.5	70 to 130	0.993	20	
AZ17573	Cadmium, Total	mg/L	0.00000268	0.000132	0.10	0.0893	0.0911	0.0936	0.085 to 0.115	89.3	70 to 130	2.00	20	
AZ17573	Cobalt, Total	mg/L	-0.00000302	0.00088	0.10	0.155	0.159	0.100	0.085 to 0.115	92.2	70 to 130	2.30	20	
AZ17573	Chromium, Total	mg/L	-0.0000151	0.00088	0.10	0.0944	0.0946	0.0976	0.085 to 0.115	94.4	70 to 130	0.277	20	
AZ17573	Mercury, Total by CVAA	mg/L	0.0000349	0.0005	0.004	0.00402	0.00398	0.00405	0.0034 to 0.0046	100	70 to 130	0.885	20	
AZ17573	Lithium, Total	mg/L	-0.00000901	0.019704	0.20	0.213	0.218	0.194	0.17 to 0.23	106	70 to 130	2.30	20	
AZ17573	Molybdenum, Total	mg/L	0.00000433	0.00088	0.10	0.0867	0.0899	0.0928	0.085 to 0.115	86.7	70 to 130	3.59	20	
AZ17573	Lead, Total	mg/L	0.00000710	0.00044	0.10	0.101	0.101	0.0992	0.085 to 0.115	101	70 to 130	0.678	20	
AZ17573	Antimony, Total	mg/L	0.0000642	0.000352	0.10	0.0872	0.0871	0.0881	0.085 to 0.115	86.2	70 to 130	0.0140	20	
AZ17573	Selenium, Total	mg/L	0.0000678	0.00088	0.10	0.0921	0.0945	0.0965	0.085 to 0.115	92.1	70 to 130	2.52	20	
AZ17573	Thallium, Total	mg/L	0.0000109	0.000088	0.10	0.0994	0.0997	0.102	0.085 to 0.115	99.4	70 to 130	0.232	20	

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2020

Comments:

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6247 or 6171
 FAX (205) 664-6108

Batch QC Summary



To: Dustin Brooks
 Greg Dyer
 Lauren Parker

Customer Account: WMWBARAPFB
 Sample Date: 31-Jul-19
 Customer ID:
 Delivery Date: 01-Aug-19

Description: Barry Ash Pond Field Blank

Laboratory ID Number: AZ17569

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	LCS	LCS Limit	Rec	Rec Limit	Prec	Prec Limit
AZ17573	Chloride	mg/L	-0.0289	0.50	200	358	160	10.0	9 to 11	100	80 to 120	1.89	20
AZ17573	Fluoride	mg/L	0.022	0.05	2.50	1.81	0.0507	2.55	2.25 to 2.75	70.3	80 to 120	1.57	20
AZ17573	Sulfate	mg/L	-0.391	0.50	20.0	21.6	2.65	19.8	18 to 22	94.8	80 to 120	0.00	20
AZ17723	Solids, Dissolved	mg/L	1.00	25			260	54.0	40 to 60		80 to 120	0.00	5

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2020

Comments:

CC:

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6247 or 6171
 FAX (205) 664-6108

Certificate Of Analysis  **Alabama Power**



To: Dustin Brooks
 Greg Dyer
 Lauren Parker

Customer Account: WMWBARAP
 Sample Date: 31-Jul-19
 Customer ID:
 Delivery Date: 01-Aug-19

Description: Barry Ash Pond - MW-23H

Laboratory ID Number: AZ17570

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q	Results	Units
Metals, Cyanide, Total Phenols										
* Arsenic, Total	DLJ	8/6/2019	EPA 200.8		5.075	0.001	0.005		0.0132	mg/L
* Barium, Total	DLJ	8/6/2019	EPA 200.8		5.075	0.002	0.01		0.162	mg/L
* Beryllium, Total	DLJ	8/6/2019	EPA 200.8		5.075	0.0006	0.003	U	Not Detected	mg/L
* Boron, Total	RDA	8/14/2019	EPA 200.7		1.015	0.03	0.1	J	0.0531	mg/L
* Calcium, Total	RDA	8/14/2019	EPA 200.7		1.015	0.1	0.5		25.8	mg/L
* Cadmium, Total	DLJ	8/6/2019	EPA 200.8		5.075	0.0003	0.001	U	Not Detected	mg/L
* Antimony, Total	DLJ	8/6/2019	EPA 200.8		5.075	0.0008	0.003	J	0.000964	mg/L
* Cobalt, Total	DLJ	8/6/2019	EPA 200.8		5.075	0.002	0.005	J	0.00310	mg/L
* Chromium, Total	DLJ	8/6/2019	EPA 200.8		5.075	0.002	0.01	U	Not Detected	mg/L
* Mercury, Total by CVAA	ELH	8/7/2019	EPA 245.1		1	0.0003	0.0005	U	Not Detected	mg/L
* Lithium, Total	RDA	8/14/2019	EPA 200.7		1.015	0.01	0.02	U	Not Detected	mg/L
* Molybdenum, Total	DLJ	8/6/2019	EPA 200.8		5.075	0.002	0.01	U	Not Detected	mg/L
* Lead, Total	DLJ	8/6/2019	EPA 200.8		5.075	0.001	0.005	U	Not Detected	mg/L
* Selenium, Total	DLJ	8/6/2019	EPA 200.8		5.075	0.002	0.01	U	Not Detected	mg/L
* Thallium, Total	DLJ	8/6/2019	EPA 200.8		5.075	0.0002	0.001	U	Not Detected	mg/L
General Characteristics										
* Solids, Dissolved	TJW	8/7/2019	SM 2540C		1		25		241	mg/L
Solids, Dissolved Filter Date	TJW	8/6/2019	SM 2540C		1				08/06/2019	Date
* Chloride	JCC	8/8/2019	SM4500Cl E		1	0.50	1		8.03	mg/L
* Fluoride	JCC	8/8/2019	SM4500F G 2017		1	0.05	0.1	J	0.0766	mg/L
* Sulfate	JCC	8/9/2019	SM4500SO4 E		1	0.50	1		18.4	mg/L
Field Measurements										
pH	AWG	7/31/2019							FA 6.08	SU

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Laboratory certification ID: E571114

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Comments:

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 FAX (205) 664-6108

Batch QC Summary



To: Dustin Brooks
 Greg Dyer
 Lauren Parker

Customer Account: WMWBARAP
 Sample Date: 31-Jul-19
 Customer ID:
 Delivery Date: 01-Aug-19

Description: Barry Ash Pond - MW-23H

Laboratory ID Number: AZ17570

Sample	Analysis	Units	MB	MB		MS	MSD	LCS	LCS		Rec		Prec	Limit
				Limit	Spike				Limit	Rec	Limit	Prec		
AZ17573	Arsenic, Total	mg/L	0.00000622	0.00044	0.10	0.104	0.105	0.0929	0.085 to 0.115		86.8	70 to 130	1.05	20
AZ17573	Barium, Total	mg/L	0.0000878	0.00088	0.10	0.228	0.230	0.0941	0.085 to 0.115		84.5	70 to 130	0.582	20
AZ17573	Beryllium, Total	mg/L	0.0000107	0.000264	0.10	0.0922	0.0907	0.0889	0.085 to 0.115		92.2	70 to 130	1.69	20
AZ17573	Boron, Total	mg/L	0.000977	0.065025	1.00	1.00	1.02	0.972	0.85 to 1.15		95.8	70 to 130	1.45	20
AZ17573	Calcium, Total	mg/L	-0.00207	0.216749	5.00	14.3	14.4	5.17	4.25 to 5.75		99.5	70 to 130	0.993	20
AZ17573	Cadmium, Total	mg/L	0.00000268	0.000132	0.10	0.0893	0.0911	0.0936	0.085 to 0.115		89.3	70 to 130	2.00	20
AZ17573	Cobalt, Total	mg/L	-0.00000302	0.00088	0.10	0.155	0.159	0.100	0.085 to 0.115		92.2	70 to 130	2.30	20
AZ17573	Chromium, Total	mg/L	-0.0000151	0.00088	0.10	0.0944	0.0946	0.0976	0.085 to 0.115		94.4	70 to 130	0.277	20
AZ17573	Mercury, Total by CVAA	mg/L	0.0000349	0.0005	0.004	0.00402	0.00398	0.00405	0.0034 to 0.0046		100	70 to 130	0.885	20
AZ17573	Lithium, Total	mg/L	-0.00000901	0.019704	0.20	0.213	0.218	0.194	0.17 to 0.23		106	70 to 130	2.30	20
AZ17573	Molybdenum, Total	mg/L	0.00000433	0.00088	0.10	0.0867	0.0899	0.0928	0.085 to 0.115		86.7	70 to 130	3.59	20
AZ17573	Lead, Total	mg/L	0.00000710	0.00044	0.10	0.101	0.101	0.0992	0.085 to 0.115		101	70 to 130	0.678	20
AZ17573	Antimony, Total	mg/L	0.0000642	0.000352	0.10	0.0872	0.0871	0.0881	0.085 to 0.115		86.2	70 to 130	0.0140	20
AZ17573	Selenium, Total	mg/L	0.0000678	0.00088	0.10	0.0921	0.0945	0.0965	0.085 to 0.115		92.1	70 to 130	2.52	20
AZ17573	Thallium, Total	mg/L	0.0000109	0.000088	0.10	0.0994	0.0997	0.102	0.085 to 0.115		99.4	70 to 130	0.232	20

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2020

Comments:

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6247 or 6171
 FAX (205) 664-6108

Batch QC Summary



To: Dustin Brooks
 Greg Dyer
 Lauren Parker

Customer Account: WMWBARAP
 Sample Date: 31-Jul-19
 Customer ID:
 Delivery Date: 01-Aug-19

Description: Barry Ash Pond - MW-23H

Laboratory ID Number: AZ17570

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	LCS	LCS Limit	Rec	Rec Limit	Prec	Prec Limit
AZ17573	Chloride	mg/L	-0.0289	0.50	200	358	160	10.0	9 to 11	100	80 to 120	1.89	20
AZ17573	Fluoride	mg/L	0.022	0.05	2.50	1.81	0.0507	2.55	2.25 to 2.75	70.3	80 to 120	1.57	20
AZ17573	Sulfate	mg/L	-0.391	0.50	20.0	21.6	2.65	19.8	18 to 22	94.8	80 to 120	0.00	20
AZ17723	Solids, Dissolved	mg/L	1.00	25			260	54.0	40 to 60		80 to 120	0.00	5

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

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

* Test results for these accredited parameters conform to the most current applicable TNI/NELAC requirements, with exceptions noted on this report.

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2020

Comments:

CC:

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6247 or 6171
 FAX (205) 664-6108

Certificate Of Analysis  **Alabama Power**



To: Dustin Brooks
 Greg Dyer
 Lauren Parker

Customer Account: WMWBARAP
 Sample Date: 31-Jul-19
 Customer ID:
 Delivery Date: 01-Aug-19

Description: Barry Ash Pond - MW-17H

Laboratory ID Number: AZ17571

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q	Results	Units
Metals, Cyanide, Total Phenols										
* Arsenic, Total	DLJ	8/6/2019	EPA 200.8		5.075	0.001	0.005		0.0221	mg/L
* Barium, Total	DLJ	8/6/2019	EPA 200.8		5.075	0.002	0.01		0.138	mg/L
* Beryllium, Total	DLJ	8/6/2019	EPA 200.8		5.075	0.0006	0.003	U	Not Detected	mg/L
* Boron, Total	RDA	8/14/2019	EPA 200.7		1.015	0.03	0.1	J	0.0782	mg/L
* Calcium, Total	RDA	8/14/2019	EPA 200.7		1.015	0.1	0.5		19.1	mg/L
* Cadmium, Total	DLJ	8/6/2019	EPA 200.8		5.075	0.0003	0.001	U	Not Detected	mg/L
* Antimony, Total	DLJ	8/6/2019	EPA 200.8		5.075	0.0008	0.003	J	0.000878	mg/L
* Cobalt, Total	DLJ	8/6/2019	EPA 200.8		5.075	0.002	0.005	U	Not Detected	mg/L
* Chromium, Total	DLJ	8/6/2019	EPA 200.8		5.075	0.002	0.01	U	Not Detected	mg/L
* Mercury, Total by CVAA	ELH	8/7/2019	EPA 245.1		1	0.0003	0.0005	U	Not Detected	mg/L
* Lithium, Total	RDA	8/14/2019	EPA 200.7		1.015	0.01	0.02	U	Not Detected	mg/L
* Molybdenum, Total	DLJ	8/6/2019	EPA 200.8		5.075	0.002	0.01	U	Not Detected	mg/L
* Lead, Total	DLJ	8/6/2019	EPA 200.8		5.075	0.001	0.005	U	Not Detected	mg/L
* Selenium, Total	DLJ	8/6/2019	EPA 200.8		5.075	0.002	0.01	U	Not Detected	mg/L
* Thallium, Total	DLJ	8/6/2019	EPA 200.8		5.075	0.0002	0.001	U	Not Detected	mg/L
General Characteristics										
* Solids, Dissolved	TJW	8/7/2019	SM 2540C		1		25		212	mg/L
Solids, Dissolved Filter Date	TJW	8/6/2019	SM 2540C		1				08/06/2019	Date
* Chloride	JCC	8/8/2019	SM4500CI E		1	0.50	1		18.0	mg/L
* Fluoride	JCC	8/8/2019	SM4500F G 2017		1	0.05	0.1		0.178	mg/L
* Sulfate	JCC	8/9/2019	SM4500SO4 E		1	0.50	1		23.0	mg/L
Field Measurements										
pH	AWG	7/31/2019							FA 6.64	SU

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2020

Comments:

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6247 or 6171
 FAX (205) 664-6108

Batch QC Summary



To: Dustin Brooks
 Greg Dyer
 Lauren Parker

Customer Account: WMWBARAP
 Sample Date: 31-Jul-19
 Customer ID:
 Delivery Date: 01-Aug-19

Description: Barry Ash Pond - MW-17H

Laboratory ID Number: AZ17571

Sample	Analysis	Units	MB	MB		MS	MSD	LCS	LCS		Rec		Prec	Limit
				Limit	Spike				Limit	Rec	Limit	Prec		
AZ17573	Arsenic, Total	mg/L	0.0000622	0.00044	0.10	0.104	0.105	0.0929	0.085 to 0.115		86.8	70 to 130	1.05	20
AZ17573	Barium, Total	mg/L	0.0000878	0.00088	0.10	0.228	0.230	0.0941	0.085 to 0.115		84.5	70 to 130	0.582	20
AZ17573	Beryllium, Total	mg/L	0.0000107	0.000264	0.10	0.0922	0.0907	0.0889	0.085 to 0.115		92.2	70 to 130	1.69	20
AZ17573	Boron, Total	mg/L	0.000977	0.065025	1.00	1.00	1.02	0.972	0.85 to 1.15		95.8	70 to 130	1.45	20
AZ17573	Calcium, Total	mg/L	-0.00207	0.216749	5.00	14.3	14.4	5.17	4.25 to 5.75		99.5	70 to 130	0.993	20
AZ17573	Cadmium, Total	mg/L	0.0000268	0.000132	0.10	0.0893	0.0911	0.0936	0.085 to 0.115		89.3	70 to 130	2.00	20
AZ17573	Cobalt, Total	mg/L	-0.00000302	0.00088	0.10	0.155	0.159	0.100	0.085 to 0.115		92.2	70 to 130	2.30	20
AZ17573	Chromium, Total	mg/L	-0.0000151	0.00088	0.10	0.0944	0.0946	0.0976	0.085 to 0.115		94.4	70 to 130	0.277	20
AZ17573	Mercury, Total by CVAA	mg/L	0.0000349	0.0005	0.004	0.00402	0.00398	0.00405	0.0034 to 0.0046		100	70 to 130	0.885	20
AZ17573	Lithium, Total	mg/L	-0.00000901	0.019704	0.20	0.213	0.218	0.194	0.17 to 0.23		106	70 to 130	2.30	20
AZ17573	Molybdenum, Total	mg/L	0.00000433	0.00088	0.10	0.0867	0.0899	0.0928	0.085 to 0.115		86.7	70 to 130	3.59	20
AZ17573	Lead, Total	mg/L	0.00000710	0.00044	0.10	0.101	0.101	0.0992	0.085 to 0.115		101	70 to 130	0.678	20
AZ17573	Antimony, Total	mg/L	0.0000642	0.000352	0.10	0.0872	0.0871	0.0881	0.085 to 0.115		86.2	70 to 130	0.0140	20
AZ17573	Selenium, Total	mg/L	0.0000678	0.00088	0.10	0.0921	0.0945	0.0965	0.085 to 0.115		92.1	70 to 130	2.52	20
AZ17573	Thallium, Total	mg/L	0.0000109	0.000088	0.10	0.0994	0.0997	0.102	0.085 to 0.115		99.4	70 to 130	0.232	20

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

* Test results for these accredited parameters conform to the most current applicable TNI/NELAC requirements, with exceptions noted on this report.

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2020

Comments:

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6247 or 6171
 FAX (205) 664-6108

Batch QC Summary



To: Dustin Brooks
 Greg Dyer
 Lauren Parker

Customer Account: WMWBARAP
 Sample Date: 31-Jul-19
 Customer ID:
 Delivery Date: 01-Aug-19

Description: Barry Ash Pond - MW-17H

Laboratory ID Number: AZ17571

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample		LCS Limit	Rec		Prec Limit	
							Duplicate	LCS		Rec	Limit		
AZ17573	Chloride	mg/L	-0.0289	0.50	200	358	160	10.0	9 to 11	100	80 to 120	1.89	20
AZ17573	Fluoride	mg/L	0.022	0.05	2.50	1.81	0.0507	2.55	2.25 to 2.75	70.3	80 to 120	1.57	20
AZ17573	Sulfate	mg/L	-0.391	0.50	20.0	21.6	2.65	19.8	18 to 22	94.8	80 to 120	0.00	20
AZ17723	Solids, Dissolved	mg/L	1.00	25			260	54.0	40 to 60		80 to 120	0.00	5

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2020

Comments:

CC:

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6247 or 6171
 FAX (205) 664-6108

Certificate Of Analysis  **Alabama Power**



To: Dustin Brooks
 Greg Dyer
 Lauren Parker

Customer Account: WMWBARAPEB
 Sample Date: 31-Jul-19
 Customer ID:
 Delivery Date: 01-Aug-19

Description: Barry Ash Pond Equipment Blank

Laboratory ID Number: AZ17572

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q	Results	Units
Metals, Cyanide, Total Phenols										
* Arsenic, Total	DLJ	8/6/2019	EPA 200.8		5.075	0.001	0.005	U	Not Detected	mg/L
* Barium, Total	DLJ	8/6/2019	EPA 200.8		5.075	0.002	0.01	U	Not Detected	mg/L
* Beryllium, Total	DLJ	8/6/2019	EPA 200.8		5.075	0.0006	0.003	U	Not Detected	mg/L
* Boron, Total	RDA	8/14/2019	EPA 200.7		1.015	0.03	0.1	U	Not Detected	mg/L
* Calcium, Total	RDA	8/14/2019	EPA 200.7		1.015	0.1	0.5	U	Not Detected	mg/L
* Cadmium, Total	DLJ	8/6/2019	EPA 200.8		5.075	0.0003	0.001	U	Not Detected	mg/L
* Antimony, Total	DLJ	8/6/2019	EPA 200.8		5.075	0.0008	0.003	J	0.00101	mg/L
* Cobalt, Total	DLJ	8/6/2019	EPA 200.8		5.075	0.002	0.005	U	Not Detected	mg/L
* Chromium, Total	DLJ	8/6/2019	EPA 200.8		5.075	0.002	0.01	U	Not Detected	mg/L
* Mercury, Total by CVAA	ELH	8/7/2019	EPA 245.1		1	0.0003	0.0005	U	Not Detected	mg/L
* Lithium, Total	RDA	8/14/2019	EPA 200.7		1.015	0.01	0.02	U	Not Detected	mg/L
* Molybdenum, Total	DLJ	8/6/2019	EPA 200.8		5.075	0.002	0.01	U	Not Detected	mg/L
* Lead, Total	DLJ	8/6/2019	EPA 200.8		5.075	0.001	0.005	U	Not Detected	mg/L
* Selenium, Total	DLJ	8/6/2019	EPA 200.8		5.075	0.002	0.01	U	Not Detected	mg/L
* Thallium, Total	DLJ	8/6/2019	EPA 200.8		5.075	0.0002	0.001	U	Not Detected	mg/L
General Characteristics										
* Solids, Dissolved	TJW	8/7/2019	SM 2540C		1		25	U	Not Detected	mg/L
Solids, Dissolved Filter Date	TJW	8/6/2019	SM 2540C		1				08/06/2019	Date
* Chloride	JCC	8/8/2019	SM4500CI E		1	0.50	1	U	Not Detected	mg/L
* Fluoride	JCC	8/8/2019	SM4500F G 2017		1	0.05	0.1	U	Not Detected	mg/L
* Sulfate	JCC	8/9/2019	SM4500SO4 E		1	0.50	1	U	Not Detected	mg/L

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2020

Comments:

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6247 or 6171
 FAX (205) 664-6108

Batch QC Summary



To: Dustin Brooks
 Greg Dyer
 Lauren Parker

Customer Account: WMWBARAPEB
 Sample Date: 31-Jul-19
 Customer ID:
 Delivery Date: 01-Aug-19

Description: Barry Ash Pond Equipment Blank

Laboratory ID Number: AZ17572

Sample	Analysis	Units	MB	MB		MS	MSD	LCS	LCS		Rec		Prec	Limit
				Limit	Spike				Limit	Rec	Limit	Prec		
AZ17573	Arsenic, Total	mg/L	0.00000622	0.00044	0.10	0.104	0.105	0.0929	0.085 to 0.115		86.8	70 to 130	1.05	20
AZ17573	Barium, Total	mg/L	0.0000878	0.00088	0.10	0.228	0.230	0.0941	0.085 to 0.115		84.5	70 to 130	0.582	20
AZ17573	Beryllium, Total	mg/L	0.0000107	0.000264	0.10	0.0922	0.0907	0.0889	0.085 to 0.115		92.2	70 to 130	1.69	20
AZ17573	Boron, Total	mg/L	0.000977	0.065025	1.00	1.00	1.02	0.972	0.85 to 1.15		95.8	70 to 130	1.45	20
AZ17573	Calcium, Total	mg/L	-0.00207	0.216749	5.00	14.3	14.4	5.17	4.25 to 5.75		99.5	70 to 130	0.993	20
AZ17573	Cadmium, Total	mg/L	0.00000268	0.000132	0.10	0.0893	0.0911	0.0936	0.085 to 0.115		89.3	70 to 130	2.00	20
AZ17573	Cobalt, Total	mg/L	-0.00000302	0.00088	0.10	0.155	0.159	0.100	0.085 to 0.115		92.2	70 to 130	2.30	20
AZ17573	Chromium, Total	mg/L	-0.0000151	0.00088	0.10	0.0944	0.0946	0.0976	0.085 to 0.115		94.4	70 to 130	0.277	20
AZ17573	Mercury, Total by CVAA	mg/L	0.0000349	0.0005	0.004	0.00402	0.00398	0.00405	0.0034 to 0.0046		100	70 to 130	0.885	20
AZ17573	Lithium, Total	mg/L	-0.00000901	0.019704	0.20	0.213	0.218	0.194	0.17 to 0.23		106	70 to 130	2.30	20
AZ17573	Molybdenum, Total	mg/L	0.00000433	0.00088	0.10	0.0867	0.0899	0.0928	0.085 to 0.115		86.7	70 to 130	3.59	20
AZ17573	Lead, Total	mg/L	0.00000710	0.00044	0.10	0.101	0.101	0.0992	0.085 to 0.115		101	70 to 130	0.678	20
AZ17573	Antimony, Total	mg/L	0.0000642	0.000352	0.10	0.0872	0.0871	0.0881	0.085 to 0.115		86.2	70 to 130	0.0140	20
AZ17573	Selenium, Total	mg/L	0.0000678	0.00088	0.10	0.0921	0.0945	0.0965	0.085 to 0.115		92.1	70 to 130	2.52	20
AZ17573	Thallium, Total	mg/L	0.0000109	0.000088	0.10	0.0994	0.0997	0.102	0.085 to 0.115		99.4	70 to 130	0.232	20

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

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2020

Comments:

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6247 or 6171
 FAX (205) 664-6108

Batch QC Summary



To: Dustin Brooks
 Greg Dyer
 Lauren Parker

Customer Account: WMWBARAPEB
 Sample Date: 31-Jul-19
 Customer ID:
 Delivery Date: 01-Aug-19

Description: Barry Ash Pond Equipment Blank

Laboratory ID Number: AZ17572

Sample	Analysis	Units	MB	MB		Sample		LCS	Rec		Prec		
				Limit	Spike	MS	Duplicate	LCS	Limit	Rec	Limit	Prec	Limit
AZ17573	Chloride	mg/L	-0.0289	0.50	200	358	160	10.0	9 to 11	100	80 to 120	1.89	20
AZ17573	Fluoride	mg/L	0.022	0.05	2.50	1.81	0.0507	2.55	2.25 to 2.75	70.3	80 to 120	1.57	20
AZ17573	Sulfate	mg/L	-0.391	0.50	20.0	21.6	2.65	19.8	18 to 22	94.8	80 to 120	0.00	20
AZ17723	Solids, Dissolved	mg/L	1.00	25			260	54.0	40 to 60		80 to 120	0.00	5

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2020

Comments:

CC:

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6247 or 6171
 FAX (205) 664-6108

Certificate Of Analysis  **Alabama Power**



To: Dustin Brooks
 Greg Dyer
 Lauren Parker

Customer Account: WMWBARAP
 Sample Date: 31-Jul-19
 Customer ID:
 Delivery Date: 01-Aug-19

Description: Barry Ash Pond - MW-15V

Laboratory ID Number: AZ17573

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q	Results	Units
Metals, Cyanide, Total Phenols										
* Arsenic, Total	DLJ	8/6/2019	EPA 200.8		5.075	0.001	0.005		0.0174	mg/L
* Barium, Total	DLJ	8/6/2019	EPA 200.8		5.075	0.002	0.01		0.144	mg/L
* Beryllium, Total	DLJ	8/6/2019	EPA 200.8		5.075	0.0006	0.003	U	Not Detected	mg/L
* Boron, Total	RDA	8/14/2019	EPA 200.7		1.015	0.03	0.1	J	0.0439	mg/L
* Calcium, Total	RDA	8/14/2019	EPA 200.7		1.015	0.1	0.5		9.32	mg/L
* Cadmium, Total	DLJ	8/6/2019	EPA 200.8		5.075	0.0003	0.001	U	Not Detected	mg/L
* Antimony, Total	DLJ	8/6/2019	EPA 200.8		5.075	0.0008	0.003	J	0.000940	mg/L
* Cobalt, Total	DLJ	8/6/2019	EPA 200.8		5.075	0.002	0.005		0.0632	mg/L
* Chromium, Total	DLJ	8/6/2019	EPA 200.8		5.075	0.002	0.01	U	Not Detected	mg/L
* Mercury, Total by CVAA	ELH	8/7/2019	EPA 245.1		1	0.0003	0.0005	U	Not Detected	mg/L
* Lithium, Total	RDA	8/14/2019	EPA 200.7		1.015	0.01	0.02	U	Not Detected	mg/L
* Molybdenum, Total	DLJ	8/6/2019	EPA 200.8		5.075	0.002	0.01	U	Not Detected	mg/L
* Lead, Total	DLJ	8/6/2019	EPA 200.8		5.075	0.001	0.005	U	Not Detected	mg/L
* Selenium, Total	DLJ	8/6/2019	EPA 200.8		5.075	0.002	0.01	U	Not Detected	mg/L
* Thallium, Total	DLJ	8/6/2019	EPA 200.8		5.075	0.0002	0.001	U	Not Detected	mg/L
General Characteristics										
* Solids, Dissolved	TJW	8/7/2019	SM 2540C		1		25		337	mg/L
Solids, Dissolved Filter Date	TJW	8/6/2019	SM 2540C		1				08/06/2019	Date
* Chloride	JCC	8/8/2019	SM4500Cl E		20	10.00	20		157	mg/L
* Fluoride	JCC	8/8/2019	SM4500F G 2017		1	0.05	0.1	J	0.0515	mg/L
* Sulfate	JCC	8/9/2019	SM4500SO4 E		1	0.50	1		2.65	mg/L
Field Measurements										
pH	TJD	7/31/2019							FA 5.37	SU

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2020

Comments: Matrix spike recovery for Fluoride is out of specification. All other QC passed. LBM 8/14/19

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6247 or 6171
 FAX (205) 664-6108

Batch QC Summary



To: Dustin Brooks
 Greg Dyer
 Lauren Parker

Customer Account: WMWBARAP
 Sample Date: 31-Jul-19
 Customer ID:
 Delivery Date: 01-Aug-19

Description: Barry Ash Pond - MW-15V

Laboratory ID Number: AZ17573

Sample	Analysis	Units	MB		MS	MSD	LCS	LCS Limit	Rec		Prec	Prec Limit	
			MB	Limit					Rec	Limit			
AZ17573	Arsenic, Total	mg/L	0.0000622	0.00044	0.10	0.104	0.105	0.0929	0.085 to 0.115	86.8	70 to 130	1.05	20
AZ17573	Barium, Total	mg/L	0.0000878	0.00088	0.10	0.228	0.230	0.0941	0.085 to 0.115	84.5	70 to 130	0.582	20
AZ17573	Beryllium, Total	mg/L	0.0000107	0.000264	0.10	0.0922	0.0907	0.0889	0.085 to 0.115	92.2	70 to 130	1.69	20
AZ17573	Boron, Total	mg/L	0.000977	0.065025	1.00	1.00	1.02	0.972	0.85 to 1.15	95.8	70 to 130	1.45	20
AZ17573	Calcium, Total	mg/L	-0.00207	0.216749	5.00	14.3	14.4	5.17	4.25 to 5.75	99.5	70 to 130	0.993	20
AZ17573	Cadmium, Total	mg/L	0.0000268	0.000132	0.10	0.0893	0.0911	0.0936	0.085 to 0.115	89.3	70 to 130	2.00	20
AZ17573	Cobalt, Total	mg/L	-0.0000302	0.00088	0.10	0.155	0.159	0.100	0.085 to 0.115	92.2	70 to 130	2.30	20
AZ17573	Chromium, Total	mg/L	-0.0000151	0.00088	0.10	0.0944	0.0946	0.0976	0.085 to 0.115	94.4	70 to 130	0.277	20
AZ17573	Mercury, Total by CVAA	mg/L	0.0000349	0.0005	0.004	0.00402	0.00398	0.00405	0.0034 to 0.0046	100	70 to 130	0.885	20
AZ17573	Lithium, Total	mg/L	-0.0000901	0.019704	0.20	0.213	0.218	0.194	0.17 to 0.23	106	70 to 130	2.30	20
AZ17573	Molybdenum, Total	mg/L	0.0000433	0.00088	0.10	0.0867	0.0899	0.0928	0.085 to 0.115	86.7	70 to 130	3.59	20
AZ17573	Lead, Total	mg/L	0.0000710	0.00044	0.10	0.101	0.101	0.0992	0.085 to 0.115	101	70 to 130	0.678	20
AZ17573	Antimony, Total	mg/L	0.0000642	0.000352	0.10	0.0872	0.0871	0.0881	0.085 to 0.115	86.2	70 to 130	0.0140	20
AZ17573	Selenium, Total	mg/L	0.0000678	0.00088	0.10	0.0921	0.0945	0.0965	0.085 to 0.115	92.1	70 to 130	2.52	20
AZ17573	Thallium, Total	mg/L	0.0000109	0.000088	0.10	0.0994	0.0997	0.102	0.085 to 0.115	99.4	70 to 130	0.232	20

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

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

* Test results for these accredited parameters conform to the most current applicable TNI/NELAC requirements, with exceptions noted on this report.

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2020

Comments: Matrix spike recovery for Fluoride is out of specification. All other QC passed. LBM 8/14/19

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6247 or 6171
 FAX (205) 664-6108

Batch QC Summary



To: Dustin Brooks
 Greg Dyer
 Lauren Parker

Customer Account: WMWBARAP
 Sample Date: 31-Jul-19
 Customer ID:
 Delivery Date: 01-Aug-19

Description: Barry Ash Pond - MW-15V

Laboratory ID Number: AZ17573

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample		LCS Limit	Rec		Prec Limit	
							Duplicate	LCS		Rec	Limit		Prec
AZ17573	Chloride	mg/L	-0.0289	0.50	200	358	160	10.0	9 to 11	100	80 to 120	1.89	20
AZ17573	Fluoride	mg/L	0.022	0.05	2.50	1.81	0.0507	2.55	2.25 to 2.75	70.3	80 to 120	1.57	20
AZ17573	Sulfate	mg/L	-0.391	0.50	20.0	21.6	2.65	19.8	18 to 22	94.8	80 to 120	0.00	20
AZ17723	Solids, Dissolved	mg/L	1.00	25			260	54.0	40 to 60		80 to 120	0.00	5

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

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

* Test results for these accredited parameters conform to the most current applicable TNI/NELAC requirements, with exceptions noted on this report.

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2020

Comments: Matrix spike recovery for Fluoride is out of specification. All other QC passed. LBM 8/14/19

CC:



Abbreviation	Description
DF	Dilution Factor
LCS	Lab Control Sample
LFM	Lab Fortified Matrix
MB	Method Blank
MDL	Method Detection Limit; minimum concentration of an analyte that can be determined with 99% confidence that the concentration is greater than zero.
MS	Matrix Spike
MSD	Matrix Spike Duplicate
Prec	Precision (% RPD)
Q	Qualifier; comment used to note deviations or additional information associated with analytical results.
QC	Quality Control
Rec	Recovery of Matrix Spike
RL	Reporting Limit; lowest concentration at which an analyte can be quantitatively measured.
Vio Spec	Violation Specification; regulatory limit which has been exceeded by the sample analyzed.

Qualifier	Description
B	Analyte found in reagent blank. Indicates possible reagent or background contamination.
BA	Analyte found in reagent blank is = RL AND is > 1/10 the amount of the sample.
C	Analyte was verified by re-analysis.
D	All samples were stored at less than or equal to 6 °C and for no longer than 48 hours from time of sampling, unless otherwise noted.
E	Estimated reported value exceeded calibration range.
F	Water Field Group (WFG) qualifier; see comments for more information
FA	Field results were reviewed by the Water Field Group.
H	The holding time for this test is immediately following sample collection. The samples were analyzed as soon as possible after receipt by the laboratory.
J	Reported value is an estimate because concentration is less than reporting limit.
K	No MB or LCS were submitted with the sample for dissolved analysis.
L	Check standard is outside of specification limit.
LA	Analyte recovery in the check standard was above specification limit. Results may be biased high.
LL	Analyte recovery in the check standard was below specification limit. Results may be biased low.
M	LOQ verification analyzed with batch was outside of specification limit.
N	Organic constituents tentatively identified. Confirmation is needed.
P	Precision is out of specification limit.
R	Matrix spike recovery or matrix spike duplicate recovery is outside of specification limit.
RA	Matrix spike is invalid due to sample concentration.
S	Surrogate recovery is outside of specification limit.
T	Sample temperature is outside of specification limit.
U	Compound was analyzed, but not detected.



Chain of Custody

Groundwater

APC General Testing Laboratory

Field Complete
 Lab Complete

Outside Lab

Lab ETA 08/01/2019 14:20

Requested Complete Date	Routine	Results To	Dustin Brooks, Greg Dyer, Lauren Parker
Site Representative	Tamala Davis	Requested By	Lauren Parker
Collector	TJ Daugherty	Location	Barry Ash Pond

Bottles	1	Metals	500 mL	3	TDS	500 mL	5	N/A	N/A	7	N/A	N/A
	2	Hg	250 mL	4	Anions	250 mL	6	N/A	N/A	8	N/A	N/A

Comments

Sample #	Date	Time	Bottle Count	Description	Lab Filter	Lab Id
MW-15V	7/31/19	15:20	4	Groundwater		AZ17573

Relinquished By	Received By	Date/Time
<i>H. AB</i>	<i>Lauren Parker</i>	08/01/2019 13:25

SmarTroll ID	6496-34170-1-1	All metals and radiological bottles have pH < 2	<input checked="" type="checkbox"/>
Turbidity ID	4677-23342-4-1	Cooler Temp	0.3 degrees C
Sample Event	1234	Thermometer ID	5408-27568-2-2
		pH Strip ID	7267-39374-6-6



Chain of Custody Groundwater

APC General Testing Laboratory

Field Complete

Outside Lab

Lab Complete


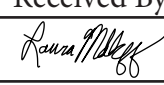
Lab ETA 08/01/2019 14:00

Requested Complete Date	Routine	Results To	Dustin Brooks,Greg Dyer,Lauren Parker
Site Representative	Tamala Davis	Requested By	Lauren Parker
Collector	Anthony Goggins	Location	Barry Ash Pond

Bottles	1	Metals	500 mL	3	TDS	500 mL	5	N/A	N/A	7	N/A	N/A
	2	Hg	250 mL	4	Anions	250 mL	6	N/A	N/A	8	N/A	N/A

Comments

Sample #	Date	Time	Bottle Count	Description	Lab Filter	Lab Id
MW-19H	7/31/19	10:11	4	Groundwater		AZ17565
MW-19HDUP	07/31/2019	10:11	4	Sample Duplicate		AZ17566
MW-22H	07/31/2019	12:35	4	Groundwater		AZ17567
MW-20H	07/31/2019	13:41	4	Groundwater		AZ17568
FB-1	07/31/2019	13:55	4	Field Blank		AZ17569
MW-23H	07/31/2019	15:27	4	Groundwater		AZ17570
MW-17H	07/31/2019	16:44	4	Groundwater		AZ17571
EB-1	07/31/2019	16:55	4	Equipment Blank		AZ17572

Relinquished By	Received By	Date/Time
		08/01/2019 14:47

SmarTroll ID	7151-38850-2-2	All metals and radiological bottles have pH < 2 <input checked="" type="checkbox"/> Cooler Temp Thermometer ID pH Strip ID	
Turbidity ID	5160-26211-1-1		0.2 degrees C
Sample Event	1234		5408-27568-2-2
			7267-39374-6-6



Chain of Custody Groundwater

APC General Testing Laboratory

Field Complete

Outside Lab

Lab Complete

Lab ETA 08/01/2019 14:30

Requested Complete Date	Routine	Results To	Dustin Brooks,Greg Dyer,Lauren Parker
Site Representative	Tamala Davis	Requested By	Lauren Parker
Collector	TJ Daugherty	Location	Barry Ash Pond

Bottles	1	Radium	1 L	3	N/A	N/A	5	N/A	N/A	7	N/A	N/A
	2	N/A	N/A	4	N/A	N/A	6	N/A	N/A	8	N/A	N/A

Comments

Sample #	Date	Time	Bottle Count	Description	Lab Filter	Lab Id
MW-15V	7/31/19	15:20	1	Groundwater		AZ17582

Relinquished By	Received By	Date/Time
		08/01/2019 14:00

SmarTroll ID	6496-34170-1-1	All metals and radiological bottles have pH < 2 <input checked="" type="checkbox"/> Cooler Temp 0.3 degrees C Thermometer ID 5408-27568-2-2 pH Strip ID 7267-39374-6-6
Turbidity ID	4677-23342-4-1	
Sample Event	1234	



Chain of Custody Groundwater

APC General Testing Laboratory

Field Complete
 Lab Complete

Outside Lab

Lab ETA 08/01/2019 14:00

Requested Complete Date Site Representative Collector	Routine	Results To Requested By Location	Dustin Brooks,Greg Dyer,Lauren Parker
	Tamala Davis		Lauren Parker
	Anthony Goggins		Barry Ash Pond

Bottles	1 Radium	1 L	3 N/A	N/A	5 N/A	N/A	7 N/A	N/A
	2 N/A	N/A	4 N/A	N/A	6 N/A	N/A	8 N/A	N/A

Comments: Radium Duplicate collected at MW22H

Sample #	Date	Time	Bottle Count	Description	Lab Filter	Lab Id
MW-19H	7/31/19	10:11	1	Groundwater		AZ17574
MW-19HDUP	07/31/2019	10:11	1	Sample Duplicate		AZ17575
MW-22H	07/31/2019	12:35	3	Groundwater		AZ17576
MW-20H	07/31/2019	13:41	1	Groundwater		AZ17577
FB-1	07/31/2019	13:55	1	Field Blank		AZ17578
MW-23H	07/31/2019	15:27	1	Groundwater		AZ17579
MW-17H	07/31/2019	16:44	1	Groundwater		AZ17580
EB-1	07/31/2019	16:55	1	Equipment Blank		AZ17581

Relinquished By	Received By	Date/Time
		08/01/2019 14:47

SmarTroll ID	7151-38850-2-2	All metals and radiological bottles have pH < 2 <input checked="" type="checkbox"/>
Turbidity ID	5160-26211-1-1	
Sample Event	1234	
Cooler Temp	N/A	
Thermometer ID	N/A	
pH Strip ID	7267-39374-6-6	

ANALYTICAL REPORT

Eurofins TestAmerica, Pensacola
3355 McLemore Drive
Pensacola, FL 32514
Tel: (850)474-1001

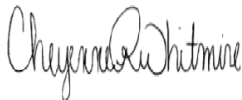
Laboratory Job ID: 400-174289-1

Laboratory Sample Delivery Group: Barry Ash Pond 1234
Client Project/Site: CCR Plant Barry

For:

Alabama Power General Test Laboratory
744 County Rd 87
GSC #8
Calera, Alabama 35040

Attn: Laura Midkiff



Authorized for release by:
9/12/2019 2:33:19 PM

Cheyenne Whitmire, Project Manager II
(850)471-6222
cheyenne.whitmire@testamericainc.com

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The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.



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Case Narrative

Client: Alabama Power General Test Laboratory
Project/Site: CCR Plant Barry

Job ID: 400-174289-1
SDG: Barry Ash Pond 1234

Job ID: 400-174289-1

Laboratory: Eurofins TestAmerica, Pensacola

Narrative

Job Narrative 400-174289-1

RAD

Method(s) 9315: Ra-226 Prep Batch 160-439067. Any minimum detectable concentration (MDC), critical value (DLC), or Safe Drinking Water Act detection limit (SDWA DL) is sample-specific unless otherwise stated elsewhere in this narrative. Radiochemistry sample results are reported with the count date/time applied as the Activity Reference Date. AZ17574 MW-19H (400-174289-1), AZ17575 MW-19H DUP (400-174289-2), AZ17576 MW-22H (400-174289-3), AZ17576 MW-22H (400-174289-3[DU]), AZ17577 MW-20H (400-174289-4), AZ17578 FB-1 (400-174289-5), AZ17579 MW-23H (400-174289-6), AZ17580 MW-17H (400-174289-7), AZ17581 EB-1 (400-174289-8), AZ17582 MW-15V (400-174289-9), (LCS 160-439067/1-A) and (MB 160-439067/12-A)

Method(s) 9320: Ra-228 Prep Batch 160-439082. Any minimum detectable concentration (MDC), critical value (DLC), or Safe Drinking Water Act detection limit (SDWA DL) is sample-specific unless otherwise stated elsewhere in this narrative. Radiochemistry sample results are reported with the count date/time applied as the Activity Reference Date. AZ17574 MW-19H (400-174289-1), AZ17575 MW-19H DUP (400-174289-2), AZ17576 MW-22H (400-174289-3), AZ17576 MW-22H (400-174289-3[DU]), AZ17577 MW-20H (400-174289-4), AZ17578 FB-1 (400-174289-5), AZ17579 MW-23H (400-174289-6), AZ17580 MW-17H (400-174289-7), AZ17581 EB-1 (400-174289-8), AZ17582 MW-15V (400-174289-9), (LCS 160-439082/1-A) and (MB 160-439082/12-A)

Method(s) PrecSep_0: Radium 228 Prep Batch 160-439082. The following samples were prepared at a reduced aliquot due to limited volume: AZ17574 MW-19H (400-174289-1), AZ17575 MW-19H DUP (400-174289-2), AZ17576 MW-22H (400-174289-3), AZ17576 MW-22H (400-174289-3[DU]), AZ17577 MW-20H (400-174289-4), AZ17578 FB-1 (400-174289-5), AZ17579 MW-23H (400-174289-6), AZ17580 MW-17H (400-174289-7), AZ17581 EB-1 (400-174289-8) and AZ17582 MW-15V (400-174289-9).

Method(s) PrecSep-21: Radium 226 Prep Batch 160-439067. The following samples were prepared at a reduced aliquot due to limited volume: AZ17574 MW-19H (400-174289-1), AZ17575 MW-19H DUP (400-174289-2), AZ17576 MW-22H (400-174289-3), AZ17576 MW-22H (400-174289-3[DU]), AZ17577 MW-20H (400-174289-4), AZ17578 FB-1 (400-174289-5), AZ17579 MW-23H (400-174289-6), AZ17580 MW-17H (400-174289-7), AZ17581 EB-1 (400-174289-8) and AZ17582 MW-15V (400-174289-9).

Method Summary

Client: Alabama Power General Test Laboratory
Project/Site: CCR Plant Barry

Job ID: 400-174289-1
SDG: Barry Ash Pond 1234

Method	Method Description	Protocol	Laboratory
9315	Radium-226 (GFPC)	SW846	TAL SL
9320	Radium-228 (GFPC)	SW846	TAL SL
Ra226_Ra228	Combined Radium-226 and Radium-228	TAL-STL	TAL SL
PrecSep_0	Preparation, Precipitate Separation	None	TAL SL
PrecSep-21	Preparation, Precipitate Separation (21-Day In-Growth)	None	TAL SL

Protocol References:

None = None

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

TAL-STL = TestAmerica Laboratories, St. Louis, Facility Standard Operating Procedure.

Laboratory References:

TAL SL = Eurofins TestAmerica, St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

Sample Summary

Client: Alabama Power General Test Laboratory
Project/Site: CCR Plant Barry

Job ID: 400-174289-1
SDG: Barry Ash Pond 1234

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
400-174289-1	AZ17574 MW-19H	Water	07/31/19 10:11	08/06/19 08:41	
400-174289-2	AZ17575 MW-19H DUP	Water	07/31/19 10:11	08/06/19 08:41	
400-174289-3	AZ17576 MW-22H	Water	07/31/19 12:35	08/06/19 08:41	
400-174289-4	AZ17577 MW-20H	Water	07/31/19 13:41	08/06/19 08:41	
400-174289-5	AZ17578 FB-1	Water	07/31/19 13:55	08/06/19 08:41	
400-174289-6	AZ17579 MW-23H	Water	07/31/19 15:27	08/06/19 08:41	
400-174289-7	AZ17580 MW-17H	Water	07/31/19 16:44	08/06/19 08:41	
400-174289-8	AZ17581 EB-1	Water	07/31/19 16:55	08/06/19 08:41	
400-174289-9	AZ17582 MW-15V	Water	07/31/19 15:20	08/06/19 08:41	

Client Sample Results

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Barry

Job ID: 400-174289-1
 SDG: Barry Ash Pond 1234

Client Sample ID: AZ17574 MW-19H

Lab Sample ID: 400-174289-1

Date Collected: 07/31/19 10:11

Matrix: Water

Date Received: 08/06/19 08:41

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	-0.0160	U	0.129	0.129	1.00	0.257	pCi/L	08/09/19 12:09	09/10/19 18:16	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	86.7		40 - 110					08/09/19 12:09	09/10/19 18:16	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.288	U	0.244	0.245	1.00	0.387	pCi/L	08/09/19 12:35	09/06/19 12:59	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	86.7		40 - 110					08/09/19 12:35	09/06/19 12:59	1
Y Carrier	95.3		40 - 110					08/09/19 12:35	09/06/19 12:59	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.272	U	0.276	0.277	5.00	0.387	pCi/L		09/12/19 08:58	1

Client Sample Results

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Barry

Job ID: 400-174289-1
 SDG: Barry Ash Pond 1234

Client Sample ID: AZ17575 MW-19H DUP

Lab Sample ID: 400-174289-2

Date Collected: 07/31/19 10:11

Matrix: Water

Date Received: 08/06/19 08:41

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.195	U	0.160	0.161	1.00	0.241	pCi/L	08/09/19 12:09	09/10/19 20:02	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	83.1		40 - 110					08/09/19 12:09	09/10/19 20:02	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.437	U	0.330	0.332	1.00	0.519	pCi/L	08/09/19 12:35	09/06/19 12:59	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	83.1		40 - 110					08/09/19 12:35	09/06/19 12:59	1
Y Carrier	80.7		40 - 110					08/09/19 12:35	09/06/19 12:59	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.632		0.367	0.369	5.00	0.519	pCi/L		09/12/19 08:58	1

Client Sample Results

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Barry

Job ID: 400-174289-1
 SDG: Barry Ash Pond 1234

Client Sample ID: AZ17576 MW-22H

Lab Sample ID: 400-174289-3

Date Collected: 07/31/19 12:35

Matrix: Water

Date Received: 08/06/19 08:41

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.350		0.176	0.178	1.00	0.220	pCi/L	08/09/19 12:09	09/10/19 20:02	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	87.6		40 - 110					08/09/19 12:09	09/10/19 20:02	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.0979	U	0.256	0.256	1.00	0.443	pCi/L	08/09/19 12:35	09/06/19 12:59	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	87.6		40 - 110					08/09/19 12:35	09/06/19 12:59	1
Y Carrier	87.9		40 - 110					08/09/19 12:35	09/06/19 12:59	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.448		0.311	0.312	5.00	0.443	pCi/L		09/12/19 08:58	1

Client Sample Results

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Barry

Job ID: 400-174289-1
 SDG: Barry Ash Pond 1234

Client Sample ID: AZ17577 MW-20H

Lab Sample ID: 400-174289-4

Date Collected: 07/31/19 13:41

Matrix: Water

Date Received: 08/06/19 08:41

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.312		0.178	0.180	1.00	0.243	pCi/L	08/09/19 12:09	09/10/19 20:02	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	88.4		40 - 110					08/09/19 12:09	09/10/19 20:02	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.0441	U	0.308	0.308	1.00	0.558	pCi/L	08/09/19 12:35	09/06/19 13:01	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	88.4		40 - 110					08/09/19 12:35	09/06/19 13:01	1
Y Carrier	73.3		40 - 110					08/09/19 12:35	09/06/19 13:01	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.268	U	0.356	0.357	5.00	0.558	pCi/L		09/12/19 08:58	1

Client Sample Results

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Barry

Job ID: 400-174289-1
 SDG: Barry Ash Pond 1234

Client Sample ID: AZ17578 FB-1

Lab Sample ID: 400-174289-5

Date Collected: 07/31/19 13:55

Matrix: Water

Date Received: 08/06/19 08:41

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	-0.0831	U	0.0739	0.0743	1.00	0.201	pCi/L	08/09/19 12:09	09/10/19 20:02	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	90.4		40 - 110					08/09/19 12:09	09/10/19 20:02	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.171	U	0.258	0.258	1.00	0.433	pCi/L	08/09/19 12:35	09/06/19 13:01	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	90.4		40 - 110					08/09/19 12:35	09/06/19 13:01	1
Y Carrier	90.5		40 - 110					08/09/19 12:35	09/06/19 13:01	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.0874	U	0.268	0.268	5.00	0.433	pCi/L		09/12/19 08:58	1

Client Sample Results

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Barry

Job ID: 400-174289-1
 SDG: Barry Ash Pond 1234

Client Sample ID: AZ17579 MW-23H

Lab Sample ID: 400-174289-6

Date Collected: 07/31/19 15:27

Matrix: Water

Date Received: 08/06/19 08:41

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.173	U	0.140	0.141	1.00	0.208	pCi/L	08/09/19 12:09	09/10/19 20:03	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	88.7		40 - 110					08/09/19 12:09	09/10/19 20:03	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.158	U	0.288	0.288	1.00	0.488	pCi/L	08/09/19 12:35	09/06/19 13:02	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	88.7		40 - 110					08/09/19 12:35	09/06/19 13:02	1
Y Carrier	81.9		40 - 110					08/09/19 12:35	09/06/19 13:02	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.331	U	0.320	0.321	5.00	0.488	pCi/L		09/12/19 08:58	1

Client Sample Results

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Barry

Job ID: 400-174289-1
 SDG: Barry Ash Pond 1234

Client Sample ID: AZ17580 MW-17H

Lab Sample ID: 400-174289-7

Date Collected: 07/31/19 16:44

Matrix: Water

Date Received: 08/06/19 08:41

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.382		0.178	0.182	1.00	0.214	pCi/L	08/09/19 12:09	09/10/19 20:03	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	92.4		40 - 110					08/09/19 12:09	09/10/19 20:03	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.239	U	0.250	0.251	1.00	0.409	pCi/L	08/09/19 12:35	09/06/19 13:02	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	92.4		40 - 110					08/09/19 12:35	09/06/19 13:02	1
Y Carrier	93.1		40 - 110					08/09/19 12:35	09/06/19 13:02	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.621		0.307	0.310	5.00	0.409	pCi/L		09/12/19 08:58	1

Client Sample Results

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Barry

Job ID: 400-174289-1
 SDG: Barry Ash Pond 1234

Client Sample ID: AZ17581 EB-1

Lab Sample ID: 400-174289-8

Date Collected: 07/31/19 16:55

Matrix: Water

Date Received: 08/06/19 08:41

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.104	U	0.105	0.106	1.00	0.164	pCi/L	08/09/19 12:09	09/10/19 20:04	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	106		40 - 110					08/09/19 12:09	09/10/19 20:04	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.0583	U	0.213	0.213	1.00	0.372	pCi/L	08/09/19 12:35	09/06/19 13:02	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	106		40 - 110					08/09/19 12:35	09/06/19 13:02	1
Y Carrier	88.6		40 - 110					08/09/19 12:35	09/06/19 13:02	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.162	U	0.237	0.238	5.00	0.372	pCi/L		09/12/19 08:58	1

Client Sample Results

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Barry

Job ID: 400-174289-1
 SDG: Barry Ash Pond 1234

Client Sample ID: AZ17582 MW-15V

Lab Sample ID: 400-174289-9

Date Collected: 07/31/19 15:20

Matrix: Water

Date Received: 08/06/19 08:41

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.627		0.208	0.216	1.00	0.219	pCi/L	08/09/19 12:09	09/10/19 20:05	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	91.2		40 - 110					08/09/19 12:09	09/10/19 20:05	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.466		0.296	0.299	1.00	0.456	pCi/L	08/09/19 12:35	09/06/19 13:02	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	91.2		40 - 110					08/09/19 12:35	09/06/19 13:02	1
Y Carrier	86.0		40 - 110					08/09/19 12:35	09/06/19 13:02	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	1.09		0.362	0.369	5.00	0.456	pCi/L		09/12/19 08:58	1

Definitions/Glossary

Client: Alabama Power General Test Laboratory
Project/Site: CCR Plant Barry

Job ID: 400-174289-1
SDG: Barry Ash Pond 1234

Qualifiers

Rad

Qualifier	Qualifier Description
U	Result is less than the sample detection limit.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
▫	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Lab Chronicle

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Barry

Job ID: 400-174289-1
 SDG: Barry Ash Pond 1234

Client Sample ID: AZ17574 MW-19H

Lab Sample ID: 400-174289-1

Date Collected: 07/31/19 10:11

Matrix: Water

Date Received: 08/06/19 08:41

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			439067	08/09/19 12:09	ORM	TAL SL
Total/NA	Analysis	9315		1	442559	09/10/19 18:16	CDR	TAL SL
Total/NA	Prep	PrecSep_0			439082	08/09/19 12:35	ORM	TAL SL
Total/NA	Analysis	9320		1	441902	09/06/19 12:59	KLS	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	442757	09/12/19 08:58	SMP	TAL SL

Client Sample ID: AZ17575 MW-19H DUP

Lab Sample ID: 400-174289-2

Date Collected: 07/31/19 10:11

Matrix: Water

Date Received: 08/06/19 08:41

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			439067	08/09/19 12:09	ORM	TAL SL
Total/NA	Analysis	9315		1	442562	09/10/19 20:02	CDR	TAL SL
Total/NA	Prep	PrecSep_0			439082	08/09/19 12:35	ORM	TAL SL
Total/NA	Analysis	9320		1	441902	09/06/19 12:59	KLS	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	442757	09/12/19 08:58	SMP	TAL SL

Client Sample ID: AZ17576 MW-22H

Lab Sample ID: 400-174289-3

Date Collected: 07/31/19 12:35

Matrix: Water

Date Received: 08/06/19 08:41

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			439067	08/09/19 12:09	ORM	TAL SL
Total/NA	Analysis	9315		1	442562	09/10/19 20:02	CDR	TAL SL
Total/NA	Prep	PrecSep_0			439082	08/09/19 12:35	ORM	TAL SL
Total/NA	Analysis	9320		1	441902	09/06/19 12:59	KLS	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	442757	09/12/19 08:58	SMP	TAL SL

Client Sample ID: AZ17577 MW-20H

Lab Sample ID: 400-174289-4

Date Collected: 07/31/19 13:41

Matrix: Water

Date Received: 08/06/19 08:41

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			439067	08/09/19 12:09	ORM	TAL SL
Total/NA	Analysis	9315		1	442562	09/10/19 20:02	CDR	TAL SL
Total/NA	Prep	PrecSep_0			439082	08/09/19 12:35	ORM	TAL SL
Total/NA	Analysis	9320		1	441883	09/06/19 13:01	KLS	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	442757	09/12/19 08:58	SMP	TAL SL

Lab Chronicle

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Barry

Job ID: 400-174289-1
 SDG: Barry Ash Pond 1234

Client Sample ID: AZ17578 FB-1

Lab Sample ID: 400-174289-5

Date Collected: 07/31/19 13:55

Matrix: Water

Date Received: 08/06/19 08:41

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			439067	08/09/19 12:09	ORM	TAL SL
Total/NA	Analysis	9315		1	442562	09/10/19 20:02	CDR	TAL SL
Total/NA	Prep	PrecSep_0			439082	08/09/19 12:35	ORM	TAL SL
Total/NA	Analysis	9320		1	441883	09/06/19 13:01	KLS	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	442757	09/12/19 08:58	SMP	TAL SL

Client Sample ID: AZ17579 MW-23H

Lab Sample ID: 400-174289-6

Date Collected: 07/31/19 15:27

Matrix: Water

Date Received: 08/06/19 08:41

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			439067	08/09/19 12:09	ORM	TAL SL
Total/NA	Analysis	9315		1	442562	09/10/19 20:03	CDR	TAL SL
Total/NA	Prep	PrecSep_0			439082	08/09/19 12:35	ORM	TAL SL
Total/NA	Analysis	9320		1	441883	09/06/19 13:02	KLS	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	442757	09/12/19 08:58	SMP	TAL SL

Client Sample ID: AZ17580 MW-17H

Lab Sample ID: 400-174289-7

Date Collected: 07/31/19 16:44

Matrix: Water

Date Received: 08/06/19 08:41

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			439067	08/09/19 12:09	ORM	TAL SL
Total/NA	Analysis	9315		1	442562	09/10/19 20:03	CDR	TAL SL
Total/NA	Prep	PrecSep_0			439082	08/09/19 12:35	ORM	TAL SL
Total/NA	Analysis	9320		1	441883	09/06/19 13:02	KLS	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	442757	09/12/19 08:58	SMP	TAL SL

Client Sample ID: AZ17581 EB-1

Lab Sample ID: 400-174289-8

Date Collected: 07/31/19 16:55

Matrix: Water

Date Received: 08/06/19 08:41

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			439067	08/09/19 12:09	ORM	TAL SL
Total/NA	Analysis	9315		1	442562	09/10/19 20:04	CDR	TAL SL
Total/NA	Prep	PrecSep_0			439082	08/09/19 12:35	ORM	TAL SL
Total/NA	Analysis	9320		1	441883	09/06/19 13:02	KLS	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	442757	09/12/19 08:58	SMP	TAL SL

Lab Chronicle

Client: Alabama Power General Test Laboratory
Project/Site: CCR Plant Barry

Job ID: 400-174289-1
SDG: Barry Ash Pond 1234

Client Sample ID: AZ17582 MW-15V

Lab Sample ID: 400-174289-9

Date Collected: 07/31/19 15:20

Matrix: Water

Date Received: 08/06/19 08:41

<u>Prep Type</u>	<u>Batch Type</u>	<u>Batch Method</u>	<u>Run</u>	<u>Dilution Factor</u>	<u>Batch Number</u>	<u>Prepared or Analyzed</u>	<u>Analyst</u>	<u>Lab</u>
Total/NA	Prep	PrecSep-21			439067	08/09/19 12:09	ORM	TAL SL
Total/NA	Analysis	9315		1	442559	09/10/19 20:05	CDR	TAL SL
Total/NA	Prep	PrecSep_0			439082	08/09/19 12:35	ORM	TAL SL
Total/NA	Analysis	9320		1	441883	09/06/19 13:02	KLS	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	442757	09/12/19 08:58	SMP	TAL SL

Laboratory References:

TAL SL = Eurofins TestAmerica, St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566



QC Association Summary

Client: Alabama Power General Test Laboratory
Project/Site: CCR Plant Barry

Job ID: 400-174289-1
SDG: Barry Ash Pond 1234

Rad

Prep Batch: 439067

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-174289-1	AZ17574 MW-19H	Total/NA	Water	PrecSep-21	
400-174289-2	AZ17575 MW-19H DUP	Total/NA	Water	PrecSep-21	
400-174289-3	AZ17576 MW-22H	Total/NA	Water	PrecSep-21	
400-174289-4	AZ17577 MW-20H	Total/NA	Water	PrecSep-21	
400-174289-5	AZ17578 FB-1	Total/NA	Water	PrecSep-21	
400-174289-6	AZ17579 MW-23H	Total/NA	Water	PrecSep-21	
400-174289-7	AZ17580 MW-17H	Total/NA	Water	PrecSep-21	
400-174289-8	AZ17581 EB-1	Total/NA	Water	PrecSep-21	
400-174289-9	AZ17582 MW-15V	Total/NA	Water	PrecSep-21	
MB 160-439067/12-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-439067/1-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
400-174289-3 DU	AZ17576 MW-22H	Total/NA	Water	PrecSep-21	

Prep Batch: 439082

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-174289-1	AZ17574 MW-19H	Total/NA	Water	PrecSep_0	
400-174289-2	AZ17575 MW-19H DUP	Total/NA	Water	PrecSep_0	
400-174289-3	AZ17576 MW-22H	Total/NA	Water	PrecSep_0	
400-174289-4	AZ17577 MW-20H	Total/NA	Water	PrecSep_0	
400-174289-5	AZ17578 FB-1	Total/NA	Water	PrecSep_0	
400-174289-6	AZ17579 MW-23H	Total/NA	Water	PrecSep_0	
400-174289-7	AZ17580 MW-17H	Total/NA	Water	PrecSep_0	
400-174289-8	AZ17581 EB-1	Total/NA	Water	PrecSep_0	
400-174289-9	AZ17582 MW-15V	Total/NA	Water	PrecSep_0	
MB 160-439082/12-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-439082/1-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
400-174289-3 DU	AZ17576 MW-22H	Total/NA	Water	PrecSep_0	

QC Sample Results

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Barry

Job ID: 400-174289-1
 SDG: Barry Ash Pond 1234

Method: 9315 - Radium-226 (GFPC)

Lab Sample ID: MB 160-439067/12-A
Matrix: Water
Analysis Batch: 442559

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 439067

Analyte	MB MB		Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
	Result	Qualifier	Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Radium-226	-0.05981	U	0.101	0.101	1.00	0.221	pCi/L	08/09/19 12:09	09/10/19 20:06	1
Carrier	MB MB		Limits			Prepared	Analyzed	Dil Fac		
	%Yield	Qualifier								
Ba Carrier	104		40 - 110			08/09/19 12:09	09/10/19 20:06	1		

Lab Sample ID: LCS 160-439067/1-A
Matrix: Water
Analysis Batch: 442559

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 439067

Analyte	Spike Added	LCS Result	LCS Qual	Total	RL	MDC	Unit	%Rec	%Rec. Limits
				Uncert. (2σ+/-)					
Radium-226	15.1	15.20		1.62	1.00	0.217	pCi/L	100	75 - 125
Carrier	LCS LCS		Limits			Prepared	Analyzed	Dil Fac	
	%Yield	Qualifier							
Ba Carrier	92.9		40 - 110						

Lab Sample ID: 400-174289-3 DU
Matrix: Water
Analysis Batch: 442562

Client Sample ID: AZ17576 MW-22H
Prep Type: Total/NA
Prep Batch: 439067

Analyte	Sample Sample		DU	DU	Total	RL	MDC	Unit	RER	RER Limit
	Result	Qual	Result	Qual	Uncert. (2σ+/-)					
Radium-226	0.350		0.3205		0.175	1.00	0.223	pCi/L	0.08	1
Carrier	DU DU		Limits			Prepared	Analyzed	Dil Fac		
	%Yield	Qualifier								
Ba Carrier	84.2		40 - 110							

Method: 9320 - Radium-228 (GFPC)

Lab Sample ID: MB 160-439082/12-A
Matrix: Water
Analysis Batch: 441883

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 439082

Analyte	MB MB		Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
	Result	Qualifier	Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Radium-228	0.2118	U	0.234	0.234	1.00	0.383	pCi/L	08/09/19 12:35	09/06/19 13:02	1
Carrier	MB MB		Limits			Prepared	Analyzed	Dil Fac		
	%Yield	Qualifier								
Ba Carrier	104		40 - 110			08/09/19 12:35	09/06/19 13:02	1		
Y Carrier	90.5		40 - 110			08/09/19 12:35	09/06/19 13:02	1		

QC Sample Results

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Barry

Job ID: 400-174289-1
 SDG: Barry Ash Pond 1234

Method: 9320 - Radium-228 (GFPC) (Continued)

Lab Sample ID: LCS 160-439082/1-A
Matrix: Water
Analysis Batch: 441902

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 439082

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits
Radium-228	12.8	11.53		1.31	1.00	0.413	pCi/L	90	75 - 125

Carrier	LCS %Yield	LCS Qualifier	Limits
Ba Carrier	92.9		40 - 110
Y Carrier	91.6		40 - 110

Lab Sample ID: 400-174289-3 DU
Matrix: Water
Analysis Batch: 441902

Client Sample ID: AZ17576 MW-22H
Prep Type: Total/NA
Prep Batch: 439082

Analyte	Sample Result	Sample Qual	DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	RER	RER Limit
Radium-228	0.0979	U	0.2828	U	0.268	1.00	0.430	pCi/L	0.35	1

Carrier	DU %Yield	DU Qualifier	Limits
Ba Carrier	84.2		40 - 110
Y Carrier	96.4		40 - 110

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Lab Sample ID: 400-174289-3 DU
Matrix: Water
Analysis Batch: 442757

Client Sample ID: AZ17576 MW-22H
Prep Type: Total/NA

Analyte	Sample Result	Sample Qual	DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	RER	RER Limit
Combined Radium 226 + 228	0.448		0.6033		0.320	5.00	0.430	pCi/L	0.25	

TestAmerica Pensacola
 3355 McLemore Drive
 Pensacola, FL 32514
 Phone (850) 474-1001 Fax (850) 478-2671

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information (Sub Contract Lab)		Sampler: Anthony Goggins		Lab P/L: Whitmore, Cheyenne R	Carrier Tracking No(s):
Client Contact: Laura Midkiff		Phone:		E-Mail: cheyenne.whitmore@testamericainc.com	State of Origin: Alabama
Company: Alabama Power General Test Laboratory		Due Date Requested:		COC No: 400-56525-24537.1	
Address: 744 County Rd 87 GSC#8		TAT Requested (days):		Page: Page 1 of 2	
City: Calera		Routine		Job #:	
State, Zip: AL 35040		PO #:		Preservation Codes:	
Phone: 205-664-6197		WO #:		A - HCL B - NaOH C - Zn Acetate D - Nitric Acid E - NaHSO4 F - MeOH G - H2SO4 H - Ascorbic Acid I - TSP Dodecylsulfate J - Acetone K - DI Water L - EDTA M - Hexane N - None O - Ash/02 P - Na2O4S Q - Na2SO3 R - Na2S2O3 S - H2SO4 T - TSP Dodecylsulfate U - Acetone V - MeOH W - pH 4.5 X - EDTA Y - EDTA Z - other (specify)	
Email: lmidkiff@southernco.com		Project #:		Other:	
Project Name: CCR		40007143			
Site: Barry Ash Pond 1234		SSOW#:			

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix (Groundwater, Surface, Driftwater, etc.)	Field Filtered Sample (Yes or No)	Perform Hs/MSD (Yes or No)	SM 4500 F, C	SM 4500 Cl, m	SM 4500 SO4, E	9315, Ra226, 9320, Ra228, Ra228Ra228, GFC	Analysis Requested	Total Number of Containers	Special Instructions/Note:
AZ17574	7/31/19	10:11	G	Water	X	X				X	100-174289 COC	1	MW-19H
AZ17575	7/31/19	10:11	G	Water		X				X		1	MW-19H DUJ (Sample Duplicate)
AZ17576	7/31/19	12:35	G	Water		X				X		3	MW-22H
AZ17577	7/31/19	13:41	G	Water		X				X		1	MW-20H
AZ17578	7/31/19	13:55	G	Water		X				X		1	FB-1 (Field Blank)
AZ17579	7/31/19	15:27	G	Water		X				X		1	MW-23H
AZ17580	7/31/19	16:44	G	Water		X				X		1	MW-17H
AZ17581	7/31/19	16:55	G	Water		X				X		1	EB-1 (Equipment Blank)

Note: Since laboratory accreditations are subject to change, TestAmerica Laboratories, Inc. places the ownership of method, analysis & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/test/matrix being analyzed, the samples must be shipped back to the TestAmerica laboratory or other instructions will be provided. Any changes to accreditation status should be brought to TestAmerica Laboratories, Inc. attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody, attesting to said compliance to TestAmerica Laboratories, Inc.

Possible Hazard Identification
 Unclassified
 Deliverable Requested: I II III IV Other (specify) _____

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
 Return To Client Disposal By Lab Archive For _____ Months

Empty Kit Relinquished by:		Date:		Method of Shipment:	
Relinquished by: Laura Midkiff		Date/Time: 08/05/2019 09:20		Date/Time: _____	
Relinquished by:		Water APC		Company:	
Date/Time:		Company:		Date/Time:	
Date/Time:		Company:		Date/Time:	
Date/Time:		Company:		Date/Time:	
Relinquished by:		Received by: M. Madawway		Date/Time: 8/6/19 8:41	
Date/Time:		Company:		Date/Time:	
Date/Time:		Company:		Date/Time:	
Date/Time:		Company:		Date/Time:	
Custody Seals Intact:		Custody Seal No.:		Cooler Temperature(s) °C and Other Remarks:	

Ver: 09/20/2016

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Chain of Custody Record

Client Information (Sub Contract Lab) Client Contact: Laura Miskiff Phone: _____ Lab P/N: _____ Whittire: Cheyenne R State of Origin: Alabama E-Mail: cheyenne.whittire@testamericainc.com Accreditations Required (See note): _____		Carrier Tracking Note: _____ COC No: 400-56525-24537.1 Page: Page 2 of 2 Job #: _____	
Due Date Requested: TAT Requested (days): Routine PC #: _____ W/O #: _____ Project #: 40007143 COR: S50W		Analysis Requested 9315_Ra226, 9320_Ra228, Ra226Ra228_GFPc SM 4500 SO4.E SM 4500 CLF SM 4500 F.C Perforated H&MSD (Yes or No) <input checked="" type="checkbox"/>	
Company: Alabama Power General Test Laboratory Address: 744 County Rd 87 GSC#8 City: Callera State: AL Zip: AL 35040 Phone: 205-664-6197 Email: lomidkiff@southernco.com Project Name: _____ Site: Barry Ash Pond 1234		Preservation Codes: A - HCL B - NaOH C - Zn Acetate D - Nitric Acid E - NaHSO4 F - MeOH G - Amchlor H - Ascorbic Acid I - TSP Dodecylsulfate J - Nitrate K - DI Water L - EDTA M - EDA N - Heptane O - None P - Na2O4S Q - Na2SO3 R - Na2SO3 S - H2SO4 T - TSP Dodecylsulfate U - Nitrate V - MeOH W - pH 4.5 X - other (specify) _____ Other: _____	
Sample Identification - Client ID (Lab ID) A.Z17562		Total Number of Containers: 1 MW-15V Special Instructions/Note: _____	
Sample Date: 7/31/19 Sample Time: 15:20 Sample Type (C=Comp, G=grab): G Matrix (None, Seawater, Overhaul, etc.): Water Preservation Code: _____		Field Filtered H&MSD (Yes or No) <input checked="" type="checkbox"/>	
Note: Since laboratory accreditations are subject to change, TestAmerica Laboratories, Inc. places the ownership of method, analyte & accreditation compliance upon subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/test/matrix being analyzed, the samples must be shipped back to the TestAmerica laboratory or other instructions will be provided. Any changes to accreditation status should be brought to TestAmerica Laboratories, Inc. attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to TestAmerica Laboratories, Inc.			
Possible Hazard Identification Unconfirmed _____ Deliverable Requested: I II III IV Other (specify) _____			
Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return to Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months			
Relinquished by: Laura Miskiff Date/Time: 08/05/2019 09:20 Water: APC Company: _____		Received by: _____ Date/Time: _____ Method of Shipment: _____	
Relinquished by: _____ Date/Time: _____		Received by: _____ Date/Time: _____	
Relinquished by: _____ Date/Time: _____		Received by: M J JADONOWICZ Date/Time: 8/14/19 Company: TFA	
Custody Seals Intact: _____ Custody Seal No.: _____		Cooler Temperature(s): _____ °C and Other Remarks: _____	

Ver 09/20/2016
278 C I E 7



Login Sample Receipt Checklist

Client: Alabama Power General Test Laboratory

Job Number: 400-174289-1
SDG Number: Barry Ash Pond 1234

Login Number: 174289

List Source: Eurofins TestAmerica, Pensacola

List Number: 1

Creator: Brown, Nathan

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	27.5°C IR7
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



Login Sample Receipt Checklist

Client: Alabama Power General Test Laboratory

Job Number: 400-174289-1
SDG Number: Barry Ash Pond 1234

Login Number: 174289

List Number: 2

Creator: Harris, Lorin C

List Source: Eurofins TestAmerica, St. Louis

List Creation: 08/08/19 10:44 AM

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	False	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	False	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	N/A	
Multiphasic samples are not present.	N/A	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



Accreditation/Certification Summary

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Barry

Job ID: 400-174289-1
 SDG: Barry Ash Pond 1234

Laboratory: Eurofins TestAmerica, Pensacola

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Alabama	State	40150	07-01-20
Alabama	State Program	40150	06-30-20
ANAB	ISO/IEC 17025	L2471	02-22-20
ANAB	ISO/IEC 17025	L2471	02-22-20
Arizona	State	AZ0710	01-12-20
Arizona	State Program	AZ0710	01-12-20
Arkansas DEQ	State	88-0689	09-01-20
Arkansas DEQ	State Program	88-0689	09-01-20
California	State Program	2510	06-30-20
Florida	NELAP	E81010	06-30-20
Florida	NELAP	E81010	06-30-20
Georgia	State Program	E81010 (FL)	06-30-20
Illinois	NELAP	200041	10-09-19
Illinois	NELAP	004586	10-09-19
Iowa	State Program	367	08-01-20
Kansas	NELAP	E-10253	10-31-19
Kansas	NELAP	E-10253	08-16-20
Kentucky (UST)	State Program	53	06-30-20
Kentucky (WW)	State	93030	12-30-19
Kentucky (WW)	State Program	98030	12-31-19
Louisiana	NELAP	30976	06-30-20
Louisiana (DW)	NELAP	LA017	12-31-19
Maryland	State	233	09-30-20
Maryland	State Program	233	09-30-20
Massachusetts	State Program	M-FL094	06-30-20
Michigan	State	9912	05-06-20
Michigan	State Program	9912	05-06-20
Minnesota	NELAP	012-999-481	12-31-19
Minnesota	NELAP	012-999-481	12-31-19
New Jersey	NELAP	FL006	06-30-20
New Jersey	NELAP	FL006	07-30-20
North Carolina (WW/SW)	State Program	314	12-31-19
Oklahoma	State Program	9810	08-31-20
Pennsylvania	NELAP	68-00467	01-31-20
Pennsylvania	NELAP	68-00467	01-31-20
Rhode Island	State Program	LAO00307	12-30-19
South Carolina	State Program	96026	06-30-20
Tennessee	State	TN02907	06-30-20
Tennessee	State Program	TN02907	06-30-20
Texas	NELAP	T104704286-18-15	09-30-19
Texas	NELAP	T104704286	09-30-19
US Fish & Wildlife	Federal	LE058448-0	07-31-20
USDA	Federal	P330-18-00148	05-17-21
Virginia	NELAP	460166	06-14-20
Virginia	NELAP	460166	06-14-20
Washington	State	C915	05-15-20
Washington	State Program	C915	05-15-20
West Virginia DEP	State Program	136	09-30-19

Accreditation/Certification Summary

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Barry

Job ID: 400-174289-1
 SDG: Barry Ash Pond 1234

Laboratory: Eurofins TestAmerica, St. Louis

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
ANAB	Dept. of Defense ELAP	L2305	04-06-22
ANAB	Dept. of Energy	L2305.01	04-06-22
ANAB	DoD	L2305	04-06-22
ANAB	DOE	L2305.01	04-06-22
ANAB	ISO/IEC 17025	L2305	04-06-22
Arizona	State	AZ0813	12-08-19
Arizona	State Program	AZ0813	12-08-19
California	State	2886	06-30-20
California	State Program	2886	06-30-20
Connecticut	State	PH-0241	03-31-21
Connecticut	State Program	PH-0241	03-31-21
Florida	NELAP	E87689	06-30-20
Florida	NELAP	E87689	06-30-20
Hawaii	State Program	NA	06-30-20
Illinois	NELAP	200023	11-30-19
Illinois	NELAP	004553	11-30-19
Iowa	State Program	373	12-01-20
Kansas	NELAP	E-10236	10-31-19
Kentucky (DW)	State	KY90125	12-31-19
Kentucky (DW)	State Program	KY90125	12-31-19
Louisiana	NELAP	04080	06-30-20
Louisiana (DW)	NELAP	LA011	12-31-19
Louisiana (DW)	State	LA011	12-31-19
Maryland	State	310	09-30-20
Maryland	State Program	310	09-30-20
Michigan	State Program	9005	06-30-20
Missouri	State	780	06-30-22
Missouri	State Program	780	06-30-20
Nevada	State	MO000542020-1	07-31-20
New Jersey	NELAP	MO002	06-30-20
New Jersey	NELAP	MO002	06-30-20
New York	NELAP	11616	03-31-20
New York	NELAP	11616	04-01-20
North Dakota	State	R-207	06-30-20
North Dakota	State Program	R207	06-30-20
NRC	NRC	24-24817-01	12-31-22
Oklahoma	State	9997	08-31-20
Oklahoma	State Program	9997	08-31-20
Pennsylvania	NELAP	68-00540	02-28-20
Pennsylvania	NELAP	68-00540	02-28-20
South Carolina	State Program	85002001	06-30-20
Texas	NELAP	T104704193-19-14	07-31-20
Texas	NELAP	T104704193-19-13	07-31-20
US Fish & Wildlife	Federal	058448	07-31-20
US Fish & Wildlife	US Federal Programs	058448	07-31-20
USDA	Federal	P330-17-0028	02-02-20
USDA	US Federal Programs	P330-17-00028	02-02-20
Utah	NELAP	MO000542019-11	07-31-20
Virginia	NELAP	460230	06-14-20
Virginia	NELAP	10310	06-14-20

Accreditation/Certification Summary

Client: Alabama Power General Test Laboratory
Project/Site: CCR Plant Barry

Job ID: 400-174289-1
SDG: Barry Ash Pond 1234

Laboratory: Eurofins TestAmerica, St. Louis (Continued)

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Washington	State Program	C592	08-30-19 *
West Virginia DEP	State Program	381	08-31-19 *

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

**Alabama Power Company
Plant Barry Ash Pond**

WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
BY-AP-MW-10V	1/8/19 15:42	Conductivity	895.3	uS/cm
BY-AP-MW-10V	1/8/19 15:42	DO	0.17	mg/L
BY-AP-MW-10V	1/8/19 15:42	Depth to Water Detail	13.56	ft
BY-AP-MW-10V	1/8/19 15:42	Oxidation Reduction Potention	-106.2	mv
BY-AP-MW-10V	1/8/19 15:42	pH	6.52	pH
BY-AP-MW-10V	1/8/19 15:42	Temperature	21.73	C
BY-AP-MW-10V	1/8/19 15:42	Turbidity	19.4	NTU
BY-AP-MW-10V	1/8/19 15:47	Conductivity	874.6	uS/cm
BY-AP-MW-10V	1/8/19 15:47	DO	0.15	mg/L
BY-AP-MW-10V	1/8/19 15:47	Depth to Water Detail	13.56	ft
BY-AP-MW-10V	1/8/19 15:47	Oxidation Reduction Potention	-106	mv
BY-AP-MW-10V	1/8/19 15:47	pH	6.51	pH
BY-AP-MW-10V	1/8/19 15:47	Temperature	21.69	C
BY-AP-MW-10V	1/8/19 15:47	Turbidity	14.8	NTU
BY-AP-MW-10V	1/8/19 15:52	Conductivity	864.6	uS/cm
BY-AP-MW-10V	1/8/19 15:52	DO	0.14	mg/L
BY-AP-MW-10V	1/8/19 15:52	Depth to Water Detail	13.56	ft
BY-AP-MW-10V	1/8/19 15:52	Oxidation Reduction Potention	-105.7	mv
BY-AP-MW-10V	1/8/19 15:52	pH	6.52	pH
BY-AP-MW-10V	1/8/19 15:52	Temperature	21.64	C
BY-AP-MW-10V	1/8/19 15:52	Turbidity	12.9	NTU
BY-AP-MW-10V	1/8/19 15:57	Conductivity	848.8	uS/cm
BY-AP-MW-10V	1/8/19 15:57	DO	0.13	mg/L
BY-AP-MW-10V	1/8/19 15:57	Depth to Water Detail	13.56	ft
BY-AP-MW-10V	1/8/19 15:57	Oxidation Reduction Potention	-105.3	mv
BY-AP-MW-10V	1/8/19 15:57	pH	6.51	pH
BY-AP-MW-10V	1/8/19 15:57	Temperature	21.55	C
BY-AP-MW-10V	1/8/19 15:57	Turbidity	12.4	NTU
BY-AP-MW-10V	1/8/19 16:02	Conductivity	840.3	uS/cm
BY-AP-MW-10V	1/8/19 16:02	DO	0.12	mg/L
BY-AP-MW-10V	1/8/19 16:02	Depth to Water Detail	13.56	ft
BY-AP-MW-10V	1/8/19 16:02	Oxidation Reduction Potention	-104.4	mv
BY-AP-MW-10V	1/8/19 16:02	pH	6.51	pH
BY-AP-MW-10V	1/8/19 16:02	Temperature	21.47	C
BY-AP-MW-10V	1/8/19 16:02	Turbidity	8.51	NTU
BY-AP-MW-10V	1/8/19 16:07	Conductivity	833	uS/cm
BY-AP-MW-10V	1/8/19 16:07	DO	0.12	mg/L
BY-AP-MW-10V	1/8/19 16:07	Depth to Water Detail	13.56	ft
BY-AP-MW-10V	1/8/19 16:07	Oxidation Reduction Potention	-104.6	mv
BY-AP-MW-10V	1/8/19 16:07	pH	6.51	pH
BY-AP-MW-10V	1/8/19 16:07	Temperature	21.44	C
BY-AP-MW-10V	1/8/19 16:07	Turbidity	8.59	NTU
BY-AP-MW-10V	1/8/19 16:12	Conductivity	832.7	uS/cm
BY-AP-MW-10V	1/8/19 16:12	DO	0.11	mg/L

**Alabama Power Company
Plant Barry Ash Pond**

WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
BY-AP-MW-10V	1/8/19 16:12	Depth to Water Detail	13.56	ft
BY-AP-MW-10V	1/8/19 16:12	Oxidation Reduction Potention	-104.8	mv
BY-AP-MW-10V	1/8/19 16:12	pH	6.51	pH
BY-AP-MW-10V	1/8/19 16:12	Temperature	21.43	C
BY-AP-MW-10V	1/8/19 16:12	Turbidity	5.5	NTU
BY-AP-MW-10V	1/8/19 16:17	Conductivity	826.1	uS/cm
BY-AP-MW-10V	1/8/19 16:17	DO	0.11	mg/L
BY-AP-MW-10V	1/8/19 16:17	Depth to Water Detail	13.56	ft
BY-AP-MW-10V	1/8/19 16:17	Oxidation Reduction Potention	-104.6	mv
BY-AP-MW-10V	1/8/19 16:17	pH	6.5	pH
BY-AP-MW-10V	1/8/19 16:17	Temperature	21.43	C
BY-AP-MW-10V	1/8/19 16:17	Turbidity	4.48	NTU
BY-AP-MW-10V	1/8/19 16:22	Conductivity	822.3	uS/cm
BY-AP-MW-10V	1/8/19 16:22	DO	0.11	mg/L
BY-AP-MW-10V	1/8/19 16:22	Depth to Water Detail	13.56	ft
BY-AP-MW-10V	1/8/19 16:22	Oxidation Reduction Potention	-104.6	mv
BY-AP-MW-10V	1/8/19 16:22	pH	6.5	pH
BY-AP-MW-10V	1/8/19 16:22	Temperature	21.38	C
BY-AP-MW-10V	1/8/19 16:22	Turbidity	4.15	NTU

**Alabama Power Company
Plant Barry Ash Pond**

WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
BY-AP-MW-12V	1/8/19 14:10	Conductivity	666.3	uS/cm
BY-AP-MW-12V	1/8/19 14:10	DO	0.2	mg/L
BY-AP-MW-12V	1/8/19 14:10	Depth to Water Detail	11.76	ft
BY-AP-MW-12V	1/8/19 14:10	Oxidation Reduction Potention	-79.5	mv
BY-AP-MW-12V	1/8/19 14:10	pH	6.44	pH
BY-AP-MW-12V	1/8/19 14:10	Temperature	21.15	C
BY-AP-MW-12V	1/8/19 14:10	Turbidity	11.14	NTU
BY-AP-MW-12V	1/8/19 14:15	Conductivity	676.3	uS/cm
BY-AP-MW-12V	1/8/19 14:15	DO	0.17	mg/L
BY-AP-MW-12V	1/8/19 14:15	Depth to Water Detail	11.76	ft
BY-AP-MW-12V	1/8/19 14:15	Oxidation Reduction Potention	-82.2	mv
BY-AP-MW-12V	1/8/19 14:15	pH	6.46	pH
BY-AP-MW-12V	1/8/19 14:15	Temperature	21.1	C
BY-AP-MW-12V	1/8/19 14:15	Turbidity	8.06	NTU
BY-AP-MW-12V	1/8/19 14:20	Conductivity	675.5	uS/cm
BY-AP-MW-12V	1/8/19 14:20	DO	0.16	mg/L
BY-AP-MW-12V	1/8/19 14:20	Depth to Water Detail	11.76	ft
BY-AP-MW-12V	1/8/19 14:20	Oxidation Reduction Potention	-82.5	mv
BY-AP-MW-12V	1/8/19 14:20	pH	6.47	pH
BY-AP-MW-12V	1/8/19 14:20	Temperature	21.02	C
BY-AP-MW-12V	1/8/19 14:20	Turbidity	7.41	NTU
BY-AP-MW-12V	1/8/19 14:25	Conductivity	691.2	uS/cm
BY-AP-MW-12V	1/8/19 14:25	DO	0.15	mg/L
BY-AP-MW-12V	1/8/19 14:25	Depth to Water Detail	11.76	ft
BY-AP-MW-12V	1/8/19 14:25	Oxidation Reduction Potention	-82.5	mv
BY-AP-MW-12V	1/8/19 14:25	pH	6.47	pH
BY-AP-MW-12V	1/8/19 14:25	Temperature	21.02	C
BY-AP-MW-12V	1/8/19 14:25	Turbidity	6.65	NTU
BY-AP-MW-12V	1/8/19 14:30	Conductivity	686.2	uS/cm
BY-AP-MW-12V	1/8/19 14:30	DO	0.14	mg/L
BY-AP-MW-12V	1/8/19 14:30	Depth to Water Detail	11.76	ft
BY-AP-MW-12V	1/8/19 14:30	Oxidation Reduction Potention	-82.7	mv
BY-AP-MW-12V	1/8/19 14:30	pH	6.48	pH
BY-AP-MW-12V	1/8/19 14:30	Temperature	21.02	C
BY-AP-MW-12V	1/8/19 14:30	Turbidity	5.25	NTU
BY-AP-MW-12V	1/8/19 14:35	Conductivity	686.7	uS/cm
BY-AP-MW-12V	1/8/19 14:35	DO	0.13	mg/L
BY-AP-MW-12V	1/8/19 14:35	Depth to Water Detail	11.76	ft
BY-AP-MW-12V	1/8/19 14:35	Oxidation Reduction Potention	-82.3	mv
BY-AP-MW-12V	1/8/19 14:35	pH	6.48	pH
BY-AP-MW-12V	1/8/19 14:35	Temperature	20.95	C
BY-AP-MW-12V	1/8/19 14:35	Turbidity	4.32	NTU
BY-AP-MW-12V	1/8/19 14:40	Conductivity	689.3	uS/cm
BY-AP-MW-12V	1/8/19 14:40	DO	0.13	mg/L

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WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
BY-AP-MW-12V	1/8/19 14:40	Depth to Water Detail	11.76	ft
BY-AP-MW-12V	1/8/19 14:40	Oxidation Reduction Potention	-82.6	mv
BY-AP-MW-12V	1/8/19 14:40	pH	6.48	pH
BY-AP-MW-12V	1/8/19 14:40	Temperature	20.97	C
BY-AP-MW-12V	1/8/19 14:40	Turbidity	4.33	NTU

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WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
BY-AP-MW-15V	7/31/19 11:49	Conductivity	594.9	uS/cm
BY-AP-MW-15V	7/31/19 11:49	DO	0.33	mg/L
BY-AP-MW-15V	7/31/19 11:49	Depth to Water Detail	4.64	ft
BY-AP-MW-15V	7/31/19 11:49	Oxidation Reduction Potention	43.9	mv
BY-AP-MW-15V	7/31/19 11:49	pH	5.44	pH
BY-AP-MW-15V	7/31/19 11:49	Temperature	21.98	C
BY-AP-MW-15V	7/31/19 11:49	Turbidity	18.3	NTU
BY-AP-MW-15V	7/31/19 11:54	Conductivity	609.5	uS/cm
BY-AP-MW-15V	7/31/19 11:54	DO	0.24	mg/L
BY-AP-MW-15V	7/31/19 11:54	Depth to Water Detail	4.64	ft
BY-AP-MW-15V	7/31/19 11:54	Oxidation Reduction Potention	47.6	mv
BY-AP-MW-15V	7/31/19 11:54	pH	5.42	pH
BY-AP-MW-15V	7/31/19 11:54	Temperature	21.91	C
BY-AP-MW-15V	7/31/19 11:54	Turbidity	18.2	NTU
BY-AP-MW-15V	7/31/19 11:59	Conductivity	600.8	uS/cm
BY-AP-MW-15V	7/31/19 11:59	DO	0.22	mg/L
BY-AP-MW-15V	7/31/19 11:59	Depth to Water Detail	4.64	ft
BY-AP-MW-15V	7/31/19 11:59	Oxidation Reduction Potention	50.1	mv
BY-AP-MW-15V	7/31/19 11:59	pH	5.39	pH
BY-AP-MW-15V	7/31/19 11:59	Temperature	21.89	C
BY-AP-MW-15V	7/31/19 11:59	Turbidity	24.3	NTU
BY-AP-MW-15V	7/31/19 12:04	Conductivity	595.7	uS/cm
BY-AP-MW-15V	7/31/19 12:04	DO	0.21	mg/L
BY-AP-MW-15V	7/31/19 12:04	Depth to Water Detail	4.64	ft
BY-AP-MW-15V	7/31/19 12:04	Oxidation Reduction Potention	50.5	mv
BY-AP-MW-15V	7/31/19 12:04	pH	5.39	pH
BY-AP-MW-15V	7/31/19 12:04	Temperature	21.87	C
BY-AP-MW-15V	7/31/19 12:04	Turbidity	30.5	NTU
BY-AP-MW-15V	7/31/19 12:09	Conductivity	603.7	uS/cm
BY-AP-MW-15V	7/31/19 12:09	DO	0.19	mg/L
BY-AP-MW-15V	7/31/19 12:09	Depth to Water Detail	4.64	ft
BY-AP-MW-15V	7/31/19 12:09	Oxidation Reduction Potention	50.8	mv
BY-AP-MW-15V	7/31/19 12:09	pH	5.37	pH
BY-AP-MW-15V	7/31/19 12:09	Temperature	21.91	C
BY-AP-MW-15V	7/31/19 12:09	Turbidity	24.5	NTU
BY-AP-MW-15V	7/31/19 12:14	Conductivity	600.1	uS/cm
BY-AP-MW-15V	7/31/19 12:14	DO	0.19	mg/L
BY-AP-MW-15V	7/31/19 12:14	Depth to Water Detail	4.64	ft
BY-AP-MW-15V	7/31/19 12:14	Oxidation Reduction Potention	52.1	mv
BY-AP-MW-15V	7/31/19 12:14	pH	5.36	pH
BY-AP-MW-15V	7/31/19 12:14	Temperature	21.86	C
BY-AP-MW-15V	7/31/19 12:14	Turbidity	24.5	NTU
BY-AP-MW-15V	7/31/19 12:19	Conductivity	594.3	uS/cm
BY-AP-MW-15V	7/31/19 12:19	DO	0.18	mg/L

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WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
BY-AP-MW-15V	7/31/19 12:19	Depth to Water Detail	4.64	ft
BY-AP-MW-15V	7/31/19 12:19	Oxidation Reduction Potention	52.6	mv
BY-AP-MW-15V	7/31/19 12:19	pH	5.36	pH
BY-AP-MW-15V	7/31/19 12:19	Temperature	21.85	C
BY-AP-MW-15V	7/31/19 12:19	Turbidity	23.5	NTU
BY-AP-MW-15V	7/31/19 12:24	Conductivity	593.1	uS/cm
BY-AP-MW-15V	7/31/19 12:24	DO	0.18	mg/L
BY-AP-MW-15V	7/31/19 12:24	Depth to Water Detail	4.64	ft
BY-AP-MW-15V	7/31/19 12:24	Oxidation Reduction Potention	50.6	mv
BY-AP-MW-15V	7/31/19 12:24	pH	5.37	pH
BY-AP-MW-15V	7/31/19 12:24	Temperature	21.84	C
BY-AP-MW-15V	7/31/19 12:24	Turbidity	21.1	NTU
BY-AP-MW-15V	7/31/19 12:29	Conductivity	586.9	uS/cm
BY-AP-MW-15V	7/31/19 12:29	DO	0.17	mg/L
BY-AP-MW-15V	7/31/19 12:29	Depth to Water Detail	4.64	ft
BY-AP-MW-15V	7/31/19 12:29	Oxidation Reduction Potention	50.8	mv
BY-AP-MW-15V	7/31/19 12:29	pH	5.36	pH
BY-AP-MW-15V	7/31/19 12:29	Temperature	21.86	C
BY-AP-MW-15V	7/31/19 12:29	Turbidity	19.2	NTU
BY-AP-MW-15V	7/31/19 12:34	Conductivity	595.5	uS/cm
BY-AP-MW-15V	7/31/19 12:34	DO	0.16	mg/L
BY-AP-MW-15V	7/31/19 12:34	Depth to Water Detail	4.64	ft
BY-AP-MW-15V	7/31/19 12:34	Oxidation Reduction Potention	48.7	mv
BY-AP-MW-15V	7/31/19 12:34	pH	5.38	pH
BY-AP-MW-15V	7/31/19 12:34	Temperature	21.83	C
BY-AP-MW-15V	7/31/19 12:34	Turbidity	19.2	NTU
BY-AP-MW-15V	7/31/19 12:39	Conductivity	596.2	uS/cm
BY-AP-MW-15V	7/31/19 12:39	DO	0.15	mg/L
BY-AP-MW-15V	7/31/19 12:39	Depth to Water Detail	4.64	ft
BY-AP-MW-15V	7/31/19 12:39	Oxidation Reduction Potention	47.5	mv
BY-AP-MW-15V	7/31/19 12:39	pH	5.38	pH
BY-AP-MW-15V	7/31/19 12:39	Temperature	21.82	C
BY-AP-MW-15V	7/31/19 12:39	Turbidity	17.5	NTU
BY-AP-MW-15V	7/31/19 12:44	Conductivity	590.1	uS/cm
BY-AP-MW-15V	7/31/19 12:44	DO	0.15	mg/L
BY-AP-MW-15V	7/31/19 12:44	Depth to Water Detail	4.64	ft
BY-AP-MW-15V	7/31/19 12:44	Oxidation Reduction Potention	50.6	mv
BY-AP-MW-15V	7/31/19 12:44	pH	5.36	pH
BY-AP-MW-15V	7/31/19 12:44	Temperature	21.79	C
BY-AP-MW-15V	7/31/19 12:44	Turbidity	16.2	NTU
BY-AP-MW-15V	7/31/19 12:49	Conductivity	594.5	uS/cm
BY-AP-MW-15V	7/31/19 12:49	DO	0.15	mg/L
BY-AP-MW-15V	7/31/19 12:49	Depth to Water Detail	4.64	ft
BY-AP-MW-15V	7/31/19 12:49	Oxidation Reduction Potention	48.4	mv

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WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
BY-AP-MW-15V	7/31/19 12:49	pH	5.37	pH
BY-AP-MW-15V	7/31/19 12:49	Temperature	21.79	C
BY-AP-MW-15V	7/31/19 12:49	Turbidity	15	NTU
BY-AP-MW-15V	7/31/19 12:54	Conductivity	597.2	uS/cm
BY-AP-MW-15V	7/31/19 12:54	DO	0.14	mg/L
BY-AP-MW-15V	7/31/19 12:54	Depth to Water Detail	4.64	ft
BY-AP-MW-15V	7/31/19 12:54	Oxidation Reduction Potention	48.6	mv
BY-AP-MW-15V	7/31/19 12:54	pH	5.37	pH
BY-AP-MW-15V	7/31/19 12:54	Temperature	21.74	C
BY-AP-MW-15V	7/31/19 12:54	Turbidity	15.8	NTU
BY-AP-MW-15V	7/31/19 12:59	Conductivity	591.1	uS/cm
BY-AP-MW-15V	7/31/19 12:59	DO	0.14	mg/L
BY-AP-MW-15V	7/31/19 12:59	Depth to Water Detail	4.64	ft
BY-AP-MW-15V	7/31/19 12:59	Oxidation Reduction Potention	50.5	mv
BY-AP-MW-15V	7/31/19 12:59	pH	5.35	pH
BY-AP-MW-15V	7/31/19 12:59	Temperature	21.77	C
BY-AP-MW-15V	7/31/19 12:59	Turbidity	16.1	NTU
BY-AP-MW-15V	7/31/19 13:04	Conductivity	594.3	uS/cm
BY-AP-MW-15V	7/31/19 13:04	DO	0.14	mg/L
BY-AP-MW-15V	7/31/19 13:04	Depth to Water Detail	4.64	ft
BY-AP-MW-15V	7/31/19 13:04	Oxidation Reduction Potention	48.5	mv
BY-AP-MW-15V	7/31/19 13:04	pH	5.36	pH
BY-AP-MW-15V	7/31/19 13:04	Temperature	21.79	C
BY-AP-MW-15V	7/31/19 13:04	Turbidity	13.1	NTU
BY-AP-MW-15V	7/31/19 13:09	Conductivity	593.4	uS/cm
BY-AP-MW-15V	7/31/19 13:09	DO	0.13	mg/L
BY-AP-MW-15V	7/31/19 13:09	Depth to Water Detail	4.64	ft
BY-AP-MW-15V	7/31/19 13:09	Oxidation Reduction Potention	50.4	mv
BY-AP-MW-15V	7/31/19 13:09	pH	5.34	pH
BY-AP-MW-15V	7/31/19 13:09	Temperature	21.74	C
BY-AP-MW-15V	7/31/19 13:09	Turbidity	13.1	NTU
BY-AP-MW-15V	7/31/19 13:14	Conductivity	592	uS/cm
BY-AP-MW-15V	7/31/19 13:14	DO	0.13	mg/L
BY-AP-MW-15V	7/31/19 13:14	Depth to Water Detail	4.64	ft
BY-AP-MW-15V	7/31/19 13:14	Oxidation Reduction Potention	47.2	mv
BY-AP-MW-15V	7/31/19 13:14	pH	5.37	pH
BY-AP-MW-15V	7/31/19 13:14	Temperature	21.82	C
BY-AP-MW-15V	7/31/19 13:14	Turbidity	13.8	NTU
BY-AP-MW-15V	7/31/19 13:19	Conductivity	595.6	uS/cm
BY-AP-MW-15V	7/31/19 13:19	DO	0.13	mg/L
BY-AP-MW-15V	7/31/19 13:19	Depth to Water Detail	4.64	ft
BY-AP-MW-15V	7/31/19 13:19	Oxidation Reduction Potention	48.7	mv
BY-AP-MW-15V	7/31/19 13:19	pH	5.35	pH
BY-AP-MW-15V	7/31/19 13:19	Temperature	21.8	C

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WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
BY-AP-MW-15V	7/31/19 13:19	Turbidity	13.4	NTU
BY-AP-MW-15V	7/31/19 13:24	Conductivity	597.1	uS/cm
BY-AP-MW-15V	7/31/19 13:24	DO	0.13	mg/L
BY-AP-MW-15V	7/31/19 13:24	Depth to Water Detail	4.64	ft
BY-AP-MW-15V	7/31/19 13:24	Oxidation Reduction Potention	48.8	mv
BY-AP-MW-15V	7/31/19 13:24	pH	5.35	pH
BY-AP-MW-15V	7/31/19 13:24	Temperature	21.84	C
BY-AP-MW-15V	7/31/19 13:24	Turbidity	11.6	NTU
BY-AP-MW-15V	7/31/19 13:29	Conductivity	595.5	uS/cm
BY-AP-MW-15V	7/31/19 13:29	DO	0.12	mg/L
BY-AP-MW-15V	7/31/19 13:29	Depth to Water Detail	4.64	ft
BY-AP-MW-15V	7/31/19 13:29	Oxidation Reduction Potention	48	mv
BY-AP-MW-15V	7/31/19 13:29	pH	5.37	pH
BY-AP-MW-15V	7/31/19 13:29	Temperature	21.86	C
BY-AP-MW-15V	7/31/19 13:29	Turbidity	11.7	NTU
BY-AP-MW-15V	7/31/19 13:34	Conductivity	596.9	uS/cm
BY-AP-MW-15V	7/31/19 13:34	DO	0.15	mg/L
BY-AP-MW-15V	7/31/19 13:34	Depth to Water Detail	4.64	ft
BY-AP-MW-15V	7/31/19 13:34	Oxidation Reduction Potention	46.9	mv
BY-AP-MW-15V	7/31/19 13:34	pH	5.37	pH
BY-AP-MW-15V	7/31/19 13:34	Temperature	21.81	C
BY-AP-MW-15V	7/31/19 13:34	Turbidity	11.8	NTU
BY-AP-MW-15V	7/31/19 13:39	Conductivity	593.4	uS/cm
BY-AP-MW-15V	7/31/19 13:39	DO	0.14	mg/L
BY-AP-MW-15V	7/31/19 13:39	Depth to Water Detail	4.64	ft
BY-AP-MW-15V	7/31/19 13:39	Oxidation Reduction Potention	49.2	mv
BY-AP-MW-15V	7/31/19 13:39	pH	5.36	pH
BY-AP-MW-15V	7/31/19 13:39	Temperature	21.81	C
BY-AP-MW-15V	7/31/19 13:39	Turbidity	12.4	NTU
BY-AP-MW-15V	7/31/19 13:44	Conductivity	591.3	uS/cm
BY-AP-MW-15V	7/31/19 13:44	DO	0.14	mg/L
BY-AP-MW-15V	7/31/19 13:44	Depth to Water Detail	4.64	ft
BY-AP-MW-15V	7/31/19 13:44	Oxidation Reduction Potention	46.7	mv
BY-AP-MW-15V	7/31/19 13:44	pH	5.37	pH
BY-AP-MW-15V	7/31/19 13:44	Temperature	21.87	C
BY-AP-MW-15V	7/31/19 13:44	Turbidity	10.49	NTU
BY-AP-MW-15V	7/31/19 13:49	Conductivity	591.7	uS/cm
BY-AP-MW-15V	7/31/19 13:49	DO	0.13	mg/L
BY-AP-MW-15V	7/31/19 13:49	Depth to Water Detail	4.64	ft
BY-AP-MW-15V	7/31/19 13:49	Oxidation Reduction Potention	46.3	mv
BY-AP-MW-15V	7/31/19 13:49	pH	5.38	pH
BY-AP-MW-15V	7/31/19 13:49	Temperature	21.82	C
BY-AP-MW-15V	7/31/19 13:49	Turbidity	12.8	NTU
BY-AP-MW-15V	7/31/19 13:54	Conductivity	589.8	uS/cm

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WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
BY-AP-MW-15V	7/31/19 13:54	DO	0.13	mg/L
BY-AP-MW-15V	7/31/19 13:54	Depth to Water Detail	4.64	ft
BY-AP-MW-15V	7/31/19 13:54	Oxidation Reduction Potention	46.4	mv
BY-AP-MW-15V	7/31/19 13:54	pH	5.38	pH
BY-AP-MW-15V	7/31/19 13:54	Temperature	21.87	C
BY-AP-MW-15V	7/31/19 13:54	Turbidity	12.9	NTU
BY-AP-MW-15V	7/31/19 13:59	Conductivity	594.3	uS/cm
BY-AP-MW-15V	7/31/19 13:59	DO	0.15	mg/L
BY-AP-MW-15V	7/31/19 13:59	Depth to Water Detail	4.64	ft
BY-AP-MW-15V	7/31/19 13:59	Oxidation Reduction Potention	46.3	mv
BY-AP-MW-15V	7/31/19 13:59	pH	5.37	pH
BY-AP-MW-15V	7/31/19 13:59	Temperature	21.84	C
BY-AP-MW-15V	7/31/19 13:59	Turbidity	11.7	NTU
BY-AP-MW-15V	7/31/19 14:04	Conductivity	593.2	uS/cm
BY-AP-MW-15V	7/31/19 14:04	DO	0.14	mg/L
BY-AP-MW-15V	7/31/19 14:04	Depth to Water Detail	4.64	ft
BY-AP-MW-15V	7/31/19 14:04	Oxidation Reduction Potention	45.7	mv
BY-AP-MW-15V	7/31/19 14:04	pH	5.37	pH
BY-AP-MW-15V	7/31/19 14:04	Temperature	21.83	C
BY-AP-MW-15V	7/31/19 14:04	Turbidity	13.6	NTU
BY-AP-MW-15V	7/31/19 14:09	Conductivity	589.6	uS/cm
BY-AP-MW-15V	7/31/19 14:09	DO	0.14	mg/L
BY-AP-MW-15V	7/31/19 14:09	Depth to Water Detail	4.64	ft
BY-AP-MW-15V	7/31/19 14:09	Oxidation Reduction Potention	49	mv
BY-AP-MW-15V	7/31/19 14:09	pH	5.35	pH
BY-AP-MW-15V	7/31/19 14:09	Temperature	21.78	C
BY-AP-MW-15V	7/31/19 14:09	Turbidity	15	NTU
BY-AP-MW-15V	7/31/19 14:14	Conductivity	600.1	uS/cm
BY-AP-MW-15V	7/31/19 14:14	DO	0.13	mg/L
BY-AP-MW-15V	7/31/19 14:14	Depth to Water Detail	4.64	ft
BY-AP-MW-15V	7/31/19 14:14	Oxidation Reduction Potention	47.5	mv
BY-AP-MW-15V	7/31/19 14:14	pH	5.36	pH
BY-AP-MW-15V	7/31/19 14:14	Temperature	21.85	C
BY-AP-MW-15V	7/31/19 14:14	Turbidity	22.3	NTU
BY-AP-MW-15V	7/31/19 14:19	Conductivity	603.4	uS/cm
BY-AP-MW-15V	7/31/19 14:19	DO	0.14	mg/L
BY-AP-MW-15V	7/31/19 14:19	Depth to Water Detail	4.64	ft
BY-AP-MW-15V	7/31/19 14:19	Oxidation Reduction Potention	45.3	mv
BY-AP-MW-15V	7/31/19 14:19	pH	5.37	pH
BY-AP-MW-15V	7/31/19 14:19	Temperature	21.82	C
BY-AP-MW-15V	7/31/19 14:19	Turbidity	12.2	NTU
BY-AP-MW-15V	7/31/19 14:24	Conductivity	598.8	uS/cm
BY-AP-MW-15V	7/31/19 14:24	DO	0.14	mg/L
BY-AP-MW-15V	7/31/19 14:24	Depth to Water Detail	4.64	ft

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WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
BY-AP-MW-15V	7/31/19 14:24	Oxidation Reduction Potention	49.7	mv
BY-AP-MW-15V	7/31/19 14:24	pH	5.34	pH
BY-AP-MW-15V	7/31/19 14:24	Temperature	21.82	C
BY-AP-MW-15V	7/31/19 14:24	Turbidity	13.4	NTU
BY-AP-MW-15V	7/31/19 14:29	Conductivity	599.2	uS/cm
BY-AP-MW-15V	7/31/19 14:29	DO	0.13	mg/L
BY-AP-MW-15V	7/31/19 14:29	Depth to Water Detail	4.64	ft
BY-AP-MW-15V	7/31/19 14:29	Oxidation Reduction Potention	48.8	mv
BY-AP-MW-15V	7/31/19 14:29	pH	5.35	pH
BY-AP-MW-15V	7/31/19 14:29	Temperature	21.8	C
BY-AP-MW-15V	7/31/19 14:29	Turbidity	10.76	NTU
BY-AP-MW-15V	7/31/19 14:34	Conductivity	598.2	uS/cm
BY-AP-MW-15V	7/31/19 14:34	DO	0.13	mg/L
BY-AP-MW-15V	7/31/19 14:34	Depth to Water Detail	4.64	ft
BY-AP-MW-15V	7/31/19 14:34	Oxidation Reduction Potention	46.8	mv
BY-AP-MW-15V	7/31/19 14:34	pH	5.36	pH
BY-AP-MW-15V	7/31/19 14:34	Temperature	21.77	C
BY-AP-MW-15V	7/31/19 14:34	Turbidity	11.9	NTU
BY-AP-MW-15V	7/31/19 14:39	Conductivity	595.1	uS/cm
BY-AP-MW-15V	7/31/19 14:39	DO	0.13	mg/L
BY-AP-MW-15V	7/31/19 14:39	Depth to Water Detail	4.64	ft
BY-AP-MW-15V	7/31/19 14:39	Oxidation Reduction Potention	46.3	mv
BY-AP-MW-15V	7/31/19 14:39	pH	5.38	pH
BY-AP-MW-15V	7/31/19 14:39	Temperature	21.77	C
BY-AP-MW-15V	7/31/19 14:39	Turbidity	12.5	NTU
BY-AP-MW-15V	7/31/19 14:44	Conductivity	600	uS/cm
BY-AP-MW-15V	7/31/19 14:44	DO	0.12	mg/L
BY-AP-MW-15V	7/31/19 14:44	Depth to Water Detail	4.64	ft
BY-AP-MW-15V	7/31/19 14:44	Oxidation Reduction Potention	46.6	mv
BY-AP-MW-15V	7/31/19 14:44	pH	5.37	pH
BY-AP-MW-15V	7/31/19 14:44	Temperature	21.82	C
BY-AP-MW-15V	7/31/19 14:44	Turbidity	11.7	NTU
BY-AP-MW-15V	7/31/19 14:49	Conductivity	598.1	uS/cm
BY-AP-MW-15V	7/31/19 14:49	DO	0.12	mg/L
BY-AP-MW-15V	7/31/19 14:49	Depth to Water Detail	4.64	ft
BY-AP-MW-15V	7/31/19 14:49	Oxidation Reduction Potention	44.5	mv
BY-AP-MW-15V	7/31/19 14:49	pH	5.39	pH
BY-AP-MW-15V	7/31/19 14:49	Temperature	21.83	C
BY-AP-MW-15V	7/31/19 14:49	Turbidity	10.5	NTU
BY-AP-MW-15V	7/31/19 14:54	Conductivity	596.4	uS/cm
BY-AP-MW-15V	7/31/19 14:54	DO	0.12	mg/L
BY-AP-MW-15V	7/31/19 14:54	Depth to Water Detail	4.64	ft
BY-AP-MW-15V	7/31/19 14:54	Oxidation Reduction Potention	46.5	mv
BY-AP-MW-15V	7/31/19 14:54	pH	5.37	pH

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WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
BY-AP-MW-15V	7/31/19 14:54	Temperature	21.75	C
BY-AP-MW-15V	7/31/19 14:54	Turbidity	10.28	NTU
BY-AP-MW-15V	7/31/19 14:59	Conductivity	599.5	uS/cm
BY-AP-MW-15V	7/31/19 14:59	DO	0.11	mg/L
BY-AP-MW-15V	7/31/19 14:59	Depth to Water Detail	4.64	ft
BY-AP-MW-15V	7/31/19 14:59	Oxidation Reduction Potention	44.2	mv
BY-AP-MW-15V	7/31/19 14:59	pH	5.39	pH
BY-AP-MW-15V	7/31/19 14:59	Temperature	21.83	C
BY-AP-MW-15V	7/31/19 14:59	Turbidity	11.6	NTU
BY-AP-MW-15V	7/31/19 15:04	Conductivity	599.3	uS/cm
BY-AP-MW-15V	7/31/19 15:04	DO	0.11	mg/L
BY-AP-MW-15V	7/31/19 15:04	Depth to Water Detail	4.64	ft
BY-AP-MW-15V	7/31/19 15:04	Oxidation Reduction Potention	45.5	mv
BY-AP-MW-15V	7/31/19 15:04	pH	5.38	pH
BY-AP-MW-15V	7/31/19 15:04	Temperature	21.82	C
BY-AP-MW-15V	7/31/19 15:04	Turbidity	12.5	NTU
BY-AP-MW-15V	7/31/19 15:09	Conductivity	598.7	uS/cm
BY-AP-MW-15V	7/31/19 15:09	DO	0.11	mg/L
BY-AP-MW-15V	7/31/19 15:09	Depth to Water Detail	4.64	ft
BY-AP-MW-15V	7/31/19 15:09	Oxidation Reduction Potention	43.4	mv
BY-AP-MW-15V	7/31/19 15:09	pH	5.4	pH
BY-AP-MW-15V	7/31/19 15:09	Temperature	21.78	C
BY-AP-MW-15V	7/31/19 15:09	Turbidity	11.2	NTU
BY-AP-MW-15V	7/31/19 15:14	Conductivity	604.6	uS/cm
BY-AP-MW-15V	7/31/19 15:14	DO	0.13	mg/L
BY-AP-MW-15V	7/31/19 15:14	Depth to Water Detail	4.64	ft
BY-AP-MW-15V	7/31/19 15:14	Oxidation Reduction Potention	44.1	mv
BY-AP-MW-15V	7/31/19 15:14	pH	5.39	pH
BY-AP-MW-15V	7/31/19 15:14	Temperature	21.82	C
BY-AP-MW-15V	7/31/19 15:14	Turbidity	11	NTU
BY-AP-MW-15V	7/31/19 15:19	Conductivity	602.8	uS/cm
BY-AP-MW-15V	7/31/19 15:19	DO	0.13	mg/L
BY-AP-MW-15V	7/31/19 15:19	Depth to Water Detail	4.64	ft
BY-AP-MW-15V	7/31/19 15:19	Oxidation Reduction Potention	45.5	mv
BY-AP-MW-15V	7/31/19 15:19	pH	5.37	pH
BY-AP-MW-15V	7/31/19 15:19	Temperature	21.91	C
BY-AP-MW-15V	7/31/19 15:19	Turbidity	9.44	NTU

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WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
BY-AP-MW-17H	7/31/19 16:01	Conductivity	544	uS/cm
BY-AP-MW-17H	7/31/19 16:01	DO	0.26	mg/L
BY-AP-MW-17H	7/31/19 16:01	Depth to Water Detail	17.65	ft
BY-AP-MW-17H	7/31/19 16:01	Oxidation Reduction Potention	-108.5	mv
BY-AP-MW-17H	7/31/19 16:01	pH	6.62	pH
BY-AP-MW-17H	7/31/19 16:01	Temperature	23.01	C
BY-AP-MW-17H	7/31/19 16:01	Turbidity	44.9	NTU
BY-AP-MW-17H	7/31/19 16:06	Conductivity	540.2	uS/cm
BY-AP-MW-17H	7/31/19 16:06	DO	0.22	mg/L
BY-AP-MW-17H	7/31/19 16:06	Depth to Water Detail	17.65	ft
BY-AP-MW-17H	7/31/19 16:06	Oxidation Reduction Potention	-112	mv
BY-AP-MW-17H	7/31/19 16:06	pH	6.65	pH
BY-AP-MW-17H	7/31/19 16:06	Temperature	22.72	C
BY-AP-MW-17H	7/31/19 16:06	Turbidity	37.7	NTU
BY-AP-MW-17H	7/31/19 16:11	Conductivity	532.4	uS/cm
BY-AP-MW-17H	7/31/19 16:11	DO	0.19	mg/L
BY-AP-MW-17H	7/31/19 16:11	Depth to Water Detail	17.65	ft
BY-AP-MW-17H	7/31/19 16:11	Oxidation Reduction Potention	-112.4	mv
BY-AP-MW-17H	7/31/19 16:11	pH	6.65	pH
BY-AP-MW-17H	7/31/19 16:11	Temperature	22.67	C
BY-AP-MW-17H	7/31/19 16:11	Turbidity	28.1	NTU
BY-AP-MW-17H	7/31/19 16:16	Conductivity	526.4	uS/cm
BY-AP-MW-17H	7/31/19 16:16	DO	0.18	mg/L
BY-AP-MW-17H	7/31/19 16:16	Depth to Water Detail	17.65	ft
BY-AP-MW-17H	7/31/19 16:16	Oxidation Reduction Potention	-111.9	mv
BY-AP-MW-17H	7/31/19 16:16	pH	6.65	pH
BY-AP-MW-17H	7/31/19 16:16	Temperature	22.63	C
BY-AP-MW-17H	7/31/19 16:16	Turbidity	21.4	NTU
BY-AP-MW-17H	7/31/19 16:21	Conductivity	522	uS/cm
BY-AP-MW-17H	7/31/19 16:21	DO	0.17	mg/L
BY-AP-MW-17H	7/31/19 16:21	Depth to Water Detail	17.65	ft
BY-AP-MW-17H	7/31/19 16:21	Oxidation Reduction Potention	-112	mv
BY-AP-MW-17H	7/31/19 16:21	pH	6.65	pH
BY-AP-MW-17H	7/31/19 16:21	Temperature	22.66	C
BY-AP-MW-17H	7/31/19 16:21	Turbidity	18.7	NTU
BY-AP-MW-17H	7/31/19 16:26	Conductivity	518.4	uS/cm
BY-AP-MW-17H	7/31/19 16:26	DO	0.17	mg/L
BY-AP-MW-17H	7/31/19 16:26	Depth to Water Detail	17.65	ft
BY-AP-MW-17H	7/31/19 16:26	Oxidation Reduction Potention	-111.7	mv
BY-AP-MW-17H	7/31/19 16:26	pH	6.65	pH
BY-AP-MW-17H	7/31/19 16:26	Temperature	22.69	C
BY-AP-MW-17H	7/31/19 16:26	Turbidity	14.3	NTU
BY-AP-MW-17H	7/31/19 16:31	Conductivity	517	uS/cm
BY-AP-MW-17H	7/31/19 16:31	DO	0.16	mg/L

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WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
BY-AP-MW-17H	7/31/19 16:31	Depth to Water Detail	17.65	ft
BY-AP-MW-17H	7/31/19 16:31	Oxidation Reduction Potention	-111	mv
BY-AP-MW-17H	7/31/19 16:31	pH	6.64	pH
BY-AP-MW-17H	7/31/19 16:31	Temperature	22.63	C
BY-AP-MW-17H	7/31/19 16:31	Turbidity	11.2	NTU
BY-AP-MW-17H	7/31/19 16:36	Conductivity	518.3	uS/cm
BY-AP-MW-17H	7/31/19 16:36	DO	0.16	mg/L
BY-AP-MW-17H	7/31/19 16:36	Depth to Water Detail	17.65	ft
BY-AP-MW-17H	7/31/19 16:36	Oxidation Reduction Potention	-110.8	mv
BY-AP-MW-17H	7/31/19 16:36	pH	6.63	pH
BY-AP-MW-17H	7/31/19 16:36	Temperature	22.72	C
BY-AP-MW-17H	7/31/19 16:36	Turbidity	9.73	NTU
BY-AP-MW-17H	7/31/19 16:41	Conductivity	516.5	uS/cm
BY-AP-MW-17H	7/31/19 16:41	DO	0.15	mg/L
BY-AP-MW-17H	7/31/19 16:41	Depth to Water Detail	17.65	ft
BY-AP-MW-17H	7/31/19 16:41	Oxidation Reduction Potention	-110.8	mv
BY-AP-MW-17H	7/31/19 16:41	pH	6.64	pH
BY-AP-MW-17H	7/31/19 16:41	Temperature	22.69	C
BY-AP-MW-17H	7/31/19 16:41	Turbidity	9.19	NTU

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WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
BY-AP-MW-18H	3/20/19 15:11	Conductivity	492.3	uS/cm
BY-AP-MW-18H	3/20/19 15:11	DO	0.21	mg/L
BY-AP-MW-18H	3/20/19 15:11	Depth to Water Detail	4	ft
BY-AP-MW-18H	3/20/19 15:11	Oxidation Reduction Potention	-66.4	mv
BY-AP-MW-18H	3/20/19 15:11	pH	6.14	pH
BY-AP-MW-18H	3/20/19 15:11	Temperature	20.12	C
BY-AP-MW-18H	3/20/19 15:11	Turbidity	40	NTU
BY-AP-MW-18H	3/20/19 15:16	Conductivity	492.7	uS/cm
BY-AP-MW-18H	3/20/19 15:16	DO	0.19	mg/L
BY-AP-MW-18H	3/20/19 15:16	Depth to Water Detail	4	ft
BY-AP-MW-18H	3/20/19 15:16	Oxidation Reduction Potention	-64.2	mv
BY-AP-MW-18H	3/20/19 15:16	pH	6.16	pH
BY-AP-MW-18H	3/20/19 15:16	Temperature	20	C
BY-AP-MW-18H	3/20/19 15:16	Turbidity	36	NTU
BY-AP-MW-18H	3/20/19 15:21	Conductivity	484.8	uS/cm
BY-AP-MW-18H	3/20/19 15:21	DO	0.2	mg/L
BY-AP-MW-18H	3/20/19 15:21	Depth to Water Detail	4	ft
BY-AP-MW-18H	3/20/19 15:21	Oxidation Reduction Potention	-63.2	mv
BY-AP-MW-18H	3/20/19 15:21	pH	6.17	pH
BY-AP-MW-18H	3/20/19 15:21	Temperature	20.04	C
BY-AP-MW-18H	3/20/19 15:21	Turbidity	29.1	NTU
BY-AP-MW-18H	3/20/19 15:26	Conductivity	493.8	uS/cm
BY-AP-MW-18H	3/20/19 15:26	DO	0.18	mg/L
BY-AP-MW-18H	3/20/19 15:26	Depth to Water Detail	4	ft
BY-AP-MW-18H	3/20/19 15:26	Oxidation Reduction Potention	-62.3	mv
BY-AP-MW-18H	3/20/19 15:26	pH	6.18	pH
BY-AP-MW-18H	3/20/19 15:26	Temperature	19.99	C
BY-AP-MW-18H	3/20/19 15:26	Turbidity	25.1	NTU
BY-AP-MW-18H	3/20/19 15:31	Conductivity	490.6	uS/cm
BY-AP-MW-18H	3/20/19 15:31	DO	0.17	mg/L
BY-AP-MW-18H	3/20/19 15:31	Depth to Water Detail	4	ft
BY-AP-MW-18H	3/20/19 15:31	Oxidation Reduction Potention	-61.7	mv
BY-AP-MW-18H	3/20/19 15:31	pH	6.19	pH
BY-AP-MW-18H	3/20/19 15:31	Temperature	19.95	C
BY-AP-MW-18H	3/20/19 15:31	Turbidity	22.4	NTU
BY-AP-MW-18H	3/20/19 15:36	Conductivity	489.4	uS/cm
BY-AP-MW-18H	3/20/19 15:36	DO	0.15	mg/L
BY-AP-MW-18H	3/20/19 15:36	Depth to Water Detail	4	ft
BY-AP-MW-18H	3/20/19 15:36	Oxidation Reduction Potention	-60.9	mv
BY-AP-MW-18H	3/20/19 15:36	pH	6.19	pH
BY-AP-MW-18H	3/20/19 15:36	Temperature	19.9	C
BY-AP-MW-18H	3/20/19 15:36	Turbidity	18.9	NTU
BY-AP-MW-18H	3/20/19 15:41	Conductivity	498.4	uS/cm
BY-AP-MW-18H	3/20/19 15:41	DO	0.15	mg/L

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WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
BY-AP-MW-18H	3/20/19 15:41	Depth to Water Detail	4	ft
BY-AP-MW-18H	3/20/19 15:41	Oxidation Reduction Potention	-59.6	mv
BY-AP-MW-18H	3/20/19 15:41	pH	6.18	pH
BY-AP-MW-18H	3/20/19 15:41	Temperature	19.86	C
BY-AP-MW-18H	3/20/19 15:41	Turbidity	15	NTU
BY-AP-MW-18H	3/20/19 15:46	Conductivity	493.5	uS/cm
BY-AP-MW-18H	3/20/19 15:46	DO	0.14	mg/L
BY-AP-MW-18H	3/20/19 15:46	Depth to Water Detail	4	ft
BY-AP-MW-18H	3/20/19 15:46	Oxidation Reduction Potention	-59.2	mv
BY-AP-MW-18H	3/20/19 15:46	pH	6.19	pH
BY-AP-MW-18H	3/20/19 15:46	Temperature	19.86	C
BY-AP-MW-18H	3/20/19 15:46	Turbidity	13	NTU
BY-AP-MW-18H	3/20/19 15:51	Conductivity	493.1	uS/cm
BY-AP-MW-18H	3/20/19 15:51	DO	0.14	mg/L
BY-AP-MW-18H	3/20/19 15:51	Depth to Water Detail	4	ft
BY-AP-MW-18H	3/20/19 15:51	Oxidation Reduction Potention	-58.7	mv
BY-AP-MW-18H	3/20/19 15:51	pH	6.19	pH
BY-AP-MW-18H	3/20/19 15:51	Temperature	19.86	C
BY-AP-MW-18H	3/20/19 15:51	Turbidity	11.8	NTU
BY-AP-MW-18H	3/20/19 15:57	Conductivity	488.2	uS/cm
BY-AP-MW-18H	3/20/19 15:57	DO	0.13	mg/L
BY-AP-MW-18H	3/20/19 15:57	Depth to Water Detail	4	ft
BY-AP-MW-18H	3/20/19 15:57	Oxidation Reduction Potention	-57.6	mv
BY-AP-MW-18H	3/20/19 15:57	pH	6.19	pH
BY-AP-MW-18H	3/20/19 15:57	Temperature	19.81	C
BY-AP-MW-18H	3/20/19 15:57	Turbidity	8.28	NTU
BY-AP-MW-18H	3/20/19 16:02	Conductivity	496.4	uS/cm
BY-AP-MW-18H	3/20/19 16:02	DO	0.13	mg/L
BY-AP-MW-18H	3/20/19 16:02	Depth to Water Detail	4	ft
BY-AP-MW-18H	3/20/19 16:02	Oxidation Reduction Potention	-57.9	mv
BY-AP-MW-18H	3/20/19 16:02	pH	6.19	pH
BY-AP-MW-18H	3/20/19 16:02	Temperature	19.81	C
BY-AP-MW-18H	3/20/19 16:02	Turbidity	7.52	NTU
BY-AP-MW-18H	3/20/19 16:07	Conductivity	492.5	uS/cm
BY-AP-MW-18H	3/20/19 16:07	DO	0.13	mg/L
BY-AP-MW-18H	3/20/19 16:07	Depth to Water Detail	4	ft
BY-AP-MW-18H	3/20/19 16:07	Oxidation Reduction Potention	-57.1	mv
BY-AP-MW-18H	3/20/19 16:07	pH	6.19	pH
BY-AP-MW-18H	3/20/19 16:07	Temperature	19.81	C
BY-AP-MW-18H	3/20/19 16:07	Turbidity	8.28	NTU

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WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
BY-AP-MW-19H	7/31/19 9:39	Conductivity	560.8	uS/cm
BY-AP-MW-19H	7/31/19 9:39	DO	0.15	mg/L
BY-AP-MW-19H	7/31/19 9:39	Depth to Water Detail	7.52	ft
BY-AP-MW-19H	7/31/19 9:39	Oxidation Reduction Potention	-73.5	mv
BY-AP-MW-19H	7/31/19 9:39	pH	6.18	pH
BY-AP-MW-19H	7/31/19 9:39	Temperature	20.66	C
BY-AP-MW-19H	7/31/19 9:39	Turbidity	56.7	NTU
BY-AP-MW-19H	7/31/19 9:44	Conductivity	556.1	uS/cm
BY-AP-MW-19H	7/31/19 9:44	DO	0.13	mg/L
BY-AP-MW-19H	7/31/19 9:44	Depth to Water Detail	7.52	ft
BY-AP-MW-19H	7/31/19 9:44	Oxidation Reduction Potention	-73.3	mv
BY-AP-MW-19H	7/31/19 9:44	pH	6.18	pH
BY-AP-MW-19H	7/31/19 9:44	Temperature	20.65	C
BY-AP-MW-19H	7/31/19 9:44	Turbidity	30.8	NTU
BY-AP-MW-19H	7/31/19 9:49	Conductivity	554.3	uS/cm
BY-AP-MW-19H	7/31/19 9:49	DO	0.12	mg/L
BY-AP-MW-19H	7/31/19 9:49	Depth to Water Detail	7.52	ft
BY-AP-MW-19H	7/31/19 9:49	Oxidation Reduction Potention	-73.1	mv
BY-AP-MW-19H	7/31/19 9:49	pH	6.18	pH
BY-AP-MW-19H	7/31/19 9:49	Temperature	20.61	C
BY-AP-MW-19H	7/31/19 9:49	Turbidity	20.7	NTU
BY-AP-MW-19H	7/31/19 9:54	Conductivity	547.3	uS/cm
BY-AP-MW-19H	7/31/19 9:54	DO	0.11	mg/L
BY-AP-MW-19H	7/31/19 9:54	Depth to Water Detail	7.52	ft
BY-AP-MW-19H	7/31/19 9:54	Oxidation Reduction Potention	-73.1	mv
BY-AP-MW-19H	7/31/19 9:54	pH	6.18	pH
BY-AP-MW-19H	7/31/19 9:54	Temperature	20.59	C
BY-AP-MW-19H	7/31/19 9:54	Turbidity	13.7	NTU
BY-AP-MW-19H	7/31/19 9:59	Conductivity	549.1	uS/cm
BY-AP-MW-19H	7/31/19 9:59	DO	0.1	mg/L
BY-AP-MW-19H	7/31/19 9:59	Depth to Water Detail	7.52	ft
BY-AP-MW-19H	7/31/19 9:59	Oxidation Reduction Potention	-73.5	mv
BY-AP-MW-19H	7/31/19 9:59	pH	6.18	pH
BY-AP-MW-19H	7/31/19 9:59	Temperature	20.62	C
BY-AP-MW-19H	7/31/19 9:59	Turbidity	8.51	NTU
BY-AP-MW-19H	7/31/19 10:04	Conductivity	549.1	uS/cm
BY-AP-MW-19H	7/31/19 10:04	DO	0.1	mg/L
BY-AP-MW-19H	7/31/19 10:04	Depth to Water Detail	7.52	ft
BY-AP-MW-19H	7/31/19 10:04	Oxidation Reduction Potention	-75	mv
BY-AP-MW-19H	7/31/19 10:04	pH	6.19	pH
BY-AP-MW-19H	7/31/19 10:04	Temperature	20.54	C
BY-AP-MW-19H	7/31/19 10:04	Turbidity	5.59	NTU
BY-AP-MW-19H	7/31/19 10:09	Conductivity	550.5	uS/cm
BY-AP-MW-19H	7/31/19 10:09	DO	0.1	mg/L

**Alabama Power Company
Plant Barry Ash Pond**

WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
BY-AP-MW-19H	7/31/19 10:09	Depth to Water Detail	7.52	ft
BY-AP-MW-19H	7/31/19 10:09	Oxidation Reduction Potention	-76.2	mv
BY-AP-MW-19H	7/31/19 10:09	pH	6.21	pH
BY-AP-MW-19H	7/31/19 10:09	Temperature	20.59	C
BY-AP-MW-19H	7/31/19 10:09	Turbidity	4.84	NTU

**Alabama Power Company
Plant Barry Ash Pond**

WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
BY-AP-MW-1V	1/8/19 10:47	Conductivity	358.6	uS/cm
BY-AP-MW-1V	1/8/19 10:47	DO	0.27	mg/L
BY-AP-MW-1V	1/8/19 10:47	Depth to Water Detail	14.9	ft
BY-AP-MW-1V	1/8/19 10:47	Oxidation Reduction Potention	-29.2	mv
BY-AP-MW-1V	1/8/19 10:47	pH	6.43	pH
BY-AP-MW-1V	1/8/19 10:47	Temperature	21.84	C
BY-AP-MW-1V	1/8/19 10:47	Turbidity	24.6	NTU
BY-AP-MW-1V	1/8/19 10:52	Conductivity	349.1	uS/cm
BY-AP-MW-1V	1/8/19 10:52	DO	0.24	mg/L
BY-AP-MW-1V	1/8/19 10:52	Depth to Water Detail	14.9	ft
BY-AP-MW-1V	1/8/19 10:52	Oxidation Reduction Potention	-45.6	mv
BY-AP-MW-1V	1/8/19 10:52	pH	6.41	pH
BY-AP-MW-1V	1/8/19 10:52	Temperature	21.82	C
BY-AP-MW-1V	1/8/19 10:52	Turbidity	14.5	NTU
BY-AP-MW-1V	1/8/19 10:57	Conductivity	342.5	uS/cm
BY-AP-MW-1V	1/8/19 10:57	DO	0.22	mg/L
BY-AP-MW-1V	1/8/19 10:57	Depth to Water Detail	14.9	ft
BY-AP-MW-1V	1/8/19 10:57	Oxidation Reduction Potention	-26	mv
BY-AP-MW-1V	1/8/19 10:57	pH	6.38	pH
BY-AP-MW-1V	1/8/19 10:57	Temperature	21.73	C
BY-AP-MW-1V	1/8/19 10:57	Turbidity	10.11	NTU
BY-AP-MW-1V	1/8/19 11:02	Conductivity	333.2	uS/cm
BY-AP-MW-1V	1/8/19 11:02	DO	0.21	mg/L
BY-AP-MW-1V	1/8/19 11:02	Depth to Water Detail	14.9	ft
BY-AP-MW-1V	1/8/19 11:02	Oxidation Reduction Potention	-24.3	mv
BY-AP-MW-1V	1/8/19 11:02	pH	6.39	pH
BY-AP-MW-1V	1/8/19 11:02	Temperature	21.72	C
BY-AP-MW-1V	1/8/19 11:02	Turbidity	7.47	NTU
BY-AP-MW-1V	1/8/19 11:07	Conductivity	328	uS/cm
BY-AP-MW-1V	1/8/19 11:07	DO	0.2	mg/L
BY-AP-MW-1V	1/8/19 11:07	Depth to Water Detail	14.9	ft
BY-AP-MW-1V	1/8/19 11:07	Oxidation Reduction Potention	-27.9	mv
BY-AP-MW-1V	1/8/19 11:07	pH	6.38	pH
BY-AP-MW-1V	1/8/19 11:07	Temperature	21.78	C
BY-AP-MW-1V	1/8/19 11:07	Turbidity	4.68	NTU

**Alabama Power Company
Plant Barry Ash Pond**

WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
BY-AP-MW-20H	7/31/19 13:24	Conductivity	759.9	uS/cm
BY-AP-MW-20H	7/31/19 13:24	DO	0.13	mg/L
BY-AP-MW-20H	7/31/19 13:24	Depth to Water Detail	7.1	ft
BY-AP-MW-20H	7/31/19 13:24	Oxidation Reduction Potention	-64.4	mv
BY-AP-MW-20H	7/31/19 13:24	pH	6.2	pH
BY-AP-MW-20H	7/31/19 13:24	Temperature	21.29	C
BY-AP-MW-20H	7/31/19 13:24	Turbidity	25.6	NTU
BY-AP-MW-20H	7/31/19 13:29	Conductivity	764.1	uS/cm
BY-AP-MW-20H	7/31/19 13:29	DO	0.1	mg/L
BY-AP-MW-20H	7/31/19 13:29	Depth to Water Detail	7.1	ft
BY-AP-MW-20H	7/31/19 13:29	Oxidation Reduction Potention	-68.2	mv
BY-AP-MW-20H	7/31/19 13:29	pH	6.21	pH
BY-AP-MW-20H	7/31/19 13:29	Temperature	21.08	C
BY-AP-MW-20H	7/31/19 13:29	Turbidity	19.5	NTU
BY-AP-MW-20H	7/31/19 13:34	Conductivity	764.2	uS/cm
BY-AP-MW-20H	7/31/19 13:34	DO	0.1	mg/L
BY-AP-MW-20H	7/31/19 13:34	Depth to Water Detail	7.1	ft
BY-AP-MW-20H	7/31/19 13:34	Oxidation Reduction Potention	-69.9	mv
BY-AP-MW-20H	7/31/19 13:34	pH	6.22	pH
BY-AP-MW-20H	7/31/19 13:34	Temperature	21.02	C
BY-AP-MW-20H	7/31/19 13:34	Turbidity	5.19	NTU
BY-AP-MW-20H	7/31/19 13:39	Conductivity	767.3	uS/cm
BY-AP-MW-20H	7/31/19 13:39	DO	0.09	mg/L
BY-AP-MW-20H	7/31/19 13:39	Depth to Water Detail	7.1	ft
BY-AP-MW-20H	7/31/19 13:39	Oxidation Reduction Potention	-70.6	mv
BY-AP-MW-20H	7/31/19 13:39	pH	6.22	pH
BY-AP-MW-20H	7/31/19 13:39	Temperature	21.04	C
BY-AP-MW-20H	7/31/19 13:39	Turbidity	2.78	NTU

**Alabama Power Company
Plant Barry Ash Pond**

WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
BY-AP-MW-22H	7/31/19 11:28	Conductivity	643.5	uS/cm
BY-AP-MW-22H	7/31/19 11:28	DO	0.25	mg/L
BY-AP-MW-22H	7/31/19 11:28	Depth to Water Detail	5.9	ft
BY-AP-MW-22H	7/31/19 11:28	Oxidation Reduction Potention	-68.4	mv
BY-AP-MW-22H	7/31/19 11:28	pH	6.42	pH
BY-AP-MW-22H	7/31/19 11:28	Temperature	21.07	C
BY-AP-MW-22H	7/31/19 11:28	Turbidity	36.8	NTU
BY-AP-MW-22H	7/31/19 11:33	Conductivity	654.9	uS/cm
BY-AP-MW-22H	7/31/19 11:33	DO	0.21	mg/L
BY-AP-MW-22H	7/31/19 11:33	Depth to Water Detail	5.9	ft
BY-AP-MW-22H	7/31/19 11:33	Oxidation Reduction Potention	-78.5	mv
BY-AP-MW-22H	7/31/19 11:33	pH	6.49	pH
BY-AP-MW-22H	7/31/19 11:33	Temperature	20.91	C
BY-AP-MW-22H	7/31/19 11:33	Turbidity	25.3	NTU
BY-AP-MW-22H	7/31/19 11:38	Conductivity	656.4	uS/cm
BY-AP-MW-22H	7/31/19 11:38	DO	0.19	mg/L
BY-AP-MW-22H	7/31/19 11:38	Depth to Water Detail	5.9	ft
BY-AP-MW-22H	7/31/19 11:38	Oxidation Reduction Potention	-82.8	mv
BY-AP-MW-22H	7/31/19 11:38	pH	6.51	pH
BY-AP-MW-22H	7/31/19 11:38	Temperature	20.89	C
BY-AP-MW-22H	7/31/19 11:38	Turbidity	19.5	NTU
BY-AP-MW-22H	7/31/19 11:43	Conductivity	657.9	uS/cm
BY-AP-MW-22H	7/31/19 11:43	DO	0.17	mg/L
BY-AP-MW-22H	7/31/19 11:43	Depth to Water Detail	5.9	ft
BY-AP-MW-22H	7/31/19 11:43	Oxidation Reduction Potention	-84.9	mv
BY-AP-MW-22H	7/31/19 11:43	pH	6.52	pH
BY-AP-MW-22H	7/31/19 11:43	Temperature	20.85	C
BY-AP-MW-22H	7/31/19 11:43	Turbidity	16.1	NTU
BY-AP-MW-22H	7/31/19 11:48	Conductivity	656.8	uS/cm
BY-AP-MW-22H	7/31/19 11:48	DO	0.16	mg/L
BY-AP-MW-22H	7/31/19 11:48	Depth to Water Detail	5.9	ft
BY-AP-MW-22H	7/31/19 11:48	Oxidation Reduction Potention	-85.2	mv
BY-AP-MW-22H	7/31/19 11:48	pH	6.52	pH
BY-AP-MW-22H	7/31/19 11:48	Temperature	20.8	C
BY-AP-MW-22H	7/31/19 11:48	Turbidity	14.4	NTU
BY-AP-MW-22H	7/31/19 11:53	Conductivity	656.1	uS/cm
BY-AP-MW-22H	7/31/19 11:53	DO	0.15	mg/L
BY-AP-MW-22H	7/31/19 11:53	Depth to Water Detail	5.9	ft
BY-AP-MW-22H	7/31/19 11:53	Oxidation Reduction Potention	-86.7	mv
BY-AP-MW-22H	7/31/19 11:53	pH	6.53	pH
BY-AP-MW-22H	7/31/19 11:53	Temperature	20.75	C
BY-AP-MW-22H	7/31/19 11:53	Turbidity	13.5	NTU
BY-AP-MW-22H	7/31/19 11:58	Conductivity	659	uS/cm
BY-AP-MW-22H	7/31/19 11:58	DO	0.14	mg/L

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WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
BY-AP-MW-22H	7/31/19 11:58	Depth to Water Detail	5.9	ft
BY-AP-MW-22H	7/31/19 11:58	Oxidation Reduction Potention	-89	mv
BY-AP-MW-22H	7/31/19 11:58	pH	6.55	pH
BY-AP-MW-22H	7/31/19 11:58	Temperature	20.8	C
BY-AP-MW-22H	7/31/19 11:58	Turbidity	11.1	NTU
BY-AP-MW-22H	7/31/19 12:03	Conductivity	659	uS/cm
BY-AP-MW-22H	7/31/19 12:03	DO	0.14	mg/L
BY-AP-MW-22H	7/31/19 12:03	Depth to Water Detail	5.9	ft
BY-AP-MW-22H	7/31/19 12:03	Oxidation Reduction Potention	-88.9	mv
BY-AP-MW-22H	7/31/19 12:03	pH	6.55	pH
BY-AP-MW-22H	7/31/19 12:03	Temperature	20.89	C
BY-AP-MW-22H	7/31/19 12:03	Turbidity	11.2	NTU
BY-AP-MW-22H	7/31/19 12:08	Conductivity	658.3	uS/cm
BY-AP-MW-22H	7/31/19 12:08	DO	0.13	mg/L
BY-AP-MW-22H	7/31/19 12:08	Depth to Water Detail	5.9	ft
BY-AP-MW-22H	7/31/19 12:08	Oxidation Reduction Potention	-89.6	mv
BY-AP-MW-22H	7/31/19 12:08	pH	6.55	pH
BY-AP-MW-22H	7/31/19 12:08	Temperature	20.93	C
BY-AP-MW-22H	7/31/19 12:08	Turbidity	10.07	NTU
BY-AP-MW-22H	7/31/19 12:13	Conductivity	656.8	uS/cm
BY-AP-MW-22H	7/31/19 12:13	DO	0.13	mg/L
BY-AP-MW-22H	7/31/19 12:13	Depth to Water Detail	5.9	ft
BY-AP-MW-22H	7/31/19 12:13	Oxidation Reduction Potention	-89.2	mv
BY-AP-MW-22H	7/31/19 12:13	pH	6.55	pH
BY-AP-MW-22H	7/31/19 12:13	Temperature	20.93	C
BY-AP-MW-22H	7/31/19 12:13	Turbidity	9.35	NTU
BY-AP-MW-22H	7/31/19 12:18	Conductivity	658.5	uS/cm
BY-AP-MW-22H	7/31/19 12:18	DO	0.13	mg/L
BY-AP-MW-22H	7/31/19 12:18	Depth to Water Detail	5.9	ft
BY-AP-MW-22H	7/31/19 12:18	Oxidation Reduction Potention	-88.8	mv
BY-AP-MW-22H	7/31/19 12:18	pH	6.55	pH
BY-AP-MW-22H	7/31/19 12:18	Temperature	20.84	C
BY-AP-MW-22H	7/31/19 12:18	Turbidity	9.67	NTU
BY-AP-MW-22H	7/31/19 12:23	Conductivity	657.7	uS/cm
BY-AP-MW-22H	7/31/19 12:23	DO	0.13	mg/L
BY-AP-MW-22H	7/31/19 12:23	Depth to Water Detail	5.9	ft
BY-AP-MW-22H	7/31/19 12:23	Oxidation Reduction Potention	-89.3	mv
BY-AP-MW-22H	7/31/19 12:23	pH	6.55	pH
BY-AP-MW-22H	7/31/19 12:23	Temperature	20.88	C
BY-AP-MW-22H	7/31/19 12:23	Turbidity	7.26	NTU
BY-AP-MW-22H	7/31/19 12:28	Conductivity	659	uS/cm
BY-AP-MW-22H	7/31/19 12:28	DO	0.12	mg/L
BY-AP-MW-22H	7/31/19 12:28	Depth to Water Detail	5.9	ft
BY-AP-MW-22H	7/31/19 12:28	Oxidation Reduction Potention	-89.2	mv

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WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
BY-AP-MW-22H	7/31/19 12:28	pH	6.55	pH
BY-AP-MW-22H	7/31/19 12:28	Temperature	20.76	C
BY-AP-MW-22H	7/31/19 12:28	Turbidity	6.74	NTU
BY-AP-MW-22H	7/31/19 12:33	Conductivity	656.4	uS/cm
BY-AP-MW-22H	7/31/19 12:33	DO	0.12	mg/L
BY-AP-MW-22H	7/31/19 12:33	Depth to Water Detail	5.9	ft
BY-AP-MW-22H	7/31/19 12:33	Oxidation Reduction Potention	-88.1	mv
BY-AP-MW-22H	7/31/19 12:33	pH	6.54	pH
BY-AP-MW-22H	7/31/19 12:33	Temperature	20.77	C
BY-AP-MW-22H	7/31/19 12:33	Turbidity	5.04	NTU

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WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
BY-AP-MW-23H	7/31/19 14:40	Conductivity	456.6	uS/cm
BY-AP-MW-23H	7/31/19 14:40	DO	0.24	mg/L
BY-AP-MW-23H	7/31/19 14:40	Depth to Water Detail	8.11	ft
BY-AP-MW-23H	7/31/19 14:40	Oxidation Reduction Potention	-40.9	mv
BY-AP-MW-23H	7/31/19 14:40	pH	6.1	pH
BY-AP-MW-23H	7/31/19 14:40	Temperature	21.11	C
BY-AP-MW-23H	7/31/19 14:40	Turbidity	40	NTU
BY-AP-MW-23H	7/31/19 14:45	Conductivity	455.8	uS/cm
BY-AP-MW-23H	7/31/19 14:45	DO	0.2	mg/L
BY-AP-MW-23H	7/31/19 14:45	Depth to Water Detail	8.11	ft
BY-AP-MW-23H	7/31/19 14:45	Oxidation Reduction Potention	-44	mv
BY-AP-MW-23H	7/31/19 14:45	pH	6.09	pH
BY-AP-MW-23H	7/31/19 14:45	Temperature	20.86	C
BY-AP-MW-23H	7/31/19 14:45	Turbidity	27.3	NTU
BY-AP-MW-23H	7/31/19 14:50	Conductivity	450.5	uS/cm
BY-AP-MW-23H	7/31/19 14:50	DO	0.18	mg/L
BY-AP-MW-23H	7/31/19 14:50	Depth to Water Detail	8.11	ft
BY-AP-MW-23H	7/31/19 14:50	Oxidation Reduction Potention	-46	mv
BY-AP-MW-23H	7/31/19 14:50	pH	6.09	pH
BY-AP-MW-23H	7/31/19 14:50	Temperature	20.8	C
BY-AP-MW-23H	7/31/19 14:50	Turbidity	27.2	NTU
BY-AP-MW-23H	7/31/19 14:55	Conductivity	438.2	uS/cm
BY-AP-MW-23H	7/31/19 14:55	DO	0.16	mg/L
BY-AP-MW-23H	7/31/19 14:55	Depth to Water Detail	8.11	ft
BY-AP-MW-23H	7/31/19 14:55	Oxidation Reduction Potention	-46.1	mv
BY-AP-MW-23H	7/31/19 14:55	pH	6.09	pH
BY-AP-MW-23H	7/31/19 14:55	Temperature	20.75	C
BY-AP-MW-23H	7/31/19 14:55	Turbidity	23.5	NTU
BY-AP-MW-23H	7/31/19 15:00	Conductivity	432.7	uS/cm
BY-AP-MW-23H	7/31/19 15:00	DO	0.16	mg/L
BY-AP-MW-23H	7/31/19 15:00	Depth to Water Detail	8.11	ft
BY-AP-MW-23H	7/31/19 15:00	Oxidation Reduction Potention	-46.6	mv
BY-AP-MW-23H	7/31/19 15:00	pH	6.09	pH
BY-AP-MW-23H	7/31/19 15:00	Temperature	20.75	C
BY-AP-MW-23H	7/31/19 15:00	Turbidity	13.9	NTU
BY-AP-MW-23H	7/31/19 15:05	Conductivity	424.4	uS/cm
BY-AP-MW-23H	7/31/19 15:05	DO	0.15	mg/L
BY-AP-MW-23H	7/31/19 15:05	Depth to Water Detail	8.11	ft
BY-AP-MW-23H	7/31/19 15:05	Oxidation Reduction Potention	-46.3	mv
BY-AP-MW-23H	7/31/19 15:05	pH	6.08	pH
BY-AP-MW-23H	7/31/19 15:05	Temperature	20.71	C
BY-AP-MW-23H	7/31/19 15:05	Turbidity	12.1	NTU
BY-AP-MW-23H	7/31/19 15:10	Conductivity	414.2	uS/cm
BY-AP-MW-23H	7/31/19 15:10	DO	0.15	mg/L

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WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
BY-AP-MW-23H	7/31/19 15:10	Depth to Water Detail	8.11	ft
BY-AP-MW-23H	7/31/19 15:10	Oxidation Reduction Potention	-45.5	mv
BY-AP-MW-23H	7/31/19 15:10	pH	6.09	pH
BY-AP-MW-23H	7/31/19 15:10	Temperature	20.66	C
BY-AP-MW-23H	7/31/19 15:10	Turbidity	11.2	NTU
BY-AP-MW-23H	7/31/19 15:15	Conductivity	409.4	uS/cm
BY-AP-MW-23H	7/31/19 15:15	DO	0.14	mg/L
BY-AP-MW-23H	7/31/19 15:15	Depth to Water Detail	8.11	ft
BY-AP-MW-23H	7/31/19 15:15	Oxidation Reduction Potention	-45.1	mv
BY-AP-MW-23H	7/31/19 15:15	pH	6.09	pH
BY-AP-MW-23H	7/31/19 15:15	Temperature	20.67	C
BY-AP-MW-23H	7/31/19 15:15	Turbidity	8.3	NTU
BY-AP-MW-23H	7/31/19 15:20	Conductivity	398.9	uS/cm
BY-AP-MW-23H	7/31/19 15:20	DO	0.14	mg/L
BY-AP-MW-23H	7/31/19 15:20	Depth to Water Detail	8.11	ft
BY-AP-MW-23H	7/31/19 15:20	Oxidation Reduction Potention	-44.5	mv
BY-AP-MW-23H	7/31/19 15:20	pH	6.08	pH
BY-AP-MW-23H	7/31/19 15:20	Temperature	20.66	C
BY-AP-MW-23H	7/31/19 15:20	Turbidity	5.6	NTU
BY-AP-MW-23H	7/31/19 15:25	Conductivity	399.9	uS/cm
BY-AP-MW-23H	7/31/19 15:25	DO	0.14	mg/L
BY-AP-MW-23H	7/31/19 15:25	Depth to Water Detail	8.11	ft
BY-AP-MW-23H	7/31/19 15:25	Oxidation Reduction Potention	-44	mv
BY-AP-MW-23H	7/31/19 15:25	pH	6.08	pH
BY-AP-MW-23H	7/31/19 15:25	Temperature	20.62	C
BY-AP-MW-23H	7/31/19 15:25	Turbidity	4.59	NTU

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WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
BY-AP-MW-24H	1/8/19 12:11	Conductivity	1114.9	uS/cm
BY-AP-MW-24H	1/8/19 12:11	DO	0.18	mg/L
BY-AP-MW-24H	1/8/19 12:11	Depth to Water Detail	14.92	ft
BY-AP-MW-24H	1/8/19 12:11	Oxidation Reduction Potention	-98.5	mv
BY-AP-MW-24H	1/8/19 12:11	pH	6.52	pH
BY-AP-MW-24H	1/8/19 12:11	Temperature	21.87	C
BY-AP-MW-24H	1/8/19 12:11	Turbidity	32	NTU
BY-AP-MW-24H	1/8/19 12:16	Conductivity	1084.2	uS/cm
BY-AP-MW-24H	1/8/19 12:16	DO	0.15	mg/L
BY-AP-MW-24H	1/8/19 12:16	Depth to Water Detail	14.92	ft
BY-AP-MW-24H	1/8/19 12:16	Oxidation Reduction Potention	-100	mv
BY-AP-MW-24H	1/8/19 12:16	pH	6.53	pH
BY-AP-MW-24H	1/8/19 12:16	Temperature	21.82	C
BY-AP-MW-24H	1/8/19 12:16	Turbidity	29.6	NTU
BY-AP-MW-24H	1/8/19 12:21	Conductivity	1035.6	uS/cm
BY-AP-MW-24H	1/8/19 12:21	DO	0.13	mg/L
BY-AP-MW-24H	1/8/19 12:21	Depth to Water Detail	14.92	ft
BY-AP-MW-24H	1/8/19 12:21	Oxidation Reduction Potention	-101.6	mv
BY-AP-MW-24H	1/8/19 12:21	pH	6.54	pH
BY-AP-MW-24H	1/8/19 12:21	Temperature	21.79	C
BY-AP-MW-24H	1/8/19 12:21	Turbidity	20.8	NTU
BY-AP-MW-24H	1/8/19 12:26	Conductivity	1009.2	uS/cm
BY-AP-MW-24H	1/8/19 12:26	DO	0.12	mg/L
BY-AP-MW-24H	1/8/19 12:26	Depth to Water Detail	14.92	ft
BY-AP-MW-24H	1/8/19 12:26	Oxidation Reduction Potention	-102.9	mv
BY-AP-MW-24H	1/8/19 12:26	pH	6.54	pH
BY-AP-MW-24H	1/8/19 12:26	Temperature	21.77	C
BY-AP-MW-24H	1/8/19 12:26	Turbidity	17.1	NTU
BY-AP-MW-24H	1/8/19 12:31	Conductivity	974.9	uS/cm
BY-AP-MW-24H	1/8/19 12:31	DO	0.12	mg/L
BY-AP-MW-24H	1/8/19 12:31	Depth to Water Detail	14.92	ft
BY-AP-MW-24H	1/8/19 12:31	Oxidation Reduction Potention	-103.8	mv
BY-AP-MW-24H	1/8/19 12:31	pH	6.54	pH
BY-AP-MW-24H	1/8/19 12:31	Temperature	21.82	C
BY-AP-MW-24H	1/8/19 12:31	Turbidity	14	NTU
BY-AP-MW-24H	1/8/19 12:36	Conductivity	956.7	uS/cm
BY-AP-MW-24H	1/8/19 12:36	DO	0.11	mg/L
BY-AP-MW-24H	1/8/19 12:36	Depth to Water Detail	14.92	ft
BY-AP-MW-24H	1/8/19 12:36	Oxidation Reduction Potention	-103.9	mv
BY-AP-MW-24H	1/8/19 12:36	pH	6.53	pH
BY-AP-MW-24H	1/8/19 12:36	Temperature	21.76	C
BY-AP-MW-24H	1/8/19 12:36	Turbidity	10.55	NTU
BY-AP-MW-24H	1/8/19 12:41	Conductivity	958.9	uS/cm
BY-AP-MW-24H	1/8/19 12:41	DO	0.1	mg/L

**Alabama Power Company
Plant Barry Ash Pond**

WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
BY-AP-MW-24H	1/8/19 12:41	Depth to Water Detail	14.92	ft
BY-AP-MW-24H	1/8/19 12:41	Oxidation Reduction Potention	-104	mv
BY-AP-MW-24H	1/8/19 12:41	pH	6.53	pH
BY-AP-MW-24H	1/8/19 12:41	Temperature	21.69	C
BY-AP-MW-24H	1/8/19 12:41	Turbidity	8.89	NTU
BY-AP-MW-24H	1/8/19 12:46	Conductivity	932.4	uS/cm
BY-AP-MW-24H	1/8/19 12:46	DO	0.1	mg/L
BY-AP-MW-24H	1/8/19 12:46	Depth to Water Detail	14.92	ft
BY-AP-MW-24H	1/8/19 12:46	Oxidation Reduction Potention	-103.5	mv
BY-AP-MW-24H	1/8/19 12:46	pH	6.52	pH
BY-AP-MW-24H	1/8/19 12:46	Temperature	21.67	C
BY-AP-MW-24H	1/8/19 12:46	Turbidity	6.84	NTU
BY-AP-MW-24H	1/8/19 12:51	Conductivity	924.4	uS/cm
BY-AP-MW-24H	1/8/19 12:51	DO	0.1	mg/L
BY-AP-MW-24H	1/8/19 12:51	Depth to Water Detail	14.92	ft
BY-AP-MW-24H	1/8/19 12:51	Oxidation Reduction Potention	-102.4	mv
BY-AP-MW-24H	1/8/19 12:51	pH	6.51	pH
BY-AP-MW-24H	1/8/19 12:51	Temperature	21.68	C
BY-AP-MW-24H	1/8/19 12:51	Turbidity	4.34	NTU

**Alabama Power Company
Plant Barry Ash Pond**

WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
BY-AP-MW-5V	1/8/19 8:45	Conductivity	186	uS/cm
BY-AP-MW-5V	1/8/19 8:45	DO	0.26	mg/L
BY-AP-MW-5V	1/8/19 8:45	Depth to Water Detail	17.82	ft
BY-AP-MW-5V	1/8/19 8:45	Oxidation Reduction Potention	108.3	mv
BY-AP-MW-5V	1/8/19 8:45	pH	6.77	pH
BY-AP-MW-5V	1/8/19 8:45	Temperature	21.95	C
BY-AP-MW-5V	1/8/19 8:45	Turbidity	11.04	NTU
BY-AP-MW-5V	1/8/19 8:50	Conductivity	184.1	uS/cm
BY-AP-MW-5V	1/8/19 8:50	DO	0.27	mg/L
BY-AP-MW-5V	1/8/19 8:50	Depth to Water Detail	17.82	ft
BY-AP-MW-5V	1/8/19 8:50	Oxidation Reduction Potention	106.4	mv
BY-AP-MW-5V	1/8/19 8:50	pH	6.71	pH
BY-AP-MW-5V	1/8/19 8:50	Temperature	21.91	C
BY-AP-MW-5V	1/8/19 8:50	Turbidity	11.9	NTU
BY-AP-MW-5V	1/8/19 8:55	Conductivity	177.9	uS/cm
BY-AP-MW-5V	1/8/19 8:55	DO	0.3	mg/L
BY-AP-MW-5V	1/8/19 8:55	Depth to Water Detail	17.82	ft
BY-AP-MW-5V	1/8/19 8:55	Oxidation Reduction Potention	105.2	mv
BY-AP-MW-5V	1/8/19 8:55	pH	6.65	pH
BY-AP-MW-5V	1/8/19 8:55	Temperature	21.96	C
BY-AP-MW-5V	1/8/19 8:55	Turbidity	11.7	NTU
BY-AP-MW-5V	1/8/19 9:00	Conductivity	170	uS/cm
BY-AP-MW-5V	1/8/19 9:00	DO	0.42	mg/L
BY-AP-MW-5V	1/8/19 9:00	Depth to Water Detail	17.82	ft
BY-AP-MW-5V	1/8/19 9:00	Oxidation Reduction Potention	106.4	mv
BY-AP-MW-5V	1/8/19 9:00	pH	6.62	pH
BY-AP-MW-5V	1/8/19 9:00	Temperature	22.04	C
BY-AP-MW-5V	1/8/19 9:00	Turbidity	10.8	NTU
BY-AP-MW-5V	1/8/19 9:05	Conductivity	159.3	uS/cm
BY-AP-MW-5V	1/8/19 9:05	DO	0.64	mg/L
BY-AP-MW-5V	1/8/19 9:05	Depth to Water Detail	17.82	ft
BY-AP-MW-5V	1/8/19 9:05	Oxidation Reduction Potention	109.6	mv
BY-AP-MW-5V	1/8/19 9:05	pH	6.43	pH
BY-AP-MW-5V	1/8/19 9:05	Temperature	21.93	C
BY-AP-MW-5V	1/8/19 9:05	Turbidity	11.7	NTU
BY-AP-MW-5V	1/8/19 9:10	Conductivity	149.9	uS/cm
BY-AP-MW-5V	1/8/19 9:10	DO	0.81	mg/L
BY-AP-MW-5V	1/8/19 9:10	Depth to Water Detail	17.82	ft
BY-AP-MW-5V	1/8/19 9:10	Oxidation Reduction Potention	111	mv
BY-AP-MW-5V	1/8/19 9:10	pH	6.36	pH
BY-AP-MW-5V	1/8/19 9:10	Temperature	21.86	C
BY-AP-MW-5V	1/8/19 9:10	Turbidity	12.7	NTU
BY-AP-MW-5V	1/8/19 9:15	Conductivity	141.3	uS/cm
BY-AP-MW-5V	1/8/19 9:15	DO	0.91	mg/L

**Alabama Power Company
Plant Barry Ash Pond**

WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
BY-AP-MW-5V	1/8/19 9:15	Depth to Water Detail	17.82	ft
BY-AP-MW-5V	1/8/19 9:15	Oxidation Reduction Potention	103.1	mv
BY-AP-MW-5V	1/8/19 9:15	pH	6.28	pH
BY-AP-MW-5V	1/8/19 9:15	Temperature	22	C
BY-AP-MW-5V	1/8/19 9:15	Turbidity	20	NTU
BY-AP-MW-5V	1/8/19 9:20	Conductivity	134.8	uS/cm
BY-AP-MW-5V	1/8/19 9:20	DO	1.01	mg/L
BY-AP-MW-5V	1/8/19 9:20	Depth to Water Detail	17.82	ft
BY-AP-MW-5V	1/8/19 9:20	Oxidation Reduction Potention	100.3	mv
BY-AP-MW-5V	1/8/19 9:20	pH	6.2	pH
BY-AP-MW-5V	1/8/19 9:20	Temperature	22.05	C
BY-AP-MW-5V	1/8/19 9:20	Turbidity	17.6	NTU
BY-AP-MW-5V	1/8/19 9:25	Conductivity	131.8	uS/cm
BY-AP-MW-5V	1/8/19 9:25	DO	1.06	mg/L
BY-AP-MW-5V	1/8/19 9:25	Depth to Water Detail	17.82	ft
BY-AP-MW-5V	1/8/19 9:25	Oxidation Reduction Potention	98.9	mv
BY-AP-MW-5V	1/8/19 9:25	pH	6.18	pH
BY-AP-MW-5V	1/8/19 9:25	Temperature	22.04	C
BY-AP-MW-5V	1/8/19 9:25	Turbidity	18.9	NTU
BY-AP-MW-5V	1/8/19 9:30	Conductivity	129.7	uS/cm
BY-AP-MW-5V	1/8/19 9:30	DO	1.09	mg/L
BY-AP-MW-5V	1/8/19 9:30	Depth to Water Detail	17.82	ft
BY-AP-MW-5V	1/8/19 9:30	Oxidation Reduction Potention	96.4	mv
BY-AP-MW-5V	1/8/19 9:30	pH	6.1	pH
BY-AP-MW-5V	1/8/19 9:30	Temperature	22.09	C
BY-AP-MW-5V	1/8/19 9:30	Turbidity	16.9	NTU
BY-AP-MW-5V	1/8/19 9:35	Conductivity	129.3	uS/cm
BY-AP-MW-5V	1/8/19 9:35	DO	1.11	mg/L
BY-AP-MW-5V	1/8/19 9:35	Depth to Water Detail	17.82	ft
BY-AP-MW-5V	1/8/19 9:35	Oxidation Reduction Potention	94.5	mv
BY-AP-MW-5V	1/8/19 9:35	pH	6.1	pH
BY-AP-MW-5V	1/8/19 9:35	Temperature	22.09	C
BY-AP-MW-5V	1/8/19 9:35	Turbidity	14.5	NTU
BY-AP-MW-5V	1/8/19 9:40	Conductivity	127.6	uS/cm
BY-AP-MW-5V	1/8/19 9:40	DO	1.13	mg/L
BY-AP-MW-5V	1/8/19 9:40	Depth to Water Detail	17.82	ft
BY-AP-MW-5V	1/8/19 9:40	Oxidation Reduction Potention	91.7	mv
BY-AP-MW-5V	1/8/19 9:40	pH	6.08	pH
BY-AP-MW-5V	1/8/19 9:40	Temperature	22.11	C
BY-AP-MW-5V	1/8/19 9:40	Turbidity	13	NTU
BY-AP-MW-5V	1/8/19 9:45	Conductivity	126	uS/cm
BY-AP-MW-5V	1/8/19 9:45	DO	1.16	mg/L
BY-AP-MW-5V	1/8/19 9:45	Depth to Water Detail	17.82	ft
BY-AP-MW-5V	1/8/19 9:45	Oxidation Reduction Potention	90.9	mv

**Alabama Power Company
Plant Barry Ash Pond**

WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
BY-AP-MW-5V	1/8/19 9:45	pH	6.09	pH
BY-AP-MW-5V	1/8/19 9:45	Temperature	22.13	C
BY-AP-MW-5V	1/8/19 9:45	Turbidity	10.55	NTU
BY-AP-MW-5V	1/8/19 9:50	Conductivity	124.7	uS/cm
BY-AP-MW-5V	1/8/19 9:50	DO	1.18	mg/L
BY-AP-MW-5V	1/8/19 9:50	Depth to Water Detail	17.82	ft
BY-AP-MW-5V	1/8/19 9:50	Oxidation Reduction Potention	93.1	mv
BY-AP-MW-5V	1/8/19 9:50	pH	6.07	pH
BY-AP-MW-5V	1/8/19 9:50	Temperature	22.17	C
BY-AP-MW-5V	1/8/19 9:50	Turbidity	8.06	NTU

**Alabama Power Company
Plant Barry Ash Pond**

WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
BY-AP-MW-7V	1/9/19 10:12	Conductivity	453.1	uS/cm
BY-AP-MW-7V	1/9/19 10:12	DO	0.22	mg/L
BY-AP-MW-7V	1/9/19 10:12	Depth to Water Detail	13.58	ft
BY-AP-MW-7V	1/9/19 10:12	Oxidation Reduction Potention	-157	mv
BY-AP-MW-7V	1/9/19 10:12	pH	7.08	pH
BY-AP-MW-7V	1/9/19 10:12	Temperature	21.31	C
BY-AP-MW-7V	1/9/19 10:12	Turbidity	4.6	NTU
BY-AP-MW-7V	1/9/19 10:17	Conductivity	455.3	uS/cm
BY-AP-MW-7V	1/9/19 10:17	DO	0.19	mg/L
BY-AP-MW-7V	1/9/19 10:17	Depth to Water Detail	13.58	ft
BY-AP-MW-7V	1/9/19 10:17	Oxidation Reduction Potention	-156.8	mv
BY-AP-MW-7V	1/9/19 10:17	pH	7.09	pH
BY-AP-MW-7V	1/9/19 10:17	Temperature	21.37	C
BY-AP-MW-7V	1/9/19 10:17	Turbidity	3.2	NTU
BY-AP-MW-7V	1/9/19 10:22	Conductivity	459.3	uS/cm
BY-AP-MW-7V	1/9/19 10:22	DO	0.17	mg/L
BY-AP-MW-7V	1/9/19 10:22	Depth to Water Detail	13.58	ft
BY-AP-MW-7V	1/9/19 10:22	Oxidation Reduction Potention	-157.8	mv
BY-AP-MW-7V	1/9/19 10:22	pH	7.12	pH
BY-AP-MW-7V	1/9/19 10:22	Temperature	21.38	C
BY-AP-MW-7V	1/9/19 10:22	Turbidity	3.66	NTU
BY-AP-MW-7V	1/9/19 10:27	Conductivity	456.9	uS/cm
BY-AP-MW-7V	1/9/19 10:27	DO	0.16	mg/L
BY-AP-MW-7V	1/9/19 10:27	Depth to Water Detail	13.58	ft
BY-AP-MW-7V	1/9/19 10:27	Oxidation Reduction Potention	-157	mv
BY-AP-MW-7V	1/9/19 10:27	pH	7.12	pH
BY-AP-MW-7V	1/9/19 10:27	Temperature	21.31	C
BY-AP-MW-7V	1/9/19 10:27	Turbidity	2.64	NTU

**Alabama Power Company
Plant Barry Ash Pond**

WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
BY-AP-MW-8V	1/9/19 9:06	Conductivity	559.9	uS/cm
BY-AP-MW-8V	1/9/19 9:06	DO	0.23	mg/L
BY-AP-MW-8V	1/9/19 9:06	Depth to Water Detail	16.35	ft
BY-AP-MW-8V	1/9/19 9:06	Oxidation Reduction Potention	-60.3	mv
BY-AP-MW-8V	1/9/19 9:06	pH	6.4	pH
BY-AP-MW-8V	1/9/19 9:06	Temperature	20.35	C
BY-AP-MW-8V	1/9/19 9:06	Turbidity	11.2	NTU
BY-AP-MW-8V	1/9/19 9:11	Conductivity	559.8	uS/cm
BY-AP-MW-8V	1/9/19 9:11	DO	0.2	mg/L
BY-AP-MW-8V	1/9/19 9:11	Depth to Water Detail	16.35	ft
BY-AP-MW-8V	1/9/19 9:11	Oxidation Reduction Potention	-61.4	mv
BY-AP-MW-8V	1/9/19 9:11	pH	6.39	pH
BY-AP-MW-8V	1/9/19 9:11	Temperature	20.39	C
BY-AP-MW-8V	1/9/19 9:11	Turbidity	6.48	NTU
BY-AP-MW-8V	1/9/19 9:16	Conductivity	556.4	uS/cm
BY-AP-MW-8V	1/9/19 9:16	DO	0.17	mg/L
BY-AP-MW-8V	1/9/19 9:16	Depth to Water Detail	16.35	ft
BY-AP-MW-8V	1/9/19 9:16	Oxidation Reduction Potention	-61.2	mv
BY-AP-MW-8V	1/9/19 9:16	pH	6.38	pH
BY-AP-MW-8V	1/9/19 9:16	Temperature	20.35	C
BY-AP-MW-8V	1/9/19 9:16	Turbidity	5.95	NTU
BY-AP-MW-8V	1/9/19 9:21	Conductivity	554.6	uS/cm
BY-AP-MW-8V	1/9/19 9:21	DO	0.16	mg/L
BY-AP-MW-8V	1/9/19 9:21	Depth to Water Detail	16.35	ft
BY-AP-MW-8V	1/9/19 9:21	Oxidation Reduction Potention	-60.5	mv
BY-AP-MW-8V	1/9/19 9:21	pH	6.38	pH
BY-AP-MW-8V	1/9/19 9:21	Temperature	20.36	C
BY-AP-MW-8V	1/9/19 9:21	Turbidity	4.68	NTU

1st
Semi-Annual
Monitoring Event

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

Field Case Narrative



Plant Barry Ash Pond

2019 Compliance Event 1

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

Pumping and sampling for MW-4 occurred approximately 10 feet from a running diesel engine powering security cameras for ash pond security.

Field quality control procedures were performed as follows:

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

Alabama Power General Test Laboratory
744 County Road 87, GSC#8
Calera, AL 35040
(205) 664-6247 or 6171
FAX (205) 664-6108

Analytical Report




Sample Group : WMWBARAP_1226
Project/Site : Barry Ash Pond
Bucks, AL 36512
For : Southern Company Services
3535 Colonnade Parkway
Birmingham, AL 35243
Attention : Dustin Brooks, Greg Dyer, & Lauren Parker
Released By : Laura Midkiff
lbmidkif@southernco.com
(205) 664-6197

The following data has been reviewed and approved by:

Quality Control:  Laura Midkiff
Digitally signed by Laura Midkiff
DN: cn=Laura Midkiff, o=Alabama Power
Company, ou=Environmental Affairs,
email=lbmidkif@southernco.com, c=US
Date: 2019.06.20 08:43:02 -0500

Supervision: T. Durant
Maske


Digitally signed by T. Durant Maske
DN: cn=T. Durant Maske, o=Alabama
Power Company, ou=Environmental
Affairs, email=tdmaske@southernco.com,
c=US
Date: 2019.06.21 10:57:48 -0500



Metals ICP

Barry Ash Pond

WMWBARAP_1226

1. This report consists of all MWs and corresponding Lab IDs listed on the Chain of Custody.
2. Refer to comments on Chain of Custody for information regarding sample receipt.
3. All standards and solutions are NIST/ISO/IEC/Guide 34 traceable and were used within their recommended shelf life.

<u>Sample ID</u>	<u>Batch ID</u>	<u>Project ID</u>
AZ12950	648180	WMWBARAP_1226
AZ12951	648180	WMWBARAP_1226
AZ12952	648180	WMWBARAP_1226
AZ12953	648180	WMWBARAP_1226
AZ12954	648180	WMWBARAP_1226
AZ12955	648180	WMWBARAP_1226
AZ12956	648180	WMWBARAP_1226
AZ12957	648180	WMWBARAP_1226
AZ12958	648180	WMWBARAP_1226
AZ12959	648180	WMWBARAP_1226
AZ12960	648181	WMWBARAP_1226
AZ12961	648181	WMWBARAP_1226
AZ12962	648181	WMWBARAP_1226
AZ12963	648181	WMWBARAP_1226
AZ12964	648181	WMWBARAP_1226
AZ12965	648181	WMWBARAP_1226
AZ12966	648181	WMWBARAP_1226
AZ12967	648181	WMWBARAP_1226
AZ12968	648181	WMWBARAP_1226
AZ12969	648181	WMWBARAP_1226
AZ12970	648182	WMWBARAP_1226

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



General Quality Control Procedures:

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

Matrix Specific Quality Control Procedures:

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

- A matrix spike and matrix spike duplicate were digested and analyzed with each ICP batch. All acceptance criteria for accuracy were met.
 - A matrix spike and matrix spike duplicate were digested and analyzed with each ICP batch. All acceptance criteria for precision were met.
7. The following sample was diluted due to the analyzed sample concentration being greater than the high standard of the calibration curve:

<u>Sample ID</u>	<u>Analyte</u>	<u>Dilution Factor</u>
AZ12957	Calcium	x10.15

8. The raw data results are shown with dilution factors included.



Metals ICPMS

Barry Ash Pond

WMWBARAP_1226

1. This report consists of all MWs and corresponding Lab IDs listed on the Chain of Custody.
2. Refer to comments on Chain of Custody for information regarding sample receipt.
3. All standards and solutions are NIST/ISO/IEC/Guide 34 traceable and were used within their recommended shelf life.

<u>Sample ID</u>	<u>Batch ID</u>	<u>Project ID</u>
AZ12950	648307	WMWBARAP_1226
AZ12951	648307	WMWBARAP_1226
AZ12952	648307	WMWBARAP_1226
AZ12953	648307	WMWBARAP_1226
AZ12954	648307	WMWBARAP_1226
AZ12955	648307	WMWBARAP_1226
AZ12956	648307	WMWBARAP_1226
AZ12957	648307	WMWBARAP_1226
AZ12958	648307	WMWBARAP_1226
AZ12959	648307	WMWBARAP_1226
AZ12960	648308	WMWBARAP_1226
AZ12961	648308	WMWBARAP_1226
AZ12962	648308	WMWBARAP_1226
AZ12963	648308	WMWBARAP_1226
AZ12964	648308	WMWBARAP_1226
AZ12965	648308	WMWBARAP_1226
AZ12966	648308	WMWBARAP_1226
AZ12967	648308	WMWBARAP_1226
AZ12968	648308	WMWBARAP_1226
AZ12969	648308	WMWBARAP_1226
AZ12970	648309	WMWBARAP_1226

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



General Quality Control Procedures:

- All tune and calibration met criteria for all requested analytes.
- Prior to sample analysis, an initial calibration verification (ICV) was analyzed and all criteria were met.
- Following the ICV, an initial calibration blank (ICB) was analyzed and was below the limit of quantitation for all requested analytes.
- All continued calibration verification (CCV) were within the acceptance criteria for the requested analytes.
- All continued calibration blanks (CCB) were below the limit of quantitation for the requested analytes.
- A preparation method blank and laboratory control sample were digested and analyzed with the samples in each digestion batch.
- All laboratory control sample criteria were met.
- The method blank associated with each digestion batch passed all acceptance criteria for all requested analytes.
- The interference check samples associated with EPA 200.8 were analyzed and passed for all requested analytes.
- All sample internal standard criteria were met.

Matrix Specific Quality Control Procedures:

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

- A matrix spike and matrix spike duplicate were digested and analyzed with each ICPMS batch. All acceptance criteria for accuracy were met.
 - A matrix spike and matrix spike duplicate were digested and analyzed with each ICPMS batch. All acceptance criteria for precision were met.
7. All samples were analyzed at a x5.075 dilution to compensate for potential matrix effects.
 8. The raw data results are shown with dilution factors included.



Mercury

Barry Ash Pond

WMWBARAP_1226

1. This report consists of all MWs and corresponding Lab IDs listed on the Chain of Custody.
2. Refer to comments on Chain of Custody for information regarding sample receipt.
3. All standards and solutions are NIST/ISO/IEC/Guide 34 traceable and were used within their recommended shelf life.

<u>Sample ID</u>	<u>Batch ID</u>	<u>Project ID</u>
AZ12950	647862	WMWBARAP_1226
AZ12951	647862	WMWBARAP_1226
AZ12952	647862	WMWBARAP_1226
AZ12953	647862	WMWBARAP_1226
AZ12954	647862	WMWBARAP_1226
AZ12955	647862	WMWBARAP_1226
AZ12956	647862	WMWBARAP_1226
AZ12957	647862	WMWBARAP_1226
AZ12958	647862	WMWBARAP_1226
AZ12959	647862	WMWBARAP_1226
AZ12960	647863	WMWBARAP_1226
AZ12961	647863	WMWBARAP_1226
AZ12962	647863	WMWBARAP_1226
AZ12963	647863	WMWBARAP_1226
AZ12964	647863	WMWBARAP_1226
AZ12965	647863	WMWBARAP_1226
AZ12966	647863	WMWBARAP_1226
AZ12967	647863	WMWBARAP_1226
AZ12968	647863	WMWBARAP_1226
AZ12969	647863	WMWBARAP_1226
AZ12970	647864	WMWBARAP_1226

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



General Quality Control Procedures:

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

Matrix Specific Quality Control Procedures:

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

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



TDS

Barry Ash Pond

WMWBARAP_1226

1. This report consists of all MWs and corresponding Lab IDs listed on the Chain of Custody.
2. Refer to comments on Chain of Custody for information regarding sample receipt.
3. All standards and solutions are NIST/ISO/IEC/Guide 34 traceable and were used within their recommended shelf life.

<u>Sample ID</u>	<u>Batch ID</u>	<u>Project ID</u>
AZ12950	648024	WMWBARAP_1226
AZ12951	648024	WMWBARAP_1226
AZ12952	648024	WMWBARAP_1226
AZ12953	648024	WMWBARAP_1226
AZ12954	648024	WMWBARAP_1226
AZ12955	648024	WMWBARAP_1226
AZ12956	648024	WMWBARAP_1226
AZ12957	648024	WMWBARAP_1226
AZ12958	648024	WMWBARAP_1226
AZ12959	648024	WMWBARAP_1226
AZ12960	648025	WMWBARAP_1226
AZ12961	648025	WMWBARAP_1226
AZ12962	648025	WMWBARAP_1226
AZ12963	648025	WMWBARAP_1226
AZ12964	648025	WMWBARAP_1226
AZ12965	648025	WMWBARAP_1226
AZ12966	648025	WMWBARAP_1226
AZ12967	648025	WMWBARAP_1226
AZ12968	648025	WMWBARAP_1226
AZ12969	648025	WMWBARAP_1226
AZ12970	648354	WMWBARAP_1226

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



General Quality Control Procedures:

- A Method Blank was analyzed with each batch. All criteria were met.
- All final weights of samples, standards, and blanks agreed within 0.5mg of the previous weight.
- A sample duplicate was analyzed with each batch. RPD/2 was less than 5%, except for the following:
 - RPD/2 was greater than 5% for sample AZ12970, but both the original and duplicate results were below the RL. Therefore, the results are acceptable.
- A laboratory control sample was analyzed with each batch. All criteria were met.
- Samples were between 2.5mg and 200mg residue.
- All samples with residue <2.5mg had the maximum volume of 150mL filtered. Affected samples are as follows:
 - AZ12954
 - AZ12965
 - AZ12970



Anions

Barry Ash Pond

WMWBARAP_1226

1. This report consists of all MWs and corresponding Lab IDs listed on the Chain of Custody.
2. Refer to comments on Chain of Custody for information regarding sample receipt.
3. All standards and solutions are NIST/ISO/IEC/Guide 34 traceable and were used within their recommended shelf life.

<u>Sample ID</u>	<u>Batch ID</u>	<u>Project ID</u>
AZ12950	648754, 648864, & 648921	WMWBARAP_1226
AZ12951	648754, 648864, & 648921	WMWBARAP_1226
AZ12952	648754, 648864, & 648921	WMWBARAP_1226
AZ12953	648754, 648864, & 648921	WMWBARAP_1226
AZ12954	648754, 648864, & 648921	WMWBARAP_1226
AZ12955	648754, 648864, & 648921	WMWBARAP_1226
AZ12956	648754, 648864, & 648921	WMWBARAP_1226
AZ12957	648754, 648864, & 648921	WMWBARAP_1226
AZ12958	648754, 648864, & 648921	WMWBARAP_1226
AZ12959	648754, 648864, & 648921	WMWBARAP_1226
AZ12960	648755, 648865, & 648922	WMWBARAP_1226
AZ12961	648755, 648865, & 648922	WMWBARAP_1226
AZ12962	648755, 648865, & 648922	WMWBARAP_1226
AZ12963	648755, 648865, & 648922	WMWBARAP_1226
AZ12964	648755, 648865, & 648922	WMWBARAP_1226
AZ12965	648755, 648865, & 648922	WMWBARAP_1226
AZ12966	648755, 648865, & 648922	WMWBARAP_1226
AZ12967	648755, 648865, & 648922	WMWBARAP_1226
AZ12968	648755, 648865, & 648922	WMWBARAP_1226
AZ12969	648755, 648865, & 648922	WMWBARAP_1226
AZ12970	648756, 648866, & 648923	WMWBARAP_1226

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



General Quality Control Procedures:

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

Matrix Specific Quality Control Procedures:

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

- A matrix spike was analyzed with each batch. Acceptance criteria for accuracy were met, except for the following:
 - AZ12969 matrix spike recovery for Sulfate was outside of the specification limit.
- A sample duplicate was analyzed with each batch. Acceptance criteria for precision were met.



7. The following samples were diluted due to the analyzed sample concentration being greater than the high standard of the calibration curve:

<u>Sample ID</u>	<u>Analyte</u>	<u>Dilution Factor</u>
AZ12950	Chloride	x4
AZ12952	Chloride	x2
AZ12955	Chloride	x2
AZ12956	Chloride	x2
AZ12957	Chloride	x3
AZ12962	Chloride	x2
AZ12964	Chloride	x4
AZ12966	Chloride	x4
AZ12966	Sulfate	x10
AZ12967	Chloride	x4
AZ12967	Sulfate	x10
AZ12968	Chloride	x2
AZ12969	Chloride	x4

8. The raw data results are shown with dilution factors included.

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6247 or 6171
 FAX (205) 664-6108

Certificate Of Analysis Alabama Power



To: Dustin Brooks
 Greg Dyer
 Lauren Parker

Customer Account: WMWBARAP
 Sample Date: 29-May-19
 Customer ID:
 Delivery Date: 31-May-19

Description: Barry Ash Pond - MW-8

Laboratory ID Number: AZ12950

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Metals, Cyanide, Total Phenols									
* Arsenic, Total	ABB	6/5/2019	EPA 200.8		5.075	0.001	0.005	0.0482	mg/L
* Barium, Total	ABB	6/5/2019	EPA 200.8		5.075	0.002	0.01	0.138	mg/L
* Beryllium, Total	ABB	6/5/2019	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Boron, Total	RDA	6/7/2019	EPA 200.7		1.015	0.03	0.1	1.44	mg/L
* Calcium, Total	RDA	6/7/2019	EPA 200.7		1.015	0.1	0.5	31.9	mg/L
* Cadmium, Total	ABB	6/5/2019	EPA 200.8		5.075	0.0003	0.001	U Not Detected	mg/L
* Antimony, Total	ABB	6/5/2019	EPA 200.8		5.075	0.0008	0.003	U Not Detected	mg/L
* Cobalt, Total	ABB	6/5/2019	EPA 200.8		5.075	0.002	0.005	U Not Detected	mg/L
* Chromium, Total	ABB	6/5/2019	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	GAS	6/4/2019	EPA 245.1		1	0.0003	0.0005	U Not Detected	mg/L
* Lithium, Total	RDA	6/7/2019	EPA 200.7		1.015	0.01	0.02	U Not Detected	mg/L
* Molybdenum, Total	ABB	6/5/2019	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Lead, Total	ABB	6/5/2019	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Selenium, Total	ABB	6/5/2019	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Thallium, Total	ABB	6/5/2019	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	CRB	6/5/2019	SM 2540C		1		25	291	mg/L
Solids, Dissolved Filter Date	CRB	6/3/2019	SM 2540C		1			06/03/2019	Date
* Chloride	JCC	6/10/2019	SM4500CI E		4	2.00	4	27.4	mg/L
* Fluoride	JCC	6/11/2019	SM4500F C		1	0.05	0.1	J 0.0958	mg/L
* Sulfate	JCC	6/12/2019	SM4500SO4 E		1	0.50	1	6.01	mg/L
Field Measurements									
pH	AWG	5/29/2019						FA 6.11	SU

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

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

* Test results for these accredited parameters conform to the most current applicable TNI/NELAC requirements, with exceptions noted on this report.

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2020

Comments:

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6247 or 6171
 FAX (205) 664-6108

Batch QC Summary



To: Dustin Brooks
 Greg Dyer
 Lauren Parker

Customer Account: WMWBARAP
 Sample Date: 29-May-19
 Customer ID:
 Delivery Date: 31-May-19

Description: Barry Ash Pond - MW-8

Laboratory ID Number: AZ12950

Sample	Analysis	Units	MB	MB		MS	MSD	LCS	LCS		Rec		Prec	Limit
				Limit	Spike				Limit	Rec	Limit	Prec		
AZ12959	Arsenic, Total	mg/L	0.00000810	0.0022	0.10	0.0937	0.0911	0.0985	0.085 to 0.115	93.7	70 to 130	2.81	20	
AZ12959	Barium, Total	mg/L	-0.00000850	0.0044	0.10	0.116	0.114	0.0979	0.085 to 0.115	94.5	70 to 130	1.40	20	
AZ12959	Beryllium, Total	mg/L	0.0000104	0.00132	0.10	0.103	0.0997	0.103	0.085 to 0.115	103	70 to 130	3.23	20	
AZ12959	Boron, Total	mg/L	0.00305	0.065025	1.00	0.973	0.968	0.967	0.85 to 1.15	97.3	70 to 130	0.592	20	
AZ12959	Calcium, Total	mg/L	0.00433	0.216749	5.00	5.44	5.44	4.79	4.25 to 5.75	96.4	70 to 130	0.130	20	
AZ12959	Cadmium, Total	mg/L	0.00000000	0.00066	0.10	0.0951	0.0953	0.102	0.085 to 0.115	95.1	70 to 130	0.258	20	
AZ12959	Cobalt, Total	mg/L	0.00000056	0.0044	0.10	0.111	0.110	0.109	0.085 to 0.115	106	70 to 130	1.19	20	
AZ12959	Chromium, Total	mg/L	-0.0000151	0.0044	0.10	0.101	0.1000	0.104	0.085 to 0.115	101	70 to 130	0.789	20	
AZ12959	Mercury, Total by CVAA	mg/L	0.0000125	0.0005	0.004	0.00401	0.00406	0.00402	0.0034 to 0.0046	100	70 to 130	1.33	20	
AZ12959	Lithium, Total	mg/L	-0.0000861	0.019704	0.20	0.197	0.196	0.197	0.17 to 0.23	98.5	70 to 130	0.583	20	
AZ12959	Molybdenum, Total	mg/L	0.00000875	0.0044	0.10	0.0929	0.0911	0.0987	0.085 to 0.115	92.9	70 to 130	1.94	20	
AZ12959	Lead, Total	mg/L	0.00000469	0.0022	0.10	0.102	0.100	0.106	0.085 to 0.115	102	70 to 130	2.17	20	
AZ12959	Antimony, Total	mg/L	0.0000854	0.00176	0.10	0.0960	0.0929	0.0981	0.085 to 0.115	96.0	70 to 130	3.36	20	
AZ12959	Selenium, Total	mg/L	0.0000552	0.0044	0.10	0.0967	0.0939	0.0985	0.085 to 0.115	96.7	70 to 130	2.99	20	
AZ12959	Thallium, Total	mg/L	0.00000294	0.00044	0.10	0.103	0.101	0.106	0.085 to 0.115	103	70 to 130	1.99	20	

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* Test results for these accredited parameters conform to the most current applicable TNI/NELAC requirements, with exceptions noted on this report.

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2020

Comments:

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6247 or 6171
 FAX (205) 664-6108

Batch QC Summary



To: Dustin Brooks
 Greg Dyer
 Lauren Parker

Customer Account: WMWBARAP
 Sample Date: 29-May-19
 Customer ID:
 Delivery Date: 31-May-19

Description: Barry Ash Pond - MW-8

Laboratory ID Number: AZ12950

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	LCS	LCS Limit	Rec	Rec Limit	Prec	Prec Limit
AZ12957	Solids, Dissolved	mg/L	-1.00	25			381	53.0	40 to 60			0.528	5
AZ12959	Chloride	mg/L	-0.0627	0.50	10.0	18.5	8.53	9.89	9 to 11	99.8	80 to 120	0.117	20
AZ12959	Fluoride	mg/L	0.033	0.05	2.50	2.46	0.032	2.60	2.25 to 2.75	98.4	80 to 120	0.00	20
AZ12959	Sulfate	mg/L	-0.303	0.50	20.0	21.3	2.89	19.3	18 to 22	92.4	80 to 120	2.10	20

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Laboratory certification ID: E571114

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CC:

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 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6247 or 6171
 FAX (205) 664-6108

Certificate Of Analysis Alabama Power



To: Dustin Brooks
 Greg Dyer
 Lauren Parker

Customer Account: WMWBARAP
 Sample Date: 29-May-19
 Customer ID:
 Delivery Date: 31-May-19

Description: Barry Ash Pond - MW-7

Laboratory ID Number: AZ12951

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Metals, Cyanide, Total Phenols									
* Arsenic, Total	ABB	6/5/2019	EPA 200.8		5.075	0.001	0.005	0.0178	mg/L
* Barium, Total	ABB	6/5/2019	EPA 200.8		5.075	0.002	0.01	0.0590	mg/L
* Beryllium, Total	ABB	6/5/2019	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Boron, Total	RDA	6/7/2019	EPA 200.7		1.015	0.03	0.1	J 0.0420	mg/L
* Calcium, Total	RDA	6/7/2019	EPA 200.7		1.015	0.1	0.5	8.88	mg/L
* Cadmium, Total	ABB	6/5/2019	EPA 200.8		5.075	0.0003	0.001	U Not Detected	mg/L
* Antimony, Total	ABB	6/5/2019	EPA 200.8		5.075	0.0008	0.003	U Not Detected	mg/L
* Cobalt, Total	ABB	6/5/2019	EPA 200.8		5.075	0.002	0.005	0.0197	mg/L
* Chromium, Total	ABB	6/5/2019	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	GAS	6/4/2019	EPA 245.1		1	0.0003	0.0005	U Not Detected	mg/L
* Lithium, Total	RDA	6/7/2019	EPA 200.7		1.015	0.01	0.02	U Not Detected	mg/L
* Molybdenum, Total	ABB	6/5/2019	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Lead, Total	ABB	6/5/2019	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Selenium, Total	ABB	6/5/2019	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Thallium, Total	ABB	6/5/2019	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	CRB	6/5/2019	SM 2540C		1		25	132	mg/L
Solids, Dissolved Filter Date	CRB	6/3/2019	SM 2540C		1			06/03/2019	Date
* Chloride	JCC	6/10/2019	SM4500CI E		1	0.50	1	13.3	mg/L
* Fluoride	JCC	6/11/2019	SM4500F C		1	0.05	0.1	J 0.0937	mg/L
* Sulfate	JCC	6/12/2019	SM4500SO4 E		1	0.50	1	2.77	mg/L
Field Measurements									
pH	AWG	5/29/2019						FA 6.18	SU

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* Test results for these accredited parameters conform to the most current applicable TNI/NELAC requirements, with exceptions noted on this report.

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2020

Comments:

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6247 or 6171
 FAX (205) 664-6108

Batch QC Summary



To: Dustin Brooks
 Greg Dyer
 Lauren Parker

Customer Account: WMWBARAP
 Sample Date: 29-May-19
 Customer ID:
 Delivery Date: 31-May-19

Description: Barry Ash Pond - MW-7

Laboratory ID Number: AZ12951

Sample	Analysis	Units	MB	MB		MS	MSD	LCS	LCS		Rec		Prec	Limit
				Limit	Spike				Limit	Rec	Limit	Prec		
AZ12959	Arsenic, Total	mg/L	0.00000810	0.0022	0.10	0.0937	0.0911	0.0985	0.085 to 0.115	93.7	70 to 130	2.81	20	
AZ12959	Barium, Total	mg/L	-0.00000850	0.0044	0.10	0.116	0.114	0.0979	0.085 to 0.115	94.5	70 to 130	1.40	20	
AZ12959	Beryllium, Total	mg/L	0.0000104	0.00132	0.10	0.103	0.0997	0.103	0.085 to 0.115	103	70 to 130	3.23	20	
AZ12959	Boron, Total	mg/L	0.00305	0.065025	1.00	0.973	0.968	0.967	0.85 to 1.15	97.3	70 to 130	0.592	20	
AZ12959	Calcium, Total	mg/L	0.00433	0.216749	5.00	5.44	5.44	4.79	4.25 to 5.75	96.4	70 to 130	0.130	20	
AZ12959	Cadmium, Total	mg/L	0.00000000	0.00066	0.10	0.0951	0.0953	0.102	0.085 to 0.115	95.1	70 to 130	0.258	20	
AZ12959	Cobalt, Total	mg/L	0.00000056	0.0044	0.10	0.111	0.110	0.109	0.085 to 0.115	106	70 to 130	1.19	20	
AZ12959	Chromium, Total	mg/L	-0.0000151	0.0044	0.10	0.101	0.1000	0.104	0.085 to 0.115	101	70 to 130	0.789	20	
AZ12959	Mercury, Total by CVAA	mg/L	0.0000125	0.0005	0.004	0.00401	0.00406	0.00402	0.0034 to 0.0046	100	70 to 130	1.33	20	
AZ12959	Lithium, Total	mg/L	-0.0000861	0.019704	0.20	0.197	0.196	0.197	0.17 to 0.23	98.5	70 to 130	0.583	20	
AZ12959	Molybdenum, Total	mg/L	0.00000875	0.0044	0.10	0.0929	0.0911	0.0987	0.085 to 0.115	92.9	70 to 130	1.94	20	
AZ12959	Lead, Total	mg/L	0.00000469	0.0022	0.10	0.102	0.100	0.106	0.085 to 0.115	102	70 to 130	2.17	20	
AZ12959	Antimony, Total	mg/L	0.0000854	0.00176	0.10	0.0960	0.0929	0.0981	0.085 to 0.115	96.0	70 to 130	3.36	20	
AZ12959	Selenium, Total	mg/L	0.0000552	0.0044	0.10	0.0967	0.0939	0.0985	0.085 to 0.115	96.7	70 to 130	2.99	20	
AZ12959	Thallium, Total	mg/L	0.00000294	0.00044	0.10	0.103	0.101	0.106	0.085 to 0.115	103	70 to 130	1.99	20	

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

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

* Test results for these accredited parameters conform to the most current applicable TNI/NELAC requirements, with exceptions noted on this report.

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2020

Comments:

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6247 or 6171
 FAX (205) 664-6108

Batch QC Summary



To: Dustin Brooks
 Greg Dyer
 Lauren Parker

Customer Account: WMWBARAP
 Sample Date: 29-May-19
 Customer ID:
 Delivery Date: 31-May-19

Description: Barry Ash Pond - MW-7

Laboratory ID Number: AZ12951

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	LCS	LCS Limit	Rec	Rec Limit	Prec	Prec Limit
AZ12957	Solids, Dissolved	mg/L	-1.00	25			381	53.0	40 to 60			0.528	5
AZ12959	Chloride	mg/L	-0.0627	0.50	10.0	18.5	8.53	9.89	9 to 11	99.8	80 to 120	0.117	20
AZ12959	Fluoride	mg/L	0.033	0.05	2.50	2.46	0.032	2.60	2.25 to 2.75	98.4	80 to 120	0.00	20
AZ12959	Sulfate	mg/L	-0.303	0.50	20.0	21.3	2.89	19.3	18 to 22	92.4	80 to 120	2.10	20

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

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2020

Comments:

CC:

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6247 or 6171
 FAX (205) 664-6108

Certificate Of Analysis  **Alabama Power**



To: Dustin Brooks
 Greg Dyer
 Lauren Parker

Customer Account: WMWBARAP
 Sample Date: 29-May-19
 Customer ID:
 Delivery Date: 31-May-19

Description: Barry Ash Pond - MW-5

Laboratory ID Number: AZ12952

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Metals, Cyanide, Total Phenols									
* Arsenic, Total	ABB	6/5/2019	EPA 200.8		5.075	0.001	0.005	0.0301	mg/L
* Barium, Total	ABB	6/5/2019	EPA 200.8		5.075	0.002	0.01	0.146	mg/L
* Beryllium, Total	ABB	6/5/2019	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Boron, Total	RDA	6/7/2019	EPA 200.7		1.015	0.03	0.1	J 0.0946	mg/L
* Calcium, Total	RDA	6/7/2019	EPA 200.7		1.015	0.1	0.5	14.5	mg/L
* Cadmium, Total	ABB	6/5/2019	EPA 200.8		5.075	0.0003	0.001	U Not Detected	mg/L
* Antimony, Total	ABB	6/5/2019	EPA 200.8		5.075	0.0008	0.003	U Not Detected	mg/L
* Cobalt, Total	ABB	6/5/2019	EPA 200.8		5.075	0.002	0.005	U Not Detected	mg/L
* Chromium, Total	ABB	6/5/2019	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	GAS	6/4/2019	EPA 245.1		1	0.0003	0.0005	U Not Detected	mg/L
* Lithium, Total	RDA	6/7/2019	EPA 200.7		1.015	0.01	0.02	U Not Detected	mg/L
* Molybdenum, Total	ABB	6/5/2019	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Lead, Total	ABB	6/5/2019	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Selenium, Total	ABB	6/5/2019	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Thallium, Total	ABB	6/5/2019	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	CRB	6/5/2019	SM 2540C		1		25	259	mg/L
Solids, Dissolved Filter Date	CRB	6/3/2019	SM 2540C		1			06/03/2019	Date
* Chloride	JCC	6/10/2019	SM4500CI E		2	1.00	2	19.7	mg/L
* Fluoride	JCC	6/11/2019	SM4500F C		1	0.05	0.1	J 0.0923	mg/L
* Sulfate	JCC	6/12/2019	SM4500SO4 E		1	0.50	1	5.51	mg/L
Field Measurements									
pH	AWG	5/29/2019						FA 5.93	SU

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2020

Comments:

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6247 or 6171
 FAX (205) 664-6108

Batch QC Summary



To: Dustin Brooks
 Greg Dyer
 Lauren Parker

Customer Account: WMWBARAP
 Sample Date: 29-May-19
 Customer ID:
 Delivery Date: 31-May-19

Description: Barry Ash Pond - MW-5

Laboratory ID Number: AZ12952

Sample	Analysis	Units	MB	MB		MS	MSD	LCS	LCS	Rec		Prec	Limit
				Limit	Spike					Limit	Prec		
AZ12959	Arsenic, Total	mg/L	0.00000810	0.0022	0.10	0.0937	0.0911	0.0985	0.085 to 0.115	93.7	70 to 130	2.81	20
AZ12959	Barium, Total	mg/L	-0.00000850	0.0044	0.10	0.116	0.114	0.0979	0.085 to 0.115	94.5	70 to 130	1.40	20
AZ12959	Beryllium, Total	mg/L	0.0000104	0.00132	0.10	0.103	0.0997	0.103	0.085 to 0.115	103	70 to 130	3.23	20
AZ12959	Boron, Total	mg/L	0.00305	0.065025	1.00	0.973	0.968	0.967	0.85 to 1.15	97.3	70 to 130	0.592	20
AZ12959	Calcium, Total	mg/L	0.00433	0.216749	5.00	5.44	5.44	4.79	4.25 to 5.75	96.4	70 to 130	0.130	20
AZ12959	Cadmium, Total	mg/L	0.00000000	0.00066	0.10	0.0951	0.0953	0.102	0.085 to 0.115	95.1	70 to 130	0.258	20
AZ12959	Cobalt, Total	mg/L	0.00000056	0.0044	0.10	0.111	0.110	0.109	0.085 to 0.115	106	70 to 130	1.19	20
AZ12959	Chromium, Total	mg/L	-0.0000151	0.0044	0.10	0.101	0.1000	0.104	0.085 to 0.115	101	70 to 130	0.789	20
AZ12959	Mercury, Total by CVAA	mg/L	0.0000125	0.0005	0.004	0.00401	0.00406	0.00402	0.0034 to 0.0046	100	70 to 130	1.33	20
AZ12959	Lithium, Total	mg/L	-0.0000861	0.019704	0.20	0.197	0.196	0.197	0.17 to 0.23	98.5	70 to 130	0.583	20
AZ12959	Molybdenum, Total	mg/L	0.00000875	0.0044	0.10	0.0929	0.0911	0.0987	0.085 to 0.115	92.9	70 to 130	1.94	20
AZ12959	Lead, Total	mg/L	0.00000469	0.0022	0.10	0.102	0.100	0.106	0.085 to 0.115	102	70 to 130	2.17	20
AZ12959	Antimony, Total	mg/L	0.0000854	0.00176	0.10	0.0960	0.0929	0.0981	0.085 to 0.115	96.0	70 to 130	3.36	20
AZ12959	Selenium, Total	mg/L	0.0000552	0.0044	0.10	0.0967	0.0939	0.0985	0.085 to 0.115	96.7	70 to 130	2.99	20
AZ12959	Thallium, Total	mg/L	0.00000294	0.00044	0.10	0.103	0.101	0.106	0.085 to 0.115	103	70 to 130	1.99	20

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2020

Comments:

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6247 or 6171
 FAX (205) 664-6108

Batch QC Summary



To: Dustin Brooks
 Greg Dyer
 Lauren Parker

Customer Account: WMWBARAP
 Sample Date: 29-May-19
 Customer ID:
 Delivery Date: 31-May-19

Description: Barry Ash Pond - MW-5

Laboratory ID Number: AZ12952

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	LCS	LCS Limit	Rec	Rec Limit	Prec	Prec Limit
AZ12957	Solids, Dissolved	mg/L	-1.00	25			381	53.0	40 to 60			0.528	5
AZ12959	Chloride	mg/L	-0.0627	0.50	10.0	18.5	8.53	9.89	9 to 11	99.8	80 to 120	0.117	20
AZ12959	Fluoride	mg/L	0.033	0.05	2.50	2.46	0.032	2.60	2.25 to 2.75	98.4	80 to 120	0.00	20
AZ12959	Sulfate	mg/L	-0.303	0.50	20.0	21.3	2.89	19.3	18 to 22	92.4	80 to 120	2.10	20

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2020

Comments:

CC:

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6247 or 6171
 FAX (205) 664-6108

Certificate Of Analysis Alabama Power



To: Dustin Brooks
 Greg Dyer
 Lauren Parker

Customer Account: WMWBARAP
 Sample Date: 29-May-19
 Customer ID:
 Delivery Date: 31-May-19

Description: Barry Ash Pond - MW-6

Laboratory ID Number: AZ12953

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Metals, Cyanide, Total Phenols									
* Arsenic, Total	ABB	6/5/2019	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Barium, Total	ABB	6/5/2019	EPA 200.8		5.075	0.002	0.01	0.0244	mg/L
* Beryllium, Total	ABB	6/5/2019	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Boron, Total	RDA	6/7/2019	EPA 200.7		1.015	0.03	0.1	U Not Detected	mg/L
* Calcium, Total	RDA	6/7/2019	EPA 200.7		1.015	0.1	0.5	1.72	mg/L
* Cadmium, Total	ABB	6/5/2019	EPA 200.8		5.075	0.0003	0.001	U Not Detected	mg/L
* Antimony, Total	ABB	6/5/2019	EPA 200.8		5.075	0.0008	0.003	U Not Detected	mg/L
* Cobalt, Total	ABB	6/5/2019	EPA 200.8		5.075	0.002	0.005	U Not Detected	mg/L
* Chromium, Total	ABB	6/5/2019	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	GAS	6/4/2019	EPA 245.1		1	0.0003	0.0005	U Not Detected	mg/L
* Lithium, Total	RDA	6/7/2019	EPA 200.7		1.015	0.01	0.02	U Not Detected	mg/L
* Molybdenum, Total	ABB	6/5/2019	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Lead, Total	ABB	6/5/2019	EPA 200.8		5.075	0.001	0.005	J 0.00185	mg/L
* Selenium, Total	ABB	6/5/2019	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Thallium, Total	ABB	6/5/2019	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	CRB	6/5/2019	SM 2540C		1		25	48.7	mg/L
Solids, Dissolved Filter Date	CRB	6/3/2019	SM 2540C		1			06/03/2019	Date
* Chloride	JCC	6/10/2019	SM4500CI E		1	0.50	1	6.15	mg/L
* Fluoride	JCC	6/11/2019	SM4500F C		1	0.05	0.1	U Not Detected	mg/L
* Sulfate	JCC	6/12/2019	SM4500SO4 E		1	0.50	1	1.17	mg/L
Field Measurements									
pH	AWG	5/29/2019						FA 5.31	SU

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

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2020

Comments:

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6247 or 6171
 FAX (205) 664-6108

Batch QC Summary



To: Dustin Brooks
 Greg Dyer
 Lauren Parker

Customer Account: WMWBARAP
 Sample Date: 29-May-19
 Customer ID:
 Delivery Date: 31-May-19

Description: Barry Ash Pond - MW-6

Laboratory ID Number: AZ12953

Sample	Analysis	Units	MB	MB		MS	MSD	LCS	LCS		Rec		Prec	Limit
				Limit	Spike				Limit	Rec	Limit	Prec		
AZ12959	Arsenic, Total	mg/L	0.00000810	0.0022	0.10	0.0937	0.0911	0.0985	0.085 to 0.115	93.7	70 to 130	2.81	20	
AZ12959	Barium, Total	mg/L	-0.00000850	0.0044	0.10	0.116	0.114	0.0979	0.085 to 0.115	94.5	70 to 130	1.40	20	
AZ12959	Beryllium, Total	mg/L	0.0000104	0.00132	0.10	0.103	0.0997	0.103	0.085 to 0.115	103	70 to 130	3.23	20	
AZ12959	Boron, Total	mg/L	0.00305	0.065025	1.00	0.973	0.968	0.967	0.85 to 1.15	97.3	70 to 130	0.592	20	
AZ12959	Calcium, Total	mg/L	0.00433	0.216749	5.00	5.44	5.44	4.79	4.25 to 5.75	96.4	70 to 130	0.130	20	
AZ12959	Cadmium, Total	mg/L	0.00000000	0.00066	0.10	0.0951	0.0953	0.102	0.085 to 0.115	95.1	70 to 130	0.258	20	
AZ12959	Cobalt, Total	mg/L	0.00000056	0.0044	0.10	0.111	0.110	0.109	0.085 to 0.115	106	70 to 130	1.19	20	
AZ12959	Chromium, Total	mg/L	-0.0000151	0.0044	0.10	0.101	0.1000	0.104	0.085 to 0.115	101	70 to 130	0.789	20	
AZ12959	Mercury, Total by CVAA	mg/L	0.0000125	0.0005	0.004	0.00401	0.00406	0.00402	0.0034 to 0.0046	100	70 to 130	1.33	20	
AZ12959	Lithium, Total	mg/L	-0.0000861	0.019704	0.20	0.197	0.196	0.197	0.17 to 0.23	98.5	70 to 130	0.583	20	
AZ12959	Molybdenum, Total	mg/L	0.00000875	0.0044	0.10	0.0929	0.0911	0.0987	0.085 to 0.115	92.9	70 to 130	1.94	20	
AZ12959	Lead, Total	mg/L	0.00000469	0.0022	0.10	0.102	0.100	0.106	0.085 to 0.115	102	70 to 130	2.17	20	
AZ12959	Antimony, Total	mg/L	0.0000854	0.00176	0.10	0.0960	0.0929	0.0981	0.085 to 0.115	96.0	70 to 130	3.36	20	
AZ12959	Selenium, Total	mg/L	0.0000552	0.0044	0.10	0.0967	0.0939	0.0985	0.085 to 0.115	96.7	70 to 130	2.99	20	
AZ12959	Thallium, Total	mg/L	0.00000294	0.00044	0.10	0.103	0.101	0.106	0.085 to 0.115	103	70 to 130	1.99	20	

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2020

Comments:

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6247 or 6171
 FAX (205) 664-6108

Batch QC Summary



To: Dustin Brooks
 Greg Dyer
 Lauren Parker

Customer Account: WMWBARAP
 Sample Date: 29-May-19
 Customer ID:
 Delivery Date: 31-May-19

Description: Barry Ash Pond - MW-6

Laboratory ID Number: AZ12953

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	LCS	LCS Limit	Rec	Rec Limit	Prec	Prec Limit
AZ12957	Solids, Dissolved	mg/L	-1.00	25			381	53.0	40 to 60			0.528	5
AZ12959	Chloride	mg/L	-0.0627	0.50	10.0	18.5	8.53	9.89	9 to 11	99.8	80 to 120	0.117	20
AZ12959	Fluoride	mg/L	0.033	0.05	2.50	2.46	0.032	2.60	2.25 to 2.75	98.4	80 to 120	0.00	20
AZ12959	Sulfate	mg/L	-0.303	0.50	20.0	21.3	2.89	19.3	18 to 22	92.4	80 to 120	2.10	20

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2020

Comments:

CC:

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6247 or 6171
 FAX (205) 664-6108

Certificate Of Analysis  **Alabama Power**



To: Dustin Brooks
 Greg Dyer
 Lauren Parker

Customer Account: WMWBARAPFB
 Sample Date: 30-May-19
 Customer ID:
 Delivery Date: 31-May-19

Description: Barry Ash Pond Field Blank

Laboratory ID Number: AZ12954

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q	Results	Units
Metals, Cyanide, Total Phenols										
* Arsenic, Total	ABB	6/5/2019	EPA 200.8		5.075	0.001	0.005	U	Not Detected	mg/L
* Barium, Total	ABB	6/5/2019	EPA 200.8		5.075	0.002	0.01	U	Not Detected	mg/L
* Beryllium, Total	ABB	6/5/2019	EPA 200.8		5.075	0.0006	0.003	U	Not Detected	mg/L
* Boron, Total	RDA	6/7/2019	EPA 200.7		1.015	0.03	0.1	U	Not Detected	mg/L
* Calcium, Total	RDA	6/7/2019	EPA 200.7		1.015	0.1	0.5	U	Not Detected	mg/L
* Cadmium, Total	ABB	6/5/2019	EPA 200.8		5.075	0.0003	0.001	U	Not Detected	mg/L
* Antimony, Total	ABB	6/5/2019	EPA 200.8		5.075	0.0008	0.003	U	Not Detected	mg/L
* Cobalt, Total	ABB	6/5/2019	EPA 200.8		5.075	0.002	0.005	U	Not Detected	mg/L
* Chromium, Total	ABB	6/5/2019	EPA 200.8		5.075	0.002	0.01	U	Not Detected	mg/L
* Mercury, Total by CVAA	GAS	6/4/2019	EPA 245.1		1	0.0003	0.0005	U	Not Detected	mg/L
* Lithium, Total	RDA	6/7/2019	EPA 200.7		1.015	0.01	0.02	U	Not Detected	mg/L
* Molybdenum, Total	ABB	6/5/2019	EPA 200.8		5.075	0.002	0.01	U	Not Detected	mg/L
* Lead, Total	ABB	6/5/2019	EPA 200.8		5.075	0.001	0.005	U	Not Detected	mg/L
* Selenium, Total	ABB	6/5/2019	EPA 200.8		5.075	0.002	0.01	U	Not Detected	mg/L
* Thallium, Total	ABB	6/5/2019	EPA 200.8		5.075	0.0002	0.001	U	Not Detected	mg/L
General Characteristics										
* Solids, Dissolved	CRB	6/5/2019	SM 2540C		1		25	U	Not Detected	mg/L
Solids, Dissolved Filter Date	CRB	6/3/2019	SM 2540C		1				06/03/2019	Date
* Chloride	JCC	6/10/2019	SM4500Cl E		1	0.50	1	U	Not Detected	mg/L
* Fluoride	JCC	6/11/2019	SM4500F C		1	0.05	0.1	U	Not Detected	mg/L
* Sulfate	JCC	6/12/2019	SM4500SO4 E		1	0.50	1	U	Not Detected	mg/L

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* Test results for these accredited parameters conform to the most current applicable TNI/NELAC requirements, with exceptions noted on this report.

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2020

Comments:

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6247 or 6171
 FAX (205) 664-6108

Batch QC Summary



To: Dustin Brooks
 Greg Dyer
 Lauren Parker

Customer Account: WMWBARAPFB
 Sample Date: 30-May-19
 Customer ID:
 Delivery Date: 31-May-19

Description: Barry Ash Pond Field Blank

Laboratory ID Number: AZ12954

Sample	Analysis	Units	MB	MB		MS	MSD	LCS	LCS		Rec		Prec	Limit
				Limit	Spike				Limit	Rec	Limit	Prec		
AZ12959	Arsenic, Total	mg/L	0.00000810	0.0022	0.10	0.0937	0.0911	0.0985	0.085 to 0.115	93.7	70 to 130	2.81	20	
AZ12959	Barium, Total	mg/L	-0.00000850	0.0044	0.10	0.116	0.114	0.0979	0.085 to 0.115	94.5	70 to 130	1.40	20	
AZ12959	Beryllium, Total	mg/L	0.0000104	0.00132	0.10	0.103	0.0997	0.103	0.085 to 0.115	103	70 to 130	3.23	20	
AZ12959	Boron, Total	mg/L	0.00305	0.065025	1.00	0.973	0.968	0.967	0.85 to 1.15	97.3	70 to 130	0.592	20	
AZ12959	Calcium, Total	mg/L	0.00433	0.216749	5.00	5.44	5.44	4.79	4.25 to 5.75	96.4	70 to 130	0.130	20	
AZ12959	Cadmium, Total	mg/L	0.00000000	0.00066	0.10	0.0951	0.0953	0.102	0.085 to 0.115	95.1	70 to 130	0.258	20	
AZ12959	Cobalt, Total	mg/L	0.00000056	0.0044	0.10	0.111	0.110	0.109	0.085 to 0.115	106	70 to 130	1.19	20	
AZ12959	Chromium, Total	mg/L	-0.0000151	0.0044	0.10	0.101	0.1000	0.104	0.085 to 0.115	101	70 to 130	0.789	20	
AZ12959	Mercury, Total by CVAA	mg/L	0.0000125	0.0005	0.004	0.00401	0.00406	0.00402	0.0034 to 0.0046	100	70 to 130	1.33	20	
AZ12959	Lithium, Total	mg/L	-0.0000861	0.019704	0.20	0.197	0.196	0.197	0.17 to 0.23	98.5	70 to 130	0.583	20	
AZ12959	Molybdenum, Total	mg/L	0.00000875	0.0044	0.10	0.0929	0.0911	0.0987	0.085 to 0.115	92.9	70 to 130	1.94	20	
AZ12959	Lead, Total	mg/L	0.00000469	0.0022	0.10	0.102	0.100	0.106	0.085 to 0.115	102	70 to 130	2.17	20	
AZ12959	Antimony, Total	mg/L	0.0000854	0.00176	0.10	0.0960	0.0929	0.0981	0.085 to 0.115	96.0	70 to 130	3.36	20	
AZ12959	Selenium, Total	mg/L	0.0000552	0.0044	0.10	0.0967	0.0939	0.0985	0.085 to 0.115	96.7	70 to 130	2.99	20	
AZ12959	Thallium, Total	mg/L	0.00000294	0.00044	0.10	0.103	0.101	0.106	0.085 to 0.115	103	70 to 130	1.99	20	

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

* Test results for these accredited parameters conform to the most current applicable TNI/NELAC requirements, with exceptions noted on this report.

Laboratory certification ID: E571114
 Issued By: State of Florida, Department of Health
 Expiration: June 30, 2020

Comments:

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6247 or 6171
 FAX (205) 664-6108

Batch QC Summary



To: Dustin Brooks
 Greg Dyer
 Lauren Parker

Customer Account: WMWBARAPFB
 Sample Date: 30-May-19
 Customer ID:
 Delivery Date: 31-May-19

Description: Barry Ash Pond Field Blank

Laboratory ID Number: AZ12954

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	LCS	LCS Limit	Rec	Rec Limit	Prec	Prec Limit
AZ12957	Solids, Dissolved	mg/L	-1.00	25			381	53.0	40 to 60			0.528	5
AZ12959	Chloride	mg/L	-0.0627	0.50	10.0	18.5	8.53	9.89	9 to 11	99.8	80 to 120	0.117	20
AZ12959	Fluoride	mg/L	0.033	0.05	2.50	2.46	0.032	2.60	2.25 to 2.75	98.4	80 to 120	0.00	20
AZ12959	Sulfate	mg/L	-0.303	0.50	20.0	21.3	2.89	19.3	18 to 22	92.4	80 to 120	2.10	20

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2020

Comments:

CC:

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6247 or 6171
 FAX (205) 664-6108

Certificate Of Analysis  **Alabama Power**



To: Dustin Brooks
 Greg Dyer
 Lauren Parker

Customer Account: WMWBARAP
 Sample Date: 30-May-19
 Customer ID:
 Delivery Date: 31-May-19

Description: Barry Ash Pond - MW-9

Laboratory ID Number: AZ12955

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Metals, Cyanide, Total Phenols									
* Arsenic, Total	ABB	6/5/2019	EPA 200.8		5.075	0.001	0.005	0.0349	mg/L
* Barium, Total	ABB	6/5/2019	EPA 200.8		5.075	0.002	0.01	0.112	mg/L
* Beryllium, Total	ABB	6/5/2019	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Boron, Total	RDA	6/7/2019	EPA 200.7		1.015	0.03	0.1	2.45	mg/L
* Calcium, Total	RDA	6/7/2019	EPA 200.7		1.015	0.1	0.5	38.5	mg/L
* Cadmium, Total	ABB	6/5/2019	EPA 200.8		5.075	0.0003	0.001	U Not Detected	mg/L
* Antimony, Total	ABB	6/5/2019	EPA 200.8		5.075	0.0008	0.003	U Not Detected	mg/L
* Cobalt, Total	ABB	6/5/2019	EPA 200.8		5.075	0.002	0.005	U Not Detected	mg/L
* Chromium, Total	ABB	6/5/2019	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	GAS	6/4/2019	EPA 245.1		1	0.0003	0.0005	U Not Detected	mg/L
* Lithium, Total	RDA	6/7/2019	EPA 200.7		1.015	0.01	0.02	U Not Detected	mg/L
* Molybdenum, Total	ABB	6/5/2019	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Lead, Total	ABB	6/5/2019	EPA 200.8		5.075	0.001	0.005	J 0.00108	mg/L
* Selenium, Total	ABB	6/5/2019	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Thallium, Total	ABB	6/5/2019	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	CRB	6/5/2019	SM 2540C		1		25	315	mg/L
Solids, Dissolved Filter Date	CRB	6/3/2019	SM 2540C		1			06/03/2019	Date
* Chloride	JCC	6/10/2019	SM4500CI E		2	1.00	2	27.7	mg/L
* Fluoride	JCC	6/11/2019	SM4500F C		1	0.05	0.1	J 0.0763	mg/L
* Sulfate	JCC	6/12/2019	SM4500SO4 E		1	0.50	1	5.91	mg/L
Field Measurements									
pH	AWG	5/30/2019						FA 6.14	SU

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2020

Comments:

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6247 or 6171
 FAX (205) 664-6108

Batch QC Summary



To: Dustin Brooks
 Greg Dyer
 Lauren Parker

Customer Account: WMWBARAP
 Sample Date: 30-May-19
 Customer ID:
 Delivery Date: 31-May-19

Description: Barry Ash Pond - MW-9

Laboratory ID Number: AZ12955

Sample	Analysis	Units	MB	MB		MS	MSD	LCS	LCS		Rec		Prec	Limit
				Limit	Spike				Limit	Rec	Limit	Prec		
AZ12959	Arsenic, Total	mg/L	0.00000810	0.0022	0.10	0.0937	0.0911	0.0985	0.085 to 0.115	93.7	70 to 130	2.81	20	
AZ12959	Barium, Total	mg/L	-0.00000850	0.0044	0.10	0.116	0.114	0.0979	0.085 to 0.115	94.5	70 to 130	1.40	20	
AZ12959	Beryllium, Total	mg/L	0.0000104	0.00132	0.10	0.103	0.0997	0.103	0.085 to 0.115	103	70 to 130	3.23	20	
AZ12959	Boron, Total	mg/L	0.00305	0.065025	1.00	0.973	0.968	0.967	0.85 to 1.15	97.3	70 to 130	0.592	20	
AZ12959	Calcium, Total	mg/L	0.00433	0.216749	5.00	5.44	5.44	4.79	4.25 to 5.75	96.4	70 to 130	0.130	20	
AZ12959	Cadmium, Total	mg/L	0.00000000	0.00066	0.10	0.0951	0.0953	0.102	0.085 to 0.115	95.1	70 to 130	0.258	20	
AZ12959	Cobalt, Total	mg/L	0.00000056	0.0044	0.10	0.111	0.110	0.109	0.085 to 0.115	106	70 to 130	1.19	20	
AZ12959	Chromium, Total	mg/L	-0.0000151	0.0044	0.10	0.101	0.1000	0.104	0.085 to 0.115	101	70 to 130	0.789	20	
AZ12959	Mercury, Total by CVAA	mg/L	0.0000125	0.0005	0.004	0.00401	0.00406	0.00402	0.0034 to 0.0046	100	70 to 130	1.33	20	
AZ12959	Lithium, Total	mg/L	-0.0000861	0.019704	0.20	0.197	0.196	0.197	0.17 to 0.23	98.5	70 to 130	0.583	20	
AZ12959	Molybdenum, Total	mg/L	0.00000875	0.0044	0.10	0.0929	0.0911	0.0987	0.085 to 0.115	92.9	70 to 130	1.94	20	
AZ12959	Lead, Total	mg/L	0.00000469	0.0022	0.10	0.102	0.100	0.106	0.085 to 0.115	102	70 to 130	2.17	20	
AZ12959	Antimony, Total	mg/L	0.0000854	0.00176	0.10	0.0960	0.0929	0.0981	0.085 to 0.115	96.0	70 to 130	3.36	20	
AZ12959	Selenium, Total	mg/L	0.0000552	0.0044	0.10	0.0967	0.0939	0.0985	0.085 to 0.115	96.7	70 to 130	2.99	20	
AZ12959	Thallium, Total	mg/L	0.00000294	0.00044	0.10	0.103	0.101	0.106	0.085 to 0.115	103	70 to 130	1.99	20	

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2020

Comments:

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6247 or 6171
 FAX (205) 664-6108

Batch QC Summary



To: Dustin Brooks
 Greg Dyer
 Lauren Parker

Customer Account: WMWBARAP
 Sample Date: 30-May-19
 Customer ID:
 Delivery Date: 31-May-19

Description: Barry Ash Pond - MW-9

Laboratory ID Number: AZ12955

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	LCS	LCS Limit	Rec	Rec Limit	Prec	Prec Limit
AZ12957	Solids, Dissolved	mg/L	-1.00	25			381	53.0	40 to 60			0.528	5
AZ12959	Chloride	mg/L	-0.0627	0.50	10.0	18.5	8.53	9.89	9 to 11	99.8	80 to 120	0.117	20
AZ12959	Fluoride	mg/L	0.033	0.05	2.50	2.46	0.032	2.60	2.25 to 2.75	98.4	80 to 120	0.00	20
AZ12959	Sulfate	mg/L	-0.303	0.50	20.0	21.3	2.89	19.3	18 to 22	92.4	80 to 120	2.10	20

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2020

Comments:

CC:

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6247 or 6171
 FAX (205) 664-6108

Certificate Of Analysis Alabama Power



To: Dustin Brooks
 Greg Dyer
 Lauren Parker

Customer Account: WMWBARAP
 Sample Date: 30-May-19
 Customer ID:
 Delivery Date: 31-May-19

Description: Barry Ash Pond - MW-9 DUP

Laboratory ID Number: AZ12956

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Metals, Cyanide, Total Phenols									
* Arsenic, Total	ABB	6/5/2019	EPA 200.8		5.075	0.001	0.005	0.0383	mg/L
* Barium, Total	ABB	6/5/2019	EPA 200.8		5.075	0.002	0.01	0.119	mg/L
* Beryllium, Total	ABB	6/5/2019	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Boron, Total	RDA	6/7/2019	EPA 200.7		1.015	0.03	0.1	2.44	mg/L
* Calcium, Total	RDA	6/7/2019	EPA 200.7		1.015	0.1	0.5	38.3	mg/L
* Cadmium, Total	ABB	6/5/2019	EPA 200.8		5.075	0.0003	0.001	U Not Detected	mg/L
* Antimony, Total	ABB	6/5/2019	EPA 200.8		5.075	0.0008	0.003	U Not Detected	mg/L
* Cobalt, Total	ABB	6/5/2019	EPA 200.8		5.075	0.002	0.005	U Not Detected	mg/L
* Chromium, Total	ABB	6/5/2019	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	GAS	6/4/2019	EPA 245.1		1	0.0003	0.0005	U Not Detected	mg/L
* Lithium, Total	RDA	6/7/2019	EPA 200.7		1.015	0.01	0.02	U Not Detected	mg/L
* Molybdenum, Total	ABB	6/5/2019	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Lead, Total	ABB	6/5/2019	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Selenium, Total	ABB	6/5/2019	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Thallium, Total	ABB	6/5/2019	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	CRB	6/5/2019	SM 2540C		1		25	316	mg/L
Solids, Dissolved Filter Date	CRB	6/3/2019	SM 2540C		1			06/03/2019	Date
* Chloride	JCC	6/10/2019	SM4500CI E		2	1.00	2	27.3	mg/L
* Fluoride	JCC	6/11/2019	SM4500F C		1	0.05	0.1	J 0.0745	mg/L
* Sulfate	JCC	6/12/2019	SM4500SO4 E		1	0.50	1	4.69	mg/L
Field Measurements									
pH	AWG	5/30/2019						FA 6.14	SU

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2020

Comments:

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6247 or 6171
 FAX (205) 664-6108

Batch QC Summary



To: Dustin Brooks
 Greg Dyer
 Lauren Parker

Customer Account: WMWBARAP
 Sample Date: 30-May-19
 Customer ID:
 Delivery Date: 31-May-19

Description: Barry Ash Pond - MW-9 DUP

Laboratory ID Number: AZ12956

Sample	Analysis	Units	MB	MB		MS	MSD	LCS	LCS		Rec		Prec	Limit
				Limit	Spike				Limit	Rec	Limit	Prec		
AZ12959	Arsenic, Total	mg/L	0.00000810	0.0022	0.10	0.0937	0.0911	0.0985	0.085 to 0.115	93.7	70 to 130	2.81	20	
AZ12959	Barium, Total	mg/L	-0.00000850	0.0044	0.10	0.116	0.114	0.0979	0.085 to 0.115	94.5	70 to 130	1.40	20	
AZ12959	Beryllium, Total	mg/L	0.0000104	0.00132	0.10	0.103	0.0997	0.103	0.085 to 0.115	103	70 to 130	3.23	20	
AZ12959	Boron, Total	mg/L	0.00305	0.065025	1.00	0.973	0.968	0.967	0.85 to 1.15	97.3	70 to 130	0.592	20	
AZ12959	Calcium, Total	mg/L	0.00433	0.216749	5.00	5.44	5.44	4.79	4.25 to 5.75	96.4	70 to 130	0.130	20	
AZ12959	Cadmium, Total	mg/L	0.00000000	0.00066	0.10	0.0951	0.0953	0.102	0.085 to 0.115	95.1	70 to 130	0.258	20	
AZ12959	Cobalt, Total	mg/L	0.00000056	0.0044	0.10	0.111	0.110	0.109	0.085 to 0.115	106	70 to 130	1.19	20	
AZ12959	Chromium, Total	mg/L	-0.0000151	0.0044	0.10	0.101	0.1000	0.104	0.085 to 0.115	101	70 to 130	0.789	20	
AZ12959	Mercury, Total by CVAA	mg/L	0.0000125	0.0005	0.004	0.00401	0.00406	0.00402	0.0034 to 0.0046	100	70 to 130	1.33	20	
AZ12959	Lithium, Total	mg/L	-0.0000861	0.019704	0.20	0.197	0.196	0.197	0.17 to 0.23	98.5	70 to 130	0.583	20	
AZ12959	Molybdenum, Total	mg/L	0.00000875	0.0044	0.10	0.0929	0.0911	0.0987	0.085 to 0.115	92.9	70 to 130	1.94	20	
AZ12959	Lead, Total	mg/L	0.00000469	0.0022	0.10	0.102	0.100	0.106	0.085 to 0.115	102	70 to 130	2.17	20	
AZ12959	Antimony, Total	mg/L	0.0000854	0.00176	0.10	0.0960	0.0929	0.0981	0.085 to 0.115	96.0	70 to 130	3.36	20	
AZ12959	Selenium, Total	mg/L	0.0000552	0.0044	0.10	0.0967	0.0939	0.0985	0.085 to 0.115	96.7	70 to 130	2.99	20	
AZ12959	Thallium, Total	mg/L	0.00000294	0.00044	0.10	0.103	0.101	0.106	0.085 to 0.115	103	70 to 130	1.99	20	

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2020

Comments:

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6247 or 6171
 FAX (205) 664-6108

Batch QC Summary



To: Dustin Brooks
 Greg Dyer
 Lauren Parker

Customer Account: WMWBARAP
 Sample Date: 30-May-19
 Customer ID:
 Delivery Date: 31-May-19

Description: Barry Ash Pond - MW-9 DUP

Laboratory ID Number: AZ12956

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	LCS	LCS Limit	Rec	Rec Limit	Prec	Prec Limit
AZ12957	Solids, Dissolved	mg/L	-1.00	25			381	53.0	40 to 60			0.528	5
AZ12959	Chloride	mg/L	-0.0627	0.50	10.0	18.5	8.53	9.89	9 to 11	99.8	80 to 120	0.117	20
AZ12959	Fluoride	mg/L	0.033	0.05	2.50	2.46	0.032	2.60	2.25 to 2.75	98.4	80 to 120	0.00	20
AZ12959	Sulfate	mg/L	-0.303	0.50	20.0	21.3	2.89	19.3	18 to 22	92.4	80 to 120	2.10	20

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

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

* Test results for these accredited parameters conform to the most current applicable TNI/NELAC requirements, with exceptions noted on this report.

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2020

Comments:

CC:

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6247 or 6171
 FAX (205) 664-6108

Certificate Of Analysis  **Alabama Power**



To: Dustin Brooks
 Greg Dyer
 Lauren Parker

Customer Account: WMWBARAP
 Sample Date: 30-May-19
 Customer ID:
 Delivery Date: 31-May-19

Description: Barry Ash Pond - MW-10

Laboratory ID Number: AZ12957

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Metals, Cyanide, Total Phenols									
* Arsenic, Total	ABB	6/5/2019	EPA 200.8		5.075	0.001	0.005	0.0671	mg/L
* Barium, Total	ABB	6/5/2019	EPA 200.8		5.075	0.002	0.01	0.0630	mg/L
* Beryllium, Total	ABB	6/5/2019	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Boron, Total	RDA	6/7/2019	EPA 200.7		1.015	0.03	0.1	2.11	mg/L
* Calcium, Total	RDA	6/7/2019	EPA 200.7		10.15	1.015	5.075	60.5	mg/L
* Cadmium, Total	ABB	6/5/2019	EPA 200.8		5.075	0.0003	0.001	U Not Detected	mg/L
* Antimony, Total	ABB	6/5/2019	EPA 200.8		5.075	0.0008	0.003	U Not Detected	mg/L
* Cobalt, Total	ABB	6/5/2019	EPA 200.8		5.075	0.002	0.005	U Not Detected	mg/L
* Chromium, Total	ABB	6/5/2019	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	GAS	6/4/2019	EPA 245.1		1	0.0003	0.0005	U Not Detected	mg/L
* Lithium, Total	RDA	6/7/2019	EPA 200.7		1.015	0.01	0.02	U Not Detected	mg/L
* Molybdenum, Total	ABB	6/5/2019	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Lead, Total	ABB	6/5/2019	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Selenium, Total	ABB	6/5/2019	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Thallium, Total	ABB	6/5/2019	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	CRB	6/5/2019	SM 2540C		1		25	377	mg/L
Solids, Dissolved Filter Date	CRB	6/3/2019	SM 2540C		1			06/03/2019	Date
* Chloride	JCC	6/10/2019	SM4500CI E		3	1.50	3	25.9	mg/L
* Fluoride	JCC	6/11/2019	SM4500F C		1	0.05	0.1	J 0.0573	mg/L
* Sulfate	JCC	6/12/2019	SM4500SO4 E		1	0.50	1	3.76	mg/L
Field Measurements									
pH	AWG	5/30/2019						FA 6.23	SU

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

* Test results for these accredited parameters conform to the most current applicable TNI/NELAC requirements, with exceptions noted on this report.

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2020

Comments:

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6247 or 6171
 FAX (205) 664-6108

Batch QC Summary



To: Dustin Brooks
 Greg Dyer
 Lauren Parker

Customer Account: WMWBARAP
 Sample Date: 30-May-19
 Customer ID:
 Delivery Date: 31-May-19

Description: Barry Ash Pond - MW-10

Laboratory ID Number: AZ12957

Sample	Analysis	Units	MB	MB		MS	MSD	LCS	LCS		Rec		Prec	Limit
				Limit	Spike				Limit	Rec	Limit	Prec		
AZ12959	Arsenic, Total	mg/L	0.00000810	0.0022	0.10	0.0937	0.0911	0.0985	0.085 to 0.115	93.7	70 to 130	2.81	20	
AZ12959	Barium, Total	mg/L	-0.00000850	0.0044	0.10	0.116	0.114	0.0979	0.085 to 0.115	94.5	70 to 130	1.40	20	
AZ12959	Beryllium, Total	mg/L	0.0000104	0.00132	0.10	0.103	0.0997	0.103	0.085 to 0.115	103	70 to 130	3.23	20	
AZ12959	Boron, Total	mg/L	0.00305	0.065025	1.00	0.973	0.968	0.967	0.85 to 1.15	97.3	70 to 130	0.592	20	
AZ12959	Calcium, Total	mg/L	0.00433	0.216749	5.00	5.44	5.44	4.79	4.25 to 5.75	96.4	70 to 130	0.130	20	
AZ12959	Cadmium, Total	mg/L	0.00000000	0.00066	0.10	0.0951	0.0953	0.102	0.085 to 0.115	95.1	70 to 130	0.258	20	
AZ12959	Cobalt, Total	mg/L	0.00000056	0.0044	0.10	0.111	0.110	0.109	0.085 to 0.115	106	70 to 130	1.19	20	
AZ12959	Chromium, Total	mg/L	-0.0000151	0.0044	0.10	0.101	0.1000	0.104	0.085 to 0.115	101	70 to 130	0.789	20	
AZ12959	Mercury, Total by CVAA	mg/L	0.0000125	0.0005	0.004	0.00401	0.00406	0.00402	0.0034 to 0.0046	100	70 to 130	1.33	20	
AZ12959	Lithium, Total	mg/L	-0.0000861	0.019704	0.20	0.197	0.196	0.197	0.17 to 0.23	98.5	70 to 130	0.583	20	
AZ12959	Molybdenum, Total	mg/L	0.00000875	0.0044	0.10	0.0929	0.0911	0.0987	0.085 to 0.115	92.9	70 to 130	1.94	20	
AZ12959	Lead, Total	mg/L	0.00000469	0.0022	0.10	0.102	0.100	0.106	0.085 to 0.115	102	70 to 130	2.17	20	
AZ12959	Antimony, Total	mg/L	0.0000854	0.00176	0.10	0.0960	0.0929	0.0981	0.085 to 0.115	96.0	70 to 130	3.36	20	
AZ12959	Selenium, Total	mg/L	0.0000552	0.0044	0.10	0.0967	0.0939	0.0985	0.085 to 0.115	96.7	70 to 130	2.99	20	
AZ12959	Thallium, Total	mg/L	0.00000294	0.00044	0.10	0.103	0.101	0.106	0.085 to 0.115	103	70 to 130	1.99	20	

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2020

Comments:

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6247 or 6171
 FAX (205) 664-6108

Batch QC Summary



To: Dustin Brooks
 Greg Dyer
 Lauren Parker

Customer Account: WMWBARAP
 Sample Date: 30-May-19
 Customer ID:
 Delivery Date: 31-May-19

Description: Barry Ash Pond - MW-10

Laboratory ID Number: AZ12957

Sample	Analysis	Units	MB	MB	Limit	Spike	MS	Sample	LCS	LCS	Limit	Rec	Rec	Prec	Prec	Limit
				Limit				Duplicate	LCS	Limit		Rec	Limit	Prec		Limit
AZ12957	Solids, Dissolved	mg/L	-1.00	25				381	53.0	40 to 60				0.528	5	
AZ12959	Chloride	mg/L	-0.0627	0.50	10.0	18.5		8.53	9.89	9 to 11		99.8	80 to 120	0.117	20	
AZ12959	Fluoride	mg/L	0.033	0.05	2.50	2.46		0.032	2.60	2.25 to 2.75		98.4	80 to 120	0.00	20	
AZ12959	Sulfate	mg/L	-0.303	0.50	20.0	21.3		2.89	19.3	18 to 22		92.4	80 to 120	2.10	20	

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2020

Comments:

CC:

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6247 or 6171
 FAX (205) 664-6108

Certificate Of Analysis Alabama Power



To: Dustin Brooks
 Greg Dyer
 Lauren Parker

Customer Account: WMWBARAP
 Sample Date: 29-May-19
 Customer ID:
 Delivery Date: 31-May-19

Description: Barry Ash Pond - MW-4

Laboratory ID Number: AZ12958

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Metals, Cyanide, Total Phenols									
* Arsenic, Total	ABB	6/5/2019	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Barium, Total	ABB	6/5/2019	EPA 200.8		5.075	0.002	0.01	0.0203	mg/L
* Beryllium, Total	ABB	6/5/2019	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Boron, Total	RDA	6/7/2019	EPA 200.7		1.015	0.03	0.1	U Not Detected	mg/L
* Calcium, Total	RDA	6/7/2019	EPA 200.7		1.015	0.1	0.5	0.627	mg/L
* Cadmium, Total	ABB	6/5/2019	EPA 200.8		5.075	0.0003	0.001	U Not Detected	mg/L
* Antimony, Total	ABB	6/5/2019	EPA 200.8		5.075	0.0008	0.003	U Not Detected	mg/L
* Cobalt, Total	ABB	6/5/2019	EPA 200.8		5.075	0.002	0.005	0.00549	mg/L
* Chromium, Total	ABB	6/5/2019	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	GAS	6/4/2019	EPA 245.1		1	0.0003	0.0005	U Not Detected	mg/L
* Lithium, Total	RDA	6/7/2019	EPA 200.7		1.015	0.01	0.02	U Not Detected	mg/L
* Molybdenum, Total	ABB	6/5/2019	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Lead, Total	ABB	6/5/2019	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Selenium, Total	ABB	6/5/2019	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Thallium, Total	ABB	6/5/2019	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	CRB	6/5/2019	SM 2540C		1		25	39.3	mg/L
Solids, Dissolved Filter Date	CRB	6/3/2019	SM 2540C		1			06/03/2019	Date
* Chloride	JCC	6/10/2019	SM4500CI E		1	0.50	1	8.53	mg/L
* Fluoride	JCC	6/11/2019	SM4500F C		1	0.05	0.1	U Not Detected	mg/L
* Sulfate	JCC	6/12/2019	SM4500SO4 E		1	0.50	1	2.92	mg/L
Field Measurements									
pH	SNP	5/29/2019						FA 4.65	SU

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2020

Comments:

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6247 or 6171
 FAX (205) 664-6108

Batch QC Summary



To: Dustin Brooks
 Greg Dyer
 Lauren Parker

Customer Account: WMWBARAP
 Sample Date: 29-May-19
 Customer ID:
 Delivery Date: 31-May-19

Description: Barry Ash Pond - MW-4

Laboratory ID Number: AZ12958

Sample	Analysis	Units	MB	MB		MS	MSD	LCS	LCS		Rec		Prec	Limit
				Limit	Spike				Limit	Rec	Limit	Prec		
AZ12959	Arsenic, Total	mg/L	0.00000810	0.0022	0.10	0.0937	0.0911	0.0985	0.085 to 0.115	93.7	70 to 130	2.81	20	
AZ12959	Barium, Total	mg/L	-0.00000850	0.0044	0.10	0.116	0.114	0.0979	0.085 to 0.115	94.5	70 to 130	1.40	20	
AZ12959	Beryllium, Total	mg/L	0.0000104	0.00132	0.10	0.103	0.0997	0.103	0.085 to 0.115	103	70 to 130	3.23	20	
AZ12959	Boron, Total	mg/L	0.00305	0.065025	1.00	0.973	0.968	0.967	0.85 to 1.15	97.3	70 to 130	0.592	20	
AZ12959	Calcium, Total	mg/L	0.00433	0.216749	5.00	5.44	5.44	4.79	4.25 to 5.75	96.4	70 to 130	0.130	20	
AZ12959	Cadmium, Total	mg/L	0.00000000	0.00066	0.10	0.0951	0.0953	0.102	0.085 to 0.115	95.1	70 to 130	0.258	20	
AZ12959	Cobalt, Total	mg/L	0.00000056	0.0044	0.10	0.111	0.110	0.109	0.085 to 0.115	106	70 to 130	1.19	20	
AZ12959	Chromium, Total	mg/L	-0.0000151	0.0044	0.10	0.101	0.1000	0.104	0.085 to 0.115	101	70 to 130	0.789	20	
AZ12959	Mercury, Total by CVAA	mg/L	0.0000125	0.0005	0.004	0.00401	0.00406	0.00402	0.0034 to 0.0046	100	70 to 130	1.33	20	
AZ12959	Lithium, Total	mg/L	-0.0000861	0.019704	0.20	0.197	0.196	0.197	0.17 to 0.23	98.5	70 to 130	0.583	20	
AZ12959	Molybdenum, Total	mg/L	0.00000875	0.0044	0.10	0.0929	0.0911	0.0987	0.085 to 0.115	92.9	70 to 130	1.94	20	
AZ12959	Lead, Total	mg/L	0.00000469	0.0022	0.10	0.102	0.100	0.106	0.085 to 0.115	102	70 to 130	2.17	20	
AZ12959	Antimony, Total	mg/L	0.0000854	0.00176	0.10	0.0960	0.0929	0.0981	0.085 to 0.115	96.0	70 to 130	3.36	20	
AZ12959	Selenium, Total	mg/L	0.0000552	0.0044	0.10	0.0967	0.0939	0.0985	0.085 to 0.115	96.7	70 to 130	2.99	20	
AZ12959	Thallium, Total	mg/L	0.00000294	0.00044	0.10	0.103	0.101	0.106	0.085 to 0.115	103	70 to 130	1.99	20	

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

* Test results for these accredited parameters conform to the most current applicable TNI/NELAC requirements, with exceptions noted on this report.

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2020

Comments:

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6247 or 6171
 FAX (205) 664-6108

Batch QC Summary



To: Dustin Brooks
 Greg Dyer
 Lauren Parker

Customer Account: WMWBARAP
 Sample Date: 29-May-19
 Customer ID:
 Delivery Date: 31-May-19

Description: Barry Ash Pond - MW-4

Laboratory ID Number: AZ12958

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	LCS	LCS Limit	Rec	Rec Limit	Prec	Prec Limit
AZ12957	Solids, Dissolved	mg/L	-1.00	25			381	53.0	40 to 60			0.528	5
AZ12959	Chloride	mg/L	-0.0627	0.50	10.0	18.5	8.53	9.89	9 to 11	99.8	80 to 120	0.117	20
AZ12959	Fluoride	mg/L	0.033	0.05	2.50	2.46	0.032	2.60	2.25 to 2.75	98.4	80 to 120	0.00	20
AZ12959	Sulfate	mg/L	-0.303	0.50	20.0	21.3	2.89	19.3	18 to 22	92.4	80 to 120	2.10	20

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2020

Comments:

CC:

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6247 or 6171
 FAX (205) 664-6108

Certificate Of Analysis  **Alabama Power**



To: Dustin Brooks
 Greg Dyer
 Lauren Parker

Customer Account: WMWBARAP
 Sample Date: 29-May-19
 Customer ID:
 Delivery Date: 31-May-19

Description: Barry Ash Pond - MW-4 DUP

Laboratory ID Number: AZ12959

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Metals, Cyanide, Total Phenols									
* Arsenic, Total	ABB	6/5/2019	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Barium, Total	ABB	6/5/2019	EPA 200.8		5.075	0.002	0.01	0.0213	mg/L
* Beryllium, Total	ABB	6/5/2019	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Boron, Total	RDA	6/7/2019	EPA 200.7		1.015	0.03	0.1	U Not Detected	mg/L
* Calcium, Total	RDA	6/7/2019	EPA 200.7		1.015	0.1	0.5	0.622	mg/L
* Cadmium, Total	ABB	6/5/2019	EPA 200.8		5.075	0.0003	0.001	U Not Detected	mg/L
* Antimony, Total	ABB	6/5/2019	EPA 200.8		5.075	0.0008	0.003	U Not Detected	mg/L
* Cobalt, Total	ABB	6/5/2019	EPA 200.8		5.075	0.002	0.005	0.00576	mg/L
* Chromium, Total	ABB	6/5/2019	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	GAS	6/4/2019	EPA 245.1		1	0.0003	0.0005	U Not Detected	mg/L
* Lithium, Total	RDA	6/7/2019	EPA 200.7		1.015	0.01	0.02	U Not Detected	mg/L
* Molybdenum, Total	ABB	6/5/2019	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Lead, Total	ABB	6/5/2019	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Selenium, Total	ABB	6/5/2019	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Thallium, Total	ABB	6/5/2019	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	CRB	6/5/2019	SM 2540C		1		25	36.0	mg/L
Solids, Dissolved Filter Date	CRB	6/3/2019	SM 2540C		1			06/03/2019	Date
* Chloride	JCC	6/10/2019	SM4500Cl E		1	0.50	1	8.52	mg/L
* Fluoride	JCC	6/11/2019	SM4500F C		1	0.05	0.1	U Not Detected	mg/L
* Sulfate	JCC	6/12/2019	SM4500SO4 E		1	0.50	1	2.83	mg/L
Field Measurements									
pH	SNP	5/29/2019						FA 4.65	SU

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Laboratory certification ID: E571114

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Expiration: June 30, 2020

Comments:

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6247 or 6171
 FAX (205) 664-6108

Batch QC Summary



To: Dustin Brooks
 Greg Dyer
 Lauren Parker

Customer Account: WMWBARAP
 Sample Date: 29-May-19
 Customer ID:
 Delivery Date: 31-May-19

Description: Barry Ash Pond - MW-4 DUP

Laboratory ID Number: AZ12959

Sample	Analysis	Units	MB	MB		MS	MSD	LCS	LCS		Rec		Prec	Limit
				Limit	Spike				Limit	Rec	Limit	Prec		
AZ12959	Arsenic, Total	mg/L	0.00000810	0.0022	0.10	0.0937	0.0911	0.0985	0.085 to 0.115	93.7	70 to 130	2.81	20	
AZ12959	Barium, Total	mg/L	-0.00000850	0.0044	0.10	0.116	0.114	0.0979	0.085 to 0.115	94.5	70 to 130	1.40	20	
AZ12959	Beryllium, Total	mg/L	0.0000104	0.00132	0.10	0.103	0.0997	0.103	0.085 to 0.115	103	70 to 130	3.23	20	
AZ12959	Boron, Total	mg/L	0.00305	0.065025	1.00	0.973	0.968	0.967	0.85 to 1.15	97.3	70 to 130	0.592	20	
AZ12959	Calcium, Total	mg/L	0.00433	0.216749	5.00	5.44	5.44	4.79	4.25 to 5.75	96.4	70 to 130	0.130	20	
AZ12959	Cadmium, Total	mg/L	0.00000000	0.00066	0.10	0.0951	0.0953	0.102	0.085 to 0.115	95.1	70 to 130	0.258	20	
AZ12959	Cobalt, Total	mg/L	0.00000056	0.0044	0.10	0.111	0.110	0.109	0.085 to 0.115	106	70 to 130	1.19	20	
AZ12959	Chromium, Total	mg/L	-0.0000151	0.0044	0.10	0.101	0.1000	0.104	0.085 to 0.115	101	70 to 130	0.789	20	
AZ12959	Mercury, Total by CVAA	mg/L	0.0000125	0.0005	0.004	0.00401	0.00406	0.00402	0.0034 to 0.0046	100	70 to 130	1.33	20	
AZ12959	Lithium, Total	mg/L	-0.0000861	0.019704	0.20	0.197	0.196	0.197	0.17 to 0.23	98.5	70 to 130	0.583	20	
AZ12959	Molybdenum, Total	mg/L	0.00000875	0.0044	0.10	0.0929	0.0911	0.0987	0.085 to 0.115	92.9	70 to 130	1.94	20	
AZ12959	Lead, Total	mg/L	0.00000469	0.0022	0.10	0.102	0.100	0.106	0.085 to 0.115	102	70 to 130	2.17	20	
AZ12959	Antimony, Total	mg/L	0.0000854	0.00176	0.10	0.0960	0.0929	0.0981	0.085 to 0.115	96.0	70 to 130	3.36	20	
AZ12959	Selenium, Total	mg/L	0.0000552	0.0044	0.10	0.0967	0.0939	0.0985	0.085 to 0.115	96.7	70 to 130	2.99	20	
AZ12959	Thallium, Total	mg/L	0.00000294	0.00044	0.10	0.103	0.101	0.106	0.085 to 0.115	103	70 to 130	1.99	20	

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Laboratory certification ID: E571114

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Expiration: June 30, 2020

Comments:

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 FAX (205) 664-6108

Batch QC Summary



To: Dustin Brooks
 Greg Dyer
 Lauren Parker

Customer Account: WMWBARAP
 Sample Date: 29-May-19
 Customer ID:
 Delivery Date: 31-May-19

Description: Barry Ash Pond - MW-4 DUP

Laboratory ID Number: AZ12959

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	LCS	LCS Limit	Rec	Rec Limit	Prec	Prec Limit
AZ12957	Solids, Dissolved	mg/L	-1.00	25			381	53.0	40 to 60			0.528	5
AZ12959	Chloride	mg/L	-0.0627	0.50	10.0	18.5	8.53	9.89	9 to 11	99.8	80 to 120	0.117	20
AZ12959	Fluoride	mg/L	0.033	0.05	2.50	2.46	0.032	2.60	2.25 to 2.75	98.4	80 to 120	0.00	20
AZ12959	Sulfate	mg/L	-0.303	0.50	20.0	21.3	2.89	19.3	18 to 22	92.4	80 to 120	2.10	20

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

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2020

Comments:

CC:

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6247 or 6171
 FAX (205) 664-6108

Certificate Of Analysis  **Alabama Power**



To: Dustin Brooks
 Greg Dyer
 Lauren Parker

Customer Account: WMWBARAP
 Sample Date: 29-May-19
 Customer ID:
 Delivery Date: 31-May-19

Description: Barry Ash Pond - MW-3

Laboratory ID Number: AZ12960

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Metals, Cyanide, Total Phenols									
* Arsenic, Total	ABB	6/5/2019	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Barium, Total	ABB	6/5/2019	EPA 200.8		5.075	0.002	0.01	0.0370	mg/L
* Beryllium, Total	ABB	6/5/2019	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Boron, Total	RDA	6/7/2019	EPA 200.7		1.015	0.03	0.1	U Not Detected	mg/L
* Calcium, Total	RDA	6/7/2019	EPA 200.7		1.015	0.1	0.5	1.09	mg/L
* Cadmium, Total	ABB	6/5/2019	EPA 200.8		5.075	0.0003	0.001	U Not Detected	mg/L
* Antimony, Total	ABB	6/5/2019	EPA 200.8		5.075	0.0008	0.003	U Not Detected	mg/L
* Cobalt, Total	ABB	6/5/2019	EPA 200.8		5.075	0.002	0.005	U Not Detected	mg/L
* Chromium, Total	ABB	6/5/2019	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	GAS	6/4/2019	EPA 245.1		1	0.0003	0.0005	U Not Detected	mg/L
* Lithium, Total	RDA	6/7/2019	EPA 200.7		1.015	0.01	0.02	U Not Detected	mg/L
* Molybdenum, Total	ABB	6/5/2019	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Lead, Total	ABB	6/5/2019	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Selenium, Total	ABB	6/5/2019	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Thallium, Total	ABB	6/5/2019	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	CRB	6/5/2019	SM 2540C		1		25	40.0	mg/L
Solids, Dissolved Filter Date	CRB	6/3/2019	SM 2540C		1			06/03/2019	Date
* Chloride	JCC	6/10/2019	SM4500CI E		1	0.50	1	9.01	mg/L
* Fluoride	JCC	6/11/2019	SM4500F C		1	0.05	0.1	U Not Detected	mg/L
* Sulfate	JCC	6/12/2019	SM4500SO4 E		1	0.50	1	J 0.747	mg/L
Field Measurements									
pH	SNP	5/29/2019						FA 5.05	SU

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2020

Comments:

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6247 or 6171
 FAX (205) 664-6108

Batch QC Summary



To: Dustin Brooks
 Greg Dyer
 Lauren Parker

Customer Account: WMWBARAP
 Sample Date: 29-May-19
 Customer ID:
 Delivery Date: 31-May-19

Description: Barry Ash Pond - MW-3

Laboratory ID Number: AZ12960

Sample	Analysis	Units	MB	MB		MS	MSD	LCS	LCS		Rec		Prec	Limit
				Limit	Spike				Limit	Rec	Limit	Prec		
AZ12969	Arsenic, Total	mg/L	0.00000810	0.0022	0.10	0.108	0.110	0.0985	0.085 to 0.115	94.6	70 to 130	1.79	20	
AZ12969	Barium, Total	mg/L	-0.00000850	0.0044	0.10	0.158	0.167	0.0979	0.085 to 0.115	93.1	70 to 130	5.04	20	
AZ12969	Beryllium, Total	mg/L	0.0000104	0.00132	0.10	0.102	0.0991	0.103	0.085 to 0.115	102	70 to 130	2.47	20	
AZ12969	Boron, Total	mg/L	0.00393	0.065025	1.00	1.07	1.08	0.968	0.85 to 1.15	99.3	70 to 130	0.188	20	
AZ12969	Calcium, Total	mg/L	-0.00237	0.216749	5.00	28.5	28.6	4.87	4.25 to 5.75	92.0	70 to 130	0.331	20	
AZ12969	Cadmium, Total	mg/L	0.00000000	0.00066	0.10	0.0970	0.0983	0.102	0.085 to 0.115	97.0	70 to 130	1.30	20	
AZ12969	Cobalt, Total	mg/L	0.00000056	0.0044	0.10	0.110	0.109	0.109	0.085 to 0.115	110	70 to 130	1.52	20	
AZ12969	Chromium, Total	mg/L	-0.0000151	0.0044	0.10	0.105	0.105	0.104	0.085 to 0.115	103	70 to 130	0.260	20	
AZ12969	Mercury, Total by CVAA	mg/L	0.0000255	0.0005	0.004	0.00406	0.00400	0.00403	0.0034 to 0.0046	102	70 to 130	1.61	20	
AZ12969	Lithium, Total	mg/L	-0.0000689	0.019704	0.20	0.246	0.245	0.195	0.17 to 0.23	107	70 to 130	0.276	20	
AZ12969	Molybdenum, Total	mg/L	0.00000875	0.0044	0.10	0.0956	0.0982	0.0987	0.085 to 0.115	95.6	70 to 130	2.73	20	
AZ12969	Lead, Total	mg/L	0.00000469	0.0022	0.10	0.103	0.103	0.106	0.085 to 0.115	103	70 to 130	0.288	20	
AZ12969	Antimony, Total	mg/L	0.0000854	0.00176	0.10	0.0959	0.0990	0.0981	0.085 to 0.115	95.9	70 to 130	3.19	20	
AZ12969	Selenium, Total	mg/L	0.0000552	0.0044	0.10	0.0957	0.0970	0.0985	0.085 to 0.115	95.7	70 to 130	1.33	20	
AZ12969	Thallium, Total	mg/L	0.00000294	0.00044	0.10	0.103	0.104	0.106	0.085 to 0.115	103	70 to 130	0.460	20	

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2020

Comments:

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 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6247 or 6171
 FAX (205) 664-6108

Batch QC Summary



To: Dustin Brooks
 Greg Dyer
 Lauren Parker

Customer Account: WMWBARAP
 Sample Date: 29-May-19
 Customer ID:
 Delivery Date: 31-May-19

Description: Barry Ash Pond - MW-3

Laboratory ID Number: AZ12960

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample		LCS Limit	Rec		Prec Limit	
							Duplicate	LCS		Rec	Limit		
AZ12969	Chloride	mg/L	-0.0287	0.50	40.0	65.9	26.9	9.91	9 to 11	95.2	80 to 120	3.29	20
AZ12969	Fluoride	mg/L	0.0258	0.05	2.50	2.69	0.0726	2.60	2.25 to 2.75	105	80 to 120	4.44	20
AZ12969	Sulfate	mg/L	-0.449	0.50	20.0	52.9	22.5	19.4	18 to 22	144	80 to 120	6.87	20
AZ12969	Solids, Dissolved	mg/L	-1.00	25			369	53.0	40 to 60			0.272	5

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2020

Comments:

CC:

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6247 or 6171
 FAX (205) 664-6108

Certificate Of Analysis Alabama Power



To: Dustin Brooks
 Greg Dyer
 Lauren Parker

Customer Account: WMWBARAP
 Sample Date: 29-May-19
 Customer ID:
 Delivery Date: 31-May-19

Description: Barry Ash Pond - MW-2

Laboratory ID Number: AZ12961

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Metals, Cyanide, Total Phenols									
* Arsenic, Total	ABB	6/5/2019	EPA 200.8		5.075	0.001	0.005	J 0.00132	mg/L
* Barium, Total	ABB	6/5/2019	EPA 200.8		5.075	0.002	0.01	0.0232	mg/L
* Beryllium, Total	ABB	6/5/2019	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Boron, Total	RDA	6/7/2019	EPA 200.7		1.015	0.03	0.1	U Not Detected	mg/L
* Calcium, Total	RDA	6/7/2019	EPA 200.7		1.015	0.1	0.5	2.82	mg/L
* Cadmium, Total	ABB	6/5/2019	EPA 200.8		5.075	0.0003	0.001	U Not Detected	mg/L
* Antimony, Total	ABB	6/5/2019	EPA 200.8		5.075	0.0008	0.003	U Not Detected	mg/L
* Cobalt, Total	ABB	6/5/2019	EPA 200.8		5.075	0.002	0.005	0.00745	mg/L
* Chromium, Total	ABB	6/5/2019	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	GAS	6/4/2019	EPA 245.1		1	0.0003	0.0005	U Not Detected	mg/L
* Lithium, Total	RDA	6/7/2019	EPA 200.7		1.015	0.01	0.02	U Not Detected	mg/L
* Molybdenum, Total	ABB	6/5/2019	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Lead, Total	ABB	6/5/2019	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Selenium, Total	ABB	6/5/2019	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Thallium, Total	ABB	6/5/2019	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	CRB	6/5/2019	SM 2540C		1		25	47.3	mg/L
Solids, Dissolved Filter Date	CRB	6/3/2019	SM 2540C		1			06/03/2019	Date
* Chloride	JCC	6/10/2019	SM4500CI E		1	0.50	1	8.31	mg/L
* Fluoride	JCC	6/11/2019	SM4500F C		1	0.05	0.1	U Not Detected	mg/L
* Sulfate	JCC	6/12/2019	SM4500SO4 E		1	0.50	1	J 0.885	mg/L
Field Measurements									
pH	SNP	5/29/2019						FA 5.7	SU

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2020

Comments:

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6247 or 6171
 FAX (205) 664-6108

Batch QC Summary



To: Dustin Brooks
 Greg Dyer
 Lauren Parker

Customer Account: WMWBARAP
 Sample Date: 29-May-19
 Customer ID:
 Delivery Date: 31-May-19

Description: Barry Ash Pond - MW-2

Laboratory ID Number: AZ12961

Sample	Analysis	Units	MB	MB		MS	MSD	LCS	LCS	Rec		Prec	Limit
				Limit	Spike					Limit	Prec		
AZ12969	Arsenic, Total	mg/L	0.00000810	0.0022	0.10	0.108	0.110	0.0985	0.085 to 0.115	94.6	70 to 130	1.79	20
AZ12969	Barium, Total	mg/L	-0.00000850	0.0044	0.10	0.158	0.167	0.0979	0.085 to 0.115	93.1	70 to 130	5.04	20
AZ12969	Beryllium, Total	mg/L	0.0000104	0.00132	0.10	0.102	0.0991	0.103	0.085 to 0.115	102	70 to 130	2.47	20
AZ12969	Boron, Total	mg/L	0.00393	0.065025	1.00	1.07	1.08	0.968	0.85 to 1.15	99.3	70 to 130	0.188	20
AZ12969	Calcium, Total	mg/L	-0.00237	0.216749	5.00	28.5	28.6	4.87	4.25 to 5.75	92.0	70 to 130	0.331	20
AZ12969	Cadmium, Total	mg/L	0.00000000	0.00066	0.10	0.0970	0.0983	0.102	0.085 to 0.115	97.0	70 to 130	1.30	20
AZ12969	Cobalt, Total	mg/L	0.00000056	0.0044	0.10	0.110	0.109	0.109	0.085 to 0.115	110	70 to 130	1.52	20
AZ12969	Chromium, Total	mg/L	-0.0000151	0.0044	0.10	0.105	0.105	0.104	0.085 to 0.115	103	70 to 130	0.260	20
AZ12969	Mercury, Total by CVAA	mg/L	0.0000255	0.0005	0.004	0.00406	0.00400	0.00403	0.0034 to 0.0046	102	70 to 130	1.61	20
AZ12969	Lithium, Total	mg/L	-0.0000689	0.019704	0.20	0.246	0.245	0.195	0.17 to 0.23	107	70 to 130	0.276	20
AZ12969	Molybdenum, Total	mg/L	0.00000875	0.0044	0.10	0.0956	0.0982	0.0987	0.085 to 0.115	95.6	70 to 130	2.73	20
AZ12969	Lead, Total	mg/L	0.00000469	0.0022	0.10	0.103	0.103	0.106	0.085 to 0.115	103	70 to 130	0.288	20
AZ12969	Antimony, Total	mg/L	0.0000854	0.00176	0.10	0.0959	0.0990	0.0981	0.085 to 0.115	95.9	70 to 130	3.19	20
AZ12969	Selenium, Total	mg/L	0.0000552	0.0044	0.10	0.0957	0.0970	0.0985	0.085 to 0.115	95.7	70 to 130	1.33	20
AZ12969	Thallium, Total	mg/L	0.00000294	0.00044	0.10	0.103	0.104	0.106	0.085 to 0.115	103	70 to 130	0.460	20

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2020

Comments:

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6247 or 6171
 FAX (205) 664-6108

Batch QC Summary



To: Dustin Brooks
 Greg Dyer
 Lauren Parker

Customer Account: WMWBARAP
 Sample Date: 29-May-19
 Customer ID:
 Delivery Date: 31-May-19

Description: Barry Ash Pond - MW-2

Laboratory ID Number: AZ12961

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample		LCS Limit	Rec		Prec Limit	
							Duplicate	LCS		Rec	Limit		
AZ12969	Chloride	mg/L	-0.0287	0.50	40.0	65.9	26.9	9.91	9 to 11	95.2	80 to 120	3.29	20
AZ12969	Fluoride	mg/L	0.0258	0.05	2.50	2.69	0.0726	2.60	2.25 to 2.75	105	80 to 120	4.44	20
AZ12969	Sulfate	mg/L	-0.449	0.50	20.0	52.9	22.5	19.4	18 to 22	144	80 to 120	6.87	20
AZ12969	Solids, Dissolved	mg/L	-1.00	25			369	53.0	40 to 60			0.272	5

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Issued By: State of Florida, Department of Health

Expiration: June 30, 2020

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 (205) 664-6247 or 6171
 FAX (205) 664-6108

Certificate Of Analysis Alabama Power



To: Dustin Brooks
 Greg Dyer
 Lauren Parker

Customer Account: WMWBARAP
 Sample Date: 29-May-19
 Customer ID:
 Delivery Date: 31-May-19

Description: Barry Ash Pond - MW-1

Laboratory ID Number: AZ12962

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Metals, Cyanide, Total Phenols									
* Arsenic, Total	ABB	6/5/2019	EPA 200.8		5.075	0.001	0.005	0.0555	mg/L
* Barium, Total	ABB	6/5/2019	EPA 200.8		5.075	0.002	0.01	0.290	mg/L
* Beryllium, Total	ABB	6/5/2019	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Boron, Total	RDA	6/7/2019	EPA 200.7		1.015	0.03	0.1	1.75	mg/L
* Calcium, Total	RDA	6/7/2019	EPA 200.7		1.015	0.1	0.5	33.4	mg/L
* Cadmium, Total	ABB	6/5/2019	EPA 200.8		5.075	0.0003	0.001	U Not Detected	mg/L
* Antimony, Total	ABB	6/5/2019	EPA 200.8		5.075	0.0008	0.003	U Not Detected	mg/L
* Cobalt, Total	ABB	6/5/2019	EPA 200.8		5.075	0.002	0.005	U Not Detected	mg/L
* Chromium, Total	ABB	6/5/2019	EPA 200.8		5.075	0.002	0.01	J 0.00223	mg/L
* Mercury, Total by CVAA	GAS	6/4/2019	EPA 245.1		1	0.0003	0.0005	U Not Detected	mg/L
* Lithium, Total	RDA	6/7/2019	EPA 200.7		1.015	0.01	0.02	U Not Detected	mg/L
* Molybdenum, Total	ABB	6/5/2019	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Lead, Total	ABB	6/5/2019	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Selenium, Total	ABB	6/5/2019	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Thallium, Total	ABB	6/5/2019	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	CRB	6/5/2019	SM 2540C		1		25	403	mg/L
Solids, Dissolved Filter Date	CRB	6/3/2019	SM 2540C		1			06/03/2019	Date
* Chloride	JCC	6/10/2019	SM4500CI E		2	1.00	2	27.6	mg/L
* Fluoride	JCC	6/11/2019	SM4500F C		1	0.05	0.1	J 0.0858	mg/L
* Sulfate	JCC	6/12/2019	SM4500SO4 E		1	0.50	1	5.75	mg/L
Field Measurements									
pH	SNP	5/29/2019						FA 5.82	SU

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Laboratory certification ID: E571114

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Comments:

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 Calera, AL 35040
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 FAX (205) 664-6108

Batch QC Summary



To: Dustin Brooks
 Greg Dyer
 Lauren Parker

Customer Account: WMWBARAP
 Sample Date: 29-May-19
 Customer ID:
 Delivery Date: 31-May-19

Description: Barry Ash Pond - MW-1

Laboratory ID Number: AZ12962

Sample	Analysis	Units	MB	MB		MS	MSD	LCS	LCS		Rec		Prec	Limit
				Limit	Spike				Limit	Rec	Limit	Prec		
AZ12969	Arsenic, Total	mg/L	0.00000810	0.0022	0.10	0.108	0.110	0.0985	0.085 to 0.115	94.6	70 to 130	1.79	20	
AZ12969	Barium, Total	mg/L	-0.00000850	0.0044	0.10	0.158	0.167	0.0979	0.085 to 0.115	93.1	70 to 130	5.04	20	
AZ12969	Beryllium, Total	mg/L	0.0000104	0.00132	0.10	0.102	0.0991	0.103	0.085 to 0.115	102	70 to 130	2.47	20	
AZ12969	Boron, Total	mg/L	0.00393	0.065025	1.00	1.07	1.08	0.968	0.85 to 1.15	99.3	70 to 130	0.188	20	
AZ12969	Calcium, Total	mg/L	-0.00237	0.216749	5.00	28.5	28.6	4.87	4.25 to 5.75	92.0	70 to 130	0.331	20	
AZ12969	Cadmium, Total	mg/L	0.00000000	0.00066	0.10	0.0970	0.0983	0.102	0.085 to 0.115	97.0	70 to 130	1.30	20	
AZ12969	Cobalt, Total	mg/L	0.00000056	0.0044	0.10	0.110	0.109	0.109	0.085 to 0.115	110	70 to 130	1.52	20	
AZ12969	Chromium, Total	mg/L	-0.0000151	0.0044	0.10	0.105	0.105	0.104	0.085 to 0.115	103	70 to 130	0.260	20	
AZ12969	Mercury, Total by CVAA	mg/L	0.0000255	0.0005	0.004	0.00406	0.00400	0.00403	0.0034 to 0.0046	102	70 to 130	1.61	20	
AZ12969	Lithium, Total	mg/L	-0.0000689	0.019704	0.20	0.246	0.245	0.195	0.17 to 0.23	107	70 to 130	0.276	20	
AZ12969	Molybdenum, Total	mg/L	0.00000875	0.0044	0.10	0.0956	0.0982	0.0987	0.085 to 0.115	95.6	70 to 130	2.73	20	
AZ12969	Lead, Total	mg/L	0.00000469	0.0022	0.10	0.103	0.103	0.106	0.085 to 0.115	103	70 to 130	0.288	20	
AZ12969	Antimony, Total	mg/L	0.0000854	0.00176	0.10	0.0959	0.0990	0.0981	0.085 to 0.115	95.9	70 to 130	3.19	20	
AZ12969	Selenium, Total	mg/L	0.0000552	0.0044	0.10	0.0957	0.0970	0.0985	0.085 to 0.115	95.7	70 to 130	1.33	20	
AZ12969	Thallium, Total	mg/L	0.00000294	0.00044	0.10	0.103	0.104	0.106	0.085 to 0.115	103	70 to 130	0.460	20	

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

* Test results for these accredited parameters conform to the most current applicable TNI/NELAC requirements, with exceptions noted on this report.

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2020

Comments:

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6247 or 6171
 FAX (205) 664-6108

Batch QC Summary



To: Dustin Brooks
 Greg Dyer
 Lauren Parker

Customer Account: WMWBARAP
 Sample Date: 29-May-19
 Customer ID:
 Delivery Date: 31-May-19

Description: Barry Ash Pond - MW-1

Laboratory ID Number: AZ12962

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample		LCS Limit	Rec		Prec Limit	
							Duplicate	LCS		Rec	Limit		
AZ12969	Chloride	mg/L	-0.0287	0.50	40.0	65.9	26.9	9.91	9 to 11	95.2	80 to 120	3.29	20
AZ12969	Fluoride	mg/L	0.0258	0.05	2.50	2.69	0.0726	2.60	2.25 to 2.75	105	80 to 120	4.44	20
AZ12969	Sulfate	mg/L	-0.449	0.50	20.0	52.9	22.5	19.4	18 to 22	144	80 to 120	6.87	20
AZ12969	Solids, Dissolved	mg/L	-1.00	25			369	53.0	40 to 60			0.272	5

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2020

Comments:

CC:

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6247 or 6171
 FAX (205) 664-6108

Certificate Of Analysis  **Alabama Power**



To: Dustin Brooks
 Greg Dyer
 Lauren Parker

Customer Account: WMWBARAP
 Sample Date: 29-May-19
 Customer ID:
 Delivery Date: 31-May-19

Description: Barry Ash Pond - MW-16

Laboratory ID Number: AZ12963

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Metals, Cyanide, Total Phenols									
* Arsenic, Total	ABB	6/5/2019	EPA 200.8		5.075	0.001	0.005	0.0106	mg/L
* Barium, Total	ABB	6/5/2019	EPA 200.8		5.075	0.002	0.01	0.0810	mg/L
* Beryllium, Total	ABB	6/5/2019	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Boron, Total	RDA	6/7/2019	EPA 200.7		1.015	0.03	0.1	1.70	mg/L
* Calcium, Total	RDA	6/7/2019	EPA 200.7		1.015	0.1	0.5	13.4	mg/L
* Cadmium, Total	ABB	6/5/2019	EPA 200.8		5.075	0.0003	0.001	U Not Detected	mg/L
* Antimony, Total	ABB	6/5/2019	EPA 200.8		5.075	0.0008	0.003	U Not Detected	mg/L
* Cobalt, Total	ABB	6/5/2019	EPA 200.8		5.075	0.002	0.005	0.0206	mg/L
* Chromium, Total	ABB	6/5/2019	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	GAS	6/4/2019	EPA 245.1		1	0.0003	0.0005	U Not Detected	mg/L
* Lithium, Total	RDA	6/7/2019	EPA 200.7		1.015	0.01	0.02	U Not Detected	mg/L
* Molybdenum, Total	ABB	6/5/2019	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Lead, Total	ABB	6/5/2019	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Selenium, Total	ABB	6/5/2019	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Thallium, Total	ABB	6/5/2019	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	CRB	6/5/2019	SM 2540C		1		25	264	mg/L
Solids, Dissolved Filter Date	CRB	6/3/2019	SM 2540C		1			06/03/2019	Date
* Chloride	JCC	6/10/2019	SM4500CI E		1	0.50	1	20.0	mg/L
* Fluoride	JCC	6/11/2019	SM4500F C		1	0.05	0.1	J 0.0683	mg/L
* Sulfate	JCC	6/12/2019	SM4500SO4 E		1	0.50	1	6.72	mg/L
Field Measurements									
pH	SNP	5/29/2019						FA 5.76	SU

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2020

Comments:

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6247 or 6171
 FAX (205) 664-6108

Batch QC Summary



To: Dustin Brooks
 Greg Dyer
 Lauren Parker

Customer Account: WMWBARAP
 Sample Date: 29-May-19
 Customer ID:
 Delivery Date: 31-May-19

Description: Barry Ash Pond - MW-16

Laboratory ID Number: AZ12963

Sample	Analysis	Units	MB	MB		MS	MSD	LCS	LCS Limit	Rec		Prec Limit	
				Limit	Spike					Rec	Limit		
AZ12969	Arsenic, Total	mg/L	0.00000810	0.0022	0.10	0.108	0.110	0.0985	0.085 to 0.115	94.6	70 to 130	1.79	20
AZ12969	Barium, Total	mg/L	-0.00000850	0.0044	0.10	0.158	0.167	0.0979	0.085 to 0.115	93.1	70 to 130	5.04	20
AZ12969	Beryllium, Total	mg/L	0.0000104	0.00132	0.10	0.102	0.0991	0.103	0.085 to 0.115	102	70 to 130	2.47	20
AZ12969	Boron, Total	mg/L	0.00393	0.065025	1.00	1.07	1.08	0.968	0.85 to 1.15	99.3	70 to 130	0.188	20
AZ12969	Calcium, Total	mg/L	-0.00237	0.216749	5.00	28.5	28.6	4.87	4.25 to 5.75	92.0	70 to 130	0.331	20
AZ12969	Cadmium, Total	mg/L	0.00000000	0.00066	0.10	0.0970	0.0983	0.102	0.085 to 0.115	97.0	70 to 130	1.30	20
AZ12969	Cobalt, Total	mg/L	0.00000056	0.0044	0.10	0.110	0.109	0.109	0.085 to 0.115	110	70 to 130	1.52	20
AZ12969	Chromium, Total	mg/L	-0.0000151	0.0044	0.10	0.105	0.105	0.104	0.085 to 0.115	103	70 to 130	0.260	20
AZ12969	Mercury, Total by CVAA	mg/L	0.0000255	0.0005	0.004	0.00406	0.00400	0.00403	0.0034 to 0.0046	102	70 to 130	1.61	20
AZ12969	Lithium, Total	mg/L	-0.0000689	0.019704	0.20	0.246	0.245	0.195	0.17 to 0.23	107	70 to 130	0.276	20
AZ12969	Molybdenum, Total	mg/L	0.00000875	0.0044	0.10	0.0956	0.0982	0.0987	0.085 to 0.115	95.6	70 to 130	2.73	20
AZ12969	Lead, Total	mg/L	0.00000469	0.0022	0.10	0.103	0.103	0.106	0.085 to 0.115	103	70 to 130	0.288	20
AZ12969	Antimony, Total	mg/L	0.0000854	0.00176	0.10	0.0959	0.0990	0.0981	0.085 to 0.115	95.9	70 to 130	3.19	20
AZ12969	Selenium, Total	mg/L	0.0000552	0.0044	0.10	0.0957	0.0970	0.0985	0.085 to 0.115	95.7	70 to 130	1.33	20
AZ12969	Thallium, Total	mg/L	0.00000294	0.00044	0.10	0.103	0.104	0.106	0.085 to 0.115	103	70 to 130	0.460	20

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2020

Comments:

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6247 or 6171
 FAX (205) 664-6108

Batch QC Summary



To: Dustin Brooks
 Greg Dyer
 Lauren Parker

Customer Account: WMWBARAP
 Sample Date: 29-May-19
 Customer ID:
 Delivery Date: 31-May-19

Description: Barry Ash Pond - MW-16

Laboratory ID Number: AZ12963

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample		LCS Limit	Rec		Prec Limit	
							Duplicate	LCS		Rec	Limit		
AZ12969	Chloride	mg/L	-0.0287	0.50	40.0	65.9	26.9	9.91	9 to 11	95.2	80 to 120	3.29	20
AZ12969	Fluoride	mg/L	0.0258	0.05	2.50	2.69	0.0726	2.60	2.25 to 2.75	105	80 to 120	4.44	20
AZ12969	Sulfate	mg/L	-0.449	0.50	20.0	52.9	22.5	19.4	18 to 22	144	80 to 120	6.87	20
AZ12969	Solids, Dissolved	mg/L	-1.00	25			369	53.0	40 to 60			0.272	5

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Issued By: State of Florida, Department of Health

Expiration: June 30, 2020

Comments:

CC:

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6247 or 6171
 FAX (205) 664-6108

Certificate Of Analysis Alabama Power



To: Dustin Brooks
 Greg Dyer
 Lauren Parker

Customer Account: WMWBARAP
 Sample Date: 29-May-19
 Customer ID:
 Delivery Date: 31-May-19

Description: Barry Ash Pond - MW-15

Laboratory ID Number: AZ12964

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Metals, Cyanide, Total Phenols									
* Arsenic, Total	ABB	6/5/2019	EPA 200.8		5.075	0.001	0.005	0.0148	mg/L
* Barium, Total	ABB	6/5/2019	EPA 200.8		5.075	0.002	0.01	0.0562	mg/L
* Beryllium, Total	ABB	6/5/2019	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Boron, Total	RDA	6/7/2019	EPA 200.7		1.015	0.03	0.1	0.116	mg/L
* Calcium, Total	RDA	6/7/2019	EPA 200.7		1.015	0.1	0.5	7.22	mg/L
* Cadmium, Total	ABB	6/5/2019	EPA 200.8		5.075	0.0003	0.001	U Not Detected	mg/L
* Antimony, Total	ABB	6/5/2019	EPA 200.8		5.075	0.0008	0.003	U Not Detected	mg/L
* Cobalt, Total	ABB	6/5/2019	EPA 200.8		5.075	0.002	0.005	0.0343	mg/L
* Chromium, Total	ABB	6/5/2019	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	GAS	6/4/2019	EPA 245.1		1	0.0003	0.0005	U Not Detected	mg/L
* Lithium, Total	RDA	6/7/2019	EPA 200.7		1.015	0.01	0.02	0.0254	mg/L
* Molybdenum, Total	ABB	6/5/2019	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Lead, Total	ABB	6/5/2019	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Selenium, Total	ABB	6/5/2019	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Thallium, Total	ABB	6/5/2019	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	CRB	6/5/2019	SM 2540C		1		25	198	mg/L
Solids, Dissolved Filter Date	CRB	6/3/2019	SM 2540C		1			06/03/2019	Date
* Chloride	JCC	6/10/2019	SM4500CI E		4	2.00	4	47.2	mg/L
* Fluoride	JCC	6/11/2019	SM4500F C		1	0.05	0.1	0.168	mg/L
* Sulfate	JCC	6/12/2019	SM4500SO4 E		1	0.50	1	3.27	mg/L
Field Measurements									
pH	SNP	5/29/2019						FA 6.63	SU

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2020

Comments:

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6247 or 6171
 FAX (205) 664-6108

Batch QC Summary



To: Dustin Brooks
 Greg Dyer
 Lauren Parker

Customer Account: WMWBARAP
 Sample Date: 29-May-19
 Customer ID:
 Delivery Date: 31-May-19

Description: Barry Ash Pond - MW-15

Laboratory ID Number: AZ12964

Sample	Analysis	Units	MB	MB		MS	MSD	LCS	LCS		Rec		Prec	Limit
				Limit	Spike				Limit	Rec	Limit	Prec		
AZ12969	Arsenic, Total	mg/L	0.00000810	0.0022	0.10	0.108	0.110	0.0985	0.085 to 0.115	94.6	70 to 130	1.79	20	
AZ12969	Barium, Total	mg/L	-0.00000850	0.0044	0.10	0.158	0.167	0.0979	0.085 to 0.115	93.1	70 to 130	5.04	20	
AZ12969	Beryllium, Total	mg/L	0.0000104	0.00132	0.10	0.102	0.0991	0.103	0.085 to 0.115	102	70 to 130	2.47	20	
AZ12969	Boron, Total	mg/L	0.00393	0.065025	1.00	1.07	1.08	0.968	0.85 to 1.15	99.3	70 to 130	0.188	20	
AZ12969	Calcium, Total	mg/L	-0.00237	0.216749	5.00	28.5	28.6	4.87	4.25 to 5.75	92.0	70 to 130	0.331	20	
AZ12969	Cadmium, Total	mg/L	0.00000000	0.00066	0.10	0.0970	0.0983	0.102	0.085 to 0.115	97.0	70 to 130	1.30	20	
AZ12969	Cobalt, Total	mg/L	0.00000056	0.0044	0.10	0.110	0.109	0.109	0.085 to 0.115	110	70 to 130	1.52	20	
AZ12969	Chromium, Total	mg/L	-0.0000151	0.0044	0.10	0.105	0.105	0.104	0.085 to 0.115	103	70 to 130	0.260	20	
AZ12969	Mercury, Total by CVAA	mg/L	0.0000255	0.0005	0.004	0.00406	0.00400	0.00403	0.0034 to 0.0046	102	70 to 130	1.61	20	
AZ12969	Lithium, Total	mg/L	-0.0000689	0.019704	0.20	0.246	0.245	0.195	0.17 to 0.23	107	70 to 130	0.276	20	
AZ12969	Molybdenum, Total	mg/L	0.00000875	0.0044	0.10	0.0956	0.0982	0.0987	0.085 to 0.115	95.6	70 to 130	2.73	20	
AZ12969	Lead, Total	mg/L	0.00000469	0.0022	0.10	0.103	0.103	0.106	0.085 to 0.115	103	70 to 130	0.288	20	
AZ12969	Antimony, Total	mg/L	0.0000854	0.00176	0.10	0.0959	0.0990	0.0981	0.085 to 0.115	95.9	70 to 130	3.19	20	
AZ12969	Selenium, Total	mg/L	0.0000552	0.0044	0.10	0.0957	0.0970	0.0985	0.085 to 0.115	95.7	70 to 130	1.33	20	
AZ12969	Thallium, Total	mg/L	0.00000294	0.00044	0.10	0.103	0.104	0.106	0.085 to 0.115	103	70 to 130	0.460	20	

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2020

Comments:

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6247 or 6171
 FAX (205) 664-6108

Batch QC Summary



To: Dustin Brooks
 Greg Dyer
 Lauren Parker

Customer Account: WMWBARAP
 Sample Date: 29-May-19
 Customer ID:
 Delivery Date: 31-May-19

Description: Barry Ash Pond - MW-15

Laboratory ID Number: AZ12964

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample		LCS Limit	Rec		Prec Limit	
							Duplicate	LCS		Rec	Limit		
AZ12969	Chloride	mg/L	-0.0287	0.50	40.0	65.9	26.9	9.91	9 to 11	95.2	80 to 120	3.29	20
AZ12969	Fluoride	mg/L	0.0258	0.05	2.50	2.69	0.0726	2.60	2.25 to 2.75	105	80 to 120	4.44	20
AZ12969	Sulfate	mg/L	-0.449	0.50	20.0	52.9	22.5	19.4	18 to 22	144	80 to 120	6.87	20
AZ12969	Solids, Dissolved	mg/L	-1.00	25			369	53.0	40 to 60			0.272	5

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2020

Comments:

CC:

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6247 or 6171
 FAX (205) 664-6108

Certificate Of Analysis  **Alabama Power**



To: Dustin Brooks
 Greg Dyer
 Lauren Parker

Customer Account: WMWBARAPFB
 Sample Date: 29-May-19
 Customer ID:
 Delivery Date: 31-May-19

Description: Barry Ash Pond Field Blank

Laboratory ID Number: AZ12965

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Metals, Cyanide, Total Phenols									
* Arsenic, Total	ABB	6/5/2019	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Barium, Total	ABB	6/5/2019	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Beryllium, Total	ABB	6/5/2019	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Boron, Total	RDA	6/7/2019	EPA 200.7		1.015	0.03	0.1	U Not Detected	mg/L
* Calcium, Total	RDA	6/7/2019	EPA 200.7		1.015	0.1	0.5	U Not Detected	mg/L
* Cadmium, Total	ABB	6/5/2019	EPA 200.8		5.075	0.0003	0.001	U Not Detected	mg/L
* Antimony, Total	ABB	6/5/2019	EPA 200.8		5.075	0.0008	0.003	U Not Detected	mg/L
* Cobalt, Total	ABB	6/5/2019	EPA 200.8		5.075	0.002	0.005	U Not Detected	mg/L
* Chromium, Total	ABB	6/5/2019	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	GAS	6/4/2019	EPA 245.1		1	0.0003	0.0005	U Not Detected	mg/L
* Lithium, Total	RDA	6/7/2019	EPA 200.7		1.015	0.01	0.02	U Not Detected	mg/L
* Molybdenum, Total	ABB	6/5/2019	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Lead, Total	ABB	6/5/2019	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Selenium, Total	ABB	6/5/2019	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Thallium, Total	ABB	6/5/2019	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	CRB	6/5/2019	SM 2540C		1		25	Not Detected	mg/L
Solids, Dissolved Filter Date	CRB	6/3/2019	SM 2540C		1			06/03/2019	Date
* Chloride	JCC	6/10/2019	SM4500Cl E		1	0.50	1	U Not Detected	mg/L
* Fluoride	JCC	6/11/2019	SM4500F C		1	0.05	0.1	U Not Detected	mg/L
* Sulfate	JCC	6/12/2019	SM4500SO4 E		1	0.50	1	U Not Detected	mg/L

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* Test results for these accredited parameters conform to the most current applicable TNI/NELAC requirements, with exceptions noted on this report.

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2020

Comments:

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6247 or 6171
 FAX (205) 664-6108

Batch QC Summary



To: Dustin Brooks
 Greg Dyer
 Lauren Parker

Customer Account: WMWBARAPFB
 Sample Date: 29-May-19
 Customer ID:
 Delivery Date: 31-May-19

Description: Barry Ash Pond Field Blank

Laboratory ID Number: AZ12965

Sample	Analysis	Units	MB	MB		MS	MSD	LCS	LCS		Rec		Prec	Limit
				Limit	Spike				Limit	Rec	Limit	Prec		
AZ12969	Arsenic, Total	mg/L	0.00000810	0.0022	0.10	0.108	0.110	0.0985	0.085 to 0.115	94.6	70 to 130	1.79	20	
AZ12969	Barium, Total	mg/L	-0.00000850	0.0044	0.10	0.158	0.167	0.0979	0.085 to 0.115	93.1	70 to 130	5.04	20	
AZ12969	Beryllium, Total	mg/L	0.0000104	0.00132	0.10	0.102	0.0991	0.103	0.085 to 0.115	102	70 to 130	2.47	20	
AZ12969	Boron, Total	mg/L	0.00393	0.065025	1.00	1.07	1.08	0.968	0.85 to 1.15	99.3	70 to 130	0.188	20	
AZ12969	Calcium, Total	mg/L	-0.00237	0.216749	5.00	28.5	28.6	4.87	4.25 to 5.75	92.0	70 to 130	0.331	20	
AZ12969	Cadmium, Total	mg/L	0.00000000	0.00066	0.10	0.0970	0.0983	0.102	0.085 to 0.115	97.0	70 to 130	1.30	20	
AZ12969	Cobalt, Total	mg/L	0.00000056	0.0044	0.10	0.110	0.109	0.109	0.085 to 0.115	110	70 to 130	1.52	20	
AZ12969	Chromium, Total	mg/L	-0.0000151	0.0044	0.10	0.105	0.105	0.104	0.085 to 0.115	103	70 to 130	0.260	20	
AZ12969	Mercury, Total by CVAA	mg/L	0.0000255	0.0005	0.004	0.00406	0.00400	0.00403	0.0034 to 0.0046	102	70 to 130	1.61	20	
AZ12969	Lithium, Total	mg/L	-0.0000689	0.019704	0.20	0.246	0.245	0.195	0.17 to 0.23	107	70 to 130	0.276	20	
AZ12969	Molybdenum, Total	mg/L	0.00000875	0.0044	0.10	0.0956	0.0982	0.0987	0.085 to 0.115	95.6	70 to 130	2.73	20	
AZ12969	Lead, Total	mg/L	0.00000469	0.0022	0.10	0.103	0.103	0.106	0.085 to 0.115	103	70 to 130	0.288	20	
AZ12969	Antimony, Total	mg/L	0.0000854	0.00176	0.10	0.0959	0.0990	0.0981	0.085 to 0.115	95.9	70 to 130	3.19	20	
AZ12969	Selenium, Total	mg/L	0.0000552	0.0044	0.10	0.0957	0.0970	0.0985	0.085 to 0.115	95.7	70 to 130	1.33	20	
AZ12969	Thallium, Total	mg/L	0.00000294	0.00044	0.10	0.103	0.104	0.106	0.085 to 0.115	103	70 to 130	0.460	20	

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

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2020

Comments:

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6247 or 6171
 FAX (205) 664-6108

Batch QC Summary



To: Dustin Brooks
 Greg Dyer
 Lauren Parker

Customer Account: WMWBARAPFB
 Sample Date: 29-May-19
 Customer ID:
 Delivery Date: 31-May-19

Description: Barry Ash Pond Field Blank

Laboratory ID Number: AZ12965

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample		LCS Limit	Rec		Prec Limit	
							Duplicate	LCS		Rec	Limit		
AZ12969	Chloride	mg/L	-0.0287	0.50	40.0	65.9	26.9	9.91	9 to 11	95.2	80 to 120	3.29	20
AZ12969	Fluoride	mg/L	0.0258	0.05	2.50	2.69	0.0726	2.60	2.25 to 2.75	105	80 to 120	4.44	20
AZ12969	Sulfate	mg/L	-0.449	0.50	20.0	52.9	22.5	19.4	18 to 22	144	80 to 120	6.87	20
AZ12969	Solids, Dissolved	mg/L	-1.00	25			369	53.0	40 to 60			0.272	5

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2020

Comments:

CC:

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6247 or 6171
 FAX (205) 664-6108

Certificate Of Analysis  **Alabama Power**



To: Dustin Brooks
 Greg Dyer
 Lauren Parker

Customer Account: WMWBARAP
 Sample Date: 29-May-19
 Customer ID:
 Delivery Date: 31-May-19

Description: Barry Ash Pond - MW-14

Laboratory ID Number: AZ12966

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Metals, Cyanide, Total Phenols									
* Arsenic, Total	ABB	6/5/2019	EPA 200.8		5.075	0.001	0.005	0.0140	mg/L
* Barium, Total	ABB	6/5/2019	EPA 200.8		5.075	0.002	0.01	0.0617	mg/L
* Beryllium, Total	ABB	6/5/2019	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Boron, Total	RDA	6/7/2019	EPA 200.7		1.015	0.03	0.1	J 0.0682	mg/L
* Calcium, Total	RDA	6/7/2019	EPA 200.7		1.015	0.1	0.5	11.2	mg/L
* Cadmium, Total	ABB	6/5/2019	EPA 200.8		5.075	0.0003	0.001	U Not Detected	mg/L
* Antimony, Total	ABB	6/5/2019	EPA 200.8		5.075	0.0008	0.003	U Not Detected	mg/L
* Cobalt, Total	ABB	6/5/2019	EPA 200.8		5.075	0.002	0.005	U Not Detected	mg/L
* Chromium, Total	ABB	6/5/2019	EPA 200.8		5.075	0.002	0.01	J 0.00455	mg/L
* Mercury, Total by CVAA	GAS	6/4/2019	EPA 245.1		1	0.0003	0.0005	U Not Detected	mg/L
* Lithium, Total	RDA	6/7/2019	EPA 200.7		1.015	0.01	0.02	U Not Detected	mg/L
* Molybdenum, Total	ABB	6/5/2019	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Lead, Total	ABB	6/5/2019	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Selenium, Total	ABB	6/5/2019	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Thallium, Total	ABB	6/5/2019	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	CRB	6/5/2019	SM 2540C		1		25	318	mg/L
Solids, Dissolved Filter Date	CRB	6/3/2019	SM 2540C		1			06/03/2019	Date
* Chloride	JCC	6/10/2019	SM4500CI E		4	2.00	4	50.1	mg/L
* Fluoride	JCC	6/11/2019	SM4500F C		1	0.05	0.1	J 0.0781	mg/L
* Sulfate	JCC	6/12/2019	SM4500SO4 E		10	5.00	10	67.6	mg/L
Field Measurements									
pH	SNP	5/29/2019						FA 6.07	SU

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2020

Comments:

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6247 or 6171
 FAX (205) 664-6108

Batch QC Summary



To: Dustin Brooks
 Greg Dyer
 Lauren Parker

Customer Account: WMWBARAP
 Sample Date: 29-May-19
 Customer ID:
 Delivery Date: 31-May-19

Description: Barry Ash Pond - MW-14

Laboratory ID Number: AZ12966

Sample	Analysis	Units	MB	MB		MS	MSD	LCS	LCS		Rec		Prec	Limit
				Limit	Spike				Limit	Rec	Limit	Prec		
AZ12969	Arsenic, Total	mg/L	0.00000810	0.0022	0.10	0.108	0.110	0.0985	0.085 to 0.115	94.6	70 to 130	1.79	20	
AZ12969	Barium, Total	mg/L	-0.00000850	0.0044	0.10	0.158	0.167	0.0979	0.085 to 0.115	93.1	70 to 130	5.04	20	
AZ12969	Beryllium, Total	mg/L	0.0000104	0.00132	0.10	0.102	0.0991	0.103	0.085 to 0.115	102	70 to 130	2.47	20	
AZ12969	Boron, Total	mg/L	0.00393	0.065025	1.00	1.07	1.08	0.968	0.85 to 1.15	99.3	70 to 130	0.188	20	
AZ12969	Calcium, Total	mg/L	-0.00237	0.216749	5.00	28.5	28.6	4.87	4.25 to 5.75	92.0	70 to 130	0.331	20	
AZ12969	Cadmium, Total	mg/L	0.00000000	0.00066	0.10	0.0970	0.0983	0.102	0.085 to 0.115	97.0	70 to 130	1.30	20	
AZ12969	Cobalt, Total	mg/L	0.00000056	0.0044	0.10	0.110	0.109	0.109	0.085 to 0.115	110	70 to 130	1.52	20	
AZ12969	Chromium, Total	mg/L	-0.0000151	0.0044	0.10	0.105	0.105	0.104	0.085 to 0.115	103	70 to 130	0.260	20	
AZ12969	Mercury, Total by CVAA	mg/L	0.0000255	0.0005	0.004	0.00406	0.00400	0.00403	0.0034 to 0.0046	102	70 to 130	1.61	20	
AZ12969	Lithium, Total	mg/L	-0.0000689	0.019704	0.20	0.246	0.245	0.195	0.17 to 0.23	107	70 to 130	0.276	20	
AZ12969	Molybdenum, Total	mg/L	0.00000875	0.0044	0.10	0.0956	0.0982	0.0987	0.085 to 0.115	95.6	70 to 130	2.73	20	
AZ12969	Lead, Total	mg/L	0.00000469	0.0022	0.10	0.103	0.103	0.106	0.085 to 0.115	103	70 to 130	0.288	20	
AZ12969	Antimony, Total	mg/L	0.0000854	0.00176	0.10	0.0959	0.0990	0.0981	0.085 to 0.115	95.9	70 to 130	3.19	20	
AZ12969	Selenium, Total	mg/L	0.0000552	0.0044	0.10	0.0957	0.0970	0.0985	0.085 to 0.115	95.7	70 to 130	1.33	20	
AZ12969	Thallium, Total	mg/L	0.00000294	0.00044	0.10	0.103	0.104	0.106	0.085 to 0.115	103	70 to 130	0.460	20	

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2020

Comments:

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6247 or 6171
 FAX (205) 664-6108

Batch QC Summary



To: Dustin Brooks
 Greg Dyer
 Lauren Parker

Customer Account: WMWBARAP
 Sample Date: 29-May-19
 Customer ID:
 Delivery Date: 31-May-19

Description: Barry Ash Pond - MW-14

Laboratory ID Number: AZ12966

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample		LCS Limit	Rec		Prec Limit	
							Duplicate	LCS		Rec	Limit		
AZ12969	Chloride	mg/L	-0.0287	0.50	40.0	65.9	26.9	9.91	9 to 11	95.2	80 to 120	3.29	20
AZ12969	Fluoride	mg/L	0.0258	0.05	2.50	2.69	0.0726	2.60	2.25 to 2.75	105	80 to 120	4.44	20
AZ12969	Sulfate	mg/L	-0.449	0.50	20.0	52.9	22.5	19.4	18 to 22	144	80 to 120	6.87	20
AZ12969	Solids, Dissolved	mg/L	-1.00	25			369	53.0	40 to 60			0.272	5

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2020

Comments:

CC:

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6247 or 6171
 FAX (205) 664-6108

Certificate Of Analysis  **Alabama Power**



To: Dustin Brooks
 Greg Dyer
 Lauren Parker

Customer Account: WMWBARAP
 Sample Date: 29-May-19
 Customer ID:
 Delivery Date: 31-May-19

Description: Barry Ash Pond - MW-13

Laboratory ID Number: AZ12967

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Metals, Cyanide, Total Phenols									
* Arsenic, Total	ABB	6/5/2019	EPA 200.8		5.075	0.001	0.005	0.0138	mg/L
* Barium, Total	ABB	6/5/2019	EPA 200.8		5.075	0.002	0.01	0.0704	mg/L
* Beryllium, Total	ABB	6/5/2019	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Boron, Total	RDA	6/7/2019	EPA 200.7		1.015	0.03	0.1	J 0.0528	mg/L
* Calcium, Total	RDA	6/7/2019	EPA 200.7		1.015	0.1	0.5	12.8	mg/L
* Cadmium, Total	ABB	6/5/2019	EPA 200.8		5.075	0.0003	0.001	U Not Detected	mg/L
* Antimony, Total	ABB	6/5/2019	EPA 200.8		5.075	0.0008	0.003	U Not Detected	mg/L
* Cobalt, Total	ABB	6/5/2019	EPA 200.8		5.075	0.002	0.005	U Not Detected	mg/L
* Chromium, Total	ABB	6/5/2019	EPA 200.8		5.075	0.002	0.01	J 0.00727	mg/L
* Mercury, Total by CVAA	GAS	6/4/2019	EPA 245.1		1	0.0003	0.0005	U Not Detected	mg/L
* Lithium, Total	RDA	6/7/2019	EPA 200.7		1.015	0.01	0.02	U Not Detected	mg/L
* Molybdenum, Total	ABB	6/5/2019	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Lead, Total	ABB	6/5/2019	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Selenium, Total	ABB	6/5/2019	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Thallium, Total	ABB	6/5/2019	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	CRB	6/5/2019	SM 2540C		1		25	307	mg/L
Solids, Dissolved Filter Date	CRB	6/3/2019	SM 2540C		1			06/03/2019	Date
* Chloride	JCC	6/10/2019	SM4500CI E		4	2.00	4	44.0	mg/L
* Fluoride	JCC	6/11/2019	SM4500F C		1	0.05	0.1	J 0.0679	mg/L
* Sulfate	JCC	6/12/2019	SM4500SO4 E		10	5.00	10	49.5	mg/L
Field Measurements									
pH	SNP	5/29/2019						FA 6.01	SU

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2020

Comments:

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6247 or 6171
 FAX (205) 664-6108

Batch QC Summary



To: Dustin Brooks
 Greg Dyer
 Lauren Parker

Customer Account: WMWBARAP
 Sample Date: 29-May-19
 Customer ID:
 Delivery Date: 31-May-19

Description: Barry Ash Pond - MW-13

Laboratory ID Number: AZ12967

Sample	Analysis	Units	MB	MB		MS	MSD	LCS	LCS		Rec		Prec	Limit
				Limit	Spike				Limit	Rec	Limit	Prec		
AZ12969	Arsenic, Total	mg/L	0.00000810	0.0022	0.10	0.108	0.110	0.0985	0.085 to 0.115	94.6	70 to 130	1.79	20	
AZ12969	Barium, Total	mg/L	-0.00000850	0.0044	0.10	0.158	0.167	0.0979	0.085 to 0.115	93.1	70 to 130	5.04	20	
AZ12969	Beryllium, Total	mg/L	0.0000104	0.00132	0.10	0.102	0.0991	0.103	0.085 to 0.115	102	70 to 130	2.47	20	
AZ12969	Boron, Total	mg/L	0.00393	0.065025	1.00	1.07	1.08	0.968	0.85 to 1.15	99.3	70 to 130	0.188	20	
AZ12969	Calcium, Total	mg/L	-0.00237	0.216749	5.00	28.5	28.6	4.87	4.25 to 5.75	92.0	70 to 130	0.331	20	
AZ12969	Cadmium, Total	mg/L	0.00000000	0.00066	0.10	0.0970	0.0983	0.102	0.085 to 0.115	97.0	70 to 130	1.30	20	
AZ12969	Cobalt, Total	mg/L	0.00000056	0.0044	0.10	0.110	0.109	0.109	0.085 to 0.115	110	70 to 130	1.52	20	
AZ12969	Chromium, Total	mg/L	-0.0000151	0.0044	0.10	0.105	0.105	0.104	0.085 to 0.115	103	70 to 130	0.260	20	
AZ12969	Mercury, Total by CVAA	mg/L	0.0000255	0.0005	0.004	0.00406	0.00400	0.00403	0.0034 to 0.0046	102	70 to 130	1.61	20	
AZ12969	Lithium, Total	mg/L	-0.0000689	0.019704	0.20	0.246	0.245	0.195	0.17 to 0.23	107	70 to 130	0.276	20	
AZ12969	Molybdenum, Total	mg/L	0.00000875	0.0044	0.10	0.0956	0.0982	0.0987	0.085 to 0.115	95.6	70 to 130	2.73	20	
AZ12969	Lead, Total	mg/L	0.00000469	0.0022	0.10	0.103	0.103	0.106	0.085 to 0.115	103	70 to 130	0.288	20	
AZ12969	Antimony, Total	mg/L	0.0000854	0.00176	0.10	0.0959	0.0990	0.0981	0.085 to 0.115	95.9	70 to 130	3.19	20	
AZ12969	Selenium, Total	mg/L	0.0000552	0.0044	0.10	0.0957	0.0970	0.0985	0.085 to 0.115	95.7	70 to 130	1.33	20	
AZ12969	Thallium, Total	mg/L	0.00000294	0.00044	0.10	0.103	0.104	0.106	0.085 to 0.115	103	70 to 130	0.460	20	

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2020

Comments:

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6247 or 6171
 FAX (205) 664-6108

Batch QC Summary



To: Dustin Brooks
 Greg Dyer
 Lauren Parker

Customer Account: WMWBARAP
 Sample Date: 29-May-19
 Customer ID:
 Delivery Date: 31-May-19

Description: Barry Ash Pond - MW-13

Laboratory ID Number: AZ12967

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample		LCS Limit	Rec		Prec Limit	
							Duplicate	LCS		Rec	Limit		
AZ12969	Chloride	mg/L	-0.0287	0.50	40.0	65.9	26.9	9.91	9 to 11	95.2	80 to 120	3.29	20
AZ12969	Fluoride	mg/L	0.0258	0.05	2.50	2.69	0.0726	2.60	2.25 to 2.75	105	80 to 120	4.44	20
AZ12969	Sulfate	mg/L	-0.449	0.50	20.0	52.9	22.5	19.4	18 to 22	144	80 to 120	6.87	20
AZ12969	Solids, Dissolved	mg/L	-1.00	25			369	53.0	40 to 60			0.272	5

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2020

Comments:

CC:

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6247 or 6171
 FAX (205) 664-6108

Certificate Of Analysis Alabama Power



To: Dustin Brooks
 Greg Dyer
 Lauren Parker

Customer Account: WMWBARAP
 Sample Date: 29-May-19
 Customer ID:
 Delivery Date: 31-May-19

Description: Barry Ash Pond - MW-12

Laboratory ID Number: AZ12968

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Metals, Cyanide, Total Phenols									
* Arsenic, Total	ABB	6/5/2019	EPA 200.8		5.075	0.001	0.005	0.0215	mg/L
* Barium, Total	ABB	6/5/2019	EPA 200.8		5.075	0.002	0.01	0.0769	mg/L
* Beryllium, Total	ABB	6/5/2019	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Boron, Total	RDA	6/7/2019	EPA 200.7		1.015	0.03	0.1	J 0.0952	mg/L
* Calcium, Total	RDA	6/7/2019	EPA 200.7		1.015	0.1	0.5	21.4	mg/L
* Cadmium, Total	ABB	6/5/2019	EPA 200.8		5.075	0.0003	0.001	U Not Detected	mg/L
* Antimony, Total	ABB	6/5/2019	EPA 200.8		5.075	0.0008	0.003	U Not Detected	mg/L
* Cobalt, Total	ABB	6/5/2019	EPA 200.8		5.075	0.002	0.005	J 0.00358	mg/L
* Chromium, Total	ABB	6/5/2019	EPA 200.8		5.075	0.002	0.01	J 0.00333	mg/L
* Mercury, Total by CVAA	GAS	6/4/2019	EPA 245.1		1	0.0003	0.0005	U Not Detected	mg/L
* Lithium, Total	RDA	6/7/2019	EPA 200.7		1.015	0.01	0.02	U Not Detected	mg/L
* Molybdenum, Total	ABB	6/5/2019	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Lead, Total	ABB	6/5/2019	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Selenium, Total	ABB	6/5/2019	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Thallium, Total	ABB	6/5/2019	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	CRB	6/5/2019	SM 2540C		1		25	321	mg/L
Solids, Dissolved Filter Date	CRB	6/3/2019	SM 2540C		1			06/03/2019	Date
* Chloride	JCC	6/10/2019	SM4500CI E		2	1.00	2	24.1	mg/L
* Fluoride	JCC	6/11/2019	SM4500F C		1	0.05	0.1	J 0.0677	mg/L
* Sulfate	JCC	6/12/2019	SM4500SO4 E		1	0.50	1	7.04	mg/L
Field Measurements									
pH	SNP	5/29/2019						FA 6.13	SU

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

* Test results for these accredited parameters conform to the most current applicable TNI/NELAC requirements, with exceptions noted on this report.

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2020

Comments:

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6247 or 6171
 FAX (205) 664-6108

Batch QC Summary



To: Dustin Brooks
 Greg Dyer
 Lauren Parker

Customer Account: WMWBARAP
 Sample Date: 29-May-19
 Customer ID:
 Delivery Date: 31-May-19

Description: Barry Ash Pond - MW-12

Laboratory ID Number: AZ12968

Sample	Analysis	Units	MB	MB		MS	MSD	LCS	LCS	Rec		Prec	Limit
				Limit	Spike					Limit	Prec		
AZ12969	Arsenic, Total	mg/L	0.00000810	0.0022	0.10	0.108	0.110	0.0985	0.085 to 0.115	94.6	70 to 130	1.79	20
AZ12969	Barium, Total	mg/L	-0.00000850	0.0044	0.10	0.158	0.167	0.0979	0.085 to 0.115	93.1	70 to 130	5.04	20
AZ12969	Beryllium, Total	mg/L	0.0000104	0.00132	0.10	0.102	0.0991	0.103	0.085 to 0.115	102	70 to 130	2.47	20
AZ12969	Boron, Total	mg/L	0.00393	0.065025	1.00	1.07	1.08	0.968	0.85 to 1.15	99.3	70 to 130	0.188	20
AZ12969	Calcium, Total	mg/L	-0.00237	0.216749	5.00	28.5	28.6	4.87	4.25 to 5.75	92.0	70 to 130	0.331	20
AZ12969	Cadmium, Total	mg/L	0.00000000	0.00066	0.10	0.0970	0.0983	0.102	0.085 to 0.115	97.0	70 to 130	1.30	20
AZ12969	Cobalt, Total	mg/L	0.00000056	0.0044	0.10	0.110	0.109	0.109	0.085 to 0.115	110	70 to 130	1.52	20
AZ12969	Chromium, Total	mg/L	-0.0000151	0.0044	0.10	0.105	0.105	0.104	0.085 to 0.115	103	70 to 130	0.260	20
AZ12969	Mercury, Total by CVAA	mg/L	0.0000255	0.0005	0.004	0.00406	0.00400	0.00403	0.0034 to 0.0046	102	70 to 130	1.61	20
AZ12969	Lithium, Total	mg/L	-0.0000689	0.019704	0.20	0.246	0.245	0.195	0.17 to 0.23	107	70 to 130	0.276	20
AZ12969	Molybdenum, Total	mg/L	0.00000875	0.0044	0.10	0.0956	0.0982	0.0987	0.085 to 0.115	95.6	70 to 130	2.73	20
AZ12969	Lead, Total	mg/L	0.00000469	0.0022	0.10	0.103	0.103	0.106	0.085 to 0.115	103	70 to 130	0.288	20
AZ12969	Antimony, Total	mg/L	0.0000854	0.00176	0.10	0.0959	0.0990	0.0981	0.085 to 0.115	95.9	70 to 130	3.19	20
AZ12969	Selenium, Total	mg/L	0.0000552	0.0044	0.10	0.0957	0.0970	0.0985	0.085 to 0.115	95.7	70 to 130	1.33	20
AZ12969	Thallium, Total	mg/L	0.00000294	0.00044	0.10	0.103	0.104	0.106	0.085 to 0.115	103	70 to 130	0.460	20

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2020

Comments:

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6247 or 6171
 FAX (205) 664-6108

Batch QC Summary



To: Dustin Brooks
 Greg Dyer
 Lauren Parker

Customer Account: WMWBARAP
 Sample Date: 29-May-19
 Customer ID:
 Delivery Date: 31-May-19

Description: Barry Ash Pond - MW-12

Laboratory ID Number: AZ12968

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample		LCS Limit	Rec		Prec Limit	
							Duplicate	LCS		Rec	Limit		
AZ12969	Chloride	mg/L	-0.0287	0.50	40.0	65.9	26.9	9.91	9 to 11	95.2	80 to 120	3.29	20
AZ12969	Fluoride	mg/L	0.0258	0.05	2.50	2.69	0.0726	2.60	2.25 to 2.75	105	80 to 120	4.44	20
AZ12969	Sulfate	mg/L	-0.449	0.50	20.0	52.9	22.5	19.4	18 to 22	144	80 to 120	6.87	20
AZ12969	Solids, Dissolved	mg/L	-1.00	25			369	53.0	40 to 60			0.272	5

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2020

Comments:

CC:

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6247 or 6171
 FAX (205) 664-6108

Certificate Of Analysis Alabama Power



To: Dustin Brooks
 Greg Dyer
 Lauren Parker

Customer Account: WMWBARAP
 Sample Date: 29-May-19
 Customer ID:
 Delivery Date: 31-May-19

Description: Barry Ash Pond - MW-11

Laboratory ID Number: AZ12969

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Metals, Cyanide, Total Phenols									
* Arsenic, Total	ABB	6/5/2019	EPA 200.8		5.075	0.001	0.005	0.0132	mg/L
* Barium, Total	ABB	6/5/2019	EPA 200.8		5.075	0.002	0.01	0.0653	mg/L
* Beryllium, Total	ABB	6/5/2019	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Boron, Total	RDA	6/7/2019	EPA 200.7		1.015	0.03	0.1	J 0.0820	mg/L
* Calcium, Total	RDA	6/7/2019	EPA 200.7		1.015	0.1	0.5	23.9	mg/L
* Cadmium, Total	ABB	6/5/2019	EPA 200.8		5.075	0.0003	0.001	U Not Detected	mg/L
* Antimony, Total	ABB	6/5/2019	EPA 200.8		5.075	0.0008	0.003	U Not Detected	mg/L
* Cobalt, Total	ABB	6/5/2019	EPA 200.8		5.075	0.002	0.005	U Not Detected	mg/L
* Chromium, Total	ABB	6/5/2019	EPA 200.8		5.075	0.002	0.01	J 0.00211	mg/L
* Mercury, Total by CVAA	GAS	6/4/2019	EPA 245.1		1	0.0003	0.0005	U Not Detected	mg/L
* Lithium, Total	RDA	6/7/2019	EPA 200.7		1.015	0.01	0.02	0.0321	mg/L
* Molybdenum, Total	ABB	6/5/2019	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Lead, Total	ABB	6/5/2019	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Selenium, Total	ABB	6/5/2019	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Thallium, Total	ABB	6/5/2019	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	CRB	6/5/2019	SM 2540C		1		25	367	mg/L
Solids, Dissolved Filter Date	CRB	6/3/2019	SM 2540C		1			06/03/2019	Date
* Chloride	JCC	6/10/2019	SM4500CI E		4	2.00	4	27.8	mg/L
* Fluoride	JCC	6/11/2019	SM4500F C		1	0.05	0.1	J 0.0759	mg/L
* Sulfate	JCC	6/12/2019	SM4500SO4 E		1	0.50	1	24.1	mg/L
Field Measurements									
pH	SNP	5/29/2019						FA 6.24	SU

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* Test results for these accredited parameters conform to the most current applicable TNI/NELAC requirements, with exceptions noted on this report.

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2020

Comments: Matrix spike recovery for Sulfate is outside of specification limits. LBM 6/18/19

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6247 or 6171
 FAX (205) 664-6108

Batch QC Summary



To: Dustin Brooks
 Greg Dyer
 Lauren Parker

Customer Account: WMWBARAP
 Sample Date: 29-May-19
 Customer ID:
 Delivery Date: 31-May-19

Description: Barry Ash Pond - MW-11

Laboratory ID Number: AZ12969

Sample	Analysis	Units	MB		MS	MSD	LCS	LCS Limit	Rec		Prec Limit		
			MB	Limit					Rec	Limit			
AZ12969	Arsenic, Total	mg/L	0.00000810	0.0022	0.10	0.108	0.110	0.0985	0.085 to 0.115	94.6	70 to 130	1.79	20
AZ12969	Barium, Total	mg/L	-0.00000850	0.0044	0.10	0.158	0.167	0.0979	0.085 to 0.115	93.1	70 to 130	5.04	20
AZ12969	Beryllium, Total	mg/L	0.0000104	0.00132	0.10	0.102	0.0991	0.103	0.085 to 0.115	102	70 to 130	2.47	20
AZ12969	Boron, Total	mg/L	0.00393	0.065025	1.00	1.07	1.08	0.968	0.85 to 1.15	99.3	70 to 130	0.188	20
AZ12969	Calcium, Total	mg/L	-0.00237	0.216749	5.00	28.5	28.6	4.87	4.25 to 5.75	92.0	70 to 130	0.331	20
AZ12969	Cadmium, Total	mg/L	0.00000000	0.00066	0.10	0.0970	0.0983	0.102	0.085 to 0.115	97.0	70 to 130	1.30	20
AZ12969	Cobalt, Total	mg/L	0.00000056	0.0044	0.10	0.110	0.109	0.109	0.085 to 0.115	110	70 to 130	1.52	20
AZ12969	Chromium, Total	mg/L	-0.0000151	0.0044	0.10	0.105	0.105	0.104	0.085 to 0.115	103	70 to 130	0.260	20
AZ12969	Mercury, Total by CVAA	mg/L	0.0000255	0.0005	0.004	0.00406	0.00400	0.00403	0.0034 to 0.0046	102	70 to 130	1.61	20
AZ12969	Lithium, Total	mg/L	-0.0000689	0.019704	0.20	0.246	0.245	0.195	0.17 to 0.23	107	70 to 130	0.276	20
AZ12969	Molybdenum, Total	mg/L	0.00000875	0.0044	0.10	0.0956	0.0982	0.0987	0.085 to 0.115	95.6	70 to 130	2.73	20
AZ12969	Lead, Total	mg/L	0.00000469	0.0022	0.10	0.103	0.103	0.106	0.085 to 0.115	103	70 to 130	0.288	20
AZ12969	Antimony, Total	mg/L	0.0000854	0.00176	0.10	0.0959	0.0990	0.0981	0.085 to 0.115	95.9	70 to 130	3.19	20
AZ12969	Selenium, Total	mg/L	0.0000552	0.0044	0.10	0.0957	0.0970	0.0985	0.085 to 0.115	95.7	70 to 130	1.33	20
AZ12969	Thallium, Total	mg/L	0.00000294	0.00044	0.10	0.103	0.104	0.106	0.085 to 0.115	103	70 to 130	0.460	20

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* Test results for these accredited parameters conform to the most current applicable TNI/NELAC requirements, with exceptions noted on this report.

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2020

Comments: Matrix spike recovery for Sulfate is outside of specification limits. LBM 6/18/19

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6247 or 6171
 FAX (205) 664-6108

Batch QC Summary



To: Dustin Brooks
 Greg Dyer
 Lauren Parker

Customer Account: WMWBARAP
 Sample Date: 29-May-19
 Customer ID:
 Delivery Date: 31-May-19

Description: Barry Ash Pond - MW-11

Laboratory ID Number: AZ12969

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample		LCS Limit	Rec		Prec Limit	
							Duplicate	LCS		Rec	Limit		
AZ12969	Chloride	mg/L	-0.0287	0.50	40.0	65.9	26.9	9.91	9 to 11	95.2	80 to 120	3.29	20
AZ12969	Fluoride	mg/L	0.0258	0.05	2.50	2.69	0.0726	2.60	2.25 to 2.75	105	80 to 120	4.44	20
AZ12969	Sulfate	mg/L	-0.449	0.50	20.0	52.9	22.5	19.4	18 to 22	144	80 to 120	6.87	20
AZ12969	Solids, Dissolved	mg/L	-1.00	25			369	53.0	40 to 60			0.272	5

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2020

Comments: Matrix spike recovery for Sulfate is outside of specification limits. LBM 6/18/19

CC:

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6247 or 6171
 FAX (205) 664-6108

Certificate Of Analysis



To: Dustin Brooks
 Greg Dyer
 Lauren Parker

Customer Account: WMWBARAPEB
 Sample Date: 29-May-19
 Customer ID:
 Delivery Date: 31-May-19

Description: Barry Ash Pond Equipment Blank

Laboratory ID Number: AZ12970

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Metals, Cyanide, Total Phenols									
* Arsenic, Total	ABB	6/5/2019	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Barium, Total	ABB	6/5/2019	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Beryllium, Total	ABB	6/5/2019	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Boron, Total	RDA	6/7/2019	EPA 200.7		1.015	0.03	0.1	U Not Detected	mg/L
* Calcium, Total	RDA	6/7/2019	EPA 200.7		1.015	0.1	0.5	U Not Detected	mg/L
* Cadmium, Total	ABB	6/5/2019	EPA 200.8		5.075	0.0003	0.001	U Not Detected	mg/L
* Antimony, Total	ABB	6/5/2019	EPA 200.8		5.075	0.0008	0.003	U Not Detected	mg/L
* Cobalt, Total	ABB	6/5/2019	EPA 200.8		5.075	0.002	0.005	U Not Detected	mg/L
* Chromium, Total	ABB	6/5/2019	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	GAS	6/4/2019	EPA 245.1		1	0.0003	0.0005	U Not Detected	mg/L
* Lithium, Total	RDA	6/7/2019	EPA 200.7		1.015	0.01	0.02	U Not Detected	mg/L
* Molybdenum, Total	ABB	6/5/2019	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Lead, Total	ABB	6/5/2019	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Selenium, Total	ABB	6/5/2019	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Thallium, Total	ABB	6/5/2019	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	CRB	6/6/2019	SM 2540C		1		25	U Not Detected	mg/L
Solids, Dissolved Filter Date	TJW	6/4/2019	SM 2540C		1			06/04/2019	Date
* Chloride	JCC	6/10/2019	SM4500Cl E		1	0.50	1	U Not Detected	mg/L
* Fluoride	JCC	6/11/2019	SM4500F C		1	0.05	0.1	U Not Detected	mg/L
* Sulfate	JCC	6/12/2019	SM4500SO4 E		1	0.50	1	U Not Detected	mg/L

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2020

Comments: TDS precision was out of specification limit, but the results were below the RL. Therefore, the results are acceptable.
 LBM 6/18/19

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6247 or 6171
 FAX (205) 664-6108

Batch QC Summary



To: Dustin Brooks
 Greg Dyer
 Lauren Parker

Customer Account: WMWBARAPEB
 Sample Date: 29-May-19
 Customer ID:
 Delivery Date: 31-May-19

Description: Barry Ash Pond Equipment Blank

Laboratory ID Number: AZ12970

Sample	Analysis	Units	MB	MB		MS	MSD	LCS	LCS Limit	Rec		Prec Limit	
				Limit	Spike					Rec	Limit		
AZ12970	Arsenic, Total	mg/L	0.0000102	0.0022	0.10	0.0917	0.0949	0.0976	0.085 to 0.115	91.7	70 to 130	3.46	20
AZ12970	Barium, Total	mg/L	-0.00000418	0.0044	0.10	0.0904	0.0955	0.0993	0.085 to 0.115	90.4	70 to 130	5.56	20
AZ12970	Beryllium, Total	mg/L	0.0000547	0.00132	0.10	0.0905	0.0999	0.104	0.085 to 0.115	90.5	70 to 130	9.89	20
AZ12970	Boron, Total	mg/L	0.00295	0.065025	1.00	0.944	0.955	0.977	0.85 to 1.15	94.4	70 to 130	1.22	20
AZ12970	Calcium, Total	mg/L	-0.00150	0.216749	5.00	4.75	4.73	4.91	4.25 to 5.75	95.1	70 to 130	0.401	20
AZ12970	Cadmium, Total	mg/L	0.00000541	0.00066	0.10	0.0914	0.0949	0.101	0.085 to 0.115	91.4	70 to 130	3.76	20
AZ12970	Cobalt, Total	mg/L	0.00000448	0.0044	0.10	0.101	0.103	0.109	0.085 to 0.115	101	70 to 130	2.05	20
AZ12970	Chromium, Total	mg/L	-0.0000226	0.0044	0.10	0.0973	0.101	0.105	0.085 to 0.115	97.3	70 to 130	3.67	20
AZ12970	Mercury, Total by CVAA	mg/L	0.0000104	0.0005	0.004	0.00411	0.00411	0.00403	0.0034 to 0.0046	103	70 to 130	0.0851	20
AZ12970	Lithium, Total	mg/L	-0.000155	0.019704	0.20	0.192	0.192	0.196	0.17 to 0.23	95.8	70 to 130	0.417	20
AZ12970	Molybdenum, Total	mg/L	0.00000592	0.0044	0.10	0.0875	0.0916	0.0966	0.085 to 0.115	87.5	70 to 130	4.65	20
AZ12970	Lead, Total	mg/L	0.00000882	0.0022	0.10	0.0991	0.101	0.106	0.085 to 0.115	99.1	70 to 130	1.72	20
AZ12970	Antimony, Total	mg/L	0.0000725	0.00176	0.10	0.0911	0.0942	0.0977	0.085 to 0.115	91.1	70 to 130	3.41	20
AZ12970	Selenium, Total	mg/L	0.0000528	0.0044	0.10	0.0909	0.0939	0.0978	0.085 to 0.115	90.9	70 to 130	3.22	20
AZ12970	Thallium, Total	mg/L	0.00000417	0.00044	0.10	0.100	0.101	0.109	0.085 to 0.115	100	70 to 130	0.856	20

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2020

Comments: TDS precision was out of specification limit, but the results were below the RL. Therefore, the results are acceptable.
 LBM 6/18/19

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 Calera, AL 35040
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Batch QC Summary



To: Dustin Brooks
 Greg Dyer
 Lauren Parker

Customer Account: WMWBARAPEB
 Sample Date: 29-May-19
 Customer ID:
 Delivery Date: 31-May-19

Description: Barry Ash Pond Equipment Blank

Laboratory ID Number: AZ12970

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample		LCS Limit	Rec		Prec Limit	
							Duplicate	LCS		Rec	Limit		
AZ12970	Chloride	mg/L	0.00542	0.50	10.0	9.96	0.110	9.94	9 to 11	99.6	80 to 120	0.00	20
AZ12970	Fluoride	mg/L	0.0279	0.05	2.50	2.58	0.0286	2.60	2.25 to 2.75	103	80 to 120	0.00	20
AZ12970	Sulfate	mg/L	-0.534	0.50	20.0	19.3	-0.439	19.1	18 to 22	96.5	80 to 120	0.00	20
AZ12970	Solids, Dissolved	mg/L	-1.00	25			0.67	55.0	40 to 60			0.00	5

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

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

* Test results for these accredited parameters conform to the most current applicable TNI/NELAC requirements, with exceptions noted on this report.

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2020

Comments: TDS precision was out of specification limit, but the results were below the RL. Therefore, the results are acceptable.
 LBM 6/18/19

CC:

Definitions



Abbreviation	Description
DF	Dilution Factor
LCS	Lab Control Sample
LFM	Lab Fortified Matrix
MB	Method Blank
MDL	Method Detection Limit; minimum concentration of an analyte that can be determined with 99% confidence that the concentration is greater than zero.
MS	Matrix Spike
MSD	Matrix Spike Duplicate
Prec	Precision (% RPD)
Q	Qualifier; comment used to note deviations or additional information associated with analytical results.
QC	Quality Control
Rec	Recovery of Matrix Spike
RL	Reporting Limit; lowest concentration at which an analyte can be quantitatively measured.
Vio Spec	Violation Specification; regulatory limit which has been exceeded by the sample analyzed.

Qualifier	Description
B	Analyte found in reagent blank. Indicates possible reagent or background contamination.
BA	Analyte found in reagent blank is = RL AND is > 1/10 the amount of the sample.
C	Analyte was verified by re-analysis.
D	All samples were stored at less than or equal to 6 °C and for no longer than 48 hours from time of sampling, unless otherwise noted.
E	Estimated reported value exceeded calibration range.
F	Water Field Group (WFG) qualifier; see comments for more information
FA	Field results were reviewed by the Water Field Group.
H	The holding time for this test is immediately following sample collection. The samples were analyzed as soon as possible after receipt by the laboratory.
J	Reported value is an estimate because concentration is less than reporting limit.
K	No MB or LCS were submitted with the sample for dissolved analysis.
L	Check standard is outside of specification limit.
LA	Analyte recovery in the check standard was above specification limit. Results may be biased high.
LL	Analyte recovery in the check standard was below specification limit. Results may be biased low.
M	LOQ verification analyzed with batch was outside of specification limit.
N	Organic constituents tentatively identified. Confirmation is needed.
P	Precision is out of specification limit.
R	Matrix spike recovery or matrix spike duplicate recovery is outside of specification limit.
RA	Matrix spike is invalid due to sample concentration.
S	Surrogate recovery is outside of specification limit.
T	Sample temperature is outside of specification limit.
U	Compound was analyzed, but not detected.



Chain of Custody

Groundwater

APC General Testing Laboratory

Field Complete
 Lab Complete

Outside Lab

Lab ETA **05/30/2019 12:30**

Requested Complete Date Site Representative Collector	Routine	Results To Requested By Location	Dustin Brooks, Greg Dyer, Lauren Parker
	Tamala Davis		Lauren Parker
	Nick Pitts		Barry Ash Pond

Bottles	1	Metals	500 mL	3	TDS	500 mL	5	N/A	N/A	7	N/A	N/A
	2	Hg	250 mL	4	Anions	250 mL	6	N/A	N/A	8	N/A	N/A

Comments

Sample #	Date	Time	Bottle Count	Description	Lab Filter	Lab Id
MW-4	5/29/19	08:05	4	Groundwater		AZ12958
MW-4 Dup	05/29/2019	08:05	4	Sample Duplicate		AZ12959
MW-3	05/29/2019	09:10	4	Groundwater		AZ12960
MW-2	05/29/2019	09:55	4	Groundwater		AZ12961
MW-1	05/29/2019	10:45	4	Groundwater		AZ12962
MW-16	05/29/2019	11:40	4	Groundwater		AZ12963
MW-15	05/29/2019	12:30	4	Groundwater		AZ12964
FB-1	05/29/2019	12:15	4	Field Blank		AZ12965
MW-14	05/29/2019	13:20	4	Groundwater		AZ12966
MW-13	05/29/2019	14:20	4	Groundwater		AZ12967
MW-12	05/29/2019	15:05	4	Groundwater		AZ12968
MW-11	05/29/2019	15:50	4	Groundwater		AZ12969
EB-1	05/29/2019	16:05	4	Equipment Blank		AZ12970

Relinquished By	Received By	Date/Time
		05/30/2019 12:55

SmarTroll ID	7151-38850-2-2	All metals and radiological bottles have pH < 2 <input checked="" type="checkbox"/>
Turbidity ID	4677-23342-4-1	
Sample Event	1226	
Cooler Temp	0.3 degrees C	
Thermometer ID	5408-27568-2-2	
pH Strip ID	7267-39374-6-6	



Chain of Custody Groundwater

APC General Testing Laboratory

Field Complete
 Lab Complete

Outside Lab

Lab ETA **05/30/2019 12:30**

Requested Complete Date	Routine	Results To	Dustin Brooks, Greg Dyer, Lauren Parker
Site Representative	Tamala Davis	Requested By	Lauren Parker
Collector	Nick Pitts	Location	Barry Ash Pond

Bottles	1 Radium	1 L	3 N/A	N/A	5 N/A	N/A	7 N/A	N/A
	2 N/A	N/A	4 N/A	N/A	6 N/A	N/A	8 N/A	N/A

Comments: Rad Dup on MW-14

Sample #	Date	Time	Bottle Count	Description	Lab Filter	Lab Id
MW-4	5/29/19	08:05	1	Groundwater		AZ12979
MW-4 Dup	05/29/2019	08:05	1	Sample Duplicate		AZ12980
MW-3	05/29/2019	09:10	1	Groundwater		AZ12981
MW-2	05/29/2019	09:55	1	Groundwater		AZ12982
MW-1	05/29/2019	10:45	1	Groundwater		AZ12983
MW-16	05/29/2019	11:40	1	Groundwater		AZ12984
MW-15	05/29/2019	12:30	1	Groundwater		AZ12985
FB-1	05/29/2019	12:15	1	Field Blank		AZ12986
MW-14	05/29/2019	13:20	3	Groundwater		AZ12987
MW-13	05/29/2019	14:20	1	Groundwater		AZ12988
MW-12	05/29/2019	15:05	1	Groundwater		AZ12989
MW-11	05/29/2019	15:50	1	Groundwater		AZ12990
EB-1	05/29/2019	16:05	1	Equipment Blank		AZ12991

Relinquished By	Received By	Date/Time
		05/30/2019 12:55

SmarTroll ID	7151-38850-2-2	All metals and radiological bottles have pH < 2 <input checked="" type="checkbox"/>
Turbidity ID	4677-23342-4-1	
Sample Event	1226	
Cooler Temp	N/A	
Thermometer ID	N/A	
pH Strip ID	7267-39374-6-6	

ANALYTICAL REPORT

Eurofins TestAmerica, Pensacola
3355 McLemore Drive
Pensacola, FL 32514
Tel: (850)474-1001

Laboratory Job ID: 400-171051-1
Laboratory Sample Delivery Group: Barry Ash Pond 1226
Client Project/Site: CCR Plant Barry

For:
Alabama Power General Test Laboratory
744 County Rd 87
GSC #8
Calera, Alabama 35040

Attn: Laura Midkiff



Authorized for release by:
8/27/2019 6:03:31 PM

Cheyenne Whitmire, Project Manager II
(850)471-6222
cheyenne.whitmire@testamericainc.com

LINKS

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The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.



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Case Narrative

Client: Alabama Power General Test Laboratory
Project/Site: CCR Plant Barry

Job ID: 400-171051-1
SDG: Barry Ash Pond 1226

Job ID: 400-171051-1

Laboratory: Eurofins TestAmerica, Pensacola

Narrative

Job Narrative 400-171051-1

RAD

Method(s) 9315: Ra-226 Prep Batch 160-431824. Any minimum detectable concentration (MDC), critical value (DLC), or Safe Drinking Water Act detection limit (SDWA DL) is sample-specific unless otherwise stated elsewhere in this narrative. Radiochemistry sample results are reported with the count date/time applied as the Activity Reference Date. AZ12980 MW-4 DUP (400-171051-10), AZ12981 MW-3 (400-171051-11), AZ12982 MW-2 (400-171051-12), AZ12983 MW-1 (400-171051-13), AZ12984 MW-16 (400-171051-14), AZ12985 MW-15 (400-171051-15), AZ12986 FB-1 (400-171051-16), AZ12987 MW-14 (400-171051-17), AZ12987 MW-14 (400-171051-17[DUJ]), AZ12988 MW-13 (400-171051-18), AZ12989 MW-12 (400-171051-19), AZ12990 MW-11 (400-171051-20), AZ12991 EB-1 (400-171051-21), (LCS 160-431824/1-A) and (MB 160-431824/23-A)

Method(s) 9315: Ra-226 Prep Batch 160-431835. Any minimum detectable concentration (MDC), critical value (DLC), or Safe Drinking Water Act detection limit (SDWA DL) is sample-specific unless otherwise stated elsewhere in this narrative. Radiochemistry sample results are reported with the count date/time applied as the Activity Reference Date. AZ12971 MW-8 (400-171051-1), AZ12972 MW-7 (400-171051-2), AZ12972 MW-7 (400-171051-2[DUJ]), AZ12973 MW-5 (400-171051-3), AZ12974 MW-6 (400-171051-4), AZ12975 FB-2 (400-171051-5), AZ12976 MW-9 (400-171051-6), AZ12977 MW-9 DUP (400-171051-7), AZ12978 MW-10 (400-171051-8), AZ12979 MW-4 (400-171051-9), (LCS 160-431835/1-A) and (MB 160-431835/23-A)

Method(s) 9320: Ra-228 Prep Batch 160-431846. The following samples did not meet the requested limit (RL) due to the reduced sample volume attributed to the presence of matrix interferences (see prep NCM 160-169879). The data have been reported with this narrative. AZ12975 FB-2 (400-171051-5) and AZ12978 MW-10 (400-171051-8)

Method(s) 9320: Ra-228 Prep Batch 160-431846. Any minimum detectable concentration (MDC), critical value (DLC), or Safe Drinking Water Act detection limit (SDWA DL) is sample-specific unless otherwise stated elsewhere in this narrative. Radiochemistry sample results are reported with the count date/time applied as the Activity Reference Date. AZ12971 MW-8 (400-171051-1), AZ12972 MW-7 (400-171051-2), AZ12972 MW-7 (400-171051-2[DUJ]), AZ12973 MW-5 (400-171051-3), AZ12974 MW-6 (400-171051-4), AZ12975 FB-2 (400-171051-5), AZ12976 MW-9 (400-171051-6), AZ12977 MW-9 DUP (400-171051-7), AZ12978 MW-10 (400-171051-8), AZ12979 MW-4 (400-171051-9), (LCS 160-431846/1-A) and (MB 160-431846/23-A)

Method(s) 9320: Ra-228 Prep Batch 160-431829. Any minimum detectable concentration (MDC), critical value (DLC), or Safe Drinking Water Act detection limit (SDWA DL) is sample-specific unless otherwise stated elsewhere in this narrative. Radiochemistry sample results are reported with the count date/time applied as the Activity Reference Date. AZ12980 MW-4 DUP (400-171051-10), AZ12981 MW-3 (400-171051-11), AZ12982 MW-2 (400-171051-12), AZ12983 MW-1 (400-171051-13), AZ12984 MW-16 (400-171051-14), AZ12985 MW-15 (400-171051-15), AZ12986 FB-1 (400-171051-16), AZ12987 MW-14 (400-171051-17), AZ12987 MW-14 (400-171051-17[DUJ]), AZ12988 MW-13 (400-171051-18), AZ12989 MW-12 (400-171051-19), AZ12990 MW-11 (400-171051-20), AZ12991 EB-1 (400-171051-21), (LCS 160-431829/1-A) and (MB 160-431829/23-A)

Method(s) PrecSep_0: Radium 228 Prep Batch 160- 431829. The following samples were prepared at a reduced aliquot due to limited volume: AZ12980 MW-4 DUP (400-171051-10), AZ12981 MW-3 (400-171051-11), AZ12982 MW-2 (400-171051-12), AZ12983 MW-1 (400-171051-13), AZ12984 MW-16 (400-171051-14), AZ12985 MW-15 (400-171051-15), AZ12986 FB-1 (400-171051-16), AZ12987 MW-14 (400-171051-17), AZ12987 MW-14 (400-171051-17[DUJ]), AZ12988 MW-13 (400-171051-18), AZ12989 MW-12 (400-171051-19), AZ12990 MW-11 (400-171051-20) and AZ12991 EB-1 (400-171051-21).

Method(s) PrecSep_0: Radium 228 Prep Batch 160- 431846. The following samples were prepared at a reduced aliquot due to limited volume: AZ12971 MW-8 (400-171051-1), AZ12972 MW-7 (400-171051-2), AZ12972 MW-7 (400-171051-2[DUJ]), AZ12973 MW-5 (400-171051-3), AZ12974 MW-6 (400-171051-4), AZ12975 FB-2 (400-171051-5), AZ12976 MW-9 (400-171051-6), AZ12977 MW-9 DUP (400-171051-7), AZ12978 MW-10 (400-171051-8) and AZ12979 MW-4 (400-171051-9).

Method(s) PrecSep-21: Radium 226 Prep Batch 160- 431824. The following samples were prepared at a reduced aliquot due to limited volume: AZ12980 MW-4 DUP (400-171051-10), AZ12981 MW-3 (400-171051-11), AZ12982 MW-2 (400-171051-12), AZ12983 MW-1 (400-171051-13), AZ12984 MW-16 (400-171051-14), AZ12985 MW-15 (400-171051-15), AZ12986 FB-1 (400-171051-16), AZ12987 MW-14 (400-171051-17), AZ12987 MW-14 (400-171051-17[DUJ]), AZ12988 MW-13 (400-171051-18), AZ12989 MW-12 (400-171051-19), AZ12990 MW-11 (400-171051-20) and AZ12991 EB-1 (400-171051-21).

Case Narrative

Client: Alabama Power General Test Laboratory
Project/Site: CCR Plant Barry

Job ID: 400-171051-1
SDG: Barry Ash Pond 1226

Job ID: 400-171051-1 (Continued)

Laboratory: Eurofins TestAmerica, Pensacola (Continued)

Method(s) PrecSep-21: Radium 226 Prep Batch 160- 431835. The following samples were prepared at a reduced aliquot due to limited volume: AZ12971 MW-8 (400-171051-1), AZ12972 MW-7 (400-171051-2), AZ12972 MW-7 (400-171051-2[DU]), AZ12973 MW-5 (400-171051-3), AZ12974 MW-6 (400-171051-4), AZ12975 FB-2 (400-171051-5), AZ12976 MW-9 (400-171051-6), AZ12977 MW-9 DUP (400-171051-7), AZ12978 MW-10 (400-171051-8) and AZ12979 MW-4 (400-171051-9).

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Method Summary

Client: Alabama Power General Test Laboratory
Project/Site: CCR Plant Barry

Job ID: 400-171051-1
SDG: Barry Ash Pond 1226

Method	Method Description	Protocol	Laboratory
9315	Radium-226 (GFPC)	SW846	TAL SL
9320	Radium-228 (GFPC)	SW846	TAL SL
Ra226_Ra228	Combined Radium-226 and Radium-228	TAL-STL	TAL SL
PrecSep_0	Preparation, Precipitate Separation	None	TAL SL
PrecSep-21	Preparation, Precipitate Separation (21-Day In-Growth)	None	TAL SL

Protocol References:

None = None

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

TAL-STL = TestAmerica Laboratories, St. Louis, Facility Standard Operating Procedure.

Laboratory References:

TAL SL = Eurofins TestAmerica, St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

Sample Summary

Client: Alabama Power General Test Laboratory
Project/Site: CCR Plant Barry

Job ID: 400-171051-1
SDG: Barry Ash Pond 1226

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
400-171051-1	AZ12971 MW-8	Water	05/29/19 12:21	06/04/19 12:45	
400-171051-2	AZ12972 MW-7	Water	05/29/19 13:28	06/04/19 12:45	
400-171051-3	AZ12973 MW-5	Water	05/29/19 14:30	06/04/19 12:45	
400-171051-4	AZ12974 MW-6	Water	05/29/19 15:15	06/04/19 12:45	
400-171051-5	AZ12975 FB-2	Water	05/30/19 08:35	06/04/19 12:45	
400-171051-6	AZ12976 MW-9	Water	05/30/19 08:52	06/04/19 12:45	
400-171051-7	AZ12977 MW-9 DUP	Water	05/30/19 08:52	06/04/19 12:45	
400-171051-8	AZ12978 MW-10	Water	05/30/19 09:42	06/04/19 12:45	
400-171051-9	AZ12979 MW-4	Water	05/29/19 08:05	06/04/19 12:45	
400-171051-10	AZ12980 MW-4 DUP	Water	05/29/19 08:05	06/04/19 12:45	
400-171051-11	AZ12981 MW-3	Water	05/29/19 09:10	06/04/19 12:45	
400-171051-12	AZ12982 MW-2	Water	05/29/19 09:55	06/04/19 12:45	
400-171051-13	AZ12983 MW-1	Water	05/29/19 10:45	06/04/19 12:45	
400-171051-14	AZ12984 MW-16	Water	05/29/19 11:40	06/04/19 12:45	
400-171051-15	AZ12985 MW-15	Water	05/29/19 12:30	06/04/19 12:45	
400-171051-16	AZ12986 FB-1	Water	05/29/19 12:15	06/04/19 12:45	
400-171051-17	AZ12987 MW-14	Water	05/29/19 13:20	06/04/19 12:45	
400-171051-18	AZ12988 MW-13	Water	05/29/19 14:20	06/04/19 12:45	
400-171051-19	AZ12989 MW-12	Water	05/29/19 15:05	06/04/19 12:45	
400-171051-20	AZ12990 MW-11	Water	05/29/19 15:50	06/04/19 12:45	
400-171051-21	AZ12991 EB-1	Water	05/29/19 16:05	06/04/19 12:45	

Client Sample Results

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Barry

Job ID: 400-171051-1
 SDG: Barry Ash Pond 1226

Client Sample ID: AZ12971 MW-8

Lab Sample ID: 400-171051-1

Date Collected: 05/29/19 12:21

Matrix: Water

Date Received: 06/04/19 12:45

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.267		0.114	0.116	1.00	0.122	pCi/L	06/17/19 08:46	08/15/19 15:03	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	85.6		40 - 110					06/17/19 08:46	08/15/19 15:03	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.360	U	0.402	0.404	1.00	0.660	pCi/L	06/17/19 10:01	07/25/19 14:08	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	85.6		40 - 110					06/17/19 10:01	07/25/19 14:08	1
Y Carrier	73.6		40 - 110					06/17/19 10:01	07/25/19 14:08	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.627	U	0.418	0.420	5.00	0.660	pCi/L		08/26/19 08:59	1

Client Sample Results

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Barry

Job ID: 400-171051-1
 SDG: Barry Ash Pond 1226

Client Sample ID: AZ12972 MW-7

Lab Sample ID: 400-171051-2

Date Collected: 05/29/19 13:28

Matrix: Water

Date Received: 06/04/19 12:45

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0367	U	0.0737	0.0737	1.00	0.133	pCi/L	06/17/19 08:46	08/22/19 06:54	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	83.3		40 - 110					06/17/19 08:46	08/22/19 06:54	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.207	U	0.486	0.486	1.00	0.835	pCi/L	06/17/19 10:01	07/25/19 14:09	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	83.3		40 - 110					06/17/19 10:01	07/25/19 14:09	1
Y Carrier	63.2		40 - 110					06/17/19 10:01	07/25/19 14:09	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.244	U	0.492	0.492	5.00	0.835	pCi/L		08/26/19 08:59	1

Client Sample Results

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Barry

Job ID: 400-171051-1
 SDG: Barry Ash Pond 1226

Client Sample ID: AZ12973 MW-5

Lab Sample ID: 400-171051-3

Date Collected: 05/29/19 14:30

Matrix: Water

Date Received: 06/04/19 12:45

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.990		0.209	0.227	1.00	0.160	pCi/L	06/17/19 08:46	08/15/19 15:18	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	84.2		40 - 110					06/17/19 08:46	08/15/19 15:18	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	1.17		0.446	0.459	1.00	0.598	pCi/L	06/17/19 10:01	07/25/19 14:09	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	84.2		40 - 110					06/17/19 10:01	07/25/19 14:09	1
Y Carrier	74.4		40 - 110					06/17/19 10:01	07/25/19 14:09	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	2.16		0.493	0.512	5.00	0.598	pCi/L		08/26/19 08:59	1

Client Sample Results

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Barry

Job ID: 400-171051-1
 SDG: Barry Ash Pond 1226

Client Sample ID: AZ12974 MW-6

Lab Sample ID: 400-171051-4

Date Collected: 05/29/19 15:15

Matrix: Water

Date Received: 06/04/19 12:45

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.184		0.104	0.105	1.00	0.133	pCi/L	06/17/19 08:46	08/15/19 15:18	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	84.5		40 - 110					06/17/19 08:46	08/15/19 15:18	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.459	U	0.387	0.390	1.00	0.777	pCi/L	06/17/19 10:01	07/25/19 14:09	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	84.5		40 - 110					06/17/19 10:01	07/25/19 14:09	1
Y Carrier	68.4		40 - 110					06/17/19 10:01	07/25/19 14:09	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	-0.276	U	0.401	0.404	5.00	0.777	pCi/L		08/26/19 08:59	1

Client Sample Results

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Barry

Job ID: 400-171051-1
 SDG: Barry Ash Pond 1226

Client Sample ID: AZ12975 FB-2

Lab Sample ID: 400-171051-5

Date Collected: 05/30/19 08:35

Matrix: Water

Date Received: 06/04/19 12:45

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0612	U	0.119	0.119	1.00	0.212	pCi/L	06/17/19 08:46	08/15/19 15:18	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	51.1		40 - 110					06/17/19 08:46	08/15/19 15:18	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.251	U G	0.747	0.748	1.00	1.29	pCi/L	06/17/19 10:01	07/25/19 14:09	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	51.1		40 - 110					06/17/19 10:01	07/25/19 14:09	1
Y Carrier	69.5		40 - 110					06/17/19 10:01	07/25/19 14:09	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.312	U	0.756	0.757	5.00	1.29	pCi/L		08/26/19 08:59	1

Client Sample Results

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Barry

Job ID: 400-171051-1
 SDG: Barry Ash Pond 1226

Client Sample ID: AZ12976 MW-9

Lab Sample ID: 400-171051-6

Date Collected: 05/30/19 08:52

Matrix: Water

Date Received: 06/04/19 12:45

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.285		0.130	0.133	1.00	0.159	pCi/L	06/17/19 08:46	08/15/19 15:20	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	79.9		40 - 110					06/17/19 08:46	08/15/19 15:20	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.799	U	0.612	0.617	1.00	0.971	pCi/L	06/17/19 10:01	07/25/19 14:09	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	79.9		40 - 110					06/17/19 10:01	07/25/19 14:09	1
Y Carrier	64.3		40 - 110					06/17/19 10:01	07/25/19 14:09	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	1.08		0.626	0.631	5.00	0.971	pCi/L		08/26/19 08:59	1

Client Sample Results

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Barry

Job ID: 400-171051-1
 SDG: Barry Ash Pond 1226

Client Sample ID: AZ12977 MW-9 DUP

Lab Sample ID: 400-171051-7

Date Collected: 05/30/19 08:52

Matrix: Water

Date Received: 06/04/19 12:45

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.549		0.155	0.162	1.00	0.146	pCi/L	06/17/19 08:46	08/15/19 15:20	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	87.0		40 - 110					06/17/19 08:46	08/15/19 15:20	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	1.02		0.515	0.523	1.00	0.756	pCi/L	06/17/19 10:01	07/25/19 14:10	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	87.0		40 - 110					06/17/19 10:01	07/25/19 14:10	1
Y Carrier	66.5		40 - 110					06/17/19 10:01	07/25/19 14:10	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	1.57		0.538	0.548	5.00	0.756	pCi/L		08/26/19 08:59	1

Client Sample Results

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Barry

Job ID: 400-171051-1
 SDG: Barry Ash Pond 1226

Client Sample ID: AZ12978 MW-10

Lab Sample ID: 400-171051-8

Date Collected: 05/30/19 09:42

Matrix: Water

Date Received: 06/04/19 12:45

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	-0.0599	U	0.103	0.104	1.00	0.222	pCi/L	06/17/19 08:46	08/15/19 15:23	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	68.9		40 - 110					06/17/19 08:46	08/15/19 15:23	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.155	U G	0.654	0.654	1.00	1.13	pCi/L	06/17/19 10:01	07/25/19 14:11	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	68.9		40 - 110					06/17/19 10:01	07/25/19 14:11	1
Y Carrier	72.5		40 - 110					06/17/19 10:01	07/25/19 14:11	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.0949	U	0.662	0.662	5.00	1.13	pCi/L		08/26/19 08:59	1

Client Sample Results

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Barry

Job ID: 400-171051-1
 SDG: Barry Ash Pond 1226

Client Sample ID: AZ12979 MW-4

Lab Sample ID: 400-171051-9

Date Collected: 05/29/19 08:05

Matrix: Water

Date Received: 06/04/19 12:45

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.361		0.133	0.137	1.00	0.143	pCi/L	06/17/19 08:46	08/15/19 15:23	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	84.5		40 - 110					06/17/19 08:46	08/15/19 15:23	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.586	U	0.516	0.519	1.00	0.829	pCi/L	06/17/19 10:01	07/25/19 14:12	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	84.5		40 - 110					06/17/19 10:01	07/25/19 14:12	1
Y Carrier	71.4		40 - 110					06/17/19 10:01	07/25/19 14:12	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.947		0.533	0.537	5.00	0.829	pCi/L		08/26/19 08:59	1

Client Sample Results

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Barry

Job ID: 400-171051-1
 SDG: Barry Ash Pond 1226

Client Sample ID: AZ12980 MW-4 DUP

Lab Sample ID: 400-171051-10

Date Collected: 05/29/19 08:05

Matrix: Water

Date Received: 06/04/19 12:45

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	2.61		0.286	0.370	1.00	0.0746	pCi/L	06/17/19 06:52	08/15/19 15:48	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	97.5		40 - 110					06/17/19 06:52	08/15/19 15:48	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.554		0.333	0.337	1.00	0.510	pCi/L	06/17/19 08:03	07/25/19 08:51	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	97.5		40 - 110					06/17/19 08:03	07/25/19 08:51	1
Y Carrier	94.6		40 - 110					06/17/19 08:03	07/25/19 08:51	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	3.17		0.439	0.500	5.00	0.510	pCi/L		08/21/19 09:28	1

Client Sample Results

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Barry

Job ID: 400-171051-1
 SDG: Barry Ash Pond 1226

Client Sample ID: AZ12981 MW-3

Lab Sample ID: 400-171051-11

Date Collected: 05/29/19 09:10

Matrix: Water

Date Received: 06/04/19 12:45

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.305		0.102	0.106	1.00	0.0780	pCi/L	06/17/19 06:52	08/15/19 15:48	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	98.9		40 - 110					06/17/19 06:52	08/15/19 15:48	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	2.01		0.393	0.435	1.00	0.428	pCi/L	06/17/19 08:03	07/25/19 08:51	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	98.9		40 - 110					06/17/19 08:03	07/25/19 08:51	1
Y Carrier	97.9		40 - 110					06/17/19 08:03	07/25/19 08:51	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	2.31		0.406	0.448	5.00	0.428	pCi/L		08/21/19 09:28	1

Client Sample Results

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Barry

Job ID: 400-171051-1
 SDG: Barry Ash Pond 1226

Client Sample ID: AZ12982 MW-2

Lab Sample ID: 400-171051-12

Date Collected: 05/29/19 09:55

Matrix: Water

Date Received: 06/04/19 12:45

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.116		0.0747	0.0755	1.00	0.0874	pCi/L	06/17/19 06:52	08/15/19 15:48	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	81.6		40 - 110					06/17/19 06:52	08/15/19 15:48	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	1.06		0.380	0.392	1.00	0.512	pCi/L	06/17/19 08:03	07/25/19 08:51	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	81.6		40 - 110					06/17/19 08:03	07/25/19 08:51	1
Y Carrier	96.1		40 - 110					06/17/19 08:03	07/25/19 08:51	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	1.18		0.387	0.399	5.00	0.512	pCi/L		08/21/19 09:28	1

Client Sample Results

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Barry

Job ID: 400-171051-1
 SDG: Barry Ash Pond 1226

Client Sample ID: AZ12983 MW-1

Lab Sample ID: 400-171051-13

Date Collected: 05/29/19 10:45

Matrix: Water

Date Received: 06/04/19 12:45

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.964		0.176	0.196	1.00	0.0785	pCi/L	06/17/19 06:52	08/15/19 15:48	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	100		40 - 110					06/17/19 06:52	08/15/19 15:48	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	1.28		0.358	0.377	1.00	0.451	pCi/L	06/17/19 08:03	07/25/19 08:52	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	100		40 - 110					06/17/19 08:03	07/25/19 08:52	1
Y Carrier	93.5		40 - 110					06/17/19 08:03	07/25/19 08:52	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	2.25		0.399	0.425	5.00	0.451	pCi/L		08/21/19 09:28	1

Client Sample Results

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Barry

Job ID: 400-171051-1
 SDG: Barry Ash Pond 1226

Client Sample ID: AZ12984 MW-16

Lab Sample ID: 400-171051-14

Date Collected: 05/29/19 11:40

Matrix: Water

Date Received: 06/04/19 12:45

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	1.77		0.245	0.292	1.00	0.0877	pCi/L	06/17/19 06:52	08/15/19 15:48	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	92.9		40 - 110					06/17/19 06:52	08/15/19 15:48	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.736		0.340	0.347	1.00	0.496	pCi/L	06/17/19 08:03	07/25/19 08:59	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	92.9		40 - 110					06/17/19 08:03	07/25/19 08:59	1
Y Carrier	95.3		40 - 110					06/17/19 08:03	07/25/19 08:59	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	2.51		0.419	0.454	5.00	0.496	pCi/L		08/21/19 09:28	1

Client Sample Results

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Barry

Job ID: 400-171051-1
 SDG: Barry Ash Pond 1226

Client Sample ID: AZ12985 MW-15

Lab Sample ID: 400-171051-15

Date Collected: 05/29/19 12:30

Matrix: Water

Date Received: 06/04/19 12:45

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.519		0.130	0.138	1.00	0.0670	pCi/L	06/17/19 06:52	08/15/19 15:48	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	100		40 - 110					06/17/19 06:52	08/15/19 15:48	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.0860	U	0.218	0.219	1.00	0.413	pCi/L	06/17/19 08:03	07/25/19 08:59	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	100		40 - 110					06/17/19 08:03	07/25/19 08:59	1
Y Carrier	96.4		40 - 110					06/17/19 08:03	07/25/19 08:59	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.433		0.254	0.259	5.00	0.413	pCi/L		08/21/19 09:28	1

Client Sample Results

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Barry

Job ID: 400-171051-1
 SDG: Barry Ash Pond 1226

Client Sample ID: AZ12986 FB-1

Lab Sample ID: 400-171051-16

Date Collected: 05/29/19 12:15

Matrix: Water

Date Received: 06/04/19 12:45

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0321	U	0.0457	0.0458	1.00	0.0774	pCi/L	06/17/19 06:52	08/15/19 15:50	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	90.4		40 - 110					06/17/19 06:52	08/15/19 15:50	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.384	U	0.341	0.343	1.00	0.549	pCi/L	06/17/19 08:03	07/25/19 08:59	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	90.4		40 - 110					06/17/19 08:03	07/25/19 08:59	1
Y Carrier	88.6		40 - 110					06/17/19 08:03	07/25/19 08:59	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.416	U	0.344	0.346	5.00	0.549	pCi/L		08/21/19 09:28	1

Client Sample Results

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Barry

Job ID: 400-171051-1
 SDG: Barry Ash Pond 1226

Client Sample ID: AZ12987 MW-14

Lab Sample ID: 400-171051-17

Date Collected: 05/29/19 13:20

Matrix: Water

Date Received: 06/04/19 12:45

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0787	U	0.0824	0.0827	1.00	0.131	pCi/L	06/17/19 06:52	08/19/19 08:13	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	93.5		40 - 110					06/17/19 06:52	08/19/19 08:13	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.359	U	0.328	0.330	1.00	0.529	pCi/L	06/17/19 08:03	07/25/19 08:59	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	93.5		40 - 110					06/17/19 08:03	07/25/19 08:59	1
Y Carrier	91.2		40 - 110					06/17/19 08:03	07/25/19 08:59	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.437	U	0.338	0.340	5.00	0.529	pCi/L		08/21/19 09:28	1

Client Sample Results

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Barry

Job ID: 400-171051-1
 SDG: Barry Ash Pond 1226

Client Sample ID: AZ12988 MW-13

Lab Sample ID: 400-171051-18

Date Collected: 05/29/19 14:20

Matrix: Water

Date Received: 06/04/19 12:45

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.144		0.0772	0.0782	1.00	0.0812	pCi/L	06/17/19 06:52	08/15/19 15:53	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	94.4		40 - 110					06/17/19 06:52	08/15/19 15:53	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.869		0.356	0.365	1.00	0.503	pCi/L	06/17/19 08:03	07/25/19 08:55	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	94.4		40 - 110					06/17/19 08:03	07/25/19 08:55	1
Y Carrier	90.1		40 - 110					06/17/19 08:03	07/25/19 08:55	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	1.01		0.364	0.373	5.00	0.503	pCi/L		08/21/19 09:28	1

Client Sample Results

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Barry

Job ID: 400-171051-1
 SDG: Barry Ash Pond 1226

Client Sample ID: AZ12989 MW-12

Lab Sample ID: 400-171051-19

Date Collected: 05/29/19 15:05

Matrix: Water

Date Received: 06/04/19 12:45

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.400		0.120	0.125	1.00	0.0893	pCi/L	06/17/19 06:52	08/15/19 15:54	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	99.4		40 - 110					06/17/19 06:52	08/15/19 15:54	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	1.66		0.401	0.429	1.00	0.483	pCi/L	06/17/19 08:03	07/25/19 08:55	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	99.4		40 - 110					06/17/19 08:03	07/25/19 08:55	1
Y Carrier	87.1		40 - 110					06/17/19 08:03	07/25/19 08:55	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	2.06		0.419	0.447	5.00	0.483	pCi/L		08/21/19 09:28	1

Client Sample Results

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Barry

Job ID: 400-171051-1
 SDG: Barry Ash Pond 1226

Client Sample ID: AZ12990 MW-11

Lab Sample ID: 400-171051-20

Date Collected: 05/29/19 15:50

Matrix: Water

Date Received: 06/04/19 12:45

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.204		0.0897	0.0915	1.00	0.0839	pCi/L	06/17/19 06:52	08/15/19 15:54	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	95.5		40 - 110					06/17/19 06:52	08/15/19 15:54	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.521		0.320	0.324	1.00	0.487	pCi/L	06/17/19 08:03	07/25/19 08:55	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	95.5		40 - 110					06/17/19 08:03	07/25/19 08:55	1
Y Carrier	86.0		40 - 110					06/17/19 08:03	07/25/19 08:55	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.726		0.332	0.337	5.00	0.487	pCi/L		08/21/19 09:28	1

Client Sample Results

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Barry

Job ID: 400-171051-1
 SDG: Barry Ash Pond 1226

Client Sample ID: AZ12991 EB-1

Lab Sample ID: 400-171051-21

Date Collected: 05/29/19 16:05

Matrix: Water

Date Received: 06/04/19 12:45

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	-0.00444	U	0.0418	0.0418	1.00	0.0985	pCi/L	06/17/19 06:52	08/15/19 17:40	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	84.7		40 - 110					06/17/19 06:52	08/15/19 17:40	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.530		0.341	0.345	1.00	0.522	pCi/L	06/17/19 08:03	07/25/19 08:55	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	84.7		40 - 110					06/17/19 08:03	07/25/19 08:55	1
Y Carrier	88.6		40 - 110					06/17/19 08:03	07/25/19 08:55	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.526		0.344	0.348	5.00	0.522	pCi/L		08/21/19 09:41	1

Definitions/Glossary

Client: Alabama Power General Test Laboratory
Project/Site: CCR Plant Barry

Job ID: 400-171051-1
SDG: Barry Ash Pond 1226

Qualifiers

Rad

Qualifier	Qualifier Description
G	The Sample MDC is greater than the requested RL.
U	Result is less than the sample detection limit.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
▫	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Lab Chronicle

Client: Alabama Power General Test Laboratory
Project/Site: CCR Plant Barry

Job ID: 400-171051-1
SDG: Barry Ash Pond 1226

Client Sample ID: AZ12971 MW-8

Lab Sample ID: 400-171051-1

Date Collected: 05/29/19 12:21

Matrix: Water

Date Received: 06/04/19 12:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			431835	06/17/19 08:46	KAW	TAL SL
Total/NA	Analysis	9315		1	439623	08/15/19 15:03	CDR	TAL SL
Total/NA	Prep	PrecSep_0			431846	06/17/19 10:01	KAW	TAL SL
Total/NA	Analysis	9320		1	436506	07/25/19 14:08	CDR	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	440471	08/26/19 08:59	SMP	TAL SL

Client Sample ID: AZ12972 MW-7

Lab Sample ID: 400-171051-2

Date Collected: 05/29/19 13:28

Matrix: Water

Date Received: 06/04/19 12:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			431835	06/17/19 08:46	KAW	TAL SL
Total/NA	Analysis	9315		1	440196	08/22/19 06:54	KLS	TAL SL
Total/NA	Prep	PrecSep_0			431846	06/17/19 10:01	KAW	TAL SL
Total/NA	Analysis	9320		1	436506	07/25/19 14:09	CDR	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	440471	08/26/19 08:59	SMP	TAL SL

Client Sample ID: AZ12973 MW-5

Lab Sample ID: 400-171051-3

Date Collected: 05/29/19 14:30

Matrix: Water

Date Received: 06/04/19 12:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			431835	06/17/19 08:46	KAW	TAL SL
Total/NA	Analysis	9315		1	439663	08/15/19 15:18	KLS	TAL SL
Total/NA	Prep	PrecSep_0			431846	06/17/19 10:01	KAW	TAL SL
Total/NA	Analysis	9320		1	436506	07/25/19 14:09	CDR	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	440471	08/26/19 08:59	SMP	TAL SL

Client Sample ID: AZ12974 MW-6

Lab Sample ID: 400-171051-4

Date Collected: 05/29/19 15:15

Matrix: Water

Date Received: 06/04/19 12:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			431835	06/17/19 08:46	KAW	TAL SL
Total/NA	Analysis	9315		1	439663	08/15/19 15:18	KLS	TAL SL
Total/NA	Prep	PrecSep_0			431846	06/17/19 10:01	KAW	TAL SL
Total/NA	Analysis	9320		1	436506	07/25/19 14:09	CDR	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	440471	08/26/19 08:59	SMP	TAL SL

Lab Chronicle

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Barry

Job ID: 400-171051-1
 SDG: Barry Ash Pond 1226

Client Sample ID: AZ12975 FB-2

Lab Sample ID: 400-171051-5

Date Collected: 05/30/19 08:35

Matrix: Water

Date Received: 06/04/19 12:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			431835	06/17/19 08:46	KAW	TAL SL
Total/NA	Analysis	9315		1	439663	08/15/19 15:18	KLS	TAL SL
Total/NA	Prep	PrecSep_0			431846	06/17/19 10:01	KAW	TAL SL
Total/NA	Analysis	9320		1	436506	07/25/19 14:09	CDR	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	440471	08/26/19 08:59	SMP	TAL SL

Client Sample ID: AZ12976 MW-9

Lab Sample ID: 400-171051-6

Date Collected: 05/30/19 08:52

Matrix: Water

Date Received: 06/04/19 12:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			431835	06/17/19 08:46	KAW	TAL SL
Total/NA	Analysis	9315		1	439664	08/15/19 15:20	KLS	TAL SL
Total/NA	Prep	PrecSep_0			431846	06/17/19 10:01	KAW	TAL SL
Total/NA	Analysis	9320		1	436506	07/25/19 14:09	CDR	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	440471	08/26/19 08:59	SMP	TAL SL

Client Sample ID: AZ12977 MW-9 DUP

Lab Sample ID: 400-171051-7

Date Collected: 05/30/19 08:52

Matrix: Water

Date Received: 06/04/19 12:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			431835	06/17/19 08:46	KAW	TAL SL
Total/NA	Analysis	9315		1	439664	08/15/19 15:20	KLS	TAL SL
Total/NA	Prep	PrecSep_0			431846	06/17/19 10:01	KAW	TAL SL
Total/NA	Analysis	9320		1	436506	07/25/19 14:10	CDR	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	440471	08/26/19 08:59	SMP	TAL SL

Client Sample ID: AZ12978 MW-10

Lab Sample ID: 400-171051-8

Date Collected: 05/30/19 09:42

Matrix: Water

Date Received: 06/04/19 12:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			431835	06/17/19 08:46	KAW	TAL SL
Total/NA	Analysis	9315		1	439623	08/15/19 15:23	CDR	TAL SL
Total/NA	Prep	PrecSep_0			431846	06/17/19 10:01	KAW	TAL SL
Total/NA	Analysis	9320		1	436360	07/25/19 14:11	CDR	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	440471	08/26/19 08:59	SMP	TAL SL

Lab Chronicle

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Barry

Job ID: 400-171051-1
 SDG: Barry Ash Pond 1226

Client Sample ID: AZ12979 MW-4

Lab Sample ID: 400-171051-9

Date Collected: 05/29/19 08:05

Matrix: Water

Date Received: 06/04/19 12:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			431835	06/17/19 08:46	KAW	TAL SL
Total/NA	Analysis	9315		1	439623	08/15/19 15:23	CDR	TAL SL
Total/NA	Prep	PrecSep_0			431846	06/17/19 10:01	KAW	TAL SL
Total/NA	Analysis	9320		1	436360	07/25/19 14:12	CDR	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	440471	08/26/19 08:59	SMP	TAL SL

Client Sample ID: AZ12980 MW-4 DUP

Lab Sample ID: 400-171051-10

Date Collected: 05/29/19 08:05

Matrix: Water

Date Received: 06/04/19 12:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			431824	06/17/19 06:52	KAW	TAL SL
Total/NA	Analysis	9315		1	439665	08/15/19 15:48	CDR	TAL SL
Total/NA	Prep	PrecSep_0			431829	06/17/19 08:03	KAW	TAL SL
Total/NA	Analysis	9320		1	436360	07/25/19 08:51	CDR	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	440122	08/21/19 09:28	SMP	TAL SL

Client Sample ID: AZ12981 MW-3

Lab Sample ID: 400-171051-11

Date Collected: 05/29/19 09:10

Matrix: Water

Date Received: 06/04/19 12:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			431824	06/17/19 06:52	KAW	TAL SL
Total/NA	Analysis	9315		1	439665	08/15/19 15:48	CDR	TAL SL
Total/NA	Prep	PrecSep_0			431829	06/17/19 08:03	KAW	TAL SL
Total/NA	Analysis	9320		1	436360	07/25/19 08:51	CDR	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	440122	08/21/19 09:28	SMP	TAL SL

Client Sample ID: AZ12982 MW-2

Lab Sample ID: 400-171051-12

Date Collected: 05/29/19 09:55

Matrix: Water

Date Received: 06/04/19 12:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			431824	06/17/19 06:52	KAW	TAL SL
Total/NA	Analysis	9315		1	439665	08/15/19 15:48	CDR	TAL SL
Total/NA	Prep	PrecSep_0			431829	06/17/19 08:03	KAW	TAL SL
Total/NA	Analysis	9320		1	436360	07/25/19 08:51	CDR	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	440122	08/21/19 09:28	SMP	TAL SL

Lab Chronicle

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Barry

Job ID: 400-171051-1
 SDG: Barry Ash Pond 1226

Client Sample ID: AZ12983 MW-1

Lab Sample ID: 400-171051-13

Date Collected: 05/29/19 10:45

Matrix: Water

Date Received: 06/04/19 12:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			431824	06/17/19 06:52	KAW	TAL SL
Total/NA	Analysis	9315		1	439665	08/15/19 15:48	CDR	TAL SL
Total/NA	Prep	PrecSep_0			431829	06/17/19 08:03	KAW	TAL SL
Total/NA	Analysis	9320		1	436360	07/25/19 08:52	CDR	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	440122	08/21/19 09:28	SMP	TAL SL

Client Sample ID: AZ12984 MW-16

Lab Sample ID: 400-171051-14

Date Collected: 05/29/19 11:40

Matrix: Water

Date Received: 06/04/19 12:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			431824	06/17/19 06:52	KAW	TAL SL
Total/NA	Analysis	9315		1	439665	08/15/19 15:48	CDR	TAL SL
Total/NA	Prep	PrecSep_0			431829	06/17/19 08:03	KAW	TAL SL
Total/NA	Analysis	9320		1	436505	07/25/19 08:59	CDR	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	440122	08/21/19 09:28	SMP	TAL SL

Client Sample ID: AZ12985 MW-15

Lab Sample ID: 400-171051-15

Date Collected: 05/29/19 12:30

Matrix: Water

Date Received: 06/04/19 12:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			431824	06/17/19 06:52	KAW	TAL SL
Total/NA	Analysis	9315		1	439665	08/15/19 15:48	CDR	TAL SL
Total/NA	Prep	PrecSep_0			431829	06/17/19 08:03	KAW	TAL SL
Total/NA	Analysis	9320		1	436505	07/25/19 08:59	CDR	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	440122	08/21/19 09:28	SMP	TAL SL

Client Sample ID: AZ12986 FB-1

Lab Sample ID: 400-171051-16

Date Collected: 05/29/19 12:15

Matrix: Water

Date Received: 06/04/19 12:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			431824	06/17/19 06:52	KAW	TAL SL
Total/NA	Analysis	9315		1	439665	08/15/19 15:50	CDR	TAL SL
Total/NA	Prep	PrecSep_0			431829	06/17/19 08:03	KAW	TAL SL
Total/NA	Analysis	9320		1	436505	07/25/19 08:59	CDR	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	440122	08/21/19 09:28	SMP	TAL SL

Lab Chronicle

Client: Alabama Power General Test Laboratory
Project/Site: CCR Plant Barry

Job ID: 400-171051-1
SDG: Barry Ash Pond 1226

Client Sample ID: AZ12987 MW-14

Lab Sample ID: 400-171051-17

Date Collected: 05/29/19 13:20

Matrix: Water

Date Received: 06/04/19 12:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			431824	06/17/19 06:52	KAW	TAL SL
Total/NA	Analysis	9315		1	439859	08/19/19 08:13	CDR	TAL SL
Total/NA	Prep	PrecSep_0			431829	06/17/19 08:03	KAW	TAL SL
Total/NA	Analysis	9320		1	436505	07/25/19 08:59	CDR	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	440122	08/21/19 09:28	SMP	TAL SL

Client Sample ID: AZ12988 MW-13

Lab Sample ID: 400-171051-18

Date Collected: 05/29/19 14:20

Matrix: Water

Date Received: 06/04/19 12:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			431824	06/17/19 06:52	KAW	TAL SL
Total/NA	Analysis	9315		1	439665	08/15/19 15:53	CDR	TAL SL
Total/NA	Prep	PrecSep_0			431829	06/17/19 08:03	KAW	TAL SL
Total/NA	Analysis	9320		1	436506	07/25/19 08:55	CDR	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	440122	08/21/19 09:28	SMP	TAL SL

Client Sample ID: AZ12989 MW-12

Lab Sample ID: 400-171051-19

Date Collected: 05/29/19 15:05

Matrix: Water

Date Received: 06/04/19 12:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			431824	06/17/19 06:52	KAW	TAL SL
Total/NA	Analysis	9315		1	439665	08/15/19 15:54	CDR	TAL SL
Total/NA	Prep	PrecSep_0			431829	06/17/19 08:03	KAW	TAL SL
Total/NA	Analysis	9320		1	436506	07/25/19 08:55	CDR	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	440122	08/21/19 09:28	SMP	TAL SL

Client Sample ID: AZ12990 MW-11

Lab Sample ID: 400-171051-20

Date Collected: 05/29/19 15:50

Matrix: Water

Date Received: 06/04/19 12:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			431824	06/17/19 06:52	KAW	TAL SL
Total/NA	Analysis	9315		1	439665	08/15/19 15:54	CDR	TAL SL
Total/NA	Prep	PrecSep_0			431829	06/17/19 08:03	KAW	TAL SL
Total/NA	Analysis	9320		1	436506	07/25/19 08:55	CDR	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	440122	08/21/19 09:28	SMP	TAL SL

Lab Chronicle

Client: Alabama Power General Test Laboratory
Project/Site: CCR Plant Barry

Job ID: 400-171051-1
SDG: Barry Ash Pond 1226

Client Sample ID: AZ12991 EB-1

Lab Sample ID: 400-171051-21

Date Collected: 05/29/19 16:05

Matrix: Water

Date Received: 06/04/19 12:45

<u>Prep Type</u>	<u>Batch Type</u>	<u>Batch Method</u>	<u>Run</u>	<u>Dilution Factor</u>	<u>Batch Number</u>	<u>Prepared or Analyzed</u>	<u>Analyst</u>	<u>Lab</u>
Total/NA	Prep	PrecSep-21			431824	06/17/19 06:52	KAW	TAL SL
Total/NA	Analysis	9315		1	439665	08/15/19 17:40	CDR	TAL SL
Total/NA	Prep	PrecSep_0			431829	06/17/19 08:03	KAW	TAL SL
Total/NA	Analysis	9320		1	436506	07/25/19 08:55	CDR	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	440122	08/21/19 09:41	SMP	TAL SL

Laboratory References:

TAL SL = Eurofins TestAmerica, St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

QC Association Summary

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Barry

Job ID: 400-171051-1
 SDG: Barry Ash Pond 1226

Rad

Prep Batch: 431824

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-171051-10	AZ12980 MW-4 DUP	Total/NA	Water	PrecSep-21	
400-171051-11	AZ12981 MW-3	Total/NA	Water	PrecSep-21	
400-171051-12	AZ12982 MW-2	Total/NA	Water	PrecSep-21	
400-171051-13	AZ12983 MW-1	Total/NA	Water	PrecSep-21	
400-171051-14	AZ12984 MW-16	Total/NA	Water	PrecSep-21	
400-171051-15	AZ12985 MW-15	Total/NA	Water	PrecSep-21	
400-171051-16	AZ12986 FB-1	Total/NA	Water	PrecSep-21	
400-171051-17	AZ12987 MW-14	Total/NA	Water	PrecSep-21	
400-171051-18	AZ12988 MW-13	Total/NA	Water	PrecSep-21	
400-171051-19	AZ12989 MW-12	Total/NA	Water	PrecSep-21	
400-171051-20	AZ12990 MW-11	Total/NA	Water	PrecSep-21	
400-171051-21	AZ12991 EB-1	Total/NA	Water	PrecSep-21	
MB 160-431824/23-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-431824/1-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
400-171051-17 DU	AZ12987 MW-14	Total/NA	Water	PrecSep-21	

Prep Batch: 431829

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-171051-10	AZ12980 MW-4 DUP	Total/NA	Water	PrecSep_0	
400-171051-11	AZ12981 MW-3	Total/NA	Water	PrecSep_0	
400-171051-12	AZ12982 MW-2	Total/NA	Water	PrecSep_0	
400-171051-13	AZ12983 MW-1	Total/NA	Water	PrecSep_0	
400-171051-14	AZ12984 MW-16	Total/NA	Water	PrecSep_0	
400-171051-15	AZ12985 MW-15	Total/NA	Water	PrecSep_0	
400-171051-16	AZ12986 FB-1	Total/NA	Water	PrecSep_0	
400-171051-17	AZ12987 MW-14	Total/NA	Water	PrecSep_0	
400-171051-18	AZ12988 MW-13	Total/NA	Water	PrecSep_0	
400-171051-19	AZ12989 MW-12	Total/NA	Water	PrecSep_0	
400-171051-20	AZ12990 MW-11	Total/NA	Water	PrecSep_0	
400-171051-21	AZ12991 EB-1	Total/NA	Water	PrecSep_0	
MB 160-431829/23-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-431829/1-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
400-171051-17 DU	AZ12987 MW-14	Total/NA	Water	PrecSep_0	

Prep Batch: 431835

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-171051-1	AZ12971 MW-8	Total/NA	Water	PrecSep-21	
400-171051-2	AZ12972 MW-7	Total/NA	Water	PrecSep-21	
400-171051-3	AZ12973 MW-5	Total/NA	Water	PrecSep-21	
400-171051-4	AZ12974 MW-6	Total/NA	Water	PrecSep-21	
400-171051-5	AZ12975 FB-2	Total/NA	Water	PrecSep-21	
400-171051-6	AZ12976 MW-9	Total/NA	Water	PrecSep-21	
400-171051-7	AZ12977 MW-9 DUP	Total/NA	Water	PrecSep-21	
400-171051-8	AZ12978 MW-10	Total/NA	Water	PrecSep-21	
400-171051-9	AZ12979 MW-4	Total/NA	Water	PrecSep-21	
MB 160-431835/23-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-431835/1-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
400-171051-2 DU	AZ12972 MW-7	Total/NA	Water	PrecSep-21	

QC Association Summary

Client: Alabama Power General Test Laboratory
Project/Site: CCR Plant Barry

Job ID: 400-171051-1
SDG: Barry Ash Pond 1226

Rad

Prep Batch: 431846

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-171051-1	AZ12971 MW-8	Total/NA	Water	PrecSep_0	
400-171051-2	AZ12972 MW-7	Total/NA	Water	PrecSep_0	
400-171051-3	AZ12973 MW-5	Total/NA	Water	PrecSep_0	
400-171051-4	AZ12974 MW-6	Total/NA	Water	PrecSep_0	
400-171051-5	AZ12975 FB-2	Total/NA	Water	PrecSep_0	
400-171051-6	AZ12976 MW-9	Total/NA	Water	PrecSep_0	
400-171051-7	AZ12977 MW-9 DUP	Total/NA	Water	PrecSep_0	
400-171051-8	AZ12978 MW-10	Total/NA	Water	PrecSep_0	
400-171051-9	AZ12979 MW-4	Total/NA	Water	PrecSep_0	
MB 160-431846/23-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-431846/1-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
400-171051-2 DU	AZ12972 MW-7	Total/NA	Water	PrecSep_0	

QC Sample Results

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Barry

Job ID: 400-171051-1
 SDG: Barry Ash Pond 1226

Method: 9315 - Radium-226 (GFPC)

Lab Sample ID: MB 160-431824/23-A
Matrix: Water
Analysis Batch: 439665

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 431824

Analyte	MB	MB	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
	Result	Qualifier	Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Radium-226	0.02209	U	0.0347	0.0347	1.00	0.0606	pCi/L	06/17/19 06:52	08/15/19 17:48	1
Carrier	MB	MB	Limits		Prepared	Analyzed	Dil Fac			
Ba Carrier	%Yield	Qualifier	40 - 110							
	94.6				06/17/19 06:52	08/15/19 17:48	1			

Lab Sample ID: LCS 160-431824/1-A
Matrix: Water
Analysis Batch: 439665

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 431824

Analyte	Spike Added	LCS Result	LCS Qual	Total	RL	MDC	Unit	%Rec	%Rec. Limits
				Uncert. (2σ+/-)					
Radium-226	11.4	9.164		0.959	1.00	0.0720	pCi/L	81	75 - 125
Carrier	LCS	LCS	Limits		Prepared	Analyzed	Dil Fac		
Ba Carrier	%Yield	Qualifier	40 - 110						
	87.6				06/17/19 06:52	08/15/19 17:48	1		

Lab Sample ID: 400-171051-17 DU
Matrix: Water
Analysis Batch: 439859

Client Sample ID: AZ12987 MW-14
Prep Type: Total/NA
Prep Batch: 431824

Analyte	Sample	Sample	DU	DU	Total	RL	MDC	Unit	RER	RER Limit
	Result	Qual	Result	Qual	Uncert. (2σ+/-)					
Radium-226	0.0787	U	0.09009	U	0.0958	1.00	0.154	pCi/L	0.06	1
Carrier	DU	DU	Limits		Prepared	Analyzed	Dil Fac			
Ba Carrier	%Yield	Qualifier	40 - 110							
	96.3				06/17/19 08:46	08/15/19 17:23	1			

Lab Sample ID: MB 160-431835/23-A
Matrix: Water
Analysis Batch: 439623

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 431835

Analyte	MB	MB	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
	Result	Qualifier	Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Radium-226	-0.06055	U	0.0568	0.0570	1.00	0.137	pCi/L	06/17/19 08:46	08/15/19 17:23	1
Carrier	MB	MB	Limits		Prepared	Analyzed	Dil Fac			
Ba Carrier	%Yield	Qualifier	40 - 110							
	81.9				06/17/19 08:46	08/15/19 17:23	1			

Lab Sample ID: LCS 160-431835/1-A
Matrix: Water
Analysis Batch: 439719

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 431835

Analyte	Spike Added	LCS Result	LCS Qual	Total	RL	MDC	Unit	%Rec	%Rec. Limits
				Uncert. (2σ+/-)					
Radium-226	11.4	9.328		0.978	1.00	0.113	pCi/L	82	75 - 125

QC Sample Results

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Barry

Job ID: 400-171051-1
 SDG: Barry Ash Pond 1226

Method: 9315 - Radium-226 (GFPC) (Continued)

Lab Sample ID: LCS 160-431835/1-A
Matrix: Water
Analysis Batch: 439719

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 431835

Carrier	LCS %Yield	LCS Qualifier	Limits
Ba Carrier	85.6	U	40 - 110

Lab Sample ID: 400-171051-2 DU
Matrix: Water
Analysis Batch: 440196

Client Sample ID: AZ12972 MW-7
Prep Type: Total/NA
Prep Batch: 431835

Analyte	Sample		DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	RER	RER Limit
	Result	Qual								
Radium-226	0.0367	U	0.1296	U	0.102	1.00	0.147	pCi/L	0.53	1

Carrier	DU %Yield	DU Qualifier	Limits
Ba Carrier	77.4	U	40 - 110

Method: 9320 - Radium-228 (GFPC)

Lab Sample ID: MB 160-431829/23-A
Matrix: Water
Analysis Batch: 436505

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 431829

Analyte	MB		Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
	Result	Qualifier								
Radium-228	0.1362	U	0.210	0.210	1.00	0.354	pCi/L	06/17/19 08:03	07/25/19 08:59	1

Carrier	MB %Yield	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Ba Carrier	94.6	U	40 - 110	06/17/19 08:03	07/25/19 08:59	1
Y Carrier	92.7	U	40 - 110	06/17/19 08:03	07/25/19 08:59	1

Lab Sample ID: LCS 160-431829/1-A
Matrix: Water
Analysis Batch: 436360

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 431829

Analyte	Spike Added	LCS		Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits
		Result	Qual						
Radium-228	8.99	10.44	U	1.21	1.00	0.491	pCi/L	116	75 - 125

Carrier	LCS %Yield	LCS Qualifier	Limits
Ba Carrier	87.6	U	40 - 110
Y Carrier	91.6	U	40 - 110

Lab Sample ID: 400-171051-17 DU
Matrix: Water
Analysis Batch: 436506

Client Sample ID: AZ12987 MW-14
Prep Type: Total/NA
Prep Batch: 431829

Analyte	Sample		DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	RER	RER Limit
	Result	Qual								
Radium-228	0.359	U	0.8753	U	0.355	1.00	0.485	pCi/L	0.75	1

QC Sample Results

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Barry

Job ID: 400-171051-1
 SDG: Barry Ash Pond 1226

Method: 9320 - Radium-228 (GFPC) (Continued)

Lab Sample ID: 400-171051-17 DU
Matrix: Water
Analysis Batch: 436506

Client Sample ID: AZ12987 MW-14
Prep Type: Total/NA
Prep Batch: 431829

	DU	DU	
Carrier	%Yield	Qualifier	Limits
Ba Carrier	96.3		40 - 110
Y Carrier	90.5		40 - 110

Lab Sample ID: MB 160-431846/23-A
Matrix: Water
Analysis Batch: 436360

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 431846

Analyte	MB MB		Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
	Result	Qualifier								
Radium-228	0.1195	U	0.353	0.353	1.00	0.609	pCi/L	06/17/19 10:01	07/25/19 14:13	1
Carrier	%Yield	Qualifier	Limits			Prepared		Analyzed	Dil Fac	
Ba Carrier	81.9		40 - 110			06/17/19 10:01		07/25/19 14:13	1	
Y Carrier	72.5		40 - 110			06/17/19 10:01		07/25/19 14:13	1	

Lab Sample ID: LCS 160-431846/1-A
Matrix: Water
Analysis Batch: 436505

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 431846

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits
Carrier	%Yield	LCS Qualifier	Limits						
Ba Carrier	85.6		40 - 110						
Y Carrier	68.0		40 - 110						

Lab Sample ID: 400-171051-2 DU
Matrix: Water
Analysis Batch: 436506

Client Sample ID: AZ12972 MW-7
Prep Type: Total/NA
Prep Batch: 431846

Analyte	Sample Sample		DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	RER	RER Limit
	Result	Qual								
Radium-228	0.207	U	0.1689	U	0.403	1.00	0.695	pCi/L	0.04	1
Carrier	DU %Yield	DU Qualifier	Limits							
Ba Carrier	77.4		40 - 110							
Y Carrier	79.3		40 - 110							

QC Sample Results

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Barry

Job ID: 400-171051-1
 SDG: Barry Ash Pond 1226

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Lab Sample ID: 400-171051-17 DU
Matrix: Water
Analysis Batch: 440122

Client Sample ID: AZ12987 MW-14
Prep Type: Total/NA

Analyte	Sample Result	Sample Qual	DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	RER	RER Limit
Combined Radium 226 + 228	0.437	U	0.9654		0.368	5.00	0.485	pCi/L	0.75	

Lab Sample ID: 400-171051-2 DU
Matrix: Water
Analysis Batch: 440471

Client Sample ID: AZ12972 MW-7
Prep Type: Total/NA

Analyte	Sample Result	Sample Qual	DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	RER	RER Limit
Combined Radium 226 + 228	0.244	U	0.2985	U	0.416	5.00	0.695	pCi/L	0.06	

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TestAmerica Pensacola

3355 McLemore Drive
Pensacola, FL 32514
Phone (850) 474-1001 Fax (850) 478-2671

Chain of Custody Record



400-171051 COC

Client Information (Sub Contract Lab)
 Client Contact: Laura Midtiff
 Company: Alabama Power General Test Laboratory
 Address: 744 County Rd 87, GSC#8
 City: Callera
 State, Zip: AL, 35040
 Phone: 205-664-9197
 Email: lmidtiff@southalabama.com
 Project Name: CCR
 CCR: 40007143
 Site: Barry Ash Pond 1226

Client Information (Continued)
 Sampler: Anthony Goggins
 Lab PM: Whitmore, Cheyenne R.
 State of Origin: Alabama
 E-Mail: cheyenne.whitmore@lestamericainc.com
 Accreditations Required (See note):

Due Date Requested:
 TAT Requested (days): Routine
 PO #: 205-664-9197
 WO #: 40007143
 Project #: 40007143
 SSOV#:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (Water, Overhead, Other)	Preservation Code	Analysis Requested			Special Instructions/Note:
						SM 4500 F.C	SM 4500 C.E	SM 4500 S.O4.E	
AZ12971	5/29/19	12:21	G	Water		X			1 MW-8
AZ12972	5/29/19	13:28	G	Water		X			3 MW-7
AZ12973	5/29/19	14:30	G	Water		X			1 MW-5
AZ12974	5/29/19	15:15	G	Water		X			1 MW-6
AZ12975	5/30/19	08:35	G	Water		X			1 FB-2 (Field Blank)
AZ12976	5/30/19	08:52	G	Water		X			1 MW-9
AZ12977	5/30/19	08:52	G	Water		X			1 MW-9 DUPL (Sample Duplicate)
AZ12978	5/30/19	09:42	G	Water		X			1 MW-10

Note: Since laboratory accreditations are subject to change, TestAmerica Laboratories, Inc. places the responsibility of method, analysis & accreditation compliance upon our subcontract laboratories. The sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/matrix being analyzed, the samples must be shipped back to the TestAmerica laboratory or other instructions will be provided. Any changes to accreditation status should be brought to TestAmerica Laboratories, Inc. attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to TestAmerica Laboratories, Inc.

Possible Hazard Identification
 Unconfirmed: Return To Client Disposal By Lab Archive For _____ Months
 Deliverable Requested: I, II, III, IV, Other (specify) 433931 Special Instructions/CC Requirements:

Empty Kit Relinquished by:	Date/Time	Water	APC	Company	Method of Shipment	Date/Time	Company
Relinquished by: Laura Midtiff	Date/Time: 05/31/2019 10:45						
Relinquished by:	Date/Time:						
Relinquished by:	Date/Time:						

Custody Seals intact: Custody Seal No.:
 25.5°C, 2008, 127.30C 7/12/7
 64151245 TB
 Var: 09/20/2016



Login Sample Receipt Checklist

Client: Alabama Power General Test Laboratory

Job Number: 400-171051-1
SDG Number: Barry Ash Pond 1226

Login Number: 171051

List Number: 1

Creator: Whitmire, Cheyenne R

List Source: Eurofins TestAmerica, Pensacola

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	N/A	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	25.5 & 27.3°C, IR-7
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



Login Sample Receipt Checklist

Client: Alabama Power General Test Laboratory

Job Number: 400-171051-1
SDG Number: Barry Ash Pond 1226

Login Number: 171051

List Number: 2

Creator: Hellm, Michael

List Source: Eurofins TestAmerica, St. Louis

List Creation: 06/07/19 01:05 PM

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	N/A	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	19.0
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	N/A	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	N/A	
Multiphasic samples are not present.	N/A	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Accreditation/Certification Summary

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Barry

Job ID: 400-171051-1
 SDG: Barry Ash Pond 1226

Laboratory: Eurofins TestAmerica, Pensacola

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Alabama	State	40150	07-01-20
Alabama	State Program	40150	06-30-20
ANAB	ISO/IEC 17025	L2471	02-22-20
ANAB	ISO/IEC 17025	L2471	02-22-20
Arizona	State	AZ0710	01-12-20
Arizona	State Program	AZ0710	01-12-20
Arkansas DEQ	State Program	88-0689	09-01-19
California	State Program	2510	06-30-20
Florida	NELAP	E81010	06-30-20
Florida	NELAP	E81010	06-30-20
Georgia	State Program	E81010 (FL)	06-30-20
Illinois	NELAP	200041	10-09-19
Illinois	NELAP	004586	10-09-19
Iowa	State Program	367	08-01-20
Kansas	NELAP	E-10253	10-31-19
Kentucky (UST)	State Program	53	06-30-20
Kentucky (WW)	State Program	98030	12-31-19
Louisiana	NELAP	30976	06-30-20
Louisiana (DW)	NELAP	LA017	12-31-19
Maryland	State Program	233	09-30-20
Massachusetts	State Program	M-FL094	06-30-20
Michigan	State	9912	05-06-20
Michigan	State Program	9912	05-06-20
New Jersey	NELAP	FL006	06-30-20
New Jersey	NELAP	FL006	07-30-20
North Carolina (WW/SW)	State Program	314	12-31-19
Oklahoma	State	9810-186	08-31-19
Oklahoma	State Program	9810	08-31-19
Pennsylvania	NELAP	68-00467	01-31-20
Pennsylvania	NELAP	68-00467	01-31-20
Rhode Island	State Program	LAO00307	12-30-19
South Carolina	State Program	96026	06-30-19 *
Tennessee	State	TN02907	06-30-20
Tennessee	State Program	TN02907	06-30-20
Texas	NELAP	T104704286-18-15	09-30-19
Texas	NELAP	T104704286	09-30-19
US Fish & Wildlife	Federal	LE058448-0	07-31-20
USDA	Federal	P330-18-00148	05-17-21
Virginia	NELAP	460166	06-14-20
Washington	State	C915	05-15-20
Washington	State Program	C915	05-15-20
West Virginia DEP	State Program	136	07-31-19 *

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Accreditation/Certification Summary

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Barry

Job ID: 400-171051-1
 SDG: Barry Ash Pond 1226

Laboratory: Eurofins TestAmerica, St. Louis

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
ANAB	Dept. of Defense ELAP	L2305	04-06-22
ANAB	Dept. of Energy	L2305.01	04-06-22
ANAB	DoD	L2305	04-06-22
ANAB	DOE	L2305.01	04-06-22
ANAB	ISO/IEC 17025	L2305	04-06-22
Arizona	State	AZ0813	12-08-19
Arizona	State Program	AZ0813	12-08-19
California	State	2886	06-30-20
California	State Program	2886	06-30-20
Connecticut	State	PH-0241	03-31-21
Connecticut	State Program	PH-0241	03-31-21
Florida	NELAP	E87689	06-30-20
Florida	NELAP	E87689	06-30-20
Hawaii	State Program	NA	06-30-20
Illinois	NELAP	200023	11-30-19
Illinois	NELAP	004553	11-30-19
Iowa	State Program	373	12-01-20
Kansas	NELAP	E-10236	10-31-19
Kentucky (DW)	State	KY90125	12-31-19
Kentucky (DW)	State Program	KY90125	12-31-19
Louisiana	NELAP	04080	06-30-20
Louisiana (DW)	NELAP	LA011	12-31-19
Louisiana (DW)	State	LA011	12-31-19
Maryland	State	310	09-30-20
Maryland	State Program	310	09-30-20
Michigan	State Program	9005	06-30-20
Missouri	State	780	06-30-22
Missouri	State Program	780	06-30-20
Nevada	State	MO000542020-1	07-31-20
New Jersey	NELAP	MO002	06-30-20
New Jersey	NELAP	MO002	06-30-20
New York	NELAP	11616	03-31-20
New York	NELAP	11616	04-01-20
North Dakota	State	R-207	06-30-20
North Dakota	State Program	R207	06-30-20
NRC	NRC	24-24817-01	12-31-22
Oklahoma	State	9997	08-31-19
Oklahoma	State Program	9997	08-31-19 *
Pennsylvania	NELAP	68-00540	02-28-20
Pennsylvania	NELAP	68-00540	02-28-20
South Carolina	State Program	85002001	06-30-20
Texas	NELAP	T104704193-19-14	07-31-20
Texas	NELAP	T104704193-19-13	07-31-20
US Fish & Wildlife	Federal	058448	07-31-20
USDA	Federal	P330-17-0028	02-02-20
Utah	NELAP	MO000542019-11	07-31-20
Virginia	NELAP	460230	06-14-20
Virginia	NELAP	10310	06-14-20
Washington	State Program	C592	08-30-19
West Virginia DEP	State Program	381	08-31-19 *

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Eurofins TestAmerica, Pensacola



**Alabama Power Company
Plant Barry Ash Pond**

WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
BY-AP-MW-1	5/29/2019 10:27	Conductivity	747.2	uS/cm
BY-AP-MW-1	5/29/2019 10:27	Depth to Water Detail	21.88	ft
BY-AP-MW-1	5/29/2019 10:27	DO	0.2	mg/L
BY-AP-MW-1	5/29/2019 10:27	Oxidation Reduction Potention	-44.2	mv
BY-AP-MW-1	5/29/2019 10:27	pH	5.8	pH
BY-AP-MW-1	5/29/2019 10:27	Temperature	22.6	C
BY-AP-MW-1	5/29/2019 10:27	Turbidity	0.87	NTU
BY-AP-MW-1	5/29/2019 10:32	Conductivity	746.1	uS/cm
BY-AP-MW-1	5/29/2019 10:32	Depth to Water Detail	21.89	ft
BY-AP-MW-1	5/29/2019 10:32	DO	0.16	mg/L
BY-AP-MW-1	5/29/2019 10:32	Oxidation Reduction Potention	-44.7	mv
BY-AP-MW-1	5/29/2019 10:32	pH	5.81	pH
BY-AP-MW-1	5/29/2019 10:32	Temperature	22.67	C
BY-AP-MW-1	5/29/2019 10:32	Turbidity	0.77	NTU
BY-AP-MW-1	5/29/2019 10:37	Conductivity	742.2	uS/cm
BY-AP-MW-1	5/29/2019 10:37	Depth to Water Detail	21.89	ft
BY-AP-MW-1	5/29/2019 10:37	DO	0.15	mg/L
BY-AP-MW-1	5/29/2019 10:37	Oxidation Reduction Potention	-44.8	mv
BY-AP-MW-1	5/29/2019 10:37	pH	5.82	pH
BY-AP-MW-1	5/29/2019 10:37	Temperature	22.75	C
BY-AP-MW-1	5/29/2019 10:37	Turbidity	1.03	NTU
BY-AP-MW-1	5/29/2019 10:42	Conductivity	724.8	uS/cm
BY-AP-MW-1	5/29/2019 10:42	Depth to Water Detail	21.89	ft
BY-AP-MW-1	5/29/2019 10:42	DO	0.14	mg/L
BY-AP-MW-1	5/29/2019 10:42	Oxidation Reduction Potention	-43.7	mv
BY-AP-MW-1	5/29/2019 10:42	pH	5.82	pH
BY-AP-MW-1	5/29/2019 10:42	Temperature	22.7	C
BY-AP-MW-1	5/29/2019 10:42	Turbidity	0.69	NTU

**Alabama Power Company
Plant Barry Ash Pond**

WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
BY-AP-MW-10	5/30/2019 9:25	Conductivity	661.8	uS/cm
BY-AP-MW-10	5/30/2019 9:25	Depth to Water Detail	24.62	ft
BY-AP-MW-10	5/30/2019 9:25	DO	0.35	mg/L
BY-AP-MW-10	5/30/2019 9:25	Oxidation Reduction Potention	-73.7	mv
BY-AP-MW-10	5/30/2019 9:25	pH	6.2	pH
BY-AP-MW-10	5/30/2019 9:25	Temperature	22.49	C
BY-AP-MW-10	5/30/2019 9:25	Turbidity	3.54	NTU
BY-AP-MW-10	5/30/2019 9:30	Conductivity	656.2	uS/cm
BY-AP-MW-10	5/30/2019 9:30	Depth to Water Detail	24.62	ft
BY-AP-MW-10	5/30/2019 9:30	DO	0.27	mg/L
BY-AP-MW-10	5/30/2019 9:30	Oxidation Reduction Potention	-77.5	mv
BY-AP-MW-10	5/30/2019 9:30	pH	6.21	pH
BY-AP-MW-10	5/30/2019 9:30	Temperature	22.36	C
BY-AP-MW-10	5/30/2019 9:30	Turbidity	2.79	NTU
BY-AP-MW-10	5/30/2019 9:35	Conductivity	652.2	uS/cm
BY-AP-MW-10	5/30/2019 9:35	Depth to Water Detail	24.62	ft
BY-AP-MW-10	5/30/2019 9:35	DO	0.26	mg/L
BY-AP-MW-10	5/30/2019 9:35	Oxidation Reduction Potention	-78.7	mv
BY-AP-MW-10	5/30/2019 9:35	pH	6.22	pH
BY-AP-MW-10	5/30/2019 9:35	Temperature	22.45	C
BY-AP-MW-10	5/30/2019 9:35	Turbidity	2.7	NTU
BY-AP-MW-10	5/30/2019 9:40	Conductivity	646.6	uS/cm
BY-AP-MW-10	5/30/2019 9:40	Depth to Water Detail	24.62	ft
BY-AP-MW-10	5/30/2019 9:40	DO	0.24	mg/L
BY-AP-MW-10	5/30/2019 9:40	Oxidation Reduction Potention	-79.3	mv
BY-AP-MW-10	5/30/2019 9:40	pH	6.23	pH
BY-AP-MW-10	5/30/2019 9:40	Temperature	22.51	C
BY-AP-MW-10	5/30/2019 9:40	Turbidity	2.42	NTU

**Alabama Power Company
Plant Barry Ash Pond**

WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
BY-AP-MW-11	5/29/2019 15:34	Conductivity	625.2	uS/cm
BY-AP-MW-11	5/29/2019 15:34	Depth to Water Detail	23.62	ft
BY-AP-MW-11	5/29/2019 15:34	DO	0.25	mg/L
BY-AP-MW-11	5/29/2019 15:34	Oxidation Reduction Potention	-61.5	mv
BY-AP-MW-11	5/29/2019 15:34	pH	6.28	pH
BY-AP-MW-11	5/29/2019 15:34	Temperature	22.63	C
BY-AP-MW-11	5/29/2019 15:34	Turbidity	3.64	NTU
BY-AP-MW-11	5/29/2019 15:39	Conductivity	598.4	uS/cm
BY-AP-MW-11	5/29/2019 15:39	Depth to Water Detail	23.62	ft
BY-AP-MW-11	5/29/2019 15:39	DO	0.21	mg/L
BY-AP-MW-11	5/29/2019 15:39	Oxidation Reduction Potention	-59.5	mv
BY-AP-MW-11	5/29/2019 15:39	pH	6.26	pH
BY-AP-MW-11	5/29/2019 15:39	Temperature	22.58	C
BY-AP-MW-11	5/29/2019 15:39	Turbidity	3.48	NTU
BY-AP-MW-11	5/29/2019 15:44	Conductivity	593	uS/cm
BY-AP-MW-11	5/29/2019 15:44	Depth to Water Detail	23.65	ft
BY-AP-MW-11	5/29/2019 15:44	DO	0.19	mg/L
BY-AP-MW-11	5/29/2019 15:44	Oxidation Reduction Potention	-58.7	mv
BY-AP-MW-11	5/29/2019 15:44	pH	6.24	pH
BY-AP-MW-11	5/29/2019 15:44	Temperature	22.58	C
BY-AP-MW-11	5/29/2019 15:44	Turbidity	2.5	NTU
BY-AP-MW-11	5/29/2019 15:49	Conductivity	592	uS/cm
BY-AP-MW-11	5/29/2019 15:49	Depth to Water Detail	23.62	ft
BY-AP-MW-11	5/29/2019 15:49	DO	0.18	mg/L
BY-AP-MW-11	5/29/2019 15:49	Oxidation Reduction Potention	-58.2	mv
BY-AP-MW-11	5/29/2019 15:49	pH	6.24	pH
BY-AP-MW-11	5/29/2019 15:49	Temperature	22.51	C
BY-AP-MW-11	5/29/2019 15:49	Turbidity	2.34	NTU

**Alabama Power Company
Plant Barry Ash Pond**

WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
BY-AP-MW-12	5/29/2019 14:47	Conductivity	560.5	uS/cm
BY-AP-MW-12	5/29/2019 14:47	Depth to Water Detail	21.72	ft
BY-AP-MW-12	5/29/2019 14:47	DO	0.27	mg/L
BY-AP-MW-12	5/29/2019 14:47	Oxidation Reduction Potention	-49.3	mv
BY-AP-MW-12	5/29/2019 14:47	pH	6.14	pH
BY-AP-MW-12	5/29/2019 14:47	Temperature	22.54	C
BY-AP-MW-12	5/29/2019 14:47	Turbidity	1.19	NTU
BY-AP-MW-12	5/29/2019 14:52	Conductivity	552.6	uS/cm
BY-AP-MW-12	5/29/2019 14:52	Depth to Water Detail	21.72	ft
BY-AP-MW-12	5/29/2019 14:52	DO	0.2	mg/L
BY-AP-MW-12	5/29/2019 14:52	Oxidation Reduction Potention	-50.3	mv
BY-AP-MW-12	5/29/2019 14:52	pH	6.15	pH
BY-AP-MW-12	5/29/2019 14:52	Temperature	22.53	C
BY-AP-MW-12	5/29/2019 14:52	Turbidity	1.48	NTU
BY-AP-MW-12	5/29/2019 14:57	Conductivity	552.5	uS/cm
BY-AP-MW-12	5/29/2019 14:57	Depth to Water Detail	21.72	ft
BY-AP-MW-12	5/29/2019 14:57	DO	0.18	mg/L
BY-AP-MW-12	5/29/2019 14:57	Oxidation Reduction Potention	-50.2	mv
BY-AP-MW-12	5/29/2019 14:57	pH	6.14	pH
BY-AP-MW-12	5/29/2019 14:57	Temperature	22.47	C
BY-AP-MW-12	5/29/2019 14:57	Turbidity	1.4	NTU
BY-AP-MW-12	5/29/2019 15:02	Conductivity	558.4	uS/cm
BY-AP-MW-12	5/29/2019 15:02	Depth to Water Detail	21.72	ft
BY-AP-MW-12	5/29/2019 15:02	DO	0.17	mg/L
BY-AP-MW-12	5/29/2019 15:02	Oxidation Reduction Potention	-49.8	mv
BY-AP-MW-12	5/29/2019 15:02	pH	6.13	pH
BY-AP-MW-12	5/29/2019 15:02	Temperature	22.38	C
BY-AP-MW-12	5/29/2019 15:02	Turbidity	1.3	NTU

**Alabama Power Company
Plant Barry Ash Pond**

WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
BY-AP-MW-13	5/29/2019 14:04	Conductivity	447.7	uS/cm
BY-AP-MW-13	5/29/2019 14:04	Depth to Water Detail	21.96	ft
BY-AP-MW-13	5/29/2019 14:04	DO	0.29	mg/L
BY-AP-MW-13	5/29/2019 14:04	Oxidation Reduction Potention	-14.1	mv
BY-AP-MW-13	5/29/2019 14:04	pH	6.03	pH
BY-AP-MW-13	5/29/2019 14:04	Temperature	22.42	C
BY-AP-MW-13	5/29/2019 14:04	Turbidity	2.66	NTU
BY-AP-MW-13	5/29/2019 14:09	Conductivity	435.3	uS/cm
BY-AP-MW-13	5/29/2019 14:09	Depth to Water Detail	21.96	ft
BY-AP-MW-13	5/29/2019 14:09	DO	0.23	mg/L
BY-AP-MW-13	5/29/2019 14:09	Oxidation Reduction Potention	-14.2	mv
BY-AP-MW-13	5/29/2019 14:09	pH	6.02	pH
BY-AP-MW-13	5/29/2019 14:09	Temperature	22.33	C
BY-AP-MW-13	5/29/2019 14:09	Turbidity	2.68	NTU
BY-AP-MW-13	5/29/2019 14:14	Conductivity	431	uS/cm
BY-AP-MW-13	5/29/2019 14:14	Depth to Water Detail	21.96	ft
BY-AP-MW-13	5/29/2019 14:14	DO	0.2	mg/L
BY-AP-MW-13	5/29/2019 14:14	Oxidation Reduction Potention	-14.8	mv
BY-AP-MW-13	5/29/2019 14:14	pH	6.02	pH
BY-AP-MW-13	5/29/2019 14:14	Temperature	22.31	C
BY-AP-MW-13	5/29/2019 14:14	Turbidity	2.61	NTU
BY-AP-MW-13	5/29/2019 14:19	Conductivity	428.8	uS/cm
BY-AP-MW-13	5/29/2019 14:19	Depth to Water Detail	21.96	ft
BY-AP-MW-13	5/29/2019 14:19	DO	0.19	mg/L
BY-AP-MW-13	5/29/2019 14:19	Oxidation Reduction Potention	-14.8	mv
BY-AP-MW-13	5/29/2019 14:19	pH	6.01	pH
BY-AP-MW-13	5/29/2019 14:19	Temperature	22.22	C
BY-AP-MW-13	5/29/2019 14:19	Turbidity	3.07	NTU

**Alabama Power Company
Plant Barry Ash Pond**

WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
BY-AP-MW-14	5/29/2019 13:03	Conductivity	504.2	uS/cm
BY-AP-MW-14	5/29/2019 13:03	Depth to Water Detail	10.12	ft
BY-AP-MW-14	5/29/2019 13:03	DO	0.21	mg/L
BY-AP-MW-14	5/29/2019 13:03	Oxidation Reduction Potention	-37.3	mv
BY-AP-MW-14	5/29/2019 13:03	pH	6.09	pH
BY-AP-MW-14	5/29/2019 13:03	Temperature	21.11	C
BY-AP-MW-14	5/29/2019 13:03	Turbidity	1.45	NTU
BY-AP-MW-14	5/29/2019 13:08	Conductivity	482.1	uS/cm
BY-AP-MW-14	5/29/2019 13:08	Depth to Water Detail	10.12	ft
BY-AP-MW-14	5/29/2019 13:08	DO	0.18	mg/L
BY-AP-MW-14	5/29/2019 13:08	Oxidation Reduction Potention	-36.9	mv
BY-AP-MW-14	5/29/2019 13:08	pH	6.09	pH
BY-AP-MW-14	5/29/2019 13:08	Temperature	20.93	C
BY-AP-MW-14	5/29/2019 13:08	Turbidity	1.12	NTU
BY-AP-MW-14	5/29/2019 13:13	Conductivity	470.9	uS/cm
BY-AP-MW-14	5/29/2019 13:13	Depth to Water Detail	10.12	ft
BY-AP-MW-14	5/29/2019 13:13	DO	0.16	mg/L
BY-AP-MW-14	5/29/2019 13:13	Oxidation Reduction Potention	-35.7	mv
BY-AP-MW-14	5/29/2019 13:13	pH	6.08	pH
BY-AP-MW-14	5/29/2019 13:13	Temperature	20.92	C
BY-AP-MW-14	5/29/2019 13:13	Turbidity	0.98	NTU
BY-AP-MW-14	5/29/2019 13:18	Conductivity	461.5	uS/cm
BY-AP-MW-14	5/29/2019 13:18	Depth to Water Detail	10.12	ft
BY-AP-MW-14	5/29/2019 13:18	DO	0.15	mg/L
BY-AP-MW-14	5/29/2019 13:18	Oxidation Reduction Potention	-35.2	mv
BY-AP-MW-14	5/29/2019 13:18	pH	6.07	pH
BY-AP-MW-14	5/29/2019 13:18	Temperature	20.93	C
BY-AP-MW-14	5/29/2019 13:18	Turbidity	1.08	NTU

**Alabama Power Company
Plant Barry Ash Pond**

WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
BY-AP-MW-15	5/29/2019 12:14	Conductivity	518.5	uS/cm
BY-AP-MW-15	5/29/2019 12:14	Depth to Water Detail	21.69	ft
BY-AP-MW-15	5/29/2019 12:14	DO	0.27	mg/L
BY-AP-MW-15	5/29/2019 12:14	Oxidation Reduction Potention	-127.8	mv
BY-AP-MW-15	5/29/2019 12:14	pH	6.58	pH
BY-AP-MW-15	5/29/2019 12:14	Temperature	22.49	C
BY-AP-MW-15	5/29/2019 12:14	Turbidity	7.46	NTU
BY-AP-MW-15	5/29/2019 12:19	Conductivity	501	uS/cm
BY-AP-MW-15	5/29/2019 12:19	Depth to Water Detail	21.69	ft
BY-AP-MW-15	5/29/2019 12:19	DO	0.22	mg/L
BY-AP-MW-15	5/29/2019 12:19	Oxidation Reduction Potention	-124.5	mv
BY-AP-MW-15	5/29/2019 12:19	pH	6.6	pH
BY-AP-MW-15	5/29/2019 12:19	Temperature	22.49	C
BY-AP-MW-15	5/29/2019 12:19	Turbidity	5.56	NTU
BY-AP-MW-15	5/29/2019 12:24	Conductivity	497.6	uS/cm
BY-AP-MW-15	5/29/2019 12:24	Depth to Water Detail	21.69	ft
BY-AP-MW-15	5/29/2019 12:24	DO	0.2	mg/L
BY-AP-MW-15	5/29/2019 12:24	Oxidation Reduction Potention	-123.8	mv
BY-AP-MW-15	5/29/2019 12:24	pH	6.62	pH
BY-AP-MW-15	5/29/2019 12:24	Temperature	22.45	C
BY-AP-MW-15	5/29/2019 12:24	Turbidity	4.68	NTU
BY-AP-MW-15	5/29/2019 12:29	Conductivity	496.2	uS/cm
BY-AP-MW-15	5/29/2019 12:29	Depth to Water Detail	21.69	ft
BY-AP-MW-15	5/29/2019 12:29	DO	0.19	mg/L
BY-AP-MW-15	5/29/2019 12:29	Oxidation Reduction Potention	-123.6	mv
BY-AP-MW-15	5/29/2019 12:29	pH	6.63	pH
BY-AP-MW-15	5/29/2019 12:29	Temperature	22.46	C
BY-AP-MW-15	5/29/2019 12:29	Turbidity	3.44	NTU

**Alabama Power Company
Plant Barry Ash Pond**

WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
BY-AP-MW-16	5/29/2019 11:23	Conductivity	429.1	uS/cm
BY-AP-MW-16	5/29/2019 11:23	Depth to Water Detail	22.33	ft
BY-AP-MW-16	5/29/2019 11:23	DO	0.16	mg/L
BY-AP-MW-16	5/29/2019 11:23	Oxidation Reduction Potention	-2.5	mv
BY-AP-MW-16	5/29/2019 11:23	pH	5.77	pH
BY-AP-MW-16	5/29/2019 11:23	Temperature	23.34	C
BY-AP-MW-16	5/29/2019 11:23	Turbidity	1.72	NTU
BY-AP-MW-16	5/29/2019 11:28	Conductivity	418.2	uS/cm
BY-AP-MW-16	5/29/2019 11:28	Depth to Water Detail	22.33	ft
BY-AP-MW-16	5/29/2019 11:28	DO	0.13	mg/L
BY-AP-MW-16	5/29/2019 11:28	Oxidation Reduction Potention	-3.3	mv
BY-AP-MW-16	5/29/2019 11:28	pH	5.75	pH
BY-AP-MW-16	5/29/2019 11:28	Temperature	22.99	C
BY-AP-MW-16	5/29/2019 11:28	Turbidity	1.49	NTU
BY-AP-MW-16	5/29/2019 11:33	Conductivity	408.7	uS/cm
BY-AP-MW-16	5/29/2019 11:33	Depth to Water Detail	22.33	ft
BY-AP-MW-16	5/29/2019 11:33	DO	0.12	mg/L
BY-AP-MW-16	5/29/2019 11:33	Oxidation Reduction Potention	-3.9	mv
BY-AP-MW-16	5/29/2019 11:33	pH	5.77	pH
BY-AP-MW-16	5/29/2019 11:33	Temperature	22.98	C
BY-AP-MW-16	5/29/2019 11:33	Turbidity	0.95	NTU
BY-AP-MW-16	5/29/2019 11:38	Conductivity	409.9	uS/cm
BY-AP-MW-16	5/29/2019 11:38	Depth to Water Detail	22.33	ft
BY-AP-MW-16	5/29/2019 11:38	DO	0.11	mg/L
BY-AP-MW-16	5/29/2019 11:38	Oxidation Reduction Potention	-4.3	mv
BY-AP-MW-16	5/29/2019 11:38	pH	5.76	pH
BY-AP-MW-16	5/29/2019 11:38	Temperature	22.95	C
BY-AP-MW-16	5/29/2019 11:38	Turbidity	0.98	NTU

**Alabama Power Company
Plant Barry Ash Pond**

WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
BY-AP-MW-2	5/29/2019 9:37	Conductivity	55.4	uS/cm
BY-AP-MW-2	5/29/2019 9:37	Depth to Water Detail	20.51	ft
BY-AP-MW-2	5/29/2019 9:37	DO	0.78	mg/L
BY-AP-MW-2	5/29/2019 9:37	Oxidation Reduction Potention	102.7	mv
BY-AP-MW-2	5/29/2019 9:37	pH	5.7	pH
BY-AP-MW-2	5/29/2019 9:37	Temperature	23.11	C
BY-AP-MW-2	5/29/2019 9:37	Turbidity	0.43	NTU
BY-AP-MW-2	5/29/2019 9:42	Conductivity	56.5	uS/cm
BY-AP-MW-2	5/29/2019 9:42	Depth to Water Detail	20.51	ft
BY-AP-MW-2	5/29/2019 9:42	DO	0.49	mg/L
BY-AP-MW-2	5/29/2019 9:42	Oxidation Reduction Potention	95.8	mv
BY-AP-MW-2	5/29/2019 9:42	pH	5.69	pH
BY-AP-MW-2	5/29/2019 9:42	Temperature	23.07	C
BY-AP-MW-2	5/29/2019 9:42	Turbidity	0.53	NTU
BY-AP-MW-2	5/29/2019 9:47	Conductivity	56.3	uS/cm
BY-AP-MW-2	5/29/2019 9:47	Depth to Water Detail	20.51	ft
BY-AP-MW-2	5/29/2019 9:47	DO	0.35	mg/L
BY-AP-MW-2	5/29/2019 9:47	Oxidation Reduction Potention	94	mv
BY-AP-MW-2	5/29/2019 9:47	pH	5.74	pH
BY-AP-MW-2	5/29/2019 9:47	Temperature	23.04	C
BY-AP-MW-2	5/29/2019 9:47	Turbidity	0.52	NTU
BY-AP-MW-2	5/29/2019 9:52	Conductivity	56.6	uS/cm
BY-AP-MW-2	5/29/2019 9:52	Depth to Water Detail	20.51	ft
BY-AP-MW-2	5/29/2019 9:52	DO	0.31	mg/L
BY-AP-MW-2	5/29/2019 9:52	Oxidation Reduction Potention	95.2	mv
BY-AP-MW-2	5/29/2019 9:52	pH	5.7	pH
BY-AP-MW-2	5/29/2019 9:52	Temperature	22.9	C
BY-AP-MW-2	5/29/2019 9:52	Turbidity	0.48	NTU

**Alabama Power Company
Plant Barry Ash Pond**

WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
BY-AP-MW-3	5/29/2019 8:41	Conductivity	33.9	uS/cm
BY-AP-MW-3	5/29/2019 8:41	Depth to Water Detail	23.36	ft
BY-AP-MW-3	5/29/2019 8:41	DO	2.85	mg/L
BY-AP-MW-3	5/29/2019 8:41	Oxidation Reduction Potention	239.5	mv
BY-AP-MW-3	5/29/2019 8:41	pH	5.09	pH
BY-AP-MW-3	5/29/2019 8:41	Temperature	22.66	C
BY-AP-MW-3	5/29/2019 8:41	Turbidity	0.85	NTU
BY-AP-MW-3	5/29/2019 8:46	Conductivity	37.1	uS/cm
BY-AP-MW-3	5/29/2019 8:46	Depth to Water Detail	23.36	ft
BY-AP-MW-3	5/29/2019 8:46	DO	3.01	mg/L
BY-AP-MW-3	5/29/2019 8:46	Oxidation Reduction Potention	234.6	mv
BY-AP-MW-3	5/29/2019 8:46	pH	5.09	pH
BY-AP-MW-3	5/29/2019 8:46	Temperature	22.53	C
BY-AP-MW-3	5/29/2019 8:46	Turbidity	0.73	NTU
BY-AP-MW-3	5/29/2019 8:51	Conductivity	38.9	uS/cm
BY-AP-MW-3	5/29/2019 8:51	Depth to Water Detail	23.36	ft
BY-AP-MW-3	5/29/2019 8:51	DO	3.02	mg/L
BY-AP-MW-3	5/29/2019 8:51	Oxidation Reduction Potention	231.1	mv
BY-AP-MW-3	5/29/2019 8:51	pH	5.07	pH
BY-AP-MW-3	5/29/2019 8:51	Temperature	22.49	C
BY-AP-MW-3	5/29/2019 8:51	Turbidity	0.65	NTU
BY-AP-MW-3	5/29/2019 8:56	Conductivity	41.2	uS/cm
BY-AP-MW-3	5/29/2019 8:56	Depth to Water Detail	23.36	ft
BY-AP-MW-3	5/29/2019 8:56	DO	3.07	mg/L
BY-AP-MW-3	5/29/2019 8:56	Oxidation Reduction Potention	226.9	mv
BY-AP-MW-3	5/29/2019 8:56	pH	5.07	pH
BY-AP-MW-3	5/29/2019 8:56	Temperature	22.45	C
BY-AP-MW-3	5/29/2019 8:56	Turbidity	0.51	NTU
BY-AP-MW-3	5/29/2019 9:01	Conductivity	42.2	uS/cm
BY-AP-MW-3	5/29/2019 9:01	Depth to Water Detail	23.36	ft
BY-AP-MW-3	5/29/2019 9:01	DO	3.05	mg/L
BY-AP-MW-3	5/29/2019 9:01	Oxidation Reduction Potention	223.2	mv
BY-AP-MW-3	5/29/2019 9:01	pH	5.05	pH
BY-AP-MW-3	5/29/2019 9:01	Temperature	22.45	C
BY-AP-MW-3	5/29/2019 9:01	Turbidity	0.47	NTU
BY-AP-MW-3	5/29/2019 9:06	Conductivity	42.8	uS/cm
BY-AP-MW-3	5/29/2019 9:06	Depth to Water Detail	23.36	ft
BY-AP-MW-3	5/29/2019 9:06	DO	3.03	mg/L
BY-AP-MW-3	5/29/2019 9:06	Oxidation Reduction Potention	219.3	mv
BY-AP-MW-3	5/29/2019 9:06	pH	5.05	pH
BY-AP-MW-3	5/29/2019 9:06	Temperature	22.46	C
BY-AP-MW-3	5/29/2019 9:06	Turbidity	0.4	NTU

**Alabama Power Company
Plant Barry Ash Pond**

WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
BY-AP-MW-4	5/29/2019 7:47	Conductivity	47.5	uS/cm
BY-AP-MW-4	5/29/2019 7:47	Depth to Water Detail	24.02	ft
BY-AP-MW-4	5/29/2019 7:47	DO	4.79	mg/L
BY-AP-MW-4	5/29/2019 7:47	Oxidation Reduction Potention	280.1	mv
BY-AP-MW-4	5/29/2019 7:47	pH	4.73	pH
BY-AP-MW-4	5/29/2019 7:47	Temperature	22.64	C
BY-AP-MW-4	5/29/2019 7:47	Turbidity	0.96	NTU
BY-AP-MW-4	5/29/2019 7:52	Conductivity	46	uS/cm
BY-AP-MW-4	5/29/2019 7:52	Depth to Water Detail	24.02	ft
BY-AP-MW-4	5/29/2019 7:52	DO	4.59	mg/L
BY-AP-MW-4	5/29/2019 7:52	Oxidation Reduction Potention	288.2	mv
BY-AP-MW-4	5/29/2019 7:52	pH	4.66	pH
BY-AP-MW-4	5/29/2019 7:52	Temperature	22.64	C
BY-AP-MW-4	5/29/2019 7:52	Turbidity	0.66	NTU
BY-AP-MW-4	5/29/2019 7:57	Conductivity	45.7	uS/cm
BY-AP-MW-4	5/29/2019 7:57	Depth to Water Detail	24.02	ft
BY-AP-MW-4	5/29/2019 7:57	DO	4.54	mg/L
BY-AP-MW-4	5/29/2019 7:57	Oxidation Reduction Potention	287.6	mv
BY-AP-MW-4	5/29/2019 7:57	pH	4.65	pH
BY-AP-MW-4	5/29/2019 7:57	Temperature	22.67	C
BY-AP-MW-4	5/29/2019 7:57	Turbidity	0.89	NTU
BY-AP-MW-4	5/29/2019 8:02	Conductivity	45.8	uS/cm
BY-AP-MW-4	5/29/2019 8:02	Depth to Water Detail	24.02	ft
BY-AP-MW-4	5/29/2019 8:02	DO	4.5	mg/L
BY-AP-MW-4	5/29/2019 8:02	Oxidation Reduction Potention	285.5	mv
BY-AP-MW-4	5/29/2019 8:02	pH	4.65	pH
BY-AP-MW-4	5/29/2019 8:02	Temperature	22.64	C
BY-AP-MW-4	5/29/2019 8:02	Turbidity	0.48	NTU

**Alabama Power Company
Plant Barry Ash Pond**

WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
BY-AP-MW-5	5/29/2019 14:12	Conductivity	422.1	uS/cm
BY-AP-MW-5	5/29/2019 14:12	Depth to Water Detail	26.01	ft
BY-AP-MW-5	5/29/2019 14:12	DO	0.24	mg/L
BY-AP-MW-5	5/29/2019 14:12	Oxidation Reduction Potention	-12.9	mv
BY-AP-MW-5	5/29/2019 14:12	pH	5.9	pH
BY-AP-MW-5	5/29/2019 14:12	Temperature	24.02	C
BY-AP-MW-5	5/29/2019 14:12	Turbidity	8.73	NTU
BY-AP-MW-5	5/29/2019 14:17	Conductivity	420.1	uS/cm
BY-AP-MW-5	5/29/2019 14:17	Depth to Water Detail	26.01	ft
BY-AP-MW-5	5/29/2019 14:17	DO	0.19	mg/L
BY-AP-MW-5	5/29/2019 14:17	Oxidation Reduction Potention	-14.8	mv
BY-AP-MW-5	5/29/2019 14:17	pH	5.91	pH
BY-AP-MW-5	5/29/2019 14:17	Temperature	23.85	C
BY-AP-MW-5	5/29/2019 14:17	Turbidity	5.04	NTU
BY-AP-MW-5	5/29/2019 14:22	Conductivity	421.7	uS/cm
BY-AP-MW-5	5/29/2019 14:22	Depth to Water Detail	26.01	ft
BY-AP-MW-5	5/29/2019 14:22	DO	0.16	mg/L
BY-AP-MW-5	5/29/2019 14:22	Oxidation Reduction Potention	-15	mv
BY-AP-MW-5	5/29/2019 14:22	pH	5.92	pH
BY-AP-MW-5	5/29/2019 14:22	Temperature	23.73	C
BY-AP-MW-5	5/29/2019 14:22	Turbidity	4.62	NTU
BY-AP-MW-5	5/29/2019 14:27	Conductivity	420.9	uS/cm
BY-AP-MW-5	5/29/2019 14:27	Depth to Water Detail	26.01	ft
BY-AP-MW-5	5/29/2019 14:27	DO	0.16	mg/L
BY-AP-MW-5	5/29/2019 14:27	Oxidation Reduction Potention	-15.2	mv
BY-AP-MW-5	5/29/2019 14:27	pH	5.93	pH
BY-AP-MW-5	5/29/2019 14:27	Temperature	23.77	C
BY-AP-MW-5	5/29/2019 14:27	Turbidity	4.9	NTU

**Alabama Power Company
Plant Barry Ash Pond**

WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
BY-AP-MW-6	5/29/2019 14:58	Conductivity	54.5	uS/cm
BY-AP-MW-6	5/29/2019 14:58	Depth to Water Detail	24.03	ft
BY-AP-MW-6	5/29/2019 14:58	DO	0.57	mg/L
BY-AP-MW-6	5/29/2019 14:58	Oxidation Reduction Potention	183	mv
BY-AP-MW-6	5/29/2019 14:58	pH	5.33	pH
BY-AP-MW-6	5/29/2019 14:58	Temperature	23.36	C
BY-AP-MW-6	5/29/2019 14:58	Turbidity	2.72	NTU
BY-AP-MW-6	5/29/2019 15:03	Conductivity	54.3	uS/cm
BY-AP-MW-6	5/29/2019 15:03	Depth to Water Detail	24.03	ft
BY-AP-MW-6	5/29/2019 15:03	DO	0.48	mg/L
BY-AP-MW-6	5/29/2019 15:03	Oxidation Reduction Potention	186.8	mv
BY-AP-MW-6	5/29/2019 15:03	pH	5.34	pH
BY-AP-MW-6	5/29/2019 15:03	Temperature	23.15	C
BY-AP-MW-6	5/29/2019 15:03	Turbidity	2.26	NTU
BY-AP-MW-6	5/29/2019 15:08	Conductivity	54.1	uS/cm
BY-AP-MW-6	5/29/2019 15:08	Depth to Water Detail	24.03	ft
BY-AP-MW-6	5/29/2019 15:08	DO	0.46	mg/L
BY-AP-MW-6	5/29/2019 15:08	Oxidation Reduction Potention	192.8	mv
BY-AP-MW-6	5/29/2019 15:08	pH	5.31	pH
BY-AP-MW-6	5/29/2019 15:08	Temperature	23.08	C
BY-AP-MW-6	5/29/2019 15:08	Turbidity	1.77	NTU
BY-AP-MW-6	5/29/2019 15:13	Conductivity	53.6	uS/cm
BY-AP-MW-6	5/29/2019 15:13	Depth to Water Detail	24.03	ft
BY-AP-MW-6	5/29/2019 15:13	DO	0.48	mg/L
BY-AP-MW-6	5/29/2019 15:13	Oxidation Reduction Potention	201.5	mv
BY-AP-MW-6	5/29/2019 15:13	pH	5.31	pH
BY-AP-MW-6	5/29/2019 15:13	Temperature	22.92	C
BY-AP-MW-6	5/29/2019 15:13	Turbidity	1.65	NTU

**Alabama Power Company
Plant Barry Ash Pond**

WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
BY-AP-MW-7	5/29/2019 13:01	Conductivity	241.6	uS/cm
BY-AP-MW-7	5/29/2019 13:01	Depth to Water Detail	23.47	ft
BY-AP-MW-7	5/29/2019 13:01	DO	0.65	mg/L
BY-AP-MW-7	5/29/2019 13:01	Oxidation Reduction Potention	28.3	mv
BY-AP-MW-7	5/29/2019 13:01	pH	6.2	pH
BY-AP-MW-7	5/29/2019 13:01	Temperature	23.45	C
BY-AP-MW-7	5/29/2019 13:01	Turbidity	28.7	NTU
BY-AP-MW-7	5/29/2019 13:06	Conductivity	240.5	uS/cm
BY-AP-MW-7	5/29/2019 13:06	Depth to Water Detail	23.47	ft
BY-AP-MW-7	5/29/2019 13:06	DO	0.56	mg/L
BY-AP-MW-7	5/29/2019 13:06	Oxidation Reduction Potention	28.4	mv
BY-AP-MW-7	5/29/2019 13:06	pH	6.2	pH
BY-AP-MW-7	5/29/2019 13:06	Temperature	23.4	C
BY-AP-MW-7	5/29/2019 13:06	Turbidity	28.8	NTU
BY-AP-MW-7	5/29/2019 13:11	Conductivity	239.4	uS/cm
BY-AP-MW-7	5/29/2019 13:11	Depth to Water Detail	23.47	ft
BY-AP-MW-7	5/29/2019 13:11	DO	0.52	mg/L
BY-AP-MW-7	5/29/2019 13:11	Oxidation Reduction Potention	22.9	mv
BY-AP-MW-7	5/29/2019 13:11	pH	6.19	pH
BY-AP-MW-7	5/29/2019 13:11	Temperature	23.32	C
BY-AP-MW-7	5/29/2019 13:11	Turbidity	22.9	NTU
BY-AP-MW-7	5/29/2019 13:16	Conductivity	236	uS/cm
BY-AP-MW-7	5/29/2019 13:16	Depth to Water Detail	23.47	ft
BY-AP-MW-7	5/29/2019 13:16	DO	0.48	mg/L
BY-AP-MW-7	5/29/2019 13:16	Oxidation Reduction Potention	17.6	mv
BY-AP-MW-7	5/29/2019 13:16	pH	6.19	pH
BY-AP-MW-7	5/29/2019 13:16	Temperature	23.32	C
BY-AP-MW-7	5/29/2019 13:16	Turbidity	16.8	NTU
BY-AP-MW-7	5/29/2019 13:21	Conductivity	234.6	uS/cm
BY-AP-MW-7	5/29/2019 13:21	Depth to Water Detail	23.47	ft
BY-AP-MW-7	5/29/2019 13:21	DO	0.44	mg/L
BY-AP-MW-7	5/29/2019 13:21	Oxidation Reduction Potention	14.2	mv
BY-AP-MW-7	5/29/2019 13:21	pH	6.19	pH
BY-AP-MW-7	5/29/2019 13:21	Temperature	23.27	C
BY-AP-MW-7	5/29/2019 13:21	Turbidity	11.3	NTU
BY-AP-MW-7	5/29/2019 13:26	Conductivity	233.9	uS/cm
BY-AP-MW-7	5/29/2019 13:26	Depth to Water Detail	23.47	ft
BY-AP-MW-7	5/29/2019 13:26	DO	0.43	mg/L
BY-AP-MW-7	5/29/2019 13:26	Oxidation Reduction Potention	12.2	mv
BY-AP-MW-7	5/29/2019 13:26	pH	6.18	pH
BY-AP-MW-7	5/29/2019 13:26	Temperature	23.32	C
BY-AP-MW-7	5/29/2019 13:26	Turbidity	9.7	NTU

**Alabama Power Company
Plant Barry Ash Pond**

WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
BY-AP-MW-8	5/29/2019 12:04	Conductivity	491.8	uS/cm
BY-AP-MW-8	5/29/2019 12:04	Depth to Water Detail	26.3	ft
BY-AP-MW-8	5/29/2019 12:04	DO	0.14	mg/L
BY-AP-MW-8	5/29/2019 12:04	Oxidation Reduction Potention	-89.5	mv
BY-AP-MW-8	5/29/2019 12:04	pH	6.07	pH
BY-AP-MW-8	5/29/2019 12:04	Temperature	22.46	C
BY-AP-MW-8	5/29/2019 12:04	Turbidity	2.12	NTU
BY-AP-MW-8	5/29/2019 12:09	Conductivity	489.6	uS/cm
BY-AP-MW-8	5/29/2019 12:09	Depth to Water Detail	26.3	ft
BY-AP-MW-8	5/29/2019 12:09	DO	0.11	mg/L
BY-AP-MW-8	5/29/2019 12:09	Oxidation Reduction Potention	-86.9	mv
BY-AP-MW-8	5/29/2019 12:09	pH	6.09	pH
BY-AP-MW-8	5/29/2019 12:09	Temperature	22.42	C
BY-AP-MW-8	5/29/2019 12:09	Turbidity	2.46	NTU
BY-AP-MW-8	5/29/2019 12:14	Conductivity	487.3	uS/cm
BY-AP-MW-8	5/29/2019 12:14	Depth to Water Detail	26.3	ft
BY-AP-MW-8	5/29/2019 12:14	DO	0.1	mg/L
BY-AP-MW-8	5/29/2019 12:14	Oxidation Reduction Potention	-84.5	mv
BY-AP-MW-8	5/29/2019 12:14	pH	6.11	pH
BY-AP-MW-8	5/29/2019 12:14	Temperature	22.43	C
BY-AP-MW-8	5/29/2019 12:14	Turbidity	2.41	NTU
BY-AP-MW-8	5/29/2019 12:19	Conductivity	485	uS/cm
BY-AP-MW-8	5/29/2019 12:19	Depth to Water Detail	26.3	ft
BY-AP-MW-8	5/29/2019 12:19	DO	0.09	mg/L
BY-AP-MW-8	5/29/2019 12:19	Oxidation Reduction Potention	-81.2	mv
BY-AP-MW-8	5/29/2019 12:19	pH	6.11	pH
BY-AP-MW-8	5/29/2019 12:19	Temperature	22.42	C
BY-AP-MW-8	5/29/2019 12:19	Turbidity	2.06	NTU

**Alabama Power Company
Plant Barry Ash Pond**

WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
BY-AP-MW-9	5/30/2019 8:35	Conductivity	554.5	uS/cm
BY-AP-MW-9	5/30/2019 8:35	Depth to Water Detail	22.35	ft
BY-AP-MW-9	5/30/2019 8:35	DO	0.3	mg/L
BY-AP-MW-9	5/30/2019 8:35	Oxidation Reduction Potention	-82.1	mv
BY-AP-MW-9	5/30/2019 8:35	pH	6.11	pH
BY-AP-MW-9	5/30/2019 8:35	Temperature	21.77	C
BY-AP-MW-9	5/30/2019 8:35	Turbidity	2.31	NTU
BY-AP-MW-9	5/30/2019 8:40	Conductivity	547.4	uS/cm
BY-AP-MW-9	5/30/2019 8:40	Depth to Water Detail	22.35	ft
BY-AP-MW-9	5/30/2019 8:40	DO	0.24	mg/L
BY-AP-MW-9	5/30/2019 8:40	Oxidation Reduction Potention	-81.7	mv
BY-AP-MW-9	5/30/2019 8:40	pH	6.12	pH
BY-AP-MW-9	5/30/2019 8:40	Temperature	21.76	C
BY-AP-MW-9	5/30/2019 8:40	Turbidity	1.92	NTU
BY-AP-MW-9	5/30/2019 8:45	Conductivity	542.3	uS/cm
BY-AP-MW-9	5/30/2019 8:45	Depth to Water Detail	22.35	ft
BY-AP-MW-9	5/30/2019 8:45	DO	0.21	mg/L
BY-AP-MW-9	5/30/2019 8:45	Oxidation Reduction Potention	-80.7	mv
BY-AP-MW-9	5/30/2019 8:45	pH	6.13	pH
BY-AP-MW-9	5/30/2019 8:45	Temperature	21.8	C
BY-AP-MW-9	5/30/2019 8:45	Turbidity	2.47	NTU
BY-AP-MW-9	5/30/2019 8:50	Conductivity	548.2	uS/cm
BY-AP-MW-9	5/30/2019 8:50	Depth to Water Detail	22.35	ft
BY-AP-MW-9	5/30/2019 8:50	DO	0.19	mg/L
BY-AP-MW-9	5/30/2019 8:50	Oxidation Reduction Potention	-79.8	mv
BY-AP-MW-9	5/30/2019 8:50	pH	6.14	pH
BY-AP-MW-9	5/30/2019 8:50	Temperature	21.75	C
BY-AP-MW-9	5/30/2019 8:50	Turbidity	2.15	NTU

2nd
Semi-Annual
Monitoring Event

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

Analytical Report



Sample Group : WMWBARAP_1245

Project/Site : Barry Ash Pond
Bucks, AL 36512

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

Attention : Dustin Brooks, Greg Dyer, & Lauren Parker

Released By : Laura Midkiff
lbmidkif@southernco.com
(205) 664-6197

November 08, 2019

Dear Dustin Brooks,

Enclosed are the analytical results for sample(s) received by the laboratory between October 02, 2019 and October 04, 2019. All results reported herein conform to the laboratory's most current Quality Assurance Manual. Results marked with an asterisk conform to the most current applicable TNI/NELAC requirements. Exceptions will be noted in the body of the report.

Laboratory certification ID: E571114
Issued By: State of Florida, Department of Health
Expiration: June 30, 2020

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

Sincerely,

Quality Control: **Laura Midkiff**
Digitally signed by Laura Midkiff
DN: cn=Laura Midkiff, o=Alabama Power
Company, ou=Environmental Affairs,
email=lmidkif@southernco.com, c=US
Date: 2019.11.08 11:08:44 -06'00'

Supervision: **T. Durant Maske**
Digitally signed by T. Durant Maske
DN: cn=T. Durant Maske, o=Alabama
Power Company, ou=Environmental
Affairs, email=tdmaske@southernco.com,
c=US
Date: 2019.11.12 11:47:13 -06'00'



REPORT OF LABORATORY ANALYSIS

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



Total Metals ICP

Barry Ash Pond

WMWBARAP_1245

1. This report consists of all MWs and corresponding Lab IDs listed on the Chain of Custody.
2. Refer to comments on Chain of Custody for information regarding sample receipt.
3. All standards and solutions are NIST/ISO/IEC/Guide 34 traceable and were used within their recommended shelf life.

<u>Sample ID</u>	<u>Batch ID</u>	<u>Project ID</u>
AZ22353	657713	WMWBARAP_1245
AZ22354	657713	WMWBARAP_1245
AZ22355	657713	WMWBARAP_1245
AZ22356	657713	WMWBARAP_1245
AZ22357	657713	WMWBARAP_1245
AZ22358	657713	WMWBARAP_1245
AZ22359	657713	WMWBARAP_1245
AZ22360	657713	WMWBARAP_1245
AZ22361	657713	WMWBARAP_1245
AZ22362	657713	WMWBARAP_1245
AZ22363	657714	WMWBARAP_1245
AZ22364	657714	WMWBARAP_1245
AZ22365	657714	WMWBARAP_1245
AZ22366	657714	WMWBARAP_1245
AZ22367	657714	WMWBARAP_1245
AZ22368	657714	WMWBARAP_1245
AZ22369	657714	WMWBARAP_1245
AZ22370	657714	WMWBARAP_1245
AZ22371	657714	WMWBARAP_1245
AZ22372	657714	WMWBARAP_1245
AZ22373	657715	WMWBARAP_1245
AZ22374	657715	WMWBARAP_1245
AZ22375	657715	WMWBARAP_1245
AZ22376	657715	WMWBARAP_1245
AZ22377	657715	WMWBARAP_1245
AZ22378	657715	WMWBARAP_1245
AZ22379	657715	WMWBARAP_1245
AZ22380	657715	WMWBARAP_1245
AZ22381	657715	WMWBARAP_1245
AZ22689	657715	WMWBARAP_1245
AZ22690	657716	WMWBARAP_1245

AZ22691	657716	WMWBARAP_1245
AZ22692	657716	WMWBARAP_1245
AZ22694	657716	WMWBARAP_1245
AZ22695	657716	WMWBARAP_1245
AZ22696	657716	WMWBARAP_1245
AZ22697	657716	WMWBARAP_1245

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

General Quality Control Procedures:

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

Matrix Specific Quality Control Procedures:

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

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

7. The following samples were diluted due to the analyzed sample concentration being greater than the high standard of the calibration curve:

<u>SAMPLE ID</u>	<u>ANALYTE</u>	<u>DILUTION FACTOR</u>
AZ22361	Calcium	10.15
AZ22378	Calcium	10.15
AZ22379	Calcium	10.15

8. The raw data results are shown with dilution factors included.

Case Narrative

Dissolved Metals ICP

Barry Ash Pond

WMWBARAP_1245

1. This report consists of all MWs and corresponding Lab IDs listed on the Chain of Custody.
2. Refer to comments on Chain of Custody for information regarding sample receipt.
3. All standards and solutions are NIST/ISO/IEC/Guide 34 traceable and were used within their recommended shelf life.

<u>Sample ID</u>	<u>Batch ID</u>	<u>Project ID</u>
AZ22693	657690	WMWBARAP_1245

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

General Quality Control Procedures:

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

Matrix Specific Quality Control Procedures:

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

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

Total Metals ICPMS

Barry Ash Pond

WMWBARAP_1245

1. This report consists of all MWs and corresponding Lab IDs listed on the Chain of Custody.
2. Refer to comments on Chain of Custody for information regarding sample receipt.
3. All standards and solutions are NIST/ISO/IEC/Guide 34 traceable and were used within their recommended shelf life.

<u>Sample ID</u>	<u>Batch ID</u>	<u>Project ID</u>
AZ22353	658293	WMWBARAP_1245
AZ22354	658293	WMWBARAP_1245
AZ22355	658293	WMWBARAP_1245
AZ22356	658293	WMWBARAP_1245
AZ22357	658293	WMWBARAP_1245
AZ22358	658293	WMWBARAP_1245
AZ22359	658293	WMWBARAP_1245
AZ22360	658293	WMWBARAP_1245
AZ22361	658293	WMWBARAP_1245
AZ22362	658293	WMWBARAP_1245
AZ22363	658294	WMWBARAP_1245
AZ22364	658294	WMWBARAP_1245
AZ22365	658294	WMWBARAP_1245
AZ22366	658294	WMWBARAP_1245
AZ22367	658294	WMWBARAP_1245
AZ22368	658294	WMWBARAP_1245
AZ22369	658294	WMWBARAP_1245
AZ22370	658294	WMWBARAP_1245
AZ22371	658294	WMWBARAP_1245
AZ22372	658294	WMWBARAP_1245
AZ22373	658295	WMWBARAP_1245
AZ22374	658295	WMWBARAP_1245
AZ22375	658295	WMWBARAP_1245
AZ22376	658295	WMWBARAP_1245
AZ22377	658295	WMWBARAP_1245
AZ22378	658295	WMWBARAP_1245
AZ22379	658295	WMWBARAP_1245
AZ22380	658295	WMWBARAP_1245
AZ22381	658295	WMWBARAP_1245
AZ22689	658295	WMWBARAP_1245
AZ22690	658296	WMWBARAP_1245

AZ22691	658296	WMWBARAP_1245
AZ22692	658296	WMWBARAP_1245
AZ22694	658296	WMWBARAP_1245
AZ22695	658296	WMWBARAP_1245
AZ22696	658296	WMWBARAP_1245
AZ22697	658296	WMWBARAP_1245

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

General Quality Control Procedures:

- All tune and calibration met criteria for all requested analytes.
- Prior to sample analysis, an initial calibration verification (ICV) was analyzed and all criteria were met.
- Following the ICV, an initial calibration blank (ICB) was analyzed and was below the limit of quantitation for all requested analytes.
- All continued calibration verification (CCV) were within the acceptance criteria for the requested analytes.
- All continued calibration blanks (CCB) were below the limit of quantitation for the requested analytes.
- A preparation method blank and laboratory control sample were digested and analyzed with the samples in each digestion batch.
- All laboratory control sample criteria were met.
- The method blank associated with each digestion batch passed all acceptance criteria for all requested analytes.
- The interference check samples associated with EPA 200.8 were analyzed and passed for all requested analytes.
- All sample internal standard criteria were met.

Matrix Specific Quality Control Procedures:

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

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

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

Case Narrative

Dissolved Metals ICPMS

Barry Ash Pond

WMWBARAP_1245

1. This report consists of all MWs and corresponding Lab IDs listed on the Chain of Custody.
2. Refer to comments on Chain of Custody for information regarding sample receipt.
3. All standards and solutions are NIST/ISO/IEC/Guide 34 traceable and were used within their recommended shelf life.

<u>Sample ID</u>	<u>Batch ID</u>	<u>Project ID</u>
AZ22693	658321	WMWBARAP_1245

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

General Quality Control Procedures:

- All tune and calibration met criteria for all requested analytes.
- Prior to sample analysis, an initial calibration verification (ICV) was analyzed and all criteria were met.
- Following the ICV, an initial calibration blank (ICB) was analyzed and was below the limit of quantitation for all requested analytes.
- All continued calibration verification (CCV) were within the acceptance criteria for the requested analytes.
- All continued calibration blanks (CCB) were below the limit of quantitation for the requested analytes.
- Due to no filtered method blank (MB) or laboratory control sample (LCS) submitted with the sample set, an unfiltered MB and LCS were analyzed with the samples in each batch.
- All laboratory control sample criteria were met.
- The method blank associated with each preparation batch passed all acceptance criteria for all requested analytes.
- The interference check samples associated with EPA 200.8 were analyzed and passed for all requested analytes.
- All sample internal standard criteria were met.

Matrix Specific Quality Control Procedures:

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

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

Total Mercury

Barry Ash Pond

WMWBARAP_1245

1. This report consists of all MWs and corresponding Lab IDs listed on the Chain of Custody.
2. Refer to comments on Chain of Custody for information regarding sample receipt.
3. All standards and solutions are NIST/ISO/IEC/Guide 34 traceable and were used within their recommended shelf life.

<u>Sample ID</u>	<u>Batch ID</u>	<u>Project ID</u>
AZ22353	657344	WMWBARAP_1245
AZ22354	657344	WMWBARAP_1245
AZ22355	657344	WMWBARAP_1245
AZ22356	657344	WMWBARAP_1245
AZ22357	657344	WMWBARAP_1245
AZ22358	657344	WMWBARAP_1245
AZ22359	657344	WMWBARAP_1245
AZ22360	657344	WMWBARAP_1245
AZ22361	657344	WMWBARAP_1245
AZ22362	657344	WMWBARAP_1245
AZ22363	657345	WMWBARAP_1245
AZ22364	657345	WMWBARAP_1245
AZ22365	657345	WMWBARAP_1245
AZ22366	657345	WMWBARAP_1245
AZ22367	657345	WMWBARAP_1245
AZ22368	657345	WMWBARAP_1245
AZ22369	657345	WMWBARAP_1245
AZ22370	657345	WMWBARAP_1245
AZ22371	657345	WMWBARAP_1245
AZ22372	657345	WMWBARAP_1245
AZ22373	657346	WMWBARAP_1245
AZ22374	657346	WMWBARAP_1245
AZ22375	657346	WMWBARAP_1245
AZ22376	657346	WMWBARAP_1245
AZ22377	657346	WMWBARAP_1245
AZ22378	657346	WMWBARAP_1245
AZ22379	657346	WMWBARAP_1245
AZ22380	657346	WMWBARAP_1245
AZ22381	657346	WMWBARAP_1245
AZ22689	657841	WMWBARAP_1245
AZ22690	657841	WMWBARAP_1245

AZ22691	657841	WMWBARAP_1245
AZ22692	657841	WMWBARAP_1245
AZ22694	657841	WMWBARAP_1245
AZ22695	657841	WMWBARAP_1245
AZ22696	657841	WMWBARAP_1245
AZ22697	657841	WMWBARAP_1245

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

General Quality Control Procedures:

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

Matrix Specific Quality Control Procedures:

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

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

Case Narrative

Dissolved Mercury

Barry Ash Pond

WMWBARAP_1245

1. This report consists of all MWs and corresponding Lab IDs listed on the Chain of Custody.
2. Refer to comments on Chain of Custody for information regarding sample receipt.
3. All standards and solutions are NIST/ISO/IEC/Guide 34 traceable and were used within their recommended shelf life.

Sample ID

AZ22693

Batch ID

657844

Project ID

WMWBARAP_1245

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

General Quality Control Procedures:

- Prior to sample analysis, an initial calibration verification (ICV) was analyzed and all criteria were met.
- Following the ICV, an initial calibration blank (ICB) was analyzed and was below the method detection limit for the requested analyte.
- All continued calibration verification (CCV) were within the acceptance criteria for the requested analyte.
- All continued calibration blanks (CCB) were below the limit of quantitation for the requested analyte.
- Due to no filtered method blank (MB) or laboratory control sample (LCS) submitted with the sample set, an unfiltered MB and LCS were analyzed with the samples in each batch.
- All laboratory control sample criteria were met.
- The method blank associated with each digestion batch was below the limit of quantitation for the requested analyte.
- All calibration met criteria for the requested analyte.
- All response signals were satisfactory.

Matrix Specific Quality Control Procedures:

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

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

TDS

Barry Ash Pond

WMWBARAP_1245

1. This report consists of all MWs and corresponding Lab IDs listed on the Chain of Custody.
2. Refer to comments on Chain of Custody for information regarding sample receipt.
3. All standards and solutions are NIST/ISO/IEC/Guide 34 traceable and were used within their recommended shelf life.

<u>Sample ID</u>	<u>Batch ID</u>	<u>Project ID</u>
AZ22353	657389	WMWBARAP_1245
AZ22354	657389	WMWBARAP_1245
AZ22355	657389	WMWBARAP_1245
AZ22356	657389	WMWBARAP_1245
AZ22357	657462	WMWBARAP_1245
AZ22358	657462	WMWBARAP_1245
AZ22359	657462	WMWBARAP_1245
AZ22360	657389	WMWBARAP_1245
AZ22361	657389	WMWBARAP_1245
AZ22362	657389	WMWBARAP_1245
AZ22363	657389	WMWBARAP_1245
AZ22364	657462	WMWBARAP_1245
AZ22365	657462	WMWBARAP_1245
AZ22366	657462	WMWBARAP_1245
AZ22367	657390	WMWBARAP_1245
AZ22368	657390	WMWBARAP_1245
AZ22369	657390	WMWBARAP_1245
AZ22370	657390	WMWBARAP_1245
AZ22371	657390	WMWBARAP_1245
AZ22372	657390	WMWBARAP_1245
AZ22373	657462	WMWBARAP_1245
AZ22374	657462	WMWBARAP_1245
AZ22375	657462	WMWBARAP_1245
AZ22376	657390	WMWBARAP_1245
AZ22377	657390	WMWBARAP_1245
AZ22378	657390	WMWBARAP_1245
AZ22379	657390	WMWBARAP_1245
AZ22380	657463	WMWBARAP_1245
AZ22381	657462	WMWBARAP_1245
AZ22689	657905	WMWBARAP_1245
AZ22690	657905	WMWBARAP_1245

AZ22691	657905	WMWBARAP_1245
AZ22692	657905	WMWBARAP_1245
AZ22693	657905	WMWBARAP_1245
AZ22694	657905	WMWBARAP_1245
AZ22695	657905	WMWBARAP_1245
AZ22696	657905	WMWBARAP_1245
AZ22697	657905	WMWBARAP_1245

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

General Quality Control Procedures:

- A Method Blank was analyzed with each batch. All criteria were met.
- All final weights of samples, standards, and blanks agreed within 0.5mg of the previous weight.
- A sample duplicate was analyzed with each batch. RPD/2 was less than 5%.
- A laboratory control sample was analyzed with each batch. All criteria were met.
- Samples were between 2.5mg and 200mg residue.
- All samples with residue <2.5mg had the maximum volume of 150mL filtered. Affected samples are as follows:
 - AZ22354
 - AZ22374
 - AZ22690
 - AZ22697

Anions

Barry Ash Pond

WMWBARAP_1245

1. This report consists of all MWs and corresponding Lab IDs listed on the Chain of Custody.
2. Refer to comments on Chain of Custody for information regarding sample receipt.
3. All standards and solutions are NIST/ISO/IEC/Guide 34 traceable and were used within their recommended shelf life.

<u>Sample ID</u>	<u>Batch ID</u>	<u>Project ID</u>
AZ22353	657664, 657729, & 658089	WMWBARAP_1245
AZ22354	657664, 657729, & 658089	WMWBARAP_1245
AZ22355	657664, 657729, & 658089	WMWBARAP_1245
AZ22356	657664, 657729, & 658089	WMWBARAP_1245
AZ22357	657664, 657729, & 658089	WMWBARAP_1245
AZ22358	657664, 657729, & 658089	WMWBARAP_1245
AZ22359	657664, 657729, & 658089	WMWBARAP_1245
AZ22360	657664, 657729, & 658089	WMWBARAP_1245
AZ22361	657664, 657729, & 658089	WMWBARAP_1245
AZ22362	657664, 657729, & 658089	WMWBARAP_1245
AZ22363	657665, 657730, & 658090	WMWBARAP_1245
AZ22364	657665, 657730, & 658090	WMWBARAP_1245
AZ22365	657665, 657730, & 658090	WMWBARAP_1245
AZ22366	657665, 657730, & 658090	WMWBARAP_1245
AZ22367	657665, 657730, & 658090	WMWBARAP_1245
AZ22368	657665, 657730, & 658090	WMWBARAP_1245
AZ22369	657665, 657730, & 658090	WMWBARAP_1245
AZ22370	657665, 657730, & 658090	WMWBARAP_1245
AZ22371	657665, 657730, & 658090	WMWBARAP_1245
AZ22372	657665, 657730, & 658090	WMWBARAP_1245
AZ22373	657666, 657731, & 658091	WMWBARAP_1245
AZ22374	657666, 657731, & 658091	WMWBARAP_1245
AZ22375	657666, 657731, & 658091	WMWBARAP_1245
AZ22376	657666, 657731, & 658091	WMWBARAP_1245
AZ22377	657666, 657731, & 658091	WMWBARAP_1245
AZ22378	657666, 657731, & 658091	WMWBARAP_1245
AZ22379	657666, 657731, & 658091	WMWBARAP_1245
AZ22380	657666, 657731, & 658091	WMWBARAP_1245
AZ22381	657666, 657731, & 658091	WMWBARAP_1245
AZ22689	657667, 657825, & 658092	WMWBARAP_1245
AZ22690	657667, 657825, & 658092	WMWBARAP_1245

AZ22691	657667, 657825, & 658092	WMWBARAP_1245
AZ22692	657667, 657825, & 658092	WMWBARAP_1245
AZ22693	657667, 657825, & 658092	WMWBARAP_1245
AZ22694	657667, 657825, & 658092	WMWBARAP_1245
AZ22695	657667, 657825, & 658092	WMWBARAP_1245
AZ22696	657667, 657825, & 658092	WMWBARAP_1245
AZ22697	657667, 657825, & 658092	WMWBARAP_1245

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

General Quality Control Procedures:

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

Matrix Specific Quality Control Procedures:

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

- A matrix spike was analyzed with each batch. Acceptance criteria for accuracy were met.
- A sample duplicate was analyzed with each batch. Acceptance criteria for precision were met.

7. The following samples were diluted due to the analyzed sample concentration being greater than the high standard of the calibration curve:

<u>SAMPLE ID</u>	<u>ANALYTE</u>	<u>DILUTION FACTOR</u>
AZ22353	Chloride	10
AZ22355	Chloride	5
AZ22356	Chloride	5
AZ22358	Chloride	2
AZ22360	Chloride	2
AZ22361	Chloride	2
AZ22362	Chloride	4
AZ22363	Chloride	2
AZ22366	Chloride	4
AZ22368	Chloride	2
AZ22369	Chloride	2
AZ22370	Chloride & Sulfate	4 & 3
AZ22371	Chloride & Sulfate	4 & 3
AZ22372	Chloride & Sulfate	4 & 4
AZ22373	Chloride	2
AZ22377	Chloride	2
AZ22378	Chloride	2
AZ22379	Chloride	2
AZ22689	Chloride	4
AZ22691	Chloride	2
AZ22694	Chloride	2
AZ22695	Chloride	2
AZ22696	Chloride & Sulfate	4 & 3

8. The raw data results are shown with dilution factors included.

Certificate Of Analysis

Description: Barry Ash Pond - MW-15V

Location Code: WMWBARAP
Collected: 10/1/19 10:11
Customer ID:
Submittal Date: 10/2/19 14:57

Laboratory ID Number: AZ22353

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7		Analyst: RDA			Preparation Method: EPA 1638				
* Boron, Total	10/7/19 13:00	10/8/19 10:31		1.015	0.0824	mg/L	0.03	0.1	J
* Calcium, Total	10/7/19 13:00	10/8/19 10:31		1.015	8.41	mg/L	0.1	0.5	
* Lithium, Total	10/7/19 13:00	10/8/19 10:31		1.015	Not Detected	mg/L	0.01	0.02	U
Analytical Method: EPA 200.8		Analyst: DLJ			Preparation Method: EPA 1638				
* Antimony, Total	10/7/19 10:35	10/8/19 13:52		1.015	Not Detected	mg/L	0.0008	0.003	U
* Arsenic, Total	10/7/19 10:35	10/8/19 13:52		1.015	0.0243	mg/L	0.001	0.005	
* Barium, Total	10/7/19 10:35	10/8/19 13:52		1.015	0.130	mg/L	0.002	0.01	
* Beryllium, Total	10/7/19 10:35	10/8/19 13:52		1.015	Not Detected	mg/L	0.0006	0.003	U
* Cadmium, Total	10/7/19 10:35	10/8/19 13:52		1.015	Not Detected	mg/L	0.0003	0.001	U
* Chromium, Total	10/7/19 10:35	10/8/19 13:52		1.015	Not Detected	mg/L	0.002	0.01	U
* Cobalt, Total	10/7/19 10:35	10/8/19 13:52		1.015	0.0629	mg/L	0.002	0.005	
* Lead, Total	10/7/19 10:35	10/8/19 13:52		1.015	Not Detected	mg/L	0.001	0.005	U
* Molybdenum, Total	10/7/19 10:35	10/8/19 13:52		1.015	Not Detected	mg/L	0.002	0.01	U
* Selenium, Total	10/7/19 10:35	10/8/19 13:52		1.015	Not Detected	mg/L	0.002	0.01	U
* Thallium, Total	10/7/19 10:35	10/8/19 13:52		1.015	Not Detected	mg/L	0.0002	0.001	U
Analytical Method: EPA 245.1		Analyst: ABB							
* Mercury, Total by CVAA	10/3/19 11:49	10/7/19 14:16		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: SM 2540C		Analyst: TJW							
* Solids, Dissolved	10/3/19 18:50	10/7/19 10:10		1	321	mg/L		25	
Analytical Method: SM4500Cl E		Analyst: JCC							
* Chloride	10/4/19 10:05	10/4/19 10:05		10	195	mg/L	5.00	10	
Analytical Method: SM4500F G 2017		Analyst: JCC							
* Fluoride	10/4/19 15:33	10/4/19 15:33		1	0.0931	mg/L	0.05	0.1	J
Analytical Method: SM4500SO4 E		Analyst: JCC							
* Sulfate	10/8/19 15:34	10/8/19 15:34		1	0.854	mg/L	0.50	1	J
Analytical Method: Field Measurements		Analyst: AWG							
Conductivity	10/1/19 10:08	10/1/19 10:08			633.27	uS/cm			FA
pH	10/1/19 10:08	10/1/19 10:08			5.68	SU			FA
Temperature	10/1/19 10:08	10/1/19 10:08			21.49	C			FA
Turbidity	10/1/19 10:08	10/1/19 10:08			2.31	NTU			FA

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

Comments:

Batch QC Summary

Customer Account: WMWBARAP
Sample Date: 10/1/19 10:11
Customer ID:
Delivery Date: 10/2/19 14:57

Description: Barry Ash Pond - MW-15V

Laboratory ID Number: AZ22353

Sample	Analysis	Units	MB		Spike	MS	MSD	Standard		Rec		Prec	Limit
			MB	Limit				Standard	Limit	Rec	Prec		
AZ22362	Molybdenum, Total	mg/L	0.0000802	0.0001474	0.10	0.0936	0.0939	0.0970	0.085 to 0.115	93.6	70 to 130	0.328	20
AZ22362	Mercury, Total by CVAA	mg/L	0.0000432	0.0005	0.004	0.00433	0.00417	0.00433	0.0034 to 0.0046	108	70 to 130	3.68	20
AZ22362	Lead, Total	mg/L	0.00000528	0.0001474	0.10	0.106	0.107	0.105	0.085 to 0.115	106	70 to 130	1.19	20
AZ22362	Beryllium, Total	mg/L	0.0000176	0.00088	0.10	0.0989	0.102	0.0991	0.085 to 0.115	98.9	70 to 130	3.27	20
AZ22362	Cadmium, Total	mg/L	-0.00000276	0.0001474	0.10	0.0991	0.101	0.101	0.085 to 0.115	99.1	70 to 130	1.72	20
AZ22362	Selenium, Total	mg/L	-0.0000184	0.00066	0.10	0.101	0.101	0.101	0.085 to 0.115	101	70 to 130	0.310	20
AZ22362	Barium, Total	mg/L	-0.0000216	0.0002	0.10	0.175	0.176	0.0986	0.085 to 0.115	95.2	70 to 130	0.625	20
AZ22362	Boron, Total	mg/L	0.000443	0.0650254	1.00	1.12	1.10	0.985	0.85 to 1.15	102	70 to 130	1.04	20
AZ22362	Chromium, Total	mg/L	0.00000487	0.00044	0.10	0.102	0.0994	0.100	0.085 to 0.115	98.3	70 to 130	2.12	20
AZ22362	Antimony, Total	mg/L	0.000183	0.00066	0.10	0.0957	0.0981	0.0952	0.085 to 0.115	95.7	70 to 130	2.44	20
AZ22362	Cobalt, Total	mg/L	-0.00000079	0.0001474	0.10	0.102	0.102	0.101	0.085 to 0.115	99.1	70 to 130	0.296	20
AZ22362	Lithium, Total	mg/L	-0.000124	0.0154	0.20	0.212	0.210	0.198	0.17 to 0.23	106	70 to 130	0.961	20
AZ22362	Thallium, Total	mg/L	0.00000412	0.0001474	0.10	0.105	0.104	0.107	0.085 to 0.115	105	70 to 130	0.919	20
AZ22362	Arsenic, Total	mg/L	0.0000259	0.0001474	0.10	0.122	0.123	0.0990	0.085 to 0.115	100	70 to 130	0.650	20
AZ22362	Calcium, Total	mg/L	0.00709	0.1518	5.00	28.1	28.1	5.12	4.25 to 5.75	99.6	70 to 130	0.0473	20

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

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

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

Comments:

Batch QC Summary

Customer Account: WMWBARAP

Sample Date: 10/1/19 10:11

Customer ID:

Delivery Date: 10/2/19 14:57

Description: Barry Ash Pond - MW-15V

Laboratory ID Number: AZ22353

Sample	Analysis	Units	MB	MB			Sample		Standard		Rec			Prec
				Limit	Spike	MS	Duplicate	Standard	Limit	Rec	Limit	Prec	Limit	
AZ22362	Sulfate	mg/L	-0.295	0.50	200	210	37.0	19.6	18 to 22	87.4	80 to 120	4.70	20	
AZ22362	Fluoride	mg/L	0.0225	0.05	2.50	2.60	0.0619	2.51	2.25 to 2.75	101	80 to 120	9.68	20	
AZ22362	Chloride	mg/L	0.0139	0.50	40.0	66.7	30.3	9.87	9 to 11	102	80 to 120	14.9	20	
AZ22363	Solids, Dissolved	mg/L	0.0000	25			300	48.0	40 to 60			0.840	5	

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

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments:

Certificate Of Analysis

Description: Barry Ash Pond Field Blank

Location Code: WMWBARAPFB
Collected: 10/1/19 10:30
Customer ID:
Submittal Date: 10/2/19 14:57

Laboratory ID Number: AZ22354

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7			Analyst: RDA		Preparation Method: EPA 1638				
* Boron, Total	10/7/19 13:00	10/8/19 10:34		1.015	Not Detected	mg/L	0.03	0.1	U
* Calcium, Total	10/7/19 13:00	10/8/19 10:34		1.015	Not Detected	mg/L	0.1	0.5	U
* Lithium, Total	10/7/19 13:00	10/8/19 10:34		1.015	Not Detected	mg/L	0.01	0.02	U
Analytical Method: EPA 200.8			Analyst: DLJ		Preparation Method: EPA 1638				
* Antimony, Total	10/7/19 10:35	10/8/19 13:55		1.015	0.00191	mg/L	0.0008	0.003	J
* Arsenic, Total	10/7/19 10:35	10/8/19 13:55		1.015	Not Detected	mg/L	0.001	0.005	U
* Barium, Total	10/7/19 10:35	10/8/19 13:55		1.015	Not Detected	mg/L	0.002	0.01	U
* Beryllium, Total	10/7/19 10:35	10/8/19 13:55		1.015	Not Detected	mg/L	0.0006	0.003	U
* Cadmium, Total	10/7/19 10:35	10/8/19 13:55		1.015	Not Detected	mg/L	0.0003	0.001	U
* Chromium, Total	10/7/19 10:35	10/8/19 13:55		1.015	Not Detected	mg/L	0.002	0.01	U
* Cobalt, Total	10/7/19 10:35	10/8/19 13:55		1.015	Not Detected	mg/L	0.002	0.005	U
* Lead, Total	10/7/19 10:35	10/8/19 13:55		1.015	Not Detected	mg/L	0.001	0.005	U
* Molybdenum, Total	10/7/19 10:35	10/8/19 13:55		1.015	Not Detected	mg/L	0.002	0.01	U
* Selenium, Total	10/7/19 10:35	10/8/19 13:55		1.015	Not Detected	mg/L	0.002	0.01	U
* Thallium, Total	10/7/19 10:35	10/8/19 13:55		1.015	Not Detected	mg/L	0.0002	0.001	U
Analytical Method: EPA 245.1			Analyst: ABB						
* Mercury, Total by CVAA	10/3/19 11:49	10/7/19 14:19		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: SM 2540C			Analyst: TJW						
* Solids, Dissolved	10/3/19 18:50	10/7/19 10:10		1	Not Detected	mg/L		25	U
Analytical Method: SM4500CI E			Analyst: JCC						
* Chloride	10/4/19 10:06	10/4/19 10:06		1	Not Detected	mg/L	0.50	1	U
Analytical Method: SM4500F G 2017			Analyst: JCC						
* Fluoride	10/4/19 15:34	10/4/19 15:34		1	Not Detected	mg/L	0.05	0.1	U
Analytical Method: SM4500SO4 E			Analyst: JCC						
* Sulfate	10/8/19 15:36	10/8/19 15:36		1	Not Detected	mg/L	0.50	1	U

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

Comments:

Batch QC Summary

Customer Account: WMWBARAPFB
Sample Date: 10/1/19 10:30
Customer ID:
Delivery Date: 10/2/19 14:57

Description: Barry Ash Pond Field Blank

Laboratory ID Number: AZ22354

Sample	Analysis	Units	MB		Spike	MS	MSD	Standard	Standard Limit	Rec		Prec Limit	
			MB	Limit						Rec	Limit		
AZ22362	Molybdenum, Total	mg/L	0.0000802	0.0001474	0.10	0.0936	0.0939	0.0970	0.085 to 0.115	93.6	70 to 130	0.328	20
AZ22362	Lead, Total	mg/L	0.0000528	0.0001474	0.10	0.106	0.107	0.105	0.085 to 0.115	106	70 to 130	1.19	20
AZ22362	Mercury, Total by CVAA	mg/L	0.0000432	0.0005	0.004	0.00433	0.00417	0.00433	0.0034 to 0.0046	108	70 to 130	3.68	20
AZ22362	Cobalt, Total	mg/L	-0.0000079	0.0001474	0.10	0.102	0.102	0.101	0.085 to 0.115	99.1	70 to 130	0.296	20
AZ22362	Lithium, Total	mg/L	-0.000124	0.0154	0.20	0.212	0.210	0.198	0.17 to 0.23	106	70 to 130	0.961	20
AZ22362	Thallium, Total	mg/L	0.00000412	0.0001474	0.10	0.105	0.104	0.107	0.085 to 0.115	105	70 to 130	0.919	20
AZ22362	Barium, Total	mg/L	-0.0000216	0.0002	0.10	0.175	0.176	0.0986	0.085 to 0.115	95.2	70 to 130	0.625	20
AZ22362	Boron, Total	mg/L	0.000443	0.0650254	1.00	1.12	1.10	0.985	0.85 to 1.15	102	70 to 130	1.04	20
AZ22362	Chromium, Total	mg/L	0.00000487	0.00044	0.10	0.102	0.0994	0.100	0.085 to 0.115	98.3	70 to 130	2.12	20
AZ22362	Antimony, Total	mg/L	0.000183	0.00066	0.10	0.0957	0.0981	0.0952	0.085 to 0.115	95.7	70 to 130	2.44	20
AZ22362	Beryllium, Total	mg/L	0.0000176	0.00088	0.10	0.0989	0.102	0.0991	0.085 to 0.115	98.9	70 to 130	3.27	20
AZ22362	Cadmium, Total	mg/L	-0.00000276	0.0001474	0.10	0.0991	0.101	0.101	0.085 to 0.115	99.1	70 to 130	1.72	20
AZ22362	Selenium, Total	mg/L	-0.0000184	0.00066	0.10	0.101	0.101	0.101	0.085 to 0.115	101	70 to 130	0.310	20
AZ22362	Arsenic, Total	mg/L	0.0000259	0.0001474	0.10	0.122	0.123	0.0990	0.085 to 0.115	100	70 to 130	0.650	20
AZ22362	Calcium, Total	mg/L	0.00709	0.1518	5.00	28.1	28.1	5.12	4.25 to 5.75	99.6	70 to 130	0.0473	20

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

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114
 Issued By: State of Florida, Department of Health
 Expiration: June 30, 2018

Comments:

Batch QC Summary

Customer Account: WMWBARAPFB

Sample Date: 10/1/19 10:30

Customer ID:

Delivery Date: 10/2/19 14:57

Description: Barry Ash Pond Field Blank

Laboratory ID Number: AZ22354

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Limit	Prec	Limit
AZ22362	Sulfate	mg/L	-0.295	0.50	200	210	37.0	19.6	18 to 22	87.4	80 to 120	4.70	20
AZ22362	Fluoride	mg/L	0.0225	0.05	2.50	2.60	0.0619	2.51	2.25 to 2.75	101	80 to 120	9.68	20
AZ22362	Chloride	mg/L	0.0139	0.50	40.0	66.7	30.3	9.87	9 to 11	102	80 to 120	14.9	20
AZ22363	Solids, Dissolved	mg/L	0.0000	25			300	48.0	40 to 60			0.840	5

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

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments:

Certificate Of Analysis

Description: Barry Ash Pond - MW-22H

Location Code: WMWBARAP
Collected: 10/1/19 11:10
Customer ID:
Submittal Date: 10/2/19 14:57

Laboratory ID Number: AZ22355

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7			Analyst: RDA		Preparation Method: EPA 1638				
* Boron, Total	10/7/19 13:00	10/8/19 10:37		1.015	0.105	mg/L	0.03	0.1	
* Calcium, Total	10/7/19 13:00	10/8/19 10:37		1.015	15.5	mg/L	0.1	0.5	
* Lithium, Total	10/7/19 13:00	10/8/19 10:37		1.015	Not Detected	mg/L	0.01	0.02	U
Analytical Method: EPA 200.8			Analyst: DLJ		Preparation Method: EPA 1638				
* Antimony, Total	10/7/19 10:35	10/8/19 13:57		1.015	Not Detected	mg/L	0.0008	0.003	U
* Arsenic, Total	10/7/19 10:35	10/8/19 13:57		1.015	0.0225	mg/L	0.001	0.005	
* Barium, Total	10/7/19 10:35	10/8/19 13:57		1.015	0.213	mg/L	0.002	0.01	
* Beryllium, Total	10/7/19 10:35	10/8/19 13:57		1.015	Not Detected	mg/L	0.0006	0.003	U
* Cadmium, Total	10/7/19 10:35	10/8/19 13:57		1.015	Not Detected	mg/L	0.0003	0.001	U
* Chromium, Total	10/7/19 10:35	10/8/19 13:57		1.015	Not Detected	mg/L	0.002	0.01	U
* Cobalt, Total	10/7/19 10:35	10/8/19 13:57		1.015	0.00268	mg/L	0.002	0.005	J
* Lead, Total	10/7/19 10:35	10/8/19 13:57		1.015	Not Detected	mg/L	0.001	0.005	U
* Molybdenum, Total	10/7/19 10:35	10/8/19 13:57		1.015	Not Detected	mg/L	0.002	0.01	U
* Selenium, Total	10/7/19 10:35	10/8/19 13:57		1.015	Not Detected	mg/L	0.002	0.01	U
* Thallium, Total	10/7/19 10:35	10/8/19 13:57		1.015	Not Detected	mg/L	0.0002	0.001	U
Analytical Method: EPA 245.1			Analyst: ABB						
* Mercury, Total by CVAA	10/3/19 11:49	10/7/19 14:21		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: SM 2540C			Analyst: TJW						
* Solids, Dissolved	10/3/19 18:50	10/7/19 10:10		1	346	mg/L		25	
Analytical Method: SM4500Cl E			Analyst: JCC						
* Chloride	10/4/19 10:07	10/4/19 10:07		5	70.0	mg/L	2.50	5	
Analytical Method: SM4500F G 2017			Analyst: JCC						
* Fluoride	10/4/19 15:35	10/4/19 15:35		1	0.268	mg/L	0.05	0.1	
Analytical Method: SM4500SO4 E			Analyst: JCC						
* Sulfate	10/8/19 15:37	10/8/19 15:37		1	17.2	mg/L	0.50	1	
Analytical Method: Field Measurements			Analyst: AWG						
Conductivity	10/1/19 11:07	10/1/19 11:07			650.22	uS/cm			FA
pH	10/1/19 11:07	10/1/19 11:07			6.60	SU			FA
Temperature	10/1/19 11:07	10/1/19 11:07			20.81	C			FA
Turbidity	10/1/19 11:07	10/1/19 11:07			2.6	NTU			FA

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

Comments:

Batch QC Summary

Customer Account: WMWBARAP
Sample Date: 10/1/19 11:10
Customer ID:
Delivery Date: 10/2/19 14:57

Description: Barry Ash Pond - MW-22H

Laboratory ID Number: AZ22355

Sample	Analysis	Units	MB		Spike	MS	MSD	Standard		Rec		Prec	Limit
			MB	Limit				Standard	Limit	Rec	Prec		
AZ22362	Molybdenum, Total	mg/L	0.0000802	0.0001474	0.10	0.0936	0.0939	0.0970	0.085 to 0.115	93.6	70 to 130	0.328	20
AZ22362	Mercury, Total by CVAA	mg/L	0.0000432	0.0005	0.004	0.00433	0.00417	0.00433	0.0034 to 0.0046	108	70 to 130	3.68	20
AZ22362	Lead, Total	mg/L	0.00000528	0.0001474	0.10	0.106	0.107	0.105	0.085 to 0.115	106	70 to 130	1.19	20
AZ22362	Arsenic, Total	mg/L	0.0000259	0.0001474	0.10	0.122	0.123	0.0990	0.085 to 0.115	100	70 to 130	0.650	20
AZ22362	Calcium, Total	mg/L	0.00709	0.1518	5.00	28.1	28.1	5.12	4.25 to 5.75	99.6	70 to 130	0.0473	20
AZ22362	Barium, Total	mg/L	-0.0000216	0.0002	0.10	0.175	0.176	0.0986	0.085 to 0.115	95.2	70 to 130	0.625	20
AZ22362	Boron, Total	mg/L	0.000443	0.0650254	1.00	1.12	1.10	0.985	0.85 to 1.15	102	70 to 130	1.04	20
AZ22362	Chromium, Total	mg/L	0.00000487	0.00044	0.10	0.102	0.0994	0.100	0.085 to 0.115	98.3	70 to 130	2.12	20
AZ22362	Antimony, Total	mg/L	0.000183	0.00066	0.10	0.0957	0.0981	0.0952	0.085 to 0.115	95.7	70 to 130	2.44	20
AZ22362	Beryllium, Total	mg/L	0.0000176	0.00088	0.10	0.0989	0.102	0.0991	0.085 to 0.115	98.9	70 to 130	3.27	20
AZ22362	Cadmium, Total	mg/L	-0.00000276	0.0001474	0.10	0.0991	0.101	0.101	0.085 to 0.115	99.1	70 to 130	1.72	20
AZ22362	Selenium, Total	mg/L	-0.0000184	0.00066	0.10	0.101	0.101	0.101	0.085 to 0.115	101	70 to 130	0.310	20
AZ22362	Cobalt, Total	mg/L	-0.00000079	0.0001474	0.10	0.102	0.102	0.101	0.085 to 0.115	99.1	70 to 130	0.296	20
AZ22362	Lithium, Total	mg/L	-0.000124	0.0154	0.20	0.212	0.210	0.198	0.17 to 0.23	106	70 to 130	0.961	20
AZ22362	Thallium, Total	mg/L	0.00000412	0.0001474	0.10	0.105	0.104	0.107	0.085 to 0.115	105	70 to 130	0.919	20

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

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114
 Issued By: State of Florida, Department of Health
 Expiration: June 30, 2018

Comments:

Batch QC Summary

Customer Account: WMWBARAP

Sample Date: 10/1/19 11:10

Customer ID:

Delivery Date: 10/2/19 14:57

Description: Barry Ash Pond - MW-22H

Laboratory ID Number: AZ22355

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Limit	Prec	Prec Limit
AZ22362	Sulfate	mg/L	-0.295	0.50	200	210	37.0	19.6	18 to 22	87.4	80 to 120	4.70	20
AZ22362	Chloride	mg/L	0.0139	0.50	40.0	66.7	30.3	9.87	9 to 11	102	80 to 120	14.9	20
AZ22363	Solids, Dissolved	mg/L	0.0000	25			300	48.0	40 to 60			0.840	5
AZ22362	Fluoride	mg/L	0.0225	0.05	2.50	2.60	0.0619	2.51	2.25 to 2.75	101	80 to 120	9.68	20

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

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments:

Certificate Of Analysis

Description: Barry Ash Pond - MW-20H

Location Code: WMWBARAP
Collected: 10/1/19 13:05
Customer ID:
Submittal Date: 10/2/19 14:57

Laboratory ID Number: AZ22356

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7		Analyst: RDA			Preparation Method: EPA 1638				
* Boron, Total	10/7/19 13:00	10/8/19 10:40		1.015	0.101	mg/L	0.03	0.1	
* Calcium, Total	10/7/19 13:00	10/8/19 10:40		1.015	29.4	mg/L	0.1	0.5	
* Lithium, Total	10/7/19 13:00	10/8/19 10:40		1.015	Not Detected	mg/L	0.01	0.02	U
Analytical Method: EPA 200.8		Analyst: DLJ			Preparation Method: EPA 1638				
* Antimony, Total	10/7/19 10:35	10/8/19 14:00		1.015	Not Detected	mg/L	0.0008	0.003	U
* Arsenic, Total	10/7/19 10:35	10/8/19 14:00		1.015	0.0130	mg/L	0.001	0.005	
* Barium, Total	10/7/19 10:35	10/8/19 14:00		1.015	0.0913	mg/L	0.002	0.01	
* Beryllium, Total	10/7/19 10:35	10/8/19 14:00		1.015	Not Detected	mg/L	0.0006	0.003	U
* Cadmium, Total	10/7/19 10:35	10/8/19 14:00		1.015	Not Detected	mg/L	0.0003	0.001	U
* Chromium, Total	10/7/19 10:35	10/8/19 14:00		1.015	0.00250	mg/L	0.002	0.01	J
* Cobalt, Total	10/7/19 10:35	10/8/19 14:00		1.015	0.00431	mg/L	0.002	0.005	J
* Lead, Total	10/7/19 10:35	10/8/19 14:00		1.015	Not Detected	mg/L	0.001	0.005	U
* Molybdenum, Total	10/7/19 10:35	10/8/19 14:00		1.015	Not Detected	mg/L	0.002	0.01	U
* Selenium, Total	10/7/19 10:35	10/8/19 14:00		1.015	Not Detected	mg/L	0.002	0.01	U
* Thallium, Total	10/7/19 10:35	10/8/19 14:00		1.015	Not Detected	mg/L	0.0002	0.001	U
Analytical Method: EPA 245.1		Analyst: ABB							
* Mercury, Total by CVAA	10/3/19 11:49	10/7/19 14:23		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: SM 2540C		Analyst: TJW							
* Solids, Dissolved	10/3/19 18:50	10/7/19 10:10		1	470	mg/L		25	
Analytical Method: SM4500Cl E		Analyst: JCC							
* Chloride	10/4/19 10:08	10/4/19 10:08		5	44.7	mg/L	2.50	5	
Analytical Method: SM4500F G 2017		Analyst: JCC							
* Fluoride	10/4/19 15:37	10/4/19 15:37		1	0.0838	mg/L	0.05	0.1	J
Analytical Method: SM4500SO4 E		Analyst: JCC							
* Sulfate	10/8/19 15:38	10/8/19 15:38		1	28.9	mg/L	0.50	1	
Analytical Method: Field Measurements		Analyst: AWG							
Conductivity	10/1/19 13:00	10/1/19 13:00			784.91	uS/cm			FA
pH	10/1/19 13:00	10/1/19 13:00			6.24	SU			FA
Temperature	10/1/19 13:00	10/1/19 13:00			20.92	C			FA
Turbidity	10/1/19 13:00	10/1/19 13:00			1.37	NTU			FA

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

Comments:

Batch QC Summary

Customer Account: WMWBARAP
Sample Date: 10/1/19 13:05
Customer ID:
Delivery Date: 10/2/19 14:57

Description: Barry Ash Pond - MW-20H

Laboratory ID Number: AZ22356

Sample	Analysis	Units	MB		Spike	MS	MSD	Standard		Rec		Prec	Limit
			MB	Limit				Standard	Limit	Rec	Prec		
AZ22362	Molybdenum, Total	mg/L	0.0000802	0.0001474	0.10	0.0936	0.0939	0.0970	0.085 to 0.115	93.6	70 to 130	0.328	20
AZ22362	Lead, Total	mg/L	0.0000528	0.0001474	0.10	0.106	0.107	0.105	0.085 to 0.115	106	70 to 130	1.19	20
AZ22362	Mercury, Total by CVAA	mg/L	0.0000432	0.0005	0.004	0.00433	0.00417	0.00433	0.0034 to 0.0046	108	70 to 130	3.68	20
AZ22362	Cobalt, Total	mg/L	-0.0000079	0.0001474	0.10	0.102	0.102	0.101	0.085 to 0.115	99.1	70 to 130	0.296	20
AZ22362	Lithium, Total	mg/L	-0.000124	0.0154	0.20	0.212	0.210	0.198	0.17 to 0.23	106	70 to 130	0.961	20
AZ22362	Thallium, Total	mg/L	0.00000412	0.0001474	0.10	0.105	0.104	0.107	0.085 to 0.115	105	70 to 130	0.919	20
AZ22362	Barium, Total	mg/L	-0.0000216	0.0002	0.10	0.175	0.176	0.0986	0.085 to 0.115	95.2	70 to 130	0.625	20
AZ22362	Boron, Total	mg/L	0.000443	0.0650254	1.00	1.12	1.10	0.985	0.85 to 1.15	102	70 to 130	1.04	20
AZ22362	Chromium, Total	mg/L	0.00000487	0.00044	0.10	0.102	0.0994	0.100	0.085 to 0.115	98.3	70 to 130	2.12	20
AZ22362	Antimony, Total	mg/L	0.000183	0.00066	0.10	0.0957	0.0981	0.0952	0.085 to 0.115	95.7	70 to 130	2.44	20
AZ22362	Beryllium, Total	mg/L	0.0000176	0.00088	0.10	0.0989	0.102	0.0991	0.085 to 0.115	98.9	70 to 130	3.27	20
AZ22362	Cadmium, Total	mg/L	-0.00000276	0.0001474	0.10	0.0991	0.101	0.101	0.085 to 0.115	99.1	70 to 130	1.72	20
AZ22362	Selenium, Total	mg/L	-0.0000184	0.00066	0.10	0.101	0.101	0.101	0.085 to 0.115	101	70 to 130	0.310	20
AZ22362	Arsenic, Total	mg/L	0.0000259	0.0001474	0.10	0.122	0.123	0.0990	0.085 to 0.115	100	70 to 130	0.650	20
AZ22362	Calcium, Total	mg/L	0.00709	0.1518	5.00	28.1	28.1	5.12	4.25 to 5.75	99.6	70 to 130	0.0473	20

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

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114
 Issued By: State of Florida, Department of Health
 Expiration: June 30, 2018

Comments:

Batch QC Summary

Customer Account: WMWBARAP
Sample Date: 10/1/19 13:05
Customer ID:
Delivery Date: 10/2/19 14:57

Description: Barry Ash Pond - MW-20H

Laboratory ID Number: AZ22356

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
AZ22362	Sulfate	mg/L	-0.295	0.50	200	210	37.0	19.6	18 to 22	87.4	80 to 120	4.70	20
AZ22362	Fluoride	mg/L	0.0225	0.05	2.50	2.60	0.0619	2.51	2.25 to 2.75	101	80 to 120	9.68	20
AZ22363	Solids, Dissolved	mg/L	0.0000	25			300	48.0	40 to 60			0.840	5
AZ22362	Chloride	mg/L	0.0139	0.50	40.0	66.7	30.3	9.87	9 to 11	102	80 to 120	14.9	20

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Laboratory certification ID: E571114
 Issued By: State of Florida, Department of Health
 Expiration: June 30, 2017

Comments:

Certificate Of Analysis

Description: Barry Ash Pond - MW-19H

Location Code: WMWBARAP
Collected: 10/1/19 13:57
Customer ID:
Submittal Date: 10/2/19 14:57

Laboratory ID Number: AZ22357

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7		Analyst: RDA			Preparation Method: EPA 1638				
* Boron, Total	10/7/19 13:00	10/8/19 10:43		1.015	0.931	mg/L	0.03	0.1	
* Calcium, Total	10/7/19 13:00	10/8/19 10:43		1.015	31.1	mg/L	0.1	0.5	
* Lithium, Total	10/7/19 13:00	10/8/19 10:43		1.015	Not Detected	mg/L	0.01	0.02	U
Analytical Method: EPA 200.8		Analyst: DLJ			Preparation Method: EPA 1638				
* Antimony, Total	10/7/19 10:35	10/8/19 14:03		1.015	Not Detected	mg/L	0.0008	0.003	U
* Arsenic, Total	10/7/19 10:35	10/8/19 14:03		1.015	Not Detected	mg/L	0.001	0.005	U
* Barium, Total	10/7/19 10:35	10/8/19 14:03		1.015	0.113	mg/L	0.002	0.01	
* Beryllium, Total	10/7/19 10:35	10/8/19 14:03		1.015	Not Detected	mg/L	0.0006	0.003	U
* Cadmium, Total	10/7/19 10:35	10/8/19 14:03		1.015	Not Detected	mg/L	0.0003	0.001	U
* Chromium, Total	10/7/19 10:35	10/8/19 14:03		1.015	Not Detected	mg/L	0.002	0.01	U
* Cobalt, Total	10/7/19 10:35	10/8/19 14:03		1.015	Not Detected	mg/L	0.002	0.005	U
* Lead, Total	10/7/19 10:35	10/8/19 14:03		1.015	Not Detected	mg/L	0.001	0.005	U
* Molybdenum, Total	10/7/19 10:35	10/8/19 14:03		1.015	Not Detected	mg/L	0.002	0.01	U
* Selenium, Total	10/7/19 10:35	10/8/19 14:03		1.015	Not Detected	mg/L	0.002	0.01	U
* Thallium, Total	10/7/19 10:35	10/8/19 14:03		1.015	Not Detected	mg/L	0.0002	0.001	U
Analytical Method: EPA 245.1		Analyst: ABB							
* Mercury, Total by CVAA	10/3/19 11:49	10/7/19 14:26		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: SM 2540C		Analyst: TJW							
* Solids, Dissolved	10/4/19 12:30	10/8/19 09:30		1	316	mg/L		25	
Analytical Method: SM4500Cl E		Analyst: JCC							
* Chloride	10/4/19 10:10	10/4/19 10:10		1	16.8	mg/L	0.50	1	
Analytical Method: SM4500F G 2017		Analyst: JCC							
* Fluoride	10/4/19 15:38	10/4/19 15:38		1	0.0712	mg/L	0.05	0.1	J
Analytical Method: SM4500SO4 E		Analyst: JCC							
* Sulfate	10/8/19 15:39	10/8/19 15:39		1	5.90	mg/L	0.50	1	
Analytical Method: Field Measurements		Analyst: AWG							
Conductivity	10/1/19 13:54	10/1/19 13:54			575.89	uS/cm			FA
pH	10/1/19 13:54	10/1/19 13:54			6.33	SU			FA
Temperature	10/1/19 13:54	10/1/19 13:54			21.13	C			FA
Turbidity	10/1/19 13:54	10/1/19 13:54			2.8	NTU			FA

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

Comments:

Batch QC Summary

Customer Account: WMWBARAP
Sample Date: 10/1/19 13:57
Customer ID:
Delivery Date: 10/2/19 14:57

Description: Barry Ash Pond - MW-19H

Laboratory ID Number: AZ22357

Sample	Analysis	Units	MB				Standard			Rec		Prec	
			MB	Limit	Spike	MS	MSD	Standard	Limit	Rec	Limit	Prec	
AZ22362	Molybdenum, Total	mg/L	0.0000802	0.0001474	0.10	0.0936	0.0939	0.0970	0.085 to 0.115	93.6	70 to 130	0.328	20
AZ22362	Mercury, Total by CVAA	mg/L	0.0000432	0.0005	0.004	0.00433	0.00417	0.00433	0.0034 to 0.0046	108	70 to 130	3.68	20
AZ22362	Lead, Total	mg/L	0.00000528	0.0001474	0.10	0.106	0.107	0.105	0.085 to 0.115	106	70 to 130	1.19	20
AZ22362	Beryllium, Total	mg/L	0.0000176	0.00088	0.10	0.0989	0.102	0.0991	0.085 to 0.115	98.9	70 to 130	3.27	20
AZ22362	Cadmium, Total	mg/L	-0.00000276	0.0001474	0.10	0.0991	0.101	0.101	0.085 to 0.115	99.1	70 to 130	1.72	20
AZ22362	Selenium, Total	mg/L	-0.0000184	0.00066	0.10	0.101	0.101	0.101	0.085 to 0.115	101	70 to 130	0.310	20
AZ22362	Cobalt, Total	mg/L	-0.00000079	0.0001474	0.10	0.102	0.102	0.101	0.085 to 0.115	99.1	70 to 130	0.296	20
AZ22362	Lithium, Total	mg/L	-0.000124	0.0154	0.20	0.212	0.210	0.198	0.17 to 0.23	106	70 to 130	0.961	20
AZ22362	Thallium, Total	mg/L	0.00000412	0.0001474	0.10	0.105	0.104	0.107	0.085 to 0.115	105	70 to 130	0.919	20
AZ22362	Barium, Total	mg/L	-0.0000216	0.0002	0.10	0.175	0.176	0.0986	0.085 to 0.115	95.2	70 to 130	0.625	20
AZ22362	Boron, Total	mg/L	0.000443	0.0650254	1.00	1.12	1.10	0.985	0.85 to 1.15	102	70 to 130	1.04	20
AZ22362	Chromium, Total	mg/L	0.00000487	0.00044	0.10	0.102	0.0994	0.100	0.085 to 0.115	98.3	70 to 130	2.12	20
AZ22362	Antimony, Total	mg/L	0.000183	0.00066	0.10	0.0957	0.0981	0.0952	0.085 to 0.115	95.7	70 to 130	2.44	20
AZ22362	Arsenic, Total	mg/L	0.0000259	0.0001474	0.10	0.122	0.123	0.0990	0.085 to 0.115	100	70 to 130	0.650	20
AZ22362	Calcium, Total	mg/L	0.00709	0.1518	5.00	28.1	28.1	5.12	4.25 to 5.75	99.6	70 to 130	0.0473	20

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* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114
 Issued By: State of Florida, Department of Health
 Expiration: June 30, 2018

Comments:

Batch QC Summary

Customer Account: WMWBARAP

Sample Date: 10/1/19 13:57

Customer ID:

Delivery Date: 10/2/19 14:57

Description: Barry Ash Pond - MW-19H

Laboratory ID Number: AZ22357

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Limit	Prec	Limit
AZ22362	Sulfate	mg/L	-0.295	0.50	200	210	37.0	19.6	18 to 22	87.4	80 to 120	4.70	20
AZ22362	Fluoride	mg/L	0.0225	0.05	2.50	2.60	0.0619	2.51	2.25 to 2.75	101	80 to 120	9.68	20
AZ22362	Chloride	mg/L	0.0139	0.50	40.0	66.7	30.3	9.87	9 to 11	102	80 to 120	14.9	20
AZ22373	Solids, Dissolved	mg/L	0.0000	25			430	50.0	40 to 60			0.00	5

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

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments:

Certificate Of Analysis

Description: Barry Ash Pond - MW-18H

Location Code: WMWBARAP
Collected: 10/1/19 14:57
Customer ID:
Submittal Date: 10/2/19 14:57

Laboratory ID Number: AZ22358

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7		Analyst: RDA			Preparation Method: EPA 1638				
* Boron, Total	10/7/19 13:00	10/8/19 10:45		1.015	1.05	mg/L	0.03	0.1	
* Calcium, Total	10/7/19 13:00	10/8/19 10:45		1.015	27.2	mg/L	0.1	0.5	
* Lithium, Total	10/7/19 13:00	10/8/19 10:45		1.015	Not Detected	mg/L	0.01	0.02	U
Analytical Method: EPA 200.8		Analyst: DLJ			Preparation Method: EPA 1638				
* Antimony, Total	10/7/19 10:35	10/8/19 14:05		1.015	Not Detected	mg/L	0.0008	0.003	U
* Arsenic, Total	10/7/19 10:35	10/8/19 14:05		1.015	0.0137	mg/L	0.001	0.005	
* Barium, Total	10/7/19 10:35	10/8/19 14:05		1.015	0.126	mg/L	0.002	0.01	
* Beryllium, Total	10/7/19 10:35	10/8/19 14:05		1.015	Not Detected	mg/L	0.0006	0.003	U
* Cadmium, Total	10/7/19 10:35	10/8/19 14:05		1.015	Not Detected	mg/L	0.0003	0.001	U
* Chromium, Total	10/7/19 10:35	10/8/19 14:05		1.015	Not Detected	mg/L	0.002	0.01	U
* Cobalt, Total	10/7/19 10:35	10/8/19 14:05		1.015	Not Detected	mg/L	0.002	0.005	U
* Lead, Total	10/7/19 10:35	10/8/19 14:05		1.015	Not Detected	mg/L	0.001	0.005	U
* Molybdenum, Total	10/7/19 10:35	10/8/19 14:05		1.015	Not Detected	mg/L	0.002	0.01	U
* Selenium, Total	10/7/19 10:35	10/8/19 14:05		1.015	Not Detected	mg/L	0.002	0.01	U
* Thallium, Total	10/7/19 10:35	10/8/19 14:05		1.015	Not Detected	mg/L	0.0002	0.001	U
Analytical Method: EPA 245.1		Analyst: ABB							
* Mercury, Total by CVAA	10/3/19 11:49	10/7/19 14:28		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: SM 2540C		Analyst: TJW							
* Solids, Dissolved	10/4/19 12:30	10/8/19 09:30		1	283	mg/L		25	
Analytical Method: SM4500Cl E		Analyst: JCC							
* Chloride	10/4/19 10:11	10/4/19 10:11		2	20.1	mg/L	1.00	2	
Analytical Method: SM4500F G 2017		Analyst: JCC							
* Fluoride	10/4/19 15:39	10/4/19 15:39		1	0.071	mg/L	0.05	0.1	J
Analytical Method: SM4500SO4 E		Analyst: JCC							
* Sulfate	10/8/19 15:40	10/8/19 15:40		1	8.49	mg/L	0.50	1	
Analytical Method: Field Measurements		Analyst: AWG							
Conductivity	10/1/19 14:54	10/1/19 14:54			435.14	uS/cm			FA
pH	10/1/19 14:54	10/1/19 14:54			6.26	SU			FA
Temperature	10/1/19 14:54	10/1/19 14:54			21.76	C			FA
Turbidity	10/1/19 14:54	10/1/19 14:54			2.99	NTU			FA

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

Comments:

Batch QC Summary

Customer Account: WMWBARAP
Sample Date: 10/1/19 14:57
Customer ID:
Delivery Date: 10/2/19 14:57

Description: Barry Ash Pond - MW-18H

Laboratory ID Number: AZ22358

Sample	Analysis	Units	MB					Standard		Rec		Prec	Limit
			MB	Limit	Spike	MS	MSD	Standard	Limit	Rec	Limit		
AZ22362	Lead, Total	mg/L	0.0000528	0.0001474	0.10	0.106	0.107	0.105	0.085 to 0.115	106	70 to 130	1.19	20
AZ22362	Molybdenum, Total	mg/L	0.0000802	0.0001474	0.10	0.0936	0.0939	0.0970	0.085 to 0.115	93.6	70 to 130	0.328	20
AZ22362	Mercury, Total by CVAA	mg/L	0.0000432	0.0005	0.004	0.00433	0.00417	0.00433	0.0034 to 0.0046	108	70 to 130	3.68	20
AZ22362	Cobalt, Total	mg/L	-0.00000079	0.0001474	0.10	0.102	0.102	0.101	0.085 to 0.115	99.1	70 to 130	0.296	20
AZ22362	Lithium, Total	mg/L	-0.000124	0.0154	0.20	0.212	0.210	0.198	0.17 to 0.23	106	70 to 130	0.961	20
AZ22362	Thallium, Total	mg/L	0.00000412	0.0001474	0.10	0.105	0.104	0.107	0.085 to 0.115	105	70 to 130	0.919	20
AZ22362	Arsenic, Total	mg/L	0.0000259	0.0001474	0.10	0.122	0.123	0.0990	0.085 to 0.115	100	70 to 130	0.650	20
AZ22362	Calcium, Total	mg/L	0.00709	0.1518	5.00	28.1	28.1	5.12	4.25 to 5.75	99.6	70 to 130	0.0473	20
AZ22362	Beryllium, Total	mg/L	0.0000176	0.00088	0.10	0.0989	0.102	0.0991	0.085 to 0.115	98.9	70 to 130	3.27	20
AZ22362	Cadmium, Total	mg/L	-0.00000276	0.0001474	0.10	0.0991	0.101	0.101	0.085 to 0.115	99.1	70 to 130	1.72	20
AZ22362	Selenium, Total	mg/L	-0.0000184	0.00066	0.10	0.101	0.101	0.101	0.085 to 0.115	101	70 to 130	0.310	20
AZ22362	Barium, Total	mg/L	-0.0000216	0.0002	0.10	0.175	0.176	0.0986	0.085 to 0.115	95.2	70 to 130	0.625	20
AZ22362	Boron, Total	mg/L	0.000443	0.0650254	1.00	1.12	1.10	0.985	0.85 to 1.15	102	70 to 130	1.04	20
AZ22362	Chromium, Total	mg/L	0.00000487	0.00044	0.10	0.102	0.0994	0.100	0.085 to 0.115	98.3	70 to 130	2.12	20
AZ22362	Antimony, Total	mg/L	0.000183	0.00066	0.10	0.0957	0.0981	0.0952	0.085 to 0.115	95.7	70 to 130	2.44	20

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

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

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114
 Issued By: State of Florida, Department of Health
 Expiration: June 30, 2018

Comments:

Batch QC Summary

Customer Account: WMWBARAP

Sample Date: 10/1/19 14:57

Customer ID:

Delivery Date: 10/2/19 14:57

Description: Barry Ash Pond - MW-18H

Laboratory ID Number: AZ22358

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Limit	Prec	Prec Limit
AZ22362	Sulfate	mg/L	-0.295	0.50	200	210	37.0	19.6	18 to 22	87.4	80 to 120	4.70	20
AZ22362	Fluoride	mg/L	0.0225	0.05	2.50	2.60	0.0619	2.51	2.25 to 2.75	101	80 to 120	9.68	20
AZ22362	Chloride	mg/L	0.0139	0.50	40.0	66.7	30.3	9.87	9 to 11	102	80 to 120	14.9	20
AZ22373	Solids, Dissolved	mg/L	0.0000	25			430	50.0	40 to 60			0.00	5

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* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments:

Certificate Of Analysis

Description: Barry Ash Pond - MW-23H

Location Code: WMWBARAP
Collected: 10/1/19 15:55
Customer ID:
Submittal Date: 10/2/19 14:57

Laboratory ID Number: AZ22359

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7		Analyst: RDA			Preparation Method: EPA 1638				
* Boron, Total	10/7/19 13:00	10/8/19 10:48		1.015	0.0856	mg/L	0.03	0.1	J
* Calcium, Total	10/7/19 13:00	10/8/19 10:48		1.015	27.2	mg/L	0.1	0.5	
* Lithium, Total	10/7/19 13:00	10/8/19 10:48		1.015	Not Detected	mg/L	0.01	0.02	U
Analytical Method: EPA 200.8		Analyst: DLJ			Preparation Method: EPA 1638				
* Antimony, Total	10/7/19 10:35	10/8/19 14:08		1.015	Not Detected	mg/L	0.0008	0.003	U
* Arsenic, Total	10/7/19 10:35	10/8/19 14:08		1.015	0.0130	mg/L	0.001	0.005	
* Barium, Total	10/7/19 10:35	10/8/19 14:08		1.015	0.175	mg/L	0.002	0.01	
* Beryllium, Total	10/7/19 10:35	10/8/19 14:08		1.015	Not Detected	mg/L	0.0006	0.003	U
* Cadmium, Total	10/7/19 10:35	10/8/19 14:08		1.015	Not Detected	mg/L	0.0003	0.001	U
* Chromium, Total	10/7/19 10:35	10/8/19 14:08		1.015	Not Detected	mg/L	0.002	0.01	U
* Cobalt, Total	10/7/19 10:35	10/8/19 14:08		1.015	0.00201	mg/L	0.002	0.005	J
* Lead, Total	10/7/19 10:35	10/8/19 14:08		1.015	Not Detected	mg/L	0.001	0.005	U
* Molybdenum, Total	10/7/19 10:35	10/8/19 14:08		1.015	Not Detected	mg/L	0.002	0.01	U
* Selenium, Total	10/7/19 10:35	10/8/19 14:08		1.015	Not Detected	mg/L	0.002	0.01	U
* Thallium, Total	10/7/19 10:35	10/8/19 14:08		1.015	Not Detected	mg/L	0.0002	0.001	U
Analytical Method: EPA 245.1		Analyst: ABB							
* Mercury, Total by CVAA	10/3/19 11:49	10/7/19 14:30		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: SM 2540C		Analyst: TJW							
* Solids, Dissolved	10/4/19 12:30	10/8/19 09:30		1	261	mg/L		25	
Analytical Method: SM4500Cl E		Analyst: JCC							
* Chloride	10/4/19 10:12	10/4/19 10:12		1	6.70	mg/L	0.50	1	
Analytical Method: SM4500F G 2017		Analyst: JCC							
* Fluoride	10/4/19 15:40	10/4/19 15:40		1	0.0804	mg/L	0.05	0.1	J
Analytical Method: SM4500SO4 E		Analyst: JCC							
* Sulfate	10/8/19 15:42	10/8/19 15:42		1	4.89	mg/L	0.50	1	
Analytical Method: Field Measurements		Analyst: AWG							
Conductivity	10/1/19 15:52	10/1/19 15:52			446.70	uS/cm			FA
pH	10/1/19 15:52	10/1/19 15:52			6.03	SU			FA
Temperature	10/1/19 15:52	10/1/19 15:52			20.97	C			FA
Turbidity	10/1/19 15:52	10/1/19 15:52			7.33	NTU			FA

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

Comments:

Batch QC Summary

Customer Account: WMWBARAP
Sample Date: 10/1/19 15:55
Customer ID:
Delivery Date: 10/2/19 14:57

Description: Barry Ash Pond - MW-23H

Laboratory ID Number: AZ22359

Sample	Analysis	Units	MB		Spike	MS	MSD	Standard		Rec		Prec	Limit
			MB	Limit				Standard	Limit	Rec	Limit		
AZ22362	Molybdenum, Total	mg/L	0.0000802	0.0001474	0.10	0.0936	0.0939	0.0970	0.085 to 0.115	93.6	70 to 130	0.328	20
AZ22362	Mercury, Total by CVAA	mg/L	0.0000432	0.0005	0.004	0.00433	0.00417	0.00433	0.0034 to 0.0046	108	70 to 130	3.68	20
AZ22362	Lead, Total	mg/L	0.00000528	0.0001474	0.10	0.106	0.107	0.105	0.085 to 0.115	106	70 to 130	1.19	20
AZ22362	Cobalt, Total	mg/L	-0.00000079	0.0001474	0.10	0.102	0.102	0.101	0.085 to 0.115	99.1	70 to 130	0.296	20
AZ22362	Lithium, Total	mg/L	-0.000124	0.0154	0.20	0.212	0.210	0.198	0.17 to 0.23	106	70 to 130	0.961	20
AZ22362	Thallium, Total	mg/L	0.00000412	0.0001474	0.10	0.105	0.104	0.107	0.085 to 0.115	105	70 to 130	0.919	20
AZ22362	Beryllium, Total	mg/L	0.0000176	0.00088	0.10	0.0989	0.102	0.0991	0.085 to 0.115	98.9	70 to 130	3.27	20
AZ22362	Cadmium, Total	mg/L	-0.00000276	0.0001474	0.10	0.0991	0.101	0.101	0.085 to 0.115	99.1	70 to 130	1.72	20
AZ22362	Selenium, Total	mg/L	-0.0000184	0.00066	0.10	0.101	0.101	0.101	0.085 to 0.115	101	70 to 130	0.310	20
AZ22362	Arsenic, Total	mg/L	0.0000259	0.0001474	0.10	0.122	0.123	0.0990	0.085 to 0.115	100	70 to 130	0.650	20
AZ22362	Calcium, Total	mg/L	0.00709	0.1518	5.00	28.1	28.1	5.12	4.25 to 5.75	99.6	70 to 130	0.0473	20
AZ22362	Barium, Total	mg/L	-0.0000216	0.0002	0.10	0.175	0.176	0.0986	0.085 to 0.115	95.2	70 to 130	0.625	20
AZ22362	Boron, Total	mg/L	0.000443	0.0650254	1.00	1.12	1.10	0.985	0.85 to 1.15	102	70 to 130	1.04	20
AZ22362	Chromium, Total	mg/L	0.00000487	0.00044	0.10	0.102	0.0994	0.100	0.085 to 0.115	98.3	70 to 130	2.12	20
AZ22362	Antimony, Total	mg/L	0.000183	0.00066	0.10	0.0957	0.0981	0.0952	0.085 to 0.115	95.7	70 to 130	2.44	20

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

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

Comments:

Batch QC Summary

Customer Account: WMWBARAP

Sample Date: 10/1/19 15:55

Customer ID:

Delivery Date: 10/2/19 14:57

Description: Barry Ash Pond - MW-23H

Laboratory ID Number: AZ22359

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Limit	Prec	Prec Limit
AZ22362	Sulfate	mg/L	-0.295	0.50	200	210	37.0	19.6	18 to 22	87.4	80 to 120	4.70	20
AZ22362	Fluoride	mg/L	0.0225	0.05	2.50	2.60	0.0619	2.51	2.25 to 2.75	101	80 to 120	9.68	20
AZ22362	Chloride	mg/L	0.0139	0.50	40.0	66.7	30.3	9.87	9 to 11	102	80 to 120	14.9	20
AZ22373	Solids, Dissolved	mg/L	0.0000	25			430	50.0	40 to 60			0.00	5

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments:

Certificate Of Analysis

Description: Barry Ash Pond - MW-8

Location Code: WMWBARAP
Collected: 9/30/19 13:57
Customer ID:
Submittal Date: 10/2/19 14:57

Laboratory ID Number: AZ22360

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7			Analyst: RDA		Preparation Method: EPA 1638				
* Boron, Total	10/7/19 13:00	10/8/19 10:51		1.015	1.38	mg/L	0.03	0.1	
* Calcium, Total	10/7/19 13:00	10/8/19 10:51		1.015	33.0	mg/L	0.1	0.5	
* Lithium, Total	10/7/19 13:00	10/8/19 10:51		1.015	Not Detected	mg/L	0.01	0.02	U
Analytical Method: EPA 200.8			Analyst: DLJ		Preparation Method: EPA 1638				
* Antimony, Total	10/7/19 10:35	10/8/19 14:10		1.015	Not Detected	mg/L	0.0008	0.003	U
* Arsenic, Total	10/7/19 10:35	10/8/19 14:10		1.015	0.0514	mg/L	0.001	0.005	
* Barium, Total	10/7/19 10:35	10/8/19 14:10		1.015	0.138	mg/L	0.002	0.01	
* Beryllium, Total	10/7/19 10:35	10/8/19 14:10		1.015	Not Detected	mg/L	0.0006	0.003	U
* Cadmium, Total	10/7/19 10:35	10/8/19 14:10		1.015	Not Detected	mg/L	0.0003	0.001	U
* Chromium, Total	10/7/19 10:35	10/8/19 14:10		1.015	Not Detected	mg/L	0.002	0.01	U
* Cobalt, Total	10/7/19 10:35	10/8/19 14:10		1.015	Not Detected	mg/L	0.002	0.005	U
* Lead, Total	10/7/19 10:35	10/8/19 14:10		1.015	Not Detected	mg/L	0.001	0.005	U
* Molybdenum, Total	10/7/19 10:35	10/8/19 14:10		1.015	Not Detected	mg/L	0.002	0.01	U
* Selenium, Total	10/7/19 10:35	10/8/19 14:10		1.015	Not Detected	mg/L	0.002	0.01	U
* Thallium, Total	10/7/19 10:35	10/8/19 14:10		1.015	Not Detected	mg/L	0.0002	0.001	U
Analytical Method: EPA 245.1			Analyst: ABB						
* Mercury, Total by CVAA	10/3/19 11:49	10/7/19 14:33		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: SM 2540C			Analyst: TJW						
* Solids, Dissolved	10/3/19 18:50	10/7/19 10:10		1	293	mg/L		25	
Analytical Method: SM4500Cl E			Analyst: JCC						
* Chloride	10/4/19 10:13	10/4/19 10:13		2	25.5	mg/L	1.00	2	
Analytical Method: SM4500F G 2017			Analyst: JCC						
* Fluoride	10/4/19 15:41	10/4/19 15:41		1	0.0559	mg/L	0.05	0.1	J
Analytical Method: SM4500SO4 E			Analyst: JCC						
* Sulfate	10/8/19 15:43	10/8/19 15:43		1	5.29	mg/L	0.50	1	
Analytical Method: Field Measurements			Analyst: TJD						
Conductivity	9/30/19 13:54	9/30/19 13:54			495.07	uS/cm			FA
pH	9/30/19 13:54	9/30/19 13:54			6.19	SU			FA
Temperature	9/30/19 13:54	9/30/19 13:54			22.91	C			FA
Turbidity	9/30/19 13:54	9/30/19 13:54			1.28	NTU			FA

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

Comments:

Batch QC Summary

Customer Account: WMWBARAP
Sample Date: 9/30/19 13:57
Customer ID:
Delivery Date: 10/2/19 14:57

Description: Barry Ash Pond - MW-8

Laboratory ID Number: AZ22360

Sample	Analysis	Units	MB		Spike	MS	MSD	Standard		Rec		Prec	Limit
			MB	Limit				Standard	Limit	Rec	Prec		
AZ22362	Molybdenum, Total	mg/L	0.0000802	0.0001474	0.10	0.0936	0.0939	0.0970	0.085 to 0.115	93.6	70 to 130	0.328	20
AZ22362	Mercury, Total by CVAA	mg/L	0.0000432	0.0005	0.004	0.00433	0.00417	0.00433	0.0034 to 0.0046	108	70 to 130	3.68	20
AZ22362	Lead, Total	mg/L	0.00000528	0.0001474	0.10	0.106	0.107	0.105	0.085 to 0.115	106	70 to 130	1.19	20
AZ22362	Cobalt, Total	mg/L	-0.00000079	0.0001474	0.10	0.102	0.102	0.101	0.085 to 0.115	99.1	70 to 130	0.296	20
AZ22362	Lithium, Total	mg/L	-0.000124	0.0154	0.20	0.212	0.210	0.198	0.17 to 0.23	106	70 to 130	0.961	20
AZ22362	Thallium, Total	mg/L	0.00000412	0.0001474	0.10	0.105	0.104	0.107	0.085 to 0.115	105	70 to 130	0.919	20
AZ22362	Beryllium, Total	mg/L	0.0000176	0.00088	0.10	0.0989	0.102	0.0991	0.085 to 0.115	98.9	70 to 130	3.27	20
AZ22362	Cadmium, Total	mg/L	-0.00000276	0.0001474	0.10	0.0991	0.101	0.101	0.085 to 0.115	99.1	70 to 130	1.72	20
AZ22362	Selenium, Total	mg/L	-0.0000184	0.00066	0.10	0.101	0.101	0.101	0.085 to 0.115	101	70 to 130	0.310	20
AZ22362	Arsenic, Total	mg/L	0.0000259	0.0001474	0.10	0.122	0.123	0.0990	0.085 to 0.115	100	70 to 130	0.650	20
AZ22362	Calcium, Total	mg/L	0.00709	0.1518	5.00	28.1	28.1	5.12	4.25 to 5.75	99.6	70 to 130	0.0473	20
AZ22362	Barium, Total	mg/L	-0.0000216	0.0002	0.10	0.175	0.176	0.0986	0.085 to 0.115	95.2	70 to 130	0.625	20
AZ22362	Boron, Total	mg/L	0.000443	0.0650254	1.00	1.12	1.10	0.985	0.85 to 1.15	102	70 to 130	1.04	20
AZ22362	Chromium, Total	mg/L	0.00000487	0.00044	0.10	0.102	0.0994	0.100	0.085 to 0.115	98.3	70 to 130	2.12	20
AZ22362	Antimony, Total	mg/L	0.000183	0.00066	0.10	0.0957	0.0981	0.0952	0.085 to 0.115	95.7	70 to 130	2.44	20

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

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114
 Issued By: State of Florida, Department of Health
 Expiration: June 30, 2018

Comments:

Batch QC Summary

Customer Account: WMWBARAP

Sample Date: 9/30/19 13:57

Customer ID:

Delivery Date: 10/2/19 14:57

Description: Barry Ash Pond - MW-8

Laboratory ID Number: AZ22360

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
AZ22362	Sulfate	mg/L	-0.295	0.50	200	210	37.0	19.6	18 to 22	87.4	80 to 120	4.70	20
AZ22362	Chloride	mg/L	0.0139	0.50	40.0	66.7	30.3	9.87	9 to 11	102	80 to 120	14.9	20
AZ22363	Solids, Dissolved	mg/L	0.0000	25			300	48.0	40 to 60			0.840	5
AZ22362	Fluoride	mg/L	0.0225	0.05	2.50	2.60	0.0619	2.51	2.25 to 2.75	101	80 to 120	9.68	20

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

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

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments:

Certificate Of Analysis

Description: Barry Ash Pond - MW-10

Location Code: WMWBARAP
Collected: 9/30/19 15:55
Customer ID:
Submittal Date: 10/2/19 14:57

Laboratory ID Number: AZ22361

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7			Analyst: RDA		Preparation Method: EPA 1638				
* Boron, Total	10/7/19 13:00	10/8/19 10:54		1.015	2.02	mg/L	0.03	0.1	
* Calcium, Total	10/7/19 13:00	10/8/19 13:13		10.15	63.1	mg/L	1.015	5.075	
* Lithium, Total	10/7/19 13:00	10/8/19 10:54		1.015	Not Detected	mg/L	0.01	0.02	U
Analytical Method: EPA 200.8			Analyst: DLJ		Preparation Method: EPA 1638				
* Antimony, Total	10/7/19 10:35	10/8/19 14:13		1.015	Not Detected	mg/L	0.0008	0.003	U
* Arsenic, Total	10/7/19 10:35	10/8/19 14:13		1.015	0.0704	mg/L	0.001	0.005	
* Barium, Total	10/7/19 10:35	10/8/19 14:13		1.015	0.0669	mg/L	0.002	0.01	
* Beryllium, Total	10/7/19 10:35	10/8/19 14:13		1.015	Not Detected	mg/L	0.0006	0.003	U
* Cadmium, Total	10/7/19 10:35	10/8/19 14:13		1.015	Not Detected	mg/L	0.0003	0.001	U
* Chromium, Total	10/7/19 10:35	10/8/19 14:13		1.015	Not Detected	mg/L	0.002	0.01	U
* Cobalt, Total	10/7/19 10:35	10/8/19 14:13		1.015	Not Detected	mg/L	0.002	0.005	U
* Lead, Total	10/7/19 10:35	10/8/19 14:13		1.015	Not Detected	mg/L	0.001	0.005	U
* Molybdenum, Total	10/7/19 10:35	10/8/19 14:13		1.015	Not Detected	mg/L	0.002	0.01	U
* Selenium, Total	10/7/19 10:35	10/8/19 14:13		1.015	Not Detected	mg/L	0.002	0.01	U
* Thallium, Total	10/7/19 10:35	10/8/19 14:13		1.015	Not Detected	mg/L	0.0002	0.001	U
Analytical Method: EPA 245.1			Analyst: ABB						
* Mercury, Total by CVAA	10/3/19 11:49	10/7/19 14:35		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: SM 2540C			Analyst: TJW						
* Solids, Dissolved	10/3/19 18:50	10/7/19 10:10		1	361	mg/L		25	
Analytical Method: SM4500Cl E			Analyst: JCC						
* Chloride	10/4/19 10:14	10/4/19 10:14		2	25.7	mg/L	1.00	2	
Analytical Method: SM4500F G 2017			Analyst: JCC						
* Fluoride	10/4/19 15:43	10/4/19 15:43		1	Not Detected	mg/L	0.05	0.1	U
Analytical Method: SM4500SO4 E			Analyst: JCC						
* Sulfate	10/8/19 15:44	10/8/19 15:44		1	2.77	mg/L	0.50	1	
Analytical Method: Field Measurements			Analyst: TJD						
Conductivity	9/30/19 15:52	9/30/19 15:52			642.97	uS/cm			FA
pH	9/30/19 15:52	9/30/19 15:52			6.11	SU			FA
Temperature	9/30/19 15:52	9/30/19 15:52			22.79	C			FA
Turbidity	9/30/19 15:52	9/30/19 15:52			1.08	NTU			FA

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

Comments:

Batch QC Summary

Customer Account: WMWBARAP
Sample Date: 9/30/19 15:55
Customer ID:
Delivery Date: 10/2/19 14:57

Description: Barry Ash Pond - MW-10

Laboratory ID Number: AZ22361

Sample	Analysis	Units	MB		Spike	MS	MSD	Standard	Standard Limit	Rec		Prec Limit	
			MB	Limit						Rec	Prec		
AZ22362	Molybdenum, Total	mg/L	0.0000802	0.0001474	0.10	0.0936	0.0939	0.0970	0.085 to 0.115	93.6	70 to 130	0.328	20
AZ22362	Lead, Total	mg/L	0.0000528	0.0001474	0.10	0.106	0.107	0.105	0.085 to 0.115	106	70 to 130	1.19	20
AZ22362	Mercury, Total by CVAA	mg/L	0.0000432	0.0005	0.004	0.00433	0.00417	0.00433	0.0034 to 0.0046	108	70 to 130	3.68	20
AZ22362	Cobalt, Total	mg/L	-0.00000079	0.0001474	0.10	0.102	0.102	0.101	0.085 to 0.115	99.1	70 to 130	0.296	20
AZ22362	Lithium, Total	mg/L	-0.000124	0.0154	0.20	0.212	0.210	0.198	0.17 to 0.23	106	70 to 130	0.961	20
AZ22362	Thallium, Total	mg/L	0.00000412	0.0001474	0.10	0.105	0.104	0.107	0.085 to 0.115	105	70 to 130	0.919	20
AZ22362	Beryllium, Total	mg/L	0.0000176	0.00088	0.10	0.0989	0.102	0.0991	0.085 to 0.115	98.9	70 to 130	3.27	20
AZ22362	Cadmium, Total	mg/L	-0.00000276	0.0001474	0.10	0.0991	0.101	0.101	0.085 to 0.115	99.1	70 to 130	1.72	20
AZ22362	Selenium, Total	mg/L	-0.0000184	0.00066	0.10	0.101	0.101	0.101	0.085 to 0.115	101	70 to 130	0.310	20
AZ22362	Barium, Total	mg/L	-0.0000216	0.0002	0.10	0.175	0.176	0.0986	0.085 to 0.115	95.2	70 to 130	0.625	20
AZ22362	Boron, Total	mg/L	0.000443	0.0650254	1.00	1.12	1.10	0.985	0.85 to 1.15	102	70 to 130	1.04	20
AZ22362	Chromium, Total	mg/L	0.00000487	0.00044	0.10	0.102	0.0994	0.100	0.085 to 0.115	98.3	70 to 130	2.12	20
AZ22362	Antimony, Total	mg/L	0.000183	0.00066	0.10	0.0957	0.0981	0.0952	0.085 to 0.115	95.7	70 to 130	2.44	20
AZ22362	Arsenic, Total	mg/L	0.0000259	0.0001474	0.10	0.122	0.123	0.0990	0.085 to 0.115	100	70 to 130	0.650	20
AZ22362	Calcium, Total	mg/L	0.00709	0.1518	5.00	28.1	28.1	5.12	4.25 to 5.75	99.6	70 to 130	0.0473	20

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

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

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114
 Issued By: State of Florida, Department of Health
 Expiration: June 30, 2018

Comments:

Batch QC Summary

Customer Account: WMWBARAP

Sample Date: 9/30/19 15:55

Customer ID:

Delivery Date: 10/2/19 14:57

Description: Barry Ash Pond - MW-10

Laboratory ID Number: AZ22361

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Limit	Prec	Limit
AZ22362	Sulfate	mg/L	-0.295	0.50	200	210	37.0	19.6	18 to 22	87.4	80 to 120	4.70	20
AZ22362	Fluoride	mg/L	0.0225	0.05	2.50	2.60	0.0619	2.51	2.25 to 2.75	101	80 to 120	9.68	20
AZ22362	Chloride	mg/L	0.0139	0.50	40.0	66.7	30.3	9.87	9 to 11	102	80 to 120	14.9	20
AZ22363	Solids, Dissolved	mg/L	0.0000	25			300	48.0	40 to 60			0.840	5

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments:

Certificate Of Analysis

Description: Barry Ash Pond - MW-12

Location Code: WMWBARAP
Collected: 10/1/19 09:42
Customer ID:
Submittal Date: 10/2/19 14:57

Laboratory ID Number: AZ22362

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7		Analyst: RDA			Preparation Method: EPA 1638				
* Boron, Total	10/7/19 13:00	10/8/19 10:57		1.015	0.0967	mg/L	0.03	0.1	J
* Calcium, Total	10/7/19 13:00	10/8/19 10:57		1.015	23.1	mg/L	0.1	0.5	
* Lithium, Total	10/7/19 13:00	10/8/19 10:57		1.015	Not Detected	mg/L	0.01	0.02	U
Analytical Method: EPA 200.8		Analyst: DLJ			Preparation Method: EPA 1638				
* Antimony, Total	10/7/19 10:35	10/8/19 14:16		1.015	Not Detected	mg/L	0.0008	0.003	U
* Arsenic, Total	10/7/19 10:35	10/8/19 14:16		1.015	0.0221	mg/L	0.001	0.005	
* Barium, Total	10/7/19 10:35	10/8/19 14:16		1.015	0.0795	mg/L	0.002	0.01	
* Beryllium, Total	10/7/19 10:35	10/8/19 14:16		1.015	Not Detected	mg/L	0.0006	0.003	U
* Cadmium, Total	10/7/19 10:35	10/8/19 14:16		1.015	Not Detected	mg/L	0.0003	0.001	U
* Chromium, Total	10/7/19 10:35	10/8/19 14:16		1.015	0.00325	mg/L	0.002	0.01	J
* Cobalt, Total	10/7/19 10:35	10/8/19 14:16		1.015	0.00303	mg/L	0.002	0.005	J
* Lead, Total	10/7/19 10:35	10/8/19 14:16		1.015	Not Detected	mg/L	0.001	0.005	U
* Molybdenum, Total	10/7/19 10:35	10/8/19 14:16		1.015	Not Detected	mg/L	0.002	0.01	U
* Selenium, Total	10/7/19 10:35	10/8/19 14:16		1.015	Not Detected	mg/L	0.002	0.01	U
* Thallium, Total	10/7/19 10:35	10/8/19 14:16		1.015	Not Detected	mg/L	0.0002	0.001	U
Analytical Method: EPA 245.1		Analyst: ABB							
* Mercury, Total by CVAA	10/3/19 11:49	10/7/19 14:37		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: SM 2540C		Analyst: TJW							
* Solids, Dissolved	10/3/19 18:50	10/7/19 10:10		1	344	mg/L		25	
Analytical Method: SM4500Cl E		Analyst: JCC							
* Chloride	10/4/19 10:16	10/4/19 10:16		4	26.1	mg/L	2.00	4	
Analytical Method: SM4500F G 2017		Analyst: JCC							
* Fluoride	10/4/19 15:44	10/4/19 15:44		1	0.0682	mg/L	0.05	0.1	J
Analytical Method: SM4500SO4 E		Analyst: JCC							
* Sulfate	10/8/19 15:45	10/8/19 15:45		1	35.3	mg/L	0.50	1	
Analytical Method: Field Measurements		Analyst: TJD							
Conductivity	10/1/19 09:38	10/1/19 09:38			567.19	uS/cm			FA
pH	10/1/19 09:38	10/1/19 09:38			6.00	SU			FA
Temperature	10/1/19 09:38	10/1/19 09:38			21.10	C			FA
Turbidity	10/1/19 09:38	10/1/19 09:38			4.45	NTU			FA

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

Comments:

Batch QC Summary

Customer Account: WMWBARAP
Sample Date: 10/1/19 09:42
Customer ID:
Delivery Date: 10/2/19 14:57

Description: Barry Ash Pond - MW-12

Laboratory ID Number: AZ22362

Sample	Analysis	Units	MB		Spike	MS	MSD	Standard		Rec		Prec	Limit
			MB	Limit				Standard	Limit	Rec	Prec		
AZ22362	Molybdenum, Total	mg/L	0.0000802	0.0001474	0.10	0.0936	0.0939	0.0970	0.085 to 0.115	93.6	70 to 130	0.328	20
AZ22362	Mercury, Total by CVAA	mg/L	0.0000432	0.0005	0.004	0.00433	0.00417	0.00433	0.0034 to 0.0046	108	70 to 130	3.68	20
AZ22362	Lead, Total	mg/L	0.00000528	0.0001474	0.10	0.106	0.107	0.105	0.085 to 0.115	106	70 to 130	1.19	20
AZ22362	Cobalt, Total	mg/L	-0.00000079	0.0001474	0.10	0.102	0.102	0.101	0.085 to 0.115	99.1	70 to 130	0.296	20
AZ22362	Lithium, Total	mg/L	-0.000124	0.0154	0.20	0.212	0.210	0.198	0.17 to 0.23	106	70 to 130	0.961	20
AZ22362	Thallium, Total	mg/L	0.00000412	0.0001474	0.10	0.105	0.104	0.107	0.085 to 0.115	105	70 to 130	0.919	20
AZ22362	Arsenic, Total	mg/L	0.0000259	0.0001474	0.10	0.122	0.123	0.0990	0.085 to 0.115	100	70 to 130	0.650	20
AZ22362	Calcium, Total	mg/L	0.00709	0.1518	5.00	28.1	28.1	5.12	4.25 to 5.75	99.6	70 to 130	0.0473	20
AZ22362	Barium, Total	mg/L	-0.0000216	0.0002	0.10	0.175	0.176	0.0986	0.085 to 0.115	95.2	70 to 130	0.625	20
AZ22362	Boron, Total	mg/L	0.000443	0.0650254	1.00	1.12	1.10	0.985	0.85 to 1.15	102	70 to 130	1.04	20
AZ22362	Chromium, Total	mg/L	0.00000487	0.00044	0.10	0.102	0.0994	0.100	0.085 to 0.115	98.3	70 to 130	2.12	20
AZ22362	Antimony, Total	mg/L	0.000183	0.00066	0.10	0.0957	0.0981	0.0952	0.085 to 0.115	95.7	70 to 130	2.44	20
AZ22362	Beryllium, Total	mg/L	0.0000176	0.00088	0.10	0.0989	0.102	0.0991	0.085 to 0.115	98.9	70 to 130	3.27	20
AZ22362	Cadmium, Total	mg/L	-0.00000276	0.0001474	0.10	0.0991	0.101	0.101	0.085 to 0.115	99.1	70 to 130	1.72	20
AZ22362	Selenium, Total	mg/L	-0.0000184	0.00066	0.10	0.101	0.101	0.101	0.085 to 0.115	101	70 to 130	0.310	20

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Laboratory certification ID: E571114
 Issued By: State of Florida, Department of Health
 Expiration: June 30, 2018

Comments:

Batch QC Summary

Customer Account: WMWBARAP

Sample Date: 10/1/19 09:42

Customer ID:

Delivery Date: 10/2/19 14:57

Description: Barry Ash Pond - MW-12

Laboratory ID Number: AZ22362

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Limit	Prec	Prec Limit
AZ22362	Fluoride	mg/L	0.0225	0.05	2.50	2.60	0.0619	2.51	2.25 to 2.75	101	80 to 120	9.68	20
AZ22362	Sulfate	mg/L	-0.295	0.50	200	210	37.0	19.6	18 to 22	87.4	80 to 120	4.70	20
AZ22363	Solids, Dissolved	mg/L	0.0000	25			300	48.0	40 to 60			0.840	5
AZ22362	Chloride	mg/L	0.0139	0.50	40.0	66.7	30.3	9.87	9 to 11	102	80 to 120	14.9	20

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments:

Certificate Of Analysis

Description: Barry Ash Pond - MW-16

Location Code: WMWBARAP
Collected: 10/1/19 11:32
Customer ID:
Submittal Date: 10/2/19 14:57

Laboratory ID Number: AZ22363

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7			Analyst: RDA		Preparation Method: EPA 1638				
* Boron, Total	10/7/19 13:00	10/8/19 11:12		1.015	2.05	mg/L	0.03	0.1	
* Calcium, Total	10/7/19 13:00	10/8/19 11:12		1.015	11.7	mg/L	0.1	0.5	
* Lithium, Total	10/7/19 13:00	10/8/19 11:12		1.015	Not Detected	mg/L	0.01	0.02	U
Analytical Method: EPA 200.8			Analyst: DLJ		Preparation Method: EPA 1638				
* Antimony, Total	10/7/19 10:35	10/8/19 14:32		1.015	Not Detected	mg/L	0.0008	0.003	U
* Arsenic, Total	10/7/19 10:35	10/8/19 14:32		1.015	0.0138	mg/L	0.001	0.005	
* Barium, Total	10/7/19 10:35	10/8/19 14:32		1.015	0.0803	mg/L	0.002	0.01	
* Beryllium, Total	10/7/19 10:35	10/8/19 14:32		1.015	Not Detected	mg/L	0.0006	0.003	U
* Cadmium, Total	10/7/19 10:35	10/8/19 14:32		1.015	Not Detected	mg/L	0.0003	0.001	U
* Chromium, Total	10/7/19 10:35	10/8/19 14:32		1.015	Not Detected	mg/L	0.002	0.01	U
* Cobalt, Total	10/7/19 10:35	10/8/19 14:32		1.015	0.0107	mg/L	0.002	0.005	
* Lead, Total	10/7/19 10:35	10/8/19 14:32		1.015	Not Detected	mg/L	0.001	0.005	U
* Molybdenum, Total	10/7/19 10:35	10/8/19 14:32		1.015	Not Detected	mg/L	0.002	0.01	U
* Selenium, Total	10/7/19 10:35	10/8/19 14:32		1.015	Not Detected	mg/L	0.002	0.01	U
* Thallium, Total	10/7/19 10:35	10/8/19 14:32		1.015	Not Detected	mg/L	0.0002	0.001	U
Analytical Method: EPA 245.1			Analyst: ABB						
* Mercury, Total by CVAA	10/3/19 11:49	10/7/19 14:54		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: SM 2540C			Analyst: TJW						
* Solids, Dissolved	10/3/19 18:50	10/7/19 10:10		1	295	mg/L		25	
Analytical Method: SM4500Cl E			Analyst: JCC						
* Chloride	10/4/19 10:57	10/4/19 10:57		2	20.3	mg/L	1.00	2	
Analytical Method: SM4500F G 2017			Analyst: JCC						
* Fluoride	10/4/19 15:55	10/4/19 15:55		1	0.0774	mg/L	0.05	0.1	J
Analytical Method: SM4500SO4 E			Analyst: JCC						
* Sulfate	10/8/19 16:00	10/8/19 16:00		1	3.40	mg/L	0.50	1	
Analytical Method: Field Measurements			Analyst: TJD						
Conductivity	10/1/19 11:29	10/1/19 11:29			478.90	uS/cm			FA
pH	10/1/19 11:29	10/1/19 11:29			5.23	SU			FA
Temperature	10/1/19 11:29	10/1/19 11:29			22.88	C			FA
Turbidity	10/1/19 11:29	10/1/19 11:29			0.64	NTU			FA

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

Comments:

Batch QC Summary

Customer Account: WMWBARAP
Sample Date: 10/1/19 11:32
Customer ID:
Delivery Date: 10/2/19 14:57

Description: Barry Ash Pond - MW-16

Laboratory ID Number: AZ22363

Sample	Analysis	Units	MB		Spike	MS	MSD	Standard		Rec		Prec	Limit
			MB	Limit				Standard	Limit	Rec	Limit		
AZ22372	Barium, Total	mg/L	-0.0000216	0.0002	0.10	0.162	0.164	0.0986	0.085 to 0.115	101	70 to 130	1.34	20
AZ22372	Selenium, Total	mg/L	-0.0000184	0.00066	0.10	0.101	0.102	0.101	0.085 to 0.115	101	70 to 130	1.58	20
AZ22372	Lead, Total	mg/L	0.00000528	0.0001474	0.10	0.107	0.108	0.105	0.085 to 0.115	107	70 to 130	0.697	20
AZ22372	Antimony, Total	mg/L	0.000183	0.00066	0.10	0.0970	0.100	0.0952	0.085 to 0.115	97.0	70 to 130	3.08	20
AZ22372	Arsenic, Total	mg/L	0.0000259	0.0001474	0.10	0.117	0.116	0.0990	0.085 to 0.115	102	70 to 130	1.34	20
AZ22372	Beryllium, Total	mg/L	0.0000176	0.00088	0.10	0.104	0.105	0.0991	0.085 to 0.115	104	70 to 130	0.647	20
AZ22372	Molybdenum, Total	mg/L	0.00000802	0.0001474	0.10	0.0960	0.0973	0.0970	0.085 to 0.115	96.0	70 to 130	1.32	20
AZ22372	Boron, Total	mg/L	0.000443	0.0650254	1.00	1.09	1.08	0.985	0.85 to 1.15	102	70 to 130	0.848	20
AZ22372	Calcium, Total	mg/L	0.00709	0.1518	5.00	16.7	16.4	5.12	4.25 to 5.75	105	70 to 130	1.42	20
AZ22372	Thallium, Total	mg/L	0.00000412	0.0001474	0.10	0.105	0.106	0.107	0.085 to 0.115	105	70 to 130	1.18	20
AZ22372	Cadmium, Total	mg/L	-0.00000276	0.0001474	0.10	0.102	0.102	0.101	0.085 to 0.115	102	70 to 130	0.0045520	20
AZ22372	Cobalt, Total	mg/L	-0.00000079	0.0001474	0.10	0.106	0.107	0.101	0.085 to 0.115	106	70 to 130	0.544	20
AZ22372	Lithium, Total	mg/L	-0.000124	0.0154	0.20	0.221	0.218	0.198	0.17 to 0.23	110	70 to 130	1.27	20
AZ22372	Chromium, Total	mg/L	0.00000487	0.00044	0.10	0.107	0.108	0.100	0.085 to 0.115	101	70 to 130	1.43	20
AZ22372	Mercury, Total by CVAA	mg/L	0.0000213	0.0005	0.004	0.00425	0.00426	0.00404	0.0034 to 0.0046	106	70 to 130	0.282	20

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Laboratory certification ID: E571114
 Issued By: State of Florida, Department of Health
 Expiration: June 30, 2018

Comments:

Batch QC Summary

Customer Account: WMWBARAP

Sample Date: 10/1/19 11:32

Customer ID:

Delivery Date: 10/2/19 14:57

Description: Barry Ash Pond - MW-16

Laboratory ID Number: AZ22363

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Limit	Prec	Prec Limit
AZ22372	Chloride	mg/L	0.0212	0.50	40.0	84.9	44.6	9.79	9 to 11	100	80 to 120	0.447	20
AZ22372	Fluoride	mg/L	0.0243	0.05	2.50	2.66	0.0815	2.57	2.25 to 2.75	103	80 to 120	8.24	20
AZ22372	Sulfate	mg/L	-0.406	0.50	80.0	153	61.7	19.6	18 to 22	114	80 to 120	0.162	20
AZ22363	Solids, Dissolved	mg/L	0.0000	25			300	48.0	40 to 60			0.840	5

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* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments:

Certificate Of Analysis

Description: Barry Ash Pond - MW-2

Location Code: WMWBARAP
Collected: 10/1/19 13:38
Customer ID:
Submittal Date: 10/2/19 14:57

Laboratory ID Number: AZ22364

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7		Analyst: RDA			Preparation Method: EPA 1638				
* Boron, Total	10/7/19 13:00	10/8/19 11:15		1.015	Not Detected	mg/L	0.03	0.1	U
* Calcium, Total	10/7/19 13:00	10/8/19 11:15		1.015	2.94	mg/L	0.1	0.5	
* Lithium, Total	10/7/19 13:00	10/8/19 11:15		1.015	Not Detected	mg/L	0.01	0.02	U
Analytical Method: EPA 200.8		Analyst: DLJ			Preparation Method: EPA 1638				
* Antimony, Total	10/7/19 10:35	10/8/19 14:34		1.015	Not Detected	mg/L	0.0008	0.003	U
* Arsenic, Total	10/7/19 10:35	10/8/19 14:34		1.015	0.00140	mg/L	0.001	0.005	J
* Barium, Total	10/7/19 10:35	10/8/19 14:34		1.015	0.0241	mg/L	0.002	0.01	
* Beryllium, Total	10/7/19 10:35	10/8/19 14:34		1.015	Not Detected	mg/L	0.0006	0.003	U
* Cadmium, Total	10/7/19 10:35	10/8/19 14:34		1.015	Not Detected	mg/L	0.0003	0.001	U
* Chromium, Total	10/7/19 10:35	10/8/19 14:34		1.015	Not Detected	mg/L	0.002	0.01	U
* Cobalt, Total	10/7/19 10:35	10/8/19 14:34		1.015	0.00696	mg/L	0.002	0.005	
* Lead, Total	10/7/19 10:35	10/8/19 14:34		1.015	Not Detected	mg/L	0.001	0.005	U
* Molybdenum, Total	10/7/19 10:35	10/8/19 14:34		1.015	Not Detected	mg/L	0.002	0.01	U
* Selenium, Total	10/7/19 10:35	10/8/19 14:34		1.015	Not Detected	mg/L	0.002	0.01	U
* Thallium, Total	10/7/19 10:35	10/8/19 14:34		1.015	Not Detected	mg/L	0.0002	0.001	U
Analytical Method: EPA 245.1		Analyst: ABB							
* Mercury, Total by CVAA	10/3/19 11:49	10/7/19 14:56		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: SM 2540C		Analyst: TJW							
* Solids, Dissolved	10/4/19 12:30	10/8/19 09:30		1	44.7	mg/L		25	
Analytical Method: SM4500Cl E		Analyst: JCC							
* Chloride	10/4/19 10:58	10/4/19 10:58		1	8.19	mg/L	0.50	1	
Analytical Method: SM4500F G 2017		Analyst: JCC							
* Fluoride	10/4/19 15:56	10/4/19 15:56		1	Not Detected	mg/L	0.05	0.1	U
Analytical Method: SM4500SO4 E		Analyst: JCC							
* Sulfate	10/8/19 16:01	10/8/19 16:01		1	Not Detected	mg/L	0.50	1	U
Analytical Method: Field Measurements		Analyst: TJD							
Conductivity	10/1/19 13:33	10/1/19 13:33			56.49	uS/cm			FA
pH	10/1/19 13:33	10/1/19 13:33			4.97	SU			FA
Temperature	10/1/19 13:33	10/1/19 13:33			22.51	C			FA
Turbidity	10/1/19 13:33	10/1/19 13:33			0.57	NTU			FA

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

Comments:

Batch QC Summary

Customer Account: WMWBARAP
Sample Date: 10/1/19 13:38
Customer ID:
Delivery Date: 10/2/19 14:57

Description: Barry Ash Pond - MW-2

Laboratory ID Number: AZ22364

Sample	Analysis	Units	MB		Spike	MS	MSD	Standard		Rec		Prec	Limit
			MB	Limit				Standard	Limit	Rec	Prec		
AZ22372	Lead, Total	mg/L	0.0000528	0.0001474	0.10	0.107	0.108	0.105	0.085 to 0.115	107	70 to 130	0.697	20
AZ22372	Barium, Total	mg/L	-0.0000216	0.0002	0.10	0.162	0.164	0.0986	0.085 to 0.115	101	70 to 130	1.34	20
AZ22372	Antimony, Total	mg/L	0.000183	0.00066	0.10	0.0970	0.100	0.0952	0.085 to 0.115	97.0	70 to 130	3.08	20
AZ22372	Boron, Total	mg/L	0.000443	0.0650254	1.00	1.09	1.08	0.985	0.85 to 1.15	102	70 to 130	0.848	20
AZ22372	Calcium, Total	mg/L	0.00709	0.1518	5.00	16.7	16.4	5.12	4.25 to 5.75	105	70 to 130	1.42	20
AZ22372	Thallium, Total	mg/L	0.00000412	0.0001474	0.10	0.105	0.106	0.107	0.085 to 0.115	105	70 to 130	1.18	20
AZ22372	Selenium, Total	mg/L	-0.0000184	0.00066	0.10	0.101	0.102	0.101	0.085 to 0.115	101	70 to 130	1.58	20
AZ22372	Arsenic, Total	mg/L	0.0000259	0.0001474	0.10	0.117	0.116	0.0990	0.085 to 0.115	102	70 to 130	1.34	20
AZ22372	Beryllium, Total	mg/L	0.0000176	0.00088	0.10	0.104	0.105	0.0991	0.085 to 0.115	104	70 to 130	0.647	20
AZ22372	Molybdenum, Total	mg/L	0.00000802	0.0001474	0.10	0.0960	0.0973	0.0970	0.085 to 0.115	96.0	70 to 130	1.32	20
AZ22372	Chromium, Total	mg/L	0.00000487	0.00044	0.10	0.107	0.108	0.100	0.085 to 0.115	101	70 to 130	1.43	20
AZ22372	Mercury, Total by CVAA	mg/L	0.0000213	0.0005	0.004	0.00425	0.00426	0.00404	0.0034 to 0.0046	106	70 to 130	0.282	20
AZ22372	Cadmium, Total	mg/L	-0.00000276	0.0001474	0.10	0.102	0.102	0.101	0.085 to 0.115	102	70 to 130	0.0045520	20
AZ22372	Cobalt, Total	mg/L	-0.00000079	0.0001474	0.10	0.106	0.107	0.101	0.085 to 0.115	106	70 to 130	0.544	20
AZ22372	Lithium, Total	mg/L	-0.000124	0.0154	0.20	0.221	0.218	0.198	0.17 to 0.23	110	70 to 130	1.27	20

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

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

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114
 Issued By: State of Florida, Department of Health
 Expiration: June 30, 2018

Comments:

Batch QC Summary

Customer Account: WMWBARAP

Sample Date: 10/1/19 13:38

Customer ID:

Delivery Date: 10/2/19 14:57

Description: Barry Ash Pond - MW-2

Laboratory ID Number: AZ22364

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
AZ22372	Chloride	mg/L	0.0212	0.50	40.0	84.9	44.6	9.79	9 to 11	100	80 to 120	0.447	20
AZ22372	Fluoride	mg/L	0.0243	0.05	2.50	2.66	0.0815	2.57	2.25 to 2.75	103	80 to 120	8.24	20
AZ22372	Sulfate	mg/L	-0.406	0.50	80.0	153	61.7	19.6	18 to 22	114	80 to 120	0.162	20
AZ22373	Solids, Dissolved	mg/L	0.0000	25			430	50.0	40 to 60			0.00	5

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* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments:

Certificate Of Analysis

Description: Barry Ash Pond - MW-4

Location Code: WMWBARAP
Collected: 10/1/19 15:30
Customer ID:
Submittal Date: 10/2/19 14:57

Laboratory ID Number: AZ22365

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7			Analyst: RDA		Preparation Method: EPA 1638				
* Boron, Total	10/7/19 13:00	10/8/19 11:18		1.015	Not Detected	mg/L	0.03	0.1	U
* Calcium, Total	10/7/19 13:00	10/8/19 11:18		1.015	0.645	mg/L	0.1	0.5	
* Lithium, Total	10/7/19 13:00	10/8/19 11:18		1.015	Not Detected	mg/L	0.01	0.02	U
Analytical Method: EPA 200.8			Analyst: DLJ		Preparation Method: EPA 1638				
* Antimony, Total	10/7/19 10:35	10/8/19 14:37		1.015	Not Detected	mg/L	0.0008	0.003	U
* Arsenic, Total	10/7/19 10:35	10/8/19 14:37		1.015	Not Detected	mg/L	0.001	0.005	U
* Barium, Total	10/7/19 10:35	10/8/19 14:37		1.015	0.0207	mg/L	0.002	0.01	
* Beryllium, Total	10/7/19 10:35	10/8/19 14:37		1.015	Not Detected	mg/L	0.0006	0.003	U
* Cadmium, Total	10/7/19 10:35	10/8/19 14:37		1.015	Not Detected	mg/L	0.0003	0.001	U
* Chromium, Total	10/7/19 10:35	10/8/19 14:37		1.015	Not Detected	mg/L	0.002	0.01	U
* Cobalt, Total	10/7/19 10:35	10/8/19 14:37		1.015	Not Detected	mg/L	0.002	0.005	U
* Lead, Total	10/7/19 10:35	10/8/19 14:37		1.015	Not Detected	mg/L	0.001	0.005	U
* Molybdenum, Total	10/7/19 10:35	10/8/19 14:37		1.015	Not Detected	mg/L	0.002	0.01	U
* Selenium, Total	10/7/19 10:35	10/8/19 14:37		1.015	Not Detected	mg/L	0.002	0.01	U
* Thallium, Total	10/7/19 10:35	10/8/19 14:37		1.015	Not Detected	mg/L	0.0002	0.001	U
Analytical Method: EPA 245.1			Analyst: ABB						
* Mercury, Total by CVAA	10/3/19 11:49	10/7/19 14:59		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: SM 2540C			Analyst: TJW						
* Solids, Dissolved	10/4/19 12:30	10/8/19 09:30		1	32.0	mg/L		25	
Analytical Method: SM4500Cl E			Analyst: JCC						
* Chloride	10/4/19 10:59	10/4/19 10:59		1	7.35	mg/L	0.50	1	
Analytical Method: SM4500F G 2017			Analyst: JCC						
* Fluoride	10/4/19 15:57	10/4/19 15:57		1	Not Detected	mg/L	0.05	0.1	U
Analytical Method: SM4500SO4 E			Analyst: JCC						
* Sulfate	10/8/19 16:02	10/8/19 16:02		1	2.09	mg/L	0.50	1	
Analytical Method: Field Measurements			Analyst: TJD						
Conductivity	10/1/19 15:26	10/1/19 15:26			38.29	uS/cm			FA
pH	10/1/19 15:26	10/1/19 15:26			4.28	SU			FA
Temperature	10/1/19 15:26	10/1/19 15:26			22.24	C			FA
Turbidity	10/1/19 15:26	10/1/19 15:26			0.7	NTU			FA

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

Comments:

Batch QC Summary

Customer Account: WMWBARAP
Sample Date: 10/1/19 15:30
Customer ID:
Delivery Date: 10/2/19 14:57

Description: Barry Ash Pond - MW-4

Laboratory ID Number: AZ22365

Sample	Analysis	Units	MB		Spike	MS	MSD	Standard		Rec		Prec	Limit
			MB	Limit				Standard	Limit	Rec	Limit		
AZ22372	Barium, Total	mg/L	-0.0000216	0.0002	0.10	0.162	0.164	0.0986	0.085 to 0.115	101	70 to 130	1.34	20
AZ22372	Selenium, Total	mg/L	-0.0000184	0.00066	0.10	0.101	0.102	0.101	0.085 to 0.115	101	70 to 130	1.58	20
AZ22372	Antimony, Total	mg/L	0.000183	0.00066	0.10	0.0970	0.100	0.0952	0.085 to 0.115	97.0	70 to 130	3.08	20
AZ22372	Lead, Total	mg/L	0.00000528	0.0001474	0.10	0.107	0.108	0.105	0.085 to 0.115	107	70 to 130	0.697	20
AZ22372	Cadmium, Total	mg/L	-0.00000276	0.0001474	0.10	0.102	0.102	0.101	0.085 to 0.115	102	70 to 130	0.0045520	20
AZ22372	Cobalt, Total	mg/L	-0.00000079	0.0001474	0.10	0.106	0.107	0.101	0.085 to 0.115	106	70 to 130	0.544	20
AZ22372	Lithium, Total	mg/L	-0.000124	0.0154	0.20	0.221	0.218	0.198	0.17 to 0.23	110	70 to 130	1.27	20
AZ22372	Arsenic, Total	mg/L	0.0000259	0.0001474	0.10	0.117	0.116	0.0990	0.085 to 0.115	102	70 to 130	1.34	20
AZ22372	Beryllium, Total	mg/L	0.0000176	0.00088	0.10	0.104	0.105	0.0991	0.085 to 0.115	104	70 to 130	0.647	20
AZ22372	Molybdenum, Total	mg/L	0.00000802	0.0001474	0.10	0.0960	0.0973	0.0970	0.085 to 0.115	96.0	70 to 130	1.32	20
AZ22372	Boron, Total	mg/L	0.000443	0.0650254	1.00	1.09	1.08	0.985	0.85 to 1.15	102	70 to 130	0.848	20
AZ22372	Calcium, Total	mg/L	0.00709	0.1518	5.00	16.7	16.4	5.12	4.25 to 5.75	105	70 to 130	1.42	20
AZ22372	Thallium, Total	mg/L	0.00000412	0.0001474	0.10	0.105	0.106	0.107	0.085 to 0.115	105	70 to 130	1.18	20
AZ22372	Chromium, Total	mg/L	0.00000487	0.00044	0.10	0.107	0.108	0.100	0.085 to 0.115	101	70 to 130	1.43	20
AZ22372	Mercury, Total by CVAA	mg/L	0.0000213	0.0005	0.004	0.00425	0.00426	0.00404	0.0034 to 0.0046	106	70 to 130	0.282	20

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

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

Comments:

Batch QC Summary

Customer Account: WMWBARAP

Sample Date: 10/1/19 15:30

Customer ID:

Delivery Date: 10/2/19 14:57

Description: Barry Ash Pond - MW-4

Laboratory ID Number: AZ22365

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Limit	Prec	Prec Limit
AZ22372	Chloride	mg/L	0.0212	0.50	40.0	84.9	44.6	9.79	9 to 11	100	80 to 120	0.447	20
AZ22372	Fluoride	mg/L	0.0243	0.05	2.50	2.66	0.0815	2.57	2.25 to 2.75	103	80 to 120	8.24	20
AZ22372	Sulfate	mg/L	-0.406	0.50	80.0	153	61.7	19.6	18 to 22	114	80 to 120	0.162	20
AZ22373	Solids, Dissolved	mg/L	0.0000	25			430	50.0	40 to 60			0.00	5

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments:

Certificate Of Analysis

Description: Barry Ash Pond - MW-15

Location Code: WMWBARAP
Collected: 10/1/19 17:23
Customer ID:
Submittal Date: 10/2/19 14:57

Laboratory ID Number: AZ22366

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7			Analyst: RDA		Preparation Method: EPA 1638				
* Boron, Total	10/7/19 13:00	10/8/19 11:21		1.015	0.116	mg/L	0.03	0.1	
* Calcium, Total	10/7/19 13:00	10/8/19 11:21		1.015	6.90	mg/L	0.1	0.5	
* Lithium, Total	10/7/19 13:00	10/8/19 11:21		1.015	0.0248	mg/L	0.01	0.02	
Analytical Method: EPA 200.8			Analyst: DLJ		Preparation Method: EPA 1638				
* Antimony, Total	10/7/19 10:35	10/8/19 14:40		1.015	Not Detected	mg/L	0.0008	0.003	U
* Arsenic, Total	10/7/19 10:35	10/8/19 14:40		1.015	0.0170	mg/L	0.001	0.005	
* Barium, Total	10/7/19 10:35	10/8/19 14:40		1.015	0.0628	mg/L	0.002	0.01	
* Beryllium, Total	10/7/19 10:35	10/8/19 14:40		1.015	Not Detected	mg/L	0.0006	0.003	U
* Cadmium, Total	10/7/19 10:35	10/8/19 14:40		1.015	Not Detected	mg/L	0.0003	0.001	U
* Chromium, Total	10/7/19 10:35	10/8/19 14:40		1.015	Not Detected	mg/L	0.002	0.01	U
* Cobalt, Total	10/7/19 10:35	10/8/19 14:40		1.015	0.0336	mg/L	0.002	0.005	
* Lead, Total	10/7/19 10:35	10/8/19 14:40		1.015	Not Detected	mg/L	0.001	0.005	U
* Molybdenum, Total	10/7/19 10:35	10/8/19 14:40		1.015	Not Detected	mg/L	0.002	0.01	U
* Selenium, Total	10/7/19 10:35	10/8/19 14:40		1.015	Not Detected	mg/L	0.002	0.01	U
* Thallium, Total	10/7/19 10:35	10/8/19 14:40		1.015	Not Detected	mg/L	0.0002	0.001	U
Analytical Method: EPA 245.1			Analyst: ABB						
* Mercury, Total by CVAA	10/3/19 11:49	10/7/19 15:01		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: SM 2540C			Analyst: TJW						
* Solids, Dissolved	10/4/19 12:30	10/8/19 09:30		1	236	mg/L		25	
Analytical Method: SM4500Cl E			Analyst: JCC						
* Chloride	10/4/19 11:00	10/4/19 11:00		4	56.3	mg/L	2.00	4	
Analytical Method: SM4500F G 2017			Analyst: JCC						
* Fluoride	10/4/19 15:59	10/4/19 15:59		1	0.185	mg/L	0.05	0.1	
Analytical Method: SM4500SO4 E			Analyst: JCC						
* Sulfate	10/8/19 16:03	10/8/19 16:03		1	1.72	mg/L	0.50	1	
Analytical Method: Field Measurements			Analyst: TJD						
Conductivity	10/1/19 17:19	10/1/19 17:19			503.81	uS/cm			FA
pH	10/1/19 17:19	10/1/19 17:19			6.20	SU			FA
Temperature	10/1/19 17:19	10/1/19 17:19			22.10	C			FA
Turbidity	10/1/19 17:19	10/1/19 17:19			4.05	NTU			FA

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

Comments:

Batch QC Summary

Customer Account: WMWBARAP
Sample Date: 10/1/19 17:23
Customer ID:
Delivery Date: 10/2/19 14:57

Description: Barry Ash Pond - MW-15

Laboratory ID Number: AZ22366

Sample	Analysis	Units	MB					Standard		Rec		Prec	Limit
			MB	Limit	Spike	MS	MSD	Standard	Limit	Rec	Limit		
AZ22372	Lead, Total	mg/L	0.0000528	0.0001474	0.10	0.107	0.108	0.105	0.085 to 0.115	107	70 to 130	0.697	20
AZ22372	Barium, Total	mg/L	-0.0000216	0.0002	0.10	0.162	0.164	0.0986	0.085 to 0.115	101	70 to 130	1.34	20
AZ22372	Antimony, Total	mg/L	0.000183	0.00066	0.10	0.0970	0.100	0.0952	0.085 to 0.115	97.0	70 to 130	3.08	20
AZ22372	Selenium, Total	mg/L	-0.0000184	0.00066	0.10	0.101	0.102	0.101	0.085 to 0.115	101	70 to 130	1.58	20
AZ22372	Boron, Total	mg/L	0.000443	0.0650254	1.00	1.09	1.08	0.985	0.85 to 1.15	102	70 to 130	0.848	20
AZ22372	Calcium, Total	mg/L	0.00709	0.1518	5.00	16.7	16.4	5.12	4.25 to 5.75	105	70 to 130	1.42	20
AZ22372	Thallium, Total	mg/L	0.00000412	0.0001474	0.10	0.105	0.106	0.107	0.085 to 0.115	105	70 to 130	1.18	20
AZ22372	Arsenic, Total	mg/L	0.0000259	0.0001474	0.10	0.117	0.116	0.0990	0.085 to 0.115	102	70 to 130	1.34	20
AZ22372	Beryllium, Total	mg/L	0.0000176	0.00088	0.10	0.104	0.105	0.0991	0.085 to 0.115	104	70 to 130	0.647	20
AZ22372	Molybdenum, Total	mg/L	0.00000802	0.0001474	0.10	0.0960	0.0973	0.0970	0.085 to 0.115	96.0	70 to 130	1.32	20
AZ22372	Cadmium, Total	mg/L	-0.00000276	0.0001474	0.10	0.102	0.102	0.101	0.085 to 0.115	102	70 to 130	0.0045520	20
AZ22372	Cobalt, Total	mg/L	-0.00000079	0.0001474	0.10	0.106	0.107	0.101	0.085 to 0.115	106	70 to 130	0.544	20
AZ22372	Lithium, Total	mg/L	-0.000124	0.0154	0.20	0.221	0.218	0.198	0.17 to 0.23	110	70 to 130	1.27	20
AZ22372	Chromium, Total	mg/L	0.00000487	0.00044	0.10	0.107	0.108	0.100	0.085 to 0.115	101	70 to 130	1.43	20
AZ22372	Mercury, Total by CVAA	mg/L	0.0000213	0.0005	0.004	0.00425	0.00426	0.00404	0.0034 to 0.0046	106	70 to 130	0.282	20

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Laboratory certification ID: E571114
 Issued By: State of Florida, Department of Health
 Expiration: June 30, 2018

Comments:

Batch QC Summary

Customer Account: WMWBARAP

Sample Date: 10/1/19 17:23

Customer ID:

Delivery Date: 10/2/19 14:57

Description: Barry Ash Pond - MW-15

Laboratory ID Number: AZ22366

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Limit	Prec	Prec Limit
AZ22372	Chloride	mg/L	0.0212	0.50	40.0	84.9	44.6	9.79	9 to 11	100	80 to 120	0.447	20
AZ22372	Fluoride	mg/L	0.0243	0.05	2.50	2.66	0.0815	2.57	2.25 to 2.75	103	80 to 120	8.24	20
AZ22372	Sulfate	mg/L	-0.406	0.50	80.0	153	61.7	19.6	18 to 22	114	80 to 120	0.162	20
AZ22373	Solids, Dissolved	mg/L	0.0000	25			430	50.0	40 to 60			0.00	5

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

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

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments:

Certificate Of Analysis

Description: Barry Ash Pond - MW-7

Location Code: WMWBARAP
Collected: 9/30/19 13:47
Customer ID:
Submittal Date: 10/2/19 14:57

Laboratory ID Number: AZ22367

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7		Analyst: RDA			Preparation Method: EPA 1638				
* Boron, Total	10/7/19 13:00	10/8/19 11:24		1.015	0.0418	mg/L	0.03	0.1	J
* Calcium, Total	10/7/19 13:00	10/8/19 11:24		1.015	9.80	mg/L	0.1	0.5	
* Lithium, Total	10/7/19 13:00	10/8/19 11:24		1.015	Not Detected	mg/L	0.01	0.02	U
Analytical Method: EPA 200.8		Analyst: DLJ			Preparation Method: EPA 1638				
* Antimony, Total	10/7/19 10:35	10/8/19 14:42		1.015	Not Detected	mg/L	0.0008	0.003	U
* Arsenic, Total	10/7/19 10:35	10/8/19 14:42		1.015	0.0217	mg/L	0.001	0.005	
* Barium, Total	10/7/19 10:35	10/8/19 14:42		1.015	0.0648	mg/L	0.002	0.01	
* Beryllium, Total	10/7/19 10:35	10/8/19 14:42		1.015	Not Detected	mg/L	0.0006	0.003	U
* Cadmium, Total	10/7/19 10:35	10/8/19 14:42		1.015	Not Detected	mg/L	0.0003	0.001	U
* Chromium, Total	10/7/19 10:35	10/8/19 14:42		1.015	Not Detected	mg/L	0.002	0.01	U
* Cobalt, Total	10/7/19 10:35	10/8/19 14:42		1.015	0.0186	mg/L	0.002	0.005	
* Lead, Total	10/7/19 10:35	10/8/19 14:42		1.015	Not Detected	mg/L	0.001	0.005	U
* Molybdenum, Total	10/7/19 10:35	10/8/19 14:42		1.015	Not Detected	mg/L	0.002	0.01	U
* Selenium, Total	10/7/19 10:35	10/8/19 14:42		1.015	Not Detected	mg/L	0.002	0.01	U
* Thallium, Total	10/7/19 10:35	10/8/19 14:42		1.015	Not Detected	mg/L	0.0002	0.001	U
Analytical Method: EPA 245.1		Analyst: ABB							
* Mercury, Total by CVAA	10/3/19 11:49	10/7/19 15:03		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: SM 2540C		Analyst: TJW							
* Solids, Dissolved	10/3/19 18:50	10/7/19 10:10		1	137	mg/L		25	
Analytical Method: SM4500Cl E		Analyst: JCC							
* Chloride	10/4/19 11:02	10/4/19 11:02		1	13.1	mg/L	0.50	1	
Analytical Method: SM4500F G 2017		Analyst: JCC							
* Fluoride	10/4/19 16:00	10/4/19 16:00		1	0.0925	mg/L	0.05	0.1	J
Analytical Method: SM4500SO4 E		Analyst: JCC							
* Sulfate	10/8/19 16:05	10/8/19 16:05		1	2.51	mg/L	0.50	1	
Analytical Method: Field Measurements		Analyst: DKG							
Conductivity	9/30/19 13:43	9/30/19 13:43			238.68	uS/cm			FA
pH	9/30/19 13:43	9/30/19 13:43			6.36	SU			FA
Temperature	9/30/19 13:43	9/30/19 13:43			23.18	C			FA
Turbidity	9/30/19 13:43	9/30/19 13:43			7.33	NTU			FA

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

Comments:

Batch QC Summary

Customer Account: WMWBARAP
Sample Date: 9/30/19 13:47
Customer ID:
Delivery Date: 10/2/19 14:57

Description: Barry Ash Pond - MW-7

Laboratory ID Number: AZ22367

Sample	Analysis	Units	MB		Spike	MS	MSD	Standard		Rec		Prec	Limit
			MB	Limit				Standard	Limit	Rec	Limit		
AZ22372	Barium, Total	mg/L	-0.0000216	0.0002	0.10	0.162	0.164	0.0986	0.085 to 0.115	101	70 to 130	1.34	20
AZ22372	Lead, Total	mg/L	0.00000528	0.0001474	0.10	0.107	0.108	0.105	0.085 to 0.115	107	70 to 130	0.697	20
AZ22372	Selenium, Total	mg/L	-0.0000184	0.00066	0.10	0.101	0.102	0.101	0.085 to 0.115	101	70 to 130	1.58	20
AZ22372	Antimony, Total	mg/L	0.000183	0.00066	0.10	0.0970	0.100	0.0952	0.085 to 0.115	97.0	70 to 130	3.08	20
AZ22372	Cadmium, Total	mg/L	-0.00000276	0.0001474	0.10	0.102	0.102	0.101	0.085 to 0.115	102	70 to 130	0.0045520	20
AZ22372	Cobalt, Total	mg/L	-0.00000079	0.0001474	0.10	0.106	0.107	0.101	0.085 to 0.115	106	70 to 130	0.544	20
AZ22372	Lithium, Total	mg/L	-0.000124	0.0154	0.20	0.221	0.218	0.198	0.17 to 0.23	110	70 to 130	1.27	20
AZ22372	Arsenic, Total	mg/L	0.0000259	0.0001474	0.10	0.117	0.116	0.0990	0.085 to 0.115	102	70 to 130	1.34	20
AZ22372	Beryllium, Total	mg/L	0.0000176	0.00088	0.10	0.104	0.105	0.0991	0.085 to 0.115	104	70 to 130	0.647	20
AZ22372	Molybdenum, Total	mg/L	0.00000802	0.0001474	0.10	0.0960	0.0973	0.0970	0.085 to 0.115	96.0	70 to 130	1.32	20
AZ22372	Boron, Total	mg/L	0.000443	0.0650254	1.00	1.09	1.08	0.985	0.85 to 1.15	102	70 to 130	0.848	20
AZ22372	Calcium, Total	mg/L	0.00709	0.1518	5.00	16.7	16.4	5.12	4.25 to 5.75	105	70 to 130	1.42	20
AZ22372	Thallium, Total	mg/L	0.00000412	0.0001474	0.10	0.105	0.106	0.107	0.085 to 0.115	105	70 to 130	1.18	20
AZ22372	Chromium, Total	mg/L	0.00000487	0.00044	0.10	0.107	0.108	0.100	0.085 to 0.115	101	70 to 130	1.43	20
AZ22372	Mercury, Total by CVAA	mg/L	0.0000213	0.0005	0.004	0.00425	0.00426	0.00404	0.0034 to 0.0046	106	70 to 130	0.282	20

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

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

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114
 Issued By: State of Florida, Department of Health
 Expiration: June 30, 2018

Comments:

Batch QC Summary

Customer Account: WMWBARAP

Sample Date: 9/30/19 13:47

Customer ID:

Delivery Date: 10/2/19 14:57

Description: Barry Ash Pond - MW-7

Laboratory ID Number: AZ22367

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
AZ22372	Chloride	mg/L	0.0212	0.50	40.0	84.9	44.6	9.79	9 to 11	100	80 to 120	0.447	20
AZ22372	Fluoride	mg/L	0.0243	0.05	2.50	2.66	0.0815	2.57	2.25 to 2.75	103	80 to 120	8.24	20
AZ22372	Sulfate	mg/L	-0.406	0.50	80.0	153	61.7	19.6	18 to 22	114	80 to 120	0.162	20
AZ22379	Solids, Dissolved	mg/L	0.0000	25			390	48.0	40 to 60			0.383	5

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* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments:

Certificate Of Analysis

Description: Barry Ash Pond - MW-9

Location Code: WMWBARAP
Collected: 9/30/19 15:48
Customer ID:
Submittal Date: 10/2/19 14:57

Laboratory ID Number: AZ22368

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7		Analyst: RDA			Preparation Method: EPA 1638				
* Boron, Total	10/7/19 13:00	10/8/19 11:26		1.015	2.34	mg/L	0.03	0.1	
* Calcium, Total	10/7/19 13:00	10/8/19 11:26		1.015	39.9	mg/L	0.1	0.5	
* Lithium, Total	10/7/19 13:00	10/8/19 11:26		1.015	Not Detected	mg/L	0.01	0.02	U
Analytical Method: EPA 200.8		Analyst: DLJ			Preparation Method: EPA 1638				
* Antimony, Total	10/7/19 10:35	10/8/19 14:45		1.015	Not Detected	mg/L	0.0008	0.003	U
* Arsenic, Total	10/7/19 10:35	10/8/19 14:45		1.015	0.0391	mg/L	0.001	0.005	
* Barium, Total	10/7/19 10:35	10/8/19 14:45		1.015	0.117	mg/L	0.002	0.01	
* Beryllium, Total	10/7/19 10:35	10/8/19 14:45		1.015	Not Detected	mg/L	0.0006	0.003	U
* Cadmium, Total	10/7/19 10:35	10/8/19 14:45		1.015	Not Detected	mg/L	0.0003	0.001	U
* Chromium, Total	10/7/19 10:35	10/8/19 14:45		1.015	Not Detected	mg/L	0.002	0.01	U
* Cobalt, Total	10/7/19 10:35	10/8/19 14:45		1.015	Not Detected	mg/L	0.002	0.005	U
* Lead, Total	10/7/19 10:35	10/8/19 14:45		1.015	Not Detected	mg/L	0.001	0.005	U
* Molybdenum, Total	10/7/19 10:35	10/8/19 14:45		1.015	Not Detected	mg/L	0.002	0.01	U
* Selenium, Total	10/7/19 10:35	10/8/19 14:45		1.015	Not Detected	mg/L	0.002	0.01	U
* Thallium, Total	10/7/19 10:35	10/8/19 14:45		1.015	Not Detected	mg/L	0.0002	0.001	U
Analytical Method: EPA 245.1		Analyst: ABB							
* Mercury, Total by CVAA	10/3/19 11:49	10/7/19 15:06		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: SM 2540C		Analyst: TJW							
* Solids, Dissolved	10/3/19 18:50	10/7/19 10:10		1	319	mg/L		25	
Analytical Method: SM4500Cl E		Analyst: JCC							
* Chloride	10/4/19 11:03	10/4/19 11:03		2	21.7	mg/L	1.00	2	
Analytical Method: SM4500F G 2017		Analyst: JCC							
* Fluoride	10/4/19 16:01	10/4/19 16:01		1	0.0679	mg/L	0.05	0.1	J
Analytical Method: SM4500SO4 E		Analyst: JCC							
* Sulfate	10/8/19 16:06	10/8/19 16:06		1	3.77	mg/L	0.50	1	
Analytical Method: Field Measurements		Analyst: DKG							
Conductivity	9/30/19 15:45	9/30/19 15:45			554.35	uS/cm			FA
pH	9/30/19 15:45	9/30/19 15:45			6.07	SU			FA
Temperature	9/30/19 15:45	9/30/19 15:45			22.72	C			FA
Turbidity	9/30/19 15:45	9/30/19 15:45			1.77	NTU			FA

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

Comments:

Batch QC Summary

Customer Account: WMWBARAP
Sample Date: 9/30/19 15:48
Customer ID:
Delivery Date: 10/2/19 14:57

Description: Barry Ash Pond - MW-9

Laboratory ID Number: AZ22368

Sample	Analysis	Units	MB		Spike	MS	MSD	Standard		Rec		Prec	Limit
			MB	Limit				Standard	Limit	Rec	Prec		
AZ22372	Barium, Total	mg/L	-0.0000216	0.0002	0.10	0.162	0.164	0.0986	0.085 to 0.115	101	70 to 130	1.34	20
AZ22372	Antimony, Total	mg/L	0.000183	0.00066	0.10	0.0970	0.100	0.0952	0.085 to 0.115	97.0	70 to 130	3.08	20
AZ22372	Lead, Total	mg/L	0.00000528	0.0001474	0.10	0.107	0.108	0.105	0.085 to 0.115	107	70 to 130	0.697	20
AZ22372	Boron, Total	mg/L	0.000443	0.0650254	1.00	1.09	1.08	0.985	0.85 to 1.15	102	70 to 130	0.848	20
AZ22372	Calcium, Total	mg/L	0.00709	0.1518	5.00	16.7	16.4	5.12	4.25 to 5.75	105	70 to 130	1.42	20
AZ22372	Thallium, Total	mg/L	0.00000412	0.0001474	0.10	0.105	0.106	0.107	0.085 to 0.115	105	70 to 130	1.18	20
AZ22372	Selenium, Total	mg/L	-0.0000184	0.00066	0.10	0.101	0.102	0.101	0.085 to 0.115	101	70 to 130	1.58	20
AZ22372	Cadmium, Total	mg/L	-0.00000276	0.0001474	0.10	0.102	0.102	0.101	0.085 to 0.115	102	70 to 130	0.0045520	20
AZ22372	Cobalt, Total	mg/L	-0.00000079	0.0001474	0.10	0.106	0.107	0.101	0.085 to 0.115	106	70 to 130	0.544	20
AZ22372	Lithium, Total	mg/L	-0.000124	0.0154	0.20	0.221	0.218	0.198	0.17 to 0.23	110	70 to 130	1.27	20
AZ22372	Arsenic, Total	mg/L	0.0000259	0.0001474	0.10	0.117	0.116	0.0990	0.085 to 0.115	102	70 to 130	1.34	20
AZ22372	Beryllium, Total	mg/L	0.0000176	0.00088	0.10	0.104	0.105	0.0991	0.085 to 0.115	104	70 to 130	0.647	20
AZ22372	Molybdenum, Total	mg/L	0.00000802	0.0001474	0.10	0.0960	0.0973	0.0970	0.085 to 0.115	96.0	70 to 130	1.32	20
AZ22372	Chromium, Total	mg/L	0.00000487	0.00044	0.10	0.107	0.108	0.100	0.085 to 0.115	101	70 to 130	1.43	20
AZ22372	Mercury, Total by CVAA	mg/L	0.0000213	0.0005	0.004	0.00425	0.00426	0.00404	0.0034 to 0.0046	106	70 to 130	0.282	20

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

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114
 Issued By: State of Florida, Department of Health
 Expiration: June 30, 2018

Comments:

Batch QC Summary

Customer Account: WMWBARAP

Sample Date: 9/30/19 15:48

Customer ID:

Delivery Date: 10/2/19 14:57

Description: Barry Ash Pond - MW-9

Laboratory ID Number: AZ22368

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Limit	Prec	Prec Limit
AZ22372	Chloride	mg/L	0.0212	0.50	40.0	84.9	44.6	9.79	9 to 11	100	80 to 120	0.447	20
AZ22372	Fluoride	mg/L	0.0243	0.05	2.50	2.66	0.0815	2.57	2.25 to 2.75	103	80 to 120	8.24	20
AZ22372	Sulfate	mg/L	-0.406	0.50	80.0	153	61.7	19.6	18 to 22	114	80 to 120	0.162	20
AZ22379	Solids, Dissolved	mg/L	0.0000	25			390	48.0	40 to 60			0.383	5

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

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments:

Certificate Of Analysis

Description: Barry Ash Pond - MW-11

Location Code: WMWBARAP
Collected: 9/30/19 17:06
Customer ID:
Submittal Date: 10/2/19 14:57

Laboratory ID Number: AZ22369

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7		Analyst: RDA			Preparation Method: EPA 1638				
* Boron, Total	10/7/19 13:00	10/8/19 11:29		1.015	0.103	mg/L	0.03	0.1	
* Calcium, Total	10/7/19 13:00	10/8/19 11:29		1.015	24.6	mg/L	0.1	0.5	
* Lithium, Total	10/7/19 13:00	10/8/19 11:29		1.015	0.0228	mg/L	0.01	0.02	
Analytical Method: EPA 200.8		Analyst: DLJ			Preparation Method: EPA 1638				
* Antimony, Total	10/7/19 10:35	10/8/19 14:48		1.015	Not Detected	mg/L	0.0008	0.003	U
* Arsenic, Total	10/7/19 10:35	10/8/19 14:48		1.015	0.0145	mg/L	0.001	0.005	
* Barium, Total	10/7/19 10:35	10/8/19 14:48		1.015	0.0759	mg/L	0.002	0.01	
* Beryllium, Total	10/7/19 10:35	10/8/19 14:48		1.015	Not Detected	mg/L	0.0006	0.003	U
* Cadmium, Total	10/7/19 10:35	10/8/19 14:48		1.015	Not Detected	mg/L	0.0003	0.001	U
* Chromium, Total	10/7/19 10:35	10/8/19 14:48		1.015	0.00228	mg/L	0.002	0.01	J
* Cobalt, Total	10/7/19 10:35	10/8/19 14:48		1.015	Not Detected	mg/L	0.002	0.005	U
* Lead, Total	10/7/19 10:35	10/8/19 14:48		1.015	Not Detected	mg/L	0.001	0.005	U
* Molybdenum, Total	10/7/19 10:35	10/8/19 14:48		1.015	Not Detected	mg/L	0.002	0.01	U
* Selenium, Total	10/7/19 10:35	10/8/19 14:48		1.015	Not Detected	mg/L	0.002	0.01	U
* Thallium, Total	10/7/19 10:35	10/8/19 14:48		1.015	Not Detected	mg/L	0.0002	0.001	U
Analytical Method: EPA 245.1		Analyst: ABB							
* Mercury, Total by CVAA	10/3/19 11:49	10/7/19 15:08		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: SM 2540C		Analyst: TJW							
* Solids, Dissolved	10/3/19 18:50	10/7/19 10:10		1	399	mg/L		25	
Analytical Method: SM4500Cl E		Analyst: JCC							
* Chloride	10/4/19 11:04	10/4/19 11:04		2	25.0	mg/L	1.00	2	
Analytical Method: SM4500F G 2017		Analyst: JCC							
* Fluoride	10/4/19 16:02	10/4/19 16:02		1	0.0733	mg/L	0.05	0.1	J
Analytical Method: SM4500SO4 E		Analyst: JCC							
* Sulfate	10/8/19 16:07	10/8/19 16:07		1	37.4	mg/L	0.50	1	
Analytical Method: Field Measurements		Analyst: DKG							
Conductivity	9/30/19 17:02	9/30/19 17:02			594.83	uS/cm			FA
pH	9/30/19 17:02	9/30/19 17:02			5.85	SU			FA
Temperature	9/30/19 17:02	9/30/19 17:02			22.18	C			FA
Turbidity	9/30/19 17:02	9/30/19 17:02			0.9	NTU			FA

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

Comments:

Batch QC Summary

Customer Account: WMWBARAP
Sample Date: 9/30/19 17:06
Customer ID:
Delivery Date: 10/2/19 14:57

Description: Barry Ash Pond - MW-11

Laboratory ID Number: AZ22369

Sample	Analysis	Units	MB		Spike	MS	MSD	Standard		Rec		Prec	Limit
			MB	Limit				Standard	Limit	Rec	Limit		
AZ22372	Barium, Total	mg/L	-0.0000216	0.0002	0.10	0.162	0.164	0.0986	0.085 to 0.115	101	70 to 130	1.34	20
AZ22372	Lead, Total	mg/L	0.00000528	0.0001474	0.10	0.107	0.108	0.105	0.085 to 0.115	107	70 to 130	0.697	20
AZ22372	Selenium, Total	mg/L	-0.0000184	0.00066	0.10	0.101	0.102	0.101	0.085 to 0.115	101	70 to 130	1.58	20
AZ22372	Antimony, Total	mg/L	0.000183	0.00066	0.10	0.0970	0.100	0.0952	0.085 to 0.115	97.0	70 to 130	3.08	20
AZ22372	Cadmium, Total	mg/L	-0.00000276	0.0001474	0.10	0.102	0.102	0.101	0.085 to 0.115	102	70 to 130	0.0045520	20
AZ22372	Cobalt, Total	mg/L	-0.00000079	0.0001474	0.10	0.106	0.107	0.101	0.085 to 0.115	106	70 to 130	0.544	20
AZ22372	Lithium, Total	mg/L	-0.000124	0.0154	0.20	0.221	0.218	0.198	0.17 to 0.23	110	70 to 130	1.27	20
AZ22372	Arsenic, Total	mg/L	0.0000259	0.0001474	0.10	0.117	0.116	0.0990	0.085 to 0.115	102	70 to 130	1.34	20
AZ22372	Beryllium, Total	mg/L	0.0000176	0.00088	0.10	0.104	0.105	0.0991	0.085 to 0.115	104	70 to 130	0.647	20
AZ22372	Molybdenum, Total	mg/L	0.00000802	0.0001474	0.10	0.0960	0.0973	0.0970	0.085 to 0.115	96.0	70 to 130	1.32	20
AZ22372	Boron, Total	mg/L	0.000443	0.0650254	1.00	1.09	1.08	0.985	0.85 to 1.15	102	70 to 130	0.848	20
AZ22372	Calcium, Total	mg/L	0.00709	0.1518	5.00	16.7	16.4	5.12	4.25 to 5.75	105	70 to 130	1.42	20
AZ22372	Thallium, Total	mg/L	0.00000412	0.0001474	0.10	0.105	0.106	0.107	0.085 to 0.115	105	70 to 130	1.18	20
AZ22372	Chromium, Total	mg/L	0.00000487	0.00044	0.10	0.107	0.108	0.100	0.085 to 0.115	101	70 to 130	1.43	20
AZ22372	Mercury, Total by CVAA	mg/L	0.0000213	0.0005	0.004	0.00425	0.00426	0.00404	0.0034 to 0.0046	106	70 to 130	0.282	20

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

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

Comments:

Batch QC Summary

Customer Account: WMWBARAP

Sample Date: 9/30/19 17:06

Customer ID:

Delivery Date: 10/2/19 14:57

Description: Barry Ash Pond - MW-11

Laboratory ID Number: AZ22369

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
AZ22372	Chloride	mg/L	0.0212	0.50	40.0	84.9	44.6	9.79	9 to 11	100	80 to 120	0.447	20
AZ22372	Sulfate	mg/L	-0.406	0.50	80.0	153	61.7	19.6	18 to 22	114	80 to 120	0.162	20
AZ22379	Solids, Dissolved	mg/L	0.0000	25			390	48.0	40 to 60			0.383	5
AZ22372	Fluoride	mg/L	0.0243	0.05	2.50	2.66	0.0815	2.57	2.25 to 2.75	103	80 to 120	8.24	20

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments:

Certificate Of Analysis

Description: Barry Ash Pond - MW-13

Location Code: WMWBARAP
Collected: 10/1/19 09:03
Customer ID:
Submittal Date: 10/2/19 14:57

Laboratory ID Number: AZ22370

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7		Analyst: RDA			Preparation Method: EPA 1638				
* Boron, Total	10/7/19 13:00	10/8/19 11:32		1.015	0.0604	mg/L	0.03	0.1	J
* Calcium, Total	10/7/19 13:00	10/8/19 11:32		1.015	13.4	mg/L	0.1	0.5	
* Lithium, Total	10/7/19 13:00	10/8/19 11:32		1.015	Not Detected	mg/L	0.01	0.02	U
Analytical Method: EPA 200.8		Analyst: DLJ			Preparation Method: EPA 1638				
* Antimony, Total	10/7/19 10:35	10/8/19 14:50		1.015	Not Detected	mg/L	0.0008	0.003	U
* Arsenic, Total	10/7/19 10:35	10/8/19 14:50		1.015	0.0144	mg/L	0.001	0.005	
* Barium, Total	10/7/19 10:35	10/8/19 14:50		1.015	0.0696	mg/L	0.002	0.01	
* Beryllium, Total	10/7/19 10:35	10/8/19 14:50		1.015	Not Detected	mg/L	0.0006	0.003	U
* Cadmium, Total	10/7/19 10:35	10/8/19 14:50		1.015	Not Detected	mg/L	0.0003	0.001	U
* Chromium, Total	10/7/19 10:35	10/8/19 14:50		1.015	0.00764	mg/L	0.002	0.01	J
* Cobalt, Total	10/7/19 10:35	10/8/19 14:50		1.015	Not Detected	mg/L	0.002	0.005	U
* Lead, Total	10/7/19 10:35	10/8/19 14:50		1.015	Not Detected	mg/L	0.001	0.005	U
* Molybdenum, Total	10/7/19 10:35	10/8/19 14:50		1.015	Not Detected	mg/L	0.002	0.01	U
* Selenium, Total	10/7/19 10:35	10/8/19 14:50		1.015	Not Detected	mg/L	0.002	0.01	U
* Thallium, Total	10/7/19 10:35	10/8/19 14:50		1.015	Not Detected	mg/L	0.0002	0.001	U
Analytical Method: EPA 245.1		Analyst: ABB							
* Mercury, Total by CVAA	10/3/19 11:49	10/7/19 15:10		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: SM 2540C		Analyst: TJW							
* Solids, Dissolved	10/3/19 18:50	10/7/19 10:10		1	290	mg/L		25	
Analytical Method: SM4500Cl E		Analyst: JCC							
* Chloride	10/4/19 11:05	10/4/19 11:05		4	39.6	mg/L	2.00	4	
Analytical Method: SM4500F G 2017		Analyst: JCC							
* Fluoride	10/4/19 16:03	10/4/19 16:03		1	0.0703	mg/L	0.05	0.1	J
Analytical Method: SM4500SO4 E		Analyst: JCC							
* Sulfate	10/8/19 16:34	10/8/19 16:34		3	47.7	mg/L	1.50	3	
Analytical Method: Field Measurements		Analyst: DKG							
Conductivity	10/1/19 08:58	10/1/19 08:58			443.05	uS/cm			FA
pH	10/1/19 08:58	10/1/19 08:58			6.02	SU			FA
Temperature	10/1/19 08:58	10/1/19 08:58			21.30	C			FA
Turbidity	10/1/19 08:58	10/1/19 08:58			1.17	NTU			FA

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

Comments:

Batch QC Summary

Customer Account: WMWBARAP
Sample Date: 10/1/19 09:03
Customer ID:
Delivery Date: 10/2/19 14:57

Description: Barry Ash Pond - MW-13

Laboratory ID Number: AZ22370

Sample	Analysis	Units	MB					Standard		Rec		Prec	Limit
			MB	Limit	Spike	MS	MSD	Standard	Limit	Rec	Limit		
AZ22372	Barium, Total	mg/L	-0.0000216	0.0002	0.10	0.162	0.164	0.0986	0.085 to 0.115	101	70 to 130	1.34	20
AZ22372	Antimony, Total	mg/L	0.000183	0.00066	0.10	0.0970	0.100	0.0952	0.085 to 0.115	97.0	70 to 130	3.08	20
AZ22372	Lead, Total	mg/L	0.00000528	0.0001474	0.10	0.107	0.108	0.105	0.085 to 0.115	107	70 to 130	0.697	20
AZ22372	Selenium, Total	mg/L	-0.0000184	0.00066	0.10	0.101	0.102	0.101	0.085 to 0.115	101	70 to 130	1.58	20
AZ22372	Boron, Total	mg/L	0.000443	0.0650254	1.00	1.09	1.08	0.985	0.85 to 1.15	102	70 to 130	0.848	20
AZ22372	Calcium, Total	mg/L	0.00709	0.1518	5.00	16.7	16.4	5.12	4.25 to 5.75	105	70 to 130	1.42	20
AZ22372	Thallium, Total	mg/L	0.00000412	0.0001474	0.10	0.105	0.106	0.107	0.085 to 0.115	105	70 to 130	1.18	20
AZ22372	Chromium, Total	mg/L	0.00000487	0.00044	0.10	0.107	0.108	0.100	0.085 to 0.115	101	70 to 130	1.43	20
AZ22372	Mercury, Total by CVAA	mg/L	0.0000213	0.0005	0.004	0.00425	0.00426	0.00404	0.0034 to 0.0046	106	70 to 130	0.282	20
AZ22372	Arsenic, Total	mg/L	0.0000259	0.0001474	0.10	0.117	0.116	0.0990	0.085 to 0.115	102	70 to 130	1.34	20
AZ22372	Beryllium, Total	mg/L	0.0000176	0.00088	0.10	0.104	0.105	0.0991	0.085 to 0.115	104	70 to 130	0.647	20
AZ22372	Molybdenum, Total	mg/L	0.00000802	0.0001474	0.10	0.0960	0.0973	0.0970	0.085 to 0.115	96.0	70 to 130	1.32	20
AZ22372	Cadmium, Total	mg/L	-0.00000276	0.0001474	0.10	0.102	0.102	0.101	0.085 to 0.115	102	70 to 130	0.0045520	20
AZ22372	Cobalt, Total	mg/L	-0.00000079	0.0001474	0.10	0.106	0.107	0.101	0.085 to 0.115	106	70 to 130	0.544	20
AZ22372	Lithium, Total	mg/L	-0.000124	0.0154	0.20	0.221	0.218	0.198	0.17 to 0.23	110	70 to 130	1.27	20

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

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

Comments:

Batch QC Summary

Customer Account: WMWBARAP

Sample Date: 10/1/19 09:03

Customer ID:

Delivery Date: 10/2/19 14:57

Description: Barry Ash Pond - MW-13

Laboratory ID Number: AZ22370

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Limit	Prec	Prec Limit
AZ22372	Chloride	mg/L	0.0212	0.50	40.0	84.9	44.6	9.79	9 to 11	100	80 to 120	0.447	20
AZ22372	Fluoride	mg/L	0.0243	0.05	2.50	2.66	0.0815	2.57	2.25 to 2.75	103	80 to 120	8.24	20
AZ22372	Sulfate	mg/L	-0.406	0.50	80.0	153	61.7	19.6	18 to 22	114	80 to 120	0.162	20
AZ22379	Solids, Dissolved	mg/L	0.0000	25			390	48.0	40 to 60			0.383	5

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments:

Certificate Of Analysis

Description: Barry Ash Pond - MW-13 DUP

Location Code: WMWBARAP
Collected: 10/1/19 09:03
Customer ID:
Submittal Date: 10/2/19 14:57

Laboratory ID Number: AZ22371

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7		Analyst: RDA			Preparation Method: EPA 1638				
* Boron, Total	10/7/19 13:00	10/8/19 11:35		1.015	0.0600	mg/L	0.03	0.1	J
* Calcium, Total	10/7/19 13:00	10/8/19 11:35		1.015	13.4	mg/L	0.1	0.5	
* Lithium, Total	10/7/19 13:00	10/8/19 11:35		1.015	Not Detected	mg/L	0.01	0.02	U
Analytical Method: EPA 200.8		Analyst: DLJ			Preparation Method: EPA 1638				
* Antimony, Total	10/7/19 10:35	10/8/19 14:53		1.015	Not Detected	mg/L	0.0008	0.003	U
* Arsenic, Total	10/7/19 10:35	10/8/19 14:53		1.015	0.0144	mg/L	0.001	0.005	
* Barium, Total	10/7/19 10:35	10/8/19 14:53		1.015	0.0686	mg/L	0.002	0.01	
* Beryllium, Total	10/7/19 10:35	10/8/19 14:53		1.015	Not Detected	mg/L	0.0006	0.003	U
* Cadmium, Total	10/7/19 10:35	10/8/19 14:53		1.015	Not Detected	mg/L	0.0003	0.001	U
* Chromium, Total	10/7/19 10:35	10/8/19 14:53		1.015	0.00733	mg/L	0.002	0.01	J
* Cobalt, Total	10/7/19 10:35	10/8/19 14:53		1.015	Not Detected	mg/L	0.002	0.005	U
* Lead, Total	10/7/19 10:35	10/8/19 14:53		1.015	Not Detected	mg/L	0.001	0.005	U
* Molybdenum, Total	10/7/19 10:35	10/8/19 14:53		1.015	Not Detected	mg/L	0.002	0.01	U
* Selenium, Total	10/7/19 10:35	10/8/19 14:53		1.015	Not Detected	mg/L	0.002	0.01	U
* Thallium, Total	10/7/19 10:35	10/8/19 14:53		1.015	Not Detected	mg/L	0.0002	0.001	U
Analytical Method: EPA 245.1		Analyst: ABB							
* Mercury, Total by CVAA	10/3/19 11:49	10/7/19 15:13		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: SM 2540C		Analyst: TJW							
* Solids, Dissolved	10/3/19 18:50	10/7/19 10:10		1	296	mg/L		25	
Analytical Method: SM4500Cl E		Analyst: JCC							
* Chloride	10/4/19 11:06	10/4/19 11:06		4	39.0	mg/L	2.00	4	
Analytical Method: SM4500F G 2017		Analyst: JCC							
* Fluoride	10/4/19 16:05	10/4/19 16:05		1	0.0661	mg/L	0.05	0.1	J
Analytical Method: SM4500SO4 E		Analyst: JCC							
* Sulfate	10/8/19 16:35	10/8/19 16:35		3	48.1	mg/L	1.50	3	
Analytical Method: Field Measurements		Analyst: DKG							
Conductivity	10/1/19 08:58	10/1/19 08:58			443.05	uS/cm			FA
pH	10/1/19 08:58	10/1/19 08:58			6.02	SU			FA
Temperature	10/1/19 08:58	10/1/19 08:58			21.30	C			FA
Turbidity	10/1/19 08:58	10/1/19 08:58			1.17	NTU			FA

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

Comments:

Batch QC Summary

Customer Account: WMWBARAP
Sample Date: 10/1/19 09:03
Customer ID:
Delivery Date: 10/2/19 14:57

Description: Barry Ash Pond - MW-13 DUP

Laboratory ID Number: AZ22371

Sample	Analysis	Units	MB		Spike	MS	MSD	Standard		Rec		Prec	Limit
			MB	Limit				Standard	Limit	Rec	Limit		
AZ22372	Barium, Total	mg/L	-0.0000216	0.0002	0.10	0.162	0.164	0.0986	0.085 to 0.115	101	70 to 130	1.34	20
AZ22372	Selenium, Total	mg/L	-0.0000184	0.00066	0.10	0.101	0.102	0.101	0.085 to 0.115	101	70 to 130	1.58	20
AZ22372	Antimony, Total	mg/L	0.000183	0.00066	0.10	0.0970	0.100	0.0952	0.085 to 0.115	97.0	70 to 130	3.08	20
AZ22372	Lead, Total	mg/L	0.00000528	0.0001474	0.10	0.107	0.108	0.105	0.085 to 0.115	107	70 to 130	0.697	20
AZ22372	Arsenic, Total	mg/L	0.0000259	0.0001474	0.10	0.117	0.116	0.0990	0.085 to 0.115	102	70 to 130	1.34	20
AZ22372	Beryllium, Total	mg/L	0.0000176	0.00088	0.10	0.104	0.105	0.0991	0.085 to 0.115	104	70 to 130	0.647	20
AZ22372	Molybdenum, Total	mg/L	0.00000802	0.0001474	0.10	0.0960	0.0973	0.0970	0.085 to 0.115	96.0	70 to 130	1.32	20
AZ22372	Boron, Total	mg/L	0.000443	0.0650254	1.00	1.09	1.08	0.985	0.85 to 1.15	102	70 to 130	0.848	20
AZ22372	Calcium, Total	mg/L	0.00709	0.1518	5.00	16.7	16.4	5.12	4.25 to 5.75	105	70 to 130	1.42	20
AZ22372	Thallium, Total	mg/L	0.00000412	0.0001474	0.10	0.105	0.106	0.107	0.085 to 0.115	105	70 to 130	1.18	20
AZ22372	Cadmium, Total	mg/L	-0.00000276	0.0001474	0.10	0.102	0.102	0.101	0.085 to 0.115	102	70 to 130	0.0045520	20
AZ22372	Cobalt, Total	mg/L	-0.00000079	0.0001474	0.10	0.106	0.107	0.101	0.085 to 0.115	106	70 to 130	0.544	20
AZ22372	Lithium, Total	mg/L	-0.000124	0.0154	0.20	0.221	0.218	0.198	0.17 to 0.23	110	70 to 130	1.27	20
AZ22372	Chromium, Total	mg/L	0.00000487	0.00044	0.10	0.107	0.108	0.100	0.085 to 0.115	101	70 to 130	1.43	20
AZ22372	Mercury, Total by CVAA	mg/L	0.0000213	0.0005	0.004	0.00425	0.00426	0.00404	0.0034 to 0.0046	106	70 to 130	0.282	20

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* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114
 Issued By: State of Florida, Department of Health
 Expiration: June 30, 2018

Comments:

Batch QC Summary

Customer Account: WMWBARAP

Sample Date: 10/1/19 09:03

Customer ID:

Delivery Date: 10/2/19 14:57

Description: Barry Ash Pond - MW-13 DUP

Laboratory ID Number: AZ22371

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Limit	Prec	Prec Limit
AZ22372	Fluoride	mg/L	0.0243	0.05	2.50	2.66	0.0815	2.57	2.25 to 2.75	103	80 to 120	8.24	20
AZ22372	Chloride	mg/L	0.0212	0.50	40.0	84.9	44.6	9.79	9 to 11	100	80 to 120	0.447	20
AZ22372	Sulfate	mg/L	-0.406	0.50	80.0	153	61.7	19.6	18 to 22	114	80 to 120	0.162	20
AZ22379	Solids, Dissolved	mg/L	0.0000	25			390	48.0	40 to 60			0.383	5

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

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

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments:

Certificate Of Analysis

Description: Barry Ash Pond - MW-14

Location Code: WMWBARAP
Collected: 10/1/19 10:41
Customer ID:
Submittal Date: 10/2/19 14:57

Laboratory ID Number: AZ22372

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7		Analyst: RDA			Preparation Method: EPA 1638				
* Boron, Total	10/7/19 13:00	10/8/19 11:38		1.015	0.0701	mg/L	0.03	0.1	J
* Calcium, Total	10/7/19 13:00	10/8/19 11:38		1.015	11.4	mg/L	0.1	0.5	
* Lithium, Total	10/7/19 13:00	10/8/19 11:38		1.015	Not Detected	mg/L	0.01	0.02	U
Analytical Method: EPA 200.8		Analyst: DLJ			Preparation Method: EPA 1638				
* Antimony, Total	10/7/19 10:35	10/8/19 14:56		1.015	Not Detected	mg/L	0.0008	0.003	U
* Arsenic, Total	10/7/19 10:35	10/8/19 14:56		1.015	0.0152	mg/L	0.001	0.005	
* Barium, Total	10/7/19 10:35	10/8/19 14:56		1.015	0.0605	mg/L	0.002	0.01	
* Beryllium, Total	10/7/19 10:35	10/8/19 14:56		1.015	Not Detected	mg/L	0.0006	0.003	U
* Cadmium, Total	10/7/19 10:35	10/8/19 14:56		1.015	Not Detected	mg/L	0.0003	0.001	U
* Chromium, Total	10/7/19 10:35	10/8/19 14:56		1.015	0.00508	mg/L	0.002	0.01	J
* Cobalt, Total	10/7/19 10:35	10/8/19 14:56		1.015	Not Detected	mg/L	0.002	0.005	U
* Lead, Total	10/7/19 10:35	10/8/19 14:56		1.015	Not Detected	mg/L	0.001	0.005	U
* Molybdenum, Total	10/7/19 10:35	10/8/19 14:56		1.015	Not Detected	mg/L	0.002	0.01	U
* Selenium, Total	10/7/19 10:35	10/8/19 14:56		1.015	Not Detected	mg/L	0.002	0.01	U
* Thallium, Total	10/7/19 10:35	10/8/19 14:56		1.015	Not Detected	mg/L	0.0002	0.001	U
Analytical Method: EPA 245.1		Analyst: ABB							
* Mercury, Total by CVAA	10/3/19 11:49	10/7/19 15:15		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: SM 2540C		Analyst: TJW							
* Solids, Dissolved	10/3/19 18:50	10/7/19 10:10		1	317	mg/L		25	
Analytical Method: SM4500Cl E		Analyst: JCC							
* Chloride	10/4/19 10:56	10/4/19 10:56		4	44.8	mg/L	2.00	4	
Analytical Method: SM4500F G 2017		Analyst: JCC							
* Fluoride	10/4/19 16:06	10/4/19 16:06		1	0.0885	mg/L	0.05	0.1	J
Analytical Method: SM4500SO4 E		Analyst: JCC							
* Sulfate	10/8/19 16:36	10/8/19 16:36		4	61.6	mg/L	2.00	4	
Analytical Method: Field Measurements		Analyst: DKG							
Conductivity	10/1/19 10:38	10/1/19 10:38			508.59	uS/cm			FA
pH	10/1/19 10:38	10/1/19 10:38			6.01	SU			FA
Temperature	10/1/19 10:38	10/1/19 10:38			20.92	C			FA
Turbidity	10/1/19 10:38	10/1/19 10:38			0.68	NTU			FA

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

Comments:

Batch QC Summary

Customer Account: WMWBARAP
Sample Date: 10/1/19 10:41
Customer ID:
Delivery Date: 10/2/19 14:57

Description: Barry Ash Pond - MW-14

Laboratory ID Number: AZ22372

Sample	Analysis	Units	MB		Spike	MS	MSD	Standard	Standard Limit	Rec		Prec Limit	
			MB	Limit						Rec	Limit		
AZ22372	Barium, Total	mg/L	-0.0000216	0.0002	0.10	0.162	0.164	0.0986	0.085 to 0.115	101	70 to 130	1.34	20
AZ22372	Lead, Total	mg/L	0.00000528	0.0001474	0.10	0.107	0.108	0.105	0.085 to 0.115	107	70 to 130	0.697	20
AZ22372	Antimony, Total	mg/L	0.000183	0.00066	0.10	0.0970	0.100	0.0952	0.085 to 0.115	97.0	70 to 130	3.08	20
AZ22372	Selenium, Total	mg/L	-0.0000184	0.00066	0.10	0.101	0.102	0.101	0.085 to 0.115	101	70 to 130	1.58	20
AZ22372	Arsenic, Total	mg/L	0.0000259	0.0001474	0.10	0.117	0.116	0.0990	0.085 to 0.115	102	70 to 130	1.34	20
AZ22372	Beryllium, Total	mg/L	0.0000176	0.00088	0.10	0.104	0.105	0.0991	0.085 to 0.115	104	70 to 130	0.647	20
AZ22372	Molybdenum, Total	mg/L	0.00000802	0.0001474	0.10	0.0960	0.0973	0.0970	0.085 to 0.115	96.0	70 to 130	1.32	20
AZ22372	Chromium, Total	mg/L	0.00000487	0.00044	0.10	0.107	0.108	0.100	0.085 to 0.115	101	70 to 130	1.43	20
AZ22372	Mercury, Total by CVAA	mg/L	0.0000213	0.0005	0.004	0.00425	0.00426	0.00404	0.0034 to 0.0046	106	70 to 130	0.282	20
AZ22372	Cadmium, Total	mg/L	-0.00000276	0.0001474	0.10	0.102	0.102	0.101	0.085 to 0.115	102	70 to 130	0.0045520	
AZ22372	Cobalt, Total	mg/L	-0.00000079	0.0001474	0.10	0.106	0.107	0.101	0.085 to 0.115	106	70 to 130	0.544	20
AZ22372	Lithium, Total	mg/L	-0.000124	0.0154	0.20	0.221	0.218	0.198	0.17 to 0.23	110	70 to 130	1.27	20
AZ22372	Boron, Total	mg/L	0.000443	0.0650254	1.00	1.09	1.08	0.985	0.85 to 1.15	102	70 to 130	0.848	20
AZ22372	Calcium, Total	mg/L	0.00709	0.1518	5.00	16.7	16.4	5.12	4.25 to 5.75	105	70 to 130	1.42	20
AZ22372	Thallium, Total	mg/L	0.00000412	0.0001474	0.10	0.105	0.106	0.107	0.085 to 0.115	105	70 to 130	1.18	20

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

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

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114
 Issued By: State of Florida, Department of Health
 Expiration: June 30, 2018

Comments:

Batch QC Summary

Customer Account: WMWBARAP

Sample Date: 10/1/19 10:41

Customer ID:

Delivery Date: 10/2/19 14:57

Description: Barry Ash Pond - MW-14

Laboratory ID Number: AZ22372

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
AZ22372	Fluoride	mg/L	0.0243	0.05	2.50	2.66	0.0815	2.57	2.25 to 2.75	103	80 to 120	8.24	20
AZ22372	Chloride	mg/L	0.0212	0.50	40.0	84.9	44.6	9.79	9 to 11	100	80 to 120	0.447	20
AZ22372	Sulfate	mg/L	-0.406	0.50	80.0	153	61.7	19.6	18 to 22	114	80 to 120	0.162	20
AZ22379	Solids, Dissolved	mg/L	0.0000	25			390	48.0	40 to 60			0.383	5

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments:

Certificate Of Analysis

Description: Barry Ash Pond - MW-1

Location Code: WMWBARAP
Collected: 10/1/19 13:12
Customer ID:
Submittal Date: 10/2/19 14:57

Laboratory ID Number: AZ22373

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7		Analyst: RDA		Preparation Method: EPA 1638					
* Boron, Total	10/7/19 13:00	10/8/19 11:59		1.015	1.91	mg/L	0.03	0.1	
* Calcium, Total	10/7/19 13:00	10/8/19 11:59		1.015	36.7	mg/L	0.1	0.5	
* Lithium, Total	10/7/19 13:00	10/8/19 11:59		1.015	Not Detected	mg/L	0.01	0.02	U
Analytical Method: EPA 200.8		Analyst: DLJ		Preparation Method: EPA 1638					
* Antimony, Total	10/7/19 10:35	10/8/19 15:17		1.015	Not Detected	mg/L	0.0008	0.003	U
* Arsenic, Total	10/7/19 10:35	10/8/19 15:17		1.015	0.0635	mg/L	0.001	0.005	
* Barium, Total	10/7/19 10:35	10/8/19 15:17		1.015	0.293	mg/L	0.002	0.01	
* Beryllium, Total	10/7/19 10:35	10/8/19 15:17		1.015	Not Detected	mg/L	0.0006	0.003	U
* Cadmium, Total	10/7/19 10:35	10/8/19 15:17		1.015	Not Detected	mg/L	0.0003	0.001	U
* Chromium, Total	10/7/19 10:35	10/8/19 15:17		1.015	0.00236	mg/L	0.002	0.01	J
* Cobalt, Total	10/7/19 10:35	10/8/19 15:17		1.015	Not Detected	mg/L	0.002	0.005	U
* Lead, Total	10/7/19 10:35	10/8/19 15:17		1.015	Not Detected	mg/L	0.001	0.005	U
* Molybdenum, Total	10/7/19 10:35	10/8/19 15:17		1.015	Not Detected	mg/L	0.002	0.01	U
* Selenium, Total	10/7/19 10:35	10/8/19 15:17		1.015	Not Detected	mg/L	0.002	0.01	U
* Thallium, Total	10/7/19 10:35	10/8/19 15:17		1.015	Not Detected	mg/L	0.0002	0.001	U
Analytical Method: EPA 245.1		Analyst: ABB							
* Mercury, Total by CVAA	10/3/19 11:49	10/7/19 15:32		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: SM 2540C		Analyst: TJW							
* Solids, Dissolved	10/4/19 12:30	10/8/19 09:30		1	430	mg/L		25	
Analytical Method: SM4500Cl E		Analyst: JCC							
* Chloride	10/4/19 11:37	10/4/19 11:37		2	24.6	mg/L	1.00	2	
Analytical Method: SM4500F G 2017		Analyst: JCC							
* Fluoride	10/4/19 16:17	10/4/19 16:17		1	0.0744	mg/L	0.05	0.1	J
Analytical Method: SM4500SO4 E		Analyst: JCC							
* Sulfate	10/8/19 16:49	10/8/19 16:49		1	7.82	mg/L	0.50	1	
Analytical Method: Field Measurements		Analyst: DKG							
Conductivity	10/1/19 13:09	10/1/19 13:09			770.72	uS/cm			FA
pH	10/1/19 13:09	10/1/19 13:09			5.47	SU			FA
Temperature	10/1/19 13:09	10/1/19 13:09			22.80	C			FA
Turbidity	10/1/19 13:09	10/1/19 13:09			0.57	NTU			FA

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

Comments:

Batch QC Summary

Customer Account: WMWBARAP
Sample Date: 10/1/19 13:12
Customer ID:
Delivery Date: 10/2/19 14:57

Description: Barry Ash Pond - MW-1

Laboratory ID Number: AZ22373

Sample	Analysis	Units	MB		Spike	MS	MSD	Standard		Rec		Prec	Limit
			MB	Limit				Standard	Limit	Rec	Prec		
AZ22689	Barium, Total	mg/L	-0.0000218	0.0002	0.10	0.161	0.165	0.0986	0.085 to 0.115	99.7	70 to 130	2.39	20
AZ22689	Calcium, Total	mg/L	-0.000887	0.1518	5.00	8.11	8.29	5.14	4.25 to 5.75	99.0	70 to 130	2.17	20
AZ22689	Antimony, Total	mg/L	0.000157	0.00066	0.10	0.0970	0.0983	0.0944	0.085 to 0.115	97.0	70 to 130	1.34	20
AZ22689	Arsenic, Total	mg/L	0.0000224	0.0001474	0.10	0.103	0.104	0.103	0.085 to 0.115	102	70 to 130	0.666	20
AZ22689	Selenium, Total	mg/L	-0.0000348	0.00066	0.10	0.101	0.102	0.101	0.085 to 0.115	101	70 to 130	0.819	20
AZ22689	Boron, Total	mg/L	0.00216	0.0650254	1.00	0.992	1.02	0.986	0.85 to 1.15	99.2	70 to 130	2.54	20
AZ22689	Thallium, Total	mg/L	0.00000950	0.0001474	0.10	0.106	0.106	0.106	0.085 to 0.115	106	70 to 130	0.0639	20
AZ22689	Beryllium, Total	mg/L	0.0000303	0.00088	0.10	0.102	0.105	0.0963	0.085 to 0.115	102	70 to 130	2.83	20
AZ22689	Lithium, Total	mg/L	-0.0000729	0.0154	0.20	0.207	0.213	0.198	0.17 to 0.23	103	70 to 130	2.93	20
AZ22689	Molybdenum, Total	mg/L	0.0000199	0.0001474	0.10	0.0972	0.0976	0.0977	0.085 to 0.115	97.2	70 to 130	0.415	20
AZ22689	Lead, Total	mg/L	0.00000845	0.0001474	0.10	0.105	0.105	0.105	0.085 to 0.115	105	70 to 130	0.686	20
AZ22381	Mercury, Total by CVAA	mg/L	0.0000272	0.0005	0.004	0.00433	0.00410	0.00425	0.0034 to 0.0046	108	70 to 130	5.47	20
AZ22689	Chromium, Total	mg/L	-0.0000237	0.00044	0.10	0.104	0.104	0.102	0.085 to 0.115	104	70 to 130	0.426	20
AZ22689	Cadmium, Total	mg/L	-0.00000527	0.0001474	0.10	0.100	0.103	0.101	0.085 to 0.115	100	70 to 130	3.12	20
AZ22689	Cobalt, Total	mg/L	-0.00000086	0.0001474	0.10	0.107	0.108	0.103	0.085 to 0.115	105	70 to 130	0.146	20

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

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114
 Issued By: State of Florida, Department of Health
 Expiration: June 30, 2018

Comments:

Batch QC Summary

Customer Account: WMWBARAP

Sample Date: 10/1/19 13:12

Customer ID:

Delivery Date: 10/2/19 14:57

Description: Barry Ash Pond - MW-1

Laboratory ID Number: AZ22373

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
AZ22381	Fluoride	mg/L	0.0274	0.05	2.50	2.68	0.0272	2.57	2.25 to 2.75	107	80 to 120	0.00	20
AZ22381	Chloride	mg/L	0.0156	0.50	10.0	15.9	6.05	9.78	9 to 11	99.1	80 to 120	0.997	20
AZ22373	Solids, Dissolved	mg/L	0.0000	25			430	50.0	40 to 60			0.00	5
AZ22381	Sulfate	mg/L	-0.535	0.50	20.0	20.1	1.06	19.5	18 to 22	95.3	80 to 120	1.90	20

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments:

Certificate Of Analysis

Description: Barry Ash Pond Field Blank

Location Code: WMWBARAPFB
Collected: 10/1/19 13:55
Customer ID:
Submittal Date: 10/2/19 14:57

Laboratory ID Number: AZ22374

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7			Analyst: RDA		Preparation Method: EPA 1638				
* Boron, Total	10/7/19 13:00	10/8/19 12:02		1.015	Not Detected	mg/L	0.03	0.1	U
* Calcium, Total	10/7/19 13:00	10/8/19 12:02		1.015	Not Detected	mg/L	0.1	0.5	U
* Lithium, Total	10/7/19 13:00	10/8/19 12:02		1.015	Not Detected	mg/L	0.01	0.02	U
Analytical Method: EPA 200.8			Analyst: DLJ		Preparation Method: EPA 1638				
* Antimony, Total	10/7/19 10:35	10/8/19 15:19		1.015	Not Detected	mg/L	0.0008	0.003	U
* Arsenic, Total	10/7/19 10:35	10/8/19 15:19		1.015	Not Detected	mg/L	0.001	0.005	U
* Barium, Total	10/7/19 10:35	10/8/19 15:19		1.015	Not Detected	mg/L	0.002	0.01	U
* Beryllium, Total	10/7/19 10:35	10/8/19 15:19		1.015	Not Detected	mg/L	0.0006	0.003	U
* Cadmium, Total	10/7/19 10:35	10/8/19 15:19		1.015	Not Detected	mg/L	0.0003	0.001	U
* Chromium, Total	10/7/19 10:35	10/8/19 15:19		1.015	Not Detected	mg/L	0.002	0.01	U
* Cobalt, Total	10/7/19 10:35	10/8/19 15:19		1.015	Not Detected	mg/L	0.002	0.005	U
* Lead, Total	10/7/19 10:35	10/8/19 15:19		1.015	Not Detected	mg/L	0.001	0.005	U
* Molybdenum, Total	10/7/19 10:35	10/8/19 15:19		1.015	Not Detected	mg/L	0.002	0.01	U
* Selenium, Total	10/7/19 10:35	10/8/19 15:19		1.015	Not Detected	mg/L	0.002	0.01	U
* Thallium, Total	10/7/19 10:35	10/8/19 15:19		1.015	Not Detected	mg/L	0.0002	0.001	U
Analytical Method: EPA 245.1			Analyst: ABB						
* Mercury, Total by CVAA	10/3/19 11:49	10/7/19 15:34		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: SM 2540C			Analyst: TJW						
* Solids, Dissolved	10/4/19 12:30	10/8/19 09:30		1	Not Detected	mg/L		25	U
Analytical Method: SM4500Cl E			Analyst: JCC						
* Chloride	10/4/19 11:38	10/4/19 11:38		1	Not Detected	mg/L	0.50	1	U
Analytical Method: SM4500F G 2017			Analyst: JCC						
* Fluoride	10/4/19 16:18	10/4/19 16:18		1	Not Detected	mg/L	0.05	0.1	U
Analytical Method: SM4500SO4 E			Analyst: JCC						
* Sulfate	10/8/19 16:50	10/8/19 16:50		1	Not Detected	mg/L	0.50	1	U

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

Comments:

Batch QC Summary

Customer Account: WMWBARAPFB
Sample Date: 10/1/19 13:55
Customer ID:
Delivery Date: 10/2/19 14:57

Description: Barry Ash Pond Field Blank

Laboratory ID Number: AZ22374

Sample	Analysis	Units	MB		Spike	MS	MSD	Standard		Rec		Prec	Limit
			MB	Limit				Standard	Limit	Rec	Prec		
AZ22689	Barium, Total	mg/L	-0.0000218	0.0002	0.10	0.161	0.165	0.0986	0.085 to 0.115	99.7	70 to 130	2.39	20
AZ22689	Calcium, Total	mg/L	-0.000887	0.1518	5.00	8.11	8.29	5.14	4.25 to 5.75	99.0	70 to 130	2.17	20
AZ22689	Antimony, Total	mg/L	0.000157	0.00066	0.10	0.0970	0.0983	0.0944	0.085 to 0.115	97.0	70 to 130	1.34	20
AZ22689	Beryllium, Total	mg/L	0.0000303	0.00088	0.10	0.102	0.105	0.0963	0.085 to 0.115	102	70 to 130	2.83	20
AZ22689	Lithium, Total	mg/L	-0.0000729	0.0154	0.20	0.207	0.213	0.198	0.17 to 0.23	103	70 to 130	2.93	20
AZ22689	Molybdenum, Total	mg/L	0.0000199	0.0001474	0.10	0.0972	0.0976	0.0977	0.085 to 0.115	97.2	70 to 130	0.415	20
AZ22689	Lead, Total	mg/L	0.00000845	0.0001474	0.10	0.105	0.105	0.105	0.085 to 0.115	105	70 to 130	0.686	20
AZ22689	Cadmium, Total	mg/L	-0.00000527	0.0001474	0.10	0.100	0.103	0.101	0.085 to 0.115	100	70 to 130	3.12	20
AZ22689	Cobalt, Total	mg/L	-0.00000086	0.0001474	0.10	0.107	0.108	0.103	0.085 to 0.115	105	70 to 130	0.146	20
AZ22689	Boron, Total	mg/L	0.00216	0.0650254	1.00	0.992	1.02	0.986	0.85 to 1.15	99.2	70 to 130	2.54	20
AZ22689	Thallium, Total	mg/L	0.00000950	0.0001474	0.10	0.106	0.106	0.106	0.085 to 0.115	106	70 to 130	0.0639	20
AZ22381	Mercury, Total by CVAA	mg/L	0.0000272	0.0005	0.004	0.00433	0.00410	0.00425	0.0034 to 0.0046	108	70 to 130	5.47	20
AZ22689	Chromium, Total	mg/L	-0.0000237	0.00044	0.10	0.104	0.104	0.102	0.085 to 0.115	104	70 to 130	0.426	20
AZ22689	Arsenic, Total	mg/L	0.0000224	0.0001474	0.10	0.103	0.104	0.103	0.085 to 0.115	102	70 to 130	0.666	20
AZ22689	Selenium, Total	mg/L	-0.0000348	0.00066	0.10	0.101	0.102	0.101	0.085 to 0.115	101	70 to 130	0.819	20

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Laboratory certification ID: E571114
 Issued By: State of Florida, Department of Health
 Expiration: June 30, 2018

Comments:

Batch QC Summary

Customer Account: WMWBARAPFB

Sample Date: 10/1/19 13:55

Customer ID:

Delivery Date: 10/2/19 14:57

Description: Barry Ash Pond Field Blank

Laboratory ID Number: AZ22374

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
AZ22381	Fluoride	mg/L	0.0274	0.05	2.50	2.68	0.0272	2.57	2.25 to 2.75	107	80 to 120	0.00	20
AZ22373	Solids, Dissolved	mg/L	0.0000	25			430	50.0	40 to 60			0.00	5
AZ22381	Sulfate	mg/L	-0.535	0.50	20.0	20.1	1.06	19.5	18 to 22	95.3	80 to 120	1.90	20
AZ22381	Chloride	mg/L	0.0156	0.50	10.0	15.9	6.05	9.78	9 to 11	99.1	80 to 120	0.997	20

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

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments:

Certificate Of Analysis

Description: Barry Ash Pond - MW-3

Location Code: WMWBARAP
Collected: 10/1/19 15:18
Customer ID:
Submittal Date: 10/2/19 14:57

Laboratory ID Number: AZ22375

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7		Analyst: RDA			Preparation Method: EPA 1638				
* Boron, Total	10/7/19 13:00	10/8/19 12:05		1.015	Not Detected	mg/L	0.03	0.1	U
* Calcium, Total	10/7/19 13:00	10/8/19 12:05		1.015	1.08	mg/L	0.1	0.5	
* Lithium, Total	10/7/19 13:00	10/8/19 12:05		1.015	Not Detected	mg/L	0.01	0.02	U
Analytical Method: EPA 200.8		Analyst: DLJ			Preparation Method: EPA 1638				
* Antimony, Total	10/7/19 10:35	10/8/19 15:22		1.015	Not Detected	mg/L	0.0008	0.003	U
* Arsenic, Total	10/7/19 10:35	10/8/19 15:22		1.015	Not Detected	mg/L	0.001	0.005	U
* Barium, Total	10/7/19 10:35	10/8/19 15:22		1.015	0.0356	mg/L	0.002	0.01	
* Beryllium, Total	10/7/19 10:35	10/8/19 15:22		1.015	Not Detected	mg/L	0.0006	0.003	U
* Cadmium, Total	10/7/19 10:35	10/8/19 15:22		1.015	Not Detected	mg/L	0.0003	0.001	U
* Chromium, Total	10/7/19 10:35	10/8/19 15:22		1.015	Not Detected	mg/L	0.002	0.01	U
* Cobalt, Total	10/7/19 10:35	10/8/19 15:22		1.015	Not Detected	mg/L	0.002	0.005	U
* Lead, Total	10/7/19 10:35	10/8/19 15:22		1.015	Not Detected	mg/L	0.001	0.005	U
* Molybdenum, Total	10/7/19 10:35	10/8/19 15:22		1.015	Not Detected	mg/L	0.002	0.01	U
* Selenium, Total	10/7/19 10:35	10/8/19 15:22		1.015	Not Detected	mg/L	0.002	0.01	U
* Thallium, Total	10/7/19 10:35	10/8/19 15:22		1.015	Not Detected	mg/L	0.0002	0.001	U
Analytical Method: EPA 245.1		Analyst: ABB							
* Mercury, Total by CVAA	10/3/19 11:49	10/7/19 15:37		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: SM 2540C		Analyst: TJW							
* Solids, Dissolved	10/4/19 12:30	10/8/19 09:30		1	36.7	mg/L		25	
Analytical Method: SM4500Cl E		Analyst: JCC							
* Chloride	10/4/19 11:39	10/4/19 11:39		1	8.05	mg/L	0.50	1	
Analytical Method: SM4500F G 2017		Analyst: JCC							
* Fluoride	10/4/19 16:19	10/4/19 16:19		1	Not Detected	mg/L	0.05	0.1	U
Analytical Method: SM4500SO4 E		Analyst: JCC							
* Sulfate	10/8/19 16:51	10/8/19 16:51		1	0.610	mg/L	0.50	1	J
Analytical Method: Field Measurements		Analyst: DKG							
Conductivity	10/1/19 15:13	10/1/19 15:13			39.75	uS/cm			FA
pH	10/1/19 15:13	10/1/19 15:13			4.37	SU			FA
Temperature	10/1/19 15:13	10/1/19 15:13			22.23	C			FA
Turbidity	10/1/19 15:13	10/1/19 15:13			0.38	NTU			FA

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

Comments:

Batch QC Summary

Customer Account: WMWBARAP
Sample Date: 10/1/19 15:18
Customer ID:
Delivery Date: 10/2/19 14:57

Description: Barry Ash Pond - MW-3

Laboratory ID Number: AZ22375

Sample	Analysis	Units	MB		Spike	MS	MSD	Standard		Rec		Prec	Limit
			MB	Limit				Standard	Limit	Rec	Limit		
AZ22689	Barium, Total	mg/L	-0.0000218	0.0002	0.10	0.161	0.165	0.0986	0.085 to 0.115	99.7	70 to 130	2.39	20
AZ22689	Boron, Total	mg/L	0.00216	0.0650254	1.00	0.992	1.02	0.986	0.85 to 1.15	99.2	70 to 130	2.54	20
AZ22689	Thallium, Total	mg/L	0.00000950	0.0001474	0.10	0.106	0.106	0.106	0.085 to 0.115	106	70 to 130	0.0639	20
AZ22689	Beryllium, Total	mg/L	0.0000303	0.00088	0.10	0.102	0.105	0.0963	0.085 to 0.115	102	70 to 130	2.83	20
AZ22689	Lithium, Total	mg/L	-0.0000729	0.0154	0.20	0.207	0.213	0.198	0.17 to 0.23	103	70 to 130	2.93	20
AZ22689	Molybdenum, Total	mg/L	0.0000199	0.0001474	0.10	0.0972	0.0976	0.0977	0.085 to 0.115	97.2	70 to 130	0.415	20
AZ22689	Lead, Total	mg/L	0.00000845	0.0001474	0.10	0.105	0.105	0.105	0.085 to 0.115	105	70 to 130	0.686	20
AZ22689	Arsenic, Total	mg/L	0.0000224	0.0001474	0.10	0.103	0.104	0.103	0.085 to 0.115	102	70 to 130	0.666	20
AZ22689	Selenium, Total	mg/L	-0.0000348	0.00066	0.10	0.101	0.102	0.101	0.085 to 0.115	101	70 to 130	0.819	20
AZ22689	Calcium, Total	mg/L	-0.000887	0.1518	5.00	8.11	8.29	5.14	4.25 to 5.75	99.0	70 to 130	2.17	20
AZ22689	Antimony, Total	mg/L	0.000157	0.00066	0.10	0.0970	0.0983	0.0944	0.085 to 0.115	97.0	70 to 130	1.34	20
AZ22689	Cadmium, Total	mg/L	-0.00000527	0.0001474	0.10	0.100	0.103	0.101	0.085 to 0.115	100	70 to 130	3.12	20
AZ22689	Cobalt, Total	mg/L	-0.00000086	0.0001474	0.10	0.107	0.108	0.103	0.085 to 0.115	105	70 to 130	0.146	20
AZ22381	Mercury, Total by CVAA	mg/L	0.0000272	0.0005	0.004	0.00433	0.00410	0.00425	0.0034 to 0.0046	108	70 to 130	5.47	20
AZ22689	Chromium, Total	mg/L	-0.0000237	0.00044	0.10	0.104	0.104	0.102	0.085 to 0.115	104	70 to 130	0.426	20

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

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

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114
 Issued By: State of Florida, Department of Health
 Expiration: June 30, 2018

Comments:

Batch QC Summary

Customer Account: WMWBARAP

Sample Date: 10/1/19 15:18

Customer ID:

Delivery Date: 10/2/19 14:57

Description: Barry Ash Pond - MW-3

Laboratory ID Number: AZ22375

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
AZ22381	Chloride	mg/L	0.0156	0.50	10.0	15.9	6.05	9.78	9 to 11	99.1	80 to 120	0.997	20
AZ22373	Solids, Dissolved	mg/L	0.0000	25			430	50.0	40 to 60			0.00	5
AZ22381	Sulfate	mg/L	-0.535	0.50	20.0	20.1	1.06	19.5	18 to 22	95.3	80 to 120	1.90	20
AZ22381	Fluoride	mg/L	0.0274	0.05	2.50	2.68	0.0272	2.57	2.25 to 2.75	107	80 to 120	0.00	20

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* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments:

Certificate Of Analysis

Description: Barry Ash Pond - MW-7V

Location Code: WMWBARAP
Collected: 10/1/19 10:13
Customer ID:
Submittal Date: 10/2/19 14:58

Laboratory ID Number: AZ22376

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7		Analyst: RDA			Preparation Method: EPA 1638				
* Boron, Total	10/7/19 13:00	10/8/19 12:08		1.015	0.0546	mg/L	0.03	0.1	J
* Calcium, Total	10/7/19 13:00	10/8/19 12:08		1.015	18.7	mg/L	0.1	0.5	
* Lithium, Total	10/7/19 13:00	10/8/19 12:08		1.015	Not Detected	mg/L	0.01	0.02	U
Analytical Method: EPA 200.8		Analyst: DLJ			Preparation Method: EPA 1638				
* Antimony, Total	10/7/19 10:35	10/8/19 15:25		1.015	Not Detected	mg/L	0.0008	0.003	U
* Arsenic, Total	10/7/19 10:35	10/8/19 15:25		1.015	0.00278	mg/L	0.001	0.005	J
* Barium, Total	10/7/19 10:35	10/8/19 15:25		1.015	0.0541	mg/L	0.002	0.01	
* Beryllium, Total	10/7/19 10:35	10/8/19 15:25		1.015	Not Detected	mg/L	0.0006	0.003	U
* Cadmium, Total	10/7/19 10:35	10/8/19 15:25		1.015	Not Detected	mg/L	0.0003	0.001	U
* Chromium, Total	10/7/19 10:35	10/8/19 15:25		1.015	Not Detected	mg/L	0.002	0.01	U
* Cobalt, Total	10/7/19 10:35	10/8/19 15:25		1.015	Not Detected	mg/L	0.002	0.005	U
* Lead, Total	10/7/19 10:35	10/8/19 15:25		1.015	Not Detected	mg/L	0.001	0.005	U
* Molybdenum, Total	10/7/19 10:35	10/8/19 15:25		1.015	Not Detected	mg/L	0.002	0.01	U
* Selenium, Total	10/7/19 10:35	10/8/19 15:25		1.015	Not Detected	mg/L	0.002	0.01	U
* Thallium, Total	10/7/19 10:35	10/8/19 15:25		1.015	Not Detected	mg/L	0.0002	0.001	U
Analytical Method: EPA 245.1		Analyst: ABB							
* Mercury, Total by CVAA	10/3/19 11:49	10/7/19 15:39		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: SM 2540C		Analyst: TJW							
* Solids, Dissolved	10/3/19 18:50	10/7/19 10:10		1	182	mg/L		25	
Analytical Method: SM4500Cl E		Analyst: JCC							
* Chloride	10/4/19 11:40	10/4/19 11:40		1	13.2	mg/L	0.50	1	
Analytical Method: SM4500F G 2017		Analyst: JCC							
* Fluoride	10/4/19 16:20	10/4/19 16:20		1	0.0871	mg/L	0.05	0.1	J
Analytical Method: SM4500SO4 E		Analyst: JCC							
* Sulfate	10/8/19 16:53	10/8/19 16:53		1	2.00	mg/L	0.50	1	
Analytical Method: Field Measurements		Analyst: SNP							
Conductivity	10/1/19 10:08	10/1/19 10:08			329.23	uS/cm			FA
pH	10/1/19 10:08	10/1/19 10:08			6.67	SU			FA
Temperature	10/1/19 10:08	10/1/19 10:08			22.75	C			FA
Turbidity	10/1/19 10:08	10/1/19 10:08			1.94	NTU			FA

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

Comments:

Batch QC Summary

Customer Account: WMWBARAP
Sample Date: 10/1/19 10:13
Customer ID:
Delivery Date: 10/2/19 14:58

Description: Barry Ash Pond - MW-7V

Laboratory ID Number: AZ22376

Sample	Analysis	Units	MB		Spike	MS	MSD	Standard		Rec		Prec	Limit
			MB	Limit				Standard	Limit	Rec	Limit		
AZ22689	Barium, Total	mg/L	-0.0000218	0.0002	0.10	0.161	0.165	0.0986	0.085 to 0.115	99.7	70 to 130	2.39	20
AZ22689	Calcium, Total	mg/L	-0.000887	0.1518	5.00	8.11	8.29	5.14	4.25 to 5.75	99.0	70 to 130	2.17	20
AZ22689	Antimony, Total	mg/L	0.000157	0.00066	0.10	0.0970	0.0983	0.0944	0.085 to 0.115	97.0	70 to 130	1.34	20
AZ22689	Boron, Total	mg/L	0.00216	0.0650254	1.00	0.992	1.02	0.986	0.85 to 1.15	99.2	70 to 130	2.54	20
AZ22689	Thallium, Total	mg/L	0.00000950	0.0001474	0.10	0.106	0.106	0.106	0.085 to 0.115	106	70 to 130	0.0639	20
AZ22689	Beryllium, Total	mg/L	0.0000303	0.00088	0.10	0.102	0.105	0.0963	0.085 to 0.115	102	70 to 130	2.83	20
AZ22689	Lithium, Total	mg/L	-0.0000729	0.0154	0.20	0.207	0.213	0.198	0.17 to 0.23	103	70 to 130	2.93	20
AZ22689	Molybdenum, Total	mg/L	0.0000199	0.0001474	0.10	0.0972	0.0976	0.0977	0.085 to 0.115	97.2	70 to 130	0.415	20
AZ22689	Lead, Total	mg/L	0.00000845	0.0001474	0.10	0.105	0.105	0.105	0.085 to 0.115	105	70 to 130	0.686	20
AZ22689	Cadmium, Total	mg/L	-0.00000527	0.0001474	0.10	0.100	0.103	0.101	0.085 to 0.115	100	70 to 130	3.12	20
AZ22689	Cobalt, Total	mg/L	-0.00000086	0.0001474	0.10	0.107	0.108	0.103	0.085 to 0.115	105	70 to 130	0.146	20
AZ22381	Mercury, Total by CVAA	mg/L	0.0000272	0.0005	0.004	0.00433	0.00410	0.00425	0.0034 to 0.0046	108	70 to 130	5.47	20
AZ22689	Chromium, Total	mg/L	-0.0000237	0.00044	0.10	0.104	0.104	0.102	0.085 to 0.115	104	70 to 130	0.426	20
AZ22689	Arsenic, Total	mg/L	0.0000224	0.0001474	0.10	0.103	0.104	0.103	0.085 to 0.115	102	70 to 130	0.666	20
AZ22689	Selenium, Total	mg/L	-0.0000348	0.00066	0.10	0.101	0.102	0.101	0.085 to 0.115	101	70 to 130	0.819	20

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

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114
 Issued By: State of Florida, Department of Health
 Expiration: June 30, 2018

Comments:

Batch QC Summary

Customer Account: WMWBARAP

Sample Date: 10/1/19 10:13

Customer ID:

Delivery Date: 10/2/19 14:58

Description: Barry Ash Pond - MW-7V

Laboratory ID Number: AZ22376

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Limit	Prec	Prec Limit
AZ22381	Chloride	mg/L	0.0156	0.50	10.0	15.9	6.05	9.78	9 to 11	99.1	80 to 120	0.997	20
AZ22381	Fluoride	mg/L	0.0274	0.05	2.50	2.68	0.0272	2.57	2.25 to 2.75	107	80 to 120	0.00	20
AZ22381	Sulfate	mg/L	-0.535	0.50	20.0	20.1	1.06	19.5	18 to 22	95.3	80 to 120	1.90	20
AZ22379	Solids, Dissolved	mg/L	0.0000	25			390	48.0	40 to 60			0.383	5

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* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments:

Certificate Of Analysis

Description: Barry Ash Pond - MW-8V

Location Code: WMWBARAP
Collected: 10/1/19 11:30
Customer ID:
Submittal Date: 10/2/19 14:58

Laboratory ID Number: AZ22377

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7			Analyst: RDA		Preparation Method: EPA 1638				
* Boron, Total	10/7/19 13:00	10/8/19 12:10		1.015	0.241	mg/L	0.03	0.1	
* Calcium, Total	10/7/19 13:00	10/8/19 12:10		1.015	24.2	mg/L	0.1	0.5	
* Lithium, Total	10/7/19 13:00	10/8/19 12:10		1.015	Not Detected	mg/L	0.01	0.02	U
Analytical Method: EPA 200.8			Analyst: DLJ		Preparation Method: EPA 1638				
* Antimony, Total	10/7/19 10:35	10/8/19 15:27		1.015	Not Detected	mg/L	0.0008	0.003	U
* Arsenic, Total	10/7/19 10:35	10/8/19 15:27		1.015	0.00243	mg/L	0.001	0.005	J
* Barium, Total	10/7/19 10:35	10/8/19 15:27		1.015	0.264	mg/L	0.002	0.01	
* Beryllium, Total	10/7/19 10:35	10/8/19 15:27		1.015	Not Detected	mg/L	0.0006	0.003	U
* Cadmium, Total	10/7/19 10:35	10/8/19 15:27		1.015	Not Detected	mg/L	0.0003	0.001	U
* Chromium, Total	10/7/19 10:35	10/8/19 15:27		1.015	Not Detected	mg/L	0.002	0.01	U
* Cobalt, Total	10/7/19 10:35	10/8/19 15:27		1.015	Not Detected	mg/L	0.002	0.005	U
* Lead, Total	10/7/19 10:35	10/8/19 15:27		1.015	Not Detected	mg/L	0.001	0.005	U
* Molybdenum, Total	10/7/19 10:35	10/8/19 15:27		1.015	Not Detected	mg/L	0.002	0.01	U
* Selenium, Total	10/7/19 10:35	10/8/19 15:27		1.015	Not Detected	mg/L	0.002	0.01	U
* Thallium, Total	10/7/19 10:35	10/8/19 15:27		1.015	Not Detected	mg/L	0.0002	0.001	U
Analytical Method: EPA 245.1			Analyst: ABB						
* Mercury, Total by CVAA	10/3/19 11:49	10/7/19 15:41		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: SM 2540C			Analyst: TJW						
* Solids, Dissolved	10/3/19 18:50	10/7/19 10:10		1	324	mg/L		25	
Analytical Method: SM4500Cl E			Analyst: JCC						
* Chloride	10/4/19 11:41	10/4/19 11:41		2	22.6	mg/L	1.00	2	
Analytical Method: SM4500F G 2017			Analyst: JCC						
* Fluoride	10/4/19 16:21	10/4/19 16:21		1	0.0832	mg/L	0.05	0.1	J
Analytical Method: SM4500SO4 E			Analyst: JCC						
* Sulfate	10/8/19 16:54	10/8/19 16:54		1	7.00	mg/L	0.50	1	
Analytical Method: Field Measurements			Analyst: SNP						
Conductivity	10/1/19 11:25	10/1/19 11:25			513.40	uS/cm			FA
pH	10/1/19 11:25	10/1/19 11:25			6.16	SU			FA
Temperature	10/1/19 11:25	10/1/19 11:25			22.02	C			FA
Turbidity	10/1/19 11:25	10/1/19 11:25			2.81	NTU			FA

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

Comments:

Batch QC Summary

Customer Account: WMWBARAP
Sample Date: 10/1/19 11:30
Customer ID:
Delivery Date: 10/2/19 14:58

Description: Barry Ash Pond - MW-8V

Laboratory ID Number: AZ22377

Sample	Analysis	Units	MB		Spike	MS	MSD	Standard		Rec		Prec	Limit
			MB	Limit				Standard	Limit	Rec	Limit		
AZ22689	Barium, Total	mg/L	-0.0000218	0.0002	0.10	0.161	0.165	0.0986	0.085 to 0.115	99.7	70 to 130	2.39	20
AZ22689	Calcium, Total	mg/L	-0.000887	0.1518	5.00	8.11	8.29	5.14	4.25 to 5.75	99.0	70 to 130	2.17	20
AZ22689	Antimony, Total	mg/L	0.000157	0.00066	0.10	0.0970	0.0983	0.0944	0.085 to 0.115	97.0	70 to 130	1.34	20
AZ22689	Beryllium, Total	mg/L	0.0000303	0.00088	0.10	0.102	0.105	0.0963	0.085 to 0.115	102	70 to 130	2.83	20
AZ22689	Lithium, Total	mg/L	-0.0000729	0.0154	0.20	0.207	0.213	0.198	0.17 to 0.23	103	70 to 130	2.93	20
AZ22689	Molybdenum, Total	mg/L	0.0000199	0.0001474	0.10	0.0972	0.0976	0.0977	0.085 to 0.115	97.2	70 to 130	0.415	20
AZ22689	Lead, Total	mg/L	0.00000845	0.0001474	0.10	0.105	0.105	0.105	0.085 to 0.115	105	70 to 130	0.686	20
AZ22689	Arsenic, Total	mg/L	0.0000224	0.0001474	0.10	0.103	0.104	0.103	0.085 to 0.115	102	70 to 130	0.666	20
AZ22689	Selenium, Total	mg/L	-0.0000348	0.00066	0.10	0.101	0.102	0.101	0.085 to 0.115	101	70 to 130	0.819	20
AZ22689	Boron, Total	mg/L	0.00216	0.0650254	1.00	0.992	1.02	0.986	0.85 to 1.15	99.2	70 to 130	2.54	20
AZ22689	Thallium, Total	mg/L	0.00000950	0.0001474	0.10	0.106	0.106	0.106	0.085 to 0.115	106	70 to 130	0.0639	20
AZ22381	Mercury, Total by CVAA	mg/L	0.0000272	0.0005	0.004	0.00433	0.00410	0.00425	0.0034 to 0.0046	108	70 to 130	5.47	20
AZ22689	Chromium, Total	mg/L	-0.0000237	0.00044	0.10	0.104	0.104	0.102	0.085 to 0.115	104	70 to 130	0.426	20
AZ22689	Cadmium, Total	mg/L	-0.00000527	0.0001474	0.10	0.100	0.103	0.101	0.085 to 0.115	100	70 to 130	3.12	20
AZ22689	Cobalt, Total	mg/L	-0.00000086	0.0001474	0.10	0.107	0.108	0.103	0.085 to 0.115	105	70 to 130	0.146	20

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

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Laboratory certification ID: E571114
 Issued By: State of Florida, Department of Health
 Expiration: June 30, 2018

Comments:

Batch QC Summary

Customer Account: WMWBARAP

Sample Date: 10/1/19 11:30

Customer ID:

Delivery Date: 10/2/19 14:58

Description: Barry Ash Pond - MW-8V

Laboratory ID Number: AZ22377

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
AZ22381	Fluoride	mg/L	0.0274	0.05	2.50	2.68	0.0272	2.57	2.25 to 2.75	107	80 to 120	0.00	20
AZ22379	Solids, Dissolved	mg/L	0.0000	25			390	48.0	40 to 60			0.383	5
AZ22381	Chloride	mg/L	0.0156	0.50	10.0	15.9	6.05	9.78	9 to 11	99.1	80 to 120	0.997	20
AZ22381	Sulfate	mg/L	-0.535	0.50	20.0	20.1	1.06	19.5	18 to 22	95.3	80 to 120	1.90	20

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* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments:

Certificate Of Analysis

Description: Barry Ash Pond - MW-10V

Location Code: WMWBARAP
Collected: 10/1/19 12:55
Customer ID:
Submittal Date: 10/2/19 14:58

Laboratory ID Number: AZ22378

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7		Analyst: RDA			Preparation Method: EPA 1638				
* Boron, Total	10/7/19 13:00	10/8/19 12:13		1.015	1.02	mg/L	0.03	0.1	
* Calcium, Total	10/7/19 13:00	10/8/19 13:16		10.15	61.2	mg/L	1.015	5.075	
* Lithium, Total	10/7/19 13:00	10/8/19 12:13		1.015	Not Detected	mg/L	0.01	0.02	U
Analytical Method: EPA 200.8		Analyst: DLJ			Preparation Method: EPA 1638				
* Antimony, Total	10/7/19 10:35	10/8/19 15:30		1.015	Not Detected	mg/L	0.0008	0.003	U
* Arsenic, Total	10/7/19 10:35	10/8/19 15:30		1.015	Not Detected	mg/L	0.001	0.005	U
* Barium, Total	10/7/19 10:35	10/8/19 15:30		1.015	0.167	mg/L	0.002	0.01	
* Beryllium, Total	10/7/19 10:35	10/8/19 15:30		1.015	Not Detected	mg/L	0.0006	0.003	U
* Cadmium, Total	10/7/19 10:35	10/8/19 15:30		1.015	Not Detected	mg/L	0.0003	0.001	U
* Chromium, Total	10/7/19 10:35	10/8/19 15:30		1.015	Not Detected	mg/L	0.002	0.01	U
* Cobalt, Total	10/7/19 10:35	10/8/19 15:30		1.015	Not Detected	mg/L	0.002	0.005	U
* Lead, Total	10/7/19 10:35	10/8/19 15:30		1.015	Not Detected	mg/L	0.001	0.005	U
* Molybdenum, Total	10/7/19 10:35	10/8/19 15:30		1.015	Not Detected	mg/L	0.002	0.01	U
* Selenium, Total	10/7/19 10:35	10/8/19 15:30		1.015	Not Detected	mg/L	0.002	0.01	U
* Thallium, Total	10/7/19 10:35	10/8/19 15:30		1.015	Not Detected	mg/L	0.0002	0.001	U
Analytical Method: EPA 245.1		Analyst: ABB							
* Mercury, Total by CVAA	10/3/19 11:49	10/7/19 15:44		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: SM 2540C		Analyst: TJW							
* Solids, Dissolved	10/3/19 18:50	10/7/19 10:10		1	393	mg/L		25	
Analytical Method: SM4500Cl E		Analyst: JCC							
* Chloride	10/4/19 11:43	10/4/19 11:43		2	20.0	mg/L	1.00	2	
Analytical Method: SM4500F G 2017		Analyst: JCC							
* Fluoride	10/4/19 16:23	10/4/19 16:23		1	0.0517	mg/L	0.05	0.1	J
Analytical Method: SM4500SO4 E		Analyst: JCC							
* Sulfate	10/8/19 16:55	10/8/19 16:55		1	5.19	mg/L	0.50	1	
Analytical Method: Field Measurements		Analyst: SNP							
Conductivity	10/1/19 12:50	10/1/19 12:50			571.09	uS/cm			FA
pH	10/1/19 12:50	10/1/19 12:50			6.05	SU			FA
Temperature	10/1/19 12:50	10/1/19 12:50			22.48	C			FA
Turbidity	10/1/19 12:50	10/1/19 12:50			3.77	NTU			FA

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

Comments:

Batch QC Summary

Customer Account: WMWBARAP
Sample Date: 10/1/19 12:55
Customer ID:
Delivery Date: 10/2/19 14:58

Description: Barry Ash Pond - MW-10V

Laboratory ID Number: AZ22378

Sample	Analysis	Units	MB					Standard		Rec		Prec	Limit
			MB	Limit	Spike	MS	MSD	Standard	Limit	Rec	Limit		
AZ22689	Barium, Total	mg/L	-0.0000218	0.0002	0.10	0.161	0.165	0.0986	0.085 to 0.115	99.7	70 to 130	2.39	20
AZ22381	Mercury, Total by CVAA	mg/L	0.0000272	0.0005	0.004	0.00433	0.00410	0.00425	0.0034 to 0.0046	108	70 to 130	5.47	20
AZ22689	Chromium, Total	mg/L	-0.0000237	0.00044	0.10	0.104	0.104	0.102	0.085 to 0.115	104	70 to 130	0.426	20
AZ22689	Arsenic, Total	mg/L	0.0000224	0.0001474	0.10	0.103	0.104	0.103	0.085 to 0.115	102	70 to 130	0.666	20
AZ22689	Selenium, Total	mg/L	-0.0000348	0.00066	0.10	0.101	0.102	0.101	0.085 to 0.115	101	70 to 130	0.819	20
AZ22689	Boron, Total	mg/L	0.00216	0.0650254	1.00	0.992	1.02	0.986	0.85 to 1.15	99.2	70 to 130	2.54	20
AZ22689	Thallium, Total	mg/L	0.00000950	0.0001474	0.10	0.106	0.106	0.106	0.085 to 0.115	106	70 to 130	0.0639	20
AZ22689	Cadmium, Total	mg/L	-0.00000527	0.0001474	0.10	0.100	0.103	0.101	0.085 to 0.115	100	70 to 130	3.12	20
AZ22689	Cobalt, Total	mg/L	-0.00000086	0.0001474	0.10	0.107	0.108	0.103	0.085 to 0.115	105	70 to 130	0.146	20
AZ22689	Calcium, Total	mg/L	-0.000887	0.1518	5.00	8.11	8.29	5.14	4.25 to 5.75	99.0	70 to 130	2.17	20
AZ22689	Antimony, Total	mg/L	0.000157	0.00066	0.10	0.0970	0.0983	0.0944	0.085 to 0.115	97.0	70 to 130	1.34	20
AZ22689	Beryllium, Total	mg/L	0.0000303	0.00088	0.10	0.102	0.105	0.0963	0.085 to 0.115	102	70 to 130	2.83	20
AZ22689	Lithium, Total	mg/L	-0.0000729	0.0154	0.20	0.207	0.213	0.198	0.17 to 0.23	103	70 to 130	2.93	20
AZ22689	Molybdenum, Total	mg/L	0.0000199	0.0001474	0.10	0.0972	0.0976	0.0977	0.085 to 0.115	97.2	70 to 130	0.415	20
AZ22689	Lead, Total	mg/L	0.00000845	0.0001474	0.10	0.105	0.105	0.105	0.085 to 0.115	105	70 to 130	0.686	20

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

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

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114
 Issued By: State of Florida, Department of Health
 Expiration: June 30, 2018

Comments:

Batch QC Summary

Customer Account: WMWBARAP

Sample Date: 10/1/19 12:55

Customer ID:

Delivery Date: 10/2/19 14:58

Description: Barry Ash Pond - MW-10V

Laboratory ID Number: AZ22378

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Limit	Prec	Prec Limit
AZ22381	Fluoride	mg/L	0.0274	0.05	2.50	2.68	0.0272	2.57	2.25 to 2.75	107	80 to 120	0.00	20
AZ22381	Chloride	mg/L	0.0156	0.50	10.0	15.9	6.05	9.78	9 to 11	99.1	80 to 120	0.997	20
AZ22381	Sulfate	mg/L	-0.535	0.50	20.0	20.1	1.06	19.5	18 to 22	95.3	80 to 120	1.90	20
AZ22379	Solids, Dissolved	mg/L	0.0000	25			390	48.0	40 to 60			0.383	5

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* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments:

Certificate Of Analysis

Description: Barry Ash Pond - MW-10V DUP

Location Code: WMWBARAP
Collected: 10/1/19 12:55
Customer ID:
Submittal Date: 10/2/19 14:58

Laboratory ID Number: AZ22379

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7			Analyst: RDA		Preparation Method: EPA 1638				
* Boron, Total	10/7/19 13:00	10/8/19 12:16		1.015	1.03	mg/L	0.03	0.1	
* Calcium, Total	10/7/19 13:00	10/8/19 13:19		10.15	62.5	mg/L	1.015	5.075	
* Lithium, Total	10/7/19 13:00	10/8/19 12:16		1.015	Not Detected	mg/L	0.01	0.02	U
Analytical Method: EPA 200.8			Analyst: DLJ		Preparation Method: EPA 1638				
* Antimony, Total	10/7/19 10:35	10/8/19 15:32		1.015	Not Detected	mg/L	0.0008	0.003	U
* Arsenic, Total	10/7/19 10:35	10/8/19 15:32		1.015	Not Detected	mg/L	0.001	0.005	U
* Barium, Total	10/7/19 10:35	10/8/19 15:32		1.015	0.163	mg/L	0.002	0.01	
* Beryllium, Total	10/7/19 10:35	10/8/19 15:32		1.015	Not Detected	mg/L	0.0006	0.003	U
* Cadmium, Total	10/7/19 10:35	10/8/19 15:32		1.015	Not Detected	mg/L	0.0003	0.001	U
* Chromium, Total	10/7/19 10:35	10/8/19 15:32		1.015	Not Detected	mg/L	0.002	0.01	U
* Cobalt, Total	10/7/19 10:35	10/8/19 15:32		1.015	Not Detected	mg/L	0.002	0.005	U
* Lead, Total	10/7/19 10:35	10/8/19 15:32		1.015	Not Detected	mg/L	0.001	0.005	U
* Molybdenum, Total	10/7/19 10:35	10/8/19 15:32		1.015	Not Detected	mg/L	0.002	0.01	U
* Selenium, Total	10/7/19 10:35	10/8/19 15:32		1.015	Not Detected	mg/L	0.002	0.01	U
* Thallium, Total	10/7/19 10:35	10/8/19 15:32		1.015	Not Detected	mg/L	0.0002	0.001	U
Analytical Method: EPA 245.1			Analyst: ABB						
* Mercury, Total by CVAA	10/3/19 11:49	10/7/19 15:46		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: SM 2540C			Analyst: TJW						
* Solids, Dissolved	10/3/19 18:50	10/7/19 10:10		1	393	mg/L		25	
Analytical Method: SM4500Cl E			Analyst: JCC						
* Chloride	10/4/19 11:44	10/4/19 11:44		2	20.0	mg/L	1.00	2	
Analytical Method: SM4500F G 2017			Analyst: JCC						
* Fluoride	10/4/19 16:24	10/4/19 16:24		1	Not Detected	mg/L	0.05	0.1	U
Analytical Method: SM4500SO4 E			Analyst: JCC						
* Sulfate	10/8/19 16:56	10/8/19 16:56		1	4.91	mg/L	0.50	1	
Analytical Method: Field Measurements			Analyst: SNP						
Conductivity	10/1/19 12:50	10/1/19 12:50			571.09	uS/cm			FA
pH	10/1/19 12:50	10/1/19 12:50			6.05	SU			FA
Temperature	10/1/19 12:50	10/1/19 12:50			22.48	C			FA
Turbidity	10/1/19 12:50	10/1/19 12:50			3.77	NTU			FA

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

Comments:

Batch QC Summary

Customer Account: WMWBARAP
Sample Date: 10/1/19 12:55
Customer ID:
Delivery Date: 10/2/19 14:58

Description: Barry Ash Pond - MW-10V DUP

Laboratory ID Number: AZ22379

Sample	Analysis	Units	MB		Spike	MS	MSD	Standard		Rec		Prec	Limit
			MB	Limit				Standard	Limit	Rec	Prec		
AZ22689	Barium, Total	mg/L	-0.0000218	0.0002	0.10	0.161	0.165	0.0986	0.085 to 0.115	99.7	70 to 130	2.39	20
AZ22381	Mercury, Total by CVAA	mg/L	0.0000272	0.0005	0.004	0.00433	0.00410	0.00425	0.0034 to 0.0046	108	70 to 130	5.47	20
AZ22689	Chromium, Total	mg/L	-0.0000237	0.00044	0.10	0.104	0.104	0.102	0.085 to 0.115	104	70 to 130	0.426	20
AZ22689	Beryllium, Total	mg/L	0.0000303	0.00088	0.10	0.102	0.105	0.0963	0.085 to 0.115	102	70 to 130	2.83	20
AZ22689	Lithium, Total	mg/L	-0.0000729	0.0154	0.20	0.207	0.213	0.198	0.17 to 0.23	103	70 to 130	2.93	20
AZ22689	Molybdenum, Total	mg/L	0.0000199	0.0001474	0.10	0.0972	0.0976	0.0977	0.085 to 0.115	97.2	70 to 130	0.415	20
AZ22689	Lead, Total	mg/L	0.00000845	0.0001474	0.10	0.105	0.105	0.105	0.085 to 0.115	105	70 to 130	0.686	20
AZ22689	Boron, Total	mg/L	0.00216	0.0650254	1.00	0.992	1.02	0.986	0.85 to 1.15	99.2	70 to 130	2.54	20
AZ22689	Thallium, Total	mg/L	0.00000950	0.0001474	0.10	0.106	0.106	0.106	0.085 to 0.115	106	70 to 130	0.0639	20
AZ22689	Arsenic, Total	mg/L	0.0000224	0.0001474	0.10	0.103	0.104	0.103	0.085 to 0.115	102	70 to 130	0.666	20
AZ22689	Selenium, Total	mg/L	-0.0000348	0.00066	0.10	0.101	0.102	0.101	0.085 to 0.115	101	70 to 130	0.819	20
AZ22689	Calcium, Total	mg/L	-0.000887	0.1518	5.00	8.11	8.29	5.14	4.25 to 5.75	99.0	70 to 130	2.17	20
AZ22689	Antimony, Total	mg/L	0.000157	0.00066	0.10	0.0970	0.0983	0.0944	0.085 to 0.115	97.0	70 to 130	1.34	20
AZ22689	Cadmium, Total	mg/L	-0.00000527	0.0001474	0.10	0.100	0.103	0.101	0.085 to 0.115	100	70 to 130	3.12	20
AZ22689	Cobalt, Total	mg/L	-0.00000086	0.0001474	0.10	0.107	0.108	0.103	0.085 to 0.115	105	70 to 130	0.146	20

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

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114
 Issued By: State of Florida, Department of Health
 Expiration: June 30, 2018

Comments:

Batch QC Summary

Customer Account: WMWBARAP

Sample Date: 10/1/19 12:55

Customer ID:

Delivery Date: 10/2/19 14:58

Description: Barry Ash Pond - MW-10V DUP

Laboratory ID Number: AZ22379

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
AZ22381	Chloride	mg/L	0.0156	0.50	10.0	15.9	6.05	9.78	9 to 11	99.1	80 to 120	0.997	20
AZ22379	Solids, Dissolved	mg/L	0.0000	25			390	48.0	40 to 60			0.383	5
AZ22381	Fluoride	mg/L	0.0274	0.05	2.50	2.68	0.0272	2.57	2.25 to 2.75	107	80 to 120	0.00	20
AZ22381	Sulfate	mg/L	-0.535	0.50	20.0	20.1	1.06	19.5	18 to 22	95.3	80 to 120	1.90	20

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* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments:

Certificate Of Analysis

Description: Barry Ash Pond - MW-5

Location Code: WMWBARAP
Collected: 10/1/19 14:45
Customer ID:
Submittal Date: 10/2/19 14:58

Laboratory ID Number: AZ22380

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7			Analyst: RDA		Preparation Method: EPA 1638				
* Boron, Total	10/7/19 13:00	10/8/19 12:19		1.015	0.103	mg/L	0.03	0.1	
* Calcium, Total	10/7/19 13:00	10/8/19 12:19		1.015	13.8	mg/L	0.1	0.5	
* Lithium, Total	10/7/19 13:00	10/8/19 12:19		1.015	Not Detected	mg/L	0.01	0.02	U
Analytical Method: EPA 200.8			Analyst: DLJ		Preparation Method: EPA 1638				
* Antimony, Total	10/7/19 10:35	10/8/19 15:35		1.015	Not Detected	mg/L	0.0008	0.003	U
* Arsenic, Total	10/7/19 10:35	10/8/19 15:35		1.015	0.0307	mg/L	0.001	0.005	
* Barium, Total	10/7/19 10:35	10/8/19 15:35		1.015	0.138	mg/L	0.002	0.01	
* Beryllium, Total	10/7/19 10:35	10/8/19 15:35		1.015	Not Detected	mg/L	0.0006	0.003	U
* Cadmium, Total	10/7/19 10:35	10/8/19 15:35		1.015	Not Detected	mg/L	0.0003	0.001	U
* Chromium, Total	10/7/19 10:35	10/8/19 15:35		1.015	Not Detected	mg/L	0.002	0.01	U
* Cobalt, Total	10/7/19 10:35	10/8/19 15:35		1.015	Not Detected	mg/L	0.002	0.005	U
* Lead, Total	10/7/19 10:35	10/8/19 15:35		1.015	Not Detected	mg/L	0.001	0.005	U
* Molybdenum, Total	10/7/19 10:35	10/8/19 15:35		1.015	Not Detected	mg/L	0.002	0.01	U
* Selenium, Total	10/7/19 10:35	10/8/19 15:35		1.015	Not Detected	mg/L	0.002	0.01	U
* Thallium, Total	10/7/19 10:35	10/8/19 15:35		1.015	Not Detected	mg/L	0.0002	0.001	U
Analytical Method: EPA 245.1			Analyst: ABB						
* Mercury, Total by CVAA	10/3/19 11:49	10/7/19 15:48		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: SM 2540C			Analyst: TJW						
* Solids, Dissolved	10/4/19 12:30	10/8/19 09:30		1	243	mg/L		25	
Analytical Method: SM4500Cl E			Analyst: JCC						
* Chloride	10/4/19 11:45	10/4/19 11:45		1	19.8	mg/L	0.50	1	
Analytical Method: SM4500F G 2017			Analyst: JCC						
* Fluoride	10/4/19 16:25	10/4/19 16:25		1	0.0557	mg/L	0.05	0.1	J
Analytical Method: SM4500SO4 E			Analyst: JCC						
* Sulfate	10/8/19 16:57	10/8/19 16:57		1	7.40	mg/L	0.50	1	
Analytical Method: Field Measurements			Analyst: SNP						
Conductivity	10/1/19 14:39	10/1/19 14:39			383.76	uS/cm			FA
pH	10/1/19 14:39	10/1/19 14:39			5.47	SU			FA
Temperature	10/1/19 14:39	10/1/19 14:39			23.07	C			FA
Turbidity	10/1/19 14:39	10/1/19 14:39			3.33	NTU			FA

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

Comments:

Batch QC Summary

Customer Account: WMWBARAP
Sample Date: 10/1/19 14:45
Customer ID:
Delivery Date: 10/2/19 14:58

Description: Barry Ash Pond - MW-5

Laboratory ID Number: AZ22380

Sample	Analysis	Units	MB		Spike	MS	MSD	Standard		Rec		Prec	Limit
			MB	Limit				Standard	Limit	Rec	Prec		
AZ22689	Barium, Total	mg/L	-0.0000218	0.0002	0.10	0.161	0.165	0.0986	0.085 to 0.115	99.7	70 to 130	2.39	20
AZ22689	Cadmium, Total	mg/L	-0.00000527	0.0001474	0.10	0.100	0.103	0.101	0.085 to 0.115	100	70 to 130	3.12	20
AZ22689	Cobalt, Total	mg/L	-0.00000086	0.0001474	0.10	0.107	0.108	0.103	0.085 to 0.115	105	70 to 130	0.146	20
AZ22689	Calcium, Total	mg/L	-0.000887	0.1518	5.00	8.11	8.29	5.14	4.25 to 5.75	99.0	70 to 130	2.17	20
AZ22689	Antimony, Total	mg/L	0.000157	0.00066	0.10	0.0970	0.0983	0.0944	0.085 to 0.115	97.0	70 to 130	1.34	20
AZ22689	Boron, Total	mg/L	0.00216	0.0650254	1.00	0.992	1.02	0.986	0.85 to 1.15	99.2	70 to 130	2.54	20
AZ22689	Thallium, Total	mg/L	0.00000950	0.0001474	0.10	0.106	0.106	0.106	0.085 to 0.115	106	70 to 130	0.0639	20
AZ22689	Beryllium, Total	mg/L	0.0000303	0.00088	0.10	0.102	0.105	0.0963	0.085 to 0.115	102	70 to 130	2.83	20
AZ22689	Lithium, Total	mg/L	-0.0000729	0.0154	0.20	0.207	0.213	0.198	0.17 to 0.23	103	70 to 130	2.93	20
AZ22689	Molybdenum, Total	mg/L	0.0000199	0.0001474	0.10	0.0972	0.0976	0.0977	0.085 to 0.115	97.2	70 to 130	0.415	20
AZ22689	Lead, Total	mg/L	0.00000845	0.0001474	0.10	0.105	0.105	0.105	0.085 to 0.115	105	70 to 130	0.686	20
AZ22381	Mercury, Total by CVAA	mg/L	0.0000272	0.0005	0.004	0.00433	0.00410	0.00425	0.0034 to 0.0046	108	70 to 130	5.47	20
AZ22689	Chromium, Total	mg/L	-0.0000237	0.00044	0.10	0.104	0.104	0.102	0.085 to 0.115	104	70 to 130	0.426	20
AZ22689	Arsenic, Total	mg/L	0.0000224	0.0001474	0.10	0.103	0.104	0.103	0.085 to 0.115	102	70 to 130	0.666	20
AZ22689	Selenium, Total	mg/L	-0.0000348	0.00066	0.10	0.101	0.102	0.101	0.085 to 0.115	101	70 to 130	0.819	20

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

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114
 Issued By: State of Florida, Department of Health
 Expiration: June 30, 2018

Comments:

Batch QC Summary

Customer Account: WMWBARAP

Sample Date: 10/1/19 14:45

Customer ID:

Delivery Date: 10/2/19 14:58

Description: Barry Ash Pond - MW-5

Laboratory ID Number: AZ22380

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
AZ22381	Fluoride	mg/L	0.0274	0.05	2.50	2.68	0.0272	2.57	2.25 to 2.75	107	80 to 120	0.00	20
AZ22381	Chloride	mg/L	0.0156	0.50	10.0	15.9	6.05	9.78	9 to 11	99.1	80 to 120	0.997	20
AZ22380	Solids, Dissolved	mg/L	0.0000	25			244	50.0	40 to 60			0.205	5
AZ22381	Sulfate	mg/L	-0.535	0.50	20.0	20.1	1.06	19.5	18 to 22	95.3	80 to 120	1.90	20

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

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments:

Certificate Of Analysis

Description: Barry Ash Pond - MW-6

Location Code: WMWBARAP
Collected: 10/1/19 16:10
Customer ID:
Submittal Date: 10/2/19 14:58

Laboratory ID Number: AZ22381

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7			Analyst: RDA		Preparation Method: EPA 1638				
* Boron, Total	10/7/19 13:00	10/8/19 12:22		1.015	Not Detected	mg/L	0.03	0.1	U
* Calcium, Total	10/7/19 13:00	10/8/19 12:22		1.015	1.92	mg/L	0.1	0.5	
* Lithium, Total	10/7/19 13:00	10/8/19 12:22		1.015	Not Detected	mg/L	0.01	0.02	U
Analytical Method: EPA 200.8			Analyst: DLJ		Preparation Method: EPA 1638				
* Antimony, Total	10/7/19 10:35	10/8/19 15:38		1.015	Not Detected	mg/L	0.0008	0.003	U
* Arsenic, Total	10/7/19 10:35	10/8/19 15:38		1.015	Not Detected	mg/L	0.001	0.005	U
* Barium, Total	10/7/19 10:35	10/8/19 15:38		1.015	0.0257	mg/L	0.002	0.01	
* Beryllium, Total	10/7/19 10:35	10/8/19 15:38		1.015	Not Detected	mg/L	0.0006	0.003	U
* Cadmium, Total	10/7/19 10:35	10/8/19 15:38		1.015	Not Detected	mg/L	0.0003	0.001	U
* Chromium, Total	10/7/19 10:35	10/8/19 15:38		1.015	Not Detected	mg/L	0.002	0.01	U
* Cobalt, Total	10/7/19 10:35	10/8/19 15:38		1.015	Not Detected	mg/L	0.002	0.005	U
* Lead, Total	10/7/19 10:35	10/8/19 15:38		1.015	0.00545	mg/L	0.001	0.005	
* Molybdenum, Total	10/7/19 10:35	10/8/19 15:38		1.015	Not Detected	mg/L	0.002	0.01	U
* Selenium, Total	10/7/19 10:35	10/8/19 15:38		1.015	Not Detected	mg/L	0.002	0.01	U
* Thallium, Total	10/7/19 10:35	10/8/19 15:38		1.015	Not Detected	mg/L	0.0002	0.001	U
Analytical Method: EPA 245.1			Analyst: ABB						
* Mercury, Total by CVAA	10/3/19 11:49	10/7/19 15:51		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: SM 2540C			Analyst: TJW						
* Solids, Dissolved	10/4/19 12:30	10/8/19 09:30		1	38.0	mg/L		25	
Analytical Method: SM4500Cl E			Analyst: JCC						
* Chloride	10/4/19 11:46	10/4/19 11:46		1	5.99	mg/L	0.50	1	
Analytical Method: SM4500F G 2017			Analyst: JCC						
* Fluoride	10/4/19 16:26	10/4/19 16:26		1	Not Detected	mg/L	0.05	0.1	U
Analytical Method: SM4500SO4 E			Analyst: JCC						
* Sulfate	10/8/19 16:59	10/8/19 16:59		1	1.04	mg/L	0.50	1	
Analytical Method: Field Measurements			Analyst: SNP						
Conductivity	10/1/19 16:07	10/1/19 16:07			55.55	uS/cm			FA
pH	10/1/19 16:07	10/1/19 16:07			4.70	SU			FA
Temperature	10/1/19 16:07	10/1/19 16:07			21.79	C			FA
Turbidity	10/1/19 16:07	10/1/19 16:07			0.89	NTU			FA

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

Comments:

Batch QC Summary

Customer Account: WMWBARAP
Sample Date: 10/1/19 16:10
Customer ID:
Delivery Date: 10/2/19 14:58

Description: Barry Ash Pond - MW-6

Laboratory ID Number: AZ22381

Sample	Analysis	Units	MB		Spike	MS	MSD	Standard		Rec		Prec	Limit
			MB	Limit				Standard	Limit	Rec	Prec		
AZ22689	Barium, Total	mg/L	-0.0000218	0.0002	0.10	0.161	0.165	0.0986	0.085 to 0.115	99.7	70 to 130	2.39	20
AZ22689	Boron, Total	mg/L	0.00216	0.0650254	1.00	0.992	1.02	0.986	0.85 to 1.15	99.2	70 to 130	2.54	20
AZ22689	Thallium, Total	mg/L	0.00000950	0.0001474	0.10	0.106	0.106	0.106	0.085 to 0.115	106	70 to 130	0.0639	20
AZ22689	Calcium, Total	mg/L	-0.000887	0.1518	5.00	8.11	8.29	5.14	4.25 to 5.75	99.0	70 to 130	2.17	20
AZ22689	Antimony, Total	mg/L	0.000157	0.00066	0.10	0.0970	0.0983	0.0944	0.085 to 0.115	97.0	70 to 130	1.34	20
AZ22689	Beryllium, Total	mg/L	0.0000303	0.00088	0.10	0.102	0.105	0.0963	0.085 to 0.115	102	70 to 130	2.83	20
AZ22689	Lithium, Total	mg/L	-0.0000729	0.0154	0.20	0.207	0.213	0.198	0.17 to 0.23	103	70 to 130	2.93	20
AZ22689	Molybdenum, Total	mg/L	0.0000199	0.0001474	0.10	0.0972	0.0976	0.0977	0.085 to 0.115	97.2	70 to 130	0.415	20
AZ22689	Lead, Total	mg/L	0.00000845	0.0001474	0.10	0.105	0.105	0.105	0.085 to 0.115	105	70 to 130	0.686	20
AZ22689	Arsenic, Total	mg/L	0.0000224	0.0001474	0.10	0.103	0.104	0.103	0.085 to 0.115	102	70 to 130	0.666	20
AZ22689	Selenium, Total	mg/L	-0.0000348	0.00066	0.10	0.101	0.102	0.101	0.085 to 0.115	101	70 to 130	0.819	20
AZ22381	Mercury, Total by CVAA	mg/L	0.0000272	0.0005	0.004	0.00433	0.00410	0.00425	0.0034 to 0.0046	108	70 to 130	5.47	20
AZ22689	Chromium, Total	mg/L	-0.0000237	0.00044	0.10	0.104	0.104	0.102	0.085 to 0.115	104	70 to 130	0.426	20
AZ22689	Cadmium, Total	mg/L	-0.00000527	0.0001474	0.10	0.100	0.103	0.101	0.085 to 0.115	100	70 to 130	3.12	20
AZ22689	Cobalt, Total	mg/L	-0.00000086	0.0001474	0.10	0.107	0.108	0.103	0.085 to 0.115	105	70 to 130	0.146	20

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

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114
 Issued By: State of Florida, Department of Health
 Expiration: June 30, 2018

Comments:

Batch QC Summary

Customer Account: WMWBARAP

Sample Date: 10/1/19 16:10

Customer ID:

Delivery Date: 10/2/19 14:58

Description: Barry Ash Pond - MW-6

Laboratory ID Number: AZ22381

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
AZ22381	Fluoride	mg/L	0.0274	0.05	2.50	2.68	0.0272	2.57	2.25 to 2.75	107	80 to 120	0.00	20
AZ22381	Chloride	mg/L	0.0156	0.50	10.0	15.9	6.05	9.78	9 to 11	99.1	80 to 120	0.997	20
AZ22373	Solids, Dissolved	mg/L	0.0000	25			430	50.0	40 to 60			0.00	5
AZ22381	Sulfate	mg/L	-0.535	0.50	20.0	20.1	1.06	19.5	18 to 22	95.3	80 to 120	1.90	20

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments:

Certificate Of Analysis

Description: Barry Ash Pond - MW-1V

Location Code: WMWBARAP
Collected: 10/2/19 14:50
Customer ID:
Submittal Date: 10/4/19 10:50

Laboratory ID Number: AZ22689

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7			Analyst: RDA		Preparation Method: EPA 1638				
* Boron, Total	10/7/19 13:00	10/8/19 12:25		1.015	Not Detected	mg/L	0.03	0.1	U
* Calcium, Total	10/7/19 13:00	10/8/19 12:25		1.015	3.16	mg/L	0.1	0.5	
* Lithium, Total	10/7/19 13:00	10/8/19 12:25		1.015	Not Detected	mg/L	0.01	0.02	U
Analytical Method: EPA 200.8			Analyst: DLJ		Preparation Method: EPA 1638				
* Antimony, Total	10/7/19 10:35	10/8/19 15:40		1.015	Not Detected	mg/L	0.0008	0.003	U
* Arsenic, Total	10/7/19 10:35	10/8/19 15:40		1.015	0.00157	mg/L	0.001	0.005	J
* Barium, Total	10/7/19 10:35	10/8/19 15:40		1.015	0.0611	mg/L	0.002	0.01	
* Beryllium, Total	10/7/19 10:35	10/8/19 15:40		1.015	Not Detected	mg/L	0.0006	0.003	U
* Cadmium, Total	10/7/19 10:35	10/8/19 15:40		1.015	Not Detected	mg/L	0.0003	0.001	U
* Chromium, Total	10/7/19 10:35	10/8/19 15:40		1.015	Not Detected	mg/L	0.002	0.01	U
* Cobalt, Total	10/7/19 10:35	10/8/19 15:40		1.015	0.00289	mg/L	0.002	0.005	J
* Lead, Total	10/7/19 10:35	10/8/19 15:40		1.015	Not Detected	mg/L	0.001	0.005	U
* Molybdenum, Total	10/7/19 10:35	10/8/19 15:40		1.015	Not Detected	mg/L	0.002	0.01	U
* Selenium, Total	10/7/19 10:35	10/8/19 15:40		1.015	Not Detected	mg/L	0.002	0.01	U
* Thallium, Total	10/7/19 10:35	10/8/19 15:40		1.015	Not Detected	mg/L	0.0002	0.001	U
Analytical Method: EPA 245.1			Analyst: ABB						
* Mercury, Total by CVAA	10/8/19 11:17	10/10/19 12:19		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: SM 2540C			Analyst: TJW						
* Solids, Dissolved	10/8/19 17:37	10/9/19 16:50		1	154	mg/L		25	
Analytical Method: SM4500Cl E			Analyst: JCC						
* Chloride	10/4/19 14:13	10/4/19 14:13		4	60.7	mg/L	2.00	4	
Analytical Method: SM4500F G 2017			Analyst: JCC						
* Fluoride	10/7/19 16:21	10/7/19 16:21		1	0.0595	mg/L	0.05	0.1	J
Analytical Method: SM4500SO4 E			Analyst: JCC						
* Sulfate	10/8/19 17:10	10/8/19 17:10		1	10.5	mg/L	0.50	1	
Analytical Method: Field Measurements			Analyst: DKG						
Conductivity	10/2/19 14:46	10/2/19 14:46			262.18	uS/cm			FA
pH	10/2/19 14:46	10/2/19 14:46			5.27	SU			FA
Temperature	10/2/19 14:46	10/2/19 14:46			22.55	C			FA
Turbidity	10/2/19 14:46	10/2/19 14:46			4.07	NTU			FA

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

Comments:

Batch QC Summary

Customer Account: WMWBARAP
Sample Date: 10/2/19 14:50
Customer ID:
Delivery Date: 10/4/19 10:50

Description: Barry Ash Pond - MW-1V

Laboratory ID Number: AZ22689

Sample	Analysis	Units	MB		Spike	MS	MSD	Standard	Standard Limit	Rec		Prec Limit	
			MB	Limit						Rec	Limit		
AZ22689	Barium, Total	mg/L	-0.0000218	0.0002	0.10	0.161	0.165	0.0986	0.085 to 0.115	99.7	70 to 130	2.39	20
AZ22689	Arsenic, Total	mg/L	0.0000224	0.0001474	0.10	0.103	0.104	0.103	0.085 to 0.115	102	70 to 130	0.666	20
AZ22689	Selenium, Total	mg/L	-0.0000348	0.00066	0.10	0.101	0.102	0.101	0.085 to 0.115	101	70 to 130	0.819	20
AZ22689	Boron, Total	mg/L	0.00216	0.0650254	1.00	0.992	1.02	0.986	0.85 to 1.15	99.2	70 to 130	2.54	20
AZ22689	Thallium, Total	mg/L	0.00000950	0.0001474	0.10	0.106	0.106	0.106	0.085 to 0.115	106	70 to 130	0.0639	20
AZ22689	Calcium, Total	mg/L	-0.000887	0.1518	5.00	8.11	8.29	5.14	4.25 to 5.75	99.0	70 to 130	2.17	20
AZ22689	Antimony, Total	mg/L	0.000157	0.00066	0.10	0.0970	0.0983	0.0944	0.085 to 0.115	97.0	70 to 130	1.34	20
AZ22689	Cadmium, Total	mg/L	-0.00000527	0.0001474	0.10	0.100	0.103	0.101	0.085 to 0.115	100	70 to 130	3.12	20
AZ22689	Cobalt, Total	mg/L	-0.00000086	0.0001474	0.10	0.107	0.108	0.103	0.085 to 0.115	105	70 to 130	0.146	20
AZ22689	Chromium, Total	mg/L	-0.0000237	0.00044	0.10	0.104	0.104	0.102	0.085 to 0.115	104	70 to 130	0.426	20
AZ22697	Mercury, Total by CVAA	mg/L	0.0000226	0.0005	0.004	0.00391	0.00404	0.00409	0.0034 to 0.0046	97.8	70 to 130	3.08	20
AZ22689	Beryllium, Total	mg/L	0.0000303	0.00088	0.10	0.102	0.105	0.0963	0.085 to 0.115	102	70 to 130	2.83	20
AZ22689	Lithium, Total	mg/L	-0.0000729	0.0154	0.20	0.207	0.213	0.198	0.17 to 0.23	103	70 to 130	2.93	20
AZ22689	Molybdenum, Total	mg/L	0.0000199	0.0001474	0.10	0.0972	0.0976	0.0977	0.085 to 0.115	97.2	70 to 130	0.415	20
AZ22689	Lead, Total	mg/L	0.00000845	0.0001474	0.10	0.105	0.105	0.105	0.085 to 0.115	105	70 to 130	0.686	20

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

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114
 Issued By: State of Florida, Department of Health
 Expiration: June 30, 2018

Comments:

Batch QC Summary

Customer Account: WMWBARAP

Sample Date: 10/2/19 14:50

Customer ID:

Delivery Date: 10/4/19 10:50

Description: Barry Ash Pond - MW-1V

Laboratory ID Number: AZ22689

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec Limit	Prec	Prec Limit	
AZ22696	Solids, Dissolved	mg/L	2.00	25			432	53.0	40 to 60		0.232	5	
AZ22697	Chloride	mg/L	0.0519	0.50	10.0	9.85	0.129	9.81	9 to 11	98.5	80 to 120	0.00	20
AZ22697	Sulfate	mg/L	-0.499	0.50	20.0	19.5	-0.459	19.6	18 to 22	97.5	80 to 120	0.00	20
AZ22697	Fluoride	mg/L	0.0431	0.05	2.50	2.48	0.0335	2.54	2.25 to 2.75	99.2	80 to 120	0.00	20

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

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments:

Certificate Of Analysis

Description: Barry Ash Pond Field Blank

Location Code: WMWBARAPFB
Collected: 10/2/19 15:00
Customer ID:
Submittal Date: 10/4/19 10:50

Laboratory ID Number: AZ22690

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7			Analyst: RDA		Preparation Method: EPA 1638				
* Boron, Total	10/7/19 13:00	10/8/19 12:40		1.015	Not Detected	mg/L	0.03	0.1	U
* Calcium, Total	10/7/19 13:00	10/8/19 12:40		1.015	Not Detected	mg/L	0.1	0.5	U
* Lithium, Total	10/7/19 13:00	10/8/19 12:40		1.015	Not Detected	mg/L	0.01	0.02	U
Analytical Method: EPA 200.8			Analyst: DLJ		Preparation Method: EPA 1638				
* Antimony, Total	10/7/19 10:35	10/8/19 15:56		1.015	Not Detected	mg/L	0.0008	0.003	U
* Arsenic, Total	10/7/19 10:35	10/8/19 15:56		1.015	Not Detected	mg/L	0.001	0.005	U
* Barium, Total	10/7/19 10:35	10/8/19 15:56		1.015	Not Detected	mg/L	0.002	0.01	U
* Beryllium, Total	10/7/19 10:35	10/8/19 15:56		1.015	Not Detected	mg/L	0.0006	0.003	U
* Cadmium, Total	10/7/19 10:35	10/8/19 15:56		1.015	Not Detected	mg/L	0.0003	0.001	U
* Chromium, Total	10/7/19 10:35	10/8/19 15:56		1.015	Not Detected	mg/L	0.002	0.01	U
* Cobalt, Total	10/7/19 10:35	10/8/19 15:56		1.015	Not Detected	mg/L	0.002	0.005	U
* Lead, Total	10/7/19 10:35	10/8/19 15:56		1.015	Not Detected	mg/L	0.001	0.005	U
* Molybdenum, Total	10/7/19 10:35	10/8/19 15:56		1.015	Not Detected	mg/L	0.002	0.01	U
* Selenium, Total	10/7/19 10:35	10/8/19 15:56		1.015	Not Detected	mg/L	0.002	0.01	U
* Thallium, Total	10/7/19 10:35	10/8/19 15:56		1.015	Not Detected	mg/L	0.0002	0.001	U
Analytical Method: EPA 245.1			Analyst: ABB						
* Mercury, Total by CVAA	10/8/19 11:17	10/10/19 12:21		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: SM 2540C			Analyst: TJW						
* Solids, Dissolved	10/8/19 17:37	10/9/19 16:50		1	Not Detected	mg/L		25	U
Analytical Method: SM4500CI E			Analyst: JCC						
* Chloride	10/4/19 14:15	10/4/19 14:15		1	Not Detected	mg/L	0.50	1	U
Analytical Method: SM4500F G 2017			Analyst: JCC						
* Fluoride	10/7/19 16:22	10/7/19 16:22		1	Not Detected	mg/L	0.05	0.1	U
Analytical Method: SM4500SO4 E			Analyst: JCC						
* Sulfate	10/8/19 17:11	10/8/19 17:11		1	Not Detected	mg/L	0.50	1	U

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

Comments:

Batch QC Summary

Customer Account: WMWBARAPFB
Sample Date: 10/2/19 15:00
Customer ID:
Delivery Date: 10/4/19 10:50

Description: Barry Ash Pond Field Blank

Laboratory ID Number: AZ22690

Sample	Analysis	Units	MB				Standard		Rec		Prec	Limit	
			MB	Limit	Spike	MS	MSD	Standard	Limit	Rec			Limit
AZ22697	Cadmium, Total	mg/L	-0.0000527	0.0001474	0.10	0.101	0.103	0.101	0.085 to 0.115	101	70 to 130	1.56	20
AZ22697	Barium, Total	mg/L	-0.0000218	0.0002	0.10	0.0975	0.108	0.0986	0.085 to 0.115	97.5	70 to 130	10.0	20
AZ22697	Calcium, Total	mg/L	-0.000887	0.1518	5.00	5.13	5.13	5.14	4.25 to 5.75	103	70 to 130	0.122	20
AZ22697	Arsenic, Total	mg/L	0.0000224	0.0001474	0.10	0.102	0.103	0.103	0.085 to 0.115	102	70 to 130	1.22	20
AZ22697	Antimony, Total	mg/L	0.000157	0.00066	0.10	0.0945	0.0959	0.0944	0.085 to 0.115	94.5	70 to 130	1.47	20
AZ22697	Chromium, Total	mg/L	-0.000237	0.00044	0.10	0.102	0.101	0.102	0.085 to 0.115	102	70 to 130	1.15	20
AZ22697	Thallium, Total	mg/L	0.0000950	0.0001474	0.10	0.105	0.106	0.106	0.085 to 0.115	105	70 to 130	0.918	20
AZ22697	Beryllium, Total	mg/L	0.0000303	0.00088	0.10	0.103	0.0990	0.0963	0.085 to 0.115	103	70 to 130	4.09	20
AZ22697	Cobalt, Total	mg/L	-0.0000086	0.0001474	0.10	0.103	0.102	0.103	0.085 to 0.115	103	70 to 130	0.634	20
AZ22697	Lithium, Total	mg/L	-0.0000729	0.0154	0.20	0.197	0.197	0.198	0.17 to 0.23	98.3	70 to 130	0.0117	20
AZ22697	Lead, Total	mg/L	0.00000845	0.0001474	0.10	0.105	0.106	0.105	0.085 to 0.115	105	70 to 130	0.972	20
AZ22697	Molybdenum, Total	mg/L	0.0000199	0.0001474	0.10	0.0969	0.0988	0.0977	0.085 to 0.115	96.9	70 to 130	1.93	20
AZ22697	Selenium, Total	mg/L	-0.0000348	0.00066	0.10	0.102	0.102	0.101	0.085 to 0.115	102	70 to 130	0.152	20
AZ22697	Boron, Total	mg/L	0.00216	0.0650254	1.00	0.996	0.986	0.986	0.85 to 1.15	99.6	70 to 130	1.06	20
AZ22697	Mercury, Total by CVAA	mg/L	0.0000226	0.0005	0.004	0.00391	0.00404	0.00409	0.0034 to 0.0046	97.8	70 to 130	3.08	20

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

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

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114
 Issued By: State of Florida, Department of Health
 Expiration: June 30, 2018

Comments:

Batch QC Summary

Customer Account: WMWBARAPFB

Sample Date: 10/2/19 15:00

Customer ID:

Delivery Date: 10/4/19 10:50

Description: Barry Ash Pond Field Blank

Laboratory ID Number: AZ22690

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Limit	Prec	Prec Limit
AZ22696	Solids, Dissolved	mg/L	2.00	25			432	53.0	40 to 60			0.232	5
AZ22697	Sulfate	mg/L	-0.499	0.50	20.0	19.5	-0.459	19.6	18 to 22	97.5	80 to 120	0.00	20
AZ22697	Fluoride	mg/L	0.0431	0.05	2.50	2.48	0.0335	2.54	2.25 to 2.75	99.2	80 to 120	0.00	20
AZ22697	Chloride	mg/L	0.0519	0.50	10.0	9.85	0.129	9.81	9 to 11	98.5	80 to 120	0.00	20

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

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments:

Certificate Of Analysis

Description: Barry Ash Pond - MW-5V

Location Code: WMWBARAP
Collected: 10/2/19 13:55
Customer ID:
Submittal Date: 10/4/19 10:50

Laboratory ID Number: AZ22691

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7			Analyst: RDA		Preparation Method: EPA 1638				
* Boron, Total	10/7/19 13:00	10/8/19 12:43		1.015	0.0336	mg/L	0.03	0.1	J
* Calcium, Total	10/7/19 13:00	10/8/19 12:43		1.015	2.43	mg/L	0.1	0.5	
* Lithium, Total	10/7/19 13:00	10/8/19 12:43		1.015	Not Detected	mg/L	0.01	0.02	U
Analytical Method: EPA 200.8			Analyst: DLJ		Preparation Method: EPA 1638				
* Antimony, Total	10/7/19 10:35	10/8/19 15:59		1.015	Not Detected	mg/L	0.0008	0.003	U
* Arsenic, Total	10/7/19 10:35	10/8/19 15:59		1.015	Not Detected	mg/L	0.001	0.005	U
* Barium, Total	10/7/19 10:35	10/8/19 15:59		1.015	0.0338	mg/L	0.002	0.01	
* Beryllium, Total	10/7/19 10:35	10/8/19 15:59		1.015	Not Detected	mg/L	0.0006	0.003	U
* Cadmium, Total	10/7/19 10:35	10/8/19 15:59		1.015	Not Detected	mg/L	0.0003	0.001	U
* Chromium, Total	10/7/19 10:35	10/8/19 15:59		1.015	Not Detected	mg/L	0.002	0.01	U
* Cobalt, Total	10/7/19 10:35	10/8/19 15:59		1.015	Not Detected	mg/L	0.002	0.005	U
* Lead, Total	10/7/19 10:35	10/8/19 15:59		1.015	Not Detected	mg/L	0.001	0.005	U
* Molybdenum, Total	10/7/19 10:35	10/8/19 15:59		1.015	Not Detected	mg/L	0.002	0.01	U
* Selenium, Total	10/7/19 10:35	10/8/19 15:59		1.015	Not Detected	mg/L	0.002	0.01	U
* Thallium, Total	10/7/19 10:35	10/8/19 15:59		1.015	Not Detected	mg/L	0.0002	0.001	U
Analytical Method: EPA 245.1			Analyst: ABB						
* Mercury, Total by CVAA	10/8/19 11:17	10/10/19 12:24		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: SM 2540C			Analyst: TJW						
* Solids, Dissolved	10/8/19 17:37	10/9/19 16:50		1	98.0	mg/L		25	
Analytical Method: SM4500Cl E			Analyst: JCC						
* Chloride	10/4/19 14:16	10/4/19 14:16		2	25.8	mg/L	1.00	2	
Analytical Method: SM4500F G 2017			Analyst: JCC						
* Fluoride	10/7/19 16:23	10/7/19 16:23		1	0.0777	mg/L	0.05	0.1	J
Analytical Method: SM4500SO4 E			Analyst: JCC						
* Sulfate	10/8/19 17:12	10/8/19 17:12		1	5.80	mg/L	0.50	1	
Analytical Method: Field Measurements			Analyst: AWG						
Conductivity	10/2/19 13:51	10/2/19 13:51			159.40	uS/cm			FA
pH	10/2/19 13:51	10/2/19 13:51			5.90	SU			FA
Temperature	10/2/19 13:51	10/2/19 13:51			22.83	C			FA
Turbidity	10/2/19 13:51	10/2/19 13:51			5.02	NTU			FA

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

Comments:

Batch QC Summary

Customer Account: WMWBARAP
Sample Date: 10/2/19 13:55
Customer ID:
Delivery Date: 10/4/19 10:50

Description: Barry Ash Pond - MW-5V

Laboratory ID Number: AZ22691

Sample	Analysis	Units	MB		Spike	MS	MSD	Standard		Rec		Prec	Limit
			MB	Limit				Standard	Limit	Rec	Prec		
AZ22697	Cadmium, Total	mg/L	-0.0000527	0.0001474	0.10	0.101	0.103	0.101	0.085 to 0.115	101	70 to 130	1.56	20
AZ22697	Boron, Total	mg/L	0.00216	0.0650254	1.00	0.996	0.986	0.986	0.85 to 1.15	99.6	70 to 130	1.06	20
AZ22697	Mercury, Total by CVAA	mg/L	0.0000226	0.0005	0.004	0.00391	0.00404	0.00409	0.0034 to 0.0046	97.8	70 to 130	3.08	20
AZ22697	Chromium, Total	mg/L	-0.0000237	0.00044	0.10	0.102	0.101	0.102	0.085 to 0.115	102	70 to 130	1.15	20
AZ22697	Thallium, Total	mg/L	0.00000950	0.0001474	0.10	0.105	0.106	0.106	0.085 to 0.115	105	70 to 130	0.918	20
AZ22697	Barium, Total	mg/L	-0.0000218	0.0002	0.10	0.0975	0.108	0.0986	0.085 to 0.115	97.5	70 to 130	10.0	20
AZ22697	Calcium, Total	mg/L	-0.000887	0.1518	5.00	5.13	5.13	5.14	4.25 to 5.75	103	70 to 130	0.122	20
AZ22697	Beryllium, Total	mg/L	0.0000303	0.00088	0.10	0.103	0.0990	0.0963	0.085 to 0.115	103	70 to 130	4.09	20
AZ22697	Cobalt, Total	mg/L	-0.00000086	0.0001474	0.10	0.103	0.102	0.103	0.085 to 0.115	103	70 to 130	0.634	20
AZ22697	Lithium, Total	mg/L	-0.0000729	0.0154	0.20	0.197	0.197	0.198	0.17 to 0.23	98.3	70 to 130	0.0117	20
AZ22697	Lead, Total	mg/L	0.00000845	0.0001474	0.10	0.105	0.106	0.105	0.085 to 0.115	105	70 to 130	0.972	20
AZ22697	Arsenic, Total	mg/L	0.0000224	0.0001474	0.10	0.102	0.103	0.103	0.085 to 0.115	102	70 to 130	1.22	20
AZ22697	Antimony, Total	mg/L	0.000157	0.00066	0.10	0.0945	0.0959	0.0944	0.085 to 0.115	94.5	70 to 130	1.47	20
AZ22697	Molybdenum, Total	mg/L	0.0000199	0.0001474	0.10	0.0969	0.0988	0.0977	0.085 to 0.115	96.9	70 to 130	1.93	20
AZ22697	Selenium, Total	mg/L	-0.0000348	0.00066	0.10	0.102	0.102	0.101	0.085 to 0.115	102	70 to 130	0.152	20

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

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114
 Issued By: State of Florida, Department of Health
 Expiration: June 30, 2018

Comments:

Batch QC Summary

Customer Account: WMWBARAP
Sample Date: 10/2/19 13:55
Customer ID:
Delivery Date: 10/4/19 10:50

Description: Barry Ash Pond - MW-5V

Laboratory ID Number: AZ22691

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Limit	Prec	Prec Limit
AZ22696	Solids, Dissolved	mg/L	2.00	25			432	53.0	40 to 60			0.232	5
AZ22697	Sulfate	mg/L	-0.499	0.50	20.0	19.5	-0.459	19.6	18 to 22	97.5	80 to 120	0.00	20
AZ22697	Chloride	mg/L	0.0519	0.50	10.0	9.85	0.129	9.81	9 to 11	98.5	80 to 120	0.00	20
AZ22697	Fluoride	mg/L	0.0431	0.05	2.50	2.48	0.0335	2.54	2.25 to 2.75	99.2	80 to 120	0.00	20

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

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114
 Issued By: State of Florida, Department of Health
 Expiration: June 30, 2017

Comments:

Certificate Of Analysis

Description: Barry Ash Pond - MW-17H

Location Code: WMWBARAP
Collected: 10/2/19 11:03
Customer ID:
Submittal Date: 10/4/19 10:50

Laboratory ID Number: AZ22692

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7			Analyst: RDA		Preparation Method: EPA 1638				
* Boron, Total	10/7/19 13:00	10/8/19 12:46		1.015	0.129	mg/L	0.03	0.1	
* Calcium, Total	10/7/19 13:00	10/8/19 12:46		1.015	13.2	mg/L	0.1	0.5	
* Lithium, Total	10/7/19 13:00	10/8/19 12:46		1.015	Not Detected	mg/L	0.01	0.02	U
Analytical Method: EPA 200.8			Analyst: DLJ		Preparation Method: EPA 1638				
* Antimony, Total	10/7/19 10:35	10/8/19 16:01		1.015	Not Detected	mg/L	0.0008	0.003	U
* Arsenic, Total	10/7/19 10:35	10/8/19 16:01		1.015	0.0251	mg/L	0.001	0.005	
* Barium, Total	10/7/19 10:35	10/8/19 16:01		1.015	0.117	mg/L	0.002	0.01	
* Beryllium, Total	10/7/19 10:35	10/8/19 16:01		1.015	Not Detected	mg/L	0.0006	0.003	U
* Cadmium, Total	10/7/19 10:35	10/8/19 16:01		1.015	Not Detected	mg/L	0.0003	0.001	U
* Chromium, Total	10/7/19 10:35	10/8/19 16:01		1.015	Not Detected	mg/L	0.002	0.01	U
* Cobalt, Total	10/7/19 10:35	10/8/19 16:01		1.015	0.00330	mg/L	0.002	0.005	J
* Lead, Total	10/7/19 10:35	10/8/19 16:01		1.015	Not Detected	mg/L	0.001	0.005	U
* Molybdenum, Total	10/7/19 10:35	10/8/19 16:01		1.015	Not Detected	mg/L	0.002	0.01	U
* Selenium, Total	10/7/19 10:35	10/8/19 16:01		1.015	Not Detected	mg/L	0.002	0.01	U
* Thallium, Total	10/7/19 10:35	10/8/19 16:01		1.015	Not Detected	mg/L	0.0002	0.001	U
Analytical Method: EPA 245.1			Analyst: ABB						
* Mercury, Total by CVAA	10/8/19 11:17	10/10/19 12:26		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: SM 2540C			Analyst: TJW						
* Solids, Dissolved	10/8/19 17:37	10/9/19 16:50		1	203	mg/L		25	
Analytical Method: SM4500Cl E			Analyst: JCC						
* Chloride	10/4/19 14:17	10/4/19 14:17		1	17.7	mg/L	0.50	1	
Analytical Method: SM4500F G 2017			Analyst: JCC						
* Fluoride	10/7/19 16:24	10/7/19 16:24		1	0.254	mg/L	0.05	0.1	
Analytical Method: SM4500SO4 E			Analyst: JCC						
* Sulfate	10/8/19 17:14	10/8/19 17:14		1	10.6	mg/L	0.50	1	
Analytical Method: Field Measurements			Analyst: TJD						
Conductivity	10/2/19 10:59	10/2/19 10:59			451.22	uS/cm			FA
pH	10/2/19 10:59	10/2/19 10:59			6.58	SU			FA
Temperature	10/2/19 10:59	10/2/19 10:59			22.29	C			FA
Turbidity	10/2/19 10:59	10/2/19 10:59			21.8	NTU			FA

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

Comments:

Batch QC Summary

Customer Account: WMWBARAP
Sample Date: 10/2/19 11:03
Customer ID:
Delivery Date: 10/4/19 10:50

Description: Barry Ash Pond - MW-17H

Laboratory ID Number: AZ22692

Sample	Analysis	Units	MB		Spike	MS	MSD	Standard		Rec		Prec	Limit
			MB	Limit				Standard	Limit	Rec	Limit		
AZ22697	Cadmium, Total	mg/L	-0.0000527	0.0001474	0.10	0.101	0.103	0.101	0.085 to 0.115	101	70 to 130	1.56	20
AZ22697	Barium, Total	mg/L	-0.0000218	0.0002	0.10	0.0975	0.108	0.0986	0.085 to 0.115	97.5	70 to 130	10.0	20
AZ22697	Calcium, Total	mg/L	-0.000887	0.1518	5.00	5.13	5.13	5.14	4.25 to 5.75	103	70 to 130	0.122	20
AZ22697	Boron, Total	mg/L	0.00216	0.0650254	1.00	0.996	0.986	0.986	0.85 to 1.15	99.6	70 to 130	1.06	20
AZ22697	Mercury, Total by CVAA	mg/L	0.0000226	0.0005	0.004	0.00391	0.00404	0.00409	0.0034 to 0.0046	97.8	70 to 130	3.08	20
AZ22697	Arsenic, Total	mg/L	0.0000224	0.0001474	0.10	0.102	0.103	0.103	0.085 to 0.115	102	70 to 130	1.22	20
AZ22697	Antimony, Total	mg/L	0.000157	0.00066	0.10	0.0945	0.0959	0.0944	0.085 to 0.115	94.5	70 to 130	1.47	20
AZ22697	Molybdenum, Total	mg/L	0.0000199	0.0001474	0.10	0.0969	0.0988	0.0977	0.085 to 0.115	96.9	70 to 130	1.93	20
AZ22697	Selenium, Total	mg/L	-0.0000348	0.00066	0.10	0.102	0.102	0.101	0.085 to 0.115	102	70 to 130	0.152	20
AZ22697	Chromium, Total	mg/L	-0.0000237	0.00044	0.10	0.102	0.101	0.102	0.085 to 0.115	102	70 to 130	1.15	20
AZ22697	Thallium, Total	mg/L	0.00000950	0.0001474	0.10	0.105	0.106	0.106	0.085 to 0.115	105	70 to 130	0.918	20
AZ22697	Beryllium, Total	mg/L	0.0000303	0.00088	0.10	0.103	0.0990	0.0963	0.085 to 0.115	103	70 to 130	4.09	20
AZ22697	Cobalt, Total	mg/L	-0.00000086	0.0001474	0.10	0.103	0.102	0.103	0.085 to 0.115	103	70 to 130	0.634	20
AZ22697	Lithium, Total	mg/L	-0.0000729	0.0154	0.20	0.197	0.197	0.198	0.17 to 0.23	98.3	70 to 130	0.0117	20
AZ22697	Lead, Total	mg/L	0.00000845	0.0001474	0.10	0.105	0.106	0.105	0.085 to 0.115	105	70 to 130	0.972	20

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

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114
 Issued By: State of Florida, Department of Health
 Expiration: June 30, 2018

Comments:

Batch QC Summary

Customer Account: WMWBARAP

Sample Date: 10/2/19 11:03

Customer ID:

Delivery Date: 10/4/19 10:50

Description: Barry Ash Pond - MW-17H

Laboratory ID Number: AZ22692

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Limit	Prec	Prec Limit
AZ22697	Sulfate	mg/L	-0.499	0.50	20.0	19.5	-0.459	19.6	18 to 22	97.5	80 to 120	0.00	20
AZ22696	Solids, Dissolved	mg/L	2.00	25			432	53.0	40 to 60			0.232	5
AZ22697	Chloride	mg/L	0.0519	0.50	10.0	9.85	0.129	9.81	9 to 11	98.5	80 to 120	0.00	20
AZ22697	Fluoride	mg/L	0.0431	0.05	2.50	2.48	0.0335	2.54	2.25 to 2.75	99.2	80 to 120	0.00	20

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

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

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments:

Certificate Of Analysis

Description: Barry Ash Pond - MW-17H DISS

Location Code: WMWBARAP
Collected: 10/2/19 11:03
Customer ID:
Submittal Date: 10/4/19 10:50

Laboratory ID Number: AZ22693

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7		Analyst: RDA							
* Boron, Dissolved	10/7/19 11:15	10/8/19 10:06		1.015	0.101	mg/L	0.03	0.1	
* Calcium, Dissolved	10/7/19 11:15	10/8/19 10:06		1.015	12.7	mg/L	0.1	0.5	
* Lithium, Dissolved	10/7/19 11:15	10/8/19 10:06		1.015	Not Detected	mg/L	0.01	0.02	U
Analytical Method: EPA 200.8		Analyst: DLJ							
* Antimony, Dissolved	10/7/19 12:51	10/8/19 17:40		1.015	Not Detected	mg/L	0.0008	0.003	U
* Arsenic, Dissolved	10/7/19 12:51	10/8/19 17:40		1.015	0.0284	mg/L	0.001	0.005	
* Barium, Dissolved	10/7/19 12:51	10/8/19 17:40		1.015	0.116	mg/L	0.002	0.01	
* Beryllium, Dissolved	10/7/19 12:51	10/8/19 17:40		1.015	Not Detected	mg/L	0.0006	0.003	U
* Cadmium, Dissolved	10/7/19 12:51	10/8/19 17:40		1.015	Not Detected	mg/L	0.0003	0.001	U
* Chromium, Dissolved	10/7/19 12:51	10/8/19 17:40		1.015	Not Detected	mg/L	0.002	0.01	U
* Cobalt, Dissolved	10/7/19 12:51	10/8/19 17:40		1.015	0.00311	mg/L	0.002	0.005	J
* Lead, Dissolved	10/7/19 12:51	10/8/19 17:40		1.015	Not Detected	mg/L	0.001	0.005	U
* Molybdenum, Dissolved	10/7/19 12:51	10/8/19 17:40		1.015	Not Detected	mg/L	0.002	0.01	U
* Selenium, Dissolved	10/7/19 12:51	10/8/19 17:40		1.015	Not Detected	mg/L	0.002	0.01	U
* Thallium, Dissolved	10/7/19 12:51	10/8/19 17:40		1.015	Not Detected	mg/L	0.0002	0.001	U
Analytical Method: EPA 245.1		Analyst: ABB							
* Mercury, Dissolved by CVAA	10/8/19 11:17	10/10/19 13:51		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: SM 2540C		Analyst: TJW							
* Solids, Dissolved	10/8/19 17:37	10/9/19 16:50		1	222	mg/L		25	
Analytical Method: SM4500Cl E		Analyst: JCC							
* Chloride	10/4/19 14:18	10/4/19 14:18		1	17.9	mg/L	0.50	1	
Analytical Method: SM4500F G 2017		Analyst: JCC							
* Fluoride	10/7/19 16:26	10/7/19 16:26		1	0.224	mg/L	0.05	0.1	
Analytical Method: SM4500SO4 E		Analyst: JCC							
* Sulfate	10/8/19 17:15	10/8/19 17:15		1	11.0	mg/L	0.50	1	

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

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified. LBM 11/06/19

Batch QC Summary

Customer Account: WMWBARAP
Sample Date: 10/2/19 11:03
Customer ID:
Delivery Date: 10/4/19 10:50

Description: Barry Ash Pond - MW-17H DISS

Laboratory ID Number: AZ22693

Sample	Analysis	Units	MB		Spike	MS	MSD	Standard	Standard Limit	Rec		Prec Limit	
			MB	Limit						Rec	Limit		
AZ22693	Antimony, Dissolved	mg/L	0.000166	0.00066	0.10	0.0978	0.0964	0.0952	0.085 to 0.115	97.8	70 to 130	1.35	20
AZ22693	Calcium, Dissolved	mg/L	-0.000291	0.1518	5.00	17.6	17.7	4.99	4.25 to 5.75	97.3	70 to 130	0.657	20
AZ22693	Beryllium, Dissolved	mg/L	0.0000234	0.00088	0.10	0.102	0.103	0.0980	0.085 to 0.115	102	70 to 130	0.675	20
AZ22693	Lead, Dissolved	mg/L	0.0000172	0.0001474	0.10	0.105	0.105	0.105	0.085 to 0.115	105	70 to 130	0.619	20
AZ22693	Arsenic, Dissolved	mg/L	0.00000712	0.0001474	0.10	0.129	0.129	0.101	0.085 to 0.115	101	70 to 130	0.217	20
AZ22693	Chromium, Dissolved	mg/L	-0.0000889	0.00044	0.10	0.101	0.0998	0.103	0.085 to 0.115	101	70 to 130	0.882	20
AZ22693	Cadmium, Dissolved	mg/L	0.00000248	0.0001474	0.10	0.103	0.0994	0.102	0.085 to 0.115	103	70 to 130	3.53	20
AZ22693	Lithium, Dissolved	mg/L	0.0000189	0.0154	0.20	0.206	0.208	0.195	0.17 to 0.23	103	70 to 130	0.720	20
AZ22693	Selenium, Dissolved	mg/L	-0.00000205	0.00066	0.10	0.101	0.102	0.102	0.085 to 0.115	101	70 to 130	0.936	20
AZ22693	Cobalt, Dissolved	mg/L	-0.00000041	0.0001474	0.10	0.105	0.105	0.103	0.085 to 0.115	102	70 to 130	0.0209	20
AZ22693	Molybdenum, Dissolved	mg/L	0.0000474	0.0001474	0.10	0.0967	0.0981	0.0980	0.085 to 0.115	96.7	70 to 130	1.43	20
AZ22693	Barium, Dissolved	mg/L	-0.00000028	0.0002	0.10	0.213	0.210	0.0996	0.085 to 0.115	97.8	70 to 130	1.58	20
AZ22693	Boron, Dissolved	mg/L	0.000350	0.0650254	1.00	1.07	1.08	0.953	0.85 to 1.15	96.7	70 to 130	1.13	20
AZ22693	Mercury, Dissolved by	mg/L	0.00000921	0.0005	0.004	0.00384	0.00387	0.00410	0.0034 to 0.0046	95.9	70 to 130	0.821	20
AZ22693	Thallium, Dissolved	mg/L	0.00000759	0.0001474	0.10	0.103	0.105	0.107	0.085 to 0.115	103	70 to 130	1.50	20

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

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

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114
 Issued By: State of Florida, Department of Health
 Expiration: June 30, 2018

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified. LBM 11/06/19

Batch QC Summary

Customer Account: WMWBARAP
Sample Date: 10/2/19 11:03
Customer ID:
Delivery Date: 10/4/19 10:50

Description: Barry Ash Pond - MW-17H DISS

Laboratory ID Number: AZ22693

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Limit	Prec	Prec Limit
AZ22696	Solids, Dissolved	mg/L	2.00	25			432	53.0	40 to 60			0.232	5
AZ22697	Sulfate	mg/L	-0.499	0.50	20.0	19.5	-0.459	19.6	18 to 22	97.5	80 to 120	0.00	20
AZ22697	Fluoride	mg/L	0.0431	0.05	2.50	2.48	0.0335	2.54	2.25 to 2.75	99.2	80 to 120	0.00	20
AZ22697	Chloride	mg/L	0.0519	0.50	10.0	9.85	0.129	9.81	9 to 11	98.5	80 to 120	0.00	20

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* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted.
 Therefore, dissolved data is qualified. LBM 11/06/19

Certificate Of Analysis

Description: Barry Ash Pond - MW-12V

Location Code: WMWBARAP
Collected: 10/2/19 12:37
Customer ID:
Submittal Date: 10/4/19 10:50

Laboratory ID Number: AZ22694

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7			Analyst: RDA		Preparation Method: EPA 1638				
* Boron, Total	10/7/19 13:00	10/8/19 12:49		1.015	0.134	mg/L	0.03	0.1	
* Calcium, Total	10/7/19 13:00	10/8/19 12:49		1.015	22.2	mg/L	0.1	0.5	
* Lithium, Total	10/7/19 13:00	10/8/19 12:49		1.015	Not Detected	mg/L	0.01	0.02	U
Analytical Method: EPA 200.8			Analyst: DLJ		Preparation Method: EPA 1638				
* Antimony, Total	10/7/19 10:35	10/8/19 16:04		1.015	Not Detected	mg/L	0.0008	0.003	U
* Arsenic, Total	10/7/19 10:35	10/8/19 16:04		1.015	0.0220	mg/L	0.001	0.005	
* Barium, Total	10/7/19 10:35	10/8/19 16:04		1.015	0.101	mg/L	0.002	0.01	
* Beryllium, Total	10/7/19 10:35	10/8/19 16:04		1.015	Not Detected	mg/L	0.0006	0.003	U
* Cadmium, Total	10/7/19 10:35	10/8/19 16:04		1.015	Not Detected	mg/L	0.0003	0.001	U
* Chromium, Total	10/7/19 10:35	10/8/19 16:04		1.015	Not Detected	mg/L	0.002	0.01	U
* Cobalt, Total	10/7/19 10:35	10/8/19 16:04		1.015	Not Detected	mg/L	0.002	0.005	U
* Lead, Total	10/7/19 10:35	10/8/19 16:04		1.015	Not Detected	mg/L	0.001	0.005	U
* Molybdenum, Total	10/7/19 10:35	10/8/19 16:04		1.015	Not Detected	mg/L	0.002	0.01	U
* Selenium, Total	10/7/19 10:35	10/8/19 16:04		1.015	Not Detected	mg/L	0.002	0.01	U
* Thallium, Total	10/7/19 10:35	10/8/19 16:04		1.015	Not Detected	mg/L	0.0002	0.001	U
Analytical Method: EPA 245.1			Analyst: ABB						
* Mercury, Total by CVAA	10/8/19 11:17	10/10/19 12:28		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: SM 2540C			Analyst: TJW						
* Solids, Dissolved	10/8/19 17:37	10/9/19 16:50		1	321	mg/L		25	
Analytical Method: SM4500Cl E			Analyst: JCC						
* Chloride	10/4/19 14:19	10/4/19 14:19		2	28.0	mg/L	1.00	2	
Analytical Method: SM4500F G 2017			Analyst: JCC						
* Fluoride	10/7/19 16:27	10/7/19 16:27		1	0.120	mg/L	0.05	0.1	
Analytical Method: SM4500SO4 E			Analyst: JCC						
* Sulfate	10/8/19 17:16	10/8/19 17:16		1	7.18	mg/L	0.50	1	
Analytical Method: Field Measurements			Analyst: TJD						
Conductivity	10/2/19 12:34	10/2/19 12:34			592.63	uS/cm			FA
pH	10/2/19 12:34	10/2/19 12:34			5.90	SU			FA
Temperature	10/2/19 12:34	10/2/19 12:34			21.88	C			FA
Turbidity	10/2/19 12:34	10/2/19 12:34			4.77	NTU			FA

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

Comments:

Batch QC Summary

Customer Account: WMWBARAP
Sample Date: 10/2/19 12:37
Customer ID:
Delivery Date: 10/4/19 10:50

Description: Barry Ash Pond - MW-12V

Laboratory ID Number: AZ22694

Sample	Analysis	Units	MB		Spike	MS	MSD	Standard		Rec		Prec	Limit
			MB	Limit				Standard	Limit	Rec	Limit		
AZ22697	Cadmium, Total	mg/L	-0.0000527	0.0001474	0.10	0.101	0.103	0.101	0.085 to 0.115	101	70 to 130	1.56	20
AZ22697	Barium, Total	mg/L	-0.0000218	0.0002	0.10	0.0975	0.108	0.0986	0.085 to 0.115	97.5	70 to 130	10.0	20
AZ22697	Calcium, Total	mg/L	-0.000887	0.1518	5.00	5.13	5.13	5.14	4.25 to 5.75	103	70 to 130	0.122	20
AZ22697	Chromium, Total	mg/L	-0.0000237	0.00044	0.10	0.102	0.101	0.102	0.085 to 0.115	102	70 to 130	1.15	20
AZ22697	Thallium, Total	mg/L	0.00000950	0.0001474	0.10	0.105	0.106	0.106	0.085 to 0.115	105	70 to 130	0.918	20
AZ22697	Boron, Total	mg/L	0.00216	0.0650254	1.00	0.996	0.986	0.986	0.85 to 1.15	99.6	70 to 130	1.06	20
AZ22697	Mercury, Total by CVAA	mg/L	0.0000226	0.0005	0.004	0.00391	0.00404	0.00409	0.0034 to 0.0046	97.8	70 to 130	3.08	20
AZ22697	Arsenic, Total	mg/L	0.0000224	0.0001474	0.10	0.102	0.103	0.103	0.085 to 0.115	102	70 to 130	1.22	20
AZ22697	Antimony, Total	mg/L	0.000157	0.00066	0.10	0.0945	0.0959	0.0944	0.085 to 0.115	94.5	70 to 130	1.47	20
AZ22697	Molybdenum, Total	mg/L	0.0000199	0.0001474	0.10	0.0969	0.0988	0.0977	0.085 to 0.115	96.9	70 to 130	1.93	20
AZ22697	Selenium, Total	mg/L	-0.0000348	0.00066	0.10	0.102	0.102	0.101	0.085 to 0.115	102	70 to 130	0.152	20
AZ22697	Beryllium, Total	mg/L	0.0000303	0.00088	0.10	0.103	0.0990	0.0963	0.085 to 0.115	103	70 to 130	4.09	20
AZ22697	Cobalt, Total	mg/L	-0.00000086	0.0001474	0.10	0.103	0.102	0.103	0.085 to 0.115	103	70 to 130	0.634	20
AZ22697	Lithium, Total	mg/L	-0.0000729	0.0154	0.20	0.197	0.197	0.198	0.17 to 0.23	98.3	70 to 130	0.0117	20
AZ22697	Lead, Total	mg/L	0.00000845	0.0001474	0.10	0.105	0.106	0.105	0.085 to 0.115	105	70 to 130	0.972	20

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

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114
 Issued By: State of Florida, Department of Health
 Expiration: June 30, 2018

Comments:

Batch QC Summary

Customer Account: WMWBARAP
Sample Date: 10/2/19 12:37
Customer ID:
Delivery Date: 10/4/19 10:50

Description: Barry Ash Pond - MW-12V

Laboratory ID Number: AZ22694

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Limit	Prec	Prec Limit
AZ22696	Solids, Dissolved	mg/L	2.00	25			432	53.0	40 to 60			0.232	5
AZ22697	Sulfate	mg/L	-0.499	0.50	20.0	19.5	-0.459	19.6	18 to 22	97.5	80 to 120	0.00	20
AZ22697	Chloride	mg/L	0.0519	0.50	10.0	9.85	0.129	9.81	9 to 11	98.5	80 to 120	0.00	20
AZ22697	Fluoride	mg/L	0.0431	0.05	2.50	2.48	0.0335	2.54	2.25 to 2.75	99.2	80 to 120	0.00	20

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Laboratory certification ID: E571114
 Issued By: State of Florida, Department of Health
 Expiration: June 30, 2017

Comments:

Certificate Of Analysis

Description: Barry Ash Pond - MW-12V DUP

Location Code: WMWBARAP
Collected: 10/2/19 12:37
Customer ID:
Submittal Date: 10/4/19 10:50

Laboratory ID Number: AZ22695

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7			Analyst: RDA		Preparation Method: EPA 1638				
* Boron, Total	10/7/19 13:00	10/8/19 12:51		1.015	0.131	mg/L	0.03	0.1	
* Calcium, Total	10/7/19 13:00	10/8/19 12:51		1.015	21.8	mg/L	0.1	0.5	
* Lithium, Total	10/7/19 13:00	10/8/19 12:51		1.015	Not Detected	mg/L	0.01	0.02	U
Analytical Method: EPA 200.8			Analyst: DLJ		Preparation Method: EPA 1638				
* Antimony, Total	10/7/19 10:35	10/8/19 16:07		1.015	Not Detected	mg/L	0.0008	0.003	U
* Arsenic, Total	10/7/19 10:35	10/8/19 16:07		1.015	0.0215	mg/L	0.001	0.005	
* Barium, Total	10/7/19 10:35	10/8/19 16:07		1.015	0.0977	mg/L	0.002	0.01	
* Beryllium, Total	10/7/19 10:35	10/8/19 16:07		1.015	Not Detected	mg/L	0.0006	0.003	U
* Cadmium, Total	10/7/19 10:35	10/8/19 16:07		1.015	Not Detected	mg/L	0.0003	0.001	U
* Chromium, Total	10/7/19 10:35	10/8/19 16:07		1.015	Not Detected	mg/L	0.002	0.01	U
* Cobalt, Total	10/7/19 10:35	10/8/19 16:07		1.015	Not Detected	mg/L	0.002	0.005	U
* Lead, Total	10/7/19 10:35	10/8/19 16:07		1.015	Not Detected	mg/L	0.001	0.005	U
* Molybdenum, Total	10/7/19 10:35	10/8/19 16:07		1.015	Not Detected	mg/L	0.002	0.01	U
* Selenium, Total	10/7/19 10:35	10/8/19 16:07		1.015	Not Detected	mg/L	0.002	0.01	U
* Thallium, Total	10/7/19 10:35	10/8/19 16:07		1.015	Not Detected	mg/L	0.0002	0.001	U
Analytical Method: EPA 245.1			Analyst: ABB						
* Mercury, Total by CVAA	10/8/19 11:17	10/10/19 12:31		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: SM 2540C			Analyst: TJW						
* Solids, Dissolved	10/8/19 17:37	10/9/19 16:50		1	317	mg/L		25	
Analytical Method: SM4500Cl E			Analyst: JCC						
* Chloride	10/4/19 14:21	10/4/19 14:21		2	28.1	mg/L	1.00	2	
Analytical Method: SM4500F G 2017			Analyst: JCC						
* Fluoride	10/7/19 16:28	10/7/19 16:28		1	0.113	mg/L	0.05	0.1	
Analytical Method: SM4500SO4 E			Analyst: JCC						
* Sulfate	10/8/19 17:17	10/8/19 17:17		1	9.34	mg/L	0.50	1	
Analytical Method: Field Measurements			Analyst: TJD						
Conductivity	10/2/19 12:34	10/2/19 12:34			592.63	uS/cm			FA
pH	10/2/19 12:34	10/2/19 12:34			5.90	SU			FA
Temperature	10/2/19 12:34	10/2/19 12:34			21.88	C			FA
Turbidity	10/2/19 12:34	10/2/19 12:34			4.77	NTU			FA

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

Comments:

Batch QC Summary

Customer Account: WMWBARAP
Sample Date: 10/2/19 12:37
Customer ID:
Delivery Date: 10/4/19 10:50

Description: Barry Ash Pond - MW-12V DUP

Laboratory ID Number: AZ22695

Sample	Analysis	Units	MB		Spike	MS	MSD	Standard	Standard Limit	Rec		Prec Limit	
			MB	Limit						Rec	Limit		
AZ22697	Cadmium, Total	mg/L	-0.0000527	0.0001474	0.10	0.101	0.103	0.101	0.085 to 0.115	101	70 to 130	1.56	20
AZ22697	Boron, Total	mg/L	0.00216	0.0650254	1.00	0.996	0.986	0.986	0.85 to 1.15	99.6	70 to 130	1.06	20
AZ22697	Mercury, Total by CVAA	mg/L	0.0000226	0.0005	0.004	0.00391	0.00404	0.00409	0.0034 to 0.0046	97.8	70 to 130	3.08	20
AZ22697	Arsenic, Total	mg/L	0.0000224	0.0001474	0.10	0.102	0.103	0.103	0.085 to 0.115	102	70 to 130	1.22	20
AZ22697	Antimony, Total	mg/L	0.000157	0.00066	0.10	0.0945	0.0959	0.0944	0.085 to 0.115	94.5	70 to 130	1.47	20
AZ22697	Chromium, Total	mg/L	-0.000237	0.00044	0.10	0.102	0.101	0.102	0.085 to 0.115	102	70 to 130	1.15	20
AZ22697	Thallium, Total	mg/L	0.00000950	0.0001474	0.10	0.105	0.106	0.106	0.085 to 0.115	105	70 to 130	0.918	20
AZ22697	Beryllium, Total	mg/L	0.0000303	0.00088	0.10	0.103	0.0990	0.0963	0.085 to 0.115	103	70 to 130	4.09	20
AZ22697	Cobalt, Total	mg/L	-0.00000086	0.0001474	0.10	0.103	0.102	0.103	0.085 to 0.115	103	70 to 130	0.634	20
AZ22697	Lithium, Total	mg/L	-0.0000729	0.0154	0.20	0.197	0.197	0.198	0.17 to 0.23	98.3	70 to 130	0.0117	20
AZ22697	Lead, Total	mg/L	0.00000845	0.0001474	0.10	0.105	0.106	0.105	0.085 to 0.115	105	70 to 130	0.972	20
AZ22697	Barium, Total	mg/L	-0.0000218	0.0002	0.10	0.0975	0.108	0.0986	0.085 to 0.115	97.5	70 to 130	10.0	20
AZ22697	Calcium, Total	mg/L	-0.000887	0.1518	5.00	5.13	5.13	5.14	4.25 to 5.75	103	70 to 130	0.122	20
AZ22697	Molybdenum, Total	mg/L	0.0000199	0.0001474	0.10	0.0969	0.0988	0.0977	0.085 to 0.115	96.9	70 to 130	1.93	20
AZ22697	Selenium, Total	mg/L	-0.0000348	0.00066	0.10	0.102	0.102	0.101	0.085 to 0.115	102	70 to 130	0.152	20

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Laboratory certification ID: E571114
 Issued By: State of Florida, Department of Health
 Expiration: June 30, 2018

Comments:

Batch QC Summary

Customer Account: WMWBARAP
Sample Date: 10/2/19 12:37
Customer ID:
Delivery Date: 10/4/19 10:50

Description: Barry Ash Pond - MW-12V DUP

Laboratory ID Number: AZ22695

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Limit	Prec	Prec Limit
AZ22696	Solids, Dissolved	mg/L	2.00	25			432	53.0	40 to 60			0.232	5
AZ22697	Sulfate	mg/L	-0.499	0.50	20.0	19.5	-0.459	19.6	18 to 22	97.5	80 to 120	0.00	20
AZ22697	Fluoride	mg/L	0.0431	0.05	2.50	2.48	0.0335	2.54	2.25 to 2.75	99.2	80 to 120	0.00	20
AZ22697	Chloride	mg/L	0.0519	0.50	10.0	9.85	0.129	9.81	9 to 11	98.5	80 to 120	0.00	20

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

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114
 Issued By: State of Florida, Department of Health
 Expiration: June 30, 2017

Comments:

Certificate Of Analysis

Description: Barry Ash Pond - MW-24H

Location Code: WMWBARAP
Collected: 10/2/19 14:47
Customer ID:
Submittal Date: 10/4/19 10:50

Laboratory ID Number: AZ22696

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7			Analyst: RDA		Preparation Method: EPA 1638				
* Boron, Total	10/7/19 13:00	10/8/19 12:54		1.015	0.344	mg/L	0.03	0.1	
* Calcium, Total	10/7/19 13:00	10/8/19 12:54		1.015	18.4	mg/L	0.1	0.5	
* Lithium, Total	10/7/19 13:00	10/8/19 12:54		1.015	Not Detected	mg/L	0.01	0.02	U
Analytical Method: EPA 200.8			Analyst: DLJ		Preparation Method: EPA 1638				
* Antimony, Total	10/7/19 10:35	10/8/19 16:09		1.015	Not Detected	mg/L	0.0008	0.003	U
* Arsenic, Total	10/7/19 10:35	10/8/19 16:09		1.015	0.0673	mg/L	0.001	0.005	
* Barium, Total	10/7/19 10:35	10/8/19 16:09		1.015	0.229	mg/L	0.002	0.01	
* Beryllium, Total	10/7/19 10:35	10/8/19 16:09		1.015	Not Detected	mg/L	0.0006	0.003	U
* Cadmium, Total	10/7/19 10:35	10/8/19 16:09		1.015	Not Detected	mg/L	0.0003	0.001	U
* Chromium, Total	10/7/19 10:35	10/8/19 16:09		1.015	Not Detected	mg/L	0.002	0.01	U
* Cobalt, Total	10/7/19 10:35	10/8/19 16:09		1.015	0.00513	mg/L	0.002	0.005	
* Lead, Total	10/7/19 10:35	10/8/19 16:09		1.015	Not Detected	mg/L	0.001	0.005	U
* Molybdenum, Total	10/7/19 10:35	10/8/19 16:09		1.015	Not Detected	mg/L	0.002	0.01	U
* Selenium, Total	10/7/19 10:35	10/8/19 16:09		1.015	Not Detected	mg/L	0.002	0.01	U
* Thallium, Total	10/7/19 10:35	10/8/19 16:09		1.015	Not Detected	mg/L	0.0002	0.001	U
Analytical Method: EPA 245.1			Analyst: ABB						
* Mercury, Total by CVAA	10/8/19 11:17	10/10/19 12:33		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: SM 2540C			Analyst: TJW						
* Solids, Dissolved	10/8/19 17:37	10/9/19 16:50		1	430	mg/L		25	
Analytical Method: SM4500Cl E			Analyst: JCC						
* Chloride	10/4/19 14:22	10/4/19 14:22		4	53.0	mg/L	2.00	4	
Analytical Method: SM4500F G 2017			Analyst: JCC						
* Fluoride	10/7/19 16:29	10/7/19 16:29		1	0.183	mg/L	0.05	0.1	
Analytical Method: SM4500SO4 E			Analyst: JCC						
* Sulfate	10/8/19 17:23	10/8/19 17:23		3	92.3	mg/L	1.50	3	
Analytical Method: Field Measurements			Analyst: TJD						
Conductivity	10/2/19 14:44	10/2/19 14:44			746.07	uS/cm			FA
pH	10/2/19 14:44	10/2/19 14:44			6.21	SU			FA
Temperature	10/2/19 14:44	10/2/19 14:44			22.65	C			FA
Turbidity	10/2/19 14:44	10/2/19 14:44			4.95	NTU			FA

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

Comments:

Batch QC Summary

Customer Account: WMWBARAP
Sample Date: 10/2/19 14:47
Customer ID:
Delivery Date: 10/4/19 10:50

Description: Barry Ash Pond - MW-24H

Laboratory ID Number: AZ22696

Sample	Analysis	Units	MB		Spike	MS	MSD	Standard		Rec		Prec	Limit
			MB	Limit				Standard	Limit	Rec	Limit		
AZ22697	Cadmium, Total	mg/L	-0.0000527	0.0001474	0.10	0.101	0.103	0.101	0.085 to 0.115	101	70 to 130	1.56	20
AZ22697	Barium, Total	mg/L	-0.0000218	0.0002	0.10	0.0975	0.108	0.0986	0.085 to 0.115	97.5	70 to 130	10.0	20
AZ22697	Calcium, Total	mg/L	-0.000887	0.1518	5.00	5.13	5.13	5.14	4.25 to 5.75	103	70 to 130	0.122	20
AZ22697	Boron, Total	mg/L	0.00216	0.0650254	1.00	0.996	0.986	0.986	0.85 to 1.15	99.6	70 to 130	1.06	20
AZ22697	Mercury, Total by CVAA	mg/L	0.0000226	0.0005	0.004	0.00391	0.00404	0.00409	0.0034 to 0.0046	97.8	70 to 130	3.08	20
AZ22697	Chromium, Total	mg/L	-0.0000237	0.00044	0.10	0.102	0.101	0.102	0.085 to 0.115	102	70 to 130	1.15	20
AZ22697	Thallium, Total	mg/L	0.00000950	0.0001474	0.10	0.105	0.106	0.106	0.085 to 0.115	105	70 to 130	0.918	20
AZ22697	Molybdenum, Total	mg/L	0.0000199	0.0001474	0.10	0.0969	0.0988	0.0977	0.085 to 0.115	96.9	70 to 130	1.93	20
AZ22697	Selenium, Total	mg/L	-0.0000348	0.00066	0.10	0.102	0.102	0.101	0.085 to 0.115	102	70 to 130	0.152	20
AZ22697	Beryllium, Total	mg/L	0.0000303	0.00088	0.10	0.103	0.0990	0.0963	0.085 to 0.115	103	70 to 130	4.09	20
AZ22697	Cobalt, Total	mg/L	-0.00000086	0.0001474	0.10	0.103	0.102	0.103	0.085 to 0.115	103	70 to 130	0.634	20
AZ22697	Lithium, Total	mg/L	-0.0000729	0.0154	0.20	0.197	0.197	0.198	0.17 to 0.23	98.3	70 to 130	0.0117	20
AZ22697	Lead, Total	mg/L	0.00000845	0.0001474	0.10	0.105	0.106	0.105	0.085 to 0.115	105	70 to 130	0.972	20
AZ22697	Arsenic, Total	mg/L	0.0000224	0.0001474	0.10	0.102	0.103	0.103	0.085 to 0.115	102	70 to 130	1.22	20
AZ22697	Antimony, Total	mg/L	0.000157	0.00066	0.10	0.0945	0.0959	0.0944	0.085 to 0.115	94.5	70 to 130	1.47	20

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

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114
 Issued By: State of Florida, Department of Health
 Expiration: June 30, 2018

Comments:

Batch QC Summary

Customer Account: WMWBARAP

Sample Date: 10/2/19 14:47

Customer ID:

Delivery Date: 10/4/19 10:50

Description: Barry Ash Pond - MW-24H

Laboratory ID Number: AZ22696

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Limit	Prec	Prec Limit
AZ22697	Chloride	mg/L	0.0519	0.50	10.0	9.85	0.129	9.81	9 to 11	98.5	80 to 120	0.00	20
AZ22697	Sulfate	mg/L	-0.499	0.50	20.0	19.5	-0.459	19.6	18 to 22	97.5	80 to 120	0.00	20
AZ22696	Solids, Dissolved	mg/L	2.00	25			432	53.0	40 to 60			0.232	5
AZ22697	Fluoride	mg/L	0.0431	0.05	2.50	2.48	0.0335	2.54	2.25 to 2.75	99.2	80 to 120	0.00	20

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments:

Certificate Of Analysis

Description: Barry Ash Pond Equipment Blank

Location Code: WMWBARAPEB
Collected: 10/2/19 15:05
Customer ID:
Submittal Date: 10/4/19 10:50

Laboratory ID Number: AZ22697

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7		Analyst: RDA			Preparation Method: EPA 1638				
* Boron, Total	10/7/19 13:00	10/8/19 12:57		1.015	Not Detected	mg/L	0.03	0.1	U
* Calcium, Total	10/7/19 13:00	10/8/19 12:57		1.015	Not Detected	mg/L	0.1	0.5	U
* Lithium, Total	10/7/19 13:00	10/8/19 12:57		1.015	Not Detected	mg/L	0.01	0.02	U
Analytical Method: EPA 200.8		Analyst: DLJ			Preparation Method: EPA 1638				
* Antimony, Total	10/7/19 10:35	10/8/19 16:12		1.015	Not Detected	mg/L	0.0008	0.003	U
* Arsenic, Total	10/7/19 10:35	10/8/19 16:12		1.015	Not Detected	mg/L	0.001	0.005	U
* Barium, Total	10/7/19 10:35	10/8/19 16:12		1.015	Not Detected	mg/L	0.002	0.01	U
* Beryllium, Total	10/7/19 10:35	10/8/19 16:12		1.015	Not Detected	mg/L	0.0006	0.003	U
* Cadmium, Total	10/7/19 10:35	10/8/19 16:12		1.015	Not Detected	mg/L	0.0003	0.001	U
* Chromium, Total	10/7/19 10:35	10/8/19 16:12		1.015	Not Detected	mg/L	0.002	0.01	U
* Cobalt, Total	10/7/19 10:35	10/8/19 16:12		1.015	Not Detected	mg/L	0.002	0.005	U
* Lead, Total	10/7/19 10:35	10/8/19 16:12		1.015	Not Detected	mg/L	0.001	0.005	U
* Molybdenum, Total	10/7/19 10:35	10/8/19 16:12		1.015	Not Detected	mg/L	0.002	0.01	U
* Selenium, Total	10/7/19 10:35	10/8/19 16:12		1.015	Not Detected	mg/L	0.002	0.01	U
* Thallium, Total	10/7/19 10:35	10/8/19 16:12		1.015	Not Detected	mg/L	0.0002	0.001	U
Analytical Method: EPA 245.1		Analyst: ABB							
* Mercury, Total by CVAA	10/8/19 11:17	10/10/19 12:36		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: SM 2540C		Analyst: TJW							
* Solids, Dissolved	10/8/19 17:37	10/9/19 16:50		1	Not Detected	mg/L		25	U
Analytical Method: SM4500CI E		Analyst: JCC							
* Chloride	10/4/19 14:23	10/4/19 14:23		1	Not Detected	mg/L	0.50	1	U
Analytical Method: SM4500F G 2017		Analyst: JCC							
* Fluoride	10/7/19 16:30	10/7/19 16:30		1	Not Detected	mg/L	0.05	0.1	U
Analytical Method: SM4500SO4 E		Analyst: JCC							
* Sulfate	10/8/19 17:19	10/8/19 17:19		1	Not Detected	mg/L	0.50	1	U

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

Comments:

Batch QC Summary

Customer Account: WMWBARAPEB
Sample Date: 10/2/19 15:05
Customer ID:
Delivery Date: 10/4/19 10:50

Description: Barry Ash Pond Equipment Blank

Laboratory ID Number: AZ22697

Sample	Analysis	Units	MB		Spike	MS	MSD	Standard	Standard Limit	Rec		Prec Limit	
			MB	Limit						Rec	Limit		
AZ22697	Cadmium, Total	mg/L	-0.0000527	0.0001474	0.10	0.101	0.103	0.101	0.085 to 0.115	101	70 to 130	1.56	20
AZ22697	Arsenic, Total	mg/L	0.0000224	0.0001474	0.10	0.102	0.103	0.103	0.085 to 0.115	102	70 to 130	1.22	20
AZ22697	Antimony, Total	mg/L	0.000157	0.00066	0.10	0.0945	0.0959	0.0944	0.085 to 0.115	94.5	70 to 130	1.47	20
AZ22697	Barium, Total	mg/L	-0.0000218	0.0002	0.10	0.0975	0.108	0.0986	0.085 to 0.115	97.5	70 to 130	10.0	20
AZ22697	Calcium, Total	mg/L	-0.000887	0.1518	5.00	5.13	5.13	5.14	4.25 to 5.75	103	70 to 130	0.122	20
AZ22697	Beryllium, Total	mg/L	0.0000303	0.00088	0.10	0.103	0.0990	0.0963	0.085 to 0.115	103	70 to 130	4.09	20
AZ22697	Cobalt, Total	mg/L	-0.0000086	0.0001474	0.10	0.103	0.102	0.103	0.085 to 0.115	103	70 to 130	0.634	20
AZ22697	Lithium, Total	mg/L	-0.0000729	0.0154	0.20	0.197	0.197	0.198	0.17 to 0.23	98.3	70 to 130	0.0117	20
AZ22697	Lead, Total	mg/L	0.00000845	0.0001474	0.10	0.105	0.106	0.105	0.085 to 0.115	105	70 to 130	0.972	20
AZ22697	Boron, Total	mg/L	0.00216	0.0650254	1.00	0.996	0.986	0.986	0.85 to 1.15	99.6	70 to 130	1.06	20
AZ22697	Mercury, Total by CVAA	mg/L	0.0000226	0.0005	0.004	0.00391	0.00404	0.00409	0.0034 to 0.0046	97.8	70 to 130	3.08	20
AZ22697	Chromium, Total	mg/L	-0.0000237	0.00044	0.10	0.102	0.101	0.102	0.085 to 0.115	102	70 to 130	1.15	20
AZ22697	Thallium, Total	mg/L	0.00000950	0.0001474	0.10	0.105	0.106	0.106	0.085 to 0.115	105	70 to 130	0.918	20
AZ22697	Molybdenum, Total	mg/L	0.0000199	0.0001474	0.10	0.0969	0.0988	0.0977	0.085 to 0.115	96.9	70 to 130	1.93	20
AZ22697	Selenium, Total	mg/L	-0.0000348	0.00066	0.10	0.102	0.102	0.101	0.085 to 0.115	102	70 to 130	0.152	20

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

Comments:

Batch QC Summary

Customer Account: WMWBARAPEB

Sample Date: 10/2/19 15:05

Customer ID:

Delivery Date: 10/4/19 10:50

Description: Barry Ash Pond Equipment Blank

Laboratory ID Number: AZ22697

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Limit	Prec	Prec Limit
AZ22696	Solids, Dissolved	mg/L	2.00	25			432	53.0	40 to 60			0.232	5
AZ22697	Sulfate	mg/L	-0.499	0.50	20.0	19.5	-0.459	19.6	18 to 22	97.5	80 to 120	0.00	20
AZ22697	Chloride	mg/L	0.0519	0.50	10.0	9.85	0.129	9.81	9 to 11	98.5	80 to 120	0.00	20
AZ22697	Fluoride	mg/L	0.0431	0.05	2.50	2.48	0.0335	2.54	2.25 to 2.75	99.2	80 to 120	0.00	20

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

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments:

Definitions

Abbreviation	Description
DF	Dilution Factor
LCS	Lab Control Sample
LFM	Lab Fortified Matrix
MB	Method Blank
MDL	Method Detection Limit; minimum concentration of an analyte that can be determined with 99% confidence that the concentration is greater than zero.
MS	Matrix Spike
MSD	Matrix Spike Duplicate
Prec	Precision (% RPD)
Q	Qualifier; comment used to note deviations or additional information associated with analytical results.
QC	Quality Control
Rec	Recovery of Matrix Spike
RL	Reporting Limit; lowest concentration at which an analyte can be quantitatively measured.
Vio Spec	Violation Specification; regulatory limit which has been exceeded by the sample analyzed.

Qualifier	Description
FA	Field results were reviewed by the Water Field Group.
J	Reported value is an estimate because concentration is less than reporting limit.
U	Compound was analyzed, but not detected.



Chain of Custody
Groundwater
APC General Testing Laboratory

Field Complete
 Lab Complete

Outside Lab

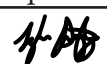

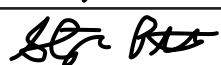
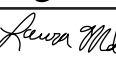
Lab ETA **10/02/2019 13:00**

Requested Complete Date Site Representative Collector	Routine		Results To Requested By Location	Dustin Brooks, Greg Dyer, Lauren Parker	
	Tamala Davis			Lauren Parker	
	TJ Daugherty			Barry Ash Pond	

Bottles	1	Metals	500 mL	3	TDS	500 mL	5	N/A	N/A	7	N/A	N/A
	2	Hg	250 mL	4	Anions	250 mL	6	N/A	N/A	8	N/A	N/A

Comments

Sample #	Date	Time	Bottle Count	Description	Lab Filter	Lab Id
MW-8	9/30/19	13:57	4	Groundwater		AZ22360
MW-10	09/30/2019	15:55	4	Groundwater		AZ22361
MW-12	10/01/2019	09:42	4	Groundwater		AZ22362
MW-16	10/01/2019	11:32	4	Groundwater		AZ22363
MW-2	10/01/2019	13:38	4	Groundwater		AZ22364
MW-4	10/01/2019	15:30	4	Groundwater		AZ22365
MW-15	10/01/2019	17:23	4	Groundwater		AZ22366

Relinquished By	Received By	Date/Time
		10/02/2019 07:17
		10/02/2019 13:30

SmarTroll ID	7586-41445-5-4	All metals and radiological bottles have pH < 2 <input checked="" type="checkbox"/>
Turbidity ID	4677-23342-4-1	
Sample Event	1245	
Cooler Temp	0.7 degrees C	
	Thermometer ID	5408-27568-2-2
	pH Strip ID	7267-39374-6-6



Chain of Custody Groundwater

APC General Testing Laboratory

Field Complete
 Lab Complete

Outside Lab

Lab ETA 10/02/2019 13:00

Requested Complete Date	Routine	Results To	Dustin Brooks, Greg Dyer, Lauren Parker
Site Representative	Tamala Davis	Requested By	Lauren Parker
Collector	Dallas Gentry	Location	Barry Ash Pond

Bottles	1 Metals	500 mL	3 TDS	500 mL	5 N/A	N/A	7 N/A	N/A
	2 Hg	250 mL	4 Anions	250 mL	6 N/A	N/A	8 N/A	N/A

Comments

Sample #	Date	Time	Bottle Count	Description	Lab Filter	Lab Id
MW-7	9/30/19	13:47	4	Groundwater		AZ22367
MW-9	09/30/2019	15:48	4	Groundwater		AZ22368
MW-11	09/30/2019	17:06	4	Groundwater		AZ22369
MW-13	10/01/2019	09:03	4	Groundwater		AZ22370
MW-13 dup	10/01/2019	09:03	4	Sample Duplicate		AZ22371
MW-14	10/01/2019	10:41	4	Groundwater		AZ22372
MW-1	10/01/2019	13:12	4	Groundwater		AZ22373
FB-2	10/01/2019	13:55	4	Field Blank		AZ22374
MW-3	10/01/2019	15:18	4	Groundwater		AZ22375

Relinquished By	Received By	Date/Time
		10/02/2019 07:25
		10/02/2019 13:24

SmarTroll ID	7586-41446-5-5	All metals and radiological bottles have pH < 2 <input checked="" type="checkbox"/>
Turbidity ID	7081-38476-1-1	Cooler Temp
Sample Event	1245	Thermometer ID
		pH Strip ID
		0.7 degrees C
		5408-27568-2-2
		7453-40656-10-8



Chain of Custody Groundwater

APC General Testing Laboratory

Field Complete
 Lab Complete

Outside Lab

Lab ETA 10/02/2019 13:00

Requested Complete Date	Routine	Results To	Dustin Brooks, Greg Dyer, Lauren Parker
Site Representative	Tamala Davis	Requested By	Lauren Parker
Collector	Anthony Goggins	Location	Barry Ash Pond

Bottles	1	Metals	500 mL	3	TDS	500 mL	5	N/A	N/A	7	N/A	N/A
	2	Hg	250 mL	4	Anions	250 mL	6	N/A	N/A	8	N/A	N/A

Comments

Sample #	Date	Time	Bottle Count	Description	Lab Filter	Lab Id
MW-15v	10/1/19	10:11	4	Groundwater		AZ22353
FB-3	10/01/2019	10:30	4	Field Blank		AZ22354
MW-22H	10/01/2019	11:10	4	Groundwater		AZ22355
MW-20H	10/01/2019	13:05	4	Groundwater		AZ22356
MW-19H	10/01/2019	13:57	4	Groundwater		AZ22357
MW-18H	10/01/2019	14:57	4	Groundwater		AZ22358
MW-23H	10/01/2019	15:55	4	Groundwater		AZ22359

Relinquished By	Received By	Date/Time
		10/02/2019 08:17
		10/02/2019 13:22

SmarTroll ID	7586-41442-5-1	All metals and radiological bottles have pH < 2 <input checked="" type="checkbox"/> Cooler Temp 0.2 degrees C Thermometer ID 5408-27568-2-2 pH Strip ID 7267-39374-6-6
Turbidity ID	5160-26211-1-1	
Sample Event	1245	



Chain of Custody Groundwater

APC General Testing Laboratory

Field Complete

Outside Lab

Lab Complete

Lab ETA **10/02/2019 13:00**

Requested Complete Date Site Representative Collector	Routine	Results To Requested By Location	Dustin Brooks, Greg Dyer, Lauren Parker
	Tamala Davis		Lauren Parker
	Nick Pitts		Barry Ash Pond

Bottles	1	Metals	500 mL	3	TDS	500 mL	5	N/A	N/A	7	N/A	N/A
	2	Hg	250 mL	4	Anions	250 mL	6	N/A	N/A	8	N/A	N/A

Comments

Sample #	Date	Time	Bottle Count	Description	Lab Filter	Lab Id
MW-7V	10/1/19	10:13	4	Groundwater		AZ22376
MW-8V	10/01/2019	11:30	4	Groundwater		AZ22377
MW-10V	10/01/2019	12:55	4	Groundwater		AZ22378
MW-10V Dup	10/01/2019	12:55	4	Sample Duplicate		AZ22379
MW-5	10/01/2019	14:45	4	Groundwater		AZ22380
MW-6	10/01/2019	16:10	4	Groundwater		AZ22381

Relinquished By 	Received By 	Date/Time 10/02/2019 13:17

SmarTroll ID	7586-41444-5-3
Turbidity ID	3901-20010-2-2
Sample Event	1245

All metals and radiological bottles have pH < 2

Cooler Temp	0.2 degrees C
Thermometer ID	5408-27568-2-2
pH Strip ID	7453-40656-10-8



Chain of Custody

Groundwater

APC General Testing Laboratory

Field Complete
 Lab Complete

Outside Lab

Lab ETA

Requested Complete Date	Routine		Results To	Dustin Brooks, Greg Dyer, Lauren Parker		
	Site Representative			Requested By	Lauren Parker	
	Collector				Location	
	TJ Daugherty		Barry Ash Pond			

Bottles	1	Metals	500 mL	3	TDS	500 mL	5	N/A	N/A	7	N/A	N/A
	2	Hg	250 mL	4	Anions	250 mL	6	N/A	N/A	8	N/A	N/A

Comments Dissolved set collected at MW-17H. Samples relinquished to shipping lab at time 1345 on 10/3/19. Project manager out of office. TJD Adding an "S" to MW-17H DIS for EDD. LBM 11/8/19

Sample #	Date	Time	Bottle Count	Description	Lab Filter	Lab Id
MW-17H	10/2/19	11:03	4	Groundwater		AZ22692
MW-17H Diss	10/02/2019	11:03	4	Groundwater		AZ22693
MW-12V	10/02/2019	12:37	4	Groundwater		AZ22694
MW-12V Dup	10/02/2019	12:37	4	Sample Duplicate		AZ22695
MW-24H	10/02/2019	14:47	4	Groundwater		AZ22696
EB-1	10/02/2019	15:05	4	Equipment Blank		AZ22697

Relinquished By	Received By	Date/Time
	Laura Midkiff <small>Digitally signed by Laura Midkiff, DN: cn=Laura Midkiff, o=Alabama Power Company, ou=Environmental Affairs, email=lmidkiff@southernco.com, c=US Date: 2019.10.04 08:50:21 -0500</small>	10/04/2019 08:50

SmarTroll ID	7586-41445-5-4	All metals and radiological bottles have pH < 2 <input checked="" type="checkbox"/>
Turbidity ID	4677-23342-4-1	
Sample Event	1245	
	Cooler Temp	1.3 degrees C
	Thermometer ID	5408-27568-2-2
	pH Strip ID	7453-40656-10-8



Chain of Custody Groundwater

APC General Testing Laboratory

Field Complete

Outside Lab

Lab Complete

Lab ETA **10/03/2019 12:00**

Requested Complete Date	Routine	Results To	Dustin Brooks,Greg Dyer,Lauren Parker
Site Representative	Tamala Davis	Requested By	Lauren Parker
Collector	Anthony Goggins	Location	Barry Ash Pond

Bottles	1	Metals	500 mL	3	TDS	500 mL	5	N/A	N/A	7	N/A	N/A
	2	Hg	250 mL	4	Anions	250 mL	6	N/A	N/A	8	N/A	N/A

Comments: Relinquished to secured shipping lab 10032019 1400 Project Manager out of office. AWG

Sample #	Date	Time	Bottle Count	Description	Lab Filter	Lab Id
MW-5V	10/2/19	13:55	4	Groundwater		AZ22691

Relinquished By	Received By	Date/Time
	Laura Midkiff <small>Digitally signed by Laura Midkiff DN: cn=Laura Midkiff, o=Alabama Power Company, ou=Environmental Affairs, email=lmidkiff@southernco.com, c=US Date: 2019.10.04 08:56:00 -05'00'</small>	10/04/2019 08:56

SmarTroll ID	7586-41442-5-1	All metals and radiological bottles have pH < 2 <input checked="" type="checkbox"/>
Turbidity ID	5160-26211-1-1	
Sample Event	1245	
Cooler Temp	0.7 degrees C	
Thermometer ID	5408-27568-2-2	
pH Strip ID	7452-40646-4-2	



Chain of Custody

Groundwater

APC General Testing Laboratory

Field Complete
 Lab Complete

Outside Lab

Lab ETA

Requested Complete Date Site Representative Collector	Routine	Results To	Dustin Brooks, Greg Dyer, Lauren Parker
	Tamala Davis	Requested By	Lauren Parker
	Dallas Gentry	Location	Barry Ash Pond

Bottles	1	Metals	500 mL	3	TDS	500 mL	5	N/A	N/A	7	N/A	N/A
	2	Hg	250 mL	4	Anions	250 mL	6	N/A	N/A	8	N/A	N/A

Comments: Samples relinquished to shipping Lab at 1430 on 10/3/19. Project manager out of office. DFG

Sample #	Date	Time	Bottle Count	Description	Lab Filter	Lab Id
MW-1V	10/2/19	14:50	4	Groundwater		AZ22689
FB-1	10/02/2019	15:00	4	Field Blank		AZ22690

Relinquished By	Received By	Date/Time
	Laura Midkiff <small>Digitally signed by Laura Midkiff, DN: cn=Laura Midkiff, ou=Alabama Power Company, ou=Environmental Affairs, email=lmidkiff@southernco.com, c=US Date: 2019.10.04 08:57:29 -05'00'</small>	10/04/2019 08:57

SmarTroll ID	7586-41446-5-5	All metals and radiological bottles have pH < 2 <input checked="" type="checkbox"/>
Turbidity ID	7081-38476-1-1	
Sample Event	1245	
Cooler Temp	0.2 degrees C	
Thermometer ID	5408-27568-2-2	
pH Strip ID	7452-40646-4-2	



Chain of Custody Groundwater

APC General Testing Laboratory

Field Complete
 Lab Complete

Outside Lab

Lab ETA 10/02/2019 13:00

Requested Complete Date	Routine	Results To	Dustin Brooks, Greg Dyer, Lauren Parker
Site Representative	Tamala Davis	Requested By	Lauren Parker
Collector	TJ Daugherty	Location	Barry Ash Pond

Bottles	1 Radium	1 L	3 N/A	N/A	5 N/A	N/A	7 N/A	N/A
	2 N/A	N/A	4 N/A	N/A	6 N/A	N/A	8 N/A	N/A

Comments

Sample #	Date	Time	Bottle Count	Description	Lab Filter	Lab Id
MW-8	9/30/19	13:57	1	Groundwater		AZ22389
MW-10	09/30/2019	15:55	1	Groundwater		AZ22390
MW-12	10/01/2019	09:42	1	Groundwater		AZ22391
MW-16	10/01/2019	11:32	1	Groundwater		AZ22392
MW-2	10/01/2019	13:38	1	Groundwater		AZ22393
MW-4	10/01/2019	15:30	1	Groundwater		AZ22394
MW-15	10/01/2019	17:23	1	Groundwater		AZ22395

Relinquished By	Received By	Date/Time
<i>HAB</i>	<i>BR</i>	10/02/2019 07:17
<i>Greg Dyer</i>	<i>Lauren Parker</i>	10/02/2019 13:27

SmarTroll ID 7586-41445-5-4 Turbidity ID 4677-23342-4-1 Sample Event 1245	All metals and radiological bottles have pH < 2 <input checked="" type="checkbox"/> Cooler Temp N/A Thermometer ID N/A pH Strip ID 7267-39374-6-6
---	--



Chain of Custody Groundwater

APC General Testing Laboratory

Field Complete
 Lab Complete

Outside Lab

Lab ETA 10/02/2019 13:00

Requested Complete Date	Routine	Results To	Dustin Brooks, Greg Dyer, Lauren Parker
Site Representative	Tamala Davis	Requested By	Lauren Parker
Collector	Dallas Gentry	Location	Barry Ash Pond

Bottles	1 Radium	1 L	3 N/A	N/A	5 N/A	N/A	7 N/A	N/A
	2 N/A	N/A	4 N/A	N/A	6 N/A	N/A	8 N/A	N/A

Comments

Sample #	Date	Time	Bottle Count	Description	Lab Filter	Lab Id
MW-7	9/30/19	13:47	1	Groundwater		AZ22396
MW-9	09/30/2019	15:48	1	Groundwater		AZ22397
MW-11	09/30/2019	17:06	1	Groundwater		AZ22398
MW-13	10/01/2019	09:03	1	Groundwater		AZ22399
MW-13 dup	10/01/2019	09:03	1	Sample Duplicate		AZ22400
MW-14	10/01/2019	10:41	1	Groundwater		AZ22401
MW-1	10/01/2019	13:12	1	Groundwater		AZ22402
FB-2	10/01/2019	13:55	1	Field Blank		AZ22403
MW-3	10/01/2019	15:18	1	Groundwater		AZ22404

Relinquished By	Received By	Date/Time
<i>Dallas Gentry</i>	<i>[Signature]</i>	10/02/2019 07:24
<i>[Signature]</i>	<i>Laura M. Dyer</i>	10/02/2019 13:25

SmarTroll ID	7586-41446-5-5	All metals and radiological bottles have pH < 2 <input checked="" type="checkbox"/>	
Turbidity ID	7081-38476-1-1		
Sample Event	1245		
		Cooler Temp	N/A
		Thermometer ID	N/A
		pH Strip ID	7453-40656-10-8



Chain of Custody

Groundwater

APC General Testing Laboratory

Field Complete
 Lab Complete

Outside Lab

Lab ETA 10/02/2019 12:00

Requested Complete Date	Routine	Results To	Dustin Brooks, Greg Dyer, Lauren Parker
Site Representative	Tamala Davis	Requested By	Lauren Parker
Collector	Anthony Goggins	Location	Barry Ash Pond

Bottles	1 Radium	1 L	3 N/A	N/A	5 N/A	N/A	7 N/A	N/A
	2 N/A	N/A	4 N/A	N/A	6 N/A	N/A	8 N/A	N/A

Comments	Radium Duplicate collected at MW-15V
----------	--------------------------------------

Sample #	Date	Time	Bottle Count	Description	Lab Filter	Lab Id
MW-15v	10/1/19	10:11	3	Groundwater		AZ22382
FB-3	10/01/2019	10:30	1	Field Blank		AZ22383
MW-22H	10/01/2019	11:10	1	Groundwater		AZ22384
MW-20H	10/01/2019	13:05	1	Groundwater		AZ22385
MW-19H	10/01/2019	13:57	1	Groundwater		AZ22386
MW-18H	10/01/2019	14:57	1	Groundwater		AZ22387
MW-23H	10/01/2019	15:55	1	Groundwater		AZ22388

Relinquished By	Received By	Date/Time
		10/02/2019 08:18
		10/02/2019 13:21

SmarTroll ID	7586-41442-5-1	All metals and radiological bottles have pH < 2 <input checked="" type="checkbox"/>
Turbidity ID	5160-26211-1-1	Cooler Temp
Sample Event	1245	Thermometer ID
		pH Strip ID
		7267-39374-6-6



Chain of Custody Groundwater APC General Testing Laboratory

Field Complete
 Lab Complete

Outside Lab

Lab ETA 10/02/2019 13:00

Requested Complete Date	Routine	Results To	Dustin Brooks, Greg Dyer, Lauren Parker
Site Representative	Tamala Davis	Requested By	Lauren Parker
Collector	Nick Pitts	Location	Barry Ash Pond

Bottles	1	Radium	1 L	3	N/A	N/A	5	N/A	N/A	7	N/A	N/A
	2	N/A	N/A	4	N/A	N/A	6	N/A	N/A	8	N/A	N/A

Comments

Sample #	Date	Time	Bottle Count	Description	Lab Filter	Lab Id
MW-7V	10/1/19	10:13	1	Groundwater		AZ22405
MW-8V	10/01/2019	11:30	1	Groundwater		AZ22406
MW-10V	10/01/2019	12:55	1	Groundwater		AZ22407
MW-10V Dup	10/01/2019	12:55	1	Sample Duplicate		AZ22408
MW-5	10/01/2019	14:45	1	Groundwater		AZ22409
MW-6	10/01/2019	16:10	1	Groundwater		AZ22410

Relinquished By	Received By	Date/Time
		10/02/2019 13:18

SmarTroll ID	7586-41444-5-3	All metals and radiological bottles have pH < 2	<input checked="" type="checkbox"/>
Turbidity ID	3901-20010-2-2	Cooler Temp	N/A
Sample Event	1245	Thermometer ID	N/A
		pH Strip ID	7453-40656-10-8



Chain of Custody Groundwater APC General Testing Laboratory

Field Complete
 Lab Complete

Outside Lab

Lab ETA

Requested Complete Date Site Representative Collector	Routine	Results To Requested By Location	Dustin Brooks,Greg Dyer,Lauren Parker
	Tamala Davis		Lauren Parker
	TJ Daugherty		Barry Ash Pond

1	Radium	1 L	3	N/A	N/A	5	N/A	N/A	7	N/A	N/A
2	N/A	N/A	4	N/A	N/A	6	N/A	N/A	8	N/A	N/A

Comments: Dissolved set collected at MW-17H. Samples relinquished to shipping lab at time 1345 on 10/3/19. Project manager out of office. TJD

Sample #	Date	Time	Bottle Count	Description	Lab Filter	Lab Id
MW-17H	10/2/19	11:03	1	Groundwater		AZ22701
MW-17H Dis	10/02/2019	11:03	1	Groundwater		AZ22702
MW-12V	10/02/2019	12:37	1	Groundwater		AZ22703
MW-12V Dup	10/02/2019	12:37	1	Sample Duplicate		AZ22704
MW-24H	10/02/2019	14:47	1	Groundwater		AZ22705
EB-1	10/02/2019	15:05	1	Equipment Blank		AZ22706

Relinquished By	Received By	Date/Time
	Laura Midkiff <small>Digitally signed by Laura Midkiff, DN: cn=Laura Midkiff, ou=Alabama Power Company, ou=Environmental Affairs, email=lmidkiff@southernco.com, c=US Date: 2019.10.04 08:53:42 -05'00'</small>	10/04/2019 08:53

SmarTroll ID	7586-41445-5-4	All metals and radiological bottles have pH < 2 <input checked="" type="checkbox"/>	
Turbidity ID	4677-23342-4-1		
Sample Event	1245		
		Cooler Temp	N/A
		Thermometer ID	N/A
		pH Strip ID	7453-40656-10-8



Chain of Custody Groundwater

APC General Testing Laboratory

Field Complete
 Lab Complete

Outside Lab

Lab ETA **10/03/2019 12:00**

Requested Complete Date	Routine		Results To	Dustin Brooks, Greg Dyer, Lauren Parker	
Site Representative	Tamala Davis		Requested By	Lauren Parker	
Collector	Anthony Goggins		Location	Barry Ash Pond	

Bottles	1	Radium	1 L	3	N/A	N/A	5	N/A	N/A	7	N/A	N/A
	2	N/A	N/A	4	N/A	N/A	6	N/A	N/A	8	N/A	N/A

Comments: Relinquished to secured shipping lab 10032019 1400 Project Manager out of office. AWG Radium Duplicate collected at MW-5V

Sample #	Date	Time	Bottle Count	Description	Lab Filter	Lab Id
MW-5V	10/2/19	13:55	3	Groundwater		AZ22700

Relinquished By 	Received By Laura Midkiff <small>Digitally signed by Laura Midkiff, DN: cn=Laura Midkiff, ou=Alabama Power Company, ou=Environmental Affairs, email=lmidkiff@southernco.com, c=US Date: 2019.10.04 08:55:02 -05'00'</small>	Date/Time 10/04/2019 08:55

SmarTroll ID	7586-41442-5-1	All metals and radiological bottles have pH < 2 <input checked="" type="checkbox"/>
Turbidity ID	5160-26211-1-1	
Sample Event	1245	
Cooler Temp	N/A	
Thermometer ID	N/A	
pH Strip ID	7452-40646-4-2	



Chain of Custody Groundwater APC General Testing Laboratory


Field Complete
 Lab Complete

Outside Lab

Lab ETA

Requested Complete Date Site Representative Collector	Routine	Results To Requested By Location	Dustin Brooks, Greg Dyer, Lauren Parker																								
	Tamala Davis		Lauren Parker																								
	Dallas Gentry		Barry Ash Pond																								
Bottles <table border="1" style="width: 100%;"> <tr> <td>1</td><td>Radium</td><td>1 L</td><td>3</td><td>N/A</td><td>N/A</td><td>5</td><td>N/A</td><td>N/A</td><td>7</td><td>N/A</td><td>N/A</td></tr> <tr> <td>2</td><td>N/A</td><td>N/A</td><td>4</td><td>N/A</td><td>N/A</td><td>6</td><td>N/A</td><td>N/A</td><td>8</td><td>N/A</td><td>N/A</td></tr> </table>				1	Radium	1 L	3	N/A	N/A	5	N/A	N/A	7	N/A	N/A	2	N/A	N/A	4	N/A	N/A	6	N/A	N/A	8	N/A	N/A
1	Radium	1 L	3	N/A	N/A	5	N/A	N/A	7	N/A	N/A																
2	N/A	N/A	4	N/A	N/A	6	N/A	N/A	8	N/A	N/A																
Comments: Samples relinquished to shipping Lab at 1430 on 10/3/19. Project manager out of office.																											

Sample #	Date	Time	Bottle Count	Description	Lab Filter	Lab Id
MW-1V	10/2/19	14:50	1	Groundwater		AZ22698
FB-1	10/02/2019	15:00	1	Field Blank		AZ22699

Relinquished By	Received By	Date/Time
	Laura Midkiff <small>Digitally signed by Laura Midkiff, DN: cn=Laura Midkiff, o=Alabama Power Company, ou=Environmental Affairs, email=lmidkiff@southernco.com, c=US Date: 2019.10.04 08:58:36 -05'00'</small>	10/04/2019 08:58

SmarTroll ID	7586-41446-5-5
Turbidity ID	7081-38476-1-1
Sample Event	1245

All metals and radiological bottles have pH < 2

Cooler Temp	N/A
Thermometer ID	N/A
pH Strip ID	7452-40646-4-2

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

Analytical Report



Sample Group : WMWBARAP_1251

Project/Site : Barry Ash Pond
Bucks, AL 36512

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

Attention : Dustin Brooks, Greg Dyer, & Lauren Parker

Released By : Laura Midkiff
lbmidkif@southernco.com
(205) 664-6197

December 30, 2019

Dear Dustin Brooks,

Enclosed are the analytical results for sample(s) received by the laboratory on December 03, 2019. All results reported herein conform to the laboratory's most current Quality Assurance Manual. Results marked with an asterisk conform to the most current applicable TNI/NELAC requirements. Exceptions will be noted in the body of the report.

Laboratory certification ID: E571114
Issued By: State of Florida, Department of Health
Expiration: June 30, 2020

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

Sincerely,

Quality Control:

Laura Midkiff

Digitally signed by Laura Midkiff
DN: cn=Laura Midkiff, o=Alabama Power
Company, ou=Environmental Affairs,
email=lmidkiff@southernco.com, c=US
Date: 2019.12.30 10:02:33 -06'00'

Supervision:

T. Durant
Maske

Digitally signed by T. Durant Maske
DN: cn=T. Durant Maske, o=Alabama
Power Company, ou=Environmental
Affairs, email=tdmaske@southernco.com,
c=US
Date: 2019.12.31 09:16:50 -06'00'



REPORT OF LABORATORY ANALYSIS

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



Metals ICP

Barry Ash Pond

WMWBARAP_1251

1. This report consists of all MWs and corresponding Lab IDs listed on the Chain of Custody.
2. Refer to comments on Chain of Custody for information regarding sample receipt.
3. All standards and solutions are NIST/ISO/IEC/Guide 34 traceable and were used within their recommended shelf life.

<u>Sample ID</u>	<u>Batch ID</u>	<u>Project ID</u>
AZ26120	662136	WMWBARAP_1251
AZ26121	662136	WMWBARAP_1251
AZ26122	662136	WMWBARAP_1251
AZ26123	662136	WMWBARAP_1251

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

General Quality Control Procedures:

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

Matrix Specific Quality Control Procedures:

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

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

Certificate Of Analysis

Description: Barry Ash Pond - MW-7V

Location Code: WMWBARAP
Collected: 12/2/19 15:02
Customer ID:
Submittal Date: 12/3/19 15:55

Laboratory ID Number: AZ26120

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7		Analyst: RDA			Preparation Method: EPA 1638				
* Lithium, Total	12/4/19 07:50	12/4/19 11:34		1.015	Not Detected	mg/L	0.01	0.02	U
Analytical Method: Field Measurements		Analyst: TJD							
Conductivity	12/2/19 14:59	12/2/19 14:59			318.29	uS/cm			FA
pH	12/2/19 14:59	12/2/19 14:59			6.56	SU			FA
Temperature	12/2/19 14:59	12/2/19 14:59			20.69	C			FA
Turbidity	12/2/19 14:59	12/2/19 14:59			1.36	NTU			FA

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

Comments:

Batch QC Summary

Customer Account: WMWBARAP
Sample Date: 12/2/19 15:02
Customer ID:
Delivery Date: 12/3/19 15:55

Description: Barry Ash Pond - MW-7V

Laboratory ID Number: AZ26120

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
AZ26123	Lithium, Total	mg/L	-0.00000111	0.0154	0.20	0.194	0.201	0.198	0.17 to 0.23	97.2	70 to 130	3.24	20

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

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

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

Comments:

Certificate Of Analysis

Description: Barry Ash Pond - MW-7V DUP

Location Code: WMWBARAP
Collected: 12/2/19 15:02
Customer ID:
Submittal Date: 12/3/19 15:55

Laboratory ID Number: AZ26121

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7		Analyst: RDA			Preparation Method: EPA 1638				
* Lithium, Total	12/4/19 07:50	12/4/19 11:37		1.015	Not Detected	mg/L	0.01	0.02	U
Analytical Method: Field Measurements		Analyst: TJD							
Conductivity	12/2/19 14:59	12/2/19 14:59			318.29	uS/cm			FA
pH	12/2/19 14:59	12/2/19 14:59			6.56	SU			FA
Temperature	12/2/19 14:59	12/2/19 14:59			20.69	C			FA
Turbidity	12/2/19 14:59	12/2/19 14:59			1.36	NTU			FA

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

Comments:

Batch QC Summary

Customer Account: WMWBARAP
Sample Date: 12/2/19 15:02
Customer ID:
Delivery Date: 12/3/19 15:55

Description: Barry Ash Pond - MW-7V DUP

Laboratory ID Number: AZ26121

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
AZ26123	Lithium, Total	mg/L	-0.00000111	0.0154	0.20	0.194	0.201	0.198	0.17 to 0.23	97.2	70 to 130	3.24	20

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

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

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

Comments:

Certificate Of Analysis

Description: Barry Ash Pond Field Blank

Location Code: WMWBARAPFB

Collected: 12/2/19 15:15

Customer ID:

Submittal Date: 12/3/19 15:55

Laboratory ID Number: AZ26122

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
<i>Analytical Method: EPA 200.7</i>	<i>Analyst: RDA</i>		<i>Preparation Method: EPA 1638</i>						
* Lithium, Total	12/4/19 07:50	12/4/19 11:40		1.015	Not Detected	mg/L	0.01	0.02	U

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

Comments:

Batch QC Summary

Customer Account: WMWBARAPFB
Sample Date: 12/2/19 15:15
Customer ID:
Delivery Date: 12/3/19 15:55

Description: Barry Ash Pond Field Blank

Laboratory ID Number: AZ26122

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
AZ26123	Lithium, Total	mg/L	-0.00000111	0.0154	0.20	0.194	0.201	0.198	0.17 to 0.23	97.2	70 to 130	3.24	20

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

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

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

Comments:

Certificate Of Analysis

Description: Barry Ash Pond Equipment Blank

Location Code: WMWBARAPEB

Collected: 12/2/19 15:20

Customer ID:

Submittal Date: 12/3/19 15:55

Laboratory ID Number: AZ26123

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
<i>Analytical Method: EPA 200.7</i>		<i>Analyst: RDA</i>			<i>Preparation Method: EPA 1638</i>				
* Lithium, Total	12/4/19 07:50	12/4/19 11:43		1.015	Not Detected	mg/L	0.01	0.02	U

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

Comments:

Batch QC Summary

Customer Account: WMWBARAPEB
Sample Date: 12/2/19 15:20
Customer ID:
Delivery Date: 12/3/19 15:55

Description: Barry Ash Pond Equipment Blank

Laboratory ID Number: AZ26123

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
AZ26123	Lithium, Total	mg/L	-0.00000111	0.0154	0.20	0.194	0.201	0.198	0.17 to 0.23	97.2	70 to 130	3.24	20

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

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

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

Comments:

Definitions

Abbreviation	Description
DF	Dilution Factor
LCS	Lab Control Sample
LFM	Lab Fortified Matrix
MB	Method Blank
MDL	Method Detection Limit; minimum concentration of an analyte that can be determined with 99% confidence that the concentration is greater than zero.
MS	Matrix Spike
MSD	Matrix Spike Duplicate
Prec	Precision (% RPD)
Q	Qualifier; comment used to note deviations or additional information associated with analytical results.
QC	Quality Control
Rec	Recovery of Matrix Spike
RL	Reporting Limit; lowest concentration at which an analyte can be quantitatively measured.
Vio Spec	Violation Specification; regulatory limit which has been exceeded by the sample analyzed.

Qualifier	Description
FA	Field results were reviewed by the Water Field Group.
U	Compound was analyzed, but not detected.



Chain of Custody Groundwater

APC General Testing Laboratory

Field Complete
 Lab Complete

Outside Lab

Lab ETA 12/03/2019 15:45

Requested Complete Date	Routine	Results To	Dustin Brooks, Greg Dyer, Lauren Parker
Site Representative	Tamala Davis	Requested By	Lauren Parker
Collector	TJ Daugherty	Location	Barry Ash Pond

Bottles	1	Metals	500 mL	3	N/A	N/A	5	N/A	N/A	7	N/A	N/A
	2	N/A	N/A	4	N/A	N/A	6	N/A	N/A	8	N/A	N/A

Comments

Sample #	Date	Time	Bottle Count	Description	Lab Filter	Lab Id
MW-7V	12/2/19	15:02	1	Groundwater		AZ26120
MW-7V Dup	12/02/2019	15:02	1	Sample Duplicate		AZ26121
FB-1	12/02/2019	15:15	1	Field Blank		AZ26122
EB-1	12/02/2019	15:20	1	Equipment Blank		AZ26123

Relinquished By	Received By	Date/Time
		12/03/2019 15:40

SmarTroll ID	7586-41445-5-4
Turbidity ID	4677-23342-4-1
Sample Event	1251

All metals and radiological bottles have pH < 2

Cooler Temp	N/A
Thermometer ID	N/A
pH Strip ID	7453-40656-10-8

ANALYTICAL REPORT

Eurofins TestAmerica, Pensacola
3355 McLemore Drive
Pensacola, FL 32514
Tel: (850)474-1001

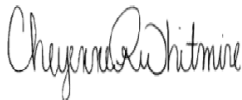
Laboratory Job ID: 400-177664-1

Laboratory Sample Delivery Group: Barry Ash Pond 1245
Client Project/Site: CCR Plant Barry

For:

Alabama Power General Test Laboratory
744 County Rd 87
GSC #8
Calera, Alabama 35040

Attn: Laura Midkiff



Authorized for release by:
11/7/2019 6:20:11 PM

Cheyenne Whitmire, Project Manager II
(850)471-6222
cheyenne.whitmire@testamericainc.com

LINKS

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The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.



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Case Narrative

Client: Alabama Power General Test Laboratory
Project/Site: CCR Plant Barry

Job ID: 400-177664-1
SDG: Barry Ash Pond 1245

Job ID: 400-177664-1

Laboratory: Eurofins TestAmerica, Pensacola

Narrative

Job Narrative 400-177664-1

RAD

Method 9315: Radium-226 Prep Batch 160-445927. Any minimum detectable concentration (MDC), critical value (DLC), or Safe Drinking Water Act detection limit (SDWA DL) is sample-specific unless otherwise stated elsewhere in this narrative. Radiochemistry sample results are reported with the count date/time applied as the Activity Reference Date. AZ22401 MW-14 (400-177664-20), AZ22402 MW-1 (400-177664-21), AZ22403 FB-2 (400-177664-22), AZ22404 MW-3 (400-177664-23), AZ22405 MW-7V (400-177664-24), AZ22406 MW-8V (400-177664-25), AZ22407 MW-10V (400-177664-26), AZ22408 MW-10V DUP (400-177664-27), AZ22409 MW-5 (400-177664-28), AZ22410 MW-6 (400-177664-29), AZ22698 MW-1V (400-177664-30), AZ22699 FB-1 (400-177664-31), AZ22700 MW-5V (400-177664-32), AZ22700 MW-5V (400-177664-32[DUP]), AZ22701 MW-17H (400-177664-33), AZ22702 MW-17H DIS (400-177664-34), AZ22703 MW-12V (400-177664-35), AZ22704 MW-12V DUP (400-177664-36), AZ22705 MW-24H (400-177664-37), AZ22706 EB-1 (400-177664-38), (LCS 160-445927/1-A) and (MB 160-445927/22-A)

Method 9315: Radium-226 Prep Batch 160-445915. Any minimum detectable concentration (MDC), critical value (DLC), or Safe Drinking Water Act detection limit (SDWA DL) is sample-specific unless otherwise stated elsewhere in this narrative. Radiochemistry sample results are reported with the count date/time applied as the Activity Reference Date. AZ22382 MW-15V (400-177664-1), AZ22382 MW-15V (400-177664-1[DUP]), AZ22383 FB-3 (400-177664-2), AZ22384 MW-22H (400-177664-3), AZ22385 MW-20H (400-177664-4), AZ22386 MW-19H (400-177664-5), AZ22387 MW-18H (400-177664-6), AZ22388 MW-23H (400-177664-7), AZ22389 MW-8 (400-177664-8), AZ22390 MW-10 (400-177664-9), AZ22391 MW-12 (400-177664-10), AZ22392 MW-16 (400-177664-11), AZ22393 MW-2 (400-177664-12), AZ22394 MW-4 (400-177664-13), AZ22395 MW-15 (400-177664-14), AZ22396 MW-7 (400-177664-15), AZ22397 MW-9 (400-177664-16), AZ22398 MW-11 (400-177664-17), AZ22399 MW-13 (400-177664-18), AZ22400 MW-13 DUP (400-177664-19), (LCS 160-445915/1-A) and (MB 160-445915/22-A)

Method 9320: Ra-228 Prep Batch 160-445917. Any minimum detectable concentration (MDC), critical value (DLC), or Safe Drinking Water Act detection limit (SDWA DL) is sample-specific unless otherwise stated elsewhere in this narrative. Radiochemistry sample results are reported with the count date/time applied as the Activity Reference Date. AZ22382 MW-15V (400-177664-1), AZ22382 MW-15V (400-177664-1[DUP]), AZ22383 FB-3 (400-177664-2), AZ22384 MW-22H (400-177664-3), AZ22385 MW-20H (400-177664-4), AZ22386 MW-19H (400-177664-5), AZ22387 MW-18H (400-177664-6), AZ22388 MW-23H (400-177664-7), AZ22389 MW-8 (400-177664-8), AZ22390 MW-10 (400-177664-9), AZ22391 MW-12 (400-177664-10), AZ22392 MW-16 (400-177664-11), AZ22393 MW-2 (400-177664-12), AZ22394 MW-4 (400-177664-13), AZ22395 MW-15 (400-177664-14), AZ22396 MW-7 (400-177664-15), AZ22397 MW-9 (400-177664-16), AZ22398 MW-11 (400-177664-17), AZ22399 MW-13 (400-177664-18), AZ22400 MW-13 DUP (400-177664-19), (LCS 160-445917/1-A) and (MB 160-445917/22-A)

Method 9320: Ra-228 Prep Batch 160-445928. Any minimum detectable concentration (MDC), critical value (DLC), or Safe Drinking Water Act detection limit (SDWA DL) is sample-specific unless otherwise stated elsewhere in this narrative. Radiochemistry sample results are reported with the count date/time applied as the Activity Reference Date. AZ22401 MW-14 (400-177664-20), AZ22402 MW-1 (400-177664-21), AZ22403 FB-2 (400-177664-22), AZ22404 MW-3 (400-177664-23), AZ22405 MW-7V (400-177664-24), AZ22406 MW-8V (400-177664-25), AZ22407 MW-10V (400-177664-26), AZ22408 MW-10V DUP (400-177664-27), AZ22409 MW-5 (400-177664-28), AZ22410 MW-6 (400-177664-29), AZ22698 MW-1V (400-177664-30), AZ22699 FB-1 (400-177664-31), AZ22700 MW-5V (400-177664-32), AZ22700 MW-5V (400-177664-32[DUP]), AZ22701 MW-17H (400-177664-33), AZ22702 MW-17H DIS (400-177664-34), AZ22703 MW-12V (400-177664-35), AZ22704 MW-12V DUP (400-177664-36), AZ22705 MW-24H (400-177664-37), AZ22706 EB-1 (400-177664-38), (LCS 160-445928/1-A) and (MB 160-445928/22-A)

Method PrecSep_0: Radium 228 Prep Batch 160-445917. The following samples were prepared at a reduced aliquot due to insufficient volume: AZ22382 MW-15V (400-177664-1), AZ22382 MW-15V (400-177664-1[DUP]), AZ22383 FB-3 (400-177664-2), AZ22384 MW-22H (400-177664-3), AZ22385 MW-20H (400-177664-4), AZ22386 MW-19H (400-177664-5), AZ22387 MW-18H (400-177664-6), AZ22388 MW-23H (400-177664-7), AZ22389 MW-8 (400-177664-8), AZ22390 MW-10 (400-177664-9), AZ22391 MW-12 (400-177664-10), AZ22392 MW-16 (400-177664-11), AZ22393 MW-2 (400-177664-12), AZ22394 MW-4 (400-177664-13), AZ22395 MW-15 (400-177664-14), AZ22396 MW-7 (400-177664-15), AZ22397 MW-9 (400-177664-16), AZ22398 MW-11 (400-177664-17), AZ22399 MW-13 (400-177664-18) and AZ22400 MW-13 DUP (400-177664-19). Samples 400-177664-A-3, 400-177664-A-4, 400-177664-A-5, 400-177664-A-9, 400-177664-A-10, 400-177664-A-14, 400-177664-A-17 and 400-177664-A-19 had yellow discoloration.

Method PrecSep_0: Radium 228 Prep Batch 160-445928. The following samples were prepared at a reduced aliquot due to insufficient volume: AZ22401 MW-14 (400-177664-20), AZ22402 MW-1 (400-177664-21), AZ22403 FB-2 (400-177664-22), AZ22404 MW-3

Case Narrative

Client: Alabama Power General Test Laboratory
Project/Site: CCR Plant Barry

Job ID: 400-177664-1
SDG: Barry Ash Pond 1245

Job ID: 400-177664-1 (Continued)

Laboratory: Eurofins TestAmerica, Pensacola (Continued)

(400-177664-23), AZ22405 MW-7V (400-177664-24), AZ22406 MW-8V (400-177664-25), AZ22407 MW-10V (400-177664-26), AZ22408 MW-10V DUP (400-177664-27), AZ22409 MW-5 (400-177664-28), AZ22410 MW-6 (400-177664-29), AZ22698 MW-1V (400-177664-30), AZ22699 FB-1 (400-177664-31), AZ22700 MW-5V (400-177664-32), AZ22700 MW-5V (400-177664-32[DU]), AZ22701 MW-17H (400-177664-33), AZ22702 MW-17H DIS (400-177664-34), AZ22703 MW-12V (400-177664-35), AZ22704 MW-12V DUP (400-177664-36), AZ22705 MW-24H (400-177664-37) and AZ22706 EB-1 (400-177664-38). Samples 400-177664-A-20, 400-177664-A-21 and 400-177664-A-37 had medium yellow discoloration. Samples 400-177664-A-25, 400-177664-A-26, 400-177664-A-27, 400-177664-A-28, 400-177664-A-35 and 400-177664-A-36 had light yellow discoloration. Sample 400-177664-A-33 had cloudy yellow discoloration.

Method PrecSep-21: Radium 226 Prep Batch 160-445915. The following samples were prepared at a reduced aliquot due to insufficient volume: AZ22382 MW-15V (400-177664-1), AZ22382 MW-15V (400-177664-1[DU]), AZ22383 FB-3 (400-177664-2), AZ22384 MW-22H (400-177664-3), AZ22385 MW-20H (400-177664-4), AZ22386 MW-19H (400-177664-5), AZ22387 MW-18H (400-177664-6), AZ22388 MW-23H (400-177664-7), AZ22389 MW-8 (400-177664-8), AZ22390 MW-10 (400-177664-9), AZ22391 MW-12 (400-177664-10), AZ22392 MW-16 (400-177664-11), AZ22393 MW-2 (400-177664-12), AZ22394 MW-4 (400-177664-13), AZ22395 MW-15 (400-177664-14), AZ22396 MW-7 (400-177664-15), AZ22397 MW-9 (400-177664-16), AZ22398 MW-11 (400-177664-17), AZ22399 MW-13 (400-177664-18) and AZ22400 MW-13 DUP (400-177664-19). Samples 400-177664-A-3, 400-177664-A-4, 400-177664-A-5, 400-177664-A-9, 400-177664-A-10, 400-177664-A-14, 400-177664-A-17 and 400-177664-A-19 had yellow discoloration.

Method PrecSep-21: Radium 226 Prep Batch 160-445927. The following samples were prepared at a reduced aliquot due to insufficient volume: AZ22401 MW-14 (400-177664-20), AZ22402 MW-1 (400-177664-21), AZ22403 FB-2 (400-177664-22), AZ22404 MW-3 (400-177664-23), AZ22405 MW-7V (400-177664-24), AZ22406 MW-8V (400-177664-25), AZ22407 MW-10V (400-177664-26), AZ22408 MW-10V DUP (400-177664-27), AZ22409 MW-5 (400-177664-28), AZ22410 MW-6 (400-177664-29), AZ22698 MW-1V (400-177664-30), AZ22699 FB-1 (400-177664-31), AZ22700 MW-5V (400-177664-32), AZ22700 MW-5V (400-177664-32[DU]), AZ22701 MW-17H (400-177664-33), AZ22702 MW-17H DIS (400-177664-34), AZ22703 MW-12V (400-177664-35), AZ22704 MW-12V DUP (400-177664-36), AZ22705 MW-24H (400-177664-37) and AZ22706 EB-1 (400-177664-38). Samples 400-177664-A-20, 400-177664-A-21 and 400-177664-A-37 had medium yellow discoloration. Samples 400-177664-A-25, 400-177664-A-26, 400-177664-A-27, 400-177664-A-28, 400-177664-A-35 and 400-177664-A-36 had light yellow discoloration. Sample 400-177664-A-33 had cloudy yellow discoloration.

Method Summary

Client: Alabama Power General Test Laboratory
Project/Site: CCR Plant Barry

Job ID: 400-177664-1
SDG: Barry Ash Pond 1245

Method	Method Description	Protocol	Laboratory
9315	Radium-226 (GFPC)	SW846	TAL SL
9320	Radium-228 (GFPC)	SW846	TAL SL
Ra226_Ra228	Combined Radium-226 and Radium-228	TAL-STL	TAL SL
Ra226_Ra228 (D)	Combined Radium-226 and Radium-228	TAL-STL	TAL SL
PrecSep_0	Preparation, Precipitate Separation	None	TAL SL
PrecSep-21	Preparation, Precipitate Separation (21-Day In-Growth)	None	TAL SL

Protocol References:

None = None

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

TAL-STL = TestAmerica Laboratories, St. Louis, Facility Standard Operating Procedure.

Laboratory References:

TAL SL = Eurofins TestAmerica, St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

Sample Summary

Client: Alabama Power General Test Laboratory
Project/Site: CCR Plant Barry

Job ID: 400-177664-1
SDG: Barry Ash Pond 1245

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
400-177664-1	AZ22382 MW-15V	Water	10/01/19 10:11	10/08/19 14:54	
400-177664-2	AZ22383 FB-3	Water	10/01/19 10:30	10/08/19 14:54	
400-177664-3	AZ22384 MW-22H	Water	10/01/19 11:10	10/08/19 14:54	
400-177664-4	AZ22385 MW-20H	Water	10/01/19 13:05	10/08/19 14:54	
400-177664-5	AZ22386 MW-19H	Water	10/01/19 13:57	10/08/19 14:54	
400-177664-6	AZ22387 MW-18H	Water	10/01/19 14:57	10/08/19 14:54	
400-177664-7	AZ22388 MW-23H	Water	10/01/19 15:55	10/08/19 14:54	
400-177664-8	AZ22389 MW-8	Water	09/30/19 13:57	10/08/19 14:54	
400-177664-9	AZ22390 MW-10	Water	09/30/19 15:55	10/08/19 14:54	
400-177664-10	AZ22391 MW-12	Water	10/01/19 09:42	10/08/19 14:54	
400-177664-11	AZ22392 MW-16	Water	10/01/19 11:32	10/08/19 14:54	
400-177664-12	AZ22393 MW-2	Water	10/01/19 13:38	10/08/19 14:54	
400-177664-13	AZ22394 MW-4	Water	10/01/19 15:30	10/08/19 14:54	
400-177664-14	AZ22395 MW-15	Water	10/01/19 17:23	10/08/19 14:54	
400-177664-15	AZ22396 MW-7	Water	09/30/19 13:47	10/08/19 14:54	
400-177664-16	AZ22397 MW-9	Water	09/30/19 15:48	10/08/19 14:54	
400-177664-17	AZ22398 MW-11	Water	09/30/19 17:06	10/08/19 14:54	
400-177664-18	AZ22399 MW-13	Water	10/01/19 09:03	10/08/19 14:54	
400-177664-19	AZ22400 MW-13 DUP	Water	10/01/19 09:03	10/08/19 14:54	
400-177664-20	AZ22401 MW-14	Water	10/01/19 10:41	10/08/19 14:54	
400-177664-21	AZ22402 MW-1	Water	10/01/19 13:12	10/08/19 14:54	
400-177664-22	AZ22403 FB-2	Water	10/01/19 13:55	10/08/19 14:54	
400-177664-23	AZ22404 MW-3	Water	10/01/19 15:18	10/08/19 14:54	
400-177664-24	AZ22405 MW-7V	Water	10/01/19 10:13	10/08/19 14:54	
400-177664-25	AZ22406 MW-8V	Water	10/01/19 11:30	10/08/19 14:54	
400-177664-26	AZ22407 MW-10V	Water	10/01/19 12:55	10/08/19 14:54	
400-177664-27	AZ22408 MW-10V DUP	Water	10/01/19 12:55	10/08/19 14:54	
400-177664-28	AZ22409 MW-5	Water	10/01/19 14:45	10/08/19 14:54	
400-177664-29	AZ22410 MW-6	Water	10/01/19 16:10	10/08/19 14:54	
400-177664-30	AZ22698 MW-1V	Water	10/02/19 14:50	10/08/19 14:54	
400-177664-31	AZ22699 FB-1	Water	10/02/19 15:00	10/08/19 14:54	
400-177664-32	AZ22700 MW-5V	Water	10/02/19 13:55	10/08/19 14:54	
400-177664-33	AZ22701 MW-17H	Water	10/02/19 11:03	10/08/19 14:54	
400-177664-34	AZ22702 MW-17H DIS	Water	10/02/19 11:03	10/08/19 14:54	
400-177664-35	AZ22703 MW-12V	Water	10/02/19 12:37	10/08/19 14:54	
400-177664-36	AZ22704 MW-12V DUP	Water	10/02/19 12:37	10/08/19 14:54	
400-177664-37	AZ22705 MW-24H	Water	10/02/19 14:47	10/08/19 14:54	
400-177664-38	AZ22706 EB-1	Water	10/02/19 15:05	10/08/19 14:54	

Client Sample Results

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Barry

Job ID: 400-177664-1
 SDG: Barry Ash Pond 1245

Client Sample ID: AZ22382 MW-15V

Lab Sample ID: 400-177664-1

Date Collected: 10/01/19 10:11

Matrix: Water

Date Received: 10/08/19 14:54

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.872		0.211	0.225	1.00	0.192	pCi/L	10/11/19 14:45	11/05/19 11:21	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	84.2		40 - 110					10/11/19 14:45	11/05/19 11:21	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.636	U	0.454	0.458	1.00	0.716	pCi/L	10/11/19 15:19	10/25/19 09:09	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	84.2		40 - 110					10/11/19 15:19	10/25/19 09:09	1
Y Carrier	82.6		40 - 110					10/11/19 15:19	10/25/19 09:09	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	1.51		0.501	0.510	5.00	0.716	pCi/L		11/07/19 06:44	1

Client Sample Results

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Barry

Job ID: 400-177664-1
 SDG: Barry Ash Pond 1245

Client Sample ID: AZ22383 FB-3

Lab Sample ID: 400-177664-2

Date Collected: 10/01/19 10:30

Matrix: Water

Date Received: 10/08/19 14:54

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.150	U	0.116	0.116	1.00	0.173	pCi/L	10/11/19 14:45	11/05/19 11:21	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	91.8		40 - 110					10/11/19 14:45	11/05/19 11:21	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.203	U	0.308	0.309	1.00	0.518	pCi/L	10/11/19 15:19	10/25/19 09:09	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	91.8		40 - 110					10/11/19 15:19	10/25/19 09:09	1
Y Carrier	85.6		40 - 110					10/11/19 15:19	10/25/19 09:09	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.353	U	0.329	0.330	5.00	0.518	pCi/L		11/07/19 06:44	1

Client Sample Results

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Barry

Job ID: 400-177664-1
 SDG: Barry Ash Pond 1245

Client Sample ID: AZ22384 MW-22H

Lab Sample ID: 400-177664-3

Date Collected: 10/01/19 11:10

Matrix: Water

Date Received: 10/08/19 14:54

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.295		0.131	0.134	1.00	0.162	pCi/L	10/11/19 14:45	11/05/19 11:22	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	98.9		40 - 110					10/11/19 14:45	11/05/19 11:22	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.212	U	0.301	0.302	1.00	0.503	pCi/L	10/11/19 15:19	10/25/19 09:09	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	98.9		40 - 110					10/11/19 15:19	10/25/19 09:09	1
Y Carrier	85.6		40 - 110					10/11/19 15:19	10/25/19 09:09	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.508		0.328	0.330	5.00	0.503	pCi/L		11/07/19 06:44	1

Client Sample Results

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Barry

Job ID: 400-177664-1
 SDG: Barry Ash Pond 1245

Client Sample ID: AZ22385 MW-20H

Lab Sample ID: 400-177664-4

Date Collected: 10/01/19 13:05

Matrix: Water

Date Received: 10/08/19 14:54

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.383		0.139	0.143	1.00	0.150	pCi/L	10/11/19 14:45	11/05/19 11:22	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	94.9		40 - 110					10/11/19 14:45	11/05/19 11:22	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.842		0.365	0.373	1.00	0.523	pCi/L	10/11/19 15:19	10/25/19 09:09	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	94.9		40 - 110					10/11/19 15:19	10/25/19 09:09	1
Y Carrier	85.6		40 - 110					10/11/19 15:19	10/25/19 09:09	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	1.22		0.391	0.399	5.00	0.523	pCi/L		11/07/19 06:44	1

Client Sample Results

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Barry

Job ID: 400-177664-1
 SDG: Barry Ash Pond 1245

Client Sample ID: AZ22386 MW-19H

Lab Sample ID: 400-177664-5

Date Collected: 10/01/19 13:57

Matrix: Water

Date Received: 10/08/19 14:54

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.265		0.122	0.124	1.00	0.143	pCi/L	10/11/19 14:45	11/05/19 11:22	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	92.1		40 - 110					10/11/19 14:45	11/05/19 11:22	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.551		0.349	0.353	1.00	0.538	pCi/L	10/11/19 15:19	10/25/19 09:09	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	92.1		40 - 110					10/11/19 15:19	10/25/19 09:09	1
Y Carrier	86.0		40 - 110					10/11/19 15:19	10/25/19 09:09	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.817		0.370	0.374	5.00	0.538	pCi/L		11/07/19 06:44	1

Client Sample Results

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Barry

Job ID: 400-177664-1
 SDG: Barry Ash Pond 1245

Client Sample ID: AZ22387 MW-18H

Lab Sample ID: 400-177664-6

Date Collected: 10/01/19 14:57

Matrix: Water

Date Received: 10/08/19 14:54

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.339		0.132	0.135	1.00	0.148	pCi/L	10/11/19 14:45	11/05/19 11:23	1
<i>Carrier</i>	<i>%Yield</i>	<i>Qualifier</i>	<i>Limits</i>					<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
Ba Carrier	97.2		40 - 110					10/11/19 14:45	11/05/19 11:23	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.261	U	0.333	0.333	1.00	0.552	pCi/L	10/11/19 15:19	10/25/19 09:09	1
<i>Carrier</i>	<i>%Yield</i>	<i>Qualifier</i>	<i>Limits</i>					<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
Ba Carrier	97.2		40 - 110					10/11/19 15:19	10/25/19 09:09	1
Y Carrier	85.6		40 - 110					10/11/19 15:19	10/25/19 09:09	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.600		0.358	0.359	5.00	0.552	pCi/L		11/07/19 06:44	1

Client Sample Results

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Barry

Job ID: 400-177664-1
 SDG: Barry Ash Pond 1245

Client Sample ID: AZ22388 MW-23H

Lab Sample ID: 400-177664-7

Date Collected: 10/01/19 15:55

Matrix: Water

Date Received: 10/08/19 14:54

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.613		0.166	0.175	1.00	0.131	pCi/L	10/11/19 14:45	11/05/19 11:23	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	87.9		40 - 110					10/11/19 14:45	11/05/19 11:23	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.438	U	0.361	0.363	1.00	0.576	pCi/L	10/11/19 15:19	10/25/19 09:10	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	87.9		40 - 110					10/11/19 15:19	10/25/19 09:10	1
Y Carrier	84.5		40 - 110					10/11/19 15:19	10/25/19 09:10	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	1.05		0.397	0.403	5.00	0.576	pCi/L		11/07/19 06:44	1

Client Sample Results

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Barry

Job ID: 400-177664-1
 SDG: Barry Ash Pond 1245

Client Sample ID: AZ22389 MW-8

Lab Sample ID: 400-177664-8

Date Collected: 09/30/19 13:57

Matrix: Water

Date Received: 10/08/19 14:54

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.330		0.139	0.142	1.00	0.167	pCi/L	10/11/19 14:45	11/05/19 11:23	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	87.6		40 - 110					10/11/19 14:45	11/05/19 11:23	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.00917	U	0.356	0.356	1.00	0.633	pCi/L	10/11/19 15:19	10/25/19 09:10	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	87.6		40 - 110					10/11/19 15:19	10/25/19 09:10	1
Y Carrier	84.9		40 - 110					10/11/19 15:19	10/25/19 09:10	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.321	U	0.382	0.383	5.00	0.633	pCi/L		11/07/19 06:44	1

Client Sample Results

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Barry

Job ID: 400-177664-1
 SDG: Barry Ash Pond 1245

Client Sample ID: AZ22390 MW-10

Lab Sample ID: 400-177664-9

Date Collected: 09/30/19 15:55

Matrix: Water

Date Received: 10/08/19 14:54

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.526		0.166	0.172	1.00	0.162	pCi/L	10/11/19 14:45	11/05/19 11:23	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	91.2		40 - 110					10/11/19 14:45	11/05/19 11:23	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.439	U	0.348	0.350	1.00	0.549	pCi/L	10/11/19 15:19	10/25/19 10:20	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	91.2		40 - 110					10/11/19 15:19	10/25/19 10:20	1
Y Carrier	84.1		40 - 110					10/11/19 15:19	10/25/19 10:20	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.965		0.386	0.390	5.00	0.549	pCi/L		11/07/19 06:44	1

Client Sample Results

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Barry

Job ID: 400-177664-1
 SDG: Barry Ash Pond 1245

Client Sample ID: AZ22391 MW-12

Lab Sample ID: 400-177664-10

Date Collected: 10/01/19 09:42

Matrix: Water

Date Received: 10/08/19 14:54

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.483		0.155	0.161	1.00	0.152	pCi/L	10/11/19 14:45	11/05/19 11:24	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	94.9		40 - 110					10/11/19 14:45	11/05/19 11:24	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.500		0.320	0.324	1.00	0.487	pCi/L	10/11/19 15:19	10/25/19 10:20	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	94.9		40 - 110					10/11/19 15:19	10/25/19 10:20	1
Y Carrier	87.1		40 - 110					10/11/19 15:19	10/25/19 10:20	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.984		0.356	0.362	5.00	0.487	pCi/L		11/07/19 06:44	1

Client Sample Results

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Barry

Job ID: 400-177664-1
 SDG: Barry Ash Pond 1245

Client Sample ID: AZ22392 MW-16

Lab Sample ID: 400-177664-11

Date Collected: 10/01/19 11:32

Matrix: Water

Date Received: 10/08/19 14:54

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.318		0.130	0.133	1.00	0.151	pCi/L	10/11/19 14:45	11/05/19 11:24	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	96.9		40 - 110					10/11/19 14:45	11/05/19 11:24	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.125	U	0.277	0.277	1.00	0.479	pCi/L	10/11/19 15:19	10/25/19 10:20	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	96.9		40 - 110					10/11/19 15:19	10/25/19 10:20	1
Y Carrier	83.7		40 - 110					10/11/19 15:19	10/25/19 10:20	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.443	U	0.306	0.307	5.00	0.479	pCi/L		11/07/19 06:44	1

Client Sample Results

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Barry

Job ID: 400-177664-1
 SDG: Barry Ash Pond 1245

Client Sample ID: AZ22393 MW-2

Lab Sample ID: 400-177664-12

Date Collected: 10/01/19 13:38

Matrix: Water

Date Received: 10/08/19 14:54

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.215		0.124	0.125	1.00	0.166	pCi/L	10/11/19 14:45	11/05/19 11:24	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	94.6		40 - 110					10/11/19 14:45	11/05/19 11:24	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.0686	U	0.330	0.330	1.00	0.579	pCi/L	10/11/19 15:19	10/25/19 10:20	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	94.6		40 - 110					10/11/19 15:19	10/25/19 10:20	1
Y Carrier	86.0		40 - 110					10/11/19 15:19	10/25/19 10:20	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.284	U	0.353	0.353	5.00	0.579	pCi/L		11/07/19 06:44	1

Client Sample Results

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Barry

Job ID: 400-177664-1
 SDG: Barry Ash Pond 1245

Client Sample ID: AZ22394 MW-4

Lab Sample ID: 400-177664-13

Date Collected: 10/01/19 15:30

Matrix: Water

Date Received: 10/08/19 14:54

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.294		0.131	0.134	1.00	0.158	pCi/L	10/11/19 14:45	11/05/19 11:24	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	100		40 - 110					10/11/19 14:45	11/05/19 11:24	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.405	U	0.298	0.300	1.00	0.463	pCi/L	10/11/19 15:19	10/25/19 10:20	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	100		40 - 110					10/11/19 15:19	10/25/19 10:20	1
Y Carrier	85.6		40 - 110					10/11/19 15:19	10/25/19 10:20	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.700		0.326	0.329	5.00	0.463	pCi/L		11/07/19 06:44	1

Client Sample Results

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Barry

Job ID: 400-177664-1
 SDG: Barry Ash Pond 1245

Client Sample ID: AZ22395 MW-15

Lab Sample ID: 400-177664-14

Date Collected: 10/01/19 17:23

Matrix: Water

Date Received: 10/08/19 14:54

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.527		0.161	0.168	1.00	0.165	pCi/L	10/11/19 14:45	11/05/19 11:26	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	94.1		40 - 110					10/11/19 14:45	11/05/19 11:26	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.462	U	0.324	0.327	1.00	0.501	pCi/L	10/11/19 15:19	10/25/19 10:21	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	94.1		40 - 110					10/11/19 15:19	10/25/19 10:21	1
Y Carrier	87.9		40 - 110					10/11/19 15:19	10/25/19 10:21	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.988		0.362	0.368	5.00	0.501	pCi/L		11/07/19 06:44	1

Client Sample Results

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Barry

Job ID: 400-177664-1
 SDG: Barry Ash Pond 1245

Client Sample ID: AZ22396 MW-7

Lab Sample ID: 400-177664-15

Date Collected: 09/30/19 13:47

Matrix: Water

Date Received: 10/08/19 14:54

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.348		0.133	0.137	1.00	0.146	pCi/L	10/11/19 14:45	11/05/19 11:26	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	96.6		40 - 110					10/11/19 14:45	11/05/19 11:26	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.0397	U	0.302	0.302	1.00	0.536	pCi/L	10/11/19 15:19	10/25/19 10:21	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	96.6		40 - 110					10/11/19 15:19	10/25/19 10:21	1
Y Carrier	85.6		40 - 110					10/11/19 15:19	10/25/19 10:21	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.388	U	0.330	0.332	5.00	0.536	pCi/L		11/07/19 06:44	1

Client Sample Results

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Barry

Job ID: 400-177664-1
 SDG: Barry Ash Pond 1245

Client Sample ID: AZ22397 MW-9

Lab Sample ID: 400-177664-16

Date Collected: 09/30/19 15:48

Matrix: Water

Date Received: 10/08/19 14:54

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.512		0.151	0.158	1.00	0.127	pCi/L	10/11/19 14:45	11/05/19 13:23	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	90.7		40 - 110					10/11/19 14:45	11/05/19 13:23	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.0685	U	0.295	0.295	1.00	0.522	pCi/L	10/11/19 15:19	10/25/19 10:21	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	90.7		40 - 110					10/11/19 15:19	10/25/19 10:21	1
Y Carrier	84.9		40 - 110					10/11/19 15:19	10/25/19 10:21	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.580		0.331	0.335	5.00	0.522	pCi/L		11/07/19 06:44	1

Client Sample Results

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Barry

Job ID: 400-177664-1
 SDG: Barry Ash Pond 1245

Client Sample ID: AZ22398 MW-11

Lab Sample ID: 400-177664-17

Date Collected: 09/30/19 17:06

Matrix: Water

Date Received: 10/08/19 14:54

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.351		0.138	0.141	1.00	0.159	pCi/L	10/11/19 14:45	11/05/19 13:23	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	92.4		40 - 110					10/11/19 14:45	11/05/19 13:23	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.138	U	0.360	0.361	1.00	0.620	pCi/L	10/11/19 15:19	10/25/19 10:21	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	92.4		40 - 110					10/11/19 15:19	10/25/19 10:21	1
Y Carrier	85.2		40 - 110					10/11/19 15:19	10/25/19 10:21	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.489	U	0.386	0.388	5.00	0.620	pCi/L		11/07/19 06:44	1

Client Sample Results

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Barry

Job ID: 400-177664-1
 SDG: Barry Ash Pond 1245

Client Sample ID: AZ22399 MW-13

Lab Sample ID: 400-177664-18

Date Collected: 10/01/19 09:03

Matrix: Water

Date Received: 10/08/19 14:54

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.598		0.173	0.181	1.00	0.160	pCi/L	10/11/19 14:45	11/05/19 13:23	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	92.7		40 - 110					10/11/19 14:45	11/05/19 13:23	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.476	U	0.428	0.431	1.00	0.692	pCi/L	10/11/19 15:19	10/25/19 10:21	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	92.7		40 - 110					10/11/19 15:19	10/25/19 10:21	1
Y Carrier	86.7		40 - 110					10/11/19 15:19	10/25/19 10:21	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	1.07		0.462	0.467	5.00	0.692	pCi/L		11/07/19 06:44	1

Client Sample Results

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Barry

Job ID: 400-177664-1
 SDG: Barry Ash Pond 1245

Client Sample ID: AZ22400 MW-13 DUP

Lab Sample ID: 400-177664-19

Date Collected: 10/01/19 09:03

Matrix: Water

Date Received: 10/08/19 14:54

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.275		0.130	0.132	1.00	0.158	pCi/L	10/11/19 14:45	11/05/19 13:23	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	90.4		40 - 110					10/11/19 14:45	11/05/19 13:23	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.165	U	0.344	0.344	1.00	0.588	pCi/L	10/11/19 15:19	10/25/19 10:21	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	90.4		40 - 110					10/11/19 15:19	10/25/19 10:21	1
Y Carrier	85.6		40 - 110					10/11/19 15:19	10/25/19 10:21	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.440	U	0.368	0.368	5.00	0.588	pCi/L		11/07/19 06:44	1

Client Sample Results

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Barry

Job ID: 400-177664-1
 SDG: Barry Ash Pond 1245

Client Sample ID: AZ22401 MW-14

Lab Sample ID: 400-177664-20

Date Collected: 10/01/19 10:41

Matrix: Water

Date Received: 10/08/19 14:54

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.433		0.152	0.157	1.00	0.162	pCi/L	10/11/19 17:24	11/04/19 12:50	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	91.5		40 - 110					10/11/19 17:24	11/04/19 12:50	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.675		0.400	0.405	1.00	0.611	pCi/L	10/11/19 17:58	10/25/19 12:44	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	91.5		40 - 110					10/11/19 17:58	10/25/19 12:44	1
Y Carrier	80.4		40 - 110					10/11/19 17:58	10/25/19 12:44	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	1.11		0.428	0.434	5.00	0.611	pCi/L		11/07/19 06:44	1

Client Sample Results

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Barry

Job ID: 400-177664-1
 SDG: Barry Ash Pond 1245

Client Sample ID: AZ22402 MW-1

Lab Sample ID: 400-177664-21

Date Collected: 10/01/19 13:12

Matrix: Water

Date Received: 10/08/19 14:54

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.933		0.219	0.234	1.00	0.192	pCi/L	10/11/19 17:24	11/04/19 12:50	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	83.6		40 - 110					10/11/19 17:24	11/04/19 12:50	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	1.91		0.524	0.553	1.00	0.677	pCi/L	10/11/19 17:58	10/25/19 12:44	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	83.6		40 - 110					10/11/19 17:58	10/25/19 12:44	1
Y Carrier	80.7		40 - 110					10/11/19 17:58	10/25/19 12:44	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	2.84		0.568	0.600	5.00	0.677	pCi/L		11/07/19 06:44	1

Client Sample Results

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Barry

Job ID: 400-177664-1
 SDG: Barry Ash Pond 1245

Client Sample ID: AZ22403 FB-2

Lab Sample ID: 400-177664-22

Date Collected: 10/01/19 13:55

Matrix: Water

Date Received: 10/08/19 14:54

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.225		0.125	0.127	1.00	0.169	pCi/L	10/11/19 17:24	11/04/19 12:51	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	96.6		40 - 110					10/11/19 17:24	11/04/19 12:51	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.649		0.371	0.376	1.00	0.561	pCi/L	10/11/19 17:58	10/25/19 12:44	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	96.6		40 - 110					10/11/19 17:58	10/25/19 12:44	1
Y Carrier	78.9		40 - 110					10/11/19 17:58	10/25/19 12:44	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.874		0.391	0.397	5.00	0.561	pCi/L		11/07/19 06:44	1

Client Sample Results

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Barry

Job ID: 400-177664-1
 SDG: Barry Ash Pond 1245

Client Sample ID: AZ22404 MW-3

Lab Sample ID: 400-177664-23

Date Collected: 10/01/19 15:18

Matrix: Water

Date Received: 10/08/19 14:54

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.212		0.119	0.120	1.00	0.157	pCi/L	10/11/19 17:24	11/04/19 12:51	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	92.4		40 - 110					10/11/19 17:24	11/04/19 12:51	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	1.31		0.409	0.426	1.00	0.533	pCi/L	10/11/19 17:58	10/25/19 12:44	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	92.4		40 - 110					10/11/19 17:58	10/25/19 12:44	1
Y Carrier	83.7		40 - 110					10/11/19 17:58	10/25/19 12:44	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	1.52		0.426	0.443	5.00	0.533	pCi/L		11/07/19 06:44	1

Client Sample Results

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Barry

Job ID: 400-177664-1
 SDG: Barry Ash Pond 1245

Client Sample ID: AZ22405 MW-7V

Lab Sample ID: 400-177664-24

Date Collected: 10/01/19 10:13

Matrix: Water

Date Received: 10/08/19 14:54

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.289		0.129	0.132	1.00	0.150	pCi/L	10/11/19 17:24	11/04/19 12:51	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	89.3		40 - 110					10/11/19 17:24	11/04/19 12:51	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.719		0.442	0.447	1.00	0.679	pCi/L	10/11/19 17:58	10/25/19 12:44	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	89.3		40 - 110					10/11/19 17:58	10/25/19 12:44	1
Y Carrier	74.0		40 - 110					10/11/19 17:58	10/25/19 12:44	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	1.01		0.460	0.466	5.00	0.679	pCi/L		11/07/19 06:44	1

Client Sample Results

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Barry

Job ID: 400-177664-1
 SDG: Barry Ash Pond 1245

Client Sample ID: AZ22406 MW-8V

Lab Sample ID: 400-177664-25

Date Collected: 10/01/19 11:30

Matrix: Water

Date Received: 10/08/19 14:54

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.643		0.182	0.191	1.00	0.171	pCi/L	10/11/19 17:24	11/04/19 12:51	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	84.2		40 - 110					10/11/19 17:24	11/04/19 12:51	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	1.02		0.451	0.460	1.00	0.650	pCi/L	10/11/19 17:58	10/25/19 12:44	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	84.2		40 - 110					10/11/19 17:58	10/25/19 12:44	1
Y Carrier	80.7		40 - 110					10/11/19 17:58	10/25/19 12:44	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	1.66		0.486	0.498	5.00	0.650	pCi/L		11/07/19 06:44	1

Client Sample Results

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Barry

Job ID: 400-177664-1
 SDG: Barry Ash Pond 1245

Client Sample ID: AZ22407 MW-10V

Lab Sample ID: 400-177664-26

Date Collected: 10/01/19 12:55

Matrix: Water

Date Received: 10/08/19 14:54

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.602		0.166	0.174	1.00	0.133	pCi/L	10/11/19 17:24	11/04/19 12:51	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	89.0		40 - 110					10/11/19 17:24	11/04/19 12:51	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	1.38		0.444	0.462	1.00	0.593	pCi/L	10/11/19 17:58	10/25/19 12:44	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	89.0		40 - 110					10/11/19 17:58	10/25/19 12:44	1
Y Carrier	83.0		40 - 110					10/11/19 17:58	10/25/19 12:44	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	1.99		0.474	0.494	5.00	0.593	pCi/L		11/07/19 06:44	1

Client Sample Results

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Barry

Job ID: 400-177664-1
 SDG: Barry Ash Pond 1245

Client Sample ID: AZ22408 MW-10V DUP

Lab Sample ID: 400-177664-27

Date Collected: 10/01/19 12:55

Matrix: Water

Date Received: 10/08/19 14:54

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.499		0.157	0.163	1.00	0.161	pCi/L	10/11/19 17:24	11/04/19 12:51	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	93.8		40 - 110					10/11/19 17:24	11/04/19 12:51	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.837		0.368	0.376	1.00	0.524	pCi/L	10/11/19 17:58	10/25/19 12:44	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	93.8		40 - 110					10/11/19 17:58	10/25/19 12:44	1
Y Carrier	81.1		40 - 110					10/11/19 17:58	10/25/19 12:44	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	1.34		0.400	0.410	5.00	0.524	pCi/L		11/07/19 06:44	1

Client Sample Results

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Barry

Job ID: 400-177664-1
 SDG: Barry Ash Pond 1245

Client Sample ID: AZ22409 MW-5

Lab Sample ID: 400-177664-28

Date Collected: 10/01/19 14:45

Matrix: Water

Date Received: 10/08/19 14:54

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.782		0.195	0.207	1.00	0.163	pCi/L	10/11/19 17:24	11/04/19 12:51	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	93.2		40 - 110					10/11/19 17:24	11/04/19 12:51	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	1.36		0.431	0.449	1.00	0.569	pCi/L	10/11/19 17:58	10/25/19 12:44	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	93.2		40 - 110					10/11/19 17:58	10/25/19 12:44	1
Y Carrier	80.4		40 - 110					10/11/19 17:58	10/25/19 12:44	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	2.14		0.473	0.494	5.00	0.569	pCi/L		11/07/19 06:44	1

Client Sample Results

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Barry

Job ID: 400-177664-1
 SDG: Barry Ash Pond 1245

Client Sample ID: AZ22410 MW-6

Lab Sample ID: 400-177664-29

Date Collected: 10/01/19 16:10

Matrix: Water

Date Received: 10/08/19 14:54

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.424		0.149	0.154	1.00	0.155	pCi/L	10/11/19 17:24	11/04/19 12:52	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	95.5		40 - 110					10/11/19 17:24	11/04/19 12:52	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.318	U	0.344	0.345	1.00	0.563	pCi/L	10/11/19 17:58	10/25/19 12:44	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	95.5		40 - 110					10/11/19 17:58	10/25/19 12:44	1
Y Carrier	80.0		40 - 110					10/11/19 17:58	10/25/19 12:44	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.742		0.375	0.378	5.00	0.563	pCi/L		11/07/19 06:44	1

Client Sample Results

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Barry

Job ID: 400-177664-1
 SDG: Barry Ash Pond 1245

Client Sample ID: AZ22698 MW-1V

Lab Sample ID: 400-177664-30

Date Collected: 10/02/19 14:50

Matrix: Water

Date Received: 10/08/19 14:54

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.419		0.144	0.149	1.00	0.153	pCi/L	10/11/19 17:24	11/04/19 12:52	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	98.6		40 - 110					10/11/19 17:24	11/04/19 12:52	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.607		0.362	0.367	1.00	0.544	pCi/L	10/11/19 17:58	10/25/19 12:45	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	98.6		40 - 110					10/11/19 17:58	10/25/19 12:45	1
Y Carrier	72.5		40 - 110					10/11/19 17:58	10/25/19 12:45	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	1.03		0.390	0.396	5.00	0.544	pCi/L		11/07/19 06:44	1

Client Sample Results

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Barry

Job ID: 400-177664-1
 SDG: Barry Ash Pond 1245

Client Sample ID: AZ22699 FB-1

Lab Sample ID: 400-177664-31

Date Collected: 10/02/19 15:00

Matrix: Water

Date Received: 10/08/19 14:54

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.206		0.129	0.130	1.00	0.183	pCi/L	10/11/19 17:24	11/04/19 12:52	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	94.1		40 - 110					10/11/19 17:24	11/04/19 12:52	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.467	U	0.329	0.332	1.00	0.511	pCi/L	10/11/19 17:58	10/25/19 12:45	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	94.1		40 - 110					10/11/19 17:58	10/25/19 12:45	1
Y Carrier	83.7		40 - 110					10/11/19 17:58	10/25/19 12:45	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.673		0.353	0.357	5.00	0.511	pCi/L		11/07/19 06:44	1

Client Sample Results

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Barry

Job ID: 400-177664-1
 SDG: Barry Ash Pond 1245

Client Sample ID: AZ22700 MW-5V

Lab Sample ID: 400-177664-32

Date Collected: 10/02/19 13:55

Matrix: Water

Date Received: 10/08/19 14:54

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.254		0.133	0.135	1.00	0.173	pCi/L	10/11/19 17:24	11/04/19 12:52	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	93.2		40 - 110					10/11/19 17:24	11/04/19 12:52	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.0476	U	0.338	0.338	1.00	0.607	pCi/L	10/11/19 17:58	10/25/19 12:45	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	93.2		40 - 110					10/11/19 17:58	10/25/19 12:45	1
Y Carrier	84.5		40 - 110					10/11/19 17:58	10/25/19 12:45	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.206	U	0.363	0.364	5.00	0.607	pCi/L		11/07/19 06:44	1

Client Sample Results

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Barry

Job ID: 400-177664-1
 SDG: Barry Ash Pond 1245

Client Sample ID: AZ22701 MW-17H

Lab Sample ID: 400-177664-33

Date Collected: 10/02/19 11:03

Matrix: Water

Date Received: 10/08/19 14:54

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.356		0.141	0.144	1.00	0.160	pCi/L	10/11/19 17:24	11/04/19 16:04	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	92.1		40 - 110					10/11/19 17:24	11/04/19 16:04	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.784		0.432	0.438	1.00	0.656	pCi/L	10/11/19 17:58	10/25/19 12:48	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	92.1		40 - 110					10/11/19 17:58	10/25/19 12:48	1
Y Carrier	82.6		40 - 110					10/11/19 17:58	10/25/19 12:48	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	1.14		0.454	0.461	5.00	0.656	pCi/L		11/07/19 06:44	1

Client Sample Results

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Barry

Job ID: 400-177664-1
 SDG: Barry Ash Pond 1245

Client Sample ID: AZ22702 MW-17H DIS

Lab Sample ID: 400-177664-34

Date Collected: 10/02/19 11:03

Matrix: Water

Date Received: 10/08/19 14:54

Method: 9315 - Radium-226 (GFPC) - Dissolved

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.432		0.157	0.162	1.00	0.179	pCi/L	10/11/19 17:24	11/04/19 16:04	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	93.5		40 - 110					10/11/19 17:24	11/04/19 16:04	1

Method: 9320 - Radium-228 (GFPC) - Dissolved

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.645		0.405	0.409	1.00	0.627	pCi/L	10/11/19 17:58	10/25/19 12:48	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	93.5		40 - 110					10/11/19 17:58	10/25/19 12:48	1
Y Carrier	84.9		40 - 110					10/11/19 17:58	10/25/19 12:48	1

Method: Ra226_Ra228 (D) - Combined Radium-226 and Radium-228 - Dissolved

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	1.08		0.434	0.440	5.00	0.627	pCi/L		11/07/19 06:44	1

Client Sample Results

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Barry

Job ID: 400-177664-1
 SDG: Barry Ash Pond 1245

Client Sample ID: AZ22703 MW-12V

Lab Sample ID: 400-177664-35

Date Collected: 10/02/19 12:37

Matrix: Water

Date Received: 10/08/19 14:54

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.478		0.155	0.161	1.00	0.158	pCi/L	10/11/19 17:24	11/04/19 16:04	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	94.1		40 - 110					10/11/19 17:24	11/04/19 16:04	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.418	U	0.423	0.425	1.00	0.690	pCi/L	10/11/19 17:58	10/25/19 12:48	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	94.1		40 - 110					10/11/19 17:58	10/25/19 12:48	1
Y Carrier	83.0		40 - 110					10/11/19 17:58	10/25/19 12:48	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.896		0.451	0.454	5.00	0.690	pCi/L		11/07/19 06:44	1

Client Sample Results

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Barry

Job ID: 400-177664-1
 SDG: Barry Ash Pond 1245

Client Sample ID: AZ22704 MW-12V DUP

Lab Sample ID: 400-177664-36

Date Collected: 10/02/19 12:37

Matrix: Water

Date Received: 10/08/19 14:54

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.655		0.180	0.189	1.00	0.175	pCi/L	10/11/19 17:24	11/04/19 16:04	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	93.2		40 - 110					10/11/19 17:24	11/04/19 16:04	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.768		0.400	0.406	1.00	0.599	pCi/L	10/11/19 17:58	10/25/19 12:48	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	93.2		40 - 110					10/11/19 17:58	10/25/19 12:48	1
Y Carrier	83.7		40 - 110					10/11/19 17:58	10/25/19 12:48	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	1.42		0.439	0.448	5.00	0.599	pCi/L		11/07/19 06:44	1

Client Sample Results

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Barry

Job ID: 400-177664-1
 SDG: Barry Ash Pond 1245

Client Sample ID: AZ22705 MW-24H

Lab Sample ID: 400-177664-37

Date Collected: 10/02/19 14:47

Matrix: Water

Date Received: 10/08/19 14:54

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.333		0.143	0.146	1.00	0.173	pCi/L	10/11/19 17:24	11/04/19 16:05	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	93.8		40 - 110					10/11/19 17:24	11/04/19 16:05	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.905		0.399	0.407	1.00	0.581	pCi/L	10/11/19 17:58	10/25/19 12:48	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	93.8		40 - 110					10/11/19 17:58	10/25/19 12:48	1
Y Carrier	88.6		40 - 110					10/11/19 17:58	10/25/19 12:48	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	1.24		0.424	0.432	5.00	0.581	pCi/L		11/07/19 06:44	1

Client Sample Results

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Barry

Job ID: 400-177664-1
 SDG: Barry Ash Pond 1245

Client Sample ID: AZ22706 EB-1

Lab Sample ID: 400-177664-38

Date Collected: 10/02/19 15:05

Matrix: Water

Date Received: 10/08/19 14:54

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.213		0.116	0.117	1.00	0.151	pCi/L	10/11/19 17:24	11/04/19 16:05	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	96.3		40 - 110					10/11/19 17:24	11/04/19 16:05	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.0442	U	0.342	0.342	1.00	0.614	pCi/L	10/11/19 17:58	10/25/19 12:48	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	96.3		40 - 110					10/11/19 17:58	10/25/19 12:48	1
Y Carrier	84.9		40 - 110					10/11/19 17:58	10/25/19 12:48	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.169	U	0.361	0.361	5.00	0.614	pCi/L		11/07/19 06:44	1

Definitions/Glossary

Client: Alabama Power General Test Laboratory
Project/Site: CCR Plant Barry

Job ID: 400-177664-1
SDG: Barry Ash Pond 1245

Qualifiers

Rad

Qualifier	Qualifier Description
U	Result is less than the sample detection limit.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
▫	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Lab Chronicle

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Barry

Job ID: 400-177664-1
 SDG: Barry Ash Pond 1245

Client Sample ID: AZ22382 MW-15V

Lab Sample ID: 400-177664-1

Date Collected: 10/01/19 10:11

Matrix: Water

Date Received: 10/08/19 14:54

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			445915	10/11/19 14:45	ORM	TAL SL
Total/NA	Analysis	9315		1	449092	11/05/19 11:21	KLS	TAL SL
Total/NA	Prep	PrecSep_0			445917	10/11/19 15:19	ORM	TAL SL
Total/NA	Analysis	9320		1	447739	10/25/19 09:09	CJQ	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	449349	11/07/19 06:44	SMP	TAL SL

Client Sample ID: AZ22383 FB-3

Lab Sample ID: 400-177664-2

Date Collected: 10/01/19 10:30

Matrix: Water

Date Received: 10/08/19 14:54

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			445915	10/11/19 14:45	ORM	TAL SL
Total/NA	Analysis	9315		1	449092	11/05/19 11:21	KLS	TAL SL
Total/NA	Prep	PrecSep_0			445917	10/11/19 15:19	ORM	TAL SL
Total/NA	Analysis	9320		1	447739	10/25/19 09:09	CJQ	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	449349	11/07/19 06:44	SMP	TAL SL

Client Sample ID: AZ22384 MW-22H

Lab Sample ID: 400-177664-3

Date Collected: 10/01/19 11:10

Matrix: Water

Date Received: 10/08/19 14:54

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			445915	10/11/19 14:45	ORM	TAL SL
Total/NA	Analysis	9315		1	449092	11/05/19 11:22	KLS	TAL SL
Total/NA	Prep	PrecSep_0			445917	10/11/19 15:19	ORM	TAL SL
Total/NA	Analysis	9320		1	447739	10/25/19 09:09	CJQ	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	449349	11/07/19 06:44	SMP	TAL SL

Client Sample ID: AZ22385 MW-20H

Lab Sample ID: 400-177664-4

Date Collected: 10/01/19 13:05

Matrix: Water

Date Received: 10/08/19 14:54

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			445915	10/11/19 14:45	ORM	TAL SL
Total/NA	Analysis	9315		1	449092	11/05/19 11:22	KLS	TAL SL
Total/NA	Prep	PrecSep_0			445917	10/11/19 15:19	ORM	TAL SL
Total/NA	Analysis	9320		1	447739	10/25/19 09:09	CJQ	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	449349	11/07/19 06:44	SMP	TAL SL

Lab Chronicle

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Barry

Job ID: 400-177664-1
 SDG: Barry Ash Pond 1245

Client Sample ID: AZ22386 MW-19H

Lab Sample ID: 400-177664-5

Date Collected: 10/01/19 13:57

Matrix: Water

Date Received: 10/08/19 14:54

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			445915	10/11/19 14:45	ORM	TAL SL
Total/NA	Analysis	9315		1	449092	11/05/19 11:22	KLS	TAL SL
Total/NA	Prep	PrecSep_0			445917	10/11/19 15:19	ORM	TAL SL
Total/NA	Analysis	9320		1	447739	10/25/19 09:09	CJQ	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	449349	11/07/19 06:44	SMP	TAL SL

Client Sample ID: AZ22387 MW-18H

Lab Sample ID: 400-177664-6

Date Collected: 10/01/19 14:57

Matrix: Water

Date Received: 10/08/19 14:54

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			445915	10/11/19 14:45	ORM	TAL SL
Total/NA	Analysis	9315		1	449092	11/05/19 11:23	KLS	TAL SL
Total/NA	Prep	PrecSep_0			445917	10/11/19 15:19	ORM	TAL SL
Total/NA	Analysis	9320		1	447739	10/25/19 09:09	CJQ	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	449349	11/07/19 06:44	SMP	TAL SL

Client Sample ID: AZ22388 MW-23H

Lab Sample ID: 400-177664-7

Date Collected: 10/01/19 15:55

Matrix: Water

Date Received: 10/08/19 14:54

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			445915	10/11/19 14:45	ORM	TAL SL
Total/NA	Analysis	9315		1	449092	11/05/19 11:23	KLS	TAL SL
Total/NA	Prep	PrecSep_0			445917	10/11/19 15:19	ORM	TAL SL
Total/NA	Analysis	9320		1	447739	10/25/19 09:10	CJQ	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	449349	11/07/19 06:44	SMP	TAL SL

Client Sample ID: AZ22389 MW-8

Lab Sample ID: 400-177664-8

Date Collected: 09/30/19 13:57

Matrix: Water

Date Received: 10/08/19 14:54

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			445915	10/11/19 14:45	ORM	TAL SL
Total/NA	Analysis	9315		1	449092	11/05/19 11:23	KLS	TAL SL
Total/NA	Prep	PrecSep_0			445917	10/11/19 15:19	ORM	TAL SL
Total/NA	Analysis	9320		1	447739	10/25/19 09:10	CJQ	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	449349	11/07/19 06:44	SMP	TAL SL

Lab Chronicle

Client: Alabama Power General Test Laboratory
Project/Site: CCR Plant Barry

Job ID: 400-177664-1
SDG: Barry Ash Pond 1245

Client Sample ID: AZ22390 MW-10

Lab Sample ID: 400-177664-9

Date Collected: 09/30/19 15:55

Matrix: Water

Date Received: 10/08/19 14:54

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			445915	10/11/19 14:45	ORM	TAL SL
Total/NA	Analysis	9315		1	449092	11/05/19 11:23	KLS	TAL SL
Total/NA	Prep	PrecSep_0			445917	10/11/19 15:19	ORM	TAL SL
Total/NA	Analysis	9320		1	447775	10/25/19 10:20	CJQ	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	449349	11/07/19 06:44	SMP	TAL SL

Client Sample ID: AZ22391 MW-12

Lab Sample ID: 400-177664-10

Date Collected: 10/01/19 09:42

Matrix: Water

Date Received: 10/08/19 14:54

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			445915	10/11/19 14:45	ORM	TAL SL
Total/NA	Analysis	9315		1	449092	11/05/19 11:24	KLS	TAL SL
Total/NA	Prep	PrecSep_0			445917	10/11/19 15:19	ORM	TAL SL
Total/NA	Analysis	9320		1	447775	10/25/19 10:20	CJQ	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	449349	11/07/19 06:44	SMP	TAL SL

Client Sample ID: AZ22392 MW-16

Lab Sample ID: 400-177664-11

Date Collected: 10/01/19 11:32

Matrix: Water

Date Received: 10/08/19 14:54

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			445915	10/11/19 14:45	ORM	TAL SL
Total/NA	Analysis	9315		1	449092	11/05/19 11:24	KLS	TAL SL
Total/NA	Prep	PrecSep_0			445917	10/11/19 15:19	ORM	TAL SL
Total/NA	Analysis	9320		1	447775	10/25/19 10:20	CJQ	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	449349	11/07/19 06:44	SMP	TAL SL

Client Sample ID: AZ22393 MW-2

Lab Sample ID: 400-177664-12

Date Collected: 10/01/19 13:38

Matrix: Water

Date Received: 10/08/19 14:54

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			445915	10/11/19 14:45	ORM	TAL SL
Total/NA	Analysis	9315		1	449092	11/05/19 11:24	KLS	TAL SL
Total/NA	Prep	PrecSep_0			445917	10/11/19 15:19	ORM	TAL SL
Total/NA	Analysis	9320		1	447775	10/25/19 10:20	CJQ	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	449349	11/07/19 06:44	SMP	TAL SL

Lab Chronicle

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Barry

Job ID: 400-177664-1
 SDG: Barry Ash Pond 1245

Client Sample ID: AZ22394 MW-4

Lab Sample ID: 400-177664-13

Date Collected: 10/01/19 15:30

Matrix: Water

Date Received: 10/08/19 14:54

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			445915	10/11/19 14:45	ORM	TAL SL
Total/NA	Analysis	9315		1	449092	11/05/19 11:24	KLS	TAL SL
Total/NA	Prep	PrecSep_0			445917	10/11/19 15:19	ORM	TAL SL
Total/NA	Analysis	9320		1	447775	10/25/19 10:20	CJQ	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	449349	11/07/19 06:44	SMP	TAL SL

Client Sample ID: AZ22395 MW-15

Lab Sample ID: 400-177664-14

Date Collected: 10/01/19 17:23

Matrix: Water

Date Received: 10/08/19 14:54

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			445915	10/11/19 14:45	ORM	TAL SL
Total/NA	Analysis	9315		1	448789	11/05/19 11:26	KLS	TAL SL
Total/NA	Prep	PrecSep_0			445917	10/11/19 15:19	ORM	TAL SL
Total/NA	Analysis	9320		1	447775	10/25/19 10:21	CJQ	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	449349	11/07/19 06:44	SMP	TAL SL

Client Sample ID: AZ22396 MW-7

Lab Sample ID: 400-177664-15

Date Collected: 09/30/19 13:47

Matrix: Water

Date Received: 10/08/19 14:54

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			445915	10/11/19 14:45	ORM	TAL SL
Total/NA	Analysis	9315		1	448789	11/05/19 11:26	KLS	TAL SL
Total/NA	Prep	PrecSep_0			445917	10/11/19 15:19	ORM	TAL SL
Total/NA	Analysis	9320		1	447775	10/25/19 10:21	CJQ	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	449349	11/07/19 06:44	SMP	TAL SL

Client Sample ID: AZ22397 MW-9

Lab Sample ID: 400-177664-16

Date Collected: 09/30/19 15:48

Matrix: Water

Date Received: 10/08/19 14:54

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			445915	10/11/19 14:45	ORM	TAL SL
Total/NA	Analysis	9315		1	449092	11/05/19 13:23	KLS	TAL SL
Total/NA	Prep	PrecSep_0			445917	10/11/19 15:19	ORM	TAL SL
Total/NA	Analysis	9320		1	447775	10/25/19 10:21	CJQ	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	449349	11/07/19 06:44	SMP	TAL SL

Lab Chronicle

Client: Alabama Power General Test Laboratory
Project/Site: CCR Plant Barry

Job ID: 400-177664-1
SDG: Barry Ash Pond 1245

Client Sample ID: AZ22398 MW-11

Lab Sample ID: 400-177664-17

Date Collected: 09/30/19 17:06

Matrix: Water

Date Received: 10/08/19 14:54

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			445915	10/11/19 14:45	ORM	TAL SL
Total/NA	Analysis	9315		1	449092	11/05/19 13:23	KLS	TAL SL
Total/NA	Prep	PrecSep_0			445917	10/11/19 15:19	ORM	TAL SL
Total/NA	Analysis	9320		1	447775	10/25/19 10:21	CJQ	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	449349	11/07/19 06:44	SMP	TAL SL

Client Sample ID: AZ22399 MW-13

Lab Sample ID: 400-177664-18

Date Collected: 10/01/19 09:03

Matrix: Water

Date Received: 10/08/19 14:54

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			445915	10/11/19 14:45	ORM	TAL SL
Total/NA	Analysis	9315		1	449092	11/05/19 13:23	KLS	TAL SL
Total/NA	Prep	PrecSep_0			445917	10/11/19 15:19	ORM	TAL SL
Total/NA	Analysis	9320		1	447775	10/25/19 10:21	CJQ	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	449349	11/07/19 06:44	SMP	TAL SL

Client Sample ID: AZ22400 MW-13 DUP

Lab Sample ID: 400-177664-19

Date Collected: 10/01/19 09:03

Matrix: Water

Date Received: 10/08/19 14:54

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			445915	10/11/19 14:45	ORM	TAL SL
Total/NA	Analysis	9315		1	449092	11/05/19 13:23	KLS	TAL SL
Total/NA	Prep	PrecSep_0			445917	10/11/19 15:19	ORM	TAL SL
Total/NA	Analysis	9320		1	447775	10/25/19 10:21	CJQ	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	449349	11/07/19 06:44	SMP	TAL SL

Client Sample ID: AZ22401 MW-14

Lab Sample ID: 400-177664-20

Date Collected: 10/01/19 10:41

Matrix: Water

Date Received: 10/08/19 14:54

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			445927	10/11/19 17:24	ORM	TAL SL
Total/NA	Analysis	9315		1	448682	11/04/19 12:50	KLS	TAL SL
Total/NA	Prep	PrecSep_0			445928	10/11/19 17:58	ORM	TAL SL
Total/NA	Analysis	9320		1	447755	10/25/19 12:44	SCB	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	449349	11/07/19 06:44	SMP	TAL SL

Lab Chronicle

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Barry

Job ID: 400-177664-1
 SDG: Barry Ash Pond 1245

Client Sample ID: AZ22402 MW-1

Lab Sample ID: 400-177664-21

Date Collected: 10/01/19 13:12

Matrix: Water

Date Received: 10/08/19 14:54

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			445927	10/11/19 17:24	ORM	TAL SL
Total/NA	Analysis	9315		1	448682	11/04/19 12:50	KLS	TAL SL
Total/NA	Prep	PrecSep_0			445928	10/11/19 17:58	ORM	TAL SL
Total/NA	Analysis	9320		1	447755	10/25/19 12:44	SCB	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	449349	11/07/19 06:44	SMP	TAL SL

Client Sample ID: AZ22403 FB-2

Lab Sample ID: 400-177664-22

Date Collected: 10/01/19 13:55

Matrix: Water

Date Received: 10/08/19 14:54

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			445927	10/11/19 17:24	ORM	TAL SL
Total/NA	Analysis	9315		1	448682	11/04/19 12:51	KLS	TAL SL
Total/NA	Prep	PrecSep_0			445928	10/11/19 17:58	ORM	TAL SL
Total/NA	Analysis	9320		1	447755	10/25/19 12:44	SCB	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	449349	11/07/19 06:44	SMP	TAL SL

Client Sample ID: AZ22404 MW-3

Lab Sample ID: 400-177664-23

Date Collected: 10/01/19 15:18

Matrix: Water

Date Received: 10/08/19 14:54

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			445927	10/11/19 17:24	ORM	TAL SL
Total/NA	Analysis	9315		1	448682	11/04/19 12:51	KLS	TAL SL
Total/NA	Prep	PrecSep_0			445928	10/11/19 17:58	ORM	TAL SL
Total/NA	Analysis	9320		1	447755	10/25/19 12:44	SCB	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	449349	11/07/19 06:44	SMP	TAL SL

Client Sample ID: AZ22405 MW-7V

Lab Sample ID: 400-177664-24

Date Collected: 10/01/19 10:13

Matrix: Water

Date Received: 10/08/19 14:54

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			445927	10/11/19 17:24	ORM	TAL SL
Total/NA	Analysis	9315		1	448682	11/04/19 12:51	KLS	TAL SL
Total/NA	Prep	PrecSep_0			445928	10/11/19 17:58	ORM	TAL SL
Total/NA	Analysis	9320		1	447755	10/25/19 12:44	SCB	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	449349	11/07/19 06:44	SMP	TAL SL

Lab Chronicle

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Barry

Job ID: 400-177664-1
 SDG: Barry Ash Pond 1245

Client Sample ID: AZ22406 MW-8V

Lab Sample ID: 400-177664-25

Date Collected: 10/01/19 11:30

Matrix: Water

Date Received: 10/08/19 14:54

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			445927	10/11/19 17:24	ORM	TAL SL
Total/NA	Analysis	9315		1	448682	11/04/19 12:51	KLS	TAL SL
Total/NA	Prep	PrecSep_0			445928	10/11/19 17:58	ORM	TAL SL
Total/NA	Analysis	9320		1	447755	10/25/19 12:44	SCB	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	449349	11/07/19 06:44	SMP	TAL SL

Client Sample ID: AZ22407 MW-10V

Lab Sample ID: 400-177664-26

Date Collected: 10/01/19 12:55

Matrix: Water

Date Received: 10/08/19 14:54

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			445927	10/11/19 17:24	ORM	TAL SL
Total/NA	Analysis	9315		1	448682	11/04/19 12:51	KLS	TAL SL
Total/NA	Prep	PrecSep_0			445928	10/11/19 17:58	ORM	TAL SL
Total/NA	Analysis	9320		1	447755	10/25/19 12:44	SCB	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	449349	11/07/19 06:44	SMP	TAL SL

Client Sample ID: AZ22408 MW-10V DUP

Lab Sample ID: 400-177664-27

Date Collected: 10/01/19 12:55

Matrix: Water

Date Received: 10/08/19 14:54

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			445927	10/11/19 17:24	ORM	TAL SL
Total/NA	Analysis	9315		1	448682	11/04/19 12:51	KLS	TAL SL
Total/NA	Prep	PrecSep_0			445928	10/11/19 17:58	ORM	TAL SL
Total/NA	Analysis	9320		1	447755	10/25/19 12:44	SCB	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	449349	11/07/19 06:44	SMP	TAL SL

Client Sample ID: AZ22409 MW-5

Lab Sample ID: 400-177664-28

Date Collected: 10/01/19 14:45

Matrix: Water

Date Received: 10/08/19 14:54

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			445927	10/11/19 17:24	ORM	TAL SL
Total/NA	Analysis	9315		1	448682	11/04/19 12:51	KLS	TAL SL
Total/NA	Prep	PrecSep_0			445928	10/11/19 17:58	ORM	TAL SL
Total/NA	Analysis	9320		1	447755	10/25/19 12:44	SCB	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	449349	11/07/19 06:44	SMP	TAL SL

Lab Chronicle

Client: Alabama Power General Test Laboratory
Project/Site: CCR Plant Barry

Job ID: 400-177664-1
SDG: Barry Ash Pond 1245

Client Sample ID: AZ22410 MW-6

Lab Sample ID: 400-177664-29

Date Collected: 10/01/19 16:10

Matrix: Water

Date Received: 10/08/19 14:54

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			445927	10/11/19 17:24	ORM	TAL SL
Total/NA	Analysis	9315		1	448682	11/04/19 12:52	KLS	TAL SL
Total/NA	Prep	PrecSep_0			445928	10/11/19 17:58	ORM	TAL SL
Total/NA	Analysis	9320		1	447755	10/25/19 12:44	SCB	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	449349	11/07/19 06:44	SMP	TAL SL

Client Sample ID: AZ22698 MW-1V

Lab Sample ID: 400-177664-30

Date Collected: 10/02/19 14:50

Matrix: Water

Date Received: 10/08/19 14:54

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			445927	10/11/19 17:24	ORM	TAL SL
Total/NA	Analysis	9315		1	448682	11/04/19 12:52	KLS	TAL SL
Total/NA	Prep	PrecSep_0			445928	10/11/19 17:58	ORM	TAL SL
Total/NA	Analysis	9320		1	447755	10/25/19 12:45	SCB	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	449349	11/07/19 06:44	SMP	TAL SL

Client Sample ID: AZ22699 FB-1

Lab Sample ID: 400-177664-31

Date Collected: 10/02/19 15:00

Matrix: Water

Date Received: 10/08/19 14:54

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			445927	10/11/19 17:24	ORM	TAL SL
Total/NA	Analysis	9315		1	448682	11/04/19 12:52	KLS	TAL SL
Total/NA	Prep	PrecSep_0			445928	10/11/19 17:58	ORM	TAL SL
Total/NA	Analysis	9320		1	447755	10/25/19 12:45	SCB	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	449349	11/07/19 06:44	SMP	TAL SL

Client Sample ID: AZ22700 MW-5V

Lab Sample ID: 400-177664-32

Date Collected: 10/02/19 13:55

Matrix: Water

Date Received: 10/08/19 14:54

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			445927	10/11/19 17:24	ORM	TAL SL
Total/NA	Analysis	9315		1	448682	11/04/19 12:52	KLS	TAL SL
Total/NA	Prep	PrecSep_0			445928	10/11/19 17:58	ORM	TAL SL
Total/NA	Analysis	9320		1	447755	10/25/19 12:45	SCB	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	449349	11/07/19 06:44	SMP	TAL SL

Lab Chronicle

Client: Alabama Power General Test Laboratory
Project/Site: CCR Plant Barry

Job ID: 400-177664-1
SDG: Barry Ash Pond 1245

Client Sample ID: AZ22701 MW-17H

Lab Sample ID: 400-177664-33

Date Collected: 10/02/19 11:03

Matrix: Water

Date Received: 10/08/19 14:54

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			445927	10/11/19 17:24	ORM	TAL SL
Total/NA	Analysis	9315		1	448682	11/04/19 16:04	KLS	TAL SL
Total/NA	Prep	PrecSep_0			445928	10/11/19 17:58	ORM	TAL SL
Total/NA	Analysis	9320		1	447739	10/25/19 12:48	CJQ	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	449349	11/07/19 06:44	SMP	TAL SL

Client Sample ID: AZ22702 MW-17H DIS

Lab Sample ID: 400-177664-34

Date Collected: 10/02/19 11:03

Matrix: Water

Date Received: 10/08/19 14:54

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Dissolved	Prep	PrecSep-21			445927	10/11/19 17:24	ORM	TAL SL
Dissolved	Analysis	9315		1	448682	11/04/19 16:04	KLS	TAL SL
Dissolved	Prep	PrecSep_0			445928	10/11/19 17:58	ORM	TAL SL
Dissolved	Analysis	9320		1	447739	10/25/19 12:48	CJQ	TAL SL
Dissolved	Analysis	Ra226_Ra228 (D)		1	449348	11/07/19 06:44	SMP	TAL SL

Client Sample ID: AZ22703 MW-12V

Lab Sample ID: 400-177664-35

Date Collected: 10/02/19 12:37

Matrix: Water

Date Received: 10/08/19 14:54

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			445927	10/11/19 17:24	ORM	TAL SL
Total/NA	Analysis	9315		1	448682	11/04/19 16:04	KLS	TAL SL
Total/NA	Prep	PrecSep_0			445928	10/11/19 17:58	ORM	TAL SL
Total/NA	Analysis	9320		1	447739	10/25/19 12:48	CJQ	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	449349	11/07/19 06:44	SMP	TAL SL

Client Sample ID: AZ22704 MW-12V DUP

Lab Sample ID: 400-177664-36

Date Collected: 10/02/19 12:37

Matrix: Water

Date Received: 10/08/19 14:54

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			445927	10/11/19 17:24	ORM	TAL SL
Total/NA	Analysis	9315		1	448682	11/04/19 16:04	KLS	TAL SL
Total/NA	Prep	PrecSep_0			445928	10/11/19 17:58	ORM	TAL SL
Total/NA	Analysis	9320		1	447739	10/25/19 12:48	CJQ	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	449349	11/07/19 06:44	SMP	TAL SL

Lab Chronicle

Client: Alabama Power General Test Laboratory
Project/Site: CCR Plant Barry

Job ID: 400-177664-1
SDG: Barry Ash Pond 1245

Client Sample ID: AZ22705 MW-24H

Lab Sample ID: 400-177664-37

Date Collected: 10/02/19 14:47

Matrix: Water

Date Received: 10/08/19 14:54

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			445927	10/11/19 17:24	ORM	TAL SL
Total/NA	Analysis	9315		1	448682	11/04/19 16:05	KLS	TAL SL
Total/NA	Prep	PrecSep_0			445928	10/11/19 17:58	ORM	TAL SL
Total/NA	Analysis	9320		1	447739	10/25/19 12:48	CJQ	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	449349	11/07/19 06:44	SMP	TAL SL

Client Sample ID: AZ22706 EB-1

Lab Sample ID: 400-177664-38

Date Collected: 10/02/19 15:05

Matrix: Water

Date Received: 10/08/19 14:54

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			445927	10/11/19 17:24	ORM	TAL SL
Total/NA	Analysis	9315		1	448682	11/04/19 16:05	KLS	TAL SL
Total/NA	Prep	PrecSep_0			445928	10/11/19 17:58	ORM	TAL SL
Total/NA	Analysis	9320		1	447739	10/25/19 12:48	CJQ	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	449349	11/07/19 06:44	SMP	TAL SL

Laboratory References:

TAL SL = Eurofins TestAmerica, St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

QC Association Summary

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Barry

Job ID: 400-177664-1
 SDG: Barry Ash Pond 1245

Rad

Prep Batch: 445915

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-177664-1	AZ22382 MW-15V	Total/NA	Water	PrecSep-21	
400-177664-2	AZ22383 FB-3	Total/NA	Water	PrecSep-21	
400-177664-3	AZ22384 MW-22H	Total/NA	Water	PrecSep-21	
400-177664-4	AZ22385 MW-20H	Total/NA	Water	PrecSep-21	
400-177664-5	AZ22386 MW-19H	Total/NA	Water	PrecSep-21	
400-177664-6	AZ22387 MW-18H	Total/NA	Water	PrecSep-21	
400-177664-7	AZ22388 MW-23H	Total/NA	Water	PrecSep-21	
400-177664-8	AZ22389 MW-8	Total/NA	Water	PrecSep-21	
400-177664-9	AZ22390 MW-10	Total/NA	Water	PrecSep-21	
400-177664-10	AZ22391 MW-12	Total/NA	Water	PrecSep-21	
400-177664-11	AZ22392 MW-16	Total/NA	Water	PrecSep-21	
400-177664-12	AZ22393 MW-2	Total/NA	Water	PrecSep-21	
400-177664-13	AZ22394 MW-4	Total/NA	Water	PrecSep-21	
400-177664-14	AZ22395 MW-15	Total/NA	Water	PrecSep-21	
400-177664-15	AZ22396 MW-7	Total/NA	Water	PrecSep-21	
400-177664-16	AZ22397 MW-9	Total/NA	Water	PrecSep-21	
400-177664-17	AZ22398 MW-11	Total/NA	Water	PrecSep-21	
400-177664-18	AZ22399 MW-13	Total/NA	Water	PrecSep-21	
400-177664-19	AZ22400 MW-13 DUP	Total/NA	Water	PrecSep-21	
MB 160-445915/22-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-445915/1-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
400-177664-1 DU	AZ22382 MW-15V	Total/NA	Water	PrecSep-21	

Prep Batch: 445917

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-177664-1	AZ22382 MW-15V	Total/NA	Water	PrecSep_0	
400-177664-2	AZ22383 FB-3	Total/NA	Water	PrecSep_0	
400-177664-3	AZ22384 MW-22H	Total/NA	Water	PrecSep_0	
400-177664-4	AZ22385 MW-20H	Total/NA	Water	PrecSep_0	
400-177664-5	AZ22386 MW-19H	Total/NA	Water	PrecSep_0	
400-177664-6	AZ22387 MW-18H	Total/NA	Water	PrecSep_0	
400-177664-7	AZ22388 MW-23H	Total/NA	Water	PrecSep_0	
400-177664-8	AZ22389 MW-8	Total/NA	Water	PrecSep_0	
400-177664-9	AZ22390 MW-10	Total/NA	Water	PrecSep_0	
400-177664-10	AZ22391 MW-12	Total/NA	Water	PrecSep_0	
400-177664-11	AZ22392 MW-16	Total/NA	Water	PrecSep_0	
400-177664-12	AZ22393 MW-2	Total/NA	Water	PrecSep_0	
400-177664-13	AZ22394 MW-4	Total/NA	Water	PrecSep_0	
400-177664-14	AZ22395 MW-15	Total/NA	Water	PrecSep_0	
400-177664-15	AZ22396 MW-7	Total/NA	Water	PrecSep_0	
400-177664-16	AZ22397 MW-9	Total/NA	Water	PrecSep_0	
400-177664-17	AZ22398 MW-11	Total/NA	Water	PrecSep_0	
400-177664-18	AZ22399 MW-13	Total/NA	Water	PrecSep_0	
400-177664-19	AZ22400 MW-13 DUP	Total/NA	Water	PrecSep_0	
MB 160-445917/22-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-445917/1-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
400-177664-1 DU	AZ22382 MW-15V	Total/NA	Water	PrecSep_0	

Prep Batch: 445927

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-177664-20	AZ22401 MW-14	Total/NA	Water	PrecSep-21	

QC Association Summary

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Barry

Job ID: 400-177664-1
 SDG: Barry Ash Pond 1245

Rad (Continued)

Prep Batch: 445927 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-177664-21	AZ22402 MW-1	Total/NA	Water	PrecSep-21	
400-177664-22	AZ22403 FB-2	Total/NA	Water	PrecSep-21	
400-177664-23	AZ22404 MW-3	Total/NA	Water	PrecSep-21	
400-177664-24	AZ22405 MW-7V	Total/NA	Water	PrecSep-21	
400-177664-25	AZ22406 MW-8V	Total/NA	Water	PrecSep-21	
400-177664-26	AZ22407 MW-10V	Total/NA	Water	PrecSep-21	
400-177664-27	AZ22408 MW-10V DUP	Total/NA	Water	PrecSep-21	
400-177664-28	AZ22409 MW-5	Total/NA	Water	PrecSep-21	
400-177664-29	AZ22410 MW-6	Total/NA	Water	PrecSep-21	
400-177664-30	AZ22698 MW-1V	Total/NA	Water	PrecSep-21	
400-177664-31	AZ22699 FB-1	Total/NA	Water	PrecSep-21	
400-177664-32	AZ22700 MW-5V	Total/NA	Water	PrecSep-21	
400-177664-33	AZ22701 MW-17H	Total/NA	Water	PrecSep-21	
400-177664-34	AZ22702 MW-17H DIS	Dissolved	Water	PrecSep-21	
400-177664-35	AZ22703 MW-12V	Total/NA	Water	PrecSep-21	
400-177664-36	AZ22704 MW-12V DUP	Total/NA	Water	PrecSep-21	
400-177664-37	AZ22705 MW-24H	Total/NA	Water	PrecSep-21	
400-177664-38	AZ22706 EB-1	Total/NA	Water	PrecSep-21	
MB 160-445927/22-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-445927/1-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
400-177664-32 DU	AZ22700 MW-5V	Total/NA	Water	PrecSep-21	

Prep Batch: 445928

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-177664-20	AZ22401 MW-14	Total/NA	Water	PrecSep_0	
400-177664-21	AZ22402 MW-1	Total/NA	Water	PrecSep_0	
400-177664-22	AZ22403 FB-2	Total/NA	Water	PrecSep_0	
400-177664-23	AZ22404 MW-3	Total/NA	Water	PrecSep_0	
400-177664-24	AZ22405 MW-7V	Total/NA	Water	PrecSep_0	
400-177664-25	AZ22406 MW-8V	Total/NA	Water	PrecSep_0	
400-177664-26	AZ22407 MW-10V	Total/NA	Water	PrecSep_0	
400-177664-27	AZ22408 MW-10V DUP	Total/NA	Water	PrecSep_0	
400-177664-28	AZ22409 MW-5	Total/NA	Water	PrecSep_0	
400-177664-29	AZ22410 MW-6	Total/NA	Water	PrecSep_0	
400-177664-30	AZ22698 MW-1V	Total/NA	Water	PrecSep_0	
400-177664-31	AZ22699 FB-1	Total/NA	Water	PrecSep_0	
400-177664-32	AZ22700 MW-5V	Total/NA	Water	PrecSep_0	
400-177664-33	AZ22701 MW-17H	Total/NA	Water	PrecSep_0	
400-177664-34	AZ22702 MW-17H DIS	Dissolved	Water	PrecSep_0	
400-177664-35	AZ22703 MW-12V	Total/NA	Water	PrecSep_0	
400-177664-36	AZ22704 MW-12V DUP	Total/NA	Water	PrecSep_0	
400-177664-37	AZ22705 MW-24H	Total/NA	Water	PrecSep_0	
400-177664-38	AZ22706 EB-1	Total/NA	Water	PrecSep_0	
MB 160-445928/22-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-445928/1-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
400-177664-32 DU	AZ22700 MW-5V	Total/NA	Water	PrecSep_0	

QC Sample Results

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Barry

Job ID: 400-177664-1
 SDG: Barry Ash Pond 1245

Method: 9315 - Radium-226 (GFPC)

Lab Sample ID: MB 160-445915/22-A
Matrix: Water
Analysis Batch: 449092

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 445915

Analyte	MB	MB	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
	Result	Qualifier	Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Radium-226	0.1867		0.116	0.117	1.00	0.160	pCi/L	10/11/19 14:45	11/05/19 13:23	1
Carrier	MB	MB	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	%Yield	Qualifier	40 - 110					10/11/19 14:45	11/05/19 13:23	1
	90.7									

Lab Sample ID: LCS 160-445915/1-A
Matrix: Water
Analysis Batch: 449092

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 445915

Analyte	Spike Added	LCS Result	LCS Qual	Total	RL	MDC	Unit	%Rec	%Rec. Limits
				Uncert. (2σ+/-)					
Radium-226	15.1	14.14		1.49	1.00	0.176	pCi/L	93	75 - 125
Carrier	LCS	LCS	Limits						
Ba Carrier	%Yield	Qualifier	40 - 110						
	80.5								

Lab Sample ID: 400-177664-1 DU
Matrix: Water
Analysis Batch: 449092

Client Sample ID: AZ22382 MW-15V
Prep Type: Total/NA
Prep Batch: 445915

Analyte	Sample	Sample	DU	DU	Total	RL	MDC	Unit	RER	RER Limit
	Result	Qual	Result	Qual	Uncert. (2σ+/-)					
Radium-226	0.872		0.8839		0.212	1.00	0.156	pCi/L	0.03	1
Carrier	DU	DU	Limits							
Ba Carrier	%Yield	Qualifier	40 - 110							
	93.2									

Lab Sample ID: MB 160-445927/22-A
Matrix: Water
Analysis Batch: 448682

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 445927

Analyte	MB	MB	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
	Result	Qualifier	Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Radium-226	0.07843	U	0.0881	0.0884	1.00	0.142	pCi/L	10/11/19 17:24	11/04/19 16:05	1
Carrier	MB	MB	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	%Yield	Qualifier	40 - 110					10/11/19 17:24	11/04/19 16:05	1
	94.6									

Lab Sample ID: LCS 160-445927/1-A
Matrix: Water
Analysis Batch: 448682

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 445927

Analyte	Spike Added	LCS Result	LCS Qual	Total	RL	MDC	Unit	%Rec	%Rec. Limits
				Uncert. (2σ+/-)					
Radium-226	15.1	13.11		1.38	1.00	0.181	pCi/L	87	75 - 125

QC Sample Results

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Barry

Job ID: 400-177664-1
 SDG: Barry Ash Pond 1245

Method: 9315 - Radium-226 (GFPC) (Continued)

Lab Sample ID: LCS 160-445927/1-A
Matrix: Water
Analysis Batch: 448682

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 445927

Carrier	LCS %Yield	LCS Qualifier	Limits
Ba Carrier	92.9		40 - 110

Lab Sample ID: 400-177664-32 DU
Matrix: Water
Analysis Batch: 448682

Client Sample ID: AZ22700 MW-5V
Prep Type: Total/NA
Prep Batch: 445927

Analyte	Sample Result	Sample Qual	DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	RER	
									RER	Limit
Radium-226	0.254		0.2980		0.144	1.00	0.177	pCi/L	0.16	1
Carrier	DU %Yield	DU Qualifier	Limits							
Ba Carrier	89.5		40 - 110							

Method: 9320 - Radium-228 (GFPC)

Lab Sample ID: MB 160-445917/22-A
Matrix: Water
Analysis Batch: 447775

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 445917

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Carrier	MB %Yield	MB Qualifier	Limits		Prepared		Analyzed		Dil Fac	
Ba Carrier	90.7		40 - 110		10/11/19 15:19		10/25/19 10:21		1	
Y Carrier	85.6		40 - 110		10/11/19 15:19		10/25/19 10:21		1	

Lab Sample ID: LCS 160-445917/1-A
Matrix: Water
Analysis Batch: 447739

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 445917

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits	
									Radium-228	12.6
Carrier	LCS %Yield	LCS Qualifier	Limits							
Ba Carrier	80.5		40 - 110							
Y Carrier	83.0		40 - 110							

Lab Sample ID: 400-177664-1 DU
Matrix: Water
Analysis Batch: 447739

Client Sample ID: AZ22382 MW-15V
Prep Type: Total/NA
Prep Batch: 445917

Analyte	Sample Result	Sample Qual	DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	RER	
									RER	Limit
Radium-228	0.636	U	0.5550		0.354	1.00	0.538	pCi/L	0.1	1

QC Sample Results

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Barry

Job ID: 400-177664-1
 SDG: Barry Ash Pond 1245

Method: 9320 - Radium-228 (GFPC) (Continued)

Lab Sample ID: 400-177664-1 DU
Matrix: Water
Analysis Batch: 447739

Client Sample ID: AZ22382 MW-15V
Prep Type: Total/NA
Prep Batch: 445917

Carrier	<i>DU</i> %Yield	<i>DU</i> Qualifier	Limits
Ba Carrier	93.2		40 - 110
Y Carrier	83.7		40 - 110

Lab Sample ID: MB 160-445928/22-A
Matrix: Water
Analysis Batch: 447739

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 445928

Analyte	<i>MB MB</i>		Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
	Result	Qualifier								
Radium-228	-0.1170	U	0.367	0.367	1.00	0.666	pCi/L	10/11/19 17:58	10/25/19 12:48	1
Carrier	<i>MB MB</i> %Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	94.6		40 - 110					10/11/19 17:58	10/25/19 12:48	1
Y Carrier	84.5		40 - 110					10/11/19 17:58	10/25/19 12:48	1

Lab Sample ID: LCS 160-445928/1-A
Matrix: Water
Analysis Batch: 447755

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 445928

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits	
									%Rec	Limits
Radium-228	12.6	14.27		1.65	1.00	0.618	pCi/L	113	75 - 125	
Carrier	<i>LCS LCS</i> %Yield	Qualifier	Limits							
Ba Carrier	92.9		40 - 110							
Y Carrier	80.0		40 - 110							

Lab Sample ID: 400-177664-32 DU
Matrix: Water
Analysis Batch: 447739

Client Sample ID: AZ22700 MW-5V
Prep Type: Total/NA
Prep Batch: 445928

Analyte	<i>Sample Sample</i>		<i>DU DU</i>		Total Uncert. (2σ+/-)	RL	MDC	Unit	RER	RER	Limit
	Result	Qual	Result	Qual						Limit	
Radium-228	-0.0476	U	0.5176	U	0.447	1.00	0.715	pCi/L		0.72	1
Carrier	<i>DU DU</i> %Yield	Qualifier	Limits								
Ba Carrier	89.5		40 - 110								
Y Carrier	81.5		40 - 110								

QC Sample Results

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Barry

Job ID: 400-177664-1
 SDG: Barry Ash Pond 1245

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Lab Sample ID: 400-177664-1 DU
Matrix: Water
Analysis Batch: 449349

Client Sample ID: AZ22382 MW-15V
Prep Type: Total/NA

Analyte	Sample Result	Sample Qual	DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	RER	RER Limit
Combined Radium 226 + 228	1.51		1.439		0.413	5.00	0.538	pCi/L	0.07	

Lab Sample ID: 400-177664-32 DU
Matrix: Water
Analysis Batch: 449349

Client Sample ID: AZ22700 MW-5V
Prep Type: Total/NA

Analyte	Sample Result	Sample Qual	DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	RER	RER Limit
Combined Radium 226 + 228	0.206	U	0.8156		0.470	5.00	0.715	pCi/L	0.73	



TestAmerica Pensacola
 3355 McLemore Drive
 Pensacola, FL 32514
 Phone (850) 474-1001 Fax (850) 478-2671

Chain of Custody Record

TestAmerica
 THE REGIONAL ENVIRONMENTAL TESTING CO.



400-177664 COC

Client Information (Sub Contract Lab) Client Contact: Laura Midkiff Company: Alabama Power General Test Laboratory Address: 744 County Rd 87 GSC#8 City: Calera State, Zip: AL 35040 Phone: 205-664-6197 Email: lmidkiff@southarmco.com Project Name: CCR Site: Barry Ash Pond 1245		Client Information (Sub Contract Lab) Sampler: Anthony Goggins Lab PM: Whimire, Cheyenne R E-Mail: cheyenne.whimire@testamerica.com State of Origin: Alabama Carrier Tracking Note:		COC No: 400-56525-24537.1 Page: 1 of 7 Job #:
Due Date Requested: TAT Requested (days): Routine		Analysis Requested 9315_Ra226_9320_Ra228_Ra228Ra228_GFPc		
Sample Identification - Client ID (Lab ID) A-Z22382 A-Z22383 A-Z22384 A-Z22385 A-Z22386 A-Z22387 A-Z22388		Field Filtered Sample (Yes or No) <input checked="" type="checkbox"/> X Perform MS/MSD (Yes or No) <input checked="" type="checkbox"/> X SM 4500 F_C SM 4500 Cl_E SM 4500 SO4_E	Preservation Codes: A - HCL B - NaOH C - Zn Acetate D - Nitric Acid E - NaOH F - NaOH G - Anchlor H - Ascorbic Acid I - Ice J - DI Water K - EDTA L - EDA M - Hexane N - None O - Ashad2 P - NiCOBIS Q - NaOH R - Na2SO3 S - H2SO4 T - TSP Dodecylhydrate U - Acetone V - MCAA W - pH 4.5 X - EDA Z - other (Specify)	
Sample Date 10/1/19 10/1/19 10/1/19 10/1/19 10/1/19 10/1/19 10/1/19	Sample Time 10:11 10:30 11:10 13:05 13:57 14:57 15:55	Sample Type (C=Comp, G=grab) G G G G G G G	Matrix (W=Water, S=Soil, O=Other, D=Dredge) Water Water Water Water Water Water Water	Preservation Code: MW-15V FB-3 (Field Blank) MW-22H MW-20H MW-19H MW-18H MW-23H
Special Instructions/Note: Total Number of containers				
Note: Since laboratory accreditations are subject to change, TestAmerica Laboratories, Inc. please the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the analyte, the sample will be shipped to the nearest laboratory that is accredited for the analyte. If the laboratory does not have the necessary accreditation, the sample will be shipped to the nearest laboratory that is accredited for the analyte. If all requested accreditations are current to date, return the signed Chain of Custody according to said compliance to TestAmerica Laboratories, Inc.				
Possible Hazard Identification Unconfirmed Deliverable Requested: I, II, III, IV, Other (specify)				
Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For Months				
Deliverable Requested: I, II, III, IV, Other (specify)				
Empty Kit Relinquished by: Relinquished by: Laura Midkiff Date/Time: 10/04/19 14:00		Received by: Received by: [Signature] Date/Time: 10/18/19 254 Company: [Signature]		
Relinquished by: Relinquished by:		Received by: Received by:		
Relinquished by: Relinquished by:		Received by: Received by:		
Custody Seals Intact: Custody Seal No.:				

21.4°C, 21.9°C, 21.9°C
 21.3°C

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13

Chain of Custody Record

Client Information (Sub Contract Lab)		Lab #/M Whitmore, Cheyenne R		Center Tracking No(s)		COC No 400-56525-24537.1	
Client Contact Laura Mickif		Email lcmickif@testamericainc.com		State of Origin Alabama		Page Page 2 of 7	
Company Alabama Power General Test Laboratory		Accreditations Required (See Note)		Analysis Requested		Preservation Codes: M - Hexane N - None O - Ash/AO2 P - Nitric Acid R - Nitrogen S - H2SO4 T - TSP Dodecahydrate U - Acetone V - MCAA W - pH 4-5 Z - other (specify)	
Address 744 County Rd 87 GSC#8		Due Date Requested:		Total Number of Containers		Special Instructions/Note:	
City Calera		TAT Requested (days): Routine		9315_Ra226_9320_Ra228_Ra228Ra228_GFPc			
State, Zip AL, 35040		PO #		SM 4500 CL E			
Phone 205-664-6197		W/O #		SM 4500 F C			
Email lbmickif@southernco.com		Project # 40007143		Perform MS/MSD (Yes or No)			
Project Name CCR		SSOW#		Field Filtered Sample (Yes or No)			
Site Batty Ash Pond 1245		Sample Date		Sample Time		Sample Type (C=comp, G=grab)	
Sample Identification - Client ID (Lab ID)		Sample Date		Sample Time		Matrix (Water, Solid, or Other)	
AZ22389	9/30/19	13:57	G	Water			
AZ22390	9/30/19	15:55	G	Water			
AZ22391	10/1/19	09:42	G	Water			
AZ22392	10/1/19	11:32	G	Water			
AZ22393	10/1/19	13:38	G	Water			
AZ22394	10/1/19	15:30	G	Water			
AZ22395	10/1/19	17:23	G	Water			

Note: Since laboratory accreditations are subject to change, TestAmerica Laboratories, Inc. places the ownership of method, analysis & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/matrix being analyzed, the samples must be shipped back to the TestAmerica laboratory or other instructions will be provided. Any changes to accreditation status should be brought to TestAmerica Laboratories, Inc. attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to TestAmerica Laboratories, Inc.

Possible Hazard Identification
 Unconfirmed
 Confirmed

Deliverable Requested: I, III, IV, Other (specify) _____

435593 Special Instructions (CC Requirements)

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
 Return To Client
 Disposal By Lab
 Archive For _____ Months

Relinquished by: Laura Mickif	Date: 10/04/19 14:00	Water	APC	Received by:	Date/Time:
Relinquished by:	Date/Time:	Company		Received by:	Date/Time:
Relinquished by:	Date/Time:	Company		Received by:	Date/Time:

Custody Seals Intact: _____ Custody Seal No.: _____

Method of Shipment: _____

Ver (09/20/2016)

Chain of Custody Record

Client Information (Sub Contract Lab) Client Contact: Laura Mickif Company: Alabama Power General Test Laboratory Address: 744 County Rd 87 GSC#8 City: Calera State, Zip: AL, 35040 Phone: 205-664-6197 Email: lbmickif@southernco.com Project Name: CCR Site: Barry Ash Pond 1245		Lab PM: Whitmore, Chyenne R E-Mail: chyenne.whitmore@testamericainc.com Accreditations Required (See note)		Carrier Tracking Note: COC No: 400-56525-24537.1 Page: Page 4 of 7 Job #:				
Due Date Requested: TAT Requester (days): Routine		Analysis Requested						
Sample ID (Lab ID) AZ22405 AZ22406 AZ22407 AZ22408 AZ22409 AZ22410	Sample Date 10/1/19 10/1/19 10/1/19 10/1/19 10/1/19 10/1/19	Sample Time 10:13 11:30 12:55 12:55 14:45 16:10	Sample Type (C=comp, G=grab) G G G G G G	Matrix (Water, Air, Soil, Sediment, Other, Asst) Water Water Water Water Water Water	Preservation Code: MW-7V MW-5V MW-10V MW-10V DUP (Sample Duplicate) MW-5 MW-5	Total Number of Containers 1 1 1 1 1 1	Special Instructions/Note: 9315, Ra226, 9320, Ra228, Ra228, Ra228Ra228, CFC SM 4500 SO4, E SM 4500 Cl, E SM 4500 F, C Perform MS/MSD (Yes or No) Field Filtered Sample (Yes or No)	Preservation Codes: A - HCL B - NaOH C - Zn Acetate D - Nitric Acid E - H2SO4 F - Meth G - Amchlor H - Ascorbic Acid I - Ice J - DI Water K - EDTA L - EDA M - Hexane N - None O - AsHNO2 P - Nitric Acid Q - H2SO4 R - Na2SO3 S - H2SO4 T - TSP Dodecahydrate U - Acetone V - NCA W - pH 4-5 X - Other (specify)
Note: Since laboratory accreditations are subject to change, TestAmerica Laboratories, Inc. places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not have the necessary accreditation for the analyte, the laboratory will be provided. Any changes to accreditation status should be brought to TestAmerica Laboratories, Inc. attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody reflecting to said compliance to TestAmerica Laboratories, Inc.		Possible Hazard Identification Unconfirmed Deliverable Requested: I, II, III, IV, Other (specify): 435599 Special Instructions/OCC Requirements:						
E-mail: KJ Relinquished by: Laura Mickif Relinquished by: Relinquished by:		Date/Time: 10/04/19 14:00 Date/Time: Date/Time:		Method of Shipment: Water Date/Time: 10/19/19 2:54 Date/Time: Date/Time:				
Custody Seals Intact:		Cooler Temperature(s) °C and Other Remarks:						



Chain of Custody Record

Client Information (Sub Contract Lab) Client Contact: Dallas Gentry Phone: chevonne.whitmore@testamericainc.com		Lab #/M: Whitmore, Chevonne R E-Mail: chevonne.whitmore@testamericainc.com		Carrier Tracking Note: State of Origin: Alabama		COC No: 400-56525-24537.1 Page: Page 5 of 7 Job #:	
Company: Alabama Power General Test Laboratory Address: 744 County Rd 87 GSC#8 City: Callera State, Zip: AL, 35040 Phone: 205-664-6197 Email: lbmickliff@southernco.com Project Name: CCR Site: Barry Ash Pond 1245		Due Date Requested: TAT Requested (days): Routine PO #: 40007143 W/O #: SSOW#		Analysis Requested 9315_Ra226, 9320_Ra228, Ra226Ra228_CFPc 5M 4500 Cl.F 5M 4500 F.C 5M 4500 Cl.F		Preservation Codes: A - HCL B - NaOH C - Zn Acetate D - NaOH E - NaHSO4 F - MeOH G - Amchlor H - Ascorbic Acid I - Ice J - DI Water K - EDTA L - EDA Other: M - Hexane N - None O - Ash/02 P - NaOH Q - Na2SO3 R - Na2SO4 S - H2SO4 T - TSP Dodecahydral U - Acetone V - WCAA W - pH 4.5 Z - other (specify)	
Sample Identification - Client ID (Lab ID) AZ22698 AZ22699		Sample Date 10/2/19 10/2/19		Sample Time 14:50 15:00		Sample Type (C=comp, G=grab) G G	
Matrix (Water, Seawater, Other) Water Water		Preservation Code: Water Water		Field Filtered Sample (Yes or No) X X		Partion #/MSD (Yes or No) X X	
Total Number of Containers 1 1		Special Instructions/Note: MW-IV FB-1 (Field Blank)		Note: Since laboratory accreditations are subject to change, TestAmerica Laboratories, Inc. places the ownership of method, analysis & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/inquiry being analyzed, the samples must be shipped back to the TestAmerica Laboratory or other instructions will be provided. Any changes to accreditation status should be brought to TestAmerica Laboratories, Inc. attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody shipping to and compliance to TestAmerica Laboratories, Inc.			
Deliverable Requested: I, III, IV, Other (specify)		435593 (Special Instructions/QC Requirements)		Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months			
Emvok Kit Relinquished by: Laura Mizbit Relinquished by: _____ Relinquished by: _____		Date/Time: 10/04/19 14:00 Date/Time: _____ Date/Time: _____		Date/Time: 10/18/19 2:54 Date/Time: _____ Date/Time: _____		Method of Shipment: Received by: _____ Received by: _____ Received by: _____	
Custody Seals Intact: _____ Custody Seal No.: _____		Cooler Temperature(s) °C and Other Remarks:		Ver: 09/20/2016			



Chain of Custody Record

Client Information (Sub Contract Lab) Client Contact: Laura Mickif Company: Alabama Power General Test Laboratory Address: 744 County Rd 87 GSC#8 City: Callera State, Zip: AL, 35040 Phone: 205-664-6197 Email: lbmickif@southernco.com Project Name: CCR Site: Barry Ash Pond 1245		Lab PM: Whitmore, Cheyenne R E-Mail: cheyenne.whitmore@testamericainc.com Accreditations Required (See note):		Carrier Tracking Note: State of Origin: Alabama Page: Page 6 of 7 Job #:		COC No: 400-56525-24537.1 Preservation Codes: A - HCL B - NaOH C - Nitric Acid D - Nitric Acid E - NaHSO4 F - MeOH G - Amchlor H - Ascorbic Acid I - Ice J - DI Water K - EDTA L - EDA Other:	
Due Date Requested: TAT Requester (days): Routine PO #: 40007143 Project #: 40007143 SSOV#:		Analysis Requested 9315_Ra226_9320_Ra228_Ra228Ra228_GFPc SM 4500 SO4 F SM 4500 Cl F SM 4500 F C Performance MS/MSD (Yes or No) X Field Filtered Sample (Yes or No) X Total Number of Containers 3		Special Instructions/Note: MW-5V		Preservation Codes: M - Hexane N - None O - None P - Na2SO4 Q - Na2SO4 R - Na2SO4 S - H2SO4 T - TSP Dodecahydrate U - Acetone V - MCAA W - pH 4.5 Z - other (specify)	
Sample Identification - Client ID (Lab ID) AZ22700		Sample Date: 10/2/19 Sample Time: 13:55 Sample Type (C=comp, G=grab): G Matrix (Element, Derivative, or Other, Abb): Water Preservation Code:		Performance MS/MSD (Yes or No) X Field Filtered Sample (Yes or No) X Total Number of Containers 3		Special Instructions/Note: MW-5V	
Note: Since laboratory accreditations are subject to change, TestAmerica Laboratories, Inc. places the ownership of method, analysis & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain of custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/test/method being analyzed, the samples must be shipped back to the TestAmerica Laboratory or other instructions will be provided. Any changes to accreditation status should be brought to TestAmerica Laboratories, Inc. attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to TestAmerica Laboratories, Inc.		Possible Hazard Identification Unconfirmed Deliverable Requested: I, II, III, Other (specify)		Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months		Method of Shipment:	
Emoh, KJ. Relinquished by Relinquished by: Laura Nibbeli Date/Time: 10/04/19 14:00 Water APC Company:		Received by: [Signature] Date/Time: 10/19/19 254 Company:		Method of Shipment:		Cooler Temperature(s) (C and Other Remarks):	
Relinquished by:		Received by:		Method of Shipment:		Cooler Temperature(s) (C and Other Remarks):	
Relinquished by:		Received by:		Method of Shipment:		Cooler Temperature(s) (C and Other Remarks):	
Custody Seals Intact:		Custody Seal No.:		Method of Shipment:		Cooler Temperature(s) (C and Other Remarks):	



Chain of Custody Record

Client Information (Sub Contract Lab) Sampler: TJ Daugherty Phone: Laura Mickif Company: Alabama Power General Test Laboratory Address: 744 County Rd 87 GSC#8 City: Callera State/Zip: AL 35040 Phone: 205-664-6197 Email: lbmickif@southemco.com Project Name: CCR Site: Barry Ash Pond 1245		Lab PM: Whitmore, Chyenne R E-Mail: chyenne.whitmore@testamericainc.com Accreditations Required (See note):		Carrier Tracking Note: State of Origin: Alabama Page 7 of 7 Job #:		COC No: 400-56525-24537.1 Preservation Codes: A - HCL B - NaOH C - Zn Acetate D - NaOH E - NaHSO4 F - NaOH G - Amchlor H - Ascorbic Acid I - Ice J - DI Water K - EDTA L - EDA Z - other (specify)	
Due Date Requested: TAT Requested (days): Routine PO # WO # Project #: 40007143 SSONW#		Analysis Requested 9315_Ra226_9320_Ra228_Ra228a228_GFCF SM 4500 SO4 F SM 4500 Cl F SM 4500 F C Perform MS/MSD (Yes or No) Field Filtered Sample (Yes or No)		Total Number of Containers 1 MW-17H 1 MW-17H DIS 1 MW-12V 1 MW-12V DUP (Sample Duplicate) 1 MW-24H 1 EB-1 (Equipment Blank)		Special Instructions/Note:	
Sample Identification - Client ID (Lab ID) AZ22701 AZ22702 AZ22703 AZ22704 AZ22705 AZ22706		Sample Date 10/2/19 10/2/19 10/2/19 10/2/19 10/2/19 10/2/19		Sample Time 11:03 11:03 12:37 12:37 14:47 15:05		Matrix (Preserv, Original, Other) Water Water Water Water Water Water	
Sample Type (C=comp, G=grab) G G G G G G		Preservation Code: Water Water Water Water Water Water		Field Filtered Sample (Yes or No) X X X X X X		Total Number of Containers 1 1 1 1 1 1	

Note: Since laboratory accreditations are subject to change, TestAmerica Laboratories, Inc. places the ownership of method, sample & accreditation compliance upon and subject to the laboratory. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/methods being analyzed, the samples must be shipped back to the TestAmerica Laboratory or other laboratory for analysis. TestAmerica Laboratories, Inc. attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to TestAmerica Laboratories, Inc.

Possible Hazard Identification
 Unconfirmed
 Deliverable Requested: I, II, III, IV, Other (specify): 43588 (Special Instructions/QC Requirements)

Method of Shipment: Return To Client Disposal By Lab Archive For _____ Months

Simple Disposal (A fee may be assessed if samples are retained longer than 1 month)

Received by:	Date:	Received by:	Date:
Relinquished by:	Date/Time:	Relinquished by:	Date/Time:
Relinquished by:	Date/Time:	Relinquished by:	Date/Time:

Cooler Temperature(s) °C and Other Remarks:



Login Sample Receipt Checklist

Client: Alabama Power General Test Laboratory

Job Number: 400-177664-1
SDG Number: Barry Ash Pond 1245

Login Number: 177664
List Number: 1
Creator: Perez, Trina M

List Source: Eurofins TestAmerica, Pensacola

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	21.3°C, 21.4°C, 21.9°C IR-8
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



Login Sample Receipt Checklist

Client: Alabama Power General Test Laboratory

Job Number: 400-177664-1
SDG Number: Barry Ash Pond 1245

Login Number: 177664

List Number: 2

Creator: Hellm, Michael

List Source: Eurofins TestAmerica, St. Louis

List Creation: 10/10/19 03:09 PM

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	N/A	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	21.0
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	N/A	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	N/A	
Multiphasic samples are not present.	N/A	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Accreditation/Certification Summary

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Barry

Job ID: 400-177664-1
 SDG: Barry Ash Pond 1245

Laboratory: Eurofins TestAmerica, Pensacola

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Alabama	State	40150	07-01-20
ANAB	ISO/IEC 17025	L2471	02-22-20
Arizona	State	AZ0710	01-12-20
Arkansas DEQ	State	88-0689	09-01-20
California	State	2510	07-01-20
Florida	NELAP	E81010	06-30-20
Georgia	State	E81010(FL)	06-30-20
Iowa	State	367	08-01-20
Iowa	State Program	367	08-01-20
Kansas	NELAP	E-10253	08-16-20
Kentucky (UST)	State	53	06-30-20
Kentucky (UST)	State Program	53	06-30-20
Kentucky (WW)	State	KY98030	12-30-19
Louisiana	NELAP	30976	06-30-20
Louisiana	NELAP	30976	06-30-20
Louisiana (DW)	NELAP	LA017	12-31-19
Louisiana (DW)	State	<cert No.>	12-31-19
Maryland	State	233	09-30-20
Massachusetts	State	M-FL094	06-30-20
Michigan	State	9912	05-06-20
Minnesota	NELAP	012-999-481	12-31-19
New Jersey	NELAP	FL006	07-30-20
North Carolina (WW/SW)	State	314	12-31-19
North Carolina (WW/SW)	State Program	314	12-31-19
Oklahoma	State	9810-186	08-31-20
Pennsylvania	NELAP	68-00467	01-31-20
Rhode Island	State	LAO00307	12-30-19
Rhode Island	State Program	LAO00307	12-30-19
South Carolina	State	96026002	06-30-20
South Carolina	State Program	96026	06-30-20
Tennessee	State	TN02907	06-30-20
Texas	NELAP	T104704286	09-30-20
US Fish & Wildlife	Federal	LE058448-0	07-31-20
US Fish & Wildlife	US Federal Programs	LE058448	06-07-20
USDA	Federal	P330-18-00148	05-17-21
USDA	US Federal Programs	P330-18-00148	05-17-21
Virginia	NELAP	460166	06-14-20
Washington	State	C915	05-15-20
West Virginia DEP	State	136	06-30-20

Accreditation/Certification Summary

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Barry

Job ID: 400-177664-1
 SDG: Barry Ash Pond 1245

Laboratory: Eurofins TestAmerica, St. Louis

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
ANAB	Dept. of Defense ELAP	L2305	04-06-22
ANAB	Dept. of Energy	L2305.01	04-06-22
ANAB	ISO/IEC 17025	L2305	04-06-22
Arizona	State	AZ0813	12-08-19
California	Los Angeles County Sanitation Districts	10259	06-30-20
California	State	2886	06-30-20
Connecticut	State	PH-0241	03-31-21
Florida	NELAP	E87689	06-30-20
HI - RadChem Recognition	State	n/a	06-30-20
Illinois	NELAP	004553	11-30-19
Iowa	State	373	09-17-20
Iowa	State Program	373	12-01-20
Kansas	NELAP	E-10236	10-31-20
Kansas	NELAP	E-10236	10-31-20
Kentucky (DW)	State	KY90125	12-31-19
Louisiana	NELAP	04080	06-30-20
Louisiana (DW)	State	LA011	12-31-19
Maryland	State	310	09-30-20
MI - RadChem Recognition	State	9005	06-30-20
Missouri	State	780	06-30-22
Nevada	State	MO000542020-1	07-31-20
New Jersey	NELAP	MO002	06-30-20
New York	NELAP	11616	04-01-20
North Dakota	State	R-207	06-30-20
NRC	NRC	24-24817-01	12-31-22
Oklahoma	State	9997	08-31-20
Pennsylvania	NELAP	68-00540	02-28-20
South Carolina	State	85002001	06-30-20
Texas	NELAP	T104704193-19-13	07-31-20
US Fish & Wildlife	US Federal Programs	058448	07-31-20
USDA	US Federal Programs	P330-17-00028	02-02-20
Utah	NELAP	MO000542019-11	07-31-20
Virginia	NELAP	10310	06-14-20
Washington	State	C592	08-30-20
Washington	State Program	C592	08-30-20
West Virginia DEP	State	381	12-01-19
West Virginia DEP	State Program	381	12-31-19

**Alabama Power Company
Plant Barry Ash Pond**

WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
BY-AP-MW-1	10/1/2019 12:54	Conductivity	745.49	uS/cm
BY-AP-MW-1	10/1/2019 12:54	DO	0.18	mg/L
BY-AP-MW-1	10/1/2019 12:54	Depth to Water Detail	22.65	ft
BY-AP-MW-1	10/1/2019 12:54	Oxidation Reduction Potention	46.26	mv
BY-AP-MW-1	10/1/2019 12:54	pH	5.64	pH
BY-AP-MW-1	10/1/2019 12:54	Temperature	23	C
BY-AP-MW-1	10/1/2019 12:54	Turbidity	0.82	NTU
BY-AP-MW-1	10/1/2019 12:59	Conductivity	769.82	uS/cm
BY-AP-MW-1	10/1/2019 12:59	DO	0.15	mg/L
BY-AP-MW-1	10/1/2019 12:59	Depth to Water Detail	22.67	ft
BY-AP-MW-1	10/1/2019 12:59	Oxidation Reduction Potention	45.98	mv
BY-AP-MW-1	10/1/2019 12:59	pH	5.44	pH
BY-AP-MW-1	10/1/2019 12:59	Temperature	22.88	C
BY-AP-MW-1	10/1/2019 12:59	Turbidity	0.62	NTU
BY-AP-MW-1	10/1/2019 13:04	Conductivity	772.82	uS/cm
BY-AP-MW-1	10/1/2019 13:04	DO	0.15	mg/L
BY-AP-MW-1	10/1/2019 13:04	Depth to Water Detail	22.67	ft
BY-AP-MW-1	10/1/2019 13:04	Oxidation Reduction Potention	40.9	mv
BY-AP-MW-1	10/1/2019 13:04	pH	5.43	pH
BY-AP-MW-1	10/1/2019 13:04	Temperature	22.84	C
BY-AP-MW-1	10/1/2019 13:04	Turbidity	0.88	NTU
BY-AP-MW-1	10/1/2019 13:09	Conductivity	770.72	uS/cm
BY-AP-MW-1	10/1/2019 13:09	DO	0.13	mg/L
BY-AP-MW-1	10/1/2019 13:09	Depth to Water Detail	22.67	ft
BY-AP-MW-1	10/1/2019 13:09	Oxidation Reduction Potention	35.09	mv
BY-AP-MW-1	10/1/2019 13:09	pH	5.47	pH
BY-AP-MW-1	10/1/2019 13:09	Temperature	22.8	C
BY-AP-MW-1	10/1/2019 13:09	Turbidity	0.57	NTU

**Alabama Power Company
Plant Barry Ash Pond**

WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
BY-AP-MW-10	9/30/2019 15:37	Conductivity	647.94	uS/cm
BY-AP-MW-10	9/30/2019 15:37	DO	1.02	mg/L
BY-AP-MW-10	9/30/2019 15:37	Depth to Water Detail	25.47	ft
BY-AP-MW-10	9/30/2019 15:37	Oxidation Reduction Potention	8.46	mv
BY-AP-MW-10	9/30/2019 15:37	pH	5.95	pH
BY-AP-MW-10	9/30/2019 15:37	Temperature	22.83	C
BY-AP-MW-10	9/30/2019 15:37	Turbidity	2.85	NTU
BY-AP-MW-10	9/30/2019 15:42	Conductivity	644.3	uS/cm
BY-AP-MW-10	9/30/2019 15:42	DO	0.59	mg/L
BY-AP-MW-10	9/30/2019 15:42	Depth to Water Detail	25.47	ft
BY-AP-MW-10	9/30/2019 15:42	Oxidation Reduction Potention	-17.56	mv
BY-AP-MW-10	9/30/2019 15:42	pH	5.97	pH
BY-AP-MW-10	9/30/2019 15:42	Temperature	22.75	C
BY-AP-MW-10	9/30/2019 15:42	Turbidity	2.13	NTU
BY-AP-MW-10	9/30/2019 15:47	Conductivity	641.44	uS/cm
BY-AP-MW-10	9/30/2019 15:47	DO	0.4	mg/L
BY-AP-MW-10	9/30/2019 15:47	Depth to Water Detail	25.47	ft
BY-AP-MW-10	9/30/2019 15:47	Oxidation Reduction Potention	-38.84	mv
BY-AP-MW-10	9/30/2019 15:47	pH	6.08	pH
BY-AP-MW-10	9/30/2019 15:47	Temperature	22.77	C
BY-AP-MW-10	9/30/2019 15:47	Turbidity	1.13	NTU
BY-AP-MW-10	9/30/2019 15:52	Conductivity	642.97	uS/cm
BY-AP-MW-10	9/30/2019 15:52	DO	0.38	mg/L
BY-AP-MW-10	9/30/2019 15:52	Depth to Water Detail	25.47	ft
BY-AP-MW-10	9/30/2019 15:52	Oxidation Reduction Potention	-50.8	mv
BY-AP-MW-10	9/30/2019 15:52	pH	6.11	pH
BY-AP-MW-10	9/30/2019 15:52	Temperature	22.79	C
BY-AP-MW-10	9/30/2019 15:52	Turbidity	1.08	NTU

**Alabama Power Company
Plant Barry Ash Pond**

WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
BY-AP-MW-10V	10/1/2019 12:25	Conductivity	613.13	uS/cm
BY-AP-MW-10V	10/1/2019 12:25	DO	0.21	mg/L
BY-AP-MW-10V	10/1/2019 12:25	Depth to Water Detail	24.45	ft
BY-AP-MW-10V	10/1/2019 12:25	Oxidation Reduction Potention	-98.61	mv
BY-AP-MW-10V	10/1/2019 12:25	pH	6.27	pH
BY-AP-MW-10V	10/1/2019 12:25	Temperature	22.66	C
BY-AP-MW-10V	10/1/2019 12:25	Turbidity	3.6	NTU
BY-AP-MW-10V	10/1/2019 12:30	Conductivity	604.45	uS/cm
BY-AP-MW-10V	10/1/2019 12:30	DO	0.21	mg/L
BY-AP-MW-10V	10/1/2019 12:30	Depth to Water Detail	24.45	ft
BY-AP-MW-10V	10/1/2019 12:30	Oxidation Reduction Potention	-93.42	mv
BY-AP-MW-10V	10/1/2019 12:30	pH	6.18	pH
BY-AP-MW-10V	10/1/2019 12:30	Temperature	22.46	C
BY-AP-MW-10V	10/1/2019 12:30	Turbidity	3.53	NTU
BY-AP-MW-10V	10/1/2019 12:35	Conductivity	620.72	uS/cm
BY-AP-MW-10V	10/1/2019 12:35	DO	0.2	mg/L
BY-AP-MW-10V	10/1/2019 12:35	Depth to Water Detail	24.45	ft
BY-AP-MW-10V	10/1/2019 12:35	Oxidation Reduction Potention	-88.4	mv
BY-AP-MW-10V	10/1/2019 12:35	pH	6.12	pH
BY-AP-MW-10V	10/1/2019 12:35	Temperature	22.35	C
BY-AP-MW-10V	10/1/2019 12:35	Turbidity	3.36	NTU
BY-AP-MW-10V	10/1/2019 12:40	Conductivity	586.92	uS/cm
BY-AP-MW-10V	10/1/2019 12:40	DO	0.2	mg/L
BY-AP-MW-10V	10/1/2019 12:40	Depth to Water Detail	24.45	ft
BY-AP-MW-10V	10/1/2019 12:40	Oxidation Reduction Potention	-86.11	mv
BY-AP-MW-10V	10/1/2019 12:40	pH	6.08	pH
BY-AP-MW-10V	10/1/2019 12:40	Temperature	22.45	C
BY-AP-MW-10V	10/1/2019 12:40	Turbidity	4.13	NTU
BY-AP-MW-10V	10/1/2019 12:45	Conductivity	573.95	uS/cm
BY-AP-MW-10V	10/1/2019 12:45	DO	0.19	mg/L
BY-AP-MW-10V	10/1/2019 12:45	Depth to Water Detail	24.45	ft
BY-AP-MW-10V	10/1/2019 12:45	Oxidation Reduction Potention	-85.03	mv
BY-AP-MW-10V	10/1/2019 12:45	pH	6.06	pH
BY-AP-MW-10V	10/1/2019 12:45	Temperature	22.5	C
BY-AP-MW-10V	10/1/2019 12:45	Turbidity	4.15	NTU
BY-AP-MW-10V	10/1/2019 12:50	Conductivity	571.09	uS/cm
BY-AP-MW-10V	10/1/2019 12:50	DO	0.19	mg/L
BY-AP-MW-10V	10/1/2019 12:50	Depth to Water Detail	24.45	ft
BY-AP-MW-10V	10/1/2019 12:50	Oxidation Reduction Potention	-84.7	mv
BY-AP-MW-10V	10/1/2019 12:50	pH	6.05	pH
BY-AP-MW-10V	10/1/2019 12:50	Temperature	22.48	C
BY-AP-MW-10V	10/1/2019 12:50	Turbidity	3.77	NTU

**Alabama Power Company
Plant Barry Ash Pond**

WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
BY-AP-MW-11	9/30/2019 16:47	Conductivity	617.2	uS/cm
BY-AP-MW-11	9/30/2019 16:47	DO	0.31	mg/L
BY-AP-MW-11	9/30/2019 16:47	Depth to Water Detail	24.26	ft
BY-AP-MW-11	9/30/2019 16:47	Oxidation Reduction Potention	-2.18	mv
BY-AP-MW-11	9/30/2019 16:47	pH	6.18	pH
BY-AP-MW-11	9/30/2019 16:47	Temperature	22.3	C
BY-AP-MW-11	9/30/2019 16:47	Turbidity	6.16	NTU
BY-AP-MW-11	9/30/2019 16:52	Conductivity	603.16	uS/cm
BY-AP-MW-11	9/30/2019 16:52	DO	0.24	mg/L
BY-AP-MW-11	9/30/2019 16:52	Depth to Water Detail	24.29	ft
BY-AP-MW-11	9/30/2019 16:52	Oxidation Reduction Potention	-6.46	mv
BY-AP-MW-11	9/30/2019 16:52	pH	5.89	pH
BY-AP-MW-11	9/30/2019 16:52	Temperature	22.21	C
BY-AP-MW-11	9/30/2019 16:52	Turbidity	1.75	NTU
BY-AP-MW-11	9/30/2019 16:57	Conductivity	599.95	uS/cm
BY-AP-MW-11	9/30/2019 16:57	DO	0.21	mg/L
BY-AP-MW-11	9/30/2019 16:57	Depth to Water Detail	24.29	ft
BY-AP-MW-11	9/30/2019 16:57	Oxidation Reduction Potention	-14.01	mv
BY-AP-MW-11	9/30/2019 16:57	pH	5.84	pH
BY-AP-MW-11	9/30/2019 16:57	Temperature	22.19	C
BY-AP-MW-11	9/30/2019 16:57	Turbidity	1.28	NTU
BY-AP-MW-11	9/30/2019 17:02	Conductivity	594.83	uS/cm
BY-AP-MW-11	9/30/2019 17:02	DO	0.21	mg/L
BY-AP-MW-11	9/30/2019 17:02	Depth to Water Detail	24.29	ft
BY-AP-MW-11	9/30/2019 17:02	Oxidation Reduction Potention	-20.19	mv
BY-AP-MW-11	9/30/2019 17:02	pH	5.85	pH
BY-AP-MW-11	9/30/2019 17:02	Temperature	22.18	C
BY-AP-MW-11	9/30/2019 17:02	Turbidity	0.9	NTU

**Alabama Power Company
Plant Barry Ash Pond**

WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
BY-AP-MW-12	10/1/2019 8:58	Conductivity	552.83	uS/cm
BY-AP-MW-12	10/1/2019 8:58	DO	0.2	mg/L
BY-AP-MW-12	10/1/2019 8:58	Depth to Water Detail	22.21	ft
BY-AP-MW-12	10/1/2019 8:58	Oxidation Reduction Potention	70.8	mv
BY-AP-MW-12	10/1/2019 8:58	pH	5.96	pH
BY-AP-MW-12	10/1/2019 8:58	Temperature	21.04	C
BY-AP-MW-12	10/1/2019 8:58	Turbidity	1.25	NTU
BY-AP-MW-12	10/1/2019 9:03	Conductivity	517.31	uS/cm
BY-AP-MW-12	10/1/2019 9:03	DO	0.18	mg/L
BY-AP-MW-12	10/1/2019 9:03	Depth to Water Detail	22.21	ft
BY-AP-MW-12	10/1/2019 9:03	Oxidation Reduction Potention	58.35	mv
BY-AP-MW-12	10/1/2019 9:03	pH	5.94	pH
BY-AP-MW-12	10/1/2019 9:03	Temperature	21.03	C
BY-AP-MW-12	10/1/2019 9:03	Turbidity	5.29	NTU
BY-AP-MW-12	10/1/2019 9:08	Conductivity	540.84	uS/cm
BY-AP-MW-12	10/1/2019 9:08	DO	0.17	mg/L
BY-AP-MW-12	10/1/2019 9:08	Depth to Water Detail	22.21	ft
BY-AP-MW-12	10/1/2019 9:08	Oxidation Reduction Potention	42.5	mv
BY-AP-MW-12	10/1/2019 9:08	pH	6.03	pH
BY-AP-MW-12	10/1/2019 9:08	Temperature	21.03	C
BY-AP-MW-12	10/1/2019 9:08	Turbidity	2.27	NTU
BY-AP-MW-12	10/1/2019 9:13	Conductivity	567.26	uS/cm
BY-AP-MW-12	10/1/2019 9:13	DO	0.16	mg/L
BY-AP-MW-12	10/1/2019 9:13	Depth to Water Detail	22.21	ft
BY-AP-MW-12	10/1/2019 9:13	Oxidation Reduction Potention	35.6	mv
BY-AP-MW-12	10/1/2019 9:13	pH	5.99	pH
BY-AP-MW-12	10/1/2019 9:13	Temperature	21.04	C
BY-AP-MW-12	10/1/2019 9:13	Turbidity	0.82	NTU
BY-AP-MW-12	10/1/2019 9:18	Conductivity	552.12	uS/cm
BY-AP-MW-12	10/1/2019 9:18	DO	0.15	mg/L
BY-AP-MW-12	10/1/2019 9:18	Depth to Water Detail	22.21	ft
BY-AP-MW-12	10/1/2019 9:18	Oxidation Reduction Potention	31.05	mv
BY-AP-MW-12	10/1/2019 9:18	pH	5.96	pH
BY-AP-MW-12	10/1/2019 9:18	Temperature	21.02	C
BY-AP-MW-12	10/1/2019 9:18	Turbidity	4.68	NTU
BY-AP-MW-12	10/1/2019 9:23	Conductivity	523.64	uS/cm
BY-AP-MW-12	10/1/2019 9:23	DO	0.15	mg/L
BY-AP-MW-12	10/1/2019 9:23	Depth to Water Detail	22.21	ft
BY-AP-MW-12	10/1/2019 9:23	Oxidation Reduction Potention	18.4	mv
BY-AP-MW-12	10/1/2019 9:23	pH	6.09	pH
BY-AP-MW-12	10/1/2019 9:23	Temperature	21.06	C
BY-AP-MW-12	10/1/2019 9:23	Turbidity	4.59	NTU
BY-AP-MW-12	10/1/2019 9:28	Conductivity	570.29	uS/cm
BY-AP-MW-12	10/1/2019 9:28	DO	0.16	mg/L

**Alabama Power Company
Plant Barry Ash Pond**

WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
BY-AP-MW-12	10/1/2019 9:28	Depth to Water Detail	22.21	ft
BY-AP-MW-12	10/1/2019 9:28	Oxidation Reduction Potention	21.61	mv
BY-AP-MW-12	10/1/2019 9:28	pH	5.95	pH
BY-AP-MW-12	10/1/2019 9:28	Temperature	21.07	C
BY-AP-MW-12	10/1/2019 9:28	Turbidity	4.69	NTU
BY-AP-MW-12	10/1/2019 9:33	Conductivity	569.22	uS/cm
BY-AP-MW-12	10/1/2019 9:33	DO	0.15	mg/L
BY-AP-MW-12	10/1/2019 9:33	Depth to Water Detail	22.21	ft
BY-AP-MW-12	10/1/2019 9:33	Oxidation Reduction Potention	14.97	mv
BY-AP-MW-12	10/1/2019 9:33	pH	6	pH
BY-AP-MW-12	10/1/2019 9:33	Temperature	21.05	C
BY-AP-MW-12	10/1/2019 9:33	Turbidity	2.39	NTU
BY-AP-MW-12	10/1/2019 9:38	Conductivity	567.19	uS/cm
BY-AP-MW-12	10/1/2019 9:38	DO	0.16	mg/L
BY-AP-MW-12	10/1/2019 9:38	Depth to Water Detail	22.21	ft
BY-AP-MW-12	10/1/2019 9:38	Oxidation Reduction Potention	11.23	mv
BY-AP-MW-12	10/1/2019 9:38	pH	6	pH
BY-AP-MW-12	10/1/2019 9:38	Temperature	21.1	C
BY-AP-MW-12	10/1/2019 9:38	Turbidity	4.45	NTU

**Alabama Power Company
Plant Barry Ash Pond**

WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
BY-AP-MW-12V	10/2/2019 12:19	Conductivity	597.24	uS/cm
BY-AP-MW-12V	10/2/2019 12:19	DO	0.24	mg/L
BY-AP-MW-12V	10/2/2019 12:19	Depth to Water Detail	22.03	ft
BY-AP-MW-12V	10/2/2019 12:19	Oxidation Reduction Potention	-51.18	mv
BY-AP-MW-12V	10/2/2019 12:19	pH	5.94	pH
BY-AP-MW-12V	10/2/2019 12:19	Temperature	22.15	C
BY-AP-MW-12V	10/2/2019 12:19	Turbidity	10.01	NTU
BY-AP-MW-12V	10/2/2019 12:24	Conductivity	594.56	uS/cm
BY-AP-MW-12V	10/2/2019 12:24	DO	0.23	mg/L
BY-AP-MW-12V	10/2/2019 12:24	Depth to Water Detail	22.03	ft
BY-AP-MW-12V	10/2/2019 12:24	Oxidation Reduction Potention	-48.61	mv
BY-AP-MW-12V	10/2/2019 12:24	pH	5.86	pH
BY-AP-MW-12V	10/2/2019 12:24	Temperature	22.1	C
BY-AP-MW-12V	10/2/2019 12:24	Turbidity	6.1	NTU
BY-AP-MW-12V	10/2/2019 12:29	Conductivity	594.89	uS/cm
BY-AP-MW-12V	10/2/2019 12:29	DO	0.22	mg/L
BY-AP-MW-12V	10/2/2019 12:29	Depth to Water Detail	22.03	ft
BY-AP-MW-12V	10/2/2019 12:29	Oxidation Reduction Potention	-50.9	mv
BY-AP-MW-12V	10/2/2019 12:29	pH	5.87	pH
BY-AP-MW-12V	10/2/2019 12:29	Temperature	22.06	C
BY-AP-MW-12V	10/2/2019 12:29	Turbidity	5.24	NTU
BY-AP-MW-12V	10/2/2019 12:34	Conductivity	592.63	uS/cm
BY-AP-MW-12V	10/2/2019 12:34	DO	0.22	mg/L
BY-AP-MW-12V	10/2/2019 12:34	Depth to Water Detail	22.03	ft
BY-AP-MW-12V	10/2/2019 12:34	Oxidation Reduction Potention	-53.65	mv
BY-AP-MW-12V	10/2/2019 12:34	pH	5.9	pH
BY-AP-MW-12V	10/2/2019 12:34	Temperature	21.88	C
BY-AP-MW-12V	10/2/2019 12:34	Turbidity	4.77	NTU

**Alabama Power Company
Plant Barry Ash Pond**

WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
BY-AP-MW-13	10/1/2019 8:43	Conductivity	444.99	uS/cm
BY-AP-MW-13	10/1/2019 8:43	DO	0.25	mg/L
BY-AP-MW-13	10/1/2019 8:43	Depth to Water Detail	22.26	ft
BY-AP-MW-13	10/1/2019 8:43	Oxidation Reduction Potention	7.71	mv
BY-AP-MW-13	10/1/2019 8:43	pH	6.01	pH
BY-AP-MW-13	10/1/2019 8:43	Temperature	21.24	C
BY-AP-MW-13	10/1/2019 8:43	Turbidity	6.83	NTU
BY-AP-MW-13	10/1/2019 8:48	Conductivity	443.09	uS/cm
BY-AP-MW-13	10/1/2019 8:48	DO	0.2	mg/L
BY-AP-MW-13	10/1/2019 8:48	Depth to Water Detail	22.31	ft
BY-AP-MW-13	10/1/2019 8:48	Oxidation Reduction Potention	3.39	mv
BY-AP-MW-13	10/1/2019 8:48	pH	6	pH
BY-AP-MW-13	10/1/2019 8:48	Temperature	21.23	C
BY-AP-MW-13	10/1/2019 8:48	Turbidity	9.22	NTU
BY-AP-MW-13	10/1/2019 8:53	Conductivity	442.47	uS/cm
BY-AP-MW-13	10/1/2019 8:53	DO	0.18	mg/L
BY-AP-MW-13	10/1/2019 8:53	Depth to Water Detail	22.38	ft
BY-AP-MW-13	10/1/2019 8:53	Oxidation Reduction Potention	0.07	mv
BY-AP-MW-13	10/1/2019 8:53	pH	6.02	pH
BY-AP-MW-13	10/1/2019 8:53	Temperature	21.27	C
BY-AP-MW-13	10/1/2019 8:53	Turbidity	6.15	NTU
BY-AP-MW-13	10/1/2019 8:58	Conductivity	443.05	uS/cm
BY-AP-MW-13	10/1/2019 8:58	DO	0.18	mg/L
BY-AP-MW-13	10/1/2019 8:58	Depth to Water Detail	22.41	ft
BY-AP-MW-13	10/1/2019 8:58	Oxidation Reduction Potention	-2.55	mv
BY-AP-MW-13	10/1/2019 8:58	pH	6.02	pH
BY-AP-MW-13	10/1/2019 8:58	Temperature	21.3	C
BY-AP-MW-13	10/1/2019 8:58	Turbidity	1.17	NTU

**Alabama Power Company
Plant Barry Ash Pond**

WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
BY-AP-MW-14	10/1/2019 10:23	Conductivity	521.96	uS/cm
BY-AP-MW-14	10/1/2019 10:23	DO	0.24	mg/L
BY-AP-MW-14	10/1/2019 10:23	Depth to Water Detail	10.64	ft
BY-AP-MW-14	10/1/2019 10:23	Oxidation Reduction Potention	23.37	mv
BY-AP-MW-14	10/1/2019 10:23	pH	5.95	pH
BY-AP-MW-14	10/1/2019 10:23	Temperature	21.19	C
BY-AP-MW-14	10/1/2019 10:23	Turbidity	1.75	NTU
BY-AP-MW-14	10/1/2019 10:28	Conductivity	517.49	uS/cm
BY-AP-MW-14	10/1/2019 10:28	DO	0.17	mg/L
BY-AP-MW-14	10/1/2019 10:28	Depth to Water Detail	10.66	ft
BY-AP-MW-14	10/1/2019 10:28	Oxidation Reduction Potention	12.53	mv
BY-AP-MW-14	10/1/2019 10:28	pH	5.99	pH
BY-AP-MW-14	10/1/2019 10:28	Temperature	20.99	C
BY-AP-MW-14	10/1/2019 10:28	Turbidity	0.77	NTU
BY-AP-MW-14	10/1/2019 10:33	Conductivity	512.77	uS/cm
BY-AP-MW-14	10/1/2019 10:33	DO	0.15	mg/L
BY-AP-MW-14	10/1/2019 10:33	Depth to Water Detail	10.69	ft
BY-AP-MW-14	10/1/2019 10:33	Oxidation Reduction Potention	7.5	mv
BY-AP-MW-14	10/1/2019 10:33	pH	6.01	pH
BY-AP-MW-14	10/1/2019 10:33	Temperature	21	C
BY-AP-MW-14	10/1/2019 10:33	Turbidity	0.8	NTU
BY-AP-MW-14	10/1/2019 10:38	Conductivity	508.59	uS/cm
BY-AP-MW-14	10/1/2019 10:38	DO	0.15	mg/L
BY-AP-MW-14	10/1/2019 10:38	Depth to Water Detail	10.72	ft
BY-AP-MW-14	10/1/2019 10:38	Oxidation Reduction Potention	4.54	mv
BY-AP-MW-14	10/1/2019 10:38	pH	6.01	pH
BY-AP-MW-14	10/1/2019 10:38	Temperature	20.92	C
BY-AP-MW-14	10/1/2019 10:38	Turbidity	0.68	NTU

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Plant Barry Ash Pond**

WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
BY-AP-MW-15	10/1/2019 17:04	Conductivity	531.97	uS/cm
BY-AP-MW-15	10/1/2019 17:04	DO	0.41	mg/L
BY-AP-MW-15	10/1/2019 17:04	Depth to Water Detail	22.48	ft
BY-AP-MW-15	10/1/2019 17:04	Oxidation Reduction Potention	96.76	mv
BY-AP-MW-15	10/1/2019 17:04	pH	6.14	pH
BY-AP-MW-15	10/1/2019 17:04	Temperature	22.13	C
BY-AP-MW-15	10/1/2019 17:04	Turbidity	2.74	NTU
BY-AP-MW-15	10/1/2019 17:09	Conductivity	510.95	uS/cm
BY-AP-MW-15	10/1/2019 17:09	DO	0.36	mg/L
BY-AP-MW-15	10/1/2019 17:09	Depth to Water Detail	22.48	ft
BY-AP-MW-15	10/1/2019 17:09	Oxidation Reduction Potention	83	mv
BY-AP-MW-15	10/1/2019 17:09	pH	6.14	pH
BY-AP-MW-15	10/1/2019 17:09	Temperature	22.05	C
BY-AP-MW-15	10/1/2019 17:09	Turbidity	2.91	NTU
BY-AP-MW-15	10/1/2019 17:14	Conductivity	507.63	uS/cm
BY-AP-MW-15	10/1/2019 17:14	DO	0.34	mg/L
BY-AP-MW-15	10/1/2019 17:14	Depth to Water Detail	22.48	ft
BY-AP-MW-15	10/1/2019 17:14	Oxidation Reduction Potention	97.73	mv
BY-AP-MW-15	10/1/2019 17:14	pH	6.14	pH
BY-AP-MW-15	10/1/2019 17:14	Temperature	22.08	C
BY-AP-MW-15	10/1/2019 17:14	Turbidity	3.14	NTU
BY-AP-MW-15	10/1/2019 17:19	Conductivity	503.81	uS/cm
BY-AP-MW-15	10/1/2019 17:19	DO	0.34	mg/L
BY-AP-MW-15	10/1/2019 17:19	Depth to Water Detail	22.48	ft
BY-AP-MW-15	10/1/2019 17:19	Oxidation Reduction Potention	93.74	mv
BY-AP-MW-15	10/1/2019 17:19	pH	6.2	pH
BY-AP-MW-15	10/1/2019 17:19	Temperature	22.1	C
BY-AP-MW-15	10/1/2019 17:19	Turbidity	4.05	NTU

**Alabama Power Company
Plant Barry Ash Pond**

WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
BY-AP-MW-15V	10/1/2019 9:43	Conductivity	524.36	uS/cm
BY-AP-MW-15V	10/1/2019 9:43	DO	0.52	mg/L
BY-AP-MW-15V	10/1/2019 9:43	Depth to Water Detail	4.79	ft
BY-AP-MW-15V	10/1/2019 9:43	Oxidation Reduction Potention	125.77	mv
BY-AP-MW-15V	10/1/2019 9:43	pH	4.57	pH
BY-AP-MW-15V	10/1/2019 9:43	Temperature	21.59	C
BY-AP-MW-15V	10/1/2019 9:43	Turbidity	7.01	NTU
BY-AP-MW-15V	10/1/2019 9:48	Conductivity	532.28	uS/cm
BY-AP-MW-15V	10/1/2019 9:48	DO	0.36	mg/L
BY-AP-MW-15V	10/1/2019 9:48	Depth to Water Detail	4.79	ft
BY-AP-MW-15V	10/1/2019 9:48	Oxidation Reduction Potention	121.32	mv
BY-AP-MW-15V	10/1/2019 9:48	pH	4.62	pH
BY-AP-MW-15V	10/1/2019 9:48	Temperature	21.56	C
BY-AP-MW-15V	10/1/2019 9:48	Turbidity	7.48	NTU
BY-AP-MW-15V	10/1/2019 9:53	Conductivity	611.58	uS/cm
BY-AP-MW-15V	10/1/2019 9:53	DO	0.3	mg/L
BY-AP-MW-15V	10/1/2019 9:53	Depth to Water Detail	4.79	ft
BY-AP-MW-15V	10/1/2019 9:53	Oxidation Reduction Potention	27.95	mv
BY-AP-MW-15V	10/1/2019 9:53	pH	5.5	pH
BY-AP-MW-15V	10/1/2019 9:53	Temperature	21.46	C
BY-AP-MW-15V	10/1/2019 9:53	Turbidity	6.82	NTU
BY-AP-MW-15V	10/1/2019 9:58	Conductivity	620.4	uS/cm
BY-AP-MW-15V	10/1/2019 9:58	DO	0.27	mg/L
BY-AP-MW-15V	10/1/2019 9:58	Depth to Water Detail	4.79	ft
BY-AP-MW-15V	10/1/2019 9:58	Oxidation Reduction Potention	11.02	mv
BY-AP-MW-15V	10/1/2019 9:58	pH	5.58	pH
BY-AP-MW-15V	10/1/2019 9:58	Temperature	21.55	C
BY-AP-MW-15V	10/1/2019 9:58	Turbidity	5.4	NTU
BY-AP-MW-15V	10/1/2019 10:03	Conductivity	624.55	uS/cm
BY-AP-MW-15V	10/1/2019 10:03	DO	0.25	mg/L
BY-AP-MW-15V	10/1/2019 10:03	Depth to Water Detail	4.79	ft
BY-AP-MW-15V	10/1/2019 10:03	Oxidation Reduction Potention	1.89	mv
BY-AP-MW-15V	10/1/2019 10:03	pH	5.64	pH
BY-AP-MW-15V	10/1/2019 10:03	Temperature	21.54	C
BY-AP-MW-15V	10/1/2019 10:03	Turbidity	3.7	NTU
BY-AP-MW-15V	10/1/2019 10:08	Conductivity	633.27	uS/cm
BY-AP-MW-15V	10/1/2019 10:08	DO	0.24	mg/L
BY-AP-MW-15V	10/1/2019 10:08	Depth to Water Detail	4.79	ft
BY-AP-MW-15V	10/1/2019 10:08	Oxidation Reduction Potention	-3.18	mv
BY-AP-MW-15V	10/1/2019 10:08	pH	5.68	pH
BY-AP-MW-15V	10/1/2019 10:08	Temperature	21.49	C
BY-AP-MW-15V	10/1/2019 10:08	Turbidity	2.31	NTU

**Alabama Power Company
Plant Barry Ash Pond**

WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
BY-AP-MW-16	10/1/2019 11:14	Conductivity	464.34	uS/cm
BY-AP-MW-16	10/1/2019 11:14	DO	0.17	mg/L
BY-AP-MW-16	10/1/2019 11:14	Depth to Water Detail	22.64	ft
BY-AP-MW-16	10/1/2019 11:14	Oxidation Reduction Potention	53.21	mv
BY-AP-MW-16	10/1/2019 11:14	pH	4.94	pH
BY-AP-MW-16	10/1/2019 11:14	Temperature	22.86	C
BY-AP-MW-16	10/1/2019 11:14	Turbidity	1.11	NTU
BY-AP-MW-16	10/1/2019 11:19	Conductivity	472.68	uS/cm
BY-AP-MW-16	10/1/2019 11:19	DO	0.15	mg/L
BY-AP-MW-16	10/1/2019 11:19	Depth to Water Detail	22.65	ft
BY-AP-MW-16	10/1/2019 11:19	Oxidation Reduction Potention	47.77	mv
BY-AP-MW-16	10/1/2019 11:19	pH	5.06	pH
BY-AP-MW-16	10/1/2019 11:19	Temperature	22.9	C
BY-AP-MW-16	10/1/2019 11:19	Turbidity	0.65	NTU
BY-AP-MW-16	10/1/2019 11:24	Conductivity	473.42	uS/cm
BY-AP-MW-16	10/1/2019 11:24	DO	0.14	mg/L
BY-AP-MW-16	10/1/2019 11:24	Depth to Water Detail	22.65	ft
BY-AP-MW-16	10/1/2019 11:24	Oxidation Reduction Potention	44.72	mv
BY-AP-MW-16	10/1/2019 11:24	pH	5.13	pH
BY-AP-MW-16	10/1/2019 11:24	Temperature	22.9	C
BY-AP-MW-16	10/1/2019 11:24	Turbidity	2.31	NTU
BY-AP-MW-16	10/1/2019 11:29	Conductivity	478.9	uS/cm
BY-AP-MW-16	10/1/2019 11:29	DO	0.13	mg/L
BY-AP-MW-16	10/1/2019 11:29	Depth to Water Detail	22.65	ft
BY-AP-MW-16	10/1/2019 11:29	Oxidation Reduction Potention	40.11	mv
BY-AP-MW-16	10/1/2019 11:29	pH	5.23	pH
BY-AP-MW-16	10/1/2019 11:29	Temperature	22.88	C
BY-AP-MW-16	10/1/2019 11:29	Turbidity	0.64	NTU

**Alabama Power Company
Plant Barry Ash Pond**

WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
BY-AP-MW-17H	10/2/2019 8:59	Conductivity	492.61	uS/cm
BY-AP-MW-17H	10/2/2019 8:59	DO	0.21	mg/L
BY-AP-MW-17H	10/2/2019 8:59	Depth to Water Detail	17.84	ft
BY-AP-MW-17H	10/2/2019 8:59	Oxidation Reduction Potention	-100.19	mv
BY-AP-MW-17H	10/2/2019 8:59	pH	6.65	pH
BY-AP-MW-17H	10/2/2019 8:59	Temperature	22.13	C
BY-AP-MW-17H	10/2/2019 8:59	Turbidity	33.1	NTU
BY-AP-MW-17H	10/2/2019 9:04	Conductivity	487.8	uS/cm
BY-AP-MW-17H	10/2/2019 9:04	DO	0.2	mg/L
BY-AP-MW-17H	10/2/2019 9:04	Depth to Water Detail	17.86	ft
BY-AP-MW-17H	10/2/2019 9:04	Oxidation Reduction Potention	-106.68	mv
BY-AP-MW-17H	10/2/2019 9:04	pH	6.65	pH
BY-AP-MW-17H	10/2/2019 9:04	Temperature	22.18	C
BY-AP-MW-17H	10/2/2019 9:04	Turbidity	33.8	NTU
BY-AP-MW-17H	10/2/2019 9:09	Conductivity	484	uS/cm
BY-AP-MW-17H	10/2/2019 9:09	DO	0.19	mg/L
BY-AP-MW-17H	10/2/2019 9:09	Depth to Water Detail	17.86	ft
BY-AP-MW-17H	10/2/2019 9:09	Oxidation Reduction Potention	-110.11	mv
BY-AP-MW-17H	10/2/2019 9:09	pH	6.64	pH
BY-AP-MW-17H	10/2/2019 9:09	Temperature	22.24	C
BY-AP-MW-17H	10/2/2019 9:09	Turbidity	45.4	NTU
BY-AP-MW-17H	10/2/2019 9:14	Conductivity	479.15	uS/cm
BY-AP-MW-17H	10/2/2019 9:14	DO	0.19	mg/L
BY-AP-MW-17H	10/2/2019 9:14	Depth to Water Detail	17.86	ft
BY-AP-MW-17H	10/2/2019 9:14	Oxidation Reduction Potention	-111.95	mv
BY-AP-MW-17H	10/2/2019 9:14	pH	6.62	pH
BY-AP-MW-17H	10/2/2019 9:14	Temperature	22.26	C
BY-AP-MW-17H	10/2/2019 9:14	Turbidity	45.4	NTU
BY-AP-MW-17H	10/2/2019 9:19	Conductivity	477.37	uS/cm
BY-AP-MW-17H	10/2/2019 9:19	DO	0.19	mg/L
BY-AP-MW-17H	10/2/2019 9:19	Depth to Water Detail	17.86	ft
BY-AP-MW-17H	10/2/2019 9:19	Oxidation Reduction Potention	-113.95	mv
BY-AP-MW-17H	10/2/2019 9:19	pH	6.62	pH
BY-AP-MW-17H	10/2/2019 9:19	Temperature	22.23	C
BY-AP-MW-17H	10/2/2019 9:19	Turbidity	46.2	NTU
BY-AP-MW-17H	10/2/2019 9:24	Conductivity	474.24	uS/cm
BY-AP-MW-17H	10/2/2019 9:24	DO	0.19	mg/L
BY-AP-MW-17H	10/2/2019 9:24	Depth to Water Detail	17.86	ft
BY-AP-MW-17H	10/2/2019 9:24	Oxidation Reduction Potention	-115.69	mv
BY-AP-MW-17H	10/2/2019 9:24	pH	6.63	pH
BY-AP-MW-17H	10/2/2019 9:24	Temperature	22.13	C
BY-AP-MW-17H	10/2/2019 9:24	Turbidity	44.6	NTU
BY-AP-MW-17H	10/2/2019 9:29	Conductivity	473.48	uS/cm
BY-AP-MW-17H	10/2/2019 9:29	DO	0.19	mg/L

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Plant Barry Ash Pond**

WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
BY-AP-MW-17H	10/2/2019 9:29	Depth to Water Detail	17.86	ft
BY-AP-MW-17H	10/2/2019 9:29	Oxidation Reduction Potention	-116.7	mv
BY-AP-MW-17H	10/2/2019 9:29	pH	6.63	pH
BY-AP-MW-17H	10/2/2019 9:29	Temperature	22.09	C
BY-AP-MW-17H	10/2/2019 9:29	Turbidity	45.8	NTU
BY-AP-MW-17H	10/2/2019 9:34	Conductivity	470.94	uS/cm
BY-AP-MW-17H	10/2/2019 9:34	DO	0.18	mg/L
BY-AP-MW-17H	10/2/2019 9:34	Depth to Water Detail	17.86	ft
BY-AP-MW-17H	10/2/2019 9:34	Oxidation Reduction Potention	-117.62	mv
BY-AP-MW-17H	10/2/2019 9:34	pH	6.63	pH
BY-AP-MW-17H	10/2/2019 9:34	Temperature	22.2	C
BY-AP-MW-17H	10/2/2019 9:34	Turbidity	44.5	NTU
BY-AP-MW-17H	10/2/2019 9:39	Conductivity	469.93	uS/cm
BY-AP-MW-17H	10/2/2019 9:39	DO	0.18	mg/L
BY-AP-MW-17H	10/2/2019 9:39	Depth to Water Detail	17.86	ft
BY-AP-MW-17H	10/2/2019 9:39	Oxidation Reduction Potention	-117.66	mv
BY-AP-MW-17H	10/2/2019 9:39	pH	6.61	pH
BY-AP-MW-17H	10/2/2019 9:39	Temperature	22.25	C
BY-AP-MW-17H	10/2/2019 9:39	Turbidity	41.3	NTU
BY-AP-MW-17H	10/2/2019 9:44	Conductivity	469.03	uS/cm
BY-AP-MW-17H	10/2/2019 9:44	DO	0.18	mg/L
BY-AP-MW-17H	10/2/2019 9:44	Depth to Water Detail	17.86	ft
BY-AP-MW-17H	10/2/2019 9:44	Oxidation Reduction Potention	-117.7	mv
BY-AP-MW-17H	10/2/2019 9:44	pH	6.61	pH
BY-AP-MW-17H	10/2/2019 9:44	Temperature	22.23	C
BY-AP-MW-17H	10/2/2019 9:44	Turbidity	39.9	NTU
BY-AP-MW-17H	10/2/2019 9:49	Conductivity	466.92	uS/cm
BY-AP-MW-17H	10/2/2019 9:49	DO	0.18	mg/L
BY-AP-MW-17H	10/2/2019 9:49	Depth to Water Detail	17.86	ft
BY-AP-MW-17H	10/2/2019 9:49	Oxidation Reduction Potention	-118.1	mv
BY-AP-MW-17H	10/2/2019 9:49	pH	6.61	pH
BY-AP-MW-17H	10/2/2019 9:49	Temperature	22.29	C
BY-AP-MW-17H	10/2/2019 9:49	Turbidity	36.1	NTU
BY-AP-MW-17H	10/2/2019 9:54	Conductivity	465.53	uS/cm
BY-AP-MW-17H	10/2/2019 9:54	DO	0.18	mg/L
BY-AP-MW-17H	10/2/2019 9:54	Depth to Water Detail	17.86	ft
BY-AP-MW-17H	10/2/2019 9:54	Oxidation Reduction Potention	-118.75	mv
BY-AP-MW-17H	10/2/2019 9:54	pH	6.61	pH
BY-AP-MW-17H	10/2/2019 9:54	Temperature	22.09	C
BY-AP-MW-17H	10/2/2019 9:54	Turbidity	37.2	NTU
BY-AP-MW-17H	10/2/2019 9:59	Conductivity	463.52	uS/cm
BY-AP-MW-17H	10/2/2019 9:59	DO	0.18	mg/L
BY-AP-MW-17H	10/2/2019 9:59	Depth to Water Detail	17.86	ft
BY-AP-MW-17H	10/2/2019 9:59	Oxidation Reduction Potention	-118.97	mv

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WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
BY-AP-MW-17H	10/2/2019 9:59	pH	6.61	pH
BY-AP-MW-17H	10/2/2019 9:59	Temperature	22.22	C
BY-AP-MW-17H	10/2/2019 9:59	Turbidity	34.4	NTU
BY-AP-MW-17H	10/2/2019 10:04	Conductivity	462.98	uS/cm
BY-AP-MW-17H	10/2/2019 10:04	DO	0.18	mg/L
BY-AP-MW-17H	10/2/2019 10:04	Depth to Water Detail	17.86	ft
BY-AP-MW-17H	10/2/2019 10:04	Oxidation Reduction Potention	-118.92	mv
BY-AP-MW-17H	10/2/2019 10:04	pH	6.61	pH
BY-AP-MW-17H	10/2/2019 10:04	Temperature	22.31	C
BY-AP-MW-17H	10/2/2019 10:04	Turbidity	31	NTU
BY-AP-MW-17H	10/2/2019 10:09	Conductivity	461.38	uS/cm
BY-AP-MW-17H	10/2/2019 10:09	DO	0.18	mg/L
BY-AP-MW-17H	10/2/2019 10:09	Depth to Water Detail	17.86	ft
BY-AP-MW-17H	10/2/2019 10:09	Oxidation Reduction Potention	-118.6	mv
BY-AP-MW-17H	10/2/2019 10:09	pH	6.59	pH
BY-AP-MW-17H	10/2/2019 10:09	Temperature	22.3	C
BY-AP-MW-17H	10/2/2019 10:09	Turbidity	32.4	NTU
BY-AP-MW-17H	10/2/2019 10:14	Conductivity	460.41	uS/cm
BY-AP-MW-17H	10/2/2019 10:14	DO	0.18	mg/L
BY-AP-MW-17H	10/2/2019 10:14	Depth to Water Detail	17.86	ft
BY-AP-MW-17H	10/2/2019 10:14	Oxidation Reduction Potention	-118.09	mv
BY-AP-MW-17H	10/2/2019 10:14	pH	6.58	pH
BY-AP-MW-17H	10/2/2019 10:14	Temperature	22.37	C
BY-AP-MW-17H	10/2/2019 10:14	Turbidity	30.7	NTU
BY-AP-MW-17H	10/2/2019 10:19	Conductivity	460.13	uS/cm
BY-AP-MW-17H	10/2/2019 10:19	DO	0.18	mg/L
BY-AP-MW-17H	10/2/2019 10:19	Depth to Water Detail	17.86	ft
BY-AP-MW-17H	10/2/2019 10:19	Oxidation Reduction Potention	-118.64	mv
BY-AP-MW-17H	10/2/2019 10:19	pH	6.59	pH
BY-AP-MW-17H	10/2/2019 10:19	Temperature	22.37	C
BY-AP-MW-17H	10/2/2019 10:19	Turbidity	28.5	NTU
BY-AP-MW-17H	10/2/2019 10:24	Conductivity	458.38	uS/cm
BY-AP-MW-17H	10/2/2019 10:24	DO	0.18	mg/L
BY-AP-MW-17H	10/2/2019 10:24	Depth to Water Detail	17.86	ft
BY-AP-MW-17H	10/2/2019 10:24	Oxidation Reduction Potention	-118.9	mv
BY-AP-MW-17H	10/2/2019 10:24	pH	6.6	pH
BY-AP-MW-17H	10/2/2019 10:24	Temperature	22.18	C
BY-AP-MW-17H	10/2/2019 10:24	Turbidity	27.5	NTU
BY-AP-MW-17H	10/2/2019 10:29	Conductivity	457.12	uS/cm
BY-AP-MW-17H	10/2/2019 10:29	DO	0.18	mg/L
BY-AP-MW-17H	10/2/2019 10:29	Depth to Water Detail	17.86	ft
BY-AP-MW-17H	10/2/2019 10:29	Oxidation Reduction Potention	-119	mv
BY-AP-MW-17H	10/2/2019 10:29	pH	6.6	pH
BY-AP-MW-17H	10/2/2019 10:29	Temperature	22.26	C

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WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
BY-AP-MW-17H	10/2/2019 10:29	Turbidity	28.4	NTU
BY-AP-MW-17H	10/2/2019 10:34	Conductivity	456.06	uS/cm
BY-AP-MW-17H	10/2/2019 10:34	DO	0.18	mg/L
BY-AP-MW-17H	10/2/2019 10:34	Depth to Water Detail	17.86	ft
BY-AP-MW-17H	10/2/2019 10:34	Oxidation Reduction Potention	-118.78	mv
BY-AP-MW-17H	10/2/2019 10:34	pH	6.6	pH
BY-AP-MW-17H	10/2/2019 10:34	Temperature	22.29	C
BY-AP-MW-17H	10/2/2019 10:34	Turbidity	25.7	NTU
BY-AP-MW-17H	10/2/2019 10:39	Conductivity	454.46	uS/cm
BY-AP-MW-17H	10/2/2019 10:39	DO	0.18	mg/L
BY-AP-MW-17H	10/2/2019 10:39	Depth to Water Detail	17.86	ft
BY-AP-MW-17H	10/2/2019 10:39	Oxidation Reduction Potention	-118.26	mv
BY-AP-MW-17H	10/2/2019 10:39	pH	6.58	pH
BY-AP-MW-17H	10/2/2019 10:39	Temperature	22.39	C
BY-AP-MW-17H	10/2/2019 10:39	Turbidity	24.2	NTU
BY-AP-MW-17H	10/2/2019 10:44	Conductivity	454.39	uS/cm
BY-AP-MW-17H	10/2/2019 10:44	DO	0.18	mg/L
BY-AP-MW-17H	10/2/2019 10:44	Depth to Water Detail	17.86	ft
BY-AP-MW-17H	10/2/2019 10:44	Oxidation Reduction Potention	-117.67	mv
BY-AP-MW-17H	10/2/2019 10:44	pH	6.57	pH
BY-AP-MW-17H	10/2/2019 10:44	Temperature	22.4	C
BY-AP-MW-17H	10/2/2019 10:44	Turbidity	24.9	NTU
BY-AP-MW-17H	10/2/2019 10:49	Conductivity	453.49	uS/cm
BY-AP-MW-17H	10/2/2019 10:49	DO	0.18	mg/L
BY-AP-MW-17H	10/2/2019 10:49	Depth to Water Detail	17.86	ft
BY-AP-MW-17H	10/2/2019 10:49	Oxidation Reduction Potention	-117.8	mv
BY-AP-MW-17H	10/2/2019 10:49	pH	6.58	pH
BY-AP-MW-17H	10/2/2019 10:49	Temperature	22.35	C
BY-AP-MW-17H	10/2/2019 10:49	Turbidity	22.7	NTU
BY-AP-MW-17H	10/2/2019 10:54	Conductivity	451.06	uS/cm
BY-AP-MW-17H	10/2/2019 10:54	DO	0.18	mg/L
BY-AP-MW-17H	10/2/2019 10:54	Depth to Water Detail	17.86	ft
BY-AP-MW-17H	10/2/2019 10:54	Oxidation Reduction Potention	-118.1	mv
BY-AP-MW-17H	10/2/2019 10:54	pH	6.58	pH
BY-AP-MW-17H	10/2/2019 10:54	Temperature	22.25	C
BY-AP-MW-17H	10/2/2019 10:54	Turbidity	22.9	NTU
BY-AP-MW-17H	10/2/2019 10:59	Conductivity	451.22	uS/cm
BY-AP-MW-17H	10/2/2019 10:59	DO	0.18	mg/L
BY-AP-MW-17H	10/2/2019 10:59	Depth to Water Detail	17.86	ft
BY-AP-MW-17H	10/2/2019 10:59	Oxidation Reduction Potention	-118.16	mv
BY-AP-MW-17H	10/2/2019 10:59	pH	6.58	pH
BY-AP-MW-17H	10/2/2019 10:59	Temperature	22.29	C
BY-AP-MW-17H	10/2/2019 10:59	Turbidity	21.8	NTU

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WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
BY-AP-MW-18H	10/1/2019 14:29	Conductivity	465.84	uS/cm
BY-AP-MW-18H	10/1/2019 14:29	DO	0.31	mg/L
BY-AP-MW-18H	10/1/2019 14:29	Depth to Water Detail	8.3	ft
BY-AP-MW-18H	10/1/2019 14:29	Oxidation Reduction Potention	-46.42	mv
BY-AP-MW-18H	10/1/2019 14:29	pH	6.26	pH
BY-AP-MW-18H	10/1/2019 14:29	Temperature	21.84	C
BY-AP-MW-18H	10/1/2019 14:29	Turbidity	11.3	NTU
BY-AP-MW-18H	10/1/2019 14:34	Conductivity	444.2	uS/cm
BY-AP-MW-18H	10/1/2019 14:34	DO	0.26	mg/L
BY-AP-MW-18H	10/1/2019 14:34	Depth to Water Detail	8.3	ft
BY-AP-MW-18H	10/1/2019 14:34	Oxidation Reduction Potention	-55.11	mv
BY-AP-MW-18H	10/1/2019 14:34	pH	6.26	pH
BY-AP-MW-18H	10/1/2019 14:34	Temperature	21.82	C
BY-AP-MW-18H	10/1/2019 14:34	Turbidity	5.67	NTU
BY-AP-MW-18H	10/1/2019 14:39	Conductivity	476.14	uS/cm
BY-AP-MW-18H	10/1/2019 14:39	DO	0.23	mg/L
BY-AP-MW-18H	10/1/2019 14:39	Depth to Water Detail	8.3	ft
BY-AP-MW-18H	10/1/2019 14:39	Oxidation Reduction Potention	-59.43	mv
BY-AP-MW-18H	10/1/2019 14:39	pH	6.26	pH
BY-AP-MW-18H	10/1/2019 14:39	Temperature	21.8	C
BY-AP-MW-18H	10/1/2019 14:39	Turbidity	4.56	NTU
BY-AP-MW-18H	10/1/2019 14:44	Conductivity	449.29	uS/cm
BY-AP-MW-18H	10/1/2019 14:44	DO	0.21	mg/L
BY-AP-MW-18H	10/1/2019 14:44	Depth to Water Detail	8.3	ft
BY-AP-MW-18H	10/1/2019 14:44	Oxidation Reduction Potention	-61.85	mv
BY-AP-MW-18H	10/1/2019 14:44	pH	6.26	pH
BY-AP-MW-18H	10/1/2019 14:44	Temperature	21.94	C
BY-AP-MW-18H	10/1/2019 14:44	Turbidity	3.43	NTU
BY-AP-MW-18H	10/1/2019 14:49	Conductivity	443.02	uS/cm
BY-AP-MW-18H	10/1/2019 14:49	DO	0.21	mg/L
BY-AP-MW-18H	10/1/2019 14:49	Depth to Water Detail	8.3	ft
BY-AP-MW-18H	10/1/2019 14:49	Oxidation Reduction Potention	-62.95	mv
BY-AP-MW-18H	10/1/2019 14:49	pH	6.27	pH
BY-AP-MW-18H	10/1/2019 14:49	Temperature	21.76	C
BY-AP-MW-18H	10/1/2019 14:49	Turbidity	3.32	NTU
BY-AP-MW-18H	10/1/2019 14:54	Conductivity	435.14	uS/cm
BY-AP-MW-18H	10/1/2019 14:54	DO	0.21	mg/L
BY-AP-MW-18H	10/1/2019 14:54	Depth to Water Detail	8.3	ft
BY-AP-MW-18H	10/1/2019 14:54	Oxidation Reduction Potention	-63.49	mv
BY-AP-MW-18H	10/1/2019 14:54	pH	6.26	pH
BY-AP-MW-18H	10/1/2019 14:54	Temperature	21.76	C
BY-AP-MW-18H	10/1/2019 14:54	Turbidity	2.99	NTU

**Alabama Power Company
Plant Barry Ash Pond**

WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
BY-AP-MW-19H	10/1/2019 13:39	Conductivity	572.78	uS/cm
BY-AP-MW-19H	10/1/2019 13:39	DO	0.25	mg/L
BY-AP-MW-19H	10/1/2019 13:39	Depth to Water Detail	8.32	ft
BY-AP-MW-19H	10/1/2019 13:39	Oxidation Reduction Potention	-83.91	mv
BY-AP-MW-19H	10/1/2019 13:39	pH	6.35	pH
BY-AP-MW-19H	10/1/2019 13:39	Temperature	21.23	C
BY-AP-MW-19H	10/1/2019 13:39	Turbidity	11.24	NTU
BY-AP-MW-19H	10/1/2019 13:44	Conductivity	569.4	uS/cm
BY-AP-MW-19H	10/1/2019 13:44	DO	0.19	mg/L
BY-AP-MW-19H	10/1/2019 13:44	Depth to Water Detail	8.32	ft
BY-AP-MW-19H	10/1/2019 13:44	Oxidation Reduction Potention	-89.46	mv
BY-AP-MW-19H	10/1/2019 13:44	pH	6.35	pH
BY-AP-MW-19H	10/1/2019 13:44	Temperature	21.12	C
BY-AP-MW-19H	10/1/2019 13:44	Turbidity	7.24	NTU
BY-AP-MW-19H	10/1/2019 13:49	Conductivity	577.16	uS/cm
BY-AP-MW-19H	10/1/2019 13:49	DO	0.19	mg/L
BY-AP-MW-19H	10/1/2019 13:49	Depth to Water Detail	8.32	ft
BY-AP-MW-19H	10/1/2019 13:49	Oxidation Reduction Potention	-91.52	mv
BY-AP-MW-19H	10/1/2019 13:49	pH	6.34	pH
BY-AP-MW-19H	10/1/2019 13:49	Temperature	21.14	C
BY-AP-MW-19H	10/1/2019 13:49	Turbidity	4.52	NTU
BY-AP-MW-19H	10/1/2019 13:54	Conductivity	575.89	uS/cm
BY-AP-MW-19H	10/1/2019 13:54	DO	0.18	mg/L
BY-AP-MW-19H	10/1/2019 13:54	Depth to Water Detail	8.35	ft
BY-AP-MW-19H	10/1/2019 13:54	Oxidation Reduction Potention	-92.22	mv
BY-AP-MW-19H	10/1/2019 13:54	pH	6.33	pH
BY-AP-MW-19H	10/1/2019 13:54	Temperature	21.13	C
BY-AP-MW-19H	10/1/2019 13:54	Turbidity	2.8	NTU

**Alabama Power Company
Plant Barry Ash Pond**

WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
BY-AP-MW-1V	10/2/2019 14:26	Conductivity	253.66	uS/cm
BY-AP-MW-1V	10/2/2019 14:26	DO	0.35	mg/L
BY-AP-MW-1V	10/2/2019 14:26	Depth to Water Detail	23.3	ft
BY-AP-MW-1V	10/2/2019 14:26	Oxidation Reduction Potention	200.77	mv
BY-AP-MW-1V	10/2/2019 14:26	pH	4.52	pH
BY-AP-MW-1V	10/2/2019 14:26	Temperature	22.8	C
BY-AP-MW-1V	10/2/2019 14:26	Turbidity	9.53	NTU
BY-AP-MW-1V	10/2/2019 14:31	Conductivity	256.32	uS/cm
BY-AP-MW-1V	10/2/2019 14:31	DO	0.29	mg/L
BY-AP-MW-1V	10/2/2019 14:31	Depth to Water Detail	23.3	ft
BY-AP-MW-1V	10/2/2019 14:31	Oxidation Reduction Potention	178.07	mv
BY-AP-MW-1V	10/2/2019 14:31	pH	4.79	pH
BY-AP-MW-1V	10/2/2019 14:31	Temperature	22.71	C
BY-AP-MW-1V	10/2/2019 14:31	Turbidity	6.35	NTU
BY-AP-MW-1V	10/2/2019 14:36	Conductivity	259.47	uS/cm
BY-AP-MW-1V	10/2/2019 14:36	DO	0.27	mg/L
BY-AP-MW-1V	10/2/2019 14:36	Depth to Water Detail	23.3	ft
BY-AP-MW-1V	10/2/2019 14:36	Oxidation Reduction Potention	155.92	mv
BY-AP-MW-1V	10/2/2019 14:36	pH	5.09	pH
BY-AP-MW-1V	10/2/2019 14:36	Temperature	22.58	C
BY-AP-MW-1V	10/2/2019 14:36	Turbidity	6.14	NTU
BY-AP-MW-1V	10/2/2019 14:41	Conductivity	260.18	uS/cm
BY-AP-MW-1V	10/2/2019 14:41	DO	0.26	mg/L
BY-AP-MW-1V	10/2/2019 14:41	Depth to Water Detail	23.3	ft
BY-AP-MW-1V	10/2/2019 14:41	Oxidation Reduction Potention	144.38	mv
BY-AP-MW-1V	10/2/2019 14:41	pH	5.21	pH
BY-AP-MW-1V	10/2/2019 14:41	Temperature	22.63	C
BY-AP-MW-1V	10/2/2019 14:41	Turbidity	5.16	NTU
BY-AP-MW-1V	10/2/2019 14:46	Conductivity	262.18	uS/cm
BY-AP-MW-1V	10/2/2019 14:46	DO	0.26	mg/L
BY-AP-MW-1V	10/2/2019 14:46	Depth to Water Detail	23.3	ft
BY-AP-MW-1V	10/2/2019 14:46	Oxidation Reduction Potention	138.46	mv
BY-AP-MW-1V	10/2/2019 14:46	pH	5.27	pH
BY-AP-MW-1V	10/2/2019 14:46	Temperature	22.55	C
BY-AP-MW-1V	10/2/2019 14:46	Turbidity	4.07	NTU

**Alabama Power Company
Plant Barry Ash Pond**

WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
BY-AP-MW-2	10/1/2019 13:18	Conductivity	56.83	uS/cm
BY-AP-MW-2	10/1/2019 13:18	DO	0.23	mg/L
BY-AP-MW-2	10/1/2019 13:18	Depth to Water Detail	21.09	ft
BY-AP-MW-2	10/1/2019 13:18	Oxidation Reduction Potention	71.74	mv
BY-AP-MW-2	10/1/2019 13:18	pH	4.98	pH
BY-AP-MW-2	10/1/2019 13:18	Temperature	22.5	C
BY-AP-MW-2	10/1/2019 13:18	Turbidity	0.64	NTU
BY-AP-MW-2	10/1/2019 13:23	Conductivity	56.65	uS/cm
BY-AP-MW-2	10/1/2019 13:23	DO	0.21	mg/L
BY-AP-MW-2	10/1/2019 13:23	Depth to Water Detail	21.09	ft
BY-AP-MW-2	10/1/2019 13:23	Oxidation Reduction Potention	77.8	mv
BY-AP-MW-2	10/1/2019 13:23	pH	4.91	pH
BY-AP-MW-2	10/1/2019 13:23	Temperature	22.41	C
BY-AP-MW-2	10/1/2019 13:23	Turbidity	0.76	NTU
BY-AP-MW-2	10/1/2019 13:28	Conductivity	56.48	uS/cm
BY-AP-MW-2	10/1/2019 13:28	DO	0.18	mg/L
BY-AP-MW-2	10/1/2019 13:28	Depth to Water Detail	21.09	ft
BY-AP-MW-2	10/1/2019 13:28	Oxidation Reduction Potention	77.07	mv
BY-AP-MW-2	10/1/2019 13:28	pH	4.99	pH
BY-AP-MW-2	10/1/2019 13:28	Temperature	22.35	C
BY-AP-MW-2	10/1/2019 13:28	Turbidity	0.65	NTU
BY-AP-MW-2	10/1/2019 13:33	Conductivity	56.49	uS/cm
BY-AP-MW-2	10/1/2019 13:33	DO	0.18	mg/L
BY-AP-MW-2	10/1/2019 13:33	Depth to Water Detail	21.09	ft
BY-AP-MW-2	10/1/2019 13:33	Oxidation Reduction Potention	79.15	mv
BY-AP-MW-2	10/1/2019 13:33	pH	4.97	pH
BY-AP-MW-2	10/1/2019 13:33	Temperature	22.51	C
BY-AP-MW-2	10/1/2019 13:33	Turbidity	0.57	NTU

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Plant Barry Ash Pond**

WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
BY-AP-MW-20H	10/1/2019 11:45	Conductivity	662.99	uS/cm
BY-AP-MW-20H	10/1/2019 11:45	DO	0.21	mg/L
BY-AP-MW-20H	10/1/2019 11:45	Depth to Water Detail	7.98	ft
BY-AP-MW-20H	10/1/2019 11:45	Oxidation Reduction Potention	-58.33	mv
BY-AP-MW-20H	10/1/2019 11:45	pH	6.23	pH
BY-AP-MW-20H	10/1/2019 11:45	Temperature	20.96	C
BY-AP-MW-20H	10/1/2019 11:45	Turbidity	7	NTU
BY-AP-MW-20H	10/1/2019 11:50	Conductivity	732.76	uS/cm
BY-AP-MW-20H	10/1/2019 11:50	DO	0.19	mg/L
BY-AP-MW-20H	10/1/2019 11:50	Depth to Water Detail	7.98	ft
BY-AP-MW-20H	10/1/2019 11:50	Oxidation Reduction Potention	-62.19	mv
BY-AP-MW-20H	10/1/2019 11:50	pH	6.22	pH
BY-AP-MW-20H	10/1/2019 11:50	Temperature	20.92	C
BY-AP-MW-20H	10/1/2019 11:50	Turbidity	3.15	NTU
BY-AP-MW-20H	10/1/2019 11:55	Conductivity	715.74	uS/cm
BY-AP-MW-20H	10/1/2019 11:55	DO	0.18	mg/L
BY-AP-MW-20H	10/1/2019 11:55	Depth to Water Detail	7.98	ft
BY-AP-MW-20H	10/1/2019 11:55	Oxidation Reduction Potention	-64.44	mv
BY-AP-MW-20H	10/1/2019 11:55	pH	6.21	pH
BY-AP-MW-20H	10/1/2019 11:55	Temperature	20.86	C
BY-AP-MW-20H	10/1/2019 11:55	Turbidity	2.04	NTU
BY-AP-MW-20H	10/1/2019 12:00	Conductivity	754.52	uS/cm
BY-AP-MW-20H	10/1/2019 12:00	DO	0.17	mg/L
BY-AP-MW-20H	10/1/2019 12:00	Depth to Water Detail	7.98	ft
BY-AP-MW-20H	10/1/2019 12:00	Oxidation Reduction Potention	-66.19	mv
BY-AP-MW-20H	10/1/2019 12:00	pH	6.22	pH
BY-AP-MW-20H	10/1/2019 12:00	Temperature	20.81	C
BY-AP-MW-20H	10/1/2019 12:00	Turbidity	1.3	NTU
BY-AP-MW-20H	10/1/2019 12:05	Conductivity	710.2	uS/cm
BY-AP-MW-20H	10/1/2019 12:05	DO	0.17	mg/L
BY-AP-MW-20H	10/1/2019 12:05	Depth to Water Detail	7.98	ft
BY-AP-MW-20H	10/1/2019 12:05	Oxidation Reduction Potention	-67.52	mv
BY-AP-MW-20H	10/1/2019 12:05	pH	6.22	pH
BY-AP-MW-20H	10/1/2019 12:05	Temperature	20.75	C
BY-AP-MW-20H	10/1/2019 12:05	Turbidity	1.08	NTU
BY-AP-MW-20H	10/1/2019 12:10	Conductivity	782.27	uS/cm
BY-AP-MW-20H	10/1/2019 12:10	DO	0.18	mg/L
BY-AP-MW-20H	10/1/2019 12:10	Depth to Water Detail	7.98	ft
BY-AP-MW-20H	10/1/2019 12:10	Oxidation Reduction Potention	-68.38	mv
BY-AP-MW-20H	10/1/2019 12:10	pH	6.22	pH
BY-AP-MW-20H	10/1/2019 12:10	Temperature	20.82	C
BY-AP-MW-20H	10/1/2019 12:10	Turbidity	0.98	NTU
BY-AP-MW-20H	10/1/2019 12:15	Conductivity	675.44	uS/cm
BY-AP-MW-20H	10/1/2019 12:15	DO	0.16	mg/L

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Plant Barry Ash Pond**

WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
BY-AP-MW-20H	10/1/2019 12:15	Depth to Water Detail	7.98	ft
BY-AP-MW-20H	10/1/2019 12:15	Oxidation Reduction Potention	-69.02	mv
BY-AP-MW-20H	10/1/2019 12:15	pH	6.22	pH
BY-AP-MW-20H	10/1/2019 12:15	Temperature	20.7	C
BY-AP-MW-20H	10/1/2019 12:15	Turbidity	1.02	NTU
BY-AP-MW-20H	10/1/2019 12:20	Conductivity	739.57	uS/cm
BY-AP-MW-20H	10/1/2019 12:20	DO	0.17	mg/L
BY-AP-MW-20H	10/1/2019 12:20	Depth to Water Detail	7.98	ft
BY-AP-MW-20H	10/1/2019 12:20	Oxidation Reduction Potention	-69.65	mv
BY-AP-MW-20H	10/1/2019 12:20	pH	6.22	pH
BY-AP-MW-20H	10/1/2019 12:20	Temperature	20.75	C
BY-AP-MW-20H	10/1/2019 12:20	Turbidity	2.36	NTU
BY-AP-MW-20H	10/1/2019 12:25	Conductivity	789.21	uS/cm
BY-AP-MW-20H	10/1/2019 12:25	DO	0.16	mg/L
BY-AP-MW-20H	10/1/2019 12:25	Depth to Water Detail	7.98	ft
BY-AP-MW-20H	10/1/2019 12:25	Oxidation Reduction Potention	-69.93	mv
BY-AP-MW-20H	10/1/2019 12:25	pH	6.22	pH
BY-AP-MW-20H	10/1/2019 12:25	Temperature	20.67	C
BY-AP-MW-20H	10/1/2019 12:25	Turbidity	1.46	NTU
BY-AP-MW-20H	10/1/2019 12:30	Conductivity	775.55	uS/cm
BY-AP-MW-20H	10/1/2019 12:30	DO	0.16	mg/L
BY-AP-MW-20H	10/1/2019 12:30	Depth to Water Detail	7.98	ft
BY-AP-MW-20H	10/1/2019 12:30	Oxidation Reduction Potention	-70.3	mv
BY-AP-MW-20H	10/1/2019 12:30	pH	6.23	pH
BY-AP-MW-20H	10/1/2019 12:30	Temperature	20.65	C
BY-AP-MW-20H	10/1/2019 12:30	Turbidity	0.68	NTU
BY-AP-MW-20H	10/1/2019 12:35	Conductivity	693.44	uS/cm
BY-AP-MW-20H	10/1/2019 12:35	DO	0.16	mg/L
BY-AP-MW-20H	10/1/2019 12:35	Depth to Water Detail	7.98	ft
BY-AP-MW-20H	10/1/2019 12:35	Oxidation Reduction Potention	-70.47	mv
BY-AP-MW-20H	10/1/2019 12:35	pH	6.22	pH
BY-AP-MW-20H	10/1/2019 12:35	Temperature	20.69	C
BY-AP-MW-20H	10/1/2019 12:35	Turbidity	0.62	NTU
BY-AP-MW-20H	10/1/2019 12:40	Conductivity	756.95	uS/cm
BY-AP-MW-20H	10/1/2019 12:40	DO	0.16	mg/L
BY-AP-MW-20H	10/1/2019 12:40	Depth to Water Detail	7.98	ft
BY-AP-MW-20H	10/1/2019 12:40	Oxidation Reduction Potention	-70.53	mv
BY-AP-MW-20H	10/1/2019 12:40	pH	6.22	pH
BY-AP-MW-20H	10/1/2019 12:40	Temperature	20.68	C
BY-AP-MW-20H	10/1/2019 12:40	Turbidity	0.63	NTU
BY-AP-MW-20H	10/1/2019 12:45	Conductivity	663.47	uS/cm
BY-AP-MW-20H	10/1/2019 12:45	DO	0.15	mg/L
BY-AP-MW-20H	10/1/2019 12:45	Depth to Water Detail	7.98	ft
BY-AP-MW-20H	10/1/2019 12:45	Oxidation Reduction Potention	-71.12	mv

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WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
BY-AP-MW-20H	10/1/2019 12:45	pH	6.23	pH
BY-AP-MW-20H	10/1/2019 12:45	Temperature	20.65	C
BY-AP-MW-20H	10/1/2019 12:45	Turbidity	0.78	NTU
BY-AP-MW-20H	10/1/2019 12:50	Conductivity	789.74	uS/cm
BY-AP-MW-20H	10/1/2019 12:50	DO	0.19	mg/L
BY-AP-MW-20H	10/1/2019 12:50	Depth to Water Detail	7.98	ft
BY-AP-MW-20H	10/1/2019 12:50	Oxidation Reduction Potention	-69.73	mv
BY-AP-MW-20H	10/1/2019 12:50	pH	6.22	pH
BY-AP-MW-20H	10/1/2019 12:50	Temperature	20.77	C
BY-AP-MW-20H	10/1/2019 12:50	Turbidity	1.04	NTU
BY-AP-MW-20H	10/1/2019 12:55	Conductivity	789.66	uS/cm
BY-AP-MW-20H	10/1/2019 12:55	DO	0.17	mg/L
BY-AP-MW-20H	10/1/2019 12:55	Depth to Water Detail	7.98	ft
BY-AP-MW-20H	10/1/2019 12:55	Oxidation Reduction Potention	-70.44	mv
BY-AP-MW-20H	10/1/2019 12:55	pH	6.22	pH
BY-AP-MW-20H	10/1/2019 12:55	Temperature	20.88	C
BY-AP-MW-20H	10/1/2019 12:55	Turbidity	1.02	NTU
BY-AP-MW-20H	10/1/2019 13:00	Conductivity	784.91	uS/cm
BY-AP-MW-20H	10/1/2019 13:00	DO	0.17	mg/L
BY-AP-MW-20H	10/1/2019 13:00	Depth to Water Detail	7.98	ft
BY-AP-MW-20H	10/1/2019 13:00	Oxidation Reduction Potention	-71.03	mv
BY-AP-MW-20H	10/1/2019 13:00	pH	6.24	pH
BY-AP-MW-20H	10/1/2019 13:00	Temperature	20.92	C
BY-AP-MW-20H	10/1/2019 13:00	Turbidity	1.37	NTU

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Plant Barry Ash Pond**

WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
BY-AP-MW-22H	10/1/2019 10:52	Conductivity	633.99	uS/cm
BY-AP-MW-22H	10/1/2019 10:52	DO	0.27	mg/L
BY-AP-MW-22H	10/1/2019 10:52	Depth to Water Detail	6.08	ft
BY-AP-MW-22H	10/1/2019 10:52	Oxidation Reduction Potention	-101.23	mv
BY-AP-MW-22H	10/1/2019 10:52	pH	6.56	pH
BY-AP-MW-22H	10/1/2019 10:52	Temperature	20.88	C
BY-AP-MW-22H	10/1/2019 10:52	Turbidity	6.79	NTU
BY-AP-MW-22H	10/1/2019 10:57	Conductivity	635.9	uS/cm
BY-AP-MW-22H	10/1/2019 10:57	DO	0.22	mg/L
BY-AP-MW-22H	10/1/2019 10:57	Depth to Water Detail	6.08	ft
BY-AP-MW-22H	10/1/2019 10:57	Oxidation Reduction Potention	-103.59	mv
BY-AP-MW-22H	10/1/2019 10:57	pH	6.56	pH
BY-AP-MW-22H	10/1/2019 10:57	Temperature	20.88	C
BY-AP-MW-22H	10/1/2019 10:57	Turbidity	6.31	NTU
BY-AP-MW-22H	10/1/2019 11:02	Conductivity	644.7	uS/cm
BY-AP-MW-22H	10/1/2019 11:02	DO	0.21	mg/L
BY-AP-MW-22H	10/1/2019 11:02	Depth to Water Detail	6.08	ft
BY-AP-MW-22H	10/1/2019 11:02	Oxidation Reduction Potention	-107.03	mv
BY-AP-MW-22H	10/1/2019 11:02	pH	6.58	pH
BY-AP-MW-22H	10/1/2019 11:02	Temperature	20.89	C
BY-AP-MW-22H	10/1/2019 11:02	Turbidity	4.69	NTU
BY-AP-MW-22H	10/1/2019 11:07	Conductivity	650.22	uS/cm
BY-AP-MW-22H	10/1/2019 11:07	DO	0.19	mg/L
BY-AP-MW-22H	10/1/2019 11:07	Depth to Water Detail	6.08	ft
BY-AP-MW-22H	10/1/2019 11:07	Oxidation Reduction Potention	-108.87	mv
BY-AP-MW-22H	10/1/2019 11:07	pH	6.6	pH
BY-AP-MW-22H	10/1/2019 11:07	Temperature	20.81	C
BY-AP-MW-22H	10/1/2019 11:07	Turbidity	2.6	NTU

**Alabama Power Company
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WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
BY-AP-MW-23H	10/1/2019 15:32	Conductivity	481.95	uS/cm
BY-AP-MW-23H	10/1/2019 15:32	DO	0.31	mg/L
BY-AP-MW-23H	10/1/2019 15:32	Depth to Water Detail	9.51	ft
BY-AP-MW-23H	10/1/2019 15:32	Oxidation Reduction Potention	-42.69	mv
BY-AP-MW-23H	10/1/2019 15:32	pH	6.14	pH
BY-AP-MW-23H	10/1/2019 15:32	Temperature	21.14	C
BY-AP-MW-23H	10/1/2019 15:32	Turbidity	17.1	NTU
BY-AP-MW-23H	10/1/2019 15:37	Conductivity	479.28	uS/cm
BY-AP-MW-23H	10/1/2019 15:37	DO	0.28	mg/L
BY-AP-MW-23H	10/1/2019 15:37	Depth to Water Detail	9.51	ft
BY-AP-MW-23H	10/1/2019 15:37	Oxidation Reduction Potention	-46.93	mv
BY-AP-MW-23H	10/1/2019 15:37	pH	6.12	pH
BY-AP-MW-23H	10/1/2019 15:37	Temperature	20.97	C
BY-AP-MW-23H	10/1/2019 15:37	Turbidity	15.1	NTU
BY-AP-MW-23H	10/1/2019 15:42	Conductivity	468.14	uS/cm
BY-AP-MW-23H	10/1/2019 15:42	DO	0.27	mg/L
BY-AP-MW-23H	10/1/2019 15:42	Depth to Water Detail	9.51	ft
BY-AP-MW-23H	10/1/2019 15:42	Oxidation Reduction Potention	-47.71	mv
BY-AP-MW-23H	10/1/2019 15:42	pH	6.1	pH
BY-AP-MW-23H	10/1/2019 15:42	Temperature	21	C
BY-AP-MW-23H	10/1/2019 15:42	Turbidity	11.9	NTU
BY-AP-MW-23H	10/1/2019 15:47	Conductivity	456.2	uS/cm
BY-AP-MW-23H	10/1/2019 15:47	DO	0.26	mg/L
BY-AP-MW-23H	10/1/2019 15:47	Depth to Water Detail	9.51	ft
BY-AP-MW-23H	10/1/2019 15:47	Oxidation Reduction Potention	-46.54	mv
BY-AP-MW-23H	10/1/2019 15:47	pH	6.06	pH
BY-AP-MW-23H	10/1/2019 15:47	Temperature	20.99	C
BY-AP-MW-23H	10/1/2019 15:47	Turbidity	8.94	NTU
BY-AP-MW-23H	10/1/2019 15:52	Conductivity	446.7	uS/cm
BY-AP-MW-23H	10/1/2019 15:52	DO	0.25	mg/L
BY-AP-MW-23H	10/1/2019 15:52	Depth to Water Detail	9.51	ft
BY-AP-MW-23H	10/1/2019 15:52	Oxidation Reduction Potention	-44.85	mv
BY-AP-MW-23H	10/1/2019 15:52	pH	6.03	pH
BY-AP-MW-23H	10/1/2019 15:52	Temperature	20.97	C
BY-AP-MW-23H	10/1/2019 15:52	Turbidity	7.33	NTU

**Alabama Power Company
Plant Barry Ash Pond**

WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
BY-AP-MW-24H	10/2/2019 13:44	Conductivity	655.19	uS/cm
BY-AP-MW-24H	10/2/2019 13:44	DO	0.22	mg/L
BY-AP-MW-24H	10/2/2019 13:44	Depth to Water Detail	24.34	ft
BY-AP-MW-24H	10/2/2019 13:44	Oxidation Reduction Potention	-88.53	mv
BY-AP-MW-24H	10/2/2019 13:44	pH	6.33	pH
BY-AP-MW-24H	10/2/2019 13:44	Temperature	22.66	C
BY-AP-MW-24H	10/2/2019 13:44	Turbidity	15.4	NTU
BY-AP-MW-24H	10/2/2019 13:49	Conductivity	696.7	uS/cm
BY-AP-MW-24H	10/2/2019 13:49	DO	0.19	mg/L
BY-AP-MW-24H	10/2/2019 13:49	Depth to Water Detail	24.34	ft
BY-AP-MW-24H	10/2/2019 13:49	Oxidation Reduction Potention	-90.42	mv
BY-AP-MW-24H	10/2/2019 13:49	pH	6.31	pH
BY-AP-MW-24H	10/2/2019 13:49	Temperature	22.67	C
BY-AP-MW-24H	10/2/2019 13:49	Turbidity	19.8	NTU
BY-AP-MW-24H	10/2/2019 13:54	Conductivity	673.49	uS/cm
BY-AP-MW-24H	10/2/2019 13:54	DO	0.18	mg/L
BY-AP-MW-24H	10/2/2019 13:54	Depth to Water Detail	24.34	ft
BY-AP-MW-24H	10/2/2019 13:54	Oxidation Reduction Potention	-91.78	mv
BY-AP-MW-24H	10/2/2019 13:54	pH	6.31	pH
BY-AP-MW-24H	10/2/2019 13:54	Temperature	22.71	C
BY-AP-MW-24H	10/2/2019 13:54	Turbidity	15.8	NTU
BY-AP-MW-24H	10/2/2019 13:59	Conductivity	722.08	uS/cm
BY-AP-MW-24H	10/2/2019 13:59	DO	0.17	mg/L
BY-AP-MW-24H	10/2/2019 13:59	Depth to Water Detail	24.34	ft
BY-AP-MW-24H	10/2/2019 13:59	Oxidation Reduction Potention	-93	mv
BY-AP-MW-24H	10/2/2019 13:59	pH	6.31	pH
BY-AP-MW-24H	10/2/2019 13:59	Temperature	22.66	C
BY-AP-MW-24H	10/2/2019 13:59	Turbidity	15.2	NTU
BY-AP-MW-24H	10/2/2019 14:04	Conductivity	702.42	uS/cm
BY-AP-MW-24H	10/2/2019 14:04	DO	0.17	mg/L
BY-AP-MW-24H	10/2/2019 14:04	Depth to Water Detail	24.34	ft
BY-AP-MW-24H	10/2/2019 14:04	Oxidation Reduction Potention	-94.12	mv
BY-AP-MW-24H	10/2/2019 14:04	pH	6.32	pH
BY-AP-MW-24H	10/2/2019 14:04	Temperature	22.65	C
BY-AP-MW-24H	10/2/2019 14:04	Turbidity	15.9	NTU
BY-AP-MW-24H	10/2/2019 14:09	Conductivity	682.21	uS/cm
BY-AP-MW-24H	10/2/2019 14:09	DO	0.17	mg/L
BY-AP-MW-24H	10/2/2019 14:09	Depth to Water Detail	24.34	ft
BY-AP-MW-24H	10/2/2019 14:09	Oxidation Reduction Potention	-94.96	mv
BY-AP-MW-24H	10/2/2019 14:09	pH	6.33	pH
BY-AP-MW-24H	10/2/2019 14:09	Temperature	22.67	C
BY-AP-MW-24H	10/2/2019 14:09	Turbidity	11.1	NTU
BY-AP-MW-24H	10/2/2019 14:14	Conductivity	662.62	uS/cm
BY-AP-MW-24H	10/2/2019 14:14	DO	0.17	mg/L

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WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
BY-AP-MW-24H	10/2/2019 14:14	Depth to Water Detail	24.34	ft
BY-AP-MW-24H	10/2/2019 14:14	Oxidation Reduction Potention	-95.74	mv
BY-AP-MW-24H	10/2/2019 14:14	pH	6.34	pH
BY-AP-MW-24H	10/2/2019 14:14	Temperature	22.5	C
BY-AP-MW-24H	10/2/2019 14:14	Turbidity	9.63	NTU
BY-AP-MW-24H	10/2/2019 14:19	Conductivity	750.92	uS/cm
BY-AP-MW-24H	10/2/2019 14:19	DO	0.17	mg/L
BY-AP-MW-24H	10/2/2019 14:19	Depth to Water Detail	24.34	ft
BY-AP-MW-24H	10/2/2019 14:19	Oxidation Reduction Potention	-96.23	mv
BY-AP-MW-24H	10/2/2019 14:19	pH	6.35	pH
BY-AP-MW-24H	10/2/2019 14:19	Temperature	22.43	C
BY-AP-MW-24H	10/2/2019 14:19	Turbidity	8.62	NTU
BY-AP-MW-24H	10/2/2019 14:24	Conductivity	750.36	uS/cm
BY-AP-MW-24H	10/2/2019 14:24	DO	0.17	mg/L
BY-AP-MW-24H	10/2/2019 14:24	Depth to Water Detail	24.34	ft
BY-AP-MW-24H	10/2/2019 14:24	Oxidation Reduction Potention	-94.77	mv
BY-AP-MW-24H	10/2/2019 14:24	pH	6.32	pH
BY-AP-MW-24H	10/2/2019 14:24	Temperature	22.51	C
BY-AP-MW-24H	10/2/2019 14:24	Turbidity	7.65	NTU
BY-AP-MW-24H	10/2/2019 14:29	Conductivity	751.09	uS/cm
BY-AP-MW-24H	10/2/2019 14:29	DO	0.16	mg/L
BY-AP-MW-24H	10/2/2019 14:29	Depth to Water Detail	24.34	ft
BY-AP-MW-24H	10/2/2019 14:29	Oxidation Reduction Potention	-92.19	mv
BY-AP-MW-24H	10/2/2019 14:29	pH	6.27	pH
BY-AP-MW-24H	10/2/2019 14:29	Temperature	22.64	C
BY-AP-MW-24H	10/2/2019 14:29	Turbidity	6.54	NTU
BY-AP-MW-24H	10/2/2019 14:34	Conductivity	747.94	uS/cm
BY-AP-MW-24H	10/2/2019 14:34	DO	0.16	mg/L
BY-AP-MW-24H	10/2/2019 14:34	Depth to Water Detail	24.34	ft
BY-AP-MW-24H	10/2/2019 14:34	Oxidation Reduction Potention	-90.09	mv
BY-AP-MW-24H	10/2/2019 14:34	pH	6.23	pH
BY-AP-MW-24H	10/2/2019 14:34	Temperature	22.56	C
BY-AP-MW-24H	10/2/2019 14:34	Turbidity	5.53	NTU
BY-AP-MW-24H	10/2/2019 14:39	Conductivity	749.38	uS/cm
BY-AP-MW-24H	10/2/2019 14:39	DO	0.16	mg/L
BY-AP-MW-24H	10/2/2019 14:39	Depth to Water Detail	24.34	ft
BY-AP-MW-24H	10/2/2019 14:39	Oxidation Reduction Potention	-88.93	mv
BY-AP-MW-24H	10/2/2019 14:39	pH	6.21	pH
BY-AP-MW-24H	10/2/2019 14:39	Temperature	22.62	C
BY-AP-MW-24H	10/2/2019 14:39	Turbidity	5.8	NTU
BY-AP-MW-24H	10/2/2019 14:44	Conductivity	746.07	uS/cm
BY-AP-MW-24H	10/2/2019 14:44	DO	0.17	mg/L
BY-AP-MW-24H	10/2/2019 14:44	Depth to Water Detail	24.34	ft
BY-AP-MW-24H	10/2/2019 14:44	Oxidation Reduction Potention	-88.65	mv

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WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
BY-AP-MW-24H	10/2/2019 14:44	pH	6.21	pH
BY-AP-MW-24H	10/2/2019 14:44	Temperature	22.65	C
BY-AP-MW-24H	10/2/2019 14:44	Turbidity	4.95	NTU

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WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
BY-AP-MW-3	10/1/2019 14:48	Conductivity	33.46	uS/cm
BY-AP-MW-3	10/1/2019 14:48	DO	2.9	mg/L
BY-AP-MW-3	10/1/2019 14:48	Depth to Water Detail	24.05	ft
BY-AP-MW-3	10/1/2019 14:48	Oxidation Reduction Potention	133.8	mv
BY-AP-MW-3	10/1/2019 14:48	pH	4.16	pH
BY-AP-MW-3	10/1/2019 14:48	Temperature	22.12	C
BY-AP-MW-3	10/1/2019 14:48	Turbidity	2.53	NTU
BY-AP-MW-3	10/1/2019 14:53	Conductivity	35.39	uS/cm
BY-AP-MW-3	10/1/2019 14:53	DO	3.02	mg/L
BY-AP-MW-3	10/1/2019 14:53	Depth to Water Detail	24.05	ft
BY-AP-MW-3	10/1/2019 14:53	Oxidation Reduction Potention	132.94	mv
BY-AP-MW-3	10/1/2019 14:53	pH	4.18	pH
BY-AP-MW-3	10/1/2019 14:53	Temperature	22.24	C
BY-AP-MW-3	10/1/2019 14:53	Turbidity	0.46	NTU
BY-AP-MW-3	10/1/2019 14:58	Conductivity	36.61	uS/cm
BY-AP-MW-3	10/1/2019 14:58	DO	3.05	mg/L
BY-AP-MW-3	10/1/2019 14:58	Depth to Water Detail	24.05	ft
BY-AP-MW-3	10/1/2019 14:58	Oxidation Reduction Potention	124.36	mv
BY-AP-MW-3	10/1/2019 14:58	pH	4.34	pH
BY-AP-MW-3	10/1/2019 14:58	Temperature	22.17	C
BY-AP-MW-3	10/1/2019 14:58	Turbidity	0.39	NTU
BY-AP-MW-3	10/1/2019 15:03	Conductivity	38.04	uS/cm
BY-AP-MW-3	10/1/2019 15:03	DO	3.06	mg/L
BY-AP-MW-3	10/1/2019 15:03	Depth to Water Detail	24.05	ft
BY-AP-MW-3	10/1/2019 15:03	Oxidation Reduction Potention	119.86	mv
BY-AP-MW-3	10/1/2019 15:03	pH	4.43	pH
BY-AP-MW-3	10/1/2019 15:03	Temperature	22.22	C
BY-AP-MW-3	10/1/2019 15:03	Turbidity	0.43	NTU
BY-AP-MW-3	10/1/2019 15:08	Conductivity	39.16	uS/cm
BY-AP-MW-3	10/1/2019 15:08	DO	3.07	mg/L
BY-AP-MW-3	10/1/2019 15:08	Depth to Water Detail	24.05	ft
BY-AP-MW-3	10/1/2019 15:08	Oxidation Reduction Potention	120.28	mv
BY-AP-MW-3	10/1/2019 15:08	pH	4.44	pH
BY-AP-MW-3	10/1/2019 15:08	Temperature	22.28	C
BY-AP-MW-3	10/1/2019 15:08	Turbidity	0.32	NTU
BY-AP-MW-3	10/1/2019 15:13	Conductivity	39.75	uS/cm
BY-AP-MW-3	10/1/2019 15:13	DO	3.07	mg/L
BY-AP-MW-3	10/1/2019 15:13	Depth to Water Detail	24.05	ft
BY-AP-MW-3	10/1/2019 15:13	Oxidation Reduction Potention	125.23	mv
BY-AP-MW-3	10/1/2019 15:13	pH	4.37	pH
BY-AP-MW-3	10/1/2019 15:13	Temperature	22.23	C
BY-AP-MW-3	10/1/2019 15:13	Turbidity	0.38	NTU

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WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
BY-AP-MW-4	10/1/2019 15:11	Conductivity	37.64	uS/cm
BY-AP-MW-4	10/1/2019 15:11	DO	5.06	mg/L
BY-AP-MW-4	10/1/2019 15:11	Depth to Water Detail	24.78	ft
BY-AP-MW-4	10/1/2019 15:11	Oxidation Reduction Potention	126.97	mv
BY-AP-MW-4	10/1/2019 15:11	pH	4.3	pH
BY-AP-MW-4	10/1/2019 15:11	Temperature	22.54	C
BY-AP-MW-4	10/1/2019 15:11	Turbidity	0.75	NTU
BY-AP-MW-4	10/1/2019 15:16	Conductivity	37.93	uS/cm
BY-AP-MW-4	10/1/2019 15:16	DO	4.98	mg/L
BY-AP-MW-4	10/1/2019 15:16	Depth to Water Detail	24.78	ft
BY-AP-MW-4	10/1/2019 15:16	Oxidation Reduction Potention	129.02	mv
BY-AP-MW-4	10/1/2019 15:16	pH	4.26	pH
BY-AP-MW-4	10/1/2019 15:16	Temperature	22.43	C
BY-AP-MW-4	10/1/2019 15:16	Turbidity	0.94	NTU
BY-AP-MW-4	10/1/2019 15:21	Conductivity	38.17	uS/cm
BY-AP-MW-4	10/1/2019 15:21	DO	4.9	mg/L
BY-AP-MW-4	10/1/2019 15:21	Depth to Water Detail	24.78	ft
BY-AP-MW-4	10/1/2019 15:21	Oxidation Reduction Potention	130.54	mv
BY-AP-MW-4	10/1/2019 15:21	pH	4.22	pH
BY-AP-MW-4	10/1/2019 15:21	Temperature	22.35	C
BY-AP-MW-4	10/1/2019 15:21	Turbidity	1.04	NTU
BY-AP-MW-4	10/1/2019 15:26	Conductivity	38.29	uS/cm
BY-AP-MW-4	10/1/2019 15:26	DO	4.8	mg/L
BY-AP-MW-4	10/1/2019 15:26	Depth to Water Detail	24.78	ft
BY-AP-MW-4	10/1/2019 15:26	Oxidation Reduction Potention	127.48	mv
BY-AP-MW-4	10/1/2019 15:26	pH	4.28	pH
BY-AP-MW-4	10/1/2019 15:26	Temperature	22.24	C
BY-AP-MW-4	10/1/2019 15:26	Turbidity	0.7	NTU

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WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
BY-AP-MW-5	10/1/2019 13:59	Conductivity	365.97	uS/cm
BY-AP-MW-5	10/1/2019 13:59	DO	0.12	mg/L
BY-AP-MW-5	10/1/2019 13:59	Depth to Water Detail	27.01	ft
BY-AP-MW-5	10/1/2019 13:59	Oxidation Reduction Potention	-15.23	mv
BY-AP-MW-5	10/1/2019 13:59	pH	5.68	pH
BY-AP-MW-5	10/1/2019 13:59	Temperature	23.29	C
BY-AP-MW-5	10/1/2019 13:59	Turbidity	3.64	NTU
BY-AP-MW-5	10/1/2019 14:04	Conductivity	359.14	uS/cm
BY-AP-MW-5	10/1/2019 14:04	DO	0.11	mg/L
BY-AP-MW-5	10/1/2019 14:04	Depth to Water Detail	27.01	ft
BY-AP-MW-5	10/1/2019 14:04	Oxidation Reduction Potention	-3.77	mv
BY-AP-MW-5	10/1/2019 14:04	pH	5.46	pH
BY-AP-MW-5	10/1/2019 14:04	Temperature	23.21	C
BY-AP-MW-5	10/1/2019 14:04	Turbidity	2.6	NTU
BY-AP-MW-5	10/1/2019 14:09	Conductivity	372.37	uS/cm
BY-AP-MW-5	10/1/2019 14:09	DO	0.1	mg/L
BY-AP-MW-5	10/1/2019 14:09	Depth to Water Detail	27.01	ft
BY-AP-MW-5	10/1/2019 14:09	Oxidation Reduction Potention	-1.68	mv
BY-AP-MW-5	10/1/2019 14:09	pH	5.41	pH
BY-AP-MW-5	10/1/2019 14:09	Temperature	23.25	C
BY-AP-MW-5	10/1/2019 14:09	Turbidity	3.36	NTU
BY-AP-MW-5	10/1/2019 14:14	Conductivity	356.42	uS/cm
BY-AP-MW-5	10/1/2019 14:14	DO	0.1	mg/L
BY-AP-MW-5	10/1/2019 14:14	Depth to Water Detail	27.01	ft
BY-AP-MW-5	10/1/2019 14:14	Oxidation Reduction Potention	-3.46	mv
BY-AP-MW-5	10/1/2019 14:14	pH	5.44	pH
BY-AP-MW-5	10/1/2019 14:14	Temperature	23	C
BY-AP-MW-5	10/1/2019 14:14	Turbidity	3.2	NTU
BY-AP-MW-5	10/1/2019 14:19	Conductivity	328.2	uS/cm
BY-AP-MW-5	10/1/2019 14:19	DO	0.1	mg/L
BY-AP-MW-5	10/1/2019 14:19	Depth to Water Detail	27.01	ft
BY-AP-MW-5	10/1/2019 14:19	Oxidation Reduction Potention	-5.45	mv
BY-AP-MW-5	10/1/2019 14:19	pH	5.47	pH
BY-AP-MW-5	10/1/2019 14:19	Temperature	23.22	C
BY-AP-MW-5	10/1/2019 14:19	Turbidity	2.2	NTU
BY-AP-MW-5	10/1/2019 14:24	Conductivity	396.55	uS/cm
BY-AP-MW-5	10/1/2019 14:24	DO	0.1	mg/L
BY-AP-MW-5	10/1/2019 14:24	Depth to Water Detail	27.01	ft
BY-AP-MW-5	10/1/2019 14:24	Oxidation Reduction Potention	-7.41	mv
BY-AP-MW-5	10/1/2019 14:24	pH	5.5	pH
BY-AP-MW-5	10/1/2019 14:24	Temperature	23.26	C
BY-AP-MW-5	10/1/2019 14:24	Turbidity	1.91	NTU
BY-AP-MW-5	10/1/2019 14:29	Conductivity	388.52	uS/cm
BY-AP-MW-5	10/1/2019 14:29	DO	0.1	mg/L

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WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
BY-AP-MW-5	10/1/2019 14:29	Depth to Water Detail	27.01	ft
BY-AP-MW-5	10/1/2019 14:29	Oxidation Reduction Potention	-6.23	mv
BY-AP-MW-5	10/1/2019 14:29	pH	5.48	pH
BY-AP-MW-5	10/1/2019 14:29	Temperature	23.14	C
BY-AP-MW-5	10/1/2019 14:29	Turbidity	2.79	NTU
BY-AP-MW-5	10/1/2019 14:34	Conductivity	375.68	uS/cm
BY-AP-MW-5	10/1/2019 14:34	DO	0.09	mg/L
BY-AP-MW-5	10/1/2019 14:34	Depth to Water Detail	27.01	ft
BY-AP-MW-5	10/1/2019 14:34	Oxidation Reduction Potention	-5.67	mv
BY-AP-MW-5	10/1/2019 14:34	pH	5.47	pH
BY-AP-MW-5	10/1/2019 14:34	Temperature	23.07	C
BY-AP-MW-5	10/1/2019 14:34	Turbidity	1.82	NTU
BY-AP-MW-5	10/1/2019 14:39	Conductivity	383.76	uS/cm
BY-AP-MW-5	10/1/2019 14:39	DO	0.1	mg/L
BY-AP-MW-5	10/1/2019 14:39	Depth to Water Detail	27.01	ft
BY-AP-MW-5	10/1/2019 14:39	Oxidation Reduction Potention	-5.47	mv
BY-AP-MW-5	10/1/2019 14:39	pH	5.47	pH
BY-AP-MW-5	10/1/2019 14:39	Temperature	23.07	C
BY-AP-MW-5	10/1/2019 14:39	Turbidity	3.33	NTU

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WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
BY-AP-MW-5V	10/2/2019 13:36	Conductivity	160.1	uS/cm
BY-AP-MW-5V	10/2/2019 13:36	DO	1.38	mg/L
BY-AP-MW-5V	10/2/2019 13:36	Depth to Water Detail	26.8	ft
BY-AP-MW-5V	10/2/2019 13:36	Oxidation Reduction Potention	172.94	mv
BY-AP-MW-5V	10/2/2019 13:36	pH	6.01	pH
BY-AP-MW-5V	10/2/2019 13:36	Temperature	23.05	C
BY-AP-MW-5V	10/2/2019 13:36	Turbidity	16.2	NTU
BY-AP-MW-5V	10/2/2019 13:41	Conductivity	161.94	uS/cm
BY-AP-MW-5V	10/2/2019 13:41	DO	1.5	mg/L
BY-AP-MW-5V	10/2/2019 13:41	Depth to Water Detail	26.8	ft
BY-AP-MW-5V	10/2/2019 13:41	Oxidation Reduction Potention	165.54	mv
BY-AP-MW-5V	10/2/2019 13:41	pH	5.91	pH
BY-AP-MW-5V	10/2/2019 13:41	Temperature	23.06	C
BY-AP-MW-5V	10/2/2019 13:41	Turbidity	9.94	NTU
BY-AP-MW-5V	10/2/2019 13:46	Conductivity	160.78	uS/cm
BY-AP-MW-5V	10/2/2019 13:46	DO	1.52	mg/L
BY-AP-MW-5V	10/2/2019 13:46	Depth to Water Detail	26.8	ft
BY-AP-MW-5V	10/2/2019 13:46	Oxidation Reduction Potention	158.18	mv
BY-AP-MW-5V	10/2/2019 13:46	pH	5.9	pH
BY-AP-MW-5V	10/2/2019 13:46	Temperature	22.88	C
BY-AP-MW-5V	10/2/2019 13:46	Turbidity	6.72	NTU
BY-AP-MW-5V	10/2/2019 13:51	Conductivity	159.4	uS/cm
BY-AP-MW-5V	10/2/2019 13:51	DO	1.58	mg/L
BY-AP-MW-5V	10/2/2019 13:51	Depth to Water Detail	26.8	ft
BY-AP-MW-5V	10/2/2019 13:51	Oxidation Reduction Potention	156.37	mv
BY-AP-MW-5V	10/2/2019 13:51	pH	5.9	pH
BY-AP-MW-5V	10/2/2019 13:51	Temperature	22.83	C
BY-AP-MW-5V	10/2/2019 13:51	Turbidity	5.02	NTU

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WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
BY-AP-MW-6	10/1/2019 15:52	Conductivity	56.41	uS/cm
BY-AP-MW-6	10/1/2019 15:52	DO	0.45	mg/L
BY-AP-MW-6	10/1/2019 15:52	Depth to Water Detail	25.02	ft
BY-AP-MW-6	10/1/2019 15:52	Oxidation Reduction Potention	143.46	mv
BY-AP-MW-6	10/1/2019 15:52	pH	4.61	pH
BY-AP-MW-6	10/1/2019 15:52	Temperature	21.94	C
BY-AP-MW-6	10/1/2019 15:52	Turbidity	1.17	NTU
BY-AP-MW-6	10/1/2019 15:57	Conductivity	56.19	uS/cm
BY-AP-MW-6	10/1/2019 15:57	DO	0.44	mg/L
BY-AP-MW-6	10/1/2019 15:57	Depth to Water Detail	25.02	ft
BY-AP-MW-6	10/1/2019 15:57	Oxidation Reduction Potention	145.05	mv
BY-AP-MW-6	10/1/2019 15:57	pH	4.59	pH
BY-AP-MW-6	10/1/2019 15:57	Temperature	21.82	C
BY-AP-MW-6	10/1/2019 15:57	Turbidity	0.81	NTU
BY-AP-MW-6	10/1/2019 16:02	Conductivity	55.65	uS/cm
BY-AP-MW-6	10/1/2019 16:02	DO	0.42	mg/L
BY-AP-MW-6	10/1/2019 16:02	Depth to Water Detail	25.02	ft
BY-AP-MW-6	10/1/2019 16:02	Oxidation Reduction Potention	144.16	mv
BY-AP-MW-6	10/1/2019 16:02	pH	4.67	pH
BY-AP-MW-6	10/1/2019 16:02	Temperature	21.8	C
BY-AP-MW-6	10/1/2019 16:02	Turbidity	0.92	NTU
BY-AP-MW-6	10/1/2019 16:07	Conductivity	55.55	uS/cm
BY-AP-MW-6	10/1/2019 16:07	DO	0.41	mg/L
BY-AP-MW-6	10/1/2019 16:07	Depth to Water Detail	25.02	ft
BY-AP-MW-6	10/1/2019 16:07	Oxidation Reduction Potention	143.96	mv
BY-AP-MW-6	10/1/2019 16:07	pH	4.7	pH
BY-AP-MW-6	10/1/2019 16:07	Temperature	21.79	C
BY-AP-MW-6	10/1/2019 16:07	Turbidity	0.89	NTU

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WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
BY-AP-MW-7	9/30/2019 13:18	Conductivity	241.88	uS/cm
BY-AP-MW-7	9/30/2019 13:18	DO	0.42	mg/L
BY-AP-MW-7	9/30/2019 13:18	Depth to Water Detail	24.26	ft
BY-AP-MW-7	9/30/2019 13:18	Oxidation Reduction Potention	74.44	mv
BY-AP-MW-7	9/30/2019 13:18	pH	6.17	pH
BY-AP-MW-7	9/30/2019 13:18	Temperature	22.92	C
BY-AP-MW-7	9/30/2019 13:18	Turbidity	15.1	NTU
BY-AP-MW-7	9/30/2019 13:23	Conductivity	241.09	uS/cm
BY-AP-MW-7	9/30/2019 13:23	DO	0.34	mg/L
BY-AP-MW-7	9/30/2019 13:23	Depth to Water Detail	24.26	ft
BY-AP-MW-7	9/30/2019 13:23	Oxidation Reduction Potention	61.69	mv
BY-AP-MW-7	9/30/2019 13:23	pH	6.3	pH
BY-AP-MW-7	9/30/2019 13:23	Temperature	22.97	C
BY-AP-MW-7	9/30/2019 13:23	Turbidity	10.22	NTU
BY-AP-MW-7	9/30/2019 13:28	Conductivity	239.94	uS/cm
BY-AP-MW-7	9/30/2019 13:28	DO	0.32	mg/L
BY-AP-MW-7	9/30/2019 13:28	Depth to Water Detail	24.26	ft
BY-AP-MW-7	9/30/2019 13:28	Oxidation Reduction Potention	50.59	mv
BY-AP-MW-7	9/30/2019 13:28	pH	6.39	pH
BY-AP-MW-7	9/30/2019 13:28	Temperature	23.11	C
BY-AP-MW-7	9/30/2019 13:28	Turbidity	6.33	NTU
BY-AP-MW-7	9/30/2019 13:33	Conductivity	239.33	uS/cm
BY-AP-MW-7	9/30/2019 13:33	DO	0.31	mg/L
BY-AP-MW-7	9/30/2019 13:33	Depth to Water Detail	24.26	ft
BY-AP-MW-7	9/30/2019 13:33	Oxidation Reduction Potention	43.25	mv
BY-AP-MW-7	9/30/2019 13:33	pH	6.17	pH
BY-AP-MW-7	9/30/2019 13:33	Temperature	22.97	C
BY-AP-MW-7	9/30/2019 13:33	Turbidity	7.6	NTU
BY-AP-MW-7	9/30/2019 13:38	Conductivity	239.95	uS/cm
BY-AP-MW-7	9/30/2019 13:38	DO	0.3	mg/L
BY-AP-MW-7	9/30/2019 13:38	Depth to Water Detail	24.26	ft
BY-AP-MW-7	9/30/2019 13:38	Oxidation Reduction Potention	36.95	mv
BY-AP-MW-7	9/30/2019 13:38	pH	6.16	pH
BY-AP-MW-7	9/30/2019 13:38	Temperature	22.96	C
BY-AP-MW-7	9/30/2019 13:38	Turbidity	7.23	NTU
BY-AP-MW-7	9/30/2019 13:43	Conductivity	238.68	uS/cm
BY-AP-MW-7	9/30/2019 13:43	DO	0.29	mg/L
BY-AP-MW-7	9/30/2019 13:43	Depth to Water Detail	24.26	ft
BY-AP-MW-7	9/30/2019 13:43	Oxidation Reduction Potention	29.56	mv
BY-AP-MW-7	9/30/2019 13:43	pH	6.36	pH
BY-AP-MW-7	9/30/2019 13:43	Temperature	23.18	C
BY-AP-MW-7	9/30/2019 13:43	Turbidity	7.33	NTU

**Alabama Power Company
Plant Barry Ash Pond**

WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
BY-AP-MW-7V	10/1/2019 9:53	Conductivity	324.04	uS/cm
BY-AP-MW-7V	10/1/2019 9:53	DO	0.34	mg/L
BY-AP-MW-7V	10/1/2019 9:53	Depth to Water Detail	23.55	ft
BY-AP-MW-7V	10/1/2019 9:53	Oxidation Reduction Potention	-97.84	mv
BY-AP-MW-7V	10/1/2019 9:53	pH	6.7	pH
BY-AP-MW-7V	10/1/2019 9:53	Temperature	22.64	C
BY-AP-MW-7V	10/1/2019 9:53	Turbidity	2.45	NTU
BY-AP-MW-7V	10/1/2019 9:58	Conductivity	325.56	uS/cm
BY-AP-MW-7V	10/1/2019 9:58	DO	0.27	mg/L
BY-AP-MW-7V	10/1/2019 9:58	Depth to Water Detail	23.56	ft
BY-AP-MW-7V	10/1/2019 9:58	Oxidation Reduction Potention	-82.86	mv
BY-AP-MW-7V	10/1/2019 9:58	pH	6.69	pH
BY-AP-MW-7V	10/1/2019 9:58	Temperature	22.79	C
BY-AP-MW-7V	10/1/2019 9:58	Turbidity	2.71	NTU
BY-AP-MW-7V	10/1/2019 10:03	Conductivity	327.09	uS/cm
BY-AP-MW-7V	10/1/2019 10:03	DO	0.26	mg/L
BY-AP-MW-7V	10/1/2019 10:03	Depth to Water Detail	23.56	ft
BY-AP-MW-7V	10/1/2019 10:03	Oxidation Reduction Potention	-70.99	mv
BY-AP-MW-7V	10/1/2019 10:03	pH	6.66	pH
BY-AP-MW-7V	10/1/2019 10:03	Temperature	22.81	C
BY-AP-MW-7V	10/1/2019 10:03	Turbidity	2.47	NTU
BY-AP-MW-7V	10/1/2019 10:08	Conductivity	329.23	uS/cm
BY-AP-MW-7V	10/1/2019 10:08	DO	0.25	mg/L
BY-AP-MW-7V	10/1/2019 10:08	Depth to Water Detail	23.56	ft
BY-AP-MW-7V	10/1/2019 10:08	Oxidation Reduction Potention	-69.42	mv
BY-AP-MW-7V	10/1/2019 10:08	pH	6.67	pH
BY-AP-MW-7V	10/1/2019 10:08	Temperature	22.75	C
BY-AP-MW-7V	10/1/2019 10:08	Turbidity	1.94	NTU
BY-AP-MW-7V	12/2/2019 14:44	Conductivity	415.4	uS/cm
BY-AP-MW-7V	12/2/2019 14:44	DO	0.41	mg/L
BY-AP-MW-7V	12/2/2019 14:44	Depth to Water Detail	23.8	ft
BY-AP-MW-7V	12/2/2019 14:44	Oxidation Reduction Potention	-43.4	mv
BY-AP-MW-7V	12/2/2019 14:44	pH	6.56	pH
BY-AP-MW-7V	12/2/2019 14:44	Temperature	20.81	C
BY-AP-MW-7V	12/2/2019 14:44	Turbidity	3.7	NTU
BY-AP-MW-7V	12/2/2019 14:49	Conductivity	322.06	uS/cm
BY-AP-MW-7V	12/2/2019 14:49	DO	0.32	mg/L
BY-AP-MW-7V	12/2/2019 14:49	Depth to Water Detail	23.8	ft
BY-AP-MW-7V	12/2/2019 14:49	Oxidation Reduction Potention	-46.36	mv
BY-AP-MW-7V	12/2/2019 14:49	pH	6.56	pH
BY-AP-MW-7V	12/2/2019 14:49	Temperature	20.85	C
BY-AP-MW-7V	12/2/2019 14:49	Turbidity	1.88	NTU
BY-AP-MW-7V	12/2/2019 14:54	Conductivity	318.58	uS/cm
BY-AP-MW-7V	12/2/2019 14:54	DO	0.29	mg/L

**Alabama Power Company
Plant Barry Ash Pond**

WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
BY-AP-MW-7V	12/2/2019 14:54	Depth to Water Detail	23.8	ft
BY-AP-MW-7V	12/2/2019 14:54	Oxidation Reduction Potention	-50.24	mv
BY-AP-MW-7V	12/2/2019 14:54	pH	6.56	pH
BY-AP-MW-7V	12/2/2019 14:54	Temperature	20.78	C
BY-AP-MW-7V	12/2/2019 14:54	Turbidity	1.6	NTU
BY-AP-MW-7V	12/2/2019 14:59	Conductivity	318.29	uS/cm
BY-AP-MW-7V	12/2/2019 14:59	DO	0.28	mg/L
BY-AP-MW-7V	12/2/2019 14:59	Depth to Water Detail	23.8	ft
BY-AP-MW-7V	12/2/2019 14:59	Oxidation Reduction Potention	-51.55	mv
BY-AP-MW-7V	12/2/2019 14:59	pH	6.56	pH
BY-AP-MW-7V	12/2/2019 14:59	Temperature	20.69	C
BY-AP-MW-7V	12/2/2019 14:59	Turbidity	1.36	NTU

**Alabama Power Company
Plant Barry Ash Pond**

WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
BY-AP-MW-8	9/30/2019 13:39	Conductivity	496.4	uS/cm
BY-AP-MW-8	9/30/2019 13:39	DO	0.09	mg/L
BY-AP-MW-8	9/30/2019 13:39	Depth to Water Detail	27.15	ft
BY-AP-MW-8	9/30/2019 13:39	Oxidation Reduction Potention	-6.94	mv
BY-AP-MW-8	9/30/2019 13:39	pH	6.15	pH
BY-AP-MW-8	9/30/2019 13:39	Temperature	22.94	C
BY-AP-MW-8	9/30/2019 13:39	Turbidity	1.19	NTU
BY-AP-MW-8	9/30/2019 13:44	Conductivity	495.09	uS/cm
BY-AP-MW-8	9/30/2019 13:44	DO	0.08	mg/L
BY-AP-MW-8	9/30/2019 13:44	Depth to Water Detail	27.15	ft
BY-AP-MW-8	9/30/2019 13:44	Oxidation Reduction Potention	-20.79	mv
BY-AP-MW-8	9/30/2019 13:44	pH	6.18	pH
BY-AP-MW-8	9/30/2019 13:44	Temperature	22.93	C
BY-AP-MW-8	9/30/2019 13:44	Turbidity	4.55	NTU
BY-AP-MW-8	9/30/2019 13:49	Conductivity	494.79	uS/cm
BY-AP-MW-8	9/30/2019 13:49	DO	0.07	mg/L
BY-AP-MW-8	9/30/2019 13:49	Depth to Water Detail	27.15	ft
BY-AP-MW-8	9/30/2019 13:49	Oxidation Reduction Potention	-27.8	mv
BY-AP-MW-8	9/30/2019 13:49	pH	6.19	pH
BY-AP-MW-8	9/30/2019 13:49	Temperature	22.98	C
BY-AP-MW-8	9/30/2019 13:49	Turbidity	0.77	NTU
BY-AP-MW-8	9/30/2019 13:54	Conductivity	495.07	uS/cm
BY-AP-MW-8	9/30/2019 13:54	DO	0.06	mg/L
BY-AP-MW-8	9/30/2019 13:54	Depth to Water Detail	27.15	ft
BY-AP-MW-8	9/30/2019 13:54	Oxidation Reduction Potention	-31.64	mv
BY-AP-MW-8	9/30/2019 13:54	pH	6.19	pH
BY-AP-MW-8	9/30/2019 13:54	Temperature	22.91	C
BY-AP-MW-8	9/30/2019 13:54	Turbidity	1.28	NTU

**Alabama Power Company
Plant Barry Ash Pond**

WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
BY-AP-MW-8V	10/1/2019 11:05	Conductivity	468.77	uS/cm
BY-AP-MW-8V	10/1/2019 11:05	DO	0.26	mg/L
BY-AP-MW-8V	10/1/2019 11:05	Depth to Water Detail	27.03	ft
BY-AP-MW-8V	10/1/2019 11:05	Oxidation Reduction Potention	-43.46	mv
BY-AP-MW-8V	10/1/2019 11:05	pH	6.19	pH
BY-AP-MW-8V	10/1/2019 11:05	Temperature	22.02	C
BY-AP-MW-8V	10/1/2019 11:05	Turbidity	7.53	NTU
BY-AP-MW-8V	10/1/2019 11:10	Conductivity	500.3	uS/cm
BY-AP-MW-8V	10/1/2019 11:10	DO	0.23	mg/L
BY-AP-MW-8V	10/1/2019 11:10	Depth to Water Detail	27.03	ft
BY-AP-MW-8V	10/1/2019 11:10	Oxidation Reduction Potention	-49.3	mv
BY-AP-MW-8V	10/1/2019 11:10	pH	6.2	pH
BY-AP-MW-8V	10/1/2019 11:10	Temperature	22.09	C
BY-AP-MW-8V	10/1/2019 11:10	Turbidity	5.61	NTU
BY-AP-MW-8V	10/1/2019 11:15	Conductivity	508.97	uS/cm
BY-AP-MW-8V	10/1/2019 11:15	DO	0.22	mg/L
BY-AP-MW-8V	10/1/2019 11:15	Depth to Water Detail	27.03	ft
BY-AP-MW-8V	10/1/2019 11:15	Oxidation Reduction Potention	-49.49	mv
BY-AP-MW-8V	10/1/2019 11:15	pH	6.18	pH
BY-AP-MW-8V	10/1/2019 11:15	Temperature	22.02	C
BY-AP-MW-8V	10/1/2019 11:15	Turbidity	3.69	NTU
BY-AP-MW-8V	10/1/2019 11:20	Conductivity	511.65	uS/cm
BY-AP-MW-8V	10/1/2019 11:20	DO	0.22	mg/L
BY-AP-MW-8V	10/1/2019 11:20	Depth to Water Detail	27.03	ft
BY-AP-MW-8V	10/1/2019 11:20	Oxidation Reduction Potention	-49.57	mv
BY-AP-MW-8V	10/1/2019 11:20	pH	6.16	pH
BY-AP-MW-8V	10/1/2019 11:20	Temperature	22.07	C
BY-AP-MW-8V	10/1/2019 11:20	Turbidity	3.51	NTU
BY-AP-MW-8V	10/1/2019 11:25	Conductivity	513.4	uS/cm
BY-AP-MW-8V	10/1/2019 11:25	DO	0.21	mg/L
BY-AP-MW-8V	10/1/2019 11:25	Depth to Water Detail	27.03	ft
BY-AP-MW-8V	10/1/2019 11:25	Oxidation Reduction Potention	-50.37	mv
BY-AP-MW-8V	10/1/2019 11:25	pH	6.16	pH
BY-AP-MW-8V	10/1/2019 11:25	Temperature	22.02	C
BY-AP-MW-8V	10/1/2019 11:25	Turbidity	2.81	NTU

**Alabama Power Company
Plant Barry Ash Pond**

WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
BY-AP-MW-9	9/30/2019 15:30	Conductivity	559.11	uS/cm
BY-AP-MW-9	9/30/2019 15:30	DO	0.21	mg/L
BY-AP-MW-9	9/30/2019 15:30	Depth to Water Detail	23.08	ft
BY-AP-MW-9	9/30/2019 15:30	Oxidation Reduction Potention	-43.12	mv
BY-AP-MW-9	9/30/2019 15:30	pH	5.95	pH
BY-AP-MW-9	9/30/2019 15:30	Temperature	22.63	C
BY-AP-MW-9	9/30/2019 15:30	Turbidity	0.8	NTU
BY-AP-MW-9	9/30/2019 15:35	Conductivity	556.95	uS/cm
BY-AP-MW-9	9/30/2019 15:35	DO	0.19	mg/L
BY-AP-MW-9	9/30/2019 15:35	Depth to Water Detail	23.08	ft
BY-AP-MW-9	9/30/2019 15:35	Oxidation Reduction Potention	-57.41	mv
BY-AP-MW-9	9/30/2019 15:35	pH	6.05	pH
BY-AP-MW-9	9/30/2019 15:35	Temperature	22.64	C
BY-AP-MW-9	9/30/2019 15:35	Turbidity	3.32	NTU
BY-AP-MW-9	9/30/2019 15:40	Conductivity	553.13	uS/cm
BY-AP-MW-9	9/30/2019 15:40	DO	0.18	mg/L
BY-AP-MW-9	9/30/2019 15:40	Depth to Water Detail	23.08	ft
BY-AP-MW-9	9/30/2019 15:40	Oxidation Reduction Potention	-63.45	mv
BY-AP-MW-9	9/30/2019 15:40	pH	6.08	pH
BY-AP-MW-9	9/30/2019 15:40	Temperature	22.62	C
BY-AP-MW-9	9/30/2019 15:40	Turbidity	1.7	NTU
BY-AP-MW-9	9/30/2019 15:45	Conductivity	554.35	uS/cm
BY-AP-MW-9	9/30/2019 15:45	DO	0.17	mg/L
BY-AP-MW-9	9/30/2019 15:45	Depth to Water Detail	23.08	ft
BY-AP-MW-9	9/30/2019 15:45	Oxidation Reduction Potention	-65.03	mv
BY-AP-MW-9	9/30/2019 15:45	pH	6.07	pH
BY-AP-MW-9	9/30/2019 15:45	Temperature	22.72	C
BY-AP-MW-9	9/30/2019 15:45	Turbidity	1.77	NTU

Appendix C

1st
Semi-Annual
Monitoring Event

Interwell Prediction Limits - Significant Results

Plant Barry Client: Southern Company Data: Barry Ash Pond Printed 6/26/2019, 10:33 AM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	%NDs	Transform	Alpha	Method
Boron (mg/L)	BY-AP-MW-1	0.1	n/a	5/29/2019	1.75	Yes	36	100	n/a	0.001332	NP Inter (NDs) 1 of 2
Boron (mg/L)	BY-AP-MW-8	0.1	n/a	5/29/2019	1.44	Yes	36	100	n/a	0.001332	NP Inter (NDs) 1 of 2
Boron (mg/L)	BY-AP-MW-9	0.1	n/a	5/30/2019	2.44	Yes	36	100	n/a	0.001332	NP Inter (NDs) 1 of 2
Boron (mg/L)	BY-AP-MW-10	0.1	n/a	5/30/2019	2.11	Yes	36	100	n/a	0.001332	NP Inter (NDs) 1 of 2
Boron (mg/L)	BY-AP-MW-15	0.1	n/a	5/29/2019	0.116	Yes	36	100	n/a	0.001332	NP Inter (NDs) 1 of 2
Boron (mg/L)	BY-AP-MW-16	0.1	n/a	5/29/2019	1.7	Yes	36	100	n/a	0.001332	NP Inter (NDs) 1 of 2
Calcium (mg/L)	BY-AP-MW-1	3.86	n/a	5/29/2019	33.4	Yes	39	0	n/a	0.001153	NP Inter (normality) ...
Calcium (mg/L)	BY-AP-MW-5	3.86	n/a	5/29/2019	14.5	Yes	39	0	n/a	0.001153	NP Inter (normality) ...
Calcium (mg/L)	BY-AP-MW-7	3.86	n/a	5/29/2019	8.88	Yes	39	0	n/a	0.001153	NP Inter (normality) ...
Calcium (mg/L)	BY-AP-MW-8	3.86	n/a	5/29/2019	31.9	Yes	39	0	n/a	0.001153	NP Inter (normality) ...
Calcium (mg/L)	BY-AP-MW-9	3.86	n/a	5/30/2019	38.3	Yes	39	0	n/a	0.001153	NP Inter (normality) ...
Calcium (mg/L)	BY-AP-MW-10	3.86	n/a	5/30/2019	60.5	Yes	39	0	n/a	0.001153	NP Inter (normality) ...
Calcium (mg/L)	BY-AP-MW-11	3.86	n/a	5/29/2019	23.9	Yes	39	0	n/a	0.001153	NP Inter (normality) ...
Calcium (mg/L)	BY-AP-MW-12	3.86	n/a	5/29/2019	21.4	Yes	39	0	n/a	0.001153	NP Inter (normality) ...
Calcium (mg/L)	BY-AP-MW-13	3.86	n/a	5/29/2019	12.8	Yes	39	0	n/a	0.001153	NP Inter (normality) ...
Calcium (mg/L)	BY-AP-MW-14	3.86	n/a	5/29/2019	11.2	Yes	39	0	n/a	0.001153	NP Inter (normality) ...
Calcium (mg/L)	BY-AP-MW-15	3.86	n/a	5/29/2019	7.22	Yes	39	0	n/a	0.001153	NP Inter (normality) ...
Calcium (mg/L)	BY-AP-MW-16	3.86	n/a	5/29/2019	13.4	Yes	39	0	n/a	0.001153	NP Inter (normality) ...
Chloride (mg/L)	BY-AP-MW-1	11.96	n/a	5/29/2019	27.6	Yes	39	0	No	0.000...	Param Inter 1 of 2
Chloride (mg/L)	BY-AP-MW-5	11.96	n/a	5/29/2019	19.7	Yes	39	0	No	0.000...	Param Inter 1 of 2
Chloride (mg/L)	BY-AP-MW-7	11.96	n/a	5/29/2019	13.3	Yes	39	0	No	0.000...	Param Inter 1 of 2
Chloride (mg/L)	BY-AP-MW-8	11.96	n/a	5/29/2019	27.4	Yes	39	0	No	0.000...	Param Inter 1 of 2
Chloride (mg/L)	BY-AP-MW-9	11.96	n/a	5/30/2019	27.3	Yes	39	0	No	0.000...	Param Inter 1 of 2
Chloride (mg/L)	BY-AP-MW-10	11.96	n/a	5/30/2019	25.9	Yes	39	0	No	0.000...	Param Inter 1 of 2
Chloride (mg/L)	BY-AP-MW-11	11.96	n/a	5/29/2019	27.8	Yes	39	0	No	0.000...	Param Inter 1 of 2
Chloride (mg/L)	BY-AP-MW-12	11.96	n/a	5/29/2019	24.1	Yes	39	0	No	0.000...	Param Inter 1 of 2
Chloride (mg/L)	BY-AP-MW-13	11.96	n/a	5/29/2019	44	Yes	39	0	No	0.000...	Param Inter 1 of 2
Chloride (mg/L)	BY-AP-MW-14	11.96	n/a	5/29/2019	50.1	Yes	39	0	No	0.000...	Param Inter 1 of 2
Chloride (mg/L)	BY-AP-MW-15	11.96	n/a	5/29/2019	47.2	Yes	39	0	No	0.000...	Param Inter 1 of 2
Chloride (mg/L)	BY-AP-MW-16	11.96	n/a	5/29/2019	20	Yes	39	0	No	0.000...	Param Inter 1 of 2
Sulfate (mg/L)	BY-AP-MW-1	5.06	n/a	5/29/2019	5.75	Yes	39	46.15	n/a	0.001153	NP Inter (normality) ...
Sulfate (mg/L)	BY-AP-MW-5	5.06	n/a	5/29/2019	5.51	Yes	39	46.15	n/a	0.001153	NP Inter (normality) ...
Sulfate (mg/L)	BY-AP-MW-8	5.06	n/a	5/29/2019	6.01	Yes	39	46.15	n/a	0.001153	NP Inter (normality) ...
Sulfate (mg/L)	BY-AP-MW-11	5.06	n/a	5/29/2019	24.1	Yes	39	46.15	n/a	0.001153	NP Inter (normality) ...
Sulfate (mg/L)	BY-AP-MW-12	5.06	n/a	5/29/2019	7.04	Yes	39	46.15	n/a	0.001153	NP Inter (normality) ...
Sulfate (mg/L)	BY-AP-MW-13	5.06	n/a	5/29/2019	49.5	Yes	39	46.15	n/a	0.001153	NP Inter (normality) ...
Sulfate (mg/L)	BY-AP-MW-14	5.06	n/a	5/29/2019	67.6	Yes	39	46.15	n/a	0.001153	NP Inter (normality) ...
Sulfate (mg/L)	BY-AP-MW-16	5.06	n/a	5/29/2019	6.72	Yes	39	46.15	n/a	0.001153	NP Inter (normality) ...
TDS (mg/L)	BY-AP-MW-1	52.59	n/a	5/29/2019	403	Yes	39	0	No	0.000...	Param Inter 1 of 2
TDS (mg/L)	BY-AP-MW-5	52.59	n/a	5/29/2019	259	Yes	39	0	No	0.000...	Param Inter 1 of 2
TDS (mg/L)	BY-AP-MW-7	52.59	n/a	5/29/2019	132	Yes	39	0	No	0.000...	Param Inter 1 of 2
TDS (mg/L)	BY-AP-MW-8	52.59	n/a	5/29/2019	291	Yes	39	0	No	0.000...	Param Inter 1 of 2
TDS (mg/L)	BY-AP-MW-9	52.59	n/a	5/30/2019	316	Yes	39	0	No	0.000...	Param Inter 1 of 2
TDS (mg/L)	BY-AP-MW-10	52.59	n/a	5/30/2019	377	Yes	39	0	No	0.000...	Param Inter 1 of 2
TDS (mg/L)	BY-AP-MW-11	52.59	n/a	5/29/2019	367	Yes	39	0	No	0.000...	Param Inter 1 of 2
TDS (mg/L)	BY-AP-MW-12	52.59	n/a	5/29/2019	321	Yes	39	0	No	0.000...	Param Inter 1 of 2
TDS (mg/L)	BY-AP-MW-13	52.59	n/a	5/29/2019	307	Yes	39	0	No	0.000...	Param Inter 1 of 2
TDS (mg/L)	BY-AP-MW-14	52.59	n/a	5/29/2019	318	Yes	39	0	No	0.000...	Param Inter 1 of 2
TDS (mg/L)	BY-AP-MW-15	52.59	n/a	5/29/2019	198	Yes	39	0	No	0.000...	Param Inter 1 of 2
TDS (mg/L)	BY-AP-MW-16	52.59	n/a	5/29/2019	264	Yes	39	0	No	0.000...	Param Inter 1 of 2

Interwell Prediction Limits - All Results

Plant Barry Client: Southern Company Data: Barry Ash Pond Printed 6/26/2019, 10:33 AM

<u>Constituent</u>	<u>Well</u>	<u>Upper Lim.</u>	<u>Lower Lim.</u>	<u>Date</u>	<u>Obsrv.</u>	<u>Sig.</u>	<u>Bg N</u>	<u>%NDs</u>	<u>Transform</u>	<u>Alpha</u>	<u>Method</u>
Boron (mg/L)	BY-AP-MW-1	0.1	n/a	5/29/2019	1.75	Yes	36	100	n/a	0.001332	NP Inter (NDs) 1 of 2
Boron (mg/L)	BY-AP-MW-5	0.1	n/a	5/29/2019	0.0946	No	36	100	n/a	0.001332	NP Inter (NDs) 1 of 2
Boron (mg/L)	BY-AP-MW-6	0.1	n/a	5/29/2019	0.1ND	No	36	100	n/a	0.001332	NP Inter (NDs) 1 of 2
Boron (mg/L)	BY-AP-MW-7	0.1	n/a	5/29/2019	0.042	No	36	100	n/a	0.001332	NP Inter (NDs) 1 of 2
Boron (mg/L)	BY-AP-MW-8	0.1	n/a	5/29/2019	1.44	Yes	36	100	n/a	0.001332	NP Inter (NDs) 1 of 2
Boron (mg/L)	BY-AP-MW-9	0.1	n/a	5/30/2019	2.44	Yes	36	100	n/a	0.001332	NP Inter (NDs) 1 of 2
Boron (mg/L)	BY-AP-MW-10	0.1	n/a	5/30/2019	2.11	Yes	36	100	n/a	0.001332	NP Inter (NDs) 1 of 2
Boron (mg/L)	BY-AP-MW-11	0.1	n/a	5/29/2019	0.082	No	36	100	n/a	0.001332	NP Inter (NDs) 1 of 2
Boron (mg/L)	BY-AP-MW-12	0.1	n/a	5/29/2019	0.0952	No	36	100	n/a	0.001332	NP Inter (NDs) 1 of 2
Boron (mg/L)	BY-AP-MW-13	0.1	n/a	5/29/2019	0.0528	No	36	100	n/a	0.001332	NP Inter (NDs) 1 of 2
Boron (mg/L)	BY-AP-MW-14	0.1	n/a	5/29/2019	0.0682	No	36	100	n/a	0.001332	NP Inter (NDs) 1 of 2
Boron (mg/L)	BY-AP-MW-15	0.1	n/a	5/29/2019	0.116	Yes	36	100	n/a	0.001332	NP Inter (NDs) 1 of 2
Boron (mg/L)	BY-AP-MW-16	0.1	n/a	5/29/2019	1.7	Yes	36	100	n/a	0.001332	NP Inter (NDs) 1 of 2
Calcium (mg/L)	BY-AP-MW-1	3.86	n/a	5/29/2019	33.4	Yes	39	0	n/a	0.001153	NP Inter (normality) ...
Calcium (mg/L)	BY-AP-MW-5	3.86	n/a	5/29/2019	14.5	Yes	39	0	n/a	0.001153	NP Inter (normality) ...
Calcium (mg/L)	BY-AP-MW-6	3.86	n/a	5/29/2019	1.72	No	39	0	n/a	0.001153	NP Inter (normality) ...
Calcium (mg/L)	BY-AP-MW-7	3.86	n/a	5/29/2019	8.88	Yes	39	0	n/a	0.001153	NP Inter (normality) ...
Calcium (mg/L)	BY-AP-MW-8	3.86	n/a	5/29/2019	31.9	Yes	39	0	n/a	0.001153	NP Inter (normality) ...
Calcium (mg/L)	BY-AP-MW-9	3.86	n/a	5/30/2019	38.3	Yes	39	0	n/a	0.001153	NP Inter (normality) ...
Calcium (mg/L)	BY-AP-MW-10	3.86	n/a	5/30/2019	60.5	Yes	39	0	n/a	0.001153	NP Inter (normality) ...
Calcium (mg/L)	BY-AP-MW-11	3.86	n/a	5/29/2019	23.9	Yes	39	0	n/a	0.001153	NP Inter (normality) ...
Calcium (mg/L)	BY-AP-MW-12	3.86	n/a	5/29/2019	21.4	Yes	39	0	n/a	0.001153	NP Inter (normality) ...
Calcium (mg/L)	BY-AP-MW-13	3.86	n/a	5/29/2019	12.8	Yes	39	0	n/a	0.001153	NP Inter (normality) ...
Calcium (mg/L)	BY-AP-MW-14	3.86	n/a	5/29/2019	11.2	Yes	39	0	n/a	0.001153	NP Inter (normality) ...
Calcium (mg/L)	BY-AP-MW-15	3.86	n/a	5/29/2019	7.22	Yes	39	0	n/a	0.001153	NP Inter (normality) ...
Calcium (mg/L)	BY-AP-MW-16	3.86	n/a	5/29/2019	13.4	Yes	39	0	n/a	0.001153	NP Inter (normality) ...
Chloride (mg/L)	BY-AP-MW-1	11.96	n/a	5/29/2019	27.6	Yes	39	0	No	0.000...	Param Inter 1 of 2
Chloride (mg/L)	BY-AP-MW-5	11.96	n/a	5/29/2019	19.7	Yes	39	0	No	0.000...	Param Inter 1 of 2
Chloride (mg/L)	BY-AP-MW-6	11.96	n/a	5/29/2019	6.15	No	39	0	No	0.000...	Param Inter 1 of 2
Chloride (mg/L)	BY-AP-MW-7	11.96	n/a	5/29/2019	13.3	Yes	39	0	No	0.000...	Param Inter 1 of 2
Chloride (mg/L)	BY-AP-MW-8	11.96	n/a	5/29/2019	27.4	Yes	39	0	No	0.000...	Param Inter 1 of 2
Chloride (mg/L)	BY-AP-MW-9	11.96	n/a	5/30/2019	27.3	Yes	39	0	No	0.000...	Param Inter 1 of 2
Chloride (mg/L)	BY-AP-MW-10	11.96	n/a	5/30/2019	25.9	Yes	39	0	No	0.000...	Param Inter 1 of 2
Chloride (mg/L)	BY-AP-MW-11	11.96	n/a	5/29/2019	27.8	Yes	39	0	No	0.000...	Param Inter 1 of 2
Chloride (mg/L)	BY-AP-MW-12	11.96	n/a	5/29/2019	24.1	Yes	39	0	No	0.000...	Param Inter 1 of 2
Chloride (mg/L)	BY-AP-MW-13	11.96	n/a	5/29/2019	44	Yes	39	0	No	0.000...	Param Inter 1 of 2
Chloride (mg/L)	BY-AP-MW-14	11.96	n/a	5/29/2019	50.1	Yes	39	0	No	0.000...	Param Inter 1 of 2
Chloride (mg/L)	BY-AP-MW-15	11.96	n/a	5/29/2019	47.2	Yes	39	0	No	0.000...	Param Inter 1 of 2
Chloride (mg/L)	BY-AP-MW-16	11.96	n/a	5/29/2019	20	Yes	39	0	No	0.000...	Param Inter 1 of 2
Fluoride (mg/L)	BY-AP-MW-1	0.3	n/a	5/29/2019	0.0858	No	39	56.41	n/a	0.001153	NP Inter (NDs) 1 of 2
Fluoride (mg/L)	BY-AP-MW-5	0.3	n/a	5/29/2019	0.0923	No	39	56.41	n/a	0.001153	NP Inter (NDs) 1 of 2
Fluoride (mg/L)	BY-AP-MW-6	0.3	n/a	5/29/2019	0.1ND	No	39	56.41	n/a	0.001153	NP Inter (NDs) 1 of 2
Fluoride (mg/L)	BY-AP-MW-7	0.3	n/a	5/29/2019	0.0937	No	39	56.41	n/a	0.001153	NP Inter (NDs) 1 of 2
Fluoride (mg/L)	BY-AP-MW-8	0.3	n/a	5/29/2019	0.0958	No	39	56.41	n/a	0.001153	NP Inter (NDs) 1 of 2
Fluoride (mg/L)	BY-AP-MW-9	0.3	n/a	5/30/2019	0.0745	No	39	56.41	n/a	0.001153	NP Inter (NDs) 1 of 2
Fluoride (mg/L)	BY-AP-MW-10	0.3	n/a	5/30/2019	0.0573	No	39	56.41	n/a	0.001153	NP Inter (NDs) 1 of 2
Fluoride (mg/L)	BY-AP-MW-11	0.3	n/a	5/29/2019	0.0759	No	39	56.41	n/a	0.001153	NP Inter (NDs) 1 of 2
Fluoride (mg/L)	BY-AP-MW-12	0.3	n/a	5/29/2019	0.0677	No	39	56.41	n/a	0.001153	NP Inter (NDs) 1 of 2
Fluoride (mg/L)	BY-AP-MW-13	0.3	n/a	5/29/2019	0.0679	No	39	56.41	n/a	0.001153	NP Inter (NDs) 1 of 2
Fluoride (mg/L)	BY-AP-MW-14	0.3	n/a	5/29/2019	0.0781	No	39	56.41	n/a	0.001153	NP Inter (NDs) 1 of 2
Fluoride (mg/L)	BY-AP-MW-15	0.3	n/a	5/29/2019	0.168	No	39	56.41	n/a	0.001153	NP Inter (NDs) 1 of 2
Fluoride (mg/L)	BY-AP-MW-16	0.3	n/a	5/29/2019	0.0683	No	39	56.41	n/a	0.001153	NP Inter (NDs) 1 of 2
Sulfate (mg/L)	BY-AP-MW-1	5.06	n/a	5/29/2019	5.75	Yes	39	46.15	n/a	0.001153	NP Inter (normality) ...
Sulfate (mg/L)	BY-AP-MW-5	5.06	n/a	5/29/2019	5.51	Yes	39	46.15	n/a	0.001153	NP Inter (normality) ...
Sulfate (mg/L)	BY-AP-MW-6	5.06	n/a	5/29/2019	1.17	No	39	46.15	n/a	0.001153	NP Inter (normality) ...
Sulfate (mg/L)	BY-AP-MW-7	5.06	n/a	5/29/2019	2.77	No	39	46.15	n/a	0.001153	NP Inter (normality) ...
Sulfate (mg/L)	BY-AP-MW-8	5.06	n/a	5/29/2019	6.01	Yes	39	46.15	n/a	0.001153	NP Inter (normality) ...
Sulfate (mg/L)	BY-AP-MW-9	5.06	n/a	5/30/2019	4.69	No	39	46.15	n/a	0.001153	NP Inter (normality) ...
Sulfate (mg/L)	BY-AP-MW-10	5.06	n/a	5/30/2019	3.76	No	39	46.15	n/a	0.001153	NP Inter (normality) ...
Sulfate (mg/L)	BY-AP-MW-11	5.06	n/a	5/29/2019	24.1	Yes	39	46.15	n/a	0.001153	NP Inter (normality) ...
Sulfate (mg/L)	BY-AP-MW-12	5.06	n/a	5/29/2019	7.04	Yes	39	46.15	n/a	0.001153	NP Inter (normality) ...
Sulfate (mg/L)	BY-AP-MW-13	5.06	n/a	5/29/2019	49.5	Yes	39	46.15	n/a	0.001153	NP Inter (normality) ...
Sulfate (mg/L)	BY-AP-MW-14	5.06	n/a	5/29/2019	67.6	Yes	39	46.15	n/a	0.001153	NP Inter (normality) ...
Sulfate (mg/L)	BY-AP-MW-15	5.06	n/a	5/29/2019	3.27	No	39	46.15	n/a	0.001153	NP Inter (normality) ...
Sulfate (mg/L)	BY-AP-MW-16	5.06	n/a	5/29/2019	6.72	Yes	39	46.15	n/a	0.001153	NP Inter (normality) ...
TDS (mg/L)	BY-AP-MW-1	52.59	n/a	5/29/2019	403	Yes	39	0	No	0.000...	Param Inter 1 of 2
TDS (mg/L)	BY-AP-MW-5	52.59	n/a	5/29/2019	259	Yes	39	0	No	0.000...	Param Inter 1 of 2
TDS (mg/L)	BY-AP-MW-6	52.59	n/a	5/29/2019	48.7	No	39	0	No	0.000...	Param Inter 1 of 2

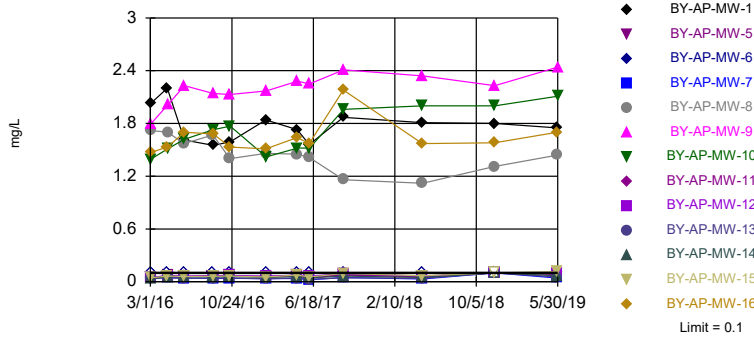
Interwell Prediction Limits - All Results

Plant Barry Client: Southern Company Data: Barry Ash Pond Printed 6/26/2019, 10:33 AM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Obsrv.	Sig.	Bg.N	%NDs	Transform	Alpha	Method
TDS (mg/L)	BY-AP-MW-7	52.59	n/a	5/29/2019	132	Yes	39	0	No	0.000...	Param Inter 1 of 2
TDS (mg/L)	BY-AP-MW-8	52.59	n/a	5/29/2019	291	Yes	39	0	No	0.000...	Param Inter 1 of 2
TDS (mg/L)	BY-AP-MW-9	52.59	n/a	5/30/2019	316	Yes	39	0	No	0.000...	Param Inter 1 of 2
TDS (mg/L)	BY-AP-MW-10	52.59	n/a	5/30/2019	377	Yes	39	0	No	0.000...	Param Inter 1 of 2
TDS (mg/L)	BY-AP-MW-11	52.59	n/a	5/29/2019	367	Yes	39	0	No	0.000...	Param Inter 1 of 2
TDS (mg/L)	BY-AP-MW-12	52.59	n/a	5/29/2019	321	Yes	39	0	No	0.000...	Param Inter 1 of 2
TDS (mg/L)	BY-AP-MW-13	52.59	n/a	5/29/2019	307	Yes	39	0	No	0.000...	Param Inter 1 of 2
TDS (mg/L)	BY-AP-MW-14	52.59	n/a	5/29/2019	318	Yes	39	0	No	0.000...	Param Inter 1 of 2
TDS (mg/L)	BY-AP-MW-15	52.59	n/a	5/29/2019	198	Yes	39	0	No	0.000...	Param Inter 1 of 2
TDS (mg/L)	BY-AP-MW-16	52.59	n/a	5/29/2019	264	Yes	39	0	No	0.000...	Param Inter 1 of 2

Exceeds Limit: BY-AP-MW-1, BY-AP-MW-8,
BY-AP-MW-9, BY-AP-MW-10, BY-AP-MW-1

Prediction Limit
Interwell Non-parametric

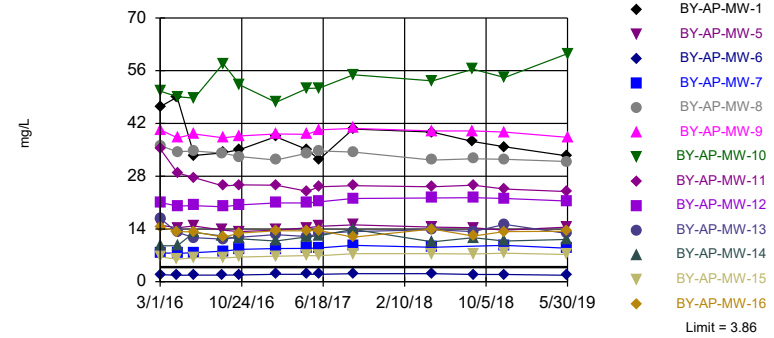


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 36) were censored; limit is most recent reporting limit. Annual per-constituent alpha = 0.03406. Individual comparison alpha = 0.001332 (1 of 2). Comparing 13 points to limit.

Constituent: Boron Analysis Run 6/26/2019 10:31 AM View: Interwell PLs
Plant Barry Client: Southern Company Data: Barry Ash Pond

Exceeds Limit: BY-AP-MW-1, BY-AP-MW-5,
BY-AP-MW-7, BY-AP-MW-8, BY-AP-MW-9..

Prediction Limit
Interwell Non-parametric

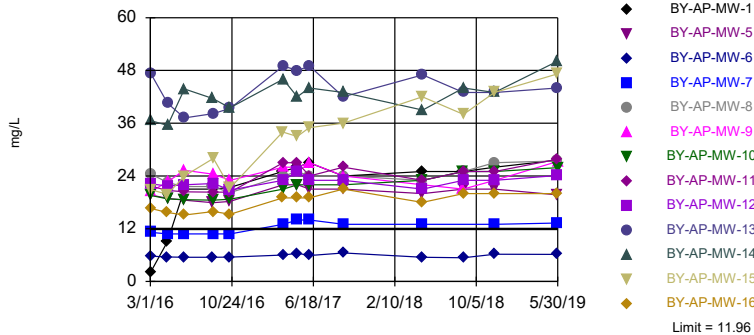


Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 39 background values. Annual per-constituent alpha = 0.02954. Individual comparison alpha = 0.001153 (1 of 2). Comparing 13 points to limit.

Constituent: Calcium Analysis Run 6/26/2019 10:31 AM View: Interwell PLs
Plant Barry Client: Southern Company Data: Barry Ash Pond

Exceeds Limit: BY-AP-MW-1, BY-AP-MW-5,
BY-AP-MW-7, BY-AP-MW-8, BY-AP-MW-9..

Prediction Limit
Interwell Parametric



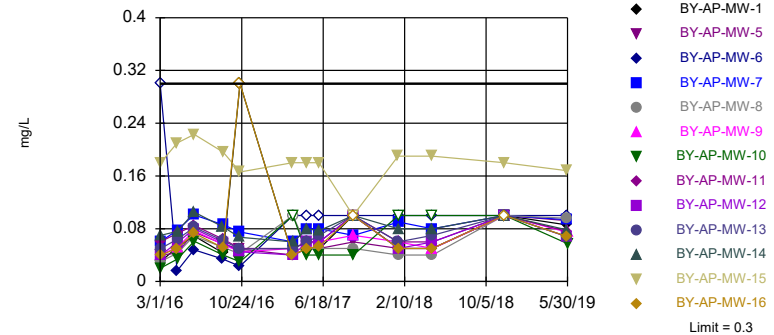
Background Data Summary: Mean=8.578, Std. Dev.=1.577, n=39. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9193, critical = 0.917. Kappa = 2.145 (c=7, w=13, 1 of 2, event alpha = 0.05132). Report alpha = 0.007498. Individual comparison alpha = 0.0005787. Comparing 13 points to limit.

Constituent: Chloride Analysis Run 6/26/2019 10:32 AM View: Interwell PLs
Plant Barry Client: Southern Company Data: Barry Ash Pond

Hollow symbols indicate censored values.

Within Limit

Prediction Limit
Interwell Non-parametric

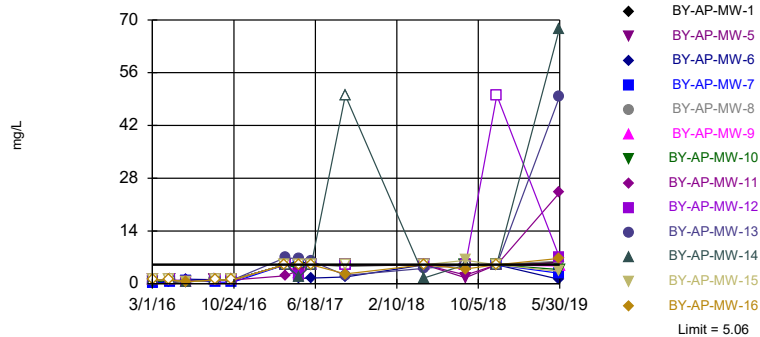


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 39 background values. 56.41% NDs. Annual per-constituent alpha = 0.02954. Individual comparison alpha = 0.001153 (1 of 2). Comparing 13 points to limit.

Constituent: Fluoride Analysis Run 6/26/2019 10:32 AM View: Interwell PLs
Plant Barry Client: Southern Company Data: Barry Ash Pond

Exceeds Limit: BY-AP-MW-1, BY-AP-MW-5,
 BY-AP-MW-8, BY-AP-MW-11, BY-AP-MW-1

Prediction Limit
 Interwell Non-parametric

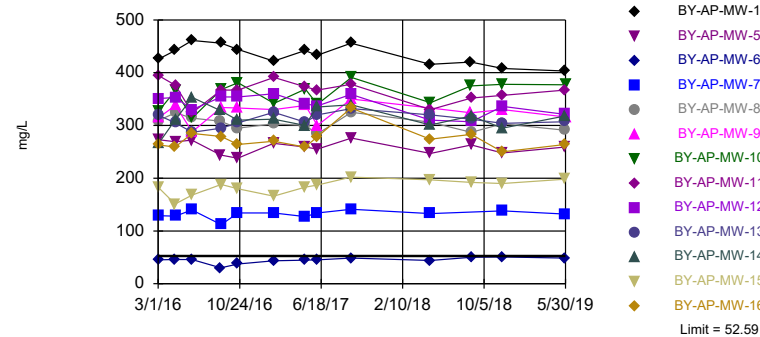


Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 39 background values. 46.15% NDs. Annual per-constituent alpha = 0.02954. Individual comparison alpha = 0.001153 (1 of 2). Comparing 13 points to limit.

Constituent: Sulfate Analysis Run 6/26/2019 10:32 AM View: Interwell PLs
 Plant Barry Client: Southern Company Data: Barry Ash Pond

Exceeds Limit: BY-AP-MW-1, BY-AP-MW-5,
 BY-AP-MW-7, BY-AP-MW-8, BY-AP-MW-9..

Prediction Limit
 Interwell Parametric



Background Data Summary: Mean=37.67, Std. Dev.=6.953, n=39. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.958, critical = 0.917. Kappa = 2.145 (c=7, w=13, 1 of 2, event alpha = 0.05132). Report alpha = 0.007498. Individual comparison alpha = 0.0005787. Comparing 13 points to limit.

Constituent: TDS Analysis Run 6/26/2019 10:32 AM View: Interwell PLs
 Plant Barry Client: Southern Company Data: Barry Ash Pond

Intrawell Prediction Limits - Significant Results

Plant Barry Client: Southern Company Data: Barry Ash Pond Printed 6/26/2019, 10:43 AM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg.N	%NDs	Transform	Alpha	Method
pH (pH)	BY-AP-MW-5	6.035	5.951	5/29/2019	5.93	Yes	11	0	No	0.000...	Param Intra 1 of 3
pH (pH)	BY-AP-MW-7	6.377	6.214	5/29/2019	6.18	Yes	11	0	No	0.000...	Param Intra 1 of 3
pH (pH)	BY-AP-MW-8	6.262	6.151	5/29/2019	6.11	Yes	11	0	No	0.000...	Param Intra 1 of 3
pH (pH)	BY-AP-MW-9	6.322	6.178	5/30/2019	6.14	Yes	11	0	No	0.000...	Param Intra 1 of 3
pH (pH)	BY-AP-MW-13	6.146	6.054	5/29/2019	6.01	Yes	11	0	No	0.000...	Param Intra 1 of 3

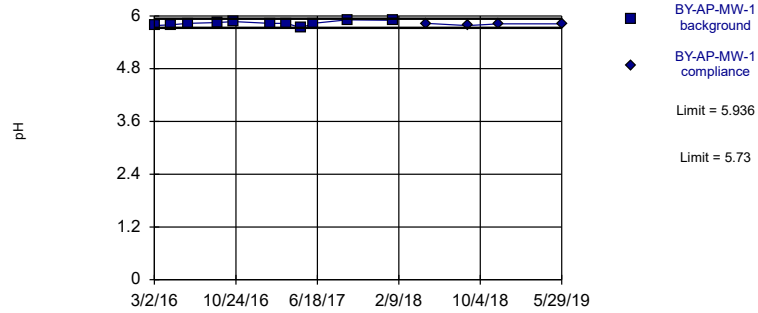
Intrawell Prediction Limits - All Results

Plant Barry Client: Southern Company Data: Barry Ash Pond Printed 6/26/2019, 10:43 AM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg.N	%NDs	Transform	Alpha	Method
pH (pH)	BY-AP-MW-1	5.936	5.73	5/29/2019	5.82	No	11	0	No	0.000...	Param Intra 1 of 3
pH (pH)	BY-AP-MW-2	6.1	5.57	5/29/2019	5.7	No	11	0	No	0.000...	Param Intra 1 of 3
pH (pH)	BY-AP-MW-3	5.291	4.88	5/29/2019	5.05	No	11	0	No	0.000...	Param Intra 1 of 3
pH (pH)	BY-AP-MW-4	5.281	4.238	5/29/2019	4.65	No	11	0	No	0.000...	Param Intra 1 of 3
pH (pH)	BY-AP-MW-5	6.035	5.951	5/29/2019	5.93	Yes	11	0	No	0.000...	Param Intra 1 of 3
pH (pH)	BY-AP-MW-6	5.589	5.162	5/29/2019	5.31	No	11	0	No	0.000...	Param Intra 1 of 3
pH (pH)	BY-AP-MW-7	6.377	6.214	5/29/2019	6.18	Yes	11	0	No	0.000...	Param Intra 1 of 3
pH (pH)	BY-AP-MW-8	6.262	6.151	5/29/2019	6.11	Yes	11	0	No	0.000...	Param Intra 1 of 3
pH (pH)	BY-AP-MW-9	6.322	6.178	5/30/2019	6.14	Yes	11	0	No	0.000...	Param Intra 1 of 3
pH (pH)	BY-AP-MW-10	6.382	6.224	5/30/2019	6.23	No	11	0	No	0.000...	Param Intra 1 of 3
pH (pH)	BY-AP-MW-11	6.376	6.146	5/29/2019	6.24	No	11	0	No	0.000...	Param Intra 1 of 3
pH (pH)	BY-AP-MW-12	6.267	6.064	5/29/2019	6.13	No	11	0	No	0.000...	Param Intra 1 of 3
pH (pH)	BY-AP-MW-13	6.146	6.054	5/29/2019	6.01	Yes	11	0	No	0.000...	Param Intra 1 of 3
pH (pH)	BY-AP-MW-14	6.189	5.971	5/29/2019	6.07	No	11	0	No	0.000...	Param Intra 1 of 3
pH (pH)	BY-AP-MW-15	6.812	6.513	5/29/2019	6.63	No	11	0	No	0.000...	Param Intra 1 of 3
pH (pH)	BY-AP-MW-16	5.903	5.704	5/29/2019	5.76	No	11	0	No	0.000...	Param Intra 1 of 3

Within Limits

Prediction Limit Intrawell Parametric

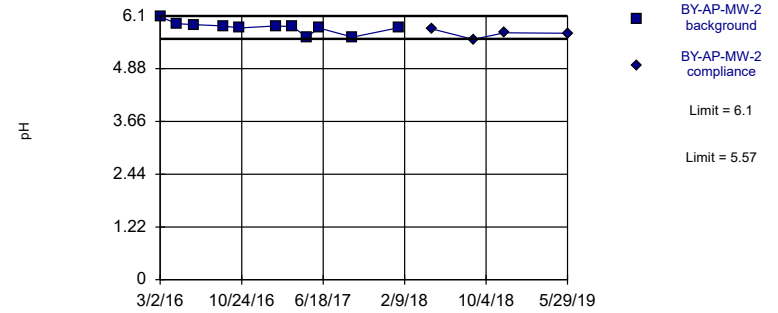


Background Data Summary: Mean=5.833, Std. Dev.=0.05159, n=11. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9531, critical = 0.792. Kappa = 1.999 (c=7, w=13, 1 of 3, event alpha = 0.05132). Report alpha = 0.0005787.

Constituent: pH Analysis Run 6/26/2019 10:41 AM View: PLs - Intrawell
Plant Barry Client: Southern Company Data: Barry Ash Pond

Within Limits

Prediction Limit Intrawell Parametric

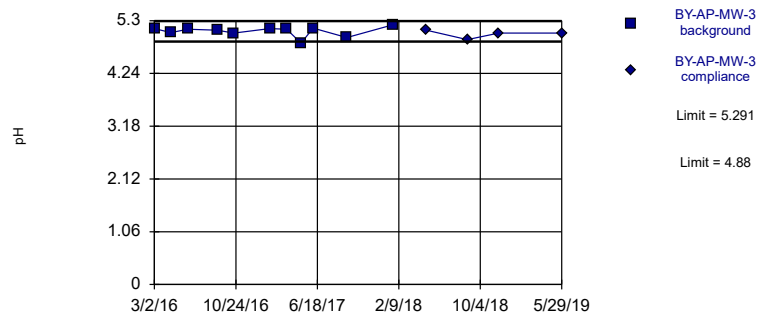


Background Data Summary: Mean=5.835, Std. Dev.=0.1326, n=11. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8827, critical = 0.792. Kappa = 1.999 (c=7, w=13, 1 of 3, event alpha = 0.05132). Report alpha = 0.0005787.

Constituent: pH Analysis Run 6/26/2019 10:41 AM View: PLs - Intrawell
Plant Barry Client: Southern Company Data: Barry Ash Pond

Within Limits

Prediction Limit Intrawell Parametric

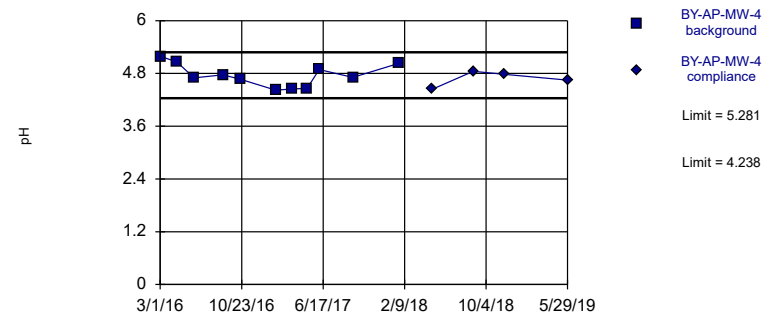


Background Data Summary: Mean=5.085, Std. Dev.=0.1029, n=11. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8694, critical = 0.792. Kappa = 1.999 (c=7, w=13, 1 of 3, event alpha = 0.05132). Report alpha = 0.0005787.

Constituent: pH Analysis Run 6/26/2019 10:41 AM View: PLs - Intrawell
Plant Barry Client: Southern Company Data: Barry Ash Pond

Within Limits

Prediction Limit Intrawell Parametric

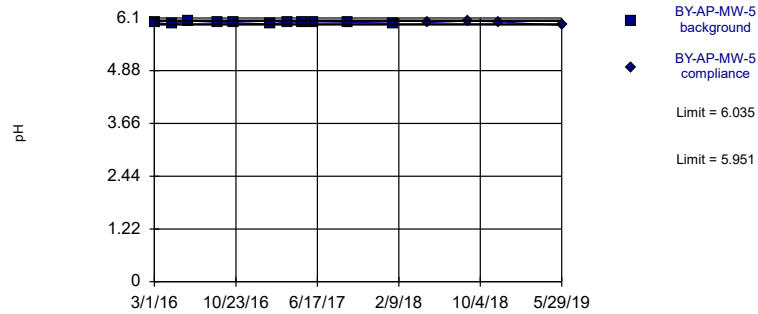


Background Data Summary: Mean=4.759, Std. Dev.=0.2609, n=11. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.937, critical = 0.792. Kappa = 1.999 (c=7, w=13, 1 of 3, event alpha = 0.05132). Report alpha = 0.0005787.

Constituent: pH Analysis Run 6/26/2019 10:41 AM View: PLs - Intrawell
Plant Barry Client: Southern Company Data: Barry Ash Pond

Exceeds Limits

Prediction Limit
Intrawell Parametric

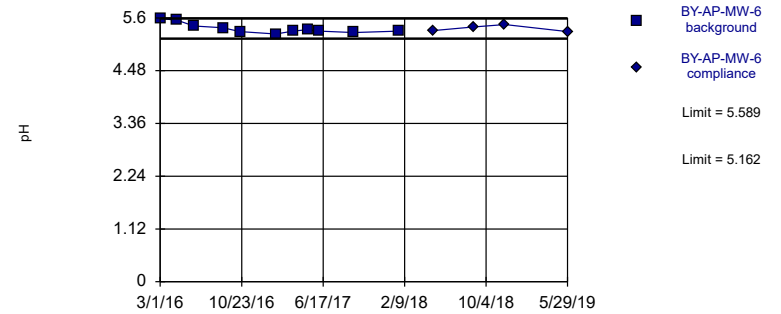


Background Data Summary: Mean=5.993, Std. Dev.=0.02102, n=11. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9471, critical = 0.792. Kappa = 1.999 (c=7, w=13, 1 of 3, event alpha = 0.05132). Report alpha = 0.0005787.

Constituent: pH Analysis Run 6/26/2019 10:41 AM View: PLs - Intrawell
Plant Barry Client: Southern Company Data: Barry Ash Pond

Within Limits

Prediction Limit
Intrawell Parametric

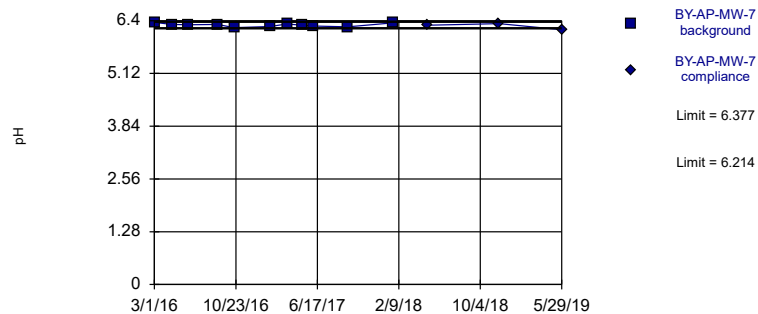


Background Data Summary: Mean=5.375, Std. Dev.=0.107, n=11. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8408, critical = 0.792. Kappa = 1.999 (c=7, w=13, 1 of 3, event alpha = 0.05132). Report alpha = 0.0005787.

Constituent: pH Analysis Run 6/26/2019 10:41 AM View: PLs - Intrawell
Plant Barry Client: Southern Company Data: Barry Ash Pond

Exceeds Limits

Prediction Limit
Intrawell Parametric

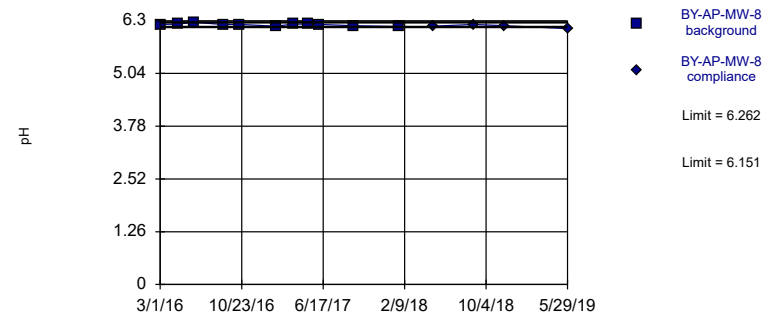


Background Data Summary: Mean=6.295, Std. Dev.=0.04059, n=11. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9734, critical = 0.792. Kappa = 1.999 (c=7, w=13, 1 of 3, event alpha = 0.05132). Report alpha = 0.0005787.

Constituent: pH Analysis Run 6/26/2019 10:41 AM View: PLs - Intrawell
Plant Barry Client: Southern Company Data: Barry Ash Pond

Exceeds Limits

Prediction Limit
Intrawell Parametric

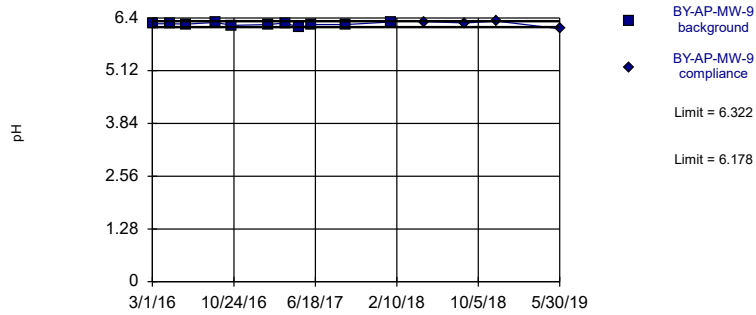


Background Data Summary: Mean=6.206, Std. Dev.=0.02767, n=11. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9012, critical = 0.792. Kappa = 1.999 (c=7, w=13, 1 of 3, event alpha = 0.05132). Report alpha = 0.0005787.

Constituent: pH Analysis Run 6/26/2019 10:41 AM View: PLs - Intrawell
Plant Barry Client: Southern Company Data: Barry Ash Pond

Exceeds Limits

Prediction Limit Intrawell Parametric

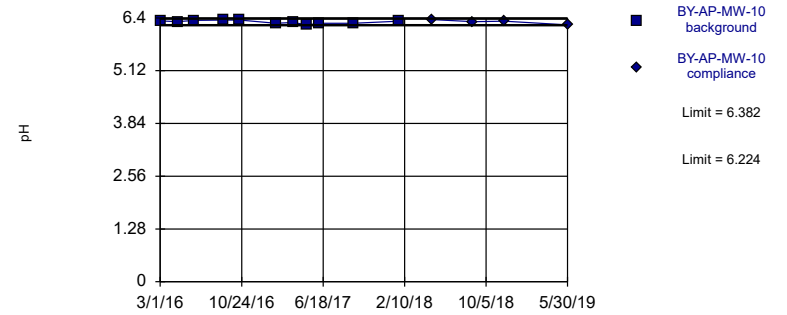


Background Data Summary: Mean=6.25, Std. Dev.=0.03578, n=11. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9334, critical = 0.792. Kappa = 1.999 (c=7, w=13, 1 of 3, event alpha = 0.05132). Report alpha = 0.0005787.

Constituent: pH Analysis Run 6/26/2019 10:41 AM View: PLs - Intrawell
 Plant Barry Client: Southern Company Data: Barry Ash Pond

Within Limits

Prediction Limit Intrawell Parametric

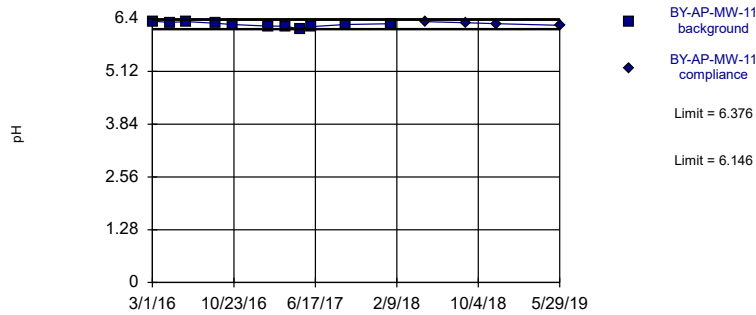


Background Data Summary: Mean=6.303, Std. Dev.=0.03952, n=11. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9252, critical = 0.792. Kappa = 1.999 (c=7, w=13, 1 of 3, event alpha = 0.05132). Report alpha = 0.0005787.

Constituent: pH Analysis Run 6/26/2019 10:41 AM View: PLs - Intrawell
 Plant Barry Client: Southern Company Data: Barry Ash Pond

Within Limits

Prediction Limit Intrawell Parametric

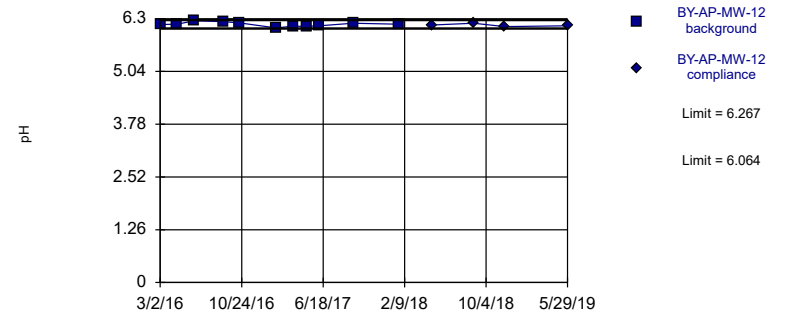


Background Data Summary: Mean=6.261, Std. Dev.=0.05735, n=11. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9626, critical = 0.792. Kappa = 1.999 (c=7, w=13, 1 of 3, event alpha = 0.05132). Report alpha = 0.0005787.

Constituent: pH Analysis Run 6/26/2019 10:41 AM View: PLs - Intrawell
 Plant Barry Client: Southern Company Data: Barry Ash Pond

Within Limits

Prediction Limit Intrawell Parametric

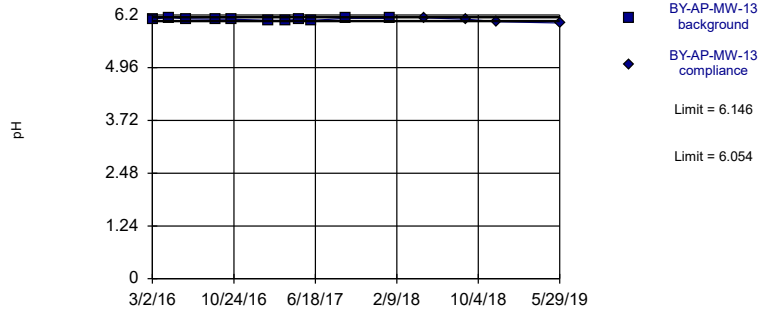


Background Data Summary: Mean=6.165, Std. Dev.=0.05087, n=11. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9775, critical = 0.792. Kappa = 1.999 (c=7, w=13, 1 of 3, event alpha = 0.05132). Report alpha = 0.0005787.

Constituent: pH Analysis Run 6/26/2019 10:41 AM View: PLs - Intrawell
 Plant Barry Client: Southern Company Data: Barry Ash Pond

Exceeds Limits

Prediction Limit
Intrawell Parametric

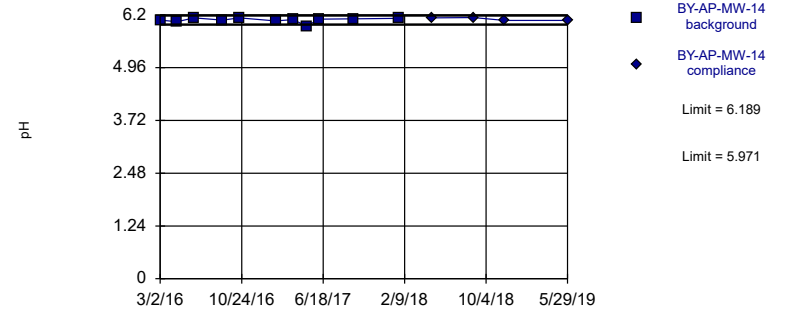


Background Data Summary: Mean=6.1, Std. Dev.=0.0228, n=11. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9026, critical = 0.792. Kappa = 1.999 (c=7, w=13, 1 of 3, event alpha = 0.05132). Report alpha = 0.0005787.

Constituent: pH Analysis Run 6/26/2019 10:41 AM View: PLs - Intrawell
Plant Barry Client: Southern Company Data: Barry Ash Pond

Within Limits

Prediction Limit
Intrawell Parametric

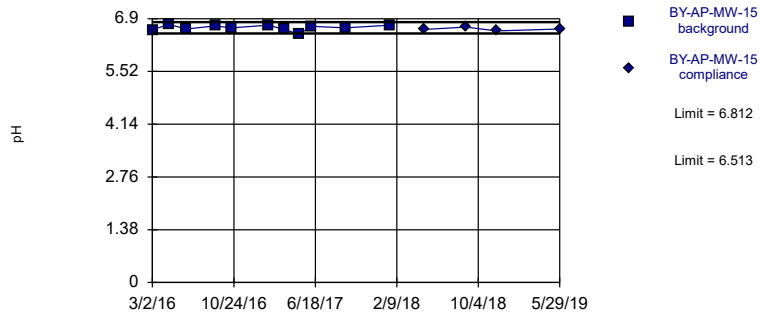


Background Data Summary: Mean=6.08, Std. Dev.=0.05441, n=11. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8168, critical = 0.792. Kappa = 1.999 (c=7, w=13, 1 of 3, event alpha = 0.05132). Report alpha = 0.0005787.

Constituent: pH Analysis Run 6/26/2019 10:41 AM View: PLs - Intrawell
Plant Barry Client: Southern Company Data: Barry Ash Pond

Within Limits

Prediction Limit
Intrawell Parametric

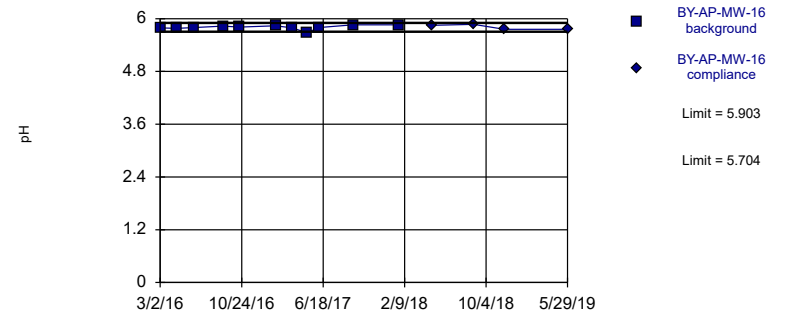


Background Data Summary: Mean=6.663, Std. Dev.=0.07471, n=11. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9028, critical = 0.792. Kappa = 1.999 (c=7, w=13, 1 of 3, event alpha = 0.05132). Report alpha = 0.0005787.

Constituent: pH Analysis Run 6/26/2019 10:41 AM View: PLs - Intrawell
Plant Barry Client: Southern Company Data: Barry Ash Pond

Within Limits

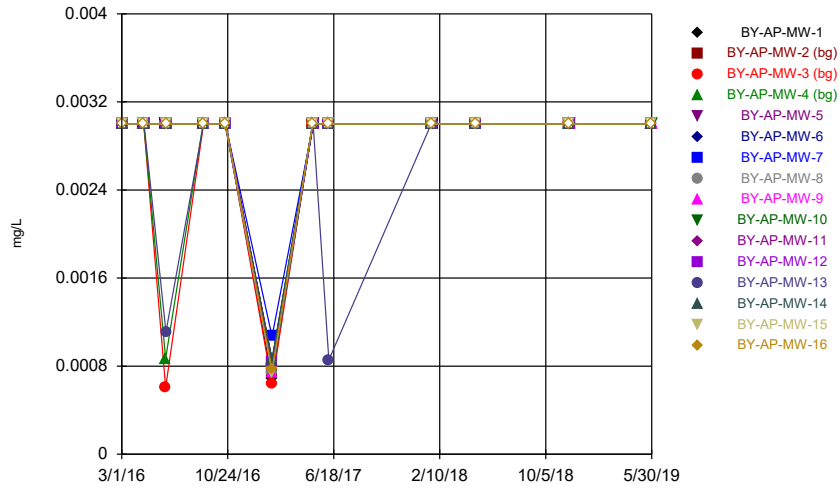
Prediction Limit
Intrawell Parametric



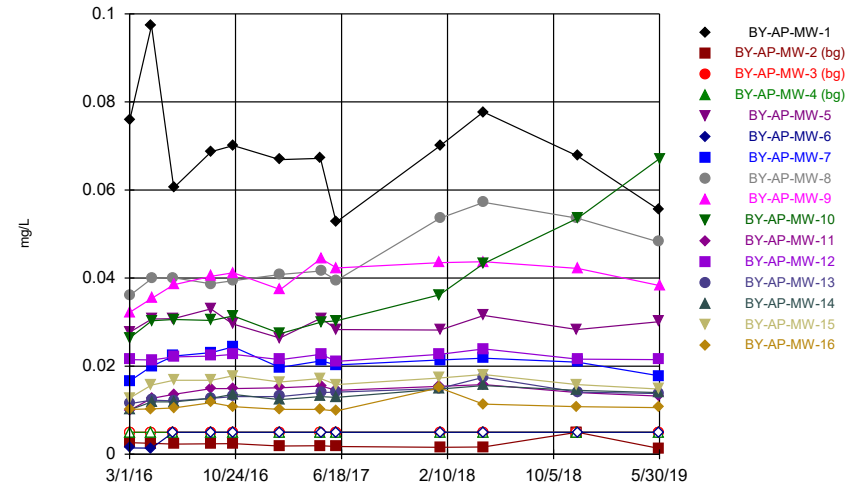
Background Data Summary: Mean=5.804, Std. Dev.=0.04965, n=11. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8534, critical = 0.792. Kappa = 1.999 (c=7, w=13, 1 of 3, event alpha = 0.05132). Report alpha = 0.0005787.

Constituent: pH Analysis Run 6/26/2019 10:41 AM View: PLs - Intrawell
Plant Barry Client: Southern Company Data: Barry Ash Pond

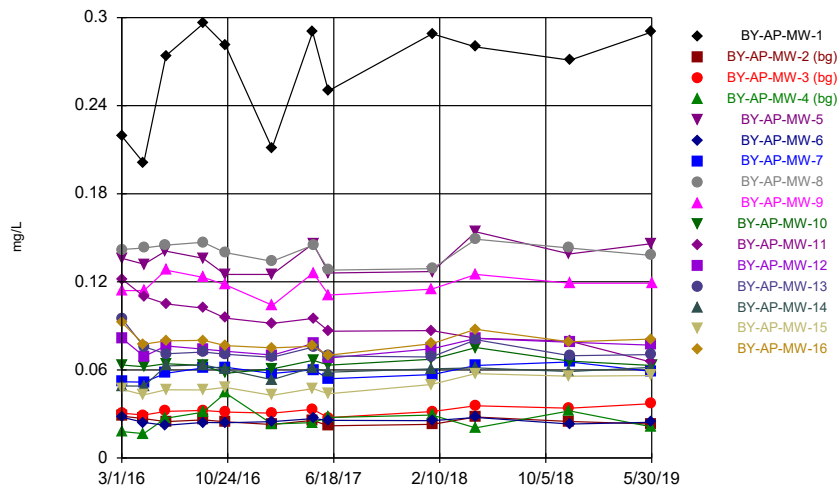
Time Series



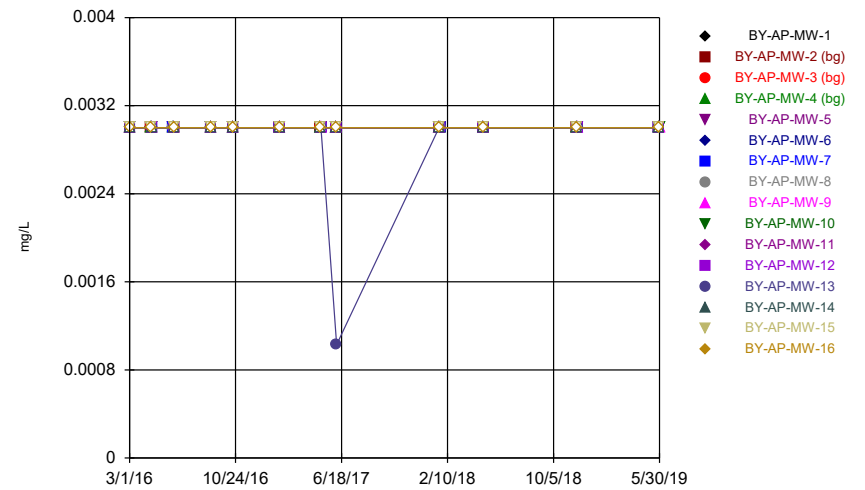
Time Series



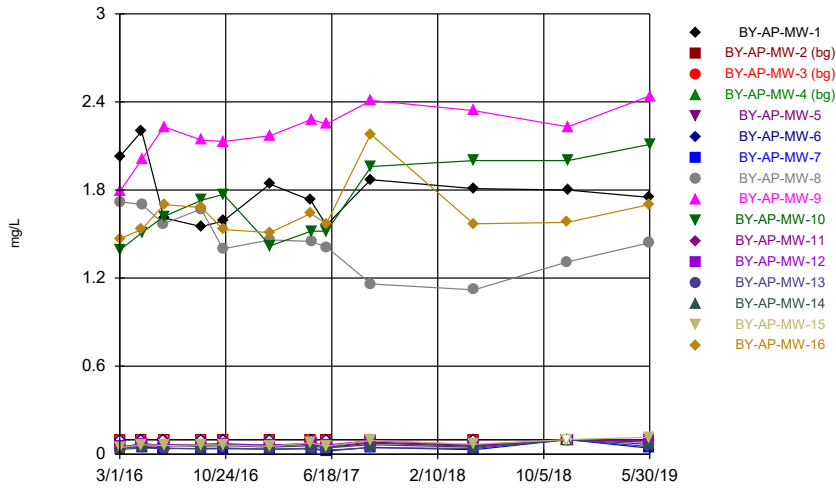
Time Series



Time Series

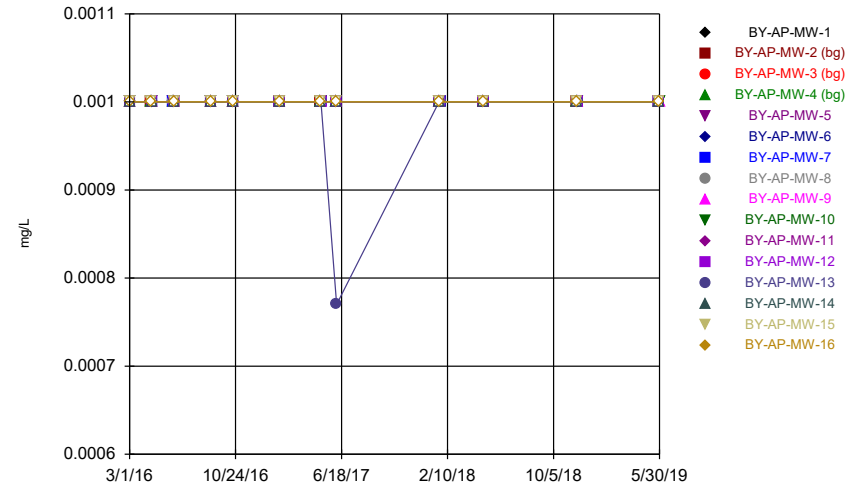


Time Series



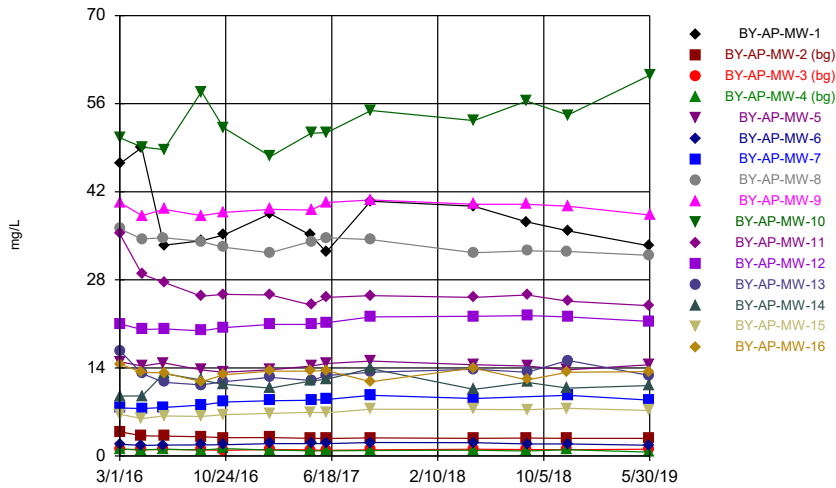
Constituent: Boron Analysis Run 6/24/2019 3:23 PM View: Time Series
Plant Barry Client: Southern Company Data: Barry Ash Pond

Time Series



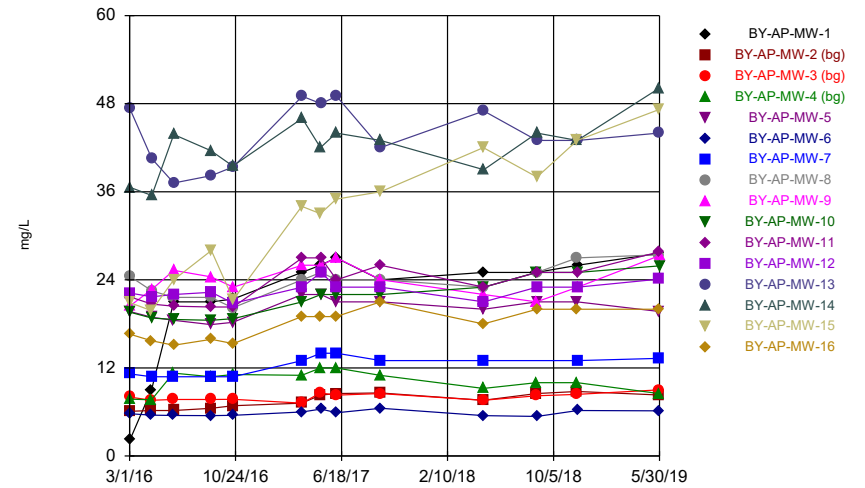
Constituent: Cadmium Analysis Run 6/24/2019 3:23 PM View: Time Series
Plant Barry Client: Southern Company Data: Barry Ash Pond

Time Series



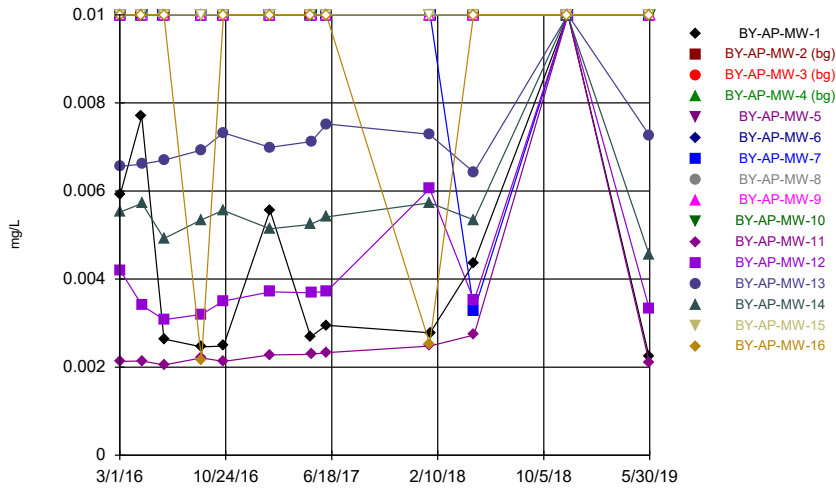
Constituent: Calcium Analysis Run 6/24/2019 3:23 PM View: Time Series
Plant Barry Client: Southern Company Data: Barry Ash Pond

Time Series



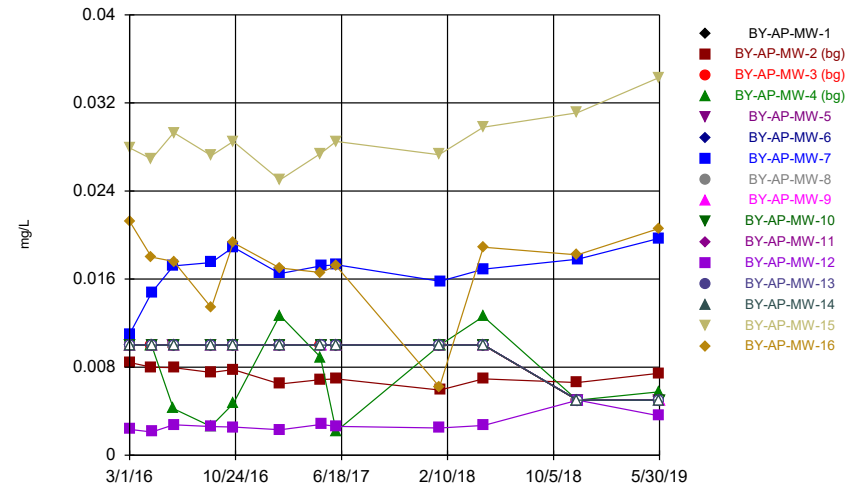
Constituent: Chloride Analysis Run 6/24/2019 3:23 PM View: Time Series
Plant Barry Client: Southern Company Data: Barry Ash Pond

Time Series



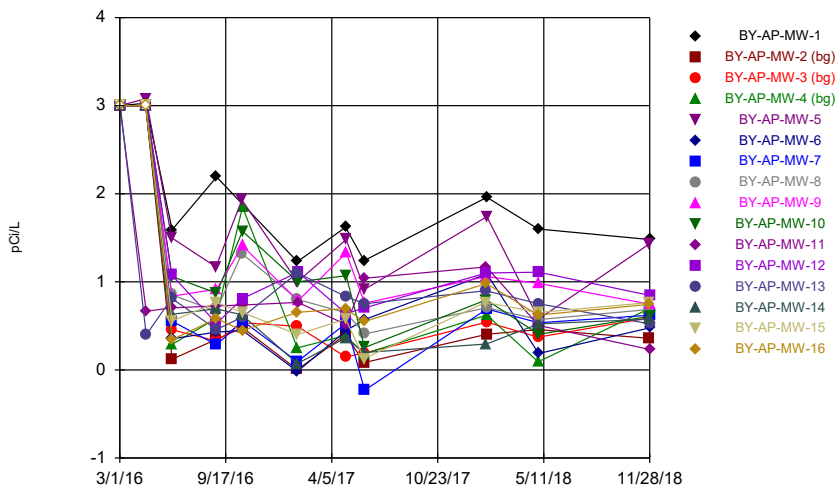
Constituent: Chromium Analysis Run 6/24/2019 3:23 PM View: Time Series
Plant Barry Client: Southern Company Data: Barry Ash Pond

Time Series



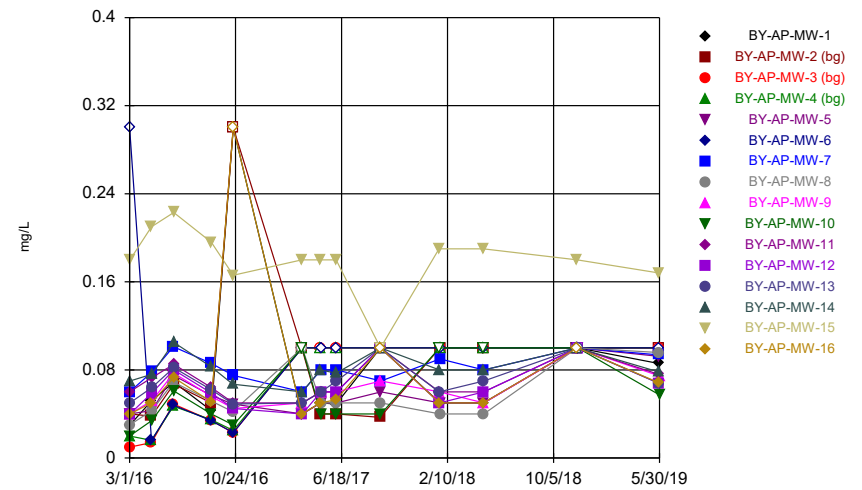
Constituent: Cobalt Analysis Run 6/24/2019 3:23 PM View: Time Series
Plant Barry Client: Southern Company Data: Barry Ash Pond

Time Series



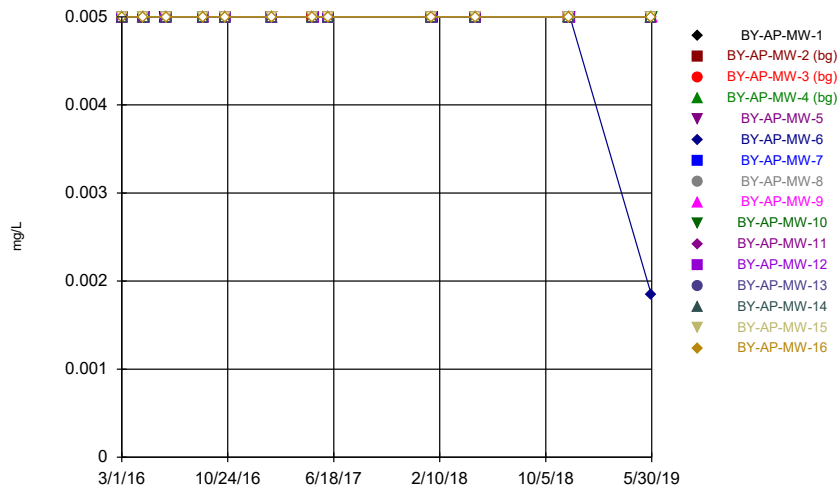
Constituent: Combined Radium 226 + 228 Analysis Run 6/24/2019 3:23 PM View: Time Series
Plant Barry Client: Southern Company Data: Barry Ash Pond

Time Series



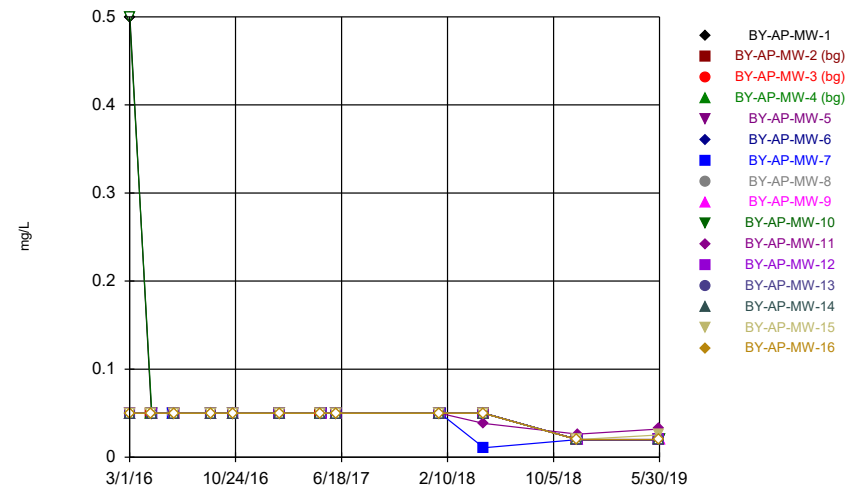
Constituent: Fluoride Analysis Run 6/24/2019 3:23 PM View: Time Series
Plant Barry Client: Southern Company Data: Barry Ash Pond

Time Series



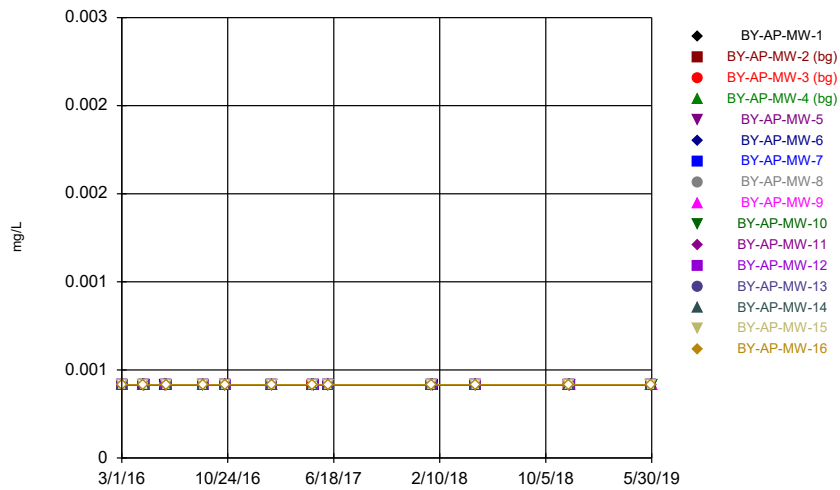
Constituent: Lead Analysis Run 6/24/2019 3:23 PM View: Time Series
Plant Barry Client: Southern Company Data: Barry Ash Pond

Time Series



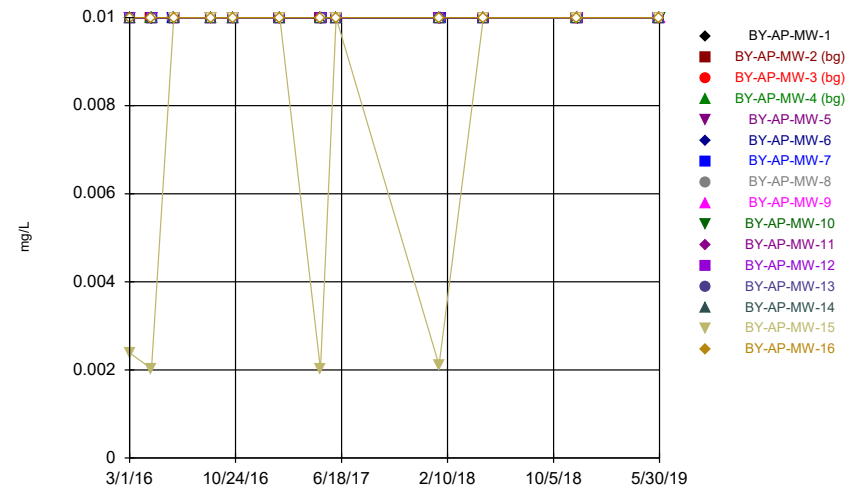
Constituent: Lithium Analysis Run 6/24/2019 3:23 PM View: Time Series
Plant Barry Client: Southern Company Data: Barry Ash Pond

Time Series



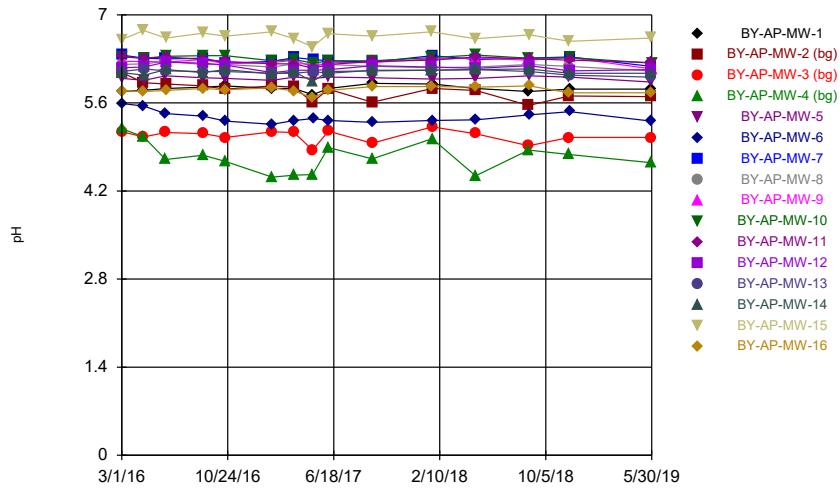
Constituent: Mercury Analysis Run 6/24/2019 3:23 PM View: Time Series
Plant Barry Client: Southern Company Data: Barry Ash Pond

Time Series



Constituent: Molybdenum Analysis Run 6/24/2019 3:23 PM View: Time Series
Plant Barry Client: Southern Company Data: Barry Ash Pond

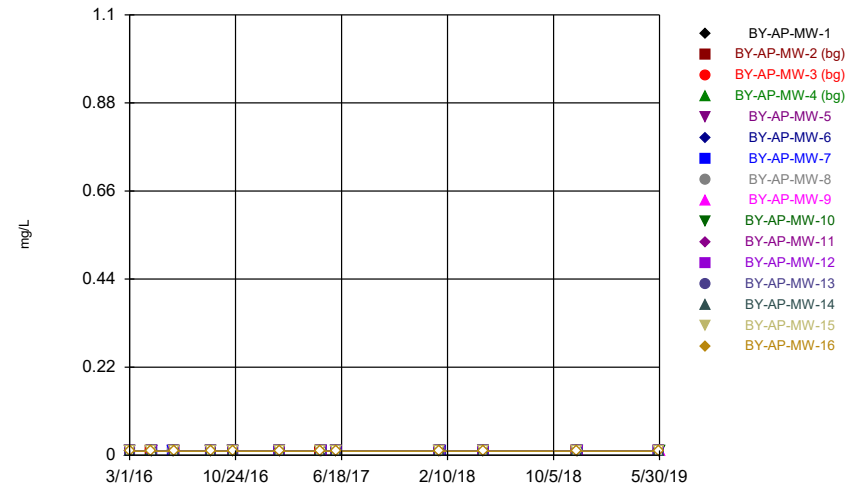
Time Series



Constituent: pH Analysis Run 6/24/2019 3:23 PM View: Time Series
 Plant Barry Client: Southern Company Data: Barry Ash Pond

Hollow symbols indicate censored values.

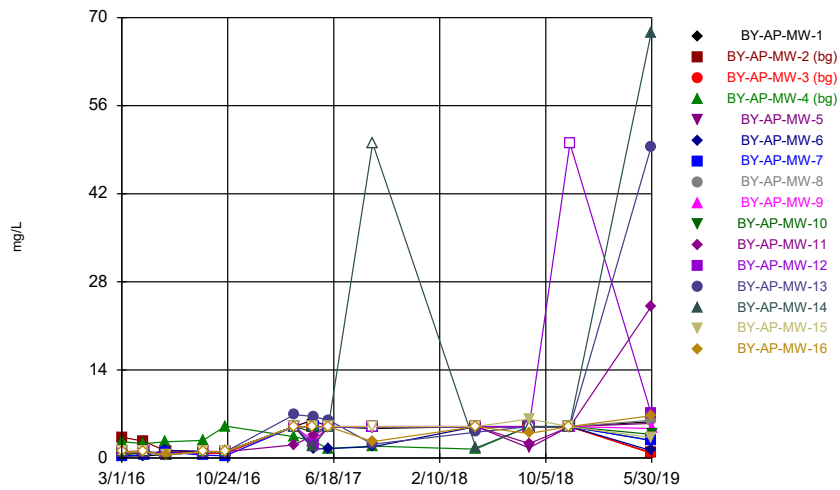
Time Series



Constituent: Selenium Analysis Run 6/24/2019 3:24 PM View: Time Series
 Plant Barry Client: Southern Company Data: Barry Ash Pond

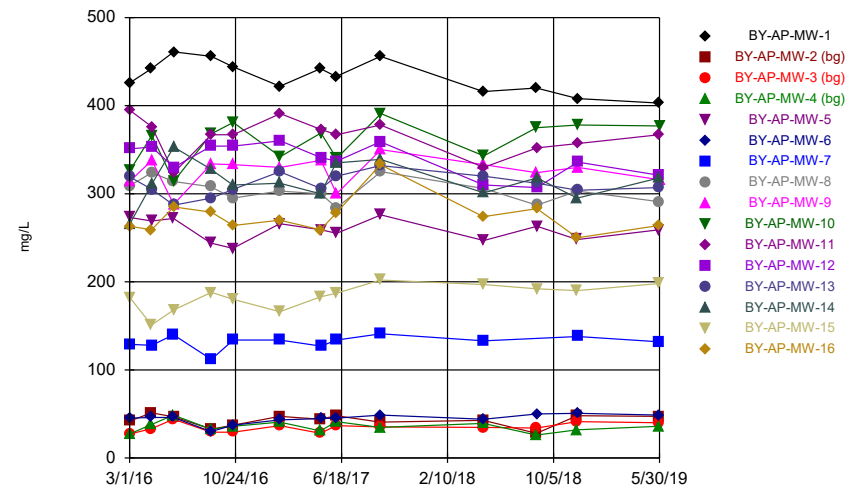
Hollow symbols indicate censored values.

Time Series



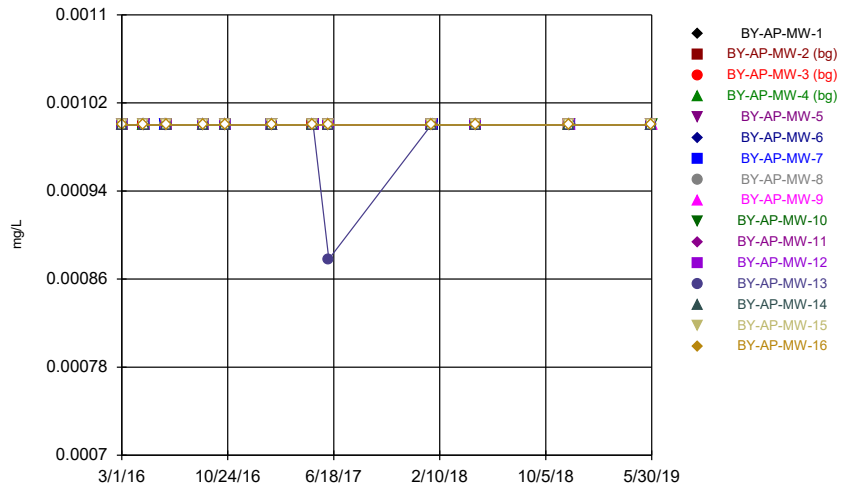
Constituent: Sulfate Analysis Run 6/24/2019 3:24 PM View: Time Series
 Plant Barry Client: Southern Company Data: Barry Ash Pond

Time Series



Constituent: TDS Analysis Run 6/24/2019 3:24 PM View: Time Series
 Plant Barry Client: Southern Company Data: Barry Ash Pond

Time Series



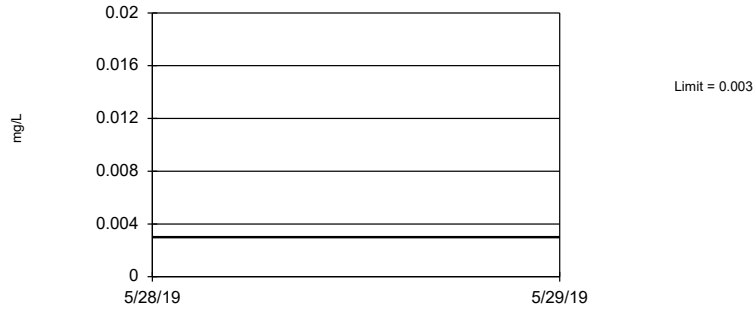
Constituent: Thallium Analysis Run 6/24/2019 3:24 PM View: Time Series
Plant Barry Client: Southern Company Data: Barry Ash Pond

Upper Tolerance Limits

Plant Barry Client: Southern Company Data: Barry Ash Pond Printed 6/24/2019, 3:28 PM

Constituent	Upper Lim.	Bg N	Bg Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Antimony (mg/L)	0.003	36	n/a	n/a	86.11	n/a	n/a	0.1578	NP Inter(NDs)
Arsenic (mg/L)	0.005	36	n/a	n/a	69.44	n/a	n/a	0.1578	NP Inter(normal...)
Barium (mg/L)	0.03984	36	0.02778	0.005589	0	None	No	0.05	Inter
Beryllium (mg/L)	0.003	36	n/a	n/a	100	n/a	n/a	0.1578	NP Inter(NDs)
Cadmium (mg/L)	0.001	36	n/a	n/a	100	n/a	n/a	0.1578	NP Inter(NDs)
Chromium (mg/L)	0.01	36	n/a	n/a	100	n/a	n/a	0.1578	NP Inter(NDs)
Cobalt (mg/L)	0.01794	36	0.009656	0.003836	44.44	Cohen's	No	0.05	Inter
Combined Radium 226 + 228 (pCi/L)	3	33	n/a	n/a	18.18	n/a	n/a	0.184	NP Inter(normal...)
Fluoride (mg/L)	0.3	39	n/a	n/a	56.41	n/a	n/a	0.1353	NP Inter(normal...)
Lead (mg/L)	0.005	36	n/a	n/a	100	n/a	n/a	0.1578	NP Inter(NDs)
Lithium (mg/L)	0.02	36	n/a	n/a	100	n/a	n/a	0.1578	NP Inter(NDs)
Mercury (mg/L)	0.0005	36	n/a	n/a	100	n/a	n/a	0.1578	NP Inter(NDs)
Molybdenum (mg/L)	0.01	36	n/a	n/a	100	n/a	n/a	0.1578	NP Inter(NDs)
Selenium (mg/L)	0.01	36	n/a	n/a	100	n/a	n/a	0.1578	NP Inter(NDs)
Thallium (mg/L)	0.001	36	n/a	n/a	100	n/a	n/a	0.1578	NP Inter(NDs)

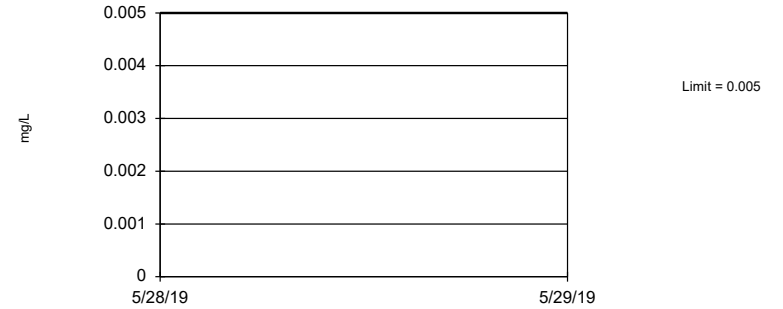
Tolerance Limit Interwell Non-parametric



Non-parametric test used in lieu of parametric tolerance limit because censored data exceeded 75%. Limit is highest of 36 background values. 86.11% NDs. 88.09% coverage at alpha=0.01; 91.99% coverage at alpha=0.05; 98.24% coverage at alpha=0.5. Report alpha = 0.1578.

Constituent: Antimony Analysis Run 6/24/2019 3:27 PM View: Tolerance Limits
Plant Barry Client: Southern Company Data: Barry Ash Pond

Tolerance Limit Interwell Non-parametric



Non-parametric test used in lieu of parametric tolerance limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 36 background values. 69.44% NDs. 88.09% coverage at alpha=0.01; 91.99% coverage at alpha=0.05; 98.24% coverage at alpha=0.5. Report alpha = 0.1578.

Constituent: Arsenic Analysis Run 6/24/2019 3:27 PM View: Tolerance Limits
Plant Barry Client: Southern Company Data: Barry Ash Pond

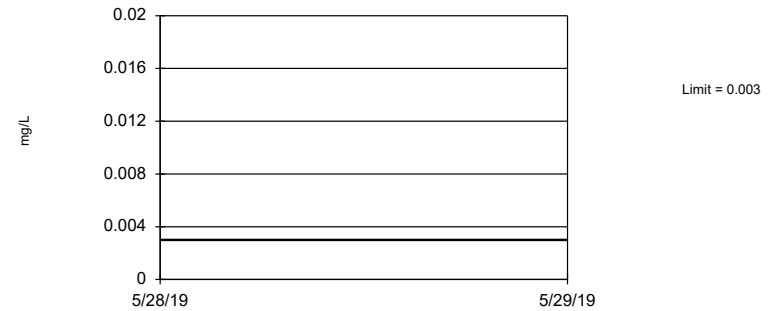
Tolerance Limit Interwell Parametric



95% coverage. Background Data Summary: Mean=0.02778, Std. Dev.=0.005589, n=36. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9801, critical = 0.912. Report alpha = 0.05.

Constituent: Barium Analysis Run 6/24/2019 3:27 PM View: Tolerance Limits
Plant Barry Client: Southern Company Data: Barry Ash Pond

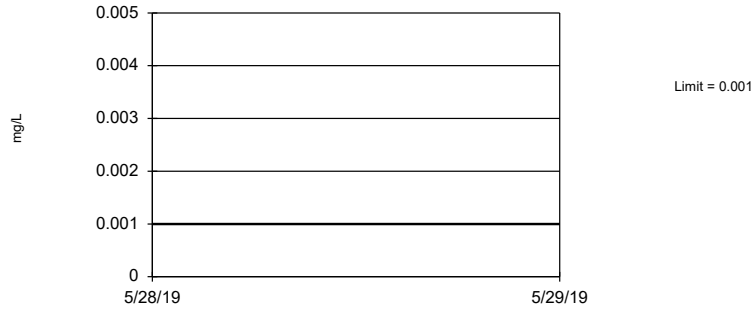
Tolerance Limit Interwell Non-parametric



Non-parametric test used in lieu of parametric tolerance limit because censored data exceeded 75%. All background values were censored; limit is most recent reporting limit. 88.09% coverage at alpha=0.01; 91.99% coverage at alpha=0.05; 98.24% coverage at alpha=0.5. Report alpha = 0.1578.

Constituent: Beryllium Analysis Run 6/24/2019 3:27 PM View: Tolerance Limits
Plant Barry Client: Southern Company Data: Barry Ash Pond

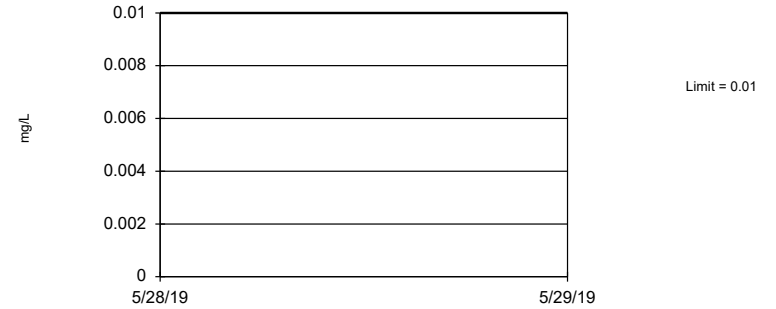
Tolerance Limit Interwell Non-parametric



Non-parametric test used in lieu of parametric tolerance limit because censored data exceeded 75%. All background values were censored; limit is most recent reporting limit. 88.09% coverage at alpha=0.01; 91.99% coverage at alpha=0.05; 98.24% coverage at alpha=0.5. Report alpha = 0.1578.

Constituent: Cadmium Analysis Run 6/24/2019 3:27 PM View: Tolerance Limits
Plant Barry Client: Southern Company Data: Barry Ash Pond

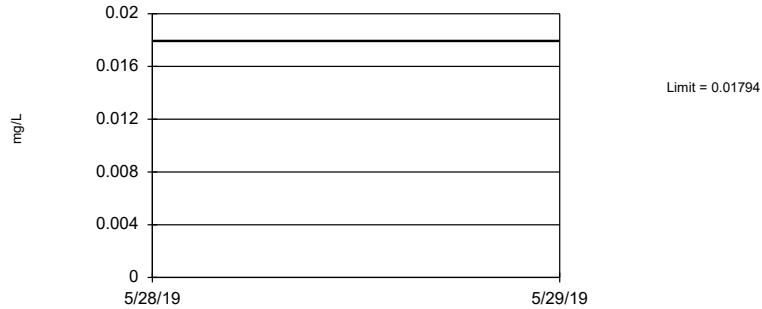
Tolerance Limit Interwell Non-parametric



Non-parametric test used in lieu of parametric tolerance limit because censored data exceeded 75%. All background values were censored; limit is most recent reporting limit. 88.09% coverage at alpha=0.01; 91.99% coverage at alpha=0.05; 98.24% coverage at alpha=0.5. Report alpha = 0.1578.

Constituent: Chromium Analysis Run 6/24/2019 3:27 PM View: Tolerance Limits
Plant Barry Client: Southern Company Data: Barry Ash Pond

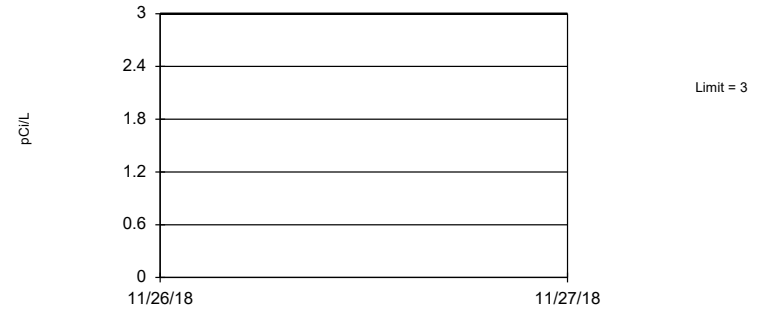
Tolerance Limit Interwell Parametric



95% coverage. Background Data Summary (after Cohen's Adjustment): Mean=0.009656, Std. Dev.=0.003836, n=36, 44.44% NDs. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9322, critical = 0.912. Report alpha = 0.05.

Constituent: Cobalt Analysis Run 6/24/2019 3:27 PM View: Tolerance Limits
Plant Barry Client: Southern Company Data: Barry Ash Pond

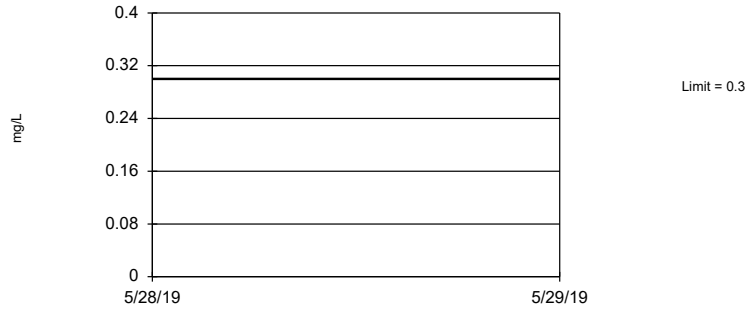
Tolerance Limit Interwell Non-parametric



Non-parametric test used in lieu of parametric tolerance limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 33 background values. 18.18% NDs. 86.91% coverage at alpha=0.01; 91.21% coverage at alpha=0.05; 97.85% coverage at alpha=0.5. Report alpha = 0.184.

Constituent: Combined Radium 226 + 228 Analysis Run 6/24/2019 3:27 PM View: Tolerance Limits
Plant Barry Client: Southern Company Data: Barry Ash Pond

Tolerance Limit Interwell Non-parametric



Non-parametric test used in lieu of parametric tolerance limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 39 background values. 56.41% NDs. 88.87% coverage at alpha=0.01; 92.77% coverage at alpha=0.05; 98.24% coverage at alpha=0.5. Report alpha = 0.1353.

Constituent: Fluoride Analysis Run 6/24/2019 3:27 PM View: Tolerance Limits
Plant Barry Client: Southern Company Data: Barry Ash Pond

Tolerance Limit Interwell Non-parametric



Non-parametric test used in lieu of parametric tolerance limit because censored data exceeded 75%. All background values were censored; limit is most recent reporting limit. 88.09% coverage at alpha=0.01; 91.99% coverage at alpha=0.05; 98.24% coverage at alpha=0.5. Report alpha = 0.1578.

Constituent: Lead Analysis Run 6/24/2019 3:27 PM View: Tolerance Limits
Plant Barry Client: Southern Company Data: Barry Ash Pond

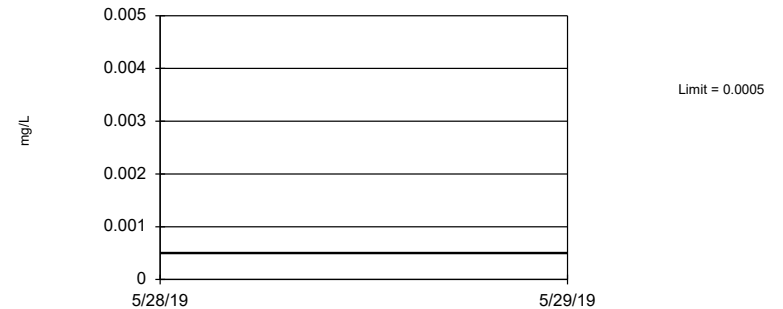
Tolerance Limit Interwell Non-parametric



Non-parametric test used in lieu of parametric tolerance limit because censored data exceeded 75%. All background values were censored; limit is most recent reporting limit. 88.09% coverage at alpha=0.01; 91.99% coverage at alpha=0.05; 98.24% coverage at alpha=0.5. Report alpha = 0.1578.

Constituent: Lithium Analysis Run 6/24/2019 3:27 PM View: Tolerance Limits
Plant Barry Client: Southern Company Data: Barry Ash Pond

Tolerance Limit Interwell Non-parametric



Non-parametric test used in lieu of parametric tolerance limit because censored data exceeded 75%. All background values were censored; limit is most recent reporting limit. 88.09% coverage at alpha=0.01; 91.99% coverage at alpha=0.05; 98.24% coverage at alpha=0.5. Report alpha = 0.1578.

Constituent: Mercury Analysis Run 6/24/2019 3:27 PM View: Tolerance Limits
Plant Barry Client: Southern Company Data: Barry Ash Pond

Tolerance Limit Interwell Non-parametric



Non-parametric test used in lieu of parametric tolerance limit because censored data exceeded 75%. All background values were censored; limit is most recent reporting limit. 88.09% coverage at alpha=0.01; 91.99% coverage at alpha=0.05; 98.24% coverage at alpha=0.5. Report alpha = 0.1578.

Constituent: Molybdenum Analysis Run 6/24/2019 3:27 PM View: Tolerance Limits
Plant Barry Client: Southern Company Data: Barry Ash Pond

Tolerance Limit Interwell Non-parametric



Non-parametric test used in lieu of parametric tolerance limit because censored data exceeded 75%. All background values were censored; limit is most recent reporting limit. 88.09% coverage at alpha=0.01; 91.99% coverage at alpha=0.05; 98.24% coverage at alpha=0.5. Report alpha = 0.1578.

Constituent: Selenium Analysis Run 6/24/2019 3:27 PM View: Tolerance Limits
Plant Barry Client: Southern Company Data: Barry Ash Pond

Tolerance Limit Interwell Non-parametric



Non-parametric test used in lieu of parametric tolerance limit because censored data exceeded 75%. All background values were censored; limit is most recent reporting limit. 88.09% coverage at alpha=0.01; 91.99% coverage at alpha=0.05; 98.24% coverage at alpha=0.5. Report alpha = 0.1578.

Constituent: Thallium Analysis Run 6/24/2019 3:27 PM View: Tolerance Limits
Plant Barry Client: Southern Company Data: Barry Ash Pond

Confidence Intervals - Significant Results

Plant Barry Client: Southern Company Data: Barry Ash Pond Printed 6/24/2019, 3:31 PM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	%NDs	Transform	Alpha	Method
Arsenic (mg/L)	BY-AP-MW-1	0.07822	0.06016	0.01	Yes	12	0	No	0.01	Param.
Arsenic (mg/L)	BY-AP-MW-5	0.0311	0.02815	0.01	Yes	12	0	No	0.01	Param.
Arsenic (mg/L)	BY-AP-MW-7	0.02248	0.01911	0.01	Yes	12	0	No	0.01	Param.
Arsenic (mg/L)	BY-AP-MW-8	0.0536	0.0387	0.01	Yes	12	0	No	0.01	NP (normality)
Arsenic (mg/L)	BY-AP-MW-9	0.04286	0.03705	0.01	Yes	12	0	No	0.01	Param.
Arsenic (mg/L)	BY-AP-MW-10	0.0536	0.0274	0.01	Yes	12	0	No	0.01	NP (normality)
Arsenic (mg/L)	BY-AP-MW-11	0.01534	0.013	0.01	Yes	12	0	x^2	0.01	Param.
Arsenic (mg/L)	BY-AP-MW-12	0.02272	0.02145	0.01	Yes	12	0	No	0.01	Param.
Arsenic (mg/L)	BY-AP-MW-13	0.01484	0.01236	0.01	Yes	12	0	No	0.01	Param.
Arsenic (mg/L)	BY-AP-MW-14	0.0143	0.01195	0.01	Yes	12	0	No	0.01	Param.
Arsenic (mg/L)	BY-AP-MW-15	0.01741	0.01514	0.01	Yes	12	0	No	0.01	Param.
Cobalt (mg/L)	BY-AP-MW-15	0.03046	0.02674	0.01794	Yes	12	0	No	0.01	Param.

Confidence Intervals - All Results

Plant Barry Client: Southern Company Data: Barry Ash Pond Printed 6/24/2019, 3:31 PM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	%NDs	Transform	Alpha	Method
Antimony (mg/L)	BY-AP-MW-1	0.003	0.000687	0.006	No	12	91.67	No	0.01	NP (NDs)
Antimony (mg/L)	BY-AP-MW-5	0.003	0.000765	0.006	No	12	91.67	No	0.01	NP (NDs)
Antimony (mg/L)	BY-AP-MW-6	0.003	0.000852	0.006	No	12	91.67	No	0.01	NP (NDs)
Antimony (mg/L)	BY-AP-MW-7	0.003	0.00107	0.006	No	12	91.67	No	0.01	NP (NDs)
Antimony (mg/L)	BY-AP-MW-8	0.003	0.00074	0.006	No	12	91.67	No	0.01	NP (NDs)
Antimony (mg/L)	BY-AP-MW-9	0.003	0.000738	0.006	No	12	91.67	No	0.01	NP (NDs)
Antimony (mg/L)	BY-AP-MW-10	0.003	0.000743	0.006	No	12	91.67	No	0.01	NP (NDs)
Antimony (mg/L)	BY-AP-MW-11	0.003	0.000812	0.006	No	12	91.67	No	0.01	NP (NDs)
Antimony (mg/L)	BY-AP-MW-12	0.003	0.000838	0.006	No	12	91.67	No	0.01	NP (NDs)
Antimony (mg/L)	BY-AP-MW-13	0.003	0.000857	0.006	No	12	75	No	0.01	NP (normality)
Antimony (mg/L)	BY-AP-MW-14	0.003	0.00086	0.006	No	12	91.67	No	0.01	NP (NDs)
Antimony (mg/L)	BY-AP-MW-15	0.003	0.000746	0.006	No	12	91.67	No	0.01	NP (NDs)
Antimony (mg/L)	BY-AP-MW-16	0.003	0.000769	0.006	No	12	91.67	No	0.01	NP (NDs)
Arsenic (mg/L)	BY-AP-MW-1	0.07822	0.06016	0.01	Yes	12	0	No	0.01	Param.
Arsenic (mg/L)	BY-AP-MW-5	0.0311	0.02815	0.01	Yes	12	0	No	0.01	Param.
Arsenic (mg/L)	BY-AP-MW-6	0.0025	0.00142	0.01	No	12	83.33	No	0.01	NP (NDs)
Arsenic (mg/L)	BY-AP-MW-7	0.02248	0.01911	0.01	Yes	12	0	No	0.01	Param.
Arsenic (mg/L)	BY-AP-MW-8	0.0536	0.0387	0.01	Yes	12	0	No	0.01	NP (normality)
Arsenic (mg/L)	BY-AP-MW-9	0.04286	0.03705	0.01	Yes	12	0	No	0.01	Param.
Arsenic (mg/L)	BY-AP-MW-10	0.0536	0.0274	0.01	Yes	12	0	No	0.01	NP (normality)
Arsenic (mg/L)	BY-AP-MW-11	0.01534	0.013	0.01	Yes	12	0	x^2	0.01	Param.
Arsenic (mg/L)	BY-AP-MW-12	0.02272	0.02145	0.01	Yes	12	0	No	0.01	Param.
Arsenic (mg/L)	BY-AP-MW-13	0.01484	0.01236	0.01	Yes	12	0	No	0.01	Param.
Arsenic (mg/L)	BY-AP-MW-14	0.0143	0.01195	0.01	Yes	12	0	No	0.01	Param.
Arsenic (mg/L)	BY-AP-MW-15	0.01741	0.01514	0.01	Yes	12	0	No	0.01	Param.
Arsenic (mg/L)	BY-AP-MW-16	0.0117	0.00982	0.01	No	12	0	No	0.01	NP (normality)
Barium (mg/L)	BY-AP-MW-1	0.2879	0.2427	2	No	12	0	x^4	0.01	Param.
Barium (mg/L)	BY-AP-MW-5	0.1436	0.1286	2	No	12	0	No	0.01	Param.
Barium (mg/L)	BY-AP-MW-6	0.02635	0.02368	2	No	12	0	No	0.01	Param.
Barium (mg/L)	BY-AP-MW-7	0.06175	0.05499	2	No	12	0	No	0.01	Param.
Barium (mg/L)	BY-AP-MW-8	0.1456	0.1349	2	No	12	0	No	0.01	Param.
Barium (mg/L)	BY-AP-MW-9	0.1234	0.1126	2	No	12	0	No	0.01	Param.
Barium (mg/L)	BY-AP-MW-10	0.06773	0.06101	2	No	12	0	No	0.01	Param.
Barium (mg/L)	BY-AP-MW-11	0.1053	0.08152	2	No	12	0	No	0.01	Param.
Barium (mg/L)	BY-AP-MW-12	0.07866	0.07161	2	No	12	0	No	0.01	Param.
Barium (mg/L)	BY-AP-MW-13	0.0806	0.0688	2	No	12	0	No	0.01	NP (normality)
Barium (mg/L)	BY-AP-MW-14	0.06211	0.05539	2	No	12	0	x^5	0.01	Param.
Barium (mg/L)	BY-AP-MW-15	0.05272	0.04461	2	No	12	0	No	0.01	Param.
Barium (mg/L)	BY-AP-MW-16	0.08394	0.07489	2	No	12	0	No	0.01	Param.
Beryllium (mg/L)	BY-AP-MW-1	0.003	0.003	0.004	No	12	100	No	0.01	NP (NDs)
Beryllium (mg/L)	BY-AP-MW-5	0.003	0.003	0.004	No	12	100	No	0.01	NP (NDs)
Beryllium (mg/L)	BY-AP-MW-6	0.003	0.003	0.004	No	12	100	No	0.01	NP (NDs)
Beryllium (mg/L)	BY-AP-MW-7	0.003	0.003	0.004	No	12	100	No	0.01	NP (NDs)
Beryllium (mg/L)	BY-AP-MW-8	0.003	0.003	0.004	No	12	100	No	0.01	NP (NDs)
Beryllium (mg/L)	BY-AP-MW-9	0.003	0.003	0.004	No	12	100	No	0.01	NP (NDs)
Beryllium (mg/L)	BY-AP-MW-10	0.003	0.003	0.004	No	12	100	No	0.01	NP (NDs)
Beryllium (mg/L)	BY-AP-MW-11	0.003	0.003	0.004	No	12	100	No	0.01	NP (NDs)
Beryllium (mg/L)	BY-AP-MW-12	0.003	0.003	0.004	No	12	100	No	0.01	NP (NDs)
Beryllium (mg/L)	BY-AP-MW-13	0.003	0.00103	0.004	No	12	91.67	No	0.01	NP (NDs)
Beryllium (mg/L)	BY-AP-MW-14	0.003	0.003	0.004	No	12	100	No	0.01	NP (NDs)
Beryllium (mg/L)	BY-AP-MW-15	0.003	0.003	0.004	No	12	100	No	0.01	NP (NDs)
Beryllium (mg/L)	BY-AP-MW-16	0.003	0.003	0.004	No	12	100	No	0.01	NP (NDs)
Cadmium (mg/L)	BY-AP-MW-1	0.001	0.001	0.005	No	12	100	No	0.01	NP (NDs)
Cadmium (mg/L)	BY-AP-MW-5	0.001	0.001	0.005	No	12	100	No	0.01	NP (NDs)
Cadmium (mg/L)	BY-AP-MW-6	0.001	0.001	0.005	No	12	100	No	0.01	NP (NDs)
Cadmium (mg/L)	BY-AP-MW-7	0.001	0.001	0.005	No	12	100	No	0.01	NP (NDs)
Cadmium (mg/L)	BY-AP-MW-8	0.001	0.001	0.005	No	12	100	No	0.01	NP (NDs)
Cadmium (mg/L)	BY-AP-MW-9	0.001	0.001	0.005	No	12	100	No	0.01	NP (NDs)
Cadmium (mg/L)	BY-AP-MW-10	0.001	0.001	0.005	No	12	100	No	0.01	NP (NDs)
Cadmium (mg/L)	BY-AP-MW-11	0.001	0.001	0.005	No	12	100	No	0.01	NP (NDs)
Cadmium (mg/L)	BY-AP-MW-12	0.001	0.001	0.005	No	12	100	No	0.01	NP (NDs)
Cadmium (mg/L)	BY-AP-MW-13	0.001	0.00077	0.005	No	12	91.67	No	0.01	NP (NDs)
Cadmium (mg/L)	BY-AP-MW-14	0.001	0.001	0.005	No	12	100	No	0.01	NP (NDs)
Cadmium (mg/L)	BY-AP-MW-15	0.001	0.001	0.005	No	12	100	No	0.01	NP (NDs)
Cadmium (mg/L)	BY-AP-MW-16	0.001	0.001	0.005	No	12	100	No	0.01	NP (NDs)
Chromium (mg/L)	BY-AP-MW-1	0.005652	0.002538	0.1	No	12	8.333	ln(x)	0.01	Param.
Chromium (mg/L)	BY-AP-MW-5	0.01	0.01	0.1	No	12	100	No	0.01	NP (NDs)
Chromium (mg/L)	BY-AP-MW-6	0.01	0.01	0.1	No	12	100	No	0.01	NP (NDs)

Confidence Intervals - All Results

Plant Barry Client: Southern Company Data: Barry Ash Pond Printed 6/24/2019, 3:31 PM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	%NDs	Transform	Alpha	Method
Chromium (mg/L)	BY-AP-MW-7	0.01	0.00328	0.1	No	12	91.67	No	0.01	NP (NDs)
Chromium (mg/L)	BY-AP-MW-8	0.01	0.01	0.1	No	12	100	No	0.01	NP (NDs)
Chromium (mg/L)	BY-AP-MW-9	0.01	0.01	0.1	No	12	100	No	0.01	NP (NDs)
Chromium (mg/L)	BY-AP-MW-10	0.01	0.01	0.1	No	12	100	No	0.01	NP (NDs)
Chromium (mg/L)	BY-AP-MW-11	0.00273	0.00211	0.1	No	12	8.333	No	0.01	NP (normality)
Chromium (mg/L)	BY-AP-MW-12	0.00605	0.0032	0.1	No	12	8.333	No	0.01	NP (normality)
Chromium (mg/L)	BY-AP-MW-13	0.00752	0.00656	0.1	No	12	8.333	No	0.01	NP (normality)
Chromium (mg/L)	BY-AP-MW-14	0.00573	0.00492	0.1	No	12	8.333	No	0.01	NP (normality)
Chromium (mg/L)	BY-AP-MW-15	0.01	0.01	0.1	No	12	100	No	0.01	NP (NDs)
Chromium (mg/L)	BY-AP-MW-16	0.01	0.00253	0.1	No	12	83.33	No	0.01	NP (NDs)
Cobalt (mg/L)	BY-AP-MW-1	0.01	0.005	0.01794	No	12	100	No	0.01	NP (NDs)
Cobalt (mg/L)	BY-AP-MW-5	0.01	0.005	0.01794	No	12	100	No	0.01	NP (NDs)
Cobalt (mg/L)	BY-AP-MW-6	0.01	0.005	0.01794	No	12	100	No	0.01	NP (NDs)
Cobalt (mg/L)	BY-AP-MW-7	0.01845	0.01499	0.01794	No	12	0	No	0.01	Param.
Cobalt (mg/L)	BY-AP-MW-8	0.01	0.005	0.01794	No	12	100	No	0.01	NP (NDs)
Cobalt (mg/L)	BY-AP-MW-9	0.01	0.005	0.01794	No	12	100	No	0.01	NP (NDs)
Cobalt (mg/L)	BY-AP-MW-10	0.01	0.005	0.01794	No	12	100	No	0.01	NP (NDs)
Cobalt (mg/L)	BY-AP-MW-11	0.01	0.005	0.01794	No	12	100	No	0.01	NP (NDs)
Cobalt (mg/L)	BY-AP-MW-12	0.00358	0.00231	0.01794	No	12	8.333	No	0.01	NP (normality)
Cobalt (mg/L)	BY-AP-MW-13	0.01	0.005	0.01794	No	12	100	No	0.01	NP (NDs)
Cobalt (mg/L)	BY-AP-MW-14	0.01	0.005	0.01794	No	12	100	No	0.01	NP (NDs)
Cobalt (mg/L)	BY-AP-MW-15	0.03046	0.02674	0.01794	Yes	12	0	No	0.01	Param.
Cobalt (mg/L)	BY-AP-MW-16	0.01974	0.01477	0.01794	No	12	0	x ²	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	BY-AP-MW-1	2.442	1.334	5	No	10	10	sqrt(x)	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	BY-AP-MW-5	2.286	0.9547	5	No	11	9.091	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	BY-AP-MW-6	3	-0.0173	5	No	11	18.18	No	0.006	NP (Cohens/xfrm)
Combined Radium 226 + 228 (pCi/L)	BY-AP-MW-7	3	-0.231	5	No	11	18.18	No	0.006	NP (normality)
Combined Radium 226 + 228 (pCi/L)	BY-AP-MW-8	3	0.408	5	No	11	18.18	No	0.006	NP (normality)
Combined Radium 226 + 228 (pCi/L)	BY-AP-MW-9	3	0.747	5	No	11	18.18	No	0.006	NP (normality)
Combined Radium 226 + 228 (pCi/L)	BY-AP-MW-10	3	0.254	5	No	11	18.18	No	0.006	NP (Cohens/xfrm)
Combined Radium 226 + 228 (pCi/L)	BY-AP-MW-11	1.328	0.4314	5	No	11	9.091	x ^(1/3)	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	BY-AP-MW-12	3	0.528	5	No	11	18.18	No	0.006	NP (Cohens/xfrm)
Combined Radium 226 + 228 (pCi/L)	BY-AP-MW-13	1.224	0.4973	5	No	11	9.091	ln(x)	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	BY-AP-MW-14	3	0.0723	5	No	11	18.18	No	0.006	NP (Cohens/xfrm)
Combined Radium 226 + 228 (pCi/L)	BY-AP-MW-15	3	0.128	5	No	11	18.18	No	0.006	NP (Cohens/xfrm)
Combined Radium 226 + 228 (pCi/L)	BY-AP-MW-16	3	0.344	5	No	11	18.18	No	0.006	NP (normality)
Fluoride (mg/L)	BY-AP-MW-1	0.1	0.04	4	No	13	23.08	No	0.01	NP (normality)
Fluoride (mg/L)	BY-AP-MW-5	0.06936	0.04476	4	No	13	7.692	ln(x)	0.01	Param.
Fluoride (mg/L)	BY-AP-MW-6	0.3	0.023	4	No	13	69.23	No	0.01	NP (normality)
Fluoride (mg/L)	BY-AP-MW-7	0.09084	0.07127	4	No	13	7.692	No	0.01	Param.
Fluoride (mg/L)	BY-AP-MW-8	0.0958	0.04	4	No	13	15.38	No	0.01	NP (Cohens/xfrm)
Fluoride (mg/L)	BY-AP-MW-9	0.07304	0.04919	4	No	13	7.692	No	0.01	Param.
Fluoride (mg/L)	BY-AP-MW-10	0.1	0.03	4	No	13	30.77	No	0.01	NP (Cohens/xfrm)
Fluoride (mg/L)	BY-AP-MW-11	0.085	0.05	4	No	13	15.38	No	0.01	NP (Cohens/xfrm)
Fluoride (mg/L)	BY-AP-MW-12	0.08125	0.04796	4	No	13	15.38	No	0.01	Param.
Fluoride (mg/L)	BY-AP-MW-13	0.08363	0.05503	4	No	13	15.38	No	0.01	Param.
Fluoride (mg/L)	BY-AP-MW-14	0.09365	0.07114	4	No	13	15.38	No	0.01	Param.
Fluoride (mg/L)	BY-AP-MW-15	0.2004	0.1623	4	No	13	7.692	x ²	0.01	Param.
Fluoride (mg/L)	BY-AP-MW-16	0.1	0.04	4	No	13	23.08	No	0.01	NP (normality)
Lead (mg/L)	BY-AP-MW-1	0.005	0.005	0.015	No	12	100	No	0.01	NP (NDs)
Lead (mg/L)	BY-AP-MW-5	0.005	0.005	0.015	No	12	100	No	0.01	NP (NDs)
Lead (mg/L)	BY-AP-MW-6	0.005	0.00185	0.015	No	12	91.67	No	0.01	NP (NDs)
Lead (mg/L)	BY-AP-MW-7	0.005	0.005	0.015	No	12	100	No	0.01	NP (NDs)
Lead (mg/L)	BY-AP-MW-8	0.005	0.005	0.015	No	12	100	No	0.01	NP (NDs)
Lead (mg/L)	BY-AP-MW-9	0.005	0.005	0.015	No	12	100	No	0.01	NP (NDs)
Lead (mg/L)	BY-AP-MW-10	0.005	0.005	0.015	No	12	100	No	0.01	NP (NDs)
Lead (mg/L)	BY-AP-MW-11	0.005	0.005	0.015	No	12	100	No	0.01	NP (NDs)
Lead (mg/L)	BY-AP-MW-12	0.005	0.005	0.015	No	12	100	No	0.01	NP (NDs)
Lead (mg/L)	BY-AP-MW-13	0.005	0.005	0.015	No	12	100	No	0.01	NP (NDs)
Lead (mg/L)	BY-AP-MW-14	0.005	0.005	0.015	No	12	100	No	0.01	NP (NDs)
Lead (mg/L)	BY-AP-MW-15	0.005	0.005	0.015	No	12	100	No	0.01	NP (NDs)
Lead (mg/L)	BY-AP-MW-16	0.005	0.005	0.015	No	12	100	No	0.01	NP (NDs)
Lithium (mg/L)	BY-AP-MW-1	0.5	0.02	0.04	No	12	100	No	0.01	NP (NDs)
Lithium (mg/L)	BY-AP-MW-5	0.05	0.02	0.04	No	12	100	No	0.01	NP (NDs)
Lithium (mg/L)	BY-AP-MW-6	0.05	0.02	0.04	No	12	100	No	0.01	NP (NDs)
Lithium (mg/L)	BY-AP-MW-7	0.05	0.02	0.04	No	12	91.67	No	0.01	NP (NDs)
Lithium (mg/L)	BY-AP-MW-8	0.05	0.02	0.04	No	12	100	No	0.01	NP (NDs)
Lithium (mg/L)	BY-AP-MW-9	0.05	0.02	0.04	No	12	100	No	0.01	NP (NDs)

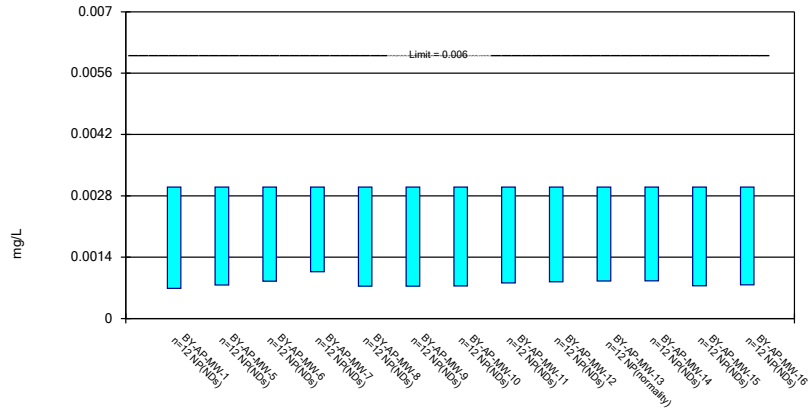
Confidence Intervals - All Results

Plant Barry Client: Southern Company Data: Barry Ash Pond Printed 6/24/2019, 3:31 PM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	%NDs	Transform	Alpha	Method
Lithium (mg/L)	BY-AP-MW-10	0.5	0.02	0.04	No	12	100	No	0.01	NP (NDs)
Lithium (mg/L)	BY-AP-MW-11	0.05	0.0321	0.04	No	12	75	No	0.01	NP (normality)
Lithium (mg/L)	BY-AP-MW-12	0.05	0.02	0.04	No	12	100	No	0.01	NP (NDs)
Lithium (mg/L)	BY-AP-MW-13	0.05	0.02	0.04	No	12	100	No	0.01	NP (NDs)
Lithium (mg/L)	BY-AP-MW-14	0.05	0.02	0.04	No	12	100	No	0.01	NP (NDs)
Lithium (mg/L)	BY-AP-MW-15	0.05	0.0254	0.04	No	12	91.67	No	0.01	NP (NDs)
Lithium (mg/L)	BY-AP-MW-16	0.05	0.02	0.04	No	12	100	No	0.01	NP (NDs)
Mercury (mg/L)	BY-AP-MW-1	0.0005	0.0005	0.002	No	12	100	No	0.01	NP (NDs)
Mercury (mg/L)	BY-AP-MW-5	0.0005	0.0005	0.002	No	12	100	No	0.01	NP (NDs)
Mercury (mg/L)	BY-AP-MW-6	0.0005	0.0005	0.002	No	12	100	No	0.01	NP (NDs)
Mercury (mg/L)	BY-AP-MW-7	0.0005	0.0005	0.002	No	12	100	No	0.01	NP (NDs)
Mercury (mg/L)	BY-AP-MW-8	0.0005	0.0005	0.002	No	12	100	No	0.01	NP (NDs)
Mercury (mg/L)	BY-AP-MW-9	0.0005	0.0005	0.002	No	12	100	No	0.01	NP (NDs)
Mercury (mg/L)	BY-AP-MW-10	0.0005	0.0005	0.002	No	12	100	No	0.01	NP (NDs)
Mercury (mg/L)	BY-AP-MW-11	0.0005	0.0005	0.002	No	12	100	No	0.01	NP (NDs)
Mercury (mg/L)	BY-AP-MW-12	0.0005	0.0005	0.002	No	12	100	No	0.01	NP (NDs)
Mercury (mg/L)	BY-AP-MW-13	0.0005	0.0005	0.002	No	12	100	No	0.01	NP (NDs)
Mercury (mg/L)	BY-AP-MW-14	0.0005	0.0005	0.002	No	12	100	No	0.01	NP (NDs)
Mercury (mg/L)	BY-AP-MW-15	0.0005	0.0005	0.002	No	12	100	No	0.01	NP (NDs)
Mercury (mg/L)	BY-AP-MW-16	0.0005	0.0005	0.002	No	12	100	No	0.01	NP (NDs)
Molybdenum (mg/L)	BY-AP-MW-1	0.01	0.01	0.1	No	12	100	No	0.01	NP (NDs)
Molybdenum (mg/L)	BY-AP-MW-5	0.01	0.01	0.1	No	12	100	No	0.01	NP (NDs)
Molybdenum (mg/L)	BY-AP-MW-6	0.01	0.01	0.1	No	12	100	No	0.01	NP (NDs)
Molybdenum (mg/L)	BY-AP-MW-7	0.01	0.01	0.1	No	12	100	No	0.01	NP (NDs)
Molybdenum (mg/L)	BY-AP-MW-8	0.01	0.01	0.1	No	12	100	No	0.01	NP (NDs)
Molybdenum (mg/L)	BY-AP-MW-9	0.01	0.01	0.1	No	12	100	No	0.01	NP (NDs)
Molybdenum (mg/L)	BY-AP-MW-10	0.01	0.01	0.1	No	12	100	No	0.01	NP (NDs)
Molybdenum (mg/L)	BY-AP-MW-11	0.01	0.01	0.1	No	12	100	No	0.01	NP (NDs)
Molybdenum (mg/L)	BY-AP-MW-12	0.01	0.01	0.1	No	12	100	No	0.01	NP (NDs)
Molybdenum (mg/L)	BY-AP-MW-13	0.01	0.01	0.1	No	12	100	No	0.01	NP (NDs)
Molybdenum (mg/L)	BY-AP-MW-14	0.01	0.01	0.1	No	12	100	No	0.01	NP (NDs)
Molybdenum (mg/L)	BY-AP-MW-15	0.01	0.00203	0.1	No	12	66.67	No	0.01	NP (normality)
Molybdenum (mg/L)	BY-AP-MW-16	0.01	0.01	0.1	No	12	100	No	0.01	NP (NDs)
Selenium (mg/L)	BY-AP-MW-1	0.01	0.01	0.05	No	12	100	No	0.01	NP (NDs)
Selenium (mg/L)	BY-AP-MW-5	0.01	0.01	0.05	No	12	100	No	0.01	NP (NDs)
Selenium (mg/L)	BY-AP-MW-6	0.01	0.01	0.05	No	12	100	No	0.01	NP (NDs)
Selenium (mg/L)	BY-AP-MW-7	0.01	0.01	0.05	No	12	100	No	0.01	NP (NDs)
Selenium (mg/L)	BY-AP-MW-8	0.01	0.01	0.05	No	12	100	No	0.01	NP (NDs)
Selenium (mg/L)	BY-AP-MW-9	0.01	0.01	0.05	No	12	100	No	0.01	NP (NDs)
Selenium (mg/L)	BY-AP-MW-10	0.01	0.01	0.05	No	12	100	No	0.01	NP (NDs)
Selenium (mg/L)	BY-AP-MW-11	0.01	0.01	0.05	No	12	100	No	0.01	NP (NDs)
Selenium (mg/L)	BY-AP-MW-12	0.01	0.01	0.05	No	12	100	No	0.01	NP (NDs)
Selenium (mg/L)	BY-AP-MW-13	0.01	0.01	0.05	No	12	100	No	0.01	NP (NDs)
Selenium (mg/L)	BY-AP-MW-14	0.01	0.01	0.05	No	12	100	No	0.01	NP (NDs)
Selenium (mg/L)	BY-AP-MW-15	0.01	0.01	0.05	No	12	100	No	0.01	NP (NDs)
Selenium (mg/L)	BY-AP-MW-16	0.01	0.01	0.05	No	12	100	No	0.01	NP (NDs)
Thallium (mg/L)	BY-AP-MW-1	0.001	0.001	0.002	No	12	100	No	0.01	NP (NDs)
Thallium (mg/L)	BY-AP-MW-5	0.001	0.001	0.002	No	12	100	No	0.01	NP (NDs)
Thallium (mg/L)	BY-AP-MW-6	0.001	0.001	0.002	No	12	100	No	0.01	NP (NDs)
Thallium (mg/L)	BY-AP-MW-7	0.001	0.001	0.002	No	12	100	No	0.01	NP (NDs)
Thallium (mg/L)	BY-AP-MW-8	0.001	0.001	0.002	No	12	100	No	0.01	NP (NDs)
Thallium (mg/L)	BY-AP-MW-9	0.001	0.001	0.002	No	12	100	No	0.01	NP (NDs)
Thallium (mg/L)	BY-AP-MW-10	0.001	0.001	0.002	No	12	100	No	0.01	NP (NDs)
Thallium (mg/L)	BY-AP-MW-11	0.001	0.001	0.002	No	12	100	No	0.01	NP (NDs)
Thallium (mg/L)	BY-AP-MW-12	0.001	0.001	0.002	No	12	100	No	0.01	NP (NDs)
Thallium (mg/L)	BY-AP-MW-13	0.001	0.000878	0.002	No	12	91.67	No	0.01	NP (NDs)
Thallium (mg/L)	BY-AP-MW-14	0.001	0.001	0.002	No	12	100	No	0.01	NP (NDs)
Thallium (mg/L)	BY-AP-MW-15	0.001	0.001	0.002	No	12	100	No	0.01	NP (NDs)
Thallium (mg/L)	BY-AP-MW-16	0.001	0.001	0.002	No	12	100	No	0.01	NP (NDs)

Non-Parametric Confidence Interval

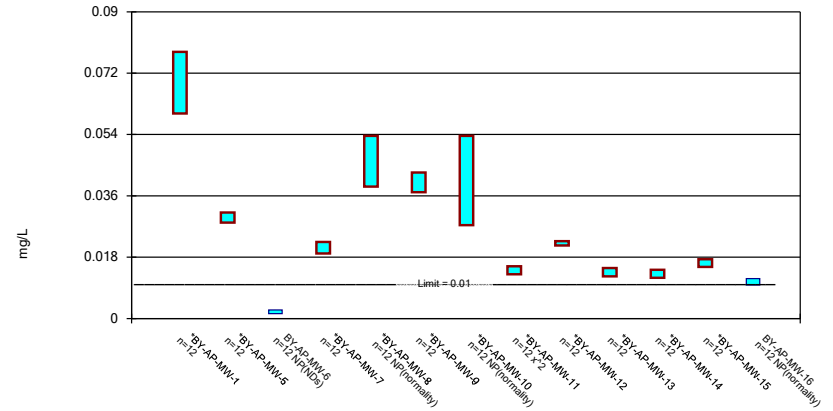
Compliance Limit is not exceeded. Per-well alpha = 0.01.



Constituent: Antimony Analysis Run 6/24/2019 3:29 PM View: Confidence Intervals
 Plant Barry Client: Southern Company Data: Barry Ash Pond

Parametric and Non-Parametric (NP) Confidence Interval

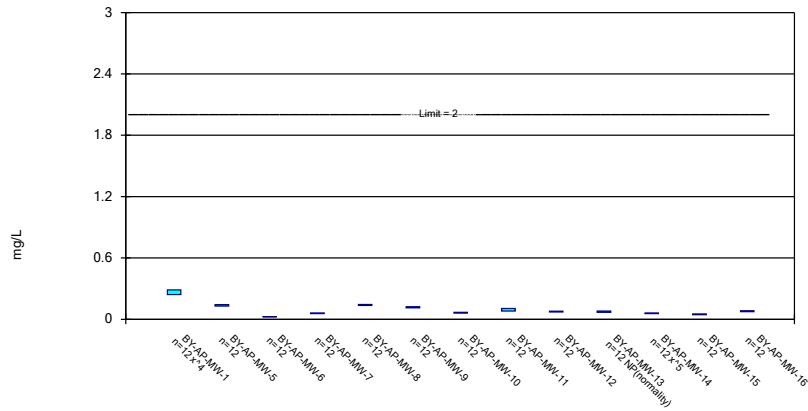
Compliance limit is exceeded.* Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Arsenic Analysis Run 6/24/2019 3:29 PM View: Confidence Intervals
 Plant Barry Client: Southern Company Data: Barry Ash Pond

Parametric and Non-Parametric (NP) Confidence Interval

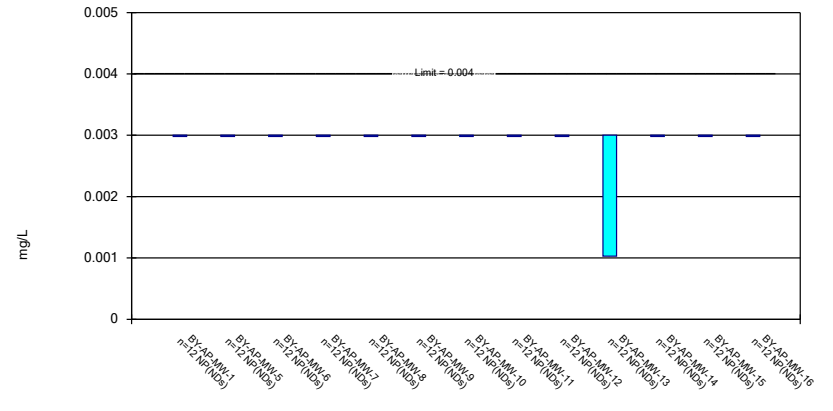
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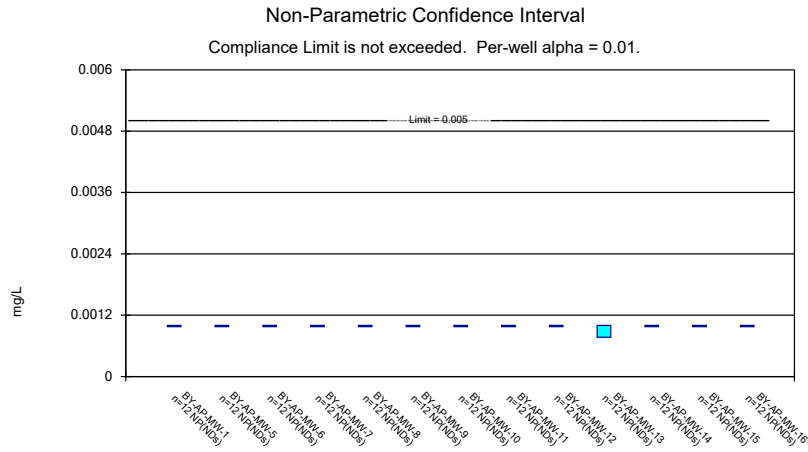
Constituent: Barium Analysis Run 6/24/2019 3:29 PM View: Confidence Intervals
 Plant Barry Client: Southern Company Data: Barry Ash Pond

Non-Parametric Confidence Interval

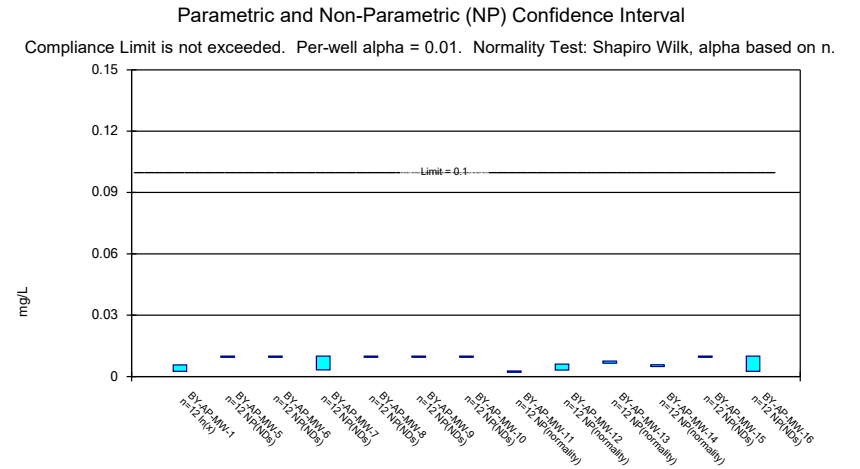
Compliance Limit is not exceeded. Per-well alpha = 0.01.



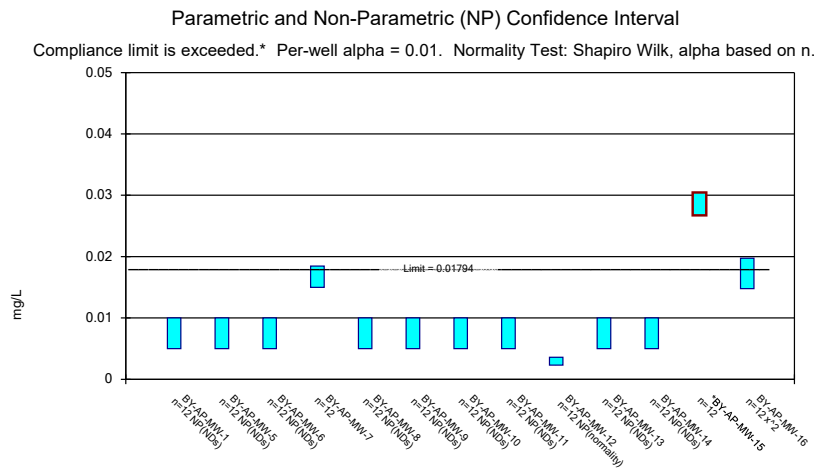
Constituent: Beryllium Analysis Run 6/24/2019 3:29 PM View: Confidence Intervals
 Plant Barry Client: Southern Company Data: Barry Ash Pond



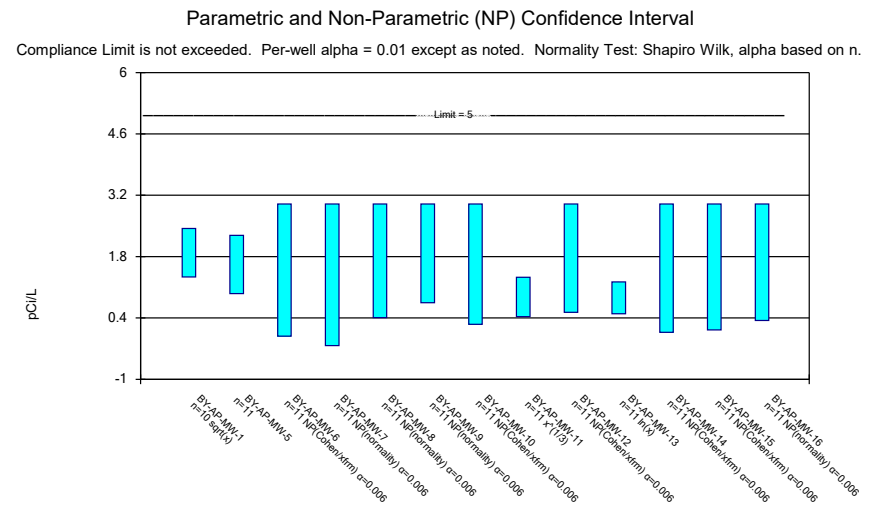
Constituent: Cadmium Analysis Run 6/24/2019 3:29 PM View: Confidence Intervals
 Plant Barry Client: Southern Company Data: Barry Ash Pond



Constituent: Chromium Analysis Run 6/24/2019 3:29 PM View: Confidence Intervals
 Plant Barry Client: Southern Company Data: Barry Ash Pond



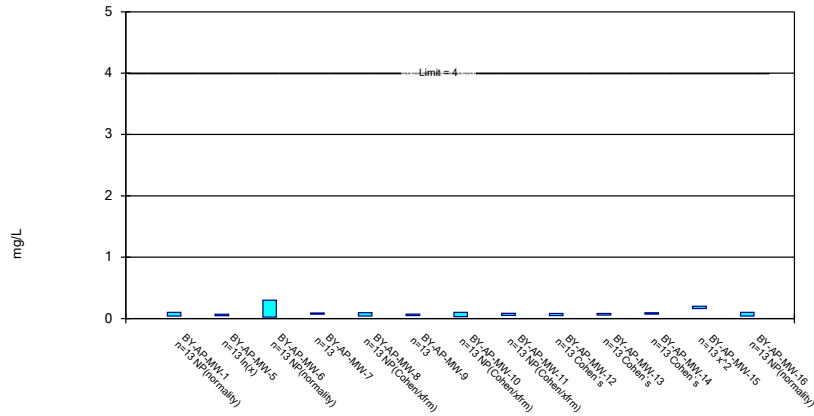
Constituent: Cobalt Analysis Run 6/24/2019 3:29 PM View: Confidence Intervals
 Plant Barry Client: Southern Company Data: Barry Ash Pond



Constituent: Combined Radium 226 + 228 Analysis Run 6/24/2019 3:29 PM View: Confidence Intervals
 Plant Barry Client: Southern Company Data: Barry Ash Pond

Parametric and Non-Parametric (NP) Confidence Interval

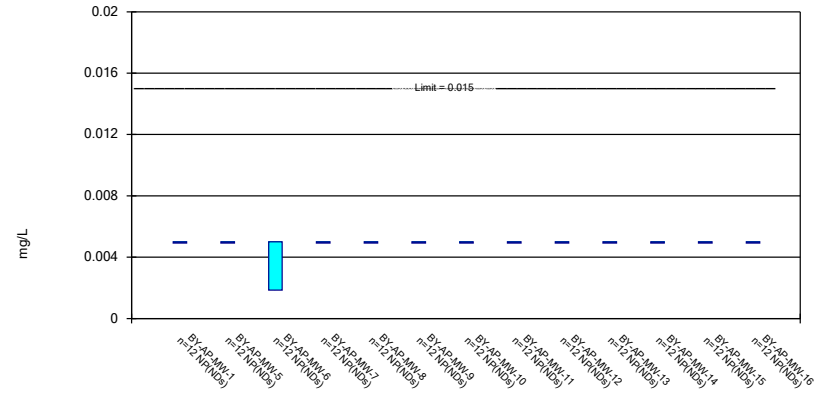
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Fluoride Analysis Run 6/24/2019 3:29 PM View: Confidence Intervals
Plant Barry Client: Southern Company Data: Barry Ash Pond

Non-Parametric Confidence Interval

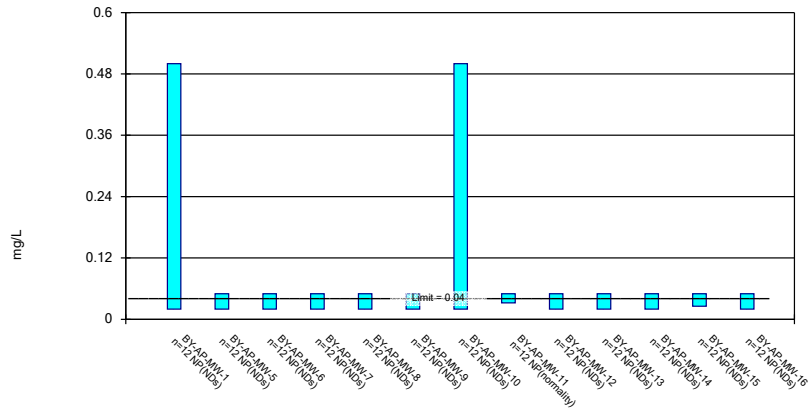
Compliance Limit is not exceeded. Per-well alpha = 0.01.



Constituent: Lead Analysis Run 6/24/2019 3:29 PM View: Confidence Intervals
Plant Barry Client: Southern Company Data: Barry Ash Pond

Non-Parametric Confidence Interval

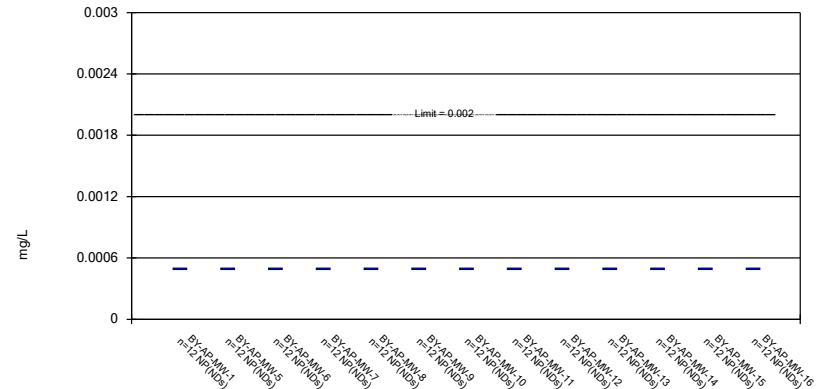
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Constituent: Lithium Analysis Run 6/24/2019 3:29 PM View: Confidence Intervals
Plant Barry Client: Southern Company Data: Barry Ash Pond

Non-Parametric Confidence Interval

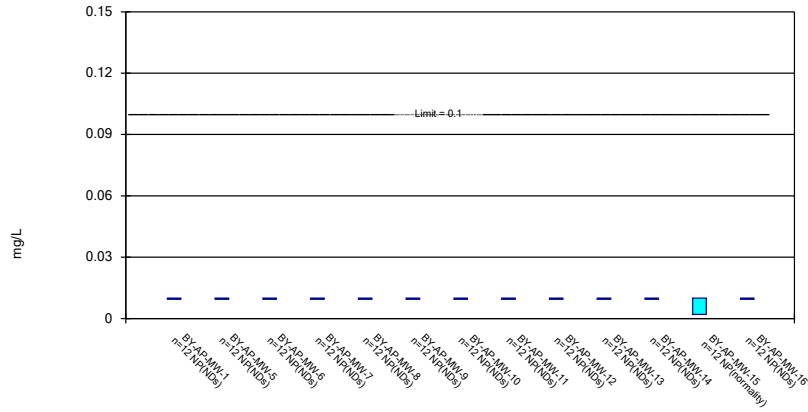
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Constituent: Mercury Analysis Run 6/24/2019 3:29 PM View: Confidence Intervals
Plant Barry Client: Southern Company Data: Barry Ash Pond

Non-Parametric Confidence Interval

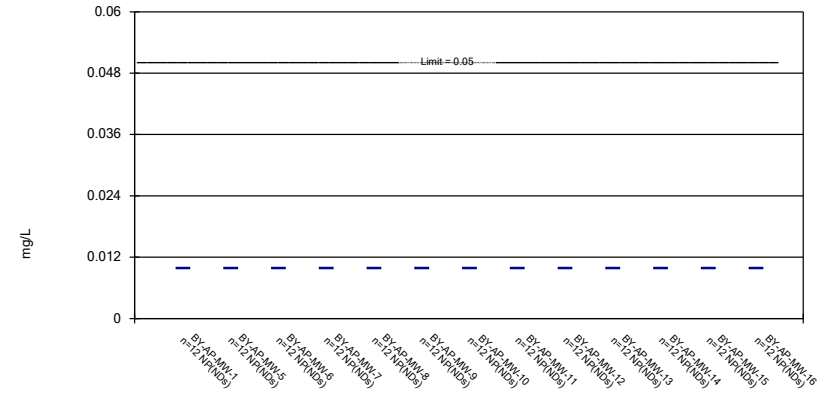
Compliance Limit is not exceeded. Per-well alpha = 0.01.



Constituent: Molybdenum Analysis Run 6/24/2019 3:30 PM View: Confidence Intervals
 Plant Barry Client: Southern Company Data: Barry Ash Pond

Non-Parametric Confidence Interval

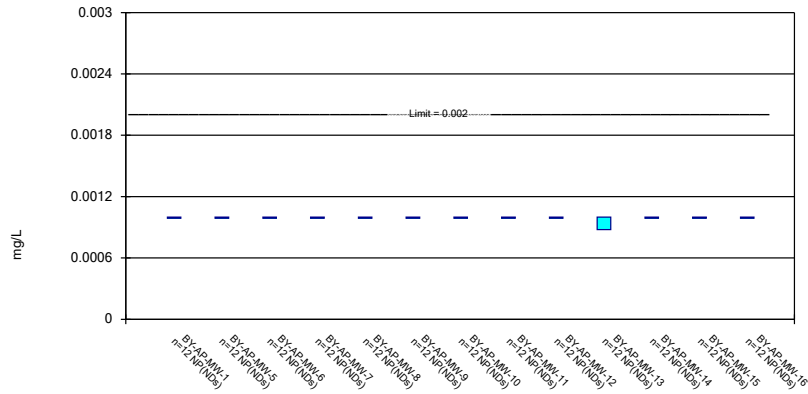
Compliance Limit is not exceeded. Per-well alpha = 0.01.



Constituent: Selenium Analysis Run 6/24/2019 3:30 PM View: Confidence Intervals
 Plant Barry Client: Southern Company Data: Barry Ash Pond

Non-Parametric Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01.



Constituent: Thallium Analysis Run 6/24/2019 3:30 PM View: Confidence Intervals
 Plant Barry Client: Southern Company Data: Barry Ash Pond

2nd
Semi-Annual
Monitoring Event

Interwell Prediction Limit - Significant Results

Plant Barry Client: Southern Company Data: Barry Ash Pond Printed 1/17/2020, 9:52 AM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	%NDs	Transform	Alpha	Method
Boron (mg/L)	BY-AP-MW-1	0.188	n/a	10/1/2019	1.91	Yes	51	82.35	n/a	0.000...	NP Inter (NDs) 1 of 2
Boron (mg/L)	BY-AP-MW-8	0.188	n/a	9/30/2019	1.38	Yes	51	82.35	n/a	0.000...	NP Inter (NDs) 1 of 2
Boron (mg/L)	BY-AP-MW-9	0.188	n/a	9/30/2019	2.34	Yes	51	82.35	n/a	0.000...	NP Inter (NDs) 1 of 2
Boron (mg/L)	BY-AP-MW-10	0.188	n/a	9/30/2019	2.02	Yes	51	82.35	n/a	0.000...	NP Inter (NDs) 1 of 2
Boron (mg/L)	BY-AP-MW-16	0.188	n/a	10/1/2019	2.05	Yes	51	82.35	n/a	0.000...	NP Inter (NDs) 1 of 2
Calcium (mg/L)	BY-AP-MW-1	1.991	n/a	10/1/2019	36.7	Yes	52	0	No	0.000...	Param Inter 1 of 2
Calcium (mg/L)	BY-AP-MW-2	1.991	n/a	10/1/2019	2.94	Yes	52	0	No	0.000...	Param Inter 1 of 2
Calcium (mg/L)	BY-AP-MW-5	1.991	n/a	10/1/2019	13.8	Yes	52	0	No	0.000...	Param Inter 1 of 2
Calcium (mg/L)	BY-AP-MW-7	1.991	n/a	9/30/2019	9.8	Yes	52	0	No	0.000...	Param Inter 1 of 2
Calcium (mg/L)	BY-AP-MW-8	1.991	n/a	9/30/2019	33	Yes	52	0	No	0.000...	Param Inter 1 of 2
Calcium (mg/L)	BY-AP-MW-9	1.991	n/a	9/30/2019	39.9	Yes	52	0	No	0.000...	Param Inter 1 of 2
Calcium (mg/L)	BY-AP-MW-10	1.991	n/a	9/30/2019	63.1	Yes	52	0	No	0.000...	Param Inter 1 of 2
Calcium (mg/L)	BY-AP-MW-11	1.991	n/a	9/30/2019	24.6	Yes	52	0	No	0.000...	Param Inter 1 of 2
Calcium (mg/L)	BY-AP-MW-12	1.991	n/a	10/1/2019	23.1	Yes	52	0	No	0.000...	Param Inter 1 of 2
Calcium (mg/L)	BY-AP-MW-13	1.991	n/a	10/1/2019	13.4	Yes	52	0	No	0.000...	Param Inter 1 of 2
Calcium (mg/L)	BY-AP-MW-14	1.991	n/a	10/1/2019	11.4	Yes	52	0	No	0.000...	Param Inter 1 of 2
Calcium (mg/L)	BY-AP-MW-15	1.991	n/a	10/1/2019	6.9	Yes	52	0	No	0.000...	Param Inter 1 of 2
Calcium (mg/L)	BY-AP-MW-16	1.991	n/a	10/1/2019	11.7	Yes	52	0	No	0.000...	Param Inter 1 of 2
Chloride (mg/L)	BY-AP-MW-1	9.9	n/a	10/1/2019	24.6	Yes	52	0	n/a	0.000...	NP Inter (normality) ...
Chloride (mg/L)	BY-AP-MW-5	9.9	n/a	10/1/2019	19.8	Yes	52	0	n/a	0.000...	NP Inter (normality) ...
Chloride (mg/L)	BY-AP-MW-7	9.9	n/a	9/30/2019	13.1	Yes	52	0	n/a	0.000...	NP Inter (normality) ...
Chloride (mg/L)	BY-AP-MW-8	9.9	n/a	9/30/2019	25.5	Yes	52	0	n/a	0.000...	NP Inter (normality) ...
Chloride (mg/L)	BY-AP-MW-9	9.9	n/a	9/30/2019	21.7	Yes	52	0	n/a	0.000...	NP Inter (normality) ...
Chloride (mg/L)	BY-AP-MW-10	9.9	n/a	9/30/2019	25.7	Yes	52	0	n/a	0.000...	NP Inter (normality) ...
Chloride (mg/L)	BY-AP-MW-11	9.9	n/a	9/30/2019	25	Yes	52	0	n/a	0.000...	NP Inter (normality) ...
Chloride (mg/L)	BY-AP-MW-12	9.9	n/a	10/1/2019	26.1	Yes	52	0	n/a	0.000...	NP Inter (normality) ...
Chloride (mg/L)	BY-AP-MW-13	9.9	n/a	10/1/2019	39.6	Yes	52	0	n/a	0.000...	NP Inter (normality) ...
Chloride (mg/L)	BY-AP-MW-14	9.9	n/a	10/1/2019	44.8	Yes	52	0	n/a	0.000...	NP Inter (normality) ...
Chloride (mg/L)	BY-AP-MW-15	9.9	n/a	10/1/2019	56.3	Yes	52	0	n/a	0.000...	NP Inter (normality) ...
Chloride (mg/L)	BY-AP-MW-16	9.9	n/a	10/1/2019	20.3	Yes	52	0	n/a	0.000...	NP Inter (normality) ...
Fluoride (mg/L)	BY-AP-MW-15	0.1	n/a	10/1/2019	0.185	Yes	56	39.29	n/a	0.000...	NP Inter (normality) ...
Sulfate (mg/L)	BY-AP-MW-11	23.3	n/a	9/30/2019	37.4	Yes	51	0	n/a	0.000...	NP Inter (normality) ...
Sulfate (mg/L)	BY-AP-MW-12	23.3	n/a	10/1/2019	35.3	Yes	51	0	n/a	0.000...	NP Inter (normality) ...
Sulfate (mg/L)	BY-AP-MW-13	23.3	n/a	10/1/2019	47.7	Yes	51	0	n/a	0.000...	NP Inter (normality) ...
Sulfate (mg/L)	BY-AP-MW-14	23.3	n/a	10/1/2019	61.6	Yes	51	0	n/a	0.000...	NP Inter (normality) ...
TDS (mg/L)	BY-AP-MW-1	58	n/a	10/1/2019	430	Yes	52	13.46	n/a	0.000...	NP Inter (normality) ...
TDS (mg/L)	BY-AP-MW-5	58	n/a	10/1/2019	243	Yes	52	13.46	n/a	0.000...	NP Inter (normality) ...
TDS (mg/L)	BY-AP-MW-7	58	n/a	9/30/2019	137	Yes	52	13.46	n/a	0.000...	NP Inter (normality) ...
TDS (mg/L)	BY-AP-MW-8	58	n/a	9/30/2019	293	Yes	52	13.46	n/a	0.000...	NP Inter (normality) ...
TDS (mg/L)	BY-AP-MW-9	58	n/a	9/30/2019	319	Yes	52	13.46	n/a	0.000...	NP Inter (normality) ...
TDS (mg/L)	BY-AP-MW-10	58	n/a	9/30/2019	361	Yes	52	13.46	n/a	0.000...	NP Inter (normality) ...
TDS (mg/L)	BY-AP-MW-11	58	n/a	9/30/2019	399	Yes	52	13.46	n/a	0.000...	NP Inter (normality) ...
TDS (mg/L)	BY-AP-MW-12	58	n/a	10/1/2019	344	Yes	52	13.46	n/a	0.000...	NP Inter (normality) ...
TDS (mg/L)	BY-AP-MW-13	58	n/a	10/1/2019	290	Yes	52	13.46	n/a	0.000...	NP Inter (normality) ...
TDS (mg/L)	BY-AP-MW-14	58	n/a	10/1/2019	317	Yes	52	13.46	n/a	0.000...	NP Inter (normality) ...
TDS (mg/L)	BY-AP-MW-15	58	n/a	10/1/2019	236	Yes	52	13.46	n/a	0.000...	NP Inter (normality) ...
TDS (mg/L)	BY-AP-MW-16	58	n/a	10/1/2019	295	Yes	52	13.46	n/a	0.000...	NP Inter (normality) ...

Interwell Prediction Limit - All Results

Plant Barry Client: Southern Company Data: Barry Ash Pond Printed 1/17/2020, 9:52 AM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	%NDs	Transform	Alpha	Method
Boron (mg/L)	BY-AP-MW-1	0.188	n/a	10/1/2019	1.91	Yes	51	82.35	n/a	0.000...	NP Inter (NDs) 1 of 2
Boron (mg/L)	BY-AP-MW-2	0.188	n/a	10/1/2019	0.1ND	No	51	82.35	n/a	0.000...	NP Inter (NDs) 1 of 2
Boron (mg/L)	BY-AP-MW-3	0.188	n/a	10/1/2019	0.1ND	No	51	82.35	n/a	0.000...	NP Inter (NDs) 1 of 2
Boron (mg/L)	BY-AP-MW-4	0.188	n/a	10/1/2019	0.1ND	No	51	82.35	n/a	0.000...	NP Inter (NDs) 1 of 2
Boron (mg/L)	BY-AP-MW-5	0.188	n/a	10/1/2019	0.103	No	51	82.35	n/a	0.000...	NP Inter (NDs) 1 of 2
Boron (mg/L)	BY-AP-MW-6	0.188	n/a	10/1/2019	0.1ND	No	51	82.35	n/a	0.000...	NP Inter (NDs) 1 of 2
Boron (mg/L)	BY-AP-MW-7	0.188	n/a	9/30/2019	0.0418	No	51	82.35	n/a	0.000...	NP Inter (NDs) 1 of 2
Boron (mg/L)	BY-AP-MW-8	0.188	n/a	9/30/2019	1.38	Yes	51	82.35	n/a	0.000...	NP Inter (NDs) 1 of 2
Boron (mg/L)	BY-AP-MW-9	0.188	n/a	9/30/2019	2.34	Yes	51	82.35	n/a	0.000...	NP Inter (NDs) 1 of 2
Boron (mg/L)	BY-AP-MW-10	0.188	n/a	9/30/2019	2.02	Yes	51	82.35	n/a	0.000...	NP Inter (NDs) 1 of 2
Boron (mg/L)	BY-AP-MW-11	0.188	n/a	9/30/2019	0.103	No	51	82.35	n/a	0.000...	NP Inter (NDs) 1 of 2
Boron (mg/L)	BY-AP-MW-12	0.188	n/a	10/1/2019	0.0967	No	51	82.35	n/a	0.000...	NP Inter (NDs) 1 of 2
Boron (mg/L)	BY-AP-MW-13	0.188	n/a	10/1/2019	0.0604	No	51	82.35	n/a	0.000...	NP Inter (NDs) 1 of 2
Boron (mg/L)	BY-AP-MW-14	0.188	n/a	10/1/2019	0.0701	No	51	82.35	n/a	0.000...	NP Inter (NDs) 1 of 2
Boron (mg/L)	BY-AP-MW-15	0.188	n/a	10/1/2019	0.116	No	51	82.35	n/a	0.000...	NP Inter (NDs) 1 of 2
Boron (mg/L)	BY-AP-MW-16	0.188	n/a	10/1/2019	2.05	Yes	51	82.35	n/a	0.000...	NP Inter (NDs) 1 of 2
Calcium (mg/L)	BY-AP-MW-1	1.991	n/a	10/1/2019	36.7	Yes	52	0	No	0.000...	Param Inter 1 of 2
Calcium (mg/L)	BY-AP-MW-2	1.991	n/a	10/1/2019	2.94	Yes	52	0	No	0.000...	Param Inter 1 of 2
Calcium (mg/L)	BY-AP-MW-3	1.991	n/a	10/1/2019	1.08	No	52	0	No	0.000...	Param Inter 1 of 2
Calcium (mg/L)	BY-AP-MW-4	1.991	n/a	10/1/2019	0.645	No	52	0	No	0.000...	Param Inter 1 of 2
Calcium (mg/L)	BY-AP-MW-5	1.991	n/a	10/1/2019	13.8	Yes	52	0	No	0.000...	Param Inter 1 of 2
Calcium (mg/L)	BY-AP-MW-6	1.991	n/a	10/1/2019	1.92	No	52	0	No	0.000...	Param Inter 1 of 2
Calcium (mg/L)	BY-AP-MW-7	1.991	n/a	9/30/2019	9.8	Yes	52	0	No	0.000...	Param Inter 1 of 2
Calcium (mg/L)	BY-AP-MW-8	1.991	n/a	9/30/2019	33	Yes	52	0	No	0.000...	Param Inter 1 of 2
Calcium (mg/L)	BY-AP-MW-9	1.991	n/a	9/30/2019	39.9	Yes	52	0	No	0.000...	Param Inter 1 of 2
Calcium (mg/L)	BY-AP-MW-10	1.991	n/a	9/30/2019	63.1	Yes	52	0	No	0.000...	Param Inter 1 of 2
Calcium (mg/L)	BY-AP-MW-11	1.991	n/a	9/30/2019	24.6	Yes	52	0	No	0.000...	Param Inter 1 of 2
Calcium (mg/L)	BY-AP-MW-12	1.991	n/a	10/1/2019	23.1	Yes	52	0	No	0.000...	Param Inter 1 of 2
Calcium (mg/L)	BY-AP-MW-13	1.991	n/a	10/1/2019	13.4	Yes	52	0	No	0.000...	Param Inter 1 of 2
Calcium (mg/L)	BY-AP-MW-14	1.991	n/a	10/1/2019	11.4	Yes	52	0	No	0.000...	Param Inter 1 of 2
Calcium (mg/L)	BY-AP-MW-15	1.991	n/a	10/1/2019	6.9	Yes	52	0	No	0.000...	Param Inter 1 of 2
Calcium (mg/L)	BY-AP-MW-16	1.991	n/a	10/1/2019	11.7	Yes	52	0	No	0.000...	Param Inter 1 of 2
Chloride (mg/L)	BY-AP-MW-1	9.9	n/a	10/1/2019	24.6	Yes	52	0	n/a	0.000...	NP Inter (normality) ...
Chloride (mg/L)	BY-AP-MW-2	9.9	n/a	10/1/2019	8.19	No	52	0	n/a	0.000...	NP Inter (normality) ...
Chloride (mg/L)	BY-AP-MW-3	9.9	n/a	10/1/2019	8.05	No	52	0	n/a	0.000...	NP Inter (normality) ...
Chloride (mg/L)	BY-AP-MW-4	9.9	n/a	10/1/2019	7.35	No	52	0	n/a	0.000...	NP Inter (normality) ...
Chloride (mg/L)	BY-AP-MW-5	9.9	n/a	10/1/2019	19.8	Yes	52	0	n/a	0.000...	NP Inter (normality) ...
Chloride (mg/L)	BY-AP-MW-6	9.9	n/a	10/1/2019	5.99	No	52	0	n/a	0.000...	NP Inter (normality) ...
Chloride (mg/L)	BY-AP-MW-7	9.9	n/a	9/30/2019	13.1	Yes	52	0	n/a	0.000...	NP Inter (normality) ...
Chloride (mg/L)	BY-AP-MW-8	9.9	n/a	9/30/2019	25.5	Yes	52	0	n/a	0.000...	NP Inter (normality) ...
Chloride (mg/L)	BY-AP-MW-9	9.9	n/a	9/30/2019	21.7	Yes	52	0	n/a	0.000...	NP Inter (normality) ...
Chloride (mg/L)	BY-AP-MW-10	9.9	n/a	9/30/2019	25.7	Yes	52	0	n/a	0.000...	NP Inter (normality) ...
Chloride (mg/L)	BY-AP-MW-11	9.9	n/a	9/30/2019	25	Yes	52	0	n/a	0.000...	NP Inter (normality) ...
Chloride (mg/L)	BY-AP-MW-12	9.9	n/a	10/1/2019	26.1	Yes	52	0	n/a	0.000...	NP Inter (normality) ...
Chloride (mg/L)	BY-AP-MW-13	9.9	n/a	10/1/2019	39.6	Yes	52	0	n/a	0.000...	NP Inter (normality) ...
Chloride (mg/L)	BY-AP-MW-14	9.9	n/a	10/1/2019	44.8	Yes	52	0	n/a	0.000...	NP Inter (normality) ...
Chloride (mg/L)	BY-AP-MW-15	9.9	n/a	10/1/2019	56.3	Yes	52	0	n/a	0.000...	NP Inter (normality) ...
Chloride (mg/L)	BY-AP-MW-16	9.9	n/a	10/1/2019	20.3	Yes	52	0	n/a	0.000...	NP Inter (normality) ...
Fluoride (mg/L)	BY-AP-MW-1	0.1	n/a	10/1/2019	0.0744	No	56	39.29	n/a	0.000...	NP Inter (normality) ...
Fluoride (mg/L)	BY-AP-MW-2	0.1	n/a	10/1/2019	0.1ND	No	56	39.29	n/a	0.000...	NP Inter (normality) ...
Fluoride (mg/L)	BY-AP-MW-3	0.1	n/a	10/1/2019	0.1ND	No	56	39.29	n/a	0.000...	NP Inter (normality) ...
Fluoride (mg/L)	BY-AP-MW-4	0.1	n/a	10/1/2019	0.1ND	No	56	39.29	n/a	0.000...	NP Inter (normality) ...
Fluoride (mg/L)	BY-AP-MW-5	0.1	n/a	10/1/2019	0.0557	No	56	39.29	n/a	0.000...	NP Inter (normality) ...
Fluoride (mg/L)	BY-AP-MW-6	0.1	n/a	10/1/2019	0.1ND	No	56	39.29	n/a	0.000...	NP Inter (normality) ...
Fluoride (mg/L)	BY-AP-MW-7	0.1	n/a	9/30/2019	0.0925	No	56	39.29	n/a	0.000...	NP Inter (normality) ...
Fluoride (mg/L)	BY-AP-MW-8	0.1	n/a	9/30/2019	0.0559	No	56	39.29	n/a	0.000...	NP Inter (normality) ...
Fluoride (mg/L)	BY-AP-MW-9	0.1	n/a	9/30/2019	0.0679	No	56	39.29	n/a	0.000...	NP Inter (normality) ...
Fluoride (mg/L)	BY-AP-MW-10	0.1	n/a	9/30/2019	0.1ND	No	56	39.29	n/a	0.000...	NP Inter (normality) ...
Fluoride (mg/L)	BY-AP-MW-11	0.1	n/a	9/30/2019	0.0733	No	56	39.29	n/a	0.000...	NP Inter (normality) ...
Fluoride (mg/L)	BY-AP-MW-12	0.1	n/a	10/1/2019	0.0682	No	56	39.29	n/a	0.000...	NP Inter (normality) ...
Fluoride (mg/L)	BY-AP-MW-13	0.1	n/a	10/1/2019	0.0703	No	56	39.29	n/a	0.000...	NP Inter (normality) ...
Fluoride (mg/L)	BY-AP-MW-14	0.1	n/a	10/1/2019	0.0885	No	56	39.29	n/a	0.000...	NP Inter (normality) ...
Fluoride (mg/L)	BY-AP-MW-15	0.1	n/a	10/1/2019	0.185	Yes	56	39.29	n/a	0.000...	NP Inter (normality) ...
Fluoride (mg/L)	BY-AP-MW-16	0.1	n/a	10/1/2019	0.0774	No	56	39.29	n/a	0.000...	NP Inter (normality) ...
Sulfate (mg/L)	BY-AP-MW-1	23.3	n/a	10/1/2019	7.82	No	51	0	n/a	0.000...	NP Inter (normality) ...
Sulfate (mg/L)	BY-AP-MW-2	23.3	n/a	10/1/2019	1ND	No	51	0	n/a	0.000...	NP Inter (normality) ...
Sulfate (mg/L)	BY-AP-MW-3	23.3	n/a	10/1/2019	0.61	No	51	0	n/a	0.000...	NP Inter (normality) ...
Sulfate (mg/L)	BY-AP-MW-4	23.3	n/a	10/1/2019	2.09	No	51	0	n/a	0.000...	NP Inter (normality) ...

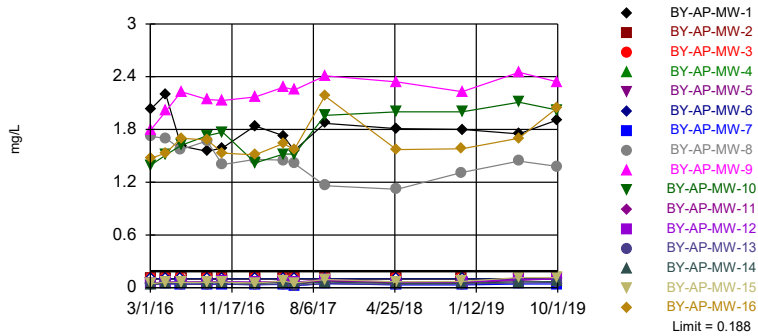
Interwell Prediction Limit - All Results

Plant Barry Client: Southern Company Data: Barry Ash Pond Printed 1/17/2020, 9:52 AM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	%NDs	Transform	Alpha	Method
Sulfate (mg/L)	BY-AP-MW-5	23.3	n/a	10/1/2019	7.4	No	51	0	n/a	0.000...	NP Inter (normality) ...
Sulfate (mg/L)	BY-AP-MW-6	23.3	n/a	10/1/2019	1.04	No	51	0	n/a	0.000...	NP Inter (normality) ...
Sulfate (mg/L)	BY-AP-MW-7	23.3	n/a	9/30/2019	2.51	No	51	0	n/a	0.000...	NP Inter (normality) ...
Sulfate (mg/L)	BY-AP-MW-8	23.3	n/a	9/30/2019	5.29	No	51	0	n/a	0.000...	NP Inter (normality) ...
Sulfate (mg/L)	BY-AP-MW-9	23.3	n/a	9/30/2019	3.77	No	51	0	n/a	0.000...	NP Inter (normality) ...
Sulfate (mg/L)	BY-AP-MW-10	23.3	n/a	9/30/2019	2.77	No	51	0	n/a	0.000...	NP Inter (normality) ...
Sulfate (mg/L)	BY-AP-MW-11	23.3	n/a	9/30/2019	37.4	Yes	51	0	n/a	0.000...	NP Inter (normality) ...
Sulfate (mg/L)	BY-AP-MW-12	23.3	n/a	10/1/2019	35.3	Yes	51	0	n/a	0.000...	NP Inter (normality) ...
Sulfate (mg/L)	BY-AP-MW-13	23.3	n/a	10/1/2019	47.7	Yes	51	0	n/a	0.000...	NP Inter (normality) ...
Sulfate (mg/L)	BY-AP-MW-14	23.3	n/a	10/1/2019	61.6	Yes	51	0	n/a	0.000...	NP Inter (normality) ...
Sulfate (mg/L)	BY-AP-MW-15	23.3	n/a	10/1/2019	1.72	No	51	0	n/a	0.000...	NP Inter (normality) ...
Sulfate (mg/L)	BY-AP-MW-16	23.3	n/a	10/1/2019	3.4	No	51	0	n/a	0.000...	NP Inter (normality) ...
TDS (mg/L)	BY-AP-MW-1	58	n/a	10/1/2019	430	Yes	52	13.46	n/a	0.000...	NP Inter (normality) ...
TDS (mg/L)	BY-AP-MW-2	58	n/a	10/1/2019	44.7	No	52	13.46	n/a	0.000...	NP Inter (normality) ...
TDS (mg/L)	BY-AP-MW-3	58	n/a	10/1/2019	36.7	No	52	13.46	n/a	0.000...	NP Inter (normality) ...
TDS (mg/L)	BY-AP-MW-4	58	n/a	10/1/2019	32	No	52	13.46	n/a	0.000...	NP Inter (normality) ...
TDS (mg/L)	BY-AP-MW-5	58	n/a	10/1/2019	243	Yes	52	13.46	n/a	0.000...	NP Inter (normality) ...
TDS (mg/L)	BY-AP-MW-6	58	n/a	10/1/2019	38	No	52	13.46	n/a	0.000...	NP Inter (normality) ...
TDS (mg/L)	BY-AP-MW-7	58	n/a	9/30/2019	137	Yes	52	13.46	n/a	0.000...	NP Inter (normality) ...
TDS (mg/L)	BY-AP-MW-8	58	n/a	9/30/2019	293	Yes	52	13.46	n/a	0.000...	NP Inter (normality) ...
TDS (mg/L)	BY-AP-MW-9	58	n/a	9/30/2019	319	Yes	52	13.46	n/a	0.000...	NP Inter (normality) ...
TDS (mg/L)	BY-AP-MW-10	58	n/a	9/30/2019	361	Yes	52	13.46	n/a	0.000...	NP Inter (normality) ...
TDS (mg/L)	BY-AP-MW-11	58	n/a	9/30/2019	399	Yes	52	13.46	n/a	0.000...	NP Inter (normality) ...
TDS (mg/L)	BY-AP-MW-12	58	n/a	10/1/2019	344	Yes	52	13.46	n/a	0.000...	NP Inter (normality) ...
TDS (mg/L)	BY-AP-MW-13	58	n/a	10/1/2019	290	Yes	52	13.46	n/a	0.000...	NP Inter (normality) ...
TDS (mg/L)	BY-AP-MW-14	58	n/a	10/1/2019	317	Yes	52	13.46	n/a	0.000...	NP Inter (normality) ...
TDS (mg/L)	BY-AP-MW-15	58	n/a	10/1/2019	236	Yes	52	13.46	n/a	0.000...	NP Inter (normality) ...
TDS (mg/L)	BY-AP-MW-16	58	n/a	10/1/2019	295	Yes	52	13.46	n/a	0.000...	NP Inter (normality) ...

Exceeds Limit: BY-AP-MW-1, BY-AP-MW-8,
BY-AP-MW-9, BY-AP-MW-10, BY-AP-MW-16

Prediction Limit
Interwell Non-parametric

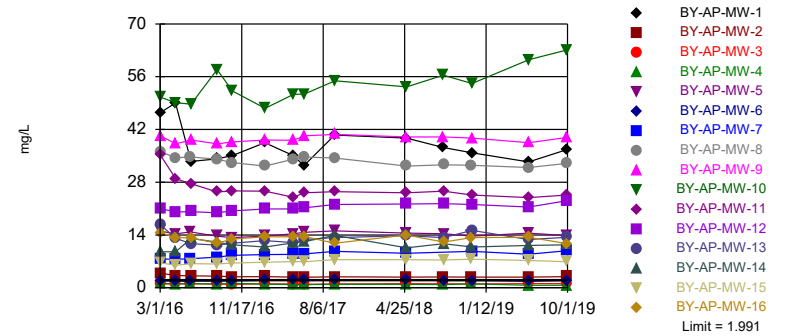


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 51 background values. 82.35% NDs. Annual per-constituent alpha = 0.02204. Individual comparison alpha = 0.0006963 (1 of 2). Comparing 16 points to limit.

Constituent: Boron Analysis Run 1/17/2020 9:51 AM View: Interwell PL
Plant Barry Client: Southern Company Data: Barry Ash Pond

Exceeds Limit: BY-AP-MW-1, BY-AP-MW-2,
BY-AP-MW-5, BY-AP-MW-7, BY-AP-MW-8,
BY-AP-MW-9, BY-AP-MW-10...

Prediction Limit
Interwell Parametric

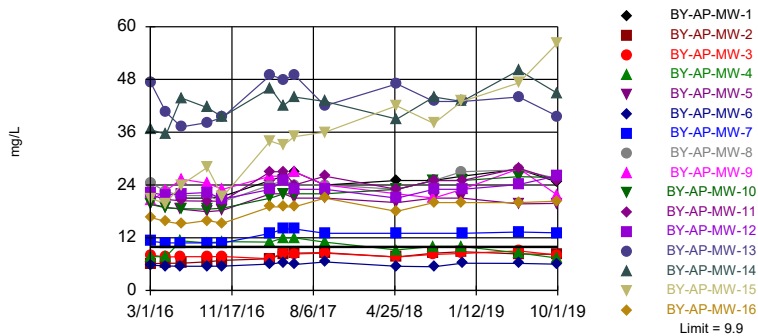


Background Data Summary: Mean=1.432, Std. Dev.=0.2597, n=52. Normality test: Shapiro Francia @alpha = 0.01, calculated = 0.971, critical = 0.937. Kappa = 2.152 (c=7, w=16, 1 of 2, event alpha = 0.05132). Report alpha = 0.007498. Individual comparison alpha = 0.0004702. Comparing 16 points to limit.

Constituent: Calcium Analysis Run 1/17/2020 9:51 AM View: Interwell PL
Plant Barry Client: Southern Company Data: Barry Ash Pond

Exceeds Limit: BY-AP-MW-1, BY-AP-MW-5,
BY-AP-MW-7, BY-AP-MW-8, BY-AP-MW-9,
BY-AP-MW-10, BY-AP-MW-11,...

Prediction Limit
Interwell Non-parametric

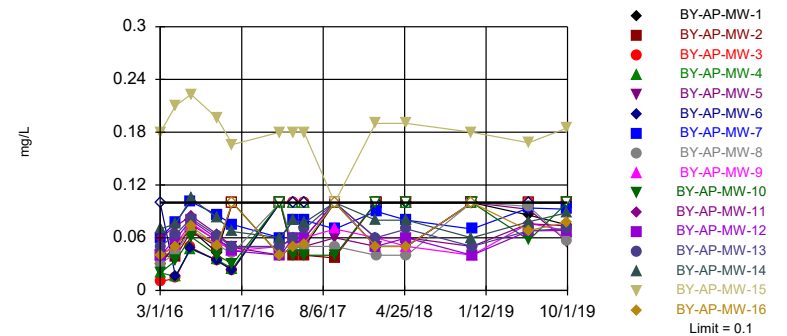


Non-parametric test used in lieu of parametric prediction limit because the Shapiro Francia normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 52 background values. Annual per-constituent alpha = 0.02139. Individual comparison alpha = 0.0006755 (1 of 2). Comparing 16 points to limit.

Constituent: Chloride Analysis Run 1/17/2020 9:51 AM View: Interwell PL
Plant Barry Client: Southern Company Data: Barry Ash Pond

Exceeds Limit: BY-AP-MW-15

Prediction Limit
Interwell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because the Shapiro Francia normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 56 background values. 39.29% NDs. Annual per-constituent alpha = 0.01879. Individual comparison alpha = 0.0005926 (1 of 2). Comparing 16 points to limit.

Constituent: Fluoride Analysis Run 1/17/2020 9:51 AM View: Interwell PL
Plant Barry Client: Southern Company Data: Barry Ash Pond

Prediction Limit

Constituent: Boron (mg/L) Analysis Run 1/17/2020 9:52 AM View: Interwell PL

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-GSA-MW-4 (bg)	BY-GSA-MW-1 (bg)	BY-GSA-MW-3 (bg)	BY-GSA-MW-2 (bg)	BY-AP-MW-6	BY-AP-MW-11	BY-AP-MW-10	BY-AP-MW-9	BY-AP-MW-8
2/23/2016	0.0257 (J)	0.0212 (J)	<0.1	0.0252 (J)					
3/1/2016					<0.1	0.0482 (J)	1.39	1.79	1.72
3/2/2016									
4/19/2016	<0.1	<0.1	<0.1	<0.1	<0.1				
4/20/2016						0.059 (J)	1.51	2.01	1.7
6/6/2016	<0.1	<0.1							
6/7/2016			<0.1	0.0202 (J)	<0.1				1.57
6/8/2016						0.0568 (J)	1.62	2.23	
8/30/2016	<0.1	<0.1	<0.1	<0.1	<0.1				1.67
8/31/2016						0.0651 (J)	1.73	2.14	
10/18/2016	0.022 (J)	<0.1	<0.1	<0.1					1.4
10/19/2016					<0.1	0.06 (J)	1.77	2.13	
1/31/2017	<0.1	<0.1	<0.1	<0.1	<0.1				1.46
2/1/2017						0.0638 (J)	1.42	2.17	
5/2/2017	<0.1	<0.1	<0.1	<0.1					
5/3/2017					<0.1	0.0655 (J)	1.52	2.28	1.45
6/6/2017	<0.1	<0.1	<0.1	<0.1					
6/7/2017					<0.1	0.0468 (J)	1.52	2.25	1.41
9/12/2017	<0.1								
9/13/2017		<0.1	<0.1	<0.1		0.0751 (J)			
9/14/2017					<0.1		1.96	2.41	1.16
5/1/2018	<0.1		<0.1	<0.1					
5/2/2018		0.0362 (J)			<0.1	0.0545 (J)	2	2.34	1.12
11/26/2018	<0.1								
11/27/2018		0.11	<0.1						1.31
11/28/2018					<0.1	0.0545 (J)	2	2.23	
5/28/2019	<0.1								
5/29/2019		0.188	<0.1	<0.1	<0.1	0.082 (J)			1.44
5/30/2019							2.11	2.45	
9/30/2019						0.103	2.02	2.34	1.38
10/1/2019					<0.1				
10/2/2019	<0.1	0.097 (J)	<0.1	<0.1					

Prediction Limit

Constituent: Boron (mg/L) Analysis Run 1/17/2020 9:52 AM View: Interwell PL
Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-16	BY-AP-MW-2
2/23/2016		
3/1/2016		
3/2/2016	1.47	<0.1
4/19/2016	1.53	<0.1
4/20/2016		
6/6/2016		
6/7/2016		
6/8/2016	1.7	<0.1
8/30/2016		
8/31/2016	1.68	<0.1
10/18/2016		
10/19/2016	1.53	<0.1
1/31/2017	1.51	<0.1
2/1/2017		
5/2/2017	1.64	<0.1
5/3/2017		
6/6/2017	1.57	<0.1
6/7/2017		
9/12/2017		<0.1
9/13/2017	2.18	
9/14/2017		
5/1/2018	1.57	<0.1
5/2/2018		
11/26/2018		
11/27/2018	1.58	<0.1
11/28/2018		
5/28/2019		
5/29/2019	1.7	<0.1
5/30/2019		
9/30/2019		
10/1/2019	2.05	<0.1
10/2/2019		

Prediction Limit

Constituent: Calcium (mg/L) Analysis Run 1/17/2020 9:52 AM View: Interwell PL

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-GSA-MW-3 (bg)	BY-GSA-MW-2 (bg)	BY-GSA-MW-1 (bg)	BY-GSA-MW-4 (bg)	BY-AP-MW-4	BY-AP-MW-5	BY-AP-MW-6	BY-AP-MW-7	BY-AP-MW-8
2/23/2016	1.77	1.11	1.28	1.42					
3/1/2016					1.07	15	1.87	7.65	36.1
3/2/2016									
4/19/2016	1.68	1.09	1.19	1.31	0.969		1.69		
4/20/2016						14.3		7.54	34.5
6/6/2016			1.19	1.35					
6/7/2016	1.68	1.16			1.08	14.8	1.75	7.71	34.7
6/8/2016									
8/30/2016	1.62	1.08	1.11	1.31	0.952	13.7	1.77		34.1
8/31/2016								8.1	
10/18/2016	1.53	1.03	1.04	1.22		13.3			33.2
10/19/2016					1.17		1.8	8.59	
1/31/2017	1.65	1.23	1.19	1.36	0.946	13.7	1.98	8.78	32.3
2/1/2017									
5/2/2017	1.58	1.28	1.05	1.24	0.826				
5/3/2017						14.3	1.97	8.85	34.1
6/6/2017	1.55	1.25	0.978	1.28	0.834				
6/7/2017						14.7	1.98	8.99	34.7
9/12/2017				1.47	0.884				
9/13/2017	1.71	1.6	1.14						
9/14/2017						15.1	2.14	9.64	34.4
5/1/2018	1.76	1.58		1.47	0.921				
5/2/2018			1.64			14.5	2.13	9.14	32.3
8/28/2018					0.8				
8/29/2018						14.3	1.92		32.6
11/26/2018				1.52					
11/27/2018	1.69	1.49	2.01		1.01	13.7			32.5
11/28/2018							1.91	9.66	
5/28/2019				1.6					
5/29/2019	1.74	1.59	1.85		0.627	14.5	1.72	8.88	31.9
5/30/2019									
9/30/2019								9.8	33
10/1/2019					0.645	13.8	1.92		
10/2/2019	1.86	1.7	1.55	1.7					

Prediction Limit

Constituent: Calcium (mg/L) Analysis Run 1/17/2020 9:52 AM View: Interwell PL
Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-1	BY-AP-MW-14
2/23/2016		
3/1/2016		
3/2/2016	46.5	9.53
4/19/2016	49	
4/20/2016		9.55
6/6/2016		
6/7/2016		
6/8/2016	33.5	13.1
8/30/2016		12.1
8/31/2016	34.2	
10/18/2016		11.4
10/19/2016	35.1	
1/31/2017	38.5	10.8
2/1/2017		
5/2/2017	35.1	11.9
5/3/2017		
6/6/2017	32.4	12.2
6/7/2017		
9/12/2017		
9/13/2017	40.5	13.9
9/14/2017		
5/1/2018	39.7	
5/2/2018		10.6
8/28/2018	37.2	
8/29/2018		11.7
11/26/2018		
11/27/2018		10.8
11/28/2018	35.8	
5/28/2019		
5/29/2019	33.4	11.2
5/30/2019		
9/30/2019		
10/1/2019	36.7	11.4
10/2/2019		

Prediction Limit

Constituent: Chloride (mg/L) Analysis Run 1/17/2020 9:52 AM View: Interwell PL

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-GSA-MW-3 (bg)	BY-GSA-MW-4 (bg)	BY-GSA-MW-2 (bg)	BY-GSA-MW-1 (bg)	BY-AP-MW-7	BY-AP-MW-10	BY-AP-MW-4	BY-AP-MW-5	BY-AP-MW-9
2/23/2016	3.68	3.5	3.99	3.59					
3/1/2016					11.2	19.6	7.74	19.7	20.4
3/2/2016									
4/19/2016	3.72	3.63	4.08	2.89			7.66		
4/20/2016					10.8	18.8		18.9	22.7
6/6/2016		3.6		3.12					
6/7/2016	3.66		4.28		10.8		11.3	18.5	
6/8/2016						18.6			25.3
8/30/2016	3.7	3.54	4.26	3.91			10.8	17.9	
8/31/2016					10.8	18.5			24.4
10/18/2016	3.77	3.68	4.26	3.9				18.2	
10/19/2016					10.8	18.7	11.1		23
3/20/2017	3.7	4.6	4.1	3.5					
3/21/2017							11		
3/22/2017					13	21		22	26
5/2/2017	4.6 (D)	3.9 (D)	5 (D)	3.5 (D)			12		
5/3/2017					14	22		22	26
6/6/2017	3.4 (D)	3.4 (D)	3.9 (D)	3.1 (D)			12		
6/7/2017					14	22		21	27
9/12/2017		4.3					11		
9/13/2017	3.9		4.3	4					
9/14/2017					13	22		21	24
5/1/2018	4.1	3.8	3.7				9.2		
5/2/2018				9.9	13	23		20	22
8/28/2018						25	10		21
8/29/2018								21	
11/26/2018		3.6							
11/27/2018	3.5		3.2	4.7			10	21	
11/28/2018					13	25			23
5/28/2019		3.6							
5/29/2019	3.58		2.93	5.48	13.3		8.53	19.7	
5/30/2019						25.9			27.7
9/30/2019					13.1	25.7			21.7
10/1/2019							7.35	19.8	
10/2/2019	3.64	3.5	2.75	3.65					

Prediction Limit

Constituent: Chloride (mg/L) Analysis Run 1/17/2020 9:52 AM View: Interwell PL
Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-13	BY-AP-MW-1
2/23/2016		
3/1/2016		
3/2/2016	47.3	2.18 (o)
4/19/2016		9.01 (o)
4/20/2016	40.5	
6/6/2016		
6/7/2016		
6/8/2016	37.2	21
8/30/2016		
8/31/2016	38.2	21
10/18/2016		
10/19/2016	39.4	21.4
3/20/2017		
3/21/2017		25
3/22/2017	49	
5/2/2017		26
5/3/2017	48	
6/6/2017		27
6/7/2017	49	
9/12/2017		
9/13/2017	42	24
9/14/2017		
5/1/2018		25
5/2/2018	47	
8/28/2018		25
8/29/2018	43	
11/26/2018		
11/27/2018		
11/28/2018	43	26
5/28/2019		
5/29/2019	44	27.6
5/30/2019		
9/30/2019		
10/1/2019	39.6	24.6
10/2/2019		

Prediction Limit

Constituent: Fluoride (mg/L) Analysis Run 1/17/2020 9:52 AM View: Interwell PL

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-GSA-MW-1 (bg)	BY-GSA-MW-4 (bg)	BY-GSA-MW-2 (bg)	BY-GSA-MW-3 (bg)	BY-AP-MW-4	BY-AP-MW-11	BY-AP-MW-7	BY-AP-MW-5	BY-AP-MW-9
2/23/2016	0.03 (J)	0.02 (J)	0.02 (J)	0.02 (J)					
3/1/2016					0.02 (J)	0.06 (J)	0.06 (J)	0.04 (J)	0.04 (J)
3/2/2016									
4/19/2016	0.023 (J)	0.015 (J)	0.021 (J)	0.016 (J)	0.016 (J)				
4/20/2016						0.073 (J)	0.078 (J)	0.043 (J)	0.052 (J)
6/6/2016	0.062 (J)	0.05 (J)							
6/7/2016			0.06 (J)	0.052 (J)	0.047 (J)		0.101 (J)	0.075 (J)	
6/8/2016						0.085 (J)			0.077 (J)
8/30/2016	0.053 (J)	0.036 (J)	0.05 (J)	0.038 (J)	0.035 (J)			0.057 (J)	
8/31/2016						0.064 (J)	0.086 (J)		0.056 (J)
10/18/2016	0.042 (J)	0.025 (J)	0.04 (J)	0.03 (J)				0.049 (J)	
10/19/2016					0.025 (J)	0.05 (J)	0.075 (J)		0.045 (J)
3/20/2017	<0.1	<0.1	<0.1	<0.1					
3/21/2017					<0.1				
3/22/2017						0.05 (J)	0.06 (J)	0.04 (J)	0.05 (J)
5/2/2017	0.04 (JD)	0.1 (D)	0.04 (JD)	0.1 (D)	<0.1				
5/3/2017						0.06 (J)	0.08 (J)	0.05 (J)	0.06 (J)
6/6/2017	0.1 (D)	0.1 (D)	0.04 (JD)	0.1 (D)	<0.1				
6/7/2017						0.06 (J)	0.08 (J)	0.05 (J)	0.06 (J)
9/12/2017		<0.1			<0.1				
9/13/2017	0.04 (J)		0.043 (J)	<0.1		<0.1 (U*)			
9/14/2017							0.07 (J)	0.06 (J)	0.07 (J)
1/22/2018									
1/23/2018	<0.1	<0.1	0.04 (J)	<0.1		0.06 (J)			0.06 (J)
1/24/2018					<0.1		0.09 (J)	0.05 (J)	
5/1/2018		<0.1	0.04 (J)	<0.1	<0.1				
5/2/2018	0.04 (J)					0.06 (J)	0.08 (J)	0.05 (J)	0.05 (J)
11/26/2018		<0.1							
11/27/2018	<0.1		<0.1	<0.1	<0.1			<0.1	
11/28/2018						0.05 (J)	0.07 (J)		0.04 (J)
5/28/2019		<0.1							
5/29/2019	0.0502 (J)		<0.1	<0.1	<0.1	0.0759 (J)	0.0937 (J)	0.0923 (J)	
5/30/2019									0.0763 (J)
9/30/2019						0.0733 (J)	0.0925 (J)		0.0679 (J)
10/1/2019					<0.1			0.0557 (J)	
10/2/2019	<0.1	<0.1	<0.1	<0.1					

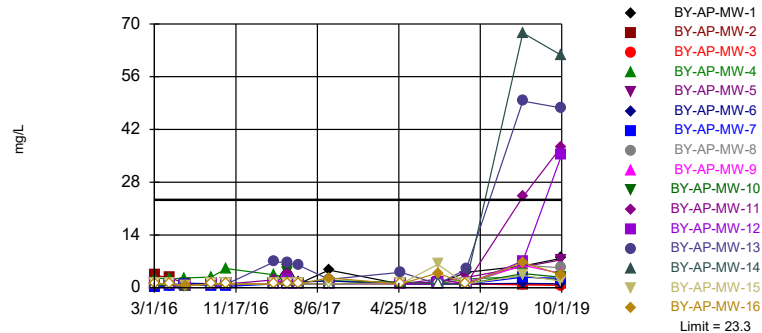
Prediction Limit

Constituent: Fluoride (mg/L) Analysis Run 1/17/2020 9:52 AM View: Interwell PL
Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-1	BY-AP-MW-2
2/23/2016		
3/1/2016		
3/2/2016	0.03 (J)	0.04 (J)
4/19/2016	0.052 (J)	0.038 (J)
4/20/2016		
6/6/2016		
6/7/2016		
6/8/2016	0.069 (J)	0.067 (J)
8/30/2016		
8/31/2016	0.043 (J)	0.05 (J)
10/18/2016		
10/19/2016	<0.1	<0.1
3/20/2017		
3/21/2017	0.04 (J)	<0.1
3/22/2017		
5/2/2017	0.05 (J)	0.04 (J)
5/3/2017		
6/6/2017	0.049 (J)	0.04 (J)
6/7/2017		
9/12/2017		0.037 (J)
9/13/2017	<0.1 (U*)	
9/14/2017		
1/22/2018		
1/23/2018		
1/24/2018	0.05 (J)	<0.1
5/1/2018	0.05 (J)	<0.1
5/2/2018		
11/26/2018		
11/27/2018		<0.1
11/28/2018	<0.1	
5/28/2019		
5/29/2019	0.0858 (J)	<0.1
5/30/2019		
9/30/2019		
10/1/2019	0.0744 (J)	<0.1
10/2/2019		

Exceeds Limit: BY-AP-MW-11, BY-AP-MW-12, BY-AP-MW-13, BY-AP-MW-14

Prediction Limit
 Interwell Non-parametric

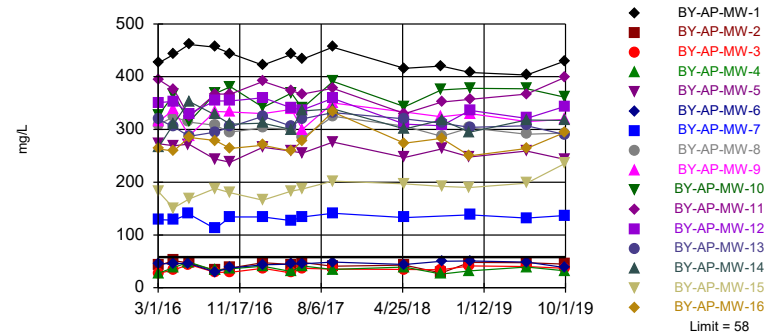


Non-parametric test used in lieu of parametric prediction limit because the Shapiro Francia normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 51 background values. Annual per-constituent alpha = 0.02204. Individual comparison alpha = 0.0006963 (1 of 2). Comparing 16 points to limit.

Constituent: Sulfate Analysis Run 1/17/2020 9:51 AM View: Interwell PL
 Plant Barry Client: Southern Company Data: Barry Ash Pond

Exceeds Limit: BY-AP-MW-1, BY-AP-MW-5, BY-AP-MW-7, BY-AP-MW-8, BY-AP-MW-9, BY-AP-MW-10, BY-AP-MW-11,...

Prediction Limit
 Interwell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because the Shapiro Francia normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 52 background values. 13.46% NDs. Annual per-constituent alpha = 0.02139. Individual comparison alpha = 0.0006755 (1 of 2). Comparing 16 points to limit.

Constituent: TDS Analysis Run 1/17/2020 9:51 AM View: Interwell PL
 Plant Barry Client: Southern Company Data: Barry Ash Pond

Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 1/17/2020 9:53 AM View: Interwell PL

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-GSA-MW-1 (bg)	BY-GSA-MW-4 (bg)	BY-GSA-MW-2 (bg)	BY-GSA-MW-3 (bg)	BY-AP-MW-4	BY-AP-MW-5	BY-AP-MW-6	BY-AP-MW-7	BY-AP-MW-8
2/23/2016	8.59	7.04	7.2	7.44					
3/1/2016					2.58	<1	0.36 (J)	0.3 (J)	<1
3/2/2016									
4/19/2016	8.27	6.74	7.22	7.66	2.3		0.435 (J)		
4/20/2016						<1		0.514 (J)	<1
6/6/2016	8.66	7.04							
6/7/2016			7.92	8.16	2.58	0.583 (J)	1.22	0.971 (J)	0.504 (J)
6/8/2016									
8/30/2016	9.74	7.57	8.17	8.43	2.81	<1	1.08		<1
8/31/2016								0.445 (J)	
10/18/2016	10.2	6.62	7.99	8.47		<1			<1
10/19/2016					5.06		1.01	0.366 (J)	
3/20/2017	8.3	7	6.1	7.4					
3/21/2017					3.4 (J)				
3/22/2017						<1	<1	<1	<1
5/2/2017	6.6 (D)	5.6 (D)	5 (D)	6.3 (D)	2.7 (J)				
5/3/2017						<1	1.4 (J)	<1	2.7 (J)
6/6/2017	7.6 (D)	6.6 (D)	5.3 (D)	7.1 (D)	1.5 (J)				
6/7/2017						<1	1.5 (J)	<1	<1
9/12/2017		7.2			1.9 (J)				
9/13/2017	8.4		4.9 (J)	7.3					
9/14/2017						<1	1.8 (J)	<1	<1
5/1/2018		5.9	4.2 (J)	6.9	1.4 (J)				
5/2/2018	5.9					<1	<1	<1	<1
8/28/2018					<1				
8/29/2018						1.6 (J)	<1		<1
11/26/2018		5.1							
11/27/2018	22			6.5	2.3 (J)	2.7 (J)			<1
11/28/2018							<1	<1	
5/28/2019		7.1							
5/29/2019	23.3		5.94	7.81	2.92	5.51	1.17	2.77	6.01
5/30/2019									
9/30/2019								2.51	5.29
10/1/2019					2.09	7.4	1.04		
10/2/2019	17.5	6.88	6.04	7.62					

Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 1/17/2020 9:53 AM View: Interwell PL
Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-13	BY-AP-MW-14
2/23/2016		
3/1/2016		
3/2/2016	<1	<1
4/19/2016		
4/20/2016	<1	<1
6/6/2016		
6/7/2016		
6/8/2016	0.496 (J)	0.514 (J)
8/30/2016		<1
8/31/2016	<1	
10/18/2016		<1
10/19/2016	<1	
3/20/2017		
3/21/2017		
3/22/2017	6.9	<1
5/2/2017		1.8 (J)
5/3/2017	6.6	
6/6/2017		<1
6/7/2017	6	
9/12/2017		
9/13/2017	2.2 (J)	<1
9/14/2017		
5/1/2018		
5/2/2018	4.1 (J)	1.6 (J)
8/28/2018		
8/29/2018	<1	<1
11/26/2018		
11/27/2018		<1
11/28/2018	4.9 (J)	
5/28/2019		
5/29/2019	49.5	67.6
5/30/2019		
9/30/2019		
10/1/2019	47.7	61.6
10/2/2019		

Prediction Limit

Constituent: TDS (mg/L) Analysis Run 1/17/2020 9:53 AM View: Interwell PL

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-GSA-MW-3 (bg)	BY-GSA-MW-2 (bg)	BY-GSA-MW-1 (bg)	BY-GSA-MW-4 (bg)	BY-AP-MW-4	BY-AP-MW-5	BY-AP-MW-6	BY-AP-MW-7	BY-AP-MW-8
2/23/2016	40	30.7	26.7	<25					
3/1/2016					27.3	273	45.3	129	309
3/2/2016									
4/19/2016	32	<25	<25	<25	38		46		
4/20/2016						269		128	324
6/6/2016			32.7	28.7					
6/7/2016	38.7	35.3			48.7	272	46	140	314
6/8/2016									
8/30/2016	31.3	27.3	33.3	25.3	32.7	244	30		308
8/31/2016								112	
10/18/2016	26.7	<25	27.3	<25		238			295
10/19/2016					36		37.3	134	
1/31/2017	30	32.7	32	26	40.7	266	43.3	134	303
2/1/2017									
5/2/2017	30.7	30.7	31.3	<25	30.7				
5/3/2017						259	44.7	127	300
6/6/2017	32.7	34.7	35.3	42.7	41.3				
6/7/2017						255	45.3	134	284
9/12/2017				26.7	34.7				
9/13/2017	38	39.3	36.7						
9/14/2017						276	48.7	141	325
5/1/2018	35.3	42		34.7	39.3				
5/2/2018			34			247	44	133	306
8/28/2018					26				
8/29/2018						263	50		287
11/26/2018				32.7					
11/27/2018	36	31.3	50.7		32	248			303
11/28/2018							50.7	138	
5/28/2019				31.3					
5/29/2019	37.3	40	58		39.3	259	48.7	132	291
5/30/2019									
9/30/2019								137	293
10/1/2019					32	243	38		
10/2/2019	36.7	41.3	46	36					

Prediction Limit

Constituent: TDS (mg/L) Analysis Run 1/17/2020 9:53 AM View: Interwell PL
Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-1	BY-AP-MW-14
2/23/2016		
3/1/2016		
3/2/2016	426	266
4/19/2016	442	
4/20/2016		311
6/6/2016		
6/7/2016		
6/8/2016	461	353
8/30/2016		328
8/31/2016	456	
10/18/2016		310
10/19/2016	444	
1/31/2017	422	312
2/1/2017		
5/2/2017	442	300
5/3/2017		
6/6/2017	433	335
6/7/2017		
9/12/2017		
9/13/2017	456	339
9/14/2017		
5/1/2018	416	
5/2/2018		301
8/28/2018	420	
8/29/2018		318
11/26/2018		
11/27/2018		295
11/28/2018	408	
5/28/2019		
5/29/2019	403	318
5/30/2019		
9/30/2019		
10/1/2019	430	317
10/2/2019		

Intrawell Prediction Limit - Significant Results

Plant Barry Client: Southern Company Data: Barry Ash Pond Printed 1/17/2020, 9:56 AM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	%NDs	Transform	Alpha	Method
pH (pH)	BY-AP-MW-1	5.947	5.708	10/1/2019	5.47	Yes	15	0	No	0.000...	Param Intra 1 of 2
pH (pH)	BY-AP-MW-2	6.156	5.437	10/1/2019	4.97	Yes	15	0	No	0.000...	Param Intra 1 of 2
pH (pH)	BY-AP-MW-3	5.327	4.816	10/1/2019	4.37	Yes	15	0	No	0.000...	Param Intra 1 of 2
pH (pH)	BY-AP-MW-5	6.062	5.922	10/1/2019	5.47	Yes	15	0	No	0.000...	Param Intra 1 of 2
pH (pH)	BY-AP-MW-6	5.627	5.125	10/1/2019	4.7	Yes	15	0	No	0.000...	Param Intra 1 of 2
pH (pH)	BY-AP-MW-9	6.383	6.124	9/30/2019	6.07	Yes	15	0	No	0.000...	Param Intra 1 of 2
pH (pH)	BY-AP-MW-10	6.413	6.194	9/30/2019	6.11	Yes	15	0	No	0.000...	Param Intra 1 of 2
pH (pH)	BY-AP-MW-11	6.407	6.129	9/30/2019	5.85	Yes	15	0	No	0.000...	Param Intra 1 of 2
pH (pH)	BY-AP-MW-12	6.282	6.038	10/1/2019	6	Yes	15	0	No	0.000...	Param Intra 1 of 2
pH (pH)	BY-AP-MW-15	6.831	6.476	10/1/2019	6.2	Yes	15	0	No	0.000...	Param Intra 1 of 2
pH (pH)	BY-AP-MW-16	5.936	5.675	10/1/2019	5.23	Yes	15	0	No	0.000...	Param Intra 1 of 2
pH (pH)	BY-GSA-MW-2	4.958	4.493	10/2/2019	4.43	Yes	14	0	No	0.000...	Param Intra 1 of 2
pH (pH)	BY-GSA-MW-3	5.095	4.729	10/2/2019	4.52	Yes	14	0	No	0.000...	Param Intra 1 of 2

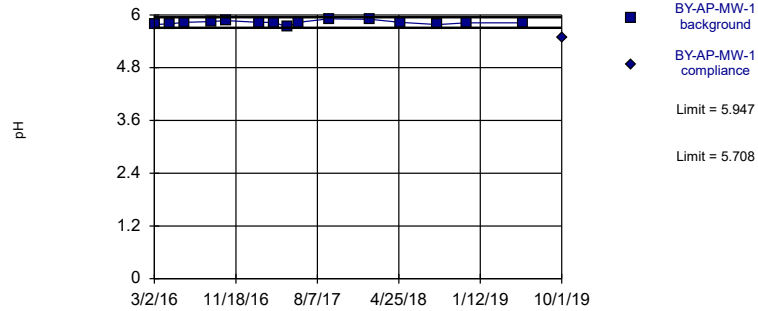
Intrawell Prediction Limit - All Results

Plant Barry Client: Southern Company Data: Barry Ash Pond Printed 1/17/2020, 9:56 AM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	%NDs	Transform	Alpha	Method
pH (pH)	BY-AP-MW-1	5.947	5.708	10/1/2019	5.47	Yes	15	0	No	0.000...	Param Intra 1 of 2
pH (pH)	BY-AP-MW-2	6.156	5.437	10/1/2019	4.97	Yes	15	0	No	0.000...	Param Intra 1 of 2
pH (pH)	BY-AP-MW-3	5.327	4.816	10/1/2019	4.37	Yes	15	0	No	0.000...	Param Intra 1 of 2
pH (pH)	BY-AP-MW-4	5.362	4.114	10/1/2019	4.28	No	15	0	No	0.000...	Param Intra 1 of 2
pH (pH)	BY-AP-MW-5	6.062	5.922	10/1/2019	5.47	Yes	15	0	No	0.000...	Param Intra 1 of 2
pH (pH)	BY-AP-MW-6	5.627	5.125	10/1/2019	4.7	Yes	15	0	No	0.000...	Param Intra 1 of 2
pH (pH)	BY-AP-MW-7	6.419	6.16	9/30/2019	6.36	No	14	0	No	0.000...	Param Intra 1 of 2
pH (pH)	BY-AP-MW-8	6.288	6.104	9/30/2019	6.19	No	15	0	No	0.000...	Param Intra 1 of 2
pH (pH)	BY-AP-MW-9	6.383	6.124	9/30/2019	6.07	Yes	15	0	No	0.000...	Param Intra 1 of 2
pH (pH)	BY-AP-MW-10	6.413	6.194	9/30/2019	6.11	Yes	15	0	No	0.000...	Param Intra 1 of 2
pH (pH)	BY-AP-MW-11	6.407	6.129	9/30/2019	5.85	Yes	15	0	No	0.000...	Param Intra 1 of 2
pH (pH)	BY-AP-MW-12	6.282	6.038	10/1/2019	6	Yes	15	0	No	0.000...	Param Intra 1 of 2
pH (pH)	BY-AP-MW-13	6.183	6.001	10/1/2019	6.02	No	15	0	No	0.000...	Param Intra 1 of 2
pH (pH)	BY-AP-MW-14	6.215	5.954	10/1/2019	6.01	No	15	0	x^2	0.000...	Param Intra 1 of 2
pH (pH)	BY-AP-MW-15	6.831	6.476	10/1/2019	6.2	Yes	15	0	No	0.000...	Param Intra 1 of 2
pH (pH)	BY-AP-MW-16	5.936	5.675	10/1/2019	5.23	Yes	15	0	No	0.000...	Param Intra 1 of 2
pH (pH)	BY-GSA-MW-1	4.911	4.482	10/2/2019	4.57	No	14	0	No	0.000...	Param Intra 1 of 2
pH (pH)	BY-GSA-MW-2	4.958	4.493	10/2/2019	4.43	Yes	14	0	No	0.000...	Param Intra 1 of 2
pH (pH)	BY-GSA-MW-3	5.095	4.729	10/2/2019	4.52	Yes	14	0	No	0.000...	Param Intra 1 of 2
pH (pH)	BY-GSA-MW-4	5.043	4.641	10/2/2019	4.67	No	14	0	No	0.000...	Param Intra 1 of 2

Exceeds Limits

Prediction Limit
Intrawell Parametric

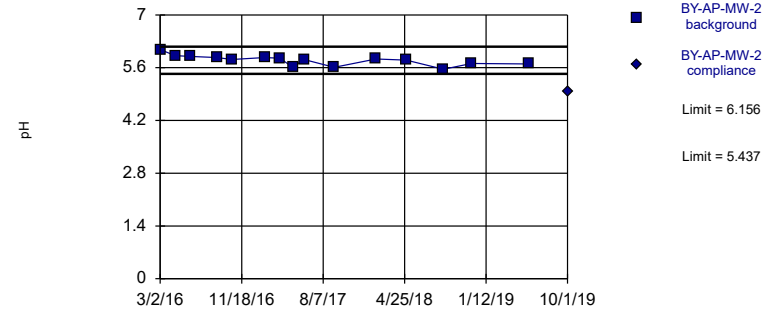


Background Data Summary: Mean=5.827, Std. Dev.=0.04574, n=15. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9458, critical = 0.835. Kappa = 2.617 (c=7, w=16, 1 of 2, event alpha = 0.05132). Report alpha = 0.0004702.

Constituent: pH Analysis Run 1/17/2020 9:54 AM View: Intrawell PL
 Plant Barry Client: Southern Company Data: Barry Ash Pond

Exceeds Limits

Prediction Limit
Intrawell Parametric

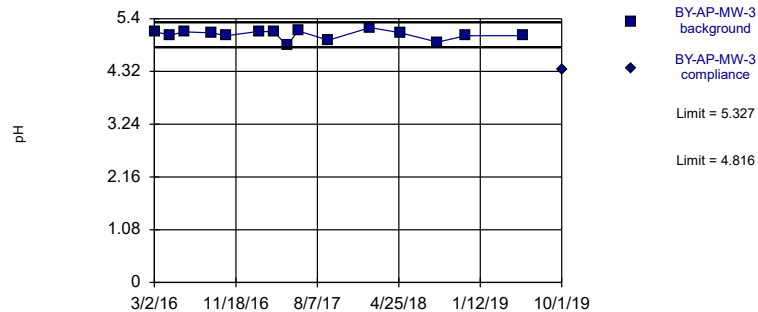


Background Data Summary: Mean=5.797, Std. Dev.=0.1375, n=15. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.949, critical = 0.835. Kappa = 2.617 (c=7, w=16, 1 of 2, event alpha = 0.05132). Report alpha = 0.0004702.

Constituent: pH Analysis Run 1/17/2020 9:54 AM View: Intrawell PL
 Plant Barry Client: Southern Company Data: Barry Ash Pond

Exceeds Limits

Prediction Limit
Intrawell Parametric

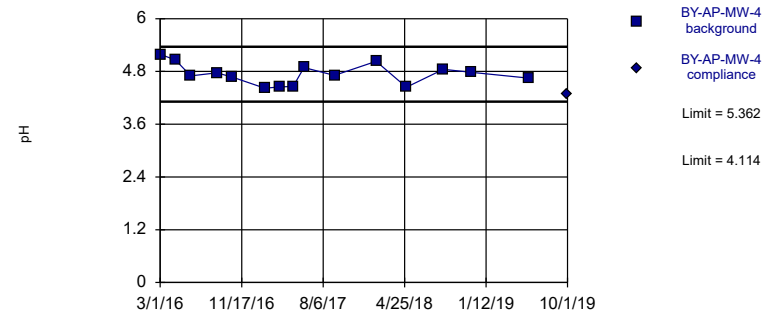


Background Data Summary: Mean=5.071, Std. Dev.=0.0976, n=15. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9102, critical = 0.835. Kappa = 2.617 (c=7, w=16, 1 of 2, event alpha = 0.05132). Report alpha = 0.0004702.

Constituent: pH Analysis Run 1/17/2020 9:54 AM View: Intrawell PL
 Plant Barry Client: Southern Company Data: Barry Ash Pond

Within Limits

Prediction Limit
Intrawell Parametric



Background Data Summary: Mean=4.738, Std. Dev.=0.2385, n=15. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9433, critical = 0.835. Kappa = 2.617 (c=7, w=16, 1 of 2, event alpha = 0.05132). Report alpha = 0.0004702.

Constituent: pH Analysis Run 1/17/2020 9:54 AM View: Intrawell PL
 Plant Barry Client: Southern Company Data: Barry Ash Pond

Prediction Limit

Constituent: pH (pH) Analysis Run 1/17/2020 9:56 AM View: Intrawell PL

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-1	BY-AP-MW-1
3/2/2016	5.78	
4/19/2016	5.8	
6/8/2016	5.83	
8/31/2016	5.85	
10/19/2016	5.87	
1/31/2017	5.83	
3/21/2017	5.83	
5/2/2017	5.73	
6/6/2017	5.83	
9/13/2017	5.91	
1/24/2018	5.9	
5/1/2018	5.83	
8/28/2018	5.78	
11/28/2018	5.82	
5/29/2019	5.82	
10/1/2019		5.47

Prediction Limit

Constituent: pH (pH) Analysis Run 1/17/2020 9:56 AM View: IntraWell PL

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-2	BY-AP-MW-2
3/2/2016	6.08	
4/19/2016	5.92	
6/8/2016	5.9	
8/31/2016	5.87	
10/19/2016	5.82	
1/31/2017	5.87	
3/21/2017	5.85	
5/2/2017	5.61	
6/6/2017	5.82	
9/12/2017	5.61	
1/24/2018	5.83	
5/1/2018	5.8	
8/28/2018	5.56	
11/27/2018	5.71	
5/29/2019	5.7	
10/1/2019		4.97

Prediction Limit

Constituent: pH (pH) Analysis Run 1/17/2020 9:56 AM View: IntraWell PL

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-3	BY-AP-MW-3
3/2/2016	5.14	
4/19/2016	5.06	
6/7/2016	5.13	
8/31/2016	5.11	
10/19/2016	5.05	
1/31/2017	5.14	
3/21/2017	5.13	
5/2/2017	4.85	
6/6/2017	5.15	
9/12/2017	4.96	
1/24/2018	5.22	
5/1/2018	5.11	
8/28/2018	4.92	
11/27/2018	5.05	
5/29/2019	5.05	
10/1/2019		4.37

Prediction Limit

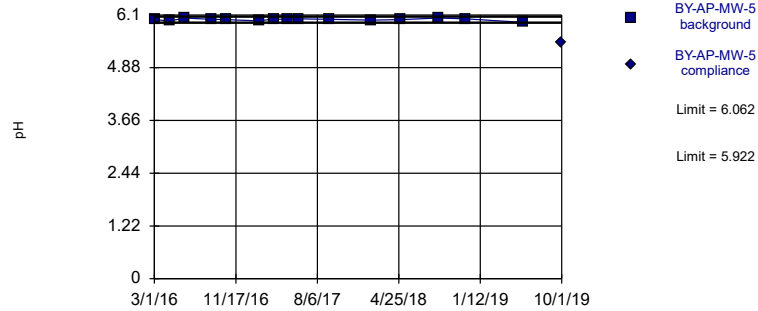
Constituent: pH (pH) Analysis Run 1/17/2020 9:56 AM View: Intrawell PL

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-4	BY-AP-MW-4
3/1/2016	5.19	
4/19/2016	5.06	
6/7/2016	4.7	
8/30/2016	4.77	
10/19/2016	4.67	
1/31/2017	4.42	
3/21/2017	4.45	
5/2/2017	4.46	
6/6/2017	4.89	
9/12/2017	4.71	
1/24/2018	5.03	
5/1/2018	4.44	
8/28/2018	4.85	
11/27/2018	4.78	
5/29/2019	4.65	
10/1/2019		4.28

Exceeds Limits

Prediction Limit Intrawell Parametric

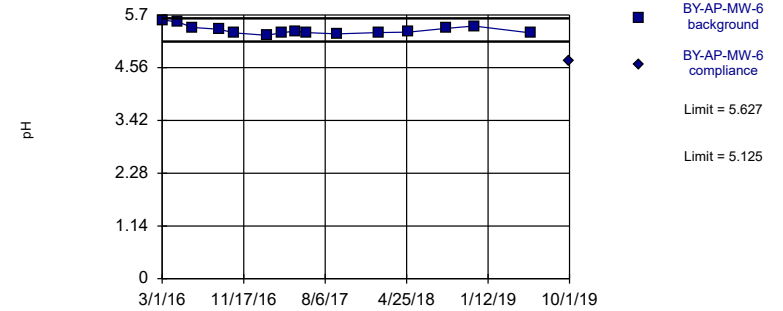


Background Data Summary: Mean=5.992, Std. Dev.=0.02678, n=15. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9327, critical = 0.835. Kappa = 2.617 (c=7, w=16, 1 of 2, event alpha = 0.05132). Report alpha = 0.0004702.

Constituent: pH Analysis Run 1/17/2020 9:54 AM View: Intrawell PL
Plant Barry Client: Southern Company Data: Barry Ash Pond

Exceeds Limits

Prediction Limit Intrawell Parametric

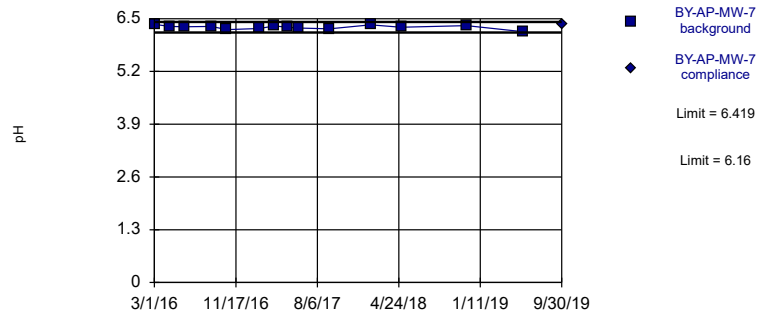


Background Data Summary: Mean=5.376, Std. Dev.=0.09605, n=15. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8715, critical = 0.835. Kappa = 2.617 (c=7, w=16, 1 of 2, event alpha = 0.05132). Report alpha = 0.0004702.

Constituent: pH Analysis Run 1/17/2020 9:54 AM View: Intrawell PL
Plant Barry Client: Southern Company Data: Barry Ash Pond

Within Limits

Prediction Limit Intrawell Parametric

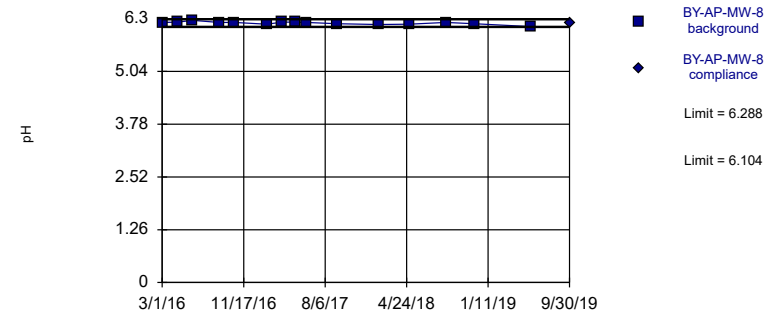


Background Data Summary: Mean=6.289, Std. Dev.=0.04843, n=14. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9643, critical = 0.825. Kappa = 2.678 (c=7, w=16, 1 of 2, event alpha = 0.05132). Report alpha = 0.0004702.

Constituent: pH Analysis Run 1/17/2020 9:54 AM View: Intrawell PL
Plant Barry Client: Southern Company Data: Barry Ash Pond

Within Limits

Prediction Limit Intrawell Parametric



Background Data Summary: Mean=6.196, Std. Dev.=0.03521, n=15. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9094, critical = 0.835. Kappa = 2.617 (c=7, w=16, 1 of 2, event alpha = 0.05132). Report alpha = 0.0004702.

Constituent: pH Analysis Run 1/17/2020 9:54 AM View: Intrawell PL
Plant Barry Client: Southern Company Data: Barry Ash Pond

Prediction Limit

Constituent: pH (pH) Analysis Run 1/17/2020 9:56 AM View: Intrawell PL

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-5	BY-AP-MW-5
3/1/2016	5.99	
4/20/2016	5.96	
6/7/2016	6.03	
8/30/2016	6	
10/18/2016	5.99	
1/31/2017	5.96	
3/22/2017	6.01	
5/3/2017	5.99	
6/7/2017	6.01	
9/14/2017	6	
1/24/2018	5.98	
5/2/2018	5.99	
8/29/2018	6.03	
11/27/2018	6.01	
5/29/2019	5.93	
10/1/2019		5.47

Prediction Limit

Constituent: pH (pH) Analysis Run 1/17/2020 9:56 AM View: Intrawell PL

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-6	BY-AP-MW-6
3/1/2016	5.59	
4/19/2016	5.55	
6/7/2016	5.43	
8/30/2016	5.39	
10/19/2016	5.31	
1/31/2017	5.26	
3/22/2017	5.32	
5/3/2017	5.35	
6/7/2017	5.32	
9/14/2017	5.29	
1/24/2018	5.32	
5/2/2018	5.33	
8/29/2018	5.41	
11/28/2018	5.46	
5/29/2019	5.31	
10/1/2019		4.7

Prediction Limit

Constituent: pH (pH) Analysis Run 1/17/2020 9:56 AM View: Intrawell PL

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-7	BY-AP-MW-7
3/1/2016	6.36	
4/20/2016	6.31	
6/7/2016	6.3	
8/31/2016	6.31	
10/19/2016	6.23	
1/31/2017	6.26	
3/22/2017	6.32	
5/3/2017	6.29	
6/7/2017	6.27	
9/14/2017	6.25	
1/24/2018	6.35	
5/2/2018	6.29	
11/28/2018	6.33	
5/29/2019	6.18	
9/30/2019		6.36

Prediction Limit

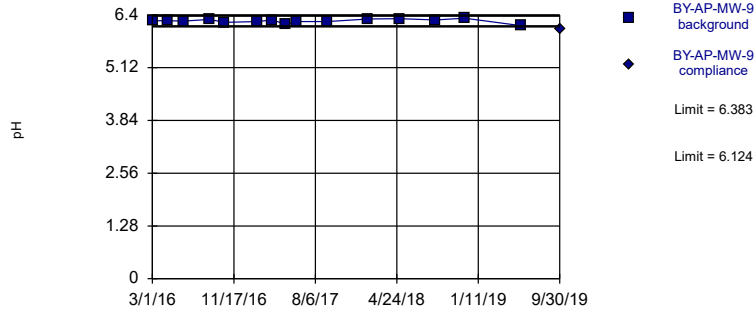
Constituent: pH (pH) Analysis Run 1/17/2020 9:56 AM View: Intrawell PL

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-8	BY-AP-MW-8
3/1/2016	6.21	
4/20/2016	6.22	
6/7/2016	6.26	
8/30/2016	6.21	
10/18/2016	6.21	
1/31/2017	6.17	
3/22/2017	6.22	
5/3/2017	6.22	
6/7/2017	6.21	
9/14/2017	6.18	
1/24/2018	6.16	
5/2/2018	6.17	
8/29/2018	6.21	
11/27/2018	6.18	
5/29/2019	6.11	
9/30/2019		6.19

Exceeds Limits

Prediction Limit
Intrawell Parametric

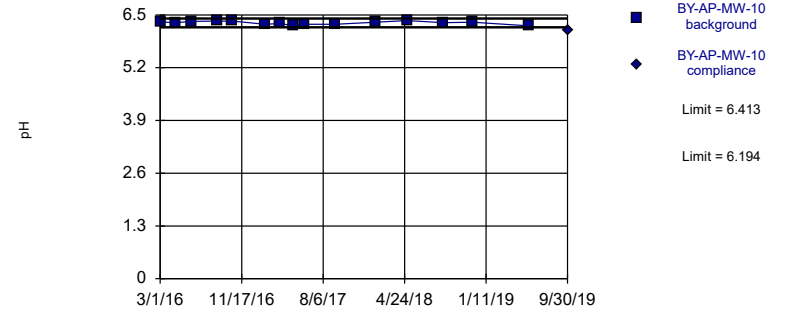


Background Data Summary: Mean=6.253, Std. Dev.=0.04938, n=15. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9251, critical = 0.835. Kappa = 2.617 (c=7, w=16, 1 of 2, event alpha = 0.05132). Report alpha = 0.0004702.

Constituent: pH Analysis Run 1/17/2020 9:54 AM View: Intrawell PL
Plant Barry Client: Southern Company Data: Barry Ash Pond

Exceeds Limits

Prediction Limit
Intrawell Parametric

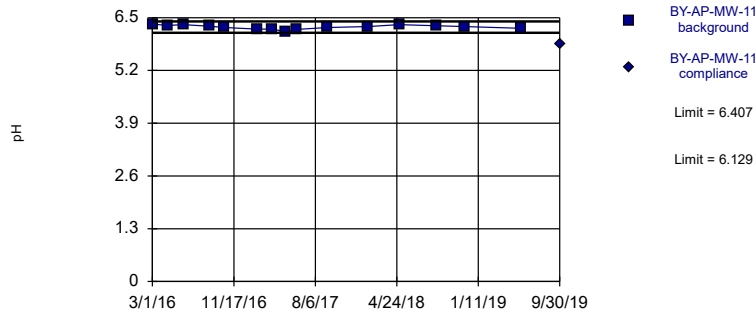


Background Data Summary: Mean=6.303, Std. Dev.=0.04186, n=15. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9284, critical = 0.835. Kappa = 2.617 (c=7, w=16, 1 of 2, event alpha = 0.05132). Report alpha = 0.0004702.

Constituent: pH Analysis Run 1/17/2020 9:54 AM View: Intrawell PL
Plant Barry Client: Southern Company Data: Barry Ash Pond

Exceeds Limits

Prediction Limit
Intrawell Parametric

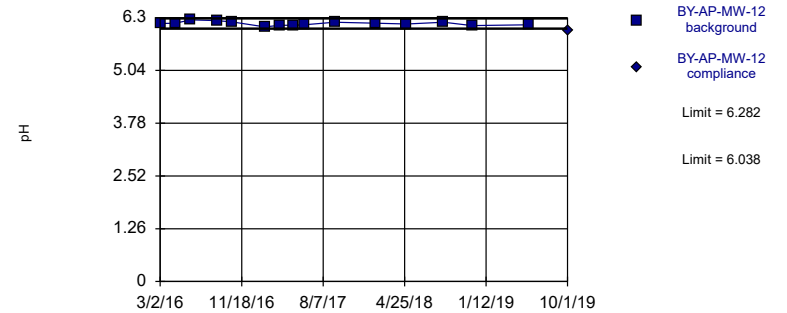


Background Data Summary: Mean=6.268, Std. Dev.=0.05294, n=15. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9541, critical = 0.835. Kappa = 2.617 (c=7, w=16, 1 of 2, event alpha = 0.05132). Report alpha = 0.0004702.

Constituent: pH Analysis Run 1/17/2020 9:54 AM View: Intrawell PL
Plant Barry Client: Southern Company Data: Barry Ash Pond

Exceeds Limits

Prediction Limit
Intrawell Parametric



Background Data Summary: Mean=6.16, Std. Dev.=0.04675, n=15. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9762, critical = 0.835. Kappa = 2.617 (c=7, w=16, 1 of 2, event alpha = 0.05132). Report alpha = 0.0004702.

Constituent: pH Analysis Run 1/17/2020 9:54 AM View: Intrawell PL
Plant Barry Client: Southern Company Data: Barry Ash Pond

Prediction Limit

Constituent: pH (pH) Analysis Run 1/17/2020 9:56 AM View: Intrawell PL

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-9	BY-AP-MW-9
3/1/2016	6.26	
4/20/2016	6.26	
6/8/2016	6.25	
8/31/2016	6.29	
10/19/2016	6.22	
2/1/2017	6.24	
3/22/2017	6.28	
5/3/2017	6.17	
6/7/2017	6.24	
9/14/2017	6.24	
1/23/2018	6.3	
5/2/2018	6.31	
8/28/2018	6.28	
11/28/2018	6.32	
5/30/2019	6.14	
9/30/2019		6.07

Prediction Limit

Constituent: pH (pH) Analysis Run 1/17/2020 9:56 AM View: Intrawell PL

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-10	BY-AP-MW-10
3/1/2016	6.33	
4/20/2016	6.31	
6/8/2016	6.34	
8/31/2016	6.35	
10/19/2016	6.35	
2/1/2017	6.27	
3/22/2017	6.29	
5/3/2017	6.23	
6/7/2017	6.27	
9/14/2017	6.27	
1/23/2018	6.32	
5/2/2018	6.36	
8/28/2018	6.31	
11/28/2018	6.32	
5/30/2019	6.23	
9/30/2019		6.11

Prediction Limit

Constituent: pH (pH) Analysis Run 1/17/2020 9:56 AM View: Intrawell PL

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-11	BY-AP-MW-11
3/1/2016	6.34	
4/20/2016	6.31	
6/8/2016	6.33	
8/31/2016	6.29	
10/19/2016	6.26	
2/1/2017	6.22	
3/22/2017	6.22	
5/3/2017	6.15	
6/7/2017	6.21	
9/13/2017	6.26	
1/23/2018	6.28	
5/2/2018	6.33	
8/29/2018	6.3	
11/28/2018	6.28	
5/29/2019	6.24	
9/30/2019		5.85

Prediction Limit

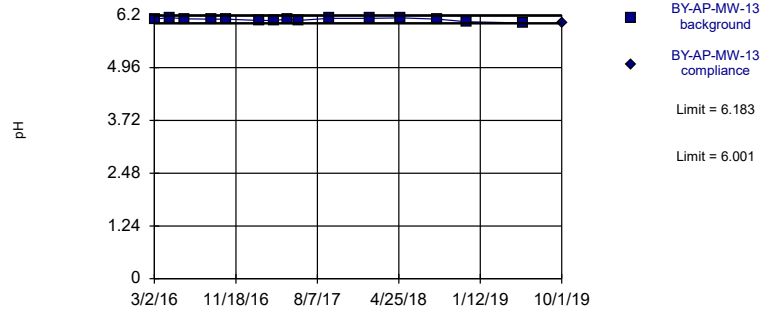
Constituent: pH (pH) Analysis Run 1/17/2020 9:56 AM View: Intrawell PL

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-12	BY-AP-MW-12
3/2/2016	6.16	
4/20/2016	6.17	
6/8/2016	6.25	
8/31/2016	6.23	
10/19/2016	6.2	
2/1/2017	6.08	
3/22/2017	6.12	
5/3/2017	6.12	
6/7/2017	6.13	
9/13/2017	6.19	
1/23/2018	6.17	
5/2/2018	6.15	
8/29/2018	6.19	
11/28/2018	6.11	
5/29/2019	6.13	
10/1/2019		6

Within Limits

Prediction Limit Intrawell Parametric

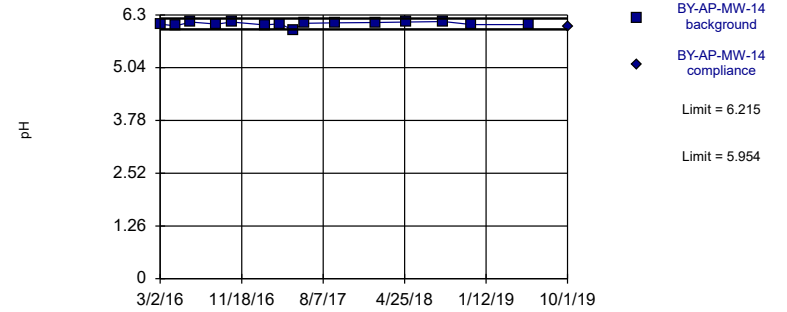


Background Data Summary: Mean=6.092, Std. Dev.=0.03468, n=15. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9128, critical = 0.835. Kappa = 2.617 (c=7, w=16, 1 of 2, event alpha = 0.05132). Report alpha = 0.0004702.

Constituent: pH Analysis Run 1/17/2020 9:54 AM View: Intrawell PL
 Plant Barry Client: Southern Company Data: Barry Ash Pond

Within Limits

Prediction Limit Intrawell Parametric

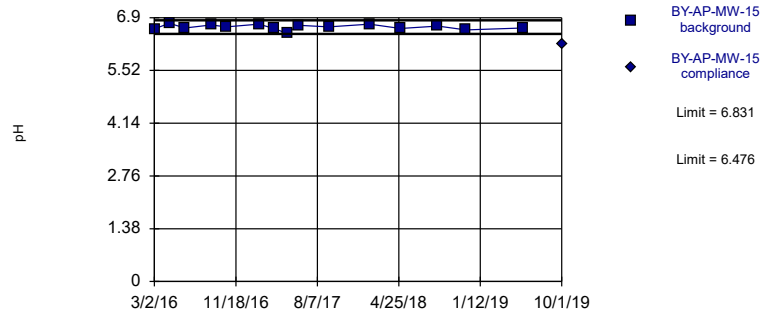


Background Data Summary (based on square transformation): Mean=37.04, Std. Dev.=0.6078, n=15. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8381, critical = 0.835. Kappa = 2.617 (c=7, w=16, 1 of 2, event alpha = 0.05132). Report alpha = 0.0004702.

Constituent: pH Analysis Run 1/17/2020 9:54 AM View: Intrawell PL
 Plant Barry Client: Southern Company Data: Barry Ash Pond

Exceeds Limits

Prediction Limit Intrawell Parametric

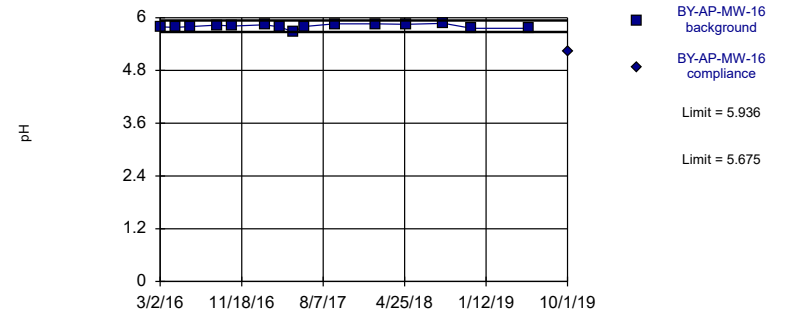


Background Data Summary: Mean=6.653, Std. Dev.=0.06789, n=15. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9443, critical = 0.835. Kappa = 2.617 (c=7, w=16, 1 of 2, event alpha = 0.05132). Report alpha = 0.0004702.

Constituent: pH Analysis Run 1/17/2020 9:54 AM View: Intrawell PL
 Plant Barry Client: Southern Company Data: Barry Ash Pond

Exceeds Limits

Prediction Limit Intrawell Parametric



Background Data Summary: Mean=5.805, Std. Dev.=0.04998, n=15. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9236, critical = 0.835. Kappa = 2.617 (c=7, w=16, 1 of 2, event alpha = 0.05132). Report alpha = 0.0004702.

Constituent: pH Analysis Run 1/17/2020 9:54 AM View: Intrawell PL
 Plant Barry Client: Southern Company Data: Barry Ash Pond

Prediction Limit

Constituent: pH (pH) Analysis Run 1/17/2020 9:56 AM View: IntraWell PL

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-13	BY-AP-MW-13
3/2/2016	6.1	
4/20/2016	6.14	
6/8/2016	6.11	
8/31/2016	6.1	
10/19/2016	6.1	
1/31/2017	6.07	
3/22/2017	6.07	
5/3/2017	6.1	
6/7/2017	6.07	
9/13/2017	6.12	
1/22/2018	6.12	
5/2/2018	6.13	
8/29/2018	6.1	
11/28/2018	6.04	
5/29/2019	6.01	
10/1/2019		6.02

Prediction Limit

Constituent: pH (pH) Analysis Run 1/17/2020 9:56 AM View: Intrawell PL

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-14	BY-AP-MW-14
3/2/2016	6.08	
4/20/2016	6.04	
6/8/2016	6.13	
8/30/2016	6.08	
10/18/2016	6.13	
1/31/2017	6.06	
3/22/2017	6.09	
5/2/2017	5.94	
6/6/2017	6.1	
9/13/2017	6.11	
1/23/2018	6.12	
5/2/2018	6.13	
8/29/2018	6.14	
11/27/2018	6.07	
5/29/2019	6.07	
10/1/2019		6.01

Prediction Limit

Constituent: pH (pH) Analysis Run 1/17/2020 9:56 AM View: Intrawell PL

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-15	BY-AP-MW-15
3/2/2016	6.61	
4/19/2016	6.75	
6/8/2016	6.63	
8/31/2016	6.71	
10/19/2016	6.66	
1/31/2017	6.73	
3/21/2017	6.62	
5/2/2017	6.49	
6/6/2017	6.7	
9/13/2017	6.66	
1/22/2018	6.73	
5/1/2018	6.62	
8/29/2018	6.68	
11/27/2018	6.58	
5/29/2019	6.63	
10/1/2019		6.2

Prediction Limit

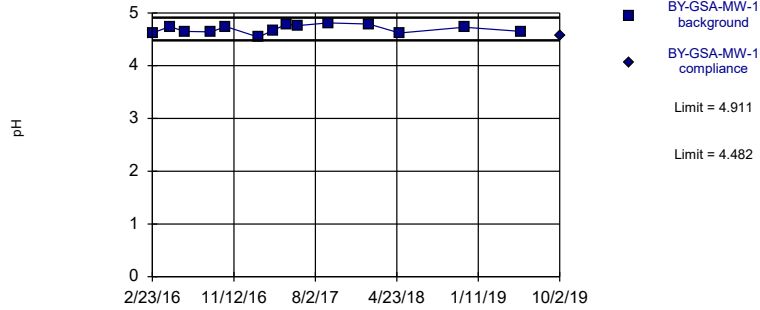
Constituent: pH (pH) Analysis Run 1/17/2020 9:56 AM View: Intrawell PL

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-16	BY-AP-MW-16
3/2/2016	5.79	
4/19/2016	5.78	
6/8/2016	5.8	
8/31/2016	5.83	
10/19/2016	5.81	
1/31/2017	5.84	
3/21/2017	5.79	
5/2/2017	5.68	
6/6/2017	5.8	
9/13/2017	5.86	
1/23/2018	5.86	
5/1/2018	5.85	
8/29/2018	5.87	
11/27/2018	5.76	
5/29/2019	5.76	
10/1/2019		5.23

Within Limits

Prediction Limit
Intrawell Parametric

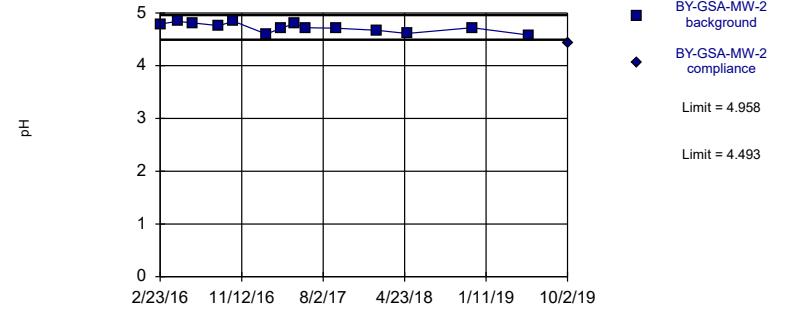


Background Data Summary: Mean=4.696, Std. Dev.=0.08025, n=14. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9416, critical = 0.825. Kappa = 2.678 (c=7, w=16, 1 of 2, event alpha = 0.05132). Report alpha = 0.0004702.

Constituent: pH Analysis Run 1/17/2020 9:54 AM View: Intrawell PL
Plant Barry Client: Southern Company Data: Barry Ash Pond

Exceeds Limits

Prediction Limit
Intrawell Parametric

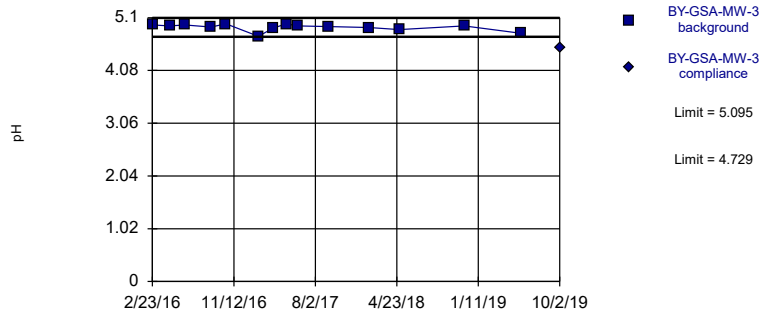


Background Data Summary: Mean=4.726, Std. Dev.=0.08689, n=14. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9314, critical = 0.825. Kappa = 2.678 (c=7, w=16, 1 of 2, event alpha = 0.05132). Report alpha = 0.0004702.

Constituent: pH Analysis Run 1/17/2020 9:54 AM View: Intrawell PL
Plant Barry Client: Southern Company Data: Barry Ash Pond

Exceeds Limits

Prediction Limit
Intrawell Parametric

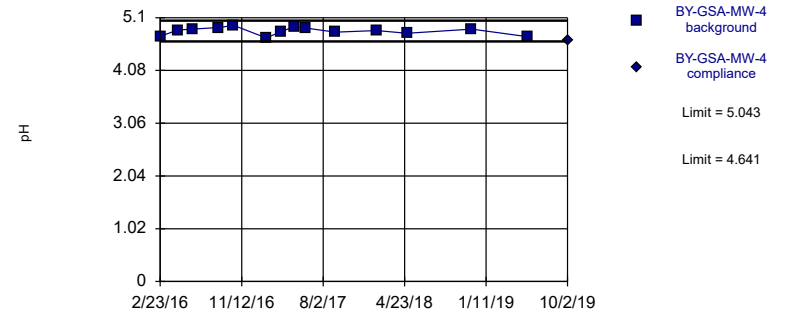


Background Data Summary: Mean=4.912, Std. Dev.=0.0683, n=14. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8283, critical = 0.825. Kappa = 2.678 (c=7, w=16, 1 of 2, event alpha = 0.05132). Report alpha = 0.0004702.

Constituent: pH Analysis Run 1/17/2020 9:54 AM View: Intrawell PL
Plant Barry Client: Southern Company Data: Barry Ash Pond

Within Limits

Prediction Limit
Intrawell Parametric



Background Data Summary: Mean=4.842, Std. Dev.=0.07516, n=14. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9458, critical = 0.825. Kappa = 2.678 (c=7, w=16, 1 of 2, event alpha = 0.05132). Report alpha = 0.0004702.

Constituent: pH Analysis Run 1/17/2020 9:55 AM View: Intrawell PL
Plant Barry Client: Southern Company Data: Barry Ash Pond

Prediction Limit

Constituent: pH (pH) Analysis Run 1/17/2020 9:56 AM View: Intrawell PL

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-GSA-MW-1	BY-GSA-MW-1
2/23/2016	4.62	
4/19/2016	4.74	
6/6/2016	4.65	
8/30/2016	4.64	
10/18/2016	4.74	
1/31/2017	4.54	
3/20/2017	4.67	
5/2/2017	4.79	
6/6/2017	4.76	
9/13/2017	4.81	
1/23/2018	4.79	
5/2/2018	4.62	
11/27/2018	4.73	
5/29/2019	4.65	
10/2/2019		4.57

Prediction Limit

Constituent: pH (pH) Analysis Run 1/17/2020 9:56 AM View: Intrawell PL

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-GSA-MW-2	BY-GSA-MW-2
2/23/2016	4.79	
4/19/2016	4.84	
6/7/2016	4.81	
8/30/2016	4.76	
10/18/2016	4.84	
1/31/2017	4.6	
3/20/2017	4.71	
5/2/2017	4.8	
6/6/2017	4.72	
9/13/2017	4.71	
1/23/2018	4.67	
5/1/2018	4.61	
11/27/2018	4.72	
5/29/2019	4.58	
10/2/2019		4.43

Prediction Limit

Constituent: pH (pH) Analysis Run 1/17/2020 9:56 AM View: Intrawell PL

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-GSA-MW-3	BY-GSA-MW-3
2/23/2016	4.96	
4/19/2016	4.94	
6/7/2016	4.96	
8/30/2016	4.92	
10/18/2016	4.98	
1/31/2017	4.74	
3/20/2017	4.9	
5/2/2017	4.98	
6/6/2017	4.94	
9/13/2017	4.93	
1/23/2018	4.91	
5/1/2018	4.87	
11/27/2018	4.94	
5/29/2019	4.8	
10/2/2019		4.52

Prediction Limit

Constituent: pH (pH) Analysis Run 1/17/2020 9:56 AM View: Intrawell PL

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-GSA-MW-4	BY-GSA-MW-4
2/23/2016	4.74	
4/19/2016	4.86	
6/6/2016	4.88	
8/30/2016	4.91	
10/18/2016	4.95	
1/31/2017	4.71	
3/20/2017	4.83	
5/2/2017	4.93	
6/6/2017	4.9	
9/12/2017	4.82	
1/23/2018	4.85	
5/1/2018	4.8	
11/26/2018	4.88	
5/28/2019	4.73	
10/2/2019		4.67

Trend Test Summary Table

Plant Barry Client: Southern Company Data: Barry Ash Pond Printed 1/17/2020, 10:03 AM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
Boron (mg/L)	BY-AP-MW-8	-0.1449	-50	-43	Yes	13	0	n/a	n/a	0.01	NP
Boron (mg/L)	BY-AP-MW-9	0.1215	52	43	Yes	13	0	n/a	n/a	0.01	NP
Boron (mg/L)	BY-AP-MW-10	0.1904	54	43	Yes	13	0	n/a	n/a	0.01	NP
Calcium (mg/L)	BY-AP-MW-2	-0.1205	-51	-48	Yes	14	0	n/a	n/a	0.01	NP
Calcium (mg/L)	BY-AP-MW-7	0.6613	66	43	Yes	13	0	n/a	n/a	0.01	NP
Calcium (mg/L)	BY-AP-MW-10	2.793	51	48	Yes	14	0	n/a	n/a	0.01	NP
Calcium (mg/L)	BY-AP-MW-11	-0.9057	-58	-48	Yes	14	0	n/a	n/a	0.01	NP
Calcium (mg/L)	BY-AP-MW-12	0.7766	61	48	Yes	14	0	n/a	n/a	0.01	NP
Calcium (mg/L)	BY-AP-MW-15	0.402	53	48	Yes	14	0	n/a	n/a	0.01	NP
Calcium (mg/L)	BY-GSA-MW-2 (bg)	0.1737	52	43	Yes	13	0	n/a	n/a	0.01	NP
Chloride (mg/L)	BY-AP-MW-10	2.238	69	48	Yes	14	0	n/a	n/a	0.01	NP
Chloride (mg/L)	BY-AP-MW-15	9.025	81	48	Yes	14	0	n/a	n/a	0.01	NP
Chloride (mg/L)	BY-AP-MW-16	1.364	55	48	Yes	14	0	n/a	n/a	0.01	NP
pH (pH)	BY-AP-MW-2	-0.1299	-87	-58	Yes	16	0	n/a	n/a	0.01	NP
pH (pH)	BY-GSA-MW-2 (bg)	-0.07883	-62	-53	Yes	15	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	BY-AP-MW-11	2.414	52	48	Yes	14	42.86	n/a	n/a	0.01	NP
TDS (mg/L)	BY-AP-MW-15	12.03	57	48	Yes	14	0	n/a	n/a	0.01	NP
TDS (mg/L)	BY-GSA-MW-1 (bg)	7.537	54	43	Yes	13	7.692	n/a	n/a	0.01	NP

Trend Test Summary Table

Plant Barry Client: Southern Company Data: Barry Ash Pond Printed 1/17/2020, 10:03 AM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
Boron (mg/L)	BY-AP-MW-1	0.01136	2	43	No	13	0	n/a	n/a	0.01	NP
Boron (mg/L)	BY-AP-MW-8	-0.1449	-50	-43	Yes	13	0	n/a	n/a	0.01	NP
Boron (mg/L)	BY-AP-MW-9	0.1215	52	43	Yes	13	0	n/a	n/a	0.01	NP
Boron (mg/L)	BY-AP-MW-10	0.1904	54	43	Yes	13	0	n/a	n/a	0.01	NP
Boron (mg/L)	BY-AP-MW-16	0.0514	31	43	No	13	0	n/a	n/a	0.01	NP
Boron (mg/L)	BY-GSA-MW-1 (bg)	0	14	43	No	13	61.54	n/a	n/a	0.01	NP
Boron (mg/L)	BY-GSA-MW-2 (bg)	0	17	38	No	12	83.33	n/a	n/a	0.01	NP
Boron (mg/L)	BY-GSA-MW-3 (bg)	0	0	43	No	13	100	n/a	n/a	0.01	NP
Boron (mg/L)	BY-GSA-MW-4 (bg)	0	15	43	No	13	84.62	n/a	n/a	0.01	NP
Calcium (mg/L)	BY-AP-MW-1	-0.8197	-12	-48	No	14	0	n/a	n/a	0.01	NP
Calcium (mg/L)	BY-AP-MW-2	-0.1205	-51	-48	Yes	14	0	n/a	n/a	0.01	NP
Calcium (mg/L)	BY-AP-MW-5	-0.1	-8	-48	No	14	0	n/a	n/a	0.01	NP
Calcium (mg/L)	BY-AP-MW-7	0.6613	66	43	Yes	13	0	n/a	n/a	0.01	NP
Calcium (mg/L)	BY-AP-MW-8	-0.8014	-46	-48	No	14	0	n/a	n/a	0.01	NP
Calcium (mg/L)	BY-AP-MW-9	0.2598	15	48	No	14	0	n/a	n/a	0.01	NP
Calcium (mg/L)	BY-AP-MW-10	2.793	51	48	Yes	14	0	n/a	n/a	0.01	NP
Calcium (mg/L)	BY-AP-MW-11	-0.9057	-58	-48	Yes	14	0	n/a	n/a	0.01	NP
Calcium (mg/L)	BY-AP-MW-12	0.7766	61	48	Yes	14	0	n/a	n/a	0.01	NP
Calcium (mg/L)	BY-AP-MW-13	0.3862	31	48	No	14	0	n/a	n/a	0.01	NP
Calcium (mg/L)	BY-AP-MW-14	0.161	7	48	No	14	0	n/a	n/a	0.01	NP
Calcium (mg/L)	BY-AP-MW-15	0.402	53	48	Yes	14	0	n/a	n/a	0.01	NP
Calcium (mg/L)	BY-AP-MW-16	-0.1098	-14	-48	No	14	0	n/a	n/a	0.01	NP
Calcium (mg/L)	BY-GSA-MW-1 (bg)	0.1228	15	43	No	13	0	n/a	n/a	0.01	NP
Calcium (mg/L)	BY-GSA-MW-2 (bg)	0.1737	52	43	Yes	13	0	n/a	n/a	0.01	NP
Calcium (mg/L)	BY-GSA-MW-3 (bg)	0.0243	17	43	No	13	0	n/a	n/a	0.01	NP
Calcium (mg/L)	BY-GSA-MW-4 (bg)	0.09079	38	43	No	13	0	n/a	n/a	0.01	NP
Chloride (mg/L)	BY-AP-MW-1	1.765	31	38	No	12	0	n/a	n/a	0.01	NP
Chloride (mg/L)	BY-AP-MW-5	0.2575	13	48	No	14	0	n/a	n/a	0.01	NP
Chloride (mg/L)	BY-AP-MW-7	0.6615	35	43	No	13	0	n/a	n/a	0.01	NP
Chloride (mg/L)	BY-AP-MW-8	1.069	44	48	No	14	0	n/a	n/a	0.01	NP
Chloride (mg/L)	BY-AP-MW-9	0.2407	5	48	No	14	0	n/a	n/a	0.01	NP
Chloride (mg/L)	BY-AP-MW-10	2.238	69	48	Yes	14	0	n/a	n/a	0.01	NP
Chloride (mg/L)	BY-AP-MW-11	1.389	32	48	No	14	0	n/a	n/a	0.01	NP
Chloride (mg/L)	BY-AP-MW-12	0.6445	43	48	No	14	0	n/a	n/a	0.01	NP
Chloride (mg/L)	BY-AP-MW-13	0.5984	7	48	No	14	0	n/a	n/a	0.01	NP
Chloride (mg/L)	BY-AP-MW-14	1.875	41	48	No	14	0	n/a	n/a	0.01	NP
Chloride (mg/L)	BY-AP-MW-15	9.025	81	48	Yes	14	0	n/a	n/a	0.01	NP
Chloride (mg/L)	BY-AP-MW-16	1.364	55	48	Yes	14	0	n/a	n/a	0.01	NP
Chloride (mg/L)	BY-GSA-MW-1 (bg)	0.4793	31	43	No	13	0	n/a	n/a	0.01	NP
Chloride (mg/L)	BY-GSA-MW-2 (bg)	-0.3619	-33	-43	No	13	0	n/a	n/a	0.01	NP
Chloride (mg/L)	BY-GSA-MW-3 (bg)	-0.01525	-5	-43	No	13	0	n/a	n/a	0.01	NP
Chloride (mg/L)	BY-GSA-MW-4 (bg)	0	0	43	No	13	0	n/a	n/a	0.01	NP
Fluoride (mg/L)	BY-AP-MW-15	-0.00...	-18	-48	No	14	7.143	n/a	n/a	0.01	NP
Fluoride (mg/L)	BY-GSA-MW-1 (bg)	0.00841	28	48	No	14	28.57	n/a	n/a	0.01	NP
Fluoride (mg/L)	BY-GSA-MW-2 (bg)	0.01344	35	48	No	14	28.57	n/a	n/a	0.01	NP
Fluoride (mg/L)	BY-GSA-MW-3 (bg)	0.02217	47	48	No	14	50	n/a	n/a	0.01	NP
Fluoride (mg/L)	BY-GSA-MW-4 (bg)	0.02071	47	48	No	14	50	n/a	n/a	0.01	NP
pH (pH)	BY-AP-MW-1	-0.00...	-14	-58	No	16	0	n/a	n/a	0.01	NP
pH (pH)	BY-AP-MW-2	-0.1299	-87	-58	Yes	16	0	n/a	n/a	0.01	NP
pH (pH)	BY-AP-MW-3	-0.03709	-36	-58	No	16	0	n/a	n/a	0.01	NP
pH (pH)	BY-AP-MW-5	-0.00263	-12	-58	No	16	0	n/a	n/a	0.01	NP
pH (pH)	BY-AP-MW-6	-0.05932	-38	-58	No	16	0	n/a	n/a	0.01	NP
pH (pH)	BY-AP-MW-9	-0.00251	-5	-58	No	16	0	n/a	n/a	0.01	NP
pH (pH)	BY-AP-MW-10	-0.0215	-33	-58	No	16	0	n/a	n/a	0.01	NP
pH (pH)	BY-AP-MW-11	-0.03001	-38	-58	No	16	0	n/a	n/a	0.01	NP
pH (pH)	BY-AP-MW-12	-0.0269	-36	-58	No	16	0	n/a	n/a	0.01	NP
pH (pH)	BY-AP-MW-15	-0.02764	-30	-58	No	16	0	n/a	n/a	0.01	NP
pH (pH)	BY-AP-MW-16	0	2	58	No	16	0	n/a	n/a	0.01	NP
pH (pH)	BY-GSA-MW-1 (bg)	0.003643	5	53	No	15	0	n/a	n/a	0.01	NP
pH (pH)	BY-GSA-MW-2 (bg)	-0.07883	-62	-53	Yes	15	0	n/a	n/a	0.01	NP
pH (pH)	BY-GSA-MW-3 (bg)	-0.04358	-44	-53	No	15	0	n/a	n/a	0.01	NP
pH (pH)	BY-GSA-MW-4 (bg)	-0.0316	-26	-53	No	15	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	BY-AP-MW-11	2.414	52	48	Yes	14	42.86	n/a	n/a	0.01	NP
Sulfate (mg/L)	BY-AP-MW-12	0	-8	-48	No	14	71.43	n/a	n/a	0.01	NP
Sulfate (mg/L)	BY-AP-MW-13	1.368	19	48	No	14	35.71	n/a	n/a	0.01	NP
Sulfate (mg/L)	BY-AP-MW-14	0	23	48	No	14	64.29	n/a	n/a	0.01	NP
Sulfate (mg/L)	BY-GSA-MW-1 (bg)	2.469	14	43	No	13	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	BY-GSA-MW-2 (bg)	-0.9196	-28	-38	No	12	0	n/a	n/a	0.01	NP

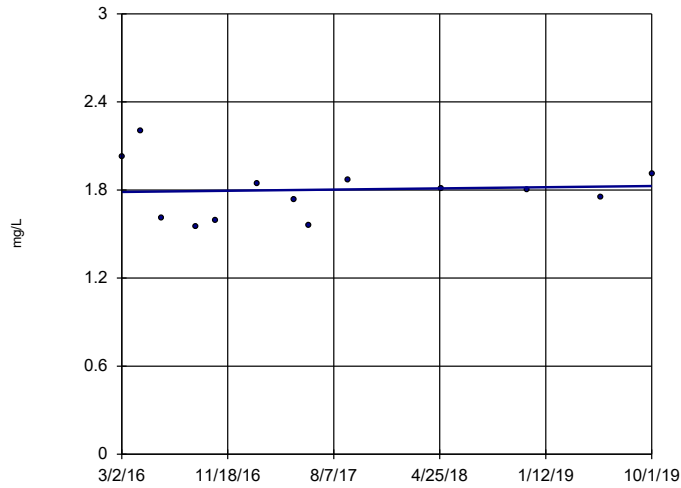
Trend Test Summary Table

Plant Barry Client: Southern Company Data: Barry Ash Pond Printed 1/17/2020, 10:03 AM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
Sulfate (mg/L)	BY-GSA-MW-3 (bg)	-0.2499	-18	-43	No	13	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	BY-GSA-MW-4 (bg)	-0.1397	-17	-43	No	13	0	n/a	n/a	0.01	NP
TDS (mg/L)	BY-AP-MW-1	-10.03	-41	-48	No	14	0	n/a	n/a	0.01	NP
TDS (mg/L)	BY-AP-MW-5	-5.177	-28	-48	No	14	0	n/a	n/a	0.01	NP
TDS (mg/L)	BY-AP-MW-7	1.87	17	43	No	13	0	n/a	n/a	0.01	NP
TDS (mg/L)	BY-AP-MW-8	-6.193	-38	-48	No	14	0	n/a	n/a	0.01	NP
TDS (mg/L)	BY-AP-MW-9	-2.46	-10	-48	No	14	0	n/a	n/a	0.01	NP
TDS (mg/L)	BY-AP-MW-10	5.723	29	48	No	14	0	n/a	n/a	0.01	NP
TDS (mg/L)	BY-AP-MW-11	-2.897	-7	-48	No	14	0	n/a	n/a	0.01	NP
TDS (mg/L)	BY-AP-MW-12	-7.32	-24	-48	No	14	0	n/a	n/a	0.01	NP
TDS (mg/L)	BY-AP-MW-13	0.4614	3	48	No	14	0	n/a	n/a	0.01	NP
TDS (mg/L)	BY-AP-MW-14	1	2	48	No	14	0	n/a	n/a	0.01	NP
TDS (mg/L)	BY-AP-MW-15	12.03	57	48	Yes	14	0	n/a	n/a	0.01	NP
TDS (mg/L)	BY-AP-MW-16	3.017	13	48	No	14	0	n/a	n/a	0.01	NP
TDS (mg/L)	BY-GSA-MW-1 (bg)	7.537	54	43	Yes	13	7.692	n/a	n/a	0.01	NP
TDS (mg/L)	BY-GSA-MW-2 (bg)	4.433	42	43	No	13	15.38	n/a	n/a	0.01	NP
TDS (mg/L)	BY-GSA-MW-3 (bg)	1.447	10	43	No	13	0	n/a	n/a	0.01	NP
TDS (mg/L)	BY-GSA-MW-4 (bg)	4.752	40	43	No	13	30.77	n/a	n/a	0.01	NP

Sen's Slope Estimator

BY-AP-MW-1

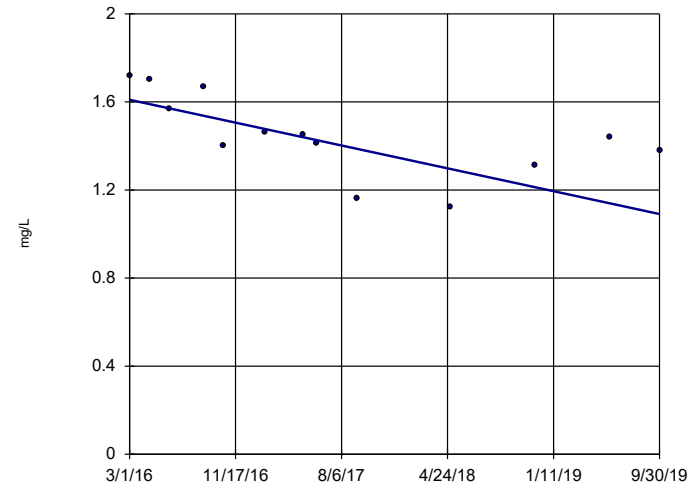


n = 13
 Slope = 0.01136
 units per year.
 Mann-Kendall
 statistic = 2
 critical = 43
 Trend not sig-
 nificant at 99%
 confidence level
 ($\alpha = 0.005$ per
 tail).

Constituent: Boron Analysis Run 1/17/2020 9:58 AM View: Trend Test
 Plant Barry Client: Southern Company Data: Barry Ash Pond

Sen's Slope Estimator

BY-AP-MW-8

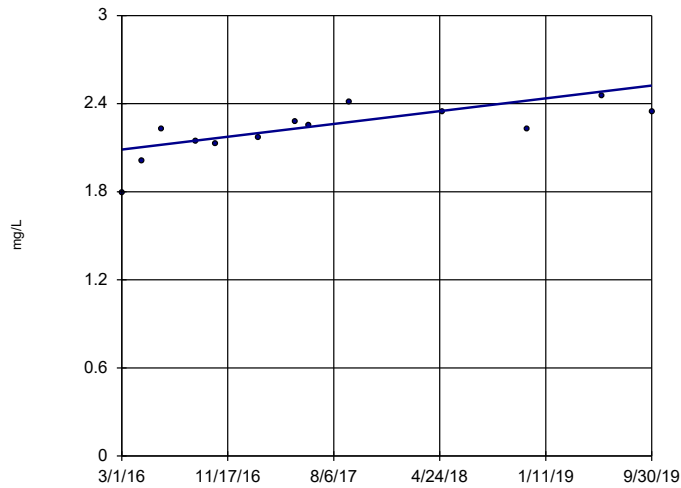


n = 13
 Slope = -0.1449
 units per year.
 Mann-Kendall
 statistic = -50
 critical = -43
 Decreasing trend
 significant at 99%
 confidence level
 ($\alpha = 0.005$ per
 tail).

Constituent: Boron Analysis Run 1/17/2020 9:58 AM View: Trend Test
 Plant Barry Client: Southern Company Data: Barry Ash Pond

Sen's Slope Estimator

BY-AP-MW-9

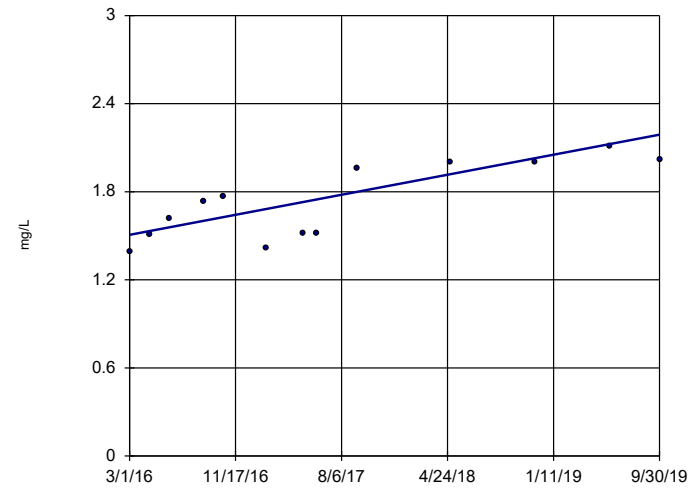


n = 13
 Slope = 0.1215
 units per year.
 Mann-Kendall
 statistic = 52
 critical = 43
 Increasing trend
 significant at 99%
 confidence level
 ($\alpha = 0.005$ per
 tail).

Constituent: Boron Analysis Run 1/17/2020 9:59 AM View: Trend Test
 Plant Barry Client: Southern Company Data: Barry Ash Pond

Sen's Slope Estimator

BY-AP-MW-10

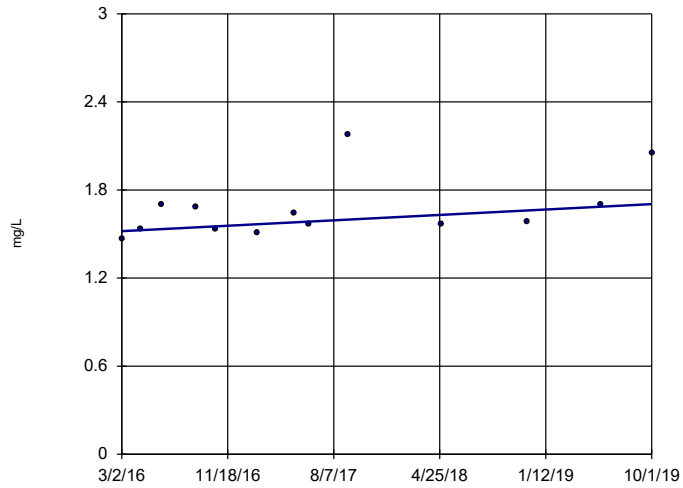


n = 13
 Slope = 0.1904
 units per year.
 Mann-Kendall
 statistic = 54
 critical = 43
 Increasing trend
 significant at 99%
 confidence level
 ($\alpha = 0.005$ per
 tail).

Constituent: Boron Analysis Run 1/17/2020 9:59 AM View: Trend Test
 Plant Barry Client: Southern Company Data: Barry Ash Pond

Sen's Slope Estimator

BY-AP-MW-16

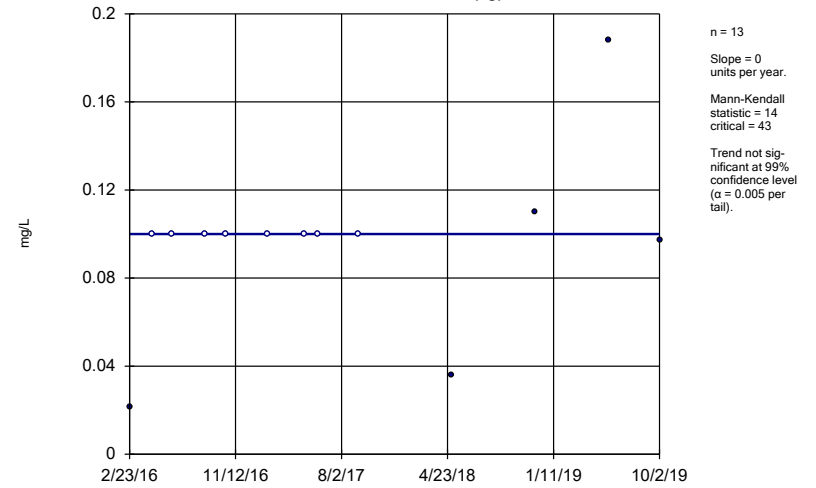


Constituent: Boron Analysis Run 1/17/2020 9:59 AM View: Trend Test
Plant Barry Client: Southern Company Data: Barry Ash Pond

Hollow symbols indicate censored values.

Sen's Slope Estimator

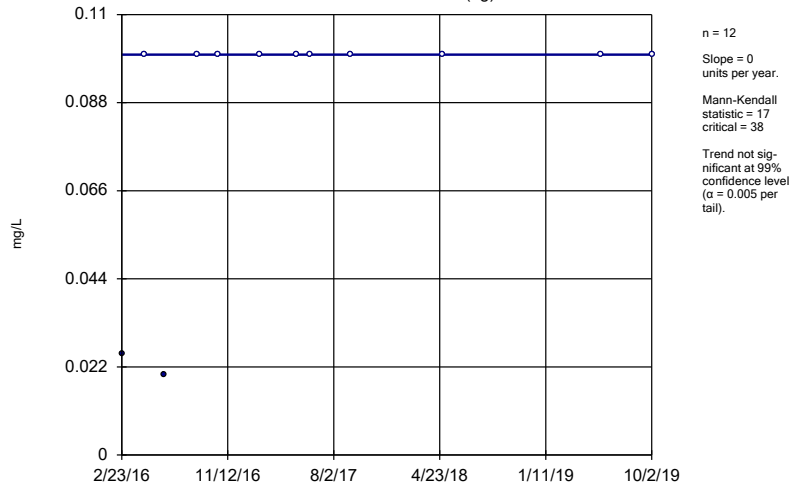
BY-GSA-MW-1 (bg)



Constituent: Boron Analysis Run 1/17/2020 9:59 AM View: Trend Test
Plant Barry Client: Southern Company Data: Barry Ash Pond

Sen's Slope Estimator

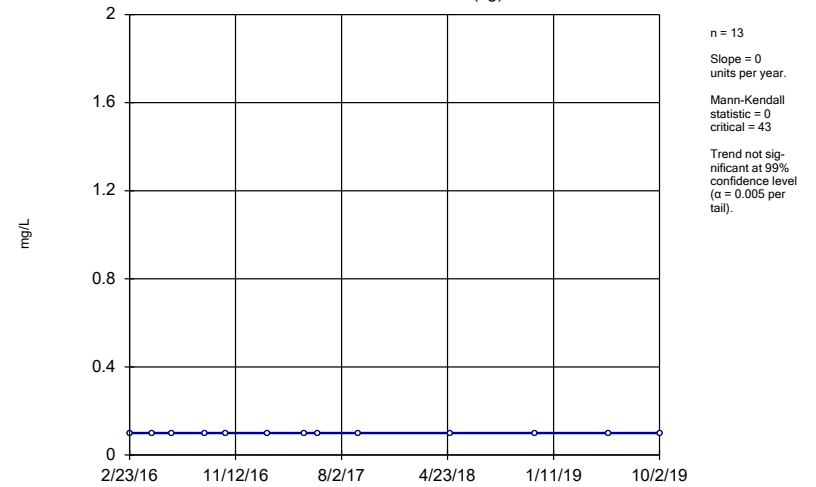
BY-GSA-MW-2 (bg)



Constituent: Boron Analysis Run 1/17/2020 9:59 AM View: Trend Test
Plant Barry Client: Southern Company Data: Barry Ash Pond

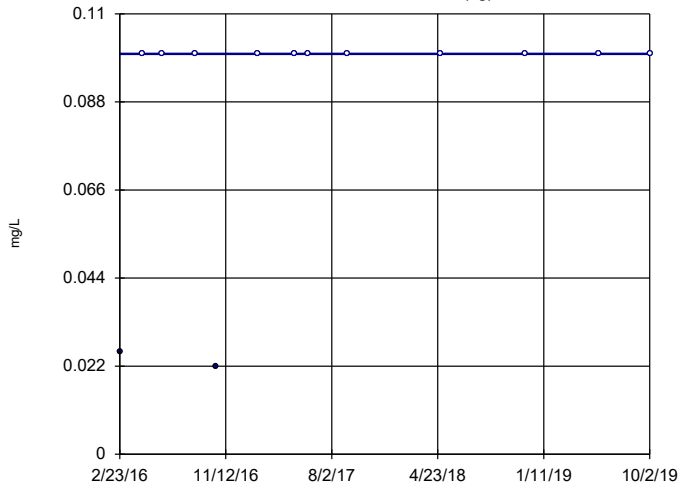
Sen's Slope Estimator

BY-GSA-MW-3 (bg)



Constituent: Boron Analysis Run 1/17/2020 9:59 AM View: Trend Test
Plant Barry Client: Southern Company Data: Barry Ash Pond

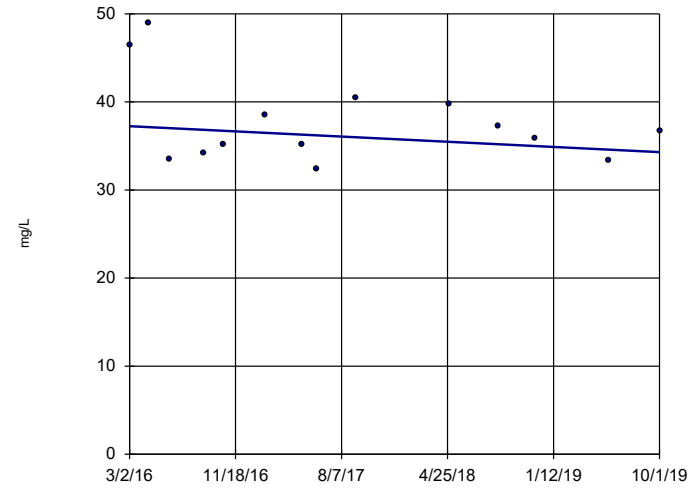
Sen's Slope Estimator
BY-GSA-MW-4 (bg)



n = 13
Slope = 0
units per year.
Mann-Kendall
statistic = 15
critical = 43
Trend not sig-
nificant at 99%
confidence level
($\alpha = 0.005$ per
tail).

Constituent: Boron Analysis Run 1/17/2020 9:59 AM View: Trend Test
Plant Barry Client: Southern Company Data: Barry Ash Pond

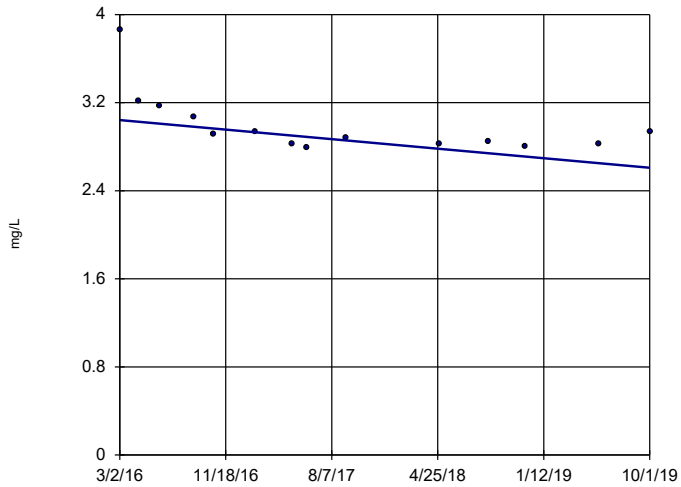
Sen's Slope Estimator
BY-AP-MW-1



n = 14
Slope = -0.8197
units per year.
Mann-Kendall
statistic = -12
critical = -48
Trend not sig-
nificant at 99%
confidence level
($\alpha = 0.005$ per
tail).

Constituent: Calcium Analysis Run 1/17/2020 9:59 AM View: Trend Test
Plant Barry Client: Southern Company Data: Barry Ash Pond

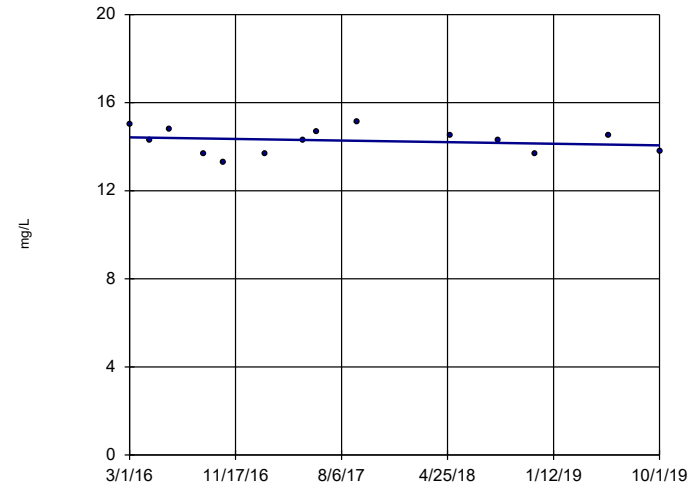
Sen's Slope Estimator
BY-AP-MW-2



n = 14
Slope = -0.1205
units per year.
Mann-Kendall
statistic = -51
critical = -48
Decreasing trend
significant at 99%
confidence level
($\alpha = 0.005$ per
tail).

Constituent: Calcium Analysis Run 1/17/2020 9:59 AM View: Trend Test
Plant Barry Client: Southern Company Data: Barry Ash Pond

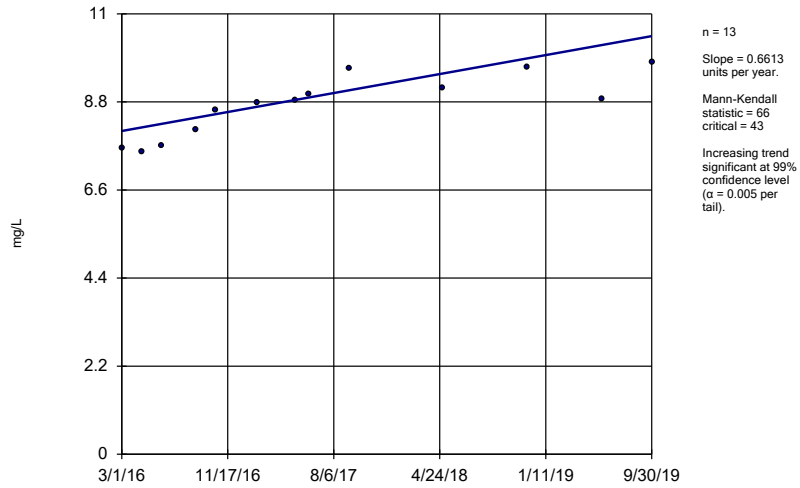
Sen's Slope Estimator
BY-AP-MW-5



n = 14
Slope = -0.1
units per year.
Mann-Kendall
statistic = -8
critical = -48
Trend not sig-
nificant at 99%
confidence level
($\alpha = 0.005$ per
tail).

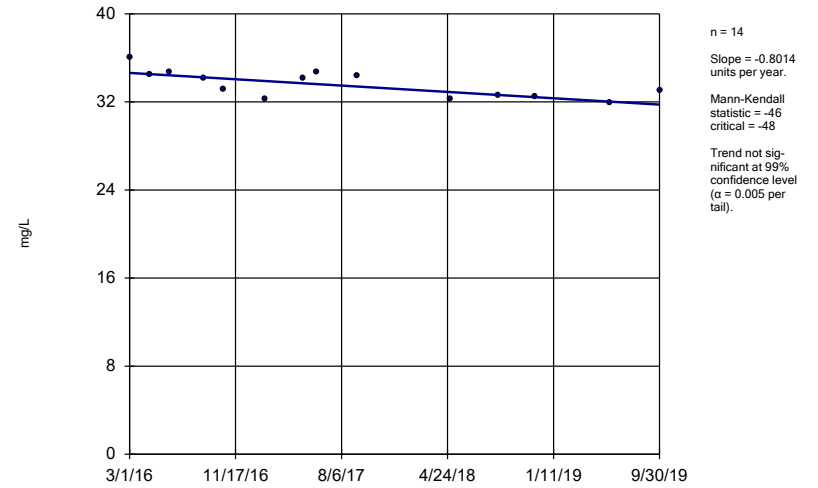
Constituent: Calcium Analysis Run 1/17/2020 9:59 AM View: Trend Test
Plant Barry Client: Southern Company Data: Barry Ash Pond

Sen's Slope Estimator BY-AP-MW-7



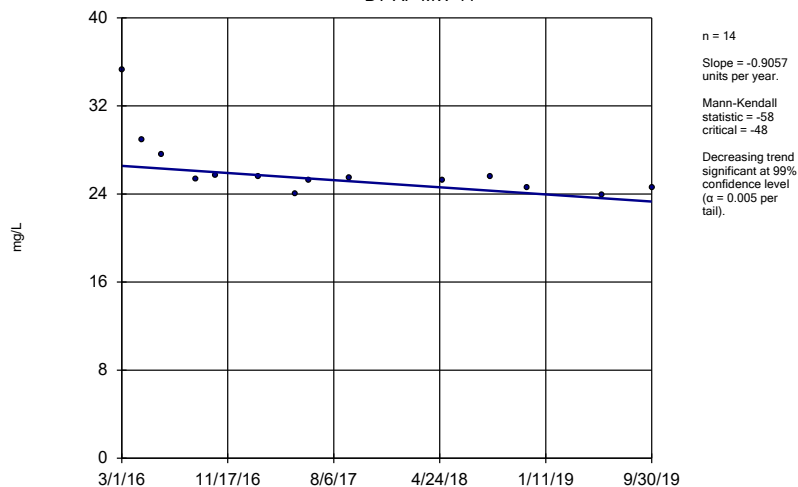
Constituent: Calcium Analysis Run 1/17/2020 9:59 AM View: Trend Test
Plant Barry Client: Southern Company Data: Barry Ash Pond

Sen's Slope Estimator BY-AP-MW-8

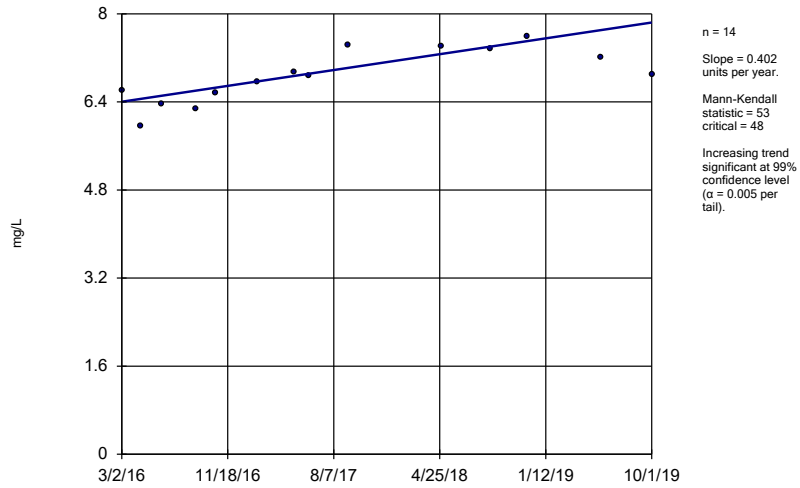


Sen's Slope Estimator

BY-AP-MW-11

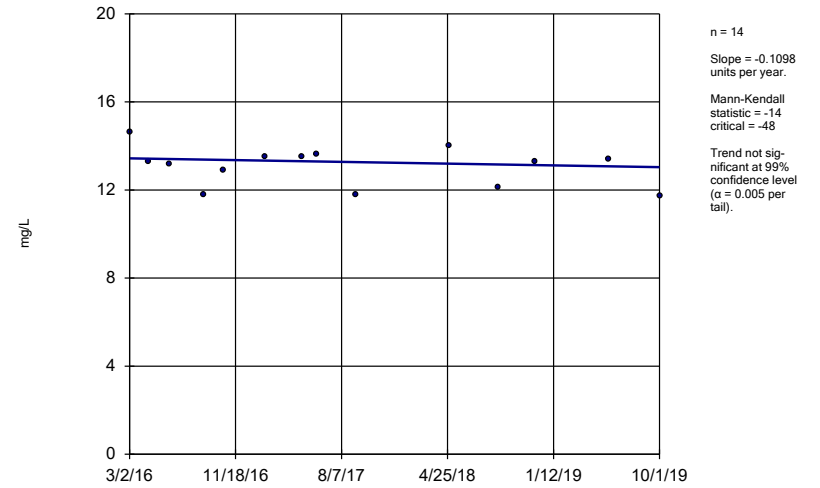


Sen's Slope Estimator
BY-AP-MW-15



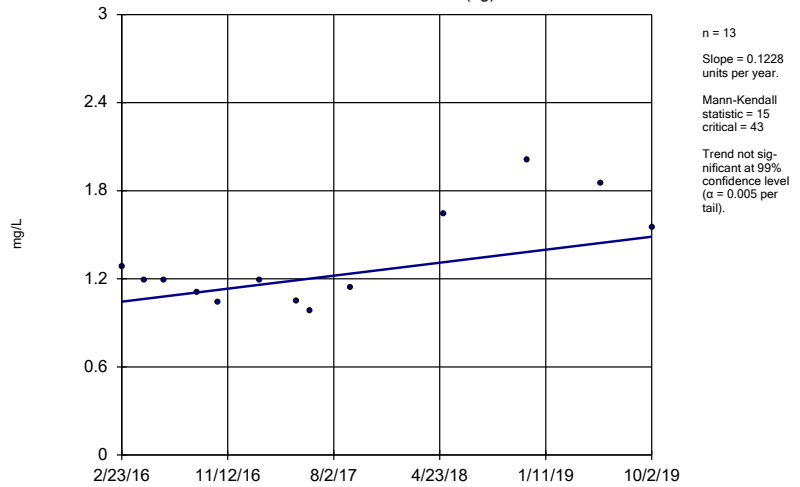
Constituent: Calcium Analysis Run 1/17/2020 9:59 AM View: Trend Test
Plant Barry Client: Southern Company Data: Barry Ash Pond

Sen's Slope Estimator
BY-AP-MW-16



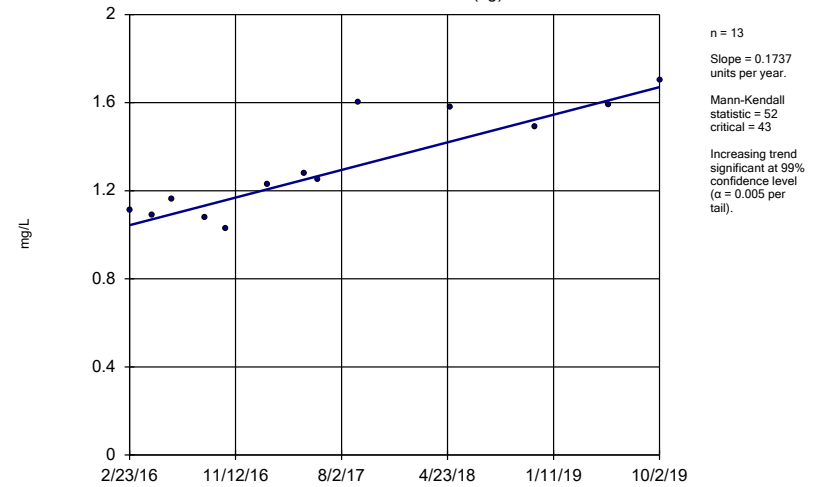
Constituent: Calcium Analysis Run 1/17/2020 9:59 AM View: Trend Test
Plant Barry Client: Southern Company Data: Barry Ash Pond

Sen's Slope Estimator
BY-GSA-MW-1 (bg)



Constituent: Calcium Analysis Run 1/17/2020 9:59 AM View: Trend Test
Plant Barry Client: Southern Company Data: Barry Ash Pond

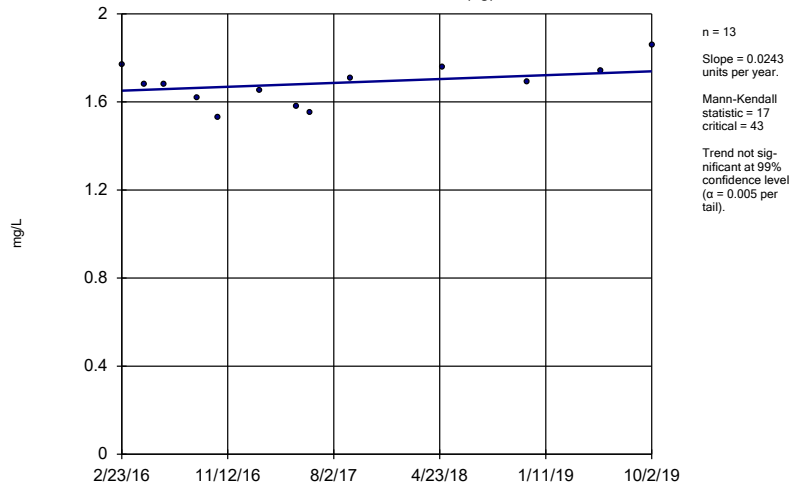
Sen's Slope Estimator
BY-GSA-MW-2 (bg)



Constituent: Calcium Analysis Run 1/17/2020 9:59 AM View: Trend Test
Plant Barry Client: Southern Company Data: Barry Ash Pond

Sen's Slope Estimator

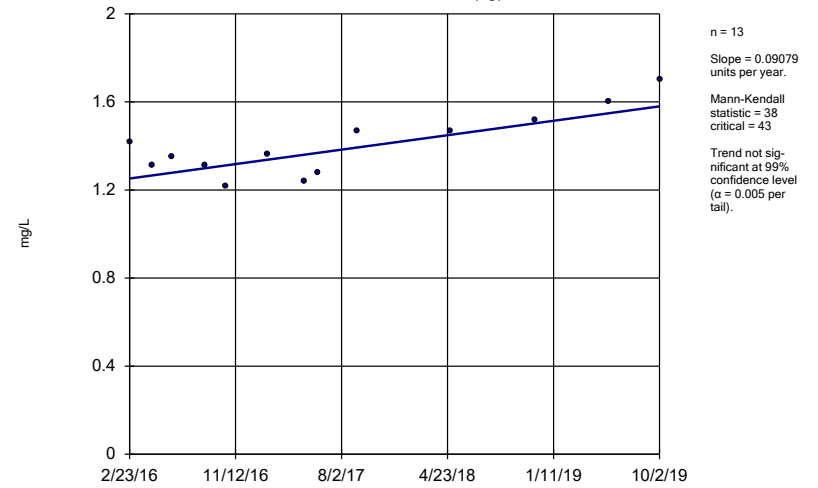
BY-GSA-MW-3 (bg)



Constituent: Calcium Analysis Run 1/17/2020 9:59 AM View: Trend Test
Plant Barry Client: Southern Company Data: Barry Ash Pond

Sen's Slope Estimator

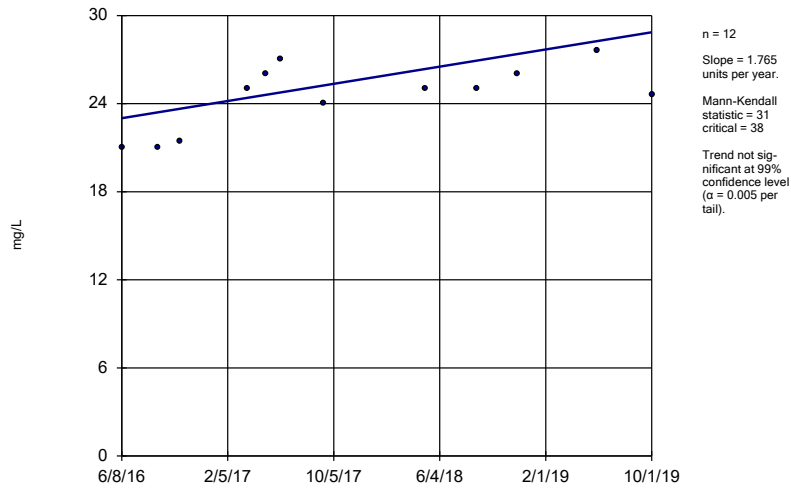
BY-GSA-MW-4 (bg)



Constituent: Calcium Analysis Run 1/17/2020 9:59 AM View: Trend Test
Plant Barry Client: Southern Company Data: Barry Ash Pond

Sen's Slope Estimator

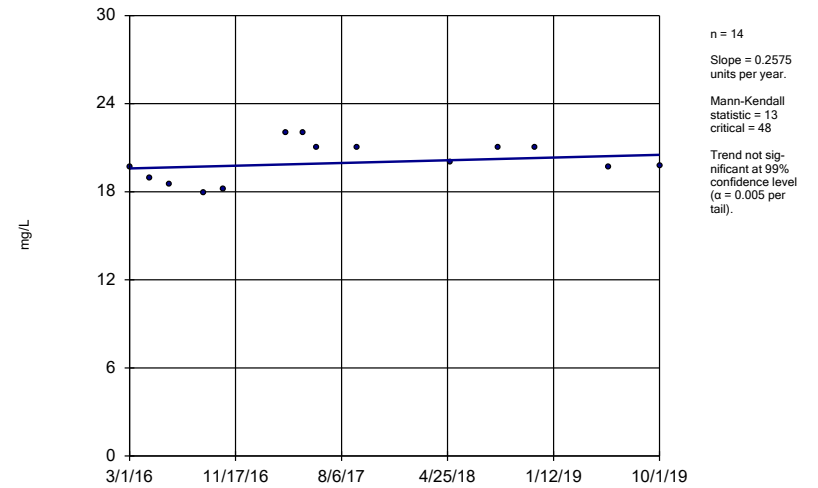
BY-AP-MW-1



Constituent: Chloride Analysis Run 1/17/2020 9:59 AM View: Trend Test
Plant Barry Client: Southern Company Data: Barry Ash Pond

Sen's Slope Estimator

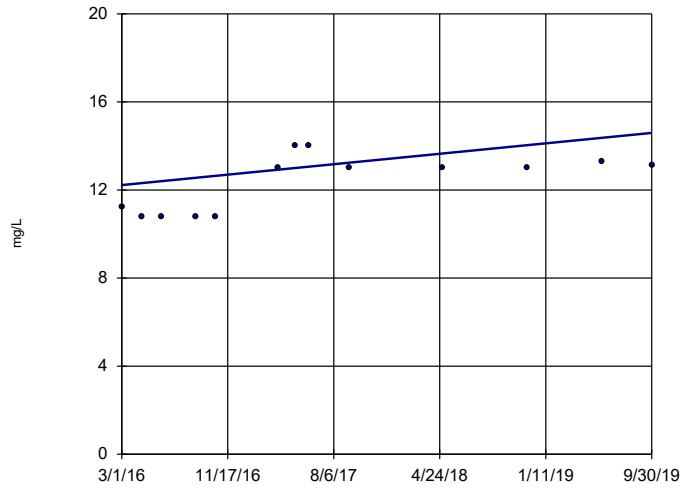
BY-AP-MW-5



Constituent: Chloride Analysis Run 1/17/2020 9:59 AM View: Trend Test
Plant Barry Client: Southern Company Data: Barry Ash Pond

Sen's Slope Estimator

BY-AP-MW-7

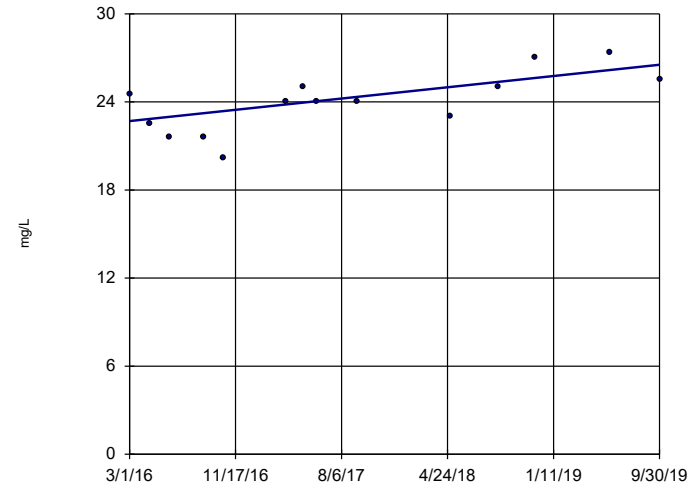


n = 13
Slope = 0.6615 units per year.
Mann-Kendall statistic = 35 critical = 43
Trend not significant at 99% confidence level ($\alpha = 0.005$ per tail).

Constituent: Chloride Analysis Run 1/17/2020 10:00 AM View: Trend Test
Plant Barry Client: Southern Company Data: Barry Ash Pond

Sen's Slope Estimator

BY-AP-MW-8

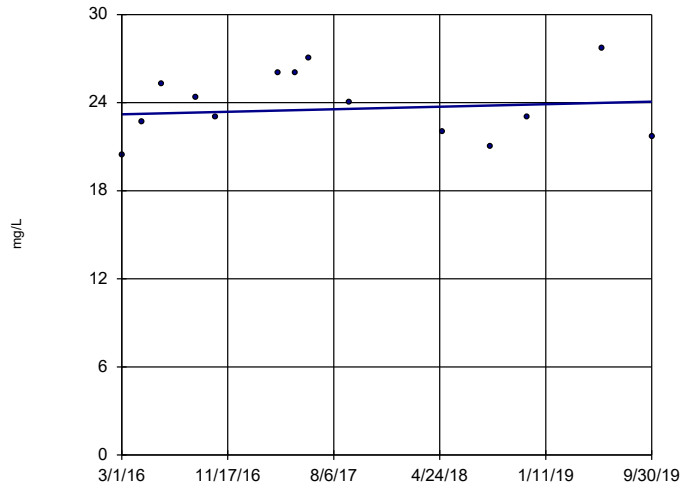


n = 14
Slope = 1.069 units per year.
Mann-Kendall statistic = 44 critical = 48
Trend not significant at 99% confidence level ($\alpha = 0.005$ per tail).

Constituent: Chloride Analysis Run 1/17/2020 10:00 AM View: Trend Test
Plant Barry Client: Southern Company Data: Barry Ash Pond

Sen's Slope Estimator

BY-AP-MW-9

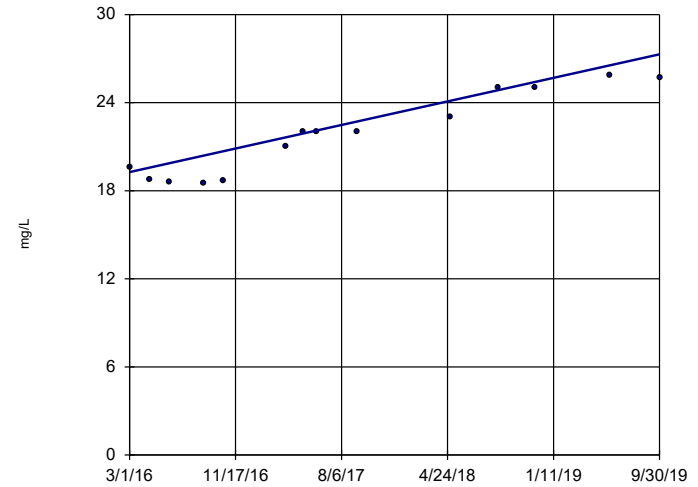


n = 14
Slope = 0.2407 units per year.
Mann-Kendall statistic = 5 critical = 48
Trend not significant at 99% confidence level ($\alpha = 0.005$ per tail).

Constituent: Chloride Analysis Run 1/17/2020 10:00 AM View: Trend Test
Plant Barry Client: Southern Company Data: Barry Ash Pond

Sen's Slope Estimator

BY-AP-MW-10

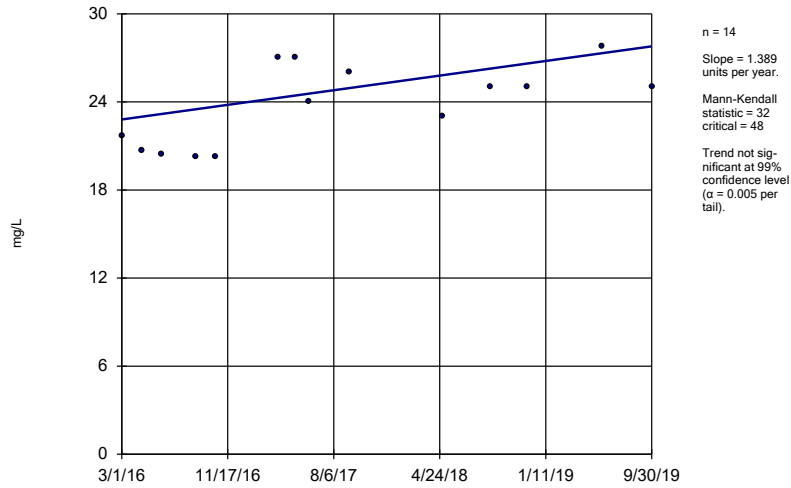


n = 14
Slope = 2.238 units per year.
Mann-Kendall statistic = 69 critical = 48
Increasing trend significant at 99% confidence level ($\alpha = 0.005$ per tail).

Constituent: Chloride Analysis Run 1/17/2020 10:00 AM View: Trend Test
Plant Barry Client: Southern Company Data: Barry Ash Pond

Sen's Slope Estimator

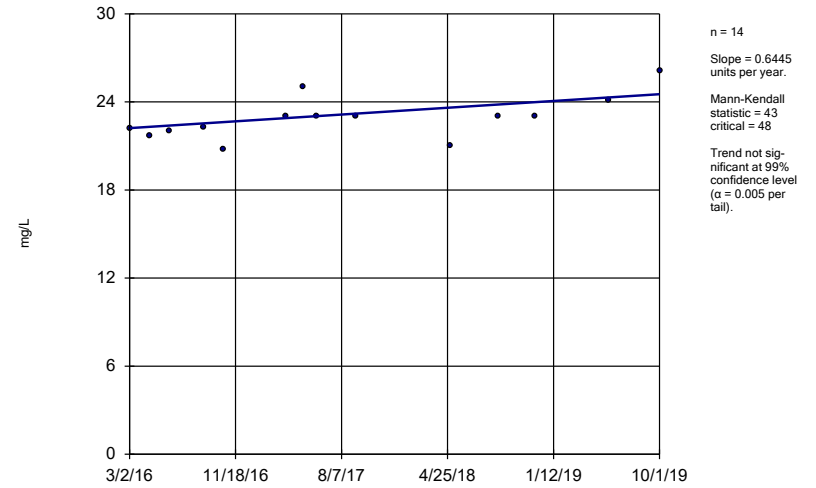
BY-AP-MW-11



Constituent: Chloride Analysis Run 1/17/2020 10:00 AM View: Trend Test
Plant Barry Client: Southern Company Data: Barry Ash Pond

Sen's Slope Estimator

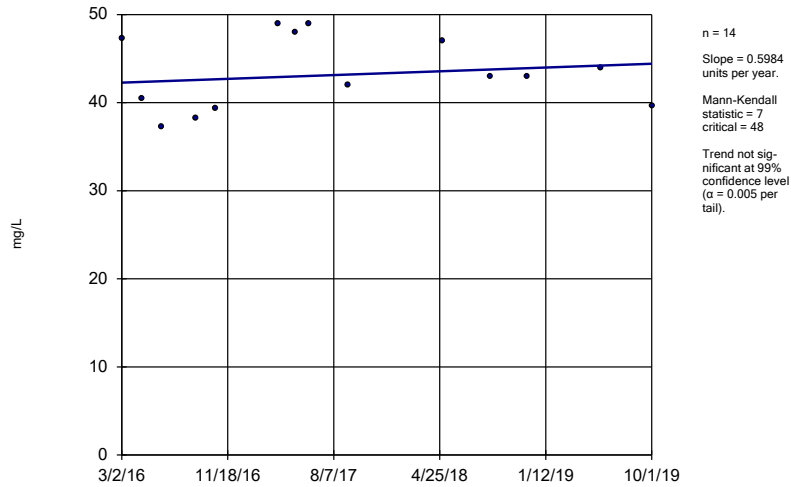
BY-AP-MW-12



Constituent: Chloride Analysis Run 1/17/2020 10:00 AM View: Trend Test
Plant Barry Client: Southern Company Data: Barry Ash Pond

Sen's Slope Estimator

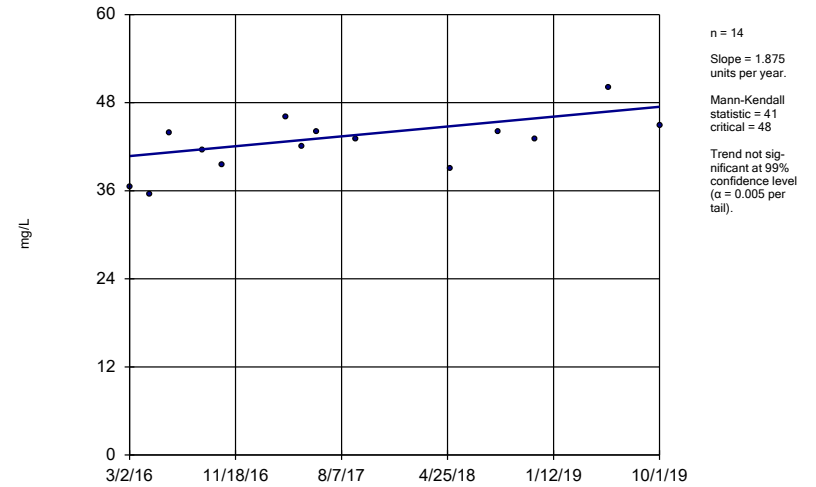
BY-AP-MW-13



Constituent: Chloride Analysis Run 1/17/2020 10:00 AM View: Trend Test
Plant Barry Client: Southern Company Data: Barry Ash Pond

Sen's Slope Estimator

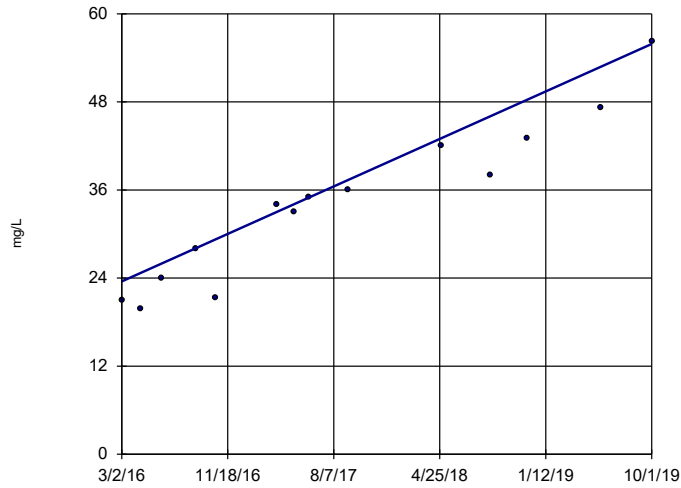
BY-AP-MW-14



Constituent: Chloride Analysis Run 1/17/2020 10:00 AM View: Trend Test
Plant Barry Client: Southern Company Data: Barry Ash Pond

Sen's Slope Estimator

BY-AP-MW-15

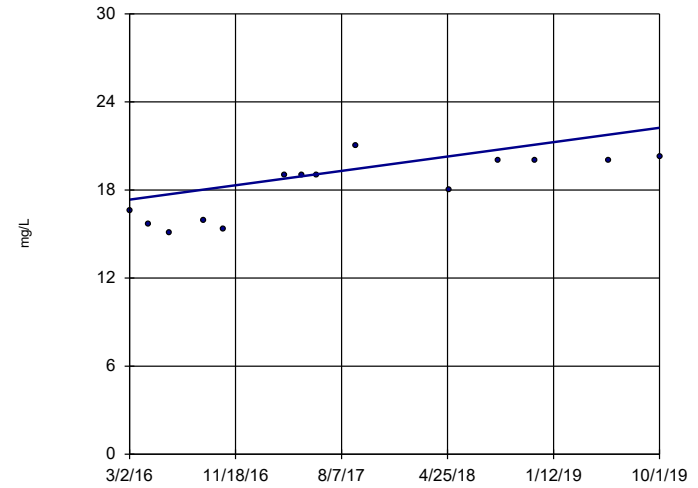


n = 14
 Slope = 9.025
 units per year.
 Mann-Kendall
 statistic = 81
 critical = 48
 Increasing trend
 significant at 99%
 confidence level
 ($\alpha = 0.005$ per
 tail).

Constituent: Chloride Analysis Run 1/17/2020 10:00 AM View: Trend Test
 Plant Barry Client: Southern Company Data: Barry Ash Pond

Sen's Slope Estimator

BY-AP-MW-16

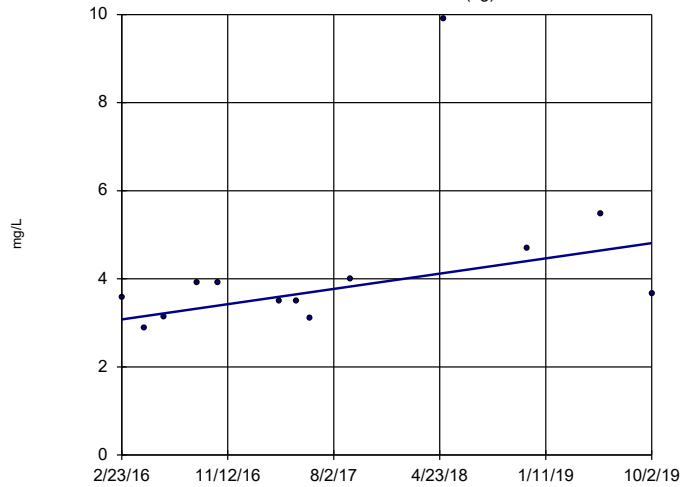


n = 14
 Slope = 1.364
 units per year.
 Mann-Kendall
 statistic = 55
 critical = 48
 Increasing trend
 significant at 99%
 confidence level
 ($\alpha = 0.005$ per
 tail).

Constituent: Chloride Analysis Run 1/17/2020 10:00 AM View: Trend Test
 Plant Barry Client: Southern Company Data: Barry Ash Pond

Sen's Slope Estimator

BY-GSA-MW-1 (bg)

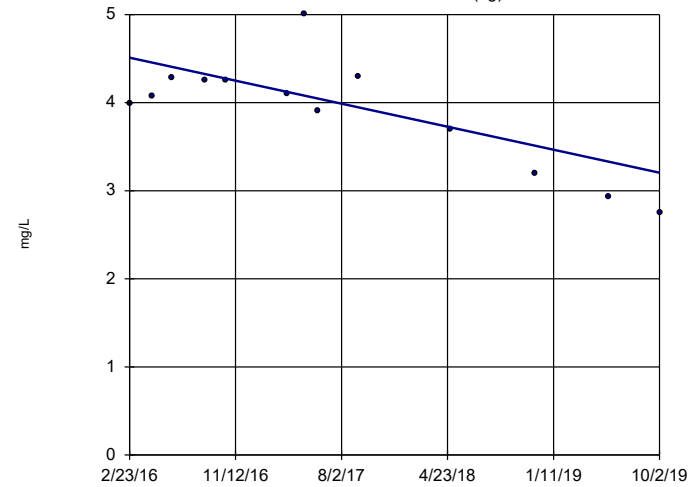


n = 13
 Slope = 0.4793
 units per year.
 Mann-Kendall
 statistic = 31
 critical = 43
 Trend not sig-
 nificant at 99%
 confidence level
 ($\alpha = 0.005$ per
 tail).

Constituent: Chloride Analysis Run 1/17/2020 10:00 AM View: Trend Test
 Plant Barry Client: Southern Company Data: Barry Ash Pond

Sen's Slope Estimator

BY-GSA-MW-2 (bg)

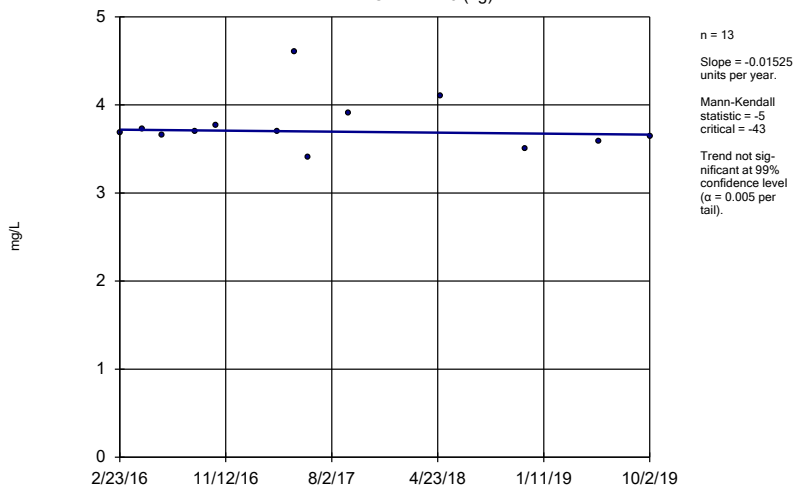


n = 13
 Slope = -0.3619
 units per year.
 Mann-Kendall
 statistic = -33
 critical = -43
 Trend not sig-
 nificant at 99%
 confidence level
 ($\alpha = 0.005$ per
 tail).

Constituent: Chloride Analysis Run 1/17/2020 10:00 AM View: Trend Test
 Plant Barry Client: Southern Company Data: Barry Ash Pond

Sen's Slope Estimator

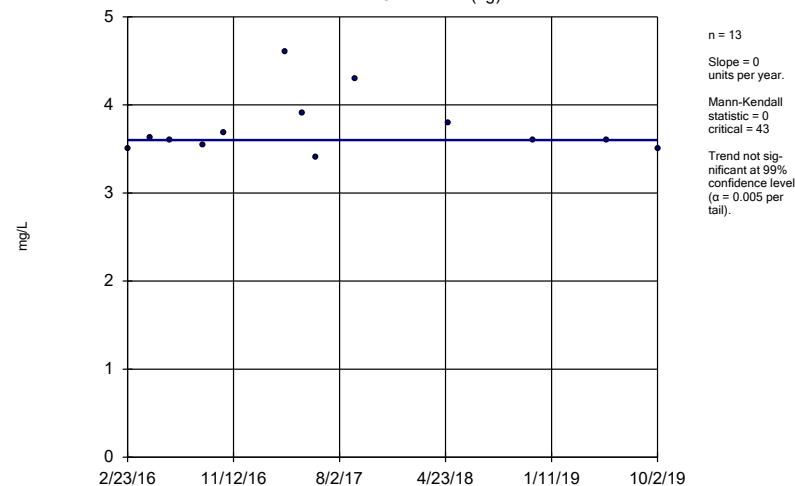
BY-GSA-MW-3 (bg)



Constituent: Chloride Analysis Run 1/17/2020 10:00 AM View: Trend Test
Plant Barry Client: Southern Company Data: Barry Ash Pond

Sen's Slope Estimator

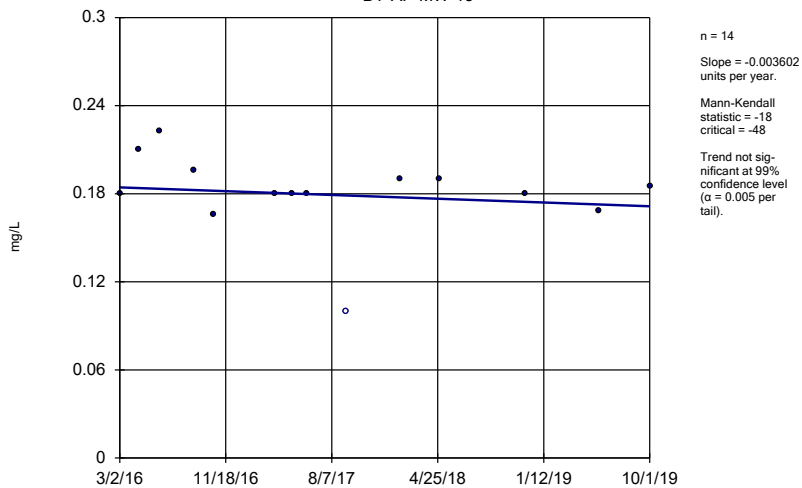
BY-GSA-MW-4 (bg)



Constituent: Chloride Analysis Run 1/17/2020 10:00 AM View: Trend Test
Plant Barry Client: Southern Company Data: Barry Ash Pond

Sen's Slope Estimator

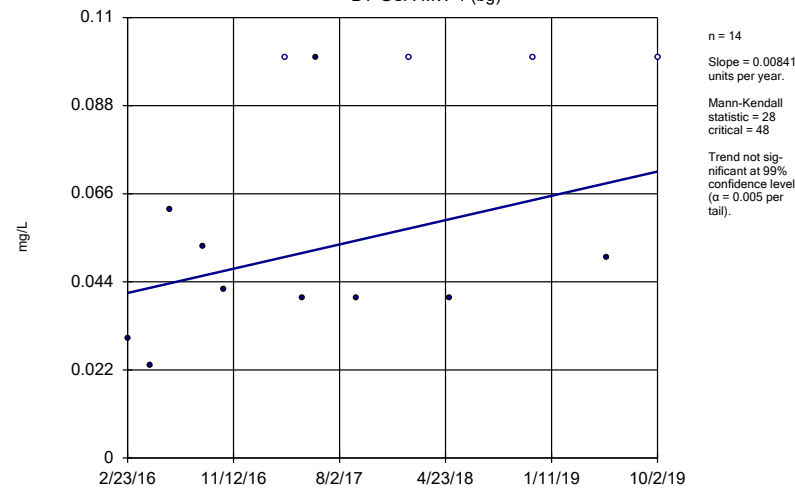
BY-AP-MW-15



Constituent: Fluoride Analysis Run 1/17/2020 10:00 AM View: Trend Test
Plant Barry Client: Southern Company Data: Barry Ash Pond

Sen's Slope Estimator

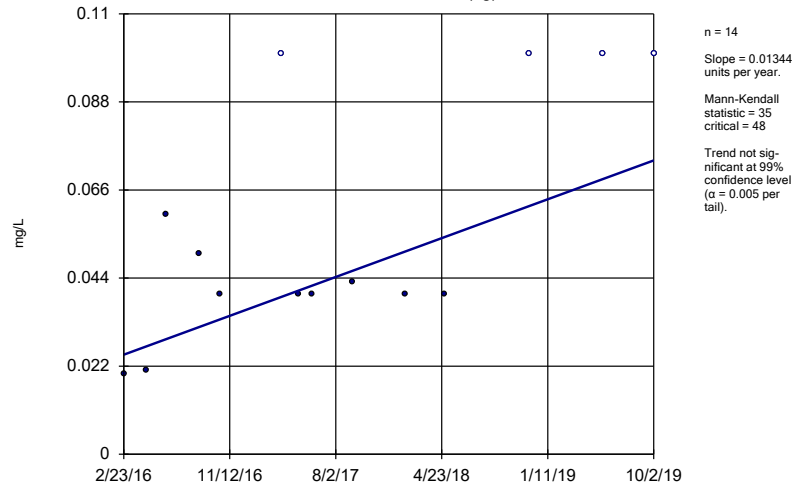
BY-GSA-MW-1 (bg)



Constituent: Fluoride Analysis Run 1/17/2020 10:00 AM View: Trend Test
Plant Barry Client: Southern Company Data: Barry Ash Pond

Sen's Slope Estimator

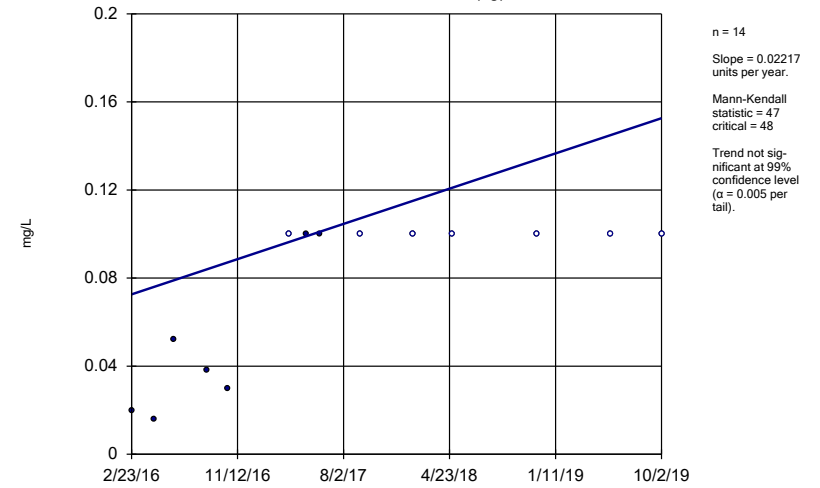
BY-GSA-MW-2 (bg)



Constituent: Fluoride Analysis Run 1/17/2020 10:00 AM View: Trend Test
Plant Barry Client: Southern Company Data: Barry Ash Pond

Sen's Slope Estimator

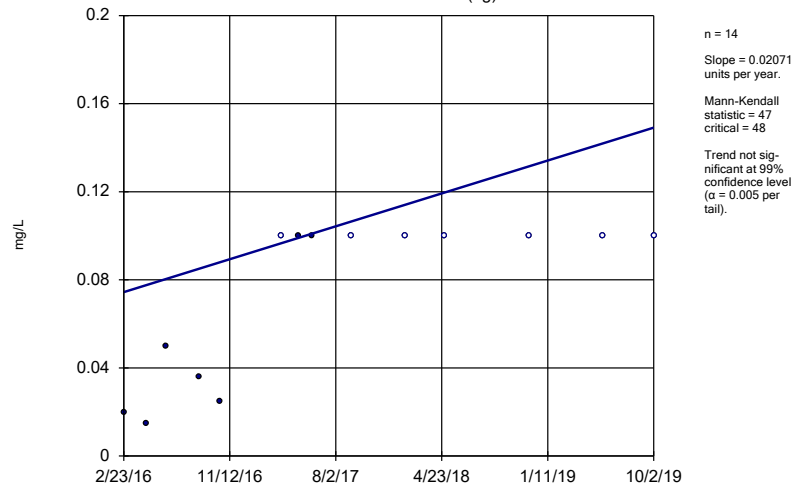
BY-GSA-MW-3 (bg)



Constituent: Fluoride Analysis Run 1/17/2020 10:00 AM View: Trend Test
Plant Barry Client: Southern Company Data: Barry Ash Pond

Sen's Slope Estimator

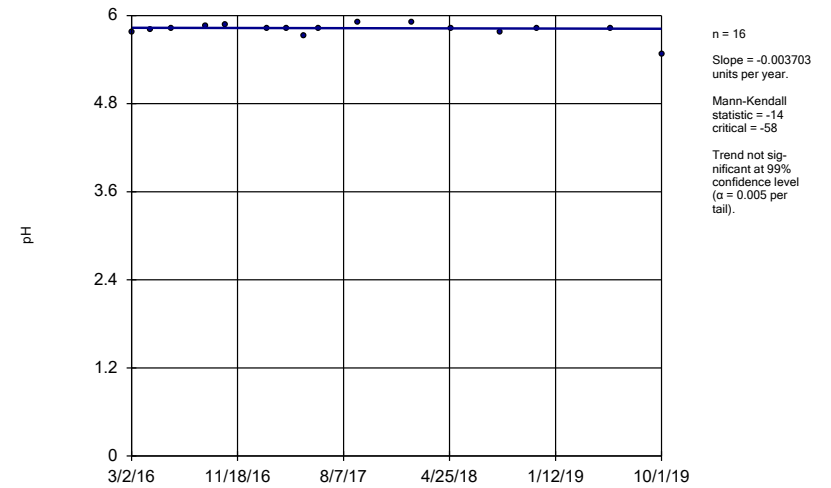
BY-GSA-MW-4 (bg)



Constituent: Fluoride Analysis Run 1/17/2020 10:00 AM View: Trend Test
Plant Barry Client: Southern Company Data: Barry Ash Pond

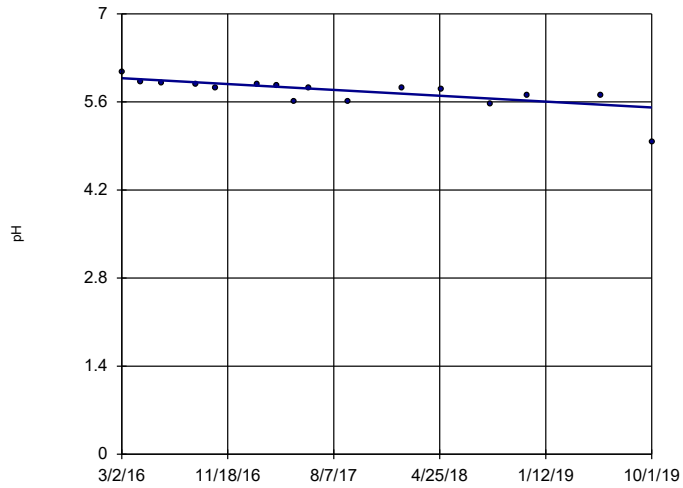
Sen's Slope Estimator

BY-AP-MW-1



Constituent: pH Analysis Run 1/17/2020 10:00 AM View: Trend Test
Plant Barry Client: Southern Company Data: Barry Ash Pond

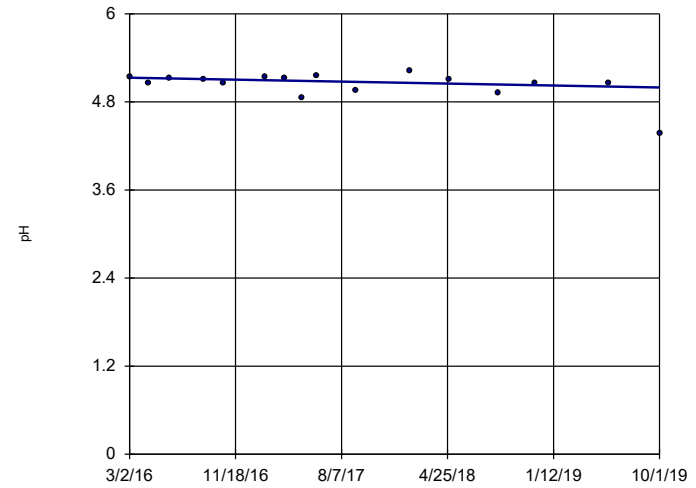
Sen's Slope Estimator BY-AP-MW-2



n = 16
 Slope = -0.1299
 units per year.
 Mann-Kendall
 statistic = -87
 critical = -58
 Decreasing trend
 significant at 99%
 confidence level
 ($\alpha = 0.005$ per
 tail).

Constituent: pH Analysis Run 1/17/2020 10:00 AM View: Trend Test
 Plant Barry Client: Southern Company Data: Barry Ash Pond

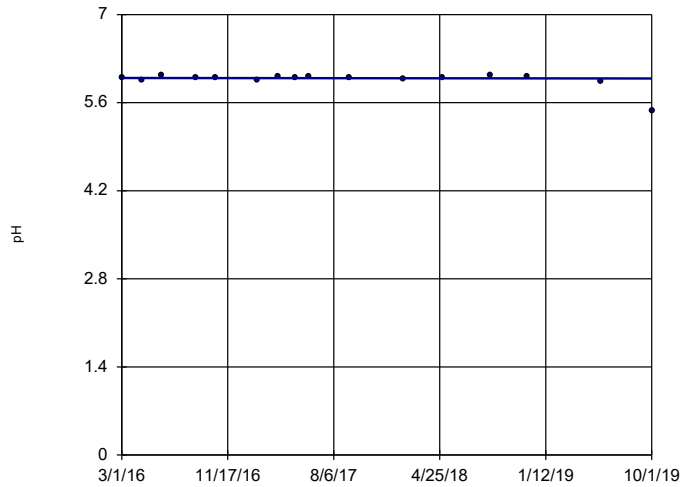
Sen's Slope Estimator BY-AP-MW-3



n = 16
 Slope = -0.03709
 units per year.
 Mann-Kendall
 statistic = -36
 critical = -58
 Trend not sig-
 nificant at 99%
 confidence level
 ($\alpha = 0.005$ per
 tail).

Constituent: pH Analysis Run 1/17/2020 10:00 AM View: Trend Test
 Plant Barry Client: Southern Company Data: Barry Ash Pond

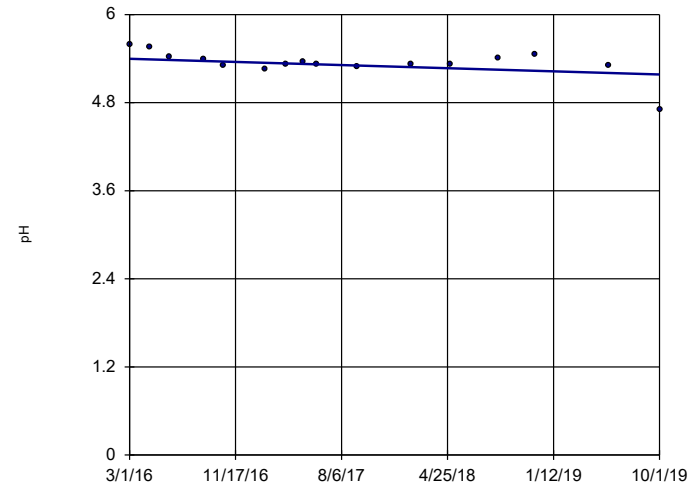
Sen's Slope Estimator BY-AP-MW-5



n = 16
 Slope = -0.00263
 units per year.
 Mann-Kendall
 statistic = -12
 critical = -58
 Trend not sig-
 nificant at 99%
 confidence level
 ($\alpha = 0.005$ per
 tail).

Constituent: pH Analysis Run 1/17/2020 10:00 AM View: Trend Test
 Plant Barry Client: Southern Company Data: Barry Ash Pond

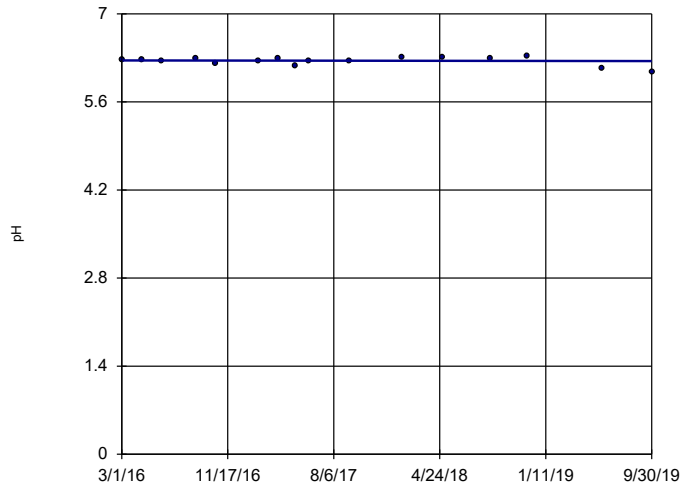
Sen's Slope Estimator BY-AP-MW-6



n = 16
 Slope = -0.05932
 units per year.
 Mann-Kendall
 statistic = -38
 critical = -58
 Trend not sig-
 nificant at 99%
 confidence level
 ($\alpha = 0.005$ per
 tail).

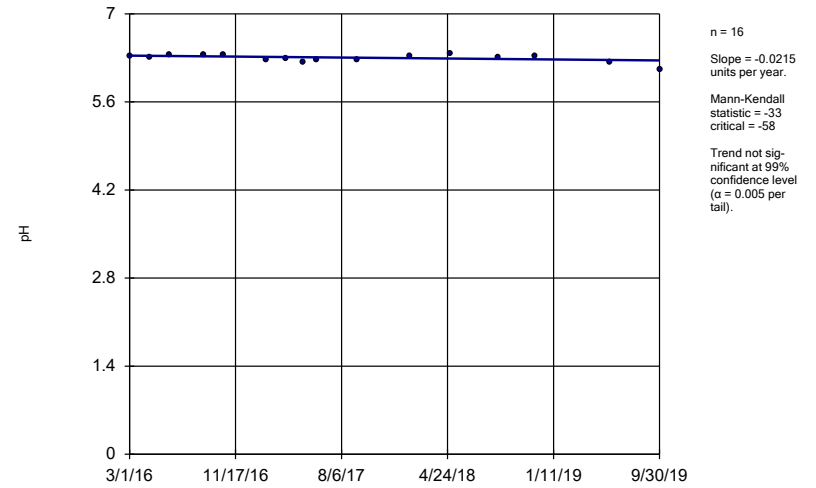
Constituent: pH Analysis Run 1/17/2020 10:00 AM View: Trend Test
 Plant Barry Client: Southern Company Data: Barry Ash Pond

Sen's Slope Estimator BY-AP-MW-9



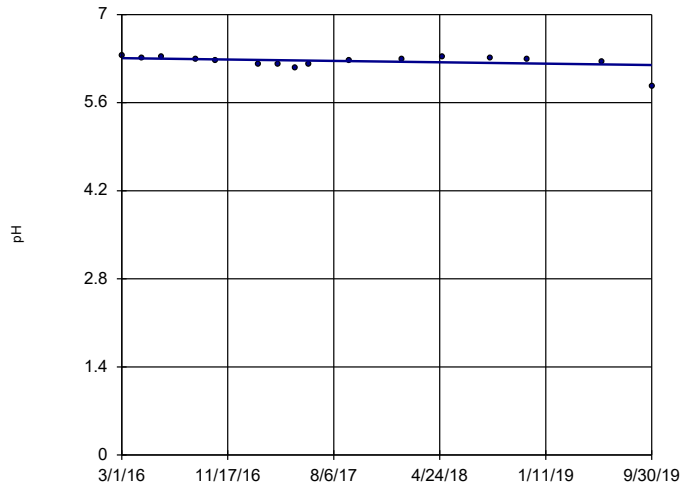
Constituent: pH Analysis Run 1/17/2020 10:00 AM View: Trend Test
Plant Barry Client: Southern Company Data: Barry Ash Pond

Sen's Slope Estimator BY-AP-MW-10



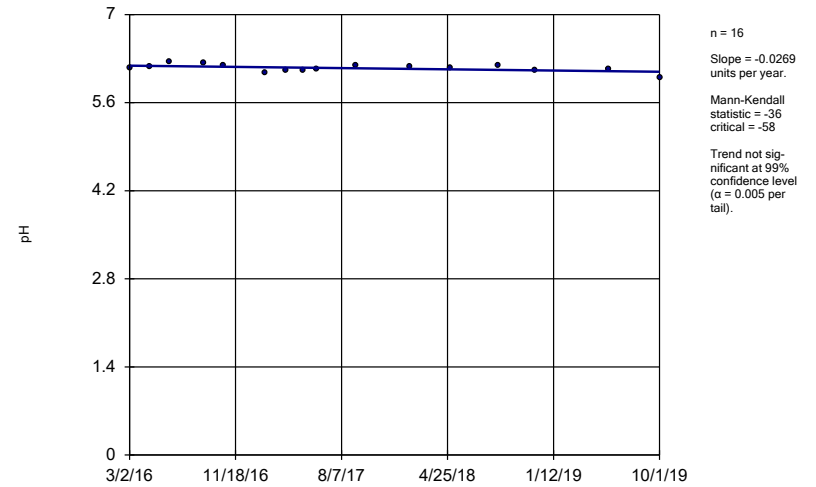
Constituent: pH Analysis Run 1/17/2020 10:01 AM View: Trend Test
Plant Barry Client: Southern Company Data: Barry Ash Pond

Sen's Slope Estimator BY-AP-MW-11



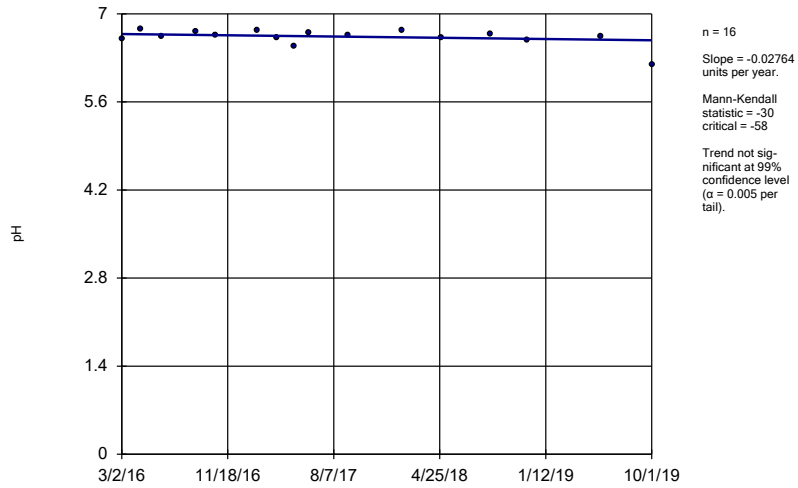
Constituent: pH Analysis Run 1/17/2020 10:01 AM View: Trend Test
Plant Barry Client: Southern Company Data: Barry Ash Pond

Sen's Slope Estimator BY-AP-MW-12



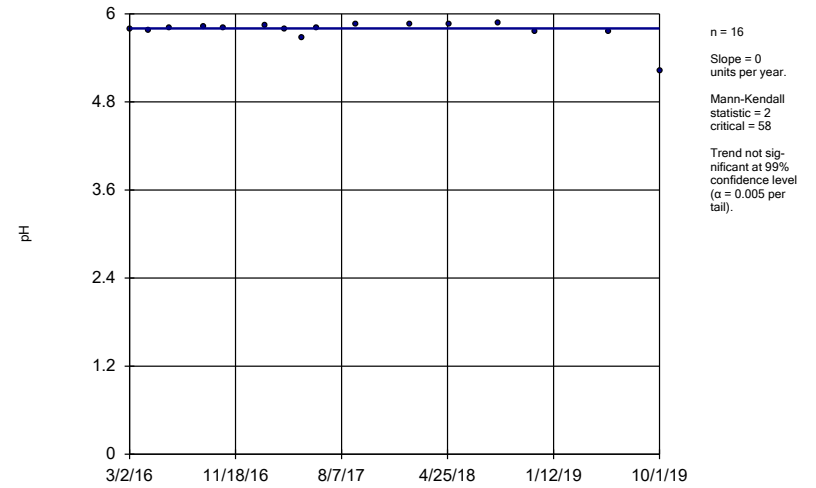
Constituent: pH Analysis Run 1/17/2020 10:01 AM View: Trend Test
Plant Barry Client: Southern Company Data: Barry Ash Pond

Sen's Slope Estimator BY-AP-MW-15



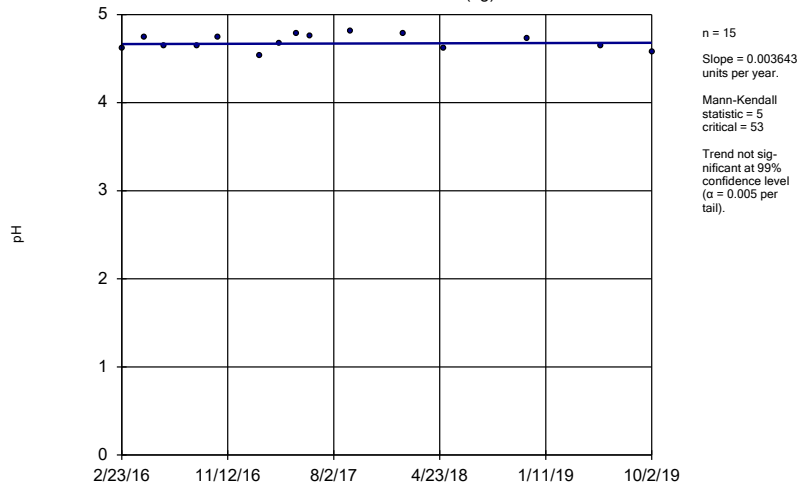
Constituent: pH Analysis Run 1/17/2020 10:01 AM View: Trend Test
Plant Barry Client: Southern Company Data: Barry Ash Pond

Sen's Slope Estimator BY-AP-MW-16



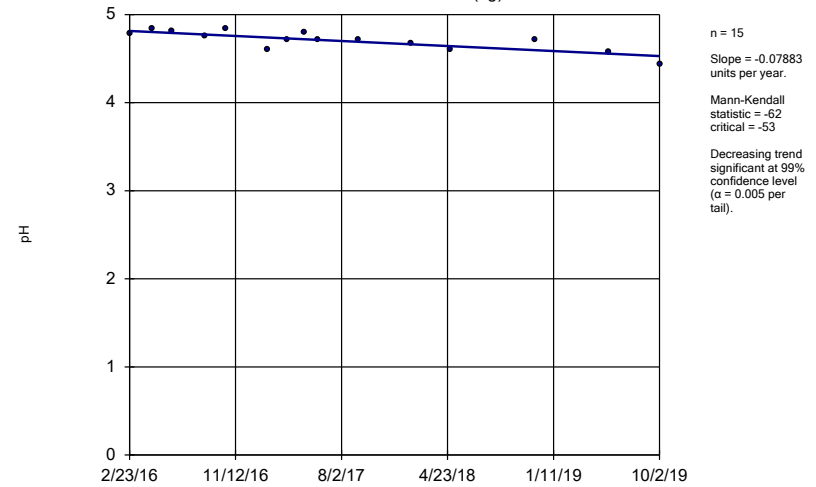
Constituent: pH Analysis Run 1/17/2020 10:01 AM View: Trend Test
Plant Barry Client: Southern Company Data: Barry Ash Pond

Sen's Slope Estimator BY-GSA-MW-1 (bg)



Constituent: pH Analysis Run 1/17/2020 10:01 AM View: Trend Test
Plant Barry Client: Southern Company Data: Barry Ash Pond

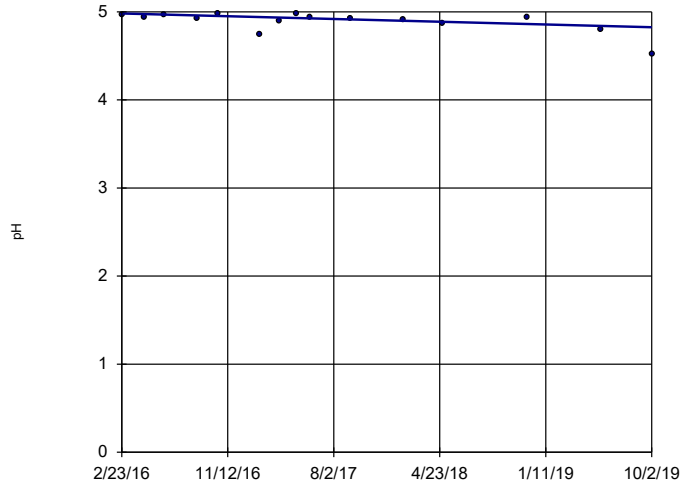
Sen's Slope Estimator BY-GSA-MW-2 (bg)



Constituent: pH Analysis Run 1/17/2020 10:01 AM View: Trend Test
Plant Barry Client: Southern Company Data: Barry Ash Pond

Sen's Slope Estimator

BY-GSA-MW-3 (bg)

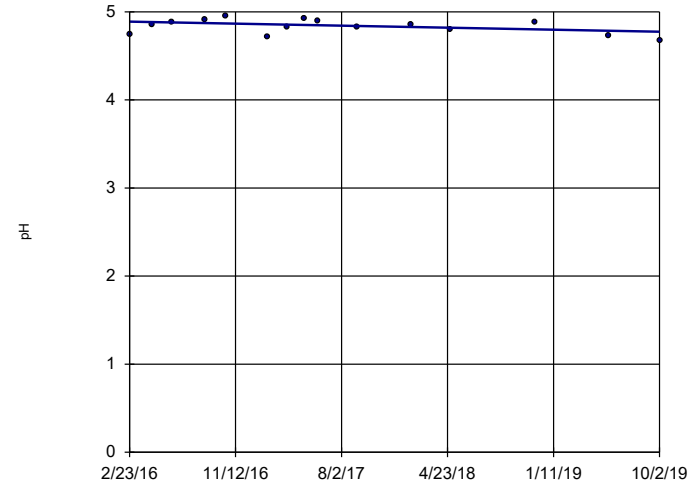


n = 15
 Slope = -0.04358
 units per year.
 Mann-Kendall
 statistic = -44
 critical = -53
 Trend not sig-
 nificant at 99%
 confidence level
 ($\alpha = 0.005$ per
 tail).

Constituent: pH Analysis Run 1/17/2020 10:01 AM View: Trend Test
 Plant Barry Client: Southern Company Data: Barry Ash Pond

Sen's Slope Estimator

BY-GSA-MW-4 (bg)

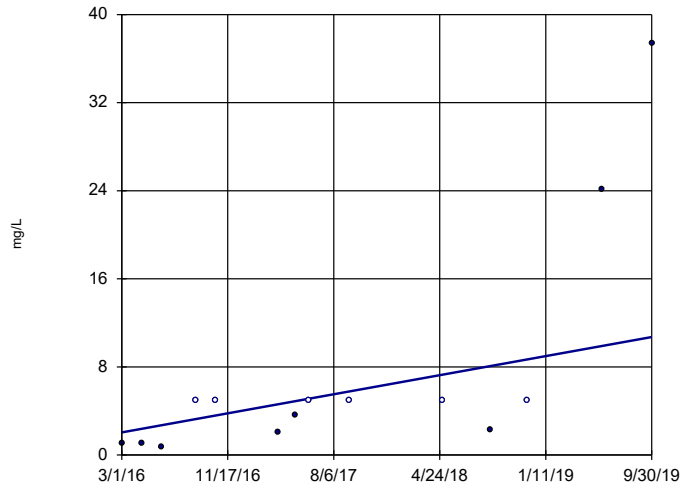


n = 15
 Slope = -0.0316
 units per year.
 Mann-Kendall
 statistic = -26
 critical = -53
 Trend not sig-
 nificant at 99%
 confidence level
 ($\alpha = 0.005$ per
 tail).

Constituent: pH Analysis Run 1/17/2020 10:01 AM View: Trend Test
 Plant Barry Client: Southern Company Data: Barry Ash Pond

Sen's Slope Estimator

BY-AP-MW-11

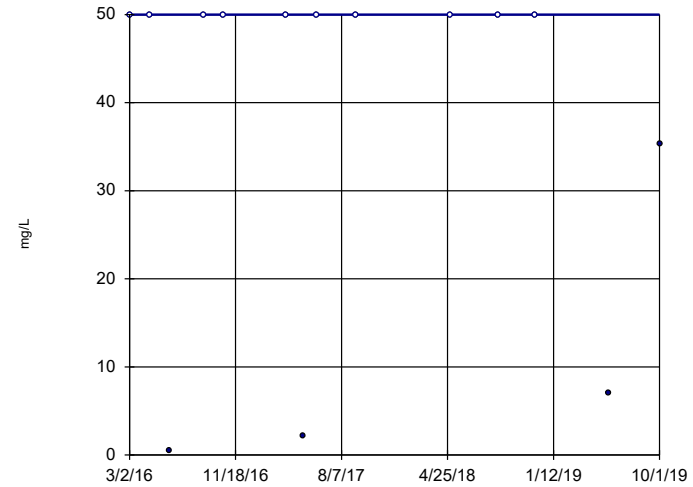


n = 14
 Slope = 2.414
 units per year.
 Mann-Kendall
 statistic = 52
 critical = 48
 Increasing trend
 significant at 99%
 confidence level
 ($\alpha = 0.005$ per
 tail).

Constituent: Sulfate Analysis Run 1/17/2020 10:01 AM View: Trend Test
 Plant Barry Client: Southern Company Data: Barry Ash Pond

Sen's Slope Estimator

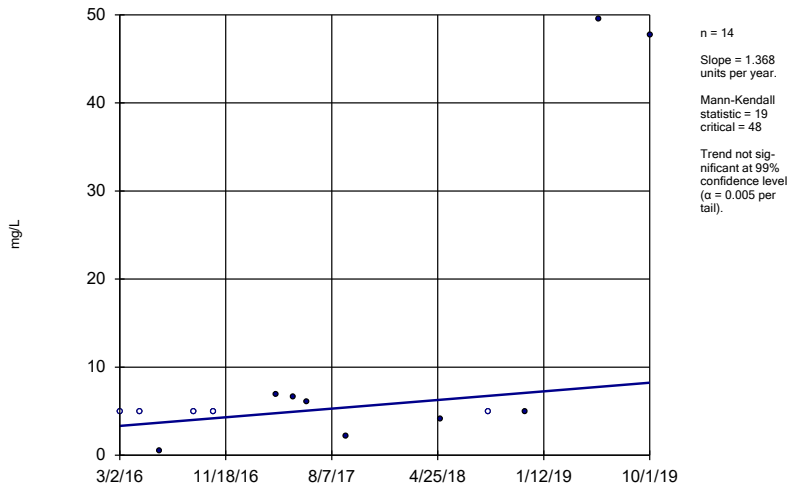
BY-AP-MW-12



n = 14
 Slope = 0
 units per year.
 Mann-Kendall
 statistic = -8
 critical = -48
 Trend not sig-
 nificant at 99%
 confidence level
 ($\alpha = 0.005$ per
 tail).

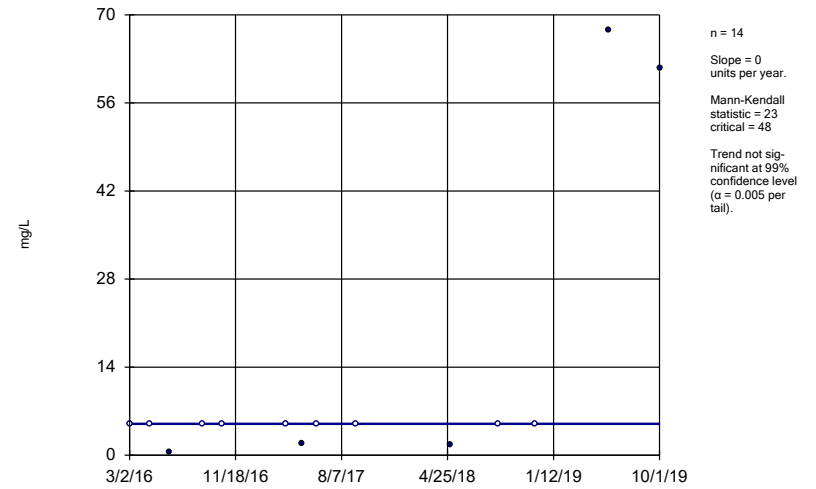
Constituent: Sulfate Analysis Run 1/17/2020 10:01 AM View: Trend Test
 Plant Barry Client: Southern Company Data: Barry Ash Pond

Sen's Slope Estimator BY-AP-MW-13



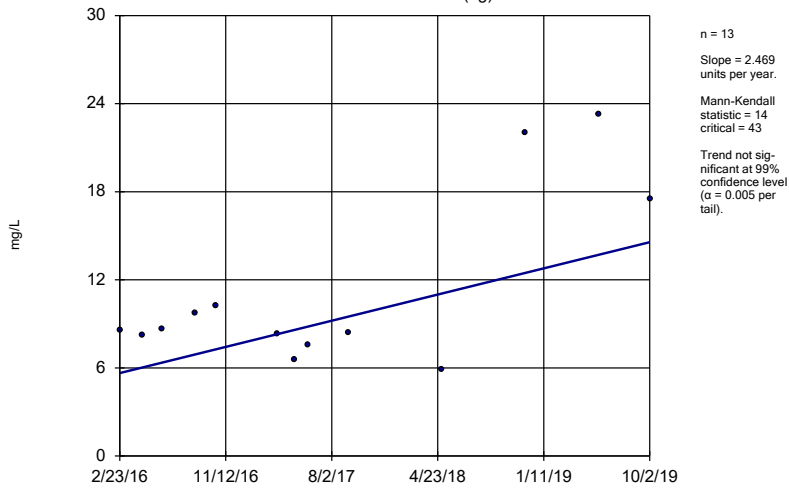
Constituent: Sulfate Analysis Run 1/17/2020 10:01 AM View: Trend Test
Plant Barry Client: Southern Company Data: Barry Ash Pond

Sen's Slope Estimator BY-AP-MW-14



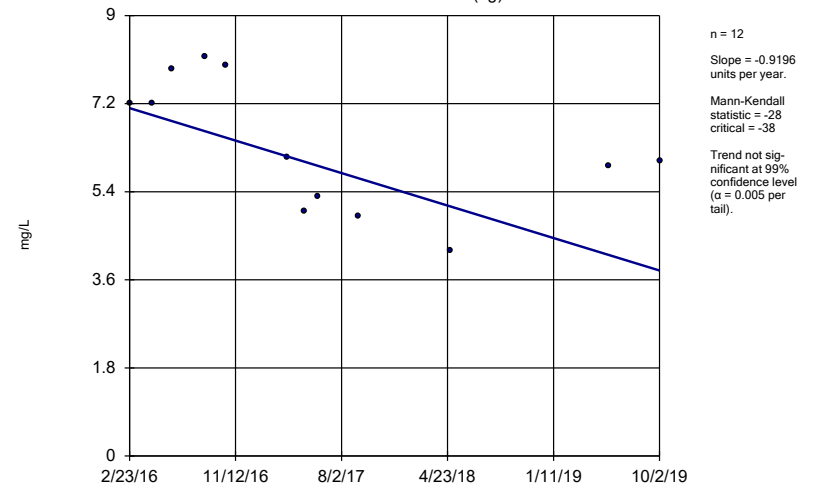
Constituent: Sulfate Analysis Run 1/17/2020 10:01 AM View: Trend Test
Plant Barry Client: Southern Company Data: Barry Ash Pond

Sen's Slope Estimator BY-GSA-MW-1 (bg)



Constituent: Sulfate Analysis Run 1/17/2020 10:01 AM View: Trend Test
Plant Barry Client: Southern Company Data: Barry Ash Pond

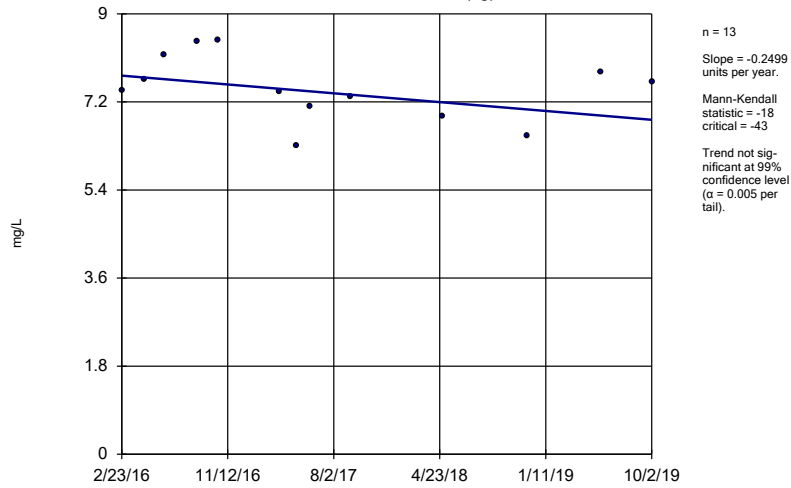
Sen's Slope Estimator BY-GSA-MW-2 (bg)



Constituent: Sulfate Analysis Run 1/17/2020 10:01 AM View: Trend Test
Plant Barry Client: Southern Company Data: Barry Ash Pond

Sen's Slope Estimator

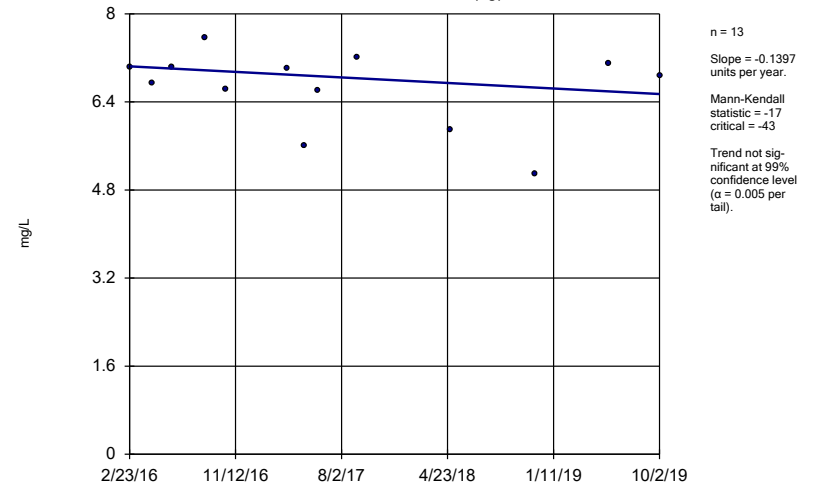
BY-GSA-MW-3 (bg)



Constituent: Sulfate Analysis Run 1/17/2020 10:01 AM View: Trend Test
 Plant Barry Client: Southern Company Data: Barry Ash Pond

Sen's Slope Estimator

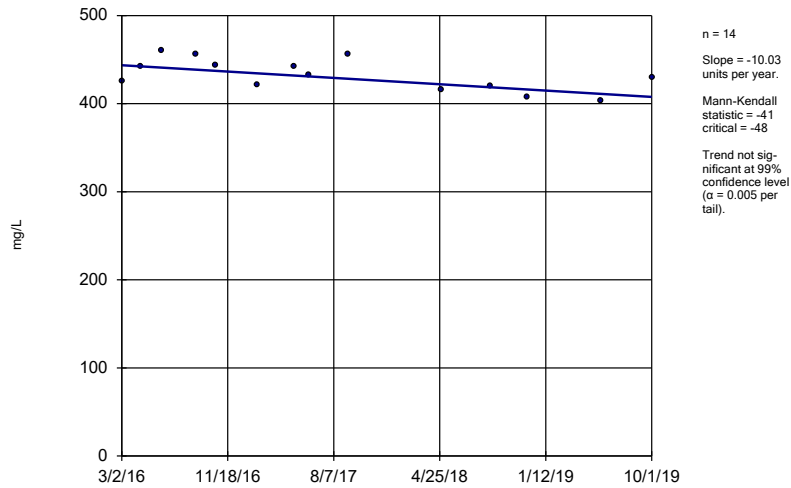
BY-GSA-MW-4 (bg)



Constituent: Sulfate Analysis Run 1/17/2020 10:01 AM View: Trend Test
 Plant Barry Client: Southern Company Data: Barry Ash Pond

Sen's Slope Estimator

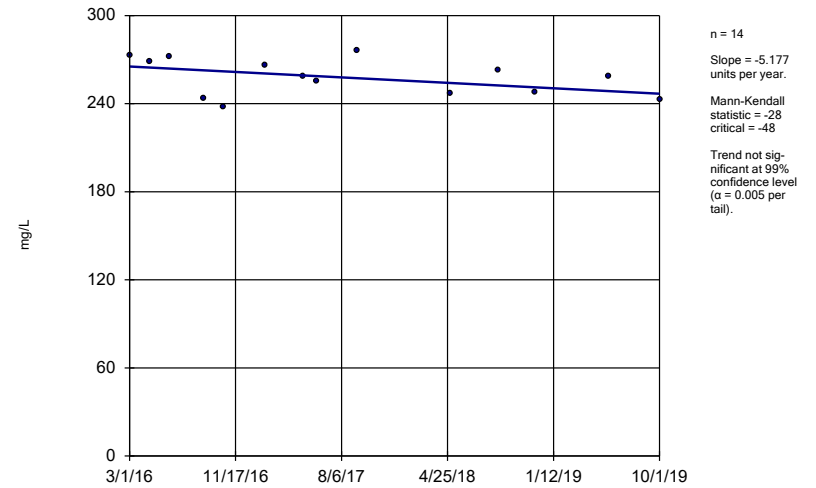
BY-AP-MW-1



Constituent: TDS Analysis Run 1/17/2020 10:01 AM View: Trend Test
 Plant Barry Client: Southern Company Data: Barry Ash Pond

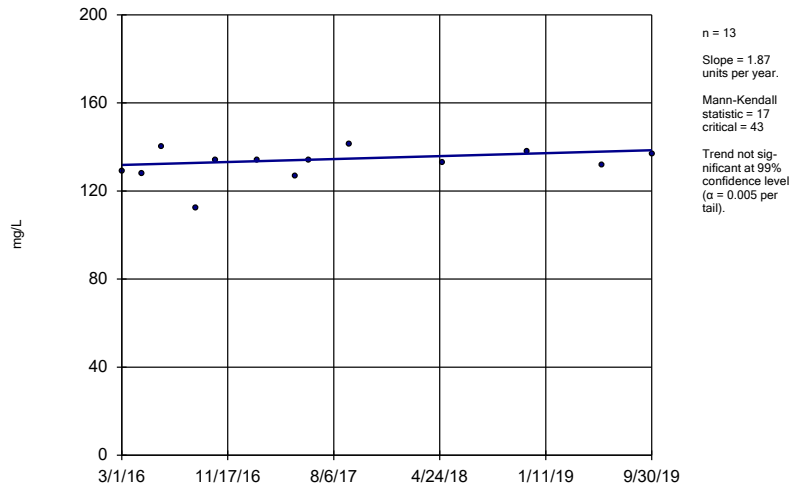
Sen's Slope Estimator

BY-AP-MW-5



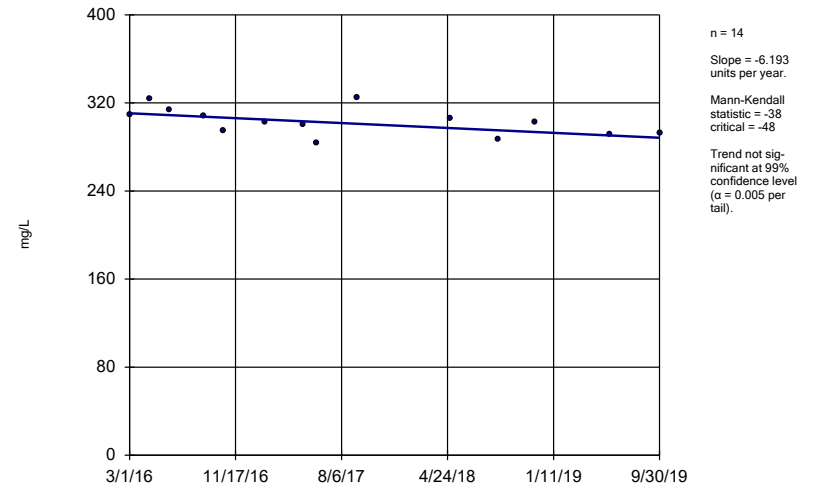
Constituent: TDS Analysis Run 1/17/2020 10:01 AM View: Trend Test
 Plant Barry Client: Southern Company Data: Barry Ash Pond

Sen's Slope Estimator
BY-AP-MW-7



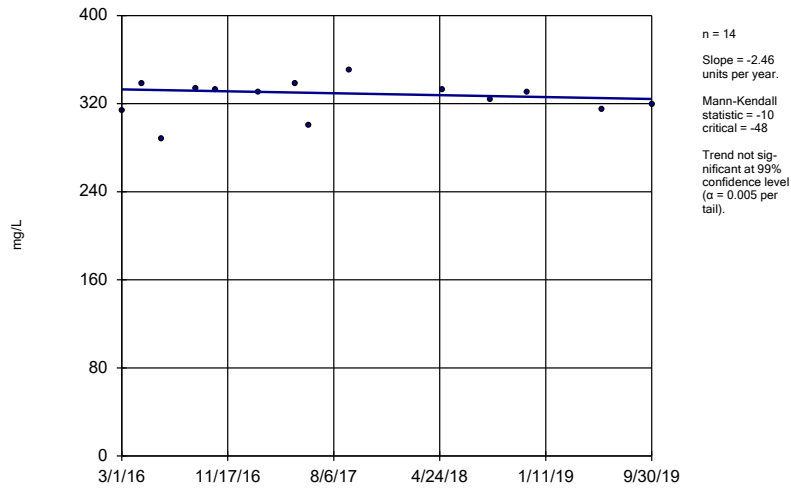
Constituent: TDS Analysis Run 1/17/2020 10:01 AM View: Trend Test
Plant Barry Client: Southern Company Data: Barry Ash Pond

Sen's Slope Estimator
BY-AP-MW-8



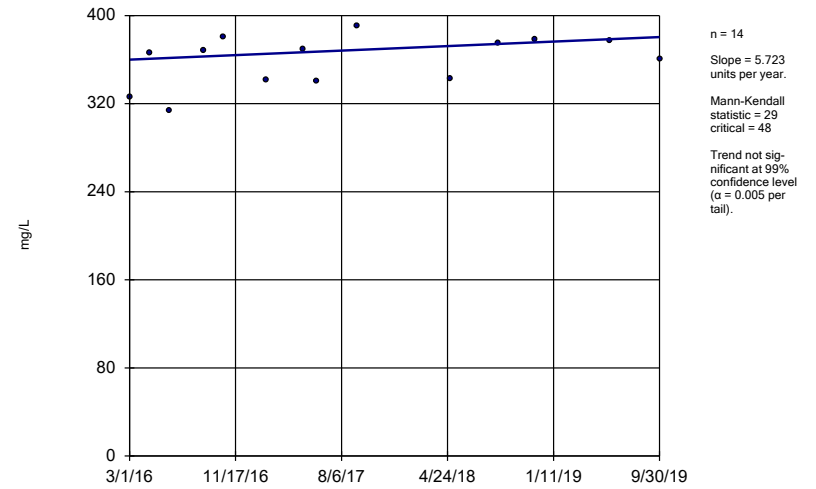
Constituent: TDS Analysis Run 1/17/2020 10:01 AM View: Trend Test
Plant Barry Client: Southern Company Data: Barry Ash Pond

Sen's Slope Estimator
BY-AP-MW-9



Constituent: TDS Analysis Run 1/17/2020 10:01 AM View: Trend Test
Plant Barry Client: Southern Company Data: Barry Ash Pond

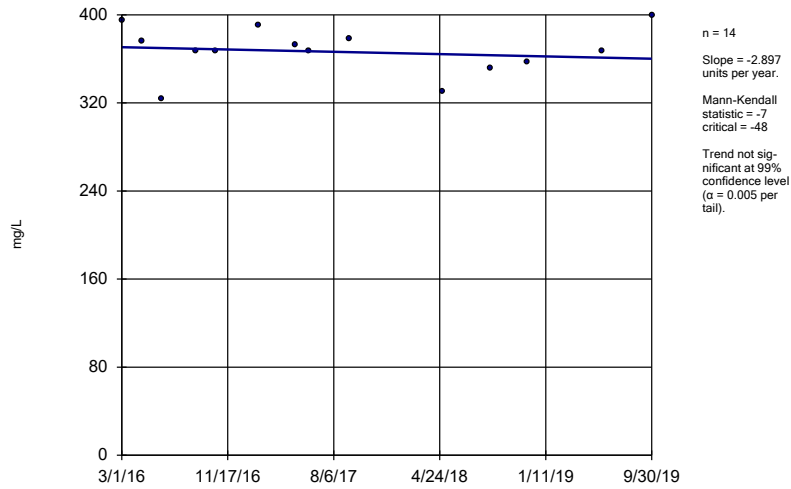
Sen's Slope Estimator
BY-AP-MW-10



Constituent: TDS Analysis Run 1/17/2020 10:01 AM View: Trend Test
Plant Barry Client: Southern Company Data: Barry Ash Pond

Sen's Slope Estimator

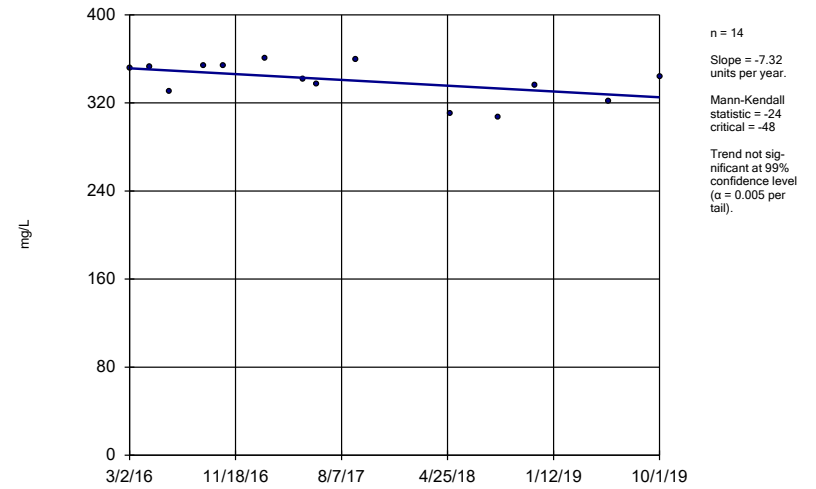
BY-AP-MW-11



Constituent: TDS Analysis Run 1/17/2020 10:02 AM View: Trend Test
Plant Barry Client: Southern Company Data: Barry Ash Pond

Sen's Slope Estimator

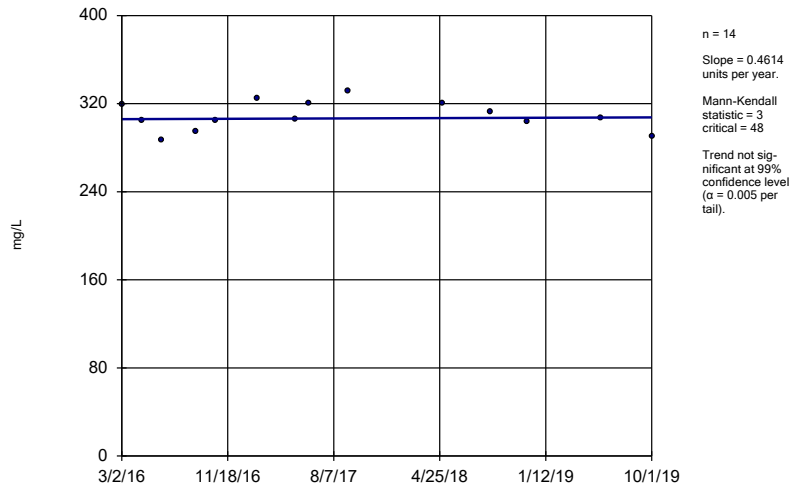
BY-AP-MW-12



Constituent: TDS Analysis Run 1/17/2020 10:02 AM View: Trend Test
Plant Barry Client: Southern Company Data: Barry Ash Pond

Sen's Slope Estimator

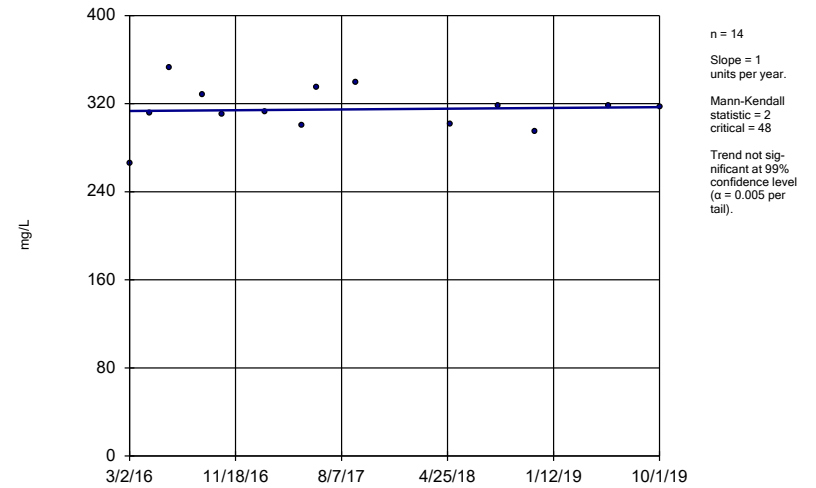
BY-AP-MW-13



Constituent: TDS Analysis Run 1/17/2020 10:02 AM View: Trend Test
Plant Barry Client: Southern Company Data: Barry Ash Pond

Sen's Slope Estimator

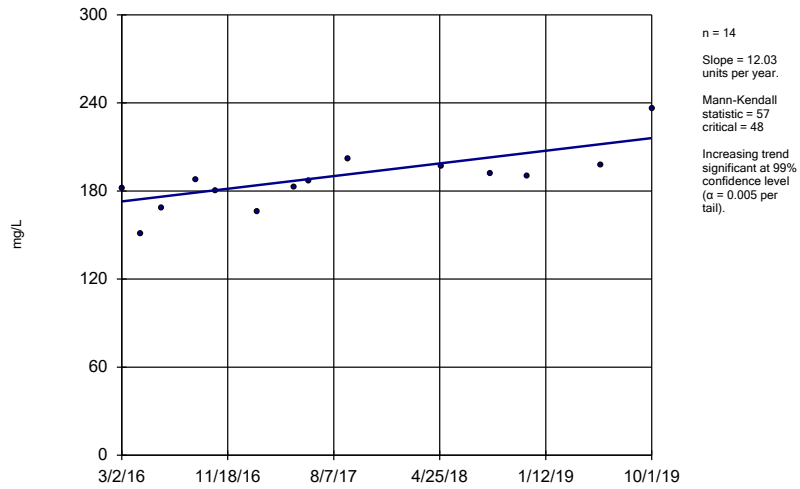
BY-AP-MW-14



Constituent: TDS Analysis Run 1/17/2020 10:02 AM View: Trend Test
Plant Barry Client: Southern Company Data: Barry Ash Pond

Sen's Slope Estimator

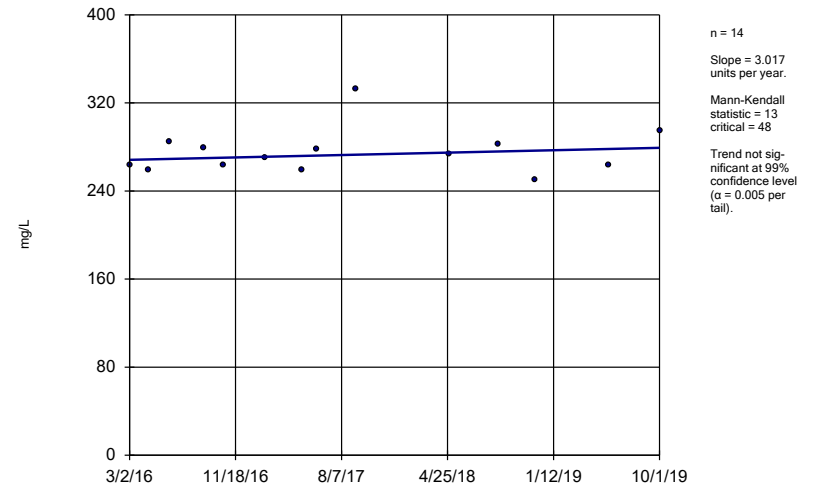
BY-AP-MW-15



Constituent: TDS Analysis Run 1/17/2020 10:02 AM View: Trend Test
Plant Barry Client: Southern Company Data: Barry Ash Pond

Sen's Slope Estimator

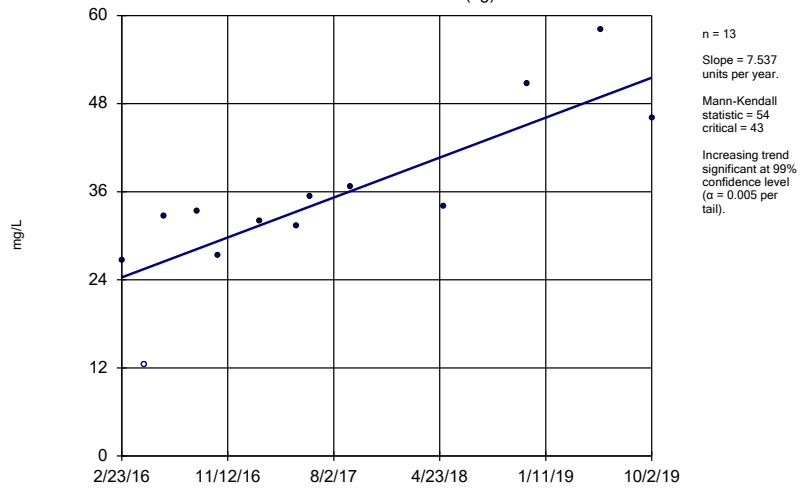
BY-AP-MW-16



Constituent: TDS Analysis Run 1/17/2020 10:02 AM View: Trend Test
Plant Barry Client: Southern Company Data: Barry Ash Pond

Sen's Slope Estimator

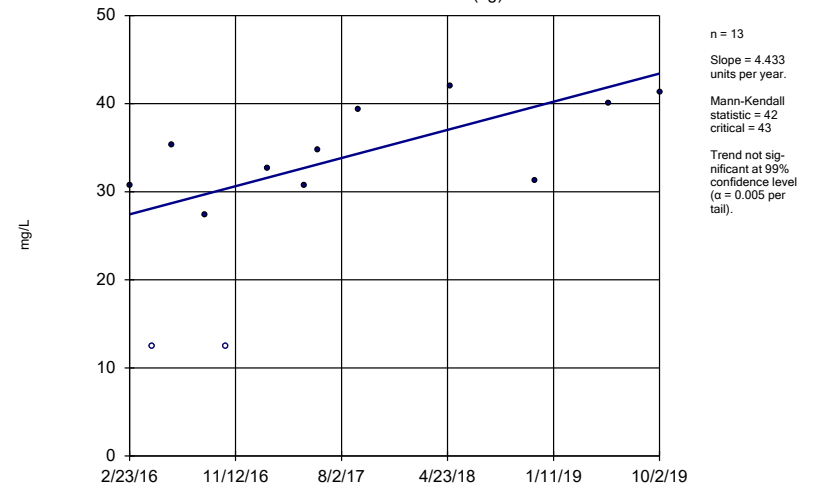
BY-GSA-MW-1 (bg)



Constituent: TDS Analysis Run 1/17/2020 10:02 AM View: Trend Test
Plant Barry Client: Southern Company Data: Barry Ash Pond

Sen's Slope Estimator

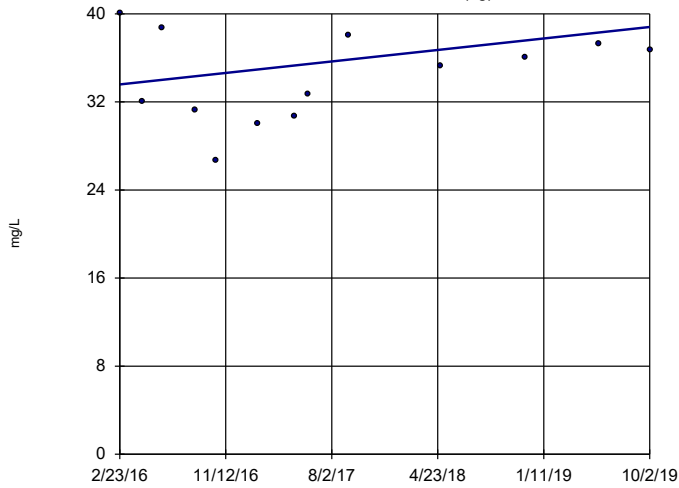
BY-GSA-MW-2 (bg)



Constituent: TDS Analysis Run 1/17/2020 10:02 AM View: Trend Test
Plant Barry Client: Southern Company Data: Barry Ash Pond

Sen's Slope Estimator

BY-GSA-MW-3 (bg)



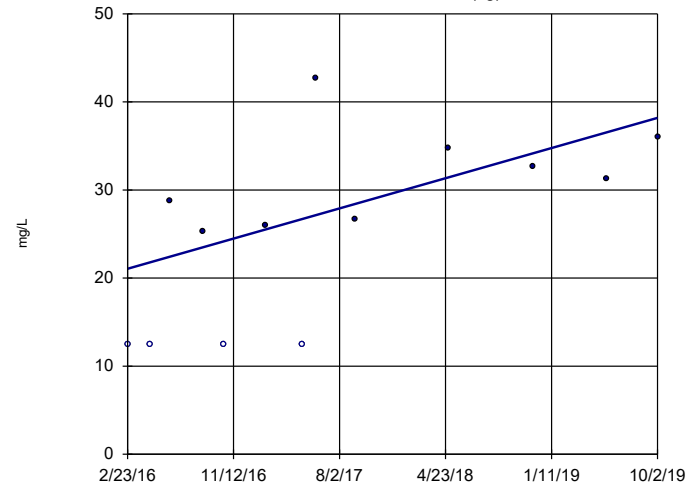
n = 13
Slope = 1.447
units per year.
Mann-Kendall
statistic = 10
critical = 43
Trend not sig-
nificant at 99%
confidence level
($\alpha = 0.005$ per
tail).

Constituent: TDS Analysis Run 1/17/2020 10:02 AM View: Trend Test
Plant Barry Client: Southern Company Data: Barry Ash Pond

Hollow symbols indicate censored values.

Sen's Slope Estimator

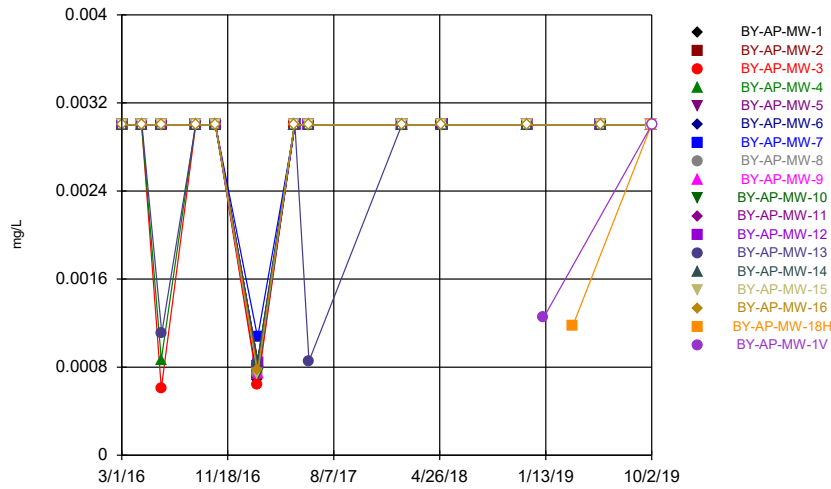
BY-GSA-MW-4 (bg)



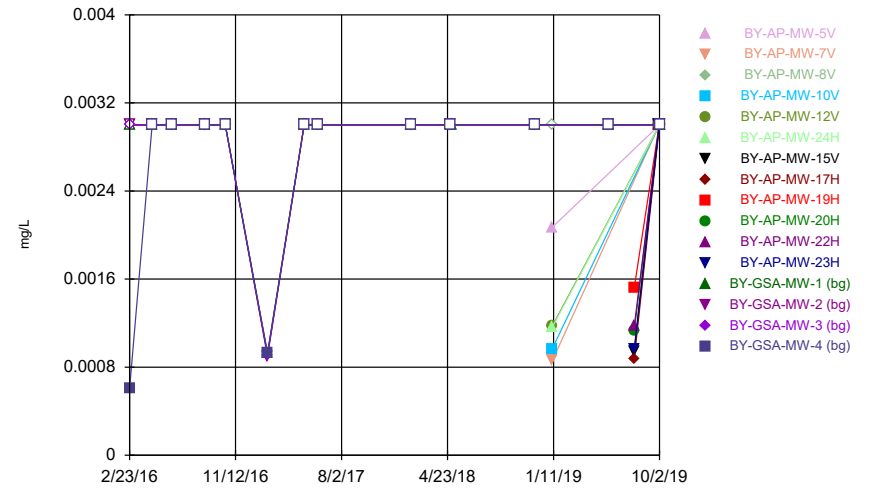
n = 13
Slope = 4.752
units per year.
Mann-Kendall
statistic = 40
critical = 43
Trend not sig-
nificant at 99%
confidence level
($\alpha = 0.005$ per
tail).

Constituent: TDS Analysis Run 1/17/2020 10:02 AM View: Trend Test
Plant Barry Client: Southern Company Data: Barry Ash Pond

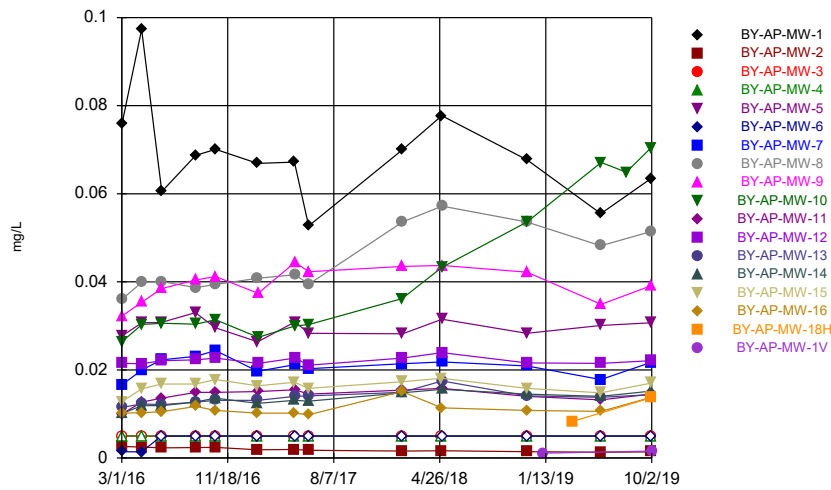
Time Series



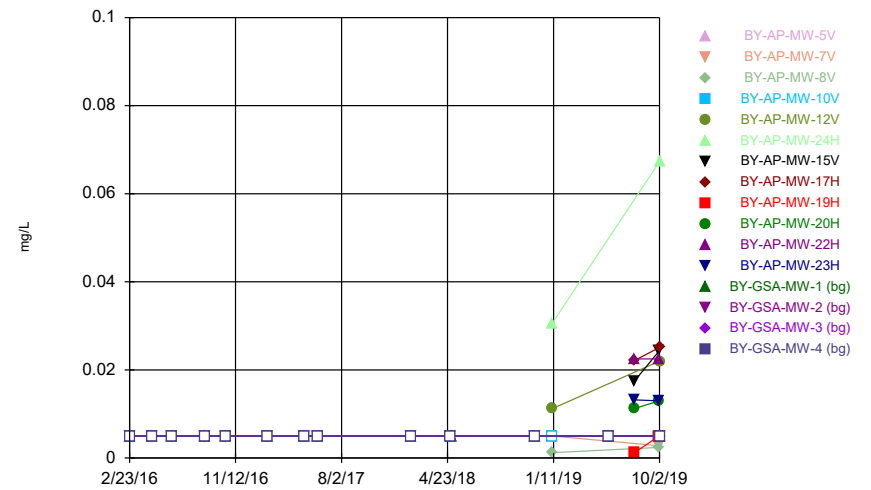
Time Series



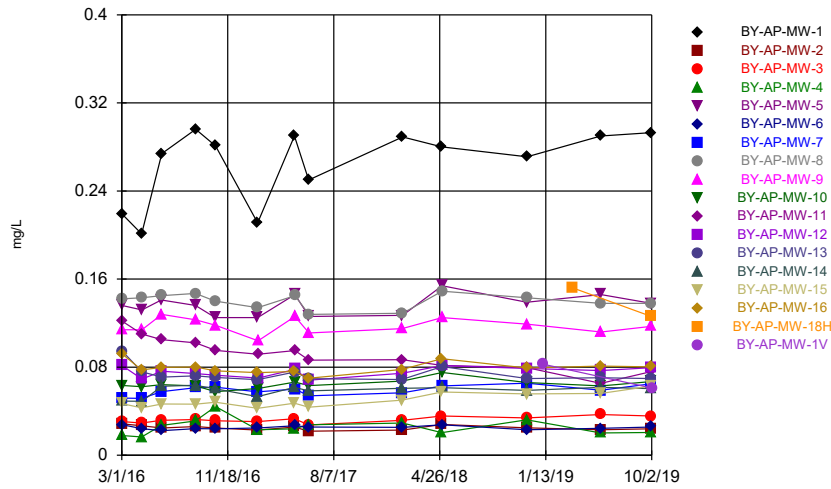
Time Series



Time Series

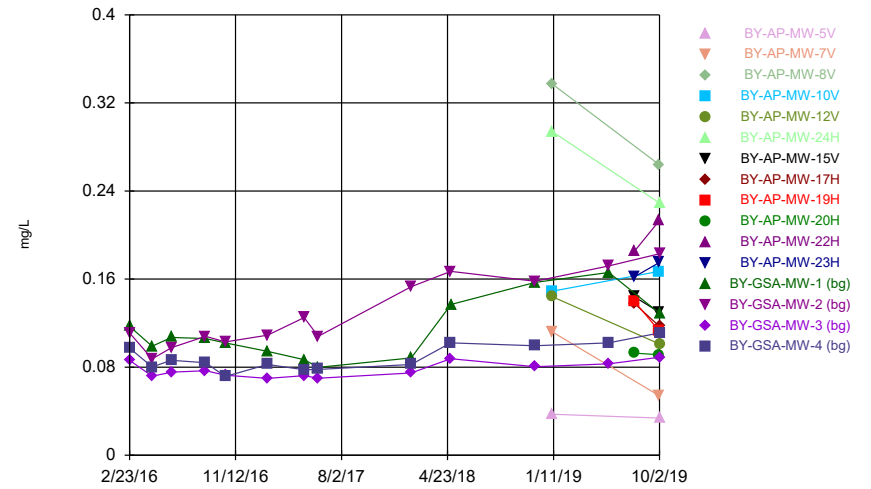


Time Series



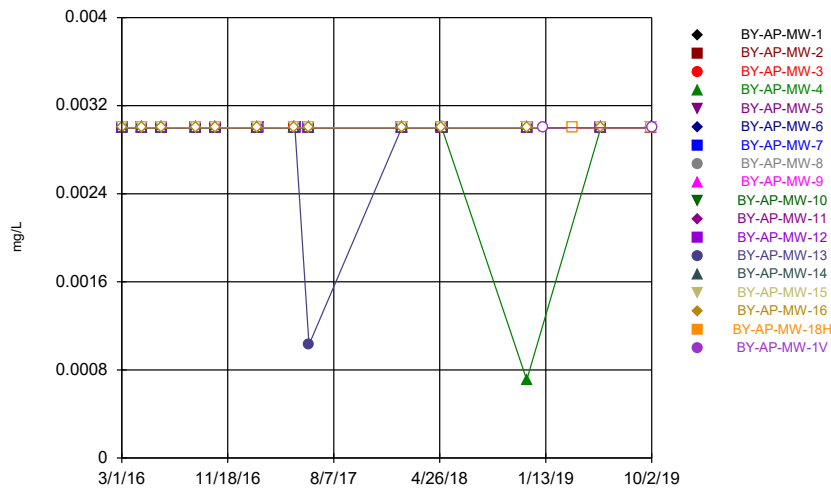
Constituent: Barium Analysis Run 1/17/2020 10:04 AM View: Time Series
 Plant Barry Client: Southern Company Data: Barry Ash Pond

Time Series



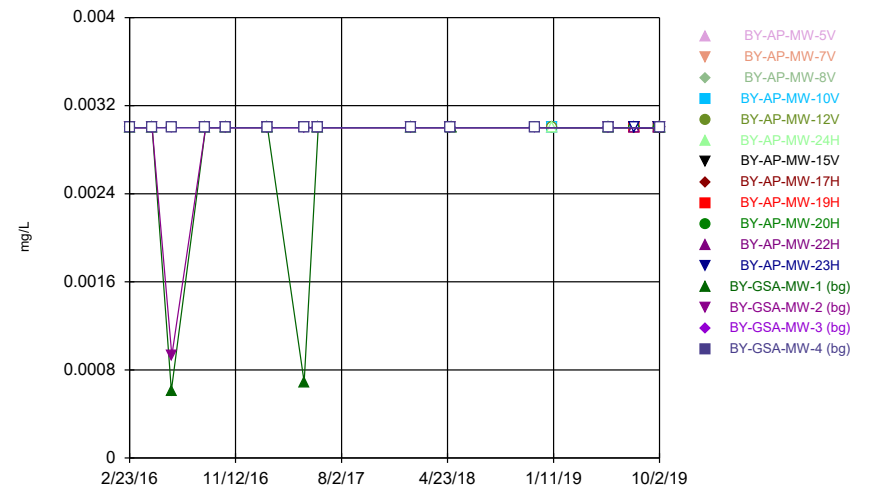
Constituent: Barium Analysis Run 1/17/2020 10:05 AM View: Time Series
 Plant Barry Client: Southern Company Data: Barry Ash Pond

Time Series



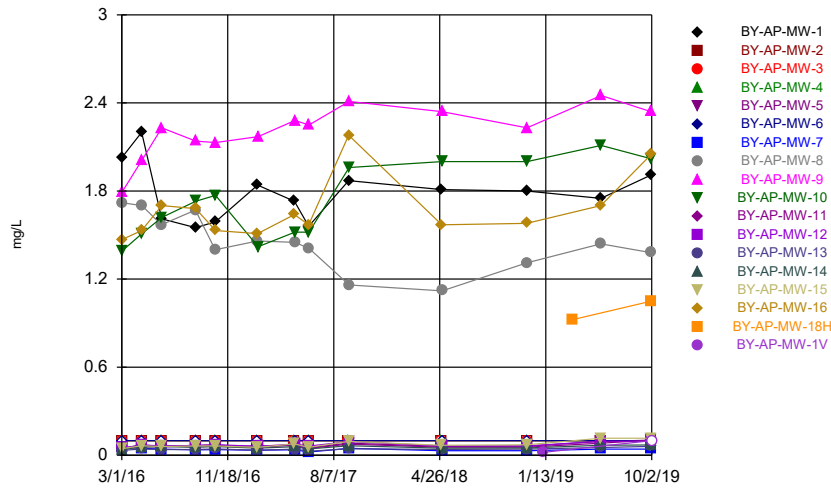
Constituent: Beryllium Analysis Run 1/17/2020 10:05 AM View: Time Series
 Plant Barry Client: Southern Company Data: Barry Ash Pond

Time Series



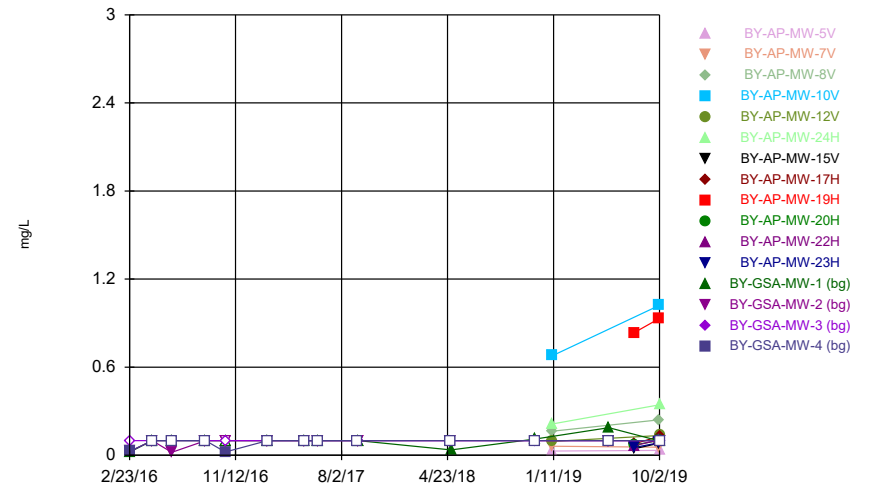
Constituent: Beryllium Analysis Run 1/17/2020 10:05 AM View: Time Series
 Plant Barry Client: Southern Company Data: Barry Ash Pond

Time Series



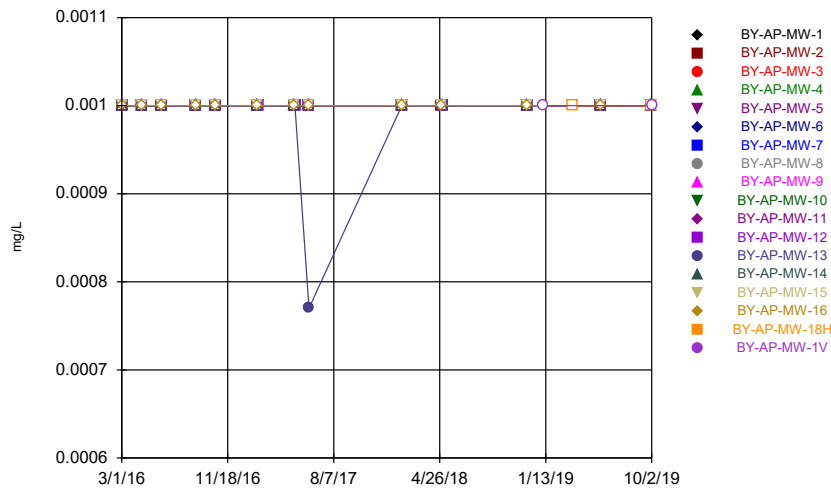
Constituent: Boron Analysis Run 1/17/2020 10:05 AM View: Time Series
Plant Barry Client: Southern Company Data: Barry Ash Pond

Time Series



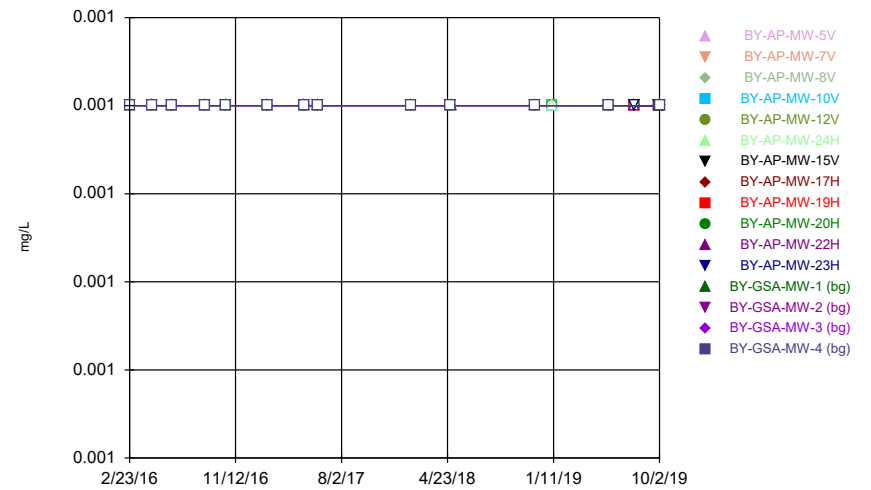
Constituent: Boron Analysis Run 1/17/2020 10:05 AM View: Time Series
Plant Barry Client: Southern Company Data: Barry Ash Pond

Time Series



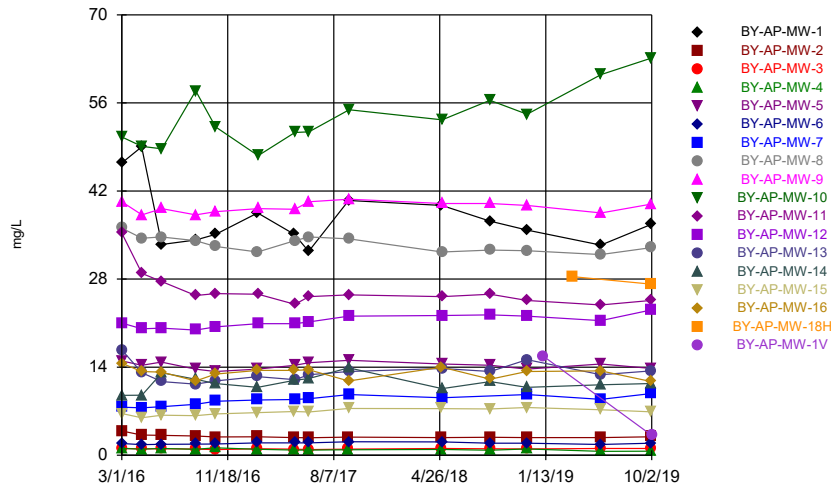
Constituent: Cadmium Analysis Run 1/17/2020 10:05 AM View: Time Series
Plant Barry Client: Southern Company Data: Barry Ash Pond

Time Series



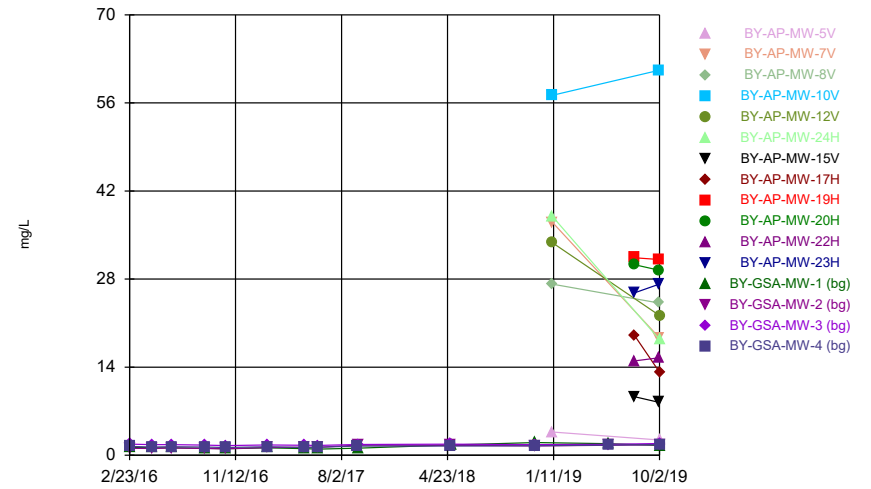
Constituent: Cadmium Analysis Run 1/17/2020 10:05 AM View: Time Series
Plant Barry Client: Southern Company Data: Barry Ash Pond

Time Series



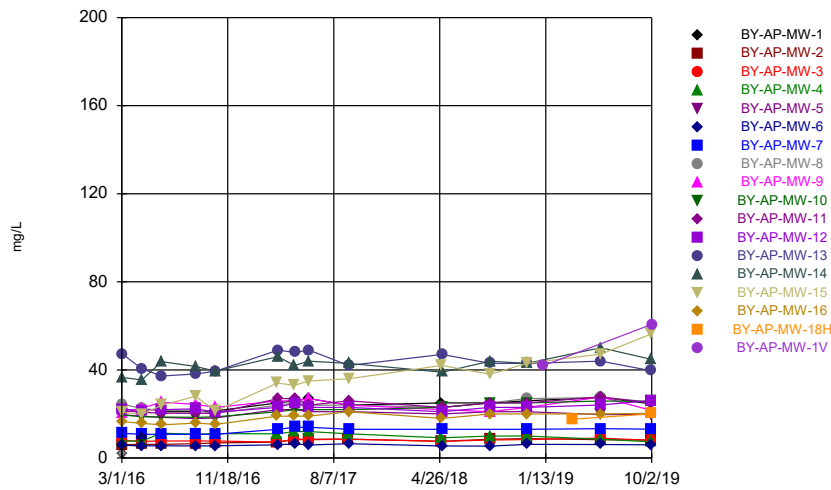
Constituent: Calcium Analysis Run 1/17/2020 10:05 AM View: Time Series
 Plant Barry Client: Southern Company Data: Barry Ash Pond

Time Series



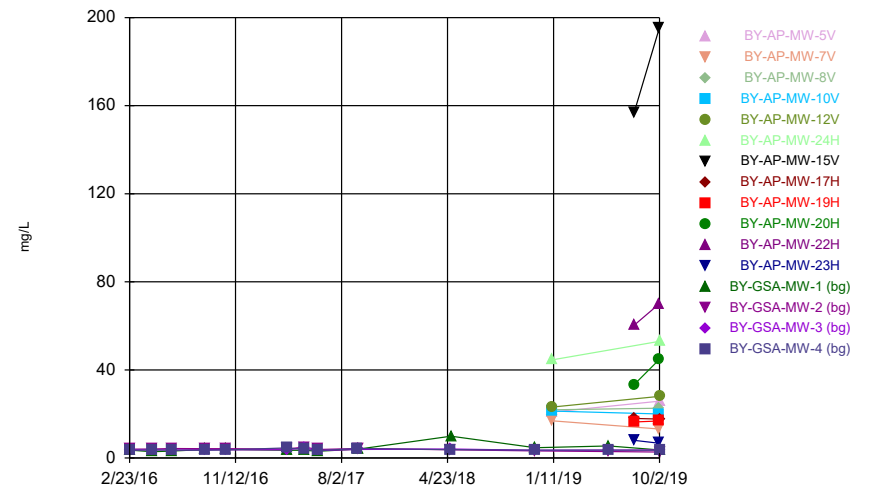
Constituent: Calcium Analysis Run 1/17/2020 10:05 AM View: Time Series
 Plant Barry Client: Southern Company Data: Barry Ash Pond

Time Series



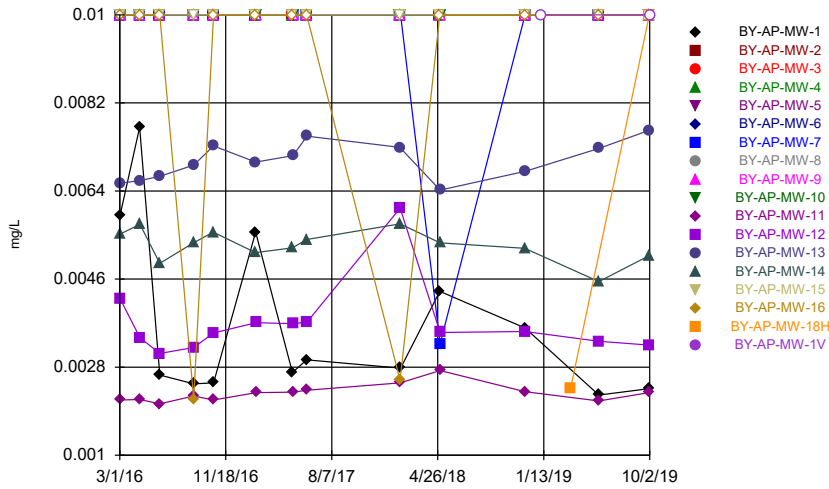
Constituent: Chloride Analysis Run 1/17/2020 10:05 AM View: Time Series
 Plant Barry Client: Southern Company Data: Barry Ash Pond

Time Series

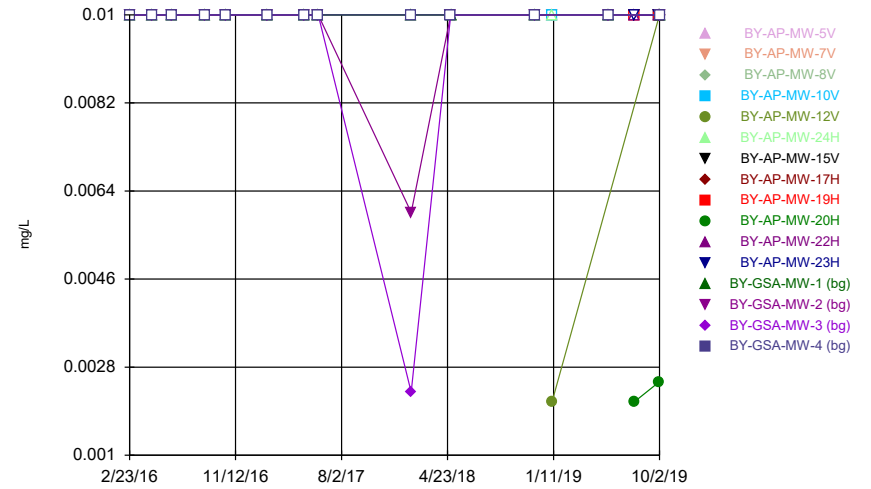


Constituent: Chloride Analysis Run 1/17/2020 10:05 AM View: Time Series
 Plant Barry Client: Southern Company Data: Barry Ash Pond

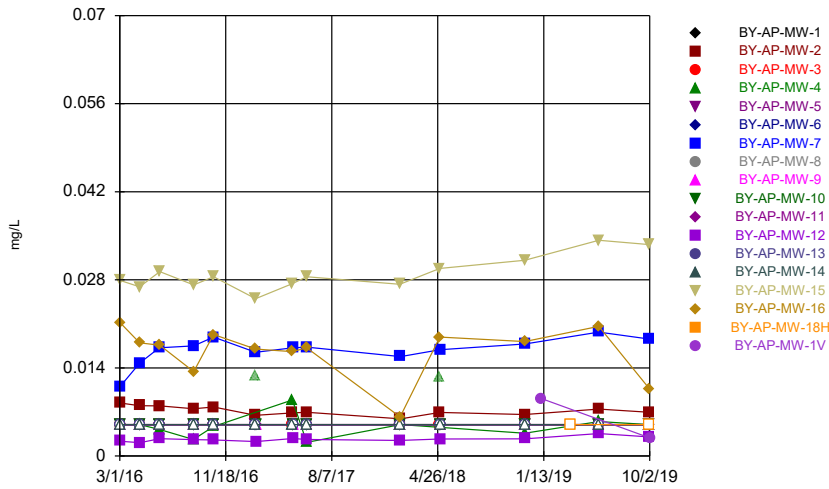
Time Series



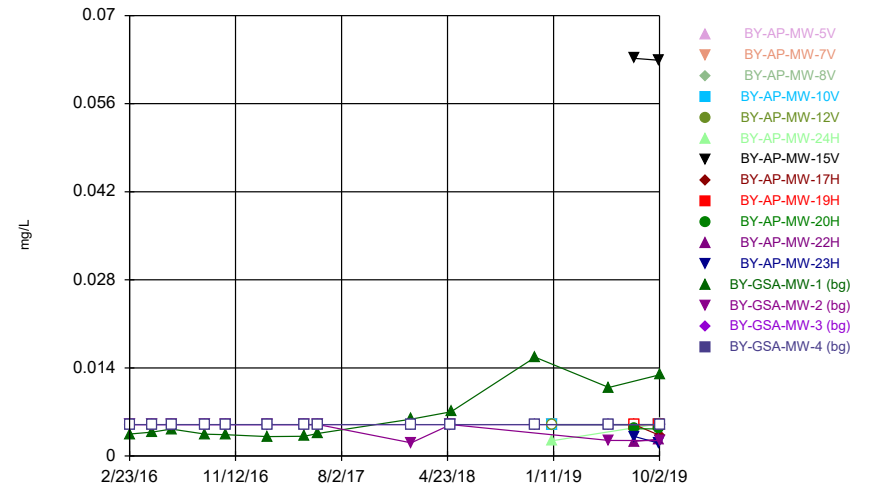
Time Series



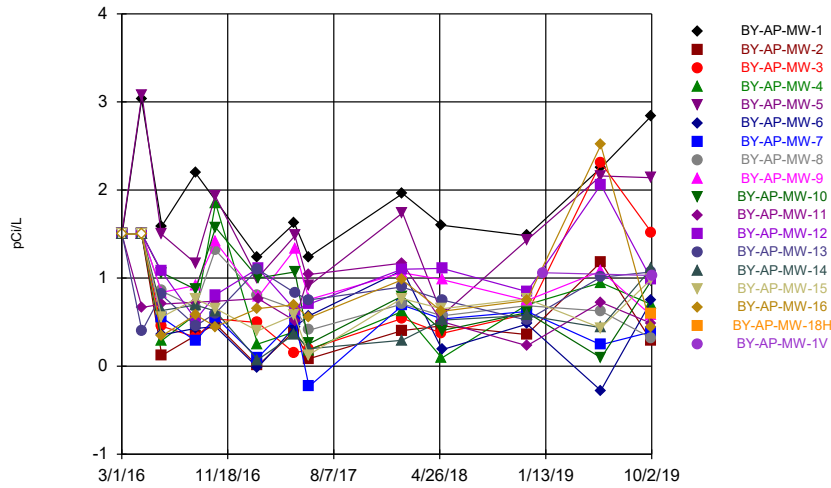
Time Series



Time Series

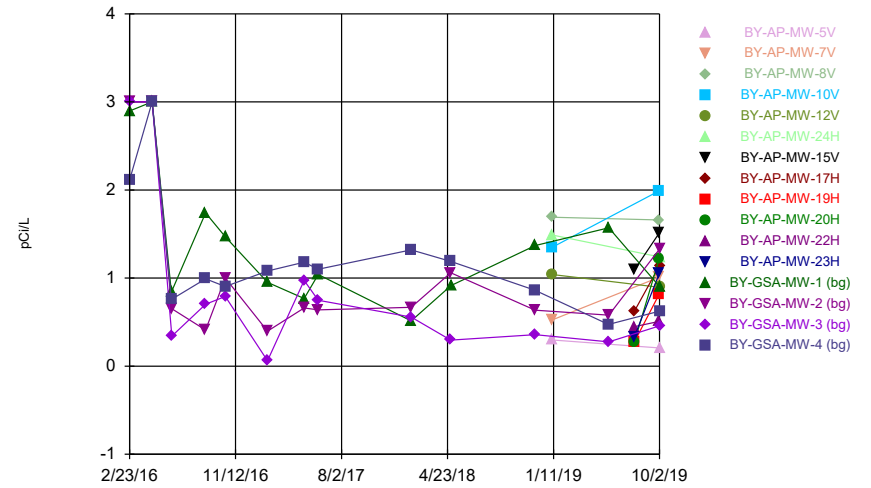


Time Series



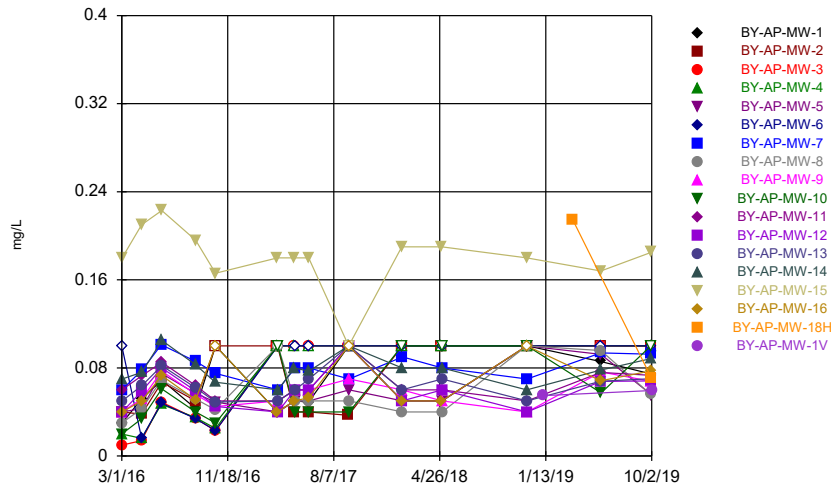
Constituent: Combined Radium 226 + 228 Analysis Run 1/17/2020 10:06 AM View: Time Series
Plant Barry Client: Southern Company Data: Barry Ash Pond

Time Series



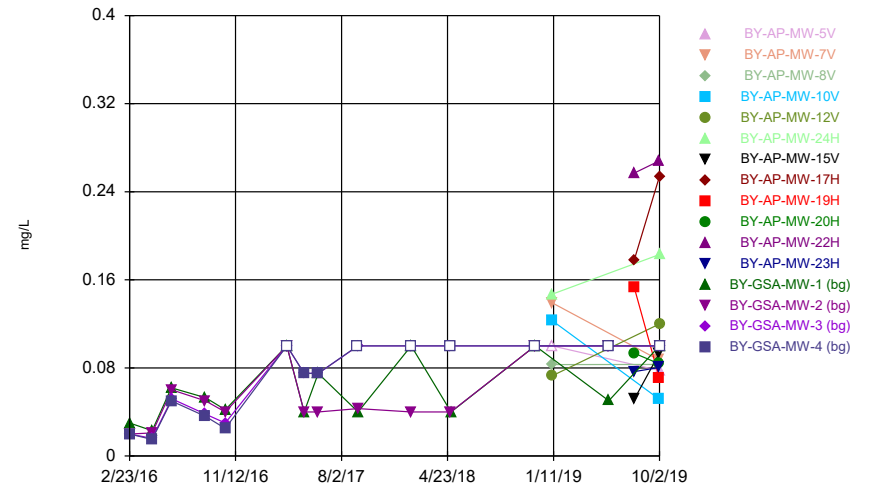
Constituent: Combined Radium 226 + 228 Analysis Run 1/17/2020 10:06 AM View: Time Series
Plant Barry Client: Southern Company Data: Barry Ash Pond

Time Series



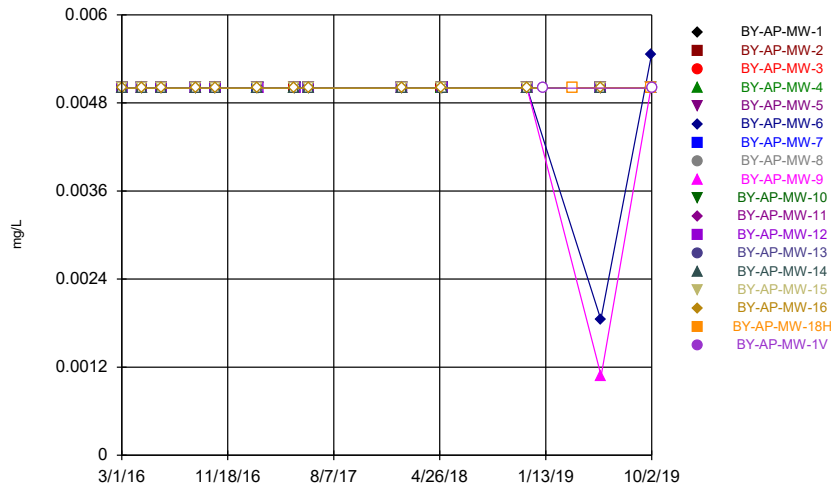
Constituent: Fluoride Analysis Run 1/17/2020 10:06 AM View: Time Series
Plant Barry Client: Southern Company Data: Barry Ash Pond

Time Series



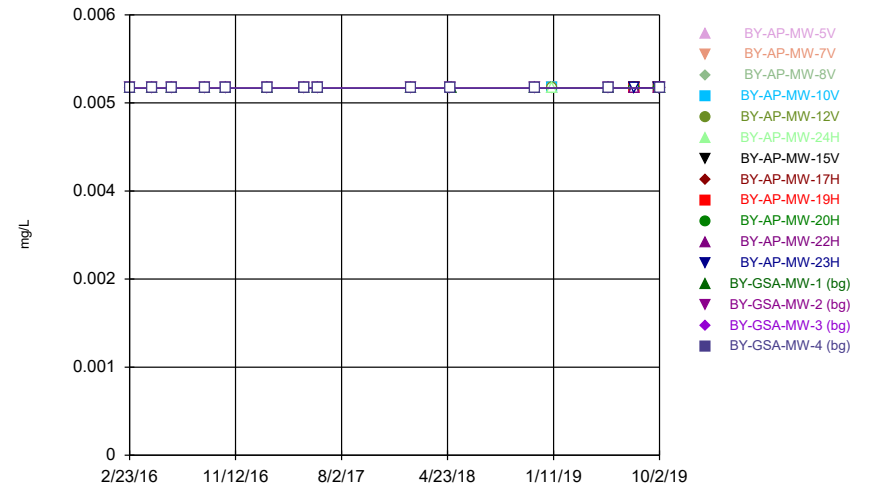
Constituent: Fluoride Analysis Run 1/17/2020 10:06 AM View: Time Series
Plant Barry Client: Southern Company Data: Barry Ash Pond

Time Series



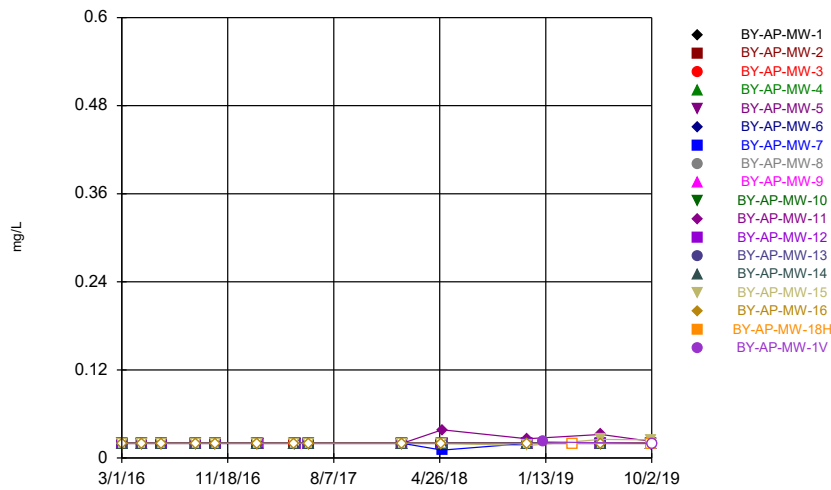
Constituent: Lead Analysis Run 1/17/2020 10:06 AM View: Time Series
Plant Barry Client: Southern Company Data: Barry Ash Pond

Time Series



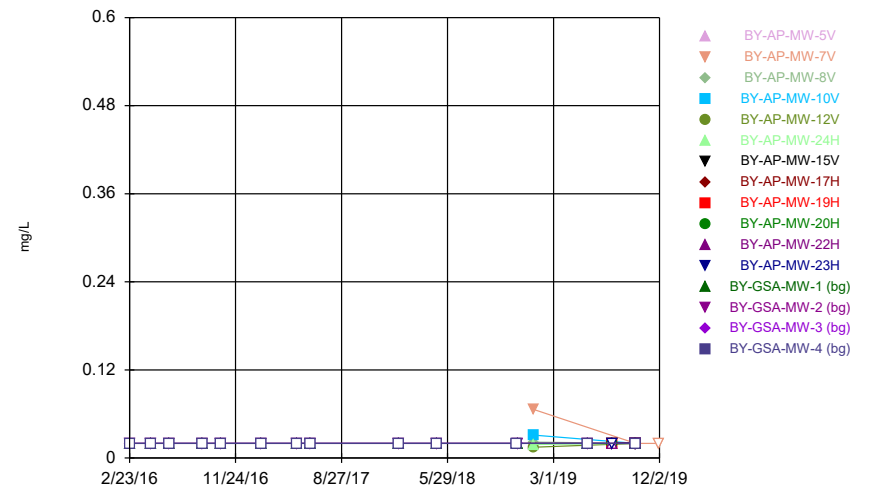
Constituent: Lead Analysis Run 1/17/2020 10:06 AM View: Time Series
Plant Barry Client: Southern Company Data: Barry Ash Pond

Time Series



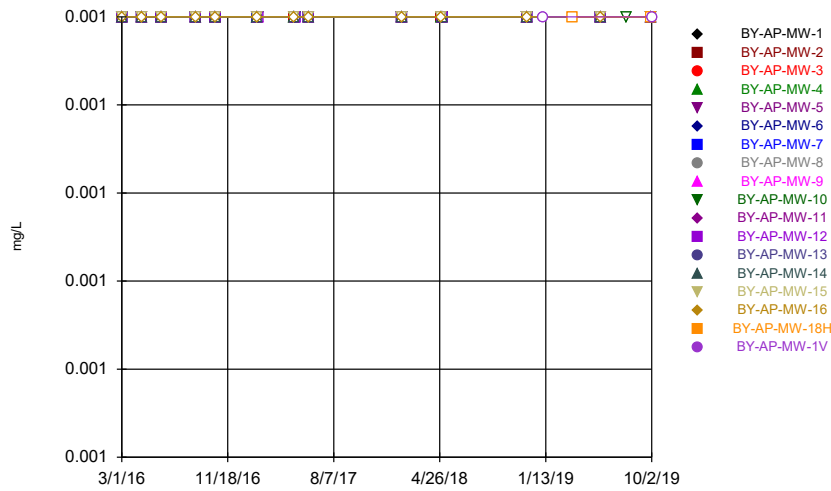
Constituent: Lithium Analysis Run 1/17/2020 10:06 AM View: Time Series
Plant Barry Client: Southern Company Data: Barry Ash Pond

Time Series



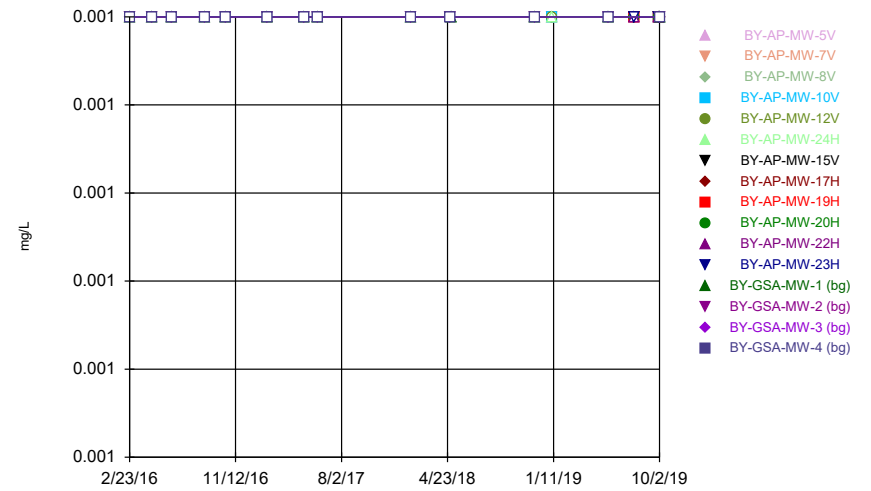
Constituent: Lithium Analysis Run 1/17/2020 10:06 AM View: Time Series
Plant Barry Client: Southern Company Data: Barry Ash Pond

Time Series



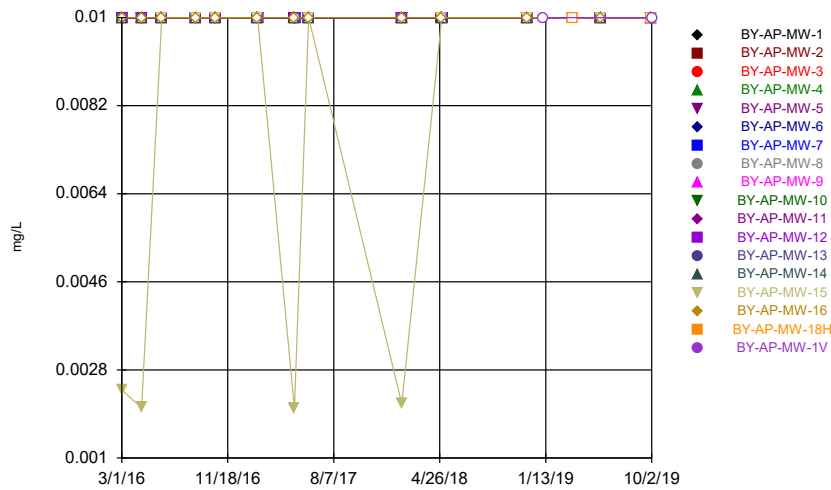
Constituent: Mercury Analysis Run 1/17/2020 10:06 AM View: Time Series
Plant Barry Client: Southern Company Data: Barry Ash Pond

Time Series



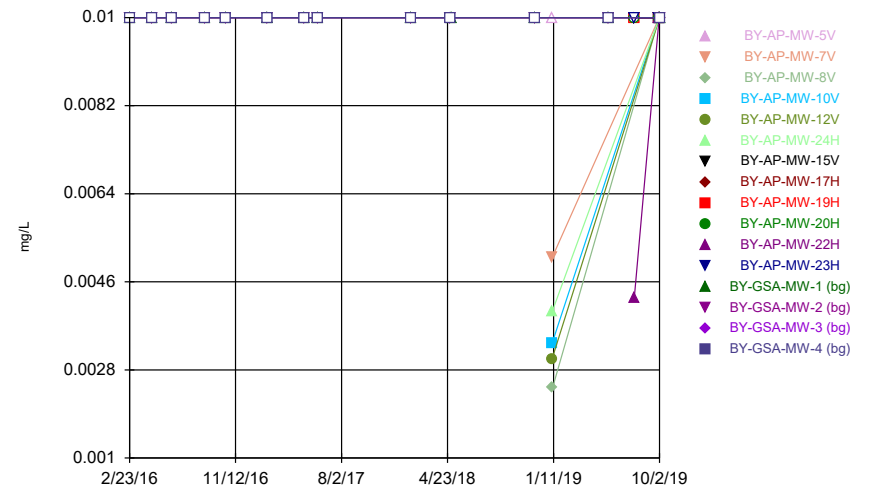
Constituent: Mercury Analysis Run 1/17/2020 10:06 AM View: Time Series
Plant Barry Client: Southern Company Data: Barry Ash Pond

Time Series



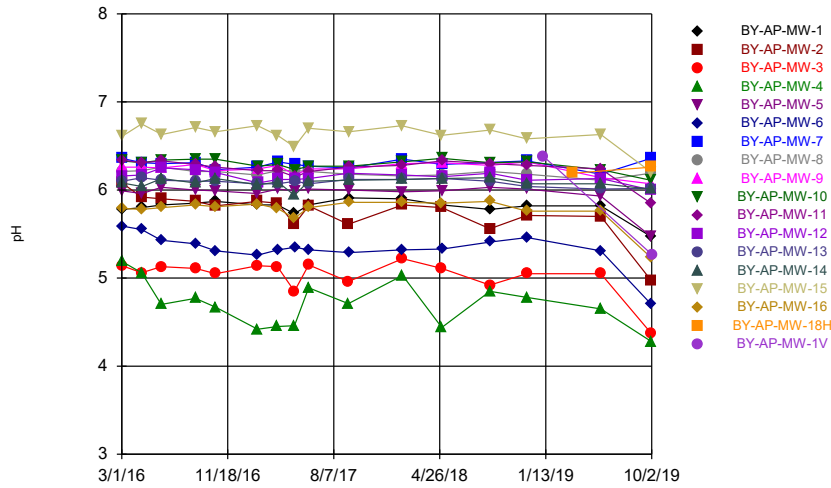
Constituent: Molybdenum Analysis Run 1/17/2020 10:06 AM View: Time Series
Plant Barry Client: Southern Company Data: Barry Ash Pond

Time Series



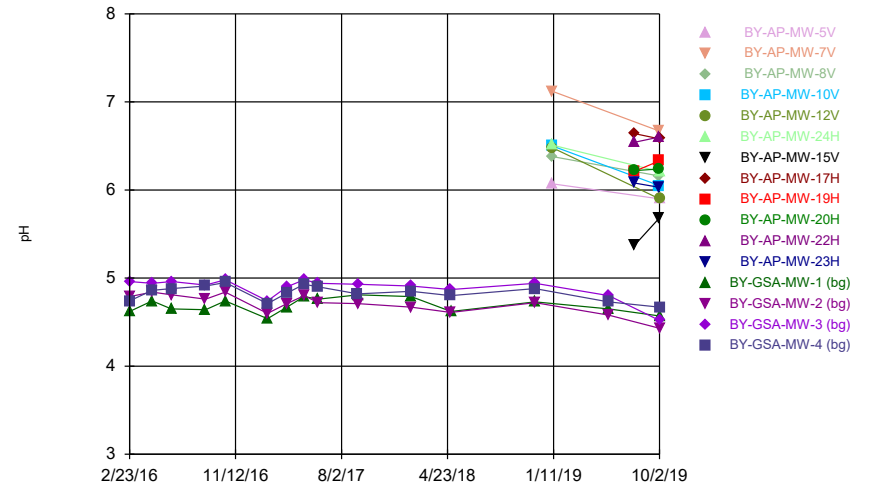
Constituent: Molybdenum Analysis Run 1/17/2020 10:06 AM View: Time Series
Plant Barry Client: Southern Company Data: Barry Ash Pond

Time Series



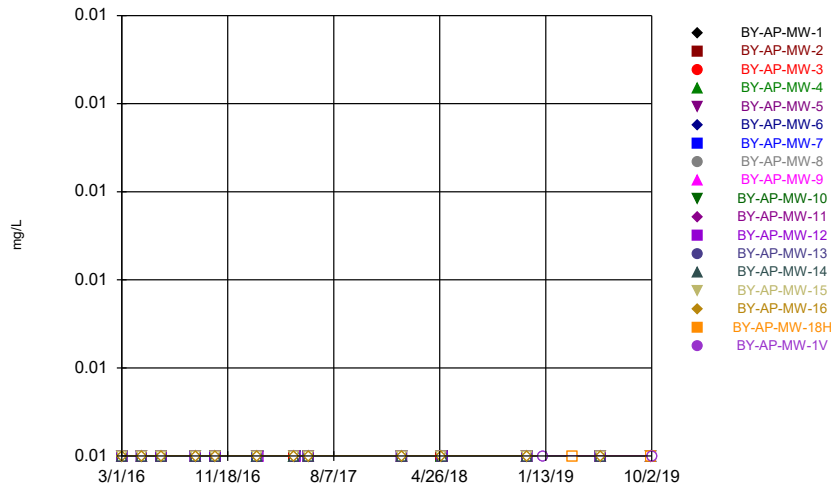
Constituent: pH Analysis Run 1/17/2020 10:07 AM View: Time Series
 Plant Barry Client: Southern Company Data: Barry Ash Pond

Time Series



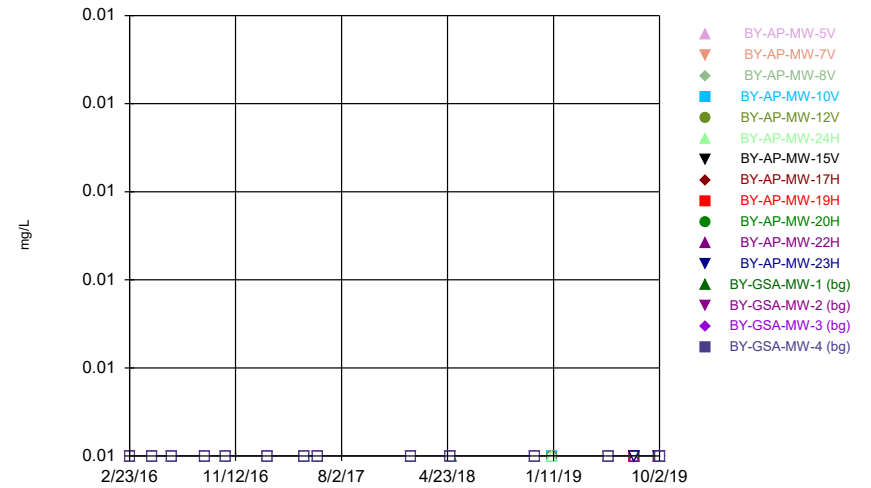
Constituent: pH Analysis Run 1/17/2020 10:07 AM View: Time Series
 Plant Barry Client: Southern Company Data: Barry Ash Pond

Time Series



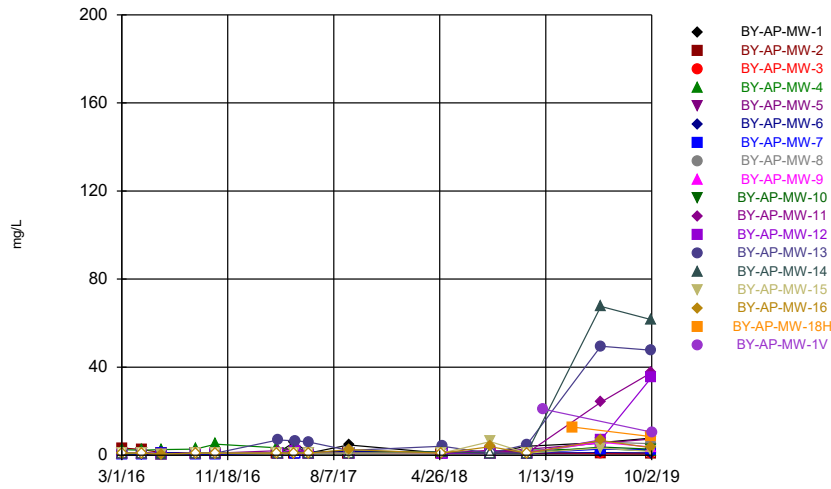
Constituent: Selenium Analysis Run 1/17/2020 10:07 AM View: Time Series
 Plant Barry Client: Southern Company Data: Barry Ash Pond

Time Series



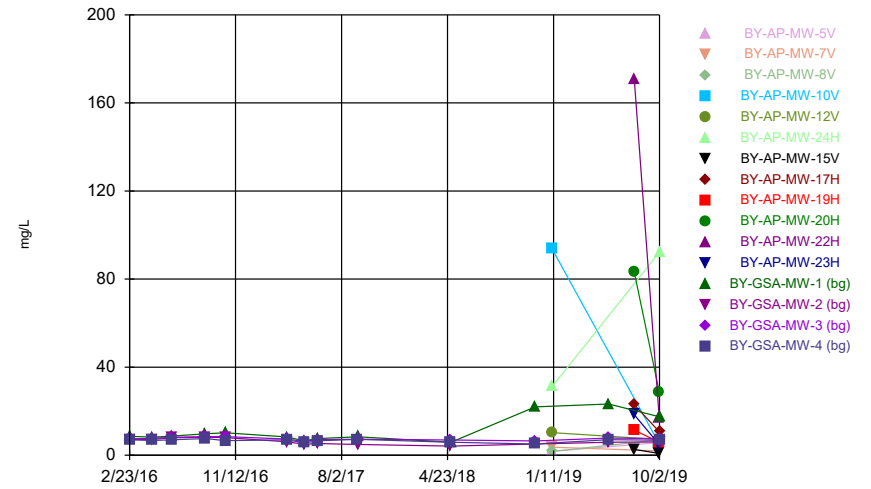
Constituent: Selenium Analysis Run 1/17/2020 10:07 AM View: Time Series
 Plant Barry Client: Southern Company Data: Barry Ash Pond

Time Series



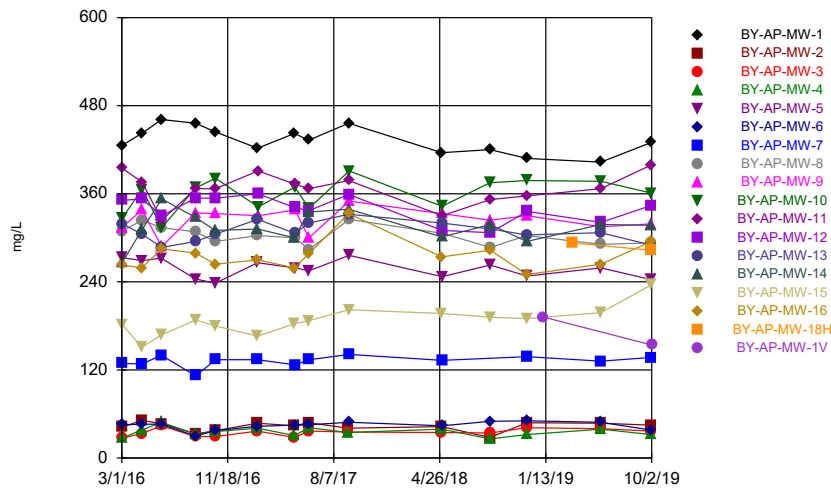
Constituent: Sulfate Analysis Run 1/17/2020 10:07 AM View: Time Series
Plant Barry Client: Southern Company Data: Barry Ash Pond

Time Series



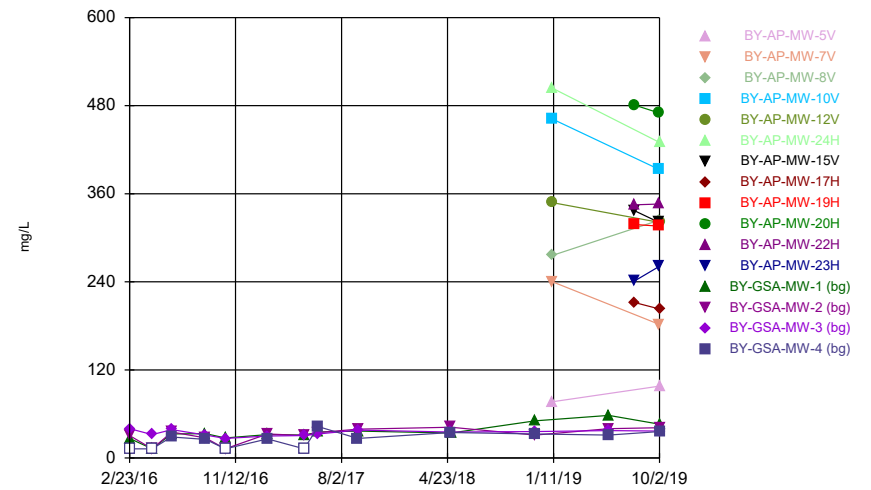
Constituent: Sulfate Analysis Run 1/17/2020 10:07 AM View: Time Series
Plant Barry Client: Southern Company Data: Barry Ash Pond

Time Series



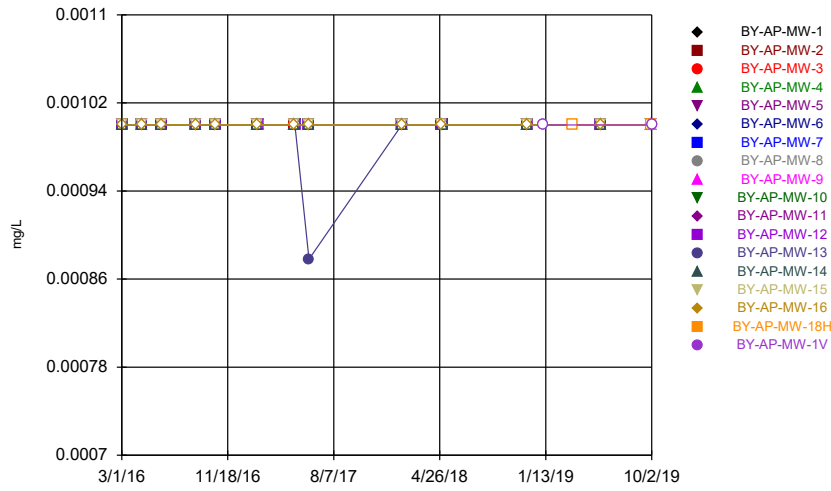
Constituent: TDS Analysis Run 1/17/2020 10:07 AM View: Time Series
Plant Barry Client: Southern Company Data: Barry Ash Pond

Time Series



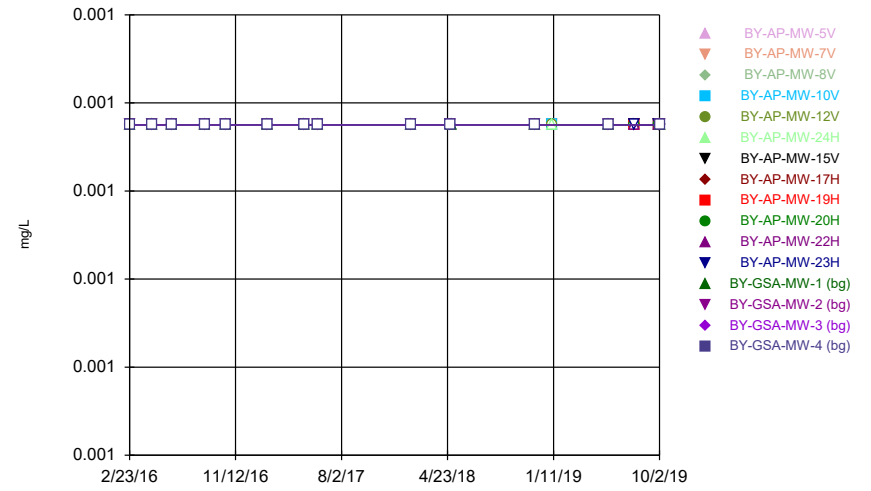
Constituent: TDS Analysis Run 1/17/2020 10:07 AM View: Time Series
Plant Barry Client: Southern Company Data: Barry Ash Pond

Time Series



Constituent: Thallium Analysis Run 1/17/2020 10:07 AM View: Time Series
Plant Barry Client: Southern Company Data: Barry Ash Pond

Time Series



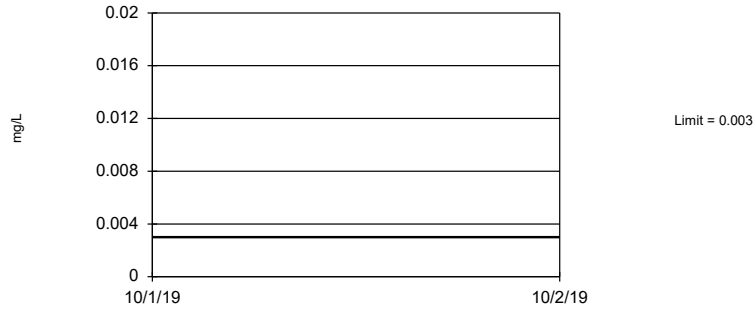
Constituent: Thallium Analysis Run 1/17/2020 10:07 AM View: Time Series
Plant Barry Client: Southern Company Data: Barry Ash Pond

Upper Tolerance Limits - Appendix IV

Plant Barry Client: Southern Company Data: Barry Ash Pond Printed 1/17/2020, 10:09 AM

Constituent	Upper Lim.	Lower Lim.	Bg N	Bg Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Antimony (mg/L)	0.003	n/a	52	n/a	n/a	90.38	n/a	n/a	0.06944	NP Inter(NDs)
Arsenic (mg/L)	0.005	n/a	52	n/a	n/a	100	n/a	n/a	0.06944	NP Inter(NDs)
Barium (mg/L)	0.183	n/a	52	n/a	n/a	0	n/a	n/a	0.06944	NP Inter(normal...
Beryllium (mg/L)	0.003	n/a	50	n/a	n/a	94	n/a	n/a	0.07694	NP Inter(NDs)
Cadmium (mg/L)	0.001	n/a	52	n/a	n/a	100	n/a	n/a	0.06944	NP Inter(NDs)
Chromium (mg/L)	0.01	n/a	52	n/a	n/a	96.15	n/a	n/a	0.06944	NP Inter(NDs)
Cobalt (mg/L)	0.0157	n/a	51	n/a	n/a	68.63	n/a	n/a	0.0731	NP Inter(normal...
Combined Radium 226 + 228 (pCi/L)	3.202	n/a	52	0.9903	0.2355	0	None	x^(1/3)	0.05	Inter
Fluoride (mg/L)	0.1	n/a	56	n/a	n/a	39.29	n/a	n/a	0.05656	NP Inter(normal...
Lead (mg/L)	0.005	n/a	52	n/a	n/a	100	n/a	n/a	0.06944	NP Inter(NDs)
Lithium (mg/L)	0.02	n/a	52	n/a	n/a	100	n/a	n/a	0.06944	NP Inter(NDs)
Mercury (mg/L)	0.0005	n/a	52	n/a	n/a	100	n/a	n/a	0.06944	NP Inter(NDs)
Molybdenum (mg/L)	0.01	n/a	52	n/a	n/a	100	n/a	n/a	0.06944	NP Inter(NDs)
Selenium (mg/L)	0.01	n/a	52	n/a	n/a	100	n/a	n/a	0.06944	NP Inter(NDs)
Thallium (mg/L)	0.001	n/a	52	n/a	n/a	100	n/a	n/a	0.06944	NP Inter(NDs)

Tolerance Limit Interwell Non-parametric



Non-parametric test used in lieu of parametric tolerance limit because censored data exceeded 75%. Limit is highest of 52 background values. 90.38% NDs. 91.6% coverage at alpha=0.01; 94.34% coverage at alpha=0.05; 98.63% coverage at alpha=0.5. Report alpha = 0.06944.

Constituent: Antimony Analysis Run 1/17/2020 10:08 AM View: UTL's - Appendix IV
Plant Barry Client: Southern Company Data: Barry Ash Pond

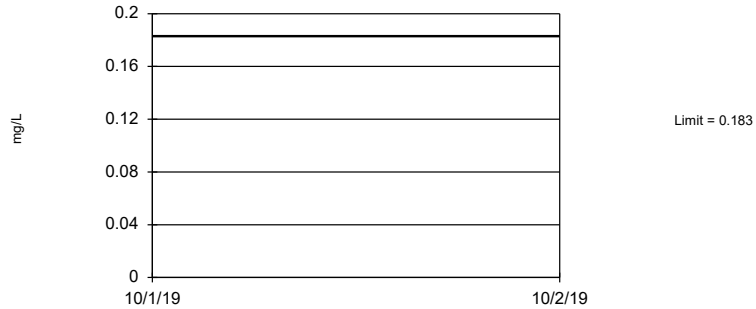
Tolerance Limit Interwell Non-parametric



Non-parametric test used in lieu of parametric tolerance limit because censored data exceeded 75%. All background values were censored; limit is most recent reporting limit. 91.6% coverage at alpha=0.01; 94.34% coverage at alpha=0.05; 98.63% coverage at alpha=0.5. Report alpha = 0.06944.

Constituent: Arsenic Analysis Run 1/17/2020 10:08 AM View: UTL's - Appendix IV
Plant Barry Client: Southern Company Data: Barry Ash Pond

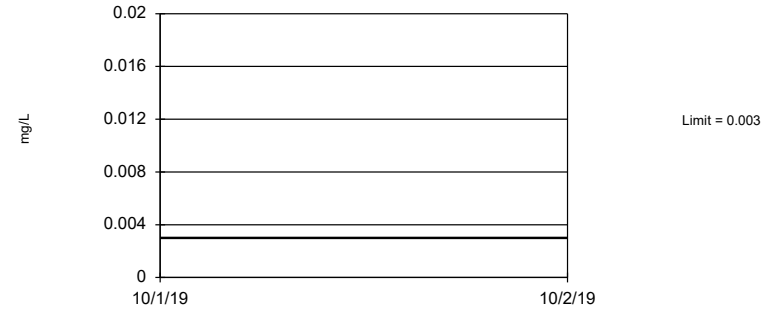
Tolerance Limit Interwell Non-parametric



Non-parametric test used in lieu of parametric tolerance limit because the Shapiro Francia normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 52 background values. 91.6% coverage at alpha=0.01; 94.34% coverage at alpha=0.05; 98.63% coverage at alpha=0.5. Report alpha = 0.06944.

Constituent: Barium Analysis Run 1/17/2020 10:08 AM View: UTL's - Appendix IV
Plant Barry Client: Southern Company Data: Barry Ash Pond

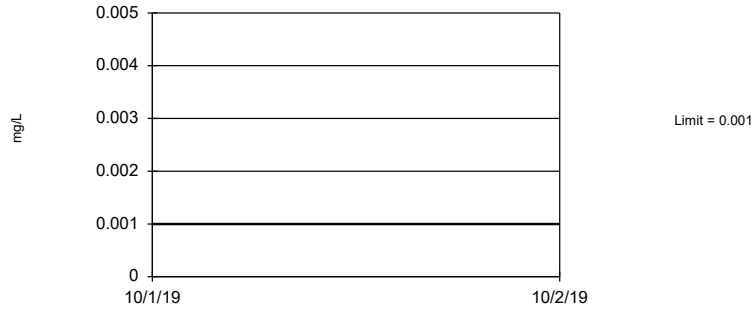
Tolerance Limit Interwell Non-parametric



Non-parametric test used in lieu of parametric tolerance limit because censored data exceeded 75%. Limit is highest of 50 background values. 94% NDs. 91.21% coverage at alpha=0.01; 94.34% coverage at alpha=0.05; 98.63% coverage at alpha=0.5. Report alpha = 0.07694.

Constituent: Beryllium Analysis Run 1/17/2020 10:08 AM View: UTL's - Appendix IV
Plant Barry Client: Southern Company Data: Barry Ash Pond

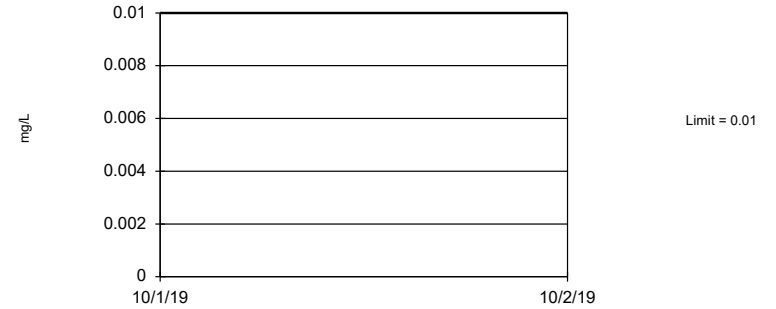
Tolerance Limit Interwell Non-parametric



Non-parametric test used in lieu of parametric tolerance limit because censored data exceeded 75%. All background values were censored; limit is most recent reporting limit. 91.6% coverage at alpha=0.01; 94.34% coverage at alpha=0.05; 98.63% coverage at alpha=0.5. Report alpha = 0.06944.

Constituent: Cadmium Analysis Run 1/17/2020 10:08 AM View: UTL's - Appendix IV
Plant Barry Client: Southern Company Data: Barry Ash Pond

Tolerance Limit Interwell Non-parametric



Non-parametric test used in lieu of parametric tolerance limit because censored data exceeded 75%. Limit is highest of 52 background values. 96.15% NDs. 91.6% coverage at alpha=0.01; 94.34% coverage at alpha=0.05; 98.63% coverage at alpha=0.5. Report alpha = 0.06944.

Constituent: Chromium Analysis Run 1/17/2020 10:08 AM View: UTL's - Appendix IV
Plant Barry Client: Southern Company Data: Barry Ash Pond

Tolerance Limit Interwell Non-parametric



Non-parametric test used in lieu of parametric tolerance limit because the Shapiro Francia normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 51 background values. 68.63% NDs. 91.21% coverage at alpha=0.01; 94.34% coverage at alpha=0.05; 98.63% coverage at alpha=0.5. Report alpha = 0.0731.

Constituent: Cobalt Analysis Run 1/17/2020 10:09 AM View: UTL's - Appendix IV
Plant Barry Client: Southern Company Data: Barry Ash Pond

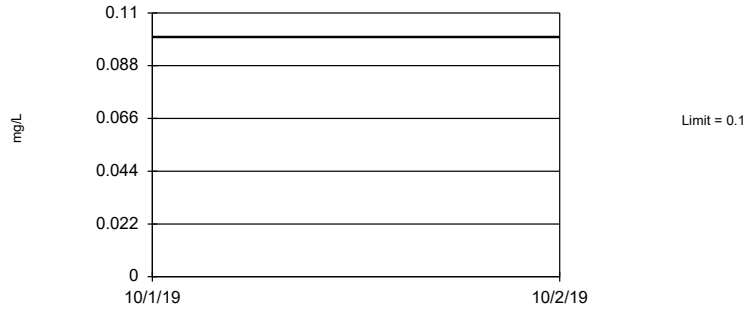
Tolerance Limit Interwell Parametric



95% coverage. Background Data Summary (based on cube root transformation): Mean=0.9903, Std. Dev.=0.2355, n=52. Normality test: Shapiro Francia @alpha = 0.01, calculated = 0.9388, critical = 0.937. Report alpha = 0.05.

Constituent: Combined Radium 226 + 228 Analysis Run 1/17/2020 10:09 AM View: UTL's - Appendix IV
Plant Barry Client: Southern Company Data: Barry Ash Pond

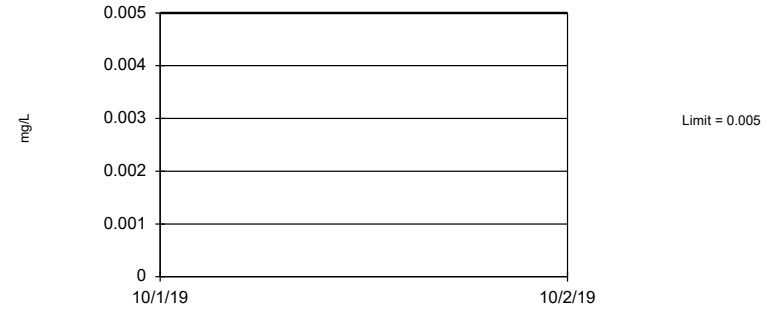
Tolerance Limit Interwell Non-parametric



Non-parametric test used in lieu of parametric tolerance limit because the Shapiro Francia normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 56 background values. 39.29% NDs. 91.99% coverage at alpha=0.01; 94.73% coverage at alpha=0.05; 98.63% coverage at alpha=0.5. Report alpha = 0.05656.

Constituent: Fluoride Analysis Run 1/17/2020 10:09 AM View: UTL's - Appendix IV
Plant Barry Client: Southern Company Data: Barry Ash Pond

Tolerance Limit Interwell Non-parametric



Non-parametric test used in lieu of parametric tolerance limit because censored data exceeded 75%. All background values were censored; limit is most recent reporting limit. 91.6% coverage at alpha=0.01; 94.34% coverage at alpha=0.05; 98.63% coverage at alpha=0.5. Report alpha = 0.06944.

Constituent: Lead Analysis Run 1/17/2020 10:09 AM View: UTL's - Appendix IV
Plant Barry Client: Southern Company Data: Barry Ash Pond

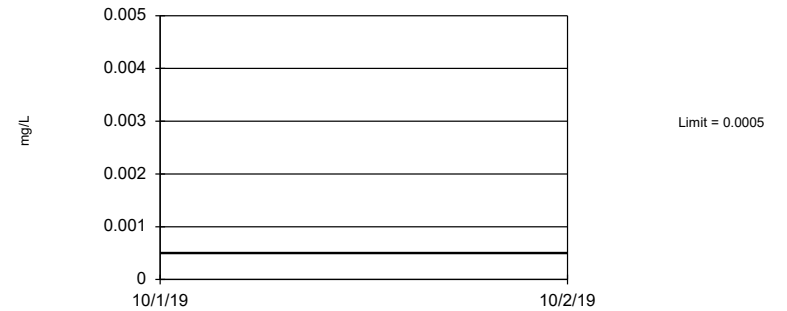
Tolerance Limit Interwell Non-parametric



Non-parametric test used in lieu of parametric tolerance limit because censored data exceeded 75%. All background values were censored; limit is most recent reporting limit. 91.6% coverage at alpha=0.01; 94.34% coverage at alpha=0.05; 98.63% coverage at alpha=0.5. Report alpha = 0.06944.

Constituent: Lithium Analysis Run 1/17/2020 10:09 AM View: UTL's - Appendix IV
Plant Barry Client: Southern Company Data: Barry Ash Pond

Tolerance Limit Interwell Non-parametric



Non-parametric test used in lieu of parametric tolerance limit because censored data exceeded 75%. All background values were censored; limit is most recent reporting limit. 91.6% coverage at alpha=0.01; 94.34% coverage at alpha=0.05; 98.63% coverage at alpha=0.5. Report alpha = 0.06944.

Constituent: Mercury Analysis Run 1/17/2020 10:09 AM View: UTL's - Appendix IV
Plant Barry Client: Southern Company Data: Barry Ash Pond

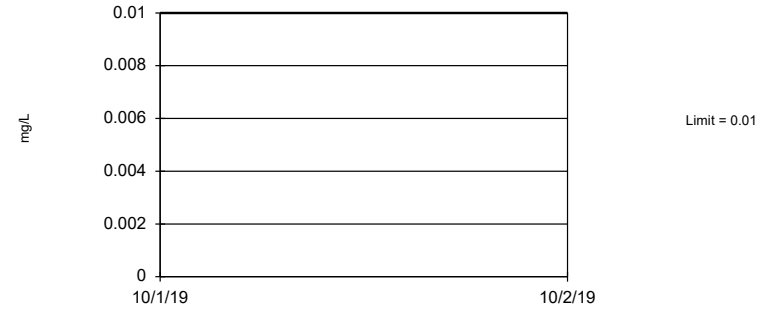
Tolerance Limit
Interwell Non-parametric



Non-parametric test used in lieu of parametric tolerance limit because censored data exceeded 75%. All background values were censored; limit is most recent reporting limit. 91.6% coverage at alpha=0.01; 94.34% coverage at alpha=0.05; 98.63% coverage at alpha=0.5. Report alpha = 0.06944.

Constituent: Molybdenum Analysis Run 1/17/2020 10:09 AM View: UTL's - Appendix IV
Plant Barry Client: Southern Company Data: Barry Ash Pond

Tolerance Limit
Interwell Non-parametric



Non-parametric test used in lieu of parametric tolerance limit because censored data exceeded 75%. All background values were censored; limit is most recent reporting limit. 91.6% coverage at alpha=0.01; 94.34% coverage at alpha=0.05; 98.63% coverage at alpha=0.5. Report alpha = 0.06944.

Constituent: Selenium Analysis Run 1/17/2020 10:09 AM View: UTL's - Appendix IV
Plant Barry Client: Southern Company Data: Barry Ash Pond

Tolerance Limit
Interwell Non-parametric



Non-parametric test used in lieu of parametric tolerance limit because censored data exceeded 75%. All background values were censored; limit is most recent reporting limit. 91.6% coverage at alpha=0.01; 94.34% coverage at alpha=0.05; 98.63% coverage at alpha=0.5. Report alpha = 0.06944.

Constituent: Thallium Analysis Run 1/17/2020 10:09 AM View: UTL's - Appendix IV
Plant Barry Client: Southern Company Data: Barry Ash Pond

Confidence Intervals - Significant Results

Plant Barry Client: Southern Company Data: Barry Ash Pond Printed 1/17/2020, 10:14 AM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	%NDs	Transform	Alpha	Method
Arsenic (mg/L)	BY-AP-MW-1	0.07703	0.06048	0.01	Yes	13	0	No	0.01	Param.
Arsenic (mg/L)	BY-AP-MW-5	0.03107	0.02835	0.01	Yes	13	0	No	0.01	Param.
Arsenic (mg/L)	BY-AP-MW-7	0.0224	0.01932	0.01	Yes	13	0	No	0.01	Param.
Arsenic (mg/L)	BY-AP-MW-8	0.04949	0.03933	0.01	Yes	13	0	ln(x)	0.01	Param.
Arsenic (mg/L)	BY-AP-MW-9	0.04245	0.03681	0.01	Yes	13	0	No	0.01	Param.
Arsenic (mg/L)	BY-AP-MW-10	0.0649	0.03	0.01	Yes	14	0	No	0.01	NP (normality)
Arsenic (mg/L)	BY-AP-MW-11	0.01526	0.01314	0.01	Yes	13	0	x^2	0.01	Param.
Arsenic (mg/L)	BY-AP-MW-12	0.02266	0.02151	0.01	Yes	13	0	No	0.01	Param.
Arsenic (mg/L)	BY-AP-MW-13	0.01479	0.01253	0.01	Yes	13	0	No	0.01	Param.
Arsenic (mg/L)	BY-AP-MW-14	0.01443	0.01213	0.01	Yes	13	0	No	0.01	Param.
Arsenic (mg/L)	BY-AP-MW-15	0.01737	0.01529	0.01	Yes	13	0	No	0.01	Param.
Arsenic (mg/L)	BY-AP-MW-16	0.0138	0.0102	0.01	Yes	13	0	No	0.01	NP (normality)
Cobalt (mg/L)	BY-AP-MW-15	0.03097	0.027	0.0157	Yes	13	0	No	0.01	Param.

Confidence Intervals - All Results

Plant Barry Client: Southern Company Data: Barry Ash Pond Printed 1/17/2020, 10:14 AM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	%NDs	Transform	Alpha	Method
Antimony (mg/L)	BY-AP-MW-1	0.003	0.000687	0.006	No	13	92.31	No	0.01	NP (NDs)
Antimony (mg/L)	BY-AP-MW-2	0.003	0.000739	0.006	No	13	92.31	No	0.01	NP (NDs)
Antimony (mg/L)	BY-AP-MW-3	0.003	0.000637	0.006	No	13	84.62	No	0.01	NP (NDs)
Antimony (mg/L)	BY-AP-MW-4	0.003	0.000869	0.006	No	13	84.62	No	0.01	NP (NDs)
Antimony (mg/L)	BY-AP-MW-5	0.003	0.000765	0.006	No	13	92.31	No	0.01	NP (NDs)
Antimony (mg/L)	BY-AP-MW-6	0.003	0.000852	0.006	No	13	92.31	No	0.01	NP (NDs)
Antimony (mg/L)	BY-AP-MW-7	0.003	0.00107	0.006	No	13	92.31	No	0.01	NP (NDs)
Antimony (mg/L)	BY-AP-MW-8	0.003	0.00074	0.006	No	13	92.31	No	0.01	NP (NDs)
Antimony (mg/L)	BY-AP-MW-9	0.003	0.000738	0.006	No	13	92.31	No	0.01	NP (NDs)
Antimony (mg/L)	BY-AP-MW-10	0.003	0.000743	0.006	No	13	92.31	No	0.01	NP (NDs)
Antimony (mg/L)	BY-AP-MW-11	0.003	0.000812	0.006	No	13	92.31	No	0.01	NP (NDs)
Antimony (mg/L)	BY-AP-MW-12	0.003	0.000838	0.006	No	13	92.31	No	0.01	NP (NDs)
Antimony (mg/L)	BY-AP-MW-13	0.003	0.000857	0.006	No	13	76.92	No	0.01	NP (NDs)
Antimony (mg/L)	BY-AP-MW-14	0.003	0.00086	0.006	No	13	92.31	No	0.01	NP (NDs)
Antimony (mg/L)	BY-AP-MW-15	0.003	0.000746	0.006	No	13	92.31	No	0.01	NP (NDs)
Antimony (mg/L)	BY-AP-MW-16	0.003	0.000769	0.006	No	13	92.31	No	0.01	NP (NDs)
Arsenic (mg/L)	BY-AP-MW-1	0.07703	0.06048	0.01	Yes	13	0	No	0.01	Param.
Arsenic (mg/L)	BY-AP-MW-2	0.00227	0.001595	0.01	No	13	0	No	0.01	Param.
Arsenic (mg/L)	BY-AP-MW-3	0.005	0.005	0.01	No	13	100	No	0.01	NP (NDs)
Arsenic (mg/L)	BY-AP-MW-4	0.005	0.005	0.01	No	13	100	No	0.01	NP (NDs)
Arsenic (mg/L)	BY-AP-MW-5	0.03107	0.02835	0.01	Yes	13	0	No	0.01	Param.
Arsenic (mg/L)	BY-AP-MW-6	0.005	0.00142	0.01	No	13	84.62	No	0.01	NP (NDs)
Arsenic (mg/L)	BY-AP-MW-7	0.0224	0.01932	0.01	Yes	13	0	No	0.01	Param.
Arsenic (mg/L)	BY-AP-MW-8	0.04949	0.03933	0.01	Yes	13	0	ln(x)	0.01	Param.
Arsenic (mg/L)	BY-AP-MW-9	0.04245	0.03681	0.01	Yes	13	0	No	0.01	Param.
Arsenic (mg/L)	BY-AP-MW-10	0.0649	0.03	0.01	Yes	14	0	No	0.01	NP (normality)
Arsenic (mg/L)	BY-AP-MW-11	0.01526	0.01314	0.01	Yes	13	0	x^2	0.01	Param.
Arsenic (mg/L)	BY-AP-MW-12	0.02266	0.02151	0.01	Yes	13	0	No	0.01	Param.
Arsenic (mg/L)	BY-AP-MW-13	0.01479	0.01253	0.01	Yes	13	0	No	0.01	Param.
Arsenic (mg/L)	BY-AP-MW-14	0.01443	0.01213	0.01	Yes	13	0	No	0.01	Param.
Arsenic (mg/L)	BY-AP-MW-15	0.01737	0.01529	0.01	Yes	13	0	No	0.01	Param.
Arsenic (mg/L)	BY-AP-MW-16	0.0138	0.0102	0.01	Yes	13	0	No	0.01	NP (normality)
Barium (mg/L)	BY-AP-MW-1	0.2885	0.2493	2	No	13	0	x^5	0.01	Param.
Barium (mg/L)	BY-AP-MW-2	0.02643	0.02345	2	No	13	0	No	0.01	Param.
Barium (mg/L)	BY-AP-MW-3	0.03434	0.03033	2	No	13	0	No	0.01	Param.
Barium (mg/L)	BY-AP-MW-4	0.03131	0.02021	2	No	13	0	No	0.01	Param.
Barium (mg/L)	BY-AP-MW-5	0.143	0.1294	2	No	13	0	No	0.01	Param.
Barium (mg/L)	BY-AP-MW-6	0.02629	0.02385	2	No	13	0	No	0.01	Param.
Barium (mg/L)	BY-AP-MW-7	0.0622	0.05552	2	No	13	0	No	0.01	Param.
Barium (mg/L)	BY-AP-MW-8	0.1449	0.1352	2	No	13	0	No	0.01	Param.
Barium (mg/L)	BY-AP-MW-9	0.1225	0.1123	2	No	13	0	No	0.01	Param.
Barium (mg/L)	BY-AP-MW-10	0.06766	0.06147	2	No	13	0	No	0.01	Param.
Barium (mg/L)	BY-AP-MW-11	0.1034	0.08068	2	No	13	0	No	0.01	Param.
Barium (mg/L)	BY-AP-MW-12	0.07879	0.07215	2	No	13	0	No	0.01	Param.
Barium (mg/L)	BY-AP-MW-13	0.0806	0.0688	2	No	13	0	No	0.01	NP (normality)
Barium (mg/L)	BY-AP-MW-14	0.06193	0.05613	2	No	13	0	x^6	0.01	Param.
Barium (mg/L)	BY-AP-MW-15	0.05445	0.04506	2	No	13	0	No	0.01	Param.
Barium (mg/L)	BY-AP-MW-16	0.08359	0.07538	2	No	13	0	No	0.01	Param.
Beryllium (mg/L)	BY-AP-MW-1	0.003	0.003	0.004	No	13	100	No	0.01	NP (NDs)
Beryllium (mg/L)	BY-AP-MW-2	0.003	0.003	0.004	No	13	100	No	0.01	NP (NDs)
Beryllium (mg/L)	BY-AP-MW-3	0.003	0.003	0.004	No	13	100	No	0.01	NP (NDs)
Beryllium (mg/L)	BY-AP-MW-4	0.003	0.00071	0.004	No	13	92.31	No	0.01	NP (NDs)
Beryllium (mg/L)	BY-AP-MW-5	0.003	0.003	0.004	No	13	100	No	0.01	NP (NDs)
Beryllium (mg/L)	BY-AP-MW-6	0.003	0.003	0.004	No	13	100	No	0.01	NP (NDs)
Beryllium (mg/L)	BY-AP-MW-7	0.003	0.003	0.004	No	13	100	No	0.01	NP (NDs)
Beryllium (mg/L)	BY-AP-MW-8	0.003	0.003	0.004	No	13	100	No	0.01	NP (NDs)
Beryllium (mg/L)	BY-AP-MW-9	0.003	0.003	0.004	No	13	100	No	0.01	NP (NDs)
Beryllium (mg/L)	BY-AP-MW-10	0.003	0.003	0.004	No	13	100	No	0.01	NP (NDs)
Beryllium (mg/L)	BY-AP-MW-11	0.003	0.003	0.004	No	13	100	No	0.01	NP (NDs)
Beryllium (mg/L)	BY-AP-MW-12	0.003	0.003	0.004	No	13	100	No	0.01	NP (NDs)
Beryllium (mg/L)	BY-AP-MW-13	0.003	0.00103	0.004	No	13	92.31	No	0.01	NP (NDs)
Beryllium (mg/L)	BY-AP-MW-14	0.003	0.003	0.004	No	13	100	No	0.01	NP (NDs)
Beryllium (mg/L)	BY-AP-MW-15	0.003	0.003	0.004	No	13	100	No	0.01	NP (NDs)
Beryllium (mg/L)	BY-AP-MW-16	0.003	0.003	0.004	No	13	100	No	0.01	NP (NDs)
Cadmium (mg/L)	BY-AP-MW-1	0.001	0.001	0.005	No	13	100	No	0.01	NP (NDs)
Cadmium (mg/L)	BY-AP-MW-2	0.001	0.001	0.005	No	13	100	No	0.01	NP (NDs)
Cadmium (mg/L)	BY-AP-MW-3	0.001	0.001	0.005	No	13	100	No	0.01	NP (NDs)
Cadmium (mg/L)	BY-AP-MW-4	0.001	0.001	0.005	No	13	100	No	0.01	NP (NDs)

Confidence Intervals - All Results

Plant Barry Client: Southern Company Data: Barry Ash Pond Printed 1/17/2020, 10:14 AM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	%NDs	Transform	Alpha	Method
Cadmium (mg/L)	BY-AP-MW-5	0.001	0.001	0.005	No	13	100	No	0.01	NP (NDs)
Cadmium (mg/L)	BY-AP-MW-6	0.001	0.001	0.005	No	13	100	No	0.01	NP (NDs)
Cadmium (mg/L)	BY-AP-MW-7	0.001	0.001	0.005	No	13	100	No	0.01	NP (NDs)
Cadmium (mg/L)	BY-AP-MW-8	0.001	0.001	0.005	No	13	100	No	0.01	NP (NDs)
Cadmium (mg/L)	BY-AP-MW-9	0.001	0.001	0.005	No	13	100	No	0.01	NP (NDs)
Cadmium (mg/L)	BY-AP-MW-10	0.001	0.001	0.005	No	13	100	No	0.01	NP (NDs)
Cadmium (mg/L)	BY-AP-MW-11	0.001	0.001	0.005	No	13	100	No	0.01	NP (NDs)
Cadmium (mg/L)	BY-AP-MW-12	0.001	0.001	0.005	No	13	100	No	0.01	NP (NDs)
Cadmium (mg/L)	BY-AP-MW-13	0.001	0.00077	0.005	No	13	92.31	No	0.01	NP (NDs)
Cadmium (mg/L)	BY-AP-MW-14	0.001	0.001	0.005	No	13	100	No	0.01	NP (NDs)
Cadmium (mg/L)	BY-AP-MW-15	0.001	0.001	0.005	No	13	100	No	0.01	NP (NDs)
Cadmium (mg/L)	BY-AP-MW-16	0.001	0.001	0.005	No	13	100	No	0.01	NP (NDs)
Chromium (mg/L)	BY-AP-MW-1	0.00591	0.00236	0.1	No	13	0	No	0.01	NP (normality)
Chromium (mg/L)	BY-AP-MW-2	0.01	0.01	0.1	No	13	100	No	0.01	NP (NDs)
Chromium (mg/L)	BY-AP-MW-3	0.01	0.01	0.1	No	13	100	No	0.01	NP (NDs)
Chromium (mg/L)	BY-AP-MW-4	0.01	0.01	0.1	No	13	100	No	0.01	NP (NDs)
Chromium (mg/L)	BY-AP-MW-5	0.01	0.01	0.1	No	13	100	No	0.01	NP (NDs)
Chromium (mg/L)	BY-AP-MW-6	0.01	0.01	0.1	No	13	100	No	0.01	NP (NDs)
Chromium (mg/L)	BY-AP-MW-7	0.01	0.00328	0.1	No	13	92.31	No	0.01	NP (NDs)
Chromium (mg/L)	BY-AP-MW-8	0.01	0.01	0.1	No	13	100	No	0.01	NP (NDs)
Chromium (mg/L)	BY-AP-MW-9	0.01	0.01	0.1	No	13	100	No	0.01	NP (NDs)
Chromium (mg/L)	BY-AP-MW-10	0.01	0.01	0.1	No	13	100	No	0.01	NP (NDs)
Chromium (mg/L)	BY-AP-MW-11	0.002401	0.002131	0.1	No	13	0	No	0.01	Param.
Chromium (mg/L)	BY-AP-MW-12	0.0042	0.0032	0.1	No	13	0	No	0.01	NP (normality)
Chromium (mg/L)	BY-AP-MW-13	0.007299	0.006728	0.1	No	13	0	No	0.01	Param.
Chromium (mg/L)	BY-AP-MW-14	0.005534	0.005048	0.1	No	13	0	No	0.01	Param.
Chromium (mg/L)	BY-AP-MW-15	0.01	0.01	0.1	No	13	100	No	0.01	NP (NDs)
Chromium (mg/L)	BY-AP-MW-16	0.01	0.00253	0.1	No	13	84.62	No	0.01	NP (NDs)
Cobalt (mg/L)	BY-AP-MW-1	0.005	0.005	0.0157	No	13	100	No	0.01	NP (NDs)
Cobalt (mg/L)	BY-AP-MW-2	0.007744	0.006688	0.0157	No	13	0	No	0.01	Param.
Cobalt (mg/L)	BY-AP-MW-3	0.005	0.005	0.0157	No	13	100	No	0.01	NP (NDs)
Cobalt (mg/L)	BY-AP-MW-4	0.006167	0.003242	0.0157	No	11	36.36	No	0.01	Param.
Cobalt (mg/L)	BY-AP-MW-5	0.005	0.005	0.0157	No	13	100	No	0.01	NP (NDs)
Cobalt (mg/L)	BY-AP-MW-6	0.005	0.005	0.0157	No	13	100	No	0.01	NP (NDs)
Cobalt (mg/L)	BY-AP-MW-7	0.0184	0.01545	0.0157	No	13	0	x^2	0.01	Param.
Cobalt (mg/L)	BY-AP-MW-8	0.005	0.005	0.0157	No	13	100	No	0.01	NP (NDs)
Cobalt (mg/L)	BY-AP-MW-9	0.005	0.005	0.0157	No	13	100	No	0.01	NP (NDs)
Cobalt (mg/L)	BY-AP-MW-10	0.005	0.005	0.0157	No	13	100	No	0.01	NP (NDs)
Cobalt (mg/L)	BY-AP-MW-11	0.005	0.005	0.0157	No	13	100	No	0.01	NP (NDs)
Cobalt (mg/L)	BY-AP-MW-12	0.002936	0.002397	0.0157	No	13	0	No	0.01	Param.
Cobalt (mg/L)	BY-AP-MW-13	0.005	0.005	0.0157	No	13	100	No	0.01	NP (NDs)
Cobalt (mg/L)	BY-AP-MW-14	0.005	0.005	0.0157	No	13	100	No	0.01	NP (NDs)
Cobalt (mg/L)	BY-AP-MW-15	0.03097	0.027	0.0157	Yes	13	0	No	0.01	Param.
Cobalt (mg/L)	BY-AP-MW-16	0.0194	0.01422	0.0157	No	13	0	x^2	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	BY-AP-MW-1	2.341	1.413	5	No	12	8.333	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	BY-AP-MW-2	1.18	0.083	5	No	13	15.38	No	0.01	NP (Cohens/xfrm)
Combined Radium 226 + 228 (pCi/L)	BY-AP-MW-3	1.52	0.191	5	No	13	15.38	No	0.01	NP (Cohens/xfrm)
Combined Radium 226 + 228 (pCi/L)	BY-AP-MW-4	1.889	0.194	5	No	13	15.38	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	BY-AP-MW-5	2.068	1.105	5	No	13	7.692	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	BY-AP-MW-6	1.743	0.01086	5	No	13	15.38	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	BY-AP-MW-7	1.712	0.009949	5	No	13	15.38	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	BY-AP-MW-8	1.32	0.408	5	No	13	15.38	No	0.01	NP (Cohens/xfrm)
Combined Radium 226 + 228 (pCi/L)	BY-AP-MW-9	2	0.6497	5	No	13	15.38	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	BY-AP-MW-10	1.967	0.425	5	No	13	15.38	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	BY-AP-MW-11	0.9954	0.5087	5	No	13	7.692	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	BY-AP-MW-12	2.073	0.6588	5	No	13	15.38	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	BY-AP-MW-13	1.049	0.5987	5	No	13	7.692	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	BY-AP-MW-14	1.773	0.1369	5	No	13	15.38	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	BY-AP-MW-15	1.816	0.2651	5	No	13	15.38	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	BY-AP-MW-16	1.5	0.443	5	No	13	15.38	No	0.01	NP (Cohens/xfrm)
Fluoride (mg/L)	BY-AP-MW-1	0.0878	0.04617	4	No	14	21.43	No	0.01	Param.
Fluoride (mg/L)	BY-AP-MW-2	0.1	0.038	4	No	14	50	No	0.01	NP (normality)
Fluoride (mg/L)	BY-AP-MW-3	0.1	0.023	4	No	14	64.29	No	0.01	NP (normality)
Fluoride (mg/L)	BY-AP-MW-4	0.1	0.025	4	No	14	64.29	No	0.01	NP (normality)
Fluoride (mg/L)	BY-AP-MW-5	0.06809	0.0456	4	No	14	7.143	ln(x)	0.01	Param.
Fluoride (mg/L)	BY-AP-MW-6	0.1	0.034	4	No	14	71.43	No	0.01	NP (normality)
Fluoride (mg/L)	BY-AP-MW-7	0.0884	0.07106	4	No	14	0	No	0.01	Param.
Fluoride (mg/L)	BY-AP-MW-8	0.07238	0.04195	4	No	14	14.29	x^(1/3)	0.01	Param.

Confidence Intervals - All Results

Plant Barry Client: Southern Company Data: Barry Ash Pond Printed 1/17/2020, 10:14 AM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	%NDs	Transform	Alpha	Method
Fluoride (mg/L)	BY-AP-MW-9	0.06607	0.04881	4	No	14	0	No	0.01	Param.
Fluoride (mg/L)	BY-AP-MW-10	0.1	0.034	4	No	14	35.71	No	0.01	NP (Cohens/xfrm)
Fluoride (mg/L)	BY-AP-MW-11	0.07595	0.05565	4	No	14	7.143	No	0.01	Param.
Fluoride (mg/L)	BY-AP-MW-12	0.07107	0.04735	4	No	14	7.143	No	0.01	Param.
Fluoride (mg/L)	BY-AP-MW-13	0.07465	0.05466	4	No	14	7.143	No	0.01	Param.
Fluoride (mg/L)	BY-AP-MW-14	0.08809	0.06971	4	No	14	7.143	No	0.01	Param.
Fluoride (mg/L)	BY-AP-MW-15	0.1991	0.1643	4	No	14	7.143	x^2	0.01	Param.
Fluoride (mg/L)	BY-AP-MW-16	0.1	0.04	4	No	14	21.43	No	0.01	NP (normality)
Lead (mg/L)	BY-AP-MW-1	0.005	0.005	0.015	No	13	100	No	0.01	NP (NDs)
Lead (mg/L)	BY-AP-MW-2	0.005	0.005	0.015	No	13	100	No	0.01	NP (NDs)
Lead (mg/L)	BY-AP-MW-3	0.005	0.005	0.015	No	13	100	No	0.01	NP (NDs)
Lead (mg/L)	BY-AP-MW-4	0.005	0.005	0.015	No	13	100	No	0.01	NP (NDs)
Lead (mg/L)	BY-AP-MW-5	0.005	0.005	0.015	No	13	100	No	0.01	NP (NDs)
Lead (mg/L)	BY-AP-MW-6	0.00545	0.00185	0.015	No	13	84.62	No	0.01	NP (NDs)
Lead (mg/L)	BY-AP-MW-7	0.005	0.005	0.015	No	13	100	No	0.01	NP (NDs)
Lead (mg/L)	BY-AP-MW-8	0.005	0.005	0.015	No	13	100	No	0.01	NP (NDs)
Lead (mg/L)	BY-AP-MW-9	0.005	0.00108	0.015	No	13	92.31	No	0.01	NP (NDs)
Lead (mg/L)	BY-AP-MW-10	0.005	0.005	0.015	No	13	100	No	0.01	NP (NDs)
Lead (mg/L)	BY-AP-MW-11	0.005	0.005	0.015	No	13	100	No	0.01	NP (NDs)
Lead (mg/L)	BY-AP-MW-12	0.005	0.005	0.015	No	13	100	No	0.01	NP (NDs)
Lead (mg/L)	BY-AP-MW-13	0.005	0.005	0.015	No	13	100	No	0.01	NP (NDs)
Lead (mg/L)	BY-AP-MW-14	0.005	0.005	0.015	No	13	100	No	0.01	NP (NDs)
Lead (mg/L)	BY-AP-MW-15	0.005	0.005	0.015	No	13	100	No	0.01	NP (NDs)
Lead (mg/L)	BY-AP-MW-16	0.005	0.005	0.015	No	13	100	No	0.01	NP (NDs)
Lithium (mg/L)	BY-AP-MW-1	0.02	0.02	0.04	No	13	100	No	0.01	NP (NDs)
Lithium (mg/L)	BY-AP-MW-2	0.02	0.02	0.04	No	13	100	No	0.01	NP (NDs)
Lithium (mg/L)	BY-AP-MW-3	0.02	0.02	0.04	No	13	100	No	0.01	NP (NDs)
Lithium (mg/L)	BY-AP-MW-4	0.02	0.02	0.04	No	13	100	No	0.01	NP (NDs)
Lithium (mg/L)	BY-AP-MW-5	0.02	0.02	0.04	No	13	100	No	0.01	NP (NDs)
Lithium (mg/L)	BY-AP-MW-6	0.02	0.02	0.04	No	13	100	No	0.01	NP (NDs)
Lithium (mg/L)	BY-AP-MW-7	0.02	0.0108	0.04	No	13	92.31	No	0.01	NP (NDs)
Lithium (mg/L)	BY-AP-MW-8	0.02	0.02	0.04	No	13	100	No	0.01	NP (NDs)
Lithium (mg/L)	BY-AP-MW-9	0.02	0.02	0.04	No	13	100	No	0.01	NP (NDs)
Lithium (mg/L)	BY-AP-MW-10	0.02	0.02	0.04	No	13	100	No	0.01	NP (NDs)
Lithium (mg/L)	BY-AP-MW-11	0.0321	0.02	0.04	No	13	69.23	No	0.01	NP (normality)
Lithium (mg/L)	BY-AP-MW-12	0.02	0.02	0.04	No	13	100	No	0.01	NP (NDs)
Lithium (mg/L)	BY-AP-MW-13	0.02	0.02	0.04	No	13	100	No	0.01	NP (NDs)
Lithium (mg/L)	BY-AP-MW-14	0.02	0.02	0.04	No	13	100	No	0.01	NP (NDs)
Lithium (mg/L)	BY-AP-MW-15	0.0248	0.0169	0.04	No	13	76.92	No	0.01	NP (NDs)
Lithium (mg/L)	BY-AP-MW-16	0.02	0.02	0.04	No	13	100	No	0.01	NP (NDs)
Mercury (mg/L)	BY-AP-MW-1	0.0005	0.0005	0.002	No	13	100	No	0.01	NP (NDs)
Mercury (mg/L)	BY-AP-MW-2	0.0005	0.0005	0.002	No	13	100	No	0.01	NP (NDs)
Mercury (mg/L)	BY-AP-MW-3	0.0005	0.0005	0.002	No	13	100	No	0.01	NP (NDs)
Mercury (mg/L)	BY-AP-MW-4	0.0005	0.0005	0.002	No	13	100	No	0.01	NP (NDs)
Mercury (mg/L)	BY-AP-MW-5	0.0005	0.0005	0.002	No	13	100	No	0.01	NP (NDs)
Mercury (mg/L)	BY-AP-MW-6	0.0005	0.0005	0.002	No	13	100	No	0.01	NP (NDs)
Mercury (mg/L)	BY-AP-MW-7	0.0005	0.0005	0.002	No	13	100	No	0.01	NP (NDs)
Mercury (mg/L)	BY-AP-MW-8	0.0005	0.0005	0.002	No	13	100	No	0.01	NP (NDs)
Mercury (mg/L)	BY-AP-MW-9	0.0005	0.0005	0.002	No	13	100	No	0.01	NP (NDs)
Mercury (mg/L)	BY-AP-MW-10	0.0005	0.0005	0.002	No	14	100	No	0.01	NP (NDs)
Mercury (mg/L)	BY-AP-MW-11	0.0005	0.0005	0.002	No	13	100	No	0.01	NP (NDs)
Mercury (mg/L)	BY-AP-MW-12	0.0005	0.0005	0.002	No	13	100	No	0.01	NP (NDs)
Mercury (mg/L)	BY-AP-MW-13	0.0005	0.0005	0.002	No	13	100	No	0.01	NP (NDs)
Mercury (mg/L)	BY-AP-MW-14	0.0005	0.0005	0.002	No	13	100	No	0.01	NP (NDs)
Mercury (mg/L)	BY-AP-MW-15	0.0005	0.0005	0.002	No	13	100	No	0.01	NP (NDs)
Mercury (mg/L)	BY-AP-MW-16	0.0005	0.0005	0.002	No	13	100	No	0.01	NP (NDs)
Molybdenum (mg/L)	BY-AP-MW-1	0.01	0.01	0.1	No	13	100	No	0.01	NP (NDs)
Molybdenum (mg/L)	BY-AP-MW-2	0.01	0.01	0.1	No	13	100	No	0.01	NP (NDs)
Molybdenum (mg/L)	BY-AP-MW-3	0.01	0.01	0.1	No	13	100	No	0.01	NP (NDs)
Molybdenum (mg/L)	BY-AP-MW-4	0.01	0.01	0.1	No	13	100	No	0.01	NP (NDs)
Molybdenum (mg/L)	BY-AP-MW-5	0.01	0.01	0.1	No	13	100	No	0.01	NP (NDs)
Molybdenum (mg/L)	BY-AP-MW-6	0.01	0.01	0.1	No	13	100	No	0.01	NP (NDs)
Molybdenum (mg/L)	BY-AP-MW-7	0.01	0.01	0.1	No	13	100	No	0.01	NP (NDs)
Molybdenum (mg/L)	BY-AP-MW-8	0.01	0.01	0.1	No	13	100	No	0.01	NP (NDs)
Molybdenum (mg/L)	BY-AP-MW-9	0.01	0.01	0.1	No	13	100	No	0.01	NP (NDs)
Molybdenum (mg/L)	BY-AP-MW-10	0.01	0.01	0.1	No	13	100	No	0.01	NP (NDs)
Molybdenum (mg/L)	BY-AP-MW-11	0.01	0.01	0.1	No	13	100	No	0.01	NP (NDs)
Molybdenum (mg/L)	BY-AP-MW-12	0.01	0.01	0.1	No	13	100	No	0.01	NP (NDs)

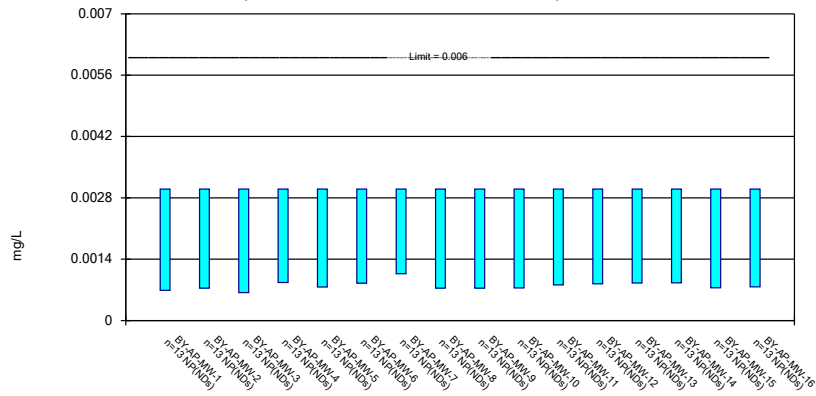
Confidence Intervals - All Results

Plant Barry Client: Southern Company Data: Barry Ash Pond Printed 1/17/2020, 10:14 AM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	%NDs	Transform	Alpha	Method
Molybdenum (mg/L)	BY-AP-MW-13	0.01	0.01	0.1	No	13	100	No	0.01	NP (NDs)
Molybdenum (mg/L)	BY-AP-MW-14	0.01	0.01	0.1	No	13	100	No	0.01	NP (NDs)
Molybdenum (mg/L)	BY-AP-MW-15	0.01	0.00203	0.1	No	13	69.23	No	0.01	NP (normality)
Molybdenum (mg/L)	BY-AP-MW-16	0.01	0.01	0.1	No	13	100	No	0.01	NP (NDs)
Selenium (mg/L)	BY-AP-MW-1	0.01	0.01	0.05	No	13	100	No	0.01	NP (NDs)
Selenium (mg/L)	BY-AP-MW-2	0.01	0.01	0.05	No	13	100	No	0.01	NP (NDs)
Selenium (mg/L)	BY-AP-MW-3	0.01	0.01	0.05	No	13	100	No	0.01	NP (NDs)
Selenium (mg/L)	BY-AP-MW-4	0.01	0.01	0.05	No	13	100	No	0.01	NP (NDs)
Selenium (mg/L)	BY-AP-MW-5	0.01	0.01	0.05	No	13	100	No	0.01	NP (NDs)
Selenium (mg/L)	BY-AP-MW-6	0.01	0.01	0.05	No	13	100	No	0.01	NP (NDs)
Selenium (mg/L)	BY-AP-MW-7	0.01	0.01	0.05	No	13	100	No	0.01	NP (NDs)
Selenium (mg/L)	BY-AP-MW-8	0.01	0.01	0.05	No	13	100	No	0.01	NP (NDs)
Selenium (mg/L)	BY-AP-MW-9	0.01	0.01	0.05	No	13	100	No	0.01	NP (NDs)
Selenium (mg/L)	BY-AP-MW-10	0.01	0.01	0.05	No	13	100	No	0.01	NP (NDs)
Selenium (mg/L)	BY-AP-MW-11	0.01	0.01	0.05	No	13	100	No	0.01	NP (NDs)
Selenium (mg/L)	BY-AP-MW-12	0.01	0.01	0.05	No	13	100	No	0.01	NP (NDs)
Selenium (mg/L)	BY-AP-MW-13	0.01	0.01	0.05	No	13	100	No	0.01	NP (NDs)
Selenium (mg/L)	BY-AP-MW-14	0.01	0.01	0.05	No	13	100	No	0.01	NP (NDs)
Selenium (mg/L)	BY-AP-MW-15	0.01	0.01	0.05	No	13	100	No	0.01	NP (NDs)
Selenium (mg/L)	BY-AP-MW-16	0.01	0.01	0.05	No	13	100	No	0.01	NP (NDs)
Thallium (mg/L)	BY-AP-MW-1	0.001	0.001	0.002	No	13	100	No	0.01	NP (NDs)
Thallium (mg/L)	BY-AP-MW-2	0.001	0.001	0.002	No	13	100	No	0.01	NP (NDs)
Thallium (mg/L)	BY-AP-MW-3	0.001	0.001	0.002	No	13	100	No	0.01	NP (NDs)
Thallium (mg/L)	BY-AP-MW-4	0.001	0.001	0.002	No	13	100	No	0.01	NP (NDs)
Thallium (mg/L)	BY-AP-MW-5	0.001	0.001	0.002	No	13	100	No	0.01	NP (NDs)
Thallium (mg/L)	BY-AP-MW-6	0.001	0.001	0.002	No	13	100	No	0.01	NP (NDs)
Thallium (mg/L)	BY-AP-MW-7	0.001	0.001	0.002	No	13	100	No	0.01	NP (NDs)
Thallium (mg/L)	BY-AP-MW-8	0.001	0.001	0.002	No	13	100	No	0.01	NP (NDs)
Thallium (mg/L)	BY-AP-MW-9	0.001	0.001	0.002	No	13	100	No	0.01	NP (NDs)
Thallium (mg/L)	BY-AP-MW-10	0.001	0.001	0.002	No	13	100	No	0.01	NP (NDs)
Thallium (mg/L)	BY-AP-MW-11	0.001	0.001	0.002	No	13	100	No	0.01	NP (NDs)
Thallium (mg/L)	BY-AP-MW-12	0.001	0.001	0.002	No	13	100	No	0.01	NP (NDs)
Thallium (mg/L)	BY-AP-MW-13	0.001	0.000878	0.002	No	13	92.31	No	0.01	NP (NDs)
Thallium (mg/L)	BY-AP-MW-14	0.001	0.001	0.002	No	13	100	No	0.01	NP (NDs)
Thallium (mg/L)	BY-AP-MW-15	0.001	0.001	0.002	No	13	100	No	0.01	NP (NDs)
Thallium (mg/L)	BY-AP-MW-16	0.001	0.001	0.002	No	13	100	No	0.01	NP (NDs)

Non-Parametric Confidence Interval

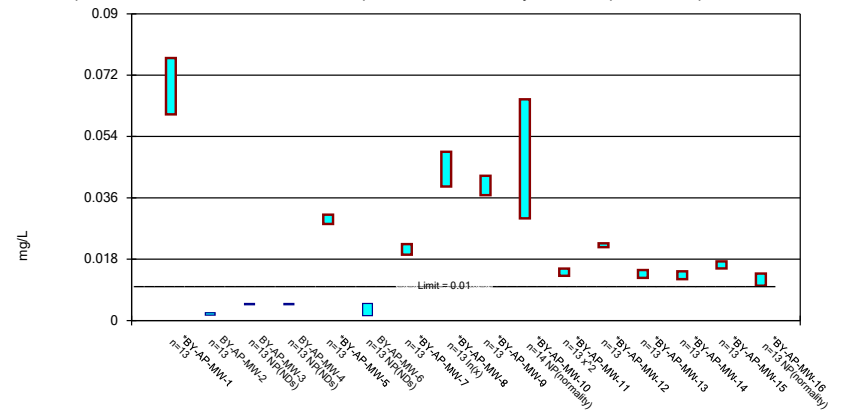
Compliance Limit is not exceeded. Per-well alpha = 0.01.



Constituent: Antimony Analysis Run 1/17/2020 10:11 AM View: Confidence Intervals - App IV
Plant Barry Client: Southern Company Data: Barry Ash Pond

Parametric and Non-Parametric (NP) Confidence Interval

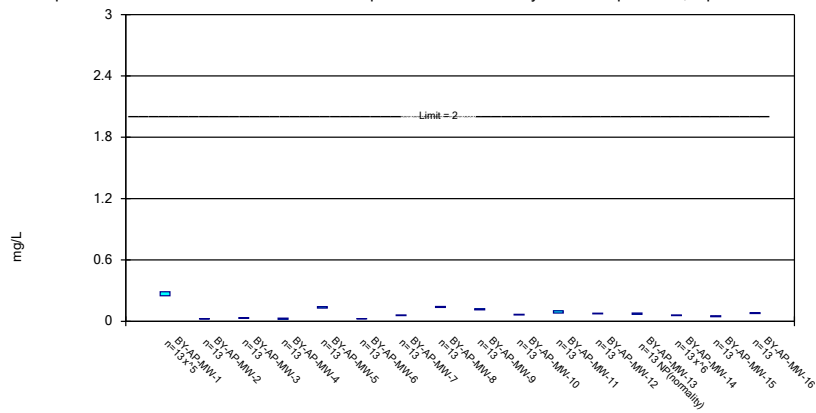
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Constituent: Arsenic Analysis Run 1/17/2020 10:11 AM View: Confidence Intervals - App IV
Plant Barry Client: Southern Company Data: Barry Ash Pond

Parametric and Non-Parametric (NP) Confidence Interval

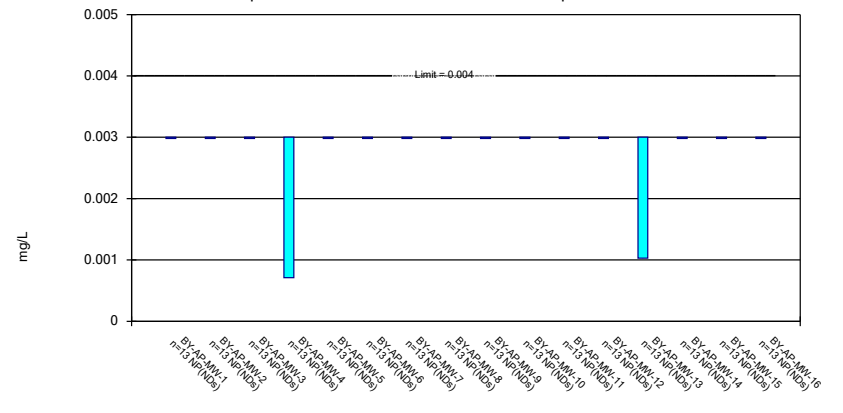
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



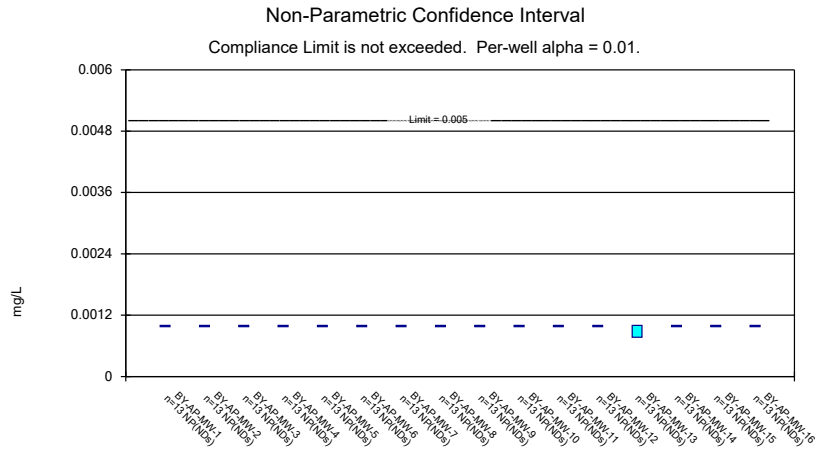
Constituent: Barium Analysis Run 1/17/2020 10:11 AM View: Confidence Intervals - App IV
Plant Barry Client: Southern Company Data: Barry Ash Pond

Non-Parametric Confidence Interval

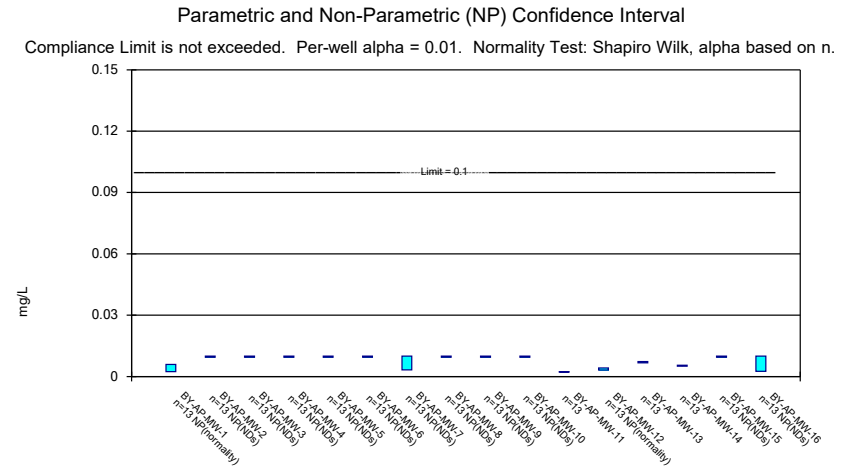
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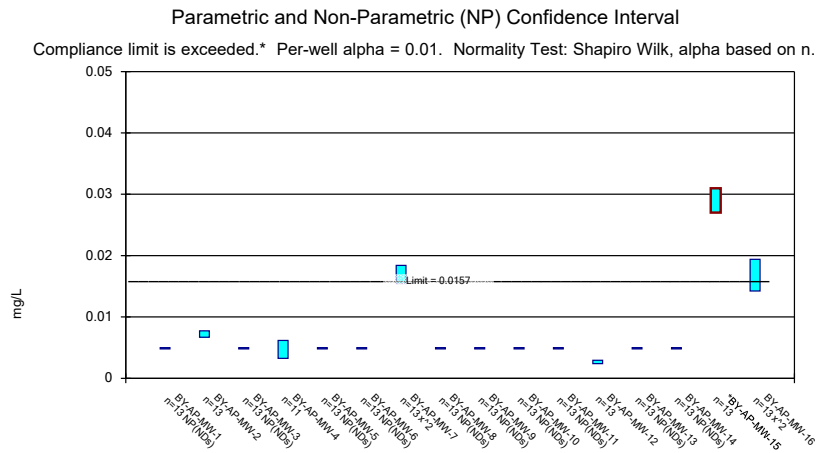
Constituent: Beryllium Analysis Run 1/17/2020 10:12 AM View: Confidence Intervals - App IV
Plant Barry Client: Southern Company Data: Barry Ash Pond



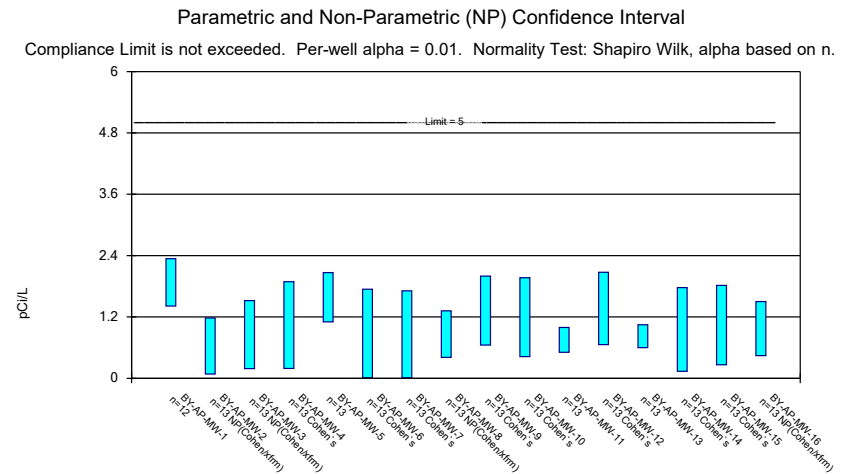
Constituent: Cadmium Analysis Run 1/17/2020 10:12 AM View: Confidence Intervals - App IV
 Plant Barry Client: Southern Company Data: Barry Ash Pond



Constituent: Chromium Analysis Run 1/17/2020 10:12 AM View: Confidence Intervals - App IV
 Plant Barry Client: Southern Company Data: Barry Ash Pond



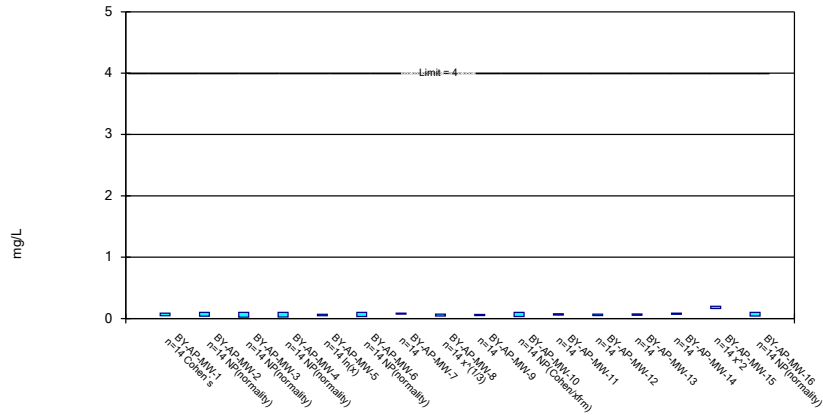
Constituent: Cobalt Analysis Run 1/17/2020 10:12 AM View: Confidence Intervals - App IV
 Plant Barry Client: Southern Company Data: Barry Ash Pond



Constituent: Combined Radium 226 + 228 Analysis Run 1/17/2020 10:12 AM View: Confidence Intervals -
 Plant Barry Client: Southern Company Data: Barry Ash Pond

Parametric and Non-Parametric (NP) Confidence Interval

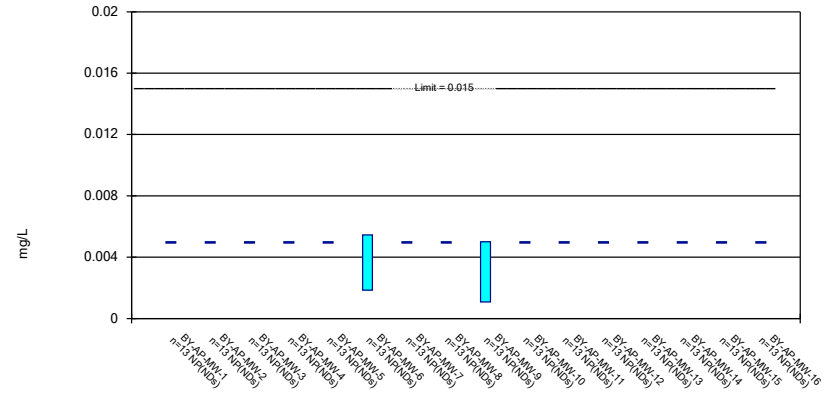
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Fluoride Analysis Run 1/17/2020 10:12 AM View: Confidence Intervals - App IV
Plant Barry Client: Southern Company Data: Barry Ash Pond

Non-Parametric Confidence Interval

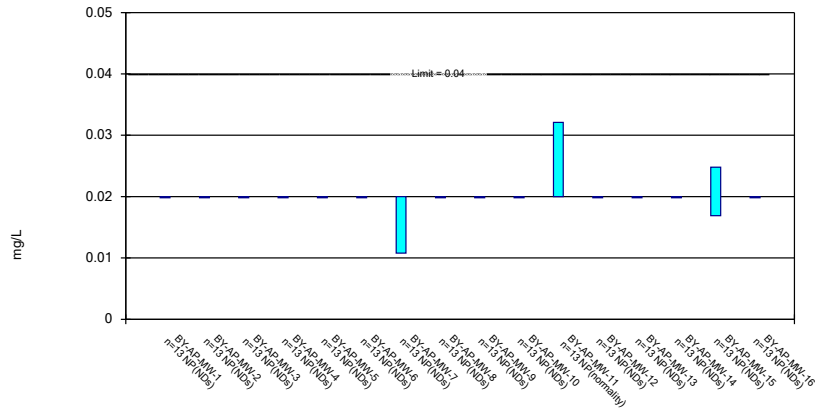
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Constituent: Lead Analysis Run 1/17/2020 10:12 AM View: Confidence Intervals - App IV
Plant Barry Client: Southern Company Data: Barry Ash Pond

Non-Parametric Confidence Interval

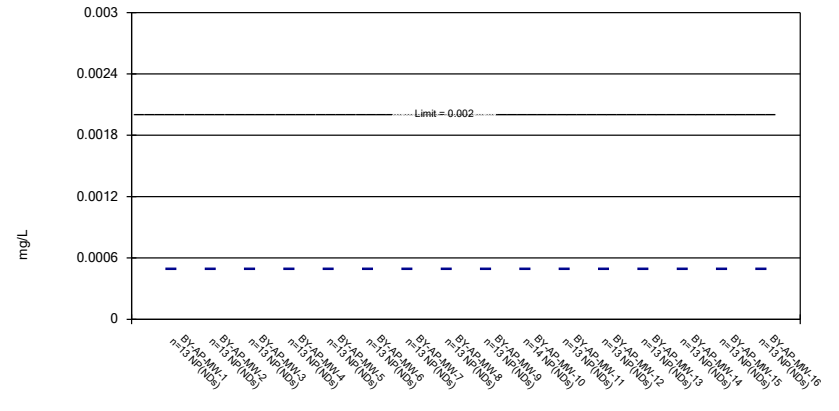
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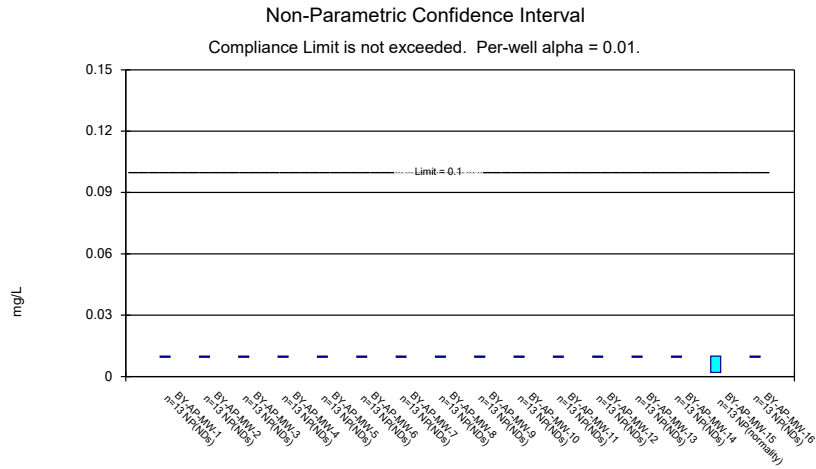
Constituent: Lithium Analysis Run 1/17/2020 10:12 AM View: Confidence Intervals - App IV
Plant Barry Client: Southern Company Data: Barry Ash Pond

Non-Parametric Confidence Interval

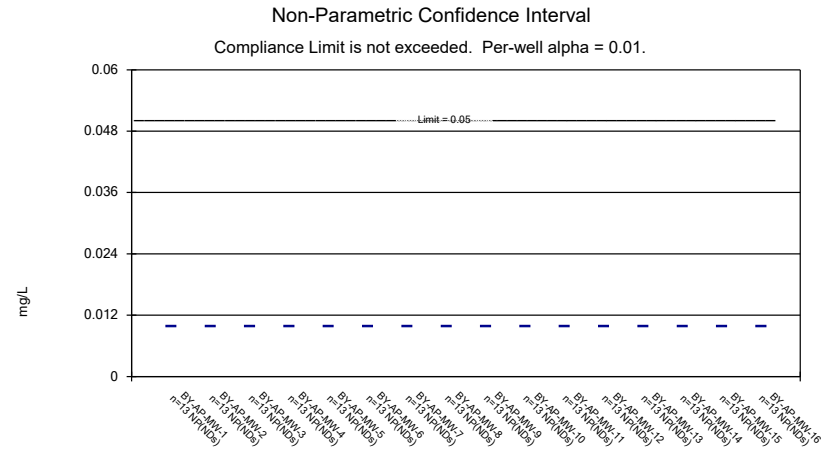
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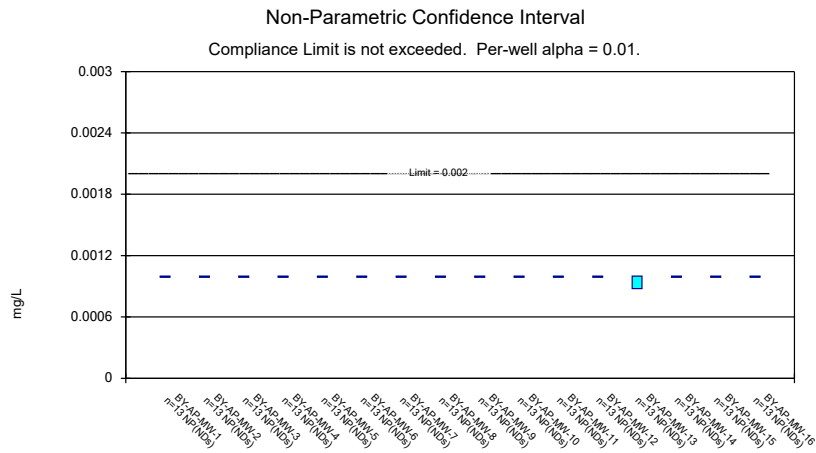
Constituent: Mercury Analysis Run 1/17/2020 10:12 AM View: Confidence Intervals - App IV
Plant Barry Client: Southern Company Data: Barry Ash Pond



Constituent: Molybdenum Analysis Run 1/17/2020 10:12 AM View: Confidence Intervals - App IV
 Plant Barry Client: Southern Company Data: Barry Ash Pond

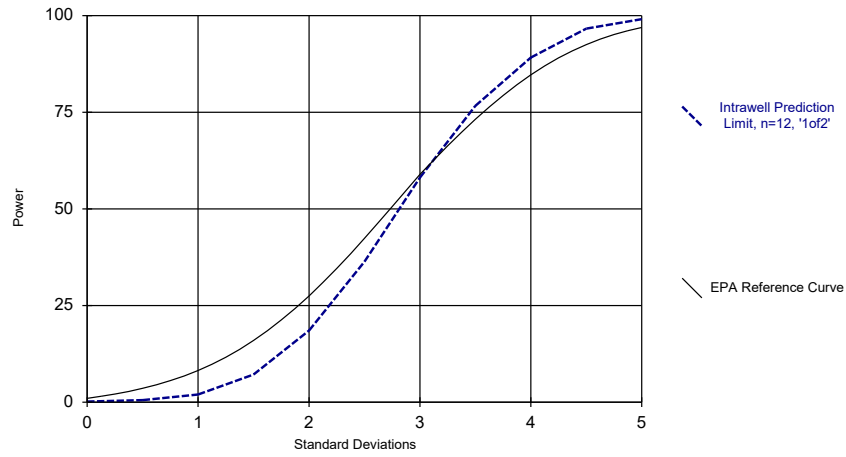


Constituent: Selenium Analysis Run 1/17/2020 10:12 AM View: Confidence Intervals - App IV
 Plant Barry Client: Southern Company Data: Barry Ash Pond



Constituent: Thallium Analysis Run 1/17/2020 10:13 AM View: Confidence Intervals - App IV
 Plant Barry Client: Southern Company Data: Barry Ash Pond

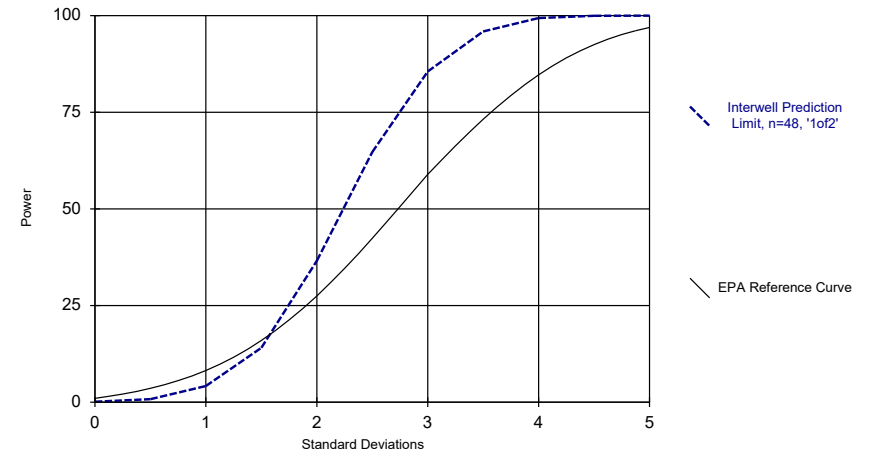
Power Curve



Kappa = 2.8, based on 16 compliance wells and 7 constituents, evaluated semi-annually (this report reflects annual total).

Analysis Run 1/30/2020 10:19 AM View: Power Curves
Plant Barry Client: Southern Company Data: Barry Ash Pond

Power Curve



Kappa = 2.164, based on 16 compliance wells and 7 constituents, evaluated semi-annually (this report reflects annual total).

Analysis Run 1/30/2020 10:20 AM View: Power Curves
Plant Barry Client: Southern Company Data: Barry Ash Pond