

**2022 SEMI-ANNUAL GROUNDWATER MONITORING AND  
CORRECTIVE ACTION REPORT**

**ALABAMA POWER COMPANY  
PLANT GORGAS  
ASH POND**

**July 31, 2022**

Prepared for

Alabama Power Company  
Birmingham, Alabama

By

Southern Company Services  
Earth Science and Environmental Engineering



**CERTIFICATION STATEMENT**

This 2022 *Semi-Annual Groundwater Monitoring and Corrective Action Report, Alabama Power Company - Plant Gorgas 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.

 \_\_\_\_\_ 7/31/2022 \_\_\_\_\_

Gregory B. Dyer, PG

Date

AL Registered Professional Geologist No. 1471

 \_\_\_\_\_ 7/31/2022 \_\_\_\_\_



Gregory Whetstone, PE

Date

AL Registered Professional Engineer No. 27885



## **EXECUTIVE SUMMARY**

In accordance with the United States Environmental Protection Agency (EPA) coal combustion residual (CCR) rule (40 CFR Part 257, Subpart D), the State of Alabama Department of Environmental Management (ADEM) Admin. Code Ch. 335-13-15, and ADEM Administrative Order (AO) No. 18-096-GW, this 2022 Semi-Annual Groundwater Monitoring and Corrective Action Report has been prepared to document 2022 semi-annual assessment groundwater monitoring activities at the Plant Gorgas Ash Pond (Ash Pond) and to satisfy the requirements of § 257.90(e), ADEM Admin. Code r. 335-13-15-.06(1)(f), and Part E of AO No. 18-096-GW. Semi-annual assessment monitoring and associated reporting for Plant Gorgas 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 CCR unit began the monitoring period in assessment monitoring pursuant to § 257.95, ADEM Admin. Code r. 335-13-15-.06(6), and AO No. 18-096-GW. Statistically significant increases (SSI) 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 (SSL) of Appendix IV parameters above groundwater protection standards (GWPS) were identified while in assessment monitoring. 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, ADEM Admin. Code r. 335-13-15-.06(7), and AO No. 18-096-GW. The ACM was subsequently submitted to ADEM and posted to the Ash Pond (Site) CCR compliance website. A public meeting to discuss the ACM was held on July 1, 2020.

Since the submittal of the ACM extensive Site investigations have been performed to select effective corrective measures to address SSLs above GWPS. A Groundwater Remedy Selection Report was prepared to meet the requirements of § 257.97, ADEM Admin. Code r. 335-13-15-.06(8), and Part C of AO No. 18-096-GW and submitted December 17, 2021. Subsequently, within 90 days of remedy selection, a Corrective Action Groundwater Monitoring Program describing implementation and monitoring of selected remedies at the Site was submitted on March 17, 2022.

SSLs of Appendix IV parameters arsenic, lithium, and molybdenum were detected above GWPS during the first semiannual monitoring event. The following summarizes results and activities conducted in 2022:

- Submitted 2021 Annual Groundwater Monitoring and Corrective Action Report on January 31, 2022.
- Submitted the Corrective Action Groundwater Monitoring Program document on March 17, 2022.
- Completed the first semi-annual assessment groundwater monitoring event between February 7, 2022, and March 4, 2022, which included the first round of sampling for the nineteen new or replacement compliance and delineation wells installed during the Fall of 2021
- Conducted a re-sampling event for combined radium 226 + 228 at select monitoring locations where outliers were suspected.

The CCR unit concluded the monitoring period in corrective action and APC has begun implementing the selected groundwater remedies identified in the Groundwater Remedy Selection Report submitted to ADEM in December 2021 and as detailed in the Corrective Action Groundwater Monitoring Program document. The following monitoring-related activities are planned for the CCR unit:

- Continue with phase 1 implementation of the Permeation Grouting Pilot Program for the remediation of arsenic, lithium, and molybdenum.
- Installation of near real-time instrumentation for the monitoring of potential changes in field parameter data in response to ash pond closure activities (August-September 2022).
- Evaluation of recently collected MNA parameter data.
- Collection of well precipitate samples, groundwater samples, and conduct geochemical modeling to determine feasibility of implementing geochemical manipulation (injections) north of the dam in the vicinity of wells GS-AP-MW-6S, GS-AP-MW-7, and GS-AP-MW-41HD. This approach, if feasible, could be used in-conjunction with permeation grouting to remediate area of highest concentration at the Site.
- Conduct the second semi-annual assessment monitoring event in July-August and submit the semi-annual groundwater monitoring report summarizing the findings to ADEM by January 31, 2023.

An **Executive Summary Table** highlighting program status and significant findings from the most recent annual monitoring period has been included on the next page.

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

Assessment Monitoring Initiated: July 16, 2019  
 Monitoring Period: January 1 - July 31, 2022  
 Beginning Status: Assessment  
 Ending Status: Assessment

**Statistical Analysis Results \***

**Appendix III SSIs**

Parameter	Wells
Boron	GS-AP-MW-2, GS-AP-MW-3, GS-AP-MW-6S, GS-AP-MW-6D, GS-AP-MW-7
Calcium	GS-AP-MW-6S, GS-AP-MW-6D, GS-AP-MW-19
Chloride	GS-AP-MW-2, GS-AP-MW-3, GS-AP-MW-6S, GS-AP-MW-6D, GS-AP-MW-7, GS-AP-MW-9V, GS-AP-MW-15, GS-AP-MW-15V, GS-AP-MW-17, GS-AP-MW-19 and GS-AP-MW-21
Fluoride	GS-AP-MW-2, GS-AP-MW-15
pH	GS-AP-MW-2, GS-AP-MW-3, GS-AP-MW-15, GS-AP-MW-15V, GS-AP-MW-17, GS-AP-MW-21
Sulfate	GS-AP-MW-2, GS-AP-MW-3, GS-AP-MW-6S, GS-AP-MW-6D, GS-AP-MW-7, GS-AP-MW-9V, GS-AP-MW-12, GS-AP-MW-15V, GS-AP-MW-21
TDS	GS-AP-MW-15, GS-AP-MW-15V, GS-AP-MW-17, GS-AP-MW-21

**Appendix IV SSLs**

Parameter	Wells
Arsenic	GS-AP-MW-6D and GS-AP-MW-7
Lithium	GS-AP-MW-6D, GS-AP-MW-7, GS-AP-MW-15, and GS-AP-MW-21
Molybdenum	GS-AP-MW-7

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

**Assessment of Corrective Measures & Groundwater Remedy**

**Assessment of Corrective Measures**

Date Initiated: January 13, 2019  
 Date Complete: June 12, 2019  
 Public Meeting Date: July 1, 2020

**Groundwater Remedy**

Selected During Period: No  
 Selection Date: December 17, 2021  
 Initiated During Period: Yes  
 Ongoing During Period: Yes

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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"
NAVD	North American Vertical Datum (1988 Reference)
NELAP	National Environmental Laboratory Accreditation Program
NTU	nephelometric turbidity unit
NCRDS	National Coal Resources Data System
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	Unites States Geological Survey
UTLs	Upper Tolerance Limits
XRD	X-ray diffraction
XRF	X-ray fluorecence

## **1.0 INTRODUCTION**

In accordance with the United States Environmental Protection Agency (EPA) coal combustion residual (CCR) rule (40 CFR Part 257, Subpart D) the State of Alabama Department of Environmental Management (ADEM) Admin. Code Ch. 335-13-15, and Administrative Order (AO) No. 18-096-GW this 2022 Semi-Annual Groundwater Monitoring and Corrective Action Report has been prepared to document 2022 semi-annual assessment groundwater monitoring activities at the Plant Gorgas Ash Pond (Ash Pond) and to satisfy the requirements of §257.90(e), ADEM Admin. Code r. 335-13-15-.06(1)(f), and Part E AO 18-096-GW. Semi-annual assessment monitoring and associated reporting for the Ash Pond (Site) 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).

Semi-Annual Groundwater Monitoring and Corrective Action Reports include an update on groundwater delineation activities completed since the submittal of the Facility Plan for Groundwater Investigation (November 13, 2018) and corrective action activities completed since the submittal of the Corrective Action Groundwater Monitoring Program (March 17, 2022).

## **2.0 MONITORING PROGRAM STATUS**

The site is currently in assessment monitoring and is in corrective action and APC will continue implementation of the selected groundwater remedies identified in the Groundwater Remedy Selection Report and the Corrective Action Groundwater Monitoring Program. 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 Gorgas Ash Pond during sampling events conducted in 2020. Pursuant to § 257.95(g)(3)(i) and ADEM Admin. Code r. 335-13-15-.06(6)(g)4.(i), APC completed an ACM in accordance with § 257.96, ADEM Admin. Code r. 335-13-15-.06(7), and AO No. 18-096-GW. The ACM was completed June 12, 2019, and a public meeting was held to discuss the ACM on July 1, 2020.

In accordance with § 257.97(a), ADEM Admin. Code r. 335-13-15-.06(8)(a), and Part C of Administrative Order No. 18-096-GW, Semi-Annual Remedy Selection and Design Progress Report(s) were submitted beginning in December 2019. The semi-annual progress reports were prepared to describe the progress made in selecting and designing a remedy for the Site. A Groundwater Remedy Selection Report was prepared and submitted on December 17, 2021, to meet the requirements of 40 CFR § 257.97, ADEM Admin. Code r. 335-13-15-.06(8), and Part C of AO No. 18-096-GW. Subsequently, within 90 days of remedy selection, a Corrective Action Groundwater Monitoring Program was developed and submitted on March 17, 2022.

In accordance with § 257.95 and ADEM Admin. Code r. 335-13-15-.06(6), APC will continue semi-annual assessment monitoring, including all monitoring wells in the certified groundwater monitoring system and any well installed to characterize the horizontal and vertical extent of SSLs. APC will continue with implementation of the groundwater remedies described in the Groundwater Remedy Selection Report and Corrective Action Groundwater Monitoring Program document.

### 3.0 SITE LOCATION AND DESCRIPTION

The Alabama Power Company (APC) William Crawford Gorgas Electric Generating Plant (Plant Gorgas) is in southeastern Walker County, Alabama, approximately 15 miles south of Jasper, at 460 Gorgas Road, Parrish, AL 35580. Based on visual inspection of USGS topographic quadrangle maps and GIS plant boundary files provided by SCS, the plant occupies portions of Sections 7, 8, 9, 16, 17, 18, 19, 20, 21, 28 and 29, Township 16 South, Range 6 West and Section 12, 13 and 24, Township 16 South, Range 7 West (USGS, 1975; USGS, 1983). The Ash Pond is located southeast of the main plant on the opposite side of the Black Warrior River. **Figure 1, Site Location Map**, depicts the location of the Plant and Ash Pond with respect to the surrounding area.

### 3.1 PHYSICAL SETTING

Plant Gorgas is in the Black Warrior River basin, an area typified by moderate relief, with river and stream valleys having dendritic drainage patterns. Elevations at the site range from approximately 260 feet above mean sea level (MSL) near the Mulberry Fork to over 600 feet MSL east of the Ash Pond. The Ash Pond occupies a localized, narrow valley where ground elevations are higher to the west, north, and east of the Ash Pond. Ground elevations typically range between 400 and 600 feet MSL and can have steep slopes down to the Ash Pond, which historically resides around elevation 380 ft MSL. **Figure 2, Site Topographic Map**, provides the topography of the Site.

### 3.2 SITE GEOLOGY AND HYDROGEOLOGY

Plant Gorgas lies in the Warrior Basin physiographic region (Sapp and Emplaincourt, 1975), a late Paleozoic basin formed as a result of flexure and sediment loading associated with Appalachian and Ouachita orogenies. The bedrock geology is dominated by clastic sedimentary rocks of the Upper Pottsville Formation as shown on **Figure 3, Site Geologic Map** (GSA, 2010b). The Upper Pottsville formation directly underlies Plant Gorgas and extends down to a depth of approximately 2,100 feet below ground surface. This formation is characterized by cyclic sequences (cyclothems) of marginal marine shale/claystone, siltstone, sandstone, conglomerates, and individual coal beds. These depositional cyclothems reflect the sediment balance controlled by 4th or 5th order glacial eustasy, continued basin evolution, and variations in sedimentation rates (Pashin and Raymond, 2004). Deeper stratigraphy is marked by carbonates, shales, chert, and sandstones of Mississippian to Cambrian age (Raymond et al., 1988).

The Plant Gorgas Ash Pond is directly underlain by rocks belonging to the Pratt Coal Group (Ward II et al., 1989) of the Lower Pottsville Formation. In general, the Pratt Coal Group consists of mudstone, shale, fine-grained sandstone, and interbedded coal in fining-upward sequences. Stratigraphically, at the Site, the Pratt Coal Group can generally be characterized as a (1) lower, coal measures interval, (2) a predominantly mudstone or shale interval, and (3) an upper sandstone interval. As indicated on geologic cross-sections provided in this report, only the lower, coal measures interval and mudstone/shale interval intersect or underlie the Ash Pond as the upper sandstone interval (as well as Cobb Group strata) typically forms the caprock for ridges on either side of the Ash Pond.

The Pratt Coal Group generally contains three named coal seams, each separated by 25 to 50 feet of intra-burden. In descending order, they are, the Pratt, Nickel Plate, and American coal seams. Locally, Pratt Coal Group strata gently dip to the south and south-southwest. As noted in the Supplemental Site Hydrogeological Characterization Report submitted in March 2021 (SCS, 2021) local variations in dip direction and magnitude are observed at the site and may be attributable to localized fault displacement, elevations at the time of deposition, and potential presence of a synclinal structural feature. The top of the Pratt Coal Group occurs at depths between 70 and 225 feet below ground surface or at elevations between 350 and 240 feet MSL. Pratt coals generally fit the following patterns:

- Beneath the site, the Pratt coal is generally 3 to 4-ft thick and overlies the Nickel Plate Seam, separated by a 10 to 12-ft sequence of claystone grading downward to sandstone.
- Locally, the Nickel Plate seam is not very prominent and is generally under 1.5 feet in thickness.
- The American seam generally resides 15 and 25 feet beneath the Nickel Plate Seam and is separated primarily by a sandstone bed. The American seam generally thickens towards the south where it was underground mined (Maxine Mine).

**Figures 4A-4H, Geologic Cross-Sections**, provide an illustration of the Pottsville strata underlying the site.

The Pottsville aquifer system is the primary aquifer in Walker County. Although on a regional scale there are other aquifer systems in the vicinity of Plant Gorgas, the Pottsville aquifer system is the most significant. The nearest exposure of the Valley and Ridge aquifer system occurs in central Jefferson County, approximately 25 miles east of Plant Gorgas. The nearest exposure of the Tuscaloosa aquifer system occurs in northwesternmost Walker County, approximately 30 miles northwest of Plant Gorgas. The Tuscaloosa aquifer system is not considered a primary source of groundwater in Walker County (Stricklin, 1989).

The Pottsville aquifer system is composed primarily of Pennsylvanian-aged sandstones, shales, conglomerates, and coal. Groundwater flow primarily occurs through coal seams or rock fabric discontinuities such as bedding planes and fractures. Groundwater in the Pottsville aquifer system is commonly regarded as confined due to large permeability contrasts within the aquifer (Stricklin, 1989). Recharge to the Pottsville formation is largely through infiltration of precipitation and to a lesser extent, downward seepage of river water at hydraulically favored locations.

Regionally, recharge is accommodated largely by fracture enhanced permeability. Major recharge zones to the Pottsville Formation are related to major geologic structures such as large fault zones or along systematic fold axes (Pashin, 2007). Although the Pottsville aquifer system is the primary aquifer in Walker County, groundwater use is relatively limited. According to O’Rear et al., 1972, groundwater use accounted for approximately 15% of total water use in Walker County in 1966. By 2005, groundwater use had declined to less than 1% of total water use in Walker County, or 1.14 million gallons per day (mgd) of groundwater out of a total water use of 969.5 mgd (USGS, 2005).

### **3.2.1 Pottsville Formation – Rock Chemistry**

Published data indicate that elevated arsenic concentrations occur in the Southern Appalachian coal strata where site monitoring wells are screened. Numerous publications document elevated trace metals in Pottsville and Pottsville coal strata (Kolker et al., 1999, Diehl et al., 2004, Goldhaber et al., 2002). For instance, according to the USGS National Coal Data System (NRCDS), the average concentration of arsenic (72 parts per million (ppm)) in the Pottsville coal strata is three times that of the average of other coal basins (Bragg et al., 1997). Of the U.S. coal analyses for arsenic that are at least three standard deviations above the mean, approximately 90% are from the coal fields of Alabama (Diehl et al., 2004). The United States Geological Survey (USGS) maintains an inventory of coal quality that includes trace metal concentration data. It shows arsenic concentrations range from 1.08 milligrams per kilograms (mg/kg) to 611.0 mg/kg with a mean of 47 mg/kg for Walker County (USGS Coal Quality Database).

Similarly, 75 Pratt Coal Group samples (Pratt, Nickel Plate, and American coal seams) analyzed by the USGS and inventoried in the USGS National Coal Data System (NRCDS) showed the following ranges of other trace metals:

- Boron – 6.3 to 83.6 ppm (average of 35 ppm).
- Cobalt – 1.6 to 19.8 ppm (average of 8 ppm).
- Molybdenum – 0.8 to 22.2 ppm (average of 5 ppm).

- Lithium – 1.4 to 128 ppm (average of 28 ppm).

Bulk geochemical analyses of Pottsville stratigraphy from the Site and of the Pratt and American coal seams from Plant Gorgas were conducted on recovered core. The data reflect arsenic concentrations between 4.9 mg/kg and 32.6 mg/kg in siltstone/mudstones and concentrations of 28.9 and 384.4 mg/kg in two coal seams analyzed. The average arsenic concentration was roughly 34 mg/kg in these samples tested, which is in good agreement with data observed in the USGS Coal Quality Database.

Similarly, 17 Pratt Coal Group samples collected from the Site provided the following ranges of other trace metals:

- Boron – 20.8 to 114 ppm (average of 49 ppm).
- Cobalt – 4.2 to 18.2 ppm (average of 14 ppm).
- Molybdenum – 1.0 to 4.4 ppm (average of 2 ppm).

During the first part of 2022, a robust study of the composition of Pottsville Formation (Pratt, Gillespy, and Mine Spoil derivatives) at the nearby Plant Gorgas Gypsum Pond, found the following concentrations in rock and mine spoil materials:

- Lithium – 30 to 367 ppm (average of 128 ppm).
- Arsenic – 7 to 79 ppm (average of 32 ppm).
- Molybdenum – 0.67 to 9.8 ppm (average of 3 ppm).

Trace metal enrichment and pyrite origins have been linked to post-depositional (post-coalification) deformation and trace metal laden hydrothermal fluids upwelling during Alleghanian tectonism. Diehl et al., (2004) and Goldhaber et al., (2002) describe “high-pyrite” coals as a source of elevated arsenic and other trace metals. In these publications, pyrite occurrence is observed within coal banding, woody cellular fill structures, mineral overgrowths, and structural fills such as veins and microfaults. The geogenic lithium study at the Plant Gorgas Gypsum Pond (July 2022), observed strong correlations between mica and clay mineral abundance and lithium concentrations as well as secondary lithium associated primarily with sorption on iron oxides.

In areas where strip mining occurred (north of ash pond dam, west of the ash pond), the process of strip mining and backfilling these materials can increase the availability of trace metals to groundwater. These mining processes and practices lead to the physical weakening and enhanced weathering of rock which along with changed hydrodynamics can lead to elevated and highly variable concentrations across a historic

mine site. Increased acidity in groundwater, when present, can also help to mobilize constituents – especially in mine spoil materials.

### **3.2.2 Uppermost Aquifer**

The Pottsville aquifer system is the uppermost aquifer beneath the site for groundwater monitoring purposes. Groundwater occurs in the Pratt Coal Group of the Upper Pottsville Formation at the site. The primary occurrences of groundwater in the uppermost aquifer are: (1) coal seams, (2) rock fractures or zones of fracture enhanced permeability, and to a lesser extent (3) bedding planes. Fractured intervals are sparse across the site as defined by caliper logging and tend to occur with greater density in the upper 100 feet of rock.

Groundwater yield at the site is considered low and typical of the Pottsville aquifer system in areas without major geologic structures. Wells were generally screened in the Pratt coal seam or across groundwater yielding fractures. Depth to groundwater producing zones were highly variable at the site and typically ranged from 30 to 240 feet BGS. Caliper, natural gamma, normal resistivity, fluid temperature, fluid resistivity logs, and heat pulse flowmeter logs were used to determine groundwater yielding zones. Packer testing was used in select borings to further enhance characterization.

Based on published data, groundwater quality produced from the Pottsville Formation can be characterized by high concentrations of sulfate, iron, and other trace metals (Jennings and Cook, 2010). Trace metals in Pottsville Formation groundwater are associated with sulfide minerals contained in organic-rich strata (e.g., mudstones and coal seams) and siliceous/carbonate healed fractures and joints. Trace element enrichment is the result of migrating hydrothermal fluids generated during the late Paleozoic Allegheny orogeny (Diehl et al., 2004). Arsenic, antimony, molybdenum, selenium, copper, thallium, and mercury are elevated in Warrior Basin coal strata (Goldhaber et al., 2002).

### **3.2.3 Flow Interpretation**

Groundwater flow is accomplished primarily by means of fracture flow, where groundwater flows along more conductive secondary discontinuities in the rock mass such as joints or cleat fabric in coal seams. Fracture flow in complex geologic media such as the heterogenous Pottsville Formation can be complex. Groundwater in the Pottsville aquifer is most commonly regarded as confined due to large permeability contrasts within the aquifer (Stricklin, 1989). The Pottsville at the Site is probably better described as a series of discrete, confined to semi-confined, groundwater yielding zones where groundwater elevations



can vary significantly laterally and vertically and are governed by the heterogeneity of the lithology and degree of fracture network interconnectivity.

At the Site, the groundwater flow regime is now grouped into three general flow systems: (1) shallow water-table flow system, (2) Pratt Coal flow system, and (3) American Coal flow system. At higher stratigraphic intervals (water-table flow system), groundwater flows towards the Ash Pond or other surface water bodies. This flow system is driven by gravity and mimics the topography of the site. Within deeper rock strata such as coals of the Pratt Group (Pratt Coal Group or deep bedrock flow system), groundwater flows radially away from the site.

Based on structural elevations and dip, the American coal seam would intercept the base of the pond between the ash pond and splitter dike and the Pratt coal seam would intercept the base of the pond near its' geographic center proximal to wells GS-AP-MW-12 and GS-AP-MW-1. The more permeable coal measures underlie the northern half of the ash pond before dipping below its' base towards the south (the southern half of the ash pond is underlain by mudstone/shale interval). Radial flow is interpreted to emanate proximal to this intersection.

Except for the far northern portion of the Ash Pond, conceptually, there is likely to be little hydraulic communication with strata deeper than the sandstone unit immediately underlying the American Coal Seam (American Coal Flow System). Below this interval, a low permeability mudstone to interbedded mudstone-sandstone unit likely forms a barrier to vertical migration of groundwater as hydraulic conductivity values in the  $10^{-7}$  centimeter per second (cm/s) range are reported for shales at the site as derived from packer testing. This interval reflects the transition to Gillespy Coal Group.

However, to the north and underlying the Ash Pond dam, strong hydraulic gradients likely force groundwater along vertical fractures and bedding planes through the upper part of the Gillespy Coal Group. Geophysical and hydrophysical logs obtained in well locations north of the dam suggest that three to four discrete bedding planes occurring between 30 and 90 ft BGS transmit groundwater. The most prominent typically occurring at a depth of 49 to 56 ft BGS (likely Gillespy equivalent; approximately 100 feet below American Coal Seam). These discrete zones occur in the upper part of the Gillespy Coal Group and appear to dip approximately  $2.1^{\circ}$  southwest. Geophysical signatures of flow diminish greatly in between and below these intervals. Failed attempts at deeper well locations along with the geophysical logs suggest little or no groundwater flow at elevations below 160 feet MSL. Strong upward vertical gradients are observed in paired well locations (see groundwater elevations in MW-6S/6D and MW-41HS/HD pairs) installed north of the ash pond dam. Potentiometric data suggests upward vertical flows along with northerly lateral flow.

Forty-three packer tests were conducted resulting in a range of hydraulic conductivity (k) values from an estimated low of  $7 \times 10^{-7}$  cm/sec to a high of  $4 \times 10^{-3}$  cm/sec, with most tests (31) in the moderate range ( $10^{-5}$  cm/sec to  $10^{-4}$  cm/sec), two test results in the more permeable range ( $10^{-3}$  to  $10^{-2}$  cm/sec), and ten test results in the less permeable range ( $10^{-6}$  cm/sec). There is a general trend of decreasing estimated hydraulic conductivity with depth. Packer test results vary over 4 orders of magnitude. Test intervals at the high end of the data range are associated with weathered discontinuities (fractures/joints). Moderate values are associated with minor fractures or bedding planes. The lowest values are associated with more shale intervals without substantial fractures. Test intervals with coal seams are in the moderate to high end of the data range.

### **3.3 GROUNDWATER MONITORING SYSTEM**

Pursuant to 40 CFR § 257.91 and ADEM Admin. Code r. 335-13-15-.06(2), Plant Gorgas has installed a groundwater monitoring system to monitor groundwater within the uppermost aquifer. The certified groundwater monitoring system for the Plant Gorgas 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, and downgradient monitoring locations based on groundwater flow direction as determined by the potentiometric surface elevation contour maps. 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.

#### **3.3.1 Monitoring Wells**

Well locations at the site are designated as upgradient, downgradient, piezometer (water-level only), vertical delineation, and horizontal delineation. The following subsections provide a summary of well designations and if applicable, changes or modifications to the well network or designations. As described in the site Groundwater Monitoring Plan, modifications to the well network or designation must first be approved by ADEM.

The location and designation of Site wells are presented on **Figure 5, Monitoring Well Location Map**.

##### **3.3.1.1 Upgradient Wells**

To evaluate upgradient well locations at the Site, groundwater elevations and CCR indicator parameters were reviewed. As described in **Section 3.2.3**, there are multiple groundwater flow regimes within the Pottsville Formation at the Site: (1) an upper groundwater flow system found at higher elevations (water-

table flow system) and (2) a deeper groundwater flow system composed of Pratt Coal Group strata that also represents the uppermost aquifer beneath the Ash Pond.

Historically, two upgradient well locations (GS-AP-MW-8 and GS-AP-MW-13) screened in the upper groundwater flow system have been used for statistical comparison of groundwater quality. The upper groundwater flow system corresponds to younger or recharging groundwater and groundwater elevations are greater than those of the Ash Pond. Groundwater flows towards the Ash Pond or other surface water bodies. Spatially, these locations are among downgradient compliance wells but are screened across fractures that occur at higher elevations and are not hydraulically connected to downgradient flow away from the Ash Pond.

Appendix III (detection monitoring parameters) constituent concentrations, along with select other Appendix IV CCR indicator parameters, were also evaluated as further basis for designating locations GS-AP-MW-8 and GS-AP-MW-13 as upgradient. In general, concentrations of CCR indicator parameters reported for these well locations are well below published Groundwater Protection Standards (GWPS), downgradient wells, and pore-water (source) concentrations. The absence of elevated concentrations of CCR indicator parameters indicates younger, recharging groundwater and groundwater that has not been impacted by groundwater flowing away from the Ash Pond. The data, along with groundwater elevation data, support an upgradient designation for locations GS-AP-MW-8 and GS-AP-MW-13. Upgradient location GS-AP-MW-13 was abandoned in 2019. Historical data collected from this location will still be used for statistical comparison of groundwater quality data.

Location GS-AP-MW-17V was originally intended for vertical delineation but was screened at a higher elevation due to encountering the underlying Maxine Mine at depth and identifying more shallow groundwater flow. Groundwater elevations at GS-AP-MW-17V indicate this location is upgradient of the Ash Pond with groundwater elevations roughly 35 feet higher than the Ash Pond. This location was proposed as an additional upgradient location in an updated Groundwater Monitoring Plan submitted to ADEM in April 2020 (revised August 2020 and March 2021).

During the Fall of 2021, replacement monitoring well GS-AP-MW-18R was installed across a shallow water-bearing fracture. Initial groundwater elevations demonstrate that this well location is most suitable as an upgradient well location.

Indicator Parameter Comparison								
Average Groundwater Concentration(s) By Hydrogeologic Unit/Category								
Hydrogeologic Unit/Category	Boron	Calcium	Chloride	Sulfate	TDS	pH	Arsenic	Lithium
Potential Upgradient								
GS-AP-MW-17V	0.04322	30.9	3.6	11.1	361	7.61	0.00216	0.06500
GS-AP-MW-16S	0.07487	13.8	4.7	5.9	426	10.10	0.00231	0.07500
Source Water								
Ash	4.02	143.3	8.2	282.3	594		0.30033	1.09667
By Major Hydrogeologic Unit (All Wells)								
Pottsville Fm - American Strata	0.07124	44.3	86.7	286.3	837	7.81	0.00522	0.08375
Pottsville Fm - Gillespy Transition	0.97841	46.4	9.7	139.8	403	7.16	0.10266	0.17827
Pottsville Fm - Pratt Strata	0.19656	29.7	16.2	81.1	426	8.64	0.00991	0.09119
By Major Hydrogeologic Unit (Wells Demonstrating SSLs)								
Pottsville Fm - American Strata	0.08373	56.6	281.1	783.3	2008	8.06	0.01010	0.14625
Pottsville Fm - Gillespy Transition	0.96606	26.2	12.0	166.4	446	7.32	0.14667	0.12667
Pottsville Fm - Pratt Strata	0.44006	40.9	19.9	168.9	560	9.32	0.01706	0.20397

The above comparison presents average concentrations of key indicator parameters and grouped by (1) potential upgradient wells as defined by groundwater elevations, (2) ash pore water that represents a potential source composition for groundwater impacts, (3) downgradient wells by hydrogeologic unit, and (4) wells demonstrating exceedances by hydrogeologic unit. This profile shows that potential upgradient wells demonstrate a lower concentration profile for boron, calcium, chloride, sulfate, TDS, arsenic, and lithium. Well GS-AP-MW-16S has demonstrated elevated pH which profiles favorably as a comparable upgradient location for GS-AP-MW-15 and GS-AP-MW-21 which have also demonstrated elevated pH.

Additional data will be collected from GS-AP-MW-16S prior to making a final recommendation. Well GS-AP-MW-17V has been incorporated as an upgradient well and data used for determination of groundwater protection standards during the Fall 2021 sampling event.

**Table 1a, Compliance Monitoring Well Network Details**, summarizes compliance well installation data, including monitoring well construction details and the lithology (flow system) adjacent to the screened interval

### 3.3.1.2 Downgradient Wells

Borehole geophysics, hydrophysical logging, and occasional packer testing were used to determine well screen intervals. These logging techniques identify groundwater flow zones in open boreholes and are optimally suited for use in low-yielding, fractured rock media. Heat-pulse flowmeter logging or packer testing were often used to assess or further evaluate flow zones indicated by hydrophysical logging tools. If multiple flow zones were identified, then paired wells were often installed to screen both zones.

Preferential groundwater flow away from the site, if existing, would occur within zones of enhanced permeability such as cleated coals or zones of intersecting rock discontinuities spatially located lateral to or beneath the base of the Ash Pond. Strata of the Pratt Coal Group are the uppermost aquifer lateral to or beneath the base of the Ash Pond, as indicated by borehole logging and geophysics. Downgradient monitoring wells are installed in the Pratt Coal Group, and generally across the Pratt or American Coal Seam.

To the north and beneath the Ash Pond dam, Pratt Coal Group strata exist above the ground surface or are mined out. In these areas, downgradient monitoring well locations were installed across the uppermost groundwater yielding fractures identified by borehole geophysics and hydrophysical logging and generally correspond to the transition from Pratt to Gillespy Coal Groups.

Downgradient locations GS-AP-MW-9, GS-AP-MW-10, GS-AP-MW-11, GS-AP-MW-13, and GS-AP-MW-14 were abandoned in 2019.

Former downgradient piezometer GS-AP-MW-3 was sampled during the first semi-annual sampling event of 2021. As discussed in the *2020 Annual Groundwater Monitoring and Corrective Action Report*, a low-yield study (re-evaluation of recharge rate versus depth and field parameters) found that well location GS-AP-MW-3 produced sufficient yield for low-flow sampling methods. It is uncertain if GS-AP-MW-3 will produce sufficient yield year-round or only during the wet season months. Recharge rates and analytical data will be evaluated over subsequent sampling events to determine if this location is suitable as a long-term downgradient compliance well. Presently, the well is being treated as a downgradient location while these data can be evaluated.

During the Fall of 2021, several delineation wells were re-designated as downgradient compliance wells to satisfy compliance monitoring needs in the American Flow System. These wells include GS-AP-MW-9V, GS-AP-MW-12V, GS-AP-MW-15V, GS-AP-MW-21V.

Additional downgradient compliance monitoring wells were installed during the Fall of 2021 as well. These locations include GS-AP-MW-1R, GS-AP-MW-3V, GS-AP-MW-5R, GS-AP-MW-9R, GS-AP-MW-10R, GS-AP-MW-11R, GS-AP-MW-13R, GS-AP-MW-18VR, GS-AP-MW-46, and GS-AP-MW-47. Well construction details and screened lithologies for downgradient wells are summarized in **Table 1a**.

### 3.3.1.3 Delineation Wells

Pursuant to 40 CFR § 257.95(g)(1), ADEM Admin. Code r. 335-13-15-.06(6)(g)2., and AO 18-096-GW, additional monitoring wells have been installed to characterize the horizontal and vertical extent of GWPS exceedances identified during assessment monitoring. Three phases of field investigation have occurred since late 2018 to explore potential impacts to groundwater.

Three historic piezometers, GS-AP-PZ-16, GS-AP-PZ-18, and GS-AP-PZ-22 monitor water levels in the adjacent Maxine Mine (American coal seam). These locations were converted to vertical delineation wells during the first quarter of 2020. Well GS-AP-PZ-18 was abandoned in the Fall of 2021 to accommodate ash pond closure activities.

Former piezometer, GS-AP-MW-41HS, was sampled during the first semi-annual sampling event of 2021. As discussed in the *2020 Annual Groundwater Monitoring and Corrective Action Report*, a low-yield study (re-evaluation of recharge rate versus depth and field parameters) found that well location GS-AP-MW-41HS produced sufficient yield for low-flow sampling methods. It is uncertain if GS-AP-MW-41HS will produce sufficient yield year-round or only during the wet season months.

During the Fall of 2021, four additional delineation wells were installed to assess potential groundwater impacts. These wells include GS-AP-MW-23V, GS-AP-MW-27HR, GS-AP-MW-37HR, and GS-AP-PZ-18R.

Delineation well locations are presented on **Figure 5. Table 1b, Delineation Well Network Details**, summarizes delineation well installation data, including monitoring well construction details and the lithology (flow system) adjacent to the screened interval.

### 3.3.1.4 Piezometers

There are currently 7 piezometers at the site. Historically, water-level only piezometers are well locations that (1) did not yield sufficient groundwater recharge for sampling or (2) encountered underground mine workings not suitable for compliance sampling. **Table 1c, Piezometer Well Network Details**, summarizes

piezometer installation data, including piezometer construction details and the lithology (flow system) adjacent to the screened interval.

A study and re-analysis of low-yielding piezometers (GS-AP-MW-1, GS-AP-MW-3, GS-AP-MW-4, GS-AP-MW-7V, GS-AP-MW-16S, GS-AP-MW-20, GS-AP-MW-27H, GS-AP-MW-30H, GS-AP-MW-30HS, GS-AP-MW-37H, GS-AP-MW-39H, and GS-AP-MW-41HS) was conducted to assess potential for sampling and inclusion into the monitoring well network. This study revealed that two locations, GS-AP-MW-3 (downgradient) and GS-AP-MW-16S (upgradient), produce sufficient groundwater yield (at least seasonally) to be proposed for inclusion into the site groundwater monitoring network. Results and discussion of the low-yield study was included in the *2020 Annual Groundwater Monitoring and Corrective Action Report* and are only summarized above for the purposes of this report. The proposed re-designation of these well locations were also included in the *March 2020 Revised Groundwater Monitoring Plan (GWMP)* (see *Table 1 of March 2020 GWMP*).

Location GS-AP-MW-16S was also proposed as an additional upgradient location in the Groundwater Monitoring Plan submitted in March 2021. At this time, it is unknown if well GS-AP-MW-16S will provide sufficient groundwater year-round or only seasonally during wetter periods. The following lines of evidence provide support for an upgradient designation:

- (1) Groundwater elevations and flow pattern consistent with uppermost Water-Table Aquifer System (see **Sections 3.2.4** and **4.1** for detailed discussion of groundwater elevation and flow). This indicates that groundwater flow away from GS-AP-MW-16S is towards the ash pond and vertically downward, indicating upgradient conditions.
- (2) Low concentrations of key Appendix III indicator parameters.

Although approved as a potential upgradient well, the plan is to continue to evaluate data from GS-AP-MW-16S prior to final recommendation. Geochemically, GS-AP-MW-16S shares common traits with wells GS-AP-MW-15, GS-AP-MW-15V, and GS-AP-MW-21 (elevated and correlating - pH, lithium).

Piezometer locations are presented on **Figure 5**.

### **3.3.1.5 Monitoring Well Replacement and Abandonment**

As described in preceding sections numerous well replacements and well replacement activities occurred during the Fall of 2021. Replacement wells installed, surveyed, and developed include compliance replacement locations: GS-AP-MW-1R, GS-AP-MW-5R, GS-AP-MW-9R, GS-AP-MW-10R, GS-AP-MW-11R, GS-AP-MW-13R, GS-AP-MW-14R, GS-AP-MW-18R, and GS-AP-MW-18VR. Original

locations were abandoned in 2019 and 2021 to allow for the progress of ash pond closure activities. Information related to well construction details and screened lithology can be found in **Table 1a**.

Additional compliance wells were also installed. These include GS-AP-MW-3V, GS-AP-MW-46, and GS-AP-MW-47. Information related to well construction details and screened lithology can be found in **Table 1A**. Additional or replacement delineation wells were also installed during the Fall of 2021. These locations included: GS-AP-MW-23V, GS-AP-MW-27HR, GS-AP-MW-37HR, and GS-AP-MW-PZ-18R. Information related to well construction details and screened lithology can be found in **Table 1b**.

**Table 1d, Abandoned Well Network Details** summarizes well construction details and screened lithology of wells abandoned at the Site.

### 3.4 GROUNDWATER MONITORING HISTORY

In accordance with § 257.94(b), eight 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 August 2016 to June 2017. Groundwater sampling for the first detection monitoring event after the background period was performed in August 2017.

Based on results of the 2017 Annual Groundwater and Corrective Action Monitoring Report, Alabama Power 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 February 2018, within 90 days of initiating the assessment monitoring program.

Statistical evaluations of 2018 assessment monitoring data identified SSLs of Appendix IV constituents above the GWPS, and the Site entered Assessment of Corrective Measures. Pursuant to 40 CFR §257.95(g)(1), ADEM Admin. Code r. 335-13-15-.06(6)(g)2., and AO 18-096-GW, additional monitoring wells (**Table 1c, Figure 5**) were installed to characterize the horizontal and vertical extent of GWPS exceedances identified during assessment monitoring in three phases of groundwater investigations between January 2019 and September 2020. These wells, along with the compliance monitoring well network, are sampled semi-annually.

Delineation wells installed at the Site have been sampled concurrently with the compliance monitoring well network beginning with the second semi-annual sampling event in September 2020. However, occasionally,



additional data collection has occurred independent of routine compliance sampling events to support continuing assessment activities at the Site.

### **3.4.1 Available Monitoring Data**

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

### **3.4.2 Historical Groundwater Flow**

Historical groundwater elevations and potentiometric surface maps show that groundwater flow patterns are consistent across monitoring events and as described in **Section 3.2.3**. As ash pond closure activities progress over the years and upon completion of closure, groundwater elevations will likely display variability representative of changing site hydrodynamics and eventually, a new set of equilibrium conditions. As this timeline progresses, groundwater elevations and trends will be qualitatively reviewed against this historical data set.

Tables summarizing groundwater elevations from all groundwater monitoring events are included in **Appendix B, Tabulated Historical Groundwater Elevations**.

### **3.4.3 Monitoring Variances**

The groundwater monitoring program at the Site is operating under a Variance granted by ADEM 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.
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.

## **3.5 GROUNDWATER SAMPLING AND ANALYSIS**

Site compliance wells are sampled semi-annually between: (1) late winter – mid spring and (2) early to late fall. The temporal spacing between sampling events is sufficient to ensure that sampling events yield

independent groundwater samples and, represent different climatic or meteorological seasons which often foster a degree of natural variability in groundwater quality.

During routine semi-annual monitoring events, all compliance and delineation network wells are sampled and analyzed for Appendix III and Appendix IV constituents. Additional general chemistry constituents (major ions and anions) are now being collected routinely as well. These non-compliance parameters will be periodically analyzed to explore seasonal or closure-related changes to geochemical facies to site groundwater.

The following subsections summarize the sequential steps and process for the sampling, handling/transport, and analysis of compliance-related groundwater samples at the Site.

### **3.5.1 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 in the compliance well network are equipped with dedicated pumps. Monitoring wells were purged and sampled using low-flow sampling procedures. In this procedure, field water quality parameters (pH, turbidity, conductivity, and dissolved oxygen) are measured to determine stabilization and groundwater samples are collected when the following stabilization criteria are 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, an In-Situ Aqua Troll 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 are included in **Appendix C, Laboratory and Field Records**.

### 3.5.2 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 6 °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.

### 3.5.3 Chain of Custody

A COC record was used to track sample possession from the time of collection to the time of receipt at the laboratory. COC records are included with the analytical laboratory reports included in **Appendix C**.

### 3.5.4 Laboratory Analysis

Laboratory analyses were performed by the APC Environmental Laboratory (APCEL) in Calera, Alabama and Pace Analytical Services, LLC (Pace). Both APCEL and Pace 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 from site groundwater samples. Lab reports and chain of custody records for the monitoring period are presented in **Appendix C**.

### 3.5.5 Monitoring Period Sampling Events

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 specified monitoring period. The first semi-annual assessment monitoring event took place between February 7, 2022, and March 4, 2022. A re-sampling event for combined radium took place between May 9<sup>th</sup> and May 12<sup>th</sup>, 2022, for select wells where outliers were suspected. This re-sample included wells:

- GS-AP-MW-16S
- GS-AP-MW-17V
- GS-AP-MW-25HA

- GS-AP-MW-36H

Groundwater samples were analyzed for the full list of Appendix III and Appendix IV parameters during the Assessment Monitoring event. During the most recent sampling event, additional general chemistry and monitored natural attenuation monitoring parameters were sampled and analyzed. These analytes have been incorporated for continued evaluations of geochemical facies and their evolution over time. These analytes will also support geochemical modeling and evaluations associated with monitored natural attenuation. These parameters include:

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

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

#### 4.0 GROUNDWATER ELEVATIONS AND FLOW

During the first semi-annual sampling event, groundwater elevations ranged from 128.22 to 534.75 ft MSL. feet NAVD88 (feet above reference 1988 North American Vertical Datum). **Figure 6A, Potentiometric Surface Contour Map (February 7, 2022) – Water Table, Figure 6B, Potentiometric Surface Contour Map (February 7, 2022) - Pratt Aquifer,** and **Figure 6C, Potentiometric Surface Contour Map (February 7, 2022) - American Aquifer** depict groundwater elevations and inferred groundwater flow direction during the first semi-annual sampling event of 2022.

The obtained depth to water readings and calculated groundwater elevations for piezometers, GS-AP-MW-7V and GS-AP-MW-39H, are reflective of effectively dry piezometers. These wells did not encounter groundwater yielding intervals in the Gillespy and beneath the American coal flow system.

**Figure 6A** shows groundwater flow towards the Ash Pond in wells screened in the upper flow system and towards Mulberry Fork in the middle to lower portions of the flow system. **Figure 6B** shows radial groundwater flow away from the Ash Pond in the Pratt Coal flow system. **Figure 6C** shows groundwater flow away from the Ash Pond in the deeper American Coal seam flow system. Recent groundwater elevation data have been tabulated and included in **Table 3, Groundwater Elevation Summary**. All historical available groundwater elevation data recorded since 2016 have been tabulated and included in **Appendix B**.

No significant changes in groundwater elevations or flow have been noted at the site as ash pond dewatering activities have not initiated.

#### 4.1 GROUNDWATER FLOW VELOCITY CALCULATIONS

Because the geology at the Ash Pond is not homogeneous or isotropic with respect to groundwater flow, groundwater velocity calculations using derivations of Darcy's Law are not applicable to groundwater at the site. The hydrogeologic characteristics of fractured rock typically produce preferential groundwater flow paths, so groundwater velocity is much more variable than in uniform porous media such as sand. During monitoring well installation, multiple techniques were used to successfully intercept groundwater flow paths with the monitoring wells located around the Ash Pond. These flow paths correspond to coal cleats and fractures, zones of fracture concentration, bedding planes, and other discontinuities in the rock. Therefore, groundwater flow velocity at the site cannot be accurately quantified using existing site data.

Slug testing provided horizontal hydraulic conductivities for the uppermost aquifer between  $1.19 \times 10^{-3}$  cm/sec and  $1.22 \times 10^{-5}$  cm/sec with an average of  $4.52 \times 10^{-4}$  cm/sec. A total of 43 packer tests resulted in a range of hydraulic conductivity (k) values from an estimated low of  $7 \times 10^{-7}$  cm/sec to a high of  $4 \times 10^{-3}$  cm/sec, with most tests (31) in the moderate range ( $10^{-5}$  cm/sec to  $10^{-4}$  cm/sec), 2 test results in the more permeable range ( $10^{-3}$  to  $10^{-2}$  cm/sec), and 10 test results in the less permeable range ( $10^{-6}$  cm/sec).

## 5.0 EVALUATION OF GROUNDWATER QUALITY DATA

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

### 5.1 DATA VALIDATION – QUALITY ASSURANCE/QUALITY CONTROL

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 are 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 4A, Relative Percent Difference Calculations**, provides the relative percent differences for sample and sample duplicates during the first semi-annual monitoring event of 2022. Two RPD criteria failures were observed during the most recent sampling event: (1) GS-AP-MW-24H for sulfate and (2) GS-AP-MW-28H for fluoride. In both instances

of RPD criteria failure, results were less than 5 times the RL leading to validation flag of (+) J, (ND), UJ is applied to the original samples.

Analytical data reviewed provided low-level or trace detections in field and or equipment blanks during the monitoring period sampling event. **Table 4B, Field QC: Blank Detections** provides a summary of low-level detections observed during the first semi-annual monitoring event. Each of these detections were estimated concentrations, above the MDL but below the RL, and qualified in the laboratory analytical reports with “J flags.” However, if concentrations are detected above the MDL in field QC samples, original results on the (1) date of a blank detection and (2) with a value less than 5 times the field QC detection are flagged with a (+) U\* and MDL/RL values modified based upon the blank concentration.

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

## 5.2 STATISTICAL METHODOLOGY AND TESTS

Sanitas software is used to perform statistical analyses on Site data. 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).

### 5.2.1 Appendix III Evaluation

Interwell prediction limits, combined with a 1-of-2 verification strategy, are used to evaluate boron, calcium, chloride, fluoride, sulfate, and TDS. 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 August 2020 with additional data screening and 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.

The following adjustments are also applicable to the statistical analysis per the Unified Guidance:



- No statistical analyses are required on wells and analytes containing 100% non-detects (EPA Unified Guidance, 2009, Chapter 6).
- When data contain <15% non-detects 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.

### 5.2.2 Appendix IV Evaluation

When in assessment monitoring, Appendix IV constituents are sampled semi-annually, and concentrations are 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 on 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 3.4.3**), 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.
  - (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 interval, exceeds the GWPS as discussed in the USEPA Unified Guidance (2009), the result is recorded as an SSL. GWPS for Appendix IV constituents are updated on a biennial schedule. This schedule was initiated in 2019 with updates occurring after the second semi-annual sampling event of each biennial year. Data from upgradient wells collected between updates may still be used to support ASDs (Alternate Source Demonstrations) if merited.

### 5.3 STATISTICAL EXCEEDANCES

Analytical data from the 2022 semi-annual monitoring event was statistically analyzed in accordance with the Professional Engineer (PE)-certified Statistical Analysis Plan (October 2017) and updated in the August 2020 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.

#### 5.3.1 Appendix III Constituents

Based on review of the Appendix III statistical analysis presented in **Appendix D, Statistical Analyses**, Appendix III constituents have not returned to background levels. A summary of Appendix III SSIs is provided in the **Executive Summary Table** previously referenced.

#### 5.3.2 Appendix IV Constituents

**Table 5, 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 D**. As discussed in **Sections 3.3.1.1 and 5.3**, Site GWPS were updated after the Fall 2021 sampling event. As a result, the GWPS for lithium has increased from 0.04 to 0.0809 mg/L.

The following subsections describe statistical exceedances during the first semi-annual monitoring event of 2022.

### 5.3.2.1 First Semi-Annual Groundwater Monitoring Event

Using analytical data gathered to date from location GS-AP-MW-17V as an additional background monitoring location, the GWPS for lithium would increase. This reduces the number of lithium exceedances. Using a lithium concentration of 0.0809 mg/L, the following exceedances would be noted:

- GS-AP-MW-6D: Arsenic, Lithium.
- GS-AP-MW-7: Arsenic, Lithium, Molybdenum.
- GS-AP-MW-15: Lithium.
- GS-AP-MW-21: Lithium.

Although not statistically analyzed due to a limited data set, recently installed downgradient wells GS-AP-MW-13R and GS-AP-MW-46 demonstrated concentrations above the GWPS for arsenic. Statistical analyses will be conducted after a sufficient data set for these wells have been collected. Similarly, recently converted to downgradient wells, GS-AP-MW-15V and GS-AP-MW-21V, exhibited lithium concentrations above the GWPS. Concentrations over the GWPS but not statistically analyzed:

- GS-AP-MW-13R: Arsenic
- GS-AP-MW-46: Arsenic
- GS-AP-MW-15V: Lithium
- GS-AP-MW-21V: Lithium

The combined radium results from GS-AP-MW-16S, GS-AP-MW-17V, GS-AP-MW-25HA, GS-AP-MW-36HA were noted as likely potential outliers in comparison to historical concentrations. Concentrations were significantly higher than previous sampling events. A re-sampling of these wells was conducted between May 10 and 11, 2022 and within 90 days of initial sampling. The results confirm that initial results from the February-March sampling event were outliers as concentrations from the May resample were more similar to historical ranges. This data is summarized below. Re-sample data is included in **Appendix C**.

Well	Analyte	Units	May 2022 Resample Result	February 2022 Result	Prior Max Concentration
GS-AP-MW-16S	Combined Radium 226 + 228	pCi/L	0.746	1.23	0.63
GS-AP-MW-17V	Combined Radium 226 + 228	pCi/L	0.553	7.76	0.738
GS-AP-MW-25HA	Combined Radium 226 + 228	pCi/L	0.565	0.763	0.422
GS-AP-MW-36H	Combined Radium 226 + 228	pCi/L	1.03	7.37	4.33

### 5.3.2.2 Delineation Wells

Statistical analyses are not conducted on Site delineation wells. However, a review of analytical data derived from delineation wells identified concentrations above GWPS for the following well, parameter pairs:

- GS-AP-MW-6V: Fluoride, Lithium
- GS-AP-MW-15V: Lithium
- GS-AP-MW-21V: Lithium
- GS-AP-MW-23H: Arsenic
- GS-AP-MW-26H: Lithium
- GS-AP-MW-34HO: Lithium
- GS-AP-MW-41HS: Lithium
- GS-AP-MW-41HD: Lithium

Between the Fall 2021 and Spring 2022 sampling events, arsenic concentrations in GS-AP-MW-15V and lithium concentrations in GS-AP-MW-29H declined to below GWPS.

**Table 6, First Semi-Annual Monitoring Event Analytical Summary**, provides a summary of all detected constituents for the first semi-annual sampling event. Statistical reporting output is included as **Appendix D**.

It is important to note that location GS-AP-MW-16S, sampled for the first time during the second semi-annual monitoring event in 2020, has provided a concentration range for lithium between 0.0574 and 0.103 mg/L in 5 sampling events. This monitoring location, located hydraulically upgradient from the Ash Pond,

exhibit elevated lithium concentrations similar to proposed upgradient well GS-AP-MW-17V, and provides a second hydraulically upgradient location with lithium concentrations above the Federally derived GWPS (described in **Section 3.4.3**). The lithium concentration of 0.103 mg/L observed in GS-AP-MW-16S is higher than those of delineation wells GS-AP-MW-26H, and therefore, may further reduce the count of wells over the lithium GWPS after further evaluation and next scheduled update to site GWPS (Fall 2023). This along with the discussion provided in the most recent Semi-Annual Progress and Groundwater Delineation Report (September 2020) provide strong lines of evidence that naturally occurring lithium exists at elevated concentrations.

Fluoride, detected at concentrations above the GWPS in vertical delineation well GS-AP-MW-6V, is not being considered as an impact from the Ash Pond and is not being evaluated for delineation. The following lines of evidence support this point:

- (1) Absence of fluoride in pore-water samples (Ash Pond source water) where fluoride concentrations were non-detect in 2 of 3 samples and detected at a low-level, estimated concentration in the third sample (0.0756 (J) mg/L). This implies that the ash pond is not a source of such high concentrations of fluoride.
- (2) No other compliance or delineation wells sampled (43 wells) contained elevated fluoride concentrations. Fluoride concentrations in other wells ranged from 0.1 to 1.81 mg/L and averaged 0.30 mg/L.
- (3) Fluoride concentrations in paired wells, GS-AP-MW-6S and GS-AP-MW-6D, provided concentrations of 0.164 and 0.108 mg/L, respectively during the first semi-annual monitoring event.
- (4) GS-AP-MW-6V is a relatively new and deeper screened well which can introduce geochemical variability due to (1) localized variability or isolated source in the geologic formation and or (2) a temporary disequilibrium caused by the installation of a new well.

## 6.0 ALTERNATE SOURCE DEMONSTRATION

An alternate source demonstration (ASD) was submitted in July 2021 and attached to the 2022 Annual Groundwater Monitoring and Corrective Action Report in January 2022. The alternate source demonstration focuses primarily on (1) the contribution elevated pH has on arsenic and lithium concentrations in wells GS-AP-MW-15/15V and GS-AP-MW-21 and (2) a comparison of Gorgas AP pore-water geochemistry to the geochemistry of downgradient wells. This study and previous data obtained documenting elevated trace metals in Warrior Basin (Pottsville) coal measures strata provides sufficient confidence to determine that many historical exceedances at the site are related to elevated pH and or elevated trace metals in these coal measures.

The following bullets summarize key lines of evidence documented in the ASD and supporting alternative sources:

- Wells analyzed provided a ratio of lithium to boron different than pore-water samples (source).
- Wells analyzed provided a different geochemical fingerprint (geochemical facies) from pore-water samples.
- Substantial differences in the relative abundance of boron in comparison to chloride and lithium (i.e., conservative ions) in GS-AP-MW-15, GS-AP-MW-15V, and GS-AP-MW-21 compared to Ash Pond porewater indicate an alternate source for lithium.
- High sodium concentrations (+200 mg/L) and alkaline pH (> 10) of groundwater at GS-AP-MW-15, GS-AP-MW-15V, and GSAP-MW-21 relative to upgradient water and Ash Pond porewater indicates the potential for sodium-bentonite and grout contamination; sodium-bentonite may allow for cation exchange with lithium.
- Lithium is naturally occurring and environmentally available in the bedrock at Plant Gorgas, as identified by chemical analysis and sequential extraction of rock samples.

As suggested and described in numerous previous reports (*most notably - September 2020 Progress and Groundwater Delineation Report*), detailed analyses of geochemistry data indicate that impacts to groundwater are concentrated north of the ash pond dam. Rock chemistry data as well as published technical reports provide sufficient documentation on sources of trace metals. Historical disturbances creating by mining in and around Gorgas can also contribute to an increase in some constituents.

## **7.0 GROUNDWATER ASSESSMENT AND CORRECTIVE ACTION**

As required by Part E of the Order (AO 18-096-GW) and correspondence from ADEM (March 2021), this report provides an update on groundwater delineation activities completed since the submittal of the Facility Plan for Groundwater Investigation (November 13, 2018). The primary purpose of this plan and subsequent phases of work were to identify the horizontal and vertical extent of groundwater impacts defined by EPA Appendix IV groundwater protection standards.

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

### **7.1 CHRONOLOGY OF DELINEATION ACTIVITIES**

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

#### **7.1.1 Delineation Wells**

Part B of the Order required the installation of additional wells as necessary to define the extent of groundwater impacts. The following sections describe monitoring wells installed to delineate impacts to groundwater.

#### **Phase I – Groundwater Investigation (January 2019 – August 2019)**

Phase I was conducted between the dates of January 2, 2019, and August 15, 2019. **Table 1b** and **Figure 5** present details and locations of delineation wells. The following summarizes all activities that were completed during Phase I of groundwater delineation at the Site:

- Installed nine horizontal delineation wells (GS-AP-MW-23H, GS-AP-MW-24H, GS-AP-MW-25H, GS-AP-MW-26H, GS-AP-MW-27H, GS-AP-MW-28H, GS-AP-MW-29H, GS-AP-MW-

30H, and GS-AP-MW-30HS) and four vertical delineation (GS-AP-MW-7V, GS-AP-MW-12V, GS-AP-MW-17V, and GS-AP-MW-18V) wells between January 2, 2019 and February 26, 2019.

- Developed the delineation wells between January 11, 2019, and March 12, 2019. Horizontal delineation wells MW-25H, MW-27H, MW-30H, and MW-30HS and vertical delineation well MW-7V did not yield sufficient water to be developed or sampled and are utilized as water level only piezometers.
- Sampled the eight successfully developed delineation wells and three pre-existing Ash Pond piezometers between February 20, 2019, and March 19, 2019.
- Submitted a Semi-Annual Progress Report documenting groundwater investigation activities on March 30, 2019.
- Submitted a Groundwater Investigation Report to the Department on May 13, 2019. This report recommended a second phase of groundwater investigation to complete delineation of groundwater impacts as required by Part B of the Order.
- Submitted an Assessment of Corrective Measures to the Department on July 11, 2019, as required by Part C of the Order.
- Submitted a Phase II – Groundwater Delineation Plan to the Department on August 15, 2019. This plan documented planned activities associated with proposed Phase II delineation efforts.

### **Phase II – Groundwater Investigation (September 2019 – March 2020)**

Following a review of data gathered from the Phase I Investigation, additional groundwater investigation was proposed to the Department in a Phase II Delineation Plan submitted August 15, 2019, to further delineate extent of groundwater impacts. Phase II was conducted between the dates of September 24, 2019, and March 27, 2020. **Table 1b** and **Figure 5**, present details, and locations of delineation wells and piezometers. The following summarizes all activities that were completed during Phase II of groundwater delineation at the Site:

- Completed semi-annual assessment sampling event in September 2019.
- Installed fifteen horizontal delineation wells (GS-AP-MW-25HA, GS-AP-MW-30HA, GS-AP-MW-31H, GS-AP-MW-32H, GS-AP-MW-33HO, GS-AP-MW-34HO, GS-AP-MW-35HO, GS-AP-MW-36H, GS-AP-MW-37H, GS-AP-MW-38H, GS-AP-MW-39H, GS-AP-MW-41HS, GS-AP-MW-41HD, GS-AP-MW-42H, and GS-AP-MW-43H), three vertical delineation wells (GS-AP-MW-9V, GS-AP-MW-15V, and GS-AP-MW-21V), and converted three existing deep



piezometers (GS-AP-PZ-16, GS-AP-PZ-18, and GS-AP-PZ-22) to vertical delineation wells between September 24, 2019 and January 31, 2020.

- Submitted a Semi-Annual Progress Report documenting groundwater investigation activities on September 30, 2019.
- Developed the delineation wells between November 5, 2019, and January 30, 2020. Horizontal delineation wells GS-AP-MW-41HS, GS-AP-MW-37H, and GS-AP-MW-39H did not produce sufficient water to be developed or sampled and are utilized as water level only piezometers.
- Sampled the fifteen successfully developed delineation wells and converted piezometers between March 16, 2020, and March 27, 2020.
- On December 30, 2019, provided the Department with a response to comments received from the Department on November 14, 2019.
- Surveyed developed wells in January 2020.
- Submitted a Semi-Annual Progress Report documenting groundwater investigation activities on March 30, 2020.

### **Phase III – Groundwater Investigation (April 2020 – September 2020)**

Following a review of data gathered from the Phase I and II Investigations, additional groundwater investigation was conducted to address data gaps and install upgradient piezometers. **Table 1b** and **Figure 5**, present details, and locations of delineation wells. The following summarizes all activities that were completed during Phase III of groundwater delineation at the Site:

- Installed two vertical delineation wells north of the Ash Pond (GS-AP-MW-6V and GS-AP-MW-7VR), one horizontal delineation well west of the Ash Pond (GS-AP-MW-40H), and one off-site delineation well (GS-AP-MW-44H0) to the east of the Ash Pond. Onsite well installation activities took place between April 15, 2020, and May 1, 2020, and off-site installation between August 11, 2020 and August 16, 2020.
- Developed the delineation wells between May 27, 2020, and August 27, 2020. Vertical delineation well GS-AP-MW-7VR did not produce sufficient groundwater for well development.
- Sampled delineation wells in September 2020 along with all other delineation and compliance wells as a part of the second semi-annual assessment monitoring event of 2020. Laboratory data will be included with the 2020 Annual Groundwater Monitoring and Corrective Action Report.

- Conducted a study and re-analysis of low-yielding piezometers (GS-AP-MW-1, GS-AP-MW-3, GS-AP-MW-4, GS-AP-MW-7V, GS-AP-MW-16S, GS-AP-MW-20, GS-AP-MW-27H, GS-AP-MW-30H, GS-AP-MW-30HS, GS-AP-MW-37H, GS-AP-MW-39H, and GS-AP-MW-41HS) to assess potential for sampling and inclusion into monitoring well network. A summary memo/report will be included with the 2020 Annual Groundwater Monitoring and Corrective Action Report.
- Submitted a Semi-Annual Progress and Groundwater Delineation Report documenting groundwater investigation activities on September 30, 2020.
- Responded to the February 3, 2021, ADEM Semi-Annual Progress and Groundwater Delineation Reports comments letter on March 5, 2021.
- Responded to the January 20, 2021, ADEM Groundwater Monitoring Plan comments letter and included a Supplemental Site Hydrogeologic Characterization Report on March 8, 2021.
- Submitted the second revised Groundwater Monitoring Plan to the ADEM on March 15, 2021.

#### **Phase IV – Groundwater Investigation (June 2021 – July 2022)**

Phase IV of delineation is focused on (1) addressing potential data gaps in lithium delineation and (2) evaluating alternative sources (naturally occurring and or mine-related) of elevated lithium in wells where geologic and geochemical data already indicate the strong potential for an alternate source. Phase IV included the following scope:

- Re-attempting delineation wells GS-AP-MW-27H and GS-AP-MW-37H.
- Vertical delineation adjacent to well GS-AP-MW-23H.
- Vertical delineation adjacent to well GS-AP-MW-3 (converted to compliance location) and horizontal delineation east of well GS-AP-MW-3.
- Addressing general data gaps in the American coal flow system.
- Boron isotope sampling and analyses at selected well locations.
- Further geochemical study and evaluation of the occurrence of elevated lithium and arsenic.

During Phase IV numerous (19) replacement, additional compliance, and delineation wells were installed and developed. Each of these will add valuable information relevant to assessment. Replacement wells installed, surveyed, and developed include compliance replacement locations: GS-AP-MW-1R, GS-AP-

MW-5R, GS-AP-MW-9R, GS-AP-MW-10R, GS-AP-MW-11R, GS-AP-MW-13R, GS-AP-MW-14R, GS-AP-MW-18R, and GS-AP-MW-18VR. Additional compliance wells were also installed. These include GS-AP-MW-3V, GS-AP-MW-46, and GS-AP-MW-47. Information related to well construction details and screened lithology can be found in **Table 1a**. Additional or replacement delineation wells were also installed during the Fall. These locations included: GS-AP-MW-23V, GS-AP-MW-27HR, GS-AP-MW-37HR, and GS-AP-MW-PZ-18R. Information related to well construction details and screened lithology can be found in **Table 1b**. These wells were sampled for the first time during the February-March 2022 sampling event...

## 7.2 NATURE AND QUANTITY OF RELEASE

Part B of the Order also required collecting data on the nature and estimated quantity of material released. To collect data regarding the nature of the source and estimated quantity of material released sampling of ash pore-water at three (3) locations was conducted. Ash pore-water was sampled for all EPA Appendix III and IV constituents. Groundwater quality data is compared to source water and leachate composition to provide a basis for evaluating the degree to which the source area has contributed constituents to groundwater.

## 7.3 DISCUSSION OF DELINEATION RESULTS

Groundwater Monitoring and Corrective Action reports for the Plant Gorgas Ash Pond have identified SSLs in groundwater for arsenic, lithium, and molybdenum. Isoconcentration maps for arsenic, lithium, and molybdenum are presented in **Figures 7A, 7B, 8A, 8B, and 9**, respectively. As shown on these figures, SSLs have been observed in three distinct flow systems – (1) Pratt Flow System, (2) American Flow System, and (3) Gillespy Flow System (north of dam).

Isoconcentration lines shown on **Figures 7A through Figure 9** are data-driven contours derived from the spatial distribution of constituent concentrations in the well network. When spatially distributed objects are spatially correlated (objects close to together have similar characteristics) interpolation analysis can be used to predict “unknowns” between objects. ArcGIS and Geostatistical Analyst are utilized to interpolate chemical concentrations between well locations. This process involves the transformation of chemical concentration data to log-normal distribution prior to interpolation. In cases where concentrations decrease below the GWPS in between well pairs, the extent of groundwater impacts are interpreted from the interpolated (predicted) data set. This method considers the spatial pattern of decreasing concentrations

observed in nearby wells. Additionally, when applicable, isoconcentration maps have been subdivided by major flow system (Pratt or American).

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

1. Determine if impacts to groundwater could extend off-site in the direction of groundwater flow away from the facility.
2. Evaluate potential for vertical migration adjacent to compliance wells with SSLs and within the context of site hydrogeology.
3. Address key data gaps between phases – working in from property line or off-site depending on gaps.
4. Ability to safely access locations with drill rig and supporting equipment.
5. Occurrence of groundwater and sufficient groundwater yield/recharge at locations.
6. Delineate extent of impacts and capture additional hydrogeologic data necessary to evaluate the feasibility of groundwater remediation technologies.

As shown on **Table 1c**, 29 delineation wells have been installed at the site to assess potential impacts. Additionally, 3 delineation wells were installed but did not produce sufficient groundwater yield to sample (**Table 1b**).

### **Arsenic Delineation**

At the site, arsenic has historically exceeded the GWPS at compliance wells GS-AP-MW-6S, GS-AP-MW-6D, GS-AP-MW-7, and GS-AP-MW-15 and more recently, delineation wells GS-AP-MW-15V, GS-AP-PZ-18, GS-AP-MW-21V, and GS-AP-MW-23H. **Figure 7A** shows the extent of arsenic concentrations over the 0.01 mg/L GWPS. During the February-March 2022 sampling event, arsenic exceedances were limited to the Pratt Flow System and Gillespy Flow System. As shown on **Figure 7B**, arsenic concentrations in the American Flow System are now below the GWPS.

Monitoring locations GS-AP-MW-15, GS-AP-MW-15V, and GS-AP-MW-21V have largely exhibited downward trends since the September 2020 sampling events and all exhibited concentrations below the GWPS for arsenic during the February-March 2022 sampling event. These trends generally correlate to decreasing pH or decreasing conductivity.

Compliance monitoring well GS-AP-MW-6S has been below the GWPS for arsenic 4 out of the previous 5 sampling events but was slightly above (0.0106 mg/L) the GWPS during the February-March 2022

sampling event. DO and ORP have been trending upward since the latter half of 2019 and generally correlate with a decreasing arsenic trend in well GS-AP-MW-6S. This trend also overlaps with the ceasing of sluiced ash to the ash pond and on-set of closure activities.

Two recently installed downgradient wells, GS-AP-MW-11R and GS-AP-MW-46, demonstrated arsenic concentrations above the GWPS (**Figure 7A**). These are the first sampling results from these two well locations and therefore, (A) concentrations may reflect temporary disequilibrium caused by the well installation process and (B) have not been delineated due to this being the first round of sampling results. It is recommended that an additional 3-4 sampling events be conducted prior to discussing these specific arsenic concentrations as exceedances attributable to the ash pond and in the context of delineation. Nearby well, GS-AP-MW-12, presents an example of the potential disequilibrium conditions leading to increased arsenic during initial sample events. The data below shows elevated arsenic during the first sampling event followed by a steady decreasing trend. The correlation with conductivity shows potential “new well” trauma associated disequilibrium.

Well	Date	Conductivity (uS/cm)	Arsenic (mg/L)
GS-AP-MW-12	08-03-2016	668.3	0.11
GS-AP-MW-12	09-20-2016	644.1	0.0746
GS-AP-MW-12	10-25-2016	512.6	0.0728
GS-AP-MW-12	12-13-2016	478.8	0.0538
GS-AP-MW-12	02-08-2017	522.9	0.0427
GS-AP-MW-12	03-29-2017	500.4	0.0404
GS-AP-MW-12	04-26-2017	466.5	0.0372
GS-AP-MW-12	06-07-2017	458.3	0.0307
GS-AP-MW-12	02-20-2018	409.9	0.0282
GS-AP-MW-12	05-15-2018	386.8	0.0253
GS-AP-MW-12	10-16-2018	375.5	0.0203
GS-AP-MW-12	04-16-2019	357.9	0.014
GS-AP-MW-12	09-25-2019	394.56	0.0135
GS-AP-MW-12	03-18-2020	362.88	0.00693
GS-AP-MW-12	09-23-2020	324.73	0.00616
GS-AP-MW-12	02-01-2021	355.4	0.00747
GS-AP-MW-12	08-09-2021	345.79	0.00308
GS-AP-MW-12	02-28-2022	342.75	0.0066

Spatially, arsenic exceedances appear concentrated to the north of the ash pond dam where strong hydraulic gradients create a small area of preferential groundwater flow (**Figure 7A**). In this area, recent

concentrations over the GWPS were observed in wells GS-AP-MW-6S, GS-AP-MW-6D, GS-AP-MW-7, and GS-AP-MW-23H. Compliance wells GS-AP-MW-6D and GS-AP-MW-7 are screened across or proximal to the Gillespy coal or equivalent horizon (when absent) and arsenic is horizontally delineated in the same horizon by delineation wells GS-AP-MW-41HS and GS-AP-MW-41HD.

Vertically, arsenic is delineated by GS-AP-MW-6S, GS-AP-MW-6V, GS-AP-MW-23V and the absence of groundwater flow beneath the GS-AP-MW-7 screened interval (no yield zones encountered in delineation wells attempted at GS-AP-MW-7V and GS-AP-MW-7VR). Arsenic in well GS-AP-MW-6S has been below the GWPS during 4 of the last 5 sampling events and correlates to a general increasing trend in DO. Unless a significant trend reversal occurs, this location is suitable for the uppermost vertical delineation of arsenic. The stratigraphy in this area is detailed in **Figure 4F**.

Additional study is required to determine the source of arsenic in horizontal delineation well GS-AP-MW-23H. The following lines of evidence suggest the possibility of a source other than the ash pond:

- (1) Screened interval is located above the base of CCR material and approximately 50 feet higher than Gillespy or equivalent monitored by GS-AP-MW-6D, GS-AP-MW-7, and GS-AP-MW-41HS/HD.
- (2) Physical location of well appears separated from preferential flow (upslope of valley) and groundwater elevations appearing separate from other wells upgradient of GS-AP-MW-23H.
- (3) Low boron concentrations and poor correlation coefficient with boron concentrations
- (4) Low lithium concentrations
- (5)  $\delta^{11}\text{B}$  of 3.2 to 4.2 ‰ which indicates strongest potential for a natural or meteoric source of boron.
- (6) Iron concentrations between 46 and 50 mg/L – which are 5 times higher than the next highest well (GS-AP-MW-26H) and much greater than the site average which otherwise ranges from 0.85 to 1.82 mg/L from 2019 to 2022.
- (7) Low pH range – which is typically observed between 5.8 and 6.3 and much lower than the site average which varies between 7.83 and 8.09 SU from 2019 to 2022.

In summary, arsenic exceeding the GWPS is fairly limited in horizontal extent to the northwest of the ash pond dam and appears confined to a zone of preferential flow equivalent to the Gillespy coal horizon. Localized pockets of elevated arsenic are also observed at the ash pond, but an ASD has been prepared for these locations.

### **Lithium Delineation**

Lithium exceedances were observed in the American Flow System, Pratt Flow System, and Gillespy Flow System during the February-March 2022 sampling event.

### **Gillespy Flow System**

**Figure 8A** shows the spatial extent of potential lithium impacts within the Pratt and Gillespy flow systems (**Figure 8A Inset Map shows Gillespy/Pratt Transition - north of dam only**).

North of the dam and in the Gillespy Flow System, lithium concentrations over the GWPS are noted in wells GS-AP-MW-6D, GS-AP-MW-6V, GS-AP-MW-7, GS-AP-MW-41HS, and GS-AP-MW-41HD. Concentrations in these wells generally appear stable over time. Spatially, concentrations tend to indicate an increasing trend with distance away from the facility as illustrated by the inset on **Figure 8A**. Also as shown on **Figure 8A**, these highest concentrations of lithium correlate to areas previously mined (dashed lines showing Pratt Strip Mines). Outside of the Pratt Mines boundary lithium concentrations decrease sharply to values between 0.02 and 0.41 mg/L. This observation indicates that historical mining has contributed to some extent to the elevated lithium concentrations north of the dam.

As boron and lithium behave similarly in groundwater (largely unreactive), boron isotopic results can provide an indication of the source of lithium. Boron isotopes have been studied and implemented as tracer for CCR impacts to groundwater (Davidson and Bassett, 1993; Ruhl et al., 2014). These studies have shown that coal or CCR sources are definitively identified by a distinctive negative  $\delta^{11}\text{B}$  signature whereas other geologic and anthropogenic sources display positive ratios. Historically, Plant Gorgas has used coals from the Appalachian Basin (Warrior Basin included). Data included in Ruhl et al. (2014) indicate that ash derived from Appalachian Basin coals display a  $\delta^{11}\text{B}$  range of -2.7 to -17.6 ‰. In terms of natural occurring sources of boron, (A) groundwater typically displays a  $\delta^{11}\text{B}$  range between 2 and 18 ‰, (B) precipitation between 7 and 23 ‰, and soil/rocks between 0 and -5 ‰.

Lithium impacts sourced from the ash pond are confirmed by boron isotopes in wells GS-AP-MW-6S and GS-AP-MW-7. Conversely, corroborating potential mine or natural sources of lithium are boron isotope data from wells GS-AP-MW-6V and GS-AP-MW-41HS which show  $\delta^{11}\text{B}$  of 13.3 ‰ and 3.6-5.0 ‰, respectively and strongly indicates a source other than the ash pond. Boron isotope data is summarized below.

Well	$\delta^{11}\text{B}$ (‰)	Boron Source
GS-AP-MW-6S	-6.2	Coal or CCR
GS-AP-MW-6D	-1.7	Mudstone/Shale
GS-AP-MW-6V	13.3	Meteoric
GS-AP-MW-7	-12.8	Coal or CCR
GS-AP-MW-23H	4.2	Meteoric
GS-AP-MW-41HS	3.6-5.0	Meteoric

Regarding the source of lithium, boron isotopic analyses strongly suggest that pond derived impacts are restricted to wells GS-AP-MW-6S, GS-AP-MW-7, and potentially to GS-AP-MW-6D. Additional study on the potential geogenic origins of lithium in this area are strongly recommended to clarify the extent of lithium impacts.

Beyond this analyses, delineation wells GS-AP-MW-23H, GS-AP-MW-23V, GS-AP-MW-24H, and GS-AP-MW-42H can be utilized to show horizontal delineation in the direction of groundwater flow away from the dam to the north.

As previously described in the *September 2020 Progress and Groundwater Delineation Report*, no deeper flow zones were observed beneath the screened intervals of GS-AP-MW-7, GS-AP-MW-41HD, and GS-AP-MW-6V. Boring, geophysical, hydrophysical, and “dry” piezometer data indicate that flow to the north is accommodated by 2-3 discrete fracture/bedding planes in the Gillespy Coal Group and Pratt-Gillespy Coal transition zone. This data suggests little to no groundwater yield beneath these discrete planes. Lower than GWPS concentrations in groundwater yielding zones above these discrete zones also correlate with preferential flow conditions.

Additional delineation locations are not feasible or severely limited due to topography, saturated conditions, ash pond closure activities, and utilities. However, sufficient delineation and site hydrogeologic data has been studied to understand suitable remedial technologies in these areas. For instance, a permeation grouting pilot program, is being evaluation for application across these 2-3 discrete flow zones.

### **Pratt Flow System**

**Figure 8A** also illustrates lithium exceedances observed in the Pratt Flow System where wells GS-AP-MW-15 and GS-AP-MW-21 had concentrations above the GWPS during the February-March 2022 sampling event. Concentrations at these locations have decreased over the last 2 to 3 sampling events after having demonstrated an increasing trend between Fall 2018 and Spring 2020 (MW-21) to Spring 2021 (MW-15). The ASD described in **Section 6.0** addresses exceedances in wells GS-AP-MW-15 and GS-AP-



MW-21 as unrelated to the ash pond. In addition to the details provided in **Section 6.0**, and the ASD submitted in July 2021, boron isotope analyses were attempted at these two well locations – however, results were below the quantifiable limit. The concentration data presented on **Figure 8A** shows GS-AP-MW-15 and GS-AP-MW-21 as outliers, spatially uncorrelated to nearby wells or general patterns. This ASD, if approved, combined with recent concentrations would eliminate lithium SSLs from the Pratt Flow System.

Regardless of the status of the ASD, the outlying concentrations observed in wells GS-AP-MW-15 and GS-AP-MW-21 are horizontally delineated. As shown on **Figure 8A**, wells GS-AP-MW-27HR and GS-AP-MW-36H effectively delineation lithium downgradient to the west and southwest of GS-AP-MW-15. To the southeast of GS-AP-MW-21, the Pratt Flow System did not produce sufficient groundwater. However, the deeper American Flow System was productive and can be used in the assessment of lithium concentrations.

In terms of vertical delineation, lithium was below the GWPS in delineation well GS-AP-MW-15V (installed in deeper American Flow System). Conversely, lithium was slightly above the GWPS in well GS-AP-MW-21, also installed in the deeper American Flow System (**Table 6, Figure 8B**). The reported concentration was 0.0835 mg/L which is barely above the GWPS (0.0809 mg/L). During the Fall 2021 sampling event, lithium in well GS-AP-MW-21V was well below the GWPS.

No additional assessment or delineation is currently planned for lithium exceedances in well GS-AP-MW-21.

### **American Flow System**

**Figure 8B** shows the spatial extent of potential lithium impacts within the American coal flow system. Concentrations observed over the GWPS are noted for wells GS-AP-MW-26H, GS-AP-MW-21V, and GS-AP-MW-34HO.

To the west of the ash pond, the lone exceedance occurs within delineation well GS-AP-MW-26H. As shown on **Figure 8B**, lithium exhibits an increasing concentration pattern with distance away from the ash pond as delineation wells and compliance wells adjacent to the waste boundary are generally below GWPS. This pattern is true for both Pratt and American coal screened wells (**Figure 8A** and **8B**) where concentrations are generally below 0.04 mg/L near the waste boundary. The lithium exceedance at GS-AP-MW-26H appears to be (1) elevated naturally occurring lithium or (2) elevated lithium due to an alternate source. Evidence supporting this:

- 1) Absence of lithium exceedances at waste boundary compliance wells upgradient of GS-AP-MW-29H (in both Pratt and American coal screened wells)
- 2) Increasing lithium concentration trend with distance away from the ash pond
- 3) Lack of other CCR indicator parameters:
  - a. Boron – 80% non-detect, highest concentration is a low-level, estimated (j-flagged) concentration (0.0334 mg/L (J))
  - b. Molybdenum – 60% non-detect, highest concentration is low-level, estimated concentration (0.000207 mg/L (J))
  - c. Arsenic – 60% non-detect, highest concentration is low-level, estimated concentration (0.00143 mg/L (J))
- 4) Well location adjacent to Jacobs Mine permit boundary
- 5) Concentration below highest concentration of proposed upgradient well GS-AP-MW-16S indicating lithium in normal concentration range for site.

For these reasons, no further delineation activities are planned near GS-AP-MW-26H for purposes of further delineating lithium. Furthermore, horizontal delineation would technically be achieved in this area by the below GWPS concentrations observed in GS-AP-MW-40H to the west and GS-AP-MW-38H to the south.

**Figure 8B** shows, to the south, lithium exceedances are noted in American coal or Maxine mine screened locations GS-AP-MW-21V and GS-AP-MW-34HO. Partial horizontal delineation is achieved and shown on **Figure 8B** by locations GS-AP-PZ-16 and GS-AP-MW-30HA. However, due south, horizontal delineation well GS-AP-MW-34HO does exceed the GWPS for lithium but also quite notably, appears to present a case as a potential outlier. As shown on **Figure 8B**, the lithium concentration observed is two or more times higher than observed in wells more proximal to the waste boundary.

As presented on **Figure 8B**, the southern area of the site (south of line from GS-AP-MW-15V to GS-AP-MW-21V) was previously disturbed by the underground Maxine American Seam Mine. The presence of this mine and its' large spatial extent makes it difficult to install wells that provide truly representative groundwater quality of the American coal flow system.

Regarding elevated lithium concentrations in delineation well GS-AP-MW-34HO, there are lines of evidence supporting an alternate source:

- 1) Increasing lithium concentration trend with distance away from the ash pond
- 2) Low concentrations of other CCR indicator parameters:

- a. Boron – 0.0827 (J) to 0.108 [mg/L]
  - b. Molybdenum – 0.00386 (J) to 0.0143 (J) [mg/L]
  - c. Arsenic – 0.00308 (J) to 0.00668 [mg/L]
- 3) Chloride profile different from CCR pore-water and distinctly, higher (386 mg/L vs 8 mg/L)
  - 4) Geochemical facies representative of ancient groundwater (sodium-chloride) and different than CCR pore-water (calcium-chloride)
  - 5) Boron isotopic fractionation not representative of CCR signature – where a  $\delta^{11}\text{B}$  value of 13.8 to 15.7 ‰ suggests a meteoric signature of boron, and thus, lithium.
  - 6) Well location surrounded by the large-scale, underground Maxine Mine.

For these reasons, no further delineation activities are planned near GS-AP-MW-34HO for purposes of further delineating lithium.

Lastly, no additional delineation is planned in the vicinity of GS-AP-MW-21V. Additional activities may be planned, pending a review of the July 2021 ASD.

### **Molybdenum Delineation**

**Figure 9** shows the extent of potential molybdenum impacts to groundwater. Molybdenum exceeded at compliance location GS-AP-MW-7 (Gillespy Group) located north of the ash pond dam. Horizontally, molybdenum has been delineated on-site by delineation wells GS-AP-MW-23H, GS-AP-MW-24H, GS-AP-MW-41HD, and GS-AP-MW-42H. Two vertical delineation wells have been attempted in the vicinity of well GS-AP-MW-7. GS-AP-MW-7V was installed approximately 200 feet below ground surface (BGS) in a sandstone unit and GS-AP-MW-7VR was installed across a thin coal seam encountered at a depth of 145 feet BGS. Locations GS-AP-MW-7V and GS-AP-MW-7VR did not yield sufficient groundwater recharge for well development or low-flow groundwater sampling methods.

Furthermore, borehole geophysical logs reviewed from GS-AP-MW-7, MW-7V, and MW-7VR (chiefly fluid resistivity and fluid temperature logs) did not provide robust evidence of groundwater flow zones deeper than 88 feet BGS where GS-AP-MW-7 already monitors. The fracture encountered at GS-AP-MW-7 and noted in geophysical logs acquired in MW-7V and MW-7VR appears to be the basal and most prominent flow feature in the area. No additional vertical delineation is proposed in the vicinity of GS-AP-MW-7.

## 7.4 STATUS OF DELINEATION

As described in **Section 7.1.1**, a 4<sup>th</sup> phase of work and study has recently been conducted. A review of recent data identified the potential data gaps, listed below. The 19 recently installed well locations were generally designed to address these potential data gaps. All newly installed and existing wells were sampled for the first time during the spring of 2022.

### Lithium Delineation

- Pratt Flow System
  - *Horizontal delineation, re-attempt: east and or southeast of GS-AP-MW-21*

### Arsenic Delineation

- Pratt Flow System
  - *Potential Future Action: (A) Horizontal delineation west-southwest of GS-AP-MW-11R and off-set vertical delineation, (B) Horizontal delineation east of GS-AP-MW-46 and off-set vertical delineation. These are labeled potential future actions pending the recommendation to re-evaluate data and trends after 3-4 sampling events. Rationale for this recommendation is provided in the Arsenic Delineation portion of Section 7.1.3.*

The bolded text in the bulleted list above indicates that an ASD has been presented to address these exceedances and selected data gaps. A review of the data revealed no data gaps associated with molybdenum impacts.

## 7.5 GROUNDWATER REMEDY AND CORRECTIVE ACTION

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

Submittal	Submittal Date	Purpose
Assessment of Corrective Measures	06/2019	Initial evaluation of the feasibility, performance, and implementation of known and emerging groundwater remediation technologies against site conditions and factors.
Groundwater Remedy Selection Report	12/2021	Formal selection and detailed description of groundwater remedies selected for implementation at the site.
Corrective Action Groundwater Monitoring Program	03/2022	Plan document to describe process and program for implementation and monitoring of groundwater remedies selected at the site.

### 7.5.1 Groundwater Remedy Selection

As described in **Section 6** and **Section 7.3**, geochemical data gathered and analyzed indicates that groundwater impacts may be constrained to a small area north of the dam and between wells GS-AP-MW-6S, GS-AP-MW-7, and GS-AP-MW-41HD. A small footprint of impacted groundwater flowing through well defined, discrete bedding provides an opportunity for a very targeted groundwater remediation program. The Groundwater Remedy Selection Report described the selected remedies for groundwater corrective actions at the site:

- Source control to include dewatering, consolidation, and capping of the CCR unit,
- Permeation grouting in areas of higher concentrations of constituents of interest (COI) and or preferential groundwater flow pathways to prevent COI movement,
- Monitored natural attenuation (MNA) over the entire site.

Geochemical manipulation is also being researched for feasibility in application and delivery to these well constrained, discrete flow intervals. A scope of work is also being established to guide potential compatibility testing.

Closure of the CCR Unit – including dewatering, consolidation, and capping – will greatly reduce or eliminate source contributions to groundwater. Permeation grouting was selected because, as a corollary to barrier walls, it impedes groundwater flow and helps prevent the migration of COIs away from the source area. Additionally, permeation grouting can also be viewed as a complementary method to MNA – where either the sealing of groundwater flow or the slowing of the flow path away from the source area provides longer residence time for MNA processes or geochemically enhanced MNA processes to reduce COI concentrations. MNA was selected based upon the evidence gathered during initial investigations - which highlighted that these processes are already occurring.

#### **7.5.2 Corrective Action – Groundwater Monitoring Program**

The Corrective Action Groundwater Monitoring Program describes early plans for implementation and monitoring of groundwater remedies described above. This plan chunked the program into two stages.

- Stage 1 will include ongoing compliance monitoring, remedial effectiveness monitoring for permeation grouting, MNA performance monitoring, sentinel/clean-line monitoring (including surface water monitoring), and demonstration that Site conditions remain protective of potential human and ecological receptors. Prompt action will be taken should data or data trends indicate such actions are warranted.
- Stage 2 monitoring will be implemented upon Site closure, with the first 2 years of Stage 2 monitoring consisting of background data collection to serve as a baseline. Stage 2 monitoring will be composed of ongoing compliance monitoring, additional wells or sampling locations as needed to evaluate remedy effectiveness, additional MNA parameters as needed, mass and mass flux calculations, additional monitoring associated with permeation grouting (if implemented), re-evaluation of natural attenuation processes and efficacy every 10 years, and demonstration that Site conditions remain protective of potential human and ecological receptors.

**Stage 1**

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

Selected Remedy	Implementation Task(s)
Monitored Natural Attenuation	1. Implementation of expanded MNA sampling parameters.  2. Further assessment of MNA monitoring network.
Permeation Grouting Program	1. Plan, Work Scope development and field program for the detailed characterization of fracture flow characteristics and data needs supporting a permeation grouting pilot  2. Implementation of Permeation Grouting Pilot Program using data collected from detailed characterization.
Source Control/Closure Activities	1. Evaluation of geochemical changes in groundwater with respect to transient closure activities (excavation, de-watering, etc).  2. Implementation of field data collection instruments/telemetry within key monitoring wells to further understand the nature of geochemical changes over time and with respect to closure activities and MNA/geochemical modelling.

### **Implementation of Monitored Natural Attenuation**

MNA sampling parameters were added to the sampling plans and analyzed in the laboratory during the February-March 2022 sampling event (**Table 6**). These parameters in addition to field parameters, Appendix III, and Appendix IV parameters are utilized to study the processes that govern or facilitate MNA as well as changes in geochemical conditions. Parameters will be included into the site geochemical model.

### **Permeation Grouting Program**

An Implementation and Data Requirements Plan – Permeation Grouting Pilot Program is being drafted to outline means and methods for the complete geologic and hydrogeologic characterization of the area of the site selected for the pilot study. This document provides a plan for the detailed characterization of fracture flow through the Pottsville Formation – including standards for core logging, downhole geophysical methods, hydrogeophysical methods, and aquifer performance testing. This plan will be executed in the field and data analyzed to complete the initial study or foundation phase of the Permeation Grouting Pilot Program.

The tentative schedule for this initial foundation phase is outlined as:

- Implementation and Data Requirements Plan – Permeation Grouting Pilot Program: Finalized Late August/Early September 2022.
- Fracture-Flow Field Study and Data Analyses – 4<sup>th</sup> quarter 2022 to 2<sup>nd</sup> quarter 2023
- Permeation Grouting Pilot Program – TBD, pending requisite documents and approvals supporting the injection program.

### **Source Control/Closure Activities**

The primary task and objectives at the on-set of Stage 1 include: (1) monitoring and reviewing for changes in geochemical conditions that would invoke an adaptive trigger, (2) studying transient changes in groundwater quality that may be the result of physical closure activities, and (3) determination of primary mechanisms and geochemical relationships at play in changing geochemical conditions. The understanding of mechanisms and relationships leading to geochemical changes in groundwater provides opportunity to further understand natural MNA processes at the site and document benefits/impacts of source control as closure progresses.



As a part of the Semi-Annual Monitoring Reporting process, groundwater quality is being evaluated with respect to:

- 1) Concentration Trends
  - a) By Analyte
  - b) By Locations
  - c) In Aggregate
- 2) Geochemical Correlations
- 3) Concentration Trends/Geochemical Correlations cross-referenced to by recent or active ash pond closure activities.

To facilitate further understanding of trends and correlating relationships, AquaTROLL instrumentation is being installed at select key monitoring well locations for the near continuous monitoring of field parameters. This additional data will allow for a better understanding of the degree of changes driven by different types of closure activities, the response of site flow systems, and possible correlations/changes noted in semi-annual monitoring data.

AquaTROLL instrumentation will be installed during the 3<sup>rd</sup> quarter of 2022 (pending supply chain issues) at the following monitoring locations:

- GS-AP-MW-6
- GS-AP-MW-6D
- GS-AP-MW-6V
- GS-AP-MW-7
- GS-AP-MW-18VR
- GS-AP-MW-23H
- GS-AP-MW-23V
- GS-AP-PZ-16

## **7.6 GROUNDWATER QUALITY CHANGES AND TRENDS**

Relatively few groundwater quality trends and changes have been noted to date at the Site. The lack of obvious or significant trends is likely in part due to (1) dewatering operations not starting until the first week of July and (2) the low permeability nature of the subsurface flow systems.

### **Changes Relative to GWPS**

The following wells showed concentration decreases to below the GWPS:

- GS-AP-MW-3: Lithium
- GS-AP-MW-15: Arsenic
- GS-AP-MW-15V: Arsenic, Lithium.

The following wells showed concentration increases above the GWPS:

- GS-AP-MW-6: Arsenic
- GS-AP-MW-21V: Lithium
- GS-AP-MW-15V: Arsenic, Lithium.

Despite the increase, GS-AP-MW-6 has exhibited arsenic concentrations below GWPS 4 out of the most recent 5 sampling events and has shown decreasing trend.

### **Downward Trends in Key COI By Well**

- Lithium: GS-AP-MW-21, GS-AP-MW-3, GS-AP-MW-6V, GS-AP-MW-29H, GS-AP-MW-34HO, GS-AP-PZ-16.
- Arsenic: GS-AP-MW-15, GS-AP-MW-15V, GS-AP-MW-12, GS-AP-MW-21V, GS-AP-MW-6S, GS-AP-MW-17

Decreasing arsenic trends tend to be negatively correlated with DO and ORP.

## **8.0 SUMMARY AND CONCLUSIONS**

The first semi-annual assessment monitoring event of 2022 took place in February and March 2022. Statistical evaluations of the 2022 assessment monitoring data identified SSLs of Appendix IV constituents above the GWPS. To address previously identified SSLs, a Groundwater Remedy Selection Report was prepared and submitted to ADEM on December 16, 2021. Focus on the Site now begins to shift towards planning and implementation of remedies along with continued evaluation of assessment and compliance data.

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

- Continue with phase 1 implementation of the Permeation Grouting Pilot Program for the remediation of arsenic, lithium, and molybdenum.
- Installation of near real-time instrumentation for the monitoring of potential changes in field parameter data in response to ash pond closure activities (August-September 2022).
- Evaluation of recently collected MNA parameter data.
- Conduct the second semi-annual assessment monitoring event in July-August and submit the semi-annual groundwater monitoring report summarizing the findings to ADEM by January 31, 2023.

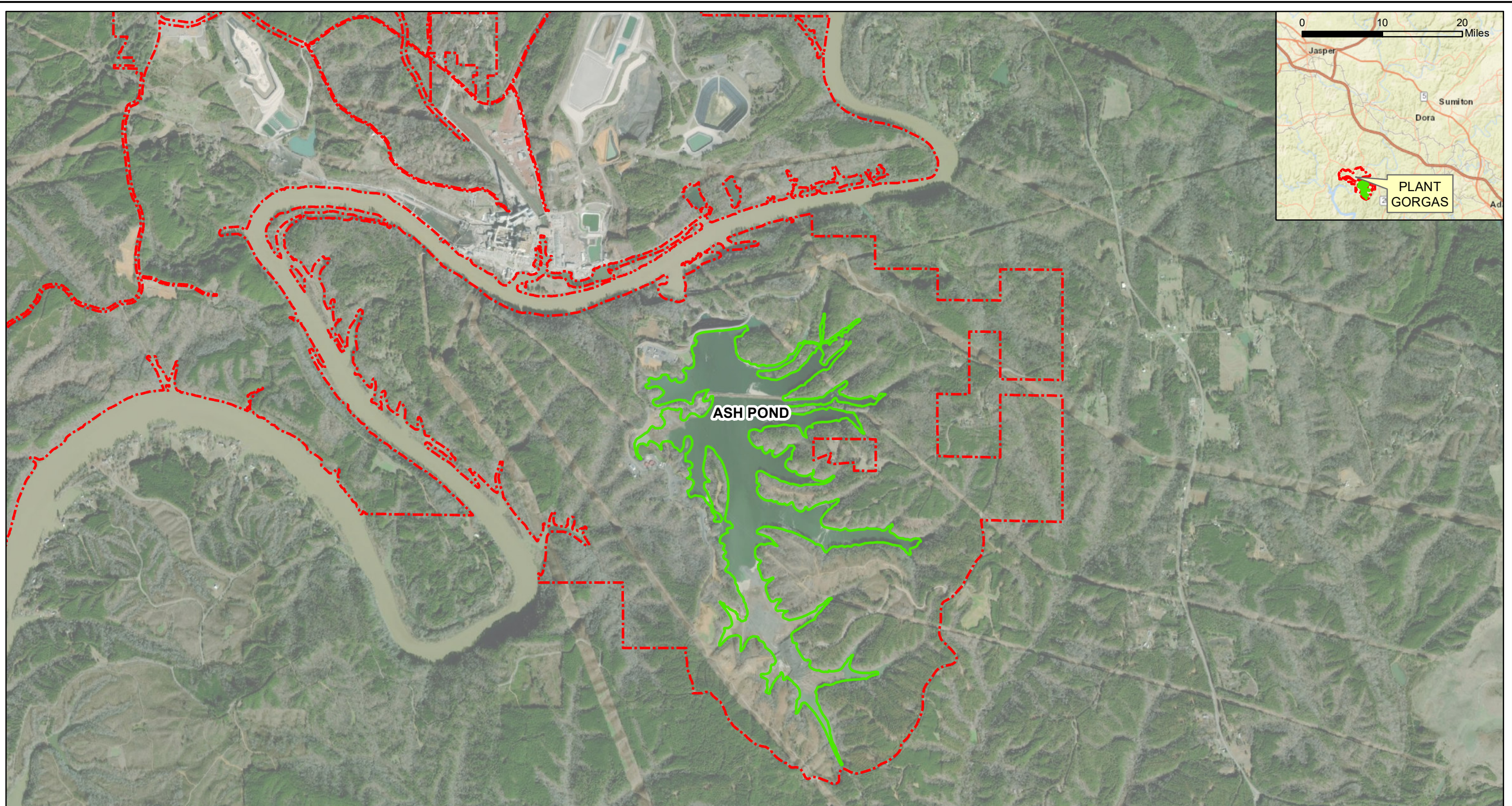
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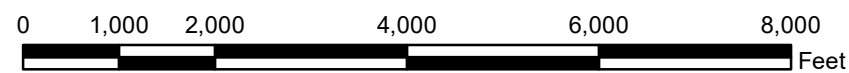
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# Figures





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



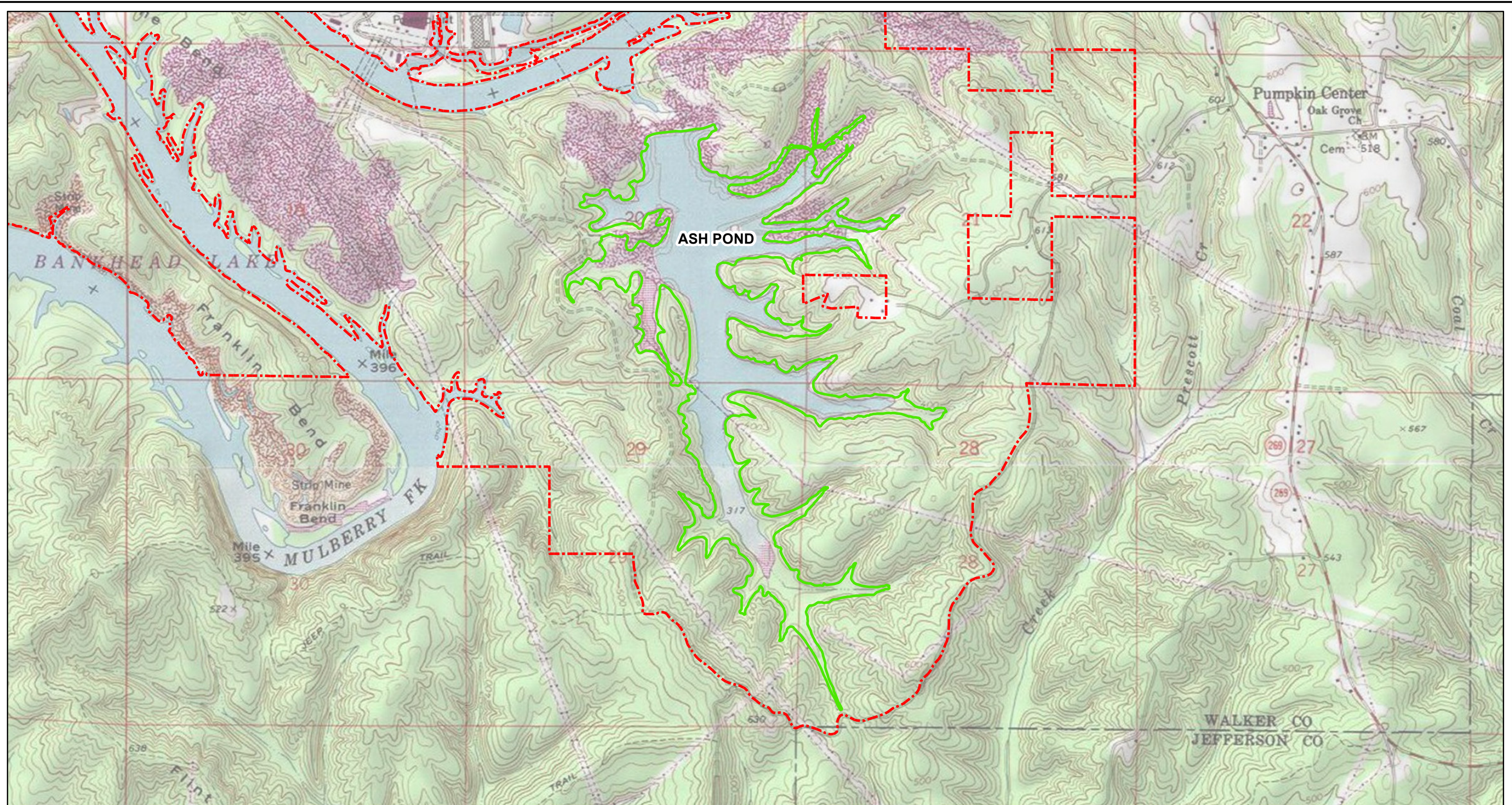
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**SITE LOCATION MAP  
 PLANT GORGAS ASH POND**

FIGURE NO  
**FIGURE 1**







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



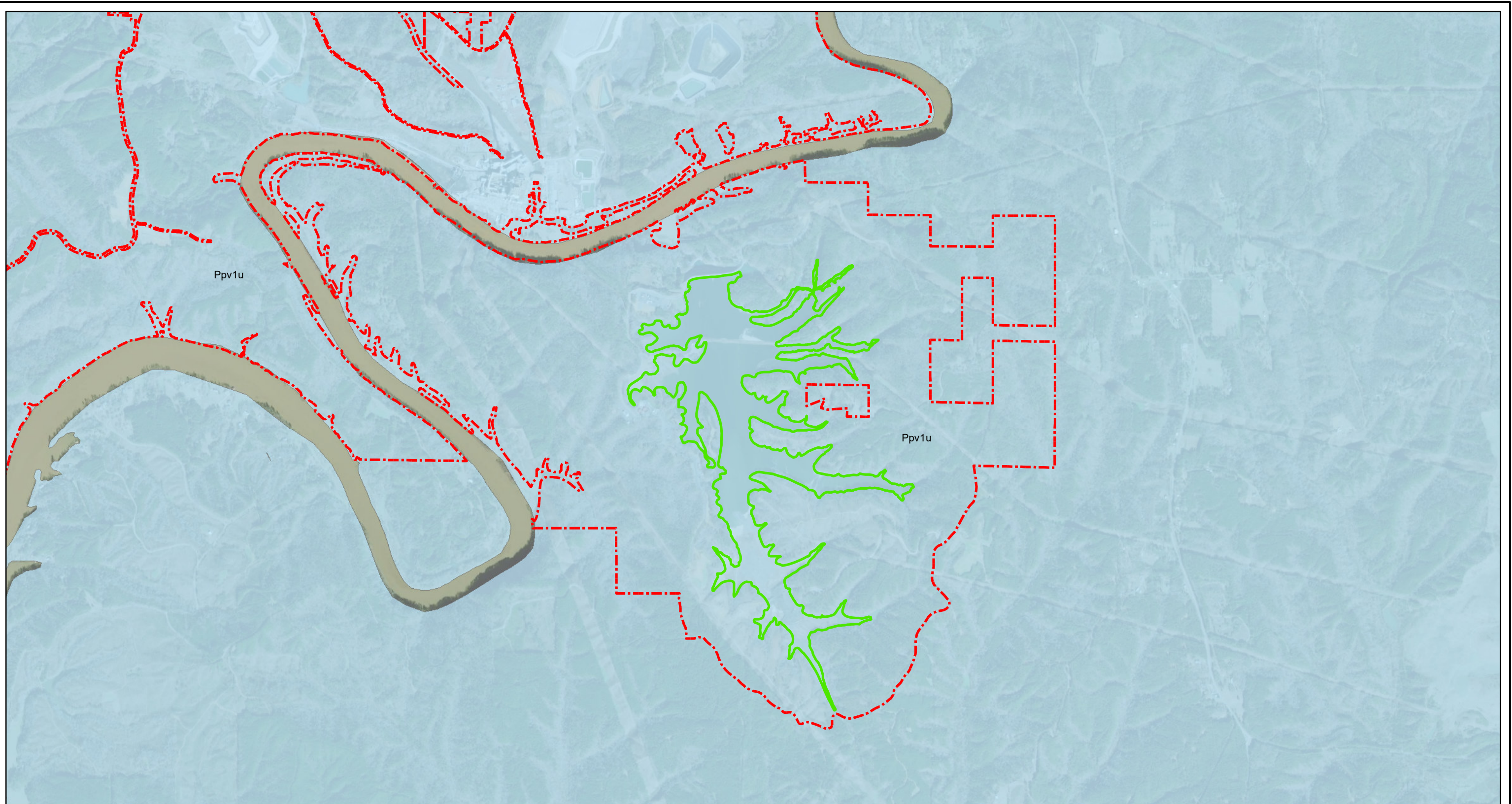
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 PLANT GORGAS ASH POND**

FIGURE NO  
**FIGURE 2**

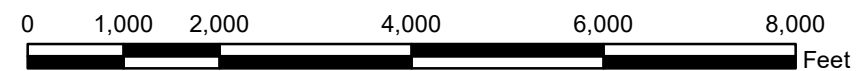







**Legend**

- Ash Pond Boundary
- Property Boundary (Approximate)
- Geologic Units
- Pottsville Formation (upper part), Appalachian Plateaus (Ppv1u)

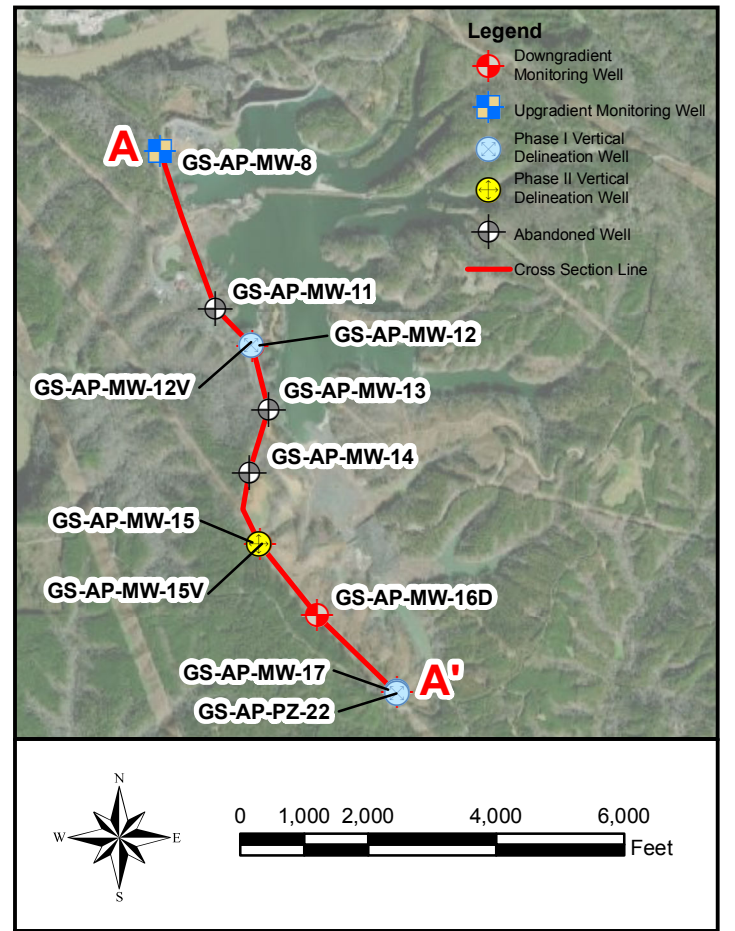
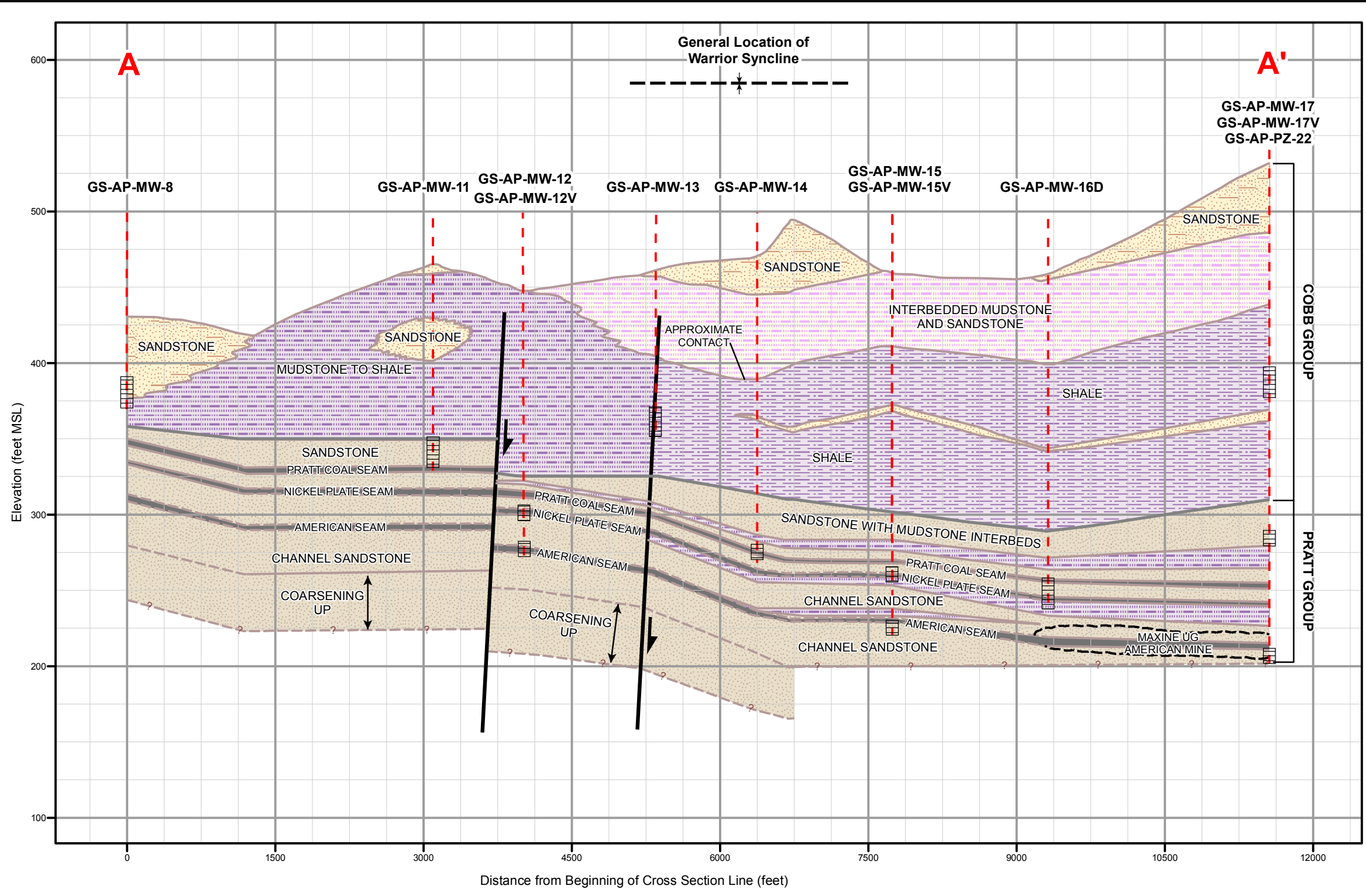


SCALE	1:24000
DATE	12/10/2020
DRAWN BY	KWR
CHECKED BY	GBD

DRAWING TITLE	
SITE GEOLOGIC MAP PLANT GORGAS ASH POND	
FIGURE NO	<b>FIGURE 3</b>
	



General Location of  
Warrior Syncline



- Legend**
- Screen Interval
  - Monitoring Well Location
  - Group Boundary
  - Strata Boundary
  - Inferred Strata Boundary
  - Fault
  - Mine
  - Syncline

- Geologic Units**
- Shale
  - Mudstone to Shale
  - Interbedded Mudstone and Sandstone
  - Sandstone
  - Channel Sandstone
  - Coal

Notes: 1. Stratigraphic layers were correlated using a combination of boring data and gamma logs.  
 2. Elevation data are reported using feet above Mean Sea Level (MSL).  
 3. Monitoring wells GS-AP-MW-8, GS-AP-MW-13, and GS-AP-MW-17V display groundwater elevations that are higher than the ash pond elevation (382.5 ft MSL).  
 4. Vertical exaggeration = 15x.

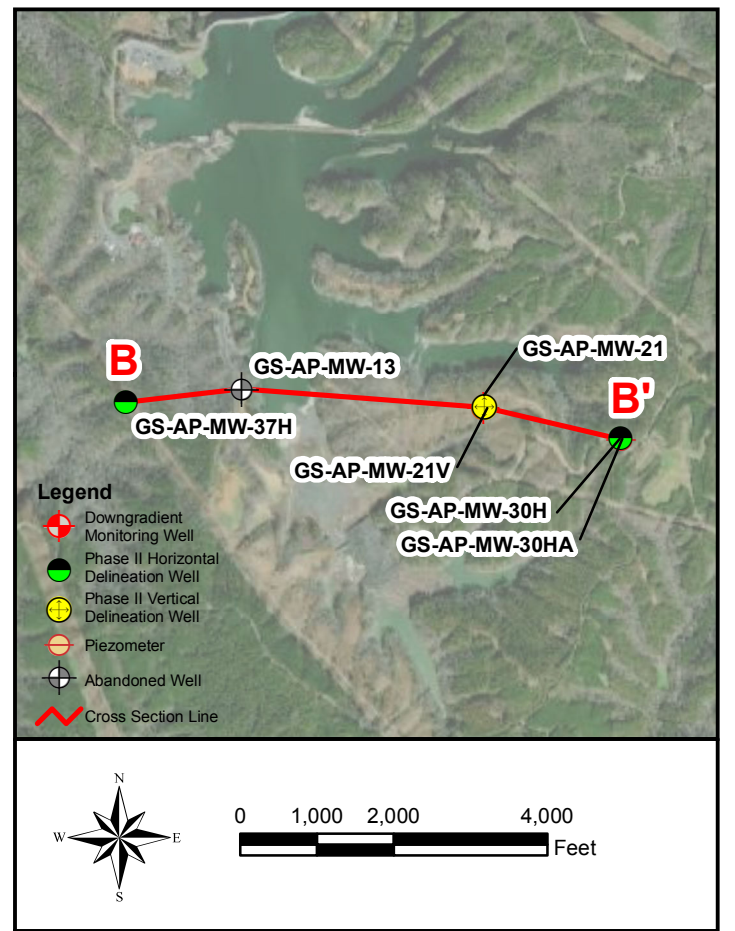
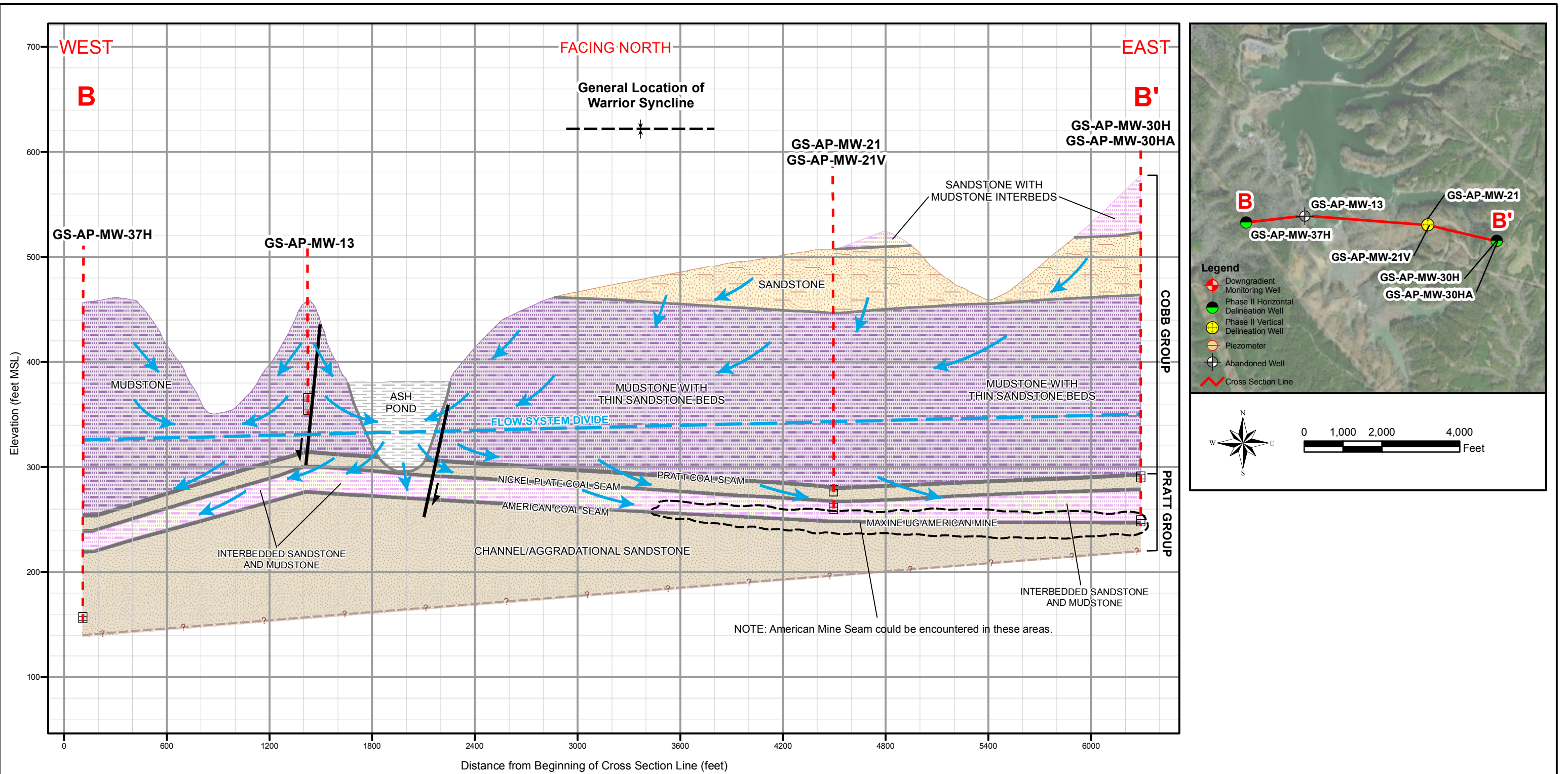
SCALE	As Shown
DATE	9/22/2020
DRAWN BY	KWR
CHECKED BY	GBD

DRAWING TITLE

## GEOLOGIC CROSS SECTION A - A' PLANT GORGAS ASH POND

FIGURE NO

### FIGURE 4A



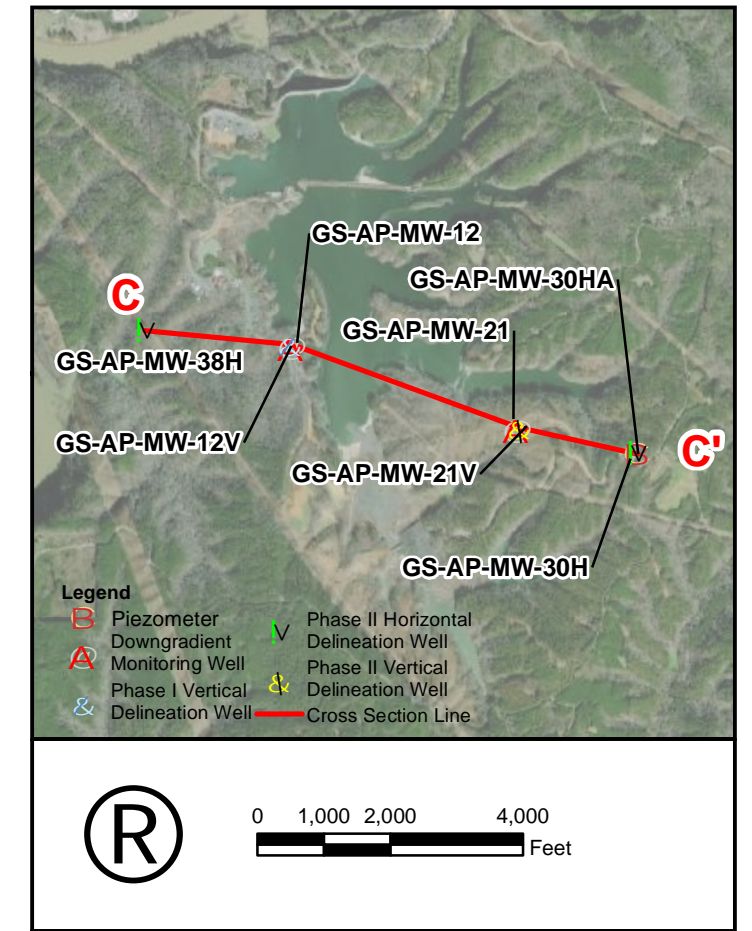
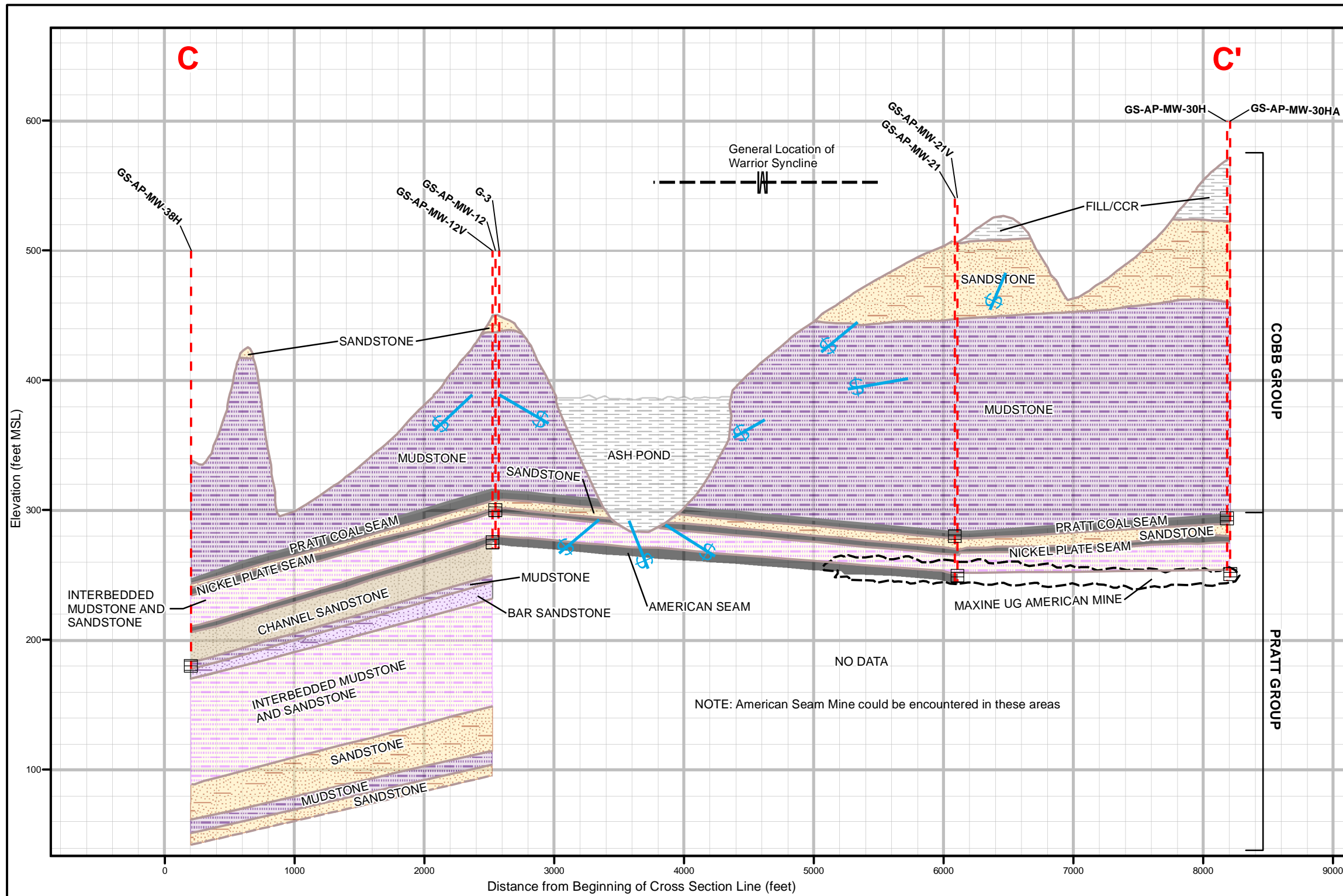
**Legend**

Cross Section Line	Group Boundary	Ash Pond (Fill)
Monitoring Well Location	Strata Boundary	Mudstone with Thin Sandstone Interbeds
Screen Interval	Fault	Sandstone with Mudstone Interbeds
Groundwater Flow Direction	Mine	Sandstone
Flow System Divide	Inferred Boundary	Channel/Aggradational Sandstone
	Syncline	Coal

Notes: 1. Stratigraphic layers were correlated using a combination of boring data and gamma logs.  
 2. Dashed blue line represents approximate boundary between water-table flow system and deeper Pratt flow system.  
 3. Elevation data are reported using feet above Mean Sea Level (MSL).  
 4. Vertical exaggeration = 6x.

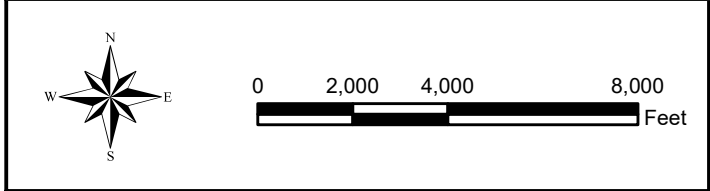
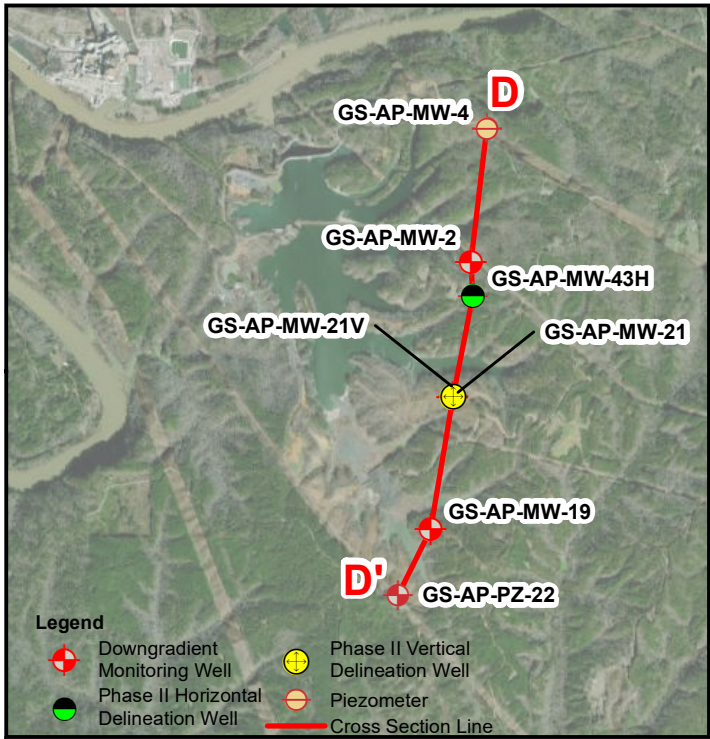
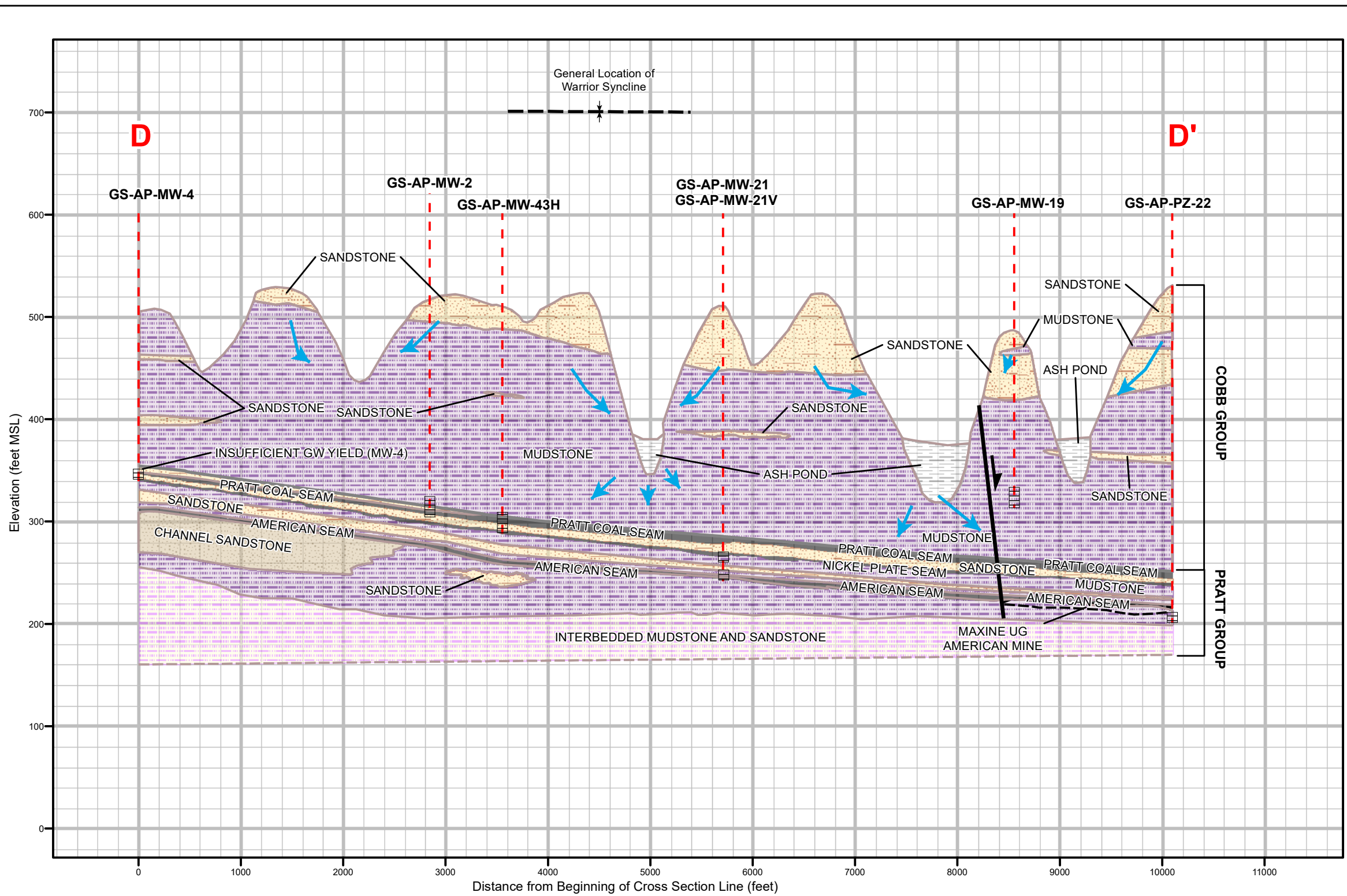
SCALE	As Shown	DRAWING TITLE
DATE	9/29/2020	
DRAWN BY	KAR	<b>GEOLOGIC CROSS SECTION B - B'</b> <b>PLANT GORGAS ASH POND</b>
CHECKED BY	GBD	
FIGURE NO		<b>FIGURE 4B</b>
Southern Company		





- Notes:
1. Stratigraphic layers were correlated using a combination of boring data and gamma logs.
  2. Elevation data are reported using feet above Mean Sea Level (MSL).
  3. Maxine Mine was not encountered at well GW-AP-MW-21
  4. Water samples were collected between March 18 and March 24, 2018
  5. mg/L indicates milligrams per liter.
  6. ND indicates not detected above the laboratory method detection limit.
  7. Vertical exaggeration = 10x
  8. GWPS indicates Groundwater Protection Standard.

<b>Legend</b> Screen Interval Monitoring Well Location Groundwater Flow Direction <b>Geologic Units</b> Group Boundary Strata Boundary Inferred Strata Boundary Mine Syncline Fill/CCR Bar Sandstone Mudstone Interbedded Mudstone and Sandstone Sandstone Channel Sandstone Coal	SCALE As Shown	DRAWING TITLE GEOLOGIC CROSS SECTION C - C' PLANT GORGAS ASH POND	
	DATE 9/15/2020	FIGURE NO <b>FIGURE 4C</b>	
	DRAWN BY MDM	Southern Company	
	CHECKED BY GBD		



- Legend**
- - - Monitoring Well Location
  - ▬ Screen Interval
  - ➔ Groundwater Flow Direction

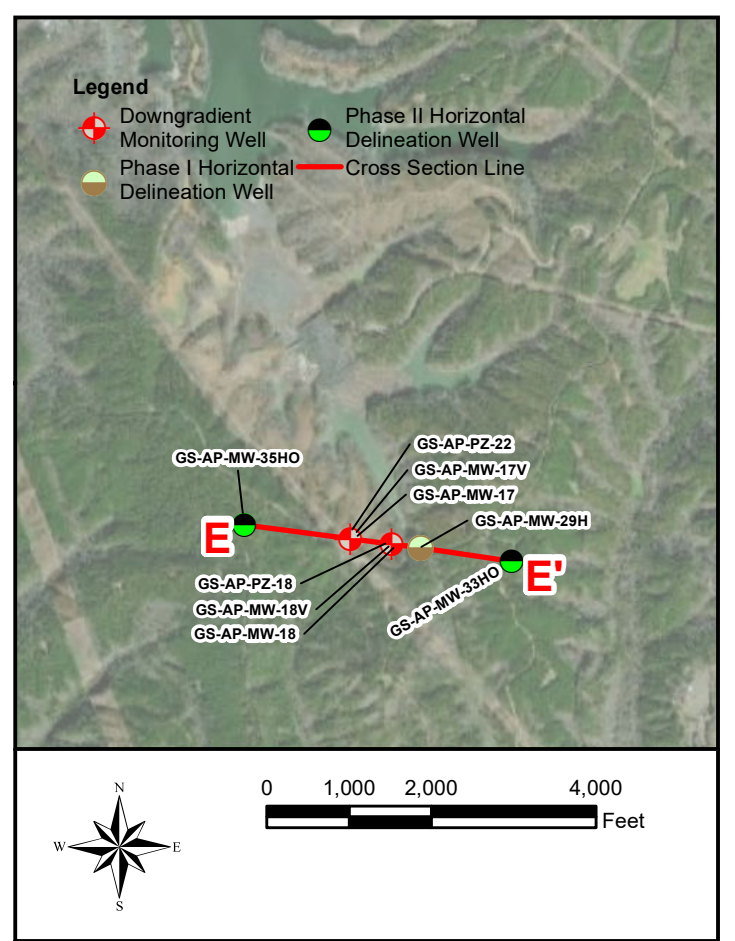
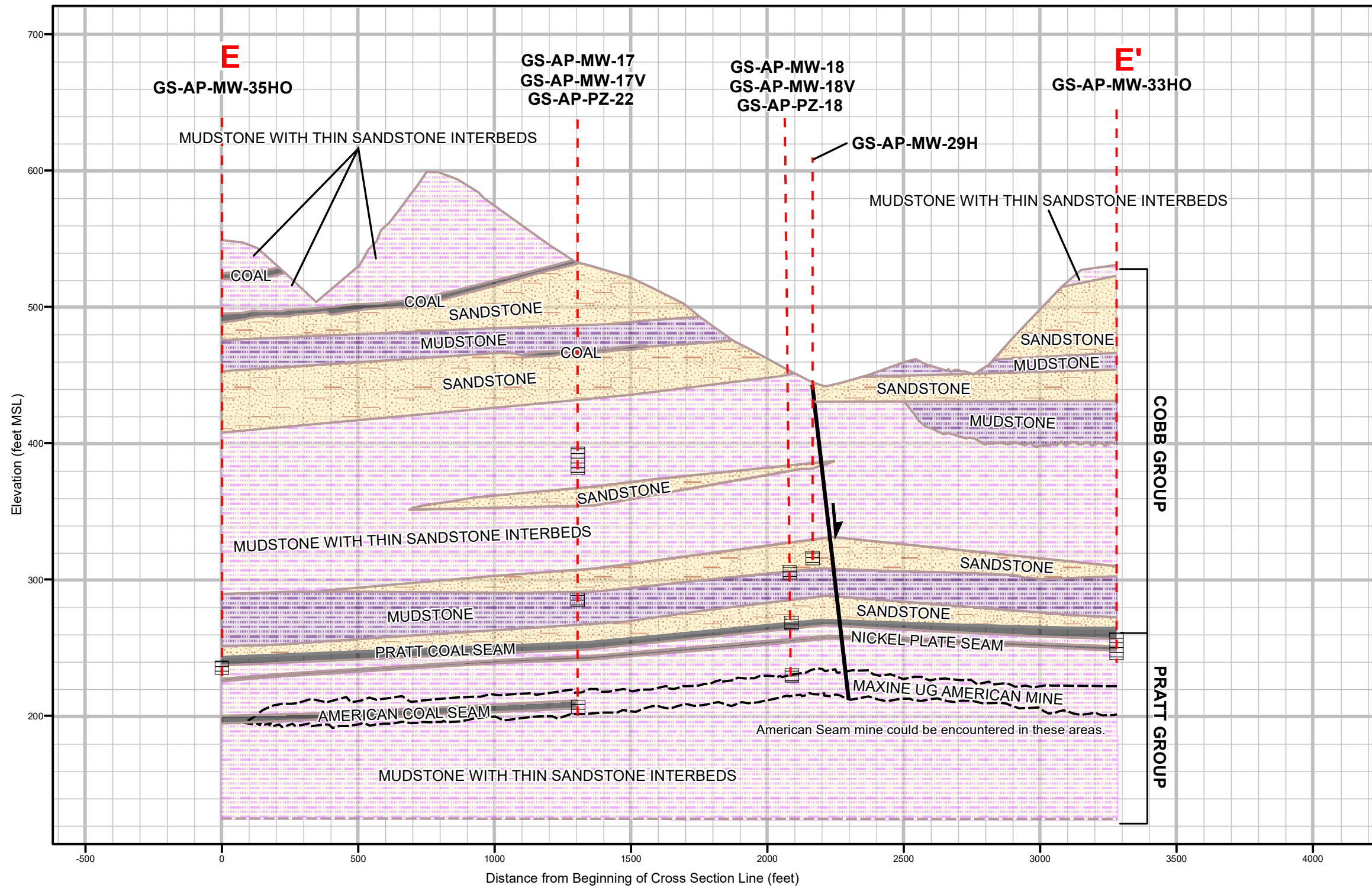
- Geologic Units**
- ▬ Group Boundary
  - ▬ Strata Boundary
  - - - Inferred Strata Boundary
  - ▬ Mine
  - ▬ Fault
  - ⋈ Syncline
  - ▬ Fill/CCR
  - ▬ Mudstone
  - ▬ Interbedded Mudstone and Sandstone
  - ▬ Sandstone
  - ▬ Channel Sandstone
  - ▬ Coal

Notes: 1. Stratigraphic layers were correlated using a combination of boring data and gamma logs.  
 2. Elevation data are reported using feet above Mean Sea Level (MSL).  
 3. Vertical exaggeration = 10x.

SCALE	As Shown
DATE	9/21/2020
DRAWN BY	JEM
CHECKED BY	GBD

DRAWING TITLE	
GEOLOGIC CROSS SECTION D – D' PLANT GORGAS ASH POND	
FIGURE NO	<b>FIGURE 4D</b>
Southern Company	





**Legend**

- - - Monitoring Well Location
- Screen Interval

Geologic Units

- Group Boundary
- Strata Boundary
- Inferred Strata Boundary
- Mine
- Fault
- Mudstone
- Mudstone with Thin Sandstone Interbeds
- Sandstone
- Coarse Sandstone
- Coal

Notes: 1. Stratigraphic layers were correlated using a combination of boring data and gamma logs.  
 2. Elevation data are reported using feet above Mean Sea Level (MSL).  
 3. Vertical exaggeration = 5x.

SCALE  
As Shown

DATE  
9/21/2020

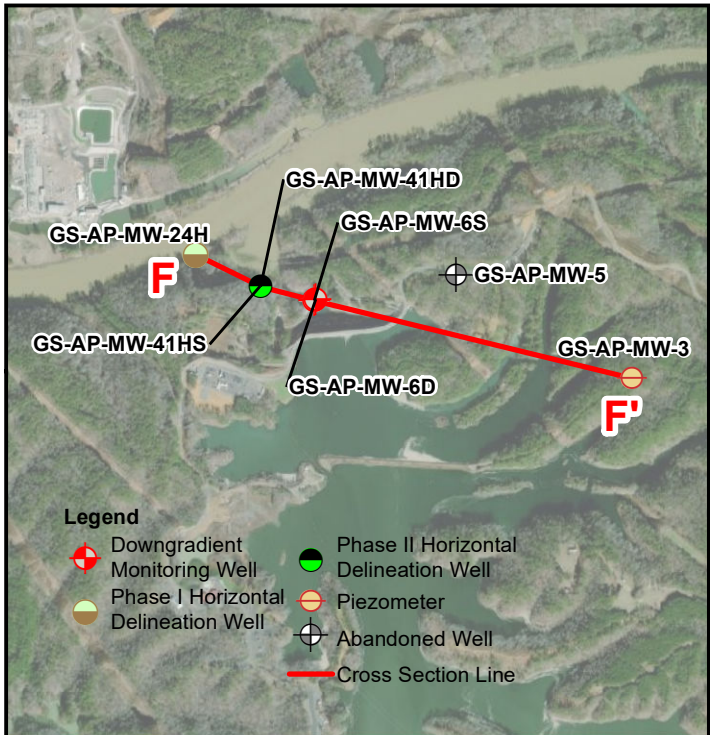
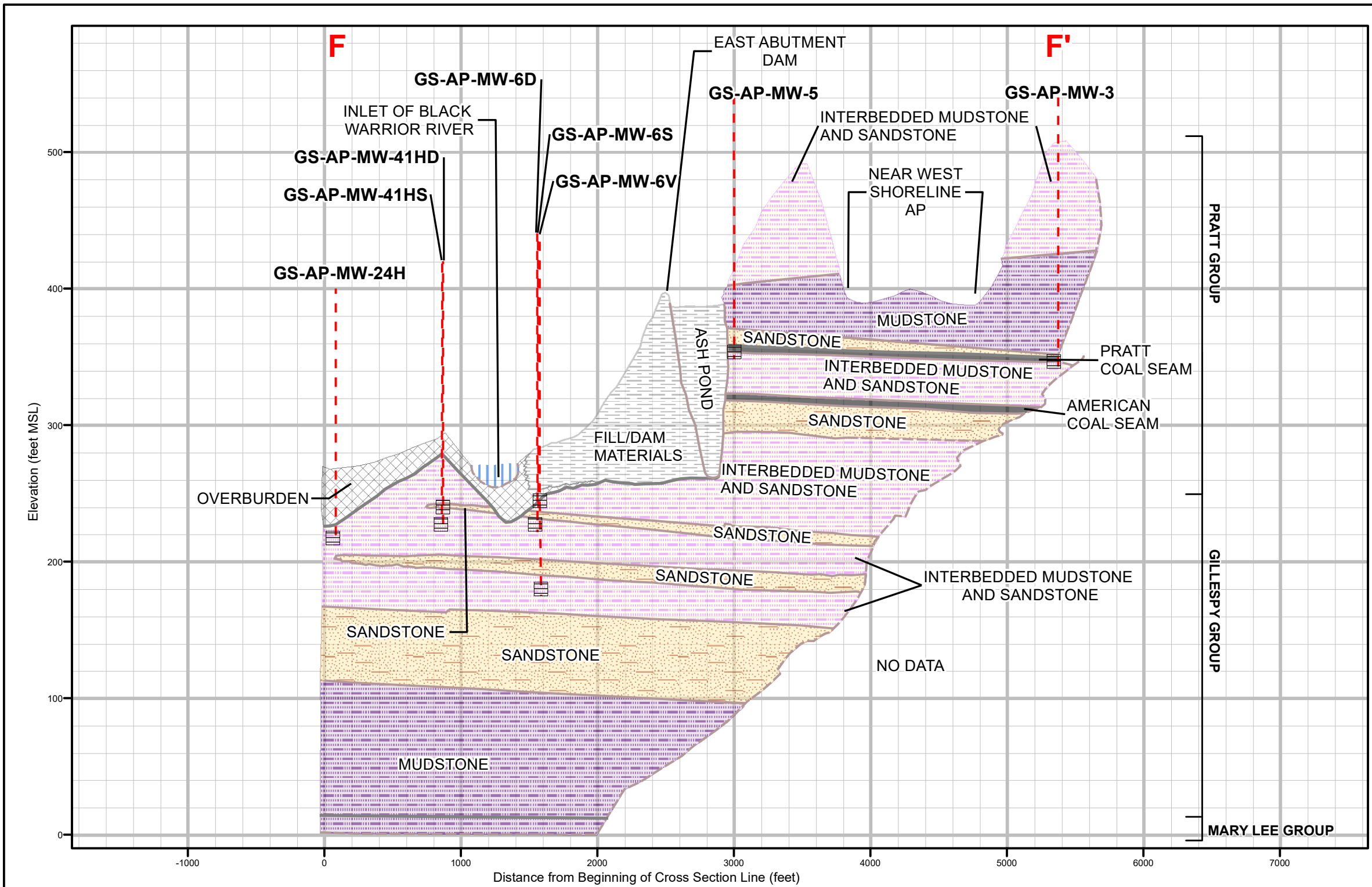
DRAWN BY  
JEM

CHECKED BY  
GBD

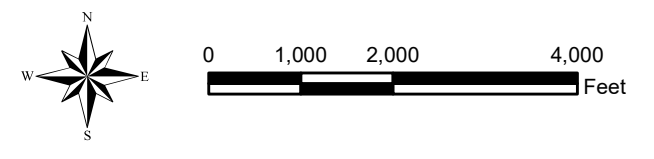
DRAWING TITLE  
**GEOLOGIC CROSS SECTION E – E'  
PLANT GORGAS ASH POND**

FIGURE NO  
**FIGURE 4E**





- Legend**
- Downgradient Monitoring Well
  - Phase II Horizontal Delineation Well
  - Phase I Horizontal Delineation Well
  - Piezometer
  - Abandoned Well
  - Cross Section Line



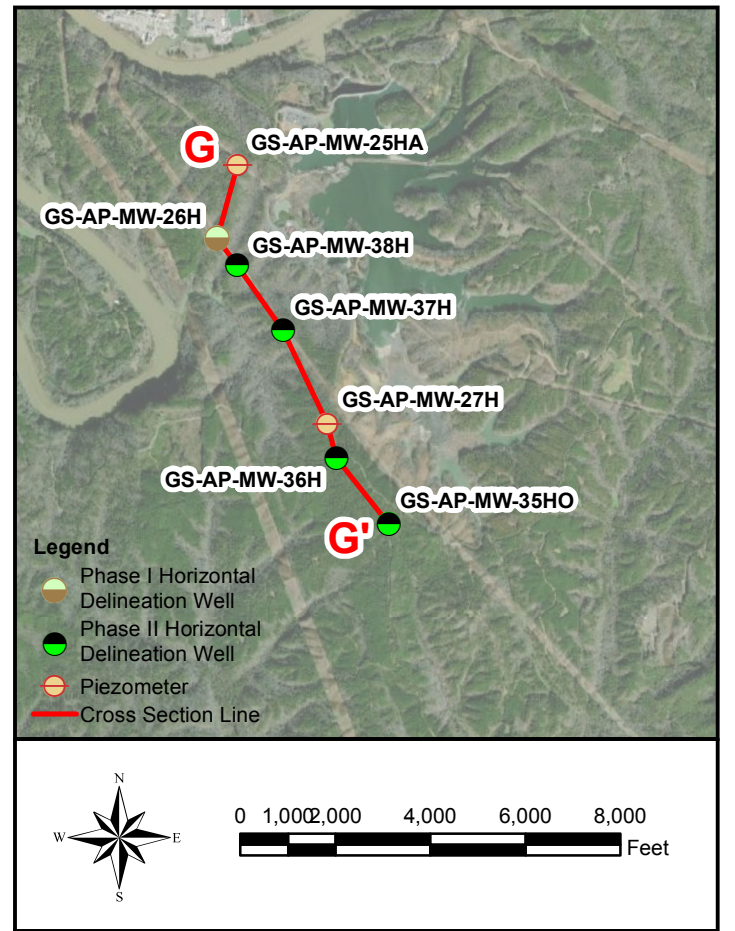
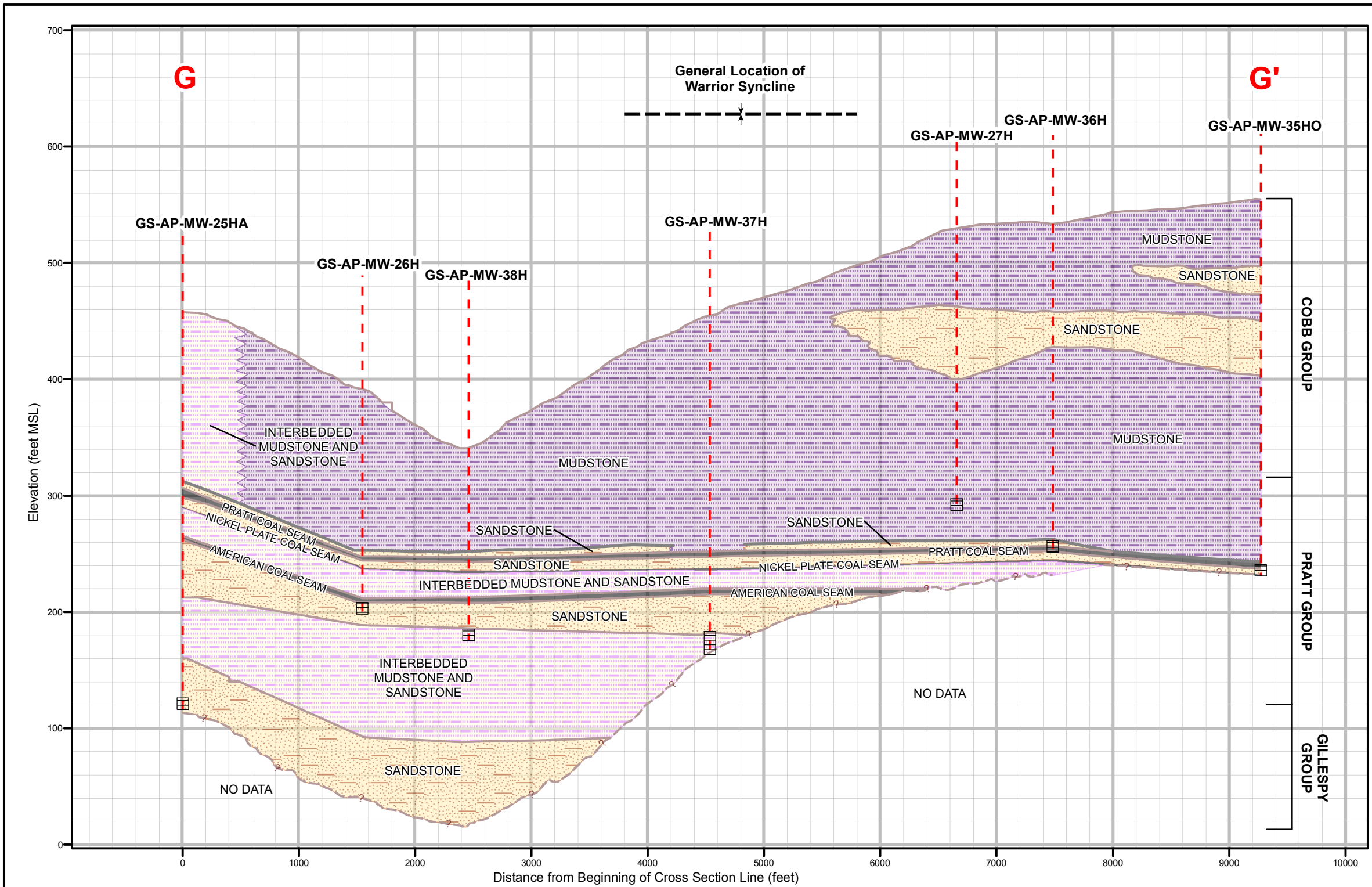
- Notes:**
1. Stratigraphic layers were correlated using a combination of boring data and gamma logs.
  2. Elevation data are reported using feet above Mean Sea Level (MSL).
  3. Water samples were collected between March 17 and March 18, 2020.
  4. mg/L indicates milligrams per liter.
  5. ND indicates not detected above the laboratory method detection limit.
  6. Vertical exaggeration = 10x
  7. GWPS indicates Groundwater Protection Standard.
  8. Concentrations are representative only of groundwater occupying discrete fractures or coal seams and are not to be utilized to characterize mass.

<b>Legend</b>		<b>Geologic Units</b>	
Screen Interval	Group Boundary	Coal	Fill/CCR
Monitoring Well Location	Strata Boundary	Interbedded Mudstone and Shale	Mudstone
	Inferred Strata Boundary	Overburden	Sandstone
		Water	

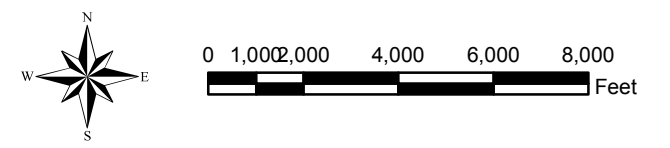
SCALE	As Shown
DATE	9/29/2020
DRAWN BY	MDM
CHECKED BY	GBD

DRAWING TITLE	
<b>GEOLOGIC CROSS SECTION F - F' PLANT GORGAS ASH POND</b>	
FIGURE NO	<b>FIGURE 4F</b>
Southern Company	





- Legend**
- Phase I Horizontal Delineation Well
  - Phase II Horizontal Delineation Well
  - Piezometer
  - Cross Section Line



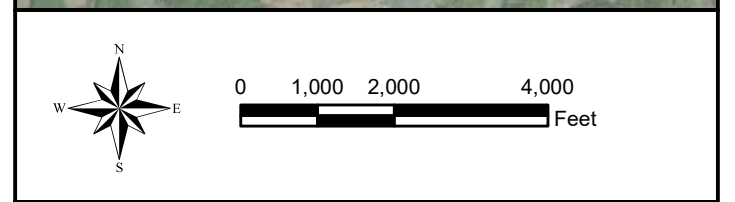
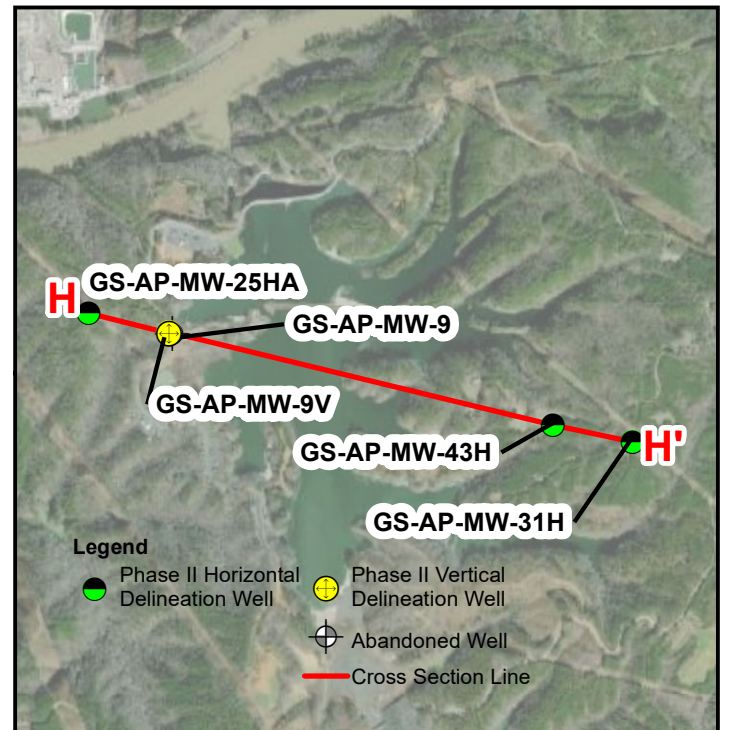
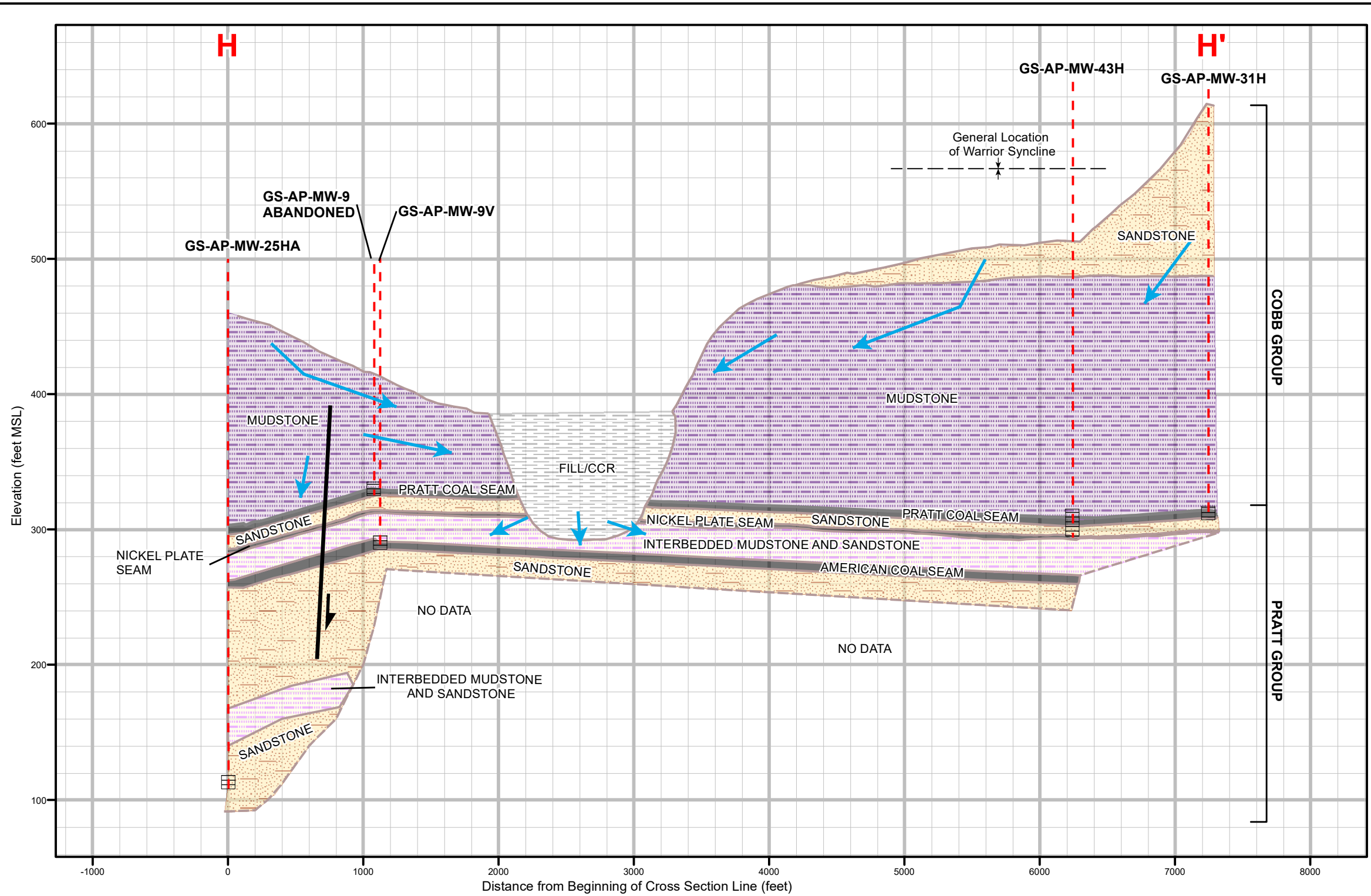
- Legend**
- Screen Interval
  - Monitoring Well Location
  - Inferred Strata Boundary
  - Syncline
- Geologic Units**
- Group Boundary
  - Strata Boundary
  - Mudstone
  - Interbedded Mudstone and Sandstone
  - Sandstone
  - Channel Sandstone
  - Coal

Notes: 1. Stratigraphic layers were correlated using a combination of boring data and gamma logs.  
 2. Elevation data are reported using feet above Mean Sea Level (MSL).  
 3. Vertical exaggeration = 10x.

SCALE	As Shown
DATE	9/22/2020
DRAWN BY	KWR
CHECKED BY	GBD

DRAWING TITLE	
GEOLOGIC CROSS SECTION G - G' PLANT GORGAS ASH POND	
FIGURE NO	<b>FIGURE 4G</b>
Southern Company	



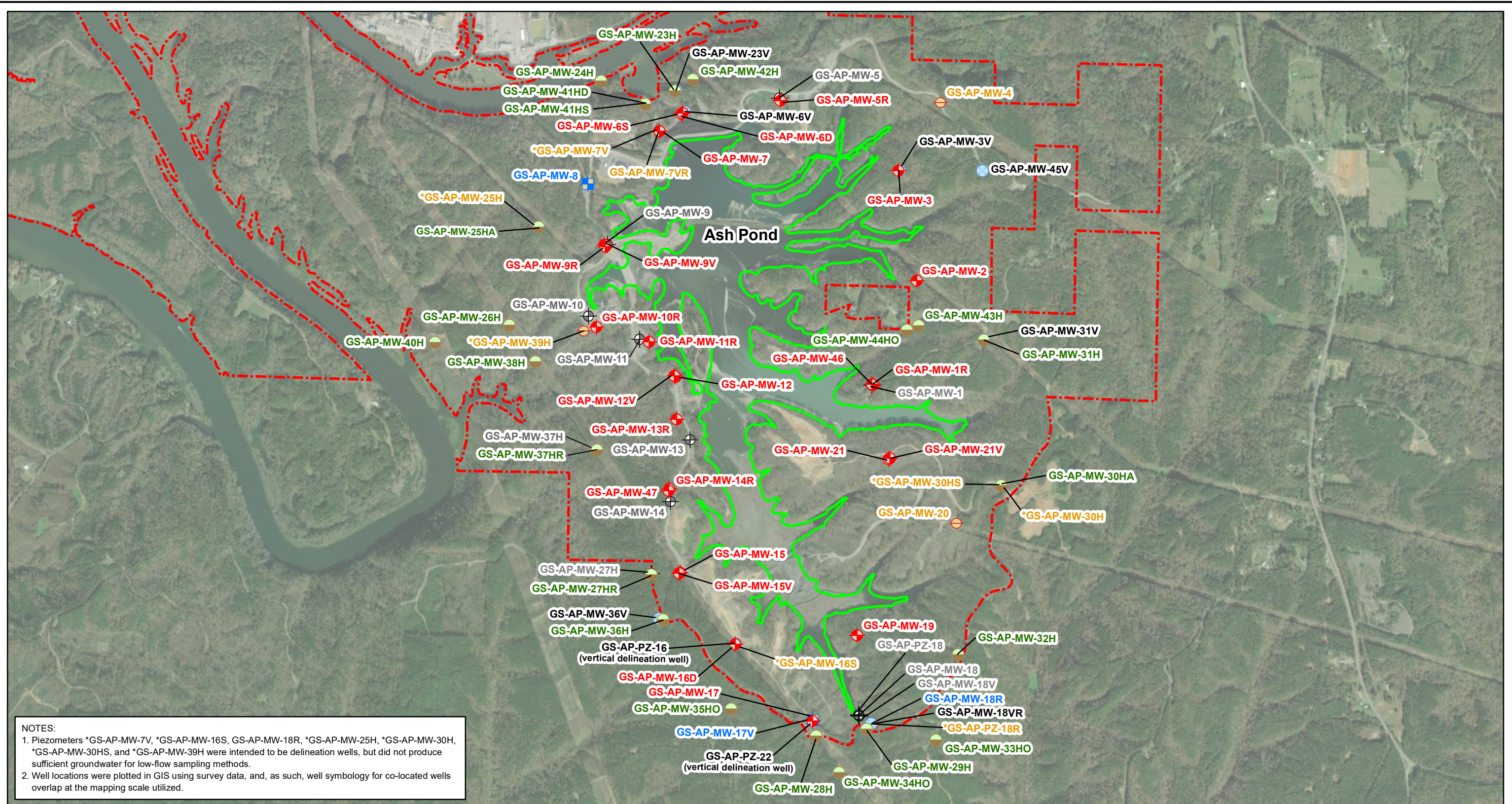


Notes:  
 1. Stratigraphic layers were correlated using a combination of boring data and gamma logs.  
 2. Elevation data are reported using feet above Mean Sea Level (MSL).

Legend		Geologic Units	
	Screen Interval		Group Boundary
	Monitoring Well Location		Strata Boundary
	Groundwater Flow Direction		Inferred Strata Boundary
			Fault
			Syncline
	Coal		Fill/CCR
	Interbedded Mudstone and Sandstone		Mudstone
	Sandstone		

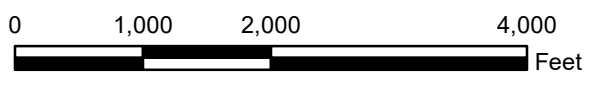
SCALE	As Shown	DRAWING TITLE	
DATE	9/21/2020	GEOLOGIC CROSS SECTION H - H' PLANT GORGAS ASH POND	
DRAWN BY	MDM		
CHECKED BY	GBD	FIGURE NO	FIGURE 4H
		Southern Company	





NOTES:  
 1. Piezometers \*GS-AP-MW-7V, \*GS-AP-MW-16S, GS-AP-MW-18R, \*GS-AP-MW-25H, \*GS-AP-MW-30H, \*GS-AP-MW-30HS, and \*GS-AP-MW-39H were intended to be delineation wells, but did not produce sufficient groundwater for low-flow sampling methods.  
 2. Well locations were plotted in GIS using survey data, and, as such, well symbology for co-located wells overlap at the mapping scale utilized.

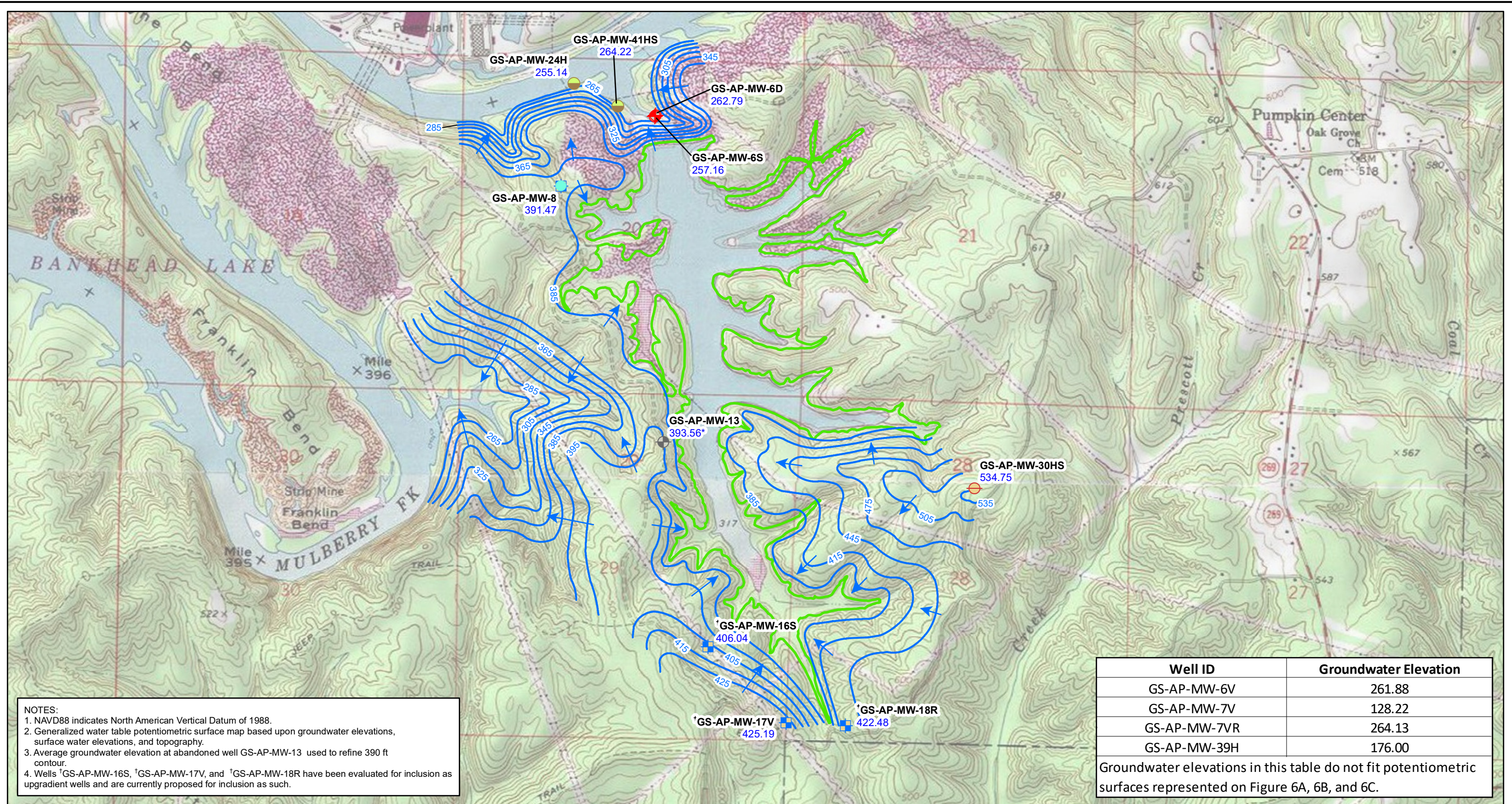
Legend	
	Downgradient Monitoring Well
	Upgradient Monitoring Well
	Phase I Horizontal Delineation Well
	Phase I Vertical Delineation Well
	Piezometer
	Abandoned Well
	Ash Pond Boundary
	Property Boundary (Approximate)
	GS-AP-MW-2 Downgradient Monitoring Well ID
	GS-AP-MW-8 Upgradient Monitoring Well ID
	GS-AP-MW-23H Horizontal Delineation Well ID
	GS-AP-MW-6V Vertical Delineation Well ID
	GS-AP-MW-4 Piezometer ID
	GS-AP-MW-9 Abandoned Well ID



SCALE	1:18000
DATE	7/28/2022
DRAWN BY	KAR
CHECKED BY	GBD

DRAWING TITLE	
MONITORING WELL LOCATION MAP PLANT GORGAS ASH POND	
FIGURE NO	<b>FIGURE 5</b>
Southern Company	





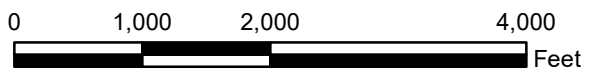
NOTES:  
 1. NAVD88 indicates North American Vertical Datum of 1988.  
 2. Generalized water table potentiometric surface map based upon groundwater elevations, surface water elevations, and topography.  
 3. Average groundwater elevation at abandoned well GS-AP-MW-13 used to refine 390 ft contour.  
 4. Wells †GS-AP-MW-16S, †GS-AP-MW-17V, and †GS-AP-MW-18R have been evaluated for inclusion as upgradient wells and are currently proposed for inclusion as such.

Well ID	Groundwater Elevation
GS-AP-MW-6V	261.88
GS-AP-MW-7V	128.22
GS-AP-MW-7VR	264.13
GS-AP-MW-39H	176.00

Groundwater elevations in this table do not fit potentiometric surfaces represented on Figure 6A, 6B, and 6C.

**Legend**

- Downgradient Monitoring Well
- Upgradient Monitoring Well
- Horizontal Delineation Well
- Piezometer
- Abandoned Well
- Potentiometric Surface Contour (ft NAVD88)
- Approximate Groundwater Flow Direction
- Ash Pond Boundary
- GS-AP-MW-8** Well ID  
391.47 Groundwater Elevation



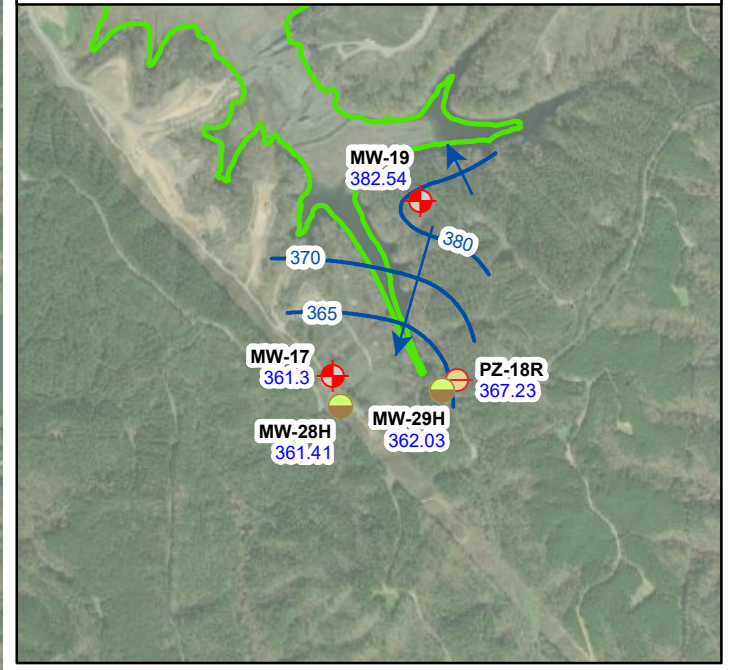
SCALE	1:18000
DATE	5/17/2022
DRAWN BY	KAR
CHECKED BY	GBD

DRAWING TITLE  
**POTENTIOMETRIC SURFACE CONTOUR MAP (UPPER) WATER TABLE AQUIFER**  
 FEBRUARY 7, 2022  
 PLANT GORGAS ASH POND

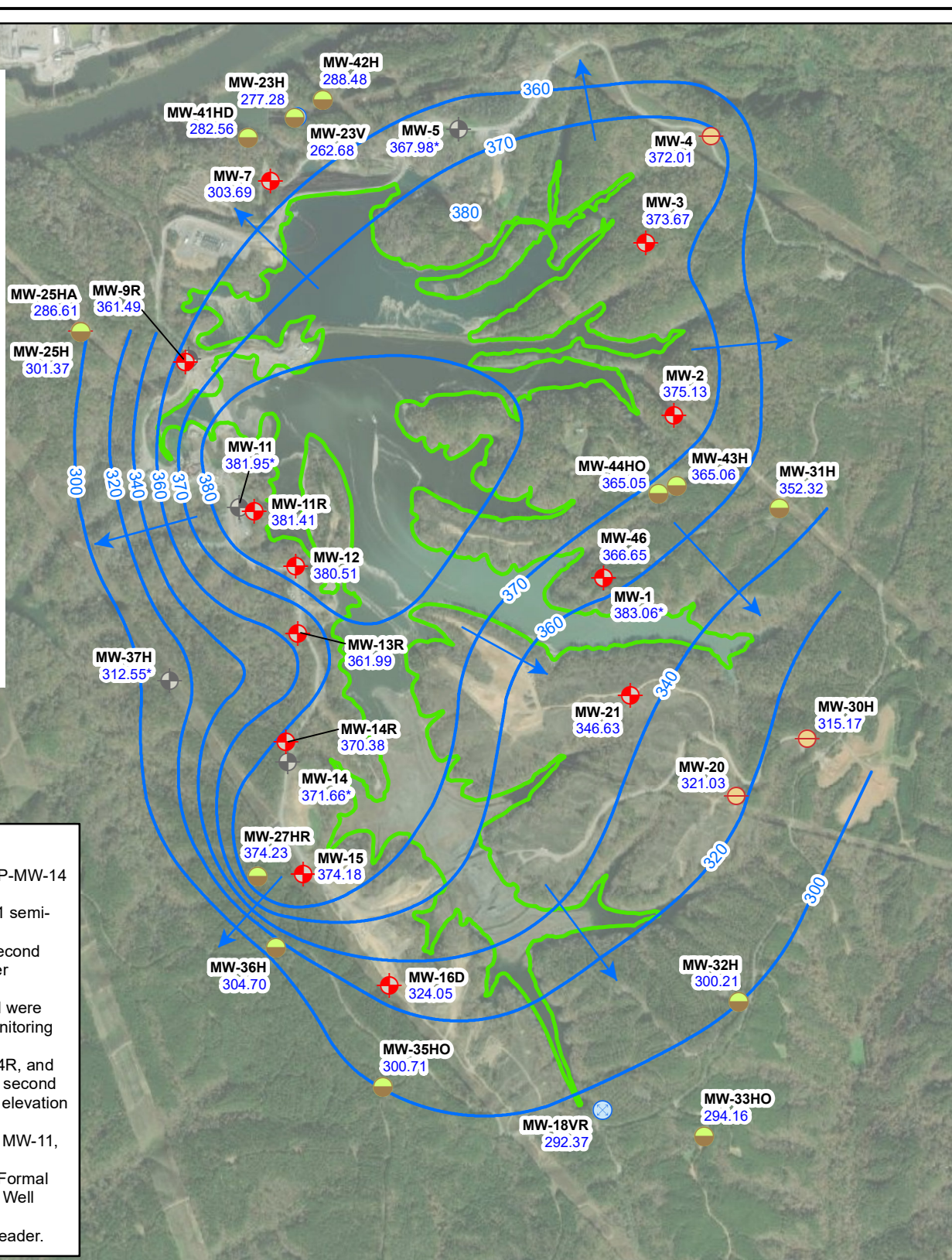
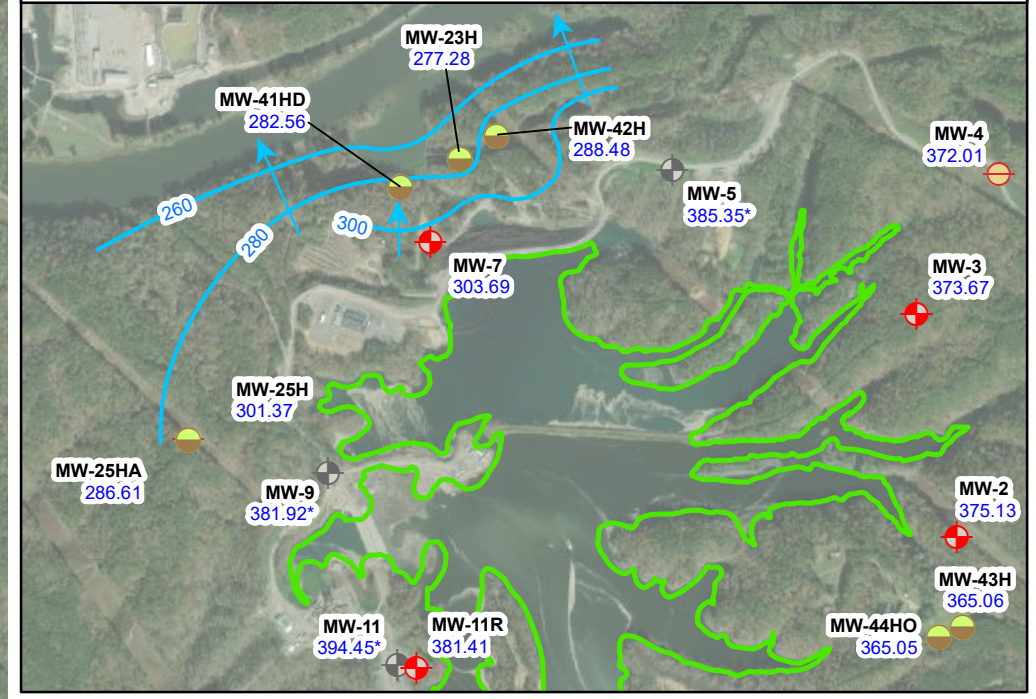
FIGURE NO  
**FIGURE 6A**



**GENERALIZED POTENTIOMETRIC SURFACE CONTOUR MAP - UPPER PRATT TO COBB COAL GROUP**



**GENERALIZED POTENTIOMETRIC SURFACE CONTOUR MAP - BASE OF PRATT TO GILLESPIE TRANSITION (NORTH OF DAM)**



- NOTES:**
1. NAVD88 indicates North American Vertical Datum of 1988.
  2. GS-AP-MW-5, GS-AP-MW-9, GS-AP-MW-10, GS-AP-MW-11, and GS-AP-MW-14 were abandoned prior to the March 2020 event.
  3. Well GS-AP-MW-37H was abandoned between the first and second 2021 semi-annual monitoring events.
  4. Wells GS-AP-MW-1 and GS-AP-MW-18 were abandoned between the second 2021 semi-annual monitoring event on July 26, 2021 and the groundwater elevation measuring event on December 16, 2021.
  5. Wells GS-AP-MW-11R and GS-AP-MW-27HR are replacement wells and were installed at the time of sampling during the second 2021 semi-annual monitoring event on July 26, 2021.
  6. Wells GS-AP-MW-9R, GS-AP-MW-11R, GS-AP-MW-13R, GS-AP-MW-14R, and GS-AP-MW-18VR are replacement wells and were installed between the second 2021 semi-annual sampling event on July 26, 2021 and the groundwater elevation measuring event on December 16, 2021.
  7. \*Average groundwater elevations were used for abandoned wells MW-5, MW-11, MW-14, and MW-37H to help depict groundwater flow.
  8. Abbreviated well and piezometer designations are shown for readability. Formal well designations are preceded by "GS-AP-" as shown on the Monitoring Well Location Map.
  9. Potentiometric contour lines were generalized for depiction and ease of reader.

Well ID	Groundwater Elevation
GS-AP-MW-6V	261.88
GS-AP-MW-7V	128.22
GS-AP-MW-7VR	264.13
GS-AP-MW-39H	176.00

Groundwater elevations in this table do not fit potentiometric surfaces represented on Figure 6A, 6B, and 6C.

**Legend**

- Downgradient Monitoring Well
- Upgradient Monitoring Well
- Horizontal Delineation Well
- Vertical Delineation Well
- Piezometer
- Abandoned Well
- Potentiometric Surface Contour (ft NAVD88) (Upper Pratt to Cobb Coal Group)
- Approximate Groundwater Flow Direction (Upper Pratt to Cobb Coal Group)
- Potentiometric Surface Contour (ft NAVD88) (Base of Pratt to Gillespie Aquifer Transition)
- Approximate Groundwater Flow Direction (Base of Pratt to Gillespie Aquifer Transition)
- Ash Pond Boundary
- Well ID
- Groundwater Elevation

SCALE: 1:18000  
 DATE: 5/17/2022  
 DRAWN BY: KAR  
 CHECKED BY: GBD

DRAWING TITLE: POTENTIOMETRIC SURFACE CONTOUR MAP PRATT AQUIFER FEBRUARY 7, 2022 PLANT GORGAS ASH POND

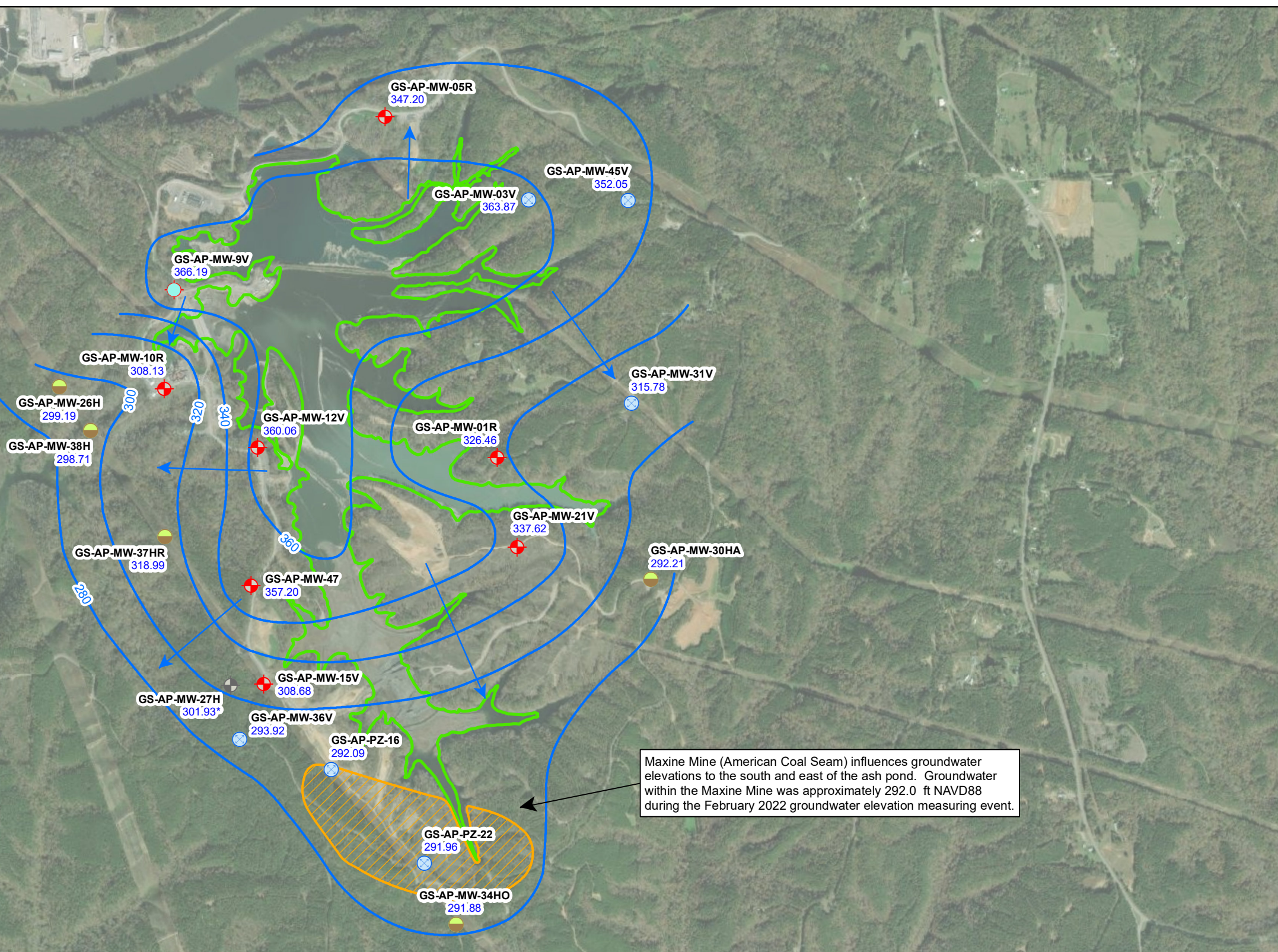
FIGURE NO: **FIGURE 6B**

Southern Company



**NOTES:**

1. NAVD88 indicates North American Vertical Datum of 1988.
2. Well GS-AP-MW-27H was abandoned between the first and second 2021 semi-annual monitoring events.
3. Wells GS-AP-MW-18V and GS-AP-PZ-18 were abandoned between the second 2021 semi-annual monitoring event on July 26, 2021 and the groundwater elevation measuring event on December 16, 2021.
4. Well GS-AP-MW-37HR is a replacement well and was installed at the time of sampling for the second 2021 sampling event.
5. Wells GS-AP-MW-1R, GS-AP-MW-5R, and GS-AP-MW-10R are replacement wells and were installed between the second 2021 semi-annual sampling event on July 26, 2021 and the groundwater elevation measuring event on December 16, 2021.
6. Wells GS-AP-MW-3V, GS-AP-MW-31V, GS-AP-MW-36V, GS-AP-MW-45V, and GS-AP-MW-47 were installed between the second 2021 semi-annual sampling event on July 26, 2021 and December 16, 2021.
7. GS-AP-PZ-16, -18, and -22 monitor water levels in the Maxine Mine.
8. Potentiometric contour lines were generalized for depiction and ease of reader.
9. \* indicates average groundwater elevation.
10. Wells †GS-AP-MW-9V, †GS-AP-MW-12V, †GS-AP-MW-15V and †GS-AP-MW-21V have been evaluated for inclusion as downgradient wells and are currently proposed for inclusion as such.



Maxine Mine (American Coal Seam) influences groundwater elevations to the south and east of the ash pond. Groundwater within the Maxine Mine was approximately 292.0 ft NAVD88 during the February 2022 groundwater elevation measuring event.

Well ID	Groundwater Elevation
GS-AP-MW-6V	261.88
GS-AP-MW-7V	128.22
GS-AP-MW-7VR	264.13
GS-AP-MW-39H	176.00

Groundwater elevations in this table do not fit potentiometric surfaces represented on Figure 6A, 6B, and 6C.

**Legend**

- Downgradient Monitoring Well
- Horizontal Delineation Well
- Vertical Delineation Well
- Abandoned Well
- Potentiometric Surface Contour (ft NAVD88)
- Approximate Groundwater Flow Direction
- Maxine Mine
- Ash Pond Boundary

GS-AP-MW-9V Well ID  
366.19 Groundwater Elevation

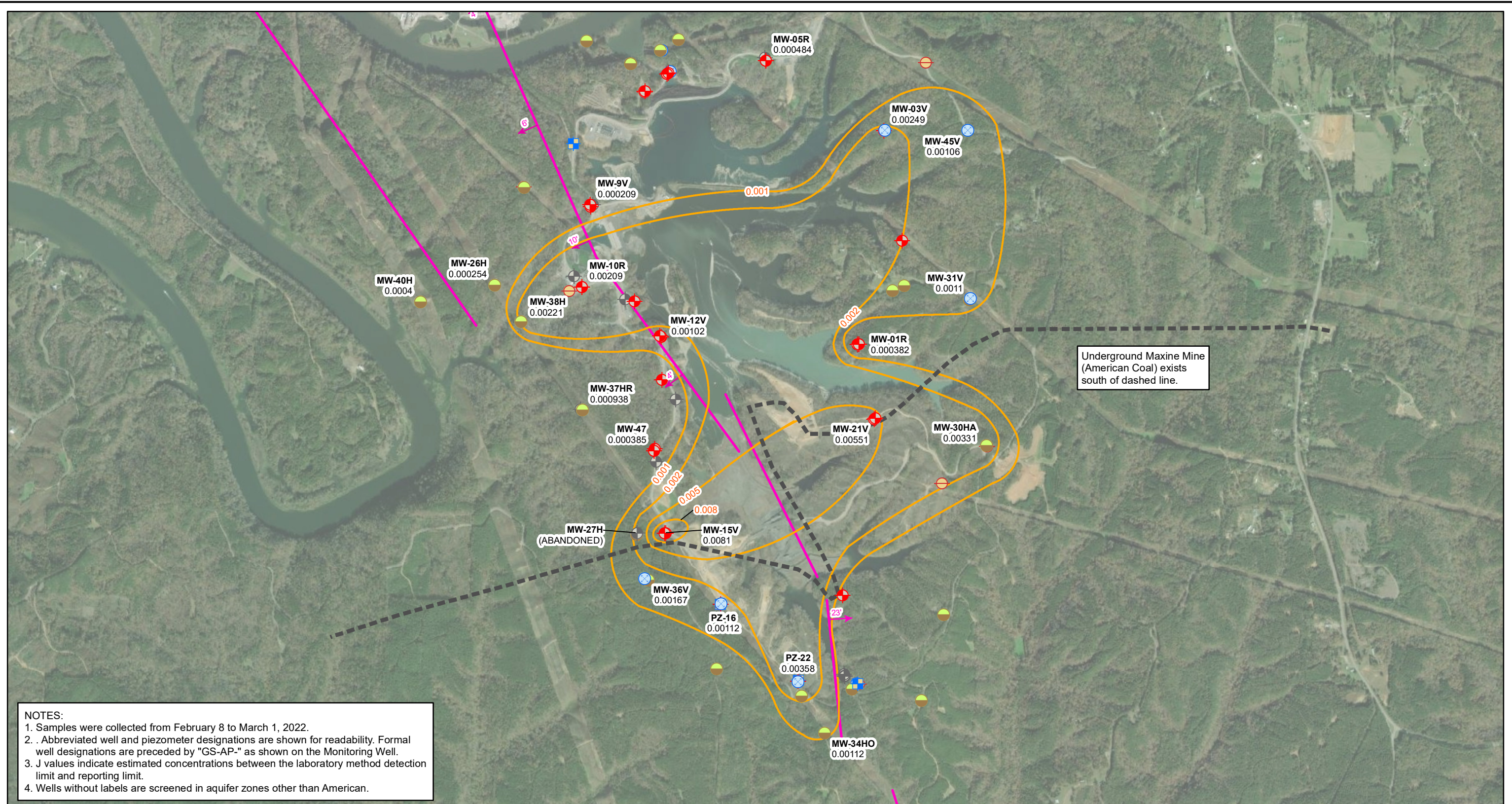


SCALE	1:18000	DRAWING TITLE <b>POTENTIOMETRIC SURFACE CONTOUR MAP AMERICAN AQUIFER FEBRUARY 7, 2022 PLANT GORGAS ASH POND</b>	
DATE	5/26/2022		
DRAWN BY	KAR	FIGURE NO	<b>FIGURE 6C</b>
CHECKED BY	GBD		



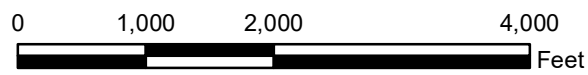






**NOTES:**  
 1. Samples were collected from February 8 to March 1, 2022.  
 2. . Abbreviated well and piezometer designations are shown for readability. Formal well designations are preceded by "GS-AP-" as shown on the Monitoring Well.  
 3. J values indicate estimated concentrations between the laboratory method detection limit and reporting limit.  
 4. Wells without labels are screened in aquifer zones other than American.

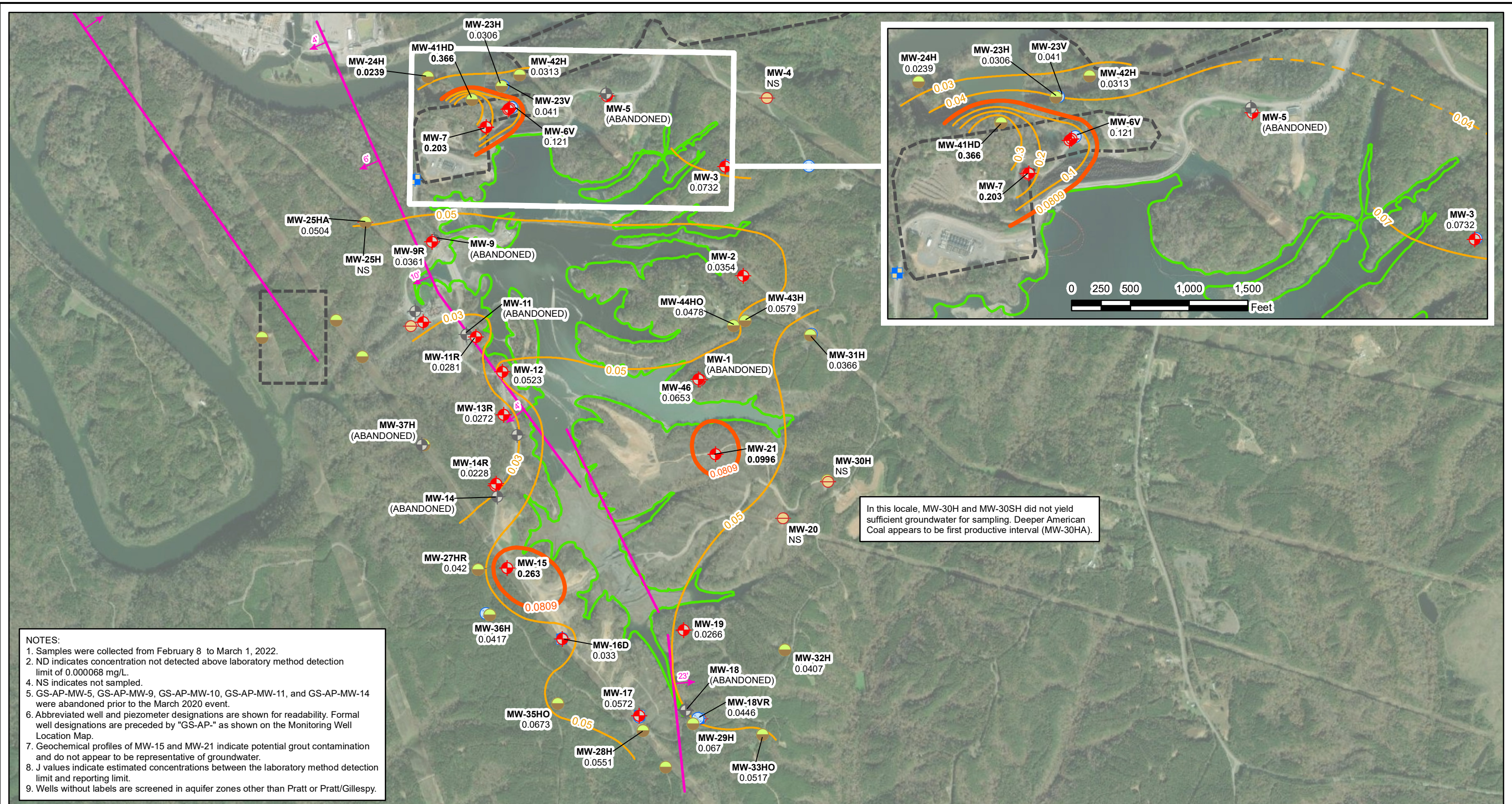
Legend	
	Downgradient Monitoring Well
	Upgradient Monitoring Well
	Horizontal Delineation Well
	Vertical Delineation Well
	Piezometer
	Abandoned Well
	Approximate Underground Maxine Mine Boundary
	Arsenic Isoconcentration Contour (mg/L)
	Fault
	Dip Direction of Fault with Offset (ft)
<b>MW-12V</b>	Well ID
0.00102	Arsenic Concentration (mg/L)



SCALE	1:18000
DATE	6/16/2022
DRAWN BY	KAR
CHECKED BY	GBD

DRAWING TITLE	
<b>ARSENIC ISOCONCENTRATION MAP          AMERICAN AQUIFER          FEBRUARY TO MARCH 2022          PLANT GORGAS ASH POND</b>	
FIGURE NO	<b>FIGURE 7B</b>
Southern Company	





In this locale, MW-30H and MW-30SH did not yield sufficient groundwater for sampling. Deeper American Coal appears to be first productive interval (MW-30HA).

- NOTES:**
1. Samples were collected from February 8 to March 1, 2022.
  2. ND indicates concentration not detected above laboratory method detection limit of 0.000068 mg/L.
  3. NS indicates not sampled.
  4. NS indicates not sampled.
  5. GS-AP-MW-5, GS-AP-MW-9, GS-AP-MW-10, GS-AP-MW-11, and GS-AP-MW-14 were abandoned prior to the March 2020 event.
  6. Abbreviated well and piezometer designations are shown for readability. Formal well designations are preceded by "GS-AP-" as shown on the Monitoring Well Location Map.
  7. Geochemical profiles of MW-15 and MW-21 indicate potential grout contamination and do not appear to be representative of groundwater.
  8. J values indicate estimated concentrations between the laboratory method detection limit and reporting limit.
  9. Wells without labels are screened in aquifer zones other than Pratt or Pratt/Gillespie.

**Legend**

- Downgradient Monitoring Well
- Upgradient Monitoring Well
- Horizontal Delineation Well
- Vertical Delineation Well
- Piezometer
- Abandoned Well
- Lithium GWPS Background Contour (0.0809 mg/L)
- Lithium Isoconcentration Contour (mg/L)
- Fault
- Dip Direction of Fault with Offset (ft)
- Pratt Mines
- Ash Pond Boundary

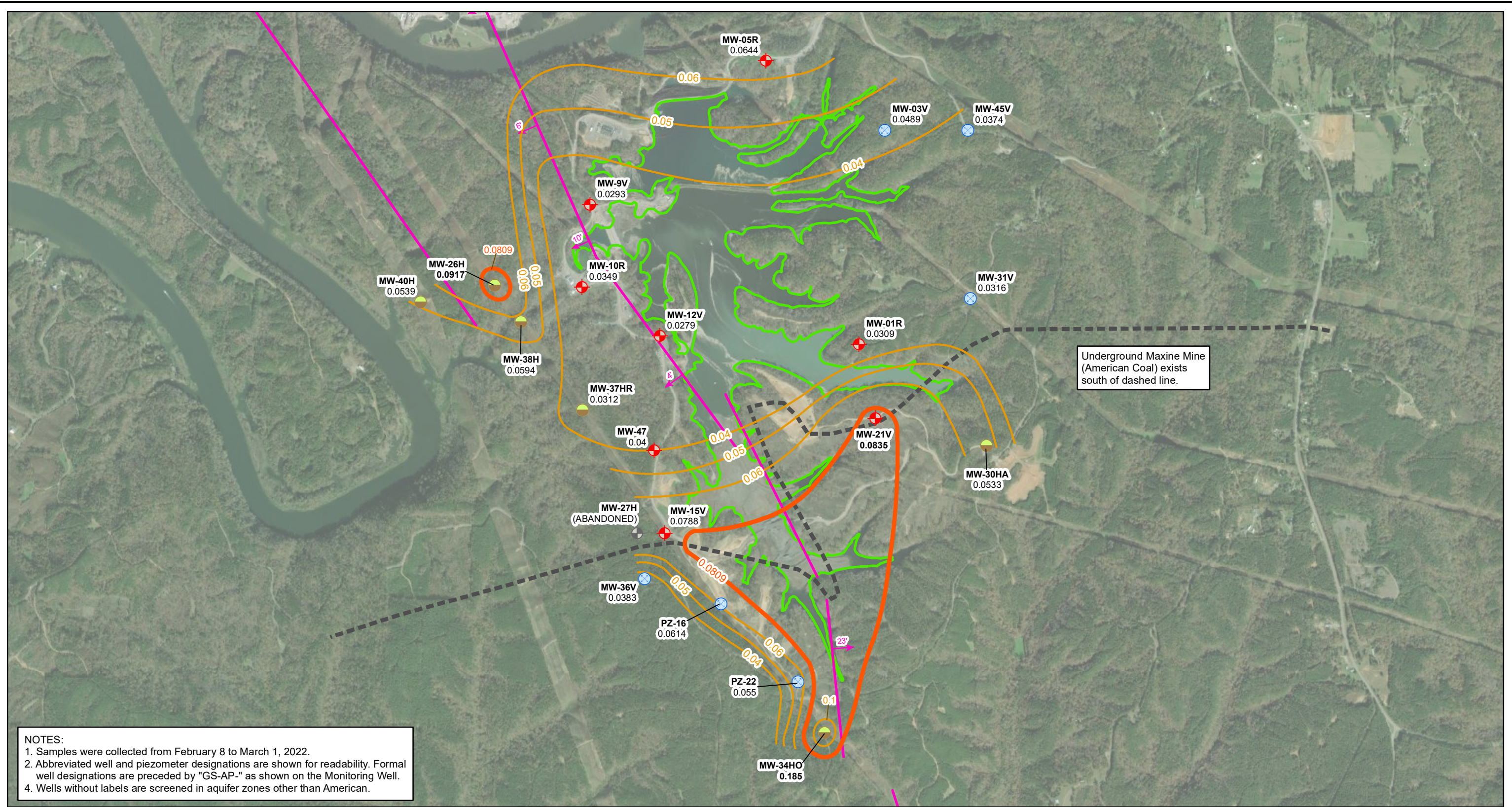
**Scale:** 0 1,000 2,000 4,000 Feet

**North Arrow:** N

**Well ID:** MW-19  
**Lithium Concentration (mg/L):** 0.0266

SCALE	1:18000	DRAWING TITLE	LITHIUM ISOCONCENTRATION MAP PRATT AQUIFER FEBRUARY TO MARCH 2022 PLANT GORGAS ASH POND
DATE	6/20/2022		
DRAWN BY	KAR	FIGURE NO	<b>FIGURE 8A</b>
CHECKED BY	GBD	Southern Company	

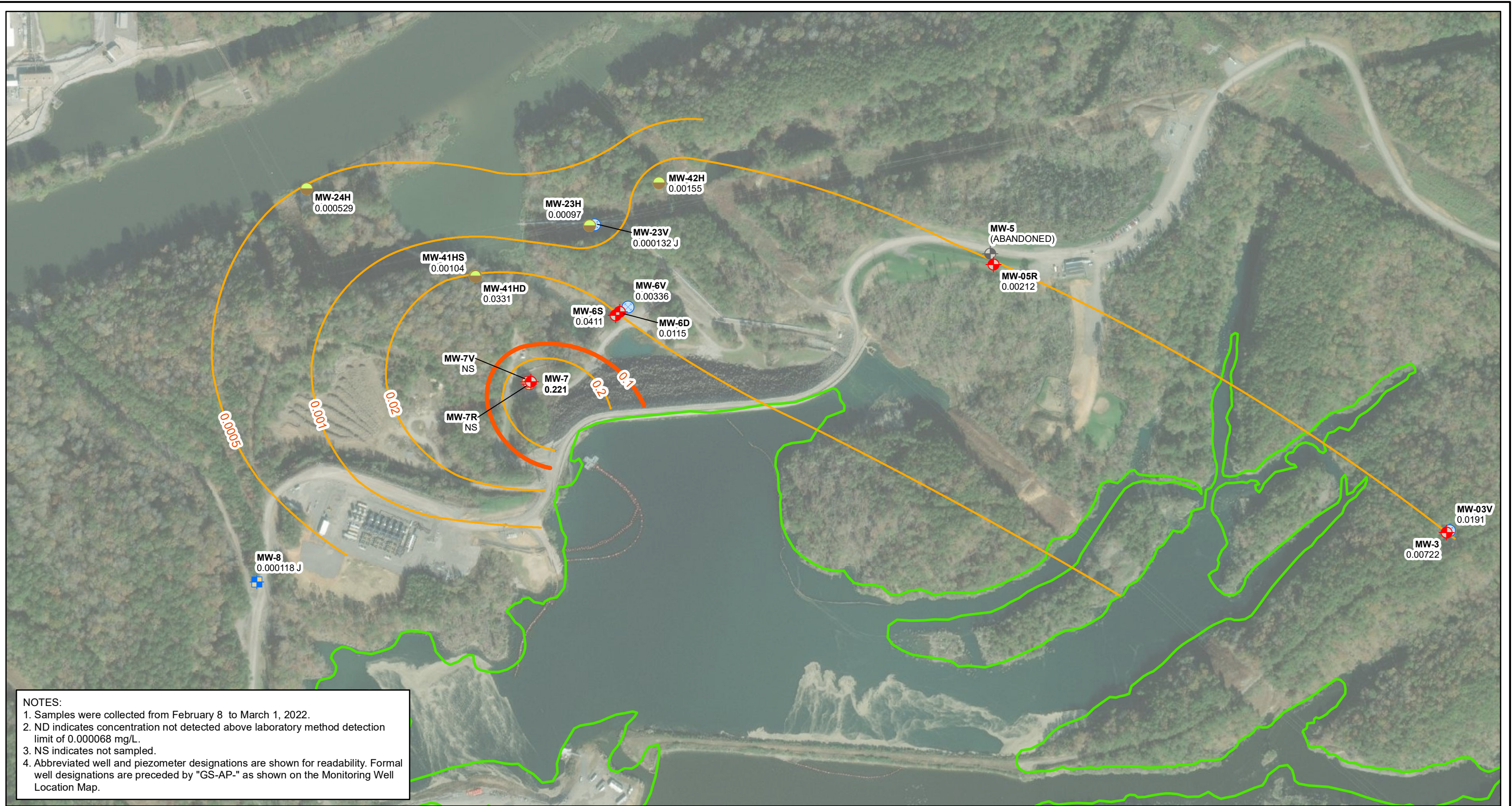




**NOTES:**  
 1. Samples were collected from February 8 to March 1, 2022.  
 2. Abbreviated well and piezometer designations are shown for readability. Formal well designations are preceded by "GS-AP-" as shown on the Monitoring Well.  
 4. Wells without labels are screened in aquifer zones other than American.

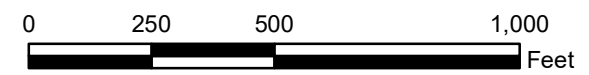
<b>Legend</b> 	SCALE	1:18000	DRAWING TITLE	
	DATE	6/20/2022		LITHIUM ISOCONCENTRATION MAP AMERICAN AQUIFER FEBRUARY TO MARCH 2022 PLANT GORGAS ASH POND
	DRAWN BY	KAR	FIGURE NO	<b>FIGURE 8B</b>
	CHECKED BY	GBD	Southern Company	





**NOTES:**  
 1. Samples were collected from February 8 to March 1, 2022.  
 2. ND indicates concentration not detected above laboratory method detection limit of 0.000068 mg/L.  
 3. NS indicates not sampled.  
 4. Abbreviated well and piezometer designations are shown for readability. Formal well designations are preceded by "GS-AP-" as shown on the Monitoring Well Location Map.

Legend	
	Downgradient Monitoring Well
	Upgradient Monitoring Well
	Horizontal Delineation Well
	Vertical Delineation Well
	Piezometer
	Abandoned Well
	Molybdenum GWPS Contour (0.1 mg/L)
	Molybdenum Concentration Contour (mg/L)
	Ash Pond Boundary
<b>MW-3</b>	Well ID
0.00722	Molybdenum Concentration (mg/L)



SCALE	1:4695
DATE	6/21/2022
DRAWN BY	KAR
CHECKED BY	GBD

DRAWING TITLE	
MOLYBDENUM ISOCONCENTRATION MAP FEBRUARY TO MARCH 2022 PLANT GORGAS ASH POND	
FIGURE NO	<b>FIGURE 9</b>
Southern Company	



# Tables



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

Well ID	Hydraulic Location	Geologic Unit	Latitude	Longitude	Ground Surface Elevation (ft NAVD)	Top Of Casing Elevation (ft NAVD)	Well Depth (ft BTOC)	Top Of Screen Elevation (ft NAVD)	Bottom Of Screen Elevation (ft NAVD)	Screen Length (ft)	Date Of Installation
<b>WELL NETWORK</b>											
GS-AP-MW-8	Upgradient	Pottsville Fm - Pratt Strata	33.63767	-87.19149	431.63	434.61	64.6	390.42	370.42	20	2/26/2016
GS-AP-MW-17V	Upgradient	Pottsville Fm - Shallow Water Table	33.61445	-87.17943	528.75	531.45	151.4	400.45	380.45	20	1/20/2019
GS-AP-MW-10R	Downgradient	Pottsville Fm - American Strata	33.63144	-87.19096	449.88	452.79	210.6	252.64	242.64	10	8/8/2021
GS-AP-MW-11R	Downgradient	Pottsville Fm - Pratt Strata	33.63084	-87.18819	452.90	455.60	147.3	318.74	308.74	10	7/25/2021
GS-AP-MW-13R	Downgradient	Pottsville Fm - Pratt Strata	33.62746	-87.18671	457.82	460.66	167.9	303.18	293.18	10	7/25/2021
GS-AP-MW-14R	Downgradient	Pottsville Fm - Pratt Strata	33.62444	-87.18705	471.62	474.32	201.3	283.42	273.42	10	8/11/2021
GS-AP-MW-18R	Downgradient	Pottsville Fm - Pratt Strata	33.61434	-87.17632	459.80	463.07	56.1	417.42	407.42	10	11/3/2021
GS-AP-MW-18VR	Downgradient	Pottsville Fm - Pratt Strata	33.61435	-87.17638	459.55	462.80	220.2	253.00	243.00	10	11/3/2021
GS-AP-MW-1R	Downgradient	Pottsville Fm - American Strata	33.6291	-87.1765	488.24	491.37	244.6	257.17	247.17	10	11/3/2021
GS-AP-MW-3V	Downgradient	Pottsville Fm - American Strata	33.63844	-87.17529	510.28	513.40	217.5	306.33	296.33	10	9/26/2021
GS-AP-MW-45V	Downgradient	Pottsville Fm - American Strata	33.63847	-87.17098	547.76	550.59	259.1	301.91	291.91	10	10/7/2021
GS-AP-MW-46	Downgradient	Pottsville Fm - Pratt Strata	33.62911	-87.17658	488.01	491.25	217.6	294.10	274.10	20	11/3/2021
GS-AP-MW-47	Downgradient	Pottsville Fm - American Strata	33.62436	-87.18708	471.88	475.09	242.6	242.85	232.85	10	11/6/2021

**Notes:**  
 ft = feet; ft NAVD = elevation in feet, referenced to North American Vertical Datum; ft BTOC = depth, referenced in feet below top of casing  
 (1) Coordinates have been transformed into WGS 84 from NAD 27/83, State Plane, Alabama, feet.  
 (2) Vertical elevations are in feet relative to the North American Vertical Datum (NAVD) 1988.  
 (3) Total well depth accounts for sump if data provided on well construction logs.



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

Well ID	Hydraulic Location	Geologic Unit	Latitude	Longitude	Ground Surface Elevation (ft NAVD)	Top Of Casing Elevation (ft NAVD)	Well Depth (ft BTOC)	Top Of Screen Elevation (ft NAVD)	Bottom Of Screen Elevation (ft NAVD)	Screen Length (ft)	Date Of Installation
<b>WELL NETWORK</b>											
GS-AP-MW-5R	Downgradient	Pottsville Fm - American Strata	33.6414	-87.18153	485.98	488.59	177.3	321.71	311.71	10	7/28/2021
GS-AP-MW-9R	Downgradient	Pottsville Fm - Pratt Strata	33.63494	-87.19056	418.47	421.20	98.6	332.99	322.99	10	7/28/2021
GS-AP-MW-2	Downgradient	Pottsville Fm - Pratt Strata	33.63363	-87.17432	518.77	522.03	214.2	328.21	308.21	20	3/10/2016
GS-AP-MW-3	Downgradient	Pottsville Fm - Pratt Strata	33.63841	-87.17534	508.77	512.29	180.5	342.17	332.17	10	3/4/2016
GS-AP-MW-6	Downgradient	Pottsville Fm - Gillespy Transition	33.64076	-87.18666	271.57	274.67	46.6	238.52	228.52	10	1/19/2016
GS-AP-MW-6D	Downgradient	Pottsville Fm - Gillespy Transition	33.6408	-87.18661	271.39	274.50	64.5	220.42	210.42	10	1/18/2016
GS-AP-MW-7	Downgradient	Pottsville Fm - Gillespy Transition	33.63999	-87.1878	310.05	313.45	100.5	223.36	213.36	10	1/26/2016
GS-AP-MW-12	Downgradient	Pottsville Fm - Pratt Strata	33.62932	-87.18679	447.48	450.67	154.0	307.09	297.09	10	4/20/2016
GS-AP-MW-15	Downgradient	Pottsville Fm - Pratt Strata	33.62079	-87.18642	452.21	454.89	200.1	265.21	255.21	10	2/8/2016
GS-AP-MW-16D	Downgradient	Pottsville Fm - Nickel Plate Strata	33.61772	-87.18351	459.09	462.27	224.2	258.44	238.44	20	4/20/2016
GS-AP-MW-17	Downgradient	Pottsville Fm - Pratt Strata	33.61442	-87.17944	528.78	531.88	248.9	293.43	283.43	10	2/11/2016
GS-AP-MW-19	Downgradient	Pottsville Fm - Pratt Strata	33.61818	-87.17718	492.60	495.58	179.2	283.43	273.43	20	4/29/2016
GS-AP-MW-21	Downgradient	Pottsville Fm - Pratt Strata	33.62586	-87.17565	506.51	509.48	236.5	283.03	273.03	10	1/18/2019

**Notes:**  
 ft = feet; ft NAVD = elevation in feet, referenced to North American Vertical Datum; ft BTOC = depth, referenced in feet below top of casing  
 (1) Coordinates have been transformed into WGS 84 from NAD 27/83, State Plane, Alabama, feet.  
 (2) Vertical elevations are in feet relative to the North American Vertical Datum (NAVD) 1988.  
 (3) Total well depth accounts for sump if data provided on well construction logs.



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

Well ID	Hydraulic Location	Geologic Unit	Latitude	Longitude	Ground Surface Elevation (ft NAVD)	Top Of Casing Elevation (ft NAVD)	Well Depth (ft BTOC)	Top Of Screen Elevation (ft NAVD)	Bottom Of Screen Elevation (ft NAVD)	Screen Length (ft)	Date Of Installation
<b>WELL NETWORK</b>											
GS-AP-MW-9V	Downgradient	Pottsville Fm - American Strata	33.63502	-87.19058	418.25	420.86	138.1	292.81	282.81	10	11/6/2019
GS-AP-MW-12V	Downgradient	Pottsville Fm - American Strata	33.62936	-87.18687	478.64	481.32	179.1	312.22	302.22	10	1/9/2019
GS-AP-MW-15V	Downgradient	Pottsville Fm - American Strata	33.62079	-87.18649	452.91	455.89	235.4	230.51	220.51	10	10/28/2019
GS-AP-MW-21V	Downgradient	Pottsville Fm - American Strata	33.62589	-87.17559	507.59	509.84	249.0	270.89	260.89	10	9/26/2019

**Notes:**  
 ft = feet; ft NAVD = elevation in feet, referenced to North American Vertical Datum; ft BTOC = depth, referenced in feet below top of casing  
 (1) Coordinates have been transformed into WGS 84 from NAD 27/83, State Plane, Alabama, feet.  
 (2) Vertical elevations are in feet relative to the North American Vertical Datum (NAVD) 1988.  
 (3) Total well depth accounts for sump if data provided on well construction logs.



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

Well ID	Hydraulic Location	Geologic Unit	Latitude	Longitude	Ground Surface Elevation (ft NAVD)	Top Of Casing Elevation (ft NAVD)	Well Depth (ft BTOC)	Top Of Screen Elevation (ft NAVD)	Bottom Of Screen Elevation (ft NAVD)	Screen Length (ft)	Date Of Installation
<b>WELL NETWORK</b>											
GS-AP-MW-23V	Vertical Delineation	Pottsville Fm - Gillespy Transition	33.64178	-87.18697	303.34	306.40	87.4	229.42	219.42	10	10/7/2021
GS-AP-MW-31V	Vertical Delineation	Pottsville Fm - American Strata	33.63115	-87.17073	585.88	588.49	328.3	270.56	260.56	10	11/5/2021
GS-AP-MW-36V	Vertical Delineation	Pottsville Fm - American Strata	33.61879	-87.18748	533.82	537.05	319.4	228.10	218.10	10	10/7/2021
GS-AP-PZ-18R	Vertical Delineation	Pottsville Fm - Nickel Plate Strata	33.61433	-87.17626	459.81	463.13	116.0	357.50	347.50	10	11/3/2021
GS-AP-MW-6V	Vertical Delineation	Pottsville Fm - Gillespy Transition	33.64085	-87.18649	272.84	275.44	98.5	184.34	174.34	10	6/23/2020
GS-AP-PZ-16	Vertical Delineation	Pottsville Fm - American Strata	33.61773	-87.1835	458.83	462.29	252.7	219.63	209.63	10	3/16/2016
GS-AP-PZ-22	Vertical Delineation	Pottsville Fm - American Strata	33.61438	-87.17944	529.31	532.38	328.1	214.31	204.31	10	4/11/2016
GS-AP-MW-27HR	Horizontal Delineation	Pottsville Fm - Pratt Strata	33.6207	-87.18793	531.32	535.26	279.8	265.86	255.86	10	7/9/2021
GS-AP-MW-37HR	Horizontal Delineation	Pottsville Fm - American Strata	33.62609	-87.19083	457.27	460.05	243.1	227.35	217.35	10	10/7/2021
GS-AP-MW-23H	Horizontal Delineation	Pottsville Fm - Gillespy Transition	33.64177	-87.18703	301.90	304.98	42.5	272.48	262.48	10	1/4/2019
GS-AP-MW-24H	Horizontal Delineation	Pottsville Fm - Gillespy Transition	33.64215	-87.19088	258.38	261.35	62.8	208.55	198.55	10	1/3/2019
GS-AP-MW-26H	Horizontal Delineation	Pottsville Fm - American Strata	33.63147	-87.19548	391.68	394.68	193.6	211.08	201.08	10	1/22/2019
GS-AP-MW-28H	Horizontal Delineation	Pottsville Fm - Pratt Strata	33.61378	-87.17924	513.84	513.82	229.7	294.12	284.12	10	2/26/2019

**Notes:**  
 ft = feet; ft NAVD = elevation in feet, referenced to North American Vertical Datum; ft BTOC = depth, referenced in feet below top of casing  
 (1) Coordinates have been transformed into WGS 84 from NAD 27/83, State Plane, Alabama, feet.  
 (2) Vertical elevations are in feet relative to the North American Vertical Datum (NAVD) 1988.  
 (3) Total well depth accounts for sump if data provided on well construction logs.



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

Well ID	Hydraulic Location	Geologic Unit	Latitude	Longitude	Ground Surface Elevation (ft NAVD)	Top Of Casing Elevation (ft NAVD)	Well Depth (ft BTOC)	Top Of Screen Elevation (ft NAVD)	Bottom Of Screen Elevation (ft NAVD)	Screen Length (ft)	Date Of Installation
<b>WELL NETWORK</b>											
GS-AP-MW-29H	Horizontal Delineation	Pottsville Fm - Pratt Strata	33.61411	-87.17663	440.71	440.95	130.6	320.31	310.31	10	2/5/2019
GS-AP-MW-25HA	Horizontal Delineation	Pottsville Fm - Gillespy Transition	33.63575	-87.19403	458.98	462.27	342.9	129.37	119.37	10	11/7/2019
GS-AP-MW-30HA	Horizontal Delineation	Pottsville Fm - American Strata	33.62477	-87.16979	579.99	582.40	338.0	254.45	244.45	10	10/23/2019
GS-AP-MW-31H	Horizontal Delineation	Pottsville Fm - Pratt Strata	33.63109	-87.17078	584.48	587.39	287.6	309.81	299.81	10	10/11/2019
GS-AP-MW-32H	Horizontal Delineation	Pottsville Fm - Pratt Strata	33.61739	-87.17191	547.43	550.03	304.1	265.98	245.98	20	10/12/2019
GS-AP-MW-33HO	Horizontal Delineation	Pottsville Fm - Pratt Strata	33.61366	-87.17301	524.08	526.79	282.9	263.88	243.88	20	11/7/2019
GS-AP-MW-34HO	Horizontal Delineation	Pottsville Fm - American Strata	33.61219	-87.17802	521.18	523.82	327.6	206.22	196.22	10	11/9/2019
GS-AP-MW-35HO	Horizontal Delineation	Pottsville Fm - Pratt Strata	33.6149	-87.18368	550.60	553.35	320.5	242.87	232.87	10	11/20/2019
GS-AP-MW-36H	Horizontal Delineation	Pottsville Fm - Pratt Strata	33.61873	-87.18729	533.67	536.61	283.1	263.51	253.51	10	10/28/2019
GS-AP-MW-39H	Horizontal Delineation	Pottsville Fm - Unassigned	33.63126	-87.1916	448.47	451.13	348.5	122.63	102.63	20	10/29/2019
GS-AP-MW-40H	Horizontal Delineation	Pottsville Fm - American Strata	33.63069	-87.19933	355.07	357.91	90.3	274.77	264.77	10	5/1/2020
GS-AP-MW-41HS	Horizontal Delineation	Pottsville Fm - Gillespy Transition	33.64119	-87.18858	281.75	284.65	37.7	257.00	247.00	10	10/28/2019
GS-AP-MW-38H	Horizontal Delineation	Pottsville Fm - American Strata	33.6299	-87.19411	343.41	345.74	168.2	187.54	177.54	10	11/22/2019

**Notes:**  
 ft = feet; ft NAVD = elevation in feet, referenced to North American Vertical Datum; ft BTOC = depth, referenced in feet below top of casing  
 (1) Coordinates have been transformed into WGS 84 from NAD 27/83, State Plane, Alabama, feet.  
 (2) Vertical elevations are in feet relative to the North American Vertical Datum (NAVD) 1988.  
 (3) Total well depth accounts for sump if data provided on well construction logs.





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

Well ID	Hydraulic Location	Geologic Unit	Latitude	Longitude	Ground Surface Elevation (ft NAVD)	Top Of Casing Elevation (ft NAVD)	Well Depth (ft BTOC)	Top Of Screen Elevation (ft NAVD)	Bottom Of Screen Elevation (ft NAVD)	Screen Length (ft)	Date Of Installation
<b>WELL NETWORK</b>											
GS-AP-MW-41HD	Horizontal Delineation	Pottsville Fm - Gillespy Transition	33.64118	-87.18857	282.32	284.54	58.3	236.24	226.24	10	10/27/2019
GS-AP-MW-42H	Horizontal Delineation	Pottsville Fm - Gillespy Transition	33.64227	-87.1861	338.61	340.62	87.5	263.11	253.11	10	10/29/2019
GS-AP-MW-43HO	Horizontal Delineation	Pottsville Fm - Pratt Strata	33.63169	-87.17419	511.87	514.62	222.8	311.87	291.87	20	11/11/2019
GS-AP-MW-44HO	Horizontal Delineation	Pottsville Fm - Pratt Strata	33.63147	-87.17478	503.33	506.21	205.6	308.23	298.23	10	8/16/2020

**Notes:**  
 ft = feet; ft NAVD = elevation in feet, referenced to North American Vertical Datum; ft BTOC = depth, referenced in feet below top of casing  
 (1) Coordinates have been transformed into WGS 84 from NAD 27/83, State Plane, Alabama, feet.  
 (2) Vertical elevations are in feet relative to the North American Vertical Datum (NAVD) 1988.  
 (3) Total well depth accounts for sump if data provided on well construction logs.



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

Well ID	Hydraulic Location	Geologic Unit	Latitude	Longitude	Ground Surface Elevation (ft NAVD)	Top Of Casing Elevation (ft NAVD)	Well Depth (ft BTOC)	Top Of Screen Elevation (ft NAVD)	Bottom Of Screen Elevation (ft NAVD)	Screen Length (ft)	Date Of Installation
<b>WELL NETWORK</b>											
GS-AP-MW-4	Piezometer	Pottsville Fm - Pratt Strata	33.6414	-87.17321	504.61	507.90	163.3	354.61	344.61	10	3/7/2016
GS-AP-MW-16S	Piezometer	Pottsville Fm - Shallow Water Table	33.61771	-87.18353	459.04	462.42	133.4	349.04	329.04	20	4/18/2016
GS-AP-MW-20	Piezometer	Pottsville Fm - Pratt Strata	33.6231	-87.17209	525.18	528.15	250.0	288.18	278.18	10	2/1/2019
GS-AP-MW-7VR	Piezometer	Pottsville Fm - Gillespy Transition	33.63997	-87.18782	311.04	313.89	150.3	171.74	161.74	10	4/18/2020
GS-AP-MW-7V	Piezometer	Pottsville Fm - Gillespy Transition	33.63999	-87.18785	309.46	312.14	202.7	119.46	109.46	10	1/18/2019
GS-AP-MW-25H	Piezometer	Pottsville Fm - Pratt Strata	33.63577	-87.19405	458.66	461.79	168.1	303.66	293.66	10	1/2/2019
GS-AP-MW-30H	Piezometer	Pottsville Fm - Pratt Strata	33.62473	-87.16975	579.62	582.49	295.9	296.62	286.62	10	1/8/2019
GS-AP-MW-30HS	Piezometer	Pottsville Fm - Shallow Water Table	33.62474	-87.16977	579.84	582.53	47.2	545.34	535.34	10	1/10/2019

**Notes:**  
 ft = feet; ft NAVD = elevation in feet, referenced to North American Vertical Datum; ft BTOC = depth, referenced in feet below top of casing  
 (1) Coordinates have been transformed into WGS 84 from NAD 27/83, State Plane, Alabama, feet.  
 (2) Vertical elevations are in feet relative to the North American Vertical Datum (NAVD) 1988.  
 (3) Total well depth accounts for sump if data provided on well construction logs.



**Table 1d. - Abandoned Well Network Details  
Plant Gorgas Ash Pond**

Well ID	Hydraulic Location	Geologic Unit	Latitude	Longitude	Ground Surface Elevation (ft NAVD)	Top Of Casing Elevation (ft NAVD)	Well Depth (ft BTOC)	Top Of Screen Elevation (ft NAVD)	Bottom Of Screen Elevation (ft NAVD)	Screen Length (ft)	Date Of Installation
<b>WELL NETWORK</b>											
GS-AP-MW-1	Abandoned	Pottsville Fm - Pratt Strata	33.62908	-87.17658	487.30	490.68	148.4	362.30	342.30	20	2/24/2016
GS-AP-MW-5	Abandoned	Pottsville Fm - Pratt Strata	33.64151	-87.18158	483.80	487.17	149.4	347.80	337.80	10	4/2/2016
GS-AP-MW-9	Abandoned	Pottsville Fm - Pratt Strata	33.63504	-87.19044	417.06	420.04	111.4	307.09	297.09	20	4/22/2016
GS-AP-MW-10	Abandoned	Pottsville Fm - Unassigned	33.63192	-87.19137	464.94	468.41	144.9	265.21	255.21	20	1/21/2016
GS-AP-MW-11	Abandoned	Pottsville Fm - Pratt Strata	33.63092	-87.18869	465.34	468.34	139.9	348.44	328.44	20	2/4/2016
GS-AP-MW-13	Abandoned	Pottsville Fm - Pratt Strata	33.62659	-87.186	461.03	464.20	113.6	265.21	255.21	20	2/4/2016
GS-AP-MW-14	Abandoned	Pottsville Fm - Pratt Strata	33.62389	-87.18697	469.60	472.40	203.2	279.20	269.20	10	1/30/2016
GS-AP-MW-18	Abandoned	Pottsville Fm - Pratt Strata	33.61468	-87.17703	400.17	403.39	98.7	336.79	316.79	20	3/29/2016
GS-AP-PZ-18	Abandoned	Pottsville Fm - American Strata	33.61473	-87.17704	399.77	402.38	183.8	228.59	218.59	10	2/25/2016
GS-AP-MW-18V	Abandoned	Pottsville Fm - American Strata	33.61466	-87.177	401.81	404.61	137.7	276.90	266.90	10	1/30/2019
GS-AP-MW-27H	Abandoned	Pottsville Fm - American Strata	33.62075	-87.1879	532.08	535.03	245.0	300.08	290.08	10	2/12/2019
GS-AP-MW-37H	Abandoned	Pottsville Fm - Pratt Strata	33.62611	-87.19093	456.12	459.28	293.5	185.83	165.83	20	10/23/2019

**Notes:**  
 ft = feet; ft NAVD = elevation in feet, referenced to North American Vertical Datum; ft BTOC = depth, referenced in feet below top of casing  
 (1) Coordinates have been transformed into WGS 84 from NAD 27/83, State Plane, Alabama, feet.  
 (2) Vertical elevations are in feet relative to the North American Vertical Datum (NAVD) 1988.  
 (3) Total well depth accounts for sump if data provided on well construction logs.



## Table 2. Parameters And Reporting Limits

Plant Gorgas Ash Pond  
02/08/2022 - 03/01/2022

Appendix III Parameters			
Parameters	Analytical Methods	Reporting Limits	Units of Measure
Boron	EPA 200.7	0.1015	mg/L
Calcium	EPA 200.7	0.406-40.599998	mg/L
Chloride	SM4500Cl E	1-100	mg/L
Fluoride	SM4500F G 2017	0.1	mg/L
pH_Field	Field Sampling	NA	SU
Sulfate	SM4500SO4 E 2011	1-80	mg/L
TDS	NA	NA	mg/L
Appendix IV Parameters			
Parameters	Analytical Methods	Reporting Limits	Units of Measure
Antimony	EPA 200.8	0.001015	mg/L
Arsenic	EPA 200.8	0.000203	mg/L
Barium	EPA 200.8	0.000203-0.001015	mg/L
Beryllium	EPA 200.8	0.001015	mg/L
Cadmium	EPA 200.8	0.000203	mg/L
Chromium	EPA 200.8	0.001015	mg/L
Cobalt	EPA 200.8	0.000203	mg/L
Lead	EPA 200.8	0.000203	mg/L
Lithium	EPA 200.7	0.02	mg/L
Mercury	EPA 245.1	0.0005	mg/L
Molybdenum	EPA 200.8	0.000203	mg/L
Selenium	EPA 200.8	0.001015	mg/L
Thallium	EPA 200.8	0.000203	mg/L
Combined Radium 226 + 228	Total Radium Calculation	NA	pCi/L

Notes:

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



**Table 3. Groundwater Elevations Summary**

Plant Gorgas Ash Pond  
02/07/2022 - 02/07/2022

Well	Measure Date	TOCElevation (ft. NAVD)	Depth To Water (ft. BTOC)	Groundwater Elevation (ft. NAVD)
GS-AP-MW-2	02/07/2022	522.03	146.9	375.13
GS-AP-MW-3	02/07/2022	512.29	138.62	373.67
GS-AP-MW-4	02/07/2022	507.9	135.89	372.01
GS-AP-MW-7	02/07/2022	313.45	9.76	303.69
GS-AP-MW-8	02/07/2022	434.61	43.14	391.47
GS-AP-MW-6	02/07/2022	274.67	17.51	257.16
GS-AP-MW-12	02/07/2022	450.67	70.84	379.83
GS-AP-MW-15	02/07/2022	454.89	80.71	374.18
GS-AP-MW-16D	02/07/2022	462.27	138.22	324.05
GS-AP-MW-17	02/07/2022	531.88	170.58	361.30
GS-AP-MW-19	02/07/2022	495.58	113.04	382.54
GS-AP-MW-20	02/07/2022	528.15	207.12	321.03
GS-AP-MW-21	02/07/2022	509.48	162.85	346.63
GS-AP-MW-6D	02/07/2022	274.5	11.71	262.79
GS-AP-MW-12V	02/07/2022	481.32	89.68	391.64
GS-AP-MW-15V	02/07/2022	455.89	147.21	308.68
GS-AP-MW-17V	02/07/2022	531.45	106.26	425.19
GS-AP-MW-21V	02/07/2022	509.84	172.22	337.62
GS-AP-MW-23H	02/07/2022	304.98	27.7	277.28
GS-AP-MW-24H	02/07/2022	261.35	6.21	255.14
GS-AP-MW-25H	02/07/2022	461.79	160.42	301.37
GS-AP-MW-26H	02/07/2022	394.68	95.49	299.19
GS-AP-MW-28H	02/07/2022	513.82	152.41	361.41
GS-AP-MW-29H	02/07/2022	440.95	78.92	362.03
GS-AP-MW-30H	02/07/2022	582.49	267.32	315.17
GS-AP-MW-30HS	02/07/2022	582.53	47.78	534.75
GS-AP-MW-7V	02/07/2022	312.14	183.92	128.22
GS-AP-MW-9V	02/07/2022	420.86	54.67	366.19
GS-AP-PZ-16	02/07/2022	462.29	170.2	292.09
GS-AP-PZ-22	02/07/2022	532.38	240.42	291.96
GS-AP-MW-10R	02/07/2022	452.79	144.66	308.13
GS-AP-MW-11R	02/07/2022	455.6	74.19	381.41
GS-AP-MW-13R	02/07/2022	460.66	98.67	361.99
GS-AP-MW-14R	02/07/2022	474.32	103.94	370.38
GS-AP-MW-16S	02/07/2022	462.42	56.38	406.04
GS-AP-MW-18R	02/07/2022	463.07	40.59	422.48
GS-AP-MW-18VR	02/07/2022	462.8	170.43	292.37
GS-AP-MW-23V	02/07/2022	306.4	43.72	262.68
GS-AP-MW-25HA	02/07/2022	462.27	175.66	286.61
GS-AP-MW-27HR	02/07/2022	535.26	161.03	374.23
GS-AP-MW-30HA	02/07/2022	582.4	290.19	292.21

Notes:

ft. = feet; ft. NAVD = elevation in feet, referenced to North American Vertical Datum (1988); TOC = top of casing; BTOC = below top of casing



### Table 3. Groundwater Elevations Summary

Plant Gorgas Ash Pond  
02/07/2022 - 02/07/2022

Well	Measure Date	TOCElevation (ft. NAVD)	Depth To Water (ft. BTOC)	Groundwater Elevation (ft. NAVD)
GS-AP-MW-31H	02/07/2022	587.39	235.07	352.32
GS-AP-MW-32H	02/07/2022	550.03	249.82	300.21
GS-AP-MW-33HO	02/07/2022	526.79	232.63	294.16
GS-AP-MW-34HO	02/07/2022	523.82	231.94	291.88
GS-AP-MW-35HO	02/07/2022	553.35	252.64	300.71
GS-AP-MW-36H	02/07/2022	536.61	231.91	304.70
GS-AP-MW-38H	02/07/2022	345.74	47.03	298.71
GS-AP-MW-39H	02/07/2022	451.13	275.13	176.00
GS-AP-MW-40H	02/07/2022	357.91	79.58	278.33
GS-AP-MW-41HD	02/07/2022	284.54	1.98	282.56
GS-AP-MW-41HS	02/07/2022	284.65	20.43	264.22
GS-AP-MW-42H	02/07/2022	340.62	52.14	288.48
GS-AP-MW-44HO	02/07/2022	506.21	141.16	365.05
GS-AP-MW-6V	02/07/2022	275.44	13.56	261.88
GS-AP-MW-7VR	02/07/2022	313.89	49.76	264.13
GS-AP-PZ-18R	02/07/2022	463.13	95.9	367.23
GS-AP-MW-3V	02/07/2022	513.4	149.53	363.87
GS-AP-MW-5R	02/07/2022	488.59	141.39	347.20
GS-AP-MW-9R	02/07/2022	421.2	59.71	361.49
GS-AP-MW-43HO	02/07/2022	514.62	149.56	365.06
GS-AP-MW-1R	02/07/2022	491.37	164.91	326.46
GS-AP-MW-36V	02/07/2022	537.05	243.13	293.92
GS-AP-MW-37HR	02/07/2022	460.05	141.06	318.99
GS-AP-MW-45V	02/07/2022	550.59	198.54	352.05
GS-AP-MW-46	02/07/2022	491.25	124.6	366.65
GS-AP-MW-47	02/07/2022	475.09	117.89	357.20

Notes:

ft. = feet; ft. NAVD = elevation in feet, referenced to North American Vertical Datum (1988); TOC = top of casing; BTOC = below top of casing



**Table 4a. Relative Percent Difference (RPD) Calculations**

Plant Gorgas Ash Pond  
02/09/2022 - 02/22/2022

<b>GS-AP-MW-18R</b>				
<b>Sample Date = 2/22/2022</b>				
<b>Analyte</b>	<b>Units</b>	<b>Original Result</b>	<b>Duplicate Result</b>	<b>RPD (%)</b>
Calcium	mg/L	20.3	20.5	0.98%
Chloride	mg/L	3.52	3.41	3.18%
Fluoride	mg/L	0.124	0.118	4.96%
Sulfate	mg/L	27	26.8	0.74%
Arsenic	mg/L	0.00037	0.00035	6.18%
Barium	mg/L	0.0716	0.0713	0.42%
Cobalt	mg/L	0.00066	0.00068	2.84%
Molybdenum	mg/L	0.00028	0.00025	12.38%
<b>GS-AP-MW-19</b>				
<b>Sample Date = 2/22/2022</b>				
<b>Analyte</b>	<b>Units</b>	<b>Original Result</b>	<b>Duplicate Result</b>	<b>RPD (%)</b>
Calcium	mg/L	54.6	55.2	1.09%
Chloride	mg/L	4.59	4.82	4.89%
Fluoride	mg/L	0.259	0.24	7.62%
Sulfate	mg/L	13.7	13.6	0.73%
Arsenic	mg/L	0.00098	0.00081	18.20%
Barium	mg/L	0.334	0.336	0.60%
Lithium	mg/L	0.0266	0.0269	1.12%
Molybdenum	mg/L	0.00267	0.0025	6.58%
<b>GS-AP-MW-24H</b>				
<b>Sample Date = 2/15/2022</b>				
<b>Analyte</b>	<b>Units</b>	<b>Original Result</b>	<b>Duplicate Result</b>	<b>RPD (%)</b>
Calcium	mg/L	42.4	42.4	0.00%
Chloride	mg/L	3.18	3.18	0.00%
Fluoride	mg/L	0.176	0.172	2.30%
Sulfate	mg/L	12.1	15.9	27.14%
Arsenic	mg/L	0.00029	0.00033	10.97%
Barium	mg/L	0.992	0.963	2.97%
Cobalt	mg/L	0.00023	0.00024	3.42%
Lithium	mg/L	0.0239	0.0238	0.42%
Molybdenum	mg/L	0.00053	0.00048	10.34%



**Table 4a. Relative Percent Difference (RPD) Calculations**

Plant Gorgas Ash Pond  
02/09/2022 - 02/22/2022

<b>GS-AP-MW-23H</b>				
<b>Sample Date = 2/14/2022</b>				
<b>Analyte</b>	<b>Units</b>	<b>Original Result</b>	<b>Duplicate Result</b>	<b>RPD (%)</b>
Calcium	mg/L	74.4	75.1	0.94%
Chloride	mg/L	12.8	13	1.55%
Fluoride	mg/L	0.14	0.127	9.74%
Sulfate	mg/L	356	353	0.85%
Arsenic	mg/L	0.061	0.0611	0.16%
Barium	mg/L	0.0166	0.0177	6.41%
Cobalt	mg/L	0.00052	0.00055	5.05%
Lithium	mg/L	0.0306	0.0308	0.65%
Molybdenum	mg/L	0.00097	0.00097	0.41%
<b>GS-AP-MW-28H</b>				
<b>Sample Date = 2/14/2022</b>				
<b>Analyte</b>	<b>Units</b>	<b>Original Result</b>	<b>Duplicate Result</b>	<b>RPD (%)</b>
Calcium	mg/L	1.66	1.65	0.60%
Chloride	mg/L	8.33	8.32	0.12%
Fluoride	mg/L	0.121	0.152	22.71%
Sulfate	mg/L	3.99	3.39	16.26%
Arsenic	mg/L	0.00058	0.00054	7.66%
Barium	mg/L	0.0483	0.0504	4.26%
Lithium	mg/L	0.0551	0.0544	1.28%
Molybdenum	mg/L	0.00481	0.0048	0.21%
<b>GS-AP-MW-6</b>				
<b>Sample Date = 2/14/2022</b>				
<b>Analyte</b>	<b>Units</b>	<b>Original Result</b>	<b>Duplicate Result</b>	<b>RPD (%)</b>
Boron	mg/L	0.978	0.984	0.61%
Calcium	mg/L	60.1	54.8	9.23%
Chloride	mg/L	20.6	20.5	0.49%
Fluoride	mg/L	0.164	0.172	4.76%
Sulfate	mg/L	115	120	4.26%
Arsenic	mg/L	0.0106	0.0108	1.87%
Barium	mg/L	0.097	0.096	1.04%
Cobalt	mg/L	0.00065	0.00071	8.24%
Lithium	mg/L	0.0625	0.0627	0.32%
Molybdenum	mg/L	0.0411	0.0406	1.22%





**Table 4a. Relative Percent Difference (RPD) Calculations**

Plant Gorgas Ash Pond  
02/09/2022 - 02/22/2022

<b>GS-AP-MW-35HO</b>				
<b>Sample Date = 2/9/2022</b>				
<b>Analyte</b>	<b>Units</b>	<b>Original Result</b>	<b>Duplicate Result</b>	<b>RPD (%)</b>
Calcium	mg/L	2.11	2.19	3.72%
Chloride	mg/L	17.5	18	2.82%
Fluoride	mg/L	0.119	0.122	2.49%
Sulfate	mg/L	21.7	22.3	2.73%
Barium	mg/L	0.0516	0.052	0.77%
Lithium	mg/L	0.0673	0.0632	6.28%
Molybdenum	mg/L	0.00175	0.00182	3.92%
<b>GS-AP-MW-44HO</b>				
<b>Sample Date = 2/9/2022</b>				
<b>Analyte</b>	<b>Units</b>	<b>Original Result</b>	<b>Duplicate Result</b>	<b>RPD (%)</b>
Calcium	mg/L	1.16	1.21	4.22%
Chloride	mg/L	28.5	28.9	1.39%
Fluoride	mg/L	0.142	0.138	2.86%
Sulfate	mg/L	27.7	30.3	8.97%
Arsenic	mg/L	0.00035	0.00033	7.34%
Barium	mg/L	0.0711	0.075	5.34%
Lithium	mg/L	0.0478	0.0459	4.06%
Molybdenum	mg/L	0.00348	0.00379	8.53%

Notes:

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



## Table 4b. - Field QC: Blank Detections

Plant Gorgas Ash Pond  
02/09/2022 - 03/01/2022

Parameters Detected Above MDL					
Sample Date	QC Location	Parameter	Blank Concentration	Units	MDL
02/16/2022	FB-1	Arsenic	7E-05 J	mg/L	7E-05
02/23/2022	FB-5	Barium	0.00017 J	mg/L	0.0001
03/01/2022	EB-1	Chromium	0.00021 J	mg/L	0.0002
02/15/2022	FB-2	Chromium	0.00026 J	mg/L	0.0002
02/14/2022	FB-3	Chromium	0.00021 J	mg/L	0.0002
02/09/2022	EB-1	Chromium	0.00022 J	mg/L	0.0002
02/09/2022	EB-1	Chromium	0.00023 J	mg/L	0.0002
02/09/2022	FB-1	Chromium	0.0003 J	mg/L	0.0002
02/09/2022	FB-1	Chromium	0.00026 J	mg/L	0.0002

Notes:

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



## Table 5. Summary of Background Levels and Groundwater Protection Standards

### Plant Gorgas Ash Pond

Appendix IV Analytes			
Analyte	Units	Background	GWPS
Fluoride	mg/L	0.278	4
Antimony	mg/L	0.00115	0.006
Arsenic	mg/L	0.005	0.01
Barium	mg/L	0.353	2
Beryllium	mg/L	0.001015	0.004
Cadmium	mg/L	0.0002	0.005
Chromium	mg/L	0.01	0.1
Cobalt	mg/L	0.00362	0.01
Lead	mg/L	0.00189	0.015
Lithium	mg/L	0.0809	0.0809
Mercury	mg/L	0.0005	0.002
Molybdenum	mg/L	0.00906	0.1
Selenium	mg/L	0.001015	0.05
Thallium	mg/L	0.0002	0.002
Combined Radium 226 + 228	pCi/L	1.25	5

Notes:

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

## Table 6. First Semi-Annual Monitoring Event

### Analytical Results Summary Plant Gorgas Ash Pond 02/08/2022 - 03/01/2022

Field Parameters								
Hydraulic Location	Well	Sample Date	Conductivity uS/cm	pH_Field SU	Turbidity NTU	DO mg/L	ORP mv	Field Temperature C
Upgradient	GS-AP-MW-17V	02/14/2022	533.41	7.43	1.86	0.54	-127.99	16.84
Upgradient	GS-AP-MW-8	02/16/2022	142.9	5.8	2.6	0.72	200.76	19.92
Downgradient	GS-AP-MW-10R	03/01/2022	503.13	6.87	4.41	0.46	-96.67	18.32
Downgradient	GS-AP-MW-11R	03/01/2022	382.55	6.68	7.38	0.22	-54.74	17.12
Downgradient	GS-AP-MW-12	02/28/2022	342.75	8.12	1.45	0.51	-183.55	18.79
Downgradient	GS-AP-MW-12V	02/23/2022	309.69	7.73	9.83	0.66	-168.6	17.55
Downgradient	GS-AP-MW-13R	03/01/2022	341.37	6.47	4.34	0.74	-31.02	15.21
Downgradient	GS-AP-MW-14R	02/28/2022	492.21	7.04	3.89	0.81	-108.05	16.41
Downgradient	GS-AP-MW-15	02/16/2022	841.02	11.57	1.11	0.93	-202.12	18.35
Downgradient	GS-AP-MW-15V	02/16/2022	1398.52	8.65	1.71	1.22	-110.61	19.25
Downgradient	GS-AP-MW-16D	02/15/2022	344.55	7.48	4.56	0.8	-72.79	18.04
Downgradient	GS-AP-MW-17	02/14/2022	723.19	8.32	2.15	0.33	-155.72	17.11
Downgradient	GS-AP-MW-18R	02/22/2022	198.06	6.29	4.74	0.29	-36.96	17.31
Downgradient	GS-AP-MW-18VR	02/22/2022	482.09	7.88	3.16	0.71	-164.83	17.35
Downgradient	GS-AP-MW-19	02/22/2022	597.93	7.71	0.82	0.24	-149.62	18.62
Downgradient	GS-AP-MW-1R	03/01/2022	469.21	8.86	6.37	0.36	-202.87	15.83
Downgradient	GS-AP-MW-2	02/22/2022	578.43	9.42	1.62	0.98	-162.68	19.12
Downgradient	GS-AP-MW-21	02/08/2022	1038.26	10.26	0.78	0.74	-206.64	16.93
Downgradient	GS-AP-MW-21V	02/08/2022	2592.81	7.98	4.76	0.52	-142.8	17.18
Downgradient	GS-AP-MW-3	02/16/2022	482.31	7.78	1.12	0.52	-142.54	18.66
Downgradient	GS-AP-MW-3V	02/23/2022	1813.51	7.45	3.14	1.02	-109.3	16.16

**Notes:**

1. "J" indicates the result was detected above the MDL but below the PQL
2. "<" 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. DO - Dissolved Oxygen, ORP - Oxidation Reduction Potential, TDS - Total Dissolved Solids.
5. mg/L - milligrams per liter, mv - millivolts, NTU - nephelometric turbidity unit, C - celsius, SU - standard unit, uS/cm - microseimens per centimeter, pCi/L - picocuries per liter.

## Table 6. First Semi-Annual Monitoring Event

Analytical Results Summary  
Plant Gorgas Ash Pond  
02/08/2022 - 03/01/2022

Field Parameters								
Hydraulic Location	Well	Sample Date	Conductivity uS/cm	pH_Field SU	Turbidity NTU	DO mg/L	ORP mv	Field Temperature C
Downgradient	GS-AP-MW-45V	02/23/2022	1139.43	7.86	4.16	0.7	-189.04	16.32
Downgradient	GS-AP-MW-46	02/23/2022	962.02	8.69	0.71	0.37	-292.59	17.16
Downgradient	GS-AP-MW-47	02/28/2022	321.01	7.15	2.37	0.32	-93.29	16.89
Downgradient	GS-AP-MW-5R	03/01/2022	1113.2	6.77	1.38	0.28	-229.33	17.49
Downgradient	GS-AP-MW-6	02/14/2022	480.16	6.99	4.99	1.33	-67.79	16.98
Downgradient	GS-AP-MW-6D	02/14/2022	460.9	7.43	0.95	0.13	-158.06	17.83
Downgradient	GS-AP-MW-7	02/08/2022	522.4	7.71	18.9	0.37	-143.55	18.93
Downgradient	GS-AP-MW-9R	03/01/2022	717.38	6.4	1.76	0.32	-31.47	19.28
Downgradient	GS-AP-MW-9V	02/21/2022	544.18	7	0.87	1.65	-121.26	20.16
Vert. Delineation	GS-AP-MW-23V	02/23/2022	986.95	7.38	9.26	0.38	-226.73	16.71
Vert. Delineation	GS-AP-MW-31V	02/22/2022	674.7	8	3.06	0.48	-193.67	18.03
Vert. Delineation	GS-AP-MW-36V	02/22/2022	812.78	7.35	2.6	0.69	-139.53	17.26
Vert. Delineation	GS-AP-MW-6V	02/09/2022	1404.56	8.8	9.35	0.71	-136.46	21.5
Vert. Delineation	GS-AP-PZ-16	02/15/2022	595.35	9.34	3.18	0.95	-121.72	17.09
Vert. Delineation	GS-AP-PZ-18R	02/21/2022	483.33	7.37	1.64	0.44	-107.95	15.22
Vert. Delineation	GS-AP-PZ-22	02/14/2022	714.25	7.4	1.98	0.36	-150.77	17.01
Horiz. Delineation	GS-AP-MW-23H	02/14/2022	770.3	5.8	1.88	0.64	-1.79	17.86
Horiz. Delineation	GS-AP-MW-24H	02/15/2022	432.15	7	2.66	0.14	-85.46	17.63
Horiz. Delineation	GS-AP-MW-25HA	02/16/2022	1455.75	8.5	2.96	1.48	-284.35	20.83
Horiz. Delineation	GS-AP-MW-26H	02/15/2022	485.8	6.82	1.88	0.33	-85.1	19.45
Horiz. Delineation	GS-AP-MW-27HR	02/22/2022	2186.31	7.83	2.34	0.29	-210.32	17.13

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## Table 6. First Semi-Annual Monitoring Event

Analytical Results Summary  
Plant Gorgas Ash Pond  
02/08/2022 - 03/01/2022

Field Parameters								
Hydraulic Location	Well	Sample Date	Conductivity uS/cm	pH_Field SU	Turbidity NTU	DO mg/L	ORP mv	Field Temperature C
Horiz. Delineation	GS-AP-MW-28H	02/14/2022	646.75	8.37	0.64	0.35	-187.54	17.17
Horiz. Delineation	GS-AP-MW-29H	02/14/2022	595.98	7.77	0.77	0.37	-190.56	16.75
Horiz. Delineation	GS-AP-MW-30HA	02/08/2022	945.82	7.35	4.94	0.5	-113.51	14.98
Horiz. Delineation	GS-AP-MW-31H	02/08/2022	478.43	8.53	1.16	0.6	-208.42	16.02
Horiz. Delineation	GS-AP-MW-32H	02/14/2022	592.54	8.22	1.72	0.96	-188.81	16.24
Horiz. Delineation	GS-AP-MW-33HO	02/09/2022	832.18	7.64	1.92	0.48	-130.85	15.19
Horiz. Delineation	GS-AP-MW-34HO	02/09/2022	4534.67	7.4	3.96	0.45	-179.18	18.05
Horiz. Delineation	GS-AP-MW-35HO	02/09/2022	545.36	8.55	1.98	0.85	-143.97	17.16
Horiz. Delineation	GS-AP-MW-36H	02/14/2022	897.68	8.22	2.2	0.83	-137.66	18.68
Horiz. Delineation	GS-AP-MW-37HR	02/28/2022	497.92	7.88	2.79	0.38	-160.89	17.36
Horiz. Delineation	GS-AP-MW-38H	02/22/2022	741.45	7.89	1.62	0.36	-152.07	19.14
Horiz. Delineation	GS-AP-MW-40H	02/15/2022	1614.47	6.6	3.7	1.52	-9.09	20.14
Horiz. Delineation	GS-AP-MW-41HD	02/15/2022	495.04	7.35	0.86	0.21	7.04	15.98
Horiz. Delineation	GS-AP-MW-41HS	02/08/2022	429.61	6.66	1.3	2.25	-2.04	18.84
Horiz. Delineation	GS-AP-MW-42H	02/16/2022	1038.72	6.54	4.98	0.14	-16.06	18.59
Horiz. Delineation	GS-AP-MW-43HO	02/21/2022	1416.64	8.58	3.34	1.23	-282.26	13.34
Horiz. Delineation	GS-AP-MW-44HO	02/09/2022	690.93	8.94	0.76	0.32	-295.39	16.84
Piezometer	GS-AP-MW-16S	02/15/2022	3597.32	11.52	1.3	2.33	-112.74	17.44

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## Table 6. First Semi-Annual Monitoring Event

### Analytical Results Summary Plant Gorgas Ash Pond 02/08/2022 - 03/01/2022

EPA Appendix III Set								
Hydraulic Location	Well	Sample Date	Boron mg/L	Calcium mg/L	Chloride mg/L	Fluoride mg/L	pH_Field SU	Sulfate mg/L
Upgradient	GS-AP-MW-17V	02/14/2022	0.0386 J	30.1	3.26	0.237	7.43	9.09
Upgradient	GS-AP-MW-8	02/16/2022	<0.03	4.42	4.42	0.0616 J	5.8	4.68
Downgradient	GS-AP-MW-10R	03/01/2022	<0.03	39.8	37.5	0.278	6.87	21.6
Downgradient	GS-AP-MW-11R	03/01/2022	0.0844 J	45.3	5.08	0.143	6.68	39.4
Downgradient	GS-AP-MW-12	02/28/2022	0.0305 J	37.9	3.34	0.12	8.12	17.9
Downgradient	GS-AP-MW-12V	02/23/2022	<0.03	46.3	3.83	0.153	7.73	0.741 J
Downgradient	GS-AP-MW-13R	03/01/2022	<0.03	31.6	19.2	0.122	6.47	38
Downgradient	GS-AP-MW-14R	02/28/2022	<0.03	33.7	38.1	0.215	7.04	33.3
Downgradient	GS-AP-MW-15	02/16/2022	0.0323 J	6.76	5.86	0.349	11.57	7.37
Downgradient	GS-AP-MW-15V	02/16/2022	0.0594 J	14.3	129	0.208	8.65	224
Downgradient	GS-AP-MW-16D	02/15/2022	<0.03	31.5	3.58	0.114	7.48	14.7
Downgradient	GS-AP-MW-17	02/14/2022	0.073 J	2.17	7.15	0.206	8.32	14.4
Downgradient	GS-AP-MW-18R	02/22/2022	<0.03	20.3	3.52	0.124	6.29	27
Downgradient	GS-AP-MW-18VR	02/22/2022	0.0488 J	5.8	15.3	0.199	7.88	13
Downgradient	GS-AP-MW-19	02/22/2022	<0.03	54.6	4.59	0.259	7.71	13.7
Downgradient	GS-AP-MW-1R	03/01/2022	0.0582 J	1.14	5.25	0.248	8.86	5.88
Downgradient	GS-AP-MW-2	02/22/2022	0.112	0.413	6.05	0.819	9.42	17.1
Downgradient	GS-AP-MW-21	02/08/2022	0.111	1.98	41.4	0.175	10.26	241
Downgradient	GS-AP-MW-21V	02/08/2022	0.0938 J	37.2	432	0.398	7.98	451
Downgradient	GS-AP-MW-3	02/16/2022	0.311	18.6	14	<0.06	7.78	91.2
Downgradient	GS-AP-MW-3V	02/23/2022	0.109	9.73	155	0.241	7.45	370

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## Table 6. First Semi-Annual Monitoring Event

### Analytical Results Summary Plant Gorgas Ash Pond 02/08/2022 - 03/01/2022

EPA Appendix III Set								
Hydraulic Location	Well	Sample Date	Boron mg/L	Calcium mg/L	Chloride mg/L	Fluoride mg/L	pH_Field SU	Sulfate mg/L
Downgradient	GS-AP-MW-45V	02/23/2022	0.038 J	5.61	54.2	0.204	7.86	273
Downgradient	GS-AP-MW-46	02/23/2022	0.768	1.2	43.9	0.226	8.69	317
Downgradient	GS-AP-MW-47	02/28/2022	<0.03	28.7	11.7	0.121	7.15	14.4
Downgradient	GS-AP-MW-5R	03/01/2022	0.036 J	97.3	46.4	0.147	6.77	348
Downgradient	GS-AP-MW-6	02/14/2022	0.978	60.1	20.6	0.164	6.99	115
Downgradient	GS-AP-MW-6D	02/14/2022	1.29	55.7	11.7	0.108	7.43	58.3
Downgradient	GS-AP-MW-7	02/08/2022	1.69	10.7	7.5	0.0799 J	7.71	136
Downgradient	GS-AP-MW-9R	03/01/2022	0.106	54	65.9	0.218	6.4	104
Downgradient	GS-AP-MW-9V	02/21/2022	0.0349 J	47.7	18.4	0.177	7	32.4
Vert. Delineation	GS-AP-MW-23V	02/23/2022	0.0919 J	152	3.21	0.141	7.38	331
Vert. Delineation	GS-AP-MW-31V	02/22/2022	<0.03	7.58	32.1	0.179	8	26.2
Vert. Delineation	GS-AP-MW-36V	02/22/2022	0.0402 J	9.42	55.9	0.259	7.35	53.9
Vert. Delineation	GS-AP-MW-6V	02/09/2022	0.101 J	1.29	53.3	4.35	8.8	8.6
Vert. Delineation	GS-AP-PZ-16	02/15/2022	0.0781 J	11.5	5.84	0.258	9.34	23.1
Vert. Delineation	GS-AP-PZ-18R	02/21/2022	0.0925 J	69	5.32	0.207	7.37	55.5
Vert. Delineation	GS-AP-PZ-22	02/14/2022	0.047 J	18.1	3.1	0.422	7.4	91.1
Horiz. Delineation	GS-AP-MW-23H	02/14/2022	0.035 J	74.4	12.8	0.14	5.8	356
Horiz. Delineation	GS-AP-MW-24H	02/15/2022	0.0708 J	42.4	3.18	0.176	7	12.1
Horiz. Delineation	GS-AP-MW-25HA	02/16/2022	0.145	1.82	34.3	1.89	8.5	130
Horiz. Delineation	GS-AP-MW-26H	02/15/2022	<0.03	26.6	2.59	0.101	6.82	7.16
Horiz. Delineation	GS-AP-MW-27HR	02/22/2022	0.0541 J	12.3	253	0.292	7.83	268
Horiz. Delineation	GS-AP-MW-28H	02/14/2022	0.0706 J	1.66	8.33	0.121	8.37	3.99

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## Table 6. First Semi-Annual Monitoring Event

Analytical Results Summary  
Plant Gorgas Ash Pond  
02/08/2022 - 03/01/2022

EPA Appendix III Set								
Hydraulic Location	Well	Sample Date	Boron mg/L	Calcium mg/L	Chloride mg/L	Fluoride mg/L	pH_Field SU	Sulfate mg/L
Horiz. Delineation	GS-AP-MW-29H	02/14/2022	0.542	13.9	14.2	0.332	7.77	49.7
Horiz. Delineation	GS-AP-MW-30HA	02/08/2022	0.0654 J	46.7	5.81	1.66	7.35	215
Horiz. Delineation	GS-AP-MW-31H	02/08/2022	<0.03	5.73	32.5	0.119	8.53	29.5
Horiz. Delineation	GS-AP-MW-32H	02/14/2022	0.0443 J	2.53	29.8	0.148	8.22	38.4
Horiz. Delineation	GS-AP-MW-33HO	02/09/2022	0.0416 J	25.2	68.9	0.131	7.64	77.8
Horiz. Delineation	GS-AP-MW-34HO	02/09/2022	0.106	105	392	0.291	7.4	1570
Horiz. Delineation	GS-AP-MW-35HO	02/09/2022	<0.03	2.11	17.5	0.119	8.55	21.7
Horiz. Delineation	GS-AP-MW-36H	02/14/2022	0.0467 J	4.69	77.7	0.238	8.22	112
Horiz. Delineation	GS-AP-MW-37HR	02/28/2022	<0.03	2.59	28.1	0.194	7.88	22.6
Horiz. Delineation	GS-AP-MW-38H	02/22/2022	0.0452 J	10.8	31	0.239	7.89	27.9
Horiz. Delineation	GS-AP-MW-40H	02/15/2022	0.0321 J	203	18	0.0854 J	6.6	684
Horiz. Delineation	GS-AP-MW-41HD	02/15/2022	1.52	57.6	6.67	0.125	7.35	110
Horiz. Delineation	GS-AP-MW-41HS	02/08/2022	1.04	30.6	6.72	0.117	6.66	105
Horiz. Delineation	GS-AP-MW-42H	02/16/2022	0.0502 J	138	8.61	0.0837 J	6.54	396
Horiz. Delineation	GS-AP-MW-43HO	02/21/2022	0.13	4.56	104	0.226	8.58	347
Horiz. Delineation	GS-AP-MW-44HO	02/09/2022	0.0429 J	1.16	28.5	0.142	8.94	27.7
Piezometer	GS-AP-MW-16S	02/15/2022	<0.03	93.6	4.03	0.151	11.52	6.47

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## Table 6. First Semi-Annual Monitoring Event

### Analytical Results Summary Plant Gorgas Ash Pond 02/08/2022 - 03/01/2022

EPA Appendix IV Set										
Hydraulic Location	Well	Sample Date	Antimony mg/L	Arsenic mg/L	Barium mg/L	Beryllium mg/L	Cadmium mg/L	Chromium mg/L	Cobalt mg/L	Fluoride mg/L
Upgradient	GS-AP-MW-17V	02/14/2022	<0.000508	0.000469	0.315	<0.000406	<6.8e-005	0.000205 J	<6.8e-005	0.237
Upgradient	GS-AP-MW-8	02/16/2022	<0.000508	0.000278	0.00763	<0.000406	<6.8e-005	0.000396 J	0.000548	0.0616 J
Downgradient	GS-AP-MW-10R	03/01/2022	<0.000508	0.00209	0.701	<0.000406	<6.8e-005	0.000237 J	0.00014 J	0.278
Downgradient	GS-AP-MW-11R	03/01/2022	<0.000508	0.00235	0.107	<0.000406	<6.8e-005	0.000257 J	0.00011 J	0.143
Downgradient	GS-AP-MW-12	02/28/2022	0.00415	0.00343	0.173	<0.000406	<6.8e-005	<0.000203	<6.8e-005	0.12
Downgradient	GS-AP-MW-12V	02/23/2022	0.000555 J	0.00102	1.34	<0.000406	<6.8e-005	0.000607 J	0.000127 J	0.153
Downgradient	GS-AP-MW-13R	03/01/2022	<0.000508	0.011	0.0617	<0.000406	<6.8e-005	0.000229 J	<6.8e-005	0.122
Downgradient	GS-AP-MW-14R	02/28/2022	<0.000508	0.00231	0.174	<0.000406	<6.8e-005	0.000616 J	0.000147 J	0.215
Downgradient	GS-AP-MW-15	02/16/2022	0.000778 J	0.00592	0.271	<0.000406	<6.8e-005	0.000485 J	<6.8e-005	0.349
Downgradient	GS-AP-MW-15V	02/16/2022	0.00113	0.0081	0.2	<0.000406	<6.8e-005	0.000622 J	<6.8e-005	0.208
Downgradient	GS-AP-MW-16D	02/15/2022	<0.000508	0.000117 J	0.322	<0.000406	<6.8e-005	0.000249 J	<6.8e-005	0.114
Downgradient	GS-AP-MW-17	02/14/2022	<0.000508	0.00112	0.0945	<0.000406	<6.8e-005	0.000337 J	<6.8e-005	0.206
Downgradient	GS-AP-MW-18R	02/22/2022	<0.000508	0.000367	0.0716	<0.000406	<6.8e-005	0.000221 J	0.000659	0.124
Downgradient	GS-AP-MW-18VR	02/22/2022	<0.000508	0.00164	0.187	<0.000406	<6.8e-005	0.000522 J	9.32e-005 J	0.199
Downgradient	GS-AP-MW-19	02/22/2022	<0.000508	0.000977	0.334	<0.000406	<6.8e-005	<0.000203	<6.8e-005	0.259
Downgradient	GS-AP-MW-1R	03/01/2022	<0.000508	0.000382	0.072	<0.000406	<6.8e-005	0.000443 J	8.77e-005 J	0.248
Downgradient	GS-AP-MW-2	02/22/2022	<0.000508	<6.8e-005	0.0501	<0.000406	<6.8e-005	0.000443 J	<6.8e-005	0.819
Downgradient	GS-AP-MW-21	02/08/2022	<0.000508	0.000459	0.143	<0.000406	<6.8e-005	0.000401 J	<6.8e-005	0.175
Downgradient	GS-AP-MW-21V	02/08/2022	<0.000508	0.00551	0.0631	<0.000406	<6.8e-005	0.00041 J	<6.8e-005	0.398
Downgradient	GS-AP-MW-3	02/16/2022	<0.000508	0.000202 J	0.498	<0.000406	<6.8e-005	0.000267 J	<6.8e-005	<0.06

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## Table 6. First Semi-Annual Monitoring Event

### Analytical Results Summary Plant Gorgas Ash Pond 02/08/2022 - 03/01/2022

EPA Appendix IV Set									
Hydraulic Location	Well	Sample Date	Lead mg/L	Lithium mg/L	Mercury mg/L	Molybdenum mg/L	Selenium mg/L	Thallium mg/L	Combined Radium 226 + 228 pCi/L
Upgradient	GS-AP-MW-17V	02/14/2022	<6.8e-005	0.0499	<0.0003	0.00276	<0.000508	<6.8e-005	7.76
Upgradient	GS-AP-MW-8	02/16/2022	<6.8e-005	0.00826 J	<0.0003	0.000118 J	<0.000508	<6.8e-005	0.561 U
Downgradient	GS-AP-MW-10R	03/01/2022	0.000134 J	0.0349	<0.0003	0.00288	<0.000508	<6.8e-005	1.05 U
Downgradient	GS-AP-MW-11R	03/01/2022	<6.8e-005	0.0281	<0.0003	0.000143 J	<0.000508	<6.8e-005	0.757 U
Downgradient	GS-AP-MW-12	02/28/2022	<6.8e-005	0.0523	<0.0003	0.00903	<0.000508	<6.8e-005	0.725 U
Downgradient	GS-AP-MW-12V	02/23/2022	0.00019 J	0.0279	<0.0003	0.00144	<0.000508	<6.8e-005	1.3
Downgradient	GS-AP-MW-13R	03/01/2022	0.000128 J	0.0272	<0.0003	0.000611	<0.000508	<6.8e-005	0.656 U
Downgradient	GS-AP-MW-14R	02/28/2022	0.000446	0.0228	<0.0003	0.000965	<0.000508	<6.8e-005	0.801 U
Downgradient	GS-AP-MW-15	02/16/2022	<6.8e-005	0.263	<0.0003	0.0306	<0.000508	<6.8e-005	0.234 U
Downgradient	GS-AP-MW-15V	02/16/2022	<6.8e-005	0.0788	<0.0003	0.0272	<0.000508	<6.8e-005	0.841 U
Downgradient	GS-AP-MW-16D	02/15/2022	<6.8e-005	0.033	<0.0003	0.000322	<0.000508	<6.8e-005	0.557 U
Downgradient	GS-AP-MW-17	02/14/2022	<6.8e-005	0.0572	<0.0003	0.00252	<0.000508	<6.8e-005	0.523 U
Downgradient	GS-AP-MW-18R	02/22/2022	8.09e-005 J	<0.007105	<0.0003	0.000283	<0.000508	<6.8e-005	0.961 U
Downgradient	GS-AP-MW-18VR	02/22/2022	8.95e-005 J	0.0446	<0.0003	0.0336	<0.000508	<6.8e-005	0.187 U
Downgradient	GS-AP-MW-19	02/22/2022	<6.8e-005	0.0266	<0.0003	0.00267	<0.000508	<6.8e-005	0.639 U
Downgradient	GS-AP-MW-1R	03/01/2022	0.000221	0.0309	<0.0003	0.00143	<0.000508	<6.8e-005	0.836 U
Downgradient	GS-AP-MW-2	02/22/2022	<6.8e-005	0.0354	<0.0003	0.00327	<0.000508	<6.8e-005	0.21 U
Downgradient	GS-AP-MW-21	02/08/2022	<6.8e-005	0.0996	<0.0003	0.0153	<0.000508	<6.8e-005	0.529 U
Downgradient	GS-AP-MW-21V	02/08/2022	<6.8e-005	0.0835	<0.0003	0.0819	<0.000508	<6.8e-005	0.467 U
Downgradient	GS-AP-MW-3	02/16/2022	<6.8e-005	0.0732	<0.0003	0.00722	<0.000508	<6.8e-005	0.601 U

Notes:

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2. "<" 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. DO - Dissolved Oxygen, ORP - Oxidation Reduction Potential, TDS - Total Dissolved Solids.
5. mg/L - milligrams per liter, mv - millivolts, NTU - nephelometric turbidity unit, C - celsius, SU - standard unit, uS/cm - microseimens per centimeter, pCi/L - picocuries per liter.

### Analytical Results Summary Plant Gorgas Ash Pond 02/08/2022 - 03/01/2022

EPA Appendix IV Set										
Hydraulic Location	Well	Sample Date	Antimony mg/L	Arsenic mg/L	Barium mg/L	Beryllium mg/L	Cadmium mg/L	Chromium mg/L	Cobalt mg/L	Fluoride mg/L
Downgradient	GS-AP-MW-3V	02/23/2022	<0.000508	0.00249	0.0486	<0.000406	<6.8e-005	0.000509 J	0.00025	0.241
Downgradient	GS-AP-MW-45V	02/23/2022	<0.000508	0.00106	0.0207	<0.000406	<6.8e-005	0.000204 J	<6.8e-005	0.204
Downgradient	GS-AP-MW-46	02/23/2022	<0.000508	0.105	0.0652	<0.000406	<6.8e-005	<0.000203	<6.8e-005	0.226
Downgradient	GS-AP-MW-47	02/28/2022	<0.000508	0.000385	0.772	<0.000406	<6.8e-005	0.000331 J	0.000118 J	0.121
Downgradient	GS-AP-MW-5R	03/01/2022	<0.000508	0.000484	0.0695	<0.000406	<6.8e-005	0.000353 J	<6.8e-005	0.147
Downgradient	GS-AP-MW-6	02/14/2022	0.00071 J	0.0106	0.097	<0.000406	<6.8e-005	0.000259 J	0.000652	0.164
Downgradient	GS-AP-MW-6D	02/14/2022	<0.000508	0.12	0.599	<0.000406	<6.8e-005	0.000243 J	<6.8e-005	0.108
Downgradient	GS-AP-MW-7	02/08/2022	<0.000508	0.281	0.0747	<0.000406	<6.8e-005	0.00103	0.000507	0.0799 J
Downgradient	GS-AP-MW-9R	03/01/2022	<0.000508	0.00529	0.0425	<0.000406	<6.8e-005	0.000269 J	9.26e-005 J	0.218
Downgradient	GS-AP-MW-9V	02/21/2022	<0.000508	0.000209	0.161	<0.000406	<6.8e-005	<0.000203	<6.8e-005	0.177
Vert. Delineation	GS-AP-MW-23V	02/23/2022	<0.000508	0.000161 J	0.0812	<0.000406	<6.8e-005	0.000663 J	0.000203	0.141
Vert. Delineation	GS-AP-MW-31V	02/22/2022	<0.000508	0.0011	0.238	<0.000406	<6.8e-005	0.000346 J	6.98e-005 J	0.179
Vert. Delineation	GS-AP-MW-36V	02/22/2022	<0.000508	0.00167	0.092	<0.000406	<6.8e-005	0.000248 J	9.1e-005 J	0.259
Vert. Delineation	GS-AP-MW-6V	02/09/2022	<0.000508	0.000904	0.156	<0.000406	<6.8e-005	0.000418 J	0.000119 J	4.35
Vert. Delineation	GS-AP-PZ-16	02/15/2022	<0.000508	0.00112	0.205	<0.000406	<6.8e-005	0.000297 J	8.11e-005 J	0.258
Vert. Delineation	GS-AP-PZ-18R	02/21/2022	<0.000508	0.00167	0.0662	<0.000406	<6.8e-005	0.000262 J	0.000136 J	0.207
Vert. Delineation	GS-AP-PZ-22	02/14/2022	<0.000508	0.00358	0.0695	<0.000406	<6.8e-005	0.000221 J	<6.8e-005	0.422
Horiz. Delineation	GS-AP-MW-23H	02/14/2022	<0.000508	0.061	0.0166	<0.000406	<6.8e-005	0.000227 J	0.000521	0.14
Horiz. Delineation	GS-AP-MW-24H	02/15/2022	<0.000508	0.000293	0.992	<0.000406	<6.8e-005	0.000294 J	0.00023	0.176
Horiz. Delineation	GS-AP-MW-25HA	02/16/2022	0.000752 J	0.00968	0.23	<0.000406	<6.8e-005	0.00062 J	0.000108 J	1.89

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- mg/L - milligrams per liter, mv - millivolts, NTU - nephelometric turbidity unit, C - celsius, SU - standard unit, uS/cm - microseimens per centimeter, pCi/L - picocuries per liter.

## Table 6. First Semi-Annual Monitoring Event

### Analytical Results Summary Plant Gorgas Ash Pond 02/08/2022 - 03/01/2022

EPA Appendix IV Set									
Hydraulic Location	Well	Sample Date	Lead mg/L	Lithium mg/L	Mercury mg/L	Molybdenum mg/L	Selenium mg/L	Thallium mg/L	Combined Radium 226 + 228 pCi/L
Downgradient	GS-AP-MW-3V	02/23/2022	0.00014 J	0.0489	<0.0003	0.0191	<0.000508	<6.8e-005	0.57 U
Downgradient	GS-AP-MW-45V	02/23/2022	7.41e-005 J	0.0374	<0.0003	0.0047	<0.000508	<6.8e-005	0.442 U
Downgradient	GS-AP-MW-46	02/23/2022	<6.8e-005	0.0653	<0.0003	0.00678	<0.000508	<6.8e-005	0.0974 U
Downgradient	GS-AP-MW-47	02/28/2022	<6.8e-005	0.04	<0.0003	0.00165	<0.000508	<6.8e-005	0.174 U
Downgradient	GS-AP-MW-5R	03/01/2022	<6.8e-005	0.0644	<0.0003	0.00212	<0.000508	<6.8e-005	0.799 U
Downgradient	GS-AP-MW-6	02/14/2022	<6.8e-005	0.0625	<0.0003	0.0411	0.000854 J	<6.8e-005	0.14 U
Downgradient	GS-AP-MW-6D	02/14/2022	<6.8e-005	0.302	<0.0003	0.0115	<0.000508	<6.8e-005	1.24
Downgradient	GS-AP-MW-7	02/08/2022	0.000804	0.203	<0.0003	0.221	<0.000508	<6.8e-005	0.819 U
Downgradient	GS-AP-MW-9R	03/01/2022	<6.8e-005	0.0361	<0.0003	0.00313	<0.000508	<6.8e-005	0.663 U
Downgradient	GS-AP-MW-9V	02/21/2022	<6.8e-005	0.0293	<0.0003	0.0022	<0.000508	<6.8e-005	0.134 U
Vert. Delineation	GS-AP-MW-23V	02/23/2022	0.000208	0.041	<0.0003	0.000132 J	<0.000508	<6.8e-005	0.258 U
Vert. Delineation	GS-AP-MW-31V	02/22/2022	0.00028	0.0316	<0.0003	0.00536	<0.000508	<6.8e-005	0.486 U
Vert. Delineation	GS-AP-MW-36V	02/22/2022	0.00016 J	0.0383	<0.0003	0.00427	<0.000508	<6.8e-005	0.495 U
Vert. Delineation	GS-AP-MW-6V	02/09/2022	0.000186 J	0.121	<0.0003	0.00336	<0.000508	<6.8e-005	0.209 U
Vert. Delineation	GS-AP-PZ-16	02/15/2022	0.000665	0.0614	<0.0003	0.00266	<0.000508	<6.8e-005	1.12 U
Vert. Delineation	GS-AP-PZ-18R	02/21/2022	<6.8e-005	0.0157 J	<0.0003	0.00091	<0.000508	<6.8e-005	0.775 U
Vert. Delineation	GS-AP-PZ-22	02/14/2022	<6.8e-005	0.055	<0.0003	0.00419	<0.000508	<6.8e-005	0.67 U
Horiz. Delineation	GS-AP-MW-23H	02/14/2022	<6.8e-005	0.0306	<0.0003	0.00097	<0.000508	<6.8e-005	0.153 U
Horiz. Delineation	GS-AP-MW-24H	02/15/2022	<6.8e-005	0.0239	<0.0003	0.000529	<0.000508	<6.8e-005	1.16
Horiz. Delineation	GS-AP-MW-25HA	02/16/2022	0.000181 J	0.0504	<0.0003	0.00977	<0.000508	<6.8e-005	0.763 U

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### Analytical Results Summary Plant Gorgas Ash Pond 02/08/2022 - 03/01/2022

EPA Appendix IV Set										
Hydraulic Location	Well	Sample Date	Antimony mg/L	Arsenic mg/L	Barium mg/L	Beryllium mg/L	Cadmium mg/L	Chromium mg/L	Cobalt mg/L	Fluoride mg/L
Horiz. Delineation	GS-AP-MW-26H	02/15/2022	<0.000508	0.000254	0.726	<0.000406	<6.8e-005	0.000306 J	<6.8e-005	0.101
Horiz. Delineation	GS-AP-MW-27HR	02/22/2022	0.00053 J	0.00102	0.0414	<0.000406	<6.8e-005	0.000288 J	<6.8e-005	0.292
Horiz. Delineation	GS-AP-MW-28H	02/14/2022	<0.000508	0.000583	0.0483	<0.000406	<6.8e-005	0.000248 J	<6.8e-005	0.121
Horiz. Delineation	GS-AP-MW-29H	02/14/2022	<0.000508	0.00313	0.231	<0.000406	<6.8e-005	0.000286 J	<6.8e-005	0.332
Horiz. Delineation	GS-AP-MW-30HA	02/08/2022	<0.000508	0.00331	0.1	<0.000406	<6.8e-005	0.000375 J	0.000184 J	1.66
Horiz. Delineation	GS-AP-MW-31H	02/08/2022	<0.000508	0.000341	0.14	<0.000406	<6.8e-005	0.000271 J	<6.8e-005	0.119
Horiz. Delineation	GS-AP-MW-32H	02/14/2022	<0.000508	0.000615	0.047	<0.000406	<6.8e-005	0.000262 J	<6.8e-005	0.148
Horiz. Delineation	GS-AP-MW-33HO	02/09/2022	<0.000508	0.000871	0.483	<0.000406	<6.8e-005	0.000263 J	<6.8e-005	0.131
Horiz. Delineation	GS-AP-MW-34HO	02/09/2022	<0.000508	0.00112	0.0615	<0.000406	<6.8e-005	0.000412 J	8.34e-005 J	0.291
Horiz. Delineation	GS-AP-MW-35HO	02/09/2022	<0.000508	0.000192 J	0.0516	<0.000406	<6.8e-005	0.000286 J	<6.8e-005	0.119
Horiz. Delineation	GS-AP-MW-36H	02/14/2022	<0.000508	0.00235	0.136	<0.000406	<6.8e-005	<0.000203	<6.8e-005	0.238
Horiz. Delineation	GS-AP-MW-37HR	02/28/2022	<0.000508	0.000938	0.0131	<0.000406	<6.8e-005	0.000371 J	<6.8e-005	0.194
Horiz. Delineation	GS-AP-MW-38H	02/22/2022	<0.000508	0.00221	0.301	<0.000406	<6.8e-005	<0.000203	<6.8e-005	0.239
Horiz. Delineation	GS-AP-MW-40H	02/15/2022	<0.000508	0.0004	0.0298	<0.000406	<6.8e-005	<0.000203	0.000518	0.0854 J
Horiz. Delineation	GS-AP-MW-41HD	02/15/2022	<0.000508	0.00284	0.0441	<0.000406	<6.8e-005	0.000258 J	0.00102	0.125
Horiz. Delineation	GS-AP-MW-41HS	02/08/2022	<0.000508	0.00144	0.0542	<0.000406	<6.8e-005	0.000348 J	0.00378	0.117
Horiz. Delineation	GS-AP-MW-42H	02/16/2022	<0.000508	0.00846	0.0226	<0.000406	<6.8e-005	<0.000203	0.000453	0.0837 J
Horiz. Delineation	GS-AP-MW-43HO	02/21/2022	<0.000508	0.000889	0.0849	<0.000406	<6.8e-005	0.000272 J	<6.8e-005	0.226
Horiz. Delineation	GS-AP-MW-44HO	02/09/2022	<0.000508	0.000353	0.0711	<0.000406	<6.8e-005	0.000233 J	<6.8e-005	0.142
Piezometer	GS-AP-MW-16S	02/15/2022	0.000675 J	0.0011	0.255	<0.000406	<6.8e-005	0.000342 J	0.000203	0.151

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## Table 6. First Semi-Annual Monitoring Event

Analytical Results Summary  
Plant Gorgas Ash Pond  
02/08/2022 - 03/01/2022

EPA Appendix IV Set									
Hydraulic Location	Well	Sample Date	Lead mg/L	Lithium mg/L	Mercury mg/L	Molybdenum mg/L	Selenium mg/L	Thallium mg/L	Combined Radium 226 + 228 pCi/L
Horiz. Delineation	GS-AP-MW-26H	02/15/2022	<6.8e-005	0.0917	<0.0003	6.84e-005 J	<0.000508	<6.8e-005	1.19
Horiz. Delineation	GS-AP-MW-27HR	02/22/2022	<6.8e-005	0.042	<0.0003	0.000829	<0.000508	<6.8e-005	0.645 U
Horiz. Delineation	GS-AP-MW-28H	02/14/2022	<6.8e-005	0.0551	<0.0003	0.00481	<0.000508	<6.8e-005	0.31 U
Horiz. Delineation	GS-AP-MW-29H	02/14/2022	<6.8e-005	0.067	<0.0003	0.0622	<0.000508	<6.8e-005	0.725 U
Horiz. Delineation	GS-AP-MW-30HA	02/08/2022	0.000117 J	0.0533	<0.0003	0.00529	<0.000508	<6.8e-005	0.806 U
Horiz. Delineation	GS-AP-MW-31H	02/08/2022	<6.8e-005	0.0366	<0.0003	0.00596	<0.000508	<6.8e-005	0.189 U
Horiz. Delineation	GS-AP-MW-32H	02/14/2022	<6.8e-005	0.0407	<0.0003	0.0933	<0.000508	<6.8e-005	0.371 U
Horiz. Delineation	GS-AP-MW-33HO	02/09/2022	<6.8e-005	0.0517	<0.0003	0.00513	<0.000508	<6.8e-005	0.767 U
Horiz. Delineation	GS-AP-MW-34HO	02/09/2022	<6.8e-005	0.185	<0.0003	0.00959	<0.000508	<6.8e-005	0.213 U
Horiz. Delineation	GS-AP-MW-35HO	02/09/2022	<6.8e-005	0.0673	<0.0003	0.00175	<0.000508	<6.8e-005	0.23 U
Horiz. Delineation	GS-AP-MW-36H	02/14/2022	<6.8e-005	0.0417	<0.0003	0.0189	<0.000508	<6.8e-005	7.37
Horiz. Delineation	GS-AP-MW-37HR	02/28/2022	<6.8e-005	0.0312	<0.0003	0.00315	<0.000508	<6.8e-005	0.739 U
Horiz. Delineation	GS-AP-MW-38H	02/22/2022	<6.8e-005	0.0594	<0.0003	0.00322	<0.000508	<6.8e-005	0.341 U
Horiz. Delineation	GS-AP-MW-40H	02/15/2022	<6.8e-005	0.0539	<0.0003	0.002	<0.000508	<6.8e-005	0.64 U
Horiz. Delineation	GS-AP-MW-41HD	02/15/2022	<6.8e-005	0.366	<0.0003	0.0331	<0.000508	<6.8e-005	0.256 U
Horiz. Delineation	GS-AP-MW-41HS	02/08/2022	<6.8e-005	0.0817	<0.0003	0.00104	<0.000508	<6.8e-005	0.267 U
Horiz. Delineation	GS-AP-MW-42H	02/16/2022	<6.8e-005	0.0313	<0.0003	0.00155	<0.000508	<6.8e-005	0.275 U
Horiz. Delineation	GS-AP-MW-43HO	02/21/2022	0.000116 J	0.0579	<0.0003	0.00309	<0.000508	<6.8e-005	0.509 U
Horiz. Delineation	GS-AP-MW-44HO	02/09/2022	<6.8e-005	0.0478	<0.0003	0.00348	<0.000508	<6.8e-005	0.793 U
Piezometer	GS-AP-MW-16S	02/15/2022	<6.8e-005	0.0911	<0.0003	0.0337	<0.000508	<6.8e-005	1.23

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## Table 6. First Semi-Annual Monitoring Event

Analytical Results Summary  
Plant Gorgas Ash Pond  
02/08/2022 - 03/01/2022

General Chemistry and MNA Parameters										
Hydraulic Location	Well	Sample Date	Chloride mg/L	Carbonate Alkalinity as CaCO <sub>3</sub> mg/L	Sodium mg/L	Alkalinity Total as CaCO <sub>3</sub> mg/L	Bicarbonate Alkalinity as CaCO <sub>3</sub> mg/L	Silica mg/L	Magnesium Total mg/L	Calcium mg/L
Upgradient	GS-AP-MW-17V	02/14/2022	3.26	3.72	94.7	348	344	23.1	12.5	30.1
Upgradient	GS-AP-MW-8	02/16/2022	4.42	0.01	11.4	59.8	59.8	37.2	7.75	4.42
Downgradient	GS-AP-MW-10R	03/01/2022	37.5	0.24	40.8	216	216	25.5	16.2	39.8
Downgradient	GS-AP-MW-11R	03/01/2022	5.08	0.76	14.7	182	181	32.7	16.6	45.3
Downgradient	GS-AP-MW-12	02/28/2022	3.34	1.83	22.3	188	186	20	11.2	37.9
Downgradient	GS-AP-MW-12V	02/23/2022	3.83	1.28	17.2	208	207	28.5	11.6	46.3
Downgradient	GS-AP-MW-13R	03/01/2022	19.2	0.51	21.6	130	129	28	13.3	31.6
Downgradient	GS-AP-MW-14R	02/28/2022	38.1	0.33	54.6	200	200	26.5	13.4	33.7
Downgradient	GS-AP-MW-15	02/16/2022	5.86	362	155	461	26.6	47.7	1.91	6.76
Downgradient	GS-AP-MW-15V	02/16/2022	129	8.98	222	228	219	15.4	5.32	14.3
Downgradient	GS-AP-MW-16D	02/15/2022	3.58	2.33	29.4	223	221	22.9	12.2	31.5
Downgradient	GS-AP-MW-17	02/14/2022	7.15	12.6	184	382	369	16.9	0.703	2.17
Downgradient	GS-AP-MW-18R	02/22/2022	3.52	0.05	11.7	79.7	79.7	22.5	5.3	20.3
Downgradient	GS-AP-MW-18VR	02/22/2022	15.3	5.39	113	250	244	11.2	1.82	5.8
Downgradient	GS-AP-MW-19	02/22/2022	4.59	2.98	42.9	286	283	21.3	16.4	54.6
Downgradient	GS-AP-MW-1R	03/01/2022	5.25	15.2	128	272	256	9.97	0.348 J	1.14
Downgradient	GS-AP-MW-2	02/22/2022	6.05	60.1	132	264	202	11	0.12 J	0.413
Downgradient	GS-AP-MW-21	02/08/2022	41.4	60.4	218	191	128	9.2	0.419	1.98
Downgradient	GS-AP-MW-21V	02/08/2022	432	1.87	432	225	223	11.4	10.3	37.2
Downgradient	GS-AP-MW-3	02/16/2022	14	1.9	80.8	170	168	11.9	8.21	18.6

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Analytical Results Summary  
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02/08/2022 - 03/01/2022

General Chemistry and MNA Parameters										
Hydraulic Location	Well	Sample Date	Iron Total mg/L	Nitrate Nitrite mg/L as N	Aluminum mg/L	Silicon mg/L	Potassium mg/L	Carbon, Total Organic mg/L	Sulfate mg/L	Manganese Total mg/L
Upgradient	GS-AP-MW-17V	02/14/2022	1.07	<0.2	<0.00406	10.8	2.13	<1	9.09	0.0316
Upgradient	GS-AP-MW-8	02/16/2022	0.329	<0.2	0.0413	17.4	0.781	<1	4.68	0.0911
Downgradient	GS-AP-MW-10R	03/01/2022	0.732	<0.2	0.0216	11.9	10.4	1.07 J	21.6	0.0647
Downgradient	GS-AP-MW-11R	03/01/2022	2.03	<0.2	0.0105	15.3	1.24	<1	39.4	0.0708
Downgradient	GS-AP-MW-12	02/28/2022	0.313	<0.2	<0.00406	9.33	1.98	1.23 J	17.9	0.0328
Downgradient	GS-AP-MW-12V	02/23/2022	0.849	<0.2	0.236	13.3	2.26	1.38 J	0.741 J	0.0432
Downgradient	GS-AP-MW-13R	03/01/2022	1.11	<0.2	0.0337	13.1	1.87	<1	38	0.0547
Downgradient	GS-AP-MW-14R	02/28/2022	0.649	<0.2	0.0987	12.4	2.85	3.28	33.3	0.0697
Downgradient	GS-AP-MW-15	02/16/2022	0.031 J	<0.2	0.551	22.3	5.34	8.32	7.37	0.000562
Downgradient	GS-AP-MW-15V	02/16/2022	0.0324 J	<0.2	0.0199	7.19	11.7	11.4	224	0.00548
Downgradient	GS-AP-MW-16D	02/15/2022	0.278	<0.2	0.054	10.7	1.45	<1	14.7	0.012
Downgradient	GS-AP-MW-17	02/14/2022	0.119	<0.2	0.049	7.9	0.83	1.06 J	14.4	0.00632
Downgradient	GS-AP-MW-18R	02/22/2022	3.96	<0.2	0.105	10.5	0.864	<1	27	0.16
Downgradient	GS-AP-MW-18VR	02/22/2022	0.664	<0.2	0.059	5.25	2.58	<1	13	0.0245
Downgradient	GS-AP-MW-19	02/22/2022	0.443	<0.2	0.0091 J	9.94	1.87	<1	13.7	0.0259
Downgradient	GS-AP-MW-1R	03/01/2022	0.166	<0.2	0.204	4.66	0.733	<1	5.88	0.00478
Downgradient	GS-AP-MW-2	02/22/2022	0.0369 J	<0.2	0.125	5.12	0.376 J	<1	17.1	0.000807
Downgradient	GS-AP-MW-21	02/08/2022	0.0214 J	<0.2	0.0337	4.3	1.99	1.48 J	241	0.000798
Downgradient	GS-AP-MW-21V	02/08/2022	0.165	<0.2	0.0253	5.35	73.2	4.98	451	0.0259
Downgradient	GS-AP-MW-3	02/16/2022	2.15	<0.2	0.0229	5.55	1.11	<1	91.2	0.108

Notes:

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- DO - Dissolved Oxygen, ORP - Oxidation Reduction Potential, TDS - Total Dissolved Solids.
- mg/L - milligrams per liter, mv - millivolts, NTU - nephelometric turbidity unit, C - celsius, SU - standard unit, uS/cm - microseimens per centimeter, pCi/L - picocuries per liter.

## Table 6. First Semi-Annual Monitoring Event

Analytical Results Summary  
Plant Gorgas Ash Pond  
02/08/2022 - 03/01/2022

General Chemistry and MNA Parameters										
Hydraulic Location	Well	Sample Date	Chloride mg/L	Carbonate Alkalinity as CaCO <sub>3</sub> mg/L	Sodium mg/L	Alkalinity Total as CaCO <sub>3</sub> mg/L	Bicarbonate Alkalinity as CaCO <sub>3</sub> mg/L	Silica mg/L	Magnesium Total mg/L	Calcium mg/L
Downgradient	GS-AP-MW-3V	02/23/2022	155	0.89	319	250	249	15.1	3.55	9.73
Downgradient	GS-AP-MW-45V	02/23/2022	54.2	0.96	216	200	199	12.7	1.86	5.61
Downgradient	GS-AP-MW-46	02/23/2022	43.9	4.24	245	206	202	9.67	0.409	1.2
Downgradient	GS-AP-MW-47	02/28/2022	11.7	0.96	26.6	167	166	24	10.3	28.7
Downgradient	GS-AP-MW-5R	03/01/2022	46.4	0.94	103	270	269	25.3	37.6	97.3
Downgradient	GS-AP-MW-6	02/14/2022	20.6	0.65	11.1	113	112	10.3	20.4	60.1
Downgradient	GS-AP-MW-6D	02/14/2022	11.7	2.06	26.7	211	209	14.6	15.2	55.7
Downgradient	GS-AP-MW-7	02/08/2022	7.45	0.78	102	113	117	12.2	3.91	10.7
Downgradient	GS-AP-MW-9R	03/01/2022	65.9	0.09	60	134	134	31	19.7	54
Downgradient	GS-AP-MW-9V	02/21/2022	18.4	0.59	47.1	229	228	33	15.5	47.7
Vert. Delineation	GS-AP-MW-23V	02/23/2022	3.21	1.41	48.3	294	293	30	39.9	152
Vert. Delineation	GS-AP-MW-31V	02/22/2022	32.1	3.84	151	307	303	16.2	2.29	7.58
Vert. Delineation	GS-AP-MW-36V	02/22/2022	55.9	1.73	153	274	272	16.3	3.84	9.42
Vert. Delineation	GS-AP-MW-6V	02/09/2022	53.3	36.9	361	803	766	9.27	0.431	1.29
Vert. Delineation	GS-AP-PZ-16	02/15/2022	5.84	26.8	157	347	320	18.6	2.2	11.5
Vert. Delineation	GS-AP-PZ-18R	02/21/2022	5.32	0.5	18	226	225	23.8	18.8	69
Vert. Delineation	GS-AP-PZ-22	02/14/2022	3.1	3.85	141	294	290	14.3	6.12	18.1
Horiz. Delineation	GS-AP-MW-23H	02/14/2022	12.8	0.06	22.1	83.3	83.2	27.8	34.4	74.4
Horiz. Delineation	GS-AP-MW-24H	02/15/2022	3.18	2.77	32.1	248	245	29.1	14.1	42.4
Horiz. Delineation	GS-AP-MW-25HA	02/16/2022	34.3	39.5	358	691	651	11.4	0.684	1.82

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- mg/L - milligrams per liter, mv - millivolts, NTU - nephelometric turbidity unit, C - celsius, SU - standard unit, uS/cm - microseimens per centimeter, pCi/L - picocuries per liter.

### Analytical Results Summary Plant Gorgas Ash Pond 02/08/2022 - 03/01/2022

General Chemistry and MNA Parameters										
Hydraulic Location	Well	Sample Date	Iron Total mg/L	Nitrate Nitrite mg/L as N	Aluminum mg/L	Silicon mg/L	Potassium mg/L	Carbon, Total Organic mg/L	Sulfate mg/L	Manganese Total mg/L
Downgradient	GS-AP-MW-3V	02/23/2022	1.17	<0.2	0.0334	7.06	25.5	9.42	370	0.0519
Downgradient	GS-AP-MW-45V	02/23/2022	0.0704	<0.2	0.133	5.92	11.6	1.31 J	273	0.0219
Downgradient	GS-AP-MW-46	02/23/2022	0.0105 J	<0.2	0.0147	4.52	0.609	1.56 J	317	0.00132
Downgradient	GS-AP-MW-47	02/28/2022	0.542	<0.2	0.0144	11.2	3.41	1.37 J	14.4	0.0445
Downgradient	GS-AP-MW-5R	03/01/2022	1.01	<0.2	<0.00406	11.8	6.57	4.29	348	0.135
Downgradient	GS-AP-MW-6	02/14/2022	5.98	0.273 J	0.0203	4.83	3.78	1.14 J	115	2.5
Downgradient	GS-AP-MW-6D	02/14/2022	0.0603	<0.2	0.00587 J	6.82	2.35	1.31 J	58.3	0.192
Downgradient	GS-AP-MW-7	02/08/2022	1.13	<0.2	0.269	5.71	1.32	<1	138	0.0537
Downgradient	GS-AP-MW-9R	03/01/2022	1.58	<0.2	0.0137	14.5	5.76	1.99 J	104	0.191
Downgradient	GS-AP-MW-9V	02/21/2022	0.266	<0.2	<0.00406	15.4	3.16	1.7 J	32.4	0.0353
Vert. Delineation	GS-AP-MW-23V	02/23/2022	0.777	<0.2	0.295	14	2.36	1 J	331	0.139
Vert. Delineation	GS-AP-MW-31V	02/22/2022	0.19	<0.2	0.0943	7.55	7.57	1.5 J	26.2	0.0272
Vert. Delineation	GS-AP-MW-36V	02/22/2022	0.216	<0.2	0.0129	7.6	12	3.21	53.9	0.046
Vert. Delineation	GS-AP-MW-6V	02/09/2022	0.143	<0.2	0.199	4.33	1.17	1.36 J	8.6	0.00868
Vert. Delineation	GS-AP-PZ-16	02/15/2022	0.269	<0.2	0.329	8.67	2.67	1.31 J	23.1	0.0198
Vert. Delineation	GS-AP-PZ-18R	02/21/2022	0.699	<0.2	0.00937 J	11.1	1.22	<1	55.5	0.0605
Vert. Delineation	GS-AP-PZ-22	02/14/2022	5.42	<0.2	<0.00406	6.66	1.95	1.11 J	91.1	0.0932
Horiz. Delineation	GS-AP-MW-23H	02/14/2022	49.1	0.222 J	<0.00406	13	2.51	<1	356	1.5
Horiz. Delineation	GS-AP-MW-24H	02/15/2022	2.02	<0.2	0.0285	13.6	1.41	<1	12.1	0.102
Horiz. Delineation	GS-AP-MW-25HA	02/16/2022	0.23	<0.2	0.378	5.35	1.23	18.9	130	0.00799

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

## Table 6. First Semi-Annual Monitoring Event

Analytical Results Summary  
Plant Gorgas Ash Pond  
02/08/2022 - 03/01/2022

General Chemistry and MNA Parameters										
Hydraulic Location	Well	Sample Date	Chloride mg/L	Carbonate Alkalinity as CaCO <sub>3</sub> mg/L	Sodium mg/L	Alkalinity Total as CaCO <sub>3</sub> mg/L	Bicarbonate Alkalinity as CaCO <sub>3</sub> mg/L	Silica mg/L	Magnesium Total mg/L	Calcium mg/L
Horiz. Delineation	GS-AP-MW-26H	02/15/2022	2.59	3.52	64.7	269	265	23.1	11.7	26.6
Horiz. Delineation	GS-AP-MW-27HR	02/22/2022	253	2.76	363	290	287	14.2	2.96	12.3
Horiz. Delineation	GS-AP-MW-28H	02/14/2022	8.33	11.5	182	417	405	17.7	0.521	1.66
Horiz. Delineation	GS-AP-MW-29H	02/14/2022	14.2	3.02	126	289	286	20.1	5.1	13.9
Horiz. Delineation	GS-AP-MW-30HA	02/08/2022	5.81	0.67	185	296	295	22	8.11	46.7
Horiz. Delineation	GS-AP-MW-31H	02/08/2022	32.5	5.96	123	231	225	18.8	2.05	5.73
Horiz. Delineation	GS-AP-MW-32H	02/14/2022	29.8	4.12	140	234	230	11.1	0.49	2.53
Horiz. Delineation	GS-AP-MW-33HO	02/09/2022	68.9	1.06	124	247	246	18.9	10.4	25.2
Horiz. Delineation	GS-AP-MW-34HO	02/09/2022	392	0.34	886	195	195	11.9	32.3	105
Horiz. Delineation	GS-AP-MW-35HO	02/09/2022	17.5	5.68	119	241	235	18.9	0.519	2.11
Horiz. Delineation	GS-AP-MW-36H	02/14/2022	77.7	3.24	173	216	213	14.5	1.22	4.69
Horiz. Delineation	GS-AP-MW-37HR	02/28/2022	28.1	1.99	109	224	222	19.2	0.783	2.59
Horiz. Delineation	GS-AP-MW-38H	02/22/2022	31	4.23	124	263	259	15.9	3.66	10.8
Horiz. Delineation	GS-AP-MW-40H	02/15/2022	18	0.15	65.1	237	237	25.3	93.1	203
Horiz. Delineation	GS-AP-MW-41HD	02/15/2022	6.67	0.62	19	153	152	16	17.9	57.6
Horiz. Delineation	GS-AP-MW-41HS	02/08/2022	6.72	0.06	32.6	117	117	19.2	19.4	30.6
Horiz. Delineation	GS-AP-MW-42H	02/16/2022	8.61	1.36	32.6	196	195	22.7	51.3	138
Horiz. Delineation	GS-AP-MW-43HO	02/21/2022	104	14.6	321	347	332	11.9	1.19	4.56
Horiz. Delineation	GS-AP-MW-44HO	02/09/2022	28.5	26	201	400	374	10.8	0.32 J	1.16
Piezometer	GS-AP-MW-16S	02/15/2022	4.03	--	168	779	--	11.5	<0.021315	93.6

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### Analytical Results Summary Plant Gorgas Ash Pond 02/08/2022 - 03/01/2022

General Chemistry and MNA Parameters										
Hydraulic Location	Well	Sample Date	Iron Total mg/L	Nitrate Nitrite mg/L as N	Aluminum mg/L	Silicon mg/L	Potassium mg/L	Carbon, Total Organic mg/L	Sulfate mg/L	Manganese Total mg/L
Horiz. Delineation	GS-AP-MW-26H	02/15/2022	0.958	<0.2	0.0162	10.8	2.48	<1	7.16	0.0185
Horiz. Delineation	GS-AP-MW-27HR	02/22/2022	0.0619	<0.2	0.0691	6.65	2.68	12.5	268	0.0491
Horiz. Delineation	GS-AP-MW-28H	02/14/2022	0.113	<0.2	0.0303	8.26	1.07	<1	3.99	0.00794
Horiz. Delineation	GS-AP-MW-29H	02/14/2022	0.168	<0.2	0.0111	9.37	1.38	1.16 J	49.7	0.0111
Horiz. Delineation	GS-AP-MW-30HA	02/08/2022	2.62	<0.2	0.0592	10.3	4.15	2.21	215	0.163
Horiz. Delineation	GS-AP-MW-31H	02/08/2022	0.0107 J	<0.2	0.0196	8.8	1.74	<1	29.5	0.00989
Horiz. Delineation	GS-AP-MW-32H	02/14/2022	0.0573	<0.2	0.0555	5.18	2.1	1.01 J	38.4	0.00781
Horiz. Delineation	GS-AP-MW-33HO	02/09/2022	0.0853	<0.2	0.00561 J	8.83	7.4	3.74	77.8	0.0502
Horiz. Delineation	GS-AP-MW-34HO	02/09/2022	0.774	<0.2	0.00715 J	5.57	70.1	9.19	1570	0.274
Horiz. Delineation	GS-AP-MW-35HO	02/09/2022	0.0283 J	<0.2	0.021	8.84	2.15	1.02 J	21.7	0.00618
Horiz. Delineation	GS-AP-MW-36H	02/14/2022	0.0685	<0.2	0.0236	6.76	6.47	2.9	112	0.00997
Horiz. Delineation	GS-AP-MW-37HR	02/28/2022	0.0797	<0.2	0.0485	8.99	6.41	1.41 J	22.6	0.016
Horiz. Delineation	GS-AP-MW-38H	02/22/2022	0.104	<0.2	0.0386	7.45	5	2.52	27.9	0.0277
Horiz. Delineation	GS-AP-MW-40H	02/15/2022	2.33	<0.2	<0.00406	11.8	4.71	2.14	684	0.373
Horiz. Delineation	GS-AP-MW-41HD	02/15/2022	0.0141 J	<0.2	<0.00406	7.5	1.66	<1	110	0.546
Horiz. Delineation	GS-AP-MW-41HS	02/08/2022	1.89	<0.2	0.0277	8.96	2.12	1.93 J	105	0.267
Horiz. Delineation	GS-AP-MW-42H	02/16/2022	4.27	<0.2	<0.00406	10.6	2	1.13 J	396	0.931
Horiz. Delineation	GS-AP-MW-43HO	02/21/2022	0.0282 J	<0.2	0.0878	5.55	3.43	5.21	347	0.00801
Horiz. Delineation	GS-AP-MW-44HO	02/09/2022	0.018 J	<0.2	0.0262	5.06	0.746	1.49 J	27.7	0.00149
Piezometer	GS-AP-MW-16S	02/15/2022	0.0532	<0.2	4.7	5.36	4.98	2.42	6.47	0.000149 J

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# Appendix A



**APPENDIX A - ANALYTICAL DATA SUMMARY**  
**Ash Pond (08/01/2016 - 05/11/2022)**  
**APC Plant Gorgas**  
**Walker County Alabama**

Analyte	Units	GS-AP-MW-10R	GS-AP-MW-11R	GS-AP-MW-13R	GS-AP-MW-14R	GS-AP-MW-18R	GS-AP-MW-18VR	GS-AP-MW-1R	GS-AP-MW-23V	GS-AP-MW-27HR	GS-AP-MW-31V	GS-AP-MW-36V	GS-AP-MW-37HR	GS-AP-MW-3V	GS-AP-MW-45V	GS-AP-MW-46	GS-AP-MW-47	GS-AP-MW-5R	GS-AP-MW-9R	GS-AP-PZ-18R	
		03/01/2022	03/01/2022	03/01/2022	02/28/2022	02/22/2022	02/22/2022	03/01/2022	02/23/2022	02/22/2022	02/22/2022	02/22/2022	02/22/2022	02/28/2022	02/23/2022	02/23/2022	02/23/2022	02/28/2022	03/01/2022	03/01/2022	02/21/2022
<b>Appendix III</b>																					
Boron	mg/L	<0.03	0.0851 J	<0.03	<0.03	<0.03	0.0488 J	0.0582 J	0.0973 J	0.0541 J	<0.03	0.04 J	<0.03	0.106	0.0384 J	0.768	<0.03	0.036 J	0.106	0.0925 J	
Calcium	mg/L	41	45.3	31.6	34.2	21.4	5.8	1.14	140	11.7	7.58	9.35	2.52	9.1	5.77	1.2	28.7	97.3	54	69	
Chloride	mg/L	37.5	5.08	19.2	38.1	3.41	15.3	5.25	3.21	253	32.1	55.9	28.1	155	54.2	43.9	11.7	46.4	65.9	5.32	
Fluoride	mg/L	0.278	0.143	0.122	0.215	0.124	0.199	0.248	0.141	0.292	0.179	0.259	0.194	0.241	0.204	0.226	0.121	0.147	0.218	0.207	
pH_Field	pH	6.87	6.68	6.47	7.04	6.29	7.88	8.86	7.38	7.83	8	7.35	7.88	7.45	7.86	8.69	7.15	6.77	6.4	7.37	
Sulfate	mg/L	21.6	39.4	38	33.3	26.8	13	5.88	331	268	26.2	53.9	22.6	370	273	317	14.4	348	104	55.5	
TDS	mg/L	250	244	201	305	134	298	288	752	1100	406	438	287	1050	674	614	180	762	398	303	
<b>Appendix IV</b>																					
Antimony	mg/L	<0.000508	<0.000508	<0.000508	<0.000508	<0.000508	<0.000508	<0.000508	<0.000508	0.00053 J	<0.000508	<0.000508	<0.000508	<0.000508	<0.000508	<0.000508	<0.000508	<0.000508	<0.000508	<0.000508	
Arsenic	mg/L	0.000604	0.00235	0.00828	0.00186	0.000325	0.00164	0.000336	8.27e-005 J	0.00102	0.0011	0.00167	0.000938	0.00187	0.00106	0.0824	0.000385	0.000484	0.00529	0.00167	
Barium	mg/L	0.608	0.105	0.0613	0.174	0.0741	0.187	0.0616	0.0812	0.0427	0.245	0.092	0.0131	0.0444	0.0221	0.0652	0.762	0.0662	0.043	0.0662	
Beryllium	mg/L	<0.000406	<0.000406	<0.000406	<0.000406	<0.000406	<0.000406	<0.000406	<0.000406	<0.000406	<0.000406	<0.000406	<0.000406	<0.000406	<0.000406	<0.000406	<0.000406	<0.000406	<0.000406	<0.000406	
Cadmium	mg/L	<6.8e-005	<6.8e-005	<6.8e-005	<6.8e-005	<6.8e-005	<6.8e-005	<6.8e-005	<6.8e-005	<6.8e-005	<6.8e-005	<6.8e-005	<6.8e-005	<6.8e-005	<6.8e-005	<6.8e-005	<6.8e-005	<6.8e-005	<6.8e-005	<6.8e-005	
Chromium	mg/L	0.000237 J	<0.000203	<0.000203	0.000616 J	<0.000203	0.000522 J	0.000443 J	0.000663 J	0.000288 J	<0.000203	0.000248 J	<0.000203	0.000509 J	<0.000203	<0.000203	<0.000203	<0.000203	0.000269 J	<0.000203	
Cobalt	mg/L	0.00014 J	0.00011 J	<6.8e-005	<6.8e-005	0.000671	9.32e-005 J	<6.8e-005	0.000203	<6.8e-005	6.98e-005 J	9.1e-005 J	<6.8e-005	0.00025	<6.8e-005	<6.8e-005	0.000118 J	<6.8e-005	9.26e-005 J	0.000129 J	
Combined Radium	pCi/L	1.05 U	0.757 U	0.656 U	0.801 U	0.961 U	0.187 U	0.836 U	0.258 U	0.645 U	0.486 U	0.495 U	0.739 U	0.57 U	0.442 U	0.0974 U	0.174 U	0.799 U	0.663 U	0.775 U	
Lead	mg/L	<6.8e-005	<6.8e-005	<6.8e-005	<6.8e-005	8.09e-005 J	8.95e-005 J	<6.8e-005	0.000208	<6.8e-005	<6.8e-005	<6.8e-005	<6.8e-005	<6.8e-005	7.41e-005 J	<6.8e-005	<6.8e-005	<6.8e-005	<6.8e-005	<6.8e-005	
Lithium	mg/L	0.0342	0.0276	0.0264	0.0228	<0.007105	0.0446	0.0303	0.041	0.042	0.0316	0.0379	0.0312	0.0489	0.0374	0.0629	0.0363	0.0648	0.0353	0.0157 J	
Mercury	mg/L	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	
Molybdenum	mg/L	0.00288	0.000151 J	0.000526	0.000788	0.000225	0.0337	0.00143	0.000132 J	0.000802	0.00524	0.00427	0.00329	0.0191	0.00452	0.00512	0.00165	0.00212	0.00313	0.000935	
Selenium	mg/L	<0.000508	<0.000508	<0.000508	0.00225	<0.000508	<0.000508	<0.000508	<0.000508	<0.000508	<0.000508	<0.000508	<0.000508	<0.000508	<0.000508	<0.000508	<0.000508	<0.000508	<0.000508	<0.000508	
Thallium	mg/L	<6.8e-005	<6.8e-005	<6.8e-005	<6.8e-005	<6.8e-005	<6.8e-005	<6.8e-005	<6.8e-005	<6.8e-005	<6.8e-005	<6.8e-005	<6.8e-005	<6.8e-005	<6.8e-005	<6.8e-005	<6.8e-005	<6.8e-005	<6.8e-005	<6.8e-005	

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



Analyte	Units	GS-AP-MW-2																				
		08/02/2016	09/19/2016	10/24/2016	12/13/2016	02/08/2017	03/30/2017	04/26/2017	06/06/2017	08/21/2017	02/21/2018	05/16/2018	10/16/2018	04/17/2019	09/25/2019	03/25/2020	05/13/2020	09/22/2020	02/01/2021	08/04/2021	02/22/2022	
<b>Appendix III</b>																						
Boron	mg/L	0.178	0.0937 J	0.0986 J	0.0965 J	0.0896 J	0.0871 J	0.0818 J	0.0805 J	0.102	--	0.147	0.169	0.165	0.153	0.163	0.154	0.133	0.13	0.117	0.112	
Calcium	mg/L	2.25	0.724	0.635	0.714	0.722	0.686	0.646	0.569	0.634	--	0.588	0.714	0.511	0.581	0.518	0.493 J	0.503	0.517	0.564	0.413	
Chloride	mg/L	6.15	5.98	5.93	5.7	8.44	11	10	9.6	12	--	12	20	9.5	12	9.7	8.25	6.33	8.42	7.25	6.05	
Fluoride	mg/L	1.76	1.55	1.29	1.19	1.6	1.5	1.4	1.3	1.4	1.1	1.1	1	0.868	0.86	0.855	0.777	0.921	0.865	0.932	0.819	
pH_Field	pH	9.18	9.18	9.14	9.2	9.17	9.08	9.22	9.22	9.12	9.17	9.28	9.35	9.26	9.31	9.29	9.43	9.41	9.31	9.08	9.42	
Sulfate	mg/L	2.87	1.22	<0.3	<0.3	19.4	31	29	37	55	--	34	90	48.6	47.7	38.5	33.6	21.5	21.3	16.8	17.1	
TDS	mg/L	390	398	395	381	376	391	384	404	416	--	365	430	341	358	337	328	318	333	316	295	
<b>Appendix IV</b>																						
Antimony	mg/L	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	--	<0.0006	<0.0006	<0.0008	<0.0008	<0.0008	<0.0008	<0.0008	<0.0008	<0.000507	<0.000508	<0.000508	
Arsenic	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<6.8e-005	<6.8e-005	<6.8e-005
Barium	mg/L	0.0895	0.0744	0.0787	0.0758	0.0823	0.0768	0.077	0.0711	--	0.0864	0.0658	0.0846	0.0576	0.065	0.0602	0.0528	0.0563	0.0578	0.0702	0.0511	
Beryllium	mg/L	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	--	<0.0006	<0.0006	0.00138 J	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.000406	<0.000406	<0.000406	
Cadmium	mg/L	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	--	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<6.8e-005	<6.8e-005	<6.8e-005
Chromium	mg/L	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	--	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	0.000505 J	0.000849 J	0.000443 J
Cobalt	mg/L	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	--	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<6.8e-005	<6.8e-005	<6.8e-005
Combined Radium	pCi/L	0.274 U	0.0478 U	1.41	0.733	0.0206 U	0.122 U	0.397 U	0.0873 U	--	0.562	1.44	0.736	0.0905 U	0.537 U	4	0.289 U	0.712	0.518 U	0.502 U	0.21 U	
Lead	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<6.8e-005	<6.8e-005	<6.8e-005
Lithium	mg/L	0.0495 J	0.049 J	0.0488 J	0.0483 J	0.0644	0.0597	0.0459 J	0.0491 J	--	0.0534	0.0451 J	0.0511	0.0421	0.0457	0.0434	0.0409	0.0395	0.0445	0.0443	0.0336	
Mercury	mg/L	<0.00025	<0.00025	<0.00025	<0.00025	<0.00025	<0.00025	<0.00025	<0.00025	--	<0.00025	<0.00025	<0.00025	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	
Molybdenum	mg/L	<0.002	<0.002	<0.002	<0.002	0.00359 J	0.00485 J	0.00444 J	0.00489 J	--	0.0112	0.00547 J	0.00919 J	0.00293 J	0.00803 J	0.00343 J	0.00224 J	0.00308 J	0.00427	0.00168	0.00328	
Selenium	mg/L	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	--	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.000507	<0.000508	<0.000508	
Thallium	mg/L	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	--	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<6.8e-005	<6.8e-005	<6.8e-005	

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



Analyte	Units	GS-AP-MW-3		
		02/17/2021	08/03/2021	02/16/2022
		<b>Appendix III</b>		
Boron	mg/L	0.426	0.386	0.311
Calcium	mg/L	39.3	30.8	18.6
Chloride	mg/L	17.4	13.6	14
Fluoride	mg/L	0.1	0.102	<0.06
pH_Field	pH	7.71	7.82	7.78
Sulfate	mg/L	158	99.4	91.2
TDS	mg/L	387	333	307
<b>Appendix IV</b>				
Antimony	mg/L	<0.000507	<0.000508	<0.000508
Arsenic	mg/L	0.000168 J	0.000144 J	0.000202 J
Barium	mg/L	0.59	0.589	0.525
Beryllium	mg/L	<0.000406	<0.000406	<0.000406
Cadmium	mg/L	<6.8e-005	<6.8e-005	<6.8e-005
Chromium	mg/L	0.000326 J	0.000268 J	<0.000203
Cobalt	mg/L	<6.8e-005	<6.8e-005	<6.8e-005
Combined Radium	pCi/L	0.331 U	0.978 U	0.601 U
Lead	mg/L	<6.8e-005	<6.8e-005	<6.8e-005
Lithium	mg/L	0.0995	0.088	0.0734
Mercury	mg/L	<0.0003	<0.0003	<0.0003
Molybdenum	mg/L	0.0113	0.00977	0.00832
Selenium	mg/L	<0.000507	<0.000508	<0.000508
Thallium	mg/L	<6.8e-005	<6.8e-005	<6.8e-005

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



Analyte	Units	GS-AP-MW-6																		
		08/03/2016	09/20/2016	10/26/2016	12/12/2016	02/06/2017	03/27/2017	04/24/2017	06/06/2017	08/21/2017	02/19/2018	05/14/2018	10/15/2018	04/16/2019	09/23/2019	03/17/2020	09/16/2020	02/03/2021	07/27/2021	02/14/2022
<b>Appendix III</b>																				
Boron	mg/L	1.16	1.16	1.24	1.24	1.1	1.04	1	1.02	1.05	--	0.99	1.05	0.961	1.08	0.867	0.8	0.817	0.873	0.978
Calcium	mg/L	42.5	51.1	65.6	66.5	73.1	71.9	73.5	71.8	63.5	--	67.5	68.9	57.1	60	59.3	55.9	50.7	52.6	54.4
Chloride	mg/L	21.9	20.9	20.7	21.1	23.3	25	24	22	21	--	20	20	23.1	23.4	17.4	14.6	14.9	17	20.6
Fluoride	mg/L	0.099 J	0.074 J	0.032 J	0.034 J	0.06 J	0.07 J	0.08 J	0.09 J	0.1	0.1	0.13	0.14	0.147	0.142	0.231	0.308	0.195	0.2	0.164
pH_Field	pH	6.81	6.72	6.68	6.76	6.75	6.67	6.81	6.8	6.78	6.85	6.82	6.78	6.82	6.51	6.92	6.93	7.05	6.67	6.99
Sulfate	mg/L	203	209	224	249	309	290	300	310	260	--	210	170	195	176	148	115	116	114	120
TDS	mg/L	394	444	456	491	580	554	566	580	524	--	458	404	382	381	328	269	274	273	317
<b>Appendix IV</b>																				
Antimony	mg/L	<0.0006	<0.0006	<0.0006	0.000727 J	<0.0006	<0.0006	<0.0006	<0.0006	--	<0.0006	<0.0006	<0.0008	<0.0008	<0.0008	<0.0008	0.000948 J	0.00055 J	0.00123	0.00071 J
Arsenic	mg/L	0.0103	0.0103	0.0115	0.0106	0.0106	0.00989	0.00907	0.0105	--	0.0108	0.00864	0.00832	0.0164	0.0105	0.00778	0.00611	0.0071	0.00634	0.00641
Barium	mg/L	0.27	0.228	0.23	0.276	0.25	0.196	0.159	0.137	--	0.145	0.12	0.118	0.124	0.124	0.0725	0.0682	0.0779	0.0876	0.0825
Beryllium	mg/L	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	--	<0.0006	<0.0006	0.000794 J	<0.0006	<0.0006	<0.0006	<0.0006	<0.000406	<0.000406	<0.000406
Cadmium	mg/L	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	--	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<6.8e-005	<6.8e-005
Chromium	mg/L	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	--	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	0.000268 J	0.000239 J	<0.000203
Cobalt	mg/L	<0.002	<0.002	<0.002	0.00212 J	0.00247 J	0.00224 J	<0.002	0.00222 J	--	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	0.000663	0.000643	0.000708
Combined Radium	pCi/L	1.38	1.3	0.721 U	1.36	0.702	0.325 U	0.436 U	0.592	--	0.776	-0.169 U	0.792	1.11	1.06	0.351 U	1.05	0.489 U	0.87 U	0.14 U
Lead	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<6.8e-005	7.75e-005 J
Lithium	mg/L	<0.01	<0.01	0.0199 J	<0.01	<0.01	<0.01	<0.01	<0.01	--	<0.01	0.0238 J	0.03	<0.01	0.0105 J	0.0695	0.066	0.0455	0.0576	0.0625
Mercury	mg/L	<0.00025	<0.00025	<0.00025	<0.00025	<0.00025	<0.00025	<0.00025	<0.00025	--	<0.00025	<0.00025	<0.00025	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003
Molybdenum	mg/L	<0.002	0.00202 J	0.00599 J	0.00214 J	<0.002	<0.002	<0.002	<0.002	--	<0.002	0.00526 J	0.00644 J	0.00246 J	0.00412 J	0.0272	0.0427	0.0218	0.0452	0.0406
Selenium	mg/L	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	--	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	0.000794 J	0.00124	0.00138
Thallium	mg/L	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	--	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<6.8e-005	<6.8e-005	<6.8e-005

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



Analyte	Units	GS-AP-MW-6D																			
		08/03/2016	09/20/2016	10/24/2016	12/12/2016	02/06/2017	03/27/2017	04/24/2017	06/06/2017	08/21/2017	02/19/2018	05/14/2018	10/15/2018	04/16/2019	09/23/2019	03/17/2020	09/17/2020	02/03/2021	07/27/2021	02/14/2022	
<b>Appendix III</b>																					
Boron	mg/L	1.04	1.01	1.08	1.09	1.06	1.07	1.08	1.11	0.906	--	1.04	1.06	1.09	1.15	1.17	1.22	1.24	1.29	1.32	
Calcium	mg/L	48.1	51.2	49.5	54.3	51.2	51.4	54.7	53.9	47.3	--	54.8	53.9	53.5	56.1	57.2	61.5	56.9	55.5	55.7	
Chloride	mg/L	5.2	5.31	5.4	5.46	5.28	6.4	6.5	4.7	6.1	--	6	7	8.93	8.72	10.1	10.5	12.2	11.1	11.7	
Fluoride	mg/L	0.127 J	0.087 J	0.019 J	0.043 J	0.11	0.12	0.11	0.12	0.15	0.13	0.13	0.16	0.193	0.132	0.132	0.133	0.135	0.127	0.108	
pH_Field	pH	7.27	7.27	7.25	7.26	7.24	7.29	7.46	7.29	7.21	7.36	7.36	7.33	7.26	7.23	7.39	7.41	7.55	6.79	7.43	
Sulfate	mg/L	52	56	57.5	50	54.9	50	56	63	35	--	46	37	46.2	47.9	59.5	65.1	58.9	64.4	58.3	
TDS	mg/L	302	298	306	291	285	305	301	311	289	--	303	309	277	296	303	314	301	262	297	
<b>Appendix IV</b>																					
Antimony	mg/L	<0.0006	<0.0006	<0.0006	0.00104 J	<0.0006	<0.0006	<0.0006	<0.0006	--	<0.0006	<0.0006	<0.0008	<0.0008	<0.0008	<0.0008	<0.0008	<0.000507	<0.000508	<0.000508	
Arsenic	mg/L	0.0547	0.0625	0.0695	0.0611	0.0618	0.0711	0.0787	0.0778	--	0.0616	0.074	0.0758	0.0869	0.0876	0.105	0.0931	0.104	0.107	0.12	
Barium	mg/L	0.852	0.685	0.711	0.789	0.779	0.77	0.716	0.611	--	0.872	0.914	0.896	0.865	0.903	0.638	0.378	0.443	0.488	0.599	
Beryllium	mg/L	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	--	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.000406	<0.000406	<0.000406	
Cadmium	mg/L	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	--	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<6.8e-005	<6.8e-005	<6.8e-005
Chromium	mg/L	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	--	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	0.000264 J	0.000241 J	0.000243 J
Cobalt	mg/L	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	--	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<6.8e-005	<6.8e-005	<6.8e-005
Combined Radium	pCi/L	0.42 U	1.13	0.327 U	1.26	0.532	0.334 U	0.492	0.156 U	--	0.283 U	0.083 U	0.656	0.528	0.677	0.629	0.32 U	0.647 U	0.919 U	1.24	
Lead	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<6.8e-005	<6.8e-005	<6.8e-005
Lithium	mg/L	0.204	0.223	0.243	0.22	0.247	0.263	0.237	0.259	--	0.213	0.239	0.236	0.266	0.264	0.292	0.299	0.312	0.326	0.302	
Mercury	mg/L	<0.00025	<0.00025	<0.00025	<0.00025	<0.00025	<0.00025	<0.00025	<0.00025	--	<0.00025	<0.00025	<0.00025	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	
Molybdenum	mg/L	0.00372 J	0.00481 J	0.00496 J	0.00467 J	0.00468 J	0.00548 J	0.00606 J	0.00545 J	--	0.00537 J	0.00564 J	0.00538 J	0.00762 J	0.00758 J	0.00959 J	0.00924 J	0.0095	0.0101	0.00256	
Selenium	mg/L	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	--	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.000507	<0.000508	0.000612 J	
Thallium	mg/L	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	--	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<6.8e-005	<6.8e-005	<6.8e-005	

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





Analyte	Units	GS-AP-MW-7																		
		08/02/2016	09/21/2016	10/24/2016	12/12/2016	02/06/2017	03/28/2017	04/24/2017	06/07/2017	08/21/2017	02/19/2018	05/15/2018	10/15/2018	04/23/2019	09/24/2019	03/17/2020	09/16/2020	02/02/2021	08/09/2021	02/08/2022
<b>Appendix III</b>																				
Boron	mg/L	1.57	1.4	1.42	1.38	1.44	1.44	1.41	1.45	1.39	--	1.5	1.53	1.5	1.6	1.58	1.54	1.6	1.62	1.71
Calcium	mg/L	19.4	15.4	14.8	15	14.9	14.3	14.5	14.1	12.6	--	12.9	12.5	13.8	13.4	13.5	12.2	12.2	11.6	10.7
Chloride	mg/L	3.7	3.74	3.75	4.06	3.92	4.3	4.6	4.3	4.7	--	4.3	5.1	5.16	5.76	6.65	6.17	6.76	7.03	7.5
Fluoride	mg/L	0.098 J	0.061 J	<0.01	0.01 J	0.07 J	0.07 J	0.08 J	0.09 J	0.09 J	0.09 J	0.09 J	0.11	0.111	0.106	0.107	0.126	0.124	0.11	0.0799 J
pH_Field	pH	7.72	7.6	7.68	7.72	7.64	7.58	7.68	7.56	7.61	7.65	7.69	7.62	7.83	7.38	7.72	7.74	7.77	7.49	7.71
Sulfate	mg/L	154	146	131	141	135	140	140	150	140	--	120	130	156	145	149	131	130	133	138
TDS	mg/L	358	370	370	353	338	352	362	348	362	--	338	333	354	344	334	351	349	340	318
<b>Appendix IV</b>																				
Antimony	mg/L	<0.0006	<0.0006	<0.0006	0.000891 J	<0.0006	<0.0006	<0.0006	<0.0006	--	<0.0006	<0.0006	<0.0008	0.00105 J	<0.0008	<0.0008	<0.0008	<0.000507	<0.000508	<0.000508
Arsenic	mg/L	0.188	0.179	0.151	0.181	0.194	0.205	0.202	0.193	--	0.182	0.211	0.217	0.207	0.233	0.285	0.282	0.275	0.282	0.253
Barium	mg/L	0.0927	0.0979	0.0751	0.0737	0.0773	0.0728	0.0724	0.0581	--	0.0464	0.0501	0.049	0.113	0.0834	0.174	0.124	0.115	0.0891	0.0534
Beryllium	mg/L	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	--	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.000406	<0.000406	<0.000406
Cadmium	mg/L	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	--	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<6.8e-005	<6.8e-005	<6.8e-005
Chromium	mg/L	<0.002	<0.002	0.00216 J	<0.002	<0.002	<0.002	<0.002	<0.002	--	<0.002	<0.002	<0.002	0.00435 J	<0.002	0.0076 J	0.00482 J	0.00435	0.00234	0.00103
Cobalt	mg/L	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	--	<0.002	<0.002	<0.002	0.00231 J	<0.002	0.00476 J	0.00301 J	0.00248	0.0011	<6.8e-005
Combined Radium	pCi/L	0.87	0.107 U	0.337 U	0.803	-0.0165 U	0.00697 U	0.672	0.096 U	--	0.207 U	0.0311 U	0.309 U	0.0403 U	0.34 U	1.2	1.1	0.373 U	1.23 U	0.819 U
Lead	mg/L	0.00279 J	0.0024 J	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.001	<0.001	0.00207 J	<0.001	0.00386 J	0.00295 J	0.00243	0.00119	<6.8e-005
Lithium	mg/L	0.144	0.136	0.135	0.146	0.182	0.175	0.143	0.152	--	0.143	0.151	0.155	0.144	0.156	0.161	0.16	0.183	0.205	0.191
Mercury	mg/L	<0.00025	<0.00025	<0.00025	<0.00025	<0.00025	<0.00025	<0.00025	<0.00025	--	<0.00025	<0.00025	<0.00025	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003
Molybdenum	mg/L	0.146	0.146	0.136	0.14	0.15	0.159	0.16	0.15	--	0.172	0.177	0.168	0.185	0.178	0.193	0.215	0.202	0.207	0.221
Selenium	mg/L	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	--	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.000507	<0.000508	<0.000508
Thallium	mg/L	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	--	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<6.8e-005	<6.8e-005	<6.8e-005

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



Analyte	Units	GS-AP-MW-8																			
		08/03/2016	09/21/2016	10/25/2016	12/13/2016	02/06/2017	03/28/2017	04/24/2017	06/07/2017	08/21/2017	02/19/2018	05/15/2018	10/16/2018	04/16/2019	09/24/2019	03/18/2020	09/21/2020	02/02/2021	08/10/2021	02/16/2022	
<b>Appendix III</b>																					
Boron	mg/L	0.0239 J	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	--	<0.02	<0.02	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	
Calcium	mg/L	6.85	11.7	10.8	5.86	9.76	5.28	6.89	3.58	3.38	--	4.25	3.21	4.43	7.24	4.51	5.19	4.35	4.47	4.42	
Chloride	mg/L	3.21	2.95	3.03	3.21	3	3.3	3.8	3.5	3.6	--	3.3	3.3	3.69	3.21	4.35	3.22	3.85	4.04	4.42	
Fluoride	mg/L	0.125 J	0.098 J	0.025 J	0.045 J	0.1	0.08 J	0.09 J	0.08 J	0.08 J	0.08 J	0.1	0.09 J	0.143	0.128	0.108	0.125	0.114	0.0924 J	0.0616 J	
pH_Field	pH	5.84	5.99	5.94	5.84	5.9	5.67	5.79	5.71	5.7	5.78	5.84	5.75	5.76	5.27	5.81	5.75	5.69	5.02	5.8	
Sulfate	mg/L	4.2	4.27	2.78	3.18	3.74	3.4 J	2.7 J	2.7 J	3.9 J	--	2.5 J	2.4 J	4.53	6.61	4.86	4.69	4.83	3.77	4.68	
TDS	mg/L	113	128	121	101	108	91	89.3	84	91.3	--	94.7	76.7	92	109	90.7	94	98.7	101	90.7	
<b>Appendix IV</b>																					
Antimony	mg/L	<0.0006	<0.0006	<0.0006	0.00067 J	<0.0006	<0.0006	<0.0006	<0.0006	--	<0.0006	<0.0006	<0.0008	<0.0008	<0.0008	<0.0008	<0.0008	<0.0008	<0.000507	<0.000508	<0.000508
Arsenic	mg/L	0.00214 J	0.00112 J	<0.001	<0.001	0.00111 J	0.00109 J	<0.001	<0.001	--	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.000228	0.00039	0.000208	
Barium	mg/L	0.0274	0.0811	0.0576	0.0241	0.0747	0.0183	0.04	0.00769 J	--	0.00762 J	0.00701 J	0.0094 J	0.00459 J	0.0434	0.00507 J	0.026	0.0068	0.00805	0.00763	
Beryllium	mg/L	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	--	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.000406	<0.000406	<0.000406	
Cadmium	mg/L	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	--	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<6.8e-005	<6.8e-005	<6.8e-005
Chromium	mg/L	<0.002	0.00266 J	<0.002	<0.002	<0.002	0.00322 J	<0.002	0.00227 J	--	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	0.000389 J	0.000579 J	0.000239 J	
Cobalt	mg/L	0.0026 J	0.00362 J	0.00305 J	<0.002	0.00308 J	<0.002	<0.002	<0.002	--	<0.002	<0.002	<0.002	<0.002	0.00234 J	<0.002	<0.002	0.000384	0.000586	0.000548	
Combined Radium	pCi/L	0.299 U	0.835	0.0629 U	0.547	0.251 U	-0.109 U	0.293 U	0.529	--	0.497	-0.601 U	0.2 U	0.733	0.753	0.465 U	1.25	0.223 U	0.77 U	0.561 U	
Lead	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	8.09e-005 J	0.000149 J	<6.8e-005
Lithium	mg/L	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	--	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.00796 J	0.00832 J	0.00763 J
Mercury	mg/L	<0.00025	<0.00025	<0.00025	<0.00025	<0.00025	<0.00025	<0.00025	<0.00025	--	<0.00025	<0.00025	<0.00025	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003
Molybdenum	mg/L	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	--	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<6.8e-005	<6.8e-005	0.000118 J
Selenium	mg/L	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	--	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.000507	<0.000508	<0.000508	
Thallium	mg/L	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	--	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<6.8e-005	<6.8e-005	<6.8e-005	

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



Analyte	Units	GS-AP-MW-9												
		08/03/2016	09/21/2016	10/25/2016	12/13/2016	02/08/2017	03/28/2017	04/26/2017	06/07/2017	08/22/2017	02/20/2018	05/15/2018	10/16/2018	04/16/2019
<b>Appendix III</b>														
Boron	mg/L	0.264	0.192	0.167	0.143	0.16	0.187	0.187	0.185	0.191	--	0.16	0.1 J	0.0979 J
Calcium	mg/L	80.8	81.5	81.7	70.1	77.6	84.1	85	83.9	77.6	--	76.2	71.2	73.3
Chloride	mg/L	2.18	2.11	2.06	2.05	2.21	2.3	2.7	2.6	3.3	--	2.1	2.3	2.81
Fluoride	mg/L	0.123 J	0.09 J	0.028 J	0.049 J	0.1	0.11	0.12	0.12	0.14	0.13	0.14	0.15	0.154
pH_Field	pH	6.51	6.57	6.58	6.71	6.66	6.65	6.63	6.61	6.7	6.75	6.78	6.72	6.69
Sulfate	mg/L	218	195	163	155	157	170	160	180	170	--	130	120	154
TDS	mg/L	514	508	470	441	442	472	469	503	474	--	426	417	397
<b>Appendix IV</b>														
Antimony	mg/L	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	--	<0.0006	<0.0006	<0.0008	<0.0008
Arsenic	mg/L	0.00781	0.0062	0.00525	0.00535	0.00659	0.00735	0.00689	0.00743	--	0.00676	0.00698	0.00473 J	0.00403 J
Barium	mg/L	0.029	0.0218	0.0253	0.0268	0.0264	0.0264	0.0234	0.0229	--	0.0255	0.0258	0.0282	0.0256
Beryllium	mg/L	<0.0006	<0.0006	<0.0006	<0.0006	0.000705 J	<0.0006	<0.0006	<0.0006	--	<0.0006	<0.0006	0.000893 J	<0.0006
Cadmium	mg/L	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	--	<0.0003	<0.0003	<0.0003	<0.0003
Chromium	mg/L	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	--	<0.002	<0.002	<0.002	<0.002
Cobalt	mg/L	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	--	<0.002	<0.002	<0.002	<0.002
Combined Radium	pCi/L	0.241 U	0.304 U	1.34	0.683	0.27 U	0.129 U	0.16 U	0.0871 U	--	0.882	-0.462 U	0.761	-0.065 U
Lead	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.001	<0.001	<0.001
Lithium	mg/L	0.101	0.0902	0.0825	0.0693	0.0935	0.108	0.0901	0.0937	--	0.0833	0.0861	0.0676	0.0673
Mercury	mg/L	<0.00025	<0.00025	<0.00025	<0.00025	<0.00025	<0.00025	<0.00025	<0.00025	--	<0.00025	<0.00025	<0.00025	<0.0003
Molybdenum	mg/L	0.00571 J	0.005 J	0.00452 J	0.00467 J	0.0067 J	0.00752 J	0.00676 J	0.00701 J	--	0.00747 J	0.00736 J	0.00425 J	0.00462 J
Selenium	mg/L	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	--	<0.002	<0.002	<0.002	<0.002
Thallium	mg/L	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	--	<0.0002	<0.0002	<0.0002	<0.0002

**Notes:**

1. mg/L - Milligrams per Liter

2. pCi/L - picocuries per Liter

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



Analyte	Units	GS-AP-MW-11													
		08/02/2016	09/21/2016	10/25/2016	12/13/2016	02/08/2017	03/28/2017	03/29/2017	04/26/2017	06/07/2017	08/22/2017	02/20/2018	05/15/2018	10/16/2018	04/16/2019
<b>Appendix III</b>															
Boron	mg/L	<0.02	<0.02	<0.02	0.0362 J	<0.02	<0.02	--	<0.02	<0.02	<0.02	--	0.0255 J	0.0221 J	<0.03
Calcium	mg/L	43.5	43.6	42.6	41.4	44.6	44.4	--	46	45.1	42.4	--	47	47.7	46.7
Chloride	mg/L	6.7	6.28	5.53	4.84	4.84	4.4	--	5.5	5.1	6	--	6.9	8.1	8.06
Fluoride	mg/L	0.14 J	0.098 J	0.031 J	0.04 J	0.11	0.12	--	0.13	0.13	0.14	0.13	0.14	0.16	0.177
pH_Field	pH	7.14	7.05	6.97	7.01	6.93	6.92	--	6.91	6.92	7.01	6.98	7.01	7.01	6.93
Sulfate	mg/L	20.5	21.3	20.1	21.7	21.1	23	--	23	22	21	--	23	22	23.2
TDS	mg/L	235	232	229	227	236	228	--	234	223	244	--	246	242	226
<b>Appendix IV</b>															
Antimony	mg/L	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	--	<0.0006	<0.0006	--	<0.0006	<0.0006	<0.0008	<0.0008
Arsenic	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.001	--	<0.001	<0.001	<0.001	<0.001
Barium	mg/L	0.245	0.203	0.218	0.22	0.234	0.226	--	0.222	0.201	--	0.201	0.214	0.233	0.21
Beryllium	mg/L	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	--	<0.0006	<0.0006	--	<0.0006	<0.0006	<0.0006	<0.0006
Cadmium	mg/L	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	--	<0.0002	<0.0002	--	<0.0003	<0.0003	<0.0003	<0.0003
Chromium	mg/L	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	--	<0.002	<0.002	--	<0.002	<0.002	<0.002	<0.002
Cobalt	mg/L	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	--	<0.002	<0.002	--	<0.002	<0.002	<0.002	<0.002
Combined Radium	pCi/L	0.105 U	0.694	0.241 U	0.499	0.596	--	0.403 U	0.258 U	0.077 U	--	0.303 U	-0.232 U	0.307 U	0.609 U
Lead	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.001	--	<0.001	<0.001	<0.001	<0.001
Lithium	mg/L	0.0146 J	0.0141 J	0.012 J	0.0138 J	0.0148 J	0.0149 J	--	0.0123 J	0.0125 J	--	0.0119 J	0.013 J	0.012 J	0.0129 J
Mercury	mg/L	<0.00025	<0.00025	<0.00025	<0.00025	<0.00025	<0.00025	--	<0.00025	<0.00025	--	<0.00025	<0.00025	<0.00025	<0.0003
Molybdenum	mg/L	0.00217 J	<0.002	<0.002	<0.002	<0.002	<0.002	--	<0.002	<0.002	--	<0.002	<0.002	<0.002	<0.002
Selenium	mg/L	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	--	<0.002	<0.002	--	<0.002	<0.002	<0.002	<0.002
Thallium	mg/L	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	--	<0.0002	<0.0002	--	<0.0002	<0.0002	<0.0002	<0.0002

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





Analyte	Units	GS-AP-MW-12																		
		08/03/2016	09/20/2016	10/25/2016	12/13/2016	02/08/2017	03/29/2017	04/26/2017	06/07/2017	08/22/2017	02/20/2018	05/15/2018	10/16/2018	04/16/2019	09/25/2019	03/18/2020	09/23/2020	02/01/2021	08/09/2021	02/28/2022
<b>Appendix III</b>																				
Boron	mg/L	0.34	0.299	0.323	0.294	0.264	0.246	0.234	0.194	0.156	--	0.0781 J	0.057 J	0.0385 J	0.122	0.0449 J	0.0446 J	0.0672 J	<0.03	0.0305 J
Calcium	mg/L	36.1	27	26.1	29.4	31.9	31.8	34.6	33.4	31.5	--	34.8	35.6	38.3	48.1	44	45.9	45.8	40.2	43.1
Chloride	mg/L	14.5	12.9	12.2	10.4	8.77	10	9.8	8	6.5	--	4.4	3.1	3.22	6.68	4.22	3.15	3.32	2.75	3.34
Fluoride	mg/L	0.656	0.691	0.588	0.545	0.79	0.51	0.49	0.43	0.41	0.27	0.23	0.23	0.188	0.168	0.122	0.12	0.126	0.139	0.12
pH_Field	pH	7.36	7.28	7.23	7.27	7.25	7.34	7.19	7.24	7.31	7.69	7.69	7.51	7.41	7.38	7.56	8.3	7.55	7.98	8.12
Sulfate	mg/L	19.2	1.42	<0.3	3.21	3.3	3.8 J	1.4 J	1.7 J	4.2 J	--	14	13	13.3	25.5	20.8	19.1	18.7	17.3	17.9
TDS	mg/L	546	542	518	424	379	334	332	308	286	--	235	211	193	253	236	216	224	219	195
<b>Appendix IV</b>																				
Antimony	mg/L	<0.0006	<0.0006	<0.0006	0.000681 J	<0.0006	<0.0006	<0.0006	<0.0006	--	<0.0006	<0.0006	<0.0008	<0.0008	<0.0008	0.0022 J	0.00202 J	0.000518 J	0.00179	0.00415
Arsenic	mg/L	0.11	0.0746	0.0728	0.0538	0.0427	0.0404	0.0372	0.0307	--	0.0282	0.0253	0.0203	0.014	0.0135	0.00693	0.00616	0.00747	0.00308	0.0066
Barium	mg/L	0.144	0.102	0.109	0.115	0.122	0.116	0.127	0.115	--	0.132	0.163	0.159	0.161	0.202	0.195	0.193	0.201	0.194	0.173
Beryllium	mg/L	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	--	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.000406	<0.000406	<0.000406
Cadmium	mg/L	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	--	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<6.8e-005	<6.8e-005
Chromium	mg/L	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	--	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.000203	0.000308 J
Cobalt	mg/L	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	--	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<6.8e-005	<6.8e-005
Combined Radium	pCi/L	1.08	0.848	0.92	0.974	0.535	0.194 U	0.384 U	0.729	--	0.242 U	0.433 U	0.421 U	0.184 U	0.442 U	0.605	0.811 U	0.946 U	0.907 U	0.725 U
Lead	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<6.8e-005	<6.8e-005
Lithium	mg/L	0.0265 J	0.0225 J	0.0217 J	0.026 J	0.0315 J	0.0308 J	0.0248 J	0.0234 J	--	0.058	0.0489 J	0.0341	0.0261	0.028	0.0297	0.0249	0.0354	0.0523	
Mercury	mg/L	<0.00025	<0.00025	<0.00025	<0.00025	<0.00025	<0.00025	<0.00025	<0.00025	--	<0.00025	<0.00025	<0.00025	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003
Molybdenum	mg/L	0.0269	0.00762 J	0.00456 J	0.00411 J	0.00235 J	<0.002	<0.002	<0.002	--	<0.002	<0.002	<0.002	<0.002	<0.002	0.00444 J	0.00577 J	0.00792	0.00452	0.0114
Selenium	mg/L	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	--	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.000507	<0.000508	<0.000508
Thallium	mg/L	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	--	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<6.8e-005	<6.8e-005	<6.8e-005

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



Analyte	Units	GS-AP-MW-13												
		08/02/2016	09/20/2016	10/25/2016	12/13/2016	02/08/2017	03/29/2017	04/26/2017	06/07/2017	08/22/2017	02/20/2018	05/15/2018	10/17/2018	04/16/2019
<b>Appendix III</b>														
Boron	mg/L	<0.02	<0.02	<0.02	<0.0322	<0.02	<0.02	<0.02	<0.02	<0.02	--	<0.02	<0.02	<0.03
Calcium	mg/L	47.2	46.3	46.6	43.1	47.5	46.8	48.1	44.4	42.9	--	44.3	41.8	38.6
Chloride	mg/L	2.91	2.94	2.94	2.93	2.85	3.4	3.7	3.3	3.4	--	3.2	2.3	3.23
Fluoride	mg/L	0.161 J	0.122 J	0.058 J	0.072 J	0.16	0.14	0.16	0.15	0.18	0.17	0.17	0.19	0.197
pH_Field	pH	6.8	6.8	6.85	6.8	6.76	6.76	6.71	6.71	6.84	6.77	6.8	6.67	6.64
Sulfate	mg/L	12	11.2	10.1	11.4	10.9	11	11	11	11	--	11	12	12.1
TDS	mg/L	221	221	226	211	212	217	202	218	224	--	209	208	185
<b>Appendix IV</b>														
Antimony	mg/L	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	--	<0.0006	<0.0006	<0.0008	<0.0008
Arsenic	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.001	<0.001	<0.001
Barium	mg/L	0.184	0.153	0.176	0.184	0.189	0.184	0.177	0.164	--	0.165	0.172	0.165	0.16
Beryllium	mg/L	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	--	<0.0006	<0.0006	<0.0006	<0.0006
Cadmium	mg/L	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	--	<0.0003	<0.0003	<0.0003	<0.0003
Chromium	mg/L	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	--	<0.002	<0.002	<0.002	<0.002
Cobalt	mg/L	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	--	<0.002	<0.002	<0.002	<0.002
Combined Radium	pCi/L	0.0177 U	0.725	0.494 U	0.39 U	0.455 U	0.251 U	0.0762 U	0.32 U	--	0.465	0.0571 U	0.482	0.506 U
Lead	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.001	<0.001	<0.001
Lithium	mg/L	0.0121 J	0.0116 J	0.0114 J	0.0116 J	0.0118 J	0.0118 J	<0.01	<0.01	--	<0.01	0.0101	<0.01	0.0101 J
Mercury	mg/L	<0.00025	<0.00025	<0.00025	<0.00025	<0.00025	<0.00025	<0.00025	<0.00025	--	<0.00025	<0.00025	<0.00025	<0.0003
Molybdenum	mg/L	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	--	<0.002	<0.002	<0.002	<0.002
Selenium	mg/L	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	--	<0.002	<0.002	<0.002	<0.002
Thallium	mg/L	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	--	<0.0002	<0.0002	<0.0002	<0.0002

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



Analyte	Units	GS-AP-MW-14													
		08/02/2016	09/19/2016	10/25/2016	12/13/2016	02/08/2017	03/28/2017	04/26/2017	06/07/2017	08/22/2017	02/20/2018	05/16/2018	10/17/2018	04/16/2019	
<b>Appendix III</b>															
Boron	mg/L	<0.02	<0.02	<0.02	<0.0322	<0.02	<0.02	<0.02	<0.02	<0.02	--	<0.02	<0.02	<0.03	
Calcium	mg/L	36.4	33.9	35.8	35.9	35.7	33.3	35.6	35.8	35.3	--	39.9	39.3	39.5	
Chloride	mg/L	5.17	4.9	5.08	5.1	5	5.5	7	6.2	5.9	--	6.5	6.9	7.7	
Fluoride	mg/L	0.154 J	0.108 J	0.04 J	0.058 J	0.15	0.15	0.16	0.15	0.17	0.17	0.17	0.18	0.204	
pH_Field	pH	7.39	7.2	7.23	7.19	7.09	7.35	7.16	7.13	7.18	7.19	7.12	7.1	7.03	
Sulfate	mg/L	10.6	9.9	8.12	10.5	11.1	14	13	13	12	--	13	13	16.9	
TDS	mg/L	222	225	219	207	208	222	222	223	243	--	225	199	184	
<b>Appendix IV</b>															
Antimony	mg/L	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	--	<0.0006	<0.0006	<0.0008	<0.0008	
Arsenic	mg/L	0.00189 J	0.00173 J	0.00199 J	0.00186 J	0.00157 J	0.00125 J	0.0011 J	0.00108 J	--	0.00139 J	0.00112 J	0.00132 J	0.0011 J	
Barium	mg/L	0.249	0.219	0.252	0.276	0.277	0.243	0.246	0.225	--	0.276	0.286	0.314	0.305	
Beryllium	mg/L	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	--	<0.0006	<0.0006	<0.0006	<0.0006	
Cadmium	mg/L	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	--	<0.0003	<0.0003	<0.0003	<0.0003	
Chromium	mg/L	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	--	<0.002	<0.002	<0.002	<0.002	
Cobalt	mg/L	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	--	<0.002	<0.002	<0.002	<0.002	
Combined Radium	pCi/L	0.657	0.543	1.12	1.37	0.717	0.618	0.442	-0.113 U	--	0.186 U	1.07	0.101 U	0.408 U	
Lead	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.001	<0.001	<0.001	
Lithium	mg/L	0.0425 J	0.0344 J	0.0321 J	0.0281 J	0.0348 J	0.0488 J	0.0431 J	0.0397 J	--	0.0353 J	0.033 J	0.0327	0.0328	
Mercury	mg/L	<0.00025	<0.00025	<0.00025	<0.00025	<0.00025	<0.00025	<0.00025	<0.00025	--	<0.00025	<0.00025	<0.00025	<0.0003	
Molybdenum	mg/L	0.00283 J	<0.002	<0.002	<0.002	<0.002	<0.002	0.00212 J	<0.002	--	<0.002	<0.002	<0.002	<0.002	
Selenium	mg/L	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	--	<0.002	<0.002	<0.002	<0.002	
Thallium	mg/L	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	--	<0.0002	<0.0002	<0.0002	<0.0002	

**Notes:**

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



Analyte	Units	GS-AP-MW-15																		
		08/01/2016	09/20/2016	10/25/2016	12/14/2016	02/08/2017	03/28/2017	04/26/2017	06/06/2017	08/22/2017	02/20/2018	05/15/2018	10/15/2018	04/17/2019	09/24/2019	03/18/2020	09/23/2020	02/09/2021	08/03/2021	02/16/2022
<b>Appendix III</b>																				
Boron	mg/L	0.0955 J	0.0706 J	0.0849 J	0.0914 J	0.0524 J	0.0532 J	0.0598 J	0.0576 J	0.0702 J	--	0.0567 J	0.07 J	0.0388 J	0.0607 J	0.0596 J	0.0537 J	0.0521 J	0.0491 J	0.0323 J
Calcium	mg/L	10.5	14.7	14.7	11.9	14.4	12.9	10.4	9.41	6.89	--	6.86	6.28	8.53	3.26	5.25	3.83	4.38	3.55	6.76
Chloride	mg/L	15.6	8.6	7.96	6.94	4.96	5.2	6	4.9	5.3	--	3.8	6.6	5.2	5.96	8	6	6.12	6.22	5.86
Fluoride	mg/L	1.16	0.7	0.544	0.51	0.56	0.59	0.72	0.65	0.9	0.6	0.57	0.77	0.463	0.628	0.647	0.452	0.591	0.615	0.349
pH_Field	pH	11.74	10.33	10.24	10.09	9.75	9.9	10.08	10.2	10.57	10.63	10.71	11.51	10.76	11.7	11.47	11.89	11.88	11.56	11.57
Sulfate	mg/L	102	53.3	49.8	40.9	25	27	29	23	22	--	13	14	9.02	12.4	15.9	13.2	10.6	9.77	7.37
TDS	mg/L	640	434	394	387	303	305	329	331	364	--	340	448	354	536	515	600	616	632	426
<b>Appendix IV</b>																				
Antimony	mg/L	0.00115 J	0.000876 J	<0.0006	0.000858 J	<0.0006	<0.0006	<0.0006	<0.0006	--	0.000636 J	<0.0006	<0.0008	<0.0008	<0.0008	0.000976 J	0.000844 J	0.00075 J	0.000652 J	<0.000508
Arsenic	mg/L	0.015	0.0111	0.0109	0.011	0.00625	0.00558	0.007	0.00663	--	0.00724	0.00749	0.0123	0.00633	0.011	0.0217	0.0165	0.0145	0.0139	0.00553
Barium	mg/L	0.117	0.193	0.222	0.222	0.294	0.288	0.24	0.228	--	0.224	0.212	0.133	0.264	0.0913	0.14	0.119	0.132	0.129	0.268
Beryllium	mg/L	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	--	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.000406	<0.000406	<0.000406
Cadmium	mg/L	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	--	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<6.8e-005	<6.8e-005
Chromium	mg/L	0.00209 J	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	--	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	0.00072 J	0.000802 J	0.000485 J
Cobalt	mg/L	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	--	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<6.8e-005	8.79e-005 J
Combined Radium	pCi/L	0.682	1.2	0.194 U	0.688	0.254 U	-0.0411 U	0.207 U	0.0618 U	--	0.0898 U	0.829	0.708	-0.11 U	0.951	0.939	0.547 U	0.442 U	0.65 U	0.234 U
Lead	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	8.74e-005 J	7.98e-005 J
Lithium	mg/L	0.393	0.144	0.152	0.136	0.15	0.137	0.123	0.123	--	0.149	0.159	0.297	0.19	0.469	0.378	0.414	0.493	0.536	0.263
Mercury	mg/L	<0.00025	<0.00025	<0.00025	<0.00025	<0.00025	<0.00025	<0.00025	<0.00025	--	<0.00025	<0.00025	<0.00025	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003
Molybdenum	mg/L	0.142	0.0683	0.063	0.0604	0.0346	0.0331	0.038	0.0327	--	0.0362	0.0344	0.0525	0.029	0.0597	0.0673	0.0744	0.0644	0.0663	0.0301
Selenium	mg/L	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	--	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.000507	<0.000508	<0.000508
Thallium	mg/L	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	--	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<6.8e-005	<6.8e-005	<6.8e-005

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





Analyte	Units	GS-AP-MW-16S					
		09/21/2020	02/10/2021	06/09/2021	08/03/2021	02/15/2022	05/11/2022
		<b>Appendix III</b>					
Boron	mg/L	0.0777 J	0.0762 J	0.0817 J	0.0639 J	<0.03	--
Calcium	mg/L	10.9	15.7	4.84	23.9	85	--
Chloride	mg/L	5.42	6.17	3.81	3.29	4.03	--
Fluoride	mg/L	0.572	0.529	0.527	0.481	0.151	--
pH_Field	pH	9.99	10.37	9.36	10.68	11.52	--
Sulfate	mg/L	2.95	3.84	7.41	9.32	6.47	--
TDS	mg/L	426	402	353	343	664	--
<b>Appendix IV</b>							
Antimony	mg/L	<0.0008	<0.000507	<0.000507	<0.000508	<0.000508	--
Arsenic	mg/L	0.00174 J	0.00173	0.00256	0.00323	0.0012	--
Barium	mg/L	0.0766	0.0976	0.0177	0.0565	0.255	--
Beryllium	mg/L	<0.0006	<0.000406	<0.000406	<0.000406	<0.000406	--
Cadmium	mg/L	<0.0003	<6.8e-005	<6.8e-005	<6.8e-005	<6.8e-005	--
Chromium	mg/L	<0.002	0.000246 J	0.000977 J	0.000844 J	<0.000203	--
Cobalt	mg/L	<0.002	<6.8e-005	0.000113 J	0.000192 J	0.000203	--
Combined Radium	pCi/L	0.47 U	0.63 U	0.61 U	0.362 U	1.23	0.746 U
Lead	mg/L	<0.001	0.000105 J	0.000395	0.000389	<6.8e-005	--
Lithium	mg/L	0.074	0.103	0.0574	0.0707	0.0911	--
Mercury	mg/L	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	--
Molybdenum	mg/L	0.041	0.0402	0.0217	0.0254	0.0345	--
Selenium	mg/L	<0.002	<0.000507	<0.000507	<0.000508	<0.000508	--
Thallium	mg/L	<0.0002	<6.8e-005	<6.8e-005	<6.8e-005	<6.8e-005	--

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



Analyte	Units	GS-AP-MW-16D																		
		08/01/2016	09/19/2016	10/25/2016	12/13/2016	02/08/2017	03/29/2017	04/26/2017	06/06/2017	08/22/2017	02/21/2018	05/16/2018	10/17/2018	04/17/2019	09/24/2019	03/24/2020	09/22/2020	02/10/2021	08/09/2021	02/15/2022
<b>Appendix III</b>																				
Boron	mg/L	0.0266 J	0.0262 J	0.0273 J	0.0258 J	0.0249 J	0.0247 J	0.0264 J	0.0247 J	0.0246 J	--	0.0247 J	0.0251 J	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03
Calcium	mg/L	33	31.7	32.2	33.1	32.7	32.7	33.8	32.2	30.9	--	33.5	32	32.3	34.3	34.1	32	34.6	33.2	31.5
Chloride	mg/L	2.6	2.51	2.53	2.53	2.5	2.9	3.2	2.6	2.9	--	3	2.2	2.82	2.9	2.88	2.94	3.19	3.08	3.58
Fluoride	mg/L	0.117 J	0.078 J	0.018 J	0.035 J	0.1	0.08 J	0.11	0.11	0.11	0.11	0.12	0.13	0.171	0.124	0.109	0.123	0.103	0.131	0.114
pH_Field	pH	7.53	7.5	7.44	7.45	7.41	7.44	7.47	7.37	7.48	7.44	7.45	7.41	7.33	7.43	7.46	7.52	7.73	7.53	7.48
Sulfate	mg/L	13.4	12.9	11.6	12.7	12.2	12	13	12	12	--	13	13	14.1	14.1	14.1	13.6	15.8	14.4	14.7
TDS	mg/L	222	220	223	211	206	215	212	227	230	--	216	191	207	208	205	218	224	207	214
<b>Appendix IV</b>																				
Antimony	mg/L	<0.0006	<0.0006	<0.0006	0.000633 J	<0.0006	<0.0006	<0.0006	<0.0006	--	<0.0006	<0.0006	<0.0008	<0.0008	<0.0008	<0.0008	<0.0008	<0.0008	<0.000507	<0.000508
Arsenic	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.000491	9.58e-005 J	0.000139 J
Barium	mg/L	0.316	0.276	0.3	0.314	0.324	0.316	0.323	0.29	--	0.3	0.315	0.331	0.322	0.342	0.323	0.342	0.356	0.334	0.322
Beryllium	mg/L	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	--	<0.0006	<0.0006	0.00109 J	<0.0006	<0.0006	<0.0006	<0.0006	<0.000406	<0.000406	<0.000406
Cadmium	mg/L	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	--	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<6.8e-005	<6.8e-005
Chromium	mg/L	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	--	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	0.00107	0.000675 J	0.000392 J
Cobalt	mg/L	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	--	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	0.000252	8.52e-005 J	<6.8e-005
Combined Radium	pCi/L	0.363 U	0.435 U	0.725	0.309 U	0.00772 U	0.36 U	0.0175 U	0.464	--	0.44	0.209 U	0.368 U	0.121 U	-0.033 U	0.636	0.59 U	0.285 U	1.07 U	0.557 U
Lead	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.000873	0.00016 J	<6.8e-005
Lithium	mg/L	0.036 J	0.0346 J	0.0353 J	0.0361 J	0.0401 J	0.0379 J	0.0318 J	0.032 J	--	0.0327 J	0.0337 J	0.0336	0.0349	0.0362	0.035	0.0343	0.0376	0.0326	0.033
Mercury	mg/L	<0.00025	<0.00025	<0.00025	<0.00025	<0.00025	<0.00025	<0.00025	<0.00025	--	<0.00025	<0.00025	<0.00025	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003
Molybdenum	mg/L	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	--	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	0.00014 J	0.00069	0.000322
Selenium	mg/L	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	--	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.000507	<0.000508	<0.000508
Thallium	mg/L	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	--	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<6.8e-005	<6.8e-005	<6.8e-005

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



Analyte	Units	GROUNDWATER MONITORING WELLS																				
		GS-AP-MW-17																				
		08/01/2016	09/19/2016	10/24/2016	12/13/2016	02/06/2017	03/27/2017	04/24/2017	06/05/2017	08/22/2017	02/19/2018	05/15/2018	10/15/2018	04/17/2019	09/23/2019	03/16/2020	05/12/2020	09/21/2020	02/02/2021	08/03/2021	02/14/2022	
<b>Appendix III</b>																						
Boron	mg/L	0.0712 J	0.0716 J	0.0858 J	0.0875 J	0.0729 J	0.0706 J	0.0737 J	0.0767 J	0.0786 J	--	0.0953 J	0.0842 J	0.0916 J	0.116	0.0894 J	0.0862 J	0.102	0.0946 J	0.0724 J	0.0717 J	
Calcium	mg/L	4.52	4.3	4.02	5.5	3.79	3.13	3.41	3.32	3.52	--	4.53	3.38	3.86	5.43	3	2.95	3.73	3.3	2.17	2.1	
Chloride	mg/L	6.47	7.78	7.29	12.2	7.68	9	10	10	12	--	13	10	12.7	16.2	9.95	9.16	13.8	10.2	5.75	7.15	
Fluoride	mg/L	0.214 J	0.151 J	0.086 J	0.14 J	0.2	0.21	0.2	0.2	0.24	0.34	0.27	0.23	0.354	0.351	0.261	0.263	0.371	0.276	0.3	0.206	
pH_Field	pH	8.39	8.42	8.42	8.43	8.38	8.43	8.39	8.42	8.4	8.33	8.3	8.37	8.36	8.37	8.45	8.42	8.22	8.43	8.6	8.32	
Sulfate	mg/L	9.56	12.7	8.58	31	14.7	14	22	30	42	--	54	34	76.6	124	48.6	44.4	104	55.1	7.58	14.4	
TDS	mg/L	408	441	424	466	414	444	446	493	500	--	528	462	540	684	516	493	658	548	435	448	
<b>Appendix IV</b>																						
Antimony	mg/L	<0.0006	0.000636 J	<0.0006	0.00072 J	<0.0006	<0.0006	<0.0006	<0.0006	--	<0.0006	<0.0006	<0.0008	<0.0008	<0.0008	<0.0008	<0.0008	<0.0008	<0.000507	<0.000508	<0.000508	
Arsenic	mg/L	0.00138 J	0.00137 J	0.00122 J	0.00243 J	0.00158 J	0.0011 J	0.00133 J	0.00115 J	--	0.00424 J	0.00352 J	0.0018 J	0.00343 J	0.00631	0.00268 J	0.00326 J	0.0055	0.00478	0.000862	0.000965	
Barium	mg/L	0.0696	0.0503	0.0468	0.0472	0.0498	0.0559	0.055	0.0552	--	0.077	0.0751	0.0682	0.0946	0.135	0.0883	0.0941	0.128	0.107	0.0889	0.0945	
Beryllium	mg/L	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	--	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.000406	<0.000406	<0.000406	
Cadmium	mg/L	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	--	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<6.8e-005	<6.8e-005	<6.8e-005
Chromium	mg/L	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	--	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	0.000408 J	<0.000203	
Cobalt	mg/L	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	--	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	0.000102 J	<6.8e-005	<6.8e-005
Combined Radium	pCi/L	0.508 U	0.216 U	0.694	0.614	-0.0283 U	0.0736 U	0.114 U	0.476	--	0.322 U	0.526	0.199 U	0.00935 U	0.983	0.185 U	0.0339 U	0.651 U	2.53	0.667 U	0.523 U	
Lead	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.000175 J	<6.8e-005	<6.8e-005
Lithium	mg/L	0.0479 J	0.0467 J	0.0462 J	0.0296 J	0.064	0.0683	0.0534	0.0574	--	0.0481 J	0.0551	0.0606	0.0574	0.0583	0.0665	0.0602	0.0579	0.0634	0.0678	0.0562	
Mercury	mg/L	<0.00025	<0.00025	<0.00025	<0.00025	<0.00025	<0.00025	<0.00025	<0.00025	--	<0.00025	<0.00025	<0.00025	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	
Molybdenum	mg/L	0.00738 J	0.00889 J	0.00819 J	0.0189	0.00852 J	0.00592 J	0.00644 J	0.00537 J	--	0.0134	0.00789 J	0.00376 J	0.00661 J	0.011	0.00504 J	0.00436 J	0.00776 J	0.00538	0.00151	0.00241	
Selenium	mg/L	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	--	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.000507	<0.000508	<0.000508	
Thallium	mg/L	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	--	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<6.8e-005	<6.8e-005	<6.8e-005

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



Analyte	Units	GS-AP-MW-18																
		08/02/2016	09/21/2016	10/24/2016	12/12/2016	02/08/2017	03/28/2017	04/26/2017	06/06/2017	08/23/2017	02/21/2018	05/16/2018	10/16/2018	04/17/2019	09/24/2019	03/18/2020	09/23/2020	02/08/2021
<b>Appendix III</b>																		
Boron	mg/L	1.21	1.32	1.6	1.82	1.79	1.62	1.53	1.73	1.71	--	1.23	2.12	0.449	0.883	0.492	0.491	0.546
Calcium	mg/L	64.2	110	166	204	199	162	159	159	153	--	92.1	203	40.8	57.4	90.9	38.8	45.6
Chloride	mg/L	20.8	23.3	27.9	36	33.3	35	34	36	31	--	22	35	6.57	12.3	6.68	5.29	5.48
Fluoride	mg/L	0.219 J	0.213 J	0.141 J	0.206 J	0.34	0.36	0.31	0.29	0.34	0.46	0.43	0.64	0.638	0.578	0.437	0.575	0.485
pH_Field	pH	7.65	7.47	7.44	7.39	7.31	7.6	7.5	7.34	7.4	7.44	7.47	7.06	7.58	7.49	6.99	7.54	7.49
Sulfate	mg/L	295	440	608	755	672	610	600	670	560	--	260	520	68.7	119	216	88.9	72.6
TDS	mg/L	586	848	1100	1260	1160	1100	1090	1170	1020	--	658	1030	358	372	618	380	384
<b>Appendix IV</b>																		
Antimony	mg/L	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	--	<0.0006	<0.0006	<0.0008	<0.0008	<0.0008	<0.0008	<0.0008	<0.000507
Arsenic	mg/L	0.0505	0.0527	0.0597	0.0659	0.0669	0.0668	0.0722	0.0673	--	0.0922	0.0876	0.0158	0.0042 J	0.00854	0.00583	0.00873	0.00826
Barium	mg/L	0.21	0.107	0.0999	0.0772	0.0625	0.0581	0.0587	0.0452	--	0.0455	0.0505	0.0436	0.0963	0.0896	0.0587	0.0911	0.126
Beryllium	mg/L	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	--	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.000406
Cadmium	mg/L	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	--	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<6.8e-005
Chromium	mg/L	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	--	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	0.000296 J
Cobalt	mg/L	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	--	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<6.8e-005
Combined Radium	pCi/L	0.665	0.801	0.809	0.628 U	-0.0851 U	0.0973 U	0.388 U	0.0674 U	--	0.418 U	1.04	0.779	0.196 U	0.375 U	0.281 U	0.888	0.647 U
Lead	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<6.8e-005
Lithium	mg/L	0.196	0.25	0.293	0.284 J	0.371	0.316	0.24	0.262	--	0.189	0.172	0.314	0.0943	0.114	0.116	0.0895	0.108
Mercury	mg/L	<0.00025	<0.00025	<0.00025	<0.00025	<0.00025	<0.00025	<0.00025	<0.00025	--	<0.00025	<0.00025	<0.00025	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003
Molybdenum	mg/L	0.0516	0.0567	0.0517	0.0431	0.0381	0.0333	0.0348	0.0384	--	0.0441	0.0374	0.0425	0.0114	0.0504	0.00927 J	0.044	0.033
Selenium	mg/L	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	--	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.000507
Thallium	mg/L	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	--	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<6.8e-005

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





Analyte	Units	GS-AP-MW-19																			
		08/01/2016	09/21/2016	10/24/2016	12/13/2016	02/07/2017	03/28/2017	04/26/2017	06/06/2017	08/22/2017	02/21/2018	05/16/2018	10/16/2018	04/17/2019	09/24/2019	03/24/2020	09/22/2020	02/08/2021	08/10/2021	02/22/2022	
<b>Appendix III</b>																					
Boron	mg/L	0.0279 J	0.0235 J	0.0444 J	0.0285 J	0.03 J	0.0309 J	0.0273 J	0.0212 J	0.0294 J	--	0.0356 J	0.0363 J	0.0336 J	0.0375 J	0.0398 J	0.037 J	0.0336 J	<0.03	<0.03	
Calcium	mg/L	39.6	38.1	34.7	44	39	43.9	42.8	43.1	40.7	--	45.3	40.9	38.4	48.4	41.7	46.9	56.8	53.8	53.5	
Chloride	mg/L	6.67	6.54	8.77	6.16	7.57	5.9	6.5	5.5	6.5	--	6.6	6.2	7.27	5.83	6.29	6.6	6	4.83	4.82	
Fluoride	mg/L	0.385	0.303	0.24 J	0.188 J	0.38	0.32	0.31	0.31	0.35	0.39	0.36	0.37	0.27	0.307	0.327	0.339	0.319	0.29	0.24	
pH_Field	pH	8.05	8.14	8.55	8.08	8.61	7.94	8.26	8.23	8.1	8.48	8.12	8.22	8.06	7.8	7.93	8.17	7.89	7.72	7.71	
Sulfate	mg/L	9.02	8.38	18.5	7.4	8.16	6.4	4.6 J	5.2	5.3	--	6	5.6	14.3	13.8	15.2	16.9	16.2	14.8	13.7	
TDS	mg/L	245	267	275	255	272	271	265	287	293	--	301	303	296	302	302	300	324	307	304	
<b>Appendix IV</b>																					
Antimony	mg/L	<0.0006	<0.0006	<0.0006	0.000613 J	<0.0006	<0.0006	<0.0006	<0.0006	--	<0.0006	<0.0006	<0.0008	<0.0008	<0.0008	<0.0008	<0.0008	<0.000507	<0.000508	<0.000508	
Arsenic	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	--	0.00138 J	0.00114 J	0.00216 J	0.00302 J	0.00289 J	0.00313 J	0.00313 J	0.00178	0.00115	0.000977	
Barium	mg/L	0.492	0.371	0.311	0.374	0.368	0.391	0.371	0.33	--	0.291	0.343	0.35	0.316	0.356	0.324	0.337	0.36	0.347	0.34	
Beryllium	mg/L	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	--	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.000406	<0.000406	<0.000406	
Cadmium	mg/L	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	--	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<6.8e-005	<6.8e-005	<6.8e-005
Chromium	mg/L	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	--	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	0.000258 J	0.000381 J	<0.000203	
Cobalt	mg/L	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	--	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<6.8e-005	<6.8e-005	<6.8e-005
Combined Radium	pCi/L	0.697 U	1.79	1.53	0.758	0.473	0.0705 U	0.238 U	0.909	--	0.349 U	1.12	0.856	0.507 U	0.664	1.07	2.09	0.947 U	1.42 U	0.639 U	
Lead	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<6.8e-005	<6.8e-005	<6.8e-005
Lithium	mg/L	0.0252 J	0.0223 J	0.0247 J	0.0312 J	0.0406 J	0.0309 J	0.0267 J	0.0311 J	--	0.0472 J	0.0391 J	0.0406	0.0429	0.0392	0.0417	0.0435	0.0368	0.0305	0.0258	
Mercury	mg/L	<0.00025	<0.00025	<0.00025	<0.00025	<0.00025	<0.00025	<0.00025	<0.00025	--	<0.00025	<0.00025	<0.00025	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	
Molybdenum	mg/L	0.00752 J	0.0117	0.0198	0.00703 J	0.0103	0.00599 J	0.00845 J	0.00624 J	--	0.00903 J	0.00515 J	0.00593 J	0.00703 J	0.00562 J	0.00605 J	0.0063 J	0.00366	0.00269	0.00267	
Selenium	mg/L	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	--	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.000507	<0.000508	<0.000508	
Thallium	mg/L	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	--	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<6.8e-005	<6.8e-005	<6.8e-005	

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



Analyte	Units	GS-AP-MW-6V				
		09/08/2020	09/15/2020	02/03/2021	08/02/2021	02/09/2022
<b>Appendix III</b>						
Boron	mg/L	0.0974 J	0.0974 J	0.1 J	0.101 J	0.101 J
Calcium	mg/L	1.8	1.74	1.5	2.1	1.29
Chloride	mg/L	50.4	49.8	48	94.1	53.3
Fluoride	mg/L	4.46	4.59	4.28	4.45	4.35
pH_Field	pH	8.67	8.76	8.9	8.76	8.8
Sulfate	mg/L	9.06	7.02	4.29	14.1	8.6
TDS	mg/L	810	857	840	833	818
<b>Appendix IV</b>						
Antimony	mg/L	<0.0008	<0.0008	<0.000507	<0.000508	<0.000508
Arsenic	mg/L	<0.001	<0.001	0.000767	0.000936	0.000904
Barium	mg/L	0.164	0.16	0.124	0.143	0.156
Beryllium	mg/L	<0.0006	<0.0006	<0.000406	<0.000406	<0.000406
Cadmium	mg/L	<0.0003	<0.0003	<6.8e-005	<6.8e-005	<6.8e-005
Chromium	mg/L	<0.002	<0.002	0.000274 J	0.000573 J	0.000418 J
Cobalt	mg/L	<0.002	<0.002	8.19e-005 J	0.000114 J	0.000119 J
Combined Radium	pCi/L	-0.0377 U	1.25	0.2 U	1.53	0.209 U
Lead	mg/L	<0.001	<0.001	0.000155 J	0.000233	<6.8e-005
Lithium	mg/L	0.138	0.136	0.156	0.152	0.121
Mercury	mg/L	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003
Molybdenum	mg/L	0.00317 J	0.00256 J	0.00284	0.00438	0.00336
Selenium	mg/L	<0.002	<0.002	<0.000507	<0.000508	<0.000508
Thallium	mg/L	<0.0002	<0.0002	<6.8e-005	<6.8e-005	<6.8e-005

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



Analyte	Units	GS-AP-MW-21																			
		08/02/2016	09/21/2016	10/25/2016	12/14/2016	02/08/2017	03/28/2017	04/26/2017	06/06/2017	08/23/2017	02/20/2018	05/15/2018	10/16/2018	04/17/2019	09/24/2019	03/18/2020	09/23/2020	02/08/2021	08/04/2021	02/08/2022	
<b>Appendix III</b>																					
Boron	mg/L	0.176	0.0723 J	0.0867 J	0.092 J	0.0803 J	0.0804 J	0.0801 J	0.0795 J	0.0764 J	--	0.0769 J	0.0764 J	0.0675 J	0.0843 J	0.0824 J	0.0871 J	0.0991 J	0.0993 J	0.111	
Calcium	mg/L	5.29	4.51	4.92	3.5	3.75	3.63	3.3	3.24	6.6	--	7.57	4.4	2.88	2.47	2.35	1.96	1.95	1.76	1.98	
Chloride	mg/L	28.1	26.8	26	25.3	23.8	28	27	28	29	--	27	31	32.3	36	49.5	56.9	39.8	54.8	41.4	
Fluoride	mg/L	0.282 J	0.231 J	0.137 J	0.131 J	0.25	0.27	0.24	0.25	0.3	0.23	0.24	0.25	0.272	0.209	0.234	0.208	0.203	0.24	0.175	
pH_Field	pH	10.26	10.45	10.42	10.12	10.28	10.67	10.42	10.51	11.91	11.57	11.26	11.34	11.71	11.24	11.37	10.71	10.69	10.95	10.26	
Sulfate	mg/L	9.14	8.71	8.54	11.5	17	25	28	33	43	--	110	160	215	224	228	248	232	231	241	
TDS	mg/L	348	368	348	352	352	370	342	367	508	--	438	520	582	630	661	642	684	594	570	
<b>Appendix IV</b>																					
Antimony	mg/L	<0.0006	<0.0006	<0.0006	0.00119 J	<0.0006	<0.0006	<0.0006	<0.0006	--	<0.0006	<0.0006	<0.0008	<0.0008	<0.0008	<0.0008	<0.0008	<0.000507	<0.000508	<0.000508	
Arsenic	mg/L	0.0027 J	0.00258 J	0.00214 J	0.00193 J	0.00188 J	0.00153 J	0.00135 J	0.00131 J	--	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.000624	0.000537	0.000476	
Barium	mg/L	0.0535	0.0458	0.0489	0.0494	0.0449	0.0446	0.0424	0.0402	--	0.0441	0.0456	0.0909	0.0914	0.114	0.105	0.157	0.151	0.148	0.143	
Beryllium	mg/L	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	--	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.000406	<0.000406	<0.000406	
Cadmium	mg/L	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	--	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<6.8e-005	<6.8e-005	<6.8e-005
Chromium	mg/L	<0.002	0.00233 J	0.00204 J	<0.002	<0.002	<0.002	<0.002	<0.002	--	0.00219 J	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	0.000705 J	0.000422 J	0.000401 J	
Cobalt	mg/L	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	--	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<6.8e-005	<6.8e-005	<6.8e-005	
Combined Radium	pCi/L	0.665	0.532 U	0.601	1.02	-0.074 U	0.3 U	0.982 U	0.312 U	--	0.321 U	1.7	0.586	0.47 U	1.08	0.732	0.468 U	0.667 U	0.337 U	0.529 U	
Lead	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<6.8e-005	<6.8e-005	<6.8e-005	
Lithium	mg/L	0.145	0.153	0.171	0.182	0.178	0.161	0.126	0.135	--	0.158	0.174	0.219	0.312	0.276	0.379	0.179	0.239	0.213	0.0996	
Mercury	mg/L	<0.00025	<0.00025	<0.00025	<0.00025	<0.00025	<0.00025	<0.00025	<0.00025	--	<0.00025	<0.00025	<0.00025	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	
Molybdenum	mg/L	0.0365	0.0362	0.0326	0.0345	0.0419	0.0523	0.0502	0.05	--	0.0966	0.0687	0.061	0.0885	0.0613	0.102	0.0404	0.0396	0.0367	0.0134	
Selenium	mg/L	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	--	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.000507	<0.000508	<0.000508	
Thallium	mg/L	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	--	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<6.8e-005	<6.8e-005	<6.8e-005	

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



Analyte	Units	GS-AP-MW-9V					GS-AP-MW-12V						GS-AP-MW-15V					GS-AP-PZ-16					
		03/23/2020	09/22/2020	02/02/2021	08/10/2021	02/21/2022	02/21/2019	09/25/2019	03/24/2020	09/23/2020	02/01/2021	08/09/2021	02/23/2022	03/18/2020	09/21/2020	02/09/2021	08/03/2021	02/16/2022	03/24/2020	09/17/2020	02/17/2021	08/09/2021	02/15/2022
		<b>Appendix III</b>																					
Boron	mg/L	0.0316 J	0.0348 J	0.0358 J	<0.03	0.0349 J	0.0303 J	0.0347 J	0.0343 J	0.0322 J	<0.03	<0.03	<0.03	0.0565 J	0.0712 J	0.0722 J	0.0601 J	0.0594 J	0.0772 J	0.0824 J	0.089 J	0.0747 J	0.0774 J
Calcium	mg/L	42.9	45.3	44.8	45.1	47.7	52.3	33.4	48.9	44.8	48.9	35.7	45.6	8.01	8.2	10	10.6	13.7	13.9	9.69	9.59	18.5	9.3
Chloride	mg/L	5.13	7.57	10.8	18.8	18.4	3.77	3.84	4.46	4.63	3.86	4.44	3.83	108	171	197	176	129	5.72	6.57	6.69	6.22	5.84
Fluoride	mg/L	0.187	0.174	0.183	0.166	0.177	0.205	0.185	0.155	0.176	0.169	0.187	0.153	0.243	0.372	0.329	0.278	0.208	0.228	0.237	0.219	0.235	0.258
pH_Field	pH	6.97	7.08	6.94	7.12	7	7.82	9.29	7.8	8.84	7.3	8.77	7.73	10.89	10.07	9.55	8.97	8.65	7.89	9.15	8.32	9.09	9.34
Sulfate	mg/L	18.7	21.2	31.2	32.7	32.4	<0.5	1.61	<0.5	6.56	<0.5	1.85	0.741 J	261	348	350	241	224	27.7	15.2	14.1	13.6	23.1
TDS	mg/L	268	285	314	309	299	237	183	206	195	240	145	209	873	1090	1040	782	782	381	387	397	384	402
<b>Appendix IV</b>																							
Antimony	mg/L	<0.0008	<0.0008	<0.000507	<0.000508	<0.000508	0.000841 J	0.0025 J	0.00128 J	0.00152 J	0.000861 J	0.000891 J	<0.000508	0.0028 J	0.0028 J	0.00237	0.000972 J	0.000694 J	<0.0008	<0.0008	<0.000507	<0.000508	<0.000508
Arsenic	mg/L	<0.001	<0.001	0.000101 J	0.000318	0.000209	<0.001	0.00129 J	0.00266 J	0.00176 J	0.00154	0.00112	0.00102	0.011	0.0167	0.0165	0.0105	0.00764	<0.001	<0.001	0.000258	0.00059	0.000977
Barium	mg/L	0.215	0.187	0.17	0.165	0.18	1.35	1.06	1.43	1.27	1.6	1.07	1.34	0.155	0.18	0.2	0.164	0.186	0.295	0.223	0.27	0.244	0.177
Beryllium	mg/L	<0.0006	<0.0006	<0.000406	<0.000406	<0.000406	<0.0006	<0.0006	<0.0006	<0.0006	<0.000406	<0.000406	<0.0006	<0.0006	<0.0006	<0.000406	<0.000406	<0.000406	<0.0006	<0.0006	<0.000406	<0.000406	<0.000406
Cadmium	mg/L	<0.0003	<0.0003	<6.8e-005	<6.8e-005	<6.8e-005	<0.0003	<0.0003	<0.0003	<0.0003	<6.8e-005	<6.8e-005	<6.8e-005	<0.0003	<0.0003	<6.8e-005	<6.8e-005	<6.8e-005	<0.0003	<0.0003	<6.8e-005	<6.8e-005	<6.8e-005
Chromium	mg/L	<0.002	<0.002	0.000228 J	0.000292 J	<0.000203	<0.002	0.00202 J	0.00774 J	0.00362 J	0.00311	0.00146	0.000607 J	0.00716 J	0.00239 J	0.00142	0.000507 J	0.000622 J	<0.002	<0.002	<0.000203	0.000403 J	0.000297 J
Cobalt	mg/L	<0.002	<0.002	<6.8e-005	<6.8e-005	<6.8e-005	<0.002	<0.002	0.00277 J	<0.002	0.00129	0.000433	<6.8e-005	<0.002	<0.002	<6.8e-005	<6.8e-005	<6.8e-005	<0.002	<0.002	<6.8e-005	<6.8e-005	8.11e-005 J
Combined Radium	pCi/L	0.156 U	0.536 U	0.154 U	0.895 U	0.134 U	0.296 U	1.03	0.877 U	1.38	0.944 U	1.19 U	1.3	0.566 U	0.494 U	0.55 U	1.13 U	0.841 U	0.847	0.438 U	0.753 U	1.47	1.12 U
Lead	mg/L	<0.001	<0.001	<6.8e-005	<6.8e-005	<6.8e-005	<0.001	<0.001	0.00279 J	0.0014 J	0.0013	0.000476	<6.8e-005	<0.001	<0.001	<6.8e-005	<6.8e-005	<6.8e-005	<0.001	<0.001	0.000148 J	0.000236	0.000665
Lithium	mg/L	0.0309	0.0293	0.0299	0.031	0.0291	0.0468	0.0611	0.0462	0.0409	0.0384	0.0398	0.0269	0.208	0.116	0.122	0.0986	0.0788	0.0714	0.073	0.0762	0.0657	0.0603
Mercury	mg/L	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003
Molybdenum	mg/L	<0.002	<0.002	0.000538	0.00269	0.0022	0.00253 J	0.00942 J	0.00454 J	0.00463 J	0.00164	0.00302	0.00144	0.0327	0.0538	0.0522	0.0311	0.0272	<0.002	0.00241 J	0.00132	0.00221	0.00309
Selenium	mg/L	<0.002	<0.002	<0.000507	<0.000508	<0.000508	<0.002	<0.002	<0.002	<0.002	<0.000507	<0.000508	<0.000508	<0.002	<0.002	<0.000507	<0.000508	<0.000508	<0.002	<0.002	<0.000507	<0.000508	<0.000508
Thallium	mg/L	<0.0002	<0.0002	<6.8e-005	<6.8e-005	<6.8e-005	<0.0002	<0.0002	<0.0002	<0.0002	<6.8e-005	<6.8e-005	<6.8e-005	<0.0002	<0.0002	<6.8e-005	<6.8e-005	<6.8e-005	<0.0002	<0.0002	<6.8e-005	<6.8e-005	<6.8e-005

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





Analyte	Units	GS-AP-MW-17V								GS-AP-PZ-18			GS-AP-MW-18V					GS-AP-MW-21V				
		02/20/2019	09/24/2019	03/25/2020	09/23/2020	02/02/2021	08/02/2021	02/14/2022	05/11/2022	03/25/2020	09/22/2020	02/10/2021	02/26/2019	03/25/2020	09/22/2020	02/03/2021	02/22/2022	03/23/2020	09/23/2020	02/09/2021	08/11/2021	02/08/2022
		<b>Appendix III</b>																				
Boron	mg/L	0.0337 J	0.0532 J	0.0482 J	0.0478 J	0.0396 J	0.0368 J	0.0386 J	--	0.0568 J	0.0603 J	0.0701 J	0.109	0.0834 J	0.0769 J	0.0766 J	--	0.122	0.126	0.114	0.0631 J	0.0938 J
Calcium	mg/L	30.6	29.7	31.1	29.3	31.8	33	31.4	--	34.5	26.2	40.5	13.6	6.18	5.12	5.57	--	110	119	73.8	13.8	42.2
Chloride	mg/L	3.56	3.69	3.72	3.74	3.49	3.12	3.26	--	2.88	2.73	3.2	7.13	6.23	5.57	5.68	--	981	1100	592	162	432
Fluoride	mg/L	0.239	0.245	0.243	0.278	0.244	0.276	0.237	--	0.396	0.392	0.368	0.165	0.353	0.368	0.334	--	0.494	0.641	0.546	0.41	0.398
pH_Field	pH	8.03	7.65	7.63	7.53	7.58	7.65	7.43	--	6.8	7	6.9	8.02	8.19	8.35	8.42	--	7.93	7.81	7.87	8.28	7.98
Sulfate	mg/L	15.2	11.8	9.69	11.1	8.81	10.2	9.09	--	355	245	390	39.9	16.5	14.4	14.6	--	1050	1120	645	137	451
TDS	mg/L	346	365	364	368	356	333	365	--	738	648	787	238	287	290	308	--	3410	3690	2250	712	1360
<b>Appendix IV</b>																						
Antimony	mg/L	0.00115 J	<0.0008	<0.0008	<0.0008	<0.000507	<0.000508	<0.000508	--	<0.0008	<0.0008	<0.000507	0.00098 J	<0.0008	<0.0008	<0.000507	--	0.000831 J	<0.0008	0.000661 J	<0.000508	<0.000508
Arsenic	mg/L	0.0011 J	0.00149 J	<0.001	<0.001	0.000243	0.000135 J	0.000301	--	0.0275	0.0119	0.016	0.00368 J	0.0063	0.00654	0.00588	--	0.0159	0.01	0.0063	0.00161	0.00494
Barium	mg/L	0.191	0.208	0.314	0.299	0.308	0.353	0.278	--	0.028	0.0432	0.0405	0.243	0.234	0.253	0.26	--	0.0574	0.0438	0.028	0.0535	0.0556
Beryllium	mg/L	<0.0006	<0.0006	<0.0006	<0.0006	<0.000406	<0.000406	<0.000406	--	<0.0006	<0.0006	<0.000406	<0.0006	<0.0006	<0.0006	<0.000406	--	<0.0006	<0.0006	<0.000406	<0.000406	<0.000406
Cadmium	mg/L	<0.0003	<0.0003	<0.0003	<0.0003	<6.8e-005	<6.8e-005	<6.8e-005	--	<0.0003	<0.0003	<6.8e-005	<0.0003	<0.0003	<0.0003	<6.8e-005	--	<0.0003	<0.0003	<6.8e-005	<6.8e-005	<6.8e-005
Chromium	mg/L	<0.002	0.00405 J	<0.002	<0.002	0.000313 J	0.000323 J	0.000231 J	--	<0.002	<0.002	<0.000203	<0.002	<0.002	<0.002	0.000212 J	--	<0.002	<0.002	0.000218 J	0.00134	<0.000203
Cobalt	mg/L	<0.002	<0.002	<0.002	<0.002	<6.8e-005	<6.8e-005	<6.8e-005	--	0.00409 J	0.00226 J	0.00443	<0.002	<0.002	<0.002	<6.8e-005	--	<0.002	<0.002	<6.8e-005	<6.8e-005	<6.8e-005
Combined Radium	pCi/L	0.398 U	0.373 U	0.0656 U	0.542 U	0.448 U	0.738 U	7.76	0.553 U	0.13 U	0.96	0.773 U	0.278 U	-0.00344 U	1.02	0.921 U	0.187 U	0.982	0.563 U	0.867 U	0.782 U	0.467 U
Lead	mg/L	0.00189 J	<0.001	<0.001	<0.001	<6.8e-005	<6.8e-005	<6.8e-005	--	<0.001	<0.001	<6.8e-005	<0.001	<0.001	<0.001	<6.8e-005	--	<0.001	<0.001	<6.8e-005	<6.8e-005	<6.8e-005
Lithium	mg/L	0.0671	0.0809	0.0646	0.0574	0.0585	0.056	0.0495	--	0.109	0.0789	0.12	0.0423	0.0244	0.0254	0.0293	--	0.146	0.137	0.124	0.048	0.0835
Mercury	mg/L	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	--	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	--	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003
Molybdenum	mg/L	0.00577 J	0.00906 J	0.00508 J	0.00664 J	0.00252	0.00206	0.00234	--	0.00919 J	0.00496 J	0.00511	0.00696 J	0.0217	0.0248	0.0236	--	0.117	0.12	0.0983	0.0394	0.0819
Selenium	mg/L	<0.002	<0.002	<0.002	<0.002	<0.000507	<0.000508	0.000995 J	--	<0.002	<0.002	<0.000507	<0.002	<0.002	<0.002	<0.000507	--	<0.002	<0.002	<0.000507	<0.000508	<0.000508
Thallium	mg/L	<0.0002	<0.0002	<0.0002	<0.0002	<6.8e-005	<6.8e-005	<6.8e-005	--	<0.0002	<0.0002	<6.8e-005	<0.0002	<0.0002	<0.0002	<6.8e-005	--	<0.0002	<0.0002	<6.8e-005	<6.8e-005	<6.8e-005

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



Analyte	Units	GS-AP-PZ-22					GS-AP-MW-23H						GS-AP-MW-24H							
		03/24/2020	09/17/2020	02/02/2021	08/03/2021	02/14/2022	02/20/2019	09/23/2019	03/17/2020	09/17/2020	02/03/2021	07/27/2021	02/14/2022	02/26/2019	09/24/2019	03/18/2020	09/17/2020	02/02/2021	08/03/2021	02/15/2022
		<b>Appendix III</b>																		
Boron	mg/L	0.0521 J	0.0454 J	0.0486 J	0.0478 J	0.0463 J	0.0498 J	0.0641 J	0.0504 J	0.0637 J	0.0425 J	0.0461 J	0.0366 J	0.0725 J	0.0821 J	0.0811 J	0.069 J	0.0685 J	0.071 J	0.0692 J
Calcium	mg/L	19.3	12.6	16.5	16	18.2	64.5	80.6	79.8	87.2	75.6	75.5	74.4	45.9	46.5	44	45.5	42.4	44.2	45
Chloride	mg/L	2.53	2.46	2.99	2.67	3.1	2.58	2.26	2.62	1.92	2.07	2.48	13	3.33	2.89	3.5	3.19	3.06	2.94	3.18
Fluoride	mg/L	0.387	0.402	0.389	0.419	0.422	0.188	0.144	0.241	0.117	0.156	0.13	0.14	0.194	0.201	0.206	0.217	0.209	0.208	0.176
pH_Field	pH	7.77	8.81	7.5	7.74	7.4	6.5	5.76	5.95	5.74	6.22	5.65	5.8	7.37	6.59	7	7.02	6.93	6.94	7
Sulfate	mg/L	70.1	79.9	84.1	74.7	91.1	352	394	356	361	339	339	356	11.1	15.3	12.2	6.7	6.43	6.21	12.1
TDS	mg/L	412	438	446	414	423	560	598	626	648	612	581	592	252	253	250	250	259	242	241
<b>Appendix IV</b>																				
Antimony	mg/L	<0.0008	<0.0008	<0.000507	<0.000508	<0.000508	0.000809 J	<0.0008	<0.0008	<0.0008	<0.000507	<0.000508	<0.000508	0.000807 J	<0.0008	<0.0008	<0.0008	<0.000507	<0.000508	<0.000508
Arsenic	mg/L	0.00367 J	0.00387 J	0.00338	0.00296	0.00358	0.0306	0.0369	0.0524	0.0579	0.0562	0.0474	0.061	<0.001	<0.001	<0.001	<0.001	0.000341	0.000333	0.000231
Barium	mg/L	0.104	0.109	0.0891	0.0953	0.0635	0.0227	0.0148	0.0143	0.0146	0.0138	0.0148	0.0153	0.881	1.04	0.964	0.988	0.952	1.04	0.992
Beryllium	mg/L	<0.0006	<0.0006	<0.000406	<0.000406	<0.000406	<0.0006	<0.0006	<0.0006	<0.0006	<0.000406	<0.000406	<0.000406	<0.0006	<0.0006	<0.0006	<0.0006	<0.000406	<0.000406	<0.000406
Cadmium	mg/L	<0.0003	<0.0003	<6.8e-005	<6.8e-005	<6.8e-005	<0.0003	<0.0003	<0.0003	<0.0003	<6.8e-005	<6.8e-005	<6.8e-005	<0.0003	<0.0003	<0.0003	<0.0003	<6.8e-005	<6.8e-005	<6.8e-005
Chromium	mg/L	<0.002	<0.002	<0.000203	0.000242 J	<0.000203	<0.002	<0.002	<0.002	<0.002	0.000222 J	0.000246 J	<0.000203	<0.002	<0.002	<0.002	<0.002	0.000382 J	0.000447 J	<0.000203
Cobalt	mg/L	<0.002	<0.002	<6.8e-005	<6.8e-005	<6.8e-005	<0.002	<0.002	<0.002	<0.002	0.000512	0.000504	0.000548	<0.002	<0.002	<0.002	<0.002	0.000192 J	0.000237	0.000205
Combined Radium	pCi/L	0.878	0.896	1.01 U	0.195 U	0.67 U	0.0759 U	0.00709 U	0.989	0.66 U	0.767 U	0.124 U	0.153 U	0.9	1.23	0.788	0.298 U	1.03 U	1.3 U	1.16
Lead	mg/L	<0.001	<0.001	<6.8e-005	<6.8e-005	<6.8e-005	<0.001	<0.001	<0.001	<0.001	<6.8e-005	<6.8e-005	<6.8e-005	<0.001	<0.001	<0.001	<0.001	<6.8e-005	<6.8e-005	<6.8e-005
Lithium	mg/L	0.0734	0.0862	0.0743	0.0685	0.055	0.031	0.0324	0.0327	0.0333	0.0319	0.0308	0.0302	0.0282	0.0275	0.0264	0.0237	0.0247	0.0249	0.0238
Mercury	mg/L	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003
Molybdenum	mg/L	0.00333 J	0.00357 J	0.00367	0.00352	0.00419	<0.002	<0.002	<0.002	<0.002	0.000902	0.000813	0.000974	<0.002	<0.002	<0.002	<0.002	0.000563	0.00054	0.000456
Selenium	mg/L	<0.002	<0.002	<0.000507	<0.000508	<0.000508	<0.002	<0.002	<0.002	<0.002	<0.000507	<0.000508	<0.000508	<0.002	<0.002	<0.002	<0.002	<0.000507	<0.000508	<0.000508
Thallium	mg/L	<0.0002	<0.0002	<6.8e-005	<6.8e-005	<6.8e-005	<0.0002	<0.0002	<0.0002	<0.0002	<6.8e-005	<6.8e-005	<6.8e-005	<0.0002	<0.0002	<0.0002	<0.0002	<6.8e-005	<6.8e-005	<6.8e-005

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









Analyte	Units	GS-AP-MW-33HO				GS-AP-MW-34HO						GS-AP-MW-35HO					
		09/15/2020	02/03/2021	07/27/2021	02/09/2022	03/16/2020	05/12/2020	09/16/2020	02/03/2021	07/27/2021	02/09/2022	03/17/2020	05/12/2020	09/16/2020	02/04/2021	07/28/2021	02/09/2022
<b>Appendix III</b>																	
Boron	mg/L	0.0425 J	0.0453 J	0.0417 J	0.0416 J	0.0827 J	0.0929 J	0.0874 J	0.0964 J	0.108	0.106	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03
Calcium	mg/L	29.5	30.3	30.5	26.5	83.8	80.4	86.9	100	102	97.7	5.27	3.04	3.04	3.3	2.51	2.16
Chloride	mg/L	75.6	55.2	75.3	68.9	101	148	210	156	371	392	23.9	14.5	20.9	23.9	16.7	17.5
Fluoride	mg/L	0.188	0.178	0.214	0.131	0.338	0.37	0.364	0.298	0.408	0.291	0.166	0.167	0.162	0.152	0.207	0.119
pH_Field	pH	7.66	7.64	7.59	7.64	7.35	7.44	7.45	7.26	7.32	7.4	8.4	8.46	8.48	8.35	8.45	8.55
Sulfate	mg/L	98.6	70.7	100	77.8	1480	1330	1390	1610	1580	1570	40.1	22.6	24.6	25.3	20.7	22.3
TDS	mg/L	538	443	472	471	2460	2440	2720	2930	2940	3130	365	311	326	339	302	322
<b>Appendix IV</b>																	
Antimony	mg/L	<0.0008	<0.000507	<0.000508	<0.000508	<0.0008	<0.0008	<0.0008	<0.000507	<0.000508	<0.000508	<0.0008	<0.0008	<0.0008	<0.000507	<0.000508	<0.000508
Arsenic	mg/L	0.00275 J	0.00177	0.00143	0.000694	0.00351 J	0.00668	0.00308 J	0.00257	0.00185	0.000823	0.00105 J	<0.001	<0.001	0.000442	0.00024	0.00014 J
Barium	mg/L	0.469	0.465	0.46	0.449	0.0309	0.0379	0.0451	0.0543	0.0649	0.0568	0.0426	0.0472	0.0532	0.052	0.0492	0.0498
Beryllium	mg/L	<0.0006	<0.000406	<0.000406	<0.000406	<0.0006	<0.0006	<0.0006	<0.000406	<0.000406	<0.000406	<0.0006	<0.0006	<0.0006	<0.000406	<0.000406	<0.000406
Cadmium	mg/L	<0.0003	<6.8e-005	<6.8e-005	<6.8e-005	<0.0003	<0.0003	<0.0003	<6.8e-005	<6.8e-005	<6.8e-005	<0.0003	<0.0003	<0.0003	<6.8e-005	<6.8e-005	<6.8e-005
Chromium	mg/L	<0.002	0.000207 J	0.000283 J	0.000222 J	<0.002	<0.002	<0.002	0.000397 J	0.000499 J	0.000275 J	<0.002	<0.002	<0.002	0.000211 J	0.000415 J	<0.000203
Cobalt	mg/L	<0.002	<6.8e-005	<6.8e-005	<6.8e-005	<0.002	<0.002	<0.002	<6.8e-005	<6.8e-005	<6.8e-005	<0.002	<0.002	<0.002	<6.8e-005	<6.8e-005	<6.8e-005
Combined Radium	pCi/L	-0.106 U	0.313 U	0.408 U	0.767 U	-0.085 U	0.345 U	0.286 U	0.485 U	0.732 U	0.213 U	7.32	1.02	0.435 U	0.527 U	0.0525 U	0.23 U
Lead	mg/L	<0.001	<6.8e-005	<6.8e-005	<6.8e-005	<0.001	<0.001	<0.001	<6.8e-005	<6.8e-005	<6.8e-005	<0.001	<0.001	<0.001	<6.8e-005	<6.8e-005	<6.8e-005
Lithium	mg/L	0.0479	0.0534	0.0563	0.0517	0.205	0.18	0.18	0.249	0.207	0.173	0.074	0.0693	0.0685	0.0734	0.0722	0.0673
Mercury	mg/L	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003
Molybdenum	mg/L	0.00496 J	0.00346	0.00574	0.00513	0.00386 J	0.0088 J	0.00598 J	0.00753	0.0138	0.00959	0.00222 J	<0.002	<0.002	0.00273	0.0017	0.00182
Selenium	mg/L	<0.002	<0.000507	<0.000508	<0.000508	<0.002	<0.002	<0.002	<0.000507	<0.000508	<0.000508	<0.002	<0.002	<0.002	<0.000507	<0.000508	<0.000508
Thallium	mg/L	<0.0002	<6.8e-005	<6.8e-005	<6.8e-005	<0.0002	<0.0002	<0.0002	<6.8e-005	<6.8e-005	<6.8e-005	<0.0002	<0.0002	<0.0002	<6.8e-005	<6.8e-005	<6.8e-005

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



Analyte	Units	GS-AP-MW-36H							GS-AP-MW-40H				GS-AP-MW-41HS			GS-AP-MW-38H				
		03/17/2020	05/13/2020	09/17/2020	02/17/2021	08/04/2021	02/14/2022	05/10/2022	09/22/2020	02/02/2021	08/10/2021	02/15/2022	02/08/2021	07/28/2021	02/08/2022	03/24/2020	09/22/2020	02/09/2021	08/04/2021	02/22/2022
		<b>Appendix III</b>																		
Boron	mg/L	0.0394 J	0.0359 J	0.0345 J	0.0413 J	0.0449 J	0.0466 J	--	0.0326 J	0.0305 J	<0.03	<0.03	1.06	1.09	1.05	0.0468 J	0.0461 J	0.0504 J	0.0479 J	0.0452 J
Calcium	mg/L	3.45	2.93	4.12	3.16	5.78	4.7	--	205	199	197	210	49.8	45.1	30.6	9.33	9.56	10.6	12.2	10.6
Chloride	mg/L	29.4	27.2	38.5	24.3	59.8	77.7	--	30.4	36.8	28	18	9.18	8.34	6.72	12.6	24.8	28.1	33.1	31
Fluoride	mg/L	0.214	0.224	0.209	0.22	0.31	0.238	--	0.114	0.123	0.113	0.0854 J	0.152	0.172	0.117	0.291	0.28	0.243	0.305	0.239
pH_Field	pH	8.44	8.52	8.18	8.36	8.37	8.22	--	6.64	6.55	6.56	6.6	6.77	6.86	6.66	7.99	7.96	8.06	7.75	7.89
Sulfate	mg/L	57.1	47.8	50.2	28.9	83.7	112	--	626	644	661	684	95.1	103	105	16.7	27	27	32.3	27.9
TDS	mg/L	362	333	348	292	449	514	--	1310	1320	1240	1230	317	283	265	335	339	355	368	345
<b>Appendix IV</b>																				
Antimony	mg/L	<0.0008	<0.0008	<0.0008	<0.000507	<0.000508	<0.000508	--	<0.0008	<0.000507	<0.000508	<0.000508	<0.000507	<0.000508	<0.000508	<0.0008	<0.0008	<0.000507	<0.000508	<0.000508
Arsenic	mg/L	0.00171 J	0.00122 J	0.0013 J	0.00102	0.00246	0.00235	--	0.00193 J	0.000958	0.000457	0.000252	0.000551	0.000383	0.00141	0.00302 J	0.00304 J	0.0026	0.00287	0.00183
Barium	mg/L	0.0353	0.03	0.0378	0.0463	0.0905	0.122	--	0.0417	0.0384	0.0358	0.0304	0.0544	0.0445	0.0509	0.253	0.319	0.356	0.359	0.302
Beryllium	mg/L	<0.0006	<0.0006	<0.0006	<0.000406	<0.000406	<0.000406	--	<0.0006	<0.000406	<0.000406	<0.000406	<0.000406	<0.000406	<0.000406	<0.0006	<0.0006	<0.000406	<0.000406	<0.000406
Cadmium	mg/L	<0.0003	<0.0003	<0.0003	<6.8e-005	<6.8e-005	<6.8e-005	--	<0.0003	<6.8e-005	<6.8e-005	<6.8e-005	<6.8e-005	<6.8e-005	<6.8e-005	<0.0003	<0.0003	<6.8e-005	<6.8e-005	<6.8e-005
Chromium	mg/L	<0.002	<0.002	<0.002	0.000271 J	0.000317 J	<0.000203	--	<0.002	0.000222 J	0.00032 J	<0.000203	<0.000203	0.000311 J	0.000348 J	<0.002	<0.002	<0.000203	<0.000203	<0.000203
Cobalt	mg/L	<0.002	<0.002	<0.002	0.000148 J	<6.8e-005	<6.8e-005	--	0.0027 J	0.002	0.0011	0.000518	0.00175	0.000294	0.00378	<0.002	<0.002	<6.8e-005	<6.8e-005	<6.8e-005
Combined Radium	pCi/L	4.33	-0.225 U	-0.125 U	0.322 U	1.13	7.37	1.03 U	1.91	0.369 U	0.91 U	0.64 U	0.49 U	0.759 U	0.267 U	0.862	1.1	0.746 U	0.844 U	0.341 U
Lead	mg/L	<0.001	<0.001	<0.001	8.8e-005 J	<6.8e-005	<6.8e-005	--	<0.001	<6.8e-005	<6.8e-005	<6.8e-005	<6.8e-005	<6.8e-005	<6.8e-005	<0.001	<0.001	8.23e-005 J	<6.8e-005	<6.8e-005
Lithium	mg/L	0.0342	0.0337	0.035	0.039	0.0455	0.0417	--	0.0405	0.0571	0.0567	0.0557	0.14	0.178	0.0844	0.0632	0.0591	0.0676	0.0672	0.0594
Mercury	mg/L	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	--	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003
Molybdenum	mg/L	0.00571 J	0.00475 J	0.0105	0.0054	0.017	0.0189	--	0.00293 J	0.00257	0.00171	0.002	0.00288	0.0044	0.00104	0.00445 J	0.00423 J	0.00267	0.00377	0.0024
Selenium	mg/L	<0.002	<0.002	<0.002	<0.000507	<0.000508	0.000768 J	--	<0.002	<0.000507	<0.000508	<0.000508	<0.000507	<0.000508	<0.000508	<0.002	<0.002	<0.000507	<0.000508	<0.000508
Thallium	mg/L	<0.0002	<0.0002	<0.0002	<6.8e-005	<6.8e-005	<6.8e-005	--	<0.0002	<6.8e-005	<6.8e-005	<6.8e-005	<6.8e-005	<6.8e-005	<6.8e-005	<0.0002	<0.0002	<6.8e-005	<6.8e-005	<6.8e-005

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



Analyte	Units	GS-AP-MW-41HD																								GS-AP-MW-42H					GS-AP-MW-43HO					GAP-B-01	GAP-B-02	GAP-B-66	GS-AP-MW-44HO																																																																													
		03/18/2020					09/17/2020					02/08/2021					08/03/2021					02/15/2022					03/24/2020					09/22/2020					02/03/2021					08/04/2021					02/16/2022					03/25/2020					09/22/2020					02/17/2021					08/04/2021					02/21/2022					03/19/2019					03/19/2019					03/20/2019					08/27/2020					09/15/2020					02/03/2021					07/27/2021					02/09/2022				
		03/18/2020	09/17/2020	02/08/2021	08/03/2021	02/15/2022	03/24/2020	09/22/2020	02/03/2021	08/04/2021	02/16/2022	03/25/2020	09/22/2020	02/17/2021	08/04/2021	02/21/2022	03/19/2019	03/19/2019	03/20/2019	08/27/2020	09/15/2020	02/03/2021	07/27/2021	02/09/2022																																																																																												
<b>Appendix III</b>																																																																																																																				
Boron	mg/L	1.45	1.42	1.48	1.48	1.52	<0.03	0.0469 J	0.053 J	0.0578 J	0.0505 J	0.112	0.12	0.119	0.126	0.13	4.07	3.54	4.45	0.0366 J	0.0404 J	0.0472 J	0.0429 J	0.043 J																																																																																												
Calcium	mg/L	56.6	61.1	60.8	57.1	57.3	149	142	134	133	145	4.11	2.82	4.82	4.58	4.56	125	125	180	2.89	2.94	2.87	1.46	1.16																																																																																												
Chloride	mg/L	6.02	6.63	6.44	6.07	6.67	3.35	7.07	10.1	9.75	8.61	90.6	78	96.3	69.4	104	6.38	6.24	12.1	27.1	36.2	44.8	33.8	28.5																																																																																												
Fluoride	mg/L	0.165	0.16	0.138	0.15	0.125	0.13	0.121	0.131	0.203	0.0837 J	0.204	0.216	0.174	0.289	0.226	<0.05	<0.05	0.0756 J	0.174	0.221	0.181	0.254	0.138																																																																																												
pH_Field	pH	7.2	7.22	7.36	6.97	7.35	6.28	6.51	6.47	6.41	6.54	8.24	8.66	8.72	8.75	8.58	10.11	10.06	7.32	8.9	8.94	8.9	9.04	8.94																																																																																												
Sulfate	mg/L	122	105	111	94.1	110	449	372	373	372	396	327	269	285	301	347	329	248	270	33.5	71.6	57	38.6	30.3																																																																																												
TDS	mg/L	309	318	326	307	307	850	800	768	740	774	930	910	853	855	894	596	485	702	435	564	592	510	478																																																																																												
<b>Appendix IV</b>																																																																																																																				
Antimony	mg/L	<0.0008	<0.0008	<0.000507	<0.000508	<0.000508	<0.0008	<0.0008	<0.000507	<0.000508	<0.000508	<0.0008	<0.0008	<0.000507	<0.000508	<0.000508	0.0131	0.00601	0.00483	0.0013 J	0.000819 J	<0.000507	<0.000508	<0.000508																																																																																												
Arsenic	mg/L	<0.001	0.0016 J	0.00148	0.00289	0.0032	0.00944	0.00912	0.00806	0.00846	0.00762	0.00509	0.0039 J	0.00132	0.00125	0.00096	0.311	0.174	0.416	0.00321 J	0.00184 J	0.000795	0.000343	0.000353																																																																																												
Barium	mg/L	0.0393	0.0414	0.0434	0.045	0.0441	0.0253	0.0237	0.0216	0.0256	0.0214	0.0927	0.0921	0.0894	0.102	0.0825	0.201	0.235	0.131	0.0867	0.0783	0.0602	0.0758	0.0711																																																																																												
Beryllium	mg/L	<0.0006	<0.0006	<0.000406	<0.000406	<0.000406	<0.0006	<0.0006	<0.000406	<0.000406	<0.000406	<0.0006	<0.0006	<0.000406	<0.000406	<0.000406	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.000406	<0.000406	<0.000406																																																																																												
Cadmium	mg/L	<0.0003	<0.0003	<6.8e-005	<6.8e-005	<6.8e-005	<0.0003	<0.0003	<6.8e-005	<6.8e-005	<6.8e-005	<0.0003	<0.0003	<6.8e-005	<6.8e-005	<6.8e-005	0.000878 J	0.000781 J	<0.0003	<0.0003	<0.0003	<6.8e-005	<6.8e-005	<6.8e-005																																																																																												
Chromium	mg/L	<0.002	<0.002	0.000235 J	0.000251 J	<0.000203	<0.002	<0.002	0.000298 J	0.000262 J	<0.000203	<0.002	<0.002	0.000219 J	0.00031 J	0.000272 J	<0.002	<0.002	<0.002	<0.002	<0.002	0.000255 J	<0.000203	0.000291 J																																																																																												
Cobalt	mg/L	<0.002	<0.002	0.000585	0.000849	0.000996	0.00218 J	<0.002	0.000752	0.000616	0.000453	<0.002	<0.002	<6.8e-005	<6.8e-005	<6.8e-005	<0.002	<0.002	<0.002	<0.002	<0.002	<6.8e-005	<6.8e-005	<6.8e-005																																																																																												
Combined Radium	pCi/L	0.64	0.14 U	0.409 U	0.453 U	0.256 U	0.0821 U	0.36 U	0.475 U	0.186 U	0.275 U	0.678 U	0.0466 U	0.629 U	0.949 U	0.509 U	--	--	--	0.798	0.311 U	0.145 U	0.48 U	0.793 U																																																																																												
Lead	mg/L	<0.001	<0.001	<6.8e-005	<6.8e-005	<6.8e-005	<0.001	<0.001	<6.8e-005	<6.8e-005	<6.8e-005	<0.001	<0.001	0.000328	0.000265	0.000116 J	0.00138 J	<0.001	<0.001	<0.001	<0.001	<6.8e-005	<6.8e-005	<6.8e-005																																																																																												
Lithium	mg/L	0.311	0.341	0.356	0.369	0.366	0.0346	0.0333	0.0356	0.0348	0.0305	0.0505	0.0587	0.0723	0.0706	0.058	0.574	1.04	1.68	0.0411	0.0494	0.063	0.0568	0.045																																																																																												
Mercury	mg/L	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003																																																																																												
Molybdenum	mg/L	0.0158	0.026	0.0284	0.0286	0.0331	<0.002	<0.002	0.00174	0.00169	0.00177	<0.002	<0.002	0.00292	0.00385	0.0032	2.98	2.73	0.335	0.0071 J	0.00858 J	0.00429	0.00361	0.00379																																																																																												
Selenium	mg/L	<0.002	<0.002	<0.000507	<0.000508	<0.000508	<0.002	<0.002	<0.000507	<0.000508	<0.000508	<0.002	<0.002	<0.000507	<0.000508	<0.000508	0.00234 J	0.0022 J	<0.002	<0.002	<0.002	<0.000507	<0.000508	<0.000508																																																																																												
Thallium	mg/L	<0.0002	<0.0002	<6.8e-005	<6.8e-005	<6.8e-005	<0.0002	<0.0002	<6.8e-005	<6.8e-005	<6.8e-005	<0.0002	<0.0002	<6.8e-005	<6.8e-005	<6.8e-005	0.000211 J	<0.0002	<0.0002	<0.0002	<0.0002	<6.8e-005	<6.8e-005	<6.8e-005																																																																																												

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

# Appendix B



**Appendix B**  
**Plant Gorgas Ash Pond**  
**Tabulated Historical Groundwater Elevations**  
**(2016-2022)**

Well Name	Top of Casing Elevation	Groundwater Elevation (ft NAVD)											
		6/30/2016	7/7/2016	7/27/2016	8/1/2016	9/19/2016	10/24/2016	12/12/2016	2/6/2017	3/27/2017	4/24/2017	6/5/2017	8/21/2017
GS-AP-MW-01R	491.37												
GS-AP-MW-1	490.68	382.93			382.95	382.91	382.91	382.93	382.92	382.94	382.93	382.87	382.90
GS-AP-MW-2	522.03	376.71	376.55	376.65	376.68	376.46	376.33	376.28	376.54	376.63	376.63	376.58	376.47
GS-AP-MW-3	512.29	374.34		374.64	374.70	374.67	374.54	374.44	374.81	374.89	374.83	374.66	374.63
GS-AP-MW-03V	513.40												
GS-AP-MW-4	507.90	371.33		371.14	371.14	370.85	370.61	371.22	371.89	371.95	371.79	371.68	371.70
GS-AP-MW-5	487.17	368.33		368.37	368.33	367.97	367.42	367.13	367.75	367.67	367.91	367.23	367.25
GS-AP-MW-05R	488.59												
GS-AP-MW-6S	274.67	258.02	257.82	258.02	258.20	257.67	258.17	258.77	258.70	257.64	257.36	257.36	257.70
GS-AP-MW-6D	274.50	263.74	263.70	263.95	264.17	263.67	263.80	264.52	264.45	263.52	263.34	263.02	263.30
GS-AP-MW-7	313.45	305.40	305.35	305.41	305.49	305.29	305.50	305.64	305.73	305.48	305.31	305.29	305.35
GS-AP-MW-8	434.61	388.30	388.22	387.95	388.05	387.65	386.81	387.48	388.46	388.59	389.32	389.28	389.87
GS-AP-MW-9	420.04	369.91	369.76	369.78	369.95	372.11	373.89	374.89	375.28	374.81	375.02	374.67	374.81
GS-AP-MW-09R	421.20												
GS-AP-MW-10	468.41	330.26		333.22	333.86	338.12	340.33	342.14	343.26	343.99	344.09	343.47	343.78
GS-AP-MW-10R	452.79												
GS-AP-MW-11	468.34	381.98	381.94	381.97	382.10	381.78	381.62	381.76	381.92	381.89	381.79	381.81	381.73
GS-AP-MW-11R	455.60												
GS-AP-MW-12	450.67	380.86	380.84	380.90	380.90	380.78	380.70	380.76	380.92	380.82	380.74	380.76	380.72
GS-AP-MW-13	464.20	394.80	394.63	394.37	394.33	393.71	393.37	393.00	392.75	392.67	392.74	392.69	392.78
GS-AP-MW-13R	460.66												
GS-AP-MW-14	472.40	371.58	371.48	371.46	371.50	371.26	371.31	371.30	371.55	371.57	371.62	371.54	371.46
GS-AP-MW-14R	474.32												
GS-AP-MW-15	454.89	373.37	373.44	373.36	373.32	373.09	373.24	373.10	373.46	373.86	373.84	373.57	373.54
GS-AP-PZ-16	462.29	280.99		278.86	278.51	276.29	274.83	273.94	282.67	286.20	287.23	281.58	282.52
GS-AP-MW-16S	462.42	405.15		361.16	404.77	404.08	403.78	403.64	403.68	404.37	404.63	404.32	403.98
GS-AP-MW-16D	462.27	318.51	318.37	317.66	317.69	316.56	315.97	315.57	319.64	322.32	323.51	320.23	320.44
GS-AP-MW-17	531.88	350.67	350.39	306.00	349.78	349.31	349.16	349.44	354.10	355.00	354.18	351.51	351.56
GS-AP-MW-18	403.39	350.82	350.54	349.88	349.90	349.37	349.30	349.52	354.13	355.05	354.31	351.59	351.67
GS-AP-MW-18R	463.07												
GS-AP-PZ-18	402.38		402.38	278.86	278.52	276.36		273.90	282.71		287.28	281.54	282.54
GS-AP-PZ-18R	463.13												
GS-AP-MW-19	495.58	381.98	382.22	382.13	382.10	381.86	382.60	382.76	382.94	383.05	383.05	382.97	383.01
GS-AP-MW-20	528.15	322.95		322.10	321.92	319.60	319.68	319.05	322.46	325.75	327.55	323.89	324.46
GS-AP-MW-21	509.48	346.52	346.50	346.11	346.04	345.05	344.39	344.04	345.97	348.27	349.53	347.30	347.58
GS-AP-PZ-22	532.38			278.73	278.43	276.31	274.79	273.88	282.63	286.16	287.18	281.54	282.46

**Appendix B**  
**Plant Gorgas Ash Pond**  
**Tabulated Historical Groundwater Elevations**  
**(2016-2022)**

Well Name	Top of Casing Elevation	Groundwater Elevation (ft NAVD)											
		2/19/2018	4/2/2018	5/14/2018	10/15/2018	3/13/2019	4/15/2019	9/23/2019	3/13/2020	9/14/2020	2/1/2021	7/26/2021	2/7/2022
GS-AP-MW-01R	491.37												326.46
GS-AP-MW-1	490.68	382.93		382.89	382.88	385.41	382.90	383.18	382.94	382.88	382.92	382.93	383.06
GS-AP-MW-2	522.03	376.69	376.59	376.49	376.18	376.50	376.10	373.88	375.94	374.26	375.70	375.29	375.13
GS-AP-MW-3	512.29	375.18	374.99	374.88	374.64	375.16	374.79	372.92	374.66	372.56	374.08	373.58	373.67
GS-AP-MW-03V	513.40												363.87
GS-AP-MW-4	507.90	372.80	372.49	372.08	371.39	372.97	372.86	369.36	372.65	370.44	370.95	371.64	372.01
GS-AP-MW-5	487.17	368.42	368.07	368.09	367.27	369.39	369.01						367.98
GS-AP-MW-05R	488.59												347.20
GS-AP-MW-6S	274.67	256.76	256.75	256.70	256.98	256.84	256.77	257.27	257.81	258.31	258.14	257.65	257.16
GS-AP-MW-6D	274.50	262.01	262.11	261.95	263.06	262.62	262.89	263.13	263.58	263.88	263.40	263.56	262.79
GS-AP-MW-7	313.45	304.76	304.73	304.58	304.81	303.63	303.43	303.92	303.69	304.17	304.25	303.54	303.69
GS-AP-MW-8	434.61	391.02	390.73	391.08	389.43	391.66	391.88	387.52	390.10	389.42	390.61	390.70	391.47
GS-AP-MW-9	420.04	375.43	375.70	375.58	375.47	375.94	375.28						373.79
GS-AP-MW-09R	421.20												361.49
GS-AP-MW-10	468.41	343.71	344.09	344.10	343.35		344.05						340.99
GS-AP-MW-10R	452.79												308.13
GS-AP-MW-11	468.34	382.14	382.13	382.20	382.13	382.54	381.68						381.95
GS-AP-MW-11R	455.60												381.41
GS-AP-MW-12	450.67	380.91	380.85	380.84	380.81	380.86	380.30	378.16	380.13	378.74	380.21	380.22	380.51
GS-AP-MW-13	464.20	392.39	392.79	393.22	392.99	395.09	395.73						393.56
GS-AP-MW-13R	460.66												361.99
GS-AP-MW-14	472.40	372.11	372.11	371.88	371.77	372.46	371.98						371.66
GS-AP-MW-14R	474.32												370.38
GS-AP-MW-15	454.89	374.57	374.55	374.40	373.88	375.36	374.58	371.79	374.68	372.02	373.78	374.13	374.18
GS-AP-PZ-16	462.29		288.58			294.54	290.51	276.24	295.03	276.65	291.64	277.41	292.09
GS-AP-MW-16S	462.42		403.66			404.62	404.25	403.02	404.20	403.36	407.07	406.03	406.04
GS-AP-MW-16D	462.27	326.22	324.57	324.98	318.72	330.01	325.17	316.03	329.36	316.17	323.09	316.97	324.05
GS-AP-MW-17	531.88	358.80	357.07	355.09	277.68	358.92	360.49	349.34	359.09	350.15	359.58	354.23	361.30
GS-AP-MW-18	403.39	358.87	357.03	354.99	350.59	359.11	360.66	349.49	360.25	350.36	359.98	354.30	353.55
GS-AP-MW-18R	463.07												422.48
GS-AP-PZ-18	402.38		288.46			294.43	290.47	276.23	294.86	276.72	291.61	277.47	283.25
GS-AP-PZ-18R	463.13												367.23
GS-AP-MW-19	495.58	383.40	383.50	383.52	383.72	384.44	384.09	382.96	383.82	382.54	384.03	384.71	382.54
GS-AP-MW-20	528.15	328.52	328.12	329.38	326.44	335.64	329.33	329.45	331.81	320.81	325.90	320.43	321.03
GS-AP-MW-21	509.48	349.73	349.98	350.33	346.15	352.67	349.05	343.85	352.02	344.25	347.94	344.31	346.63
GS-AP-PZ-22	532.38		288.52			294.43	290.48	276.21	295.02	276.58	291.50	277.43	291.96

**Appendix B**  
**Plant Gorgas Ash Pond**  
**Tabulated Historical Groundwater Elevations**  
**(2016-2022)**

Well Name	Top of Casing Elevation	Groundwater Elevation (ft NAVD)											
		2/19/2018	4/2/2018	5/14/2018	10/15/2018	3/13/2019	4/15/2019	9/23/2019	3/13/2020	9/14/2020	2/1/2021	7/26/2021	2/7/2022
GS-AP-MW-7V	312.14					129.68		138.68	144.22	121.83	117.24	122.43	128.22
GS-AP-MW-12V	449.74					357.92		355.19	357.38	355.63	357.06	360.25	360.06
GS-AP-MW-17V	531.45					424.68		419.40	425.61	423.83	426.50	426.11	425.19
GS-AP-MW-18V	404.61					295.94		285.03	297.99	284.79	286.96	283.75	289.08
GS-AP-MW-18VR	462.80												292.37
GS-AP-MW-23H	304.98					276.82		275.77	277.13	276.74	277.08	277.06	277.28
GS-AP-MW-24H	261.35					255.11		254.99	255.53	255.04	255.25	255.21	255.14
GS-AP-MW-25H	461.79					301.10		292.31	301.11	300.39	301.87	302.15	301.37
GS-AP-MW-26H	394.68					299.13		297.55	299.07	297.98	298.98	299.34	299.19
GS-AP-MW-27H	535.03					299.24			305.94	302.84	299.70		301.93
GS-AP-MW-28H	513.82					359.02		349.40	360.20	350.26	359.97	354.34	361.41
GS-AP-MW-29H	440.95					359.98		350.64	361.32	351.19	360.64	354.99	362.03
GS-AP-MW-30H	582.49					582.49		311.02	313.15	307.96	309.19	308.31	315.17
GS-AP-MW-30HS	582.53					582.53			535.15		534.83	534.84	534.75
GS-AP-MW-9V	420.86								368.30	365.63	367.46	366.98	366.19
GS-AP-MW-15V	455.89								314.63	301.24	309.63	301.57	308.68
GS-AP-MW-21V	509.84									334.94	339.54	334.36	337.62
GS-AP-MW-25HA	462.27									285.88	286.74	287.36	286.61
GS-AP-MW-30HA	582.40								295.09	276.84	291.89	277.52	292.21
GS-AP-MW-31H	587.39								355.18	351.86	352.97	352.30	352.32
GS-AP-MW-32H	550.03								309.74	293.82	302.28	292.48	300.21
GS-AP-MW-33HO	526.79								303.00	287.38	296.87	286.69	294.16
GS-AP-MW-34HO	523.82								294.92	288.81	291.46	277.34	291.88
GS-AP-MW-35HO	553.35								311.18	295.81	302.71	295.39	300.71
GS-AP-MW-36H	536.61								313.77	300.53	306.41	300.00	304.70
GS-AP-MW-37H	459.28								326.07	305.24	306.35		305.80
GS-AP-MW-38H	345.74								298.28	297.55	298.39	298.77	298.71
GS-AP-MW-39H	451.13								152.45	142.01	144.33	164.61	176.00
GS-AP-MW-41HS	284.65								264.27	262.29	263.20	262.34	264.22
GS-AP-MW-41HD	284.54								283.38	282.72	282.96	282.25	282.56
GS-AP-MW-42H	340.62								286.94	287.88	288.11	288.39	288.48
GS-AP-MW-43H	514.62							366.54	364.31	365.67	365.67	365.14	365.06
GS-AP-MW-40HO	357.91								276.66	278.12	278.12	278.02	278.33
GS-AP-MW-44HO	506.21								364.14	365.48	365.48	363.18	365.05
GS-AP-MW-7VR	313.89								233.28	264.39	264.39	264.51	264.13
GS-AP-MW-6V	275.44								264.51	262.18	262.18	262.12	261.88
GS-AP-MW-45V	550.59												352.05
GS-AP-MW-46	491.25												366.65
GS-AP-MW-47	475.09												357.20

# Appendix C



## **Gorgas Ash Pond**

### **2022 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).

Turbidity levels less than 10 NTU were not able to be achieved after extended pumping for well MW-7. A complete sample set for totals analysis was collected followed by a field filtered set for dissolved analysis.

Due to low yield, well MW-32H was sampled using the Minimal Purge Method, as defined in the SAP.

Four of the first few pH field readings for well MW-12 were qualified due to pH readings falling outside of the bracketed calibration range. The below qualifier was used:

- E – Estimated reported value exceeded calibration range

Dusty conditions due to high winds and vehicle traffic were present when pumping and sampling wells MW-30HA and MW-34HO.

Suspected iron bacteria was present during initial pumping of well MW-41HS.

Rainy conditions were present when pumping and sampling wells MW-43H, PZ-18R, MW-36V, MW-45V, MW-9V, MW-31V and MW-01R.

Field quality control procedures were performed as follows:

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









**Groundwater Field Parameters  
Plant Gorgas Ash Pond**

WELL ID	DESCRIPTION	TIME OF READING	VALUE	UNIT
GS-AP-MW-6V	Conductivity	2/9/2022 8:41	1431.76	uS/cm
GS-AP-MW-6V	DO	2/9/2022 8:41	0.3	mg/L
GS-AP-MW-6V	Depth to Water Detail	2/9/2022 8:41	23.01	ft
GS-AP-MW-6V	Oxidation Reduction Potention	2/9/2022 8:41	-159.2	mv
GS-AP-MW-6V	pH	2/9/2022 8:41	8.32	SU
GS-AP-MW-6V	Temperature	2/9/2022 8:41	20.33	C
GS-AP-MW-6V	Turbidity	2/9/2022 8:41	2	NTU
GS-AP-MW-6V	Conductivity	2/9/2022 8:46	1448.35	uS/cm
GS-AP-MW-6V	DO	2/9/2022 8:46	0.24	mg/L
GS-AP-MW-6V	Depth to Water Detail	2/9/2022 8:46	24.91	ft
GS-AP-MW-6V	Oxidation Reduction Potention	2/9/2022 8:46	-172.6	mv
GS-AP-MW-6V	pH	2/9/2022 8:46	8.41	SU
GS-AP-MW-6V	Temperature	2/9/2022 8:46	20.36	C
GS-AP-MW-6V	Turbidity	2/9/2022 8:46	2.21	NTU
GS-AP-MW-6V	Conductivity	2/9/2022 8:51	1463.48	uS/cm
GS-AP-MW-6V	DO	2/9/2022 8:51	0.15	mg/L
GS-AP-MW-6V	Depth to Water Detail	2/9/2022 8:51	28.26	ft
GS-AP-MW-6V	Oxidation Reduction Potention	2/9/2022 8:51	-180.71	mv
GS-AP-MW-6V	pH	2/9/2022 8:51	8.45	SU
GS-AP-MW-6V	Temperature	2/9/2022 8:51	20.5	C
GS-AP-MW-6V	Turbidity	2/9/2022 8:51	2.29	NTU
GS-AP-MW-6V	Conductivity	2/9/2022 8:56	1459.15	uS/cm
GS-AP-MW-6V	DO	2/9/2022 8:56	0.15	mg/L
GS-AP-MW-6V	Depth to Water Detail	2/9/2022 8:56	31.67	ft
GS-AP-MW-6V	Oxidation Reduction Potention	2/9/2022 8:56	-184.94	mv
GS-AP-MW-6V	pH	2/9/2022 8:56	8.48	SU
GS-AP-MW-6V	Temperature	2/9/2022 8:56	20.63	C
GS-AP-MW-6V	Turbidity	2/9/2022 8:56	2.47	NTU
GS-AP-MW-6V	Conductivity	2/9/2022 9:01	1453.88	uS/cm
GS-AP-MW-6V	DO	2/9/2022 9:01	0.15	mg/L
GS-AP-MW-6V	Depth to Water Detail	2/9/2022 9:01	35.4	ft
GS-AP-MW-6V	Oxidation Reduction Potention	2/9/2022 9:01	-187.2	mv
GS-AP-MW-6V	pH	2/9/2022 9:01	8.5	SU
GS-AP-MW-6V	Temperature	2/9/2022 9:01	20.64	C
GS-AP-MW-6V	Turbidity	2/9/2022 9:01	2.44	NTU
GS-AP-MW-6V	Conductivity	2/9/2022 9:06	1446.88	uS/cm
GS-AP-MW-6V	DO	2/9/2022 9:06	0.15	mg/L
GS-AP-MW-6V	Depth to Water Detail	2/9/2022 9:06	37.59	ft
GS-AP-MW-6V	Oxidation Reduction Potention	2/9/2022 9:06	-188.26	mv
GS-AP-MW-6V	pH	2/9/2022 9:06	8.51	SU
GS-AP-MW-6V	Temperature	2/9/2022 9:06	20.65	C
GS-AP-MW-6V	Turbidity	2/9/2022 9:06	3.22	NTU
GS-AP-MW-6V	Conductivity	2/9/2022 9:11	1446.04	uS/cm
GS-AP-MW-6V	DO	2/9/2022 9:11	0.15	mg/L
GS-AP-MW-6V	Depth to Water Detail	2/9/2022 9:11	40.04	ft
GS-AP-MW-6V	Oxidation Reduction Potention	2/9/2022 9:11	-187.56	mv
GS-AP-MW-6V	pH	2/9/2022 9:11	8.49	SU
GS-AP-MW-6V	Temperature	2/9/2022 9:11	20.7	C
GS-AP-MW-6V	Turbidity	2/9/2022 9:11	6.66	NTU
GS-AP-MW-6V	Conductivity	2/9/2022 9:16	1442.32	uS/cm
GS-AP-MW-6V	DO	2/9/2022 9:16	0.14	mg/L
GS-AP-MW-6V	Depth to Water Detail	2/9/2022 9:16	43.04	ft
GS-AP-MW-6V	Oxidation Reduction Potention	2/9/2022 9:16	-187.15	mv
GS-AP-MW-6V	pH	2/9/2022 9:16	8.48	SU
GS-AP-MW-6V	Temperature	2/9/2022 9:16	20.68	C
GS-AP-MW-6V	Turbidity	2/9/2022 9:16	3.25	NTU
GS-AP-MW-6V	Conductivity	2/9/2022 9:21	1441.88	uS/cm
GS-AP-MW-6V	DO	2/9/2022 9:21	0.13	mg/L

**Groundwater Field Parameters  
Plant Gorgas Ash Pond**

WELL ID	DESCRIPTION	TIME OF READING	VALUE	UNIT
GS-AP-MW-6V	Depth to Water Detail	2/9/2022 9:21	47.09	ft
GS-AP-MW-6V	Oxidation Reduction Potential	2/9/2022 9:21	-189.18	mv
GS-AP-MW-6V	pH	2/9/2022 9:21	8.5	SU
GS-AP-MW-6V	Temperature	2/9/2022 9:21	20.67	C
GS-AP-MW-6V	Turbidity	2/9/2022 9:21	3.33	NTU
GS-AP-MW-6V	Conductivity	2/9/2022 9:26	1440.72	uS/cm
GS-AP-MW-6V	DO	2/9/2022 9:26	0.13	mg/L
GS-AP-MW-6V	Depth to Water Detail	2/9/2022 9:26	50.69	ft
GS-AP-MW-6V	Oxidation Reduction Potential	2/9/2022 9:26	-189.15	mv
GS-AP-MW-6V	pH	2/9/2022 9:26	8.51	SU
GS-AP-MW-6V	Temperature	2/9/2022 9:26	20.7	C
GS-AP-MW-6V	Turbidity	2/9/2022 9:26	2.97	NTU
GS-AP-MW-6V	Conductivity	2/9/2022 9:31	1438.74	uS/cm
GS-AP-MW-6V	DO	2/9/2022 9:31	0.13	mg/L
GS-AP-MW-6V	Depth to Water Detail	2/9/2022 9:31	53.55	ft
GS-AP-MW-6V	Oxidation Reduction Potential	2/9/2022 9:31	-188.28	mv
GS-AP-MW-6V	pH	2/9/2022 9:31	8.51	SU
GS-AP-MW-6V	Temperature	2/9/2022 9:31	20.68	C
GS-AP-MW-6V	Turbidity	2/9/2022 9:31	3.18	NTU
GS-AP-MW-6V	Conductivity	2/9/2022 9:36	1439.74	uS/cm
GS-AP-MW-6V	DO	2/9/2022 9:36	0.13	mg/L
GS-AP-MW-6V	Depth to Water Detail	2/9/2022 9:36	56.96	ft
GS-AP-MW-6V	Oxidation Reduction Potential	2/9/2022 9:36	-187	mv
GS-AP-MW-6V	pH	2/9/2022 9:36	8.5	SU
GS-AP-MW-6V	Temperature	2/9/2022 9:36	20.69	C
GS-AP-MW-6V	Turbidity	2/9/2022 9:36	3.13	NTU
GS-AP-MW-6V	Conductivity	2/9/2022 9:41	1437.62	uS/cm
GS-AP-MW-6V	DO	2/9/2022 9:41	0.13	mg/L
GS-AP-MW-6V	Depth to Water Detail	2/9/2022 9:41	60.21	ft
GS-AP-MW-6V	Oxidation Reduction Potential	2/9/2022 9:41	-183.98	mv
GS-AP-MW-6V	pH	2/9/2022 9:41	8.48	SU
GS-AP-MW-6V	Temperature	2/9/2022 9:41	20.68	C
GS-AP-MW-6V	Turbidity	2/9/2022 9:41	7.38	NTU
GS-AP-MW-6V	Conductivity	2/9/2022 9:46	1437.54	uS/cm
GS-AP-MW-6V	DO	2/9/2022 9:46	0.13	mg/L
GS-AP-MW-6V	Depth to Water Detail	2/9/2022 9:46	63.39	ft
GS-AP-MW-6V	Oxidation Reduction Potential	2/9/2022 9:46	-183.55	mv
GS-AP-MW-6V	pH	2/9/2022 9:46	8.49	SU
GS-AP-MW-6V	Temperature	2/9/2022 9:46	20.64	C
GS-AP-MW-6V	Turbidity	2/9/2022 9:46	4.68	NTU
GS-AP-MW-6V	Conductivity	2/9/2022 9:51	1437.07	uS/cm
GS-AP-MW-6V	DO	2/9/2022 9:51	0.13	mg/L
GS-AP-MW-6V	Depth to Water Detail	2/9/2022 9:51	66.16	ft
GS-AP-MW-6V	Oxidation Reduction Potential	2/9/2022 9:51	-182.76	mv
GS-AP-MW-6V	pH	2/9/2022 9:51	8.5	SU
GS-AP-MW-6V	Temperature	2/9/2022 9:51	20.69	C
GS-AP-MW-6V	Turbidity	2/9/2022 9:51	6.63	NTU
GS-AP-MW-6V	Conductivity	2/9/2022 9:56	1437.8	uS/cm
GS-AP-MW-6V	DO	2/9/2022 9:56	0.13	mg/L
GS-AP-MW-6V	Depth to Water Detail	2/9/2022 9:56	69.34	ft
GS-AP-MW-6V	Oxidation Reduction Potential	2/9/2022 9:56	-182.46	mv
GS-AP-MW-6V	pH	2/9/2022 9:56	8.51	SU
GS-AP-MW-6V	Temperature	2/9/2022 9:56	20.68	C
GS-AP-MW-6V	Turbidity	2/9/2022 9:56	2.39	NTU
GS-AP-MW-6V	Conductivity	2/9/2022 10:01	1438.13	uS/cm
GS-AP-MW-6V	DO	2/9/2022 10:01	0.13	mg/L
GS-AP-MW-6V	Depth to Water Detail	2/9/2022 10:01	72.21	ft
GS-AP-MW-6V	Oxidation Reduction Potential	2/9/2022 10:01	-181.05	mv



**Groundwater Field Parameters  
Plant Gorgas Ash Pond**

WELL ID	DESCRIPTION	TIME OF READING	VALUE	UNIT
GS-AP-MW-6V	pH	2/9/2022 10:01	8.5	SU
GS-AP-MW-6V	Temperature	2/9/2022 10:01	20.7	C
GS-AP-MW-6V	Turbidity	2/9/2022 10:01	5.56	NTU
GS-AP-MW-6V	Conductivity	2/9/2022 10:06	1438.15	uS/cm
GS-AP-MW-6V	DO	2/9/2022 10:06	0.13	mg/L
GS-AP-MW-6V	Depth to Water Detail	2/9/2022 10:06	75.59	ft
GS-AP-MW-6V	Oxidation Reduction Potention	2/9/2022 10:06	-179.31	mv
GS-AP-MW-6V	pH	2/9/2022 10:06	8.48	SU
GS-AP-MW-6V	Temperature	2/9/2022 10:06	20.69	C
GS-AP-MW-6V	Turbidity	2/9/2022 10:06	5.83	NTU
GS-AP-MW-6V	Conductivity	2/9/2022 10:11	1442.94	uS/cm
GS-AP-MW-6V	DO	2/9/2022 10:11	0.13	mg/L
GS-AP-MW-6V	Depth to Water Detail	2/9/2022 10:11	78.41	ft
GS-AP-MW-6V	Oxidation Reduction Potention	2/9/2022 10:11	-178.34	mv
GS-AP-MW-6V	pH	2/9/2022 10:11	8.48	SU
GS-AP-MW-6V	Temperature	2/9/2022 10:11	20.65	C
GS-AP-MW-6V	Turbidity	2/9/2022 10:11	8.19	NTU
GS-AP-MW-6V	Conductivity	2/9/2022 10:16	1445.02	uS/cm
GS-AP-MW-6V	DO	2/9/2022 10:16	0.13	mg/L
GS-AP-MW-6V	Depth to Water Detail	2/9/2022 10:16	81.86	ft
GS-AP-MW-6V	Oxidation Reduction Potention	2/9/2022 10:16	-177.2	mv
GS-AP-MW-6V	pH	2/9/2022 10:16	8.49	SU
GS-AP-MW-6V	Temperature	2/9/2022 10:16	20.7	C
GS-AP-MW-6V	Turbidity	2/9/2022 10:16	2.88	NTU
GS-AP-MW-6V	Conductivity	2/9/2022 10:21	1423.03	uS/cm
GS-AP-MW-6V	DO	2/9/2022 10:21	0.46	mg/L
GS-AP-MW-6V	Depth to Water Detail	2/9/2022 10:21	81.91	ft
GS-AP-MW-6V	Oxidation Reduction Potention	2/9/2022 10:21	-166.88	mv
GS-AP-MW-6V	pH	2/9/2022 10:21	8.5	SU
GS-AP-MW-6V	Temperature	2/9/2022 10:21	20.64	C
GS-AP-MW-6V	Turbidity	2/9/2022 10:21	2.62	NTU
GS-AP-MW-6V	Conductivity	2/9/2022 10:26	1413.9	uS/cm
GS-AP-MW-6V	DO	2/9/2022 10:26	0.61	mg/L
GS-AP-MW-6V	Depth to Water Detail	2/9/2022 10:26	81.93	ft
GS-AP-MW-6V	Oxidation Reduction Potention	2/9/2022 10:26	-159.08	mv
GS-AP-MW-6V	pH	2/9/2022 10:26	8.58	SU
GS-AP-MW-6V	Temperature	2/9/2022 10:26	20.79	C
GS-AP-MW-6V	Turbidity	2/9/2022 10:26	2.55	NTU
GS-AP-MW-6V	Conductivity	2/9/2022 10:31	1395.86	uS/cm
GS-AP-MW-6V	DO	2/9/2022 10:31	0.64	mg/L
GS-AP-MW-6V	Depth to Water Detail	2/9/2022 10:31	81.9	ft
GS-AP-MW-6V	Oxidation Reduction Potention	2/9/2022 10:31	-158.32	mv
GS-AP-MW-6V	pH	2/9/2022 10:31	8.73	SU
GS-AP-MW-6V	Temperature	2/9/2022 10:31	20.85	C
GS-AP-MW-6V	Turbidity	2/9/2022 10:31	4.24	NTU
GS-AP-MW-6V	Conductivity	2/9/2022 10:36	1384.66	uS/cm
GS-AP-MW-6V	DO	2/9/2022 10:36	0.65	mg/L
GS-AP-MW-6V	Depth to Water Detail	2/9/2022 10:36	81.87	ft
GS-AP-MW-6V	Oxidation Reduction Potention	2/9/2022 10:36	-155.29	mv
GS-AP-MW-6V	pH	2/9/2022 10:36	8.79	SU
GS-AP-MW-6V	Temperature	2/9/2022 10:36	20.92	C
GS-AP-MW-6V	Turbidity	2/9/2022 10:36	3.64	NTU
GS-AP-MW-6V	Conductivity	2/9/2022 10:41	1368.07	uS/cm
GS-AP-MW-6V	DO	2/9/2022 10:41	0.64	mg/L
GS-AP-MW-6V	Depth to Water Detail	2/9/2022 10:41	81.82	ft
GS-AP-MW-6V	Oxidation Reduction Potention	2/9/2022 10:41	-151.68	mv
GS-AP-MW-6V	pH	2/9/2022 10:41	8.8	SU
GS-AP-MW-6V	Temperature	2/9/2022 10:41	21.03	C

**Groundwater Field Parameters  
Plant Gorgas Ash Pond**

WELL ID	DESCRIPTION	TIME OF READING	VALUE	UNIT
GS-AP-MW-6V	Turbidity	2/9/2022 10:41	5.81	NTU
GS-AP-MW-6V	Conductivity	2/9/2022 10:46	1416.56	uS/cm
GS-AP-MW-6V	DO	2/9/2022 10:46	0.63	mg/L
GS-AP-MW-6V	Depth to Water Detail	2/9/2022 10:46	81.75	ft
GS-AP-MW-6V	Oxidation Reduction Potential	2/9/2022 10:46	-148.59	mv
GS-AP-MW-6V	pH	2/9/2022 10:46	8.8	SU
GS-AP-MW-6V	Temperature	2/9/2022 10:46	21.06	C
GS-AP-MW-6V	Turbidity	2/9/2022 10:46	6.23	NTU
GS-AP-MW-6V	Conductivity	2/9/2022 10:51	1412.02	uS/cm
GS-AP-MW-6V	DO	2/9/2022 10:51	0.63	mg/L
GS-AP-MW-6V	Depth to Water Detail	2/9/2022 10:51	81.68	ft
GS-AP-MW-6V	Oxidation Reduction Potential	2/9/2022 10:51	-147	mv
GS-AP-MW-6V	pH	2/9/2022 10:51	8.81	SU
GS-AP-MW-6V	Temperature	2/9/2022 10:51	21.17	C
GS-AP-MW-6V	Turbidity	2/9/2022 10:51	7.19	NTU
GS-AP-MW-6V	Conductivity	2/9/2022 10:56	1401.35	uS/cm
GS-AP-MW-6V	DO	2/9/2022 10:56	0.63	mg/L
GS-AP-MW-6V	Depth to Water Detail	2/9/2022 10:56	81.61	ft
GS-AP-MW-6V	Oxidation Reduction Potential	2/9/2022 10:56	-144.97	mv
GS-AP-MW-6V	pH	2/9/2022 10:56	8.81	SU
GS-AP-MW-6V	Temperature	2/9/2022 10:56	21.19	C
GS-AP-MW-6V	Turbidity	2/9/2022 10:56	9.72	NTU
GS-AP-MW-6V	Conductivity	2/9/2022 11:01	1403.97	uS/cm
GS-AP-MW-6V	DO	2/9/2022 11:01	0.65	mg/L
GS-AP-MW-6V	Depth to Water Detail	2/9/2022 11:01	81.59	ft
GS-AP-MW-6V	Oxidation Reduction Potential	2/9/2022 11:01	-143.69	mv
GS-AP-MW-6V	pH	2/9/2022 11:01	8.81	SU
GS-AP-MW-6V	Temperature	2/9/2022 11:01	21.24	C
GS-AP-MW-6V	Turbidity	2/9/2022 11:01	8.3	NTU
GS-AP-MW-6V	Conductivity	2/9/2022 11:06	1403.47	uS/cm
GS-AP-MW-6V	DO	2/9/2022 11:06	0.62	mg/L
GS-AP-MW-6V	Depth to Water Detail	2/9/2022 11:06	81.59	ft
GS-AP-MW-6V	Oxidation Reduction Potential	2/9/2022 11:06	-142.49	mv
GS-AP-MW-6V	pH	2/9/2022 11:06	8.81	SU
GS-AP-MW-6V	Temperature	2/9/2022 11:06	21.31	C
GS-AP-MW-6V	Turbidity	2/9/2022 11:06	8.8	NTU
GS-AP-MW-6V	Conductivity	2/9/2022 11:11	1423.71	uS/cm
GS-AP-MW-6V	DO	2/9/2022 11:11	0.61	mg/L
GS-AP-MW-6V	Depth to Water Detail	2/9/2022 11:11	81.59	ft
GS-AP-MW-6V	Oxidation Reduction Potential	2/9/2022 11:11	-141.56	mv
GS-AP-MW-6V	pH	2/9/2022 11:11	8.81	SU
GS-AP-MW-6V	Temperature	2/9/2022 11:11	21.33	C
GS-AP-MW-6V	Turbidity	2/9/2022 11:11	9.02	NTU
GS-AP-MW-6V	Conductivity	2/9/2022 11:16	1418.65	uS/cm
GS-AP-MW-6V	DO	2/9/2022 11:16	0.65	mg/L
GS-AP-MW-6V	Depth to Water Detail	2/9/2022 11:16	81.59	ft
GS-AP-MW-6V	Oxidation Reduction Potential	2/9/2022 11:16	-140.38	mv
GS-AP-MW-6V	pH	2/9/2022 11:16	8.8	SU
GS-AP-MW-6V	Temperature	2/9/2022 11:16	21.31	C
GS-AP-MW-6V	Turbidity	2/9/2022 11:16	8.28	NTU
GS-AP-MW-6V	Conductivity	2/9/2022 11:21	1408.18	uS/cm
GS-AP-MW-6V	DO	2/9/2022 11:21	0.65	mg/L
GS-AP-MW-6V	Depth to Water Detail	2/9/2022 11:21	81.59	ft
GS-AP-MW-6V	Oxidation Reduction Potential	2/9/2022 11:21	-140.05	mv
GS-AP-MW-6V	pH	2/9/2022 11:21	8.8	SU
GS-AP-MW-6V	Temperature	2/9/2022 11:21	21.35	C
GS-AP-MW-6V	Turbidity	2/9/2022 11:21	8.7	NTU
GS-AP-MW-6V	Conductivity	2/9/2022 11:26	1399.53	uS/cm

**Groundwater Field Parameters  
Plant Gorgas Ash Pond**

WELL ID	DESCRIPTION	TIME OF READING	VALUE	UNIT
GS-AP-MW-6V	DO	2/9/2022 11:26	0.66	mg/L
GS-AP-MW-6V	Depth to Water Detail	2/9/2022 11:26	81.59	ft
GS-AP-MW-6V	Oxidation Reduction Potention	2/9/2022 11:26	-139.4	mv
GS-AP-MW-6V	pH	2/9/2022 11:26	8.81	SU
GS-AP-MW-6V	Temperature	2/9/2022 11:26	21.38	C
GS-AP-MW-6V	Turbidity	2/9/2022 11:26	10.74	NTU
GS-AP-MW-6V	Conductivity	2/9/2022 11:31	1391.95	uS/cm
GS-AP-MW-6V	DO	2/9/2022 11:31	0.69	mg/L
GS-AP-MW-6V	Depth to Water Detail	2/9/2022 11:31	81.59	ft
GS-AP-MW-6V	Oxidation Reduction Potention	2/9/2022 11:31	-138.3	mv
GS-AP-MW-6V	pH	2/9/2022 11:31	8.8	SU
GS-AP-MW-6V	Temperature	2/9/2022 11:31	21.36	C
GS-AP-MW-6V	Turbidity	2/9/2022 11:31	9.36	NTU
GS-AP-MW-6V	Conductivity	2/9/2022 11:36	1407.5	uS/cm
GS-AP-MW-6V	DO	2/9/2022 11:36	0.68	mg/L
GS-AP-MW-6V	Depth to Water Detail	2/9/2022 11:36	81.59	ft
GS-AP-MW-6V	Oxidation Reduction Potention	2/9/2022 11:36	-137.58	mv
GS-AP-MW-6V	pH	2/9/2022 11:36	8.8	SU
GS-AP-MW-6V	Temperature	2/9/2022 11:36	21.24	C
GS-AP-MW-6V	Turbidity	2/9/2022 11:36	9.54	NTU
GS-AP-MW-6V	Conductivity	2/9/2022 11:41	1406.94	uS/cm
GS-AP-MW-6V	DO	2/9/2022 11:41	0.68	mg/L
GS-AP-MW-6V	Depth to Water Detail	2/9/2022 11:41	81.59	ft
GS-AP-MW-6V	Oxidation Reduction Potention	2/9/2022 11:41	-137.61	mv
GS-AP-MW-6V	pH	2/9/2022 11:41	8.8	SU
GS-AP-MW-6V	Temperature	2/9/2022 11:41	21.32	C
GS-AP-MW-6V	Turbidity	2/9/2022 11:41	9.68	NTU
GS-AP-MW-6V	Conductivity	2/9/2022 11:46	1420.23	uS/cm
GS-AP-MW-6V	DO	2/9/2022 11:46	0.69	mg/L
GS-AP-MW-6V	Depth to Water Detail	2/9/2022 11:46	81.59	ft
GS-AP-MW-6V	Oxidation Reduction Potention	2/9/2022 11:46	-137.25	mv
GS-AP-MW-6V	pH	2/9/2022 11:46	8.81	SU
GS-AP-MW-6V	Temperature	2/9/2022 11:46	21.46	C
GS-AP-MW-6V	Turbidity	2/9/2022 11:46	10.52	NTU
GS-AP-MW-6V	Conductivity	2/9/2022 11:51	1411.03	uS/cm
GS-AP-MW-6V	DO	2/9/2022 11:51	0.73	mg/L
GS-AP-MW-6V	Depth to Water Detail	2/9/2022 11:51	81.59	ft
GS-AP-MW-6V	Oxidation Reduction Potention	2/9/2022 11:51	-137.05	mv
GS-AP-MW-6V	pH	2/9/2022 11:51	8.81	SU
GS-AP-MW-6V	Temperature	2/9/2022 11:51	21.49	C
GS-AP-MW-6V	Turbidity	2/9/2022 11:51	10.92	NTU
GS-AP-MW-6V	Conductivity	2/9/2022 11:56	1404.56	uS/cm
GS-AP-MW-6V	DO	2/9/2022 11:56	0.71	mg/L
GS-AP-MW-6V	Depth to Water Detail	2/9/2022 11:56	81.59	ft
GS-AP-MW-6V	Oxidation Reduction Potention	2/9/2022 11:56	-136.46	mv
GS-AP-MW-6V	pH	2/9/2022 11:56	8.8	SU
GS-AP-MW-6V	Temperature	2/9/2022 11:56	21.5	C
GS-AP-MW-6V	Turbidity	2/9/2022 11:56	9.35	NTU

**Groundwater Field Parameters  
Plant Gorgas Ash Pond**

WELL ID	DESCRIPTION	TIME OF READING	VALUE	UNIT
GS-AP-MW-7	Conductivity	2/8/2022 9:23	527.95	uS/cm
GS-AP-MW-7	DO	2/8/2022 9:23	0.53	mg/L
GS-AP-MW-7	Depth to Water Detail	2/8/2022 9:23	10.29	ft
GS-AP-MW-7	Oxidation Reduction Potential	2/8/2022 9:23	-118.91	mv
GS-AP-MW-7	pH	2/8/2022 9:23	7.3	SU
GS-AP-MW-7	Temperature	2/8/2022 9:23	18.04	C
GS-AP-MW-7	Turbidity	2/8/2022 9:23	4.12	NTU
GS-AP-MW-7	Conductivity	2/8/2022 9:28	527.16	uS/cm
GS-AP-MW-7	DO	2/8/2022 9:28	0.43	mg/L
GS-AP-MW-7	Depth to Water Detail	2/8/2022 9:28	10.34	ft
GS-AP-MW-7	Oxidation Reduction Potential	2/8/2022 9:28	-123.21	mv
GS-AP-MW-7	pH	2/8/2022 9:28	7.32	SU
GS-AP-MW-7	Temperature	2/8/2022 9:28	18.37	C
GS-AP-MW-7	Turbidity	2/8/2022 9:28	8.54	NTU
GS-AP-MW-7	Conductivity	2/8/2022 9:33	526.36	uS/cm
GS-AP-MW-7	DO	2/8/2022 9:33	0.39	mg/L
GS-AP-MW-7	Depth to Water Detail	2/8/2022 9:33	10.36	ft
GS-AP-MW-7	Oxidation Reduction Potential	2/8/2022 9:33	-125.81	mv
GS-AP-MW-7	pH	2/8/2022 9:33	7.35	SU
GS-AP-MW-7	Temperature	2/8/2022 9:33	18.47	C
GS-AP-MW-7	Turbidity	2/8/2022 9:33	11.7	NTU
GS-AP-MW-7	Conductivity	2/8/2022 9:38	526.5	uS/cm
GS-AP-MW-7	DO	2/8/2022 9:38	0.36	mg/L
GS-AP-MW-7	Depth to Water Detail	2/8/2022 9:38	10.41	ft
GS-AP-MW-7	Oxidation Reduction Potential	2/8/2022 9:38	-127.91	mv
GS-AP-MW-7	pH	2/8/2022 9:38	7.37	SU
GS-AP-MW-7	Temperature	2/8/2022 9:38	18.47	C
GS-AP-MW-7	Turbidity	2/8/2022 9:38	13.5	NTU
GS-AP-MW-7	Conductivity	2/8/2022 9:43	526.22	uS/cm
GS-AP-MW-7	DO	2/8/2022 9:43	0.35	mg/L
GS-AP-MW-7	Depth to Water Detail	2/8/2022 9:43	10.42	ft
GS-AP-MW-7	Oxidation Reduction Potential	2/8/2022 9:43	-128.75	mv
GS-AP-MW-7	pH	2/8/2022 9:43	7.4	SU
GS-AP-MW-7	Temperature	2/8/2022 9:43	18.41	C
GS-AP-MW-7	Turbidity	2/8/2022 9:43	15.9	NTU
GS-AP-MW-7	Conductivity	2/8/2022 9:48	526.42	uS/cm
GS-AP-MW-7	DO	2/8/2022 9:48	0.35	mg/L
GS-AP-MW-7	Depth to Water Detail	2/8/2022 9:48	10.46	ft
GS-AP-MW-7	Oxidation Reduction Potential	2/8/2022 9:48	-130.03	mv
GS-AP-MW-7	pH	2/8/2022 9:48	7.42	SU
GS-AP-MW-7	Temperature	2/8/2022 9:48	18.48	C
GS-AP-MW-7	Turbidity	2/8/2022 9:48	14.7	NTU
GS-AP-MW-7	Conductivity	2/8/2022 9:53	525.71	uS/cm
GS-AP-MW-7	DO	2/8/2022 9:53	0.35	mg/L
GS-AP-MW-7	Depth to Water Detail	2/8/2022 9:53	10.49	ft
GS-AP-MW-7	Oxidation Reduction Potential	2/8/2022 9:53	-131.13	mv
GS-AP-MW-7	pH	2/8/2022 9:53	7.45	SU
GS-AP-MW-7	Temperature	2/8/2022 9:53	18.47	C
GS-AP-MW-7	Turbidity	2/8/2022 9:53	15.9	NTU
GS-AP-MW-7	Conductivity	2/8/2022 9:58	525.53	uS/cm
GS-AP-MW-7	DO	2/8/2022 9:58	0.35	mg/L
GS-AP-MW-7	Depth to Water Detail	2/8/2022 9:58	10.51	ft
GS-AP-MW-7	Oxidation Reduction Potential	2/8/2022 9:58	-132.34	mv
GS-AP-MW-7	pH	2/8/2022 9:58	7.47	SU
GS-AP-MW-7	Temperature	2/8/2022 9:58	18.62	C
GS-AP-MW-7	Turbidity	2/8/2022 9:58	20.1	NTU
GS-AP-MW-7	Conductivity	2/8/2022 10:03	525.35	uS/cm
GS-AP-MW-7	DO	2/8/2022 10:03	0.35	mg/L

**Groundwater Field Parameters  
Plant Gorgas Ash Pond**

WELL ID	DESCRIPTION	TIME OF READING	VALUE	UNIT
GS-AP-MW-7	Depth to Water Detail	2/8/2022 10:03	10.51	ft
GS-AP-MW-7	Oxidation Reduction Potential	2/8/2022 10:03	-133.75	mv
GS-AP-MW-7	pH	2/8/2022 10:03	7.5	SU
GS-AP-MW-7	Temperature	2/8/2022 10:03	18.66	C
GS-AP-MW-7	Turbidity	2/8/2022 10:03	17.3	NTU
GS-AP-MW-7	Conductivity	2/8/2022 10:08	525.2	uS/cm
GS-AP-MW-7	DO	2/8/2022 10:08	0.35	mg/L
GS-AP-MW-7	Depth to Water Detail	2/8/2022 10:08	10.52	ft
GS-AP-MW-7	Oxidation Reduction Potential	2/8/2022 10:08	-135	mv
GS-AP-MW-7	pH	2/8/2022 10:08	7.53	SU
GS-AP-MW-7	Temperature	2/8/2022 10:08	18.68	C
GS-AP-MW-7	Turbidity	2/8/2022 10:08	22.7	NTU
GS-AP-MW-7	Conductivity	2/8/2022 10:13	525.73	uS/cm
GS-AP-MW-7	DO	2/8/2022 10:13	0.36	mg/L
GS-AP-MW-7	Depth to Water Detail	2/8/2022 10:13	10.54	ft
GS-AP-MW-7	Oxidation Reduction Potential	2/8/2022 10:13	-135.91	mv
GS-AP-MW-7	pH	2/8/2022 10:13	7.56	SU
GS-AP-MW-7	Temperature	2/8/2022 10:13	18.68	C
GS-AP-MW-7	Turbidity	2/8/2022 10:13	16	NTU
GS-AP-MW-7	Conductivity	2/8/2022 10:18	524.94	uS/cm
GS-AP-MW-7	DO	2/8/2022 10:18	0.36	mg/L
GS-AP-MW-7	Depth to Water Detail	2/8/2022 10:18	10.56	ft
GS-AP-MW-7	Oxidation Reduction Potential	2/8/2022 10:18	-137.16	mv
GS-AP-MW-7	pH	2/8/2022 10:18	7.58	SU
GS-AP-MW-7	Temperature	2/8/2022 10:18	18.8	C
GS-AP-MW-7	Turbidity	2/8/2022 10:18	24	NTU
GS-AP-MW-7	Conductivity	2/8/2022 10:23	524.72	uS/cm
GS-AP-MW-7	DO	2/8/2022 10:23	0.36	mg/L
GS-AP-MW-7	Depth to Water Detail	2/8/2022 10:23	10.59	ft
GS-AP-MW-7	Oxidation Reduction Potential	2/8/2022 10:23	-138.09	mv
GS-AP-MW-7	pH	2/8/2022 10:23	7.6	SU
GS-AP-MW-7	Temperature	2/8/2022 10:23	18.89	C
GS-AP-MW-7	Turbidity	2/8/2022 10:23	19.8	NTU
GS-AP-MW-7	Conductivity	2/8/2022 10:28	524.59	uS/cm
GS-AP-MW-7	DO	2/8/2022 10:28	0.36	mg/L
GS-AP-MW-7	Depth to Water Detail	2/8/2022 10:28	10.59	ft
GS-AP-MW-7	Oxidation Reduction Potential	2/8/2022 10:28	-139.3	mv
GS-AP-MW-7	pH	2/8/2022 10:28	7.62	SU
GS-AP-MW-7	Temperature	2/8/2022 10:28	18.87	C
GS-AP-MW-7	Turbidity	2/8/2022 10:28	16.2	NTU
GS-AP-MW-7	Conductivity	2/8/2022 10:33	524.36	uS/cm
GS-AP-MW-7	DO	2/8/2022 10:33	0.36	mg/L
GS-AP-MW-7	Depth to Water Detail	2/8/2022 10:33	10.61	ft
GS-AP-MW-7	Oxidation Reduction Potential	2/8/2022 10:33	-140.05	mv
GS-AP-MW-7	pH	2/8/2022 10:33	7.64	SU
GS-AP-MW-7	Temperature	2/8/2022 10:33	18.85	C
GS-AP-MW-7	Turbidity	2/8/2022 10:33	18.9	NTU
GS-AP-MW-7	Conductivity	2/8/2022 10:38	524.31	uS/cm
GS-AP-MW-7	DO	2/8/2022 10:38	0.37	mg/L
GS-AP-MW-7	Depth to Water Detail	2/8/2022 10:38	10.64	ft
GS-AP-MW-7	Oxidation Reduction Potential	2/8/2022 10:38	-139.98	mv
GS-AP-MW-7	pH	2/8/2022 10:38	7.65	SU
GS-AP-MW-7	Temperature	2/8/2022 10:38	18.78	C
GS-AP-MW-7	Turbidity	2/8/2022 10:38	20.3	NTU
GS-AP-MW-7	Conductivity	2/8/2022 10:43	524.51	uS/cm
GS-AP-MW-7	DO	2/8/2022 10:43	0.37	mg/L
GS-AP-MW-7	Depth to Water Detail	2/8/2022 10:43	10.64	ft
GS-AP-MW-7	Oxidation Reduction Potential	2/8/2022 10:43	-140.47	mv



**Groundwater Field Parameters  
Plant Gorgas Ash Pond**

WELL ID	DESCRIPTION	TIME OF READING	VALUE	UNIT
GS-AP-MW-7	pH	2/8/2022 10:43	7.66	SU
GS-AP-MW-7	Temperature	2/8/2022 10:43	18.83	C
GS-AP-MW-7	Turbidity	2/8/2022 10:43	19.7	NTU
GS-AP-MW-7	Conductivity	2/8/2022 10:48	523.65	uS/cm
GS-AP-MW-7	DO	2/8/2022 10:48	0.36	mg/L
GS-AP-MW-7	Depth to Water Detail	2/8/2022 10:48	10.65	ft
GS-AP-MW-7	Oxidation Reduction Potential	2/8/2022 10:48	-140.97	mv
GS-AP-MW-7	pH	2/8/2022 10:48	7.66	SU
GS-AP-MW-7	Temperature	2/8/2022 10:48	18.85	C
GS-AP-MW-7	Turbidity	2/8/2022 10:48	19.6	NTU
GS-AP-MW-7	Conductivity	2/8/2022 10:53	523.55	uS/cm
GS-AP-MW-7	DO	2/8/2022 10:53	0.37	mg/L
GS-AP-MW-7	Depth to Water Detail	2/8/2022 10:53	10.66	ft
GS-AP-MW-7	Oxidation Reduction Potential	2/8/2022 10:53	-142.1	mv
GS-AP-MW-7	pH	2/8/2022 10:53	7.68	SU
GS-AP-MW-7	Temperature	2/8/2022 10:53	18.84	C
GS-AP-MW-7	Turbidity	2/8/2022 10:53	20.1	NTU
GS-AP-MW-7	Conductivity	2/8/2022 10:58	523.16	uS/cm
GS-AP-MW-7	DO	2/8/2022 10:58	0.37	mg/L
GS-AP-MW-7	Depth to Water Detail	2/8/2022 10:58	10.66	ft
GS-AP-MW-7	Oxidation Reduction Potential	2/8/2022 10:58	-142.23	mv
GS-AP-MW-7	pH	2/8/2022 10:58	7.68	SU
GS-AP-MW-7	Temperature	2/8/2022 10:58	18.8	C
GS-AP-MW-7	Turbidity	2/8/2022 10:58	18	NTU
GS-AP-MW-7	Conductivity	2/8/2022 11:03	523.7	uS/cm
GS-AP-MW-7	DO	2/8/2022 11:03	0.37	mg/L
GS-AP-MW-7	Depth to Water Detail	2/8/2022 11:03	10.69	ft
GS-AP-MW-7	Oxidation Reduction Potential	2/8/2022 11:03	-141.82	mv
GS-AP-MW-7	pH	2/8/2022 11:03	7.67	SU
GS-AP-MW-7	Temperature	2/8/2022 11:03	18.86	C
GS-AP-MW-7	Turbidity	2/8/2022 11:03	18.2	NTU
GS-AP-MW-7	Conductivity	2/8/2022 11:08	523.11	uS/cm
GS-AP-MW-7	DO	2/8/2022 11:08	0.36	mg/L
GS-AP-MW-7	Depth to Water Detail	2/8/2022 11:08	10.71	ft
GS-AP-MW-7	Oxidation Reduction Potential	2/8/2022 11:08	-143.27	mv
GS-AP-MW-7	pH	2/8/2022 11:08	7.7	SU
GS-AP-MW-7	Temperature	2/8/2022 11:08	18.91	C
GS-AP-MW-7	Turbidity	2/8/2022 11:08	18.2	NTU
GS-AP-MW-7	Conductivity	2/8/2022 11:13	522.59	uS/cm
GS-AP-MW-7	DO	2/8/2022 11:13	0.37	mg/L
GS-AP-MW-7	Depth to Water Detail	2/8/2022 11:13	10.73	ft
GS-AP-MW-7	Oxidation Reduction Potential	2/8/2022 11:13	-143.16	mv
GS-AP-MW-7	pH	2/8/2022 11:13	7.7	SU
GS-AP-MW-7	Temperature	2/8/2022 11:13	18.9	C
GS-AP-MW-7	Turbidity	2/8/2022 11:13	17.8	NTU
GS-AP-MW-7	Conductivity	2/8/2022 11:18	522.4	uS/cm
GS-AP-MW-7	DO	2/8/2022 11:18	0.37	mg/L
GS-AP-MW-7	Depth to Water Detail	2/8/2022 11:18	10.73	ft
GS-AP-MW-7	Oxidation Reduction Potential	2/8/2022 11:18	-143.55	mv
GS-AP-MW-7	pH	2/8/2022 11:18	7.71	SU
GS-AP-MW-7	Temperature	2/8/2022 11:18	18.93	C
GS-AP-MW-7	Turbidity	2/8/2022 11:18	18.9	NTU

**Groundwater Field Parameters  
Plant Gorgas Ash Pond**

WELL ID	DESCRIPTION	TIME OF READING	VALUE	UNIT
GS-AP-MW-41HS	Conductivity	2/8/2022 12:59	439.45	uS/cm
GS-AP-MW-41HS	DO	2/8/2022 12:59	1.34	mg/L
GS-AP-MW-41HS	Depth to Water Detail	2/8/2022 12:59	21.81	ft
GS-AP-MW-41HS	Oxidation Reduction Potential	2/8/2022 12:59	-0.22	mv
GS-AP-MW-41HS	pH	2/8/2022 12:59	6.65	SU
GS-AP-MW-41HS	Temperature	2/8/2022 12:59	19.44	C
GS-AP-MW-41HS	Turbidity	2/8/2022 12:59	66.7	NTU
GS-AP-MW-41HS	Conductivity	2/8/2022 13:04	442.34	uS/cm
GS-AP-MW-41HS	DO	2/8/2022 13:04	2.45	mg/L
GS-AP-MW-41HS	Depth to Water Detail	2/8/2022 13:04	22.16	ft
GS-AP-MW-41HS	Oxidation Reduction Potential	2/8/2022 13:04	1.22	mv
GS-AP-MW-41HS	pH	2/8/2022 13:04	6.69	SU
GS-AP-MW-41HS	Temperature	2/8/2022 13:04	19.31	C
GS-AP-MW-41HS	Turbidity	2/8/2022 13:04	11.49	NTU
GS-AP-MW-41HS	Conductivity	2/8/2022 13:09	436.1	uS/cm
GS-AP-MW-41HS	DO	2/8/2022 13:09	2.36	mg/L
GS-AP-MW-41HS	Depth to Water Detail	2/8/2022 13:09	22.56	ft
GS-AP-MW-41HS	Oxidation Reduction Potential	2/8/2022 13:09	0.02	mv
GS-AP-MW-41HS	pH	2/8/2022 13:09	6.69	SU
GS-AP-MW-41HS	Temperature	2/8/2022 13:09	19.4	C
GS-AP-MW-41HS	Turbidity	2/8/2022 13:09	6.88	NTU
GS-AP-MW-41HS	Conductivity	2/8/2022 13:14	435.42	uS/cm
GS-AP-MW-41HS	DO	2/8/2022 13:14	2.29	mg/L
GS-AP-MW-41HS	Depth to Water Detail	2/8/2022 13:14	22.82	ft
GS-AP-MW-41HS	Oxidation Reduction Potential	2/8/2022 13:14	-0.04	mv
GS-AP-MW-41HS	pH	2/8/2022 13:14	6.69	SU
GS-AP-MW-41HS	Temperature	2/8/2022 13:14	19.41	C
GS-AP-MW-41HS	Turbidity	2/8/2022 13:14	5.64	NTU
GS-AP-MW-41HS	Conductivity	2/8/2022 13:19	434.2	uS/cm
GS-AP-MW-41HS	DO	2/8/2022 13:19	2.21	mg/L
GS-AP-MW-41HS	Depth to Water Detail	2/8/2022 13:19	23.16	ft
GS-AP-MW-41HS	Oxidation Reduction Potential	2/8/2022 13:19	-0.35	mv
GS-AP-MW-41HS	pH	2/8/2022 13:19	6.69	SU
GS-AP-MW-41HS	Temperature	2/8/2022 13:19	19.52	C
GS-AP-MW-41HS	Turbidity	2/8/2022 13:19	4.41	NTU
GS-AP-MW-41HS	Conductivity	2/8/2022 13:24	433.18	uS/cm
GS-AP-MW-41HS	DO	2/8/2022 13:24	2.03	mg/L
GS-AP-MW-41HS	Depth to Water Detail	2/8/2022 13:24	23.5	ft
GS-AP-MW-41HS	Oxidation Reduction Potential	2/8/2022 13:24	0	mv
GS-AP-MW-41HS	pH	2/8/2022 13:24	6.67	SU
GS-AP-MW-41HS	Temperature	2/8/2022 13:24	19.43	C
GS-AP-MW-41HS	Turbidity	2/8/2022 13:24	3.18	NTU
GS-AP-MW-41HS	Conductivity	2/8/2022 13:29	432.28	uS/cm
GS-AP-MW-41HS	DO	2/8/2022 13:29	1.96	mg/L
GS-AP-MW-41HS	Depth to Water Detail	2/8/2022 13:29	23.76	ft
GS-AP-MW-41HS	Oxidation Reduction Potential	2/8/2022 13:29	-0.54	mv
GS-AP-MW-41HS	pH	2/8/2022 13:29	6.67	SU
GS-AP-MW-41HS	Temperature	2/8/2022 13:29	19.44	C
GS-AP-MW-41HS	Turbidity	2/8/2022 13:29	2.32	NTU
GS-AP-MW-41HS	Conductivity	2/8/2022 13:34	430.58	uS/cm
GS-AP-MW-41HS	DO	2/8/2022 13:34	2.08	mg/L
GS-AP-MW-41HS	Depth to Water Detail	2/8/2022 13:34	24.21	ft
GS-AP-MW-41HS	Oxidation Reduction Potential	2/8/2022 13:34	-1.25	mv
GS-AP-MW-41HS	pH	2/8/2022 13:34	6.68	SU
GS-AP-MW-41HS	Temperature	2/8/2022 13:34	19.36	C
GS-AP-MW-41HS	Turbidity	2/8/2022 13:34	1.53	NTU
GS-AP-MW-41HS	Conductivity	2/8/2022 13:39	429.68	uS/cm
GS-AP-MW-41HS	DO	2/8/2022 13:39	2.15	mg/L

**Groundwater Field Parameters  
Plant Gorgas Ash Pond**

WELL ID	DESCRIPTION	TIME OF READING	VALUE	UNIT
GS-AP-MW-41HS	Depth to Water Detail	2/8/2022 13:39	24.42	ft
GS-AP-MW-41HS	Oxidation Reduction Potential	2/8/2022 13:39	-2.5	mv
GS-AP-MW-41HS	pH	2/8/2022 13:39	6.69	SU
GS-AP-MW-41HS	Temperature	2/8/2022 13:39	19.3	C
GS-AP-MW-41HS	Turbidity	2/8/2022 13:39	1.48	NTU
GS-AP-MW-41HS	Conductivity	2/8/2022 13:44	429.36	uS/cm
GS-AP-MW-41HS	DO	2/8/2022 13:44	2.2	mg/L
GS-AP-MW-41HS	Depth to Water Detail	2/8/2022 13:44	24.74	ft
GS-AP-MW-41HS	Oxidation Reduction Potential	2/8/2022 13:44	-3.28	mv
GS-AP-MW-41HS	pH	2/8/2022 13:44	6.69	SU
GS-AP-MW-41HS	Temperature	2/8/2022 13:44	19.38	C
GS-AP-MW-41HS	Turbidity	2/8/2022 13:44	1.25	NTU
GS-AP-MW-41HS	Conductivity	2/8/2022 13:49	429.1	uS/cm
GS-AP-MW-41HS	DO	2/8/2022 13:49	2.21	mg/L
GS-AP-MW-41HS	Depth to Water Detail	2/8/2022 13:49	25.11	ft
GS-AP-MW-41HS	Oxidation Reduction Potential	2/8/2022 13:49	-4.17	mv
GS-AP-MW-41HS	pH	2/8/2022 13:49	6.69	SU
GS-AP-MW-41HS	Temperature	2/8/2022 13:49	19.38	C
GS-AP-MW-41HS	Turbidity	2/8/2022 13:49	1.4	NTU
GS-AP-MW-41HS	Conductivity	2/8/2022 13:54	428.66	uS/cm
GS-AP-MW-41HS	DO	2/8/2022 13:54	2.26	mg/L
GS-AP-MW-41HS	Depth to Water Detail	2/8/2022 13:54	25.44	ft
GS-AP-MW-41HS	Oxidation Reduction Potential	2/8/2022 13:54	-3.41	mv
GS-AP-MW-41HS	pH	2/8/2022 13:54	6.67	SU
GS-AP-MW-41HS	Temperature	2/8/2022 13:54	19.36	C
GS-AP-MW-41HS	Turbidity	2/8/2022 13:54	0.83	NTU
GS-AP-MW-41HS	Conductivity	2/8/2022 13:59	428.19	uS/cm
GS-AP-MW-41HS	DO	2/8/2022 13:59	2.25	mg/L
GS-AP-MW-41HS	Depth to Water Detail	2/8/2022 13:59	25.71	ft
GS-AP-MW-41HS	Oxidation Reduction Potential	2/8/2022 13:59	-4.29	mv
GS-AP-MW-41HS	pH	2/8/2022 13:59	6.67	SU
GS-AP-MW-41HS	Temperature	2/8/2022 13:59	19.31	C
GS-AP-MW-41HS	Turbidity	2/8/2022 13:59	0.99	NTU
GS-AP-MW-41HS	Conductivity	2/8/2022 14:04	428.85	uS/cm
GS-AP-MW-41HS	DO	2/8/2022 14:04	2.12	mg/L
GS-AP-MW-41HS	Depth to Water Detail	2/8/2022 14:04	25.92	ft
GS-AP-MW-41HS	Oxidation Reduction Potential	2/8/2022 14:04	-5.51	mv
GS-AP-MW-41HS	pH	2/8/2022 14:04	6.68	SU
GS-AP-MW-41HS	Temperature	2/8/2022 14:04	19.35	C
GS-AP-MW-41HS	Turbidity	2/8/2022 14:04	0.72	NTU
GS-AP-MW-41HS	Conductivity	2/8/2022 14:09	427.8	uS/cm
GS-AP-MW-41HS	DO	2/8/2022 14:09	2.2	mg/L
GS-AP-MW-41HS	Depth to Water Detail	2/8/2022 14:09	26.19	ft
GS-AP-MW-41HS	Oxidation Reduction Potential	2/8/2022 14:09	-4.93	mv
GS-AP-MW-41HS	pH	2/8/2022 14:09	6.69	SU
GS-AP-MW-41HS	Temperature	2/8/2022 14:09	19.11	C
GS-AP-MW-41HS	Turbidity	2/8/2022 14:09	0.7	NTU
GS-AP-MW-41HS	Conductivity	2/8/2022 14:14	428.99	uS/cm
GS-AP-MW-41HS	DO	2/8/2022 14:14	2.38	mg/L
GS-AP-MW-41HS	Depth to Water Detail	2/8/2022 14:14	26.36	ft
GS-AP-MW-41HS	Oxidation Reduction Potential	2/8/2022 14:14	-3.56	mv
GS-AP-MW-41HS	pH	2/8/2022 14:14	6.68	SU
GS-AP-MW-41HS	Temperature	2/8/2022 14:14	19.03	C
GS-AP-MW-41HS	Turbidity	2/8/2022 14:14	0.8	NTU
GS-AP-MW-41HS	Conductivity	2/8/2022 14:19	429.76	uS/cm
GS-AP-MW-41HS	DO	2/8/2022 14:19	2.52	mg/L
GS-AP-MW-41HS	Depth to Water Detail	2/8/2022 14:19	26.52	ft
GS-AP-MW-41HS	Oxidation Reduction Potential	2/8/2022 14:19	-3.1	mv

**Groundwater Field Parameters  
Plant Gorgas Ash Pond**

WELL ID	DESCRIPTION	TIME OF READING	VALUE	UNIT
GS-AP-MW-41HS	pH	2/8/2022 14:19	6.68	SU
GS-AP-MW-41HS	Temperature	2/8/2022 14:19	18.96	C
GS-AP-MW-41HS	Turbidity	2/8/2022 14:19	0.84	NTU
GS-AP-MW-41HS	Conductivity	2/8/2022 14:24	430.32	uS/cm
GS-AP-MW-41HS	DO	2/8/2022 14:24	2.49	mg/L
GS-AP-MW-41HS	Depth to Water Detail	2/8/2022 14:24	26.76	ft
GS-AP-MW-41HS	Oxidation Reduction Potention	2/8/2022 14:24	-3.17	mv
GS-AP-MW-41HS	pH	2/8/2022 14:24	6.68	SU
GS-AP-MW-41HS	Temperature	2/8/2022 14:24	18.99	C
GS-AP-MW-41HS	Turbidity	2/8/2022 14:24	0.78	NTU
GS-AP-MW-41HS	Conductivity	2/8/2022 14:29	430.32	uS/cm
GS-AP-MW-41HS	DO	2/8/2022 14:29	2.43	mg/L
GS-AP-MW-41HS	Depth to Water Detail	2/8/2022 14:29	27.06	ft
GS-AP-MW-41HS	Oxidation Reduction Potention	2/8/2022 14:29	-3.37	mv
GS-AP-MW-41HS	pH	2/8/2022 14:29	6.69	SU
GS-AP-MW-41HS	Temperature	2/8/2022 14:29	19.07	C
GS-AP-MW-41HS	Turbidity	2/8/2022 14:29	0.96	NTU
GS-AP-MW-41HS	Conductivity	2/8/2022 14:34	429.72	uS/cm
GS-AP-MW-41HS	DO	2/8/2022 14:34	2.39	mg/L
GS-AP-MW-41HS	Depth to Water Detail	2/8/2022 14:34	27.16	ft
GS-AP-MW-41HS	Oxidation Reduction Potention	2/8/2022 14:34	-2.58	mv
GS-AP-MW-41HS	pH	2/8/2022 14:34	6.68	SU
GS-AP-MW-41HS	Temperature	2/8/2022 14:34	18.91	C
GS-AP-MW-41HS	Turbidity	2/8/2022 14:34	0.77	NTU
GS-AP-MW-41HS	Conductivity	2/8/2022 14:39	429.61	uS/cm
GS-AP-MW-41HS	DO	2/8/2022 14:39	2.25	mg/L
GS-AP-MW-41HS	Depth to Water Detail	2/8/2022 14:39	27.34	ft
GS-AP-MW-41HS	Oxidation Reduction Potention	2/8/2022 14:39	-2.04	mv
GS-AP-MW-41HS	pH	2/8/2022 14:39	6.66	SU
GS-AP-MW-41HS	Temperature	2/8/2022 14:39	18.84	C
GS-AP-MW-41HS	Turbidity	2/8/2022 14:39	1.3	NTU

**Groundwater Field Parameters  
Plant Gorgas Ash Pond**

WELL ID	DESCRIPTION	TIME OF READING	VALUE	UNIT
GS-AP-MW-21	Conductivity	2/8/2022 10:28	1175.8	uS/cm
GS-AP-MW-21	DO	2/8/2022 10:28	1.52	mg/L
GS-AP-MW-21	Depth to Water Detail	2/8/2022 10:28	164.02	ft
GS-AP-MW-21	Oxidation Reduction Potention	2/8/2022 10:28	-108.7	mv
GS-AP-MW-21	pH	2/8/2022 10:28	10.33	SU
GS-AP-MW-21	Temperature	2/8/2022 10:28	16.2	C
GS-AP-MW-21	Turbidity	2/8/2022 10:28	1.66	NTU
GS-AP-MW-21	Conductivity	2/8/2022 10:33	1220.76	uS/cm
GS-AP-MW-21	DO	2/8/2022 10:33	0.71	mg/L
GS-AP-MW-21	Depth to Water Detail	2/8/2022 10:33	164.3	ft
GS-AP-MW-21	Oxidation Reduction Potention	2/8/2022 10:33	-161.69	mv
GS-AP-MW-21	pH	2/8/2022 10:33	11.05	SU
GS-AP-MW-21	Temperature	2/8/2022 10:33	16.35	C
GS-AP-MW-21	Turbidity	2/8/2022 10:33	0.99	NTU
GS-AP-MW-21	Conductivity	2/8/2022 10:38	1181.91	uS/cm
GS-AP-MW-21	DO	2/8/2022 10:38	0.62	mg/L
GS-AP-MW-21	Depth to Water Detail	2/8/2022 10:38	164.46	ft
GS-AP-MW-21	Oxidation Reduction Potention	2/8/2022 10:38	-184.42	mv
GS-AP-MW-21	pH	2/8/2022 10:38	11.09	SU
GS-AP-MW-21	Temperature	2/8/2022 10:38	16.44	C
GS-AP-MW-21	Turbidity	2/8/2022 10:38	0.93	NTU
GS-AP-MW-21	Conductivity	2/8/2022 10:43	1118.23	uS/cm
GS-AP-MW-21	DO	2/8/2022 10:43	0.58	mg/L
GS-AP-MW-21	Depth to Water Detail	2/8/2022 10:43	164.58	ft
GS-AP-MW-21	Oxidation Reduction Potention	2/8/2022 10:43	-193.02	mv
GS-AP-MW-21	pH	2/8/2022 10:43	10.83	SU
GS-AP-MW-21	Temperature	2/8/2022 10:43	16.54	C
GS-AP-MW-21	Turbidity	2/8/2022 10:43	0.86	NTU
GS-AP-MW-21	Conductivity	2/8/2022 10:48	1088.15	uS/cm
GS-AP-MW-21	DO	2/8/2022 10:48	0.58	mg/L
GS-AP-MW-21	Depth to Water Detail	2/8/2022 10:48	164.59	ft
GS-AP-MW-21	Oxidation Reduction Potention	2/8/2022 10:48	-201.25	mv
GS-AP-MW-21	pH	2/8/2022 10:48	10.65	SU
GS-AP-MW-21	Temperature	2/8/2022 10:48	16.68	C
GS-AP-MW-21	Turbidity	2/8/2022 10:48	0.83	NTU
GS-AP-MW-21	Conductivity	2/8/2022 10:53	1063.8	uS/cm
GS-AP-MW-21	DO	2/8/2022 10:53	0.55	mg/L
GS-AP-MW-21	Depth to Water Detail	2/8/2022 10:53	164.59	ft
GS-AP-MW-21	Oxidation Reduction Potention	2/8/2022 10:53	-205.23	mv
GS-AP-MW-21	pH	2/8/2022 10:53	10.5	SU
GS-AP-MW-21	Temperature	2/8/2022 10:53	16.83	C
GS-AP-MW-21	Turbidity	2/8/2022 10:53	0.8	NTU
GS-AP-MW-21	Conductivity	2/8/2022 10:58	1050.47	uS/cm
GS-AP-MW-21	DO	2/8/2022 10:58	0.55	mg/L
GS-AP-MW-21	Depth to Water Detail	2/8/2022 10:58	164.59	ft
GS-AP-MW-21	Oxidation Reduction Potention	2/8/2022 10:58	-205.38	mv
GS-AP-MW-21	pH	2/8/2022 10:58	10.35	SU
GS-AP-MW-21	Temperature	2/8/2022 10:58	16.91	C
GS-AP-MW-21	Turbidity	2/8/2022 10:58	0.79	NTU
GS-AP-MW-21	Conductivity	2/8/2022 11:03	1044.34	uS/cm
GS-AP-MW-21	DO	2/8/2022 11:03	0.62	mg/L
GS-AP-MW-21	Depth to Water Detail	2/8/2022 11:03	164.59	ft
GS-AP-MW-21	Oxidation Reduction Potention	2/8/2022 11:03	-206.85	mv
GS-AP-MW-21	pH	2/8/2022 11:03	10.3	SU
GS-AP-MW-21	Temperature	2/8/2022 11:03	16.71	C
GS-AP-MW-21	Turbidity	2/8/2022 11:03	0.68	NTU
GS-AP-MW-21	Conductivity	2/8/2022 11:08	1038.26	uS/cm
GS-AP-MW-21	DO	2/8/2022 11:08	0.74	mg/L



**Groundwater Field Parameters  
Plant Gorgas Ash Pond**

<b>WELL ID</b>	<b>DESCRIPTION</b>	<b>TIME OF READING</b>	<b>VALUE</b>	<b>UNIT</b>
GS-AP-MW-21	Depth to Water Detail	2/8/2022 11:08	164.59	ft
GS-AP-MW-21	Oxidation Reduction Potention	2/8/2022 11:08	-206.64	mv
GS-AP-MW-21	pH	2/8/2022 11:08	10.26	SU
GS-AP-MW-21	Temperature	2/8/2022 11:08	16.93	C
GS-AP-MW-21	Turbidity	2/8/2022 11:08	0.78	NTU

**Groundwater Field Parameters  
Plant Gorgas Ash Pond**

WELL ID	DESCRIPTION	TIME OF READING	VALUE	UNIT
GS-AP-MW-21V	Conductivity	2/8/2022 11:55	3789.61	uS/cm
GS-AP-MW-21V	DO	2/8/2022 11:55	0.47	mg/L
GS-AP-MW-21V	Depth to Water Detail	2/8/2022 11:55	176.28	ft
GS-AP-MW-21V	Oxidation Reduction Potention	2/8/2022 11:55	-132.53	mv
GS-AP-MW-21V	pH	2/8/2022 11:55	7.58	SU
GS-AP-MW-21V	Temperature	2/8/2022 11:55	17.04	C
GS-AP-MW-21V	Turbidity	2/8/2022 11:55	6.76	NTU
GS-AP-MW-21V	Conductivity	2/8/2022 12:00	3878.23	uS/cm
GS-AP-MW-21V	DO	2/8/2022 12:00	0.36	mg/L
GS-AP-MW-21V	Depth to Water Detail	2/8/2022 12:00	179.05	ft
GS-AP-MW-21V	Oxidation Reduction Potention	2/8/2022 12:00	-124.03	mv
GS-AP-MW-21V	pH	2/8/2022 12:00	7.57	SU
GS-AP-MW-21V	Temperature	2/8/2022 12:00	17.13	C
GS-AP-MW-21V	Turbidity	2/8/2022 12:00	6.3	NTU
GS-AP-MW-21V	Conductivity	2/8/2022 12:05	3872.06	uS/cm
GS-AP-MW-21V	DO	2/8/2022 12:05	0.32	mg/L
GS-AP-MW-21V	Depth to Water Detail	2/8/2022 12:05	181.96	ft
GS-AP-MW-21V	Oxidation Reduction Potention	2/8/2022 12:05	-121.53	mv
GS-AP-MW-21V	pH	2/8/2022 12:05	7.57	SU
GS-AP-MW-21V	Temperature	2/8/2022 12:05	17.18	C
GS-AP-MW-21V	Turbidity	2/8/2022 12:05	7.36	NTU
GS-AP-MW-21V	Conductivity	2/8/2022 12:10	3868.12	uS/cm
GS-AP-MW-21V	DO	2/8/2022 12:10	0.31	mg/L
GS-AP-MW-21V	Depth to Water Detail	2/8/2022 12:10	183.73	ft
GS-AP-MW-21V	Oxidation Reduction Potention	2/8/2022 12:10	-121.02	mv
GS-AP-MW-21V	pH	2/8/2022 12:10	7.57	SU
GS-AP-MW-21V	Temperature	2/8/2022 12:10	16.97	C
GS-AP-MW-21V	Turbidity	2/8/2022 12:10	7.26	NTU
GS-AP-MW-21V	Conductivity	2/8/2022 12:15	3837.05	uS/cm
GS-AP-MW-21V	DO	2/8/2022 12:15	0.28	mg/L
GS-AP-MW-21V	Depth to Water Detail	2/8/2022 12:15	186.22	ft
GS-AP-MW-21V	Oxidation Reduction Potention	2/8/2022 12:15	-122.28	mv
GS-AP-MW-21V	pH	2/8/2022 12:15	7.59	SU
GS-AP-MW-21V	Temperature	2/8/2022 12:15	17.12	C
GS-AP-MW-21V	Turbidity	2/8/2022 12:15	6.55	NTU
GS-AP-MW-21V	Conductivity	2/8/2022 12:20	3788.54	uS/cm
GS-AP-MW-21V	DO	2/8/2022 12:20	0.27	mg/L
GS-AP-MW-21V	Depth to Water Detail	2/8/2022 12:20	189.15	ft
GS-AP-MW-21V	Oxidation Reduction Potention	2/8/2022 12:20	-124.33	mv
GS-AP-MW-21V	pH	2/8/2022 12:20	7.6	SU
GS-AP-MW-21V	Temperature	2/8/2022 12:20	17.17	C
GS-AP-MW-21V	Turbidity	2/8/2022 12:20	5.59	NTU
GS-AP-MW-21V	Conductivity	2/8/2022 12:25	3736.75	uS/cm
GS-AP-MW-21V	DO	2/8/2022 12:25	0.28	mg/L
GS-AP-MW-21V	Depth to Water Detail	2/8/2022 12:25	191.72	ft
GS-AP-MW-21V	Oxidation Reduction Potention	2/8/2022 12:25	-126.19	mv
GS-AP-MW-21V	pH	2/8/2022 12:25	7.62	SU
GS-AP-MW-21V	Temperature	2/8/2022 12:25	17.16	C
GS-AP-MW-21V	Turbidity	2/8/2022 12:25	6.81	NTU
GS-AP-MW-21V	Conductivity	2/8/2022 12:30	3709.38	uS/cm
GS-AP-MW-21V	DO	2/8/2022 12:30	0.26	mg/L
GS-AP-MW-21V	Depth to Water Detail	2/8/2022 12:30	194.11	ft
GS-AP-MW-21V	Oxidation Reduction Potention	2/8/2022 12:30	-127.75	mv
GS-AP-MW-21V	pH	2/8/2022 12:30	7.63	SU
GS-AP-MW-21V	Temperature	2/8/2022 12:30	17.12	C
GS-AP-MW-21V	Turbidity	2/8/2022 12:30	7.56	NTU
GS-AP-MW-21V	Conductivity	2/8/2022 12:35	3608.02	uS/cm
GS-AP-MW-21V	DO	2/8/2022 12:35	0.26	mg/L

**Groundwater Field Parameters  
Plant Gorgas Ash Pond**

WELL ID	DESCRIPTION	TIME OF READING	VALUE	UNIT
GS-AP-MW-21V	Depth to Water Detail	2/8/2022 12:35	196.21	ft
GS-AP-MW-21V	Oxidation Reduction Potential	2/8/2022 12:35	-129.81	mv
GS-AP-MW-21V	pH	2/8/2022 12:35	7.65	SU
GS-AP-MW-21V	Temperature	2/8/2022 12:35	17.12	C
GS-AP-MW-21V	Turbidity	2/8/2022 12:35	6.69	NTU
GS-AP-MW-21V	Conductivity	2/8/2022 12:40	3565.29	uS/cm
GS-AP-MW-21V	DO	2/8/2022 12:40	0.26	mg/L
GS-AP-MW-21V	Depth to Water Detail	2/8/2022 12:40	198.96	ft
GS-AP-MW-21V	Oxidation Reduction Potential	2/8/2022 12:40	-131.4	mv
GS-AP-MW-21V	pH	2/8/2022 12:40	7.66	SU
GS-AP-MW-21V	Temperature	2/8/2022 12:40	17.09	C
GS-AP-MW-21V	Turbidity	2/8/2022 12:40	6.81	NTU
GS-AP-MW-21V	Conductivity	2/8/2022 12:45	3557.33	uS/cm
GS-AP-MW-21V	DO	2/8/2022 12:45	0.45	mg/L
GS-AP-MW-21V	Depth to Water Detail	2/8/2022 12:45	199.7	ft
GS-AP-MW-21V	Oxidation Reduction Potential	2/8/2022 12:45	-129.08	mv
GS-AP-MW-21V	pH	2/8/2022 12:45	7.67	SU
GS-AP-MW-21V	Temperature	2/8/2022 12:45	16.85	C
GS-AP-MW-21V	Turbidity	2/8/2022 12:45	6.04	NTU
GS-AP-MW-21V	Conductivity	2/8/2022 12:50	3407.74	uS/cm
GS-AP-MW-21V	DO	2/8/2022 12:50	0.46	mg/L
GS-AP-MW-21V	Depth to Water Detail	2/8/2022 12:50	200.46	ft
GS-AP-MW-21V	Oxidation Reduction Potential	2/8/2022 12:50	-129.13	mv
GS-AP-MW-21V	pH	2/8/2022 12:50	7.71	SU
GS-AP-MW-21V	Temperature	2/8/2022 12:50	17.12	C
GS-AP-MW-21V	Turbidity	2/8/2022 12:50	5.71	NTU
GS-AP-MW-21V	Conductivity	2/8/2022 12:55	3232.45	uS/cm
GS-AP-MW-21V	DO	2/8/2022 12:55	0.53	mg/L
GS-AP-MW-21V	Depth to Water Detail	2/8/2022 12:55	200.94	ft
GS-AP-MW-21V	Oxidation Reduction Potential	2/8/2022 12:55	-130.59	mv
GS-AP-MW-21V	pH	2/8/2022 12:55	7.76	SU
GS-AP-MW-21V	Temperature	2/8/2022 12:55	17.28	C
GS-AP-MW-21V	Turbidity	2/8/2022 12:55	5.99	NTU
GS-AP-MW-21V	Conductivity	2/8/2022 13:00	3104.58	uS/cm
GS-AP-MW-21V	DO	2/8/2022 13:00	0.54	mg/L
GS-AP-MW-21V	Depth to Water Detail	2/8/2022 13:00	201.3	ft
GS-AP-MW-21V	Oxidation Reduction Potential	2/8/2022 13:00	-131.62	mv
GS-AP-MW-21V	pH	2/8/2022 13:00	7.8	SU
GS-AP-MW-21V	Temperature	2/8/2022 13:00	17.06	C
GS-AP-MW-21V	Turbidity	2/8/2022 13:00	4.59	NTU
GS-AP-MW-21V	Conductivity	2/8/2022 13:05	2976.38	uS/cm
GS-AP-MW-21V	DO	2/8/2022 13:05	0.54	mg/L
GS-AP-MW-21V	Depth to Water Detail	2/8/2022 13:05	201.78	ft
GS-AP-MW-21V	Oxidation Reduction Potential	2/8/2022 13:05	-133.72	mv
GS-AP-MW-21V	pH	2/8/2022 13:05	7.84	SU
GS-AP-MW-21V	Temperature	2/8/2022 13:05	16.88	C
GS-AP-MW-21V	Turbidity	2/8/2022 13:05	5.02	NTU
GS-AP-MW-21V	Conductivity	2/8/2022 13:10	2904.04	uS/cm
GS-AP-MW-21V	DO	2/8/2022 13:10	0.54	mg/L
GS-AP-MW-21V	Depth to Water Detail	2/8/2022 13:10	202.18	ft
GS-AP-MW-21V	Oxidation Reduction Potential	2/8/2022 13:10	-135.3	mv
GS-AP-MW-21V	pH	2/8/2022 13:10	7.86	SU
GS-AP-MW-21V	Temperature	2/8/2022 13:10	17.14	C
GS-AP-MW-21V	Turbidity	2/8/2022 13:10	4.86	NTU
GS-AP-MW-21V	Conductivity	2/8/2022 13:15	2820.29	uS/cm
GS-AP-MW-21V	DO	2/8/2022 13:15	0.53	mg/L
GS-AP-MW-21V	Depth to Water Detail	2/8/2022 13:15	202.4	ft
GS-AP-MW-21V	Oxidation Reduction Potential	2/8/2022 13:15	-136.9	mv

**Groundwater Field Parameters  
Plant Gorgas Ash Pond**

WELL ID	DESCRIPTION	TIME OF READING	VALUE	UNIT
GS-AP-MW-21V	pH	2/8/2022 13:15	7.89	SU
GS-AP-MW-21V	Temperature	2/8/2022 13:15	17.05	C
GS-AP-MW-21V	Turbidity	2/8/2022 13:15	5.52	NTU
GS-AP-MW-21V	Conductivity	2/8/2022 13:20	2762.7	uS/cm
GS-AP-MW-21V	DO	2/8/2022 13:20	0.54	mg/L
GS-AP-MW-21V	Depth to Water Detail	2/8/2022 13:20	202.71	ft
GS-AP-MW-21V	Oxidation Reduction Potention	2/8/2022 13:20	-138.4	mv
GS-AP-MW-21V	pH	2/8/2022 13:20	7.92	SU
GS-AP-MW-21V	Temperature	2/8/2022 13:20	17.05	C
GS-AP-MW-21V	Turbidity	2/8/2022 13:20	4.73	NTU
GS-AP-MW-21V	Conductivity	2/8/2022 13:25	2701.29	uS/cm
GS-AP-MW-21V	DO	2/8/2022 13:25	0.55	mg/L
GS-AP-MW-21V	Depth to Water Detail	2/8/2022 13:25	202.89	ft
GS-AP-MW-21V	Oxidation Reduction Potention	2/8/2022 13:25	-139.15	mv
GS-AP-MW-21V	pH	2/8/2022 13:25	7.94	SU
GS-AP-MW-21V	Temperature	2/8/2022 13:25	17.03	C
GS-AP-MW-21V	Turbidity	2/8/2022 13:25	5.12	NTU
GS-AP-MW-21V	Conductivity	2/8/2022 13:30	2641.13	uS/cm
GS-AP-MW-21V	DO	2/8/2022 13:30	0.53	mg/L
GS-AP-MW-21V	Depth to Water Detail	2/8/2022 13:30	203.04	ft
GS-AP-MW-21V	Oxidation Reduction Potention	2/8/2022 13:30	-141.12	mv
GS-AP-MW-21V	pH	2/8/2022 13:30	7.96	SU
GS-AP-MW-21V	Temperature	2/8/2022 13:30	17.2	C
GS-AP-MW-21V	Turbidity	2/8/2022 13:30	4.81	NTU
GS-AP-MW-21V	Conductivity	2/8/2022 13:35	2592.81	uS/cm
GS-AP-MW-21V	DO	2/8/2022 13:35	0.52	mg/L
GS-AP-MW-21V	Depth to Water Detail	2/8/2022 13:35	203.14	ft
GS-AP-MW-21V	Oxidation Reduction Potention	2/8/2022 13:35	-142.8	mv
GS-AP-MW-21V	pH	2/8/2022 13:35	7.98	SU
GS-AP-MW-21V	Temperature	2/8/2022 13:35	17.18	C
GS-AP-MW-21V	Turbidity	2/8/2022 13:35	4.76	NTU

**Groundwater Field Parameters  
Plant Gorgas Ash Pond**

WELL ID	DESCRIPTION	TIME OF READING	VALUE	UNIT
GS-AP-MW-30HA	Conductivity	2/8/2022 8:48	868.92	uS/cm
GS-AP-MW-30HA	DO	2/8/2022 8:48	2.54	mg/L
GS-AP-MW-30HA	Depth to Water Detail	2/8/2022 8:48	290.3	ft
GS-AP-MW-30HA	Oxidation Reduction Potential	2/8/2022 8:48	30.68	mv
GS-AP-MW-30HA	pH	2/8/2022 8:48	7.17	SU
GS-AP-MW-30HA	Temperature	2/8/2022 8:48	14.58	C
GS-AP-MW-30HA	Turbidity	2/8/2022 8:48	13.2	NTU
GS-AP-MW-30HA	Conductivity	2/8/2022 8:53	862.35	uS/cm
GS-AP-MW-30HA	DO	2/8/2022 8:53	0.92	mg/L
GS-AP-MW-30HA	Depth to Water Detail	2/8/2022 8:53	290.3	ft
GS-AP-MW-30HA	Oxidation Reduction Potential	2/8/2022 8:53	-39.92	mv
GS-AP-MW-30HA	pH	2/8/2022 8:53	7	SU
GS-AP-MW-30HA	Temperature	2/8/2022 8:53	14.62	C
GS-AP-MW-30HA	Turbidity	2/8/2022 8:53	5.13	NTU
GS-AP-MW-30HA	Conductivity	2/8/2022 8:58	830.99	uS/cm
GS-AP-MW-30HA	DO	2/8/2022 8:58	0.65	mg/L
GS-AP-MW-30HA	Depth to Water Detail	2/8/2022 8:58	290.3	ft
GS-AP-MW-30HA	Oxidation Reduction Potential	2/8/2022 8:58	-133.85	mv
GS-AP-MW-30HA	pH	2/8/2022 8:58	7.22	SU
GS-AP-MW-30HA	Temperature	2/8/2022 8:58	14.68	C
GS-AP-MW-30HA	Turbidity	2/8/2022 8:58	9.97	NTU
GS-AP-MW-30HA	Conductivity	2/8/2022 9:03	821.57	uS/cm
GS-AP-MW-30HA	DO	2/8/2022 9:03	0.59	mg/L
GS-AP-MW-30HA	Depth to Water Detail	2/8/2022 9:03	290.3	ft
GS-AP-MW-30HA	Oxidation Reduction Potential	2/8/2022 9:03	-128.57	mv
GS-AP-MW-30HA	pH	2/8/2022 9:03	7.31	SU
GS-AP-MW-30HA	Temperature	2/8/2022 9:03	14.71	C
GS-AP-MW-30HA	Turbidity	2/8/2022 9:03	19.9	NTU
GS-AP-MW-30HA	Conductivity	2/8/2022 9:08	875.71	uS/cm
GS-AP-MW-30HA	DO	2/8/2022 9:08	0.6	mg/L
GS-AP-MW-30HA	Depth to Water Detail	2/8/2022 9:08	290.3	ft
GS-AP-MW-30HA	Oxidation Reduction Potential	2/8/2022 9:08	-119.23	mv
GS-AP-MW-30HA	pH	2/8/2022 9:08	7.32	SU
GS-AP-MW-30HA	Temperature	2/8/2022 9:08	14.8	C
GS-AP-MW-30HA	Turbidity	2/8/2022 9:08	17.2	NTU
GS-AP-MW-30HA	Conductivity	2/8/2022 9:13	908.95	uS/cm
GS-AP-MW-30HA	DO	2/8/2022 9:13	0.55	mg/L
GS-AP-MW-30HA	Depth to Water Detail	2/8/2022 9:13	290.3	ft
GS-AP-MW-30HA	Oxidation Reduction Potential	2/8/2022 9:13	-117.16	mv
GS-AP-MW-30HA	pH	2/8/2022 9:13	7.34	SU
GS-AP-MW-30HA	Temperature	2/8/2022 9:13	14.89	C
GS-AP-MW-30HA	Turbidity	2/8/2022 9:13	13.47	NTU
GS-AP-MW-30HA	Conductivity	2/8/2022 9:18	928.55	uS/cm
GS-AP-MW-30HA	DO	2/8/2022 9:18	0.55	mg/L
GS-AP-MW-30HA	Depth to Water Detail	2/8/2022 9:18	290.3	ft
GS-AP-MW-30HA	Oxidation Reduction Potential	2/8/2022 9:18	-115.01	mv
GS-AP-MW-30HA	pH	2/8/2022 9:18	7.33	SU
GS-AP-MW-30HA	Temperature	2/8/2022 9:18	14.91	C
GS-AP-MW-30HA	Turbidity	2/8/2022 9:18	11.77	NTU
GS-AP-MW-30HA	Conductivity	2/8/2022 9:23	929.95	uS/cm
GS-AP-MW-30HA	DO	2/8/2022 9:23	0.52	mg/L
GS-AP-MW-30HA	Depth to Water Detail	2/8/2022 9:23	290.3	ft
GS-AP-MW-30HA	Oxidation Reduction Potential	2/8/2022 9:23	-114.2	mv
GS-AP-MW-30HA	pH	2/8/2022 9:23	7.35	SU
GS-AP-MW-30HA	Temperature	2/8/2022 9:23	14.91	C
GS-AP-MW-30HA	Turbidity	2/8/2022 9:23	8.31	NTU
GS-AP-MW-30HA	Conductivity	2/8/2022 9:28	940.62	uS/cm
GS-AP-MW-30HA	DO	2/8/2022 9:28	0.49	mg/L



**Groundwater Field Parameters  
Plant Gorgas Ash Pond**

<b>WELL ID</b>	<b>DESCRIPTION</b>	<b>TIME OF READING</b>	<b>VALUE</b>	<b>UNIT</b>
GS-AP-MW-30HA	Depth to Water Detail	2/8/2022 9:28	290.3	ft
GS-AP-MW-30HA	Oxidation Reduction Potention	2/8/2022 9:28	-113.58	mv
GS-AP-MW-30HA	pH	2/8/2022 9:28	7.35	SU
GS-AP-MW-30HA	Temperature	2/8/2022 9:28	15.03	C
GS-AP-MW-30HA	Turbidity	2/8/2022 9:28	7.77	NTU
GS-AP-MW-30HA	Conductivity	2/8/2022 9:33	945.82	uS/cm
GS-AP-MW-30HA	DO	2/8/2022 9:33	0.5	mg/L
GS-AP-MW-30HA	Depth to Water Detail	2/8/2022 9:33	290.3	ft
GS-AP-MW-30HA	Oxidation Reduction Potention	2/8/2022 9:33	-113.51	mv
GS-AP-MW-30HA	pH	2/8/2022 9:33	7.35	SU
GS-AP-MW-30HA	Temperature	2/8/2022 9:33	14.98	C
GS-AP-MW-30HA	Turbidity	2/8/2022 9:33	4.94	NTU

**Groundwater Field Parameters  
Plant Gorgas Ash Pond**

WELL ID	DESCRIPTION	TIME OF READING	VALUE	UNIT
GS-AP-MW-31H	Conductivity	2/8/2022 14:50	535.6	uS/cm
GS-AP-MW-31H	DO	2/8/2022 14:50	1.32	mg/L
GS-AP-MW-31H	Depth to Water Detail	2/8/2022 14:50	236.6	ft
GS-AP-MW-31H	Oxidation Reduction Potention	2/8/2022 14:50	-106.02	mv
GS-AP-MW-31H	pH	2/8/2022 14:50	7.35	SU
GS-AP-MW-31H	Temperature	2/8/2022 14:50	17.68	C
GS-AP-MW-31H	Turbidity	2/8/2022 14:50	2	NTU
GS-AP-MW-31H	Conductivity	2/8/2022 14:55	659.04	uS/cm
GS-AP-MW-31H	DO	2/8/2022 14:55	0.74	mg/L
GS-AP-MW-31H	Depth to Water Detail	2/8/2022 14:55	237.03	ft
GS-AP-MW-31H	Oxidation Reduction Potention	2/8/2022 14:55	-152.51	mv
GS-AP-MW-31H	pH	2/8/2022 14:55	7.98	SU
GS-AP-MW-31H	Temperature	2/8/2022 14:55	17.29	C
GS-AP-MW-31H	Turbidity	2/8/2022 14:55	1.89	NTU
GS-AP-MW-31H	Conductivity	2/8/2022 15:00	700.73	uS/cm
GS-AP-MW-31H	DO	2/8/2022 15:00	0.63	mg/L
GS-AP-MW-31H	Depth to Water Detail	2/8/2022 15:00	237.39	ft
GS-AP-MW-31H	Oxidation Reduction Potention	2/8/2022 15:00	-165.24	mv
GS-AP-MW-31H	pH	2/8/2022 15:00	8.13	SU
GS-AP-MW-31H	Temperature	2/8/2022 15:00	17.2	C
GS-AP-MW-31H	Turbidity	2/8/2022 15:00	2.01	NTU
GS-AP-MW-31H	Conductivity	2/8/2022 15:05	702.57	uS/cm
GS-AP-MW-31H	DO	2/8/2022 15:05	0.55	mg/L
GS-AP-MW-31H	Depth to Water Detail	2/8/2022 15:05	237.72	ft
GS-AP-MW-31H	Oxidation Reduction Potention	2/8/2022 15:05	-173.81	mv
GS-AP-MW-31H	pH	2/8/2022 15:05	8.17	SU
GS-AP-MW-31H	Temperature	2/8/2022 15:05	16.97	C
GS-AP-MW-31H	Turbidity	2/8/2022 15:05	1.82	NTU
GS-AP-MW-31H	Conductivity	2/8/2022 15:10	684.03	uS/cm
GS-AP-MW-31H	DO	2/8/2022 15:10	0.5	mg/L
GS-AP-MW-31H	Depth to Water Detail	2/8/2022 15:10	237.92	ft
GS-AP-MW-31H	Oxidation Reduction Potention	2/8/2022 15:10	-181.11	mv
GS-AP-MW-31H	pH	2/8/2022 15:10	8.22	SU
GS-AP-MW-31H	Temperature	2/8/2022 15:10	17.19	C
GS-AP-MW-31H	Turbidity	2/8/2022 15:10	2.25	NTU
GS-AP-MW-31H	Conductivity	2/8/2022 15:15	657	uS/cm
GS-AP-MW-31H	DO	2/8/2022 15:15	0.49	mg/L
GS-AP-MW-31H	Depth to Water Detail	2/8/2022 15:15	238.18	ft
GS-AP-MW-31H	Oxidation Reduction Potention	2/8/2022 15:15	-187.33	mv
GS-AP-MW-31H	pH	2/8/2022 15:15	8.27	SU
GS-AP-MW-31H	Temperature	2/8/2022 15:15	16.92	C
GS-AP-MW-31H	Turbidity	2/8/2022 15:15	2.83	NTU
GS-AP-MW-31H	Conductivity	2/8/2022 15:20	621.34	uS/cm
GS-AP-MW-31H	DO	2/8/2022 15:20	0.49	mg/L
GS-AP-MW-31H	Depth to Water Detail	2/8/2022 15:20	238.37	ft
GS-AP-MW-31H	Oxidation Reduction Potention	2/8/2022 15:20	-192.44	mv
GS-AP-MW-31H	pH	2/8/2022 15:20	8.32	SU
GS-AP-MW-31H	Temperature	2/8/2022 15:20	16.84	C
GS-AP-MW-31H	Turbidity	2/8/2022 15:20	3.22	NTU
GS-AP-MW-31H	Conductivity	2/8/2022 15:25	600.85	uS/cm
GS-AP-MW-31H	DO	2/8/2022 15:25	0.47	mg/L
GS-AP-MW-31H	Depth to Water Detail	2/8/2022 15:25	238.5	ft
GS-AP-MW-31H	Oxidation Reduction Potention	2/8/2022 15:25	-196.3	mv
GS-AP-MW-31H	pH	2/8/2022 15:25	8.35	SU
GS-AP-MW-31H	Temperature	2/8/2022 15:25	16.81	C
GS-AP-MW-31H	Turbidity	2/8/2022 15:25	2.74	NTU
GS-AP-MW-31H	Conductivity	2/8/2022 15:30	581.99	uS/cm
GS-AP-MW-31H	DO	2/8/2022 15:30	0.53	mg/L

**Groundwater Field Parameters  
Plant Gorgas Ash Pond**

WELL ID	DESCRIPTION	TIME OF READING	VALUE	UNIT
GS-AP-MW-31H	Depth to Water Detail	2/8/2022 15:30	238.64	ft
GS-AP-MW-31H	Oxidation Reduction Potential	2/8/2022 15:30	-198.33	mv
GS-AP-MW-31H	pH	2/8/2022 15:30	8.38	SU
GS-AP-MW-31H	Temperature	2/8/2022 15:30	16.54	C
GS-AP-MW-31H	Turbidity	2/8/2022 15:30	2.61	NTU
GS-AP-MW-31H	Conductivity	2/8/2022 15:35	558.98	uS/cm
GS-AP-MW-31H	DO	2/8/2022 15:35	0.43	mg/L
GS-AP-MW-31H	Depth to Water Detail	2/8/2022 15:35	238.78	ft
GS-AP-MW-31H	Oxidation Reduction Potential	2/8/2022 15:35	-202.04	mv
GS-AP-MW-31H	pH	2/8/2022 15:35	8.42	SU
GS-AP-MW-31H	Temperature	2/8/2022 15:35	16.61	C
GS-AP-MW-31H	Turbidity	2/8/2022 15:35	1.29	NTU
GS-AP-MW-31H	Conductivity	2/8/2022 15:40	539.61	uS/cm
GS-AP-MW-31H	DO	2/8/2022 15:40	0.43	mg/L
GS-AP-MW-31H	Depth to Water Detail	2/8/2022 15:40	238.86	ft
GS-AP-MW-31H	Oxidation Reduction Potential	2/8/2022 15:40	-204.81	mv
GS-AP-MW-31H	pH	2/8/2022 15:40	8.45	SU
GS-AP-MW-31H	Temperature	2/8/2022 15:40	16.57	C
GS-AP-MW-31H	Turbidity	2/8/2022 15:40	1.2	NTU
GS-AP-MW-31H	Conductivity	2/8/2022 15:45	519.01	uS/cm
GS-AP-MW-31H	DO	2/8/2022 15:45	0.42	mg/L
GS-AP-MW-31H	Depth to Water Detail	2/8/2022 15:45	238.93	ft
GS-AP-MW-31H	Oxidation Reduction Potential	2/8/2022 15:45	-207.17	mv
GS-AP-MW-31H	pH	2/8/2022 15:45	8.47	SU
GS-AP-MW-31H	Temperature	2/8/2022 15:45	16.56	C
GS-AP-MW-31H	Turbidity	2/8/2022 15:45	1.02	NTU
GS-AP-MW-31H	Conductivity	2/8/2022 15:50	492.27	uS/cm
GS-AP-MW-31H	DO	2/8/2022 15:50	0.42	mg/L
GS-AP-MW-31H	Depth to Water Detail	2/8/2022 15:50	239.08	ft
GS-AP-MW-31H	Oxidation Reduction Potential	2/8/2022 15:50	-209.32	mv
GS-AP-MW-31H	pH	2/8/2022 15:50	8.5	SU
GS-AP-MW-31H	Temperature	2/8/2022 15:50	16.6	C
GS-AP-MW-31H	Turbidity	2/8/2022 15:50	1.48	NTU
GS-AP-MW-31H	Conductivity	2/8/2022 15:55	484.93	uS/cm
GS-AP-MW-31H	DO	2/8/2022 15:55	0.53	mg/L
GS-AP-MW-31H	Depth to Water Detail	2/8/2022 15:55	239.15	ft
GS-AP-MW-31H	Oxidation Reduction Potential	2/8/2022 15:55	-208.62	mv
GS-AP-MW-31H	pH	2/8/2022 15:55	8.52	SU
GS-AP-MW-31H	Temperature	2/8/2022 15:55	16.18	C
GS-AP-MW-31H	Turbidity	2/8/2022 15:55	1.21	NTU
GS-AP-MW-31H	Conductivity	2/8/2022 16:00	478.43	uS/cm
GS-AP-MW-31H	DO	2/8/2022 16:00	0.6	mg/L
GS-AP-MW-31H	Depth to Water Detail	2/8/2022 16:00	239.22	ft
GS-AP-MW-31H	Oxidation Reduction Potential	2/8/2022 16:00	-208.42	mv
GS-AP-MW-31H	pH	2/8/2022 16:00	8.53	SU
GS-AP-MW-31H	Temperature	2/8/2022 16:00	16.02	C
GS-AP-MW-31H	Turbidity	2/8/2022 16:00	1.16	NTU

**Groundwater Field Parameters  
Plant Gorgas Ash Pond**

WELL ID	DESCRIPTION	TIME OF READING	VALUE	UNIT
GS-AP-MW-28H	Conductivity	2/14/2022 12:12	762.12	uS/cm
GS-AP-MW-28H	DO	2/14/2022 12:12	0.55	mg/L
GS-AP-MW-28H	Depth to Water Detail	2/14/2022 12:12	157.78	ft
GS-AP-MW-28H	Oxidation Reduction Potention	2/14/2022 12:12	-169.15	mv
GS-AP-MW-28H	pH	2/14/2022 12:12	7.93	SU
GS-AP-MW-28H	Temperature	2/14/2022 12:12	17.12	C
GS-AP-MW-28H	Turbidity	2/14/2022 12:12	0.79	NTU
GS-AP-MW-28H	Conductivity	2/14/2022 12:17	709.37	uS/cm
GS-AP-MW-28H	DO	2/14/2022 12:17	0.48	mg/L
GS-AP-MW-28H	Depth to Water Detail	2/14/2022 12:17	157.78	ft
GS-AP-MW-28H	Oxidation Reduction Potention	2/14/2022 12:17	-174.49	mv
GS-AP-MW-28H	pH	2/14/2022 12:17	8.17	SU
GS-AP-MW-28H	Temperature	2/14/2022 12:17	16.88	C
GS-AP-MW-28H	Turbidity	2/14/2022 12:17	0.67	NTU
GS-AP-MW-28H	Conductivity	2/14/2022 12:22	688.55	uS/cm
GS-AP-MW-28H	DO	2/14/2022 12:22	0.39	mg/L
GS-AP-MW-28H	Depth to Water Detail	2/14/2022 12:22	157.78	ft
GS-AP-MW-28H	Oxidation Reduction Potention	2/14/2022 12:22	-180.41	mv
GS-AP-MW-28H	pH	2/14/2022 12:22	8.27	SU
GS-AP-MW-28H	Temperature	2/14/2022 12:22	17.13	C
GS-AP-MW-28H	Turbidity	2/14/2022 12:22	0.7	NTU
GS-AP-MW-28H	Conductivity	2/14/2022 12:27	678.23	uS/cm
GS-AP-MW-28H	DO	2/14/2022 12:27	0.37	mg/L
GS-AP-MW-28H	Depth to Water Detail	2/14/2022 12:27	157.78	ft
GS-AP-MW-28H	Oxidation Reduction Potention	2/14/2022 12:27	-183.55	mv
GS-AP-MW-28H	pH	2/14/2022 12:27	8.31	SU
GS-AP-MW-28H	Temperature	2/14/2022 12:27	17.15	C
GS-AP-MW-28H	Turbidity	2/14/2022 12:27	0.76	NTU
GS-AP-MW-28H	Conductivity	2/14/2022 12:32	649.76	uS/cm
GS-AP-MW-28H	DO	2/14/2022 12:32	0.39	mg/L
GS-AP-MW-28H	Depth to Water Detail	2/14/2022 12:32	157.78	ft
GS-AP-MW-28H	Oxidation Reduction Potention	2/14/2022 12:32	-183.97	mv
GS-AP-MW-28H	pH	2/14/2022 12:32	8.35	SU
GS-AP-MW-28H	Temperature	2/14/2022 12:32	17.05	C
GS-AP-MW-28H	Turbidity	2/14/2022 12:32	0.64	NTU
GS-AP-MW-28H	Conductivity	2/14/2022 12:37	646.75	uS/cm
GS-AP-MW-28H	DO	2/14/2022 12:37	0.35	mg/L
GS-AP-MW-28H	Depth to Water Detail	2/14/2022 12:37	157.78	ft
GS-AP-MW-28H	Oxidation Reduction Potention	2/14/2022 12:37	-187.54	mv
GS-AP-MW-28H	pH	2/14/2022 12:37	8.37	SU
GS-AP-MW-28H	Temperature	2/14/2022 12:37	17.17	C
GS-AP-MW-28H	Turbidity	2/14/2022 12:37	0.64	NTU

**Groundwater Field Parameters  
Plant Gorgas Ash Pond**

WELL ID	DESCRIPTION	TIME OF READING	VALUE	UNIT
GS-AP-MW-29H	Conductivity	2/14/2022 13:48	730.5	uS/cm
GS-AP-MW-29H	DO	2/14/2022 13:48	0.56	mg/L
GS-AP-MW-29H	Depth to Water Detail	2/14/2022 13:48	86.5	ft
GS-AP-MW-29H	Oxidation Reduction Potention	2/14/2022 13:48	-148.19	mv
GS-AP-MW-29H	pH	2/14/2022 13:48	7.62	SU
GS-AP-MW-29H	Temperature	2/14/2022 13:48	16.97	C
GS-AP-MW-29H	Turbidity	2/14/2022 13:48	1.41	NTU
GS-AP-MW-29H	Conductivity	2/14/2022 13:53	674.28	uS/cm
GS-AP-MW-29H	DO	2/14/2022 13:53	0.48	mg/L
GS-AP-MW-29H	Depth to Water Detail	2/14/2022 13:53	87.4	ft
GS-AP-MW-29H	Oxidation Reduction Potention	2/14/2022 13:53	-160.38	mv
GS-AP-MW-29H	pH	2/14/2022 13:53	7.63	SU
GS-AP-MW-29H	Temperature	2/14/2022 13:53	16.94	C
GS-AP-MW-29H	Turbidity	2/14/2022 13:53	1.15	NTU
GS-AP-MW-29H	Conductivity	2/14/2022 13:58	636.27	uS/cm
GS-AP-MW-29H	DO	2/14/2022 13:58	0.42	mg/L
GS-AP-MW-29H	Depth to Water Detail	2/14/2022 13:58	87.85	ft
GS-AP-MW-29H	Oxidation Reduction Potention	2/14/2022 13:58	-169.74	mv
GS-AP-MW-29H	pH	2/14/2022 13:58	7.67	SU
GS-AP-MW-29H	Temperature	2/14/2022 13:58	16.89	C
GS-AP-MW-29H	Turbidity	2/14/2022 13:58	1.04	NTU
GS-AP-MW-29H	Conductivity	2/14/2022 14:03	598.75	uS/cm
GS-AP-MW-29H	DO	2/14/2022 14:03	0.4	mg/L
GS-AP-MW-29H	Depth to Water Detail	2/14/2022 14:03	88.2	ft
GS-AP-MW-29H	Oxidation Reduction Potention	2/14/2022 14:03	-176.52	mv
GS-AP-MW-29H	pH	2/14/2022 14:03	7.7	SU
GS-AP-MW-29H	Temperature	2/14/2022 14:03	16.85	C
GS-AP-MW-29H	Turbidity	2/14/2022 14:03	0.98	NTU
GS-AP-MW-29H	Conductivity	2/14/2022 14:08	586.95	uS/cm
GS-AP-MW-29H	DO	2/14/2022 14:08	0.38	mg/L
GS-AP-MW-29H	Depth to Water Detail	2/14/2022 14:08	88.4	ft
GS-AP-MW-29H	Oxidation Reduction Potention	2/14/2022 14:08	-181.32	mv
GS-AP-MW-29H	pH	2/14/2022 14:08	7.72	SU
GS-AP-MW-29H	Temperature	2/14/2022 14:08	16.84	C
GS-AP-MW-29H	Turbidity	2/14/2022 14:08	0.85	NTU
GS-AP-MW-29H	Conductivity	2/14/2022 14:13	563.51	uS/cm
GS-AP-MW-29H	DO	2/14/2022 14:13	0.38	mg/L
GS-AP-MW-29H	Depth to Water Detail	2/14/2022 14:13	88.55	ft
GS-AP-MW-29H	Oxidation Reduction Potention	2/14/2022 14:13	-184.66	mv
GS-AP-MW-29H	pH	2/14/2022 14:13	7.74	SU
GS-AP-MW-29H	Temperature	2/14/2022 14:13	16.83	C
GS-AP-MW-29H	Turbidity	2/14/2022 14:13	0.8	NTU
GS-AP-MW-29H	Conductivity	2/14/2022 14:18	605.91	uS/cm
GS-AP-MW-29H	DO	2/14/2022 14:18	0.36	mg/L
GS-AP-MW-29H	Depth to Water Detail	2/14/2022 14:18	88.76	ft
GS-AP-MW-29H	Oxidation Reduction Potention	2/14/2022 14:18	-187.35	mv
GS-AP-MW-29H	pH	2/14/2022 14:18	7.75	SU
GS-AP-MW-29H	Temperature	2/14/2022 14:18	16.8	C
GS-AP-MW-29H	Turbidity	2/14/2022 14:18	0.79	NTU
GS-AP-MW-29H	Conductivity	2/14/2022 14:23	599.66	uS/cm
GS-AP-MW-29H	DO	2/14/2022 14:23	0.36	mg/L
GS-AP-MW-29H	Depth to Water Detail	2/14/2022 14:23	88.82	ft
GS-AP-MW-29H	Oxidation Reduction Potention	2/14/2022 14:23	-189.48	mv
GS-AP-MW-29H	pH	2/14/2022 14:23	7.77	SU
GS-AP-MW-29H	Temperature	2/14/2022 14:23	16.77	C
GS-AP-MW-29H	Turbidity	2/14/2022 14:23	0.7	NTU
GS-AP-MW-29H	Conductivity	2/14/2022 14:28	595.98	uS/cm
GS-AP-MW-29H	DO	2/14/2022 14:28	0.37	mg/L



**Groundwater Field Parameters  
Plant Gorgas Ash Pond**

<b>WELL ID</b>	<b>DESCRIPTION</b>	<b>TIME OF READING</b>	<b>VALUE</b>	<b>UNIT</b>
GS-AP-MW-29H	Depth to Water Detail	2/14/2022 14:28	88.85	ft
GS-AP-MW-29H	Oxidation Reduction Potention	2/14/2022 14:28	-190.56	mv
GS-AP-MW-29H	pH	2/14/2022 14:28	7.77	SU
GS-AP-MW-29H	Temperature	2/14/2022 14:28	16.75	C
GS-AP-MW-29H	Turbidity	2/14/2022 14:28	0.77	NTU

**Groundwater Field Parameters  
Plant Gorgas Ash Pond**

<b>WELL ID</b>	<b>DESCRIPTION</b>	<b>TIME OF READING</b>	<b>VALUE</b>	<b>UNIT</b>
GS-AP-MW-32H	Conductivity	2/14/2022 15:21	547.49	uS/cm
GS-AP-MW-32H	DO	2/14/2022 15:21	1.32	mg/L
GS-AP-MW-32H	Depth to Water Detail	2/14/2022 15:21	250.22	ft
GS-AP-MW-32H	Oxidation Reduction Potention	2/14/2022 15:21	-183.4	mv
GS-AP-MW-32H	pH	2/14/2022 15:21	8.04	SU
GS-AP-MW-32H	Temperature	2/14/2022 15:21	16.47	C
GS-AP-MW-32H	Turbidity	2/14/2022 15:21	1.86	NTU
GS-AP-MW-32H	Conductivity	2/14/2022 15:42	592.54	uS/cm
GS-AP-MW-32H	DO	2/14/2022 15:42	0.96	mg/L
GS-AP-MW-32H	Depth to Water Detail	2/14/2022 15:42	251.95	ft
GS-AP-MW-32H	Oxidation Reduction Potention	2/14/2022 15:42	-188.81	mv
GS-AP-MW-32H	pH	2/14/2022 15:42	8.22	SU
GS-AP-MW-32H	Temperature	2/14/2022 15:42	16.24	C
GS-AP-MW-32H	Turbidity	2/14/2022 15:42	1.72	NTU

**Groundwater Field Parameters  
Plant Gorgas Ash Pond**

WELL ID	DESCRIPTION	TIME OF READING	VALUE	UNIT
GS-AP-MW-6S	Conductivity	2/14/2022 10:19	480.6	uS/cm
GS-AP-MW-6S	DO	2/14/2022 10:19	0.14	mg/L
GS-AP-MW-6S	Depth to Water Detail	2/14/2022 10:19	17.66	ft
GS-AP-MW-6S	Oxidation Reduction Potential	2/14/2022 10:19	-119.11	mv
GS-AP-MW-6S	pH	2/14/2022 10:19	6.91	SU
GS-AP-MW-6S	Temperature	2/14/2022 10:19	17.33	C
GS-AP-MW-6S	Turbidity	2/14/2022 10:19	13.8	NTU
GS-AP-MW-6S	Conductivity	2/14/2022 10:24	478.4	uS/cm
GS-AP-MW-6S	DO	2/14/2022 10:24	0.12	mg/L
GS-AP-MW-6S	Depth to Water Detail	2/14/2022 10:24	17.66	ft
GS-AP-MW-6S	Oxidation Reduction Potential	2/14/2022 10:24	-116.14	mv
GS-AP-MW-6S	pH	2/14/2022 10:24	6.92	SU
GS-AP-MW-6S	Temperature	2/14/2022 10:24	17.3	C
GS-AP-MW-6S	Turbidity	2/14/2022 10:24	9.33	NTU
GS-AP-MW-6S	Conductivity	2/14/2022 10:29	476.87	uS/cm
GS-AP-MW-6S	DO	2/14/2022 10:29	0.12	mg/L
GS-AP-MW-6S	Depth to Water Detail	2/14/2022 10:29	17.66	ft
GS-AP-MW-6S	Oxidation Reduction Potential	2/14/2022 10:29	-113.29	mv
GS-AP-MW-6S	pH	2/14/2022 10:29	6.91	SU
GS-AP-MW-6S	Temperature	2/14/2022 10:29	17.21	C
GS-AP-MW-6S	Turbidity	2/14/2022 10:29	7.78	NTU
GS-AP-MW-6S	Conductivity	2/14/2022 10:34	477.09	uS/cm
GS-AP-MW-6S	DO	2/14/2022 10:34	0.18	mg/L
GS-AP-MW-6S	Depth to Water Detail	2/14/2022 10:34	17.66	ft
GS-AP-MW-6S	Oxidation Reduction Potential	2/14/2022 10:34	-111.04	mv
GS-AP-MW-6S	pH	2/14/2022 10:34	6.95	SU
GS-AP-MW-6S	Temperature	2/14/2022 10:34	17.08	C
GS-AP-MW-6S	Turbidity	2/14/2022 10:34	8.65	NTU
GS-AP-MW-6S	Conductivity	2/14/2022 10:39	477.25	uS/cm
GS-AP-MW-6S	DO	2/14/2022 10:39	0.29	mg/L
GS-AP-MW-6S	Depth to Water Detail	2/14/2022 10:39	17.66	ft
GS-AP-MW-6S	Oxidation Reduction Potential	2/14/2022 10:39	-105.34	mv
GS-AP-MW-6S	pH	2/14/2022 10:39	6.96	SU
GS-AP-MW-6S	Temperature	2/14/2022 10:39	17.08	C
GS-AP-MW-6S	Turbidity	2/14/2022 10:39	7.83	NTU
GS-AP-MW-6S	Conductivity	2/14/2022 10:44	477.51	uS/cm
GS-AP-MW-6S	DO	2/14/2022 10:44	0.45	mg/L
GS-AP-MW-6S	Depth to Water Detail	2/14/2022 10:44	17.66	ft
GS-AP-MW-6S	Oxidation Reduction Potential	2/14/2022 10:44	-97.85	mv
GS-AP-MW-6S	pH	2/14/2022 10:44	6.97	SU
GS-AP-MW-6S	Temperature	2/14/2022 10:44	17.13	C
GS-AP-MW-6S	Turbidity	2/14/2022 10:44	7.72	NTU
GS-AP-MW-6S	Conductivity	2/14/2022 10:49	478.52	uS/cm
GS-AP-MW-6S	DO	2/14/2022 10:49	0.68	mg/L
GS-AP-MW-6S	Depth to Water Detail	2/14/2022 10:49	17.66	ft
GS-AP-MW-6S	Oxidation Reduction Potential	2/14/2022 10:49	-89.59	mv
GS-AP-MW-6S	pH	2/14/2022 10:49	6.98	SU
GS-AP-MW-6S	Temperature	2/14/2022 10:49	17.08	C
GS-AP-MW-6S	Turbidity	2/14/2022 10:49	7.68	NTU
GS-AP-MW-6S	Conductivity	2/14/2022 10:54	479.11	uS/cm
GS-AP-MW-6S	DO	2/14/2022 10:54	0.85	mg/L
GS-AP-MW-6S	Depth to Water Detail	2/14/2022 10:54	17.66	ft
GS-AP-MW-6S	Oxidation Reduction Potential	2/14/2022 10:54	-81.84	mv
GS-AP-MW-6S	pH	2/14/2022 10:54	6.96	SU
GS-AP-MW-6S	Temperature	2/14/2022 10:54	17.07	C
GS-AP-MW-6S	Turbidity	2/14/2022 10:54	7.27	NTU
GS-AP-MW-6S	Conductivity	2/14/2022 10:59	479.08	uS/cm
GS-AP-MW-6S	DO	2/14/2022 10:59	0.98	mg/L

**Groundwater Field Parameters  
Plant Gorgas Ash Pond**

WELL ID	DESCRIPTION	TIME OF READING	VALUE	UNIT
GS-AP-MW-6S	Depth to Water Detail	2/14/2022 10:59	17.66	ft
GS-AP-MW-6S	Oxidation Reduction Potention	2/14/2022 10:59	-80.09	mv
GS-AP-MW-6S	pH	2/14/2022 10:59	6.95	SU
GS-AP-MW-6S	Temperature	2/14/2022 10:59	16.96	C
GS-AP-MW-6S	Turbidity	2/14/2022 10:59	6.23	NTU
GS-AP-MW-6S	Conductivity	2/14/2022 11:04	480.16	uS/cm
GS-AP-MW-6S	DO	2/14/2022 11:04	1.15	mg/L
GS-AP-MW-6S	Depth to Water Detail	2/14/2022 11:04	17.66	ft
GS-AP-MW-6S	Oxidation Reduction Potention	2/14/2022 11:04	-73.65	mv
GS-AP-MW-6S	pH	2/14/2022 11:04	6.98	SU
GS-AP-MW-6S	Temperature	2/14/2022 11:04	16.93	C
GS-AP-MW-6S	Turbidity	2/14/2022 11:04	5.59	NTU
GS-AP-MW-6S	Conductivity	2/14/2022 11:09	480.18	uS/cm
GS-AP-MW-6S	DO	2/14/2022 11:09	1.24	mg/L
GS-AP-MW-6S	Depth to Water Detail	2/14/2022 11:09	17.66	ft
GS-AP-MW-6S	Oxidation Reduction Potention	2/14/2022 11:09	-70.66	mv
GS-AP-MW-6S	pH	2/14/2022 11:09	6.99	SU
GS-AP-MW-6S	Temperature	2/14/2022 11:09	16.97	C
GS-AP-MW-6S	Turbidity	2/14/2022 11:09	5.23	NTU
GS-AP-MW-6S	Conductivity	2/14/2022 11:14	480.16	uS/cm
GS-AP-MW-6S	DO	2/14/2022 11:14	1.33	mg/L
GS-AP-MW-6S	Depth to Water Detail	2/14/2022 11:14	17.66	ft
GS-AP-MW-6S	Oxidation Reduction Potention	2/14/2022 11:14	-67.79	mv
GS-AP-MW-6S	pH	2/14/2022 11:14	6.99	SU
GS-AP-MW-6S	Temperature	2/14/2022 11:14	16.98	C
GS-AP-MW-6S	Turbidity	2/14/2022 11:14	4.99	NTU

**Groundwater Field Parameters  
Plant Gorgas Ash Pond**

WELL ID	DESCRIPTION	TIME OF READING	VALUE	UNIT
GS-AP-MW-6D	Conductivity	2/14/2022 12:15	460.41	uS/cm
GS-AP-MW-6D	DO	2/14/2022 12:15	0.16	mg/L
GS-AP-MW-6D	Depth to Water Detail	2/14/2022 12:15	12.22	ft
GS-AP-MW-6D	Oxidation Reduction Potention	2/14/2022 12:15	-136.37	mv
GS-AP-MW-6D	pH	2/14/2022 12:15	7.38	SU
GS-AP-MW-6D	Temperature	2/14/2022 12:15	17.73	C
GS-AP-MW-6D	Turbidity	2/14/2022 12:15	1.58	NTU
GS-AP-MW-6D	Conductivity	2/14/2022 12:20	460.45	uS/cm
GS-AP-MW-6D	DO	2/14/2022 12:20	0.15	mg/L
GS-AP-MW-6D	Depth to Water Detail	2/14/2022 12:20	12.34	ft
GS-AP-MW-6D	Oxidation Reduction Potention	2/14/2022 12:20	-144.95	mv
GS-AP-MW-6D	pH	2/14/2022 12:20	7.41	SU
GS-AP-MW-6D	Temperature	2/14/2022 12:20	17.69	C
GS-AP-MW-6D	Turbidity	2/14/2022 12:20	1.18	NTU
GS-AP-MW-6D	Conductivity	2/14/2022 12:25	461.57	uS/cm
GS-AP-MW-6D	DO	2/14/2022 12:25	0.15	mg/L
GS-AP-MW-6D	Depth to Water Detail	2/14/2022 12:25	12.34	ft
GS-AP-MW-6D	Oxidation Reduction Potention	2/14/2022 12:25	-152.16	mv
GS-AP-MW-6D	pH	2/14/2022 12:25	7.42	SU
GS-AP-MW-6D	Temperature	2/14/2022 12:25	17.77	C
GS-AP-MW-6D	Turbidity	2/14/2022 12:25	0.97	NTU
GS-AP-MW-6D	Conductivity	2/14/2022 12:30	460.9	uS/cm
GS-AP-MW-6D	DO	2/14/2022 12:30	0.13	mg/L
GS-AP-MW-6D	Depth to Water Detail	2/14/2022 12:30	12.34	ft
GS-AP-MW-6D	Oxidation Reduction Potention	2/14/2022 12:30	-158.06	mv
GS-AP-MW-6D	pH	2/14/2022 12:30	7.43	SU
GS-AP-MW-6D	Temperature	2/14/2022 12:30	17.83	C
GS-AP-MW-6D	Turbidity	2/14/2022 12:30	0.95	NTU



**Groundwater Field Parameters  
Plant Gorgas Ash Pond**

WELL ID	DESCRIPTION	TIME OF READING	VALUE	UNIT
GS-AP-MW-23H	Conductivity	2/14/2022 13:29	762.21	uS/cm
GS-AP-MW-23H	DO	2/14/2022 13:29	0.6	mg/L
GS-AP-MW-23H	Depth to Water Detail	2/14/2022 13:29	29.06	ft
GS-AP-MW-23H	Oxidation Reduction Potention	2/14/2022 13:29	-4.2	mv
GS-AP-MW-23H	pH	2/14/2022 13:29	5.75	SU
GS-AP-MW-23H	Temperature	2/14/2022 13:29	17.83	C
GS-AP-MW-23H	Turbidity	2/14/2022 13:29	3.06	NTU
GS-AP-MW-23H	Conductivity	2/14/2022 13:34	768.59	uS/cm
GS-AP-MW-23H	DO	2/14/2022 13:34	0.66	mg/L
GS-AP-MW-23H	Depth to Water Detail	2/14/2022 13:34	29.11	ft
GS-AP-MW-23H	Oxidation Reduction Potention	2/14/2022 13:34	-1.69	mv
GS-AP-MW-23H	pH	2/14/2022 13:34	5.76	SU
GS-AP-MW-23H	Temperature	2/14/2022 13:34	17.86	C
GS-AP-MW-23H	Turbidity	2/14/2022 13:34	2.97	NTU
GS-AP-MW-23H	Conductivity	2/14/2022 13:39	770.26	uS/cm
GS-AP-MW-23H	DO	2/14/2022 13:39	0.69	mg/L
GS-AP-MW-23H	Depth to Water Detail	2/14/2022 13:39	29.14	ft
GS-AP-MW-23H	Oxidation Reduction Potention	2/14/2022 13:39	-1.3	mv
GS-AP-MW-23H	pH	2/14/2022 13:39	5.78	SU
GS-AP-MW-23H	Temperature	2/14/2022 13:39	17.83	C
GS-AP-MW-23H	Turbidity	2/14/2022 13:39	2.31	NTU
GS-AP-MW-23H	Conductivity	2/14/2022 13:44	770.3	uS/cm
GS-AP-MW-23H	DO	2/14/2022 13:44	0.64	mg/L
GS-AP-MW-23H	Depth to Water Detail	2/14/2022 13:44	29.14	ft
GS-AP-MW-23H	Oxidation Reduction Potention	2/14/2022 13:44	-1.79	mv
GS-AP-MW-23H	pH	2/14/2022 13:44	5.8	SU
GS-AP-MW-23H	Temperature	2/14/2022 13:44	17.86	C
GS-AP-MW-23H	Turbidity	2/14/2022 13:44	1.88	NTU

**Groundwater Field Parameters  
Plant Gorgas Ash Pond**

WELL ID	DESCRIPTION	TIME OF READING	VALUE	UNIT
GS-AP-MW-41HD	Conductivity	2/15/2022 8:56	498.84	uS/cm
GS-AP-MW-41HD	DO	2/15/2022 8:56	0.26	mg/L
GS-AP-MW-41HD	Depth to Water Detail	2/15/2022 8:56	4.91	ft
GS-AP-MW-41HD	Oxidation Reduction Potention	2/15/2022 8:56	38.34	mv
GS-AP-MW-41HD	pH	2/15/2022 8:56	7.11	SU
GS-AP-MW-41HD	Temperature	2/15/2022 8:56	15.06	C
GS-AP-MW-41HD	Turbidity	2/15/2022 8:56	1.04	NTU
GS-AP-MW-41HD	Conductivity	2/15/2022 9:01	496.69	uS/cm
GS-AP-MW-41HD	DO	2/15/2022 9:01	0.23	mg/L
GS-AP-MW-41HD	Depth to Water Detail	2/15/2022 9:01	6.14	ft
GS-AP-MW-41HD	Oxidation Reduction Potention	2/15/2022 9:01	16.79	mv
GS-AP-MW-41HD	pH	2/15/2022 9:01	7.19	SU
GS-AP-MW-41HD	Temperature	2/15/2022 9:01	15.23	C
GS-AP-MW-41HD	Turbidity	2/15/2022 9:01	0.82	NTU
GS-AP-MW-41HD	Conductivity	2/15/2022 9:06	495.57	uS/cm
GS-AP-MW-41HD	DO	2/15/2022 9:06	0.22	mg/L
GS-AP-MW-41HD	Depth to Water Detail	2/15/2022 9:06	6.39	ft
GS-AP-MW-41HD	Oxidation Reduction Potention	2/15/2022 9:06	11.08	mv
GS-AP-MW-41HD	pH	2/15/2022 9:06	7.26	SU
GS-AP-MW-41HD	Temperature	2/15/2022 9:06	15.36	C
GS-AP-MW-41HD	Turbidity	2/15/2022 9:06	0.74	NTU
GS-AP-MW-41HD	Conductivity	2/15/2022 9:11	495.23	uS/cm
GS-AP-MW-41HD	DO	2/15/2022 9:11	0.22	mg/L
GS-AP-MW-41HD	Depth to Water Detail	2/15/2022 9:11	6.62	ft
GS-AP-MW-41HD	Oxidation Reduction Potention	2/15/2022 9:11	9.23	mv
GS-AP-MW-41HD	pH	2/15/2022 9:11	7.3	SU
GS-AP-MW-41HD	Temperature	2/15/2022 9:11	15.59	C
GS-AP-MW-41HD	Turbidity	2/15/2022 9:11	0.81	NTU
GS-AP-MW-41HD	Conductivity	2/15/2022 9:16	494.9	uS/cm
GS-AP-MW-41HD	DO	2/15/2022 9:16	0.22	mg/L
GS-AP-MW-41HD	Depth to Water Detail	2/15/2022 9:16	6.7	ft
GS-AP-MW-41HD	Oxidation Reduction Potention	2/15/2022 9:16	8.82	mv
GS-AP-MW-41HD	pH	2/15/2022 9:16	7.32	SU
GS-AP-MW-41HD	Temperature	2/15/2022 9:16	15.76	C
GS-AP-MW-41HD	Turbidity	2/15/2022 9:16	0.73	NTU
GS-AP-MW-41HD	Conductivity	2/15/2022 9:21	495.04	uS/cm
GS-AP-MW-41HD	DO	2/15/2022 9:21	0.21	mg/L
GS-AP-MW-41HD	Depth to Water Detail	2/15/2022 9:21	6.73	ft
GS-AP-MW-41HD	Oxidation Reduction Potention	2/15/2022 9:21	7.04	mv
GS-AP-MW-41HD	pH	2/15/2022 9:21	7.35	SU
GS-AP-MW-41HD	Temperature	2/15/2022 9:21	15.98	C
GS-AP-MW-41HD	Turbidity	2/15/2022 9:21	0.86	NTU

**Groundwater Field Parameters  
Plant Gorgas Ash Pond**

WELL ID	DESCRIPTION	TIME OF READING	VALUE	UNIT
GS-AP-MW-24H	Conductivity	2/15/2022 10:19	430.55	uS/cm
GS-AP-MW-24H	DO	2/15/2022 10:19	0.16	mg/L
GS-AP-MW-24H	Depth to Water Detail	2/15/2022 10:19	6.72	ft
GS-AP-MW-24H	Oxidation Reduction Potention	2/15/2022 10:19	-86.81	mv
GS-AP-MW-24H	pH	2/15/2022 10:19	6.99	SU
GS-AP-MW-24H	Temperature	2/15/2022 10:19	17.56	C
GS-AP-MW-24H	Turbidity	2/15/2022 10:19	4.72	NTU
GS-AP-MW-24H	Conductivity	2/15/2022 10:24	431.55	uS/cm
GS-AP-MW-24H	DO	2/15/2022 10:24	0.15	mg/L
GS-AP-MW-24H	Depth to Water Detail	2/15/2022 10:24	6.79	ft
GS-AP-MW-24H	Oxidation Reduction Potention	2/15/2022 10:24	-85.61	mv
GS-AP-MW-24H	pH	2/15/2022 10:24	6.99	SU
GS-AP-MW-24H	Temperature	2/15/2022 10:24	17.57	C
GS-AP-MW-24H	Turbidity	2/15/2022 10:24	4.51	NTU
GS-AP-MW-24H	Conductivity	2/15/2022 10:29	431.53	uS/cm
GS-AP-MW-24H	DO	2/15/2022 10:29	0.14	mg/L
GS-AP-MW-24H	Depth to Water Detail	2/15/2022 10:29	6.79	ft
GS-AP-MW-24H	Oxidation Reduction Potention	2/15/2022 10:29	-85.54	mv
GS-AP-MW-24H	pH	2/15/2022 10:29	7	SU
GS-AP-MW-24H	Temperature	2/15/2022 10:29	17.59	C
GS-AP-MW-24H	Turbidity	2/15/2022 10:29	2.74	NTU
GS-AP-MW-24H	Conductivity	2/15/2022 10:34	432.15	uS/cm
GS-AP-MW-24H	DO	2/15/2022 10:34	0.14	mg/L
GS-AP-MW-24H	Depth to Water Detail	2/15/2022 10:34	6.79	ft
GS-AP-MW-24H	Oxidation Reduction Potention	2/15/2022 10:34	-85.46	mv
GS-AP-MW-24H	pH	2/15/2022 10:34	7	SU
GS-AP-MW-24H	Temperature	2/15/2022 10:34	17.63	C
GS-AP-MW-24H	Turbidity	2/15/2022 10:34	2.66	NTU

**Groundwater Field Parameters  
Plant Gorgas Ash Pond**

WELL ID	DESCRIPTION	TIME OF READING	VALUE	UNIT
GS-AP-MW-40H	Conductivity	2/15/2022 12:02	1665.41	uS/cm
GS-AP-MW-40H	DO	2/15/2022 12:02	1.51	mg/L
GS-AP-MW-40H	Depth to Water Detail	2/15/2022 12:02	81.64	ft
GS-AP-MW-40H	Oxidation Reduction Potention	2/15/2022 12:02	32.78	mv
GS-AP-MW-40H	pH	2/15/2022 12:02	6.65	SU
GS-AP-MW-40H	Temperature	2/15/2022 12:02	19.79	C
GS-AP-MW-40H	Turbidity	2/15/2022 12:02	17.3	NTU
GS-AP-MW-40H	Conductivity	2/15/2022 12:07	1653.97	uS/cm
GS-AP-MW-40H	DO	2/15/2022 12:07	1.42	mg/L
GS-AP-MW-40H	Depth to Water Detail	2/15/2022 12:07	81.93	ft
GS-AP-MW-40H	Oxidation Reduction Potention	2/15/2022 12:07	13.86	mv
GS-AP-MW-40H	pH	2/15/2022 12:07	6.64	SU
GS-AP-MW-40H	Temperature	2/15/2022 12:07	19.89	C
GS-AP-MW-40H	Turbidity	2/15/2022 12:07	7.18	NTU
GS-AP-MW-40H	Conductivity	2/15/2022 12:12	1642.27	uS/cm
GS-AP-MW-40H	DO	2/15/2022 12:12	1.46	mg/L
GS-AP-MW-40H	Depth to Water Detail	2/15/2022 12:12	82.18	ft
GS-AP-MW-40H	Oxidation Reduction Potention	2/15/2022 12:12	2.06	mv
GS-AP-MW-40H	pH	2/15/2022 12:12	6.63	SU
GS-AP-MW-40H	Temperature	2/15/2022 12:12	19.9	C
GS-AP-MW-40H	Turbidity	2/15/2022 12:12	4.69	NTU
GS-AP-MW-40H	Conductivity	2/15/2022 12:17	1629.68	uS/cm
GS-AP-MW-40H	DO	2/15/2022 12:17	1.54	mg/L
GS-AP-MW-40H	Depth to Water Detail	2/15/2022 12:17	82.31	ft
GS-AP-MW-40H	Oxidation Reduction Potention	2/15/2022 12:17	-4.58	mv
GS-AP-MW-40H	pH	2/15/2022 12:17	6.62	SU
GS-AP-MW-40H	Temperature	2/15/2022 12:17	19.99	C
GS-AP-MW-40H	Turbidity	2/15/2022 12:17	3.43	NTU
GS-AP-MW-40H	Conductivity	2/15/2022 12:22	1614.47	uS/cm
GS-AP-MW-40H	DO	2/15/2022 12:22	1.52	mg/L
GS-AP-MW-40H	Depth to Water Detail	2/15/2022 12:22	82.42	ft
GS-AP-MW-40H	Oxidation Reduction Potention	2/15/2022 12:22	-9.09	mv
GS-AP-MW-40H	pH	2/15/2022 12:22	6.6	SU
GS-AP-MW-40H	Temperature	2/15/2022 12:22	20.14	C
GS-AP-MW-40H	Turbidity	2/15/2022 12:22	3.7	NTU

**Groundwater Field Parameters  
Plant Gorgas Ash Pond**

WELL ID	DESCRIPTION	TIME OF READING	VALUE	UNIT
GS-AP-MW-26H	Conductivity	2/15/2022 13:39	621.81	uS/cm
GS-AP-MW-26H	DO	2/15/2022 13:39	0.15	mg/L
GS-AP-MW-26H	Depth to Water Detail	2/15/2022 13:39	103.31	ft
GS-AP-MW-26H	Oxidation Reduction Potention	2/15/2022 13:39	-95.45	mv
GS-AP-MW-26H	pH	2/15/2022 13:39	6.78	SU
GS-AP-MW-26H	Temperature	2/15/2022 13:39	18.83	C
GS-AP-MW-26H	Turbidity	2/15/2022 13:39	1.04	NTU
GS-AP-MW-26H	Conductivity	2/15/2022 13:44	513.65	uS/cm
GS-AP-MW-26H	DO	2/15/2022 13:44	0.14	mg/L
GS-AP-MW-26H	Depth to Water Detail	2/15/2022 13:44	107.19	ft
GS-AP-MW-26H	Oxidation Reduction Potention	2/15/2022 13:44	-84.52	mv
GS-AP-MW-26H	pH	2/15/2022 13:44	6.73	SU
GS-AP-MW-26H	Temperature	2/15/2022 13:44	18.85	C
GS-AP-MW-26H	Turbidity	2/15/2022 13:44	1.28	NTU
GS-AP-MW-26H	Conductivity	2/15/2022 13:49	492.01	uS/cm
GS-AP-MW-26H	DO	2/15/2022 13:49	0.15	mg/L
GS-AP-MW-26H	Depth to Water Detail	2/15/2022 13:49	110.59	ft
GS-AP-MW-26H	Oxidation Reduction Potention	2/15/2022 13:49	-78.69	mv
GS-AP-MW-26H	pH	2/15/2022 13:49	6.7	SU
GS-AP-MW-26H	Temperature	2/15/2022 13:49	18.86	C
GS-AP-MW-26H	Turbidity	2/15/2022 13:49	1.31	NTU
GS-AP-MW-26H	Conductivity	2/15/2022 13:54	487.92	uS/cm
GS-AP-MW-26H	DO	2/15/2022 13:54	0.15	mg/L
GS-AP-MW-26H	Depth to Water Detail	2/15/2022 13:54	113.03	ft
GS-AP-MW-26H	Oxidation Reduction Potention	2/15/2022 13:54	-77.78	mv
GS-AP-MW-26H	pH	2/15/2022 13:54	6.7	SU
GS-AP-MW-26H	Temperature	2/15/2022 13:54	18.94	C
GS-AP-MW-26H	Turbidity	2/15/2022 13:54	1.59	NTU
GS-AP-MW-26H	Conductivity	2/15/2022 13:59	486.4	uS/cm
GS-AP-MW-26H	DO	2/15/2022 13:59	0.25	mg/L
GS-AP-MW-26H	Depth to Water Detail	2/15/2022 13:59	113.65	ft
GS-AP-MW-26H	Oxidation Reduction Potention	2/15/2022 13:59	-78.6	mv
GS-AP-MW-26H	pH	2/15/2022 13:59	6.71	SU
GS-AP-MW-26H	Temperature	2/15/2022 13:59	19.51	C
GS-AP-MW-26H	Turbidity	2/15/2022 13:59	2.08	NTU
GS-AP-MW-26H	Conductivity	2/15/2022 14:04	483.4	uS/cm
GS-AP-MW-26H	DO	2/15/2022 14:04	0.29	mg/L
GS-AP-MW-26H	Depth to Water Detail	2/15/2022 14:04	113.72	ft
GS-AP-MW-26H	Oxidation Reduction Potention	2/15/2022 14:04	-81.07	mv
GS-AP-MW-26H	pH	2/15/2022 14:04	6.75	SU
GS-AP-MW-26H	Temperature	2/15/2022 14:04	19.52	C
GS-AP-MW-26H	Turbidity	2/15/2022 14:04	1.82	NTU
GS-AP-MW-26H	Conductivity	2/15/2022 14:09	485.8	uS/cm
GS-AP-MW-26H	DO	2/15/2022 14:09	0.33	mg/L
GS-AP-MW-26H	Depth to Water Detail	2/15/2022 14:09	113.84	ft
GS-AP-MW-26H	Oxidation Reduction Potention	2/15/2022 14:09	-85.1	mv
GS-AP-MW-26H	pH	2/15/2022 14:09	6.82	SU
GS-AP-MW-26H	Temperature	2/15/2022 14:09	19.45	C
GS-AP-MW-26H	Turbidity	2/15/2022 14:09	1.88	NTU



**Groundwater Field Parameters  
Plant Gorgas Ash Pond**

WELL ID	DESCRIPTION	TIME OF READING	VALUE	UNIT
GS-AP-MW-42H	Conductivity	2/16/2022 9:28	1046.61	uS/cm
GS-AP-MW-42H	DO	2/16/2022 9:28	0.22	mg/L
GS-AP-MW-42H	Depth to Water Detail	2/16/2022 9:28	52.72	ft
GS-AP-MW-42H	Oxidation Reduction Potention	2/16/2022 9:28	-15.13	mv
GS-AP-MW-42H	pH	2/16/2022 9:28	6.25	SU
GS-AP-MW-42H	Temperature	2/16/2022 9:28	18.25	C
GS-AP-MW-42H	Turbidity	2/16/2022 9:28	46	NTU
GS-AP-MW-42H	Conductivity	2/16/2022 9:33	1037.8	uS/cm
GS-AP-MW-42H	DO	2/16/2022 9:33	0.18	mg/L
GS-AP-MW-42H	Depth to Water Detail	2/16/2022 9:33	52.74	ft
GS-AP-MW-42H	Oxidation Reduction Potention	2/16/2022 9:33	-14.21	mv
GS-AP-MW-42H	pH	2/16/2022 9:33	6.3	SU
GS-AP-MW-42H	Temperature	2/16/2022 9:33	18.26	C
GS-AP-MW-42H	Turbidity	2/16/2022 9:33	73.3	NTU
GS-AP-MW-42H	Conductivity	2/16/2022 9:38	1032.64	uS/cm
GS-AP-MW-42H	DO	2/16/2022 9:38	0.17	mg/L
GS-AP-MW-42H	Depth to Water Detail	2/16/2022 9:38	52.79	ft
GS-AP-MW-42H	Oxidation Reduction Potention	2/16/2022 9:38	-13.66	mv
GS-AP-MW-42H	pH	2/16/2022 9:38	6.35	SU
GS-AP-MW-42H	Temperature	2/16/2022 9:38	18.31	C
GS-AP-MW-42H	Turbidity	2/16/2022 9:38	66.9	NTU
GS-AP-MW-42H	Conductivity	2/16/2022 9:43	1031.16	uS/cm
GS-AP-MW-42H	DO	2/16/2022 9:43	0.16	mg/L
GS-AP-MW-42H	Depth to Water Detail	2/16/2022 9:43	52.82	ft
GS-AP-MW-42H	Oxidation Reduction Potention	2/16/2022 9:43	-13.86	mv
GS-AP-MW-42H	pH	2/16/2022 9:43	6.4	SU
GS-AP-MW-42H	Temperature	2/16/2022 9:43	18.35	C
GS-AP-MW-42H	Turbidity	2/16/2022 9:43	53	NTU
GS-AP-MW-42H	Conductivity	2/16/2022 9:48	1026.26	uS/cm
GS-AP-MW-42H	DO	2/16/2022 9:48	0.16	mg/L
GS-AP-MW-42H	Depth to Water Detail	2/16/2022 9:48	52.84	ft
GS-AP-MW-42H	Oxidation Reduction Potention	2/16/2022 9:48	-14.58	mv
GS-AP-MW-42H	pH	2/16/2022 9:48	6.44	SU
GS-AP-MW-42H	Temperature	2/16/2022 9:48	18.36	C
GS-AP-MW-42H	Turbidity	2/16/2022 9:48	32.9	NTU
GS-AP-MW-42H	Conductivity	2/16/2022 9:53	1028.79	uS/cm
GS-AP-MW-42H	DO	2/16/2022 9:53	0.15	mg/L
GS-AP-MW-42H	Depth to Water Detail	2/16/2022 9:53	52.86	ft
GS-AP-MW-42H	Oxidation Reduction Potention	2/16/2022 9:53	-14.77	mv
GS-AP-MW-42H	pH	2/16/2022 9:53	6.46	SU
GS-AP-MW-42H	Temperature	2/16/2022 9:53	18.39	C
GS-AP-MW-42H	Turbidity	2/16/2022 9:53	22.5	NTU
GS-AP-MW-42H	Conductivity	2/16/2022 9:58	1024.2	uS/cm
GS-AP-MW-42H	DO	2/16/2022 9:58	0.16	mg/L
GS-AP-MW-42H	Depth to Water Detail	2/16/2022 9:58	52.86	ft
GS-AP-MW-42H	Oxidation Reduction Potention	2/16/2022 9:58	-15.01	mv
GS-AP-MW-42H	pH	2/16/2022 9:58	6.48	SU
GS-AP-MW-42H	Temperature	2/16/2022 9:58	18.39	C
GS-AP-MW-42H	Turbidity	2/16/2022 9:58	17.4	NTU
GS-AP-MW-42H	Conductivity	2/16/2022 10:03	1026.29	uS/cm
GS-AP-MW-42H	DO	2/16/2022 10:03	0.15	mg/L
GS-AP-MW-42H	Depth to Water Detail	2/16/2022 10:03	52.86	ft
GS-AP-MW-42H	Oxidation Reduction Potention	2/16/2022 10:03	-15.12	mv
GS-AP-MW-42H	pH	2/16/2022 10:03	6.49	SU
GS-AP-MW-42H	Temperature	2/16/2022 10:03	18.4	C
GS-AP-MW-42H	Turbidity	2/16/2022 10:03	17.2	NTU
GS-AP-MW-42H	Conductivity	2/16/2022 10:08	1025.9	uS/cm
GS-AP-MW-42H	DO	2/16/2022 10:08	0.15	mg/L

**Groundwater Field Parameters  
Plant Gorgas Ash Pond**

WELL ID	DESCRIPTION	TIME OF READING	VALUE	UNIT
GS-AP-MW-42H	Depth to Water Detail	2/16/2022 10:08	52.86	ft
GS-AP-MW-42H	Oxidation Reduction Potention	2/16/2022 10:08	-15.45	mv
GS-AP-MW-42H	pH	2/16/2022 10:08	6.5	SU
GS-AP-MW-42H	Temperature	2/16/2022 10:08	18.41	C
GS-AP-MW-42H	Turbidity	2/16/2022 10:08	11.7	NTU
GS-AP-MW-42H	Conductivity	2/16/2022 10:13	1025.33	uS/cm
GS-AP-MW-42H	DO	2/16/2022 10:13	0.15	mg/L
GS-AP-MW-42H	Depth to Water Detail	2/16/2022 10:13	52.86	ft
GS-AP-MW-42H	Oxidation Reduction Potention	2/16/2022 10:13	-15.72	mv
GS-AP-MW-42H	pH	2/16/2022 10:13	6.51	SU
GS-AP-MW-42H	Temperature	2/16/2022 10:13	18.44	C
GS-AP-MW-42H	Turbidity	2/16/2022 10:13	9.93	NTU
GS-AP-MW-42H	Conductivity	2/16/2022 10:18	1023.65	uS/cm
GS-AP-MW-42H	DO	2/16/2022 10:18	0.15	mg/L
GS-AP-MW-42H	Depth to Water Detail	2/16/2022 10:18	52.86	ft
GS-AP-MW-42H	Oxidation Reduction Potention	2/16/2022 10:18	-15.89	mv
GS-AP-MW-42H	pH	2/16/2022 10:18	6.52	SU
GS-AP-MW-42H	Temperature	2/16/2022 10:18	18.48	C
GS-AP-MW-42H	Turbidity	2/16/2022 10:18	9.04	NTU
GS-AP-MW-42H	Conductivity	2/16/2022 10:23	1029.43	uS/cm
GS-AP-MW-42H	DO	2/16/2022 10:23	0.15	mg/L
GS-AP-MW-42H	Depth to Water Detail	2/16/2022 10:23	52.86	ft
GS-AP-MW-42H	Oxidation Reduction Potention	2/16/2022 10:23	-15.68	mv
GS-AP-MW-42H	pH	2/16/2022 10:23	6.53	SU
GS-AP-MW-42H	Temperature	2/16/2022 10:23	18.49	C
GS-AP-MW-42H	Turbidity	2/16/2022 10:23	8.22	NTU
GS-AP-MW-42H	Conductivity	2/16/2022 10:28	1031.68	uS/cm
GS-AP-MW-42H	DO	2/16/2022 10:28	0.15	mg/L
GS-AP-MW-42H	Depth to Water Detail	2/16/2022 10:28	52.86	ft
GS-AP-MW-42H	Oxidation Reduction Potention	2/16/2022 10:28	-15.85	mv
GS-AP-MW-42H	pH	2/16/2022 10:28	6.53	SU
GS-AP-MW-42H	Temperature	2/16/2022 10:28	18.5	C
GS-AP-MW-42H	Turbidity	2/16/2022 10:28	8.25	NTU
GS-AP-MW-42H	Conductivity	2/16/2022 10:33	1035.86	uS/cm
GS-AP-MW-42H	DO	2/16/2022 10:33	0.15	mg/L
GS-AP-MW-42H	Depth to Water Detail	2/16/2022 10:33	52.86	ft
GS-AP-MW-42H	Oxidation Reduction Potention	2/16/2022 10:33	-16.06	mv
GS-AP-MW-42H	pH	2/16/2022 10:33	6.54	SU
GS-AP-MW-42H	Temperature	2/16/2022 10:33	18.56	C
GS-AP-MW-42H	Turbidity	2/16/2022 10:33	5.26	NTU
GS-AP-MW-42H	Conductivity	2/16/2022 10:38	1038.72	uS/cm
GS-AP-MW-42H	DO	2/16/2022 10:38	0.14	mg/L
GS-AP-MW-42H	Depth to Water Detail	2/16/2022 10:38	52.86	ft
GS-AP-MW-42H	Oxidation Reduction Potention	2/16/2022 10:38	-16.06	mv
GS-AP-MW-42H	pH	2/16/2022 10:38	6.54	SU
GS-AP-MW-42H	Temperature	2/16/2022 10:38	18.59	C
GS-AP-MW-42H	Turbidity	2/16/2022 10:38	4.98	NTU

**Groundwater Field Parameters  
Plant Gorgas Ash Pond**

WELL ID	DESCRIPTION	TIME OF READING	VALUE	UNIT
GS-AP-MW-8	Conductivity	2/16/2022 11:50	143.81	uS/cm
GS-AP-MW-8	DO	2/16/2022 11:50	0.91	mg/L
GS-AP-MW-8	Depth to Water Detail	2/16/2022 11:50	44.8	ft
GS-AP-MW-8	Oxidation Reduction Potention	2/16/2022 11:50	185.2	mv
GS-AP-MW-8	pH	2/16/2022 11:50	5.8	SU
GS-AP-MW-8	Temperature	2/16/2022 11:50	20.12	C
GS-AP-MW-8	Turbidity	2/16/2022 11:50	3.32	NTU
GS-AP-MW-8	Conductivity	2/16/2022 11:55	143.29	uS/cm
GS-AP-MW-8	DO	2/16/2022 11:55	0.81	mg/L
GS-AP-MW-8	Depth to Water Detail	2/16/2022 11:55	44.94	ft
GS-AP-MW-8	Oxidation Reduction Potention	2/16/2022 11:55	195.5	mv
GS-AP-MW-8	pH	2/16/2022 11:55	5.77	SU
GS-AP-MW-8	Temperature	2/16/2022 11:55	19.79	C
GS-AP-MW-8	Turbidity	2/16/2022 11:55	2.92	NTU
GS-AP-MW-8	Conductivity	2/16/2022 12:00	143.37	uS/cm
GS-AP-MW-8	DO	2/16/2022 12:00	0.76	mg/L
GS-AP-MW-8	Depth to Water Detail	2/16/2022 12:00	45.06	ft
GS-AP-MW-8	Oxidation Reduction Potention	2/16/2022 12:00	199.37	mv
GS-AP-MW-8	pH	2/16/2022 12:00	5.8	SU
GS-AP-MW-8	Temperature	2/16/2022 12:00	19.67	C
GS-AP-MW-8	Turbidity	2/16/2022 12:00	4.8	NTU
GS-AP-MW-8	Conductivity	2/16/2022 12:05	143.27	uS/cm
GS-AP-MW-8	DO	2/16/2022 12:05	0.73	mg/L
GS-AP-MW-8	Depth to Water Detail	2/16/2022 12:05	45.2	ft
GS-AP-MW-8	Oxidation Reduction Potention	2/16/2022 12:05	201.45	mv
GS-AP-MW-8	pH	2/16/2022 12:05	5.79	SU
GS-AP-MW-8	Temperature	2/16/2022 12:05	19.87	C
GS-AP-MW-8	Turbidity	2/16/2022 12:05	3.72	NTU
GS-AP-MW-8	Conductivity	2/16/2022 12:10	142.9	uS/cm
GS-AP-MW-8	DO	2/16/2022 12:10	0.72	mg/L
GS-AP-MW-8	Depth to Water Detail	2/16/2022 12:10	45.34	ft
GS-AP-MW-8	Oxidation Reduction Potention	2/16/2022 12:10	200.76	mv
GS-AP-MW-8	pH	2/16/2022 12:10	5.8	SU
GS-AP-MW-8	Temperature	2/16/2022 12:10	19.92	C
GS-AP-MW-8	Turbidity	2/16/2022 12:10	2.6	NTU

**Groundwater Field Parameters  
Plant Gorgas Ash Pond**

WELL ID	DESCRIPTION	TIME OF READING	VALUE	UNIT
GS-AP-MW-3	Conductivity	2/16/2022 14:18	454.61	uS/cm
GS-AP-MW-3	DO	2/16/2022 14:18	0.32	mg/L
GS-AP-MW-3	Depth to Water Detail	2/16/2022 14:18	144.11	ft
GS-AP-MW-3	Oxidation Reduction Potention	2/16/2022 14:18	-86.76	mv
GS-AP-MW-3	pH	2/16/2022 14:18	7.7	SU
GS-AP-MW-3	Temperature	2/16/2022 14:18	18.64	C
GS-AP-MW-3	Turbidity	2/16/2022 14:18	1.67	NTU
GS-AP-MW-3	Conductivity	2/16/2022 14:23	452.76	uS/cm
GS-AP-MW-3	DO	2/16/2022 14:23	0.31	mg/L
GS-AP-MW-3	Depth to Water Detail	2/16/2022 14:23	146.09	ft
GS-AP-MW-3	Oxidation Reduction Potention	2/16/2022 14:23	-67.98	mv
GS-AP-MW-3	pH	2/16/2022 14:23	7.47	SU
GS-AP-MW-3	Temperature	2/16/2022 14:23	18.32	C
GS-AP-MW-3	Turbidity	2/16/2022 14:23	1.75	NTU
GS-AP-MW-3	Conductivity	2/16/2022 14:28	453.62	uS/cm
GS-AP-MW-3	DO	2/16/2022 14:28	0.31	mg/L
GS-AP-MW-3	Depth to Water Detail	2/16/2022 14:28	147.94	ft
GS-AP-MW-3	Oxidation Reduction Potention	2/16/2022 14:28	-66.97	mv
GS-AP-MW-3	pH	2/16/2022 14:28	7.48	SU
GS-AP-MW-3	Temperature	2/16/2022 14:28	18.57	C
GS-AP-MW-3	Turbidity	2/16/2022 14:28	1.15	NTU
GS-AP-MW-3	Conductivity	2/16/2022 14:33	456.22	uS/cm
GS-AP-MW-3	DO	2/16/2022 14:33	0.32	mg/L
GS-AP-MW-3	Depth to Water Detail	2/16/2022 14:33	149.31	ft
GS-AP-MW-3	Oxidation Reduction Potention	2/16/2022 14:33	-73.1	mv
GS-AP-MW-3	pH	2/16/2022 14:33	7.53	SU
GS-AP-MW-3	Temperature	2/16/2022 14:33	18.45	C
GS-AP-MW-3	Turbidity	2/16/2022 14:33	1.14	NTU
GS-AP-MW-3	Conductivity	2/16/2022 14:38	460.46	uS/cm
GS-AP-MW-3	DO	2/16/2022 14:38	0.33	mg/L
GS-AP-MW-3	Depth to Water Detail	2/16/2022 14:38	150.22	ft
GS-AP-MW-3	Oxidation Reduction Potention	2/16/2022 14:38	-85.83	mv
GS-AP-MW-3	pH	2/16/2022 14:38	7.57	SU
GS-AP-MW-3	Temperature	2/16/2022 14:38	18.56	C
GS-AP-MW-3	Turbidity	2/16/2022 14:38	1.36	NTU
GS-AP-MW-3	Conductivity	2/16/2022 14:43	463.99	uS/cm
GS-AP-MW-3	DO	2/16/2022 14:43	0.45	mg/L
GS-AP-MW-3	Depth to Water Detail	2/16/2022 14:43	150.39	ft
GS-AP-MW-3	Oxidation Reduction Potention	2/16/2022 14:43	-99.64	mv
GS-AP-MW-3	pH	2/16/2022 14:43	7.62	SU
GS-AP-MW-3	Temperature	2/16/2022 14:43	18.69	C
GS-AP-MW-3	Turbidity	2/16/2022 14:43	1.18	NTU
GS-AP-MW-3	Conductivity	2/16/2022 14:48	470.84	uS/cm
GS-AP-MW-3	DO	2/16/2022 14:48	0.49	mg/L
GS-AP-MW-3	Depth to Water Detail	2/16/2022 14:48	150.44	ft
GS-AP-MW-3	Oxidation Reduction Potention	2/16/2022 14:48	-118.21	mv
GS-AP-MW-3	pH	2/16/2022 14:48	7.71	SU
GS-AP-MW-3	Temperature	2/16/2022 14:48	18.54	C
GS-AP-MW-3	Turbidity	2/16/2022 14:48	1.09	NTU
GS-AP-MW-3	Conductivity	2/16/2022 14:53	482.31	uS/cm
GS-AP-MW-3	DO	2/16/2022 14:53	0.52	mg/L
GS-AP-MW-3	Depth to Water Detail	2/16/2022 14:53	150.46	ft
GS-AP-MW-3	Oxidation Reduction Potention	2/16/2022 14:53	-142.54	mv
GS-AP-MW-3	pH	2/16/2022 14:53	7.78	SU
GS-AP-MW-3	Temperature	2/16/2022 14:53	18.66	C
GS-AP-MW-3	Turbidity	2/16/2022 14:53	1.12	NTU

**Groundwater Field Parameters  
Plant Gorgas Ash Pond**

WELL ID	DESCRIPTION	TIME OF READING	VALUE	UNIT
GS-AP-MW-15	Conductivity	2/16/2022 8:30	2156.86	uS/cm
GS-AP-MW-15	DO	2/16/2022 8:30	0.83	mg/L
GS-AP-MW-15	Depth to Water Detail	2/16/2022 8:30	84.17	ft
GS-AP-MW-15	Oxidation Reduction Potention	2/16/2022 8:30	-57.98	mv
GS-AP-MW-15	pH	2/16/2022 8:30	11.81	SU
GS-AP-MW-15	Temperature	2/16/2022 8:30	16.72	C
GS-AP-MW-15	Turbidity	2/16/2022 8:30	3.13	NTU
GS-AP-MW-15	Conductivity	2/16/2022 8:35	2160.22	uS/cm
GS-AP-MW-15	DO	2/16/2022 8:35	0.68	mg/L
GS-AP-MW-15	Depth to Water Detail	2/16/2022 8:35	86.04	ft
GS-AP-MW-15	Oxidation Reduction Potention	2/16/2022 8:35	-114.39	mv
GS-AP-MW-15	pH	2/16/2022 8:35	12.06	SU
GS-AP-MW-15	Temperature	2/16/2022 8:35	16.65	C
GS-AP-MW-15	Turbidity	2/16/2022 8:35	1.76	NTU
GS-AP-MW-15	Conductivity	2/16/2022 8:40	2146.84	uS/cm
GS-AP-MW-15	DO	2/16/2022 8:40	0.62	mg/L
GS-AP-MW-15	Depth to Water Detail	2/16/2022 8:40	88.46	ft
GS-AP-MW-15	Oxidation Reduction Potention	2/16/2022 8:40	-146.47	mv
GS-AP-MW-15	pH	2/16/2022 8:40	12.15	SU
GS-AP-MW-15	Temperature	2/16/2022 8:40	16.59	C
GS-AP-MW-15	Turbidity	2/16/2022 8:40	1	NTU
GS-AP-MW-15	Conductivity	2/16/2022 8:45	2126.81	uS/cm
GS-AP-MW-15	DO	2/16/2022 8:45	0.59	mg/L
GS-AP-MW-15	Depth to Water Detail	2/16/2022 8:45	89.62	ft
GS-AP-MW-15	Oxidation Reduction Potention	2/16/2022 8:45	-167.94	mv
GS-AP-MW-15	pH	2/16/2022 8:45	12.19	SU
GS-AP-MW-15	Temperature	2/16/2022 8:45	16.74	C
GS-AP-MW-15	Turbidity	2/16/2022 8:45	0.86	NTU
GS-AP-MW-15	Conductivity	2/16/2022 8:50	2111.52	uS/cm
GS-AP-MW-15	DO	2/16/2022 8:50	0.91	mg/L
GS-AP-MW-15	Depth to Water Detail	2/16/2022 8:50	90.68	ft
GS-AP-MW-15	Oxidation Reduction Potention	2/16/2022 8:50	-180.5	mv
GS-AP-MW-15	pH	2/16/2022 8:50	12.23	SU
GS-AP-MW-15	Temperature	2/16/2022 8:50	16.31	C
GS-AP-MW-15	Turbidity	2/16/2022 8:50	0.76	NTU
GS-AP-MW-15	Conductivity	2/16/2022 8:55	2094.75	uS/cm
GS-AP-MW-15	DO	2/16/2022 8:55	0.95	mg/L
GS-AP-MW-15	Depth to Water Detail	2/16/2022 8:55	90.96	ft
GS-AP-MW-15	Oxidation Reduction Potention	2/16/2022 8:55	-188.52	mv
GS-AP-MW-15	pH	2/16/2022 8:55	12.24	SU
GS-AP-MW-15	Temperature	2/16/2022 8:55	16.34	C
GS-AP-MW-15	Turbidity	2/16/2022 8:55	0.6	NTU
GS-AP-MW-15	Conductivity	2/16/2022 9:00	2048.1	uS/cm
GS-AP-MW-15	DO	2/16/2022 9:00	0.97	mg/L
GS-AP-MW-15	Depth to Water Detail	2/16/2022 9:00	91.2	ft
GS-AP-MW-15	Oxidation Reduction Potention	2/16/2022 9:00	-194.5	mv
GS-AP-MW-15	pH	2/16/2022 9:00	12.25	SU
GS-AP-MW-15	Temperature	2/16/2022 9:00	16.5	C
GS-AP-MW-15	Turbidity	2/16/2022 9:00	0.66	NTU
GS-AP-MW-15	Conductivity	2/16/2022 9:05	1992.18	uS/cm
GS-AP-MW-15	DO	2/16/2022 9:05	0.96	mg/L
GS-AP-MW-15	Depth to Water Detail	2/16/2022 9:05	91.34	ft
GS-AP-MW-15	Oxidation Reduction Potention	2/16/2022 9:05	-198.2	mv
GS-AP-MW-15	pH	2/16/2022 9:05	12.25	SU
GS-AP-MW-15	Temperature	2/16/2022 9:05	16.4	C
GS-AP-MW-15	Turbidity	2/16/2022 9:05	0.82	NTU
GS-AP-MW-15	Conductivity	2/16/2022 9:10	1920.47	uS/cm
GS-AP-MW-15	DO	2/16/2022 9:10	0.89	mg/L

**Groundwater Field Parameters  
Plant Gorgas Ash Pond**

WELL ID	DESCRIPTION	TIME OF READING	VALUE	UNIT
GS-AP-MW-15	Depth to Water Detail	2/16/2022 9:10	91.58	ft
GS-AP-MW-15	Oxidation Reduction Potential	2/16/2022 9:10	-201.52	mv
GS-AP-MW-15	pH	2/16/2022 9:10	12.24	SU
GS-AP-MW-15	Temperature	2/16/2022 9:10	16.57	C
GS-AP-MW-15	Turbidity	2/16/2022 9:10	0.46	NTU
GS-AP-MW-15	Conductivity	2/16/2022 9:15	1858.86	uS/cm
GS-AP-MW-15	DO	2/16/2022 9:15	0.99	mg/L
GS-AP-MW-15	Depth to Water Detail	2/16/2022 9:15	91.79	ft
GS-AP-MW-15	Oxidation Reduction Potential	2/16/2022 9:15	-204.51	mv
GS-AP-MW-15	pH	2/16/2022 9:15	12.24	SU
GS-AP-MW-15	Temperature	2/16/2022 9:15	16.77	C
GS-AP-MW-15	Turbidity	2/16/2022 9:15	0.86	NTU
GS-AP-MW-15	Conductivity	2/16/2022 9:20	1819.17	uS/cm
GS-AP-MW-15	DO	2/16/2022 9:20	1.16	mg/L
GS-AP-MW-15	Depth to Water Detail	2/16/2022 9:20	91.98	ft
GS-AP-MW-15	Oxidation Reduction Potential	2/16/2022 9:20	-202.62	mv
GS-AP-MW-15	pH	2/16/2022 9:20	12.21	SU
GS-AP-MW-15	Temperature	2/16/2022 9:20	16.75	C
GS-AP-MW-15	Turbidity	2/16/2022 9:20	1.24	NTU
GS-AP-MW-15	Conductivity	2/16/2022 9:25	1760.34	uS/cm
GS-AP-MW-15	DO	2/16/2022 9:25	1.19	mg/L
GS-AP-MW-15	Depth to Water Detail	2/16/2022 9:25	92.12	ft
GS-AP-MW-15	Oxidation Reduction Potential	2/16/2022 9:25	-201.87	mv
GS-AP-MW-15	pH	2/16/2022 9:25	12.19	SU
GS-AP-MW-15	Temperature	2/16/2022 9:25	16.78	C
GS-AP-MW-15	Turbidity	2/16/2022 9:25	1.11	NTU
GS-AP-MW-15	Conductivity	2/16/2022 9:30	1703.2	uS/cm
GS-AP-MW-15	DO	2/16/2022 9:30	1.21	mg/L
GS-AP-MW-15	Depth to Water Detail	2/16/2022 9:30	92.18	ft
GS-AP-MW-15	Oxidation Reduction Potential	2/16/2022 9:30	-200.92	mv
GS-AP-MW-15	pH	2/16/2022 9:30	12.19	SU
GS-AP-MW-15	Temperature	2/16/2022 9:30	16.56	C
GS-AP-MW-15	Turbidity	2/16/2022 9:30	1.02	NTU
GS-AP-MW-15	Conductivity	2/16/2022 9:35	1646.48	uS/cm
GS-AP-MW-15	DO	2/16/2022 9:35	1.28	mg/L
GS-AP-MW-15	Depth to Water Detail	2/16/2022 9:35	92.24	ft
GS-AP-MW-15	Oxidation Reduction Potential	2/16/2022 9:35	-200.51	mv
GS-AP-MW-15	pH	2/16/2022 9:35	12.17	SU
GS-AP-MW-15	Temperature	2/16/2022 9:35	16.83	C
GS-AP-MW-15	Turbidity	2/16/2022 9:35	2.04	NTU
GS-AP-MW-15	Conductivity	2/16/2022 9:40	1589.94	uS/cm
GS-AP-MW-15	DO	2/16/2022 9:40	1.49	mg/L
GS-AP-MW-15	Depth to Water Detail	2/16/2022 9:40	92.29	ft
GS-AP-MW-15	Oxidation Reduction Potential	2/16/2022 9:40	-199.21	mv
GS-AP-MW-15	pH	2/16/2022 9:40	12.17	SU
GS-AP-MW-15	Temperature	2/16/2022 9:40	16.98	C
GS-AP-MW-15	Turbidity	2/16/2022 9:40	1.16	NTU
GS-AP-MW-15	Conductivity	2/16/2022 9:45	1477.67	uS/cm
GS-AP-MW-15	DO	2/16/2022 9:45	1.24	mg/L
GS-AP-MW-15	Depth to Water Detail	2/16/2022 9:45	92.34	ft
GS-AP-MW-15	Oxidation Reduction Potential	2/16/2022 9:45	-199.12	mv
GS-AP-MW-15	pH	2/16/2022 9:45	12.13	SU
GS-AP-MW-15	Temperature	2/16/2022 9:45	17.41	C
GS-AP-MW-15	Turbidity	2/16/2022 9:45	1.51	NTU
GS-AP-MW-15	Conductivity	2/16/2022 9:50	1344.14	uS/cm
GS-AP-MW-15	DO	2/16/2022 9:50	1.05	mg/L
GS-AP-MW-15	Depth to Water Detail	2/16/2022 9:50	92.37	ft
GS-AP-MW-15	Oxidation Reduction Potential	2/16/2022 9:50	-201	mv



**Groundwater Field Parameters  
Plant Gorgas Ash Pond**

WELL ID	DESCRIPTION	TIME OF READING	VALUE	UNIT
GS-AP-MW-15	pH	2/16/2022 9:50	12.07	SU
GS-AP-MW-15	Temperature	2/16/2022 9:50	17.42	C
GS-AP-MW-15	Turbidity	2/16/2022 9:50	1.45	NTU
GS-AP-MW-15	Conductivity	2/16/2022 9:55	1262.46	uS/cm
GS-AP-MW-15	DO	2/16/2022 9:55	0.99	mg/L
GS-AP-MW-15	Depth to Water Detail	2/16/2022 9:55	92.42	ft
GS-AP-MW-15	Oxidation Reduction Potention	2/16/2022 9:55	-202.2	mv
GS-AP-MW-15	pH	2/16/2022 9:55	12.01	SU
GS-AP-MW-15	Temperature	2/16/2022 9:55	17.54	C
GS-AP-MW-15	Turbidity	2/16/2022 9:55	1.42	NTU
GS-AP-MW-15	Conductivity	2/16/2022 10:00	1148.93	uS/cm
GS-AP-MW-15	DO	2/16/2022 10:00	0.96	mg/L
GS-AP-MW-15	Depth to Water Detail	2/16/2022 10:00	92.45	ft
GS-AP-MW-15	Oxidation Reduction Potention	2/16/2022 10:00	-203.05	mv
GS-AP-MW-15	pH	2/16/2022 10:00	11.96	SU
GS-AP-MW-15	Temperature	2/16/2022 10:00	17.64	C
GS-AP-MW-15	Turbidity	2/16/2022 10:00	1.32	NTU
GS-AP-MW-15	Conductivity	2/16/2022 10:05	1088.78	uS/cm
GS-AP-MW-15	DO	2/16/2022 10:05	0.94	mg/L
GS-AP-MW-15	Depth to Water Detail	2/16/2022 10:05	92.5	ft
GS-AP-MW-15	Oxidation Reduction Potention	2/16/2022 10:05	-203.63	mv
GS-AP-MW-15	pH	2/16/2022 10:05	11.89	SU
GS-AP-MW-15	Temperature	2/16/2022 10:05	17.79	C
GS-AP-MW-15	Turbidity	2/16/2022 10:05	1.09	NTU
GS-AP-MW-15	Conductivity	2/16/2022 10:10	1043.77	uS/cm
GS-AP-MW-15	DO	2/16/2022 10:10	0.93	mg/L
GS-AP-MW-15	Depth to Water Detail	2/16/2022 10:10	92.53	ft
GS-AP-MW-15	Oxidation Reduction Potention	2/16/2022 10:10	-203.33	mv
GS-AP-MW-15	pH	2/16/2022 10:10	11.84	SU
GS-AP-MW-15	Temperature	2/16/2022 10:10	17.85	C
GS-AP-MW-15	Turbidity	2/16/2022 10:10	0.84	NTU
GS-AP-MW-15	Conductivity	2/16/2022 10:15	975.39	uS/cm
GS-AP-MW-15	DO	2/16/2022 10:15	0.93	mg/L
GS-AP-MW-15	Depth to Water Detail	2/16/2022 10:15	92.58	ft
GS-AP-MW-15	Oxidation Reduction Potention	2/16/2022 10:15	-203.27	mv
GS-AP-MW-15	pH	2/16/2022 10:15	11.79	SU
GS-AP-MW-15	Temperature	2/16/2022 10:15	17.9	C
GS-AP-MW-15	Turbidity	2/16/2022 10:15	0.95	NTU
GS-AP-MW-15	Conductivity	2/16/2022 10:20	898.14	uS/cm
GS-AP-MW-15	DO	2/16/2022 10:20	0.92	mg/L
GS-AP-MW-15	Depth to Water Detail	2/16/2022 10:20	92.6	ft
GS-AP-MW-15	Oxidation Reduction Potention	2/16/2022 10:20	-202.85	mv
GS-AP-MW-15	pH	2/16/2022 10:20	11.73	SU
GS-AP-MW-15	Temperature	2/16/2022 10:20	18.02	C
GS-AP-MW-15	Turbidity	2/16/2022 10:20	0.9	NTU
GS-AP-MW-15	Conductivity	2/16/2022 10:25	854.26	uS/cm
GS-AP-MW-15	DO	2/16/2022 10:25	0.93	mg/L
GS-AP-MW-15	Depth to Water Detail	2/16/2022 10:25	92.63	ft
GS-AP-MW-15	Oxidation Reduction Potention	2/16/2022 10:25	-202.67	mv
GS-AP-MW-15	pH	2/16/2022 10:25	11.68	SU
GS-AP-MW-15	Temperature	2/16/2022 10:25	18.09	C
GS-AP-MW-15	Turbidity	2/16/2022 10:25	0.91	NTU
GS-AP-MW-15	Conductivity	2/16/2022 10:30	842.57	uS/cm
GS-AP-MW-15	DO	2/16/2022 10:30	0.93	mg/L
GS-AP-MW-15	Depth to Water Detail	2/16/2022 10:30	92.64	ft
GS-AP-MW-15	Oxidation Reduction Potention	2/16/2022 10:30	-202.32	mv
GS-AP-MW-15	pH	2/16/2022 10:30	11.62	SU
GS-AP-MW-15	Temperature	2/16/2022 10:30	18.24	C

**Groundwater Field Parameters  
Plant Gorgas Ash Pond**

<b>WELL ID</b>	<b>DESCRIPTION</b>	<b>TIME OF READING</b>	<b>VALUE</b>	<b>UNIT</b>
GS-AP-MW-15	Turbidity	2/16/2022 10:30	1.08	NTU
GS-AP-MW-15	Conductivity	2/16/2022 10:35	841.02	uS/cm
GS-AP-MW-15	DO	2/16/2022 10:35	0.93	mg/L
GS-AP-MW-15	Depth to Water Detail	2/16/2022 10:35	92.64	ft
GS-AP-MW-15	Oxidation Reduction Potention	2/16/2022 10:35	-202.12	mv
GS-AP-MW-15	pH	2/16/2022 10:35	11.57	SU
GS-AP-MW-15	Temperature	2/16/2022 10:35	18.35	C
GS-AP-MW-15	Turbidity	2/16/2022 10:35	1.11	NTU

**Groundwater Field Parameters  
Plant Gorgas Ash Pond**

WELL ID	DESCRIPTION	TIME OF READING	VALUE	UNIT
GS-AP-MW-15V	Conductivity	2/16/2022 11:22	1419.93	uS/cm
GS-AP-MW-15V	DO	2/16/2022 11:22	0.68	mg/L
GS-AP-MW-15V	Depth to Water Detail	2/16/2022 11:22	150.68	ft
GS-AP-MW-15V	Oxidation Reduction Potention	2/16/2022 11:22	-135.12	mv
GS-AP-MW-15V	pH	2/16/2022 11:22	8.9	SU
GS-AP-MW-15V	Temperature	2/16/2022 11:22	17.9	C
GS-AP-MW-15V	Turbidity	2/16/2022 11:22	3.32	NTU
GS-AP-MW-15V	Conductivity	2/16/2022 11:27	1407.84	uS/cm
GS-AP-MW-15V	DO	2/16/2022 11:27	0.55	mg/L
GS-AP-MW-15V	Depth to Water Detail	2/16/2022 11:27	152.42	ft
GS-AP-MW-15V	Oxidation Reduction Potention	2/16/2022 11:27	-130.44	mv
GS-AP-MW-15V	pH	2/16/2022 11:27	8.7	SU
GS-AP-MW-15V	Temperature	2/16/2022 11:27	17.96	C
GS-AP-MW-15V	Turbidity	2/16/2022 11:27	3.86	NTU
GS-AP-MW-15V	Conductivity	2/16/2022 11:32	1405.99	uS/cm
GS-AP-MW-15V	DO	2/16/2022 11:32	1.16	mg/L
GS-AP-MW-15V	Depth to Water Detail	2/16/2022 11:32	152.52	ft
GS-AP-MW-15V	Oxidation Reduction Potention	2/16/2022 11:32	-122.37	mv
GS-AP-MW-15V	pH	2/16/2022 11:32	8.7	SU
GS-AP-MW-15V	Temperature	2/16/2022 11:32	19.02	C
GS-AP-MW-15V	Turbidity	2/16/2022 11:32	2.31	NTU
GS-AP-MW-15V	Conductivity	2/16/2022 11:37	1402.39	uS/cm
GS-AP-MW-15V	DO	2/16/2022 11:37	1.21	mg/L
GS-AP-MW-15V	Depth to Water Detail	2/16/2022 11:37	152.48	ft
GS-AP-MW-15V	Oxidation Reduction Potention	2/16/2022 11:37	-114.75	mv
GS-AP-MW-15V	pH	2/16/2022 11:37	8.67	SU
GS-AP-MW-15V	Temperature	2/16/2022 11:37	19.29	C
GS-AP-MW-15V	Turbidity	2/16/2022 11:37	3.16	NTU
GS-AP-MW-15V	Conductivity	2/16/2022 11:42	1398.52	uS/cm
GS-AP-MW-15V	DO	2/16/2022 11:42	1.22	mg/L
GS-AP-MW-15V	Depth to Water Detail	2/16/2022 11:42	152.46	ft
GS-AP-MW-15V	Oxidation Reduction Potention	2/16/2022 11:42	-110.61	mv
GS-AP-MW-15V	pH	2/16/2022 11:42	8.65	SU
GS-AP-MW-15V	Temperature	2/16/2022 11:42	19.25	C
GS-AP-MW-15V	Turbidity	2/16/2022 11:42	1.71	NTU

**Groundwater Field Parameters  
Plant Gorgas Ash Pond**

WELL ID	DESCRIPTION	TIME OF READING	VALUE	UNIT
GS-AP-MW-16D	Conductivity	2/15/2022 11:49	361.52	uS/cm
GS-AP-MW-16D	DO	2/15/2022 11:49	1.24	mg/L
GS-AP-MW-16D	Depth to Water Detail	2/15/2022 11:49	140.37	ft
GS-AP-MW-16D	Oxidation Reduction Potential	2/15/2022 11:49	-60.09	mv
GS-AP-MW-16D	pH	2/15/2022 11:49	7.38	SU
GS-AP-MW-16D	Temperature	2/15/2022 11:49	17.63	C
GS-AP-MW-16D	Turbidity	2/15/2022 11:49	5.13	NTU
GS-AP-MW-16D	Conductivity	2/15/2022 11:54	361.9	uS/cm
GS-AP-MW-16D	DO	2/15/2022 11:54	0.97	mg/L
GS-AP-MW-16D	Depth to Water Detail	2/15/2022 11:54	141.31	ft
GS-AP-MW-16D	Oxidation Reduction Potential	2/15/2022 11:54	-69.15	mv
GS-AP-MW-16D	pH	2/15/2022 11:54	7.4	SU
GS-AP-MW-16D	Temperature	2/15/2022 11:54	17.71	C
GS-AP-MW-16D	Turbidity	2/15/2022 11:54	3.54	NTU
GS-AP-MW-16D	Conductivity	2/15/2022 11:59	359.72	uS/cm
GS-AP-MW-16D	DO	2/15/2022 11:59	0.89	mg/L
GS-AP-MW-16D	Depth to Water Detail	2/15/2022 11:59	141.76	ft
GS-AP-MW-16D	Oxidation Reduction Potential	2/15/2022 11:59	-73.02	mv
GS-AP-MW-16D	pH	2/15/2022 11:59	7.42	SU
GS-AP-MW-16D	Temperature	2/15/2022 11:59	17.83	C
GS-AP-MW-16D	Turbidity	2/15/2022 11:59	4.42	NTU
GS-AP-MW-16D	Conductivity	2/15/2022 12:04	359.63	uS/cm
GS-AP-MW-16D	DO	2/15/2022 12:04	0.92	mg/L
GS-AP-MW-16D	Depth to Water Detail	2/15/2022 12:04	142.21	ft
GS-AP-MW-16D	Oxidation Reduction Potential	2/15/2022 12:04	-76.21	mv
GS-AP-MW-16D	pH	2/15/2022 12:04	7.47	SU
GS-AP-MW-16D	Temperature	2/15/2022 12:04	17.81	C
GS-AP-MW-16D	Turbidity	2/15/2022 12:04	5.1	NTU
GS-AP-MW-16D	Conductivity	2/15/2022 12:09	358.41	uS/cm
GS-AP-MW-16D	DO	2/15/2022 12:09	0.99	mg/L
GS-AP-MW-16D	Depth to Water Detail	2/15/2022 12:09	142.44	ft
GS-AP-MW-16D	Oxidation Reduction Potential	2/15/2022 12:09	-77.79	mv
GS-AP-MW-16D	pH	2/15/2022 12:09	7.51	SU
GS-AP-MW-16D	Temperature	2/15/2022 12:09	17.99	C
GS-AP-MW-16D	Turbidity	2/15/2022 12:09	5.11	NTU
GS-AP-MW-16D	Conductivity	2/15/2022 12:14	357.1	uS/cm
GS-AP-MW-16D	DO	2/15/2022 12:14	1.23	mg/L
GS-AP-MW-16D	Depth to Water Detail	2/15/2022 12:14	142.57	ft
GS-AP-MW-16D	Oxidation Reduction Potential	2/15/2022 12:14	-77.71	mv
GS-AP-MW-16D	pH	2/15/2022 12:14	7.54	SU
GS-AP-MW-16D	Temperature	2/15/2022 12:14	18.51	C
GS-AP-MW-16D	Turbidity	2/15/2022 12:14	5.38	NTU
GS-AP-MW-16D	Conductivity	2/15/2022 12:19	358.78	uS/cm
GS-AP-MW-16D	DO	2/15/2022 12:19	1.7	mg/L
GS-AP-MW-16D	Depth to Water Detail	2/15/2022 12:19	142.7	ft
GS-AP-MW-16D	Oxidation Reduction Potential	2/15/2022 12:19	-76.07	mv
GS-AP-MW-16D	pH	2/15/2022 12:19	7.58	SU
GS-AP-MW-16D	Temperature	2/15/2022 12:19	19.62	C
GS-AP-MW-16D	Turbidity	2/15/2022 12:19	4.98	NTU
GS-AP-MW-16D	Conductivity	2/15/2022 12:24	354.73	uS/cm
GS-AP-MW-16D	DO	2/15/2022 12:24	1.03	mg/L
GS-AP-MW-16D	Depth to Water Detail	2/15/2022 12:24	142.86	ft
GS-AP-MW-16D	Oxidation Reduction Potential	2/15/2022 12:24	-70.68	mv
GS-AP-MW-16D	pH	2/15/2022 12:24	7.47	SU
GS-AP-MW-16D	Temperature	2/15/2022 12:24	17.94	C
GS-AP-MW-16D	Turbidity	2/15/2022 12:24	4.88	NTU
GS-AP-MW-16D	Conductivity	2/15/2022 12:29	350.2	uS/cm
GS-AP-MW-16D	DO	2/15/2022 12:29	0.93	mg/L

**Groundwater Field Parameters  
Plant Gorgas Ash Pond**

<b>WELL ID</b>	<b>DESCRIPTION</b>	<b>TIME OF READING</b>	<b>VALUE</b>	<b>UNIT</b>
GS-AP-MW-16D	Depth to Water Detail	2/15/2022 12:29	143.02	ft
GS-AP-MW-16D	Oxidation Reduction Potention	2/15/2022 12:29	-68.97	mv
GS-AP-MW-16D	pH	2/15/2022 12:29	7.44	SU
GS-AP-MW-16D	Temperature	2/15/2022 12:29	17.86	C
GS-AP-MW-16D	Turbidity	2/15/2022 12:29	4.77	NTU
GS-AP-MW-16D	Conductivity	2/15/2022 12:34	348.44	uS/cm
GS-AP-MW-16D	DO	2/15/2022 12:34	0.86	mg/L
GS-AP-MW-16D	Depth to Water Detail	2/15/2022 12:34	143.17	ft
GS-AP-MW-16D	Oxidation Reduction Potention	2/15/2022 12:34	-68.73	mv
GS-AP-MW-16D	pH	2/15/2022 12:34	7.42	SU
GS-AP-MW-16D	Temperature	2/15/2022 12:34	17.94	C
GS-AP-MW-16D	Turbidity	2/15/2022 12:34	4.79	NTU
GS-AP-MW-16D	Conductivity	2/15/2022 12:39	348.74	uS/cm
GS-AP-MW-16D	DO	2/15/2022 12:39	0.82	mg/L
GS-AP-MW-16D	Depth to Water Detail	2/15/2022 12:39	143.35	ft
GS-AP-MW-16D	Oxidation Reduction Potention	2/15/2022 12:39	-71.34	mv
GS-AP-MW-16D	pH	2/15/2022 12:39	7.46	SU
GS-AP-MW-16D	Temperature	2/15/2022 12:39	17.97	C
GS-AP-MW-16D	Turbidity	2/15/2022 12:39	4.48	NTU
GS-AP-MW-16D	Conductivity	2/15/2022 12:44	344.55	uS/cm
GS-AP-MW-16D	DO	2/15/2022 12:44	0.8	mg/L
GS-AP-MW-16D	Depth to Water Detail	2/15/2022 12:44	143.45	ft
GS-AP-MW-16D	Oxidation Reduction Potention	2/15/2022 12:44	-72.79	mv
GS-AP-MW-16D	pH	2/15/2022 12:44	7.48	SU
GS-AP-MW-16D	Temperature	2/15/2022 12:44	18.04	C
GS-AP-MW-16D	Turbidity	2/15/2022 12:44	4.56	NTU

**Groundwater Field Parameters  
Plant Gorgas Ash Pond**

WELL ID	DESCRIPTION	TIME OF READING	VALUE	UNIT
GS-AP-MW-16S	Conductivity	2/15/2022 13:34	3595.61	uS/cm
GS-AP-MW-16S	DO	2/15/2022 13:34	2.44	mg/L
GS-AP-MW-16S	Depth to Water Detail	2/15/2022 13:34	57.92	ft
GS-AP-MW-16S	Oxidation Reduction Potention	2/15/2022 13:34	-106.39	mv
GS-AP-MW-16S	pH	2/15/2022 13:34	11.27	SU
GS-AP-MW-16S	Temperature	2/15/2022 13:34	18.07	C
GS-AP-MW-16S	Turbidity	2/15/2022 13:34	4.86	NTU
GS-AP-MW-16S	Conductivity	2/15/2022 13:39	3609.19	uS/cm
GS-AP-MW-16S	DO	2/15/2022 13:39	2.41	mg/L
GS-AP-MW-16S	Depth to Water Detail	2/15/2022 13:39	58.01	ft
GS-AP-MW-16S	Oxidation Reduction Potention	2/15/2022 13:39	-111.69	mv
GS-AP-MW-16S	pH	2/15/2022 13:39	11.4	SU
GS-AP-MW-16S	Temperature	2/15/2022 13:39	17.89	C
GS-AP-MW-16S	Turbidity	2/15/2022 13:39	2.01	NTU
GS-AP-MW-16S	Conductivity	2/15/2022 13:44	3611.44	uS/cm
GS-AP-MW-16S	DO	2/15/2022 13:44	2.37	mg/L
GS-AP-MW-16S	Depth to Water Detail	2/15/2022 13:44	58.1	ft
GS-AP-MW-16S	Oxidation Reduction Potention	2/15/2022 13:44	-112.66	mv
GS-AP-MW-16S	pH	2/15/2022 13:44	11.47	SU
GS-AP-MW-16S	Temperature	2/15/2022 13:44	17.67	C
GS-AP-MW-16S	Turbidity	2/15/2022 13:44	1.62	NTU
GS-AP-MW-16S	Conductivity	2/15/2022 13:49	3597.32	uS/cm
GS-AP-MW-16S	DO	2/15/2022 13:49	2.33	mg/L
GS-AP-MW-16S	Depth to Water Detail	2/15/2022 13:49	58.18	ft
GS-AP-MW-16S	Oxidation Reduction Potention	2/15/2022 13:49	-112.74	mv
GS-AP-MW-16S	pH	2/15/2022 13:49	11.52	SU
GS-AP-MW-16S	Temperature	2/15/2022 13:49	17.44	C
GS-AP-MW-16S	Turbidity	2/15/2022 13:49	1.3	NTU



**Groundwater Field Parameters  
Plant Gorgas Ash Pond**

WELL ID	DESCRIPTION	TIME OF READING	VALUE	UNIT
GS-AP-MW-17	Conductivity	2/14/2022 11:09	901.31	uS/cm
GS-AP-MW-17	DO	2/14/2022 11:09	0.64	mg/L
GS-AP-MW-17	Depth to Water Detail	2/14/2022 11:09	175.51	ft
GS-AP-MW-17	Oxidation Reduction Potention	2/14/2022 11:09	-91.78	mv
GS-AP-MW-17	pH	2/14/2022 11:09	7.94	SU
GS-AP-MW-17	Temperature	2/14/2022 11:09	17.31	C
GS-AP-MW-17	Turbidity	2/14/2022 11:09	2.46	NTU
GS-AP-MW-17	Conductivity	2/14/2022 11:14	868.9	uS/cm
GS-AP-MW-17	DO	2/14/2022 11:14	0.48	mg/L
GS-AP-MW-17	Depth to Water Detail	2/14/2022 11:14	175.55	ft
GS-AP-MW-17	Oxidation Reduction Potention	2/14/2022 11:14	-124.52	mv
GS-AP-MW-17	pH	2/14/2022 11:14	8.13	SU
GS-AP-MW-17	Temperature	2/14/2022 11:14	17.06	C
GS-AP-MW-17	Turbidity	2/14/2022 11:14	1.41	NTU
GS-AP-MW-17	Conductivity	2/14/2022 11:19	821.89	uS/cm
GS-AP-MW-17	DO	2/14/2022 11:19	0.43	mg/L
GS-AP-MW-17	Depth to Water Detail	2/14/2022 11:19	175.58	ft
GS-AP-MW-17	Oxidation Reduction Potention	2/14/2022 11:19	-137.26	mv
GS-AP-MW-17	pH	2/14/2022 11:19	8.2	SU
GS-AP-MW-17	Temperature	2/14/2022 11:19	17.17	C
GS-AP-MW-17	Turbidity	2/14/2022 11:19	1.27	NTU
GS-AP-MW-17	Conductivity	2/14/2022 11:24	785.86	uS/cm
GS-AP-MW-17	DO	2/14/2022 11:24	0.38	mg/L
GS-AP-MW-17	Depth to Water Detail	2/14/2022 11:24	175.58	ft
GS-AP-MW-17	Oxidation Reduction Potention	2/14/2022 11:24	-144.06	mv
GS-AP-MW-17	pH	2/14/2022 11:24	8.24	SU
GS-AP-MW-17	Temperature	2/14/2022 11:24	17.24	C
GS-AP-MW-17	Turbidity	2/14/2022 11:24	1.3	NTU
GS-AP-MW-17	Conductivity	2/14/2022 11:29	746.25	uS/cm
GS-AP-MW-17	DO	2/14/2022 11:29	0.38	mg/L
GS-AP-MW-17	Depth to Water Detail	2/14/2022 11:29	175.58	ft
GS-AP-MW-17	Oxidation Reduction Potention	2/14/2022 11:29	-148.91	mv
GS-AP-MW-17	pH	2/14/2022 11:29	8.28	SU
GS-AP-MW-17	Temperature	2/14/2022 11:29	17.07	C
GS-AP-MW-17	Turbidity	2/14/2022 11:29	1.1	NTU
GS-AP-MW-17	Conductivity	2/14/2022 11:34	741.05	uS/cm
GS-AP-MW-17	DO	2/14/2022 11:34	0.35	mg/L
GS-AP-MW-17	Depth to Water Detail	2/14/2022 11:34	175.58	ft
GS-AP-MW-17	Oxidation Reduction Potention	2/14/2022 11:34	-152.4	mv
GS-AP-MW-17	pH	2/14/2022 11:34	8.3	SU
GS-AP-MW-17	Temperature	2/14/2022 11:34	17.16	C
GS-AP-MW-17	Turbidity	2/14/2022 11:34	2.63	NTU
GS-AP-MW-17	Conductivity	2/14/2022 11:39	723.19	uS/cm
GS-AP-MW-17	DO	2/14/2022 11:39	0.33	mg/L
GS-AP-MW-17	Depth to Water Detail	2/14/2022 11:39	175.58	ft
GS-AP-MW-17	Oxidation Reduction Potention	2/14/2022 11:39	-155.72	mv
GS-AP-MW-17	pH	2/14/2022 11:39	8.32	SU
GS-AP-MW-17	Temperature	2/14/2022 11:39	17.11	C
GS-AP-MW-17	Turbidity	2/14/2022 11:39	2.15	NTU

**Groundwater Field Parameters  
Plant Gorgas Ash Pond**

WELL ID	DESCRIPTION	TIME OF READING	VALUE	UNIT
GS-AP-MW-17V	Conductivity	2/14/2022 12:11	587.07	uS/cm
GS-AP-MW-17V	DO	2/14/2022 12:11	0.41	mg/L
GS-AP-MW-17V	Depth to Water Detail	2/14/2022 12:11	111.42	ft
GS-AP-MW-17V	Oxidation Reduction Potential	2/14/2022 12:11	-120.18	mv
GS-AP-MW-17V	pH	2/14/2022 12:11	7.33	SU
GS-AP-MW-17V	Temperature	2/14/2022 12:11	17.05	C
GS-AP-MW-17V	Turbidity	2/14/2022 12:11	2.22	NTU
GS-AP-MW-17V	Conductivity	2/14/2022 12:16	572.42	uS/cm
GS-AP-MW-17V	DO	2/14/2022 12:16	0.33	mg/L
GS-AP-MW-17V	Depth to Water Detail	2/14/2022 12:16	114.05	ft
GS-AP-MW-17V	Oxidation Reduction Potential	2/14/2022 12:16	-121.03	mv
GS-AP-MW-17V	pH	2/14/2022 12:16	7.32	SU
GS-AP-MW-17V	Temperature	2/14/2022 12:16	17.02	C
GS-AP-MW-17V	Turbidity	2/14/2022 12:16	1.27	NTU
GS-AP-MW-17V	Conductivity	2/14/2022 12:21	551.37	uS/cm
GS-AP-MW-17V	DO	2/14/2022 12:21	0.3	mg/L
GS-AP-MW-17V	Depth to Water Detail	2/14/2022 12:21	116.43	ft
GS-AP-MW-17V	Oxidation Reduction Potential	2/14/2022 12:21	-122.19	mv
GS-AP-MW-17V	pH	2/14/2022 12:21	7.33	SU
GS-AP-MW-17V	Temperature	2/14/2022 12:21	16.94	C
GS-AP-MW-17V	Turbidity	2/14/2022 12:21	1.31	NTU
GS-AP-MW-17V	Conductivity	2/14/2022 12:26	534.19	uS/cm
GS-AP-MW-17V	DO	2/14/2022 12:26	0.29	mg/L
GS-AP-MW-17V	Depth to Water Detail	2/14/2022 12:26	118.66	ft
GS-AP-MW-17V	Oxidation Reduction Potential	2/14/2022 12:26	-123.27	mv
GS-AP-MW-17V	pH	2/14/2022 12:26	7.34	SU
GS-AP-MW-17V	Temperature	2/14/2022 12:26	16.96	C
GS-AP-MW-17V	Turbidity	2/14/2022 12:26	1.8	NTU
GS-AP-MW-17V	Conductivity	2/14/2022 12:31	547.75	uS/cm
GS-AP-MW-17V	DO	2/14/2022 12:31	0.28	mg/L
GS-AP-MW-17V	Depth to Water Detail	2/14/2022 12:31	120.63	ft
GS-AP-MW-17V	Oxidation Reduction Potential	2/14/2022 12:31	-124.56	mv
GS-AP-MW-17V	pH	2/14/2022 12:31	7.35	SU
GS-AP-MW-17V	Temperature	2/14/2022 12:31	16.88	C
GS-AP-MW-17V	Turbidity	2/14/2022 12:31	2.28	NTU
GS-AP-MW-17V	Conductivity	2/14/2022 12:36	538.74	uS/cm
GS-AP-MW-17V	DO	2/14/2022 12:36	0.36	mg/L
GS-AP-MW-17V	Depth to Water Detail	2/14/2022 12:36	121.2	ft
GS-AP-MW-17V	Oxidation Reduction Potential	2/14/2022 12:36	-124.72	mv
GS-AP-MW-17V	pH	2/14/2022 12:36	7.37	SU
GS-AP-MW-17V	Temperature	2/14/2022 12:36	16.78	C
GS-AP-MW-17V	Turbidity	2/14/2022 12:36	1.25	NTU
GS-AP-MW-17V	Conductivity	2/14/2022 12:41	554.71	uS/cm
GS-AP-MW-17V	DO	2/14/2022 12:41	0.39	mg/L
GS-AP-MW-17V	Depth to Water Detail	2/14/2022 12:41	121.56	ft
GS-AP-MW-17V	Oxidation Reduction Potential	2/14/2022 12:41	-127.67	mv
GS-AP-MW-17V	pH	2/14/2022 12:41	7.4	SU
GS-AP-MW-17V	Temperature	2/14/2022 12:41	16.89	C
GS-AP-MW-17V	Turbidity	2/14/2022 12:41	1.21	NTU
GS-AP-MW-17V	Conductivity	2/14/2022 12:46	539.69	uS/cm
GS-AP-MW-17V	DO	2/14/2022 12:46	0.51	mg/L
GS-AP-MW-17V	Depth to Water Detail	2/14/2022 12:46	121.65	ft
GS-AP-MW-17V	Oxidation Reduction Potential	2/14/2022 12:46	-127.95	mv
GS-AP-MW-17V	pH	2/14/2022 12:46	7.41	SU
GS-AP-MW-17V	Temperature	2/14/2022 12:46	16.92	C
GS-AP-MW-17V	Turbidity	2/14/2022 12:46	1.71	NTU
GS-AP-MW-17V	Conductivity	2/14/2022 12:51	533.41	uS/cm
GS-AP-MW-17V	DO	2/14/2022 12:51	0.54	mg/L

**Groundwater Field Parameters  
Plant Gorgas Ash Pond**

<b>WELL ID</b>	<b>DESCRIPTION</b>	<b>TIME OF READING</b>	<b>VALUE</b>	<b>UNIT</b>
GS-AP-MW-17V	Depth to Water Detail	2/14/2022 12:51	121.68	ft
GS-AP-MW-17V	Oxidation Reduction Potention	2/14/2022 12:51	-127.99	mv
GS-AP-MW-17V	pH	2/14/2022 12:51	7.43	SU
GS-AP-MW-17V	Temperature	2/14/2022 12:51	16.84	C
GS-AP-MW-17V	Turbidity	2/14/2022 12:51	1.86	NTU

**Groundwater Field Parameters  
Plant Gorgas Ash Pond**

WELL ID	DESCRIPTION	TIME OF READING	VALUE	UNIT
GS-AP-MW-25HA	Conductivity	2/16/2022 12:59	1442.19	uS/cm
GS-AP-MW-25HA	DO	2/16/2022 12:59	2.44	mg/L
GS-AP-MW-25HA	Depth to Water Detail	2/16/2022 12:59	176.79	ft
GS-AP-MW-25HA	Oxidation Reduction Potention	2/16/2022 12:59	-159.08	mv
GS-AP-MW-25HA	pH	2/16/2022 12:59	7.5	SU
GS-AP-MW-25HA	Temperature	2/16/2022 12:59	20.33	C
GS-AP-MW-25HA	Turbidity	2/16/2022 12:59	3.61	NTU
GS-AP-MW-25HA	Conductivity	2/16/2022 13:04	1441.56	uS/cm
GS-AP-MW-25HA	DO	2/16/2022 13:04	1.66	mg/L
GS-AP-MW-25HA	Depth to Water Detail	2/16/2022 13:04	176.96	ft
GS-AP-MW-25HA	Oxidation Reduction Potention	2/16/2022 13:04	-241.46	mv
GS-AP-MW-25HA	pH	2/16/2022 13:04	8.16	SU
GS-AP-MW-25HA	Temperature	2/16/2022 13:04	20.15	C
GS-AP-MW-25HA	Turbidity	2/16/2022 13:04	5.24	NTU
GS-AP-MW-25HA	Conductivity	2/16/2022 13:09	1438.08	uS/cm
GS-AP-MW-25HA	DO	2/16/2022 13:09	1.49	mg/L
GS-AP-MW-25HA	Depth to Water Detail	2/16/2022 13:09	177.1	ft
GS-AP-MW-25HA	Oxidation Reduction Potention	2/16/2022 13:09	-265.29	mv
GS-AP-MW-25HA	pH	2/16/2022 13:09	8.37	SU
GS-AP-MW-25HA	Temperature	2/16/2022 13:09	19.83	C
GS-AP-MW-25HA	Turbidity	2/16/2022 13:09	4.21	NTU
GS-AP-MW-25HA	Conductivity	2/16/2022 13:14	1445.48	uS/cm
GS-AP-MW-25HA	DO	2/16/2022 13:14	1.66	mg/L
GS-AP-MW-25HA	Depth to Water Detail	2/16/2022 13:14	177.17	ft
GS-AP-MW-25HA	Oxidation Reduction Potention	2/16/2022 13:14	-276.86	mv
GS-AP-MW-25HA	pH	2/16/2022 13:14	8.44	SU
GS-AP-MW-25HA	Temperature	2/16/2022 13:14	20.52	C
GS-AP-MW-25HA	Turbidity	2/16/2022 13:14	3.03	NTU
GS-AP-MW-25HA	Conductivity	2/16/2022 13:19	1455.75	uS/cm
GS-AP-MW-25HA	DO	2/16/2022 13:19	1.48	mg/L
GS-AP-MW-25HA	Depth to Water Detail	2/16/2022 13:19	177.2	ft
GS-AP-MW-25HA	Oxidation Reduction Potention	2/16/2022 13:19	-284.35	mv
GS-AP-MW-25HA	pH	2/16/2022 13:19	8.5	SU
GS-AP-MW-25HA	Temperature	2/16/2022 13:19	20.83	C
GS-AP-MW-25HA	Turbidity	2/16/2022 13:19	2.96	NTU

**Groundwater Field Parameters  
Plant Gorgas Ash Pond**

WELL ID	DESCRIPTION	TIME OF READING	VALUE	UNIT
GS-AP-MW-36H	Conductivity	2/14/2022 13:54	674.75	uS/cm
GS-AP-MW-36H	DO	2/14/2022 13:54	2.45	mg/L
GS-AP-MW-36H	Depth to Water Detail	2/14/2022 13:54	232.15	ft
GS-AP-MW-36H	Oxidation Reduction Potention	2/14/2022 13:54	-75.81	mv
GS-AP-MW-36H	pH	2/14/2022 13:54	7.31	SU
GS-AP-MW-36H	Temperature	2/14/2022 13:54	18.5	C
GS-AP-MW-36H	Turbidity	2/14/2022 13:54	1.18	NTU
GS-AP-MW-36H	Conductivity	2/14/2022 13:59	883.75	uS/cm
GS-AP-MW-36H	DO	2/14/2022 13:59	1.26	mg/L
GS-AP-MW-36H	Depth to Water Detail	2/14/2022 13:59	232.72	ft
GS-AP-MW-36H	Oxidation Reduction Potention	2/14/2022 13:59	-141.53	mv
GS-AP-MW-36H	pH	2/14/2022 13:59	7.86	SU
GS-AP-MW-36H	Temperature	2/14/2022 13:59	18.45	C
GS-AP-MW-36H	Turbidity	2/14/2022 13:59	0.94	NTU
GS-AP-MW-36H	Conductivity	2/14/2022 14:04	1000.51	uS/cm
GS-AP-MW-36H	DO	2/14/2022 14:04	1.16	mg/L
GS-AP-MW-36H	Depth to Water Detail	2/14/2022 14:04	233.33	ft
GS-AP-MW-36H	Oxidation Reduction Potention	2/14/2022 14:04	-136.08	mv
GS-AP-MW-36H	pH	2/14/2022 14:04	8.05	SU
GS-AP-MW-36H	Temperature	2/14/2022 14:04	18.62	C
GS-AP-MW-36H	Turbidity	2/14/2022 14:04	1.04	NTU
GS-AP-MW-36H	Conductivity	2/14/2022 14:09	1038.69	uS/cm
GS-AP-MW-36H	DO	2/14/2022 14:09	1.08	mg/L
GS-AP-MW-36H	Depth to Water Detail	2/14/2022 14:09	233.84	ft
GS-AP-MW-36H	Oxidation Reduction Potention	2/14/2022 14:09	-134.56	mv
GS-AP-MW-36H	pH	2/14/2022 14:09	8.11	SU
GS-AP-MW-36H	Temperature	2/14/2022 14:09	18.72	C
GS-AP-MW-36H	Turbidity	2/14/2022 14:09	1.66	NTU
GS-AP-MW-36H	Conductivity	2/14/2022 14:14	1048.47	uS/cm
GS-AP-MW-36H	DO	2/14/2022 14:14	1.12	mg/L
GS-AP-MW-36H	Depth to Water Detail	2/14/2022 14:14	234.26	ft
GS-AP-MW-36H	Oxidation Reduction Potention	2/14/2022 14:14	-133.56	mv
GS-AP-MW-36H	pH	2/14/2022 14:14	8.15	SU
GS-AP-MW-36H	Temperature	2/14/2022 14:14	19.01	C
GS-AP-MW-36H	Turbidity	2/14/2022 14:14	2.02	NTU
GS-AP-MW-36H	Conductivity	2/14/2022 14:19	1055.14	uS/cm
GS-AP-MW-36H	DO	2/14/2022 14:19	0.98	mg/L
GS-AP-MW-36H	Depth to Water Detail	2/14/2022 14:19	234.75	ft
GS-AP-MW-36H	Oxidation Reduction Potention	2/14/2022 14:19	-134.43	mv
GS-AP-MW-36H	pH	2/14/2022 14:19	8.17	SU
GS-AP-MW-36H	Temperature	2/14/2022 14:19	18.75	C
GS-AP-MW-36H	Turbidity	2/14/2022 14:19	1.96	NTU
GS-AP-MW-36H	Conductivity	2/14/2022 14:24	1052.12	uS/cm
GS-AP-MW-36H	DO	2/14/2022 14:24	0.98	mg/L
GS-AP-MW-36H	Depth to Water Detail	2/14/2022 14:24	235.14	ft
GS-AP-MW-36H	Oxidation Reduction Potention	2/14/2022 14:24	-132.47	mv
GS-AP-MW-36H	pH	2/14/2022 14:24	8.14	SU
GS-AP-MW-36H	Temperature	2/14/2022 14:24	18.95	C
GS-AP-MW-36H	Turbidity	2/14/2022 14:24	1.84	NTU
GS-AP-MW-36H	Conductivity	2/14/2022 14:29	1055.82	uS/cm
GS-AP-MW-36H	DO	2/14/2022 14:29	0.98	mg/L
GS-AP-MW-36H	Depth to Water Detail	2/14/2022 14:29	235.43	ft
GS-AP-MW-36H	Oxidation Reduction Potention	2/14/2022 14:29	-135.38	mv
GS-AP-MW-36H	pH	2/14/2022 14:29	8.19	SU
GS-AP-MW-36H	Temperature	2/14/2022 14:29	18.94	C
GS-AP-MW-36H	Turbidity	2/14/2022 14:29	1.14	NTU
GS-AP-MW-36H	Conductivity	2/14/2022 14:34	1052.03	uS/cm
GS-AP-MW-36H	DO	2/14/2022 14:34	0.97	mg/L

**Groundwater Field Parameters  
Plant Gorgas Ash Pond**

WELL ID	DESCRIPTION	TIME OF READING	VALUE	UNIT
GS-AP-MW-36H	Depth to Water Detail	2/14/2022 14:34	235.82	ft
GS-AP-MW-36H	Oxidation Reduction Potention	2/14/2022 14:34	-134.82	mv
GS-AP-MW-36H	pH	2/14/2022 14:34	8.17	SU
GS-AP-MW-36H	Temperature	2/14/2022 14:34	18.79	C
GS-AP-MW-36H	Turbidity	2/14/2022 14:34	1.23	NTU
GS-AP-MW-36H	Conductivity	2/14/2022 14:39	1037.97	uS/cm
GS-AP-MW-36H	DO	2/14/2022 14:39	0.97	mg/L
GS-AP-MW-36H	Depth to Water Detail	2/14/2022 14:39	236.11	ft
GS-AP-MW-36H	Oxidation Reduction Potention	2/14/2022 14:39	-136.14	mv
GS-AP-MW-36H	pH	2/14/2022 14:39	8.19	SU
GS-AP-MW-36H	Temperature	2/14/2022 14:39	18.84	C
GS-AP-MW-36H	Turbidity	2/14/2022 14:39	0.92	NTU
GS-AP-MW-36H	Conductivity	2/14/2022 14:44	1033.89	uS/cm
GS-AP-MW-36H	DO	2/14/2022 14:44	0.92	mg/L
GS-AP-MW-36H	Depth to Water Detail	2/14/2022 14:44	236.3	ft
GS-AP-MW-36H	Oxidation Reduction Potention	2/14/2022 14:44	-135.56	mv
GS-AP-MW-36H	pH	2/14/2022 14:44	8.18	SU
GS-AP-MW-36H	Temperature	2/14/2022 14:44	18.83	C
GS-AP-MW-36H	Turbidity	2/14/2022 14:44	2.08	NTU
GS-AP-MW-36H	Conductivity	2/14/2022 14:49	1026.74	uS/cm
GS-AP-MW-36H	DO	2/14/2022 14:49	0.94	mg/L
GS-AP-MW-36H	Depth to Water Detail	2/14/2022 14:49	236.6	ft
GS-AP-MW-36H	Oxidation Reduction Potention	2/14/2022 14:49	-136.54	mv
GS-AP-MW-36H	pH	2/14/2022 14:49	8.2	SU
GS-AP-MW-36H	Temperature	2/14/2022 14:49	18.92	C
GS-AP-MW-36H	Turbidity	2/14/2022 14:49	2.6	NTU
GS-AP-MW-36H	Conductivity	2/14/2022 14:54	1014.68	uS/cm
GS-AP-MW-36H	DO	2/14/2022 14:54	0.9	mg/L



**Groundwater Field Parameters  
Plant Gorgas Ash Pond**

WELL ID	DESCRIPTION	TIME OF READING	VALUE	UNIT
GS-AP-MW-36H	Depth to Water Detail	2/14/2022 14:54	236.92	ft
GS-AP-MW-36H	Oxidation Reduction Potential	2/14/2022 14:54	-136.3	mv
GS-AP-MW-36H	pH	2/14/2022 14:54	8.2	SU
GS-AP-MW-36H	Temperature	2/14/2022 14:54	18.7	C
GS-AP-MW-36H	Turbidity	2/14/2022 14:54	3.21	NTU
GS-AP-MW-36H	Conductivity	2/14/2022 14:59	993.75	uS/cm
GS-AP-MW-36H	DO	2/14/2022 14:59	0.89	mg/L
GS-AP-MW-36H	Depth to Water Detail	2/14/2022 14:59	237.09	ft
GS-AP-MW-36H	Oxidation Reduction Potential	2/14/2022 14:59	-137.46	mv
GS-AP-MW-36H	pH	2/14/2022 14:59	8.21	SU
GS-AP-MW-36H	Temperature	2/14/2022 14:59	18.85	C
GS-AP-MW-36H	Turbidity	2/14/2022 14:59	2.88	NTU
GS-AP-MW-36H	Conductivity	2/14/2022 15:04	971.51	uS/cm
GS-AP-MW-36H	DO	2/14/2022 15:04	0.88	mg/L
GS-AP-MW-36H	Depth to Water Detail	2/14/2022 15:04	237.28	ft
GS-AP-MW-36H	Oxidation Reduction Potential	2/14/2022 15:04	-137.66	mv
GS-AP-MW-36H	pH	2/14/2022 15:04	8.22	SU
GS-AP-MW-36H	Temperature	2/14/2022 15:04	18.79	C
GS-AP-MW-36H	Turbidity	2/14/2022 15:04	2.07	NTU
GS-AP-MW-36H	Conductivity	2/14/2022 15:09	952.46	uS/cm
GS-AP-MW-36H	DO	2/14/2022 15:09	0.84	mg/L
GS-AP-MW-36H	Depth to Water Detail	2/14/2022 15:09	237.45	ft
GS-AP-MW-36H	Oxidation Reduction Potential	2/14/2022 15:09	-137.04	mv
GS-AP-MW-36H	pH	2/14/2022 15:09	8.2	SU
GS-AP-MW-36H	Temperature	2/14/2022 15:09	18.86	C
GS-AP-MW-36H	Turbidity	2/14/2022 15:09	1.86	NTU
GS-AP-MW-36H	Conductivity	2/14/2022 15:14	938.96	uS/cm
GS-AP-MW-36H	DO	2/14/2022 15:14	0.84	mg/L
GS-AP-MW-36H	Depth to Water Detail	2/14/2022 15:14	237.6	ft
GS-AP-MW-36H	Oxidation Reduction Potential	2/14/2022 15:14	-138.64	mv
GS-AP-MW-36H	pH	2/14/2022 15:14	8.23	SU
GS-AP-MW-36H	Temperature	2/14/2022 15:14	18.74	C
GS-AP-MW-36H	Turbidity	2/14/2022 15:14	1.91	NTU
GS-AP-MW-36H	Conductivity	2/14/2022 15:19	904.19	uS/cm
GS-AP-MW-36H	DO	2/14/2022 15:19	0.82	mg/L
GS-AP-MW-36H	Depth to Water Detail	2/14/2022 15:19	237.75	ft
GS-AP-MW-36H	Oxidation Reduction Potential	2/14/2022 15:19	-137.34	mv
GS-AP-MW-36H	pH	2/14/2022 15:19	8.21	SU
GS-AP-MW-36H	Temperature	2/14/2022 15:19	18.51	C
GS-AP-MW-36H	Turbidity	2/14/2022 15:19	2.01	NTU
GS-AP-MW-36H	Conductivity	2/14/2022 15:24	897.68	uS/cm
GS-AP-MW-36H	DO	2/14/2022 15:24	0.83	mg/L
GS-AP-MW-36H	Depth to Water Detail	2/14/2022 15:24	237.87	ft
GS-AP-MW-36H	Oxidation Reduction Potential	2/14/2022 15:24	-137.66	mv
GS-AP-MW-36H	pH	2/14/2022 15:24	8.22	SU
GS-AP-MW-36H	Temperature	2/14/2022 15:24	18.68	C
GS-AP-MW-36H	Turbidity	2/14/2022 15:24	2.2	NTU

**Groundwater Field Parameters  
Plant Gorgas Ash Pond**

WELL ID	DESCRIPTION	TIME OF READING	VALUE	UNIT
GS-AP-PZ-16	Conductivity	2/15/2022 10:20	656.05	uS/cm
GS-AP-PZ-16	DO	2/15/2022 10:20	1.04	mg/L
GS-AP-PZ-16	Depth to Water Detail	2/15/2022 10:20	173.24	ft
GS-AP-PZ-16	Oxidation Reduction Potention	2/15/2022 10:20	-57.74	mv
GS-AP-PZ-16	pH	2/15/2022 10:20	10.74	SU
GS-AP-PZ-16	Temperature	2/15/2022 10:20	16.81	C
GS-AP-PZ-16	Turbidity	2/15/2022 10:20	11.16	NTU
GS-AP-PZ-16	Conductivity	2/15/2022 10:25	657.25	uS/cm
GS-AP-PZ-16	DO	2/15/2022 10:25	1.28	mg/L
GS-AP-PZ-16	Depth to Water Detail	2/15/2022 10:25	173.24	ft
GS-AP-PZ-16	Oxidation Reduction Potention	2/15/2022 10:25	-76.44	mv
GS-AP-PZ-16	pH	2/15/2022 10:25	10.67	SU
GS-AP-PZ-16	Temperature	2/15/2022 10:25	17.46	C
GS-AP-PZ-16	Turbidity	2/15/2022 10:25	10.43	NTU
GS-AP-PZ-16	Conductivity	2/15/2022 10:30	644.69	uS/cm
GS-AP-PZ-16	DO	2/15/2022 10:30	1.99	mg/L
GS-AP-PZ-16	Depth to Water Detail	2/15/2022 10:30	173.24	ft
GS-AP-PZ-16	Oxidation Reduction Potention	2/15/2022 10:30	-89.43	mv
GS-AP-PZ-16	pH	2/15/2022 10:30	10.68	SU
GS-AP-PZ-16	Temperature	2/15/2022 10:30	17.13	C
GS-AP-PZ-16	Turbidity	2/15/2022 10:30	10.29	NTU
GS-AP-PZ-16	Conductivity	2/15/2022 10:35	624.82	uS/cm
GS-AP-PZ-16	DO	2/15/2022 10:35	0.84	mg/L
GS-AP-PZ-16	Depth to Water Detail	2/15/2022 10:35	173.24	ft
GS-AP-PZ-16	Oxidation Reduction Potention	2/15/2022 10:35	-92.43	mv
GS-AP-PZ-16	pH	2/15/2022 10:35	10.13	SU
GS-AP-PZ-16	Temperature	2/15/2022 10:35	16.82	C
GS-AP-PZ-16	Turbidity	2/15/2022 10:35	8.66	NTU
GS-AP-PZ-16	Conductivity	2/15/2022 10:40	624.24	uS/cm
GS-AP-PZ-16	DO	2/15/2022 10:40	0.63	mg/L
GS-AP-PZ-16	Depth to Water Detail	2/15/2022 10:40	173.24	ft
GS-AP-PZ-16	Oxidation Reduction Potention	2/15/2022 10:40	-97.26	mv
GS-AP-PZ-16	pH	2/15/2022 10:40	9.72	SU
GS-AP-PZ-16	Temperature	2/15/2022 10:40	16.85	C
GS-AP-PZ-16	Turbidity	2/15/2022 10:40	5.65	NTU
GS-AP-PZ-16	Conductivity	2/15/2022 10:45	622.03	uS/cm
GS-AP-PZ-16	DO	2/15/2022 10:45	0.56	mg/L
GS-AP-PZ-16	Depth to Water Detail	2/15/2022 10:45	173.24	ft
GS-AP-PZ-16	Oxidation Reduction Potention	2/15/2022 10:45	-104.27	mv
GS-AP-PZ-16	pH	2/15/2022 10:45	9.51	SU
GS-AP-PZ-16	Temperature	2/15/2022 10:45	16.93	C
GS-AP-PZ-16	Turbidity	2/15/2022 10:45	4.63	NTU
GS-AP-PZ-16	Conductivity	2/15/2022 10:50	615.85	uS/cm
GS-AP-PZ-16	DO	2/15/2022 10:50	0.5	mg/L
GS-AP-PZ-16	Depth to Water Detail	2/15/2022 10:50	173.24	ft
GS-AP-PZ-16	Oxidation Reduction Potention	2/15/2022 10:50	-109.98	mv
GS-AP-PZ-16	pH	2/15/2022 10:50	9.37	SU
GS-AP-PZ-16	Temperature	2/15/2022 10:50	16.86	C
GS-AP-PZ-16	Turbidity	2/15/2022 10:50	4.16	NTU
GS-AP-PZ-16	Conductivity	2/15/2022 10:55	612.66	uS/cm
GS-AP-PZ-16	DO	2/15/2022 10:55	0.78	mg/L
GS-AP-PZ-16	Depth to Water Detail	2/15/2022 10:55	173.24	ft
GS-AP-PZ-16	Oxidation Reduction Potention	2/15/2022 10:55	-115.51	mv
GS-AP-PZ-16	pH	2/15/2022 10:55	9.3	SU
GS-AP-PZ-16	Temperature	2/15/2022 10:55	16.89	C
GS-AP-PZ-16	Turbidity	2/15/2022 10:55	4.4	NTU
GS-AP-PZ-16	Conductivity	2/15/2022 11:00	609.18	uS/cm
GS-AP-PZ-16	DO	2/15/2022 11:00	0.87	mg/L

**Groundwater Field Parameters  
Plant Gorgas Ash Pond**

WELL ID	DESCRIPTION	TIME OF READING	VALUE	UNIT
GS-AP-PZ-16	Depth to Water Detail	2/15/2022 11:00	173.24	ft
GS-AP-PZ-16	Oxidation Reduction Potention	2/15/2022 11:00	-118.21	mv
GS-AP-PZ-16	pH	2/15/2022 11:00	9.28	SU
GS-AP-PZ-16	Temperature	2/15/2022 11:00	17.02	C
GS-AP-PZ-16	Turbidity	2/15/2022 11:00	3.83	NTU
GS-AP-PZ-16	Conductivity	2/15/2022 11:05	595.35	uS/cm
GS-AP-PZ-16	DO	2/15/2022 11:05	0.95	mg/L
GS-AP-PZ-16	Depth to Water Detail	2/15/2022 11:05	173.24	ft
GS-AP-PZ-16	Oxidation Reduction Potention	2/15/2022 11:05	-121.72	mv
GS-AP-PZ-16	pH	2/15/2022 11:05	9.34	SU
GS-AP-PZ-16	Temperature	2/15/2022 11:05	17.09	C
GS-AP-PZ-16	Turbidity	2/15/2022 11:05	3.18	NTU

**Groundwater Field Parameters  
Plant Gorgas Ash Pond**

WELL ID	DESCRIPTION	TIME OF READING	VALUE	UNIT
GS-AP-PZ-22	Conductivity	2/14/2022 10:03	726.32	uS/cm
GS-AP-PZ-22	DO	2/14/2022 10:03	0.51	mg/L
GS-AP-PZ-22	Depth to Water Detail	2/14/2022 10:03	242.88	ft
GS-AP-PZ-22	Oxidation Reduction Potention	2/14/2022 10:03	-192.62	mv
GS-AP-PZ-22	pH	2/14/2022 10:03	7.73	SU
GS-AP-PZ-22	Temperature	2/14/2022 10:03	16.94	C
GS-AP-PZ-22	Turbidity	2/14/2022 10:03	2.56	NTU
GS-AP-PZ-22	Conductivity	2/14/2022 10:08	727.6	uS/cm
GS-AP-PZ-22	DO	2/14/2022 10:08	0.44	mg/L
GS-AP-PZ-22	Depth to Water Detail	2/14/2022 10:08	242.88	ft
GS-AP-PZ-22	Oxidation Reduction Potention	2/14/2022 10:08	-168.06	mv
GS-AP-PZ-22	pH	2/14/2022 10:08	7.51	SU
GS-AP-PZ-22	Temperature	2/14/2022 10:08	16.93	C
GS-AP-PZ-22	Turbidity	2/14/2022 10:08	2.03	NTU
GS-AP-PZ-22	Conductivity	2/14/2022 10:13	723.55	uS/cm
GS-AP-PZ-22	DO	2/14/2022 10:13	0.39	mg/L
GS-AP-PZ-22	Depth to Water Detail	2/14/2022 10:13	242.88	ft
GS-AP-PZ-22	Oxidation Reduction Potention	2/14/2022 10:13	-158.8	mv
GS-AP-PZ-22	pH	2/14/2022 10:13	7.46	SU
GS-AP-PZ-22	Temperature	2/14/2022 10:13	17.09	C
GS-AP-PZ-22	Turbidity	2/14/2022 10:13	1.52	NTU
GS-AP-PZ-22	Conductivity	2/14/2022 10:18	714.25	uS/cm
GS-AP-PZ-22	DO	2/14/2022 10:18	0.36	mg/L
GS-AP-PZ-22	Depth to Water Detail	2/14/2022 10:18	242.88	ft
GS-AP-PZ-22	Oxidation Reduction Potention	2/14/2022 10:18	-150.77	mv
GS-AP-PZ-22	pH	2/14/2022 10:18	7.4	SU
GS-AP-PZ-22	Temperature	2/14/2022 10:18	17.01	C
GS-AP-PZ-22	Turbidity	2/14/2022 10:18	1.98	NTU

**Groundwater Field Parameters  
Plant Gorgas Ash Pond**

WELL ID	DESCRIPTION	TIME OF READING	VALUE	UNIT
GS-AP-MW-03V	Conductivity	2/23/2022 12:16	1902.53	uS/cm
GS-AP-MW-03V	DO	2/23/2022 12:16	1.95	mg/L
GS-AP-MW-03V	Depth to Water Detail	2/23/2022 12:16	153.14	ft
GS-AP-MW-03V	Oxidation Reduction Potention	2/23/2022 12:16	-100.48	mv
GS-AP-MW-03V	pH	2/23/2022 12:16	7.46	SU
GS-AP-MW-03V	Temperature	2/23/2022 12:16	16.26	C
GS-AP-MW-03V	Turbidity	2/23/2022 12:16	15.8	NTU
GS-AP-MW-03V	Conductivity	2/23/2022 12:21	1917.34	uS/cm
GS-AP-MW-03V	DO	2/23/2022 12:21	1.4	mg/L
GS-AP-MW-03V	Depth to Water Detail	2/23/2022 12:21	153.36	ft
GS-AP-MW-03V	Oxidation Reduction Potention	2/23/2022 12:21	-100.5	mv
GS-AP-MW-03V	pH	2/23/2022 12:21	7.45	SU
GS-AP-MW-03V	Temperature	2/23/2022 12:21	16.16	C
GS-AP-MW-03V	Turbidity	2/23/2022 12:21	13.4	NTU
GS-AP-MW-03V	Conductivity	2/23/2022 12:26	1920.31	uS/cm
GS-AP-MW-03V	DO	2/23/2022 12:26	1.26	mg/L
GS-AP-MW-03V	Depth to Water Detail	2/23/2022 12:26	153.6	ft
GS-AP-MW-03V	Oxidation Reduction Potention	2/23/2022 12:26	-98.67	mv
GS-AP-MW-03V	pH	2/23/2022 12:26	7.45	SU
GS-AP-MW-03V	Temperature	2/23/2022 12:26	16.2	C
GS-AP-MW-03V	Turbidity	2/23/2022 12:26	5.41	NTU
GS-AP-MW-03V	Conductivity	2/23/2022 12:31	1907.87	uS/cm
GS-AP-MW-03V	DO	2/23/2022 12:31	1.15	mg/L
GS-AP-MW-03V	Depth to Water Detail	2/23/2022 12:31	153.8	ft
GS-AP-MW-03V	Oxidation Reduction Potention	2/23/2022 12:31	-99.23	mv
GS-AP-MW-03V	pH	2/23/2022 12:31	7.45	SU
GS-AP-MW-03V	Temperature	2/23/2022 12:31	16.14	C
GS-AP-MW-03V	Turbidity	2/23/2022 12:31	3.96	NTU
GS-AP-MW-03V	Conductivity	2/23/2022 12:36	1872.58	uS/cm
GS-AP-MW-03V	DO	2/23/2022 12:36	1.09	mg/L
GS-AP-MW-03V	Depth to Water Detail	2/23/2022 12:36	153.96	ft
GS-AP-MW-03V	Oxidation Reduction Potention	2/23/2022 12:36	-103.67	mv
GS-AP-MW-03V	pH	2/23/2022 12:36	7.45	SU
GS-AP-MW-03V	Temperature	2/23/2022 12:36	16.12	C
GS-AP-MW-03V	Turbidity	2/23/2022 12:36	3.51	NTU
GS-AP-MW-03V	Conductivity	2/23/2022 12:41	1839.1	uS/cm
GS-AP-MW-03V	DO	2/23/2022 12:41	1.05	mg/L
GS-AP-MW-03V	Depth to Water Detail	2/23/2022 12:41	154.13	ft
GS-AP-MW-03V	Oxidation Reduction Potention	2/23/2022 12:41	-107.42	mv
GS-AP-MW-03V	pH	2/23/2022 12:41	7.45	SU
GS-AP-MW-03V	Temperature	2/23/2022 12:41	16.16	C
GS-AP-MW-03V	Turbidity	2/23/2022 12:41	2.66	NTU
GS-AP-MW-03V	Conductivity	2/23/2022 12:46	1813.51	uS/cm
GS-AP-MW-03V	DO	2/23/2022 12:46	1.02	mg/L
GS-AP-MW-03V	Depth to Water Detail	2/23/2022 12:46	154.25	ft
GS-AP-MW-03V	Oxidation Reduction Potention	2/23/2022 12:46	-109.3	mv
GS-AP-MW-03V	pH	2/23/2022 12:46	7.45	SU
GS-AP-MW-03V	Temperature	2/23/2022 12:46	16.16	C
GS-AP-MW-03V	Turbidity	2/23/2022 12:46	3.14	NTU

**Groundwater Field Parameters  
Plant Gorgas Ash Pond**

WELL ID	DESCRIPTION	TIME OF READING	VALUE	UNIT
GS-AP-MW-18R	Conductivity	2/22/2022 12:59	201.48	uS/cm
GS-AP-MW-18R	DO	2/22/2022 12:59	0.42	mg/L
GS-AP-MW-18R	Depth to Water Detail	2/22/2022 12:59	40.65	ft
GS-AP-MW-18R	Oxidation Reduction Potention	2/22/2022 12:59	-54.97	mv
GS-AP-MW-18R	pH	2/22/2022 12:59	6.36	SU
GS-AP-MW-18R	Temperature	2/22/2022 12:59	17.24	C
GS-AP-MW-18R	Turbidity	2/22/2022 12:59	57.9	NTU
GS-AP-MW-18R	Conductivity	2/22/2022 13:04	196.21	uS/cm
GS-AP-MW-18R	DO	2/22/2022 13:04	0.36	mg/L
GS-AP-MW-18R	Depth to Water Detail	2/22/2022 13:04	40.65	ft
GS-AP-MW-18R	Oxidation Reduction Potention	2/22/2022 13:04	-41.36	mv
GS-AP-MW-18R	pH	2/22/2022 13:04	6.23	SU
GS-AP-MW-18R	Temperature	2/22/2022 13:04	17.28	C
GS-AP-MW-18R	Turbidity	2/22/2022 13:04	15	NTU
GS-AP-MW-18R	Conductivity	2/22/2022 13:09	197.02	uS/cm
GS-AP-MW-18R	DO	2/22/2022 13:09	0.34	mg/L
GS-AP-MW-18R	Depth to Water Detail	2/22/2022 13:09	40.65	ft
GS-AP-MW-18R	Oxidation Reduction Potention	2/22/2022 13:09	-38.39	mv
GS-AP-MW-18R	pH	2/22/2022 13:09	6.24	SU
GS-AP-MW-18R	Temperature	2/22/2022 13:09	17.2	C
GS-AP-MW-18R	Turbidity	2/22/2022 13:09	11.5	NTU
GS-AP-MW-18R	Conductivity	2/22/2022 13:14	196.71	uS/cm
GS-AP-MW-18R	DO	2/22/2022 13:14	0.32	mg/L
GS-AP-MW-18R	Depth to Water Detail	2/22/2022 13:14	40.65	ft
GS-AP-MW-18R	Oxidation Reduction Potention	2/22/2022 13:14	-37.85	mv
GS-AP-MW-18R	pH	2/22/2022 13:14	6.26	SU
GS-AP-MW-18R	Temperature	2/22/2022 13:14	17.25	C
GS-AP-MW-18R	Turbidity	2/22/2022 13:14	10.83	NTU
GS-AP-MW-18R	Conductivity	2/22/2022 13:19	196.92	uS/cm
GS-AP-MW-18R	DO	2/22/2022 13:19	0.31	mg/L
GS-AP-MW-18R	Depth to Water Detail	2/22/2022 13:19	40.65	ft
GS-AP-MW-18R	Oxidation Reduction Potention	2/22/2022 13:19	-35.52	mv
GS-AP-MW-18R	pH	2/22/2022 13:19	6.23	SU
GS-AP-MW-18R	Temperature	2/22/2022 13:19	17.3	C
GS-AP-MW-18R	Turbidity	2/22/2022 13:19	8.97	NTU
GS-AP-MW-18R	Conductivity	2/22/2022 13:24	197.38	uS/cm
GS-AP-MW-18R	DO	2/22/2022 13:24	0.3	mg/L
GS-AP-MW-18R	Depth to Water Detail	2/22/2022 13:24	40.65	ft
GS-AP-MW-18R	Oxidation Reduction Potention	2/22/2022 13:24	-37.35	mv
GS-AP-MW-18R	pH	2/22/2022 13:24	6.28	SU
GS-AP-MW-18R	Temperature	2/22/2022 13:24	17.3	C
GS-AP-MW-18R	Turbidity	2/22/2022 13:24	7.48	NTU
GS-AP-MW-18R	Conductivity	2/22/2022 13:29	196.93	uS/cm
GS-AP-MW-18R	DO	2/22/2022 13:29	0.31	mg/L
GS-AP-MW-18R	Depth to Water Detail	2/22/2022 13:29	40.65	ft
GS-AP-MW-18R	Oxidation Reduction Potention	2/22/2022 13:29	-37.78	mv
GS-AP-MW-18R	pH	2/22/2022 13:29	6.3	SU
GS-AP-MW-18R	Temperature	2/22/2022 13:29	17.31	C
GS-AP-MW-18R	Turbidity	2/22/2022 13:29	6.52	NTU
GS-AP-MW-18R	Conductivity	2/22/2022 13:34	197.08	uS/cm
GS-AP-MW-18R	DO	2/22/2022 13:34	0.3	mg/L
GS-AP-MW-18R	Depth to Water Detail	2/22/2022 13:34	40.65	ft
GS-AP-MW-18R	Oxidation Reduction Potention	2/22/2022 13:34	-35.19	mv
GS-AP-MW-18R	pH	2/22/2022 13:34	6.25	SU
GS-AP-MW-18R	Temperature	2/22/2022 13:34	17.3	C
GS-AP-MW-18R	Turbidity	2/22/2022 13:34	5.46	NTU
GS-AP-MW-18R	Conductivity	2/22/2022 13:39	198.06	uS/cm
GS-AP-MW-18R	DO	2/22/2022 13:39	0.29	mg/L



**Groundwater Field Parameters  
Plant Gorgas Ash Pond**

<b>WELL ID</b>	<b>DESCRIPTION</b>	<b>TIME OF READING</b>	<b>VALUE</b>	<b>UNIT</b>
GS-AP-MW-18R	Depth to Water Detail	2/22/2022 13:39	40.65	ft
GS-AP-MW-18R	Oxidation Reduction Potention	2/22/2022 13:39	-36.96	mv
GS-AP-MW-18R	pH	2/22/2022 13:39	6.29	SU
GS-AP-MW-18R	Temperature	2/22/2022 13:39	17.31	C
GS-AP-MW-18R	Turbidity	2/22/2022 13:39	4.74	NTU

**Groundwater Field Parameters  
Plant Gorgas Ash Pond**

WELL ID	DESCRIPTION	TIME OF READING	VALUE	UNIT
GS-AP-MW-18VR	Conductivity	2/22/2022 14:37	539.46	uS/cm
GS-AP-MW-18VR	DO	2/22/2022 14:37	0.7	mg/L
GS-AP-MW-18VR	Depth to Water Detail	2/22/2022 14:37	169.3	ft
GS-AP-MW-18VR	Oxidation Reduction Potential	2/22/2022 14:37	-123.49	mv
GS-AP-MW-18VR	pH	2/22/2022 14:37	7.37	SU
GS-AP-MW-18VR	Temperature	2/22/2022 14:37	17.55	C
GS-AP-MW-18VR	Turbidity	2/22/2022 14:37	5.39	NTU
GS-AP-MW-18VR	Conductivity	2/22/2022 14:42	515.76	uS/cm
GS-AP-MW-18VR	DO	2/22/2022 14:42	0.48	mg/L
GS-AP-MW-18VR	Depth to Water Detail	2/22/2022 14:42	169.38	ft
GS-AP-MW-18VR	Oxidation Reduction Potential	2/22/2022 14:42	-146.42	mv
GS-AP-MW-18VR	pH	2/22/2022 14:42	7.53	SU
GS-AP-MW-18VR	Temperature	2/22/2022 14:42	17.47	C
GS-AP-MW-18VR	Turbidity	2/22/2022 14:42	2.8	NTU
GS-AP-MW-18VR	Conductivity	2/22/2022 14:47	547.14	uS/cm
GS-AP-MW-18VR	DO	2/22/2022 14:47	0.49	mg/L
GS-AP-MW-18VR	Depth to Water Detail	2/22/2022 14:47	169.38	ft
GS-AP-MW-18VR	Oxidation Reduction Potential	2/22/2022 14:47	-152.96	mv
GS-AP-MW-18VR	pH	2/22/2022 14:47	7.63	SU
GS-AP-MW-18VR	Temperature	2/22/2022 14:47	17.58	C
GS-AP-MW-18VR	Turbidity	2/22/2022 14:47	3.02	NTU
GS-AP-MW-18VR	Conductivity	2/22/2022 14:52	498.35	uS/cm
GS-AP-MW-18VR	DO	2/22/2022 14:52	0.39	mg/L
GS-AP-MW-18VR	Depth to Water Detail	2/22/2022 14:52	169.38	ft
GS-AP-MW-18VR	Oxidation Reduction Potential	2/22/2022 14:52	-163.52	mv
GS-AP-MW-18VR	pH	2/22/2022 14:52	7.7	SU
GS-AP-MW-18VR	Temperature	2/22/2022 14:52	17.58	C
GS-AP-MW-18VR	Turbidity	2/22/2022 14:52	3.25	NTU
GS-AP-MW-18VR	Conductivity	2/22/2022 14:57	491.71	uS/cm
GS-AP-MW-18VR	DO	2/22/2022 14:57	0.43	mg/L
GS-AP-MW-18VR	Depth to Water Detail	2/22/2022 14:57	169.38	ft
GS-AP-MW-18VR	Oxidation Reduction Potential	2/22/2022 14:57	-165.49	mv
GS-AP-MW-18VR	pH	2/22/2022 14:57	7.73	SU
GS-AP-MW-18VR	Temperature	2/22/2022 14:57	17.45	C
GS-AP-MW-18VR	Turbidity	2/22/2022 14:57	3.29	NTU
GS-AP-MW-18VR	Conductivity	2/22/2022 15:02	473.33	uS/cm
GS-AP-MW-18VR	DO	2/22/2022 15:02	0.59	mg/L
GS-AP-MW-18VR	Depth to Water Detail	2/22/2022 15:02	169.38	ft
GS-AP-MW-18VR	Oxidation Reduction Potential	2/22/2022 15:02	-163.23	mv
GS-AP-MW-18VR	pH	2/22/2022 15:02	7.83	SU
GS-AP-MW-18VR	Temperature	2/22/2022 15:02	17.46	C
GS-AP-MW-18VR	Turbidity	2/22/2022 15:02	3.18	NTU
GS-AP-MW-18VR	Conductivity	2/22/2022 15:07	478.09	uS/cm
GS-AP-MW-18VR	DO	2/22/2022 15:07	0.66	mg/L
GS-AP-MW-18VR	Depth to Water Detail	2/22/2022 15:07	169.38	ft
GS-AP-MW-18VR	Oxidation Reduction Potential	2/22/2022 15:07	-164.68	mv
GS-AP-MW-18VR	pH	2/22/2022 15:07	7.92	SU
GS-AP-MW-18VR	Temperature	2/22/2022 15:07	17.52	C
GS-AP-MW-18VR	Turbidity	2/22/2022 15:07	3.1	NTU
GS-AP-MW-18VR	Conductivity	2/22/2022 15:12	482.09	uS/cm
GS-AP-MW-18VR	DO	2/22/2022 15:12	0.71	mg/L
GS-AP-MW-18VR	Depth to Water Detail	2/22/2022 15:12	169.38	ft
GS-AP-MW-18VR	Oxidation Reduction Potential	2/22/2022 15:12	-164.83	mv
GS-AP-MW-18VR	pH	2/22/2022 15:12	7.88	SU
GS-AP-MW-18VR	Temperature	2/22/2022 15:12	17.35	C
GS-AP-MW-18VR	Turbidity	2/22/2022 15:12	3.16	NTU

**Groundwater Field Parameters  
Plant Gorgas Ash Pond**

WELL ID	DESCRIPTION	TIME OF READING	VALUE	UNIT
GS-AP-MW-27HR	Conductivity	2/22/2022 11:00	4081.38	uS/cm
GS-AP-MW-27HR	DO	2/22/2022 11:00	0.24	mg/L
GS-AP-MW-27HR	Depth to Water Detail	2/22/2022 11:00	170.84	ft
GS-AP-MW-27HR	Oxidation Reduction Potential	2/22/2022 11:00	-165.44	mv
GS-AP-MW-27HR	pH	2/22/2022 11:00	7.43	SU
GS-AP-MW-27HR	Temperature	2/22/2022 11:00	17.04	C
GS-AP-MW-27HR	Turbidity	2/22/2022 11:00	3.27	NTU
GS-AP-MW-27HR	Conductivity	2/22/2022 11:05	1398.65	uS/cm
GS-AP-MW-27HR	DO	2/22/2022 11:05	0.27	mg/L
GS-AP-MW-27HR	Depth to Water Detail	2/22/2022 11:05	174.18	ft
GS-AP-MW-27HR	Oxidation Reduction Potential	2/22/2022 11:05	-176.79	mv
GS-AP-MW-27HR	pH	2/22/2022 11:05	7.8	SU
GS-AP-MW-27HR	Temperature	2/22/2022 11:05	16.97	C
GS-AP-MW-27HR	Turbidity	2/22/2022 11:05	3.25	NTU
GS-AP-MW-27HR	Conductivity	2/22/2022 11:10	1534.83	uS/cm
GS-AP-MW-27HR	DO	2/22/2022 11:10	0.26	mg/L
GS-AP-MW-27HR	Depth to Water Detail	2/22/2022 11:10	176.98	ft
GS-AP-MW-27HR	Oxidation Reduction Potential	2/22/2022 11:10	-174.9	mv
GS-AP-MW-27HR	pH	2/22/2022 11:10	7.79	SU
GS-AP-MW-27HR	Temperature	2/22/2022 11:10	17.04	C
GS-AP-MW-27HR	Turbidity	2/22/2022 11:10	2.81	NTU
GS-AP-MW-27HR	Conductivity	2/22/2022 11:15	1729.73	uS/cm
GS-AP-MW-27HR	DO	2/22/2022 11:15	0.24	mg/L
GS-AP-MW-27HR	Depth to Water Detail	2/22/2022 11:15	180.1	ft
GS-AP-MW-27HR	Oxidation Reduction Potential	2/22/2022 11:15	-176.07	mv
GS-AP-MW-27HR	pH	2/22/2022 11:15	7.75	SU
GS-AP-MW-27HR	Temperature	2/22/2022 11:15	17.03	C
GS-AP-MW-27HR	Turbidity	2/22/2022 11:15	2.55	NTU
GS-AP-MW-27HR	Conductivity	2/22/2022 11:20	1816.53	uS/cm
GS-AP-MW-27HR	DO	2/22/2022 11:20	0.21	mg/L
GS-AP-MW-27HR	Depth to Water Detail	2/22/2022 11:20	183.03	ft
GS-AP-MW-27HR	Oxidation Reduction Potential	2/22/2022 11:20	-180.93	mv
GS-AP-MW-27HR	pH	2/22/2022 11:20	7.76	SU
GS-AP-MW-27HR	Temperature	2/22/2022 11:20	17.04	C
GS-AP-MW-27HR	Turbidity	2/22/2022 11:20	2.27	NTU
GS-AP-MW-27HR	Conductivity	2/22/2022 11:25	1806.17	uS/cm
GS-AP-MW-27HR	DO	2/22/2022 11:25	0.24	mg/L
GS-AP-MW-27HR	Depth to Water Detail	2/22/2022 11:25	185.02	ft
GS-AP-MW-27HR	Oxidation Reduction Potential	2/22/2022 11:25	-184.59	mv
GS-AP-MW-27HR	pH	2/22/2022 11:25	7.77	SU
GS-AP-MW-27HR	Temperature	2/22/2022 11:25	17.06	C
GS-AP-MW-27HR	Turbidity	2/22/2022 11:25	2.24	NTU
GS-AP-MW-27HR	Conductivity	2/22/2022 11:30	1785.51	uS/cm
GS-AP-MW-27HR	DO	2/22/2022 11:30	0.26	mg/L
GS-AP-MW-27HR	Depth to Water Detail	2/22/2022 11:30	186.03	ft
GS-AP-MW-27HR	Oxidation Reduction Potential	2/22/2022 11:30	-188.04	mv
GS-AP-MW-27HR	pH	2/22/2022 11:30	7.78	SU
GS-AP-MW-27HR	Temperature	2/22/2022 11:30	17.07	C
GS-AP-MW-27HR	Turbidity	2/22/2022 11:30	1.98	NTU
GS-AP-MW-27HR	Conductivity	2/22/2022 11:35	1876.47	uS/cm
GS-AP-MW-27HR	DO	2/22/2022 11:35	0.32	mg/L
GS-AP-MW-27HR	Depth to Water Detail	2/22/2022 11:35	186.93	ft
GS-AP-MW-27HR	Oxidation Reduction Potential	2/22/2022 11:35	-190.15	mv
GS-AP-MW-27HR	pH	2/22/2022 11:35	7.78	SU
GS-AP-MW-27HR	Temperature	2/22/2022 11:35	17.1	C
GS-AP-MW-27HR	Turbidity	2/22/2022 11:35	2.08	NTU
GS-AP-MW-27HR	Conductivity	2/22/2022 11:40	2038.13	uS/cm
GS-AP-MW-27HR	DO	2/22/2022 11:40	0.34	mg/L

**Groundwater Field Parameters  
Plant Gorgas Ash Pond**

WELL ID	DESCRIPTION	TIME OF READING	VALUE	UNIT
GS-AP-MW-27HR	Depth to Water Detail	2/22/2022 11:40	187.12	ft
GS-AP-MW-27HR	Oxidation Reduction Potention	2/22/2022 11:40	-192.15	mv
GS-AP-MW-27HR	pH	2/22/2022 11:40	7.76	SU
GS-AP-MW-27HR	Temperature	2/22/2022 11:40	17.15	C
GS-AP-MW-27HR	Turbidity	2/22/2022 11:40	2.36	NTU
GS-AP-MW-27HR	Conductivity	2/22/2022 11:45	2128.95	uS/cm
GS-AP-MW-27HR	DO	2/22/2022 11:45	0.32	mg/L
GS-AP-MW-27HR	Depth to Water Detail	2/22/2022 11:45	187.31	ft
GS-AP-MW-27HR	Oxidation Reduction Potention	2/22/2022 11:45	-197.67	mv
GS-AP-MW-27HR	pH	2/22/2022 11:45	7.78	SU
GS-AP-MW-27HR	Temperature	2/22/2022 11:45	17.12	C
GS-AP-MW-27HR	Turbidity	2/22/2022 11:45	2.12	NTU
GS-AP-MW-27HR	Conductivity	2/22/2022 11:50	2265.86	uS/cm
GS-AP-MW-27HR	DO	2/22/2022 11:50	0.33	mg/L
GS-AP-MW-27HR	Depth to Water Detail	2/22/2022 11:50	187.46	ft
GS-AP-MW-27HR	Oxidation Reduction Potention	2/22/2022 11:50	-201.63	mv
GS-AP-MW-27HR	pH	2/22/2022 11:50	7.77	SU
GS-AP-MW-27HR	Temperature	2/22/2022 11:50	17.07	C
GS-AP-MW-27HR	Turbidity	2/22/2022 11:50	2	NTU
GS-AP-MW-27HR	Conductivity	2/22/2022 11:55	2268.3	uS/cm
GS-AP-MW-27HR	DO	2/22/2022 11:55	0.31	mg/L
GS-AP-MW-27HR	Depth to Water Detail	2/22/2022 11:55	187.6	ft
GS-AP-MW-27HR	Oxidation Reduction Potention	2/22/2022 11:55	-206.84	mv
GS-AP-MW-27HR	pH	2/22/2022 11:55	7.8	SU
GS-AP-MW-27HR	Temperature	2/22/2022 11:55	17.14	C
GS-AP-MW-27HR	Turbidity	2/22/2022 11:55	2.14	NTU
GS-AP-MW-27HR	Conductivity	2/22/2022 12:00	2186.31	uS/cm
GS-AP-MW-27HR	DO	2/22/2022 12:00	0.29	mg/L
GS-AP-MW-27HR	Depth to Water Detail	2/22/2022 12:00	187.73	ft
GS-AP-MW-27HR	Oxidation Reduction Potention	2/22/2022 12:00	-210.32	mv
GS-AP-MW-27HR	pH	2/22/2022 12:00	7.83	SU
GS-AP-MW-27HR	Temperature	2/22/2022 12:00	17.13	C
GS-AP-MW-27HR	Turbidity	2/22/2022 12:00	2.34	NTU

**Groundwater Field Parameters  
Plant Gorgas Ash Pond**

WELL ID	DESCRIPTION	TIME OF READING	VALUE	UNIT
GS-AP-MW-36V	Conductivity	2/22/2022 8:33	2415.74	uS/cm
GS-AP-MW-36V	DO	2/22/2022 8:33	0.66	mg/L
GS-AP-MW-36V	Depth to Water Detail	2/22/2022 8:33	250.92	ft
GS-AP-MW-36V	Oxidation Reduction Potention	2/22/2022 8:33	-54.99	mv
GS-AP-MW-36V	pH	2/22/2022 8:33	7.36	SU
GS-AP-MW-36V	Temperature	2/22/2022 8:33	17.24	C
GS-AP-MW-36V	Turbidity	2/22/2022 8:33	4.05	NTU
GS-AP-MW-36V	Conductivity	2/22/2022 8:38	2414.52	uS/cm
GS-AP-MW-36V	DO	2/22/2022 8:38	0.48	mg/L
GS-AP-MW-36V	Depth to Water Detail	2/22/2022 8:38	254.84	ft
GS-AP-MW-36V	Oxidation Reduction Potention	2/22/2022 8:38	-72.45	mv
GS-AP-MW-36V	pH	2/22/2022 8:38	7.34	SU
GS-AP-MW-36V	Temperature	2/22/2022 8:38	17.22	C
GS-AP-MW-36V	Turbidity	2/22/2022 8:38	2.97	NTU
GS-AP-MW-36V	Conductivity	2/22/2022 8:43	2393.2	uS/cm
GS-AP-MW-36V	DO	2/22/2022 8:43	0.4	mg/L
GS-AP-MW-36V	Depth to Water Detail	2/22/2022 8:43	258.3	ft
GS-AP-MW-36V	Oxidation Reduction Potention	2/22/2022 8:43	-82.53	mv
GS-AP-MW-36V	pH	2/22/2022 8:43	7.37	SU
GS-AP-MW-36V	Temperature	2/22/2022 8:43	17.26	C
GS-AP-MW-36V	Turbidity	2/22/2022 8:43	2.55	NTU
GS-AP-MW-36V	Conductivity	2/22/2022 8:48	2345.61	uS/cm
GS-AP-MW-36V	DO	2/22/2022 8:48	0.43	mg/L
GS-AP-MW-36V	Depth to Water Detail	2/22/2022 8:48	262.38	ft
GS-AP-MW-36V	Oxidation Reduction Potention	2/22/2022 8:48	-88.13	mv
GS-AP-MW-36V	pH	2/22/2022 8:48	7.36	SU
GS-AP-MW-36V	Temperature	2/22/2022 8:48	17.25	C
GS-AP-MW-36V	Turbidity	2/22/2022 8:48	2.34	NTU
GS-AP-MW-36V	Conductivity	2/22/2022 8:53	2308.2	uS/cm
GS-AP-MW-36V	DO	2/22/2022 8:53	0.35	mg/L
GS-AP-MW-36V	Depth to Water Detail	2/22/2022 8:53	265.44	ft
GS-AP-MW-36V	Oxidation Reduction Potention	2/22/2022 8:53	-97.18	mv
GS-AP-MW-36V	pH	2/22/2022 8:53	7.38	SU
GS-AP-MW-36V	Temperature	2/22/2022 8:53	17.27	C
GS-AP-MW-36V	Turbidity	2/22/2022 8:53	3.85	NTU
GS-AP-MW-36V	Conductivity	2/22/2022 8:58	2201.22	uS/cm
GS-AP-MW-36V	DO	2/22/2022 8:58	0.29	mg/L
GS-AP-MW-36V	Depth to Water Detail	2/22/2022 8:58	269.42	ft
GS-AP-MW-36V	Oxidation Reduction Potention	2/22/2022 8:58	-104.82	mv
GS-AP-MW-36V	pH	2/22/2022 8:58	7.38	SU
GS-AP-MW-36V	Temperature	2/22/2022 8:58	17.26	C
GS-AP-MW-36V	Turbidity	2/22/2022 8:58	3.44	NTU
GS-AP-MW-36V	Conductivity	2/22/2022 9:03	1975	uS/cm
GS-AP-MW-36V	DO	2/22/2022 9:03	0.27	mg/L
GS-AP-MW-36V	Depth to Water Detail	2/22/2022 9:03	272.66	ft
GS-AP-MW-36V	Oxidation Reduction Potention	2/22/2022 9:03	-110.94	mv
GS-AP-MW-36V	pH	2/22/2022 9:03	7.39	SU
GS-AP-MW-36V	Temperature	2/22/2022 9:03	17.27	C
GS-AP-MW-36V	Turbidity	2/22/2022 9:03	3.21	NTU
GS-AP-MW-36V	Conductivity	2/22/2022 9:08	1690.7	uS/cm
GS-AP-MW-36V	DO	2/22/2022 9:08	0.25	mg/L
GS-AP-MW-36V	Depth to Water Detail	2/22/2022 9:08	276.22	ft
GS-AP-MW-36V	Oxidation Reduction Potention	2/22/2022 9:08	-118	mv
GS-AP-MW-36V	pH	2/22/2022 9:08	7.39	SU
GS-AP-MW-36V	Temperature	2/22/2022 9:08	17.27	C
GS-AP-MW-36V	Turbidity	2/22/2022 9:08	2.91	NTU
GS-AP-MW-36V	Conductivity	2/22/2022 9:13	1622.98	uS/cm
GS-AP-MW-36V	DO	2/22/2022 9:13	0.23	mg/L

**Groundwater Field Parameters  
Plant Gorgas Ash Pond**

WELL ID	DESCRIPTION	TIME OF READING	VALUE	UNIT
GS-AP-MW-36V	Depth to Water Detail	2/22/2022 9:13	279.31	ft
GS-AP-MW-36V	Oxidation Reduction Potential	2/22/2022 9:13	-123.42	mv
GS-AP-MW-36V	pH	2/22/2022 9:13	7.37	SU
GS-AP-MW-36V	Temperature	2/22/2022 9:13	17.27	C
GS-AP-MW-36V	Turbidity	2/22/2022 9:13	2.95	NTU
GS-AP-MW-36V	Conductivity	2/22/2022 9:18	1529.3	uS/cm
GS-AP-MW-36V	DO	2/22/2022 9:18	0.23	mg/L
GS-AP-MW-36V	Depth to Water Detail	2/22/2022 9:18	282.44	ft
GS-AP-MW-36V	Oxidation Reduction Potential	2/22/2022 9:18	-129.86	mv
GS-AP-MW-36V	pH	2/22/2022 9:18	7.39	SU
GS-AP-MW-36V	Temperature	2/22/2022 9:18	17.27	C
GS-AP-MW-36V	Turbidity	2/22/2022 9:18	2.36	NTU
GS-AP-MW-36V	Conductivity	2/22/2022 9:23	1475.38	uS/cm
GS-AP-MW-36V	DO	2/22/2022 9:23	0.27	mg/L
GS-AP-MW-36V	Depth to Water Detail	2/22/2022 9:23	285.86	ft
GS-AP-MW-36V	Oxidation Reduction Potential	2/22/2022 9:23	-131.54	mv
GS-AP-MW-36V	pH	2/22/2022 9:23	7.35	SU
GS-AP-MW-36V	Temperature	2/22/2022 9:23	17.26	C
GS-AP-MW-36V	Turbidity	2/22/2022 9:23	1.54	NTU
GS-AP-MW-36V	Conductivity	2/22/2022 9:28	1439.37	uS/cm
GS-AP-MW-36V	DO	2/22/2022 9:28	0.42	mg/L
GS-AP-MW-36V	Depth to Water Detail	2/22/2022 9:28	285.02	ft
GS-AP-MW-36V	Oxidation Reduction Potential	2/22/2022 9:28	-133.39	mv
GS-AP-MW-36V	pH	2/22/2022 9:28	7.39	SU
GS-AP-MW-36V	Temperature	2/22/2022 9:28	17.17	C
GS-AP-MW-36V	Turbidity	2/22/2022 9:28	2.55	NTU
GS-AP-MW-36V	Conductivity	2/22/2022 9:33	1419.3	uS/cm
GS-AP-MW-36V	DO	2/22/2022 9:33	0.57	mg/L
GS-AP-MW-36V	Depth to Water Detail	2/22/2022 9:33	284.84	ft
GS-AP-MW-36V	Oxidation Reduction Potential	2/22/2022 9:33	-131.3	mv
GS-AP-MW-36V	pH	2/22/2022 9:33	7.38	SU
GS-AP-MW-36V	Temperature	2/22/2022 9:33	17.11	C
GS-AP-MW-36V	Turbidity	2/22/2022 9:33	2.44	NTU
GS-AP-MW-36V	Conductivity	2/22/2022 9:38	1377.29	uS/cm
GS-AP-MW-36V	DO	2/22/2022 9:38	0.58	mg/L
GS-AP-MW-36V	Depth to Water Detail	2/22/2022 9:38	284.68	ft
GS-AP-MW-36V	Oxidation Reduction Potential	2/22/2022 9:38	-133.41	mv
GS-AP-MW-36V	pH	2/22/2022 9:38	7.37	SU
GS-AP-MW-36V	Temperature	2/22/2022 9:38	17.2	C
GS-AP-MW-36V	Turbidity	2/22/2022 9:38	2.25	NTU
GS-AP-MW-36V	Conductivity	2/22/2022 9:43	1255.1	uS/cm
GS-AP-MW-36V	DO	2/22/2022 9:43	0.59	mg/L
GS-AP-MW-36V	Depth to Water Detail	2/22/2022 9:43	284.44	ft
GS-AP-MW-36V	Oxidation Reduction Potential	2/22/2022 9:43	-133.59	mv
GS-AP-MW-36V	pH	2/22/2022 9:43	7.34	SU
GS-AP-MW-36V	Temperature	2/22/2022 9:43	17.16	C
GS-AP-MW-36V	Turbidity	2/22/2022 9:43	2.16	NTU
GS-AP-MW-36V	Conductivity	2/22/2022 9:48	922.95	uS/cm
GS-AP-MW-36V	DO	2/22/2022 9:48	0.56	mg/L
GS-AP-MW-36V	Depth to Water Detail	2/22/2022 9:48	284.28	ft
GS-AP-MW-36V	Oxidation Reduction Potential	2/22/2022 9:48	-143.97	mv
GS-AP-MW-36V	pH	2/22/2022 9:48	7.4	SU
GS-AP-MW-36V	Temperature	2/22/2022 9:48	17.22	C
GS-AP-MW-36V	Turbidity	2/22/2022 9:48	2.65	NTU
GS-AP-MW-36V	Conductivity	2/22/2022 9:53	833.94	uS/cm
GS-AP-MW-36V	DO	2/22/2022 9:53	0.56	mg/L
GS-AP-MW-36V	Depth to Water Detail	2/22/2022 9:53	284.22	ft
GS-AP-MW-36V	Oxidation Reduction Potential	2/22/2022 9:53	-142.65	mv



**Groundwater Field Parameters  
Plant Gorgas Ash Pond**

<b>WELL ID</b>	<b>DESCRIPTION</b>	<b>TIME OF READING</b>	<b>VALUE</b>	<b>UNIT</b>
GS-AP-MW-36V	pH	2/22/2022 9:53	7.35	SU
GS-AP-MW-36V	Temperature	2/22/2022 9:53	17.2	C
GS-AP-MW-36V	Turbidity	2/22/2022 9:53	2.22	NTU
GS-AP-MW-36V	Conductivity	2/22/2022 9:58	804.5	uS/cm
GS-AP-MW-36V	DO	2/22/2022 9:58	0.65	mg/L
GS-AP-MW-36V	Depth to Water Detail	2/22/2022 9:58	284.13	ft
GS-AP-MW-36V	Oxidation Reduction Potential	2/22/2022 9:58	-142.81	mv
GS-AP-MW-36V	pH	2/22/2022 9:58	7.37	SU
GS-AP-MW-36V	Temperature	2/22/2022 9:58	17.25	C
GS-AP-MW-36V	Turbidity	2/22/2022 9:58	2.03	NTU
GS-AP-MW-36V	Conductivity	2/22/2022 10:03	812.78	uS/cm
GS-AP-MW-36V	DO	2/22/2022 10:03	0.69	mg/L
GS-AP-MW-36V	Depth to Water Detail	2/22/2022 10:03	284.07	ft
GS-AP-MW-36V	Oxidation Reduction Potential	2/22/2022 10:03	-139.53	mv
GS-AP-MW-36V	pH	2/22/2022 10:03	7.35	SU
GS-AP-MW-36V	Temperature	2/22/2022 10:03	17.26	C
GS-AP-MW-36V	Turbidity	2/22/2022 10:03	2.6	NTU

**Groundwater Field Parameters  
Plant Gorgas Ash Pond**

WELL ID	DESCRIPTION	TIME OF READING	VALUE	UNIT
GS-AP-MW-43H	Conductivity	2/21/2022 11:15	1357.77	uS/cm
GS-AP-MW-43H	DO	2/21/2022 11:15	1.87	mg/L
GS-AP-MW-43H	Depth to Water Detail	2/21/2022 11:15	151.27	ft
GS-AP-MW-43H	Oxidation Reduction Potention	2/21/2022 11:15	-265.67	mv
GS-AP-MW-43H	pH	2/21/2022 11:15	8.53	SU
GS-AP-MW-43H	Temperature	2/21/2022 11:15	13.48	C
GS-AP-MW-43H	Turbidity	2/21/2022 11:15	6.63	NTU
GS-AP-MW-43H	Conductivity	2/21/2022 11:20	1396.26	uS/cm
GS-AP-MW-43H	DO	2/21/2022 11:20	1.7	mg/L
GS-AP-MW-43H	Depth to Water Detail	2/21/2022 11:20	151.43	ft
GS-AP-MW-43H	Oxidation Reduction Potention	2/21/2022 11:20	-270.83	mv
GS-AP-MW-43H	pH	2/21/2022 11:20	8.54	SU
GS-AP-MW-43H	Temperature	2/21/2022 11:20	13.28	C
GS-AP-MW-43H	Turbidity	2/21/2022 11:20	7.23	NTU
GS-AP-MW-43H	Conductivity	2/21/2022 11:25	1408.36	uS/cm
GS-AP-MW-43H	DO	2/21/2022 11:25	1.5	mg/L
GS-AP-MW-43H	Depth to Water Detail	2/21/2022 11:25	151.49	ft
GS-AP-MW-43H	Oxidation Reduction Potention	2/21/2022 11:25	-275.04	mv
GS-AP-MW-43H	pH	2/21/2022 11:25	8.55	SU
GS-AP-MW-43H	Temperature	2/21/2022 11:25	13.09	C
GS-AP-MW-43H	Turbidity	2/21/2022 11:25	6.13	NTU
GS-AP-MW-43H	Conductivity	2/21/2022 11:30	1415.51	uS/cm
GS-AP-MW-43H	DO	2/21/2022 11:30	1.37	mg/L
GS-AP-MW-43H	Depth to Water Detail	2/21/2022 11:30	151.57	ft
GS-AP-MW-43H	Oxidation Reduction Potention	2/21/2022 11:30	-277.93	mv
GS-AP-MW-43H	pH	2/21/2022 11:30	8.55	SU
GS-AP-MW-43H	Temperature	2/21/2022 11:30	13.24	C
GS-AP-MW-43H	Turbidity	2/21/2022 11:30	5.68	NTU
GS-AP-MW-43H	Conductivity	2/21/2022 11:35	1415.32	uS/cm
GS-AP-MW-43H	DO	2/21/2022 11:35	1.31	mg/L
GS-AP-MW-43H	Depth to Water Detail	2/21/2022 11:35	151.7	ft
GS-AP-MW-43H	Oxidation Reduction Potention	2/21/2022 11:35	-279.89	mv
GS-AP-MW-43H	pH	2/21/2022 11:35	8.57	SU
GS-AP-MW-43H	Temperature	2/21/2022 11:35	13.32	C
GS-AP-MW-43H	Turbidity	2/21/2022 11:35	3.78	NTU
GS-AP-MW-43H	Conductivity	2/21/2022 11:40	1416.64	uS/cm
GS-AP-MW-43H	DO	2/21/2022 11:40	1.23	mg/L
GS-AP-MW-43H	Depth to Water Detail	2/21/2022 11:40	151.81	ft
GS-AP-MW-43H	Oxidation Reduction Potention	2/21/2022 11:40	-282.26	mv
GS-AP-MW-43H	pH	2/21/2022 11:40	8.58	SU
GS-AP-MW-43H	Temperature	2/21/2022 11:40	13.34	C
GS-AP-MW-43H	Turbidity	2/21/2022 11:40	3.34	NTU

**Groundwater Field Parameters  
Plant Gorgas Ash Pond**

WELL ID	DESCRIPTION	TIME OF READING	VALUE	UNIT
GS-AP-MW-45V	Conductivity	2/23/2022 9:41	1648.88	uS/cm
GS-AP-MW-45V	DO	2/23/2022 9:41	0.6	mg/L
GS-AP-MW-45V	Depth to Water Detail	2/23/2022 9:41	203.71	ft
GS-AP-MW-45V	Oxidation Reduction Potention	2/23/2022 9:41	-58.48	mv
GS-AP-MW-45V	pH	2/23/2022 9:41	7.61	SU
GS-AP-MW-45V	Temperature	2/23/2022 9:41	16.96	C
GS-AP-MW-45V	Turbidity	2/23/2022 9:41	8.12	NTU
GS-AP-MW-45V	Conductivity	2/23/2022 9:46	1644.09	uS/cm
GS-AP-MW-45V	DO	2/23/2022 9:46	0.43	mg/L
GS-AP-MW-45V	Depth to Water Detail	2/23/2022 9:46	208.68	ft
GS-AP-MW-45V	Oxidation Reduction Potention	2/23/2022 9:46	-87.26	mv
GS-AP-MW-45V	pH	2/23/2022 9:46	7.62	SU
GS-AP-MW-45V	Temperature	2/23/2022 9:46	16.89	C
GS-AP-MW-45V	Turbidity	2/23/2022 9:46	5.32	NTU
GS-AP-MW-45V	Conductivity	2/23/2022 9:51	1636.68	uS/cm
GS-AP-MW-45V	DO	2/23/2022 9:51	0.35	mg/L
GS-AP-MW-45V	Depth to Water Detail	2/23/2022 9:51	212.6	ft
GS-AP-MW-45V	Oxidation Reduction Potention	2/23/2022 9:51	-108.05	mv
GS-AP-MW-45V	pH	2/23/2022 9:51	7.65	SU
GS-AP-MW-45V	Temperature	2/23/2022 9:51	16.93	C
GS-AP-MW-45V	Turbidity	2/23/2022 9:51	4.76	NTU
GS-AP-MW-45V	Conductivity	2/23/2022 9:56	1614.98	uS/cm
GS-AP-MW-45V	DO	2/23/2022 9:56	0.32	mg/L
GS-AP-MW-45V	Depth to Water Detail	2/23/2022 9:56	215.7	ft
GS-AP-MW-45V	Oxidation Reduction Potention	2/23/2022 9:56	-123.67	mv
GS-AP-MW-45V	pH	2/23/2022 9:56	7.67	SU
GS-AP-MW-45V	Temperature	2/23/2022 9:56	16.9	C
GS-AP-MW-45V	Turbidity	2/23/2022 9:56	5.04	NTU
GS-AP-MW-45V	Conductivity	2/23/2022 10:01	1605.12	uS/cm
GS-AP-MW-45V	DO	2/23/2022 10:01	0.29	mg/L
GS-AP-MW-45V	Depth to Water Detail	2/23/2022 10:01	219.06	ft
GS-AP-MW-45V	Oxidation Reduction Potention	2/23/2022 10:01	-135.52	mv
GS-AP-MW-45V	pH	2/23/2022 10:01	7.7	SU
GS-AP-MW-45V	Temperature	2/23/2022 10:01	16.88	C
GS-AP-MW-45V	Turbidity	2/23/2022 10:01	5.29	NTU
GS-AP-MW-45V	Conductivity	2/23/2022 10:06	1559.24	uS/cm
GS-AP-MW-45V	DO	2/23/2022 10:06	0.28	mg/L
GS-AP-MW-45V	Depth to Water Detail	2/23/2022 10:06	221.65	ft
GS-AP-MW-45V	Oxidation Reduction Potention	2/23/2022 10:06	-144.58	mv
GS-AP-MW-45V	pH	2/23/2022 10:06	7.71	SU
GS-AP-MW-45V	Temperature	2/23/2022 10:06	16.88	C
GS-AP-MW-45V	Turbidity	2/23/2022 10:06	6.62	NTU
GS-AP-MW-45V	Conductivity	2/23/2022 10:11	1552.28	uS/cm
GS-AP-MW-45V	DO	2/23/2022 10:11	0.6	mg/L
GS-AP-MW-45V	Depth to Water Detail	2/23/2022 10:11	222.83	ft
GS-AP-MW-45V	Oxidation Reduction Potention	2/23/2022 10:11	-147.76	mv
GS-AP-MW-45V	pH	2/23/2022 10:11	7.72	SU
GS-AP-MW-45V	Temperature	2/23/2022 10:11	16.3	C
GS-AP-MW-45V	Turbidity	2/23/2022 10:11	5.8	NTU
GS-AP-MW-45V	Conductivity	2/23/2022 10:16	1543.78	uS/cm
GS-AP-MW-45V	DO	2/23/2022 10:16	0.66	mg/L
GS-AP-MW-45V	Depth to Water Detail	2/23/2022 10:16	223.02	ft
GS-AP-MW-45V	Oxidation Reduction Potention	2/23/2022 10:16	-149.71	mv
GS-AP-MW-45V	pH	2/23/2022 10:16	7.72	SU
GS-AP-MW-45V	Temperature	2/23/2022 10:16	16.37	C
GS-AP-MW-45V	Turbidity	2/23/2022 10:16	6.69	NTU
GS-AP-MW-45V	Conductivity	2/23/2022 10:21	1536.61	uS/cm
GS-AP-MW-45V	DO	2/23/2022 10:21	0.48	mg/L

**Groundwater Field Parameters  
Plant Gorgas Ash Pond**

WELL ID	DESCRIPTION	TIME OF READING	VALUE	UNIT
GS-AP-MW-45V	Depth to Water Detail	2/23/2022 10:21	223.44	ft
GS-AP-MW-45V	Oxidation Reduction Potential	2/23/2022 10:21	-152.71	mv
GS-AP-MW-45V	pH	2/23/2022 10:21	7.73	SU
GS-AP-MW-45V	Temperature	2/23/2022 10:21	16.75	C
GS-AP-MW-45V	Turbidity	2/23/2022 10:21	8.12	NTU
GS-AP-MW-45V	Conductivity	2/23/2022 10:26	1374.04	uS/cm
GS-AP-MW-45V	DO	2/23/2022 10:26	0.27	mg/L
GS-AP-MW-45V	Depth to Water Detail	2/23/2022 10:26	226.39	ft
GS-AP-MW-45V	Oxidation Reduction Potential	2/23/2022 10:26	-185.88	mv
GS-AP-MW-45V	pH	2/23/2022 10:26	7.81	SU
GS-AP-MW-45V	Temperature	2/23/2022 10:26	16.94	C
GS-AP-MW-45V	Turbidity	2/23/2022 10:26	5.97	NTU
GS-AP-MW-45V	Conductivity	2/23/2022 10:31	1483.75	uS/cm
GS-AP-MW-45V	DO	2/23/2022 10:31	0.26	mg/L
GS-AP-MW-45V	Depth to Water Detail	2/23/2022 10:31	230.42	ft
GS-AP-MW-45V	Oxidation Reduction Potential	2/23/2022 10:31	-180.12	mv
GS-AP-MW-45V	pH	2/23/2022 10:31	7.79	SU
GS-AP-MW-45V	Temperature	2/23/2022 10:31	16.91	C
GS-AP-MW-45V	Turbidity	2/23/2022 10:31	7.5	NTU
GS-AP-MW-45V	Conductivity	2/23/2022 10:36	1489.01	uS/cm
GS-AP-MW-45V	DO	2/23/2022 10:36	0.23	mg/L
GS-AP-MW-45V	Depth to Water Detail	2/23/2022 10:36	233.12	ft
GS-AP-MW-45V	Oxidation Reduction Potential	2/23/2022 10:36	-178.84	mv
GS-AP-MW-45V	pH	2/23/2022 10:36	7.79	SU
GS-AP-MW-45V	Temperature	2/23/2022 10:36	16.95	C
GS-AP-MW-45V	Turbidity	2/23/2022 10:36	7.68	NTU
GS-AP-MW-45V	Conductivity	2/23/2022 10:41	1473.71	uS/cm
GS-AP-MW-45V	DO	2/23/2022 10:41	0.24	mg/L
GS-AP-MW-45V	Depth to Water Detail	2/23/2022 10:41	236.12	ft
GS-AP-MW-45V	Oxidation Reduction Potential	2/23/2022 10:41	-177.45	mv
GS-AP-MW-45V	pH	2/23/2022 10:41	7.77	SU
GS-AP-MW-45V	Temperature	2/23/2022 10:41	16.93	C
GS-AP-MW-45V	Turbidity	2/23/2022 10:41	7.42	NTU
GS-AP-MW-45V	Conductivity	2/23/2022 10:46	1458.72	uS/cm
GS-AP-MW-45V	DO	2/23/2022 10:46	0.22	mg/L
GS-AP-MW-45V	Depth to Water Detail	2/23/2022 10:46	238.45	ft
GS-AP-MW-45V	Oxidation Reduction Potential	2/23/2022 10:46	-178.89	mv
GS-AP-MW-45V	pH	2/23/2022 10:46	7.79	SU
GS-AP-MW-45V	Temperature	2/23/2022 10:46	16.95	C
GS-AP-MW-45V	Turbidity	2/23/2022 10:46	7.86	NTU
GS-AP-MW-45V	Conductivity	2/23/2022 10:51	1477.46	uS/cm
GS-AP-MW-45V	DO	2/23/2022 10:51	0.58	mg/L
GS-AP-MW-45V	Depth to Water Detail	2/23/2022 10:51	240.22	ft
GS-AP-MW-45V	Oxidation Reduction Potential	2/23/2022 10:51	-173.88	mv
GS-AP-MW-45V	pH	2/23/2022 10:51	7.78	SU
GS-AP-MW-45V	Temperature	2/23/2022 10:51	16.49	C
GS-AP-MW-45V	Turbidity	2/23/2022 10:51	8.2	NTU
GS-AP-MW-45V	Conductivity	2/23/2022 10:56	1473.85	uS/cm
GS-AP-MW-45V	DO	2/23/2022 10:56	0.57	mg/L
GS-AP-MW-45V	Depth to Water Detail	2/23/2022 10:56	240.02	ft
GS-AP-MW-45V	Oxidation Reduction Potential	2/23/2022 10:56	-170.3	mv
GS-AP-MW-45V	pH	2/23/2022 10:56	7.77	SU
GS-AP-MW-45V	Temperature	2/23/2022 10:56	16.49	C
GS-AP-MW-45V	Turbidity	2/23/2022 10:56	7.76	NTU

**Groundwater Field Parameters  
Plant Gorgas Ash Pond**

WELL ID	DESCRIPTION	TIME OF READING	VALUE	UNIT
GS-AP-MW-45V	Conductivity	2/23/2022 11:01	1467.16	uS/cm
GS-AP-MW-45V	DO	2/23/2022 11:01	0.5	mg/L
GS-AP-MW-45V	Depth to Water Detail	2/23/2022 11:01	240.05	ft
GS-AP-MW-45V	Oxidation Reduction Potention	2/23/2022 11:01	-169.8	mv
GS-AP-MW-45V	pH	2/23/2022 11:01	7.76	SU
GS-AP-MW-45V	Temperature	2/23/2022 11:01	16.61	C
GS-AP-MW-45V	Turbidity	2/23/2022 11:01	7.54	NTU
GS-AP-MW-45V	Conductivity	2/23/2022 11:06	1395.46	uS/cm
GS-AP-MW-45V	DO	2/23/2022 11:06	0.49	mg/L
GS-AP-MW-45V	Depth to Water Detail	2/23/2022 11:06	240.05	ft
GS-AP-MW-45V	Oxidation Reduction Potention	2/23/2022 11:06	-174.27	mv
GS-AP-MW-45V	pH	2/23/2022 11:06	7.78	SU
GS-AP-MW-45V	Temperature	2/23/2022 11:06	16.58	C
GS-AP-MW-45V	Turbidity	2/23/2022 11:06	7.66	NTU
GS-AP-MW-45V	Conductivity	2/23/2022 11:11	1245.77	uS/cm
GS-AP-MW-45V	DO	2/23/2022 11:11	0.59	mg/L
GS-AP-MW-45V	Depth to Water Detail	2/23/2022 11:11	240.05	ft
GS-AP-MW-45V	Oxidation Reduction Potention	2/23/2022 11:11	-184.16	mv
GS-AP-MW-45V	pH	2/23/2022 11:11	7.83	SU
GS-AP-MW-45V	Temperature	2/23/2022 11:11	16.52	C
GS-AP-MW-45V	Turbidity	2/23/2022 11:11	7.4	NTU
GS-AP-MW-45V	Conductivity	2/23/2022 11:16	1192.61	uS/cm
GS-AP-MW-45V	DO	2/23/2022 11:16	0.68	mg/L
GS-AP-MW-45V	Depth to Water Detail	2/23/2022 11:16	240.05	ft
GS-AP-MW-45V	Oxidation Reduction Potention	2/23/2022 11:16	-186.86	mv
GS-AP-MW-45V	pH	2/23/2022 11:16	7.85	SU
GS-AP-MW-45V	Temperature	2/23/2022 11:16	16.37	C
GS-AP-MW-45V	Turbidity	2/23/2022 11:16	4.06	NTU
GS-AP-MW-45V	Conductivity	2/23/2022 11:21	1165.63	uS/cm
GS-AP-MW-45V	DO	2/23/2022 11:21	0.69	mg/L
GS-AP-MW-45V	Depth to Water Detail	2/23/2022 11:21	240.05	ft
GS-AP-MW-45V	Oxidation Reduction Potention	2/23/2022 11:21	-187.48	mv
GS-AP-MW-45V	pH	2/23/2022 11:21	7.84	SU
GS-AP-MW-45V	Temperature	2/23/2022 11:21	16.38	C
GS-AP-MW-45V	Turbidity	2/23/2022 11:21	4.22	NTU
GS-AP-MW-45V	Conductivity	2/23/2022 11:26	1139.43	uS/cm
GS-AP-MW-45V	DO	2/23/2022 11:26	0.7	mg/L
GS-AP-MW-45V	Depth to Water Detail	2/23/2022 11:26	240.05	ft
GS-AP-MW-45V	Oxidation Reduction Potention	2/23/2022 11:26	-189.04	mv
GS-AP-MW-45V	pH	2/23/2022 11:26	7.86	SU
GS-AP-MW-45V	Temperature	2/23/2022 11:26	16.32	C
GS-AP-MW-45V	Turbidity	2/23/2022 11:26	4.16	NTU

**Groundwater Field Parameters  
Plant Gorgas Ash Pond**

WELL ID	DESCRIPTION	TIME OF READING	VALUE	UNIT
GS-AP-PZ-18R	Conductivity	2/21/2022 14:22	484.01	uS/cm
GS-AP-PZ-18R	DO	2/21/2022 14:22	0.63	mg/L
GS-AP-PZ-18R	Depth to Water Detail	2/21/2022 14:22	95.83	ft
GS-AP-PZ-18R	Oxidation Reduction Potention	2/21/2022 14:22	-121.25	mv
GS-AP-PZ-18R	pH	2/21/2022 14:22	7.53	SU
GS-AP-PZ-18R	Temperature	2/21/2022 14:22	15.55	C
GS-AP-PZ-18R	Turbidity	2/21/2022 14:22	3.92	NTU
GS-AP-PZ-18R	Conductivity	2/21/2022 14:27	484.79	uS/cm
GS-AP-PZ-18R	DO	2/21/2022 14:27	0.53	mg/L
GS-AP-PZ-18R	Depth to Water Detail	2/21/2022 14:27	95.83	ft
GS-AP-PZ-18R	Oxidation Reduction Potention	2/21/2022 14:27	-115.04	mv
GS-AP-PZ-18R	pH	2/21/2022 14:27	7.46	SU
GS-AP-PZ-18R	Temperature	2/21/2022 14:27	15.46	C
GS-AP-PZ-18R	Turbidity	2/21/2022 14:27	2.98	NTU
GS-AP-PZ-18R	Conductivity	2/21/2022 14:32	483.15	uS/cm
GS-AP-PZ-18R	DO	2/21/2022 14:32	0.48	mg/L
GS-AP-PZ-18R	Depth to Water Detail	2/21/2022 14:32	95.83	ft
GS-AP-PZ-18R	Oxidation Reduction Potention	2/21/2022 14:32	-108.56	mv
GS-AP-PZ-18R	pH	2/21/2022 14:32	7.36	SU
GS-AP-PZ-18R	Temperature	2/21/2022 14:32	15.26	C
GS-AP-PZ-18R	Turbidity	2/21/2022 14:32	2.29	NTU
GS-AP-PZ-18R	Conductivity	2/21/2022 14:37	483.33	uS/cm
GS-AP-PZ-18R	DO	2/21/2022 14:37	0.44	mg/L
GS-AP-PZ-18R	Depth to Water Detail	2/21/2022 14:37	95.83	ft
GS-AP-PZ-18R	Oxidation Reduction Potention	2/21/2022 14:37	-107.95	mv
GS-AP-PZ-18R	pH	2/21/2022 14:37	7.37	SU
GS-AP-PZ-18R	Temperature	2/21/2022 14:37	15.22	C
GS-AP-PZ-18R	Turbidity	2/21/2022 14:37	1.64	NTU



**Groundwater Field Parameters  
Plant Gorgas Ash Pond**

WELL ID	DESCRIPTION	TIME OF READING	VALUE	UNIT
GS-AP-MW-23V	Conductivity	2/23/2022 12:05	994.07	uS/cm
GS-AP-MW-23V	DO	2/23/2022 12:05	0.67	mg/L
GS-AP-MW-23V	Depth to Water Detail	2/23/2022 12:05	43.7	ft
GS-AP-MW-23V	Oxidation Reduction Potential	2/23/2022 12:05	-225.27	mv
GS-AP-MW-23V	pH	2/23/2022 12:05	7.35	SU
GS-AP-MW-23V	Temperature	2/23/2022 12:05	17.04	C
GS-AP-MW-23V	Turbidity	2/23/2022 12:05	11.49	NTU
GS-AP-MW-23V	Conductivity	2/23/2022 12:10	990.79	uS/cm
GS-AP-MW-23V	DO	2/23/2022 12:10	0.56	mg/L
GS-AP-MW-23V	Depth to Water Detail	2/23/2022 12:10	43.7	ft
GS-AP-MW-23V	Oxidation Reduction Potential	2/23/2022 12:10	-231.82	mv
GS-AP-MW-23V	pH	2/23/2022 12:10	7.36	SU
GS-AP-MW-23V	Temperature	2/23/2022 12:10	17.08	C
GS-AP-MW-23V	Turbidity	2/23/2022 12:10	10.48	NTU
GS-AP-MW-23V	Conductivity	2/23/2022 12:15	993.91	uS/cm
GS-AP-MW-23V	DO	2/23/2022 12:15	0.47	mg/L
GS-AP-MW-23V	Depth to Water Detail	2/23/2022 12:15	43.7	ft
GS-AP-MW-23V	Oxidation Reduction Potential	2/23/2022 12:15	-235.9	mv
GS-AP-MW-23V	pH	2/23/2022 12:15	7.37	SU
GS-AP-MW-23V	Temperature	2/23/2022 12:15	17.06	C
GS-AP-MW-23V	Turbidity	2/23/2022 12:15	9.88	NTU
GS-AP-MW-23V	Conductivity	2/23/2022 12:20	993.53	uS/cm
GS-AP-MW-23V	DO	2/23/2022 12:20	0.41	mg/L
GS-AP-MW-23V	Depth to Water Detail	2/23/2022 12:20	43.7	ft
GS-AP-MW-23V	Oxidation Reduction Potential	2/23/2022 12:20	-237.82	mv
GS-AP-MW-23V	pH	2/23/2022 12:20	7.36	SU
GS-AP-MW-23V	Temperature	2/23/2022 12:20	17.05	C
GS-AP-MW-23V	Turbidity	2/23/2022 12:20	8.52	NTU
GS-AP-MW-23V	Conductivity	2/23/2022 12:25	994.25	uS/cm
GS-AP-MW-23V	DO	2/23/2022 12:25	0.34	mg/L
GS-AP-MW-23V	Depth to Water Detail	2/23/2022 12:25	43.7	ft
GS-AP-MW-23V	Oxidation Reduction Potential	2/23/2022 12:25	-239.48	mv
GS-AP-MW-23V	pH	2/23/2022 12:25	7.37	SU
GS-AP-MW-23V	Temperature	2/23/2022 12:25	17	C
GS-AP-MW-23V	Turbidity	2/23/2022 12:25	10.61	NTU
GS-AP-MW-23V	Conductivity	2/23/2022 12:30	994.07	uS/cm
GS-AP-MW-23V	DO	2/23/2022 12:30	0.3	mg/L
GS-AP-MW-23V	Depth to Water Detail	2/23/2022 12:30	43.7	ft
GS-AP-MW-23V	Oxidation Reduction Potential	2/23/2022 12:30	-240.16	mv
GS-AP-MW-23V	pH	2/23/2022 12:30	7.37	SU
GS-AP-MW-23V	Temperature	2/23/2022 12:30	16.97	C
GS-AP-MW-23V	Turbidity	2/23/2022 12:30	13.9	NTU
GS-AP-MW-23V	Conductivity	2/23/2022 12:35	993.84	uS/cm
GS-AP-MW-23V	DO	2/23/2022 12:35	0.28	mg/L
GS-AP-MW-23V	Depth to Water Detail	2/23/2022 12:35	43.7	ft
GS-AP-MW-23V	Oxidation Reduction Potential	2/23/2022 12:35	-241.41	mv
GS-AP-MW-23V	pH	2/23/2022 12:35	7.37	SU
GS-AP-MW-23V	Temperature	2/23/2022 12:35	16.98	C
GS-AP-MW-23V	Turbidity	2/23/2022 12:35	19.9	NTU
GS-AP-MW-23V	Conductivity	2/23/2022 12:40	993.56	uS/cm
GS-AP-MW-23V	DO	2/23/2022 12:40	0.26	mg/L
GS-AP-MW-23V	Depth to Water Detail	2/23/2022 12:40	43.7	ft
GS-AP-MW-23V	Oxidation Reduction Potential	2/23/2022 12:40	-241.11	mv
GS-AP-MW-23V	pH	2/23/2022 12:40	7.37	SU
GS-AP-MW-23V	Temperature	2/23/2022 12:40	16.98	C
GS-AP-MW-23V	Turbidity	2/23/2022 12:40	19	NTU
GS-AP-MW-23V	Conductivity	2/23/2022 12:45	992.88	uS/cm
GS-AP-MW-23V	DO	2/23/2022 12:45	0.25	mg/L

**Groundwater Field Parameters  
Plant Gorgas Ash Pond**

WELL ID	DESCRIPTION	TIME OF READING	VALUE	UNIT
GS-AP-MW-23V	Depth to Water Detail	2/23/2022 12:45	43.7	ft
GS-AP-MW-23V	Oxidation Reduction Potential	2/23/2022 12:45	-241.12	mv
GS-AP-MW-23V	pH	2/23/2022 12:45	7.37	SU
GS-AP-MW-23V	Temperature	2/23/2022 12:45	16.97	C
GS-AP-MW-23V	Turbidity	2/23/2022 12:45	19.8	NTU
GS-AP-MW-23V	Conductivity	2/23/2022 12:50	992.2	uS/cm
GS-AP-MW-23V	DO	2/23/2022 12:50	0.24	mg/L
GS-AP-MW-23V	Depth to Water Detail	2/23/2022 12:50	43.7	ft
GS-AP-MW-23V	Oxidation Reduction Potential	2/23/2022 12:50	-241.67	mv
GS-AP-MW-23V	pH	2/23/2022 12:50	7.38	SU
GS-AP-MW-23V	Temperature	2/23/2022 12:50	17	C
GS-AP-MW-23V	Turbidity	2/23/2022 12:50	14.5	NTU
GS-AP-MW-23V	Conductivity	2/23/2022 12:55	991.52	uS/cm
GS-AP-MW-23V	DO	2/23/2022 12:55	0.23	mg/L
GS-AP-MW-23V	Depth to Water Detail	2/23/2022 12:55	43.7	ft
GS-AP-MW-23V	Oxidation Reduction Potential	2/23/2022 12:55	-241.23	mv
GS-AP-MW-23V	pH	2/23/2022 12:55	7.38	SU
GS-AP-MW-23V	Temperature	2/23/2022 12:55	17	C
GS-AP-MW-23V	Turbidity	2/23/2022 12:55	15.5	NTU
GS-AP-MW-23V	Conductivity	2/23/2022 13:00	990.36	uS/cm
GS-AP-MW-23V	DO	2/23/2022 13:00	0.36	mg/L
GS-AP-MW-23V	Depth to Water Detail	2/23/2022 13:00	43.7	ft
GS-AP-MW-23V	Oxidation Reduction Potential	2/23/2022 13:00	-228.82	mv
GS-AP-MW-23V	pH	2/23/2022 13:00	7.38	SU
GS-AP-MW-23V	Temperature	2/23/2022 13:00	16.78	C
GS-AP-MW-23V	Turbidity	2/23/2022 13:00	20.7	NTU
GS-AP-MW-23V	Conductivity	2/23/2022 13:05	990.02	uS/cm
GS-AP-MW-23V	DO	2/23/2022 13:05	0.38	mg/L
GS-AP-MW-23V	Depth to Water Detail	2/23/2022 13:05	43.7	ft
GS-AP-MW-23V	Oxidation Reduction Potential	2/23/2022 13:05	-227.29	mv
GS-AP-MW-23V	pH	2/23/2022 13:05	7.38	SU
GS-AP-MW-23V	Temperature	2/23/2022 13:05	16.71	C
GS-AP-MW-23V	Turbidity	2/23/2022 13:05	15.3	NTU
GS-AP-MW-23V	Conductivity	2/23/2022 13:10	989.79	uS/cm
GS-AP-MW-23V	DO	2/23/2022 13:10	0.38	mg/L
GS-AP-MW-23V	Depth to Water Detail	2/23/2022 13:10	43.7	ft
GS-AP-MW-23V	Oxidation Reduction Potential	2/23/2022 13:10	-227.8	mv
GS-AP-MW-23V	pH	2/23/2022 13:10	7.38	SU
GS-AP-MW-23V	Temperature	2/23/2022 13:10	16.71	C
GS-AP-MW-23V	Turbidity	2/23/2022 13:10	13.2	NTU
GS-AP-MW-23V	Conductivity	2/23/2022 13:15	989.54	uS/cm
GS-AP-MW-23V	DO	2/23/2022 13:15	0.38	mg/L
GS-AP-MW-23V	Depth to Water Detail	2/23/2022 13:15	43.7	ft
GS-AP-MW-23V	Oxidation Reduction Potential	2/23/2022 13:15	-227.97	mv
GS-AP-MW-23V	pH	2/23/2022 13:15	7.38	SU
GS-AP-MW-23V	Temperature	2/23/2022 13:15	16.76	C
GS-AP-MW-23V	Turbidity	2/23/2022 13:15	12.8	NTU
GS-AP-MW-23V	Conductivity	2/23/2022 13:20	988.88	uS/cm
GS-AP-MW-23V	DO	2/23/2022 13:20	0.38	mg/L
GS-AP-MW-23V	Depth to Water Detail	2/23/2022 13:20	43.7	ft
GS-AP-MW-23V	Oxidation Reduction Potential	2/23/2022 13:20	-229.17	mv
GS-AP-MW-23V	pH	2/23/2022 13:20	7.39	SU
GS-AP-MW-23V	Temperature	2/23/2022 13:20	16.78	C
GS-AP-MW-23V	Turbidity	2/23/2022 13:20	11	NTU
GS-AP-MW-23V	Conductivity	2/23/2022 13:25	988.18	uS/cm
GS-AP-MW-23V	DO	2/23/2022 13:25	0.39	mg/L
GS-AP-MW-23V	Depth to Water Detail	2/23/2022 13:25	43.7	ft
GS-AP-MW-23V	Oxidation Reduction Potential	2/23/2022 13:25	-225.59	mv

**Groundwater Field Parameters  
Plant Gorgas Ash Pond**

<b>WELL ID</b>	<b>DESCRIPTION</b>	<b>TIME OF READING</b>	<b>VALUE</b>	<b>UNIT</b>
GS-AP-MW-23V	pH	2/23/2022 13:25	7.38	SU
GS-AP-MW-23V	Temperature	2/23/2022 13:25	16.78	C
GS-AP-MW-23V	Turbidity	2/23/2022 13:25	10.14	NTU
GS-AP-MW-23V	Conductivity	2/23/2022 13:30	986.95	uS/cm
GS-AP-MW-23V	DO	2/23/2022 13:30	0.38	mg/L
GS-AP-MW-23V	Depth to Water Detail	2/23/2022 13:30	43.7	ft
GS-AP-MW-23V	Oxidation Reduction Potention	2/23/2022 13:30	-226.73	mv
GS-AP-MW-23V	pH	2/23/2022 13:30	7.38	SU
GS-AP-MW-23V	Temperature	2/23/2022 13:30	16.71	C
GS-AP-MW-23V	Turbidity	2/23/2022 13:30	9.26	NTU

**Groundwater Field Parameters  
Plant Gorgas Ash Pond**

WELL ID	DESCRIPTION	TIME OF READING	VALUE	UNIT
GS-AP--MW-31V	Conductivity	2/22/2022 11:24	1162.61	uS/cm
GS-AP--MW-31V	DO	2/22/2022 11:24	0.91	mg/L
GS-AP--MW-31V	Depth to Water Detail	2/22/2022 11:24	275.1	ft
GS-AP--MW-31V	Oxidation Reduction Potential	2/22/2022 11:24	167.76	mv
GS-AP--MW-31V	pH	2/22/2022 11:24	7.83	SU
GS-AP--MW-31V	Temperature	2/22/2022 11:24	17.59	C
GS-AP--MW-31V	Turbidity	2/22/2022 11:24	3.77	NTU
GS-AP--MW-31V	Conductivity	2/22/2022 11:29	1151.82	uS/cm
GS-AP--MW-31V	DO	2/22/2022 11:29	0.46	mg/L
GS-AP--MW-31V	Depth to Water Detail	2/22/2022 11:29	282.2	ft
GS-AP--MW-31V	Oxidation Reduction Potential	2/22/2022 11:29	56.08	mv
GS-AP--MW-31V	pH	2/22/2022 11:29	7.84	SU
GS-AP--MW-31V	Temperature	2/22/2022 11:29	17.64	C
GS-AP--MW-31V	Turbidity	2/22/2022 11:29	2.27	NTU
GS-AP--MW-31V	Conductivity	2/22/2022 11:34	1117.75	uS/cm
GS-AP--MW-31V	DO	2/22/2022 11:34	0.37	mg/L
GS-AP--MW-31V	Depth to Water Detail	2/22/2022 11:34	283.35	ft
GS-AP--MW-31V	Oxidation Reduction Potential	2/22/2022 11:34	-89.75	mv
GS-AP--MW-31V	pH	2/22/2022 11:34	7.87	SU
GS-AP--MW-31V	Temperature	2/22/2022 11:34	17.54	C
GS-AP--MW-31V	Turbidity	2/22/2022 11:34	2.08	NTU
GS-AP--MW-31V	Conductivity	2/22/2022 11:39	1079.19	uS/cm
GS-AP--MW-31V	DO	2/22/2022 11:39	0.33	mg/L
GS-AP--MW-31V	Depth to Water Detail	2/22/2022 11:39	285.25	ft
GS-AP--MW-31V	Oxidation Reduction Potential	2/22/2022 11:39	-134.96	mv
GS-AP--MW-31V	pH	2/22/2022 11:39	7.88	SU
GS-AP--MW-31V	Temperature	2/22/2022 11:39	17.49	C
GS-AP--MW-31V	Turbidity	2/22/2022 11:39	2.9	NTU
GS-AP--MW-31V	Conductivity	2/22/2022 11:44	1052.03	uS/cm
GS-AP--MW-31V	DO	2/22/2022 11:44	0.32	mg/L
GS-AP--MW-31V	Depth to Water Detail	2/22/2022 11:44	287	ft
GS-AP--MW-31V	Oxidation Reduction Potential	2/22/2022 11:44	-153.31	mv
GS-AP--MW-31V	pH	2/22/2022 11:44	7.88	SU
GS-AP--MW-31V	Temperature	2/22/2022 11:44	17.46	C
GS-AP--MW-31V	Turbidity	2/22/2022 11:44	2.08	NTU
GS-AP--MW-31V	Conductivity	2/22/2022 11:49	1047.4	uS/cm
GS-AP--MW-31V	DO	2/22/2022 11:49	0.31	mg/L
GS-AP--MW-31V	Depth to Water Detail	2/22/2022 11:49	288.76	ft
GS-AP--MW-31V	Oxidation Reduction Potential	2/22/2022 11:49	-161.51	mv
GS-AP--MW-31V	pH	2/22/2022 11:49	7.88	SU
GS-AP--MW-31V	Temperature	2/22/2022 11:49	17.38	C
GS-AP--MW-31V	Turbidity	2/22/2022 11:49	2.7	NTU
GS-AP--MW-31V	Conductivity	2/22/2022 11:54	1012.7	uS/cm
GS-AP--MW-31V	DO	2/22/2022 11:54	0.28	mg/L
GS-AP--MW-31V	Depth to Water Detail	2/22/2022 11:54	289.83	ft
GS-AP--MW-31V	Oxidation Reduction Potential	2/22/2022 11:54	-169.94	mv
GS-AP--MW-31V	pH	2/22/2022 11:54	7.91	SU
GS-AP--MW-31V	Temperature	2/22/2022 11:54	17.53	C
GS-AP--MW-31V	Turbidity	2/22/2022 11:54	3.12	NTU
GS-AP--MW-31V	Conductivity	2/22/2022 11:59	1005.3	uS/cm
GS-AP--MW-31V	DO	2/22/2022 11:59	1.79	mg/L
GS-AP--MW-31V	Depth to Water Detail	2/22/2022 11:59	290.55	ft
GS-AP--MW-31V	Oxidation Reduction Potential	2/22/2022 11:59	-153.89	mv
GS-AP--MW-31V	pH	2/22/2022 11:59	7.93	SU
GS-AP--MW-31V	Temperature	2/22/2022 11:59	17.62	C
GS-AP--MW-31V	Turbidity	2/22/2022 11:59	2.2	NTU
GS-AP--MW-31V	Conductivity	2/22/2022 12:04	993.14	uS/cm
GS-AP--MW-31V	DO	2/22/2022 12:04	0.72	mg/L

**Groundwater Field Parameters  
Plant Gorgas Ash Pond**

WELL ID	DESCRIPTION	TIME OF READING	VALUE	UNIT
GS-AP--MW-31V	Depth to Water Detail	2/22/2022 12:04	290.55	ft
GS-AP--MW-31V	Oxidation Reduction Potential	2/22/2022 12:04	-165.85	mv
GS-AP--MW-31V	pH	2/22/2022 12:04	7.93	SU
GS-AP--MW-31V	Temperature	2/22/2022 12:04	17.41	C
GS-AP--MW-31V	Turbidity	2/22/2022 12:04	2.45	NTU
GS-AP--MW-31V	Conductivity	2/22/2022 12:09	985.88	uS/cm
GS-AP--MW-31V	DO	2/22/2022 12:09	0.59	mg/L
GS-AP--MW-31V	Depth to Water Detail	2/22/2022 12:09	290.55	ft
GS-AP--MW-31V	Oxidation Reduction Potential	2/22/2022 12:09	-166.8	mv
GS-AP--MW-31V	pH	2/22/2022 12:09	7.93	SU
GS-AP--MW-31V	Temperature	2/22/2022 12:09	17.43	C
GS-AP--MW-31V	Turbidity	2/22/2022 12:09	2.23	NTU
GS-AP--MW-31V	Conductivity	2/22/2022 12:14	976.73	uS/cm
GS-AP--MW-31V	DO	2/22/2022 12:14	0.56	mg/L
GS-AP--MW-31V	Depth to Water Detail	2/22/2022 12:14	290.55	ft
GS-AP--MW-31V	Oxidation Reduction Potential	2/22/2022 12:14	-165.39	mv
GS-AP--MW-31V	pH	2/22/2022 12:14	7.91	SU
GS-AP--MW-31V	Temperature	2/22/2022 12:14	17.63	C
GS-AP--MW-31V	Turbidity	2/22/2022 12:14	2.28	NTU
GS-AP--MW-31V	Conductivity	2/22/2022 12:19	969.23	uS/cm
GS-AP--MW-31V	DO	2/22/2022 12:19	0.52	mg/L
GS-AP--MW-31V	Depth to Water Detail	2/22/2022 12:19	290.55	ft
GS-AP--MW-31V	Oxidation Reduction Potential	2/22/2022 12:19	-169.28	mv
GS-AP--MW-31V	pH	2/22/2022 12:19	7.95	SU
GS-AP--MW-31V	Temperature	2/22/2022 12:19	17.76	C
GS-AP--MW-31V	Turbidity	2/22/2022 12:19	2.31	NTU
GS-AP--MW-31V	Conductivity	2/22/2022 12:24	922.21	uS/cm
GS-AP--MW-31V	DO	2/22/2022 12:24	0.53	mg/L
GS-AP--MW-31V	Depth to Water Detail	2/22/2022 12:24	290.55	ft
GS-AP--MW-31V	Oxidation Reduction Potential	2/22/2022 12:24	-176.28	mv
GS-AP--MW-31V	pH	2/22/2022 12:24	7.97	SU
GS-AP--MW-31V	Temperature	2/22/2022 12:24	17.83	C
GS-AP--MW-31V	Turbidity	2/22/2022 12:24	3.01	NTU
GS-AP--MW-31V	Conductivity	2/22/2022 12:29	836.64	uS/cm
GS-AP--MW-31V	DO	2/22/2022 12:29	0.52	mg/L
GS-AP--MW-31V	Depth to Water Detail	2/22/2022 12:29	290.55	ft
GS-AP--MW-31V	Oxidation Reduction Potential	2/22/2022 12:29	-183.34	mv
GS-AP--MW-31V	pH	2/22/2022 12:29	7.98	SU
GS-AP--MW-31V	Temperature	2/22/2022 12:29	17.84	C
GS-AP--MW-31V	Turbidity	2/22/2022 12:29	3.36	NTU
GS-AP--MW-31V	Conductivity	2/22/2022 12:34	793.53	uS/cm
GS-AP--MW-31V	DO	2/22/2022 12:34	0.51	mg/L
GS-AP--MW-31V	Depth to Water Detail	2/22/2022 12:34	290.55	ft
GS-AP--MW-31V	Oxidation Reduction Potential	2/22/2022 12:34	-185.77	mv
GS-AP--MW-31V	pH	2/22/2022 12:34	7.98	SU
GS-AP--MW-31V	Temperature	2/22/2022 12:34	17.97	C
GS-AP--MW-31V	Turbidity	2/22/2022 12:34	3.39	NTU
GS-AP--MW-31V	Conductivity	2/22/2022 12:39	765.01	uS/cm
GS-AP--MW-31V	DO	2/22/2022 12:39	0.48	mg/L
GS-AP--MW-31V	Depth to Water Detail	2/22/2022 12:39	290.1	ft
GS-AP--MW-31V	Oxidation Reduction Potential	2/22/2022 12:39	-188.56	mv
GS-AP--MW-31V	pH	2/22/2022 12:39	8	SU
GS-AP--MW-31V	Temperature	2/22/2022 12:39	18.28	C
GS-AP--MW-31V	Turbidity	2/22/2022 12:39	2.68	NTU
GS-AP--MW-31V	Conductivity	2/22/2022 12:44	740.12	uS/cm
GS-AP--MW-31V	DO	2/22/2022 12:44	0.58	mg/L
GS-AP--MW-31V	Depth to Water Detail	2/22/2022 12:44	290.1	ft
GS-AP--MW-31V	Oxidation Reduction Potential	2/22/2022 12:44	-191.52	mv

**Groundwater Field Parameters  
Plant Gorgas Ash Pond**

WELL ID	DESCRIPTION	TIME OF READING	VALUE	UNIT
GS-AP--MW-31V	pH	2/22/2022 12:44	8.01	SU
GS-AP--MW-31V	Temperature	2/22/2022 12:44	18.1	C
GS-AP--MW-31V	Turbidity	2/22/2022 12:44	3.24	NTU
GS-AP--MW-31V	Conductivity	2/22/2022 12:49	724.81	uS/cm
GS-AP--MW-31V	DO	2/22/2022 12:49	0.52	mg/L
GS-AP--MW-31V	Depth to Water Detail	2/22/2022 12:49	290.1	ft
GS-AP--MW-31V	Oxidation Reduction Potention	2/22/2022 12:49	-192.36	mv
GS-AP--MW-31V	pH	2/22/2022 12:49	8.01	SU
GS-AP--MW-31V	Temperature	2/22/2022 12:49	17.98	C
GS-AP--MW-31V	Turbidity	2/22/2022 12:49	3.02	NTU
GS-AP--MW-31V	Conductivity	2/22/2022 12:54	704.97	uS/cm
GS-AP--MW-31V	DO	2/22/2022 12:54	0.5	mg/L
GS-AP--MW-31V	Depth to Water Detail	2/22/2022 12:54	290.1	ft
GS-AP--MW-31V	Oxidation Reduction Potention	2/22/2022 12:54	-193.18	mv
GS-AP--MW-31V	pH	2/22/2022 12:54	8	SU
GS-AP--MW-31V	Temperature	2/22/2022 12:54	17.93	C
GS-AP--MW-31V	Turbidity	2/22/2022 12:54	2.8	NTU
GS-AP--MW-31V	Conductivity	2/22/2022 12:59	683.67	uS/cm
GS-AP--MW-31V	DO	2/22/2022 12:59	0.5	mg/L
GS-AP--MW-31V	Depth to Water Detail	2/22/2022 12:59	290.1	ft
GS-AP--MW-31V	Oxidation Reduction Potention	2/22/2022 12:59	-190.78	mv
GS-AP--MW-31V	pH	2/22/2022 12:59	7.96	SU
GS-AP--MW-31V	Temperature	2/22/2022 12:59	17.88	C
GS-AP--MW-31V	Turbidity	2/22/2022 12:59	2.92	NTU
GS-AP--MW-31V	Conductivity	2/22/2022 13:04	674.7	uS/cm
GS-AP--MW-31V	DO	2/22/2022 13:04	0.48	mg/L
GS-AP--MW-31V	Depth to Water Detail	2/22/2022 13:04	290.1	ft
GS-AP--MW-31V	Oxidation Reduction Potention	2/22/2022 13:04	-193.67	mv
GS-AP--MW-31V	pH	2/22/2022 13:04	8	SU
GS-AP--MW-31V	Temperature	2/22/2022 13:04	18.03	C
GS-AP--MW-31V	Turbidity	2/22/2022 13:04	3.06	NTU



**Groundwater Field Parameters  
Plant Gorgas Ash Pond**

WELL ID	DESCRIPTION	TIME OF READING	VALUE	UNIT
GS-AP-MW-46	Conductivity	2/23/2022 10:12	959.48	uS/cm
GS-AP-MW-46	DO	2/23/2022 10:12	0.51	mg/L
GS-AP-MW-46	Depth to Water Detail	2/23/2022 10:12	126.52	ft
GS-AP-MW-46	Oxidation Reduction Potention	2/23/2022 10:12	-276.95	mv
GS-AP-MW-46	pH	2/23/2022 10:12	8.64	SU
GS-AP-MW-46	Temperature	2/23/2022 10:12	17.09	C
GS-AP-MW-46	Turbidity	2/23/2022 10:12	0.65	NTU
GS-AP-MW-46	Conductivity	2/23/2022 10:17	959.18	uS/cm
GS-AP-MW-46	DO	2/23/2022 10:17	0.42	mg/L
GS-AP-MW-46	Depth to Water Detail	2/23/2022 10:17	126.58	ft
GS-AP-MW-46	Oxidation Reduction Potention	2/23/2022 10:17	-282.74	mv
GS-AP-MW-46	pH	2/23/2022 10:17	8.64	SU
GS-AP-MW-46	Temperature	2/23/2022 10:17	17.11	C
GS-AP-MW-46	Turbidity	2/23/2022 10:17	0.74	NTU
GS-AP-MW-46	Conductivity	2/23/2022 10:22	961.86	uS/cm
GS-AP-MW-46	DO	2/23/2022 10:22	0.38	mg/L
GS-AP-MW-46	Depth to Water Detail	2/23/2022 10:22	126.62	ft
GS-AP-MW-46	Oxidation Reduction Potention	2/23/2022 10:22	-288.53	mv
GS-AP-MW-46	pH	2/23/2022 10:22	8.67	SU
GS-AP-MW-46	Temperature	2/23/2022 10:22	17.15	C
GS-AP-MW-46	Turbidity	2/23/2022 10:22	0.67	NTU
GS-AP-MW-46	Conductivity	2/23/2022 10:27	962.02	uS/cm
GS-AP-MW-46	DO	2/23/2022 10:27	0.37	mg/L
GS-AP-MW-46	Depth to Water Detail	2/23/2022 10:27	126.68	ft
GS-AP-MW-46	Oxidation Reduction Potention	2/23/2022 10:27	-292.59	mv
GS-AP-MW-46	pH	2/23/2022 10:27	8.69	SU
GS-AP-MW-46	Temperature	2/23/2022 10:27	17.16	C
GS-AP-MW-46	Turbidity	2/23/2022 10:27	0.71	NTU

**Groundwater Field Parameters  
Plant Gorgas Ash Pond**

WELL ID	DESCRIPTION	TIME OF READING	VALUE	UNIT
GS-AP-MW-9V	Conductivity	2/21/2022 11:05	1048.64	uS/cm
GS-AP-MW-9V	DO	2/21/2022 11:05	0.4	mg/L
GS-AP-MW-9V	Depth to Water Detail	2/21/2022 11:05	60.09	ft
GS-AP-MW-9V	Oxidation Reduction Potention	2/21/2022 11:05	-127.2	mv
GS-AP-MW-9V	pH	2/21/2022 11:05	7.15	SU
GS-AP-MW-9V	Temperature	2/21/2022 11:05	21.23	C
GS-AP-MW-9V	Turbidity	2/21/2022 11:05	2.11	NTU
GS-AP-MW-9V	Conductivity	2/21/2022 11:10	912.22	uS/cm
GS-AP-MW-9V	DO	2/21/2022 11:10	0.4	mg/L
GS-AP-MW-9V	Depth to Water Detail	2/21/2022 11:10	62.21	ft
GS-AP-MW-9V	Oxidation Reduction Potention	2/21/2022 11:10	-137.37	mv
GS-AP-MW-9V	pH	2/21/2022 11:10	7.08	SU
GS-AP-MW-9V	Temperature	2/21/2022 11:10	21.26	C
GS-AP-MW-9V	Turbidity	2/21/2022 11:10	1.35	NTU
GS-AP-MW-9V	Conductivity	2/21/2022 11:15	884.17	uS/cm
GS-AP-MW-9V	DO	2/21/2022 11:15	1.18	mg/L
GS-AP-MW-9V	Depth to Water Detail	2/21/2022 11:15	62.09	ft
GS-AP-MW-9V	Oxidation Reduction Potention	2/21/2022 11:15	-140.38	mv
GS-AP-MW-9V	pH	2/21/2022 11:15	7.09	SU
GS-AP-MW-9V	Temperature	2/21/2022 11:15	20.39	C
GS-AP-MW-9V	Turbidity	2/21/2022 11:15	1.37	NTU
GS-AP-MW-9V	Conductivity	2/21/2022 11:20	863.08	uS/cm
GS-AP-MW-9V	DO	2/21/2022 11:20	1.28	mg/L
GS-AP-MW-9V	Depth to Water Detail	2/21/2022 11:20	61.97	ft
GS-AP-MW-9V	Oxidation Reduction Potention	2/21/2022 11:20	-140.27	mv
GS-AP-MW-9V	pH	2/21/2022 11:20	7.11	SU
GS-AP-MW-9V	Temperature	2/21/2022 11:20	20.38	C
GS-AP-MW-9V	Turbidity	2/21/2022 11:20	1.13	NTU
GS-AP-MW-9V	Conductivity	2/21/2022 11:25	775.91	uS/cm
GS-AP-MW-9V	DO	2/21/2022 11:25	1.31	mg/L
GS-AP-MW-9V	Depth to Water Detail	2/21/2022 11:25	61.91	ft
GS-AP-MW-9V	Oxidation Reduction Potention	2/21/2022 11:25	-136.18	mv
GS-AP-MW-9V	pH	2/21/2022 11:25	7.08	SU
GS-AP-MW-9V	Temperature	2/21/2022 11:25	20.53	C
GS-AP-MW-9V	Turbidity	2/21/2022 11:25	1.08	NTU
GS-AP-MW-9V	Conductivity	2/21/2022 11:30	715.44	uS/cm
GS-AP-MW-9V	DO	2/21/2022 11:30	1.38	mg/L
GS-AP-MW-9V	Depth to Water Detail	2/21/2022 11:30	61.85	ft
GS-AP-MW-9V	Oxidation Reduction Potention	2/21/2022 11:30	-132.35	mv
GS-AP-MW-9V	pH	2/21/2022 11:30	7.06	SU
GS-AP-MW-9V	Temperature	2/21/2022 11:30	20.43	C
GS-AP-MW-9V	Turbidity	2/21/2022 11:30	1	NTU
GS-AP-MW-9V	Conductivity	2/21/2022 11:35	659.51	uS/cm
GS-AP-MW-9V	DO	2/21/2022 11:35	1.38	mg/L
GS-AP-MW-9V	Depth to Water Detail	2/21/2022 11:35	61.79	ft
GS-AP-MW-9V	Oxidation Reduction Potention	2/21/2022 11:35	-129.78	mv
GS-AP-MW-9V	pH	2/21/2022 11:35	7.05	SU
GS-AP-MW-9V	Temperature	2/21/2022 11:35	20.42	C
GS-AP-MW-9V	Turbidity	2/21/2022 11:35	1.07	NTU
GS-AP-MW-9V	Conductivity	2/21/2022 11:40	626.15	uS/cm
GS-AP-MW-9V	DO	2/21/2022 11:40	1.56	mg/L
GS-AP-MW-9V	Depth to Water Detail	2/21/2022 11:40	61.74	ft
GS-AP-MW-9V	Oxidation Reduction Potention	2/21/2022 11:40	-126.71	mv
GS-AP-MW-9V	pH	2/21/2022 11:40	7.04	SU
GS-AP-MW-9V	Temperature	2/21/2022 11:40	20.37	C
GS-AP-MW-9V	Turbidity	2/21/2022 11:40	0.9	NTU
GS-AP-MW-9V	Conductivity	2/21/2022 11:45	608.25	uS/cm
GS-AP-MW-9V	DO	2/21/2022 11:45	1.54	mg/L

**Groundwater Field Parameters  
Plant Gorgas Ash Pond**

WELL ID	DESCRIPTION	TIME OF READING	VALUE	UNIT
GS-AP-MW-9V	Depth to Water Detail	2/21/2022 11:45	61.66	ft
GS-AP-MW-9V	Oxidation Reduction Potention	2/21/2022 11:45	-125.74	mv
GS-AP-MW-9V	pH	2/21/2022 11:45	7.03	SU
GS-AP-MW-9V	Temperature	2/21/2022 11:45	20.23	C
GS-AP-MW-9V	Turbidity	2/21/2022 11:45	0.92	NTU
GS-AP-MW-9V	Conductivity	2/21/2022 11:50	586.24	uS/cm
GS-AP-MW-9V	DO	2/21/2022 11:50	1.62	mg/L
GS-AP-MW-9V	Depth to Water Detail	2/21/2022 11:50	61.57	ft
GS-AP-MW-9V	Oxidation Reduction Potention	2/21/2022 11:50	-123.58	mv
GS-AP-MW-9V	pH	2/21/2022 11:50	7.01	SU
GS-AP-MW-9V	Temperature	2/21/2022 11:50	20.35	C
GS-AP-MW-9V	Turbidity	2/21/2022 11:50	0.85	NTU
GS-AP-MW-9V	Conductivity	2/21/2022 11:55	569.72	uS/cm
GS-AP-MW-9V	DO	2/21/2022 11:55	1.65	mg/L
GS-AP-MW-9V	Depth to Water Detail	2/21/2022 11:55	61.49	ft
GS-AP-MW-9V	Oxidation Reduction Potention	2/21/2022 11:55	-123.54	mv
GS-AP-MW-9V	pH	2/21/2022 11:55	7.02	SU
GS-AP-MW-9V	Temperature	2/21/2022 11:55	20.37	C
GS-AP-MW-9V	Turbidity	2/21/2022 11:55	0.93	NTU
GS-AP-MW-9V	Conductivity	2/21/2022 12:00	551.43	uS/cm
GS-AP-MW-9V	DO	2/21/2022 12:00	1.65	mg/L
GS-AP-MW-9V	Depth to Water Detail	2/21/2022 12:00	61.36	ft
GS-AP-MW-9V	Oxidation Reduction Potention	2/21/2022 12:00	-121.74	mv
GS-AP-MW-9V	pH	2/21/2022 12:00	7	SU
GS-AP-MW-9V	Temperature	2/21/2022 12:00	20.26	C
GS-AP-MW-9V	Turbidity	2/21/2022 12:00	0.92	NTU
GS-AP-MW-9V	Conductivity	2/21/2022 12:05	544.18	uS/cm
GS-AP-MW-9V	DO	2/21/2022 12:05	1.65	mg/L
GS-AP-MW-9V	Depth to Water Detail	2/21/2022 12:05	61.34	ft
GS-AP-MW-9V	Oxidation Reduction Potention	2/21/2022 12:05	-121.26	mv
GS-AP-MW-9V	pH	2/21/2022 12:05	7	SU
GS-AP-MW-9V	Temperature	2/21/2022 12:05	20.16	C
GS-AP-MW-9V	Turbidity	2/21/2022 12:05	0.87	NTU

**Groundwater Field Parameters  
Plant Gorgas Ash Pond**

WELL ID	DESCRIPTION	TIME OF READING	VALUE	UNIT
GS-AP-MW-38H	Conductivity	2/22/2022 8:50	1493.16	uS/cm
GS-AP-MW-38H	DO	2/22/2022 8:50	0.67	mg/L
GS-AP-MW-38H	Depth to Water Detail	2/22/2022 8:50	47.11	ft
GS-AP-MW-38H	Oxidation Reduction Potention	2/22/2022 8:50	-140.44	mv
GS-AP-MW-38H	pH	2/22/2022 8:50	7.65	SU
GS-AP-MW-38H	Temperature	2/22/2022 8:50	19.17	C
GS-AP-MW-38H	Turbidity	2/22/2022 8:50	3.91	NTU
GS-AP-MW-38H	Conductivity	2/22/2022 8:55	1266.32	uS/cm
GS-AP-MW-38H	DO	2/22/2022 8:55	0.48	mg/L
GS-AP-MW-38H	Depth to Water Detail	2/22/2022 8:55	47.18	ft
GS-AP-MW-38H	Oxidation Reduction Potention	2/22/2022 8:55	-152.42	mv
GS-AP-MW-38H	pH	2/22/2022 8:55	7.72	SU
GS-AP-MW-38H	Temperature	2/22/2022 8:55	19.17	C
GS-AP-MW-38H	Turbidity	2/22/2022 8:55	2.41	NTU
GS-AP-MW-38H	Conductivity	2/22/2022 9:00	1029.08	uS/cm
GS-AP-MW-38H	DO	2/22/2022 9:00	0.43	mg/L
GS-AP-MW-38H	Depth to Water Detail	2/22/2022 9:00	47.19	ft
GS-AP-MW-38H	Oxidation Reduction Potention	2/22/2022 9:00	-156.75	mv
GS-AP-MW-38H	pH	2/22/2022 9:00	7.79	SU
GS-AP-MW-38H	Temperature	2/22/2022 9:00	19.15	C
GS-AP-MW-38H	Turbidity	2/22/2022 9:00	2.12	NTU
GS-AP-MW-38H	Conductivity	2/22/2022 9:05	897.26	uS/cm
GS-AP-MW-38H	DO	2/22/2022 9:05	0.41	mg/L
GS-AP-MW-38H	Depth to Water Detail	2/22/2022 9:05	47.22	ft
GS-AP-MW-38H	Oxidation Reduction Potention	2/22/2022 9:05	-156.82	mv
GS-AP-MW-38H	pH	2/22/2022 9:05	7.84	SU
GS-AP-MW-38H	Temperature	2/22/2022 9:05	19.14	C
GS-AP-MW-38H	Turbidity	2/22/2022 9:05	1.41	NTU
GS-AP-MW-38H	Conductivity	2/22/2022 9:10	851.22	uS/cm
GS-AP-MW-38H	DO	2/22/2022 9:10	0.39	mg/L
GS-AP-MW-38H	Depth to Water Detail	2/22/2022 9:10	47.22	ft
GS-AP-MW-38H	Oxidation Reduction Potention	2/22/2022 9:10	-155.61	mv
GS-AP-MW-38H	pH	2/22/2022 9:10	7.86	SU
GS-AP-MW-38H	Temperature	2/22/2022 9:10	19.15	C
GS-AP-MW-38H	Turbidity	2/22/2022 9:10	1.54	NTU
GS-AP-MW-38H	Conductivity	2/22/2022 9:15	791.15	uS/cm
GS-AP-MW-38H	DO	2/22/2022 9:15	0.38	mg/L
GS-AP-MW-38H	Depth to Water Detail	2/22/2022 9:15	47.22	ft
GS-AP-MW-38H	Oxidation Reduction Potention	2/22/2022 9:15	-154.1	mv
GS-AP-MW-38H	pH	2/22/2022 9:15	7.87	SU
GS-AP-MW-38H	Temperature	2/22/2022 9:15	19.13	C
GS-AP-MW-38H	Turbidity	2/22/2022 9:15	1.9	NTU
GS-AP-MW-38H	Conductivity	2/22/2022 9:20	758.31	uS/cm
GS-AP-MW-38H	DO	2/22/2022 9:20	0.38	mg/L
GS-AP-MW-38H	Depth to Water Detail	2/22/2022 9:20	47.22	ft
GS-AP-MW-38H	Oxidation Reduction Potention	2/22/2022 9:20	-153.35	mv
GS-AP-MW-38H	pH	2/22/2022 9:20	7.88	SU
GS-AP-MW-38H	Temperature	2/22/2022 9:20	19.12	C
GS-AP-MW-38H	Turbidity	2/22/2022 9:20	1.26	NTU
GS-AP-MW-38H	Conductivity	2/22/2022 9:25	731.14	uS/cm
GS-AP-MW-38H	DO	2/22/2022 9:25	0.36	mg/L
GS-AP-MW-38H	Depth to Water Detail	2/22/2022 9:25	47.22	ft
GS-AP-MW-38H	Oxidation Reduction Potention	2/22/2022 9:25	-152.8	mv
GS-AP-MW-38H	pH	2/22/2022 9:25	7.9	SU
GS-AP-MW-38H	Temperature	2/22/2022 9:25	19.15	C
GS-AP-MW-38H	Turbidity	2/22/2022 9:25	1.49	NTU
GS-AP-MW-38H	Conductivity	2/22/2022 9:30	741.45	uS/cm
GS-AP-MW-38H	DO	2/22/2022 9:30	0.36	mg/L

**Groundwater Field Parameters  
Plant Gorgas Ash Pond**

<b>WELL ID</b>	<b>DESCRIPTION</b>	<b>TIME OF READING</b>	<b>VALUE</b>	<b>UNIT</b>
GS-AP-MW-38H	Depth to Water Detail	2/22/2022 9:30	47.22	ft
GS-AP-MW-38H	Oxidation Reduction Potention	2/22/2022 9:30	-152.07	mv
GS-AP-MW-38H	pH	2/22/2022 9:30	7.89	SU
GS-AP-MW-38H	Temperature	2/22/2022 9:30	19.14	C
GS-AP-MW-38H	Turbidity	2/22/2022 9:30	1.62	NTU

**Groundwater Field Parameters  
Plant Gorgas Ash Pond**

WELL ID	DESCRIPTION	TIME OF READING	VALUE	UNIT
GS-AP-MW-19	Conductivity	2/22/2022 10:55	611.05	uS/cm
GS-AP-MW-19	DO	2/22/2022 10:55	0.27	mg/L
GS-AP-MW-19	Depth to Water Detail	2/22/2022 10:55	113.24	ft
GS-AP-MW-19	Oxidation Reduction Potention	2/22/2022 10:55	-168.31	mv
GS-AP-MW-19	pH	2/22/2022 10:55	8.17	SU
GS-AP-MW-19	Temperature	2/22/2022 10:55	18.69	C
GS-AP-MW-19	Turbidity	2/22/2022 10:55	0.87	NTU
GS-AP-MW-19	Conductivity	2/22/2022 11:00	612.34	uS/cm
GS-AP-MW-19	DO	2/22/2022 11:00	0.24	mg/L
GS-AP-MW-19	Depth to Water Detail	2/22/2022 11:00	113.42	ft
GS-AP-MW-19	Oxidation Reduction Potention	2/22/2022 11:00	-170.28	mv
GS-AP-MW-19	pH	2/22/2022 11:00	8	SU
GS-AP-MW-19	Temperature	2/22/2022 11:00	18.69	C
GS-AP-MW-19	Turbidity	2/22/2022 11:00	0.68	NTU
GS-AP-MW-19	Conductivity	2/22/2022 11:05	606.48	uS/cm
GS-AP-MW-19	DO	2/22/2022 11:05	0.23	mg/L
GS-AP-MW-19	Depth to Water Detail	2/22/2022 11:05	113.42	ft
GS-AP-MW-19	Oxidation Reduction Potention	2/22/2022 11:05	-162.03	mv
GS-AP-MW-19	pH	2/22/2022 11:05	7.85	SU
GS-AP-MW-19	Temperature	2/22/2022 11:05	18.62	C
GS-AP-MW-19	Turbidity	2/22/2022 11:05	0.96	NTU
GS-AP-MW-19	Conductivity	2/22/2022 11:10	601.11	uS/cm
GS-AP-MW-19	DO	2/22/2022 11:10	0.23	mg/L
GS-AP-MW-19	Depth to Water Detail	2/22/2022 11:10	113.42	ft
GS-AP-MW-19	Oxidation Reduction Potention	2/22/2022 11:10	-153.5	mv
GS-AP-MW-19	pH	2/22/2022 11:10	7.74	SU
GS-AP-MW-19	Temperature	2/22/2022 11:10	18.66	C
GS-AP-MW-19	Turbidity	2/22/2022 11:10	0.71	NTU
GS-AP-MW-19	Conductivity	2/22/2022 11:15	597.93	uS/cm
GS-AP-MW-19	DO	2/22/2022 11:15	0.24	mg/L
GS-AP-MW-19	Depth to Water Detail	2/22/2022 11:15	113.42	ft
GS-AP-MW-19	Oxidation Reduction Potention	2/22/2022 11:15	-149.62	mv
GS-AP-MW-19	pH	2/22/2022 11:15	7.71	SU
GS-AP-MW-19	Temperature	2/22/2022 11:15	18.62	C
GS-AP-MW-19	Turbidity	2/22/2022 11:15	0.82	NTU



**Groundwater Field Parameters  
Plant Gorgas Ash Pond**

WELL ID	DESCRIPTION	TIME OF READING	VALUE	UNIT
GS-AP-MW-2	Conductivity	2/22/2022 12:53	594.19	uS/cm
GS-AP-MW-2	DO	2/22/2022 12:53	1.34	mg/L
GS-AP-MW-2	Depth to Water Detail	2/22/2022 12:53	148.74	ft
GS-AP-MW-2	Oxidation Reduction Potention	2/22/2022 12:53	-151.41	mv
GS-AP-MW-2	pH	2/22/2022 12:53	9.37	SU
GS-AP-MW-2	Temperature	2/22/2022 12:53	19.19	C
GS-AP-MW-2	Turbidity	2/22/2022 12:53	1.74	NTU
GS-AP-MW-2	Conductivity	2/22/2022 12:58	592.28	uS/cm
GS-AP-MW-2	DO	2/22/2022 12:58	1.08	mg/L
GS-AP-MW-2	Depth to Water Detail	2/22/2022 12:58	148.92	ft
GS-AP-MW-2	Oxidation Reduction Potention	2/22/2022 12:58	-157.45	mv
GS-AP-MW-2	pH	2/22/2022 12:58	9.43	SU
GS-AP-MW-2	Temperature	2/22/2022 12:58	19.18	C
GS-AP-MW-2	Turbidity	2/22/2022 12:58	1.32	NTU
GS-AP-MW-2	Conductivity	2/22/2022 13:03	586.13	uS/cm
GS-AP-MW-2	DO	2/22/2022 13:03	1.02	mg/L
GS-AP-MW-2	Depth to Water Detail	2/22/2022 13:03	149.11	ft
GS-AP-MW-2	Oxidation Reduction Potention	2/22/2022 13:03	-160.51	mv
GS-AP-MW-2	pH	2/22/2022 13:03	9.44	SU
GS-AP-MW-2	Temperature	2/22/2022 13:03	19.02	C
GS-AP-MW-2	Turbidity	2/22/2022 13:03	2.31	NTU
GS-AP-MW-2	Conductivity	2/22/2022 13:08	576.65	uS/cm
GS-AP-MW-2	DO	2/22/2022 13:08	1.03	mg/L
GS-AP-MW-2	Depth to Water Detail	2/22/2022 13:08	149.2	ft
GS-AP-MW-2	Oxidation Reduction Potention	2/22/2022 13:08	-163.39	mv
GS-AP-MW-2	pH	2/22/2022 13:08	9.46	SU
GS-AP-MW-2	Temperature	2/22/2022 13:08	19.14	C
GS-AP-MW-2	Turbidity	2/22/2022 13:08	1.56	NTU
GS-AP-MW-2	Conductivity	2/22/2022 13:13	578.43	uS/cm
GS-AP-MW-2	DO	2/22/2022 13:13	0.98	mg/L
GS-AP-MW-2	Depth to Water Detail	2/22/2022 13:13	149.22	ft
GS-AP-MW-2	Oxidation Reduction Potention	2/22/2022 13:13	-162.68	mv
GS-AP-MW-2	pH	2/22/2022 13:13	9.42	SU
GS-AP-MW-2	Temperature	2/22/2022 13:13	19.12	C
GS-AP-MW-2	Turbidity	2/22/2022 13:13	1.62	NTU

**Groundwater Field Parameters  
Plant Gorgas Ash Pond**

WELL ID	DESCRIPTION	TIME OF READING	VALUE	UNIT
GS-AP-MW-12V	Conductivity	2/23/2022 9:39	865.93	uS/cm
GS-AP-MW-12V	DO	2/23/2022 9:39	0.29	mg/L
GS-AP-MW-12V	Depth to Water Detail	2/23/2022 9:39	92.86	ft
GS-AP-MW-12V	Oxidation Reduction Potential	2/23/2022 9:39	-195.72	mv
GS-AP-MW-12V	pH	2/23/2022 9:39	11.42	SU
GS-AP-MW-12V	Temperature	2/23/2022 9:39	17.46	C
GS-AP-MW-12V	Turbidity	2/23/2022 9:39	18.7	NTU
GS-AP-MW-12V	Conductivity	2/23/2022 9:44	811.33	uS/cm
GS-AP-MW-12V	DO	2/23/2022 9:44	0.23	mg/L
GS-AP-MW-12V	Depth to Water Detail	2/23/2022 9:44	94.38	ft
GS-AP-MW-12V	Oxidation Reduction Potential	2/23/2022 9:44	-219.3	mv
GS-AP-MW-12V	pH	2/23/2022 9:44	11.48	SU
GS-AP-MW-12V	Temperature	2/23/2022 9:44	17.48	C
GS-AP-MW-12V	Turbidity	2/23/2022 9:44	17.3	NTU
GS-AP-MW-12V	Conductivity	2/23/2022 9:49	716.52	uS/cm
GS-AP-MW-12V	DO	2/23/2022 9:49	0.22	mg/L
GS-AP-MW-12V	Depth to Water Detail	2/23/2022 9:49	95.78	ft
GS-AP-MW-12V	Oxidation Reduction Potential	2/23/2022 9:49	-225.21	mv
GS-AP-MW-12V	pH	2/23/2022 9:49	11.46	SU
GS-AP-MW-12V	Temperature	2/23/2022 9:49	17.45	C
GS-AP-MW-12V	Turbidity	2/23/2022 9:49	15.3	NTU
GS-AP-MW-12V	Conductivity	2/23/2022 9:54	612.48	uS/cm
GS-AP-MW-12V	DO	2/23/2022 9:54	0.23	mg/L
GS-AP-MW-12V	Depth to Water Detail	2/23/2022 9:54	97.19	ft
GS-AP-MW-12V	Oxidation Reduction Potential	2/23/2022 9:54	-229.04	mv
GS-AP-MW-12V	pH	2/23/2022 9:54	11.44	SU
GS-AP-MW-12V	Temperature	2/23/2022 9:54	17.49	C
GS-AP-MW-12V	Turbidity	2/23/2022 9:54	16.2	NTU
GS-AP-MW-12V	Conductivity	2/23/2022 9:58	600.08	uS/cm
GS-AP-MW-12V	DO	2/23/2022 9:58	0.3	mg/L
GS-AP-MW-12V	Depth to Water Detail	2/23/2022 9:58	97.61	ft
GS-AP-MW-12V	Oxidation Reduction Potential	2/23/2022 9:58	-139.18	mv
GS-AP-MW-12V	pH	2/23/2022 9:58	11.38	SU
GS-AP-MW-12V	Temperature	2/23/2022 9:58	17.48	C
GS-AP-MW-12V	Turbidity	2/23/2022 9:58	32	NTU
GS-AP-MW-12V	Conductivity	2/23/2022 10:03	455.57	uS/cm
GS-AP-MW-12V	DO	2/23/2022 10:03	0.41	mg/L
GS-AP-MW-12V	Depth to Water Detail	2/23/2022 10:03	98.11	ft
GS-AP-MW-12V	Oxidation Reduction Potential	2/23/2022 10:03	-203.6	mv
GS-AP-MW-12V	pH	2/23/2022 10:03	11.25	SU
GS-AP-MW-12V	Temperature	2/23/2022 10:03	17.5	C
GS-AP-MW-12V	Turbidity	2/23/2022 10:03	19.2	NTU
GS-AP-MW-12V	Conductivity	2/23/2022 10:08	305.75	uS/cm
GS-AP-MW-12V	DO	2/23/2022 10:08	0.42	mg/L
GS-AP-MW-12V	Depth to Water Detail	2/23/2022 10:08	98.5	ft
GS-AP-MW-12V	Oxidation Reduction Potential	2/23/2022 10:08	-207.72	mv
GS-AP-MW-12V	pH	2/23/2022 10:08	10.99	SU
GS-AP-MW-12V	Temperature	2/23/2022 10:08	17.51	C
GS-AP-MW-12V	Turbidity	2/23/2022 10:08	20.3	NTU
GS-AP-MW-12V	Conductivity	2/23/2022 10:13	251.3	uS/cm
GS-AP-MW-12V	DO	2/23/2022 10:13	0.46	mg/L
GS-AP-MW-12V	Depth to Water Detail	2/23/2022 10:13	98.66	ft
GS-AP-MW-12V	Oxidation Reduction Potential	2/23/2022 10:13	-206.58	mv
GS-AP-MW-12V	pH	2/23/2022 10:13	10.84	SU
GS-AP-MW-12V	Temperature	2/23/2022 10:13	17.55	C
GS-AP-MW-12V	Turbidity	2/23/2022 10:13	23.1	NTU
GS-AP-MW-12V	Conductivity	2/23/2022 10:18	190.09	uS/cm
GS-AP-MW-12V	DO	2/23/2022 10:18	0.46	mg/L

**Groundwater Field Parameters  
Plant Gorgas Ash Pond**

WELL ID	DESCRIPTION	TIME OF READING	VALUE	UNIT
GS-AP-MW-12V	Depth to Water Detail	2/23/2022 10:18	98.97	ft
GS-AP-MW-12V	Oxidation Reduction Potential	2/23/2022 10:18	-195.76	mv
GS-AP-MW-12V	pH	2/23/2022 10:18	10.27	SU
GS-AP-MW-12V	Temperature	2/23/2022 10:18	17.56	C
GS-AP-MW-12V	Turbidity	2/23/2022 10:18	22	NTU
GS-AP-MW-12V	Conductivity	2/23/2022 10:23	195.35	uS/cm
GS-AP-MW-12V	DO	2/23/2022 10:23	0.5	mg/L
GS-AP-MW-12V	Depth to Water Detail	2/23/2022 10:23	99.3	ft
GS-AP-MW-12V	Oxidation Reduction Potential	2/23/2022 10:23	-193.16	mv
GS-AP-MW-12V	pH	2/23/2022 10:23	10.06	SU
GS-AP-MW-12V	Temperature	2/23/2022 10:23	17.58	C
GS-AP-MW-12V	Turbidity	2/23/2022 10:23	24.6	NTU
GS-AP-MW-12V	Conductivity	2/23/2022 10:28	192.86	uS/cm
GS-AP-MW-12V	DO	2/23/2022 10:28	0.47	mg/L
GS-AP-MW-12V	Depth to Water Detail	2/23/2022 10:28	99.58	ft
GS-AP-MW-12V	Oxidation Reduction Potential	2/23/2022 10:28	-188.37	mv
GS-AP-MW-12V	pH	2/23/2022 10:28	9.73	SU
GS-AP-MW-12V	Temperature	2/23/2022 10:28	17.66	C
GS-AP-MW-12V	Turbidity	2/23/2022 10:28	23.1	NTU
GS-AP-MW-12V	Conductivity	2/23/2022 10:33	192.5	uS/cm
GS-AP-MW-12V	DO	2/23/2022 10:33	0.5	mg/L
GS-AP-MW-12V	Depth to Water Detail	2/23/2022 10:33	99.65	ft
GS-AP-MW-12V	Oxidation Reduction Potential	2/23/2022 10:33	-187.99	mv
GS-AP-MW-12V	pH	2/23/2022 10:33	9.57	SU
GS-AP-MW-12V	Temperature	2/23/2022 10:33	17.64	C
GS-AP-MW-12V	Turbidity	2/23/2022 10:33	22.2	NTU
GS-AP-MW-12V	Conductivity	2/23/2022 10:38	217.78	uS/cm
GS-AP-MW-12V	DO	2/23/2022 10:38	0.54	mg/L
GS-AP-MW-12V	Depth to Water Detail	2/23/2022 10:38	99.66	ft
GS-AP-MW-12V	Oxidation Reduction Potential	2/23/2022 10:38	-184.75	mv
GS-AP-MW-12V	pH	2/23/2022 10:38	9.33	SU
GS-AP-MW-12V	Temperature	2/23/2022 10:38	17.73	C
GS-AP-MW-12V	Turbidity	2/23/2022 10:38	16.2	NTU
GS-AP-MW-12V	Conductivity	2/23/2022 10:39	220.35	uS/cm
GS-AP-MW-12V	DO	2/23/2022 10:39	0.54	mg/L
GS-AP-MW-12V	Depth to Water Detail	2/23/2022 10:39	99.68	ft
GS-AP-MW-12V	Oxidation Reduction Potential	2/23/2022 10:39	-92.85	mv
GS-AP-MW-12V	pH	2/23/2022 10:39	9.26	SU
GS-AP-MW-12V	Temperature	2/23/2022 10:39	17.71	C
GS-AP-MW-12V	Turbidity	2/23/2022 10:39	16	NTU
GS-AP-MW-12V	Conductivity	2/23/2022 10:44	236.65	uS/cm
GS-AP-MW-12V	DO	2/23/2022 10:44	0.55	mg/L
GS-AP-MW-12V	Depth to Water Detail	2/23/2022 10:44	99.81	ft
GS-AP-MW-12V	Oxidation Reduction Potential	2/23/2022 10:44	-165.52	mv
GS-AP-MW-12V	pH	2/23/2022 10:44	9.01	SU
GS-AP-MW-12V	Temperature	2/23/2022 10:44	17.65	C
GS-AP-MW-12V	Turbidity	2/23/2022 10:44	15.9	NTU
GS-AP-MW-12V	Conductivity	2/23/2022 10:49	239.96	uS/cm
GS-AP-MW-12V	DO	2/23/2022 10:49	0.58	mg/L
GS-AP-MW-12V	Depth to Water Detail	2/23/2022 10:49	99.9	ft
GS-AP-MW-12V	Oxidation Reduction Potential	2/23/2022 10:49	-178.11	mv
GS-AP-MW-12V	pH	2/23/2022 10:49	8.97	SU
GS-AP-MW-12V	Temperature	2/23/2022 10:49	17.65	C
GS-AP-MW-12V	Turbidity	2/23/2022 10:49	15.5	NTU
GS-AP-MW-12V	Conductivity	2/23/2022 10:54	244.62	uS/cm
GS-AP-MW-12V	DO	2/23/2022 10:54	0.57	mg/L
GS-AP-MW-12V	Depth to Water Detail	2/23/2022 10:54	100.02	ft
GS-AP-MW-12V	Oxidation Reduction Potential	2/23/2022 10:54	-180.78	mv

**Groundwater Field Parameters  
Plant Gorgas Ash Pond**

WELL ID	DESCRIPTION	TIME OF READING	VALUE	UNIT
GS-AP-MW-12V	pH	2/23/2022 10:54	8.85	SU
GS-AP-MW-12V	Temperature	2/23/2022 10:54	17.6	C
GS-AP-MW-12V	Turbidity	2/23/2022 10:54	14.7	NTU
GS-AP-MW-12V	Conductivity	2/23/2022 10:59	249.29	uS/cm
GS-AP-MW-12V	DO	2/23/2022 10:59	0.56	mg/L
GS-AP-MW-12V	Depth to Water Detail	2/23/2022 10:59	100.1	ft
GS-AP-MW-12V	Oxidation Reduction Potention	2/23/2022 10:59	-186.91	mv
GS-AP-MW-12V	pH	2/23/2022 10:59	8.8	SU
GS-AP-MW-12V	Temperature	2/23/2022 10:59	17.53	C
GS-AP-MW-12V	Turbidity	2/23/2022 10:59	13.6	NTU
GS-AP-MW-12V	Conductivity	2/23/2022 11:04	251.24	uS/cm
GS-AP-MW-12V	DO	2/23/2022 11:04	0.57	mg/L
GS-AP-MW-12V	Depth to Water Detail	2/23/2022 11:04	100.11	ft
GS-AP-MW-12V	Oxidation Reduction Potention	2/23/2022 11:04	-190.89	mv
GS-AP-MW-12V	pH	2/23/2022 11:04	8.75	SU
GS-AP-MW-12V	Temperature	2/23/2022 11:04	17.54	C
GS-AP-MW-12V	Turbidity	2/23/2022 11:04	16.9	NTU
GS-AP-MW-12V	Conductivity	2/23/2022 11:09	289.99	uS/cm
GS-AP-MW-12V	DO	2/23/2022 11:09	0.59	mg/L
GS-AP-MW-12V	Depth to Water Detail	2/23/2022 11:09	100.3	ft
GS-AP-MW-12V	Oxidation Reduction Potention	2/23/2022 11:09	-196.11	mv
GS-AP-MW-12V	pH	2/23/2022 11:09	8.63	SU
GS-AP-MW-12V	Temperature	2/23/2022 11:09	17.51	C
GS-AP-MW-12V	Turbidity	2/23/2022 11:09	14.7	NTU
GS-AP-MW-12V	Conductivity	2/23/2022 11:14	292.01	uS/cm
GS-AP-MW-12V	DO	2/23/2022 11:14	0.6	mg/L
GS-AP-MW-12V	Depth to Water Detail	2/23/2022 11:14	100.38	ft
GS-AP-MW-12V	Oxidation Reduction Potention	2/23/2022 11:14	-206.32	mv
GS-AP-MW-12V	pH	2/23/2022 11:14	8.6	SU
GS-AP-MW-12V	Temperature	2/23/2022 11:14	17.54	C
GS-AP-MW-12V	Turbidity	2/23/2022 11:14	13	NTU
GS-AP-MW-12V	Conductivity	2/23/2022 11:19	295.6	uS/cm
GS-AP-MW-12V	DO	2/23/2022 11:19	0.62	mg/L
GS-AP-MW-12V	Depth to Water Detail	2/23/2022 11:19	100.49	ft
GS-AP-MW-12V	Oxidation Reduction Potention	2/23/2022 11:19	-210.22	mv
GS-AP-MW-12V	pH	2/23/2022 11:19	8.5	SU
GS-AP-MW-12V	Temperature	2/23/2022 11:19	17.51	C
GS-AP-MW-12V	Turbidity	2/23/2022 11:19	11.4	NTU
GS-AP-MW-12V	Conductivity	2/23/2022 11:24	301.2	uS/cm
GS-AP-MW-12V	DO	2/23/2022 11:24	0.6	mg/L
GS-AP-MW-12V	Depth to Water Detail	2/23/2022 11:24	100.54	ft
GS-AP-MW-12V	Oxidation Reduction Potention	2/23/2022 11:24	-212.76	mv
GS-AP-MW-12V	pH	2/23/2022 11:24	8.44	SU
GS-AP-MW-12V	Temperature	2/23/2022 11:24	17.56	C
GS-AP-MW-12V	Turbidity	2/23/2022 11:24	11.7	NTU
GS-AP-MW-12V	Conductivity	2/23/2022 11:29	303.82	uS/cm
GS-AP-MW-12V	DO	2/23/2022 11:29	0.62	mg/L
GS-AP-MW-12V	Depth to Water Detail	2/23/2022 11:29	100.63	ft
GS-AP-MW-12V	Oxidation Reduction Potention	2/23/2022 11:29	-213.52	mv
GS-AP-MW-12V	pH	2/23/2022 11:29	8.38	SU
GS-AP-MW-12V	Temperature	2/23/2022 11:29	17.54	C
GS-AP-MW-12V	Turbidity	2/23/2022 11:29	12.1	NTU
GS-AP-MW-12V	Conductivity	2/23/2022 11:34	301.67	uS/cm
GS-AP-MW-12V	DO	2/23/2022 11:34	0.6	mg/L
GS-AP-MW-12V	Depth to Water Detail	2/23/2022 11:34	100.72	ft
GS-AP-MW-12V	Oxidation Reduction Potention	2/23/2022 11:34	-215.35	mv
GS-AP-MW-12V	pH	2/23/2022 11:34	8.39	SU
GS-AP-MW-12V	Temperature	2/23/2022 11:34	17.56	C

**Groundwater Field Parameters  
Plant Gorgas Ash Pond**

WELL ID	DESCRIPTION	TIME OF READING	VALUE	UNIT
GS-AP-MW-12V	Turbidity	2/23/2022 11:34	11.5	NTU
GS-AP-MW-12V	Conductivity	2/23/2022 11:39	305.25	uS/cm
GS-AP-MW-12V	DO	2/23/2022 11:39	0.62	mg/L
GS-AP-MW-12V	Depth to Water Detail	2/23/2022 11:39	100.78	ft
GS-AP-MW-12V	Oxidation Reduction Potention	2/23/2022 11:39	-212.29	mv
GS-AP-MW-12V	pH	2/23/2022 11:39	8.29	SU
GS-AP-MW-12V	Temperature	2/23/2022 11:39	17.58	C
GS-AP-MW-12V	Turbidity	2/23/2022 11:39	11.6	NTU
GS-AP-MW-12V	Conductivity	2/23/2022 11:44	302.4	uS/cm
GS-AP-MW-12V	DO	2/23/2022 11:44	0.63	mg/L
GS-AP-MW-12V	Depth to Water Detail	2/23/2022 11:44	100.85	ft
GS-AP-MW-12V	Oxidation Reduction Potention	2/23/2022 11:44	-211.52	mv
GS-AP-MW-12V	pH	2/23/2022 11:44	8.31	SU
GS-AP-MW-12V	Temperature	2/23/2022 11:44	17.61	C
GS-AP-MW-12V	Turbidity	2/23/2022 11:44	12	NTU
GS-AP-MW-12V	Conductivity	2/23/2022 11:49	304.98	uS/cm
GS-AP-MW-12V	DO	2/23/2022 11:49	0.64	mg/L
GS-AP-MW-12V	Depth to Water Detail	2/23/2022 11:49	100.89	ft
GS-AP-MW-12V	Oxidation Reduction Potention	2/23/2022 11:49	-205.7	mv
GS-AP-MW-12V	pH	2/23/2022 11:49	8.19	SU
GS-AP-MW-12V	Temperature	2/23/2022 11:49	17.6	C
GS-AP-MW-12V	Turbidity	2/23/2022 11:49	11.2	NTU
GS-AP-MW-12V	Conductivity	2/23/2022 11:54	306.76	uS/cm
GS-AP-MW-12V	DO	2/23/2022 11:54	0.64	mg/L
GS-AP-MW-12V	Depth to Water Detail	2/23/2022 11:54	100.92	ft
GS-AP-MW-12V	Oxidation Reduction Potention	2/23/2022 11:54	-198.85	mv
GS-AP-MW-12V	pH	2/23/2022 11:54	8.07	SU
GS-AP-MW-12V	Temperature	2/23/2022 11:54	17.58	C
GS-AP-MW-12V	Turbidity	2/23/2022 11:54	12.44	NTU
GS-AP-MW-12V	Conductivity	2/23/2022 11:59	307.96	uS/cm
GS-AP-MW-12V	DO	2/23/2022 11:59	0.65	mg/L
GS-AP-MW-12V	Depth to Water Detail	2/23/2022 11:59	101.03	ft
GS-AP-MW-12V	Oxidation Reduction Potention	2/23/2022 11:59	-193.98	mv
GS-AP-MW-12V	pH	2/23/2022 11:59	8.02	SU
GS-AP-MW-12V	Temperature	2/23/2022 11:59	17.62	C
GS-AP-MW-12V	Turbidity	2/23/2022 11:59	11	NTU
GS-AP-MW-12V	Conductivity	2/23/2022 12:04	308.09	uS/cm
GS-AP-MW-12V	DO	2/23/2022 12:04	0.65	mg/L
GS-AP-MW-12V	Depth to Water Detail	2/23/2022 12:04	101.11	ft
GS-AP-MW-12V	Oxidation Reduction Potention	2/23/2022 12:04	-190.68	mv
GS-AP-MW-12V	pH	2/23/2022 12:04	7.98	SU
GS-AP-MW-12V	Temperature	2/23/2022 12:04	17.6	C
GS-AP-MW-12V	Turbidity	2/23/2022 12:04	12.4	NTU
GS-AP-MW-12V	Conductivity	2/23/2022 12:09	306.8	uS/cm
GS-AP-MW-12V	DO	2/23/2022 12:09	0.67	mg/L
GS-AP-MW-12V	Depth to Water Detail	2/23/2022 12:09	101.16	ft
GS-AP-MW-12V	Oxidation Reduction Potention	2/23/2022 12:09	-186.05	mv
GS-AP-MW-12V	pH	2/23/2022 12:09	7.93	SU
GS-AP-MW-12V	Temperature	2/23/2022 12:09	17.62	C
GS-AP-MW-12V	Turbidity	2/23/2022 12:09	11.2	NTU
GS-AP-MW-12V	Conductivity	2/23/2022 12:14	310.04	uS/cm
GS-AP-MW-12V	DO	2/23/2022 12:14	0.65	mg/L
GS-AP-MW-12V	Depth to Water Detail	2/23/2022 12:14	101.19	ft
GS-AP-MW-12V	Oxidation Reduction Potention	2/23/2022 12:14	-177.96	mv
GS-AP-MW-12V	pH	2/23/2022 12:14	7.82	SU
GS-AP-MW-12V	Temperature	2/23/2022 12:14	17.68	C
GS-AP-MW-12V	Turbidity	2/23/2022 12:14	11.72	NTU
GS-AP-MW-12V	Conductivity	2/23/2022 12:19	308.84	uS/cm

**Groundwater Field Parameters  
Plant Gorgas Ash Pond**

WELL ID	DESCRIPTION	TIME OF READING	VALUE	UNIT
GS-AP-MW-12V	DO	2/23/2022 12:19	0.66	mg/L
GS-AP-MW-12V	Depth to Water Detail	2/23/2022 12:19	101.21	ft
GS-AP-MW-12V	Oxidation Reduction Potential	2/23/2022 12:19	-175.58	mv
GS-AP-MW-12V	pH	2/23/2022 12:19	7.81	SU
GS-AP-MW-12V	Temperature	2/23/2022 12:19	17.62	C
GS-AP-MW-12V	Turbidity	2/23/2022 12:19	11.44	NTU
GS-AP-MW-12V	Conductivity	2/23/2022 12:24	309.73	uS/cm
GS-AP-MW-12V	DO	2/23/2022 12:24	0.66	mg/L
GS-AP-MW-12V	Depth to Water Detail	2/23/2022 12:24	101.23	ft
GS-AP-MW-12V	Oxidation Reduction Potential	2/23/2022 12:24	-170.87	mv
GS-AP-MW-12V	pH	2/23/2022 12:24	7.75	SU
GS-AP-MW-12V	Temperature	2/23/2022 12:24	17.63	C
GS-AP-MW-12V	Turbidity	2/23/2022 12:24	11	NTU
GS-AP-MW-12V	Conductivity	2/23/2022 12:29	309.69	uS/cm
GS-AP-MW-12V	DO	2/23/2022 12:29	0.66	mg/L
GS-AP-MW-12V	Depth to Water Detail	2/23/2022 12:29	101.26	ft
GS-AP-MW-12V	Oxidation Reduction Potential	2/23/2022 12:29	-168.6	mv
GS-AP-MW-12V	pH	2/23/2022 12:29	7.73	SU
GS-AP-MW-12V	Temperature	2/23/2022 12:29	17.55	C
GS-AP-MW-12V	Turbidity	2/23/2022 12:29	9.83	NTU

**Groundwater Field Parameters  
Plant Gorgas Ash Pond**

WELL ID	DESCRIPTION	TIME OF READING	VALUE	UNIT
GS-AP-MW-09R	Conductivity	3/1/2022 11:15	1537.39	uS/cm
GS-AP-MW-09R	DO	3/1/2022 11:15	0.74	mg/L
GS-AP-MW-09R	Depth to Water Detail	3/1/2022 11:15	62.44	ft
GS-AP-MW-09R	Oxidation Reduction Potention	3/1/2022 11:15	-42.09	mv
GS-AP-MW-09R	pH	3/1/2022 11:15	6.55	SU
GS-AP-MW-09R	Temperature	3/1/2022 11:15	19.12	C
GS-AP-MW-09R	Turbidity	3/1/2022 11:15	8.46	NTU
GS-AP-MW-09R	Conductivity	3/1/2022 11:20	1375.32	uS/cm
GS-AP-MW-09R	DO	3/1/2022 11:20	0.4	mg/L
GS-AP-MW-09R	Depth to Water Detail	3/1/2022 11:20	62.62	ft
GS-AP-MW-09R	Oxidation Reduction Potention	3/1/2022 11:20	-42.88	mv
GS-AP-MW-09R	pH	3/1/2022 11:20	6.53	SU
GS-AP-MW-09R	Temperature	3/1/2022 11:20	19.11	C
GS-AP-MW-09R	Turbidity	3/1/2022 11:20	3.57	NTU
GS-AP-MW-09R	Conductivity	3/1/2022 11:25	1192.96	uS/cm
GS-AP-MW-09R	DO	3/1/2022 11:25	0.34	mg/L
GS-AP-MW-09R	Depth to Water Detail	3/1/2022 11:25	62.71	ft
GS-AP-MW-09R	Oxidation Reduction Potention	3/1/2022 11:25	-41.3	mv
GS-AP-MW-09R	pH	3/1/2022 11:25	6.5	SU
GS-AP-MW-09R	Temperature	3/1/2022 11:25	19.2	C
GS-AP-MW-09R	Turbidity	3/1/2022 11:25	2.67	NTU
GS-AP-MW-09R	Conductivity	3/1/2022 11:30	1035.55	uS/cm
GS-AP-MW-09R	DO	3/1/2022 11:30	0.32	mg/L
GS-AP-MW-09R	Depth to Water Detail	3/1/2022 11:30	62.76	ft
GS-AP-MW-09R	Oxidation Reduction Potention	3/1/2022 11:30	-38.63	mv
GS-AP-MW-09R	pH	3/1/2022 11:30	6.46	SU
GS-AP-MW-09R	Temperature	3/1/2022 11:30	19.27	C
GS-AP-MW-09R	Turbidity	3/1/2022 11:30	1.82	NTU
GS-AP-MW-09R	Conductivity	3/1/2022 11:35	935.21	uS/cm
GS-AP-MW-09R	DO	3/1/2022 11:35	0.32	mg/L
GS-AP-MW-09R	Depth to Water Detail	3/1/2022 11:35	62.82	ft
GS-AP-MW-09R	Oxidation Reduction Potention	3/1/2022 11:35	-37.42	mv
GS-AP-MW-09R	pH	3/1/2022 11:35	6.45	SU
GS-AP-MW-09R	Temperature	3/1/2022 11:35	19.21	C
GS-AP-MW-09R	Turbidity	3/1/2022 11:35	1.84	NTU
GS-AP-MW-09R	Conductivity	3/1/2022 11:40	875.81	uS/cm
GS-AP-MW-09R	DO	3/1/2022 11:40	0.32	mg/L
GS-AP-MW-09R	Depth to Water Detail	3/1/2022 11:40	62.85	ft
GS-AP-MW-09R	Oxidation Reduction Potention	3/1/2022 11:40	-36.63	mv
GS-AP-MW-09R	pH	3/1/2022 11:40	6.45	SU
GS-AP-MW-09R	Temperature	3/1/2022 11:40	19.24	C
GS-AP-MW-09R	Turbidity	3/1/2022 11:40	1.84	NTU
GS-AP-MW-09R	Conductivity	3/1/2022 11:45	813.02	uS/cm
GS-AP-MW-09R	DO	3/1/2022 11:45	0.32	mg/L
GS-AP-MW-09R	Depth to Water Detail	3/1/2022 11:45	62.85	ft
GS-AP-MW-09R	Oxidation Reduction Potention	3/1/2022 11:45	-35.53	mv
GS-AP-MW-09R	pH	3/1/2022 11:45	6.44	SU
GS-AP-MW-09R	Temperature	3/1/2022 11:45	19.25	C
GS-AP-MW-09R	Turbidity	3/1/2022 11:45	1.91	NTU
GS-AP-MW-09R	Conductivity	3/1/2022 11:50	744.42	uS/cm
GS-AP-MW-09R	DO	3/1/2022 11:50	0.32	mg/L
GS-AP-MW-09R	Depth to Water Detail	3/1/2022 11:50	62.85	ft
GS-AP-MW-09R	Oxidation Reduction Potention	3/1/2022 11:50	-34.71	mv
GS-AP-MW-09R	pH	3/1/2022 11:50	6.43	SU
GS-AP-MW-09R	Temperature	3/1/2022 11:50	19.28	C
GS-AP-MW-09R	Turbidity	3/1/2022 11:50	2.04	NTU
GS-AP-MW-09R	Conductivity	3/1/2022 11:55	721.13	uS/cm
GS-AP-MW-09R	DO	3/1/2022 11:55	0.32	mg/L



**Groundwater Field Parameters  
Plant Gorgas Ash Pond**

<b>WELL ID</b>	<b>DESCRIPTION</b>	<b>TIME OF READING</b>	<b>VALUE</b>	<b>UNIT</b>
GS-AP-MW-09R	Depth to Water Detail	3/1/2022 11:55	62.85	ft
GS-AP-MW-09R	Oxidation Reduction Potention	3/1/2022 11:55	-29.91	mv
GS-AP-MW-09R	pH	3/1/2022 11:55	6.35	SU
GS-AP-MW-09R	Temperature	3/1/2022 11:55	19.34	C
GS-AP-MW-09R	Turbidity	3/1/2022 11:55	1.47	NTU
GS-AP-MW-09R	Conductivity	3/1/2022 12:00	717.38	uS/cm
GS-AP-MW-09R	DO	3/1/2022 12:00	0.32	mg/L
GS-AP-MW-09R	Depth to Water Detail	3/1/2022 12:00	62.85	ft
GS-AP-MW-09R	Oxidation Reduction Potention	3/1/2022 12:00	-31.47	mv
GS-AP-MW-09R	pH	3/1/2022 12:00	6.4	SU
GS-AP-MW-09R	Temperature	3/1/2022 12:00	19.28	C
GS-AP-MW-09R	Turbidity	3/1/2022 12:00	1.76	NTU

**Groundwater Field Parameters  
Plant Gorgas Ash Pond**

WELL ID	DESCRIPTION	TIME OF READING	VALUE	UNIT
GS-AP-MW-12	Conductivity	2/28/2022 13:42	344.7	uS/cm
GS-AP-MW-12	DO	2/28/2022 13:42	0.29	mg/L
GS-AP-MW-12	Depth to Water Detail	2/28/2022 13:42	76.32	ft
GS-AP-MW-12	Oxidation Reduction Potential	2/28/2022 13:42	-140.89	mv
GS-AP-MW-12	pH	2/28/2022 13:42	7.57	SU
GS-AP-MW-12	Temperature	2/28/2022 13:42	18.88	C
GS-AP-MW-12	Turbidity	2/28/2022 13:42	2.98	NTU
GS-AP-MW-12	Conductivity	2/28/2022 13:47	327.47	uS/cm
GS-AP-MW-12	DO	2/28/2022 13:47	0.25	mg/L
GS-AP-MW-12	Depth to Water Detail	2/28/2022 13:47	79.74	ft
GS-AP-MW-12	Oxidation Reduction Potential	2/28/2022 13:47	-261.77	mv
GS-AP-MW-12	pH	2/28/2022 13:47	10.25	SU
GS-AP-MW-12	Temperature	2/28/2022 13:47	18.93	C
GS-AP-MW-12	Turbidity	2/28/2022 13:47	1.56	NTU
GS-AP-MW-12	Conductivity	2/28/2022 13:52	324.61	uS/cm
GS-AP-MW-12	DO	2/28/2022 13:52	0.25	mg/L
GS-AP-MW-12	Depth to Water Detail	2/28/2022 13:52	81.19	ft
GS-AP-MW-12	Oxidation Reduction Potential	2/28/2022 13:52	-236.04	mv
GS-AP-MW-12	pH	2/28/2022 13:52	10.19	SU
GS-AP-MW-12	Temperature	2/28/2022 13:52	18.71	C
GS-AP-MW-12	Turbidity	2/28/2022 13:52	1.72	NTU
GS-AP-MW-12	Conductivity	2/28/2022 13:57	323.84	uS/cm
GS-AP-MW-12	DO	2/28/2022 13:57	0.52	mg/L
GS-AP-MW-12	Depth to Water Detail	2/28/2022 13:57	81.22	ft
GS-AP-MW-12	Oxidation Reduction Potential	2/28/2022 13:57	-208.8	mv
GS-AP-MW-12	pH	2/28/2022 13:57	10.15	SU
GS-AP-MW-12	Temperature	2/28/2022 13:57	19.76	C
GS-AP-MW-12	Turbidity	2/28/2022 13:57	1.36	NTU
GS-AP-MW-12	Conductivity	2/28/2022 14:02	323.73	uS/cm
GS-AP-MW-12	DO	2/28/2022 14:02	0.63	mg/L
GS-AP-MW-12	Depth to Water Detail	2/28/2022 14:02	81.26	ft
GS-AP-MW-12	Oxidation Reduction Potential	2/28/2022 14:02	-187.2	mv
GS-AP-MW-12	pH	2/28/2022 14:02	10.04	SU
GS-AP-MW-12	Temperature	2/28/2022 14:02	19.05	C
GS-AP-MW-12	Turbidity	2/28/2022 14:02	1.74	NTU
GS-AP-MW-12	Conductivity	2/28/2022 14:07	320.31	uS/cm
GS-AP-MW-12	DO	2/28/2022 14:07	0.63	mg/L
GS-AP-MW-12	Depth to Water Detail	2/28/2022 14:07	81.28	ft
GS-AP-MW-12	Oxidation Reduction Potential	2/28/2022 14:07	-167.81	mv
GS-AP-MW-12	pH	2/28/2022 14:07	9.69	SU
GS-AP-MW-12	Temperature	2/28/2022 14:07	19.05	C
GS-AP-MW-12	Turbidity	2/28/2022 14:07	1.45	NTU
GS-AP-MW-12	Conductivity	2/28/2022 14:12	327.73	uS/cm
GS-AP-MW-12	DO	2/28/2022 14:12	0.6	mg/L
GS-AP-MW-12	Depth to Water Detail	2/28/2022 14:12	81.38	ft
GS-AP-MW-12	Oxidation Reduction Potential	2/28/2022 14:12	-151.51	mv
GS-AP-MW-12	pH	2/28/2022 14:12	9.18	SU
GS-AP-MW-12	Temperature	2/28/2022 14:12	19.12	C
GS-AP-MW-12	Turbidity	2/28/2022 14:12	2.2	NTU
GS-AP-MW-12	Conductivity	2/28/2022 14:17	337.51	uS/cm
GS-AP-MW-12	DO	2/28/2022 14:17	0.57	mg/L
GS-AP-MW-12	Depth to Water Detail	2/28/2022 14:17	81.45	ft
GS-AP-MW-12	Oxidation Reduction Potential	2/28/2022 14:17	-177.4	mv
GS-AP-MW-12	pH	2/28/2022 14:17	8.81	SU
GS-AP-MW-12	Temperature	2/28/2022 14:17	19	C
GS-AP-MW-12	Turbidity	2/28/2022 14:17	1.54	NTU
GS-AP-MW-12	Conductivity	2/28/2022 14:22	342.23	uS/cm
GS-AP-MW-12	DO	2/28/2022 14:22	0.56	mg/L

**Groundwater Field Parameters  
Plant Gorgas Ash Pond**

WELL ID	DESCRIPTION	TIME OF READING	VALUE	UNIT
GS-AP-MW-12	Depth to Water Detail	2/28/2022 14:22	81.58	ft
GS-AP-MW-12	Oxidation Reduction Potention	2/28/2022 14:22	-198.36	mv
GS-AP-MW-12	pH	2/28/2022 14:22	8.47	SU
GS-AP-MW-12	Temperature	2/28/2022 14:22	19.03	C
GS-AP-MW-12	Turbidity	2/28/2022 14:22	1.54	NTU
GS-AP-MW-12	Conductivity	2/28/2022 14:27	343.96	uS/cm
GS-AP-MW-12	DO	2/28/2022 14:27	0.55	mg/L
GS-AP-MW-12	Depth to Water Detail	2/28/2022 14:27	81.86	ft
GS-AP-MW-12	Oxidation Reduction Potention	2/28/2022 14:27	-190.7	mv
GS-AP-MW-12	pH	2/28/2022 14:27	8.23	SU
GS-AP-MW-12	Temperature	2/28/2022 14:27	18.84	C
GS-AP-MW-12	Turbidity	2/28/2022 14:27	1.39	NTU
GS-AP-MW-12	Conductivity	2/28/2022 14:32	343.89	uS/cm
GS-AP-MW-12	DO	2/28/2022 14:32	0.52	mg/L
GS-AP-MW-12	Depth to Water Detail	2/28/2022 14:32	81.92	ft
GS-AP-MW-12	Oxidation Reduction Potention	2/28/2022 14:32	-188.75	mv
GS-AP-MW-12	pH	2/28/2022 14:32	8.2	SU
GS-AP-MW-12	Temperature	2/28/2022 14:32	18.94	C
GS-AP-MW-12	Turbidity	2/28/2022 14:32	1.57	NTU
GS-AP-MW-12	Conductivity	2/28/2022 14:37	342.75	uS/cm
GS-AP-MW-12	DO	2/28/2022 14:37	0.51	mg/L
GS-AP-MW-12	Depth to Water Detail	2/28/2022 14:37	82.15	ft
GS-AP-MW-12	Oxidation Reduction Potention	2/28/2022 14:37	-183.55	mv
GS-AP-MW-12	pH	2/28/2022 14:37	8.12	SU
GS-AP-MW-12	Temperature	2/28/2022 14:37	18.79	C
GS-AP-MW-12	Turbidity	2/28/2022 14:37	1.45	NTU

**Groundwater Field Parameters  
Plant Gorgas Ash Pond**

WELL ID	DESCRIPTION	TIME OF READING	VALUE	UNIT
GS-AP-M-01R	Conductivity	3/1/2022 7:49	481.91	uS/cm
GS-AP-M-01R	DO	3/1/2022 7:49	0.32	mg/L
GS-AP-M-01R	Depth to Water Detail	3/1/2022 7:49	161	ft
GS-AP-M-01R	Oxidation Reduction Potention	3/1/2022 7:49	-187.09	mv
GS-AP-M-01R	pH	3/1/2022 7:49	8.83	SU
GS-AP-M-01R	Temperature	3/1/2022 7:49	16.63	C
GS-AP-M-01R	Turbidity	3/1/2022 7:49	5.31	NTU
GS-AP-M-01R	Conductivity	3/1/2022 7:54	481.24	uS/cm
GS-AP-M-01R	DO	3/1/2022 7:54	0.27	mg/L
GS-AP-M-01R	Depth to Water Detail	3/1/2022 7:54	176.21	ft
GS-AP-M-01R	Oxidation Reduction Potention	3/1/2022 7:54	-195.65	mv
GS-AP-M-01R	pH	3/1/2022 7:54	8.85	SU
GS-AP-M-01R	Temperature	3/1/2022 7:54	16.52	C
GS-AP-M-01R	Turbidity	3/1/2022 7:54	5.1	NTU
GS-AP-M-01R	Conductivity	3/1/2022 7:59	482.22	uS/cm
GS-AP-M-01R	DO	3/1/2022 7:59	0.25	mg/L
GS-AP-M-01R	Depth to Water Detail	3/1/2022 7:59	179.25	ft
GS-AP-M-01R	Oxidation Reduction Potention	3/1/2022 7:59	-201.07	mv
GS-AP-M-01R	pH	3/1/2022 7:59	8.85	SU
GS-AP-M-01R	Temperature	3/1/2022 7:59	16.55	C
GS-AP-M-01R	Turbidity	3/1/2022 7:59	5.03	NTU
GS-AP-M-01R	Conductivity	3/1/2022 8:04	480.85	uS/cm
GS-AP-M-01R	DO	3/1/2022 8:04	0.23	mg/L
GS-AP-M-01R	Depth to Water Detail	3/1/2022 8:04	181.55	ft
GS-AP-M-01R	Oxidation Reduction Potention	3/1/2022 8:04	-201.74	mv
GS-AP-M-01R	pH	3/1/2022 8:04	8.85	SU
GS-AP-M-01R	Temperature	3/1/2022 8:04	16.46	C
GS-AP-M-01R	Turbidity	3/1/2022 8:04	6.65	NTU
GS-AP-M-01R	Conductivity	3/1/2022 8:09	480.37	uS/cm
GS-AP-M-01R	DO	3/1/2022 8:09	0.22	mg/L
GS-AP-M-01R	Depth to Water Detail	3/1/2022 8:09	184.02	ft
GS-AP-M-01R	Oxidation Reduction Potention	3/1/2022 8:09	-207.56	mv
GS-AP-M-01R	pH	3/1/2022 8:09	8.86	SU
GS-AP-M-01R	Temperature	3/1/2022 8:09	16.52	C
GS-AP-M-01R	Turbidity	3/1/2022 8:09	6.28	NTU
GS-AP-M-01R	Conductivity	3/1/2022 8:14	472.92	uS/cm
GS-AP-M-01R	DO	3/1/2022 8:14	0.23	mg/L
GS-AP-M-01R	Depth to Water Detail	3/1/2022 8:14	186.24	ft
GS-AP-M-01R	Oxidation Reduction Potention	3/1/2022 8:14	-207.28	mv
GS-AP-M-01R	pH	3/1/2022 8:14	8.8	SU
GS-AP-M-01R	Temperature	3/1/2022 8:14	16.45	C
GS-AP-M-01R	Turbidity	3/1/2022 8:14	4.99	NTU
GS-AP-M-01R	Conductivity	3/1/2022 8:19	479.06	uS/cm
GS-AP-M-01R	DO	3/1/2022 8:19	0.21	mg/L
GS-AP-M-01R	Depth to Water Detail	3/1/2022 8:19	187.8	ft
GS-AP-M-01R	Oxidation Reduction Potention	3/1/2022 8:19	-213.67	mv
GS-AP-M-01R	pH	3/1/2022 8:19	8.87	SU
GS-AP-M-01R	Temperature	3/1/2022 8:19	16.51	C
GS-AP-M-01R	Turbidity	3/1/2022 8:19	4.61	NTU
GS-AP-M-01R	Conductivity	3/1/2022 8:24	481.02	uS/cm
GS-AP-M-01R	DO	3/1/2022 8:24	0.22	mg/L
GS-AP-M-01R	Depth to Water Detail	3/1/2022 8:24	190.1	ft
GS-AP-M-01R	Oxidation Reduction Potention	3/1/2022 8:24	-211.44	mv
GS-AP-M-01R	pH	3/1/2022 8:24	8.8	SU
GS-AP-M-01R	Temperature	3/1/2022 8:24	16.56	C
GS-AP-M-01R	Turbidity	3/1/2022 8:24	4.51	NTU
GS-AP-M-01R	Conductivity	3/1/2022 8:29	480.69	uS/cm
GS-AP-M-01R	DO	3/1/2022 8:29	0.21	mg/L

**Groundwater Field Parameters  
Plant Gorgas Ash Pond**

WELL ID	DESCRIPTION	TIME OF READING	VALUE	UNIT
GS-AP-M-01R	Depth to Water Detail	3/1/2022 8:29	191.75	ft
GS-AP-M-01R	Oxidation Reduction Potention	3/1/2022 8:29	-215.32	mv
GS-AP-M-01R	pH	3/1/2022 8:29	8.87	SU
GS-AP-M-01R	Temperature	3/1/2022 8:29	16.59	C
GS-AP-M-01R	Turbidity	3/1/2022 8:29	5.41	NTU
GS-AP-M-01R	Conductivity	3/1/2022 8:34	479.56	uS/cm
GS-AP-M-01R	DO	3/1/2022 8:34	0.31	mg/L
GS-AP-M-01R	Depth to Water Detail	3/1/2022 8:34	192.25	ft
GS-AP-M-01R	Oxidation Reduction Potention	3/1/2022 8:34	-205.85	mv
GS-AP-M-01R	pH	3/1/2022 8:34	8.86	SU
GS-AP-M-01R	Temperature	3/1/2022 8:34	15.68	C
GS-AP-M-01R	Turbidity	3/1/2022 8:34	5.28	NTU
GS-AP-M-01R	Conductivity	3/1/2022 8:39	478.3	uS/cm
GS-AP-M-01R	DO	3/1/2022 8:39	0.35	mg/L
GS-AP-M-01R	Depth to Water Detail	3/1/2022 8:39	191.62	ft
GS-AP-M-01R	Oxidation Reduction Potention	3/1/2022 8:39	-200.24	mv
GS-AP-M-01R	pH	3/1/2022 8:39	8.87	SU
GS-AP-M-01R	Temperature	3/1/2022 8:39	15.7	C
GS-AP-M-01R	Turbidity	3/1/2022 8:39	5.52	NTU
GS-AP-M-01R	Conductivity	3/1/2022 8:44	473.15	uS/cm
GS-AP-M-01R	DO	3/1/2022 8:44	0.36	mg/L
GS-AP-M-01R	Depth to Water Detail	3/1/2022 8:44	191.1	ft
GS-AP-M-01R	Oxidation Reduction Potention	3/1/2022 8:44	-201.12	mv
GS-AP-M-01R	pH	3/1/2022 8:44	8.87	SU
GS-AP-M-01R	Temperature	3/1/2022 8:44	15.84	C
GS-AP-M-01R	Turbidity	3/1/2022 8:44	6.25	NTU
GS-AP-M-01R	Conductivity	3/1/2022 8:49	469.21	uS/cm
GS-AP-M-01R	DO	3/1/2022 8:49	0.36	mg/L
GS-AP-M-01R	Depth to Water Detail	3/1/2022 8:49	190.88	ft
GS-AP-M-01R	Oxidation Reduction Potention	3/1/2022 8:49	-202.87	mv
GS-AP-M-01R	pH	3/1/2022 8:49	8.86	SU
GS-AP-M-01R	Temperature	3/1/2022 8:49	15.83	C
GS-AP-M-01R	Turbidity	3/1/2022 8:49	6.37	NTU

**Groundwater Field Parameters  
Plant Gorgas Ash Pond**

WELL ID	DESCRIPTION	TIME OF READING	VALUE	UNIT
GS-AP-MW-11R	Conductivity	3/1/2022 10:17	384.77	uS/cm
GS-AP-MW-11R	DO	3/1/2022 10:17	0.5	mg/L
GS-AP-MW-11R	Depth to Water Detail	3/1/2022 10:17	75.05	ft
GS-AP-MW-11R	Oxidation Reduction Potential	3/1/2022 10:17	-35.77	mv
GS-AP-MW-11R	pH	3/1/2022 10:17	6.75	SU
GS-AP-MW-11R	Temperature	3/1/2022 10:17	17.13	C
GS-AP-MW-11R	Turbidity	3/1/2022 10:17	100.1	NTU
GS-AP-MW-11R	Conductivity	3/1/2022 10:22	382.97	uS/cm
GS-AP-MW-11R	DO	3/1/2022 10:22	0.38	mg/L
GS-AP-MW-11R	Depth to Water Detail	3/1/2022 10:22	75.05	ft
GS-AP-MW-11R	Oxidation Reduction Potential	3/1/2022 10:22	-37.28	mv
GS-AP-MW-11R	pH	3/1/2022 10:22	6.7	SU
GS-AP-MW-11R	Temperature	3/1/2022 10:22	17.14	C
GS-AP-MW-11R	Turbidity	3/1/2022 10:22	78.6	NTU
GS-AP-MW-11R	Conductivity	3/1/2022 10:27	381.95	uS/cm
GS-AP-MW-11R	DO	3/1/2022 10:27	0.34	mg/L
GS-AP-MW-11R	Depth to Water Detail	3/1/2022 10:27	75.05	ft
GS-AP-MW-11R	Oxidation Reduction Potential	3/1/2022 10:27	-38.48	mv
GS-AP-MW-11R	pH	3/1/2022 10:27	6.73	SU
GS-AP-MW-11R	Temperature	3/1/2022 10:27	17.17	C
GS-AP-MW-11R	Turbidity	3/1/2022 10:27	55.4	NTU
GS-AP-MW-11R	Conductivity	3/1/2022 10:32	381.8	uS/cm
GS-AP-MW-11R	DO	3/1/2022 10:32	0.36	mg/L
GS-AP-MW-11R	Depth to Water Detail	3/1/2022 10:32	75.05	ft
GS-AP-MW-11R	Oxidation Reduction Potential	3/1/2022 10:32	-36.93	mv
GS-AP-MW-11R	pH	3/1/2022 10:32	6.69	SU
GS-AP-MW-11R	Temperature	3/1/2022 10:32	17.21	C
GS-AP-MW-11R	Turbidity	3/1/2022 10:32	33.8	NTU
GS-AP-MW-11R	Conductivity	3/1/2022 10:37	379.15	uS/cm
GS-AP-MW-11R	DO	3/1/2022 10:37	0.5	mg/L
GS-AP-MW-11R	Depth to Water Detail	3/1/2022 10:37	75.05	ft
GS-AP-MW-11R	Oxidation Reduction Potential	3/1/2022 10:37	-32.16	mv
GS-AP-MW-11R	pH	3/1/2022 10:37	6.7	SU
GS-AP-MW-11R	Temperature	3/1/2022 10:37	17.49	C
GS-AP-MW-11R	Turbidity	3/1/2022 10:37	40.9	NTU
GS-AP-MW-11R	Conductivity	3/1/2022 10:42	381.51	uS/cm
GS-AP-MW-11R	DO	3/1/2022 10:42	0.3	mg/L
GS-AP-MW-11R	Depth to Water Detail	3/1/2022 10:42	75.05	ft
GS-AP-MW-11R	Oxidation Reduction Potential	3/1/2022 10:42	-32.68	mv
GS-AP-MW-11R	pH	3/1/2022 10:42	6.66	SU
GS-AP-MW-11R	Temperature	3/1/2022 10:42	17.33	C
GS-AP-MW-11R	Turbidity	3/1/2022 10:42	35.1	NTU
GS-AP-MW-11R	Conductivity	3/1/2022 10:47	382.2	uS/cm
GS-AP-MW-11R	DO	3/1/2022 10:47	0.25	mg/L
GS-AP-MW-11R	Depth to Water Detail	3/1/2022 10:47	75.05	ft
GS-AP-MW-11R	Oxidation Reduction Potential	3/1/2022 10:47	-44.8	mv
GS-AP-MW-11R	pH	3/1/2022 10:47	6.69	SU
GS-AP-MW-11R	Temperature	3/1/2022 10:47	17.26	C
GS-AP-MW-11R	Turbidity	3/1/2022 10:47	11.3	NTU
GS-AP-MW-11R	Conductivity	3/1/2022 10:52	381.68	uS/cm
GS-AP-MW-11R	DO	3/1/2022 10:52	0.24	mg/L
GS-AP-MW-11R	Depth to Water Detail	3/1/2022 10:52	75.05	ft
GS-AP-MW-11R	Oxidation Reduction Potential	3/1/2022 10:52	-44.47	mv
GS-AP-MW-11R	pH	3/1/2022 10:52	6.66	SU
GS-AP-MW-11R	Temperature	3/1/2022 10:52	17.27	C
GS-AP-MW-11R	Turbidity	3/1/2022 10:52	9.64	NTU
GS-AP-MW-11R	Conductivity	3/1/2022 10:57	382.19	uS/cm
GS-AP-MW-11R	DO	3/1/2022 10:57	0.23	mg/L

**Groundwater Field Parameters  
Plant Gorgas Ash Pond**

WELL ID	DESCRIPTION	TIME OF READING	VALUE	UNIT
GS-AP-MW-11R	Depth to Water Detail	3/1/2022 10:57	75.05	ft
GS-AP-MW-11R	Oxidation Reduction Potention	3/1/2022 10:57	-46.28	mv
GS-AP-MW-11R	pH	3/1/2022 10:57	6.67	SU
GS-AP-MW-11R	Temperature	3/1/2022 10:57	17.17	C
GS-AP-MW-11R	Turbidity	3/1/2022 10:57	8.62	NTU
GS-AP-MW-11R	Conductivity	3/1/2022 11:02	382.69	uS/cm
GS-AP-MW-11R	DO	3/1/2022 11:02	0.22	mg/L
GS-AP-MW-11R	Depth to Water Detail	3/1/2022 11:02	75.05	ft
GS-AP-MW-11R	Oxidation Reduction Potention	3/1/2022 11:02	-47.53	mv
GS-AP-MW-11R	pH	3/1/2022 11:02	6.68	SU
GS-AP-MW-11R	Temperature	3/1/2022 11:02	17.17	C
GS-AP-MW-11R	Turbidity	3/1/2022 11:02	10.02	NTU
GS-AP-MW-11R	Conductivity	3/1/2022 11:07	382.52	uS/cm
GS-AP-MW-11R	DO	3/1/2022 11:07	0.22	mg/L
GS-AP-MW-11R	Depth to Water Detail	3/1/2022 11:07	75.05	ft
GS-AP-MW-11R	Oxidation Reduction Potention	3/1/2022 11:07	-50.63	mv
GS-AP-MW-11R	pH	3/1/2022 11:07	6.69	SU
GS-AP-MW-11R	Temperature	3/1/2022 11:07	17.2	C
GS-AP-MW-11R	Turbidity	3/1/2022 11:07	7.65	NTU
GS-AP-MW-11R	Conductivity	3/1/2022 11:12	382.5	uS/cm
GS-AP-MW-11R	DO	3/1/2022 11:12	0.22	mg/L
GS-AP-MW-11R	Depth to Water Detail	3/1/2022 11:12	75.05	ft
GS-AP-MW-11R	Oxidation Reduction Potention	3/1/2022 11:12	-52.48	mv
GS-AP-MW-11R	pH	3/1/2022 11:12	6.69	SU
GS-AP-MW-11R	Temperature	3/1/2022 11:12	17.2	C
GS-AP-MW-11R	Turbidity	3/1/2022 11:12	6.92	NTU
GS-AP-MW-11R	Conductivity	3/1/2022 11:17	382.55	uS/cm
GS-AP-MW-11R	DO	3/1/2022 11:17	0.22	mg/L
GS-AP-MW-11R	Depth to Water Detail	3/1/2022 11:17	75.05	ft
GS-AP-MW-11R	Oxidation Reduction Potention	3/1/2022 11:17	-54.74	mv
GS-AP-MW-11R	pH	3/1/2022 11:17	6.68	SU
GS-AP-MW-11R	Temperature	3/1/2022 11:17	17.12	C
GS-AP-MW-11R	Turbidity	3/1/2022 11:17	7.38	NTU



**Groundwater Field Parameters  
Plant Gorgas Ash Pond**

WELL ID	DESCRIPTION	TIME OF READING	VALUE	UNIT
GS-AP-MW-05R	Conductivity	3/1/2022 12:11	1894.78	uS/cm
GS-AP-MW-05R	DO	3/1/2022 12:11	0.77	mg/L
GS-AP-MW-05R	Depth to Water Detail	3/1/2022 12:11	146.4	ft
GS-AP-MW-05R	Oxidation Reduction Potention	3/1/2022 12:11	-164.74	mv
GS-AP-MW-05R	pH	3/1/2022 12:11	6.61	SU
GS-AP-MW-05R	Temperature	3/1/2022 12:11	17.54	C
GS-AP-MW-05R	Turbidity	3/1/2022 12:11	4.42	NTU
GS-AP-MW-05R	Conductivity	3/1/2022 12:16	1973.48	uS/cm
GS-AP-MW-05R	DO	3/1/2022 12:16	0.71	mg/L
GS-AP-MW-05R	Depth to Water Detail	3/1/2022 12:16	146.92	ft
GS-AP-MW-05R	Oxidation Reduction Potention	3/1/2022 12:16	-175.31	mv
GS-AP-MW-05R	pH	3/1/2022 12:16	6.6	SU
GS-AP-MW-05R	Temperature	3/1/2022 12:16	17.58	C
GS-AP-MW-05R	Turbidity	3/1/2022 12:16	2.75	NTU
GS-AP-MW-05R	Conductivity	3/1/2022 12:21	2007.98	uS/cm
GS-AP-MW-05R	DO	3/1/2022 12:21	0.62	mg/L
GS-AP-MW-05R	Depth to Water Detail	3/1/2022 12:21	147.56	ft
GS-AP-MW-05R	Oxidation Reduction Potention	3/1/2022 12:21	-188.95	mv
GS-AP-MW-05R	pH	3/1/2022 12:21	6.63	SU
GS-AP-MW-05R	Temperature	3/1/2022 12:21	17.46	C
GS-AP-MW-05R	Turbidity	3/1/2022 12:21	2.02	NTU
GS-AP-MW-05R	Conductivity	3/1/2022 12:26	1900.37	uS/cm
GS-AP-MW-05R	DO	3/1/2022 12:26	0.4	mg/L
GS-AP-MW-05R	Depth to Water Detail	3/1/2022 12:26	149.4	ft
GS-AP-MW-05R	Oxidation Reduction Potention	3/1/2022 12:26	-202.08	mv
GS-AP-MW-05R	pH	3/1/2022 12:26	6.62	SU
GS-AP-MW-05R	Temperature	3/1/2022 12:26	17.02	C
GS-AP-MW-05R	Turbidity	3/1/2022 12:26	2.99	NTU
GS-AP-MW-05R	Conductivity	3/1/2022 12:31	1777.3	uS/cm
GS-AP-MW-05R	DO	3/1/2022 12:31	0.42	mg/L
GS-AP-MW-05R	Depth to Water Detail	3/1/2022 12:31	153.28	ft
GS-AP-MW-05R	Oxidation Reduction Potention	3/1/2022 12:31	-192.52	mv
GS-AP-MW-05R	pH	3/1/2022 12:31	6.59	SU
GS-AP-MW-05R	Temperature	3/1/2022 12:31	17.09	C
GS-AP-MW-05R	Turbidity	3/1/2022 12:31	2.37	NTU
GS-AP-MW-05R	Conductivity	3/1/2022 12:36	1742.92	uS/cm
GS-AP-MW-05R	DO	3/1/2022 12:36	0.41	mg/L
GS-AP-MW-05R	Depth to Water Detail	3/1/2022 12:36	154	ft
GS-AP-MW-05R	Oxidation Reduction Potention	3/1/2022 12:36	-196.72	mv
GS-AP-MW-05R	pH	3/1/2022 12:36	6.6	SU
GS-AP-MW-05R	Temperature	3/1/2022 12:36	17.25	C
GS-AP-MW-05R	Turbidity	3/1/2022 12:36	2.11	NTU
GS-AP-MW-05R	Conductivity	3/1/2022 12:41	1672.02	uS/cm
GS-AP-MW-05R	DO	3/1/2022 12:41	0.32	mg/L
GS-AP-MW-05R	Depth to Water Detail	3/1/2022 12:41	154.55	ft
GS-AP-MW-05R	Oxidation Reduction Potention	3/1/2022 12:41	-208.95	mv
GS-AP-MW-05R	pH	3/1/2022 12:41	6.6	SU
GS-AP-MW-05R	Temperature	3/1/2022 12:41	17.34	C
GS-AP-MW-05R	Turbidity	3/1/2022 12:41	1.72	NTU
GS-AP-MW-05R	Conductivity	3/1/2022 12:46	1557.32	uS/cm
GS-AP-MW-05R	DO	3/1/2022 12:46	0.3	mg/L
GS-AP-MW-05R	Depth to Water Detail	3/1/2022 12:46	155	ft
GS-AP-MW-05R	Oxidation Reduction Potention	3/1/2022 12:46	-213.49	mv
GS-AP-MW-05R	pH	3/1/2022 12:46	6.59	SU
GS-AP-MW-05R	Temperature	3/1/2022 12:46	17.29	C
GS-AP-MW-05R	Turbidity	3/1/2022 12:46	1.1	NTU

**Groundwater Field Parameters  
Plant Gorgas Ash Pond**

WELL ID	DESCRIPTION	TIME OF READING	VALUE	UNIT
GS-AP-MW-05R	Conductivity	3/1/2022 12:51	1449.85	uS/cm
GS-AP-MW-05R	DO	3/1/2022 12:51	0.3	mg/L
GS-AP-MW-05R	Depth to Water Detail	3/1/2022 12:51	155.43	ft
GS-AP-MW-05R	Oxidation Reduction Potention	3/1/2022 12:51	-216.43	mv
GS-AP-MW-05R	pH	3/1/2022 12:51	6.59	SU
GS-AP-MW-05R	Temperature	3/1/2022 12:51	17.27	C
GS-AP-MW-05R	Turbidity	3/1/2022 12:51	1.31	NTU
GS-AP-MW-05R	Conductivity	3/1/2022 12:56	1371.54	uS/cm
GS-AP-MW-05R	DO	3/1/2022 12:56	0.29	mg/L
GS-AP-MW-05R	Depth to Water Detail	3/1/2022 12:56	155.85	ft
GS-AP-MW-05R	Oxidation Reduction Potention	3/1/2022 12:56	-218.25	mv
GS-AP-MW-05R	pH	3/1/2022 12:56	6.61	SU
GS-AP-MW-05R	Temperature	3/1/2022 12:56	17.2	C
GS-AP-MW-05R	Turbidity	3/1/2022 12:56	1.22	NTU
GS-AP-MW-05R	Conductivity	3/1/2022 13:01	1325.62	uS/cm
GS-AP-MW-05R	DO	3/1/2022 13:01	0.34	mg/L
GS-AP-MW-05R	Depth to Water Detail	3/1/2022 13:01	155.3	ft
GS-AP-MW-05R	Oxidation Reduction Potention	3/1/2022 13:01	-217.46	mv
GS-AP-MW-05R	pH	3/1/2022 13:01	6.62	SU
GS-AP-MW-05R	Temperature	3/1/2022 13:01	17.45	C
GS-AP-MW-05R	Turbidity	3/1/2022 13:01	1.7	NTU
GS-AP-MW-05R	Conductivity	3/1/2022 13:06	1225.22	uS/cm
GS-AP-MW-05R	DO	3/1/2022 13:06	0.32	mg/L
GS-AP-MW-05R	Depth to Water Detail	3/1/2022 13:06	154.82	ft
GS-AP-MW-05R	Oxidation Reduction Potention	3/1/2022 13:06	-223.35	mv
GS-AP-MW-05R	pH	3/1/2022 13:06	6.68	SU
GS-AP-MW-05R	Temperature	3/1/2022 13:06	17.46	C
GS-AP-MW-05R	Turbidity	3/1/2022 13:06	0.85	NTU
GS-AP-MW-05R	Conductivity	3/1/2022 13:11	1187.63	uS/cm
GS-AP-MW-05R	DO	3/1/2022 13:11	0.32	mg/L
GS-AP-MW-05R	Depth to Water Detail	3/1/2022 13:11	154.5	ft
GS-AP-MW-05R	Oxidation Reduction Potention	3/1/2022 13:11	-226.54	mv
GS-AP-MW-05R	pH	3/1/2022 13:11	6.73	SU
GS-AP-MW-05R	Temperature	3/1/2022 13:11	17.45	C
GS-AP-MW-05R	Turbidity	3/1/2022 13:11	0.95	NTU
GS-AP-MW-05R	Conductivity	3/1/2022 13:16	1159.63	uS/cm
GS-AP-MW-05R	DO	3/1/2022 13:16	0.3	mg/L
GS-AP-MW-05R	Depth to Water Detail	3/1/2022 13:16	154.1	ft
GS-AP-MW-05R	Oxidation Reduction Potention	3/1/2022 13:16	-228.53	mv
GS-AP-MW-05R	pH	3/1/2022 13:16	6.76	SU
GS-AP-MW-05R	Temperature	3/1/2022 13:16	17.71	C
GS-AP-MW-05R	Turbidity	3/1/2022 13:16	1.46	NTU
GS-AP-MW-05R	Conductivity	3/1/2022 13:21	1130.5	uS/cm
GS-AP-MW-05R	DO	3/1/2022 13:21	0.28	mg/L
GS-AP-MW-05R	Depth to Water Detail	3/1/2022 13:21	154.1	ft
GS-AP-MW-05R	Oxidation Reduction Potention	3/1/2022 13:21	-229.29	mv
GS-AP-MW-05R	pH	3/1/2022 13:21	6.75	SU
GS-AP-MW-05R	Temperature	3/1/2022 13:21	17.45	C
GS-AP-MW-05R	Turbidity	3/1/2022 13:21	1.42	NTU
GS-AP-MW-05R	Conductivity	3/1/2022 13:26	1121.58	uS/cm
GS-AP-MW-05R	DO	3/1/2022 13:26	0.28	mg/L
GS-AP-MW-05R	Depth to Water Detail	3/1/2022 13:26	154.1	ft
GS-AP-MW-05R	Oxidation Reduction Potention	3/1/2022 13:26	-229.26	mv
GS-AP-MW-05R	pH	3/1/2022 13:26	6.76	SU
GS-AP-MW-05R	Temperature	3/1/2022 13:26	17.47	C
GS-AP-MW-05R	Turbidity	3/1/2022 13:26	1.03	NTU
GS-AP-MW-05R	Conductivity	3/1/2022 13:31	1113.2	uS/cm
GS-AP-MW-05R	DO	3/1/2022 13:31	0.28	mg/L

**Groundwater Field Parameters  
Plant Gorgas Ash Pond**

<b>WELL ID</b>	<b>DESCRIPTION</b>	<b>TIME OF READING</b>	<b>VALUE</b>	<b>UNIT</b>
GS-AP-MW-05R	Depth to Water Detail	3/1/2022 13:31	154.1	ft
GS-AP-MW-05R	Oxidation Reduction Potention	3/1/2022 13:31	-229.33	mv
GS-AP-MW-05R	pH	3/1/2022 13:31	6.77	SU
GS-AP-MW-05R	Temperature	3/1/2022 13:31	17.49	C
GS-AP-MW-05R	Turbidity	3/1/2022 13:31	1.38	NTU

**Groundwater Field Parameters  
Plant Gorgas Ash Pond**

WELL ID	DESCRIPTION	TIME OF READING	VALUE	UNIT
GS-AP-MW-10R	Conductivity	3/1/2022 10:23	1214.81	uS/cm
GS-AP-MW-10R	DO	3/1/2022 10:23	0.63	mg/L
GS-AP-MW-10R	Depth to Water Detail	3/1/2022 10:23	151.19	ft
GS-AP-MW-10R	Oxidation Reduction Potential	3/1/2022 10:23	23.33	mv
GS-AP-MW-10R	pH	3/1/2022 10:23	6.74	SU
GS-AP-MW-10R	Temperature	3/1/2022 10:23	17.35	C
GS-AP-MW-10R	Turbidity	3/1/2022 10:23	7.99	NTU
GS-AP-MW-10R	Conductivity	3/1/2022 10:28	1187.22	uS/cm
GS-AP-MW-10R	DO	3/1/2022 10:28	0.52	mg/L
GS-AP-MW-10R	Depth to Water Detail	3/1/2022 10:28	154.31	ft
GS-AP-MW-10R	Oxidation Reduction Potential	3/1/2022 10:28	3.31	mv
GS-AP-MW-10R	pH	3/1/2022 10:28	6.78	SU
GS-AP-MW-10R	Temperature	3/1/2022 10:28	17.44	C
GS-AP-MW-10R	Turbidity	3/1/2022 10:28	8.91	NTU
GS-AP-MW-10R	Conductivity	3/1/2022 10:33	1159.52	uS/cm
GS-AP-MW-10R	DO	3/1/2022 10:33	0.55	mg/L
GS-AP-MW-10R	Depth to Water Detail	3/1/2022 10:33	154.7	ft
GS-AP-MW-10R	Oxidation Reduction Potential	3/1/2022 10:33	-36.2	mv
GS-AP-MW-10R	pH	3/1/2022 10:33	6.86	SU
GS-AP-MW-10R	Temperature	3/1/2022 10:33	17.81	C
GS-AP-MW-10R	Turbidity	3/1/2022 10:33	8.76	NTU
GS-AP-MW-10R	Conductivity	3/1/2022 10:38	1103.89	uS/cm
GS-AP-MW-10R	DO	3/1/2022 10:38	0.55	mg/L
GS-AP-MW-10R	Depth to Water Detail	3/1/2022 10:38	154.83	ft
GS-AP-MW-10R	Oxidation Reduction Potential	3/1/2022 10:38	-60.93	mv
GS-AP-MW-10R	pH	3/1/2022 10:38	6.93	SU
GS-AP-MW-10R	Temperature	3/1/2022 10:38	17.86	C
GS-AP-MW-10R	Turbidity	3/1/2022 10:38	8.08	NTU
GS-AP-MW-10R	Conductivity	3/1/2022 10:43	993.07	uS/cm
GS-AP-MW-10R	DO	3/1/2022 10:43	0.53	mg/L
GS-AP-MW-10R	Depth to Water Detail	3/1/2022 10:43	154.92	ft
GS-AP-MW-10R	Oxidation Reduction Potential	3/1/2022 10:43	-85.59	mv
GS-AP-MW-10R	pH	3/1/2022 10:43	6.95	SU
GS-AP-MW-10R	Temperature	3/1/2022 10:43	17.94	C
GS-AP-MW-10R	Turbidity	3/1/2022 10:43	4.57	NTU
GS-AP-MW-10R	Conductivity	3/1/2022 10:48	937.79	uS/cm
GS-AP-MW-10R	DO	3/1/2022 10:48	0.49	mg/L
GS-AP-MW-10R	Depth to Water Detail	3/1/2022 10:48	154.98	ft
GS-AP-MW-10R	Oxidation Reduction Potential	3/1/2022 10:48	-96.53	mv
GS-AP-MW-10R	pH	3/1/2022 10:48	6.95	SU
GS-AP-MW-10R	Temperature	3/1/2022 10:48	18.13	C
GS-AP-MW-10R	Turbidity	3/1/2022 10:48	10.06	NTU
GS-AP-MW-10R	Conductivity	3/1/2022 10:53	869.73	uS/cm
GS-AP-MW-10R	DO	3/1/2022 10:53	0.49	mg/L
GS-AP-MW-10R	Depth to Water Detail	3/1/2022 10:53	154.98	ft
GS-AP-MW-10R	Oxidation Reduction Potential	3/1/2022 10:53	-101.84	mv
GS-AP-MW-10R	pH	3/1/2022 10:53	6.92	SU
GS-AP-MW-10R	Temperature	3/1/2022 10:53	17.97	C
GS-AP-MW-10R	Turbidity	3/1/2022 10:53	10.45	NTU
GS-AP-MW-10R	Conductivity	3/1/2022 10:58	815.24	uS/cm
GS-AP-MW-10R	DO	3/1/2022 10:58	0.56	mg/L
GS-AP-MW-10R	Depth to Water Detail	3/1/2022 10:58	154.98	ft
GS-AP-MW-10R	Oxidation Reduction Potential	3/1/2022 10:58	-105.63	mv
GS-AP-MW-10R	pH	3/1/2022 10:58	6.91	SU
GS-AP-MW-10R	Temperature	3/1/2022 10:58	18.1	C
GS-AP-MW-10R	Turbidity	3/1/2022 10:58	9.62	NTU
GS-AP-MW-10R	Conductivity	3/1/2022 11:03	763.33	uS/cm
GS-AP-MW-10R	DO	3/1/2022 11:03	0.54	mg/L

**Groundwater Field Parameters  
Plant Gorgas Ash Pond**

WELL ID	DESCRIPTION	TIME OF READING	VALUE	UNIT
GS-AP-MW-10R	Depth to Water Detail	3/1/2022 11:03	154.98	ft
GS-AP-MW-10R	Oxidation Reduction Potential	3/1/2022 11:03	-107.04	mv
GS-AP-MW-10R	pH	3/1/2022 11:03	6.9	SU
GS-AP-MW-10R	Temperature	3/1/2022 11:03	18.21	C
GS-AP-MW-10R	Turbidity	3/1/2022 11:03	9.33	NTU
GS-AP-MW-10R	Conductivity	3/1/2022 11:08	693.99	uS/cm
GS-AP-MW-10R	DO	3/1/2022 11:08	0.52	mg/L
GS-AP-MW-10R	Depth to Water Detail	3/1/2022 11:08	154.98	ft
GS-AP-MW-10R	Oxidation Reduction Potential	3/1/2022 11:08	-98.12	mv
GS-AP-MW-10R	pH	3/1/2022 11:08	6.86	SU
GS-AP-MW-10R	Temperature	3/1/2022 11:08	18.23	C
GS-AP-MW-10R	Turbidity	3/1/2022 11:08	8.74	NTU
GS-AP-MW-10R	Conductivity	3/1/2022 11:14	669.79	uS/cm
GS-AP-MW-10R	DO	3/1/2022 11:14	0.34	mg/L
GS-AP-MW-10R	Depth to Water Detail	3/1/2022 11:14	154.98	ft
GS-AP-MW-10R	Oxidation Reduction Potential	3/1/2022 11:14	-100.48	mv
GS-AP-MW-10R	pH	3/1/2022 11:14	6.84	SU
GS-AP-MW-10R	Temperature	3/1/2022 11:14	17.91	C
GS-AP-MW-10R	Turbidity	3/1/2022 11:14	6.43	NTU
GS-AP-MW-10R	Conductivity	3/1/2022 11:19	642.01	uS/cm
GS-AP-MW-10R	DO	3/1/2022 11:19	0.31	mg/L
GS-AP-MW-10R	Depth to Water Detail	3/1/2022 11:19	154.98	ft
GS-AP-MW-10R	Oxidation Reduction Potential	3/1/2022 11:19	-103.43	mv
GS-AP-MW-10R	pH	3/1/2022 11:19	6.87	SU
GS-AP-MW-10R	Temperature	3/1/2022 11:19	18.06	C
GS-AP-MW-10R	Turbidity	3/1/2022 11:19	5.25	NTU
GS-AP-MW-10R	Conductivity	3/1/2022 11:24	621.59	uS/cm
GS-AP-MW-10R	DO	3/1/2022 11:24	0.31	mg/L
GS-AP-MW-10R	Depth to Water Detail	3/1/2022 11:24	154.98	ft
GS-AP-MW-10R	Oxidation Reduction Potential	3/1/2022 11:24	-103.44	mv
GS-AP-MW-10R	pH	3/1/2022 11:24	6.86	SU
GS-AP-MW-10R	Temperature	3/1/2022 11:24	18.02	C
GS-AP-MW-10R	Turbidity	3/1/2022 11:24	4.48	NTU
GS-AP-MW-10R	Conductivity	3/1/2022 11:29	606.12	uS/cm
GS-AP-MW-10R	DO	3/1/2022 11:29	0.3	mg/L
GS-AP-MW-10R	Depth to Water Detail	3/1/2022 11:29	154.98	ft
GS-AP-MW-10R	Oxidation Reduction Potential	3/1/2022 11:29	-98.94	mv
GS-AP-MW-10R	pH	3/1/2022 11:29	6.79	SU
GS-AP-MW-10R	Temperature	3/1/2022 11:29	17.89	C
GS-AP-MW-10R	Turbidity	3/1/2022 11:29	4.61	NTU
GS-AP-MW-10R	Conductivity	3/1/2022 11:34	583.14	uS/cm
GS-AP-MW-10R	DO	3/1/2022 11:34	0.3	mg/L
GS-AP-MW-10R	Depth to Water Detail	3/1/2022 11:34	154.98	ft
GS-AP-MW-10R	Oxidation Reduction Potential	3/1/2022 11:34	-97.08	mv
GS-AP-MW-10R	pH	3/1/2022 11:34	6.8	SU
GS-AP-MW-10R	Temperature	3/1/2022 11:34	17.78	C
GS-AP-MW-10R	Turbidity	3/1/2022 11:34	5.21	NTU
GS-AP-MW-10R	Conductivity	3/1/2022 11:39	568.09	uS/cm
GS-AP-MW-10R	DO	3/1/2022 11:39	0.3	mg/L
GS-AP-MW-10R	Depth to Water Detail	3/1/2022 11:39	154.98	ft
GS-AP-MW-10R	Oxidation Reduction Potential	3/1/2022 11:39	-96.38	mv
GS-AP-MW-10R	pH	3/1/2022 11:39	6.83	SU
GS-AP-MW-10R	Temperature	3/1/2022 11:39	17.83	C
GS-AP-MW-10R	Turbidity	3/1/2022 11:39	4.8	NTU
GS-AP-MW-10R	Conductivity	3/1/2022 11:44	554.77	uS/cm
GS-AP-MW-10R	DO	3/1/2022 11:44	0.33	mg/L
GS-AP-MW-10R	Depth to Water Detail	3/1/2022 11:44	154.98	ft
GS-AP-MW-10R	Oxidation Reduction Potential	3/1/2022 11:44	-96.7	mv

**Groundwater Field Parameters  
Plant Gorgas Ash Pond**

WELL ID	DESCRIPTION	TIME OF READING	VALUE	UNIT
GS-AP-MW-10R	pH	3/1/2022 11:44	6.85	SU
GS-AP-MW-10R	Temperature	3/1/2022 11:44	18.03	C
GS-AP-MW-10R	Turbidity	3/1/2022 11:44	4.91	NTU
GS-AP-MW-10R	Conductivity	3/1/2022 11:49	539.64	uS/cm
GS-AP-MW-10R	DO	3/1/2022 11:49	0.33	mg/L
GS-AP-MW-10R	Depth to Water Detail	3/1/2022 11:49	154.98	ft
GS-AP-MW-10R	Oxidation Reduction Potential	3/1/2022 11:49	-97.09	mv
GS-AP-MW-10R	pH	3/1/2022 11:49	6.87	SU
GS-AP-MW-10R	Temperature	3/1/2022 11:49	18.04	C
GS-AP-MW-10R	Turbidity	3/1/2022 11:49	4.44	NTU
GS-AP-MW-10R	Conductivity	3/1/2022 11:54	511.24	uS/cm
GS-AP-MW-10R	DO	3/1/2022 11:54	0.41	mg/L
GS-AP-MW-10R	Depth to Water Detail	3/1/2022 11:54	154.98	ft
GS-AP-MW-10R	Oxidation Reduction Potential	3/1/2022 11:54	-98.15	mv
GS-AP-MW-10R	pH	3/1/2022 11:54	6.89	SU
GS-AP-MW-10R	Temperature	3/1/2022 11:54	18.28	C
GS-AP-MW-10R	Turbidity	3/1/2022 11:54	4.05	NTU
GS-AP-MW-10R	Conductivity	3/1/2022 11:59	512.89	uS/cm
GS-AP-MW-10R	DO	3/1/2022 11:59	0.45	mg/L
GS-AP-MW-10R	Depth to Water Detail	3/1/2022 11:59	154.98	ft
GS-AP-MW-10R	Oxidation Reduction Potential	3/1/2022 11:59	-98.29	mv
GS-AP-MW-10R	pH	3/1/2022 11:59	6.91	SU
GS-AP-MW-10R	Temperature	3/1/2022 11:59	18.31	C
GS-AP-MW-10R	Turbidity	3/1/2022 11:59	3.96	NTU
GS-AP-MW-10R	Conductivity	3/1/2022 12:04	503.13	uS/cm
GS-AP-MW-10R	DO	3/1/2022 12:04	0.46	mg/L
GS-AP-MW-10R	Depth to Water Detail	3/1/2022 12:04	154.98	ft
GS-AP-MW-10R	Oxidation Reduction Potential	3/1/2022 12:04	-96.67	mv
GS-AP-MW-10R	pH	3/1/2022 12:04	6.87	SU
GS-AP-MW-10R	Temperature	3/1/2022 12:04	18.32	C
GS-AP-MW-10R	Turbidity	3/1/2022 12:04	4.41	NTU

**Groundwater Field Parameters  
Plant Gorgas Ash Pond**

WELL ID	DESCRIPTION	TIME OF READING	VALUE	UNIT
GS-AP-MW-13R	Conductivity	3/1/2022 7:56	358.31	uS/cm
GS-AP-MW-13R	DO	3/1/2022 7:56	1.24	mg/L
GS-AP-MW-13R	Depth to Water Detail	3/1/2022 7:56	102.35	ft
GS-AP-MW-13R	Oxidation Reduction Potention	3/1/2022 7:56	-31.68	mv
GS-AP-MW-13R	pH	3/1/2022 7:56	6.52	SU
GS-AP-MW-13R	Temperature	3/1/2022 7:56	14.89	C
GS-AP-MW-13R	Turbidity	3/1/2022 7:56	9.04	NTU
GS-AP-MW-13R	Conductivity	3/1/2022 8:01	358.45	uS/cm
GS-AP-MW-13R	DO	3/1/2022 8:01	0.72	mg/L
GS-AP-MW-13R	Depth to Water Detail	3/1/2022 8:01	103.02	ft
GS-AP-MW-13R	Oxidation Reduction Potention	3/1/2022 8:01	-20.66	mv
GS-AP-MW-13R	pH	3/1/2022 8:01	6.44	SU
GS-AP-MW-13R	Temperature	3/1/2022 8:01	15.17	C
GS-AP-MW-13R	Turbidity	3/1/2022 8:01	7.44	NTU
GS-AP-MW-13R	Conductivity	3/1/2022 8:06	350.25	uS/cm
GS-AP-MW-13R	DO	3/1/2022 8:06	0.64	mg/L
GS-AP-MW-13R	Depth to Water Detail	3/1/2022 8:06	103.6	ft
GS-AP-MW-13R	Oxidation Reduction Potention	3/1/2022 8:06	-20.18	mv
GS-AP-MW-13R	pH	3/1/2022 8:06	6.4	SU
GS-AP-MW-13R	Temperature	3/1/2022 8:06	15.31	C
GS-AP-MW-13R	Turbidity	3/1/2022 8:06	7.63	NTU
GS-AP-MW-13R	Conductivity	3/1/2022 8:11	347.31	uS/cm
GS-AP-MW-13R	DO	3/1/2022 8:11	0.6	mg/L
GS-AP-MW-13R	Depth to Water Detail	3/1/2022 8:11	104.11	ft
GS-AP-MW-13R	Oxidation Reduction Potention	3/1/2022 8:11	-22.14	mv
GS-AP-MW-13R	pH	3/1/2022 8:11	6.43	SU
GS-AP-MW-13R	Temperature	3/1/2022 8:11	15.2	C
GS-AP-MW-13R	Turbidity	3/1/2022 8:11	9.01	NTU
GS-AP-MW-13R	Conductivity	3/1/2022 8:16	347.57	uS/cm
GS-AP-MW-13R	DO	3/1/2022 8:16	0.57	mg/L
GS-AP-MW-13R	Depth to Water Detail	3/1/2022 8:16	104.64	ft
GS-AP-MW-13R	Oxidation Reduction Potention	3/1/2022 8:16	-24.48	mv
GS-AP-MW-13R	pH	3/1/2022 8:16	6.46	SU
GS-AP-MW-13R	Temperature	3/1/2022 8:16	15.28	C
GS-AP-MW-13R	Turbidity	3/1/2022 8:16	8	NTU
GS-AP-MW-13R	Conductivity	3/1/2022 8:21	346.26	uS/cm
GS-AP-MW-13R	DO	3/1/2022 8:21	0.71	mg/L
GS-AP-MW-13R	Depth to Water Detail	3/1/2022 8:21	104.86	ft
GS-AP-MW-13R	Oxidation Reduction Potention	3/1/2022 8:21	-26.54	mv
GS-AP-MW-13R	pH	3/1/2022 8:21	6.43	SU
GS-AP-MW-13R	Temperature	3/1/2022 8:21	14.64	C
GS-AP-MW-13R	Turbidity	3/1/2022 8:21	6.2	NTU
GS-AP-MW-13R	Conductivity	3/1/2022 8:26	344.9	uS/cm
GS-AP-MW-13R	DO	3/1/2022 8:26	0.73	mg/L
GS-AP-MW-13R	Depth to Water Detail	3/1/2022 8:26	104.98	ft
GS-AP-MW-13R	Oxidation Reduction Potention	3/1/2022 8:26	-28.34	mv
GS-AP-MW-13R	pH	3/1/2022 8:26	6.46	SU
GS-AP-MW-13R	Temperature	3/1/2022 8:26	14.88	C
GS-AP-MW-13R	Turbidity	3/1/2022 8:26	4.68	NTU
GS-AP-MW-13R	Conductivity	3/1/2022 8:31	341.37	uS/cm
GS-AP-MW-13R	DO	3/1/2022 8:31	0.74	mg/L
GS-AP-MW-13R	Depth to Water Detail	3/1/2022 8:31	105.12	ft
GS-AP-MW-13R	Oxidation Reduction Potention	3/1/2022 8:31	-31.02	mv
GS-AP-MW-13R	pH	3/1/2022 8:31	6.47	SU
GS-AP-MW-13R	Temperature	3/1/2022 8:31	15.21	C
GS-AP-MW-13R	Turbidity	3/1/2022 8:31	4.34	NTU



**Groundwater Field Parameters  
Plant Gorgas Ash Pond**

WELL ID	DESCRIPTION	TIME OF READING	VALUE	UNIT
GS-AP-MW-14R	Conductivity	2/28/2022 14:50	560.4	uS/cm
GS-AP-MW-14R	DO	2/28/2022 14:50	0.61	mg/L
GS-AP-MW-14R	Depth to Water Detail	2/28/2022 14:50	108.77	ft
GS-AP-MW-14R	Oxidation Reduction Potention	2/28/2022 14:50	-35.59	mv
GS-AP-MW-14R	pH	2/28/2022 14:50	7.01	SU
GS-AP-MW-14R	Temperature	2/28/2022 14:50	16.65	C
GS-AP-MW-14R	Turbidity	2/28/2022 14:50	7.23	NTU
GS-AP-MW-14R	Conductivity	2/28/2022 14:55	557.55	uS/cm
GS-AP-MW-14R	DO	2/28/2022 14:55	0.42	mg/L
GS-AP-MW-14R	Depth to Water Detail	2/28/2022 14:55	110.36	ft
GS-AP-MW-14R	Oxidation Reduction Potention	2/28/2022 14:55	-44.41	mv
GS-AP-MW-14R	pH	2/28/2022 14:55	6.99	SU
GS-AP-MW-14R	Temperature	2/28/2022 14:55	16.51	C
GS-AP-MW-14R	Turbidity	2/28/2022 14:55	5.21	NTU
GS-AP-MW-14R	Conductivity	2/28/2022 15:00	553.83	uS/cm
GS-AP-MW-14R	DO	2/28/2022 15:00	0.37	mg/L
GS-AP-MW-14R	Depth to Water Detail	2/28/2022 15:00	113.64	ft
GS-AP-MW-14R	Oxidation Reduction Potention	2/28/2022 15:00	-55.22	mv
GS-AP-MW-14R	pH	2/28/2022 15:00	6.98	SU
GS-AP-MW-14R	Temperature	2/28/2022 15:00	16.56	C
GS-AP-MW-14R	Turbidity	2/28/2022 15:00	5.37	NTU
GS-AP-MW-14R	Conductivity	2/28/2022 15:05	547.99	uS/cm
GS-AP-MW-14R	DO	2/28/2022 15:05	0.32	mg/L
GS-AP-MW-14R	Depth to Water Detail	2/28/2022 15:05	115.29	ft
GS-AP-MW-14R	Oxidation Reduction Potention	2/28/2022 15:05	-64.65	mv
GS-AP-MW-14R	pH	2/28/2022 15:05	6.98	SU
GS-AP-MW-14R	Temperature	2/28/2022 15:05	16.57	C
GS-AP-MW-14R	Turbidity	2/28/2022 15:05	3.84	NTU
GS-AP-MW-14R	Conductivity	2/28/2022 15:10	544.89	uS/cm
GS-AP-MW-14R	DO	2/28/2022 15:10	0.55	mg/L
GS-AP-MW-14R	Depth to Water Detail	2/28/2022 15:10	116.04	ft
GS-AP-MW-14R	Oxidation Reduction Potention	2/28/2022 15:10	-70.8	mv
GS-AP-MW-14R	pH	2/28/2022 15:10	6.99	SU
GS-AP-MW-14R	Temperature	2/28/2022 15:10	16.4	C
GS-AP-MW-14R	Turbidity	2/28/2022 15:10	3.93	NTU
GS-AP-MW-14R	Conductivity	2/28/2022 15:15	536.67	uS/cm
GS-AP-MW-14R	DO	2/28/2022 15:15	0.67	mg/L
GS-AP-MW-14R	Depth to Water Detail	2/28/2022 15:15	116	ft
GS-AP-MW-14R	Oxidation Reduction Potention	2/28/2022 15:15	-75.92	mv
GS-AP-MW-14R	pH	2/28/2022 15:15	7	SU
GS-AP-MW-14R	Temperature	2/28/2022 15:15	16.58	C
GS-AP-MW-14R	Turbidity	2/28/2022 15:15	3.8	NTU
GS-AP-MW-14R	Conductivity	2/28/2022 15:20	511.93	uS/cm
GS-AP-MW-14R	DO	2/28/2022 15:20	0.76	mg/L
GS-AP-MW-14R	Depth to Water Detail	2/28/2022 15:20	115.98	ft
GS-AP-MW-14R	Oxidation Reduction Potention	2/28/2022 15:20	-91.75	mv
GS-AP-MW-14R	pH	2/28/2022 15:20	7.02	SU
GS-AP-MW-14R	Temperature	2/28/2022 15:20	16.56	C
GS-AP-MW-14R	Turbidity	2/28/2022 15:20	3.66	NTU
GS-AP-MW-14R	Conductivity	2/28/2022 15:25	502.08	uS/cm
GS-AP-MW-14R	DO	2/28/2022 15:25	0.82	mg/L
GS-AP-MW-14R	Depth to Water Detail	2/28/2022 15:25	115.96	ft
GS-AP-MW-14R	Oxidation Reduction Potention	2/28/2022 15:25	-101.52	mv
GS-AP-MW-14R	pH	2/28/2022 15:25	7.03	SU
GS-AP-MW-14R	Temperature	2/28/2022 15:25	16.54	C
GS-AP-MW-14R	Turbidity	2/28/2022 15:25	3.1	NTU
GS-AP-MW-14R	Conductivity	2/28/2022 15:30	492.21	uS/cm
GS-AP-MW-14R	DO	2/28/2022 15:30	0.81	mg/L

**Groundwater Field Parameters  
Plant Gorgas Ash Pond**

WELL ID	DESCRIPTION	TIME OF READING	VALUE	UNIT
GS-AP-MW-14R	Depth to Water Detail	2/28/2022 15:30	115.96	ft
GS-AP-MW-14R	Oxidation Reduction Potential	2/28/2022 15:30	-108.05	mv
GS-AP-MW-14R	pH	2/28/2022 15:30	7.04	SU
GS-AP-MW-14R	Temperature	2/28/2022 15:30	16.41	C
GS-AP-MW-14R	Turbidity	2/28/2022 15:30	3.89	NTU
GS-AP-MW-37HR	Conductivity	2/28/2022 10:47	854.48	uS/cm
GS-AP-MW-37HR	DO	2/28/2022 10:47	0.56	mg/L
GS-AP-MW-37HR	Depth to Water Detail	2/28/2022 10:47	146.84	ft
GS-AP-MW-37HR	Oxidation Reduction Potential	2/28/2022 10:47	-17.49	mv
GS-AP-MW-37HR	pH	2/28/2022 10:47	7.62	SU
GS-AP-MW-37HR	Temperature	2/28/2022 10:47	16.87	C
GS-AP-MW-37HR	Turbidity	2/28/2022 10:47	4.09	NTU
GS-AP-MW-37HR	Conductivity	2/28/2022 10:52	850.12	uS/cm
GS-AP-MW-37HR	DO	2/28/2022 10:52	0.41	mg/L
GS-AP-MW-37HR	Depth to Water Detail	2/28/2022 10:52	149.4	ft
GS-AP-MW-37HR	Oxidation Reduction Potential	2/28/2022 10:52	-62.66	mv
GS-AP-MW-37HR	pH	2/28/2022 10:52	7.69	SU
GS-AP-MW-37HR	Temperature	2/28/2022 10:52	16.78	C
GS-AP-MW-37HR	Turbidity	2/28/2022 10:52	3.9	NTU
GS-AP-MW-37HR	Conductivity	2/28/2022 10:57	843.5	uS/cm
GS-AP-MW-37HR	DO	2/28/2022 10:57	0.35	mg/L
GS-AP-MW-37HR	Depth to Water Detail	2/28/2022 10:57	152.8	ft
GS-AP-MW-37HR	Oxidation Reduction Potential	2/28/2022 10:57	-83.34	mv
GS-AP-MW-37HR	pH	2/28/2022 10:57	7.74	SU
GS-AP-MW-37HR	Temperature	2/28/2022 10:57	16.84	C
GS-AP-MW-37HR	Turbidity	2/28/2022 10:57	3.14	NTU
GS-AP-MW-37HR	Conductivity	2/28/2022 11:02	836.86	uS/cm
GS-AP-MW-37HR	DO	2/28/2022 11:02	0.32	mg/L
GS-AP-MW-37HR	Depth to Water Detail	2/28/2022 11:02	156.77	ft
GS-AP-MW-37HR	Oxidation Reduction Potential	2/28/2022 11:02	-93.72	mv
GS-AP-MW-37HR	pH	2/28/2022 11:02	7.74	SU
GS-AP-MW-37HR	Temperature	2/28/2022 11:02	16.91	C
GS-AP-MW-37HR	Turbidity	2/28/2022 11:02	3.1	NTU
GS-AP-MW-37HR	Conductivity	2/28/2022 11:07	823.77	uS/cm
GS-AP-MW-37HR	DO	2/28/2022 11:07	0.25	mg/L
GS-AP-MW-37HR	Depth to Water Detail	2/28/2022 11:07	159.12	ft
GS-AP-MW-37HR	Oxidation Reduction Potential	2/28/2022 11:07	-109.11	mv
GS-AP-MW-37HR	pH	2/28/2022 11:07	7.79	SU
GS-AP-MW-37HR	Temperature	2/28/2022 11:07	16.94	C
GS-AP-MW-37HR	Turbidity	2/28/2022 11:07	3.11	NTU
GS-AP-MW-37HR	Conductivity	2/28/2022 11:12	820.94	uS/cm
GS-AP-MW-37HR	DO	2/28/2022 11:12	0.18	mg/L
GS-AP-MW-37HR	Depth to Water Detail	2/28/2022 11:12	162.2	ft
GS-AP-MW-37HR	Oxidation Reduction Potential	2/28/2022 11:12	-121.38	mv
GS-AP-MW-37HR	pH	2/28/2022 11:12	7.75	SU
GS-AP-MW-37HR	Temperature	2/28/2022 11:12	16.89	C
GS-AP-MW-37HR	Turbidity	2/28/2022 11:12	3.06	NTU
GS-AP-MW-37HR	Conductivity	2/28/2022 11:17	809.94	uS/cm
GS-AP-MW-37HR	DO	2/28/2022 11:17	0.29	mg/L
GS-AP-MW-37HR	Depth to Water Detail	2/28/2022 11:17	163.66	ft
GS-AP-MW-37HR	Oxidation Reduction Potential	2/28/2022 11:17	-126.19	mv
GS-AP-MW-37HR	pH	2/28/2022 11:17	7.81	SU
GS-AP-MW-37HR	Temperature	2/28/2022 11:17	16.98	C
GS-AP-MW-37HR	Turbidity	2/28/2022 11:17	3.14	NTU
GS-AP-MW-37HR	Conductivity	2/28/2022 11:22	802.7	uS/cm
GS-AP-MW-37HR	DO	2/28/2022 11:22	0.32	mg/L
GS-AP-MW-37HR	Depth to Water Detail	2/28/2022 11:22	164.2	ft
GS-AP-MW-37HR	Oxidation Reduction Potential	2/28/2022 11:22	-128.07	mv

**Groundwater Field Parameters  
Plant Gorgas Ash Pond**

WELL ID	DESCRIPTION	TIME OF READING	VALUE	UNIT
GS-AP-MW-37HR	pH	2/28/2022 11:22	7.83	SU
GS-AP-MW-37HR	Temperature	2/28/2022 11:22	17.1	C
GS-AP-MW-37HR	Turbidity	2/28/2022 11:22	3.02	NTU
GS-AP-MW-37HR	Conductivity	2/28/2022 11:27	724.63	uS/cm
GS-AP-MW-37HR	DO	2/28/2022 11:27	0.33	mg/L
GS-AP-MW-37HR	Depth to Water Detail	2/28/2022 11:27	164.71	ft
GS-AP-MW-37HR	Oxidation Reduction Potention	2/28/2022 11:27	-136.33	mv
GS-AP-MW-37HR	pH	2/28/2022 11:27	7.82	SU
GS-AP-MW-37HR	Temperature	2/28/2022 11:27	17.02	C
GS-AP-MW-37HR	Turbidity	2/28/2022 11:27	3.03	NTU
GS-AP-MW-37HR	Conductivity	2/28/2022 11:32	674.81	uS/cm
GS-AP-MW-37HR	DO	2/28/2022 11:32	0.32	mg/L
GS-AP-MW-37HR	Depth to Water Detail	2/28/2022 11:32	165.11	ft
GS-AP-MW-37HR	Oxidation Reduction Potention	2/28/2022 11:32	-150.6	mv
GS-AP-MW-37HR	pH	2/28/2022 11:32	7.86	SU
GS-AP-MW-37HR	Temperature	2/28/2022 11:32	17.12	C
GS-AP-MW-37HR	Turbidity	2/28/2022 11:32	2.98	NTU
GS-AP-MW-37HR	Conductivity	2/28/2022 11:37	641.44	uS/cm
GS-AP-MW-37HR	DO	2/28/2022 11:37	0.32	mg/L
GS-AP-MW-37HR	Depth to Water Detail	2/28/2022 11:37	165.5	ft
GS-AP-MW-37HR	Oxidation Reduction Potention	2/28/2022 11:37	-157.93	mv
GS-AP-MW-37HR	pH	2/28/2022 11:37	7.87	SU
GS-AP-MW-37HR	Temperature	2/28/2022 11:37	17.19	C
GS-AP-MW-37HR	Turbidity	2/28/2022 11:37	2.84	NTU
GS-AP-MW-37HR	Conductivity	2/28/2022 11:42	616.8	uS/cm
GS-AP-MW-37HR	DO	2/28/2022 11:42	0.33	mg/L
GS-AP-MW-37HR	Depth to Water Detail	2/28/2022 11:42	165.88	ft
GS-AP-MW-37HR	Oxidation Reduction Potention	2/28/2022 11:42	-157.56	mv
GS-AP-MW-37HR	pH	2/28/2022 11:42	7.81	SU
GS-AP-MW-37HR	Temperature	2/28/2022 11:42	17.15	C
GS-AP-MW-37HR	Turbidity	2/28/2022 11:42	2.97	NTU
GS-AP-MW-37HR	Conductivity	2/28/2022 11:47	588.86	uS/cm
GS-AP-MW-37HR	DO	2/28/2022 11:47	0.33	mg/L
GS-AP-MW-37HR	Depth to Water Detail	2/28/2022 11:47	166.32	ft
GS-AP-MW-37HR	Oxidation Reduction Potention	2/28/2022 11:47	-162.1	mv
GS-AP-MW-37HR	pH	2/28/2022 11:47	7.87	SU
GS-AP-MW-37HR	Temperature	2/28/2022 11:47	17.17	C
GS-AP-MW-37HR	Turbidity	2/28/2022 11:47	2.71	NTU
GS-AP-MW-37HR	Conductivity	2/28/2022 11:52	557.17	uS/cm
GS-AP-MW-37HR	DO	2/28/2022 11:52	0.33	mg/L
GS-AP-MW-37HR	Depth to Water Detail	2/28/2022 11:52	166.54	ft
GS-AP-MW-37HR	Oxidation Reduction Potention	2/28/2022 11:52	-165.01	mv
GS-AP-MW-37HR	pH	2/28/2022 11:52	7.89	SU
GS-AP-MW-37HR	Temperature	2/28/2022 11:52	17.33	C
GS-AP-MW-37HR	Turbidity	2/28/2022 11:52	2.76	NTU
GS-AP-MW-37HR	Conductivity	2/28/2022 11:57	541.95	uS/cm
GS-AP-MW-37HR	DO	2/28/2022 11:57	0.33	mg/L
GS-AP-MW-37HR	Depth to Water Detail	2/28/2022 11:57	166.84	ft
GS-AP-MW-37HR	Oxidation Reduction Potention	2/28/2022 11:57	-164.82	mv
GS-AP-MW-37HR	pH	2/28/2022 11:57	7.87	SU
GS-AP-MW-37HR	Temperature	2/28/2022 11:57	17.31	C
GS-AP-MW-37HR	Turbidity	2/28/2022 11:57	2.7	NTU
GS-AP-MW-37HR	Conductivity	2/28/2022 12:02	527.86	uS/cm
GS-AP-MW-37HR	DO	2/28/2022 12:02	0.34	mg/L
GS-AP-MW-37HR	Depth to Water Detail	2/28/2022 12:02	166.79	ft
GS-AP-MW-37HR	Oxidation Reduction Potention	2/28/2022 12:02	-164.93	mv
GS-AP-MW-37HR	pH	2/28/2022 12:02	7.89	SU
GS-AP-MW-37HR	Temperature	2/28/2022 12:02	17.34	C

**Groundwater Field Parameters  
Plant Gorgas Ash Pond**

WELL ID	DESCRIPTION	TIME OF READING	VALUE	UNIT
GS-AP-MW-37HR	Turbidity	2/28/2022 12:02	2.81	NTU
GS-AP-MW-37HR	Conductivity	2/28/2022 12:07	514.77	uS/cm
GS-AP-MW-37HR	DO	2/28/2022 12:07	0.46	mg/L
GS-AP-MW-37HR	Depth to Water Detail	2/28/2022 12:07	166.79	ft
GS-AP-MW-37HR	Oxidation Reduction Potention	2/28/2022 12:07	-163.28	mv
GS-AP-MW-37HR	pH	2/28/2022 12:07	7.91	SU
GS-AP-MW-37HR	Temperature	2/28/2022 12:07	17.5	C
GS-AP-MW-37HR	Turbidity	2/28/2022 12:07	2.69	NTU
GS-AP-MW-37HR	Conductivity	2/28/2022 12:12	513.41	uS/cm
GS-AP-MW-37HR	DO	2/28/2022 12:12	0.4	mg/L
GS-AP-MW-37HR	Depth to Water Detail	2/28/2022 12:12	166.79	ft
GS-AP-MW-37HR	Oxidation Reduction Potention	2/28/2022 12:12	-162.87	mv
GS-AP-MW-37HR	pH	2/28/2022 12:12	7.91	SU
GS-AP-MW-37HR	Temperature	2/28/2022 12:12	17.48	C
GS-AP-MW-37HR	Turbidity	2/28/2022 12:12	2.8	NTU
GS-AP-MW-37HR	Conductivity	2/28/2022 12:17	497.92	uS/cm
GS-AP-MW-37HR	DO	2/28/2022 12:17	0.38	mg/L
GS-AP-MW-37HR	Depth to Water Detail	2/28/2022 12:17	166.79	ft
GS-AP-MW-37HR	Oxidation Reduction Potention	2/28/2022 12:17	-160.89	mv
GS-AP-MW-37HR	pH	2/28/2022 12:17	7.88	SU
GS-AP-MW-37HR	Temperature	2/28/2022 12:17	17.36	C
GS-AP-MW-37HR	Turbidity	2/28/2022 12:17	2.79	NTU

**Groundwater Field Parameters  
Plant Gorgas Ash Pond**

WELL ID	DESCRIPTION	TIME OF READING	VALUE	UNIT
GS-AP-MW-47	Conductivity	2/28/2022 13:09	560.44	uS/cm
GS-AP-MW-47	DO	2/28/2022 13:09	0.4	mg/L
GS-AP-MW-47	Depth to Water Detail	2/28/2022 13:09	123.21	ft
GS-AP-MW-47	Oxidation Reduction Potential	2/28/2022 13:09	-60.28	mv
GS-AP-MW-47	pH	2/28/2022 13:09	6.76	SU
GS-AP-MW-47	Temperature	2/28/2022 13:09	16.99	C
GS-AP-MW-47	Turbidity	2/28/2022 13:09	4.05	NTU
GS-AP-MW-47	Conductivity	2/28/2022 13:14	547.25	uS/cm
GS-AP-MW-47	DO	2/28/2022 13:14	0.31	mg/L
GS-AP-MW-47	Depth to Water Detail	2/28/2022 13:14	126.93	ft
GS-AP-MW-47	Oxidation Reduction Potential	2/28/2022 13:14	-71.21	mv
GS-AP-MW-47	pH	2/28/2022 13:14	6.88	SU
GS-AP-MW-47	Temperature	2/28/2022 13:14	17.14	C
GS-AP-MW-47	Turbidity	2/28/2022 13:14	2.69	NTU
GS-AP-MW-47	Conductivity	2/28/2022 13:19	531.44	uS/cm
GS-AP-MW-47	DO	2/28/2022 13:19	0.27	mg/L
GS-AP-MW-47	Depth to Water Detail	2/28/2022 13:19	129.62	ft
GS-AP-MW-47	Oxidation Reduction Potential	2/28/2022 13:19	-78.43	mv
GS-AP-MW-47	pH	2/28/2022 13:19	6.97	SU
GS-AP-MW-47	Temperature	2/28/2022 13:19	17.17	C
GS-AP-MW-47	Turbidity	2/28/2022 13:19	2.93	NTU
GS-AP-MW-47	Conductivity	2/28/2022 13:24	504.61	uS/cm
GS-AP-MW-47	DO	2/28/2022 13:24	0.25	mg/L
GS-AP-MW-47	Depth to Water Detail	2/28/2022 13:24	132.84	ft
GS-AP-MW-47	Oxidation Reduction Potential	2/28/2022 13:24	-82.7	mv
GS-AP-MW-47	pH	2/28/2022 13:24	6.99	SU
GS-AP-MW-47	Temperature	2/28/2022 13:24	16.94	C
GS-AP-MW-47	Turbidity	2/28/2022 13:24	1.63	NTU
GS-AP-MW-47	Conductivity	2/28/2022 13:29	479.5	uS/cm
GS-AP-MW-47	DO	2/28/2022 13:29	0.23	mg/L
GS-AP-MW-47	Depth to Water Detail	2/28/2022 13:29	134.31	ft
GS-AP-MW-47	Oxidation Reduction Potential	2/28/2022 13:29	-86.03	mv
GS-AP-MW-47	pH	2/28/2022 13:29	7.03	SU
GS-AP-MW-47	Temperature	2/28/2022 13:29	17.03	C
GS-AP-MW-47	Turbidity	2/28/2022 13:29	1.11	NTU
GS-AP-MW-47	Conductivity	2/28/2022 13:34	456.83	uS/cm
GS-AP-MW-47	DO	2/28/2022 13:34	0.22	mg/L
GS-AP-MW-47	Depth to Water Detail	2/28/2022 13:34	136.4	ft
GS-AP-MW-47	Oxidation Reduction Potential	2/28/2022 13:34	-88.23	mv
GS-AP-MW-47	pH	2/28/2022 13:34	7.05	SU
GS-AP-MW-47	Temperature	2/28/2022 13:34	17.11	C
GS-AP-MW-47	Turbidity	2/28/2022 13:34	2.14	NTU
GS-AP-MW-47	Conductivity	2/28/2022 13:39	435.86	uS/cm
GS-AP-MW-47	DO	2/28/2022 13:39	0.21	mg/L
GS-AP-MW-47	Depth to Water Detail	2/28/2022 13:39	138.24	ft
GS-AP-MW-47	Oxidation Reduction Potential	2/28/2022 13:39	-89.7	mv
GS-AP-MW-47	pH	2/28/2022 13:39	7.05	SU
GS-AP-MW-47	Temperature	2/28/2022 13:39	17.02	C
GS-AP-MW-47	Turbidity	2/28/2022 13:39	1.99	NTU
GS-AP-MW-47	Conductivity	2/28/2022 13:44	425.37	uS/cm
GS-AP-MW-47	DO	2/28/2022 13:44	0.33	mg/L
GS-AP-MW-47	Depth to Water Detail	2/28/2022 13:44	138.02	ft
GS-AP-MW-47	Oxidation Reduction Potential	2/28/2022 13:44	-89.15	mv
GS-AP-MW-47	pH	2/28/2022 13:44	7.07	SU
GS-AP-MW-47	Temperature	2/28/2022 13:44	17.27	C
GS-AP-MW-47	Turbidity	2/28/2022 13:44	1.89	NTU
GS-AP-MW-47	Conductivity	2/28/2022 13:49	414.97	uS/cm
GS-AP-MW-47	DO	2/28/2022 13:49	0.34	mg/L

**Groundwater Field Parameters  
Plant Gorgas Ash Pond**

WELL ID	DESCRIPTION	TIME OF READING	VALUE	UNIT
GS-AP-MW-47	Depth to Water Detail	2/28/2022 13:49	137.6	ft
GS-AP-MW-47	Oxidation Reduction Potention	2/28/2022 13:49	-88.94	mv
GS-AP-MW-47	pH	2/28/2022 13:49	7.09	SU
GS-AP-MW-47	Temperature	2/28/2022 13:49	17.17	C
GS-AP-MW-47	Turbidity	2/28/2022 13:49	2.08	NTU
GS-AP-MW-47	Conductivity	2/28/2022 13:54	354.36	uS/cm
GS-AP-MW-47	DO	2/28/2022 13:54	0.31	mg/L
GS-AP-MW-47	Depth to Water Detail	2/28/2022 13:54	137.6	ft
GS-AP-MW-47	Oxidation Reduction Potention	2/28/2022 13:54	-93.62	mv
GS-AP-MW-47	pH	2/28/2022 13:54	7.12	SU
GS-AP-MW-47	Temperature	2/28/2022 13:54	17.2	C
GS-AP-MW-47	Turbidity	2/28/2022 13:54	1.69	NTU
GS-AP-MW-47	Conductivity	2/28/2022 13:59	325.68	uS/cm
GS-AP-MW-47	DO	2/28/2022 13:59	0.31	mg/L
GS-AP-MW-47	Depth to Water Detail	2/28/2022 13:59	137.6	ft
GS-AP-MW-47	Oxidation Reduction Potention	2/28/2022 13:59	-95.89	mv
GS-AP-MW-47	pH	2/28/2022 13:59	7.13	SU
GS-AP-MW-47	Temperature	2/28/2022 13:59	17.07	C
GS-AP-MW-47	Turbidity	2/28/2022 13:59	1.96	NTU
GS-AP-MW-47	Conductivity	2/28/2022 14:04	325.97	uS/cm
GS-AP-MW-47	DO	2/28/2022 14:04	0.33	mg/L
GS-AP-MW-47	Depth to Water Detail	2/28/2022 14:04	137.6	ft
GS-AP-MW-47	Oxidation Reduction Potention	2/28/2022 14:04	-94.43	mv
GS-AP-MW-47	pH	2/28/2022 14:04	7.14	SU
GS-AP-MW-47	Temperature	2/28/2022 14:04	16.96	C
GS-AP-MW-47	Turbidity	2/28/2022 14:04	2.43	NTU
GS-AP-MW-47	Conductivity	2/28/2022 14:09	321.01	uS/cm
GS-AP-MW-47	DO	2/28/2022 14:09	0.32	mg/L
GS-AP-MW-47	Depth to Water Detail	2/28/2022 14:09	137.6	ft
GS-AP-MW-47	Oxidation Reduction Potention	2/28/2022 14:09	-93.29	mv
GS-AP-MW-47	pH	2/28/2022 14:09	7.15	SU
GS-AP-MW-47	Temperature	2/28/2022 14:09	16.89	C
GS-AP-MW-47	Turbidity	2/28/2022 14:09	2.37	NTU

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

# *Analytical Report*



**Sample Group :** WMWGORAP\_1350

**Project/Site :** Gorgas Ash Pond  
Parrish, AL 35580

**For :** Southern Company Services  
3535 Colonnade Parkway  
Birmingham, AL 352

**Attention :** Dustin Brooks & Greg Dyer

**Released By :** Laura Midkiff  
lbmidkif@southernco.com  
(205) 664-6197



April 13, 2022

Dear Dustin Brooks,

Enclosed are the analytical results for sample(s) received by the laboratory between February 09, 2022 and March 01, 2022. 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, 2022

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: 2022.04.19 16:17:23 -05'00'

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: 2022.04.20 14:25:17 -05'00'



### 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

Gorgas Ash Pond

WMWGORAP\_1350

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 meet NELAP traceability requirements and were used within their recommended shelf life.

<u>Sample ID</u>	<u>Batch ID</u>	<u>Project ID</u>
BC02831	718170	WMWGORAP_1350
BC02833	718170	WMWGORAP_1350
BC02834	718170	WMWGORAP_1350
BC02835	718170	WMWGORAP_1350
BC02836	718170	WMWGORAP_1350
BC02837	718170	WMWGORAP_1350
BC02838	718170	WMWGORAP_1350
BC03236	719420	WMWGORAP_1350
BC03237	719420	WMWGORAP_1350
BC03238	719420	WMWGORAP_1350
BC03239	719420	WMWGORAP_1350
BC03240	719420	WMWGORAP_1350
BC03241	719420	WMWGORAP_1350
BC03242	719420	WMWGORAP_1350
BC03243	719420	WMWGORAP_1350
BC03244	719420	WMWGORAP_1350
BC03245	719420	WMWGORAP_1350
BC03246	719421	WMWGORAP_1350
BC03247	719421	WMWGORAP_1350
BC03248	719421	WMWGORAP_1350
BC03249	719421	WMWGORAP_1350
BC03523	719421	WMWGORAP_1350
BC03524	719421	WMWGORAP_1350
BC03525	719421	WMWGORAP_1350
BC03526	719421	WMWGORAP_1350
BC03527	719421	WMWGORAP_1350
BC03528	719421	WMWGORAP_1350
BC03529	719422	WMWGORAP_1350
BC03530	719422	WMWGORAP_1350
BC03531	719422	WMWGORAP_1350
BC03532	719422	WMWGORAP_1350

BC03533	719422	WMWGORAP_1350
BC03534	719422	WMWGORAP_1350
BC03535	719422	WMWGORAP_1350
BC03536	719422	WMWGORAP_1350
BC03537	719422	WMWGORAP_1350
BC03538	719422	WMWGORAP_1350
BC03953	719423	WMWGORAP_1350
BC03954	719423	WMWGORAP_1350
BC03955	719423	WMWGORAP_1350
BC03956	719423	WMWGORAP_1350
BC03957	719423	WMWGORAP_1350
BC03958	719423	WMWGORAP_1350
BC03959	719423	WMWGORAP_1350
BC03960	719423	WMWGORAP_1350
BC03961	719423	WMWGORAP_1350
BC03962	719423	WMWGORAP_1350
BC03963	719772	WMWGORAP_1350
BC03964	719772	WMWGORAP_1350
BC03965	719772	WMWGORAP_1350
BC03966	719772	WMWGORAP_1350
BC03967	719772	WMWGORAP_1350
BC03968	719772	WMWGORAP_1350
BC03969	719772	WMWGORAP_1350
BC03970	719772	WMWGORAP_1350
BC03971	719772	WMWGORAP_1350
BC03972	719772	WMWGORAP_1350
BC03973	719773	WMWGORAP_1350
BC04376	719773	WMWGORAP_1350
BC04377	719773	WMWGORAP_1350
BC04378	719773	WMWGORAP_1350
BC04379	719773	WMWGORAP_1350
BC04380	719773	WMWGORAP_1350
BC04381	719773	WMWGORAP_1350
BC04382	719773	WMWGORAP_1350
BC04383	719773	WMWGORAP_1350
BC04384	719773	WMWGORAP_1350
BC04385	719774	WMWGORAP_1350
BC04386	719774	WMWGORAP_1350

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 all criteria were met.
- All continued calibration verification (CCV) were within the acceptance criteria for the requested analytes.
- All continued calibration blanks (CCB) were analyzed, and all criteria were met.
- 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.
- All calibration curve requirements were within acceptance criteria.
- All sample internal standard criteria were met.
- The spectral interference check associated with EPA 200.7 was analyzed, and all acceptance criteria were met.
- 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, except for the following:
  - BC02838, BC03245, BC03528, & BC03962 Sodium MS/MSD spike levels were <30% of the sample concentrations.
  - BC04384 Sodium & Silicon MS/MSD spike levels were <30% of the sample concentrations.
  - BC04386 Calcium, Sodium, & Magnesium MS/MSD spike levels were <30% of the sample concentrations.
- 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>
BC02831	Sodium	10.15
BC02834	Sodium	10.15
BC02835	Calcium, Sodium	10.15
BC02836	Sodium	10.15
BC02837	Sodium	20.3
BC02838	Sodium	10.15
BC03236	Iron, Sodium	20.3
BC03237	Sodium	20.3
BC03238	Sodium	20.3
BC03239	Sodium	20.3
BC03240	Calcium, Iron	20.3
BC03241	Calcium, Iron	20.3
BC03242	Calcium	20.3
BC03243	Calcium, Iron	20.3
BC03244	Calcium, Iron	20.3
BC03245	Sodium	20.3
BC03246	Sodium	20.3
BC03247	Sodium	20.3
BC03249	Sodium	20.3
BC03523	Sodium	20.3
BC03525	Calcium, Sodium	20.3
BC03527	Sodium, Silicon	20.3
BC03528	Sodium	20.3
BC03529	Sodium	20.3
BC03530	Calcium	20.3
BC03531	Calcium	20.3
BC03532	Calcium	20.3
BC03533	Calcium, Magnesium, Sodium	20.3
BC03534	Sodium	20.3
BC03535	Calcium, Iron, Magnesium	20.3
BC03537	Sodium	20.3
BC03953	Sodium	20.3
BC03954	Calcium	20.3
BC03955	Sodium	20.3
BC03956	Sodium	20.3
BC03960	Sodium	20.3
BC03961	Sodium	20.3
BC03962	Sodium	20.3
BC03963	Calcium, Sodium	10.15

## Case Narrative

BC03964	Sodium	10.15
BC03965	Calcium, Sodium	10.15
BC03966	Calcium, Sodium	10.15
BC03967	Sodium	10.15
BC03968	Calcium	10.15
BC03970	Sodium	10.15
BC03971	Sodium	10.15
BC03973	Calcium, Sodium	10.15
BC04376	Sodium	10.15
BC04378	Sodium	10.15
BC04380	Sodium	10.15
BC04382	Calcium, Sodium	10.15
BC04384	Sodium	10.15
BC04385	Calcium	10.15
BC04386	Calcium, Sodium	10.15

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

Dissolved Metals ICP

Gorgas Ash Pond

WMWGORAP\_1350

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 meet NELAP traceability requirements and were used within their recommended shelf life.

<u>Sample ID</u>	<u>Batch ID</u>	<u>Project ID</u>
BC02831	718131	WMWGORAP_1350
BC02832	718131	WMWGORAP_1350
BC02833	718131	WMWGORAP_1350
BC02834	718131	WMWGORAP_1350
BC02835	718131	WMWGORAP_1350
BC02836	718131	WMWGORAP_1350
BC02837	718131	WMWGORAP_1350
BC02838	718131	WMWGORAP_1350
BC03236	719356	WMWGORAP_1350
BC03237	719356	WMWGORAP_1350
BC03238	719356	WMWGORAP_1350
BC03239	719356	WMWGORAP_1350
BC03240	719356	WMWGORAP_1350
BC03241	719356	WMWGORAP_1350
BC03242	719356	WMWGORAP_1350
BC03243	719356	WMWGORAP_1350
BC03244	719356	WMWGORAP_1350
BC03245	719356	WMWGORAP_1350
BC03246	719357	WMWGORAP_1350
BC03247	719357	WMWGORAP_1350
BC03249	719357	WMWGORAP_1350
BC03523	719357	WMWGORAP_1350
BC03524	719357	WMWGORAP_1350
BC03525	719357	WMWGORAP_1350
BC03527	719357	WMWGORAP_1350
BC03528	719357	WMWGORAP_1350
BC03529	719357	WMWGORAP_1350
BC03530	719357	WMWGORAP_1350
BC03531	719358	WMWGORAP_1350
BC03532	719358	WMWGORAP_1350
BC03533	719358	WMWGORAP_1350



BC03534	719358	WMWGORAP_1350
BC03535	719358	WMWGORAP_1350
BC03536	719358	WMWGORAP_1350
BC03537	719358	WMWGORAP_1350
BC03953	719358	WMWGORAP_1350
BC03954	719358	WMWGORAP_1350
BC03955	719358	WMWGORAP_1350
BC03956	719359	WMWGORAP_1350
BC03958	719359	WMWGORAP_1350
BC03959	719359	WMWGORAP_1350
BC03960	719359	WMWGORAP_1350
BC03961	719359	WMWGORAP_1350
BC03962	719359	WMWGORAP_1350
BC03963	719359	WMWGORAP_1350
BC03964	719359	WMWGORAP_1350
BC03965	719359	WMWGORAP_1350
BC03966	719359	WMWGORAP_1350
BC03967	719779	WMWGORAP_1350
BC03968	719779	WMWGORAP_1350
BC03970	719779	WMWGORAP_1350
BC03971	719779	WMWGORAP_1350
BC03973	719779	WMWGORAP_1350
BC04376	719779	WMWGORAP_1350
BC04377	719779	WMWGORAP_1350
BC04378	719779	WMWGORAP_1350
BC04379	719779	WMWGORAP_1350
BC04380	719779	WMWGORAP_1350
BC04381	719780	WMWGORAP_1350
BC04382	719780	WMWGORAP_1350
BC04384	719780	WMWGORAP_1350
BC04385	719780	WMWGORAP_1350
BC04386	719780	WMWGORAP_1350

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 all criteria were met.
- All continued calibration verification (CCV) were within the acceptance criteria for the requested analytes.
- All continued calibration blanks (CCB) were analyzed, and all criteria were met.
- 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.
- All calibration curve requirements were within acceptance criteria.
- All sample internal standard criteria were met.
- The spectral interference check associated with EPA 200.7 was analyzed and all acceptance criteria were met.
- 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, except for the following:
  - BC02838 Sodium & Silicon MS/MSD spike levels were <30% of the sample concentrations.
  - BC03245 & BC03955 Sodium MS/MSD spike levels were <30% of the sample concentrations.
  - BC03530 & BC04386 Calcium MS/MSD spike levels were <30% of the sample concentrations.
  - BC03966 Sodium and Calcium MS/MSD spike levels were <30% of the sample concentrations.
- A matrix spike and matrix spike duplicate were 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>
BC02831	Sodium	10.15
BC02832	Sodium	10.15
BC02834	Sodium	10.15
BC02835	Calcium, Sodium	10.15
BC02836	Sodium	10.15
BC02837	Calcium, Sodium	20.3
BC02838	Sodium	10.15
BC03236	Iron, Sodium	20.3
BC03237	Sodium	20.3
BC03238	Sodium	20.3
BC03239	Sodium	20.3
BC03240	Calcium, Iron	20.3
BC03241	Calcium, Iron	20.3
BC03242	Calcium	20.3
BC03243	Calcium, Iron	20.3
BC03244	Calcium, Iron	20.3
BC03245	Sodium	20.3
BC03246	Sodium	20.3
BC03247	Sodium	20.3
BC03249	Sodium	20.3
BC03523	Sodium	20.3
BC03525	Calcium, Sodium	20.3
BC03527	Sodium, Silicon	20.3
BC03528	Sodium	20.3
BC03529	Sodium	20.3
BC03530	Calcium	20.3
BC03531	Calcium	20.3
BC03532	Calcium	20.3
BC03533	Calcium, Magnesium, Sodium	20.3
BC03534	Sodium	20.3
BC03535	Calcium, Iron, Magnesium	20.3
BC03537	Sodium	20.3
BC03953	Sodium	20.3
BC03954	Calcium	20.3
BC03955	Sodium	20.3
BC03956	Sodium	20.3
BC03960	Sodium	20.3
BC03961	Sodium	20.3

## Case Narrative

BC03962	Sodium	20.3
BC03963	Calcium, Sodium	20.3
BC03964	Sodium	20.3
BC03965	Calcium, Sodium	20.3
BC03966	Calcium, Sodium	20.3
BC03967	Sodium	10.15
BC03968	Calcium	10.15
BC03970	Sodium	10.15
BC03971	Sodium	10.15
BC03973	Calcium, Sodium	10.15
BC04376	Sodium	10.15
BC04378	Sodium	10.15
BC04380	Calcium, Sodium	10.15
BC04381	Calcium	10.15
BC04382	Calcium, Sodium	10.15
BC04384	Sodium	10.15
BC04385	Calcium	10.15
BC04386	Calcium, Sodium	10.15

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

Total Metals ICPMS

Gorgas Ash Pond

WMWGORAP\_1350

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 meet NELAP traceability requirements and were used within their recommended shelf life.

<u>Sample ID</u>	<u>Batch ID</u>	<u>Project ID</u>
BC02831	718985	WMWGORAP_1350
BC02833	718985	WMWGORAP_1350
BC02834	718985	WMWGORAP_1350
BC02835	718985	WMWGORAP_1350
BC02836	718985	WMWGORAP_1350
BC02837	718985	WMWGORAP_1350
BC02838	718985	WMWGORAP_1350
BC03236	718985	WMWGORAP_1350
BC03237	718985	WMWGORAP_1350
BC03238	718985	WMWGORAP_1350
BC03239	718986	WMWGORAP_1350
BC03240	718986	WMWGORAP_1350
BC03241	718986	WMWGORAP_1350
BC03242	718986	WMWGORAP_1350
BC03243	718986	WMWGORAP_1350
BC03244	718986	WMWGORAP_1350
BC03245	718986	WMWGORAP_1350
BC03246	718986	WMWGORAP_1350
BC03247	718986	WMWGORAP_1350
BC03248	718986	WMWGORAP_1350
BC03249	718987	WMWGORAP_1350
BC03523	719005	WMWGORAP_1350
BC03524	719005	WMWGORAP_1350
BC03525	719005	WMWGORAP_1350
BC03526	719005	WMWGORAP_1350
BC03527	719005	WMWGORAP_1350
BC03528	719005	WMWGORAP_1350
BC03529	719005	WMWGORAP_1350
BC03530	719005	WMWGORAP_1350
BC03531	719005	WMWGORAP_1350
BC03532	719005	WMWGORAP_1350

BC03533	719006	WMWGORAP_1350
BC03534	719006	WMWGORAP_1350
BC03535	719006	WMWGORAP_1350
BC03536	719006	WMWGORAP_1350
BC03537	719006	WMWGORAP_1350
BC03538	719006	WMWGORAP_1350
BC03953	720472	WMWGORAP_1350
BC03954	720472	WMWGORAP_1350
BC03955	720472	WMWGORAP_1350
BC03956	720472	WMWGORAP_1350
BC03957	720472	WMWGORAP_1350
BC03958	720472	WMWGORAP_1350
BC03959	720472	WMWGORAP_1350
BC03960	720472	WMWGORAP_1350
BC03961	720472	WMWGORAP_1350
BC03962	720472	WMWGORAP_1350
BC03963	720473	WMWGORAP_1350
BC03964	720473	WMWGORAP_1350
BC03965	720473	WMWGORAP_1350
BC03966	720473	WMWGORAP_1350
BC03967	720473	WMWGORAP_1350
BC03968	720473	WMWGORAP_1350
BC03969	720473	WMWGORAP_1350
BC03970	720473	WMWGORAP_1350
BC03971	720473	WMWGORAP_1350
BC03972	720473	WMWGORAP_1350
BC03973	720474	WMWGORAP_1350
BC04376	720360	WMWGORAP_1350
BC04377	720360	WMWGORAP_1350
BC04378	720360	WMWGORAP_1350
BC04379	720360	WMWGORAP_1350
BC04380	720360	WMWGORAP_1350
BC04381	720360	WMWGORAP_1350
BC04382	720360	WMWGORAP_1350
BC04383	720360	WMWGORAP_1350
BC04384	720360	WMWGORAP_1350
BC04385	720360	WMWGORAP_1350
BC04386	720361	WMWGORAP_1350

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.
- 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 ICPMS batch. All acceptance criteria for accuracy were met, except for the following:
  - BC03532 Barium MS/MSD spike levels were <30% of the sample concentrations.
  - BC03973 Aluminum MS/MSD recoveries were outside of the specification limits. The sample bottle had visible sediment. Matrix issue is suspected.
- A matrix spike and matrix spike duplicate were digested and analyzed with each ICPMS 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>
BC03240	Manganese	10.15
BC03241	Manganese	10.15
BC03243	Manganese	10.15
BC03244	Manganese	10.15
BC03525	Aluminum	10.15
BC03968	Barium	5.075

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

Dissolved Metals ICPMS

Gorgas Ash Pond

WMWGORAP\_1350

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 meet NELAP traceability requirements and were used within their recommended shelf life.

<u>Sample ID</u>	<u>Batch ID</u>	<u>Project ID</u>
BC02831	718631	WMWGORAP_1350
BC02832	718631	WMWGORAP_1350
BC02833	718631	WMWGORAP_1350
BC02834	718631	WMWGORAP_1350
BC02835	718631	WMWGORAP_1350
BC02836	718631	WMWGORAP_1350
BC02837	718631	WMWGORAP_1350
BC02838	718631	WMWGORAP_1350
BC03236	718631	WMWGORAP_1350
BC03237	718631	WMWGORAP_1350
BC03238	718632	WMWGORAP_1350
BC03239	718632	WMWGORAP_1350
BC03240	718632	WMWGORAP_1350
BC03241	718632	WMWGORAP_1350
BC03242	718632	WMWGORAP_1350
BC03243	718632	WMWGORAP_1350
BC03244	718632	WMWGORAP_1350
BC03245	718632	WMWGORAP_1350
BC03246	718632	WMWGORAP_1350
BC03247	718632	WMWGORAP_1350
BC03249	718661	WMWGORAP_1350
BC03523	719007	WMWGORAP_1350
BC03524	719007	WMWGORAP_1350
BC03525	719007	WMWGORAP_1350
BC03527	719007	WMWGORAP_1350
BC03528	719007	WMWGORAP_1350
BC03529	719007	WMWGORAP_1350
BC03530	719007	WMWGORAP_1350
BC03531	719007	WMWGORAP_1350
BC03532	719007	WMWGORAP_1350
BC03533	719007	WMWGORAP_1350

BC03534	719008	WMWGORAP_1350
BC03535	719008	WMWGORAP_1350
BC03536	719008	WMWGORAP_1350
BC03537	719008	WMWGORAP_1350
BC03953	720389	WMWGORAP_1350
BC03954	720389	WMWGORAP_1350
BC03955	720389	WMWGORAP_1350
BC03956	720389	WMWGORAP_1350
BC03958	720389	WMWGORAP_1350
BC03959	720389	WMWGORAP_1350
BC03960	720389	WMWGORAP_1350
BC03961	720389	WMWGORAP_1350
BC03962	720389	WMWGORAP_1350
BC03963	720389	WMWGORAP_1350
BC03964	720390	WMWGORAP_1350
BC03965	720390	WMWGORAP_1350
BC03966	720390	WMWGORAP_1350
BC03967	720390	WMWGORAP_1350
BC03968	720390	WMWGORAP_1350
BC03970	720390	WMWGORAP_1350
BC03971	720390	WMWGORAP_1350
BC03973	720390	WMWGORAP_1350
BC04376	720276	WMWGORAP_1350
BC04377	720276	WMWGORAP_1350
BC04378	720276	WMWGORAP_1350
BC04379	720276	WMWGORAP_1350
BC04380	720276	WMWGORAP_1350
BC04381	720276	WMWGORAP_1350
BC04382	720276	WMWGORAP_1350
BC04384	720276	WMWGORAP_1350
BC04385	720276	WMWGORAP_1350
BC04386	720276	WMWGORAP_1350

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.
- 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 ICPMS batch. All acceptance criteria for accuracy were met, except for the following:
    - BC03963 Selenium MS/MSD recoveries were outside of the specification limits.
  - A matrix spike and matrix spike duplicate were analyzed with each ICPMS 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>
BC03240	Manganese	10.15
BC03241	Manganese	10.15
BC03243	Manganese	10.15
BC03244	Manganese	10.15
BC03525	Aluminum	10.15
BC03968	Barium	5.075

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

Total Mercury

Gorgas Ash Pond

WMWGORAP\_1350

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 meet NELAP traceability requirements and were used within their recommended shelf life.

<u>Sample ID</u>	<u>Batch ID</u>	<u>Project ID</u>
BC02831	717796	WMWGORAP_1350
BC02833	717796	WMWGORAP_1350
BC02834	717796	WMWGORAP_1350
BC02835	717796	WMWGORAP_1350
BC02836	717796	WMWGORAP_1350
BC02837	717796	WMWGORAP_1350
BC02838	717796	WMWGORAP_1350
BC03236	718857	WMWGORAP_1350
BC03237	718857	WMWGORAP_1350
BC03238	718857	WMWGORAP_1350
BC03239	718857	WMWGORAP_1350
BC03240	718857	WMWGORAP_1350
BC03241	718857	WMWGORAP_1350
BC03242	718857	WMWGORAP_1350
BC03243	718857	WMWGORAP_1350
BC03244	718857	WMWGORAP_1350
BC03245	718857	WMWGORAP_1350
BC03246	718858	WMWGORAP_1350
BC03247	718858	WMWGORAP_1350
BC03248	718858	WMWGORAP_1350
BC03249	718858	WMWGORAP_1350
BC03523	718858	WMWGORAP_1350
BC03524	718858	WMWGORAP_1350
BC03525	718858	WMWGORAP_1350
BC03526	718858	WMWGORAP_1350
BC03527	718858	WMWGORAP_1350
BC03528	718858	WMWGORAP_1350
BC03529	718859	WMWGORAP_1350
BC03530	718859	WMWGORAP_1350
BC03531	718859	WMWGORAP_1350
BC03532	718859	WMWGORAP_1350

## Case Narrative

BC03533	718859	WMWGORAP_1350
BC03534	718859	WMWGORAP_1350
BC03535	718859	WMWGORAP_1350
BC03536	718859	WMWGORAP_1350
BC03537	718859	WMWGORAP_1350
BC03538	718859	WMWGORAP_1350
BC03953	719470	WMWGORAP_1350
BC03954	719470	WMWGORAP_1350
BC03955	719470	WMWGORAP_1350
BC03956	719470	WMWGORAP_1350
BC03957	719470	WMWGORAP_1350
BC03958	719470	WMWGORAP_1350
BC03959	719470	WMWGORAP_1350
BC03960	719470	WMWGORAP_1350
BC03961	719470	WMWGORAP_1350
BC03962	719470	WMWGORAP_1350
BC03963	719471	WMWGORAP_1350
BC03964	719471	WMWGORAP_1350
BC03965	719471	WMWGORAP_1350
BC03966	719471	WMWGORAP_1350
BC03967	719471	WMWGORAP_1350
BC03968	719471	WMWGORAP_1350
BC03969	719471	WMWGORAP_1350
BC03970	719471	WMWGORAP_1350
BC03971	719471	WMWGORAP_1350
BC03972	719471	WMWGORAP_1350
BC03973	719472	WMWGORAP_1350
BC04376	719658	WMWGORAP_1350
BC04377	719658	WMWGORAP_1350
BC04378	719658	WMWGORAP_1350
BC04379	719658	WMWGORAP_1350
BC04380	719658	WMWGORAP_1350
BC04381	719658	WMWGORAP_1350
BC04382	719658	WMWGORAP_1350
BC04383	719658	WMWGORAP_1350
BC04384	719658	WMWGORAP_1350
BC04385	719658	WMWGORAP_1350
BC04386	719659	WMWGORAP_1350

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

7. All samples were analyzed without a dilution.



Dissolved Mercury

Gorgas Ash Pond

WMWGORAP\_1350

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 meet NELAP traceability requirements and were used within their recommended shelf life.

<u>Sample ID</u>	<u>Batch ID</u>	<u>Project ID</u>
BC02832	718434	WMWGORAP_1350

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

7. All samples were analyzed without a dilution.

Revision 5

TDS

Gorgas Ash Pond

WMWGORAP\_1350

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 meet NELAP traceability requirements and were used within their recommended shelf life.

<u>Sample ID</u>	<u>Batch ID</u>	<u>Project ID</u>
BC02831	717837	WMWGORAP_1350
BC02832	717837	WMWGORAP_1350
BC02833	717837	WMWGORAP_1350
BC02834	717837	WMWGORAP_1350
BC02835	717837	WMWGORAP_1350
BC02836	717837	WMWGORAP_1350
BC02837	717837	WMWGORAP_1350
BC02838	717837	WMWGORAP_1350
BC03236	718468	WMWGORAP_1350
BC03237	718468	WMWGORAP_1350
BC03238	718468	WMWGORAP_1350
BC03239	718468	WMWGORAP_1350
BC03240	718470	WMWGORAP_1350
BC03241	718470	WMWGORAP_1350
BC03242	718470	WMWGORAP_1350
BC03243	718470	WMWGORAP_1350
BC03244	718470	WMWGORAP_1350
BC03245	718470	WMWGORAP_1350
BC03246	718470	WMWGORAP_1350
BC03247	718470	WMWGORAP_1350
BC03248	718470	WMWGORAP_1350
BC03249	718470	WMWGORAP_1350
BC03523	718802	WMWGORAP_1350
BC03524	718802	WMWGORAP_1350
BC03525	718802	WMWGORAP_1350
BC03526	718803	WMWGORAP_1350
BC03527	718803	WMWGORAP_1350
BC03528	718803	WMWGORAP_1350
BC03529	719119	WMWGORAP_1350
BC03530	718803	WMWGORAP_1350
BC03531	718803	WMWGORAP_1350

## Case Narrative

BC03532	718803	WMWGORAP_1350
BC03533	718803	WMWGORAP_1350
BC03534	718803 & 719591	WMWGORAP_1350
BC03535	718803	WMWGORAP_1350
BC03536	718803	WMWGORAP_1350
BC03537	719119	WMWGORAP_1350
BC03538	719119	WMWGORAP_1350
BC03953	719198	WMWGORAP_1350
BC03954	719198	WMWGORAP_1350
BC03955	719198	WMWGORAP_1350
BC03956	719198	WMWGORAP_1350
BC03957	719198	WMWGORAP_1350
BC03958	719198	WMWGORAP_1350
BC03959	719198	WMWGORAP_1350
BC03960	719198	WMWGORAP_1350
BC03961	719198	WMWGORAP_1350
BC03962	719198	WMWGORAP_1350
BC03963	719199	WMWGORAP_1350
BC03964	719199	WMWGORAP_1350
BC03965	719199	WMWGORAP_1350
BC03966	719199	WMWGORAP_1350
BC03967	719199	WMWGORAP_1350
BC03968	719199	WMWGORAP_1350
BC03969	719199	WMWGORAP_1350
BC03970	719199	WMWGORAP_1350
BC03971	719199	WMWGORAP_1350
BC03972	719199	WMWGORAP_1350
BC03973	719597	WMWGORAP_1350
BC04376	719722	WMWGORAP_1350
BC04377	719722	WMWGORAP_1350
BC04378	719722	WMWGORAP_1350
BC04379	719722	WMWGORAP_1350
BC04380	719722	WMWGORAP_1350
BC04381	719722	WMWGORAP_1350
BC04382	719722	WMWGORAP_1350
BC04383	719722	WMWGORAP_1350
BC04384	719722	WMWGORAP_1350
BC04385	719722	WMWGORAP_1350
BC04386	719723	WMWGORAP_1350

4. All of the above samples were prepared and analyzed by Standard Method 2540C.
5. All samples were prepared and analyzed within the established hold times, except for the following:
  - a. BC03534 was originally analyzed within hold time. Upon data review, an analytical error was discovered. The sample was rerun in a separate batch (719591) out of hold time.
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, and RPD was  $\leq 10\%$ , except for the following:
  - Batch 719591 was analyzed without a sample duplicate.
- 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  $< 2.5\text{mg}$  had the maximum volume of 150mL filtered. Affected samples are as follows:
  - BC03248
  - BC03526
  - BC03538
  - BC03957
  - BC03969
  - BC03972
  - BC04383

## Anions

### Gorgas Ash Pond

#### WMWGORAP\_1350

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 meet NELAP traceability requirements and were used within their recommended shelf life.

<u>Sample ID</u>	<u>Batch ID</u>	<u>Project ID</u>
BC02831	717990, 718048, & 718271	WMWGORAP_1350
BC02832	717990, 718048, & 718271	WMWGORAP_1350
BC02833	717990, 718048, & 718271	WMWGORAP_1350
BC02834	717990, 718048, & 718271	WMWGORAP_1350
BC02835	717990, 718048, & 718271	WMWGORAP_1350
BC02836	717990, 718048, & 718271	WMWGORAP_1350
BC02837	717990, 718048, & 718271	WMWGORAP_1350
BC02838	717990, 718048, & 718271	WMWGORAP_1350
BC03236	718483, 718502, & 719081	WMWGORAP_1350
BC03237	718483, 718502, & 719081	WMWGORAP_1350
BC03238	718483, 718502, & 719081	WMWGORAP_1350
BC03239	718483, 718502, & 719081	WMWGORAP_1350
BC03240	718483, 718502, & 719081	WMWGORAP_1350
BC03241	718483, 718502, & 719081	WMWGORAP_1350
BC03242	718483, 718502, & 719081	WMWGORAP_1350
BC03243	718483, 718503, & 719081	WMWGORAP_1350
BC03244	718483, 718503, & 719081	WMWGORAP_1350
BC03245	718483, 718503, & 719081	WMWGORAP_1350
BC03246	718484, 718503, & 719082	WMWGORAP_1350
BC03247	718484, 718503, & 719082	WMWGORAP_1350
BC03248	718484, 718503, & 719082	WMWGORAP_1350
BC03249	718484, 718503, & 719082	WMWGORAP_1350
BC03523	718893, 719115, & 719082	WMWGORAP_1350
BC03524	718893, 719115, & 719082	WMWGORAP_1350
BC03525	718893, 719115, & 719082	WMWGORAP_1350
BC03526	718893, 719115, & 719082	WMWGORAP_1350
BC03527	718893, 719115, & 719082	WMWGORAP_1350
BC03528	718893, 719115, & 719082	WMWGORAP_1350
BC03529	718893, 719115, & 719083	WMWGORAP_1350
BC03530	718893, 719115, & 719083	WMWGORAP_1350
BC03531	718893, 719115, & 719083	WMWGORAP_1350

## Case Narrative

BC03532	718893, 719115, & 719083	WMWGORAP_1350
BC03533	718894, 719116, & 719083	WMWGORAP_1350
BC03534	718894, 719116, & 719083	WMWGORAP_1350
BC03535	718894, 719116, & 719083	WMWGORAP_1350
BC03536	718894, 719116, & 719083	WMWGORAP_1350
BC03537	718894, 719116, & 719083	WMWGORAP_1350
BC03538	718894, 719116, & 719083	WMWGORAP_1350
BC03953	719314, 719474, & 719826	WMWGORAP_1350
BC03954	719314, 719474, & 719826	WMWGORAP_1350
BC03955	719314, 719474, & 719826	WMWGORAP_1350
BC03956	719314, 719474, & 719826	WMWGORAP_1350
BC03957	719314, 719474, & 719826	WMWGORAP_1350
BC03958	719314, 719474, & 719826	WMWGORAP_1350
BC03959	719314, 719474, & 719826	WMWGORAP_1350
BC03960	719314, 719474, & 719826	WMWGORAP_1350
BC03961	719314, 719474, & 719826	WMWGORAP_1350
BC03962	719314, 719474, & 719826	WMWGORAP_1350
BC03963	719315, 719475, & 719827	WMWGORAP_1350
BC03964	719315, 719475, & 719827	WMWGORAP_1350
BC03965	719315, 719475, & 719827	WMWGORAP_1350
BC03966	719315, 719475, & 719827	WMWGORAP_1350
BC03967	719315, 719475, & 719827	WMWGORAP_1350
BC03968	719315, 719475, & 719827	WMWGORAP_1350
BC03969	719315, 719475, & 719827	WMWGORAP_1350
BC03970	719315, 719475, & 719827	WMWGORAP_1350
BC03971	719315, 719475, & 719827	WMWGORAP_1350
BC03972	719315, 719475, & 719827	WMWGORAP_1350
BC03973	719316, 719476, & 719828	WMWGORAP_1350
BC04376	719824, 719775, & 719828	WMWGORAP_1350
BC04377	719824, 719775, & 719828	WMWGORAP_1350
BC04378	719824, 719775, & 719828	WMWGORAP_1350
BC04379	719824, 719775, & 719828	WMWGORAP_1350
BC04380	719824, 719775, & 719828	WMWGORAP_1350
BC04381	719824, 719775, & 719828	WMWGORAP_1350
BC04382	719824, 719775, & 719828	WMWGORAP_1350
BC04383	719824, 719775, & 719828	WMWGORAP_1350
BC04384	719824, 719775, & 719828	WMWGORAP_1350
BC04385	719824, 719775, & 719829	WMWGORAP_1350
BC04386	719825, 719776, & 719829	WMWGORAP_1350

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 limit of quantitation 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 was met, except for the following:
    - BC04386 Sulfate matrix spike recovery was outside of the specification limit.
  - A sample duplicate was analyzed with each batch. Acceptance criteria for precision were met, except for the following:
    - BC04386 Fluoride precision was invalid due to sample concentration.
7. The following samples were diluted due to the analyzed sample concentration being greater than the high standard of the calibration curve:



## Case Narrative

<u>Sample ID</u>	<u>Analyte</u>	<u>Dilution Factor</u>
BC02831	Sulfate	8
BC02832	Sulfate	8
BC02833	Sulfate	8
BC02834	Chloride	8
BC02835	Sulfate	16
BC02836	Chloride & Sulfate	8 & 16
BC02837	Chloride & Sulfate	40 & 25
BC02838	Chloride	5
BC03236	Sulfate	4
BC03239	Chloride & Sulfate	5 & 5
BC03240	Chloride & Sulfate	2 & 8
BC03241	Chloride & Sulfate	2 & 8
BC03242	Sulfate	2
BC03243	Sulfate	20
BC03244	Sulfate	20
BC03247	Sulfate	2
BC03249	Chloride	4
BC03528	Chloride & Sulfate	8 & 16
BC03529	Chloride & Sulfate	8 & 8
BC03530	Sulfate	8
BC03533	Sulfate	40
BC03535	Sulfate	25
BC03537	Sulfate	4
BC03953	Chloride & Sulfate	10 & 20
BC03954	Sulfate	2
BC03955	Chloride & Sulfate	8 & 2
BC03956	Chloride & Sulfate	16 & 16
BC03961	Chloride & Sulfate	4 & 20
BC03962	Chloride & Sulfate	25 & 20
BC03964	Chloride	3
BC03970	Chloride	3
BC03971	Chloride & Sulfate	4 & 20
BC03973	Sulfate	16
BC04376	Chloride	2
BC04378	Chloride	2
BC04380	Chloride	2
BC04382	Chloride & Sulfate	4 & 5
BC04386	Chloride & Sulfate	4 & 20

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

Alkalinity

Gorgas Ash Pond

WMWGORAP\_1350

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 meet NELAP traceability requirements and were used within their recommended shelf life.

<u>Sample ID</u>	<u>Batch ID</u>	<u>Project ID</u>
BC02831	718676 & 718677	WMWGORAP_1350
BC02832	718676 & 718677	WMWGORAP_1350
BC02833	718676 & 718677	WMWGORAP_1350
BC02834	718676 & 718677	WMWGORAP_1350
BC02835	718676 & 718677	WMWGORAP_1350
BC02836	718676 & 718677	WMWGORAP_1350
BC02837	718676 & 718677	WMWGORAP_1350
BC02838	718676 & 718677	WMWGORAP_1350
BC03236	719175 & 719176	WMWGORAP_1350
BC03237	719175 & 719176	WMWGORAP_1350
BC03238	719175 & 719176	WMWGORAP_1350
BC03239	719175 & 719176	WMWGORAP_1350
BC03240	719175 & 719176	WMWGORAP_1350
BC03241	719175 & 719176	WMWGORAP_1350
BC03242	719175 & 719176	WMWGORAP_1350
BC03243	719175 & 719176	WMWGORAP_1350
BC03244	719175 & 719176	WMWGORAP_1350
BC03245	719175 & 719176	WMWGORAP_1350
BC03246	719175 & 719176	WMWGORAP_1350
BC03247	719175 & 719176	WMWGORAP_1350
BC03249	719175 & 719176	WMWGORAP_1350
BC03523	719536 & 719537	WMWGORAP_1350
BC03524	719536 & 719537	WMWGORAP_1350
BC03525	719536 & 719537	WMWGORAP_1350
BC03527	719536 & 719537	WMWGORAP_1350
BC03528	719536 & 719537	WMWGORAP_1350
BC03529	719536 & 719537	WMWGORAP_1350
BC03530	719536 & 719537	WMWGORAP_1350
BC03531	719536 & 719537	WMWGORAP_1350
BC03532	719589 & 719590	WMWGORAP_1350
BC03533	719589 & 719590	WMWGORAP_1350

BC03534	719589 & 719590	WMWGORAP_1350
BC03535	719589 & 719590	WMWGORAP_1350
BC03536	719589 & 719590	WMWGORAP_1350
BC03537	719589 & 719590	WMWGORAP_1350
BC03953	719952 & 719953	WMWGORAP_1350
BC03954	719952 & 719953	WMWGORAP_1350
BC03955	719952 & 719953	WMWGORAP_1350
BC03956	719952 & 719953	WMWGORAP_1350
BC03958	719952 & 719953	WMWGORAP_1350
BC03959	719952 & 719953	WMWGORAP_1350
BC03960	719952 & 719953	WMWGORAP_1350
BC03961	720033 & 720034	WMWGORAP_1350
BC03962	720033 & 720034	WMWGORAP_1350
BC03963	719952 & 719953	WMWGORAP_1350
BC03964	719952 & 719953	WMWGORAP_1350
BC03965	719952 & 719953	WMWGORAP_1350
BC03966	719952 & 719953	WMWGORAP_1350
BC03967	719952 & 719953	WMWGORAP_1350
BC03968	720033 & 720034	WMWGORAP_1350
BC03970	719952 & 719953	WMWGORAP_1350
BC03971	720033 & 720034	WMWGORAP_1350
BC03973	720033 & 720034	WMWGORAP_1350
BC04376	720033 & 720034	WMWGORAP_1350
BC04377	720033 & 720034	WMWGORAP_1350
BC04378	720033 & 720034	WMWGORAP_1350
BC04379	720033 & 720034	WMWGORAP_1350
BC04380	720033 & 720034	WMWGORAP_1350
BC04381	720329 & 720330	WMWGORAP_1350
BC04382	720329 & 720330	WMWGORAP_1350
BC04384	720329 & 720330	WMWGORAP_1350
BC04385	720329 & 720330	WMWGORAP_1350
BC04386	720329 & 720330	WMWGORAP_1350

4. All of the above samples were prepared and analyzed by Standard Method 2320B.
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:

- 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.

7. The following samples had  $\text{pH} > 10$  and/or  $\text{TDS} > 500 \text{mg/L}$ . Therefore, the calculations for carbonate and bicarbonate are estimates:

- BC02834
- BC02835
- BC02836
- BC02837
- BC03239
- BC03243
- BC03244
- BC03527
- BC03528
- BC03529
- BC03533
- BC03535
- BC03953
- BC03956
- BC03961
- BC03962
- BC03971
- BC03973
- BC04386

8. The following sample had  $\text{pH} > 12$ . Therefore, the calculations for carbonate and bicarbonate are invalid and not reported:

- BC03525

Nitrate-Nitrite

Gorgas Ash Pond

WMWGORAP\_1350

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 meet NELAP traceability requirements and were used within their recommended shelf life.

<u>Sample ID</u>	<u>Batch ID</u>	<u>Project ID</u>
BC02831	718258	WMWGORAP_1350
BC02832	718258	WMWGORAP_1350
BC02833	718258	WMWGORAP_1350
BC02834	718258	WMWGORAP_1350
BC02835	718258	WMWGORAP_1350
BC02836	718258	WMWGORAP_1350
BC02837	718258	WMWGORAP_1350
BC02838	718258	WMWGORAP_1350
BC03236	719127	WMWGORAP_1350
BC03237	719127	WMWGORAP_1350
BC03238	719127	WMWGORAP_1350
BC03239	719127	WMWGORAP_1350
BC03240	719127	WMWGORAP_1350
BC03241	719127	WMWGORAP_1350
BC03242	719127	WMWGORAP_1350
BC03243	719127	WMWGORAP_1350
BC03244	719127	WMWGORAP_1350
BC03245	719127	WMWGORAP_1350
BC03246	719128	WMWGORAP_1350
BC03247	719128	WMWGORAP_1350
BC03248	719128	WMWGORAP_1350
BC03249	719128	WMWGORAP_1350
BC03523	719128	WMWGORAP_1350
BC03524	719128	WMWGORAP_1350
BC03525	719128	WMWGORAP_1350
BC03526	719128	WMWGORAP_1350
BC03527	719128	WMWGORAP_1350
BC03528	719128	WMWGORAP_1350
BC03529	719129	WMWGORAP_1350
BC03530	719129	WMWGORAP_1350
BC03531	719129	WMWGORAP_1350

BC03532	719129	WMWGORAP_1350
BC03533	719129	WMWGORAP_1350
BC03534	719129	WMWGORAP_1350
BC03535	719129	WMWGORAP_1350
BC03536	719129	WMWGORAP_1350
BC03537	719129	WMWGORAP_1350
BC03538	719129	WMWGORAP_1350
BC03953	719552	WMWGORAP_1350
BC03954	719552	WMWGORAP_1350
BC03955	719552	WMWGORAP_1350
BC03956	719552	WMWGORAP_1350
BC03957	719552	WMWGORAP_1350
BC03958	719552	WMWGORAP_1350
BC03959	719552	WMWGORAP_1350
BC03960	719552	WMWGORAP_1350
BC03961	719552	WMWGORAP_1350
BC03962	719552	WMWGORAP_1350
BC03963	719553	WMWGORAP_1350
BC03964	719553	WMWGORAP_1350
BC03965	719553	WMWGORAP_1350
BC03966	719553	WMWGORAP_1350
BC03967	719553	WMWGORAP_1350
BC03968	719553	WMWGORAP_1350
BC03969	719553	WMWGORAP_1350
BC03970	719553	WMWGORAP_1350
BC03971	719553	WMWGORAP_1350
BC03972	719553	WMWGORAP_1350
BC03973	719554	WMWGORAP_1350
BC04376	720363	WMWGORAP_1350
BC04377	720363	WMWGORAP_1350
BC04378	720363	WMWGORAP_1350
BC04379	720363	WMWGORAP_1350
BC04380	720363	WMWGORAP_1350
BC04381	720363	WMWGORAP_1350
BC04382	720363	WMWGORAP_1350
BC04383	720363	WMWGORAP_1350
BC04384	720363	WMWGORAP_1350
BC04385	720363	WMWGORAP_1350
BC04386	720364	WMWGORAP_1350

4. All of the above samples were prepared and analyzed for NO<sub>x</sub> by EPA 353.2.
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:

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

#### EPA 353.2 Specific QC:

- Prior to sample analysis, Cadmium coil reduction efficiency check met criteria.
- Matrix Specific QC:
  - A sample duplicate was run and criteria for precision was met.
  - A matrix spike was run and criteria for accuracy was met, except for the following:
    - BC03245 & BC03538 MS were outside of the specification limit.

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



Total Organic Carbon

Gorgas Ash Pond

WMWGORAP\_1350

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 meet NELAP traceability requirements and were used within their recommended shelf life.

<u>Sample ID</u>	<u>Batch ID</u>	<u>Project ID</u>
BC02831	718710	WMWGORAP_1350
BC02832	718710	WMWGORAP_1350
BC02833	718710	WMWGORAP_1350
BC02834	718710	WMWGORAP_1350
BC02835	718710	WMWGORAP_1350
BC02836	718710	WMWGORAP_1350
BC02837	718710	WMWGORAP_1350
BC02838	718710	WMWGORAP_1350
BC03236	718710	WMWGORAP_1350
BC03237	718710	WMWGORAP_1350
BC03238	718990	WMWGORAP_1350
BC03239	718990	WMWGORAP_1350
BC03240	718990	WMWGORAP_1350
BC03241	718990	WMWGORAP_1350
BC03242	718990	WMWGORAP_1350
BC03243	718990	WMWGORAP_1350
BC03244	718990	WMWGORAP_1350
BC03245	718990	WMWGORAP_1350
BC03246	718990	WMWGORAP_1350
BC03247	718990	WMWGORAP_1350
BC03248	718991	WMWGORAP_1350
BC03249	718991	WMWGORAP_1350
BC03523	718991	WMWGORAP_1350
BC03524	718991	WMWGORAP_1350
BC03525	718991	WMWGORAP_1350
BC03526	718991	WMWGORAP_1350
BC03527	718991	WMWGORAP_1350
BC03528	718991	WMWGORAP_1350
BC03529	718991	WMWGORAP_1350
BC03530	718991	WMWGORAP_1350
BC03531	719844	WMWGORAP_1350

BC03532	719844	WMWGORAP_1350
BC03533	719844	WMWGORAP_1350
BC03534	719844	WMWGORAP_1350
BC03535	719844	WMWGORAP_1350
BC03536	719844	WMWGORAP_1350
BC03537	719844	WMWGORAP_1350
BC03538	719844	WMWGORAP_1350
BC03953	719844	WMWGORAP_1350
BC03954	719844	WMWGORAP_1350
BC03955	719845	WMWGORAP_1350
BC03956	719845	WMWGORAP_1350
BC03957	719845	WMWGORAP_1350
BC03958	719845	WMWGORAP_1350
BC03959	719845	WMWGORAP_1350
BC03960	719845	WMWGORAP_1350
BC03961	719845	WMWGORAP_1350
BC03962	719845	WMWGORAP_1350
BC03963	719845	WMWGORAP_1350
BC03964	719845	WMWGORAP_1350
BC03965	719956	WMWGORAP_1350
BC03966	719956	WMWGORAP_1350
BC03967	719956	WMWGORAP_1350
BC03968	719956	WMWGORAP_1350
BC03969	719956	WMWGORAP_1350
BC03970	719956	WMWGORAP_1350
BC03971	719956	WMWGORAP_1350
BC03972	719956	WMWGORAP_1350
BC03973	719956	WMWGORAP_1350
BC04376	719956	WMWGORAP_1350
BC04377	720374	WMWGORAP_1350
BC04378	720374	WMWGORAP_1350
BC04379	720374	WMWGORAP_1350
BC04380	720374	WMWGORAP_1350
BC04381	720374	WMWGORAP_1350
BC04382	720374	WMWGORAP_1350
BC04383	720374	WMWGORAP_1350
BC04384	720374	WMWGORAP_1350
BC04385	720374	WMWGORAP_1350
BC04386	720374	WMWGORAP_1350

4. All of the above samples were prepared and analyzed by Standard Method 5310B.
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 criteria were met.
- Prior to sample analysis, an initial calibration verification (ICV) was analyzed and met all criteria.
- Prior to sample analysis, an initial calibration blank (ICB) was analyzed and was  $<1/2RL$ .
- All continued calibration verifications (CCVs) were within the acceptance range.
- All continued calibration blanks (CCBs) were  $<1/2RL$ .

#### Matrix Specific Quality Control Procedures:

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

# Certificate Of Analysis

**Description:** Gorgas Ash Pond - MW-7

**Location Code:** WMWGORAP  
**Collected:** 2/8/22 11:20  
**Customer ID:**  
**Submittal Date:** 2/9/22 16:41

**Laboratory ID Number:** BC02831

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
<b>Analytical Method: EPA 200.7</b>		<b>Analyst: RDA</b>			<b>Preparation Method: EPA 1638</b>				
* Boron, Total	2/14/22 12:00	2/17/22 11:39		1.015	1.69	mg/L	0.030000	0.1015	
* Calcium, Total	2/14/22 12:00	2/17/22 11:39		1.015	10.7	mg/L	0.070035	0.406	
* Iron, Total	2/14/22 12:00	2/17/22 11:39		1.015	1.13	mg/L	0.008120	0.0406	
* Lithium, Total	2/14/22 12:00	2/17/22 11:39		1.015	0.203	mg/L	0.007105	0.01999956	
* Magnesium, Total	2/14/22 12:00	2/17/22 11:39		1.015	3.91	mg/L	0.021315	0.406	
Silica, Total (calc.)	2/14/22 12:00	2/17/22 11:39		1	12.2	mg/L			
Silicon, Total	2/14/22 12:00	2/17/22 11:39		1.015	5.71	mg/L	0.02030	0.25375	
* Sodium, Total	2/14/22 12:00	2/17/22 13:23		10.15	102	mg/L	0.3045	4.06	
<b>Analytical Method: EPA 200.7</b>		<b>Analyst: RDA</b>			<b>Preparation Method: EPA 1638</b>				
* Boron, Dissolved	2/14/22 12:00	2/17/22 10:20		1.015	1.71	mg/L	0.030000	0.1015	
* Calcium, Dissolved	2/14/22 12:00	2/17/22 10:20		1.015	10.6	mg/L	0.070035	0.406	
* Iron, Dissolved	2/14/22 12:00	2/17/22 10:20		1.015	0.215	mg/L	0.008120	0.0406	
* Lithium, Dissolved	2/14/22 12:00	2/17/22 10:20		1.015	0.197	mg/L	0.007105	0.01999956	
* Magnesium, Dissolved	2/14/22 12:00	2/17/22 10:20		1.015	3.75	mg/L	0.021315	0.406	
Silica, Dissolved (calc.)	2/14/22 12:00	2/17/22 10:20		1	11.8	mg/L			
Silicon, Dissolved	2/14/22 12:00	2/17/22 10:20		1.015	5.52	mg/L	0.02030	0.25375	
* Sodium, Dissolved	2/14/22 12:00	2/17/22 12:37		10.15	99.2	mg/L	0.3045	4.06	
<b>Analytical Method: EPA 200.8</b>		<b>Analyst: ABB</b>			<b>Preparation Method: EPA 1638</b>				
* Antimony, Total	2/16/22 10:47	2/18/22 12:51		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Aluminum, Total	2/16/22 10:47	2/18/22 12:51		1.015	0.269	mg/L	0.004060	0.01015	
* Arsenic, Total	2/16/22 10:47	2/18/22 12:51		1.015	0.281	mg/L	0.000068	0.000203	
* Barium, Total	2/16/22 10:47	2/18/22 12:51		1.015	0.0747	mg/L	0.000102	0.000203	
* Beryllium, Total	2/16/22 10:47	2/18/22 12:51		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Total	2/16/22 10:47	2/18/22 12:51		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Total	2/16/22 10:47	2/18/22 12:51		1.015	0.00103	mg/L	0.000203	0.001015	
* Cobalt, Total	2/16/22 10:47	2/18/22 12:51		1.015	0.000507	mg/L	0.000068	0.000203	
* Lead, Total	2/16/22 10:47	2/18/22 12:51		1.015	0.000804	mg/L	0.000068	0.000203	
* Manganese, Total	2/16/22 10:47	2/18/22 12:51		1.015	0.0537	mg/L	0.000068	0.000203	
* Molybdenum, Total	2/16/22 10:47	2/18/22 12:51		1.015	0.221	mg/L	0.000068	0.000203	
* Potassium, Total	2/16/22 10:47	2/18/22 12:51		1.015	1.32	mg/L	0.169505	0.5075	

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.

# Certificate Of Analysis

**Description:** Gorgas Ash Pond - MW-7

**Location Code:** WMWGORAP  
**Collected:** 2/8/22 11:20  
**Customer ID:**  
**Submittal Date:** 2/9/22 16:41

**Laboratory ID Number:** BC02831

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
* Selenium, Total	2/16/22 10:47	2/18/22 12:51		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Total	2/16/22 10:47	2/18/22 12:51		1.015	Not Detected	mg/L	0.000068	0.000203	U
<b>Analytical Method: EPA 200.8</b>		<b>Analyst: ABB</b>							
* Antimony, Dissolved	2/16/22 11:25	2/16/22 16:10		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Aluminum, Dissolved	2/16/22 11:25	2/16/22 16:10		1.015	Not Detected	mg/L	0.004060	0.01015	U
* Arsenic, Dissolved	2/16/22 11:25	2/16/22 16:10		1.015	0.255	mg/L	0.000068	0.000203	
* Barium, Dissolved	2/16/22 11:25	2/16/22 16:10		1.015	0.0536	mg/L	0.000102	0.000203	
* Beryllium, Dissolved	2/16/22 11:25	2/16/22 16:10		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Dissolved	2/16/22 11:25	2/16/22 16:10		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Dissolved	2/16/22 11:25	2/16/22 16:10		1.015	Not Detected	mg/L	0.000203	0.001015	U
* Cobalt, Dissolved	2/16/22 11:25	2/16/22 16:10		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Lead, Dissolved	2/16/22 11:25	2/16/22 16:10		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Dissolved	2/16/22 11:25	2/16/22 16:10		1.015	0.0369	mg/L	0.000068	0.000203	
* Molybdenum, Dissolved	2/16/22 11:25	2/16/22 16:10		1.015	0.204	mg/L	0.000068	0.000203	
* Potassium, Dissolved	2/16/22 11:25	2/16/22 16:10		1.015	1.19	mg/L	0.169505	0.5075	
* Selenium, Dissolved	2/16/22 11:25	2/16/22 16:10		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Dissolved	2/16/22 11:25	2/16/22 16:10		1.015	Not Detected	mg/L	0.000068	0.000203	U
<b>Analytical Method: EPA 245.1</b>		<b>Analyst: CRB</b>							
* Mercury, Total by CVAA	2/10/22 13:23	2/10/22 20:13		1	Not Detected	mg/L	0.0003	0.0005	U
<b>Analytical Method: EPA 353.2</b>		<b>Analyst: ELH</b>							
* Nitrogen, Nitrate/Nitrite	2/14/22 14:50	2/14/22 14:50		1	Not Detected	mg/L as N	0.20	0.3	U
<b>Analytical Method: SM 2320 B</b>		<b>Analyst: ALH</b>							
Alkalinity, Total as CaCO3	2/17/22 11:20	2/17/22 12:20		1	113	mg/L		0.1	
<b>Analytical Method: SM 2540C</b>		<b>Analyst: CNJ</b>							
* Solids, Dissolved	2/10/22 11:15	2/11/22 13:20		1	332	mg/L		25	
<b>Analytical Method: SM 4500CO2 D</b>		<b>Analyst: ALH</b>							
Bicarbonate Alkalinity, (calc.)	2/17/22 11:20	2/17/22 12:20		1	112	mg/L			
Carbonate Alkalinity, (calc.)	2/17/22 11:20	2/17/22 12:20		1	0.78	mg/L			
<b>Analytical Method: SM 5310 B</b>		<b>Analyst: ELH</b>							
* Total Organic Carbon	2/16/22 15:25	2/16/22 15:25		1	Not Detected	mg/L	1.00	2	U

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.

# Certificate Of Analysis

**Description:** Gorgas Ash Pond - MW-7

**Location Code:** WMWGORAP

**Collected:** 2/8/22 11:20

**Customer ID:**

**Submittal Date:** 2/9/22 16:41

**Laboratory ID Number:** BC02831

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
<b>Analytical Method: SM4500Cl E</b>		<b>Analyst: JCC</b>							
* Chloride	2/10/22 09:41	2/10/22 09:41		1	7.50	mg/L	0.50	1	
<b>Analytical Method: SM4500F G 2017</b>		<b>Analyst: JCC</b>							
* Fluoride	2/10/22 16:22	2/10/22 16:22		1	0.0945	mg/L	0.06	0.1	J
<b>Analytical Method: SM4500SO4 E 2011</b>		<b>Analyst: JCC</b>							
* Sulfate	2/14/22 15:06	2/14/22 15:06		8	138	mg/L	4.00	8	
<b>Analytical Method: Field Measurements</b>		<b>Analyst: TJD</b>							
Conductivity	2/8/22 11:18	2/8/22 11:18			522.40	uS/cm			FA
pH	2/8/22 11:18	2/8/22 11:18			7.71	SU			FA
Temperature	2/8/22 11:18	2/8/22 11:18			18.93	C			FA
Turbidity	2/8/22 11:18	2/8/22 11:18			18.9	NTU			FA

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.

# Batch QC Summary

**Customer Account:** WMWGORAP

**Sample Date:** 2/8/22 11:20

**Customer ID:**

**Delivery Date:** 2/9/22 16:41

**Description:** Gorgas Ash Pond - MW-7

**Laboratory ID Number:** BC02831

Sample	Analysis	Units	MB	MB				Standard		Rec			Prec Limit
				Limit	Spike	MS	MSD	Standard	Limit	Rec	Limit	Prec	
BC02838	Aluminum, Dissolved	mg/L	0.0000565	0.010	0.100	0.106	0.109	0.0990	0.0850 to 0.115	94.1	70.0 to 130	2.79	20.0
BC03238	Aluminum, Total	mg/L	0.000788	0.010	0.100	0.101	0.102	0.100	0.0850 to 0.115	101	70.0 to 130	0.985	20.0
BC02838	Antimony, Dissolved	mg/L	0.000176	0.00100	0.100	0.0907	0.0886	0.0917	0.0850 to 0.115	90.7	70.0 to 130	2.34	20.0
BC03238	Antimony, Total	mg/L	0.000222	0.00100	0.100	0.0960	0.0976	0.0973	0.0850 to 0.115	96.0	70.0 to 130	1.65	20.0
BC02838	Arsenic, Dissolved	mg/L	0.0000108	0.000176	0.100	0.0970	0.0973	0.100	0.0850 to 0.115	96.6	70.0 to 130	0.309	20.0
BC03238	Arsenic, Total	mg/L	0.000012	0.000176	0.100	0.104	0.103	0.104	0.0850 to 0.115	104	70.0 to 130	0.966	20.0
BC02838	Barium, Dissolved	mg/L	0.00000	0.000200	0.100	0.227	0.227	0.0940	0.0850 to 0.115	93.0	70.0 to 130	0.00	20.0
BC03238	Barium, Total	mg/L	-0.0000261	0.000200	0.100	0.409	0.411	0.104	0.0850 to 0.115	94.0	70.0 to 130	0.488	20.0
BC02838	Beryllium, Dissolved	mg/L	0.000136	0.000880	0.100	0.103	0.103	0.0981	0.0850 to 0.115	103	70.0 to 130	0.00	20.0
BC03238	Beryllium, Total	mg/L	0.000124	0.000880	0.100	0.0996	0.0983	0.103	0.0850 to 0.115	99.6	70.0 to 130	1.31	20.0
BC02838	Boron, Dissolved	mg/L	-0.000566	0.0650	1.00	1.06	1.05	1.03	0.850 to 1.15	106	70.0 to 130	0.948	20.0
BC02838	Boron, Total	mg/L	-0.000727	0.0650	1.00	1.02	1.04	1.02	0.850 to 1.15	102	70.0 to 130	1.94	20.0
BC02838	Cadmium, Dissolved	mg/L	0.0000045	0.000147	0.100	0.0941	0.0912	0.0943	0.0850 to 0.115	94.1	70.0 to 130	3.13	20.0
BC03238	Cadmium, Total	mg/L	0.0000051	0.000147	0.100	0.105	0.104	0.106	0.0850 to 0.115	105	70.0 to 130	0.957	20.0
BC02838	Calcium, Dissolved	mg/L	-0.0177	0.152	5.00	10.8	10.7	4.85	4.25 to 5.75	103	70.0 to 130	0.930	20.0
BC02838	Calcium, Total	mg/L	-0.0128	0.152	5.00	10.6	10.1	4.73	4.25 to 5.75	97.4	70.0 to 130	4.83	20.0
BC02838	Chromium, Dissolved	mg/L	-0.0000309	0.000440	0.100	0.0973	0.0995	0.102	0.0850 to 0.115	97.3	70.0 to 130	2.24	20.0
BC03238	Chromium, Total	mg/L	0.0000153	0.000440	0.100	0.103	0.103	0.105	0.0850 to 0.115	103	70.0 to 130	0.00	20.0
BC02838	Cobalt, Dissolved	mg/L	0.0000091	0.000147	0.100	0.101	0.103	0.105	0.0850 to 0.115	101	70.0 to 130	1.96	20.0
BC03238	Cobalt, Total	mg/L	0.000006	0.000147	0.100	0.104	0.105	0.108	0.0850 to 0.115	104	70.0 to 130	0.957	20.0
BC02838	Iron, Dissolved	mg/L	-0.000454	0.0176	0.2	0.201	0.201	0.202	0.170 to 0.230	100	70.0 to 130	0.00	20.0
BC02838	Iron, Total	mg/L	-0.000473	0.0176	0.2	0.205	0.207	0.200	0.170 to 0.230	97.2	70.0 to 130	0.971	20.0
BC02838	Lead, Dissolved	mg/L	0.0000107	0.000147	0.100	0.102	0.101	0.101	0.0850 to 0.115	102	70.0 to 130	0.985	20.0

**Comments:** The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.



# Batch QC Summary

**Customer Account:** WMWGORAP

**Sample Date:** 2/8/22 11:20

**Customer ID:**

**Delivery Date:** 2/9/22 16:41

**Description:** Gorgas Ash Pond - MW-7

**Laboratory ID Number:** BC02831

Sample	Analysis	Units	MB	MB				Standard		Rec		Prec	Limit
				Limit	Spike	MS	MSD	Standard	Limit	Rec	Limit		
BC03238	Lead, Total	mg/L	0.0000018	0.000147	0.100	0.107	0.104	0.109	0.0850 to 0.115	107	70.0 to 130	2.84	20.0
BC02838	Lithium, Dissolved	mg/L	-0.000064	0.0154	0.200	0.232	0.227	0.202	0.170 to 0.230	97.5	70.0 to 130	2.18	20.0
BC02838	Lithium, Total	mg/L	0.000026	0.0154	0.200	0.235	0.242	0.202	0.170 to 0.230	99.2	70.0 to 130	2.94	20.0
BC02838	Magnesium, Dissolved	mg/L	0.000534	0.0462	5.00	7.08	6.91	5.13	4.25 to 5.75	100	70.0 to 130	2.43	20.0
BC02838	Magnesium, Total	mg/L	-0.0120	0.0462	5.00	7.08	7.09	5.03	4.25 to 5.75	101	70.0 to 130	0.141	20.0
BC02838	Manganese, Dissolved	mg/L	-0.000126	0.0002	0.100	0.109	0.111	0.104	0.0850 to 0.115	99.3	70.0 to 130	1.82	20.0
BC03238	Manganese, Total	mg/L	0.0000678	0.0002	0.100	0.135	0.136	0.106	0.0850 to 0.115	103	70.0 to 130	0.738	20.0
BC02838	Mercury, Total by CVAA	mg/L	0.00015	0.000500	0.004	0.00414	0.00408	0.00415	0.00340 to 0.00460	104	70.0 to 130	1.46	20.0
BC02838	Molybdenum, Dissolved	mg/L	0.0000073	0.0002	0.100	0.103	0.102	0.0999	0.0850 to 0.115	97.1	70.0 to 130	0.976	20.0
BC03238	Molybdenum, Total	mg/L	0.0000199	0.0002	0.100	0.106	0.106	0.105	0.0850 to 0.115	103	70.0 to 130	0.00	20.0
BC02838	Potassium, Dissolved	mg/L	-0.0162	0.367	10.0	11.2	11.4	9.99	8.50 to 11.5	94.9	70.0 to 130	1.77	20.0
BC03238	Potassium, Total	mg/L	0.00661	0.367	10.0	12.2	12.2	10.3	8.50 to 11.5	101	70.0 to 130	0.00	20.0
BC02838	Selenium, Dissolved	mg/L	-0.0000165	0.00100	0.100	0.0889	0.0886	0.0976	0.0850 to 0.115	74.5	70.0 to 130	0.338	20.0
BC03238	Selenium, Total	mg/L	0.0000249	0.00100	0.100	0.108	0.107	0.107	0.0850 to 0.115	108	70.0 to 130	0.930	20.0
BC02838	Silicon, Dissolved	mg/L	-0.00084	0.0440	1.00	10.1	10.2	1.04	0.850 to 1.15	35.0	70.0 to 130	0.985	20.0
BC02838	Silicon, Total	mg/L	-0.000052	0.0440	1.00	9.90	9.96	1.03	0.850 to 1.15	110	70.0 to 130	0.604	20.0
BC02838	Sodium, Dissolved	mg/L	0.000535	0.0660	5.00	133	127	5.06	4.25 to 5.75	-40.0	70.0 to 130	4.62	20.0
BC02838	Sodium, Total	mg/L	0.00310	0.0660	5.00	123	123	4.97	4.25 to 5.75	0.00	70.0 to 130	0.00	20.0
BC02838	Thallium, Dissolved	mg/L	-0.0000004	0.000147	0.100	0.100	0.0974	0.103	0.0850 to 0.115	100	70.0 to 130	2.63	20.0
BC03238	Thallium, Total	mg/L	0.0000004	0.000147	0.100	0.110	0.104	0.111	0.0850 to 0.115	110	70.0 to 130	5.61	20.0
BC03237	Total Organic Carbon	mg/L	0.320	1.00	10.0	10.6	11.1	24.7		95.4	80.0 to 120	4.61	20.0

**Comments:** The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.

## Batch QC Summary

**Customer Account:** WMWGORAP

**Sample Date:** 2/8/22 11:20

**Customer ID:**

**Delivery Date:** 2/9/22 16:41

**Description:** Gorgas Ash Pond - MW-7

**Laboratory ID Number:** BC02831

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BC02838	Alkalinity, Total as CaCO3	mg/L					226	51.7	45.0 to 55.0			2.19	10.0
BC02838	Chloride	mg/L	-0.0265	1.00	50.0	80.4	27.2	10.1	9.00 to 11.0	95.8	80.0 to 120	17.8	20.0
BC02838	Fluoride	mg/L	-0.0198	0.125	2.50	2.71	0.122	2.66	2.25 to 2.75	104	80.0 to 120	2.49	20.0
BC02838	Nitrogen, Nitrate/Nitrite	mg/L as N	0.01	0.200	2.00	2.02	-0.002	1.84	1.80 to 2.20	101	90.0 to 110	0.00	15.0
BC02838	Solids, Dissolved	mg/L	-2.00	25.0			283	52.0	40.0 to 60.0			0.704	10.0
BC02838	Sulfate	mg/L	-0.206	2.0	20.0	46.7	29.3	20.1	18.0 to 22.0	86.0	80.0 to 120	0.680	20.0

**Comments:** The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.

# Certificate Of Analysis

**Description:** Gorgas Ash Pond - MW-7 DIS

**Location Code:** WMWGORAP  
**Collected:** 2/8/22 11:20  
**Customer ID:**  
**Submittal Date:** 2/9/22 16:41

**Laboratory ID Number:** BC02832

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
<b>Analytical Method: EPA 200.7</b>		<b>Analyst: RDA</b>							
* Boron, Dissolved	2/14/22 12:00	2/17/22 10:22		1.015	1.70	mg/L	0.030000	0.1015	
* Calcium, Dissolved	2/14/22 12:00	2/17/22 10:22		1.015	11.1	mg/L	0.070035	0.406	
* Iron, Dissolved	2/14/22 12:00	2/17/22 10:22		1.015	0.211	mg/L	0.008120	0.0406	
* Lithium, Dissolved	2/14/22 12:00	2/17/22 10:22		1.015	0.191	mg/L	0.007105	0.01999956	
* Magnesium, Dissolved	2/14/22 12:00	2/17/22 10:22		1.015	3.73	mg/L	0.021315	0.406	
Silica, Dissolved (calc.)	2/14/22 12:00	2/17/22 10:22		1	11.7	mg/L			
Silicon, Dissolved	2/14/22 12:00	2/17/22 10:22		1.015	5.48	mg/L	0.02030	0.25375	
* Sodium, Dissolved	2/14/22 12:00	2/17/22 12:38		10.15	98.1	mg/L	0.3045	4.06	
<b>Analytical Method: EPA 200.8</b>		<b>Analyst: ABB</b>							
* Antimony, Dissolved	2/16/22 11:25	2/16/22 16:13		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Aluminum, Dissolved	2/16/22 11:25	2/16/22 16:13		1.015	Not Detected	mg/L	0.004060	0.01015	U
* Arsenic, Dissolved	2/16/22 11:25	2/16/22 16:13		1.015	0.253	mg/L	0.000068	0.000203	
* Barium, Dissolved	2/16/22 11:25	2/16/22 16:13		1.015	0.0534	mg/L	0.000102	0.000203	
* Beryllium, Dissolved	2/16/22 11:25	2/16/22 16:13		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Dissolved	2/16/22 11:25	2/16/22 16:13		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Dissolved	2/16/22 11:25	2/16/22 16:13		1.015	Not Detected	mg/L	0.000203	0.001015	U
* Cobalt, Dissolved	2/16/22 11:25	2/16/22 16:13		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Lead, Dissolved	2/16/22 11:25	2/16/22 16:13		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Dissolved	2/16/22 11:25	2/16/22 16:13		1.015	0.0372	mg/L	0.000068	0.000203	
* Molybdenum, Dissolved	2/16/22 11:25	2/16/22 16:13		1.015	0.203	mg/L	0.000068	0.000203	
* Potassium, Dissolved	2/16/22 11:25	2/16/22 16:13		1.015	1.21	mg/L	0.169505	0.5075	
* Selenium, Dissolved	2/16/22 11:25	2/16/22 16:13		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Dissolved	2/16/22 11:25	2/16/22 16:13		1.015	Not Detected	mg/L	0.000068	0.000203	U
<b>Analytical Method: EPA 245.1</b>		<b>Analyst: CRB</b>							
* Mercury, Dissolved by CVAA	2/15/22 17:19	2/15/22 22:32		1	Not Detected	mg/L	0.0003	0.0005	U
<b>Analytical Method: EPA 353.2</b>		<b>Analyst: ELH</b>							
* Nitrogen, Nitrate/Nitrite	2/14/22 14:52	2/14/22 14:52		1	Not Detected	mg/L as N	0.20	0.3	U
<b>Analytical Method: SM 2320 B</b>		<b>Analyst: ALH</b>							
Alkalinity, Total as CaCO3	2/17/22 11:20	2/17/22 12:20		1	118	mg/L		0.1	

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.

# Certificate Of Analysis

**Description:** Gorgas Ash Pond - MW-7 DIS

**Location Code:** WMWGORAP  
**Collected:** 2/8/22 11:20  
**Customer ID:**  
**Submittal Date:** 2/9/22 16:41

**Laboratory ID Number:** BC02832

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
<b>Analytical Method: SM 2540C</b>		<b>Analyst: CNJ</b>							
* Solids, Dissolved	2/10/22 11:15	2/11/22 13:20		1	318	mg/L		25	
<b>Analytical Method: SM 4500CO2 D</b>		<b>Analyst: ALH</b>							
Bicarbonate Alkalinity, (calc.)	2/17/22 11:20	2/17/22 12:20		1	117	mg/L			
Carbonate Alkalinity, (calc.)	2/17/22 11:20	2/17/22 12:20		1	0.74	mg/L			
<b>Analytical Method: SM 5310 B</b>		<b>Analyst: ELH</b>							
* Total Organic Carbon	2/16/22 15:41	2/16/22 15:41		1	Not Detected	mg/L	1.00	2	U
<b>Analytical Method: SM4500CI E</b>		<b>Analyst: JCC</b>							
* Chloride	2/10/22 09:42	2/10/22 09:42		1	7.45	mg/L	0.50	1	
<b>Analytical Method: SM4500F G 2017</b>		<b>Analyst: JCC</b>							
* Fluoride	2/10/22 16:23	2/10/22 16:23		1	0.0799	mg/L	0.06	0.1	J
<b>Analytical Method: SM4500SO4 E 2011</b>		<b>Analyst: JCC</b>							
* Sulfate	2/14/22 15:03	2/14/22 15:03		8	136	mg/L	4.00	8	

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.

# Batch QC Summary

**Customer Account:** WMWGORAP

**Sample Date:** 2/8/22 11:20

**Customer ID:**

**Delivery Date:** 2/9/22 16:41

**Description:** Gorgas Ash Pond - MW-7 DIS

**Laboratory ID Number:** BC02832

Sample	Analysis	Units	MB	MB				Standard		Rec		Prec	Limit
				Limit	Spike	MS	MSD	Standard	Limit	Rec	Limit		
BC02838	Aluminum, Dissolved	mg/L	0.0000565	0.010	0.100	0.106	0.109	0.0990	0.0850 to 0.115	94.1	70.0 to 130	2.79	20.0
BC02838	Antimony, Dissolved	mg/L	0.000176	0.00100	0.100	0.0907	0.0886	0.0917	0.0850 to 0.115	90.7	70.0 to 130	2.34	20.0
BC02838	Arsenic, Dissolved	mg/L	0.0000108	0.000176	0.100	0.0970	0.0973	0.100	0.0850 to 0.115	96.6	70.0 to 130	0.309	20.0
BC02838	Barium, Dissolved	mg/L	0.00000	0.000200	0.100	0.227	0.227	0.0940	0.0850 to 0.115	93.0	70.0 to 130	0.00	20.0
BC02838	Beryllium, Dissolved	mg/L	0.000136	0.000880	0.100	0.103	0.103	0.0981	0.0850 to 0.115	103	70.0 to 130	0.00	20.0
BC02838	Boron, Dissolved	mg/L	-0.000566	0.0650	1.00	1.06	1.05	1.03	0.850 to 1.15	106	70.0 to 130	0.948	20.0
BC02838	Cadmium, Dissolved	mg/L	0.0000045	0.000147	0.100	0.0941	0.0912	0.0943	0.0850 to 0.115	94.1	70.0 to 130	3.13	20.0
BC02838	Calcium, Dissolved	mg/L	-0.0177	0.152	5.00	10.8	10.7	4.85	4.25 to 5.75	103	70.0 to 130	0.930	20.0
BC02838	Chromium, Dissolved	mg/L	-0.0000309	0.000440	0.100	0.0973	0.0995	0.102	0.0850 to 0.115	97.3	70.0 to 130	2.24	20.0
BC02838	Cobalt, Dissolved	mg/L	0.0000091	0.000147	0.100	0.101	0.103	0.105	0.0850 to 0.115	101	70.0 to 130	1.96	20.0
BC02838	Iron, Dissolved	mg/L	-0.000454	0.0176	0.2	0.201	0.201	0.202	0.170 to 0.230	100	70.0 to 130	0.00	20.0
BC02838	Lead, Dissolved	mg/L	0.0000107	0.000147	0.100	0.102	0.101	0.101	0.0850 to 0.115	102	70.0 to 130	0.985	20.0
BC02838	Lithium, Dissolved	mg/L	-0.000064	0.0154	0.200	0.232	0.227	0.202	0.170 to 0.230	97.5	70.0 to 130	2.18	20.0
BC02838	Magnesium, Dissolved	mg/L	0.000534	0.0462	5.00	7.08	6.91	5.13	4.25 to 5.75	100	70.0 to 130	2.43	20.0
BC02838	Manganese, Dissolved	mg/L	-0.000126	0.0002	0.100	0.109	0.111	0.104	0.0850 to 0.115	99.3	70.0 to 130	1.82	20.0
BC02832	Mercury, Dissolved by	mg/L	3.000E-05	0.000500	0.004	0.00399	0.00405	0.00391	0.00340 to 0.00460	99.8	70.0 to 130	1.49	20.0
BC02838	Molybdenum, Dissolved	mg/L	0.0000073	0.0002	0.100	0.103	0.102	0.0999	0.0850 to 0.115	97.1	70.0 to 130	0.976	20.0
BC02838	Potassium, Dissolved	mg/L	-0.0162	0.367	10.0	11.2	11.4	9.99	8.50 to 11.5	94.9	70.0 to 130	1.77	20.0
BC02838	Selenium, Dissolved	mg/L	-0.0000165	0.00100	0.100	0.0889	0.0886	0.0976	0.0850 to 0.115	74.5	70.0 to 130	0.338	20.0
BC02838	Silicon, Dissolved	mg/L	-0.00084	0.0440	1.00	10.1	10.2	1.04	0.850 to 1.15	35.0	70.0 to 130	0.985	20.0
BC02838	Sodium, Dissolved	mg/L	0.000535	0.0660	5.00	133	127	5.06	4.25 to 5.75	-40.0	70.0 to 130	4.62	20.0
BC02838	Thallium, Dissolved	mg/L	-0.0000004	0.000147	0.100	0.100	0.0974	0.103	0.0850 to 0.115	100	70.0 to 130	2.63	20.0
BC03237	Total Organic Carbon	mg/L	0.320	1.00	10.0	10.6	11.1	24.7		95.4	80.0 to 120	4.61	20.0

**Comments:** The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.

# Batch QC Summary

**Customer Account:** WMWGORAP

**Sample Date:** 2/8/22 11:20

**Customer ID:**

**Delivery Date:** 2/9/22 16:41

**Description:** Gorgas Ash Pond - MW-7 DIS

**Laboratory ID Number:** BC02832

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Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
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**Comments:** The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.

## Batch QC Summary

**Customer Account:** WMWGORAP

**Sample Date:** 2/8/22 11:20

**Customer ID:**

**Delivery Date:** 2/9/22 16:41

**Description:** Gorgas Ash Pond - MW-7 DIS

**Laboratory ID Number:** BC02832

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Limit	Prec	Prec Limit
BC02838	Alkalinity, Total as CaCO3	mg/L					226	51.7	45.0 to 55.0			2.19	10.0
BC02838	Chloride	mg/L	-0.0265	1.00	50.0	80.4	27.2	10.1	9.00 to 11.0	95.8	80.0 to 120	17.8	20.0
BC02838	Fluoride	mg/L	-0.0198	0.125	2.50	2.71	0.122	2.66	2.25 to 2.75	104	80.0 to 120	2.49	20.0
BC02838	Nitrogen, Nitrate/Nitrite	mg/L as N	0.01	0.200	2.00	2.02	-0.002	1.84	1.80 to 2.20	101	90.0 to 110	0.00	15.0
BC02838	Solids, Dissolved	mg/L	-2.00	25.0			283	52.0	40.0 to 60.0			0.704	10.0
BC02838	Sulfate	mg/L	-0.206	2.0	20.0	46.7	29.3	20.1	18.0 to 22.0	86.0	80.0 to 120	0.680	20.0

**Comments:** The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.



# Certificate Of Analysis

**Description:** Gorgas Ash Pond - MW-41HS

**Location Code:** WMWGORAP  
**Collected:** 2/8/22 14:43  
**Customer ID:**  
**Submittal Date:** 2/9/22 16:41

**Laboratory ID Number:** BC02833

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
<b>Analytical Method: EPA 200.7</b>		<b>Analyst: RDA</b>			<b>Preparation Method: EPA 1638</b>				
* Boron, Total	2/14/22 12:00	2/17/22 11:40		1.015	1.04	mg/L	0.030000	0.1015	
* Calcium, Total	2/14/22 12:00	2/17/22 11:40		1.015	30.6	mg/L	0.070035	0.406	
* Iron, Total	2/14/22 12:00	2/17/22 11:40		1.015	1.89	mg/L	0.008120	0.0406	
* Lithium, Total	2/14/22 12:00	2/17/22 11:40		1.015	0.0817	mg/L	0.007105	0.01999956	
* Magnesium, Total	2/14/22 12:00	2/17/22 11:40		1.015	19.4	mg/L	0.021315	0.406	
Silica, Total (calc.)	2/14/22 12:00	2/17/22 11:40		1	19.2	mg/L			
Silicon, Total	2/14/22 12:00	2/17/22 11:40		1.015	8.96	mg/L	0.02030	0.25375	
* Sodium, Total	2/14/22 12:00	2/17/22 11:40		1.015	32.6	mg/L	0.03045	0.406	
<b>Analytical Method: EPA 200.7</b>		<b>Analyst: RDA</b>			<b>Preparation Method: EPA 1638</b>				
* Boron, Dissolved	2/14/22 12:00	2/17/22 10:24		1.015	1.05	mg/L	0.030000	0.1015	
* Calcium, Dissolved	2/14/22 12:00	2/17/22 10:24		1.015	34.0	mg/L	0.070035	0.406	
* Iron, Dissolved	2/14/22 12:00	2/17/22 10:24		1.015	1.83	mg/L	0.008120	0.0406	
* Lithium, Dissolved	2/14/22 12:00	2/17/22 10:24		1.015	0.0844	mg/L	0.007105	0.01999956	
* Magnesium, Dissolved	2/14/22 12:00	2/17/22 10:24		1.015	20.7	mg/L	0.021315	0.406	
Silica, Dissolved (calc.)	2/14/22 12:00	2/17/22 10:24		1	19.6	mg/L			
Silicon, Dissolved	2/14/22 12:00	2/17/22 10:24		1.015	9.18	mg/L	0.02030	0.25375	
* Sodium, Dissolved	2/14/22 12:00	2/17/22 10:24		1.015	26.7	mg/L	0.03045	0.406	
<b>Analytical Method: EPA 200.8</b>		<b>Analyst: ABB</b>			<b>Preparation Method: EPA 1638</b>				
* Antimony, Total	2/16/22 10:47	2/18/22 12:54		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Aluminum, Total	2/16/22 10:47	2/18/22 12:54		1.015	0.0277	mg/L	0.004060	0.01015	
* Arsenic, Total	2/16/22 10:47	2/18/22 12:54		1.015	0.00144	mg/L	0.000068	0.000203	
* Barium, Total	2/16/22 10:47	2/18/22 12:54		1.015	0.0542	mg/L	0.000102	0.000203	
* Beryllium, Total	2/16/22 10:47	2/18/22 12:54		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Total	2/16/22 10:47	2/18/22 12:54		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Total	2/16/22 10:47	2/18/22 12:54		1.015	0.000348	mg/L	0.000203	0.001015	J
* Cobalt, Total	2/16/22 10:47	2/18/22 12:54		1.015	0.00378	mg/L	0.000068	0.000203	
* Lead, Total	2/16/22 10:47	2/18/22 12:54		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Total	2/16/22 10:47	2/18/22 12:54		1.015	0.267	mg/L	0.000068	0.000203	
* Molybdenum, Total	2/16/22 10:47	2/18/22 12:54		1.015	0.00104	mg/L	0.000068	0.000203	
* Potassium, Total	2/16/22 10:47	2/18/22 12:54		1.015	2.12	mg/L	0.169505	0.5075	

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.

# Certificate Of Analysis

**Description:** Gorgas Ash Pond - MW-41HS

**Location Code:** WMWGORAP

**Collected:** 2/8/22 14:43

**Customer ID:**

**Submittal Date:** 2/9/22 16:41

**Laboratory ID Number:** BC02833

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
* Selenium, Total	2/16/22 10:47	2/18/22 12:54		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Total	2/16/22 10:47	2/18/22 12:54		1.015	Not Detected	mg/L	0.000068	0.000203	U
<b>Analytical Method: EPA 200.8</b>		<b>Analyst: ABB</b>							
* Antimony, Dissolved	2/16/22 11:25	2/16/22 16:17		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Aluminum, Dissolved	2/16/22 11:25	2/16/22 16:17		1.015	Not Detected	mg/L	0.004060	0.01015	U
* Arsenic, Dissolved	2/16/22 11:25	2/16/22 16:17		1.015	0.00141	mg/L	0.000068	0.000203	
* Barium, Dissolved	2/16/22 11:25	2/16/22 16:17		1.015	0.0509	mg/L	0.000102	0.000203	
* Beryllium, Dissolved	2/16/22 11:25	2/16/22 16:17		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Dissolved	2/16/22 11:25	2/16/22 16:17		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Dissolved	2/16/22 11:25	2/16/22 16:17		1.015	Not Detected	mg/L	0.000203	0.001015	U
* Cobalt, Dissolved	2/16/22 11:25	2/16/22 16:17		1.015	0.00638	mg/L	0.000068	0.000203	
* Lead, Dissolved	2/16/22 11:25	2/16/22 16:17		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Dissolved	2/16/22 11:25	2/16/22 16:17		1.015	0.420	mg/L	0.000068	0.000203	
* Molybdenum, Dissolved	2/16/22 11:25	2/16/22 16:17		1.015	0.00126	mg/L	0.000068	0.000203	
* Potassium, Dissolved	2/16/22 11:25	2/16/22 16:17		1.015	1.98	mg/L	0.169505	0.5075	
* Selenium, Dissolved	2/16/22 11:25	2/16/22 16:17		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Dissolved	2/16/22 11:25	2/16/22 16:17		1.015	Not Detected	mg/L	0.000068	0.000203	U
<b>Analytical Method: EPA 245.1</b>		<b>Analyst: CRB</b>							
* Mercury, Total by CVAA	2/10/22 13:23	2/10/22 20:17		1	Not Detected	mg/L	0.0003	0.0005	U
<b>Analytical Method: EPA 353.2</b>		<b>Analyst: ELH</b>							
* Nitrogen, Nitrate/Nitrite	2/14/22 14:54	2/14/22 14:54		1	Not Detected	mg/L as N	0.20	0.3	U
<b>Analytical Method: SM 2320 B</b>		<b>Analyst: ALH</b>							
Alkalinity, Total as CaCO3	2/17/22 11:20	2/17/22 12:20		1	117	mg/L		0.1	
<b>Analytical Method: SM 2540C</b>		<b>Analyst: CNJ</b>							
* Solids, Dissolved	2/10/22 11:15	2/11/22 13:20		1	265	mg/L		25	
<b>Analytical Method: SM 4500CO2 D</b>		<b>Analyst: ALH</b>							
Bicarbonate Alkalinity, (calc.)	2/17/22 11:20	2/17/22 12:20		1	117	mg/L			
Carbonate Alkalinity, (calc.)	2/17/22 11:20	2/17/22 12:20		1	0.06	mg/L			
<b>Analytical Method: SM 5310 B</b>		<b>Analyst: ELH</b>							
* Total Organic Carbon	2/16/22 15:58	2/16/22 15:58		1	1.93	mg/L	1.00	2	J

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.

# Certificate Of Analysis

**Description:** Gorgas Ash Pond - MW-41HS

**Location Code:** WMWGORAP

**Collected:** 2/8/22 14:43

**Customer ID:**

**Submittal Date:** 2/9/22 16:41

**Laboratory ID Number:** BC02833

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
<b>Analytical Method: SM4500Cl E</b>		<b>Analyst: JCC</b>							
* Chloride	2/10/22 09:44	2/10/22 09:44		1	6.72	mg/L	0.50	1	
<b>Analytical Method: SM4500F G 2017</b>		<b>Analyst: JCC</b>							
* Fluoride	2/10/22 16:24	2/10/22 16:24		1	0.117	mg/L	0.06	0.1	
<b>Analytical Method: SM4500SO4 E 2011</b>		<b>Analyst: JCC</b>							
* Sulfate	2/14/22 15:04	2/14/22 15:04		8	105	mg/L	4.00	8	
<b>Analytical Method: Field Measurements</b>		<b>Analyst: TJD</b>							
Conductivity	2/8/22 14:39	2/8/22 14:39			429.61	uS/cm			FA
pH	2/8/22 14:39	2/8/22 14:39			6.66	SU			FA
Temperature	2/8/22 14:39	2/8/22 14:39			18.84	C			FA
Turbidity	2/8/22 14:39	2/8/22 14:39			1.3	NTU			FA

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.

# Batch QC Summary

**Customer Account:** WMWGORAP

**Sample Date:** 2/8/22 14:43

**Customer ID:**

**Delivery Date:** 2/9/22 16:41

**Description:** Gorgas Ash Pond - MW-41HS

**Laboratory ID Number:** BC02833

Sample	Analysis	Units	MB	MB				Standard		Rec		Prec	Limit
				Limit	Spike	MS	MSD	Standard	Limit	Rec	Limit		
BC02838	Aluminum, Dissolved	mg/L	0.0000565	0.010	0.100	0.106	0.109	0.0990	0.0850 to 0.115	94.1	70.0 to 130	2.79	20.0
BC03238	Aluminum, Total	mg/L	0.000788	0.010	0.100	0.101	0.102	0.100	0.0850 to 0.115	101	70.0 to 130	0.985	20.0
BC02838	Antimony, Dissolved	mg/L	0.000176	0.00100	0.100	0.0907	0.0886	0.0917	0.0850 to 0.115	90.7	70.0 to 130	2.34	20.0
BC03238	Antimony, Total	mg/L	0.000222	0.00100	0.100	0.0960	0.0976	0.0973	0.0850 to 0.115	96.0	70.0 to 130	1.65	20.0
BC02838	Arsenic, Dissolved	mg/L	0.0000108	0.000176	0.100	0.0970	0.0973	0.100	0.0850 to 0.115	96.6	70.0 to 130	0.309	20.0
BC03238	Arsenic, Total	mg/L	0.000012	0.000176	0.100	0.104	0.103	0.104	0.0850 to 0.115	104	70.0 to 130	0.966	20.0
BC02838	Barium, Dissolved	mg/L	0.00000	0.000200	0.100	0.227	0.227	0.0940	0.0850 to 0.115	93.0	70.0 to 130	0.00	20.0
BC03238	Barium, Total	mg/L	-0.0000261	0.000200	0.100	0.409	0.411	0.104	0.0850 to 0.115	94.0	70.0 to 130	0.488	20.0
BC02838	Beryllium, Dissolved	mg/L	0.000136	0.000880	0.100	0.103	0.103	0.0981	0.0850 to 0.115	103	70.0 to 130	0.00	20.0
BC03238	Beryllium, Total	mg/L	0.000124	0.000880	0.100	0.0996	0.0983	0.103	0.0850 to 0.115	99.6	70.0 to 130	1.31	20.0
BC02838	Boron, Dissolved	mg/L	-0.000566	0.0650	1.00	1.06	1.05	1.03	0.850 to 1.15	106	70.0 to 130	0.948	20.0
BC02838	Boron, Total	mg/L	-0.000727	0.0650	1.00	1.02	1.04	1.02	0.850 to 1.15	102	70.0 to 130	1.94	20.0
BC02838	Cadmium, Dissolved	mg/L	0.0000045	0.000147	0.100	0.0941	0.0912	0.0943	0.0850 to 0.115	94.1	70.0 to 130	3.13	20.0
BC03238	Cadmium, Total	mg/L	0.0000051	0.000147	0.100	0.105	0.104	0.106	0.0850 to 0.115	105	70.0 to 130	0.957	20.0
BC02838	Calcium, Dissolved	mg/L	-0.0177	0.152	5.00	10.8	10.7	4.85	4.25 to 5.75	103	70.0 to 130	0.930	20.0
BC02838	Calcium, Total	mg/L	-0.0128	0.152	5.00	10.6	10.1	4.73	4.25 to 5.75	97.4	70.0 to 130	4.83	20.0
BC02838	Chromium, Dissolved	mg/L	-0.0000309	0.000440	0.100	0.0973	0.0995	0.102	0.0850 to 0.115	97.3	70.0 to 130	2.24	20.0
BC03238	Chromium, Total	mg/L	0.0000153	0.000440	0.100	0.103	0.103	0.105	0.0850 to 0.115	103	70.0 to 130	0.00	20.0
BC02838	Cobalt, Dissolved	mg/L	0.0000091	0.000147	0.100	0.101	0.103	0.105	0.0850 to 0.115	101	70.0 to 130	1.96	20.0
BC03238	Cobalt, Total	mg/L	0.000006	0.000147	0.100	0.104	0.105	0.108	0.0850 to 0.115	104	70.0 to 130	0.957	20.0
BC02838	Iron, Dissolved	mg/L	-0.000454	0.0176	0.2	0.201	0.201	0.202	0.170 to 0.230	100	70.0 to 130	0.00	20.0
BC02838	Iron, Total	mg/L	-0.000473	0.0176	0.2	0.205	0.207	0.200	0.170 to 0.230	97.2	70.0 to 130	0.971	20.0
BC02838	Lead, Dissolved	mg/L	0.0000107	0.000147	0.100	0.102	0.101	0.101	0.0850 to 0.115	102	70.0 to 130	0.985	20.0

**Comments:** The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.

# Batch QC Summary

**Customer Account:** WMWGORAP

**Sample Date:** 2/8/22 14:43

**Customer ID:**

**Delivery Date:** 2/9/22 16:41

**Description:** Gorgas Ash Pond - MW-41HS

**Laboratory ID Number:** BC02833

Sample	Analysis	Units	MB	MB				Standard		Rec		Prec	Limit
				Limit	Spike	MS	MSD	Standard	Limit	Rec	Limit		
BC03238	Lead, Total	mg/L	0.0000018	0.000147	0.100	0.107	0.104	0.109	0.0850 to 0.115	107	70.0 to 130	2.84	20.0
BC02838	Lithium, Dissolved	mg/L	-0.000064	0.0154	0.200	0.232	0.227	0.202	0.170 to 0.230	97.5	70.0 to 130	2.18	20.0
BC02838	Lithium, Total	mg/L	0.000026	0.0154	0.200	0.235	0.242	0.202	0.170 to 0.230	99.2	70.0 to 130	2.94	20.0
BC02838	Magnesium, Dissolved	mg/L	0.000534	0.0462	5.00	7.08	6.91	5.13	4.25 to 5.75	100	70.0 to 130	2.43	20.0
BC02838	Magnesium, Total	mg/L	-0.0120	0.0462	5.00	7.08	7.09	5.03	4.25 to 5.75	101	70.0 to 130	0.141	20.0
BC02838	Manganese, Dissolved	mg/L	-0.000126	0.0002	0.100	0.109	0.111	0.104	0.0850 to 0.115	99.3	70.0 to 130	1.82	20.0
BC03238	Manganese, Total	mg/L	0.0000678	0.0002	0.100	0.135	0.136	0.106	0.0850 to 0.115	103	70.0 to 130	0.738	20.0
BC02838	Mercury, Total by CVAA	mg/L	0.00015	0.000500	0.004	0.00414	0.00408	0.00415	0.00340 to 0.00460	104	70.0 to 130	1.46	20.0
BC02838	Molybdenum, Dissolved	mg/L	0.0000073	0.0002	0.100	0.103	0.102	0.0999	0.0850 to 0.115	97.1	70.0 to 130	0.976	20.0
BC03238	Molybdenum, Total	mg/L	0.0000199	0.0002	0.100	0.106	0.106	0.105	0.0850 to 0.115	103	70.0 to 130	0.00	20.0
BC02838	Potassium, Dissolved	mg/L	-0.0162	0.367	10.0	11.2	11.4	9.99	8.50 to 11.5	94.9	70.0 to 130	1.77	20.0
BC03238	Potassium, Total	mg/L	0.00661	0.367	10.0	12.2	12.2	10.3	8.50 to 11.5	101	70.0 to 130	0.00	20.0
BC02838	Selenium, Dissolved	mg/L	-0.0000165	0.00100	0.100	0.0889	0.0886	0.0976	0.0850 to 0.115	74.5	70.0 to 130	0.338	20.0
BC03238	Selenium, Total	mg/L	0.0000249	0.00100	0.100	0.108	0.107	0.107	0.0850 to 0.115	108	70.0 to 130	0.930	20.0
BC02838	Silicon, Dissolved	mg/L	-0.00084	0.0440	1.00	10.1	10.2	1.04	0.850 to 1.15	35.0	70.0 to 130	0.985	20.0
BC02838	Silicon, Total	mg/L	-0.000052	0.0440	1.00	9.90	9.96	1.03	0.850 to 1.15	110	70.0 to 130	0.604	20.0
BC02838	Sodium, Dissolved	mg/L	0.000535	0.0660	5.00	133	127	5.06	4.25 to 5.75	-40.0	70.0 to 130	4.62	20.0
BC02838	Sodium, Total	mg/L	0.00310	0.0660	5.00	123	123	4.97	4.25 to 5.75	0.00	70.0 to 130	0.00	20.0
BC02838	Thallium, Dissolved	mg/L	-0.0000004	0.000147	0.100	0.100	0.0974	0.103	0.0850 to 0.115	100	70.0 to 130	2.63	20.0
BC03238	Thallium, Total	mg/L	0.0000004	0.000147	0.100	0.110	0.104	0.111	0.0850 to 0.115	110	70.0 to 130	5.61	20.0
BC03237	Total Organic Carbon	mg/L	0.320	1.00	10.0	10.6	11.1	24.7		95.4	80.0 to 120	4.61	20.0

**Comments:** The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.

## Batch QC Summary

**Customer Account:** WMWGORAP

**Sample Date:** 2/8/22 14:43

**Customer ID:**

**Delivery Date:** 2/9/22 16:41

**Description:** Gorgas Ash Pond - MW-41HS

**Laboratory ID Number:** BC02833

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BC02838	Alkalinity, Total as CaCO3	mg/L					226	51.7	45.0 to 55.0			2.19	10.0
BC02838	Chloride	mg/L	-0.0265	1.00	50.0	80.4	27.2	10.1	9.00 to 11.0	95.8	80.0 to 120	17.8	20.0
BC02838	Fluoride	mg/L	-0.0198	0.125	2.50	2.71	0.122	2.66	2.25 to 2.75	104	80.0 to 120	2.49	20.0
BC02838	Nitrogen, Nitrate/Nitrite	mg/L as N	0.01	0.200	2.00	2.02	-0.002	1.84	1.80 to 2.20	101	90.0 to 110	0.00	15.0
BC02838	Solids, Dissolved	mg/L	-2.00	25.0			283	52.0	40.0 to 60.0			0.704	10.0
BC02838	Sulfate	mg/L	-0.206	2.0	20.0	46.7	29.3	20.1	18.0 to 22.0	86.0	80.0 to 120	0.680	20.0

**Comments:** The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.

# Certificate Of Analysis

**Description:** Gorgas Ash Pond - MW-6V

**Location Code:** WMWGORAP  
**Collected:** 2/9/22 12:00  
**Customer ID:**  
**Submittal Date:** 2/9/22 16:41

**Laboratory ID Number:** BC02834

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q	
<b>Analytical Method: EPA 200.7</b>		<b>Analyst: RDA</b>			<b>Preparation Method: EPA 1638</b>					
* Boron, Total	2/14/22 12:00	2/17/22 11:42		1.015	0.101	mg/L	0.030000	0.1015	J	
* Calcium, Total	2/14/22 12:00	2/17/22 11:42		1.015	1.29	mg/L	0.070035	0.406		
* Iron, Total	2/14/22 12:00	2/17/22 11:42		1.015	0.143	mg/L	0.008120	0.0406		
* Lithium, Total	2/14/22 12:00	2/17/22 11:42		1.015	0.121	mg/L	0.007105	0.01999956		
* Magnesium, Total	2/14/22 12:00	2/17/22 11:42		1.015	0.431	mg/L	0.021315	0.406		
Silica, Total (calc.)	2/14/22 12:00	2/17/22 11:42		1	9.27	mg/L				
Silicon, Total	2/14/22 12:00	2/17/22 11:42		1.015	4.33	mg/L	0.02030	0.25375		
* Sodium, Total	2/14/22 12:00	2/17/22 13:25		10.15	361	mg/L	0.3045	4.06		
<b>Analytical Method: EPA 200.7</b>		<b>Analyst: RDA</b>			<b>Preparation Method: EPA 1638</b>					
* Boron, Dissolved	2/14/22 12:00	2/17/22 10:26		1.015	0.100	mg/L	0.030000	0.1015	J	
* Calcium, Dissolved	2/14/22 12:00	2/17/22 10:26		1.015	1.30	mg/L	0.070035	0.406		
* Iron, Dissolved	2/14/22 12:00	2/17/22 10:26		1.015	0.0161	mg/L	0.008120	0.0406	J	
* Lithium, Dissolved	2/14/22 12:00	2/17/22 10:26		1.015	0.118	mg/L	0.007105	0.01999956		
* Magnesium, Dissolved	2/14/22 12:00	2/17/22 10:26		1.015	0.407	mg/L	0.021315	0.406		
Silica, Dissolved (calc.)	2/14/22 12:00	2/17/22 10:26		1	8.71	mg/L				
Silicon, Dissolved	2/14/22 12:00	2/17/22 10:26		1.015	4.07	mg/L	0.02030	0.25375		
* Sodium, Dissolved	2/14/22 12:00	2/17/22 12:40		10.15	374	mg/L	0.3045	4.06		
<b>Analytical Method: EPA 200.8</b>		<b>Analyst: ABB</b>			<b>Preparation Method: EPA 1638</b>					
* Antimony, Total	2/16/22 10:47	2/18/22 12:58		1.015	Not Detected	mg/L	0.000508	0.001015	U	
* Aluminum, Total	2/16/22 10:47	2/18/22 12:58		1.015	0.199	mg/L	0.004060	0.01015		
* Arsenic, Total	2/16/22 10:47	2/18/22 12:58		1.015	0.000904	mg/L	0.000068	0.000203		
* Barium, Total	2/16/22 10:47	2/18/22 12:58		1.015	0.156	mg/L	0.000102	0.000203		
* Beryllium, Total	2/16/22 10:47	2/18/22 12:58		1.015	Not Detected	mg/L	0.000406	0.001015	U	
* Cadmium, Total	2/16/22 10:47	2/18/22 12:58		1.015	Not Detected	mg/L	0.000068	0.000203	U	
* Chromium, Total	2/16/22 10:47	2/18/22 12:58		1.015	0.000418	mg/L	0.000203	0.001015	J	
* Cobalt, Total	2/16/22 10:47	2/18/22 12:58		1.015	0.000119	mg/L	0.000068	0.000203	J	
* Lead, Total	2/16/22 10:47	2/18/22 12:58		1.015	0.000186	mg/L	0.000068	0.000203	J	
* Manganese, Total	2/16/22 10:47	2/18/22 12:58		1.015	0.00868	mg/L	0.000068	0.000203		
* Molybdenum, Total	2/16/22 10:47	2/18/22 12:58		1.015	0.00336	mg/L	0.000068	0.000203		
* Potassium, Total	2/16/22 10:47	2/18/22 12:58		1.015	1.17	mg/L	0.169505	0.5075		

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.



# Certificate Of Analysis

**Description:** Gorgas Ash Pond - MW-6V

**Location Code:** WMWGORAP  
**Collected:** 2/9/22 12:00  
**Customer ID:**  
**Submittal Date:** 2/9/22 16:41

**Laboratory ID Number:** BC02834

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
* Selenium, Total	2/16/22 10:47	2/18/22 12:58		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Total	2/16/22 10:47	2/18/22 12:58		1.015	Not Detected	mg/L	0.000068	0.000203	U
<b>Analytical Method: EPA 200.8</b>		<b>Analyst: ABB</b>							
* Antimony, Dissolved	2/16/22 11:25	2/16/22 16:21		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Aluminum, Dissolved	2/16/22 11:25	2/16/22 16:21		1.015	0.0219	mg/L	0.004060	0.01015	
* Arsenic, Dissolved	2/16/22 11:25	2/16/22 16:21		1.015	0.000682	mg/L	0.000068	0.000203	
* Barium, Dissolved	2/16/22 11:25	2/16/22 16:21		1.015	0.143	mg/L	0.000102	0.000203	
* Beryllium, Dissolved	2/16/22 11:25	2/16/22 16:21		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Dissolved	2/16/22 11:25	2/16/22 16:21		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Dissolved	2/16/22 11:25	2/16/22 16:21		1.015	0.000203	mg/L	0.000203	0.001015	J
* Cobalt, Dissolved	2/16/22 11:25	2/16/22 16:21		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Lead, Dissolved	2/16/22 11:25	2/16/22 16:21		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Dissolved	2/16/22 11:25	2/16/22 16:21		1.015	0.00712	mg/L	0.000068	0.000203	
* Molybdenum, Dissolved	2/16/22 11:25	2/16/22 16:21		1.015	0.00288	mg/L	0.000068	0.000203	
* Potassium, Dissolved	2/16/22 11:25	2/16/22 16:21		1.015	1.20	mg/L	0.169505	0.5075	
* Selenium, Dissolved	2/16/22 11:25	2/16/22 16:21		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Dissolved	2/16/22 11:25	2/16/22 16:21		1.015	Not Detected	mg/L	0.000068	0.000203	U
<b>Analytical Method: EPA 245.1</b>		<b>Analyst: CRB</b>							
* Mercury, Total by CVAA	2/10/22 13:23	2/10/22 20:21		1	Not Detected	mg/L	0.0003	0.0005	U
<b>Analytical Method: EPA 353.2</b>		<b>Analyst: ELH</b>							
* Nitrogen, Nitrate/Nitrite	2/14/22 14:55	2/14/22 14:55		1	Not Detected	mg/L as N	0.20	0.3	U
<b>Analytical Method: SM 2320 B</b>		<b>Analyst: ALH</b>							
Alkalinity, Total as CaCO3	2/17/22 11:20	2/17/22 12:20		1	803	mg/L		0.1	
<b>Analytical Method: SM 2540C</b>		<b>Analyst: CNJ</b>							
* Solids, Dissolved	2/10/22 11:15	2/11/22 13:20		1	818	mg/L		75.8	
<b>Analytical Method: SM 4500CO2 D</b>		<b>Analyst: ALH</b>							
Bicarbonate Alkalinity, (calc.)	2/17/22 11:20	2/17/22 12:20		1	766	mg/L			A
Carbonate Alkalinity, (calc.)	2/17/22 11:20	2/17/22 12:20		1	36.9	mg/L			A
<b>Analytical Method: SM 5310 B</b>		<b>Analyst: ELH</b>							
* Total Organic Carbon	2/16/22 16:18	2/16/22 16:18		1	1.36	mg/L	1.00	2	J

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.

# Certificate Of Analysis

**Description:** Gorgas Ash Pond - MW-6V

**Location Code:** WMWGORAP

**Collected:** 2/9/22 12:00

**Customer ID:**

**Submittal Date:** 2/9/22 16:41

**Laboratory ID Number:** BC02834

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
<b>Analytical Method: SM4500Cl E</b>		<b>Analyst: JCC</b>							
* Chloride	2/10/22 10:32	2/10/22 10:32		8	53.3	mg/L	4.00	8	
<b>Analytical Method: SM4500F G 2017</b>		<b>Analyst: JCC</b>							
* Fluoride	2/10/22 16:26	2/10/22 16:26		1	4.35	mg/L	0.06	0.1	
<b>Analytical Method: SM4500SO4 E 2011</b>		<b>Analyst: JCC</b>							
* Sulfate	2/14/22 14:54	2/14/22 14:54		1	8.60	mg/L	0.50	1	
<b>Analytical Method: Field Measurements</b>		<b>Analyst: TJD</b>							
Conductivity	2/9/22 11:56	2/9/22 11:56			1404.56	uS/cm			FA
pH	2/9/22 11:56	2/9/22 11:56			8.80	SU			FA
Temperature	2/9/22 11:56	2/9/22 11:56			21.50	C			FA
Turbidity	2/9/22 11:56	2/9/22 11:56			9.35	NTU			FA

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.

# Batch QC Summary

**Customer Account:** WMWGORAP

**Sample Date:** 2/9/22 12:00

**Customer ID:**

**Delivery Date:** 2/9/22 16:41

**Description:** Gorgas Ash Pond - MW-6V

**Laboratory ID Number:** BC02834

Sample	Analysis	Units	MB	MB				Standard		Rec		Prec	Limit
				Limit	Spike	MS	MSD	Standard	Limit	Rec	Limit		
BC02838	Aluminum, Dissolved	mg/L	0.0000565	0.010	0.100	0.106	0.109	0.0990	0.0850 to 0.115	94.1	70.0 to 130	2.79	20.0
BC03238	Aluminum, Total	mg/L	0.000788	0.010	0.100	0.101	0.102	0.100	0.0850 to 0.115	101	70.0 to 130	0.985	20.0
BC02838	Antimony, Dissolved	mg/L	0.000176	0.00100	0.100	0.0907	0.0886	0.0917	0.0850 to 0.115	90.7	70.0 to 130	2.34	20.0
BC03238	Antimony, Total	mg/L	0.000222	0.00100	0.100	0.0960	0.0976	0.0973	0.0850 to 0.115	96.0	70.0 to 130	1.65	20.0
BC02838	Arsenic, Dissolved	mg/L	0.0000108	0.000176	0.100	0.0970	0.0973	0.100	0.0850 to 0.115	96.6	70.0 to 130	0.309	20.0
BC03238	Arsenic, Total	mg/L	0.000012	0.000176	0.100	0.104	0.103	0.104	0.0850 to 0.115	104	70.0 to 130	0.966	20.0
BC02838	Barium, Dissolved	mg/L	0.00000	0.000200	0.100	0.227	0.227	0.0940	0.0850 to 0.115	93.0	70.0 to 130	0.00	20.0
BC03238	Barium, Total	mg/L	-0.0000261	0.000200	0.100	0.409	0.411	0.104	0.0850 to 0.115	94.0	70.0 to 130	0.488	20.0
BC02838	Beryllium, Dissolved	mg/L	0.000136	0.000880	0.100	0.103	0.103	0.0981	0.0850 to 0.115	103	70.0 to 130	0.00	20.0
BC03238	Beryllium, Total	mg/L	0.000124	0.000880	0.100	0.0996	0.0983	0.103	0.0850 to 0.115	99.6	70.0 to 130	1.31	20.0
BC02838	Boron, Dissolved	mg/L	-0.000566	0.0650	1.00	1.06	1.05	1.03	0.850 to 1.15	106	70.0 to 130	0.948	20.0
BC02838	Boron, Total	mg/L	-0.000727	0.0650	1.00	1.02	1.04	1.02	0.850 to 1.15	102	70.0 to 130	1.94	20.0
BC02838	Cadmium, Dissolved	mg/L	0.0000045	0.000147	0.100	0.0941	0.0912	0.0943	0.0850 to 0.115	94.1	70.0 to 130	3.13	20.0
BC03238	Cadmium, Total	mg/L	0.0000051	0.000147	0.100	0.105	0.104	0.106	0.0850 to 0.115	105	70.0 to 130	0.957	20.0
BC02838	Calcium, Dissolved	mg/L	-0.0177	0.152	5.00	10.8	10.7	4.85	4.25 to 5.75	103	70.0 to 130	0.930	20.0
BC02838	Calcium, Total	mg/L	-0.0128	0.152	5.00	10.6	10.1	4.73	4.25 to 5.75	97.4	70.0 to 130	4.83	20.0
BC02838	Chromium, Dissolved	mg/L	-0.0000309	0.000440	0.100	0.0973	0.0995	0.102	0.0850 to 0.115	97.3	70.0 to 130	2.24	20.0
BC03238	Chromium, Total	mg/L	0.0000153	0.000440	0.100	0.103	0.103	0.105	0.0850 to 0.115	103	70.0 to 130	0.00	20.0
BC02838	Cobalt, Dissolved	mg/L	0.0000091	0.000147	0.100	0.101	0.103	0.105	0.0850 to 0.115	101	70.0 to 130	1.96	20.0
BC03238	Cobalt, Total	mg/L	0.000006	0.000147	0.100	0.104	0.105	0.108	0.0850 to 0.115	104	70.0 to 130	0.957	20.0
BC02838	Iron, Dissolved	mg/L	-0.000454	0.0176	0.2	0.201	0.201	0.202	0.170 to 0.230	100	70.0 to 130	0.00	20.0
BC02838	Iron, Total	mg/L	-0.000473	0.0176	0.2	0.205	0.207	0.200	0.170 to 0.230	97.2	70.0 to 130	0.971	20.0
BC02838	Lead, Dissolved	mg/L	0.0000107	0.000147	0.100	0.102	0.101	0.101	0.0850 to 0.115	102	70.0 to 130	0.985	20.0

**Comments:** The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.

# Batch QC Summary

**Customer Account:** WMWGORAP

**Sample Date:** 2/9/22 12:00

**Customer ID:**

**Delivery Date:** 2/9/22 16:41

**Description:** Gorgas Ash Pond - MW-6V

**Laboratory ID Number:** BC02834

Sample	Analysis	Units	MB	MB				Standard		Rec		Prec	Limit
				Limit	Spike	MS	MSD	Standard	Limit	Rec	Limit		
BC03238	Lead, Total	mg/L	0.0000018	0.000147	0.100	0.107	0.104	0.109	0.0850 to 0.115	107	70.0 to 130	2.84	20.0
BC02838	Lithium, Dissolved	mg/L	-0.000064	0.0154	0.200	0.232	0.227	0.202	0.170 to 0.230	97.5	70.0 to 130	2.18	20.0
BC02838	Lithium, Total	mg/L	0.000026	0.0154	0.200	0.235	0.242	0.202	0.170 to 0.230	99.2	70.0 to 130	2.94	20.0
BC02838	Magnesium, Dissolved	mg/L	0.000534	0.0462	5.00	7.08	6.91	5.13	4.25 to 5.75	100	70.0 to 130	2.43	20.0
BC02838	Magnesium, Total	mg/L	-0.0120	0.0462	5.00	7.08	7.09	5.03	4.25 to 5.75	101	70.0 to 130	0.141	20.0
BC02838	Manganese, Dissolved	mg/L	-0.000126	0.0002	0.100	0.109	0.111	0.104	0.0850 to 0.115	99.3	70.0 to 130	1.82	20.0
BC03238	Manganese, Total	mg/L	0.0000678	0.0002	0.100	0.135	0.136	0.106	0.0850 to 0.115	103	70.0 to 130	0.738	20.0
BC02838	Mercury, Total by CVAA	mg/L	0.00015	0.000500	0.004	0.00414	0.00408	0.00415	0.00340 to 0.00460	104	70.0 to 130	1.46	20.0
BC02838	Molybdenum, Dissolved	mg/L	0.0000073	0.0002	0.100	0.103	0.102	0.0999	0.0850 to 0.115	97.1	70.0 to 130	0.976	20.0
BC03238	Molybdenum, Total	mg/L	0.0000199	0.0002	0.100	0.106	0.106	0.105	0.0850 to 0.115	103	70.0 to 130	0.00	20.0
BC02838	Potassium, Dissolved	mg/L	-0.0162	0.367	10.0	11.2	11.4	9.99	8.50 to 11.5	94.9	70.0 to 130	1.77	20.0
BC03238	Potassium, Total	mg/L	0.00661	0.367	10.0	12.2	12.2	10.3	8.50 to 11.5	101	70.0 to 130	0.00	20.0
BC02838	Selenium, Dissolved	mg/L	-0.0000165	0.00100	0.100	0.0889	0.0886	0.0976	0.0850 to 0.115	74.5	70.0 to 130	0.338	20.0
BC03238	Selenium, Total	mg/L	0.0000249	0.00100	0.100	0.108	0.107	0.107	0.0850 to 0.115	108	70.0 to 130	0.930	20.0
BC02838	Silicon, Dissolved	mg/L	-0.00084	0.0440	1.00	10.1	10.2	1.04	0.850 to 1.15	35.0	70.0 to 130	0.985	20.0
BC02838	Silicon, Total	mg/L	-0.000052	0.0440	1.00	9.90	9.96	1.03	0.850 to 1.15	110	70.0 to 130	0.604	20.0
BC02838	Sodium, Dissolved	mg/L	0.000535	0.0660	5.00	133	127	5.06	4.25 to 5.75	-40.0	70.0 to 130	4.62	20.0
BC02838	Sodium, Total	mg/L	0.00310	0.0660	5.00	123	123	4.97	4.25 to 5.75	0.00	70.0 to 130	0.00	20.0
BC02838	Thallium, Dissolved	mg/L	-0.0000004	0.000147	0.100	0.100	0.0974	0.103	0.0850 to 0.115	100	70.0 to 130	2.63	20.0
BC03238	Thallium, Total	mg/L	0.0000004	0.000147	0.100	0.110	0.104	0.111	0.0850 to 0.115	110	70.0 to 130	5.61	20.0
BC03237	Total Organic Carbon	mg/L	0.320	1.00	10.0	10.6	11.1	24.7		95.4	80.0 to 120	4.61	20.0

**Comments:** The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.

## Batch QC Summary

**Customer Account:** WMWGORAP

**Sample Date:** 2/9/22 12:00

**Customer ID:**

**Delivery Date:** 2/9/22 16:41

**Description:** Gorgas Ash Pond - MW-6V

**Laboratory ID Number:** BC02834

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BC02838	Alkalinity, Total as CaCO3	mg/L					226	51.7	45.0 to 55.0			2.19	10.0
BC02838	Chloride	mg/L	-0.0265	1.00	50.0	80.4	27.2	10.1	9.00 to 11.0	95.8	80.0 to 120	17.8	20.0
BC02838	Fluoride	mg/L	-0.0198	0.125	2.50	2.71	0.122	2.66	2.25 to 2.75	104	80.0 to 120	2.49	20.0
BC02838	Nitrogen, Nitrate/Nitrite	mg/L as N	0.01	0.200	2.00	2.02	-0.002	1.84	1.80 to 2.20	101	90.0 to 110	0.00	15.0
BC02838	Solids, Dissolved	mg/L	-2.00	25.0			283	52.0	40.0 to 60.0			0.704	10.0
BC02838	Sulfate	mg/L	-0.206	2.0	20.0	46.7	29.3	20.1	18.0 to 22.0	86.0	80.0 to 120	0.680	20.0

**Comments:** The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.

# Certificate Of Analysis

**Description:** Gorgas Ash Pond - MW-30HA

**Location Code:** WMWGORAP  
**Collected:** 2/8/22 09:36  
**Customer ID:**  
**Submittal Date:** 2/9/22 16:41

**Laboratory ID Number:** BC02835

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
<b>Analytical Method: EPA 200.7</b>		<b>Analyst: RDA</b>			<b>Preparation Method: EPA 1638</b>				
* Boron, Total	2/14/22 12:00	2/17/22 11:44		1.015	0.0654	mg/L	0.030000	0.1015	J
* Calcium, Total	2/14/22 12:00	2/17/22 13:27		10.15	46.7	mg/L	0.70035	4.06	
* Iron, Total	2/14/22 12:00	2/17/22 11:44		1.015	2.62	mg/L	0.008120	0.0406	
* Lithium, Total	2/14/22 12:00	2/17/22 11:44		1.015	0.0533	mg/L	0.007105	0.01999956	
* Magnesium, Total	2/14/22 12:00	2/17/22 11:44		1.015	8.11	mg/L	0.021315	0.406	
Silica, Total (calc.)	2/14/22 12:00	2/17/22 11:44		1	22.0	mg/L			
Silicon, Total	2/14/22 12:00	2/17/22 11:44		1.015	10.3	mg/L	0.02030	0.25375	
* Sodium, Total	2/14/22 12:00	2/17/22 13:27		10.15	185	mg/L	0.3045	4.06	
<b>Analytical Method: EPA 200.7</b>		<b>Analyst: RDA</b>			<b>Preparation Method: EPA 1638</b>				
* Boron, Dissolved	2/14/22 12:00	2/17/22 10:28		1.015	0.0649	mg/L	0.030000	0.1015	J
* Calcium, Dissolved	2/14/22 12:00	2/17/22 12:42		10.15	47.1	mg/L	0.70035	4.06	
* Iron, Dissolved	2/14/22 12:00	2/17/22 10:28		1.015	2.55	mg/L	0.008120	0.0406	
* Lithium, Dissolved	2/14/22 12:00	2/17/22 10:28		1.015	0.0522	mg/L	0.007105	0.01999956	
* Magnesium, Dissolved	2/14/22 12:00	2/17/22 10:28		1.015	8.03	mg/L	0.021315	0.406	
Silica, Dissolved (calc.)	2/14/22 12:00	2/17/22 10:28		1	21.4	mg/L			
Silicon, Dissolved	2/14/22 12:00	2/17/22 10:28		1.015	10.0	mg/L	0.02030	0.25375	
* Sodium, Dissolved	2/14/22 12:00	2/17/22 12:42		10.15	179	mg/L	0.3045	4.06	
<b>Analytical Method: EPA 200.8</b>		<b>Analyst: ABB</b>			<b>Preparation Method: EPA 1638</b>				
* Antimony, Total	2/16/22 10:47	2/18/22 13:02		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Aluminum, Total	2/16/22 10:47	2/18/22 13:02		1.015	0.0592	mg/L	0.004060	0.01015	
* Arsenic, Total	2/16/22 10:47	2/18/22 13:02		1.015	0.00331	mg/L	0.000068	0.000203	
* Barium, Total	2/16/22 10:47	2/18/22 13:02		1.015	0.100	mg/L	0.000102	0.000203	
* Beryllium, Total	2/16/22 10:47	2/18/22 13:02		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Total	2/16/22 10:47	2/18/22 13:02		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Total	2/16/22 10:47	2/18/22 13:02		1.015	0.000375	mg/L	0.000203	0.001015	J
* Cobalt, Total	2/16/22 10:47	2/18/22 13:02		1.015	0.000184	mg/L	0.000068	0.000203	J
* Lead, Total	2/16/22 10:47	2/18/22 13:02		1.015	0.000117	mg/L	0.000068	0.000203	J
* Manganese, Total	2/16/22 10:47	2/18/22 13:02		1.015	0.163	mg/L	0.000068	0.000203	
* Molybdenum, Total	2/16/22 10:47	2/18/22 13:02		1.015	0.00529	mg/L	0.000068	0.000203	
* Potassium, Total	2/16/22 10:47	2/18/22 13:02		1.015	4.15	mg/L	0.169505	0.5075	

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.

# Certificate Of Analysis

**Description:** Gorgas Ash Pond - MW-30HA

**Location Code:** WMWGORAP  
**Collected:** 2/8/22 09:36  
**Customer ID:**  
**Submittal Date:** 2/9/22 16:41

**Laboratory ID Number:** BC02835

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
* Selenium, Total	2/16/22 10:47	2/18/22 13:02		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Total	2/16/22 10:47	2/18/22 13:02		1.015	Not Detected	mg/L	0.000068	0.000203	U
<b>Analytical Method: EPA 200.8</b>		<b>Analyst: ABB</b>							
* Antimony, Dissolved	2/16/22 11:25	2/16/22 16:24		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Aluminum, Dissolved	2/16/22 11:25	2/16/22 16:24		1.015	Not Detected	mg/L	0.004060	0.01015	U
* Arsenic, Dissolved	2/16/22 11:25	2/16/22 16:24		1.015	0.00283	mg/L	0.000068	0.000203	
* Barium, Dissolved	2/16/22 11:25	2/16/22 16:24		1.015	0.0890	mg/L	0.000102	0.000203	
* Beryllium, Dissolved	2/16/22 11:25	2/16/22 16:24		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Dissolved	2/16/22 11:25	2/16/22 16:24		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Dissolved	2/16/22 11:25	2/16/22 16:24		1.015	Not Detected	mg/L	0.000203	0.001015	U
* Cobalt, Dissolved	2/16/22 11:25	2/16/22 16:24		1.015	0.0000946	mg/L	0.000068	0.000203	J
* Lead, Dissolved	2/16/22 11:25	2/16/22 16:24		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Dissolved	2/16/22 11:25	2/16/22 16:24		1.015	0.155	mg/L	0.000068	0.000203	
* Molybdenum, Dissolved	2/16/22 11:25	2/16/22 16:24		1.015	0.00494	mg/L	0.000068	0.000203	
* Potassium, Dissolved	2/16/22 11:25	2/16/22 16:24		1.015	3.93	mg/L	0.169505	0.5075	
* Selenium, Dissolved	2/16/22 11:25	2/16/22 16:24		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Dissolved	2/16/22 11:25	2/16/22 16:24		1.015	Not Detected	mg/L	0.000068	0.000203	U
<b>Analytical Method: EPA 245.1</b>		<b>Analyst: CRB</b>							
* Mercury, Total by CVAA	2/10/22 13:23	2/10/22 20:25		1	Not Detected	mg/L	0.0003	0.0005	U
<b>Analytical Method: EPA 353.2</b>		<b>Analyst: ELH</b>							
* Nitrogen, Nitrate/Nitrite	2/14/22 14:56	2/14/22 14:56		1	Not Detected	mg/L as N	0.20	0.3	U
<b>Analytical Method: SM 2320 B</b>		<b>Analyst: ALH</b>							
Alkalinity, Total as CaCO3	2/17/22 11:20	2/17/22 12:20		1	296	mg/L		0.1	
<b>Analytical Method: SM 2540C</b>		<b>Analyst: CNJ</b>							
* Solids, Dissolved	2/10/22 11:15	2/11/22 13:20		1	628	mg/L		50	
<b>Analytical Method: SM 4500CO2 D</b>		<b>Analyst: ALH</b>							
Bicarbonate Alkalinity, (calc.)	2/17/22 11:20	2/17/22 12:20		1	295	mg/L			A
Carbonate Alkalinity, (calc.)	2/17/22 11:20	2/17/22 12:20		1	0.67	mg/L			A
<b>Analytical Method: SM 5310 B</b>		<b>Analyst: ELH</b>							
* Total Organic Carbon	2/16/22 16:38	2/16/22 16:38		1	2.21	mg/L	1.00	2	

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.



# Certificate Of Analysis

**Description:** Gorgas Ash Pond - MW-30HA

**Location Code:** WMWGORAP

**Collected:** 2/8/22 09:36

**Customer ID:**

**Submittal Date:** 2/9/22 16:41

**Laboratory ID Number:** BC02835

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
<b>Analytical Method: SM4500Cl E</b>		<b>Analyst: JCC</b>							
* Chloride	2/10/22 09:46	2/10/22 09:46		1	5.81	mg/L	0.50	1	
<b>Analytical Method: SM4500F G 2017</b>		<b>Analyst: JCC</b>							
* Fluoride	2/10/22 16:27	2/10/22 16:27		1	1.66	mg/L	0.06	0.1	
<b>Analytical Method: SM4500SO4 E 2011</b>		<b>Analyst: JCC</b>							
* Sulfate	2/14/22 15:07	2/14/22 15:07		16	215	mg/L	8.00	16	
<b>Analytical Method: Field Measurements</b>		<b>Analyst: DKG</b>							
Conductivity	2/8/22 09:33	2/8/22 09:33			945.82	uS/cm			FA
pH	2/8/22 09:33	2/8/22 09:33			7.35	SU			FA
Temperature	2/8/22 09:33	2/8/22 09:33			14.98	C			FA
Turbidity	2/8/22 09:33	2/8/22 09:33			4.94	NTU			FA

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.

# Batch QC Summary

**Customer Account:** WMWGORAP

**Sample Date:** 2/8/22 09:36

**Customer ID:**

**Delivery Date:** 2/9/22 16:41

**Description:** Gorgas Ash Pond - MW-30HA

**Laboratory ID Number:** BC02835

Sample	Analysis	Units	MB	MB		MS	MSD	Standard		Rec		Prec	Limit
				Limit	Spike			Standard	Limit	Rec	Limit		
BC02838	Aluminum, Dissolved	mg/L	0.0000565	0.010	0.100	0.106	0.109	0.0990	0.0850 to 0.115	94.1	70.0 to 130	2.79	20.0
BC03238	Aluminum, Total	mg/L	0.000788	0.010	0.100	0.101	0.102	0.100	0.0850 to 0.115	101	70.0 to 130	0.985	20.0
BC02838	Antimony, Dissolved	mg/L	0.000176	0.00100	0.100	0.0907	0.0886	0.0917	0.0850 to 0.115	90.7	70.0 to 130	2.34	20.0
BC03238	Antimony, Total	mg/L	0.000222	0.00100	0.100	0.0960	0.0976	0.0973	0.0850 to 0.115	96.0	70.0 to 130	1.65	20.0
BC02838	Arsenic, Dissolved	mg/L	0.0000108	0.000176	0.100	0.0970	0.0973	0.100	0.0850 to 0.115	96.6	70.0 to 130	0.309	20.0
BC03238	Arsenic, Total	mg/L	0.000012	0.000176	0.100	0.104	0.103	0.104	0.0850 to 0.115	104	70.0 to 130	0.966	20.0
BC02838	Barium, Dissolved	mg/L	0.00000	0.000200	0.100	0.227	0.227	0.0940	0.0850 to 0.115	93.0	70.0 to 130	0.00	20.0
BC03238	Barium, Total	mg/L	-0.0000261	0.000200	0.100	0.409	0.411	0.104	0.0850 to 0.115	94.0	70.0 to 130	0.488	20.0
BC02838	Beryllium, Dissolved	mg/L	0.000136	0.000880	0.100	0.103	0.103	0.0981	0.0850 to 0.115	103	70.0 to 130	0.00	20.0
BC03238	Beryllium, Total	mg/L	0.000124	0.000880	0.100	0.0996	0.0983	0.103	0.0850 to 0.115	99.6	70.0 to 130	1.31	20.0
BC02838	Boron, Dissolved	mg/L	-0.000566	0.0650	1.00	1.06	1.05	1.03	0.850 to 1.15	106	70.0 to 130	0.948	20.0
BC02838	Boron, Total	mg/L	-0.000727	0.0650	1.00	1.02	1.04	1.02	0.850 to 1.15	102	70.0 to 130	1.94	20.0
BC02838	Cadmium, Dissolved	mg/L	0.0000045	0.000147	0.100	0.0941	0.0912	0.0943	0.0850 to 0.115	94.1	70.0 to 130	3.13	20.0
BC03238	Cadmium, Total	mg/L	0.0000051	0.000147	0.100	0.105	0.104	0.106	0.0850 to 0.115	105	70.0 to 130	0.957	20.0
BC02838	Calcium, Dissolved	mg/L	-0.0177	0.152	5.00	10.8	10.7	4.85	4.25 to 5.75	103	70.0 to 130	0.930	20.0
BC02838	Calcium, Total	mg/L	-0.0128	0.152	5.00	10.6	10.1	4.73	4.25 to 5.75	97.4	70.0 to 130	4.83	20.0
BC02838	Chromium, Dissolved	mg/L	-0.0000309	0.000440	0.100	0.0973	0.0995	0.102	0.0850 to 0.115	97.3	70.0 to 130	2.24	20.0
BC03238	Chromium, Total	mg/L	0.0000153	0.000440	0.100	0.103	0.103	0.105	0.0850 to 0.115	103	70.0 to 130	0.00	20.0
BC02838	Cobalt, Dissolved	mg/L	0.0000091	0.000147	0.100	0.101	0.103	0.105	0.0850 to 0.115	101	70.0 to 130	1.96	20.0
BC03238	Cobalt, Total	mg/L	0.000006	0.000147	0.100	0.104	0.105	0.108	0.0850 to 0.115	104	70.0 to 130	0.957	20.0
BC02838	Iron, Dissolved	mg/L	-0.000454	0.0176	0.2	0.201	0.201	0.202	0.170 to 0.230	100	70.0 to 130	0.00	20.0
BC02838	Iron, Total	mg/L	-0.000473	0.0176	0.2	0.205	0.207	0.200	0.170 to 0.230	97.2	70.0 to 130	0.971	20.0
BC02838	Lead, Dissolved	mg/L	0.0000107	0.000147	0.100	0.102	0.101	0.101	0.0850 to 0.115	102	70.0 to 130	0.985	20.0

**Comments:** The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.

# Batch QC Summary

**Customer Account:** WMWGORAP

**Sample Date:** 2/8/22 09:36

**Customer ID:**

**Delivery Date:** 2/9/22 16:41

**Description:** Gorgas Ash Pond - MW-30HA

**Laboratory ID Number:** BC02835

Sample	Analysis	Units	MB	MB				Standard		Rec		Prec	Limit
				Limit	Spike	MS	MSD	Standard	Limit	Rec	Limit		
BC03238	Lead, Total	mg/L	0.0000018	0.000147	0.100	0.107	0.104	0.109	0.0850 to 0.115	107	70.0 to 130	2.84	20.0
BC02838	Lithium, Dissolved	mg/L	-0.000064	0.0154	0.200	0.232	0.227	0.202	0.170 to 0.230	97.5	70.0 to 130	2.18	20.0
BC02838	Lithium, Total	mg/L	0.000026	0.0154	0.200	0.235	0.242	0.202	0.170 to 0.230	99.2	70.0 to 130	2.94	20.0
BC02838	Magnesium, Dissolved	mg/L	0.000534	0.0462	5.00	7.08	6.91	5.13	4.25 to 5.75	100	70.0 to 130	2.43	20.0
BC02838	Magnesium, Total	mg/L	-0.0120	0.0462	5.00	7.08	7.09	5.03	4.25 to 5.75	101	70.0 to 130	0.141	20.0
BC02838	Manganese, Dissolved	mg/L	-0.000126	0.0002	0.100	0.109	0.111	0.104	0.0850 to 0.115	99.3	70.0 to 130	1.82	20.0
BC03238	Manganese, Total	mg/L	0.0000678	0.0002	0.100	0.135	0.136	0.106	0.0850 to 0.115	103	70.0 to 130	0.738	20.0
BC02838	Mercury, Total by CVAA	mg/L	0.00015	0.000500	0.004	0.00414	0.00408	0.00415	0.00340 to 0.00460	104	70.0 to 130	1.46	20.0
BC02838	Molybdenum, Dissolved	mg/L	0.0000073	0.0002	0.100	0.103	0.102	0.0999	0.0850 to 0.115	97.1	70.0 to 130	0.976	20.0
BC03238	Molybdenum, Total	mg/L	0.0000199	0.0002	0.100	0.106	0.106	0.105	0.0850 to 0.115	103	70.0 to 130	0.00	20.0
BC02838	Potassium, Dissolved	mg/L	-0.0162	0.367	10.0	11.2	11.4	9.99	8.50 to 11.5	94.9	70.0 to 130	1.77	20.0
BC03238	Potassium, Total	mg/L	0.00661	0.367	10.0	12.2	12.2	10.3	8.50 to 11.5	101	70.0 to 130	0.00	20.0
BC02838	Selenium, Dissolved	mg/L	-0.0000165	0.00100	0.100	0.0889	0.0886	0.0976	0.0850 to 0.115	74.5	70.0 to 130	0.338	20.0
BC03238	Selenium, Total	mg/L	0.0000249	0.00100	0.100	0.108	0.107	0.107	0.0850 to 0.115	108	70.0 to 130	0.930	20.0
BC02838	Silicon, Dissolved	mg/L	-0.00084	0.0440	1.00	10.1	10.2	1.04	0.850 to 1.15	35.0	70.0 to 130	0.985	20.0
BC02838	Silicon, Total	mg/L	-0.000052	0.0440	1.00	9.90	9.96	1.03	0.850 to 1.15	110	70.0 to 130	0.604	20.0
BC02838	Sodium, Dissolved	mg/L	0.000535	0.0660	5.00	133	127	5.06	4.25 to 5.75	-40.0	70.0 to 130	4.62	20.0
BC02838	Sodium, Total	mg/L	0.00310	0.0660	5.00	123	123	4.97	4.25 to 5.75	0.00	70.0 to 130	0.00	20.0
BC02838	Thallium, Dissolved	mg/L	-0.0000004	0.000147	0.100	0.100	0.0974	0.103	0.0850 to 0.115	100	70.0 to 130	2.63	20.0
BC03238	Thallium, Total	mg/L	0.0000004	0.000147	0.100	0.110	0.104	0.111	0.0850 to 0.115	110	70.0 to 130	5.61	20.0
BC03237	Total Organic Carbon	mg/L	0.320	1.00	10.0	10.6	11.1	24.7		95.4	80.0 to 120	4.61	20.0

**Comments:** The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.

## Batch QC Summary

**Customer Account:** WMWGORAP

**Sample Date:** 2/8/22 09:36

**Customer ID:**

**Delivery Date:** 2/9/22 16:41

**Description:** Gorgas Ash Pond - MW-30HA

**Laboratory ID Number:** BC02835

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BC02838	Alkalinity, Total as CaCO3	mg/L					226	51.7	45.0 to 55.0			2.19	10.0
BC02838	Chloride	mg/L	-0.0265	1.00	50.0	80.4	27.2	10.1	9.00 to 11.0	95.8	80.0 to 120	17.8	20.0
BC02838	Fluoride	mg/L	-0.0198	0.125	2.50	2.71	0.122	2.66	2.25 to 2.75	104	80.0 to 120	2.49	20.0
BC02838	Nitrogen, Nitrate/Nitrite	mg/L as N	0.01	0.200	2.00	2.02	-0.002	1.84	1.80 to 2.20	101	90.0 to 110	0.00	15.0
BC02838	Solids, Dissolved	mg/L	-2.00	25.0			283	52.0	40.0 to 60.0			0.704	10.0
BC02838	Sulfate	mg/L	-0.206	2.0	20.0	46.7	29.3	20.1	18.0 to 22.0	86.0	80.0 to 120	0.680	20.0

**Comments:** The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.

# Certificate Of Analysis

**Description:** Gorgas Ash Pond - MW-21

**Location Code:** WMWGORAP  
**Collected:** 2/8/22 11:11  
**Customer ID:**  
**Submittal Date:** 2/9/22 16:41

**Laboratory ID Number:** BC02836

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
<b>Analytical Method: EPA 200.7</b>		<b>Analyst: RDA</b>			<b>Preparation Method: EPA 1638</b>				
* Boron, Total	2/14/22 12:00	2/17/22 11:46		1.015	0.111	mg/L	0.030000	0.1015	
* Calcium, Total	2/14/22 12:00	2/17/22 11:46		1.015	1.98	mg/L	0.070035	0.406	
* Iron, Total	2/14/22 12:00	2/17/22 11:46		1.015	0.0214	mg/L	0.008120	0.0406	J
* Lithium, Total	2/14/22 12:00	2/17/22 11:46		1.015	0.0996	mg/L	0.007105	0.01999956	
* Magnesium, Total	2/14/22 12:00	2/17/22 11:46		1.015	0.419	mg/L	0.021315	0.406	
Silica, Total (calc.)	2/14/22 12:00	2/17/22 11:46		1	9.20	mg/L			
Silicon, Total	2/14/22 12:00	2/17/22 11:46		1.015	4.30	mg/L	0.02030	0.25375	
* Sodium, Total	2/14/22 12:00	2/17/22 13:29		10.15	218	mg/L	0.3045	4.06	
<b>Analytical Method: EPA 200.7</b>		<b>Analyst: RDA</b>			<b>Preparation Method: EPA 1638</b>				
* Boron, Dissolved	2/14/22 12:00	2/17/22 10:30		1.015	0.111	mg/L	0.030000	0.1015	
* Calcium, Dissolved	2/14/22 12:00	2/17/22 10:30		1.015	1.82	mg/L	0.070035	0.406	
* Iron, Dissolved	2/14/22 12:00	2/17/22 10:30		1.015	Not Detected	mg/L	0.008120	0.0406	U
* Lithium, Dissolved	2/14/22 12:00	2/17/22 10:30		1.015	0.0947	mg/L	0.007105	0.01999956	
* Magnesium, Dissolved	2/14/22 12:00	2/17/22 10:30		1.015	0.411	mg/L	0.021315	0.406	
Silica, Dissolved (calc.)	2/14/22 12:00	2/17/22 10:30		1	9.10	mg/L			
Silicon, Dissolved	2/14/22 12:00	2/17/22 10:30		1.015	4.25	mg/L	0.02030	0.25375	
* Sodium, Dissolved	2/14/22 12:00	2/17/22 12:44		10.15	221	mg/L	0.3045	4.06	
<b>Analytical Method: EPA 200.8</b>		<b>Analyst: ABB</b>			<b>Preparation Method: EPA 1638</b>				
* Antimony, Total	2/16/22 10:47	2/18/22 13:05		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Aluminum, Total	2/16/22 10:47	2/18/22 13:05		1.015	0.0337	mg/L	0.004060	0.01015	
* Arsenic, Total	2/16/22 10:47	2/18/22 13:05		1.015	0.000459	mg/L	0.000068	0.000203	
* Barium, Total	2/16/22 10:47	2/18/22 13:05		1.015	0.143	mg/L	0.000102	0.000203	
* Beryllium, Total	2/16/22 10:47	2/18/22 13:05		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Total	2/16/22 10:47	2/18/22 13:05		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Total	2/16/22 10:47	2/18/22 13:05		1.015	0.000401	mg/L	0.000203	0.001015	J
* Cobalt, Total	2/16/22 10:47	2/18/22 13:05		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Lead, Total	2/16/22 10:47	2/18/22 13:05		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Total	2/16/22 10:47	2/18/22 13:05		1.015	0.000798	mg/L	0.000068	0.000203	
* Molybdenum, Total	2/16/22 10:47	2/18/22 13:05		1.015	0.0153	mg/L	0.000068	0.000203	
* Potassium, Total	2/16/22 10:47	2/18/22 13:05		1.015	1.99	mg/L	0.169505	0.5075	

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.

# Certificate Of Analysis

**Description:** Gorgas Ash Pond - MW-21

**Location Code:** WMWGORAP  
**Collected:** 2/8/22 11:11  
**Customer ID:**  
**Submittal Date:** 2/9/22 16:41

**Laboratory ID Number:** BC02836

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
* Selenium, Total	2/16/22 10:47	2/18/22 13:05		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Total	2/16/22 10:47	2/18/22 13:05		1.015	Not Detected	mg/L	0.000068	0.000203	U
<b>Analytical Method: EPA 200.8</b>		<b>Analyst: ABB</b>							
* Antimony, Dissolved	2/16/22 11:25	2/16/22 16:28		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Aluminum, Dissolved	2/16/22 11:25	2/16/22 16:28		1.015	0.0167	mg/L	0.004060	0.01015	
* Arsenic, Dissolved	2/16/22 11:25	2/16/22 16:28		1.015	0.000476	mg/L	0.000068	0.000203	
* Barium, Dissolved	2/16/22 11:25	2/16/22 16:28		1.015	0.132	mg/L	0.000102	0.000203	
* Beryllium, Dissolved	2/16/22 11:25	2/16/22 16:28		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Dissolved	2/16/22 11:25	2/16/22 16:28		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Dissolved	2/16/22 11:25	2/16/22 16:28		1.015	Not Detected	mg/L	0.000203	0.001015	U
* Cobalt, Dissolved	2/16/22 11:25	2/16/22 16:28		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Lead, Dissolved	2/16/22 11:25	2/16/22 16:28		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Dissolved	2/16/22 11:25	2/16/22 16:28		1.015	0.000470	mg/L	0.000068	0.000203	
* Molybdenum, Dissolved	2/16/22 11:25	2/16/22 16:28		1.015	0.0134	mg/L	0.000068	0.000203	
* Potassium, Dissolved	2/16/22 11:25	2/16/22 16:28		1.015	1.92	mg/L	0.169505	0.5075	
* Selenium, Dissolved	2/16/22 11:25	2/16/22 16:28		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Dissolved	2/16/22 11:25	2/16/22 16:28		1.015	Not Detected	mg/L	0.000068	0.000203	U
<b>Analytical Method: EPA 245.1</b>		<b>Analyst: CRB</b>							
* Mercury, Total by CVAA	2/10/22 13:23	2/10/22 20:29		1	Not Detected	mg/L	0.0003	0.0005	U
<b>Analytical Method: EPA 353.2</b>		<b>Analyst: ELH</b>							
* Nitrogen, Nitrate/Nitrite	2/14/22 14:57	2/14/22 14:57		1	Not Detected	mg/L as N	0.20	0.3	U
<b>Analytical Method: SM 2320 B</b>		<b>Analyst: ALH</b>							
Alkalinity, Total as CaCO3	2/17/22 11:20	2/17/22 12:20		1	191	mg/L		0.1	
<b>Analytical Method: SM 2540C</b>		<b>Analyst: CNJ</b>							
* Solids, Dissolved	2/10/22 11:15	2/11/22 13:20		1	570	mg/L		50	
<b>Analytical Method: SM 4500CO2 D</b>		<b>Analyst: ALH</b>							
Bicarbonate Alkalinity, (calc.)	2/17/22 11:20	2/17/22 12:20		1	128	mg/L			A
Carbonate Alkalinity, (calc.)	2/17/22 11:20	2/17/22 12:20		1	60.4	mg/L			A
<b>Analytical Method: SM 5310 B</b>		<b>Analyst: ELH</b>							
* Total Organic Carbon	2/16/22 16:57	2/16/22 16:57		1	1.48	mg/L	1.00	2	J

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.

# Certificate Of Analysis

**Description:** Gorgas Ash Pond - MW-21

**Location Code:** WMWGORAP

**Collected:** 2/8/22 11:11

**Customer ID:**

**Submittal Date:** 2/9/22 16:41

**Laboratory ID Number:** BC02836

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
<b>Analytical Method: SM4500Cl E</b>		<b>Analyst: JCC</b>							
* Chloride	2/10/22 10:33	2/10/22 10:33		8	41.4	mg/L	4.00	8	
<b>Analytical Method: SM4500F G 2017</b>		<b>Analyst: JCC</b>							
* Fluoride	2/10/22 16:28	2/10/22 16:28		1	0.175	mg/L	0.06	0.1	
<b>Analytical Method: SM4500SO4 E 2011</b>		<b>Analyst: JCC</b>							
* Sulfate	2/14/22 15:08	2/14/22 15:08		16	241	mg/L	8.00	16	
<b>Analytical Method: Field Measurements</b>		<b>Analyst: DKG</b>							
Conductivity	2/8/22 11:08	2/8/22 11:08			1038.26	uS/cm			FA
pH	2/8/22 11:08	2/8/22 11:08			10.26	SU			FA
Temperature	2/8/22 11:08	2/8/22 11:08			16.93	C			FA
Turbidity	2/8/22 11:08	2/8/22 11:08			0.78	NTU			FA

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.



# Batch QC Summary

**Customer Account:** WMWGORAP

**Sample Date:** 2/8/22 11:11

**Customer ID:**

**Delivery Date:** 2/9/22 16:41

**Description:** Gorgas Ash Pond - MW-21

**Laboratory ID Number:** BC02836

Sample	Analysis	Units	MB	MB				Standard		Rec		Prec	Limit
				Limit	Spike	MS	MSD	Standard	Limit	Rec	Limit		
BC02838	Aluminum, Dissolved	mg/L	0.0000565	0.010	0.100	0.106	0.109	0.0990	0.0850 to 0.115	94.1	70.0 to 130	2.79	20.0
BC03238	Aluminum, Total	mg/L	0.000788	0.010	0.100	0.101	0.102	0.100	0.0850 to 0.115	101	70.0 to 130	0.985	20.0
BC02838	Antimony, Dissolved	mg/L	0.000176	0.00100	0.100	0.0907	0.0886	0.0917	0.0850 to 0.115	90.7	70.0 to 130	2.34	20.0
BC03238	Antimony, Total	mg/L	0.000222	0.00100	0.100	0.0960	0.0976	0.0973	0.0850 to 0.115	96.0	70.0 to 130	1.65	20.0
BC02838	Arsenic, Dissolved	mg/L	0.0000108	0.000176	0.100	0.0970	0.0973	0.100	0.0850 to 0.115	96.6	70.0 to 130	0.309	20.0
BC03238	Arsenic, Total	mg/L	0.000012	0.000176	0.100	0.104	0.103	0.104	0.0850 to 0.115	104	70.0 to 130	0.966	20.0
BC02838	Barium, Dissolved	mg/L	0.00000	0.000200	0.100	0.227	0.227	0.0940	0.0850 to 0.115	93.0	70.0 to 130	0.00	20.0
BC03238	Barium, Total	mg/L	-0.0000261	0.000200	0.100	0.409	0.411	0.104	0.0850 to 0.115	94.0	70.0 to 130	0.488	20.0
BC02838	Beryllium, Dissolved	mg/L	0.000136	0.000880	0.100	0.103	0.103	0.0981	0.0850 to 0.115	103	70.0 to 130	0.00	20.0
BC03238	Beryllium, Total	mg/L	0.000124	0.000880	0.100	0.0996	0.0983	0.103	0.0850 to 0.115	99.6	70.0 to 130	1.31	20.0
BC02838	Boron, Dissolved	mg/L	-0.000566	0.0650	1.00	1.06	1.05	1.03	0.850 to 1.15	106	70.0 to 130	0.948	20.0
BC02838	Boron, Total	mg/L	-0.000727	0.0650	1.00	1.02	1.04	1.02	0.850 to 1.15	102	70.0 to 130	1.94	20.0
BC02838	Cadmium, Dissolved	mg/L	0.0000045	0.000147	0.100	0.0941	0.0912	0.0943	0.0850 to 0.115	94.1	70.0 to 130	3.13	20.0
BC03238	Cadmium, Total	mg/L	0.0000051	0.000147	0.100	0.105	0.104	0.106	0.0850 to 0.115	105	70.0 to 130	0.957	20.0
BC02838	Calcium, Dissolved	mg/L	-0.0177	0.152	5.00	10.8	10.7	4.85	4.25 to 5.75	103	70.0 to 130	0.930	20.0
BC02838	Calcium, Total	mg/L	-0.0128	0.152	5.00	10.6	10.1	4.73	4.25 to 5.75	97.4	70.0 to 130	4.83	20.0
BC02838	Chromium, Dissolved	mg/L	-0.0000309	0.000440	0.100	0.0973	0.0995	0.102	0.0850 to 0.115	97.3	70.0 to 130	2.24	20.0
BC03238	Chromium, Total	mg/L	0.0000153	0.000440	0.100	0.103	0.103	0.105	0.0850 to 0.115	103	70.0 to 130	0.00	20.0
BC02838	Cobalt, Dissolved	mg/L	0.0000091	0.000147	0.100	0.101	0.103	0.105	0.0850 to 0.115	101	70.0 to 130	1.96	20.0
BC03238	Cobalt, Total	mg/L	0.000006	0.000147	0.100	0.104	0.105	0.108	0.0850 to 0.115	104	70.0 to 130	0.957	20.0
BC02838	Iron, Dissolved	mg/L	-0.000454	0.0176	0.2	0.201	0.201	0.202	0.170 to 0.230	100	70.0 to 130	0.00	20.0
BC02838	Iron, Total	mg/L	-0.000473	0.0176	0.2	0.205	0.207	0.200	0.170 to 0.230	97.2	70.0 to 130	0.971	20.0
BC02838	Lead, Dissolved	mg/L	0.0000107	0.000147	0.100	0.102	0.101	0.101	0.0850 to 0.115	102	70.0 to 130	0.985	20.0

**Comments:** The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.

# Batch QC Summary

**Customer Account:** WMWGORAP

**Sample Date:** 2/8/22 11:11

**Customer ID:**

**Delivery Date:** 2/9/22 16:41

**Description:** Gorgas Ash Pond - MW-21

**Laboratory ID Number:** BC02836

Sample	Analysis	Units	MB	MB				Standard		Rec		Prec	Limit
				Limit	Spike	MS	MSD	Standard	Limit	Rec	Limit		
BC03238	Lead, Total	mg/L	0.0000018	0.000147	0.100	0.107	0.104	0.109	0.0850 to 0.115	107	70.0 to 130	2.84	20.0
BC02838	Lithium, Dissolved	mg/L	-0.000064	0.0154	0.200	0.232	0.227	0.202	0.170 to 0.230	97.5	70.0 to 130	2.18	20.0
BC02838	Lithium, Total	mg/L	0.000026	0.0154	0.200	0.235	0.242	0.202	0.170 to 0.230	99.2	70.0 to 130	2.94	20.0
BC02838	Magnesium, Dissolved	mg/L	0.000534	0.0462	5.00	7.08	6.91	5.13	4.25 to 5.75	100	70.0 to 130	2.43	20.0
BC02838	Magnesium, Total	mg/L	-0.0120	0.0462	5.00	7.08	7.09	5.03	4.25 to 5.75	101	70.0 to 130	0.141	20.0
BC02838	Manganese, Dissolved	mg/L	-0.000126	0.0002	0.100	0.109	0.111	0.104	0.0850 to 0.115	99.3	70.0 to 130	1.82	20.0
BC03238	Manganese, Total	mg/L	0.0000678	0.0002	0.100	0.135	0.136	0.106	0.0850 to 0.115	103	70.0 to 130	0.738	20.0
BC02838	Mercury, Total by CVAA	mg/L	0.00015	0.000500	0.004	0.00414	0.00408	0.00415	0.00340 to 0.00460	104	70.0 to 130	1.46	20.0
BC02838	Molybdenum, Dissolved	mg/L	0.0000073	0.0002	0.100	0.103	0.102	0.0999	0.0850 to 0.115	97.1	70.0 to 130	0.976	20.0
BC03238	Molybdenum, Total	mg/L	0.0000199	0.0002	0.100	0.106	0.106	0.105	0.0850 to 0.115	103	70.0 to 130	0.00	20.0
BC02838	Potassium, Dissolved	mg/L	-0.0162	0.367	10.0	11.2	11.4	9.99	8.50 to 11.5	94.9	70.0 to 130	1.77	20.0
BC03238	Potassium, Total	mg/L	0.00661	0.367	10.0	12.2	12.2	10.3	8.50 to 11.5	101	70.0 to 130	0.00	20.0
BC02838	Selenium, Dissolved	mg/L	-0.0000165	0.00100	0.100	0.0889	0.0886	0.0976	0.0850 to 0.115	74.5	70.0 to 130	0.338	20.0
BC03238	Selenium, Total	mg/L	0.0000249	0.00100	0.100	0.108	0.107	0.107	0.0850 to 0.115	108	70.0 to 130	0.930	20.0
BC02838	Silicon, Dissolved	mg/L	-0.00084	0.0440	1.00	10.1	10.2	1.04	0.850 to 1.15	35.0	70.0 to 130	0.985	20.0
BC02838	Silicon, Total	mg/L	-0.000052	0.0440	1.00	9.90	9.96	1.03	0.850 to 1.15	110	70.0 to 130	0.604	20.0
BC02838	Sodium, Dissolved	mg/L	0.000535	0.0660	5.00	133	127	5.06	4.25 to 5.75	-40.0	70.0 to 130	4.62	20.0
BC02838	Sodium, Total	mg/L	0.00310	0.0660	5.00	123	123	4.97	4.25 to 5.75	0.00	70.0 to 130	0.00	20.0
BC02838	Thallium, Dissolved	mg/L	-0.0000004	0.000147	0.100	0.100	0.0974	0.103	0.0850 to 0.115	100	70.0 to 130	2.63	20.0
BC03238	Thallium, Total	mg/L	0.0000004	0.000147	0.100	0.110	0.104	0.111	0.0850 to 0.115	110	70.0 to 130	5.61	20.0
BC03237	Total Organic Carbon	mg/L	0.320	1.00	10.0	10.6	11.1	24.7		95.4	80.0 to 120	4.61	20.0

**Comments:** The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.

## Batch QC Summary

**Customer Account:** WMWGORAP

**Sample Date:** 2/8/22 11:11

**Customer ID:**

**Delivery Date:** 2/9/22 16:41

**Description:** Gorgas Ash Pond - MW-21

**Laboratory ID Number:** BC02836

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BC02838	Alkalinity, Total as CaCO3	mg/L					226	51.7	45.0 to 55.0			2.19	10.0
BC02838	Chloride	mg/L	-0.0265	1.00	50.0	80.4	27.2	10.1	9.00 to 11.0	95.8	80.0 to 120	17.8	20.0
BC02838	Fluoride	mg/L	-0.0198	0.125	2.50	2.71	0.122	2.66	2.25 to 2.75	104	80.0 to 120	2.49	20.0
BC02838	Nitrogen, Nitrate/Nitrite	mg/L as N	0.01	0.200	2.00	2.02	-0.002	1.84	1.80 to 2.20	101	90.0 to 110	0.00	15.0
BC02838	Solids, Dissolved	mg/L	-2.00	25.0			283	52.0	40.0 to 60.0			0.704	10.0
BC02838	Sulfate	mg/L	-0.206	2.0	20.0	46.7	29.3	20.1	18.0 to 22.0	86.0	80.0 to 120	0.680	20.0

**Comments:** The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.

# Certificate Of Analysis

**Description:** Gorgas Ash Pond - MW-21V

**Location Code:** WMWGORAP  
**Collected:** 2/8/22 13:38  
**Customer ID:**  
**Submittal Date:** 2/9/22 16:41

**Laboratory ID Number:** BC02837

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
<b>Analytical Method: EPA 200.7</b>		<b>Analyst: RDA</b>			<b>Preparation Method: EPA 1638</b>				
* Boron, Total	2/14/22 12:00	2/17/22 11:48		1.015	0.0938	mg/L	0.030000	0.1015	J
* Calcium, Total	2/14/22 12:00	2/17/22 11:48		1.015	37.2	mg/L	0.070035	0.406	
* Iron, Total	2/14/22 12:00	2/17/22 11:48		1.015	0.165	mg/L	0.008120	0.0406	
* Lithium, Total	2/14/22 12:00	2/17/22 11:48		1.015	0.0835	mg/L	0.007105	0.01999956	
* Magnesium, Total	2/14/22 12:00	2/17/22 11:48		1.015	10.3	mg/L	0.021315	0.406	
Silica, Total (calc.)	2/14/22 12:00	2/17/22 11:48		1	11.4	mg/L			
Silicon, Total	2/14/22 12:00	2/17/22 11:48		1.015	5.35	mg/L	0.02030	0.25375	
* Sodium, Total	2/14/22 12:00	2/17/22 13:31		20.3	432	mg/L	0.609	8.12	
<b>Analytical Method: EPA 200.7</b>		<b>Analyst: RDA</b>			<b>Preparation Method: EPA 1638</b>				
* Boron, Dissolved	2/14/22 12:00	2/17/22 10:31		1.015	0.0938	mg/L	0.030000	0.1015	J
* Calcium, Dissolved	2/14/22 12:00	2/17/22 12:46		20.3	42.2	mg/L	1.4007	8.12	
* Iron, Dissolved	2/14/22 12:00	2/17/22 10:31		1.015	0.140	mg/L	0.008120	0.0406	
* Lithium, Dissolved	2/14/22 12:00	2/17/22 10:31		1.015	0.0797	mg/L	0.007105	0.01999956	
* Magnesium, Dissolved	2/14/22 12:00	2/17/22 10:31		1.015	10.2	mg/L	0.021315	0.406	
Silica, Dissolved (calc.)	2/14/22 12:00	2/17/22 10:31		1	11.6	mg/L			
Silicon, Dissolved	2/14/22 12:00	2/17/22 10:31		1.015	5.40	mg/L	0.02030	0.25375	
* Sodium, Dissolved	2/14/22 12:00	2/17/22 12:46		20.3	481	mg/L	0.609	8.12	
<b>Analytical Method: EPA 200.8</b>		<b>Analyst: ABB</b>			<b>Preparation Method: EPA 1638</b>				
* Antimony, Total	2/16/22 10:47	2/18/22 13:09		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Aluminum, Total	2/16/22 10:47	2/18/22 13:09		1.015	0.0253	mg/L	0.004060	0.01015	
* Arsenic, Total	2/16/22 10:47	2/18/22 13:09		1.015	0.00551	mg/L	0.000068	0.000203	
* Barium, Total	2/16/22 10:47	2/18/22 13:09		1.015	0.0631	mg/L	0.000102	0.000203	
* Beryllium, Total	2/16/22 10:47	2/18/22 13:09		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Total	2/16/22 10:47	2/18/22 13:09		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Total	2/16/22 10:47	2/18/22 13:09		1.015	0.000410	mg/L	0.000203	0.001015	J
* Cobalt, Total	2/16/22 10:47	2/18/22 13:09		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Lead, Total	2/16/22 10:47	2/18/22 13:09		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Total	2/16/22 10:47	2/18/22 13:09		1.015	0.0259	mg/L	0.000068	0.000203	
* Molybdenum, Total	2/16/22 10:47	2/18/22 13:09		1.015	0.0819	mg/L	0.000068	0.000203	
* Potassium, Total	2/16/22 10:47	2/18/22 13:09		1.015	73.2	mg/L	0.169505	0.5075	

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.

# Certificate Of Analysis

**Description:** Gorgas Ash Pond - MW-21V

**Location Code:** WMWGORAP  
**Collected:** 2/8/22 13:38  
**Customer ID:**  
**Submittal Date:** 2/9/22 16:41

**Laboratory ID Number:** BC02837

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
* Selenium, Total	2/16/22 10:47	2/18/22 13:09		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Total	2/16/22 10:47	2/18/22 13:09		1.015	Not Detected	mg/L	0.000068	0.000203	U
<b>Analytical Method: EPA 200.8</b>		<b>Analyst: ABB</b>							
* Antimony, Dissolved	2/16/22 11:25	2/16/22 16:31		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Aluminum, Dissolved	2/16/22 11:25	2/16/22 16:31		1.015	0.00979	mg/L	0.004060	0.01015	J
* Arsenic, Dissolved	2/16/22 11:25	2/16/22 16:31		1.015	0.00494	mg/L	0.000068	0.000203	
* Barium, Dissolved	2/16/22 11:25	2/16/22 16:31		1.015	0.0556	mg/L	0.000102	0.000203	
* Beryllium, Dissolved	2/16/22 11:25	2/16/22 16:31		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Dissolved	2/16/22 11:25	2/16/22 16:31		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Dissolved	2/16/22 11:25	2/16/22 16:31		1.015	Not Detected	mg/L	0.000203	0.001015	U
* Cobalt, Dissolved	2/16/22 11:25	2/16/22 16:31		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Lead, Dissolved	2/16/22 11:25	2/16/22 16:31		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Dissolved	2/16/22 11:25	2/16/22 16:31		1.015	0.0256	mg/L	0.000068	0.000203	
* Molybdenum, Dissolved	2/16/22 11:25	2/16/22 16:31		1.015	0.0769	mg/L	0.000068	0.000203	
* Potassium, Dissolved	2/16/22 11:25	2/16/22 16:31		1.015	73.5	mg/L	0.169505	0.5075	
* Selenium, Dissolved	2/16/22 11:25	2/16/22 16:31		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Dissolved	2/16/22 11:25	2/16/22 16:31		1.015	Not Detected	mg/L	0.000068	0.000203	U
<b>Analytical Method: EPA 245.1</b>		<b>Analyst: CRB</b>							
* Mercury, Total by CVAA	2/10/22 13:23	2/10/22 20:33		1	Not Detected	mg/L	0.0003	0.0005	U
<b>Analytical Method: EPA 353.2</b>		<b>Analyst: ELH</b>							
* Nitrogen, Nitrate/Nitrite	2/14/22 14:58	2/14/22 14:58		1	Not Detected	mg/L as N	0.20	0.3	U
<b>Analytical Method: SM 2320 B</b>		<b>Analyst: ALH</b>							
Alkalinity, Total as CaCO3	2/17/22 11:20	2/17/22 12:20		1	225	mg/L		0.1	
<b>Analytical Method: SM 2540C</b>		<b>Analyst: CNJ</b>							
* Solids, Dissolved	2/10/22 11:15	2/11/22 13:20		1	1360	mg/L		125	
<b>Analytical Method: SM 4500CO2 D</b>		<b>Analyst: ALH</b>							
Bicarbonate Alkalinity, (calc.)	2/17/22 11:20	2/17/22 12:20		1	223	mg/L			A
Carbonate Alkalinity, (calc.)	2/17/22 11:20	2/17/22 12:20		1	1.87	mg/L			A
<b>Analytical Method: SM 5310 B</b>		<b>Analyst: ELH</b>							
* Total Organic Carbon	2/16/22 17:14	2/16/22 17:14		1	4.98	mg/L	1.00	2	

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.

# Certificate Of Analysis

**Description:** Gorgas Ash Pond - MW-21V

**Location Code:** WMWGORAP

**Collected:** 2/8/22 13:38

**Customer ID:**

**Submittal Date:** 2/9/22 16:41

**Laboratory ID Number:** BC02837

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
<b>Analytical Method: SM4500Cl E</b>		<b>Analyst: JCC</b>							
* Chloride	2/10/22 10:34	2/10/22 10:34		40	432	mg/L	20.00	40	
<b>Analytical Method: SM4500F G 2017</b>		<b>Analyst: JCC</b>							
* Fluoride	2/10/22 16:29	2/10/22 16:29		1	0.398	mg/L	0.06	0.1	
<b>Analytical Method: SM4500SO4 E 2011</b>		<b>Analyst: JCC</b>							
* Sulfate	2/14/22 15:09	2/14/22 15:09		25	451	mg/L	12.50	25	
<b>Analytical Method: Field Measurements</b>		<b>Analyst: DKG</b>							
Conductivity	2/8/22 13:35	2/8/22 13:35			2592.81	uS/cm			FA
pH	2/8/22 13:35	2/8/22 13:35			7.98	SU			FA
Temperature	2/8/22 13:35	2/8/22 13:35			17.18	C			FA
Turbidity	2/8/22 13:35	2/8/22 13:35			4.76	NTU			FA

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.

# Batch QC Summary

**Customer Account:** WMWGORAP

**Sample Date:** 2/8/22 13:38

**Customer ID:**

**Delivery Date:** 2/9/22 16:41

**Description:** Gorgas Ash Pond - MW-21V

**Laboratory ID Number:** BC02837

Sample	Analysis	Units	MB	MB				Standard		Rec			Prec Limit
				Limit	Spike	MS	MSD	Standard	Limit	Rec	Limit	Prec	
BC02838	Aluminum, Dissolved	mg/L	0.0000565	0.010	0.100	0.106	0.109	0.0990	0.0850 to 0.115	94.1	70.0 to 130	2.79	20.0
BC03238	Aluminum, Total	mg/L	0.000788	0.010	0.100	0.101	0.102	0.100	0.0850 to 0.115	101	70.0 to 130	0.985	20.0
BC02838	Antimony, Dissolved	mg/L	0.000176	0.00100	0.100	0.0907	0.0886	0.0917	0.0850 to 0.115	90.7	70.0 to 130	2.34	20.0
BC03238	Antimony, Total	mg/L	0.000222	0.00100	0.100	0.0960	0.0976	0.0973	0.0850 to 0.115	96.0	70.0 to 130	1.65	20.0
BC02838	Arsenic, Dissolved	mg/L	0.0000108	0.000176	0.100	0.0970	0.0973	0.100	0.0850 to 0.115	96.6	70.0 to 130	0.309	20.0
BC03238	Arsenic, Total	mg/L	0.000012	0.000176	0.100	0.104	0.103	0.104	0.0850 to 0.115	104	70.0 to 130	0.966	20.0
BC02838	Barium, Dissolved	mg/L	0.00000	0.000200	0.100	0.227	0.227	0.0940	0.0850 to 0.115	93.0	70.0 to 130	0.00	20.0
BC03238	Barium, Total	mg/L	-0.0000261	0.000200	0.100	0.409	0.411	0.104	0.0850 to 0.115	94.0	70.0 to 130	0.488	20.0
BC02838	Beryllium, Dissolved	mg/L	0.000136	0.000880	0.100	0.103	0.103	0.0981	0.0850 to 0.115	103	70.0 to 130	0.00	20.0
BC03238	Beryllium, Total	mg/L	0.000124	0.000880	0.100	0.0996	0.0983	0.103	0.0850 to 0.115	99.6	70.0 to 130	1.31	20.0
BC02838	Boron, Dissolved	mg/L	-0.000566	0.0650	1.00	1.06	1.05	1.03	0.850 to 1.15	106	70.0 to 130	0.948	20.0
BC02838	Boron, Total	mg/L	-0.000727	0.0650	1.00	1.02	1.04	1.02	0.850 to 1.15	102	70.0 to 130	1.94	20.0
BC02838	Cadmium, Dissolved	mg/L	0.0000045	0.000147	0.100	0.0941	0.0912	0.0943	0.0850 to 0.115	94.1	70.0 to 130	3.13	20.0
BC03238	Cadmium, Total	mg/L	0.0000051	0.000147	0.100	0.105	0.104	0.106	0.0850 to 0.115	105	70.0 to 130	0.957	20.0
BC02838	Calcium, Dissolved	mg/L	-0.0177	0.152	5.00	10.8	10.7	4.85	4.25 to 5.75	103	70.0 to 130	0.930	20.0
BC02838	Calcium, Total	mg/L	-0.0128	0.152	5.00	10.6	10.1	4.73	4.25 to 5.75	97.4	70.0 to 130	4.83	20.0
BC02838	Chromium, Dissolved	mg/L	-0.0000309	0.000440	0.100	0.0973	0.0995	0.102	0.0850 to 0.115	97.3	70.0 to 130	2.24	20.0
BC03238	Chromium, Total	mg/L	0.0000153	0.000440	0.100	0.103	0.103	0.105	0.0850 to 0.115	103	70.0 to 130	0.00	20.0
BC02838	Cobalt, Dissolved	mg/L	0.0000091	0.000147	0.100	0.101	0.103	0.105	0.0850 to 0.115	101	70.0 to 130	1.96	20.0
BC03238	Cobalt, Total	mg/L	0.000006	0.000147	0.100	0.104	0.105	0.108	0.0850 to 0.115	104	70.0 to 130	0.957	20.0
BC02838	Iron, Dissolved	mg/L	-0.000454	0.0176	0.2	0.201	0.201	0.202	0.170 to 0.230	100	70.0 to 130	0.00	20.0
BC02838	Iron, Total	mg/L	-0.000473	0.0176	0.2	0.205	0.207	0.200	0.170 to 0.230	97.2	70.0 to 130	0.971	20.0
BC02838	Lead, Dissolved	mg/L	0.0000107	0.000147	0.100	0.102	0.101	0.101	0.0850 to 0.115	102	70.0 to 130	0.985	20.0

**Comments:** The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.



# Batch QC Summary

**Customer Account:** WMWGORAP  
**Sample Date:** 2/8/22 13:38  
**Customer ID:**  
**Delivery Date:** 2/9/22 16:41

**Description:** Gorgas Ash Pond - MW-21V

**Laboratory ID Number:** BC02837

Sample	Analysis	Units	MB	MB				Standard		Rec		Prec	Limit
				Limit	Spike	MS	MSD	Standard	Limit	Rec	Limit		
BC03238	Lead, Total	mg/L	0.0000018	0.000147	0.100	0.107	0.104	0.109	0.0850 to 0.115	107	70.0 to 130	2.84	20.0
BC02838	Lithium, Dissolved	mg/L	-0.000064	0.0154	0.200	0.232	0.227	0.202	0.170 to 0.230	97.5	70.0 to 130	2.18	20.0
BC02838	Lithium, Total	mg/L	0.000026	0.0154	0.200	0.235	0.242	0.202	0.170 to 0.230	99.2	70.0 to 130	2.94	20.0
BC02838	Magnesium, Dissolved	mg/L	0.000534	0.0462	5.00	7.08	6.91	5.13	4.25 to 5.75	100	70.0 to 130	2.43	20.0
BC02838	Magnesium, Total	mg/L	-0.0120	0.0462	5.00	7.08	7.09	5.03	4.25 to 5.75	101	70.0 to 130	0.141	20.0
BC02838	Manganese, Dissolved	mg/L	-0.000126	0.0002	0.100	0.109	0.111	0.104	0.0850 to 0.115	99.3	70.0 to 130	1.82	20.0
BC03238	Manganese, Total	mg/L	0.0000678	0.0002	0.100	0.135	0.136	0.106	0.0850 to 0.115	103	70.0 to 130	0.738	20.0
BC02838	Mercury, Total by CVAA	mg/L	0.00015	0.000500	0.004	0.00414	0.00408	0.00415	0.00340 to 0.00460	104	70.0 to 130	1.46	20.0
BC02838	Molybdenum, Dissolved	mg/L	0.0000073	0.0002	0.100	0.103	0.102	0.0999	0.0850 to 0.115	97.1	70.0 to 130	0.976	20.0
BC03238	Molybdenum, Total	mg/L	0.0000199	0.0002	0.100	0.106	0.106	0.105	0.0850 to 0.115	103	70.0 to 130	0.00	20.0
BC02838	Potassium, Dissolved	mg/L	-0.0162	0.367	10.0	11.2	11.4	9.99	8.50 to 11.5	94.9	70.0 to 130	1.77	20.0
BC03238	Potassium, Total	mg/L	0.00661	0.367	10.0	12.2	12.2	10.3	8.50 to 11.5	101	70.0 to 130	0.00	20.0
BC02838	Selenium, Dissolved	mg/L	-0.0000165	0.00100	0.100	0.0889	0.0886	0.0976	0.0850 to 0.115	74.5	70.0 to 130	0.338	20.0
BC03238	Selenium, Total	mg/L	0.0000249	0.00100	0.100	0.108	0.107	0.107	0.0850 to 0.115	108	70.0 to 130	0.930	20.0
BC02838	Silicon, Dissolved	mg/L	-0.00084	0.0440	1.00	10.1	10.2	1.04	0.850 to 1.15	35.0	70.0 to 130	0.985	20.0
BC02838	Silicon, Total	mg/L	-0.000052	0.0440	1.00	9.90	9.96	1.03	0.850 to 1.15	110	70.0 to 130	0.604	20.0
BC02838	Sodium, Dissolved	mg/L	0.000535	0.0660	5.00	133	127	5.06	4.25 to 5.75	-40.0	70.0 to 130	4.62	20.0
BC02838	Sodium, Total	mg/L	0.00310	0.0660	5.00	123	123	4.97	4.25 to 5.75	0.00	70.0 to 130	0.00	20.0
BC02838	Thallium, Dissolved	mg/L	-0.0000004	0.000147	0.100	0.100	0.0974	0.103	0.0850 to 0.115	100	70.0 to 130	2.63	20.0
BC03238	Thallium, Total	mg/L	0.0000004	0.000147	0.100	0.110	0.104	0.111	0.0850 to 0.115	110	70.0 to 130	5.61	20.0
BC03237	Total Organic Carbon	mg/L	0.320	1.00	10.0	10.6	11.1	24.7		95.4	80.0 to 120	4.61	20.0

**Comments:** The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.

## Batch QC Summary

**Customer Account:** WMWGORAP

**Sample Date:** 2/8/22 13:38

**Customer ID:**

**Delivery Date:** 2/9/22 16:41

**Description:** Gorgas Ash Pond - MW-21V

**Laboratory ID Number:** BC02837

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BC02838	Alkalinity, Total as CaCO3	mg/L					226	51.7	45.0 to 55.0			2.19	10.0
BC02838	Chloride	mg/L	-0.0265	1.00	50.0	80.4	27.2	10.1	9.00 to 11.0	95.8	80.0 to 120	17.8	20.0
BC02838	Fluoride	mg/L	-0.0198	0.125	2.50	2.71	0.122	2.66	2.25 to 2.75	104	80.0 to 120	2.49	20.0
BC02838	Nitrogen, Nitrate/Nitrite	mg/L as N	0.01	0.200	2.00	2.02	-0.002	1.84	1.80 to 2.20	101	90.0 to 110	0.00	15.0
BC02838	Solids, Dissolved	mg/L	-2.00	25.0			283	52.0	40.0 to 60.0			0.704	10.0
BC02838	Sulfate	mg/L	-0.206	2.0	20.0	46.7	29.3	20.1	18.0 to 22.0	86.0	80.0 to 120	0.680	20.0

**Comments:** The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.

# Certificate Of Analysis

**Description:** Gorgas Ash Pond - MW-31H

**Location Code:** WMWGORAP  
**Collected:** 2/8/22 16:04  
**Customer ID:**  
**Submittal Date:** 2/9/22 16:41

**Laboratory ID Number:** BC02838

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q	
<b>Analytical Method: EPA 200.7</b>		<b>Analyst: RDA</b>			<b>Preparation Method: EPA 1638</b>					
* Boron, Total	2/14/22 12:00	2/17/22 11:50		1.015	Not Detected	mg/L	0.030000	0.1015	U	
* Calcium, Total	2/14/22 12:00	2/17/22 11:50		1.015	5.73	mg/L	0.070035	0.406		
* Iron, Total	2/14/22 12:00	2/17/22 11:50		1.015	0.0107	mg/L	0.008120	0.0406	J	
* Lithium, Total	2/14/22 12:00	2/17/22 11:50		1.015	0.0366	mg/L	0.007105	0.01999956		
* Magnesium, Total	2/14/22 12:00	2/17/22 11:50		1.015	2.05	mg/L	0.021315	0.406		
Silica, Total (calc.)	2/14/22 12:00	2/17/22 11:50		1	18.8	mg/L				
Silicon, Total	2/14/22 12:00	2/17/22 11:50		1.015	8.80	mg/L	0.02030	0.25375		
* Sodium, Total	2/14/22 12:00	2/17/22 13:33		10.15	123	mg/L	0.3045	4.06	RA	
<b>Analytical Method: EPA 200.7</b>		<b>Analyst: RDA</b>			<b>Preparation Method: EPA 1638</b>					
* Boron, Dissolved	2/14/22 12:00	2/17/22 10:33		1.015	Not Detected	mg/L	0.030000	0.1015	U	
* Calcium, Dissolved	2/14/22 12:00	2/17/22 10:33		1.015	5.64	mg/L	0.070035	0.406		
* Iron, Dissolved	2/14/22 12:00	2/17/22 10:33		1.015	Not Detected	mg/L	0.008120	0.0406	U	
* Lithium, Dissolved	2/14/22 12:00	2/17/22 10:33		1.015	0.0370	mg/L	0.007105	0.01999956		
* Magnesium, Dissolved	2/14/22 12:00	2/17/22 10:33		1.015	2.08	mg/L	0.021315	0.406		
Silica, Dissolved (calc.)	2/14/22 12:00	2/17/22 10:33		1	20.9	mg/L				
Silicon, Dissolved	2/14/22 12:00	2/17/22 10:33		1.015	9.75	mg/L	0.02030	0.25375	RA	
* Sodium, Dissolved	2/14/22 12:00	2/17/22 12:48		10.15	135	mg/L	0.3045	4.06	RA	
<b>Analytical Method: EPA 200.8</b>		<b>Analyst: ABB</b>			<b>Preparation Method: EPA 1638</b>					
* Antimony, Total	2/16/22 10:47	2/18/22 13:12		1.015	Not Detected	mg/L	0.000508	0.001015	U	
* Aluminum, Total	2/16/22 10:47	2/18/22 13:12		1.015	0.0196	mg/L	0.004060	0.01015		
* Arsenic, Total	2/16/22 10:47	2/18/22 13:12		1.015	0.000341	mg/L	0.000068	0.000203		
* Barium, Total	2/16/22 10:47	2/18/22 13:12		1.015	0.140	mg/L	0.000102	0.000203		
* Beryllium, Total	2/16/22 10:47	2/18/22 13:12		1.015	Not Detected	mg/L	0.000406	0.001015	U	
* Cadmium, Total	2/16/22 10:47	2/18/22 13:12		1.015	Not Detected	mg/L	0.000068	0.000203	U	
* Chromium, Total	2/16/22 10:47	2/18/22 13:12		1.015	0.000271	mg/L	0.000203	0.001015	J	
* Cobalt, Total	2/16/22 10:47	2/18/22 13:12		1.015	Not Detected	mg/L	0.000068	0.000203	U	
* Lead, Total	2/16/22 10:47	2/18/22 13:12		1.015	Not Detected	mg/L	0.000068	0.000203	U	
* Manganese, Total	2/16/22 10:47	2/18/22 13:12		1.015	0.00989	mg/L	0.000068	0.000203		
* Molybdenum, Total	2/16/22 10:47	2/18/22 13:12		1.015	0.00596	mg/L	0.000068	0.000203		
* Potassium, Total	2/16/22 10:47	2/18/22 13:12		1.015	1.74	mg/L	0.169505	0.5075		

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.

# Certificate Of Analysis

**Description:** Gorgas Ash Pond - MW-31H

**Location Code:** WMWGORAP  
**Collected:** 2/8/22 16:04  
**Customer ID:**  
**Submittal Date:** 2/9/22 16:41

**Laboratory ID Number:** BC02838

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
* Selenium, Total	2/16/22 10:47	2/18/22 13:12		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Total	2/16/22 10:47	2/18/22 13:12		1.015	Not Detected	mg/L	0.000068	0.000203	U
<b>Analytical Method: EPA 200.8</b>		<b>Analyst: ABB</b>							
* Antimony, Dissolved	2/16/22 11:25	2/16/22 16:42		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Aluminum, Dissolved	2/16/22 11:25	2/16/22 16:42		1.015	0.0119	mg/L	0.004060	0.01015	
* Arsenic, Dissolved	2/16/22 11:25	2/16/22 16:42		1.015	0.000379	mg/L	0.000068	0.000203	
* Barium, Dissolved	2/16/22 11:25	2/16/22 16:42		1.015	0.134	mg/L	0.000102	0.000203	
* Beryllium, Dissolved	2/16/22 11:25	2/16/22 16:42		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Dissolved	2/16/22 11:25	2/16/22 16:42		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Dissolved	2/16/22 11:25	2/16/22 16:42		1.015	Not Detected	mg/L	0.000203	0.001015	U
* Cobalt, Dissolved	2/16/22 11:25	2/16/22 16:42		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Lead, Dissolved	2/16/22 11:25	2/16/22 16:42		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Dissolved	2/16/22 11:25	2/16/22 16:42		1.015	0.00971	mg/L	0.000068	0.000203	
* Molybdenum, Dissolved	2/16/22 11:25	2/16/22 16:42		1.015	0.00589	mg/L	0.000068	0.000203	
* Potassium, Dissolved	2/16/22 11:25	2/16/22 16:42		1.015	1.71	mg/L	0.169505	0.5075	
* Selenium, Dissolved	2/16/22 11:25	2/16/22 16:42		1.015	0.0144	mg/L	0.000508	0.001015	
* Thallium, Dissolved	2/16/22 11:25	2/16/22 16:42		1.015	Not Detected	mg/L	0.000068	0.000203	U
<b>Analytical Method: EPA 245.1</b>		<b>Analyst: CRB</b>							
* Mercury, Total by CVAA	2/10/22 13:23	2/10/22 20:37		1	Not Detected	mg/L	0.0003	0.0005	U
<b>Analytical Method: EPA 353.2</b>		<b>Analyst: ELH</b>							
* Nitrogen, Nitrate/Nitrite	2/14/22 14:59	2/14/22 14:59		1	Not Detected	mg/L as N	0.20	0.3	U
<b>Analytical Method: SM 2320 B</b>		<b>Analyst: ALH</b>							
Alkalinity, Total as CaCO3	2/17/22 11:20	2/17/22 12:20		1	231	mg/L		0.1	
<b>Analytical Method: SM 2540C</b>		<b>Analyst: CNJ</b>							
* Solids, Dissolved	2/10/22 11:15	2/11/22 13:20		1	285	mg/L		25	
<b>Analytical Method: SM 4500CO2 D</b>		<b>Analyst: ALH</b>							
Bicarbonate Alkalinity, (calc.)	2/17/22 11:20	2/17/22 12:20		1	225	mg/L			
Carbonate Alkalinity, (calc.)	2/17/22 11:20	2/17/22 12:20		1	5.96	mg/L			
<b>Analytical Method: SM 5310 B</b>		<b>Analyst: ELH</b>							
* Total Organic Carbon	2/16/22 17:32	2/16/22 17:32		1	Not Detected	mg/L	1.00	2	U

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.

# Certificate Of Analysis

**Description:** Gorgas Ash Pond - MW-31H

**Location Code:** WMWGORAP

**Collected:** 2/8/22 16:04

**Customer ID:**

**Submittal Date:** 2/9/22 16:41

**Laboratory ID Number:** BC02838

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
<b>Analytical Method: SM4500Cl E</b>		<b>Analyst: JCC</b>							
* Chloride	2/10/22 10:35	2/10/22 10:35		5	32.5	mg/L	2.50	5	
<b>Analytical Method: SM4500F G 2017</b>		<b>Analyst: JCC</b>							
* Fluoride	2/10/22 16:31	2/10/22 16:31		1	0.119	mg/L	0.06	0.1	
<b>Analytical Method: SM4500SO4 E 2011</b>		<b>Analyst: JCC</b>							
* Sulfate	2/14/22 14:58	2/14/22 14:58		1	29.5	mg/L	0.50	1	
<b>Analytical Method: Field Measurements</b>		<b>Analyst: DKG</b>							
Conductivity	2/8/22 16:00	2/8/22 16:00			478.43	uS/cm			FA
pH	2/8/22 16:00	2/8/22 16:00			8.53	SU			FA
Temperature	2/8/22 16:00	2/8/22 16:00			16.02	C			FA
Turbidity	2/8/22 16:00	2/8/22 16:00			1.16	NTU			FA

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.

# Batch QC Summary

**Customer Account:** WMWGORAP

**Sample Date:** 2/8/22 16:04

**Customer ID:**

**Delivery Date:** 2/9/22 16:41

**Description:** Gorgas Ash Pond - MW-31H

**Laboratory ID Number:** BC02838

Sample	Analysis	Units	MB	MB				Standard		Rec			Prec Limit
				Limit	Spike	MS	MSD	Standard	Limit	Rec	Limit	Prec	
BC02838	Aluminum, Dissolved	mg/L	0.0000565	0.010	0.100	0.106	0.109	0.0990	0.0850 to 0.115	94.1	70.0 to 130	2.79	20.0
BC03238	Aluminum, Total	mg/L	0.000788	0.010	0.100	0.101	0.102	0.100	0.0850 to 0.115	101	70.0 to 130	0.985	20.0
BC02838	Antimony, Dissolved	mg/L	0.000176	0.00100	0.100	0.0907	0.0886	0.0917	0.0850 to 0.115	90.7	70.0 to 130	2.34	20.0
BC03238	Antimony, Total	mg/L	0.000222	0.00100	0.100	0.0960	0.0976	0.0973	0.0850 to 0.115	96.0	70.0 to 130	1.65	20.0
BC02838	Arsenic, Dissolved	mg/L	0.0000108	0.000176	0.100	0.0970	0.0973	0.100	0.0850 to 0.115	96.6	70.0 to 130	0.309	20.0
BC03238	Arsenic, Total	mg/L	0.000012	0.000176	0.100	0.104	0.103	0.104	0.0850 to 0.115	104	70.0 to 130	0.966	20.0
BC02838	Barium, Dissolved	mg/L	0.00000	0.000200	0.100	0.227	0.227	0.0940	0.0850 to 0.115	93.0	70.0 to 130	0.00	20.0
BC03238	Barium, Total	mg/L	-0.0000261	0.000200	0.100	0.409	0.411	0.104	0.0850 to 0.115	94.0	70.0 to 130	0.488	20.0
BC02838	Beryllium, Dissolved	mg/L	0.000136	0.000880	0.100	0.103	0.103	0.0981	0.0850 to 0.115	103	70.0 to 130	0.00	20.0
BC03238	Beryllium, Total	mg/L	0.000124	0.000880	0.100	0.0996	0.0983	0.103	0.0850 to 0.115	99.6	70.0 to 130	1.31	20.0
BC02838	Boron, Dissolved	mg/L	-0.000566	0.0650	1.00	1.06	1.05	1.03	0.850 to 1.15	106	70.0 to 130	0.948	20.0
BC02838	Boron, Total	mg/L	-0.000727	0.0650	1.00	1.02	1.04	1.02	0.850 to 1.15	102	70.0 to 130	1.94	20.0
BC02838	Cadmium, Dissolved	mg/L	0.0000045	0.000147	0.100	0.0941	0.0912	0.0943	0.0850 to 0.115	94.1	70.0 to 130	3.13	20.0
BC03238	Cadmium, Total	mg/L	0.0000051	0.000147	0.100	0.105	0.104	0.106	0.0850 to 0.115	105	70.0 to 130	0.957	20.0
BC02838	Calcium, Dissolved	mg/L	-0.0177	0.152	5.00	10.8	10.7	4.85	4.25 to 5.75	103	70.0 to 130	0.930	20.0
BC02838	Calcium, Total	mg/L	-0.0128	0.152	5.00	10.6	10.1	4.73	4.25 to 5.75	97.4	70.0 to 130	4.83	20.0
BC02838	Chromium, Dissolved	mg/L	-0.0000309	0.000440	0.100	0.0973	0.0995	0.102	0.0850 to 0.115	97.3	70.0 to 130	2.24	20.0
BC03238	Chromium, Total	mg/L	0.0000153	0.000440	0.100	0.103	0.103	0.105	0.0850 to 0.115	103	70.0 to 130	0.00	20.0
BC02838	Cobalt, Dissolved	mg/L	0.0000091	0.000147	0.100	0.101	0.103	0.105	0.0850 to 0.115	101	70.0 to 130	1.96	20.0
BC03238	Cobalt, Total	mg/L	0.000006	0.000147	0.100	0.104	0.105	0.108	0.0850 to 0.115	104	70.0 to 130	0.957	20.0
BC02838	Iron, Dissolved	mg/L	-0.000454	0.0176	0.2	0.201	0.201	0.202	0.170 to 0.230	100	70.0 to 130	0.00	20.0
BC02838	Iron, Total	mg/L	-0.000473	0.0176	0.2	0.205	0.207	0.200	0.170 to 0.230	97.2	70.0 to 130	0.971	20.0
BC02838	Lead, Dissolved	mg/L	0.0000107	0.000147	0.100	0.102	0.101	0.101	0.0850 to 0.115	102	70.0 to 130	0.985	20.0

**Comments:** The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.

# Batch QC Summary

**Customer Account:** WMWGORAP  
**Sample Date:** 2/8/22 16:04  
**Customer ID:**  
**Delivery Date:** 2/9/22 16:41

**Description:** Gorgas Ash Pond - MW-31H

**Laboratory ID Number:** BC02838

Sample	Analysis	Units	MB	MB				Standard		Rec		Prec	Limit
				Limit	Spike	MS	MSD	Standard	Limit	Rec	Limit		
BC03238	Lead, Total	mg/L	0.0000018	0.000147	0.100	0.107	0.104	0.109	0.0850 to 0.115	107	70.0 to 130	2.84	20.0
BC02838	Lithium, Dissolved	mg/L	-0.000064	0.0154	0.200	0.232	0.227	0.202	0.170 to 0.230	97.5	70.0 to 130	2.18	20.0
BC02838	Lithium, Total	mg/L	0.000026	0.0154	0.200	0.235	0.242	0.202	0.170 to 0.230	99.2	70.0 to 130	2.94	20.0
BC02838	Magnesium, Dissolved	mg/L	0.000534	0.0462	5.00	7.08	6.91	5.13	4.25 to 5.75	100	70.0 to 130	2.43	20.0
BC02838	Magnesium, Total	mg/L	-0.0120	0.0462	5.00	7.08	7.09	5.03	4.25 to 5.75	101	70.0 to 130	0.141	20.0
BC02838	Manganese, Dissolved	mg/L	-0.000126	0.0002	0.100	0.109	0.111	0.104	0.0850 to 0.115	99.3	70.0 to 130	1.82	20.0
BC03238	Manganese, Total	mg/L	0.0000678	0.0002	0.100	0.135	0.136	0.106	0.0850 to 0.115	103	70.0 to 130	0.738	20.0
BC02838	Mercury, Total by CVAA	mg/L	0.00015	0.000500	0.004	0.00414	0.00408	0.00415	0.00340 to 0.00460	104	70.0 to 130	1.46	20.0
BC02838	Molybdenum, Dissolved	mg/L	0.0000073	0.0002	0.100	0.103	0.102	0.0999	0.0850 to 0.115	97.1	70.0 to 130	0.976	20.0
BC03238	Molybdenum, Total	mg/L	0.0000199	0.0002	0.100	0.106	0.106	0.105	0.0850 to 0.115	103	70.0 to 130	0.00	20.0
BC02838	Potassium, Dissolved	mg/L	-0.0162	0.367	10.0	11.2	11.4	9.99	8.50 to 11.5	94.9	70.0 to 130	1.77	20.0
BC03238	Potassium, Total	mg/L	0.00661	0.367	10.0	12.2	12.2	10.3	8.50 to 11.5	101	70.0 to 130	0.00	20.0
BC02838	Selenium, Dissolved	mg/L	-0.0000165	0.00100	0.100	0.0889	0.0886	0.0976	0.0850 to 0.115	74.5	70.0 to 130	0.338	20.0
BC03238	Selenium, Total	mg/L	0.0000249	0.00100	0.100	0.108	0.107	0.107	0.0850 to 0.115	108	70.0 to 130	0.930	20.0
BC02838	Silicon, Dissolved	mg/L	-0.00084	0.0440	1.00	10.1	10.2	1.04	0.850 to 1.15	35.0	70.0 to 130	0.985	20.0
BC02838	Silicon, Total	mg/L	-0.000052	0.0440	1.00	9.90	9.96	1.03	0.850 to 1.15	110	70.0 to 130	0.604	20.0
BC02838	Sodium, Dissolved	mg/L	0.000535	0.0660	5.00	133	127	5.06	4.25 to 5.75	-40.0	70.0 to 130	4.62	20.0
BC02838	Sodium, Total	mg/L	0.00310	0.0660	5.00	123	123	4.97	4.25 to 5.75	0.00	70.0 to 130	0.00	20.0
BC02838	Thallium, Dissolved	mg/L	-0.0000004	0.000147	0.100	0.100	0.0974	0.103	0.0850 to 0.115	100	70.0 to 130	2.63	20.0
BC03238	Thallium, Total	mg/L	0.0000004	0.000147	0.100	0.110	0.104	0.111	0.0850 to 0.115	110	70.0 to 130	5.61	20.0
BC03237	Total Organic Carbon	mg/L	0.320	1.00	10.0	10.6	11.1	24.7		95.4	80.0 to 120	4.61	20.0

**Comments:** The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.



## Batch QC Summary

**Customer Account:** WMWGORAP

**Sample Date:** 2/8/22 16:04

**Customer ID:**

**Delivery Date:** 2/9/22 16:41

**Description:** Gorgas Ash Pond - MW-31H

**Laboratory ID Number:** BC02838

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BC02838	Alkalinity, Total as CaCO3	mg/L					226	51.7	45.0 to 55.0			2.19	10.0
BC02838	Chloride	mg/L	-0.0265	1.00	50.0	80.4	27.2	10.1	9.00 to 11.0	95.8	80.0 to 120	17.8	20.0
BC02838	Fluoride	mg/L	-0.0198	0.125	2.50	2.71	0.122	2.66	2.25 to 2.75	104	80.0 to 120	2.49	20.0
BC02838	Nitrogen, Nitrate/Nitrite	mg/L as N	0.01	0.200	2.00	2.02	-0.002	1.84	1.80 to 2.20	101	90.0 to 110	0.00	15.0
BC02838	Solids, Dissolved	mg/L	-2.00	25.0			283	52.0	40.0 to 60.0			0.704	10.0
BC02838	Sulfate	mg/L	-0.206	2.0	20.0	46.7	29.3	20.1	18.0 to 22.0	86.0	80.0 to 120	0.680	20.0

**Comments:** The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.

# Certificate Of Analysis

**Description:** Gorgas Ash Pond - PZ-22

**Location Code:** WMWGORAP  
**Collected:** 2/14/22 10:21  
**Customer ID:**  
**Submittal Date:** 2/15/22 11:16

**Laboratory ID Number:** BC03236

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
<b>Analytical Method: EPA 200.7</b>		<b>Analyst: RDA</b>			<b>Preparation Method: EPA 1638</b>				
* Boron, Total	2/25/22 10:56	2/28/22 09:20		1.015	0.0470	mg/L	0.030000	0.1015	J
* Calcium, Total	2/25/22 10:56	2/28/22 09:20		1.015	18.1	mg/L	0.070035	0.406	
* Iron, Total	2/25/22 10:56	2/28/22 11:12		20.3	5.42	mg/L	0.1624	0.812	
* Lithium, Total	2/25/22 10:56	2/28/22 09:20		1.015	0.0550	mg/L	0.007105	0.01999956	
* Magnesium, Total	2/25/22 10:56	2/28/22 09:20		1.015	6.12	mg/L	0.021315	0.406	
Silica, Total (calc.)	2/25/22 10:56	2/28/22 09:20		1	14.3	mg/L			
Silicon, Total	2/25/22 10:56	2/28/22 09:20		1.015	6.66	mg/L	0.02030	0.25375	
* Sodium, Total	2/25/22 10:56	2/28/22 11:12		20.3	141	mg/L	0.609	8.12	
<b>Analytical Method: EPA 200.7</b>		<b>Analyst: RDA</b>			<b>Preparation Method: EPA 1638</b>				
* Boron, Dissolved	2/25/22 14:30	3/1/22 08:25		1.015	0.0463	mg/L	0.030000	0.1015	J
* Calcium, Dissolved	2/25/22 14:30	3/1/22 08:25		1.015	18.2	mg/L	0.070035	0.406	
* Iron, Dissolved	2/25/22 14:30	3/1/22 10:17		20.3	5.56	mg/L	0.1624	0.812	
* Lithium, Dissolved	2/25/22 14:30	3/1/22 08:25		1.015	0.0530	mg/L	0.007105	0.01999956	
* Magnesium, Dissolved	2/25/22 14:30	3/1/22 08:25		1.015	6.07	mg/L	0.021315	0.406	
Silica, Dissolved (calc.)	2/25/22 14:30	3/1/22 08:25		1	14.3	mg/L			
Silicon, Dissolved	2/25/22 14:30	3/1/22 08:25		1.015	6.67	mg/L	0.02030	0.25375	
* Sodium, Dissolved	2/25/22 14:30	3/1/22 10:17		20.3	143	mg/L	0.609	8.12	
<b>Analytical Method: EPA 200.8</b>		<b>Analyst: ABB</b>			<b>Preparation Method: EPA 1638</b>				
* Antimony, Total	2/16/22 10:47	2/18/22 13:16		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Aluminum, Total	2/16/22 10:47	2/18/22 13:16		1.015	Not Detected	mg/L	0.004060	0.01015	U
* Arsenic, Total	2/16/22 10:47	2/18/22 13:16		1.015	0.00358	mg/L	0.000068	0.000203	
* Barium, Total	2/16/22 10:47	2/18/22 13:16		1.015	0.0695	mg/L	0.000102	0.000203	
* Beryllium, Total	2/16/22 10:47	2/18/22 13:16		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Total	2/16/22 10:47	2/18/22 13:16		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Total	2/16/22 10:47	2/18/22 13:16		1.015	0.000221	mg/L	0.000203	0.001015	J
* Cobalt, Total	2/16/22 10:47	2/18/22 13:16		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Lead, Total	2/16/22 10:47	2/18/22 13:16		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Total	2/16/22 10:47	2/18/22 13:16		1.015	0.0932	mg/L	0.000068	0.000203	
* Molybdenum, Total	2/16/22 10:47	2/18/22 13:16		1.015	0.00419	mg/L	0.000068	0.000203	
* Potassium, Total	2/16/22 10:47	2/18/22 13:16		1.015	1.95	mg/L	0.169505	0.5075	

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.

# Certificate Of Analysis

**Description:** Gorgas Ash Pond - PZ-22

**Location Code:** WMWGORAP  
**Collected:** 2/14/22 10:21  
**Customer ID:**  
**Submittal Date:** 2/15/22 11:16

**Laboratory ID Number:** BC03236

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
* Selenium, Total	2/16/22 10:47	2/18/22 13:16		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Total	2/16/22 10:47	2/18/22 13:16		1.015	Not Detected	mg/L	0.000068	0.000203	U
<b>Analytical Method: EPA 200.8</b>		<b>Analyst: ABB</b>							
* Antimony, Dissolved	2/16/22 11:25	2/16/22 16:35		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Aluminum, Dissolved	2/16/22 11:25	2/16/22 16:35		1.015	Not Detected	mg/L	0.004060	0.01015	U
* Arsenic, Dissolved	2/16/22 11:25	2/16/22 16:35		1.015	0.00322	mg/L	0.000068	0.000203	
* Barium, Dissolved	2/16/22 11:25	2/16/22 16:35		1.015	0.0635	mg/L	0.000102	0.000203	
* Beryllium, Dissolved	2/16/22 11:25	2/16/22 16:35		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Dissolved	2/16/22 11:25	2/16/22 16:35		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Dissolved	2/16/22 11:25	2/16/22 16:35		1.015	Not Detected	mg/L	0.000203	0.001015	U
* Cobalt, Dissolved	2/16/22 11:25	2/16/22 16:35		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Lead, Dissolved	2/16/22 11:25	2/16/22 16:35		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Dissolved	2/16/22 11:25	2/16/22 16:35		1.015	0.0944	mg/L	0.000068	0.000203	
* Molybdenum, Dissolved	2/16/22 11:25	2/16/22 16:35		1.015	0.00410	mg/L	0.000068	0.000203	
* Potassium, Dissolved	2/16/22 11:25	2/16/22 16:35		1.015	1.93	mg/L	0.169505	0.5075	
* Selenium, Dissolved	2/16/22 11:25	2/16/22 16:35		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Dissolved	2/16/22 11:25	2/16/22 16:35		1.015	Not Detected	mg/L	0.000068	0.000203	U
<b>Analytical Method: EPA 245.1</b>		<b>Analyst: CRB</b>							
* Mercury, Total by CVAA	2/24/22 14:29	2/24/22 18:30		1	Not Detected	mg/L	0.0003	0.0005	U
<b>Analytical Method: EPA 353.2</b>		<b>Analyst: ELH</b>							
* Nitrogen, Nitrate/Nitrite	2/21/22 12:57	2/21/22 12:57		1	Not Detected	mg/L as N	0.20	0.3	U
<b>Analytical Method: SM 2320 B</b>		<b>Analyst: ALH</b>							
Alkalinity, Total as CaCO3	2/22/22 13:25	2/22/22 16:32		1	294	mg/L		0.1	
<b>Analytical Method: SM 2540C</b>		<b>Analyst: CNJ</b>							
* Solids, Dissolved	2/16/22 11:06	2/18/22 10:00		1	423	mg/L		25	
<b>Analytical Method: SM 4500CO2 D</b>		<b>Analyst: ALH</b>							
Bicarbonate Alkalinity, (calc.)	2/22/22 13:25	2/22/22 16:32		1	290	mg/L			
Carbonate Alkalinity, (calc.)	2/22/22 13:25	2/22/22 16:32		1	3.85	mg/L			
<b>Analytical Method: SM 5310 B</b>		<b>Analyst: ELH</b>							
* Total Organic Carbon	2/16/22 17:51	2/16/22 17:51		1	1.11	mg/L	1.00	2	J

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.

# Certificate Of Analysis

**Description:** Gorgas Ash Pond - PZ-22

**Location Code:** WMWGORAP

**Collected:** 2/14/22 10:21

**Customer ID:**

**Submittal Date:** 2/15/22 11:16

**Laboratory ID Number:** BC03236

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
<b>Analytical Method: SM4500Cl E</b>		<b>Analyst: JCC</b>							
* Chloride	2/16/22 09:38	2/16/22 09:38		1	3.10	mg/L	0.50	1	
<b>Analytical Method: SM4500F G 2017</b>		<b>Analyst: JCC</b>							
* Fluoride	2/16/22 11:19	2/16/22 11:19		1	0.422	mg/L	0.06	0.1	
<b>Analytical Method: SM4500SO4 E 2011</b>		<b>Analyst: JCC</b>							
* Sulfate	2/22/22 11:33	2/22/22 11:33		4	91.1	mg/L	2.00	4	
<b>Analytical Method: Field Measurements</b>		<b>Analyst: DKG</b>							
Conductivity	2/14/22 10:18	2/14/22 10:18			714.25	uS/cm			FA
pH	2/14/22 10:18	2/14/22 10:18			7.40	SU			FA
Temperature	2/14/22 10:18	2/14/22 10:18			17.01	C			FA
Turbidity	2/14/22 10:18	2/14/22 10:18			1.98	NTU			FA

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.

# Batch QC Summary

**Customer Account:** WMWGORAP

**Sample Date:** 2/14/22 10:21

**Customer ID:**

**Delivery Date:** 2/15/22 11:16

**Description:** Gorgas Ash Pond - PZ-22

**Laboratory ID Number:** BC03236

Sample	Analysis	Units	MB	MB				Standard		Rec			Prec Limit
				Limit	Spike	MS	MSD	Standard	Limit	Rec	Limit	Prec	
BC02838	Aluminum, Dissolved	mg/L	0.0000565	0.010	0.100	0.106	0.109	0.0990	0.0850 to 0.115	94.1	70.0 to 130	2.79	20.0
BC03238	Aluminum, Total	mg/L	0.000788	0.010	0.100	0.101	0.102	0.100	0.0850 to 0.115	101	70.0 to 130	0.985	20.0
BC02838	Antimony, Dissolved	mg/L	0.000176	0.00100	0.100	0.0907	0.0886	0.0917	0.0850 to 0.115	90.7	70.0 to 130	2.34	20.0
BC03238	Antimony, Total	mg/L	0.000222	0.00100	0.100	0.0960	0.0976	0.0973	0.0850 to 0.115	96.0	70.0 to 130	1.65	20.0
BC02838	Arsenic, Dissolved	mg/L	0.0000108	0.000176	0.100	0.0970	0.0973	0.100	0.0850 to 0.115	96.6	70.0 to 130	0.309	20.0
BC03238	Arsenic, Total	mg/L	0.000012	0.000176	0.100	0.104	0.103	0.104	0.0850 to 0.115	104	70.0 to 130	0.966	20.0
BC02838	Barium, Dissolved	mg/L	0.00000	0.000200	0.100	0.227	0.227	0.0940	0.0850 to 0.115	93.0	70.0 to 130	0.00	20.0
BC03238	Barium, Total	mg/L	-0.0000261	0.000200	0.100	0.409	0.411	0.104	0.0850 to 0.115	94.0	70.0 to 130	0.488	20.0
BC02838	Beryllium, Dissolved	mg/L	0.000136	0.000880	0.100	0.103	0.103	0.0981	0.0850 to 0.115	103	70.0 to 130	0.00	20.0
BC03238	Beryllium, Total	mg/L	0.000124	0.000880	0.100	0.0996	0.0983	0.103	0.0850 to 0.115	99.6	70.0 to 130	1.31	20.0
BC03245	Boron, Dissolved	mg/L	-0.000009	0.0650	1.00	1.07	1.08	0.958	0.850 to 1.15	100	70.0 to 130	0.930	20.0
BC03245	Boron, Total	mg/L	-0.000344	0.0650	1.00	1.08	1.07	0.988	0.850 to 1.15	101	70.0 to 130	0.930	20.0
BC02838	Cadmium, Dissolved	mg/L	0.0000045	0.000147	0.100	0.0941	0.0912	0.0943	0.0850 to 0.115	94.1	70.0 to 130	3.13	20.0
BC03238	Cadmium, Total	mg/L	0.0000051	0.000147	0.100	0.105	0.104	0.106	0.0850 to 0.115	105	70.0 to 130	0.957	20.0
BC03245	Calcium, Dissolved	mg/L	-0.0100	0.152	5.00	6.26	6.22	4.91	4.25 to 5.75	93.4	70.0 to 130	0.641	20.0
BC03245	Calcium, Total	mg/L	-0.00796	0.152	5.00	6.53	6.45	4.87	4.25 to 5.75	97.4	70.0 to 130	1.23	20.0
BC02838	Chromium, Dissolved	mg/L	-0.0000309	0.000440	0.100	0.0973	0.0995	0.102	0.0850 to 0.115	97.3	70.0 to 130	2.24	20.0
BC03238	Chromium, Total	mg/L	0.0000153	0.000440	0.100	0.103	0.103	0.105	0.0850 to 0.115	103	70.0 to 130	0.00	20.0
BC02838	Cobalt, Dissolved	mg/L	0.0000091	0.000147	0.100	0.101	0.103	0.105	0.0850 to 0.115	101	70.0 to 130	1.96	20.0
BC03238	Cobalt, Total	mg/L	0.000006	0.000147	0.100	0.104	0.105	0.108	0.0850 to 0.115	104	70.0 to 130	0.957	20.0
BC03245	Iron, Dissolved	mg/L	-0.000587	0.0176	0.2	0.279	0.272	0.200	0.170 to 0.230	98.3	70.0 to 130	2.54	20.0
BC03245	Iron, Total	mg/L	-0.0002	0.0176	0.2	0.315	0.313	0.198	0.170 to 0.230	101	70.0 to 130	0.637	20.0
BC02838	Lead, Dissolved	mg/L	0.0000107	0.000147	0.100	0.102	0.101	0.101	0.0850 to 0.115	102	70.0 to 130	0.985	20.0

**Comments:** The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.

# Batch QC Summary

**Customer Account:** WMWGORAP

**Sample Date:** 2/14/22 10:21

**Customer ID:**

**Delivery Date:** 2/15/22 11:16

**Description:** Gorgas Ash Pond - PZ-22

**Laboratory ID Number:** BC03236

Sample	Analysis	Units	MB	MB				Standard		Rec		Prec	Limit
				Limit	Spike	MS	MSD	Standard	Limit	Rec	Limit		
BC03238	Lead, Total	mg/L	0.0000018	0.000147	0.100	0.107	0.104	0.109	0.0850 to 0.115	107	70.0 to 130	2.84	20.0
BC03245	Lithium, Dissolved	mg/L	0.000167	0.0154	0.200	0.248	0.242	0.194	0.170 to 0.230	97.0	70.0 to 130	2.45	20.0
BC03245	Lithium, Total	mg/L	-0.000304	0.0154	0.200	0.258	0.258	0.204	0.170 to 0.230	101	70.0 to 130	0.00	20.0
BC03245	Magnesium, Dissolved	mg/L	-0.00744	0.0462	5.00	5.29	5.22	5.07	4.25 to 5.75	95.8	70.0 to 130	1.33	20.0
BC03245	Magnesium, Total	mg/L	-0.00541	0.0462	5.00	5.57	5.54	5.16	4.25 to 5.75	101	70.0 to 130	0.540	20.0
BC02838	Manganese, Dissolved	mg/L	-0.000126	0.0002	0.100	0.109	0.111	0.104	0.0850 to 0.115	99.3	70.0 to 130	1.82	20.0
BC03238	Manganese, Total	mg/L	0.0000678	0.0002	0.100	0.135	0.136	0.106	0.0850 to 0.115	103	70.0 to 130	0.738	20.0
BC03245	Mercury, Total by CVAA	mg/L	-9.000E-05	0.000500	0.004	0.0039	0.0039	0.00387	0.00340 to 0.00460	97.5	70.0 to 130	0.00	20.0
BC02838	Molybdenum, Dissolved	mg/L	0.0000073	0.0002	0.100	0.103	0.102	0.0999	0.0850 to 0.115	97.1	70.0 to 130	0.976	20.0
BC03238	Molybdenum, Total	mg/L	0.0000199	0.0002	0.100	0.106	0.106	0.105	0.0850 to 0.115	103	70.0 to 130	0.00	20.0
BC02838	Potassium, Dissolved	mg/L	-0.0162	0.367	10.0	11.2	11.4	9.99	8.50 to 11.5	94.9	70.0 to 130	1.77	20.0
BC03238	Potassium, Total	mg/L	0.00661	0.367	10.0	12.2	12.2	10.3	8.50 to 11.5	101	70.0 to 130	0.00	20.0
BC02838	Selenium, Dissolved	mg/L	-0.0000165	0.00100	0.100	0.0889	0.0886	0.0976	0.0850 to 0.115	74.5	70.0 to 130	0.338	20.0
BC03238	Selenium, Total	mg/L	0.0000249	0.00100	0.100	0.108	0.107	0.107	0.0850 to 0.115	108	70.0 to 130	0.930	20.0
BC03245	Silicon, Dissolved	mg/L	-0.000094	0.0440	1.00	9.17	9.20	1.00	0.850 to 1.15	105	70.0 to 130	0.327	20.0
BC03245	Silicon, Total	mg/L	-0.000132	0.0440	1.00	9.34	9.33	1.02	0.850 to 1.15	108	70.0 to 130	0.107	20.0
BC03245	Sodium, Dissolved	mg/L	-0.00619	0.0660	5.00	186	190	4.98	4.25 to 5.75	-100	70.0 to 130	2.13	20.0
BC03245	Sodium, Total	mg/L	-0.00123	0.0660	5.00	185	179	5.12	4.25 to 5.75	60.0	70.0 to 130	3.30	20.0
BC02838	Thallium, Dissolved	mg/L	-0.0000004	0.000147	0.100	0.100	0.0974	0.103	0.0850 to 0.115	100	70.0 to 130	2.63	20.0
BC03238	Thallium, Total	mg/L	0.0000004	0.000147	0.100	0.110	0.104	0.111	0.0850 to 0.115	110	70.0 to 130	5.61	20.0
BC03237	Total Organic Carbon	mg/L	0.320	1.00	10.0	10.6	11.1	24.7		95.4	80.0 to 120	4.61	20.0

**Comments:** The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.

## Batch QC Summary

**Customer Account:** WMWGORAP

**Sample Date:** 2/14/22 10:21

**Customer ID:**

**Delivery Date:** 2/15/22 11:16

**Description:** Gorgas Ash Pond - PZ-22

**Laboratory ID Number:** BC03236

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BC03249	Alkalinity, Total as CaCO3	mg/L					249	50.4	45.0 to 55.0			6.21	10.0
BC03245	Chloride	mg/L	-0.0522	1.00	10.0	18.5	8.33	10.2	9.00 to 11.0	102	80.0 to 120	0.00	20.0
BC03242	Fluoride	mg/L	-0.032	0.125	2.50	2.64	0.104	2.60	2.25 to 2.75	101	80.0 to 120	3.77	20.0
BC03245	Nitrogen, Nitrate/Nitrite	mg/L as N	-0.01	0.200	2.00	1.75	-0.022	1.91	1.80 to 2.20	87.5	90.0 to 110	0.00	15.0
BC03239	Solids, Dissolved	mg/L	1.00	25.0			500	50.0	40.0 to 60.0			2.76	10.0
BC03245	Sulfate	mg/L	-0.0815	2.0	20.0	23.3	3.65	20.4	18.0 to 22.0	96.6	80.0 to 120	8.90	20.0

**Comments:** The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.



# Certificate Of Analysis

**Description:** Gorgas Ash Pond - MW-17

**Location Code:** WMWGORAP  
**Collected:** 2/14/22 11:42  
**Customer ID:**  
**Submittal Date:** 2/15/22 11:16

**Laboratory ID Number:** BC03237

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q	
<b>Analytical Method: EPA 200.7</b>		<b>Analyst: RDA</b>			<b>Preparation Method: EPA 1638</b>					
* Boron, Total	2/25/22 10:56	2/28/22 09:22		1.015	0.0730	mg/L	0.030000	0.1015	J	
* Calcium, Total	2/25/22 10:56	2/28/22 09:22		1.015	2.17	mg/L	0.070035	0.406		
* Iron, Total	2/25/22 10:56	2/28/22 09:22		1.015	0.119	mg/L	0.008120	0.0406		
* Lithium, Total	2/25/22 10:56	2/28/22 09:22		1.015	0.0572	mg/L	0.007105	0.01999956		
* Magnesium, Total	2/25/22 10:56	2/28/22 09:22		1.015	0.703	mg/L	0.021315	0.406		
Silica, Total (calc.)	2/25/22 10:56	2/28/22 09:22		1	16.9	mg/L				
Silicon, Total	2/25/22 10:56	2/28/22 09:22		1.015	7.90	mg/L	0.02030	0.25375		
* Sodium, Total	2/25/22 10:56	2/28/22 11:14		20.3	184	mg/L	0.609	8.12		
<b>Analytical Method: EPA 200.7</b>		<b>Analyst: RDA</b>			<b>Preparation Method: EPA 1638</b>					
* Boron, Dissolved	2/25/22 14:30	3/1/22 08:26		1.015	0.0717	mg/L	0.030000	0.1015	J	
* Calcium, Dissolved	2/25/22 14:30	3/1/22 08:26		1.015	2.10	mg/L	0.070035	0.406		
* Iron, Dissolved	2/25/22 14:30	3/1/22 08:26		1.015	0.0488	mg/L	0.008120	0.0406		
* Lithium, Dissolved	2/25/22 14:30	3/1/22 08:26		1.015	0.0562	mg/L	0.007105	0.01999956		
* Magnesium, Dissolved	2/25/22 14:30	3/1/22 08:26		1.015	0.677	mg/L	0.021315	0.406		
Silica, Dissolved (calc.)	2/25/22 14:30	3/1/22 08:26		1	16.1	mg/L				
Silicon, Dissolved	2/25/22 14:30	3/1/22 08:26		1.015	7.54	mg/L	0.02030	0.25375		
* Sodium, Dissolved	2/25/22 14:30	3/1/22 10:19		20.3	191	mg/L	0.609	8.12		
<b>Analytical Method: EPA 200.8</b>		<b>Analyst: ABB</b>			<b>Preparation Method: EPA 1638</b>					
* Antimony, Total	2/16/22 10:47	2/18/22 13:19		1.015	Not Detected	mg/L	0.000508	0.001015	U	
* Aluminum, Total	2/16/22 10:47	2/18/22 13:19		1.015	0.0490	mg/L	0.004060	0.01015		
* Arsenic, Total	2/16/22 10:47	2/18/22 13:19		1.015	0.00112	mg/L	0.000068	0.000203		
* Barium, Total	2/16/22 10:47	2/18/22 13:19		1.015	0.0945	mg/L	0.000102	0.000203		
* Beryllium, Total	2/16/22 10:47	2/18/22 13:19		1.015	Not Detected	mg/L	0.000406	0.001015	U	
* Cadmium, Total	2/16/22 10:47	2/18/22 13:19		1.015	Not Detected	mg/L	0.000068	0.000203	U	
* Chromium, Total	2/16/22 10:47	2/18/22 13:19		1.015	0.000337	mg/L	0.000203	0.001015	J	
* Cobalt, Total	2/16/22 10:47	2/18/22 13:19		1.015	Not Detected	mg/L	0.000068	0.000203	U	
* Lead, Total	2/16/22 10:47	2/18/22 13:19		1.015	Not Detected	mg/L	0.000068	0.000203	U	
* Manganese, Total	2/16/22 10:47	2/18/22 13:19		1.015	0.00632	mg/L	0.000068	0.000203		
* Molybdenum, Total	2/16/22 10:47	2/18/22 13:19		1.015	0.00252	mg/L	0.000068	0.000203		
* Potassium, Total	2/16/22 10:47	2/18/22 13:19		1.015	0.830	mg/L	0.169505	0.5075		

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.

# Certificate Of Analysis

**Description:** Gorgas Ash Pond - MW-17

**Location Code:** WMWGORAP  
**Collected:** 2/14/22 11:42  
**Customer ID:**  
**Submittal Date:** 2/15/22 11:16

**Laboratory ID Number:** BC03237

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
* Selenium, Total	2/16/22 10:47	2/18/22 13:19		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Total	2/16/22 10:47	2/18/22 13:19		1.015	Not Detected	mg/L	0.000068	0.000203	U
<b>Analytical Method: EPA 200.8</b>		<b>Analyst: ABB</b>							
* Antimony, Dissolved	2/16/22 11:25	2/16/22 16:38		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Aluminum, Dissolved	2/16/22 11:25	2/16/22 16:38		1.015	0.00828	mg/L	0.004060	0.01015	J
* Arsenic, Dissolved	2/16/22 11:25	2/16/22 16:38		1.015	0.000965	mg/L	0.000068	0.000203	
* Barium, Dissolved	2/16/22 11:25	2/16/22 16:38		1.015	0.0818	mg/L	0.000102	0.000203	
* Beryllium, Dissolved	2/16/22 11:25	2/16/22 16:38		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Dissolved	2/16/22 11:25	2/16/22 16:38		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Dissolved	2/16/22 11:25	2/16/22 16:38		1.015	Not Detected	mg/L	0.000203	0.001015	U
* Cobalt, Dissolved	2/16/22 11:25	2/16/22 16:38		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Lead, Dissolved	2/16/22 11:25	2/16/22 16:38		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Dissolved	2/16/22 11:25	2/16/22 16:38		1.015	0.00504	mg/L	0.000068	0.000203	
* Molybdenum, Dissolved	2/16/22 11:25	2/16/22 16:38		1.015	0.00241	mg/L	0.000068	0.000203	
* Potassium, Dissolved	2/16/22 11:25	2/16/22 16:38		1.015	0.747	mg/L	0.169505	0.5075	
* Selenium, Dissolved	2/16/22 11:25	2/16/22 16:38		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Dissolved	2/16/22 11:25	2/16/22 16:38		1.015	Not Detected	mg/L	0.000068	0.000203	U
<b>Analytical Method: EPA 245.1</b>		<b>Analyst: CRB</b>							
* Mercury, Total by CVAA	2/24/22 14:29	2/24/22 18:34		1	Not Detected	mg/L	0.0003	0.0005	U
<b>Analytical Method: EPA 353.2</b>		<b>Analyst: ELH</b>							
* Nitrogen, Nitrate/Nitrite	2/21/22 12:59	2/21/22 12:59		1	Not Detected	mg/L as N	0.20	0.3	U
<b>Analytical Method: SM 2320 B</b>		<b>Analyst: ALH</b>							
Alkalinity, Total as CaCO3	2/22/22 13:25	2/22/22 16:32		1	382	mg/L		0.1	
<b>Analytical Method: SM 2540C</b>		<b>Analyst: CNJ</b>							
* Solids, Dissolved	2/16/22 11:06	2/18/22 10:00		1	448	mg/L		25	
<b>Analytical Method: SM 4500CO2 D</b>		<b>Analyst: ALH</b>							
Bicarbonate Alkalinity, (calc.)	2/22/22 13:25	2/22/22 16:32		1	369	mg/L			
Carbonate Alkalinity, (calc.)	2/22/22 13:25	2/22/22 16:32		1	12.6	mg/L			
<b>Analytical Method: SM 5310 B</b>		<b>Analyst: ELH</b>							
* Total Organic Carbon	2/16/22 18:10	2/16/22 18:10		1	1.06	mg/L	1.00	2	J

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.

# Certificate Of Analysis

**Description:** Gorgas Ash Pond - MW-17

**Location Code:** WMWGORAP

**Collected:** 2/14/22 11:42

**Customer ID:**

**Submittal Date:** 2/15/22 11:16

**Laboratory ID Number:** BC03237

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
<b>Analytical Method: SM4500Cl E</b>		<b>Analyst: JCC</b>							
* Chloride	2/16/22 09:39	2/16/22 09:39		1	7.15	mg/L	0.50	1	
<b>Analytical Method: SM4500F G 2017</b>		<b>Analyst: JCC</b>							
* Fluoride	2/16/22 11:20	2/16/22 11:20		1	0.206	mg/L	0.06	0.1	
<b>Analytical Method: SM4500SO4 E 2011</b>		<b>Analyst: JCC</b>							
* Sulfate	2/22/22 11:20	2/22/22 11:20		1	14.4	mg/L	0.50	1	
<b>Analytical Method: Field Measurements</b>		<b>Analyst: DKG</b>							
Conductivity	2/14/22 11:39	2/14/22 11:39			723.19	uS/cm			FA
pH	2/14/22 11:39	2/14/22 11:39			8.32	SU			FA
Temperature	2/14/22 11:39	2/14/22 11:39			17.11	C			FA
Turbidity	2/14/22 11:39	2/14/22 11:39			2.15	NTU			FA

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.

# Batch QC Summary

**Customer Account:** WMWGORAP

**Sample Date:** 2/14/22 11:42

**Customer ID:**

**Delivery Date:** 2/15/22 11:16

**Description:** Gorgas Ash Pond - MW-17

**Laboratory ID Number:** BC03237

Sample	Analysis	Units	MB	MB				Standard		Rec			Prec Limit
				Limit	Spike	MS	MSD	Standard	Limit	Rec	Limit	Prec	
BC02838	Aluminum, Dissolved	mg/L	0.0000565	0.010	0.100	0.106	0.109	0.0990	0.0850 to 0.115	94.1	70.0 to 130	2.79	20.0
BC03238	Aluminum, Total	mg/L	0.000788	0.010	0.100	0.101	0.102	0.100	0.0850 to 0.115	101	70.0 to 130	0.985	20.0
BC02838	Antimony, Dissolved	mg/L	0.000176	0.00100	0.100	0.0907	0.0886	0.0917	0.0850 to 0.115	90.7	70.0 to 130	2.34	20.0
BC03238	Antimony, Total	mg/L	0.000222	0.00100	0.100	0.0960	0.0976	0.0973	0.0850 to 0.115	96.0	70.0 to 130	1.65	20.0
BC02838	Arsenic, Dissolved	mg/L	0.0000108	0.000176	0.100	0.0970	0.0973	0.100	0.0850 to 0.115	96.6	70.0 to 130	0.309	20.0
BC03238	Arsenic, Total	mg/L	0.000012	0.000176	0.100	0.104	0.103	0.104	0.0850 to 0.115	104	70.0 to 130	0.966	20.0
BC02838	Barium, Dissolved	mg/L	0.00000	0.000200	0.100	0.227	0.227	0.0940	0.0850 to 0.115	93.0	70.0 to 130	0.00	20.0
BC03238	Barium, Total	mg/L	-0.0000261	0.000200	0.100	0.409	0.411	0.104	0.0850 to 0.115	94.0	70.0 to 130	0.488	20.0
BC02838	Beryllium, Dissolved	mg/L	0.000136	0.000880	0.100	0.103	0.103	0.0981	0.0850 to 0.115	103	70.0 to 130	0.00	20.0
BC03238	Beryllium, Total	mg/L	0.000124	0.000880	0.100	0.0996	0.0983	0.103	0.0850 to 0.115	99.6	70.0 to 130	1.31	20.0
BC03245	Boron, Dissolved	mg/L	-0.000009	0.0650	1.00	1.07	1.08	0.958	0.850 to 1.15	100	70.0 to 130	0.930	20.0
BC03245	Boron, Total	mg/L	-0.000344	0.0650	1.00	1.08	1.07	0.988	0.850 to 1.15	101	70.0 to 130	0.930	20.0
BC02838	Cadmium, Dissolved	mg/L	0.0000045	0.000147	0.100	0.0941	0.0912	0.0943	0.0850 to 0.115	94.1	70.0 to 130	3.13	20.0
BC03238	Cadmium, Total	mg/L	0.0000051	0.000147	0.100	0.105	0.104	0.106	0.0850 to 0.115	105	70.0 to 130	0.957	20.0
BC03245	Calcium, Dissolved	mg/L	-0.0100	0.152	5.00	6.26	6.22	4.91	4.25 to 5.75	93.4	70.0 to 130	0.641	20.0
BC03245	Calcium, Total	mg/L	-0.00796	0.152	5.00	6.53	6.45	4.87	4.25 to 5.75	97.4	70.0 to 130	1.23	20.0
BC02838	Chromium, Dissolved	mg/L	-0.0000309	0.000440	0.100	0.0973	0.0995	0.102	0.0850 to 0.115	97.3	70.0 to 130	2.24	20.0
BC03238	Chromium, Total	mg/L	0.0000153	0.000440	0.100	0.103	0.103	0.105	0.0850 to 0.115	103	70.0 to 130	0.00	20.0
BC02838	Cobalt, Dissolved	mg/L	0.0000091	0.000147	0.100	0.101	0.103	0.105	0.0850 to 0.115	101	70.0 to 130	1.96	20.0
BC03238	Cobalt, Total	mg/L	0.000006	0.000147	0.100	0.104	0.105	0.108	0.0850 to 0.115	104	70.0 to 130	0.957	20.0
BC03245	Iron, Dissolved	mg/L	-0.000587	0.0176	0.2	0.279	0.272	0.200	0.170 to 0.230	98.3	70.0 to 130	2.54	20.0
BC03245	Iron, Total	mg/L	-0.0002	0.0176	0.2	0.315	0.313	0.198	0.170 to 0.230	101	70.0 to 130	0.637	20.0
BC02838	Lead, Dissolved	mg/L	0.0000107	0.000147	0.100	0.102	0.101	0.101	0.0850 to 0.115	102	70.0 to 130	0.985	20.0

**Comments:** The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.

# Batch QC Summary

**Customer Account:** WMWGORAP

**Sample Date:** 2/14/22 11:42

**Customer ID:**

**Delivery Date:** 2/15/22 11:16

**Description:** Gorgas Ash Pond - MW-17

**Laboratory ID Number:** BC03237

Sample	Analysis	Units	MB	MB				Standard		Rec		Prec	Limit
				Limit	Spike	MS	MSD	Standard	Limit	Rec	Limit		
BC03238	Lead, Total	mg/L	0.0000018	0.000147	0.100	0.107	0.104	0.109	0.0850 to 0.115	107	70.0 to 130	2.84	20.0
BC03245	Lithium, Dissolved	mg/L	0.000167	0.0154	0.200	0.248	0.242	0.194	0.170 to 0.230	97.0	70.0 to 130	2.45	20.0
BC03245	Lithium, Total	mg/L	-0.000304	0.0154	0.200	0.258	0.258	0.204	0.170 to 0.230	101	70.0 to 130	0.00	20.0
BC03245	Magnesium, Dissolved	mg/L	-0.00744	0.0462	5.00	5.29	5.22	5.07	4.25 to 5.75	95.8	70.0 to 130	1.33	20.0
BC03245	Magnesium, Total	mg/L	-0.00541	0.0462	5.00	5.57	5.54	5.16	4.25 to 5.75	101	70.0 to 130	0.540	20.0
BC02838	Manganese, Dissolved	mg/L	-0.000126	0.0002	0.100	0.109	0.111	0.104	0.0850 to 0.115	99.3	70.0 to 130	1.82	20.0
BC03238	Manganese, Total	mg/L	0.0000678	0.0002	0.100	0.135	0.136	0.106	0.0850 to 0.115	103	70.0 to 130	0.738	20.0
BC03245	Mercury, Total by CVAA	mg/L	-9.000E-05	0.000500	0.004	0.0039	0.0039	0.00387	0.00340 to 0.00460	97.5	70.0 to 130	0.00	20.0
BC02838	Molybdenum, Dissolved	mg/L	0.0000073	0.0002	0.100	0.103	0.102	0.0999	0.0850 to 0.115	97.1	70.0 to 130	0.976	20.0
BC03238	Molybdenum, Total	mg/L	0.0000199	0.0002	0.100	0.106	0.106	0.105	0.0850 to 0.115	103	70.0 to 130	0.00	20.0
BC02838	Potassium, Dissolved	mg/L	-0.0162	0.367	10.0	11.2	11.4	9.99	8.50 to 11.5	94.9	70.0 to 130	1.77	20.0
BC03238	Potassium, Total	mg/L	0.00661	0.367	10.0	12.2	12.2	10.3	8.50 to 11.5	101	70.0 to 130	0.00	20.0
BC02838	Selenium, Dissolved	mg/L	-0.0000165	0.00100	0.100	0.0889	0.0886	0.0976	0.0850 to 0.115	74.5	70.0 to 130	0.338	20.0
BC03238	Selenium, Total	mg/L	0.0000249	0.00100	0.100	0.108	0.107	0.107	0.0850 to 0.115	108	70.0 to 130	0.930	20.0
BC03245	Silicon, Dissolved	mg/L	-0.000094	0.0440	1.00	9.17	9.20	1.00	0.850 to 1.15	105	70.0 to 130	0.327	20.0
BC03245	Silicon, Total	mg/L	-0.000132	0.0440	1.00	9.34	9.33	1.02	0.850 to 1.15	108	70.0 to 130	0.107	20.0
BC03245	Sodium, Dissolved	mg/L	-0.00619	0.0660	5.00	186	190	4.98	4.25 to 5.75	-100	70.0 to 130	2.13	20.0
BC03245	Sodium, Total	mg/L	-0.00123	0.0660	5.00	185	179	5.12	4.25 to 5.75	60.0	70.0 to 130	3.30	20.0
BC02838	Thallium, Dissolved	mg/L	-0.0000004	0.000147	0.100	0.100	0.0974	0.103	0.0850 to 0.115	100	70.0 to 130	2.63	20.0
BC03238	Thallium, Total	mg/L	0.0000004	0.000147	0.100	0.110	0.104	0.111	0.0850 to 0.115	110	70.0 to 130	5.61	20.0
BC03237	Total Organic Carbon	mg/L	0.320	1.00	10.0	10.6	11.1	24.7		95.4	80.0 to 120	4.61	20.0

**Comments:** The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.

## Batch QC Summary

**Customer Account:** WMWGORAP

**Sample Date:** 2/14/22 11:42

**Customer ID:**

**Delivery Date:** 2/15/22 11:16

**Description:** Gorgas Ash Pond - MW-17

**Laboratory ID Number:** BC03237

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BC03249	Alkalinity, Total as CaCO3	mg/L					249	50.4	45.0 to 55.0			6.21	10.0
BC03245	Chloride	mg/L	-0.0522	1.00	10.0	18.5	8.33	10.2	9.00 to 11.0	102	80.0 to 120	0.00	20.0
BC03242	Fluoride	mg/L	-0.032	0.125	2.50	2.64	0.104	2.60	2.25 to 2.75	101	80.0 to 120	3.77	20.0
BC03245	Nitrogen, Nitrate/Nitrite	mg/L as N	-0.01	0.200	2.00	1.75	-0.022	1.91	1.80 to 2.20	87.5	90.0 to 110	0.00	15.0
BC03239	Solids, Dissolved	mg/L	1.00	25.0			500	50.0	40.0 to 60.0			2.76	10.0
BC03245	Sulfate	mg/L	-0.0815	2.0	20.0	23.3	3.65	20.4	18.0 to 22.0	96.6	80.0 to 120	8.90	20.0

**Comments:** The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.

# Certificate Of Analysis

**Description:** Gorgas Ash Pond - MW-17V

**Location Code:** WMWGORAP  
**Collected:** 2/14/22 12:54  
**Customer ID:**  
**Submittal Date:** 2/15/22 11:16

**Laboratory ID Number:** BC03238

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
<b>Analytical Method: EPA 200.7</b>		<b>Analyst: RDA</b>			<b>Preparation Method: EPA 1638</b>				
* Boron, Total	2/25/22 10:56	2/28/22 09:23		1.015	0.0386	mg/L	0.030000	0.1015	J
* Calcium, Total	2/25/22 10:56	2/28/22 09:23		1.015	30.1	mg/L	0.070035	0.406	
* Iron, Total	2/25/22 10:56	2/28/22 09:23		1.015	1.07	mg/L	0.008120	0.0406	
* Lithium, Total	2/25/22 10:56	2/28/22 09:23		1.015	0.0499	mg/L	0.007105	0.01999956	
* Magnesium, Total	2/25/22 10:56	2/28/22 09:23		1.015	12.5	mg/L	0.021315	0.406	
Silica, Total (calc.)	2/25/22 10:56	2/28/22 09:23		1	23.1	mg/L			
Silicon, Total	2/25/22 10:56	2/28/22 09:23		1.015	10.8	mg/L	0.02030	0.25375	
* Sodium, Total	2/25/22 10:56	2/28/22 12:47		20.3	94.7	mg/L	0.609	8.12	
<b>Analytical Method: EPA 200.7</b>		<b>Analyst: RDA</b>			<b>Preparation Method: EPA 1638</b>				
* Boron, Dissolved	2/25/22 14:30	3/1/22 08:28		1.015	0.0378	mg/L	0.030000	0.1015	J
* Calcium, Dissolved	2/25/22 14:30	3/1/22 08:28		1.015	31.4	mg/L	0.070035	0.406	
* Iron, Dissolved	2/25/22 14:30	3/1/22 08:28		1.015	1.02	mg/L	0.008120	0.0406	
* Lithium, Dissolved	2/25/22 14:30	3/1/22 08:28		1.015	0.0495	mg/L	0.007105	0.01999956	
* Magnesium, Dissolved	2/25/22 14:30	3/1/22 08:28		1.015	12.7	mg/L	0.021315	0.406	
Silica, Dissolved (calc.)	2/25/22 14:30	3/1/22 08:28		1	23.3	mg/L			
Silicon, Dissolved	2/25/22 14:30	3/1/22 08:28		1.015	10.9	mg/L	0.02030	0.25375	
* Sodium, Dissolved	2/25/22 14:30	3/1/22 10:21		20.3	91.6	mg/L	0.609	8.12	
<b>Analytical Method: EPA 200.8</b>		<b>Analyst: ABB</b>			<b>Preparation Method: EPA 1638</b>				
* Antimony, Total	2/16/22 10:47	2/18/22 13:23		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Aluminum, Total	2/16/22 10:47	2/18/22 13:23		1.015	Not Detected	mg/L	0.004060	0.01015	U
* Arsenic, Total	2/16/22 10:47	2/18/22 13:23		1.015	0.000469	mg/L	0.000068	0.000203	
* Barium, Total	2/16/22 10:47	2/18/22 13:23		1.015	0.315	mg/L	0.000102	0.000203	
* Beryllium, Total	2/16/22 10:47	2/18/22 13:23		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Total	2/16/22 10:47	2/18/22 13:23		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Total	2/16/22 10:47	2/18/22 13:23		1.015	0.000205	mg/L	0.000203	0.001015	J
* Cobalt, Total	2/16/22 10:47	2/18/22 13:23		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Lead, Total	2/16/22 10:47	2/18/22 13:23		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Total	2/16/22 10:47	2/18/22 13:23		1.015	0.0316	mg/L	0.000068	0.000203	
* Molybdenum, Total	2/16/22 10:47	2/18/22 13:23		1.015	0.00276	mg/L	0.000068	0.000203	
* Potassium, Total	2/16/22 10:47	2/18/22 13:23		1.015	2.13	mg/L	0.169505	0.5075	

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.



# Certificate Of Analysis

**Description:** Gorgas Ash Pond - MW-17V

**Location Code:** WMWGORAP  
**Collected:** 2/14/22 12:54  
**Customer ID:**  
**Submittal Date:** 2/15/22 11:16

**Laboratory ID Number:** BC03238

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
* Selenium, Total	2/16/22 10:47	2/18/22 13:23		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Total	2/16/22 10:47	2/18/22 13:23		1.015	Not Detected	mg/L	0.000068	0.000203	U
<b>Analytical Method: EPA 200.8</b>		<b>Analyst: ABB</b>							
* Antimony, Dissolved	2/16/22 11:25	2/16/22 17:03		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Aluminum, Dissolved	2/16/22 11:25	2/16/22 17:03		1.015	Not Detected	mg/L	0.004060	0.01015	U
* Arsenic, Dissolved	2/16/22 11:25	2/16/22 17:03		1.015	0.000301	mg/L	0.000068	0.000203	
* Barium, Dissolved	2/16/22 11:25	2/16/22 17:03		1.015	0.278	mg/L	0.000102	0.000203	
* Beryllium, Dissolved	2/16/22 11:25	2/16/22 17:03		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Dissolved	2/16/22 11:25	2/16/22 17:03		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Dissolved	2/16/22 11:25	2/16/22 17:03		1.015	0.000231	mg/L	0.000203	0.001015	J
* Cobalt, Dissolved	2/16/22 11:25	2/16/22 17:03		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Lead, Dissolved	2/16/22 11:25	2/16/22 17:03		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Dissolved	2/16/22 11:25	2/16/22 17:03		1.015	0.0284	mg/L	0.000068	0.000203	
* Molybdenum, Dissolved	2/16/22 11:25	2/16/22 17:03		1.015	0.00234	mg/L	0.000068	0.000203	
* Potassium, Dissolved	2/16/22 11:25	2/16/22 17:03		1.015	2.04	mg/L	0.169505	0.5075	
* Selenium, Dissolved	2/16/22 11:25	2/16/22 17:03		1.015	0.000995	mg/L	0.000508	0.001015	J
* Thallium, Dissolved	2/16/22 11:25	2/16/22 17:03		1.015	Not Detected	mg/L	0.000068	0.000203	U
<b>Analytical Method: EPA 245.1</b>		<b>Analyst: CRB</b>							
* Mercury, Total by CVAA	2/24/22 14:29	2/24/22 18:38		1	Not Detected	mg/L	0.0003	0.0005	U
<b>Analytical Method: EPA 353.2</b>		<b>Analyst: ELH</b>							
* Nitrogen, Nitrate/Nitrite	2/21/22 13:01	2/21/22 13:01		1	Not Detected	mg/L as N	0.20	0.3	U
<b>Analytical Method: SM 2320 B</b>		<b>Analyst: ALH</b>							
Alkalinity, Total as CaCO3	2/22/22 13:25	2/22/22 16:32		1	348	mg/L		0.1	
<b>Analytical Method: SM 2540C</b>		<b>Analyst: CNJ</b>							
* Solids, Dissolved	2/16/22 11:06	2/18/22 10:00		1	365	mg/L		25	
<b>Analytical Method: SM 4500CO2 D</b>		<b>Analyst: ALH</b>							
Bicarbonate Alkalinity, (calc.)	2/22/22 13:25	2/22/22 16:32		1	344	mg/L			
Carbonate Alkalinity, (calc.)	2/22/22 13:25	2/22/22 16:32		1	3.72	mg/L			
<b>Analytical Method: SM 5310 B</b>		<b>Analyst: ELH</b>							
* Total Organic Carbon	2/18/22 11:51	2/18/22 11:51		1	Not Detected	mg/L	1.00	2	U

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.

# Certificate Of Analysis

**Description:** Gorgas Ash Pond - MW-17V

**Location Code:** WMWGORAP

**Collected:** 2/14/22 12:54

**Customer ID:**

**Submittal Date:** 2/15/22 11:16

**Laboratory ID Number:** BC03238

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
<b>Analytical Method: SM4500Cl E</b>		<b>Analyst: JCC</b>							
* Chloride	2/16/22 09:40	2/16/22 09:40		1	3.26	mg/L	0.50	1	
<b>Analytical Method: SM4500F G 2017</b>		<b>Analyst: JCC</b>							
* Fluoride	2/16/22 11:22	2/16/22 11:22		1	0.237	mg/L	0.06	0.1	
<b>Analytical Method: SM4500SO4 E 2011</b>		<b>Analyst: JCC</b>							
* Sulfate	2/22/22 11:21	2/22/22 11:21		1	9.09	mg/L	0.50	1	
<b>Analytical Method: Field Measurements</b>		<b>Analyst: DKG</b>							
Conductivity	2/14/22 12:51	2/14/22 12:51			533.41	uS/cm			FA
pH	2/14/22 12:51	2/14/22 12:51			7.43	SU			FA
Temperature	2/14/22 12:51	2/14/22 12:51			16.84	C			FA
Turbidity	2/14/22 12:51	2/14/22 12:51			1.86	NTU			FA

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.

# Batch QC Summary

**Customer Account:** WMWGORAP

**Sample Date:** 2/14/22 12:54

**Customer ID:**

**Delivery Date:** 2/15/22 11:16

**Description:** Gorgas Ash Pond - MW-17V

**Laboratory ID Number:** BC03238

Sample	Analysis	Units	MB	MB		MS	MSD	Standard		Rec		Prec	Limit
				Limit	Spike			Standard	Limit	Rec	Limit		
BC03247	Aluminum, Dissolved	mg/L	0.0000565	0.010	0.100	0.0999	0.0998	0.0990	0.0850 to 0.115	95.8	70.0 to 130	0.100	20.0
BC03238	Aluminum, Total	mg/L	0.000788	0.010	0.100	0.101	0.102	0.100	0.0850 to 0.115	101	70.0 to 130	0.985	20.0
BC03247	Antimony, Dissolved	mg/L	0.000176	0.00100	0.100	0.0930	0.0937	0.0917	0.0850 to 0.115	93.0	70.0 to 130	0.750	20.0
BC03238	Antimony, Total	mg/L	0.000222	0.00100	0.100	0.0960	0.0976	0.0973	0.0850 to 0.115	96.0	70.0 to 130	1.65	20.0
BC03247	Arsenic, Dissolved	mg/L	0.0000108	0.000176	0.100	0.0999	0.102	0.100	0.0850 to 0.115	96.8	70.0 to 130	2.08	20.0
BC03238	Arsenic, Total	mg/L	0.000012	0.000176	0.100	0.104	0.103	0.104	0.0850 to 0.115	104	70.0 to 130	0.966	20.0
BC03247	Barium, Dissolved	mg/L	0.00000	0.000200	0.100	0.295	0.295	0.0940	0.0850 to 0.115	96.0	70.0 to 130	0.00	20.0
BC03238	Barium, Total	mg/L	-0.0000261	0.000200	0.100	0.409	0.411	0.104	0.0850 to 0.115	94.0	70.0 to 130	0.488	20.0
BC03247	Beryllium, Dissolved	mg/L	0.000136	0.000880	0.100	0.0962	0.107	0.0981	0.0850 to 0.115	96.2	70.0 to 130	10.6	20.0
BC03238	Beryllium, Total	mg/L	0.000124	0.000880	0.100	0.0996	0.0983	0.103	0.0850 to 0.115	99.6	70.0 to 130	1.31	20.0
BC03245	Boron, Dissolved	mg/L	-0.000009	0.0650	1.00	1.07	1.08	0.958	0.850 to 1.15	100	70.0 to 130	0.930	20.0
BC03245	Boron, Total	mg/L	-0.000344	0.0650	1.00	1.08	1.07	0.988	0.850 to 1.15	101	70.0 to 130	0.930	20.0
BC03247	Cadmium, Dissolved	mg/L	0.0000045	0.000147	0.100	0.0925	0.0926	0.0943	0.0850 to 0.115	92.5	70.0 to 130	0.108	20.0
BC03238	Cadmium, Total	mg/L	0.0000051	0.000147	0.100	0.105	0.104	0.106	0.0850 to 0.115	105	70.0 to 130	0.957	20.0
BC03245	Calcium, Dissolved	mg/L	-0.0100	0.152	5.00	6.26	6.22	4.91	4.25 to 5.75	93.4	70.0 to 130	0.641	20.0
BC03245	Calcium, Total	mg/L	-0.00796	0.152	5.00	6.53	6.45	4.87	4.25 to 5.75	97.4	70.0 to 130	1.23	20.0
BC03247	Chromium, Dissolved	mg/L	-0.0000309	0.000440	0.100	0.0996	0.0980	0.102	0.0850 to 0.115	99.6	70.0 to 130	1.62	20.0
BC03238	Chromium, Total	mg/L	0.0000153	0.000440	0.100	0.103	0.103	0.105	0.0850 to 0.115	103	70.0 to 130	0.00	20.0
BC03247	Cobalt, Dissolved	mg/L	0.0000091	0.000147	0.100	0.102	0.101	0.105	0.0850 to 0.115	102	70.0 to 130	0.985	20.0
BC03238	Cobalt, Total	mg/L	0.000006	0.000147	0.100	0.104	0.105	0.108	0.0850 to 0.115	104	70.0 to 130	0.957	20.0
BC03245	Iron, Dissolved	mg/L	-0.000587	0.0176	0.2	0.279	0.272	0.200	0.170 to 0.230	98.3	70.0 to 130	2.54	20.0
BC03245	Iron, Total	mg/L	-0.0002	0.0176	0.2	0.315	0.313	0.198	0.170 to 0.230	101	70.0 to 130	0.637	20.0
BC03247	Lead, Dissolved	mg/L	0.0000107	0.000147	0.100	0.0974	0.102	0.101	0.0850 to 0.115	97.4	70.0 to 130	4.61	20.0

**Comments:** The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.

# Batch QC Summary

**Customer Account:** WMWGORAP

**Sample Date:** 2/14/22 12:54

**Customer ID:**

**Delivery Date:** 2/15/22 11:16

**Description:** Gorgas Ash Pond - MW-17V

**Laboratory ID Number:** BC03238

Sample	Analysis	Units	MB	MB				Standard		Rec		Prec	Limit
				Limit	Spike	MS	MSD	Standard	Limit	Rec	Limit		
BC03238	Lead, Total	mg/L	0.0000018	0.000147	0.100	0.107	0.104	0.109	0.0850 to 0.115	107	70.0 to 130	2.84	20.0
BC03245	Lithium, Dissolved	mg/L	0.000167	0.0154	0.200	0.248	0.242	0.194	0.170 to 0.230	97.0	70.0 to 130	2.45	20.0
BC03245	Lithium, Total	mg/L	-0.000304	0.0154	0.200	0.258	0.258	0.204	0.170 to 0.230	101	70.0 to 130	0.00	20.0
BC03245	Magnesium, Dissolved	mg/L	-0.00744	0.0462	5.00	5.29	5.22	5.07	4.25 to 5.75	95.8	70.0 to 130	1.33	20.0
BC03245	Magnesium, Total	mg/L	-0.00541	0.0462	5.00	5.57	5.54	5.16	4.25 to 5.75	101	70.0 to 130	0.540	20.0
BC03247	Manganese, Dissolved	mg/L	-0.000126	0.0002	0.100	0.111	0.111	0.104	0.0850 to 0.115	101	70.0 to 130	0.00	20.0
BC03238	Manganese, Total	mg/L	0.0000678	0.0002	0.100	0.135	0.136	0.106	0.0850 to 0.115	103	70.0 to 130	0.738	20.0
BC03245	Mercury, Total by CVAA	mg/L	-9.000E-05	0.000500	0.004	0.0039	0.0039	0.00387	0.00340 to 0.00460	97.5	70.0 to 130	0.00	20.0
BC03247	Molybdenum, Dissolved	mg/L	0.0000073	0.0002	0.100	0.154	0.157	0.0999	0.0850 to 0.115	94.5	70.0 to 130	1.93	20.0
BC03238	Molybdenum, Total	mg/L	0.0000199	0.0002	0.100	0.106	0.106	0.105	0.0850 to 0.115	103	70.0 to 130	0.00	20.0
BC03247	Potassium, Dissolved	mg/L	-0.0162	0.367	10.0	10.8	10.8	9.99	8.50 to 11.5	94.7	70.0 to 130	0.00	20.0
BC03238	Potassium, Total	mg/L	0.00661	0.367	10.0	12.2	12.2	10.3	8.50 to 11.5	101	70.0 to 130	0.00	20.0
BC03247	Selenium, Dissolved	mg/L	-0.0000165	0.00100	0.100	0.0991	0.100	0.0976	0.0850 to 0.115	99.1	70.0 to 130	0.904	20.0
BC03238	Selenium, Total	mg/L	0.0000249	0.00100	0.100	0.108	0.107	0.107	0.0850 to 0.115	108	70.0 to 130	0.930	20.0
BC03245	Silicon, Dissolved	mg/L	-0.000094	0.0440	1.00	9.17	9.20	1.00	0.850 to 1.15	105	70.0 to 130	0.327	20.0
BC03245	Silicon, Total	mg/L	-0.000132	0.0440	1.00	9.34	9.33	1.02	0.850 to 1.15	108	70.0 to 130	0.107	20.0
BC03245	Sodium, Dissolved	mg/L	-0.00619	0.0660	5.00	186	190	4.98	4.25 to 5.75	-100	70.0 to 130	2.13	20.0
BC03245	Sodium, Total	mg/L	-0.00123	0.0660	5.00	185	179	5.12	4.25 to 5.75	60.0	70.0 to 130	3.30	20.0
BC03247	Thallium, Dissolved	mg/L	-0.0000004	0.000147	0.100	0.0973	0.100	0.103	0.0850 to 0.115	97.3	70.0 to 130	2.74	20.0
BC03238	Thallium, Total	mg/L	0.0000004	0.000147	0.100	0.110	0.104	0.111	0.0850 to 0.115	110	70.0 to 130	5.61	20.0
BC03246	Total Organic Carbon	mg/L	0.300	1.00	10.0	10.3	10.4	26.0		103	80.0 to 120	0.966	20.0

**Comments:** The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.

## Batch QC Summary

**Customer Account:** WMWGORAP

**Sample Date:** 2/14/22 12:54

**Customer ID:**

**Delivery Date:** 2/15/22 11:16

**Description:** Gorgas Ash Pond - MW-17V

**Laboratory ID Number:** BC03238

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Limit	Prec	Prec Limit
BC03249	Alkalinity, Total as CaCO3	mg/L					249	50.4	45.0 to 55.0			6.21	10.0
BC03245	Chloride	mg/L	-0.0522	1.00	10.0	18.5	8.33	10.2	9.00 to 11.0	102	80.0 to 120	0.00	20.0
BC03242	Fluoride	mg/L	-0.032	0.125	2.50	2.64	0.104	2.60	2.25 to 2.75	101	80.0 to 120	3.77	20.0
BC03245	Nitrogen, Nitrate/Nitrite	mg/L as N	-0.01	0.200	2.00	1.75	-0.022	1.91	1.80 to 2.20	87.5	90.0 to 110	0.00	15.0
BC03239	Solids, Dissolved	mg/L	1.00	25.0			500	50.0	40.0 to 60.0			2.76	10.0
BC03245	Sulfate	mg/L	-0.0815	2.0	20.0	23.3	3.65	20.4	18.0 to 22.0	96.6	80.0 to 120	8.90	20.0

**Comments:** The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.

# Certificate Of Analysis

**Description:** Gorgas Ash Pond - MW-36H

**Location Code:** WMWGORAP  
**Collected:** 2/14/22 15:28  
**Customer ID:**  
**Submittal Date:** 2/15/22 11:16

**Laboratory ID Number:** BC03239

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
<b>Analytical Method: EPA 200.7</b>		<b>Analyst: RDA</b>			<b>Preparation Method: EPA 1638</b>				
* Boron, Total	2/25/22 10:56	2/28/22 09:25		1.015	0.0467	mg/L	0.030000	0.1015	J
* Calcium, Total	2/25/22 10:56	2/28/22 09:25		1.015	4.69	mg/L	0.070035	0.406	
* Iron, Total	2/25/22 10:56	2/28/22 09:25		1.015	0.0685	mg/L	0.008120	0.0406	
* Lithium, Total	2/25/22 10:56	2/28/22 09:25		1.015	0.0417	mg/L	0.007105	0.01999956	
* Magnesium, Total	2/25/22 10:56	2/28/22 09:25		1.015	1.22	mg/L	0.021315	0.406	
Silica, Total (calc.)	2/25/22 10:56	2/28/22 09:25		1	14.5	mg/L			
Silicon, Total	2/25/22 10:56	2/28/22 09:25		1.015	6.76	mg/L	0.02030	0.25375	
* Sodium, Total	2/25/22 10:56	2/28/22 11:18		20.3	173	mg/L	0.609	8.12	
<b>Analytical Method: EPA 200.7</b>		<b>Analyst: RDA</b>			<b>Preparation Method: EPA 1638</b>				
* Boron, Dissolved	2/25/22 14:30	3/1/22 08:30		1.015	0.0466	mg/L	0.030000	0.1015	J
* Calcium, Dissolved	2/25/22 14:30	3/1/22 08:30		1.015	4.70	mg/L	0.070035	0.406	
* Iron, Dissolved	2/25/22 14:30	3/1/22 08:30		1.015	0.0452	mg/L	0.008120	0.0406	
* Lithium, Dissolved	2/25/22 14:30	3/1/22 08:30		1.015	0.0407	mg/L	0.007105	0.01999956	
* Magnesium, Dissolved	2/25/22 14:30	3/1/22 08:30		1.015	1.19	mg/L	0.021315	0.406	
Silica, Dissolved (calc.)	2/25/22 14:30	3/1/22 08:30		1	14.6	mg/L			
Silicon, Dissolved	2/25/22 14:30	3/1/22 08:30		1.015	6.84	mg/L	0.02030	0.25375	
* Sodium, Dissolved	2/25/22 14:30	3/1/22 10:23		20.3	184	mg/L	0.609	8.12	
<b>Analytical Method: EPA 200.8</b>		<b>Analyst: ABB</b>			<b>Preparation Method: EPA 1638</b>				
* Antimony, Total	2/16/22 10:47	2/18/22 13:44		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Aluminum, Total	2/16/22 10:47	2/18/22 13:44		1.015	0.0236	mg/L	0.004060	0.01015	
* Arsenic, Total	2/16/22 10:47	2/18/22 13:44		1.015	0.00235	mg/L	0.000068	0.000203	
* Barium, Total	2/16/22 10:47	2/18/22 13:44		1.015	0.136	mg/L	0.000102	0.000203	
* Beryllium, Total	2/16/22 10:47	2/18/22 13:44		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Total	2/16/22 10:47	2/18/22 13:44		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Total	2/16/22 10:47	2/18/22 13:44		1.015	Not Detected	mg/L	0.000203	0.001015	U
* Cobalt, Total	2/16/22 10:47	2/18/22 13:44		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Lead, Total	2/16/22 10:47	2/18/22 13:44		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Total	2/16/22 10:47	2/18/22 13:44		1.015	0.00997	mg/L	0.000068	0.000203	
* Molybdenum, Total	2/16/22 10:47	2/18/22 13:44		1.015	0.0189	mg/L	0.000068	0.000203	
* Potassium, Total	2/16/22 10:47	2/18/22 13:44		1.015	6.47	mg/L	0.169505	0.5075	

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.

# Certificate Of Analysis

**Description:** Gorgas Ash Pond - MW-36H

**Location Code:** WMWGORAP  
**Collected:** 2/14/22 15:28  
**Customer ID:**  
**Submittal Date:** 2/15/22 11:16

**Laboratory ID Number:** BC03239

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
* Selenium, Total	2/16/22 10:47	2/18/22 13:44		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Total	2/16/22 10:47	2/18/22 13:44		1.015	Not Detected	mg/L	0.000068	0.000203	U
<b>Analytical Method: EPA 200.8</b>		<b>Analyst: ABB</b>							
* Antimony, Dissolved	2/16/22 11:25	2/16/22 17:07		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Aluminum, Dissolved	2/16/22 11:25	2/16/22 17:07		1.015	0.0140	mg/L	0.004060	0.01015	
* Arsenic, Dissolved	2/16/22 11:25	2/16/22 17:07		1.015	0.00210	mg/L	0.000068	0.000203	
* Barium, Dissolved	2/16/22 11:25	2/16/22 17:07		1.015	0.122	mg/L	0.000102	0.000203	
* Beryllium, Dissolved	2/16/22 11:25	2/16/22 17:07		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Dissolved	2/16/22 11:25	2/16/22 17:07		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Dissolved	2/16/22 11:25	2/16/22 17:07		1.015	Not Detected	mg/L	0.000203	0.001015	U
* Cobalt, Dissolved	2/16/22 11:25	2/16/22 17:07		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Lead, Dissolved	2/16/22 11:25	2/16/22 17:07		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Dissolved	2/16/22 11:25	2/16/22 17:07		1.015	0.00942	mg/L	0.000068	0.000203	
* Molybdenum, Dissolved	2/16/22 11:25	2/16/22 17:07		1.015	0.0181	mg/L	0.000068	0.000203	
* Potassium, Dissolved	2/16/22 11:25	2/16/22 17:07		1.015	6.32	mg/L	0.169505	0.5075	
* Selenium, Dissolved	2/16/22 11:25	2/16/22 17:07		1.015	0.000768	mg/L	0.000508	0.001015	J
* Thallium, Dissolved	2/16/22 11:25	2/16/22 17:07		1.015	Not Detected	mg/L	0.000068	0.000203	U
<b>Analytical Method: EPA 245.1</b>		<b>Analyst: CRB</b>							
* Mercury, Total by CVAA	2/24/22 14:29	2/24/22 18:42		1	Not Detected	mg/L	0.0003	0.0005	U
<b>Analytical Method: EPA 353.2</b>		<b>Analyst: ELH</b>							
* Nitrogen, Nitrate/Nitrite	2/21/22 13:03	2/21/22 13:03		1	Not Detected	mg/L as N	0.20	0.3	U
<b>Analytical Method: SM 2320 B</b>		<b>Analyst: ALH</b>							
Alkalinity, Total as CaCO3	2/22/22 13:25	2/22/22 16:32		1	216	mg/L		0.1	
<b>Analytical Method: SM 2540C</b>		<b>Analyst: CNJ</b>							
* Solids, Dissolved	2/16/22 11:06	2/18/22 10:00		1	514	mg/L		50	
<b>Analytical Method: SM 4500CO2 D</b>		<b>Analyst: ALH</b>							
Bicarbonate Alkalinity, (calc.)	2/22/22 13:25	2/22/22 16:32		1	213	mg/L			A
Carbonate Alkalinity, (calc.)	2/22/22 13:25	2/22/22 16:32		1	3.24	mg/L			A
<b>Analytical Method: SM 5310 B</b>		<b>Analyst: ELH</b>							
* Total Organic Carbon	2/19/22 00:08	2/19/22 00:08		1	2.90	mg/L	1.00	2	

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.

# Certificate Of Analysis

**Description:** Gorgas Ash Pond - MW-36H

**Location Code:** WMWGORAP

**Collected:** 2/14/22 15:28

**Customer ID:**

**Submittal Date:** 2/15/22 11:16

**Laboratory ID Number:** BC03239

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
<b>Analytical Method: SM4500Cl E</b>		<b>Analyst: JCC</b>							
* Chloride	2/16/22 09:52	2/16/22 09:52		5	77.7	mg/L	2.50	5	
<b>Analytical Method: SM4500F G 2017</b>		<b>Analyst: JCC</b>							
* Fluoride	2/16/22 11:23	2/16/22 11:23		1	0.238	mg/L	0.06	0.1	
<b>Analytical Method: SM4500SO4 E 2011</b>		<b>Analyst: JCC</b>							
* Sulfate	2/22/22 11:34	2/22/22 11:34		5	112	mg/L	2.50	5	
<b>Analytical Method: Field Measurements</b>		<b>Analyst: DKG</b>							
Conductivity	2/14/22 15:24	2/14/22 15:24			897.68	uS/cm			FA
pH	2/14/22 15:24	2/14/22 15:24			8.22	SU			FA
Temperature	2/14/22 15:24	2/14/22 15:24			18.68	C			FA
Turbidity	2/14/22 15:24	2/14/22 15:24			2.2	NTU			FA

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.



# Batch QC Summary

**Customer Account:** WMWGORAP

**Sample Date:** 2/14/22 15:28

**Customer ID:**

**Delivery Date:** 2/15/22 11:16

**Description:** Gorgas Ash Pond - MW-36H

**Laboratory ID Number:** BC03239

Sample	Analysis	Units	MB	MB		MS	MSD	Standard		Rec		Prec	Limit
				Limit	Spike			Standard	Limit	Rec	Limit		
BC03247	Aluminum, Dissolved	mg/L	0.0000565	0.010	0.100	0.0999	0.0998	0.0990	0.0850 to 0.115	95.8	70.0 to 130	0.100	20.0
BC03248	Aluminum, Total	mg/L	0.000788	0.010	0.100	0.101	0.101	0.100	0.0850 to 0.115	101	70.0 to 130	0.00	20.0
BC03247	Antimony, Dissolved	mg/L	0.000176	0.00100	0.100	0.0930	0.0937	0.0917	0.0850 to 0.115	93.0	70.0 to 130	0.750	20.0
BC03248	Antimony, Total	mg/L	0.000222	0.00100	0.100	0.0957	0.0967	0.0973	0.0850 to 0.115	95.7	70.0 to 130	1.04	20.0
BC03247	Arsenic, Dissolved	mg/L	0.0000108	0.000176	0.100	0.0999	0.102	0.100	0.0850 to 0.115	96.8	70.0 to 130	2.08	20.0
BC03248	Arsenic, Total	mg/L	0.000012	0.000176	0.100	0.104	0.102	0.104	0.0850 to 0.115	104	70.0 to 130	1.94	20.0
BC03247	Barium, Dissolved	mg/L	0.00000	0.000200	0.100	0.295	0.295	0.0940	0.0850 to 0.115	96.0	70.0 to 130	0.00	20.0
BC03248	Barium, Total	mg/L	-0.0000261	0.000200	0.100	0.102	0.104	0.104	0.0850 to 0.115	102	70.0 to 130	1.94	20.0
BC03247	Beryllium, Dissolved	mg/L	0.000136	0.000880	0.100	0.0962	0.107	0.0981	0.0850 to 0.115	96.2	70.0 to 130	10.6	20.0
BC03248	Beryllium, Total	mg/L	0.000124	0.000880	0.100	0.100	0.101	0.103	0.0850 to 0.115	100	70.0 to 130	0.995	20.0
BC03245	Boron, Dissolved	mg/L	-0.000009	0.0650	1.00	1.07	1.08	0.958	0.850 to 1.15	100	70.0 to 130	0.930	20.0
BC03245	Boron, Total	mg/L	-0.000344	0.0650	1.00	1.08	1.07	0.988	0.850 to 1.15	101	70.0 to 130	0.930	20.0
BC03247	Cadmium, Dissolved	mg/L	0.0000045	0.000147	0.100	0.0925	0.0926	0.0943	0.0850 to 0.115	92.5	70.0 to 130	0.108	20.0
BC03248	Cadmium, Total	mg/L	0.0000051	0.000147	0.100	0.105	0.105	0.106	0.0850 to 0.115	105	70.0 to 130	0.00	20.0
BC03245	Calcium, Dissolved	mg/L	-0.0100	0.152	5.00	6.26	6.22	4.91	4.25 to 5.75	93.4	70.0 to 130	0.641	20.0
BC03245	Calcium, Total	mg/L	-0.00796	0.152	5.00	6.53	6.45	4.87	4.25 to 5.75	97.4	70.0 to 130	1.23	20.0
BC03247	Chromium, Dissolved	mg/L	-0.0000309	0.000440	0.100	0.0996	0.0980	0.102	0.0850 to 0.115	99.6	70.0 to 130	1.62	20.0
BC03248	Chromium, Total	mg/L	0.0000153	0.000440	0.100	0.103	0.104	0.105	0.0850 to 0.115	103	70.0 to 130	0.966	20.0
BC03247	Cobalt, Dissolved	mg/L	0.0000091	0.000147	0.100	0.102	0.101	0.105	0.0850 to 0.115	102	70.0 to 130	0.985	20.0
BC03248	Cobalt, Total	mg/L	0.000006	0.000147	0.100	0.106	0.107	0.108	0.0850 to 0.115	106	70.0 to 130	0.939	20.0
BC03245	Iron, Dissolved	mg/L	-0.000587	0.0176	0.2	0.279	0.272	0.200	0.170 to 0.230	98.3	70.0 to 130	2.54	20.0
BC03245	Iron, Total	mg/L	-0.0002	0.0176	0.2	0.315	0.313	0.198	0.170 to 0.230	101	70.0 to 130	0.637	20.0
BC03247	Lead, Dissolved	mg/L	0.0000107	0.000147	0.100	0.0974	0.102	0.101	0.0850 to 0.115	97.4	70.0 to 130	4.61	20.0

**Comments:** The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.

# Batch QC Summary

**Customer Account:** WMWGORAP

**Sample Date:** 2/14/22 15:28

**Customer ID:**

**Delivery Date:** 2/15/22 11:16

**Description:** Gorgas Ash Pond - MW-36H

**Laboratory ID Number:** BC03239

Sample	Analysis	Units	MB	MB				Standard		Rec		Prec	Limit
				Limit	Spike	MS	MSD	Standard	Limit	Rec	Limit		
BC03248	Lead, Total	mg/L	0.0000018	0.000147	0.100	0.107	0.107	0.109	0.0850 to 0.115	107	70.0 to 130	0.00	20.0
BC03245	Lithium, Dissolved	mg/L	0.000167	0.0154	0.200	0.248	0.242	0.194	0.170 to 0.230	97.0	70.0 to 130	2.45	20.0
BC03245	Lithium, Total	mg/L	-0.000304	0.0154	0.200	0.258	0.258	0.204	0.170 to 0.230	101	70.0 to 130	0.00	20.0
BC03245	Magnesium, Dissolved	mg/L	-0.00744	0.0462	5.00	5.29	5.22	5.07	4.25 to 5.75	95.8	70.0 to 130	1.33	20.0
BC03245	Magnesium, Total	mg/L	-0.00541	0.0462	5.00	5.57	5.54	5.16	4.25 to 5.75	101	70.0 to 130	0.540	20.0
BC03247	Manganese, Dissolved	mg/L	-0.000126	0.0002	0.100	0.111	0.111	0.104	0.0850 to 0.115	101	70.0 to 130	0.00	20.0
BC03248	Manganese, Total	mg/L	0.0000678	0.0002	0.100	0.105	0.105	0.106	0.0850 to 0.115	105	70.0 to 130	0.00	20.0
BC03245	Mercury, Total by CVAA	mg/L	-9.000E-05	0.000500	0.004	0.0039	0.0039	0.00387	0.00340 to 0.00460	97.5	70.0 to 130	0.00	20.0
BC03247	Molybdenum, Dissolved	mg/L	0.0000073	0.0002	0.100	0.154	0.157	0.0999	0.0850 to 0.115	94.5	70.0 to 130	1.93	20.0
BC03248	Molybdenum, Total	mg/L	0.0000199	0.0002	0.100	0.103	0.105	0.105	0.0850 to 0.115	103	70.0 to 130	1.92	20.0
BC03247	Potassium, Dissolved	mg/L	-0.0162	0.367	10.0	10.8	10.8	9.99	8.50 to 11.5	94.7	70.0 to 130	0.00	20.0
BC03248	Potassium, Total	mg/L	0.00661	0.367	10.0	10.3	10.3	10.3	8.50 to 11.5	103	70.0 to 130	0.00	20.0
BC03247	Selenium, Dissolved	mg/L	-0.0000165	0.00100	0.100	0.0991	0.100	0.0976	0.0850 to 0.115	99.1	70.0 to 130	0.904	20.0
BC03248	Selenium, Total	mg/L	0.0000249	0.00100	0.100	0.106	0.108	0.107	0.0850 to 0.115	106	70.0 to 130	1.87	20.0
BC03245	Silicon, Dissolved	mg/L	-0.000094	0.0440	1.00	9.17	9.20	1.00	0.850 to 1.15	105	70.0 to 130	0.327	20.0
BC03245	Silicon, Total	mg/L	-0.000132	0.0440	1.00	9.34	9.33	1.02	0.850 to 1.15	108	70.0 to 130	0.107	20.0
BC03245	Sodium, Dissolved	mg/L	-0.00619	0.0660	5.00	186	190	4.98	4.25 to 5.75	-100	70.0 to 130	2.13	20.0
BC03245	Sodium, Total	mg/L	-0.00123	0.0660	5.00	185	179	5.12	4.25 to 5.75	60.0	70.0 to 130	3.30	20.0
BC03247	Thallium, Dissolved	mg/L	-0.0000004	0.000147	0.100	0.0973	0.100	0.103	0.0850 to 0.115	97.3	70.0 to 130	2.74	20.0
BC03248	Thallium, Total	mg/L	0.0000004	0.000147	0.100	0.108	0.109	0.111	0.0850 to 0.115	108	70.0 to 130	0.922	20.0
BC03246	Total Organic Carbon	mg/L	0.300	1.00	10.0	10.3	10.4	26.0		103	80.0 to 120	0.966	20.0

**Comments:** The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.

## Batch QC Summary

**Customer Account:** WMWGORAP

**Sample Date:** 2/14/22 15:28

**Customer ID:**

**Delivery Date:** 2/15/22 11:16

**Description:** Gorgas Ash Pond - MW-36H

**Laboratory ID Number:** BC03239

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BC03249	Alkalinity, Total as CaCO3	mg/L					249	50.4	45.0 to 55.0			6.21	10.0
BC03245	Chloride	mg/L	-0.0522	1.00	10.0	18.5	8.33	10.2	9.00 to 11.0	102	80.0 to 120	0.00	20.0
BC03242	Fluoride	mg/L	-0.032	0.125	2.50	2.64	0.104	2.60	2.25 to 2.75	101	80.0 to 120	3.77	20.0
BC03245	Nitrogen, Nitrate/Nitrite	mg/L as N	-0.01	0.200	2.00	1.75	-0.022	1.91	1.80 to 2.20	87.5	90.0 to 110	0.00	15.0
BC03239	Solids, Dissolved	mg/L	1.00	25.0			500	50.0	40.0 to 60.0			2.76	10.0
BC03245	Sulfate	mg/L	-0.0815	2.0	20.0	23.3	3.65	20.4	18.0 to 22.0	96.6	80.0 to 120	8.90	20.0

**Comments:** The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.

# Certificate Of Analysis

**Description:** Gorgas Ash Pond - MW-6S

**Location Code:** WMWGORAP  
**Collected:** 2/14/22 11:18  
**Customer ID:**  
**Submittal Date:** 2/15/22 11:16

**Laboratory ID Number:** BC03240

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
<b>Analytical Method: EPA 200.7</b>		<b>Analyst: RDA</b>			<b>Preparation Method: EPA 1638</b>				
* Boron, Total	2/25/22 10:56	2/28/22 09:27		1.015	0.978	mg/L	0.030000	0.1015	
* Calcium, Total	2/25/22 10:56	2/28/22 11:19		20.3	60.1	mg/L	1.4007	8.12	
* Iron, Total	2/25/22 10:56	2/28/22 11:19		20.3	5.98	mg/L	0.1624	0.812	
* Lithium, Total	2/25/22 10:56	2/28/22 09:27		1.015	0.0625	mg/L	0.007105	0.01999956	
* Magnesium, Total	2/25/22 10:56	2/28/22 09:27		1.015	20.4	mg/L	0.021315	0.406	
Silica, Total (calc.)	2/25/22 10:56	2/28/22 09:27		1	10.3	mg/L			
Silicon, Total	2/25/22 10:56	2/28/22 09:27		1.015	4.83	mg/L	0.02030	0.25375	
* Sodium, Total	2/25/22 10:56	2/28/22 09:27		1.015	11.1	mg/L	0.03045	0.406	
<b>Analytical Method: EPA 200.7</b>		<b>Analyst: RDA</b>			<b>Preparation Method: EPA 1638</b>				
* Boron, Dissolved	2/25/22 14:30	3/1/22 08:32		1.015	0.992	mg/L	0.030000	0.1015	
* Calcium, Dissolved	2/25/22 14:30	3/1/22 10:25		20.3	55.6	mg/L	1.4007	8.12	
* Iron, Dissolved	2/25/22 14:30	3/1/22 10:25		20.3	5.06	mg/L	0.1624	0.812	
* Lithium, Dissolved	2/25/22 14:30	3/1/22 08:32		1.015	0.0662	mg/L	0.007105	0.01999956	
* Magnesium, Dissolved	2/25/22 14:30	3/1/22 08:32		1.015	20.5	mg/L	0.021315	0.406	
Silica, Dissolved (calc.)	2/25/22 14:30	3/1/22 08:32		1	10.3	mg/L			
Silicon, Dissolved	2/25/22 14:30	3/1/22 08:32		1.015	4.79	mg/L	0.02030	0.25375	
* Sodium, Dissolved	2/25/22 14:30	3/1/22 08:32		1.015	11.2	mg/L	0.03045	0.406	
<b>Analytical Method: EPA 200.8</b>		<b>Analyst: ABB</b>			<b>Preparation Method: EPA 1638</b>				
* Antimony, Total	2/16/22 10:47	2/18/22 13:48		1.015	0.000710	mg/L	0.000508	0.001015	J
* Aluminum, Total	2/16/22 10:47	2/18/22 13:48		1.015	0.0203	mg/L	0.004060	0.01015	
* Arsenic, Total	2/16/22 10:47	2/18/22 13:48		1.015	0.0106	mg/L	0.000068	0.000203	
* Barium, Total	2/16/22 10:47	2/18/22 13:48		1.015	0.0970	mg/L	0.000102	0.000203	
* Beryllium, Total	2/16/22 10:47	2/18/22 13:48		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Total	2/16/22 10:47	2/18/22 13:48		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Total	2/16/22 10:47	2/18/22 13:48		1.015	0.000259	mg/L	0.000203	0.001015	J
* Cobalt, Total	2/16/22 10:47	2/18/22 13:48		1.015	0.000652	mg/L	0.000068	0.000203	
* Lead, Total	2/16/22 10:47	2/18/22 13:48		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Total	2/16/22 10:47	2/22/22 11:56		10.15	2.50	mg/L	0.000680	0.00203	
* Molybdenum, Total	2/16/22 10:47	2/18/22 13:48		1.015	0.0411	mg/L	0.000068	0.000203	
* Potassium, Total	2/16/22 10:47	2/18/22 13:48		1.015	3.78	mg/L	0.169505	0.5075	

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.

# Certificate Of Analysis

**Description:** Gorgas Ash Pond - MW-6S

**Location Code:** WMWGORAP

**Collected:** 2/14/22 11:18

**Customer ID:**

**Submittal Date:** 2/15/22 11:16

**Laboratory ID Number:** BC03240

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
* Selenium, Total	2/16/22 10:47	2/18/22 13:48		1.015	0.000854	mg/L	0.000508	0.001015	J
* Thallium, Total	2/16/22 10:47	2/18/22 13:48		1.015	Not Detected	mg/L	0.000068	0.000203	U
<b>Analytical Method: EPA 200.8</b>		<b>Analyst: ABB</b>							
* Antimony, Dissolved	2/16/22 11:25	2/16/22 17:11		1.015	0.000585	mg/L	0.000508	0.001015	J
* Aluminum, Dissolved	2/16/22 11:25	2/16/22 17:11		1.015	Not Detected	mg/L	0.004060	0.01015	U
* Arsenic, Dissolved	2/16/22 11:25	2/16/22 17:11		1.015	0.00593	mg/L	0.000068	0.000203	
* Barium, Dissolved	2/16/22 11:25	2/16/22 17:11		1.015	0.0825	mg/L	0.000102	0.000203	
* Beryllium, Dissolved	2/16/22 11:25	2/16/22 17:11		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Dissolved	2/16/22 11:25	2/16/22 17:11		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Dissolved	2/16/22 11:25	2/16/22 17:11		1.015	Not Detected	mg/L	0.000203	0.001015	U
* Cobalt, Dissolved	2/16/22 11:25	2/16/22 17:11		1.015	0.000587	mg/L	0.000068	0.000203	
* Lead, Dissolved	2/16/22 11:25	2/16/22 17:11		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Dissolved	2/16/22 11:25	2/18/22 15:49		10.15	2.56	mg/L	0.000680	0.00203	
* Molybdenum, Dissolved	2/16/22 11:25	2/16/22 17:11		1.015	0.0418	mg/L	0.000068	0.000203	
* Potassium, Dissolved	2/16/22 11:25	2/16/22 17:11		1.015	3.81	mg/L	0.169505	0.5075	
* Selenium, Dissolved	2/16/22 11:25	2/16/22 17:11		1.015	0.00145	mg/L	0.000508	0.001015	
* Thallium, Dissolved	2/16/22 11:25	2/16/22 17:11		1.015	Not Detected	mg/L	0.000068	0.000203	U
<b>Analytical Method: EPA 245.1</b>		<b>Analyst: CRB</b>							
* Mercury, Total by CVAA	2/24/22 14:29	2/24/22 18:46		1	Not Detected	mg/L	0.0003	0.0005	U
<b>Analytical Method: EPA 353.2</b>		<b>Analyst: ELH</b>							
* Nitrogen, Nitrate/Nitrite	2/21/22 13:05	2/21/22 13:05		1	0.273	mg/L as N	0.20	0.3	J
<b>Analytical Method: SM 2320 B</b>		<b>Analyst: ALH</b>							
Alkalinity, Total as CaCO3	2/22/22 13:25	2/22/22 16:32		1	113	mg/L		0.1	
<b>Analytical Method: SM 2540C</b>		<b>Analyst: CNJ</b>							
* Solids, Dissolved	2/16/22 11:06	2/18/22 10:00		1	299	mg/L		25	
<b>Analytical Method: SM 4500CO2 D</b>		<b>Analyst: ALH</b>							
Bicarbonate Alkalinity, (calc.)	2/22/22 13:25	2/22/22 16:32		1	112	mg/L			
Carbonate Alkalinity, (calc.)	2/22/22 13:25	2/22/22 16:32		1	0.65	mg/L			
<b>Analytical Method: SM 5310 B</b>		<b>Analyst: ELH</b>							
* Total Organic Carbon	2/19/22 00:28	2/19/22 00:28		1	1.14	mg/L	1.00	2	J

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.

# Certificate Of Analysis

**Description:** Gorgas Ash Pond - MW-6S

**Location Code:** WMWGORAP

**Collected:** 2/14/22 11:18

**Customer ID:**

**Submittal Date:** 2/15/22 11:16

**Laboratory ID Number:** BC03240

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
<b>Analytical Method: SM4500Cl E</b>		<b>Analyst: JCC</b>							
* Chloride	2/16/22 09:53	2/16/22 09:53		2	20.6	mg/L	1.00	2	
<b>Analytical Method: SM4500F G 2017</b>		<b>Analyst: JCC</b>							
* Fluoride	2/16/22 11:24	2/16/22 11:24		1	0.164	mg/L	0.06	0.1	
<b>Analytical Method: SM4500SO4 E 2011</b>		<b>Analyst: JCC</b>							
* Sulfate	2/22/22 11:36	2/22/22 11:36		8	115	mg/L	4.00	8	
<b>Analytical Method: Field Measurements</b>		<b>Analyst: TJD</b>							
Conductivity	2/14/22 11:14	2/14/22 11:14			480.16	uS/cm			FA
pH	2/14/22 11:14	2/14/22 11:14			6.99	SU			FA
Temperature	2/14/22 11:14	2/14/22 11:14			16.98	C			FA
Turbidity	2/14/22 11:14	2/14/22 11:14			4.99	NTU			FA

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.

# Batch QC Summary

**Customer Account:** WMWGORAP

**Sample Date:** 2/14/22 11:18

**Customer ID:**

**Delivery Date:** 2/15/22 11:16

**Description:** Gorgas Ash Pond - MW-6S

**Laboratory ID Number:** BC03240

Sample	Analysis	Units	MB	MB				Standard		Rec		Prec	Limit
				Limit	Spike	MS	MSD	Standard	Limit	Rec	Limit		
BC03247	Aluminum, Dissolved	mg/L	0.0000565	0.010	0.100	0.0999	0.0998	0.0990	0.0850 to 0.115	95.8	70.0 to 130	0.100	20.0
BC03248	Aluminum, Total	mg/L	0.000788	0.010	0.100	0.101	0.101	0.100	0.0850 to 0.115	101	70.0 to 130	0.00	20.0
BC03247	Antimony, Dissolved	mg/L	0.000176	0.00100	0.100	0.0930	0.0937	0.0917	0.0850 to 0.115	93.0	70.0 to 130	0.750	20.0
BC03248	Antimony, Total	mg/L	0.000222	0.00100	0.100	0.0957	0.0967	0.0973	0.0850 to 0.115	95.7	70.0 to 130	1.04	20.0
BC03247	Arsenic, Dissolved	mg/L	0.0000108	0.000176	0.100	0.0999	0.102	0.100	0.0850 to 0.115	96.8	70.0 to 130	2.08	20.0
BC03248	Arsenic, Total	mg/L	0.000012	0.000176	0.100	0.104	0.102	0.104	0.0850 to 0.115	104	70.0 to 130	1.94	20.0
BC03247	Barium, Dissolved	mg/L	0.00000	0.000200	0.100	0.295	0.295	0.0940	0.0850 to 0.115	96.0	70.0 to 130	0.00	20.0
BC03248	Barium, Total	mg/L	-0.0000261	0.000200	0.100	0.102	0.104	0.104	0.0850 to 0.115	102	70.0 to 130	1.94	20.0
BC03247	Beryllium, Dissolved	mg/L	0.000136	0.000880	0.100	0.0962	0.107	0.0981	0.0850 to 0.115	96.2	70.0 to 130	10.6	20.0
BC03248	Beryllium, Total	mg/L	0.000124	0.000880	0.100	0.100	0.101	0.103	0.0850 to 0.115	100	70.0 to 130	0.995	20.0
BC03245	Boron, Dissolved	mg/L	-0.000009	0.0650	1.00	1.07	1.08	0.958	0.850 to 1.15	100	70.0 to 130	0.930	20.0
BC03245	Boron, Total	mg/L	-0.000344	0.0650	1.00	1.08	1.07	0.988	0.850 to 1.15	101	70.0 to 130	0.930	20.0
BC03247	Cadmium, Dissolved	mg/L	0.0000045	0.000147	0.100	0.0925	0.0926	0.0943	0.0850 to 0.115	92.5	70.0 to 130	0.108	20.0
BC03248	Cadmium, Total	mg/L	0.0000051	0.000147	0.100	0.105	0.105	0.106	0.0850 to 0.115	105	70.0 to 130	0.00	20.0
BC03245	Calcium, Dissolved	mg/L	-0.0100	0.152	5.00	6.26	6.22	4.91	4.25 to 5.75	93.4	70.0 to 130	0.641	20.0
BC03245	Calcium, Total	mg/L	-0.00796	0.152	5.00	6.53	6.45	4.87	4.25 to 5.75	97.4	70.0 to 130	1.23	20.0
BC03247	Chromium, Dissolved	mg/L	-0.0000309	0.000440	0.100	0.0996	0.0980	0.102	0.0850 to 0.115	99.6	70.0 to 130	1.62	20.0
BC03248	Chromium, Total	mg/L	0.0000153	0.000440	0.100	0.103	0.104	0.105	0.0850 to 0.115	103	70.0 to 130	0.966	20.0
BC03247	Cobalt, Dissolved	mg/L	0.0000091	0.000147	0.100	0.102	0.101	0.105	0.0850 to 0.115	102	70.0 to 130	0.985	20.0
BC03248	Cobalt, Total	mg/L	0.000006	0.000147	0.100	0.106	0.107	0.108	0.0850 to 0.115	106	70.0 to 130	0.939	20.0
BC03245	Iron, Dissolved	mg/L	-0.000587	0.0176	0.2	0.279	0.272	0.200	0.170 to 0.230	98.3	70.0 to 130	2.54	20.0
BC03245	Iron, Total	mg/L	-0.0002	0.0176	0.2	0.315	0.313	0.198	0.170 to 0.230	101	70.0 to 130	0.637	20.0
BC03247	Lead, Dissolved	mg/L	0.0000107	0.000147	0.100	0.0974	0.102	0.101	0.0850 to 0.115	97.4	70.0 to 130	4.61	20.0

**Comments:** The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.

# Batch QC Summary

**Customer Account:** WMWGORAP

**Sample Date:** 2/14/22 11:18

**Customer ID:**

**Delivery Date:** 2/15/22 11:16

**Description:** Gorgas Ash Pond - MW-6S

**Laboratory ID Number:** BC03240

Sample	Analysis	Units	MB	MB				Standard		Rec		Prec	Limit
				Limit	Spike	MS	MSD	Standard	Limit	Rec	Limit		
BC03248	Lead, Total	mg/L	0.0000018	0.000147	0.100	0.107	0.107	0.109	0.0850 to 0.115	107	70.0 to 130	0.00	20.0
BC03245	Lithium, Dissolved	mg/L	0.000167	0.0154	0.200	0.248	0.242	0.194	0.170 to 0.230	97.0	70.0 to 130	2.45	20.0
BC03245	Lithium, Total	mg/L	-0.000304	0.0154	0.200	0.258	0.258	0.204	0.170 to 0.230	101	70.0 to 130	0.00	20.0
BC03245	Magnesium, Dissolved	mg/L	-0.00744	0.0462	5.00	5.29	5.22	5.07	4.25 to 5.75	95.8	70.0 to 130	1.33	20.0
BC03245	Magnesium, Total	mg/L	-0.00541	0.0462	5.00	5.57	5.54	5.16	4.25 to 5.75	101	70.0 to 130	0.540	20.0
BC03247	Manganese, Dissolved	mg/L	-0.000126	0.0002	0.100	0.111	0.111	0.104	0.0850 to 0.115	101	70.0 to 130	0.00	20.0
BC03248	Manganese, Total	mg/L	0.0000678	0.0002	0.100	0.105	0.105	0.106	0.0850 to 0.115	105	70.0 to 130	0.00	20.0
BC03245	Mercury, Total by CVAA	mg/L	-9.000E-05	0.000500	0.004	0.0039	0.0039	0.00387	0.00340 to 0.00460	97.5	70.0 to 130	0.00	20.0
BC03247	Molybdenum, Dissolved	mg/L	0.0000073	0.0002	0.100	0.154	0.157	0.0999	0.0850 to 0.115	94.5	70.0 to 130	1.93	20.0
BC03248	Molybdenum, Total	mg/L	0.0000199	0.0002	0.100	0.103	0.105	0.105	0.0850 to 0.115	103	70.0 to 130	1.92	20.0
BC03247	Potassium, Dissolved	mg/L	-0.0162	0.367	10.0	10.8	10.8	9.99	8.50 to 11.5	94.7	70.0 to 130	0.00	20.0
BC03248	Potassium, Total	mg/L	0.00661	0.367	10.0	10.3	10.3	10.3	8.50 to 11.5	103	70.0 to 130	0.00	20.0
BC03247	Selenium, Dissolved	mg/L	-0.0000165	0.00100	0.100	0.0991	0.100	0.0976	0.0850 to 0.115	99.1	70.0 to 130	0.904	20.0
BC03248	Selenium, Total	mg/L	0.0000249	0.00100	0.100	0.106	0.108	0.107	0.0850 to 0.115	106	70.0 to 130	1.87	20.0
BC03245	Silicon, Dissolved	mg/L	-0.000094	0.0440	1.00	9.17	9.20	1.00	0.850 to 1.15	105	70.0 to 130	0.327	20.0
BC03245	Silicon, Total	mg/L	-0.000132	0.0440	1.00	9.34	9.33	1.02	0.850 to 1.15	108	70.0 to 130	0.107	20.0
BC03245	Sodium, Dissolved	mg/L	-0.00619	0.0660	5.00	186	190	4.98	4.25 to 5.75	-100	70.0 to 130	2.13	20.0
BC03245	Sodium, Total	mg/L	-0.00123	0.0660	5.00	185	179	5.12	4.25 to 5.75	60.0	70.0 to 130	3.30	20.0
BC03247	Thallium, Dissolved	mg/L	-0.0000004	0.000147	0.100	0.0973	0.100	0.103	0.0850 to 0.115	97.3	70.0 to 130	2.74	20.0
BC03248	Thallium, Total	mg/L	0.0000004	0.000147	0.100	0.108	0.109	0.111	0.0850 to 0.115	108	70.0 to 130	0.922	20.0
BC03246	Total Organic Carbon	mg/L	0.300	1.00	10.0	10.3	10.4	26.0		103	80.0 to 120	0.966	20.0

**Comments:** The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.



## Batch QC Summary

**Customer Account:** WMWGORAP

**Sample Date:** 2/14/22 11:18

**Customer ID:**

**Delivery Date:** 2/15/22 11:16

**Description:** Gorgas Ash Pond - MW-6S

**Laboratory ID Number:** BC03240

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BC03249	Alkalinity, Total as CaCO3	mg/L					249	50.4	45.0 to 55.0			6.21	10.0
BC03245	Chloride	mg/L	-0.0522	1.00	10.0	18.5	8.33	10.2	9.00 to 11.0	102	80.0 to 120	0.00	20.0
BC03242	Fluoride	mg/L	-0.032	0.125	2.50	2.64	0.104	2.60	2.25 to 2.75	101	80.0 to 120	3.77	20.0
BC03245	Nitrogen, Nitrate/Nitrite	mg/L as N	-0.01	0.200	2.00	1.75	-0.022	1.91	1.80 to 2.20	87.5	90.0 to 110	0.00	15.0
BC03249	Solids, Dissolved	mg/L	1.00	25.0			364	50.0	40.0 to 60.0			2.79	10.0
BC03245	Sulfate	mg/L	-0.0815	2.0	20.0	23.3	3.65	20.4	18.0 to 22.0	96.6	80.0 to 120	8.90	20.0

**Comments:** The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.

# Certificate Of Analysis

**Description:** Gorgas Ash Pond - MW-6S DUP

**Location Code:** WMWGORAP  
**Collected:** 2/14/22 11:18  
**Customer ID:**  
**Submittal Date:** 2/15/22 11:16

**Laboratory ID Number:** BC03241

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
<b>Analytical Method: EPA 200.7</b>		<b>Analyst: RDA</b>			<b>Preparation Method: EPA 1638</b>				
* Boron, Total	2/25/22 10:56	2/28/22 09:29		1.015	0.984	mg/L	0.030000	0.1015	
* Calcium, Total	2/25/22 10:56	2/28/22 11:21		20.3	54.8	mg/L	1.4007	8.12	
* Iron, Total	2/25/22 10:56	2/28/22 11:21		20.3	5.87	mg/L	0.1624	0.812	
* Lithium, Total	2/25/22 10:56	2/28/22 09:29		1.015	0.0627	mg/L	0.007105	0.01999956	
* Magnesium, Total	2/25/22 10:56	2/28/22 09:29		1.015	20.5	mg/L	0.021315	0.406	
Silica, Total (calc.)	2/25/22 10:56	2/28/22 09:29		1	10.4	mg/L			
Silicon, Total	2/25/22 10:56	2/28/22 09:29		1.015	4.86	mg/L	0.02030	0.25375	
* Sodium, Total	2/25/22 10:56	2/28/22 09:29		1.015	11.1	mg/L	0.03045	0.406	
<b>Analytical Method: EPA 200.7</b>		<b>Analyst: RDA</b>			<b>Preparation Method: EPA 1638</b>				
* Boron, Dissolved	2/25/22 14:30	3/1/22 08:34		1.015	0.988	mg/L	0.030000	0.1015	
* Calcium, Dissolved	2/25/22 14:30	3/1/22 10:27		20.3	54.4	mg/L	1.4007	8.12	
* Iron, Dissolved	2/25/22 14:30	3/1/22 10:27		20.3	5.06	mg/L	0.1624	0.812	
* Lithium, Dissolved	2/25/22 14:30	3/1/22 08:34		1.015	0.0650	mg/L	0.007105	0.01999956	
* Magnesium, Dissolved	2/25/22 14:30	3/1/22 08:34		1.015	20.1	mg/L	0.021315	0.406	
Silica, Dissolved (calc.)	2/25/22 14:30	3/1/22 08:34		1	10.2	mg/L			
Silicon, Dissolved	2/25/22 14:30	3/1/22 08:34		1.015	4.76	mg/L	0.02030	0.25375	
* Sodium, Dissolved	2/25/22 14:30	3/1/22 08:34		1.015	11.1	mg/L	0.03045	0.406	
<b>Analytical Method: EPA 200.8</b>		<b>Analyst: ABB</b>			<b>Preparation Method: EPA 1638</b>				
* Antimony, Total	2/16/22 10:47	2/18/22 13:51		1.015	0.000694	mg/L	0.000508	0.001015	J
* Aluminum, Total	2/16/22 10:47	2/18/22 13:51		1.015	0.0201	mg/L	0.004060	0.01015	
* Arsenic, Total	2/16/22 10:47	2/18/22 13:51		1.015	0.0108	mg/L	0.000068	0.000203	
* Barium, Total	2/16/22 10:47	2/18/22 13:51		1.015	0.0960	mg/L	0.000102	0.000203	
* Beryllium, Total	2/16/22 10:47	2/18/22 13:51		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Total	2/16/22 10:47	2/18/22 13:51		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Total	2/16/22 10:47	2/18/22 13:51		1.015	0.000238	mg/L	0.000203	0.001015	J
* Cobalt, Total	2/16/22 10:47	2/18/22 13:51		1.015	0.000708	mg/L	0.000068	0.000203	
* Lead, Total	2/16/22 10:47	2/18/22 13:51		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Total	2/16/22 10:47	2/22/22 12:00		10.15	2.76	mg/L	0.000680	0.00203	
* Molybdenum, Total	2/16/22 10:47	2/18/22 13:51		1.015	0.0406	mg/L	0.000068	0.000203	
* Potassium, Total	2/16/22 10:47	2/18/22 13:51		1.015	3.83	mg/L	0.169505	0.5075	

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.

# Certificate Of Analysis

**Description:** Gorgas Ash Pond - MW-6S DUP

**Location Code:** WMWGORAP  
**Collected:** 2/14/22 11:18  
**Customer ID:**  
**Submittal Date:** 2/15/22 11:16

**Laboratory ID Number:** BC03241

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
* Selenium, Total	2/16/22 10:47	2/18/22 13:51		1.015	0.000883	mg/L	0.000508	0.001015	J
* Thallium, Total	2/16/22 10:47	2/18/22 13:51		1.015	Not Detected	mg/L	0.000068	0.000203	U
<b>Analytical Method: EPA 200.8</b>		<b>Analyst: ABB</b>							
* Antimony, Dissolved	2/16/22 11:25	2/16/22 17:14		1.015	0.000610	mg/L	0.000508	0.001015	J
* Aluminum, Dissolved	2/16/22 11:25	2/16/22 17:14		1.015	Not Detected	mg/L	0.004060	0.01015	U
* Arsenic, Dissolved	2/16/22 11:25	2/16/22 17:14		1.015	0.00641	mg/L	0.000068	0.000203	
* Barium, Dissolved	2/16/22 11:25	2/16/22 17:14		1.015	0.0861	mg/L	0.000102	0.000203	
* Beryllium, Dissolved	2/16/22 11:25	2/16/22 17:14		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Dissolved	2/16/22 11:25	2/16/22 17:14		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Dissolved	2/16/22 11:25	2/16/22 17:14		1.015	Not Detected	mg/L	0.000203	0.001015	U
* Cobalt, Dissolved	2/16/22 11:25	2/16/22 17:14		1.015	0.000602	mg/L	0.000068	0.000203	
* Lead, Dissolved	2/16/22 11:25	2/16/22 17:14		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Dissolved	2/16/22 11:25	2/18/22 15:53		10.15	2.54	mg/L	0.000680	0.00203	
* Molybdenum, Dissolved	2/16/22 11:25	2/16/22 17:14		1.015	0.0433	mg/L	0.000068	0.000203	
* Potassium, Dissolved	2/16/22 11:25	2/16/22 17:14		1.015	3.89	mg/L	0.169505	0.5075	
* Selenium, Dissolved	2/16/22 11:25	2/16/22 17:14		1.015	0.00138	mg/L	0.000508	0.001015	
* Thallium, Dissolved	2/16/22 11:25	2/16/22 17:14		1.015	Not Detected	mg/L	0.000068	0.000203	U
<b>Analytical Method: EPA 245.1</b>		<b>Analyst: CRB</b>							
* Mercury, Total by CVAA	2/24/22 14:29	2/24/22 18:50		1	Not Detected	mg/L	0.0003	0.0005	U
<b>Analytical Method: EPA 353.2</b>		<b>Analyst: ELH</b>							
* Nitrogen, Nitrate/Nitrite	2/21/22 13:07	2/21/22 13:07		1	0.274	mg/L as N	0.20	0.3	J
<b>Analytical Method: SM 2320 B</b>		<b>Analyst: ALH</b>							
Alkalinity, Total as CaCO3	2/22/22 13:25	2/22/22 16:32		1	113	mg/L		0.1	
<b>Analytical Method: SM 2540C</b>		<b>Analyst: CNJ</b>							
* Solids, Dissolved	2/16/22 11:06	2/18/22 10:00		1	317	mg/L		25	
<b>Analytical Method: SM 4500CO2 D</b>		<b>Analyst: ALH</b>							
Bicarbonate Alkalinity, (calc.)	2/22/22 13:25	2/22/22 16:32		1	112	mg/L			
Carbonate Alkalinity, (calc.)	2/22/22 13:25	2/22/22 16:32		1	0.65	mg/L			
<b>Analytical Method: SM 5310 B</b>		<b>Analyst: ELH</b>							
* Total Organic Carbon	2/19/22 00:44	2/19/22 00:44		1	1.29	mg/L	1.00	2	J

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.

# Certificate Of Analysis

**Description:** Gorgas Ash Pond - MW-6S DUP

**Location Code:** WMWGORAP

**Collected:** 2/14/22 11:18

**Customer ID:**

**Submittal Date:** 2/15/22 11:16

**Laboratory ID Number:** BC03241

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
<b>Analytical Method: SM4500Cl E</b>		<b>Analyst: JCC</b>							
* Chloride	2/16/22 09:54	2/16/22 09:54		2	20.5	mg/L	1.00	2	
<b>Analytical Method: SM4500F G 2017</b>		<b>Analyst: JCC</b>							
* Fluoride	2/16/22 11:25	2/16/22 11:25		1	0.172	mg/L	0.06	0.1	
<b>Analytical Method: SM4500SO4 E 2011</b>		<b>Analyst: JCC</b>							
* Sulfate	2/22/22 11:37	2/22/22 11:37		8	120	mg/L	4.00	8	
<b>Analytical Method: Field Measurements</b>		<b>Analyst: TJD</b>							
Conductivity	2/14/22 11:14	2/14/22 11:14			480.16	uS/cm			FA
pH	2/14/22 11:14	2/14/22 11:14			6.99	SU			FA
Temperature	2/14/22 11:14	2/14/22 11:14			16.98	C			FA
Turbidity	2/14/22 11:14	2/14/22 11:14			4.99	NTU			FA

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.

# Batch QC Summary

**Customer Account:** WMWGORAP

**Sample Date:** 2/14/22 11:18

**Customer ID:**

**Delivery Date:** 2/15/22 11:16

**Description:** Gorgas Ash Pond - MW-6S DUP

**Laboratory ID Number:** BC03241

Sample	Analysis	Units	MB	MB		Spike	MS	MSD	Standard		Rec		Prec	Limit
				Limit					Standard	Limit	Rec	Limit		
BC03247	Aluminum, Dissolved	mg/L	0.0000565	0.010	0.100	0.0999	0.0998	0.0990	0.0850 to 0.115	95.8	70.0 to 130	0.100	20.0	
BC03248	Aluminum, Total	mg/L	0.000788	0.010	0.100	0.101	0.101	0.100	0.0850 to 0.115	101	70.0 to 130	0.00	20.0	
BC03247	Antimony, Dissolved	mg/L	0.000176	0.00100	0.100	0.0930	0.0937	0.0917	0.0850 to 0.115	93.0	70.0 to 130	0.750	20.0	
BC03248	Antimony, Total	mg/L	0.000222	0.00100	0.100	0.0957	0.0967	0.0973	0.0850 to 0.115	95.7	70.0 to 130	1.04	20.0	
BC03247	Arsenic, Dissolved	mg/L	0.0000108	0.000176	0.100	0.0999	0.102	0.100	0.0850 to 0.115	96.8	70.0 to 130	2.08	20.0	
BC03248	Arsenic, Total	mg/L	0.000012	0.000176	0.100	0.104	0.102	0.104	0.0850 to 0.115	104	70.0 to 130	1.94	20.0	
BC03247	Barium, Dissolved	mg/L	0.00000	0.000200	0.100	0.295	0.295	0.0940	0.0850 to 0.115	96.0	70.0 to 130	0.00	20.0	
BC03248	Barium, Total	mg/L	-0.0000261	0.000200	0.100	0.102	0.104	0.104	0.0850 to 0.115	102	70.0 to 130	1.94	20.0	
BC03247	Beryllium, Dissolved	mg/L	0.000136	0.000880	0.100	0.0962	0.107	0.0981	0.0850 to 0.115	96.2	70.0 to 130	10.6	20.0	
BC03248	Beryllium, Total	mg/L	0.000124	0.000880	0.100	0.100	0.101	0.103	0.0850 to 0.115	100	70.0 to 130	0.995	20.0	
BC03245	Boron, Dissolved	mg/L	-0.000009	0.0650	1.00	1.07	1.08	0.958	0.850 to 1.15	100	70.0 to 130	0.930	20.0	
BC03245	Boron, Total	mg/L	-0.000344	0.0650	1.00	1.08	1.07	0.988	0.850 to 1.15	101	70.0 to 130	0.930	20.0	
BC03247	Cadmium, Dissolved	mg/L	0.0000045	0.000147	0.100	0.0925	0.0926	0.0943	0.0850 to 0.115	92.5	70.0 to 130	0.108	20.0	
BC03248	Cadmium, Total	mg/L	0.0000051	0.000147	0.100	0.105	0.105	0.106	0.0850 to 0.115	105	70.0 to 130	0.00	20.0	
BC03245	Calcium, Dissolved	mg/L	-0.0100	0.152	5.00	6.26	6.22	4.91	4.25 to 5.75	93.4	70.0 to 130	0.641	20.0	
BC03245	Calcium, Total	mg/L	-0.00796	0.152	5.00	6.53	6.45	4.87	4.25 to 5.75	97.4	70.0 to 130	1.23	20.0	
BC03247	Chromium, Dissolved	mg/L	-0.0000309	0.000440	0.100	0.0996	0.0980	0.102	0.0850 to 0.115	99.6	70.0 to 130	1.62	20.0	
BC03248	Chromium, Total	mg/L	0.0000153	0.000440	0.100	0.103	0.104	0.105	0.0850 to 0.115	103	70.0 to 130	0.966	20.0	
BC03247	Cobalt, Dissolved	mg/L	0.0000091	0.000147	0.100	0.102	0.101	0.105	0.0850 to 0.115	102	70.0 to 130	0.985	20.0	
BC03248	Cobalt, Total	mg/L	0.000006	0.000147	0.100	0.106	0.107	0.108	0.0850 to 0.115	106	70.0 to 130	0.939	20.0	
BC03245	Iron, Dissolved	mg/L	-0.000587	0.0176	0.2	0.279	0.272	0.200	0.170 to 0.230	98.3	70.0 to 130	2.54	20.0	
BC03245	Iron, Total	mg/L	-0.0002	0.0176	0.2	0.315	0.313	0.198	0.170 to 0.230	101	70.0 to 130	0.637	20.0	
BC03247	Lead, Dissolved	mg/L	0.0000107	0.000147	0.100	0.0974	0.102	0.101	0.0850 to 0.115	97.4	70.0 to 130	4.61	20.0	

**Comments:** The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.

# Batch QC Summary

**Customer Account:** WMWGORAP  
**Sample Date:** 2/14/22 11:18  
**Customer ID:**  
**Delivery Date:** 2/15/22 11:16

**Description:** Gorgas Ash Pond - MW-6S DUP

**Laboratory ID Number:** BC03241

Sample	Analysis	Units	MB	MB				Standard		Rec		Prec	Limit
				Limit	Spike	MS	MSD	Standard	Limit	Rec	Limit		
BC03248	Lead, Total	mg/L	0.0000018	0.000147	0.100	0.107	0.107	0.109	0.0850 to 0.115	107	70.0 to 130	0.00	20.0
BC03245	Lithium, Dissolved	mg/L	0.000167	0.0154	0.200	0.248	0.242	0.194	0.170 to 0.230	97.0	70.0 to 130	2.45	20.0
BC03245	Lithium, Total	mg/L	-0.000304	0.0154	0.200	0.258	0.258	0.204	0.170 to 0.230	101	70.0 to 130	0.00	20.0
BC03245	Magnesium, Dissolved	mg/L	-0.00744	0.0462	5.00	5.29	5.22	5.07	4.25 to 5.75	95.8	70.0 to 130	1.33	20.0
BC03245	Magnesium, Total	mg/L	-0.00541	0.0462	5.00	5.57	5.54	5.16	4.25 to 5.75	101	70.0 to 130	0.540	20.0
BC03247	Manganese, Dissolved	mg/L	-0.000126	0.0002	0.100	0.111	0.111	0.104	0.0850 to 0.115	101	70.0 to 130	0.00	20.0
BC03248	Manganese, Total	mg/L	0.0000678	0.0002	0.100	0.105	0.105	0.106	0.0850 to 0.115	105	70.0 to 130	0.00	20.0
BC03245	Mercury, Total by CVAA	mg/L	-9.000E-05	0.000500	0.004	0.0039	0.0039	0.00387	0.00340 to 0.00460	97.5	70.0 to 130	0.00	20.0
BC03247	Molybdenum, Dissolved	mg/L	0.0000073	0.0002	0.100	0.154	0.157	0.0999	0.0850 to 0.115	94.5	70.0 to 130	1.93	20.0
BC03248	Molybdenum, Total	mg/L	0.0000199	0.0002	0.100	0.103	0.105	0.105	0.0850 to 0.115	103	70.0 to 130	1.92	20.0
BC03247	Potassium, Dissolved	mg/L	-0.0162	0.367	10.0	10.8	10.8	9.99	8.50 to 11.5	94.7	70.0 to 130	0.00	20.0
BC03248	Potassium, Total	mg/L	0.00661	0.367	10.0	10.3	10.3	10.3	8.50 to 11.5	103	70.0 to 130	0.00	20.0
BC03247	Selenium, Dissolved	mg/L	-0.0000165	0.00100	0.100	0.0991	0.100	0.0976	0.0850 to 0.115	99.1	70.0 to 130	0.904	20.0
BC03248	Selenium, Total	mg/L	0.0000249	0.00100	0.100	0.106	0.108	0.107	0.0850 to 0.115	106	70.0 to 130	1.87	20.0
BC03245	Silicon, Dissolved	mg/L	-0.000094	0.0440	1.00	9.17	9.20	1.00	0.850 to 1.15	105	70.0 to 130	0.327	20.0
BC03245	Silicon, Total	mg/L	-0.000132	0.0440	1.00	9.34	9.33	1.02	0.850 to 1.15	108	70.0 to 130	0.107	20.0
BC03245	Sodium, Dissolved	mg/L	-0.00619	0.0660	5.00	186	190	4.98	4.25 to 5.75	-100	70.0 to 130	2.13	20.0
BC03245	Sodium, Total	mg/L	-0.00123	0.0660	5.00	185	179	5.12	4.25 to 5.75	60.0	70.0 to 130	3.30	20.0
BC03247	Thallium, Dissolved	mg/L	-0.0000004	0.000147	0.100	0.0973	0.100	0.103	0.0850 to 0.115	97.3	70.0 to 130	2.74	20.0
BC03248	Thallium, Total	mg/L	0.0000004	0.000147	0.100	0.108	0.109	0.111	0.0850 to 0.115	108	70.0 to 130	0.922	20.0
BC03246	Total Organic Carbon	mg/L	0.300	1.00	10.0	10.3	10.4	26.0		103	80.0 to 120	0.966	20.0

**Comments:** The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.

## Batch QC Summary

**Customer Account:** WMWGORAP

**Sample Date:** 2/14/22 11:18

**Customer ID:**

**Delivery Date:** 2/15/22 11:16

**Description:** Gorgas Ash Pond - MW-6S DUP

**Laboratory ID Number:** BC03241

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Limit	Prec	Prec Limit
BC03249	Alkalinity, Total as CaCO3	mg/L					249	50.4	45.0 to 55.0			6.21	10.0
BC03245	Chloride	mg/L	-0.0522	1.00	10.0	18.5	8.33	10.2	9.00 to 11.0	102	80.0 to 120	0.00	20.0
BC03242	Fluoride	mg/L	-0.032	0.125	2.50	2.64	0.104	2.60	2.25 to 2.75	101	80.0 to 120	3.77	20.0
BC03245	Nitrogen, Nitrate/Nitrite	mg/L as N	-0.01	0.200	2.00	1.75	-0.022	1.91	1.80 to 2.20	87.5	90.0 to 110	0.00	15.0
BC03249	Solids, Dissolved	mg/L	1.00	25.0			364	50.0	40.0 to 60.0			2.79	10.0
BC03245	Sulfate	mg/L	-0.0815	2.0	20.0	23.3	3.65	20.4	18.0 to 22.0	96.6	80.0 to 120	8.90	20.0

**Comments:** The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.

# Certificate Of Analysis

**Description:** Gorgas Ash Pond - MW-6D

**Location Code:** WMWGORAP  
**Collected:** 2/14/22 12:34  
**Customer ID:**  
**Submittal Date:** 2/15/22 11:16

**Laboratory ID Number:** BC03242

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
<b>Analytical Method: EPA 200.7</b>		<b>Analyst: RDA</b>			<b>Preparation Method: EPA 1638</b>				
* Boron, Total	2/25/22 10:56	2/28/22 09:31		1.015	1.29	mg/L	0.030000	0.1015	
* Calcium, Total	2/25/22 10:56	2/28/22 11:23		20.3	55.7	mg/L	1.4007	8.12	
* Iron, Total	2/25/22 10:56	2/28/22 09:31		1.015	0.0603	mg/L	0.008120	0.0406	
* Lithium, Total	2/25/22 10:56	2/28/22 09:31		1.015	0.302	mg/L	0.007105	0.01999956	
* Magnesium, Total	2/25/22 10:56	2/28/22 09:31		1.015	15.2	mg/L	0.021315	0.406	
Silica, Total (calc.)	2/25/22 10:56	2/28/22 09:31		1	14.6	mg/L			
Silicon, Total	2/25/22 10:56	2/28/22 09:31		1.015	6.82	mg/L	0.02030	0.25375	
* Sodium, Total	2/25/22 10:56	2/28/22 09:31		1.015	26.7	mg/L	0.03045	0.406	
<b>Analytical Method: EPA 200.7</b>		<b>Analyst: RDA</b>			<b>Preparation Method: EPA 1638</b>				
* Boron, Dissolved	2/25/22 14:30	3/1/22 08:36		1.015	1.32	mg/L	0.030000	0.1015	
* Calcium, Dissolved	2/25/22 14:30	3/1/22 10:29		20.3	56.7	mg/L	1.4007	8.12	
* Iron, Dissolved	2/25/22 14:30	3/1/22 08:36		1.015	0.0181	mg/L	0.008120	0.0406	J
* Lithium, Dissolved	2/25/22 14:30	3/1/22 08:36		1.015	0.286	mg/L	0.007105	0.01999956	
* Magnesium, Dissolved	2/25/22 14:30	3/1/22 08:36		1.015	15.0	mg/L	0.021315	0.406	
Silica, Dissolved (calc.)	2/25/22 14:30	3/1/22 08:36		1	15.0	mg/L			
Silicon, Dissolved	2/25/22 14:30	3/1/22 08:36		1.015	7.03	mg/L	0.02030	0.25375	
* Sodium, Dissolved	2/25/22 14:30	3/1/22 08:36		1.015	26.3	mg/L	0.03045	0.406	
<b>Analytical Method: EPA 200.8</b>		<b>Analyst: ABB</b>			<b>Preparation Method: EPA 1638</b>				
* Antimony, Total	2/16/22 10:47	2/18/22 13:55		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Aluminum, Total	2/16/22 10:47	2/18/22 13:55		1.015	0.00587	mg/L	0.004060	0.01015	J
* Arsenic, Total	2/16/22 10:47	2/18/22 13:55		1.015	0.120	mg/L	0.000068	0.000203	
* Barium, Total	2/16/22 10:47	2/18/22 13:55		1.015	0.599	mg/L	0.000102	0.000203	
* Beryllium, Total	2/16/22 10:47	2/18/22 13:55		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Total	2/16/22 10:47	2/18/22 13:55		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Total	2/16/22 10:47	2/18/22 13:55		1.015	0.000243	mg/L	0.000203	0.001015	J
* Cobalt, Total	2/16/22 10:47	2/18/22 13:55		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Lead, Total	2/16/22 10:47	2/18/22 13:55		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Total	2/16/22 10:47	2/18/22 13:55		1.015	0.192	mg/L	0.000068	0.000203	
* Molybdenum, Total	2/16/22 10:47	2/18/22 13:55		1.015	0.0115	mg/L	0.000068	0.000203	
* Potassium, Total	2/16/22 10:47	2/18/22 13:55		1.015	2.35	mg/L	0.169505	0.5075	

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.



# Certificate Of Analysis

**Description:** Gorgas Ash Pond - MW-6D

**Location Code:** WMWGORAP  
**Collected:** 2/14/22 12:34  
**Customer ID:**  
**Submittal Date:** 2/15/22 11:16

**Laboratory ID Number:** BC03242

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
* Selenium, Total	2/16/22 10:47	2/18/22 13:55		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Total	2/16/22 10:47	2/18/22 13:55		1.015	Not Detected	mg/L	0.000068	0.000203	U
<b>Analytical Method: EPA 200.8</b>		<b>Analyst: ABB</b>							
* Antimony, Dissolved	2/16/22 11:25	2/16/22 17:18		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Aluminum, Dissolved	2/16/22 11:25	2/16/22 17:18		1.015	Not Detected	mg/L	0.004060	0.01015	U
* Arsenic, Dissolved	2/16/22 11:25	2/16/22 17:18		1.015	0.111	mg/L	0.000068	0.000203	
* Barium, Dissolved	2/16/22 11:25	2/16/22 17:18		1.015	0.509	mg/L	0.000102	0.000203	
* Beryllium, Dissolved	2/16/22 11:25	2/16/22 17:18		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Dissolved	2/16/22 11:25	2/16/22 17:18		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Dissolved	2/16/22 11:25	2/16/22 17:18		1.015	Not Detected	mg/L	0.000203	0.001015	U
* Cobalt, Dissolved	2/16/22 11:25	2/16/22 17:18		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Lead, Dissolved	2/16/22 11:25	2/16/22 17:18		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Dissolved	2/16/22 11:25	2/16/22 17:18		1.015	0.186	mg/L	0.000068	0.000203	
* Molybdenum, Dissolved	2/16/22 11:25	2/16/22 17:18		1.015	0.00256	mg/L	0.000068	0.000203	
* Potassium, Dissolved	2/16/22 11:25	2/16/22 17:18		1.015	2.29	mg/L	0.169505	0.5075	
* Selenium, Dissolved	2/16/22 11:25	2/16/22 17:18		1.015	0.000612	mg/L	0.000508	0.001015	J
* Thallium, Dissolved	2/16/22 11:25	2/16/22 17:18		1.015	Not Detected	mg/L	0.000068	0.000203	U
<b>Analytical Method: EPA 245.1</b>		<b>Analyst: CRB</b>							
* Mercury, Total by CVAA	2/24/22 14:29	2/24/22 18:54		1	Not Detected	mg/L	0.0003	0.0005	U
<b>Analytical Method: EPA 353.2</b>		<b>Analyst: ELH</b>							
* Nitrogen, Nitrate/Nitrite	2/21/22 13:09	2/21/22 13:09		1	Not Detected	mg/L as N	0.20	0.3	U
<b>Analytical Method: SM 2320 B</b>		<b>Analyst: ALH</b>							
Alkalinity, Total as CaCO3	2/22/22 13:25	2/22/22 16:32		1	211	mg/L		0.1	
<b>Analytical Method: SM 2540C</b>		<b>Analyst: CNJ</b>							
* Solids, Dissolved	2/16/22 11:06	2/18/22 10:00		1	297	mg/L		25	
<b>Analytical Method: SM 4500CO2 D</b>		<b>Analyst: ALH</b>							
Bicarbonate Alkalinity, (calc.)	2/22/22 13:25	2/22/22 16:32		1	209	mg/L			
Carbonate Alkalinity, (calc.)	2/22/22 13:25	2/22/22 16:32		1	2.06	mg/L			
<b>Analytical Method: SM 5310 B</b>		<b>Analyst: ELH</b>							
* Total Organic Carbon	2/19/22 01:04	2/19/22 01:04		1	1.31	mg/L	1.00	2	J

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.

# Certificate Of Analysis

**Description:** Gorgas Ash Pond - MW-6D

**Location Code:** WMWGORAP

**Collected:** 2/14/22 12:34

**Customer ID:**

**Submittal Date:** 2/15/22 11:16

**Laboratory ID Number:** BC03242

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
<b>Analytical Method: SM4500Cl E</b>		<b>Analyst: JCC</b>							
* Chloride	2/16/22 09:45	2/16/22 09:45		1	11.7	mg/L	0.50	1	
<b>Analytical Method: SM4500F G 2017</b>		<b>Analyst: JCC</b>							
* Fluoride	2/16/22 11:27	2/16/22 11:27		1	0.108	mg/L	0.06	0.1	
<b>Analytical Method: SM4500SO4 E 2011</b>		<b>Analyst: JCC</b>							
* Sulfate	2/22/22 11:38	2/22/22 11:38		2	58.3	mg/L	1.00	2	
<b>Analytical Method: Field Measurements</b>		<b>Analyst: TJD</b>							
Conductivity	2/14/22 12:30	2/14/22 12:30			460.90	uS/cm			FA
pH	2/14/22 12:30	2/14/22 12:30			7.43	SU			FA
Temperature	2/14/22 12:30	2/14/22 12:30			17.83	C			FA
Turbidity	2/14/22 12:30	2/14/22 12:30			0.95	NTU			FA

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.

# Batch QC Summary

**Customer Account:** WMWGORAP

**Sample Date:** 2/14/22 12:34

**Customer ID:**

**Delivery Date:** 2/15/22 11:16

**Description:** Gorgas Ash Pond - MW-6D

**Laboratory ID Number:** BC03242

Sample	Analysis	Units	MB	MB		MS	MSD	Standard		Rec		Prec	Limit
				Limit	Spike			Standard	Limit	Rec	Limit		
BC03247	Aluminum, Dissolved	mg/L	0.0000565	0.010	0.100	0.0999	0.0998	0.0990	0.0850 to 0.115	95.8	70.0 to 130	0.100	20.0
BC03248	Aluminum, Total	mg/L	0.000788	0.010	0.100	0.101	0.101	0.100	0.0850 to 0.115	101	70.0 to 130	0.00	20.0
BC03247	Antimony, Dissolved	mg/L	0.000176	0.00100	0.100	0.0930	0.0937	0.0917	0.0850 to 0.115	93.0	70.0 to 130	0.750	20.0
BC03248	Antimony, Total	mg/L	0.000222	0.00100	0.100	0.0957	0.0967	0.0973	0.0850 to 0.115	95.7	70.0 to 130	1.04	20.0
BC03247	Arsenic, Dissolved	mg/L	0.0000108	0.000176	0.100	0.0999	0.102	0.100	0.0850 to 0.115	96.8	70.0 to 130	2.08	20.0
BC03248	Arsenic, Total	mg/L	0.000012	0.000176	0.100	0.104	0.102	0.104	0.0850 to 0.115	104	70.0 to 130	1.94	20.0
BC03247	Barium, Dissolved	mg/L	0.00000	0.000200	0.100	0.295	0.295	0.0940	0.0850 to 0.115	96.0	70.0 to 130	0.00	20.0
BC03248	Barium, Total	mg/L	-0.0000261	0.000200	0.100	0.102	0.104	0.104	0.0850 to 0.115	102	70.0 to 130	1.94	20.0
BC03247	Beryllium, Dissolved	mg/L	0.000136	0.000880	0.100	0.0962	0.107	0.0981	0.0850 to 0.115	96.2	70.0 to 130	10.6	20.0
BC03248	Beryllium, Total	mg/L	0.000124	0.000880	0.100	0.100	0.101	0.103	0.0850 to 0.115	100	70.0 to 130	0.995	20.0
BC03245	Boron, Dissolved	mg/L	-0.000009	0.0650	1.00	1.07	1.08	0.958	0.850 to 1.15	100	70.0 to 130	0.930	20.0
BC03245	Boron, Total	mg/L	-0.000344	0.0650	1.00	1.08	1.07	0.988	0.850 to 1.15	101	70.0 to 130	0.930	20.0
BC03247	Cadmium, Dissolved	mg/L	0.0000045	0.000147	0.100	0.0925	0.0926	0.0943	0.0850 to 0.115	92.5	70.0 to 130	0.108	20.0
BC03248	Cadmium, Total	mg/L	0.0000051	0.000147	0.100	0.105	0.105	0.106	0.0850 to 0.115	105	70.0 to 130	0.00	20.0
BC03245	Calcium, Dissolved	mg/L	-0.0100	0.152	5.00	6.26	6.22	4.91	4.25 to 5.75	93.4	70.0 to 130	0.641	20.0
BC03245	Calcium, Total	mg/L	-0.00796	0.152	5.00	6.53	6.45	4.87	4.25 to 5.75	97.4	70.0 to 130	1.23	20.0
BC03247	Chromium, Dissolved	mg/L	-0.0000309	0.000440	0.100	0.0996	0.0980	0.102	0.0850 to 0.115	99.6	70.0 to 130	1.62	20.0
BC03248	Chromium, Total	mg/L	0.0000153	0.000440	0.100	0.103	0.104	0.105	0.0850 to 0.115	103	70.0 to 130	0.966	20.0
BC03247	Cobalt, Dissolved	mg/L	0.0000091	0.000147	0.100	0.102	0.101	0.105	0.0850 to 0.115	102	70.0 to 130	0.985	20.0
BC03248	Cobalt, Total	mg/L	0.000006	0.000147	0.100	0.106	0.107	0.108	0.0850 to 0.115	106	70.0 to 130	0.939	20.0
BC03245	Iron, Dissolved	mg/L	-0.000587	0.0176	0.2	0.279	0.272	0.200	0.170 to 0.230	98.3	70.0 to 130	2.54	20.0
BC03245	Iron, Total	mg/L	-0.0002	0.0176	0.2	0.315	0.313	0.198	0.170 to 0.230	101	70.0 to 130	0.637	20.0
BC03247	Lead, Dissolved	mg/L	0.0000107	0.000147	0.100	0.0974	0.102	0.101	0.0850 to 0.115	97.4	70.0 to 130	4.61	20.0

**Comments:** The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.

# Batch QC Summary

**Customer Account:** WMWGORAP

**Sample Date:** 2/14/22 12:34

**Customer ID:**

**Delivery Date:** 2/15/22 11:16

**Description:** Gorgas Ash Pond - MW-6D

**Laboratory ID Number:** BC03242

Sample	Analysis	Units	MB	MB				Standard		Rec		Prec	Limit
				Limit	Spike	MS	MSD	Standard	Limit	Rec	Limit		
BC03248	Lead, Total	mg/L	0.0000018	0.000147	0.100	0.107	0.107	0.109	0.0850 to 0.115	107	70.0 to 130	0.00	20.0
BC03245	Lithium, Dissolved	mg/L	0.000167	0.0154	0.200	0.248	0.242	0.194	0.170 to 0.230	97.0	70.0 to 130	2.45	20.0
BC03245	Lithium, Total	mg/L	-0.000304	0.0154	0.200	0.258	0.258	0.204	0.170 to 0.230	101	70.0 to 130	0.00	20.0
BC03245	Magnesium, Dissolved	mg/L	-0.00744	0.0462	5.00	5.29	5.22	5.07	4.25 to 5.75	95.8	70.0 to 130	1.33	20.0
BC03245	Magnesium, Total	mg/L	-0.00541	0.0462	5.00	5.57	5.54	5.16	4.25 to 5.75	101	70.0 to 130	0.540	20.0
BC03247	Manganese, Dissolved	mg/L	-0.000126	0.0002	0.100	0.111	0.111	0.104	0.0850 to 0.115	101	70.0 to 130	0.00	20.0
BC03248	Manganese, Total	mg/L	0.0000678	0.0002	0.100	0.105	0.105	0.106	0.0850 to 0.115	105	70.0 to 130	0.00	20.0
BC03245	Mercury, Total by CVAA	mg/L	-9.000E-05	0.000500	0.004	0.0039	0.0039	0.00387	0.00340 to 0.00460	97.5	70.0 to 130	0.00	20.0
BC03247	Molybdenum, Dissolved	mg/L	0.0000073	0.0002	0.100	0.154	0.157	0.0999	0.0850 to 0.115	94.5	70.0 to 130	1.93	20.0
BC03248	Molybdenum, Total	mg/L	0.0000199	0.0002	0.100	0.103	0.105	0.105	0.0850 to 0.115	103	70.0 to 130	1.92	20.0
BC03247	Potassium, Dissolved	mg/L	-0.0162	0.367	10.0	10.8	10.8	9.99	8.50 to 11.5	94.7	70.0 to 130	0.00	20.0
BC03248	Potassium, Total	mg/L	0.00661	0.367	10.0	10.3	10.3	10.3	8.50 to 11.5	103	70.0 to 130	0.00	20.0
BC03247	Selenium, Dissolved	mg/L	-0.0000165	0.00100	0.100	0.0991	0.100	0.0976	0.0850 to 0.115	99.1	70.0 to 130	0.904	20.0
BC03248	Selenium, Total	mg/L	0.0000249	0.00100	0.100	0.106	0.108	0.107	0.0850 to 0.115	106	70.0 to 130	1.87	20.0
BC03245	Silicon, Dissolved	mg/L	-0.000094	0.0440	1.00	9.17	9.20	1.00	0.850 to 1.15	105	70.0 to 130	0.327	20.0
BC03245	Silicon, Total	mg/L	-0.000132	0.0440	1.00	9.34	9.33	1.02	0.850 to 1.15	108	70.0 to 130	0.107	20.0
BC03245	Sodium, Dissolved	mg/L	-0.00619	0.0660	5.00	186	190	4.98	4.25 to 5.75	-100	70.0 to 130	2.13	20.0
BC03245	Sodium, Total	mg/L	-0.00123	0.0660	5.00	185	179	5.12	4.25 to 5.75	60.0	70.0 to 130	3.30	20.0
BC03247	Thallium, Dissolved	mg/L	-0.0000004	0.000147	0.100	0.0973	0.100	0.103	0.0850 to 0.115	97.3	70.0 to 130	2.74	20.0
BC03248	Thallium, Total	mg/L	0.0000004	0.000147	0.100	0.108	0.109	0.111	0.0850 to 0.115	108	70.0 to 130	0.922	20.0
BC03246	Total Organic Carbon	mg/L	0.300	1.00	10.0	10.3	10.4	26.0		103	80.0 to 120	0.966	20.0

**Comments:** The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.

## Batch QC Summary

**Customer Account:** WMWGORAP

**Sample Date:** 2/14/22 12:34

**Customer ID:**

**Delivery Date:** 2/15/22 11:16

**Description:** Gorgas Ash Pond - MW-6D

**Laboratory ID Number:** BC03242

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BC03249	Alkalinity, Total as CaCO3	mg/L					249	50.4	45.0 to 55.0			6.21	10.0
BC03245	Chloride	mg/L	-0.0522	1.00	10.0	18.5	8.33	10.2	9.00 to 11.0	102	80.0 to 120	0.00	20.0
BC03242	Fluoride	mg/L	-0.032	0.125	2.50	2.64	0.104	2.60	2.25 to 2.75	101	80.0 to 120	3.77	20.0
BC03245	Nitrogen, Nitrate/Nitrite	mg/L as N	-0.01	0.200	2.00	1.75	-0.022	1.91	1.80 to 2.20	87.5	90.0 to 110	0.00	15.0
BC03249	Solids, Dissolved	mg/L	1.00	25.0			364	50.0	40.0 to 60.0			2.79	10.0
BC03245	Sulfate	mg/L	-0.0815	2.0	20.0	23.3	3.65	20.4	18.0 to 22.0	96.6	80.0 to 120	8.90	20.0

**Comments:** The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.

# Certificate Of Analysis

**Description:** Gorgas Ash Pond - MW-23H

**Location Code:** WMWGORAP  
**Collected:** 2/14/22 13:47  
**Customer ID:**  
**Submittal Date:** 2/15/22 11:16

**Laboratory ID Number:** BC03243

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
<b>Analytical Method: EPA 200.7</b>			<b>Analyst: RDA</b>		<b>Preparation Method: EPA 1638</b>				
* Boron, Total	2/25/22 10:56	2/28/22 09:33		1.015	0.0350	mg/L	0.030000	0.1015	J
* Calcium, Total	2/25/22 10:56	2/28/22 11:25		20.3	74.4	mg/L	1.4007	8.12	
* Iron, Total	2/25/22 10:56	2/28/22 11:25		20.3	49.1	mg/L	0.1624	0.812	
* Lithium, Total	2/25/22 10:56	2/28/22 09:33		1.015	0.0306	mg/L	0.007105	0.01999956	
* Magnesium, Total	2/25/22 10:56	2/28/22 09:33		1.015	34.4	mg/L	0.021315	0.406	
Silica, Total (calc.)	2/25/22 10:56	2/28/22 09:33		1	27.8	mg/L			
Silicon, Total	2/25/22 10:56	2/28/22 09:33		1.015	13.0	mg/L	0.02030	0.25375	
* Sodium, Total	2/25/22 10:56	2/28/22 09:33		1.015	22.1	mg/L	0.03045	0.406	
<b>Analytical Method: EPA 200.7</b>			<b>Analyst: RDA</b>		<b>Preparation Method: EPA 1638</b>				
* Boron, Dissolved	2/25/22 14:30	3/1/22 08:38		1.015	0.0347	mg/L	0.030000	0.1015	J
* Calcium, Dissolved	2/25/22 14:30	3/1/22 10:31		20.3	74.6	mg/L	1.4007	8.12	
* Iron, Dissolved	2/25/22 14:30	3/1/22 10:31		20.3	48.1	mg/L	0.1624	0.812	
* Lithium, Dissolved	2/25/22 14:30	3/1/22 08:38		1.015	0.0302	mg/L	0.007105	0.01999956	
* Magnesium, Dissolved	2/25/22 14:30	3/1/22 08:38		1.015	34.4	mg/L	0.021315	0.406	
Silica, Dissolved (calc.)	2/25/22 14:30	3/1/22 08:38		1	27.4	mg/L			
Silicon, Dissolved	2/25/22 14:30	3/1/22 08:38		1.015	12.8	mg/L	0.02030	0.25375	
* Sodium, Dissolved	2/25/22 14:30	3/1/22 08:38		1.015	21.6	mg/L	0.03045	0.406	
<b>Analytical Method: EPA 200.8</b>			<b>Analyst: ABB</b>		<b>Preparation Method: EPA 1638</b>				
* Antimony, Total	2/16/22 10:47	2/18/22 13:59		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Aluminum, Total	2/16/22 10:47	2/18/22 13:59		1.015	Not Detected	mg/L	0.004060	0.01015	U
* Arsenic, Total	2/16/22 10:47	2/18/22 13:59		1.015	0.0610	mg/L	0.000068	0.000203	
* Barium, Total	2/16/22 10:47	2/18/22 13:59		1.015	0.0166	mg/L	0.000102	0.000203	
* Beryllium, Total	2/16/22 10:47	2/18/22 13:59		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Total	2/16/22 10:47	2/18/22 13:59		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Total	2/16/22 10:47	2/18/22 13:59		1.015	0.000227	mg/L	0.000203	0.001015	J
* Cobalt, Total	2/16/22 10:47	2/18/22 13:59		1.015	0.000521	mg/L	0.000068	0.000203	
* Lead, Total	2/16/22 10:47	2/18/22 13:59		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Total	2/16/22 10:47	2/22/22 12:04		10.15	1.50	mg/L	0.000680	0.00203	
* Molybdenum, Total	2/16/22 10:47	2/18/22 13:59		1.015	0.000970	mg/L	0.000068	0.000203	
* Potassium, Total	2/16/22 10:47	2/18/22 13:59		1.015	2.51	mg/L	0.169505	0.5075	

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.

# Certificate Of Analysis

**Description:** Gorgas Ash Pond - MW-23H

**Location Code:** WMWGORAP  
**Collected:** 2/14/22 13:47  
**Customer ID:**  
**Submittal Date:** 2/15/22 11:16

**Laboratory ID Number:** BC03243

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
* Selenium, Total	2/16/22 10:47	2/18/22 13:59		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Total	2/16/22 10:47	2/18/22 13:59		1.015	Not Detected	mg/L	0.000068	0.000203	U
<b>Analytical Method: EPA 200.8</b>		<b>Analyst: ABB</b>							
* Antimony, Dissolved	2/16/22 11:25	2/16/22 17:21		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Aluminum, Dissolved	2/16/22 11:25	2/16/22 17:21		1.015	Not Detected	mg/L	0.004060	0.01015	U
* Arsenic, Dissolved	2/16/22 11:25	2/16/22 17:21		1.015	0.0562	mg/L	0.000068	0.000203	
* Barium, Dissolved	2/16/22 11:25	2/16/22 17:21		1.015	0.0154	mg/L	0.000102	0.000203	
* Beryllium, Dissolved	2/16/22 11:25	2/16/22 17:21		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Dissolved	2/16/22 11:25	2/16/22 17:21		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Dissolved	2/16/22 11:25	2/16/22 17:21		1.015	Not Detected	mg/L	0.000203	0.001015	U
* Cobalt, Dissolved	2/16/22 11:25	2/16/22 17:21		1.015	0.000494	mg/L	0.000068	0.000203	
* Lead, Dissolved	2/16/22 11:25	2/16/22 17:21		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Dissolved	2/16/22 11:25	2/18/22 15:57		10.15	1.52	mg/L	0.000680	0.00203	
* Molybdenum, Dissolved	2/16/22 11:25	2/16/22 17:21		1.015	0.000831	mg/L	0.000068	0.000203	
* Potassium, Dissolved	2/16/22 11:25	2/16/22 17:21		1.015	2.32	mg/L	0.169505	0.5075	
* Selenium, Dissolved	2/16/22 11:25	2/16/22 17:21		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Dissolved	2/16/22 11:25	2/16/22 17:21		1.015	Not Detected	mg/L	0.000068	0.000203	U
<b>Analytical Method: EPA 245.1</b>		<b>Analyst: CRB</b>							
* Mercury, Total by CVAA	2/24/22 14:29	2/24/22 18:58		1	Not Detected	mg/L	0.0003	0.0005	U
<b>Analytical Method: EPA 353.2</b>		<b>Analyst: ELH</b>							
* Nitrogen, Nitrate/Nitrite	2/21/22 13:10	2/21/22 13:10		1	0.222	mg/L as N	0.20	0.3	J
<b>Analytical Method: SM 2320 B</b>		<b>Analyst: ALH</b>							
Alkalinity, Total as CaCO3	2/22/22 13:25	2/22/22 16:32		1	83.3	mg/L		0.1	
<b>Analytical Method: SM 2540C</b>		<b>Analyst: CNJ</b>							
* Solids, Dissolved	2/16/22 11:06	2/18/22 10:00		1	592	mg/L		50	
<b>Analytical Method: SM 4500CO2 D</b>		<b>Analyst: ALH</b>							
Bicarbonate Alkalinity, (calc.)	2/22/22 13:25	2/22/22 16:32		1	83.2	mg/L			A
Carbonate Alkalinity, (calc.)	2/22/22 13:25	2/22/22 16:32		1	0.06	mg/L			A
<b>Analytical Method: SM 5310 B</b>		<b>Analyst: ELH</b>							
* Total Organic Carbon	2/19/22 01:22	2/19/22 01:22		1	Not Detected	mg/L	1.00	2	U

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.

# Certificate Of Analysis

**Description:** Gorgas Ash Pond - MW-23H

**Location Code:** WMWGORAP

**Collected:** 2/14/22 13:47

**Customer ID:**

**Submittal Date:** 2/15/22 11:16

**Laboratory ID Number:** BC03243

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
<b>Analytical Method: SM4500Cl E</b>		<b>Analyst: JCC</b>							
* Chloride	2/16/22 09:46	2/16/22 09:46		1	12.8	mg/L	0.50	1	
<b>Analytical Method: SM4500F G 2017</b>		<b>Analyst: JCC</b>							
* Fluoride	2/16/22 11:38	2/16/22 11:38		1	0.140	mg/L	0.06	0.1	
<b>Analytical Method: SM4500SO4 E 2011</b>		<b>Analyst: JCC</b>							
* Sulfate	2/22/22 11:39	2/22/22 11:39		20	356	mg/L	10.00	20	
<b>Analytical Method: Field Measurements</b>		<b>Analyst: TJD</b>							
Conductivity	2/14/22 13:44	2/14/22 13:44			770.30	uS/cm			FA
pH	2/14/22 13:44	2/14/22 13:44			5.80	SU			FA
Temperature	2/14/22 13:44	2/14/22 13:44			17.86	C			FA
Turbidity	2/14/22 13:44	2/14/22 13:44			1.88	NTU			FA

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.



# Batch QC Summary

**Customer Account:** WMWGORAP

**Sample Date:** 2/14/22 13:47

**Customer ID:**

**Delivery Date:** 2/15/22 11:16

**Description:** Gorgas Ash Pond - MW-23H

**Laboratory ID Number:** BC03243

Sample	Analysis	Units	MB	MB		MS	MSD	Standard		Rec		Prec	Limit
				Limit	Spike			Standard	Limit	Rec	Limit		
BC03247	Aluminum, Dissolved	mg/L	0.0000565	0.010	0.100	0.0999	0.0998	0.0990	0.0850 to 0.115	95.8	70.0 to 130	0.100	20.0
BC03248	Aluminum, Total	mg/L	0.000788	0.010	0.100	0.101	0.101	0.100	0.0850 to 0.115	101	70.0 to 130	0.00	20.0
BC03247	Antimony, Dissolved	mg/L	0.000176	0.00100	0.100	0.0930	0.0937	0.0917	0.0850 to 0.115	93.0	70.0 to 130	0.750	20.0
BC03248	Antimony, Total	mg/L	0.000222	0.00100	0.100	0.0957	0.0967	0.0973	0.0850 to 0.115	95.7	70.0 to 130	1.04	20.0
BC03247	Arsenic, Dissolved	mg/L	0.0000108	0.000176	0.100	0.0999	0.102	0.100	0.0850 to 0.115	96.8	70.0 to 130	2.08	20.0
BC03248	Arsenic, Total	mg/L	0.000012	0.000176	0.100	0.104	0.102	0.104	0.0850 to 0.115	104	70.0 to 130	1.94	20.0
BC03247	Barium, Dissolved	mg/L	0.00000	0.000200	0.100	0.295	0.295	0.0940	0.0850 to 0.115	96.0	70.0 to 130	0.00	20.0
BC03248	Barium, Total	mg/L	-0.0000261	0.000200	0.100	0.102	0.104	0.104	0.0850 to 0.115	102	70.0 to 130	1.94	20.0
BC03247	Beryllium, Dissolved	mg/L	0.000136	0.000880	0.100	0.0962	0.107	0.0981	0.0850 to 0.115	96.2	70.0 to 130	10.6	20.0
BC03248	Beryllium, Total	mg/L	0.000124	0.000880	0.100	0.100	0.101	0.103	0.0850 to 0.115	100	70.0 to 130	0.995	20.0
BC03245	Boron, Dissolved	mg/L	-0.000009	0.0650	1.00	1.07	1.08	0.958	0.850 to 1.15	100	70.0 to 130	0.930	20.0
BC03245	Boron, Total	mg/L	-0.000344	0.0650	1.00	1.08	1.07	0.988	0.850 to 1.15	101	70.0 to 130	0.930	20.0
BC03247	Cadmium, Dissolved	mg/L	0.0000045	0.000147	0.100	0.0925	0.0926	0.0943	0.0850 to 0.115	92.5	70.0 to 130	0.108	20.0
BC03248	Cadmium, Total	mg/L	0.0000051	0.000147	0.100	0.105	0.105	0.106	0.0850 to 0.115	105	70.0 to 130	0.00	20.0
BC03245	Calcium, Dissolved	mg/L	-0.0100	0.152	5.00	6.26	6.22	4.91	4.25 to 5.75	93.4	70.0 to 130	0.641	20.0
BC03245	Calcium, Total	mg/L	-0.00796	0.152	5.00	6.53	6.45	4.87	4.25 to 5.75	97.4	70.0 to 130	1.23	20.0
BC03247	Chromium, Dissolved	mg/L	-0.0000309	0.000440	0.100	0.0996	0.0980	0.102	0.0850 to 0.115	99.6	70.0 to 130	1.62	20.0
BC03248	Chromium, Total	mg/L	0.0000153	0.000440	0.100	0.103	0.104	0.105	0.0850 to 0.115	103	70.0 to 130	0.966	20.0
BC03247	Cobalt, Dissolved	mg/L	0.0000091	0.000147	0.100	0.102	0.101	0.105	0.0850 to 0.115	102	70.0 to 130	0.985	20.0
BC03248	Cobalt, Total	mg/L	0.000006	0.000147	0.100	0.106	0.107	0.108	0.0850 to 0.115	106	70.0 to 130	0.939	20.0
BC03245	Iron, Dissolved	mg/L	-0.000587	0.0176	0.2	0.279	0.272	0.200	0.170 to 0.230	98.3	70.0 to 130	2.54	20.0
BC03245	Iron, Total	mg/L	-0.0002	0.0176	0.2	0.315	0.313	0.198	0.170 to 0.230	101	70.0 to 130	0.637	20.0
BC03247	Lead, Dissolved	mg/L	0.0000107	0.000147	0.100	0.0974	0.102	0.101	0.0850 to 0.115	97.4	70.0 to 130	4.61	20.0

**Comments:** The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.

# Batch QC Summary

**Customer Account:** WMWGORAP

**Sample Date:** 2/14/22 13:47

**Customer ID:**

**Delivery Date:** 2/15/22 11:16

**Description:** Gorgas Ash Pond - MW-23H

**Laboratory ID Number:** BC03243

Sample	Analysis	Units	MB	MB				Standard		Rec		Prec	Limit
				Limit	Spike	MS	MSD	Standard	Limit	Rec	Limit		
BC03248	Lead, Total	mg/L	0.0000018	0.000147	0.100	0.107	0.107	0.109	0.0850 to 0.115	107	70.0 to 130	0.00	20.0
BC03245	Lithium, Dissolved	mg/L	0.000167	0.0154	0.200	0.248	0.242	0.194	0.170 to 0.230	97.0	70.0 to 130	2.45	20.0
BC03245	Lithium, Total	mg/L	-0.000304	0.0154	0.200	0.258	0.258	0.204	0.170 to 0.230	101	70.0 to 130	0.00	20.0
BC03245	Magnesium, Dissolved	mg/L	-0.00744	0.0462	5.00	5.29	5.22	5.07	4.25 to 5.75	95.8	70.0 to 130	1.33	20.0
BC03245	Magnesium, Total	mg/L	-0.00541	0.0462	5.00	5.57	5.54	5.16	4.25 to 5.75	101	70.0 to 130	0.540	20.0
BC03247	Manganese, Dissolved	mg/L	-0.000126	0.0002	0.100	0.111	0.111	0.104	0.0850 to 0.115	101	70.0 to 130	0.00	20.0
BC03248	Manganese, Total	mg/L	0.0000678	0.0002	0.100	0.105	0.105	0.106	0.0850 to 0.115	105	70.0 to 130	0.00	20.0
BC03245	Mercury, Total by CVAA	mg/L	-9.000E-05	0.000500	0.004	0.0039	0.0039	0.00387	0.00340 to 0.00460	97.5	70.0 to 130	0.00	20.0
BC03247	Molybdenum, Dissolved	mg/L	0.0000073	0.0002	0.100	0.154	0.157	0.0999	0.0850 to 0.115	94.5	70.0 to 130	1.93	20.0
BC03248	Molybdenum, Total	mg/L	0.0000199	0.0002	0.100	0.103	0.105	0.105	0.0850 to 0.115	103	70.0 to 130	1.92	20.0
BC03247	Potassium, Dissolved	mg/L	-0.0162	0.367	10.0	10.8	10.8	9.99	8.50 to 11.5	94.7	70.0 to 130	0.00	20.0
BC03248	Potassium, Total	mg/L	0.00661	0.367	10.0	10.3	10.3	10.3	8.50 to 11.5	103	70.0 to 130	0.00	20.0
BC03247	Selenium, Dissolved	mg/L	-0.0000165	0.00100	0.100	0.0991	0.100	0.0976	0.0850 to 0.115	99.1	70.0 to 130	0.904	20.0
BC03248	Selenium, Total	mg/L	0.0000249	0.00100	0.100	0.106	0.108	0.107	0.0850 to 0.115	106	70.0 to 130	1.87	20.0
BC03245	Silicon, Dissolved	mg/L	-0.000094	0.0440	1.00	9.17	9.20	1.00	0.850 to 1.15	105	70.0 to 130	0.327	20.0
BC03245	Silicon, Total	mg/L	-0.000132	0.0440	1.00	9.34	9.33	1.02	0.850 to 1.15	108	70.0 to 130	0.107	20.0
BC03245	Sodium, Dissolved	mg/L	-0.00619	0.0660	5.00	186	190	4.98	4.25 to 5.75	-100	70.0 to 130	2.13	20.0
BC03245	Sodium, Total	mg/L	-0.00123	0.0660	5.00	185	179	5.12	4.25 to 5.75	60.0	70.0 to 130	3.30	20.0
BC03247	Thallium, Dissolved	mg/L	-0.0000004	0.000147	0.100	0.0973	0.100	0.103	0.0850 to 0.115	97.3	70.0 to 130	2.74	20.0
BC03248	Thallium, Total	mg/L	0.0000004	0.000147	0.100	0.108	0.109	0.111	0.0850 to 0.115	108	70.0 to 130	0.922	20.0
BC03246	Total Organic Carbon	mg/L	0.300	1.00	10.0	10.3	10.4	26.0		103	80.0 to 120	0.966	20.0

**Comments:** The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.

## Batch QC Summary

**Customer Account:** WMWGORAP

**Sample Date:** 2/14/22 13:47

**Customer ID:**

**Delivery Date:** 2/15/22 11:16

**Description:** Gorgas Ash Pond - MW-23H

**Laboratory ID Number:** BC03243

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BC03249	Alkalinity, Total as CaCO3	mg/L					249	50.4	45.0 to 55.0			6.21	10.0
BC03245	Chloride	mg/L	-0.0522	1.00	10.0	18.5	8.33	10.2	9.00 to 11.0	102	80.0 to 120	0.00	20.0
BC03249	Fluoride	mg/L	-0.0432	0.125	2.50	2.76	0.155	2.60	2.25 to 2.75	104	80.0 to 120	4.62	20.0
BC03245	Nitrogen, Nitrate/Nitrite	mg/L as N	-0.01	0.200	2.00	1.75	-0.022	1.91	1.80 to 2.20	87.5	90.0 to 110	0.00	15.0
BC03249	Solids, Dissolved	mg/L	1.00	25.0			364	50.0	40.0 to 60.0			2.79	10.0
BC03245	Sulfate	mg/L	-0.0815	2.0	20.0	23.3	3.65	20.4	18.0 to 22.0	96.6	80.0 to 120	8.90	20.0

**Comments:** The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.

# Certificate Of Analysis

**Description:** Gorgas Ash Pond - MW-23H DUP

**Location Code:** WMWGORAP  
**Collected:** 2/14/22 13:47  
**Customer ID:**  
**Submittal Date:** 2/15/22 11:16

**Laboratory ID Number:** BC03244

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
<b>Analytical Method: EPA 200.7</b>		<b>Analyst: RDA</b>			<b>Preparation Method: EPA 1638</b>				
* Boron, Total	2/25/22 10:56	2/28/22 09:35		1.015	0.0366	mg/L	0.030000	0.1015	J
* Calcium, Total	2/25/22 10:56	2/28/22 11:27		20.3	75.1	mg/L	1.4007	8.12	
* Iron, Total	2/25/22 10:56	2/28/22 11:27		20.3	49.0	mg/L	0.1624	0.812	
* Lithium, Total	2/25/22 10:56	2/28/22 09:35		1.015	0.0308	mg/L	0.007105	0.01999956	
* Magnesium, Total	2/25/22 10:56	2/28/22 09:35		1.015	34.9	mg/L	0.021315	0.406	
Silica, Total (calc.)	2/25/22 10:56	2/28/22 09:35		1	27.8	mg/L			
Silicon, Total	2/25/22 10:56	2/28/22 09:35		1.015	13.0	mg/L	0.02030	0.25375	
* Sodium, Total	2/25/22 10:56	2/28/22 09:35		1.015	22.4	mg/L	0.03045	0.406	
<b>Analytical Method: EPA 200.7</b>		<b>Analyst: RDA</b>			<b>Preparation Method: EPA 1638</b>				
* Boron, Dissolved	2/25/22 14:30	3/1/22 08:40		1.015	0.0343	mg/L	0.030000	0.1015	J
* Calcium, Dissolved	2/25/22 14:30	3/1/22 10:32		20.3	75.3	mg/L	1.4007	8.12	
* Iron, Dissolved	2/25/22 14:30	3/1/22 10:32		20.3	49.0	mg/L	0.1624	0.812	
* Lithium, Dissolved	2/25/22 14:30	3/1/22 08:40		1.015	0.0303	mg/L	0.007105	0.01999956	
* Magnesium, Dissolved	2/25/22 14:30	3/1/22 08:40		1.015	34.3	mg/L	0.021315	0.406	
Silica, Dissolved (calc.)	2/25/22 14:30	3/1/22 08:40		1	27.4	mg/L			
Silicon, Dissolved	2/25/22 14:30	3/1/22 08:40		1.015	12.8	mg/L	0.02030	0.25375	
* Sodium, Dissolved	2/25/22 14:30	3/1/22 08:40		1.015	21.7	mg/L	0.03045	0.406	
<b>Analytical Method: EPA 200.8</b>		<b>Analyst: ABB</b>			<b>Preparation Method: EPA 1638</b>				
* Antimony, Total	2/16/22 10:47	2/18/22 14:02		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Aluminum, Total	2/16/22 10:47	2/18/22 14:02		1.015	Not Detected	mg/L	0.004060	0.01015	U
* Arsenic, Total	2/16/22 10:47	2/18/22 14:02		1.015	0.0611	mg/L	0.000068	0.000203	
* Barium, Total	2/16/22 10:47	2/18/22 14:02		1.015	0.0177	mg/L	0.000102	0.000203	
* Beryllium, Total	2/16/22 10:47	2/18/22 14:02		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Total	2/16/22 10:47	2/18/22 14:02		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Total	2/16/22 10:47	2/18/22 14:02		1.015	0.000203	mg/L	0.000203	0.001015	J
* Cobalt, Total	2/16/22 10:47	2/18/22 14:02		1.015	0.000548	mg/L	0.000068	0.000203	
* Lead, Total	2/16/22 10:47	2/18/22 14:02		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Total	2/16/22 10:47	2/22/22 12:07		10.15	1.44	mg/L	0.000680	0.00203	
* Molybdenum, Total	2/16/22 10:47	2/18/22 14:02		1.015	0.000974	mg/L	0.000068	0.000203	
* Potassium, Total	2/16/22 10:47	2/18/22 14:02		1.015	2.58	mg/L	0.169505	0.5075	

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.

# Certificate Of Analysis

**Description:** Gorgas Ash Pond - MW-23H DUP

**Location Code:** WMWGORAP  
**Collected:** 2/14/22 13:47  
**Customer ID:**  
**Submittal Date:** 2/15/22 11:16

**Laboratory ID Number:** BC03244

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
* Selenium, Total	2/16/22 10:47	2/18/22 14:02		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Total	2/16/22 10:47	2/18/22 14:02		1.015	Not Detected	mg/L	0.000068	0.000203	U
<b>Analytical Method: EPA 200.8</b>		<b>Analyst: ABB</b>							
* Antimony, Dissolved	2/16/22 11:25	2/16/22 17:25		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Aluminum, Dissolved	2/16/22 11:25	2/16/22 17:25		1.015	Not Detected	mg/L	0.004060	0.01015	U
* Arsenic, Dissolved	2/16/22 11:25	2/16/22 17:25		1.015	0.0567	mg/L	0.000068	0.000203	
* Barium, Dissolved	2/16/22 11:25	2/16/22 17:25		1.015	0.0153	mg/L	0.000102	0.000203	
* Beryllium, Dissolved	2/16/22 11:25	2/16/22 17:25		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Dissolved	2/16/22 11:25	2/16/22 17:25		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Dissolved	2/16/22 11:25	2/16/22 17:25		1.015	Not Detected	mg/L	0.000203	0.001015	U
* Cobalt, Dissolved	2/16/22 11:25	2/16/22 17:25		1.015	0.000522	mg/L	0.000068	0.000203	
* Lead, Dissolved	2/16/22 11:25	2/16/22 17:25		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Dissolved	2/16/22 11:25	2/18/22 16:00		10.15	1.55	mg/L	0.000680	0.00203	
* Molybdenum, Dissolved	2/16/22 11:25	2/16/22 17:25		1.015	0.000916	mg/L	0.000068	0.000203	
* Potassium, Dissolved	2/16/22 11:25	2/16/22 17:25		1.015	2.36	mg/L	0.169505	0.5075	
* Selenium, Dissolved	2/16/22 11:25	2/16/22 17:25		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Dissolved	2/16/22 11:25	2/16/22 17:25		1.015	Not Detected	mg/L	0.000068	0.000203	U
<b>Analytical Method: EPA 245.1</b>		<b>Analyst: CRB</b>							
* Mercury, Total by CVAA	2/24/22 14:29	2/24/22 19:02		1	Not Detected	mg/L	0.0003	0.0005	U
<b>Analytical Method: EPA 353.2</b>		<b>Analyst: ELH</b>							
* Nitrogen, Nitrate/Nitrite	2/21/22 13:12	2/21/22 13:12		1	0.218	mg/L as N	0.20	0.3	J
<b>Analytical Method: SM 2320 B</b>		<b>Analyst: ALH</b>							
Alkalinity, Total as CaCO3	2/22/22 13:25	2/22/22 16:32		1	86.7	mg/L		0.1	
<b>Analytical Method: SM 2540C</b>		<b>Analyst: CNJ</b>							
* Solids, Dissolved	2/16/22 11:06	2/18/22 10:00		1	612	mg/L		50	
<b>Analytical Method: SM 4500CO2 D</b>		<b>Analyst: ALH</b>							
Bicarbonate Alkalinity, (calc.)	2/22/22 13:25	2/22/22 16:32		1	86.7	mg/L			A
Carbonate Alkalinity, (calc.)	2/22/22 13:25	2/22/22 16:32		1	0.02	mg/L			A
<b>Analytical Method: SM 5310 B</b>		<b>Analyst: ELH</b>							
* Total Organic Carbon	2/19/22 01:41	2/19/22 01:41		1	Not Detected	mg/L	1.00	2	U

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.

# Certificate Of Analysis

**Description:** Gorgas Ash Pond - MW-23H DUP

**Location Code:** WMWGORAP

**Collected:** 2/14/22 13:47

**Customer ID:**

**Submittal Date:** 2/15/22 11:16

**Laboratory ID Number:** BC03244

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
<b>Analytical Method: SM4500Cl E</b>		<b>Analyst: JCC</b>							
* Chloride	2/16/22 09:47	2/16/22 09:47		1	13.0	mg/L	0.50	1	
<b>Analytical Method: SM4500F G 2017</b>		<b>Analyst: JCC</b>							
* Fluoride	2/16/22 11:40	2/16/22 11:40		1	0.127	mg/L	0.06	0.1	
<b>Analytical Method: SM4500SO4 E 2011</b>		<b>Analyst: JCC</b>							
* Sulfate	2/22/22 11:40	2/22/22 11:40		20	353	mg/L	10.00	20	
<b>Analytical Method: Field Measurements</b>		<b>Analyst: TJD</b>							
Conductivity	2/14/22 13:44	2/14/22 13:44			770.30	uS/cm			FA
pH	2/14/22 13:44	2/14/22 13:44			5.80	SU			FA
Temperature	2/14/22 13:44	2/14/22 13:44			17.86	C			FA
Turbidity	2/14/22 13:44	2/14/22 13:44			1.88	NTU			FA

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.

# Batch QC Summary

**Customer Account:** WMWGORAP

**Sample Date:** 2/14/22 13:47

**Customer ID:**

**Delivery Date:** 2/15/22 11:16

**Description:** Gorgas Ash Pond - MW-23H DUP

**Laboratory ID Number:** BC03244

Sample	Analysis	Units	MB	MB		MS	MSD	Standard		Rec		Prec	Limit
				Limit	Spike			Standard	Limit	Rec	Limit		
BC03247	Aluminum, Dissolved	mg/L	0.0000565	0.010	0.100	0.0999	0.0998	0.0990	0.0850 to 0.115	95.8	70.0 to 130	0.100	20.0
BC03248	Aluminum, Total	mg/L	0.000788	0.010	0.100	0.101	0.101	0.100	0.0850 to 0.115	101	70.0 to 130	0.00	20.0
BC03247	Antimony, Dissolved	mg/L	0.000176	0.00100	0.100	0.0930	0.0937	0.0917	0.0850 to 0.115	93.0	70.0 to 130	0.750	20.0
BC03248	Antimony, Total	mg/L	0.000222	0.00100	0.100	0.0957	0.0967	0.0973	0.0850 to 0.115	95.7	70.0 to 130	1.04	20.0
BC03247	Arsenic, Dissolved	mg/L	0.0000108	0.000176	0.100	0.0999	0.102	0.100	0.0850 to 0.115	96.8	70.0 to 130	2.08	20.0
BC03248	Arsenic, Total	mg/L	0.000012	0.000176	0.100	0.104	0.102	0.104	0.0850 to 0.115	104	70.0 to 130	1.94	20.0
BC03247	Barium, Dissolved	mg/L	0.00000	0.000200	0.100	0.295	0.295	0.0940	0.0850 to 0.115	96.0	70.0 to 130	0.00	20.0
BC03248	Barium, Total	mg/L	-0.0000261	0.000200	0.100	0.102	0.104	0.104	0.0850 to 0.115	102	70.0 to 130	1.94	20.0
BC03247	Beryllium, Dissolved	mg/L	0.000136	0.000880	0.100	0.0962	0.107	0.0981	0.0850 to 0.115	96.2	70.0 to 130	10.6	20.0
BC03248	Beryllium, Total	mg/L	0.000124	0.000880	0.100	0.100	0.101	0.103	0.0850 to 0.115	100	70.0 to 130	0.995	20.0
BC03245	Boron, Dissolved	mg/L	-0.000009	0.0650	1.00	1.07	1.08	0.958	0.850 to 1.15	100	70.0 to 130	0.930	20.0
BC03245	Boron, Total	mg/L	-0.000344	0.0650	1.00	1.08	1.07	0.988	0.850 to 1.15	101	70.0 to 130	0.930	20.0
BC03247	Cadmium, Dissolved	mg/L	0.0000045	0.000147	0.100	0.0925	0.0926	0.0943	0.0850 to 0.115	92.5	70.0 to 130	0.108	20.0
BC03248	Cadmium, Total	mg/L	0.0000051	0.000147	0.100	0.105	0.105	0.106	0.0850 to 0.115	105	70.0 to 130	0.00	20.0
BC03245	Calcium, Dissolved	mg/L	-0.0100	0.152	5.00	6.26	6.22	4.91	4.25 to 5.75	93.4	70.0 to 130	0.641	20.0
BC03245	Calcium, Total	mg/L	-0.00796	0.152	5.00	6.53	6.45	4.87	4.25 to 5.75	97.4	70.0 to 130	1.23	20.0
BC03247	Chromium, Dissolved	mg/L	-0.0000309	0.000440	0.100	0.0996	0.0980	0.102	0.0850 to 0.115	99.6	70.0 to 130	1.62	20.0
BC03248	Chromium, Total	mg/L	0.0000153	0.000440	0.100	0.103	0.104	0.105	0.0850 to 0.115	103	70.0 to 130	0.966	20.0
BC03247	Cobalt, Dissolved	mg/L	0.0000091	0.000147	0.100	0.102	0.101	0.105	0.0850 to 0.115	102	70.0 to 130	0.985	20.0
BC03248	Cobalt, Total	mg/L	0.000006	0.000147	0.100	0.106	0.107	0.108	0.0850 to 0.115	106	70.0 to 130	0.939	20.0
BC03245	Iron, Dissolved	mg/L	-0.000587	0.0176	0.2	0.279	0.272	0.200	0.170 to 0.230	98.3	70.0 to 130	2.54	20.0
BC03245	Iron, Total	mg/L	-0.0002	0.0176	0.2	0.315	0.313	0.198	0.170 to 0.230	101	70.0 to 130	0.637	20.0
BC03247	Lead, Dissolved	mg/L	0.0000107	0.000147	0.100	0.0974	0.102	0.101	0.0850 to 0.115	97.4	70.0 to 130	4.61	20.0

**Comments:** The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.

# Batch QC Summary

**Customer Account:** WMWGORAP  
**Sample Date:** 2/14/22 13:47  
**Customer ID:**  
**Delivery Date:** 2/15/22 11:16

**Description:** Gorgas Ash Pond - MW-23H DUP

**Laboratory ID Number:** BC03244

Sample	Analysis	Units	MB	MB				Standard		Rec		Prec	Limit
				Limit	Spike	MS	MSD	Standard	Limit	Rec	Limit		
BC03248	Lead, Total	mg/L	0.0000018	0.000147	0.100	0.107	0.107	0.109	0.0850 to 0.115	107	70.0 to 130	0.00	20.0
BC03245	Lithium, Dissolved	mg/L	0.000167	0.0154	0.200	0.248	0.242	0.194	0.170 to 0.230	97.0	70.0 to 130	2.45	20.0
BC03245	Lithium, Total	mg/L	-0.000304	0.0154	0.200	0.258	0.258	0.204	0.170 to 0.230	101	70.0 to 130	0.00	20.0
BC03245	Magnesium, Dissolved	mg/L	-0.00744	0.0462	5.00	5.29	5.22	5.07	4.25 to 5.75	95.8	70.0 to 130	1.33	20.0
BC03245	Magnesium, Total	mg/L	-0.00541	0.0462	5.00	5.57	5.54	5.16	4.25 to 5.75	101	70.0 to 130	0.540	20.0
BC03247	Manganese, Dissolved	mg/L	-0.000126	0.0002	0.100	0.111	0.111	0.104	0.0850 to 0.115	101	70.0 to 130	0.00	20.0
BC03248	Manganese, Total	mg/L	0.0000678	0.0002	0.100	0.105	0.105	0.106	0.0850 to 0.115	105	70.0 to 130	0.00	20.0
BC03245	Mercury, Total by CVAA	mg/L	-9.000E-05	0.000500	0.004	0.0039	0.0039	0.00387	0.00340 to 0.00460	97.5	70.0 to 130	0.00	20.0
BC03247	Molybdenum, Dissolved	mg/L	0.0000073	0.0002	0.100	0.154	0.157	0.0999	0.0850 to 0.115	94.5	70.0 to 130	1.93	20.0
BC03248	Molybdenum, Total	mg/L	0.0000199	0.0002	0.100	0.103	0.105	0.105	0.0850 to 0.115	103	70.0 to 130	1.92	20.0
BC03247	Potassium, Dissolved	mg/L	-0.0162	0.367	10.0	10.8	10.8	9.99	8.50 to 11.5	94.7	70.0 to 130	0.00	20.0
BC03248	Potassium, Total	mg/L	0.00661	0.367	10.0	10.3	10.3	10.3	8.50 to 11.5	103	70.0 to 130	0.00	20.0
BC03247	Selenium, Dissolved	mg/L	-0.0000165	0.00100	0.100	0.0991	0.100	0.0976	0.0850 to 0.115	99.1	70.0 to 130	0.904	20.0
BC03248	Selenium, Total	mg/L	0.0000249	0.00100	0.100	0.106	0.108	0.107	0.0850 to 0.115	106	70.0 to 130	1.87	20.0
BC03245	Silicon, Dissolved	mg/L	-0.000094	0.0440	1.00	9.17	9.20	1.00	0.850 to 1.15	105	70.0 to 130	0.327	20.0
BC03245	Silicon, Total	mg/L	-0.000132	0.0440	1.00	9.34	9.33	1.02	0.850 to 1.15	108	70.0 to 130	0.107	20.0
BC03245	Sodium, Dissolved	mg/L	-0.00619	0.0660	5.00	186	190	4.98	4.25 to 5.75	-100	70.0 to 130	2.13	20.0
BC03245	Sodium, Total	mg/L	-0.00123	0.0660	5.00	185	179	5.12	4.25 to 5.75	60.0	70.0 to 130	3.30	20.0
BC03247	Thallium, Dissolved	mg/L	-0.0000004	0.000147	0.100	0.0973	0.100	0.103	0.0850 to 0.115	97.3	70.0 to 130	2.74	20.0
BC03248	Thallium, Total	mg/L	0.0000004	0.000147	0.100	0.108	0.109	0.111	0.0850 to 0.115	108	70.0 to 130	0.922	20.0
BC03246	Total Organic Carbon	mg/L	0.300	1.00	10.0	10.3	10.4	26.0		103	80.0 to 120	0.966	20.0

**Comments:** The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.



## Batch QC Summary

**Customer Account:** WMWGORAP

**Sample Date:** 2/14/22 13:47

**Customer ID:**

**Delivery Date:** 2/15/22 11:16

**Description:** Gorgas Ash Pond - MW-23H DUP

**Laboratory ID Number:** BC03244

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BC03249	Alkalinity, Total as CaCO3	mg/L					249	50.4	45.0 to 55.0			6.21	10.0
BC03245	Chloride	mg/L	-0.0522	1.00	10.0	18.5	8.33	10.2	9.00 to 11.0	102	80.0 to 120	0.00	20.0
BC03249	Fluoride	mg/L	-0.0432	0.125	2.50	2.76	0.155	2.60	2.25 to 2.75	104	80.0 to 120	4.62	20.0
BC03245	Nitrogen, Nitrate/Nitrite	mg/L as N	-0.01	0.200	2.00	1.75	-0.022	1.91	1.80 to 2.20	87.5	90.0 to 110	0.00	15.0
BC03249	Solids, Dissolved	mg/L	1.00	25.0			364	50.0	40.0 to 60.0			2.79	10.0
BC03245	Sulfate	mg/L	-0.0815	2.0	20.0	23.3	3.65	20.4	18.0 to 22.0	96.6	80.0 to 120	8.90	20.0

**Comments:** The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.

# Certificate Of Analysis

**Description:** Gorgas Ash Pond - MW-28H

**Location Code:** WMWGORAP  
**Collected:** 2/14/22 12:42  
**Customer ID:**  
**Submittal Date:** 2/15/22 11:16

**Laboratory ID Number:** BC03245

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
<b>Analytical Method: EPA 200.7</b>		<b>Analyst: RDA</b>			<b>Preparation Method: EPA 1638</b>				
* Boron, Total	2/25/22 10:56	2/28/22 09:37		1.015	0.0706	mg/L	0.030000	0.1015	J
* Calcium, Total	2/25/22 10:56	2/28/22 09:37		1.015	1.66	mg/L	0.070035	0.406	
* Iron, Total	2/25/22 10:56	2/28/22 09:37		1.015	0.113	mg/L	0.008120	0.0406	
* Lithium, Total	2/25/22 10:56	2/28/22 09:37		1.015	0.0551	mg/L	0.007105	0.01999956	
* Magnesium, Total	2/25/22 10:56	2/28/22 09:37		1.015	0.521	mg/L	0.021315	0.406	
Silica, Total (calc.)	2/25/22 10:56	2/28/22 09:37		1	17.7	mg/L			
Silicon, Total	2/25/22 10:56	2/28/22 09:37		1.015	8.26	mg/L	0.02030	0.25375	
* Sodium, Total	2/25/22 10:56	2/28/22 11:29		20.3	182	mg/L	0.609	8.12	RA
<b>Analytical Method: EPA 200.7</b>		<b>Analyst: RDA</b>			<b>Preparation Method: EPA 1638</b>				
* Boron, Dissolved	2/25/22 14:30	3/1/22 08:41		1.015	0.0698	mg/L	0.030000	0.1015	J
* Calcium, Dissolved	2/25/22 14:30	3/1/22 08:41		1.015	1.59	mg/L	0.070035	0.406	
* Iron, Dissolved	2/25/22 14:30	3/1/22 08:41		1.015	0.0824	mg/L	0.008120	0.0406	
* Lithium, Dissolved	2/25/22 14:30	3/1/22 08:41		1.015	0.0541	mg/L	0.007105	0.01999956	
* Magnesium, Dissolved	2/25/22 14:30	3/1/22 08:41		1.015	0.500	mg/L	0.021315	0.406	
Silica, Dissolved (calc.)	2/25/22 14:30	3/1/22 08:41		1	17.4	mg/L			
Silicon, Dissolved	2/25/22 14:30	3/1/22 08:41		1.015	8.12	mg/L	0.02030	0.25375	
* Sodium, Dissolved	2/25/22 14:30	3/1/22 10:34		20.3	191	mg/L	0.609	8.12	RA
<b>Analytical Method: EPA 200.8</b>		<b>Analyst: ABB</b>			<b>Preparation Method: EPA 1638</b>				
* Antimony, Total	2/16/22 10:47	2/18/22 14:06		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Aluminum, Total	2/16/22 10:47	2/18/22 14:06		1.015	0.0303	mg/L	0.004060	0.01015	
* Arsenic, Total	2/16/22 10:47	2/18/22 14:06		1.015	0.000583	mg/L	0.000068	0.000203	
* Barium, Total	2/16/22 10:47	2/18/22 14:06		1.015	0.0483	mg/L	0.000102	0.000203	
* Beryllium, Total	2/16/22 10:47	2/18/22 14:06		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Total	2/16/22 10:47	2/18/22 14:06		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Total	2/16/22 10:47	2/18/22 14:06		1.015	0.000248	mg/L	0.000203	0.001015	J
* Cobalt, Total	2/16/22 10:47	2/18/22 14:06		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Lead, Total	2/16/22 10:47	2/18/22 14:06		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Total	2/16/22 10:47	2/18/22 14:06		1.015	0.00794	mg/L	0.000068	0.000203	
* Molybdenum, Total	2/16/22 10:47	2/18/22 14:06		1.015	0.00481	mg/L	0.000068	0.000203	
* Potassium, Total	2/16/22 10:47	2/18/22 14:06		1.015	1.07	mg/L	0.169505	0.5075	

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.  
 Nitrate/Nitrite MS recovery was outside the specification limit.

# Certificate Of Analysis

**Description:** Gorgas Ash Pond - MW-28H

**Location Code:** WMWGORAP

**Collected:** 2/14/22 12:42

**Customer ID:**

**Submittal Date:** 2/15/22 11:16

**Laboratory ID Number:** BC03245

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
* Selenium, Total	2/16/22 10:47	2/18/22 14:06		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Total	2/16/22 10:47	2/18/22 14:06		1.015	Not Detected	mg/L	0.000068	0.000203	U
<b>Analytical Method: EPA 200.8</b>		<b>Analyst: ABB</b>							
* Antimony, Dissolved	2/16/22 11:25	2/16/22 17:28		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Aluminum, Dissolved	2/16/22 11:25	2/16/22 17:28		1.015	0.00712	mg/L	0.004060	0.01015	J
* Arsenic, Dissolved	2/16/22 11:25	2/16/22 17:28		1.015	0.000366	mg/L	0.000068	0.000203	
* Barium, Dissolved	2/16/22 11:25	2/16/22 17:28		1.015	0.0515	mg/L	0.000102	0.000203	
* Beryllium, Dissolved	2/16/22 11:25	2/16/22 17:28		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Dissolved	2/16/22 11:25	2/16/22 17:28		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Dissolved	2/16/22 11:25	2/16/22 17:28		1.015	Not Detected	mg/L	0.000203	0.001015	U
* Cobalt, Dissolved	2/16/22 11:25	2/16/22 17:28		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Lead, Dissolved	2/16/22 11:25	2/16/22 17:28		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Dissolved	2/16/22 11:25	2/16/22 17:28		1.015	0.00627	mg/L	0.000068	0.000203	
* Molybdenum, Dissolved	2/16/22 11:25	2/16/22 17:28		1.015	0.00375	mg/L	0.000068	0.000203	
* Potassium, Dissolved	2/16/22 11:25	2/16/22 17:28		1.015	0.927	mg/L	0.169505	0.5075	
* Selenium, Dissolved	2/16/22 11:25	2/16/22 17:28		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Dissolved	2/16/22 11:25	2/16/22 17:28		1.015	Not Detected	mg/L	0.000068	0.000203	U
<b>Analytical Method: EPA 245.1</b>		<b>Analyst: CRB</b>							
* Mercury, Total by CVAA	2/24/22 14:29	2/24/22 19:06		1	Not Detected	mg/L	0.0003	0.0005	U
<b>Analytical Method: EPA 353.2</b>		<b>Analyst: ELH</b>							
* Nitrogen, Nitrate/Nitrite	2/21/22 13:14	2/21/22 13:14		1	Not Detected	mg/L as N	0.20	0.3	U
<b>Analytical Method: SM 2320 B</b>		<b>Analyst: ALH</b>							
Alkalinity, Total as CaCO3	2/22/22 13:25	2/22/22 16:32		1	417	mg/L		0.1	
<b>Analytical Method: SM 2540C</b>		<b>Analyst: CNJ</b>							
* Solids, Dissolved	2/16/22 11:06	2/18/22 10:00		1	433	mg/L		25	
<b>Analytical Method: SM 4500CO2 D</b>		<b>Analyst: ALH</b>							
Bicarbonate Alkalinity, (calc.)	2/22/22 13:25	2/22/22 16:32		1	405	mg/L			
Carbonate Alkalinity, (calc.)	2/22/22 13:25	2/22/22 16:32		1	11.5	mg/L			
<b>Analytical Method: SM 5310 B</b>		<b>Analyst: ELH</b>							
* Total Organic Carbon	2/19/22 01:57	2/19/22 01:57		1	Not Detected	mg/L	1.00	2	U

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. Nitrate/Nitrite MS recovery was outside the specification limit.

# Certificate Of Analysis

**Description:** Gorgas Ash Pond - MW-28H

**Location Code:** WMWGORAP

**Collected:** 2/14/22 12:42

**Customer ID:**

**Submittal Date:** 2/15/22 11:16

**Laboratory ID Number:** BC03245

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
<b>Analytical Method: SM4500Cl E</b>		<b>Analyst: JCC</b>							
* Chloride	2/16/22 09:48	2/16/22 09:48		1	8.33	mg/L	0.50	1	
<b>Analytical Method: SM4500F G 2017</b>		<b>Analyst: JCC</b>							
* Fluoride	2/16/22 11:41	2/16/22 11:41		1	0.121	mg/L	0.06	0.1	
<b>Analytical Method: SM4500SO4 E 2011</b>		<b>Analyst: JCC</b>							
* Sulfate	2/22/22 11:29	2/22/22 11:29		1	3.99	mg/L	0.50	1	
<b>Analytical Method: Field Measurements</b>		<b>Analyst: AWG</b>							
Conductivity	2/14/22 12:37	2/14/22 12:37			646.75	uS/cm			FA
pH	2/14/22 12:37	2/14/22 12:37			8.37	SU			FA
Temperature	2/14/22 12:37	2/14/22 12:37			17.17	C			FA
Turbidity	2/14/22 12:37	2/14/22 12:37			0.64	NTU			FA

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. Nitrate/Nitrite MS recovery was outside the specification limit.

# Batch QC Summary

**Customer Account:** WMWGORAP

**Sample Date:** 2/14/22 12:42

**Customer ID:**

**Delivery Date:** 2/15/22 11:16

**Description:** Gorgas Ash Pond - MW-28H

**Laboratory ID Number:** BC03245

Sample	Analysis	Units	MB	MB		MS	MSD	Standard	Standard Limit	Rec		Prec Limit	
				Limit	Spike					Rec	Limit		
BC03247	Aluminum, Dissolved	mg/L	0.0000565	0.010	0.100	0.0999	0.0998	0.0990	0.0850 to 0.115	95.8	70.0 to 130	0.100	20.0
BC03248	Aluminum, Total	mg/L	0.000788	0.010	0.100	0.101	0.101	0.100	0.0850 to 0.115	101	70.0 to 130	0.00	20.0
BC03247	Antimony, Dissolved	mg/L	0.000176	0.00100	0.100	0.0930	0.0937	0.0917	0.0850 to 0.115	93.0	70.0 to 130	0.750	20.0
BC03248	Antimony, Total	mg/L	0.000222	0.00100	0.100	0.0957	0.0967	0.0973	0.0850 to 0.115	95.7	70.0 to 130	1.04	20.0
BC03247	Arsenic, Dissolved	mg/L	0.0000108	0.000176	0.100	0.0999	0.102	0.100	0.0850 to 0.115	96.8	70.0 to 130	2.08	20.0
BC03248	Arsenic, Total	mg/L	0.000012	0.000176	0.100	0.104	0.102	0.104	0.0850 to 0.115	104	70.0 to 130	1.94	20.0
BC03247	Barium, Dissolved	mg/L	0.00000	0.000200	0.100	0.295	0.295	0.0940	0.0850 to 0.115	96.0	70.0 to 130	0.00	20.0
BC03248	Barium, Total	mg/L	-0.0000261	0.000200	0.100	0.102	0.104	0.104	0.0850 to 0.115	102	70.0 to 130	1.94	20.0
BC03247	Beryllium, Dissolved	mg/L	0.000136	0.000880	0.100	0.0962	0.107	0.0981	0.0850 to 0.115	96.2	70.0 to 130	10.6	20.0
BC03248	Beryllium, Total	mg/L	0.000124	0.000880	0.100	0.100	0.101	0.103	0.0850 to 0.115	100	70.0 to 130	0.995	20.0
BC03245	Boron, Dissolved	mg/L	-0.000009	0.0650	1.00	1.07	1.08	0.958	0.850 to 1.15	100	70.0 to 130	0.930	20.0
BC03245	Boron, Total	mg/L	-0.000344	0.0650	1.00	1.08	1.07	0.988	0.850 to 1.15	101	70.0 to 130	0.930	20.0
BC03247	Cadmium, Dissolved	mg/L	0.0000045	0.000147	0.100	0.0925	0.0926	0.0943	0.0850 to 0.115	92.5	70.0 to 130	0.108	20.0
BC03248	Cadmium, Total	mg/L	0.0000051	0.000147	0.100	0.105	0.105	0.106	0.0850 to 0.115	105	70.0 to 130	0.00	20.0
BC03245	Calcium, Dissolved	mg/L	-0.0100	0.152	5.00	6.26	6.22	4.91	4.25 to 5.75	93.4	70.0 to 130	0.641	20.0
BC03245	Calcium, Total	mg/L	-0.00796	0.152	5.00	6.53	6.45	4.87	4.25 to 5.75	97.4	70.0 to 130	1.23	20.0
BC03247	Chromium, Dissolved	mg/L	-0.0000309	0.000440	0.100	0.0996	0.0980	0.102	0.0850 to 0.115	99.6	70.0 to 130	1.62	20.0
BC03248	Chromium, Total	mg/L	0.0000153	0.000440	0.100	0.103	0.104	0.105	0.0850 to 0.115	103	70.0 to 130	0.966	20.0
BC03247	Cobalt, Dissolved	mg/L	0.0000091	0.000147	0.100	0.102	0.101	0.105	0.0850 to 0.115	102	70.0 to 130	0.985	20.0
BC03248	Cobalt, Total	mg/L	0.000006	0.000147	0.100	0.106	0.107	0.108	0.0850 to 0.115	106	70.0 to 130	0.939	20.0
BC03245	Iron, Dissolved	mg/L	-0.000587	0.0176	0.2	0.279	0.272	0.200	0.170 to 0.230	98.3	70.0 to 130	2.54	20.0
BC03245	Iron, Total	mg/L	-0.0002	0.0176	0.2	0.315	0.313	0.198	0.170 to 0.230	101	70.0 to 130	0.637	20.0
BC03247	Lead, Dissolved	mg/L	0.0000107	0.000147	0.100	0.0974	0.102	0.101	0.0850 to 0.115	97.4	70.0 to 130	4.61	20.0

**Comments:** The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified. Nitrate/Nitrite MS recovery was outside the specification limit.

# Batch QC Summary

**Customer Account:** WMWGORAP

**Sample Date:** 2/14/22 12:42

**Customer ID:**

**Delivery Date:** 2/15/22 11:16

**Description:** Gorgas Ash Pond - MW-28H

**Laboratory ID Number:** BC03245

Sample	Analysis	Units	MB	MB				Standard		Rec		Prec	Limit
				Limit	Spike	MS	MSD	Standard	Limit	Rec	Limit		
BC03248	Lead, Total	mg/L	0.0000018	0.000147	0.100	0.107	0.107	0.109	0.0850 to 0.115	107	70.0 to 130	0.00	20.0
BC03245	Lithium, Dissolved	mg/L	0.000167	0.0154	0.200	0.248	0.242	0.194	0.170 to 0.230	97.0	70.0 to 130	2.45	20.0
BC03245	Lithium, Total	mg/L	-0.000304	0.0154	0.200	0.258	0.258	0.204	0.170 to 0.230	101	70.0 to 130	0.00	20.0
BC03245	Magnesium, Dissolved	mg/L	-0.00744	0.0462	5.00	5.29	5.22	5.07	4.25 to 5.75	95.8	70.0 to 130	1.33	20.0
BC03245	Magnesium, Total	mg/L	-0.00541	0.0462	5.00	5.57	5.54	5.16	4.25 to 5.75	101	70.0 to 130	0.540	20.0
BC03247	Manganese, Dissolved	mg/L	-0.000126	0.0002	0.100	0.111	0.111	0.104	0.0850 to 0.115	101	70.0 to 130	0.00	20.0
BC03248	Manganese, Total	mg/L	0.0000678	0.0002	0.100	0.105	0.105	0.106	0.0850 to 0.115	105	70.0 to 130	0.00	20.0
BC03245	Mercury, Total by CVAA	mg/L	-9.000E-05	0.000500	0.004	0.0039	0.0039	0.00387	0.00340 to 0.00460	97.5	70.0 to 130	0.00	20.0
BC03247	Molybdenum, Dissolved	mg/L	0.0000073	0.0002	0.100	0.154	0.157	0.0999	0.0850 to 0.115	94.5	70.0 to 130	1.93	20.0
BC03248	Molybdenum, Total	mg/L	0.0000199	0.0002	0.100	0.103	0.105	0.105	0.0850 to 0.115	103	70.0 to 130	1.92	20.0
BC03247	Potassium, Dissolved	mg/L	-0.0162	0.367	10.0	10.8	10.8	9.99	8.50 to 11.5	94.7	70.0 to 130	0.00	20.0
BC03248	Potassium, Total	mg/L	0.00661	0.367	10.0	10.3	10.3	10.3	8.50 to 11.5	103	70.0 to 130	0.00	20.0
BC03247	Selenium, Dissolved	mg/L	-0.0000165	0.00100	0.100	0.0991	0.100	0.0976	0.0850 to 0.115	99.1	70.0 to 130	0.904	20.0
BC03248	Selenium, Total	mg/L	0.0000249	0.00100	0.100	0.106	0.108	0.107	0.0850 to 0.115	106	70.0 to 130	1.87	20.0
BC03245	Silicon, Dissolved	mg/L	-0.000094	0.0440	1.00	9.17	9.20	1.00	0.850 to 1.15	105	70.0 to 130	0.327	20.0
BC03245	Silicon, Total	mg/L	-0.000132	0.0440	1.00	9.34	9.33	1.02	0.850 to 1.15	108	70.0 to 130	0.107	20.0
BC03245	Sodium, Dissolved	mg/L	-0.00619	0.0660	5.00	186	190	4.98	4.25 to 5.75	-100	70.0 to 130	2.13	20.0
BC03245	Sodium, Total	mg/L	-0.00123	0.0660	5.00	185	179	5.12	4.25 to 5.75	60.0	70.0 to 130	3.30	20.0
BC03247	Thallium, Dissolved	mg/L	-0.0000004	0.000147	0.100	0.0973	0.100	0.103	0.0850 to 0.115	97.3	70.0 to 130	2.74	20.0
BC03248	Thallium, Total	mg/L	0.0000004	0.000147	0.100	0.108	0.109	0.111	0.0850 to 0.115	108	70.0 to 130	0.922	20.0
BC03246	Total Organic Carbon	mg/L	0.300	1.00	10.0	10.3	10.4	26.0		103	80.0 to 120	0.966	20.0

**Comments:** The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified. Nitrate/Nitrite MS recovery was outside the specification limit.

## Batch QC Summary

**Customer Account:** WMWGORAP

**Sample Date:** 2/14/22 12:42

**Customer ID:**

**Delivery Date:** 2/15/22 11:16

**Description:** Gorgas Ash Pond - MW-28H

**Laboratory ID Number:** BC03245

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BC03249	Alkalinity, Total as CaCO3	mg/L					249	50.4	45.0 to 55.0			6.21	10.0
BC03245	Chloride	mg/L	-0.0522	1.00	10.0	18.5	8.33	10.2	9.00 to 11.0	102	80.0 to 120	0.00	20.0
BC03249	Fluoride	mg/L	-0.0432	0.125	2.50	2.76	0.155	2.60	2.25 to 2.75	104	80.0 to 120	4.62	20.0
BC03245	Nitrogen, Nitrate/Nitrite	mg/L as N	-0.01	0.200	2.00	1.75	-0.022	1.91	1.80 to 2.20	87.5	90.0 to 110	0.00	15.0
BC03249	Solids, Dissolved	mg/L	1.00	25.0			364	50.0	40.0 to 60.0			2.79	10.0
BC03245	Sulfate	mg/L	-0.0815	2.0	20.0	23.3	3.65	20.4	18.0 to 22.0	96.6	80.0 to 120	8.90	20.0

**Comments:** The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified. Nitrate/Nitrite MS recovery was outside the specification limit.

# Certificate Of Analysis

**Description:** Gorgas Ash Pond - MW-28H DUP

**Location Code:** WMWGORAP  
**Collected:** 2/14/22 12:42  
**Customer ID:**  
**Submittal Date:** 2/15/22 11:16

**Laboratory ID Number:** BC03246

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
<b>Analytical Method: EPA 200.7</b>		<b>Analyst: RDA</b>			<b>Preparation Method: EPA 1638</b>				
* Boron, Total	2/25/22 10:56	2/28/22 09:46		1.015	0.0700	mg/L	0.030000	0.1015	J
* Calcium, Total	2/25/22 10:56	2/28/22 11:38		1.015	1.65	mg/L	0.070035	0.406	
* Iron, Total	2/25/22 10:56	2/28/22 09:46		1.015	0.109	mg/L	0.008120	0.0406	
* Lithium, Total	2/25/22 10:56	2/28/22 11:38		1.015	0.0544	mg/L	0.007105	0.01999956	
* Magnesium, Total	2/25/22 10:56	2/28/22 11:38		1.015	0.519	mg/L	0.021315	0.406	
Silica, Total (calc.)	2/25/22 10:56	2/28/22 09:46		1	17.4	mg/L			
Silicon, Total	2/25/22 10:56	2/28/22 09:46		1.015	8.11	mg/L	0.02030	0.25375	
* Sodium, Total	2/25/22 10:56	2/28/22 11:40		20.3	176	mg/L	0.609	8.12	
<b>Analytical Method: EPA 200.7</b>		<b>Analyst: RDA</b>			<b>Preparation Method: EPA 1638</b>				
* Boron, Dissolved	2/25/22 14:30	3/1/22 08:51		1.015	0.0698	mg/L	0.030000	0.1015	J
* Calcium, Dissolved	2/25/22 14:30	3/1/22 08:51		1.015	1.62	mg/L	0.070035	0.406	
* Iron, Dissolved	2/25/22 14:30	3/1/22 08:51		1.015	0.0789	mg/L	0.008120	0.0406	
* Lithium, Dissolved	2/25/22 14:30	3/1/22 08:51		1.015	0.0550	mg/L	0.007105	0.01999956	
* Magnesium, Dissolved	2/25/22 14:30	3/1/22 08:51		1.015	0.509	mg/L	0.021315	0.406	
Silica, Dissolved (calc.)	2/25/22 14:30	3/1/22 08:51		1	17.3	mg/L			
Silicon, Dissolved	2/25/22 14:30	3/1/22 08:51		1.015	8.07	mg/L	0.02030	0.25375	
* Sodium, Dissolved	2/25/22 14:30	3/1/22 10:48		20.3	183	mg/L	0.609	8.12	
<b>Analytical Method: EPA 200.8</b>		<b>Analyst: ABB</b>			<b>Preparation Method: EPA 1638</b>				
* Antimony, Total	2/16/22 10:47	2/18/22 14:09		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Aluminum, Total	2/16/22 10:47	2/18/22 14:09		1.015	0.0278	mg/L	0.004060	0.01015	
* Arsenic, Total	2/16/22 10:47	2/18/22 14:09		1.015	0.00054	mg/L	0.000068	0.000203	
* Barium, Total	2/16/22 10:47	2/18/22 14:09		1.015	0.0504	mg/L	0.000102	0.000203	
* Beryllium, Total	2/16/22 10:47	2/18/22 14:09		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Total	2/16/22 10:47	2/18/22 14:09		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Total	2/16/22 10:47	2/18/22 14:09		1.015	0.000217	mg/L	0.000203	0.001015	J
* Cobalt, Total	2/16/22 10:47	2/18/22 14:09		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Lead, Total	2/16/22 10:47	2/18/22 14:09		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Total	2/16/22 10:47	2/18/22 14:09		1.015	0.00766	mg/L	0.000068	0.000203	
* Molybdenum, Total	2/16/22 10:47	2/18/22 14:09		1.015	0.00480	mg/L	0.000068	0.000203	
* Potassium, Total	2/16/22 10:47	2/18/22 14:09		1.015	1.04	mg/L	0.169505	0.5075	

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.



# Certificate Of Analysis

**Description:** Gorgas Ash Pond - MW-28H DUP

**Location Code:** WMWGORAP  
**Collected:** 2/14/22 12:42  
**Customer ID:**  
**Submittal Date:** 2/15/22 11:16

**Laboratory ID Number:** BC03246

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
* Selenium, Total	2/16/22 10:47	2/18/22 14:09		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Total	2/16/22 10:47	2/18/22 14:09		1.015	Not Detected	mg/L	0.000068	0.000203	U
<b>Analytical Method: EPA 200.8</b>		<b>Analyst: ABB</b>							
* Antimony, Dissolved	2/16/22 11:25	2/16/22 17:32		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Aluminum, Dissolved	2/16/22 11:25	2/16/22 17:32		1.015	0.00713	mg/L	0.004060	0.01015	J
* Arsenic, Dissolved	2/16/22 11:25	2/16/22 17:32		1.015	0.000432	mg/L	0.000068	0.000203	
* Barium, Dissolved	2/16/22 11:25	2/16/22 17:32		1.015	0.0502	mg/L	0.000102	0.000203	
* Beryllium, Dissolved	2/16/22 11:25	2/16/22 17:32		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Dissolved	2/16/22 11:25	2/16/22 17:32		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Dissolved	2/16/22 11:25	2/16/22 17:32		1.015	Not Detected	mg/L	0.000203	0.001015	U
* Cobalt, Dissolved	2/16/22 11:25	2/16/22 17:32		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Lead, Dissolved	2/16/22 11:25	2/16/22 17:32		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Dissolved	2/16/22 11:25	2/16/22 17:32		1.015	0.00615	mg/L	0.000068	0.000203	
* Molybdenum, Dissolved	2/16/22 11:25	2/16/22 17:32		1.015	0.00369	mg/L	0.000068	0.000203	
* Potassium, Dissolved	2/16/22 11:25	2/16/22 17:32		1.015	0.936	mg/L	0.169505	0.5075	
* Selenium, Dissolved	2/16/22 11:25	2/16/22 17:32		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Dissolved	2/16/22 11:25	2/16/22 17:32		1.015	Not Detected	mg/L	0.000068	0.000203	U
<b>Analytical Method: EPA 245.1</b>		<b>Analyst: CRB</b>							
* Mercury, Total by CVAA	2/24/22 14:29	2/24/22 19:26		1	Not Detected	mg/L	0.0003	0.0005	U
<b>Analytical Method: EPA 353.2</b>		<b>Analyst: ELH</b>							
* Nitrogen, Nitrate/Nitrite	2/21/22 13:23	2/21/22 13:23		1	Not Detected	mg/L as N	0.20	0.3	U
<b>Analytical Method: SM 2320 B</b>		<b>Analyst: ALH</b>							
Alkalinity, Total as CaCO3	2/22/22 13:25	2/22/22 16:32		1	426	mg/L		0.1	
<b>Analytical Method: SM 2540C</b>		<b>Analyst: CNJ</b>							
* Solids, Dissolved	2/16/22 11:06	2/18/22 10:00		1	428	mg/L		25	
<b>Analytical Method: SM 4500CO2 D</b>		<b>Analyst: ALH</b>							
Bicarbonate Alkalinity, (calc.)	2/22/22 13:25	2/22/22 16:32		1	416	mg/L			
Carbonate Alkalinity, (calc.)	2/22/22 13:25	2/22/22 16:32		1	10.3	mg/L			
<b>Analytical Method: SM 5310 B</b>		<b>Analyst: ELH</b>							
* Total Organic Carbon	2/19/22 02:16	2/19/22 02:16		1	Not Detected	mg/L	1.00	2	U

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.

# Certificate Of Analysis

**Description:** Gorgas Ash Pond - MW-28H DUP

**Location Code:** WMWGORAP

**Collected:** 2/14/22 12:42

**Customer ID:**

**Submittal Date:** 2/15/22 11:16

**Laboratory ID Number:** BC03246

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
<b>Analytical Method: SM4500Cl E</b>		<b>Analyst: JCC</b>							
* Chloride	2/16/22 10:21	2/16/22 10:21		1	8.32	mg/L	0.50	1	
<b>Analytical Method: SM4500F G 2017</b>		<b>Analyst: JCC</b>							
* Fluoride	2/16/22 11:42	2/16/22 11:42		1	0.152	mg/L	0.06	0.1	
<b>Analytical Method: SM4500SO4 E 2011</b>		<b>Analyst: JCC</b>							
* Sulfate	2/22/22 11:55	2/22/22 11:55		1	3.39	mg/L	0.50	1	
<b>Analytical Method: Field Measurements</b>		<b>Analyst: AWG</b>							
Conductivity	2/14/22 12:37	2/14/22 12:37			646.75	uS/cm			FA
pH	2/14/22 12:37	2/14/22 12:37			8.37	SU			FA
Temperature	2/14/22 12:37	2/14/22 12:37			17.17	C			FA
Turbidity	2/14/22 12:37	2/14/22 12:37			0.64	NTU			FA

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.

# Batch QC Summary

**Customer Account:** WMWGORAP

**Sample Date:** 2/14/22 12:42

**Customer ID:**

**Delivery Date:** 2/15/22 11:16

**Description:** Gorgas Ash Pond - MW-28H DUP

**Laboratory ID Number:** BC03246

Sample	Analysis	Units	MB	MB		MS	MSD	Standard		Rec		Prec	Limit
				Limit	Spike			Standard	Limit	Rec	Limit		
BC03247	Aluminum, Dissolved	mg/L	0.0000565	0.010	0.100	0.0999	0.0998	0.0990	0.0850 to 0.115	95.8	70.0 to 130	0.100	20.0
BC03248	Aluminum, Total	mg/L	0.000788	0.010	0.100	0.101	0.101	0.100	0.0850 to 0.115	101	70.0 to 130	0.00	20.0
BC03247	Antimony, Dissolved	mg/L	0.000176	0.00100	0.100	0.0930	0.0937	0.0917	0.0850 to 0.115	93.0	70.0 to 130	0.750	20.0
BC03248	Antimony, Total	mg/L	0.000222	0.00100	0.100	0.0957	0.0967	0.0973	0.0850 to 0.115	95.7	70.0 to 130	1.04	20.0
BC03247	Arsenic, Dissolved	mg/L	0.0000108	0.000176	0.100	0.0999	0.102	0.100	0.0850 to 0.115	96.8	70.0 to 130	2.08	20.0
BC03248	Arsenic, Total	mg/L	0.000012	0.000176	0.100	0.104	0.102	0.104	0.0850 to 0.115	104	70.0 to 130	1.94	20.0
BC03247	Barium, Dissolved	mg/L	0.00000	0.000200	0.100	0.295	0.295	0.0940	0.0850 to 0.115	96.0	70.0 to 130	0.00	20.0
BC03248	Barium, Total	mg/L	-0.0000261	0.000200	0.100	0.102	0.104	0.104	0.0850 to 0.115	102	70.0 to 130	1.94	20.0
BC03247	Beryllium, Dissolved	mg/L	0.000136	0.000880	0.100	0.0962	0.107	0.0981	0.0850 to 0.115	96.2	70.0 to 130	10.6	20.0
BC03248	Beryllium, Total	mg/L	0.000124	0.000880	0.100	0.100	0.101	0.103	0.0850 to 0.115	100	70.0 to 130	0.995	20.0
BC03530	Boron, Dissolved	mg/L	-0.000009	0.0650	1.00	2.50	2.49	0.958	0.850 to 1.15	100	70.0 to 130	0.401	20.0
BC03528	Boron, Total	mg/L	-0.000344	0.0650	1.00	1.05	1.06	0.988	0.850 to 1.15	99.1	70.0 to 130	0.948	20.0
BC03247	Cadmium, Dissolved	mg/L	0.0000045	0.000147	0.100	0.0925	0.0926	0.0943	0.0850 to 0.115	92.5	70.0 to 130	0.108	20.0
BC03248	Cadmium, Total	mg/L	0.0000051	0.000147	0.100	0.105	0.105	0.106	0.0850 to 0.115	105	70.0 to 130	0.00	20.0
BC03530	Calcium, Dissolved	mg/L	-0.0100	0.152	5.00	60.4	60.3	4.91	4.25 to 5.75	62.0	70.0 to 130	0.166	20.0
BC03528	Calcium, Total	mg/L	-0.00796	0.152	5.00	19.0	19.1	4.87	4.25 to 5.75	94.0	70.0 to 130	0.525	20.0
BC03247	Chromium, Dissolved	mg/L	-0.0000309	0.000440	0.100	0.0996	0.0980	0.102	0.0850 to 0.115	99.6	70.0 to 130	1.62	20.0
BC03248	Chromium, Total	mg/L	0.0000153	0.000440	0.100	0.103	0.104	0.105	0.0850 to 0.115	103	70.0 to 130	0.966	20.0
BC03247	Cobalt, Dissolved	mg/L	0.0000091	0.000147	0.100	0.102	0.101	0.105	0.0850 to 0.115	102	70.0 to 130	0.985	20.0
BC03248	Cobalt, Total	mg/L	0.000006	0.000147	0.100	0.106	0.107	0.108	0.0850 to 0.115	106	70.0 to 130	0.939	20.0
BC03530	Iron, Dissolved	mg/L	-0.000587	0.0176	0.2	0.208	0.212	0.200	0.170 to 0.230	97.9	70.0 to 130	1.90	20.0
BC03528	Iron, Total	mg/L	-0.0002	0.0176	0.2	0.223	0.226	0.198	0.170 to 0.230	95.3	70.0 to 130	1.34	20.0
BC03247	Lead, Dissolved	mg/L	0.0000107	0.000147	0.100	0.0974	0.102	0.101	0.0850 to 0.115	97.4	70.0 to 130	4.61	20.0

**Comments:** The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.

# Batch QC Summary

**Customer Account:** WMWGORAP  
**Sample Date:** 2/14/22 12:42  
**Customer ID:**  
**Delivery Date:** 2/15/22 11:16

**Description:** Gorgas Ash Pond - MW-28H DUP

**Laboratory ID Number:** BC03246

Sample	Analysis	Units	MB	MB				Standard		Rec		Prec	Limit
				Limit	Spike	MS	MSD	Standard	Limit	Rec	Limit		
BC03248	Lead, Total	mg/L	0.0000018	0.000147	0.100	0.107	0.107	0.109	0.0850 to 0.115	107	70.0 to 130	0.00	20.0
BC03530	Lithium, Dissolved	mg/L	0.000167	0.0154	0.200	0.550	0.553	0.194	0.170 to 0.230	99.0	70.0 to 130	0.544	20.0
BC03528	Lithium, Total	mg/L	-0.000304	0.0154	0.200	0.278	0.283	0.204	0.170 to 0.230	99.6	70.0 to 130	1.78	20.0
BC03530	Magnesium, Dissolved	mg/L	-0.00744	0.0462	5.00	22.7	22.9	5.07	4.25 to 5.75	96.0	70.0 to 130	0.877	20.0
BC03528	Magnesium, Total	mg/L	-0.00541	0.0462	5.00	10.1	10.4	5.16	4.25 to 5.75	95.6	70.0 to 130	2.93	20.0
BC03247	Manganese, Dissolved	mg/L	-0.000126	0.0002	0.100	0.111	0.111	0.104	0.0850 to 0.115	101	70.0 to 130	0.00	20.0
BC03248	Manganese, Total	mg/L	0.0000678	0.0002	0.100	0.105	0.105	0.106	0.0850 to 0.115	105	70.0 to 130	0.00	20.0
BC03528	Mercury, Total by CVAA	mg/L	-9.000E-05	0.000500	0.004	0.00387	0.0039	0.00387	0.00340 to 0.00460	96.8	70.0 to 130	0.772	20.0
BC03247	Molybdenum, Dissolved	mg/L	0.0000073	0.0002	0.100	0.154	0.157	0.0999	0.0850 to 0.115	94.5	70.0 to 130	1.93	20.0
BC03248	Molybdenum, Total	mg/L	0.0000199	0.0002	0.100	0.103	0.105	0.105	0.0850 to 0.115	103	70.0 to 130	1.92	20.0
BC03247	Potassium, Dissolved	mg/L	-0.0162	0.367	10.0	10.8	10.8	9.99	8.50 to 11.5	94.7	70.0 to 130	0.00	20.0
BC03248	Potassium, Total	mg/L	0.00661	0.367	10.0	10.3	10.3	10.3	8.50 to 11.5	103	70.0 to 130	0.00	20.0
BC03247	Selenium, Dissolved	mg/L	-0.0000165	0.00100	0.100	0.0991	0.100	0.0976	0.0850 to 0.115	99.1	70.0 to 130	0.904	20.0
BC03248	Selenium, Total	mg/L	0.0000249	0.00100	0.100	0.106	0.108	0.107	0.0850 to 0.115	106	70.0 to 130	1.87	20.0
BC03530	Silicon, Dissolved	mg/L	-0.000094	0.0440	1.00	8.42	8.41	1.00	0.850 to 1.15	98.0	70.0 to 130	0.119	20.0
BC03528	Silicon, Total	mg/L	-0.000132	0.0440	1.00	8.11	8.12	1.02	0.850 to 1.15	92.0	70.0 to 130	0.123	20.0
BC03530	Sodium, Dissolved	mg/L	-0.00619	0.0660	5.00	23.8	24.1	4.98	4.25 to 5.75	102	70.0 to 130	1.25	20.0
BC03528	Sodium, Total	mg/L	-0.00123	0.0660	5.00	216	223	5.12	4.25 to 5.75	-120	70.0 to 130	3.19	20.0
BC03247	Thallium, Dissolved	mg/L	-0.0000004	0.000147	0.100	0.0973	0.100	0.103	0.0850 to 0.115	97.3	70.0 to 130	2.74	20.0
BC03248	Thallium, Total	mg/L	0.0000004	0.000147	0.100	0.108	0.109	0.111	0.0850 to 0.115	108	70.0 to 130	0.922	20.0
BC03246	Total Organic Carbon	mg/L	0.300	1.00	10.0	10.3	10.4	26.0		103	80.0 to 120	0.966	20.0

**Comments:** The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.

## Batch QC Summary

**Customer Account:** WMWGORAP

**Sample Date:** 2/14/22 12:42

**Customer ID:**

**Delivery Date:** 2/15/22 11:16

**Description:** Gorgas Ash Pond - MW-28H DUP

**Laboratory ID Number:** BC03246

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BC03249	Alkalinity, Total as CaCO3	mg/L					249	50.4	45.0 to 55.0			6.21	10.0
BC03249	Chloride	mg/L	-0.0102	1.00	40.0	71.0	30.6	10.1	9.00 to 11.0	103	80.0 to 120	2.65	20.0
BC03249	Fluoride	mg/L	-0.0432	0.125	2.50	2.76	0.155	2.60	2.25 to 2.75	104	80.0 to 120	4.62	20.0
BC03528	Nitrogen, Nitrate/Nitrite	mg/L as N	-0.02	0.200	2.00	1.80	-0.023	1.81	1.80 to 2.20	90.0	90.0 to 110	0.00	15.0
BC03249	Solids, Dissolved	mg/L	1.00	25.0			364	50.0	40.0 to 60.0			2.79	10.0
BC03528	Sulfate	mg/L	-0.0901	2.0	320	553	249	20.6	18.0 to 22.0	103	80.0 to 120	10.6	20.0

**Comments:** The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.

# Certificate Of Analysis

**Description:** Gorgas Ash Pond - MW-29H

**Location Code:** WMWGORAP  
**Collected:** 2/14/22 14:30  
**Customer ID:**  
**Submittal Date:** 2/15/22 11:16

**Laboratory ID Number:** BC03247

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
<b>Analytical Method: EPA 200.7</b>		<b>Analyst: RDA</b>			<b>Preparation Method: EPA 1638</b>				
* Boron, Total	2/25/22 10:56	2/28/22 09:48		1.015	0.542	mg/L	0.030000	0.1015	
* Calcium, Total	2/25/22 10:56	2/28/22 09:48		1.015	13.9	mg/L	0.070035	0.406	
* Iron, Total	2/25/22 10:56	2/28/22 09:48		1.015	0.168	mg/L	0.008120	0.0406	
* Lithium, Total	2/25/22 10:56	2/28/22 09:48		1.015	0.0670	mg/L	0.007105	0.01999956	
* Magnesium, Total	2/25/22 10:56	2/28/22 09:48		1.015	5.10	mg/L	0.021315	0.406	
Silica, Total (calc.)	2/25/22 10:56	2/28/22 09:48		1	20.1	mg/L			
Silicon, Total	2/25/22 10:56	2/28/22 09:48		1.015	9.37	mg/L	0.02030	0.25375	
* Sodium, Total	2/25/22 10:56	2/28/22 11:42		20.3	126	mg/L	0.609	8.12	
<b>Analytical Method: EPA 200.7</b>		<b>Analyst: RDA</b>			<b>Preparation Method: EPA 1638</b>				
* Boron, Dissolved	2/25/22 14:30	3/1/22 08:53		1.015	0.542	mg/L	0.030000	0.1015	
* Calcium, Dissolved	2/25/22 14:30	3/1/22 08:53		1.015	14.4	mg/L	0.070035	0.406	
* Iron, Dissolved	2/25/22 14:30	3/1/22 08:53		1.015	0.154	mg/L	0.008120	0.0406	
* Lithium, Dissolved	2/25/22 14:30	3/1/22 08:53		1.015	0.0675	mg/L	0.007105	0.01999956	
* Magnesium, Dissolved	2/25/22 14:30	3/1/22 08:53		1.015	5.20	mg/L	0.021315	0.406	
Silica, Dissolved (calc.)	2/25/22 14:30	3/1/22 08:53		1	20.1	mg/L			
Silicon, Dissolved	2/25/22 14:30	3/1/22 08:53		1.015	9.41	mg/L	0.02030	0.25375	
* Sodium, Dissolved	2/25/22 14:30	3/1/22 10:50		20.3	131	mg/L	0.609	8.12	
<b>Analytical Method: EPA 200.8</b>		<b>Analyst: ABB</b>			<b>Preparation Method: EPA 1638</b>				
* Antimony, Total	2/16/22 10:47	2/18/22 14:13		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Aluminum, Total	2/16/22 10:47	2/18/22 14:13		1.015	0.0111	mg/L	0.004060	0.01015	
* Arsenic, Total	2/16/22 10:47	2/18/22 14:13		1.015	0.00313	mg/L	0.000068	0.000203	
* Barium, Total	2/16/22 10:47	2/18/22 14:13		1.015	0.231	mg/L	0.000102	0.000203	
* Beryllium, Total	2/16/22 10:47	2/18/22 14:13		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Total	2/16/22 10:47	2/18/22 14:13		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Total	2/16/22 10:47	2/18/22 14:13		1.015	0.000286	mg/L	0.000203	0.001015	J
* Cobalt, Total	2/16/22 10:47	2/18/22 14:13		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Lead, Total	2/16/22 10:47	2/18/22 14:13		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Total	2/16/22 10:47	2/18/22 14:13		1.015	0.0111	mg/L	0.000068	0.000203	
* Molybdenum, Total	2/16/22 10:47	2/18/22 14:13		1.015	0.0622	mg/L	0.000068	0.000203	
* Potassium, Total	2/16/22 10:47	2/18/22 14:13		1.015	1.38	mg/L	0.169505	0.5075	

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.

# Certificate Of Analysis

**Description:** Gorgas Ash Pond - MW-29H

**Location Code:** WMWGORAP  
**Collected:** 2/14/22 14:30  
**Customer ID:**  
**Submittal Date:** 2/15/22 11:16

**Laboratory ID Number:** BC03247

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
* Selenium, Total	2/16/22 10:47	2/18/22 14:13		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Total	2/16/22 10:47	2/18/22 14:13		1.015	Not Detected	mg/L	0.000068	0.000203	U
<b>Analytical Method: EPA 200.8</b>		<b>Analyst: ABB</b>							
* Antimony, Dissolved	2/16/22 11:25	2/16/22 17:36		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Aluminum, Dissolved	2/16/22 11:25	2/16/22 17:36		1.015	0.00411	mg/L	0.004060	0.01015	J
* Arsenic, Dissolved	2/16/22 11:25	2/16/22 17:36		1.015	0.00310	mg/L	0.000068	0.000203	
* Barium, Dissolved	2/16/22 11:25	2/16/22 17:36		1.015	0.199	mg/L	0.000102	0.000203	
* Beryllium, Dissolved	2/16/22 11:25	2/16/22 17:36		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Dissolved	2/16/22 11:25	2/16/22 17:36		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Dissolved	2/16/22 11:25	2/16/22 17:36		1.015	Not Detected	mg/L	0.000203	0.001015	U
* Cobalt, Dissolved	2/16/22 11:25	2/16/22 17:36		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Lead, Dissolved	2/16/22 11:25	2/16/22 17:36		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Dissolved	2/16/22 11:25	2/16/22 17:36		1.015	0.0104	mg/L	0.000068	0.000203	
* Molybdenum, Dissolved	2/16/22 11:25	2/16/22 17:36		1.015	0.0595	mg/L	0.000068	0.000203	
* Potassium, Dissolved	2/16/22 11:25	2/16/22 17:36		1.015	1.33	mg/L	0.169505	0.5075	
* Selenium, Dissolved	2/16/22 11:25	2/16/22 17:36		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Dissolved	2/16/22 11:25	2/16/22 17:36		1.015	Not Detected	mg/L	0.000068	0.000203	U
<b>Analytical Method: EPA 245.1</b>		<b>Analyst: CRB</b>							
* Mercury, Total by CVAA	2/24/22 14:29	2/24/22 19:30		1	Not Detected	mg/L	0.0003	0.0005	U
<b>Analytical Method: EPA 353.2</b>		<b>Analyst: ELH</b>							
* Nitrogen, Nitrate/Nitrite	2/21/22 13:25	2/21/22 13:25		1	Not Detected	mg/L as N	0.20	0.3	U
<b>Analytical Method: SM 2320 B</b>		<b>Analyst: ALH</b>							
Alkalinity, Total as CaCO3	2/22/22 13:25	2/22/22 16:32		1	289	mg/L		0.1	
<b>Analytical Method: SM 2540C</b>		<b>Analyst: CNJ</b>							
* Solids, Dissolved	2/16/22 11:06	2/18/22 10:00		1	392	mg/L		25	
<b>Analytical Method: SM 4500CO2 D</b>		<b>Analyst: ALH</b>							
Bicarbonate Alkalinity, (calc.)	2/22/22 13:25	2/22/22 16:32		1	286	mg/L			
Carbonate Alkalinity, (calc.)	2/22/22 13:25	2/22/22 16:32		1	3.02	mg/L			
<b>Analytical Method: SM 5310 B</b>		<b>Analyst: ELH</b>							
* Total Organic Carbon	2/19/22 03:04	2/19/22 03:04		1	1.16	mg/L	1.00	2	J

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.

# Certificate Of Analysis

**Description:** Gorgas Ash Pond - MW-29H

**Location Code:** WMWGORAP

**Collected:** 2/14/22 14:30

**Customer ID:**

**Submittal Date:** 2/15/22 11:16

**Laboratory ID Number:** BC03247

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
<b>Analytical Method: SM4500Cl E</b>		<b>Analyst: JCC</b>							
* Chloride	2/16/22 10:22	2/16/22 10:22		1	14.2	mg/L	0.50	1	
<b>Analytical Method: SM4500F G 2017</b>		<b>Analyst: JCC</b>							
* Fluoride	2/16/22 11:43	2/16/22 11:43		1	0.332	mg/L	0.06	0.1	
<b>Analytical Method: SM4500SO4 E 2011</b>		<b>Analyst: JCC</b>							
* Sulfate	2/22/22 12:08	2/22/22 12:08		2	49.7	mg/L	1.00	2	
<b>Analytical Method: Field Measurements</b>		<b>Analyst: AWG</b>							
Conductivity	2/14/22 14:28	2/14/22 14:28			595.98	uS/cm			FA
pH	2/14/22 14:28	2/14/22 14:28			7.77	SU			FA
Temperature	2/14/22 14:28	2/14/22 14:28			16.75	C			FA
Turbidity	2/14/22 14:28	2/14/22 14:28			0.77	NTU			FA

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.



# Batch QC Summary

**Customer Account:** WMWGORAP

**Sample Date:** 2/14/22 14:30

**Customer ID:**

**Delivery Date:** 2/15/22 11:16

**Description:** Gorgas Ash Pond - MW-29H

**Laboratory ID Number:** BC03247

Sample	Analysis	Units	MB	MB		MS	MSD	Standard		Rec		Prec	Limit
				Limit	Spike			Standard	Limit	Rec	Limit		
BC03247	Aluminum, Dissolved	mg/L	0.0000565	0.010	0.100	0.0999	0.0998	0.0990	0.0850 to 0.115	95.8	70.0 to 130	0.100	20.0
BC03248	Aluminum, Total	mg/L	0.000788	0.010	0.100	0.101	0.101	0.100	0.0850 to 0.115	101	70.0 to 130	0.00	20.0
BC03247	Antimony, Dissolved	mg/L	0.000176	0.00100	0.100	0.0930	0.0937	0.0917	0.0850 to 0.115	93.0	70.0 to 130	0.750	20.0
BC03248	Antimony, Total	mg/L	0.000222	0.00100	0.100	0.0957	0.0967	0.0973	0.0850 to 0.115	95.7	70.0 to 130	1.04	20.0
BC03247	Arsenic, Dissolved	mg/L	0.0000108	0.000176	0.100	0.0999	0.102	0.100	0.0850 to 0.115	96.8	70.0 to 130	2.08	20.0
BC03248	Arsenic, Total	mg/L	0.000012	0.000176	0.100	0.104	0.102	0.104	0.0850 to 0.115	104	70.0 to 130	1.94	20.0
BC03247	Barium, Dissolved	mg/L	0.00000	0.000200	0.100	0.295	0.295	0.0940	0.0850 to 0.115	96.0	70.0 to 130	0.00	20.0
BC03248	Barium, Total	mg/L	-0.0000261	0.000200	0.100	0.102	0.104	0.104	0.0850 to 0.115	102	70.0 to 130	1.94	20.0
BC03247	Beryllium, Dissolved	mg/L	0.000136	0.000880	0.100	0.0962	0.107	0.0981	0.0850 to 0.115	96.2	70.0 to 130	10.6	20.0
BC03248	Beryllium, Total	mg/L	0.000124	0.000880	0.100	0.100	0.101	0.103	0.0850 to 0.115	100	70.0 to 130	0.995	20.0
BC03530	Boron, Dissolved	mg/L	-0.000009	0.0650	1.00	2.50	2.49	0.958	0.850 to 1.15	100	70.0 to 130	0.401	20.0
BC03528	Boron, Total	mg/L	-0.000344	0.0650	1.00	1.05	1.06	0.988	0.850 to 1.15	99.1	70.0 to 130	0.948	20.0
BC03247	Cadmium, Dissolved	mg/L	0.0000045	0.000147	0.100	0.0925	0.0926	0.0943	0.0850 to 0.115	92.5	70.0 to 130	0.108	20.0
BC03248	Cadmium, Total	mg/L	0.0000051	0.000147	0.100	0.105	0.105	0.106	0.0850 to 0.115	105	70.0 to 130	0.00	20.0
BC03530	Calcium, Dissolved	mg/L	-0.0100	0.152	5.00	60.4	60.3	4.91	4.25 to 5.75	62.0	70.0 to 130	0.166	20.0
BC03528	Calcium, Total	mg/L	-0.00796	0.152	5.00	19.0	19.1	4.87	4.25 to 5.75	94.0	70.0 to 130	0.525	20.0
BC03247	Chromium, Dissolved	mg/L	-0.0000309	0.000440	0.100	0.0996	0.0980	0.102	0.0850 to 0.115	99.6	70.0 to 130	1.62	20.0
BC03248	Chromium, Total	mg/L	0.0000153	0.000440	0.100	0.103	0.104	0.105	0.0850 to 0.115	103	70.0 to 130	0.966	20.0
BC03247	Cobalt, Dissolved	mg/L	0.0000091	0.000147	0.100	0.102	0.101	0.105	0.0850 to 0.115	102	70.0 to 130	0.985	20.0
BC03248	Cobalt, Total	mg/L	0.000006	0.000147	0.100	0.106	0.107	0.108	0.0850 to 0.115	106	70.0 to 130	0.939	20.0
BC03530	Iron, Dissolved	mg/L	-0.000587	0.0176	0.2	0.208	0.212	0.200	0.170 to 0.230	97.9	70.0 to 130	1.90	20.0
BC03528	Iron, Total	mg/L	-0.0002	0.0176	0.2	0.223	0.226	0.198	0.170 to 0.230	95.3	70.0 to 130	1.34	20.0
BC03247	Lead, Dissolved	mg/L	0.0000107	0.000147	0.100	0.0974	0.102	0.101	0.0850 to 0.115	97.4	70.0 to 130	4.61	20.0

**Comments:** The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.

# Batch QC Summary

**Customer Account:** WMWGORAP  
**Sample Date:** 2/14/22 14:30  
**Customer ID:**  
**Delivery Date:** 2/15/22 11:16

**Description:** Gorgas Ash Pond - MW-29H

**Laboratory ID Number:** BC03247

Sample	Analysis	Units	MB	MB				Standard		Rec		Prec	Limit
				Limit	Spike	MS	MSD	Standard	Limit	Rec	Limit		
BC03248	Lead, Total	mg/L	0.0000018	0.000147	0.100	0.107	0.107	0.109	0.0850 to 0.115	107	70.0 to 130	0.00	20.0
BC03530	Lithium, Dissolved	mg/L	0.000167	0.0154	0.200	0.550	0.553	0.194	0.170 to 0.230	99.0	70.0 to 130	0.544	20.0
BC03528	Lithium, Total	mg/L	-0.000304	0.0154	0.200	0.278	0.283	0.204	0.170 to 0.230	99.6	70.0 to 130	1.78	20.0
BC03530	Magnesium, Dissolved	mg/L	-0.00744	0.0462	5.00	22.7	22.9	5.07	4.25 to 5.75	96.0	70.0 to 130	0.877	20.0
BC03528	Magnesium, Total	mg/L	-0.00541	0.0462	5.00	10.1	10.4	5.16	4.25 to 5.75	95.6	70.0 to 130	2.93	20.0
BC03247	Manganese, Dissolved	mg/L	-0.000126	0.0002	0.100	0.111	0.111	0.104	0.0850 to 0.115	101	70.0 to 130	0.00	20.0
BC03248	Manganese, Total	mg/L	0.0000678	0.0002	0.100	0.105	0.105	0.106	0.0850 to 0.115	105	70.0 to 130	0.00	20.0
BC03528	Mercury, Total by CVAA	mg/L	-9.000E-05	0.000500	0.004	0.00387	0.0039	0.00387	0.00340 to 0.00460	96.8	70.0 to 130	0.772	20.0
BC03247	Molybdenum, Dissolved	mg/L	0.0000073	0.0002	0.100	0.154	0.157	0.0999	0.0850 to 0.115	94.5	70.0 to 130	1.93	20.0
BC03248	Molybdenum, Total	mg/L	0.0000199	0.0002	0.100	0.103	0.105	0.105	0.0850 to 0.115	103	70.0 to 130	1.92	20.0
BC03247	Potassium, Dissolved	mg/L	-0.0162	0.367	10.0	10.8	10.8	9.99	8.50 to 11.5	94.7	70.0 to 130	0.00	20.0
BC03248	Potassium, Total	mg/L	0.00661	0.367	10.0	10.3	10.3	10.3	8.50 to 11.5	103	70.0 to 130	0.00	20.0
BC03247	Selenium, Dissolved	mg/L	-0.0000165	0.00100	0.100	0.0991	0.100	0.0976	0.0850 to 0.115	99.1	70.0 to 130	0.904	20.0
BC03248	Selenium, Total	mg/L	0.0000249	0.00100	0.100	0.106	0.108	0.107	0.0850 to 0.115	106	70.0 to 130	1.87	20.0
BC03530	Silicon, Dissolved	mg/L	-0.000094	0.0440	1.00	8.42	8.41	1.00	0.850 to 1.15	98.0	70.0 to 130	0.119	20.0
BC03528	Silicon, Total	mg/L	-0.000132	0.0440	1.00	8.11	8.12	1.02	0.850 to 1.15	92.0	70.0 to 130	0.123	20.0
BC03530	Sodium, Dissolved	mg/L	-0.00619	0.0660	5.00	23.8	24.1	4.98	4.25 to 5.75	102	70.0 to 130	1.25	20.0
BC03528	Sodium, Total	mg/L	-0.00123	0.0660	5.00	216	223	5.12	4.25 to 5.75	-120	70.0 to 130	3.19	20.0
BC03247	Thallium, Dissolved	mg/L	-0.0000004	0.000147	0.100	0.0973	0.100	0.103	0.0850 to 0.115	97.3	70.0 to 130	2.74	20.0
BC03248	Thallium, Total	mg/L	0.0000004	0.000147	0.100	0.108	0.109	0.111	0.0850 to 0.115	108	70.0 to 130	0.922	20.0
BC03246	Total Organic Carbon	mg/L	0.300	1.00	10.0	10.3	10.4	26.0		103	80.0 to 120	0.966	20.0

**Comments:** The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.

## Batch QC Summary

**Customer Account:** WMWGORAP

**Sample Date:** 2/14/22 14:30

**Customer ID:**

**Delivery Date:** 2/15/22 11:16

**Description:** Gorgas Ash Pond - MW-29H

**Laboratory ID Number:** BC03247

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Limit	Prec	Prec Limit
BC03249	Alkalinity, Total as CaCO3	mg/L					249	50.4	45.0 to 55.0			6.21	10.0
BC03249	Chloride	mg/L	-0.0102	1.00	40.0	71.0	30.6	10.1	9.00 to 11.0	103	80.0 to 120	2.65	20.0
BC03249	Fluoride	mg/L	-0.0432	0.125	2.50	2.76	0.155	2.60	2.25 to 2.75	104	80.0 to 120	4.62	20.0
BC03528	Nitrogen, Nitrate/Nitrite	mg/L as N	-0.02	0.200	2.00	1.80	-0.023	1.81	1.80 to 2.20	90.0	90.0 to 110	0.00	15.0
BC03249	Solids, Dissolved	mg/L	1.00	25.0			364	50.0	40.0 to 60.0			2.79	10.0
BC03528	Sulfate	mg/L	-0.0901	2.0	320	553	249	20.6	18.0 to 22.0	103	80.0 to 120	10.6	20.0

**Comments:** The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.

# Certificate Of Analysis

**Description:** Gorgas Ash Pond Field Blank-3

**Location Code:** WMWGORAPFB  
**Collected:** 2/14/22 15:10  
**Customer ID:**  
**Submittal Date:** 2/15/22 11:16

**Laboratory ID Number:** BC03248

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q	
<b>Analytical Method: EPA 200.7</b>		<b>Analyst: RDA</b>			<b>Preparation Method: EPA 1638</b>					
* Boron, Total	2/25/22 10:56	2/28/22 09:50		1.015	Not Detected	mg/L	0.030000	0.1015	U	
* Calcium, Total	2/25/22 10:56	2/28/22 09:50		1.015	Not Detected	mg/L	0.070035	0.406	U	
* Iron, Total	2/25/22 10:56	2/28/22 09:50		1.015	Not Detected	mg/L	0.008120	0.0406	U	
* Lithium, Total	2/25/22 10:56	2/28/22 09:50		1.015	Not Detected	mg/L	0.007105	0.01999956	U	
* Magnesium, Total	2/25/22 10:56	2/28/22 09:50		1.015	Not Detected	mg/L	0.021315	0.406	U	
Silica, Total (calc.)	2/25/22 10:56	2/28/22 09:50		1	Not Detected	mg/L				
Silicon, Total	2/25/22 10:56	2/28/22 09:50		1.015	Not Detected	mg/L	0.02030	0.25375	U	
* Sodium, Total	2/25/22 10:56	2/28/22 09:50		1.015	Not Detected	mg/L	0.03045	0.406	U	
<b>Analytical Method: EPA 200.8</b>		<b>Analyst: ABB</b>			<b>Preparation Method: EPA 1638</b>					
* Antimony, Total	2/16/22 10:47	2/18/22 14:16		1.015	Not Detected	mg/L	0.000508	0.001015	U	
* Aluminum, Total	2/16/22 10:47	2/18/22 14:16		1.015	Not Detected	mg/L	0.004060	0.01015	U	
* Arsenic, Total	2/16/22 10:47	2/18/22 14:16		1.015	Not Detected	mg/L	0.000068	0.000203	U	
* Barium, Total	2/16/22 10:47	2/18/22 14:16		1.015	Not Detected	mg/L	0.000102	0.000203	U	
* Beryllium, Total	2/16/22 10:47	2/18/22 14:16		1.015	Not Detected	mg/L	0.000406	0.001015	U	
* Cadmium, Total	2/16/22 10:47	2/18/22 14:16		1.015	Not Detected	mg/L	0.000068	0.000203	U	
* Chromium, Total	2/16/22 10:47	2/18/22 14:16		1.015	0.000208	mg/L	0.000203	0.001015	J	
* Cobalt, Total	2/16/22 10:47	2/18/22 14:16		1.015	Not Detected	mg/L	0.000068	0.000203	U	
* Lead, Total	2/16/22 10:47	2/18/22 14:16		1.015	Not Detected	mg/L	0.000068	0.000203	U	
* Manganese, Total	2/16/22 10:47	2/18/22 14:16		1.015	Not Detected	mg/L	0.000068	0.000203	U	
* Molybdenum, Total	2/16/22 10:47	2/18/22 14:16		1.015	Not Detected	mg/L	0.000068	0.000203	U	
* Potassium, Total	2/16/22 10:47	2/18/22 14:16		1.015	Not Detected	mg/L	0.169505	0.5075	U	
* Selenium, Total	2/16/22 10:47	2/18/22 14:16		1.015	Not Detected	mg/L	0.000508	0.001015	U	
* Thallium, Total	2/16/22 10:47	2/18/22 14:16		1.015	Not Detected	mg/L	0.000068	0.000203	U	
<b>Analytical Method: EPA 245.1</b>		<b>Analyst: CRB</b>								
* Mercury, Total by CVAA	2/24/22 14:29	2/24/22 19:33		1	Not Detected	mg/L	0.0003	0.0005	U	
<b>Analytical Method: EPA 353.2</b>		<b>Analyst: ELH</b>								
* Nitrogen, Nitrate/Nitrite	2/21/22 13:27	2/21/22 13:27		1	Not Detected	mg/L as N	0.20	0.3	U	
<b>Analytical Method: SM 2540C</b>		<b>Analyst: CNJ</b>								
* Solids, Dissolved	2/16/22 11:06	2/18/22 10:00		1	Not Detected	mg/L		25	U	

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

**Comments:**

# Certificate Of Analysis

**Description:** Gorgas Ash Pond Field Blank-3

**Location Code:** WMWGORAPFB

**Collected:** 2/14/22 15:10

**Customer ID:**

**Submittal Date:** 2/15/22 11:16

**Laboratory ID Number:** BC03248

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
<b>Analytical Method: SM 5310 B</b>		<b>Analyst: ELH</b>							
* Total Organic Carbon	2/19/22 03:50	2/19/22 03:50		1	Not Detected	mg/L	1.00	2	U
<b>Analytical Method: SM4500Cl E</b>		<b>Analyst: JCC</b>							
* Chloride	2/16/22 10:23	2/16/22 10:23		1	Not Detected	mg/L	0.50	1	U
<b>Analytical Method: SM4500F G 2017</b>		<b>Analyst: JCC</b>							
* Fluoride	2/16/22 11:44	2/16/22 11:44		1	Not Detected	mg/L	0.06	0.1	U
<b>Analytical Method: SM4500SO4 E 2011</b>		<b>Analyst: JCC</b>							
* Sulfate	2/22/22 12:02	2/22/22 12:02		1	Not Detected	mg/L	0.50	1	U

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

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**Comments:**

# Batch QC Summary

**Customer Account:** WMWGORAPFB

**Sample Date:** 2/14/22 15:10

**Customer ID:**

**Delivery Date:** 2/15/22 11:16

**Description:** Gorgas Ash Pond Field Blank-3

**Laboratory ID Number:** BC03248

Sample	Analysis	Units	MB	MB				Standard		Rec		Prec	Limit
				Limit	Spike	MS	MSD	Standard	Limit	Rec	Limit		
BC03248	Aluminum, Total	mg/L	0.000788	0.010	0.100	0.101	0.101	0.100	0.0850 to 0.115	101	70.0 to 130	0.00	20.0
BC03248	Antimony, Total	mg/L	0.000222	0.00100	0.100	0.0957	0.0967	0.0973	0.0850 to 0.115	95.7	70.0 to 130	1.04	20.0
BC03248	Arsenic, Total	mg/L	0.000012	0.000176	0.100	0.104	0.102	0.104	0.0850 to 0.115	104	70.0 to 130	1.94	20.0
BC03248	Barium, Total	mg/L	-0.0000261	0.000200	0.100	0.102	0.104	0.104	0.0850 to 0.115	102	70.0 to 130	1.94	20.0
BC03248	Beryllium, Total	mg/L	0.000124	0.000880	0.100	0.100	0.101	0.103	0.0850 to 0.115	100	70.0 to 130	0.995	20.0
BC03528	Boron, Total	mg/L	-0.000344	0.0650	1.00	1.05	1.06	0.988	0.850 to 1.15	99.1	70.0 to 130	0.948	20.0
BC03248	Cadmium, Total	mg/L	0.0000051	0.000147	0.100	0.105	0.105	0.106	0.0850 to 0.115	105	70.0 to 130	0.00	20.0
BC03528	Calcium, Total	mg/L	-0.00796	0.152	5.00	19.0	19.1	4.87	4.25 to 5.75	94.0	70.0 to 130	0.525	20.0
BC03248	Chromium, Total	mg/L	0.0000153	0.000440	0.100	0.103	0.104	0.105	0.0850 to 0.115	103	70.0 to 130	0.966	20.0
BC03248	Cobalt, Total	mg/L	0.000006	0.000147	0.100	0.106	0.107	0.108	0.0850 to 0.115	106	70.0 to 130	0.939	20.0
BC03528	Iron, Total	mg/L	-0.0002	0.0176	0.2	0.223	0.226	0.198	0.170 to 0.230	95.3	70.0 to 130	1.34	20.0
BC03248	Lead, Total	mg/L	0.0000018	0.000147	0.100	0.107	0.107	0.109	0.0850 to 0.115	107	70.0 to 130	0.00	20.0
BC03528	Lithium, Total	mg/L	-0.000304	0.0154	0.200	0.278	0.283	0.204	0.170 to 0.230	99.6	70.0 to 130	1.78	20.0
BC03528	Magnesium, Total	mg/L	-0.00541	0.0462	5.00	10.1	10.4	5.16	4.25 to 5.75	95.6	70.0 to 130	2.93	20.0
BC03248	Manganese, Total	mg/L	0.0000678	0.0002	0.100	0.105	0.105	0.106	0.0850 to 0.115	105	70.0 to 130	0.00	20.0
BC03528	Mercury, Total by CVAA	mg/L	-9.000E-05	0.000500	0.004	0.00387	0.0039	0.00387	0.00340 to 0.00460	96.8	70.0 to 130	0.772	20.0
BC03248	Molybdenum, Total	mg/L	0.0000199	0.0002	0.100	0.103	0.105	0.105	0.0850 to 0.115	103	70.0 to 130	1.92	20.0
BC03248	Potassium, Total	mg/L	0.00661	0.367	10.0	10.3	10.3	10.3	8.50 to 11.5	103	70.0 to 130	0.00	20.0
BC03248	Selenium, Total	mg/L	0.0000249	0.00100	0.100	0.106	0.108	0.107	0.0850 to 0.115	106	70.0 to 130	1.87	20.0
BC03528	Silicon, Total	mg/L	-0.000132	0.0440	1.00	8.11	8.12	1.02	0.850 to 1.15	92.0	70.0 to 130	0.123	20.0
BC03528	Sodium, Total	mg/L	-0.00123	0.0660	5.00	216	223	5.12	4.25 to 5.75	-120	70.0 to 130	3.19	20.0
BC03248	Thallium, Total	mg/L	0.0000004	0.000147	0.100	0.108	0.109	0.111	0.0850 to 0.115	108	70.0 to 130	0.922	20.0
BC03530	Total Organic Carbon	mg/L	0.260	1.00	10.0	10.0	9.26	22.9		100	80.0 to 120	7.68	20.0

**Comments:**

# Batch QC Summary

**Customer Account:** WMWGORAPFB

**Sample Date:** 2/14/22 15:10

**Customer ID:**

**Delivery Date:** 2/15/22 11:16

**Description:** Gorgas Ash Pond Field Blank-3

**Laboratory ID Number:** BC03248

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Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
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**Comments:**

## Batch QC Summary

**Customer Account:** WMWGORAPFB

**Sample Date:** 2/14/22 15:10

**Customer ID:**

**Delivery Date:** 2/15/22 11:16

**Description:** Gorgas Ash Pond Field Blank-3

**Laboratory ID Number:** BC03248

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BC03249	Chloride	mg/L	-0.0102	1.00	40.0	71.0	30.6	10.1	9.00 to 11.0	103	80.0 to 120	2.65	20.0
BC03249	Fluoride	mg/L	-0.0432	0.125	2.50	2.76	0.155	2.60	2.25 to 2.75	104	80.0 to 120	4.62	20.0
BC03528	Nitrogen, Nitrate/Nitrite	mg/L as N	-0.02	0.200	2.00	1.80	-0.023	1.81	1.80 to 2.20	90.0	90.0 to 110	0.00	15.0
BC03249	Solids, Dissolved	mg/L	1.00	25.0			364	50.0	40.0 to 60.0			2.79	10.0
BC03528	Sulfate	mg/L	-0.0901	2.0	320	553	249	20.6	18.0 to 22.0	103	80.0 to 120	10.6	20.0

**Comments:**



# Certificate Of Analysis

**Description:** Gorgas Ash Pond - MW-32H

**Location Code:** WMWGORAP  
**Collected:** 2/14/22 15:45  
**Customer ID:**  
**Submittal Date:** 2/15/22 11:16

**Laboratory ID Number:** BC03249

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
<b>Analytical Method: EPA 200.7</b>		<b>Analyst: RDA</b>			<b>Preparation Method: EPA 1638</b>				
* Boron, Total	2/25/22 10:56	2/28/22 09:52		1.015	0.0443	mg/L	0.030000	0.1015	J
* Calcium, Total	2/25/22 10:56	2/28/22 09:52		1.015	2.53	mg/L	0.070035	0.406	
* Iron, Total	2/25/22 10:56	2/28/22 09:52		1.015	0.0573	mg/L	0.008120	0.0406	
* Lithium, Total	2/25/22 10:56	2/28/22 09:52		1.015	0.0407	mg/L	0.007105	0.01999956	
* Magnesium, Total	2/25/22 10:56	2/28/22 09:52		1.015	0.490	mg/L	0.021315	0.406	
Silica, Total (calc.)	2/25/22 10:56	2/28/22 09:52		1	11.1	mg/L			
Silicon, Total	2/25/22 10:56	2/28/22 09:52		1.015	5.18	mg/L	0.02030	0.25375	
* Sodium, Total	2/25/22 10:56	2/28/22 11:44		20.3	140	mg/L	0.609	8.12	
<b>Analytical Method: EPA 200.7</b>		<b>Analyst: RDA</b>			<b>Preparation Method: EPA 1638</b>				
* Boron, Dissolved	2/25/22 14:30	3/1/22 08:54		1.015	0.0447	mg/L	0.030000	0.1015	J
* Calcium, Dissolved	2/25/22 14:30	3/1/22 08:54		1.015	2.27	mg/L	0.070035	0.406	
* Iron, Dissolved	2/25/22 14:30	3/1/22 08:54		1.015	0.0219	mg/L	0.008120	0.0406	J
* Lithium, Dissolved	2/25/22 14:30	3/1/22 08:54		1.015	0.0396	mg/L	0.007105	0.01999956	
* Magnesium, Dissolved	2/25/22 14:30	3/1/22 08:54		1.015	0.446	mg/L	0.021315	0.406	
Silica, Dissolved (calc.)	2/25/22 14:30	3/1/22 08:54		1	11.3	mg/L			
Silicon, Dissolved	2/25/22 14:30	3/1/22 08:54		1.015	5.29	mg/L	0.02030	0.25375	
* Sodium, Dissolved	2/25/22 14:30	3/1/22 10:52		20.3	138	mg/L	0.609	8.12	
<b>Analytical Method: EPA 200.8</b>		<b>Analyst: ABB</b>			<b>Preparation Method: EPA 1638</b>				
* Antimony, Total	2/16/22 10:47	2/18/22 14:45		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Aluminum, Total	2/16/22 10:47	2/18/22 14:45		1.015	0.0555	mg/L	0.004060	0.01015	
* Arsenic, Total	2/16/22 10:47	2/18/22 14:45		1.015	0.000615	mg/L	0.000068	0.000203	
* Barium, Total	2/16/22 10:47	2/18/22 14:45		1.015	0.0470	mg/L	0.000102	0.000203	
* Beryllium, Total	2/16/22 10:47	2/18/22 14:45		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Total	2/16/22 10:47	2/18/22 14:45		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Total	2/16/22 10:47	2/18/22 14:45		1.015	0.000262	mg/L	0.000203	0.001015	J
* Cobalt, Total	2/16/22 10:47	2/18/22 14:45		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Lead, Total	2/16/22 10:47	2/18/22 14:45		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Total	2/16/22 10:47	2/18/22 14:45		1.015	0.00781	mg/L	0.000068	0.000203	
* Molybdenum, Total	2/16/22 10:47	2/18/22 14:45		1.015	0.0933	mg/L	0.000068	0.000203	
* Potassium, Total	2/16/22 10:47	2/18/22 14:45		1.015	2.10	mg/L	0.169505	0.5075	

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.

# Certificate Of Analysis

**Description:** Gorgas Ash Pond - MW-32H

**Location Code:** WMWGORAP  
**Collected:** 2/14/22 15:45  
**Customer ID:**  
**Submittal Date:** 2/15/22 11:16

**Laboratory ID Number:** BC03249

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
* Selenium, Total	2/16/22 10:47	2/18/22 14:45		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Total	2/16/22 10:47	2/18/22 14:45		1.015	Not Detected	mg/L	0.000068	0.000203	U
<b>Analytical Method: EPA 200.8</b>		<b>Analyst: ABB</b>							
* Antimony, Dissolved	2/16/22 11:25	2/17/22 11:01		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Aluminum, Dissolved	2/16/22 11:25	2/17/22 11:01		1.015	0.0144	mg/L	0.004060	0.01015	
* Arsenic, Dissolved	2/16/22 11:25	2/17/22 11:01		1.015	0.000440	mg/L	0.000068	0.000203	
* Barium, Dissolved	2/16/22 11:25	2/17/22 11:01		1.015	0.0427	mg/L	0.000102	0.000203	
* Beryllium, Dissolved	2/16/22 11:25	2/17/22 11:01		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Dissolved	2/16/22 11:25	2/17/22 11:01		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Dissolved	2/16/22 11:25	2/17/22 11:01		1.015	0.000289	mg/L	0.000203	0.001015	J
* Cobalt, Dissolved	2/16/22 11:25	2/17/22 11:01		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Lead, Dissolved	2/16/22 11:25	2/17/22 11:01		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Dissolved	2/16/22 11:25	2/17/22 11:01		1.015	0.00619	mg/L	0.000068	0.000203	
* Molybdenum, Dissolved	2/16/22 11:25	2/17/22 11:01		1.015	0.0855	mg/L	0.000068	0.000203	
* Potassium, Dissolved	2/16/22 11:25	2/17/22 11:01		1.015	2.01	mg/L	0.169505	0.5075	
* Selenium, Dissolved	2/16/22 11:25	2/17/22 11:01		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Dissolved	2/16/22 11:25	2/17/22 11:01		1.015	Not Detected	mg/L	0.000068	0.000203	U
<b>Analytical Method: EPA 245.1</b>		<b>Analyst: CRB</b>							
* Mercury, Total by CVAA	2/24/22 14:29	2/24/22 19:37		1	Not Detected	mg/L	0.0003	0.0005	U
<b>Analytical Method: EPA 353.2</b>		<b>Analyst: ELH</b>							
* Nitrogen, Nitrate/Nitrite	2/21/22 13:29	2/21/22 13:29		1	Not Detected	mg/L as N	0.20	0.3	U
<b>Analytical Method: SM 2320 B</b>		<b>Analyst: ALH</b>							
Alkalinity, Total as CaCO3	2/22/22 13:25	2/22/22 16:32		1	234	mg/L		0.1	
<b>Analytical Method: SM 2540C</b>		<b>Analyst: CNJ</b>							
* Solids, Dissolved	2/16/22 11:06	2/18/22 10:00		1	354	mg/L		25	
<b>Analytical Method: SM 4500CO2 D</b>		<b>Analyst: ALH</b>							
Bicarbonate Alkalinity, (calc.)	2/22/22 13:25	2/22/22 16:32		1	230	mg/L			
Carbonate Alkalinity, (calc.)	2/22/22 13:25	2/22/22 16:32		1	4.12	mg/L			
<b>Analytical Method: SM 5310 B</b>		<b>Analyst: ELH</b>							
* Total Organic Carbon	2/19/22 04:03	2/19/22 04:03		1	1.01	mg/L	1.00	2	J

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.

# Certificate Of Analysis

**Description:** Gorgas Ash Pond - MW-32H

**Location Code:** WMWGORAP

**Collected:** 2/14/22 15:45

**Customer ID:**

**Submittal Date:** 2/15/22 11:16

**Laboratory ID Number:** BC03249

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
<b>Analytical Method: SM4500Cl E</b>		<b>Analyst: JCC</b>							
* Chloride	2/16/22 10:24	2/16/22 10:24		4	29.8	mg/L	2.00	4	
<b>Analytical Method: SM4500F G 2017</b>		<b>Analyst: JCC</b>							
* Fluoride	2/16/22 11:46	2/16/22 11:46		1	0.148	mg/L	0.06	0.1	
<b>Analytical Method: SM4500SO4 E 2011</b>		<b>Analyst: JCC</b>							
* Sulfate	2/22/22 11:57	2/22/22 11:57		1	38.4	mg/L	0.50	1	
<b>Analytical Method: Field Measurements</b>		<b>Analyst: AWG</b>							
Conductivity	2/14/22 15:42	2/14/22 15:42			592.54	uS/cm			FA
pH	2/14/22 15:42	2/14/22 15:42			8.22	SU			FA
Temperature	2/14/22 15:42	2/14/22 15:42			16.24	C			FA
Turbidity	2/14/22 15:42	2/14/22 15:42			1.72	NTU			FA

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.

# Batch QC Summary

**Customer Account:** WMWGORAP

**Sample Date:** 2/14/22 15:45

**Customer ID:**

**Delivery Date:** 2/15/22 11:16

**Description:** Gorgas Ash Pond - MW-32H

**Laboratory ID Number:** BC03249

Sample	Analysis	Units	MB	MB		MS	MSD	Standard	Standard Limit	Rec		Prec Limit	
				Limit	Spike					Rec	Limit		
BC03249	Aluminum, Dissolved	mg/L	0.000413	0.010	0.100	0.112	0.115	0.106	0.0850 to 0.115	97.6	70.0 to 130	2.64	20.0
BC03249	Aluminum, Total	mg/L	0.000890	0.010	0.100	0.154	0.150	0.102	0.0850 to 0.115	98.5	70.0 to 130	2.63	20.0
BC03249	Antimony, Dissolved	mg/L	0.000606	0.00100	0.100	0.0952	0.0965	0.0930	0.0850 to 0.115	95.2	70.0 to 130	1.36	20.0
BC03249	Antimony, Total	mg/L	0.000290	0.00100	0.100	0.0999	0.0968	0.0947	0.0850 to 0.115	99.9	70.0 to 130	3.15	20.0
BC03249	Arsenic, Dissolved	mg/L	0.000648	0.000176	0.100	0.101	0.0984	0.101	0.0850 to 0.115	101	70.0 to 130	2.61	20.0
BC03249	Arsenic, Total	mg/L	0.0000113	0.000176	0.100	0.105	0.104	0.102	0.0850 to 0.115	104	70.0 to 130	0.957	20.0
BC03249	Barium, Dissolved	mg/L	0.0000134	0.000200	0.100	0.142	0.138	0.101	0.0850 to 0.115	99.3	70.0 to 130	2.86	20.0
BC03249	Barium, Total	mg/L	-0.0000447	0.000200	0.100	0.150	0.151	0.103	0.0850 to 0.115	103	70.0 to 130	0.664	20.0
BC03249	Beryllium, Dissolved	mg/L	0.000381	0.000880	0.100	0.100	0.101	0.100	0.0850 to 0.115	100	70.0 to 130	0.995	20.0
BC03249	Beryllium, Total	mg/L	0.000133	0.000880	0.100	0.0975	0.102	0.104	0.0850 to 0.115	97.5	70.0 to 130	4.51	20.0
BC03530	Boron, Dissolved	mg/L	-0.000009	0.0650	1.00	2.50	2.49	0.958	0.850 to 1.15	100	70.0 to 130	0.401	20.0
BC03528	Boron, Total	mg/L	-0.000344	0.0650	1.00	1.05	1.06	0.988	0.850 to 1.15	99.1	70.0 to 130	0.948	20.0
BC03249	Cadmium, Dissolved	mg/L	0.000024	0.000147	0.100	0.0969	0.100	0.103	0.0850 to 0.115	96.9	70.0 to 130	3.15	20.0
BC03249	Cadmium, Total	mg/L	0.0000096	0.000147	0.100	0.104	0.105	0.107	0.0850 to 0.115	104	70.0 to 130	0.957	20.0
BC03530	Calcium, Dissolved	mg/L	-0.0100	0.152	5.00	60.4	60.3	4.91	4.25 to 5.75	62.0	70.0 to 130	0.166	20.0
BC03528	Calcium, Total	mg/L	-0.00796	0.152	5.00	19.0	19.1	4.87	4.25 to 5.75	94.0	70.0 to 130	0.525	20.0
BC03249	Chromium, Dissolved	mg/L	0.0000821	0.000440	0.100	0.0969	0.0983	0.101	0.0850 to 0.115	96.6	70.0 to 130	1.43	20.0
BC03249	Chromium, Total	mg/L	0.0000219	0.000440	0.100	0.102	0.102	0.105	0.0850 to 0.115	102	70.0 to 130	0.00	20.0
BC03249	Cobalt, Dissolved	mg/L	0.0000775	0.000147	0.100	0.0995	0.100	0.103	0.0850 to 0.115	99.5	70.0 to 130	0.501	20.0
BC03249	Cobalt, Total	mg/L	0.0000041	0.000147	0.100	0.105	0.106	0.108	0.0850 to 0.115	105	70.0 to 130	0.948	20.0
BC03530	Iron, Dissolved	mg/L	-0.000587	0.0176	0.2	0.208	0.212	0.200	0.170 to 0.230	97.9	70.0 to 130	1.90	20.0
BC03528	Iron, Total	mg/L	-0.0002	0.0176	0.2	0.223	0.226	0.198	0.170 to 0.230	95.3	70.0 to 130	1.34	20.0
BC03249	Lead, Dissolved	mg/L	0.0000103	0.000147	0.100	0.102	0.101	0.103	0.0850 to 0.115	102	70.0 to 130	0.985	20.0

**Comments:** The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.

# Batch QC Summary

**Customer Account:** WMWGORAP

**Sample Date:** 2/14/22 15:45

**Customer ID:**

**Delivery Date:** 2/15/22 11:16

**Description:** Gorgas Ash Pond - MW-32H

**Laboratory ID Number:** BC03249

Sample	Analysis	Units	MB	MB				Standard		Rec		Prec	Limit
				Limit	Spike	MS	MSD	Standard	Limit	Rec	Limit		
BC03249	Lead, Total	mg/L	0.000056	0.000147	0.100	0.106	0.108	0.105	0.0850 to 0.115	106	70.0 to 130	1.87	20.0
BC03530	Lithium, Dissolved	mg/L	0.000167	0.0154	0.200	0.550	0.553	0.194	0.170 to 0.230	99.0	70.0 to 130	0.544	20.0
BC03528	Lithium, Total	mg/L	-0.000304	0.0154	0.200	0.278	0.283	0.204	0.170 to 0.230	99.6	70.0 to 130	1.78	20.0
BC03530	Magnesium, Dissolved	mg/L	-0.00744	0.0462	5.00	22.7	22.9	5.07	4.25 to 5.75	96.0	70.0 to 130	0.877	20.0
BC03528	Magnesium, Total	mg/L	-0.00541	0.0462	5.00	10.1	10.4	5.16	4.25 to 5.75	95.6	70.0 to 130	2.93	20.0
BC03249	Manganese, Dissolved	mg/L	0.0000959	0.0002	0.100	0.105	0.106	0.103	0.0850 to 0.115	98.8	70.0 to 130	0.948	20.0
BC03249	Manganese, Total	mg/L	0.0000394	0.0002	0.100	0.111	0.111	0.107	0.0850 to 0.115	103	70.0 to 130	0.00	20.0
BC03528	Mercury, Total by CVAA	mg/L	-9.000E-05	0.000500	0.004	0.00387	0.0039	0.00387	0.00340 to 0.00460	96.8	70.0 to 130	0.772	20.0
BC03249	Molybdenum, Dissolved	mg/L	0.0000882	0.0002	0.100	0.183	0.182	0.0994	0.0850 to 0.115	97.5	70.0 to 130	0.548	20.0
BC03249	Molybdenum, Total	mg/L	0.000014	0.0002	0.100	0.198	0.196	0.102	0.0850 to 0.115	105	70.0 to 130	1.02	20.0
BC03249	Potassium, Dissolved	mg/L	-0.00876	0.367	10.0	11.5	11.9	10.2	8.50 to 11.5	94.9	70.0 to 130	3.42	20.0
BC03249	Potassium, Total	mg/L	-0.0141	0.367	10.0	12.0	12.0	10.3	8.50 to 11.5	99.0	70.0 to 130	0.00	20.0
BC03249	Selenium, Dissolved	mg/L	0.000160	0.00100	0.100	0.102	0.103	0.104	0.0850 to 0.115	102	70.0 to 130	0.976	20.0
BC03249	Selenium, Total	mg/L	0.0000227	0.00100	0.100	0.108	0.107	0.106	0.0850 to 0.115	108	70.0 to 130	0.930	20.0
BC03530	Silicon, Dissolved	mg/L	-0.000094	0.0440	1.00	8.42	8.41	1.00	0.850 to 1.15	98.0	70.0 to 130	0.119	20.0
BC03528	Silicon, Total	mg/L	-0.000132	0.0440	1.00	8.11	8.12	1.02	0.850 to 1.15	92.0	70.0 to 130	0.123	20.0
BC03530	Sodium, Dissolved	mg/L	-0.00619	0.0660	5.00	23.8	24.1	4.98	4.25 to 5.75	102	70.0 to 130	1.25	20.0
BC03528	Sodium, Total	mg/L	-0.00123	0.0660	5.00	216	223	5.12	4.25 to 5.75	-120	70.0 to 130	3.19	20.0
BC03249	Thallium, Dissolved	mg/L	0.0000078	0.000147	0.100	0.0994	0.0996	0.102	0.0850 to 0.115	99.4	70.0 to 130	0.201	20.0
BC03249	Thallium, Total	mg/L	0.0000044	0.000147	0.100	0.106	0.111	0.109	0.0850 to 0.115	106	70.0 to 130	4.61	20.0
BC03530	Total Organic Carbon	mg/L	0.260	1.00	10.0	10.0	9.26	22.9		100	80.0 to 120	7.68	20.0

**Comments:** The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.

## Batch QC Summary

**Customer Account:** WMWGORAP

**Sample Date:** 2/14/22 15:45

**Customer ID:**

**Delivery Date:** 2/15/22 11:16

**Description:** Gorgas Ash Pond - MW-32H

**Laboratory ID Number:** BC03249

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BC03249	Alkalinity, Total as CaCO3	mg/L					249	50.4	45.0 to 55.0			6.21	10.0
BC03249	Chloride	mg/L	-0.0102	1.00	40.0	71.0	30.6	10.1	9.00 to 11.0	103	80.0 to 120	2.65	20.0
BC03249	Fluoride	mg/L	-0.0432	0.125	2.50	2.76	0.155	2.60	2.25 to 2.75	104	80.0 to 120	4.62	20.0
BC03528	Nitrogen, Nitrate/Nitrite	mg/L as N	-0.02	0.200	2.00	1.80	-0.023	1.81	1.80 to 2.20	90.0	90.0 to 110	0.00	15.0
BC03249	Solids, Dissolved	mg/L	1.00	25.0			364	50.0	40.0 to 60.0			2.79	10.0
BC03528	Sulfate	mg/L	-0.0901	2.0	320	553	249	20.6	18.0 to 22.0	103	80.0 to 120	10.6	20.0

**Comments:** The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.

# Certificate Of Analysis

**Description:** Gorgas Ash Pond - PZ-16

**Location Code:** WMWGORAP  
**Collected:** 2/15/22 11:08  
**Customer ID:**  
**Submittal Date:** 2/17/22 10:42

**Laboratory ID Number:** BC03523

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
<b>Analytical Method: EPA 200.7</b>		<b>Analyst: RDA</b>			<b>Preparation Method: EPA 1638</b>				
* Boron, Total	2/25/22 10:56	2/28/22 09:53		1.015	0.0781	mg/L	0.030000	0.1015	J
* Calcium, Total	2/25/22 10:56	2/28/22 09:53		1.015	11.5	mg/L	0.070035	0.406	
* Iron, Total	2/25/22 10:56	2/28/22 09:53		1.015	0.269	mg/L	0.008120	0.0406	
* Lithium, Total	2/25/22 10:56	2/28/22 09:53		1.015	0.0614	mg/L	0.007105	0.01999956	
* Magnesium, Total	2/25/22 10:56	2/28/22 09:53		1.015	2.20	mg/L	0.021315	0.406	
Silica, Total (calc.)	2/25/22 10:56	2/28/22 09:53		1	18.6	mg/L			
Silicon, Total	2/25/22 10:56	2/28/22 09:53		1.015	8.67	mg/L	0.02030	0.25375	
* Sodium, Total	2/25/22 10:56	2/28/22 11:46		20.3	157	mg/L	0.609	8.12	
<b>Analytical Method: EPA 200.7</b>		<b>Analyst: RDA</b>			<b>Preparation Method: EPA 1638</b>				
* Boron, Dissolved	2/25/22 14:30	3/1/22 08:56		1.015	0.0774	mg/L	0.030000	0.1015	J
* Calcium, Dissolved	2/25/22 14:30	3/1/22 08:56		1.015	9.30	mg/L	0.070035	0.406	
* Iron, Dissolved	2/25/22 14:30	3/1/22 08:56		1.015	0.0380	mg/L	0.008120	0.0406	J
* Lithium, Dissolved	2/25/22 14:30	3/1/22 08:56		1.015	0.0603	mg/L	0.007105	0.01999956	
* Magnesium, Dissolved	2/25/22 14:30	3/1/22 08:56		1.015	2.04	mg/L	0.021315	0.406	
Silica, Dissolved (calc.)	2/25/22 14:30	3/1/22 08:56		1	18.1	mg/L			
Silicon, Dissolved	2/25/22 14:30	3/1/22 08:56		1.015	8.44	mg/L	0.02030	0.25375	
* Sodium, Dissolved	2/25/22 14:30	3/1/22 10:54		20.3	153	mg/L	0.609	8.12	
<b>Analytical Method: EPA 200.8</b>		<b>Analyst: ABB</b>			<b>Preparation Method: EPA 1638</b>				
* Antimony, Total	2/21/22 13:30	2/22/22 14:23		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Aluminum, Total	2/21/22 13:30	2/22/22 14:23		1.015	0.329	mg/L	0.004060	0.01015	
* Arsenic, Total	2/21/22 13:30	2/22/22 14:23		1.015	0.00112	mg/L	0.000068	0.000203	
* Barium, Total	2/21/22 13:30	2/22/22 14:23		1.015	0.205	mg/L	0.000102	0.000203	
* Beryllium, Total	2/21/22 13:30	2/22/22 14:23		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Total	2/21/22 13:30	2/22/22 14:23		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Total	2/21/22 13:30	2/22/22 14:23		1.015	0.000297	mg/L	0.000203	0.001015	J
* Cobalt, Total	2/21/22 13:30	2/22/22 14:23		1.015	0.0000811	mg/L	0.000068	0.000203	J
* Lead, Total	2/21/22 13:30	2/22/22 14:23		1.015	0.000665	mg/L	0.000068	0.000203	
* Manganese, Total	2/21/22 13:30	2/22/22 14:23		1.015	0.0198	mg/L	0.000068	0.000203	
* Molybdenum, Total	2/21/22 13:30	2/22/22 14:23		1.015	0.00266	mg/L	0.000068	0.000203	
* Potassium, Total	2/21/22 13:30	2/22/22 14:23		1.015	2.67	mg/L	0.169505	0.5075	

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.

# Certificate Of Analysis

**Description:** Gorgas Ash Pond - PZ-16

**Location Code:** WMWGORAP  
**Collected:** 2/15/22 11:08  
**Customer ID:**  
**Submittal Date:** 2/17/22 10:42

**Laboratory ID Number:** BC03523

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
* Selenium, Total	2/21/22 13:30	2/22/22 14:23		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Total	2/21/22 13:30	2/22/22 14:23		1.015	Not Detected	mg/L	0.000068	0.000203	U
<b>Analytical Method: EPA 200.8</b>		<b>Analyst: ABB</b>							
* Antimony, Dissolved	2/21/22 13:48	2/22/22 12:29		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Aluminum, Dissolved	2/21/22 13:48	2/22/22 12:29		1.015	0.00615	mg/L	0.004060	0.01015	J
* Arsenic, Dissolved	2/21/22 13:48	2/22/22 12:29		1.015	0.000977	mg/L	0.000068	0.000203	
* Barium, Dissolved	2/21/22 13:48	2/22/22 12:29		1.015	0.177	mg/L	0.000102	0.000203	
* Beryllium, Dissolved	2/21/22 13:48	2/22/22 12:29		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Dissolved	2/21/22 13:48	2/22/22 12:29		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Dissolved	2/21/22 13:48	2/22/22 12:29		1.015	0.000264	mg/L	0.000203	0.001015	J
* Cobalt, Dissolved	2/21/22 13:48	2/22/22 12:29		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Lead, Dissolved	2/21/22 13:48	2/22/22 12:29		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Dissolved	2/21/22 13:48	2/22/22 12:29		1.015	0.0167	mg/L	0.000068	0.000203	
* Molybdenum, Dissolved	2/21/22 13:48	2/22/22 12:29		1.015	0.00309	mg/L	0.000068	0.000203	
* Potassium, Dissolved	2/21/22 13:48	2/22/22 12:29		1.015	2.52	mg/L	0.169505	0.5075	
* Selenium, Dissolved	2/21/22 13:48	2/22/22 12:29		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Dissolved	2/21/22 13:48	2/22/22 12:29		1.015	Not Detected	mg/L	0.000068	0.000203	U
<b>Analytical Method: EPA 245.1</b>		<b>Analyst: CRB</b>							
* Mercury, Total by CVAA	2/24/22 14:29	2/24/22 19:41		1	Not Detected	mg/L	0.0003	0.0005	U
<b>Analytical Method: EPA 353.2</b>		<b>Analyst: ELH</b>							
* Nitrogen, Nitrate/Nitrite	2/21/22 13:31	2/21/22 13:31		1	Not Detected	mg/L as N	0.20	0.3	U
<b>Analytical Method: SM 2320 B</b>		<b>Analyst: ALH</b>							
Alkalinity, Total as CaCO3	2/25/22 13:00	2/25/22 15:40		1	347	mg/L		0.1	
<b>Analytical Method: SM 2540C</b>		<b>Analyst: CNJ</b>							
* Solids, Dissolved	2/18/22 11:13	2/22/22 12:58		1	402	mg/L		25	
<b>Analytical Method: SM 4500CO2 D</b>		<b>Analyst: ALH</b>							
Bicarbonate Alkalinity, (calc.)	2/25/22 13:00	2/25/22 15:40		1	320	mg/L			
Carbonate Alkalinity, (calc.)	2/25/22 13:00	2/25/22 15:40		1	26.8	mg/L			
<b>Analytical Method: SM 5310 B</b>		<b>Analyst: ELH</b>							
* Total Organic Carbon	2/19/22 04:20	2/19/22 04:20		1	1.31	mg/L	1.00	2	J

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.



# Certificate Of Analysis

**Description:** Gorgas Ash Pond - PZ-16

**Location Code:** WMWGORAP

**Collected:** 2/15/22 11:08

**Customer ID:**

**Submittal Date:** 2/17/22 10:42

**Laboratory ID Number:** BC03523

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
<b>Analytical Method: SM4500Cl E</b>		<b>Analyst: JCC</b>							
* Chloride	2/18/22 14:03	2/18/22 14:03		1	5.84	mg/L	0.50	1	
<b>Analytical Method: SM4500F G 2017</b>		<b>Analyst: JCC</b>							
* Fluoride	2/23/22 09:10	2/23/22 09:10		1	0.258	mg/L	0.06	0.1	
<b>Analytical Method: SM4500SO4 E 2011</b>		<b>Analyst: JCC</b>							
* Sulfate	2/22/22 11:58	2/22/22 11:58		1	23.1	mg/L	0.50	1	
<b>Analytical Method: Field Measurements</b>		<b>Analyst: DKG</b>							
Conductivity	2/15/22 11:05	2/15/22 11:05			595.35	uS/cm			FA
pH	2/15/22 11:05	2/15/22 11:05			9.34	SU			FA
Temperature	2/15/22 11:05	2/15/22 11:05			17.09	C			FA
Turbidity	2/15/22 11:05	2/15/22 11:05			3.18	NTU			FA

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.

# Batch QC Summary

**Customer Account:** WMWGORAP

**Sample Date:** 2/15/22 11:08

**Customer ID:**

**Delivery Date:** 2/17/22 10:42

**Description:** Gorgas Ash Pond - PZ-16

**Laboratory ID Number:** BC03523

Sample	Analysis	Units	MB	MB		MS	MSD	Standard		Rec		Prec	Limit
				Limit	Spike			Standard	Limit	Rec	Limit		
BC03533	Aluminum, Dissolved	mg/L	-0.000418	0.010	0.100	0.104	0.102	0.102	0.0850 to 0.115	104	70.0 to 130	1.94	20.0
BC03532	Aluminum, Total	mg/L	-0.0000505	0.010	0.100	0.137	0.141	0.104	0.0850 to 0.115	109	70.0 to 130	2.88	20.0
BC03533	Antimony, Dissolved	mg/L	0.000257	0.00100	0.100	0.0874	0.0893	0.0864	0.0850 to 0.115	87.4	70.0 to 130	2.15	20.0
BC03532	Antimony, Total	mg/L	0.000365	0.00100	0.100	0.101	0.0979	0.0949	0.0850 to 0.115	101	70.0 to 130	3.12	20.0
BC03533	Arsenic, Dissolved	mg/L	-0.0000097	0.000176	0.100	0.100	0.102	0.0970	0.0850 to 0.115	99.7	70.0 to 130	1.98	20.0
BC03532	Arsenic, Total	mg/L	0.0000492	0.000176	0.100	0.0991	0.0973	0.0968	0.0850 to 0.115	98.8	70.0 to 130	1.83	20.0
BC03533	Barium, Dissolved	mg/L	-0.0000002	0.000200	0.100	0.121	0.125	0.0936	0.0850 to 0.115	90.6	70.0 to 130	3.25	20.0
BC03532	Barium, Total	mg/L	-0.000019	0.000200	0.100	1.07	1.03	0.0929	0.0850 to 0.115	107	70.0 to 130	3.81	20.0
BC03533	Beryllium, Dissolved	mg/L	0.000421	0.000880	0.100	0.0918	0.0921	0.0926	0.0850 to 0.115	91.8	70.0 to 130	0.326	20.0
BC03532	Beryllium, Total	mg/L	0.000497	0.000880	0.100	0.0908	0.0912	0.0918	0.0850 to 0.115	90.8	70.0 to 130	0.440	20.0
BC03530	Boron, Dissolved	mg/L	-0.000009	0.0650	1.00	2.50	2.49	0.958	0.850 to 1.15	100	70.0 to 130	0.401	20.0
BC03528	Boron, Total	mg/L	-0.000344	0.0650	1.00	1.05	1.06	0.988	0.850 to 1.15	99.1	70.0 to 130	0.948	20.0
BC03533	Cadmium, Dissolved	mg/L	0.0000501	0.000147	0.100	0.0963	0.0999	0.0985	0.0850 to 0.115	96.3	70.0 to 130	3.67	20.0
BC03532	Cadmium, Total	mg/L	0.00000	0.000147	0.100	0.0975	0.101	0.0980	0.0850 to 0.115	97.5	70.0 to 130	3.53	20.0
BC03530	Calcium, Dissolved	mg/L	-0.0100	0.152	5.00	60.4	60.3	4.91	4.25 to 5.75	62.0	70.0 to 130	0.166	20.0
BC03528	Calcium, Total	mg/L	-0.00796	0.152	5.00	19.0	19.1	4.87	4.25 to 5.75	94.0	70.0 to 130	0.525	20.0
BC03533	Chromium, Dissolved	mg/L	0.0000613	0.000440	0.100	0.0977	0.0962	0.0973	0.0850 to 0.115	97.7	70.0 to 130	1.55	20.0
BC03532	Chromium, Total	mg/L	-0.0000265	0.000440	0.100	0.0967	0.0971	0.0974	0.0850 to 0.115	96.4	70.0 to 130	0.413	20.0
BC03533	Cobalt, Dissolved	mg/L	0.0000361	0.000147	0.100	0.0984	0.0964	0.101	0.0850 to 0.115	97.9	70.0 to 130	2.05	20.0
BC03532	Cobalt, Total	mg/L	0.0000375	0.000147	0.100	0.0980	0.0985	0.101	0.0850 to 0.115	97.8	70.0 to 130	0.509	20.0
BC03530	Iron, Dissolved	mg/L	-0.000587	0.0176	0.2	0.208	0.212	0.200	0.170 to 0.230	97.9	70.0 to 130	1.90	20.0
BC03528	Iron, Total	mg/L	-0.0002	0.0176	0.2	0.223	0.226	0.198	0.170 to 0.230	95.3	70.0 to 130	1.34	20.0
BC03533	Lead, Dissolved	mg/L	0.0000074	0.000147	0.100	0.0976	0.0975	0.0983	0.0850 to 0.115	97.6	70.0 to 130	0.103	20.0

**Comments:** The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.

# Batch QC Summary

**Customer Account:** WMWGORAP

**Sample Date:** 2/15/22 11:08

**Customer ID:**

**Delivery Date:** 2/17/22 10:42

**Description:** Gorgas Ash Pond - PZ-16

**Laboratory ID Number:** BC03523

Sample	Analysis	Units	MB	MB				Standard		Rec		Prec	Limit
				Limit	Spike	MS	MSD	Standard	Limit	Rec	Limit		
BC03532	Lead, Total	mg/L	0.0000054	0.000147	0.100	0.0968	0.0959	0.0976	0.0850 to 0.115	96.8	70.0 to 130	0.934	20.0
BC03530	Lithium, Dissolved	mg/L	0.000167	0.0154	0.200	0.550	0.553	0.194	0.170 to 0.230	99.0	70.0 to 130	0.544	20.0
BC03528	Lithium, Total	mg/L	-0.000304	0.0154	0.200	0.278	0.283	0.204	0.170 to 0.230	99.6	70.0 to 130	1.78	20.0
BC03530	Magnesium, Dissolved	mg/L	-0.00744	0.0462	5.00	22.7	22.9	5.07	4.25 to 5.75	96.0	70.0 to 130	0.877	20.0
BC03528	Magnesium, Total	mg/L	-0.00541	0.0462	5.00	10.1	10.4	5.16	4.25 to 5.75	95.6	70.0 to 130	2.93	20.0
BC03533	Manganese, Dissolved	mg/L	0.000143	0.0002	0.100	0.432	0.438	0.0944	0.0850 to 0.115	91.0	70.0 to 130	1.38	20.0
BC03532	Manganese, Total	mg/L	0.0000091	0.0002	0.100	0.199	0.192	0.0963	0.0850 to 0.115	97.0	70.0 to 130	3.58	20.0
BC03528	Mercury, Total by CVAA	mg/L	-9.000E-05	0.000500	0.004	0.00387	0.0039	0.00387	0.00340 to 0.00460	96.8	70.0 to 130	0.772	20.0
BC03533	Molybdenum, Dissolved	mg/L	0.0000787	0.0002	0.100	0.0976	0.0982	0.0967	0.0850 to 0.115	96.3	70.0 to 130	0.613	20.0
BC03532	Molybdenum, Total	mg/L	0.0000235	0.0002	0.100	0.0956	0.0981	0.0950	0.0850 to 0.115	95.1	70.0 to 130	2.58	20.0
BC03533	Potassium, Dissolved	mg/L	0.00741	0.367	10.0	14.1	13.9	9.81	8.50 to 11.5	97.4	70.0 to 130	1.43	20.0
BC03532	Potassium, Total	mg/L	-0.0236	0.367	10.0	11.4	11.5	9.86	8.50 to 11.5	99.7	70.0 to 130	0.873	20.0
BC03533	Selenium, Dissolved	mg/L	0.0000615	0.00100	0.100	0.101	0.101	0.100	0.0850 to 0.115	101	70.0 to 130	0.00	20.0
BC03532	Selenium, Total	mg/L	-0.000021	0.00100	0.100	0.0997	0.0965	0.101	0.0850 to 0.115	99.7	70.0 to 130	3.26	20.0
BC03530	Silicon, Dissolved	mg/L	-0.000094	0.0440	1.00	8.42	8.41	1.00	0.850 to 1.15	98.0	70.0 to 130	0.119	20.0
BC03528	Silicon, Total	mg/L	-0.000132	0.0440	1.00	8.11	8.12	1.02	0.850 to 1.15	92.0	70.0 to 130	0.123	20.0
BC03530	Sodium, Dissolved	mg/L	-0.00619	0.0660	5.00	23.8	24.1	4.98	4.25 to 5.75	102	70.0 to 130	1.25	20.0
BC03528	Sodium, Total	mg/L	-0.00123	0.0660	5.00	216	223	5.12	4.25 to 5.75	-120	70.0 to 130	3.19	20.0
BC03533	Thallium, Dissolved	mg/L	0.000002	0.000147	0.100	0.0970	0.0974	0.0982	0.0850 to 0.115	97.0	70.0 to 130	0.412	20.0
BC03532	Thallium, Total	mg/L	0.0000069	0.000147	0.100	0.0964	0.0959	0.0973	0.0850 to 0.115	96.4	70.0 to 130	0.520	20.0
BC03530	Total Organic Carbon	mg/L	0.260	1.00	10.0	10.0	9.26	22.9		100	80.0 to 120	7.68	20.0

**Comments:** The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.

## Batch QC Summary

**Customer Account:** WMWGORAP

**Sample Date:** 2/15/22 11:08

**Customer ID:**

**Delivery Date:** 2/17/22 10:42

**Description:** Gorgas Ash Pond - PZ-16

**Laboratory ID Number:** BC03523

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Limit	Prec	Prec Limit
BC03531	Alkalinity, Total as CaCO3	mg/L					258	49.7	45.0 to 55.0			3.95	10.0
BC03532	Chloride	mg/L	-0.0706	1.00	10.0	13.9	3.36	10.3	9.00 to 11.0	107	80.0 to 120	5.50	20.0
BC03532	Fluoride	mg/L	-0.031	0.125	2.50	2.75	0.186	2.58	2.25 to 2.75	103	80.0 to 120	7.82	20.0
BC03528	Nitrogen, Nitrate/Nitrite	mg/L as N	-0.02	0.200	2.00	1.80	-0.023	1.81	1.80 to 2.20	90.0	90.0 to 110	0.00	15.0
BC03524	Solids, Dissolved	mg/L	0.0000	25.0			215	51.0	40.0 to 60.0			0.466	10.0
BC03528	Sulfate	mg/L	-0.0901	2.0	320	553	249	20.6	18.0 to 22.0	103	80.0 to 120	10.6	20.0

**Comments:** The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.

# Certificate Of Analysis

**Description:** Gorgas Ash Pond - MW-16D

**Location Code:** WMWGORAP  
**Collected:** 2/15/22 12:48  
**Customer ID:**  
**Submittal Date:** 2/17/22 10:42

**Laboratory ID Number:** BC03524

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q	
<b>Analytical Method: EPA 200.7</b>		<b>Analyst: RDA</b>			<b>Preparation Method: EPA 1638</b>					
* Boron, Total	2/25/22 10:56	2/28/22 09:55		1.015	Not Detected	mg/L	0.030000	0.1015	U	
* Calcium, Total	2/25/22 10:56	2/28/22 09:55		1.015	31.5	mg/L	0.070035	0.406		
* Iron, Total	2/25/22 10:56	2/28/22 09:55		1.015	0.278	mg/L	0.008120	0.0406		
* Lithium, Total	2/25/22 10:56	2/28/22 09:55		1.015	0.0330	mg/L	0.007105	0.01999956		
* Magnesium, Total	2/25/22 10:56	2/28/22 09:55		1.015	12.2	mg/L	0.021315	0.406		
Silica, Total (calc.)	2/25/22 10:56	2/28/22 09:55		1	22.9	mg/L				
Silicon, Total	2/25/22 10:56	2/28/22 09:55		1.015	10.7	mg/L	0.02030	0.25375		
* Sodium, Total	2/25/22 10:56	2/28/22 09:55		1.015	29.4	mg/L	0.03045	0.406		
<b>Analytical Method: EPA 200.7</b>		<b>Analyst: RDA</b>			<b>Preparation Method: EPA 1638</b>					
* Boron, Dissolved	2/25/22 14:30	3/1/22 08:58		1.015	Not Detected	mg/L	0.030000	0.1015	U	
* Calcium, Dissolved	2/25/22 14:30	3/1/22 08:58		1.015	32.2	mg/L	0.070035	0.406		
* Iron, Dissolved	2/25/22 14:30	3/1/22 08:58		1.015	0.179	mg/L	0.008120	0.0406		
* Lithium, Dissolved	2/25/22 14:30	3/1/22 08:58		1.015	0.0330	mg/L	0.007105	0.01999956		
* Magnesium, Dissolved	2/25/22 14:30	3/1/22 08:58		1.015	12.3	mg/L	0.021315	0.406		
Silica, Dissolved (calc.)	2/25/22 14:30	3/1/22 08:58		1	23.1	mg/L				
Silicon, Dissolved	2/25/22 14:30	3/1/22 08:58		1.015	10.8	mg/L	0.02030	0.25375		
* Sodium, Dissolved	2/25/22 14:30	3/1/22 08:58		1.015	30.1	mg/L	0.03045	0.406		
<b>Analytical Method: EPA 200.8</b>		<b>Analyst: ABB</b>			<b>Preparation Method: EPA 1638</b>					
* Antimony, Total	2/21/22 13:30	2/22/22 14:27		1.015	Not Detected	mg/L	0.000508	0.001015	U	
* Aluminum, Total	2/21/22 13:30	2/22/22 14:27		1.015	0.0540	mg/L	0.004060	0.01015		
* Arsenic, Total	2/21/22 13:30	2/22/22 14:27		1.015	0.000117	mg/L	0.000068	0.000203	J	
* Barium, Total	2/21/22 13:30	2/22/22 14:27		1.015	0.322	mg/L	0.000102	0.000203		
* Beryllium, Total	2/21/22 13:30	2/22/22 14:27		1.015	Not Detected	mg/L	0.000406	0.001015	U	
* Cadmium, Total	2/21/22 13:30	2/22/22 14:27		1.015	Not Detected	mg/L	0.000068	0.000203	U	
* Chromium, Total	2/21/22 13:30	2/22/22 14:27		1.015	0.000249	mg/L	0.000203	0.001015	J	
* Cobalt, Total	2/21/22 13:30	2/22/22 14:27		1.015	Not Detected	mg/L	0.000068	0.000203	U	
* Lead, Total	2/21/22 13:30	2/22/22 14:27		1.015	Not Detected	mg/L	0.000068	0.000203	U	
* Manganese, Total	2/21/22 13:30	2/22/22 14:27		1.015	0.0120	mg/L	0.000068	0.000203		
* Molybdenum, Total	2/21/22 13:30	2/22/22 14:27		1.015	0.000322	mg/L	0.000068	0.000203		
* Potassium, Total	2/21/22 13:30	2/22/22 14:27		1.015	1.45	mg/L	0.169505	0.5075		

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.

# Certificate Of Analysis

**Description:** Gorgas Ash Pond - MW-16D

**Location Code:** WMWGORAP

**Collected:** 2/15/22 12:48

**Customer ID:**

**Submittal Date:** 2/17/22 10:42

**Laboratory ID Number:** BC03524

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
* Selenium, Total	2/21/22 13:30	2/22/22 14:27		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Total	2/21/22 13:30	2/22/22 14:27		1.015	Not Detected	mg/L	0.000068	0.000203	U
<b>Analytical Method: EPA 200.8</b>		<b>Analyst: ABB</b>							
* Antimony, Dissolved	2/21/22 13:48	2/22/22 12:33		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Aluminum, Dissolved	2/21/22 13:48	2/22/22 12:33		1.015	Not Detected	mg/L	0.004060	0.01015	U
* Arsenic, Dissolved	2/21/22 13:48	2/22/22 12:33		1.015	0.000139	mg/L	0.000068	0.000203	J
* Barium, Dissolved	2/21/22 13:48	2/22/22 12:33		1.015	0.322	mg/L	0.000102	0.000203	
* Beryllium, Dissolved	2/21/22 13:48	2/22/22 12:33		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Dissolved	2/21/22 13:48	2/22/22 12:33		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Dissolved	2/21/22 13:48	2/22/22 12:33		1.015	0.000392	mg/L	0.000203	0.001015	J
* Cobalt, Dissolved	2/21/22 13:48	2/22/22 12:33		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Lead, Dissolved	2/21/22 13:48	2/22/22 12:33		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Dissolved	2/21/22 13:48	2/22/22 12:33		1.015	0.0112	mg/L	0.000068	0.000203	
* Molybdenum, Dissolved	2/21/22 13:48	2/22/22 12:33		1.015	0.000477	mg/L	0.000068	0.000203	
* Potassium, Dissolved	2/21/22 13:48	2/22/22 12:33		1.015	1.50	mg/L	0.169505	0.5075	
* Selenium, Dissolved	2/21/22 13:48	2/22/22 12:33		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Dissolved	2/21/22 13:48	2/22/22 12:33		1.015	Not Detected	mg/L	0.000068	0.000203	U
<b>Analytical Method: EPA 245.1</b>		<b>Analyst: CRB</b>							
* Mercury, Total by CVAA	2/24/22 14:29	2/24/22 19:45		1	Not Detected	mg/L	0.0003	0.0005	U
<b>Analytical Method: EPA 353.2</b>		<b>Analyst: ELH</b>							
* Nitrogen, Nitrate/Nitrite	2/21/22 13:33	2/21/22 13:33		1	Not Detected	mg/L as N	0.20	0.3	U
<b>Analytical Method: SM 2320 B</b>		<b>Analyst: ALH</b>							
Alkalinity, Total as CaCO3	2/25/22 13:00	2/25/22 15:40		1	223	mg/L		0.1	
<b>Analytical Method: SM 2540C</b>		<b>Analyst: CNJ</b>							
* Solids, Dissolved	2/18/22 11:13	2/22/22 12:58		1	214	mg/L		25	
<b>Analytical Method: SM 4500CO2 D</b>		<b>Analyst: ALH</b>							
Bicarbonate Alkalinity, (calc.)	2/25/22 13:00	2/25/22 15:40		1	221	mg/L			
Carbonate Alkalinity, (calc.)	2/25/22 13:00	2/25/22 15:40		1	2.33	mg/L			
<b>Analytical Method: SM 5310 B</b>		<b>Analyst: ELH</b>							
* Total Organic Carbon	2/19/22 04:38	2/19/22 04:38		1	Not Detected	mg/L	1.00	2	U

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.

# Certificate Of Analysis

**Description:** Gorgas Ash Pond - MW-16D

**Location Code:** WMWGORAP

**Collected:** 2/15/22 12:48

**Customer ID:**

**Submittal Date:** 2/17/22 10:42

**Laboratory ID Number:** BC03524

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
<b>Analytical Method: SM4500Cl E</b>		<b>Analyst: JCC</b>							
* Chloride	2/18/22 14:04	2/18/22 14:04		1	3.58	mg/L	0.50	1	
<b>Analytical Method: SM4500F G 2017</b>		<b>Analyst: JCC</b>							
* Fluoride	2/23/22 09:11	2/23/22 09:11		1	0.114	mg/L	0.06	0.1	
<b>Analytical Method: SM4500SO4 E 2011</b>		<b>Analyst: JCC</b>							
* Sulfate	2/22/22 11:59	2/22/22 11:59		1	14.7	mg/L	0.50	1	
<b>Analytical Method: Field Measurements</b>		<b>Analyst: DKG</b>							
Conductivity	2/15/22 12:44	2/15/22 12:44			344.55	uS/cm			FA
pH	2/15/22 12:44	2/15/22 12:44			7.48	SU			FA
Temperature	2/15/22 12:44	2/15/22 12:44			18.04	C			FA
Turbidity	2/15/22 12:44	2/15/22 12:44			4.56	NTU			FA

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.

# Batch QC Summary

**Customer Account:** WMWGORAP

**Sample Date:** 2/15/22 12:48

**Customer ID:**

**Delivery Date:** 2/17/22 10:42

**Description:** Gorgas Ash Pond - MW-16D

**Laboratory ID Number:** BC03524

Sample	Analysis	Units	MB	MB		Spike	MS	MSD	Standard		Rec		Prec	Limit
				Limit					Standard	Limit	Rec	Limit		
BC03533	Aluminum, Dissolved	mg/L	-0.000418	0.010	0.100	0.104	0.102	0.102	0.0850 to 0.115	104	70.0 to 130	1.94	20.0	
BC03532	Aluminum, Total	mg/L	-0.0000505	0.010	0.100	0.137	0.141	0.104	0.0850 to 0.115	109	70.0 to 130	2.88	20.0	
BC03533	Antimony, Dissolved	mg/L	0.000257	0.00100	0.100	0.0874	0.0893	0.0864	0.0850 to 0.115	87.4	70.0 to 130	2.15	20.0	
BC03532	Antimony, Total	mg/L	0.000365	0.00100	0.100	0.101	0.0979	0.0949	0.0850 to 0.115	101	70.0 to 130	3.12	20.0	
BC03533	Arsenic, Dissolved	mg/L	-0.0000097	0.000176	0.100	0.100	0.102	0.0970	0.0850 to 0.115	99.7	70.0 to 130	1.98	20.0	
BC03532	Arsenic, Total	mg/L	0.0000492	0.000176	0.100	0.0991	0.0973	0.0968	0.0850 to 0.115	98.8	70.0 to 130	1.83	20.0	
BC03533	Barium, Dissolved	mg/L	-0.0000002	0.000200	0.100	0.121	0.125	0.0936	0.0850 to 0.115	90.6	70.0 to 130	3.25	20.0	
BC03532	Barium, Total	mg/L	-0.000019	0.000200	0.100	1.07	1.03	0.0929	0.0850 to 0.115	107	70.0 to 130	3.81	20.0	
BC03533	Beryllium, Dissolved	mg/L	0.000421	0.000880	0.100	0.0918	0.0921	0.0926	0.0850 to 0.115	91.8	70.0 to 130	0.326	20.0	
BC03532	Beryllium, Total	mg/L	0.000497	0.000880	0.100	0.0908	0.0912	0.0918	0.0850 to 0.115	90.8	70.0 to 130	0.440	20.0	
BC03530	Boron, Dissolved	mg/L	-0.000009	0.0650	1.00	2.50	2.49	0.958	0.850 to 1.15	100	70.0 to 130	0.401	20.0	
BC03528	Boron, Total	mg/L	-0.000344	0.0650	1.00	1.05	1.06	0.988	0.850 to 1.15	99.1	70.0 to 130	0.948	20.0	
BC03533	Cadmium, Dissolved	mg/L	0.0000501	0.000147	0.100	0.0963	0.0999	0.0985	0.0850 to 0.115	96.3	70.0 to 130	3.67	20.0	
BC03532	Cadmium, Total	mg/L	0.00000	0.000147	0.100	0.0975	0.101	0.0980	0.0850 to 0.115	97.5	70.0 to 130	3.53	20.0	
BC03530	Calcium, Dissolved	mg/L	-0.0100	0.152	5.00	60.4	60.3	4.91	4.25 to 5.75	62.0	70.0 to 130	0.166	20.0	
BC03528	Calcium, Total	mg/L	-0.00796	0.152	5.00	19.0	19.1	4.87	4.25 to 5.75	94.0	70.0 to 130	0.525	20.0	
BC03533	Chromium, Dissolved	mg/L	0.0000613	0.000440	0.100	0.0977	0.0962	0.0973	0.0850 to 0.115	97.7	70.0 to 130	1.55	20.0	
BC03532	Chromium, Total	mg/L	-0.0000265	0.000440	0.100	0.0967	0.0971	0.0974	0.0850 to 0.115	96.4	70.0 to 130	0.413	20.0	
BC03533	Cobalt, Dissolved	mg/L	0.0000361	0.000147	0.100	0.0984	0.0964	0.101	0.0850 to 0.115	97.9	70.0 to 130	2.05	20.0	
BC03532	Cobalt, Total	mg/L	0.0000375	0.000147	0.100	0.0980	0.0985	0.101	0.0850 to 0.115	97.8	70.0 to 130	0.509	20.0	
BC03530	Iron, Dissolved	mg/L	-0.000587	0.0176	0.2	0.208	0.212	0.200	0.170 to 0.230	97.9	70.0 to 130	1.90	20.0	
BC03528	Iron, Total	mg/L	-0.0002	0.0176	0.2	0.223	0.226	0.198	0.170 to 0.230	95.3	70.0 to 130	1.34	20.0	
BC03533	Lead, Dissolved	mg/L	0.0000074	0.000147	0.100	0.0976	0.0975	0.0983	0.0850 to 0.115	97.6	70.0 to 130	0.103	20.0	

**Comments:** The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.



# Batch QC Summary

**Customer Account:** WMWGORAP

**Sample Date:** 2/15/22 12:48

**Customer ID:**

**Delivery Date:** 2/17/22 10:42

**Description:** Gorgas Ash Pond - MW-16D

**Laboratory ID Number:** BC03524

Sample	Analysis	Units	MB	MB				Standard		Rec		Prec	Limit
				Limit	Spike	MS	MSD	Standard	Limit	Rec	Limit		
BC03532	Lead, Total	mg/L	0.0000054	0.000147	0.100	0.0968	0.0959	0.0976	0.0850 to 0.115	96.8	70.0 to 130	0.934	20.0
BC03530	Lithium, Dissolved	mg/L	0.000167	0.0154	0.200	0.550	0.553	0.194	0.170 to 0.230	99.0	70.0 to 130	0.544	20.0
BC03528	Lithium, Total	mg/L	-0.000304	0.0154	0.200	0.278	0.283	0.204	0.170 to 0.230	99.6	70.0 to 130	1.78	20.0
BC03530	Magnesium, Dissolved	mg/L	-0.00744	0.0462	5.00	22.7	22.9	5.07	4.25 to 5.75	96.0	70.0 to 130	0.877	20.0
BC03528	Magnesium, Total	mg/L	-0.00541	0.0462	5.00	10.1	10.4	5.16	4.25 to 5.75	95.6	70.0 to 130	2.93	20.0
BC03533	Manganese, Dissolved	mg/L	0.000143	0.0002	0.100	0.432	0.438	0.0944	0.0850 to 0.115	91.0	70.0 to 130	1.38	20.0
BC03532	Manganese, Total	mg/L	0.0000091	0.0002	0.100	0.199	0.192	0.0963	0.0850 to 0.115	97.0	70.0 to 130	3.58	20.0
BC03528	Mercury, Total by CVAA	mg/L	-9.000E-05	0.000500	0.004	0.00387	0.0039	0.00387	0.00340 to 0.00460	96.8	70.0 to 130	0.772	20.0
BC03533	Molybdenum, Dissolved	mg/L	0.0000787	0.0002	0.100	0.0976	0.0982	0.0967	0.0850 to 0.115	96.3	70.0 to 130	0.613	20.0
BC03532	Molybdenum, Total	mg/L	0.0000235	0.0002	0.100	0.0956	0.0981	0.0950	0.0850 to 0.115	95.1	70.0 to 130	2.58	20.0
BC03533	Potassium, Dissolved	mg/L	0.00741	0.367	10.0	14.1	13.9	9.81	8.50 to 11.5	97.4	70.0 to 130	1.43	20.0
BC03532	Potassium, Total	mg/L	-0.0236	0.367	10.0	11.4	11.5	9.86	8.50 to 11.5	99.7	70.0 to 130	0.873	20.0
BC03533	Selenium, Dissolved	mg/L	0.0000615	0.00100	0.100	0.101	0.101	0.100	0.0850 to 0.115	101	70.0 to 130	0.00	20.0
BC03532	Selenium, Total	mg/L	-0.000021	0.00100	0.100	0.0997	0.0965	0.101	0.0850 to 0.115	99.7	70.0 to 130	3.26	20.0
BC03530	Silicon, Dissolved	mg/L	-0.000094	0.0440	1.00	8.42	8.41	1.00	0.850 to 1.15	98.0	70.0 to 130	0.119	20.0
BC03528	Silicon, Total	mg/L	-0.000132	0.0440	1.00	8.11	8.12	1.02	0.850 to 1.15	92.0	70.0 to 130	0.123	20.0
BC03530	Sodium, Dissolved	mg/L	-0.00619	0.0660	5.00	23.8	24.1	4.98	4.25 to 5.75	102	70.0 to 130	1.25	20.0
BC03528	Sodium, Total	mg/L	-0.00123	0.0660	5.00	216	223	5.12	4.25 to 5.75	-120	70.0 to 130	3.19	20.0
BC03533	Thallium, Dissolved	mg/L	0.000002	0.000147	0.100	0.0970	0.0974	0.0982	0.0850 to 0.115	97.0	70.0 to 130	0.412	20.0
BC03532	Thallium, Total	mg/L	0.0000069	0.000147	0.100	0.0964	0.0959	0.0973	0.0850 to 0.115	96.4	70.0 to 130	0.520	20.0
BC03530	Total Organic Carbon	mg/L	0.260	1.00	10.0	10.0	9.26	22.9		100	80.0 to 120	7.68	20.0

**Comments:** The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.

## Batch QC Summary

**Customer Account:** WMWGORAP

**Sample Date:** 2/15/22 12:48

**Customer ID:**

**Delivery Date:** 2/17/22 10:42

**Description:** Gorgas Ash Pond - MW-16D

**Laboratory ID Number:** BC03524

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Limit	Prec	Prec Limit
BC03531	Alkalinity, Total as CaCO3	mg/L					258	49.7	45.0 to 55.0			3.95	10.0
BC03532	Chloride	mg/L	-0.0706	1.00	10.0	13.9	3.36	10.3	9.00 to 11.0	107	80.0 to 120	5.50	20.0
BC03532	Fluoride	mg/L	-0.031	0.125	2.50	2.75	0.186	2.58	2.25 to 2.75	103	80.0 to 120	7.82	20.0
BC03528	Nitrogen, Nitrate/Nitrite	mg/L as N	-0.02	0.200	2.00	1.80	-0.023	1.81	1.80 to 2.20	90.0	90.0 to 110	0.00	15.0
BC03524	Solids, Dissolved	mg/L	0.0000	25.0			215	51.0	40.0 to 60.0			0.466	10.0
BC03528	Sulfate	mg/L	-0.0901	2.0	320	553	249	20.6	18.0 to 22.0	103	80.0 to 120	10.6	20.0

**Comments:** The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.

# Certificate Of Analysis

**Description:** Gorgas Ash Pond - MW-16S

**Location Code:** WMWGORAP  
**Collected:** 2/15/22 13:52  
**Customer ID:**  
**Submittal Date:** 2/17/22 10:42

**Laboratory ID Number:** BC03525

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q	
<b>Analytical Method: EPA 200.7</b>		<b>Analyst: RDA</b>			<b>Preparation Method: EPA 1638</b>					
* Boron, Total	2/25/22 10:56	2/28/22 09:57		1.015	Not Detected	mg/L	0.030000	0.1015	U	
* Calcium, Total	2/25/22 10:56	2/28/22 11:48		20.3	93.6	mg/L	1.4007	8.12		
* Iron, Total	2/25/22 10:56	2/28/22 09:57		1.015	0.0532	mg/L	0.008120	0.0406		
* Lithium, Total	2/25/22 10:56	2/28/22 09:57		1.015	0.0911	mg/L	0.007105	0.01999956		
* Magnesium, Total	2/25/22 10:56	2/28/22 09:57		1.015	Not Detected	mg/L	0.021315	0.406	U	
Silica, Total (calc.)	2/25/22 10:56	2/28/22 09:57		1	11.5	mg/L				
Silicon, Total	2/25/22 10:56	2/28/22 09:57		1.015	5.36	mg/L	0.02030	0.25375		
* Sodium, Total	2/25/22 10:56	2/28/22 11:48		20.3	168	mg/L	0.609	8.12		
<b>Analytical Method: EPA 200.7</b>		<b>Analyst: RDA</b>			<b>Preparation Method: EPA 1638</b>					
* Boron, Dissolved	2/25/22 14:30	3/1/22 09:00		1.015	Not Detected	mg/L	0.030000	0.1015	U	
* Calcium, Dissolved	2/25/22 14:30	3/1/22 10:56		20.3	85.0	mg/L	1.4007	8.12		
* Iron, Dissolved	2/25/22 14:30	3/1/22 09:00		1.015	0.0536	mg/L	0.008120	0.0406		
* Lithium, Dissolved	2/25/22 14:30	3/1/22 09:00		1.015	0.0870	mg/L	0.007105	0.01999956		
* Magnesium, Dissolved	2/25/22 14:30	3/1/22 09:00		1.015	Not Detected	mg/L	0.021315	0.406	U	
Silica, Dissolved (calc.)	2/25/22 14:30	3/1/22 09:00		1	12.5	mg/L				
Silicon, Dissolved	2/25/22 14:30	3/1/22 09:00		1.015	5.83	mg/L	0.02030	0.25375		
* Sodium, Dissolved	2/25/22 14:30	3/1/22 10:56		20.3	178	mg/L	0.609	8.12		
<b>Analytical Method: EPA 200.8</b>		<b>Analyst: ABB</b>			<b>Preparation Method: EPA 1638</b>					
* Antimony, Total	2/21/22 13:30	2/22/22 14:30		1.015	0.000675	mg/L	0.000508	0.001015	J	
* Aluminum, Total	2/21/22 13:30	2/22/22 15:50		10.15	4.70	mg/L	0.04060	0.1015		
* Arsenic, Total	2/21/22 13:30	2/22/22 14:30		1.015	0.00110	mg/L	0.000068	0.000203		
* Barium, Total	2/21/22 13:30	2/22/22 14:30		1.015	0.255	mg/L	0.000102	0.000203		
* Beryllium, Total	2/21/22 13:30	2/22/22 14:30		1.015	Not Detected	mg/L	0.000406	0.001015	U	
* Cadmium, Total	2/21/22 13:30	2/22/22 14:30		1.015	Not Detected	mg/L	0.000068	0.000203	U	
* Chromium, Total	2/21/22 13:30	2/22/22 14:30		1.015	0.000342	mg/L	0.000203	0.001015	J	
* Cobalt, Total	2/21/22 13:30	2/22/22 14:30		1.015	0.000203	mg/L	0.000068	0.000203		
* Lead, Total	2/21/22 13:30	2/22/22 14:30		1.015	Not Detected	mg/L	0.000068	0.000203	U	
* Manganese, Total	2/21/22 13:30	2/22/22 14:30		1.015	0.000149	mg/L	0.000068	0.000203	J	
* Molybdenum, Total	2/21/22 13:30	2/22/22 14:30		1.015	0.0337	mg/L	0.000068	0.000203		
* Potassium, Total	2/21/22 13:30	2/22/22 14:30		1.015	4.98	mg/L	0.169505	0.5075		

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. When Alkalinity was performed, the pH reading was above 12SU. Therefore, bicarbonate and carbonate calculations are invalid and not reported.

# Certificate Of Analysis

**Description:** Gorgas Ash Pond - MW-16S

**Location Code:** WMWGORAP  
**Collected:** 2/15/22 13:52  
**Customer ID:**  
**Submittal Date:** 2/17/22 10:42

**Laboratory ID Number:** BC03525

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
* Selenium, Total	2/21/22 13:30	2/22/22 14:30		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Total	2/21/22 13:30	2/22/22 14:30		1.015	Not Detected	mg/L	0.000068	0.000203	U
<b>Analytical Method: EPA 200.8</b>		<b>Analyst: ABB</b>							
* Antimony, Dissolved	2/21/22 13:48	2/22/22 12:36		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Aluminum, Dissolved	2/21/22 13:48	2/22/22 14:01		10.15	4.86	mg/L	0.04060	0.1015	
* Arsenic, Dissolved	2/21/22 13:48	2/22/22 12:36		1.015	0.00120	mg/L	0.000068	0.000203	
* Barium, Dissolved	2/21/22 13:48	2/22/22 12:36		1.015	0.237	mg/L	0.000102	0.000203	
* Beryllium, Dissolved	2/21/22 13:48	2/22/22 12:36		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Dissolved	2/21/22 13:48	2/22/22 12:36		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Dissolved	2/21/22 13:48	2/22/22 12:36		1.015	Not Detected	mg/L	0.000203	0.001015	U
* Cobalt, Dissolved	2/21/22 13:48	2/22/22 12:36		1.015	0.000196	mg/L	0.000068	0.000203	J
* Lead, Dissolved	2/21/22 13:48	2/22/22 12:36		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Dissolved	2/21/22 13:48	2/22/22 12:36		1.015	0.000146	mg/L	0.000068	0.000203	J
* Molybdenum, Dissolved	2/21/22 13:48	2/22/22 12:36		1.015	0.0345	mg/L	0.000068	0.000203	
* Potassium, Dissolved	2/21/22 13:48	2/22/22 12:36		1.015	4.70	mg/L	0.169505	0.5075	
* Selenium, Dissolved	2/21/22 13:48	2/22/22 12:36		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Dissolved	2/21/22 13:48	2/22/22 12:36		1.015	Not Detected	mg/L	0.000068	0.000203	U
<b>Analytical Method: EPA 245.1</b>		<b>Analyst: CRB</b>							
* Mercury, Total by CVAA	2/24/22 14:29	2/24/22 19:49		1	Not Detected	mg/L	0.0003	0.0005	U
<b>Analytical Method: EPA 353.2</b>		<b>Analyst: ELH</b>							
* Nitrogen, Nitrate/Nitrite	2/21/22 13:34	2/21/22 13:34		1	Not Detected	mg/L as N	0.20	0.3	U
<b>Analytical Method: SM 2320 B</b>		<b>Analyst: ALH</b>							
Alkalinity, Total as CaCO3	2/25/22 13:00	2/25/22 15:40		1	779	mg/L		0.1	AI
<b>Analytical Method: SM 2540C</b>		<b>Analyst: CNJ</b>							
* Solids, Dissolved	2/18/22 11:13	2/22/22 12:58		1	664	mg/L		178.6	
<b>Analytical Method: SM 5310 B</b>		<b>Analyst: ELH</b>							
* Total Organic Carbon	2/19/22 04:59	2/19/22 04:59		1	2.42	mg/L	1.00	2	
<b>Analytical Method: SM4500CI E</b>		<b>Analyst: JCC</b>							
* Chloride	2/18/22 14:05	2/18/22 14:05		1	4.03	mg/L	0.50	1	
<b>Analytical Method: SM4500F G 2017</b>		<b>Analyst: JCC</b>							
* Fluoride	2/23/22 09:12	2/23/22 09:12		1	0.151	mg/L	0.06	0.1	

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. When Alkalinity was performed, the pH reading was above 12SU. Therefore, bicarbonate and carbonate calculations are invalid and not reported.

# Certificate Of Analysis

**Description:** Gorgas Ash Pond - MW-16S

**Location Code:** WMWGORAP

**Collected:** 2/15/22 13:52

**Customer ID:**

**Submittal Date:** 2/17/22 10:42

**Laboratory ID Number:** BC03525

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
<b>Analytical Method: SM4500SO4 E 2011</b>		<b>Analyst: JCC</b>							
* Sulfate	2/22/22 12:01	2/22/22 12:01		1	6.47	mg/L	0.50	1	
<b>Analytical Method: Field Measurements</b>		<b>Analyst: DKG</b>							
Conductivity	2/15/22 13:49	2/15/22 13:49			3597.32	uS/cm			FA
pH	2/15/22 13:49	2/15/22 13:49			11.52	SU			FA
Temperature	2/15/22 13:49	2/15/22 13:49			17.44	C			FA
Turbidity	2/15/22 13:49	2/15/22 13:49			1.3	NTU			FA

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. When Alkalinity was performed, the pH reading was above 12SU. Therefore, bicarbonate and carbonate calculations are invalid and not reported.

# Batch QC Summary

**Customer Account:** WMWGORAP

**Sample Date:** 2/15/22 13:52

**Customer ID:**

**Delivery Date:** 2/17/22 10:42

**Description:** Gorgas Ash Pond - MW-16S

**Laboratory ID Number:** BC03525

Sample	Analysis	Units	MB	MB		Spike	MS	MSD	Standard		Rec		Prec	Limit
				Limit					Standard	Limit	Rec	Limit		
BC03533	Aluminum, Dissolved	mg/L	-0.000418	0.010	0.100	0.104	0.102	0.102	0.0850 to 0.115	104	70.0 to 130	1.94	20.0	
BC03532	Aluminum, Total	mg/L	-0.0000505	0.010	0.100	0.137	0.141	0.104	0.0850 to 0.115	109	70.0 to 130	2.88	20.0	
BC03533	Antimony, Dissolved	mg/L	0.000257	0.00100	0.100	0.0874	0.0893	0.0864	0.0850 to 0.115	87.4	70.0 to 130	2.15	20.0	
BC03532	Antimony, Total	mg/L	0.000365	0.00100	0.100	0.101	0.0979	0.0949	0.0850 to 0.115	101	70.0 to 130	3.12	20.0	
BC03533	Arsenic, Dissolved	mg/L	-0.0000097	0.000176	0.100	0.100	0.102	0.0970	0.0850 to 0.115	99.7	70.0 to 130	1.98	20.0	
BC03532	Arsenic, Total	mg/L	0.0000492	0.000176	0.100	0.0991	0.0973	0.0968	0.0850 to 0.115	98.8	70.0 to 130	1.83	20.0	
BC03533	Barium, Dissolved	mg/L	-0.0000002	0.000200	0.100	0.121	0.125	0.0936	0.0850 to 0.115	90.6	70.0 to 130	3.25	20.0	
BC03532	Barium, Total	mg/L	-0.000019	0.000200	0.100	1.07	1.03	0.0929	0.0850 to 0.115	107	70.0 to 130	3.81	20.0	
BC03533	Beryllium, Dissolved	mg/L	0.000421	0.000880	0.100	0.0918	0.0921	0.0926	0.0850 to 0.115	91.8	70.0 to 130	0.326	20.0	
BC03532	Beryllium, Total	mg/L	0.000497	0.000880	0.100	0.0908	0.0912	0.0918	0.0850 to 0.115	90.8	70.0 to 130	0.440	20.0	
BC03530	Boron, Dissolved	mg/L	-0.000009	0.0650	1.00	2.50	2.49	0.958	0.850 to 1.15	100	70.0 to 130	0.401	20.0	
BC03528	Boron, Total	mg/L	-0.000344	0.0650	1.00	1.05	1.06	0.988	0.850 to 1.15	99.1	70.0 to 130	0.948	20.0	
BC03533	Cadmium, Dissolved	mg/L	0.0000501	0.000147	0.100	0.0963	0.0999	0.0985	0.0850 to 0.115	96.3	70.0 to 130	3.67	20.0	
BC03532	Cadmium, Total	mg/L	0.00000	0.000147	0.100	0.0975	0.101	0.0980	0.0850 to 0.115	97.5	70.0 to 130	3.53	20.0	
BC03530	Calcium, Dissolved	mg/L	-0.0100	0.152	5.00	60.4	60.3	4.91	4.25 to 5.75	62.0	70.0 to 130	0.166	20.0	
BC03528	Calcium, Total	mg/L	-0.00796	0.152	5.00	19.0	19.1	4.87	4.25 to 5.75	94.0	70.0 to 130	0.525	20.0	
BC03533	Chromium, Dissolved	mg/L	0.0000613	0.000440	0.100	0.0977	0.0962	0.0973	0.0850 to 0.115	97.7	70.0 to 130	1.55	20.0	
BC03532	Chromium, Total	mg/L	-0.0000265	0.000440	0.100	0.0967	0.0971	0.0974	0.0850 to 0.115	96.4	70.0 to 130	0.413	20.0	
BC03533	Cobalt, Dissolved	mg/L	0.0000361	0.000147	0.100	0.0984	0.0964	0.101	0.0850 to 0.115	97.9	70.0 to 130	2.05	20.0	
BC03532	Cobalt, Total	mg/L	0.0000375	0.000147	0.100	0.0980	0.0985	0.101	0.0850 to 0.115	97.8	70.0 to 130	0.509	20.0	
BC03530	Iron, Dissolved	mg/L	-0.000587	0.0176	0.2	0.208	0.212	0.200	0.170 to 0.230	97.9	70.0 to 130	1.90	20.0	
BC03528	Iron, Total	mg/L	-0.0002	0.0176	0.2	0.223	0.226	0.198	0.170 to 0.230	95.3	70.0 to 130	1.34	20.0	
BC03533	Lead, Dissolved	mg/L	0.0000074	0.000147	0.100	0.0976	0.0975	0.0983	0.0850 to 0.115	97.6	70.0 to 130	0.103	20.0	

**Comments:** The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified. When Alkalinity was performed, the pH reading was above 12SU. Therefore, bicarbonate and carbonate calculations are invalid and not reported.

# Batch QC Summary

**Customer Account:** WMWGORAP  
**Sample Date:** 2/15/22 13:52  
**Customer ID:**  
**Delivery Date:** 2/17/22 10:42

**Description:** Gorgas Ash Pond - MW-16S

**Laboratory ID Number:** BC03525

Sample	Analysis	Units	MB	MB				Standard		Rec		Prec	Limit
				Limit	Spike	MS	MSD	Standard	Limit	Rec	Limit		
BC03532	Lead, Total	mg/L	0.0000054	0.000147	0.100	0.0968	0.0959	0.0976	0.0850 to 0.115	96.8	70.0 to 130	0.934	20.0
BC03530	Lithium, Dissolved	mg/L	0.000167	0.0154	0.200	0.550	0.553	0.194	0.170 to 0.230	99.0	70.0 to 130	0.544	20.0
BC03528	Lithium, Total	mg/L	-0.000304	0.0154	0.200	0.278	0.283	0.204	0.170 to 0.230	99.6	70.0 to 130	1.78	20.0
BC03530	Magnesium, Dissolved	mg/L	-0.00744	0.0462	5.00	22.7	22.9	5.07	4.25 to 5.75	96.0	70.0 to 130	0.877	20.0
BC03528	Magnesium, Total	mg/L	-0.00541	0.0462	5.00	10.1	10.4	5.16	4.25 to 5.75	95.6	70.0 to 130	2.93	20.0
BC03533	Manganese, Dissolved	mg/L	0.000143	0.0002	0.100	0.432	0.438	0.0944	0.0850 to 0.115	91.0	70.0 to 130	1.38	20.0
BC03532	Manganese, Total	mg/L	0.0000091	0.0002	0.100	0.199	0.192	0.0963	0.0850 to 0.115	97.0	70.0 to 130	3.58	20.0
BC03528	Mercury, Total by CVAA	mg/L	-9.000E-05	0.000500	0.004	0.00387	0.0039	0.00387	0.00340 to 0.00460	96.8	70.0 to 130	0.772	20.0
BC03533	Molybdenum, Dissolved	mg/L	0.0000787	0.0002	0.100	0.0976	0.0982	0.0967	0.0850 to 0.115	96.3	70.0 to 130	0.613	20.0
BC03532	Molybdenum, Total	mg/L	0.0000235	0.0002	0.100	0.0956	0.0981	0.0950	0.0850 to 0.115	95.1	70.0 to 130	2.58	20.0
BC03533	Potassium, Dissolved	mg/L	0.00741	0.367	10.0	14.1	13.9	9.81	8.50 to 11.5	97.4	70.0 to 130	1.43	20.0
BC03532	Potassium, Total	mg/L	-0.0236	0.367	10.0	11.4	11.5	9.86	8.50 to 11.5	99.7	70.0 to 130	0.873	20.0
BC03533	Selenium, Dissolved	mg/L	0.0000615	0.00100	0.100	0.101	0.101	0.100	0.0850 to 0.115	101	70.0 to 130	0.00	20.0
BC03532	Selenium, Total	mg/L	-0.000021	0.00100	0.100	0.0997	0.0965	0.101	0.0850 to 0.115	99.7	70.0 to 130	3.26	20.0
BC03530	Silicon, Dissolved	mg/L	-0.000094	0.0440	1.00	8.42	8.41	1.00	0.850 to 1.15	98.0	70.0 to 130	0.119	20.0
BC03528	Silicon, Total	mg/L	-0.000132	0.0440	1.00	8.11	8.12	1.02	0.850 to 1.15	92.0	70.0 to 130	0.123	20.0
BC03530	Sodium, Dissolved	mg/L	-0.00619	0.0660	5.00	23.8	24.1	4.98	4.25 to 5.75	102	70.0 to 130	1.25	20.0
BC03528	Sodium, Total	mg/L	-0.00123	0.0660	5.00	216	223	5.12	4.25 to 5.75	-120	70.0 to 130	3.19	20.0
BC03533	Thallium, Dissolved	mg/L	0.000002	0.000147	0.100	0.0970	0.0974	0.0982	0.0850 to 0.115	97.0	70.0 to 130	0.412	20.0
BC03532	Thallium, Total	mg/L	0.0000069	0.000147	0.100	0.0964	0.0959	0.0973	0.0850 to 0.115	96.4	70.0 to 130	0.520	20.0
BC03530	Total Organic Carbon	mg/L	0.260	1.00	10.0	10.0	9.26	22.9		100	80.0 to 120	7.68	20.0

**Comments:** The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified. When Alkalinity was performed, the pH reading was above 12SU. Therefore, bicarbonate and carbonate calculations are invalid and not reported.

## Batch QC Summary

**Customer Account:** WMWGORAP

**Sample Date:** 2/15/22 13:52

**Customer ID:**

**Delivery Date:** 2/17/22 10:42

**Description:** Gorgas Ash Pond - MW-16S

**Laboratory ID Number:** BC03525

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Limit	Prec	Prec Limit
BC03531	Alkalinity, Total as CaCO3	mg/L					258	49.7	45.0 to 55.0			3.95	10.0
BC03532	Chloride	mg/L	-0.0706	1.00	10.0	13.9	3.36	10.3	9.00 to 11.0	107	80.0 to 120	5.50	20.0
BC03532	Fluoride	mg/L	-0.031	0.125	2.50	2.75	0.186	2.58	2.25 to 2.75	103	80.0 to 120	7.82	20.0
BC03528	Nitrogen, Nitrate/Nitrite	mg/L as N	-0.02	0.200	2.00	1.80	-0.023	1.81	1.80 to 2.20	90.0	90.0 to 110	0.00	15.0
BC03524	Solids, Dissolved	mg/L	0.0000	25.0			215	51.0	40.0 to 60.0			0.466	10.0
BC03528	Sulfate	mg/L	-0.0901	2.0	320	553	249	20.6	18.0 to 22.0	103	80.0 to 120	10.6	20.0

**Comments:** The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified. When Alkalinity was performed, the pH reading was above 12SU. Therefore, bicarbonate and carbonate calculations are invalid and not reported.



# Certificate Of Analysis

**Description:** Gorgas Ash Pond Field Blank-2

**Location Code:** WMWGORAPFB  
**Collected:** 2/15/22 14:45  
**Customer ID:**  
**Submittal Date:** 2/17/22 10:42

**Laboratory ID Number:** BC03526

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q	
<b>Analytical Method: EPA 200.7</b>		<b>Analyst: RDA</b>			<b>Preparation Method: EPA 1638</b>					
* Boron, Total	2/25/22 10:56	2/28/22 09:59		1.015	Not Detected	mg/L	0.030000	0.1015	U	
* Calcium, Total	2/25/22 10:56	2/28/22 09:59		1.015	Not Detected	mg/L	0.070035	0.406	U	
* Iron, Total	2/25/22 10:56	2/28/22 09:59		1.015	Not Detected	mg/L	0.008120	0.0406	U	
* Lithium, Total	2/25/22 10:56	2/28/22 09:59		1.015	Not Detected	mg/L	0.007105	0.01999956	U	
* Magnesium, Total	2/25/22 10:56	2/28/22 09:59		1.015	Not Detected	mg/L	0.021315	0.406	U	
Silica, Total (calc.)	2/25/22 10:56	2/28/22 09:59		1	Not Detected	mg/L				
Silicon, Total	2/25/22 10:56	2/28/22 09:59		1.015	Not Detected	mg/L	0.02030	0.25375	U	
* Sodium, Total	2/25/22 10:56	2/28/22 09:59		1.015	Not Detected	mg/L	0.03045	0.406	U	
<b>Analytical Method: EPA 200.8</b>		<b>Analyst: ABB</b>			<b>Preparation Method: EPA 1638</b>					
* Antimony, Total	2/21/22 13:30	2/22/22 14:34		1.015	Not Detected	mg/L	0.000508	0.001015	U	
* Aluminum, Total	2/21/22 13:30	2/22/22 14:34		1.015	Not Detected	mg/L	0.004060	0.01015	U	
* Arsenic, Total	2/21/22 13:30	2/22/22 14:34		1.015	Not Detected	mg/L	0.000068	0.000203	U	
* Barium, Total	2/21/22 13:30	2/22/22 14:34		1.015	Not Detected	mg/L	0.000102	0.000203	U	
* Beryllium, Total	2/21/22 13:30	2/22/22 14:34		1.015	Not Detected	mg/L	0.000406	0.001015	U	
* Cadmium, Total	2/21/22 13:30	2/22/22 14:34		1.015	Not Detected	mg/L	0.000068	0.000203	U	
* Chromium, Total	2/21/22 13:30	2/22/22 14:34		1.015	0.000260	mg/L	0.000203	0.001015	J	
* Cobalt, Total	2/21/22 13:30	2/22/22 14:34		1.015	Not Detected	mg/L	0.000068	0.000203	U	
* Lead, Total	2/21/22 13:30	2/22/22 14:34		1.015	Not Detected	mg/L	0.000068	0.000203	U	
* Manganese, Total	2/21/22 13:30	2/22/22 14:34		1.015	Not Detected	mg/L	0.000068	0.000203	U	
* Molybdenum, Total	2/21/22 13:30	2/22/22 14:34		1.015	Not Detected	mg/L	0.000068	0.000203	U	
* Potassium, Total	2/21/22 13:30	2/22/22 14:34		1.015	Not Detected	mg/L	0.169505	0.5075	U	
* Selenium, Total	2/21/22 13:30	2/22/22 14:34		1.015	Not Detected	mg/L	0.000508	0.001015	U	
* Thallium, Total	2/21/22 13:30	2/22/22 14:34		1.015	Not Detected	mg/L	0.000068	0.000203	U	
<b>Analytical Method: EPA 245.1</b>		<b>Analyst: CRB</b>								
* Mercury, Total by CVAA	2/24/22 14:29	2/24/22 19:53		1	Not Detected	mg/L	0.0003	0.0005	U	
<b>Analytical Method: EPA 353.2</b>		<b>Analyst: ELH</b>								
* Nitrogen, Nitrate/Nitrite	2/21/22 13:36	2/21/22 13:36		1	Not Detected	mg/L as N	0.20	0.3	U	
<b>Analytical Method: SM 2540C</b>		<b>Analyst: CNJ</b>								
* Solids, Dissolved	2/18/22 11:13	2/22/22 12:58		1	Not Detected	mg/L		25	U	

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

**Comments:**

# Certificate Of Analysis

**Description:** Gorgas Ash Pond Field Blank-2

**Location Code:** WMWGORAPFB

**Collected:** 2/15/22 14:45

**Customer ID:**

**Submittal Date:** 2/17/22 10:42

**Laboratory ID Number:** BC03526

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
<b>Analytical Method: SM 5310 B</b>		<b>Analyst: ELH</b>							
* Total Organic Carbon	2/19/22 05:16	2/19/22 05:16		1	Not Detected	mg/L	1.00	2	U
<b>Analytical Method: SM4500Cl E</b>		<b>Analyst: JCC</b>							
* Chloride	2/18/22 14:07	2/18/22 14:07		1	Not Detected	mg/L	0.50	1	U
<b>Analytical Method: SM4500F G 2017</b>		<b>Analyst: JCC</b>							
* Fluoride	2/23/22 09:14	2/23/22 09:14		1	Not Detected	mg/L	0.06	0.1	U
<b>Analytical Method: SM4500SO4 E 2011</b>		<b>Analyst: JCC</b>							
* Sulfate	2/22/22 12:03	2/22/22 12:03		1	Not Detected	mg/L	0.50	1	U

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

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**Comments:**

# Batch QC Summary

**Customer Account:** WMWGORAPFB

**Sample Date:** 2/15/22 14:45

**Customer ID:**

**Delivery Date:** 2/17/22 10:42

**Description:** Gorgas Ash Pond Field Blank-2

**Laboratory ID Number:** BC03526

Sample	Analysis	Units	MB	MB				Standard		Rec		Prec	Limit
				Limit	Spike	MS	MSD	Standard	Limit	Rec	Limit		
BC03532	Aluminum, Total	mg/L	-0.000505	0.010	0.100	0.137	0.141	0.104	0.0850 to 0.115	109	70.0 to 130	2.88	20.0
BC03532	Antimony, Total	mg/L	0.000365	0.00100	0.100	0.101	0.0979	0.0949	0.0850 to 0.115	101	70.0 to 130	3.12	20.0
BC03532	Arsenic, Total	mg/L	0.0000492	0.000176	0.100	0.0991	0.0973	0.0968	0.0850 to 0.115	98.8	70.0 to 130	1.83	20.0
BC03532	Barium, Total	mg/L	-0.000019	0.000200	0.100	1.07	1.03	0.0929	0.0850 to 0.115	107	70.0 to 130	3.81	20.0
BC03532	Beryllium, Total	mg/L	0.000497	0.000880	0.100	0.0908	0.0912	0.0918	0.0850 to 0.115	90.8	70.0 to 130	0.440	20.0
BC03528	Boron, Total	mg/L	-0.000344	0.0650	1.00	1.05	1.06	0.988	0.850 to 1.15	99.1	70.0 to 130	0.948	20.0
BC03532	Cadmium, Total	mg/L	0.00000	0.000147	0.100	0.0975	0.101	0.0980	0.0850 to 0.115	97.5	70.0 to 130	3.53	20.0
BC03528	Calcium, Total	mg/L	-0.00796	0.152	5.00	19.0	19.1	4.87	4.25 to 5.75	94.0	70.0 to 130	0.525	20.0
BC03532	Chromium, Total	mg/L	-0.0000265	0.000440	0.100	0.0967	0.0971	0.0974	0.0850 to 0.115	96.4	70.0 to 130	0.413	20.0
BC03532	Cobalt, Total	mg/L	0.0000375	0.000147	0.100	0.0980	0.0985	0.101	0.0850 to 0.115	97.8	70.0 to 130	0.509	20.0
BC03528	Iron, Total	mg/L	-0.0002	0.0176	0.2	0.223	0.226	0.198	0.170 to 0.230	95.3	70.0 to 130	1.34	20.0
BC03532	Lead, Total	mg/L	0.0000054	0.000147	0.100	0.0968	0.0959	0.0976	0.0850 to 0.115	96.8	70.0 to 130	0.934	20.0
BC03528	Lithium, Total	mg/L	-0.000304	0.0154	0.200	0.278	0.283	0.204	0.170 to 0.230	99.6	70.0 to 130	1.78	20.0
BC03528	Magnesium, Total	mg/L	-0.00541	0.0462	5.00	10.1	10.4	5.16	4.25 to 5.75	95.6	70.0 to 130	2.93	20.0
BC03532	Manganese, Total	mg/L	0.0000091	0.0002	0.100	0.199	0.192	0.0963	0.0850 to 0.115	97.0	70.0 to 130	3.58	20.0
BC03528	Mercury, Total by CVAA	mg/L	-9.000E-05	0.000500	0.004	0.00387	0.0039	0.00387	0.00340 to 0.00460	96.8	70.0 to 130	0.772	20.0
BC03532	Molybdenum, Total	mg/L	0.0000235	0.0002	0.100	0.0956	0.0981	0.0950	0.0850 to 0.115	95.1	70.0 to 130	2.58	20.0
BC03532	Potassium, Total	mg/L	-0.0236	0.367	10.0	11.4	11.5	9.86	8.50 to 11.5	99.7	70.0 to 130	0.873	20.0
BC03532	Selenium, Total	mg/L	-0.000021	0.00100	0.100	0.0997	0.0965	0.101	0.0850 to 0.115	99.7	70.0 to 130	3.26	20.0
BC03528	Silicon, Total	mg/L	-0.000132	0.0440	1.00	8.11	8.12	1.02	0.850 to 1.15	92.0	70.0 to 130	0.123	20.0
BC03528	Sodium, Total	mg/L	-0.00123	0.0660	5.00	216	223	5.12	4.25 to 5.75	-120	70.0 to 130	3.19	20.0
BC03532	Thallium, Total	mg/L	0.0000069	0.000147	0.100	0.0964	0.0959	0.0973	0.0850 to 0.115	96.4	70.0 to 130	0.520	20.0
BC03530	Total Organic Carbon	mg/L	0.260	1.00	10.0	10.0	9.26	22.9		100	80.0 to 120	7.68	20.0

**Comments:**

# Batch QC Summary

**Customer Account:** WMWGORAPFB

**Sample Date:** 2/15/22 14:45

**Customer ID:**

**Delivery Date:** 2/17/22 10:42

**Description:** Gorgas Ash Pond Field Blank-2

**Laboratory ID Number:** BC03526

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Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
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**Comments:**

## Batch QC Summary

**Customer Account:** WMWGORAPFB

**Sample Date:** 2/15/22 14:45

**Customer ID:**

**Delivery Date:** 2/17/22 10:42

**Description:** Gorgas Ash Pond Field Blank-2

**Laboratory ID Number:** BC03526

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BC03532	Chloride	mg/L	-0.0706	1.00	10.0	13.9	3.36	10.3	9.00 to 11.0	107	80.0 to 120	5.50	20.0
BC03532	Fluoride	mg/L	-0.031	0.125	2.50	2.75	0.186	2.58	2.25 to 2.75	103	80.0 to 120	7.82	20.0
BC03528	Nitrogen, Nitrate/Nitrite	mg/L as N	-0.02	0.200	2.00	1.80	-0.023	1.81	1.80 to 2.20	90.0	90.0 to 110	0.00	15.0
BC03535	Solids, Dissolved	mg/L	0.0000	25.0			772	51.0	40.0 to 60.0			0.259	10.0
BC03528	Sulfate	mg/L	-0.0901	2.0	320	553	249	20.6	18.0 to 22.0	103	80.0 to 120	10.6	20.0

**Comments:**

# Certificate Of Analysis

**Description:** Gorgas Ash Pond - MW-15

**Location Code:** WMWGORAP  
**Collected:** 2/16/22 10:39  
**Customer ID:**  
**Submittal Date:** 2/17/22 10:42

**Laboratory ID Number:** BC03527

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q	
<b>Analytical Method: EPA 200.7</b>		<b>Analyst: RDA</b>			<b>Preparation Method: EPA 1638</b>					
* Boron, Total	2/25/22 10:56	2/28/22 10:01		1.015	0.0323	mg/L	0.030000	0.1015	J	
* Calcium, Total	2/25/22 10:56	2/28/22 10:01		1.015	6.76	mg/L	0.070035	0.406		
* Iron, Total	2/25/22 10:56	2/28/22 10:01		1.015	0.0310	mg/L	0.008120	0.0406	J	
* Lithium, Total	2/25/22 10:56	2/28/22 10:01		1.015	0.263	mg/L	0.007105	0.01999956		
* Magnesium, Total	2/25/22 10:56	2/28/22 10:01		1.015	1.91	mg/L	0.021315	0.406		
Silica, Total (calc.)	2/25/22 10:56	2/28/22 11:49		1	47.7	mg/L				
Silicon, Total	2/25/22 10:56	2/28/22 11:49		20.3	22.3	mg/L	0.406	5.075		
* Sodium, Total	2/25/22 10:56	2/28/22 11:49		20.3	155	mg/L	0.609	8.12		
<b>Analytical Method: EPA 200.7</b>		<b>Analyst: RDA</b>			<b>Preparation Method: EPA 1638</b>					
* Boron, Dissolved	2/25/22 14:30	3/1/22 09:02		1.015	0.0319	mg/L	0.030000	0.1015	J	
* Calcium, Dissolved	2/25/22 14:30	3/1/22 09:02		1.015	6.84	mg/L	0.070035	0.406		
* Iron, Dissolved	2/25/22 14:30	3/1/22 09:02		1.015	Not Detected	mg/L	0.008120	0.0406	U	
* Lithium, Dissolved	2/25/22 14:30	3/1/22 09:02		1.015	0.254	mg/L	0.007105	0.01999956		
* Magnesium, Dissolved	2/25/22 14:30	3/1/22 09:02		1.015	1.79	mg/L	0.021315	0.406		
Silica, Dissolved (calc.)	2/25/22 14:30	3/1/22 10:58		1	46.9	mg/L				
Silicon, Dissolved	2/25/22 14:30	3/1/22 10:58		20.3	21.9	mg/L	0.406	5.075		
* Sodium, Dissolved	2/25/22 14:30	3/1/22 10:58		20.3	157	mg/L	0.609	8.12		
<b>Analytical Method: EPA 200.8</b>		<b>Analyst: ABB</b>			<b>Preparation Method: EPA 1638</b>					
* Antimony, Total	2/21/22 13:30	2/22/22 14:37		1.015	0.000778	mg/L	0.000508	0.001015	J	
* Aluminum, Total	2/21/22 13:30	2/22/22 14:37		1.015	0.551	mg/L	0.004060	0.01015		
* Arsenic, Total	2/21/22 13:30	2/22/22 14:37		1.015	0.00592	mg/L	0.000068	0.000203		
* Barium, Total	2/21/22 13:30	2/22/22 14:37		1.015	0.271	mg/L	0.000102	0.000203		
* Beryllium, Total	2/21/22 13:30	2/22/22 14:37		1.015	Not Detected	mg/L	0.000406	0.001015	U	
* Cadmium, Total	2/21/22 13:30	2/22/22 14:37		1.015	Not Detected	mg/L	0.000068	0.000203	U	
* Chromium, Total	2/21/22 13:30	2/22/22 14:37		1.015	0.000485	mg/L	0.000203	0.001015	J	
* Cobalt, Total	2/21/22 13:30	2/22/22 14:37		1.015	Not Detected	mg/L	0.000068	0.000203	U	
* Lead, Total	2/21/22 13:30	2/22/22 14:37		1.015	Not Detected	mg/L	0.000068	0.000203	U	
* Manganese, Total	2/21/22 13:30	2/22/22 14:37		1.015	0.000562	mg/L	0.000068	0.000203		
* Molybdenum, Total	2/21/22 13:30	2/22/22 14:37		1.015	0.0306	mg/L	0.000068	0.000203		
* Potassium, Total	2/21/22 13:30	2/22/22 14:37		1.015	5.34	mg/L	0.169505	0.5075		

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.

# Certificate Of Analysis

**Description:** Gorgas Ash Pond - MW-15

**Location Code:** WMWGORAP  
**Collected:** 2/16/22 10:39  
**Customer ID:**  
**Submittal Date:** 2/17/22 10:42

**Laboratory ID Number:** BC03527

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
* Selenium, Total	2/21/22 13:30	2/22/22 14:37		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Total	2/21/22 13:30	2/22/22 14:37		1.015	Not Detected	mg/L	0.000068	0.000203	U
<b>Analytical Method: EPA 200.8</b>		<b>Analyst: ABB</b>							
* Antimony, Dissolved	2/21/22 13:48	2/22/22 12:40		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Aluminum, Dissolved	2/21/22 13:48	2/22/22 12:40		1.015	0.407	mg/L	0.004060	0.01015	
* Arsenic, Dissolved	2/21/22 13:48	2/22/22 12:40		1.015	0.00553	mg/L	0.000068	0.000203	
* Barium, Dissolved	2/21/22 13:48	2/22/22 12:40		1.015	0.268	mg/L	0.000102	0.000203	
* Beryllium, Dissolved	2/21/22 13:48	2/22/22 12:40		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Dissolved	2/21/22 13:48	2/22/22 12:40		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Dissolved	2/21/22 13:48	2/22/22 12:40		1.015	0.000206	mg/L	0.000203	0.001015	J
* Cobalt, Dissolved	2/21/22 13:48	2/22/22 12:40		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Lead, Dissolved	2/21/22 13:48	2/22/22 12:40		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Dissolved	2/21/22 13:48	2/22/22 12:40		1.015	0.0000975	mg/L	0.000068	0.000203	J
* Molybdenum, Dissolved	2/21/22 13:48	2/22/22 12:40		1.015	0.0301	mg/L	0.000068	0.000203	
* Potassium, Dissolved	2/21/22 13:48	2/22/22 12:40		1.015	5.08	mg/L	0.169505	0.5075	
* Selenium, Dissolved	2/21/22 13:48	2/22/22 12:40		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Dissolved	2/21/22 13:48	2/22/22 12:40		1.015	Not Detected	mg/L	0.000068	0.000203	U
<b>Analytical Method: EPA 245.1</b>		<b>Analyst: CRB</b>							
* Mercury, Total by CVAA	2/24/22 14:29	2/24/22 19:57		1	Not Detected	mg/L	0.0003	0.0005	U
<b>Analytical Method: EPA 353.2</b>		<b>Analyst: ELH</b>							
* Nitrogen, Nitrate/Nitrite	2/21/22 13:38	2/21/22 13:38		1	Not Detected	mg/L as N	0.20	0.3	U
<b>Analytical Method: SM 2320 B</b>		<b>Analyst: ALH</b>							
Alkalinity, Total as CaCO3	2/25/22 13:00	2/25/22 15:40		1	461	mg/L		0.1	
<b>Analytical Method: SM 2540C</b>		<b>Analyst: CNJ</b>							
* Solids, Dissolved	2/18/22 11:13	2/22/22 12:58		1	426	mg/L		50	
<b>Analytical Method: SM 4500CO2 D</b>		<b>Analyst: ALH</b>							
Bicarbonate Alkalinity, (calc.)	2/25/22 13:00	2/25/22 15:40		1	26.6	mg/L			A
Carbonate Alkalinity, (calc.)	2/25/22 13:00	2/25/22 15:40		1	362	mg/L			A
<b>Analytical Method: SM 5310 B</b>		<b>Analyst: ELH</b>							
* Total Organic Carbon	2/19/22 05:30	2/19/22 05:30		1	8.32	mg/L	1.00	2	

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.

# Certificate Of Analysis

**Description:** Gorgas Ash Pond - MW-15

**Location Code:** WMWGORAP

**Collected:** 2/16/22 10:39

**Customer ID:**

**Submittal Date:** 2/17/22 10:42

**Laboratory ID Number:** BC03527

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
<b>Analytical Method: SM4500Cl E</b>		<b>Analyst: JCC</b>							
* Chloride	2/18/22 14:08	2/18/22 14:08		1	5.86	mg/L	0.50	1	
<b>Analytical Method: SM4500F G 2017</b>		<b>Analyst: JCC</b>							
* Fluoride	2/23/22 09:15	2/23/22 09:15		1	0.349	mg/L	0.06	0.1	
<b>Analytical Method: SM4500SO4 E 2011</b>		<b>Analyst: JCC</b>							
* Sulfate	2/22/22 11:53	2/22/22 11:53		1	7.37	mg/L	0.50	1	
<b>Analytical Method: Field Measurements</b>		<b>Analyst: DKG</b>							
Conductivity	2/16/22 10:35	2/16/22 10:35			841.02	uS/cm			FA
pH	2/16/22 10:35	2/16/22 10:35			11.57	SU			FA
Temperature	2/16/22 10:35	2/16/22 10:35			18.35	C			FA
Turbidity	2/16/22 10:35	2/16/22 10:35			1.11	NTU			FA

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.



# Batch QC Summary

**Customer Account:** WMWGORAP

**Sample Date:** 2/16/22 10:39

**Customer ID:**

**Delivery Date:** 2/17/22 10:42

**Description:** Gorgas Ash Pond - MW-15

**Laboratory ID Number:** BC03527

Sample	Analysis	Units	MB	MB		Spike	MS	MSD	Standard		Rec		Prec	Limit
				Limit					Standard	Limit	Rec	Limit		
BC03533	Aluminum, Dissolved	mg/L	-0.000418	0.010	0.100	0.104	0.102	0.102	0.0850 to 0.115	104	70.0 to 130	1.94	20.0	
BC03532	Aluminum, Total	mg/L	-0.0000505	0.010	0.100	0.137	0.141	0.104	0.0850 to 0.115	109	70.0 to 130	2.88	20.0	
BC03533	Antimony, Dissolved	mg/L	0.000257	0.00100	0.100	0.0874	0.0893	0.0864	0.0850 to 0.115	87.4	70.0 to 130	2.15	20.0	
BC03532	Antimony, Total	mg/L	0.000365	0.00100	0.100	0.101	0.0979	0.0949	0.0850 to 0.115	101	70.0 to 130	3.12	20.0	
BC03533	Arsenic, Dissolved	mg/L	-0.0000097	0.000176	0.100	0.100	0.102	0.0970	0.0850 to 0.115	99.7	70.0 to 130	1.98	20.0	
BC03532	Arsenic, Total	mg/L	0.0000492	0.000176	0.100	0.0991	0.0973	0.0968	0.0850 to 0.115	98.8	70.0 to 130	1.83	20.0	
BC03533	Barium, Dissolved	mg/L	-0.0000002	0.000200	0.100	0.121	0.125	0.0936	0.0850 to 0.115	90.6	70.0 to 130	3.25	20.0	
BC03532	Barium, Total	mg/L	-0.000019	0.000200	0.100	1.07	1.03	0.0929	0.0850 to 0.115	107	70.0 to 130	3.81	20.0	
BC03533	Beryllium, Dissolved	mg/L	0.000421	0.000880	0.100	0.0918	0.0921	0.0926	0.0850 to 0.115	91.8	70.0 to 130	0.326	20.0	
BC03532	Beryllium, Total	mg/L	0.000497	0.000880	0.100	0.0908	0.0912	0.0918	0.0850 to 0.115	90.8	70.0 to 130	0.440	20.0	
BC03530	Boron, Dissolved	mg/L	-0.000009	0.0650	1.00	2.50	2.49	0.958	0.850 to 1.15	100	70.0 to 130	0.401	20.0	
BC03528	Boron, Total	mg/L	-0.000344	0.0650	1.00	1.05	1.06	0.988	0.850 to 1.15	99.1	70.0 to 130	0.948	20.0	
BC03533	Cadmium, Dissolved	mg/L	0.0000501	0.000147	0.100	0.0963	0.0999	0.0985	0.0850 to 0.115	96.3	70.0 to 130	3.67	20.0	
BC03532	Cadmium, Total	mg/L	0.00000	0.000147	0.100	0.0975	0.101	0.0980	0.0850 to 0.115	97.5	70.0 to 130	3.53	20.0	
BC03530	Calcium, Dissolved	mg/L	-0.0100	0.152	5.00	60.4	60.3	4.91	4.25 to 5.75	62.0	70.0 to 130	0.166	20.0	
BC03528	Calcium, Total	mg/L	-0.00796	0.152	5.00	19.0	19.1	4.87	4.25 to 5.75	94.0	70.0 to 130	0.525	20.0	
BC03533	Chromium, Dissolved	mg/L	0.0000613	0.000440	0.100	0.0977	0.0962	0.0973	0.0850 to 0.115	97.7	70.0 to 130	1.55	20.0	
BC03532	Chromium, Total	mg/L	-0.0000265	0.000440	0.100	0.0967	0.0971	0.0974	0.0850 to 0.115	96.4	70.0 to 130	0.413	20.0	
BC03533	Cobalt, Dissolved	mg/L	0.0000361	0.000147	0.100	0.0984	0.0964	0.101	0.0850 to 0.115	97.9	70.0 to 130	2.05	20.0	
BC03532	Cobalt, Total	mg/L	0.0000375	0.000147	0.100	0.0980	0.0985	0.101	0.0850 to 0.115	97.8	70.0 to 130	0.509	20.0	
BC03530	Iron, Dissolved	mg/L	-0.000587	0.0176	0.2	0.208	0.212	0.200	0.170 to 0.230	97.9	70.0 to 130	1.90	20.0	
BC03528	Iron, Total	mg/L	-0.0002	0.0176	0.2	0.223	0.226	0.198	0.170 to 0.230	95.3	70.0 to 130	1.34	20.0	
BC03533	Lead, Dissolved	mg/L	0.0000074	0.000147	0.100	0.0976	0.0975	0.0983	0.0850 to 0.115	97.6	70.0 to 130	0.103	20.0	

**Comments:** The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.

# Batch QC Summary

**Customer Account:** WMWGORAP  
**Sample Date:** 2/16/22 10:39  
**Customer ID:**  
**Delivery Date:** 2/17/22 10:42

**Description:** Gorgas Ash Pond - MW-15

**Laboratory ID Number:** BC03527

Sample	Analysis	Units	MB	MB				Standard		Rec		Prec	Limit
				Limit	Spike	MS	MSD	Standard	Limit	Rec	Limit		
BC03532	Lead, Total	mg/L	0.0000054	0.000147	0.100	0.0968	0.0959	0.0976	0.0850 to 0.115	96.8	70.0 to 130	0.934	20.0
BC03530	Lithium, Dissolved	mg/L	0.000167	0.0154	0.200	0.550	0.553	0.194	0.170 to 0.230	99.0	70.0 to 130	0.544	20.0
BC03528	Lithium, Total	mg/L	-0.000304	0.0154	0.200	0.278	0.283	0.204	0.170 to 0.230	99.6	70.0 to 130	1.78	20.0
BC03530	Magnesium, Dissolved	mg/L	-0.00744	0.0462	5.00	22.7	22.9	5.07	4.25 to 5.75	96.0	70.0 to 130	0.877	20.0
BC03528	Magnesium, Total	mg/L	-0.00541	0.0462	5.00	10.1	10.4	5.16	4.25 to 5.75	95.6	70.0 to 130	2.93	20.0
BC03533	Manganese, Dissolved	mg/L	0.000143	0.0002	0.100	0.432	0.438	0.0944	0.0850 to 0.115	91.0	70.0 to 130	1.38	20.0
BC03532	Manganese, Total	mg/L	0.0000091	0.0002	0.100	0.199	0.192	0.0963	0.0850 to 0.115	97.0	70.0 to 130	3.58	20.0
BC03528	Mercury, Total by CVAA	mg/L	-9.000E-05	0.000500	0.004	0.00387	0.0039	0.00387	0.00340 to 0.00460	96.8	70.0 to 130	0.772	20.0
BC03533	Molybdenum, Dissolved	mg/L	0.0000787	0.0002	0.100	0.0976	0.0982	0.0967	0.0850 to 0.115	96.3	70.0 to 130	0.613	20.0
BC03532	Molybdenum, Total	mg/L	0.0000235	0.0002	0.100	0.0956	0.0981	0.0950	0.0850 to 0.115	95.1	70.0 to 130	2.58	20.0
BC03533	Potassium, Dissolved	mg/L	0.00741	0.367	10.0	14.1	13.9	9.81	8.50 to 11.5	97.4	70.0 to 130	1.43	20.0
BC03532	Potassium, Total	mg/L	-0.0236	0.367	10.0	11.4	11.5	9.86	8.50 to 11.5	99.7	70.0 to 130	0.873	20.0
BC03533	Selenium, Dissolved	mg/L	0.0000615	0.00100	0.100	0.101	0.101	0.100	0.0850 to 0.115	101	70.0 to 130	0.00	20.0
BC03532	Selenium, Total	mg/L	-0.000021	0.00100	0.100	0.0997	0.0965	0.101	0.0850 to 0.115	99.7	70.0 to 130	3.26	20.0
BC03530	Silicon, Dissolved	mg/L	-0.000094	0.0440	1.00	8.42	8.41	1.00	0.850 to 1.15	98.0	70.0 to 130	0.119	20.0
BC03528	Silicon, Total	mg/L	-0.000132	0.0440	1.00	8.11	8.12	1.02	0.850 to 1.15	92.0	70.0 to 130	0.123	20.0
BC03530	Sodium, Dissolved	mg/L	-0.00619	0.0660	5.00	23.8	24.1	4.98	4.25 to 5.75	102	70.0 to 130	1.25	20.0
BC03528	Sodium, Total	mg/L	-0.00123	0.0660	5.00	216	223	5.12	4.25 to 5.75	-120	70.0 to 130	3.19	20.0
BC03533	Thallium, Dissolved	mg/L	0.000002	0.000147	0.100	0.0970	0.0974	0.0982	0.0850 to 0.115	97.0	70.0 to 130	0.412	20.0
BC03532	Thallium, Total	mg/L	0.0000069	0.000147	0.100	0.0964	0.0959	0.0973	0.0850 to 0.115	96.4	70.0 to 130	0.520	20.0
BC03530	Total Organic Carbon	mg/L	0.260	1.00	10.0	10.0	9.26	22.9		100	80.0 to 120	7.68	20.0

**Comments:** The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.

## Batch QC Summary

**Customer Account:** WMWGORAP

**Sample Date:** 2/16/22 10:39

**Customer ID:**

**Delivery Date:** 2/17/22 10:42

**Description:** Gorgas Ash Pond - MW-15

**Laboratory ID Number:** BC03527

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BC03531	Alkalinity, Total as CaCO3	mg/L					258	49.7	45.0 to 55.0			3.95	10.0
BC03532	Chloride	mg/L	-0.0706	1.00	10.0	13.9	3.36	10.3	9.00 to 11.0	107	80.0 to 120	5.50	20.0
BC03532	Fluoride	mg/L	-0.031	0.125	2.50	2.75	0.186	2.58	2.25 to 2.75	103	80.0 to 120	7.82	20.0
BC03528	Nitrogen, Nitrate/Nitrite	mg/L as N	-0.02	0.200	2.00	1.80	-0.023	1.81	1.80 to 2.20	90.0	90.0 to 110	0.00	15.0
BC03535	Solids, Dissolved	mg/L	0.0000	25.0			772	51.0	40.0 to 60.0			0.259	10.0
BC03528	Sulfate	mg/L	-0.0901	2.0	320	553	249	20.6	18.0 to 22.0	103	80.0 to 120	10.6	20.0

**Comments:** The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.

# Certificate Of Analysis

**Description:** Gorgas Ash Pond - MW-15V

**Location Code:** WMWGORAP  
**Collected:** 2/16/22 11:45  
**Customer ID:**  
**Submittal Date:** 2/17/22 10:42

**Laboratory ID Number:** BC03528

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q	
<b>Analytical Method: EPA 200.7</b>		<b>Analyst: RDA</b>			<b>Preparation Method: EPA 1638</b>					
* Boron, Total	2/25/22 10:56	2/28/22 10:03		1.015	0.0594	mg/L	0.030000	0.1015	J	
* Calcium, Total	2/25/22 10:56	2/28/22 10:03		1.015	14.3	mg/L	0.070035	0.406		
* Iron, Total	2/25/22 10:56	2/28/22 10:03		1.015	0.0324	mg/L	0.008120	0.0406	J	
* Lithium, Total	2/25/22 10:56	2/28/22 10:03		1.015	0.0788	mg/L	0.007105	0.01999956		
* Magnesium, Total	2/25/22 10:56	2/28/22 10:03		1.015	5.32	mg/L	0.021315	0.406		
Silica, Total (calc.)	2/25/22 10:56	2/28/22 10:03		1	15.4	mg/L				
Silicon, Total	2/25/22 10:56	2/28/22 10:03		1.015	7.19	mg/L	0.02030	0.25375		
* Sodium, Total	2/25/22 10:56	2/28/22 11:51		20.3	222	mg/L	0.609	8.12	RA	
<b>Analytical Method: EPA 200.7</b>		<b>Analyst: RDA</b>			<b>Preparation Method: EPA 1638</b>					
* Boron, Dissolved	2/25/22 14:30	3/1/22 09:04		1.015	0.0579	mg/L	0.030000	0.1015	J	
* Calcium, Dissolved	2/25/22 14:30	3/1/22 09:04		1.015	13.7	mg/L	0.070035	0.406		
* Iron, Dissolved	2/25/22 14:30	3/1/22 09:04		1.015	0.00939	mg/L	0.008120	0.0406	J	
* Lithium, Dissolved	2/25/22 14:30	3/1/22 09:04		1.015	0.0769	mg/L	0.007105	0.01999956		
* Magnesium, Dissolved	2/25/22 14:30	3/1/22 09:04		1.015	5.12	mg/L	0.021315	0.406		
Silica, Dissolved (calc.)	2/25/22 14:30	3/1/22 09:04		1	15.3	mg/L				
Silicon, Dissolved	2/25/22 14:30	3/1/22 09:04		1.015	7.13	mg/L	0.02030	0.25375		
* Sodium, Dissolved	2/25/22 14:30	3/1/22 11:00		20.3	227	mg/L	0.609	8.12		
<b>Analytical Method: EPA 200.8</b>		<b>Analyst: ABB</b>			<b>Preparation Method: EPA 1638</b>					
* Antimony, Total	2/21/22 13:30	2/22/22 14:41		1.015	0.00113	mg/L	0.000508	0.001015		
* Aluminum, Total	2/21/22 13:30	2/22/22 14:41		1.015	0.0199	mg/L	0.004060	0.01015		
* Arsenic, Total	2/21/22 13:30	2/22/22 14:41		1.015	0.00810	mg/L	0.000068	0.000203		
* Barium, Total	2/21/22 13:30	2/22/22 14:41		1.015	0.200	mg/L	0.000102	0.000203		
* Beryllium, Total	2/21/22 13:30	2/22/22 14:41		1.015	Not Detected	mg/L	0.000406	0.001015	U	
* Cadmium, Total	2/21/22 13:30	2/22/22 14:41		1.015	Not Detected	mg/L	0.000068	0.000203	U	
* Chromium, Total	2/21/22 13:30	2/22/22 14:41		1.015	0.000622	mg/L	0.000203	0.001015	J	
* Cobalt, Total	2/21/22 13:30	2/22/22 14:41		1.015	Not Detected	mg/L	0.000068	0.000203	U	
* Lead, Total	2/21/22 13:30	2/22/22 14:41		1.015	Not Detected	mg/L	0.000068	0.000203	U	
* Manganese, Total	2/21/22 13:30	2/22/22 14:41		1.015	0.00548	mg/L	0.000068	0.000203		
* Molybdenum, Total	2/21/22 13:30	2/22/22 14:41		1.015	0.0272	mg/L	0.000068	0.000203		
* Potassium, Total	2/21/22 13:30	2/22/22 14:41		1.015	11.7	mg/L	0.169505	0.5075		

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.

# Certificate Of Analysis

**Description:** Gorgas Ash Pond - MW-15V

**Location Code:** WMWGORAP  
**Collected:** 2/16/22 11:45  
**Customer ID:**  
**Submittal Date:** 2/17/22 10:42

**Laboratory ID Number:** BC03528

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
* Selenium, Total	2/21/22 13:30	2/22/22 14:41		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Total	2/21/22 13:30	2/22/22 14:41		1.015	Not Detected	mg/L	0.000068	0.000203	U
<b>Analytical Method: EPA 200.8</b>		<b>Analyst: ABB</b>							
* Antimony, Dissolved	2/21/22 13:48	2/22/22 12:43		1.015	0.000694	mg/L	0.000508	0.001015	J
* Aluminum, Dissolved	2/21/22 13:48	2/22/22 12:43		1.015	Not Detected	mg/L	0.004060	0.01015	U
* Arsenic, Dissolved	2/21/22 13:48	2/22/22 12:43		1.015	0.00764	mg/L	0.000068	0.000203	
* Barium, Dissolved	2/21/22 13:48	2/22/22 12:43		1.015	0.186	mg/L	0.000102	0.000203	
* Beryllium, Dissolved	2/21/22 13:48	2/22/22 12:43		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Dissolved	2/21/22 13:48	2/22/22 12:43		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Dissolved	2/21/22 13:48	2/22/22 12:43		1.015	Not Detected	mg/L	0.000203	0.001015	U
* Cobalt, Dissolved	2/21/22 13:48	2/22/22 12:43		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Lead, Dissolved	2/21/22 13:48	2/22/22 12:43		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Dissolved	2/21/22 13:48	2/22/22 12:43		1.015	0.00462	mg/L	0.000068	0.000203	
* Molybdenum, Dissolved	2/21/22 13:48	2/22/22 12:43		1.015	0.0259	mg/L	0.000068	0.000203	
* Potassium, Dissolved	2/21/22 13:48	2/22/22 12:43		1.015	10.8	mg/L	0.169505	0.5075	
* Selenium, Dissolved	2/21/22 13:48	2/22/22 12:43		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Dissolved	2/21/22 13:48	2/22/22 12:43		1.015	Not Detected	mg/L	0.000068	0.000203	U
<b>Analytical Method: EPA 245.1</b>		<b>Analyst: CRB</b>							
* Mercury, Total by CVAA	2/24/22 14:29	2/24/22 20:01		1	Not Detected	mg/L	0.0003	0.0005	U
<b>Analytical Method: EPA 353.2</b>		<b>Analyst: ELH</b>							
* Nitrogen, Nitrate/Nitrite	2/21/22 13:40	2/21/22 13:40		1	Not Detected	mg/L as N	0.20	0.3	U
<b>Analytical Method: SM 2320 B</b>		<b>Analyst: ALH</b>							
Alkalinity, Total as CaCO3	2/25/22 13:00	2/25/22 15:40		1	228	mg/L		0.1	
<b>Analytical Method: SM 2540C</b>		<b>Analyst: CNJ</b>							
* Solids, Dissolved	2/18/22 11:13	2/22/22 12:58		1	782	mg/L		75.8	
<b>Analytical Method: SM 4500CO2 D</b>		<b>Analyst: ALH</b>							
Bicarbonate Alkalinity, (calc.)	2/25/22 13:00	2/25/22 15:40		1	219	mg/L			A
Carbonate Alkalinity, (calc.)	2/25/22 13:00	2/25/22 15:40		1	8.98	mg/L			A
<b>Analytical Method: SM 5310 B</b>		<b>Analyst: ELH</b>							
* Total Organic Carbon	2/19/22 05:46	2/19/22 05:46		1	11.4	mg/L	1.00	2	

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.

# Certificate Of Analysis

**Description:** Gorgas Ash Pond - MW-15V

**Location Code:** WMWGORAP

**Collected:** 2/16/22 11:45

**Customer ID:**

**Submittal Date:** 2/17/22 10:42

**Laboratory ID Number:** BC03528

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
<b>Analytical Method: SM4500Cl E</b>		<b>Analyst: JCC</b>							
* Chloride	2/18/22 14:17	2/18/22 14:17		8	129	mg/L	4.00	8	
<b>Analytical Method: SM4500F G 2017</b>		<b>Analyst: JCC</b>							
* Fluoride	2/23/22 09:16	2/23/22 09:16		1	0.208	mg/L	0.06	0.1	
<b>Analytical Method: SM4500SO4 E 2011</b>		<b>Analyst: JCC</b>							
* Sulfate	2/22/22 12:04	2/22/22 12:04		16	224	mg/L	8.00	16	
<b>Analytical Method: Field Measurements</b>		<b>Analyst: DKG</b>							
Conductivity	2/16/22 11:42	2/16/22 11:42			1398.52	uS/cm			FA
pH	2/16/22 11:42	2/16/22 11:42			8.65	SU			FA
Temperature	2/16/22 11:42	2/16/22 11:42			19.25	C			FA
Turbidity	2/16/22 11:42	2/16/22 11:42			1.71	NTU			FA

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.

# Batch QC Summary

**Customer Account:** WMWGORAP

**Sample Date:** 2/16/22 11:45

**Customer ID:**

**Delivery Date:** 2/17/22 10:42

**Description:** Gorgas Ash Pond - MW-15V

**Laboratory ID Number:** BC03528

Sample	Analysis	Units	MB	MB		Spike	MS	MSD	Standard		Rec		Prec	Limit
				Limit					Standard	Limit	Rec	Limit		
BC03533	Aluminum, Dissolved	mg/L	-0.000418	0.010	0.100	0.104	0.102	0.102	0.0850 to 0.115	104	70.0 to 130	1.94	20.0	
BC03532	Aluminum, Total	mg/L	-0.0000505	0.010	0.100	0.137	0.141	0.104	0.0850 to 0.115	109	70.0 to 130	2.88	20.0	
BC03533	Antimony, Dissolved	mg/L	0.000257	0.00100	0.100	0.0874	0.0893	0.0864	0.0850 to 0.115	87.4	70.0 to 130	2.15	20.0	
BC03532	Antimony, Total	mg/L	0.000365	0.00100	0.100	0.101	0.0979	0.0949	0.0850 to 0.115	101	70.0 to 130	3.12	20.0	
BC03533	Arsenic, Dissolved	mg/L	-0.0000097	0.000176	0.100	0.100	0.102	0.0970	0.0850 to 0.115	99.7	70.0 to 130	1.98	20.0	
BC03532	Arsenic, Total	mg/L	0.0000492	0.000176	0.100	0.0991	0.0973	0.0968	0.0850 to 0.115	98.8	70.0 to 130	1.83	20.0	
BC03533	Barium, Dissolved	mg/L	-0.0000002	0.000200	0.100	0.121	0.125	0.0936	0.0850 to 0.115	90.6	70.0 to 130	3.25	20.0	
BC03532	Barium, Total	mg/L	-0.000019	0.000200	0.100	1.07	1.03	0.0929	0.0850 to 0.115	107	70.0 to 130	3.81	20.0	
BC03533	Beryllium, Dissolved	mg/L	0.000421	0.000880	0.100	0.0918	0.0921	0.0926	0.0850 to 0.115	91.8	70.0 to 130	0.326	20.0	
BC03532	Beryllium, Total	mg/L	0.000497	0.000880	0.100	0.0908	0.0912	0.0918	0.0850 to 0.115	90.8	70.0 to 130	0.440	20.0	
BC03530	Boron, Dissolved	mg/L	-0.000009	0.0650	1.00	2.50	2.49	0.958	0.850 to 1.15	100	70.0 to 130	0.401	20.0	
BC03528	Boron, Total	mg/L	-0.000344	0.0650	1.00	1.05	1.06	0.988	0.850 to 1.15	99.1	70.0 to 130	0.948	20.0	
BC03533	Cadmium, Dissolved	mg/L	0.0000501	0.000147	0.100	0.0963	0.0999	0.0985	0.0850 to 0.115	96.3	70.0 to 130	3.67	20.0	
BC03532	Cadmium, Total	mg/L	0.00000	0.000147	0.100	0.0975	0.101	0.0980	0.0850 to 0.115	97.5	70.0 to 130	3.53	20.0	
BC03530	Calcium, Dissolved	mg/L	-0.0100	0.152	5.00	60.4	60.3	4.91	4.25 to 5.75	62.0	70.0 to 130	0.166	20.0	
BC03528	Calcium, Total	mg/L	-0.00796	0.152	5.00	19.0	19.1	4.87	4.25 to 5.75	94.0	70.0 to 130	0.525	20.0	
BC03533	Chromium, Dissolved	mg/L	0.0000613	0.000440	0.100	0.0977	0.0962	0.0973	0.0850 to 0.115	97.7	70.0 to 130	1.55	20.0	
BC03532	Chromium, Total	mg/L	-0.0000265	0.000440	0.100	0.0967	0.0971	0.0974	0.0850 to 0.115	96.4	70.0 to 130	0.413	20.0	
BC03533	Cobalt, Dissolved	mg/L	0.0000361	0.000147	0.100	0.0984	0.0964	0.101	0.0850 to 0.115	97.9	70.0 to 130	2.05	20.0	
BC03532	Cobalt, Total	mg/L	0.0000375	0.000147	0.100	0.0980	0.0985	0.101	0.0850 to 0.115	97.8	70.0 to 130	0.509	20.0	
BC03530	Iron, Dissolved	mg/L	-0.000587	0.0176	0.2	0.208	0.212	0.200	0.170 to 0.230	97.9	70.0 to 130	1.90	20.0	
BC03528	Iron, Total	mg/L	-0.0002	0.0176	0.2	0.223	0.226	0.198	0.170 to 0.230	95.3	70.0 to 130	1.34	20.0	
BC03533	Lead, Dissolved	mg/L	0.0000074	0.000147	0.100	0.0976	0.0975	0.0983	0.0850 to 0.115	97.6	70.0 to 130	0.103	20.0	

**Comments:** The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.

# Batch QC Summary

**Customer Account:** WMWGORAP

**Sample Date:** 2/16/22 11:45

**Customer ID:**

**Delivery Date:** 2/17/22 10:42

**Description:** Gorgas Ash Pond - MW-15V

**Laboratory ID Number:** BC03528

Sample	Analysis	Units	MB	MB				Standard		Rec		Prec	Limit
				Limit	Spike	MS	MSD	Standard	Limit	Rec	Limit		
BC03532	Lead, Total	mg/L	0.0000054	0.000147	0.100	0.0968	0.0959	0.0976	0.0850 to 0.115	96.8	70.0 to 130	0.934	20.0
BC03530	Lithium, Dissolved	mg/L	0.000167	0.0154	0.200	0.550	0.553	0.194	0.170 to 0.230	99.0	70.0 to 130	0.544	20.0
BC03528	Lithium, Total	mg/L	-0.000304	0.0154	0.200	0.278	0.283	0.204	0.170 to 0.230	99.6	70.0 to 130	1.78	20.0
BC03530	Magnesium, Dissolved	mg/L	-0.00744	0.0462	5.00	22.7	22.9	5.07	4.25 to 5.75	96.0	70.0 to 130	0.877	20.0
BC03528	Magnesium, Total	mg/L	-0.00541	0.0462	5.00	10.1	10.4	5.16	4.25 to 5.75	95.6	70.0 to 130	2.93	20.0
BC03533	Manganese, Dissolved	mg/L	0.000143	0.0002	0.100	0.432	0.438	0.0944	0.0850 to 0.115	91.0	70.0 to 130	1.38	20.0
BC03532	Manganese, Total	mg/L	0.0000091	0.0002	0.100	0.199	0.192	0.0963	0.0850 to 0.115	97.0	70.0 to 130	3.58	20.0
BC03528	Mercury, Total by CVAA	mg/L	-9.000E-05	0.000500	0.004	0.00387	0.0039	0.00387	0.00340 to 0.00460	96.8	70.0 to 130	0.772	20.0
BC03533	Molybdenum, Dissolved	mg/L	0.0000787	0.0002	0.100	0.0976	0.0982	0.0967	0.0850 to 0.115	96.3	70.0 to 130	0.613	20.0
BC03532	Molybdenum, Total	mg/L	0.0000235	0.0002	0.100	0.0956	0.0981	0.0950	0.0850 to 0.115	95.1	70.0 to 130	2.58	20.0
BC03533	Potassium, Dissolved	mg/L	0.00741	0.367	10.0	14.1	13.9	9.81	8.50 to 11.5	97.4	70.0 to 130	1.43	20.0
BC03532	Potassium, Total	mg/L	-0.0236	0.367	10.0	11.4	11.5	9.86	8.50 to 11.5	99.7	70.0 to 130	0.873	20.0
BC03533	Selenium, Dissolved	mg/L	0.0000615	0.00100	0.100	0.101	0.101	0.100	0.0850 to 0.115	101	70.0 to 130	0.00	20.0
BC03532	Selenium, Total	mg/L	-0.000021	0.00100	0.100	0.0997	0.0965	0.101	0.0850 to 0.115	99.7	70.0 to 130	3.26	20.0
BC03530	Silicon, Dissolved	mg/L	-0.000094	0.0440	1.00	8.42	8.41	1.00	0.850 to 1.15	98.0	70.0 to 130	0.119	20.0
BC03528	Silicon, Total	mg/L	-0.000132	0.0440	1.00	8.11	8.12	1.02	0.850 to 1.15	92.0	70.0 to 130	0.123	20.0
BC03530	Sodium, Dissolved	mg/L	-0.00619	0.0660	5.00	23.8	24.1	4.98	4.25 to 5.75	102	70.0 to 130	1.25	20.0
BC03528	Sodium, Total	mg/L	-0.00123	0.0660	5.00	216	223	5.12	4.25 to 5.75	-120	70.0 to 130	3.19	20.0
BC03533	Thallium, Dissolved	mg/L	0.000002	0.000147	0.100	0.0970	0.0974	0.0982	0.0850 to 0.115	97.0	70.0 to 130	0.412	20.0
BC03532	Thallium, Total	mg/L	0.0000069	0.000147	0.100	0.0964	0.0959	0.0973	0.0850 to 0.115	96.4	70.0 to 130	0.520	20.0
BC03530	Total Organic Carbon	mg/L	0.260	1.00	10.0	10.0	9.26	22.9		100	80.0 to 120	7.68	20.0

**Comments:** The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.



## Batch QC Summary

**Customer Account:** WMWGORAP

**Sample Date:** 2/16/22 11:45

**Customer ID:**

**Delivery Date:** 2/17/22 10:42

**Description:** Gorgas Ash Pond - MW-15V

**Laboratory ID Number:** BC03528

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BC03531	Alkalinity, Total as CaCO3	mg/L					258	49.7	45.0 to 55.0			3.95	10.0
BC03532	Chloride	mg/L	-0.0706	1.00	10.0	13.9	3.36	10.3	9.00 to 11.0	107	80.0 to 120	5.50	20.0
BC03532	Fluoride	mg/L	-0.031	0.125	2.50	2.75	0.186	2.58	2.25 to 2.75	103	80.0 to 120	7.82	20.0
BC03528	Nitrogen, Nitrate/Nitrite	mg/L as N	-0.02	0.200	2.00	1.80	-0.023	1.81	1.80 to 2.20	90.0	90.0 to 110	0.00	15.0
BC03535	Solids, Dissolved	mg/L	0.0000	25.0			772	51.0	40.0 to 60.0			0.259	10.0
BC03528	Sulfate	mg/L	-0.0901	2.0	320	553	249	20.6	18.0 to 22.0	103	80.0 to 120	10.6	20.0

**Comments:** The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.

# Certificate Of Analysis

**Description:** Gorgas Ash Pond - MW-25HA

**Location Code:** WMWGORAP  
**Collected:** 2/16/22 13:22  
**Customer ID:**  
**Submittal Date:** 2/17/22 10:42

**Laboratory ID Number:** BC03529

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
<b>Analytical Method: EPA 200.7</b>		<b>Analyst: RDA</b>			<b>Preparation Method: EPA 1638</b>				
* Boron, Total	2/25/22 10:56	2/28/22 10:16		1.015	0.145	mg/L	0.030000	0.1015	
* Calcium, Total	2/25/22 10:56	2/28/22 10:16		1.015	1.82	mg/L	0.070035	0.406	
* Iron, Total	2/25/22 10:56	2/28/22 10:16		1.015	0.230	mg/L	0.008120	0.0406	
* Lithium, Total	2/25/22 10:56	2/28/22 10:16		1.015	0.0504	mg/L	0.007105	0.01999956	
* Magnesium, Total	2/25/22 10:56	2/28/22 10:16		1.015	0.684	mg/L	0.021315	0.406	
Silica, Total (calc.)	2/25/22 10:56	2/28/22 10:16		1	11.4	mg/L			
Silicon, Total	2/25/22 10:56	2/28/22 10:16		1.015	5.35	mg/L	0.02030	0.25375	
* Sodium, Total	2/25/22 10:56	2/28/22 12:07		20.3	358	mg/L	0.609	8.12	
<b>Analytical Method: EPA 200.7</b>		<b>Analyst: RDA</b>			<b>Preparation Method: EPA 1638</b>				
* Boron, Dissolved	2/25/22 14:30	3/1/22 09:06		1.015	0.145	mg/L	0.030000	0.1015	
* Calcium, Dissolved	2/25/22 14:30	3/1/22 09:06		1.015	1.77	mg/L	0.070035	0.406	
* Iron, Dissolved	2/25/22 14:30	3/1/22 09:06		1.015	0.0147	mg/L	0.008120	0.0406	J
* Lithium, Dissolved	2/25/22 14:30	3/1/22 09:06		1.015	0.0504	mg/L	0.007105	0.01999956	
* Magnesium, Dissolved	2/25/22 14:30	3/1/22 09:06		1.015	0.652	mg/L	0.021315	0.406	
Silica, Dissolved (calc.)	2/25/22 14:30	3/1/22 09:06		1	10.7	mg/L			
Silicon, Dissolved	2/25/22 14:30	3/1/22 09:06		1.015	5.00	mg/L	0.02030	0.25375	
* Sodium, Dissolved	2/25/22 14:30	3/1/22 11:01		20.3	390	mg/L	0.609	8.12	
<b>Analytical Method: EPA 200.8</b>		<b>Analyst: ABB</b>			<b>Preparation Method: EPA 1638</b>				
* Antimony, Total	2/21/22 13:30	2/22/22 14:45		1.015	0.000752	mg/L	0.000508	0.001015	J
* Aluminum, Total	2/21/22 13:30	2/22/22 14:45		1.015	0.378	mg/L	0.004060	0.01015	
* Arsenic, Total	2/21/22 13:30	2/22/22 14:45		1.015	0.00968	mg/L	0.000068	0.000203	
* Barium, Total	2/21/22 13:30	2/22/22 14:45		1.015	0.230	mg/L	0.000102	0.000203	
* Beryllium, Total	2/21/22 13:30	2/22/22 14:45		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Total	2/21/22 13:30	2/22/22 14:45		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Total	2/21/22 13:30	2/22/22 14:45		1.015	0.000620	mg/L	0.000203	0.001015	J
* Cobalt, Total	2/21/22 13:30	2/22/22 14:45		1.015	0.000108	mg/L	0.000068	0.000203	J
* Lead, Total	2/21/22 13:30	2/22/22 14:45		1.015	0.000181	mg/L	0.000068	0.000203	J
* Manganese, Total	2/21/22 13:30	2/22/22 14:45		1.015	0.00799	mg/L	0.000068	0.000203	
* Molybdenum, Total	2/21/22 13:30	2/22/22 14:45		1.015	0.00977	mg/L	0.000068	0.000203	
* Potassium, Total	2/21/22 13:30	2/22/22 14:45		1.015	1.23	mg/L	0.169505	0.5075	

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.

# Certificate Of Analysis

**Description:** Gorgas Ash Pond - MW-25HA

**Location Code:** WMWGORAP

**Collected:** 2/16/22 13:22

**Customer ID:**

**Submittal Date:** 2/17/22 10:42

**Laboratory ID Number:** BC03529

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
* Selenium, Total	2/21/22 13:30	2/22/22 14:45		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Total	2/21/22 13:30	2/22/22 14:45		1.015	Not Detected	mg/L	0.000068	0.000203	U
<b>Analytical Method: EPA 200.8</b>		<b>Analyst: ABB</b>							
* Antimony, Dissolved	2/21/22 13:48	2/22/22 12:47		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Aluminum, Dissolved	2/21/22 13:48	2/22/22 12:47		1.015	0.0366	mg/L	0.004060	0.01015	
* Arsenic, Dissolved	2/21/22 13:48	2/22/22 12:47		1.015	0.00936	mg/L	0.000068	0.000203	
* Barium, Dissolved	2/21/22 13:48	2/22/22 12:47		1.015	0.203	mg/L	0.000102	0.000203	
* Beryllium, Dissolved	2/21/22 13:48	2/22/22 12:47		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Dissolved	2/21/22 13:48	2/22/22 12:47		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Dissolved	2/21/22 13:48	2/22/22 12:47		1.015	Not Detected	mg/L	0.000203	0.001015	U
* Cobalt, Dissolved	2/21/22 13:48	2/22/22 12:47		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Lead, Dissolved	2/21/22 13:48	2/22/22 12:47		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Dissolved	2/21/22 13:48	2/22/22 12:47		1.015	0.00541	mg/L	0.000068	0.000203	
* Molybdenum, Dissolved	2/21/22 13:48	2/22/22 12:47		1.015	0.0106	mg/L	0.000068	0.000203	
* Potassium, Dissolved	2/21/22 13:48	2/22/22 12:47		1.015	1.20	mg/L	0.169505	0.5075	
* Selenium, Dissolved	2/21/22 13:48	2/22/22 12:47		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Dissolved	2/21/22 13:48	2/22/22 12:47		1.015	Not Detected	mg/L	0.000068	0.000203	U
<b>Analytical Method: EPA 245.1</b>		<b>Analyst: CRB</b>							
* Mercury, Total by CVAA	2/24/22 14:29	2/24/22 20:28		1	Not Detected	mg/L	0.0003	0.0005	U
<b>Analytical Method: EPA 353.2</b>		<b>Analyst: ELH</b>							
* Nitrogen, Nitrate/Nitrite	2/21/22 13:49	2/21/22 13:49		1	Not Detected	mg/L as N	0.20	0.3	U
<b>Analytical Method: SM 2320 B</b>		<b>Analyst: ALH</b>							
Alkalinity, Total as CaCO3	2/25/22 13:00	2/25/22 15:40		1	691	mg/L		0.1	
<b>Analytical Method: SM 2540C</b>		<b>Analyst: CNJ</b>							
* Solids, Dissolved	2/23/22 10:15	2/24/22 13:25		1	945	mg/L		75.8	
<b>Analytical Method: SM 4500CO2 D</b>		<b>Analyst: ALH</b>							
Bicarbonate Alkalinity, (calc.)	2/25/22 13:00	2/25/22 15:40		1	651	mg/L			A
Carbonate Alkalinity, (calc.)	2/25/22 13:00	2/25/22 15:40		1	39.5	mg/L			A
<b>Analytical Method: SM 5310 B</b>		<b>Analyst: ELH</b>							
* Total Organic Carbon	2/19/22 06:01	2/19/22 06:01		1	18.9	mg/L	1.00	2	

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.

# Certificate Of Analysis

**Description:** Gorgas Ash Pond - MW-25HA

**Location Code:** WMWGORAP

**Collected:** 2/16/22 13:22

**Customer ID:**

**Submittal Date:** 2/17/22 10:42

**Laboratory ID Number:** BC03529

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
<b>Analytical Method: SM4500Cl E</b>		<b>Analyst: JCC</b>							
* Chloride	2/18/22 14:19	2/18/22 14:19		8	34.3	mg/L	4.00	8	
<b>Analytical Method: SM4500F G 2017</b>		<b>Analyst: JCC</b>							
* Fluoride	2/23/22 09:17	2/23/22 09:17		1	1.89	mg/L	0.06	0.1	
<b>Analytical Method: SM4500SO4 E 2011</b>		<b>Analyst: JCC</b>							
* Sulfate	2/22/22 12:33	2/22/22 12:33		8	130	mg/L	4.00	8	
<b>Analytical Method: Field Measurements</b>		<b>Analyst: DKG</b>							
Conductivity	2/16/22 13:19	2/16/22 13:19			1455.75	uS/cm			FA
pH	2/16/22 13:19	2/16/22 13:19			8.50	SU			FA
Temperature	2/16/22 13:19	2/16/22 13:19			20.83	C			FA
Turbidity	2/16/22 13:19	2/16/22 13:19			2.96	NTU			FA

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.

# Batch QC Summary

**Customer Account:** WMWGORAP

**Sample Date:** 2/16/22 13:22

**Customer ID:**

**Delivery Date:** 2/17/22 10:42

**Description:** Gorgas Ash Pond - MW-25HA

**Laboratory ID Number:** BC03529

Sample	Analysis	Units	MB	MB		Spike	MS	MSD	Standard		Rec		Prec	Limit
				Limit					Standard	Limit	Rec	Limit		
BC03533	Aluminum, Dissolved	mg/L	-0.000418	0.010	0.100	0.104	0.102	0.102	0.0850 to 0.115	104	70.0 to 130	1.94	20.0	
BC03532	Aluminum, Total	mg/L	-0.0000505	0.010	0.100	0.137	0.141	0.104	0.0850 to 0.115	109	70.0 to 130	2.88	20.0	
BC03533	Antimony, Dissolved	mg/L	0.000257	0.00100	0.100	0.0874	0.0893	0.0864	0.0850 to 0.115	87.4	70.0 to 130	2.15	20.0	
BC03532	Antimony, Total	mg/L	0.000365	0.00100	0.100	0.101	0.0979	0.0949	0.0850 to 0.115	101	70.0 to 130	3.12	20.0	
BC03533	Arsenic, Dissolved	mg/L	-0.0000097	0.000176	0.100	0.100	0.102	0.0970	0.0850 to 0.115	99.7	70.0 to 130	1.98	20.0	
BC03532	Arsenic, Total	mg/L	0.0000492	0.000176	0.100	0.0991	0.0973	0.0968	0.0850 to 0.115	98.8	70.0 to 130	1.83	20.0	
BC03533	Barium, Dissolved	mg/L	-0.0000002	0.000200	0.100	0.121	0.125	0.0936	0.0850 to 0.115	90.6	70.0 to 130	3.25	20.0	
BC03532	Barium, Total	mg/L	-0.000019	0.000200	0.100	1.07	1.03	0.0929	0.0850 to 0.115	107	70.0 to 130	3.81	20.0	
BC03533	Beryllium, Dissolved	mg/L	0.000421	0.000880	0.100	0.0918	0.0921	0.0926	0.0850 to 0.115	91.8	70.0 to 130	0.326	20.0	
BC03532	Beryllium, Total	mg/L	0.000497	0.000880	0.100	0.0908	0.0912	0.0918	0.0850 to 0.115	90.8	70.0 to 130	0.440	20.0	
BC03530	Boron, Dissolved	mg/L	-0.000009	0.0650	1.00	2.50	2.49	0.958	0.850 to 1.15	100	70.0 to 130	0.401	20.0	
BC03538	Boron, Total	mg/L	-0.000323	0.0650	1.00	0.953	0.981	0.982	0.850 to 1.15	95.3	70.0 to 130	2.90	20.0	
BC03533	Cadmium, Dissolved	mg/L	0.0000501	0.000147	0.100	0.0963	0.0999	0.0985	0.0850 to 0.115	96.3	70.0 to 130	3.67	20.0	
BC03532	Cadmium, Total	mg/L	0.00000	0.000147	0.100	0.0975	0.101	0.0980	0.0850 to 0.115	97.5	70.0 to 130	3.53	20.0	
BC03530	Calcium, Dissolved	mg/L	-0.0100	0.152	5.00	60.4	60.3	4.91	4.25 to 5.75	62.0	70.0 to 130	0.166	20.0	
BC03538	Calcium, Total	mg/L	-0.00556	0.152	5.00	4.83	4.82	4.84	4.25 to 5.75	96.6	70.0 to 130	0.207	20.0	
BC03533	Chromium, Dissolved	mg/L	0.0000613	0.000440	0.100	0.0977	0.0962	0.0973	0.0850 to 0.115	97.7	70.0 to 130	1.55	20.0	
BC03532	Chromium, Total	mg/L	-0.0000265	0.000440	0.100	0.0967	0.0971	0.0974	0.0850 to 0.115	96.4	70.0 to 130	0.413	20.0	
BC03533	Cobalt, Dissolved	mg/L	0.0000361	0.000147	0.100	0.0984	0.0964	0.101	0.0850 to 0.115	97.9	70.0 to 130	2.05	20.0	
BC03532	Cobalt, Total	mg/L	0.0000375	0.000147	0.100	0.0980	0.0985	0.101	0.0850 to 0.115	97.8	70.0 to 130	0.509	20.0	
BC03530	Iron, Dissolved	mg/L	-0.000587	0.0176	0.2	0.208	0.212	0.200	0.170 to 0.230	97.9	70.0 to 130	1.90	20.0	
BC03538	Iron, Total	mg/L	-0.000047	0.0176	0.2	0.192	0.196	0.196	0.170 to 0.230	96.0	70.0 to 130	2.06	20.0	
BC03533	Lead, Dissolved	mg/L	0.0000074	0.000147	0.100	0.0976	0.0975	0.0983	0.0850 to 0.115	97.6	70.0 to 130	0.103	20.0	

**Comments:** The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.

# Batch QC Summary

**Customer Account:** WMWGORAP

**Sample Date:** 2/16/22 13:22

**Customer ID:**

**Delivery Date:** 2/17/22 10:42

**Description:** Gorgas Ash Pond - MW-25HA

**Laboratory ID Number:** BC03529

Sample	Analysis	Units	MB	MB				Standard		Rec		Prec	Limit
				Limit	Spike	MS	MSD	Standard	Limit	Rec	Limit		
BC03532	Lead, Total	mg/L	0.0000054	0.000147	0.100	0.0968	0.0959	0.0976	0.0850 to 0.115	96.8	70.0 to 130	0.934	20.0
BC03530	Lithium, Dissolved	mg/L	0.000167	0.0154	0.200	0.550	0.553	0.194	0.170 to 0.230	99.0	70.0 to 130	0.544	20.0
BC03538	Lithium, Total	mg/L	-0.000369	0.0154	0.200	0.199	0.208	0.205	0.170 to 0.230	99.5	70.0 to 130	4.42	20.0
BC03530	Magnesium, Dissolved	mg/L	-0.00744	0.0462	5.00	22.7	22.9	5.07	4.25 to 5.75	96.0	70.0 to 130	0.877	20.0
BC03538	Magnesium, Total	mg/L	0.00100	0.0462	5.00	5.08	5.21	5.15	4.25 to 5.75	102	70.0 to 130	2.53	20.0
BC03533	Manganese, Dissolved	mg/L	0.000143	0.0002	0.100	0.432	0.438	0.0944	0.0850 to 0.115	91.0	70.0 to 130	1.38	20.0
BC03532	Manganese, Total	mg/L	0.0000091	0.0002	0.100	0.199	0.192	0.0963	0.0850 to 0.115	97.0	70.0 to 130	3.58	20.0
BC03538	Mercury, Total by CVAA	mg/L	-0.0001	0.000500	0.004	0.00385	0.00387	0.00385	0.00340 to 0.00460	96.2	70.0 to 130	0.518	20.0
BC03533	Molybdenum, Dissolved	mg/L	0.0000787	0.0002	0.100	0.0976	0.0982	0.0967	0.0850 to 0.115	96.3	70.0 to 130	0.613	20.0
BC03532	Molybdenum, Total	mg/L	0.0000235	0.0002	0.100	0.0956	0.0981	0.0950	0.0850 to 0.115	95.1	70.0 to 130	2.58	20.0
BC03533	Potassium, Dissolved	mg/L	0.00741	0.367	10.0	14.1	13.9	9.81	8.50 to 11.5	97.4	70.0 to 130	1.43	20.0
BC03532	Potassium, Total	mg/L	-0.0236	0.367	10.0	11.4	11.5	9.86	8.50 to 11.5	99.7	70.0 to 130	0.873	20.0
BC03533	Selenium, Dissolved	mg/L	0.0000615	0.00100	0.100	0.101	0.101	0.100	0.0850 to 0.115	101	70.0 to 130	0.00	20.0
BC03532	Selenium, Total	mg/L	-0.000021	0.00100	0.100	0.0997	0.0965	0.101	0.0850 to 0.115	99.7	70.0 to 130	3.26	20.0
BC03530	Silicon, Dissolved	mg/L	-0.000094	0.0440	1.00	8.42	8.41	1.00	0.850 to 1.15	98.0	70.0 to 130	0.119	20.0
BC03538	Silicon, Total	mg/L	0.000268	0.0440	1.00	0.991	1.01	1.01	0.850 to 1.15	99.1	70.0 to 130	1.90	20.0
BC03530	Sodium, Dissolved	mg/L	-0.00619	0.0660	5.00	23.8	24.1	4.98	4.25 to 5.75	102	70.0 to 130	1.25	20.0
BC03538	Sodium, Total	mg/L	0.00459	0.0660	5.00	4.92	5.19	5.12	4.25 to 5.75	98.4	70.0 to 130	5.34	20.0
BC03533	Thallium, Dissolved	mg/L	0.000002	0.000147	0.100	0.0970	0.0974	0.0982	0.0850 to 0.115	97.0	70.0 to 130	0.412	20.0
BC03532	Thallium, Total	mg/L	0.0000069	0.000147	0.100	0.0964	0.0959	0.0973	0.0850 to 0.115	96.4	70.0 to 130	0.520	20.0
BC03530	Total Organic Carbon	mg/L	0.260	1.00	10.0	10.0	9.26	22.9		100	80.0 to 120	7.68	20.0

**Comments:** The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.

## Batch QC Summary

**Customer Account:** WMWGORAP

**Sample Date:** 2/16/22 13:22

**Customer ID:**

**Delivery Date:** 2/17/22 10:42

**Description:** Gorgas Ash Pond - MW-25HA

**Laboratory ID Number:** BC03529

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Limit	Prec	Prec Limit
BC03531	Alkalinity, Total as CaCO3	mg/L					258	49.7	45.0 to 55.0			3.95	10.0
BC03532	Chloride	mg/L	-0.0706	1.00	10.0	13.9	3.36	10.3	9.00 to 11.0	107	80.0 to 120	5.50	20.0
BC03532	Fluoride	mg/L	-0.031	0.125	2.50	2.75	0.186	2.58	2.25 to 2.75	103	80.0 to 120	7.82	20.0
BC03538	Nitrogen, Nitrate/Nitrite	mg/L as N	-0.02	0.200	2.00	1.72	-0.028	1.84	1.80 to 2.20	86.0	90.0 to 110	0.00	15.0
BC03537	Solids, Dissolved	mg/L	0.0000	25.0			310	50.0	40.0 to 60.0			0.972	10.0
BC03538	Sulfate	mg/L	-0.140	2.0	20.0	19.5	-0.0892	19.8	18.0 to 22.0	97.5	80.0 to 120	0.00	20.0

**Comments:** The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.

# Certificate Of Analysis

**Description:** Gorgas Ash Pond - MW-41HD

**Location Code:** WMWGORAP  
**Collected:** 2/15/22 09:25  
**Customer ID:**  
**Submittal Date:** 2/17/22 10:42

**Laboratory ID Number:** BC03530

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
<b>Analytical Method: EPA 200.7</b>		<b>Analyst: RDA</b>			<b>Preparation Method: EPA 1638</b>				
* Boron, Total	2/25/22 10:56	2/28/22 10:18		1.015	1.52	mg/L	0.030000	0.1015	
* Calcium, Total	2/25/22 10:56	2/28/22 12:09		20.3	57.6	mg/L	1.4007	8.12	
* Iron, Total	2/25/22 10:56	2/28/22 10:18		1.015	0.0141	mg/L	0.008120	0.0406	J
* Lithium, Total	2/25/22 10:56	2/28/22 10:18		1.015	0.366	mg/L	0.007105	0.01999956	
* Magnesium, Total	2/25/22 10:56	2/28/22 10:18		1.015	17.9	mg/L	0.021315	0.406	
Silica, Total (calc.)	2/25/22 10:56	2/28/22 10:18		1	16.0	mg/L			
Silicon, Total	2/25/22 10:56	2/28/22 10:18		1.015	7.50	mg/L	0.02030	0.25375	
* Sodium, Total	2/25/22 10:56	2/28/22 10:18		1.015	19.0	mg/L	0.03045	0.406	
<b>Analytical Method: EPA 200.7</b>		<b>Analyst: RDA</b>			<b>Preparation Method: EPA 1638</b>				
* Boron, Dissolved	2/25/22 14:30	3/1/22 09:08		1.015	1.50	mg/L	0.030000	0.1015	
* Calcium, Dissolved	2/25/22 14:30	3/1/22 11:03		20.3	57.3	mg/L	1.4007	8.12	RA
* Iron, Dissolved	2/25/22 14:30	3/1/22 09:08		1.015	0.0122	mg/L	0.008120	0.0406	J
* Lithium, Dissolved	2/25/22 14:30	3/1/22 09:08		1.015	0.352	mg/L	0.007105	0.01999956	
* Magnesium, Dissolved	2/25/22 14:30	3/1/22 09:08		1.015	17.9	mg/L	0.021315	0.406	
Silica, Dissolved (calc.)	2/25/22 14:30	3/1/22 09:08		1	15.9	mg/L			
Silicon, Dissolved	2/25/22 14:30	3/1/22 09:08		1.015	7.44	mg/L	0.02030	0.25375	
* Sodium, Dissolved	2/25/22 14:30	3/1/22 09:08		1.015	18.7	mg/L	0.03045	0.406	
<b>Analytical Method: EPA 200.8</b>		<b>Analyst: ABB</b>			<b>Preparation Method: EPA 1638</b>				
* Antimony, Total	2/21/22 13:30	2/22/22 14:48		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Aluminum, Total	2/21/22 13:30	2/22/22 14:48		1.015	Not Detected	mg/L	0.004060	0.01015	U
* Arsenic, Total	2/21/22 13:30	2/22/22 14:48		1.015	0.00284	mg/L	0.000068	0.000203	
* Barium, Total	2/21/22 13:30	2/22/22 14:48		1.015	0.0441	mg/L	0.000102	0.000203	
* Beryllium, Total	2/21/22 13:30	2/22/22 14:48		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Total	2/21/22 13:30	2/22/22 14:48		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Total	2/21/22 13:30	2/22/22 14:48		1.015	0.000258	mg/L	0.000203	0.001015	J
* Cobalt, Total	2/21/22 13:30	2/22/22 14:48		1.015	0.00102	mg/L	0.000068	0.000203	
* Lead, Total	2/21/22 13:30	2/22/22 14:48		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Total	2/21/22 13:30	2/22/22 14:48		1.015	0.546	mg/L	0.000068	0.000203	
* Molybdenum, Total	2/21/22 13:30	2/22/22 14:48		1.015	0.0331	mg/L	0.000068	0.000203	
* Potassium, Total	2/21/22 13:30	2/22/22 14:48		1.015	1.66	mg/L	0.169505	0.5075	

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.



# Certificate Of Analysis

**Description:** Gorgas Ash Pond - MW-41HD

**Location Code:** WMWGORAP  
**Collected:** 2/15/22 09:25  
**Customer ID:**  
**Submittal Date:** 2/17/22 10:42

**Laboratory ID Number:** BC03530

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
* Selenium, Total	2/21/22 13:30	2/22/22 14:48		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Total	2/21/22 13:30	2/22/22 14:48		1.015	Not Detected	mg/L	0.000068	0.000203	U
<b>Analytical Method: EPA 200.8</b>		<b>Analyst: ABB</b>							
* Antimony, Dissolved	2/21/22 13:48	2/22/22 12:51		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Aluminum, Dissolved	2/21/22 13:48	2/22/22 12:51		1.015	Not Detected	mg/L	0.004060	0.01015	U
* Arsenic, Dissolved	2/21/22 13:48	2/22/22 12:51		1.015	0.00320	mg/L	0.000068	0.000203	
* Barium, Dissolved	2/21/22 13:48	2/22/22 12:51		1.015	0.0449	mg/L	0.000102	0.000203	
* Beryllium, Dissolved	2/21/22 13:48	2/22/22 12:51		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Dissolved	2/21/22 13:48	2/22/22 12:51		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Dissolved	2/21/22 13:48	2/22/22 12:51		1.015	Not Detected	mg/L	0.000203	0.001015	U
* Cobalt, Dissolved	2/21/22 13:48	2/22/22 12:51		1.015	0.000996	mg/L	0.000068	0.000203	
* Lead, Dissolved	2/21/22 13:48	2/22/22 12:51		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Dissolved	2/21/22 13:48	2/22/22 12:51		1.015	0.575	mg/L	0.000068	0.000203	
* Molybdenum, Dissolved	2/21/22 13:48	2/22/22 12:51		1.015	0.0322	mg/L	0.000068	0.000203	
* Potassium, Dissolved	2/21/22 13:48	2/22/22 12:51		1.015	1.70	mg/L	0.169505	0.5075	
* Selenium, Dissolved	2/21/22 13:48	2/22/22 12:51		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Dissolved	2/21/22 13:48	2/22/22 12:51		1.015	Not Detected	mg/L	0.000068	0.000203	U
<b>Analytical Method: EPA 245.1</b>		<b>Analyst: CRB</b>							
* Mercury, Total by CVAA	2/24/22 14:29	2/24/22 20:32		1	Not Detected	mg/L	0.0003	0.0005	U
<b>Analytical Method: EPA 353.2</b>		<b>Analyst: ELH</b>							
* Nitrogen, Nitrate/Nitrite	2/21/22 13:51	2/21/22 13:51		1	Not Detected	mg/L as N	0.20	0.3	U
<b>Analytical Method: SM 2320 B</b>		<b>Analyst: ALH</b>							
Alkalinity, Total as CaCO3	2/25/22 13:00	2/25/22 15:40		1	153	mg/L		0.1	
<b>Analytical Method: SM 2540C</b>		<b>Analyst: CNJ</b>							
* Solids, Dissolved	2/18/22 11:13	2/22/22 12:58		1	307	mg/L		25	
<b>Analytical Method: SM 4500CO2 D</b>		<b>Analyst: ALH</b>							
Bicarbonate Alkalinity, (calc.)	2/25/22 13:00	2/25/22 15:40		1	152	mg/L			
Carbonate Alkalinity, (calc.)	2/25/22 13:00	2/25/22 15:40		1	0.62	mg/L			
<b>Analytical Method: SM 5310 B</b>		<b>Analyst: ELH</b>							
* Total Organic Carbon	2/19/22 06:21	2/19/22 06:21		1	Not Detected	mg/L	1.00	2	U

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.

# Certificate Of Analysis

**Description:** Gorgas Ash Pond - MW-41HD

**Location Code:** WMWGORAP

**Collected:** 2/15/22 09:25

**Customer ID:**

**Submittal Date:** 2/17/22 10:42

**Laboratory ID Number:** BC03530

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
<b>Analytical Method: SM4500Cl E</b>		<b>Analyst: JCC</b>							
* Chloride	2/18/22 14:11	2/18/22 14:11		1	6.67	mg/L	0.50	1	
<b>Analytical Method: SM4500F G 2017</b>		<b>Analyst: JCC</b>							
* Fluoride	2/23/22 09:18	2/23/22 09:18		1	0.125	mg/L	0.06	0.1	
<b>Analytical Method: SM4500SO4 E 2011</b>		<b>Analyst: JCC</b>							
* Sulfate	2/22/22 12:34	2/22/22 12:34		8	110	mg/L	4.00	8	
<b>Analytical Method: Field Measurements</b>		<b>Analyst: TJD</b>							
Conductivity	2/15/22 09:21	2/15/22 09:21			495.04	uS/cm			FA
pH	2/15/22 09:21	2/15/22 09:21			7.35	SU			FA
Temperature	2/15/22 09:21	2/15/22 09:21			15.98	C			FA
Turbidity	2/15/22 09:21	2/15/22 09:21			0.86	NTU			FA

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.

# Batch QC Summary

**Customer Account:** WMWGORAP

**Sample Date:** 2/15/22 09:25

**Customer ID:**

**Delivery Date:** 2/17/22 10:42

**Description:** Gorgas Ash Pond - MW-41HD

**Laboratory ID Number:** BC03530

Sample	Analysis	Units	MB	MB		Spike	MS	MSD	Standard		Rec		Prec	Limit
				Limit					Standard	Limit	Rec	Limit		
BC03533	Aluminum, Dissolved	mg/L	-0.000418	0.010	0.100	0.104	0.102	0.102	0.0850 to 0.115	104	70.0 to 130	1.94	20.0	
BC03532	Aluminum, Total	mg/L	-0.0000505	0.010	0.100	0.137	0.141	0.104	0.0850 to 0.115	109	70.0 to 130	2.88	20.0	
BC03533	Antimony, Dissolved	mg/L	0.000257	0.00100	0.100	0.0874	0.0893	0.0864	0.0850 to 0.115	87.4	70.0 to 130	2.15	20.0	
BC03532	Antimony, Total	mg/L	0.000365	0.00100	0.100	0.101	0.0979	0.0949	0.0850 to 0.115	101	70.0 to 130	3.12	20.0	
BC03533	Arsenic, Dissolved	mg/L	-0.0000097	0.000176	0.100	0.100	0.102	0.0970	0.0850 to 0.115	99.7	70.0 to 130	1.98	20.0	
BC03532	Arsenic, Total	mg/L	0.0000492	0.000176	0.100	0.0991	0.0973	0.0968	0.0850 to 0.115	98.8	70.0 to 130	1.83	20.0	
BC03533	Barium, Dissolved	mg/L	-0.0000002	0.000200	0.100	0.121	0.125	0.0936	0.0850 to 0.115	90.6	70.0 to 130	3.25	20.0	
BC03532	Barium, Total	mg/L	-0.000019	0.000200	0.100	1.07	1.03	0.0929	0.0850 to 0.115	107	70.0 to 130	3.81	20.0	
BC03533	Beryllium, Dissolved	mg/L	0.000421	0.000880	0.100	0.0918	0.0921	0.0926	0.0850 to 0.115	91.8	70.0 to 130	0.326	20.0	
BC03532	Beryllium, Total	mg/L	0.000497	0.000880	0.100	0.0908	0.0912	0.0918	0.0850 to 0.115	90.8	70.0 to 130	0.440	20.0	
BC03530	Boron, Dissolved	mg/L	-0.000009	0.0650	1.00	2.50	2.49	0.958	0.850 to 1.15	100	70.0 to 130	0.401	20.0	
BC03538	Boron, Total	mg/L	-0.000323	0.0650	1.00	0.953	0.981	0.982	0.850 to 1.15	95.3	70.0 to 130	2.90	20.0	
BC03533	Cadmium, Dissolved	mg/L	0.0000501	0.000147	0.100	0.0963	0.0999	0.0985	0.0850 to 0.115	96.3	70.0 to 130	3.67	20.0	
BC03532	Cadmium, Total	mg/L	0.00000	0.000147	0.100	0.0975	0.101	0.0980	0.0850 to 0.115	97.5	70.0 to 130	3.53	20.0	
BC03530	Calcium, Dissolved	mg/L	-0.0100	0.152	5.00	60.4	60.3	4.91	4.25 to 5.75	62.0	70.0 to 130	0.166	20.0	
BC03538	Calcium, Total	mg/L	-0.00556	0.152	5.00	4.83	4.82	4.84	4.25 to 5.75	96.6	70.0 to 130	0.207	20.0	
BC03533	Chromium, Dissolved	mg/L	0.0000613	0.000440	0.100	0.0977	0.0962	0.0973	0.0850 to 0.115	97.7	70.0 to 130	1.55	20.0	
BC03532	Chromium, Total	mg/L	-0.0000265	0.000440	0.100	0.0967	0.0971	0.0974	0.0850 to 0.115	96.4	70.0 to 130	0.413	20.0	
BC03533	Cobalt, Dissolved	mg/L	0.0000361	0.000147	0.100	0.0984	0.0964	0.101	0.0850 to 0.115	97.9	70.0 to 130	2.05	20.0	
BC03532	Cobalt, Total	mg/L	0.0000375	0.000147	0.100	0.0980	0.0985	0.101	0.0850 to 0.115	97.8	70.0 to 130	0.509	20.0	
BC03530	Iron, Dissolved	mg/L	-0.000587	0.0176	0.2	0.208	0.212	0.200	0.170 to 0.230	97.9	70.0 to 130	1.90	20.0	
BC03538	Iron, Total	mg/L	-0.000047	0.0176	0.2	0.192	0.196	0.196	0.170 to 0.230	96.0	70.0 to 130	2.06	20.0	
BC03533	Lead, Dissolved	mg/L	0.0000074	0.000147	0.100	0.0976	0.0975	0.0983	0.0850 to 0.115	97.6	70.0 to 130	0.103	20.0	

**Comments:** The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.

# Batch QC Summary

**Customer Account:** WMWGORAP

**Sample Date:** 2/15/22 09:25

**Customer ID:**

**Delivery Date:** 2/17/22 10:42

**Description:** Gorgas Ash Pond - MW-41HD

**Laboratory ID Number:** BC03530

Sample	Analysis	Units	MB	MB				Standard		Rec		Prec	Limit
				Limit	Spike	MS	MSD	Standard	Limit	Rec	Limit		
BC03532	Lead, Total	mg/L	0.0000054	0.000147	0.100	0.0968	0.0959	0.0976	0.0850 to 0.115	96.8	70.0 to 130	0.934	20.0
BC03530	Lithium, Dissolved	mg/L	0.000167	0.0154	0.200	0.550	0.553	0.194	0.170 to 0.230	99.0	70.0 to 130	0.544	20.0
BC03538	Lithium, Total	mg/L	-0.000369	0.0154	0.200	0.199	0.208	0.205	0.170 to 0.230	99.5	70.0 to 130	4.42	20.0
BC03530	Magnesium, Dissolved	mg/L	-0.00744	0.0462	5.00	22.7	22.9	5.07	4.25 to 5.75	96.0	70.0 to 130	0.877	20.0
BC03538	Magnesium, Total	mg/L	0.00100	0.0462	5.00	5.08	5.21	5.15	4.25 to 5.75	102	70.0 to 130	2.53	20.0
BC03533	Manganese, Dissolved	mg/L	0.000143	0.0002	0.100	0.432	0.438	0.0944	0.0850 to 0.115	91.0	70.0 to 130	1.38	20.0
BC03532	Manganese, Total	mg/L	0.0000091	0.0002	0.100	0.199	0.192	0.0963	0.0850 to 0.115	97.0	70.0 to 130	3.58	20.0
BC03538	Mercury, Total by CVAA	mg/L	-0.0001	0.000500	0.004	0.00385	0.00387	0.00385	0.00340 to 0.00460	96.2	70.0 to 130	0.518	20.0
BC03533	Molybdenum, Dissolved	mg/L	0.0000787	0.0002	0.100	0.0976	0.0982	0.0967	0.0850 to 0.115	96.3	70.0 to 130	0.613	20.0
BC03532	Molybdenum, Total	mg/L	0.0000235	0.0002	0.100	0.0956	0.0981	0.0950	0.0850 to 0.115	95.1	70.0 to 130	2.58	20.0
BC03533	Potassium, Dissolved	mg/L	0.00741	0.367	10.0	14.1	13.9	9.81	8.50 to 11.5	97.4	70.0 to 130	1.43	20.0
BC03532	Potassium, Total	mg/L	-0.0236	0.367	10.0	11.4	11.5	9.86	8.50 to 11.5	99.7	70.0 to 130	0.873	20.0
BC03533	Selenium, Dissolved	mg/L	0.0000615	0.00100	0.100	0.101	0.101	0.100	0.0850 to 0.115	101	70.0 to 130	0.00	20.0
BC03532	Selenium, Total	mg/L	-0.000021	0.00100	0.100	0.0997	0.0965	0.101	0.0850 to 0.115	99.7	70.0 to 130	3.26	20.0
BC03530	Silicon, Dissolved	mg/L	-0.000094	0.0440	1.00	8.42	8.41	1.00	0.850 to 1.15	98.0	70.0 to 130	0.119	20.0
BC03538	Silicon, Total	mg/L	0.000268	0.0440	1.00	0.991	1.01	1.01	0.850 to 1.15	99.1	70.0 to 130	1.90	20.0
BC03530	Sodium, Dissolved	mg/L	-0.00619	0.0660	5.00	23.8	24.1	4.98	4.25 to 5.75	102	70.0 to 130	1.25	20.0
BC03538	Sodium, Total	mg/L	0.00459	0.0660	5.00	4.92	5.19	5.12	4.25 to 5.75	98.4	70.0 to 130	5.34	20.0
BC03533	Thallium, Dissolved	mg/L	0.000002	0.000147	0.100	0.0970	0.0974	0.0982	0.0850 to 0.115	97.0	70.0 to 130	0.412	20.0
BC03532	Thallium, Total	mg/L	0.0000069	0.000147	0.100	0.0964	0.0959	0.0973	0.0850 to 0.115	96.4	70.0 to 130	0.520	20.0
BC03530	Total Organic Carbon	mg/L	0.260	1.00	10.0	10.0	9.26	22.9		100	80.0 to 120	7.68	20.0

**Comments:** The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.

## Batch QC Summary

**Customer Account:** WMWGORAP

**Sample Date:** 2/15/22 09:25

**Customer ID:**

**Delivery Date:** 2/17/22 10:42

**Description:** Gorgas Ash Pond - MW-41HD

**Laboratory ID Number:** BC03530

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Limit	Prec	Prec Limit
BC03531	Alkalinity, Total as CaCO3	mg/L					258	49.7	45.0 to 55.0			3.95	10.0
BC03532	Chloride	mg/L	-0.0706	1.00	10.0	13.9	3.36	10.3	9.00 to 11.0	107	80.0 to 120	5.50	20.0
BC03532	Fluoride	mg/L	-0.031	0.125	2.50	2.75	0.186	2.58	2.25 to 2.75	103	80.0 to 120	7.82	20.0
BC03538	Nitrogen, Nitrate/Nitrite	mg/L as N	-0.02	0.200	2.00	1.72	-0.028	1.84	1.80 to 2.20	86.0	90.0 to 110	0.00	15.0
BC03535	Solids, Dissolved	mg/L	0.0000	25.0			772	51.0	40.0 to 60.0			0.259	10.0
BC03538	Sulfate	mg/L	-0.140	2.0	20.0	19.5	-0.0892	19.8	18.0 to 22.0	97.5	80.0 to 120	0.00	20.0

**Comments:** The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.

# Certificate Of Analysis

**Description:** Gorgas Ash Pond - MW-24H

**Location Code:** WMWGORAP  
**Collected:** 2/15/22 10:37  
**Customer ID:**  
**Submittal Date:** 2/17/22 10:42

**Laboratory ID Number:** BC03531

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q	
<b>Analytical Method: EPA 200.7</b>		<b>Analyst: RDA</b>			<b>Preparation Method: EPA 1638</b>					
* Boron, Total	2/25/22 10:56	2/28/22 10:20		1.015	0.0708	mg/L	0.030000	0.1015	J	
* Calcium, Total	2/25/22 10:56	2/28/22 12:11		20.3	42.4	mg/L	1.4007	8.12		
* Iron, Total	2/25/22 10:56	2/28/22 10:20		1.015	2.02	mg/L	0.008120	0.0406		
* Lithium, Total	2/25/22 10:56	2/28/22 10:20		1.015	0.0239	mg/L	0.007105	0.01999956		
* Magnesium, Total	2/25/22 10:56	2/28/22 10:20		1.015	14.1	mg/L	0.021315	0.406		
Silica, Total (calc.)	2/25/22 10:56	2/28/22 10:20		1	29.1	mg/L				
Silicon, Total	2/25/22 10:56	2/28/22 10:20		1.015	13.6	mg/L	0.02030	0.25375		
* Sodium, Total	2/25/22 10:56	2/28/22 10:20		1.015	32.1	mg/L	0.03045	0.406		
<b>Analytical Method: EPA 200.7</b>		<b>Analyst: RDA</b>			<b>Preparation Method: EPA 1638</b>					
* Boron, Dissolved	2/25/22 14:30	3/1/22 09:21		1.015	0.0692	mg/L	0.030000	0.1015	J	
* Calcium, Dissolved	2/25/22 14:30	3/1/22 12:18		20.3	45.0	mg/L	1.4007	8.12		
* Iron, Dissolved	2/25/22 14:30	3/1/22 09:21		1.015	1.84	mg/L	0.008120	0.0406		
* Lithium, Dissolved	2/25/22 14:30	3/1/22 09:21		1.015	0.0233	mg/L	0.007105	0.01999956		
* Magnesium, Dissolved	2/25/22 14:30	3/1/22 09:21		1.015	13.9	mg/L	0.021315	0.406		
Silica, Dissolved (calc.)	2/25/22 14:30	3/1/22 09:21		1	28.7	mg/L				
Silicon, Dissolved	2/25/22 14:30	3/1/22 09:21		1.015	13.4	mg/L	0.02030	0.25375		
* Sodium, Dissolved	2/25/22 14:30	3/1/22 09:21		1.015	31.6	mg/L	0.03045	0.406		
<b>Analytical Method: EPA 200.8</b>		<b>Analyst: ABB</b>			<b>Preparation Method: EPA 1638</b>					
* Antimony, Total	2/21/22 13:30	2/22/22 14:52		1.015	Not Detected	mg/L	0.000508	0.001015	U	
* Aluminum, Total	2/21/22 13:30	2/22/22 14:52		1.015	0.0285	mg/L	0.004060	0.01015		
* Arsenic, Total	2/21/22 13:30	2/22/22 14:52		1.015	0.000293	mg/L	0.000068	0.000203		
* Barium, Total	2/21/22 13:30	2/22/22 14:52		1.015	0.992	mg/L	0.000102	0.000203		
* Beryllium, Total	2/21/22 13:30	2/22/22 14:52		1.015	Not Detected	mg/L	0.000406	0.001015	U	
* Cadmium, Total	2/21/22 13:30	2/22/22 14:52		1.015	Not Detected	mg/L	0.000068	0.000203	U	
* Chromium, Total	2/21/22 13:30	2/22/22 14:52		1.015	0.000294	mg/L	0.000203	0.001015	J	
* Cobalt, Total	2/21/22 13:30	2/22/22 14:52		1.015	0.000230	mg/L	0.000068	0.000203		
* Lead, Total	2/21/22 13:30	2/22/22 14:52		1.015	Not Detected	mg/L	0.000068	0.000203	U	
* Manganese, Total	2/21/22 13:30	2/22/22 14:52		1.015	0.102	mg/L	0.000068	0.000203		
* Molybdenum, Total	2/21/22 13:30	2/22/22 14:52		1.015	0.000529	mg/L	0.000068	0.000203		
* Potassium, Total	2/21/22 13:30	2/22/22 14:52		1.015	1.41	mg/L	0.169505	0.5075		

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.

# Certificate Of Analysis

**Description:** Gorgas Ash Pond - MW-24H

**Location Code:** WMWGORAP  
**Collected:** 2/15/22 10:37  
**Customer ID:**  
**Submittal Date:** 2/17/22 10:42

**Laboratory ID Number:** BC03531

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
* Selenium, Total	2/21/22 13:30	2/22/22 14:52		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Total	2/21/22 13:30	2/22/22 14:52		1.015	Not Detected	mg/L	0.000068	0.000203	U
<b>Analytical Method: EPA 200.8</b>		<b>Analyst: ABB</b>							
* Antimony, Dissolved	2/21/22 13:48	2/22/22 12:54		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Aluminum, Dissolved	2/21/22 13:48	2/22/22 12:54		1.015	Not Detected	mg/L	0.004060	0.01015	U
* Arsenic, Dissolved	2/21/22 13:48	2/22/22 12:54		1.015	0.000182	mg/L	0.000068	0.000203	J
* Barium, Dissolved	2/21/22 13:48	2/22/22 12:54		1.015	0.963	mg/L	0.000102	0.000203	
* Beryllium, Dissolved	2/21/22 13:48	2/22/22 12:54		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Dissolved	2/21/22 13:48	2/22/22 12:54		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Dissolved	2/21/22 13:48	2/22/22 12:54		1.015	Not Detected	mg/L	0.000203	0.001015	U
* Cobalt, Dissolved	2/21/22 13:48	2/22/22 12:54		1.015	0.000169	mg/L	0.000068	0.000203	J
* Lead, Dissolved	2/21/22 13:48	2/22/22 12:54		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Dissolved	2/21/22 13:48	2/22/22 12:54		1.015	0.0973	mg/L	0.000068	0.000203	
* Molybdenum, Dissolved	2/21/22 13:48	2/22/22 12:54		1.015	0.000538	mg/L	0.000068	0.000203	
* Potassium, Dissolved	2/21/22 13:48	2/22/22 12:54		1.015	1.44	mg/L	0.169505	0.5075	
* Selenium, Dissolved	2/21/22 13:48	2/22/22 12:54		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Dissolved	2/21/22 13:48	2/22/22 12:54		1.015	Not Detected	mg/L	0.000068	0.000203	U
<b>Analytical Method: EPA 245.1</b>		<b>Analyst: CRB</b>							
* Mercury, Total by CVAA	2/24/22 14:29	2/24/22 20:36		1	Not Detected	mg/L	0.0003	0.0005	U
<b>Analytical Method: EPA 353.2</b>		<b>Analyst: ELH</b>							
* Nitrogen, Nitrate/Nitrite	2/21/22 13:53	2/21/22 13:53		1	Not Detected	mg/L as N	0.20	0.3	U
<b>Analytical Method: SM 2320 B</b>		<b>Analyst: ALH</b>							
Alkalinity, Total as CaCO3	2/25/22 13:00	2/25/22 15:40		1	248	mg/L		0.1	
<b>Analytical Method: SM 2540C</b>		<b>Analyst: CNJ</b>							
* Solids, Dissolved	2/18/22 11:13	2/22/22 12:58		1	241	mg/L		25	
<b>Analytical Method: SM 4500CO2 D</b>		<b>Analyst: ALH</b>							
Bicarbonate Alkalinity, (calc.)	2/25/22 13:00	2/25/22 15:40		1	245	mg/L			
Carbonate Alkalinity, (calc.)	2/25/22 13:00	2/25/22 15:40		1	2.77	mg/L			
<b>Analytical Method: SM 5310 B</b>		<b>Analyst: ELH</b>							
* Total Organic Carbon	3/1/22 13:18	3/1/22 13:18		1	Not Detected	mg/L	1.00	2	U

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.

# Certificate Of Analysis

**Description:** Gorgas Ash Pond - MW-24H

**Location Code:** WMWGORAP

**Collected:** 2/15/22 10:37

**Customer ID:**

**Submittal Date:** 2/17/22 10:42

**Laboratory ID Number:** BC03531

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
<b>Analytical Method: SM4500Cl E</b>		<b>Analyst: JCC</b>							
* Chloride	2/18/22 14:13	2/18/22 14:13		1	3.18	mg/L	0.50	1	
<b>Analytical Method: SM4500F G 2017</b>		<b>Analyst: JCC</b>							
* Fluoride	2/23/22 09:20	2/23/22 09:20		1	0.176	mg/L	0.06	0.1	
<b>Analytical Method: SM4500SO4 E 2011</b>		<b>Analyst: JCC</b>							
* Sulfate	2/22/22 12:22	2/22/22 12:22		1	12.1	mg/L	0.50	1	
<b>Analytical Method: Field Measurements</b>		<b>Analyst: TJD</b>							
Conductivity	2/15/22 10:34	2/15/22 10:34			432.15	uS/cm			FA
pH	2/15/22 10:34	2/15/22 10:34			7.00	SU			FA
Temperature	2/15/22 10:34	2/15/22 10:34			17.63	C			FA
Turbidity	2/15/22 10:34	2/15/22 10:34			2.66	NTU			FA

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.



# Batch QC Summary

**Customer Account:** WMWGORAP

**Sample Date:** 2/15/22 10:37

**Customer ID:**

**Delivery Date:** 2/17/22 10:42

**Description:** Gorgas Ash Pond - MW-24H

**Laboratory ID Number:** BC03531

Sample	Analysis	Units	MB	MB		MS	MSD	Standard		Rec		Prec	Limit
				Limit	Spike			Standard	Limit	Rec	Limit		
BC03533	Aluminum, Dissolved	mg/L	-0.000418	0.010	0.100	0.104	0.102	0.102	0.0850 to 0.115	104	70.0 to 130	1.94	20.0
BC03532	Aluminum, Total	mg/L	-0.0000505	0.010	0.100	0.137	0.141	0.104	0.0850 to 0.115	109	70.0 to 130	2.88	20.0
BC03533	Antimony, Dissolved	mg/L	0.000257	0.00100	0.100	0.0874	0.0893	0.0864	0.0850 to 0.115	87.4	70.0 to 130	2.15	20.0
BC03532	Antimony, Total	mg/L	0.000365	0.00100	0.100	0.101	0.0979	0.0949	0.0850 to 0.115	101	70.0 to 130	3.12	20.0
BC03533	Arsenic, Dissolved	mg/L	-0.0000097	0.000176	0.100	0.100	0.102	0.0970	0.0850 to 0.115	99.7	70.0 to 130	1.98	20.0
BC03532	Arsenic, Total	mg/L	0.0000492	0.000176	0.100	0.0991	0.0973	0.0968	0.0850 to 0.115	98.8	70.0 to 130	1.83	20.0
BC03533	Barium, Dissolved	mg/L	-0.0000002	0.000200	0.100	0.121	0.125	0.0936	0.0850 to 0.115	90.6	70.0 to 130	3.25	20.0
BC03532	Barium, Total	mg/L	-0.000019	0.000200	0.100	1.07	1.03	0.0929	0.0850 to 0.115	107	70.0 to 130	3.81	20.0
BC03533	Beryllium, Dissolved	mg/L	0.000421	0.000880	0.100	0.0918	0.0921	0.0926	0.0850 to 0.115	91.8	70.0 to 130	0.326	20.0
BC03532	Beryllium, Total	mg/L	0.000497	0.000880	0.100	0.0908	0.0912	0.0918	0.0850 to 0.115	90.8	70.0 to 130	0.440	20.0
BC03955	Boron, Dissolved	mg/L	-0.000179	0.0650	1.00	1.01	1.01	0.993	0.850 to 1.15	97.0	70.0 to 130	0.00	20.0
BC03538	Boron, Total	mg/L	-0.000323	0.0650	1.00	0.953	0.981	0.982	0.850 to 1.15	95.3	70.0 to 130	2.90	20.0
BC03533	Cadmium, Dissolved	mg/L	0.0000501	0.000147	0.100	0.0963	0.0999	0.0985	0.0850 to 0.115	96.3	70.0 to 130	3.67	20.0
BC03532	Cadmium, Total	mg/L	0.00000	0.000147	0.100	0.0975	0.101	0.0980	0.0850 to 0.115	97.5	70.0 to 130	3.53	20.0
BC03955	Calcium, Dissolved	mg/L	-0.00563	0.152	5.00	14.2	14.3	4.84	4.25 to 5.75	97.0	70.0 to 130	0.702	20.0
BC03538	Calcium, Total	mg/L	-0.00556	0.152	5.00	4.83	4.82	4.84	4.25 to 5.75	96.6	70.0 to 130	0.207	20.0
BC03533	Chromium, Dissolved	mg/L	0.0000613	0.000440	0.100	0.0977	0.0962	0.0973	0.0850 to 0.115	97.7	70.0 to 130	1.55	20.0
BC03532	Chromium, Total	mg/L	-0.0000265	0.000440	0.100	0.0967	0.0971	0.0974	0.0850 to 0.115	96.4	70.0 to 130	0.413	20.0
BC03533	Cobalt, Dissolved	mg/L	0.0000361	0.000147	0.100	0.0984	0.0964	0.101	0.0850 to 0.115	97.9	70.0 to 130	2.05	20.0
BC03532	Cobalt, Total	mg/L	0.0000375	0.000147	0.100	0.0980	0.0985	0.101	0.0850 to 0.115	97.8	70.0 to 130	0.509	20.0
BC03955	Iron, Dissolved	mg/L	0.00221	0.0176	0.2	0.408	0.408	0.203	0.170 to 0.230	98.0	70.0 to 130	0.00	20.0
BC03538	Iron, Total	mg/L	-0.000047	0.0176	0.2	0.192	0.196	0.196	0.170 to 0.230	96.0	70.0 to 130	2.06	20.0
BC03533	Lead, Dissolved	mg/L	0.0000074	0.000147	0.100	0.0976	0.0975	0.0983	0.0850 to 0.115	97.6	70.0 to 130	0.103	20.0

**Comments:** The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.

# Batch QC Summary

**Customer Account:** WMWGORAP

**Sample Date:** 2/15/22 10:37

**Customer ID:**

**Delivery Date:** 2/17/22 10:42

**Description:** Gorgas Ash Pond - MW-24H

**Laboratory ID Number:** BC03531

Sample	Analysis	Units	MB	MB				Standard		Rec		Prec	Limit
				Limit	Spike	MS	MSD	Standard	Limit	Rec	Limit		
BC03532	Lead, Total	mg/L	0.0000054	0.000147	0.100	0.0968	0.0959	0.0976	0.0850 to 0.115	96.8	70.0 to 130	0.934	20.0
BC03955	Lithium, Dissolved	mg/L	0.000133	0.0154	0.200	0.237	0.233	0.198	0.170 to 0.230	99.6	70.0 to 130	1.70	20.0
BC03538	Lithium, Total	mg/L	-0.000369	0.0154	0.200	0.199	0.208	0.205	0.170 to 0.230	99.5	70.0 to 130	4.42	20.0
BC03955	Magnesium, Dissolved	mg/L	0.000702	0.0462	5.00	8.93	8.82	5.11	4.25 to 5.75	102	70.0 to 130	1.24	20.0
BC03538	Magnesium, Total	mg/L	0.00100	0.0462	5.00	5.08	5.21	5.15	4.25 to 5.75	102	70.0 to 130	2.53	20.0
BC03533	Manganese, Dissolved	mg/L	0.000143	0.0002	0.100	0.432	0.438	0.0944	0.0850 to 0.115	91.0	70.0 to 130	1.38	20.0
BC03532	Manganese, Total	mg/L	0.0000091	0.0002	0.100	0.199	0.192	0.0963	0.0850 to 0.115	97.0	70.0 to 130	3.58	20.0
BC03538	Mercury, Total by CVAA	mg/L	-0.0001	0.000500	0.004	0.00385	0.00387	0.00385	0.00340 to 0.00460	96.2	70.0 to 130	0.518	20.0
BC03533	Molybdenum, Dissolved	mg/L	0.0000787	0.0002	0.100	0.0976	0.0982	0.0967	0.0850 to 0.115	96.3	70.0 to 130	0.613	20.0
BC03532	Molybdenum, Total	mg/L	0.0000235	0.0002	0.100	0.0956	0.0981	0.0950	0.0850 to 0.115	95.1	70.0 to 130	2.58	20.0
BC03533	Potassium, Dissolved	mg/L	0.00741	0.367	10.0	14.1	13.9	9.81	8.50 to 11.5	97.4	70.0 to 130	1.43	20.0
BC03532	Potassium, Total	mg/L	-0.0236	0.367	10.0	11.4	11.5	9.86	8.50 to 11.5	99.7	70.0 to 130	0.873	20.0
BC03533	Selenium, Dissolved	mg/L	0.0000615	0.00100	0.100	0.101	0.101	0.100	0.0850 to 0.115	101	70.0 to 130	0.00	20.0
BC03532	Selenium, Total	mg/L	-0.000021	0.00100	0.100	0.0997	0.0965	0.101	0.0850 to 0.115	99.7	70.0 to 130	3.26	20.0
BC03955	Silicon, Dissolved	mg/L	0.000469	0.0440	1.00	8.40	8.39	1.02	0.850 to 1.15	93.0	70.0 to 130	0.119	20.0
BC03538	Silicon, Total	mg/L	0.000268	0.0440	1.00	0.991	1.01	1.01	0.850 to 1.15	99.1	70.0 to 130	1.90	20.0
BC03955	Sodium, Dissolved	mg/L	-0.00274	0.0660	5.00	164	173	5.09	4.25 to 5.75	60.0	70.0 to 130	5.34	20.0
BC03538	Sodium, Total	mg/L	0.00459	0.0660	5.00	4.92	5.19	5.12	4.25 to 5.75	98.4	70.0 to 130	5.34	20.0
BC03533	Thallium, Dissolved	mg/L	0.000002	0.000147	0.100	0.0970	0.0974	0.0982	0.0850 to 0.115	97.0	70.0 to 130	0.412	20.0
BC03532	Thallium, Total	mg/L	0.0000069	0.000147	0.100	0.0964	0.0959	0.0973	0.0850 to 0.115	96.4	70.0 to 130	0.520	20.0
BC03953	Total Organic Carbon	mg/L	0.230	1.00	10.0	14.7	14.3	9.69		94.9	80.0 to 120	2.76	20.0

**Comments:** The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.

## Batch QC Summary

**Customer Account:** WMWGORAP

**Sample Date:** 2/15/22 10:37

**Customer ID:**

**Delivery Date:** 2/17/22 10:42

**Description:** Gorgas Ash Pond - MW-24H

**Laboratory ID Number:** BC03531

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BC03531	Alkalinity, Total as CaCO3	mg/L					258	49.7	45.0 to 55.0			3.95	10.0
BC03532	Chloride	mg/L	-0.0706	1.00	10.0	13.9	3.36	10.3	9.00 to 11.0	107	80.0 to 120	5.50	20.0
BC03532	Fluoride	mg/L	-0.031	0.125	2.50	2.75	0.186	2.58	2.25 to 2.75	103	80.0 to 120	7.82	20.0
BC03538	Nitrogen, Nitrate/Nitrite	mg/L as N	-0.02	0.200	2.00	1.72	-0.028	1.84	1.80 to 2.20	86.0	90.0 to 110	0.00	15.0
BC03535	Solids, Dissolved	mg/L	0.0000	25.0			772	51.0	40.0 to 60.0			0.259	10.0
BC03538	Sulfate	mg/L	-0.140	2.0	20.0	19.5	-0.0892	19.8	18.0 to 22.0	97.5	80.0 to 120	0.00	20.0

**Comments:** The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.

# Certificate Of Analysis

**Description:** Gorgas Ash Pond - MW-24H DUP

**Location Code:** WMWGORAP  
**Collected:** 2/15/22 10:37  
**Customer ID:**  
**Submittal Date:** 2/17/22 10:42

**Laboratory ID Number:** BC03532

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q	
<b>Analytical Method: EPA 200.7</b>		<b>Analyst: RDA</b>			<b>Preparation Method: EPA 1638</b>					
* Boron, Total	2/25/22 10:56	2/28/22 10:22		1.015	0.0695	mg/L	0.030000	0.1015	J	
* Calcium, Total	2/25/22 10:56	2/28/22 12:13		20.3	42.4	mg/L	1.4007	8.12		
* Iron, Total	2/25/22 10:56	2/28/22 10:22		1.015	2.02	mg/L	0.008120	0.0406		
* Lithium, Total	2/25/22 10:56	2/28/22 10:22		1.015	0.0238	mg/L	0.007105	0.01999956		
* Magnesium, Total	2/25/22 10:56	2/28/22 10:22		1.015	14.0	mg/L	0.021315	0.406		
Silica, Total (calc.)	2/25/22 10:56	2/28/22 10:22		1	28.9	mg/L				
Silicon, Total	2/25/22 10:56	2/28/22 10:22		1.015	13.5	mg/L	0.02030	0.25375		
* Sodium, Total	2/25/22 10:56	2/28/22 10:22		1.015	31.4	mg/L	0.03045	0.406		
<b>Analytical Method: EPA 200.7</b>		<b>Analyst: RDA</b>			<b>Preparation Method: EPA 1638</b>					
* Boron, Dissolved	2/25/22 14:30	3/1/22 09:23		1.015	0.0692	mg/L	0.030000	0.1015	J	
* Calcium, Dissolved	2/25/22 14:30	3/1/22 12:20		20.3	43.2	mg/L	1.4007	8.12		
* Iron, Dissolved	2/25/22 14:30	3/1/22 09:23		1.015	1.82	mg/L	0.008120	0.0406		
* Lithium, Dissolved	2/25/22 14:30	3/1/22 09:23		1.015	0.0239	mg/L	0.007105	0.01999956		
* Magnesium, Dissolved	2/25/22 14:30	3/1/22 09:23		1.015	14.0	mg/L	0.021315	0.406		
Silica, Dissolved (calc.)	2/25/22 14:30	3/1/22 09:23		1	28.5	mg/L				
Silicon, Dissolved	2/25/22 14:30	3/1/22 09:23		1.015	13.3	mg/L	0.02030	0.25375		
* Sodium, Dissolved	2/25/22 14:30	3/1/22 09:23		1.015	32.1	mg/L	0.03045	0.406		
<b>Analytical Method: EPA 200.8</b>		<b>Analyst: ABB</b>			<b>Preparation Method: EPA 1638</b>					
* Antimony, Total	2/21/22 13:30	2/22/22 14:56		1.015	Not Detected	mg/L	0.000508	0.001015	U	
* Aluminum, Total	2/21/22 13:30	2/22/22 14:56		1.015	0.0278	mg/L	0.004060	0.01015		
* Arsenic, Total	2/21/22 13:30	2/22/22 14:56		1.015	0.000327	mg/L	0.000068	0.000203		
* Barium, Total	2/21/22 13:30	2/22/22 14:56		1.015	0.963	mg/L	0.000102	0.000203	RA	
* Beryllium, Total	2/21/22 13:30	2/22/22 14:56		1.015	Not Detected	mg/L	0.000406	0.001015	U	
* Cadmium, Total	2/21/22 13:30	2/22/22 14:56		1.015	Not Detected	mg/L	0.000068	0.000203	U	
* Chromium, Total	2/21/22 13:30	2/22/22 14:56		1.015	0.000266	mg/L	0.000203	0.001015	J	
* Cobalt, Total	2/21/22 13:30	2/22/22 14:56		1.015	0.000238	mg/L	0.000068	0.000203		
* Lead, Total	2/21/22 13:30	2/22/22 14:56		1.015	Not Detected	mg/L	0.000068	0.000203	U	
* Manganese, Total	2/21/22 13:30	2/22/22 14:56		1.015	0.102	mg/L	0.000068	0.000203		
* Molybdenum, Total	2/21/22 13:30	2/22/22 14:56		1.015	0.000477	mg/L	0.000068	0.000203		
* Potassium, Total	2/21/22 13:30	2/22/22 14:56		1.015	1.43	mg/L	0.169505	0.5075		

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.

# Certificate Of Analysis

**Description:** Gorgas Ash Pond - MW-24H DUP

**Location Code:** WMWGORAP  
**Collected:** 2/15/22 10:37  
**Customer ID:**  
**Submittal Date:** 2/17/22 10:42

**Laboratory ID Number:** BC03532

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
* Selenium, Total	2/21/22 13:30	2/22/22 14:56		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Total	2/21/22 13:30	2/22/22 14:56		1.015	Not Detected	mg/L	0.000068	0.000203	U
<b>Analytical Method: EPA 200.8</b>		<b>Analyst: ABB</b>							
* Antimony, Dissolved	2/21/22 13:48	2/22/22 12:58		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Aluminum, Dissolved	2/21/22 13:48	2/22/22 12:58		1.015	Not Detected	mg/L	0.004060	0.01015	U
* Arsenic, Dissolved	2/21/22 13:48	2/22/22 12:58		1.015	0.000231	mg/L	0.000068	0.000203	
* Barium, Dissolved	2/21/22 13:48	2/22/22 12:58		1.015	0.963	mg/L	0.000102	0.000203	
* Beryllium, Dissolved	2/21/22 13:48	2/22/22 12:58		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Dissolved	2/21/22 13:48	2/22/22 12:58		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Dissolved	2/21/22 13:48	2/22/22 12:58		1.015	Not Detected	mg/L	0.000203	0.001015	U
* Cobalt, Dissolved	2/21/22 13:48	2/22/22 12:58		1.015	0.000205	mg/L	0.000068	0.000203	
* Lead, Dissolved	2/21/22 13:48	2/22/22 12:58		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Dissolved	2/21/22 13:48	2/22/22 12:58		1.015	0.0976	mg/L	0.000068	0.000203	
* Molybdenum, Dissolved	2/21/22 13:48	2/22/22 12:58		1.015	0.000456	mg/L	0.000068	0.000203	
* Potassium, Dissolved	2/21/22 13:48	2/22/22 12:58		1.015	1.37	mg/L	0.169505	0.5075	
* Selenium, Dissolved	2/21/22 13:48	2/22/22 12:58		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Dissolved	2/21/22 13:48	2/22/22 12:58		1.015	Not Detected	mg/L	0.000068	0.000203	U
<b>Analytical Method: EPA 245.1</b>		<b>Analyst: CRB</b>							
* Mercury, Total by CVAA	2/24/22 14:29	2/24/22 20:40		1	Not Detected	mg/L	0.0003	0.0005	U
<b>Analytical Method: EPA 353.2</b>		<b>Analyst: ELH</b>							
* Nitrogen, Nitrate/Nitrite	2/21/22 13:55	2/21/22 13:55		1	Not Detected	mg/L as N	0.20	0.3	U
<b>Analytical Method: SM 2320 B</b>		<b>Analyst: ALH</b>							
Alkalinity, Total as CaCO3	2/28/22 13:10	2/28/22 15:05		1	227	mg/L		0.1	
<b>Analytical Method: SM 2540C</b>		<b>Analyst: CNJ</b>							
* Solids, Dissolved	2/18/22 11:13	2/22/22 12:58		1	248	mg/L		25	
<b>Analytical Method: SM 4500CO2 D</b>		<b>Analyst: ALH</b>							
Bicarbonate Alkalinity, (calc.)	2/28/22 13:10	2/28/22 15:05		1	226	mg/L			
Carbonate Alkalinity, (calc.)	2/28/22 13:10	2/28/22 15:05		1	0.61	mg/L			
<b>Analytical Method: SM 5310 B</b>		<b>Analyst: ELH</b>							
* Total Organic Carbon	3/1/22 13:37	3/1/22 13:37		1	Not Detected	mg/L	1.00	2	U

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.

# Certificate Of Analysis

**Description:** Gorgas Ash Pond - MW-24H DUP

**Location Code:** WMWGORAP

**Collected:** 2/15/22 10:37

**Customer ID:**

**Submittal Date:** 2/17/22 10:42

**Laboratory ID Number:** BC03532

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
<b>Analytical Method: SM4500Cl E</b>		<b>Analyst: JCC</b>							
* Chloride	2/18/22 14:14	2/18/22 14:14		1	3.18	mg/L	0.50	1	
<b>Analytical Method: SM4500F G 2017</b>		<b>Analyst: JCC</b>							
* Fluoride	2/23/22 09:21	2/23/22 09:21		1	0.172	mg/L	0.06	0.1	
<b>Analytical Method: SM4500SO4 E 2011</b>		<b>Analyst: JCC</b>							
* Sulfate	2/22/22 12:23	2/22/22 12:23		1	15.9	mg/L	0.50	1	
<b>Analytical Method: Field Measurements</b>		<b>Analyst: TJD</b>							
Conductivity	2/15/22 10:34	2/15/22 10:34			432.15	uS/cm			FA
pH	2/15/22 10:34	2/15/22 10:34			7.00	SU			FA
Temperature	2/15/22 10:34	2/15/22 10:34			17.63	C			FA
Turbidity	2/15/22 10:34	2/15/22 10:34			2.66	NTU			FA

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.

# Batch QC Summary

**Customer Account:** WMWGORAP

**Sample Date:** 2/15/22 10:37

**Customer ID:**

**Delivery Date:** 2/17/22 10:42

**Description:** Gorgas Ash Pond - MW-24H DUP

**Laboratory ID Number:** BC03532

Sample	Analysis	Units	MB	MB		Spike	MS	MSD	Standard		Rec		Prec	Limit
				Limit					Standard	Limit	Rec	Limit		
BC03533	Aluminum, Dissolved	mg/L	-0.000418	0.010	0.100	0.104	0.102	0.102	0.0850 to 0.115	104	70.0 to 130	1.94	20.0	
BC03532	Aluminum, Total	mg/L	-0.0000505	0.010	0.100	0.137	0.141	0.104	0.0850 to 0.115	109	70.0 to 130	2.88	20.0	
BC03533	Antimony, Dissolved	mg/L	0.000257	0.00100	0.100	0.0874	0.0893	0.0864	0.0850 to 0.115	87.4	70.0 to 130	2.15	20.0	
BC03532	Antimony, Total	mg/L	0.000365	0.00100	0.100	0.101	0.0979	0.0949	0.0850 to 0.115	101	70.0 to 130	3.12	20.0	
BC03533	Arsenic, Dissolved	mg/L	-0.0000097	0.000176	0.100	0.100	0.102	0.0970	0.0850 to 0.115	99.7	70.0 to 130	1.98	20.0	
BC03532	Arsenic, Total	mg/L	0.0000492	0.000176	0.100	0.0991	0.0973	0.0968	0.0850 to 0.115	98.8	70.0 to 130	1.83	20.0	
BC03533	Barium, Dissolved	mg/L	-0.0000002	0.000200	0.100	0.121	0.125	0.0936	0.0850 to 0.115	90.6	70.0 to 130	3.25	20.0	
BC03532	Barium, Total	mg/L	-0.000019	0.000200	0.100	1.07	1.03	0.0929	0.0850 to 0.115	107	70.0 to 130	3.81	20.0	
BC03533	Beryllium, Dissolved	mg/L	0.000421	0.000880	0.100	0.0918	0.0921	0.0926	0.0850 to 0.115	91.8	70.0 to 130	0.326	20.0	
BC03532	Beryllium, Total	mg/L	0.000497	0.000880	0.100	0.0908	0.0912	0.0918	0.0850 to 0.115	90.8	70.0 to 130	0.440	20.0	
BC03955	Boron, Dissolved	mg/L	-0.000179	0.0650	1.00	1.01	1.01	0.993	0.850 to 1.15	97.0	70.0 to 130	0.00	20.0	
BC03538	Boron, Total	mg/L	-0.000323	0.0650	1.00	0.953	0.981	0.982	0.850 to 1.15	95.3	70.0 to 130	2.90	20.0	
BC03533	Cadmium, Dissolved	mg/L	0.0000501	0.000147	0.100	0.0963	0.0999	0.0985	0.0850 to 0.115	96.3	70.0 to 130	3.67	20.0	
BC03532	Cadmium, Total	mg/L	0.00000	0.000147	0.100	0.0975	0.101	0.0980	0.0850 to 0.115	97.5	70.0 to 130	3.53	20.0	
BC03955	Calcium, Dissolved	mg/L	-0.00563	0.152	5.00	14.2	14.3	4.84	4.25 to 5.75	97.0	70.0 to 130	0.702	20.0	
BC03538	Calcium, Total	mg/L	-0.00556	0.152	5.00	4.83	4.82	4.84	4.25 to 5.75	96.6	70.0 to 130	0.207	20.0	
BC03533	Chromium, Dissolved	mg/L	0.0000613	0.000440	0.100	0.0977	0.0962	0.0973	0.0850 to 0.115	97.7	70.0 to 130	1.55	20.0	
BC03532	Chromium, Total	mg/L	-0.0000265	0.000440	0.100	0.0967	0.0971	0.0974	0.0850 to 0.115	96.4	70.0 to 130	0.413	20.0	
BC03533	Cobalt, Dissolved	mg/L	0.0000361	0.000147	0.100	0.0984	0.0964	0.101	0.0850 to 0.115	97.9	70.0 to 130	2.05	20.0	
BC03532	Cobalt, Total	mg/L	0.0000375	0.000147	0.100	0.0980	0.0985	0.101	0.0850 to 0.115	97.8	70.0 to 130	0.509	20.0	
BC03955	Iron, Dissolved	mg/L	0.00221	0.0176	0.2	0.408	0.408	0.203	0.170 to 0.230	98.0	70.0 to 130	0.00	20.0	
BC03538	Iron, Total	mg/L	-0.000047	0.0176	0.2	0.192	0.196	0.196	0.170 to 0.230	96.0	70.0 to 130	2.06	20.0	
BC03533	Lead, Dissolved	mg/L	0.0000074	0.000147	0.100	0.0976	0.0975	0.0983	0.0850 to 0.115	97.6	70.0 to 130	0.103	20.0	

**Comments:** The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.

# Batch QC Summary

**Customer Account:** WMWGORAP

**Sample Date:** 2/15/22 10:37

**Customer ID:**

**Delivery Date:** 2/17/22 10:42

**Description:** Gorgas Ash Pond - MW-24H DUP

**Laboratory ID Number:** BC03532

Sample	Analysis	Units	MB	MB				Standard		Rec		Prec	Limit
				Limit	Spike	MS	MSD	Standard	Limit	Rec	Limit		
BC03532	Lead, Total	mg/L	0.0000054	0.000147	0.100	0.0968	0.0959	0.0976	0.0850 to 0.115	96.8	70.0 to 130	0.934	20.0
BC03955	Lithium, Dissolved	mg/L	0.000133	0.0154	0.200	0.237	0.233	0.198	0.170 to 0.230	99.6	70.0 to 130	1.70	20.0
BC03538	Lithium, Total	mg/L	-0.000369	0.0154	0.200	0.199	0.208	0.205	0.170 to 0.230	99.5	70.0 to 130	4.42	20.0
BC03955	Magnesium, Dissolved	mg/L	0.000702	0.0462	5.00	8.93	8.82	5.11	4.25 to 5.75	102	70.0 to 130	1.24	20.0
BC03538	Magnesium, Total	mg/L	0.00100	0.0462	5.00	5.08	5.21	5.15	4.25 to 5.75	102	70.0 to 130	2.53	20.0
BC03533	Manganese, Dissolved	mg/L	0.000143	0.0002	0.100	0.432	0.438	0.0944	0.0850 to 0.115	91.0	70.0 to 130	1.38	20.0
BC03532	Manganese, Total	mg/L	0.0000091	0.0002	0.100	0.199	0.192	0.0963	0.0850 to 0.115	97.0	70.0 to 130	3.58	20.0
BC03538	Mercury, Total by CVAA	mg/L	-0.0001	0.000500	0.004	0.00385	0.00387	0.00385	0.00340 to 0.00460	96.2	70.0 to 130	0.518	20.0
BC03533	Molybdenum, Dissolved	mg/L	0.0000787	0.0002	0.100	0.0976	0.0982	0.0967	0.0850 to 0.115	96.3	70.0 to 130	0.613	20.0
BC03532	Molybdenum, Total	mg/L	0.0000235	0.0002	0.100	0.0956	0.0981	0.0950	0.0850 to 0.115	95.1	70.0 to 130	2.58	20.0
BC03533	Potassium, Dissolved	mg/L	0.00741	0.367	10.0	14.1	13.9	9.81	8.50 to 11.5	97.4	70.0 to 130	1.43	20.0
BC03532	Potassium, Total	mg/L	-0.0236	0.367	10.0	11.4	11.5	9.86	8.50 to 11.5	99.7	70.0 to 130	0.873	20.0
BC03533	Selenium, Dissolved	mg/L	0.0000615	0.00100	0.100	0.101	0.101	0.100	0.0850 to 0.115	101	70.0 to 130	0.00	20.0
BC03532	Selenium, Total	mg/L	-0.000021	0.00100	0.100	0.0997	0.0965	0.101	0.0850 to 0.115	99.7	70.0 to 130	3.26	20.0
BC03955	Silicon, Dissolved	mg/L	0.000469	0.0440	1.00	8.40	8.39	1.02	0.850 to 1.15	93.0	70.0 to 130	0.119	20.0
BC03538	Silicon, Total	mg/L	0.000268	0.0440	1.00	0.991	1.01	1.01	0.850 to 1.15	99.1	70.0 to 130	1.90	20.0
BC03955	Sodium, Dissolved	mg/L	-0.00274	0.0660	5.00	164	173	5.09	4.25 to 5.75	60.0	70.0 to 130	5.34	20.0
BC03538	Sodium, Total	mg/L	0.00459	0.0660	5.00	4.92	5.19	5.12	4.25 to 5.75	98.4	70.0 to 130	5.34	20.0
BC03533	Thallium, Dissolved	mg/L	0.000002	0.000147	0.100	0.0970	0.0974	0.0982	0.0850 to 0.115	97.0	70.0 to 130	0.412	20.0
BC03532	Thallium, Total	mg/L	0.0000069	0.000147	0.100	0.0964	0.0959	0.0973	0.0850 to 0.115	96.4	70.0 to 130	0.520	20.0
BC03953	Total Organic Carbon	mg/L	0.230	1.00	10.0	14.7	14.3	9.69		94.9	80.0 to 120	2.76	20.0

**Comments:** The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.



## Batch QC Summary

**Customer Account:** WMWGORAP

**Sample Date:** 2/15/22 10:37

**Customer ID:**

**Delivery Date:** 2/17/22 10:42

**Description:** Gorgas Ash Pond - MW-24H DUP

**Laboratory ID Number:** BC03532

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BC03537	Alkalinity, Total as CaCO3	mg/L					179	52.0	45.0 to 55.0			5.16	10.0
BC03532	Chloride	mg/L	-0.0706	1.00	10.0	13.9	3.36	10.3	9.00 to 11.0	107	80.0 to 120	5.50	20.0
BC03532	Fluoride	mg/L	-0.031	0.125	2.50	2.75	0.186	2.58	2.25 to 2.75	103	80.0 to 120	7.82	20.0
BC03538	Nitrogen, Nitrate/Nitrite	mg/L as N	-0.02	0.200	2.00	1.72	-0.028	1.84	1.80 to 2.20	86.0	90.0 to 110	0.00	15.0
BC03535	Solids, Dissolved	mg/L	0.0000	25.0			772	51.0	40.0 to 60.0			0.259	10.0
BC03538	Sulfate	mg/L	-0.140	2.0	20.0	19.5	-0.0892	19.8	18.0 to 22.0	97.5	80.0 to 120	0.00	20.0

**Comments:** The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.

# Certificate Of Analysis

**Description:** Gorgas Ash Pond - MW-40H

**Location Code:** WMWGORAP  
**Collected:** 2/15/22 12:25  
**Customer ID:**  
**Submittal Date:** 2/17/22 10:42

**Laboratory ID Number:** BC03533

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
<b>Analytical Method: EPA 200.7</b>		<b>Analyst: RDA</b>			<b>Preparation Method: EPA 1638</b>				
* Boron, Total	2/25/22 10:56	2/28/22 10:24		1.015	0.0321	mg/L	0.030000	0.1015	J
* Calcium, Total	2/25/22 10:56	2/28/22 12:15		20.3	203	mg/L	1.4007	8.12	
* Iron, Total	2/25/22 10:56	2/28/22 10:24		1.015	2.33	mg/L	0.008120	0.0406	
* Lithium, Total	2/25/22 10:56	2/28/22 10:24		1.015	0.0539	mg/L	0.007105	0.01999956	
* Magnesium, Total	2/25/22 10:56	2/28/22 12:15		20.3	93.1	mg/L	0.4263	8.12	
Silica, Total (calc.)	2/25/22 10:56	2/28/22 10:24		1	25.3	mg/L			
Silicon, Total	2/25/22 10:56	2/28/22 10:24		1.015	11.8	mg/L	0.02030	0.25375	
* Sodium, Total	2/25/22 10:56	2/28/22 12:15		20.3	65.1	mg/L	0.609	8.12	
<b>Analytical Method: EPA 200.7</b>		<b>Analyst: RDA</b>			<b>Preparation Method: EPA 1638</b>				
* Boron, Dissolved	2/25/22 14:30	3/1/22 09:24		1.015	Not Detected	mg/L	0.030000	0.1015	U
* Calcium, Dissolved	2/25/22 14:30	3/1/22 12:22		20.3	210	mg/L	1.4007	8.12	
* Iron, Dissolved	2/25/22 14:30	3/1/22 09:24		1.015	2.40	mg/L	0.008120	0.0406	
* Lithium, Dissolved	2/25/22 14:30	3/1/22 09:24		1.015	0.0557	mg/L	0.007105	0.01999956	
* Magnesium, Dissolved	2/25/22 14:30	3/1/22 12:22		20.3	100	mg/L	0.4263	8.12	
Silica, Dissolved (calc.)	2/25/22 14:30	3/1/22 09:24		1	25.0	mg/L			
Silicon, Dissolved	2/25/22 14:30	3/1/22 09:24		1.015	11.7	mg/L	0.02030	0.25375	
* Sodium, Dissolved	2/25/22 14:30	3/1/22 12:22		20.3	66.9	mg/L	0.609	8.12	
<b>Analytical Method: EPA 200.8</b>		<b>Analyst: ABB</b>			<b>Preparation Method: EPA 1638</b>				
* Antimony, Total	2/21/22 13:30	2/22/22 15:17		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Aluminum, Total	2/21/22 13:30	2/22/22 15:17		1.015	Not Detected	mg/L	0.004060	0.01015	U
* Arsenic, Total	2/21/22 13:30	2/22/22 15:17		1.015	0.000400	mg/L	0.000068	0.000203	
* Barium, Total	2/21/22 13:30	2/22/22 15:17		1.015	0.0298	mg/L	0.000102	0.000203	
* Beryllium, Total	2/21/22 13:30	2/22/22 15:17		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Total	2/21/22 13:30	2/22/22 15:17		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Total	2/21/22 13:30	2/22/22 15:17		1.015	Not Detected	mg/L	0.000203	0.001015	U
* Cobalt, Total	2/21/22 13:30	2/22/22 15:17		1.015	0.000518	mg/L	0.000068	0.000203	
* Lead, Total	2/21/22 13:30	2/22/22 15:17		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Total	2/21/22 13:30	2/22/22 15:17		1.015	0.373	mg/L	0.000068	0.000203	
* Molybdenum, Total	2/21/22 13:30	2/22/22 15:17		1.015	0.00200	mg/L	0.000068	0.000203	
* Potassium, Total	2/21/22 13:30	2/22/22 15:17		1.015	4.71	mg/L	0.169505	0.5075	

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.

# Certificate Of Analysis

**Description:** Gorgas Ash Pond - MW-40H

**Location Code:** WMWGORAP

**Collected:** 2/15/22 12:25

**Customer ID:**

**Submittal Date:** 2/17/22 10:42

**Laboratory ID Number:** BC03533

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
* Selenium, Total	2/21/22 13:30	2/22/22 15:17		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Total	2/21/22 13:30	2/22/22 15:17		1.015	Not Detected	mg/L	0.000068	0.000203	U
<b>Analytical Method: EPA 200.8</b>		<b>Analyst: ABB</b>							
* Antimony, Dissolved	2/21/22 13:48	2/22/22 13:02		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Aluminum, Dissolved	2/21/22 13:48	2/22/22 13:02		1.015	Not Detected	mg/L	0.004060	0.01015	U
* Arsenic, Dissolved	2/21/22 13:48	2/22/22 13:02		1.015	0.000252	mg/L	0.000068	0.000203	
* Barium, Dissolved	2/21/22 13:48	2/22/22 13:02		1.015	0.0304	mg/L	0.000102	0.000203	
* Beryllium, Dissolved	2/21/22 13:48	2/22/22 13:02		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Dissolved	2/21/22 13:48	2/22/22 13:02		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Dissolved	2/21/22 13:48	2/22/22 13:02		1.015	Not Detected	mg/L	0.000203	0.001015	U
* Cobalt, Dissolved	2/21/22 13:48	2/22/22 13:02		1.015	0.000471	mg/L	0.000068	0.000203	
* Lead, Dissolved	2/21/22 13:48	2/22/22 13:02		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Dissolved	2/21/22 13:48	2/22/22 13:02		1.015	0.341	mg/L	0.000068	0.000203	
* Molybdenum, Dissolved	2/21/22 13:48	2/22/22 13:02		1.015	0.00132	mg/L	0.000068	0.000203	
* Potassium, Dissolved	2/21/22 13:48	2/22/22 13:02		1.015	4.36	mg/L	0.169505	0.5075	
* Selenium, Dissolved	2/21/22 13:48	2/22/22 13:02		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Dissolved	2/21/22 13:48	2/22/22 13:02		1.015	Not Detected	mg/L	0.000068	0.000203	U
<b>Analytical Method: EPA 245.1</b>		<b>Analyst: CRB</b>							
* Mercury, Total by CVAA	2/24/22 14:29	2/24/22 20:44		1	Not Detected	mg/L	0.0003	0.0005	U
<b>Analytical Method: EPA 353.2</b>		<b>Analyst: ELH</b>							
* Nitrogen, Nitrate/Nitrite	2/21/22 13:57	2/21/22 13:57		1	Not Detected	mg/L as N	0.20	0.3	U
<b>Analytical Method: SM 2320 B</b>		<b>Analyst: ALH</b>							
Alkalinity, Total as CaCO3	2/28/22 13:10	2/28/22 15:05		1	237	mg/L		0.1	
<b>Analytical Method: SM 2540C</b>		<b>Analyst: CNJ</b>							
* Solids, Dissolved	2/18/22 11:13	2/22/22 12:58		1	1230	mg/L		75.8	
<b>Analytical Method: SM 4500CO2 D</b>		<b>Analyst: ALH</b>							
Bicarbonate Alkalinity, (calc.)	2/28/22 13:10	2/28/22 15:05		1	237	mg/L			A
Carbonate Alkalinity, (calc.)	2/28/22 13:10	2/28/22 15:05		1	0.15	mg/L			A
<b>Analytical Method: SM 5310 B</b>		<b>Analyst: ELH</b>							
* Total Organic Carbon	3/1/22 13:54	3/1/22 13:54		1	2.14	mg/L	1.00	2	

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.

# Certificate Of Analysis

**Description:** Gorgas Ash Pond - MW-40H

**Location Code:** WMWGORAP

**Collected:** 2/15/22 12:25

**Customer ID:**

**Submittal Date:** 2/17/22 10:42

**Laboratory ID Number:** BC03533

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
<b>Analytical Method: SM4500Cl E</b>		<b>Analyst: JCC</b>							
* Chloride	2/18/22 14:35	2/18/22 14:35		1	18.0	mg/L	0.50	1	
<b>Analytical Method: SM4500F G 2017</b>		<b>Analyst: JCC</b>							
* Fluoride	2/23/22 09:38	2/23/22 09:38		1	0.0854	mg/L	0.06	0.1	J
<b>Analytical Method: SM4500SO4 E 2011</b>		<b>Analyst: JCC</b>							
* Sulfate	2/22/22 12:37	2/22/22 12:37		40	684	mg/L	20.00	40	
<b>Analytical Method: Field Measurements</b>		<b>Analyst: TJD</b>							
Conductivity	2/15/22 12:22	2/15/22 12:22			1614.47	uS/cm			FA
pH	2/15/22 12:22	2/15/22 12:22			6.60	SU			FA
Temperature	2/15/22 12:22	2/15/22 12:22			20.14	C			FA
Turbidity	2/15/22 12:22	2/15/22 12:22			3.7	NTU			FA

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.

# Batch QC Summary

**Customer Account:** WMWGORAP

**Sample Date:** 2/15/22 12:25

**Customer ID:**

**Delivery Date:** 2/17/22 10:42

**Description:** Gorgas Ash Pond - MW-40H

**Laboratory ID Number:** BC03533

Sample	Analysis	Units	MB	MB		Spike	MS	MSD	Standard		Rec		Prec	Limit
				Limit					Standard	Limit	Rec	Limit		
BC03533	Aluminum, Dissolved	mg/L	-0.000418	0.010	0.100	0.104	0.102	0.102	0.0850 to 0.115	104	70.0 to 130	1.94	20.0	
BC03538	Aluminum, Total	mg/L	-0.0000505	0.010	0.100	0.105	0.103	0.104	0.0850 to 0.115	105	70.0 to 130	1.92	20.0	
BC03533	Antimony, Dissolved	mg/L	0.000257	0.00100	0.100	0.0874	0.0893	0.0864	0.0850 to 0.115	87.4	70.0 to 130	2.15	20.0	
BC03538	Antimony, Total	mg/L	0.000365	0.00100	0.100	0.0977	0.0933	0.0949	0.0850 to 0.115	97.7	70.0 to 130	4.61	20.0	
BC03533	Arsenic, Dissolved	mg/L	-0.0000097	0.000176	0.100	0.100	0.102	0.0970	0.0850 to 0.115	99.7	70.0 to 130	1.98	20.0	
BC03538	Arsenic, Total	mg/L	0.0000492	0.000176	0.100	0.0996	0.0996	0.0968	0.0850 to 0.115	99.5	70.0 to 130	0.00	20.0	
BC03533	Barium, Dissolved	mg/L	-0.0000002	0.000200	0.100	0.121	0.125	0.0936	0.0850 to 0.115	90.6	70.0 to 130	3.25	20.0	
BC03538	Barium, Total	mg/L	-0.000019	0.000200	0.100	0.0971	0.0927	0.0929	0.0850 to 0.115	97.1	70.0 to 130	4.64	20.0	
BC03533	Beryllium, Dissolved	mg/L	0.000421	0.000880	0.100	0.0918	0.0921	0.0926	0.0850 to 0.115	91.8	70.0 to 130	0.326	20.0	
BC03538	Beryllium, Total	mg/L	0.000497	0.000880	0.100	0.0910	0.0905	0.0918	0.0850 to 0.115	91.0	70.0 to 130	0.551	20.0	
BC03955	Boron, Dissolved	mg/L	-0.000179	0.0650	1.00	1.01	1.01	0.993	0.850 to 1.15	97.0	70.0 to 130	0.00	20.0	
BC03538	Boron, Total	mg/L	-0.000323	0.0650	1.00	0.953	0.981	0.982	0.850 to 1.15	95.3	70.0 to 130	2.90	20.0	
BC03533	Cadmium, Dissolved	mg/L	0.0000501	0.000147	0.100	0.0963	0.0999	0.0985	0.0850 to 0.115	96.3	70.0 to 130	3.67	20.0	
BC03538	Cadmium, Total	mg/L	0.00000	0.000147	0.100	0.100	0.0993	0.0980	0.0850 to 0.115	100	70.0 to 130	0.702	20.0	
BC03955	Calcium, Dissolved	mg/L	-0.00563	0.152	5.00	14.2	14.3	4.84	4.25 to 5.75	97.0	70.0 to 130	0.702	20.0	
BC03538	Calcium, Total	mg/L	-0.00556	0.152	5.00	4.83	4.82	4.84	4.25 to 5.75	96.6	70.0 to 130	0.207	20.0	
BC03533	Chromium, Dissolved	mg/L	0.0000613	0.000440	0.100	0.0977	0.0962	0.0973	0.0850 to 0.115	97.7	70.0 to 130	1.55	20.0	
BC03538	Chromium, Total	mg/L	-0.0000265	0.000440	0.100	0.100	0.0964	0.0974	0.0850 to 0.115	100	70.0 to 130	3.67	20.0	
BC03533	Cobalt, Dissolved	mg/L	0.0000361	0.000147	0.100	0.0984	0.0964	0.101	0.0850 to 0.115	97.9	70.0 to 130	2.05	20.0	
BC03538	Cobalt, Total	mg/L	0.0000375	0.000147	0.100	0.102	0.0984	0.101	0.0850 to 0.115	102	70.0 to 130	3.59	20.0	
BC03955	Iron, Dissolved	mg/L	0.00221	0.0176	0.2	0.408	0.408	0.203	0.170 to 0.230	98.0	70.0 to 130	0.00	20.0	
BC03538	Iron, Total	mg/L	-0.000047	0.0176	0.2	0.192	0.196	0.196	0.170 to 0.230	96.0	70.0 to 130	2.06	20.0	
BC03533	Lead, Dissolved	mg/L	0.0000074	0.000147	0.100	0.0976	0.0975	0.0983	0.0850 to 0.115	97.6	70.0 to 130	0.103	20.0	

**Comments:** The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.

# Batch QC Summary

**Customer Account:** WMWGORAP  
**Sample Date:** 2/15/22 12:25  
**Customer ID:**  
**Delivery Date:** 2/17/22 10:42

**Description:** Gorgas Ash Pond - MW-40H

**Laboratory ID Number:** BC03533

Sample	Analysis	Units	MB	MB				Standard		Rec		Prec	Limit
				Limit	Spike	MS	MSD	Standard	Limit	Rec	Limit		
BC03538	Lead, Total	mg/L	0.0000054	0.000147	0.100	0.0978	0.0972	0.0976	0.0850 to 0.115	97.8	70.0 to 130	0.615	20.0
BC03955	Lithium, Dissolved	mg/L	0.000133	0.0154	0.200	0.237	0.233	0.198	0.170 to 0.230	99.6	70.0 to 130	1.70	20.0
BC03538	Lithium, Total	mg/L	-0.000369	0.0154	0.200	0.199	0.208	0.205	0.170 to 0.230	99.5	70.0 to 130	4.42	20.0
BC03955	Magnesium, Dissolved	mg/L	0.000702	0.0462	5.00	8.93	8.82	5.11	4.25 to 5.75	102	70.0 to 130	1.24	20.0
BC03538	Magnesium, Total	mg/L	0.00100	0.0462	5.00	5.08	5.21	5.15	4.25 to 5.75	102	70.0 to 130	2.53	20.0
BC03533	Manganese, Dissolved	mg/L	0.000143	0.0002	0.100	0.432	0.438	0.0944	0.0850 to 0.115	91.0	70.0 to 130	1.38	20.0
BC03538	Manganese, Total	mg/L	0.0000091	0.0002	0.100	0.0991	0.0951	0.0963	0.0850 to 0.115	98.9	70.0 to 130	4.12	20.0
BC03538	Mercury, Total by CVAA	mg/L	-0.0001	0.000500	0.004	0.00385	0.00387	0.00385	0.00340 to 0.00460	96.2	70.0 to 130	0.518	20.0
BC03533	Molybdenum, Dissolved	mg/L	0.0000787	0.0002	0.100	0.0976	0.0982	0.0967	0.0850 to 0.115	96.3	70.0 to 130	0.613	20.0
BC03538	Molybdenum, Total	mg/L	0.0000235	0.0002	0.100	0.0972	0.0983	0.0950	0.0850 to 0.115	97.2	70.0 to 130	1.13	20.0
BC03533	Potassium, Dissolved	mg/L	0.00741	0.367	10.0	14.1	13.9	9.81	8.50 to 11.5	97.4	70.0 to 130	1.43	20.0
BC03538	Potassium, Total	mg/L	-0.0236	0.367	10.0	9.90	9.73	9.86	8.50 to 11.5	99.0	70.0 to 130	1.73	20.0
BC03533	Selenium, Dissolved	mg/L	0.0000615	0.00100	0.100	0.101	0.101	0.100	0.0850 to 0.115	101	70.0 to 130	0.00	20.0
BC03538	Selenium, Total	mg/L	-0.000021	0.00100	0.100	0.0981	0.0991	0.101	0.0850 to 0.115	98.1	70.0 to 130	1.01	20.0
BC03955	Silicon, Dissolved	mg/L	0.000469	0.0440	1.00	8.40	8.39	1.02	0.850 to 1.15	93.0	70.0 to 130	0.119	20.0
BC03538	Silicon, Total	mg/L	0.000268	0.0440	1.00	0.991	1.01	1.01	0.850 to 1.15	99.1	70.0 to 130	1.90	20.0
BC03955	Sodium, Dissolved	mg/L	-0.00274	0.0660	5.00	164	173	5.09	4.25 to 5.75	60.0	70.0 to 130	5.34	20.0
BC03538	Sodium, Total	mg/L	0.00459	0.0660	5.00	4.92	5.19	5.12	4.25 to 5.75	98.4	70.0 to 130	5.34	20.0
BC03533	Thallium, Dissolved	mg/L	0.000002	0.000147	0.100	0.0970	0.0974	0.0982	0.0850 to 0.115	97.0	70.0 to 130	0.412	20.0
BC03538	Thallium, Total	mg/L	0.0000069	0.000147	0.100	0.0974	0.0964	0.0973	0.0850 to 0.115	97.4	70.0 to 130	1.03	20.0
BC03953	Total Organic Carbon	mg/L	0.230	1.00	10.0	14.7	14.3	9.69		94.9	80.0 to 120	2.76	20.0

**Comments:** The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.

## Batch QC Summary

**Customer Account:** WMWGORAP

**Sample Date:** 2/15/22 12:25

**Customer ID:**

**Delivery Date:** 2/17/22 10:42

**Description:** Gorgas Ash Pond - MW-40H

**Laboratory ID Number:** BC03533

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Limit	Prec	Prec Limit
BC03537	Alkalinity, Total as CaCO3	mg/L					179	52.0	45.0 to 55.0			5.16	10.0
BC03538	Chloride	mg/L	-0.0395	1.00	10.0	9.83	0.130	10.2	9.00 to 11.0	98.3	80.0 to 120	0.00	20.0
BC03538	Fluoride	mg/L	-0.0461	0.125	2.50	2.53	-0.0425	2.57	2.25 to 2.75	101	80.0 to 120	0.00	20.0
BC03538	Nitrogen, Nitrate/Nitrite	mg/L as N	-0.02	0.200	2.00	1.72	-0.028	1.84	1.80 to 2.20	86.0	90.0 to 110	0.00	15.0
BC03535	Solids, Dissolved	mg/L	0.0000	25.0			772	51.0	40.0 to 60.0			0.259	10.0
BC03538	Sulfate	mg/L	-0.140	2.0	20.0	19.5	-0.0892	19.8	18.0 to 22.0	97.5	80.0 to 120	0.00	20.0

**Comments:** The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.

# Certificate Of Analysis

**Description:** Gorgas Ash Pond - MW-26H

**Location Code:** WMWGORAP  
**Collected:** 2/15/22 14:13  
**Customer ID:**  
**Submittal Date:** 2/17/22 10:42

**Laboratory ID Number:** BC03534

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q	
<b>Analytical Method: EPA 200.7</b>		<b>Analyst: RDA</b>			<b>Preparation Method: EPA 1638</b>					
* Boron, Total	2/25/22 10:56	2/28/22 10:25		1.015	Not Detected	mg/L	0.030000	0.1015	U	
* Calcium, Total	2/25/22 10:56	2/28/22 10:25		1.015	26.6	mg/L	0.070035	0.406		
* Iron, Total	2/25/22 10:56	2/28/22 10:25		1.015	0.958	mg/L	0.008120	0.0406		
* Lithium, Total	2/25/22 10:56	2/28/22 10:25		1.015	0.0917	mg/L	0.007105	0.01999956		
* Magnesium, Total	2/25/22 10:56	2/28/22 10:25		1.015	11.7	mg/L	0.021315	0.406		
Silica, Total (calc.)	2/25/22 10:56	2/28/22 10:25		1	23.1	mg/L				
Silicon, Total	2/25/22 10:56	2/28/22 10:25		1.015	10.8	mg/L	0.02030	0.25375		
* Sodium, Total	2/25/22 10:56	2/28/22 12:17		20.3	64.7	mg/L	0.609	8.12		
<b>Analytical Method: EPA 200.7</b>		<b>Analyst: RDA</b>			<b>Preparation Method: EPA 1638</b>					
* Boron, Dissolved	2/25/22 14:30	3/1/22 09:26		1.015	Not Detected	mg/L	0.030000	0.1015	U	
* Calcium, Dissolved	2/25/22 14:30	3/1/22 09:26		1.015	26.6	mg/L	0.070035	0.406		
* Iron, Dissolved	2/25/22 14:30	3/1/22 09:26		1.015	0.901	mg/L	0.008120	0.0406		
* Lithium, Dissolved	2/25/22 14:30	3/1/22 09:26		1.015	0.0830	mg/L	0.007105	0.01999956		
* Magnesium, Dissolved	2/25/22 14:30	3/1/22 09:26		1.015	11.5	mg/L	0.021315	0.406		
Silica, Dissolved (calc.)	2/25/22 14:30	3/1/22 09:26		1	22.7	mg/L				
Silicon, Dissolved	2/25/22 14:30	3/1/22 09:26		1.015	10.6	mg/L	0.02030	0.25375		
* Sodium, Dissolved	2/25/22 14:30	3/1/22 12:24		20.3	70.3	mg/L	0.609	8.12		
<b>Analytical Method: EPA 200.8</b>		<b>Analyst: ABB</b>			<b>Preparation Method: EPA 1638</b>					
* Antimony, Total	2/21/22 13:30	2/22/22 15:21		1.015	Not Detected	mg/L	0.000508	0.001015	U	
* Aluminum, Total	2/21/22 13:30	2/22/22 15:21		1.015	0.0162	mg/L	0.004060	0.01015		
* Arsenic, Total	2/21/22 13:30	2/22/22 15:21		1.015	0.000254	mg/L	0.000068	0.000203		
* Barium, Total	2/21/22 13:30	2/22/22 15:21		1.015	0.726	mg/L	0.000102	0.000203		
* Beryllium, Total	2/21/22 13:30	2/22/22 15:21		1.015	Not Detected	mg/L	0.000406	0.001015	U	
* Cadmium, Total	2/21/22 13:30	2/22/22 15:21		1.015	Not Detected	mg/L	0.000068	0.000203	U	
* Chromium, Total	2/21/22 13:30	2/22/22 15:21		1.015	0.000306	mg/L	0.000203	0.001015	J	
* Cobalt, Total	2/21/22 13:30	2/22/22 15:21		1.015	Not Detected	mg/L	0.000068	0.000203	U	
* Lead, Total	2/21/22 13:30	2/22/22 15:21		1.015	Not Detected	mg/L	0.000068	0.000203	U	
* Manganese, Total	2/21/22 13:30	2/22/22 15:21		1.015	0.0185	mg/L	0.000068	0.000203		
* Molybdenum, Total	2/21/22 13:30	2/22/22 15:21		1.015	0.0000684	mg/L	0.000068	0.000203	J	
* Potassium, Total	2/21/22 13:30	2/22/22 15:21		1.015	2.48	mg/L	0.169505	0.5075		

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. The sample was originally analyzed in hold time for TDS. Upon data review, an analytical error was discovered. The sample was rerun in a separate batch out of hold time with no sample duplicate.



# Certificate Of Analysis

**Description:** Gorgas Ash Pond - MW-26H

**Location Code:** WMWGORAP

**Collected:** 2/15/22 14:13

**Customer ID:**

**Submittal Date:** 2/17/22 10:42

**Laboratory ID Number:** BC03534

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
* Selenium, Total	2/21/22 13:30	2/22/22 15:21		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Total	2/21/22 13:30	2/22/22 15:21		1.015	Not Detected	mg/L	0.000068	0.000203	U
<b>Analytical Method: EPA 200.8</b>		<b>Analyst: ABB</b>							
* Antimony, Dissolved	2/21/22 13:48	2/22/22 13:23		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Aluminum, Dissolved	2/21/22 13:48	2/22/22 13:23		1.015	Not Detected	mg/L	0.004060	0.01015	U
* Arsenic, Dissolved	2/21/22 13:48	2/22/22 13:23		1.015	0.000351	mg/L	0.000068	0.000203	
* Barium, Dissolved	2/21/22 13:48	2/22/22 13:23		1.015	0.732	mg/L	0.000102	0.000203	
* Beryllium, Dissolved	2/21/22 13:48	2/22/22 13:23		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Dissolved	2/21/22 13:48	2/22/22 13:23		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Dissolved	2/21/22 13:48	2/22/22 13:23		1.015	Not Detected	mg/L	0.000203	0.001015	U
* Cobalt, Dissolved	2/21/22 13:48	2/22/22 13:23		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Lead, Dissolved	2/21/22 13:48	2/22/22 13:23		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Dissolved	2/21/22 13:48	2/22/22 13:23		1.015	0.0168	mg/L	0.000068	0.000203	
* Molybdenum, Dissolved	2/21/22 13:48	2/22/22 13:23		1.015	0.000110	mg/L	0.000068	0.000203	J
* Potassium, Dissolved	2/21/22 13:48	2/22/22 13:23		1.015	2.45	mg/L	0.169505	0.5075	
* Selenium, Dissolved	2/21/22 13:48	2/22/22 13:23		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Dissolved	2/21/22 13:48	2/22/22 13:23		1.015	Not Detected	mg/L	0.000068	0.000203	U
<b>Analytical Method: EPA 245.1</b>		<b>Analyst: CRB</b>							
* Mercury, Total by CVAA	2/24/22 14:29	2/24/22 20:48		1	Not Detected	mg/L	0.0003	0.0005	U
<b>Analytical Method: EPA 353.2</b>		<b>Analyst: ELH</b>							
* Nitrogen, Nitrate/Nitrite	2/21/22 13:58	2/21/22 13:58		1	Not Detected	mg/L as N	0.20	0.3	U
<b>Analytical Method: SM 2320 B</b>		<b>Analyst: ALH</b>							
Alkalinity, Total as CaCO3	2/28/22 13:10	2/28/22 15:05		1	269	mg/L		0.1	
<b>Analytical Method: SM 2540C</b>		<b>Analyst: CNJ</b>							
* Solids, Dissolved	2/23/22 10:15	2/24/22 13:25		1	273	mg/L		25	HT
<b>Analytical Method: SM 4500CO2 D</b>		<b>Analyst: ALH</b>							
Bicarbonate Alkalinity, (calc.)	2/28/22 13:10	2/28/22 15:05		1	265	mg/L			
Carbonate Alkalinity, (calc.)	2/28/22 13:10	2/28/22 15:05		1	3.52	mg/L			
<b>Analytical Method: SM 5310 B</b>		<b>Analyst: ELH</b>							
* Total Organic Carbon	3/1/22 14:14	3/1/22 14:14		1	Not Detected	mg/L	1.00	2	U

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. The sample was originally analyzed in hold time for TDS. Upon data review, an analytical error was discovered. The sample was rerun in a separate batch out of hold time with no sample duplicate.

# Certificate Of Analysis

**Description:** Gorgas Ash Pond - MW-26H

**Location Code:** WMWGORAP  
**Collected:** 2/15/22 14:13  
**Customer ID:**  
**Submittal Date:** 2/17/22 10:42

**Laboratory ID Number:** BC03534

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
<b>Analytical Method: SM4500Cl E</b>		<b>Analyst: JCC</b>							
* Chloride	2/18/22 14:36	2/18/22 14:36		1	2.59	mg/L	0.50	1	
<b>Analytical Method: SM4500F G 2017</b>		<b>Analyst: JCC</b>							
* Fluoride	2/23/22 09:39	2/23/22 09:39		1	0.101	mg/L	0.06	0.1	
<b>Analytical Method: SM4500SO4 E 2011</b>		<b>Analyst: JCC</b>							
* Sulfate	2/22/22 12:26	2/22/22 12:26		1	7.16	mg/L	0.50	1	
<b>Analytical Method: Field Measurements</b>		<b>Analyst: TJD</b>							
Conductivity	2/15/22 14:09	2/15/22 14:09			485.80	uS/cm			FA
pH	2/15/22 14:09	2/15/22 14:09			6.82	SU			FA
Temperature	2/15/22 14:09	2/15/22 14:09			19.45	C			FA
Turbidity	2/15/22 14:09	2/15/22 14:09			1.88	NTU			FA

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. The sample was originally analyzed in hold time for TDS. Upon data review, an analytical error was discovered. The sample was rerun in a separate batch out of hold time with no sample duplicate.

# Batch QC Summary

**Customer Account:** WMWGORAP

**Sample Date:** 2/15/22 14:13

**Customer ID:**

**Delivery Date:** 2/17/22 10:42

**Description:** Gorgas Ash Pond - MW-26H

**Laboratory ID Number:** BC03534

Sample	Analysis	Units	MB	MB				Standard		Rec		Prec	Limit
				Limit	Spike	MS	MSD	Standard	Limit	Rec	Limit		
BC03537	Aluminum, Dissolved	mg/L	-0.000418	0.010	0.100	0.106	0.101	0.102	0.0850 to 0.115	106	70.0 to 130	4.83	20.0
BC03538	Aluminum, Total	mg/L	-0.0000505	0.010	0.100	0.105	0.103	0.104	0.0850 to 0.115	105	70.0 to 130	1.92	20.0
BC03537	Antimony, Dissolved	mg/L	0.000257	0.00100	0.100	0.0914	0.0895	0.0864	0.0850 to 0.115	91.4	70.0 to 130	2.10	20.0
BC03538	Antimony, Total	mg/L	0.000365	0.00100	0.100	0.0977	0.0933	0.0949	0.0850 to 0.115	97.7	70.0 to 130	4.61	20.0
BC03537	Arsenic, Dissolved	mg/L	-0.0000097	0.000176	0.100	0.0984	0.0963	0.0970	0.0850 to 0.115	98.2	70.0 to 130	2.16	20.0
BC03538	Arsenic, Total	mg/L	0.0000492	0.000176	0.100	0.0996	0.0996	0.0968	0.0850 to 0.115	99.5	70.0 to 130	0.00	20.0
BC03537	Barium, Dissolved	mg/L	-0.0000002	0.000200	0.100	0.616	0.610	0.0936	0.0850 to 0.115	91.0	70.0 to 130	0.979	20.0
BC03538	Barium, Total	mg/L	-0.000019	0.000200	0.100	0.0971	0.0927	0.0929	0.0850 to 0.115	97.1	70.0 to 130	4.64	20.0
BC03537	Beryllium, Dissolved	mg/L	0.000421	0.000880	0.100	0.0922	0.0924	0.0926	0.0850 to 0.115	92.2	70.0 to 130	0.217	20.0
BC03538	Beryllium, Total	mg/L	0.000497	0.000880	0.100	0.0910	0.0905	0.0918	0.0850 to 0.115	91.0	70.0 to 130	0.551	20.0
BC03955	Boron, Dissolved	mg/L	-0.000179	0.0650	1.00	1.01	1.01	0.993	0.850 to 1.15	97.0	70.0 to 130	0.00	20.0
BC03538	Boron, Total	mg/L	-0.000323	0.0650	1.00	0.953	0.981	0.982	0.850 to 1.15	95.3	70.0 to 130	2.90	20.0
BC03537	Cadmium, Dissolved	mg/L	0.0000501	0.000147	0.100	0.0965	0.0952	0.0985	0.0850 to 0.115	96.5	70.0 to 130	1.36	20.0
BC03538	Cadmium, Total	mg/L	0.00000	0.000147	0.100	0.100	0.0993	0.0980	0.0850 to 0.115	100	70.0 to 130	0.702	20.0
BC03955	Calcium, Dissolved	mg/L	-0.00563	0.152	5.00	14.2	14.3	4.84	4.25 to 5.75	97.0	70.0 to 130	0.702	20.0
BC03538	Calcium, Total	mg/L	-0.00556	0.152	5.00	4.83	4.82	4.84	4.25 to 5.75	96.6	70.0 to 130	0.207	20.0
BC03537	Chromium, Dissolved	mg/L	0.0000613	0.000440	0.100	0.0967	0.0928	0.0973	0.0850 to 0.115	96.7	70.0 to 130	4.12	20.0
BC03538	Chromium, Total	mg/L	-0.0000265	0.000440	0.100	0.100	0.0964	0.0974	0.0850 to 0.115	100	70.0 to 130	3.67	20.0
BC03537	Cobalt, Dissolved	mg/L	0.0000361	0.000147	0.100	0.0976	0.0956	0.101	0.0850 to 0.115	97.6	70.0 to 130	2.07	20.0
BC03538	Cobalt, Total	mg/L	0.0000375	0.000147	0.100	0.102	0.0984	0.101	0.0850 to 0.115	102	70.0 to 130	3.59	20.0
BC03955	Iron, Dissolved	mg/L	0.00221	0.0176	0.2	0.408	0.408	0.203	0.170 to 0.230	98.0	70.0 to 130	0.00	20.0
BC03538	Iron, Total	mg/L	-0.000047	0.0176	0.2	0.192	0.196	0.196	0.170 to 0.230	96.0	70.0 to 130	2.06	20.0
BC03537	Lead, Dissolved	mg/L	0.0000074	0.000147	0.100	0.0958	0.0953	0.0983	0.0850 to 0.115	95.8	70.0 to 130	0.523	20.0

**Comments:** The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified. The sample was originally analyzed in hold time for TDS. Upon data review, an analytical error was discovered. The sample was rerun in a separate batch out of hold time with no sample duplicate.

# Batch QC Summary

**Customer Account:** WMWGORAP

**Sample Date:** 2/15/22 14:13

**Customer ID:**

**Delivery Date:** 2/17/22 10:42

**Description:** Gorgas Ash Pond - MW-26H

**Laboratory ID Number:** BC03534

Sample	Analysis	Units	MB	MB				Standard		Rec		Prec	Limit
				Limit	Spike	MS	MSD	Standard	Limit	Rec	Limit		
BC03538	Lead, Total	mg/L	0.0000054	0.000147	0.100	0.0978	0.0972	0.0976	0.0850 to 0.115	97.8	70.0 to 130	0.615	20.0
BC03955	Lithium, Dissolved	mg/L	0.000133	0.0154	0.200	0.237	0.233	0.198	0.170 to 0.230	99.6	70.0 to 130	1.70	20.0
BC03538	Lithium, Total	mg/L	-0.000369	0.0154	0.200	0.199	0.208	0.205	0.170 to 0.230	99.5	70.0 to 130	4.42	20.0
BC03955	Magnesium, Dissolved	mg/L	0.000702	0.0462	5.00	8.93	8.82	5.11	4.25 to 5.75	102	70.0 to 130	1.24	20.0
BC03538	Magnesium, Total	mg/L	0.00100	0.0462	5.00	5.08	5.21	5.15	4.25 to 5.75	102	70.0 to 130	2.53	20.0
BC03537	Manganese, Dissolved	mg/L	0.000143	0.0002	0.100	0.238	0.230	0.0944	0.0850 to 0.115	98.0	70.0 to 130	3.42	20.0
BC03538	Manganese, Total	mg/L	0.0000091	0.0002	0.100	0.0991	0.0951	0.0963	0.0850 to 0.115	98.9	70.0 to 130	4.12	20.0
BC03538	Mercury, Total by CVAA	mg/L	-0.0001	0.000500	0.004	0.00385	0.00387	0.00385	0.00340 to 0.00460	96.2	70.0 to 130	0.518	20.0
BC03537	Molybdenum, Dissolved	mg/L	0.0000787	0.0002	0.100	0.103	0.103	0.0967	0.0850 to 0.115	94.7	70.0 to 130	0.00	20.0
BC03538	Molybdenum, Total	mg/L	0.0000235	0.0002	0.100	0.0972	0.0983	0.0950	0.0850 to 0.115	97.2	70.0 to 130	1.13	20.0
BC03537	Potassium, Dissolved	mg/L	0.00741	0.367	10.0	11.0	10.6	9.81	8.50 to 11.5	98.2	70.0 to 130	3.70	20.0
BC03538	Potassium, Total	mg/L	-0.0236	0.367	10.0	9.90	9.73	9.86	8.50 to 11.5	99.0	70.0 to 130	1.73	20.0
BC03537	Selenium, Dissolved	mg/L	0.0000615	0.00100	0.100	0.0985	0.0988	0.100	0.0850 to 0.115	98.5	70.0 to 130	0.304	20.0
BC03538	Selenium, Total	mg/L	-0.000021	0.00100	0.100	0.0981	0.0991	0.101	0.0850 to 0.115	98.1	70.0 to 130	1.01	20.0
BC03955	Silicon, Dissolved	mg/L	0.000469	0.0440	1.00	8.40	8.39	1.02	0.850 to 1.15	93.0	70.0 to 130	0.119	20.0
BC03538	Silicon, Total	mg/L	0.000268	0.0440	1.00	0.991	1.01	1.01	0.850 to 1.15	99.1	70.0 to 130	1.90	20.0
BC03955	Sodium, Dissolved	mg/L	-0.00274	0.0660	5.00	164	173	5.09	4.25 to 5.75	60.0	70.0 to 130	5.34	20.0
BC03538	Sodium, Total	mg/L	0.00459	0.0660	5.00	4.92	5.19	5.12	4.25 to 5.75	98.4	70.0 to 130	5.34	20.0
BC03537	Thallium, Dissolved	mg/L	0.000002	0.000147	0.100	0.0946	0.0936	0.0982	0.0850 to 0.115	94.6	70.0 to 130	1.06	20.0
BC03538	Thallium, Total	mg/L	0.0000069	0.000147	0.100	0.0974	0.0964	0.0973	0.0850 to 0.115	97.4	70.0 to 130	1.03	20.0
BC03953	Total Organic Carbon	mg/L	0.230	1.00	10.0	14.7	14.3	9.69		94.9	80.0 to 120	2.76	20.0

**Comments:** The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified. The sample was originally analyzed in hold time for TDS. Upon data review, an analytical error was discovered. The sample was rerun in a separate batch out of hold time with no sample duplicate.

## Batch QC Summary

**Customer Account:** WMWGORAP

**Sample Date:** 2/15/22 14:13

**Customer ID:**

**Delivery Date:** 2/17/22 10:42

**Description:** Gorgas Ash Pond - MW-26H

**Laboratory ID Number:** BC03534

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BC03537	Alkalinity, Total as CaCO3	mg/L					179	52.0	45.0 to 55.0			5.16	10.0
BC03538	Chloride	mg/L	-0.0395	1.00	10.0	9.83	0.130	10.2	9.00 to 11.0	98.3	80.0 to 120	0.00	20.0
BC03538	Fluoride	mg/L	-0.0461	0.125	2.50	2.53	-0.0425	2.57	2.25 to 2.75	101	80.0 to 120	0.00	20.0
BC03538	Nitrogen, Nitrate/Nitrite	mg/L as N	-0.02	0.200	2.00	1.72	-0.028	1.84	1.80 to 2.20	86.0	90.0 to 110	0.00	15.0
BC03535	Solids, Dissolved	mg/L	0.0000	25.0			772	51.0	40.0 to 60.0			0.259	10.0
BC03534	Solids, Dissolved	mg/L	0	25.0				50	40.0 to 60.0				10.0
BC03538	Sulfate	mg/L	-0.140	2.0	20.0	19.5	-0.0892	19.8	18.0 to 22.0	97.5	80.0 to 120	0.00	20.0

**Comments:** The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified. The sample was originally analyzed in hold time for TDS. Upon data review, an analytical error was discovered. The sample was rerun in a separate batch out of hold time with no sample duplicate.

# Certificate Of Analysis

**Description:** Gorgas Ash Pond - MW-42H

**Location Code:** WMWGORAP  
**Collected:** 2/16/22 10:43  
**Customer ID:**  
**Submittal Date:** 2/17/22 10:42

**Laboratory ID Number:** BC03535

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
<b>Analytical Method: EPA 200.7</b>		<b>Analyst: RDA</b>			<b>Preparation Method: EPA 1638</b>				
* Boron, Total	2/25/22 10:56	2/28/22 10:27		1.015	0.0502	mg/L	0.030000	0.1015	J
* Calcium, Total	2/25/22 10:56	2/28/22 12:19		20.3	138	mg/L	1.4007	8.12	
* Iron, Total	2/25/22 10:56	2/28/22 12:19		20.3	4.27	mg/L	0.1624	0.812	
* Lithium, Total	2/25/22 10:56	2/28/22 10:27		1.015	0.0313	mg/L	0.007105	0.01999956	
* Magnesium, Total	2/25/22 10:56	2/28/22 12:19		20.3	51.3	mg/L	0.4263	8.12	
Silica, Total (calc.)	2/25/22 10:56	2/28/22 10:27		1	22.7	mg/L			
Silicon, Total	2/25/22 10:56	2/28/22 10:27		1.015	10.6	mg/L	0.02030	0.25375	
* Sodium, Total	2/25/22 10:56	2/28/22 10:27		1.015	32.6	mg/L	0.03045	0.406	
<b>Analytical Method: EPA 200.7</b>		<b>Analyst: RDA</b>			<b>Preparation Method: EPA 1638</b>				
* Boron, Dissolved	2/25/22 14:30	3/1/22 09:28		1.015	0.0505	mg/L	0.030000	0.1015	J
* Calcium, Dissolved	2/25/22 14:30	3/1/22 12:26		20.3	145	mg/L	1.4007	8.12	
* Iron, Dissolved	2/25/22 14:30	3/1/22 12:26		20.3	4.42	mg/L	0.1624	0.812	
* Lithium, Dissolved	2/25/22 14:30	3/1/22 09:28		1.015	0.0305	mg/L	0.007105	0.01999956	
* Magnesium, Dissolved	2/25/22 14:30	3/1/22 12:26		20.3	56.1	mg/L	0.4263	8.12	
Silica, Dissolved (calc.)	2/25/22 14:30	3/1/22 09:28		1	22.5	mg/L			
Silicon, Dissolved	2/25/22 14:30	3/1/22 09:28		1.015	10.5	mg/L	0.02030	0.25375	
* Sodium, Dissolved	2/25/22 14:30	3/1/22 09:28		1.015	31.9	mg/L	0.03045	0.406	
<b>Analytical Method: EPA 200.8</b>		<b>Analyst: ABB</b>			<b>Preparation Method: EPA 1638</b>				
* Antimony, Total	2/21/22 13:30	2/22/22 15:25		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Aluminum, Total	2/21/22 13:30	2/22/22 15:25		1.015	Not Detected	mg/L	0.004060	0.01015	U
* Arsenic, Total	2/21/22 13:30	2/22/22 15:25		1.015	0.00846	mg/L	0.000068	0.000203	
* Barium, Total	2/21/22 13:30	2/22/22 15:25		1.015	0.0226	mg/L	0.000102	0.000203	
* Beryllium, Total	2/21/22 13:30	2/22/22 15:25		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Total	2/21/22 13:30	2/22/22 15:25		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Total	2/21/22 13:30	2/22/22 15:25		1.015	Not Detected	mg/L	0.000203	0.001015	U
* Cobalt, Total	2/21/22 13:30	2/22/22 15:25		1.015	0.000453	mg/L	0.000068	0.000203	
* Lead, Total	2/21/22 13:30	2/22/22 15:25		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Total	2/21/22 13:30	2/22/22 15:25		1.015	0.931	mg/L	0.000068	0.000203	
* Molybdenum, Total	2/21/22 13:30	2/22/22 15:25		1.015	0.00155	mg/L	0.000068	0.000203	
* Potassium, Total	2/21/22 13:30	2/22/22 15:25		1.015	2.00	mg/L	0.169505	0.5075	

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.

# Certificate Of Analysis

**Description:** Gorgas Ash Pond - MW-42H

**Location Code:** WMWGORAP

**Collected:** 2/16/22 10:43

**Customer ID:**

**Submittal Date:** 2/17/22 10:42

**Laboratory ID Number:** BC03535

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
* Selenium, Total	2/21/22 13:30	2/22/22 15:25		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Total	2/21/22 13:30	2/22/22 15:25		1.015	Not Detected	mg/L	0.000068	0.000203	U
<b>Analytical Method: EPA 200.8</b>		<b>Analyst: ABB</b>							
* Antimony, Dissolved	2/21/22 13:48	2/22/22 13:27		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Aluminum, Dissolved	2/21/22 13:48	2/22/22 13:27		1.015	Not Detected	mg/L	0.004060	0.01015	U
* Arsenic, Dissolved	2/21/22 13:48	2/22/22 13:27		1.015	0.00762	mg/L	0.000068	0.000203	
* Barium, Dissolved	2/21/22 13:48	2/22/22 13:27		1.015	0.0214	mg/L	0.000102	0.000203	
* Beryllium, Dissolved	2/21/22 13:48	2/22/22 13:27		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Dissolved	2/21/22 13:48	2/22/22 13:27		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Dissolved	2/21/22 13:48	2/22/22 13:27		1.015	Not Detected	mg/L	0.000203	0.001015	U
* Cobalt, Dissolved	2/21/22 13:48	2/22/22 13:27		1.015	0.000464	mg/L	0.000068	0.000203	
* Lead, Dissolved	2/21/22 13:48	2/22/22 13:27		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Dissolved	2/21/22 13:48	2/22/22 13:27		1.015	0.944	mg/L	0.000068	0.000203	
* Molybdenum, Dissolved	2/21/22 13:48	2/22/22 13:27		1.015	0.00177	mg/L	0.000068	0.000203	
* Potassium, Dissolved	2/21/22 13:48	2/22/22 13:27		1.015	2.13	mg/L	0.169505	0.5075	
* Selenium, Dissolved	2/21/22 13:48	2/22/22 13:27		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Dissolved	2/21/22 13:48	2/22/22 13:27		1.015	Not Detected	mg/L	0.000068	0.000203	U
<b>Analytical Method: EPA 245.1</b>		<b>Analyst: CRB</b>							
* Mercury, Total by CVAA	2/24/22 14:29	2/24/22 20:52		1	Not Detected	mg/L	0.0003	0.0005	U
<b>Analytical Method: EPA 353.2</b>		<b>Analyst: ELH</b>							
* Nitrogen, Nitrate/Nitrite	2/21/22 13:59	2/21/22 13:59		1	Not Detected	mg/L as N	0.20	0.3	U
<b>Analytical Method: SM 2320 B</b>		<b>Analyst: ALH</b>							
Alkalinity, Total as CaCO3	2/28/22 13:10	2/28/22 15:05		1	196	mg/L		0.1	
<b>Analytical Method: SM 2540C</b>		<b>Analyst: CNJ</b>							
* Solids, Dissolved	2/18/22 11:13	2/22/22 12:58		1	774	mg/L		50	
<b>Analytical Method: SM 4500CO2 D</b>		<b>Analyst: ALH</b>							
Bicarbonate Alkalinity, (calc.)	2/28/22 13:10	2/28/22 15:05		1	195	mg/L			A
Carbonate Alkalinity, (calc.)	2/28/22 13:10	2/28/22 15:05		1	1.36	mg/L			A
<b>Analytical Method: SM 5310 B</b>		<b>Analyst: ELH</b>							
* Total Organic Carbon	3/1/22 14:33	3/1/22 14:33		1	1.13	mg/L	1.00	2	J

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.

# Certificate Of Analysis

**Description:** Gorgas Ash Pond - MW-42H

**Location Code:** WMWGORAP

**Collected:** 2/16/22 10:43

**Customer ID:**

**Submittal Date:** 2/17/22 10:42

**Laboratory ID Number:** BC03535

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
<b>Analytical Method: SM4500Cl E</b>		<b>Analyst: JCC</b>							
* Chloride	2/18/22 14:38	2/18/22 14:38		1	8.61	mg/L	0.50	1	
<b>Analytical Method: SM4500F G 2017</b>		<b>Analyst: JCC</b>							
* Fluoride	2/23/22 09:40	2/23/22 09:40		1	0.0837	mg/L	0.06	0.1	J
<b>Analytical Method: SM4500SO4 E 2011</b>		<b>Analyst: JCC</b>							
* Sulfate	2/22/22 12:38	2/22/22 12:38		25	396	mg/L	12.50	25	
<b>Analytical Method: Field Measurements</b>		<b>Analyst: TJD</b>							
Conductivity	2/16/22 10:38	2/16/22 10:38			1038.72	uS/cm			FA
pH	2/16/22 10:38	2/16/22 10:38			6.54	SU			FA
Temperature	2/16/22 10:38	2/16/22 10:38			18.59	C			FA
Turbidity	2/16/22 10:38	2/16/22 10:38			4.98	NTU			FA

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.



# Batch QC Summary

**Customer Account:** WMWGORAP

**Sample Date:** 2/16/22 10:43

**Customer ID:**

**Delivery Date:** 2/17/22 10:42

**Description:** Gorgas Ash Pond - MW-42H

**Laboratory ID Number:** BC03535

Sample	Analysis	Units	MB	MB		Spike	MS	MSD	Standard		Rec		Prec	Limit
				Limit					Standard	Limit	Rec	Limit		
BC03537	Aluminum, Dissolved	mg/L	-0.000418	0.010	0.100	0.106	0.101	0.102	0.0850 to 0.115	106	70.0 to 130	4.83	20.0	
BC03538	Aluminum, Total	mg/L	-0.0000505	0.010	0.100	0.105	0.103	0.104	0.0850 to 0.115	105	70.0 to 130	1.92	20.0	
BC03537	Antimony, Dissolved	mg/L	0.000257	0.00100	0.100	0.0914	0.0895	0.0864	0.0850 to 0.115	91.4	70.0 to 130	2.10	20.0	
BC03538	Antimony, Total	mg/L	0.000365	0.00100	0.100	0.0977	0.0933	0.0949	0.0850 to 0.115	97.7	70.0 to 130	4.61	20.0	
BC03537	Arsenic, Dissolved	mg/L	-0.0000097	0.000176	0.100	0.0984	0.0963	0.0970	0.0850 to 0.115	98.2	70.0 to 130	2.16	20.0	
BC03538	Arsenic, Total	mg/L	0.0000492	0.000176	0.100	0.0996	0.0996	0.0968	0.0850 to 0.115	99.5	70.0 to 130	0.00	20.0	
BC03537	Barium, Dissolved	mg/L	-0.0000002	0.000200	0.100	0.616	0.610	0.0936	0.0850 to 0.115	91.0	70.0 to 130	0.979	20.0	
BC03538	Barium, Total	mg/L	-0.000019	0.000200	0.100	0.0971	0.0927	0.0929	0.0850 to 0.115	97.1	70.0 to 130	4.64	20.0	
BC03537	Beryllium, Dissolved	mg/L	0.000421	0.000880	0.100	0.0922	0.0924	0.0926	0.0850 to 0.115	92.2	70.0 to 130	0.217	20.0	
BC03538	Beryllium, Total	mg/L	0.000497	0.000880	0.100	0.0910	0.0905	0.0918	0.0850 to 0.115	91.0	70.0 to 130	0.551	20.0	
BC03955	Boron, Dissolved	mg/L	-0.000179	0.0650	1.00	1.01	1.01	0.993	0.850 to 1.15	97.0	70.0 to 130	0.00	20.0	
BC03538	Boron, Total	mg/L	-0.000323	0.0650	1.00	0.953	0.981	0.982	0.850 to 1.15	95.3	70.0 to 130	2.90	20.0	
BC03537	Cadmium, Dissolved	mg/L	0.0000501	0.000147	0.100	0.0965	0.0952	0.0985	0.0850 to 0.115	96.5	70.0 to 130	1.36	20.0	
BC03538	Cadmium, Total	mg/L	0.00000	0.000147	0.100	0.100	0.0993	0.0980	0.0850 to 0.115	100	70.0 to 130	0.702	20.0	
BC03955	Calcium, Dissolved	mg/L	-0.00563	0.152	5.00	14.2	14.3	4.84	4.25 to 5.75	97.0	70.0 to 130	0.702	20.0	
BC03538	Calcium, Total	mg/L	-0.00556	0.152	5.00	4.83	4.82	4.84	4.25 to 5.75	96.6	70.0 to 130	0.207	20.0	
BC03537	Chromium, Dissolved	mg/L	0.0000613	0.000440	0.100	0.0967	0.0928	0.0973	0.0850 to 0.115	96.7	70.0 to 130	4.12	20.0	
BC03538	Chromium, Total	mg/L	-0.0000265	0.000440	0.100	0.100	0.0964	0.0974	0.0850 to 0.115	100	70.0 to 130	3.67	20.0	
BC03537	Cobalt, Dissolved	mg/L	0.0000361	0.000147	0.100	0.0976	0.0956	0.101	0.0850 to 0.115	97.6	70.0 to 130	2.07	20.0	
BC03538	Cobalt, Total	mg/L	0.0000375	0.000147	0.100	0.102	0.0984	0.101	0.0850 to 0.115	102	70.0 to 130	3.59	20.0	
BC03955	Iron, Dissolved	mg/L	0.00221	0.0176	0.2	0.408	0.408	0.203	0.170 to 0.230	98.0	70.0 to 130	0.00	20.0	
BC03538	Iron, Total	mg/L	-0.000047	0.0176	0.2	0.192	0.196	0.196	0.170 to 0.230	96.0	70.0 to 130	2.06	20.0	
BC03537	Lead, Dissolved	mg/L	0.0000074	0.000147	0.100	0.0958	0.0953	0.0983	0.0850 to 0.115	95.8	70.0 to 130	0.523	20.0	

**Comments:** The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.

# Batch QC Summary

**Customer Account:** WMWGORAP

**Sample Date:** 2/16/22 10:43

**Customer ID:**

**Delivery Date:** 2/17/22 10:42

**Description:** Gorgas Ash Pond - MW-42H

**Laboratory ID Number:** BC03535

Sample	Analysis	Units	MB	MB		MS	MSD	Standard	Standard		Rec		Prec	Limit
				Limit	Spike				Limit	Rec	Limit	Prec		
BC03538	Lead, Total	mg/L	0.0000054	0.000147	0.100	0.0978	0.0972	0.0976	0.0850 to 0.115	97.8	70.0 to 130	0.615	20.0	
BC03955	Lithium, Dissolved	mg/L	0.000133	0.0154	0.200	0.237	0.233	0.198	0.170 to 0.230	99.6	70.0 to 130	1.70	20.0	
BC03538	Lithium, Total	mg/L	-0.000369	0.0154	0.200	0.199	0.208	0.205	0.170 to 0.230	99.5	70.0 to 130	4.42	20.0	
BC03955	Magnesium, Dissolved	mg/L	0.000702	0.0462	5.00	8.93	8.82	5.11	4.25 to 5.75	102	70.0 to 130	1.24	20.0	
BC03538	Magnesium, Total	mg/L	0.00100	0.0462	5.00	5.08	5.21	5.15	4.25 to 5.75	102	70.0 to 130	2.53	20.0	
BC03537	Manganese, Dissolved	mg/L	0.000143	0.0002	0.100	0.238	0.230	0.0944	0.0850 to 0.115	98.0	70.0 to 130	3.42	20.0	
BC03538	Manganese, Total	mg/L	0.0000091	0.0002	0.100	0.0991	0.0951	0.0963	0.0850 to 0.115	98.9	70.0 to 130	4.12	20.0	
BC03538	Mercury, Total by CVAA	mg/L	-0.0001	0.000500	0.004	0.00385	0.00387	0.00385	0.00340 to 0.00460	96.2	70.0 to 130	0.518	20.0	
BC03537	Molybdenum, Dissolved	mg/L	0.0000787	0.0002	0.100	0.103	0.103	0.0967	0.0850 to 0.115	94.7	70.0 to 130	0.00	20.0	
BC03538	Molybdenum, Total	mg/L	0.0000235	0.0002	0.100	0.0972	0.0983	0.0950	0.0850 to 0.115	97.2	70.0 to 130	1.13	20.0	
BC03537	Potassium, Dissolved	mg/L	0.00741	0.367	10.0	11.0	10.6	9.81	8.50 to 11.5	98.2	70.0 to 130	3.70	20.0	
BC03538	Potassium, Total	mg/L	-0.0236	0.367	10.0	9.90	9.73	9.86	8.50 to 11.5	99.0	70.0 to 130	1.73	20.0	
BC03537	Selenium, Dissolved	mg/L	0.0000615	0.00100	0.100	0.0985	0.0988	0.100	0.0850 to 0.115	98.5	70.0 to 130	0.304	20.0	
BC03538	Selenium, Total	mg/L	-0.000021	0.00100	0.100	0.0981	0.0991	0.101	0.0850 to 0.115	98.1	70.0 to 130	1.01	20.0	
BC03955	Silicon, Dissolved	mg/L	0.000469	0.0440	1.00	8.40	8.39	1.02	0.850 to 1.15	93.0	70.0 to 130	0.119	20.0	
BC03538	Silicon, Total	mg/L	0.000268	0.0440	1.00	0.991	1.01	1.01	0.850 to 1.15	99.1	70.0 to 130	1.90	20.0	
BC03955	Sodium, Dissolved	mg/L	-0.00274	0.0660	5.00	164	173	5.09	4.25 to 5.75	60.0	70.0 to 130	5.34	20.0	
BC03538	Sodium, Total	mg/L	0.00459	0.0660	5.00	4.92	5.19	5.12	4.25 to 5.75	98.4	70.0 to 130	5.34	20.0	
BC03537	Thallium, Dissolved	mg/L	0.000002	0.000147	0.100	0.0946	0.0936	0.0982	0.0850 to 0.115	94.6	70.0 to 130	1.06	20.0	
BC03538	Thallium, Total	mg/L	0.0000069	0.000147	0.100	0.0974	0.0964	0.0973	0.0850 to 0.115	97.4	70.0 to 130	1.03	20.0	
BC03953	Total Organic Carbon	mg/L	0.230	1.00	10.0	14.7	14.3	9.69		94.9	80.0 to 120	2.76	20.0	

**Comments:** The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.

## Batch QC Summary

**Customer Account:** WMWGORAP

**Sample Date:** 2/16/22 10:43

**Customer ID:**

**Delivery Date:** 2/17/22 10:42

**Description:** Gorgas Ash Pond - MW-42H

**Laboratory ID Number:** BC03535

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BC03537	Alkalinity, Total as CaCO3	mg/L					179	52.0	45.0 to 55.0			5.16	10.0
BC03538	Chloride	mg/L	-0.0395	1.00	10.0	9.83	0.130	10.2	9.00 to 11.0	98.3	80.0 to 120	0.00	20.0
BC03538	Fluoride	mg/L	-0.0461	0.125	2.50	2.53	-0.0425	2.57	2.25 to 2.75	101	80.0 to 120	0.00	20.0
BC03538	Nitrogen, Nitrate/Nitrite	mg/L as N	-0.02	0.200	2.00	1.72	-0.028	1.84	1.80 to 2.20	86.0	90.0 to 110	0.00	15.0
BC03535	Solids, Dissolved	mg/L	0.0000	25.0			772	51.0	40.0 to 60.0			0.259	10.0
BC03538	Sulfate	mg/L	-0.140	2.0	20.0	19.5	-0.0892	19.8	18.0 to 22.0	97.5	80.0 to 120	0.00	20.0

**Comments:** The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.

# Certificate Of Analysis

**Description:** Gorgas Ash Pond - MW-8

**Location Code:** WMWGORAP  
**Collected:** 2/16/22 12:14  
**Customer ID:**  
**Submittal Date:** 2/17/22 10:42

**Laboratory ID Number:** BC03536

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q	
<b>Analytical Method: EPA 200.7</b>		<b>Analyst: RDA</b>			<b>Preparation Method: EPA 1638</b>					
* Boron, Total	2/25/22 10:56	2/28/22 10:29		1.015	Not Detected	mg/L	0.030000	0.1015	U	
* Calcium, Total	2/25/22 10:56	2/28/22 10:29		1.015	4.42	mg/L	0.070035	0.406		
* Iron, Total	2/25/22 10:56	2/28/22 10:29		1.015	0.329	mg/L	0.008120	0.0406		
* Lithium, Total	2/25/22 10:56	2/28/22 10:29		1.015	0.00826	mg/L	0.007105	0.01999956	J	
* Magnesium, Total	2/25/22 10:56	2/28/22 10:29		1.015	7.75	mg/L	0.021315	0.406		
Silica, Total (calc.)	2/25/22 10:56	2/28/22 10:29		1	37.2	mg/L				
Silicon, Total	2/25/22 10:56	2/28/22 10:29		1.015	17.4	mg/L	0.02030	0.25375		
* Sodium, Total	2/25/22 10:56	2/28/22 10:29		1.015	11.4	mg/L	0.03045	0.406		
<b>Analytical Method: EPA 200.7</b>		<b>Analyst: RDA</b>			<b>Preparation Method: EPA 1638</b>					
* Boron, Dissolved	2/25/22 14:30	3/1/22 09:30		1.015	Not Detected	mg/L	0.030000	0.1015	U	
* Calcium, Dissolved	2/25/22 14:30	3/1/22 09:30		1.015	4.38	mg/L	0.070035	0.406		
* Iron, Dissolved	2/25/22 14:30	3/1/22 09:30		1.015	0.0342	mg/L	0.008120	0.0406	J	
* Lithium, Dissolved	2/25/22 14:30	3/1/22 09:30		1.015	0.00763	mg/L	0.007105	0.01999956	J	
* Magnesium, Dissolved	2/25/22 14:30	3/1/22 09:30		1.015	7.19	mg/L	0.021315	0.406		
Silica, Dissolved (calc.)	2/25/22 14:30	3/1/22 09:30		1	36.4	mg/L				
Silicon, Dissolved	2/25/22 14:30	3/1/22 09:30		1.015	17.0	mg/L	0.02030	0.25375		
* Sodium, Dissolved	2/25/22 14:30	3/1/22 09:30		1.015	10.7	mg/L	0.03045	0.406		
<b>Analytical Method: EPA 200.8</b>		<b>Analyst: ABB</b>			<b>Preparation Method: EPA 1638</b>					
* Antimony, Total	2/21/22 13:30	2/22/22 15:28		1.015	Not Detected	mg/L	0.000508	0.001015	U	
* Aluminum, Total	2/21/22 13:30	2/22/22 15:28		1.015	0.0413	mg/L	0.004060	0.01015		
* Arsenic, Total	2/21/22 13:30	2/22/22 15:28		1.015	0.000278	mg/L	0.000068	0.000203		
* Barium, Total	2/21/22 13:30	2/22/22 15:28		1.015	0.00763	mg/L	0.000102	0.000203		
* Beryllium, Total	2/21/22 13:30	2/22/22 15:28		1.015	Not Detected	mg/L	0.000406	0.001015	U	
* Cadmium, Total	2/21/22 13:30	2/22/22 15:28		1.015	Not Detected	mg/L	0.000068	0.000203	U	
* Chromium, Total	2/21/22 13:30	2/22/22 15:28		1.015	0.000396	mg/L	0.000203	0.001015	J	
* Cobalt, Total	2/21/22 13:30	2/22/22 15:28		1.015	0.000548	mg/L	0.000068	0.000203		
* Lead, Total	2/21/22 13:30	2/22/22 15:28		1.015	Not Detected	mg/L	0.000068	0.000203	U	
* Manganese, Total	2/21/22 13:30	2/22/22 15:28		1.015	0.0911	mg/L	0.000068	0.000203		
* Molybdenum, Total	2/21/22 13:30	2/22/22 15:28		1.015	0.000118	mg/L	0.000068	0.000203	J	
* Potassium, Total	2/21/22 13:30	2/22/22 15:28		1.015	0.781	mg/L	0.169505	0.5075		

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.

# Certificate Of Analysis

**Description:** Gorgas Ash Pond - MW-8

**Location Code:** WMWGORAP  
**Collected:** 2/16/22 12:14  
**Customer ID:**  
**Submittal Date:** 2/17/22 10:42

**Laboratory ID Number:** BC03536

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
* Selenium, Total	2/21/22 13:30	2/22/22 15:28		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Total	2/21/22 13:30	2/22/22 15:28		1.015	Not Detected	mg/L	0.000068	0.000203	U
<b>Analytical Method: EPA 200.8</b>		<b>Analyst: ABB</b>							
* Antimony, Dissolved	2/21/22 13:48	2/22/22 13:31		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Aluminum, Dissolved	2/21/22 13:48	2/22/22 13:31		1.015	Not Detected	mg/L	0.004060	0.01015	U
* Arsenic, Dissolved	2/21/22 13:48	2/22/22 13:31		1.015	0.000208	mg/L	0.000068	0.000203	
* Barium, Dissolved	2/21/22 13:48	2/22/22 13:31		1.015	0.00853	mg/L	0.000102	0.000203	
* Beryllium, Dissolved	2/21/22 13:48	2/22/22 13:31		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Dissolved	2/21/22 13:48	2/22/22 13:31		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Dissolved	2/21/22 13:48	2/22/22 13:31		1.015	0.000239	mg/L	0.000203	0.001015	J
* Cobalt, Dissolved	2/21/22 13:48	2/22/22 13:31		1.015	0.000639	mg/L	0.000068	0.000203	
* Lead, Dissolved	2/21/22 13:48	2/22/22 13:31		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Dissolved	2/21/22 13:48	2/22/22 13:31		1.015	0.123	mg/L	0.000068	0.000203	
* Molybdenum, Dissolved	2/21/22 13:48	2/22/22 13:31		1.015	0.000117	mg/L	0.000068	0.000203	J
* Potassium, Dissolved	2/21/22 13:48	2/22/22 13:31		1.015	0.752	mg/L	0.169505	0.5075	
* Selenium, Dissolved	2/21/22 13:48	2/22/22 13:31		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Dissolved	2/21/22 13:48	2/22/22 13:31		1.015	Not Detected	mg/L	0.000068	0.000203	U
<b>Analytical Method: EPA 245.1</b>		<b>Analyst: CRB</b>							
* Mercury, Total by CVAA	2/24/22 14:29	2/24/22 20:56		1	Not Detected	mg/L	0.0003	0.0005	U
<b>Analytical Method: EPA 353.2</b>		<b>Analyst: ELH</b>							
* Nitrogen, Nitrate/Nitrite	2/21/22 14:00	2/21/22 14:00		1	Not Detected	mg/L as N	0.20	0.3	U
<b>Analytical Method: SM 2320 B</b>		<b>Analyst: ALH</b>							
Alkalinity, Total as CaCO3	2/28/22 13:10	2/28/22 15:05		1	59.8	mg/L		0.1	
<b>Analytical Method: SM 2540C</b>		<b>Analyst: CNJ</b>							
* Solids, Dissolved	2/18/22 11:13	2/22/22 12:58		1	90.7	mg/L		25	
<b>Analytical Method: SM 4500CO2 D</b>		<b>Analyst: ALH</b>							
Bicarbonate Alkalinity, (calc.)	2/28/22 13:10	2/28/22 15:05		1	59.8	mg/L			
Carbonate Alkalinity, (calc.)	2/28/22 13:10	2/28/22 15:05		1	0.01	mg/L			
<b>Analytical Method: SM 5310 B</b>		<b>Analyst: ELH</b>							
* Total Organic Carbon	3/1/22 14:52	3/1/22 14:52		1	Not Detected	mg/L	1.00	2	U

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.

# Certificate Of Analysis

**Description:** Gorgas Ash Pond - MW-8

**Location Code:** WMWGORAP

**Collected:** 2/16/22 12:14

**Customer ID:**

**Submittal Date:** 2/17/22 10:42

**Laboratory ID Number:** BC03536

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
<b>Analytical Method: SM4500Cl E</b>		<b>Analyst: JCC</b>							
* Chloride	2/18/22 14:39	2/18/22 14:39		1	4.42	mg/L	0.50	1	
<b>Analytical Method: SM4500F G 2017</b>		<b>Analyst: JCC</b>							
* Fluoride	2/23/22 09:41	2/23/22 09:41		1	0.0616	mg/L	0.06	0.1	J
<b>Analytical Method: SM4500SO4 E 2011</b>		<b>Analyst: JCC</b>							
* Sulfate	2/22/22 12:28	2/22/22 12:28		1	4.68	mg/L	0.50	1	
<b>Analytical Method: Field Measurements</b>		<b>Analyst: TJD</b>							
Conductivity	2/16/22 12:10	2/16/22 12:10			142.90	uS/cm			FA
pH	2/16/22 12:10	2/16/22 12:10			5.80	SU			FA
Temperature	2/16/22 12:10	2/16/22 12:10			19.92	C			FA
Turbidity	2/16/22 12:10	2/16/22 12:10			2.6	NTU			FA

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.

# Batch QC Summary

**Customer Account:** WMWGORAP

**Sample Date:** 2/16/22 12:14

**Customer ID:**

**Delivery Date:** 2/17/22 10:42

**Description:** Gorgas Ash Pond - MW-8

**Laboratory ID Number:** BC03536

Sample	Analysis	Units	MB	MB		Spike	MS	MSD	Standard		Rec		Prec	Limit
				Limit					Standard	Limit	Rec	Limit		
BC03537	Aluminum, Dissolved	mg/L	-0.000418	0.010	0.100	0.106	0.101	0.102	0.0850 to 0.115	106	70.0 to 130	4.83	20.0	
BC03538	Aluminum, Total	mg/L	-0.0000505	0.010	0.100	0.105	0.103	0.104	0.0850 to 0.115	105	70.0 to 130	1.92	20.0	
BC03537	Antimony, Dissolved	mg/L	0.000257	0.00100	0.100	0.0914	0.0895	0.0864	0.0850 to 0.115	91.4	70.0 to 130	2.10	20.0	
BC03538	Antimony, Total	mg/L	0.000365	0.00100	0.100	0.0977	0.0933	0.0949	0.0850 to 0.115	97.7	70.0 to 130	4.61	20.0	
BC03537	Arsenic, Dissolved	mg/L	-0.0000097	0.000176	0.100	0.0984	0.0963	0.0970	0.0850 to 0.115	98.2	70.0 to 130	2.16	20.0	
BC03538	Arsenic, Total	mg/L	0.0000492	0.000176	0.100	0.0996	0.0996	0.0968	0.0850 to 0.115	99.5	70.0 to 130	0.00	20.0	
BC03537	Barium, Dissolved	mg/L	-0.0000002	0.000200	0.100	0.616	0.610	0.0936	0.0850 to 0.115	91.0	70.0 to 130	0.979	20.0	
BC03538	Barium, Total	mg/L	-0.000019	0.000200	0.100	0.0971	0.0927	0.0929	0.0850 to 0.115	97.1	70.0 to 130	4.64	20.0	
BC03537	Beryllium, Dissolved	mg/L	0.000421	0.000880	0.100	0.0922	0.0924	0.0926	0.0850 to 0.115	92.2	70.0 to 130	0.217	20.0	
BC03538	Beryllium, Total	mg/L	0.000497	0.000880	0.100	0.0910	0.0905	0.0918	0.0850 to 0.115	91.0	70.0 to 130	0.551	20.0	
BC03955	Boron, Dissolved	mg/L	-0.000179	0.0650	1.00	1.01	1.01	0.993	0.850 to 1.15	97.0	70.0 to 130	0.00	20.0	
BC03538	Boron, Total	mg/L	-0.000323	0.0650	1.00	0.953	0.981	0.982	0.850 to 1.15	95.3	70.0 to 130	2.90	20.0	
BC03537	Cadmium, Dissolved	mg/L	0.0000501	0.000147	0.100	0.0965	0.0952	0.0985	0.0850 to 0.115	96.5	70.0 to 130	1.36	20.0	
BC03538	Cadmium, Total	mg/L	0.00000	0.000147	0.100	0.100	0.0993	0.0980	0.0850 to 0.115	100	70.0 to 130	0.702	20.0	
BC03955	Calcium, Dissolved	mg/L	-0.00563	0.152	5.00	14.2	14.3	4.84	4.25 to 5.75	97.0	70.0 to 130	0.702	20.0	
BC03538	Calcium, Total	mg/L	-0.00556	0.152	5.00	4.83	4.82	4.84	4.25 to 5.75	96.6	70.0 to 130	0.207	20.0	
BC03537	Chromium, Dissolved	mg/L	0.0000613	0.000440	0.100	0.0967	0.0928	0.0973	0.0850 to 0.115	96.7	70.0 to 130	4.12	20.0	
BC03538	Chromium, Total	mg/L	-0.0000265	0.000440	0.100	0.100	0.0964	0.0974	0.0850 to 0.115	100	70.0 to 130	3.67	20.0	
BC03537	Cobalt, Dissolved	mg/L	0.0000361	0.000147	0.100	0.0976	0.0956	0.101	0.0850 to 0.115	97.6	70.0 to 130	2.07	20.0	
BC03538	Cobalt, Total	mg/L	0.0000375	0.000147	0.100	0.102	0.0984	0.101	0.0850 to 0.115	102	70.0 to 130	3.59	20.0	
BC03955	Iron, Dissolved	mg/L	0.00221	0.0176	0.2	0.408	0.408	0.203	0.170 to 0.230	98.0	70.0 to 130	0.00	20.0	
BC03538	Iron, Total	mg/L	-0.000047	0.0176	0.2	0.192	0.196	0.196	0.170 to 0.230	96.0	70.0 to 130	2.06	20.0	
BC03537	Lead, Dissolved	mg/L	0.0000074	0.000147	0.100	0.0958	0.0953	0.0983	0.0850 to 0.115	95.8	70.0 to 130	0.523	20.0	

**Comments:** The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.

# Batch QC Summary

**Customer Account:** WMWGORAP

**Sample Date:** 2/16/22 12:14

**Customer ID:**

**Delivery Date:** 2/17/22 10:42

**Description:** Gorgas Ash Pond - MW-8

**Laboratory ID Number:** BC03536

Sample	Analysis	Units	MB	MB		MS	MSD	Standard	Standard		Rec		Prec	Limit
				Limit	Spike				Limit	Rec	Limit	Prec		
BC03538	Lead, Total	mg/L	0.0000054	0.000147	0.100	0.0978	0.0972	0.0976	0.0850 to 0.115	97.8	70.0 to 130	0.615	20.0	
BC03955	Lithium, Dissolved	mg/L	0.000133	0.0154	0.200	0.237	0.233	0.198	0.170 to 0.230	99.6	70.0 to 130	1.70	20.0	
BC03538	Lithium, Total	mg/L	-0.000369	0.0154	0.200	0.199	0.208	0.205	0.170 to 0.230	99.5	70.0 to 130	4.42	20.0	
BC03955	Magnesium, Dissolved	mg/L	0.000702	0.0462	5.00	8.93	8.82	5.11	4.25 to 5.75	102	70.0 to 130	1.24	20.0	
BC03538	Magnesium, Total	mg/L	0.00100	0.0462	5.00	5.08	5.21	5.15	4.25 to 5.75	102	70.0 to 130	2.53	20.0	
BC03537	Manganese, Dissolved	mg/L	0.000143	0.0002	0.100	0.238	0.230	0.0944	0.0850 to 0.115	98.0	70.0 to 130	3.42	20.0	
BC03538	Manganese, Total	mg/L	0.0000091	0.0002	0.100	0.0991	0.0951	0.0963	0.0850 to 0.115	98.9	70.0 to 130	4.12	20.0	
BC03538	Mercury, Total by CVAA	mg/L	-0.0001	0.000500	0.004	0.00385	0.00387	0.00385	0.00340 to 0.00460	96.2	70.0 to 130	0.518	20.0	
BC03537	Molybdenum, Dissolved	mg/L	0.0000787	0.0002	0.100	0.103	0.103	0.0967	0.0850 to 0.115	94.7	70.0 to 130	0.00	20.0	
BC03538	Molybdenum, Total	mg/L	0.0000235	0.0002	0.100	0.0972	0.0983	0.0950	0.0850 to 0.115	97.2	70.0 to 130	1.13	20.0	
BC03537	Potassium, Dissolved	mg/L	0.00741	0.367	10.0	11.0	10.6	9.81	8.50 to 11.5	98.2	70.0 to 130	3.70	20.0	
BC03538	Potassium, Total	mg/L	-0.0236	0.367	10.0	9.90	9.73	9.86	8.50 to 11.5	99.0	70.0 to 130	1.73	20.0	
BC03537	Selenium, Dissolved	mg/L	0.0000615	0.00100	0.100	0.0985	0.0988	0.100	0.0850 to 0.115	98.5	70.0 to 130	0.304	20.0	
BC03538	Selenium, Total	mg/L	-0.000021	0.00100	0.100	0.0981	0.0991	0.101	0.0850 to 0.115	98.1	70.0 to 130	1.01	20.0	
BC03955	Silicon, Dissolved	mg/L	0.000469	0.0440	1.00	8.40	8.39	1.02	0.850 to 1.15	93.0	70.0 to 130	0.119	20.0	
BC03538	Silicon, Total	mg/L	0.000268	0.0440	1.00	0.991	1.01	1.01	0.850 to 1.15	99.1	70.0 to 130	1.90	20.0	
BC03955	Sodium, Dissolved	mg/L	-0.00274	0.0660	5.00	164	173	5.09	4.25 to 5.75	60.0	70.0 to 130	5.34	20.0	
BC03538	Sodium, Total	mg/L	0.00459	0.0660	5.00	4.92	5.19	5.12	4.25 to 5.75	98.4	70.0 to 130	5.34	20.0	
BC03537	Thallium, Dissolved	mg/L	0.000002	0.000147	0.100	0.0946	0.0936	0.0982	0.0850 to 0.115	94.6	70.0 to 130	1.06	20.0	
BC03538	Thallium, Total	mg/L	0.0000069	0.000147	0.100	0.0974	0.0964	0.0973	0.0850 to 0.115	97.4	70.0 to 130	1.03	20.0	
BC03953	Total Organic Carbon	mg/L	0.230	1.00	10.0	14.7	14.3	9.69		94.9	80.0 to 120	2.76	20.0	

**Comments:** The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.



## Batch QC Summary

**Customer Account:** WMWGORAP

**Sample Date:** 2/16/22 12:14

**Customer ID:**

**Delivery Date:** 2/17/22 10:42

**Description:** Gorgas Ash Pond - MW-8

**Laboratory ID Number:** BC03536

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BC03537	Alkalinity, Total as CaCO3	mg/L					179	52.0	45.0 to 55.0			5.16	10.0
BC03538	Chloride	mg/L	-0.0395	1.00	10.0	9.83	0.130	10.2	9.00 to 11.0	98.3	80.0 to 120	0.00	20.0
BC03538	Fluoride	mg/L	-0.0461	0.125	2.50	2.53	-0.0425	2.57	2.25 to 2.75	101	80.0 to 120	0.00	20.0
BC03538	Nitrogen, Nitrate/Nitrite	mg/L as N	-0.02	0.200	2.00	1.72	-0.028	1.84	1.80 to 2.20	86.0	90.0 to 110	0.00	15.0
BC03535	Solids, Dissolved	mg/L	0.0000	25.0			772	51.0	40.0 to 60.0			0.259	10.0
BC03538	Sulfate	mg/L	-0.140	2.0	20.0	19.5	-0.0892	19.8	18.0 to 22.0	97.5	80.0 to 120	0.00	20.0

**Comments:** The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.

# Certificate Of Analysis

**Description:** Gorgas Ash Pond - MW-3

**Location Code:** WMWGORAP  
**Collected:** 2/16/22 14:57  
**Customer ID:**  
**Submittal Date:** 2/17/22 10:42

**Laboratory ID Number:** BC03537

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
<b>Analytical Method: EPA 200.7</b>		<b>Analyst: RDA</b>			<b>Preparation Method: EPA 1638</b>				
* Boron, Total	2/25/22 10:56	2/28/22 10:31		1.015	0.311	mg/L	0.030000	0.1015	
* Calcium, Total	2/25/22 10:56	2/28/22 10:31		1.015	18.6	mg/L	0.070035	0.406	
* Iron, Total	2/25/22 10:56	2/28/22 10:31		1.015	2.15	mg/L	0.008120	0.0406	
* Lithium, Total	2/25/22 10:56	2/28/22 10:31		1.015	0.0732	mg/L	0.007105	0.01999956	
* Magnesium, Total	2/25/22 10:56	2/28/22 10:31		1.015	8.21	mg/L	0.021315	0.406	
Silica, Total (calc.)	2/25/22 10:56	2/28/22 10:31		1	11.9	mg/L			
Silicon, Total	2/25/22 10:56	2/28/22 10:31		1.015	5.55	mg/L	0.02030	0.25375	
* Sodium, Total	2/25/22 10:56	2/28/22 12:20		20.3	80.8	mg/L	0.609	8.12	
<b>Analytical Method: EPA 200.7</b>		<b>Analyst: RDA</b>			<b>Preparation Method: EPA 1638</b>				
* Boron, Dissolved	2/25/22 14:30	3/1/22 09:32		1.015	0.364	mg/L	0.030000	0.1015	
* Calcium, Dissolved	2/25/22 14:30	3/1/22 09:32		1.015	22.9	mg/L	0.070035	0.406	
* Iron, Dissolved	2/25/22 14:30	3/1/22 09:32		1.015	2.98	mg/L	0.008120	0.0406	
* Lithium, Dissolved	2/25/22 14:30	3/1/22 09:32		1.015	0.0734	mg/L	0.007105	0.01999956	
* Magnesium, Dissolved	2/25/22 14:30	3/1/22 09:32		1.015	9.91	mg/L	0.021315	0.406	
Silica, Dissolved (calc.)	2/25/22 14:30	3/1/22 09:32		1	12.0	mg/L			
Silicon, Dissolved	2/25/22 14:30	3/1/22 09:32		1.015	5.62	mg/L	0.02030	0.25375	
* Sodium, Dissolved	2/25/22 14:30	3/1/22 12:28		20.3	87.1	mg/L	0.609	8.12	
<b>Analytical Method: EPA 200.8</b>		<b>Analyst: ABB</b>			<b>Preparation Method: EPA 1638</b>				
* Antimony, Total	2/21/22 13:30	2/22/22 15:32		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Aluminum, Total	2/21/22 13:30	2/22/22 15:32		1.015	0.0229	mg/L	0.004060	0.01015	
* Arsenic, Total	2/21/22 13:30	2/22/22 15:32		1.015	0.000202	mg/L	0.000068	0.000203	J
* Barium, Total	2/21/22 13:30	2/22/22 15:32		1.015	0.498	mg/L	0.000102	0.000203	
* Beryllium, Total	2/21/22 13:30	2/22/22 15:32		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Total	2/21/22 13:30	2/22/22 15:32		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Total	2/21/22 13:30	2/22/22 15:32		1.015	0.000267	mg/L	0.000203	0.001015	J
* Cobalt, Total	2/21/22 13:30	2/22/22 15:32		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Lead, Total	2/21/22 13:30	2/22/22 15:32		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Total	2/21/22 13:30	2/22/22 15:32		1.015	0.108	mg/L	0.000068	0.000203	
* Molybdenum, Total	2/21/22 13:30	2/22/22 15:32		1.015	0.00722	mg/L	0.000068	0.000203	
* Potassium, Total	2/21/22 13:30	2/22/22 15:32		1.015	1.11	mg/L	0.169505	0.5075	

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.

# Certificate Of Analysis

**Description:** Gorgas Ash Pond - MW-3

**Location Code:** WMWGORAP  
**Collected:** 2/16/22 14:57  
**Customer ID:**  
**Submittal Date:** 2/17/22 10:42

**Laboratory ID Number:** BC03537

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
* Selenium, Total	2/21/22 13:30	2/22/22 15:32		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Total	2/21/22 13:30	2/22/22 15:32		1.015	Not Detected	mg/L	0.000068	0.000203	U
<b>Analytical Method: EPA 200.8</b>		<b>Analyst: ABB</b>							
* Antimony, Dissolved	2/21/22 13:48	2/22/22 13:34		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Aluminum, Dissolved	2/21/22 13:48	2/22/22 13:34		1.015	Not Detected	mg/L	0.004060	0.01015	U
* Arsenic, Dissolved	2/21/22 13:48	2/22/22 13:34		1.015	0.000182	mg/L	0.000068	0.000203	J
* Barium, Dissolved	2/21/22 13:48	2/22/22 13:34		1.015	0.525	mg/L	0.000102	0.000203	
* Beryllium, Dissolved	2/21/22 13:48	2/22/22 13:34		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Dissolved	2/21/22 13:48	2/22/22 13:34		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Dissolved	2/21/22 13:48	2/22/22 13:34		1.015	Not Detected	mg/L	0.000203	0.001015	U
* Cobalt, Dissolved	2/21/22 13:48	2/22/22 13:34		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Lead, Dissolved	2/21/22 13:48	2/22/22 13:34		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Dissolved	2/21/22 13:48	2/22/22 13:34		1.015	0.140	mg/L	0.000068	0.000203	
* Molybdenum, Dissolved	2/21/22 13:48	2/22/22 13:34		1.015	0.00832	mg/L	0.000068	0.000203	
* Potassium, Dissolved	2/21/22 13:48	2/22/22 13:34		1.015	1.18	mg/L	0.169505	0.5075	
* Selenium, Dissolved	2/21/22 13:48	2/22/22 13:34		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Dissolved	2/21/22 13:48	2/22/22 13:34		1.015	Not Detected	mg/L	0.000068	0.000203	U
<b>Analytical Method: EPA 245.1</b>		<b>Analyst: CRB</b>							
* Mercury, Total by CVAA	2/24/22 14:29	2/24/22 21:00		1	Not Detected	mg/L	0.0003	0.0005	U
<b>Analytical Method: EPA 353.2</b>		<b>Analyst: ELH</b>							
* Nitrogen, Nitrate/Nitrite	2/21/22 14:01	2/21/22 14:01		1	Not Detected	mg/L as N	0.20	0.3	U
<b>Analytical Method: SM 2320 B</b>		<b>Analyst: ALH</b>							
Alkalinity, Total as CaCO3	2/28/22 13:10	2/28/22 15:05		1	170	mg/L		0.1	
<b>Analytical Method: SM 2540C</b>		<b>Analyst: CNJ</b>							
* Solids, Dissolved	2/23/22 10:15	2/24/22 13:25		1	307	mg/L		25	
<b>Analytical Method: SM 4500CO2 D</b>		<b>Analyst: ALH</b>							
Bicarbonate Alkalinity, (calc.)	2/28/22 13:10	2/28/22 15:05		1	168	mg/L			
Carbonate Alkalinity, (calc.)	2/28/22 13:10	2/28/22 15:05		1	1.90	mg/L			
<b>Analytical Method: SM 5310 B</b>		<b>Analyst: ELH</b>							
* Total Organic Carbon	3/1/22 15:11	3/1/22 15:11		1	Not Detected	mg/L	1.00	2	U

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.

# Certificate Of Analysis

**Description:** Gorgas Ash Pond - MW-3

**Location Code:** WMWGORAP  
**Collected:** 2/16/22 14:57  
**Customer ID:**  
**Submittal Date:** 2/17/22 10:42

**Laboratory ID Number:** BC03537

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
<b>Analytical Method: SM4500Cl E</b>		<b>Analyst: JCC</b>							
* Chloride	2/18/22 14:34	2/18/22 14:34		1	14.0	mg/L	0.50	1	
<b>Analytical Method: SM4500F G 2017</b>		<b>Analyst: JCC</b>							
* Fluoride	2/23/22 09:43	2/23/22 09:43		1	Not Detected	mg/L	0.06	0.1	U
<b>Analytical Method: SM4500SO4 E 2011</b>		<b>Analyst: JCC</b>							
* Sulfate	2/22/22 12:35	2/22/22 12:35		4	91.2	mg/L	2.00	4	
<b>Analytical Method: Field Measurements</b>		<b>Analyst: TJD</b>							
Conductivity	2/16/22 14:53	2/16/22 14:53			482.31	uS/cm			FA
pH	2/16/22 14:53	2/16/22 14:53			7.78	SU			FA
Temperature	2/16/22 14:53	2/16/22 14:53			18.66	C			FA
Turbidity	2/16/22 14:53	2/16/22 14:53			1.12	NTU			FA

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.

# Batch QC Summary

**Customer Account:** WMWGORAP  
**Sample Date:** 2/16/22 14:57  
**Customer ID:**  
**Delivery Date:** 2/17/22 10:42

**Description:** Gorgas Ash Pond - MW-3

**Laboratory ID Number:** BC03537

Sample	Analysis	Units	MB	MB		Spike	MS	MSD	Standard		Rec		Prec	Limit
				Limit					Standard	Limit	Rec	Limit		
BC03537	Aluminum, Dissolved	mg/L	-0.000418	0.010	0.100	0.106	0.101	0.102	0.0850 to 0.115	106	70.0 to 130	4.83	20.0	
BC03538	Aluminum, Total	mg/L	-0.0000505	0.010	0.100	0.105	0.103	0.104	0.0850 to 0.115	105	70.0 to 130	1.92	20.0	
BC03537	Antimony, Dissolved	mg/L	0.000257	0.00100	0.100	0.0914	0.0895	0.0864	0.0850 to 0.115	91.4	70.0 to 130	2.10	20.0	
BC03538	Antimony, Total	mg/L	0.000365	0.00100	0.100	0.0977	0.0933	0.0949	0.0850 to 0.115	97.7	70.0 to 130	4.61	20.0	
BC03537	Arsenic, Dissolved	mg/L	-0.0000097	0.000176	0.100	0.0984	0.0963	0.0970	0.0850 to 0.115	98.2	70.0 to 130	2.16	20.0	
BC03538	Arsenic, Total	mg/L	0.0000492	0.000176	0.100	0.0996	0.0996	0.0968	0.0850 to 0.115	99.5	70.0 to 130	0.00	20.0	
BC03537	Barium, Dissolved	mg/L	-0.0000002	0.000200	0.100	0.616	0.610	0.0936	0.0850 to 0.115	91.0	70.0 to 130	0.979	20.0	
BC03538	Barium, Total	mg/L	-0.000019	0.000200	0.100	0.0971	0.0927	0.0929	0.0850 to 0.115	97.1	70.0 to 130	4.64	20.0	
BC03537	Beryllium, Dissolved	mg/L	0.000421	0.000880	0.100	0.0922	0.0924	0.0926	0.0850 to 0.115	92.2	70.0 to 130	0.217	20.0	
BC03538	Beryllium, Total	mg/L	0.000497	0.000880	0.100	0.0910	0.0905	0.0918	0.0850 to 0.115	91.0	70.0 to 130	0.551	20.0	
BC03955	Boron, Dissolved	mg/L	-0.000179	0.0650	1.00	1.01	1.01	0.993	0.850 to 1.15	97.0	70.0 to 130	0.00	20.0	
BC03538	Boron, Total	mg/L	-0.000323	0.0650	1.00	0.953	0.981	0.982	0.850 to 1.15	95.3	70.0 to 130	2.90	20.0	
BC03537	Cadmium, Dissolved	mg/L	0.0000501	0.000147	0.100	0.0965	0.0952	0.0985	0.0850 to 0.115	96.5	70.0 to 130	1.36	20.0	
BC03538	Cadmium, Total	mg/L	0.00000	0.000147	0.100	0.100	0.0993	0.0980	0.0850 to 0.115	100	70.0 to 130	0.702	20.0	
BC03955	Calcium, Dissolved	mg/L	-0.00563	0.152	5.00	14.2	14.3	4.84	4.25 to 5.75	97.0	70.0 to 130	0.702	20.0	
BC03538	Calcium, Total	mg/L	-0.00556	0.152	5.00	4.83	4.82	4.84	4.25 to 5.75	96.6	70.0 to 130	0.207	20.0	
BC03537	Chromium, Dissolved	mg/L	0.0000613	0.000440	0.100	0.0967	0.0928	0.0973	0.0850 to 0.115	96.7	70.0 to 130	4.12	20.0	
BC03538	Chromium, Total	mg/L	-0.0000265	0.000440	0.100	0.100	0.0964	0.0974	0.0850 to 0.115	100	70.0 to 130	3.67	20.0	
BC03537	Cobalt, Dissolved	mg/L	0.0000361	0.000147	0.100	0.0976	0.0956	0.101	0.0850 to 0.115	97.6	70.0 to 130	2.07	20.0	
BC03538	Cobalt, Total	mg/L	0.0000375	0.000147	0.100	0.102	0.0984	0.101	0.0850 to 0.115	102	70.0 to 130	3.59	20.0	
BC03955	Iron, Dissolved	mg/L	0.00221	0.0176	0.2	0.408	0.408	0.203	0.170 to 0.230	98.0	70.0 to 130	0.00	20.0	
BC03538	Iron, Total	mg/L	-0.000047	0.0176	0.2	0.192	0.196	0.196	0.170 to 0.230	96.0	70.0 to 130	2.06	20.0	
BC03537	Lead, Dissolved	mg/L	0.0000074	0.000147	0.100	0.0958	0.0953	0.0983	0.0850 to 0.115	95.8	70.0 to 130	0.523	20.0	

**Comments:** The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.

# Batch QC Summary

**Customer Account:** WMWGORAP

**Sample Date:** 2/16/22 14:57

**Customer ID:**

**Delivery Date:** 2/17/22 10:42

**Description:** Gorgas Ash Pond - MW-3

**Laboratory ID Number:** BC03537

Sample	Analysis	Units	MB	MB				Standard		Rec		Prec	Limit
				Limit	Spike	MS	MSD	Standard	Limit	Rec	Limit		
BC03538	Lead, Total	mg/L	0.0000054	0.000147	0.100	0.0978	0.0972	0.0976	0.0850 to 0.115	97.8	70.0 to 130	0.615	20.0
BC03955	Lithium, Dissolved	mg/L	0.000133	0.0154	0.200	0.237	0.233	0.198	0.170 to 0.230	99.6	70.0 to 130	1.70	20.0
BC03538	Lithium, Total	mg/L	-0.000369	0.0154	0.200	0.199	0.208	0.205	0.170 to 0.230	99.5	70.0 to 130	4.42	20.0
BC03955	Magnesium, Dissolved	mg/L	0.000702	0.0462	5.00	8.93	8.82	5.11	4.25 to 5.75	102	70.0 to 130	1.24	20.0
BC03538	Magnesium, Total	mg/L	0.00100	0.0462	5.00	5.08	5.21	5.15	4.25 to 5.75	102	70.0 to 130	2.53	20.0
BC03537	Manganese, Dissolved	mg/L	0.000143	0.0002	0.100	0.238	0.230	0.0944	0.0850 to 0.115	98.0	70.0 to 130	3.42	20.0
BC03538	Manganese, Total	mg/L	0.0000091	0.0002	0.100	0.0991	0.0951	0.0963	0.0850 to 0.115	98.9	70.0 to 130	4.12	20.0
BC03538	Mercury, Total by CVAA	mg/L	-0.0001	0.000500	0.004	0.00385	0.00387	0.00385	0.00340 to 0.00460	96.2	70.0 to 130	0.518	20.0
BC03537	Molybdenum, Dissolved	mg/L	0.0000787	0.0002	0.100	0.103	0.103	0.0967	0.0850 to 0.115	94.7	70.0 to 130	0.00	20.0
BC03538	Molybdenum, Total	mg/L	0.0000235	0.0002	0.100	0.0972	0.0983	0.0950	0.0850 to 0.115	97.2	70.0 to 130	1.13	20.0
BC03537	Potassium, Dissolved	mg/L	0.00741	0.367	10.0	11.0	10.6	9.81	8.50 to 11.5	98.2	70.0 to 130	3.70	20.0
BC03538	Potassium, Total	mg/L	-0.0236	0.367	10.0	9.90	9.73	9.86	8.50 to 11.5	99.0	70.0 to 130	1.73	20.0
BC03537	Selenium, Dissolved	mg/L	0.0000615	0.00100	0.100	0.0985	0.0988	0.100	0.0850 to 0.115	98.5	70.0 to 130	0.304	20.0
BC03538	Selenium, Total	mg/L	-0.000021	0.00100	0.100	0.0981	0.0991	0.101	0.0850 to 0.115	98.1	70.0 to 130	1.01	20.0
BC03955	Silicon, Dissolved	mg/L	0.000469	0.0440	1.00	8.40	8.39	1.02	0.850 to 1.15	93.0	70.0 to 130	0.119	20.0
BC03538	Silicon, Total	mg/L	0.000268	0.0440	1.00	0.991	1.01	1.01	0.850 to 1.15	99.1	70.0 to 130	1.90	20.0
BC03955	Sodium, Dissolved	mg/L	-0.00274	0.0660	5.00	164	173	5.09	4.25 to 5.75	60.0	70.0 to 130	5.34	20.0
BC03538	Sodium, Total	mg/L	0.00459	0.0660	5.00	4.92	5.19	5.12	4.25 to 5.75	98.4	70.0 to 130	5.34	20.0
BC03537	Thallium, Dissolved	mg/L	0.000002	0.000147	0.100	0.0946	0.0936	0.0982	0.0850 to 0.115	94.6	70.0 to 130	1.06	20.0
BC03538	Thallium, Total	mg/L	0.0000069	0.000147	0.100	0.0974	0.0964	0.0973	0.0850 to 0.115	97.4	70.0 to 130	1.03	20.0
BC03953	Total Organic Carbon	mg/L	0.230	1.00	10.0	14.7	14.3	9.69		94.9	80.0 to 120	2.76	20.0

**Comments:** The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.

## Batch QC Summary

**Customer Account:** WMWGORAP

**Sample Date:** 2/16/22 14:57

**Customer ID:**

**Delivery Date:** 2/17/22 10:42

**Description:** Gorgas Ash Pond - MW-3

**Laboratory ID Number:** BC03537

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BC03537	Alkalinity, Total as CaCO3	mg/L					179	52.0	45.0 to 55.0			5.16	10.0
BC03538	Chloride	mg/L	-0.0395	1.00	10.0	9.83	0.130	10.2	9.00 to 11.0	98.3	80.0 to 120	0.00	20.0
BC03538	Fluoride	mg/L	-0.0461	0.125	2.50	2.53	-0.0425	2.57	2.25 to 2.75	101	80.0 to 120	0.00	20.0
BC03538	Nitrogen, Nitrate/Nitrite	mg/L as N	-0.02	0.200	2.00	1.72	-0.028	1.84	1.80 to 2.20	86.0	90.0 to 110	0.00	15.0
BC03537	Solids, Dissolved	mg/L	0.0000	25.0			310	50.0	40.0 to 60.0			0.972	10.0
BC03538	Sulfate	mg/L	-0.140	2.0	20.0	19.5	-0.0892	19.8	18.0 to 22.0	97.5	80.0 to 120	0.00	20.0

**Comments:** The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.

# Certificate Of Analysis

**Description:** Gorgas Ash Pond Field Blank-1

**Location Code:** WMWGORAPFB  
**Collected:** 2/16/22 15:50  
**Customer ID:**  
**Submittal Date:** 2/17/22 10:42

**Laboratory ID Number:** BC03538

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q	
<b>Analytical Method: EPA 200.7</b>		<b>Analyst: RDA</b>			<b>Preparation Method: EPA 1638</b>					
* Boron, Total	2/25/22 10:56	2/28/22 10:33		1.015	Not Detected	mg/L	0.030000	0.1015	U	
* Calcium, Total	2/25/22 10:56	2/28/22 10:33		1.015	Not Detected	mg/L	0.070035	0.406	U	
* Iron, Total	2/25/22 10:56	2/28/22 10:33		1.015	Not Detected	mg/L	0.008120	0.0406	U	
* Lithium, Total	2/25/22 10:56	2/28/22 10:33		1.015	Not Detected	mg/L	0.007105	0.01999956	U	
* Magnesium, Total	2/25/22 10:56	2/28/22 10:33		1.015	Not Detected	mg/L	0.021315	0.406	U	
Silica, Total (calc.)	2/25/22 10:56	2/28/22 10:33		1	Not Detected	mg/L				
Silicon, Total	2/25/22 10:56	2/28/22 10:33		1.015	Not Detected	mg/L	0.02030	0.25375	U	
* Sodium, Total	2/25/22 10:56	2/28/22 10:33		1.015	Not Detected	mg/L	0.03045	0.406	U	
<b>Analytical Method: EPA 200.8</b>		<b>Analyst: ABB</b>			<b>Preparation Method: EPA 1638</b>					
* Antimony, Total	2/21/22 13:30	2/22/22 15:36		1.015	Not Detected	mg/L	0.000508	0.001015	U	
* Aluminum, Total	2/21/22 13:30	2/22/22 15:36		1.015	Not Detected	mg/L	0.004060	0.01015	U	
* Arsenic, Total	2/21/22 13:30	2/22/22 15:36		1.015	0.0000722	mg/L	0.000068	0.000203	J	
* Barium, Total	2/21/22 13:30	2/22/22 15:36		1.015	Not Detected	mg/L	0.000102	0.000203	U	
* Beryllium, Total	2/21/22 13:30	2/22/22 15:36		1.015	Not Detected	mg/L	0.000406	0.001015	U	
* Cadmium, Total	2/21/22 13:30	2/22/22 15:36		1.015	Not Detected	mg/L	0.000068	0.000203	U	
* Chromium, Total	2/21/22 13:30	2/22/22 15:36		1.015	Not Detected	mg/L	0.000203	0.001015	U	
* Cobalt, Total	2/21/22 13:30	2/22/22 15:36		1.015	Not Detected	mg/L	0.000068	0.000203	U	
* Lead, Total	2/21/22 13:30	2/22/22 15:36		1.015	Not Detected	mg/L	0.000068	0.000203	U	
* Manganese, Total	2/21/22 13:30	2/22/22 15:36		1.015	0.000180	mg/L	0.000068	0.000203	J	
* Molybdenum, Total	2/21/22 13:30	2/22/22 15:36		1.015	Not Detected	mg/L	0.000068	0.000203	U	
* Potassium, Total	2/21/22 13:30	2/22/22 15:36		1.015	Not Detected	mg/L	0.169505	0.5075	U	
* Selenium, Total	2/21/22 13:30	2/22/22 15:36		1.015	Not Detected	mg/L	0.000508	0.001015	U	
* Thallium, Total	2/21/22 13:30	2/22/22 15:36		1.015	Not Detected	mg/L	0.000068	0.000203	U	
<b>Analytical Method: EPA 245.1</b>		<b>Analyst: CRB</b>								
* Mercury, Total by CVAA	2/24/22 14:29	2/24/22 21:04		1	Not Detected	mg/L	0.0003	0.0005	U	
<b>Analytical Method: EPA 353.2</b>		<b>Analyst: ELH</b>								
* Nitrogen, Nitrate/Nitrite	2/21/22 14:02	2/21/22 14:02		1	Not Detected	mg/L as N	0.20	0.3	U	
<b>Analytical Method: SM 2540C</b>		<b>Analyst: CNJ</b>								
* Solids, Dissolved	2/23/22 10:15	2/24/22 13:25		1	Not Detected	mg/L		25	U	

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

**Comments:** Nitrate/Nitrite MS recovery was outside the specification limit.



# Certificate Of Analysis

**Description:** Gorgas Ash Pond Field Blank-1

**Location Code:** WMWGORAPFB  
**Collected:** 2/16/22 15:50  
**Customer ID:**  
**Submittal Date:** 2/17/22 10:42

**Laboratory ID Number:** BC03538

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
<b>Analytical Method: SM 5310 B</b>		<b>Analyst: ELH</b>							
* Total Organic Carbon	3/1/22 15:27	3/1/22 15:27		1	Not Detected	mg/L	1.00	2	U
<b>Analytical Method: SM4500Cl E</b>		<b>Analyst: JCC</b>							
* Chloride	2/18/22 14:40	2/18/22 14:40		1	Not Detected	mg/L	0.50	1	U
<b>Analytical Method: SM4500F G 2017</b>		<b>Analyst: JCC</b>							
* Fluoride	2/23/22 09:44	2/23/22 09:44		1	Not Detected	mg/L	0.06	0.1	U
<b>Analytical Method: SM4500SO4 E 2011</b>		<b>Analyst: JCC</b>							
* Sulfate	2/22/22 12:29	2/22/22 12:29		1	Not Detected	mg/L	0.50	1	U

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

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**Comments:** Nitrate/Nitrite MS recovery was outside the specification limit.

# Batch QC Summary

**Customer Account:** WMWGORAPFB

**Sample Date:** 2/16/22 15:50

**Customer ID:**

**Delivery Date:** 2/17/22 10:42

**Description:** Gorgas Ash Pond Field Blank-1

**Laboratory ID Number:** BC03538

Sample	Analysis	Units	MB				Standard		Rec		Prec	Limit	
			MB	Limit	Spike	MS	MSD	Standard	Limit	Rec			Limit
BC03538	Aluminum, Total	mg/L	-0.000505	0.010	0.100	0.105	0.103	0.104	0.0850 to 0.115	105	70.0 to 130	1.92	20.0
BC03538	Antimony, Total	mg/L	0.000365	0.00100	0.100	0.0977	0.0933	0.0949	0.0850 to 0.115	97.7	70.0 to 130	4.61	20.0
BC03538	Arsenic, Total	mg/L	0.000492	0.000176	0.100	0.0996	0.0996	0.0968	0.0850 to 0.115	99.5	70.0 to 130	0.00	20.0
BC03538	Barium, Total	mg/L	-0.000019	0.000200	0.100	0.0971	0.0927	0.0929	0.0850 to 0.115	97.1	70.0 to 130	4.64	20.0
BC03538	Beryllium, Total	mg/L	0.000497	0.000880	0.100	0.0910	0.0905	0.0918	0.0850 to 0.115	91.0	70.0 to 130	0.551	20.0
BC03538	Boron, Total	mg/L	-0.000323	0.0650	1.00	0.953	0.981	0.982	0.850 to 1.15	95.3	70.0 to 130	2.90	20.0
BC03538	Cadmium, Total	mg/L	0.00000	0.000147	0.100	0.100	0.0993	0.0980	0.0850 to 0.115	100	70.0 to 130	0.702	20.0
BC03538	Calcium, Total	mg/L	-0.00556	0.152	5.00	4.83	4.82	4.84	4.25 to 5.75	96.6	70.0 to 130	0.207	20.0
BC03538	Chromium, Total	mg/L	-0.0000265	0.000440	0.100	0.100	0.0964	0.0974	0.0850 to 0.115	100	70.0 to 130	3.67	20.0
BC03538	Cobalt, Total	mg/L	0.0000375	0.000147	0.100	0.102	0.0984	0.101	0.0850 to 0.115	102	70.0 to 130	3.59	20.0
BC03538	Iron, Total	mg/L	-0.000047	0.0176	0.2	0.192	0.196	0.196	0.170 to 0.230	96.0	70.0 to 130	2.06	20.0
BC03538	Lead, Total	mg/L	0.0000054	0.000147	0.100	0.0978	0.0972	0.0976	0.0850 to 0.115	97.8	70.0 to 130	0.615	20.0
BC03538	Lithium, Total	mg/L	-0.000369	0.0154	0.200	0.199	0.208	0.205	0.170 to 0.230	99.5	70.0 to 130	4.42	20.0
BC03538	Magnesium, Total	mg/L	0.00100	0.0462	5.00	5.08	5.21	5.15	4.25 to 5.75	102	70.0 to 130	2.53	20.0
BC03538	Manganese, Total	mg/L	0.0000091	0.0002	0.100	0.0991	0.0951	0.0963	0.0850 to 0.115	98.9	70.0 to 130	4.12	20.0
BC03538	Mercury, Total by CVAA	mg/L	-0.0001	0.000500	0.004	0.00385	0.00387	0.00385	0.00340 to 0.00460	96.2	70.0 to 130	0.518	20.0
BC03538	Molybdenum, Total	mg/L	0.0000235	0.0002	0.100	0.0972	0.0983	0.0950	0.0850 to 0.115	97.2	70.0 to 130	1.13	20.0
BC03538	Potassium, Total	mg/L	-0.0236	0.367	10.0	9.90	9.73	9.86	8.50 to 11.5	99.0	70.0 to 130	1.73	20.0
BC03538	Selenium, Total	mg/L	-0.000021	0.00100	0.100	0.0981	0.0991	0.101	0.0850 to 0.115	98.1	70.0 to 130	1.01	20.0
BC03538	Silicon, Total	mg/L	0.000268	0.0440	1.00	0.991	1.01	1.01	0.850 to 1.15	99.1	70.0 to 130	1.90	20.0
BC03538	Sodium, Total	mg/L	0.00459	0.0660	5.00	4.92	5.19	5.12	4.25 to 5.75	98.4	70.0 to 130	5.34	20.0
BC03538	Thallium, Total	mg/L	0.0000069	0.000147	0.100	0.0974	0.0964	0.0973	0.0850 to 0.115	97.4	70.0 to 130	1.03	20.0
BC03953	Total Organic Carbon	mg/L	0.230	1.00	10.0	14.7	14.3	9.69		94.9	80.0 to 120	2.76	20.0

**Comments:** Nitrate/Nitrite MS recovery was outside the specification limit.

# Batch QC Summary

**Customer Account:** WMWGORAPFB

**Sample Date:** 2/16/22 15:50

**Customer ID:**

**Delivery Date:** 2/17/22 10:42

**Description:** Gorgas Ash Pond Field Blank-1

**Laboratory ID Number:** BC03538

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Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
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**Comments:** Nitrate/Nitrite MS recovery was outside the specification limit.

## Batch QC Summary

**Customer Account:** WMWGORAPFB

**Sample Date:** 2/16/22 15:50

**Customer ID:**

**Delivery Date:** 2/17/22 10:42

**Description:** Gorgas Ash Pond Field Blank-1

**Laboratory ID Number:** BC03538

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Limit	Prec	Prec Limit
BC03538	Chloride	mg/L	-0.0395	1.00	10.0	9.83	0.130	10.2	9.00 to 11.0	98.3	80.0 to 120	0.00	20.0
BC03538	Fluoride	mg/L	-0.0461	0.125	2.50	2.53	-0.0425	2.57	2.25 to 2.75	101	80.0 to 120	0.00	20.0
BC03538	Nitrogen, Nitrate/Nitrite	mg/L as N	-0.02	0.200	2.00	1.72	-0.028	1.84	1.80 to 2.20	86.0	90.0 to 110	0.00	15.0
BC03537	Solids, Dissolved	mg/L	0.0000	25.0			310	50.0	40.0 to 60.0			0.972	10.0
BC03538	Sulfate	mg/L	-0.140	2.0	20.0	19.5	-0.0892	19.8	18.0 to 22.0	97.5	80.0 to 120	0.00	20.0

**Comments:** Nitrate/Nitrite MS recovery was outside the specification limit.

# Certificate Of Analysis

**Description:** Gorgas Ash Pond - MW-43H

**Location Code:** WMWGORAP  
**Collected:** 2/21/22 11:43  
**Customer ID:**  
**Submittal Date:** 2/23/22 16:56

**Laboratory ID Number:** BC03953

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
<b>Analytical Method: EPA 200.7</b>		<b>Analyst: RDA</b>			<b>Preparation Method: EPA 1638</b>				
* Boron, Total	2/25/22 10:56	2/28/22 12:28		1.015	0.130	mg/L	0.030000	0.1015	
* Calcium, Total	2/25/22 10:56	2/28/22 12:28		1.015	4.56	mg/L	0.070035	0.406	
* Iron, Total	2/25/22 10:56	2/28/22 12:28		1.015	0.0282	mg/L	0.008120	0.0406	J
* Lithium, Total	2/25/22 10:56	2/28/22 12:28		1.015	0.0579	mg/L	0.007105	0.01999956	
* Magnesium, Total	2/25/22 10:56	2/28/22 12:28		1.015	1.19	mg/L	0.021315	0.406	
Silica, Total (calc.)	2/25/22 10:56	2/28/22 12:28		1	11.9	mg/L			
Silicon, Total	2/25/22 10:56	2/28/22 12:28		1.015	5.55	mg/L	0.02030	0.25375	
* Sodium, Total	2/25/22 10:56	2/28/22 12:30		20.3	321	mg/L	0.609	8.12	
<b>Analytical Method: EPA 200.7</b>		<b>Analyst: RDA</b>			<b>Preparation Method: EPA 1638</b>				
* Boron, Dissolved	2/25/22 14:30	3/1/22 09:34		1.015	0.130	mg/L	0.030000	0.1015	
* Calcium, Dissolved	2/25/22 14:30	3/1/22 09:34		1.015	4.09	mg/L	0.070035	0.406	
* Iron, Dissolved	2/25/22 14:30	3/1/22 09:34		1.015	Not Detected	mg/L	0.008120	0.0406	U
* Lithium, Dissolved	2/25/22 14:30	3/1/22 09:34		1.015	0.0580	mg/L	0.007105	0.01999956	
* Magnesium, Dissolved	2/25/22 14:30	3/1/22 09:34		1.015	1.16	mg/L	0.021315	0.406	
Silica, Dissolved (calc.)	2/25/22 14:30	3/1/22 09:34		1	11.7	mg/L			
Silicon, Dissolved	2/25/22 14:30	3/1/22 09:34		1.015	5.49	mg/L	0.02030	0.25375	
* Sodium, Dissolved	2/25/22 14:30	3/1/22 12:30		20.3	363	mg/L	0.609	8.12	
<b>Analytical Method: EPA 200.8</b>		<b>Analyst: DLJ</b>			<b>Preparation Method: EPA 1638</b>				
* Antimony, Total	2/25/22 08:30	2/25/22 15:57		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Aluminum, Total	2/25/22 08:30	2/25/22 15:57		1.015	0.0878	mg/L	0.004060	0.01015	
* Arsenic, Total	2/25/22 08:30	2/25/22 15:57		1.015	0.000889	mg/L	0.000068	0.000203	
* Barium, Total	2/25/22 08:30	2/25/22 15:57		1.015	0.0849	mg/L	0.000102	0.000203	
* Beryllium, Total	2/25/22 08:30	2/25/22 15:57		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Total	2/25/22 08:30	2/25/22 15:57		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Total	2/25/22 08:30	2/25/22 15:57		1.015	0.000272	mg/L	0.000203	0.001015	J
* Cobalt, Total	2/25/22 08:30	2/25/22 15:57		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Lead, Total	2/25/22 08:30	2/25/22 15:57		1.015	0.000116	mg/L	0.000068	0.000203	J
* Manganese, Total	2/25/22 08:30	2/25/22 15:57		1.015	0.00801	mg/L	0.000068	0.000203	
* Molybdenum, Total	2/25/22 08:30	2/25/22 15:57		1.015	0.00309	mg/L	0.000068	0.000203	
* Potassium, Total	2/25/22 08:30	2/25/22 15:57		1.015	3.43	mg/L	0.169505	0.5075	

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.

# Certificate Of Analysis

**Description:** Gorgas Ash Pond - MW-43H

**Location Code:** WMWGORAP  
**Collected:** 2/21/22 11:43  
**Customer ID:**  
**Submittal Date:** 2/23/22 16:56

**Laboratory ID Number:** BC03953

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
* Selenium, Total	2/25/22 08:30	2/25/22 15:57		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Total	2/25/22 08:30	2/25/22 15:57		1.015	Not Detected	mg/L	0.000068	0.000203	U
<b>Analytical Method: EPA 200.8</b>		<b>Analyst: DLJ</b>							
* Antimony, Dissolved	2/28/22 13:52	3/3/22 11:57		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Aluminum, Dissolved	2/28/22 13:52	3/3/22 11:57		1.015	0.0266	mg/L	0.004060	0.01015	
* Arsenic, Dissolved	2/28/22 13:52	3/3/22 11:57		1.015	0.000960	mg/L	0.000068	0.000203	
* Barium, Dissolved	2/28/22 13:52	3/3/22 11:57		1.015	0.0825	mg/L	0.000102	0.000203	
* Beryllium, Dissolved	2/28/22 13:52	3/3/22 11:57		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Dissolved	2/28/22 13:52	3/3/22 11:57		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Dissolved	2/28/22 13:52	3/3/22 11:57		1.015	0.000206	mg/L	0.000203	0.001015	J
* Cobalt, Dissolved	2/28/22 13:52	3/3/22 11:57		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Lead, Dissolved	2/28/22 13:52	3/3/22 11:57		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Dissolved	2/28/22 13:52	3/3/22 11:57		1.015	0.00649	mg/L	0.000068	0.000203	
* Molybdenum, Dissolved	2/28/22 13:52	3/3/22 11:57		1.015	0.00320	mg/L	0.000068	0.000203	
* Potassium, Dissolved	2/28/22 13:52	3/3/22 11:57		1.015	3.26	mg/L	0.169505	0.5075	
* Selenium, Dissolved	2/28/22 13:52	3/3/22 11:57		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Dissolved	2/28/22 13:52	3/3/22 11:57		1.015	Not Detected	mg/L	0.000068	0.000203	U
<b>Analytical Method: EPA 245.1</b>		<b>Analyst: ABB</b>							
* Mercury, Total by CVAA	2/25/22 16:39	2/25/22 20:41		1	Not Detected	mg/L	0.0003	0.0005	U
<b>Analytical Method: EPA 353.2</b>		<b>Analyst: ELH</b>							
* Nitrogen, Nitrate/Nitrite	2/25/22 12:13	2/25/22 12:13		1	Not Detected	mg/L as N	0.20	0.3	U
<b>Analytical Method: SM 2320 B</b>		<b>Analyst: ALH</b>							
Alkalinity, Total as CaCO3	3/4/22 10:30	3/4/22 12:34		1	347	mg/L		0.1	
<b>Analytical Method: SM 2540C</b>		<b>Analyst: CNJ</b>							
* Solids, Dissolved	2/24/22 11:28	2/28/22 09:55		1	894	mg/L		75.8	
<b>Analytical Method: SM 4500CO2 D</b>		<b>Analyst: ALH</b>							
Bicarbonate Alkalinity, (calc.)	3/4/22 10:30	3/4/22 12:34		1	332	mg/L			A
Carbonate Alkalinity, (calc.)	3/4/22 10:30	3/4/22 12:34		1	14.6	mg/L			A
<b>Analytical Method: SM 5310 B</b>		<b>Analyst: ELH</b>							
* Total Organic Carbon	3/1/22 15:41	3/1/22 15:41		1	5.21	mg/L	1.00	2	

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.

# Certificate Of Analysis

**Description:** Gorgas Ash Pond - MW-43H

**Location Code:** WMWGORAP  
**Collected:** 2/21/22 11:43  
**Customer ID:**  
**Submittal Date:** 2/23/22 16:56

**Laboratory ID Number:** BC03953

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
<b>Analytical Method: SM4500Cl E</b>		<b>Analyst: JCC</b>							
* Chloride	2/24/22 14:40	2/24/22 14:40		10	104	mg/L	5.00	10	
<b>Analytical Method: SM4500F G 2017</b>		<b>Analyst: JCC</b>							
* Fluoride	2/25/22 09:41	2/25/22 09:41		1	0.226	mg/L	0.06	0.1	
<b>Analytical Method: SM4500SO4 E 2011</b>		<b>Analyst: CES</b>							
* Sulfate	3/2/22 09:38	3/2/22 09:38		20	347	mg/L	10.00	20	
<b>Analytical Method: Field Measurements</b>		<b>Analyst: DKG</b>							
Conductivity	2/21/22 11:40	2/21/22 11:40			1416.64	uS/cm			FA
pH	2/21/22 11:40	2/21/22 11:40			8.58	SU			FA
Temperature	2/21/22 11:40	2/21/22 11:40			13.34	C			FA
Turbidity	2/21/22 11:40	2/21/22 11:40			3.34	NTU			FA

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.

# Batch QC Summary

**Customer Account:** WMWGORAP

**Sample Date:** 2/21/22 11:43

**Customer ID:**

**Delivery Date:** 2/23/22 16:56

**Description:** Gorgas Ash Pond - MW-43H

**Laboratory ID Number:** BC03953

Sample	Analysis	Units	MB	MB		MS	MSD	Standard		Rec		Prec	Limit
				Limit	Spike			Standard	Limit	Rec	Limit		
BC03963	Aluminum, Dissolved	mg/L	-0.000122	0.010	0.100	0.102	0.104	0.0988	0.0850 to 0.115	102	70.0 to 130	1.94	20.0
BC03962	Aluminum, Total	mg/L	0.000422	0.010	0.100	0.132	0.138	0.0983	0.0850 to 0.115	98.6	70.0 to 130	4.44	20.0
BC03963	Antimony, Dissolved	mg/L	0.000368	0.00100	0.100	0.0922	0.0933	0.0893	0.0850 to 0.115	92.2	70.0 to 130	1.19	20.0
BC03962	Antimony, Total	mg/L	0.000597	0.00100	0.100	0.0997	0.102	0.0926	0.0850 to 0.115	99.7	70.0 to 130	2.28	20.0
BC03963	Arsenic, Dissolved	mg/L	0.0000084	0.000176	0.100	0.104	0.104	0.101	0.0850 to 0.115	104	70.0 to 130	0.00	20.0
BC03962	Arsenic, Total	mg/L	0.0000144	0.000176	0.100	0.101	0.101	0.0993	0.0850 to 0.115	98.5	70.0 to 130	0.00	20.0
BC03963	Barium, Dissolved	mg/L	0.0000048	0.000200	0.100	0.271	0.274	0.0960	0.0850 to 0.115	91.0	70.0 to 130	1.10	20.0
BC03962	Barium, Total	mg/L	-0.0000178	0.000200	0.100	0.148	0.145	0.0959	0.0850 to 0.115	99.4	70.0 to 130	2.05	20.0
BC03963	Beryllium, Dissolved	mg/L	0.0000123	0.000880	0.100	0.0940	0.101	0.0920	0.0850 to 0.115	94.0	70.0 to 130	7.18	20.0
BC03962	Beryllium, Total	mg/L	0.000328	0.000880	0.100	0.105	0.103	0.104	0.0850 to 0.115	105	70.0 to 130	1.92	20.0
BC03955	Boron, Dissolved	mg/L	-0.000179	0.0650	1.00	1.01	1.01	0.993	0.850 to 1.15	97.0	70.0 to 130	0.00	20.0
BC03962	Boron, Total	mg/L	-0.000323	0.0650	1.00	1.10	1.11	0.982	0.850 to 1.15	99.1	70.0 to 130	0.905	20.0
BC03963	Cadmium, Dissolved	mg/L	0.0000030	0.000147	0.100	0.100	0.0996	0.0986	0.0850 to 0.115	100	70.0 to 130	0.401	20.0
BC03962	Cadmium, Total	mg/L	0.0000093	0.000147	0.100	0.0998	0.0982	0.0984	0.0850 to 0.115	99.8	70.0 to 130	1.62	20.0
BC03955	Calcium, Dissolved	mg/L	-0.00563	0.152	5.00	14.2	14.3	4.84	4.25 to 5.75	97.0	70.0 to 130	0.702	20.0
BC03962	Calcium, Total	mg/L	-0.00556	0.152	5.00	14.3	14.4	4.84	4.25 to 5.75	91.4	70.0 to 130	0.697	20.0
BC03963	Chromium, Dissolved	mg/L	-0.0000065	0.000440	0.100	0.0985	0.0998	0.0994	0.0850 to 0.115	98.3	70.0 to 130	1.31	20.0
BC03962	Chromium, Total	mg/L	-0.0000273	0.000440	0.100	0.0954	0.0958	0.0994	0.0850 to 0.115	94.9	70.0 to 130	0.418	20.0
BC03963	Cobalt, Dissolved	mg/L	0.0000031	0.000147	0.100	0.103	0.105	0.104	0.0850 to 0.115	103	70.0 to 130	1.92	20.0
BC03962	Cobalt, Total	mg/L	0.0000306	0.000147	0.100	0.0973	0.0987	0.102	0.0850 to 0.115	97.0	70.0 to 130	1.43	20.0
BC03955	Iron, Dissolved	mg/L	0.00221	0.0176	0.2	0.408	0.408	0.203	0.170 to 0.230	98.0	70.0 to 130	0.00	20.0
BC03962	Iron, Total	mg/L	-0.000047	0.0176	0.2	1.35	1.36	0.196	0.170 to 0.230	90.0	70.0 to 130	0.738	20.0
BC03963	Lead, Dissolved	mg/L	0.0000104	0.000147	0.100	0.100	0.104	0.100	0.0850 to 0.115	100	70.0 to 130	3.92	20.0

**Comments:** The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.



# Batch QC Summary

**Customer Account:** WMWGORAP

**Sample Date:** 2/21/22 11:43

**Customer ID:**

**Delivery Date:** 2/23/22 16:56

**Description:** Gorgas Ash Pond - MW-43H

**Laboratory ID Number:** BC03953

Sample	Analysis	Units	MB	MB				Standard		Rec		Prec	Limit
				Limit	Spike	MS	MSD	Standard	Limit	Rec	Limit		
BC03962	Lead, Total	mg/L	0.0000074	0.000147	0.100	0.106	0.105	0.107	0.0850 to 0.115	106	70.0 to 130	0.948	20.0
BC03955	Lithium, Dissolved	mg/L	0.000133	0.0154	0.200	0.237	0.233	0.198	0.170 to 0.230	99.6	70.0 to 130	1.70	20.0
BC03962	Lithium, Total	mg/L	-0.000369	0.0154	0.200	0.252	0.253	0.205	0.170 to 0.230	102	70.0 to 130	0.396	20.0
BC03955	Magnesium, Dissolved	mg/L	0.000702	0.0462	5.00	8.93	8.82	5.11	4.25 to 5.75	102	70.0 to 130	1.24	20.0
BC03962	Magnesium, Total	mg/L	0.00100	0.0462	5.00	8.44	8.54	5.15	4.25 to 5.75	97.8	70.0 to 130	1.18	20.0
BC03963	Manganese, Dissolved	mg/L	0.0000165	0.0002	0.100	0.137	0.140	0.102	0.0850 to 0.115	101	70.0 to 130	2.17	20.0
BC03962	Manganese, Total	mg/L	-0.0000151	0.0002	0.100	0.148	0.150	0.101	0.0850 to 0.115	96.1	70.0 to 130	1.34	20.0
BC03962	Mercury, Total by CVAA	mg/L	-3.000E-05	0.000500	0.004	0.00391	0.00393	0.00393	0.00340 to 0.00460	97.8	70.0 to 130	0.510	20.0
BC03963	Molybdenum, Dissolved	mg/L	0.0000139	0.0002	0.100	0.0982	0.0983	0.0995	0.0850 to 0.115	98.1	70.0 to 130	0.102	20.0
BC03962	Molybdenum, Total	mg/L	0.0000119	0.0002	0.100	0.115	0.115	0.0997	0.0850 to 0.115	95.9	70.0 to 130	0.00	20.0
BC03963	Potassium, Dissolved	mg/L	-0.0146	0.367	10.0	13.2	13.3	9.90	8.50 to 11.5	99.3	70.0 to 130	0.755	20.0
BC03962	Potassium, Total	mg/L	0.0105	0.367	10.0	34.5	35.0	9.89	8.50 to 11.5	90.0	70.0 to 130	1.44	20.0
BC03963	Selenium, Dissolved	mg/L	-0.0000156	0.00100	0.100	0.0471	0.0512	0.100	0.0850 to 0.115	47.1	70.0 to 130	8.34	20.0
BC03962	Selenium, Total	mg/L	0.0000516	0.00100	0.100	0.0986	0.0979	0.102	0.0850 to 0.115	98.6	70.0 to 130	0.712	20.0
BC03955	Silicon, Dissolved	mg/L	0.000469	0.0440	1.00	8.40	8.39	1.02	0.850 to 1.15	93.0	70.0 to 130	0.119	20.0
BC03962	Silicon, Total	mg/L	0.000268	0.0440	1.00	7.96	8.05	1.01	0.850 to 1.15	90.0	70.0 to 130	1.12	20.0
BC03955	Sodium, Dissolved	mg/L	-0.00274	0.0660	5.00	164	173	5.09	4.25 to 5.75	60.0	70.0 to 130	5.34	20.0
BC03962	Sodium, Total	mg/L	0.00459	0.0660	5.00	334	327	5.12	4.25 to 5.75	300	70.0 to 130	2.12	20.0
BC03963	Thallium, Dissolved	mg/L	0.0000119	0.000147	0.100	0.100	0.0974	0.101	0.0850 to 0.115	100	70.0 to 130	2.63	20.0
BC03962	Thallium, Total	mg/L	0.000009	0.000147	0.100	0.103	0.102	0.106	0.0850 to 0.115	103	70.0 to 130	0.976	20.0
BC03953	Total Organic Carbon	mg/L	0.230	1.00	10.0	14.7	14.3	9.69		94.9	80.0 to 120	2.76	20.0

**Comments:** The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.

## Batch QC Summary

**Customer Account:** WMWGORAP

**Sample Date:** 2/21/22 11:43

**Customer ID:**

**Delivery Date:** 2/23/22 16:56

**Description:** Gorgas Ash Pond - MW-43H

**Laboratory ID Number:** BC03953

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Limit	Prec	Prec Limit
BC03970	Alkalinity, Total as CaCO3	mg/L					312	51.5	45.0 to 55.0			1.62	10.0
BC03962	Chloride	mg/L	-0.0767	1.00	250	414	160	10.3	9.00 to 11.0	104	80.0 to 120	3.17	20.0
BC03962	Fluoride	mg/L	0.0147	0.125	2.50	2.84	0.249	2.66	2.25 to 2.75	104	80.0 to 120	3.27	20.0
BC03962	Nitrogen, Nitrate/Nitrite	mg/L as N	-0.05	0.200	2.00	2.12	-0.040	1.86	1.80 to 2.20	106	90.0 to 110	0.00	15.0
BC03962	Solids, Dissolved	mg/L	1.00	25.0			1030	51.0	40.0 to 60.0			1.92	10.0
BC03962	Sulfate	mg/L	0.0558	2.0	400	830	376	20.6	18.0 to 22.0	115	80.0 to 120	1.61	20.0

**Comments:** The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.

# Certificate Of Analysis

**Description:** Gorgas Ash Pond - PZ-18R

**Location Code:** WMWGORAP  
**Collected:** 2/21/22 14:40  
**Customer ID:**  
**Submittal Date:** 2/23/22 16:56

**Laboratory ID Number:** BC03954

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
<b>Analytical Method: EPA 200.7</b>			<b>Analyst: RDA</b>		<b>Preparation Method: EPA 1638</b>				
* Boron, Total	2/25/22 10:56	2/28/22 10:44		1.015	0.0925	mg/L	0.030000	0.1015	J
* Calcium, Total	2/25/22 10:56	2/28/22 12:32		20.3	69.0	mg/L	1.4007	8.12	
* Iron, Total	2/25/22 10:56	2/28/22 10:44		1.015	0.699	mg/L	0.008120	0.0406	
* Lithium, Total	2/25/22 10:56	2/28/22 10:44		1.015	0.0157	mg/L	0.007105	0.01999956	J
* Magnesium, Total	2/25/22 10:56	2/28/22 10:44		1.015	18.8	mg/L	0.021315	0.406	
Silica, Total (calc.)	2/25/22 10:56	2/28/22 10:44		1	23.8	mg/L			
Silicon, Total	2/25/22 10:56	2/28/22 10:44		1.015	11.1	mg/L	0.02030	0.25375	
* Sodium, Total	2/25/22 10:56	2/28/22 10:44		1.015	18.0	mg/L	0.03045	0.406	
<b>Analytical Method: EPA 200.7</b>			<b>Analyst: RDA</b>		<b>Preparation Method: EPA 1638</b>				
* Boron, Dissolved	2/25/22 14:30	3/1/22 09:36		1.015	0.0922	mg/L	0.030000	0.1015	J
* Calcium, Dissolved	2/25/22 14:30	3/1/22 12:31		20.3	69.0	mg/L	1.4007	8.12	
* Iron, Dissolved	2/25/22 14:30	3/1/22 09:36		1.015	0.681	mg/L	0.008120	0.0406	
* Lithium, Dissolved	2/25/22 14:30	3/1/22 09:36		1.015	0.0158	mg/L	0.007105	0.01999956	J
* Magnesium, Dissolved	2/25/22 14:30	3/1/22 09:36		1.015	18.8	mg/L	0.021315	0.406	
Silica, Dissolved (calc.)	2/25/22 14:30	3/1/22 09:36		1	23.5	mg/L			
Silicon, Dissolved	2/25/22 14:30	3/1/22 09:36		1.015	11.0	mg/L	0.02030	0.25375	
* Sodium, Dissolved	2/25/22 14:30	3/1/22 09:36		1.015	18.0	mg/L	0.03045	0.406	
<b>Analytical Method: EPA 200.8</b>			<b>Analyst: DLJ</b>		<b>Preparation Method: EPA 1638</b>				
* Antimony, Total	2/25/22 08:30	2/25/22 16:00		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Aluminum, Total	2/25/22 08:30	2/25/22 16:00		1.015	0.00937	mg/L	0.004060	0.01015	J
* Arsenic, Total	2/25/22 08:30	2/25/22 16:00		1.015	0.00167	mg/L	0.000068	0.000203	
* Barium, Total	2/25/22 08:30	2/25/22 16:00		1.015	0.0662	mg/L	0.000102	0.000203	
* Beryllium, Total	2/25/22 08:30	2/25/22 16:00		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Total	2/25/22 08:30	2/25/22 16:00		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Total	2/25/22 08:30	2/25/22 16:00		1.015	0.000262	mg/L	0.000203	0.001015	J
* Cobalt, Total	2/25/22 08:30	2/25/22 16:00		1.015	0.000136	mg/L	0.000068	0.000203	J
* Lead, Total	2/25/22 08:30	2/25/22 16:00		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Total	2/25/22 08:30	2/25/22 16:00		1.015	0.0605	mg/L	0.000068	0.000203	
* Molybdenum, Total	2/25/22 08:30	2/25/22 16:00		1.015	0.000910	mg/L	0.000068	0.000203	
* Potassium, Total	2/25/22 08:30	2/25/22 16:00		1.015	1.22	mg/L	0.169505	0.5075	

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.

# Certificate Of Analysis

**Description:** Gorgas Ash Pond - PZ-18R

**Location Code:** WMWGORAP

**Collected:** 2/21/22 14:40

**Customer ID:**

**Submittal Date:** 2/23/22 16:56

**Laboratory ID Number:** BC03954

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
* Selenium, Total	2/25/22 08:30	2/25/22 16:00		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Total	2/25/22 08:30	2/25/22 16:00		1.015	Not Detected	mg/L	0.000068	0.000203	U
<b>Analytical Method: EPA 200.8</b>		<b>Analyst: DLJ</b>							
* Antimony, Dissolved	2/28/22 13:52	3/3/22 12:01		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Aluminum, Dissolved	2/28/22 13:52	3/3/22 12:01		1.015	Not Detected	mg/L	0.004060	0.01015	U
* Arsenic, Dissolved	2/28/22 13:52	3/3/22 12:01		1.015	0.00156	mg/L	0.000068	0.000203	
* Barium, Dissolved	2/28/22 13:52	3/3/22 12:01		1.015	0.0659	mg/L	0.000102	0.000203	
* Beryllium, Dissolved	2/28/22 13:52	3/3/22 12:01		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Dissolved	2/28/22 13:52	3/3/22 12:01		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Dissolved	2/28/22 13:52	3/3/22 12:01		1.015	Not Detected	mg/L	0.000203	0.001015	U
* Cobalt, Dissolved	2/28/22 13:52	3/3/22 12:01		1.015	0.000129	mg/L	0.000068	0.000203	J
* Lead, Dissolved	2/28/22 13:52	3/3/22 12:01		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Dissolved	2/28/22 13:52	3/3/22 12:01		1.015	0.0609	mg/L	0.000068	0.000203	
* Molybdenum, Dissolved	2/28/22 13:52	3/3/22 12:01		1.015	0.000935	mg/L	0.000068	0.000203	
* Potassium, Dissolved	2/28/22 13:52	3/3/22 12:01		1.015	1.21	mg/L	0.169505	0.5075	
* Selenium, Dissolved	2/28/22 13:52	3/3/22 12:01		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Dissolved	2/28/22 13:52	3/3/22 12:01		1.015	Not Detected	mg/L	0.000068	0.000203	U
<b>Analytical Method: EPA 245.1</b>		<b>Analyst: ABB</b>							
* Mercury, Total by CVAA	2/25/22 16:39	2/25/22 20:45		1	Not Detected	mg/L	0.0003	0.0005	U
<b>Analytical Method: EPA 353.2</b>		<b>Analyst: ELH</b>							
* Nitrogen, Nitrate/Nitrite	2/25/22 12:15	2/25/22 12:15		1	Not Detected	mg/L as N	0.20	0.3	U
<b>Analytical Method: SM 2320 B</b>		<b>Analyst: ALH</b>							
Alkalinity, Total as CaCO3	3/4/22 10:30	3/4/22 12:34		1	226	mg/L		0.1	
<b>Analytical Method: SM 2540C</b>		<b>Analyst: CNJ</b>							
* Solids, Dissolved	2/24/22 11:28	2/28/22 09:55		1	303	mg/L		25	
<b>Analytical Method: SM 4500CO2 D</b>		<b>Analyst: ALH</b>							
Bicarbonate Alkalinity, (calc.)	3/4/22 10:30	3/4/22 12:34		1	225	mg/L			
Carbonate Alkalinity, (calc.)	3/4/22 10:30	3/4/22 12:34		1	0.50	mg/L			
<b>Analytical Method: SM 5310 B</b>		<b>Analyst: ELH</b>							
* Total Organic Carbon	3/1/22 16:31	3/1/22 16:31		1	Not Detected	mg/L	1.00	2	U

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.

# Certificate Of Analysis

**Description:** Gorgas Ash Pond - PZ-18R

**Location Code:** WMWGORAP

**Collected:** 2/21/22 14:40

**Customer ID:**

**Submittal Date:** 2/23/22 16:56

**Laboratory ID Number:** BC03954

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
<b>Analytical Method: SM4500Cl E</b>		<b>Analyst: JCC</b>							
* Chloride	2/24/22 14:41	2/24/22 14:41		1	5.32	mg/L	0.50	1	
<b>Analytical Method: SM4500F G 2017</b>		<b>Analyst: JCC</b>							
* Fluoride	2/25/22 09:42	2/25/22 09:42		1	0.207	mg/L	0.06	0.1	
<b>Analytical Method: SM4500SO4 E 2011</b>		<b>Analyst: CES</b>							
* Sulfate	3/2/22 09:30	3/2/22 09:30		2	55.5	mg/L	1.00	2	
<b>Analytical Method: Field Measurements</b>		<b>Analyst: DKG</b>							
Conductivity	2/21/22 14:37	2/21/22 14:37			483.33	uS/cm			FA
pH	2/21/22 14:37	2/21/22 14:37			7.37	SU			FA
Temperature	2/21/22 14:37	2/21/22 14:37			15.22	C			FA
Turbidity	2/21/22 14:37	2/21/22 14:37			1.64	NTU			FA

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.

# Batch QC Summary

**Customer Account:** WMWGORAP

**Sample Date:** 2/21/22 14:40

**Customer ID:**

**Delivery Date:** 2/23/22 16:56

**Description:** Gorgas Ash Pond - PZ-18R

**Laboratory ID Number:** BC03954

Sample	Analysis	Units	MB	MB		MS	MSD	Standard		Rec		Prec	Limit
				Limit	Spike			Standard	Limit	Rec	Limit		
BC03963	Aluminum, Dissolved	mg/L	-0.000122	0.010	0.100	0.102	0.104	0.0988	0.0850 to 0.115	102	70.0 to 130	1.94	20.0
BC03962	Aluminum, Total	mg/L	0.000422	0.010	0.100	0.132	0.138	0.0983	0.0850 to 0.115	98.6	70.0 to 130	4.44	20.0
BC03963	Antimony, Dissolved	mg/L	0.000368	0.00100	0.100	0.0922	0.0933	0.0893	0.0850 to 0.115	92.2	70.0 to 130	1.19	20.0
BC03962	Antimony, Total	mg/L	0.000597	0.00100	0.100	0.0997	0.102	0.0926	0.0850 to 0.115	99.7	70.0 to 130	2.28	20.0
BC03963	Arsenic, Dissolved	mg/L	0.0000084	0.000176	0.100	0.104	0.104	0.101	0.0850 to 0.115	104	70.0 to 130	0.00	20.0
BC03962	Arsenic, Total	mg/L	0.0000144	0.000176	0.100	0.101	0.101	0.0993	0.0850 to 0.115	98.5	70.0 to 130	0.00	20.0
BC03963	Barium, Dissolved	mg/L	0.0000048	0.000200	0.100	0.271	0.274	0.0960	0.0850 to 0.115	91.0	70.0 to 130	1.10	20.0
BC03962	Barium, Total	mg/L	-0.0000178	0.000200	0.100	0.148	0.145	0.0959	0.0850 to 0.115	99.4	70.0 to 130	2.05	20.0
BC03963	Beryllium, Dissolved	mg/L	0.0000123	0.000880	0.100	0.0940	0.101	0.0920	0.0850 to 0.115	94.0	70.0 to 130	7.18	20.0
BC03962	Beryllium, Total	mg/L	0.000328	0.000880	0.100	0.105	0.103	0.104	0.0850 to 0.115	105	70.0 to 130	1.92	20.0
BC03955	Boron, Dissolved	mg/L	-0.000179	0.0650	1.00	1.01	1.01	0.993	0.850 to 1.15	97.0	70.0 to 130	0.00	20.0
BC03962	Boron, Total	mg/L	-0.000323	0.0650	1.00	1.10	1.11	0.982	0.850 to 1.15	99.1	70.0 to 130	0.905	20.0
BC03963	Cadmium, Dissolved	mg/L	0.0000030	0.000147	0.100	0.100	0.0996	0.0986	0.0850 to 0.115	100	70.0 to 130	0.401	20.0
BC03962	Cadmium, Total	mg/L	0.0000093	0.000147	0.100	0.0998	0.0982	0.0984	0.0850 to 0.115	99.8	70.0 to 130	1.62	20.0
BC03955	Calcium, Dissolved	mg/L	-0.00563	0.152	5.00	14.2	14.3	4.84	4.25 to 5.75	97.0	70.0 to 130	0.702	20.0
BC03962	Calcium, Total	mg/L	-0.00556	0.152	5.00	14.3	14.4	4.84	4.25 to 5.75	91.4	70.0 to 130	0.697	20.0
BC03963	Chromium, Dissolved	mg/L	-0.0000065	0.000440	0.100	0.0985	0.0998	0.0994	0.0850 to 0.115	98.3	70.0 to 130	1.31	20.0
BC03962	Chromium, Total	mg/L	-0.0000273	0.000440	0.100	0.0954	0.0958	0.0994	0.0850 to 0.115	94.9	70.0 to 130	0.418	20.0
BC03963	Cobalt, Dissolved	mg/L	0.0000031	0.000147	0.100	0.103	0.105	0.104	0.0850 to 0.115	103	70.0 to 130	1.92	20.0
BC03962	Cobalt, Total	mg/L	0.0000306	0.000147	0.100	0.0973	0.0987	0.102	0.0850 to 0.115	97.0	70.0 to 130	1.43	20.0
BC03955	Iron, Dissolved	mg/L	0.00221	0.0176	0.2	0.408	0.408	0.203	0.170 to 0.230	98.0	70.0 to 130	0.00	20.0
BC03962	Iron, Total	mg/L	-0.000047	0.0176	0.2	1.35	1.36	0.196	0.170 to 0.230	90.0	70.0 to 130	0.738	20.0
BC03963	Lead, Dissolved	mg/L	0.0000104	0.000147	0.100	0.100	0.104	0.100	0.0850 to 0.115	100	70.0 to 130	3.92	20.0

**Comments:** The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.

# Batch QC Summary

**Customer Account:** WMWGORAP

**Sample Date:** 2/21/22 14:40

**Customer ID:**

**Delivery Date:** 2/23/22 16:56

**Description:** Gorgas Ash Pond - PZ-18R

**Laboratory ID Number:** BC03954

Sample	Analysis	Units	MB	MB				Standard		Rec		Prec	Limit
				Limit	Spike	MS	MSD	Standard	Limit	Rec	Limit		
BC03962	Lead, Total	mg/L	0.0000074	0.000147	0.100	0.106	0.105	0.107	0.0850 to 0.115	106	70.0 to 130	0.948	20.0
BC03955	Lithium, Dissolved	mg/L	0.000133	0.0154	0.200	0.237	0.233	0.198	0.170 to 0.230	99.6	70.0 to 130	1.70	20.0
BC03962	Lithium, Total	mg/L	-0.000369	0.0154	0.200	0.252	0.253	0.205	0.170 to 0.230	102	70.0 to 130	0.396	20.0
BC03955	Magnesium, Dissolved	mg/L	0.000702	0.0462	5.00	8.93	8.82	5.11	4.25 to 5.75	102	70.0 to 130	1.24	20.0
BC03962	Magnesium, Total	mg/L	0.00100	0.0462	5.00	8.44	8.54	5.15	4.25 to 5.75	97.8	70.0 to 130	1.18	20.0
BC03963	Manganese, Dissolved	mg/L	0.0000165	0.0002	0.100	0.137	0.140	0.102	0.0850 to 0.115	101	70.0 to 130	2.17	20.0
BC03962	Manganese, Total	mg/L	-0.0000151	0.0002	0.100	0.148	0.150	0.101	0.0850 to 0.115	96.1	70.0 to 130	1.34	20.0
BC03962	Mercury, Total by CVAA	mg/L	-3.000E-05	0.000500	0.004	0.00391	0.00393	0.00393	0.00340 to 0.00460	97.8	70.0 to 130	0.510	20.0
BC03963	Molybdenum, Dissolved	mg/L	0.0000139	0.0002	0.100	0.0982	0.0983	0.0995	0.0850 to 0.115	98.1	70.0 to 130	0.102	20.0
BC03962	Molybdenum, Total	mg/L	0.0000119	0.0002	0.100	0.115	0.115	0.0997	0.0850 to 0.115	95.9	70.0 to 130	0.00	20.0
BC03963	Potassium, Dissolved	mg/L	-0.0146	0.367	10.0	13.2	13.3	9.90	8.50 to 11.5	99.3	70.0 to 130	0.755	20.0
BC03962	Potassium, Total	mg/L	0.0105	0.367	10.0	34.5	35.0	9.89	8.50 to 11.5	90.0	70.0 to 130	1.44	20.0
BC03963	Selenium, Dissolved	mg/L	-0.0000156	0.00100	0.100	0.0471	0.0512	0.100	0.0850 to 0.115	47.1	70.0 to 130	8.34	20.0
BC03962	Selenium, Total	mg/L	0.0000516	0.00100	0.100	0.0986	0.0979	0.102	0.0850 to 0.115	98.6	70.0 to 130	0.712	20.0
BC03955	Silicon, Dissolved	mg/L	0.000469	0.0440	1.00	8.40	8.39	1.02	0.850 to 1.15	93.0	70.0 to 130	0.119	20.0
BC03962	Silicon, Total	mg/L	0.000268	0.0440	1.00	7.96	8.05	1.01	0.850 to 1.15	90.0	70.0 to 130	1.12	20.0
BC03955	Sodium, Dissolved	mg/L	-0.00274	0.0660	5.00	164	173	5.09	4.25 to 5.75	60.0	70.0 to 130	5.34	20.0
BC03962	Sodium, Total	mg/L	0.00459	0.0660	5.00	334	327	5.12	4.25 to 5.75	300	70.0 to 130	2.12	20.0
BC03963	Thallium, Dissolved	mg/L	0.0000119	0.000147	0.100	0.100	0.0974	0.101	0.0850 to 0.115	100	70.0 to 130	2.63	20.0
BC03962	Thallium, Total	mg/L	0.000009	0.000147	0.100	0.103	0.102	0.106	0.0850 to 0.115	103	70.0 to 130	0.976	20.0
BC03953	Total Organic Carbon	mg/L	0.230	1.00	10.0	14.7	14.3	9.69		94.9	80.0 to 120	2.76	20.0

**Comments:** The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.

## Batch QC Summary

**Customer Account:** WMWGORAP

**Sample Date:** 2/21/22 14:40

**Customer ID:**

**Delivery Date:** 2/23/22 16:56

**Description:** Gorgas Ash Pond - PZ-18R

**Laboratory ID Number:** BC03954

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BC03970	Alkalinity, Total as CaCO3	mg/L					312	51.5	45.0 to 55.0			1.62	10.0
BC03962	Chloride	mg/L	-0.0767	1.00	250	414	160	10.3	9.00 to 11.0	104	80.0 to 120	3.17	20.0
BC03962	Fluoride	mg/L	0.0147	0.125	2.50	2.84	0.249	2.66	2.25 to 2.75	104	80.0 to 120	3.27	20.0
BC03962	Nitrogen, Nitrate/Nitrite	mg/L as N	-0.05	0.200	2.00	2.12	-0.040	1.86	1.80 to 2.20	106	90.0 to 110	0.00	15.0
BC03962	Solids, Dissolved	mg/L	1.00	25.0			1030	51.0	40.0 to 60.0			1.92	10.0
BC03962	Sulfate	mg/L	0.0558	2.0	400	830	376	20.6	18.0 to 22.0	115	80.0 to 120	1.61	20.0

**Comments:** The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.



# Certificate Of Analysis

**Description:** Gorgas Ash Pond - MW-36V

**Location Code:** WMWGORAP  
**Collected:** 2/22/22 10:06  
**Customer ID:**  
**Submittal Date:** 2/23/22 16:56

**Laboratory ID Number:** BC03955

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
<b>Analytical Method: EPA 200.7</b>		<b>Analyst: RDA</b>			<b>Preparation Method: EPA 1638</b>				
* Boron, Total	2/25/22 10:56	2/28/22 10:46		1.015	0.0402	mg/L	0.030000	0.1015	J
* Calcium, Total	2/25/22 10:56	2/28/22 10:46		1.015	9.42	mg/L	0.070035	0.406	
* Iron, Total	2/25/22 10:56	2/28/22 10:46		1.015	0.216	mg/L	0.008120	0.0406	
* Lithium, Total	2/25/22 10:56	2/28/22 10:46		1.015	0.0383	mg/L	0.007105	0.01999956	
* Magnesium, Total	2/25/22 10:56	2/28/22 10:46		1.015	3.84	mg/L	0.021315	0.406	
Silica, Total (calc.)	2/25/22 10:56	2/28/22 10:46		1	16.3	mg/L			
Silicon, Total	2/25/22 10:56	2/28/22 10:46		1.015	7.60	mg/L	0.02030	0.25375	
* Sodium, Total	2/25/22 10:56	2/28/22 12:34		20.3	153	mg/L	0.609	8.12	
<b>Analytical Method: EPA 200.7</b>		<b>Analyst: RDA</b>			<b>Preparation Method: EPA 1638</b>				
* Boron, Dissolved	2/25/22 14:30	3/1/22 09:38		1.015	0.0400	mg/L	0.030000	0.1015	J
* Calcium, Dissolved	2/25/22 14:30	3/1/22 09:38		1.015	9.35	mg/L	0.070035	0.406	
* Iron, Dissolved	2/25/22 14:30	3/1/22 09:38		1.015	0.212	mg/L	0.008120	0.0406	
* Lithium, Dissolved	2/25/22 14:30	3/1/22 09:38		1.015	0.0379	mg/L	0.007105	0.01999956	
* Magnesium, Dissolved	2/25/22 14:30	3/1/22 09:38		1.015	3.84	mg/L	0.021315	0.406	
Silica, Dissolved (calc.)	2/25/22 14:30	3/1/22 09:38		1	16.0	mg/L			
Silicon, Dissolved	2/25/22 14:30	3/1/22 09:38		1.015	7.47	mg/L	0.02030	0.25375	
* Sodium, Dissolved	2/25/22 14:30	3/1/22 12:33		20.3	161	mg/L	0.609	8.12	RA
<b>Analytical Method: EPA 200.8</b>		<b>Analyst: DLJ</b>			<b>Preparation Method: EPA 1638</b>				
* Antimony, Total	2/25/22 08:30	2/25/22 16:04		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Aluminum, Total	2/25/22 08:30	2/25/22 16:04		1.015	0.0129	mg/L	0.004060	0.01015	
* Arsenic, Total	2/25/22 08:30	2/25/22 16:04		1.015	0.00167	mg/L	0.000068	0.000203	
* Barium, Total	2/25/22 08:30	2/25/22 16:04		1.015	0.0920	mg/L	0.000102	0.000203	
* Beryllium, Total	2/25/22 08:30	2/25/22 16:04		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Total	2/25/22 08:30	2/25/22 16:04		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Total	2/25/22 08:30	2/25/22 16:04		1.015	0.000248	mg/L	0.000203	0.001015	J
* Cobalt, Total	2/25/22 08:30	2/25/22 16:04		1.015	0.000091	mg/L	0.000068	0.000203	J
* Lead, Total	2/25/22 08:30	2/25/22 16:04		1.015	0.000160	mg/L	0.000068	0.000203	J
* Manganese, Total	2/25/22 08:30	2/25/22 16:04		1.015	0.0460	mg/L	0.000068	0.000203	
* Molybdenum, Total	2/25/22 08:30	2/25/22 16:04		1.015	0.00427	mg/L	0.000068	0.000203	
* Potassium, Total	2/25/22 08:30	2/25/22 16:04		1.015	12.0	mg/L	0.169505	0.5075	

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.

# Certificate Of Analysis

**Description:** Gorgas Ash Pond - MW-36V

**Location Code:** WMWGORAP  
**Collected:** 2/22/22 10:06  
**Customer ID:**  
**Submittal Date:** 2/23/22 16:56

**Laboratory ID Number:** BC03955

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
* Selenium, Total	2/25/22 08:30	2/25/22 16:04		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Total	2/25/22 08:30	2/25/22 16:04		1.015	Not Detected	mg/L	0.000068	0.000203	U
<b>Analytical Method: EPA 200.8</b>		<b>Analyst: DLJ</b>							
* Antimony, Dissolved	2/28/22 13:52	3/3/22 12:05		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Aluminum, Dissolved	2/28/22 13:52	3/3/22 12:05		1.015	0.00480	mg/L	0.004060	0.01015	J
* Arsenic, Dissolved	2/28/22 13:52	3/3/22 12:05		1.015	0.00160	mg/L	0.000068	0.000203	
* Barium, Dissolved	2/28/22 13:52	3/3/22 12:05		1.015	0.0910	mg/L	0.000102	0.000203	
* Beryllium, Dissolved	2/28/22 13:52	3/3/22 12:05		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Dissolved	2/28/22 13:52	3/3/22 12:05		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Dissolved	2/28/22 13:52	3/3/22 12:05		1.015	0.000258	mg/L	0.000203	0.001015	J
* Cobalt, Dissolved	2/28/22 13:52	3/3/22 12:05		1.015	0.0000835	mg/L	0.000068	0.000203	J
* Lead, Dissolved	2/28/22 13:52	3/3/22 12:05		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Dissolved	2/28/22 13:52	3/3/22 12:05		1.015	0.0477	mg/L	0.000068	0.000203	
* Molybdenum, Dissolved	2/28/22 13:52	3/3/22 12:05		1.015	0.00467	mg/L	0.000068	0.000203	
* Potassium, Dissolved	2/28/22 13:52	3/3/22 12:05		1.015	13.0	mg/L	0.169505	0.5075	
* Selenium, Dissolved	2/28/22 13:52	3/3/22 12:05		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Dissolved	2/28/22 13:52	3/3/22 12:05		1.015	Not Detected	mg/L	0.000068	0.000203	U
<b>Analytical Method: EPA 245.1</b>		<b>Analyst: ABB</b>							
* Mercury, Total by CVAA	2/25/22 16:39	2/25/22 20:49		1	Not Detected	mg/L	0.0003	0.0005	U
<b>Analytical Method: EPA 353.2</b>		<b>Analyst: ELH</b>							
* Nitrogen, Nitrate/Nitrite	2/25/22 12:17	2/25/22 12:17		1	Not Detected	mg/L as N	0.20	0.3	U
<b>Analytical Method: SM 2320 B</b>		<b>Analyst: ALH</b>							
Alkalinity, Total as CaCO3	3/4/22 10:30	3/4/22 12:34		1	274	mg/L		0.1	
<b>Analytical Method: SM 2540C</b>		<b>Analyst: CNJ</b>							
* Solids, Dissolved	2/24/22 11:28	2/28/22 09:55		1	438	mg/L		25	
<b>Analytical Method: SM 4500CO2 D</b>		<b>Analyst: ALH</b>							
Bicarbonate Alkalinity, (calc.)	3/4/22 10:30	3/4/22 12:34		1	272	mg/L			
Carbonate Alkalinity, (calc.)	3/4/22 10:30	3/4/22 12:34		1	1.73	mg/L			
<b>Analytical Method: SM 5310 B</b>		<b>Analyst: ELH</b>							
* Total Organic Carbon	3/2/22 08:16	3/2/22 08:16		1	3.21	mg/L	1.00	2	

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.

# Certificate Of Analysis

**Description:** Gorgas Ash Pond - MW-36V

**Location Code:** WMWGORAP  
**Collected:** 2/22/22 10:06  
**Customer ID:**  
**Submittal Date:** 2/23/22 16:56

**Laboratory ID Number:** BC03955

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
<b>Analytical Method: SM4500Cl E</b>		<b>Analyst: JCC</b>							
* Chloride	2/24/22 14:43	2/24/22 14:43		8	55.9	mg/L	4.00	8	
<b>Analytical Method: SM4500F G 2017</b>		<b>Analyst: JCC</b>							
* Fluoride	2/25/22 09:44	2/25/22 09:44		1	0.259	mg/L	0.06	0.1	
<b>Analytical Method: SM4500SO4 E 2011</b>		<b>Analyst: CES</b>							
* Sulfate	3/2/22 09:31	3/2/22 09:31		2	53.9	mg/L	1.00	2	
<b>Analytical Method: Field Measurements</b>		<b>Analyst: DKG</b>							
Conductivity	2/22/22 10:03	2/22/22 10:03			812.78	uS/cm			FA
pH	2/22/22 10:03	2/22/22 10:03			7.35	SU			FA
Temperature	2/22/22 10:03	2/22/22 10:03			17.26	C			FA
Turbidity	2/22/22 10:03	2/22/22 10:03			2.6	NTU			FA

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.

# Batch QC Summary

**Customer Account:** WMWGORAP

**Sample Date:** 2/22/22 10:06

**Customer ID:**

**Delivery Date:** 2/23/22 16:56

**Description:** Gorgas Ash Pond - MW-36V

**Laboratory ID Number:** BC03955

Sample	Analysis	Units	MB	MB		MS	MSD	Standard		Rec		Prec	Limit
				Limit	Spike			Standard	Limit	Rec	Limit		
BC03963	Aluminum, Dissolved	mg/L	-0.000122	0.010	0.100	0.102	0.104	0.0988	0.0850 to 0.115	102	70.0 to 130	1.94	20.0
BC03962	Aluminum, Total	mg/L	0.000422	0.010	0.100	0.132	0.138	0.0983	0.0850 to 0.115	98.6	70.0 to 130	4.44	20.0
BC03963	Antimony, Dissolved	mg/L	0.000368	0.00100	0.100	0.0922	0.0933	0.0893	0.0850 to 0.115	92.2	70.0 to 130	1.19	20.0
BC03962	Antimony, Total	mg/L	0.000597	0.00100	0.100	0.0997	0.102	0.0926	0.0850 to 0.115	99.7	70.0 to 130	2.28	20.0
BC03963	Arsenic, Dissolved	mg/L	0.0000084	0.000176	0.100	0.104	0.104	0.101	0.0850 to 0.115	104	70.0 to 130	0.00	20.0
BC03962	Arsenic, Total	mg/L	0.0000144	0.000176	0.100	0.101	0.101	0.0993	0.0850 to 0.115	98.5	70.0 to 130	0.00	20.0
BC03963	Barium, Dissolved	mg/L	0.0000048	0.000200	0.100	0.271	0.274	0.0960	0.0850 to 0.115	91.0	70.0 to 130	1.10	20.0
BC03962	Barium, Total	mg/L	-0.0000178	0.000200	0.100	0.148	0.145	0.0959	0.0850 to 0.115	99.4	70.0 to 130	2.05	20.0
BC03963	Beryllium, Dissolved	mg/L	0.0000123	0.000880	0.100	0.0940	0.101	0.0920	0.0850 to 0.115	94.0	70.0 to 130	7.18	20.0
BC03962	Beryllium, Total	mg/L	0.000328	0.000880	0.100	0.105	0.103	0.104	0.0850 to 0.115	105	70.0 to 130	1.92	20.0
BC03955	Boron, Dissolved	mg/L	-0.000179	0.0650	1.00	1.01	1.01	0.993	0.850 to 1.15	97.0	70.0 to 130	0.00	20.0
BC03962	Boron, Total	mg/L	-0.000323	0.0650	1.00	1.10	1.11	0.982	0.850 to 1.15	99.1	70.0 to 130	0.905	20.0
BC03963	Cadmium, Dissolved	mg/L	0.0000030	0.000147	0.100	0.100	0.0996	0.0986	0.0850 to 0.115	100	70.0 to 130	0.401	20.0
BC03962	Cadmium, Total	mg/L	0.0000093	0.000147	0.100	0.0998	0.0982	0.0984	0.0850 to 0.115	99.8	70.0 to 130	1.62	20.0
BC03955	Calcium, Dissolved	mg/L	-0.00563	0.152	5.00	14.2	14.3	4.84	4.25 to 5.75	97.0	70.0 to 130	0.702	20.0
BC03962	Calcium, Total	mg/L	-0.00556	0.152	5.00	14.3	14.4	4.84	4.25 to 5.75	91.4	70.0 to 130	0.697	20.0
BC03963	Chromium, Dissolved	mg/L	-0.0000065	0.000440	0.100	0.0985	0.0998	0.0994	0.0850 to 0.115	98.3	70.0 to 130	1.31	20.0
BC03962	Chromium, Total	mg/L	-0.0000273	0.000440	0.100	0.0954	0.0958	0.0994	0.0850 to 0.115	94.9	70.0 to 130	0.418	20.0
BC03963	Cobalt, Dissolved	mg/L	0.0000031	0.000147	0.100	0.103	0.105	0.104	0.0850 to 0.115	103	70.0 to 130	1.92	20.0
BC03962	Cobalt, Total	mg/L	0.0000306	0.000147	0.100	0.0973	0.0987	0.102	0.0850 to 0.115	97.0	70.0 to 130	1.43	20.0
BC03955	Iron, Dissolved	mg/L	0.00221	0.0176	0.2	0.408	0.408	0.203	0.170 to 0.230	98.0	70.0 to 130	0.00	20.0
BC03962	Iron, Total	mg/L	-0.000047	0.0176	0.2	1.35	1.36	0.196	0.170 to 0.230	90.0	70.0 to 130	0.738	20.0
BC03963	Lead, Dissolved	mg/L	0.0000104	0.000147	0.100	0.100	0.104	0.100	0.0850 to 0.115	100	70.0 to 130	3.92	20.0

**Comments:** The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.

# Batch QC Summary

**Customer Account:** WMWGORAP

**Sample Date:** 2/22/22 10:06

**Customer ID:**

**Delivery Date:** 2/23/22 16:56

**Description:** Gorgas Ash Pond - MW-36V

**Laboratory ID Number:** BC03955

Sample	Analysis	Units	MB	MB				Standard		Rec		Prec	Limit
				Limit	Spike	MS	MSD	Standard	Limit	Rec	Limit		
BC03962	Lead, Total	mg/L	0.0000074	0.000147	0.100	0.106	0.105	0.107	0.0850 to 0.115	106	70.0 to 130	0.948	20.0
BC03955	Lithium, Dissolved	mg/L	0.000133	0.0154	0.200	0.237	0.233	0.198	0.170 to 0.230	99.6	70.0 to 130	1.70	20.0
BC03962	Lithium, Total	mg/L	-0.000369	0.0154	0.200	0.252	0.253	0.205	0.170 to 0.230	102	70.0 to 130	0.396	20.0
BC03955	Magnesium, Dissolved	mg/L	0.000702	0.0462	5.00	8.93	8.82	5.11	4.25 to 5.75	102	70.0 to 130	1.24	20.0
BC03962	Magnesium, Total	mg/L	0.00100	0.0462	5.00	8.44	8.54	5.15	4.25 to 5.75	97.8	70.0 to 130	1.18	20.0
BC03963	Manganese, Dissolved	mg/L	0.0000165	0.0002	0.100	0.137	0.140	0.102	0.0850 to 0.115	101	70.0 to 130	2.17	20.0
BC03962	Manganese, Total	mg/L	-0.0000151	0.0002	0.100	0.148	0.150	0.101	0.0850 to 0.115	96.1	70.0 to 130	1.34	20.0
BC03962	Mercury, Total by CVAA	mg/L	-3.000E-05	0.000500	0.004	0.00391	0.00393	0.00393	0.00340 to 0.00460	97.8	70.0 to 130	0.510	20.0
BC03963	Molybdenum, Dissolved	mg/L	0.0000139	0.0002	0.100	0.0982	0.0983	0.0995	0.0850 to 0.115	98.1	70.0 to 130	0.102	20.0
BC03962	Molybdenum, Total	mg/L	0.0000119	0.0002	0.100	0.115	0.115	0.0997	0.0850 to 0.115	95.9	70.0 to 130	0.00	20.0
BC03963	Potassium, Dissolved	mg/L	-0.0146	0.367	10.0	13.2	13.3	9.90	8.50 to 11.5	99.3	70.0 to 130	0.755	20.0
BC03962	Potassium, Total	mg/L	0.0105	0.367	10.0	34.5	35.0	9.89	8.50 to 11.5	90.0	70.0 to 130	1.44	20.0
BC03963	Selenium, Dissolved	mg/L	-0.0000156	0.00100	0.100	0.0471	0.0512	0.100	0.0850 to 0.115	47.1	70.0 to 130	8.34	20.0
BC03962	Selenium, Total	mg/L	0.0000516	0.00100	0.100	0.0986	0.0979	0.102	0.0850 to 0.115	98.6	70.0 to 130	0.712	20.0
BC03955	Silicon, Dissolved	mg/L	0.000469	0.0440	1.00	8.40	8.39	1.02	0.850 to 1.15	93.0	70.0 to 130	0.119	20.0
BC03962	Silicon, Total	mg/L	0.000268	0.0440	1.00	7.96	8.05	1.01	0.850 to 1.15	90.0	70.0 to 130	1.12	20.0
BC03955	Sodium, Dissolved	mg/L	-0.00274	0.0660	5.00	164	173	5.09	4.25 to 5.75	60.0	70.0 to 130	5.34	20.0
BC03962	Sodium, Total	mg/L	0.00459	0.0660	5.00	334	327	5.12	4.25 to 5.75	300	70.0 to 130	2.12	20.0
BC03963	Thallium, Dissolved	mg/L	0.0000119	0.000147	0.100	0.100	0.0974	0.101	0.0850 to 0.115	100	70.0 to 130	2.63	20.0
BC03962	Thallium, Total	mg/L	0.000009	0.000147	0.100	0.103	0.102	0.106	0.0850 to 0.115	103	70.0 to 130	0.976	20.0
BC03963	Total Organic Carbon	mg/L	0.200	1.00	10.0	10.3	9.80	9.01		86.0	80.0 to 120	4.98	20.0

**Comments:** The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.

## Batch QC Summary

**Customer Account:** WMWGORAP

**Sample Date:** 2/22/22 10:06

**Customer ID:**

**Delivery Date:** 2/23/22 16:56

**Description:** Gorgas Ash Pond - MW-36V

**Laboratory ID Number:** BC03955

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BC03970	Alkalinity, Total as CaCO3	mg/L					312	51.5	45.0 to 55.0			1.62	10.0
BC03962	Chloride	mg/L	-0.0767	1.00	250	414	160	10.3	9.00 to 11.0	104	80.0 to 120	3.17	20.0
BC03962	Fluoride	mg/L	0.0147	0.125	2.50	2.84	0.249	2.66	2.25 to 2.75	104	80.0 to 120	3.27	20.0
BC03962	Nitrogen, Nitrate/Nitrite	mg/L as N	-0.05	0.200	2.00	2.12	-0.040	1.86	1.80 to 2.20	106	90.0 to 110	0.00	15.0
BC03962	Solids, Dissolved	mg/L	1.00	25.0			1030	51.0	40.0 to 60.0			1.92	10.0
BC03962	Sulfate	mg/L	0.0558	2.0	400	830	376	20.6	18.0 to 22.0	115	80.0 to 120	1.61	20.0

**Comments:** The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.

# Certificate Of Analysis

**Description:** Gorgas Ash Pond - MW-27HR

**Location Code:** WMWGORAP  
**Collected:** 2/22/22 12:03  
**Customer ID:**  
**Submittal Date:** 2/23/22 16:56

**Laboratory ID Number:** BC03956

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q	
<b>Analytical Method: EPA 200.7</b>		<b>Analyst: RDA</b>			<b>Preparation Method: EPA 1638</b>					
* Boron, Total	2/25/22 10:56	2/28/22 10:48		1.015	0.0541	mg/L	0.030000	0.1015	J	
* Calcium, Total	2/25/22 10:56	2/28/22 10:48		1.015	12.3	mg/L	0.070035	0.406		
* Iron, Total	2/25/22 10:56	2/28/22 10:48		1.015	0.0619	mg/L	0.008120	0.0406		
* Lithium, Total	2/25/22 10:56	2/28/22 10:48		1.015	0.0420	mg/L	0.007105	0.01999956		
* Magnesium, Total	2/25/22 10:56	2/28/22 10:48		1.015	2.96	mg/L	0.021315	0.406		
Silica, Total (calc.)	2/25/22 10:56	2/28/22 10:48		1	14.2	mg/L				
Silicon, Total	2/25/22 10:56	2/28/22 10:48		1.015	6.65	mg/L	0.02030	0.25375		
* Sodium, Total	2/25/22 10:56	2/28/22 12:35		20.3	363	mg/L	0.609	8.12		
<b>Analytical Method: EPA 200.7</b>		<b>Analyst: RDA</b>			<b>Preparation Method: EPA 1638</b>					
* Boron, Dissolved	2/25/22 14:30	3/1/22 09:51		1.015	0.0519	mg/L	0.029557	0.1	J	
* Calcium, Dissolved	2/25/22 14:30	3/1/22 09:51		1.015	11.7	mg/L	0.069	0.4		
* Iron, Dissolved	2/25/22 14:30	3/1/22 09:51		1.015	0.0158	mg/L	0.008	0.04	J	
* Lithium, Dissolved	2/25/22 14:30	3/1/22 09:51		1.015	0.0416	mg/L	0.007	0.019704		
* Magnesium, Dissolved	2/25/22 14:30	3/1/22 09:51		1.015	2.81	mg/L	0.021	0.4		
Silica, Dissolved (calc.)	2/25/22 14:30	3/1/22 09:51		1	13.8	mg/L				
Silicon, Dissolved	2/25/22 14:30	3/1/22 09:51		1.015	6.47	mg/L	0.02	0.25		
* Sodium, Dissolved	2/25/22 14:30	3/1/22 11:54		20.3	360	mg/L	0.609	8.12		
<b>Analytical Method: EPA 200.8</b>		<b>Analyst: DLJ</b>			<b>Preparation Method: EPA 1638</b>					
* Antimony, Total	2/25/22 08:30	2/25/22 16:07		1.015	0.000530	mg/L	0.000508	0.001015	J	
* Aluminum, Total	2/25/22 08:30	2/25/22 16:07		1.015	0.0691	mg/L	0.004060	0.01015		
* Arsenic, Total	2/25/22 08:30	2/25/22 16:07		1.015	0.00102	mg/L	0.000068	0.000203		
* Barium, Total	2/25/22 08:30	2/25/22 16:07		1.015	0.0414	mg/L	0.000102	0.000203		
* Beryllium, Total	2/25/22 08:30	2/25/22 16:07		1.015	Not Detected	mg/L	0.000406	0.001015	U	
* Cadmium, Total	2/25/22 08:30	2/25/22 16:07		1.015	Not Detected	mg/L	0.000068	0.000203	U	
* Chromium, Total	2/25/22 08:30	2/25/22 16:07		1.015	0.000288	mg/L	0.000203	0.001015	J	
* Cobalt, Total	2/25/22 08:30	2/25/22 16:07		1.015	Not Detected	mg/L	0.000068	0.000203	U	
* Lead, Total	2/25/22 08:30	2/25/22 16:07		1.015	Not Detected	mg/L	0.000068	0.000203	U	
* Manganese, Total	2/25/22 08:30	2/25/22 16:07		1.015	0.0491	mg/L	0.000068	0.000203		
* Molybdenum, Total	2/25/22 08:30	2/25/22 16:07		1.015	0.000829	mg/L	0.000068	0.000203		
* Potassium, Total	2/25/22 08:30	2/25/22 16:07		1.015	2.68	mg/L	0.169505	0.5075		

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.

# Certificate Of Analysis

**Description:** Gorgas Ash Pond - MW-27HR

**Location Code:** WMWGORAP

**Collected:** 2/22/22 12:03

**Customer ID:**

**Submittal Date:** 2/23/22 16:56

**Laboratory ID Number:** BC03956

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
* Selenium, Total	2/25/22 08:30	2/25/22 16:07		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Total	2/25/22 08:30	2/25/22 16:07		1.015	Not Detected	mg/L	0.000068	0.000203	U
<b>Analytical Method: EPA 200.8</b>		<b>Analyst: DLJ</b>							
* Antimony, Dissolved	2/28/22 13:52	3/3/22 12:08		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Aluminum, Dissolved	2/28/22 13:52	3/3/22 12:08		1.015	0.0170	mg/L	0.004060	0.01015	
* Arsenic, Dissolved	2/28/22 13:52	3/3/22 12:08		1.015	0.000968	mg/L	0.000068	0.000203	
* Barium, Dissolved	2/28/22 13:52	3/3/22 12:08		1.015	0.0427	mg/L	0.000102	0.000203	
* Beryllium, Dissolved	2/28/22 13:52	3/3/22 12:08		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Dissolved	2/28/22 13:52	3/3/22 12:08		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Dissolved	2/28/22 13:52	3/3/22 12:08		1.015	0.000207	mg/L	0.000203	0.001015	J
* Cobalt, Dissolved	2/28/22 13:52	3/3/22 12:08		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Lead, Dissolved	2/28/22 13:52	3/3/22 12:08		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Dissolved	2/28/22 13:52	3/3/22 12:08		1.015	0.0470	mg/L	0.000068	0.000203	
* Molybdenum, Dissolved	2/28/22 13:52	3/3/22 12:08		1.015	0.000802	mg/L	0.000068	0.000203	
* Potassium, Dissolved	2/28/22 13:52	3/3/22 12:08		1.015	2.62	mg/L	0.169505	0.5075	
* Selenium, Dissolved	2/28/22 13:52	3/3/22 12:08		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Dissolved	2/28/22 13:52	3/3/22 12:08		1.015	Not Detected	mg/L	0.000068	0.000203	U
<b>Analytical Method: EPA 245.1</b>		<b>Analyst: ABB</b>							
* Mercury, Total by CVAA	2/25/22 16:39	2/25/22 20:53		1	Not Detected	mg/L	0.0003	0.0005	U
<b>Analytical Method: EPA 353.2</b>		<b>Analyst: ELH</b>							
* Nitrogen, Nitrate/Nitrite	2/25/22 12:19	2/25/22 12:19		1	Not Detected	mg/L as N	0.20	0.3	U
<b>Analytical Method: SM 2320 B</b>		<b>Analyst: ALH</b>							
Alkalinity, Total as CaCO3	3/4/22 10:30	3/4/22 12:34		1	290	mg/L		0.1	
<b>Analytical Method: SM 2540C</b>		<b>Analyst: CNJ</b>							
* Solids, Dissolved	2/24/22 11:28	2/28/22 09:55		1	1100	mg/L		100	
<b>Analytical Method: SM 4500CO2 D</b>		<b>Analyst: ALH</b>							
Bicarbonate Alkalinity, (calc.)	3/4/22 10:30	3/4/22 12:34		1	287	mg/L			A
Carbonate Alkalinity, (calc.)	3/4/22 10:30	3/4/22 12:34		1	2.76	mg/L			A
<b>Analytical Method: SM 5310 B</b>		<b>Analyst: ELH</b>							
* Total Organic Carbon	3/2/22 08:32	3/2/22 08:32		1	12.5	mg/L	1.00	2	

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.



# Certificate Of Analysis

**Description:** Gorgas Ash Pond - MW-27HR

**Location Code:** WMWGORAP

**Collected:** 2/22/22 12:03

**Customer ID:**

**Submittal Date:** 2/23/22 16:56

**Laboratory ID Number:** BC03956

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
<b>Analytical Method: SM4500Cl E</b>		<b>Analyst: JCC</b>							
* Chloride	2/24/22 14:44	2/24/22 14:44		16	253	mg/L	8.00	16	
<b>Analytical Method: SM4500F G 2017</b>		<b>Analyst: JCC</b>							
* Fluoride	2/25/22 09:45	2/25/22 09:45		1	0.292	mg/L	0.06	0.1	
<b>Analytical Method: SM4500SO4 E 2011</b>		<b>Analyst: CES</b>							
* Sulfate	3/2/22 09:32	3/2/22 09:32		16	268	mg/L	8.00	16	
<b>Analytical Method: Field Measurements</b>		<b>Analyst: DKG</b>							
Conductivity	2/22/22 12:00	2/22/22 12:00			2186.31	uS/cm			FA
pH	2/22/22 12:00	2/22/22 12:00			7.83	SU			FA
Temperature	2/22/22 12:00	2/22/22 12:00			17.13	C			FA
Turbidity	2/22/22 12:00	2/22/22 12:00			2.34	NTU			FA

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.

# Batch QC Summary

**Customer Account:** WMWGORAP

**Sample Date:** 2/22/22 12:03

**Customer ID:**

**Delivery Date:** 2/23/22 16:56

**Description:** Gorgas Ash Pond - MW-27HR

**Laboratory ID Number:** BC03956

Sample	Analysis	Units	MB	MB		MS	MSD	Standard		Rec		Prec	Limit
				Limit	Spike			Standard	Limit	Rec	Limit		
BC03963	Aluminum, Dissolved	mg/L	-0.000122	0.010	0.100	0.102	0.104	0.0988	0.0850 to 0.115	102	70.0 to 130	1.94	20.0
BC03962	Aluminum, Total	mg/L	0.000422	0.010	0.100	0.132	0.138	0.0983	0.0850 to 0.115	98.6	70.0 to 130	4.44	20.0
BC03963	Antimony, Dissolved	mg/L	0.000368	0.00100	0.100	0.0922	0.0933	0.0893	0.0850 to 0.115	92.2	70.0 to 130	1.19	20.0
BC03962	Antimony, Total	mg/L	0.000597	0.00100	0.100	0.0997	0.102	0.0926	0.0850 to 0.115	99.7	70.0 to 130	2.28	20.0
BC03963	Arsenic, Dissolved	mg/L	0.0000084	0.000176	0.100	0.104	0.104	0.101	0.0850 to 0.115	104	70.0 to 130	0.00	20.0
BC03962	Arsenic, Total	mg/L	0.0000144	0.000176	0.100	0.101	0.101	0.0993	0.0850 to 0.115	98.5	70.0 to 130	0.00	20.0
BC03963	Barium, Dissolved	mg/L	0.0000048	0.000200	0.100	0.271	0.274	0.0960	0.0850 to 0.115	91.0	70.0 to 130	1.10	20.0
BC03962	Barium, Total	mg/L	-0.0000178	0.000200	0.100	0.148	0.145	0.0959	0.0850 to 0.115	99.4	70.0 to 130	2.05	20.0
BC03963	Beryllium, Dissolved	mg/L	0.0000123	0.000880	0.100	0.0940	0.101	0.0920	0.0850 to 0.115	94.0	70.0 to 130	7.18	20.0
BC03962	Beryllium, Total	mg/L	0.000328	0.000880	0.100	0.105	0.103	0.104	0.0850 to 0.115	105	70.0 to 130	1.92	20.0
BC03966	Boron, Dissolved	mg/L	-0.000179	0.0650	1.00	1.02	1.03	0.993	0.850 to 1.15	102	70.0 to 130	0.976	20.0
BC03962	Boron, Total	mg/L	-0.000323	0.0650	1.00	1.10	1.11	0.982	0.850 to 1.15	99.1	70.0 to 130	0.905	20.0
BC03963	Cadmium, Dissolved	mg/L	0.0000030	0.000147	0.100	0.100	0.0996	0.0986	0.0850 to 0.115	100	70.0 to 130	0.401	20.0
BC03962	Cadmium, Total	mg/L	0.0000093	0.000147	0.100	0.0998	0.0982	0.0984	0.0850 to 0.115	99.8	70.0 to 130	1.62	20.0
BC03966	Calcium, Dissolved	mg/L	-0.00563	0.152	5.00	62.6	60.2	4.84	4.25 to 5.75	182	70.0 to 130	3.91	20.0
BC03962	Calcium, Total	mg/L	-0.00556	0.152	5.00	14.3	14.4	4.84	4.25 to 5.75	91.4	70.0 to 130	0.697	20.0
BC03963	Chromium, Dissolved	mg/L	-0.0000065	0.000440	0.100	0.0985	0.0998	0.0994	0.0850 to 0.115	98.3	70.0 to 130	1.31	20.0
BC03962	Chromium, Total	mg/L	-0.0000273	0.000440	0.100	0.0954	0.0958	0.0994	0.0850 to 0.115	94.9	70.0 to 130	0.418	20.0
BC03963	Cobalt, Dissolved	mg/L	0.0000031	0.000147	0.100	0.103	0.105	0.104	0.0850 to 0.115	103	70.0 to 130	1.92	20.0
BC03962	Cobalt, Total	mg/L	0.0000306	0.000147	0.100	0.0973	0.0987	0.102	0.0850 to 0.115	97.0	70.0 to 130	1.43	20.0
BC03966	Iron, Dissolved	mg/L	0.00221	0.0176	0.2	0.639	0.633	0.203	0.170 to 0.230	99.0	70.0 to 130	0.943	20.0
BC03962	Iron, Total	mg/L	-0.000047	0.0176	0.2	1.35	1.36	0.196	0.170 to 0.230	90.0	70.0 to 130	0.738	20.0
BC03963	Lead, Dissolved	mg/L	0.0000104	0.000147	0.100	0.100	0.104	0.100	0.0850 to 0.115	100	70.0 to 130	3.92	20.0

**Comments:** The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.

# Batch QC Summary

**Customer Account:** WMWGORAP

**Sample Date:** 2/22/22 12:03

**Customer ID:**

**Delivery Date:** 2/23/22 16:56

**Description:** Gorgas Ash Pond - MW-27HR

**Laboratory ID Number:** BC03956

Sample	Analysis	Units	MB	MB				Standard		Rec		Prec	Limit
				Limit	Spike	MS	MSD	Standard	Limit	Rec	Limit		
BC03962	Lead, Total	mg/L	0.0000074	0.000147	0.100	0.106	0.105	0.107	0.0850 to 0.115	106	70.0 to 130	0.948	20.0
BC03966	Lithium, Dissolved	mg/L	0.000133	0.0154	0.200	0.224	0.222	0.198	0.170 to 0.230	99.1	70.0 to 130	0.897	20.0
BC03962	Lithium, Total	mg/L	-0.000369	0.0154	0.200	0.252	0.253	0.205	0.170 to 0.230	102	70.0 to 130	0.396	20.0
BC03966	Magnesium, Dissolved	mg/L	0.000702	0.0462	5.00	21.6	21.3	5.11	4.25 to 5.75	106	70.0 to 130	1.40	20.0
BC03962	Magnesium, Total	mg/L	0.00100	0.0462	5.00	8.44	8.54	5.15	4.25 to 5.75	97.8	70.0 to 130	1.18	20.0
BC03963	Manganese, Dissolved	mg/L	0.0000165	0.0002	0.100	0.137	0.140	0.102	0.0850 to 0.115	101	70.0 to 130	2.17	20.0
BC03962	Manganese, Total	mg/L	-0.0000151	0.0002	0.100	0.148	0.150	0.101	0.0850 to 0.115	96.1	70.0 to 130	1.34	20.0
BC03962	Mercury, Total by CVAA	mg/L	-3.000E-05	0.000500	0.004	0.00391	0.00393	0.00393	0.00340 to 0.00460	97.8	70.0 to 130	0.510	20.0
BC03963	Molybdenum, Dissolved	mg/L	0.0000139	0.0002	0.100	0.0982	0.0983	0.0995	0.0850 to 0.115	98.1	70.0 to 130	0.102	20.0
BC03962	Molybdenum, Total	mg/L	0.0000119	0.0002	0.100	0.115	0.115	0.0997	0.0850 to 0.115	95.9	70.0 to 130	0.00	20.0
BC03963	Potassium, Dissolved	mg/L	-0.0146	0.367	10.0	13.2	13.3	9.90	8.50 to 11.5	99.3	70.0 to 130	0.755	20.0
BC03962	Potassium, Total	mg/L	0.0105	0.367	10.0	34.5	35.0	9.89	8.50 to 11.5	90.0	70.0 to 130	1.44	20.0
BC03963	Selenium, Dissolved	mg/L	-0.0000156	0.00100	0.100	0.0471	0.0512	0.100	0.0850 to 0.115	47.1	70.0 to 130	8.34	20.0
BC03962	Selenium, Total	mg/L	0.0000516	0.00100	0.100	0.0986	0.0979	0.102	0.0850 to 0.115	98.6	70.0 to 130	0.712	20.0
BC03966	Silicon, Dissolved	mg/L	0.000469	0.0440	1.00	10.9	10.9	1.02	0.850 to 1.15	101	70.0 to 130	0.00	20.0
BC03962	Silicon, Total	mg/L	0.000268	0.0440	1.00	7.96	8.05	1.01	0.850 to 1.15	90.0	70.0 to 130	1.12	20.0
BC03966	Sodium, Dissolved	mg/L	-0.00274	0.0660	5.00	50.9	49.0	5.09	4.25 to 5.75	154	70.0 to 130	3.80	20.0
BC03962	Sodium, Total	mg/L	0.00459	0.0660	5.00	334	327	5.12	4.25 to 5.75	300	70.0 to 130	2.12	20.0
BC03963	Thallium, Dissolved	mg/L	0.0000119	0.000147	0.100	0.100	0.0974	0.101	0.0850 to 0.115	100	70.0 to 130	2.63	20.0
BC03962	Thallium, Total	mg/L	0.000009	0.000147	0.100	0.103	0.102	0.106	0.0850 to 0.115	103	70.0 to 130	0.976	20.0
BC03963	Total Organic Carbon	mg/L	0.200	1.00	10.0	10.3	9.80	9.01		86.0	80.0 to 120	4.98	20.0

**Comments:** The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.

## Batch QC Summary

**Customer Account:** WMWGORAP

**Sample Date:** 2/22/22 12:03

**Customer ID:**

**Delivery Date:** 2/23/22 16:56

**Description:** Gorgas Ash Pond - MW-27HR

**Laboratory ID Number:** BC03956

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BC03970	Alkalinity, Total as CaCO3	mg/L					312	51.5	45.0 to 55.0			1.62	10.0
BC03962	Chloride	mg/L	-0.0767	1.00	250	414	160	10.3	9.00 to 11.0	104	80.0 to 120	3.17	20.0
BC03962	Fluoride	mg/L	0.0147	0.125	2.50	2.84	0.249	2.66	2.25 to 2.75	104	80.0 to 120	3.27	20.0
BC03962	Nitrogen, Nitrate/Nitrite	mg/L as N	-0.05	0.200	2.00	2.12	-0.040	1.86	1.80 to 2.20	106	90.0 to 110	0.00	15.0
BC03962	Solids, Dissolved	mg/L	1.00	25.0			1030	51.0	40.0 to 60.0			1.92	10.0
BC03962	Sulfate	mg/L	0.0558	2.0	400	830	376	20.6	18.0 to 22.0	115	80.0 to 120	1.61	20.0

**Comments:** The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.

# Certificate Of Analysis

**Description:** Gorgas Ash Pond Field Blank-6

**Location Code:** WMWGORAPFB  
**Collected:** 2/22/22 12:40  
**Customer ID:**  
**Submittal Date:** 2/23/22 16:56

**Laboratory ID Number:** BC03957

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q	
<b>Analytical Method: EPA 200.7</b>		<b>Analyst: RDA</b>			<b>Preparation Method: EPA 1638</b>					
* Boron, Total	2/25/22 10:56	2/28/22 10:50		1.015	Not Detected	mg/L	0.030000	0.1015	U	
* Calcium, Total	2/25/22 10:56	2/28/22 10:50		1.015	Not Detected	mg/L	0.070035	0.406	U	
* Iron, Total	2/25/22 10:56	2/28/22 10:50		1.015	Not Detected	mg/L	0.008120	0.0406	U	
* Lithium, Total	2/25/22 10:56	2/28/22 10:50		1.015	Not Detected	mg/L	0.007105	0.01999956	U	
* Magnesium, Total	2/25/22 10:56	2/28/22 10:50		1.015	Not Detected	mg/L	0.021315	0.406	U	
Silica, Total (calc.)	2/25/22 10:56	2/28/22 10:50		1	Not Detected	mg/L				
Silicon, Total	2/25/22 10:56	2/28/22 10:50		1.015	Not Detected	mg/L	0.02030	0.25375	U	
* Sodium, Total	2/25/22 10:56	2/28/22 10:50		1.015	0.0318	mg/L	0.03045	0.406	J	
<b>Analytical Method: EPA 200.8</b>		<b>Analyst: DLJ</b>			<b>Preparation Method: EPA 1638</b>					
* Antimony, Total	2/25/22 08:30	2/25/22 16:11		1.015	Not Detected	mg/L	0.000508	0.001015	U	
* Aluminum, Total	2/25/22 08:30	2/25/22 16:11		1.015	Not Detected	mg/L	0.004060	0.01015	U	
* Arsenic, Total	2/25/22 08:30	2/25/22 16:11		1.015	Not Detected	mg/L	0.000068	0.000203	U	
* Barium, Total	2/25/22 08:30	2/25/22 16:11		1.015	Not Detected	mg/L	0.000102	0.000203	U	
* Beryllium, Total	2/25/22 08:30	2/25/22 16:11		1.015	Not Detected	mg/L	0.000406	0.001015	U	
* Cadmium, Total	2/25/22 08:30	2/25/22 16:11		1.015	Not Detected	mg/L	0.000068	0.000203	U	
* Chromium, Total	2/25/22 08:30	2/25/22 16:11		1.015	Not Detected	mg/L	0.000203	0.001015	U	
* Cobalt, Total	2/25/22 08:30	2/25/22 16:11		1.015	Not Detected	mg/L	0.000068	0.000203	U	
* Lead, Total	2/25/22 08:30	2/25/22 16:11		1.015	Not Detected	mg/L	0.000068	0.000203	U	
* Manganese, Total	2/25/22 08:30	2/25/22 16:11		1.015	Not Detected	mg/L	0.000068	0.000203	U	
* Molybdenum, Total	2/25/22 08:30	2/25/22 16:11		1.015	Not Detected	mg/L	0.000068	0.000203	U	
* Potassium, Total	2/25/22 08:30	2/25/22 16:11		1.015	Not Detected	mg/L	0.169505	0.5075	U	
* Selenium, Total	2/25/22 08:30	2/25/22 16:11		1.015	Not Detected	mg/L	0.000508	0.001015	U	
* Thallium, Total	2/25/22 08:30	2/25/22 16:11		1.015	Not Detected	mg/L	0.000068	0.000203	U	
<b>Analytical Method: EPA 245.1</b>		<b>Analyst: ABB</b>								
* Mercury, Total by CVAA	2/25/22 16:39	2/25/22 20:57		1	Not Detected	mg/L	0.0003	0.0005	U	
<b>Analytical Method: EPA 353.2</b>		<b>Analyst: ELH</b>								
* Nitrogen, Nitrate/Nitrite	2/25/22 12:21	2/25/22 12:21		1	Not Detected	mg/L as N	0.20	0.3	U	
<b>Analytical Method: SM 2540C</b>		<b>Analyst: CNJ</b>								
* Solids, Dissolved	2/24/22 11:28	2/28/22 09:55		1	Not Detected	mg/L		25	U	

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

**Comments:**

# Certificate Of Analysis

**Description:** Gorgas Ash Pond Field Blank-6

**Location Code:** WMWGORAPFB

**Collected:** 2/22/22 12:40

**Customer ID:**

**Submittal Date:** 2/23/22 16:56

**Laboratory ID Number:** BC03957

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
<b>Analytical Method: SM 5310 B</b>		<b>Analyst: ELH</b>							
* Total Organic Carbon	3/2/22 08:50	3/2/22 08:50		1	Not Detected	mg/L	1.00	2	U
<b>Analytical Method: SM4500Cl E</b>		<b>Analyst: JCC</b>							
* Chloride	2/24/22 14:45	2/24/22 14:45		1	Not Detected	mg/L	0.50	1	U
<b>Analytical Method: SM4500F G 2017</b>		<b>Analyst: JCC</b>							
* Fluoride	2/25/22 09:46	2/25/22 09:46		1	Not Detected	mg/L	0.06	0.1	U
<b>Analytical Method: SM4500SO4 E 2011</b>		<b>Analyst: CES</b>							
* Sulfate	3/2/22 09:14	3/2/22 09:14		1	Not Detected	mg/L	0.50	1	U

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

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**Comments:**

# Batch QC Summary

**Customer Account:** WMWGORAPFB

**Sample Date:** 2/22/22 12:40

**Customer ID:**

**Delivery Date:** 2/23/22 16:56

**Description:** Gorgas Ash Pond Field Blank-6

**Laboratory ID Number:** BC03957

Sample	Analysis	Units	MB	MB		MS	MSD	Standard		Rec		Prec	Limit
				Limit	Spike			Standard	Limit	Rec	Limit		
BC03962	Aluminum, Total	mg/L	0.000422	0.010	0.100	0.132	0.138	0.0983	0.0850 to 0.115	98.6	70.0 to 130	4.44	20.0
BC03962	Antimony, Total	mg/L	0.000597	0.00100	0.100	0.0997	0.102	0.0926	0.0850 to 0.115	99.7	70.0 to 130	2.28	20.0
BC03962	Arsenic, Total	mg/L	0.0000144	0.000176	0.100	0.101	0.101	0.0993	0.0850 to 0.115	98.5	70.0 to 130	0.00	20.0
BC03962	Barium, Total	mg/L	-0.0000178	0.000200	0.100	0.148	0.145	0.0959	0.0850 to 0.115	99.4	70.0 to 130	2.05	20.0
BC03962	Beryllium, Total	mg/L	0.000328	0.000880	0.100	0.105	0.103	0.104	0.0850 to 0.115	105	70.0 to 130	1.92	20.0
BC03962	Boron, Total	mg/L	-0.000323	0.0650	1.00	1.10	1.11	0.982	0.850 to 1.15	99.1	70.0 to 130	0.905	20.0
BC03962	Cadmium, Total	mg/L	0.0000093	0.000147	0.100	0.0998	0.0982	0.0984	0.0850 to 0.115	99.8	70.0 to 130	1.62	20.0
BC03962	Calcium, Total	mg/L	-0.00556	0.152	5.00	14.3	14.4	4.84	4.25 to 5.75	91.4	70.0 to 130	0.697	20.0
BC03962	Chromium, Total	mg/L	-0.0000273	0.000440	0.100	0.0954	0.0958	0.0994	0.0850 to 0.115	94.9	70.0 to 130	0.418	20.0
BC03962	Cobalt, Total	mg/L	0.0000306	0.000147	0.100	0.0973	0.0987	0.102	0.0850 to 0.115	97.0	70.0 to 130	1.43	20.0
BC03962	Iron, Total	mg/L	-0.000047	0.0176	0.2	1.35	1.36	0.196	0.170 to 0.230	90.0	70.0 to 130	0.738	20.0
BC03962	Lead, Total	mg/L	0.0000074	0.000147	0.100	0.106	0.105	0.107	0.0850 to 0.115	106	70.0 to 130	0.948	20.0
BC03962	Lithium, Total	mg/L	-0.000369	0.0154	0.200	0.252	0.253	0.205	0.170 to 0.230	102	70.0 to 130	0.396	20.0
BC03962	Magnesium, Total	mg/L	0.00100	0.0462	5.00	8.44	8.54	5.15	4.25 to 5.75	97.8	70.0 to 130	1.18	20.0
BC03962	Manganese, Total	mg/L	-0.0000151	0.0002	0.100	0.148	0.150	0.101	0.0850 to 0.115	96.1	70.0 to 130	1.34	20.0
BC03962	Mercury, Total by CVAA	mg/L	-3.000E-05	0.000500	0.004	0.00391	0.00393	0.00393	0.00340 to 0.00460	97.8	70.0 to 130	0.510	20.0
BC03962	Molybdenum, Total	mg/L	0.0000119	0.0002	0.100	0.115	0.115	0.0997	0.0850 to 0.115	95.9	70.0 to 130	0.00	20.0
BC03962	Potassium, Total	mg/L	0.0105	0.367	10.0	34.5	35.0	9.89	8.50 to 11.5	90.0	70.0 to 130	1.44	20.0
BC03962	Selenium, Total	mg/L	0.0000516	0.00100	0.100	0.0986	0.0979	0.102	0.0850 to 0.115	98.6	70.0 to 130	0.712	20.0
BC03962	Silicon, Total	mg/L	0.000268	0.0440	1.00	7.96	8.05	1.01	0.850 to 1.15	90.0	70.0 to 130	1.12	20.0
BC03962	Sodium, Total	mg/L	0.00459	0.0660	5.00	334	327	5.12	4.25 to 5.75	300	70.0 to 130	2.12	20.0
BC03962	Thallium, Total	mg/L	0.000009	0.000147	0.100	0.103	0.102	0.106	0.0850 to 0.115	103	70.0 to 130	0.976	20.0
BC03963	Total Organic Carbon	mg/L	0.200	1.00	10.0	10.3	9.80	9.01		86.0	80.0 to 120	4.98	20.0

**Comments:**

# Batch QC Summary

**Customer Account:** WMWGORAPFB

**Sample Date:** 2/22/22 12:40

**Customer ID:**

**Delivery Date:** 2/23/22 16:56

**Description:** Gorgas Ash Pond Field Blank-6

**Laboratory ID Number:** BC03957

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Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
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**Comments:**



## Batch QC Summary

**Customer Account:** WMWGORAPFB

**Sample Date:** 2/22/22 12:40

**Customer ID:**

**Delivery Date:** 2/23/22 16:56

**Description:** Gorgas Ash Pond Field Blank-6

**Laboratory ID Number:** BC03957

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Limit	Prec	Prec Limit
BC03962	Chloride	mg/L	-0.0767	1.00	250	414	160	10.3	9.00 to 11.0	104	80.0 to 120	3.17	20.0
BC03962	Fluoride	mg/L	0.0147	0.125	2.50	2.84	0.249	2.66	2.25 to 2.75	104	80.0 to 120	3.27	20.0
BC03962	Nitrogen, Nitrate/Nitrite	mg/L as N	-0.05	0.200	2.00	2.12	-0.040	1.86	1.80 to 2.20	106	90.0 to 110	0.00	15.0
BC03962	Solids, Dissolved	mg/L	1.00	25.0			1030	51.0	40.0 to 60.0			1.92	10.0
BC03962	Sulfate	mg/L	0.0558	2.0	400	830	376	20.6	18.0 to 22.0	115	80.0 to 120	1.61	20.0

**Comments:**

# Certificate Of Analysis

**Description:** Gorgas Ash Pond - MW-18R

**Location Code:** WMWGORAP  
**Collected:** 2/22/22 13:42  
**Customer ID:**  
**Submittal Date:** 2/23/22 16:56

**Laboratory ID Number:** BC03958

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q	
<b>Analytical Method: EPA 200.7</b>		<b>Analyst: RDA</b>			<b>Preparation Method: EPA 1638</b>					
* Boron, Total	2/25/22 10:56	2/28/22 10:52		1.015	Not Detected	mg/L	0.030000	0.1015	U	
* Calcium, Total	2/25/22 10:56	2/28/22 10:52		1.015	20.3	mg/L	0.070035	0.406		
* Iron, Total	2/25/22 10:56	2/28/22 10:52		1.015	3.96	mg/L	0.008120	0.0406		
* Lithium, Total	2/25/22 10:56	2/28/22 10:52		1.015	Not Detected	mg/L	0.007105	0.01999956	U	
* Magnesium, Total	2/25/22 10:56	2/28/22 10:52		1.015	5.30	mg/L	0.021315	0.406		
Silica, Total (calc.)	2/25/22 10:56	2/28/22 10:52		1	22.5	mg/L				
Silicon, Total	2/25/22 10:56	2/28/22 10:52		1.015	10.5	mg/L	0.02030	0.25375		
* Sodium, Total	2/25/22 10:56	2/28/22 10:52		1.015	11.7	mg/L	0.03045	0.406		
<b>Analytical Method: EPA 200.7</b>		<b>Analyst: RDA</b>			<b>Preparation Method: EPA 1638</b>					
* Boron, Dissolved	2/25/22 14:30	3/1/22 09:53		1.015	Not Detected	mg/L	0.030000	0.1015	U	
* Calcium, Dissolved	2/25/22 14:30	3/1/22 09:53		1.015	20.7	mg/L	0.070035	0.406		
* Iron, Dissolved	2/25/22 14:30	3/1/22 09:53		1.015	3.90	mg/L	0.008120	0.0406		
* Lithium, Dissolved	2/25/22 14:30	3/1/22 09:53		1.015	Not Detected	mg/L	0.007105	0.01999956	U	
* Magnesium, Dissolved	2/25/22 14:30	3/1/22 09:53		1.015	5.30	mg/L	0.021315	0.406		
Silica, Dissolved (calc.)	2/25/22 14:30	3/1/22 09:53		1	21.8	mg/L				
Silicon, Dissolved	2/25/22 14:30	3/1/22 09:53		1.015	10.2	mg/L	0.02030	0.25375		
* Sodium, Dissolved	2/25/22 14:30	3/1/22 09:53		1.015	11.6	mg/L	0.03045	0.406		
<b>Analytical Method: EPA 200.8</b>		<b>Analyst: DLJ</b>			<b>Preparation Method: EPA 1638</b>					
* Antimony, Total	2/25/22 08:30	2/25/22 16:15		1.015	Not Detected	mg/L	0.000508	0.001015	U	
* Aluminum, Total	2/25/22 08:30	2/25/22 16:15		1.015	0.105	mg/L	0.004060	0.01015		
* Arsenic, Total	2/25/22 08:30	2/25/22 16:15		1.015	0.000367	mg/L	0.000068	0.000203		
* Barium, Total	2/25/22 08:30	2/25/22 16:15		1.015	0.0716	mg/L	0.000102	0.000203		
* Beryllium, Total	2/25/22 08:30	2/25/22 16:15		1.015	Not Detected	mg/L	0.000406	0.001015	U	
* Cadmium, Total	2/25/22 08:30	2/25/22 16:15		1.015	Not Detected	mg/L	0.000068	0.000203	U	
* Chromium, Total	2/25/22 08:30	2/25/22 16:15		1.015	0.000221	mg/L	0.000203	0.001015	J	
* Cobalt, Total	2/25/22 08:30	2/25/22 16:15		1.015	0.000659	mg/L	0.000068	0.000203		
* Lead, Total	2/25/22 08:30	2/25/22 16:15		1.015	0.0000809	mg/L	0.000068	0.000203	J	
* Manganese, Total	2/25/22 08:30	2/25/22 16:15		1.015	0.160	mg/L	0.000068	0.000203		
* Molybdenum, Total	2/25/22 08:30	2/25/22 16:15		1.015	0.000283	mg/L	0.000068	0.000203		
* Potassium, Total	2/25/22 08:30	2/25/22 16:15		1.015	0.864	mg/L	0.169505	0.5075		

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.

# Certificate Of Analysis

**Description:** Gorgas Ash Pond - MW-18R

**Location Code:** WMWGORAP  
**Collected:** 2/22/22 13:42  
**Customer ID:**  
**Submittal Date:** 2/23/22 16:56

**Laboratory ID Number:** BC03958

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
* Selenium, Total	2/25/22 08:30	2/25/22 16:15		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Total	2/25/22 08:30	2/25/22 16:15		1.015	Not Detected	mg/L	0.000068	0.000203	U
<b>Analytical Method: EPA 200.8</b>		<b>Analyst: DLJ</b>							
* Antimony, Dissolved	2/28/22 13:52	3/3/22 12:12		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Aluminum, Dissolved	2/28/22 13:52	3/3/22 12:12		1.015	Not Detected	mg/L	0.004060	0.01015	U
* Arsenic, Dissolved	2/28/22 13:52	3/3/22 12:12		1.015	0.000307	mg/L	0.000068	0.000203	
* Barium, Dissolved	2/28/22 13:52	3/3/22 12:12		1.015	0.0717	mg/L	0.000102	0.000203	
* Beryllium, Dissolved	2/28/22 13:52	3/3/22 12:12		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Dissolved	2/28/22 13:52	3/3/22 12:12		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Dissolved	2/28/22 13:52	3/3/22 12:12		1.015	Not Detected	mg/L	0.000203	0.001015	U
* Cobalt, Dissolved	2/28/22 13:52	3/3/22 12:12		1.015	0.000671	mg/L	0.000068	0.000203	
* Lead, Dissolved	2/28/22 13:52	3/3/22 12:12		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Dissolved	2/28/22 13:52	3/3/22 12:12		1.015	0.164	mg/L	0.000068	0.000203	
* Molybdenum, Dissolved	2/28/22 13:52	3/3/22 12:12		1.015	0.000225	mg/L	0.000068	0.000203	
* Potassium, Dissolved	2/28/22 13:52	3/3/22 12:12		1.015	0.863	mg/L	0.169505	0.5075	
* Selenium, Dissolved	2/28/22 13:52	3/3/22 12:12		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Dissolved	2/28/22 13:52	3/3/22 12:12		1.015	Not Detected	mg/L	0.000068	0.000203	U
<b>Analytical Method: EPA 245.1</b>		<b>Analyst: ABB</b>							
* Mercury, Total by CVAA	2/25/22 16:39	2/25/22 21:01		1	Not Detected	mg/L	0.0003	0.0005	U
<b>Analytical Method: EPA 353.2</b>		<b>Analyst: ELH</b>							
* Nitrogen, Nitrate/Nitrite	2/25/22 12:23	2/25/22 12:23		1	Not Detected	mg/L as N	0.20	0.3	U
<b>Analytical Method: SM 2320 B</b>		<b>Analyst: ALH</b>							
Alkalinity, Total as CaCO3	3/4/22 10:30	3/4/22 12:34		1	79.7	mg/L		0.1	
<b>Analytical Method: SM 2540C</b>		<b>Analyst: CNJ</b>							
* Solids, Dissolved	2/24/22 11:28	2/28/22 09:55		1	136	mg/L		25	
<b>Analytical Method: SM 4500CO2 D</b>		<b>Analyst: ALH</b>							
Bicarbonate Alkalinity, (calc.)	3/4/22 10:30	3/4/22 12:34		1	79.7	mg/L			
Carbonate Alkalinity, (calc.)	3/4/22 10:30	3/4/22 12:34		1	0.05	mg/L			
<b>Analytical Method: SM 5310 B</b>		<b>Analyst: ELH</b>							
* Total Organic Carbon	3/2/22 09:06	3/2/22 09:06		1	Not Detected	mg/L	1.00	2	U

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.

# Certificate Of Analysis

**Description:** Gorgas Ash Pond - MW-18R

**Location Code:** WMWGORAP

**Collected:** 2/22/22 13:42

**Customer ID:**

**Submittal Date:** 2/23/22 16:56

**Laboratory ID Number:** BC03958

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
<b>Analytical Method: SM4500Cl E</b>		<b>Analyst: JCC</b>							
* Chloride	2/24/22 14:46	2/24/22 14:46		1	3.52	mg/L	0.50	1	
<b>Analytical Method: SM4500F G 2017</b>		<b>Analyst: JCC</b>							
* Fluoride	2/25/22 09:47	2/25/22 09:47		1	0.124	mg/L	0.06	0.1	
<b>Analytical Method: SM4500SO4 E 2011</b>		<b>Analyst: CES</b>							
* Sulfate	3/2/22 09:16	3/2/22 09:16		1	27.0	mg/L	0.50	1	
<b>Analytical Method: Field Measurements</b>		<b>Analyst: DKG</b>							
Conductivity	2/22/22 13:39	2/22/22 13:39			198.06	uS/cm			FA
pH	2/22/22 13:39	2/22/22 13:39			6.29	SU			FA
Temperature	2/22/22 13:39	2/22/22 13:39			17.31	C			FA
Turbidity	2/22/22 13:39	2/22/22 13:39			4.74	NTU			FA

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.

# Batch QC Summary

**Customer Account:** WMWGORAP

**Sample Date:** 2/22/22 13:42

**Customer ID:**

**Delivery Date:** 2/23/22 16:56

**Description:** Gorgas Ash Pond - MW-18R

**Laboratory ID Number:** BC03958

Sample	Analysis	Units	MB	MB		MS	MSD	Standard		Rec		Prec	Limit
				Limit	Spike			Standard	Limit	Rec	Limit		
BC03963	Aluminum, Dissolved	mg/L	-0.000122	0.010	0.100	0.102	0.104	0.0988	0.0850 to 0.115	102	70.0 to 130	1.94	20.0
BC03962	Aluminum, Total	mg/L	0.000422	0.010	0.100	0.132	0.138	0.0983	0.0850 to 0.115	98.6	70.0 to 130	4.44	20.0
BC03963	Antimony, Dissolved	mg/L	0.000368	0.00100	0.100	0.0922	0.0933	0.0893	0.0850 to 0.115	92.2	70.0 to 130	1.19	20.0
BC03962	Antimony, Total	mg/L	0.000597	0.00100	0.100	0.0997	0.102	0.0926	0.0850 to 0.115	99.7	70.0 to 130	2.28	20.0
BC03963	Arsenic, Dissolved	mg/L	0.0000084	0.000176	0.100	0.104	0.104	0.101	0.0850 to 0.115	104	70.0 to 130	0.00	20.0
BC03962	Arsenic, Total	mg/L	0.0000144	0.000176	0.100	0.101	0.101	0.0993	0.0850 to 0.115	98.5	70.0 to 130	0.00	20.0
BC03963	Barium, Dissolved	mg/L	0.0000048	0.000200	0.100	0.271	0.274	0.0960	0.0850 to 0.115	91.0	70.0 to 130	1.10	20.0
BC03962	Barium, Total	mg/L	-0.0000178	0.000200	0.100	0.148	0.145	0.0959	0.0850 to 0.115	99.4	70.0 to 130	2.05	20.0
BC03963	Beryllium, Dissolved	mg/L	0.0000123	0.000880	0.100	0.0940	0.101	0.0920	0.0850 to 0.115	94.0	70.0 to 130	7.18	20.0
BC03962	Beryllium, Total	mg/L	0.000328	0.000880	0.100	0.105	0.103	0.104	0.0850 to 0.115	105	70.0 to 130	1.92	20.0
BC03966	Boron, Dissolved	mg/L	-0.000179	0.0650	1.00	1.02	1.03	0.993	0.850 to 1.15	102	70.0 to 130	0.976	20.0
BC03962	Boron, Total	mg/L	-0.000323	0.0650	1.00	1.10	1.11	0.982	0.850 to 1.15	99.1	70.0 to 130	0.905	20.0
BC03963	Cadmium, Dissolved	mg/L	0.0000030	0.000147	0.100	0.100	0.0996	0.0986	0.0850 to 0.115	100	70.0 to 130	0.401	20.0
BC03962	Cadmium, Total	mg/L	0.0000093	0.000147	0.100	0.0998	0.0982	0.0984	0.0850 to 0.115	99.8	70.0 to 130	1.62	20.0
BC03966	Calcium, Dissolved	mg/L	-0.00563	0.152	5.00	62.6	60.2	4.84	4.25 to 5.75	182	70.0 to 130	3.91	20.0
BC03962	Calcium, Total	mg/L	-0.00556	0.152	5.00	14.3	14.4	4.84	4.25 to 5.75	91.4	70.0 to 130	0.697	20.0
BC03963	Chromium, Dissolved	mg/L	-0.0000065	0.000440	0.100	0.0985	0.0998	0.0994	0.0850 to 0.115	98.3	70.0 to 130	1.31	20.0
BC03962	Chromium, Total	mg/L	-0.0000273	0.000440	0.100	0.0954	0.0958	0.0994	0.0850 to 0.115	94.9	70.0 to 130	0.418	20.0
BC03963	Cobalt, Dissolved	mg/L	0.0000031	0.000147	0.100	0.103	0.105	0.104	0.0850 to 0.115	103	70.0 to 130	1.92	20.0
BC03962	Cobalt, Total	mg/L	0.0000306	0.000147	0.100	0.0973	0.0987	0.102	0.0850 to 0.115	97.0	70.0 to 130	1.43	20.0
BC03966	Iron, Dissolved	mg/L	0.00221	0.0176	0.2	0.639	0.633	0.203	0.170 to 0.230	99.0	70.0 to 130	0.943	20.0
BC03962	Iron, Total	mg/L	-0.000047	0.0176	0.2	1.35	1.36	0.196	0.170 to 0.230	90.0	70.0 to 130	0.738	20.0
BC03963	Lead, Dissolved	mg/L	0.0000104	0.000147	0.100	0.100	0.104	0.100	0.0850 to 0.115	100	70.0 to 130	3.92	20.0

**Comments:** The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.

# Batch QC Summary

**Customer Account:** WMWGORAP

**Sample Date:** 2/22/22 13:42

**Customer ID:**

**Delivery Date:** 2/23/22 16:56

**Description:** Gorgas Ash Pond - MW-18R

**Laboratory ID Number:** BC03958

Sample	Analysis	Units	MB	MB				Standard		Rec		Prec	Limit
				Limit	Spike	MS	MSD	Standard	Limit	Rec	Limit		
BC03962	Lead, Total	mg/L	0.0000074	0.000147	0.100	0.106	0.105	0.107	0.0850 to 0.115	106	70.0 to 130	0.948	20.0
BC03966	Lithium, Dissolved	mg/L	0.000133	0.0154	0.200	0.224	0.222	0.198	0.170 to 0.230	99.1	70.0 to 130	0.897	20.0
BC03962	Lithium, Total	mg/L	-0.000369	0.0154	0.200	0.252	0.253	0.205	0.170 to 0.230	102	70.0 to 130	0.396	20.0
BC03966	Magnesium, Dissolved	mg/L	0.000702	0.0462	5.00	21.6	21.3	5.11	4.25 to 5.75	106	70.0 to 130	1.40	20.0
BC03962	Magnesium, Total	mg/L	0.00100	0.0462	5.00	8.44	8.54	5.15	4.25 to 5.75	97.8	70.0 to 130	1.18	20.0
BC03963	Manganese, Dissolved	mg/L	0.0000165	0.0002	0.100	0.137	0.140	0.102	0.0850 to 0.115	101	70.0 to 130	2.17	20.0
BC03962	Manganese, Total	mg/L	-0.0000151	0.0002	0.100	0.148	0.150	0.101	0.0850 to 0.115	96.1	70.0 to 130	1.34	20.0
BC03962	Mercury, Total by CVAA	mg/L	-3.000E-05	0.000500	0.004	0.00391	0.00393	0.00393	0.00340 to 0.00460	97.8	70.0 to 130	0.510	20.0
BC03963	Molybdenum, Dissolved	mg/L	0.0000139	0.0002	0.100	0.0982	0.0983	0.0995	0.0850 to 0.115	98.1	70.0 to 130	0.102	20.0
BC03962	Molybdenum, Total	mg/L	0.0000119	0.0002	0.100	0.115	0.115	0.0997	0.0850 to 0.115	95.9	70.0 to 130	0.00	20.0
BC03963	Potassium, Dissolved	mg/L	-0.0146	0.367	10.0	13.2	13.3	9.90	8.50 to 11.5	99.3	70.0 to 130	0.755	20.0
BC03962	Potassium, Total	mg/L	0.0105	0.367	10.0	34.5	35.0	9.89	8.50 to 11.5	90.0	70.0 to 130	1.44	20.0
BC03963	Selenium, Dissolved	mg/L	-0.0000156	0.00100	0.100	0.0471	0.0512	0.100	0.0850 to 0.115	47.1	70.0 to 130	8.34	20.0
BC03962	Selenium, Total	mg/L	0.0000516	0.00100	0.100	0.0986	0.0979	0.102	0.0850 to 0.115	98.6	70.0 to 130	0.712	20.0
BC03966	Silicon, Dissolved	mg/L	0.000469	0.0440	1.00	10.9	10.9	1.02	0.850 to 1.15	101	70.0 to 130	0.00	20.0
BC03962	Silicon, Total	mg/L	0.000268	0.0440	1.00	7.96	8.05	1.01	0.850 to 1.15	90.0	70.0 to 130	1.12	20.0
BC03966	Sodium, Dissolved	mg/L	-0.00274	0.0660	5.00	50.9	49.0	5.09	4.25 to 5.75	154	70.0 to 130	3.80	20.0
BC03962	Sodium, Total	mg/L	0.00459	0.0660	5.00	334	327	5.12	4.25 to 5.75	300	70.0 to 130	2.12	20.0
BC03963	Thallium, Dissolved	mg/L	0.0000119	0.000147	0.100	0.100	0.0974	0.101	0.0850 to 0.115	100	70.0 to 130	2.63	20.0
BC03962	Thallium, Total	mg/L	0.000009	0.000147	0.100	0.103	0.102	0.106	0.0850 to 0.115	103	70.0 to 130	0.976	20.0
BC03963	Total Organic Carbon	mg/L	0.200	1.00	10.0	10.3	9.80	9.01		86.0	80.0 to 120	4.98	20.0

**Comments:** The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.

## Batch QC Summary

**Customer Account:** WMWGORAP

**Sample Date:** 2/22/22 13:42

**Customer ID:**

**Delivery Date:** 2/23/22 16:56

**Description:** Gorgas Ash Pond - MW-18R

**Laboratory ID Number:** BC03958

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BC03970	Alkalinity, Total as CaCO3	mg/L					312	51.5	45.0 to 55.0			1.62	10.0
BC03962	Chloride	mg/L	-0.0767	1.00	250	414	160	10.3	9.00 to 11.0	104	80.0 to 120	3.17	20.0
BC03962	Fluoride	mg/L	0.0147	0.125	2.50	2.84	0.249	2.66	2.25 to 2.75	104	80.0 to 120	3.27	20.0
BC03962	Nitrogen, Nitrate/Nitrite	mg/L as N	-0.05	0.200	2.00	2.12	-0.040	1.86	1.80 to 2.20	106	90.0 to 110	0.00	15.0
BC03962	Solids, Dissolved	mg/L	1.00	25.0			1030	51.0	40.0 to 60.0			1.92	10.0
BC03962	Sulfate	mg/L	0.0558	2.0	400	830	376	20.6	18.0 to 22.0	115	80.0 to 120	1.61	20.0

**Comments:** The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.

# Certificate Of Analysis

**Description:** Gorgas Ash Pond - MW-18R DUP

**Location Code:** WMWGORAP  
**Collected:** 2/22/22 13:42  
**Customer ID:**  
**Submittal Date:** 2/23/22 16:56

**Laboratory ID Number:** BC03959

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
<b>Analytical Method: EPA 200.7</b>			<b>Analyst: RDA</b>		<b>Preparation Method: EPA 1638</b>				
* Boron, Total	2/25/22 10:56	2/28/22 10:54		1.015	Not Detected	mg/L	0.030000	0.1015	U
* Calcium, Total	2/25/22 10:56	2/28/22 10:54		1.015	20.5	mg/L	0.070035	0.406	
* Iron, Total	2/25/22 10:56	2/28/22 10:54		1.015	3.87	mg/L	0.008120	0.0406	
* Lithium, Total	2/25/22 10:56	2/28/22 10:54		1.015	Not Detected	mg/L	0.007105	0.01999956	U
* Magnesium, Total	2/25/22 10:56	2/28/22 10:54		1.015	5.33	mg/L	0.021315	0.406	
Silica, Total (calc.)	2/25/22 10:56	2/28/22 10:54		1	21.8	mg/L			
Silicon, Total	2/25/22 10:56	2/28/22 10:54		1.015	10.2	mg/L	0.02030	0.25375	
* Sodium, Total	2/25/22 10:56	2/28/22 10:54		1.015	11.5	mg/L	0.03045	0.406	
<b>Analytical Method: EPA 200.7</b>			<b>Analyst: RDA</b>		<b>Preparation Method: EPA 1638</b>				
* Boron, Dissolved	2/25/22 14:30	3/1/22 09:55		1.015	Not Detected	mg/L	0.030000	0.1015	U
* Calcium, Dissolved	2/25/22 14:30	3/1/22 09:55		1.015	21.4	mg/L	0.070035	0.406	
* Iron, Dissolved	2/25/22 14:30	3/1/22 09:55		1.015	4.00	mg/L	0.008120	0.0406	
* Lithium, Dissolved	2/25/22 14:30	3/1/22 09:55		1.015	Not Detected	mg/L	0.007105	0.01999956	U
* Magnesium, Dissolved	2/25/22 14:30	3/1/22 09:55		1.015	5.39	mg/L	0.021315	0.406	
Silica, Dissolved (calc.)	2/25/22 14:30	3/1/22 09:55		1	22.3	mg/L			
Silicon, Dissolved	2/25/22 14:30	3/1/22 09:55		1.015	10.4	mg/L	0.02030	0.25375	
* Sodium, Dissolved	2/25/22 14:30	3/1/22 09:55		1.015	11.6	mg/L	0.03045	0.406	
<b>Analytical Method: EPA 200.8</b>			<b>Analyst: DLJ</b>		<b>Preparation Method: EPA 1638</b>				
* Antimony, Total	2/25/22 08:30	2/25/22 16:18		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Aluminum, Total	2/25/22 08:30	2/25/22 16:18		1.015	0.0853	mg/L	0.004060	0.01015	
* Arsenic, Total	2/25/22 08:30	2/25/22 16:18		1.015	0.000345	mg/L	0.000068	0.000203	
* Barium, Total	2/25/22 08:30	2/25/22 16:18		1.015	0.0713	mg/L	0.000102	0.000203	
* Beryllium, Total	2/25/22 08:30	2/25/22 16:18		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Total	2/25/22 08:30	2/25/22 16:18		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Total	2/25/22 08:30	2/25/22 16:18		1.015	0.000234	mg/L	0.000203	0.001015	J
* Cobalt, Total	2/25/22 08:30	2/25/22 16:18		1.015	0.000678	mg/L	0.000068	0.000203	
* Lead, Total	2/25/22 08:30	2/25/22 16:18		1.015	0.0000857	mg/L	0.000068	0.000203	J
* Manganese, Total	2/25/22 08:30	2/25/22 16:18		1.015	0.163	mg/L	0.000068	0.000203	
* Molybdenum, Total	2/25/22 08:30	2/25/22 16:18		1.015	0.000250	mg/L	0.000068	0.000203	
* Potassium, Total	2/25/22 08:30	2/25/22 16:18		1.015	0.872	mg/L	0.169505	0.5075	

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.



# Certificate Of Analysis

**Description:** Gorgas Ash Pond - MW-18R DUP

**Location Code:** WMWGORAP

**Collected:** 2/22/22 13:42

**Customer ID:**

**Submittal Date:** 2/23/22 16:56

**Laboratory ID Number:** BC03959

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
* Selenium, Total	2/25/22 08:30	2/25/22 16:18		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Total	2/25/22 08:30	2/25/22 16:18		1.015	Not Detected	mg/L	0.000068	0.000203	U
<b>Analytical Method: EPA 200.8</b>		<b>Analyst: DLJ</b>							
* Antimony, Dissolved	2/28/22 13:52	3/3/22 12:15		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Aluminum, Dissolved	2/28/22 13:52	3/3/22 12:15		1.015	Not Detected	mg/L	0.004060	0.01015	U
* Arsenic, Dissolved	2/28/22 13:52	3/3/22 12:15		1.015	0.000325	mg/L	0.000068	0.000203	
* Barium, Dissolved	2/28/22 13:52	3/3/22 12:15		1.015	0.0741	mg/L	0.000102	0.000203	
* Beryllium, Dissolved	2/28/22 13:52	3/3/22 12:15		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Dissolved	2/28/22 13:52	3/3/22 12:15		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Dissolved	2/28/22 13:52	3/3/22 12:15		1.015	Not Detected	mg/L	0.000203	0.001015	U
* Cobalt, Dissolved	2/28/22 13:52	3/3/22 12:15		1.015	0.000679	mg/L	0.000068	0.000203	
* Lead, Dissolved	2/28/22 13:52	3/3/22 12:15		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Dissolved	2/28/22 13:52	3/3/22 12:15		1.015	0.167	mg/L	0.000068	0.000203	
* Molybdenum, Dissolved	2/28/22 13:52	3/3/22 12:15		1.015	0.000238	mg/L	0.000068	0.000203	
* Potassium, Dissolved	2/28/22 13:52	3/3/22 12:15		1.015	0.864	mg/L	0.169505	0.5075	
* Selenium, Dissolved	2/28/22 13:52	3/3/22 12:15		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Dissolved	2/28/22 13:52	3/3/22 12:15		1.015	Not Detected	mg/L	0.000068	0.000203	U
<b>Analytical Method: EPA 245.1</b>		<b>Analyst: ABB</b>							
* Mercury, Total by CVAA	2/25/22 16:39	2/25/22 21:05		1	Not Detected	mg/L	0.0003	0.0005	U
<b>Analytical Method: EPA 353.2</b>		<b>Analyst: ELH</b>							
* Nitrogen, Nitrate/Nitrite	2/25/22 12:24	2/25/22 12:24		1	Not Detected	mg/L as N	0.20	0.3	U
<b>Analytical Method: SM 2320 B</b>		<b>Analyst: ALH</b>							
Alkalinity, Total as CaCO3	3/4/22 10:30	3/4/22 12:34		1	80.8	mg/L		0.1	
<b>Analytical Method: SM 2540C</b>		<b>Analyst: CNJ</b>							
* Solids, Dissolved	2/24/22 11:28	2/28/22 09:55		1	134	mg/L		25	
<b>Analytical Method: SM 4500CO2 D</b>		<b>Analyst: ALH</b>							
Bicarbonate Alkalinity, (calc.)	3/4/22 10:30	3/4/22 12:34		1	80.8	mg/L			
Carbonate Alkalinity, (calc.)	3/4/22 10:30	3/4/22 12:34		1	0.04	mg/L			
<b>Analytical Method: SM 5310 B</b>		<b>Analyst: ELH</b>							
* Total Organic Carbon	3/2/22 09:22	3/2/22 09:22		1	Not Detected	mg/L	1.00	2	U

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.

# Certificate Of Analysis

**Description:** Gorgas Ash Pond - MW-18R DUP

**Location Code:** WMWGORAP  
**Collected:** 2/22/22 13:42  
**Customer ID:**  
**Submittal Date:** 2/23/22 16:56

**Laboratory ID Number:** BC03959

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
<b>Analytical Method: SM4500Cl E</b>		<b>Analyst: JCC</b>							
* Chloride	2/24/22 14:47	2/24/22 14:47		1	3.41	mg/L	0.50	1	
<b>Analytical Method: SM4500F G 2017</b>		<b>Analyst: JCC</b>							
* Fluoride	2/25/22 09:48	2/25/22 09:48		1	0.118	mg/L	0.06	0.1	
<b>Analytical Method: SM4500SO4 E 2011</b>		<b>Analyst: CES</b>							
* Sulfate	3/2/22 09:17	3/2/22 09:17		1	26.8	mg/L	0.50	1	
<b>Analytical Method: Field Measurements</b>		<b>Analyst: DKG</b>							
Conductivity	2/22/22 13:39	2/22/22 13:39			198.06	uS/cm			FA
pH	2/22/22 13:39	2/22/22 13:39			6.29	SU			FA
Temperature	2/22/22 13:39	2/22/22 13:39			17.31	C			FA
Turbidity	2/22/22 13:39	2/22/22 13:39			4.74	NTU			FA

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

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**Comments:** The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.

# Batch QC Summary

**Customer Account:** WMWGORAP

**Sample Date:** 2/22/22 13:42

**Customer ID:**

**Delivery Date:** 2/23/22 16:56

**Description:** Gorgas Ash Pond - MW-18R DUP

**Laboratory ID Number:** BC03959

Sample	Analysis	Units	MB	MB		Spike	MS	MSD	Standard		Rec		Prec
				Limit					Standard	Limit	Rec	Limit	
BC03963	Aluminum, Dissolved	mg/L	-0.000122	0.010	0.100	0.102	0.104	0.0988	0.0850 to 0.115	102	70.0 to 130	1.94	20.0
BC03962	Aluminum, Total	mg/L	0.000422	0.010	0.100	0.132	0.138	0.0983	0.0850 to 0.115	98.6	70.0 to 130	4.44	20.0
BC03963	Antimony, Dissolved	mg/L	0.000368	0.00100	0.100	0.0922	0.0933	0.0893	0.0850 to 0.115	92.2	70.0 to 130	1.19	20.0
BC03962	Antimony, Total	mg/L	0.000597	0.00100	0.100	0.0997	0.102	0.0926	0.0850 to 0.115	99.7	70.0 to 130	2.28	20.0
BC03963	Arsenic, Dissolved	mg/L	0.0000084	0.000176	0.100	0.104	0.104	0.101	0.0850 to 0.115	104	70.0 to 130	0.00	20.0
BC03962	Arsenic, Total	mg/L	0.0000144	0.000176	0.100	0.101	0.101	0.0993	0.0850 to 0.115	98.5	70.0 to 130	0.00	20.0
BC03963	Barium, Dissolved	mg/L	0.0000048	0.000200	0.100	0.271	0.274	0.0960	0.0850 to 0.115	91.0	70.0 to 130	1.10	20.0
BC03962	Barium, Total	mg/L	-0.0000178	0.000200	0.100	0.148	0.145	0.0959	0.0850 to 0.115	99.4	70.0 to 130	2.05	20.0
BC03963	Beryllium, Dissolved	mg/L	0.0000123	0.000880	0.100	0.0940	0.101	0.0920	0.0850 to 0.115	94.0	70.0 to 130	7.18	20.0
BC03962	Beryllium, Total	mg/L	0.000328	0.000880	0.100	0.105	0.103	0.104	0.0850 to 0.115	105	70.0 to 130	1.92	20.0
BC03966	Boron, Dissolved	mg/L	-0.000179	0.0650	1.00	1.02	1.03	0.993	0.850 to 1.15	102	70.0 to 130	0.976	20.0
BC03962	Boron, Total	mg/L	-0.000323	0.0650	1.00	1.10	1.11	0.982	0.850 to 1.15	99.1	70.0 to 130	0.905	20.0
BC03963	Cadmium, Dissolved	mg/L	0.0000030	0.000147	0.100	0.100	0.0996	0.0986	0.0850 to 0.115	100	70.0 to 130	0.401	20.0
BC03962	Cadmium, Total	mg/L	0.0000093	0.000147	0.100	0.0998	0.0982	0.0984	0.0850 to 0.115	99.8	70.0 to 130	1.62	20.0
BC03966	Calcium, Dissolved	mg/L	-0.00563	0.152	5.00	62.6	60.2	4.84	4.25 to 5.75	182	70.0 to 130	3.91	20.0
BC03962	Calcium, Total	mg/L	-0.00556	0.152	5.00	14.3	14.4	4.84	4.25 to 5.75	91.4	70.0 to 130	0.697	20.0
BC03963	Chromium, Dissolved	mg/L	-0.0000065	0.000440	0.100	0.0985	0.0998	0.0994	0.0850 to 0.115	98.3	70.0 to 130	1.31	20.0
BC03962	Chromium, Total	mg/L	-0.0000273	0.000440	0.100	0.0954	0.0958	0.0994	0.0850 to 0.115	94.9	70.0 to 130	0.418	20.0
BC03963	Cobalt, Dissolved	mg/L	0.0000031	0.000147	0.100	0.103	0.105	0.104	0.0850 to 0.115	103	70.0 to 130	1.92	20.0
BC03962	Cobalt, Total	mg/L	0.0000306	0.000147	0.100	0.0973	0.0987	0.102	0.0850 to 0.115	97.0	70.0 to 130	1.43	20.0
BC03966	Iron, Dissolved	mg/L	0.00221	0.0176	0.2	0.639	0.633	0.203	0.170 to 0.230	99.0	70.0 to 130	0.943	20.0
BC03962	Iron, Total	mg/L	-0.000047	0.0176	0.2	1.35	1.36	0.196	0.170 to 0.230	90.0	70.0 to 130	0.738	20.0
BC03963	Lead, Dissolved	mg/L	0.0000104	0.000147	0.100	0.100	0.104	0.100	0.0850 to 0.115	100	70.0 to 130	3.92	20.0

**Comments:** The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.

# Batch QC Summary

**Customer Account:** WMWGORAP

**Sample Date:** 2/22/22 13:42

**Customer ID:**

**Delivery Date:** 2/23/22 16:56

**Description:** Gorgas Ash Pond - MW-18R DUP

**Laboratory ID Number:** BC03959

Sample	Analysis	Units	MB	MB				Standard		Rec		Prec	Limit
				Limit	Spike	MS	MSD	Standard	Limit	Rec	Limit		
BC03962	Lead, Total	mg/L	0.0000074	0.000147	0.100	0.106	0.105	0.107	0.0850 to 0.115	106	70.0 to 130	0.948	20.0
BC03966	Lithium, Dissolved	mg/L	0.000133	0.0154	0.200	0.224	0.222	0.198	0.170 to 0.230	99.1	70.0 to 130	0.897	20.0
BC03962	Lithium, Total	mg/L	-0.000369	0.0154	0.200	0.252	0.253	0.205	0.170 to 0.230	102	70.0 to 130	0.396	20.0
BC03966	Magnesium, Dissolved	mg/L	0.000702	0.0462	5.00	21.6	21.3	5.11	4.25 to 5.75	106	70.0 to 130	1.40	20.0
BC03962	Magnesium, Total	mg/L	0.00100	0.0462	5.00	8.44	8.54	5.15	4.25 to 5.75	97.8	70.0 to 130	1.18	20.0
BC03963	Manganese, Dissolved	mg/L	0.0000165	0.0002	0.100	0.137	0.140	0.102	0.0850 to 0.115	101	70.0 to 130	2.17	20.0
BC03962	Manganese, Total	mg/L	-0.0000151	0.0002	0.100	0.148	0.150	0.101	0.0850 to 0.115	96.1	70.0 to 130	1.34	20.0
BC03962	Mercury, Total by CVAA	mg/L	-3.000E-05	0.000500	0.004	0.00391	0.00393	0.00393	0.00340 to 0.00460	97.8	70.0 to 130	0.510	20.0
BC03963	Molybdenum, Dissolved	mg/L	0.0000139	0.0002	0.100	0.0982	0.0983	0.0995	0.0850 to 0.115	98.1	70.0 to 130	0.102	20.0
BC03962	Molybdenum, Total	mg/L	0.0000119	0.0002	0.100	0.115	0.115	0.0997	0.0850 to 0.115	95.9	70.0 to 130	0.00	20.0
BC03963	Potassium, Dissolved	mg/L	-0.0146	0.367	10.0	13.2	13.3	9.90	8.50 to 11.5	99.3	70.0 to 130	0.755	20.0
BC03962	Potassium, Total	mg/L	0.0105	0.367	10.0	34.5	35.0	9.89	8.50 to 11.5	90.0	70.0 to 130	1.44	20.0
BC03963	Selenium, Dissolved	mg/L	-0.0000156	0.00100	0.100	0.0471	0.0512	0.100	0.0850 to 0.115	47.1	70.0 to 130	8.34	20.0
BC03962	Selenium, Total	mg/L	0.0000516	0.00100	0.100	0.0986	0.0979	0.102	0.0850 to 0.115	98.6	70.0 to 130	0.712	20.0
BC03966	Silicon, Dissolved	mg/L	0.000469	0.0440	1.00	10.9	10.9	1.02	0.850 to 1.15	101	70.0 to 130	0.00	20.0
BC03962	Silicon, Total	mg/L	0.000268	0.0440	1.00	7.96	8.05	1.01	0.850 to 1.15	90.0	70.0 to 130	1.12	20.0
BC03966	Sodium, Dissolved	mg/L	-0.00274	0.0660	5.00	50.9	49.0	5.09	4.25 to 5.75	154	70.0 to 130	3.80	20.0
BC03962	Sodium, Total	mg/L	0.00459	0.0660	5.00	334	327	5.12	4.25 to 5.75	300	70.0 to 130	2.12	20.0
BC03963	Thallium, Dissolved	mg/L	0.0000119	0.000147	0.100	0.100	0.0974	0.101	0.0850 to 0.115	100	70.0 to 130	2.63	20.0
BC03962	Thallium, Total	mg/L	0.000009	0.000147	0.100	0.103	0.102	0.106	0.0850 to 0.115	103	70.0 to 130	0.976	20.0
BC03963	Total Organic Carbon	mg/L	0.200	1.00	10.0	10.3	9.80	9.01		86.0	80.0 to 120	4.98	20.0

**Comments:** The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.

## Batch QC Summary

**Customer Account:** WMWGORAP

**Sample Date:** 2/22/22 13:42

**Customer ID:**

**Delivery Date:** 2/23/22 16:56

**Description:** Gorgas Ash Pond - MW-18R DUP

**Laboratory ID Number:** BC03959

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BC03970	Alkalinity, Total as CaCO3	mg/L					312	51.5	45.0 to 55.0			1.62	10.0
BC03962	Chloride	mg/L	-0.0767	1.00	250	414	160	10.3	9.00 to 11.0	104	80.0 to 120	3.17	20.0
BC03962	Fluoride	mg/L	0.0147	0.125	2.50	2.84	0.249	2.66	2.25 to 2.75	104	80.0 to 120	3.27	20.0
BC03962	Nitrogen, Nitrate/Nitrite	mg/L as N	-0.05	0.200	2.00	2.12	-0.040	1.86	1.80 to 2.20	106	90.0 to 110	0.00	15.0
BC03962	Solids, Dissolved	mg/L	1.00	25.0			1030	51.0	40.0 to 60.0			1.92	10.0
BC03962	Sulfate	mg/L	0.0558	2.0	400	830	376	20.6	18.0 to 22.0	115	80.0 to 120	1.61	20.0

**Comments:** The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.

# Certificate Of Analysis

**Description:** Gorgas Ash Pond - MW-18VR

**Location Code:** WMWGORAP  
**Collected:** 2/22/22 15:15  
**Customer ID:**  
**Submittal Date:** 2/23/22 16:56

**Laboratory ID Number:** BC03960

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
<b>Analytical Method: EPA 200.7</b>		<b>Analyst: RDA</b>			<b>Preparation Method: EPA 1638</b>				
* Boron, Total	2/25/22 10:56	2/28/22 10:55		1.015	0.0488	mg/L	0.030000	0.1015	J
* Calcium, Total	2/25/22 10:56	2/28/22 10:55		1.015	5.80	mg/L	0.070035	0.406	
* Iron, Total	2/25/22 10:56	2/28/22 10:55		1.015	0.664	mg/L	0.008120	0.0406	
* Lithium, Total	2/25/22 10:56	2/28/22 10:55		1.015	0.0446	mg/L	0.007105	0.01999956	
* Magnesium, Total	2/25/22 10:56	2/28/22 10:55		1.015	1.82	mg/L	0.021315	0.406	
Silica, Total (calc.)	2/25/22 10:56	2/28/22 10:55		1	11.2	mg/L			
Silicon, Total	2/25/22 10:56	2/28/22 10:55		1.015	5.25	mg/L	0.02030	0.25375	
* Sodium, Total	2/25/22 10:56	2/28/22 12:37		20.3	113	mg/L	0.609	8.12	
<b>Analytical Method: EPA 200.7</b>		<b>Analyst: RDA</b>			<b>Preparation Method: EPA 1638</b>				
* Boron, Dissolved	2/25/22 14:30	3/1/22 09:57		1.015	0.0486	mg/L	0.030000	0.1015	J
* Calcium, Dissolved	2/25/22 14:30	3/1/22 09:57		1.015	5.79	mg/L	0.070035	0.406	
* Iron, Dissolved	2/25/22 14:30	3/1/22 09:57		1.015	0.573	mg/L	0.008120	0.0406	
* Lithium, Dissolved	2/25/22 14:30	3/1/22 09:57		1.015	0.0444	mg/L	0.007105	0.01999956	
* Magnesium, Dissolved	2/25/22 14:30	3/1/22 09:57		1.015	1.84	mg/L	0.021315	0.406	
Silica, Dissolved (calc.)	2/25/22 14:30	3/1/22 09:57		1	11.0	mg/L			
Silicon, Dissolved	2/25/22 14:30	3/1/22 09:57		1.015	5.15	mg/L	0.02030	0.25375	
* Sodium, Dissolved	2/25/22 14:30	3/1/22 11:58		20.3	115	mg/L	0.609	8.12	
<b>Analytical Method: EPA 200.8</b>		<b>Analyst: DLJ</b>			<b>Preparation Method: EPA 1638</b>				
* Antimony, Total	2/25/22 08:30	2/25/22 16:22		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Aluminum, Total	2/25/22 08:30	2/25/22 16:22		1.015	0.0590	mg/L	0.004060	0.01015	
* Arsenic, Total	2/25/22 08:30	2/25/22 16:22		1.015	0.00164	mg/L	0.000068	0.000203	
* Barium, Total	2/25/22 08:30	2/25/22 16:22		1.015	0.187	mg/L	0.000102	0.000203	
* Beryllium, Total	2/25/22 08:30	2/25/22 16:22		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Total	2/25/22 08:30	2/25/22 16:22		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Total	2/25/22 08:30	2/25/22 16:22		1.015	0.000522	mg/L	0.000203	0.001015	J
* Cobalt, Total	2/25/22 08:30	2/25/22 16:22		1.015	0.0000932	mg/L	0.000068	0.000203	J
* Lead, Total	2/25/22 08:30	2/25/22 16:22		1.015	0.0000895	mg/L	0.000068	0.000203	J
* Manganese, Total	2/25/22 08:30	2/25/22 16:22		1.015	0.0245	mg/L	0.000068	0.000203	
* Molybdenum, Total	2/25/22 08:30	2/25/22 16:22		1.015	0.0336	mg/L	0.000068	0.000203	
* Potassium, Total	2/25/22 08:30	2/25/22 16:22		1.015	2.58	mg/L	0.169505	0.5075	

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.

# Certificate Of Analysis

**Description:** Gorgas Ash Pond - MW-18VR

**Location Code:** WMWGORAP

**Collected:** 2/22/22 15:15

**Customer ID:**

**Submittal Date:** 2/23/22 16:56

**Laboratory ID Number:** BC03960

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
* Selenium, Total	2/25/22 08:30	2/25/22 16:22		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Total	2/25/22 08:30	2/25/22 16:22		1.015	Not Detected	mg/L	0.000068	0.000203	U
<b>Analytical Method: EPA 200.8</b>		<b>Analyst: DLJ</b>							
* Antimony, Dissolved	2/28/22 13:52	3/3/22 12:19		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Aluminum, Dissolved	2/28/22 13:52	3/3/22 12:19		1.015	0.00413	mg/L	0.004060	0.01015	J
* Arsenic, Dissolved	2/28/22 13:52	3/3/22 12:19		1.015	0.00171	mg/L	0.000068	0.000203	
* Barium, Dissolved	2/28/22 13:52	3/3/22 12:19		1.015	0.191	mg/L	0.000102	0.000203	
* Beryllium, Dissolved	2/28/22 13:52	3/3/22 12:19		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Dissolved	2/28/22 13:52	3/3/22 12:19		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Dissolved	2/28/22 13:52	3/3/22 12:19		1.015	Not Detected	mg/L	0.000203	0.001015	U
* Cobalt, Dissolved	2/28/22 13:52	3/3/22 12:19		1.015	0.0000852	mg/L	0.000068	0.000203	J
* Lead, Dissolved	2/28/22 13:52	3/3/22 12:19		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Dissolved	2/28/22 13:52	3/3/22 12:19		1.015	0.0250	mg/L	0.000068	0.000203	
* Molybdenum, Dissolved	2/28/22 13:52	3/3/22 12:19		1.015	0.0337	mg/L	0.000068	0.000203	
* Potassium, Dissolved	2/28/22 13:52	3/3/22 12:19		1.015	2.65	mg/L	0.169505	0.5075	
* Selenium, Dissolved	2/28/22 13:52	3/3/22 12:19		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Dissolved	2/28/22 13:52	3/3/22 12:19		1.015	Not Detected	mg/L	0.000068	0.000203	U
<b>Analytical Method: EPA 245.1</b>		<b>Analyst: ABB</b>							
* Mercury, Total by CVAA	2/25/22 16:39	2/25/22 21:09		1	Not Detected	mg/L	0.0003	0.0005	U
<b>Analytical Method: EPA 353.2</b>		<b>Analyst: ELH</b>							
* Nitrogen, Nitrate/Nitrite	2/25/22 12:26	2/25/22 12:26		1	Not Detected	mg/L as N	0.20	0.3	U
<b>Analytical Method: SM 2320 B</b>		<b>Analyst: ALH</b>							
Alkalinity, Total as CaCO3	3/4/22 10:30	3/4/22 12:34		1	250	mg/L		0.10	
<b>Analytical Method: SM 2540C</b>		<b>Analyst: CNJ</b>							
* Solids, Dissolved	2/24/22 11:28	2/28/22 09:55		1	298	mg/L		25	
<b>Analytical Method: SM 4500CO2 D</b>		<b>Analyst: ALH</b>							
Bicarbonate Alkalinity, (calc.)	3/4/22 10:30	3/4/22 12:34		1	244	mg/L			
Carbonate Alkalinity, (calc.)	3/4/22 10:30	3/4/22 12:34		1	5.39	mg/L			
<b>Analytical Method: SM 5310 B</b>		<b>Analyst: ELH</b>							
* Total Organic Carbon	3/2/22 09:42	3/2/22 09:42		1	Not Detected	mg/L	1.00	2	U

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.

# Certificate Of Analysis

**Description:** Gorgas Ash Pond - MW-18VR

**Location Code:** WMWGORAP

**Collected:** 2/22/22 15:15

**Customer ID:**

**Submittal Date:** 2/23/22 16:56

**Laboratory ID Number:** BC03960

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
<b>Analytical Method: SM4500Cl E</b>		<b>Analyst: JCC</b>							
* Chloride	2/24/22 14:49	2/24/22 14:49		1	15.3	mg/L	0.50	1	
<b>Analytical Method: SM4500F G 2017</b>		<b>Analyst: JCC</b>							
* Fluoride	2/25/22 09:50	2/25/22 09:50		1	0.199	mg/L	0.06	0.1	
<b>Analytical Method: SM4500SO4 E 2011</b>		<b>Analyst: CES</b>							
* Sulfate	3/2/22 09:18	3/2/22 09:18		1	13.0	mg/L	0.50	1	
<b>Analytical Method: Field Measurements</b>		<b>Analyst: DKG</b>							
Conductivity	2/22/22 15:12	2/22/22 15:12			482.09	uS/cm			FA
pH	2/22/22 15:12	2/22/22 15:12			7.88	SU			FA
Temperature	2/22/22 15:12	2/22/22 15:12			17.35	C			FA
Turbidity	2/22/22 15:12	2/22/22 15:12			3.16	NTU			FA

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.



# Batch QC Summary

**Customer Account:** WMWGORAP

**Sample Date:** 2/22/22 15:15

**Customer ID:**

**Delivery Date:** 2/23/22 16:56

**Description:** Gorgas Ash Pond - MW-18VR

**Laboratory ID Number:** BC03960

Sample	Analysis	Units	MB	MB		Spike	MS	MSD	Standard		Rec		Prec	Limit
				Limit					Standard	Limit	Rec	Limit		
BC03963	Aluminum, Dissolved	mg/L	-0.000122	0.010	0.100	0.102	0.104	0.0988	0.0850 to 0.115	102	70.0 to 130	1.94	20.0	
BC03962	Aluminum, Total	mg/L	0.000422	0.010	0.100	0.132	0.138	0.0983	0.0850 to 0.115	98.6	70.0 to 130	4.44	20.0	
BC03963	Antimony, Dissolved	mg/L	0.000368	0.00100	0.100	0.0922	0.0933	0.0893	0.0850 to 0.115	92.2	70.0 to 130	1.19	20.0	
BC03962	Antimony, Total	mg/L	0.000597	0.00100	0.100	0.0997	0.102	0.0926	0.0850 to 0.115	99.7	70.0 to 130	2.28	20.0	
BC03963	Arsenic, Dissolved	mg/L	0.0000084	0.000176	0.100	0.104	0.104	0.101	0.0850 to 0.115	104	70.0 to 130	0.00	20.0	
BC03962	Arsenic, Total	mg/L	0.0000144	0.000176	0.100	0.101	0.101	0.0993	0.0850 to 0.115	98.5	70.0 to 130	0.00	20.0	
BC03963	Barium, Dissolved	mg/L	0.0000048	0.000200	0.100	0.271	0.274	0.0960	0.0850 to 0.115	91.0	70.0 to 130	1.10	20.0	
BC03962	Barium, Total	mg/L	-0.0000178	0.000200	0.100	0.148	0.145	0.0959	0.0850 to 0.115	99.4	70.0 to 130	2.05	20.0	
BC03963	Beryllium, Dissolved	mg/L	0.0000123	0.000880	0.100	0.0940	0.101	0.0920	0.0850 to 0.115	94.0	70.0 to 130	7.18	20.0	
BC03962	Beryllium, Total	mg/L	0.000328	0.000880	0.100	0.105	0.103	0.104	0.0850 to 0.115	105	70.0 to 130	1.92	20.0	
BC03966	Boron, Dissolved	mg/L	-0.000179	0.0650	1.00	1.02	1.03	0.993	0.850 to 1.15	102	70.0 to 130	0.976	20.0	
BC03962	Boron, Total	mg/L	-0.000323	0.0650	1.00	1.10	1.11	0.982	0.850 to 1.15	99.1	70.0 to 130	0.905	20.0	
BC03963	Cadmium, Dissolved	mg/L	0.0000030	0.000147	0.100	0.100	0.0996	0.0986	0.0850 to 0.115	100	70.0 to 130	0.401	20.0	
BC03962	Cadmium, Total	mg/L	0.0000093	0.000147	0.100	0.0998	0.0982	0.0984	0.0850 to 0.115	99.8	70.0 to 130	1.62	20.0	
BC03966	Calcium, Dissolved	mg/L	-0.00563	0.152	5.00	62.6	60.2	4.84	4.25 to 5.75	182	70.0 to 130	3.91	20.0	
BC03962	Calcium, Total	mg/L	-0.00556	0.152	5.00	14.3	14.4	4.84	4.25 to 5.75	91.4	70.0 to 130	0.697	20.0	
BC03963	Chromium, Dissolved	mg/L	-0.0000065	0.000440	0.100	0.0985	0.0998	0.0994	0.0850 to 0.115	98.3	70.0 to 130	1.31	20.0	
BC03962	Chromium, Total	mg/L	-0.0000273	0.000440	0.100	0.0954	0.0958	0.0994	0.0850 to 0.115	94.9	70.0 to 130	0.418	20.0	
BC03963	Cobalt, Dissolved	mg/L	0.0000031	0.000147	0.100	0.103	0.105	0.104	0.0850 to 0.115	103	70.0 to 130	1.92	20.0	
BC03962	Cobalt, Total	mg/L	0.0000306	0.000147	0.100	0.0973	0.0987	0.102	0.0850 to 0.115	97.0	70.0 to 130	1.43	20.0	
BC03966	Iron, Dissolved	mg/L	0.00221	0.0176	0.2	0.639	0.633	0.203	0.170 to 0.230	99.0	70.0 to 130	0.943	20.0	
BC03962	Iron, Total	mg/L	-0.000047	0.0176	0.2	1.35	1.36	0.196	0.170 to 0.230	90.0	70.0 to 130	0.738	20.0	
BC03963	Lead, Dissolved	mg/L	0.0000104	0.000147	0.100	0.100	0.104	0.100	0.0850 to 0.115	100	70.0 to 130	3.92	20.0	

**Comments:** The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.

# Batch QC Summary

**Customer Account:** WMWGORAP

**Sample Date:** 2/22/22 15:15

**Customer ID:**

**Delivery Date:** 2/23/22 16:56

**Description:** Gorgas Ash Pond - MW-18VR

**Laboratory ID Number:** BC03960

Sample	Analysis	Units	MB	MB				Standard		Rec		Prec	Limit
				Limit	Spike	MS	MSD	Standard	Limit	Rec	Limit		
BC03962	Lead, Total	mg/L	0.0000074	0.000147	0.100	0.106	0.105	0.107	0.0850 to 0.115	106	70.0 to 130	0.948	20.0
BC03966	Lithium, Dissolved	mg/L	0.000133	0.0154	0.200	0.224	0.222	0.198	0.170 to 0.230	99.1	70.0 to 130	0.897	20.0
BC03962	Lithium, Total	mg/L	-0.000369	0.0154	0.200	0.252	0.253	0.205	0.170 to 0.230	102	70.0 to 130	0.396	20.0
BC03966	Magnesium, Dissolved	mg/L	0.000702	0.0462	5.00	21.6	21.3	5.11	4.25 to 5.75	106	70.0 to 130	1.40	20.0
BC03962	Magnesium, Total	mg/L	0.00100	0.0462	5.00	8.44	8.54	5.15	4.25 to 5.75	97.8	70.0 to 130	1.18	20.0
BC03963	Manganese, Dissolved	mg/L	0.0000165	0.0002	0.100	0.137	0.140	0.102	0.0850 to 0.115	101	70.0 to 130	2.17	20.0
BC03962	Manganese, Total	mg/L	-0.0000151	0.0002	0.100	0.148	0.150	0.101	0.0850 to 0.115	96.1	70.0 to 130	1.34	20.0
BC03962	Mercury, Total by CVAA	mg/L	-3.000E-05	0.000500	0.004	0.00391	0.00393	0.00393	0.00340 to 0.00460	97.8	70.0 to 130	0.510	20.0
BC03963	Molybdenum, Dissolved	mg/L	0.0000139	0.0002	0.100	0.0982	0.0983	0.0995	0.0850 to 0.115	98.1	70.0 to 130	0.102	20.0
BC03962	Molybdenum, Total	mg/L	0.0000119	0.0002	0.100	0.115	0.115	0.0997	0.0850 to 0.115	95.9	70.0 to 130	0.00	20.0
BC03963	Potassium, Dissolved	mg/L	-0.0146	0.367	10.0	13.2	13.3	9.90	8.50 to 11.5	99.3	70.0 to 130	0.755	20.0
BC03962	Potassium, Total	mg/L	0.0105	0.367	10.0	34.5	35.0	9.89	8.50 to 11.5	90.0	70.0 to 130	1.44	20.0
BC03963	Selenium, Dissolved	mg/L	-0.0000156	0.00100	0.100	0.0471	0.0512	0.100	0.0850 to 0.115	47.1	70.0 to 130	8.34	20.0
BC03962	Selenium, Total	mg/L	0.0000516	0.00100	0.100	0.0986	0.0979	0.102	0.0850 to 0.115	98.6	70.0 to 130	0.712	20.0
BC03966	Silicon, Dissolved	mg/L	0.000469	0.0440	1.00	10.9	10.9	1.02	0.850 to 1.15	101	70.0 to 130	0.00	20.0
BC03962	Silicon, Total	mg/L	0.000268	0.0440	1.00	7.96	8.05	1.01	0.850 to 1.15	90.0	70.0 to 130	1.12	20.0
BC03966	Sodium, Dissolved	mg/L	-0.00274	0.0660	5.00	50.9	49.0	5.09	4.25 to 5.75	154	70.0 to 130	3.80	20.0
BC03962	Sodium, Total	mg/L	0.00459	0.0660	5.00	334	327	5.12	4.25 to 5.75	300	70.0 to 130	2.12	20.0
BC03963	Thallium, Dissolved	mg/L	0.0000119	0.000147	0.100	0.100	0.0974	0.101	0.0850 to 0.115	100	70.0 to 130	2.63	20.0
BC03962	Thallium, Total	mg/L	0.000009	0.000147	0.100	0.103	0.102	0.106	0.0850 to 0.115	103	70.0 to 130	0.976	20.0
BC03963	Total Organic Carbon	mg/L	0.200	1.00	10.0	10.3	9.80	9.01		86.0	80.0 to 120	4.98	20.0

**Comments:** The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.

## Batch QC Summary

**Customer Account:** WMWGORAP

**Sample Date:** 2/22/22 15:15

**Customer ID:**

**Delivery Date:** 2/23/22 16:56

**Description:** Gorgas Ash Pond - MW-18VR

**Laboratory ID Number:** BC03960

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Limit	Prec	Prec Limit
BC03970	Alkalinity, Total as CaCO3	mg/L					312	51.5	45.0 to 55.0			1.62	10.0
BC03962	Chloride	mg/L	-0.0767	1.00	250	414	160	10.3	9.00 to 11.0	104	80.0 to 120	3.17	20.0
BC03962	Fluoride	mg/L	0.0147	0.125	2.50	2.84	0.249	2.66	2.25 to 2.75	104	80.0 to 120	3.27	20.0
BC03962	Nitrogen, Nitrate/Nitrite	mg/L as N	-0.05	0.200	2.00	2.12	-0.040	1.86	1.80 to 2.20	106	90.0 to 110	0.00	15.0
BC03962	Solids, Dissolved	mg/L	1.00	25.0			1030	51.0	40.0 to 60.0			1.92	10.0
BC03962	Sulfate	mg/L	0.0558	2.0	400	830	376	20.6	18.0 to 22.0	115	80.0 to 120	1.61	20.0

**Comments:** The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.

# Certificate Of Analysis

**Description:** Gorgas Ash Pond - MW-45V

**Location Code:** WMWGORAP  
**Collected:** 2/23/22 11:29  
**Customer ID:**  
**Submittal Date:** 2/23/22 16:56

**Laboratory ID Number:** BC03961

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
<b>Analytical Method: EPA 200.7</b>		<b>Analyst: RDA</b>			<b>Preparation Method: EPA 1638</b>				
* Boron, Total	2/25/22 10:56	2/28/22 10:57		1.015	0.0380	mg/L	0.030000	0.1015	J
* Calcium, Total	2/25/22 10:56	2/28/22 10:57		1.015	5.61	mg/L	0.070035	0.406	
* Iron, Total	2/25/22 10:56	2/28/22 10:57		1.015	0.0704	mg/L	0.008120	0.0406	
* Lithium, Total	2/25/22 10:56	2/28/22 10:57		1.015	0.0374	mg/L	0.007105	0.01999956	
* Magnesium, Total	2/25/22 10:56	2/28/22 10:57		1.015	1.86	mg/L	0.021315	0.406	
Silica, Total (calc.)	2/25/22 10:56	2/28/22 10:57		1	12.7	mg/L			
Silicon, Total	2/25/22 10:56	2/28/22 10:57		1.015	5.92	mg/L	0.02030	0.25375	
* Sodium, Total	2/25/22 10:56	2/28/22 12:39		20.3	216	mg/L	0.609	8.12	
<b>Analytical Method: EPA 200.7</b>		<b>Analyst: RDA</b>			<b>Preparation Method: EPA 1638</b>				
* Boron, Dissolved	2/25/22 14:30	3/1/22 09:59		1.015	0.0384	mg/L	0.030000	0.1015	J
* Calcium, Dissolved	2/25/22 14:30	3/1/22 09:59		1.015	5.77	mg/L	0.070035	0.406	
* Iron, Dissolved	2/25/22 14:30	3/1/22 09:59		1.015	0.0412	mg/L	0.008120	0.0406	
* Lithium, Dissolved	2/25/22 14:30	3/1/22 09:59		1.015	0.0381	mg/L	0.007105	0.01999956	
* Magnesium, Dissolved	2/25/22 14:30	3/1/22 09:59		1.015	1.88	mg/L	0.021315	0.406	
Silica, Dissolved (calc.)	2/25/22 14:30	3/1/22 09:59		1	12.5	mg/L			
Silicon, Dissolved	2/25/22 14:30	3/1/22 09:59		1.015	5.86	mg/L	0.02030	0.25375	
* Sodium, Dissolved	2/25/22 14:30	3/1/22 12:00		20.3	229	mg/L	0.609	8.12	
<b>Analytical Method: EPA 200.8</b>		<b>Analyst: DLJ</b>			<b>Preparation Method: EPA 1638</b>				
* Antimony, Total	2/25/22 08:30	2/25/22 16:25		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Aluminum, Total	2/25/22 08:30	2/25/22 16:25		1.015	0.133	mg/L	0.004060	0.01015	
* Arsenic, Total	2/25/22 08:30	2/25/22 16:25		1.015	0.00106	mg/L	0.000068	0.000203	
* Barium, Total	2/25/22 08:30	2/25/22 16:25		1.015	0.0207	mg/L	0.000102	0.000203	
* Beryllium, Total	2/25/22 08:30	2/25/22 16:25		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Total	2/25/22 08:30	2/25/22 16:25		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Total	2/25/22 08:30	2/25/22 16:25		1.015	0.000204	mg/L	0.000203	0.001015	J
* Cobalt, Total	2/25/22 08:30	2/25/22 16:25		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Lead, Total	2/25/22 08:30	2/25/22 16:25		1.015	0.0000741	mg/L	0.000068	0.000203	J
* Manganese, Total	2/25/22 08:30	2/25/22 16:25		1.015	0.0219	mg/L	0.000068	0.000203	
* Molybdenum, Total	2/25/22 08:30	2/25/22 16:25		1.015	0.00470	mg/L	0.000068	0.000203	
* Potassium, Total	2/25/22 08:30	2/25/22 16:25		1.015	11.6	mg/L	0.169505	0.5075	

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.

# Certificate Of Analysis

**Description:** Gorgas Ash Pond - MW-45V

**Location Code:** WMWGORAP  
**Collected:** 2/23/22 11:29  
**Customer ID:**  
**Submittal Date:** 2/23/22 16:56

**Laboratory ID Number:** BC03961

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
* Selenium, Total	2/25/22 08:30	2/25/22 16:25		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Total	2/25/22 08:30	2/25/22 16:25		1.015	Not Detected	mg/L	0.000068	0.000203	U
<b>Analytical Method: EPA 200.8</b>		<b>Analyst: DLJ</b>							
* Antimony, Dissolved	2/28/22 13:52	3/3/22 12:22		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Aluminum, Dissolved	2/28/22 13:52	3/3/22 12:22		1.015	0.0105	mg/L	0.004060	0.01015	
* Arsenic, Dissolved	2/28/22 13:52	3/3/22 12:22		1.015	0.000984	mg/L	0.000068	0.000203	
* Barium, Dissolved	2/28/22 13:52	3/3/22 12:22		1.015	0.0221	mg/L	0.000102	0.000203	
* Beryllium, Dissolved	2/28/22 13:52	3/3/22 12:22		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Dissolved	2/28/22 13:52	3/3/22 12:22		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Dissolved	2/28/22 13:52	3/3/22 12:22		1.015	Not Detected	mg/L	0.000203	0.001015	U
* Cobalt, Dissolved	2/28/22 13:52	3/3/22 12:22		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Lead, Dissolved	2/28/22 13:52	3/3/22 12:22		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Dissolved	2/28/22 13:52	3/3/22 12:22		1.015	0.0218	mg/L	0.000068	0.000203	
* Molybdenum, Dissolved	2/28/22 13:52	3/3/22 12:22		1.015	0.00452	mg/L	0.000068	0.000203	
* Potassium, Dissolved	2/28/22 13:52	3/3/22 12:22		1.015	11.8	mg/L	0.169505	0.5075	
* Selenium, Dissolved	2/28/22 13:52	3/3/22 12:22		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Dissolved	2/28/22 13:52	3/3/22 12:22		1.015	Not Detected	mg/L	0.000068	0.000203	U
<b>Analytical Method: EPA 245.1</b>		<b>Analyst: ABB</b>							
* Mercury, Total by CVAA	2/25/22 16:39	2/25/22 21:13		1	Not Detected	mg/L	0.0003	0.0005	U
<b>Analytical Method: EPA 353.2</b>		<b>Analyst: ELH</b>							
* Nitrogen, Nitrate/Nitrite	2/25/22 12:28	2/25/22 12:28		1	Not Detected	mg/L as N	0.20	0.3	U
<b>Analytical Method: SM 2320 B</b>		<b>Analyst: ALH</b>							
Alkalinity, Total as CaCO3	3/7/22 13:30	3/7/22 15:20		1	200	mg/L		0.1	
<b>Analytical Method: SM 2540C</b>		<b>Analyst: CNJ</b>							
* Solids, Dissolved	2/24/22 11:28	2/28/22 09:55		1	674	mg/L		50	
<b>Analytical Method: SM 4500CO2 D</b>		<b>Analyst: ALH</b>							
Bicarbonate Alkalinity, (calc.)	3/7/22 13:30	3/7/22 15:20		1	199	mg/L			A
Carbonate Alkalinity, (calc.)	3/7/22 13:30	3/7/22 15:20		1	0.96	mg/L			A
<b>Analytical Method: SM 5310 B</b>		<b>Analyst: ELH</b>							
* Total Organic Carbon	3/2/22 09:58	3/2/22 09:58		1	1.31	mg/L	1.00	2	J

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.

# Certificate Of Analysis

**Description:** Gorgas Ash Pond - MW-45V

**Location Code:** WMWGORAP  
**Collected:** 2/23/22 11:29  
**Customer ID:**  
**Submittal Date:** 2/23/22 16:56

**Laboratory ID Number:** BC03961

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
<b>Analytical Method: SM4500Cl E</b>		<b>Analyst: JCC</b>							
* Chloride	2/24/22 14:50	2/24/22 14:50		4	54.2	mg/L	2.00	4	
<b>Analytical Method: SM4500F G 2017</b>		<b>Analyst: JCC</b>							
* Fluoride	2/25/22 09:51	2/25/22 09:51		1	0.204	mg/L	0.06	0.1	
<b>Analytical Method: SM4500SO4 E 2011</b>		<b>Analyst: CES</b>							
* Sulfate	3/2/22 09:34	3/2/22 09:34		20	273	mg/L	10.00	20	
<b>Analytical Method: Field Measurements</b>		<b>Analyst: DKG</b>							
Conductivity	2/23/22 11:26	2/23/22 11:26			1139.43	uS/cm			FA
pH	2/23/22 11:26	2/23/22 11:26			7.86	SU			FA
Temperature	2/23/22 11:26	2/23/22 11:26			16.32	C			FA
Turbidity	2/23/22 11:26	2/23/22 11:26			4.16	NTU			FA

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.

# Batch QC Summary

**Customer Account:** WMWGORAP

**Sample Date:** 2/23/22 11:29

**Customer ID:**

**Delivery Date:** 2/23/22 16:56

**Description:** Gorgas Ash Pond - MW-45V

**Laboratory ID Number:** BC03961

Sample	Analysis	Units	MB	MB		MS	MSD	Standard		Rec		Prec	Limit
				Limit	Spike			Standard	Limit	Rec	Limit		
BC03963	Aluminum, Dissolved	mg/L	-0.000122	0.010	0.100	0.102	0.104	0.0988	0.0850 to 0.115	102	70.0 to 130	1.94	20.0
BC03962	Aluminum, Total	mg/L	0.000422	0.010	0.100	0.132	0.138	0.0983	0.0850 to 0.115	98.6	70.0 to 130	4.44	20.0
BC03963	Antimony, Dissolved	mg/L	0.000368	0.00100	0.100	0.0922	0.0933	0.0893	0.0850 to 0.115	92.2	70.0 to 130	1.19	20.0
BC03962	Antimony, Total	mg/L	0.000597	0.00100	0.100	0.0997	0.102	0.0926	0.0850 to 0.115	99.7	70.0 to 130	2.28	20.0
BC03963	Arsenic, Dissolved	mg/L	0.0000084	0.000176	0.100	0.104	0.104	0.101	0.0850 to 0.115	104	70.0 to 130	0.00	20.0
BC03962	Arsenic, Total	mg/L	0.0000144	0.000176	0.100	0.101	0.101	0.0993	0.0850 to 0.115	98.5	70.0 to 130	0.00	20.0
BC03963	Barium, Dissolved	mg/L	0.0000048	0.000200	0.100	0.271	0.274	0.0960	0.0850 to 0.115	91.0	70.0 to 130	1.10	20.0
BC03962	Barium, Total	mg/L	-0.0000178	0.000200	0.100	0.148	0.145	0.0959	0.0850 to 0.115	99.4	70.0 to 130	2.05	20.0
BC03963	Beryllium, Dissolved	mg/L	0.0000123	0.000880	0.100	0.0940	0.101	0.0920	0.0850 to 0.115	94.0	70.0 to 130	7.18	20.0
BC03962	Beryllium, Total	mg/L	0.000328	0.000880	0.100	0.105	0.103	0.104	0.0850 to 0.115	105	70.0 to 130	1.92	20.0
BC03966	Boron, Dissolved	mg/L	-0.000179	0.0650	1.00	1.02	1.03	0.993	0.850 to 1.15	102	70.0 to 130	0.976	20.0
BC03962	Boron, Total	mg/L	-0.000323	0.0650	1.00	1.10	1.11	0.982	0.850 to 1.15	99.1	70.0 to 130	0.905	20.0
BC03963	Cadmium, Dissolved	mg/L	0.0000030	0.000147	0.100	0.100	0.0996	0.0986	0.0850 to 0.115	100	70.0 to 130	0.401	20.0
BC03962	Cadmium, Total	mg/L	0.0000093	0.000147	0.100	0.0998	0.0982	0.0984	0.0850 to 0.115	99.8	70.0 to 130	1.62	20.0
BC03966	Calcium, Dissolved	mg/L	-0.00563	0.152	5.00	62.6	60.2	4.84	4.25 to 5.75	182	70.0 to 130	3.91	20.0
BC03962	Calcium, Total	mg/L	-0.00556	0.152	5.00	14.3	14.4	4.84	4.25 to 5.75	91.4	70.0 to 130	0.697	20.0
BC03963	Chromium, Dissolved	mg/L	-0.0000065	0.000440	0.100	0.0985	0.0998	0.0994	0.0850 to 0.115	98.3	70.0 to 130	1.31	20.0
BC03962	Chromium, Total	mg/L	-0.0000273	0.000440	0.100	0.0954	0.0958	0.0994	0.0850 to 0.115	94.9	70.0 to 130	0.418	20.0
BC03963	Cobalt, Dissolved	mg/L	0.0000031	0.000147	0.100	0.103	0.105	0.104	0.0850 to 0.115	103	70.0 to 130	1.92	20.0
BC03962	Cobalt, Total	mg/L	0.0000306	0.000147	0.100	0.0973	0.0987	0.102	0.0850 to 0.115	97.0	70.0 to 130	1.43	20.0
BC03966	Iron, Dissolved	mg/L	0.00221	0.0176	0.2	0.639	0.633	0.203	0.170 to 0.230	99.0	70.0 to 130	0.943	20.0
BC03962	Iron, Total	mg/L	-0.000047	0.0176	0.2	1.35	1.36	0.196	0.170 to 0.230	90.0	70.0 to 130	0.738	20.0
BC03963	Lead, Dissolved	mg/L	0.0000104	0.000147	0.100	0.100	0.104	0.100	0.0850 to 0.115	100	70.0 to 130	3.92	20.0

**Comments:** The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.

# Batch QC Summary

**Customer Account:** WMWGORAP

**Sample Date:** 2/23/22 11:29

**Customer ID:**

**Delivery Date:** 2/23/22 16:56

**Description:** Gorgas Ash Pond - MW-45V

**Laboratory ID Number:** BC03961

Sample	Analysis	Units	MB	MB				Standard		Rec		Prec	Limit
				Limit	Spike	MS	MSD	Standard	Limit	Rec	Limit		
BC03962	Lead, Total	mg/L	0.0000074	0.000147	0.100	0.106	0.105	0.107	0.0850 to 0.115	106	70.0 to 130	0.948	20.0
BC03966	Lithium, Dissolved	mg/L	0.000133	0.0154	0.200	0.224	0.222	0.198	0.170 to 0.230	99.1	70.0 to 130	0.897	20.0
BC03962	Lithium, Total	mg/L	-0.000369	0.0154	0.200	0.252	0.253	0.205	0.170 to 0.230	102	70.0 to 130	0.396	20.0
BC03966	Magnesium, Dissolved	mg/L	0.000702	0.0462	5.00	21.6	21.3	5.11	4.25 to 5.75	106	70.0 to 130	1.40	20.0
BC03962	Magnesium, Total	mg/L	0.00100	0.0462	5.00	8.44	8.54	5.15	4.25 to 5.75	97.8	70.0 to 130	1.18	20.0
BC03963	Manganese, Dissolved	mg/L	0.0000165	0.0002	0.100	0.137	0.140	0.102	0.0850 to 0.115	101	70.0 to 130	2.17	20.0
BC03962	Manganese, Total	mg/L	-0.0000151	0.0002	0.100	0.148	0.150	0.101	0.0850 to 0.115	96.1	70.0 to 130	1.34	20.0
BC03962	Mercury, Total by CVAA	mg/L	-3.000E-05	0.000500	0.004	0.00391	0.00393	0.00393	0.00340 to 0.00460	97.8	70.0 to 130	0.510	20.0
BC03963	Molybdenum, Dissolved	mg/L	0.0000139	0.0002	0.100	0.0982	0.0983	0.0995	0.0850 to 0.115	98.1	70.0 to 130	0.102	20.0
BC03962	Molybdenum, Total	mg/L	0.0000119	0.0002	0.100	0.115	0.115	0.0997	0.0850 to 0.115	95.9	70.0 to 130	0.00	20.0
BC03963	Potassium, Dissolved	mg/L	-0.0146	0.367	10.0	13.2	13.3	9.90	8.50 to 11.5	99.3	70.0 to 130	0.755	20.0
BC03962	Potassium, Total	mg/L	0.0105	0.367	10.0	34.5	35.0	9.89	8.50 to 11.5	90.0	70.0 to 130	1.44	20.0
BC03963	Selenium, Dissolved	mg/L	-0.0000156	0.00100	0.100	0.0471	0.0512	0.100	0.0850 to 0.115	47.1	70.0 to 130	8.34	20.0
BC03962	Selenium, Total	mg/L	0.0000516	0.00100	0.100	0.0986	0.0979	0.102	0.0850 to 0.115	98.6	70.0 to 130	0.712	20.0
BC03966	Silicon, Dissolved	mg/L	0.000469	0.0440	1.00	10.9	10.9	1.02	0.850 to 1.15	101	70.0 to 130	0.00	20.0
BC03962	Silicon, Total	mg/L	0.000268	0.0440	1.00	7.96	8.05	1.01	0.850 to 1.15	90.0	70.0 to 130	1.12	20.0
BC03966	Sodium, Dissolved	mg/L	-0.00274	0.0660	5.00	50.9	49.0	5.09	4.25 to 5.75	154	70.0 to 130	3.80	20.0
BC03962	Sodium, Total	mg/L	0.00459	0.0660	5.00	334	327	5.12	4.25 to 5.75	300	70.0 to 130	2.12	20.0
BC03963	Thallium, Dissolved	mg/L	0.0000119	0.000147	0.100	0.100	0.0974	0.101	0.0850 to 0.115	100	70.0 to 130	2.63	20.0
BC03962	Thallium, Total	mg/L	0.000009	0.000147	0.100	0.103	0.102	0.106	0.0850 to 0.115	103	70.0 to 130	0.976	20.0
BC03963	Total Organic Carbon	mg/L	0.200	1.00	10.0	10.3	9.80	9.01		86.0	80.0 to 120	4.98	20.0

**Comments:** The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.



## Batch QC Summary

**Customer Account:** WMWGORAP

**Sample Date:** 2/23/22 11:29

**Customer ID:**

**Delivery Date:** 2/23/22 16:56

**Description:** Gorgas Ash Pond - MW-45V

**Laboratory ID Number:** BC03961

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Limit	Prec	Prec Limit
BC04380	Alkalinity, Total as CaCO3	mg/L					234	51.4	45.0 to 55.0			8.00	10.0
BC03962	Chloride	mg/L	-0.0767	1.00	250	414	160	10.3	9.00 to 11.0	104	80.0 to 120	3.17	20.0
BC03962	Fluoride	mg/L	0.0147	0.125	2.50	2.84	0.249	2.66	2.25 to 2.75	104	80.0 to 120	3.27	20.0
BC03962	Nitrogen, Nitrate/Nitrite	mg/L as N	-0.05	0.200	2.00	2.12	-0.040	1.86	1.80 to 2.20	106	90.0 to 110	0.00	15.0
BC03962	Solids, Dissolved	mg/L	1.00	25.0			1030	51.0	40.0 to 60.0			1.92	10.0
BC03962	Sulfate	mg/L	0.0558	2.0	400	830	376	20.6	18.0 to 22.0	115	80.0 to 120	1.61	20.0

**Comments:** The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.

# Certificate Of Analysis

**Description:** Gorgas Ash Pond - MW-03V

**Location Code:** WMWGORAP  
**Collected:** 2/23/22 12:49  
**Customer ID:**  
**Submittal Date:** 2/23/22 16:56

**Laboratory ID Number:** BC03962

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q	
<b>Analytical Method: EPA 200.7</b>		<b>Analyst: RDA</b>			<b>Preparation Method: EPA 1638</b>					
* Boron, Total	2/25/22 10:56	2/28/22 10:59		1.015	0.109	mg/L	0.030000	0.1015		
* Calcium, Total	2/25/22 10:56	2/28/22 10:59		1.015	9.73	mg/L	0.070035	0.406		
* Iron, Total	2/25/22 10:56	2/28/22 10:59		1.015	1.17	mg/L	0.008120	0.0406		
* Lithium, Total	2/25/22 10:56	2/28/22 10:59		1.015	0.0489	mg/L	0.007105	0.01999956		
* Magnesium, Total	2/25/22 10:56	2/28/22 10:59		1.015	3.55	mg/L	0.021315	0.406		
Silica, Total (calc.)	2/25/22 10:56	2/28/22 10:59		1	15.1	mg/L				
Silicon, Total	2/25/22 10:56	2/28/22 10:59		1.015	7.06	mg/L	0.02030	0.25375		
* Sodium, Total	2/25/22 10:56	2/28/22 12:41		20.3	319	mg/L	0.609	8.12	RA	
<b>Analytical Method: EPA 200.7</b>		<b>Analyst: RDA</b>			<b>Preparation Method: EPA 1638</b>					
* Boron, Dissolved	2/25/22 14:30	3/1/22 10:01		1.015	0.106	mg/L	0.030000	0.1015		
* Calcium, Dissolved	2/25/22 14:30	3/1/22 10:01		1.015	9.10	mg/L	0.070035	0.406		
* Iron, Dissolved	2/25/22 14:30	3/1/22 10:01		1.015	0.438	mg/L	0.008120	0.0406		
* Lithium, Dissolved	2/25/22 14:30	3/1/22 10:01		1.015	0.0503	mg/L	0.007105	0.01999956		
* Magnesium, Dissolved	2/25/22 14:30	3/1/22 10:01		1.015	3.39	mg/L	0.021315	0.406		
Silica, Dissolved (calc.)	2/25/22 14:30	3/1/22 10:01		1	14.9	mg/L				
Silicon, Dissolved	2/25/22 14:30	3/1/22 10:01		1.015	6.98	mg/L	0.02030	0.25375		
* Sodium, Dissolved	2/25/22 14:30	3/1/22 12:02		20.3	314	mg/L	0.609	8.12		
<b>Analytical Method: EPA 200.8</b>		<b>Analyst: DLJ</b>			<b>Preparation Method: EPA 1638</b>					
* Antimony, Total	2/25/22 08:30	2/25/22 16:29		1.015	Not Detected	mg/L	0.000508	0.001015	U	
* Aluminum, Total	2/25/22 08:30	2/25/22 16:29		1.015	0.0334	mg/L	0.004060	0.01015		
* Arsenic, Total	2/25/22 08:30	2/25/22 16:29		1.015	0.00249	mg/L	0.000068	0.000203		
* Barium, Total	2/25/22 08:30	2/25/22 16:29		1.015	0.0486	mg/L	0.000102	0.000203		
* Beryllium, Total	2/25/22 08:30	2/25/22 16:29		1.015	Not Detected	mg/L	0.000406	0.001015	U	
* Cadmium, Total	2/25/22 08:30	2/25/22 16:29		1.015	Not Detected	mg/L	0.000068	0.000203	U	
* Chromium, Total	2/25/22 08:30	2/25/22 16:29		1.015	0.000509	mg/L	0.000203	0.001015	J	
* Cobalt, Total	2/25/22 08:30	2/25/22 16:29		1.015	0.000250	mg/L	0.000068	0.000203		
* Lead, Total	2/25/22 08:30	2/25/22 16:29		1.015	0.000140	mg/L	0.000068	0.000203	J	
* Manganese, Total	2/25/22 08:30	2/25/22 16:29		1.015	0.0519	mg/L	0.000068	0.000203		
* Molybdenum, Total	2/25/22 08:30	2/25/22 16:29		1.015	0.0191	mg/L	0.000068	0.000203		
* Potassium, Total	2/25/22 08:30	2/25/22 16:29		1.015	25.5	mg/L	0.169505	0.5075		

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.

# Certificate Of Analysis

**Description:** Gorgas Ash Pond - MW-03V

**Location Code:** WMWGORAP  
**Collected:** 2/23/22 12:49  
**Customer ID:**  
**Submittal Date:** 2/23/22 16:56

**Laboratory ID Number:** BC03962

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
* Selenium, Total	2/25/22 08:30	2/25/22 16:29		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Total	2/25/22 08:30	2/25/22 16:29		1.015	Not Detected	mg/L	0.000068	0.000203	U
<b>Analytical Method: EPA 200.8</b>		<b>Analyst: DLJ</b>							
* Antimony, Dissolved	2/28/22 13:52	3/3/22 12:26		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Aluminum, Dissolved	2/28/22 13:52	3/3/22 12:26		1.015	Not Detected	mg/L	0.004060	0.01015	U
* Arsenic, Dissolved	2/28/22 13:52	3/3/22 12:26		1.015	0.00187	mg/L	0.000068	0.000203	
* Barium, Dissolved	2/28/22 13:52	3/3/22 12:26		1.015	0.0444	mg/L	0.000102	0.000203	
* Beryllium, Dissolved	2/28/22 13:52	3/3/22 12:26		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Dissolved	2/28/22 13:52	3/3/22 12:26		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Dissolved	2/28/22 13:52	3/3/22 12:26		1.015	0.000217	mg/L	0.000203	0.001015	J
* Cobalt, Dissolved	2/28/22 13:52	3/3/22 12:26		1.015	0.000207	mg/L	0.000068	0.000203	
* Lead, Dissolved	2/28/22 13:52	3/3/22 12:26		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Dissolved	2/28/22 13:52	3/3/22 12:26		1.015	0.0502	mg/L	0.000068	0.000203	
* Molybdenum, Dissolved	2/28/22 13:52	3/3/22 12:26		1.015	0.0185	mg/L	0.000068	0.000203	
* Potassium, Dissolved	2/28/22 13:52	3/3/22 12:26		1.015	24.0	mg/L	0.169505	0.5075	
* Selenium, Dissolved	2/28/22 13:52	3/3/22 12:26		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Dissolved	2/28/22 13:52	3/3/22 12:26		1.015	Not Detected	mg/L	0.000068	0.000203	U
<b>Analytical Method: EPA 245.1</b>		<b>Analyst: ABB</b>							
* Mercury, Total by CVAA	2/25/22 16:39	2/25/22 21:17		1	Not Detected	mg/L	0.0003	0.0005	U
<b>Analytical Method: EPA 353.2</b>		<b>Analyst: ELH</b>							
* Nitrogen, Nitrate/Nitrite	2/25/22 12:30	2/25/22 12:30		1	Not Detected	mg/L as N	0.20	0.3	U
<b>Analytical Method: SM 2320 B</b>		<b>Analyst: ALH</b>							
Alkalinity, Total as CaCO3	3/7/22 13:30	3/7/22 15:20		1	250	mg/L		0.1	
<b>Analytical Method: SM 2540C</b>		<b>Analyst: CNJ</b>							
* Solids, Dissolved	2/24/22 11:28	2/28/22 09:55		1	1050	mg/L		100	
<b>Analytical Method: SM 4500CO2 D</b>		<b>Analyst: ALH</b>							
Bicarbonate Alkalinity, (calc.)	3/7/22 13:30	3/7/22 15:20		1	249	mg/L			A
Carbonate Alkalinity, (calc.)	3/7/22 13:30	3/7/22 15:20		1	0.89	mg/L			A
<b>Analytical Method: SM 5310 B</b>		<b>Analyst: ELH</b>							
* Total Organic Carbon	3/2/22 10:14	3/2/22 10:14		1	9.42	mg/L	1.00	2	

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.

# Certificate Of Analysis

**Description:** Gorgas Ash Pond - MW-03V

**Location Code:** WMWGORAP

**Collected:** 2/23/22 12:49

**Customer ID:**

**Submittal Date:** 2/23/22 16:56

**Laboratory ID Number:** BC03962

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
<b>Analytical Method: SM4500Cl E</b>		<b>Analyst: JCC</b>							
* Chloride	2/24/22 14:51	2/24/22 14:51		25	155	mg/L	12.50	25	
<b>Analytical Method: SM4500F G 2017</b>		<b>Analyst: JCC</b>							
* Fluoride	2/25/22 09:52	2/25/22 09:52		1	0.241	mg/L	0.06	0.1	
<b>Analytical Method: SM4500SO4 E 2011</b>		<b>Analyst: CES</b>							
* Sulfate	3/2/22 09:35	3/2/22 09:35		20	370	mg/L	10.00	20	
<b>Analytical Method: Field Measurements</b>		<b>Analyst: DKG</b>							
Conductivity	2/23/22 12:46	2/23/22 12:46			1813.51	uS/cm			FA
pH	2/23/22 12:46	2/23/22 12:46			7.45	SU			FA
Temperature	2/23/22 12:46	2/23/22 12:46			16.16	C			FA
Turbidity	2/23/22 12:46	2/23/22 12:46			3.14	NTU			FA

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.

# Batch QC Summary

**Customer Account:** WMWGORAP

**Sample Date:** 2/23/22 12:49

**Customer ID:**

**Delivery Date:** 2/23/22 16:56

**Description:** Gorgas Ash Pond - MW-03V

**Laboratory ID Number:** BC03962

Sample	Analysis	Units	MB	MB		MS	MSD	Standard		Rec		Prec	Limit
				Limit	Spike			Standard	Limit	Rec	Limit		
BC03963	Aluminum, Dissolved	mg/L	-0.000122	0.010	0.100	0.102	0.104	0.0988	0.0850 to 0.115	102	70.0 to 130	1.94	20.0
BC03962	Aluminum, Total	mg/L	0.000422	0.010	0.100	0.132	0.138	0.0983	0.0850 to 0.115	98.6	70.0 to 130	4.44	20.0
BC03963	Antimony, Dissolved	mg/L	0.000368	0.00100	0.100	0.0922	0.0933	0.0893	0.0850 to 0.115	92.2	70.0 to 130	1.19	20.0
BC03962	Antimony, Total	mg/L	0.000597	0.00100	0.100	0.0997	0.102	0.0926	0.0850 to 0.115	99.7	70.0 to 130	2.28	20.0
BC03963	Arsenic, Dissolved	mg/L	0.0000084	0.000176	0.100	0.104	0.104	0.101	0.0850 to 0.115	104	70.0 to 130	0.00	20.0
BC03962	Arsenic, Total	mg/L	0.0000144	0.000176	0.100	0.101	0.101	0.0993	0.0850 to 0.115	98.5	70.0 to 130	0.00	20.0
BC03963	Barium, Dissolved	mg/L	0.0000048	0.000200	0.100	0.271	0.274	0.0960	0.0850 to 0.115	91.0	70.0 to 130	1.10	20.0
BC03962	Barium, Total	mg/L	-0.0000178	0.000200	0.100	0.148	0.145	0.0959	0.0850 to 0.115	99.4	70.0 to 130	2.05	20.0
BC03963	Beryllium, Dissolved	mg/L	0.0000123	0.000880	0.100	0.0940	0.101	0.0920	0.0850 to 0.115	94.0	70.0 to 130	7.18	20.0
BC03962	Beryllium, Total	mg/L	0.000328	0.000880	0.100	0.105	0.103	0.104	0.0850 to 0.115	105	70.0 to 130	1.92	20.0
BC03966	Boron, Dissolved	mg/L	-0.000179	0.0650	1.00	1.02	1.03	0.993	0.850 to 1.15	102	70.0 to 130	0.976	20.0
BC03962	Boron, Total	mg/L	-0.000323	0.0650	1.00	1.10	1.11	0.982	0.850 to 1.15	99.1	70.0 to 130	0.905	20.0
BC03963	Cadmium, Dissolved	mg/L	0.0000030	0.000147	0.100	0.100	0.0996	0.0986	0.0850 to 0.115	100	70.0 to 130	0.401	20.0
BC03962	Cadmium, Total	mg/L	0.0000093	0.000147	0.100	0.0998	0.0982	0.0984	0.0850 to 0.115	99.8	70.0 to 130	1.62	20.0
BC03966	Calcium, Dissolved	mg/L	-0.00563	0.152	5.00	62.6	60.2	4.84	4.25 to 5.75	182	70.0 to 130	3.91	20.0
BC03962	Calcium, Total	mg/L	-0.00556	0.152	5.00	14.3	14.4	4.84	4.25 to 5.75	91.4	70.0 to 130	0.697	20.0
BC03963	Chromium, Dissolved	mg/L	-0.0000065	0.000440	0.100	0.0985	0.0998	0.0994	0.0850 to 0.115	98.3	70.0 to 130	1.31	20.0
BC03962	Chromium, Total	mg/L	-0.0000273	0.000440	0.100	0.0954	0.0958	0.0994	0.0850 to 0.115	94.9	70.0 to 130	0.418	20.0
BC03963	Cobalt, Dissolved	mg/L	0.0000031	0.000147	0.100	0.103	0.105	0.104	0.0850 to 0.115	103	70.0 to 130	1.92	20.0
BC03962	Cobalt, Total	mg/L	0.0000306	0.000147	0.100	0.0973	0.0987	0.102	0.0850 to 0.115	97.0	70.0 to 130	1.43	20.0
BC03966	Iron, Dissolved	mg/L	0.00221	0.0176	0.2	0.639	0.633	0.203	0.170 to 0.230	99.0	70.0 to 130	0.943	20.0
BC03962	Iron, Total	mg/L	-0.000047	0.0176	0.2	1.35	1.36	0.196	0.170 to 0.230	90.0	70.0 to 130	0.738	20.0
BC03963	Lead, Dissolved	mg/L	0.0000104	0.000147	0.100	0.100	0.104	0.100	0.0850 to 0.115	100	70.0 to 130	3.92	20.0

**Comments:** The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.

# Batch QC Summary

**Customer Account:** WMWGORAP

**Sample Date:** 2/23/22 12:49

**Customer ID:**

**Delivery Date:** 2/23/22 16:56

**Description:** Gorgas Ash Pond - MW-03V

**Laboratory ID Number:** BC03962

Sample	Analysis	Units	MB	MB				Standard		Rec		Prec	Limit
				Limit	Spike	MS	MSD	Standard	Limit	Rec	Limit		
BC03962	Lead, Total	mg/L	0.0000074	0.000147	0.100	0.106	0.105	0.107	0.0850 to 0.115	106	70.0 to 130	0.948	20.0
BC03966	Lithium, Dissolved	mg/L	0.000133	0.0154	0.200	0.224	0.222	0.198	0.170 to 0.230	99.1	70.0 to 130	0.897	20.0
BC03962	Lithium, Total	mg/L	-0.000369	0.0154	0.200	0.252	0.253	0.205	0.170 to 0.230	102	70.0 to 130	0.396	20.0
BC03966	Magnesium, Dissolved	mg/L	0.000702	0.0462	5.00	21.6	21.3	5.11	4.25 to 5.75	106	70.0 to 130	1.40	20.0
BC03962	Magnesium, Total	mg/L	0.00100	0.0462	5.00	8.44	8.54	5.15	4.25 to 5.75	97.8	70.0 to 130	1.18	20.0
BC03963	Manganese, Dissolved	mg/L	0.0000165	0.0002	0.100	0.137	0.140	0.102	0.0850 to 0.115	101	70.0 to 130	2.17	20.0
BC03962	Manganese, Total	mg/L	-0.0000151	0.0002	0.100	0.148	0.150	0.101	0.0850 to 0.115	96.1	70.0 to 130	1.34	20.0
BC03962	Mercury, Total by CVAA	mg/L	-3.000E-05	0.000500	0.004	0.00391	0.00393	0.00393	0.00340 to 0.00460	97.8	70.0 to 130	0.510	20.0
BC03963	Molybdenum, Dissolved	mg/L	0.0000139	0.0002	0.100	0.0982	0.0983	0.0995	0.0850 to 0.115	98.1	70.0 to 130	0.102	20.0
BC03962	Molybdenum, Total	mg/L	0.0000119	0.0002	0.100	0.115	0.115	0.0997	0.0850 to 0.115	95.9	70.0 to 130	0.00	20.0
BC03963	Potassium, Dissolved	mg/L	-0.0146	0.367	10.0	13.2	13.3	9.90	8.50 to 11.5	99.3	70.0 to 130	0.755	20.0
BC03962	Potassium, Total	mg/L	0.0105	0.367	10.0	34.5	35.0	9.89	8.50 to 11.5	90.0	70.0 to 130	1.44	20.0
BC03963	Selenium, Dissolved	mg/L	-0.0000156	0.00100	0.100	0.0471	0.0512	0.100	0.0850 to 0.115	47.1	70.0 to 130	8.34	20.0
BC03962	Selenium, Total	mg/L	0.0000516	0.00100	0.100	0.0986	0.0979	0.102	0.0850 to 0.115	98.6	70.0 to 130	0.712	20.0
BC03966	Silicon, Dissolved	mg/L	0.000469	0.0440	1.00	10.9	10.9	1.02	0.850 to 1.15	101	70.0 to 130	0.00	20.0
BC03962	Silicon, Total	mg/L	0.000268	0.0440	1.00	7.96	8.05	1.01	0.850 to 1.15	90.0	70.0 to 130	1.12	20.0
BC03966	Sodium, Dissolved	mg/L	-0.00274	0.0660	5.00	50.9	49.0	5.09	4.25 to 5.75	154	70.0 to 130	3.80	20.0
BC03962	Sodium, Total	mg/L	0.00459	0.0660	5.00	334	327	5.12	4.25 to 5.75	300	70.0 to 130	2.12	20.0
BC03963	Thallium, Dissolved	mg/L	0.0000119	0.000147	0.100	0.100	0.0974	0.101	0.0850 to 0.115	100	70.0 to 130	2.63	20.0
BC03962	Thallium, Total	mg/L	0.000009	0.000147	0.100	0.103	0.102	0.106	0.0850 to 0.115	103	70.0 to 130	0.976	20.0
BC03963	Total Organic Carbon	mg/L	0.200	1.00	10.0	10.3	9.80	9.01		86.0	80.0 to 120	4.98	20.0

**Comments:** The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.

## Batch QC Summary

**Customer Account:** WMWGORAP

**Sample Date:** 2/23/22 12:49

**Customer ID:**

**Delivery Date:** 2/23/22 16:56

**Description:** Gorgas Ash Pond - MW-03V

**Laboratory ID Number:** BC03962

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Limit	Prec	Prec Limit
BC04380	Alkalinity, Total as CaCO3	mg/L					234	51.4	45.0 to 55.0			8.00	10.0
BC03962	Chloride	mg/L	-0.0767	1.00	250	414	160	10.3	9.00 to 11.0	104	80.0 to 120	3.17	20.0
BC03962	Fluoride	mg/L	0.0147	0.125	2.50	2.84	0.249	2.66	2.25 to 2.75	104	80.0 to 120	3.27	20.0
BC03962	Nitrogen, Nitrate/Nitrite	mg/L as N	-0.05	0.200	2.00	2.12	-0.040	1.86	1.80 to 2.20	106	90.0 to 110	0.00	15.0
BC03962	Solids, Dissolved	mg/L	1.00	25.0			1030	51.0	40.0 to 60.0			1.92	10.0
BC03962	Sulfate	mg/L	0.0558	2.0	400	830	376	20.6	18.0 to 22.0	115	80.0 to 120	1.61	20.0

**Comments:** The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.

# Certificate Of Analysis

**Description:** Gorgas Ash Pond - MW-9V

**Location Code:** WMWGORAP  
**Collected:** 2/21/22 12:08  
**Customer ID:**  
**Submittal Date:** 2/23/22 16:56

**Laboratory ID Number:** BC03963

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
<b>Analytical Method: EPA 200.7</b>			<b>Analyst: RDA</b>		<b>Preparation Method: EPA 1638</b>				
* Boron, Total	3/7/22 12:00	3/8/22 09:38		1.015	0.0349	mg/L	0.030000	0.1015	J
* Calcium, Total	3/7/22 12:00	3/8/22 11:42		10.15	47.7	mg/L	0.70035	4.06	
* Iron, Total	3/7/22 12:00	3/8/22 09:38		1.015	0.266	mg/L	0.008120	0.0406	
* Lithium, Total	3/7/22 12:00	3/8/22 09:38		1.015	0.0293	mg/L	0.007105	0.01999956	
* Magnesium, Total	3/7/22 12:00	3/8/22 09:38		1.015	15.5	mg/L	0.021315	0.406	
Silica, Total (calc.)	3/7/22 12:00	3/8/22 09:38		1	33.0	mg/L			
Silicon, Total	3/7/22 12:00	3/8/22 09:38		1.015	15.4	mg/L	0.02030	0.25375	
* Sodium, Total	3/7/22 12:00	3/8/22 11:42		10.15	47.1	mg/L	0.3045	4.06	
<b>Analytical Method: EPA 200.7</b>			<b>Analyst: RDA</b>		<b>Preparation Method: EPA 1638</b>				
* Boron, Dissolved	2/25/22 14:30	3/1/22 10:02		1.015	0.0326	mg/L	0.030000	0.1015	J
* Calcium, Dissolved	2/25/22 14:30	3/1/22 12:03		20.3	47.8	mg/L	1.4007	8.12	
* Iron, Dissolved	2/25/22 14:30	3/1/22 10:02		1.015	0.273	mg/L	0.008120	0.0406	
* Lithium, Dissolved	2/25/22 14:30	3/1/22 10:02		1.015	0.0291	mg/L	0.007105	0.01999956	
* Magnesium, Dissolved	2/25/22 14:30	3/1/22 10:02		1.015	15.3	mg/L	0.021315	0.406	
Silica, Dissolved (calc.)	2/25/22 14:30	3/1/22 10:02		1	33.2	mg/L			
Silicon, Dissolved	2/25/22 14:30	3/1/22 10:02		1.015	15.5	mg/L	0.02030	0.25375	
* Sodium, Dissolved	2/25/22 14:30	3/1/22 12:03		20.3	47.6	mg/L	0.609	8.12	
<b>Analytical Method: EPA 200.8</b>			<b>Analyst: DLJ</b>		<b>Preparation Method: EPA 1638</b>				
* Antimony, Total	2/25/22 08:30	2/25/22 16:50		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Aluminum, Total	2/25/22 08:30	2/25/22 16:50		1.015	Not Detected	mg/L	0.004060	0.01015	U
* Arsenic, Total	2/25/22 08:30	2/25/22 16:50		1.015	0.000209	mg/L	0.000068	0.000203	
* Barium, Total	2/25/22 08:30	2/25/22 16:50		1.015	0.161	mg/L	0.000102	0.000203	
* Beryllium, Total	2/25/22 08:30	2/25/22 16:50		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Total	2/25/22 08:30	2/25/22 16:50		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Total	2/25/22 08:30	2/25/22 16:50		1.015	Not Detected	mg/L	0.000203	0.001015	U
* Cobalt, Total	2/25/22 08:30	2/25/22 16:50		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Lead, Total	2/25/22 08:30	2/25/22 16:50		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Total	2/25/22 08:30	2/25/22 16:50		1.015	0.0353	mg/L	0.000068	0.000203	
* Molybdenum, Total	2/25/22 08:30	2/25/22 16:50		1.015	0.00220	mg/L	0.000068	0.000203	
* Potassium, Total	2/25/22 08:30	2/25/22 16:50		1.015	3.16	mg/L	0.169505	0.5075	

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.  
 Matrix spike and matrix spike duplicate recoveries for dissolved selenium were outside of the specification limit.



# Certificate Of Analysis

**Description:** Gorgas Ash Pond - MW-9V

**Location Code:** WMWGORAP

**Collected:** 2/21/22 12:08

**Customer ID:**

**Submittal Date:** 2/23/22 16:56

**Laboratory ID Number:** BC03963

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
* Selenium, Total	2/25/22 08:30	2/25/22 16:50		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Total	2/25/22 08:30	2/25/22 16:50		1.015	Not Detected	mg/L	0.000068	0.000203	U
<b>Analytical Method: EPA 200.8</b>		<b>Analyst: DLJ</b>							
* Antimony, Dissolved	2/28/22 13:52	3/3/22 12:29		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Aluminum, Dissolved	2/28/22 13:52	3/3/22 12:29		1.015	Not Detected	mg/L	0.004060	0.01015	U
* Arsenic, Dissolved	2/28/22 13:52	3/3/22 12:29		1.015	0.000171	mg/L	0.000068	0.000203	J
* Barium, Dissolved	2/28/22 13:52	3/3/22 12:29		1.015	0.180	mg/L	0.000102	0.000203	
* Beryllium, Dissolved	2/28/22 13:52	3/3/22 12:29		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Dissolved	2/28/22 13:52	3/3/22 12:29		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Dissolved	2/28/22 13:52	3/3/22 12:29		1.015	0.000237	mg/L	0.000203	0.001015	J
* Cobalt, Dissolved	2/28/22 13:52	3/3/22 12:29		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Lead, Dissolved	2/28/22 13:52	3/3/22 12:29		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Dissolved	2/28/22 13:52	3/3/22 12:29		1.015	0.0364	mg/L	0.000068	0.000203	
* Molybdenum, Dissolved	2/28/22 13:52	3/3/22 12:29		1.015	0.000108	mg/L	0.000068	0.000203	J
* Potassium, Dissolved	2/28/22 13:52	3/3/22 12:29		1.015	3.27	mg/L	0.169505	0.5075	
* Selenium, Dissolved	2/28/22 13:52	3/3/22 12:29		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Dissolved	2/28/22 13:52	3/3/22 12:29		1.015	Not Detected	mg/L	0.000068	0.000203	U
<b>Analytical Method: EPA 245.1</b>		<b>Analyst: ABB</b>							
* Mercury, Total by CVAA	2/25/22 16:39	2/25/22 21:36		1	Not Detected	mg/L	0.0003	0.0005	U
<b>Analytical Method: EPA 353.2</b>		<b>Analyst: ELH</b>							
* Nitrogen, Nitrate/Nitrite	2/25/22 12:39	2/25/22 12:39		1	Not Detected	mg/L as N	0.20	0.30	U
<b>Analytical Method: SM 2320 B</b>		<b>Analyst: ALH</b>							
Alkalinity, Total as CaCO3	3/4/22 10:30	3/4/22 12:34		1	229	mg/L		0.1	
<b>Analytical Method: SM 2540C</b>		<b>Analyst: CNJ</b>							
* Solids, Dissolved	2/24/22 11:28	2/28/22 09:55		1	299	mg/L		25	
<b>Analytical Method: SM 4500CO2 D</b>		<b>Analyst: ALH</b>							
Bicarbonate Alkalinity, (calc.)	3/4/22 10:30	3/4/22 12:34		1	228	mg/L			
Carbonate Alkalinity, (calc.)	3/4/22 10:30	3/4/22 12:34		1	0.59	mg/L			
<b>Analytical Method: SM 5310 B</b>		<b>Analyst: ELH</b>							
* Total Organic Carbon	3/2/22 10:31	3/2/22 10:31		1	1.70	mg/L	1.00	2	J

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. Matrix spike and matrix spike duplicate recoveries for dissolved selenium were outside of the specification limit.

# Certificate Of Analysis

**Description:** Gorgas Ash Pond - MW-9V

**Location Code:** WMWGORAP  
**Collected:** 2/21/22 12:08  
**Customer ID:**  
**Submittal Date:** 2/23/22 16:56

**Laboratory ID Number:** BC03963

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
<b>Analytical Method: SM4500Cl E</b>		<b>Analyst: JCC</b>							
* Chloride	2/24/22 15:04	2/24/22 15:04		1	18.4	mg/L	0.50	1	
<b>Analytical Method: SM4500F G 2017</b>		<b>Analyst: JCC</b>							
* Fluoride	2/25/22 10:04	2/25/22 10:04		1	0.177	mg/L	0.06	0.1	
<b>Analytical Method: SM4500SO4 E 2011</b>		<b>Analyst: CES</b>							
* Sulfate	3/2/22 10:02	3/2/22 10:02		1	32.4	mg/L	0.50	1	
<b>Analytical Method: Field Measurements</b>		<b>Analyst: TJD</b>							
Conductivity	2/21/22 12:05	2/21/22 12:05			544.18	uS/cm			FA
pH	2/21/22 12:05	2/21/22 12:05			7.00	SU			FA
Temperature	2/21/22 12:05	2/21/22 12:05			20.16	C			FA
Turbidity	2/21/22 12:05	2/21/22 12:05			0.87	NTU			FA

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. Matrix spike and matrix spike duplicate recoveries for dissolved selenium were outside of the specification limit.

# Batch QC Summary

**Customer Account:** WMWGORAP

**Sample Date:** 2/21/22 12:08

**Customer ID:**

**Delivery Date:** 2/23/22 16:56

**Description:** Gorgas Ash Pond - MW-9V

**Laboratory ID Number:** BC03963

Sample	Analysis	Units	MB	MB		Spike	MS	MSD	Standard		Rec		Prec	Limit
				Limit					Standard	Limit	Rec	Limit		
BC03963	Aluminum, Dissolved	mg/L	-0.000122	0.010	0.100	0.102	0.104	0.0988	0.0850 to 0.115	102	70.0 to 130	1.94	20.0	
BC03972	Aluminum, Total	mg/L	0.000422	0.010	0.100	0.0970	0.0975	0.0983	0.0850 to 0.115	97.0	70.0 to 130	0.514	20.0	
BC03963	Antimony, Dissolved	mg/L	0.000368	0.00100	0.100	0.0922	0.0933	0.0893	0.0850 to 0.115	92.2	70.0 to 130	1.19	20.0	
BC03972	Antimony, Total	mg/L	0.000597	0.00100	0.100	0.0868	0.0888	0.0926	0.0850 to 0.115	86.8	70.0 to 130	2.28	20.0	
BC03963	Arsenic, Dissolved	mg/L	0.0000084	0.000176	0.100	0.104	0.104	0.101	0.0850 to 0.115	104	70.0 to 130	0.00	20.0	
BC03972	Arsenic, Total	mg/L	0.0000144	0.000176	0.100	0.0950	0.0969	0.0993	0.0850 to 0.115	95.0	70.0 to 130	1.98	20.0	
BC03963	Barium, Dissolved	mg/L	0.0000048	0.000200	0.100	0.271	0.274	0.0960	0.0850 to 0.115	91.0	70.0 to 130	1.10	20.0	
BC03972	Barium, Total	mg/L	-0.0000178	0.000200	0.100	0.0933	0.0947	0.0959	0.0850 to 0.115	93.3	70.0 to 130	1.49	20.0	
BC03963	Beryllium, Dissolved	mg/L	0.0000123	0.000880	0.100	0.0940	0.101	0.0920	0.0850 to 0.115	94.0	70.0 to 130	7.18	20.0	
BC03972	Beryllium, Total	mg/L	0.000328	0.000880	0.100	0.102	0.107	0.104	0.0850 to 0.115	102	70.0 to 130	4.78	20.0	
BC03966	Boron, Dissolved	mg/L	-0.000179	0.0650	1.00	1.02	1.03	0.993	0.850 to 1.15	102	70.0 to 130	0.976	20.0	
BC03972	Boron, Total	mg/L	-0.000129	0.0650	1.00	0.955	0.976	0.993	0.850 to 1.15	95.5	70.0 to 130	2.18	20.0	
BC03963	Cadmium, Dissolved	mg/L	0.0000030	0.000147	0.100	0.100	0.0996	0.0986	0.0850 to 0.115	100	70.0 to 130	0.401	20.0	
BC03972	Cadmium, Total	mg/L	0.0000093	0.000147	0.100	0.0946	0.0967	0.0984	0.0850 to 0.115	94.6	70.0 to 130	2.20	20.0	
BC03966	Calcium, Dissolved	mg/L	-0.00563	0.152	5.00	62.6	60.2	4.84	4.25 to 5.75	182	70.0 to 130	3.91	20.0	
BC03972	Calcium, Total	mg/L	-0.00402	0.152	5.00	4.74	4.72	4.80	4.25 to 5.75	94.8	70.0 to 130	0.423	20.0	
BC03963	Chromium, Dissolved	mg/L	-0.0000065	0.000440	0.100	0.0985	0.0998	0.0994	0.0850 to 0.115	98.3	70.0 to 130	1.31	20.0	
BC03972	Chromium, Total	mg/L	-0.0000273	0.000440	0.100	0.0954	0.0962	0.0994	0.0850 to 0.115	95.4	70.0 to 130	0.835	20.0	
BC03963	Cobalt, Dissolved	mg/L	0.0000031	0.000147	0.100	0.103	0.105	0.104	0.0850 to 0.115	103	70.0 to 130	1.92	20.0	
BC03972	Cobalt, Total	mg/L	0.0000306	0.000147	0.100	0.0991	0.0997	0.102	0.0850 to 0.115	99.1	70.0 to 130	0.604	20.0	
BC03966	Iron, Dissolved	mg/L	0.00221	0.0176	0.2	0.639	0.633	0.203	0.170 to 0.230	99.0	70.0 to 130	0.943	20.0	
BC03972	Iron, Total	mg/L	-0.000211	0.0176	0.2	0.190	0.193	0.195	0.170 to 0.230	95.0	70.0 to 130	1.57	20.0	
BC03963	Lead, Dissolved	mg/L	0.0000104	0.000147	0.100	0.100	0.104	0.100	0.0850 to 0.115	100	70.0 to 130	3.92	20.0	

**Comments:** The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified. Matrix spike and matrix spike duplicate recoveries for dissolved selenium were outside of the specification limit.

# Batch QC Summary

**Customer Account:** WMWGORAP  
**Sample Date:** 2/21/22 12:08  
**Customer ID:**  
**Delivery Date:** 2/23/22 16:56

**Description:** Gorgas Ash Pond - MW-9V

**Laboratory ID Number:** BC03963

Sample	Analysis	Units	MB	MB				Standard		Rec		Prec	Limit
				Limit	Spike	MS	MSD	Standard	Limit	Rec	Limit		
BC03972	Lead, Total	mg/L	0.0000074	0.000147	0.100	0.104	0.102	0.107	0.0850 to 0.115	104	70.0 to 130	1.94	20.0
BC03966	Lithium, Dissolved	mg/L	0.000133	0.0154	0.200	0.224	0.222	0.198	0.170 to 0.230	99.1	70.0 to 130	0.897	20.0
BC03972	Lithium, Total	mg/L	-0.000195	0.0154	0.200	0.199	0.203	0.206	0.170 to 0.230	99.5	70.0 to 130	1.99	20.0
BC03966	Magnesium, Dissolved	mg/L	0.000702	0.0462	5.00	21.6	21.3	5.11	4.25 to 5.75	106	70.0 to 130	1.40	20.0
BC03972	Magnesium, Total	mg/L	-0.00896	0.0462	5.00	5.02	5.06	5.17	4.25 to 5.75	100	70.0 to 130	0.794	20.0
BC03963	Manganese, Dissolved	mg/L	0.0000165	0.0002	0.100	0.137	0.140	0.102	0.0850 to 0.115	101	70.0 to 130	2.17	20.0
BC03972	Manganese, Total	mg/L	-0.0000151	0.0002	0.100	0.0980	0.0984	0.101	0.0850 to 0.115	98.0	70.0 to 130	0.407	20.0
BC03972	Mercury, Total by CVAA	mg/L	-3.000E-05	0.000500	0.004	0.00356	0.00383	0.00393	0.00340 to 0.00460	89.0	70.0 to 130	7.31	20.0
BC03963	Molybdenum, Dissolved	mg/L	0.0000139	0.0002	0.100	0.0982	0.0983	0.0995	0.0850 to 0.115	98.1	70.0 to 130	0.102	20.0
BC03972	Molybdenum, Total	mg/L	0.0000119	0.0002	0.100	0.0934	0.0956	0.0997	0.0850 to 0.115	93.4	70.0 to 130	2.33	20.0
BC03963	Potassium, Dissolved	mg/L	-0.0146	0.367	10.0	13.2	13.3	9.90	8.50 to 11.5	99.3	70.0 to 130	0.755	20.0
BC03972	Potassium, Total	mg/L	0.0105	0.367	10.0	9.69	9.60	9.89	8.50 to 11.5	96.9	70.0 to 130	0.933	20.0
BC03963	Selenium, Dissolved	mg/L	-0.0000156	0.00100	0.100	0.0471	0.0512	0.100	0.0850 to 0.115	47.1	70.0 to 130	8.34	20.0
BC03972	Selenium, Total	mg/L	0.0000516	0.00100	0.100	0.0969	0.100	0.102	0.0850 to 0.115	96.9	70.0 to 130	3.15	20.0
BC03966	Silicon, Dissolved	mg/L	0.000469	0.0440	1.00	10.9	10.9	1.02	0.850 to 1.15	101	70.0 to 130	0.00	20.0
BC03972	Silicon, Total	mg/L	0.000143	0.0440	1.00	0.977	0.994	1.00	0.850 to 1.15	97.7	70.0 to 130	1.73	20.0
BC03966	Sodium, Dissolved	mg/L	-0.00274	0.0660	5.00	50.9	49.0	5.09	4.25 to 5.75	154	70.0 to 130	3.80	20.0
BC03972	Sodium, Total	mg/L	0.000667	0.0660	5.00	4.97	5.11	5.18	4.25 to 5.75	99.4	70.0 to 130	2.78	20.0
BC03963	Thallium, Dissolved	mg/L	0.0000119	0.000147	0.100	0.100	0.0974	0.101	0.0850 to 0.115	100	70.0 to 130	2.63	20.0
BC03972	Thallium, Total	mg/L	0.000009	0.000147	0.100	0.102	0.101	0.106	0.0850 to 0.115	102	70.0 to 130	0.985	20.0
BC03963	Total Organic Carbon	mg/L	0.200	1.00	10.0	10.3	9.80	9.01		86.0	80.0 to 120	4.98	20.0

**Comments:** The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified. Matrix spike and matrix spike duplicate recoveries for dissolved selenium were outside of the specification limit.

## Batch QC Summary

**Customer Account:** WMWGORAP

**Sample Date:** 2/21/22 12:08

**Customer ID:**

**Delivery Date:** 2/23/22 16:56

**Description:** Gorgas Ash Pond - MW-9V

**Laboratory ID Number:** BC03963

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Limit	Prec	Prec Limit
BC03970	Alkalinity, Total as CaCO3	mg/L					312	51.5	45.0 to 55.0			1.62	10.0
BC03972	Chloride	mg/L	-0.0468	1.00	10.0	9.98	0.0149	10.2	9.00 to 11.0	99.8	80.0 to 120	0.00	20.0
BC03972	Fluoride	mg/L	-0.0149	0.125	2.50	2.63	0.00887	2.64	2.25 to 2.75	105	80.0 to 120	0.00	20.0
BC03972	Nitrogen, Nitrate/Nitrite	mg/L as N	-0.04	0.200	2.00	2.01	-0.032	1.89	1.80 to 2.20	100	90.0 to 110	0.00	15.0
BC03971	Solids, Dissolved	mg/L	1.00	25.0			610	51.0	40.0 to 60.0			0.654	10.0
BC03972	Sulfate	mg/L	0.0572	2.0	20.0	21.0	-0.0325	20.6	18.0 to 22.0	105	80.0 to 120	0.00	20.0

**Comments:** The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified. Matrix spike and matrix spike duplicate recoveries for dissolved selenium were outside of the specification limit.

# Certificate Of Analysis

**Description:** Gorgas Ash Pond - MW-38H

**Location Code:** WMWGORAP  
**Collected:** 2/22/22 09:35  
**Customer ID:**  
**Submittal Date:** 2/23/22 16:56

**Laboratory ID Number:** BC03964

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
<b>Analytical Method: EPA 200.7</b>		<b>Analyst: RDA</b>			<b>Preparation Method: EPA 1638</b>				
* Boron, Total	3/7/22 12:00	3/8/22 09:40		1.015	0.0452	mg/L	0.030000	0.1015	J
* Calcium, Total	3/7/22 12:00	3/8/22 09:40		1.015	10.8	mg/L	0.070035	0.406	
* Iron, Total	3/7/22 12:00	3/8/22 09:40		1.015	0.104	mg/L	0.008120	0.0406	
* Lithium, Total	3/7/22 12:00	3/8/22 09:40		1.015	0.0594	mg/L	0.007105	0.01999956	
* Magnesium, Total	3/7/22 12:00	3/8/22 09:40		1.015	3.66	mg/L	0.021315	0.406	
Silica, Total (calc.)	3/7/22 12:00	3/8/22 09:40		1	15.9	mg/L			
Silicon, Total	3/7/22 12:00	3/8/22 09:40		1.015	7.45	mg/L	0.02030	0.25375	
* Sodium, Total	3/7/22 12:00	3/8/22 11:44		10.15	124	mg/L	0.3045	4.06	
<b>Analytical Method: EPA 200.7</b>		<b>Analyst: RDA</b>			<b>Preparation Method: EPA 1638</b>				
* Boron, Dissolved	2/25/22 14:30	3/1/22 10:04		1.015	0.0441	mg/L	0.030000	0.1015	J
* Calcium, Dissolved	2/25/22 14:30	3/1/22 10:04		1.015	10.6	mg/L	0.070035	0.406	
* Iron, Dissolved	2/25/22 14:30	3/1/22 10:04		1.015	0.0762	mg/L	0.008120	0.0406	
* Lithium, Dissolved	2/25/22 14:30	3/1/22 10:04		1.015	0.0583	mg/L	0.007105	0.01999956	
* Magnesium, Dissolved	2/25/22 14:30	3/1/22 10:04		1.015	3.57	mg/L	0.021315	0.406	
Silica, Dissolved (calc.)	2/25/22 14:30	3/1/22 10:04		1	15.7	mg/L			
Silicon, Dissolved	2/25/22 14:30	3/1/22 10:04		1.015	7.34	mg/L	0.02030	0.25375	
* Sodium, Dissolved	2/25/22 14:30	3/1/22 12:05		20.3	126	mg/L	0.609	8.12	
<b>Analytical Method: EPA 200.8</b>		<b>Analyst: DLJ</b>			<b>Preparation Method: EPA 1638</b>				
* Antimony, Total	2/25/22 08:30	2/25/22 16:54		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Aluminum, Total	2/25/22 08:30	2/25/22 16:54		1.015	0.0386	mg/L	0.004060	0.01015	
* Arsenic, Total	2/25/22 08:30	2/25/22 16:54		1.015	0.00221	mg/L	0.000068	0.000203	
* Barium, Total	2/25/22 08:30	2/25/22 16:54		1.015	0.301	mg/L	0.000102	0.000203	
* Beryllium, Total	2/25/22 08:30	2/25/22 16:54		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Total	2/25/22 08:30	2/25/22 16:54		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Total	2/25/22 08:30	2/25/22 16:54		1.015	Not Detected	mg/L	0.000203	0.001015	U
* Cobalt, Total	2/25/22 08:30	2/25/22 16:54		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Lead, Total	2/25/22 08:30	2/25/22 16:54		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Total	2/25/22 08:30	2/25/22 16:54		1.015	0.0277	mg/L	0.000068	0.000203	
* Molybdenum, Total	2/25/22 08:30	2/25/22 16:54		1.015	0.00322	mg/L	0.000068	0.000203	
* Potassium, Total	2/25/22 08:30	2/25/22 16:54		1.015	5.00	mg/L	0.169505	0.5075	

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.

# Certificate Of Analysis

**Description:** Gorgas Ash Pond - MW-38H

**Location Code:** WMWGORAP  
**Collected:** 2/22/22 09:35  
**Customer ID:**  
**Submittal Date:** 2/23/22 16:56

**Laboratory ID Number:** BC03964

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
* Selenium, Total	2/25/22 08:30	2/25/22 16:54		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Total	2/25/22 08:30	2/25/22 16:54		1.015	Not Detected	mg/L	0.000068	0.000203	U
<b>Analytical Method: EPA 200.8</b>		<b>Analyst: DLJ</b>							
* Antimony, Dissolved	2/28/22 13:52	3/3/22 12:51		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Aluminum, Dissolved	2/28/22 13:52	3/3/22 12:51		1.015	Not Detected	mg/L	0.004060	0.01015	U
* Arsenic, Dissolved	2/28/22 13:52	3/3/22 12:51		1.015	0.00183	mg/L	0.000068	0.000203	
* Barium, Dissolved	2/28/22 13:52	3/3/22 12:51		1.015	0.302	mg/L	0.000102	0.000203	
* Beryllium, Dissolved	2/28/22 13:52	3/3/22 12:51		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Dissolved	2/28/22 13:52	3/3/22 12:51		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Dissolved	2/28/22 13:52	3/3/22 12:51		1.015	Not Detected	mg/L	0.000203	0.001015	U
* Cobalt, Dissolved	2/28/22 13:52	3/3/22 12:51		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Lead, Dissolved	2/28/22 13:52	3/3/22 12:51		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Dissolved	2/28/22 13:52	3/3/22 12:51		1.015	0.0270	mg/L	0.000068	0.000203	
* Molybdenum, Dissolved	2/28/22 13:52	3/3/22 12:51		1.015	0.00240	mg/L	0.000068	0.000203	
* Potassium, Dissolved	2/28/22 13:52	3/3/22 12:51		1.015	4.90	mg/L	0.169505	0.5075	
* Selenium, Dissolved	2/28/22 13:52	3/3/22 12:51		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Dissolved	2/28/22 13:52	3/3/22 12:51		1.015	Not Detected	mg/L	0.000068	0.000203	U
<b>Analytical Method: EPA 245.1</b>		<b>Analyst: ABB</b>							
* Mercury, Total by CVAA	2/25/22 16:39	2/25/22 21:40		1	Not Detected	mg/L	0.0003	0.0005	U
<b>Analytical Method: EPA 353.2</b>		<b>Analyst: ELH</b>							
* Nitrogen, Nitrate/Nitrite	2/25/22 12:41	2/25/22 12:41		1	Not Detected	mg/L as N	0.20	0.3	U
<b>Analytical Method: SM 2320 B</b>		<b>Analyst: ALH</b>							
Alkalinity, Total as CaCO3	3/4/22 10:30	3/4/22 12:34		1	263	mg/L		0.1	
<b>Analytical Method: SM 2540C</b>		<b>Analyst: CNJ</b>							
* Solids, Dissolved	2/24/22 11:28	2/28/22 09:55		1	345	mg/L		25	
<b>Analytical Method: SM 4500CO2 D</b>		<b>Analyst: ALH</b>							
Bicarbonate Alkalinity, (calc.)	3/4/22 10:30	3/4/22 12:34		1	259	mg/L			
Carbonate Alkalinity, (calc.)	3/4/22 10:30	3/4/22 12:34		1	4.23	mg/L			
<b>Analytical Method: SM 5310 B</b>		<b>Analyst: ELH</b>							
* Total Organic Carbon	3/2/22 11:20	3/2/22 11:20		1	2.52	mg/L	1.00	2	

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.

# Certificate Of Analysis

**Description:** Gorgas Ash Pond - MW-38H

**Location Code:** WMWGORAP

**Collected:** 2/22/22 09:35

**Customer ID:**

**Submittal Date:** 2/23/22 16:56

**Laboratory ID Number:** BC03964

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
<b>Analytical Method: SM4500Cl E</b>		<b>Analyst: JCC</b>							
* Chloride	2/24/22 15:19	2/24/22 15:19		3	31.0	mg/L	1.50	3	
<b>Analytical Method: SM4500F G 2017</b>		<b>Analyst: JCC</b>							
* Fluoride	2/25/22 10:05	2/25/22 10:05		1	0.239	mg/L	0.06	0.1	
<b>Analytical Method: SM4500SO4 E 2011</b>		<b>Analyst: CES</b>							
* Sulfate	3/2/22 10:03	3/2/22 10:03		1	27.9	mg/L	0.50	1	
<b>Analytical Method: Field Measurements</b>		<b>Analyst: TJD</b>							
Conductivity	2/22/22 09:30	2/22/22 09:30			741.45	uS/cm			FA
pH	2/22/22 09:30	2/22/22 09:30			7.89	SU			FA
Temperature	2/22/22 09:30	2/22/22 09:30			19.14	C			FA
Turbidity	2/22/22 09:30	2/22/22 09:30			1.62	NTU			FA

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.



# Batch QC Summary

**Customer Account:** WMWGORAP

**Sample Date:** 2/22/22 09:35

**Customer ID:**

**Delivery Date:** 2/23/22 16:56

**Description:** Gorgas Ash Pond - MW-38H

**Laboratory ID Number:** BC03964

Sample	Analysis	Units	MB	MB		Spike	MS	MSD	Standard		Rec		Prec	Limit
				Limit					Standard	Limit	Rec	Limit		
BC03973	Aluminum, Dissolved	mg/L	-0.000122	0.010	0.100	0.107	0.104	0.0988	0.0850 to 0.115	107	70.0 to 130	2.84	20.0	
BC03972	Aluminum, Total	mg/L	0.000422	0.010	0.100	0.0970	0.0975	0.0983	0.0850 to 0.115	97.0	70.0 to 130	0.514	20.0	
BC03973	Antimony, Dissolved	mg/L	0.000368	0.00100	0.100	0.0971	0.0934	0.0893	0.0850 to 0.115	97.1	70.0 to 130	3.88	20.0	
BC03972	Antimony, Total	mg/L	0.000597	0.00100	0.100	0.0868	0.0888	0.0926	0.0850 to 0.115	86.8	70.0 to 130	2.28	20.0	
BC03973	Arsenic, Dissolved	mg/L	0.0000084	0.000176	0.100	0.107	0.104	0.101	0.0850 to 0.115	107	70.0 to 130	2.84	20.0	
BC03972	Arsenic, Total	mg/L	0.0000144	0.000176	0.100	0.0950	0.0969	0.0993	0.0850 to 0.115	95.0	70.0 to 130	1.98	20.0	
BC03973	Barium, Dissolved	mg/L	0.0000048	0.000200	0.100	0.181	0.175	0.0960	0.0850 to 0.115	104	70.0 to 130	3.37	20.0	
BC03972	Barium, Total	mg/L	-0.0000178	0.000200	0.100	0.0933	0.0947	0.0959	0.0850 to 0.115	93.3	70.0 to 130	1.49	20.0	
BC03973	Beryllium, Dissolved	mg/L	0.0000123	0.000880	0.100	0.0960	0.0992	0.0920	0.0850 to 0.115	96.0	70.0 to 130	3.28	20.0	
BC03972	Beryllium, Total	mg/L	0.000328	0.000880	0.100	0.102	0.107	0.104	0.0850 to 0.115	102	70.0 to 130	4.78	20.0	
BC03966	Boron, Dissolved	mg/L	-0.000179	0.0650	1.00	1.02	1.03	0.993	0.850 to 1.15	102	70.0 to 130	0.976	20.0	
BC03972	Boron, Total	mg/L	-0.000129	0.0650	1.00	0.955	0.976	0.993	0.850 to 1.15	95.5	70.0 to 130	2.18	20.0	
BC03973	Cadmium, Dissolved	mg/L	0.0000030	0.000147	0.100	0.0965	0.100	0.0986	0.0850 to 0.115	96.5	70.0 to 130	3.56	20.0	
BC03972	Cadmium, Total	mg/L	0.0000093	0.000147	0.100	0.0946	0.0967	0.0984	0.0850 to 0.115	94.6	70.0 to 130	2.20	20.0	
BC03966	Calcium, Dissolved	mg/L	-0.00563	0.152	5.00	62.6	60.2	4.84	4.25 to 5.75	182	70.0 to 130	3.91	20.0	
BC03972	Calcium, Total	mg/L	-0.00402	0.152	5.00	4.74	4.72	4.80	4.25 to 5.75	94.8	70.0 to 130	0.423	20.0	
BC03973	Chromium, Dissolved	mg/L	-0.0000065	0.000440	0.100	0.102	0.0985	0.0994	0.0850 to 0.115	102	70.0 to 130	3.49	20.0	
BC03972	Chromium, Total	mg/L	-0.0000273	0.000440	0.100	0.0954	0.0962	0.0994	0.0850 to 0.115	95.4	70.0 to 130	0.835	20.0	
BC03973	Cobalt, Dissolved	mg/L	0.0000031	0.000147	0.100	0.106	0.103	0.104	0.0850 to 0.115	106	70.0 to 130	2.87	20.0	
BC03972	Cobalt, Total	mg/L	0.0000306	0.000147	0.100	0.0991	0.0997	0.102	0.0850 to 0.115	99.1	70.0 to 130	0.604	20.0	
BC03966	Iron, Dissolved	mg/L	0.00221	0.0176	0.2	0.639	0.633	0.203	0.170 to 0.230	99.0	70.0 to 130	0.943	20.0	
BC03972	Iron, Total	mg/L	-0.000211	0.0176	0.2	0.190	0.193	0.195	0.170 to 0.230	95.0	70.0 to 130	1.57	20.0	
BC03973	Lead, Dissolved	mg/L	0.0000104	0.000147	0.100	0.103	0.105	0.100	0.0850 to 0.115	103	70.0 to 130	1.92	20.0	

**Comments:** The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.

# Batch QC Summary

**Customer Account:** WMWGORAP

**Sample Date:** 2/22/22 09:35

**Customer ID:**

**Delivery Date:** 2/23/22 16:56

**Description:** Gorgas Ash Pond - MW-38H

**Laboratory ID Number:** BC03964

Sample	Analysis	Units	MB	MB				Standard		Rec		Prec	Limit
				Limit	Spike	MS	MSD	Standard	Limit	Rec	Limit		
BC03972	Lead, Total	mg/L	0.0000074	0.000147	0.100	0.104	0.102	0.107	0.0850 to 0.115	104	70.0 to 130	1.94	20.0
BC03966	Lithium, Dissolved	mg/L	0.000133	0.0154	0.200	0.224	0.222	0.198	0.170 to 0.230	99.1	70.0 to 130	0.897	20.0
BC03972	Lithium, Total	mg/L	-0.000195	0.0154	0.200	0.199	0.203	0.206	0.170 to 0.230	99.5	70.0 to 130	1.99	20.0
BC03966	Magnesium, Dissolved	mg/L	0.000702	0.0462	5.00	21.6	21.3	5.11	4.25 to 5.75	106	70.0 to 130	1.40	20.0
BC03972	Magnesium, Total	mg/L	-0.00896	0.0462	5.00	5.02	5.06	5.17	4.25 to 5.75	100	70.0 to 130	0.794	20.0
BC03973	Manganese, Dissolved	mg/L	0.0000165	0.0002	0.100	0.243	0.238	0.102	0.0850 to 0.115	107	70.0 to 130	2.08	20.0
BC03972	Manganese, Total	mg/L	-0.0000151	0.0002	0.100	0.0980	0.0984	0.101	0.0850 to 0.115	98.0	70.0 to 130	0.407	20.0
BC03972	Mercury, Total by CVAA	mg/L	-3.000E-05	0.000500	0.004	0.00356	0.00383	0.00393	0.00340 to 0.00460	89.0	70.0 to 130	7.31	20.0
BC03973	Molybdenum, Dissolved	mg/L	0.0000139	0.0002	0.100	0.101	0.0990	0.0995	0.0850 to 0.115	101	70.0 to 130	2.00	20.0
BC03972	Molybdenum, Total	mg/L	0.0000119	0.0002	0.100	0.0934	0.0956	0.0997	0.0850 to 0.115	93.4	70.0 to 130	2.33	20.0
BC03973	Potassium, Dissolved	mg/L	-0.0146	0.367	10.0	12.2	12.2	9.90	8.50 to 11.5	98.5	70.0 to 130	0.00	20.0
BC03972	Potassium, Total	mg/L	0.0105	0.367	10.0	9.69	9.60	9.89	8.50 to 11.5	96.9	70.0 to 130	0.933	20.0
BC03973	Selenium, Dissolved	mg/L	-0.0000156	0.00100	0.100	0.103	0.101	0.100	0.0850 to 0.115	103	70.0 to 130	1.96	20.0
BC03972	Selenium, Total	mg/L	0.0000516	0.00100	0.100	0.0969	0.100	0.102	0.0850 to 0.115	96.9	70.0 to 130	3.15	20.0
BC03966	Silicon, Dissolved	mg/L	0.000469	0.0440	1.00	10.9	10.9	1.02	0.850 to 1.15	101	70.0 to 130	0.00	20.0
BC03972	Silicon, Total	mg/L	0.000143	0.0440	1.00	0.977	0.994	1.00	0.850 to 1.15	97.7	70.0 to 130	1.73	20.0
BC03966	Sodium, Dissolved	mg/L	-0.00274	0.0660	5.00	50.9	49.0	5.09	4.25 to 5.75	154	70.0 to 130	3.80	20.0
BC03972	Sodium, Total	mg/L	0.000667	0.0660	5.00	4.97	5.11	5.18	4.25 to 5.75	99.4	70.0 to 130	2.78	20.0
BC03973	Thallium, Dissolved	mg/L	0.0000119	0.000147	0.100	0.102	0.100	0.101	0.0850 to 0.115	102	70.0 to 130	1.98	20.0
BC03972	Thallium, Total	mg/L	0.000009	0.000147	0.100	0.102	0.101	0.106	0.0850 to 0.115	102	70.0 to 130	0.985	20.0
BC03963	Total Organic Carbon	mg/L	0.200	1.00	10.0	10.3	9.80	9.01		86.0	80.0 to 120	4.98	20.0

**Comments:** The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.

## Batch QC Summary

**Customer Account:** WMWGORAP

**Sample Date:** 2/22/22 09:35

**Customer ID:**

**Delivery Date:** 2/23/22 16:56

**Description:** Gorgas Ash Pond - MW-38H

**Laboratory ID Number:** BC03964

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Limit	Prec	Prec Limit
BC03970	Alkalinity, Total as CaCO3	mg/L					312	51.5	45.0 to 55.0			1.62	10.0
BC03972	Chloride	mg/L	-0.0468	1.00	10.0	9.98	0.0149	10.2	9.00 to 11.0	99.8	80.0 to 120	0.00	20.0
BC03972	Fluoride	mg/L	-0.0149	0.125	2.50	2.63	0.00887	2.64	2.25 to 2.75	105	80.0 to 120	0.00	20.0
BC03972	Nitrogen, Nitrate/Nitrite	mg/L as N	-0.04	0.200	2.00	2.01	-0.032	1.89	1.80 to 2.20	100	90.0 to 110	0.00	15.0
BC03971	Solids, Dissolved	mg/L	1.00	25.0			610	51.0	40.0 to 60.0			0.654	10.0
BC03972	Sulfate	mg/L	0.0572	2.0	20.0	21.0	-0.0325	20.6	18.0 to 22.0	105	80.0 to 120	0.00	20.0

**Comments:** The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.

# Certificate Of Analysis

**Description:** Gorgas Ash Pond - MW-19

**Location Code:** WMWGORAP  
**Collected:** 2/22/22 11:18  
**Customer ID:**  
**Submittal Date:** 2/23/22 16:56

**Laboratory ID Number:** BC03965

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
<b>Analytical Method: EPA 200.7</b>			<b>Analyst: RDA</b>		<b>Preparation Method: EPA 1638</b>				
* Boron, Total	3/7/22 12:00	3/8/22 09:42		1.015	Not Detected	mg/L	0.030000	0.1015	U
* Calcium, Total	3/7/22 12:00	3/8/22 11:45		10.15	54.6	mg/L	0.70035	4.06	
* Iron, Total	3/7/22 12:00	3/8/22 09:42		1.015	0.443	mg/L	0.008120	0.0406	
* Lithium, Total	3/7/22 12:00	3/8/22 09:42		1.015	0.0266	mg/L	0.007105	0.01999956	
* Magnesium, Total	3/7/22 12:00	3/8/22 09:42		1.015	16.4	mg/L	0.021315	0.406	
Silica, Total (calc.)	3/7/22 12:00	3/8/22 09:42		1	21.3	mg/L			
Silicon, Total	3/7/22 12:00	3/8/22 09:42		1.015	9.94	mg/L	0.02030	0.25375	
* Sodium, Total	3/7/22 12:00	3/8/22 11:45		10.15	42.9	mg/L	0.3045	4.06	
<b>Analytical Method: EPA 200.7</b>			<b>Analyst: RDA</b>		<b>Preparation Method: EPA 1638</b>				
* Boron, Dissolved	2/25/22 14:30	3/1/22 10:06		1.015	Not Detected	mg/L	0.030000	0.1015	U
* Calcium, Dissolved	2/25/22 14:30	3/1/22 12:07		20.3	57.6	mg/L	1.4007	8.12	
* Iron, Dissolved	2/25/22 14:30	3/1/22 10:06		1.015	0.436	mg/L	0.008120	0.0406	
* Lithium, Dissolved	2/25/22 14:30	3/1/22 10:06		1.015	0.0266	mg/L	0.007105	0.01999956	
* Magnesium, Dissolved	2/25/22 14:30	3/1/22 10:06		1.015	16.6	mg/L	0.021315	0.406	
Silica, Dissolved (calc.)	2/25/22 14:30	3/1/22 10:06		1	21.2	mg/L			
Silicon, Dissolved	2/25/22 14:30	3/1/22 10:06		1.015	9.91	mg/L	0.02030	0.25375	
* Sodium, Dissolved	2/25/22 14:30	3/1/22 12:07		20.3	47.0	mg/L	0.609	8.12	
<b>Analytical Method: EPA 200.8</b>			<b>Analyst: DLJ</b>		<b>Preparation Method: EPA 1638</b>				
* Antimony, Total	2/25/22 08:30	2/25/22 16:57		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Aluminum, Total	2/25/22 08:30	2/25/22 16:57		1.015	0.00910	mg/L	0.004060	0.01015	J
* Arsenic, Total	2/25/22 08:30	2/25/22 16:57		1.015	0.000977	mg/L	0.000068	0.000203	
* Barium, Total	2/25/22 08:30	2/25/22 16:57		1.015	0.334	mg/L	0.000102	0.000203	
* Beryllium, Total	2/25/22 08:30	2/25/22 16:57		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Total	2/25/22 08:30	2/25/22 16:57		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Total	2/25/22 08:30	2/25/22 16:57		1.015	Not Detected	mg/L	0.000203	0.001015	U
* Cobalt, Total	2/25/22 08:30	2/25/22 16:57		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Lead, Total	2/25/22 08:30	2/25/22 16:57		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Total	2/25/22 08:30	2/25/22 16:57		1.015	0.0259	mg/L	0.000068	0.000203	
* Molybdenum, Total	2/25/22 08:30	2/25/22 16:57		1.015	0.00267	mg/L	0.000068	0.000203	
* Potassium, Total	2/25/22 08:30	2/25/22 16:57		1.015	1.87	mg/L	0.169505	0.5075	

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.

# Certificate Of Analysis

**Description:** Gorgas Ash Pond - MW-19

**Location Code:** WMWGORAP  
**Collected:** 2/22/22 11:18  
**Customer ID:**  
**Submittal Date:** 2/23/22 16:56

**Laboratory ID Number:** BC03965

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
* Selenium, Total	2/25/22 08:30	2/25/22 16:57		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Total	2/25/22 08:30	2/25/22 16:57		1.015	Not Detected	mg/L	0.000068	0.000203	U
<b>Analytical Method: EPA 200.8</b>		<b>Analyst: DLJ</b>							
* Antimony, Dissolved	2/28/22 13:52	3/3/22 12:54		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Aluminum, Dissolved	2/28/22 13:52	3/3/22 12:54		1.015	Not Detected	mg/L	0.004060	0.01015	U
* Arsenic, Dissolved	2/28/22 13:52	3/3/22 12:54		1.015	0.000837	mg/L	0.000068	0.000203	
* Barium, Dissolved	2/28/22 13:52	3/3/22 12:54		1.015	0.340	mg/L	0.000102	0.000203	
* Beryllium, Dissolved	2/28/22 13:52	3/3/22 12:54		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Dissolved	2/28/22 13:52	3/3/22 12:54		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Dissolved	2/28/22 13:52	3/3/22 12:54		1.015	Not Detected	mg/L	0.000203	0.001015	U
* Cobalt, Dissolved	2/28/22 13:52	3/3/22 12:54		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Lead, Dissolved	2/28/22 13:52	3/3/22 12:54		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Dissolved	2/28/22 13:52	3/3/22 12:54		1.015	0.0264	mg/L	0.000068	0.000203	
* Molybdenum, Dissolved	2/28/22 13:52	3/3/22 12:54		1.015	0.00265	mg/L	0.000068	0.000203	
* Potassium, Dissolved	2/28/22 13:52	3/3/22 12:54		1.015	1.86	mg/L	0.169505	0.5075	
* Selenium, Dissolved	2/28/22 13:52	3/3/22 12:54		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Dissolved	2/28/22 13:52	3/3/22 12:54		1.015	Not Detected	mg/L	0.000068	0.000203	U
<b>Analytical Method: EPA 245.1</b>		<b>Analyst: ABB</b>							
* Mercury, Total by CVAA	2/25/22 16:39	2/25/22 21:44		1	Not Detected	mg/L	0.0003	0.0005	U
<b>Analytical Method: EPA 353.2</b>		<b>Analyst: ELH</b>							
* Nitrogen, Nitrate/Nitrite	2/25/22 12:43	2/25/22 12:43		1	Not Detected	mg/L as N	0.20	0.3	U
<b>Analytical Method: SM 2320 B</b>		<b>Analyst: ALH</b>							
Alkalinity, Total as CaCO3	3/4/22 10:30	3/4/22 12:34		1	286	mg/L		0.1	
<b>Analytical Method: SM 2540C</b>		<b>Analyst: CNJ</b>							
* Solids, Dissolved	2/24/22 11:28	2/28/22 09:55		1	304	mg/L		25	
<b>Analytical Method: SM 4500CO2 D</b>		<b>Analyst: ALH</b>							
Bicarbonate Alkalinity, (calc.)	3/4/22 10:30	3/4/22 12:34		1	283	mg/L			
Carbonate Alkalinity, (calc.)	3/4/22 10:30	3/4/22 12:34		1	2.98	mg/L			
<b>Analytical Method: SM 5310 B</b>		<b>Analyst: ELH</b>							
* Total Organic Carbon	3/4/22 12:13	3/4/22 12:13		1	Not Detected	mg/L	1.00	2	U

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.

# Certificate Of Analysis

**Description:** Gorgas Ash Pond - MW-19

**Location Code:** WMWGORAP

**Collected:** 2/22/22 11:18

**Customer ID:**

**Submittal Date:** 2/23/22 16:56

**Laboratory ID Number:** BC03965

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
<b>Analytical Method: SM4500Cl E</b>		<b>Analyst: JCC</b>							
* Chloride	2/24/22 15:07	2/24/22 15:07		1	4.59	mg/L	0.50	1	
<b>Analytical Method: SM4500F G 2017</b>		<b>Analyst: JCC</b>							
* Fluoride	2/25/22 10:06	2/25/22 10:06		1	0.259	mg/L	0.06	0.1	
<b>Analytical Method: SM4500SO4 E 2011</b>		<b>Analyst: CES</b>							
* Sulfate	3/2/22 10:04	3/2/22 10:04		1	13.7	mg/L	0.50	1	
<b>Analytical Method: Field Measurements</b>		<b>Analyst: TJD</b>							
Conductivity	2/22/22 11:15	2/22/22 11:15			597.93	uS/cm			FA
pH	2/22/22 11:15	2/22/22 11:15			7.71	SU			FA
Temperature	2/22/22 11:15	2/22/22 11:15			18.62	C			FA
Turbidity	2/22/22 11:15	2/22/22 11:15			0.82	NTU			FA

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.

# Batch QC Summary

**Customer Account:** WMWGORAP

**Sample Date:** 2/22/22 11:18

**Customer ID:**

**Delivery Date:** 2/23/22 16:56

**Description:** Gorgas Ash Pond - MW-19

**Laboratory ID Number:** BC03965

Sample	Analysis	Units	MB	MB		MS	MSD	Standard		Rec		Prec	Limit
				Limit	Spike			Standard	Limit	Rec	Limit		
BC03973	Aluminum, Dissolved	mg/L	-0.000122	0.010	0.100	0.107	0.104	0.0988	0.0850 to 0.115	107	70.0 to 130	2.84	20.0
BC03972	Aluminum, Total	mg/L	0.000422	0.010	0.100	0.0970	0.0975	0.0983	0.0850 to 0.115	97.0	70.0 to 130	0.514	20.0
BC03973	Antimony, Dissolved	mg/L	0.000368	0.00100	0.100	0.0971	0.0934	0.0893	0.0850 to 0.115	97.1	70.0 to 130	3.88	20.0
BC03972	Antimony, Total	mg/L	0.000597	0.00100	0.100	0.0868	0.0888	0.0926	0.0850 to 0.115	86.8	70.0 to 130	2.28	20.0
BC03973	Arsenic, Dissolved	mg/L	0.0000084	0.000176	0.100	0.107	0.104	0.101	0.0850 to 0.115	107	70.0 to 130	2.84	20.0
BC03972	Arsenic, Total	mg/L	0.0000144	0.000176	0.100	0.0950	0.0969	0.0993	0.0850 to 0.115	95.0	70.0 to 130	1.98	20.0
BC03973	Barium, Dissolved	mg/L	0.0000048	0.000200	0.100	0.181	0.175	0.0960	0.0850 to 0.115	104	70.0 to 130	3.37	20.0
BC03972	Barium, Total	mg/L	-0.0000178	0.000200	0.100	0.0933	0.0947	0.0959	0.0850 to 0.115	93.3	70.0 to 130	1.49	20.0
BC03973	Beryllium, Dissolved	mg/L	0.0000123	0.000880	0.100	0.0960	0.0992	0.0920	0.0850 to 0.115	96.0	70.0 to 130	3.28	20.0
BC03972	Beryllium, Total	mg/L	0.000328	0.000880	0.100	0.102	0.107	0.104	0.0850 to 0.115	102	70.0 to 130	4.78	20.0
BC03966	Boron, Dissolved	mg/L	-0.000179	0.0650	1.00	1.02	1.03	0.993	0.850 to 1.15	102	70.0 to 130	0.976	20.0
BC03972	Boron, Total	mg/L	-0.000129	0.0650	1.00	0.955	0.976	0.993	0.850 to 1.15	95.5	70.0 to 130	2.18	20.0
BC03973	Cadmium, Dissolved	mg/L	0.0000030	0.000147	0.100	0.0965	0.100	0.0986	0.0850 to 0.115	96.5	70.0 to 130	3.56	20.0
BC03972	Cadmium, Total	mg/L	0.0000093	0.000147	0.100	0.0946	0.0967	0.0984	0.0850 to 0.115	94.6	70.0 to 130	2.20	20.0
BC03966	Calcium, Dissolved	mg/L	-0.00563	0.152	5.00	62.6	60.2	4.84	4.25 to 5.75	182	70.0 to 130	3.91	20.0
BC03972	Calcium, Total	mg/L	-0.00402	0.152	5.00	4.74	4.72	4.80	4.25 to 5.75	94.8	70.0 to 130	0.423	20.0
BC03973	Chromium, Dissolved	mg/L	-0.0000065	0.000440	0.100	0.102	0.0985	0.0994	0.0850 to 0.115	102	70.0 to 130	3.49	20.0
BC03972	Chromium, Total	mg/L	-0.0000273	0.000440	0.100	0.0954	0.0962	0.0994	0.0850 to 0.115	95.4	70.0 to 130	0.835	20.0
BC03973	Cobalt, Dissolved	mg/L	0.0000031	0.000147	0.100	0.106	0.103	0.104	0.0850 to 0.115	106	70.0 to 130	2.87	20.0
BC03972	Cobalt, Total	mg/L	0.0000306	0.000147	0.100	0.0991	0.0997	0.102	0.0850 to 0.115	99.1	70.0 to 130	0.604	20.0
BC03966	Iron, Dissolved	mg/L	0.00221	0.0176	0.2	0.639	0.633	0.203	0.170 to 0.230	99.0	70.0 to 130	0.943	20.0
BC03972	Iron, Total	mg/L	-0.000211	0.0176	0.2	0.190	0.193	0.195	0.170 to 0.230	95.0	70.0 to 130	1.57	20.0
BC03973	Lead, Dissolved	mg/L	0.0000104	0.000147	0.100	0.103	0.105	0.100	0.0850 to 0.115	103	70.0 to 130	1.92	20.0

**Comments:** The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.

# Batch QC Summary

**Customer Account:** WMWGORAP

**Sample Date:** 2/22/22 11:18

**Customer ID:**

**Delivery Date:** 2/23/22 16:56

**Description:** Gorgas Ash Pond - MW-19

**Laboratory ID Number:** BC03965

Sample	Analysis	Units	MB	MB				Standard		Rec		Prec	Limit
				Limit	Spike	MS	MSD	Standard	Limit	Rec	Limit		
BC03972	Lead, Total	mg/L	0.0000074	0.000147	0.100	0.104	0.102	0.107	0.0850 to 0.115	104	70.0 to 130	1.94	20.0
BC03966	Lithium, Dissolved	mg/L	0.000133	0.0154	0.200	0.224	0.222	0.198	0.170 to 0.230	99.1	70.0 to 130	0.897	20.0
BC03972	Lithium, Total	mg/L	-0.000195	0.0154	0.200	0.199	0.203	0.206	0.170 to 0.230	99.5	70.0 to 130	1.99	20.0
BC03966	Magnesium, Dissolved	mg/L	0.000702	0.0462	5.00	21.6	21.3	5.11	4.25 to 5.75	106	70.0 to 130	1.40	20.0
BC03972	Magnesium, Total	mg/L	-0.00896	0.0462	5.00	5.02	5.06	5.17	4.25 to 5.75	100	70.0 to 130	0.794	20.0
BC03973	Manganese, Dissolved	mg/L	0.0000165	0.0002	0.100	0.243	0.238	0.102	0.0850 to 0.115	107	70.0 to 130	2.08	20.0
BC03972	Manganese, Total	mg/L	-0.0000151	0.0002	0.100	0.0980	0.0984	0.101	0.0850 to 0.115	98.0	70.0 to 130	0.407	20.0
BC03972	Mercury, Total by CVAA	mg/L	-3.000E-05	0.000500	0.004	0.00356	0.00383	0.00393	0.00340 to 0.00460	89.0	70.0 to 130	7.31	20.0
BC03973	Molybdenum, Dissolved	mg/L	0.0000139	0.0002	0.100	0.101	0.0990	0.0995	0.0850 to 0.115	101	70.0 to 130	2.00	20.0
BC03972	Molybdenum, Total	mg/L	0.0000119	0.0002	0.100	0.0934	0.0956	0.0997	0.0850 to 0.115	93.4	70.0 to 130	2.33	20.0
BC03973	Potassium, Dissolved	mg/L	-0.0146	0.367	10.0	12.2	12.2	9.90	8.50 to 11.5	98.5	70.0 to 130	0.00	20.0
BC03972	Potassium, Total	mg/L	0.0105	0.367	10.0	9.69	9.60	9.89	8.50 to 11.5	96.9	70.0 to 130	0.933	20.0
BC03973	Selenium, Dissolved	mg/L	-0.0000156	0.00100	0.100	0.103	0.101	0.100	0.0850 to 0.115	103	70.0 to 130	1.96	20.0
BC03972	Selenium, Total	mg/L	0.0000516	0.00100	0.100	0.0969	0.100	0.102	0.0850 to 0.115	96.9	70.0 to 130	3.15	20.0
BC03966	Silicon, Dissolved	mg/L	0.000469	0.0440	1.00	10.9	10.9	1.02	0.850 to 1.15	101	70.0 to 130	0.00	20.0
BC03972	Silicon, Total	mg/L	0.000143	0.0440	1.00	0.977	0.994	1.00	0.850 to 1.15	97.7	70.0 to 130	1.73	20.0
BC03966	Sodium, Dissolved	mg/L	-0.00274	0.0660	5.00	50.9	49.0	5.09	4.25 to 5.75	154	70.0 to 130	3.80	20.0
BC03972	Sodium, Total	mg/L	0.000667	0.0660	5.00	4.97	5.11	5.18	4.25 to 5.75	99.4	70.0 to 130	2.78	20.0
BC03973	Thallium, Dissolved	mg/L	0.0000119	0.000147	0.100	0.102	0.100	0.101	0.0850 to 0.115	102	70.0 to 130	1.98	20.0
BC03972	Thallium, Total	mg/L	0.000009	0.000147	0.100	0.102	0.101	0.106	0.0850 to 0.115	102	70.0 to 130	0.985	20.0
BC04376	Total Organic Carbon	mg/L	0.270	1.00	10.0	10.7	10.4	9.67		92.9	80.0 to 120	2.84	20.0

**Comments:** The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.



## Batch QC Summary

**Customer Account:** WMWGORAP

**Sample Date:** 2/22/22 11:18

**Customer ID:**

**Delivery Date:** 2/23/22 16:56

**Description:** Gorgas Ash Pond - MW-19

**Laboratory ID Number:** BC03965

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Limit	Prec	Prec Limit
BC03970	Alkalinity, Total as CaCO3	mg/L					312	51.5	45.0 to 55.0			1.62	10.0
BC03972	Chloride	mg/L	-0.0468	1.00	10.0	9.98	0.0149	10.2	9.00 to 11.0	99.8	80.0 to 120	0.00	20.0
BC03972	Fluoride	mg/L	-0.0149	0.125	2.50	2.63	0.00887	2.64	2.25 to 2.75	105	80.0 to 120	0.00	20.0
BC03972	Nitrogen, Nitrate/Nitrite	mg/L as N	-0.04	0.200	2.00	2.01	-0.032	1.89	1.80 to 2.20	100	90.0 to 110	0.00	15.0
BC03971	Solids, Dissolved	mg/L	1.00	25.0			610	51.0	40.0 to 60.0			0.654	10.0
BC03972	Sulfate	mg/L	0.0572	2.0	20.0	21.0	-0.0325	20.6	18.0 to 22.0	105	80.0 to 120	0.00	20.0

**Comments:** The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.

# Certificate Of Analysis

**Description:** Gorgas Ash Pond - MW-19 DUP

**Location Code:** WMWGORAP  
**Collected:** 2/22/22 11:18  
**Customer ID:**  
**Submittal Date:** 2/23/22 16:56

**Laboratory ID Number:** BC03966

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
<b>Analytical Method: EPA 200.7</b>		<b>Analyst: RDA</b>			<b>Preparation Method: EPA 1638</b>				
* Boron, Total	3/7/22 12:00	3/8/22 09:44		1.015	Not Detected	mg/L	0.030000	0.1015	U
* Calcium, Total	3/7/22 12:00	3/8/22 11:47		10.15	55.2	mg/L	0.70035	4.06	
* Iron, Total	3/7/22 12:00	3/8/22 09:44		1.015	0.447	mg/L	0.008120	0.0406	
* Lithium, Total	3/7/22 12:00	3/8/22 09:44		1.015	0.0269	mg/L	0.007105	0.01999956	
* Magnesium, Total	3/7/22 12:00	3/8/22 09:44		1.015	16.6	mg/L	0.021315	0.406	
Silica, Total (calc.)	3/7/22 12:00	3/8/22 09:44		1	21.4	mg/L			
Silicon, Total	3/7/22 12:00	3/8/22 09:44		1.015	10.0	mg/L	0.02030	0.25375	
* Sodium, Total	3/7/22 12:00	3/8/22 11:47		10.15	43.0	mg/L	0.3045	4.06	
<b>Analytical Method: EPA 200.7</b>		<b>Analyst: RDA</b>			<b>Preparation Method: EPA 1638</b>				
* Boron, Dissolved	2/25/22 14:30	3/1/22 10:08		1.015	Not Detected	mg/L	0.030000	0.1015	U
* Calcium, Dissolved	2/25/22 14:30	3/1/22 12:09		20.3	53.5	mg/L	1.4007	8.12	RA
* Iron, Dissolved	2/25/22 14:30	3/1/22 10:08		1.015	0.441	mg/L	0.008120	0.0406	
* Lithium, Dissolved	2/25/22 14:30	3/1/22 10:08		1.015	0.0258	mg/L	0.007105	0.01999956	
* Magnesium, Dissolved	2/25/22 14:30	3/1/22 10:08		1.015	16.3	mg/L	0.021315	0.406	
Silica, Dissolved (calc.)	2/25/22 14:30	3/1/22 10:08		1	21.2	mg/L			
Silicon, Dissolved	2/25/22 14:30	3/1/22 10:08		1.015	9.89	mg/L	0.02030	0.25375	
* Sodium, Dissolved	2/25/22 14:30	3/1/22 12:09		20.3	43.2	mg/L	0.609	8.12	RA
<b>Analytical Method: EPA 200.8</b>		<b>Analyst: DLJ</b>			<b>Preparation Method: EPA 1638</b>				
* Antimony, Total	2/25/22 08:30	2/25/22 17:01		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Aluminum, Total	2/25/22 08:30	2/25/22 17:01		1.015	0.00918	mg/L	0.004060	0.01015	J
* Arsenic, Total	2/25/22 08:30	2/25/22 17:01		1.015	0.000814	mg/L	0.000068	0.000203	
* Barium, Total	2/25/22 08:30	2/25/22 17:01		1.015	0.336	mg/L	0.000102	0.000203	
* Beryllium, Total	2/25/22 08:30	2/25/22 17:01		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Total	2/25/22 08:30	2/25/22 17:01		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Total	2/25/22 08:30	2/25/22 17:01		1.015	0.000443	mg/L	0.000203	0.001015	J
* Cobalt, Total	2/25/22 08:30	2/25/22 17:01		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Lead, Total	2/25/22 08:30	2/25/22 17:01		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Total	2/25/22 08:30	2/25/22 17:01		1.015	0.0276	mg/L	0.000068	0.000203	
* Molybdenum, Total	2/25/22 08:30	2/25/22 17:01		1.015	0.00250	mg/L	0.000068	0.000203	
* Potassium, Total	2/25/22 08:30	2/25/22 17:01		1.015	1.84	mg/L	0.169505	0.5075	

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.

# Certificate Of Analysis

**Description:** Gorgas Ash Pond - MW-19 DUP

**Location Code:** WMWGORAP  
**Collected:** 2/22/22 11:18  
**Customer ID:**  
**Submittal Date:** 2/23/22 16:56

**Laboratory ID Number:** BC03966

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
* Selenium, Total	2/25/22 08:30	2/25/22 17:01		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Total	2/25/22 08:30	2/25/22 17:01		1.015	Not Detected	mg/L	0.000068	0.000203	U
<b>Analytical Method: EPA 200.8</b>		<b>Analyst: DLJ</b>							
* Antimony, Dissolved	2/28/22 13:52	3/3/22 12:58		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Aluminum, Dissolved	2/28/22 13:52	3/3/22 12:58		1.015	Not Detected	mg/L	0.004060	0.01015	U
* Arsenic, Dissolved	2/28/22 13:52	3/3/22 12:58		1.015	0.000849	mg/L	0.000068	0.000203	
* Barium, Dissolved	2/28/22 13:52	3/3/22 12:58		1.015	0.335	mg/L	0.000102	0.000203	
* Beryllium, Dissolved	2/28/22 13:52	3/3/22 12:58		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Dissolved	2/28/22 13:52	3/3/22 12:58		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Dissolved	2/28/22 13:52	3/3/22 12:58		1.015	Not Detected	mg/L	0.000203	0.001015	U
* Cobalt, Dissolved	2/28/22 13:52	3/3/22 12:58		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Lead, Dissolved	2/28/22 13:52	3/3/22 12:58		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Dissolved	2/28/22 13:52	3/3/22 12:58		1.015	0.0267	mg/L	0.000068	0.000203	
* Molybdenum, Dissolved	2/28/22 13:52	3/3/22 12:58		1.015	0.00260	mg/L	0.000068	0.000203	
* Potassium, Dissolved	2/28/22 13:52	3/3/22 12:58		1.015	1.84	mg/L	0.169505	0.5075	
* Selenium, Dissolved	2/28/22 13:52	3/3/22 12:58		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Dissolved	2/28/22 13:52	3/3/22 12:58		1.015	Not Detected	mg/L	0.000068	0.000203	U
<b>Analytical Method: EPA 245.1</b>		<b>Analyst: ABB</b>							
* Mercury, Total by CVAA	2/25/22 16:39	2/25/22 21:48		1	Not Detected	mg/L	0.0003	0.0005	U
<b>Analytical Method: EPA 353.2</b>		<b>Analyst: ELH</b>							
* Nitrogen, Nitrate/Nitrite	2/25/22 12:45	2/25/22 12:45		1	Not Detected	mg/L as N	0.20	0.3	U
<b>Analytical Method: SM 2320 B</b>		<b>Analyst: ALH</b>							
Alkalinity, Total as CaCO3	3/4/22 10:30	3/4/22 12:34		1	305	mg/L		0.10	
<b>Analytical Method: SM 2540C</b>		<b>Analyst: CNJ</b>							
* Solids, Dissolved	2/24/22 11:28	2/28/22 09:55		1	303	mg/L		25	
<b>Analytical Method: SM 4500CO2 D</b>		<b>Analyst: ALH</b>							
Bicarbonate Alkalinity, (calc.)	3/4/22 10:30	3/4/22 12:34		1	302	mg/L			
Carbonate Alkalinity, (calc.)	3/4/22 10:30	3/4/22 12:34		1	2.65	mg/L			
<b>Analytical Method: SM 5310 B</b>		<b>Analyst: ELH</b>							
* Total Organic Carbon	3/4/22 12:29	3/4/22 12:29		1	Not Detected	mg/L	1.00	2	U

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.

# Certificate Of Analysis

**Description:** Gorgas Ash Pond - MW-19 DUP

**Location Code:** WMWGORAP

**Collected:** 2/22/22 11:18

**Customer ID:**

**Submittal Date:** 2/23/22 16:56

**Laboratory ID Number:** BC03966

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
<b>Analytical Method: SM4500Cl E</b>		<b>Analyst: JCC</b>							
* Chloride	2/24/22 15:08	2/24/22 15:08		1	4.82	mg/L	0.50	1	
<b>Analytical Method: SM4500F G 2017</b>		<b>Analyst: JCC</b>							
* Fluoride	2/25/22 10:07	2/25/22 10:07		1	0.240	mg/L	0.06	0.1	
<b>Analytical Method: SM4500SO4 E 2011</b>		<b>Analyst: CES</b>							
* Sulfate	3/2/22 10:05	3/2/22 10:05		1	13.6	mg/L	0.50	1	
<b>Analytical Method: Field Measurements</b>		<b>Analyst: TJD</b>							
Conductivity	2/22/22 11:15	2/22/22 11:15			597.93	uS/cm			FA
pH	2/22/22 11:15	2/22/22 11:15			7.71	SU			FA
Temperature	2/22/22 11:15	2/22/22 11:15			18.62	C			FA
Turbidity	2/22/22 11:15	2/22/22 11:15			0.82	NTU			FA

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.

# Batch QC Summary

**Customer Account:** WMWGORAP

**Sample Date:** 2/22/22 11:18

**Customer ID:**

**Delivery Date:** 2/23/22 16:56

**Description:** Gorgas Ash Pond - MW-19 DUP

**Laboratory ID Number:** BC03966

Sample	Analysis	Units	MB	MB		MS	MSD	Standard		Rec		Prec	Limit
				Limit	Spike			Standard	Limit	Rec	Limit		
BC03973	Aluminum, Dissolved	mg/L	-0.000122	0.010	0.100	0.107	0.104	0.0988	0.0850 to 0.115	107	70.0 to 130	2.84	20.0
BC03972	Aluminum, Total	mg/L	0.000422	0.010	0.100	0.0970	0.0975	0.0983	0.0850 to 0.115	97.0	70.0 to 130	0.514	20.0
BC03973	Antimony, Dissolved	mg/L	0.000368	0.00100	0.100	0.0971	0.0934	0.0893	0.0850 to 0.115	97.1	70.0 to 130	3.88	20.0
BC03972	Antimony, Total	mg/L	0.000597	0.00100	0.100	0.0868	0.0888	0.0926	0.0850 to 0.115	86.8	70.0 to 130	2.28	20.0
BC03973	Arsenic, Dissolved	mg/L	0.0000084	0.000176	0.100	0.107	0.104	0.101	0.0850 to 0.115	107	70.0 to 130	2.84	20.0
BC03972	Arsenic, Total	mg/L	0.0000144	0.000176	0.100	0.0950	0.0969	0.0993	0.0850 to 0.115	95.0	70.0 to 130	1.98	20.0
BC03973	Barium, Dissolved	mg/L	0.0000048	0.000200	0.100	0.181	0.175	0.0960	0.0850 to 0.115	104	70.0 to 130	3.37	20.0
BC03972	Barium, Total	mg/L	-0.0000178	0.000200	0.100	0.0933	0.0947	0.0959	0.0850 to 0.115	93.3	70.0 to 130	1.49	20.0
BC03973	Beryllium, Dissolved	mg/L	0.0000123	0.000880	0.100	0.0960	0.0992	0.0920	0.0850 to 0.115	96.0	70.0 to 130	3.28	20.0
BC03972	Beryllium, Total	mg/L	0.000328	0.000880	0.100	0.102	0.107	0.104	0.0850 to 0.115	102	70.0 to 130	4.78	20.0
BC03966	Boron, Dissolved	mg/L	-0.000179	0.0650	1.00	1.02	1.03	0.993	0.850 to 1.15	102	70.0 to 130	0.976	20.0
BC03972	Boron, Total	mg/L	-0.000129	0.0650	1.00	0.955	0.976	0.993	0.850 to 1.15	95.5	70.0 to 130	2.18	20.0
BC03973	Cadmium, Dissolved	mg/L	0.0000030	0.000147	0.100	0.0965	0.100	0.0986	0.0850 to 0.115	96.5	70.0 to 130	3.56	20.0
BC03972	Cadmium, Total	mg/L	0.0000093	0.000147	0.100	0.0946	0.0967	0.0984	0.0850 to 0.115	94.6	70.0 to 130	2.20	20.0
BC03966	Calcium, Dissolved	mg/L	-0.00563	0.152	5.00	62.6	60.2	4.84	4.25 to 5.75	182	70.0 to 130	3.91	20.0
BC03972	Calcium, Total	mg/L	-0.00402	0.152	5.00	4.74	4.72	4.80	4.25 to 5.75	94.8	70.0 to 130	0.423	20.0
BC03973	Chromium, Dissolved	mg/L	-0.0000065	0.000440	0.100	0.102	0.0985	0.0994	0.0850 to 0.115	102	70.0 to 130	3.49	20.0
BC03972	Chromium, Total	mg/L	-0.0000273	0.000440	0.100	0.0954	0.0962	0.0994	0.0850 to 0.115	95.4	70.0 to 130	0.835	20.0
BC03973	Cobalt, Dissolved	mg/L	0.0000031	0.000147	0.100	0.106	0.103	0.104	0.0850 to 0.115	106	70.0 to 130	2.87	20.0
BC03972	Cobalt, Total	mg/L	0.0000306	0.000147	0.100	0.0991	0.0997	0.102	0.0850 to 0.115	99.1	70.0 to 130	0.604	20.0
BC03966	Iron, Dissolved	mg/L	0.00221	0.0176	0.2	0.639	0.633	0.203	0.170 to 0.230	99.0	70.0 to 130	0.943	20.0
BC03972	Iron, Total	mg/L	-0.000211	0.0176	0.2	0.190	0.193	0.195	0.170 to 0.230	95.0	70.0 to 130	1.57	20.0
BC03973	Lead, Dissolved	mg/L	0.0000104	0.000147	0.100	0.103	0.105	0.100	0.0850 to 0.115	103	70.0 to 130	1.92	20.0

**Comments:** The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.

# Batch QC Summary

**Customer Account:** WMWGORAP

**Sample Date:** 2/22/22 11:18

**Customer ID:**

**Delivery Date:** 2/23/22 16:56

**Description:** Gorgas Ash Pond - MW-19 DUP

**Laboratory ID Number:** BC03966

Sample	Analysis	Units	MB	MB				Standard		Rec		Prec	Limit
				Limit	Spike	MS	MSD	Standard	Limit	Rec	Limit		
BC03972	Lead, Total	mg/L	0.0000074	0.000147	0.100	0.104	0.102	0.107	0.0850 to 0.115	104	70.0 to 130	1.94	20.0
BC03966	Lithium, Dissolved	mg/L	0.000133	0.0154	0.200	0.224	0.222	0.198	0.170 to 0.230	99.1	70.0 to 130	0.897	20.0
BC03972	Lithium, Total	mg/L	-0.000195	0.0154	0.200	0.199	0.203	0.206	0.170 to 0.230	99.5	70.0 to 130	1.99	20.0
BC03966	Magnesium, Dissolved	mg/L	0.000702	0.0462	5.00	21.6	21.3	5.11	4.25 to 5.75	106	70.0 to 130	1.40	20.0
BC03972	Magnesium, Total	mg/L	-0.00896	0.0462	5.00	5.02	5.06	5.17	4.25 to 5.75	100	70.0 to 130	0.794	20.0
BC03973	Manganese, Dissolved	mg/L	0.0000165	0.0002	0.100	0.243	0.238	0.102	0.0850 to 0.115	107	70.0 to 130	2.08	20.0
BC03972	Manganese, Total	mg/L	-0.0000151	0.0002	0.100	0.0980	0.0984	0.101	0.0850 to 0.115	98.0	70.0 to 130	0.407	20.0
BC03972	Mercury, Total by CVAA	mg/L	-3.000E-05	0.000500	0.004	0.00356	0.00383	0.00393	0.00340 to 0.00460	89.0	70.0 to 130	7.31	20.0
BC03973	Molybdenum, Dissolved	mg/L	0.0000139	0.0002	0.100	0.101	0.0990	0.0995	0.0850 to 0.115	101	70.0 to 130	2.00	20.0
BC03972	Molybdenum, Total	mg/L	0.0000119	0.0002	0.100	0.0934	0.0956	0.0997	0.0850 to 0.115	93.4	70.0 to 130	2.33	20.0
BC03973	Potassium, Dissolved	mg/L	-0.0146	0.367	10.0	12.2	12.2	9.90	8.50 to 11.5	98.5	70.0 to 130	0.00	20.0
BC03972	Potassium, Total	mg/L	0.0105	0.367	10.0	9.69	9.60	9.89	8.50 to 11.5	96.9	70.0 to 130	0.933	20.0
BC03973	Selenium, Dissolved	mg/L	-0.0000156	0.00100	0.100	0.103	0.101	0.100	0.0850 to 0.115	103	70.0 to 130	1.96	20.0
BC03972	Selenium, Total	mg/L	0.0000516	0.00100	0.100	0.0969	0.100	0.102	0.0850 to 0.115	96.9	70.0 to 130	3.15	20.0
BC03966	Silicon, Dissolved	mg/L	0.000469	0.0440	1.00	10.9	10.9	1.02	0.850 to 1.15	101	70.0 to 130	0.00	20.0
BC03972	Silicon, Total	mg/L	0.000143	0.0440	1.00	0.977	0.994	1.00	0.850 to 1.15	97.7	70.0 to 130	1.73	20.0
BC03966	Sodium, Dissolved	mg/L	-0.00274	0.0660	5.00	50.9	49.0	5.09	4.25 to 5.75	154	70.0 to 130	3.80	20.0
BC03972	Sodium, Total	mg/L	0.000667	0.0660	5.00	4.97	5.11	5.18	4.25 to 5.75	99.4	70.0 to 130	2.78	20.0
BC03973	Thallium, Dissolved	mg/L	0.0000119	0.000147	0.100	0.102	0.100	0.101	0.0850 to 0.115	102	70.0 to 130	1.98	20.0
BC03972	Thallium, Total	mg/L	0.000009	0.000147	0.100	0.102	0.101	0.106	0.0850 to 0.115	102	70.0 to 130	0.985	20.0
BC04376	Total Organic Carbon	mg/L	0.270	1.00	10.0	10.7	10.4	9.67		92.9	80.0 to 120	2.84	20.0

**Comments:** The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.

## Batch QC Summary

**Customer Account:** WMWGORAP

**Sample Date:** 2/22/22 11:18

**Customer ID:**

**Delivery Date:** 2/23/22 16:56

**Description:** Gorgas Ash Pond - MW-19 DUP

**Laboratory ID Number:** BC03966

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Limit	Prec	Prec Limit
BC03970	Alkalinity, Total as CaCO3	mg/L					312	51.5	45.0 to 55.0			1.62	10.0
BC03972	Chloride	mg/L	-0.0468	1.00	10.0	9.98	0.0149	10.2	9.00 to 11.0	99.8	80.0 to 120	0.00	20.0
BC03972	Fluoride	mg/L	-0.0149	0.125	2.50	2.63	0.00887	2.64	2.25 to 2.75	105	80.0 to 120	0.00	20.0
BC03972	Nitrogen, Nitrate/Nitrite	mg/L as N	-0.04	0.200	2.00	2.01	-0.032	1.89	1.80 to 2.20	100	90.0 to 110	0.00	15.0
BC03971	Solids, Dissolved	mg/L	1.00	25.0			610	51.0	40.0 to 60.0			0.654	10.0
BC03972	Sulfate	mg/L	0.0572	2.0	20.0	21.0	-0.0325	20.6	18.0 to 22.0	105	80.0 to 120	0.00	20.0

**Comments:** The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.

# Certificate Of Analysis

**Description:** Gorgas Ash Pond - MW-2

**Location Code:** WMWGORAP  
**Collected:** 2/22/22 13:17  
**Customer ID:**  
**Submittal Date:** 2/23/22 16:56

**Laboratory ID Number:** BC03967

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q	
<b>Analytical Method: EPA 200.7</b>		<b>Analyst: RDA</b>			<b>Preparation Method: EPA 1638</b>					
* Boron, Total	3/7/22 12:00	3/8/22 09:46		1.015	0.112	mg/L	0.030000	0.1015		
* Calcium, Total	3/7/22 12:00	3/8/22 09:46		1.015	0.413	mg/L	0.070035	0.406		
* Iron, Total	3/7/22 12:00	3/8/22 09:46		1.015	0.0369	mg/L	0.008120	0.0406	J	
* Lithium, Total	3/7/22 12:00	3/8/22 09:46		1.015	0.0354	mg/L	0.007105	0.01999956		
* Magnesium, Total	3/7/22 12:00	3/8/22 09:46		1.015	0.120	mg/L	0.021315	0.406	J	
Silica, Total (calc.)	3/7/22 12:00	3/8/22 09:46		1	11.0	mg/L				
Silicon, Total	3/7/22 12:00	3/8/22 09:46		1.015	5.12	mg/L	0.02030	0.25375		
* Sodium, Total	3/7/22 12:00	3/8/22 11:49		10.15	132	mg/L	0.3045	4.06		
<b>Analytical Method: EPA 200.7</b>		<b>Analyst: RDA</b>			<b>Preparation Method: EPA 1638</b>					
* Boron, Dissolved	3/7/22 12:00	3/8/22 10:49		1.015	0.112	mg/L	0.030000	0.1015		
* Calcium, Dissolved	3/7/22 12:00	3/8/22 10:49		1.015	0.439	mg/L	0.070035	0.406		
* Iron, Dissolved	3/7/22 12:00	3/8/22 10:49		1.015	Not Detected	mg/L	0.008120	0.0406	U	
* Lithium, Dissolved	3/7/22 12:00	3/8/22 10:49		1.015	0.0336	mg/L	0.007105	0.01999956		
* Magnesium, Dissolved	3/7/22 12:00	3/8/22 10:49		1.015	0.108	mg/L	0.021315	0.406	J	
Silica, Dissolved (calc.)	3/7/22 12:00	3/8/22 10:49		1	10.7	mg/L				
Silicon, Dissolved	3/7/22 12:00	3/8/22 10:49		1.015	5.00	mg/L	0.02030	0.25375		
* Sodium, Dissolved	3/7/22 12:00	3/8/22 12:27		10.15	128	mg/L	0.3045	4.06		
<b>Analytical Method: EPA 200.8</b>		<b>Analyst: DLJ</b>			<b>Preparation Method: EPA 1638</b>					
* Antimony, Total	2/25/22 08:30	2/25/22 17:05		1.015	Not Detected	mg/L	0.000508	0.001015	U	
* Aluminum, Total	2/25/22 08:30	2/25/22 17:05		1.015	0.125	mg/L	0.004060	0.01015		
* Arsenic, Total	2/25/22 08:30	2/25/22 17:05		1.015	Not Detected	mg/L	0.000068	0.000203	U	
* Barium, Total	2/25/22 08:30	2/25/22 17:05		1.015	0.0501	mg/L	0.000102	0.000203		
* Beryllium, Total	2/25/22 08:30	2/25/22 17:05		1.015	Not Detected	mg/L	0.000406	0.001015	U	
* Cadmium, Total	2/25/22 08:30	2/25/22 17:05		1.015	Not Detected	mg/L	0.000068	0.000203	U	
* Chromium, Total	2/25/22 08:30	2/25/22 17:05		1.015	0.000443	mg/L	0.000203	0.001015	J	
* Cobalt, Total	2/25/22 08:30	2/25/22 17:05		1.015	Not Detected	mg/L	0.000068	0.000203	U	
* Lead, Total	2/25/22 08:30	2/25/22 17:05		1.015	Not Detected	mg/L	0.000068	0.000203	U	
* Manganese, Total	2/25/22 08:30	2/25/22 17:05		1.015	0.000807	mg/L	0.000068	0.000203		
* Molybdenum, Total	2/25/22 08:30	2/25/22 17:05		1.015	0.00327	mg/L	0.000068	0.000203		
* Potassium, Total	2/25/22 08:30	2/25/22 17:05		1.015	0.376	mg/L	0.169505	0.5075	J	

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.



# Certificate Of Analysis

**Description:** Gorgas Ash Pond - MW-2

**Location Code:** WMWGORAP

**Collected:** 2/22/22 13:17

**Customer ID:**

**Submittal Date:** 2/23/22 16:56

**Laboratory ID Number:** BC03967

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
* Selenium, Total	2/25/22 08:30	2/25/22 17:05		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Total	2/25/22 08:30	2/25/22 17:05		1.015	Not Detected	mg/L	0.000068	0.000203	U
<b>Analytical Method: EPA 200.8</b>		<b>Analyst: DLJ</b>							
* Antimony, Dissolved	2/28/22 13:52	3/3/22 13:01		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Aluminum, Dissolved	2/28/22 13:52	3/3/22 13:01		1.015	0.00513	mg/L	0.004060	0.01015	J
* Arsenic, Dissolved	2/28/22 13:52	3/3/22 13:01		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Barium, Dissolved	2/28/22 13:52	3/3/22 13:01		1.015	0.0511	mg/L	0.000102	0.000203	
* Beryllium, Dissolved	2/28/22 13:52	3/3/22 13:01		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Dissolved	2/28/22 13:52	3/3/22 13:01		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Dissolved	2/28/22 13:52	3/3/22 13:01		1.015	Not Detected	mg/L	0.000203	0.001015	U
* Cobalt, Dissolved	2/28/22 13:52	3/3/22 13:01		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Lead, Dissolved	2/28/22 13:52	3/3/22 13:01		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Dissolved	2/28/22 13:52	3/3/22 13:01		1.015	0.000678	mg/L	0.000068	0.000203	
* Molybdenum, Dissolved	2/28/22 13:52	3/3/22 13:01		1.015	0.00328	mg/L	0.000068	0.000203	
* Potassium, Dissolved	2/28/22 13:52	3/3/22 13:01		1.015	0.341	mg/L	0.169505	0.5075	J
* Selenium, Dissolved	2/28/22 13:52	3/3/22 13:01		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Dissolved	2/28/22 13:52	3/3/22 13:01		1.015	Not Detected	mg/L	0.000068	0.000203	U
<b>Analytical Method: EPA 245.1</b>		<b>Analyst: ABB</b>							
* Mercury, Total by CVAA	2/25/22 16:39	2/25/22 21:52		1	Not Detected	mg/L	0.0003	0.0005	U
<b>Analytical Method: EPA 353.2</b>		<b>Analyst: ELH</b>							
* Nitrogen, Nitrate/Nitrite	2/25/22 12:47	2/25/22 12:47		1	Not Detected	mg/L as N	0.20	0.3	U
<b>Analytical Method: SM 2320 B</b>		<b>Analyst: ALH</b>							
Alkalinity, Total as CaCO3	3/4/22 10:30	3/4/22 12:34		1	264	mg/L		0.1	
<b>Analytical Method: SM 2540C</b>		<b>Analyst: CNJ</b>							
* Solids, Dissolved	2/24/22 11:28	2/28/22 09:55		1	295	mg/L		25	
<b>Analytical Method: SM 4500CO2 D</b>		<b>Analyst: ALH</b>							
Bicarbonate Alkalinity, (calc.)	3/4/22 10:30	3/4/22 12:34		1	202	mg/L			
Carbonate Alkalinity, (calc.)	3/4/22 10:30	3/4/22 12:34		1	60.1	mg/L			
<b>Analytical Method: SM 5310 B</b>		<b>Analyst: ELH</b>							
* Total Organic Carbon	3/4/22 12:48	3/4/22 12:48		1	Not Detected	mg/L	1.00	2	U

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.

# Certificate Of Analysis

**Description:** Gorgas Ash Pond - MW-2

**Location Code:** WMWGORAP

**Collected:** 2/22/22 13:17

**Customer ID:**

**Submittal Date:** 2/23/22 16:56

**Laboratory ID Number:** BC03967

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
<b>Analytical Method: SM4500Cl E</b>		<b>Analyst: JCC</b>							
* Chloride	2/24/22 15:09	2/24/22 15:09		1	6.05	mg/L	0.50	1	
<b>Analytical Method: SM4500F G 2017</b>		<b>Analyst: JCC</b>							
* Fluoride	2/25/22 10:08	2/25/22 10:08		1	0.819	mg/L	0.06	0.1	
<b>Analytical Method: SM4500SO4 E 2011</b>		<b>Analyst: CES</b>							
* Sulfate	3/2/22 10:07	3/2/22 10:07		1	17.1	mg/L	0.50	1	
<b>Analytical Method: Field Measurements</b>		<b>Analyst: TJD</b>							
Conductivity	2/22/22 13:13	2/22/22 13:13			578.43	uS/cm			FA
pH	2/22/22 13:13	2/22/22 13:13			9.42	SU			FA
Temperature	2/22/22 13:13	2/22/22 13:13			19.12	C			FA
Turbidity	2/22/22 13:13	2/22/22 13:13			1.62	NTU			FA

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.

# Batch QC Summary

**Customer Account:** WMWGORAP

**Sample Date:** 2/22/22 13:17

**Customer ID:**

**Delivery Date:** 2/23/22 16:56

**Description:** Gorgas Ash Pond - MW-2

**Laboratory ID Number:** BC03967

Sample	Analysis	Units	MB	MB		MS	MSD	Standard		Rec		Prec	Limit
				Limit	Spike			Standard	Limit	Rec	Limit		
BC03973	Aluminum, Dissolved	mg/L	-0.000122	0.010	0.100	0.107	0.104	0.0988	0.0850 to 0.115	107	70.0 to 130	2.84	20.0
BC03972	Aluminum, Total	mg/L	0.000422	0.010	0.100	0.0970	0.0975	0.0983	0.0850 to 0.115	97.0	70.0 to 130	0.514	20.0
BC03973	Antimony, Dissolved	mg/L	0.000368	0.00100	0.100	0.0971	0.0934	0.0893	0.0850 to 0.115	97.1	70.0 to 130	3.88	20.0
BC03972	Antimony, Total	mg/L	0.000597	0.00100	0.100	0.0868	0.0888	0.0926	0.0850 to 0.115	86.8	70.0 to 130	2.28	20.0
BC03973	Arsenic, Dissolved	mg/L	0.0000084	0.000176	0.100	0.107	0.104	0.101	0.0850 to 0.115	107	70.0 to 130	2.84	20.0
BC03972	Arsenic, Total	mg/L	0.0000144	0.000176	0.100	0.0950	0.0969	0.0993	0.0850 to 0.115	95.0	70.0 to 130	1.98	20.0
BC03973	Barium, Dissolved	mg/L	0.0000048	0.000200	0.100	0.181	0.175	0.0960	0.0850 to 0.115	104	70.0 to 130	3.37	20.0
BC03972	Barium, Total	mg/L	-0.0000178	0.000200	0.100	0.0933	0.0947	0.0959	0.0850 to 0.115	93.3	70.0 to 130	1.49	20.0
BC03973	Beryllium, Dissolved	mg/L	0.0000123	0.000880	0.100	0.0960	0.0992	0.0920	0.0850 to 0.115	96.0	70.0 to 130	3.28	20.0
BC03972	Beryllium, Total	mg/L	0.000328	0.000880	0.100	0.102	0.107	0.104	0.0850 to 0.115	102	70.0 to 130	4.78	20.0
BC04380	Boron, Dissolved	mg/L	-0.000083	0.0650	1.00	0.997	1.03	0.991	0.850 to 1.15	99.7	70.0 to 130	3.26	20.0
BC03972	Boron, Total	mg/L	-0.000129	0.0650	1.00	0.955	0.976	0.993	0.850 to 1.15	95.5	70.0 to 130	2.18	20.0
BC03973	Cadmium, Dissolved	mg/L	0.0000030	0.000147	0.100	0.0965	0.100	0.0986	0.0850 to 0.115	96.5	70.0 to 130	3.56	20.0
BC03972	Cadmium, Total	mg/L	0.0000093	0.000147	0.100	0.0946	0.0967	0.0984	0.0850 to 0.115	94.6	70.0 to 130	2.20	20.0
BC04380	Calcium, Dissolved	mg/L	-0.0113	0.152	5.00	45.5	46.0	4.95	4.25 to 5.75	90.0	70.0 to 130	1.09	20.0
BC03972	Calcium, Total	mg/L	-0.00402	0.152	5.00	4.74	4.72	4.80	4.25 to 5.75	94.8	70.0 to 130	0.423	20.0
BC03973	Chromium, Dissolved	mg/L	-0.0000065	0.000440	0.100	0.102	0.0985	0.0994	0.0850 to 0.115	102	70.0 to 130	3.49	20.0
BC03972	Chromium, Total	mg/L	-0.0000273	0.000440	0.100	0.0954	0.0962	0.0994	0.0850 to 0.115	95.4	70.0 to 130	0.835	20.0
BC03973	Cobalt, Dissolved	mg/L	0.0000031	0.000147	0.100	0.106	0.103	0.104	0.0850 to 0.115	106	70.0 to 130	2.87	20.0
BC03972	Cobalt, Total	mg/L	0.0000306	0.000147	0.100	0.0991	0.0997	0.102	0.0850 to 0.115	99.1	70.0 to 130	0.604	20.0
BC04380	Iron, Dissolved	mg/L	0.000121	0.0176	0.2	0.550	0.561	0.196	0.170 to 0.230	90.5	70.0 to 130	1.98	20.0
BC03972	Iron, Total	mg/L	-0.000211	0.0176	0.2	0.190	0.193	0.195	0.170 to 0.230	95.0	70.0 to 130	1.57	20.0
BC03973	Lead, Dissolved	mg/L	0.0000104	0.000147	0.100	0.103	0.105	0.100	0.0850 to 0.115	103	70.0 to 130	1.92	20.0

**Comments:** The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.

# Batch QC Summary

**Customer Account:** WMWGORAP

**Sample Date:** 2/22/22 13:17

**Customer ID:**

**Delivery Date:** 2/23/22 16:56

**Description:** Gorgas Ash Pond - MW-2

**Laboratory ID Number:** BC03967

Sample	Analysis	Units	MB	MB				Standard		Rec		Prec	Limit
				Limit	Spike	MS	MSD	Standard	Limit	Rec	Limit		
BC03972	Lead, Total	mg/L	0.0000074	0.000147	0.100	0.104	0.102	0.107	0.0850 to 0.115	104	70.0 to 130	1.94	20.0
BC04380	Lithium, Dissolved	mg/L	-0.000144	0.0154	0.200	0.230	0.229	0.198	0.170 to 0.230	97.9	70.0 to 130	0.436	20.0
BC03972	Lithium, Total	mg/L	-0.000195	0.0154	0.200	0.199	0.203	0.206	0.170 to 0.230	99.5	70.0 to 130	1.99	20.0
BC04380	Magnesium, Dissolved	mg/L	-0.00653	0.0462	5.00	21.0	21.2	5.16	4.25 to 5.75	98.0	70.0 to 130	0.948	20.0
BC03972	Magnesium, Total	mg/L	-0.00896	0.0462	5.00	5.02	5.06	5.17	4.25 to 5.75	100	70.0 to 130	0.794	20.0
BC03973	Manganese, Dissolved	mg/L	0.0000165	0.0002	0.100	0.243	0.238	0.102	0.0850 to 0.115	107	70.0 to 130	2.08	20.0
BC03972	Manganese, Total	mg/L	-0.0000151	0.0002	0.100	0.0980	0.0984	0.101	0.0850 to 0.115	98.0	70.0 to 130	0.407	20.0
BC03972	Mercury, Total by CVAA	mg/L	-3.000E-05	0.000500	0.004	0.00356	0.00383	0.00393	0.00340 to 0.00460	89.0	70.0 to 130	7.31	20.0
BC03973	Molybdenum, Dissolved	mg/L	0.0000139	0.0002	0.100	0.101	0.0990	0.0995	0.0850 to 0.115	101	70.0 to 130	2.00	20.0
BC03972	Molybdenum, Total	mg/L	0.0000119	0.0002	0.100	0.0934	0.0956	0.0997	0.0850 to 0.115	93.4	70.0 to 130	2.33	20.0
BC03973	Potassium, Dissolved	mg/L	-0.0146	0.367	10.0	12.2	12.2	9.90	8.50 to 11.5	98.5	70.0 to 130	0.00	20.0
BC03972	Potassium, Total	mg/L	0.0105	0.367	10.0	9.69	9.60	9.89	8.50 to 11.5	96.9	70.0 to 130	0.933	20.0
BC03973	Selenium, Dissolved	mg/L	-0.0000156	0.00100	0.100	0.103	0.101	0.100	0.0850 to 0.115	103	70.0 to 130	1.96	20.0
BC03972	Selenium, Total	mg/L	0.0000516	0.00100	0.100	0.0969	0.100	0.102	0.0850 to 0.115	96.9	70.0 to 130	3.15	20.0
BC04380	Silicon, Dissolved	mg/L	-0.000895	0.0440	1.00	12.5	12.7	0.998	0.850 to 1.15	70.0	70.0 to 130	1.59	20.0
BC03972	Silicon, Total	mg/L	0.000143	0.0440	1.00	0.977	0.994	1.00	0.850 to 1.15	97.7	70.0 to 130	1.73	20.0
BC04380	Sodium, Dissolved	mg/L	0.000319	0.0660	5.00	45.0	45.3	4.98	4.25 to 5.75	84.0	70.0 to 130	0.664	20.0
BC03972	Sodium, Total	mg/L	0.000667	0.0660	5.00	4.97	5.11	5.18	4.25 to 5.75	99.4	70.0 to 130	2.78	20.0
BC03973	Thallium, Dissolved	mg/L	0.0000119	0.000147	0.100	0.102	0.100	0.101	0.0850 to 0.115	102	70.0 to 130	1.98	20.0
BC03972	Thallium, Total	mg/L	0.000009	0.000147	0.100	0.102	0.101	0.106	0.0850 to 0.115	102	70.0 to 130	0.985	20.0
BC04376	Total Organic Carbon	mg/L	0.270	1.00	10.0	10.7	10.4	9.67		92.9	80.0 to 120	2.84	20.0

**Comments:** The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.

## Batch QC Summary

**Customer Account:** WMWGORAP

**Sample Date:** 2/22/22 13:17

**Customer ID:**

**Delivery Date:** 2/23/22 16:56

**Description:** Gorgas Ash Pond - MW-2

**Laboratory ID Number:** BC03967

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Limit	Prec	Prec Limit
BC03970	Alkalinity, Total as CaCO3	mg/L					312	51.5	45.0 to 55.0			1.62	10.0
BC03972	Chloride	mg/L	-0.0468	1.00	10.0	9.98	0.0149	10.2	9.00 to 11.0	99.8	80.0 to 120	0.00	20.0
BC03972	Fluoride	mg/L	-0.0149	0.125	2.50	2.63	0.00887	2.64	2.25 to 2.75	105	80.0 to 120	0.00	20.0
BC03972	Nitrogen, Nitrate/Nitrite	mg/L as N	-0.04	0.200	2.00	2.01	-0.032	1.89	1.80 to 2.20	100	90.0 to 110	0.00	15.0
BC03971	Solids, Dissolved	mg/L	1.00	25.0			610	51.0	40.0 to 60.0			0.654	10.0
BC03972	Sulfate	mg/L	0.0572	2.0	20.0	21.0	-0.0325	20.6	18.0 to 22.0	105	80.0 to 120	0.00	20.0

**Comments:** The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.

# Certificate Of Analysis

**Description:** Gorgas Ash Pond - MW-12V

**Location Code:** WMWGORAP  
**Collected:** 2/23/22 12:33  
**Customer ID:**  
**Submittal Date:** 2/23/22 16:56

**Laboratory ID Number:** BC03968

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
<b>Analytical Method: EPA 200.7</b>			<b>Analyst: RDA</b>		<b>Preparation Method: EPA 1638</b>				
* Boron, Total	3/7/22 12:00	3/8/22 09:48		1.015	Not Detected	mg/L	0.030000	0.1015	U
* Calcium, Total	3/7/22 12:00	3/8/22 11:51		10.15	46.3	mg/L	0.70035	4.06	
* Iron, Total	3/7/22 12:00	3/8/22 09:48		1.015	0.849	mg/L	0.008120	0.0406	
* Lithium, Total	3/7/22 12:00	3/8/22 09:48		1.015	0.0279	mg/L	0.007105	0.01999956	
* Magnesium, Total	3/7/22 12:00	3/8/22 09:48		1.015	11.6	mg/L	0.021315	0.406	
Silica, Total (calc.)	3/7/22 12:00	3/8/22 09:48		1	28.5	mg/L			
Silicon, Total	3/7/22 12:00	3/8/22 09:48		1.015	13.3	mg/L	0.02030	0.25375	
* Sodium, Total	3/7/22 12:00	3/8/22 09:48		1.015	17.2	mg/L	0.03045	0.406	
<b>Analytical Method: EPA 200.7</b>			<b>Analyst: RDA</b>		<b>Preparation Method: EPA 1638</b>				
* Boron, Dissolved	3/7/22 12:00	3/8/22 10:51		1.015	Not Detected	mg/L	0.030000	0.1015	U
* Calcium, Dissolved	3/7/22 12:00	3/8/22 12:28		10.15	45.6	mg/L	0.70035	4.06	
* Iron, Dissolved	3/7/22 12:00	3/8/22 10:51		1.015	0.459	mg/L	0.008120	0.0406	
* Lithium, Dissolved	3/7/22 12:00	3/8/22 10:51		1.015	0.0269	mg/L	0.007105	0.01999956	
* Magnesium, Dissolved	3/7/22 12:00	3/8/22 10:51		1.015	11.7	mg/L	0.021315	0.406	
Silica, Dissolved (calc.)	3/7/22 12:00	3/8/22 10:51		1	28.5	mg/L			
Silicon, Dissolved	3/7/22 12:00	3/8/22 10:51		1.015	13.3	mg/L	0.02030	0.25375	
* Sodium, Dissolved	3/7/22 12:00	3/8/22 10:51		1.015	16.6	mg/L	0.03045	0.406	
<b>Analytical Method: EPA 200.8</b>			<b>Analyst: DLJ</b>		<b>Preparation Method: EPA 1638</b>				
* Antimony, Total	2/25/22 08:30	2/25/22 17:08		1.015	0.000555	mg/L	0.000508	0.001015	J
* Aluminum, Total	2/25/22 08:30	2/25/22 17:08		1.015	0.236	mg/L	0.004060	0.01015	
* Arsenic, Total	2/25/22 08:30	2/25/22 17:08		1.015	0.00102	mg/L	0.000068	0.000203	
* Barium, Total	2/25/22 08:30	3/11/22 11:30		5.075	1.34	mg/L	0.000508	0.001015	
* Beryllium, Total	2/25/22 08:30	2/25/22 17:08		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Total	2/25/22 08:30	2/25/22 17:08		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Total	2/25/22 08:30	2/25/22 17:08		1.015	0.000607	mg/L	0.000203	0.001015	J
* Cobalt, Total	2/25/22 08:30	2/25/22 17:08		1.015	0.000127	mg/L	0.000068	0.000203	J
* Lead, Total	2/25/22 08:30	2/25/22 17:08		1.015	0.000190	mg/L	0.000068	0.000203	J
* Manganese, Total	2/25/22 08:30	2/25/22 17:08		1.015	0.0432	mg/L	0.000068	0.000203	
* Molybdenum, Total	2/25/22 08:30	2/25/22 17:08		1.015	0.00144	mg/L	0.000068	0.000203	
* Potassium, Total	2/25/22 08:30	2/25/22 17:08		1.015	2.26	mg/L	0.169505	0.5075	

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.

# Certificate Of Analysis

**Description:** Gorgas Ash Pond - MW-12V

**Location Code:** WMWGORAP  
**Collected:** 2/23/22 12:33  
**Customer ID:**  
**Submittal Date:** 2/23/22 16:56

**Laboratory ID Number:** BC03968

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
* Selenium, Total	2/25/22 08:30	2/25/22 17:08		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Total	2/25/22 08:30	2/25/22 17:08		1.015	Not Detected	mg/L	0.000068	0.000203	U
<b>Analytical Method: EPA 200.8</b>		<b>Analyst: DLJ</b>							
* Antimony, Dissolved	2/28/22 13:52	3/3/22 13:05		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Aluminum, Dissolved	2/28/22 13:52	3/3/22 13:05		1.015	Not Detected	mg/L	0.004060	0.01015	U
* Arsenic, Dissolved	2/28/22 13:52	3/3/22 13:05		1.015	0.00100	mg/L	0.000068	0.000203	
* Barium, Dissolved	2/28/22 13:52	3/11/22 11:26		5.075	1.30	mg/L	0.000508	0.001015	
* Beryllium, Dissolved	2/28/22 13:52	3/3/22 13:05		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Dissolved	2/28/22 13:52	3/3/22 13:05		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Dissolved	2/28/22 13:52	3/3/22 13:05		1.015	Not Detected	mg/L	0.000203	0.001015	U
* Cobalt, Dissolved	2/28/22 13:52	3/3/22 13:05		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Lead, Dissolved	2/28/22 13:52	3/3/22 13:05		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Dissolved	2/28/22 13:52	3/3/22 13:05		1.015	0.0393	mg/L	0.000068	0.000203	
* Molybdenum, Dissolved	2/28/22 13:52	3/3/22 13:05		1.015	0.00126	mg/L	0.000068	0.000203	
* Potassium, Dissolved	2/28/22 13:52	3/3/22 13:05		1.015	2.12	mg/L	0.169505	0.5075	
* Selenium, Dissolved	2/28/22 13:52	3/3/22 13:05		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Dissolved	2/28/22 13:52	3/3/22 13:05		1.015	Not Detected	mg/L	0.000068	0.000203	U
<b>Analytical Method: EPA 245.1</b>		<b>Analyst: ABB</b>							
* Mercury, Total by CVAA	2/25/22 16:39	2/25/22 21:56		1	Not Detected	mg/L	0.0003	0.0005	U
<b>Analytical Method: EPA 353.2</b>		<b>Analyst: ELH</b>							
* Nitrogen, Nitrate/Nitrite	2/25/22 12:48	2/25/22 12:48		1	Not Detected	mg/L as N	0.20	0.3	U
<b>Analytical Method: SM 2320 B</b>		<b>Analyst: ALH</b>							
Alkalinity, Total as CaCO3	3/7/22 13:30	3/7/22 15:20		1	208	mg/L		0.1	
<b>Analytical Method: SM 2540C</b>		<b>Analyst: CNJ</b>							
* Solids, Dissolved	2/24/22 11:28	2/28/22 09:55		1	209	mg/L		25	
<b>Analytical Method: SM 4500CO2 D</b>		<b>Analyst: ALH</b>							
Bicarbonate Alkalinity, (calc.)	3/7/22 13:30	3/7/22 15:20		1	207	mg/L			
Carbonate Alkalinity, (calc.)	3/7/22 13:30	3/7/22 15:20		1	1.28	mg/L			
<b>Analytical Method: SM 5310 B</b>		<b>Analyst: ELH</b>							
* Total Organic Carbon	3/4/22 13:08	3/4/22 13:08		1	1.38	mg/L	1.00	2	J

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.

# Certificate Of Analysis

**Description:** Gorgas Ash Pond - MW-12V

**Location Code:** WMWGORAP  
**Collected:** 2/23/22 12:33  
**Customer ID:**  
**Submittal Date:** 2/23/22 16:56

**Laboratory ID Number:** BC03968

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
<b>Analytical Method: SM4500Cl E</b>		<b>Analyst: JCC</b>							
* Chloride	2/24/22 15:10	2/24/22 15:10		1	3.83	mg/L	0.50	1	
<b>Analytical Method: SM4500F G 2017</b>		<b>Analyst: JCC</b>							
* Fluoride	2/25/22 10:10	2/25/22 10:10		1	0.153	mg/L	0.06	0.1	
<b>Analytical Method: SM4500SO4 E 2011</b>		<b>Analyst: CES</b>							
* Sulfate	3/2/22 10:08	3/2/22 10:08		1	0.741	mg/L	0.50	1	J
<b>Analytical Method: Field Measurements</b>		<b>Analyst: TJD</b>							
Conductivity	2/23/22 12:29	2/23/22 12:29			309.69	uS/cm			FA
pH	2/23/22 12:29	2/23/22 12:29			7.73	SU			FA
Temperature	2/23/22 12:29	2/23/22 12:29			17.55	C			FA
Turbidity	2/23/22 12:29	2/23/22 12:29			9.83	NTU			FA

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.



# Batch QC Summary

**Customer Account:** WMWGORAP

**Sample Date:** 2/23/22 12:33

**Customer ID:**

**Delivery Date:** 2/23/22 16:56

**Description:** Gorgas Ash Pond - MW-12V

**Laboratory ID Number:** BC03968

Sample	Analysis	Units	MB	MB		MS	MSD	Standard		Rec		Prec	Limit
				Limit	Spike			Standard	Limit	Rec	Limit		
BC03973	Aluminum, Dissolved	mg/L	-0.000122	0.010	0.100	0.107	0.104	0.0988	0.0850 to 0.115	107	70.0 to 130	2.84	20.0
BC03972	Aluminum, Total	mg/L	0.000422	0.010	0.100	0.0970	0.0975	0.0983	0.0850 to 0.115	97.0	70.0 to 130	0.514	20.0
BC03973	Antimony, Dissolved	mg/L	0.000368	0.00100	0.100	0.0971	0.0934	0.0893	0.0850 to 0.115	97.1	70.0 to 130	3.88	20.0
BC03972	Antimony, Total	mg/L	0.000597	0.00100	0.100	0.0868	0.0888	0.0926	0.0850 to 0.115	86.8	70.0 to 130	2.28	20.0
BC03973	Arsenic, Dissolved	mg/L	0.0000084	0.000176	0.100	0.107	0.104	0.101	0.0850 to 0.115	107	70.0 to 130	2.84	20.0
BC03972	Arsenic, Total	mg/L	0.0000144	0.000176	0.100	0.0950	0.0969	0.0993	0.0850 to 0.115	95.0	70.0 to 130	1.98	20.0
BC03973	Barium, Dissolved	mg/L	0.0000048	0.000200	0.100	0.181	0.175	0.0960	0.0850 to 0.115	104	70.0 to 130	3.37	20.0
BC03972	Barium, Total	mg/L	-0.0000178	0.000200	0.100	0.0933	0.0947	0.0959	0.0850 to 0.115	93.3	70.0 to 130	1.49	20.0
BC03973	Beryllium, Dissolved	mg/L	0.0000123	0.000880	0.100	0.0960	0.0992	0.0920	0.0850 to 0.115	96.0	70.0 to 130	3.28	20.0
BC03972	Beryllium, Total	mg/L	0.000328	0.000880	0.100	0.102	0.107	0.104	0.0850 to 0.115	102	70.0 to 130	4.78	20.0
BC04380	Boron, Dissolved	mg/L	-0.000083	0.0650	1.00	0.997	1.03	0.991	0.850 to 1.15	99.7	70.0 to 130	3.26	20.0
BC03972	Boron, Total	mg/L	-0.000129	0.0650	1.00	0.955	0.976	0.993	0.850 to 1.15	95.5	70.0 to 130	2.18	20.0
BC03973	Cadmium, Dissolved	mg/L	0.0000030	0.000147	0.100	0.0965	0.100	0.0986	0.0850 to 0.115	96.5	70.0 to 130	3.56	20.0
BC03972	Cadmium, Total	mg/L	0.0000093	0.000147	0.100	0.0946	0.0967	0.0984	0.0850 to 0.115	94.6	70.0 to 130	2.20	20.0
BC04380	Calcium, Dissolved	mg/L	-0.0113	0.152	5.00	45.5	46.0	4.95	4.25 to 5.75	90.0	70.0 to 130	1.09	20.0
BC03972	Calcium, Total	mg/L	-0.00402	0.152	5.00	4.74	4.72	4.80	4.25 to 5.75	94.8	70.0 to 130	0.423	20.0
BC03973	Chromium, Dissolved	mg/L	-0.0000065	0.000440	0.100	0.102	0.0985	0.0994	0.0850 to 0.115	102	70.0 to 130	3.49	20.0
BC03972	Chromium, Total	mg/L	-0.0000273	0.000440	0.100	0.0954	0.0962	0.0994	0.0850 to 0.115	95.4	70.0 to 130	0.835	20.0
BC03973	Cobalt, Dissolved	mg/L	0.0000031	0.000147	0.100	0.106	0.103	0.104	0.0850 to 0.115	106	70.0 to 130	2.87	20.0
BC03972	Cobalt, Total	mg/L	0.0000306	0.000147	0.100	0.0991	0.0997	0.102	0.0850 to 0.115	99.1	70.0 to 130	0.604	20.0
BC04380	Iron, Dissolved	mg/L	0.000121	0.0176	0.2	0.550	0.561	0.196	0.170 to 0.230	90.5	70.0 to 130	1.98	20.0
BC03972	Iron, Total	mg/L	-0.000211	0.0176	0.2	0.190	0.193	0.195	0.170 to 0.230	95.0	70.0 to 130	1.57	20.0
BC03973	Lead, Dissolved	mg/L	0.0000104	0.000147	0.100	0.103	0.105	0.100	0.0850 to 0.115	103	70.0 to 130	1.92	20.0

**Comments:** The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.

# Batch QC Summary

**Customer Account:** WMWGORAP  
**Sample Date:** 2/23/22 12:33  
**Customer ID:**  
**Delivery Date:** 2/23/22 16:56

**Description:** Gorgas Ash Pond - MW-12V

**Laboratory ID Number:** BC03968

Sample	Analysis	Units	MB	MB				Standard		Rec		Prec	Limit
				Limit	Spike	MS	MSD	Standard	Limit	Rec	Limit		
BC03972	Lead, Total	mg/L	0.0000074	0.000147	0.100	0.104	0.102	0.107	0.0850 to 0.115	104	70.0 to 130	1.94	20.0
BC04380	Lithium, Dissolved	mg/L	-0.000144	0.0154	0.200	0.230	0.229	0.198	0.170 to 0.230	97.9	70.0 to 130	0.436	20.0
BC03972	Lithium, Total	mg/L	-0.000195	0.0154	0.200	0.199	0.203	0.206	0.170 to 0.230	99.5	70.0 to 130	1.99	20.0
BC04380	Magnesium, Dissolved	mg/L	-0.00653	0.0462	5.00	21.0	21.2	5.16	4.25 to 5.75	98.0	70.0 to 130	0.948	20.0
BC03972	Magnesium, Total	mg/L	-0.00896	0.0462	5.00	5.02	5.06	5.17	4.25 to 5.75	100	70.0 to 130	0.794	20.0
BC03973	Manganese, Dissolved	mg/L	0.0000165	0.0002	0.100	0.243	0.238	0.102	0.0850 to 0.115	107	70.0 to 130	2.08	20.0
BC03972	Manganese, Total	mg/L	-0.0000151	0.0002	0.100	0.0980	0.0984	0.101	0.0850 to 0.115	98.0	70.0 to 130	0.407	20.0
BC03972	Mercury, Total by CVAA	mg/L	-3.000E-05	0.000500	0.004	0.00356	0.00383	0.00393	0.00340 to 0.00460	89.0	70.0 to 130	7.31	20.0
BC03973	Molybdenum, Dissolved	mg/L	0.0000139	0.0002	0.100	0.101	0.0990	0.0995	0.0850 to 0.115	101	70.0 to 130	2.00	20.0
BC03972	Molybdenum, Total	mg/L	0.0000119	0.0002	0.100	0.0934	0.0956	0.0997	0.0850 to 0.115	93.4	70.0 to 130	2.33	20.0
BC03973	Potassium, Dissolved	mg/L	-0.0146	0.367	10.0	12.2	12.2	9.90	8.50 to 11.5	98.5	70.0 to 130	0.00	20.0
BC03972	Potassium, Total	mg/L	0.0105	0.367	10.0	9.69	9.60	9.89	8.50 to 11.5	96.9	70.0 to 130	0.933	20.0
BC03973	Selenium, Dissolved	mg/L	-0.0000156	0.00100	0.100	0.103	0.101	0.100	0.0850 to 0.115	103	70.0 to 130	1.96	20.0
BC03972	Selenium, Total	mg/L	0.0000516	0.00100	0.100	0.0969	0.100	0.102	0.0850 to 0.115	96.9	70.0 to 130	3.15	20.0
BC04380	Silicon, Dissolved	mg/L	-0.000895	0.0440	1.00	12.5	12.7	0.998	0.850 to 1.15	70.0	70.0 to 130	1.59	20.0
BC03972	Silicon, Total	mg/L	0.000143	0.0440	1.00	0.977	0.994	1.00	0.850 to 1.15	97.7	70.0 to 130	1.73	20.0
BC04380	Sodium, Dissolved	mg/L	0.000319	0.0660	5.00	45.0	45.3	4.98	4.25 to 5.75	84.0	70.0 to 130	0.664	20.0
BC03972	Sodium, Total	mg/L	0.000667	0.0660	5.00	4.97	5.11	5.18	4.25 to 5.75	99.4	70.0 to 130	2.78	20.0
BC03973	Thallium, Dissolved	mg/L	0.0000119	0.000147	0.100	0.102	0.100	0.101	0.0850 to 0.115	102	70.0 to 130	1.98	20.0
BC03972	Thallium, Total	mg/L	0.000009	0.000147	0.100	0.102	0.101	0.106	0.0850 to 0.115	102	70.0 to 130	0.985	20.0
BC04376	Total Organic Carbon	mg/L	0.270	1.00	10.0	10.7	10.4	9.67		92.9	80.0 to 120	2.84	20.0

**Comments:** The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.

## Batch QC Summary

**Customer Account:** WMWGORAP

**Sample Date:** 2/23/22 12:33

**Customer ID:**

**Delivery Date:** 2/23/22 16:56

**Description:** Gorgas Ash Pond - MW-12V

**Laboratory ID Number:** BC03968

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Limit	Prec	Prec Limit
BC04380	Alkalinity, Total as CaCO3	mg/L					234	51.4	45.0 to 55.0			8.00	10.0
BC03972	Chloride	mg/L	-0.0468	1.00	10.0	9.98	0.0149	10.2	9.00 to 11.0	99.8	80.0 to 120	0.00	20.0
BC03972	Fluoride	mg/L	-0.0149	0.125	2.50	2.63	0.00887	2.64	2.25 to 2.75	105	80.0 to 120	0.00	20.0
BC03972	Nitrogen, Nitrate/Nitrite	mg/L as N	-0.04	0.200	2.00	2.01	-0.032	1.89	1.80 to 2.20	100	90.0 to 110	0.00	15.0
BC03971	Solids, Dissolved	mg/L	1.00	25.0			610	51.0	40.0 to 60.0			0.654	10.0
BC03972	Sulfate	mg/L	0.0572	2.0	20.0	21.0	-0.0325	20.6	18.0 to 22.0	105	80.0 to 120	0.00	20.0

**Comments:** The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.

# Certificate Of Analysis

**Description:** Gorgas Ash Pond Field Blank-5

**Location Code:** WMWGORAPFB  
**Collected:** 2/23/22 13:30  
**Customer ID:**  
**Submittal Date:** 2/23/22 16:56

**Laboratory ID Number:** BC03969

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q	
<b>Analytical Method: EPA 200.7</b>		<b>Analyst: RDA</b>			<b>Preparation Method: EPA 1638</b>					
* Boron, Total	3/7/22 12:00	3/8/22 09:49		1.015	Not Detected	mg/L	0.030000	0.1015	U	
* Calcium, Total	3/7/22 12:00	3/8/22 09:49		1.015	Not Detected	mg/L	0.070035	0.406	U	
* Iron, Total	3/7/22 12:00	3/8/22 09:49		1.015	Not Detected	mg/L	0.008120	0.0406	U	
* Lithium, Total	3/7/22 12:00	3/8/22 09:49		1.015	Not Detected	mg/L	0.007105	0.01999956	U	
* Magnesium, Total	3/7/22 12:00	3/8/22 09:49		1.015	Not Detected	mg/L	0.021315	0.406	U	
Silica, Total (calc.)	3/7/22 12:00	3/8/22 09:49		1	Not Detected	mg/L				
Silicon, Total	3/7/22 12:00	3/8/22 09:49		1.015	Not Detected	mg/L	0.02030	0.25375	U	
* Sodium, Total	3/7/22 12:00	3/8/22 09:49		1.015	Not Detected	mg/L	0.03045	0.406	U	
<b>Analytical Method: EPA 200.8</b>		<b>Analyst: DLJ</b>			<b>Preparation Method: EPA 1638</b>					
* Antimony, Total	2/25/22 08:30	2/25/22 17:12		1.015	Not Detected	mg/L	0.000508	0.001015	U	
* Aluminum, Total	2/25/22 08:30	2/25/22 17:12		1.015	Not Detected	mg/L	0.004060	0.01015	U	
* Arsenic, Total	2/25/22 08:30	2/25/22 17:12		1.015	Not Detected	mg/L	0.000068	0.000203	U	
* Barium, Total	2/25/22 08:30	2/25/22 17:12		1.015	0.000165	mg/L	0.000102	0.000203	J	
* Beryllium, Total	2/25/22 08:30	2/25/22 17:12		1.015	Not Detected	mg/L	0.000406	0.001015	U	
* Cadmium, Total	2/25/22 08:30	2/25/22 17:12		1.015	Not Detected	mg/L	0.000068	0.000203	U	
* Chromium, Total	2/25/22 08:30	2/25/22 17:12		1.015	Not Detected	mg/L	0.000203	0.001015	U	
* Cobalt, Total	2/25/22 08:30	2/25/22 17:12		1.015	Not Detected	mg/L	0.000068	0.000203	U	
* Lead, Total	2/25/22 08:30	2/25/22 17:12		1.015	Not Detected	mg/L	0.000068	0.000203	U	
* Manganese, Total	2/25/22 08:30	2/25/22 17:12		1.015	Not Detected	mg/L	0.000068	0.000203	U	
* Molybdenum, Total	2/25/22 08:30	2/25/22 17:12		1.015	Not Detected	mg/L	0.000068	0.000203	U	
* Potassium, Total	2/25/22 08:30	2/25/22 17:12		1.015	Not Detected	mg/L	0.169505	0.5075	U	
* Selenium, Total	2/25/22 08:30	2/25/22 17:12		1.015	Not Detected	mg/L	0.000508	0.001015	U	
* Thallium, Total	2/25/22 08:30	2/25/22 17:12		1.015	Not Detected	mg/L	0.000068	0.000203	U	
<b>Analytical Method: EPA 245.1</b>		<b>Analyst: ABB</b>								
* Mercury, Total by CVAA	2/25/22 16:39	2/25/22 22:00		1	Not Detected	mg/L	0.0003	0.0005	U	
<b>Analytical Method: EPA 353.2</b>		<b>Analyst: ELH</b>								
* Nitrogen, Nitrate/Nitrite	2/25/22 12:50	2/25/22 12:50		1	Not Detected	mg/L as N	0.20	0.3	U	
<b>Analytical Method: SM 2540C</b>		<b>Analyst: CNJ</b>								
* Solids, Dissolved	2/24/22 11:28	2/28/22 09:55		1	Not Detected	mg/L		25	U	

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

**Comments:**

# Certificate Of Analysis

**Description:** Gorgas Ash Pond Field Blank-5

**Location Code:** WMWGORAPFB

**Collected:** 2/23/22 13:30

**Customer ID:**

**Submittal Date:** 2/23/22 16:56

**Laboratory ID Number:** BC03969

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
<b>Analytical Method: SM 5310 B</b>		<b>Analyst: ELH</b>							
* Total Organic Carbon	3/4/22 13:27	3/4/22 13:27		1	Not Detected	mg/L	1.00	2	U
<b>Analytical Method: SM4500Cl E</b>		<b>Analyst: JCC</b>							
* Chloride	2/24/22 15:14	2/24/22 15:14		1	Not Detected	mg/L	0.50	1	U
<b>Analytical Method: SM4500F G 2017</b>		<b>Analyst: JCC</b>							
* Fluoride	2/25/22 10:11	2/25/22 10:11		1	Not Detected	mg/L	0.06	0.1	U
<b>Analytical Method: SM4500SO4 E 2011</b>		<b>Analyst: CES</b>							
* Sulfate	3/2/22 10:11	3/2/22 10:11		1	Not Detected	mg/L	0.50	1	U

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

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**Comments:**

# Batch QC Summary

**Customer Account:** WMWGORAPFB

**Sample Date:** 2/23/22 13:30

**Customer ID:**

**Delivery Date:** 2/23/22 16:56

**Description:** Gorgas Ash Pond Field Blank-5

**Laboratory ID Number:** BC03969

Sample	Analysis	Units	MB	MB				Standard	Standard Limit	Rec			Prec Limit
				Limit	Spike	MS	MSD			Rec	Limit	Prec	
BC03972	Aluminum, Total	mg/L	0.000422	0.010	0.100	0.0970	0.0975	0.0983	0.0850 to 0.115	97.0	70.0 to 130	0.514	20.0
BC03972	Antimony, Total	mg/L	0.000597	0.00100	0.100	0.0868	0.0888	0.0926	0.0850 to 0.115	86.8	70.0 to 130	2.28	20.0
BC03972	Arsenic, Total	mg/L	0.0000144	0.000176	0.100	0.0950	0.0969	0.0993	0.0850 to 0.115	95.0	70.0 to 130	1.98	20.0
BC03972	Barium, Total	mg/L	-0.0000178	0.000200	0.100	0.0933	0.0947	0.0959	0.0850 to 0.115	93.3	70.0 to 130	1.49	20.0
BC03972	Beryllium, Total	mg/L	0.000328	0.000880	0.100	0.102	0.107	0.104	0.0850 to 0.115	102	70.0 to 130	4.78	20.0
BC03972	Boron, Total	mg/L	-0.000129	0.0650	1.00	0.955	0.976	0.993	0.850 to 1.15	95.5	70.0 to 130	2.18	20.0
BC03972	Cadmium, Total	mg/L	0.0000093	0.000147	0.100	0.0946	0.0967	0.0984	0.0850 to 0.115	94.6	70.0 to 130	2.20	20.0
BC03972	Calcium, Total	mg/L	-0.00402	0.152	5.00	4.74	4.72	4.80	4.25 to 5.75	94.8	70.0 to 130	0.423	20.0
BC03972	Chromium, Total	mg/L	-0.0000273	0.000440	0.100	0.0954	0.0962	0.0994	0.0850 to 0.115	95.4	70.0 to 130	0.835	20.0
BC03972	Cobalt, Total	mg/L	0.0000306	0.000147	0.100	0.0991	0.0997	0.102	0.0850 to 0.115	99.1	70.0 to 130	0.604	20.0
BC03972	Iron, Total	mg/L	-0.000211	0.0176	0.2	0.190	0.193	0.195	0.170 to 0.230	95.0	70.0 to 130	1.57	20.0
BC03972	Lead, Total	mg/L	0.0000074	0.000147	0.100	0.104	0.102	0.107	0.0850 to 0.115	104	70.0 to 130	1.94	20.0
BC03972	Lithium, Total	mg/L	-0.000195	0.0154	0.200	0.199	0.203	0.206	0.170 to 0.230	99.5	70.0 to 130	1.99	20.0
BC03972	Magnesium, Total	mg/L	-0.00896	0.0462	5.00	5.02	5.06	5.17	4.25 to 5.75	100	70.0 to 130	0.794	20.0
BC03972	Manganese, Total	mg/L	-0.0000151	0.0002	0.100	0.0980	0.0984	0.101	0.0850 to 0.115	98.0	70.0 to 130	0.407	20.0
BC03972	Mercury, Total by CVAA	mg/L	-3.000E-05	0.000500	0.004	0.00356	0.00383	0.00393	0.00340 to 0.00460	89.0	70.0 to 130	7.31	20.0
BC03972	Molybdenum, Total	mg/L	0.0000119	0.0002	0.100	0.0934	0.0956	0.0997	0.0850 to 0.115	93.4	70.0 to 130	2.33	20.0
BC03972	Potassium, Total	mg/L	0.0105	0.367	10.0	9.69	9.60	9.89	8.50 to 11.5	96.9	70.0 to 130	0.933	20.0
BC03972	Selenium, Total	mg/L	0.0000516	0.00100	0.100	0.0969	0.100	0.102	0.0850 to 0.115	96.9	70.0 to 130	3.15	20.0
BC03972	Silicon, Total	mg/L	0.000143	0.0440	1.00	0.977	0.994	1.00	0.850 to 1.15	97.7	70.0 to 130	1.73	20.0
BC03972	Sodium, Total	mg/L	0.000667	0.0660	5.00	4.97	5.11	5.18	4.25 to 5.75	99.4	70.0 to 130	2.78	20.0
BC03972	Thallium, Total	mg/L	0.000009	0.000147	0.100	0.102	0.101	0.106	0.0850 to 0.115	102	70.0 to 130	0.985	20.0
BC04376	Total Organic Carbon	mg/L	0.270	1.00	10.0	10.7	10.4	9.67		92.9	80.0 to 120	2.84	20.0

**Comments:**

# Batch QC Summary

**Customer Account:** WMWGORAPFB

**Sample Date:** 2/23/22 13:30

**Customer ID:**

**Delivery Date:** 2/23/22 16:56

**Description:** Gorgas Ash Pond Field Blank-5

**Laboratory ID Number:** BC03969

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Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
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**Comments:**

## Batch QC Summary

**Customer Account:** WMWGORAPFB

**Sample Date:** 2/23/22 13:30

**Customer ID:**

**Delivery Date:** 2/23/22 16:56

**Description:** Gorgas Ash Pond Field Blank-5

**Laboratory ID Number:** BC03969

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BC03972	Chloride	mg/L	-0.0468	1.00	10.0	9.98	0.0149	10.2	9.00 to 11.0	99.8	80.0 to 120	0.00	20.0
BC03972	Fluoride	mg/L	-0.0149	0.125	2.50	2.63	0.00887	2.64	2.25 to 2.75	105	80.0 to 120	0.00	20.0
BC03972	Nitrogen, Nitrate/Nitrite	mg/L as N	-0.04	0.200	2.00	2.01	-0.032	1.89	1.80 to 2.20	100	90.0 to 110	0.00	15.0
BC03971	Solids, Dissolved	mg/L	1.00	25.0			610	51.0	40.0 to 60.0			0.654	10.0
BC03972	Sulfate	mg/L	0.0572	2.0	20.0	21.0	-0.0325	20.6	18.0 to 22.0	105	80.0 to 120	0.00	20.0

**Comments:**



# Certificate Of Analysis

**Description:** Gorgas Ash Pond - MW-31V

**Location Code:** WMWGORAP  
**Collected:** 2/22/22 13:07  
**Customer ID:**  
**Submittal Date:** 2/23/22 16:56

**Laboratory ID Number:** BC03970

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
<b>Analytical Method: EPA 200.7</b>			<b>Analyst: RDA</b>		<b>Preparation Method: EPA 1638</b>				
* Boron, Total	3/7/22 12:00	3/8/22 09:51		1.015	Not Detected	mg/L	0.030000	0.1015	U
* Calcium, Total	3/7/22 12:00	3/8/22 09:51		1.015	7.58	mg/L	0.070035	0.406	
* Iron, Total	3/7/22 12:00	3/8/22 09:51		1.015	0.190	mg/L	0.008120	0.0406	
* Lithium, Total	3/7/22 12:00	3/8/22 09:51		1.015	0.0316	mg/L	0.007105	0.01999956	
* Magnesium, Total	3/7/22 12:00	3/8/22 09:51		1.015	2.29	mg/L	0.021315	0.406	
Silica, Total (calc.)	3/7/22 12:00	3/8/22 09:51		1	16.2	mg/L			
Silicon, Total	3/7/22 12:00	3/8/22 09:51		1.015	7.55	mg/L	0.02030	0.25375	
* Sodium, Total	3/7/22 12:00	3/8/22 11:53		10.15	151	mg/L	0.3045	4.06	
<b>Analytical Method: EPA 200.7</b>			<b>Analyst: RDA</b>		<b>Preparation Method: EPA 1638</b>				
* Boron, Dissolved	3/7/22 12:00	3/8/22 10:53		1.015	Not Detected	mg/L	0.030000	0.1015	U
* Calcium, Dissolved	3/7/22 12:00	3/8/22 10:53		1.015	7.38	mg/L	0.070035	0.406	
* Iron, Dissolved	3/7/22 12:00	3/8/22 10:53		1.015	0.103	mg/L	0.008120	0.0406	
* Lithium, Dissolved	3/7/22 12:00	3/8/22 10:53		1.015	0.0313	mg/L	0.007105	0.01999956	
* Magnesium, Dissolved	3/7/22 12:00	3/8/22 10:53		1.015	2.20	mg/L	0.021315	0.406	
Silica, Dissolved (calc.)	3/7/22 12:00	3/8/22 10:53		1	16.1	mg/L			
Silicon, Dissolved	3/7/22 12:00	3/8/22 10:53		1.015	7.51	mg/L	0.02030	0.25375	
* Sodium, Dissolved	3/7/22 12:00	3/8/22 12:30		10.15	148	mg/L	0.3045	4.06	
<b>Analytical Method: EPA 200.8</b>			<b>Analyst: DLJ</b>		<b>Preparation Method: EPA 1638</b>				
* Antimony, Total	2/25/22 08:30	2/25/22 17:15		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Aluminum, Total	2/25/22 08:30	2/25/22 17:15		1.015	0.0943	mg/L	0.004060	0.01015	
* Arsenic, Total	2/25/22 08:30	2/25/22 17:15		1.015	0.00110	mg/L	0.000068	0.000203	
* Barium, Total	2/25/22 08:30	2/25/22 17:15		1.015	0.238	mg/L	0.000102	0.000203	
* Beryllium, Total	2/25/22 08:30	2/25/22 17:15		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Total	2/25/22 08:30	2/25/22 17:15		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Total	2/25/22 08:30	2/25/22 17:15		1.015	0.000346	mg/L	0.000203	0.001015	J
* Cobalt, Total	2/25/22 08:30	2/25/22 17:15		1.015	0.0000698	mg/L	0.000068	0.000203	J
* Lead, Total	2/25/22 08:30	2/25/22 17:15		1.015	0.000280	mg/L	0.000068	0.000203	
* Manganese, Total	2/25/22 08:30	2/25/22 17:15		1.015	0.0272	mg/L	0.000068	0.000203	
* Molybdenum, Total	2/25/22 08:30	2/25/22 17:15		1.015	0.00536	mg/L	0.000068	0.000203	
* Potassium, Total	2/25/22 08:30	2/25/22 17:15		1.015	7.57	mg/L	0.169505	0.5075	

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.

# Certificate Of Analysis

**Description:** Gorgas Ash Pond - MW-31V

**Location Code:** WMWGORAP  
**Collected:** 2/22/22 13:07  
**Customer ID:**  
**Submittal Date:** 2/23/22 16:56

**Laboratory ID Number:** BC03970

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
* Selenium, Total	2/25/22 08:30	2/25/22 17:15		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Total	2/25/22 08:30	2/25/22 17:15		1.015	Not Detected	mg/L	0.000068	0.000203	U
<b>Analytical Method: EPA 200.8</b>		<b>Analyst: DLJ</b>							
* Antimony, Dissolved	2/28/22 13:52	3/3/22 13:09		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Aluminum, Dissolved	2/28/22 13:52	3/3/22 13:09		1.015	0.00674	mg/L	0.004060	0.01015	J
* Arsenic, Dissolved	2/28/22 13:52	3/3/22 13:09		1.015	0.00112	mg/L	0.000068	0.000203	
* Barium, Dissolved	2/28/22 13:52	3/3/22 13:09		1.015	0.245	mg/L	0.000102	0.000203	
* Beryllium, Dissolved	2/28/22 13:52	3/3/22 13:09		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Dissolved	2/28/22 13:52	3/3/22 13:09		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Dissolved	2/28/22 13:52	3/3/22 13:09		1.015	Not Detected	mg/L	0.000203	0.001015	U
* Cobalt, Dissolved	2/28/22 13:52	3/3/22 13:09		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Lead, Dissolved	2/28/22 13:52	3/3/22 13:09		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Dissolved	2/28/22 13:52	3/3/22 13:09		1.015	0.0278	mg/L	0.000068	0.000203	
* Molybdenum, Dissolved	2/28/22 13:52	3/3/22 13:09		1.015	0.00524	mg/L	0.000068	0.000203	
* Potassium, Dissolved	2/28/22 13:52	3/3/22 13:09		1.015	7.57	mg/L	0.169505	0.5075	
* Selenium, Dissolved	2/28/22 13:52	3/3/22 13:09		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Dissolved	2/28/22 13:52	3/3/22 13:09		1.015	Not Detected	mg/L	0.000068	0.000203	U
<b>Analytical Method: EPA 245.1</b>		<b>Analyst: ABB</b>							
* Mercury, Total by CVAA	2/25/22 16:39	2/25/22 22:04		1	Not Detected	mg/L	0.0003	0.0005	U
<b>Analytical Method: EPA 353.2</b>		<b>Analyst: ELH</b>							
* Nitrogen, Nitrate/Nitrite	2/25/22 12:52	2/25/22 12:52		1	Not Detected	mg/L as N	0.20	0.3	U
<b>Analytical Method: SM 2320 B</b>		<b>Analyst: ALH</b>							
Alkalinity, Total as CaCO3	3/4/22 10:30	3/4/22 12:34		1	307	mg/L		0.1	
<b>Analytical Method: SM 2540C</b>		<b>Analyst: CNJ</b>							
* Solids, Dissolved	2/24/22 11:28	2/28/22 09:55		1	406	mg/L		25	
<b>Analytical Method: SM 4500CO2 D</b>		<b>Analyst: ALH</b>							
Bicarbonate Alkalinity, (calc.)	3/4/22 10:30	3/4/22 12:34		1	303	mg/L			
Carbonate Alkalinity, (calc.)	3/4/22 10:30	3/4/22 12:34		1	3.84	mg/L			
<b>Analytical Method: SM 5310 B</b>		<b>Analyst: ELH</b>							
* Total Organic Carbon	3/4/22 13:44	3/4/22 13:44		1	1.50	mg/L	1.00	2	J

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.

# Certificate Of Analysis

**Description:** Gorgas Ash Pond - MW-31V

**Location Code:** WMWGORAP  
**Collected:** 2/22/22 13:07  
**Customer ID:**  
**Submittal Date:** 2/23/22 16:56

**Laboratory ID Number:** BC03970

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
<b>Analytical Method: SM4500Cl E</b>		<b>Analyst: JCC</b>							
* Chloride	2/24/22 15:20	2/24/22 15:20		3	32.1	mg/L	1.50	3	
<b>Analytical Method: SM4500F G 2017</b>		<b>Analyst: JCC</b>							
* Fluoride	2/25/22 10:12	2/25/22 10:12		1	0.179	mg/L	0.06	0.1	
<b>Analytical Method: SM4500SO4 E 2011</b>		<b>Analyst: CES</b>							
* Sulfate	3/2/22 10:09	3/2/22 10:09		1	26.2	mg/L	0.50	1	
<b>Analytical Method: Field Measurements</b>		<b>Analyst: AWG</b>							
Conductivity	2/22/22 13:04	2/22/22 13:04			674.70	uS/cm			FA
pH	2/22/22 13:04	2/22/22 13:04			8.00	SU			FA
Temperature	2/22/22 13:04	2/22/22 13:04			18.03	C			FA
Turbidity	2/22/22 13:04	2/22/22 13:04			3.06	NTU			FA

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.

# Batch QC Summary

**Customer Account:** WMWGORAP

**Sample Date:** 2/22/22 13:07

**Customer ID:**

**Delivery Date:** 2/23/22 16:56

**Description:** Gorgas Ash Pond - MW-31V

**Laboratory ID Number:** BC03970

Sample	Analysis	Units	MB	MB		MS	MSD	Standard		Rec		Prec	Limit
				Limit	Spike			Standard	Limit	Rec	Limit		
BC03973	Aluminum, Dissolved	mg/L	-0.000122	0.010	0.100	0.107	0.104	0.0988	0.0850 to 0.115	107	70.0 to 130	2.84	20.0
BC03972	Aluminum, Total	mg/L	0.000422	0.010	0.100	0.0970	0.0975	0.0983	0.0850 to 0.115	97.0	70.0 to 130	0.514	20.0
BC03973	Antimony, Dissolved	mg/L	0.000368	0.00100	0.100	0.0971	0.0934	0.0893	0.0850 to 0.115	97.1	70.0 to 130	3.88	20.0
BC03972	Antimony, Total	mg/L	0.000597	0.00100	0.100	0.0868	0.0888	0.0926	0.0850 to 0.115	86.8	70.0 to 130	2.28	20.0
BC03973	Arsenic, Dissolved	mg/L	0.0000084	0.000176	0.100	0.107	0.104	0.101	0.0850 to 0.115	107	70.0 to 130	2.84	20.0
BC03972	Arsenic, Total	mg/L	0.0000144	0.000176	0.100	0.0950	0.0969	0.0993	0.0850 to 0.115	95.0	70.0 to 130	1.98	20.0
BC03973	Barium, Dissolved	mg/L	0.0000048	0.000200	0.100	0.181	0.175	0.0960	0.0850 to 0.115	104	70.0 to 130	3.37	20.0
BC03972	Barium, Total	mg/L	-0.0000178	0.000200	0.100	0.0933	0.0947	0.0959	0.0850 to 0.115	93.3	70.0 to 130	1.49	20.0
BC03973	Beryllium, Dissolved	mg/L	0.0000123	0.000880	0.100	0.0960	0.0992	0.0920	0.0850 to 0.115	96.0	70.0 to 130	3.28	20.0
BC03972	Beryllium, Total	mg/L	0.000328	0.000880	0.100	0.102	0.107	0.104	0.0850 to 0.115	102	70.0 to 130	4.78	20.0
BC04380	Boron, Dissolved	mg/L	-0.000083	0.0650	1.00	0.997	1.03	0.991	0.850 to 1.15	99.7	70.0 to 130	3.26	20.0
BC03972	Boron, Total	mg/L	-0.000129	0.0650	1.00	0.955	0.976	0.993	0.850 to 1.15	95.5	70.0 to 130	2.18	20.0
BC03973	Cadmium, Dissolved	mg/L	0.0000030	0.000147	0.100	0.0965	0.100	0.0986	0.0850 to 0.115	96.5	70.0 to 130	3.56	20.0
BC03972	Cadmium, Total	mg/L	0.0000093	0.000147	0.100	0.0946	0.0967	0.0984	0.0850 to 0.115	94.6	70.0 to 130	2.20	20.0
BC04380	Calcium, Dissolved	mg/L	-0.0113	0.152	5.00	45.5	46.0	4.95	4.25 to 5.75	90.0	70.0 to 130	1.09	20.0
BC03972	Calcium, Total	mg/L	-0.00402	0.152	5.00	4.74	4.72	4.80	4.25 to 5.75	94.8	70.0 to 130	0.423	20.0
BC03973	Chromium, Dissolved	mg/L	-0.0000065	0.000440	0.100	0.102	0.0985	0.0994	0.0850 to 0.115	102	70.0 to 130	3.49	20.0
BC03972	Chromium, Total	mg/L	-0.0000273	0.000440	0.100	0.0954	0.0962	0.0994	0.0850 to 0.115	95.4	70.0 to 130	0.835	20.0
BC03973	Cobalt, Dissolved	mg/L	0.0000031	0.000147	0.100	0.106	0.103	0.104	0.0850 to 0.115	106	70.0 to 130	2.87	20.0
BC03972	Cobalt, Total	mg/L	0.0000306	0.000147	0.100	0.0991	0.0997	0.102	0.0850 to 0.115	99.1	70.0 to 130	0.604	20.0
BC04380	Iron, Dissolved	mg/L	0.000121	0.0176	0.2	0.550	0.561	0.196	0.170 to 0.230	90.5	70.0 to 130	1.98	20.0
BC03972	Iron, Total	mg/L	-0.000211	0.0176	0.2	0.190	0.193	0.195	0.170 to 0.230	95.0	70.0 to 130	1.57	20.0
BC03973	Lead, Dissolved	mg/L	0.0000104	0.000147	0.100	0.103	0.105	0.100	0.0850 to 0.115	103	70.0 to 130	1.92	20.0

**Comments:** The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.

# Batch QC Summary

**Customer Account:** WMWGORAP

**Sample Date:** 2/22/22 13:07

**Customer ID:**

**Delivery Date:** 2/23/22 16:56

**Description:** Gorgas Ash Pond - MW-31V

**Laboratory ID Number:** BC03970

Sample	Analysis	Units	MB	MB				Standard		Rec		Prec	Limit
				Limit	Spike	MS	MSD	Standard	Limit	Rec	Limit		
BC03972	Lead, Total	mg/L	0.0000074	0.000147	0.100	0.104	0.102	0.107	0.0850 to 0.115	104	70.0 to 130	1.94	20.0
BC04380	Lithium, Dissolved	mg/L	-0.000144	0.0154	0.200	0.230	0.229	0.198	0.170 to 0.230	97.9	70.0 to 130	0.436	20.0
BC03972	Lithium, Total	mg/L	-0.000195	0.0154	0.200	0.199	0.203	0.206	0.170 to 0.230	99.5	70.0 to 130	1.99	20.0
BC04380	Magnesium, Dissolved	mg/L	-0.00653	0.0462	5.00	21.0	21.2	5.16	4.25 to 5.75	98.0	70.0 to 130	0.948	20.0
BC03972	Magnesium, Total	mg/L	-0.00896	0.0462	5.00	5.02	5.06	5.17	4.25 to 5.75	100	70.0 to 130	0.794	20.0
BC03973	Manganese, Dissolved	mg/L	0.0000165	0.0002	0.100	0.243	0.238	0.102	0.0850 to 0.115	107	70.0 to 130	2.08	20.0
BC03972	Manganese, Total	mg/L	-0.0000151	0.0002	0.100	0.0980	0.0984	0.101	0.0850 to 0.115	98.0	70.0 to 130	0.407	20.0
BC03972	Mercury, Total by CVAA	mg/L	-3.000E-05	0.000500	0.004	0.00356	0.00383	0.00393	0.00340 to 0.00460	89.0	70.0 to 130	7.31	20.0
BC03973	Molybdenum, Dissolved	mg/L	0.0000139	0.0002	0.100	0.101	0.0990	0.0995	0.0850 to 0.115	101	70.0 to 130	2.00	20.0
BC03972	Molybdenum, Total	mg/L	0.0000119	0.0002	0.100	0.0934	0.0956	0.0997	0.0850 to 0.115	93.4	70.0 to 130	2.33	20.0
BC03973	Potassium, Dissolved	mg/L	-0.0146	0.367	10.0	12.2	12.2	9.90	8.50 to 11.5	98.5	70.0 to 130	0.00	20.0
BC03972	Potassium, Total	mg/L	0.0105	0.367	10.0	9.69	9.60	9.89	8.50 to 11.5	96.9	70.0 to 130	0.933	20.0
BC03973	Selenium, Dissolved	mg/L	-0.0000156	0.00100	0.100	0.103	0.101	0.100	0.0850 to 0.115	103	70.0 to 130	1.96	20.0
BC03972	Selenium, Total	mg/L	0.0000516	0.00100	0.100	0.0969	0.100	0.102	0.0850 to 0.115	96.9	70.0 to 130	3.15	20.0
BC04380	Silicon, Dissolved	mg/L	-0.000895	0.0440	1.00	12.5	12.7	0.998	0.850 to 1.15	70.0	70.0 to 130	1.59	20.0
BC03972	Silicon, Total	mg/L	0.000143	0.0440	1.00	0.977	0.994	1.00	0.850 to 1.15	97.7	70.0 to 130	1.73	20.0
BC04380	Sodium, Dissolved	mg/L	0.000319	0.0660	5.00	45.0	45.3	4.98	4.25 to 5.75	84.0	70.0 to 130	0.664	20.0
BC03972	Sodium, Total	mg/L	0.000667	0.0660	5.00	4.97	5.11	5.18	4.25 to 5.75	99.4	70.0 to 130	2.78	20.0
BC03973	Thallium, Dissolved	mg/L	0.0000119	0.000147	0.100	0.102	0.100	0.101	0.0850 to 0.115	102	70.0 to 130	1.98	20.0
BC03972	Thallium, Total	mg/L	0.000009	0.000147	0.100	0.102	0.101	0.106	0.0850 to 0.115	102	70.0 to 130	0.985	20.0
BC04376	Total Organic Carbon	mg/L	0.270	1.00	10.0	10.7	10.4	9.67		92.9	80.0 to 120	2.84	20.0

**Comments:** The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.

## Batch QC Summary

**Customer Account:** WMWGORAP

**Sample Date:** 2/22/22 13:07

**Customer ID:**

**Delivery Date:** 2/23/22 16:56

**Description:** Gorgas Ash Pond - MW-31V

**Laboratory ID Number:** BC03970

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Limit	Prec	Prec Limit
BC03970	Alkalinity, Total as CaCO3	mg/L					312	51.5	45.0 to 55.0			1.62	10.0
BC03972	Chloride	mg/L	-0.0468	1.00	10.0	9.98	0.0149	10.2	9.00 to 11.0	99.8	80.0 to 120	0.00	20.0
BC03972	Fluoride	mg/L	-0.0149	0.125	2.50	2.63	0.00887	2.64	2.25 to 2.75	105	80.0 to 120	0.00	20.0
BC03972	Nitrogen, Nitrate/Nitrite	mg/L as N	-0.04	0.200	2.00	2.01	-0.032	1.89	1.80 to 2.20	100	90.0 to 110	0.00	15.0
BC03971	Solids, Dissolved	mg/L	1.00	25.0			610	51.0	40.0 to 60.0			0.654	10.0
BC03972	Sulfate	mg/L	0.0572	2.0	20.0	21.0	-0.0325	20.6	18.0 to 22.0	105	80.0 to 120	0.00	20.0

**Comments:** The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.

# Certificate Of Analysis

**Description:** Gorgas Ash Pond - MW-46

**Location Code:** WMWGORAP  
**Collected:** 2/23/22 10:30  
**Customer ID:**  
**Submittal Date:** 2/23/22 16:56

**Laboratory ID Number:** BC03971

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q	
<b>Analytical Method: EPA 200.7</b>		<b>Analyst: RDA</b>			<b>Preparation Method: EPA 1638</b>					
* Boron, Total	3/7/22 12:00	3/8/22 09:53		1.015	0.768	mg/L	0.030000	0.1015		
* Calcium, Total	3/7/22 12:00	3/8/22 09:53		1.015	1.20	mg/L	0.070035	0.406		
* Iron, Total	3/7/22 12:00	3/8/22 09:53		1.015	0.0105	mg/L	0.008120	0.0406	J	
* Lithium, Total	3/7/22 12:00	3/8/22 09:53		1.015	0.0653	mg/L	0.007105	0.01999956		
* Magnesium, Total	3/7/22 12:00	3/8/22 09:53		1.015	0.409	mg/L	0.021315	0.406		
Silica, Total (calc.)	3/7/22 12:00	3/8/22 09:53		1	9.67	mg/L				
Silicon, Total	3/7/22 12:00	3/8/22 09:53		1.015	4.52	mg/L	0.02030	0.25375		
* Sodium, Total	3/7/22 12:00	3/8/22 11:55		10.15	245	mg/L	0.3045	4.06		
<b>Analytical Method: EPA 200.7</b>		<b>Analyst: RDA</b>			<b>Preparation Method: EPA 1638</b>					
* Boron, Dissolved	3/7/22 12:00	3/8/22 11:23		1.015	0.765	mg/L	0.029557	0.1		
* Calcium, Dissolved	3/7/22 12:00	3/8/22 11:23		1.015	1.23	mg/L	0.069	0.4		
* Iron, Dissolved	3/7/22 12:00	3/8/22 11:23		1.015	Not Detected	mg/L	0.008	0.04	U	
* Lithium, Dissolved	3/7/22 12:00	3/8/22 11:23		1.015	0.0629	mg/L	0.007	0.019704		
* Magnesium, Dissolved	3/7/22 12:00	3/8/22 11:23		1.015	0.391	mg/L	0.021	0.4	J	
Silica, Dissolved (calc.)	3/7/22 12:00	3/8/22 11:23		1	9.59	mg/L				
Silicon, Dissolved	3/7/22 12:00	3/8/22 11:23		1.015	4.48	mg/L	0.02	0.25		
* Sodium, Dissolved	3/7/22 12:00	3/8/22 12:32		10.15	223	mg/L	0.3045	4.06		
<b>Analytical Method: EPA 200.8</b>		<b>Analyst: DLJ</b>			<b>Preparation Method: EPA 1638</b>					
* Antimony, Total	2/25/22 08:30	2/25/22 17:19		1.015	Not Detected	mg/L	0.000508	0.001015	U	
* Aluminum, Total	2/25/22 08:30	2/25/22 17:19		1.015	0.0147	mg/L	0.004060	0.01015		
* Arsenic, Total	2/25/22 08:30	2/25/22 17:19		1.015	0.105	mg/L	0.000068	0.000203		
* Barium, Total	2/25/22 08:30	2/25/22 17:19		1.015	0.0652	mg/L	0.000102	0.000203		
* Beryllium, Total	2/25/22 08:30	2/25/22 17:19		1.015	Not Detected	mg/L	0.000406	0.001015	U	
* Cadmium, Total	2/25/22 08:30	2/25/22 17:19		1.015	Not Detected	mg/L	0.000068	0.000203	U	
* Chromium, Total	2/25/22 08:30	2/25/22 17:19		1.015	Not Detected	mg/L	0.000203	0.001015	U	
* Cobalt, Total	2/25/22 08:30	2/25/22 17:19		1.015	Not Detected	mg/L	0.000068	0.000203	U	
* Lead, Total	2/25/22 08:30	2/25/22 17:19		1.015	Not Detected	mg/L	0.000068	0.000203	U	
* Manganese, Total	2/25/22 08:30	2/25/22 17:19		1.015	0.00132	mg/L	0.000068	0.000203		
* Molybdenum, Total	2/25/22 08:30	2/25/22 17:19		1.015	0.00678	mg/L	0.000068	0.000203		
* Potassium, Total	2/25/22 08:30	2/25/22 17:19		1.015	0.609	mg/L	0.169505	0.5075		

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.

# Certificate Of Analysis

**Description:** Gorgas Ash Pond - MW-46

**Location Code:** WMWGORAP  
**Collected:** 2/23/22 10:30  
**Customer ID:**  
**Submittal Date:** 2/23/22 16:56

**Laboratory ID Number:** BC03971

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
* Selenium, Total	2/25/22 08:30	2/25/22 17:19		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Total	2/25/22 08:30	2/25/22 17:19		1.015	Not Detected	mg/L	0.000068	0.000203	U
<b>Analytical Method: EPA 200.8</b>		<b>Analyst: DLJ</b>							
* Antimony, Dissolved	2/28/22 13:52	3/3/22 13:12		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Aluminum, Dissolved	2/28/22 13:52	3/3/22 13:12		1.015	0.0106	mg/L	0.004060	0.01015	
* Arsenic, Dissolved	2/28/22 13:52	3/3/22 13:12		1.015	0.0824	mg/L	0.000068	0.000203	
* Barium, Dissolved	2/28/22 13:52	3/3/22 13:12		1.015	0.0718	mg/L	0.000102	0.000203	
* Beryllium, Dissolved	2/28/22 13:52	3/3/22 13:12		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Dissolved	2/28/22 13:52	3/3/22 13:12		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Dissolved	2/28/22 13:52	3/3/22 13:12		1.015	Not Detected	mg/L	0.000203	0.001015	U
* Cobalt, Dissolved	2/28/22 13:52	3/3/22 13:12		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Lead, Dissolved	2/28/22 13:52	3/3/22 13:12		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Dissolved	2/28/22 13:52	3/3/22 13:12		1.015	0.00132	mg/L	0.000068	0.000203	
* Molybdenum, Dissolved	2/28/22 13:52	3/3/22 13:12		1.015	0.00512	mg/L	0.000068	0.000203	
* Potassium, Dissolved	2/28/22 13:52	3/3/22 13:12		1.015	0.628	mg/L	0.169505	0.5075	
* Selenium, Dissolved	2/28/22 13:52	3/3/22 13:12		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Dissolved	2/28/22 13:52	3/3/22 13:12		1.015	Not Detected	mg/L	0.000068	0.000203	U
<b>Analytical Method: EPA 245.1</b>		<b>Analyst: ABB</b>							
* Mercury, Total by CVAA	2/25/22 16:39	2/25/22 22:08		1	Not Detected	mg/L	0.0003	0.0005	U
<b>Analytical Method: EPA 353.2</b>		<b>Analyst: ELH</b>							
* Nitrogen, Nitrate/Nitrite	2/25/22 12:54	2/25/22 12:54		1	Not Detected	mg/L as N	0.20	0.3	U
<b>Analytical Method: SM 2320 B</b>		<b>Analyst: ALH</b>							
Alkalinity, Total as CaCO3	3/7/22 13:30	3/7/22 15:20		1	206	mg/L		0.1	
<b>Analytical Method: SM 2540C</b>		<b>Analyst: CNJ</b>							
* Solids, Dissolved	2/24/22 11:28	2/28/22 09:55		1	614	mg/L		50	
<b>Analytical Method: SM 4500CO2 D</b>		<b>Analyst: ALH</b>							
Bicarbonate Alkalinity, (calc.)	3/7/22 13:30	3/7/22 15:20		1	202	mg/L			A
Carbonate Alkalinity, (calc.)	3/7/22 13:30	3/7/22 15:20		1	4.24	mg/L			A
<b>Analytical Method: SM 5310 B</b>		<b>Analyst: ELH</b>							
* Total Organic Carbon	3/4/22 14:01	3/4/22 14:01		1	1.56	mg/L	1.00	2	J

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.



# Certificate Of Analysis

**Description:** Gorgas Ash Pond - MW-46

**Location Code:** WMWGORAP

**Collected:** 2/23/22 10:30

**Customer ID:**

**Submittal Date:** 2/23/22 16:56

**Laboratory ID Number:** BC03971

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
<b>Analytical Method: SM4500Cl E</b>		<b>Analyst: JCC</b>							
* Chloride	2/24/22 15:21	2/24/22 15:21		4	43.9	mg/L	2.00	4	
<b>Analytical Method: SM4500F G 2017</b>		<b>Analyst: JCC</b>							
* Fluoride	2/25/22 10:13	2/25/22 10:13		1	0.226	mg/L	0.06	0.1	
<b>Analytical Method: SM4500SO4 E 2011</b>		<b>Analyst: CES</b>							
* Sulfate	3/2/22 10:16	3/2/22 10:16		20	317	mg/L	10.00	20	
<b>Analytical Method: Field Measurements</b>		<b>Analyst: AWG</b>							
Conductivity	2/23/22 10:27	2/23/22 10:27			962.02	uS/cm			FA
pH	2/23/22 10:27	2/23/22 10:27			8.69	SU			FA
Temperature	2/23/22 10:27	2/23/22 10:27			17.16	C			FA
Turbidity	2/23/22 10:27	2/23/22 10:27			0.71	NTU			FA

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.

# Batch QC Summary

**Customer Account:** WMWGORAP

**Sample Date:** 2/23/22 10:30

**Customer ID:**

**Delivery Date:** 2/23/22 16:56

**Description:** Gorgas Ash Pond - MW-46

**Laboratory ID Number:** BC03971

Sample	Analysis	Units	MB	MB		MS	MSD	Standard		Rec		Prec	Limit
				Limit	Spike			Standard	Limit	Rec	Limit		
BC03973	Aluminum, Dissolved	mg/L	-0.000122	0.010	0.100	0.107	0.104	0.0988	0.0850 to 0.115	107	70.0 to 130	2.84	20.0
BC03972	Aluminum, Total	mg/L	0.000422	0.010	0.100	0.0970	0.0975	0.0983	0.0850 to 0.115	97.0	70.0 to 130	0.514	20.0
BC03973	Antimony, Dissolved	mg/L	0.000368	0.00100	0.100	0.0971	0.0934	0.0893	0.0850 to 0.115	97.1	70.0 to 130	3.88	20.0
BC03972	Antimony, Total	mg/L	0.000597	0.00100	0.100	0.0868	0.0888	0.0926	0.0850 to 0.115	86.8	70.0 to 130	2.28	20.0
BC03973	Arsenic, Dissolved	mg/L	0.0000084	0.000176	0.100	0.107	0.104	0.101	0.0850 to 0.115	107	70.0 to 130	2.84	20.0
BC03972	Arsenic, Total	mg/L	0.0000144	0.000176	0.100	0.0950	0.0969	0.0993	0.0850 to 0.115	95.0	70.0 to 130	1.98	20.0
BC03973	Barium, Dissolved	mg/L	0.0000048	0.000200	0.100	0.181	0.175	0.0960	0.0850 to 0.115	104	70.0 to 130	3.37	20.0
BC03972	Barium, Total	mg/L	-0.0000178	0.000200	0.100	0.0933	0.0947	0.0959	0.0850 to 0.115	93.3	70.0 to 130	1.49	20.0
BC03973	Beryllium, Dissolved	mg/L	0.0000123	0.000880	0.100	0.0960	0.0992	0.0920	0.0850 to 0.115	96.0	70.0 to 130	3.28	20.0
BC03972	Beryllium, Total	mg/L	0.000328	0.000880	0.100	0.102	0.107	0.104	0.0850 to 0.115	102	70.0 to 130	4.78	20.0
BC04380	Boron, Dissolved	mg/L	-0.000083	0.0650	1.00	0.997	1.03	0.991	0.850 to 1.15	99.7	70.0 to 130	3.26	20.0
BC03972	Boron, Total	mg/L	-0.000129	0.0650	1.00	0.955	0.976	0.993	0.850 to 1.15	95.5	70.0 to 130	2.18	20.0
BC03973	Cadmium, Dissolved	mg/L	0.0000030	0.000147	0.100	0.0965	0.100	0.0986	0.0850 to 0.115	96.5	70.0 to 130	3.56	20.0
BC03972	Cadmium, Total	mg/L	0.0000093	0.000147	0.100	0.0946	0.0967	0.0984	0.0850 to 0.115	94.6	70.0 to 130	2.20	20.0
BC04380	Calcium, Dissolved	mg/L	-0.0113	0.152	5.00	45.5	46.0	4.95	4.25 to 5.75	90.0	70.0 to 130	1.09	20.0
BC03972	Calcium, Total	mg/L	-0.00402	0.152	5.00	4.74	4.72	4.80	4.25 to 5.75	94.8	70.0 to 130	0.423	20.0
BC03973	Chromium, Dissolved	mg/L	-0.0000065	0.000440	0.100	0.102	0.0985	0.0994	0.0850 to 0.115	102	70.0 to 130	3.49	20.0
BC03972	Chromium, Total	mg/L	-0.0000273	0.000440	0.100	0.0954	0.0962	0.0994	0.0850 to 0.115	95.4	70.0 to 130	0.835	20.0
BC03973	Cobalt, Dissolved	mg/L	0.0000031	0.000147	0.100	0.106	0.103	0.104	0.0850 to 0.115	106	70.0 to 130	2.87	20.0
BC03972	Cobalt, Total	mg/L	0.0000306	0.000147	0.100	0.0991	0.0997	0.102	0.0850 to 0.115	99.1	70.0 to 130	0.604	20.0
BC04380	Iron, Dissolved	mg/L	0.000121	0.0176	0.2	0.550	0.561	0.196	0.170 to 0.230	90.5	70.0 to 130	1.98	20.0
BC03972	Iron, Total	mg/L	-0.000211	0.0176	0.2	0.190	0.193	0.195	0.170 to 0.230	95.0	70.0 to 130	1.57	20.0
BC03973	Lead, Dissolved	mg/L	0.0000104	0.000147	0.100	0.103	0.105	0.100	0.0850 to 0.115	103	70.0 to 130	1.92	20.0

**Comments:** The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.

# Batch QC Summary

**Customer Account:** WMWGORAP

**Sample Date:** 2/23/22 10:30

**Customer ID:**

**Delivery Date:** 2/23/22 16:56

**Description:** Gorgas Ash Pond - MW-46

**Laboratory ID Number:** BC03971

Sample	Analysis	Units	MB	MB				Standard		Rec		Prec	Limit
				Limit	Spike	MS	MSD	Standard	Limit	Rec	Limit		
BC03972	Lead, Total	mg/L	0.0000074	0.000147	0.100	0.104	0.102	0.107	0.0850 to 0.115	104	70.0 to 130	1.94	20.0
BC04380	Lithium, Dissolved	mg/L	-0.000144	0.0154	0.200	0.230	0.229	0.198	0.170 to 0.230	97.9	70.0 to 130	0.436	20.0
BC03972	Lithium, Total	mg/L	-0.000195	0.0154	0.200	0.199	0.203	0.206	0.170 to 0.230	99.5	70.0 to 130	1.99	20.0
BC04380	Magnesium, Dissolved	mg/L	-0.00653	0.0462	5.00	21.0	21.2	5.16	4.25 to 5.75	98.0	70.0 to 130	0.948	20.0
BC03972	Magnesium, Total	mg/L	-0.00896	0.0462	5.00	5.02	5.06	5.17	4.25 to 5.75	100	70.0 to 130	0.794	20.0
BC03973	Manganese, Dissolved	mg/L	0.0000165	0.0002	0.100	0.243	0.238	0.102	0.0850 to 0.115	107	70.0 to 130	2.08	20.0
BC03972	Manganese, Total	mg/L	-0.0000151	0.0002	0.100	0.0980	0.0984	0.101	0.0850 to 0.115	98.0	70.0 to 130	0.407	20.0
BC03972	Mercury, Total by CVAA	mg/L	-3.000E-05	0.000500	0.004	0.00356	0.00383	0.00393	0.00340 to 0.00460	89.0	70.0 to 130	7.31	20.0
BC03973	Molybdenum, Dissolved	mg/L	0.0000139	0.0002	0.100	0.101	0.0990	0.0995	0.0850 to 0.115	101	70.0 to 130	2.00	20.0
BC03972	Molybdenum, Total	mg/L	0.0000119	0.0002	0.100	0.0934	0.0956	0.0997	0.0850 to 0.115	93.4	70.0 to 130	2.33	20.0
BC03973	Potassium, Dissolved	mg/L	-0.0146	0.367	10.0	12.2	12.2	9.90	8.50 to 11.5	98.5	70.0 to 130	0.00	20.0
BC03972	Potassium, Total	mg/L	0.0105	0.367	10.0	9.69	9.60	9.89	8.50 to 11.5	96.9	70.0 to 130	0.933	20.0
BC03973	Selenium, Dissolved	mg/L	-0.0000156	0.00100	0.100	0.103	0.101	0.100	0.0850 to 0.115	103	70.0 to 130	1.96	20.0
BC03972	Selenium, Total	mg/L	0.0000516	0.00100	0.100	0.0969	0.100	0.102	0.0850 to 0.115	96.9	70.0 to 130	3.15	20.0
BC04380	Silicon, Dissolved	mg/L	-0.000895	0.0440	1.00	12.5	12.7	0.998	0.850 to 1.15	70.0	70.0 to 130	1.59	20.0
BC03972	Silicon, Total	mg/L	0.000143	0.0440	1.00	0.977	0.994	1.00	0.850 to 1.15	97.7	70.0 to 130	1.73	20.0
BC04380	Sodium, Dissolved	mg/L	0.000319	0.0660	5.00	45.0	45.3	4.98	4.25 to 5.75	84.0	70.0 to 130	0.664	20.0
BC03972	Sodium, Total	mg/L	0.000667	0.0660	5.00	4.97	5.11	5.18	4.25 to 5.75	99.4	70.0 to 130	2.78	20.0
BC03973	Thallium, Dissolved	mg/L	0.0000119	0.000147	0.100	0.102	0.100	0.101	0.0850 to 0.115	102	70.0 to 130	1.98	20.0
BC03972	Thallium, Total	mg/L	0.000009	0.000147	0.100	0.102	0.101	0.106	0.0850 to 0.115	102	70.0 to 130	0.985	20.0
BC04376	Total Organic Carbon	mg/L	0.270	1.00	10.0	10.7	10.4	9.67		92.9	80.0 to 120	2.84	20.0

**Comments:** The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.

## Batch QC Summary

**Customer Account:** WMWGORAP

**Sample Date:** 2/23/22 10:30

**Customer ID:**

**Delivery Date:** 2/23/22 16:56

**Description:** Gorgas Ash Pond - MW-46

**Laboratory ID Number:** BC03971

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Limit	Prec	Prec Limit
BC04380	Alkalinity, Total as CaCO3	mg/L					234	51.4	45.0 to 55.0			8.00	10.0
BC03972	Chloride	mg/L	-0.0468	1.00	10.0	9.98	0.0149	10.2	9.00 to 11.0	99.8	80.0 to 120	0.00	20.0
BC03972	Fluoride	mg/L	-0.0149	0.125	2.50	2.63	0.00887	2.64	2.25 to 2.75	105	80.0 to 120	0.00	20.0
BC03972	Nitrogen, Nitrate/Nitrite	mg/L as N	-0.04	0.200	2.00	2.01	-0.032	1.89	1.80 to 2.20	100	90.0 to 110	0.00	15.0
BC03971	Solids, Dissolved	mg/L	1.00	25.0			610	51.0	40.0 to 60.0			0.654	10.0
BC03972	Sulfate	mg/L	0.0572	2.0	20.0	21.0	-0.0325	20.6	18.0 to 22.0	105	80.0 to 120	0.00	20.0

**Comments:** The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.

# Certificate Of Analysis

**Description:** Gorgas Ash Pond Field Blank-4

**Location Code:** WMWGORAPFB  
**Collected:** 2/23/22 11:00  
**Customer ID:**  
**Submittal Date:** 2/23/22 16:56

**Laboratory ID Number:** BC03972

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
<b>Analytical Method: EPA 200.7</b>			<b>Analyst: RDA</b>		<b>Preparation Method: EPA 1638</b>				
* Boron, Total	3/7/22 12:00	3/8/22 09:55		1.015	Not Detected	mg/L	0.030000	0.1015	U
* Calcium, Total	3/7/22 12:00	3/8/22 09:55		1.015	Not Detected	mg/L	0.070035	0.406	U
* Iron, Total	3/7/22 12:00	3/8/22 09:55		1.015	Not Detected	mg/L	0.008120	0.0406	U
* Lithium, Total	3/7/22 12:00	3/8/22 09:55		1.015	Not Detected	mg/L	0.007105	0.01999956	U
* Magnesium, Total	3/7/22 12:00	3/8/22 09:55		1.015	Not Detected	mg/L	0.021315	0.406	U
Silica, Total (calc.)	3/7/22 12:00	3/8/22 09:55		1	Not Detected	mg/L			
Silicon, Total	3/7/22 12:00	3/8/22 09:55		1.015	Not Detected	mg/L	0.02030	0.25375	U
* Sodium, Total	3/7/22 12:00	3/8/22 09:55		1.015	Not Detected	mg/L	0.03045	0.406	U
<b>Analytical Method: EPA 200.8</b>			<b>Analyst: DLJ</b>		<b>Preparation Method: EPA 1638</b>				
* Antimony, Total	2/25/22 08:30	2/25/22 17:22		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Aluminum, Total	2/25/22 08:30	2/25/22 17:22		1.015	Not Detected	mg/L	0.004060	0.01015	U
* Arsenic, Total	2/25/22 08:30	2/25/22 17:22		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Barium, Total	2/25/22 08:30	2/25/22 17:22		1.015	Not Detected	mg/L	0.000102	0.000203	U
* Beryllium, Total	2/25/22 08:30	2/25/22 17:22		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Total	2/25/22 08:30	2/25/22 17:22		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Total	2/25/22 08:30	2/25/22 17:22		1.015	Not Detected	mg/L	0.000203	0.001015	U
* Cobalt, Total	2/25/22 08:30	2/25/22 17:22		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Lead, Total	2/25/22 08:30	2/25/22 17:22		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Total	2/25/22 08:30	2/25/22 17:22		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Molybdenum, Total	2/25/22 08:30	2/25/22 17:22		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Potassium, Total	2/25/22 08:30	2/25/22 17:22		1.015	Not Detected	mg/L	0.169505	0.5075	U
* Selenium, Total	2/25/22 08:30	2/25/22 17:22		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Total	2/25/22 08:30	2/25/22 17:22		1.015	Not Detected	mg/L	0.000068	0.000203	U
<b>Analytical Method: EPA 245.1</b>			<b>Analyst: ABB</b>						
* Mercury, Total by CVAA	2/25/22 16:39	2/25/22 22:12		1	Not Detected	mg/L	0.0003	0.0005	U
<b>Analytical Method: EPA 353.2</b>			<b>Analyst: ELH</b>						
* Nitrogen, Nitrate/Nitrite	2/25/22 12:56	2/25/22 12:56		1	Not Detected	mg/L as N	0.20	0.3	U
<b>Analytical Method: SM 2540C</b>			<b>Analyst: CNJ</b>						
* Solids, Dissolved	2/24/22 11:28	2/28/22 09:55		1	Not Detected	mg/L		25	U

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

**Comments:**

# Certificate Of Analysis

**Description:** Gorgas Ash Pond Field Blank-4

**Location Code:** WMWGORAPFB

**Collected:** 2/23/22 11:00

**Customer ID:**

**Submittal Date:** 2/23/22 16:56

**Laboratory ID Number:** BC03972

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
<b>Analytical Method: SM 5310 B</b>		<b>Analyst: ELH</b>							
* Total Organic Carbon	3/4/22 14:19	3/4/22 14:19		1	Not Detected	mg/L	1.00	2	U
<b>Analytical Method: SM4500Cl E</b>		<b>Analyst: JCC</b>							
* Chloride	2/24/22 15:15	2/24/22 15:15		1	Not Detected	mg/L	0.50	1	U
<b>Analytical Method: SM4500F G 2017</b>		<b>Analyst: JCC</b>							
* Fluoride	2/25/22 10:15	2/25/22 10:15		1	Not Detected	mg/L	0.06	0.1	U
<b>Analytical Method: SM4500SO4 E 2011</b>		<b>Analyst: CES</b>							
* Sulfate	3/2/22 10:12	3/2/22 10:12		1	Not Detected	mg/L	0.50	1	U

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

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**Comments:**

# Batch QC Summary

**Customer Account:** WMWGORAPFB

**Sample Date:** 2/23/22 11:00

**Customer ID:**

**Delivery Date:** 2/23/22 16:56

**Description:** Gorgas Ash Pond Field Blank-4

**Laboratory ID Number:** BC03972

Sample	Analysis	Units	MB	MB				Standard		Rec			Prec
				Limit	Spike	MS	MSD	Standard	Limit	Rec	Limit	Prec	
BC03972	Aluminum, Total	mg/L	0.000422	0.010	0.100	0.0970	0.0975	0.0983	0.0850 to 0.115	97.0	70.0 to 130	0.514	20.0
BC03972	Antimony, Total	mg/L	0.000597	0.00100	0.100	0.0868	0.0888	0.0926	0.0850 to 0.115	86.8	70.0 to 130	2.28	20.0
BC03972	Arsenic, Total	mg/L	0.0000144	0.000176	0.100	0.0950	0.0969	0.0993	0.0850 to 0.115	95.0	70.0 to 130	1.98	20.0
BC03972	Barium, Total	mg/L	-0.0000178	0.000200	0.100	0.0933	0.0947	0.0959	0.0850 to 0.115	93.3	70.0 to 130	1.49	20.0
BC03972	Beryllium, Total	mg/L	0.000328	0.000880	0.100	0.102	0.107	0.104	0.0850 to 0.115	102	70.0 to 130	4.78	20.0
BC03972	Boron, Total	mg/L	-0.000129	0.0650	1.00	0.955	0.976	0.993	0.850 to 1.15	95.5	70.0 to 130	2.18	20.0
BC03972	Cadmium, Total	mg/L	0.0000093	0.000147	0.100	0.0946	0.0967	0.0984	0.0850 to 0.115	94.6	70.0 to 130	2.20	20.0
BC03972	Calcium, Total	mg/L	-0.00402	0.152	5.00	4.74	4.72	4.80	4.25 to 5.75	94.8	70.0 to 130	0.423	20.0
BC03972	Chromium, Total	mg/L	-0.0000273	0.000440	0.100	0.0954	0.0962	0.0994	0.0850 to 0.115	95.4	70.0 to 130	0.835	20.0
BC03972	Cobalt, Total	mg/L	0.0000306	0.000147	0.100	0.0991	0.0997	0.102	0.0850 to 0.115	99.1	70.0 to 130	0.604	20.0
BC03972	Iron, Total	mg/L	-0.000211	0.0176	0.2	0.190	0.193	0.195	0.170 to 0.230	95.0	70.0 to 130	1.57	20.0
BC03972	Lead, Total	mg/L	0.0000074	0.000147	0.100	0.104	0.102	0.107	0.0850 to 0.115	104	70.0 to 130	1.94	20.0
BC03972	Lithium, Total	mg/L	-0.000195	0.0154	0.200	0.199	0.203	0.206	0.170 to 0.230	99.5	70.0 to 130	1.99	20.0
BC03972	Magnesium, Total	mg/L	-0.00896	0.0462	5.00	5.02	5.06	5.17	4.25 to 5.75	100	70.0 to 130	0.794	20.0
BC03972	Manganese, Total	mg/L	-0.0000151	0.0002	0.100	0.0980	0.0984	0.101	0.0850 to 0.115	98.0	70.0 to 130	0.407	20.0
BC03972	Mercury, Total by CVAA	mg/L	-3.000E-05	0.000500	0.004	0.00356	0.00383	0.00393	0.00340 to 0.00460	89.0	70.0 to 130	7.31	20.0
BC03972	Molybdenum, Total	mg/L	0.0000119	0.0002	0.100	0.0934	0.0956	0.0997	0.0850 to 0.115	93.4	70.0 to 130	2.33	20.0
BC03972	Potassium, Total	mg/L	0.0105	0.367	10.0	9.69	9.60	9.89	8.50 to 11.5	96.9	70.0 to 130	0.933	20.0
BC03972	Selenium, Total	mg/L	0.0000516	0.00100	0.100	0.0969	0.100	0.102	0.0850 to 0.115	96.9	70.0 to 130	3.15	20.0
BC03972	Silicon, Total	mg/L	0.000143	0.0440	1.00	0.977	0.994	1.00	0.850 to 1.15	97.7	70.0 to 130	1.73	20.0
BC03972	Sodium, Total	mg/L	0.000667	0.0660	5.00	4.97	5.11	5.18	4.25 to 5.75	99.4	70.0 to 130	2.78	20.0
BC03972	Thallium, Total	mg/L	0.000009	0.000147	0.100	0.102	0.101	0.106	0.0850 to 0.115	102	70.0 to 130	0.985	20.0
BC04376	Total Organic Carbon	mg/L	0.270	1.00	10.0	10.7	10.4	9.67		92.9	80.0 to 120	2.84	20.0

**Comments:**

# Batch QC Summary

**Customer Account:** WMWGORAPFB

**Sample Date:** 2/23/22 11:00

**Customer ID:**

**Delivery Date:** 2/23/22 16:56

**Description:** Gorgas Ash Pond Field Blank-4

**Laboratory ID Number:** BC03972

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Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
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**Comments:**



## Batch QC Summary

**Customer Account:** WMWGORAPFB

**Sample Date:** 2/23/22 11:00

**Customer ID:**

**Delivery Date:** 2/23/22 16:56

**Description:** Gorgas Ash Pond Field Blank-4

**Laboratory ID Number:** BC03972

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BC03972	Chloride	mg/L	-0.0468	1.00	10.0	9.98	0.0149	10.2	9.00 to 11.0	99.8	80.0 to 120	0.00	20.0
BC03972	Fluoride	mg/L	-0.0149	0.125	2.50	2.63	0.00887	2.64	2.25 to 2.75	105	80.0 to 120	0.00	20.0
BC03972	Nitrogen, Nitrate/Nitrite	mg/L as N	-0.04	0.200	2.00	2.01	-0.032	1.89	1.80 to 2.20	100	90.0 to 110	0.00	15.0
BC03971	Solids, Dissolved	mg/L	1.00	25.0			610	51.0	40.0 to 60.0			0.654	10.0
BC03972	Sulfate	mg/L	0.0572	2.0	20.0	21.0	-0.0325	20.6	18.0 to 22.0	105	80.0 to 120	0.00	20.0

**Comments:**

# Certificate Of Analysis

**Description:** Gorgas Ash Pond - MW-23V

**Location Code:** WMWGORAP  
**Collected:** 2/23/22 13:33  
**Customer ID:**  
**Submittal Date:** 2/23/22 16:56

**Laboratory ID Number:** BC03973

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
<b>Analytical Method: EPA 200.7</b>		<b>Analyst: RDA</b>			<b>Preparation Method: EPA 1638</b>				
* Boron, Total	3/7/22 12:00	3/8/22 10:04		1.015	0.0919	mg/L	0.030000	0.1015	J
* Calcium, Total	3/7/22 12:00	3/8/22 11:57		10.15	152	mg/L	0.70035	4.06	
* Iron, Total	3/7/22 12:00	3/8/22 10:04		1.015	0.777	mg/L	0.008120	0.0406	
* Lithium, Total	3/7/22 12:00	3/8/22 10:04		1.015	0.0410	mg/L	0.007105	0.01999956	
* Magnesium, Total	3/7/22 12:00	3/8/22 10:04		1.015	39.9	mg/L	0.021315	0.406	
Silica, Total (calc.)	3/7/22 12:00	3/8/22 10:04		1	30.0	mg/L			
Silicon, Total	3/7/22 12:00	3/8/22 10:04		1.015	14.0	mg/L	0.02030	0.25375	
* Sodium, Total	3/7/22 12:00	3/8/22 11:57		10.15	48.3	mg/L	0.3045	4.06	
<b>Analytical Method: EPA 200.7</b>		<b>Analyst: RDA</b>			<b>Preparation Method: EPA 1638</b>				
* Boron, Dissolved	3/7/22 12:00	3/8/22 10:57		1.015	0.0973	mg/L	0.030000	0.1015	J
* Calcium, Dissolved	3/7/22 12:00	3/8/22 12:34		10.15	140	mg/L	0.70035	4.06	
* Iron, Dissolved	3/7/22 12:00	3/8/22 10:57		1.015	0.325	mg/L	0.008120	0.0406	
* Lithium, Dissolved	3/7/22 12:00	3/8/22 10:57		1.015	0.0408	mg/L	0.007105	0.01999956	
* Magnesium, Dissolved	3/7/22 12:00	3/8/22 10:57		1.015	39.3	mg/L	0.021315	0.406	
Silica, Dissolved (calc.)	3/7/22 12:00	3/8/22 10:57		1	29.3	mg/L			
Silicon, Dissolved	3/7/22 12:00	3/8/22 10:57		1.015	13.7	mg/L	0.02030	0.25375	
* Sodium, Dissolved	3/7/22 12:00	3/8/22 12:34		10.15	44.2	mg/L	0.3045	4.06	
<b>Analytical Method: EPA 200.8</b>		<b>Analyst: DLJ</b>			<b>Preparation Method: EPA 1638</b>				
* Antimony, Total	2/25/22 08:30	2/25/22 17:51		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Aluminum, Total	2/25/22 08:30	2/25/22 17:51		1.015	0.295	mg/L	0.004060	0.01015	R
* Arsenic, Total	2/25/22 08:30	2/25/22 17:51		1.015	0.000161	mg/L	0.000068	0.000203	J
* Barium, Total	2/25/22 08:30	2/25/22 17:51		1.015	0.0812	mg/L	0.000102	0.000203	
* Beryllium, Total	2/25/22 08:30	2/25/22 17:51		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Total	2/25/22 08:30	2/25/22 17:51		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Total	2/25/22 08:30	2/25/22 17:51		1.015	0.000663	mg/L	0.000203	0.001015	J
* Cobalt, Total	2/25/22 08:30	2/25/22 17:51		1.015	0.000203	mg/L	0.000068	0.000203	
* Lead, Total	2/25/22 08:30	2/25/22 17:51		1.015	0.000208	mg/L	0.000068	0.000203	
* Manganese, Total	2/25/22 08:30	2/25/22 17:51		1.015	0.139	mg/L	0.000068	0.000203	
* Molybdenum, Total	2/25/22 08:30	2/25/22 17:51		1.015	0.000132	mg/L	0.000068	0.000203	J
* Potassium, Total	2/25/22 08:30	2/25/22 17:51		1.015	2.36	mg/L	0.169505	0.5075	

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.

# Certificate Of Analysis

**Description:** Gorgas Ash Pond - MW-23V

**Location Code:** WMWGORAP  
**Collected:** 2/23/22 13:33  
**Customer ID:**  
**Submittal Date:** 2/23/22 16:56

**Laboratory ID Number:** BC03973

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
* Selenium, Total	2/25/22 08:30	2/25/22 17:51		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Total	2/25/22 08:30	2/25/22 17:51		1.015	Not Detected	mg/L	0.000068	0.000203	U
<b>Analytical Method: EPA 200.8</b>		<b>Analyst: DLJ</b>							
* Antimony, Dissolved	2/28/22 13:52	3/3/22 13:16		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Aluminum, Dissolved	2/28/22 13:52	3/3/22 13:16		1.015	Not Detected	mg/L	0.004060	0.01015	U
* Arsenic, Dissolved	2/28/22 13:52	3/3/22 13:16		1.015	0.0000827	mg/L	0.000068	0.000203	J
* Barium, Dissolved	2/28/22 13:52	3/3/22 13:16		1.015	0.0771	mg/L	0.000102	0.000203	
* Beryllium, Dissolved	2/28/22 13:52	3/3/22 13:16		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Dissolved	2/28/22 13:52	3/3/22 13:16		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Dissolved	2/28/22 13:52	3/3/22 13:16		1.015	Not Detected	mg/L	0.000203	0.001015	U
* Cobalt, Dissolved	2/28/22 13:52	3/3/22 13:16		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Lead, Dissolved	2/28/22 13:52	3/3/22 13:16		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Dissolved	2/28/22 13:52	3/3/22 13:16		1.015	0.136	mg/L	0.000068	0.000203	
* Molybdenum, Dissolved	2/28/22 13:52	3/3/22 13:16		1.015	0.000118	mg/L	0.000068	0.000203	J
* Potassium, Dissolved	2/28/22 13:52	3/3/22 13:16		1.015	2.35	mg/L	0.169505	0.5075	
* Selenium, Dissolved	2/28/22 13:52	3/3/22 13:16		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Dissolved	2/28/22 13:52	3/3/22 13:16		1.015	Not Detected	mg/L	0.000068	0.000203	U
<b>Analytical Method: EPA 245.1</b>		<b>Analyst: ABB</b>							
* Mercury, Total by CVAA	2/25/22 16:39	2/25/22 22:39		1	Not Detected	mg/L	0.0003	0.0005	U
<b>Analytical Method: EPA 353.2</b>		<b>Analyst: ELH</b>							
* Nitrogen, Nitrate/Nitrite	2/25/22 13:01	2/25/22 13:01		1	Not Detected	mg/L as N	0.20	0.3	U
<b>Analytical Method: SM 2320 B</b>		<b>Analyst: ALH</b>							
Alkalinity, Total as CaCO3	3/7/22 13:30	3/7/22 15:20		1	294	mg/L		0.1	
<b>Analytical Method: SM 2540C</b>		<b>Analyst: CNJ</b>							
* Solids, Dissolved	3/1/22 11:20	3/2/22 14:02		1	752	mg/L		50	
<b>Analytical Method: SM 4500CO2 D</b>		<b>Analyst: ALH</b>							
Bicarbonate Alkalinity, (calc.)	3/7/22 13:30	3/7/22 15:20		1	293	mg/L			A
Carbonate Alkalinity, (calc.)	3/7/22 13:30	3/7/22 15:20		1	1.41	mg/L			A
<b>Analytical Method: SM 5310 B</b>		<b>Analyst: ELH</b>							
* Total Organic Carbon	3/4/22 14:33	3/4/22 14:33		1	1.00	mg/L	1.00	2	J

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.

# Certificate Of Analysis

**Description:** Gorgas Ash Pond - MW-23V

**Location Code:** WMWGORAP

**Collected:** 2/23/22 13:33

**Customer ID:**

**Submittal Date:** 2/23/22 16:56

**Laboratory ID Number:** BC03973

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
<b>Analytical Method: SM4500Cl E</b>		<b>Analyst: JCC</b>							
* Chloride	2/24/22 15:32	2/24/22 15:32		1	3.21	mg/L	0.50	1	
<b>Analytical Method: SM4500F G 2017</b>		<b>Analyst: JCC</b>							
* Fluoride	2/25/22 10:37	2/25/22 10:37		1	0.141	mg/L	0.06	0.1	
<b>Analytical Method: SM4500SO4 E 2011</b>		<b>Analyst: CES</b>							
* Sulfate	3/2/22 11:37	3/2/22 11:37		16	331	mg/L	8.00	16	
<b>Analytical Method: Field Measurements</b>		<b>Analyst: AWG</b>							
Conductivity	2/23/22 13:30	2/23/22 13:30			986.95	uS/cm			FA
pH	2/23/22 13:30	2/23/22 13:30			7.38	SU			FA
Temperature	2/23/22 13:30	2/23/22 13:30			16.71	C			FA
Turbidity	2/23/22 13:30	2/23/22 13:30			9.26	NTU			FA

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.

# Batch QC Summary

**Customer Account:** WMWGORAP

**Sample Date:** 2/23/22 13:33

**Customer ID:**

**Delivery Date:** 2/23/22 16:56

**Description:** Gorgas Ash Pond - MW-23V

**Laboratory ID Number:** BC03973

Sample	Analysis	Units	MB	MB		MS	MSD	Standard		Rec		Prec	Limit
				Limit	Spike			Standard	Limit	Rec	Limit		
BC03973	Aluminum, Dissolved	mg/L	-0.000122	0.010	0.100	0.107	0.104	0.0988	0.0850 to 0.115	107	70.0 to 130	2.84	20.0
BC03973	Aluminum, Total	mg/L	0.000393	0.010	0.100	0.491	0.514	0.0954	0.0850 to 0.115	196	70.0 to 130	4.58	20.0
BC03973	Antimony, Dissolved	mg/L	0.000368	0.00100	0.100	0.0971	0.0934	0.0893	0.0850 to 0.115	97.1	70.0 to 130	3.88	20.0
BC03973	Antimony, Total	mg/L	0.000431	0.00100	0.100	0.0953	0.101	0.0874	0.0850 to 0.115	95.3	70.0 to 130	5.81	20.0
BC03973	Arsenic, Dissolved	mg/L	0.0000084	0.000176	0.100	0.107	0.104	0.101	0.0850 to 0.115	107	70.0 to 130	2.84	20.0
BC03973	Arsenic, Total	mg/L	0.0000028	0.000176	0.100	0.0997	0.0991	0.0952	0.0850 to 0.115	99.5	70.0 to 130	0.604	20.0
BC03973	Barium, Dissolved	mg/L	0.0000048	0.000200	0.100	0.181	0.175	0.0960	0.0850 to 0.115	104	70.0 to 130	3.37	20.0
BC03973	Barium, Total	mg/L	-0.0000001	0.000200	0.100	0.173	0.174	0.0921	0.0850 to 0.115	91.8	70.0 to 130	0.576	20.0
BC03973	Beryllium, Dissolved	mg/L	0.0000123	0.000880	0.100	0.0960	0.0992	0.0920	0.0850 to 0.115	96.0	70.0 to 130	3.28	20.0
BC03973	Beryllium, Total	mg/L	0.000271	0.000880	0.100	0.105	0.106	0.103	0.0850 to 0.115	105	70.0 to 130	0.948	20.0
BC04380	Boron, Dissolved	mg/L	-0.000083	0.0650	1.00	0.997	1.03	0.991	0.850 to 1.15	99.7	70.0 to 130	3.26	20.0
BC04384	Boron, Total	mg/L	-0.000129	0.0650	1.00	1.05	1.05	0.993	0.850 to 1.15	99.2	70.0 to 130	0.00	20.0
BC03973	Cadmium, Dissolved	mg/L	0.0000030	0.000147	0.100	0.0965	0.100	0.0986	0.0850 to 0.115	96.5	70.0 to 130	3.56	20.0
BC03973	Cadmium, Total	mg/L	0.00001	0.000147	0.100	0.0951	0.0944	0.0967	0.0850 to 0.115	95.1	70.0 to 130	0.739	20.0
BC04380	Calcium, Dissolved	mg/L	-0.0113	0.152	5.00	45.5	46.0	4.95	4.25 to 5.75	90.0	70.0 to 130	1.09	20.0
BC04384	Calcium, Total	mg/L	-0.00402	0.152	5.00	5.90	5.94	4.80	4.25 to 5.75	95.2	70.0 to 130	0.676	20.0
BC03973	Chromium, Dissolved	mg/L	-0.0000065	0.000440	0.100	0.102	0.0985	0.0994	0.0850 to 0.115	102	70.0 to 130	3.49	20.0
BC03973	Chromium, Total	mg/L	-0.0000397	0.000440	0.100	0.0976	0.0974	0.0952	0.0850 to 0.115	96.9	70.0 to 130	0.205	20.0
BC03973	Cobalt, Dissolved	mg/L	0.0000031	0.000147	0.100	0.106	0.103	0.104	0.0850 to 0.115	106	70.0 to 130	2.87	20.0
BC03973	Cobalt, Total	mg/L	0.0000136	0.000147	0.100	0.0984	0.0977	0.0979	0.0850 to 0.115	98.2	70.0 to 130	0.714	20.0
BC04380	Iron, Dissolved	mg/L	0.000121	0.0176	0.2	0.550	0.561	0.196	0.170 to 0.230	90.5	70.0 to 130	1.98	20.0
BC04384	Iron, Total	mg/L	-0.000211	0.0176	0.2	0.391	0.411	0.195	0.170 to 0.230	112	70.0 to 130	4.99	20.0
BC03973	Lead, Dissolved	mg/L	0.0000104	0.000147	0.100	0.103	0.105	0.100	0.0850 to 0.115	103	70.0 to 130	1.92	20.0

**Comments:** The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.

# Batch QC Summary

**Customer Account:** WMWGORAP

**Sample Date:** 2/23/22 13:33

**Customer ID:**

**Delivery Date:** 2/23/22 16:56

**Description:** Gorgas Ash Pond - MW-23V

**Laboratory ID Number:** BC03973

Sample	Analysis	Units	MB	MB				Standard		Rec		Prec	Limit
				Limit	Spike	MS	MSD	Standard	Limit	Rec	Limit		
BC03973	Lead, Total	mg/L	0.0000026	0.000147	0.100	0.102	0.101	0.106	0.0850 to 0.115	102	70.0 to 130	0.985	20.0
BC04380	Lithium, Dissolved	mg/L	-0.000144	0.0154	0.200	0.230	0.229	0.198	0.170 to 0.230	97.9	70.0 to 130	0.436	20.0
BC04384	Lithium, Total	mg/L	-0.000195	0.0154	0.200	0.230	0.229	0.206	0.170 to 0.230	99.6	70.0 to 130	0.436	20.0
BC04380	Magnesium, Dissolved	mg/L	-0.00653	0.0462	5.00	21.0	21.2	5.16	4.25 to 5.75	98.0	70.0 to 130	0.948	20.0
BC04384	Magnesium, Total	mg/L	-0.00896	0.0462	5.00	5.38	5.40	5.17	4.25 to 5.75	101	70.0 to 130	0.371	20.0
BC03973	Manganese, Dissolved	mg/L	0.0000165	0.0002	0.100	0.243	0.238	0.102	0.0850 to 0.115	107	70.0 to 130	2.08	20.0
BC03973	Manganese, Total	mg/L	-0.000017	0.0002	0.100	0.241	0.240	0.0978	0.0850 to 0.115	102	70.0 to 130	0.416	20.0
BC03973	Mercury, Total by CVAA	mg/L	-3.000E-05	0.000500	0.004	0.00388	0.00391	0.00385	0.00340 to 0.00460	97.0	70.0 to 130	0.770	20.0
BC03973	Molybdenum, Dissolved	mg/L	0.0000139	0.0002	0.100	0.101	0.0990	0.0995	0.0850 to 0.115	101	70.0 to 130	2.00	20.0
BC03973	Molybdenum, Total	mg/L	0.0000113	0.0002	0.100	0.0933	0.0957	0.0955	0.0850 to 0.115	93.2	70.0 to 130	2.54	20.0
BC03973	Potassium, Dissolved	mg/L	-0.0146	0.367	10.0	12.2	12.2	9.90	8.50 to 11.5	98.5	70.0 to 130	0.00	20.0
BC03973	Potassium, Total	mg/L	-0.0344	0.367	10.0	12.2	12.2	9.66	8.50 to 11.5	98.4	70.0 to 130	0.00	20.0
BC03973	Selenium, Dissolved	mg/L	-0.0000156	0.00100	0.100	0.103	0.101	0.100	0.0850 to 0.115	103	70.0 to 130	1.96	20.0
BC03973	Selenium, Total	mg/L	0.000106	0.00100	0.100	0.0977	0.0998	0.0996	0.0850 to 0.115	97.7	70.0 to 130	2.13	20.0
BC04380	Silicon, Dissolved	mg/L	-0.000895	0.0440	1.00	12.5	12.7	0.998	0.850 to 1.15	70.0	70.0 to 130	1.59	20.0
BC04384	Silicon, Total	mg/L	0.000143	0.0440	1.00	5.98	6.04	1.00	0.850 to 1.15	132	70.0 to 130	0.998	20.0
BC04380	Sodium, Dissolved	mg/L	0.000319	0.0660	5.00	45.0	45.3	4.98	4.25 to 5.75	84.0	70.0 to 130	0.664	20.0
BC04384	Sodium, Total	mg/L	0.000667	0.0660	5.00	130	129	5.18	4.25 to 5.75	40.0	70.0 to 130	0.772	20.0
BC03973	Thallium, Dissolved	mg/L	0.0000119	0.000147	0.100	0.102	0.100	0.101	0.0850 to 0.115	102	70.0 to 130	1.98	20.0
BC03973	Thallium, Total	mg/L	0.0000015	0.000147	0.100	0.101	0.0996	0.104	0.0850 to 0.115	101	70.0 to 130	1.40	20.0
BC04376	Total Organic Carbon	mg/L	0.270	1.00	10.0	10.7	10.4	9.67		92.9	80.0 to 120	2.84	20.0

**Comments:** The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.

## Batch QC Summary

**Customer Account:** WMWGORAP

**Sample Date:** 2/23/22 13:33

**Customer ID:**

**Delivery Date:** 2/23/22 16:56

**Description:** Gorgas Ash Pond - MW-23V

**Laboratory ID Number:** BC03973

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BC04380	Alkalinity, Total as CaCO3	mg/L					234	51.4	45.0 to 55.0			8.00	10.0
BC03973	Chloride	mg/L	0.0138	1.00	10.0	13.5	3.33	10.2	9.00 to 11.0	103	80.0 to 120	3.67	20.0
BC03973	Fluoride	mg/L	-0.0169	0.125	2.50	2.75	0.140	2.59	2.25 to 2.75	104	80.0 to 120	0.712	20.0
BC03973	Nitrogen, Nitrate/Nitrite	mg/L as N	-0.04	0.200	2.00	1.92	-0.044	1.97	1.80 to 2.20	96.0	90.0 to 110	0.00	15.0
BC03973	Solids, Dissolved	mg/L	0.0000	25.0			758	49.0	40.0 to 60.0			0.795	10.0
BC04384	Sulfate	mg/L	-0.0624	2.0	20.0	23.2	5.86	18.4	18.0 to 22.0	86.6	80.0 to 120	0.341	20.0

**Comments:** The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.

# Certificate Of Analysis

**Description:** Gorgas Ash Pond - MW-37HR

**Location Code:** WMWGORAP  
**Collected:** 2/28/22 12:20  
**Customer ID:**  
**Submittal Date:** 3/1/22 15:26

**Laboratory ID Number:** BC04376

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
<b>Analytical Method: EPA 200.7</b>			<b>Analyst: RDA</b>		<b>Preparation Method: EPA 1638</b>				
* Boron, Total	3/7/22 12:00	3/8/22 10:06		1.015	Not Detected	mg/L	0.030000	0.1015	U
* Calcium, Total	3/7/22 12:00	3/8/22 10:06		1.015	2.59	mg/L	0.070035	0.406	
* Iron, Total	3/7/22 12:00	3/8/22 10:06		1.015	0.0797	mg/L	0.008120	0.0406	
* Lithium, Total	3/7/22 12:00	3/8/22 10:06		1.015	0.0312	mg/L	0.007105	0.01999956	
* Magnesium, Total	3/7/22 12:00	3/8/22 10:06		1.015	0.783	mg/L	0.021315	0.406	
Silica, Total (calc.)	3/7/22 12:00	3/8/22 10:06		1	19.2	mg/L			
Silicon, Total	3/7/22 12:00	3/8/22 10:06		1.015	8.99	mg/L	0.02030	0.25375	
* Sodium, Total	3/7/22 12:00	3/8/22 11:58		10.15	109	mg/L	0.3045	4.06	
<b>Analytical Method: EPA 200.7</b>			<b>Analyst: RDA</b>		<b>Preparation Method: EPA 1638</b>				
* Boron, Dissolved	3/7/22 12:00	3/8/22 10:59		1.015	Not Detected	mg/L	0.030000	0.1015	U
* Calcium, Dissolved	3/7/22 12:00	3/8/22 10:59		1.015	2.52	mg/L	0.070035	0.406	
* Iron, Dissolved	3/7/22 12:00	3/8/22 10:59		1.015	0.0283	mg/L	0.008120	0.0406	J
* Lithium, Dissolved	3/7/22 12:00	3/8/22 10:59		1.015	0.0311	mg/L	0.007105	0.01999956	
* Magnesium, Dissolved	3/7/22 12:00	3/8/22 10:59		1.015	0.756	mg/L	0.021315	0.406	
Silica, Dissolved (calc.)	3/7/22 12:00	3/8/22 10:59		1	18.7	mg/L			
Silicon, Dissolved	3/7/22 12:00	3/8/22 10:59		1.015	8.73	mg/L	0.02030	0.25375	
* Sodium, Dissolved	3/7/22 12:00	3/8/22 12:36		10.15	109	mg/L	0.3045	4.06	
<b>Analytical Method: EPA 200.8</b>			<b>Analyst: DLJ</b>		<b>Preparation Method: EPA 1638</b>				
* Antimony, Total	3/2/22 11:00	3/3/22 12:35		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Aluminum, Total	3/2/22 11:00	3/3/22 12:35		1.015	0.0485	mg/L	0.004060	0.01015	
* Arsenic, Total	3/2/22 11:00	3/3/22 12:35		1.015	0.000938	mg/L	0.000068	0.000203	
* Barium, Total	3/2/22 11:00	3/3/22 12:35		1.015	0.0131	mg/L	0.000102	0.000203	
* Beryllium, Total	3/2/22 11:00	3/3/22 12:35		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Total	3/2/22 11:00	3/3/22 12:35		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Total	3/2/22 11:00	3/3/22 12:35		1.015	0.000371	mg/L	0.000203	0.001015	J
* Cobalt, Total	3/2/22 11:00	3/3/22 12:35		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Lead, Total	3/2/22 11:00	3/3/22 12:35		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Total	3/2/22 11:00	3/3/22 12:35		1.015	0.0160	mg/L	0.000068	0.000203	
* Molybdenum, Total	3/2/22 11:00	3/3/22 12:35		1.015	0.00315	mg/L	0.000068	0.000203	
* Potassium, Total	3/2/22 11:00	3/3/22 12:35		1.015	6.41	mg/L	0.169505	0.5075	

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.



# Certificate Of Analysis

**Description:** Gorgas Ash Pond - MW-37HR

**Location Code:** WMWGORAP

**Collected:** 2/28/22 12:20

**Customer ID:**

**Submittal Date:** 3/1/22 15:26

**Laboratory ID Number:** BC04376

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
* Selenium, Total	3/2/22 11:00	3/3/22 12:35		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Total	3/2/22 11:00	3/3/22 12:35		1.015	Not Detected	mg/L	0.000068	0.000203	U
<b>Analytical Method: EPA 200.8</b>		<b>Analyst: DLJ</b>							
* Antimony, Dissolved	3/2/22 10:16	3/3/22 11:33		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Aluminum, Dissolved	3/2/22 10:16	3/3/22 11:33		1.015	0.00878	mg/L	0.004060	0.01015	J
* Arsenic, Dissolved	3/2/22 10:16	3/3/22 11:33		1.015	0.000861	mg/L	0.000068	0.000203	
* Barium, Dissolved	3/2/22 10:16	3/3/22 11:33		1.015	0.0131	mg/L	0.000102	0.000203	
* Beryllium, Dissolved	3/2/22 10:16	3/3/22 11:33		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Dissolved	3/2/22 10:16	3/3/22 11:33		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Dissolved	3/2/22 10:16	3/3/22 11:33		1.015	Not Detected	mg/L	0.000203	0.001015	U
* Cobalt, Dissolved	3/2/22 10:16	3/3/22 11:33		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Lead, Dissolved	3/2/22 10:16	3/3/22 11:33		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Dissolved	3/2/22 10:16	3/3/22 11:33		1.015	0.0153	mg/L	0.000068	0.000203	
* Molybdenum, Dissolved	3/2/22 10:16	3/3/22 11:33		1.015	0.00329	mg/L	0.000068	0.000203	
* Potassium, Dissolved	3/2/22 10:16	3/3/22 11:33		1.015	6.39	mg/L	0.169505	0.5075	
* Selenium, Dissolved	3/2/22 10:16	3/3/22 11:33		1.015	0.00164	mg/L	0.000508	0.001015	
* Thallium, Dissolved	3/2/22 10:16	3/3/22 11:33		1.015	Not Detected	mg/L	0.000068	0.000203	U
<b>Analytical Method: EPA 245.1</b>		<b>Analyst: ABB</b>							
* Mercury, Total by CVAA	3/2/22 16:00	3/2/22 19:55		1	Not Detected	mg/L	0.0003	0.0005	U
<b>Analytical Method: EPA 353.2</b>		<b>Analyst: ELH</b>							
* Nitrogen, Nitrate/Nitrite	3/9/22 08:50	3/9/22 08:50		1	Not Detected	mg/L as N	0.20	0.3	U
<b>Analytical Method: SM 2320 B</b>		<b>Analyst: ALH</b>							
Alkalinity, Total as CaCO3	3/7/22 13:30	3/7/22 15:20		1	224	mg/L		0.1	
<b>Analytical Method: SM 2540C</b>		<b>Analyst: CNJ</b>							
* Solids, Dissolved	3/3/22 11:15	3/4/22 13:09		1	287	mg/L		25	
<b>Analytical Method: SM 4500CO2 D</b>		<b>Analyst: ALH</b>							
Bicarbonate Alkalinity, (calc.)	3/7/22 13:30	3/7/22 15:20		1	222	mg/L			
Carbonate Alkalinity, (calc.)	3/7/22 13:30	3/7/22 15:20		1	1.99	mg/L			
<b>Analytical Method: SM 5310 B</b>		<b>Analyst: ELH</b>							
* Total Organic Carbon	3/4/22 14:50	3/4/22 14:50		1	1.41	mg/L	1.00	2	J

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.

# Certificate Of Analysis

**Description:** Gorgas Ash Pond - MW-37HR

**Location Code:** WMWGORAP

**Collected:** 2/28/22 12:20

**Customer ID:**

**Submittal Date:** 3/1/22 15:26

**Laboratory ID Number:** BC04376

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
<b>Analytical Method: SM4500Cl E</b>		<b>Analyst: CES</b>							
* Chloride	3/2/22 13:34	3/2/22 13:34		2	28.1	mg/L	1.00	2	
<b>Analytical Method: SM4500F G 2017</b>		<b>Analyst: CES</b>							
* Fluoride	3/3/22 11:56	3/3/22 11:56		1	0.194	mg/L	0.06	0.1	
<b>Analytical Method: SM4500SO4 E 2011</b>		<b>Analyst: CES</b>							
* Sulfate	3/2/22 11:24	3/2/22 11:24		1	22.6	mg/L	0.50	1	
<b>Analytical Method: Field Measurements</b>		<b>Analyst: DKG</b>							
Conductivity	2/28/22 12:17	2/28/22 12:17			497.92	uS/cm			FA
pH	2/28/22 12:17	2/28/22 12:17			7.88	SU			FA
Temperature	2/28/22 12:17	2/28/22 12:17			17.36	C			FA
Turbidity	2/28/22 12:17	2/28/22 12:17			2.79	NTU			FA

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.

# Batch QC Summary

**Customer Account:** WMWGORAP

**Sample Date:** 2/28/22 12:20

**Customer ID:**

**Delivery Date:** 3/1/22 15:26

**Description:** Gorgas Ash Pond - MW-37HR

**Laboratory ID Number:** BC04376

Sample	Analysis	Units	MB	MB		MS	MSD	Standard		Rec		Prec	Limit
				Limit	Spike			Standard	Limit	Rec	Limit		
BC04386	Aluminum, Dissolved	mg/L	0.0000136	0.010	0.100	0.0950	0.0967	0.0982	0.0850 to 0.115	95.0	70.0 to 130	1.77	20.0
BC04385	Aluminum, Total	mg/L	0.000438	0.010	0.100	0.104	0.103	0.0988	0.0850 to 0.115	93.5	70.0 to 130	0.966	20.0
BC04386	Antimony, Dissolved	mg/L	0.000661	0.00100	0.100	0.0897	0.0908	0.0875	0.0850 to 0.115	89.7	70.0 to 130	1.22	20.0
BC04385	Antimony, Total	mg/L	0.000579	0.00100	0.100	0.0935	0.0963	0.0911	0.0850 to 0.115	93.5	70.0 to 130	2.95	20.0
BC04386	Arsenic, Dissolved	mg/L	-0.0000123	0.000176	0.100	0.0970	0.0976	0.101	0.0850 to 0.115	96.6	70.0 to 130	0.617	20.0
BC04385	Arsenic, Total	mg/L	-0.0000059	0.000176	0.100	0.100	0.0989	0.0983	0.0850 to 0.115	97.6	70.0 to 130	1.11	20.0
BC04386	Barium, Dissolved	mg/L	0.0000116	0.000200	0.100	0.154	0.159	0.0920	0.0850 to 0.115	87.8	70.0 to 130	3.19	20.0
BC04385	Barium, Total	mg/L	0.0000125	0.000200	0.100	0.198	0.199	0.0932	0.0850 to 0.115	91.0	70.0 to 130	0.504	20.0
BC04386	Beryllium, Dissolved	mg/L	0.0000168	0.000880	0.100	0.0970	0.0968	0.101	0.0850 to 0.115	97.0	70.0 to 130	0.206	20.0
BC04385	Beryllium, Total	mg/L	0.0000346	0.000880	0.100	0.102	0.0995	0.0989	0.0850 to 0.115	102	70.0 to 130	2.48	20.0
BC04380	Boron, Dissolved	mg/L	-0.000083	0.0650	1.00	0.997	1.03	0.991	0.850 to 1.15	99.7	70.0 to 130	3.26	20.0
BC04384	Boron, Total	mg/L	-0.000129	0.0650	1.00	1.05	1.05	0.993	0.850 to 1.15	99.2	70.0 to 130	0.00	20.0
BC04386	Cadmium, Dissolved	mg/L	0.0000000	0.000147	0.100	0.0921	0.0938	0.0976	0.0850 to 0.115	92.1	70.0 to 130	1.83	20.0
BC04385	Cadmium, Total	mg/L	0.0000190	0.000147	0.100	0.0977	0.0981	0.0979	0.0850 to 0.115	97.7	70.0 to 130	0.409	20.0
BC04380	Calcium, Dissolved	mg/L	-0.0113	0.152	5.00	45.5	46.0	4.95	4.25 to 5.75	90.0	70.0 to 130	1.09	20.0
BC04384	Calcium, Total	mg/L	-0.00402	0.152	5.00	5.90	5.94	4.80	4.25 to 5.75	95.2	70.0 to 130	0.676	20.0
BC04386	Chromium, Dissolved	mg/L	-0.0000164	0.000440	0.100	0.0925	0.0946	0.0978	0.0850 to 0.115	92.5	70.0 to 130	2.24	20.0
BC04385	Chromium, Total	mg/L	0.0000261	0.000440	0.100	0.0977	0.0949	0.100	0.0850 to 0.115	97.4	70.0 to 130	2.91	20.0
BC04386	Cobalt, Dissolved	mg/L	0.0000016	0.000147	0.100	0.0947	0.0962	0.0998	0.0850 to 0.115	94.7	70.0 to 130	1.57	20.0
BC04385	Cobalt, Total	mg/L	0.0000209	0.000147	0.100	0.0985	0.0951	0.103	0.0850 to 0.115	98.4	70.0 to 130	3.51	20.0
BC04380	Iron, Dissolved	mg/L	0.000121	0.0176	0.2	0.550	0.561	0.196	0.170 to 0.230	90.5	70.0 to 130	1.98	20.0
BC04384	Iron, Total	mg/L	-0.000211	0.0176	0.2	0.391	0.411	0.195	0.170 to 0.230	112	70.0 to 130	4.99	20.0
BC04386	Lead, Dissolved	mg/L	0.0000116	0.000147	0.100	0.0980	0.0984	0.0961	0.0850 to 0.115	98.0	70.0 to 130	0.407	20.0

**Comments:** The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.

# Batch QC Summary

**Customer Account:** WMWGORAP

**Sample Date:** 2/28/22 12:20

**Customer ID:**

**Delivery Date:** 3/1/22 15:26

**Description:** Gorgas Ash Pond - MW-37HR

**Laboratory ID Number:** BC04376

Sample	Analysis	Units	MB	MB				Standard		Rec		Prec	Limit
				Limit	Spike	MS	MSD	Standard	Limit	Rec	Limit		
BC04385	Lead, Total	mg/L	0.0000534	0.000147	0.100	0.0955	0.0964	0.0994	0.0850 to 0.115	95.5	70.0 to 130	0.938	20.0
BC04380	Lithium, Dissolved	mg/L	-0.000144	0.0154	0.200	0.230	0.229	0.198	0.170 to 0.230	97.9	70.0 to 130	0.436	20.0
BC04384	Lithium, Total	mg/L	-0.000195	0.0154	0.200	0.230	0.229	0.206	0.170 to 0.230	99.6	70.0 to 130	0.436	20.0
BC04380	Magnesium, Dissolved	mg/L	-0.00653	0.0462	5.00	21.0	21.2	5.16	4.25 to 5.75	98.0	70.0 to 130	0.948	20.0
BC04384	Magnesium, Total	mg/L	-0.00896	0.0462	5.00	5.38	5.40	5.17	4.25 to 5.75	101	70.0 to 130	0.371	20.0
BC04386	Manganese, Dissolved	mg/L	0.0000034	0.0002	0.100	0.216	0.216	0.0988	0.0850 to 0.115	96.0	70.0 to 130	0.00	20.0
BC04385	Manganese, Total	mg/L	0.0000276	0.0002	0.100	0.169	0.164	0.102	0.0850 to 0.115	98.2	70.0 to 130	3.00	20.0
BC04385	Mercury, Total by CVAA	mg/L	0.00015	0.000500	0.004	0.00404	0.00402	0.00394	0.00340 to 0.00460	101	70.0 to 130	0.496	20.0
BC04386	Molybdenum, Dissolved	mg/L	0.0000047	0.0002	0.100	0.0997	0.0985	0.0975	0.0850 to 0.115	97.8	70.0 to 130	1.21	20.0
BC04385	Molybdenum, Total	mg/L	0.0000189	0.0002	0.100	0.0975	0.0979	0.0970	0.0850 to 0.115	97.4	70.0 to 130	0.409	20.0
BC04386	Potassium, Dissolved	mg/L	0.0280	0.367	10.0	15.8	16.1	10.0	8.50 to 11.5	95.2	70.0 to 130	1.88	20.0
BC04385	Potassium, Total	mg/L	0.0237	0.367	10.0	11.0	10.8	9.96	8.50 to 11.5	97.6	70.0 to 130	1.83	20.0
BC04386	Selenium, Dissolved	mg/L	0.0000768	0.00100	0.100	0.101	0.100	0.104	0.0850 to 0.115	101	70.0 to 130	0.995	20.0
BC04385	Selenium, Total	mg/L	0.0000741	0.00100	0.100	0.0990	0.0993	0.101	0.0850 to 0.115	99.0	70.0 to 130	0.303	20.0
BC04380	Silicon, Dissolved	mg/L	-0.000895	0.0440	1.00	12.5	12.7	0.998	0.850 to 1.15	70.0	70.0 to 130	1.59	20.0
BC04384	Silicon, Total	mg/L	0.000143	0.0440	1.00	5.98	6.04	1.00	0.850 to 1.15	132	70.0 to 130	0.998	20.0
BC04380	Sodium, Dissolved	mg/L	0.000319	0.0660	5.00	45.0	45.3	4.98	4.25 to 5.75	84.0	70.0 to 130	0.664	20.0
BC04384	Sodium, Total	mg/L	0.000667	0.0660	5.00	130	129	5.18	4.25 to 5.75	40.0	70.0 to 130	0.772	20.0
BC04386	Thallium, Dissolved	mg/L	0.0000090	0.000147	0.100	0.0994	0.0979	0.0970	0.0850 to 0.115	99.4	70.0 to 130	1.52	20.0
BC04385	Thallium, Total	mg/L	0.0000465	0.000147	0.100	0.0963	0.0957	0.0992	0.0850 to 0.115	96.3	70.0 to 130	0.625	20.0
BC04376	Total Organic Carbon	mg/L	0.270	1.00	10.0	10.7	10.4	9.67		92.9	80.0 to 120	2.84	20.0

**Comments:** The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.

## Batch QC Summary

**Customer Account:** WMWGORAP

**Sample Date:** 2/28/22 12:20

**Customer ID:**

**Delivery Date:** 3/1/22 15:26

**Description:** Gorgas Ash Pond - MW-37HR

**Laboratory ID Number:** BC04376

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BC04380	Alkalinity, Total as CaCO3	mg/L					234	51.4	45.0 to 55.0			8.00	10.0
BC04385	Chloride	mg/L	-0.0588	1.00	10.0	15.9	5.15	10.3	9.00 to 11.0	108	80.0 to 120	1.37	20.0
BC04385	Fluoride	mg/L	0.0273	0.125	2.50	2.70	0.131	2.59	2.25 to 2.75	102	80.0 to 120	8.76	20.0
BC04385	Nitrogen, Nitrate/Nitrite	mg/L as N	-0.01	0.200	2.00	2.16	0.004	1.87	1.80 to 2.20	108	90.0 to 110	0.00	15.0
BC04385	Solids, Dissolved	mg/L	1.00	25.0			242	50.0	40.0 to 60.0			0.823	10.0
BC04384	Sulfate	mg/L	-0.0624	2.0	20.0	23.2	5.86	18.4	18.0 to 22.0	86.6	80.0 to 120	0.341	20.0

**Comments:** The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.

# Certificate Of Analysis

**Description:** Gorgas Ash Pond - MW-47

**Location Code:** WMWGORAP  
**Collected:** 2/28/22 14:12  
**Customer ID:**  
**Submittal Date:** 3/1/22 15:26

**Laboratory ID Number:** BC04377

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
<b>Analytical Method: EPA 200.7</b>			<b>Analyst: RDA</b>		<b>Preparation Method: EPA 1638</b>				
* Boron, Total	3/7/22 12:00	3/8/22 10:08		1.015	Not Detected	mg/L	0.030000	0.1015	U
* Calcium, Total	3/7/22 12:00	3/8/22 10:08		1.015	28.7	mg/L	0.070035	0.406	
* Iron, Total	3/7/22 12:00	3/8/22 10:08		1.015	0.542	mg/L	0.008120	0.0406	
* Lithium, Total	3/7/22 12:00	3/8/22 10:08		1.015	0.0400	mg/L	0.007105	0.01999956	
* Magnesium, Total	3/7/22 12:00	3/8/22 10:08		1.015	10.3	mg/L	0.021315	0.406	
Silica, Total (calc.)	3/7/22 12:00	3/8/22 10:08		1	24.0	mg/L			
Silicon, Total	3/7/22 12:00	3/8/22 10:08		1.015	11.2	mg/L	0.02030	0.25375	
* Sodium, Total	3/7/22 12:00	3/8/22 10:08		1.015	26.6	mg/L	0.03045	0.406	
<b>Analytical Method: EPA 200.7</b>			<b>Analyst: RDA</b>		<b>Preparation Method: EPA 1638</b>				
* Boron, Dissolved	3/7/22 12:00	3/8/22 11:08		1.015	Not Detected	mg/L	0.030000	0.1015	U
* Calcium, Dissolved	3/7/22 12:00	3/8/22 11:08		1.015	28.7	mg/L	0.070035	0.406	
* Iron, Dissolved	3/7/22 12:00	3/8/22 11:08		1.015	0.413	mg/L	0.008120	0.0406	
* Lithium, Dissolved	3/7/22 12:00	3/8/22 11:08		1.015	0.0363	mg/L	0.007105	0.01999956	
* Magnesium, Dissolved	3/7/22 12:00	3/8/22 11:08		1.015	9.48	mg/L	0.021315	0.406	
Silica, Dissolved (calc.)	3/7/22 12:00	3/8/22 11:08		1	23.1	mg/L			
Silicon, Dissolved	3/7/22 12:00	3/8/22 11:08		1.015	10.8	mg/L	0.02030	0.25375	
* Sodium, Dissolved	3/7/22 12:00	3/8/22 11:08		1.015	24.4	mg/L	0.03045	0.406	
<b>Analytical Method: EPA 200.8</b>			<b>Analyst: DLJ</b>		<b>Preparation Method: EPA 1638</b>				
* Antimony, Total	3/2/22 11:00	3/3/22 12:38		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Aluminum, Total	3/2/22 11:00	3/3/22 12:38		1.015	0.0144	mg/L	0.004060	0.01015	
* Arsenic, Total	3/2/22 11:00	3/3/22 12:38		1.015	0.000385	mg/L	0.000068	0.000203	
* Barium, Total	3/2/22 11:00	3/3/22 12:38		1.015	0.772	mg/L	0.000102	0.000203	
* Beryllium, Total	3/2/22 11:00	3/3/22 12:38		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Total	3/2/22 11:00	3/3/22 12:38		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Total	3/2/22 11:00	3/3/22 12:38		1.015	0.000331	mg/L	0.000203	0.001015	J
* Cobalt, Total	3/2/22 11:00	3/3/22 12:38		1.015	0.000118	mg/L	0.000068	0.000203	J
* Lead, Total	3/2/22 11:00	3/3/22 12:38		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Total	3/2/22 11:00	3/3/22 12:38		1.015	0.0445	mg/L	0.000068	0.000203	
* Molybdenum, Total	3/2/22 11:00	3/3/22 12:38		1.015	0.00165	mg/L	0.000068	0.000203	
* Potassium, Total	3/2/22 11:00	3/3/22 12:38		1.015	3.41	mg/L	0.169505	0.5075	

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.

# Certificate Of Analysis

**Description:** Gorgas Ash Pond - MW-47

**Location Code:** WMWGORAP  
**Collected:** 2/28/22 14:12  
**Customer ID:**  
**Submittal Date:** 3/1/22 15:26

**Laboratory ID Number:** BC04377

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
* Selenium, Total	3/2/22 11:00	3/3/22 12:38		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Total	3/2/22 11:00	3/3/22 12:38		1.015	Not Detected	mg/L	0.000068	0.000203	U
<b>Analytical Method: EPA 200.8</b>		<b>Analyst: DLJ</b>							
* Antimony, Dissolved	3/2/22 10:16	3/3/22 11:36		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Aluminum, Dissolved	3/2/22 10:16	3/3/22 11:36		1.015	0.00406	mg/L	0.004060	0.01015	J
* Arsenic, Dissolved	3/2/22 10:16	3/3/22 11:36		1.015	0.000397	mg/L	0.000068	0.000203	
* Barium, Dissolved	3/2/22 10:16	3/3/22 11:36		1.015	0.762	mg/L	0.000102	0.000203	
* Beryllium, Dissolved	3/2/22 10:16	3/3/22 11:36		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Dissolved	3/2/22 10:16	3/3/22 11:36		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Dissolved	3/2/22 10:16	3/3/22 11:36		1.015	Not Detected	mg/L	0.000203	0.001015	U
* Cobalt, Dissolved	3/2/22 10:16	3/3/22 11:36		1.015	0.000120	mg/L	0.000068	0.000203	J
* Lead, Dissolved	3/2/22 10:16	3/3/22 11:36		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Dissolved	3/2/22 10:16	3/3/22 11:36		1.015	0.0435	mg/L	0.000068	0.000203	
* Molybdenum, Dissolved	3/2/22 10:16	3/3/22 11:36		1.015	0.00159	mg/L	0.000068	0.000203	
* Potassium, Dissolved	3/2/22 10:16	3/3/22 11:36		1.015	3.46	mg/L	0.169505	0.5075	
* Selenium, Dissolved	3/2/22 10:16	3/3/22 11:36		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Dissolved	3/2/22 10:16	3/3/22 11:36		1.015	Not Detected	mg/L	0.000068	0.000203	U
<b>Analytical Method: EPA 245.1</b>		<b>Analyst: ABB</b>							
* Mercury, Total by CVAA	3/2/22 16:00	3/2/22 19:59		1	Not Detected	mg/L	0.0003	0.0005	U
<b>Analytical Method: EPA 353.2</b>		<b>Analyst: ELH</b>							
* Nitrogen, Nitrate/Nitrite	3/9/22 08:52	3/9/22 08:52		1	Not Detected	mg/L as N	0.20	0.3	U
<b>Analytical Method: SM 2320 B</b>		<b>Analyst: ALH</b>							
Alkalinity, Total as CaCO3	3/7/22 13:30	3/7/22 15:20		1	167	mg/L		0.1	
<b>Analytical Method: SM 2540C</b>		<b>Analyst: CNJ</b>							
* Solids, Dissolved	3/3/22 11:15	3/4/22 13:09		1	180	mg/L		25	
<b>Analytical Method: SM 4500CO2 D</b>		<b>Analyst: ALH</b>							
Bicarbonate Alkalinity, (calc.)	3/7/22 13:30	3/7/22 15:20		1	166	mg/L			
Carbonate Alkalinity, (calc.)	3/7/22 13:30	3/7/22 15:20		1	0.96	mg/L			
<b>Analytical Method: SM 5310 B</b>		<b>Analyst: ELH</b>							
* Total Organic Carbon	3/9/22 12:17	3/9/22 12:17		1	1.37	mg/L	1.00	2	J

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.

# Certificate Of Analysis

**Description:** Gorgas Ash Pond - MW-47

**Location Code:** WMWGORAP

**Collected:** 2/28/22 14:12

**Customer ID:**

**Submittal Date:** 3/1/22 15:26

**Laboratory ID Number:** BC04377

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
<b>Analytical Method: SM4500Cl E</b>		<b>Analyst: CES</b>							
* Chloride	3/2/22 13:16	3/2/22 13:16		1	11.7	mg/L	0.50	1	
<b>Analytical Method: SM4500F G 2017</b>		<b>Analyst: CES</b>							
* Fluoride	3/3/22 11:57	3/3/22 11:57		1	0.121	mg/L	0.06	0.1	
<b>Analytical Method: SM4500SO4 E 2011</b>		<b>Analyst: CES</b>							
* Sulfate	3/2/22 11:25	3/2/22 11:25		1	14.4	mg/L	0.50	1	
<b>Analytical Method: Field Measurements</b>		<b>Analyst: DKG</b>							
Conductivity	2/28/22 14:09	2/28/22 14:09			321.01	uS/cm			FA
pH	2/28/22 14:09	2/28/22 14:09			7.15	SU			FA
Temperature	2/28/22 14:09	2/28/22 14:09			16.89	C			FA
Turbidity	2/28/22 14:09	2/28/22 14:09			2.37	NTU			FA

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.



# Batch QC Summary

**Customer Account:** WMWGORAP

**Sample Date:** 2/28/22 14:12

**Customer ID:**

**Delivery Date:** 3/1/22 15:26

**Description:** Gorgas Ash Pond - MW-47

**Laboratory ID Number:** BC04377

Sample	Analysis	Units	MB	MB				Standard		Rec			Prec
				Limit	Spike	MS	MSD	Standard	Limit	Rec	Limit	Prec	
BC04386	Aluminum, Dissolved	mg/L	0.0000136	0.010	0.100	0.0950	0.0967	0.0982	0.0850 to 0.115	95.0	70.0 to 130	1.77	20.0
BC04385	Aluminum, Total	mg/L	0.000438	0.010	0.100	0.104	0.103	0.0988	0.0850 to 0.115	93.5	70.0 to 130	0.966	20.0
BC04386	Antimony, Dissolved	mg/L	0.000661	0.00100	0.100	0.0897	0.0908	0.0875	0.0850 to 0.115	89.7	70.0 to 130	1.22	20.0
BC04385	Antimony, Total	mg/L	0.000579	0.00100	0.100	0.0935	0.0963	0.0911	0.0850 to 0.115	93.5	70.0 to 130	2.95	20.0
BC04386	Arsenic, Dissolved	mg/L	-0.0000123	0.000176	0.100	0.0970	0.0976	0.101	0.0850 to 0.115	96.6	70.0 to 130	0.617	20.0
BC04385	Arsenic, Total	mg/L	-0.0000059	0.000176	0.100	0.100	0.0989	0.0983	0.0850 to 0.115	97.6	70.0 to 130	1.11	20.0
BC04386	Barium, Dissolved	mg/L	0.0000116	0.000200	0.100	0.154	0.159	0.0920	0.0850 to 0.115	87.8	70.0 to 130	3.19	20.0
BC04385	Barium, Total	mg/L	0.0000125	0.000200	0.100	0.198	0.199	0.0932	0.0850 to 0.115	91.0	70.0 to 130	0.504	20.0
BC04386	Beryllium, Dissolved	mg/L	0.0000168	0.000880	0.100	0.0970	0.0968	0.101	0.0850 to 0.115	97.0	70.0 to 130	0.206	20.0
BC04385	Beryllium, Total	mg/L	0.0000346	0.000880	0.100	0.102	0.0995	0.0989	0.0850 to 0.115	102	70.0 to 130	2.48	20.0
BC04380	Boron, Dissolved	mg/L	-0.000083	0.0650	1.00	0.997	1.03	0.991	0.850 to 1.15	99.7	70.0 to 130	3.26	20.0
BC04384	Boron, Total	mg/L	-0.000129	0.0650	1.00	1.05	1.05	0.993	0.850 to 1.15	99.2	70.0 to 130	0.00	20.0
BC04386	Cadmium, Dissolved	mg/L	0.0000000	0.000147	0.100	0.0921	0.0938	0.0976	0.0850 to 0.115	92.1	70.0 to 130	1.83	20.0
BC04385	Cadmium, Total	mg/L	0.0000190	0.000147	0.100	0.0977	0.0981	0.0979	0.0850 to 0.115	97.7	70.0 to 130	0.409	20.0
BC04380	Calcium, Dissolved	mg/L	-0.0113	0.152	5.00	45.5	46.0	4.95	4.25 to 5.75	90.0	70.0 to 130	1.09	20.0
BC04384	Calcium, Total	mg/L	-0.00402	0.152	5.00	5.90	5.94	4.80	4.25 to 5.75	95.2	70.0 to 130	0.676	20.0
BC04386	Chromium, Dissolved	mg/L	-0.0000164	0.000440	0.100	0.0925	0.0946	0.0978	0.0850 to 0.115	92.5	70.0 to 130	2.24	20.0
BC04385	Chromium, Total	mg/L	0.0000261	0.000440	0.100	0.0977	0.0949	0.100	0.0850 to 0.115	97.4	70.0 to 130	2.91	20.0
BC04386	Cobalt, Dissolved	mg/L	0.0000016	0.000147	0.100	0.0947	0.0962	0.0998	0.0850 to 0.115	94.7	70.0 to 130	1.57	20.0
BC04385	Cobalt, Total	mg/L	0.0000209	0.000147	0.100	0.0985	0.0951	0.103	0.0850 to 0.115	98.4	70.0 to 130	3.51	20.0
BC04380	Iron, Dissolved	mg/L	0.000121	0.0176	0.2	0.550	0.561	0.196	0.170 to 0.230	90.5	70.0 to 130	1.98	20.0
BC04384	Iron, Total	mg/L	-0.000211	0.0176	0.2	0.391	0.411	0.195	0.170 to 0.230	112	70.0 to 130	4.99	20.0
BC04386	Lead, Dissolved	mg/L	0.0000116	0.000147	0.100	0.0980	0.0984	0.0961	0.0850 to 0.115	98.0	70.0 to 130	0.407	20.0

**Comments:** The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.

# Batch QC Summary

**Customer Account:** WMWGORAP

**Sample Date:** 2/28/22 14:12

**Customer ID:**

**Delivery Date:** 3/1/22 15:26

**Description:** Gorgas Ash Pond - MW-47

**Laboratory ID Number:** BC04377

Sample	Analysis	Units	MB	MB				Standard		Rec		Prec	Limit
				Limit	Spike	MS	MSD	Standard	Limit	Rec	Limit		
BC04385	Lead, Total	mg/L	0.0000534	0.000147	0.100	0.0955	0.0964	0.0994	0.0850 to 0.115	95.5	70.0 to 130	0.938	20.0
BC04380	Lithium, Dissolved	mg/L	-0.000144	0.0154	0.200	0.230	0.229	0.198	0.170 to 0.230	97.9	70.0 to 130	0.436	20.0
BC04384	Lithium, Total	mg/L	-0.000195	0.0154	0.200	0.230	0.229	0.206	0.170 to 0.230	99.6	70.0 to 130	0.436	20.0
BC04380	Magnesium, Dissolved	mg/L	-0.00653	0.0462	5.00	21.0	21.2	5.16	4.25 to 5.75	98.0	70.0 to 130	0.948	20.0
BC04384	Magnesium, Total	mg/L	-0.00896	0.0462	5.00	5.38	5.40	5.17	4.25 to 5.75	101	70.0 to 130	0.371	20.0
BC04386	Manganese, Dissolved	mg/L	0.0000034	0.0002	0.100	0.216	0.216	0.0988	0.0850 to 0.115	96.0	70.0 to 130	0.00	20.0
BC04385	Manganese, Total	mg/L	0.0000276	0.0002	0.100	0.169	0.164	0.102	0.0850 to 0.115	98.2	70.0 to 130	3.00	20.0
BC04385	Mercury, Total by CVAA	mg/L	0.00015	0.000500	0.004	0.00404	0.00402	0.00394	0.00340 to 0.00460	101	70.0 to 130	0.496	20.0
BC04386	Molybdenum, Dissolved	mg/L	0.0000047	0.0002	0.100	0.0997	0.0985	0.0975	0.0850 to 0.115	97.8	70.0 to 130	1.21	20.0
BC04385	Molybdenum, Total	mg/L	0.0000189	0.0002	0.100	0.0975	0.0979	0.0970	0.0850 to 0.115	97.4	70.0 to 130	0.409	20.0
BC04386	Potassium, Dissolved	mg/L	0.0280	0.367	10.0	15.8	16.1	10.0	8.50 to 11.5	95.2	70.0 to 130	1.88	20.0
BC04385	Potassium, Total	mg/L	0.0237	0.367	10.0	11.0	10.8	9.96	8.50 to 11.5	97.6	70.0 to 130	1.83	20.0
BC04386	Selenium, Dissolved	mg/L	0.0000768	0.00100	0.100	0.101	0.100	0.104	0.0850 to 0.115	101	70.0 to 130	0.995	20.0
BC04385	Selenium, Total	mg/L	0.0000741	0.00100	0.100	0.0990	0.0993	0.101	0.0850 to 0.115	99.0	70.0 to 130	0.303	20.0
BC04380	Silicon, Dissolved	mg/L	-0.000895	0.0440	1.00	12.5	12.7	0.998	0.850 to 1.15	70.0	70.0 to 130	1.59	20.0
BC04384	Silicon, Total	mg/L	0.000143	0.0440	1.00	5.98	6.04	1.00	0.850 to 1.15	132	70.0 to 130	0.998	20.0
BC04380	Sodium, Dissolved	mg/L	0.000319	0.0660	5.00	45.0	45.3	4.98	4.25 to 5.75	84.0	70.0 to 130	0.664	20.0
BC04384	Sodium, Total	mg/L	0.000667	0.0660	5.00	130	129	5.18	4.25 to 5.75	40.0	70.0 to 130	0.772	20.0
BC04386	Thallium, Dissolved	mg/L	0.0000090	0.000147	0.100	0.0994	0.0979	0.0970	0.0850 to 0.115	99.4	70.0 to 130	1.52	20.0
BC04385	Thallium, Total	mg/L	0.0000465	0.000147	0.100	0.0963	0.0957	0.0992	0.0850 to 0.115	96.3	70.0 to 130	0.625	20.0
BC04386	Total Organic Carbon	mg/L	0.220	1.00	10.0	14.5	14.6	10.1		102	80.0 to 120	0.687	20.0

**Comments:** The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.

## Batch QC Summary

**Customer Account:** WMWGORAP

**Sample Date:** 2/28/22 14:12

**Customer ID:**

**Delivery Date:** 3/1/22 15:26

**Description:** Gorgas Ash Pond - MW-47

**Laboratory ID Number:** BC04377

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BC04380	Alkalinity, Total as CaCO3	mg/L					234	51.4	45.0 to 55.0			8.00	10.0
BC04385	Chloride	mg/L	-0.0588	1.00	10.0	15.9	5.15	10.3	9.00 to 11.0	108	80.0 to 120	1.37	20.0
BC04385	Fluoride	mg/L	0.0273	0.125	2.50	2.70	0.131	2.59	2.25 to 2.75	102	80.0 to 120	8.76	20.0
BC04385	Nitrogen, Nitrate/Nitrite	mg/L as N	-0.01	0.200	2.00	2.16	0.004	1.87	1.80 to 2.20	108	90.0 to 110	0.00	15.0
BC04385	Solids, Dissolved	mg/L	1.00	25.0			242	50.0	40.0 to 60.0			0.823	10.0
BC04384	Sulfate	mg/L	-0.0624	2.0	20.0	23.2	5.86	18.4	18.0 to 22.0	86.6	80.0 to 120	0.341	20.0

**Comments:** The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.

# Certificate Of Analysis

**Description:** Gorgas Ash Pond - MW-14R

**Location Code:** WMWGORAP  
**Collected:** 2/28/22 15:33  
**Customer ID:**  
**Submittal Date:** 3/1/22 15:26

**Laboratory ID Number:** BC04378

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
<b>Analytical Method: EPA 200.7</b>			<b>Analyst: RDA</b>		<b>Preparation Method: EPA 1638</b>				
* Boron, Total	3/7/22 12:00	3/8/22 10:10		1.015	Not Detected	mg/L	0.030000	0.1015	U
* Calcium, Total	3/7/22 12:00	3/8/22 10:10		1.015	33.7	mg/L	0.070035	0.406	
* Iron, Total	3/7/22 12:00	3/8/22 10:10		1.015	0.649	mg/L	0.008120	0.0406	
* Lithium, Total	3/7/22 12:00	3/8/22 10:10		1.015	0.0228	mg/L	0.007105	0.01999956	
* Magnesium, Total	3/7/22 12:00	3/8/22 10:10		1.015	13.4	mg/L	0.021315	0.406	
Silica, Total (calc.)	3/7/22 12:00	3/8/22 10:10		1	26.5	mg/L			
Silicon, Total	3/7/22 12:00	3/8/22 10:10		1.015	12.4	mg/L	0.02030	0.25375	
* Sodium, Total	3/7/22 12:00	3/8/22 12:04		10.15	54.6	mg/L	0.3045	4.06	
<b>Analytical Method: EPA 200.7</b>			<b>Analyst: RDA</b>		<b>Preparation Method: EPA 1638</b>				
* Boron, Dissolved	3/7/22 12:00	3/8/22 11:10		1.015	Not Detected	mg/L	0.030000	0.1015	U
* Calcium, Dissolved	3/7/22 12:00	3/8/22 11:10		1.015	34.2	mg/L	0.070035	0.406	
* Iron, Dissolved	3/7/22 12:00	3/8/22 11:10		1.015	0.504	mg/L	0.008120	0.0406	
* Lithium, Dissolved	3/7/22 12:00	3/8/22 11:10		1.015	0.0223	mg/L	0.007105	0.01999956	
* Magnesium, Dissolved	3/7/22 12:00	3/8/22 11:10		1.015	13.3	mg/L	0.021315	0.406	
Silica, Dissolved (calc.)	3/7/22 12:00	3/8/22 11:10		1	26.3	mg/L			
Silicon, Dissolved	3/7/22 12:00	3/8/22 11:10		1.015	12.3	mg/L	0.02030	0.25375	
* Sodium, Dissolved	3/7/22 12:00	3/8/22 12:38		10.15	53.8	mg/L	0.3045	4.06	
<b>Analytical Method: EPA 200.8</b>			<b>Analyst: DLJ</b>		<b>Preparation Method: EPA 1638</b>				
* Antimony, Total	3/2/22 11:00	3/3/22 12:42		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Aluminum, Total	3/2/22 11:00	3/3/22 12:42		1.015	0.0987	mg/L	0.004060	0.01015	
* Arsenic, Total	3/2/22 11:00	3/3/22 12:42		1.015	0.00231	mg/L	0.000068	0.000203	
* Barium, Total	3/2/22 11:00	3/3/22 12:42		1.015	0.174	mg/L	0.000102	0.000203	
* Beryllium, Total	3/2/22 11:00	3/3/22 12:42		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Total	3/2/22 11:00	3/3/22 12:42		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Total	3/2/22 11:00	3/3/22 12:42		1.015	0.000616	mg/L	0.000203	0.001015	J
* Cobalt, Total	3/2/22 11:00	3/3/22 12:42		1.015	0.000147	mg/L	0.000068	0.000203	J
* Lead, Total	3/2/22 11:00	3/3/22 12:42		1.015	0.000446	mg/L	0.000068	0.000203	
* Manganese, Total	3/2/22 11:00	3/3/22 12:42		1.015	0.0697	mg/L	0.000068	0.000203	
* Molybdenum, Total	3/2/22 11:00	3/3/22 12:42		1.015	0.000965	mg/L	0.000068	0.000203	
* Potassium, Total	3/2/22 11:00	3/3/22 12:42		1.015	2.85	mg/L	0.169505	0.5075	

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.

# Certificate Of Analysis

**Description:** Gorgas Ash Pond - MW-14R

**Location Code:** WMWGORAP  
**Collected:** 2/28/22 15:33  
**Customer ID:**  
**Submittal Date:** 3/1/22 15:26

**Laboratory ID Number:** BC04378

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
* Selenium, Total	3/2/22 11:00	3/3/22 12:42		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Total	3/2/22 11:00	3/3/22 12:42		1.015	Not Detected	mg/L	0.000068	0.000203	U
<b>Analytical Method: EPA 200.8</b>		<b>Analyst: DLJ</b>							
* Antimony, Dissolved	3/2/22 10:16	3/3/22 11:40		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Aluminum, Dissolved	3/2/22 10:16	3/3/22 11:40		1.015	Not Detected	mg/L	0.004060	0.01015	U
* Arsenic, Dissolved	3/2/22 10:16	3/3/22 11:40		1.015	0.00186	mg/L	0.000068	0.000203	
* Barium, Dissolved	3/2/22 10:16	3/3/22 11:40		1.015	0.186	mg/L	0.000102	0.000203	
* Beryllium, Dissolved	3/2/22 10:16	3/3/22 11:40		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Dissolved	3/2/22 10:16	3/3/22 11:40		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Dissolved	3/2/22 10:16	3/3/22 11:40		1.015	Not Detected	mg/L	0.000203	0.001015	U
* Cobalt, Dissolved	3/2/22 10:16	3/3/22 11:40		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Lead, Dissolved	3/2/22 10:16	3/3/22 11:40		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Dissolved	3/2/22 10:16	3/3/22 11:40		1.015	0.0641	mg/L	0.000068	0.000203	
* Molybdenum, Dissolved	3/2/22 10:16	3/3/22 11:40		1.015	0.000788	mg/L	0.000068	0.000203	
* Potassium, Dissolved	3/2/22 10:16	3/3/22 11:40		1.015	2.83	mg/L	0.169505	0.5075	
* Selenium, Dissolved	3/2/22 10:16	3/3/22 11:40		1.015	0.00225	mg/L	0.000508	0.001015	
* Thallium, Dissolved	3/2/22 10:16	3/3/22 11:40		1.015	Not Detected	mg/L	0.000068	0.000203	U
<b>Analytical Method: EPA 245.1</b>		<b>Analyst: ABB</b>							
* Mercury, Total by CVAA	3/2/22 16:00	3/2/22 20:03		1	Not Detected	mg/L	0.0003	0.0005	U
<b>Analytical Method: EPA 353.2</b>		<b>Analyst: ELH</b>							
* Nitrogen, Nitrate/Nitrite	3/9/22 08:54	3/9/22 08:54		1	Not Detected	mg/L as N	0.20	0.3	U
<b>Analytical Method: SM 2320 B</b>		<b>Analyst: ALH</b>							
Alkalinity, Total as CaCO3	3/7/22 13:30	3/7/22 15:20		1	200	mg/L		0.1	
<b>Analytical Method: SM 2540C</b>		<b>Analyst: CNJ</b>							
* Solids, Dissolved	3/3/22 11:15	3/4/22 13:09		1	305	mg/L		25	
<b>Analytical Method: SM 4500CO2 D</b>		<b>Analyst: ALH</b>							
Bicarbonate Alkalinity, (calc.)	3/7/22 13:30	3/7/22 15:20		1	200	mg/L			
Carbonate Alkalinity, (calc.)	3/7/22 13:30	3/7/22 15:20		1	0.33	mg/L			
<b>Analytical Method: SM 5310 B</b>		<b>Analyst: ELH</b>							
* Total Organic Carbon	3/9/22 12:32	3/9/22 12:32		1	3.28	mg/L	1.00	2	

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.

# Certificate Of Analysis

**Description:** Gorgas Ash Pond - MW-14R

**Location Code:** WMWGORAP

**Collected:** 2/28/22 15:33

**Customer ID:**

**Submittal Date:** 3/1/22 15:26

**Laboratory ID Number:** BC04378

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
<b>Analytical Method: SM4500Cl E</b>		<b>Analyst: CES</b>							
* Chloride	3/2/22 13:36	3/2/22 13:36		2	38.1	mg/L	1.00	2	
<b>Analytical Method: SM4500F G 2017</b>		<b>Analyst: CES</b>							
* Fluoride	3/3/22 11:58	3/3/22 11:58		1	0.215	mg/L	0.06	0.1	
<b>Analytical Method: SM4500SO4 E 2011</b>		<b>Analyst: CES</b>							
* Sulfate	3/2/22 11:26	3/2/22 11:26		1	33.3	mg/L	0.50	1	
<b>Analytical Method: Field Measurements</b>		<b>Analyst: DKG</b>							
Conductivity	2/28/22 15:30	2/28/22 15:30			492.21	uS/cm			FA
pH	2/28/22 15:30	2/28/22 15:30			7.04	SU			FA
Temperature	2/28/22 15:30	2/28/22 15:30			16.41	C			FA
Turbidity	2/28/22 15:30	2/28/22 15:30			3.89	NTU			FA

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.

# Batch QC Summary

**Customer Account:** WMWGORAP

**Sample Date:** 2/28/22 15:33

**Customer ID:**

**Delivery Date:** 3/1/22 15:26

**Description:** Gorgas Ash Pond - MW-14R

**Laboratory ID Number:** BC04378

Sample	Analysis	Units	MB	MB		MS	MSD	Standard		Rec		Prec	Limit
				Limit	Spike			Standard	Limit	Rec	Limit		
BC04386	Aluminum, Dissolved	mg/L	0.0000136	0.010	0.100	0.0950	0.0967	0.0982	0.0850 to 0.115	95.0	70.0 to 130	1.77	20.0
BC04385	Aluminum, Total	mg/L	0.000438	0.010	0.100	0.104	0.103	0.0988	0.0850 to 0.115	93.5	70.0 to 130	0.966	20.0
BC04386	Antimony, Dissolved	mg/L	0.000661	0.00100	0.100	0.0897	0.0908	0.0875	0.0850 to 0.115	89.7	70.0 to 130	1.22	20.0
BC04385	Antimony, Total	mg/L	0.000579	0.00100	0.100	0.0935	0.0963	0.0911	0.0850 to 0.115	93.5	70.0 to 130	2.95	20.0
BC04386	Arsenic, Dissolved	mg/L	-0.0000123	0.000176	0.100	0.0970	0.0976	0.101	0.0850 to 0.115	96.6	70.0 to 130	0.617	20.0
BC04385	Arsenic, Total	mg/L	-0.0000059	0.000176	0.100	0.100	0.0989	0.0983	0.0850 to 0.115	97.6	70.0 to 130	1.11	20.0
BC04386	Barium, Dissolved	mg/L	0.0000116	0.000200	0.100	0.154	0.159	0.0920	0.0850 to 0.115	87.8	70.0 to 130	3.19	20.0
BC04385	Barium, Total	mg/L	0.0000125	0.000200	0.100	0.198	0.199	0.0932	0.0850 to 0.115	91.0	70.0 to 130	0.504	20.0
BC04386	Beryllium, Dissolved	mg/L	0.0000168	0.000880	0.100	0.0970	0.0968	0.101	0.0850 to 0.115	97.0	70.0 to 130	0.206	20.0
BC04385	Beryllium, Total	mg/L	0.0000346	0.000880	0.100	0.102	0.0995	0.0989	0.0850 to 0.115	102	70.0 to 130	2.48	20.0
BC04380	Boron, Dissolved	mg/L	-0.000083	0.0650	1.00	0.997	1.03	0.991	0.850 to 1.15	99.7	70.0 to 130	3.26	20.0
BC04384	Boron, Total	mg/L	-0.000129	0.0650	1.00	1.05	1.05	0.993	0.850 to 1.15	99.2	70.0 to 130	0.00	20.0
BC04386	Cadmium, Dissolved	mg/L	0.0000000	0.000147	0.100	0.0921	0.0938	0.0976	0.0850 to 0.115	92.1	70.0 to 130	1.83	20.0
BC04385	Cadmium, Total	mg/L	0.0000190	0.000147	0.100	0.0977	0.0981	0.0979	0.0850 to 0.115	97.7	70.0 to 130	0.409	20.0
BC04380	Calcium, Dissolved	mg/L	-0.0113	0.152	5.00	45.5	46.0	4.95	4.25 to 5.75	90.0	70.0 to 130	1.09	20.0
BC04384	Calcium, Total	mg/L	-0.00402	0.152	5.00	5.90	5.94	4.80	4.25 to 5.75	95.2	70.0 to 130	0.676	20.0
BC04386	Chromium, Dissolved	mg/L	-0.0000164	0.000440	0.100	0.0925	0.0946	0.0978	0.0850 to 0.115	92.5	70.0 to 130	2.24	20.0
BC04385	Chromium, Total	mg/L	0.0000261	0.000440	0.100	0.0977	0.0949	0.100	0.0850 to 0.115	97.4	70.0 to 130	2.91	20.0
BC04386	Cobalt, Dissolved	mg/L	0.0000016	0.000147	0.100	0.0947	0.0962	0.0998	0.0850 to 0.115	94.7	70.0 to 130	1.57	20.0
BC04385	Cobalt, Total	mg/L	0.0000209	0.000147	0.100	0.0985	0.0951	0.103	0.0850 to 0.115	98.4	70.0 to 130	3.51	20.0
BC04380	Iron, Dissolved	mg/L	0.000121	0.0176	0.2	0.550	0.561	0.196	0.170 to 0.230	90.5	70.0 to 130	1.98	20.0
BC04384	Iron, Total	mg/L	-0.000211	0.0176	0.2	0.391	0.411	0.195	0.170 to 0.230	112	70.0 to 130	4.99	20.0
BC04386	Lead, Dissolved	mg/L	0.0000116	0.000147	0.100	0.0980	0.0984	0.0961	0.0850 to 0.115	98.0	70.0 to 130	0.407	20.0

**Comments:** The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.

# Batch QC Summary

**Customer Account:** WMWGORAP

**Sample Date:** 2/28/22 15:33

**Customer ID:**

**Delivery Date:** 3/1/22 15:26

**Description:** Gorgas Ash Pond - MW-14R

**Laboratory ID Number:** BC04378

Sample	Analysis	Units	MB	MB				Standard		Rec		Prec	Limit
				Limit	Spike	MS	MSD	Standard	Limit	Rec	Limit		
BC04385	Lead, Total	mg/L	0.0000534	0.000147	0.100	0.0955	0.0964	0.0994	0.0850 to 0.115	95.5	70.0 to 130	0.938	20.0
BC04380	Lithium, Dissolved	mg/L	-0.000144	0.0154	0.200	0.230	0.229	0.198	0.170 to 0.230	97.9	70.0 to 130	0.436	20.0
BC04384	Lithium, Total	mg/L	-0.000195	0.0154	0.200	0.230	0.229	0.206	0.170 to 0.230	99.6	70.0 to 130	0.436	20.0
BC04380	Magnesium, Dissolved	mg/L	-0.00653	0.0462	5.00	21.0	21.2	5.16	4.25 to 5.75	98.0	70.0 to 130	0.948	20.0
BC04384	Magnesium, Total	mg/L	-0.00896	0.0462	5.00	5.38	5.40	5.17	4.25 to 5.75	101	70.0 to 130	0.371	20.0
BC04386	Manganese, Dissolved	mg/L	0.0000034	0.0002	0.100	0.216	0.216	0.0988	0.0850 to 0.115	96.0	70.0 to 130	0.00	20.0
BC04385	Manganese, Total	mg/L	0.0000276	0.0002	0.100	0.169	0.164	0.102	0.0850 to 0.115	98.2	70.0 to 130	3.00	20.0
BC04385	Mercury, Total by CVAA	mg/L	0.00015	0.000500	0.004	0.00404	0.00402	0.00394	0.00340 to 0.00460	101	70.0 to 130	0.496	20.0
BC04386	Molybdenum, Dissolved	mg/L	0.0000047	0.0002	0.100	0.0997	0.0985	0.0975	0.0850 to 0.115	97.8	70.0 to 130	1.21	20.0
BC04385	Molybdenum, Total	mg/L	0.0000189	0.0002	0.100	0.0975	0.0979	0.0970	0.0850 to 0.115	97.4	70.0 to 130	0.409	20.0
BC04386	Potassium, Dissolved	mg/L	0.0280	0.367	10.0	15.8	16.1	10.0	8.50 to 11.5	95.2	70.0 to 130	1.88	20.0
BC04385	Potassium, Total	mg/L	0.0237	0.367	10.0	11.0	10.8	9.96	8.50 to 11.5	97.6	70.0 to 130	1.83	20.0
BC04386	Selenium, Dissolved	mg/L	0.0000768	0.00100	0.100	0.101	0.100	0.104	0.0850 to 0.115	101	70.0 to 130	0.995	20.0
BC04385	Selenium, Total	mg/L	0.0000741	0.00100	0.100	0.0990	0.0993	0.101	0.0850 to 0.115	99.0	70.0 to 130	0.303	20.0
BC04380	Silicon, Dissolved	mg/L	-0.000895	0.0440	1.00	12.5	12.7	0.998	0.850 to 1.15	70.0	70.0 to 130	1.59	20.0
BC04384	Silicon, Total	mg/L	0.000143	0.0440	1.00	5.98	6.04	1.00	0.850 to 1.15	132	70.0 to 130	0.998	20.0
BC04380	Sodium, Dissolved	mg/L	0.000319	0.0660	5.00	45.0	45.3	4.98	4.25 to 5.75	84.0	70.0 to 130	0.664	20.0
BC04384	Sodium, Total	mg/L	0.000667	0.0660	5.00	130	129	5.18	4.25 to 5.75	40.0	70.0 to 130	0.772	20.0
BC04386	Thallium, Dissolved	mg/L	0.0000090	0.000147	0.100	0.0994	0.0979	0.0970	0.0850 to 0.115	99.4	70.0 to 130	1.52	20.0
BC04385	Thallium, Total	mg/L	0.0000465	0.000147	0.100	0.0963	0.0957	0.0992	0.0850 to 0.115	96.3	70.0 to 130	0.625	20.0
BC04386	Total Organic Carbon	mg/L	0.220	1.00	10.0	14.5	14.6	10.1		102	80.0 to 120	0.687	20.0

**Comments:** The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.



## Batch QC Summary

**Customer Account:** WMWGORAP

**Sample Date:** 2/28/22 15:33

**Customer ID:**

**Delivery Date:** 3/1/22 15:26

**Description:** Gorgas Ash Pond - MW-14R

**Laboratory ID Number:** BC04378

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Limit	Prec	Prec Limit
BC04380	Alkalinity, Total as CaCO3	mg/L					234	51.4	45.0 to 55.0			8.00	10.0
BC04385	Chloride	mg/L	-0.0588	1.00	10.0	15.9	5.15	10.3	9.00 to 11.0	108	80.0 to 120	1.37	20.0
BC04385	Fluoride	mg/L	0.0273	0.125	2.50	2.70	0.131	2.59	2.25 to 2.75	102	80.0 to 120	8.76	20.0
BC04385	Nitrogen, Nitrate/Nitrite	mg/L as N	-0.01	0.200	2.00	2.16	0.004	1.87	1.80 to 2.20	108	90.0 to 110	0.00	15.0
BC04385	Solids, Dissolved	mg/L	1.00	25.0			242	50.0	40.0 to 60.0			0.823	10.0
BC04384	Sulfate	mg/L	-0.0624	2.0	20.0	23.2	5.86	18.4	18.0 to 22.0	86.6	80.0 to 120	0.341	20.0

**Comments:** The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.

# Certificate Of Analysis

**Description:** Gorgas Ash Pond - MW-13R

**Location Code:** WMWGORAP  
**Collected:** 3/1/22 08:34  
**Customer ID:**  
**Submittal Date:** 3/1/22 15:26

**Laboratory ID Number:** BC04379

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
<b>Analytical Method: EPA 200.7</b>			<b>Analyst: RDA</b>		<b>Preparation Method: EPA 1638</b>				
* Boron, Total	3/7/22 12:00	3/8/22 10:12		1.015	Not Detected	mg/L	0.030000	0.1015	U
* Calcium, Total	3/7/22 12:00	3/8/22 10:12		1.015	31.6	mg/L	0.070035	0.406	
* Iron, Total	3/7/22 12:00	3/8/22 10:12		1.015	1.11	mg/L	0.008120	0.0406	
* Lithium, Total	3/7/22 12:00	3/8/22 10:12		1.015	0.0272	mg/L	0.007105	0.01999956	
* Magnesium, Total	3/7/22 12:00	3/8/22 10:12		1.015	13.3	mg/L	0.021315	0.406	
Silica, Total (calc.)	3/7/22 12:00	3/8/22 10:12		1	28.0	mg/L			
Silicon, Total	3/7/22 12:00	3/8/22 10:12		1.015	13.1	mg/L	0.02030	0.25375	
* Sodium, Total	3/7/22 12:00	3/8/22 10:12		1.015	21.6	mg/L	0.03045	0.406	
<b>Analytical Method: EPA 200.7</b>			<b>Analyst: RDA</b>		<b>Preparation Method: EPA 1638</b>				
* Boron, Dissolved	3/7/22 12:00	3/8/22 11:12		1.015	Not Detected	mg/L	0.030000	0.1015	U
* Calcium, Dissolved	3/7/22 12:00	3/8/22 11:12		1.015	32.0	mg/L	0.070035	0.406	
* Iron, Dissolved	3/7/22 12:00	3/8/22 11:12		1.015	0.727	mg/L	0.008120	0.0406	
* Lithium, Dissolved	3/7/22 12:00	3/8/22 11:12		1.015	0.0264	mg/L	0.007105	0.01999956	
* Magnesium, Dissolved	3/7/22 12:00	3/8/22 11:12		1.015	13.1	mg/L	0.021315	0.406	
Silica, Dissolved (calc.)	3/7/22 12:00	3/8/22 11:12		1	27.6	mg/L			
Silicon, Dissolved	3/7/22 12:00	3/8/22 11:12		1.015	12.9	mg/L	0.02030	0.25375	
* Sodium, Dissolved	3/7/22 12:00	3/8/22 11:12		1.015	20.9	mg/L	0.03045	0.406	
<b>Analytical Method: EPA 200.8</b>			<b>Analyst: DLJ</b>		<b>Preparation Method: EPA 1638</b>				
* Antimony, Total	3/2/22 11:00	3/3/22 12:46		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Aluminum, Total	3/2/22 11:00	3/3/22 12:46		1.015	0.0337	mg/L	0.004060	0.01015	
* Arsenic, Total	3/2/22 11:00	3/3/22 12:46		1.015	0.0110	mg/L	0.000068	0.000203	
* Barium, Total	3/2/22 11:00	3/3/22 12:46		1.015	0.0617	mg/L	0.000102	0.000203	
* Beryllium, Total	3/2/22 11:00	3/3/22 12:46		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Total	3/2/22 11:00	3/3/22 12:46		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Total	3/2/22 11:00	3/3/22 12:46		1.015	0.000229	mg/L	0.000203	0.001015	J
* Cobalt, Total	3/2/22 11:00	3/3/22 12:46		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Lead, Total	3/2/22 11:00	3/3/22 12:46		1.015	0.000128	mg/L	0.000068	0.000203	J
* Manganese, Total	3/2/22 11:00	3/3/22 12:46		1.015	0.0547	mg/L	0.000068	0.000203	
* Molybdenum, Total	3/2/22 11:00	3/3/22 12:46		1.015	0.000611	mg/L	0.000068	0.000203	
* Potassium, Total	3/2/22 11:00	3/3/22 12:46		1.015	1.87	mg/L	0.169505	0.5075	

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.

# Certificate Of Analysis

**Description:** Gorgas Ash Pond - MW-13R

**Location Code:** WMWGORAP  
**Collected:** 3/1/22 08:34  
**Customer ID:**  
**Submittal Date:** 3/1/22 15:26

**Laboratory ID Number:** BC04379

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
* Selenium, Total	3/2/22 11:00	3/3/22 12:46		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Total	3/2/22 11:00	3/3/22 12:46		1.015	Not Detected	mg/L	0.000068	0.000203	U
<b>Analytical Method: EPA 200.8</b>		<b>Analyst: DLJ</b>							
* Antimony, Dissolved	3/2/22 10:16	3/3/22 11:44		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Aluminum, Dissolved	3/2/22 10:16	3/3/22 11:44		1.015	Not Detected	mg/L	0.004060	0.01015	U
* Arsenic, Dissolved	3/2/22 10:16	3/3/22 11:44		1.015	0.00828	mg/L	0.000068	0.000203	
* Barium, Dissolved	3/2/22 10:16	3/3/22 11:44		1.015	0.0613	mg/L	0.000102	0.000203	
* Beryllium, Dissolved	3/2/22 10:16	3/3/22 11:44		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Dissolved	3/2/22 10:16	3/3/22 11:44		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Dissolved	3/2/22 10:16	3/3/22 11:44		1.015	Not Detected	mg/L	0.000203	0.001015	U
* Cobalt, Dissolved	3/2/22 10:16	3/3/22 11:44		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Lead, Dissolved	3/2/22 10:16	3/3/22 11:44		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Dissolved	3/2/22 10:16	3/3/22 11:44		1.015	0.0539	mg/L	0.000068	0.000203	
* Molybdenum, Dissolved	3/2/22 10:16	3/3/22 11:44		1.015	0.000526	mg/L	0.000068	0.000203	
* Potassium, Dissolved	3/2/22 10:16	3/3/22 11:44		1.015	1.88	mg/L	0.169505	0.5075	
* Selenium, Dissolved	3/2/22 10:16	3/3/22 11:44		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Dissolved	3/2/22 10:16	3/3/22 11:44		1.015	Not Detected	mg/L	0.000068	0.000203	U
<b>Analytical Method: EPA 245.1</b>		<b>Analyst: ABB</b>							
* Mercury, Total by CVAA	3/2/22 16:00	3/2/22 20:07		1	Not Detected	mg/L	0.0003	0.0005	U
<b>Analytical Method: EPA 353.2</b>		<b>Analyst: ELH</b>							
* Nitrogen, Nitrate/Nitrite	3/9/22 08:56	3/9/22 08:56		1	Not Detected	mg/L as N	0.20	0.3	U
<b>Analytical Method: SM 2320 B</b>		<b>Analyst: ALH</b>							
Alkalinity, Total as CaCO3	3/7/22 13:30	3/7/22 15:20		1	130	mg/L		0.1	
<b>Analytical Method: SM 2540C</b>		<b>Analyst: CNJ</b>							
* Solids, Dissolved	3/3/22 11:15	3/4/22 13:09		1	201	mg/L		25	
<b>Analytical Method: SM 4500CO2 D</b>		<b>Analyst: ALH</b>							
Bicarbonate Alkalinity, (calc.)	3/7/22 13:30	3/7/22 15:20		1	129	mg/L			
Carbonate Alkalinity, (calc.)	3/7/22 13:30	3/7/22 15:20		1	0.51	mg/L			
<b>Analytical Method: SM 5310 B</b>		<b>Analyst: ELH</b>							
* Total Organic Carbon	3/9/22 12:53	3/9/22 12:53		1	Not Detected	mg/L	1.00	2	U

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.

# Certificate Of Analysis

**Description:** Gorgas Ash Pond - MW-13R

**Location Code:** WMWGORAP

**Collected:** 3/1/22 08:34

**Customer ID:**

**Submittal Date:** 3/1/22 15:26

**Laboratory ID Number:** BC04379

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
<b>Analytical Method: SM4500Cl E</b>		<b>Analyst: CES</b>							
* Chloride	3/2/22 13:19	3/2/22 13:19		1	19.2	mg/L	0.50	1	
<b>Analytical Method: SM4500F G 2017</b>		<b>Analyst: CES</b>							
* Fluoride	3/3/22 12:00	3/3/22 12:00		1	0.122	mg/L	0.06	0.1	
<b>Analytical Method: SM4500SO4 E 2011</b>		<b>Analyst: CES</b>							
* Sulfate	3/2/22 11:27	3/2/22 11:27		1	38.0	mg/L	0.50	1	
<b>Analytical Method: Field Measurements</b>		<b>Analyst: DKG</b>							
Conductivity	3/1/22 08:31	3/1/22 08:31			341.37	uS/cm			FA
pH	3/1/22 08:31	3/1/22 08:31			6.47	SU			FA
Temperature	3/1/22 08:31	3/1/22 08:31			15.21	C			FA
Turbidity	3/1/22 08:31	3/1/22 08:31			4.34	NTU			FA

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.

# Batch QC Summary

**Customer Account:** WMWGORAP  
**Sample Date:** 3/1/22 08:34  
**Customer ID:**  
**Delivery Date:** 3/1/22 15:26

**Description:** Gorgas Ash Pond - MW-13R

**Laboratory ID Number:** BC04379

Sample	Analysis	Units	MB	MB		MS	MSD	Standard		Rec		Prec	Limit
				Limit	Spike			Standard	Limit	Rec	Limit		
BC04386	Aluminum, Dissolved	mg/L	0.0000136	0.010	0.100	0.0950	0.0967	0.0982	0.0850 to 0.115	95.0	70.0 to 130	1.77	20.0
BC04385	Aluminum, Total	mg/L	0.000438	0.010	0.100	0.104	0.103	0.0988	0.0850 to 0.115	93.5	70.0 to 130	0.966	20.0
BC04386	Antimony, Dissolved	mg/L	0.000661	0.00100	0.100	0.0897	0.0908	0.0875	0.0850 to 0.115	89.7	70.0 to 130	1.22	20.0
BC04385	Antimony, Total	mg/L	0.000579	0.00100	0.100	0.0935	0.0963	0.0911	0.0850 to 0.115	93.5	70.0 to 130	2.95	20.0
BC04386	Arsenic, Dissolved	mg/L	-0.0000123	0.000176	0.100	0.0970	0.0976	0.101	0.0850 to 0.115	96.6	70.0 to 130	0.617	20.0
BC04385	Arsenic, Total	mg/L	-0.0000059	0.000176	0.100	0.100	0.0989	0.0983	0.0850 to 0.115	97.6	70.0 to 130	1.11	20.0
BC04386	Barium, Dissolved	mg/L	0.0000116	0.000200	0.100	0.154	0.159	0.0920	0.0850 to 0.115	87.8	70.0 to 130	3.19	20.0
BC04385	Barium, Total	mg/L	0.0000125	0.000200	0.100	0.198	0.199	0.0932	0.0850 to 0.115	91.0	70.0 to 130	0.504	20.0
BC04386	Beryllium, Dissolved	mg/L	0.0000168	0.000880	0.100	0.0970	0.0968	0.101	0.0850 to 0.115	97.0	70.0 to 130	0.206	20.0
BC04385	Beryllium, Total	mg/L	0.0000346	0.000880	0.100	0.102	0.0995	0.0989	0.0850 to 0.115	102	70.0 to 130	2.48	20.0
BC04380	Boron, Dissolved	mg/L	-0.000083	0.0650	1.00	0.997	1.03	0.991	0.850 to 1.15	99.7	70.0 to 130	3.26	20.0
BC04384	Boron, Total	mg/L	-0.000129	0.0650	1.00	1.05	1.05	0.993	0.850 to 1.15	99.2	70.0 to 130	0.00	20.0
BC04386	Cadmium, Dissolved	mg/L	0.0000000	0.000147	0.100	0.0921	0.0938	0.0976	0.0850 to 0.115	92.1	70.0 to 130	1.83	20.0
BC04385	Cadmium, Total	mg/L	0.0000190	0.000147	0.100	0.0977	0.0981	0.0979	0.0850 to 0.115	97.7	70.0 to 130	0.409	20.0
BC04380	Calcium, Dissolved	mg/L	-0.0113	0.152	5.00	45.5	46.0	4.95	4.25 to 5.75	90.0	70.0 to 130	1.09	20.0
BC04384	Calcium, Total	mg/L	-0.00402	0.152	5.00	5.90	5.94	4.80	4.25 to 5.75	95.2	70.0 to 130	0.676	20.0
BC04386	Chromium, Dissolved	mg/L	-0.0000164	0.000440	0.100	0.0925	0.0946	0.0978	0.0850 to 0.115	92.5	70.0 to 130	2.24	20.0
BC04385	Chromium, Total	mg/L	0.0000261	0.000440	0.100	0.0977	0.0949	0.100	0.0850 to 0.115	97.4	70.0 to 130	2.91	20.0
BC04386	Cobalt, Dissolved	mg/L	0.0000016	0.000147	0.100	0.0947	0.0962	0.0998	0.0850 to 0.115	94.7	70.0 to 130	1.57	20.0
BC04385	Cobalt, Total	mg/L	0.0000209	0.000147	0.100	0.0985	0.0951	0.103	0.0850 to 0.115	98.4	70.0 to 130	3.51	20.0
BC04380	Iron, Dissolved	mg/L	0.000121	0.0176	0.2	0.550	0.561	0.196	0.170 to 0.230	90.5	70.0 to 130	1.98	20.0
BC04384	Iron, Total	mg/L	-0.000211	0.0176	0.2	0.391	0.411	0.195	0.170 to 0.230	112	70.0 to 130	4.99	20.0
BC04386	Lead, Dissolved	mg/L	0.0000116	0.000147	0.100	0.0980	0.0984	0.0961	0.0850 to 0.115	98.0	70.0 to 130	0.407	20.0

**Comments:** The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.

# Batch QC Summary

**Customer Account:** WMWGORAP  
**Sample Date:** 3/1/22 08:34  
**Customer ID:**  
**Delivery Date:** 3/1/22 15:26

**Description:** Gorgas Ash Pond - MW-13R

**Laboratory ID Number:** BC04379

Sample	Analysis	Units	MB	MB				Standard		Rec		Prec	Limit
				Limit	Spike	MS	MSD	Standard	Limit	Rec	Limit		
BC04385	Lead, Total	mg/L	0.0000534	0.000147	0.100	0.0955	0.0964	0.0994	0.0850 to 0.115	95.5	70.0 to 130	0.938	20.0
BC04380	Lithium, Dissolved	mg/L	-0.000144	0.0154	0.200	0.230	0.229	0.198	0.170 to 0.230	97.9	70.0 to 130	0.436	20.0
BC04384	Lithium, Total	mg/L	-0.000195	0.0154	0.200	0.230	0.229	0.206	0.170 to 0.230	99.6	70.0 to 130	0.436	20.0
BC04380	Magnesium, Dissolved	mg/L	-0.00653	0.0462	5.00	21.0	21.2	5.16	4.25 to 5.75	98.0	70.0 to 130	0.948	20.0
BC04384	Magnesium, Total	mg/L	-0.00896	0.0462	5.00	5.38	5.40	5.17	4.25 to 5.75	101	70.0 to 130	0.371	20.0
BC04386	Manganese, Dissolved	mg/L	0.0000034	0.0002	0.100	0.216	0.216	0.0988	0.0850 to 0.115	96.0	70.0 to 130	0.00	20.0
BC04385	Manganese, Total	mg/L	0.0000276	0.0002	0.100	0.169	0.164	0.102	0.0850 to 0.115	98.2	70.0 to 130	3.00	20.0
BC04385	Mercury, Total by CVAA	mg/L	0.00015	0.000500	0.004	0.00404	0.00402	0.00394	0.00340 to 0.00460	101	70.0 to 130	0.496	20.0
BC04386	Molybdenum, Dissolved	mg/L	0.0000047	0.0002	0.100	0.0997	0.0985	0.0975	0.0850 to 0.115	97.8	70.0 to 130	1.21	20.0
BC04385	Molybdenum, Total	mg/L	0.0000189	0.0002	0.100	0.0975	0.0979	0.0970	0.0850 to 0.115	97.4	70.0 to 130	0.409	20.0
BC04386	Potassium, Dissolved	mg/L	0.0280	0.367	10.0	15.8	16.1	10.0	8.50 to 11.5	95.2	70.0 to 130	1.88	20.0
BC04385	Potassium, Total	mg/L	0.0237	0.367	10.0	11.0	10.8	9.96	8.50 to 11.5	97.6	70.0 to 130	1.83	20.0
BC04386	Selenium, Dissolved	mg/L	0.0000768	0.00100	0.100	0.101	0.100	0.104	0.0850 to 0.115	101	70.0 to 130	0.995	20.0
BC04385	Selenium, Total	mg/L	0.0000741	0.00100	0.100	0.0990	0.0993	0.101	0.0850 to 0.115	99.0	70.0 to 130	0.303	20.0
BC04380	Silicon, Dissolved	mg/L	-0.000895	0.0440	1.00	12.5	12.7	0.998	0.850 to 1.15	70.0	70.0 to 130	1.59	20.0
BC04384	Silicon, Total	mg/L	0.000143	0.0440	1.00	5.98	6.04	1.00	0.850 to 1.15	132	70.0 to 130	0.998	20.0
BC04380	Sodium, Dissolved	mg/L	0.000319	0.0660	5.00	45.0	45.3	4.98	4.25 to 5.75	84.0	70.0 to 130	0.664	20.0
BC04384	Sodium, Total	mg/L	0.000667	0.0660	5.00	130	129	5.18	4.25 to 5.75	40.0	70.0 to 130	0.772	20.0
BC04386	Thallium, Dissolved	mg/L	0.0000090	0.000147	0.100	0.0994	0.0979	0.0970	0.0850 to 0.115	99.4	70.0 to 130	1.52	20.0
BC04385	Thallium, Total	mg/L	0.0000465	0.000147	0.100	0.0963	0.0957	0.0992	0.0850 to 0.115	96.3	70.0 to 130	0.625	20.0
BC04386	Total Organic Carbon	mg/L	0.220	1.00	10.0	14.5	14.6	10.1		102	80.0 to 120	0.687	20.0

**Comments:** The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.

## Batch QC Summary

**Customer Account:** WMWGORAP

**Sample Date:** 3/1/22 08:34

**Customer ID:**

**Delivery Date:** 3/1/22 15:26

**Description:** Gorgas Ash Pond - MW-13R

**Laboratory ID Number:** BC04379

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Limit	Prec	Prec Limit
BC04380	Alkalinity, Total as CaCO3	mg/L					234	51.4	45.0 to 55.0			8.00	10.0
BC04385	Chloride	mg/L	-0.0588	1.00	10.0	15.9	5.15	10.3	9.00 to 11.0	108	80.0 to 120	1.37	20.0
BC04385	Fluoride	mg/L	0.0273	0.125	2.50	2.70	0.131	2.59	2.25 to 2.75	102	80.0 to 120	8.76	20.0
BC04385	Nitrogen, Nitrate/Nitrite	mg/L as N	-0.01	0.200	2.00	2.16	0.004	1.87	1.80 to 2.20	108	90.0 to 110	0.00	15.0
BC04385	Solids, Dissolved	mg/L	1.00	25.0			242	50.0	40.0 to 60.0			0.823	10.0
BC04384	Sulfate	mg/L	-0.0624	2.0	20.0	23.2	5.86	18.4	18.0 to 22.0	86.6	80.0 to 120	0.341	20.0

**Comments:** The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.

# Certificate Of Analysis

**Description:** Gorgas Ash Pond - MW-10R

**Location Code:** WMWGORAP  
**Collected:** 3/1/22 12:07  
**Customer ID:**  
**Submittal Date:** 3/1/22 15:26

**Laboratory ID Number:** BC04380

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
<b>Analytical Method: EPA 200.7</b>		<b>Analyst: RDA</b>			<b>Preparation Method: EPA 1638</b>				
* Boron, Total	3/7/22 12:00	3/8/22 10:14		1.015	Not Detected	mg/L	0.030000	0.1015	U
* Calcium, Total	3/7/22 12:00	3/8/22 10:14		1.015	39.8	mg/L	0.070035	0.406	
* Iron, Total	3/7/22 12:00	3/8/22 10:14		1.015	0.732	mg/L	0.008120	0.0406	
* Lithium, Total	3/7/22 12:00	3/8/22 10:14		1.015	0.0349	mg/L	0.007105	0.01999956	
* Magnesium, Total	3/7/22 12:00	3/8/22 10:14		1.015	16.2	mg/L	0.021315	0.406	
Silica, Total (calc.)	3/7/22 12:00	3/8/22 10:14		1	25.5	mg/L			
Silicon, Total	3/7/22 12:00	3/8/22 10:14		1.015	11.9	mg/L	0.02030	0.25375	
* Sodium, Total	3/7/22 12:00	3/8/22 12:06		10.15	40.8	mg/L	0.3045	4.06	
<b>Analytical Method: EPA 200.7</b>		<b>Analyst: RDA</b>			<b>Preparation Method: EPA 1638</b>				
* Boron, Dissolved	3/7/22 12:00	3/8/22 11:14		1.015	Not Detected	mg/L	0.030000	0.1015	U
* Calcium, Dissolved	3/7/22 12:00	3/8/22 12:40		10.15	41.0	mg/L	0.70035	4.06	
* Iron, Dissolved	3/7/22 12:00	3/8/22 11:14		1.015	0.369	mg/L	0.008120	0.0406	
* Lithium, Dissolved	3/7/22 12:00	3/8/22 11:14		1.015	0.0342	mg/L	0.007105	0.01999956	
* Magnesium, Dissolved	3/7/22 12:00	3/8/22 11:14		1.015	16.1	mg/L	0.021315	0.406	
Silica, Dissolved (calc.)	3/7/22 12:00	3/8/22 11:14		1	25.3	mg/L			
Silicon, Dissolved	3/7/22 12:00	3/8/22 11:14		1.015	11.8	mg/L	0.02030	0.25375	
* Sodium, Dissolved	3/7/22 12:00	3/8/22 12:40		10.15	40.8	mg/L	0.3045	4.06	
<b>Analytical Method: EPA 200.8</b>		<b>Analyst: DLJ</b>			<b>Preparation Method: EPA 1638</b>				
* Antimony, Total	3/2/22 11:00	3/3/22 12:49		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Aluminum, Total	3/2/22 11:00	3/3/22 12:49		1.015	0.0216	mg/L	0.004060	0.01015	
* Arsenic, Total	3/2/22 11:00	3/3/22 12:49		1.015	0.00209	mg/L	0.000068	0.000203	
* Barium, Total	3/2/22 11:00	3/3/22 12:49		1.015	0.701	mg/L	0.000102	0.000203	
* Beryllium, Total	3/2/22 11:00	3/3/22 12:49		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Total	3/2/22 11:00	3/3/22 12:49		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Total	3/2/22 11:00	3/3/22 12:49		1.015	0.000237	mg/L	0.000203	0.001015	J
* Cobalt, Total	3/2/22 11:00	3/3/22 12:49		1.015	0.000140	mg/L	0.000068	0.000203	J
* Lead, Total	3/2/22 11:00	3/3/22 12:49		1.015	0.000134	mg/L	0.000068	0.000203	J
* Manganese, Total	3/2/22 11:00	3/3/22 12:49		1.015	0.0647	mg/L	0.000068	0.000203	
* Molybdenum, Total	3/2/22 11:00	3/3/22 12:49		1.015	0.00288	mg/L	0.000068	0.000203	
* Potassium, Total	3/2/22 11:00	3/3/22 12:49		1.015	10.4	mg/L	0.169505	0.5075	

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.



# Certificate Of Analysis

**Description:** Gorgas Ash Pond - MW-10R

**Location Code:** WMWGORAP  
**Collected:** 3/1/22 12:07  
**Customer ID:**  
**Submittal Date:** 3/1/22 15:26

**Laboratory ID Number:** BC04380

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
* Selenium, Total	3/2/22 11:00	3/3/22 12:49		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Total	3/2/22 11:00	3/3/22 12:49		1.015	Not Detected	mg/L	0.000068	0.000203	U
<b>Analytical Method: EPA 200.8</b>		<b>Analyst: DLJ</b>							
* Antimony, Dissolved	3/2/22 10:16	3/3/22 11:47		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Aluminum, Dissolved	3/2/22 10:16	3/3/22 11:47		1.015	Not Detected	mg/L	0.004060	0.01015	U
* Arsenic, Dissolved	3/2/22 10:16	3/3/22 11:47		1.015	0.000604	mg/L	0.000068	0.000203	
* Barium, Dissolved	3/2/22 10:16	3/3/22 11:47		1.015	0.608	mg/L	0.000102	0.000203	
* Beryllium, Dissolved	3/2/22 10:16	3/3/22 11:47		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Dissolved	3/2/22 10:16	3/3/22 11:47		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Dissolved	3/2/22 10:16	3/3/22 11:47		1.015	Not Detected	mg/L	0.000203	0.001015	U
* Cobalt, Dissolved	3/2/22 10:16	3/3/22 11:47		1.015	0.000156	mg/L	0.000068	0.000203	J
* Lead, Dissolved	3/2/22 10:16	3/3/22 11:47		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Dissolved	3/2/22 10:16	3/3/22 11:47		1.015	0.0634	mg/L	0.000068	0.000203	
* Molybdenum, Dissolved	3/2/22 10:16	3/3/22 11:47		1.015	0.00280	mg/L	0.000068	0.000203	
* Potassium, Dissolved	3/2/22 10:16	3/3/22 11:47		1.015	11.0	mg/L	0.169505	0.5075	
* Selenium, Dissolved	3/2/22 10:16	3/3/22 11:47		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Dissolved	3/2/22 10:16	3/3/22 11:47		1.015	Not Detected	mg/L	0.000068	0.000203	U
<b>Analytical Method: EPA 245.1</b>		<b>Analyst: ABB</b>							
* Mercury, Total by CVAA	3/2/22 16:00	3/2/22 20:11		1	Not Detected	mg/L	0.0003	0.0005	U
<b>Analytical Method: EPA 353.2</b>		<b>Analyst: ELH</b>							
* Nitrogen, Nitrate/Nitrite	3/9/22 08:58	3/9/22 08:58		1	Not Detected	mg/L as N	0.20	0.3	U
<b>Analytical Method: SM 2320 B</b>		<b>Analyst: ALH</b>							
Alkalinity, Total as CaCO3	3/7/22 13:30	3/7/22 15:20		1	216	mg/L		0.1	
<b>Analytical Method: SM 2540C</b>		<b>Analyst: CNJ</b>							
* Solids, Dissolved	3/3/22 11:15	3/4/22 13:09		1	250	mg/L		25	
<b>Analytical Method: SM 4500CO2 D</b>		<b>Analyst: ALH</b>							
Bicarbonate Alkalinity, (calc.)	3/7/22 13:30	3/7/22 15:20		1	216	mg/L			
Carbonate Alkalinity, (calc.)	3/7/22 13:30	3/7/22 15:20		1	0.24	mg/L			
<b>Analytical Method: SM 5310 B</b>		<b>Analyst: ELH</b>							
* Total Organic Carbon	3/9/22 13:13	3/9/22 13:13		1	1.07	mg/L	1.00	2	J

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.

# Certificate Of Analysis

**Description:** Gorgas Ash Pond - MW-10R

**Location Code:** WMWGORAP

**Collected:** 3/1/22 12:07

**Customer ID:**

**Submittal Date:** 3/1/22 15:26

**Laboratory ID Number:** BC04380

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
<b>Analytical Method: SM4500Cl E</b>		<b>Analyst: CES</b>							
* Chloride	3/2/22 13:37	3/2/22 13:37		2	37.5	mg/L	1.00	2	
<b>Analytical Method: SM4500F G 2017</b>		<b>Analyst: CES</b>							
* Fluoride	3/3/22 12:01	3/3/22 12:01		1	0.278	mg/L	0.06	0.1	
<b>Analytical Method: SM4500SO4 E 2011</b>		<b>Analyst: CES</b>							
* Sulfate	3/2/22 11:28	3/2/22 11:28		1	21.6	mg/L	0.50	1	
<b>Analytical Method: Field Measurements</b>		<b>Analyst: DKG</b>							
Conductivity	3/1/22 12:04	3/1/22 12:04			503.13	uS/cm			FA
pH	3/1/22 12:04	3/1/22 12:04			6.87	SU			FA
Temperature	3/1/22 12:04	3/1/22 12:04			18.32	C			FA
Turbidity	3/1/22 12:04	3/1/22 12:04			4.41	NTU			FA

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.

# Batch QC Summary

**Customer Account:** WMWGORAP

**Sample Date:** 3/1/22 12:07

**Customer ID:**

**Delivery Date:** 3/1/22 15:26

**Description:** Gorgas Ash Pond - MW-10R

**Laboratory ID Number:** BC04380

Sample	Analysis	Units	MB		Spike	MS	MSD	Standard		Rec		Prec	Limit
			MB	Limit				Standard	Limit	Rec	Limit		
BC04386	Aluminum, Dissolved	mg/L	0.0000136	0.010	0.100	0.0950	0.0967	0.0982	0.0850 to 0.115	95.0	70.0 to 130	1.77	20.0
BC04385	Aluminum, Total	mg/L	0.000438	0.010	0.100	0.104	0.103	0.0988	0.0850 to 0.115	93.5	70.0 to 130	0.966	20.0
BC04386	Antimony, Dissolved	mg/L	0.000661	0.00100	0.100	0.0897	0.0908	0.0875	0.0850 to 0.115	89.7	70.0 to 130	1.22	20.0
BC04385	Antimony, Total	mg/L	0.000579	0.00100	0.100	0.0935	0.0963	0.0911	0.0850 to 0.115	93.5	70.0 to 130	2.95	20.0
BC04386	Arsenic, Dissolved	mg/L	-0.0000123	0.000176	0.100	0.0970	0.0976	0.101	0.0850 to 0.115	96.6	70.0 to 130	0.617	20.0
BC04385	Arsenic, Total	mg/L	-0.0000059	0.000176	0.100	0.100	0.0989	0.0983	0.0850 to 0.115	97.6	70.0 to 130	1.11	20.0
BC04386	Barium, Dissolved	mg/L	0.0000116	0.000200	0.100	0.154	0.159	0.0920	0.0850 to 0.115	87.8	70.0 to 130	3.19	20.0
BC04385	Barium, Total	mg/L	0.0000125	0.000200	0.100	0.198	0.199	0.0932	0.0850 to 0.115	91.0	70.0 to 130	0.504	20.0
BC04386	Beryllium, Dissolved	mg/L	0.0000168	0.000880	0.100	0.0970	0.0968	0.101	0.0850 to 0.115	97.0	70.0 to 130	0.206	20.0
BC04385	Beryllium, Total	mg/L	0.0000346	0.000880	0.100	0.102	0.0995	0.0989	0.0850 to 0.115	102	70.0 to 130	2.48	20.0
BC04380	Boron, Dissolved	mg/L	-0.000083	0.0650	1.00	0.997	1.03	0.991	0.850 to 1.15	99.7	70.0 to 130	3.26	20.0
BC04384	Boron, Total	mg/L	-0.000129	0.0650	1.00	1.05	1.05	0.993	0.850 to 1.15	99.2	70.0 to 130	0.00	20.0
BC04386	Cadmium, Dissolved	mg/L	0.0000000	0.000147	0.100	0.0921	0.0938	0.0976	0.0850 to 0.115	92.1	70.0 to 130	1.83	20.0
BC04385	Cadmium, Total	mg/L	0.0000190	0.000147	0.100	0.0977	0.0981	0.0979	0.0850 to 0.115	97.7	70.0 to 130	0.409	20.0
BC04380	Calcium, Dissolved	mg/L	-0.0113	0.152	5.00	45.5	46.0	4.95	4.25 to 5.75	90.0	70.0 to 130	1.09	20.0
BC04384	Calcium, Total	mg/L	-0.00402	0.152	5.00	5.90	5.94	4.80	4.25 to 5.75	95.2	70.0 to 130	0.676	20.0
BC04386	Chromium, Dissolved	mg/L	-0.0000164	0.000440	0.100	0.0925	0.0946	0.0978	0.0850 to 0.115	92.5	70.0 to 130	2.24	20.0
BC04385	Chromium, Total	mg/L	0.0000261	0.000440	0.100	0.0977	0.0949	0.100	0.0850 to 0.115	97.4	70.0 to 130	2.91	20.0
BC04386	Cobalt, Dissolved	mg/L	0.0000016	0.000147	0.100	0.0947	0.0962	0.0998	0.0850 to 0.115	94.7	70.0 to 130	1.57	20.0
BC04385	Cobalt, Total	mg/L	0.0000209	0.000147	0.100	0.0985	0.0951	0.103	0.0850 to 0.115	98.4	70.0 to 130	3.51	20.0
BC04380	Iron, Dissolved	mg/L	0.000121	0.0176	0.2	0.550	0.561	0.196	0.170 to 0.230	90.5	70.0 to 130	1.98	20.0
BC04384	Iron, Total	mg/L	-0.000211	0.0176	0.2	0.391	0.411	0.195	0.170 to 0.230	112	70.0 to 130	4.99	20.0
BC04386	Lead, Dissolved	mg/L	0.0000116	0.000147	0.100	0.0980	0.0984	0.0961	0.0850 to 0.115	98.0	70.0 to 130	0.407	20.0

**Comments:** The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.

# Batch QC Summary

**Customer Account:** WMWGORAP

**Sample Date:** 3/1/22 12:07

**Customer ID:**

**Delivery Date:** 3/1/22 15:26

**Description:** Gorgas Ash Pond - MW-10R

**Laboratory ID Number:** BC04380

Sample	Analysis	Units	MB	MB				Standard		Rec		Prec	Limit
				Limit	Spike	MS	MSD	Standard	Limit	Rec	Limit		
BC04385	Lead, Total	mg/L	0.0000534	0.000147	0.100	0.0955	0.0964	0.0994	0.0850 to 0.115	95.5	70.0 to 130	0.938	20.0
BC04380	Lithium, Dissolved	mg/L	-0.000144	0.0154	0.200	0.230	0.229	0.198	0.170 to 0.230	97.9	70.0 to 130	0.436	20.0
BC04384	Lithium, Total	mg/L	-0.000195	0.0154	0.200	0.230	0.229	0.206	0.170 to 0.230	99.6	70.0 to 130	0.436	20.0
BC04380	Magnesium, Dissolved	mg/L	-0.00653	0.0462	5.00	21.0	21.2	5.16	4.25 to 5.75	98.0	70.0 to 130	0.948	20.0
BC04384	Magnesium, Total	mg/L	-0.00896	0.0462	5.00	5.38	5.40	5.17	4.25 to 5.75	101	70.0 to 130	0.371	20.0
BC04386	Manganese, Dissolved	mg/L	0.0000034	0.0002	0.100	0.216	0.216	0.0988	0.0850 to 0.115	96.0	70.0 to 130	0.00	20.0
BC04385	Manganese, Total	mg/L	0.0000276	0.0002	0.100	0.169	0.164	0.102	0.0850 to 0.115	98.2	70.0 to 130	3.00	20.0
BC04385	Mercury, Total by CVAA	mg/L	0.00015	0.000500	0.004	0.00404	0.00402	0.00394	0.00340 to 0.00460	101	70.0 to 130	0.496	20.0
BC04386	Molybdenum, Dissolved	mg/L	0.0000047	0.0002	0.100	0.0997	0.0985	0.0975	0.0850 to 0.115	97.8	70.0 to 130	1.21	20.0
BC04385	Molybdenum, Total	mg/L	0.0000189	0.0002	0.100	0.0975	0.0979	0.0970	0.0850 to 0.115	97.4	70.0 to 130	0.409	20.0
BC04386	Potassium, Dissolved	mg/L	0.0280	0.367	10.0	15.8	16.1	10.0	8.50 to 11.5	95.2	70.0 to 130	1.88	20.0
BC04385	Potassium, Total	mg/L	0.0237	0.367	10.0	11.0	10.8	9.96	8.50 to 11.5	97.6	70.0 to 130	1.83	20.0
BC04386	Selenium, Dissolved	mg/L	0.0000768	0.00100	0.100	0.101	0.100	0.104	0.0850 to 0.115	101	70.0 to 130	0.995	20.0
BC04385	Selenium, Total	mg/L	0.0000741	0.00100	0.100	0.0990	0.0993	0.101	0.0850 to 0.115	99.0	70.0 to 130	0.303	20.0
BC04380	Silicon, Dissolved	mg/L	-0.000895	0.0440	1.00	12.5	12.7	0.998	0.850 to 1.15	70.0	70.0 to 130	1.59	20.0
BC04384	Silicon, Total	mg/L	0.000143	0.0440	1.00	5.98	6.04	1.00	0.850 to 1.15	132	70.0 to 130	0.998	20.0
BC04380	Sodium, Dissolved	mg/L	0.000319	0.0660	5.00	45.0	45.3	4.98	4.25 to 5.75	84.0	70.0 to 130	0.664	20.0
BC04384	Sodium, Total	mg/L	0.000667	0.0660	5.00	130	129	5.18	4.25 to 5.75	40.0	70.0 to 130	0.772	20.0
BC04386	Thallium, Dissolved	mg/L	0.0000090	0.000147	0.100	0.0994	0.0979	0.0970	0.0850 to 0.115	99.4	70.0 to 130	1.52	20.0
BC04385	Thallium, Total	mg/L	0.0000465	0.000147	0.100	0.0963	0.0957	0.0992	0.0850 to 0.115	96.3	70.0 to 130	0.625	20.0
BC04386	Total Organic Carbon	mg/L	0.220	1.00	10.0	14.5	14.6	10.1		102	80.0 to 120	0.687	20.0

**Comments:** The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.

## Batch QC Summary

**Customer Account:** WMWGORAP

**Sample Date:** 3/1/22 12:07

**Customer ID:**

**Delivery Date:** 3/1/22 15:26

**Description:** Gorgas Ash Pond - MW-10R

**Laboratory ID Number:** BC04380

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Limit	Prec	Prec Limit
BC04380	Alkalinity, Total as CaCO3	mg/L					234	51.4	45.0 to 55.0			8.00	10.0
BC04385	Chloride	mg/L	-0.0588	1.00	10.0	15.9	5.15	10.3	9.00 to 11.0	108	80.0 to 120	1.37	20.0
BC04385	Fluoride	mg/L	0.0273	0.125	2.50	2.70	0.131	2.59	2.25 to 2.75	102	80.0 to 120	8.76	20.0
BC04385	Nitrogen, Nitrate/Nitrite	mg/L as N	-0.01	0.200	2.00	2.16	0.004	1.87	1.80 to 2.20	108	90.0 to 110	0.00	15.0
BC04385	Solids, Dissolved	mg/L	1.00	25.0			242	50.0	40.0 to 60.0			0.823	10.0
BC04384	Sulfate	mg/L	-0.0624	2.0	20.0	23.2	5.86	18.4	18.0 to 22.0	86.6	80.0 to 120	0.341	20.0

**Comments:** The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.

# Certificate Of Analysis

**Description:** Gorgas Ash Pond - MW-12

**Location Code:** WMWGORAP  
**Collected:** 2/28/22 14:40  
**Customer ID:**  
**Submittal Date:** 3/1/22 15:26

**Laboratory ID Number:** BC04381

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
<b>Analytical Method: EPA 200.7</b>			<b>Analyst: RDA</b>		<b>Preparation Method: EPA 1638</b>				
* Boron, Total	3/7/22 12:00	3/8/22 10:16		1.015	0.0305	mg/L	0.030000	0.1015	J
* Calcium, Total	3/7/22 12:00	3/8/22 10:16		1.015	37.9	mg/L	0.070035	0.406	
* Iron, Total	3/7/22 12:00	3/8/22 10:16		1.015	0.313	mg/L	0.008120	0.0406	
* Lithium, Total	3/7/22 12:00	3/8/22 10:16		1.015	0.0523	mg/L	0.007105	0.01999956	
* Magnesium, Total	3/7/22 12:00	3/8/22 10:16		1.015	11.2	mg/L	0.021315	0.406	
Silica, Total (calc.)	3/7/22 12:00	3/8/22 10:16		1	20.0	mg/L			
Silicon, Total	3/7/22 12:00	3/8/22 10:16		1.015	9.33	mg/L	0.02030	0.25375	
* Sodium, Total	3/7/22 12:00	3/8/22 10:16		1.015	22.3	mg/L	0.03045	0.406	
<b>Analytical Method: EPA 200.7</b>			<b>Analyst: RDA</b>		<b>Preparation Method: EPA 1638</b>				
* Boron, Dissolved	3/7/22 12:00	3/8/22 11:25		1.015	0.0580	mg/L	0.030000	0.1015	J
* Calcium, Dissolved	3/7/22 12:00	3/8/22 12:52		10.15	43.1	mg/L	0.70035	4.06	
* Iron, Dissolved	3/7/22 12:00	3/8/22 11:25		1.015	0.419	mg/L	0.008120	0.0406	
* Lithium, Dissolved	3/7/22 12:00	3/8/22 11:25		1.015	0.0351	mg/L	0.007105	0.01999956	
* Magnesium, Dissolved	3/7/22 12:00	3/8/22 11:25		1.015	12.3	mg/L	0.021315	0.406	
Silica, Dissolved (calc.)	3/7/22 12:00	3/8/22 11:25		1	20.5	mg/L			
Silicon, Dissolved	3/7/22 12:00	3/8/22 11:25		1.015	9.58	mg/L	0.02030	0.25375	
* Sodium, Dissolved	3/7/22 12:00	3/8/22 11:25		1.015	18.8	mg/L	0.03045	0.406	
<b>Analytical Method: EPA 200.8</b>			<b>Analyst: DLJ</b>		<b>Preparation Method: EPA 1638</b>				
* Antimony, Total	3/2/22 11:00	3/3/22 12:53		1.015	0.00415	mg/L	0.000508	0.001015	
* Aluminum, Total	3/2/22 11:00	3/3/22 12:53		1.015	Not Detected	mg/L	0.004060	0.01015	U
* Arsenic, Total	3/2/22 11:00	3/3/22 12:53		1.015	0.00343	mg/L	0.000068	0.000203	
* Barium, Total	3/2/22 11:00	3/3/22 12:53		1.015	0.173	mg/L	0.000102	0.000203	
* Beryllium, Total	3/2/22 11:00	3/3/22 12:53		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Total	3/2/22 11:00	3/3/22 12:53		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Total	3/2/22 11:00	3/3/22 12:53		1.015	Not Detected	mg/L	0.000203	0.001015	U
* Cobalt, Total	3/2/22 11:00	3/3/22 12:53		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Lead, Total	3/2/22 11:00	3/3/22 12:53		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Total	3/2/22 11:00	3/3/22 12:53		1.015	0.0328	mg/L	0.000068	0.000203	
* Molybdenum, Total	3/2/22 11:00	3/3/22 12:53		1.015	0.00903	mg/L	0.000068	0.000203	
* Potassium, Total	3/2/22 11:00	3/3/22 12:53		1.015	1.98	mg/L	0.169505	0.5075	

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.

# Certificate Of Analysis

**Description:** Gorgas Ash Pond - MW-12

**Location Code:** WMWGORAP  
**Collected:** 2/28/22 14:40  
**Customer ID:**  
**Submittal Date:** 3/1/22 15:26

**Laboratory ID Number:** BC04381

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
* Selenium, Total	3/2/22 11:00	3/3/22 12:53		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Total	3/2/22 11:00	3/3/22 12:53		1.015	Not Detected	mg/L	0.000068	0.000203	U
<b>Analytical Method: EPA 200.8</b>		<b>Analyst: DLJ</b>							
* Antimony, Dissolved	3/2/22 10:16	3/3/22 11:51		1.015	0.00229	mg/L	0.000508	0.001015	
* Aluminum, Dissolved	3/2/22 10:16	3/3/22 11:51		1.015	Not Detected	mg/L	0.004060	0.01015	U
* Arsenic, Dissolved	3/2/22 10:16	3/3/22 11:51		1.015	0.00660	mg/L	0.000068	0.000203	
* Barium, Dissolved	3/2/22 10:16	3/3/22 11:51		1.015	0.193	mg/L	0.000102	0.000203	
* Beryllium, Dissolved	3/2/22 10:16	3/3/22 11:51		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Dissolved	3/2/22 10:16	3/3/22 11:51		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Dissolved	3/2/22 10:16	3/3/22 11:51		1.015	Not Detected	mg/L	0.000203	0.001015	U
* Cobalt, Dissolved	3/2/22 10:16	3/3/22 11:51		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Lead, Dissolved	3/2/22 10:16	3/3/22 11:51		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Dissolved	3/2/22 10:16	3/3/22 11:51		1.015	0.0392	mg/L	0.000068	0.000203	
* Molybdenum, Dissolved	3/2/22 10:16	3/3/22 11:51		1.015	0.0114	mg/L	0.000068	0.000203	
* Potassium, Dissolved	3/2/22 10:16	3/3/22 11:51		1.015	1.54	mg/L	0.169505	0.5075	
* Selenium, Dissolved	3/2/22 10:16	3/3/22 11:51		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Dissolved	3/2/22 10:16	3/3/22 11:51		1.015	Not Detected	mg/L	0.000068	0.000203	U
<b>Analytical Method: EPA 245.1</b>		<b>Analyst: ABB</b>							
* Mercury, Total by CVAA	3/2/22 16:00	3/2/22 20:15		1	Not Detected	mg/L	0.0003	0.0005	U
<b>Analytical Method: EPA 353.2</b>		<b>Analyst: ELH</b>							
* Nitrogen, Nitrate/Nitrite	3/9/22 09:00	3/9/22 09:00		1	Not Detected	mg/L as N	0.20	0.3	U
<b>Analytical Method: SM 2320 B</b>		<b>Analyst: ALH</b>							
Alkalinity, Total as CaCO3	3/8/22 13:30	3/8/22 15:32		1	188	mg/L		0.1	
<b>Analytical Method: SM 2540C</b>		<b>Analyst: CNJ</b>							
* Solids, Dissolved	3/3/22 11:15	3/4/22 13:09		1	195	mg/L		25	
<b>Analytical Method: SM 4500CO2 D</b>		<b>Analyst: ALH</b>							
Bicarbonate Alkalinity, (calc.)	3/8/22 13:30	3/8/22 15:32		1	186	mg/L			
Carbonate Alkalinity, (calc.)	3/8/22 13:30	3/8/22 15:32		1	1.83	mg/L			
<b>Analytical Method: SM 5310 B</b>		<b>Analyst: ELH</b>							
* Total Organic Carbon	3/9/22 13:31	3/9/22 13:31		1	1.23	mg/L	1.00	2	J

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.

# Certificate Of Analysis

**Description:** Gorgas Ash Pond - MW-12

**Location Code:** WMWGORAP

**Collected:** 2/28/22 14:40

**Customer ID:**

**Submittal Date:** 3/1/22 15:26

**Laboratory ID Number:** BC04381

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
<b>Analytical Method: SM4500Cl E</b>		<b>Analyst: CES</b>							
* Chloride	3/2/22 13:21	3/2/22 13:21		1	3.34	mg/L	0.50	1	
<b>Analytical Method: SM4500F G 2017</b>		<b>Analyst: CES</b>							
* Fluoride	3/3/22 12:02	3/3/22 12:02		1	0.120	mg/L	0.06	0.1	
<b>Analytical Method: SM4500SO4 E 2011</b>		<b>Analyst: CES</b>							
* Sulfate	3/2/22 11:30	3/2/22 11:30		1	17.9	mg/L	0.50	1	
<b>Analytical Method: Field Measurements</b>		<b>Analyst: TJD</b>							
Conductivity	2/28/22 14:37	2/28/22 14:37			342.75	uS/cm			FA
pH	2/28/22 14:37	2/28/22 14:37			8.12	SU			FA
Temperature	2/28/22 14:37	2/28/22 14:37			18.79	C			FA
Turbidity	2/28/22 14:37	2/28/22 14:37			1.45	NTU			FA

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.



# Batch QC Summary

**Customer Account:** WMWGORAP

**Sample Date:** 2/28/22 14:40

**Customer ID:**

**Delivery Date:** 3/1/22 15:26

**Description:** Gorgas Ash Pond - MW-12

**Laboratory ID Number:** BC04381

Sample	Analysis	Units	MB	MB		MS	MSD	Standard		Rec		Prec	Limit
				Limit	Spike			Standard	Limit	Rec	Limit		
BC04386	Aluminum, Dissolved	mg/L	0.0000136	0.010	0.100	0.0950	0.0967	0.0982	0.0850 to 0.115	95.0	70.0 to 130	1.77	20.0
BC04385	Aluminum, Total	mg/L	0.000438	0.010	0.100	0.104	0.103	0.0988	0.0850 to 0.115	93.5	70.0 to 130	0.966	20.0
BC04386	Antimony, Dissolved	mg/L	0.000661	0.00100	0.100	0.0897	0.0908	0.0875	0.0850 to 0.115	89.7	70.0 to 130	1.22	20.0
BC04385	Antimony, Total	mg/L	0.000579	0.00100	0.100	0.0935	0.0963	0.0911	0.0850 to 0.115	93.5	70.0 to 130	2.95	20.0
BC04386	Arsenic, Dissolved	mg/L	-0.0000123	0.000176	0.100	0.0970	0.0976	0.101	0.0850 to 0.115	96.6	70.0 to 130	0.617	20.0
BC04385	Arsenic, Total	mg/L	-0.0000059	0.000176	0.100	0.100	0.0989	0.0983	0.0850 to 0.115	97.6	70.0 to 130	1.11	20.0
BC04386	Barium, Dissolved	mg/L	0.0000116	0.000200	0.100	0.154	0.159	0.0920	0.0850 to 0.115	87.8	70.0 to 130	3.19	20.0
BC04385	Barium, Total	mg/L	0.0000125	0.000200	0.100	0.198	0.199	0.0932	0.0850 to 0.115	91.0	70.0 to 130	0.504	20.0
BC04386	Beryllium, Dissolved	mg/L	0.0000168	0.000880	0.100	0.0970	0.0968	0.101	0.0850 to 0.115	97.0	70.0 to 130	0.206	20.0
BC04385	Beryllium, Total	mg/L	0.0000346	0.000880	0.100	0.102	0.0995	0.0989	0.0850 to 0.115	102	70.0 to 130	2.48	20.0
BC04386	Boron, Dissolved	mg/L	-0.000083	0.0650	1.00	1.03	1.05	0.991	0.850 to 1.15	99.5	70.0 to 130	1.92	20.0
BC04384	Boron, Total	mg/L	-0.000129	0.0650	1.00	1.05	1.05	0.993	0.850 to 1.15	99.2	70.0 to 130	0.00	20.0
BC04386	Cadmium, Dissolved	mg/L	0.0000000	0.000147	0.100	0.0921	0.0938	0.0976	0.0850 to 0.115	92.1	70.0 to 130	1.83	20.0
BC04385	Cadmium, Total	mg/L	0.0000190	0.000147	0.100	0.0977	0.0981	0.0979	0.0850 to 0.115	97.7	70.0 to 130	0.409	20.0
BC04386	Calcium, Dissolved	mg/L	-0.0113	0.152	5.00	102	99.4	4.95	4.25 to 5.75	106	70.0 to 130	2.58	20.0
BC04384	Calcium, Total	mg/L	-0.00402	0.152	5.00	5.90	5.94	4.80	4.25 to 5.75	95.2	70.0 to 130	0.676	20.0
BC04386	Chromium, Dissolved	mg/L	-0.0000164	0.000440	0.100	0.0925	0.0946	0.0978	0.0850 to 0.115	92.5	70.0 to 130	2.24	20.0
BC04385	Chromium, Total	mg/L	0.0000261	0.000440	0.100	0.0977	0.0949	0.100	0.0850 to 0.115	97.4	70.0 to 130	2.91	20.0
BC04386	Cobalt, Dissolved	mg/L	0.0000016	0.000147	0.100	0.0947	0.0962	0.0998	0.0850 to 0.115	94.7	70.0 to 130	1.57	20.0
BC04385	Cobalt, Total	mg/L	0.0000209	0.000147	0.100	0.0985	0.0951	0.103	0.0850 to 0.115	98.4	70.0 to 130	3.51	20.0
BC04386	Iron, Dissolved	mg/L	0.000121	0.0176	0.2	1.21	1.21	0.196	0.170 to 0.230	90.0	70.0 to 130	0.00	20.0
BC04384	Iron, Total	mg/L	-0.000211	0.0176	0.2	0.391	0.411	0.195	0.170 to 0.230	112	70.0 to 130	4.99	20.0
BC04386	Lead, Dissolved	mg/L	0.0000116	0.000147	0.100	0.0980	0.0984	0.0961	0.0850 to 0.115	98.0	70.0 to 130	0.407	20.0

**Comments:** The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.

# Batch QC Summary

**Customer Account:** WMWGORAP  
**Sample Date:** 2/28/22 14:40  
**Customer ID:**  
**Delivery Date:** 3/1/22 15:26

**Description:** Gorgas Ash Pond - MW-12

**Laboratory ID Number:** BC04381

Sample	Analysis	Units	MB	MB				Standard		Rec		Prec	Limit
				Limit	Spike	MS	MSD	Standard	Limit	Rec	Limit		
BC04385	Lead, Total	mg/L	0.0000534	0.000147	0.100	0.0955	0.0964	0.0994	0.0850 to 0.115	95.5	70.0 to 130	0.938	20.0
BC04386	Lithium, Dissolved	mg/L	-0.000144	0.0154	0.200	0.267	0.263	0.198	0.170 to 0.230	101	70.0 to 130	1.51	20.0
BC04384	Lithium, Total	mg/L	-0.000195	0.0154	0.200	0.230	0.229	0.206	0.170 to 0.230	99.6	70.0 to 130	0.436	20.0
BC04386	Magnesium, Dissolved	mg/L	-0.00653	0.0462	5.00	43.8	42.8	5.16	4.25 to 5.75	118	70.0 to 130	2.31	20.0
BC04384	Magnesium, Total	mg/L	-0.00896	0.0462	5.00	5.38	5.40	5.17	4.25 to 5.75	101	70.0 to 130	0.371	20.0
BC04386	Manganese, Dissolved	mg/L	0.0000034	0.0002	0.100	0.216	0.216	0.0988	0.0850 to 0.115	96.0	70.0 to 130	0.00	20.0
BC04385	Manganese, Total	mg/L	0.0000276	0.0002	0.100	0.169	0.164	0.102	0.0850 to 0.115	98.2	70.0 to 130	3.00	20.0
BC04385	Mercury, Total by CVAA	mg/L	0.00015	0.000500	0.004	0.00404	0.00402	0.00394	0.00340 to 0.00460	101	70.0 to 130	0.496	20.0
BC04386	Molybdenum, Dissolved	mg/L	0.0000047	0.0002	0.100	0.0997	0.0985	0.0975	0.0850 to 0.115	97.8	70.0 to 130	1.21	20.0
BC04385	Molybdenum, Total	mg/L	0.0000189	0.0002	0.100	0.0975	0.0979	0.0970	0.0850 to 0.115	97.4	70.0 to 130	0.409	20.0
BC04386	Potassium, Dissolved	mg/L	0.0280	0.367	10.0	15.8	16.1	10.0	8.50 to 11.5	95.2	70.0 to 130	1.88	20.0
BC04385	Potassium, Total	mg/L	0.0237	0.367	10.0	11.0	10.8	9.96	8.50 to 11.5	97.6	70.0 to 130	1.83	20.0
BC04386	Selenium, Dissolved	mg/L	0.0000768	0.00100	0.100	0.101	0.100	0.104	0.0850 to 0.115	101	70.0 to 130	0.995	20.0
BC04385	Selenium, Total	mg/L	0.0000741	0.00100	0.100	0.0990	0.0993	0.101	0.0850 to 0.115	99.0	70.0 to 130	0.303	20.0
BC04386	Silicon, Dissolved	mg/L	-0.000895	0.0440	1.00	12.7	12.8	0.998	0.850 to 1.15	90.0	70.0 to 130	0.784	20.0
BC04384	Silicon, Total	mg/L	0.000143	0.0440	1.00	5.98	6.04	1.00	0.850 to 1.15	132	70.0 to 130	0.998	20.0
BC04386	Sodium, Dissolved	mg/L	0.000319	0.0660	5.00	101	98.7	4.98	4.25 to 5.75	130	70.0 to 130	2.30	20.0
BC04384	Sodium, Total	mg/L	0.000667	0.0660	5.00	130	129	5.18	4.25 to 5.75	40.0	70.0 to 130	0.772	20.0
BC04386	Thallium, Dissolved	mg/L	0.0000090	0.000147	0.100	0.0994	0.0979	0.0970	0.0850 to 0.115	99.4	70.0 to 130	1.52	20.0
BC04385	Thallium, Total	mg/L	0.0000465	0.000147	0.100	0.0963	0.0957	0.0992	0.0850 to 0.115	96.3	70.0 to 130	0.625	20.0
BC04386	Total Organic Carbon	mg/L	0.220	1.00	10.0	14.5	14.6	10.1		102	80.0 to 120	0.687	20.0

**Comments:** The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.

## Batch QC Summary

**Customer Account:** WMWGORAP

**Sample Date:** 2/28/22 14:40

**Customer ID:**

**Delivery Date:** 3/1/22 15:26

**Description:** Gorgas Ash Pond - MW-12

**Laboratory ID Number:** BC04381

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BC04386	Alkalinity, Total as CaCO3	mg/L					260	50.7	45.0 to 55.0			3.77	10.0
BC04385	Chloride	mg/L	-0.0588	1.00	10.0	15.9	5.15	10.3	9.00 to 11.0	108	80.0 to 120	1.37	20.0
BC04385	Fluoride	mg/L	0.0273	0.125	2.50	2.70	0.131	2.59	2.25 to 2.75	102	80.0 to 120	8.76	20.0
BC04385	Nitrogen, Nitrate/Nitrite	mg/L as N	-0.01	0.200	2.00	2.16	0.004	1.87	1.80 to 2.20	108	90.0 to 110	0.00	15.0
BC04385	Solids, Dissolved	mg/L	1.00	25.0			242	50.0	40.0 to 60.0			0.823	10.0
BC04384	Sulfate	mg/L	-0.0624	2.0	20.0	23.2	5.86	18.4	18.0 to 22.0	86.6	80.0 to 120	0.341	20.0

**Comments:** The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.

# Certificate Of Analysis

**Description:** Gorgas Ash Pond - MW-09R

**Location Code:** WMWGORAP  
**Collected:** 3/1/22 12:04  
**Customer ID:**  
**Submittal Date:** 3/1/22 15:26

**Laboratory ID Number:** BC04382

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
<b>Analytical Method: EPA 200.7</b>		<b>Analyst: RDA</b>			<b>Preparation Method: EPA 1638</b>				
* Boron, Total	3/7/22 12:00	3/8/22 10:17		1.015	0.106	mg/L	0.030000	0.1015	
* Calcium, Total	3/7/22 12:00	3/8/22 13:05		10.15	54.0	mg/L	0.70035	4.06	
* Iron, Total	3/7/22 12:00	3/8/22 10:17		1.015	1.58	mg/L	0.008120	0.0406	
* Lithium, Total	3/7/22 12:00	3/8/22 10:17		1.015	0.0361	mg/L	0.007105	0.01999956	
* Magnesium, Total	3/7/22 12:00	3/8/22 10:17		1.015	19.7	mg/L	0.021315	0.406	
Silica, Total (calc.)	3/7/22 12:00	3/8/22 10:17		1	31.0	mg/L			
Silicon, Total	3/7/22 12:00	3/8/22 10:17		1.015	14.5	mg/L	0.02030	0.25375	
* Sodium, Total	3/7/22 12:00	3/8/22 13:05		10.15	60.0	mg/L	0.3045	4.06	
<b>Analytical Method: EPA 200.7</b>		<b>Analyst: RDA</b>			<b>Preparation Method: EPA 1638</b>				
* Boron, Dissolved	3/7/22 12:00	3/8/22 11:27		1.015	0.106	mg/L	0.030000	0.1015	
* Calcium, Dissolved	3/7/22 12:00	3/8/22 12:54		10.15	49.3	mg/L	0.70035	4.06	
* Iron, Dissolved	3/7/22 12:00	3/8/22 11:27		1.015	1.53	mg/L	0.008120	0.0406	
* Lithium, Dissolved	3/7/22 12:00	3/8/22 11:27		1.015	0.0353	mg/L	0.007105	0.01999956	
* Magnesium, Dissolved	3/7/22 12:00	3/8/22 11:27		1.015	19.5	mg/L	0.021315	0.406	
Silica, Dissolved (calc.)	3/7/22 12:00	3/8/22 11:27		1	30.8	mg/L			
Silicon, Dissolved	3/7/22 12:00	3/8/22 11:27		1.015	14.4	mg/L	0.02030	0.25375	
* Sodium, Dissolved	3/7/22 12:00	3/8/22 12:54		10.15	49.2	mg/L	0.3045	4.06	
<b>Analytical Method: EPA 200.8</b>		<b>Analyst: DLJ</b>			<b>Preparation Method: EPA 1638</b>				
* Antimony, Total	3/2/22 11:00	3/3/22 12:57		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Aluminum, Total	3/2/22 11:00	3/3/22 12:57		1.015	0.0137	mg/L	0.004060	0.01015	
* Arsenic, Total	3/2/22 11:00	3/3/22 12:57		1.015	0.00529	mg/L	0.000068	0.000203	
* Barium, Total	3/2/22 11:00	3/3/22 12:57		1.015	0.0425	mg/L	0.000102	0.000203	
* Beryllium, Total	3/2/22 11:00	3/3/22 12:57		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Total	3/2/22 11:00	3/3/22 12:57		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Total	3/2/22 11:00	3/3/22 12:57		1.015	0.000269	mg/L	0.000203	0.001015	J
* Cobalt, Total	3/2/22 11:00	3/3/22 12:57		1.015	0.0000926	mg/L	0.000068	0.000203	J
* Lead, Total	3/2/22 11:00	3/3/22 12:57		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Total	3/2/22 11:00	3/3/22 12:57		1.015	0.191	mg/L	0.000068	0.000203	
* Molybdenum, Total	3/2/22 11:00	3/3/22 12:57		1.015	0.00313	mg/L	0.000068	0.000203	
* Potassium, Total	3/2/22 11:00	3/3/22 12:57		1.015	5.76	mg/L	0.169505	0.5075	

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.

# Certificate Of Analysis

**Description:** Gorgas Ash Pond - MW-09R

**Location Code:** WMWGORAP  
**Collected:** 3/1/22 12:04  
**Customer ID:**  
**Submittal Date:** 3/1/22 15:26

**Laboratory ID Number:** BC04382

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
* Selenium, Total	3/2/22 11:00	3/3/22 12:57		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Total	3/2/22 11:00	3/3/22 12:57		1.015	Not Detected	mg/L	0.000068	0.000203	U
<b>Analytical Method: EPA 200.8</b>		<b>Analyst: DLJ</b>							
* Antimony, Dissolved	3/2/22 10:16	3/3/22 11:55		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Aluminum, Dissolved	3/2/22 10:16	3/3/22 11:55		1.015	Not Detected	mg/L	0.004060	0.01015	U
* Arsenic, Dissolved	3/2/22 10:16	3/3/22 11:55		1.015	0.00550	mg/L	0.000068	0.000203	
* Barium, Dissolved	3/2/22 10:16	3/3/22 11:55		1.015	0.0430	mg/L	0.000102	0.000203	
* Beryllium, Dissolved	3/2/22 10:16	3/3/22 11:55		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Dissolved	3/2/22 10:16	3/3/22 11:55		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Dissolved	3/2/22 10:16	3/3/22 11:55		1.015	Not Detected	mg/L	0.000203	0.001015	U
* Cobalt, Dissolved	3/2/22 10:16	3/3/22 11:55		1.015	0.0000806	mg/L	0.000068	0.000203	J
* Lead, Dissolved	3/2/22 10:16	3/3/22 11:55		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Dissolved	3/2/22 10:16	3/3/22 11:55		1.015	0.186	mg/L	0.000068	0.000203	
* Molybdenum, Dissolved	3/2/22 10:16	3/3/22 11:55		1.015	0.00301	mg/L	0.000068	0.000203	
* Potassium, Dissolved	3/2/22 10:16	3/3/22 11:55		1.015	5.55	mg/L	0.169505	0.5075	
* Selenium, Dissolved	3/2/22 10:16	3/3/22 11:55		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Dissolved	3/2/22 10:16	3/3/22 11:55		1.015	Not Detected	mg/L	0.000068	0.000203	U
<b>Analytical Method: EPA 245.1</b>		<b>Analyst: ABB</b>							
* Mercury, Total by CVAA	3/2/22 16:00	3/2/22 20:19		1	Not Detected	mg/L	0.0003	0.0005	U
<b>Analytical Method: EPA 353.2</b>		<b>Analyst: ELH</b>							
* Nitrogen, Nitrate/Nitrite	3/9/22 09:01	3/9/22 09:01		1	Not Detected	mg/L as N	0.20	0.3	U
<b>Analytical Method: SM 2320 B</b>		<b>Analyst: ALH</b>							
Alkalinity, Total as CaCO3	3/8/22 13:30	3/8/22 15:32		1	134	mg/L		0.1	
<b>Analytical Method: SM 2540C</b>		<b>Analyst: CNJ</b>							
* Solids, Dissolved	3/3/22 11:15	3/4/22 13:09		1	398	mg/L		25	
<b>Analytical Method: SM 4500CO2 D</b>		<b>Analyst: ALH</b>							
Bicarbonate Alkalinity, (calc.)	3/8/22 13:30	3/8/22 15:32		1	134	mg/L			
Carbonate Alkalinity, (calc.)	3/8/22 13:30	3/8/22 15:32		1	0.09	mg/L			
<b>Analytical Method: SM 5310 B</b>		<b>Analyst: ELH</b>							
* Total Organic Carbon	3/9/22 13:46	3/9/22 13:46		1	1.99	mg/L	1.00	2	J

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.

# Certificate Of Analysis

**Description:** Gorgas Ash Pond - MW-09R

**Location Code:** WMWGORAP

**Collected:** 3/1/22 12:04

**Customer ID:**

**Submittal Date:** 3/1/22 15:26

**Laboratory ID Number:** BC04382

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
<b>Analytical Method: SM4500Cl E</b>		<b>Analyst: CES</b>							
* Chloride	3/2/22 13:38	3/2/22 13:38		4	65.9	mg/L	2.00	4	
<b>Analytical Method: SM4500F G 2017</b>		<b>Analyst: CES</b>							
* Fluoride	3/3/22 12:03	3/3/22 12:03		1	0.218	mg/L	0.06	0.1	
<b>Analytical Method: SM4500SO4 E 2011</b>		<b>Analyst: CES</b>							
* Sulfate	3/2/22 11:38	3/2/22 11:38		5	104	mg/L	2.50	5	
<b>Analytical Method: Field Measurements</b>		<b>Analyst: TJD</b>							
Conductivity	3/1/22 12:00	3/1/22 12:00			717.38	uS/cm			FA
pH	3/1/22 12:00	3/1/22 12:00			6.40	SU			FA
Temperature	3/1/22 12:00	3/1/22 12:00			19.28	C			FA
Turbidity	3/1/22 12:00	3/1/22 12:00			1.76	NTU			FA

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.

# Batch QC Summary

**Customer Account:** WMWGORAP

**Sample Date:** 3/1/22 12:04

**Customer ID:**

**Delivery Date:** 3/1/22 15:26

**Description:** Gorgas Ash Pond - MW-09R

**Laboratory ID Number:** BC04382

Sample	Analysis	Units	MB	MB		MS	MSD	Standard		Rec		Prec	Limit
				Limit	Spike			Standard	Limit	Rec	Limit		
BC04386	Aluminum, Dissolved	mg/L	0.0000136	0.010	0.100	0.0950	0.0967	0.0982	0.0850 to 0.115	95.0	70.0 to 130	1.77	20.0
BC04385	Aluminum, Total	mg/L	0.000438	0.010	0.100	0.104	0.103	0.0988	0.0850 to 0.115	93.5	70.0 to 130	0.966	20.0
BC04386	Antimony, Dissolved	mg/L	0.000661	0.00100	0.100	0.0897	0.0908	0.0875	0.0850 to 0.115	89.7	70.0 to 130	1.22	20.0
BC04385	Antimony, Total	mg/L	0.000579	0.00100	0.100	0.0935	0.0963	0.0911	0.0850 to 0.115	93.5	70.0 to 130	2.95	20.0
BC04386	Arsenic, Dissolved	mg/L	-0.0000123	0.000176	0.100	0.0970	0.0976	0.101	0.0850 to 0.115	96.6	70.0 to 130	0.617	20.0
BC04385	Arsenic, Total	mg/L	-0.0000059	0.000176	0.100	0.100	0.0989	0.0983	0.0850 to 0.115	97.6	70.0 to 130	1.11	20.0
BC04386	Barium, Dissolved	mg/L	0.0000116	0.000200	0.100	0.154	0.159	0.0920	0.0850 to 0.115	87.8	70.0 to 130	3.19	20.0
BC04385	Barium, Total	mg/L	0.0000125	0.000200	0.100	0.198	0.199	0.0932	0.0850 to 0.115	91.0	70.0 to 130	0.504	20.0
BC04386	Beryllium, Dissolved	mg/L	0.0000168	0.000880	0.100	0.0970	0.0968	0.101	0.0850 to 0.115	97.0	70.0 to 130	0.206	20.0
BC04385	Beryllium, Total	mg/L	0.0000346	0.000880	0.100	0.102	0.0995	0.0989	0.0850 to 0.115	102	70.0 to 130	2.48	20.0
BC04386	Boron, Dissolved	mg/L	-0.000083	0.0650	1.00	1.03	1.05	0.991	0.850 to 1.15	99.5	70.0 to 130	1.92	20.0
BC04384	Boron, Total	mg/L	-0.000129	0.0650	1.00	1.05	1.05	0.993	0.850 to 1.15	99.2	70.0 to 130	0.00	20.0
BC04386	Cadmium, Dissolved	mg/L	0.0000000	0.000147	0.100	0.0921	0.0938	0.0976	0.0850 to 0.115	92.1	70.0 to 130	1.83	20.0
BC04385	Cadmium, Total	mg/L	0.0000190	0.000147	0.100	0.0977	0.0981	0.0979	0.0850 to 0.115	97.7	70.0 to 130	0.409	20.0
BC04386	Calcium, Dissolved	mg/L	-0.0113	0.152	5.00	102	99.4	4.95	4.25 to 5.75	106	70.0 to 130	2.58	20.0
BC04384	Calcium, Total	mg/L	-0.00402	0.152	5.00	5.90	5.94	4.80	4.25 to 5.75	95.2	70.0 to 130	0.676	20.0
BC04386	Chromium, Dissolved	mg/L	-0.0000164	0.000440	0.100	0.0925	0.0946	0.0978	0.0850 to 0.115	92.5	70.0 to 130	2.24	20.0
BC04385	Chromium, Total	mg/L	0.0000261	0.000440	0.100	0.0977	0.0949	0.100	0.0850 to 0.115	97.4	70.0 to 130	2.91	20.0
BC04386	Cobalt, Dissolved	mg/L	0.0000016	0.000147	0.100	0.0947	0.0962	0.0998	0.0850 to 0.115	94.7	70.0 to 130	1.57	20.0
BC04385	Cobalt, Total	mg/L	0.0000209	0.000147	0.100	0.0985	0.0951	0.103	0.0850 to 0.115	98.4	70.0 to 130	3.51	20.0
BC04386	Iron, Dissolved	mg/L	0.000121	0.0176	0.2	1.21	1.21	0.196	0.170 to 0.230	90.0	70.0 to 130	0.00	20.0
BC04384	Iron, Total	mg/L	-0.000211	0.0176	0.2	0.391	0.411	0.195	0.170 to 0.230	112	70.0 to 130	4.99	20.0
BC04386	Lead, Dissolved	mg/L	0.0000116	0.000147	0.100	0.0980	0.0984	0.0961	0.0850 to 0.115	98.0	70.0 to 130	0.407	20.0

**Comments:** The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.

# Batch QC Summary

**Customer Account:** WMWGORAP

**Sample Date:** 3/1/22 12:04

**Customer ID:**

**Delivery Date:** 3/1/22 15:26

**Description:** Gorgas Ash Pond - MW-09R

**Laboratory ID Number:** BC04382

Sample	Analysis	Units	MB	MB				Standard		Rec		Prec	Limit
				Limit	Spike	MS	MSD	Standard	Limit	Rec	Limit		
BC04385	Lead, Total	mg/L	0.0000534	0.000147	0.100	0.0955	0.0964	0.0994	0.0850 to 0.115	95.5	70.0 to 130	0.938	20.0
BC04386	Lithium, Dissolved	mg/L	-0.000144	0.0154	0.200	0.267	0.263	0.198	0.170 to 0.230	101	70.0 to 130	1.51	20.0
BC04384	Lithium, Total	mg/L	-0.000195	0.0154	0.200	0.230	0.229	0.206	0.170 to 0.230	99.6	70.0 to 130	0.436	20.0
BC04386	Magnesium, Dissolved	mg/L	-0.00653	0.0462	5.00	43.8	42.8	5.16	4.25 to 5.75	118	70.0 to 130	2.31	20.0
BC04384	Magnesium, Total	mg/L	-0.00896	0.0462	5.00	5.38	5.40	5.17	4.25 to 5.75	101	70.0 to 130	0.371	20.0
BC04386	Manganese, Dissolved	mg/L	0.0000034	0.0002	0.100	0.216	0.216	0.0988	0.0850 to 0.115	96.0	70.0 to 130	0.00	20.0
BC04385	Manganese, Total	mg/L	0.0000276	0.0002	0.100	0.169	0.164	0.102	0.0850 to 0.115	98.2	70.0 to 130	3.00	20.0
BC04385	Mercury, Total by CVAA	mg/L	0.00015	0.000500	0.004	0.00404	0.00402	0.00394	0.00340 to 0.00460	101	70.0 to 130	0.496	20.0
BC04386	Molybdenum, Dissolved	mg/L	0.0000047	0.0002	0.100	0.0997	0.0985	0.0975	0.0850 to 0.115	97.8	70.0 to 130	1.21	20.0
BC04385	Molybdenum, Total	mg/L	0.0000189	0.0002	0.100	0.0975	0.0979	0.0970	0.0850 to 0.115	97.4	70.0 to 130	0.409	20.0
BC04386	Potassium, Dissolved	mg/L	0.0280	0.367	10.0	15.8	16.1	10.0	8.50 to 11.5	95.2	70.0 to 130	1.88	20.0
BC04385	Potassium, Total	mg/L	0.0237	0.367	10.0	11.0	10.8	9.96	8.50 to 11.5	97.6	70.0 to 130	1.83	20.0
BC04386	Selenium, Dissolved	mg/L	0.0000768	0.00100	0.100	0.101	0.100	0.104	0.0850 to 0.115	101	70.0 to 130	0.995	20.0
BC04385	Selenium, Total	mg/L	0.0000741	0.00100	0.100	0.0990	0.0993	0.101	0.0850 to 0.115	99.0	70.0 to 130	0.303	20.0
BC04386	Silicon, Dissolved	mg/L	-0.000895	0.0440	1.00	12.7	12.8	0.998	0.850 to 1.15	90.0	70.0 to 130	0.784	20.0
BC04384	Silicon, Total	mg/L	0.000143	0.0440	1.00	5.98	6.04	1.00	0.850 to 1.15	132	70.0 to 130	0.998	20.0
BC04386	Sodium, Dissolved	mg/L	0.000319	0.0660	5.00	101	98.7	4.98	4.25 to 5.75	130	70.0 to 130	2.30	20.0
BC04384	Sodium, Total	mg/L	0.000667	0.0660	5.00	130	129	5.18	4.25 to 5.75	40.0	70.0 to 130	0.772	20.0
BC04386	Thallium, Dissolved	mg/L	0.0000090	0.000147	0.100	0.0994	0.0979	0.0970	0.0850 to 0.115	99.4	70.0 to 130	1.52	20.0
BC04385	Thallium, Total	mg/L	0.0000465	0.000147	0.100	0.0963	0.0957	0.0992	0.0850 to 0.115	96.3	70.0 to 130	0.625	20.0
BC04386	Total Organic Carbon	mg/L	0.220	1.00	10.0	14.5	14.6	10.1		102	80.0 to 120	0.687	20.0

**Comments:** The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.



## Batch QC Summary

**Customer Account:** WMWGORAP

**Sample Date:** 3/1/22 12:04

**Customer ID:**

**Delivery Date:** 3/1/22 15:26

**Description:** Gorgas Ash Pond - MW-09R

**Laboratory ID Number:** BC04382

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BC04386	Alkalinity, Total as CaCO3	mg/L					260	50.7	45.0 to 55.0			3.77	10.0
BC04385	Chloride	mg/L	-0.0588	1.00	10.0	15.9	5.15	10.3	9.00 to 11.0	108	80.0 to 120	1.37	20.0
BC04385	Fluoride	mg/L	0.0273	0.125	2.50	2.70	0.131	2.59	2.25 to 2.75	102	80.0 to 120	8.76	20.0
BC04385	Nitrogen, Nitrate/Nitrite	mg/L as N	-0.01	0.200	2.00	2.16	0.004	1.87	1.80 to 2.20	108	90.0 to 110	0.00	15.0
BC04385	Solids, Dissolved	mg/L	1.00	25.0			242	50.0	40.0 to 60.0			0.823	10.0
BC04384	Sulfate	mg/L	-0.0624	2.0	20.0	23.2	5.86	18.4	18.0 to 22.0	86.6	80.0 to 120	0.341	20.0

**Comments:** The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.

# Certificate Of Analysis

**Description:** Gorgas Ash Pond Equipment Blank-1

**Location Code:** WMWGORAPEB  
**Collected:** 3/1/22 12:30  
**Customer ID:**  
**Submittal Date:** 3/1/22 15:26

**Laboratory ID Number:** BC04383

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
<b>Analytical Method: EPA 200.7</b>		<b>Analyst: RDA</b>			<b>Preparation Method: EPA 1638</b>				
* Boron, Total	3/7/22 12:00	3/8/22 10:19		1.015	Not Detected	mg/L	0.030000	0.1015	U
* Calcium, Total	3/7/22 12:00	3/8/22 10:19		1.015	Not Detected	mg/L	0.070035	0.406	U
* Iron, Total	3/7/22 12:00	3/8/22 10:19		1.015	Not Detected	mg/L	0.008120	0.0406	U
* Lithium, Total	3/7/22 12:00	3/8/22 10:19		1.015	Not Detected	mg/L	0.007105	0.01999956	U
* Magnesium, Total	3/7/22 12:00	3/8/22 10:19		1.015	Not Detected	mg/L	0.021315	0.406	U
Silica, Total (calc.)	3/7/22 12:00	3/8/22 10:19		1	Not Detected	mg/L			
Silicon, Total	3/7/22 12:00	3/8/22 10:19		1.015	Not Detected	mg/L	0.02030	0.25375	U
* Sodium, Total	3/7/22 12:00	3/8/22 10:19		1.015	Not Detected	mg/L	0.03045	0.406	U
<b>Analytical Method: EPA 200.8</b>		<b>Analyst: DLJ</b>			<b>Preparation Method: EPA 1638</b>				
* Antimony, Total	3/2/22 11:00	3/3/22 13:00		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Aluminum, Total	3/2/22 11:00	3/3/22 13:00		1.015	Not Detected	mg/L	0.004060	0.01015	U
* Arsenic, Total	3/2/22 11:00	3/3/22 13:00		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Barium, Total	3/2/22 11:00	3/3/22 13:00		1.015	Not Detected	mg/L	0.000102	0.000203	U
* Beryllium, Total	3/2/22 11:00	3/3/22 13:00		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Total	3/2/22 11:00	3/3/22 13:00		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Total	3/2/22 11:00	3/3/22 13:00		1.015	0.000212	mg/L	0.000203	0.001015	J
* Cobalt, Total	3/2/22 11:00	3/3/22 13:00		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Lead, Total	3/2/22 11:00	3/3/22 13:00		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Total	3/2/22 11:00	3/3/22 13:00		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Molybdenum, Total	3/2/22 11:00	3/3/22 13:00		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Potassium, Total	3/2/22 11:00	3/3/22 13:00		1.015	Not Detected	mg/L	0.169505	0.5075	U
* Selenium, Total	3/2/22 11:00	3/3/22 13:00		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Total	3/2/22 11:00	3/3/22 13:00		1.015	Not Detected	mg/L	0.000068	0.000203	U
<b>Analytical Method: EPA 245.1</b>		<b>Analyst: ABB</b>							
* Mercury, Total by CVAA	3/2/22 16:00	3/2/22 20:22		1	Not Detected	mg/L	0.0003	0.0005	U
<b>Analytical Method: EPA 353.2</b>		<b>Analyst: ELH</b>							
* Nitrogen, Nitrate/Nitrite	3/9/22 09:03	3/9/22 09:03		1	Not Detected	mg/L as N	0.20	0.3	U
<b>Analytical Method: SM 2540C</b>		<b>Analyst: CNJ</b>							
* Solids, Dissolved	3/3/22 11:15	3/4/22 13:09		1	Not Detected	mg/L		25	U

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

**Comments:**

# Certificate Of Analysis

**Description:** Gorgas Ash Pond Equipment Blank-1

**Location Code:** WMWGORAPEB

**Collected:** 3/1/22 12:30

**Customer ID:**

**Submittal Date:** 3/1/22 15:26

**Laboratory ID Number:** BC04383

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
<b>Analytical Method: SM 5310 B</b>		<b>Analyst: ELH</b>							
* Total Organic Carbon	3/9/22 14:02	3/9/22 14:02		1	Not Detected	mg/L	1.00	2	U
<b>Analytical Method: SM4500Cl E</b>		<b>Analyst: CES</b>							
* Chloride	3/2/22 13:28	3/2/22 13:28		1	Not Detected	mg/L	0.50	1	U
<b>Analytical Method: SM4500F G 2017</b>		<b>Analyst: CES</b>							
* Fluoride	3/3/22 12:04	3/3/22 12:04		1	Not Detected	mg/L	0.06	0.1	U
<b>Analytical Method: SM4500SO4 E 2011</b>		<b>Analyst: CES</b>							
* Sulfate	3/2/22 11:31	3/2/22 11:31		1	Not Detected	mg/L	0.50	1	U

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

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**Comments:**

# Batch QC Summary

**Customer Account:** WMWGORAPEB

**Sample Date:** 3/1/22 12:30

**Customer ID:**

**Delivery Date:** 3/1/22 15:26

**Description:** Gorgas Ash Pond Equipment Blank-1

**Laboratory ID Number:** BC04383

Sample	Analysis	Units	MB	MB				Standard		Rec			Prec
				Limit	Spike	MS	MSD	Standard	Limit	Rec	Limit	Prec	
BC04385	Aluminum, Total	mg/L	0.000438	0.010	0.100	0.104	0.103	0.0988	0.0850 to 0.115	93.5	70.0 to 130	0.966	20.0
BC04385	Antimony, Total	mg/L	0.000579	0.00100	0.100	0.0935	0.0963	0.0911	0.0850 to 0.115	93.5	70.0 to 130	2.95	20.0
BC04385	Arsenic, Total	mg/L	-0.0000059	0.000176	0.100	0.100	0.0989	0.0983	0.0850 to 0.115	97.6	70.0 to 130	1.11	20.0
BC04385	Barium, Total	mg/L	0.0000125	0.000200	0.100	0.198	0.199	0.0932	0.0850 to 0.115	91.0	70.0 to 130	0.504	20.0
BC04385	Beryllium, Total	mg/L	0.0000346	0.000880	0.100	0.102	0.0995	0.0989	0.0850 to 0.115	102	70.0 to 130	2.48	20.0
BC04384	Boron, Total	mg/L	-0.000129	0.0650	1.00	1.05	1.05	0.993	0.850 to 1.15	99.2	70.0 to 130	0.00	20.0
BC04385	Cadmium, Total	mg/L	0.0000190	0.000147	0.100	0.0977	0.0981	0.0979	0.0850 to 0.115	97.7	70.0 to 130	0.409	20.0
BC04384	Calcium, Total	mg/L	-0.00402	0.152	5.00	5.90	5.94	4.80	4.25 to 5.75	95.2	70.0 to 130	0.676	20.0
BC04385	Chromium, Total	mg/L	0.0000261	0.000440	0.100	0.0977	0.0949	0.100	0.0850 to 0.115	97.4	70.0 to 130	2.91	20.0
BC04385	Cobalt, Total	mg/L	0.0000209	0.000147	0.100	0.0985	0.0951	0.103	0.0850 to 0.115	98.4	70.0 to 130	3.51	20.0
BC04384	Iron, Total	mg/L	-0.000211	0.0176	0.2	0.391	0.411	0.195	0.170 to 0.230	112	70.0 to 130	4.99	20.0
BC04385	Lead, Total	mg/L	0.0000534	0.000147	0.100	0.0955	0.0964	0.0994	0.0850 to 0.115	95.5	70.0 to 130	0.938	20.0
BC04384	Lithium, Total	mg/L	-0.000195	0.0154	0.200	0.230	0.229	0.206	0.170 to 0.230	99.6	70.0 to 130	0.436	20.0
BC04384	Magnesium, Total	mg/L	-0.00896	0.0462	5.00	5.38	5.40	5.17	4.25 to 5.75	101	70.0 to 130	0.371	20.0
BC04385	Manganese, Total	mg/L	0.0000276	0.0002	0.100	0.169	0.164	0.102	0.0850 to 0.115	98.2	70.0 to 130	3.00	20.0
BC04385	Mercury, Total by CVAA	mg/L	0.00015	0.000500	0.004	0.00404	0.00402	0.00394	0.00340 to 0.00460	101	70.0 to 130	0.496	20.0
BC04385	Molybdenum, Total	mg/L	0.0000189	0.0002	0.100	0.0975	0.0979	0.0970	0.0850 to 0.115	97.4	70.0 to 130	0.409	20.0
BC04385	Potassium, Total	mg/L	0.0237	0.367	10.0	11.0	10.8	9.96	8.50 to 11.5	97.6	70.0 to 130	1.83	20.0
BC04385	Selenium, Total	mg/L	0.0000741	0.00100	0.100	0.0990	0.0993	0.101	0.0850 to 0.115	99.0	70.0 to 130	0.303	20.0
BC04384	Silicon, Total	mg/L	0.000143	0.0440	1.00	5.98	6.04	1.00	0.850 to 1.15	132	70.0 to 130	0.998	20.0
BC04384	Sodium, Total	mg/L	0.000667	0.0660	5.00	130	129	5.18	4.25 to 5.75	40.0	70.0 to 130	0.772	20.0
BC04385	Thallium, Total	mg/L	0.0000465	0.000147	0.100	0.0963	0.0957	0.0992	0.0850 to 0.115	96.3	70.0 to 130	0.625	20.0
BC04386	Total Organic Carbon	mg/L	0.220	1.00	10.0	14.5	14.6	10.1		102	80.0 to 120	0.687	20.0

**Comments:**

# Batch QC Summary

**Customer Account:** WMWGORAPEB

**Sample Date:** 3/1/22 12:30

**Customer ID:**

**Delivery Date:** 3/1/22 15:26

**Description:** Gorgas Ash Pond Equipment Blank-1

**Laboratory ID Number:** BC04383

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Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
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**Comments:**

## Batch QC Summary

**Customer Account:** WMWGORAPEB

**Sample Date:** 3/1/22 12:30

**Customer ID:**

**Delivery Date:** 3/1/22 15:26

**Description:** Gorgas Ash Pond Equipment Blank-1

**Laboratory ID Number:** BC04383

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BC04385	Chloride	mg/L	-0.0588	1.00	10.0	15.9	5.15	10.3	9.00 to 11.0	108	80.0 to 120	1.37	20.0
BC04385	Fluoride	mg/L	0.0273	0.125	2.50	2.70	0.131	2.59	2.25 to 2.75	102	80.0 to 120	8.76	20.0
BC04385	Nitrogen, Nitrate/Nitrite	mg/L as N	-0.01	0.200	2.00	2.16	0.004	1.87	1.80 to 2.20	108	90.0 to 110	0.00	15.0
BC04385	Solids, Dissolved	mg/L	1.00	25.0			242	50.0	40.0 to 60.0			0.823	10.0
BC04384	Sulfate	mg/L	-0.0624	2.0	20.0	23.2	5.86	18.4	18.0 to 22.0	86.6	80.0 to 120	0.341	20.0

**Comments:**

# Certificate Of Analysis

**Description:** Gorgas Ash Pond - MW-01R

**Location Code:** WMWGORAP  
**Collected:** 3/1/22 08:54  
**Customer ID:**  
**Submittal Date:** 3/1/22 15:26

**Laboratory ID Number:** BC04384

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q	
<b>Analytical Method: EPA 200.7</b>		<b>Analyst: RDA</b>			<b>Preparation Method: EPA 1638</b>					
* Boron, Total	3/7/22 12:00	3/8/22 10:21		1.015	0.0582	mg/L	0.030000	0.1015	J	
* Calcium, Total	3/7/22 12:00	3/8/22 10:21		1.015	1.14	mg/L	0.070035	0.406		
* Iron, Total	3/7/22 12:00	3/8/22 10:21		1.015	0.166	mg/L	0.008120	0.0406		
* Lithium, Total	3/7/22 12:00	3/8/22 10:21		1.015	0.0309	mg/L	0.007105	0.01999956		
* Magnesium, Total	3/7/22 12:00	3/8/22 10:21		1.015	0.348	mg/L	0.021315	0.406	J	
Silica, Total (calc.)	3/7/22 12:00	3/8/22 10:21		1	9.97	mg/L				
Silicon, Total	3/7/22 12:00	3/8/22 10:21		1.015	4.66	mg/L	0.02030	0.25375	RA	
* Sodium, Total	3/7/22 12:00	3/8/22 12:10		10.15	128	mg/L	0.3045	4.06	RA	
<b>Analytical Method: EPA 200.7</b>		<b>Analyst: RDA</b>			<b>Preparation Method: EPA 1638</b>					
* Boron, Dissolved	3/7/22 12:00	3/8/22 11:29		1.015	0.0574	mg/L	0.030000	0.1015	J	
* Calcium, Dissolved	3/7/22 12:00	3/8/22 11:29		1.015	1.07	mg/L	0.070035	0.406		
* Iron, Dissolved	3/7/22 12:00	3/8/22 11:29		1.015	0.0117	mg/L	0.008120	0.0406	J	
* Lithium, Dissolved	3/7/22 12:00	3/8/22 11:29		1.015	0.0303	mg/L	0.007105	0.01999956		
* Magnesium, Dissolved	3/7/22 12:00	3/8/22 11:29		1.015	0.304	mg/L	0.021315	0.406	J	
Silica, Dissolved (calc.)	3/7/22 12:00	3/8/22 11:29		1	9.37	mg/L				
Silicon, Dissolved	3/7/22 12:00	3/8/22 11:29		1.015	4.38	mg/L	0.02030	0.25375		
* Sodium, Dissolved	3/7/22 12:00	3/8/22 13:09		10.15	125	mg/L	0.3045	4.06		
<b>Analytical Method: EPA 200.8</b>		<b>Analyst: DLJ</b>			<b>Preparation Method: EPA 1638</b>					
* Antimony, Total	3/2/22 11:00	3/3/22 13:04		1.015	Not Detected	mg/L	0.000508	0.001015	U	
* Aluminum, Total	3/2/22 11:00	3/3/22 13:04		1.015	0.204	mg/L	0.004060	0.01015		
* Arsenic, Total	3/2/22 11:00	3/3/22 13:04		1.015	0.000382	mg/L	0.000068	0.000203		
* Barium, Total	3/2/22 11:00	3/3/22 13:04		1.015	0.0720	mg/L	0.000102	0.000203		
* Beryllium, Total	3/2/22 11:00	3/3/22 13:04		1.015	Not Detected	mg/L	0.000406	0.001015	U	
* Cadmium, Total	3/2/22 11:00	3/3/22 13:04		1.015	Not Detected	mg/L	0.000068	0.000203	U	
* Chromium, Total	3/2/22 11:00	3/3/22 13:04		1.015	0.000443	mg/L	0.000203	0.001015	J	
* Cobalt, Total	3/2/22 11:00	3/3/22 13:04		1.015	0.0000877	mg/L	0.000068	0.000203	J	
* Lead, Total	3/2/22 11:00	3/3/22 13:04		1.015	0.000221	mg/L	0.000068	0.000203		
* Manganese, Total	3/2/22 11:00	3/3/22 13:04		1.015	0.00478	mg/L	0.000068	0.000203		
* Molybdenum, Total	3/2/22 11:00	3/3/22 13:04		1.015	0.00143	mg/L	0.000068	0.000203		
* Potassium, Total	3/2/22 11:00	3/3/22 13:04		1.015	0.733	mg/L	0.169505	0.5075		

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.

# Certificate Of Analysis

**Description:** Gorgas Ash Pond - MW-01R

**Location Code:** WMWGORAP  
**Collected:** 3/1/22 08:54  
**Customer ID:**  
**Submittal Date:** 3/1/22 15:26

**Laboratory ID Number:** BC04384

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
* Selenium, Total	3/2/22 11:00	3/3/22 13:04		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Total	3/2/22 11:00	3/3/22 13:04		1.015	Not Detected	mg/L	0.000068	0.000203	U
<b>Analytical Method: EPA 200.8</b>		<b>Analyst: DLJ</b>							
* Antimony, Dissolved	3/2/22 10:16	3/3/22 11:58		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Aluminum, Dissolved	3/2/22 10:16	3/3/22 11:58		1.015	0.0195	mg/L	0.004060	0.01015	
* Arsenic, Dissolved	3/2/22 10:16	3/3/22 11:58		1.015	0.000336	mg/L	0.000068	0.000203	
* Barium, Dissolved	3/2/22 10:16	3/3/22 11:58		1.015	0.0616	mg/L	0.000102	0.000203	
* Beryllium, Dissolved	3/2/22 10:16	3/3/22 11:58		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Dissolved	3/2/22 10:16	3/3/22 11:58		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Dissolved	3/2/22 10:16	3/3/22 11:58		1.015	0.000214	mg/L	0.000203	0.001015	J
* Cobalt, Dissolved	3/2/22 10:16	3/3/22 11:58		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Lead, Dissolved	3/2/22 10:16	3/3/22 11:58		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Dissolved	3/2/22 10:16	3/3/22 11:58		1.015	0.00335	mg/L	0.000068	0.000203	
* Molybdenum, Dissolved	3/2/22 10:16	3/3/22 11:58		1.015	0.00139	mg/L	0.000068	0.000203	
* Potassium, Dissolved	3/2/22 10:16	3/3/22 11:58		1.015	0.668	mg/L	0.169505	0.5075	
* Selenium, Dissolved	3/2/22 10:16	3/3/22 11:58		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Dissolved	3/2/22 10:16	3/3/22 11:58		1.015	Not Detected	mg/L	0.000068	0.000203	U
<b>Analytical Method: EPA 245.1</b>		<b>Analyst: ABB</b>							
* Mercury, Total by CVAA	3/2/22 16:00	3/2/22 20:26		1	Not Detected	mg/L	0.0003	0.0005	U
<b>Analytical Method: EPA 353.2</b>		<b>Analyst: ELH</b>							
* Nitrogen, Nitrate/Nitrite	3/9/22 09:05	3/9/22 09:05		1	Not Detected	mg/L as N	0.20	0.3	U
<b>Analytical Method: SM 2320 B</b>		<b>Analyst: ALH</b>							
Alkalinity, Total as CaCO3	3/8/22 13:30	3/8/22 15:32		1	272	mg/L		0.1	
<b>Analytical Method: SM 2540C</b>		<b>Analyst: CNJ</b>							
* Solids, Dissolved	3/3/22 11:15	3/4/22 13:09		1	288	mg/L		25	
<b>Analytical Method: SM 4500CO2 D</b>		<b>Analyst: ALH</b>							
Bicarbonate Alkalinity, (calc.)	3/8/22 13:30	3/8/22 15:32		1	256	mg/L			
Carbonate Alkalinity, (calc.)	3/8/22 13:30	3/8/22 15:32		1	15.2	mg/L			
<b>Analytical Method: SM 5310 B</b>		<b>Analyst: ELH</b>							
* Total Organic Carbon	3/9/22 14:23	3/9/22 14:23		1	Not Detected	mg/L	1.00	2	U

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.



# Certificate Of Analysis

**Description:** Gorgas Ash Pond - MW-01R

**Location Code:** WMWGORAP

**Collected:** 3/1/22 08:54

**Customer ID:**

**Submittal Date:** 3/1/22 15:26

**Laboratory ID Number:** BC04384

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
<b>Analytical Method: SM4500Cl E</b>		<b>Analyst: CES</b>							
* Chloride	3/2/22 13:24	3/2/22 13:24		1	5.25	mg/L	0.50	1	
<b>Analytical Method: SM4500F G 2017</b>		<b>Analyst: CES</b>							
* Fluoride	3/3/22 12:06	3/3/22 12:06		1	0.248	mg/L	0.06	0.1	
<b>Analytical Method: SM4500SO4 E 2011</b>		<b>Analyst: CES</b>							
* Sulfate	3/2/22 11:33	3/2/22 11:33		1	5.88	mg/L	0.50	1	
<b>Analytical Method: Field Measurements</b>		<b>Analyst: AWG</b>							
Conductivity	3/1/22 08:49	3/1/22 08:49			469.21	uS/cm			FA
pH	3/1/22 08:49	3/1/22 08:49			8.86	SU			FA
Temperature	3/1/22 08:49	3/1/22 08:49			15.83	C			FA
Turbidity	3/1/22 08:49	3/1/22 08:49			6.37	NTU			FA

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.

# Batch QC Summary

**Customer Account:** WMWGORAP  
**Sample Date:** 3/1/22 08:54  
**Customer ID:**  
**Delivery Date:** 3/1/22 15:26

**Description:** Gorgas Ash Pond - MW-01R

**Laboratory ID Number:** BC04384

Sample	Analysis	Units	MB	MB				Standard		Rec			Prec Limit
				Limit	Spike	MS	MSD	Standard	Limit	Rec	Limit	Prec	
BC04386	Aluminum, Dissolved	mg/L	0.0000136	0.010	0.100	0.0950	0.0967	0.0982	0.0850 to 0.115	95.0	70.0 to 130	1.77	20.0
BC04385	Aluminum, Total	mg/L	0.000438	0.010	0.100	0.104	0.103	0.0988	0.0850 to 0.115	93.5	70.0 to 130	0.966	20.0
BC04386	Antimony, Dissolved	mg/L	0.000661	0.00100	0.100	0.0897	0.0908	0.0875	0.0850 to 0.115	89.7	70.0 to 130	1.22	20.0
BC04385	Antimony, Total	mg/L	0.000579	0.00100	0.100	0.0935	0.0963	0.0911	0.0850 to 0.115	93.5	70.0 to 130	2.95	20.0
BC04386	Arsenic, Dissolved	mg/L	-0.0000123	0.000176	0.100	0.0970	0.0976	0.101	0.0850 to 0.115	96.6	70.0 to 130	0.617	20.0
BC04385	Arsenic, Total	mg/L	-0.0000059	0.000176	0.100	0.100	0.0989	0.0983	0.0850 to 0.115	97.6	70.0 to 130	1.11	20.0
BC04386	Barium, Dissolved	mg/L	0.0000116	0.000200	0.100	0.154	0.159	0.0920	0.0850 to 0.115	87.8	70.0 to 130	3.19	20.0
BC04385	Barium, Total	mg/L	0.0000125	0.000200	0.100	0.198	0.199	0.0932	0.0850 to 0.115	91.0	70.0 to 130	0.504	20.0
BC04386	Beryllium, Dissolved	mg/L	0.0000168	0.000880	0.100	0.0970	0.0968	0.101	0.0850 to 0.115	97.0	70.0 to 130	0.206	20.0
BC04385	Beryllium, Total	mg/L	0.0000346	0.000880	0.100	0.102	0.0995	0.0989	0.0850 to 0.115	102	70.0 to 130	2.48	20.0
BC04386	Boron, Dissolved	mg/L	-0.000083	0.0650	1.00	1.03	1.05	0.991	0.850 to 1.15	99.5	70.0 to 130	1.92	20.0
BC04384	Boron, Total	mg/L	-0.000129	0.0650	1.00	1.05	1.05	0.993	0.850 to 1.15	99.2	70.0 to 130	0.00	20.0
BC04386	Cadmium, Dissolved	mg/L	0.0000000	0.000147	0.100	0.0921	0.0938	0.0976	0.0850 to 0.115	92.1	70.0 to 130	1.83	20.0
BC04385	Cadmium, Total	mg/L	0.0000190	0.000147	0.100	0.0977	0.0981	0.0979	0.0850 to 0.115	97.7	70.0 to 130	0.409	20.0
BC04386	Calcium, Dissolved	mg/L	-0.0113	0.152	5.00	102	99.4	4.95	4.25 to 5.75	106	70.0 to 130	2.58	20.0
BC04384	Calcium, Total	mg/L	-0.00402	0.152	5.00	5.90	5.94	4.80	4.25 to 5.75	95.2	70.0 to 130	0.676	20.0
BC04386	Chromium, Dissolved	mg/L	-0.0000164	0.000440	0.100	0.0925	0.0946	0.0978	0.0850 to 0.115	92.5	70.0 to 130	2.24	20.0
BC04385	Chromium, Total	mg/L	0.0000261	0.000440	0.100	0.0977	0.0949	0.100	0.0850 to 0.115	97.4	70.0 to 130	2.91	20.0
BC04386	Cobalt, Dissolved	mg/L	0.0000016	0.000147	0.100	0.0947	0.0962	0.0998	0.0850 to 0.115	94.7	70.0 to 130	1.57	20.0
BC04385	Cobalt, Total	mg/L	0.0000209	0.000147	0.100	0.0985	0.0951	0.103	0.0850 to 0.115	98.4	70.0 to 130	3.51	20.0
BC04386	Iron, Dissolved	mg/L	0.000121	0.0176	0.2	1.21	1.21	0.196	0.170 to 0.230	90.0	70.0 to 130	0.00	20.0
BC04384	Iron, Total	mg/L	-0.000211	0.0176	0.2	0.391	0.411	0.195	0.170 to 0.230	112	70.0 to 130	4.99	20.0
BC04386	Lead, Dissolved	mg/L	0.0000116	0.000147	0.100	0.0980	0.0984	0.0961	0.0850 to 0.115	98.0	70.0 to 130	0.407	20.0

**Comments:** The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.

# Batch QC Summary

**Customer Account:** WMWGORAP

**Sample Date:** 3/1/22 08:54

**Customer ID:**

**Delivery Date:** 3/1/22 15:26

**Description:** Gorgas Ash Pond - MW-01R

**Laboratory ID Number:** BC04384

Sample	Analysis	Units	MB	MB		MS	MSD	Standard	Standard		Rec		Prec
				Limit	Spike				Limit	Rec	Limit	Prec	
BC04385	Lead, Total	mg/L	0.0000534	0.000147	0.100	0.0955	0.0964	0.0994	0.0850 to 0.115	95.5	70.0 to 130	0.938	20.0
BC04386	Lithium, Dissolved	mg/L	-0.000144	0.0154	0.200	0.267	0.263	0.198	0.170 to 0.230	101	70.0 to 130	1.51	20.0
BC04384	Lithium, Total	mg/L	-0.000195	0.0154	0.200	0.230	0.229	0.206	0.170 to 0.230	99.6	70.0 to 130	0.436	20.0
BC04386	Magnesium, Dissolved	mg/L	-0.00653	0.0462	5.00	43.8	42.8	5.16	4.25 to 5.75	118	70.0 to 130	2.31	20.0
BC04384	Magnesium, Total	mg/L	-0.00896	0.0462	5.00	5.38	5.40	5.17	4.25 to 5.75	101	70.0 to 130	0.371	20.0
BC04386	Manganese, Dissolved	mg/L	0.0000034	0.0002	0.100	0.216	0.216	0.0988	0.0850 to 0.115	96.0	70.0 to 130	0.00	20.0
BC04385	Manganese, Total	mg/L	0.0000276	0.0002	0.100	0.169	0.164	0.102	0.0850 to 0.115	98.2	70.0 to 130	3.00	20.0
BC04385	Mercury, Total by CVAA	mg/L	0.00015	0.000500	0.004	0.00404	0.00402	0.00394	0.00340 to 0.00460	101	70.0 to 130	0.496	20.0
BC04386	Molybdenum, Dissolved	mg/L	0.0000047	0.0002	0.100	0.0997	0.0985	0.0975	0.0850 to 0.115	97.8	70.0 to 130	1.21	20.0
BC04385	Molybdenum, Total	mg/L	0.0000189	0.0002	0.100	0.0975	0.0979	0.0970	0.0850 to 0.115	97.4	70.0 to 130	0.409	20.0
BC04386	Potassium, Dissolved	mg/L	0.0280	0.367	10.0	15.8	16.1	10.0	8.50 to 11.5	95.2	70.0 to 130	1.88	20.0
BC04385	Potassium, Total	mg/L	0.0237	0.367	10.0	11.0	10.8	9.96	8.50 to 11.5	97.6	70.0 to 130	1.83	20.0
BC04386	Selenium, Dissolved	mg/L	0.0000768	0.00100	0.100	0.101	0.100	0.104	0.0850 to 0.115	101	70.0 to 130	0.995	20.0
BC04385	Selenium, Total	mg/L	0.0000741	0.00100	0.100	0.0990	0.0993	0.101	0.0850 to 0.115	99.0	70.0 to 130	0.303	20.0
BC04386	Silicon, Dissolved	mg/L	-0.000895	0.0440	1.00	12.7	12.8	0.998	0.850 to 1.15	90.0	70.0 to 130	0.784	20.0
BC04384	Silicon, Total	mg/L	0.000143	0.0440	1.00	5.98	6.04	1.00	0.850 to 1.15	132	70.0 to 130	0.998	20.0
BC04386	Sodium, Dissolved	mg/L	0.000319	0.0660	5.00	101	98.7	4.98	4.25 to 5.75	130	70.0 to 130	2.30	20.0
BC04384	Sodium, Total	mg/L	0.000667	0.0660	5.00	130	129	5.18	4.25 to 5.75	40.0	70.0 to 130	0.772	20.0
BC04386	Thallium, Dissolved	mg/L	0.0000090	0.000147	0.100	0.0994	0.0979	0.0970	0.0850 to 0.115	99.4	70.0 to 130	1.52	20.0
BC04385	Thallium, Total	mg/L	0.0000465	0.000147	0.100	0.0963	0.0957	0.0992	0.0850 to 0.115	96.3	70.0 to 130	0.625	20.0
BC04386	Total Organic Carbon	mg/L	0.220	1.00	10.0	14.5	14.6	10.1		102	80.0 to 120	0.687	20.0

**Comments:** The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.

## Batch QC Summary

**Customer Account:** WMWGORAP

**Sample Date:** 3/1/22 08:54

**Customer ID:**

**Delivery Date:** 3/1/22 15:26

**Description:** Gorgas Ash Pond - MW-01R

**Laboratory ID Number:** BC04384

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BC04386	Alkalinity, Total as CaCO3	mg/L					260	50.7	45.0 to 55.0			3.77	10.0
BC04385	Chloride	mg/L	-0.0588	1.00	10.0	15.9	5.15	10.3	9.00 to 11.0	108	80.0 to 120	1.37	20.0
BC04385	Fluoride	mg/L	0.0273	0.125	2.50	2.70	0.131	2.59	2.25 to 2.75	102	80.0 to 120	8.76	20.0
BC04385	Nitrogen, Nitrate/Nitrite	mg/L as N	-0.01	0.200	2.00	2.16	0.004	1.87	1.80 to 2.20	108	90.0 to 110	0.00	15.0
BC04385	Solids, Dissolved	mg/L	1.00	25.0			242	50.0	40.0 to 60.0			0.823	10.0
BC04384	Sulfate	mg/L	-0.0624	2.0	20.0	23.2	5.86	18.4	18.0 to 22.0	86.6	80.0 to 120	0.341	20.0

**Comments:** The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.

# Certificate Of Analysis

**Description:** Gorgas Ash Pond - MW-11R

**Location Code:** WMWGORAP  
**Collected:** 3/1/22 11:20  
**Customer ID:**  
**Submittal Date:** 3/1/22 15:26

**Laboratory ID Number:** BC04385

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
<b>Analytical Method: EPA 200.7</b>			<b>Analyst: RDA</b>		<b>Preparation Method: EPA 1638</b>				
* Boron, Total	3/7/22 12:00	3/8/22 10:34		1.015	0.0844	mg/L	0.030000	0.1015	J
* Calcium, Total	3/7/22 12:00	3/8/22 12:15		10.15	45.3	mg/L	0.70035	4.06	
* Iron, Total	3/7/22 12:00	3/8/22 10:34		1.015	2.03	mg/L	0.008120	0.0406	
* Lithium, Total	3/7/22 12:00	3/8/22 10:34		1.015	0.0281	mg/L	0.007105	0.01999956	
* Magnesium, Total	3/7/22 12:00	3/8/22 10:34		1.015	16.6	mg/L	0.021315	0.406	
Silica, Total (calc.)	3/7/22 12:00	3/8/22 10:34		1	32.7	mg/L			
Silicon, Total	3/7/22 12:00	3/8/22 10:34		1.015	15.3	mg/L	0.02030	0.25375	
* Sodium, Total	3/7/22 12:00	3/8/22 10:34		1.015	14.7	mg/L	0.03045	0.406	
<b>Analytical Method: EPA 200.7</b>			<b>Analyst: RDA</b>		<b>Preparation Method: EPA 1638</b>				
* Boron, Dissolved	3/7/22 12:00	3/8/22 11:30		1.015	0.0851	mg/L	0.030000	0.1015	J
* Calcium, Dissolved	3/7/22 12:00	3/8/22 12:58		10.15	45.7	mg/L	0.70035	4.06	
* Iron, Dissolved	3/7/22 12:00	3/8/22 11:30		1.015	1.30	mg/L	0.008120	0.0406	
* Lithium, Dissolved	3/7/22 12:00	3/8/22 11:30		1.015	0.0276	mg/L	0.007105	0.01999956	
* Magnesium, Dissolved	3/7/22 12:00	3/8/22 11:30		1.015	16.6	mg/L	0.021315	0.406	
Silica, Dissolved (calc.)	3/7/22 12:00	3/8/22 11:30		1	32.3	mg/L			
Silicon, Dissolved	3/7/22 12:00	3/8/22 11:30		1.015	15.1	mg/L	0.02030	0.25375	
* Sodium, Dissolved	3/7/22 12:00	3/8/22 11:30		1.015	14.5	mg/L	0.03045	0.406	
<b>Analytical Method: EPA 200.8</b>			<b>Analyst: DLJ</b>		<b>Preparation Method: EPA 1638</b>				
* Antimony, Total	3/2/22 11:00	3/3/22 13:07		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Aluminum, Total	3/2/22 11:00	3/3/22 13:07		1.015	0.0105	mg/L	0.004060	0.01015	
* Arsenic, Total	3/2/22 11:00	3/3/22 13:07		1.015	0.00235	mg/L	0.000068	0.000203	
* Barium, Total	3/2/22 11:00	3/3/22 13:07		1.015	0.107	mg/L	0.000102	0.000203	
* Beryllium, Total	3/2/22 11:00	3/3/22 13:07		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Total	3/2/22 11:00	3/3/22 13:07		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Total	3/2/22 11:00	3/3/22 13:07		1.015	0.000257	mg/L	0.000203	0.001015	J
* Cobalt, Total	3/2/22 11:00	3/3/22 13:07		1.015	0.000110	mg/L	0.000068	0.000203	J
* Lead, Total	3/2/22 11:00	3/3/22 13:07		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Total	3/2/22 11:00	3/3/22 13:07		1.015	0.0708	mg/L	0.000068	0.000203	
* Molybdenum, Total	3/2/22 11:00	3/3/22 13:07		1.015	0.000143	mg/L	0.000068	0.000203	J
* Potassium, Total	3/2/22 11:00	3/3/22 13:07		1.015	1.24	mg/L	0.169505	0.5075	

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.

# Certificate Of Analysis

**Description:** Gorgas Ash Pond - MW-11R

**Location Code:** WMWGORAP  
**Collected:** 3/1/22 11:20  
**Customer ID:**  
**Submittal Date:** 3/1/22 15:26

**Laboratory ID Number:** BC04385

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
* Selenium, Total	3/2/22 11:00	3/3/22 13:07		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Total	3/2/22 11:00	3/3/22 13:07		1.015	Not Detected	mg/L	0.000068	0.000203	U
<b>Analytical Method: EPA 200.8</b>		<b>Analyst: DLJ</b>							
* Antimony, Dissolved	3/2/22 10:16	3/3/22 12:02		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Aluminum, Dissolved	3/2/22 10:16	3/3/22 12:02		1.015	Not Detected	mg/L	0.004060	0.01015	U
* Arsenic, Dissolved	3/2/22 10:16	3/3/22 12:02		1.015	0.00134	mg/L	0.000068	0.000203	
* Barium, Dissolved	3/2/22 10:16	3/3/22 12:02		1.015	0.105	mg/L	0.000102	0.000203	
* Beryllium, Dissolved	3/2/22 10:16	3/3/22 12:02		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Dissolved	3/2/22 10:16	3/3/22 12:02		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Dissolved	3/2/22 10:16	3/3/22 12:02		1.015	Not Detected	mg/L	0.000203	0.001015	U
* Cobalt, Dissolved	3/2/22 10:16	3/3/22 12:02		1.015	0.000116	mg/L	0.000068	0.000203	J
* Lead, Dissolved	3/2/22 10:16	3/3/22 12:02		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Dissolved	3/2/22 10:16	3/3/22 12:02		1.015	0.0702	mg/L	0.000068	0.000203	
* Molybdenum, Dissolved	3/2/22 10:16	3/3/22 12:02		1.015	0.000151	mg/L	0.000068	0.000203	J
* Potassium, Dissolved	3/2/22 10:16	3/3/22 12:02		1.015	1.28	mg/L	0.169505	0.5075	
* Selenium, Dissolved	3/2/22 10:16	3/3/22 12:02		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Dissolved	3/2/22 10:16	3/3/22 12:02		1.015	Not Detected	mg/L	0.000068	0.000203	U
<b>Analytical Method: EPA 245.1</b>		<b>Analyst: ABB</b>							
* Mercury, Total by CVAA	3/2/22 16:00	3/2/22 20:30		1	Not Detected	mg/L	0.0003	0.0005	U
<b>Analytical Method: EPA 353.2</b>		<b>Analyst: ELH</b>							
* Nitrogen, Nitrate/Nitrite	3/9/22 09:07	3/9/22 09:07		1	Not Detected	mg/L as N	0.20	0.3	U
<b>Analytical Method: SM 2320 B</b>		<b>Analyst: ALH</b>							
Alkalinity, Total as CaCO3	3/8/22 13:30	3/8/22 15:32		1	182	mg/L		0.1	
<b>Analytical Method: SM 2540C</b>		<b>Analyst: CNJ</b>							
* Solids, Dissolved	3/3/22 11:15	3/4/22 13:09		1	244	mg/L		25	
<b>Analytical Method: SM 4500CO2 D</b>		<b>Analyst: ALH</b>							
Bicarbonate Alkalinity, (calc.)	3/8/22 13:30	3/8/22 15:32		1	181	mg/L			
Carbonate Alkalinity, (calc.)	3/8/22 13:30	3/8/22 15:32		1	0.76	mg/L			
<b>Analytical Method: SM 5310 B</b>		<b>Analyst: ELH</b>							
* Total Organic Carbon	3/9/22 14:42	3/9/22 14:42		1	Not Detected	mg/L	1.00	2	U

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.

# Certificate Of Analysis

**Description:** Gorgas Ash Pond - MW-11R

**Location Code:** WMWGORAP

**Collected:** 3/1/22 11:20

**Customer ID:**

**Submittal Date:** 3/1/22 15:26

**Laboratory ID Number:** BC04385

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
<b>Analytical Method: SM4500Cl E</b>		<b>Analyst: CES</b>							
* Chloride	3/2/22 13:25	3/2/22 13:25		1	5.08	mg/L	0.50	1	
<b>Analytical Method: SM4500F G 2017</b>		<b>Analyst: CES</b>							
* Fluoride	3/3/22 12:07	3/3/22 12:07		1	0.143	mg/L	0.06	0.1	
<b>Analytical Method: SM4500SO4 E 2011</b>		<b>Analyst: CES</b>							
* Sulfate	3/2/22 11:46	3/2/22 11:46		1	39.4	mg/L	0.50	1	
<b>Analytical Method: Field Measurements</b>		<b>Analyst: AWG</b>							
Conductivity	3/1/22 11:17	3/1/22 11:17			382.55	uS/cm			FA
pH	3/1/22 11:17	3/1/22 11:17			6.68	SU			FA
Temperature	3/1/22 11:17	3/1/22 11:17			17.12	C			FA
Turbidity	3/1/22 11:17	3/1/22 11:17			7.38	NTU			FA

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.

# Batch QC Summary

**Customer Account:** WMWGORAP

**Sample Date:** 3/1/22 11:20

**Customer ID:**

**Delivery Date:** 3/1/22 15:26

**Description:** Gorgas Ash Pond - MW-11R

**Laboratory ID Number:** BC04385

Sample	Analysis	Units	MB	MB		MS	MSD	Standard		Rec		Prec	Limit
				Limit	Spike			Standard	Limit	Rec	Limit		
BC04386	Aluminum, Dissolved	mg/L	0.0000136	0.010	0.100	0.0950	0.0967	0.0982	0.0850 to 0.115	95.0	70.0 to 130	1.77	20.0
BC04385	Aluminum, Total	mg/L	0.000438	0.010	0.100	0.104	0.103	0.0988	0.0850 to 0.115	93.5	70.0 to 130	0.966	20.0
BC04386	Antimony, Dissolved	mg/L	0.000661	0.00100	0.100	0.0897	0.0908	0.0875	0.0850 to 0.115	89.7	70.0 to 130	1.22	20.0
BC04385	Antimony, Total	mg/L	0.000579	0.00100	0.100	0.0935	0.0963	0.0911	0.0850 to 0.115	93.5	70.0 to 130	2.95	20.0
BC04386	Arsenic, Dissolved	mg/L	-0.0000123	0.000176	0.100	0.0970	0.0976	0.101	0.0850 to 0.115	96.6	70.0 to 130	0.617	20.0
BC04385	Arsenic, Total	mg/L	-0.0000059	0.000176	0.100	0.100	0.0989	0.0983	0.0850 to 0.115	97.6	70.0 to 130	1.11	20.0
BC04386	Barium, Dissolved	mg/L	0.0000116	0.000200	0.100	0.154	0.159	0.0920	0.0850 to 0.115	87.8	70.0 to 130	3.19	20.0
BC04385	Barium, Total	mg/L	0.0000125	0.000200	0.100	0.198	0.199	0.0932	0.0850 to 0.115	91.0	70.0 to 130	0.504	20.0
BC04386	Beryllium, Dissolved	mg/L	0.0000168	0.000880	0.100	0.0970	0.0968	0.101	0.0850 to 0.115	97.0	70.0 to 130	0.206	20.0
BC04385	Beryllium, Total	mg/L	0.0000346	0.000880	0.100	0.102	0.0995	0.0989	0.0850 to 0.115	102	70.0 to 130	2.48	20.0
BC04386	Boron, Dissolved	mg/L	-0.000083	0.0650	1.00	1.03	1.05	0.991	0.850 to 1.15	99.5	70.0 to 130	1.92	20.0
BC04386	Boron, Total	mg/L	-0.000008	0.0650	1.00	1.04	1.05	0.969	0.850 to 1.15	100	70.0 to 130	0.957	20.0
BC04386	Cadmium, Dissolved	mg/L	0.0000000	0.000147	0.100	0.0921	0.0938	0.0976	0.0850 to 0.115	92.1	70.0 to 130	1.83	20.0
BC04385	Cadmium, Total	mg/L	0.0000190	0.000147	0.100	0.0977	0.0981	0.0979	0.0850 to 0.115	97.7	70.0 to 130	0.409	20.0
BC04386	Calcium, Dissolved	mg/L	-0.0113	0.152	5.00	102	99.4	4.95	4.25 to 5.75	106	70.0 to 130	2.58	20.0
BC04386	Calcium, Total	mg/L	-0.0134	0.152	5.00	107	103	4.76	4.25 to 5.75	194	70.0 to 130	3.81	20.0
BC04386	Chromium, Dissolved	mg/L	-0.0000164	0.000440	0.100	0.0925	0.0946	0.0978	0.0850 to 0.115	92.5	70.0 to 130	2.24	20.0
BC04385	Chromium, Total	mg/L	0.0000261	0.000440	0.100	0.0977	0.0949	0.100	0.0850 to 0.115	97.4	70.0 to 130	2.91	20.0
BC04386	Cobalt, Dissolved	mg/L	0.0000016	0.000147	0.100	0.0947	0.0962	0.0998	0.0850 to 0.115	94.7	70.0 to 130	1.57	20.0
BC04385	Cobalt, Total	mg/L	0.0000209	0.000147	0.100	0.0985	0.0951	0.103	0.0850 to 0.115	98.4	70.0 to 130	3.51	20.0
BC04386	Iron, Dissolved	mg/L	0.000121	0.0176	0.2	1.21	1.21	0.196	0.170 to 0.230	90.0	70.0 to 130	0.00	20.0
BC04386	Iron, Total	mg/L	-0.000052	0.0176	0.2	1.20	1.20	0.190	0.170 to 0.230	95.0	70.0 to 130	0.00	20.0
BC04386	Lead, Dissolved	mg/L	0.0000116	0.000147	0.100	0.0980	0.0984	0.0961	0.0850 to 0.115	98.0	70.0 to 130	0.407	20.0

**Comments:** The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.



# Batch QC Summary

**Customer Account:** WMWGORAP

**Sample Date:** 3/1/22 11:20

**Customer ID:**

**Delivery Date:** 3/1/22 15:26

**Description:** Gorgas Ash Pond - MW-11R

**Laboratory ID Number:** BC04385

Sample	Analysis	Units	MB	MB				Standard		Rec		Prec	Limit
				Limit	Spike	MS	MSD	Standard	Limit	Rec	Limit		
BC04385	Lead, Total	mg/L	0.0000534	0.000147	0.100	0.0955	0.0964	0.0994	0.0850 to 0.115	95.5	70.0 to 130	0.938	20.0
BC04386	Lithium, Dissolved	mg/L	-0.000144	0.0154	0.200	0.267	0.263	0.198	0.170 to 0.230	101	70.0 to 130	1.51	20.0
BC04386	Lithium, Total	mg/L	-0.000204	0.0154	0.200	0.268	0.268	0.201	0.170 to 0.230	102	70.0 to 130	0.00	20.0
BC04386	Magnesium, Dissolved	mg/L	-0.00653	0.0462	5.00	43.8	42.8	5.16	4.25 to 5.75	118	70.0 to 130	2.31	20.0
BC04386	Magnesium, Total	mg/L	-0.00848	0.0462	5.00	46.3	44.6	5.09	4.25 to 5.75	174	70.0 to 130	3.74	20.0
BC04386	Manganese, Dissolved	mg/L	0.0000034	0.0002	0.100	0.216	0.216	0.0988	0.0850 to 0.115	96.0	70.0 to 130	0.00	20.0
BC04385	Manganese, Total	mg/L	0.0000276	0.0002	0.100	0.169	0.164	0.102	0.0850 to 0.115	98.2	70.0 to 130	3.00	20.0
BC04385	Mercury, Total by CVAA	mg/L	0.00015	0.000500	0.004	0.00404	0.00402	0.00394	0.00340 to 0.00460	101	70.0 to 130	0.496	20.0
BC04386	Molybdenum, Dissolved	mg/L	0.0000047	0.0002	0.100	0.0997	0.0985	0.0975	0.0850 to 0.115	97.8	70.0 to 130	1.21	20.0
BC04385	Molybdenum, Total	mg/L	0.0000189	0.0002	0.100	0.0975	0.0979	0.0970	0.0850 to 0.115	97.4	70.0 to 130	0.409	20.0
BC04386	Potassium, Dissolved	mg/L	0.0280	0.367	10.0	15.8	16.1	10.0	8.50 to 11.5	95.2	70.0 to 130	1.88	20.0
BC04385	Potassium, Total	mg/L	0.0237	0.367	10.0	11.0	10.8	9.96	8.50 to 11.5	97.6	70.0 to 130	1.83	20.0
BC04386	Selenium, Dissolved	mg/L	0.0000768	0.00100	0.100	0.101	0.100	0.104	0.0850 to 0.115	101	70.0 to 130	0.995	20.0
BC04385	Selenium, Total	mg/L	0.0000741	0.00100	0.100	0.0990	0.0993	0.101	0.0850 to 0.115	99.0	70.0 to 130	0.303	20.0
BC04386	Silicon, Dissolved	mg/L	-0.000895	0.0440	1.00	12.7	12.8	0.998	0.850 to 1.15	90.0	70.0 to 130	0.784	20.0
BC04386	Silicon, Total	mg/L	0.000287	0.0440	1.00	12.8	12.8	0.978	0.850 to 1.15	100	70.0 to 130	0.00	20.0
BC04386	Sodium, Dissolved	mg/L	0.000319	0.0660	5.00	101	98.7	4.98	4.25 to 5.75	130	70.0 to 130	2.30	20.0
BC04386	Sodium, Total	mg/L	0.00143	0.0660	5.00	115	110	5.08	4.25 to 5.75	240	70.0 to 130	4.44	20.0
BC04386	Thallium, Dissolved	mg/L	0.0000090	0.000147	0.100	0.0994	0.0979	0.0970	0.0850 to 0.115	99.4	70.0 to 130	1.52	20.0
BC04385	Thallium, Total	mg/L	0.0000465	0.000147	0.100	0.0963	0.0957	0.0992	0.0850 to 0.115	96.3	70.0 to 130	0.625	20.0
BC04386	Total Organic Carbon	mg/L	0.220	1.00	10.0	14.5	14.6	10.1		102	80.0 to 120	0.687	20.0

**Comments:** The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.

## Batch QC Summary

**Customer Account:** WMWGORAP

**Sample Date:** 3/1/22 11:20

**Customer ID:**

**Delivery Date:** 3/1/22 15:26

**Description:** Gorgas Ash Pond - MW-11R

**Laboratory ID Number:** BC04385

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BC04386	Alkalinity, Total as CaCO3	mg/L					260	50.7	45.0 to 55.0			3.77	10.0
BC04385	Chloride	mg/L	-0.0588	1.00	10.0	15.9	5.15	10.3	9.00 to 11.0	108	80.0 to 120	1.37	20.0
BC04385	Fluoride	mg/L	0.0273	0.125	2.50	2.70	0.131	2.59	2.25 to 2.75	102	80.0 to 120	8.76	20.0
BC04385	Nitrogen, Nitrate/Nitrite	mg/L as N	-0.01	0.200	2.00	2.16	0.004	1.87	1.80 to 2.20	108	90.0 to 110	0.00	15.0
BC04385	Solids, Dissolved	mg/L	1.00	25.0			242	50.0	40.0 to 60.0			0.823	10.0
BC04386	Sulfate	mg/L	0.0134	2.0	400	863	332	21.5	18.0 to 22.0	129	80.0 to 120	4.71	20.0

**Comments:** The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.

# Certificate Of Analysis

**Description:** Gorgas Ash Pond - MW-05R

**Location Code:** WMWGORAP  
**Collected:** 3/1/22 13:34  
**Customer ID:**  
**Submittal Date:** 3/1/22 15:26

**Laboratory ID Number:** BC04386

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
<b>Analytical Method: EPA 200.7</b>			<b>Analyst: RDA</b>		<b>Preparation Method: EPA 1638</b>				
* Boron, Total	3/7/22 12:00	3/8/22 10:36		1.015	0.0360	mg/L	0.030000	0.1015	J
* Calcium, Total	3/7/22 12:00	3/8/22 12:17		10.15	97.3	mg/L	0.70035	4.06	RA
* Iron, Total	3/7/22 12:00	3/8/22 10:36		1.015	1.01	mg/L	0.008120	0.0406	
* Lithium, Total	3/7/22 12:00	3/8/22 10:36		1.015	0.0644	mg/L	0.007105	0.01999956	
* Magnesium, Total	3/7/22 12:00	3/8/22 10:36		1.015	37.6	mg/L	0.021315	0.406	RA
Silica, Total (calc.)	3/7/22 12:00	3/8/22 10:36		1	25.3	mg/L			
Silicon, Total	3/7/22 12:00	3/8/22 10:36		1.015	11.8	mg/L	0.02030	0.25375	
* Sodium, Total	3/7/22 12:00	3/8/22 12:17		10.15	103	mg/L	0.3045	4.06	RA
<b>Analytical Method: EPA 200.7</b>			<b>Analyst: RDA</b>		<b>Preparation Method: EPA 1638</b>				
* Boron, Dissolved	3/7/22 12:00	3/8/22 11:32		1.015	0.0353	mg/L	0.030000	0.1015	J
* Calcium, Dissolved	3/7/22 12:00	3/8/22 13:00		10.15	96.7	mg/L	0.70035	4.06	RA
* Iron, Dissolved	3/7/22 12:00	3/8/22 11:32		1.015	1.03	mg/L	0.008120	0.0406	
* Lithium, Dissolved	3/7/22 12:00	3/8/22 11:32		1.015	0.0648	mg/L	0.007105	0.01999956	
* Magnesium, Dissolved	3/7/22 12:00	3/8/22 11:32		1.015	37.9	mg/L	0.021315	0.406	
Silica, Dissolved (calc.)	3/7/22 12:00	3/8/22 11:32		1	25.3	mg/L			
Silicon, Dissolved	3/7/22 12:00	3/8/22 11:32		1.015	11.8	mg/L	0.02030	0.25375	
* Sodium, Dissolved	3/7/22 12:00	3/8/22 13:00		10.15	94.5	mg/L	0.3045	4.06	
<b>Analytical Method: EPA 200.8</b>			<b>Analyst: DLJ</b>		<b>Preparation Method: EPA 1638</b>				
* Antimony, Total	3/2/22 11:00	3/3/22 13:29		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Aluminum, Total	3/2/22 11:00	3/3/22 13:29		1.015	Not Detected	mg/L	0.004060	0.01015	U
* Arsenic, Total	3/2/22 11:00	3/3/22 13:29		1.015	0.000484	mg/L	0.000068	0.000203	
* Barium, Total	3/2/22 11:00	3/3/22 13:29		1.015	0.0695	mg/L	0.000102	0.000203	
* Beryllium, Total	3/2/22 11:00	3/3/22 13:29		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Total	3/2/22 11:00	3/3/22 13:29		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Total	3/2/22 11:00	3/3/22 13:29		1.015	0.000353	mg/L	0.000203	0.001015	J
* Cobalt, Total	3/2/22 11:00	3/3/22 13:29		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Lead, Total	3/2/22 11:00	3/3/22 13:29		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Total	3/2/22 11:00	3/3/22 13:29		1.015	0.135	mg/L	0.000068	0.000203	
* Molybdenum, Total	3/2/22 11:00	3/3/22 13:29		1.015	0.00212	mg/L	0.000068	0.000203	
* Potassium, Total	3/2/22 11:00	3/3/22 13:29		1.015	6.57	mg/L	0.169505	0.5075	

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.

# Certificate Of Analysis

**Description:** Gorgas Ash Pond - MW-05R

**Location Code:** WMWGORAP  
**Collected:** 3/1/22 13:34  
**Customer ID:**  
**Submittal Date:** 3/1/22 15:26

**Laboratory ID Number:** BC04386

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
* Selenium, Total	3/2/22 11:00	3/3/22 13:29		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Total	3/2/22 11:00	3/3/22 13:29		1.015	Not Detected	mg/L	0.000068	0.000203	U
<b>Analytical Method: EPA 200.8</b>		<b>Analyst: DLJ</b>							
* Antimony, Dissolved	3/2/22 10:16	3/3/22 12:05		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Aluminum, Dissolved	3/2/22 10:16	3/3/22 12:05		1.015	Not Detected	mg/L	0.004060	0.01015	U
* Arsenic, Dissolved	3/2/22 10:16	3/3/22 12:05		1.015	0.000388	mg/L	0.000068	0.000203	
* Barium, Dissolved	3/2/22 10:16	3/3/22 12:05		1.015	0.0662	mg/L	0.000102	0.000203	
* Beryllium, Dissolved	3/2/22 10:16	3/3/22 12:05		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Dissolved	3/2/22 10:16	3/3/22 12:05		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Dissolved	3/2/22 10:16	3/3/22 12:05		1.015	Not Detected	mg/L	0.000203	0.001015	U
* Cobalt, Dissolved	3/2/22 10:16	3/3/22 12:05		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Lead, Dissolved	3/2/22 10:16	3/3/22 12:05		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Dissolved	3/2/22 10:16	3/3/22 12:05		1.015	0.120	mg/L	0.000068	0.000203	
* Molybdenum, Dissolved	3/2/22 10:16	3/3/22 12:05		1.015	0.00185	mg/L	0.000068	0.000203	
* Potassium, Dissolved	3/2/22 10:16	3/3/22 12:05		1.015	6.28	mg/L	0.169505	0.5075	
* Selenium, Dissolved	3/2/22 10:16	3/3/22 12:05		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Dissolved	3/2/22 10:16	3/3/22 12:05		1.015	Not Detected	mg/L	0.000068	0.000203	U
<b>Analytical Method: EPA 245.1</b>		<b>Analyst: ABB</b>							
* Mercury, Total by CVAA	3/2/22 16:00	3/2/22 20:50		1	Not Detected	mg/L	0.0003	0.0005	U
<b>Analytical Method: EPA 353.2</b>		<b>Analyst: ELH</b>							
* Nitrogen, Nitrate/Nitrite	3/9/22 09:12	3/9/22 09:12		1	Not Detected	mg/L as N	0.20	0.3	U
<b>Analytical Method: SM 2320 B</b>		<b>Analyst: ALH</b>							
Alkalinity, Total as CaCO3	3/8/22 13:30	3/8/22 15:32		1	270	mg/L		0.1	
<b>Analytical Method: SM 2540C</b>		<b>Analyst: CNJ</b>							
* Solids, Dissolved	3/3/22 11:15	3/4/22 13:09		1	762	mg/L		50	
<b>Analytical Method: SM 4500CO2 D</b>		<b>Analyst: ALH</b>							
Bicarbonate Alkalinity, (calc.)	3/8/22 13:30	3/8/22 15:32		1	269	mg/L			A
Carbonate Alkalinity, (calc.)	3/8/22 13:30	3/8/22 15:32		1	0.94	mg/L			A
<b>Analytical Method: SM 5310 B</b>		<b>Analyst: ELH</b>							
* Total Organic Carbon	3/9/22 15:02	3/9/22 15:02		1	4.29	mg/L	1.00	2	

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.

# Certificate Of Analysis

**Description:** Gorgas Ash Pond - MW-05R

**Location Code:** WMWGORAP

**Collected:** 3/1/22 13:34

**Customer ID:**

**Submittal Date:** 3/1/22 15:26

**Laboratory ID Number:** BC04386

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
<b>Analytical Method: SM4500Cl E</b>		<b>Analyst: CES</b>							
* Chloride	3/2/22 14:39	3/2/22 14:39		4	46.4	mg/L	2.00	4	
<b>Analytical Method: SM4500F G 2017</b>		<b>Analyst: CES</b>							
* Fluoride	3/3/22 12:24	3/3/22 12:24		1	0.147	mg/L	0.06	0.1	PA
<b>Analytical Method: SM4500SO4 E 2011</b>		<b>Analyst: CES</b>							
* Sulfate	3/2/22 11:51	3/2/22 11:51		20	348	mg/L	10.00	20	R
<b>Analytical Method: Field Measurements</b>		<b>Analyst: AWG</b>							
Conductivity	3/1/22 13:31	3/1/22 13:31			1113.20	uS/cm			FA
pH	3/1/22 13:31	3/1/22 13:31			6.77	SU			FA
Temperature	3/1/22 13:31	3/1/22 13:31			17.49	C			FA
Turbidity	3/1/22 13:31	3/1/22 13:31			1.38	NTU			FA

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.

# Batch QC Summary

**Customer Account:** WMWGORAP

**Sample Date:** 3/1/22 13:34

**Customer ID:**

**Delivery Date:** 3/1/22 15:26

**Description:** Gorgas Ash Pond - MW-05R

**Laboratory ID Number:** BC04386

Sample	Analysis	Units	MB	MB		MS	MSD	Standard		Rec		Prec	Limit
				Limit	Spike			Standard	Limit	Rec	Limit		
BC04386	Aluminum, Dissolved	mg/L	0.0000136	0.010	0.100	0.0950	0.0967	0.0982	0.0850 to 0.115	95.0	70.0 to 130	1.77	20.0
BC04386	Aluminum, Total	mg/L	0.000438	0.010	0.100	0.0949	0.0926	0.0988	0.0850 to 0.115	94.9	70.0 to 130	2.45	20.0
BC04386	Antimony, Dissolved	mg/L	0.000661	0.00100	0.100	0.0897	0.0908	0.0875	0.0850 to 0.115	89.7	70.0 to 130	1.22	20.0
BC04386	Antimony, Total	mg/L	0.000579	0.00100	0.100	0.0934	0.0948	0.0911	0.0850 to 0.115	93.4	70.0 to 130	1.49	20.0
BC04386	Arsenic, Dissolved	mg/L	-0.0000123	0.000176	0.100	0.0970	0.0976	0.101	0.0850 to 0.115	96.6	70.0 to 130	0.617	20.0
BC04386	Arsenic, Total	mg/L	-0.0000059	0.000176	0.100	0.0981	0.0975	0.0983	0.0850 to 0.115	97.6	70.0 to 130	0.613	20.0
BC04386	Barium, Dissolved	mg/L	0.0000116	0.000200	0.100	0.154	0.159	0.0920	0.0850 to 0.115	87.8	70.0 to 130	3.19	20.0
BC04386	Barium, Total	mg/L	0.0000125	0.000200	0.100	0.158	0.162	0.0932	0.0850 to 0.115	88.5	70.0 to 130	2.50	20.0
BC04386	Beryllium, Dissolved	mg/L	0.0000168	0.000880	0.100	0.0970	0.0968	0.101	0.0850 to 0.115	97.0	70.0 to 130	0.206	20.0
BC04386	Beryllium, Total	mg/L	0.0000346	0.000880	0.100	0.0964	0.0930	0.0989	0.0850 to 0.115	96.4	70.0 to 130	3.59	20.0
BC04386	Boron, Dissolved	mg/L	-0.000083	0.0650	1.00	1.03	1.05	0.991	0.850 to 1.15	99.5	70.0 to 130	1.92	20.0
BC04386	Boron, Total	mg/L	-0.000008	0.0650	1.00	1.04	1.05	0.969	0.850 to 1.15	100	70.0 to 130	0.957	20.0
BC04386	Cadmium, Dissolved	mg/L	0.0000000	0.000147	0.100	0.0921	0.0938	0.0976	0.0850 to 0.115	92.1	70.0 to 130	1.83	20.0
BC04386	Cadmium, Total	mg/L	0.0000190	0.000147	0.100	0.0934	0.0928	0.0979	0.0850 to 0.115	93.4	70.0 to 130	0.644	20.0
BC04386	Calcium, Dissolved	mg/L	-0.0113	0.152	5.00	102	99.4	4.95	4.25 to 5.75	106	70.0 to 130	2.58	20.0
BC04386	Calcium, Total	mg/L	-0.0134	0.152	5.00	107	103	4.76	4.25 to 5.75	194	70.0 to 130	3.81	20.0
BC04386	Chromium, Dissolved	mg/L	-0.0000164	0.000440	0.100	0.0925	0.0946	0.0978	0.0850 to 0.115	92.5	70.0 to 130	2.24	20.0
BC04386	Chromium, Total	mg/L	0.0000261	0.000440	0.100	0.0939	0.0927	0.100	0.0850 to 0.115	93.5	70.0 to 130	1.29	20.0
BC04386	Cobalt, Dissolved	mg/L	0.0000016	0.000147	0.100	0.0947	0.0962	0.0998	0.0850 to 0.115	94.7	70.0 to 130	1.57	20.0
BC04386	Cobalt, Total	mg/L	0.0000209	0.000147	0.100	0.0957	0.0944	0.103	0.0850 to 0.115	95.7	70.0 to 130	1.37	20.0
BC04386	Iron, Dissolved	mg/L	0.000121	0.0176	0.2	1.21	1.21	0.196	0.170 to 0.230	90.0	70.0 to 130	0.00	20.0
BC04386	Iron, Total	mg/L	-0.000052	0.0176	0.2	1.20	1.20	0.190	0.170 to 0.230	95.0	70.0 to 130	0.00	20.0
BC04386	Lead, Dissolved	mg/L	0.0000116	0.000147	0.100	0.0980	0.0984	0.0961	0.0850 to 0.115	98.0	70.0 to 130	0.407	20.0

**Comments:** The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.

# Batch QC Summary

**Customer Account:** WMWGORAP  
**Sample Date:** 3/1/22 13:34  
**Customer ID:**  
**Delivery Date:** 3/1/22 15:26

**Description:** Gorgas Ash Pond - MW-05R

**Laboratory ID Number:** BC04386

Sample	Analysis	Units	MB	MB				Standard		Rec		Prec	Limit
				Limit	Spike	MS	MSD	Standard	Limit	Rec	Limit		
BC04386	Lead, Total	mg/L	0.0000534	0.000147	0.100	0.0990	0.101	0.0994	0.0850 to 0.115	99.0	70.0 to 130	2.00	20.0
BC04386	Lithium, Dissolved	mg/L	-0.000144	0.0154	0.200	0.267	0.263	0.198	0.170 to 0.230	101	70.0 to 130	1.51	20.0
BC04386	Lithium, Total	mg/L	-0.000204	0.0154	0.200	0.268	0.268	0.201	0.170 to 0.230	102	70.0 to 130	0.00	20.0
BC04386	Magnesium, Dissolved	mg/L	-0.00653	0.0462	5.00	43.8	42.8	5.16	4.25 to 5.75	118	70.0 to 130	2.31	20.0
BC04386	Magnesium, Total	mg/L	-0.00848	0.0462	5.00	46.3	44.6	5.09	4.25 to 5.75	174	70.0 to 130	3.74	20.0
BC04386	Manganese, Dissolved	mg/L	0.0000034	0.0002	0.100	0.216	0.216	0.0988	0.0850 to 0.115	96.0	70.0 to 130	0.00	20.0
BC04386	Manganese, Total	mg/L	0.0000276	0.0002	0.100	0.223	0.221	0.102	0.0850 to 0.115	88.0	70.0 to 130	0.901	20.0
BC04386	Mercury, Total by CVAA	mg/L	0.00015	0.000500	0.004	0.00405	0.00403	0.00394	0.00340 to 0.00460	101	70.0 to 130	0.495	20.0
BC04386	Molybdenum, Dissolved	mg/L	0.0000047	0.0002	0.100	0.0997	0.0985	0.0975	0.0850 to 0.115	97.8	70.0 to 130	1.21	20.0
BC04386	Molybdenum, Total	mg/L	0.0000189	0.0002	0.100	0.0988	0.0970	0.0970	0.0850 to 0.115	96.7	70.0 to 130	1.84	20.0
BC04386	Potassium, Dissolved	mg/L	0.0280	0.367	10.0	15.8	16.1	10.0	8.50 to 11.5	95.2	70.0 to 130	1.88	20.0
BC04386	Potassium, Total	mg/L	0.0237	0.367	10.0	16.0	15.8	9.96	8.50 to 11.5	94.3	70.0 to 130	1.26	20.0
BC04386	Selenium, Dissolved	mg/L	0.0000768	0.00100	0.100	0.101	0.100	0.104	0.0850 to 0.115	101	70.0 to 130	0.995	20.0
BC04386	Selenium, Total	mg/L	0.0000741	0.00100	0.100	0.0997	0.0961	0.101	0.0850 to 0.115	99.7	70.0 to 130	3.68	20.0
BC04386	Silicon, Dissolved	mg/L	-0.000895	0.0440	1.00	12.7	12.8	0.998	0.850 to 1.15	90.0	70.0 to 130	0.784	20.0
BC04386	Silicon, Total	mg/L	0.000287	0.0440	1.00	12.8	12.8	0.978	0.850 to 1.15	100	70.0 to 130	0.00	20.0
BC04386	Sodium, Dissolved	mg/L	0.000319	0.0660	5.00	101	98.7	4.98	4.25 to 5.75	130	70.0 to 130	2.30	20.0
BC04386	Sodium, Total	mg/L	0.00143	0.0660	5.00	115	110	5.08	4.25 to 5.75	240	70.0 to 130	4.44	20.0
BC04386	Thallium, Dissolved	mg/L	0.0000090	0.000147	0.100	0.0994	0.0979	0.0970	0.0850 to 0.115	99.4	70.0 to 130	1.52	20.0
BC04386	Thallium, Total	mg/L	0.0000465	0.000147	0.100	0.0987	0.101	0.0992	0.0850 to 0.115	98.7	70.0 to 130	2.30	20.0
BC04386	Total Organic Carbon	mg/L	0.220	1.00	10.0	14.5	14.6	10.1		102	80.0 to 120	0.687	20.0

**Comments:** The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.

## Batch QC Summary

**Customer Account:** WMWGORAP

**Sample Date:** 3/1/22 13:34

**Customer ID:**

**Delivery Date:** 3/1/22 15:26

**Description:** Gorgas Ash Pond - MW-05R

**Laboratory ID Number:** BC04386

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BC04386	Alkalinity, Total as CaCO3	mg/L					260	50.7	45.0 to 55.0			3.77	10.0
BC04386	Chloride	mg/L	-0.0388	1.00	40.0	89.2	48.8	10.4	9.00 to 11.0	107	80.0 to 120	5.04	20.0
BC04386	Fluoride	mg/L	0.00164	0.125	2.50	2.55	0.181	2.58	2.25 to 2.75	96.1	80.0 to 120	20.7	20.0
BC04386	Nitrogen, Nitrate/Nitrite	mg/L as N	-0.01	0.200	2.00	1.93	-0.024	1.94	1.80 to 2.20	96.5	90.0 to 110	0.00	15.0
BC04386	Solids, Dissolved	mg/L	1.00	25.0			754	50.0	40.0 to 60.0			1.06	10.0
BC04386	Sulfate	mg/L	0.0134	2.0	400	863	332	21.5	18.0 to 22.0	129	80.0 to 120	4.71	20.0

**Comments:** The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.



# Definitions

**Project Number:** WMWGORAP\_1350

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
A	Bicarbonate alkalinity, carbonate alkalinity, hydroxide alkalinity, free carbon dioxide, and/or total carbon dioxide calculations are estimates due to pH>10SU and/or TDS>500mg/L.
AI	Bicarbonate alkalinity, carbonate alkalinity, hydroxide alkalinity, free carbon dioxide, and/or total carbon dioxide calculations are invalid due to pH>12SU and not reported.
FA	Field results were reviewed by the Water Field Group. Refer to APC Field Case Narrative.
HT	Analysis was performed outside of the analytical holding time.
J	Reported value is an estimate because concentration is less than reporting limit.
PA	Precision is invalid due to sample concentration.
R	Matrix spike recovery and/or matrix spike duplicate recovery is outside of specification limit.
RA	Matrix spike is invalid due to sample concentration.
U	Compound was analyzed, but not detected.



# 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
Collector	TJ Daugherty	Requested By	Greg Dyer
		Location	Gorgas Ash Pond

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

Comments: Dissolved set collected @ MW-7  
Nitrate/ Nitrite, TOC bottles pH<2. LBM 2/9/22

Sample #	Date	Time	Bottle Count	Description	Lab Filter	Lab Id
MW-7	02/08/2022	11:20	7	Groundwater		BC02831
MW-7 Diss	02/08/2022	11:20	6	Field Filtered		BC02832
MW-41HS	02/08/2022	14:43	7	Groundwater		BC02833
MW-6V	02/09/2022	12:00	7	Groundwater		BC02834

Relinquished By	Received By	Date/Time
		02/09/2022 14:58

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	1350	
Cooler Temp	0.5 degrees C	
Thermometer ID	5408-27568-2-2	
pH Strip ID	8440-53679-10-5 & 9772-56581-100-3	

Bottles/Pre-Preserved Bottles are provided by the GTL



# 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
Collector	Dallas Gentry	Requested By	Greg Dyer
		Location	Gorgas Ash Pond

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

Comments: Nitrate/ Nitrite, TOC bottles pH<2. LBM 2/9/22

Sample #	Date	Time	Bottle Count	Description	Lab Filter	Lab Id
MW-30HA	02/08/2022	09:36	7	Groundwater		BC02835
MW-21	02/08/2022	11:11	7	Groundwater		BC02836
MW-21V	02/08/2022	13:38	7	Groundwater		BC02837
MW-31H	02/08/2022	16:04	7	Groundwater		BC02838

Relinquished By	Received By	Date/Time
<i>Dallas Gentry</i>	<i>Dustin Brooks</i>	02/09/2022 16:02

SmarTroll ID	7586-41444-5-3	All metals and radiological bottles have pH < 2 <input checked="" type="checkbox"/>
Turbidity ID	3901-20010-2-2	
Sample Event	1350	
Cooler Temp	0.0 degrees C	
Thermometer ID	5408-27568-2-2	
pH Strip ID	9772-56581-100-3	

Bottles/Pre-Preserved Bottles are provided by the GTL







# 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
	Collector: Anthony Goggins		Requested By: Greg Dyer
		Location	Gorgas Ash Pond

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

Comments: Nitrate/ Nitrite, TOC bottles pH<2. LBM 2/15/22

Sample #	Date	Time	Bottle Count	Description	Lab Filter	Lab Id
MW-28H	02/14/2022	12:42	7	Groundwater		BC03245
MW-28H DUP	02/14/2022	12:42	7	Sample Duplicate		BC03246
MW-29H	02/14/2022	14:30	7	Groundwater		BC03247
FB-3	02/14/2022	15:10	5	Field Blank		BC03248
MW-32H	02/14/2022	15:45	7	Groundwater		BC03249

Relinquished By <i>Anthony Goggins</i>	Received By <i>Laura Kelly</i>	Date/Time 02/15/2022 08:13

SmarTroll ID	7586-41442-5-1
Turbidity ID	4677-23343-4-2
Sample Event	1350

All metals and radiological bottles have pH < 2

Cooler Temp	0.0 degrees C
Thermometer ID	5408-27568-2-2
pH Strip ID	9772-56581-100-3

Bottles/Pre-Preserved Bottles are provided by the GTL



# 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
	Collector: Dallas Gentry		Requested By
		Location	Gorgas Ash Pond

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

Comments: Nitrate/Nitrite, TOC bottles pH<2. LBM 2/17/22

Sample #	Date	Time	Bottle Count	Description	Lab Filter	Lab Id
PZ-16	02/15/2022	11:08	7	Groundwater		BC03523
MW-16D	02/15/2022	12:48	7	Groundwater		BC03524
MW-16S	02/15/2022	13:52	7	Groundwater		BC03525
FB-2	02/15/2022	14:45	5	Field Blank		BC03526
MW-15	02/16/2022	10:39	7	Groundwater		BC03527
MW-15V	02/16/2022	11:45	7	Groundwater		BC03528
MW-25HA	02/16/2022	13:22	7	Groundwater		BC03529

Relinquished By	Received By	Date/Time
<i>Mel Dyer</i>	<i>Lauren McKiff</i>	02/17/2022 08:13

SmarTroll ID	7586-41443-5-2	All metals and radiological bottles have pH < 2 <input checked="" type="checkbox"/>
Turbidity ID	3901-20010-2-2	
Sample Event	1350	
Cooler Temp	0.0 degrees C	
Thermometer ID	5408-27568-2-2	
pH Strip ID	9772-56581-100-3	

Bottles/Pre-Preserved Bottles are provided by the GTL







# 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
	Collector: Dallas Gentry		Requested By: Greg Dyer
		Location	Gorgas Ash Pond

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

Comments: Nitrate/Nitrite and TOC bottles pH<2. LBM 2/23/22

Sample #	Date	Time	Bottle Count	Description	Lab Filter	Lab Id
MW-43H	02/21/2022	11:43	7	Groundwater		BC03953
PZ-18R	02/21/2022	14:40	7	Groundwater		BC03954
MW-36V	02/22/2022	10:06	7	Groundwater		BC03955
MW-27HR	02/22/2022	12:03	7	Groundwater		BC03956
FB-6	02/22/2022	12:40	5	Field Blank		BC03957
MW-18R	02/22/2022	13:42	7	Groundwater		BC03958
MW-18R dup	02/22/2022	13:42	7	Sample Duplicate		BC03959
MW-18VR	02/22/2022	15:15	7	Groundwater		BC03960
MW-45V	02/23/2022	11:29	7	Groundwater		BC03961
MW-03V	02/23/2022	12:49	7	Groundwater		BC03962

Relinquished By	Received By	Date/Time
<i>[Signature]</i>	<i>[Signature]</i>	02/23/2022 15:22

SmarTroll ID	7586-41443-5-2	All metals and radiological bottles have pH < 2 <input checked="" type="checkbox"/>
Turbidity ID	3901-20010-2-2	
Sample Event	1350	
Cooler Temp	0.0 degrees C & 0.8 degrees C	
Thermometer ID	5408-27568-2-2	
pH Strip ID	9772-56581-100-3	

Bottles/Pre-Preserved Bottles are provided by the GTL









# 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
	Collector: Dallas Gentry		Requested By: Greg Dyer
		Location	Gorgas Ash Pond

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

Comments: TOC, N/N bottles pH<2. LBM 3/1/22

Sample #	Date	Time	Bottle Count	Description	Lab Filter	Lab Id
MW-37HR	02/28/2022	12:20	7	Groundwater		BC04376
MW-47	02/28/2022	14:12	7	Groundwater		BC04377
MW-14R	02/28/2022	15:33	7	Groundwater		BC04378
MW-13R	03/01/2022	08:34	7	Groundwater		BC04379
MW-10R	03/01/2022	12:07	7	Groundwater		BC04380

Relinquished By	Received By	Date/Time
		03/01/2022 14:36

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	1350		
		Cooler Temp	0.1 degrees C
		Thermometer ID	5408-27568-2-2
		pH Strip ID	9772-56581-100-3

Bottles/Pre-Preserved Bottles are provided by the GTL





# 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
	Collector: TJ Daugherty		Requested By
		Location	Gorgas Ash Pond

Bottles	1	Radium	1 L	3	N/A	N/A	5	N/A	N/A	7	N/A	N/A
	2	Sulfides	250 mL	4	N/A	N/A	6	N/A	N/A	8	N/A	N/A

Comments: Dissolved set collected @ MW-7  
 Sulfide bottles pH>9. LBM 2/9/22

Sample #	Date	Time	Bottle Count	Description	Lab Filter	Lab Id
MW-7	02/08/2022	11:20	2	Groundwater		BC02839
MW-7 Diss	02/08/2022	11:20	2	Field Filtered		BC02840
MW-41HS	02/08/2022	14:43	2	Groundwater		BC02841
MW-6V	02/09/2022	12:00	2	Groundwater		BC02842

Relinquished By	Received By	Date/Time
		02/09/2022 14:58

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	1350		
		Cooler Temp	0.5 degrees C
		Thermometer ID	5408-27568-2-2
		pH Strip ID	8440-53679-10-5 & 9772-56581-100-3

Bottles/Pre-Preserved Bottles are provided by the GTL



# 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
	Collector: Dallas Gentry		Requested By: Greg Dyer
		Location	Gorgas Ash Pond

Bottles	1 Radium	1 L	3 N/A	N/A	5 N/A	N/A	7 N/A	N/A
	2 Sulfide	250 mL	4 N/A	N/A	6 N/A	N/A	8 N/A	N/A

Comments: Sulfide bottles pH>9. LBM 2/9/22

Sample #	Date	Time	Bottle Count	Description	Lab Filter	Lab Id
MW-30HA	02/08/2022	09:36	2	Groundwater		BC02843
MW-21	02/08/2022	11:11	2	Groundwater		BC02844
MW-21V	02/08/2022	13:38	2	Groundwater		BC02845
MW-31H	02/08/2022	16:04	2	Groundwater		BC02846

Relinquished By	Received By	Date/Time
<i>[Signature]</i>	<i>[Signature]</i>	02/09/2022 16:02

SmarTroll ID	7586-41444-5-3	All metals and radiological bottles have pH < 2 <input checked="" type="checkbox"/>	
Turbidity ID	3901-20010-2-2		
Sample Event	1350		
		Cooler Temp	0.0 degrees C
		Thermometer ID	5408-27568-2-2
		pH Strip ID	9772-56581-100-3

Bottles/Pre-Preserved Bottles are provided by the GTL









# Chain of Custody Groundwater

APC General Testing Laboratory

Field Complete

Outside Lab

Lab Complete

Lab ETA

Requested Complete Date Routine  
Collector Anthony Goggins

Results To Dustin Brooks, Greg Dyer  
Requested By Greg Dyer  
Location Gorgas Ash Pond

Bottles	1	Radium	1 L	3	N/A	N/A	5	N/A	N/A	7	N/A	N/A
	2	Sulfide	250 mL	4	N/A	N/A	6	N/A	N/A	8	N/A	N/A

Comments Sulfide bottles pH>9. LBM 2/15/22

Sample #	Date	Time	Bottle Count	Description	Lab Filter	Lab Id
MW-28H	02/14/2022	12:42	2	Groundwater		BC03259
MW-28H DUP	02/14/2022	12:42	2	Sample Duplicate		BC03260
MW-29H	02/14/2022	14:30	2	Groundwater		BC03261
FB-3	02/14/2022	15:10	2	Field Blank		BC03262
MW-32H	02/14/2022	15:45	2	Groundwater		BC03263

Relinquished By <i>Anthony Goggins</i>	Received By <i>Kevin M...</i>	Date/Time 02/15/2022 08:14

SmarTroll ID	7586-41442-5-1	All metals and radiological bottles have pH < 2 <input checked="" type="checkbox"/>	
Turbidity ID	4677-23343-4-2		
Sample Event	1350		
		Cooler Temp	0.0 degrees C
		Thermometer ID	5408-27568-2-2
		pH Strip ID	9772-56581-100-3





# 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
	Collector: TJ Daugherty		Requested By: Greg Dyer
		Location	Gorgas Ash Pond

Bottles	1 Radium	1 L	3 N/A	N/A	5 N/A	N/A	7 N/A	N/A
	2 Sulfide	250 mL	4 N/A	N/A	6 N/A	N/A	8 N/A	N/A

Comments: Rad MS/MSD @ MW-42H  
Sulfide bottles pH>9. LBM 2/17/22

Sample #	Date	Time	Bottle Count	Description	Lab Filter	Lab Id
MW-41HD	02/15/2022	09:25	2	Groundwater		BC03546
MW-24H	02/15/2022	10:37	2	Groundwater		BC03547
MW-24H Dup	02/15/2022	10:37	2	Sample Duplicate		BC03548
MW-40H	02/15/2022	12:25	2	Groundwater		BC03549
MW-26H	02/15/2022	14:13	2	Groundwater		BC03550
MW-42H	02/16/2022	10:43	4	Groundwater		BC03551
MW-8	02/16/2022	12:14	2	Groundwater		BC03552
MW-3	02/16/2022	14:57	2	Groundwater		BC03553
FB-1	02/16/2022	15:50	2	Field Blank		BC03554

Relinquished By	Received By	Date/Time
<i>[Signature]</i>	<i>[Signature]</i>	02/17/2022 08:14

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	1350		
		Cooler Temp	0.3 degrees C
		Thermometer ID	5408-27568-2-2
		pH Strip ID	9772-56581-100-3

Bottles/Pre-Preserved Bottles are provided by the GTL



# 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
	Collector: Dallas Gentry		Requested By: Greg Dyer
		Location	Gorgas Ash Pond

Bottles	1	Radium	1 L	3	N/A	N/A	5	N/A	N/A	7	N/A	N/A
	2	Sulfide	250 mL	4	N/A	N/A	6	N/A	N/A	8	N/A	N/A

Comments: Sulfide bottles pH>9. LBM 2/23/22

Sample #	Date	Time	Bottle Count	Description	Lab Filter	Lab Id
MW-43H	02/21/2022	11:43	2	Groundwater		BC03974
PZ-18R	02/21/2022	14:40	2	Groundwater		BC03975
MW-36V	02/22/2022	10:06	2	Groundwater		BC03976
MW-27HR	02/22/2022	12:03	2	Groundwater		BC03977
FB-6	02/22/2022	12:40	2	Field Blank		BC03978
MW-18R	02/22/2022	13:42	2	Groundwater		BC03979
MW-18R dup	02/22/2022	13:42	2	Sample Duplicate		BC03980
MW-18VR	02/22/2022	15:15	2	Groundwater		BC03981
MW-45V	02/23/2022	11:29	2	Groundwater		BC03982
MW-03V	02/23/2022	12:49	2	Groundwater		BC03983

Relinquished By	Received By	Date/Time
<i>Mel Dyer</i>	<i>Laura M. Dyer</i>	02/23/2022 15:22

SmarTroll ID	7586-41443-5-2	All metals and radiological bottles have pH < 2 <input checked="" type="checkbox"/>
Turbidity ID	3901-20010-2-2	
Sample Event	1350	
Cooler Temp	0.0 degrees C & 0.8 degrees C	
Thermometer ID	5408-27568-2-2	
pH Strip ID	9772-56581-100-3	

Bottles/Pre-Preserved Bottles are provided by the GTL



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		
	Collector: TJ Daugherty			Requested By	Greg Dyer	
					Location	Gorgas Ash Pond

Bottles	1	Radium	1 L	3	N/A	N/A	5	N/A	N/A	7	N/A	N/A
	2	Sulfide	250 mL	4	N/A	N/A	6	N/A	N/A	8	N/A	N/A

Comments: Sulfide bottles pH>9. LBM 2/23/22

Sample #	Date	Time	Bottle Count	Description	Lab Filter	Lab Id
MW-9V	02/21/2022	12:08	2	Groundwater		BC03984
MW-38H	02/22/2022	09:35	2	Groundwater		BC03985
MW-19	02/22/2022	11:18	2	Groundwater		BC03986
MW-19 Dup	02/22/2022	11:18	2	Sample Duplicate		BC03987
MW-2	02/22/2022	13:17	2	Groundwater		BC03988
MW-12V	02/23/2022	12:33	2	Groundwater		BC03989
FB-5	02/23/2022	13:30	2	Field Blank		BC03990

Relinquished By	Received By	Date/Time
<i>Handwritten Signature</i>	<i>Handwritten Signature</i>	02/23/2022 15:59

SmarTroll ID	7586-41445-5-4
Turbidity ID	4677-23342-4-1
Sample Event	1350

All metals and radiological bottles have pH < 2

Cooler Temp	0.3 degrees C
Thermometer ID	5408-27568-2-2
pH Strip ID	9772-56581-100-3

Bottles/Pre-Preserved Bottles are provided by the GTL











# 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
	Collector: Anthony Goggins		Requested By
		Location	Gorgas Ash Pond

Bottles	1	Radium	1 L	3	N/A	N/A	5	N/A	N/A	7	N/A	N/A
	2	Sulfide	250 mL	4	N/A	N/A	6	N/A	N/A	8	N/A	N/A

Comments: Sulfide bottles pH>9. LBM 3/1/22

Sample #	Date	Time	Bottle Count	Description	Lab Filter	Lab Id
MW-01R	03/01/2022	08:54	2	Groundwater		BC04395
MW-11R	03/01/2022	11:20	2	Groundwater		BC04396
MW-05R	03/01/2022	13:34	2	Groundwater		BC04397

Relinquished By	Received By	Date/Time
<i>Anthony Goggins</i>	<i>Greg Dyer</i>	03/01/2022 15:17

SmarTroll ID	7586-41442-5-1
Turbidity ID	4677-23343-4-2
Sample Event	1350

All metals and radiological bottles have pH < 2

Cooler Temp	0.0 degrees C
Thermometer ID	5408-27568-2-2
pH Strip ID	9772-56581-100-3

Bottles/Pre-Preserved Bottles are provided by the GTL

March 14, 2022

Laura Midkiff  
Alabama Power  
744 Highway 87  
GSC 8  
Calera, AL 35040

RE: Project: WMWGORAP\_1350  
Pace Project No.: 20234691

Dear Laura Midkiff:

Enclosed are the analytical results for sample(s) received by the laboratory between February 10, 2022 and March 02, 2022. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Services - New Orleans

3-9 This is a revised report. Sample MW-43H was originally overrange and reanalyzed outside of holding time to confirm original result. Original "in hold" result now appears.

3-14 This is a second revision to correct several sample IDs and collection times. Also, MW-43H was NOT originally over calibration range, as previously indicated, however reanalysis outside of holding time confirmed original result. Original result is reported.

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

Sincerely,



Karen Brown  
karen.brown@pacelabs.com  
(504)469-0333  
Project Manager

Enclosures

cc: Renee Jernigan, Alabama Power  
Trinity B. Williams, Alabama Power



## REPORT OF LABORATORY ANALYSIS

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## CERTIFICATIONS

Project: WMWGORAP\_1350

Pace Project No.: 20234691

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### **Pace Analytical Services New Orleans**

Florida Department of Health (NELAC): E87595

Illinois Environmental Protection Agency: 0025721

Kansas Department of Health and Environment (NELAC):

E-10266

Louisiana Dept. of Environmental Quality (NELAC/LELAP):  
02006

Texas Commission on Env. Quality (NELAC):

T104704405-09-TX

U.S. Dept. of Agriculture Foreign Soil Import: P330-10-  
00119

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## REPORT OF LABORATORY ANALYSIS

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## SAMPLE SUMMARY

Project: WMWGORAP\_1350

Pace Project No.: 20234691

Lab ID	Sample ID	Matrix	Date Collected	Date Received
20234691001	BC02839 MW-7	Water	02/08/22 11:20	02/10/22 14:55
20234691002	BC02840 MW-7 DIS	Water	02/08/22 11:20	02/10/22 14:55
20234691003	BC02841 MW-41 HS	Water	02/08/22 14:43	02/10/22 14:55
20234691004	BC02842 MW-6V	Water	02/09/22 12:00	02/10/22 14:55
20234691005	BC02843 MW-30 HA	Water	02/08/22 09:36	02/10/22 14:55
20234691006	BC02844 MW-21	Water	02/08/22 11:11	02/10/22 14:55
20234691007	BC02845 MW-21V	Water	02/08/22 13:38	02/10/22 14:55
20234691008	BC02846 MW-31H	Water	02/08/22 16:04	02/10/22 14:55
20234691009	BC03250 PZ-22	Water	02/14/22 10:21	02/16/22 09:40
20234691010	BC03251 MW-17	Water	02/14/22 11:42	02/16/22 09:40
20234691011	BC03252 MW-17V	Water	02/14/22 12:54	02/16/22 09:40
20234691012	BC03253 MW-36H	Water	02/14/22 15:28	02/16/22 09:40
20234691013	BC03254 MW-6S	Water	02/14/22 11:18	02/16/22 09:40
20234691014	BC03255 MW-6S DUP	Water	02/14/22 11:18	02/16/22 09:40
20234691015	BC03256 MW-6D	Water	02/14/22 12:34	02/16/22 09:40
20234691016	BC03257 MW-23H	Water	02/14/22 13:47	02/16/22 09:40
20234691017	BC03258 MW-23H DUP	Water	02/14/22 13:47	02/16/22 09:40
20234691018	BC03259 MW-28H	Water	02/14/22 12:42	02/16/22 09:40
20234691019	BC03260 MW-28H DUP	Water	02/14/22 12:42	02/16/22 09:40
20234691020	BC03261 MW-29H	Water	02/14/22 14:30	02/16/22 09:40
20234691021	BC03262 FB-3	Water	02/14/22 15:10	02/16/22 09:40
20234691022	BC03263 MW-32H	Water	02/14/22 15:45	02/16/22 09:40
20234691023	BC03539 PZ-16	Water	02/15/22 11:08	02/18/22 10:00
20234691024	BC03540 MW-16D	Water	02/15/22 12:48	02/18/22 10:00
20234691025	BC03541 MW-16S	Water	02/15/22 13:52	02/18/22 10:00
20234691026	BC03542 FB-2	Water	02/15/22 14:45	02/18/22 10:00
20234691027	BC03543 MW-15	Water	02/16/22 10:39	02/18/22 10:00
20234691028	BC03544 MW-15V	Water	02/16/22 11:45	02/18/22 10:00
20234691029	BC03545 MW-25HA	Water	02/16/22 13:22	02/18/22 10:00
20234691030	BC03546 MW-41HD	Water	02/15/22 09:25	02/18/22 10:00
20234691031	BC03547 MW-24H	Water	02/15/22 10:37	02/18/22 10:00
20234691032	BC03548 MW-24H DUP	Water	02/15/22 10:37	02/18/22 10:00
20234691033	BC03549 MW-40H	Water	02/15/22 12:25	02/18/22 10:00
20234691034	BC03550 MW-26H	Water	02/15/22 14:13	02/18/22 10:00
20234691035	BC03551 MW-42H	Water	02/16/22 10:43	02/18/22 10:00
20234691036	BC03552 MW-8	Water	02/16/22 12:14	02/18/22 10:00
20234691037	BC03553 MW-3	Water	02/16/22 14:57	02/18/22 10:00

## REPORT OF LABORATORY ANALYSIS

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## SAMPLE SUMMARY

Project: WMWGORAP\_1350

Pace Project No.: 20234691

Lab ID	Sample ID	Matrix	Date Collected	Date Received
20234691038	BC03554 FB-1	Water	02/16/22 15:50	02/18/22 10:00
20234691039	BC03974 MW-43H	Water	02/21/22 11:43	02/24/22 10:30
20234691040	BC03975 PZ-18R	Water	02/21/22 14:40	02/24/22 10:30
20234691041	BC03976 MW-36V	Water	02/22/22 10:06	02/24/22 10:30
20234691042	BC03977 MW-27HR	Water	02/22/22 12:03	02/24/22 10:30
20234691043	BC03978 FB-6	Water	02/22/22 12:40	02/24/22 10:30
20234691044	BC03979 MW-18R	Water	02/22/22 13:42	02/24/22 10:30
20234691045	BC03980 MW-18R DUP	Water	02/22/22 13:42	02/24/22 10:30
20234691046	BC03981 MW-18VR	Water	02/22/22 15:15	02/24/22 10:30
20234691047	BC03982 MW-45V	Water	02/23/22 11:29	02/24/22 10:30
20234691048	BC03983 MW-03V	Water	02/23/22 12:49	02/24/22 10:30
20234691049	BC03984 MW-9V	Water	02/21/22 12:08	02/24/22 10:30
20234691050	BC03985 MW-38H	Water	02/22/22 09:35	02/24/22 10:30
20234691051	BC03986 MW-19	Water	02/22/22 11:18	02/24/22 10:30
20234691052	BC03987 MW-19 DUP	Water	02/22/22 11:18	02/24/22 10:30
20234691053	BC03988 MW-2	Water	02/22/22 13:17	02/24/22 10:30
20234691054	BC03989 MW-12V	Water	02/23/22 12:33	02/24/22 10:30
20234691055	BC03990 FB-5	Water	02/23/22 13:30	02/24/22 10:30
20234691056	BC03991 MW-31V	Water	02/22/22 13:07	02/24/22 10:30
20234691057	BC03992 MW-46	Water	02/23/22 10:30	02/24/22 10:30
20234691058	BC03993 FB-4	Water	02/23/22 11:00	02/24/22 10:30
20234691059	BC03994 MW-23V	Water	02/23/22 13:33	02/24/22 10:30
20234691060	BC04387 MW-37HR	Water	02/28/22 12:20	03/02/22 08:45
20234691061	BC04388 MW-47	Water	02/28/22 14:12	03/02/22 08:45
20234691062	BC04389 MW-14R	Water	02/28/22 15:33	03/02/22 08:45
20234691063	BC04390 MW-13R	Water	03/01/22 08:34	03/02/22 08:45
20234691064	BC04391 MW-10R	Water	03/01/22 12:07	03/02/22 08:45
20234691065	BC04392 MW-12	Water	02/28/22 14:40	03/02/22 08:45
20234691066	BC04393 MW-09R	Water	03/01/22 12:04	03/02/22 08:45
20234691067	BC04394 EB-1	Water	03/01/22 12:30	03/02/22 08:45
20234691068	BC04395 MW-01R	Water	03/01/22 08:54	03/02/22 08:45
20234691069	BC04396 MW-11R	Water	03/01/22 11:20	03/02/22 08:45
20234691070	BC04397 MW-05R	Water	03/01/22 13:34	03/02/22 08:45

## REPORT OF LABORATORY ANALYSIS

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### SAMPLE ANALYTE COUNT

Project: WMWGORAP\_1350

Pace Project No.: 20234691

Lab ID	Sample ID	Method	Analysts	Analytes Reported
20234691001	BC02839 MW-7	SM 4500-S-2 D	RVJ	1
20234691002	BC02840 MW-7 DIS	SM 4500-S-2 D	RVJ	1
20234691003	BC02841 MW-41 HS	SM 4500-S-2 D	RVJ	1
20234691004	BC02842 MW-6V	SM 4500-S-2 D	RVJ	1
20234691005	BC02843 MW-30 HA	SM 4500-S-2 D	RVJ	1
20234691006	BC02844 MW-21	SM 4500-S-2 D	RVJ	1
20234691007	BC02845 MW-21V	SM 4500-S-2 D	RVJ	1
20234691008	BC02846 MW-31H	SM 4500-S-2 D	RVJ	1
20234691009	BC03250 PZ-22	SM 4500-S-2 D	RVJ	1
20234691010	BC03251 MW-17	SM 4500-S-2 D	RVJ	1
20234691011	BC03252 MW-17V	SM 4500-S-2 D	RVJ	1
20234691012	BC03253 MW-36H	SM 4500-S-2 D	RVJ	1
20234691013	BC03254 MW-6S	SM 4500-S-2 D	RVJ	1
20234691014	BC03255 MW-6S DUP	SM 4500-S-2 D	RVJ	1
20234691015	BC03256 MW-6D	SM 4500-S-2 D	RVJ	1
20234691016	BC03257 MW-23H	SM 4500-S-2 D	RVJ	1
20234691017	BC03258 MW-23H DUP	SM 4500-S-2 D	RVJ	1
20234691018	BC03259 MW-28H	SM 4500-S-2 D	RVJ	1
20234691019	BC03260 MW-28H DUP	SM 4500-S-2 D	RVJ	1
20234691020	BC03261 MW-29H	SM 4500-S-2 D	RVJ	1
20234691021	BC03262 FB-3	SM 4500-S-2 D	RVJ	1
20234691022	BC03263 MW-32H	SM 4500-S-2 D	RVJ	1
20234691023	BC03539 PZ-16	SM 4500-S-2 D	RVJ	1
20234691024	BC03540 MW-16D	SM 4500-S-2 D	RVJ	1
20234691025	BC03541 MW-16S	SM 4500-S-2 D	RVJ	1
20234691026	BC03542 FB-2	SM 4500-S-2 D	RVJ	1
20234691027	BC03543 MW-15	SM 4500-S-2 D	RVJ	1
20234691028	BC03544 MW-15V	SM 4500-S-2 D	RVJ	1
20234691029	BC03545 MW-25HA	SM 4500-S-2 D	RVJ	1
20234691030	BC03546 MW-41HD	SM 4500-S-2 D	RVJ	1
20234691031	BC03547 MW-24H	SM 4500-S-2 D	RVJ	1
20234691032	BC03548 MW-24H DUP	SM 4500-S-2 D	RVJ	1
20234691033	BC03549 MW-40H	SM 4500-S-2 D	RVJ	1
20234691034	BC03550 MW-26H	SM 4500-S-2 D	RVJ	1
20234691035	BC03551 MW-42H	SM 4500-S-2 D	RVJ	1
20234691036	BC03552 MW-8	SM 4500-S-2 D	RVJ	1
20234691037	BC03553 MW-3	SM 4500-S-2 D	RVJ	1

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### SAMPLE ANALYTE COUNT

Project: WMWGORAP\_1350  
Pace Project No.: 20234691

Lab ID	Sample ID	Method	Analysts	Analytes Reported
20234691038	BC03554 FB-1	SM 4500-S-2 D	RVJ	1
20234691039	BC03974 MW-43H	SM 4500-S-2 D	RVJ	1
20234691040	BC03975 PZ-18R	SM 4500-S-2 D	RVJ	1
20234691041	BC03976 MW-36V	SM 4500-S-2 D	DWR	1
20234691042	BC03977 MW-27HR	SM 4500-S-2 D	DWR	1
20234691043	BC03978 FB-6	SM 4500-S-2 D	DWR	1
20234691044	BC03979 MW-18R	SM 4500-S-2 D	DWR	1
20234691045	BC03980 MW-18R DUP	SM 4500-S-2 D	DWR	1
20234691046	BC03981 MW-18VR	SM 4500-S-2 D	DWR	1
20234691047	BC03982 MW-45V	SM 4500-S-2 D	DWR	1
20234691048	BC03983 MW-03V	SM 4500-S-2 D	DWR	1
20234691049	BC03984 MW-9V	SM 4500-S-2 D	RVJ	1
20234691050	BC03985 MW-38H	SM 4500-S-2 D	DWR	1
20234691051	BC03986 MW-19	SM 4500-S-2 D	DWR	1
20234691052	BC03987 MW-19 DUP	SM 4500-S-2 D	DWR	1
20234691053	BC03988 MW-2	SM 4500-S-2 D	DWR	1
20234691054	BC03989 MW-12V	SM 4500-S-2 D	DWR	1
20234691055	BC03990 FB-5	SM 4500-S-2 D	DWR	1
20234691056	BC03991 MW-31V	SM 4500-S-2 D	DWR	1
20234691057	BC03992 MW-46	SM 4500-S-2 D	DWR	1
20234691058	BC03993 FB-4	SM 4500-S-2 D	DWR	1
20234691059	BC03994 MW-23V	SM 4500-S-2 D	DWR	1
20234691060	BC04387 MW-37HR	SM 4500-S-2 D	ABW	1
20234691061	BC04388 MW-47	SM 4500-S-2 D	ABW	1
20234691062	BC04389 MW-14R	SM 4500-S-2 D	ABW	1
20234691063	BC04390 MW-13R	SM 4500-S-2 D	ABW	1
20234691064	BC04391 MW-10R	SM 4500-S-2 D	ABW	1
20234691065	BC04392 MW-12	SM 4500-S-2 D	ABW	1
20234691066	BC04393 MW-09R	SM 4500-S-2 D	ABW	1
20234691067	BC04394 EB-1	SM 4500-S-2 D	ABW	1
20234691068	BC04395 MW-01R	SM 4500-S-2 D	ABW	1
20234691069	BC04396 MW-11R	SM 4500-S-2 D	ABW	1
20234691070	BC04397 MW-05R	SM 4500-S-2 D	ABW	1

PASI-N = Pace Analytical Services - New Orleans

### REPORT OF LABORATORY ANALYSIS

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## PROJECT NARRATIVE

Project: WMWGORAP\_1350  
Pace Project No.: 20234691

---

**Method:** SM 4500-S-2 D  
**Description:** 4500S2D Sulfide, Total  
**Client:** Alabama Power  
**Date:** March 14, 2022

### General Information:

70 samples were analyzed for SM 4500-S-2 D by Pace Analytical Services New Orleans. All samples were received in acceptable condition with any exceptions noted below or on the chain-of-custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

### Hold Time:

The samples were analyzed within the method required hold times with any exceptions noted below.

### Method Blank:

All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

### Laboratory Control Spike:

All laboratory control spike compounds were within QC limits with any exceptions noted below.

### Matrix Spikes:

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

QC Batch: 247536

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 20234691001

M1: Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

- MS (Lab ID: 1175616)
- Sulfide, Total

QC Batch: 248002

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 20235052003

M1: Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

- MS (Lab ID: 1177803)
- Sulfide, Total

QC Batch: 248250

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 20234691018

M1: Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

- MS (Lab ID: 1178984)
- Sulfide, Total

QC Batch: 248358

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 20235249002

M1: Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

- MS (Lab ID: 1179384)
- Sulfide, Total

QC Batch: 248977

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 20236121001

M1: Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

- MS (Lab ID: 1182553)

## REPORT OF LABORATORY ANALYSIS

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## PROJECT NARRATIVE

Project: WMWGORAP\_1350  
Pace Project No.: 20234691

---

**Method:** SM 4500-S-2 D  
**Description:** 4500S2D Sulfide, Total  
**Client:** Alabama Power  
**Date:** March 14, 2022

QC Batch: 248977

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 20236121001

M1: Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

- Sulfide, Total

QC Batch: 249264

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 20236115001

M1: Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

- MS (Lab ID: 1184005)
- Sulfide, Total

### Duplicate Sample:

All duplicate sample results were within method acceptance criteria with any exceptions noted below.

### Additional Comments:

Batch Comments:

The sample originally chosen for QC for the batch was later canceled; acceptable method performance was demonstrated by the LCS recovery.

- QC Batch: 248738

This data package has been reviewed for quality and completeness and is approved for release.

## REPORT OF LABORATORY ANALYSIS

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### ANALYTICAL RESULTS

Project: WMWGORAP\_1350  
Pace Project No.: 20234691

Sample: BC02839 MW-7      Lab ID: 20234691001      Collected: 02/08/22 11:20      Received: 02/10/22 14:55      Matrix: Water									
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>4500S2D Sulfide, Total</b> Analytical Method: SM 4500-S-2 D Pace Analytical Services - New Orleans									
Sulfide, Total	0.18	mg/L	0.020	0.012	1		02/13/22 13:14	18496-25-8	M1
Sample: BC02840 MW-7 DIS      Lab ID: 20234691002      Collected: 02/08/22 11:20      Received: 02/10/22 14:55      Matrix: Water									
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>4500S2D Sulfide, Total</b> Analytical Method: SM 4500-S-2 D Pace Analytical Services - New Orleans									
Sulfide, Total	0.23	mg/L	0.020	0.012	1		02/13/22 13:41	18496-25-8	
Sample: BC02841 MW-41 HS      Lab ID: 20234691003      Collected: 02/08/22 14:43      Received: 02/10/22 14:55      Matrix: Water									
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>4500S2D Sulfide, Total</b> Analytical Method: SM 4500-S-2 D Pace Analytical Services - New Orleans									
Sulfide, Total	ND	mg/L	0.020	0.012	1		02/13/22 13:41	18496-25-8	
Sample: BC02842 MW-6V      Lab ID: 20234691004      Collected: 02/09/22 12:00      Received: 02/10/22 14:55      Matrix: Water									
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>4500S2D Sulfide, Total</b> Analytical Method: SM 4500-S-2 D Pace Analytical Services - New Orleans									
Sulfide, Total	0.054	mg/L	0.020	0.012	1		02/13/22 13:43	18496-25-8	
Sample: BC02843 MW-30 HA      Lab ID: 20234691005      Collected: 02/08/22 09:36      Received: 02/10/22 14:55      Matrix: Water									
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>4500S2D Sulfide, Total</b> Analytical Method: SM 4500-S-2 D Pace Analytical Services - New Orleans									
Sulfide, Total	0.12	mg/L	0.020	0.012	1		02/13/22 13:43	18496-25-8	

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### ANALYTICAL RESULTS

Project: WMWGORAP\_1350  
Pace Project No.: 20234691

Sample: BC02844 MW-21      Lab ID: 20234691006      Collected: 02/08/22 11:11      Received: 02/10/22 14:55      Matrix: Water									
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>4500S2D Sulfide, Total</b> Analytical Method: SM 4500-S-2 D Pace Analytical Services - New Orleans									
Sulfide, Total	2.1	mg/L	0.50	0.30	25		02/13/22 14:06	18496-25-8	
Sample: BC02845 MW-21V      Lab ID: 20234691007      Collected: 02/08/22 13:38      Received: 02/10/22 14:55      Matrix: Water									
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>4500S2D Sulfide, Total</b> Analytical Method: SM 4500-S-2 D Pace Analytical Services - New Orleans									
Sulfide, Total	0.30	mg/L	0.020	0.012	1		02/13/22 13:44	18496-25-8	
Sample: BC02846 MW-31H      Lab ID: 20234691008      Collected: 02/08/22 16:04      Received: 02/10/22 14:55      Matrix: Water									
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>4500S2D Sulfide, Total</b> Analytical Method: SM 4500-S-2 D Pace Analytical Services - New Orleans									
Sulfide, Total	3.0	mg/L	0.50	0.30	25		02/13/22 14:07	18496-25-8	
Sample: BC03250 PZ-22      Lab ID: 20234691009      Collected: 02/14/22 10:21      Received: 02/16/22 09:40      Matrix: Water									
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>4500S2D Sulfide, Total</b> Analytical Method: SM 4500-S-2 D Pace Analytical Services - New Orleans									
Sulfide, Total	0.012J	mg/L	0.020	0.012	1		02/17/22 15:19	18496-25-8	
Sample: BC03251 MW-17      Lab ID: 20234691010      Collected: 02/14/22 11:42      Received: 02/16/22 09:40      Matrix: Water									
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>4500S2D Sulfide, Total</b> Analytical Method: SM 4500-S-2 D Pace Analytical Services - New Orleans									
Sulfide, Total	0.016J	mg/L	0.020	0.012	1		02/21/22 16:21	18496-25-8	

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### ANALYTICAL RESULTS

Project: WMWGORAP\_1350  
Pace Project No.: 20234691

Sample: BC03252 MW-17V      Lab ID: 20234691011      Collected: 02/14/22 12:54      Received: 02/16/22 09:40      Matrix: Water									
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>4500S2D Sulfide, Total</b> Analytical Method: SM 4500-S-2 D Pace Analytical Services - New Orleans									
Sulfide, Total	0.057	mg/L	0.020	0.012	1		02/21/22 16:22	18496-25-8	
Sample: BC03253 MW-36H      Lab ID: 20234691012      Collected: 02/14/22 15:28      Received: 02/16/22 09:40      Matrix: Water									
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>4500S2D Sulfide, Total</b> Analytical Method: SM 4500-S-2 D Pace Analytical Services - New Orleans									
Sulfide, Total	0.018J	mg/L	0.020	0.012	1		02/21/22 16:23	18496-25-8	
Sample: BC03254 MW-6S      Lab ID: 20234691013      Collected: 02/14/22 11:18      Received: 02/16/22 09:40      Matrix: Water									
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>4500S2D Sulfide, Total</b> Analytical Method: SM 4500-S-2 D Pace Analytical Services - New Orleans									
Sulfide, Total	ND	mg/L	0.020	0.012	1		02/21/22 16:24	18496-25-8	
Sample: BC03255 MW-6S DUP      Lab ID: 20234691014      Collected: 02/14/22 11:18      Received: 02/16/22 09:40      Matrix: Water									
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>4500S2D Sulfide, Total</b> Analytical Method: SM 4500-S-2 D Pace Analytical Services - New Orleans									
Sulfide, Total	ND	mg/L	0.020	0.012	1		02/21/22 16:24	18496-25-8	
Sample: BC03256 MW-6D      Lab ID: 20234691015      Collected: 02/14/22 12:34      Received: 02/16/22 09:40      Matrix: Water									
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>4500S2D Sulfide, Total</b> Analytical Method: SM 4500-S-2 D Pace Analytical Services - New Orleans									
Sulfide, Total	2.9	mg/L	0.20	0.12	10		02/21/22 16:25	18496-25-8	

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### ANALYTICAL RESULTS

Project: WMWGORAP\_1350  
Pace Project No.: 20234691

<b>Sample: BC03257 MW-23H</b>									
		<b>Lab ID: 20234691016</b>		Collected: 02/14/22 13:47		Received: 02/16/22 09:40		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>4500S2D Sulfide, Total</b>									
Analytical Method: SM 4500-S-2 D Pace Analytical Services - New Orleans									
Sulfide, Total	ND	mg/L	0.020	0.012	1		02/21/22 16:26	18496-25-8	
<b>Sample: BC03258 MW-23H DUP</b>									
		<b>Lab ID: 20234691017</b>		Collected: 02/14/22 13:47		Received: 02/16/22 09:40		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>4500S2D Sulfide, Total</b>									
Analytical Method: SM 4500-S-2 D Pace Analytical Services - New Orleans									
Sulfide, Total	ND	mg/L	0.020	0.012	1		02/21/22 14:58	18496-25-8	
<b>Sample: BC03259 MW-28H</b>									
		<b>Lab ID: 20234691018</b>		Collected: 02/14/22 12:42		Received: 02/16/22 09:40		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>4500S2D Sulfide, Total</b>									
Analytical Method: SM 4500-S-2 D Pace Analytical Services - New Orleans									
Sulfide, Total	ND	mg/L	0.020	0.012	1		02/21/22 14:59	18496-25-8	M1
<b>Sample: BC03260 MW-28H DUP</b>									
		<b>Lab ID: 20234691019</b>		Collected: 02/14/22 12:42		Received: 02/16/22 09:40		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>4500S2D Sulfide, Total</b>									
Analytical Method: SM 4500-S-2 D Pace Analytical Services - New Orleans									
Sulfide, Total	ND	mg/L	0.020	0.012	1		02/21/22 15:42	18496-25-8	
<b>Sample: BC03261 MW-29H</b>									
		<b>Lab ID: 20234691020</b>		Collected: 02/14/22 14:30		Received: 02/16/22 09:40		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>4500S2D Sulfide, Total</b>									
Analytical Method: SM 4500-S-2 D Pace Analytical Services - New Orleans									
Sulfide, Total	<b>0.054</b>	mg/L	0.020	0.012	1		02/21/22 15:43	18496-25-8	

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### ANALYTICAL RESULTS

Project: WMWGORAP\_1350  
Pace Project No.: 20234691

Sample: BC03262 FB-3      Lab ID: 20234691021      Collected: 02/14/22 15:10      Received: 02/16/22 09:40      Matrix: Water									
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
4500S2D Sulfide, Total      Analytical Method: SM 4500-S-2 D Pace Analytical Services - New Orleans									
Sulfide, Total	ND	mg/L	0.020	0.012	1		02/21/22 15:44	18496-25-8	
Sample: BC03263 MW-32H      Lab ID: 20234691022      Collected: 02/14/22 15:45      Received: 02/16/22 09:40      Matrix: Water									
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
4500S2D Sulfide, Total      Analytical Method: SM 4500-S-2 D Pace Analytical Services - New Orleans									
Sulfide, Total	0.054	mg/L	0.020	0.012	1		02/21/22 15:44	18496-25-8	
Sample: BC03539 PZ-16      Lab ID: 20234691023      Collected: 02/15/22 11:08      Received: 02/18/22 10:00      Matrix: Water									
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
4500S2D Sulfide, Total      Analytical Method: SM 4500-S-2 D Pace Analytical Services - New Orleans									
Sulfide, Total	0.13	mg/L	0.020	0.012	1		02/22/22 15:15	18496-25-8	
Sample: BC03540 MW-16D      Lab ID: 20234691024      Collected: 02/15/22 12:48      Received: 02/18/22 10:00      Matrix: Water									
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
4500S2D Sulfide, Total      Analytical Method: SM 4500-S-2 D Pace Analytical Services - New Orleans									
Sulfide, Total	ND	mg/L	0.020	0.012	1		02/22/22 15:15	18496-25-8	
Sample: BC03541 MW-16S      Lab ID: 20234691025      Collected: 02/15/22 13:52      Received: 02/18/22 10:00      Matrix: Water									
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
4500S2D Sulfide, Total      Analytical Method: SM 4500-S-2 D Pace Analytical Services - New Orleans									
Sulfide, Total	ND	mg/L	0.020	0.012	1		02/22/22 15:49	18496-25-8	

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### ANALYTICAL RESULTS

Project: WMWGORAP\_1350  
Pace Project No.: 20234691

Sample: BC03542 FB-2      Lab ID: 20234691026      Collected: 02/15/22 14:45      Received: 02/18/22 10:00      Matrix: Water									
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>4500S2D Sulfide, Total</b> Analytical Method: SM 4500-S-2 D Pace Analytical Services - New Orleans									
Sulfide, Total	ND	mg/L	0.020	0.012	1		02/22/22 15:49	18496-25-8	
Sample: BC03543 MW-15      Lab ID: 20234691027      Collected: 02/16/22 10:39      Received: 02/18/22 10:00      Matrix: Water									
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>4500S2D Sulfide, Total</b> Analytical Method: SM 4500-S-2 D Pace Analytical Services - New Orleans									
Sulfide, Total	0.73	mg/L	0.10	0.059	5		02/23/22 15:08	18496-25-8	
Sample: BC03544 MW-15V      Lab ID: 20234691028      Collected: 02/16/22 11:45      Received: 02/18/22 10:00      Matrix: Water									
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>4500S2D Sulfide, Total</b> Analytical Method: SM 4500-S-2 D Pace Analytical Services - New Orleans									
Sulfide, Total	ND	mg/L	0.020	0.012	1		02/23/22 15:22	18496-25-8	
Sample: BC03545 MW-25HA      Lab ID: 20234691029      Collected: 02/16/22 13:22      Received: 02/18/22 10:00      Matrix: Water									
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>4500S2D Sulfide, Total</b> Analytical Method: SM 4500-S-2 D Pace Analytical Services - New Orleans									
Sulfide, Total	2.0	mg/L	0.50	0.30	25		02/23/22 15:27	18496-25-8	
Sample: BC03546 MW-41HD      Lab ID: 20234691030      Collected: 02/15/22 09:25      Received: 02/18/22 10:00      Matrix: Water									
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>4500S2D Sulfide, Total</b> Analytical Method: SM 4500-S-2 D Pace Analytical Services - New Orleans									
Sulfide, Total	ND	mg/L	0.020	0.012	1		02/22/22 15:50	18496-25-8	

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### ANALYTICAL RESULTS

Project: WMWGORAP\_1350  
Pace Project No.: 20234691

Sample: BC03547 MW-24H      Lab ID: 20234691031      Collected: 02/15/22 10:37      Received: 02/18/22 10:00      Matrix: Water									
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
4500S2D Sulfide, Total      Analytical Method: SM 4500-S-2 D Pace Analytical Services - New Orleans									
Sulfide, Total	ND	mg/L	0.020	0.012	1		02/22/22 15:51	18496-25-8	
Sample: BC03548 MW-24H DUP      Lab ID: 20234691032      Collected: 02/15/22 10:37      Received: 02/18/22 10:00      Matrix: Water									
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
4500S2D Sulfide, Total      Analytical Method: SM 4500-S-2 D Pace Analytical Services - New Orleans									
Sulfide, Total	ND	mg/L	0.020	0.012	1		02/22/22 15:52	18496-25-8	
Sample: BC03549 MW-40H      Lab ID: 20234691033      Collected: 02/15/22 12:25      Received: 02/18/22 10:00      Matrix: Water									
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
4500S2D Sulfide, Total      Analytical Method: SM 4500-S-2 D Pace Analytical Services - New Orleans									
Sulfide, Total	ND	mg/L	0.020	0.012	1		02/22/22 15:53	18496-25-8	
Sample: BC03550 MW-26H      Lab ID: 20234691034      Collected: 02/15/22 14:13      Received: 02/18/22 10:00      Matrix: Water									
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
4500S2D Sulfide, Total      Analytical Method: SM 4500-S-2 D Pace Analytical Services - New Orleans									
Sulfide, Total	0.19	mg/L	0.020	0.012	1		02/22/22 15:54	18496-25-8	
Sample: BC03551 MW-42H      Lab ID: 20234691035      Collected: 02/16/22 10:43      Received: 02/18/22 10:00      Matrix: Water									
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
4500S2D Sulfide, Total      Analytical Method: SM 4500-S-2 D Pace Analytical Services - New Orleans									
Sulfide, Total	ND	mg/L	0.020	0.012	1		02/23/22 15:22	18496-25-8	

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### ANALYTICAL RESULTS

Project: WMWGORAP\_1350  
Pace Project No.: 20234691

<b>Sample: BC03552 MW-8</b>									
		<b>Lab ID: 20234691036</b>		Collected: 02/16/22 12:14		Received: 02/18/22 10:00		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>4500S2D Sulfide, Total</b>									
Analytical Method: SM 4500-S-2 D Pace Analytical Services - New Orleans									
Sulfide, Total	ND	mg/L	0.020	0.012	1		02/23/22 15:23	18496-25-8	
<b>Sample: BC03553 MW-3</b>									
		<b>Lab ID: 20234691037</b>		Collected: 02/16/22 14:57		Received: 02/18/22 10:00		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>4500S2D Sulfide, Total</b>									
Analytical Method: SM 4500-S-2 D Pace Analytical Services - New Orleans									
Sulfide, Total	ND	mg/L	0.020	0.012	1		02/23/22 15:23	18496-25-8	
<b>Sample: BC03554 FB-1</b>									
		<b>Lab ID: 20234691038</b>		Collected: 02/16/22 15:50		Received: 02/18/22 10:00		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>4500S2D Sulfide, Total</b>									
Analytical Method: SM 4500-S-2 D Pace Analytical Services - New Orleans									
Sulfide, Total	ND	mg/L	0.020	0.012	1		02/23/22 15:24	18496-25-8	
<b>Sample: BC03974 MW-43H</b>									
		<b>Lab ID: 20234691039</b>		Collected: 02/21/22 11:43		Received: 02/24/22 10:30		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>4500S2D Sulfide, Total</b>									
Analytical Method: SM 4500-S-2 D Pace Analytical Services - New Orleans									
Sulfide, Total	11.2	mg/L	0.50	0.30	25		02/25/22 15:14	18496-25-8	
<b>Sample: BC03975 PZ-18R</b>									
		<b>Lab ID: 20234691040</b>		Collected: 02/21/22 14:40		Received: 02/24/22 10:30		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>4500S2D Sulfide, Total</b>									
Analytical Method: SM 4500-S-2 D Pace Analytical Services - New Orleans									
Sulfide, Total	ND	mg/L	0.020	0.012	1		02/25/22 15:22	18496-25-8	

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### ANALYTICAL RESULTS

Project: WMWGORAP\_1350  
Pace Project No.: 20234691

Sample: BC03976 MW-36V      Lab ID: 20234691041      Collected: 02/22/22 10:06      Received: 02/24/22 10:30      Matrix: Water									
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>4500S2D Sulfide, Total</b> Analytical Method: SM 4500-S-2 D Pace Analytical Services - New Orleans									
Sulfide, Total	0.71	mg/L	0.10	0.059	5		03/01/22 16:12	18496-25-8	
Sample: BC03977 MW-27HR      Lab ID: 20234691042      Collected: 02/22/22 12:03      Received: 02/24/22 10:30      Matrix: Water									
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>4500S2D Sulfide, Total</b> Analytical Method: SM 4500-S-2 D Pace Analytical Services - New Orleans									
Sulfide, Total	1.5	mg/L	0.10	0.059	5		03/01/22 16:26	18496-25-8	
Sample: BC03978 FB-6      Lab ID: 20234691043      Collected: 02/22/22 12:40      Received: 02/24/22 10:30      Matrix: Water									
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>4500S2D Sulfide, Total</b> Analytical Method: SM 4500-S-2 D Pace Analytical Services - New Orleans									
Sulfide, Total	ND	mg/L	0.020	0.012	1		03/01/22 16:21	18496-25-8	
Sample: BC03979 MW-18R      Lab ID: 20234691044      Collected: 02/22/22 13:42      Received: 02/24/22 10:30      Matrix: Water									
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>4500S2D Sulfide, Total</b> Analytical Method: SM 4500-S-2 D Pace Analytical Services - New Orleans									
Sulfide, Total	ND	mg/L	0.020	0.012	1		03/01/22 16:23	18496-25-8	
Sample: BC03980 MW-18R DUP      Lab ID: 20234691045      Collected: 02/22/22 13:42      Received: 02/24/22 10:30      Matrix: Water									
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>4500S2D Sulfide, Total</b> Analytical Method: SM 4500-S-2 D Pace Analytical Services - New Orleans									
Sulfide, Total	ND	mg/L	0.020	0.012	1		03/01/22 16:23	18496-25-8	

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### ANALYTICAL RESULTS

Project: WMWGORAP\_1350

Pace Project No.: 20234691

**Sample: BC03981 MW-18VR**      **Lab ID: 20234691046**      Collected: 02/22/22 15:15      Received: 02/24/22 10:30      Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Analytical Method: SM 4500-S-2 D Pace Analytical Services - New Orleans									
Sulfide, Total	0.10	mg/L	0.020	0.012	1		03/01/22 16:24	18496-25-8	

**Sample: BC03982 MW-45V**      **Lab ID: 20234691047**      Collected: 02/23/22 11:29      Received: 02/24/22 10:30      Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Analytical Method: SM 4500-S-2 D Pace Analytical Services - New Orleans									
Sulfide, Total	2.0	mg/L	0.20	0.12	10		03/02/22 16:39	18496-25-8	

**Sample: BC03983 MW-03V**      **Lab ID: 20234691048**      Collected: 02/23/22 12:49      Received: 02/24/22 10:30      Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Analytical Method: SM 4500-S-2 D Pace Analytical Services - New Orleans									
Sulfide, Total	0.094	mg/L	0.020	0.012	1		03/02/22 16:58	18496-25-8	

**Sample: BC03984 MW-9V**      **Lab ID: 20234691049**      Collected: 02/21/22 12:08      Received: 02/24/22 10:30      Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Analytical Method: SM 4500-S-2 D Pace Analytical Services - New Orleans									
Sulfide, Total	1.2	mg/L	0.10	0.059	5		02/25/22 15:24	18496-25-8	

**Sample: BC03985 MW-38H**      **Lab ID: 20234691050**      Collected: 02/22/22 09:35      Received: 02/24/22 10:30      Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Analytical Method: SM 4500-S-2 D Pace Analytical Services - New Orleans									
Sulfide, Total	0.17	mg/L	0.020	0.012	1		03/01/22 16:24	18496-25-8	

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### ANALYTICAL RESULTS

Project: WMWGORAP\_1350  
Pace Project No.: 20234691

Sample: BC03986 MW-19      Lab ID: 20234691051      Collected: 02/22/22 11:18      Received: 02/24/22 10:30      Matrix: Water									
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>4500S2D Sulfide, Total</b> Analytical Method: SM 4500-S-2 D Pace Analytical Services - New Orleans									
Sulfide, Total	0.057	mg/L	0.020	0.012	1		03/01/22 16:42	18496-25-8	
Sample: BC03987 MW-19 DUP      Lab ID: 20234691052      Collected: 02/22/22 11:18      Received: 02/24/22 10:30      Matrix: Water									
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>4500S2D Sulfide, Total</b> Analytical Method: SM 4500-S-2 D Pace Analytical Services - New Orleans									
Sulfide, Total	0.057	mg/L	0.020	0.012	1		03/01/22 16:42	18496-25-8	
Sample: BC03988 MW-2      Lab ID: 20234691053      Collected: 02/22/22 13:17      Received: 02/24/22 10:30      Matrix: Water									
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>4500S2D Sulfide, Total</b> Analytical Method: SM 4500-S-2 D Pace Analytical Services - New Orleans									
Sulfide, Total	0.61	mg/L	0.10	0.059	5		03/01/22 16:45	18496-25-8	
Sample: BC03989 MW-12V      Lab ID: 20234691054      Collected: 02/23/22 12:33      Received: 02/24/22 10:30      Matrix: Water									
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>4500S2D Sulfide, Total</b> Analytical Method: SM 4500-S-2 D Pace Analytical Services - New Orleans									
Sulfide, Total	ND	mg/L	0.020	0.012	1		03/02/22 16:59	18496-25-8	
Sample: BC03990 FB-5      Lab ID: 20234691055      Collected: 02/23/22 13:30      Received: 02/24/22 10:30      Matrix: Water									
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>4500S2D Sulfide, Total</b> Analytical Method: SM 4500-S-2 D Pace Analytical Services - New Orleans									
Sulfide, Total	ND	mg/L	0.020	0.012	1		03/02/22 16:59	18496-25-8	

### REPORT OF LABORATORY ANALYSIS

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### ANALYTICAL RESULTS

Project: WMWGORAP\_1350  
Pace Project No.: 20234691

Sample: BC03991 MW-31V      Lab ID: 20234691056      Collected: 02/22/22 13:07      Received: 02/24/22 10:30      Matrix: Water									
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
4500S2D Sulfide, Total      Analytical Method: SM 4500-S-2 D Pace Analytical Services - New Orleans									
Sulfide, Total	0.089	mg/L	0.020	0.012	1		03/01/22 16:43	18496-25-8	
Sample: BC03992 MW-46      Lab ID: 20234691057      Collected: 02/23/22 10:30      Received: 02/24/22 10:30      Matrix: Water									
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
4500S2D Sulfide, Total      Analytical Method: SM 4500-S-2 D Pace Analytical Services - New Orleans									
Sulfide, Total	6.8	mg/L	1.0	0.59	50		03/02/22 17:23	18496-25-8	
Sample: BC03993 FB-4      Lab ID: 20234691058      Collected: 02/23/22 11:00      Received: 02/24/22 10:30      Matrix: Water									
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
4500S2D Sulfide, Total      Analytical Method: SM 4500-S-2 D Pace Analytical Services - New Orleans									
Sulfide, Total	ND	mg/L	0.020	0.012	1		03/02/22 17:01	18496-25-8	
Sample: BC03994 MW-23V      Lab ID: 20234691059      Collected: 02/23/22 13:33      Received: 02/24/22 10:30      Matrix: Water									
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
4500S2D Sulfide, Total      Analytical Method: SM 4500-S-2 D Pace Analytical Services - New Orleans									
Sulfide, Total	0.20	mg/L	0.020	0.012	1		03/02/22 17:02	18496-25-8	
Sample: BC04387 MW-37HR      Lab ID: 20234691060      Collected: 02/28/22 12:20      Received: 03/02/22 08:45      Matrix: Water									
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
4500S2D Sulfide, Total      Analytical Method: SM 4500-S-2 D Pace Analytical Services - New Orleans									
Sulfide, Total	0.42	mg/L	0.020	0.012	1		03/04/22 13:02	18496-25-8	

### REPORT OF LABORATORY ANALYSIS

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### ANALYTICAL RESULTS

Project: WMWGORAP\_1350  
Pace Project No.: 20234691

<b>Sample: BC04388 MW-47</b>									
		<b>Lab ID: 20234691061</b>		Collected: 02/28/22 14:12		Received: 03/02/22 08:45		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>4500S2D Sulfide, Total</b>									
Analytical Method: SM 4500-S-2 D Pace Analytical Services - New Orleans									
Sulfide, Total	ND	mg/L	0.020	0.012	1		03/04/22 13:03	18496-25-8	
<b>Sample: BC04389 MW-14R</b>									
		<b>Lab ID: 20234691062</b>		Collected: 02/28/22 15:33		Received: 03/02/22 08:45		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>4500S2D Sulfide, Total</b>									
Analytical Method: SM 4500-S-2 D Pace Analytical Services - New Orleans									
Sulfide, Total	1.2	mg/L	0.20	0.12	10		03/04/22 13:04	18496-25-8	
<b>Sample: BC04390 MW-13R</b>									
		<b>Lab ID: 20234691063</b>		Collected: 03/01/22 08:34		Received: 03/02/22 08:45		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>4500S2D Sulfide, Total</b>									
Analytical Method: SM 4500-S-2 D Pace Analytical Services - New Orleans									
Sulfide, Total	0.16	mg/L	0.020	0.012	1		03/04/22 13:07	18496-25-8	
<b>Sample: BC04391 MW-10R</b>									
		<b>Lab ID: 20234691064</b>		Collected: 03/01/22 12:07		Received: 03/02/22 08:45		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>4500S2D Sulfide, Total</b>									
Analytical Method: SM 4500-S-2 D Pace Analytical Services - New Orleans									
Sulfide, Total	0.38	mg/L	0.020	0.012	1		03/04/22 13:55	18496-25-8	
<b>Sample: BC04392 MW-12</b>									
		<b>Lab ID: 20234691065</b>		Collected: 02/28/22 14:40		Received: 03/02/22 08:45		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>4500S2D Sulfide, Total</b>									
Analytical Method: SM 4500-S-2 D Pace Analytical Services - New Orleans									
Sulfide, Total	ND	mg/L	0.020	0.012	1		03/04/22 13:05	18496-25-8	

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### ANALYTICAL RESULTS

Project: WMWGORAP\_1350  
Pace Project No.: 20234691

Sample: BC04393 MW-09R      Lab ID: 20234691066      Collected: 03/01/22 12:04      Received: 03/02/22 08:45      Matrix: Water									
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
4500S2D Sulfide, Total      Analytical Method: SM 4500-S-2 D Pace Analytical Services - New Orleans									
Sulfide, Total	0.20	mg/L	0.020	0.012	1		03/04/22 13:56	18496-25-8	
Sample: BC04394 EB-1      Lab ID: 20234691067      Collected: 03/01/22 12:30      Received: 03/02/22 08:45      Matrix: Water									
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
4500S2D Sulfide, Total      Analytical Method: SM 4500-S-2 D Pace Analytical Services - New Orleans									
Sulfide, Total	ND	mg/L	0.020	0.012	1		03/04/22 13:56	18496-25-8	
Sample: BC04395 MW-01R      Lab ID: 20234691068      Collected: 03/01/22 08:54      Received: 03/02/22 08:45      Matrix: Water									
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
4500S2D Sulfide, Total      Analytical Method: SM 4500-S-2 D Pace Analytical Services - New Orleans									
Sulfide, Total	0.029	mg/L	0.020	0.012	1		03/04/22 13:57	18496-25-8	
Sample: BC04396 MW-11R      Lab ID: 20234691069      Collected: 03/01/22 11:20      Received: 03/02/22 08:45      Matrix: Water									
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
4500S2D Sulfide, Total      Analytical Method: SM 4500-S-2 D Pace Analytical Services - New Orleans									
Sulfide, Total	ND	mg/L	0.020	0.012	1		03/04/22 13:58	18496-25-8	
Sample: BC04397 MW-05R      Lab ID: 20234691070      Collected: 03/01/22 13:34      Received: 03/02/22 08:45      Matrix: Water									
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
4500S2D Sulfide, Total      Analytical Method: SM 4500-S-2 D Pace Analytical Services - New Orleans									
Sulfide, Total	0.93	mg/L	0.20	0.12	10		03/04/22 13:59	18496-25-8	

### REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA

Project: WMWGORAP\_1350  
Pace Project No.: 20234691

QC Batch:	247536	Analysis Method:	SM 4500-S-2 D
QC Batch Method:	SM 4500-S-2 D	Analysis Description:	4500S2D Sulfide, Total
		Laboratory:	Pace Analytical Services - New Orleans

Associated Lab Samples: 20234691001, 20234691002, 20234691003, 20234691004, 20234691005, 20234691006, 20234691007, 20234691008

METHOD BLANK: 1175613 Matrix: Water  
Associated Lab Samples: 20234691001, 20234691002, 20234691003, 20234691004, 20234691005, 20234691006, 20234691007, 20234691008

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Sulfide, Total	mg/L	ND	0.020	0.012	02/13/22 13:02	

LABORATORY CONTROL SAMPLE: 1175614

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Sulfide, Total	mg/L	0.2	0.18	91	90-110	

MATRIX SPIKE SAMPLE: 1175616

Parameter	Units	20234691001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Sulfide, Total	mg/L	0.18	0.2	0.31	67	75-125	M1

SAMPLE DUPLICATE: 1175615

Parameter	Units	20234691001 Result	Dup Result	RPD	Max RPD	Qualifiers
Sulfide, Total	mg/L	0.18	0.17	2	20	

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### QUALITY CONTROL DATA

Project: WMWGORAP\_1350  
Pace Project No.: 20234691

QC Batch: 248002	Analysis Method: SM 4500-S-2 D
QC Batch Method: SM 4500-S-2 D	Analysis Description: 4500S2D Sulfide, Total
	Laboratory: Pace Analytical Services - New Orleans

Associated Lab Samples: 20234691009

METHOD BLANK: 1177800 Matrix: Water  
Associated Lab Samples: 20234691009

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Sulfide, Total	mg/L	ND	0.020	0.012	02/17/22 14:44	

LABORATORY CONTROL SAMPLE: 1177801

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Sulfide, Total	mg/L	0.2	0.18	91	90-110	

MATRIX SPIKE SAMPLE: 1177803

Parameter	Units	20235052003 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Sulfide, Total	mg/L	ND	0.2	0.099	50	75-125	M1

SAMPLE DUPLICATE: 1177802

Parameter	Units	20235052003 Result	Dup Result	RPD	Max RPD	Qualifiers
Sulfide, Total	mg/L	ND	ND		20	

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### QUALITY CONTROL DATA

Project: WMWGORAP\_1350  
Pace Project No.: 20234691

QC Batch: 248358 Analysis Method: SM 4500-S-2 D  
QC Batch Method: SM 4500-S-2 D Analysis Description: 4500S2D Sulfide, Total  
Laboratory: Pace Analytical Services - New Orleans  
Associated Lab Samples: 20234691023, 20234691024, 20234691025, 20234691026, 20234691030, 20234691031, 20234691032, 20234691033, 20234691034

METHOD BLANK: 1179377 Matrix: Water  
Associated Lab Samples: 20234691023, 20234691024, 20234691025, 20234691026, 20234691030, 20234691031, 20234691032, 20234691033, 20234691034

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Sulfide, Total	mg/L	ND	0.020	0.012	02/22/22 14:48	

METHOD BLANK: 1179378 Matrix: Water  
Associated Lab Samples: 20234691023, 20234691024, 20234691025, 20234691026, 20234691030, 20234691031, 20234691032, 20234691033, 20234691034

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Sulfide, Total	mg/L	ND	0.020	0.012	02/22/22 14:49	

METHOD BLANK: 1179379 Matrix: Water  
Associated Lab Samples: 20234691023, 20234691024, 20234691025, 20234691026, 20234691030, 20234691031, 20234691032, 20234691033, 20234691034

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Sulfide, Total	mg/L	ND	0.020	0.012	02/22/22 14:49	

LABORATORY CONTROL SAMPLE: 1179380

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Sulfide, Total	mg/L	0.2	0.20	100	90-110	

MATRIX SPIKE SAMPLE: 1179384

Parameter	Units	20235249002 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Sulfide, Total	mg/L	ND	0.2	0.12	58	75-125	M1

SAMPLE DUPLICATE: 1179383

Parameter	Units	20235249002 Result	Dup Result	RPD	Max RPD	Qualifiers
Sulfide, Total	mg/L	ND	ND		20	

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### QUALITY CONTROL DATA

Project: WMWGORAP\_1350  
Pace Project No.: 20234691

QC Batch: 248528      Analysis Method: SM 4500-S-2 D  
QC Batch Method: SM 4500-S-2 D      Analysis Description: 4500S2D Sulfide, Total  
Laboratory: Pace Analytical Services - New Orleans  
Associated Lab Samples: 20234691027, 20234691028, 20234691029, 20234691035, 20234691036, 20234691037, 20234691038

METHOD BLANK: 1180244      Matrix: Water  
Associated Lab Samples: 20234691027, 20234691028, 20234691029, 20234691035, 20234691036, 20234691037, 20234691038

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Sulfide, Total	mg/L	ND	0.020	0.012	02/23/22 14:10	

METHOD BLANK: 1180248      Matrix: Water  
Associated Lab Samples: 20234691027, 20234691028, 20234691029, 20234691035, 20234691036, 20234691037, 20234691038

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Sulfide, Total	mg/L	ND	0.020	0.012	02/23/22 14:09	

LABORATORY CONTROL SAMPLE: 1180245

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Sulfide, Total	mg/L	0.2	0.19	97	90-110	

MATRIX SPIKE SAMPLE: 1180247

Parameter	Units	20235501001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Sulfide, Total	mg/L	0.012J	0.2	0.17	80	75-125	

SAMPLE DUPLICATE: 1180246

Parameter	Units	20235501001 Result	Dup Result	RPD	Max RPD	Qualifiers
Sulfide, Total	mg/L	0.012J	ND		20	

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### REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA

Project: WMWGORAP\_1350

Pace Project No.: 20234691

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QC Batch:	248738	Analysis Method:	SM 4500-S-2 D
QC Batch Method:	SM 4500-S-2 D	Analysis Description:	4500S2D Sulfide, Total
		Laboratory:	Pace Analytical Services - New Orleans

Associated Lab Samples: 20234691039, 20234691040, 20234691049

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METHOD BLANK: 1181352 Matrix: Water

Associated Lab Samples: 20234691039, 20234691040, 20234691049

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Sulfide, Total	mg/L	ND	0.020	0.012	02/25/22 15:02	

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LABORATORY CONTROL SAMPLE: 1181353

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Sulfide, Total	mg/L	0.2	0.19	96	90-110	

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### QUALITY CONTROL DATA

Project: WMWGORAP\_1350  
Pace Project No.: 20234691

QC Batch:	248911	Analysis Method:	SM 4500-S-2 D
QC Batch Method:	SM 4500-S-2 D	Analysis Description:	4500S2D Sulfide, Total
		Laboratory:	Pace Analytical Services - New Orleans

Associated Lab Samples: 20234691041, 20234691042, 20234691043, 20234691044, 20234691045, 20234691046, 20234691050, 20234691051, 20234691052, 20234691053, 20234691056

METHOD BLANK: 1182297 Matrix: Water  
Associated Lab Samples: 20234691041, 20234691042, 20234691043, 20234691044, 20234691045, 20234691046, 20234691050, 20234691051, 20234691052, 20234691053, 20234691056

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Sulfide, Total	mg/L	ND	0.020	0.012	03/01/22 16:11	

LABORATORY CONTROL SAMPLE: 1182298

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Sulfide, Total	mg/L	0.2	0.19	93	90-110	

MATRIX SPIKE SAMPLE: 1182349

Parameter	Units	20234691043 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Sulfide, Total	mg/L	ND	0.2	0.20	101	75-125	

SAMPLE DUPLICATE: 1182348

Parameter	Units	20234691043 Result	Dup Result	RPD	Max RPD	Qualifiers
Sulfide, Total	mg/L	ND	ND		20	

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### QUALITY CONTROL DATA

Project: WMWGORAP\_1350  
Pace Project No.: 20234691

QC Batch:	248977	Analysis Method:	SM 4500-S-2 D
QC Batch Method:	SM 4500-S-2 D	Analysis Description:	4500S2D Sulfide, Total
		Laboratory:	Pace Analytical Services - New Orleans

Associated Lab Samples: 20234691047, 20234691048, 20234691054, 20234691055, 20234691057, 20234691058, 20234691059

METHOD BLANK: 1182544 Matrix: Water  
Associated Lab Samples: 20234691047, 20234691048, 20234691054, 20234691055, 20234691057, 20234691058, 20234691059

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Sulfide, Total	mg/L	ND	0.020	0.012	03/02/22 17:16	

LABORATORY CONTROL SAMPLE: 1182545

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Sulfide, Total	mg/L	0.2	0.18	91	90-110	

MATRIX SPIKE SAMPLE: 1182553

Parameter	Units	20236121001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Sulfide, Total	mg/L	ND	0.2	0.040	20	75-125	M1

SAMPLE DUPLICATE: 1182552

Parameter	Units	20236121001 Result	Dup Result	RPD	Max RPD	Qualifiers
Sulfide, Total	mg/L	ND	ND		20	

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### QUALITY CONTROL DATA

Project: WMWGORAP\_1350

Pace Project No.: 20234691

QC Batch: 249264 Analysis Method: SM 4500-S-2 D  
 QC Batch Method: SM 4500-S-2 D Analysis Description: 4500S2D Sulfide, Total  
 Laboratory: Pace Analytical Services - New Orleans  
 Associated Lab Samples: 20234691060, 20234691061, 20234691062, 20234691063, 20234691064, 20234691065, 20234691066,  
 20234691067, 20234691068, 20234691069, 20234691070

METHOD BLANK: 1184002 Matrix: Water  
 Associated Lab Samples: 20234691060, 20234691061, 20234691062, 20234691063, 20234691064, 20234691065, 20234691066,  
 20234691067, 20234691068, 20234691069, 20234691070

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Sulfide, Total	mg/L	ND	0.020	0.012	03/04/22 12:25	

LABORATORY CONTROL SAMPLE: 1184003

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Sulfide, Total	mg/L	0.2	0.19	96	90-110	

MATRIX SPIKE SAMPLE: 1184005

Parameter	Units	20236115001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Sulfide, Total	mg/L	<0.020	0.2	ND	4	75-125	M1

SAMPLE DUPLICATE: 1184004

Parameter	Units	20236115001 Result	Dup Result	RPD	Max RPD	Qualifiers
Sulfide, Total	mg/L	<0.020	ND		20	

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## QUALIFIERS

Project: WMWGORAP\_1350

Pace Project No.: 20234691

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### DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Reported results are not rounded until the final step prior to reporting. Therefore, calculated parameters that are typically reported as "Total" may vary slightly from the sum of the reported component parameters.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The Nelac Institute

### BATCH QUALIFIERS

Batch: 248738

[1] The sample originally chosen for QC for the batch was later canceled; acceptable method performance was demonstrated by the LCS recovery.

### ANALYTE QUALIFIERS

M1 Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

## REPORT OF LABORATORY ANALYSIS

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without the written consent of Pace Analytical Services, LLC.

### QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: WMWGORAP\_1350

Pace Project No.: 20234691

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
20234691001	BC02839 MW-7	SM 4500-S-2 D	247536		
20234691002	BC02840 MW-7 DIS	SM 4500-S-2 D	247536		
20234691003	BC02841 MW-41 HS	SM 4500-S-2 D	247536		
20234691004	BC02842 MW-6V	SM 4500-S-2 D	247536		
20234691005	BC02843 MW-30 HA	SM 4500-S-2 D	247536		
20234691006	BC02844 MW-21	SM 4500-S-2 D	247536		
20234691007	BC02845 MW-21V	SM 4500-S-2 D	247536		
20234691008	BC02846 MW-31H	SM 4500-S-2 D	247536		
20234691009	BC03250 PZ-22	SM 4500-S-2 D	248002		
20234691010	BC03251 MW-17	SM 4500-S-2 D	248250		
20234691011	BC03252 MW-17V	SM 4500-S-2 D	248250		
20234691012	BC03253 MW-36H	SM 4500-S-2 D	248250		
20234691013	BC03254 MW-6S	SM 4500-S-2 D	248250		
20234691014	BC03255 MW-6S DUP	SM 4500-S-2 D	248250		
20234691015	BC03256 MW-6D	SM 4500-S-2 D	248250		
20234691016	BC03257 MW-23H	SM 4500-S-2 D	248250		
20234691017	BC03258 MW-23H DUP	SM 4500-S-2 D	248250		
20234691018	BC03259 MW-28H	SM 4500-S-2 D	248250		
20234691019	BC03260 MW-28H DUP	SM 4500-S-2 D	248250		
20234691020	BC03261 MW-29H	SM 4500-S-2 D	248250		
20234691021	BC03262 FB-3	SM 4500-S-2 D	248250		
20234691022	BC03263 MW-32H	SM 4500-S-2 D	248250		
20234691023	BC03539 PZ-16	SM 4500-S-2 D	248358		
20234691024	BC03540 MW-16D	SM 4500-S-2 D	248358		
20234691025	BC03541 MW-16S	SM 4500-S-2 D	248358		
20234691026	BC03542 FB-2	SM 4500-S-2 D	248358		
20234691027	BC03543 MW-15	SM 4500-S-2 D	248528		
20234691028	BC03544 MW-15V	SM 4500-S-2 D	248528		
20234691029	BC03545 MW-25HA	SM 4500-S-2 D	248528		
20234691030	BC03546 MW-41HD	SM 4500-S-2 D	248358		
20234691031	BC03547 MW-24H	SM 4500-S-2 D	248358		
20234691032	BC03548 MW-24H DUP	SM 4500-S-2 D	248358		
20234691033	BC03549 MW-40H	SM 4500-S-2 D	248358		
20234691034	BC03550 MW-26H	SM 4500-S-2 D	248358		
20234691035	BC03551 MW-42H	SM 4500-S-2 D	248528		
20234691036	BC03552 MW-8	SM 4500-S-2 D	248528		
20234691037	BC03553 MW-3	SM 4500-S-2 D	248528		
20234691038	BC03554 FB-1	SM 4500-S-2 D	248528		
20234691039	BC03974 MW-43H	SM 4500-S-2 D	248738		
20234691040	BC03975 PZ-18R	SM 4500-S-2 D	248738		
20234691041	BC03976 MW-36V	SM 4500-S-2 D	248911		
20234691042	BC03977 MW-27HR	SM 4500-S-2 D	248911		
20234691043	BC03978 FB-6	SM 4500-S-2 D	248911		
20234691044	BC03979 MW-18R	SM 4500-S-2 D	248911		
20234691045	BC03980 MW-18R DUP	SM 4500-S-2 D	248911		

### REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: WMWGORAP\_1350

Pace Project No.: 20234691

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
20234691046	BC03981 MW-18VR	SM 4500-S-2 D	248911		
20234691047	BC03982 MW-45V	SM 4500-S-2 D	248977		
20234691048	BC03983 MW-03V	SM 4500-S-2 D	248977		
20234691049	BC03984 MW-9V	SM 4500-S-2 D	248738		
20234691050	BC03985 MW-38H	SM 4500-S-2 D	248911		
20234691051	BC03986 MW-19	SM 4500-S-2 D	248911		
20234691052	BC03987 MW-19 DUP	SM 4500-S-2 D	248911		
20234691053	BC03988 MW-2	SM 4500-S-2 D	248911		
20234691054	BC03989 MW-12V	SM 4500-S-2 D	248977		
20234691055	BC03990 FB-5	SM 4500-S-2 D	248977		
20234691056	BC03991 MW-31V	SM 4500-S-2 D	248911		
20234691057	BC03992 MW-46	SM 4500-S-2 D	248977		
20234691058	BC03993 FB-4	SM 4500-S-2 D	248977		
20234691059	BC03994 MW-23V	SM 4500-S-2 D	248977		
20234691060	BC04387 MW-37HR	SM 4500-S-2 D	249264		
20234691061	BC04388 MW-47	SM 4500-S-2 D	249264		
20234691062	BC04389 MW-14R	SM 4500-S-2 D	249264		
20234691063	BC04390 MW-13R	SM 4500-S-2 D	249264		
20234691064	BC04391 MW-10R	SM 4500-S-2 D	249264		
20234691065	BC04392 MW-12	SM 4500-S-2 D	249264		
20234691066	BC04393 MW-09R	SM 4500-S-2 D	249264		
20234691067	BC04394 EB-1	SM 4500-S-2 D	249264		
20234691068	BC04395 MW-01R	SM 4500-S-2 D	249264		
20234691069	BC04396 MW-11R	SM 4500-S-2 D	249264		
20234691070	BC04397 MW-05R	SM 4500-S-2 D	249264		

### REPORT OF LABORATORY ANALYSIS

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MO#: 20234691

**CHAIN-OF-CUSTODY / Analytical Request Document**  
 The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed.



20234691

Section A Required Client Information: Alabama Power Company, 744 Highway 87 GSC Bldg #8, Calera, AL 35040  
 Section B Required Project Information: Report To: Laura Mickitt, Copy To: Brooke Catton & Renee Jernigan  
 Section C Invoice Information: Attention: Laura Mickitt, Company Name: Alabama Power Co., Address: 744 Highway 87 GSC Bldg #8, Pace Quote: CCR, Pace Project Manager: Karen Brown, Pace Profile #: 17210, State Location: AL

Requested Due Date: Normal  
 Purchase Order #: APC10755638  
 Project Name: Plant Gorgas Ash Pond  
 Project Number: WNWGCRAP 1350

ITEM #	SAMPLE ID One Character per box (A-Z, 0-9 /, -) Sample IDs must be unique	Description	Station Name Location, Code	Site Name Facility, ID	Sample Duplicate	Matrix Spike/Matrix Spike Duplicate	Field Filtered	MATRIX CODE	SAMPLE TYPE (G=GRAB C=COMP)	DATE	TIME	# OF CONTAINERS	Preservatives			Analyses Test	EPA 9315	EPA 9320	Total Radium Sum	Total Sulfide	Residual Chlorine (Y/N)	
													Unpreserved	NaOH+ZnAcetate	HNO3							
1	BC02839	MM-7	APCO-GS-AP-MM-7	APCO_Gorgas AshPond						2/8/2022	11:20	1	X									
2	BC02840	MM-7 DIS	APCO-GS-AP-MM-7	APCO_Gorgas AshPond			X	GW	G	2/8/2022	11:20	1	X									
3	BC02841	MM-41HS	APCO-GS-AP-MM-41HS	APCO_Gorgas AshPond				GW	G	2/8/2022	14:43	1	X									
4	BC02842	MM-6V	APCO-GS-AP-MM-6V	APCO_Gorgas AshPond				GW	G	2/9/2022	12:00	1	X									
5																						
6																						
7																						
8																						
9																						
10																						
11																						
12																						

RELEASING BY / AFFILIATION: Laura Mickitt/ APC GTL  
 DATE: 2/9/2022  
 TIME: 17:15  
 ACCEPTED BY / AFFILIATION: *FeDEX*  
 DATE: 2/16/22  
 TIME: 14:55  
 SIGNATURE OF SAMPLER: T.J. DAUGHERTY  
 DATE SIGNED:   
 TEMP in C:   
 Received on Ice (Y/N):   
 Custody Sealed Cooler (Y/N):   
 Samples Intact (Y/N):

# CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Section A Required Client Information: Alabama Power Company, 744 Highway 87 GSC Bldg #8, Calera, AL 35040, Email To: lbmickiff@southpower.com, Phone: 205-664-6197, Fax: Normal, Requested Due Date: Normal

Section B Required Project Information: Report To: Laura Mickiff, Copy To: Brooke Caton & Renee Jernigan, Station Name: Alabama Power Co, Address: 744 Highway 87 GSC Bldg #8, Attention: Laura Mickiff, Company Name: Alabama Power Co, Invoice Information: Laura Mickiff, Karen Brown, Pace Project Manager, Pace Profile #: 17210

Section C Sampler Information: Sampler Name and Signature: Laura Mickiff, Print Name of Sampler: Laura Mickiff, Signature of Sampler: [Signature], Date Signed: 2/8/2022, Dallas Gentry, Date Signed: [Signature]

ITEM #	SAMPLE ID <small>One Character per box (A-Z, 0-9 / , -) Sample IDs must be unique</small>	Description	Station Name Location Code	Site Name Facility ID	Sample Duplicate	Matrix Spike/Matrix Spike Duplicate	Field Filtered	MATRIX CODE	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED		# OF CONTAINERS	Preservatives			Analytes Test	EPA 9315	EPA 9320	Total Radium Sum	Total Sulfide	Residual Chlorine (Y/N)	TEMP in C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)	
										DATE	TIME		Unpreserved	NaOH+ZnAcetate	HNO3											Y/N
1	BC02843	MM-30HA	APCO-GS-AP-MM-30HA	APCO Gorgas AshPond				GW	G	2/8/2022	9:36	1	X													
2	BC02844	MM-21	APCO-GS-AP-MM-21	APCO Gorgas AshPond				GW	G	2/8/2022	11:11	1	X													
3	BC02845	MM-21V	APCO-GS-AP-MM-21V	APCO Gorgas AshPond				GW	G	2/8/2022	13:38	1	X													
4	BC02846	MM-31H	APCO-GS-AP-MM-31H	APCO Gorgas AshPond				GW	G	2/8/2022	16:04	1	X													
5																										
6																										
7																										
8																										
9																										
10																										
11																										
12																										

ADDITIONAL COMMENTS: Laura Mickiff/APC GTL, Date: 2/8/2022, Time: 17:15, Accepted By/Affiliation: FedEx, Date: 2/10/22, Time: 14:55, State/Location: AL, Regulatory Agency: [Blank]

REQUISITIONED BY/AFFILIATION: Laura Mickiff/APC GTL, DATE: 2/8/2022, TIME: 17:15, ACCEPTED BY/AFFILIATION: FedEx, DATE: 2/10/22, TIME: 14:55, SAMPLE CONDITIONS: TEMP in C: 1.0, Received on Ice (Y/N): Y, Custody Sealed Cooler (Y/N): Y, Samples Intact (Y/N): Y

SAMPLER NAME AND SIGNATURE: Laura Mickiff, PRINT Name of SAMPLER: Laura Mickiff, SIGNATURE of SAMPLER: [Signature], DALLAS GENTRY, DATE Signed: [Signature]

W0#: 20234691

CHAIN-OF-CUSTODY / Analytical Request Document  
 The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed.  
 PM: KHB Due Date: 02/22/22  
 CLIENT: 20-Abama

Section A Required Client Information: Company: Alabama Power Company Address: 744 Highway 87 GSC Bldg #8 Calera, AL 35040 Email To: lbmickitf@southernco.com Phone: 205-664-6197 Fax: Requested Due Date: Normal

Section B Required Project Information: Report To: Laura Mickitt Copy To: Brooke Caton & Renee Jernigan Purchase Order #: APC10755638 Project Name: Plant Gorgas Ash Pond Project Number: WMMWGORAP-1350

Section C Invoice Information: Attention: Laura Mickitt Company Name: Alabama Power Co. Address: 744 Highway 87 GSC Bldg #8 Pace Quote: CGR Karen Brown Pace Project Manager: Pace Profile #: 17210

ITEM #	SAMPLE ID One Character per box. (A-Z, 0-9 /, -) Sample IDs must be unique	Description	Station Name Location, Code	Site Name Facility ID	Sample Duplicate	Matrix Spike/Matrix Spike Duplicate	Field Filled	MATRIX CODE	SAMPLE TYPE (G=GRAB C=COMP)	START		# OF CONTAINERS	Preservatives			Analyses Test	Y/N	Regulatory Agency	State/Location
										DATE	TIME		Unpreserved	NaOH+ZnAcetate	HNO3				
1	BC03250	PZ-22	APCO-GS-AP-PZ-22	APCO_Gorgas_AshPond				GW	G	2/14/2022	10:21	1	X						
2	BC03251	MW-17	APCO-GS-AP-MW-17	APCO_Gorgas_AshPond				GW	G	2/14/2022	11:42	1	X						
3	BC03252	MW-17V	APCO-GS-AP-MW-17V	APCO_Gorgas_AshPond				GW	G	2/14/2022	12:54	1	X						
4	BC03253	MW-36H	APCO-GS-AP-MW-36H	APCO_Gorgas_AshPond				GW	G	2/14/2022	15:28	1	X						
5																			
6																			
7																			
8																			
9																			
10																			
11																			
12																			

ADDITIONAL COMMENTS: RELINQUISHED BY / AFFILIATION: Laura Mickitt APC GTL DATE: 2/15/2022 TIME: 13:40 ACCEPTED BY / AFFILIATION: FedEx Pace DATE: 2/16/22 TIME: 9:40

SAMPLER NAME AND SIGNATURE: PRINT Name of SAMPLER: SIGNATURE of SAMPLER: DALLAS GENTRY DATE Signed: TEMP in C Received on Ice (Y/N) Custody Sealed Cooler (Y/N) Samples Intact (Y/N)



# CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Section A Required Client Information: **Alabama Power Company**  
 744 Highway 87 GSC Bldg #8  
 Calera, AL 35040  
 Email To: **lmidkiff@southernco.com**  
 Phone: **205-664-6197** Fax  
 Requested Due Date: **Normal**

Section B Required Project Information: **Report To: Laura Midkiff**  
**Copy To: Brooke Caton & Renee Jernigan**  
**Purchase Order #: APC10755638**  
**Project Name: Plant Gorgas Ash Pond**  
**Project Number: WWWWGORAP\_1350**

Section C Invoice Information: **Attention: Laura Midkiff**  
**Company Name: Alabama Power Co.**  
**Address: 744 Highway 87 GSC Bldg #8**  
**Page Quote: CCR**  
**Page Project Manager: Karen Brown**  
**Page Profile #: 17210**

Requested Analysis: Filtered (Y/N) **AL**  
 Regulatory Agency: **AL**

ITEM #	SAMPLE ID One Character per box (A-Z, 0-9 /, -) Sample IDs must be unique	Description	Station Name Location Code	Site Name Facility ID	Sample Duplicate	Matrix Spike/Matrix Spike Duplicate	Field Filtered	MATRIX CODE	SAMPLE TYPE (G=GRAB C=COMP)	START		# OF CONTAINERS	Unpreserved	NaOH+ZnAcetate	HNO3	Analyses Test		Residual Chlorine (Y/N)
										DATE	TIME					Y/N	Y/N	
1	BC03254	MW-6S	APCO-GS-AP-MW-6S	APCO_Gorgas_AshPond			GM	G	G	2/14/2022	11:18	1	X					X
2	BC03255	MW-6S DUP	APCO-GS-AP-MW-6S	APCO_Gorgas_AshPond	X		GM	G	G	2/14/2022	11:18	1	X					X
3	BC03256	MW-6D	APCO-GS-AP-MW-6D	APCO_Gorgas_AshPond			GM	G	G	2/14/2022	12:34	1	X					X
4	BC03257	MW-23H	APCO-GS-AP-MW-23H	APCO_Gorgas_AshPond			GM	G	G	2/14/2022	13:47	1	X					X
5	BC03258	MW-23H DUP	APCO-GS-AP-MW-23H	APCO_Gorgas_AshPond	X		GM	G	G	2/14/2022	13:47	1	X					X
6																		
7																		
8																		
9																		
10																		
11																		
12																		

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
	Laura Midkiff / APC GTL	2/15/2022	13:40	<i>Kendrick</i>	2/15/2022	1:08	Received on Ice (Y/N) <b>Y</b> Custody Sealed Cooler (Y/N) <b>Y</b> Samples Intact (Y/N) <b>Y</b>

SAMPLER NAME AND SIGNATURE: **PRINT Name of SAMPLER: T.J DAUGHERTY**  
**SIGNATURE of SAMPLER: [Signature]**  
 DATE Signed: \_\_\_\_\_

# CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Section A Required Client Information: Alabama Power Company  
 Section B Required Project Information: Report To: Laura Midkiff  
 Section C Invoice Information: Laura Midkiff

Company: Alabama Power Company  
 Address: 744 Highway 87 GSC Bldg #8  
 Calera AL 35040  
 Email To: lmidkiff@southpower.com  
 Phone: 205-664-6197 Fax: [blank]  
 Requested Due Date: Normal

Report To: Laura Midkiff  
 Copy To: Brooke Calton & Renee Jerrigan  
 Purchase Order #: APC10756638  
 Project Name: Plant Gorgas Ash Pond  
 Project Number: WMMWGORAP-1350

Attention: Laura Midkiff  
 Company Name: Alabama Power Co.  
 Address: 744 Highway 87 GSC Bldg #8  
 Page Queue: CCR  
 Pace Project Manager: Karen Brown  
 Page Profile #: 17210

Requested Analyte Filtered (Y/N):  
 Regulatory Agency: AL  
 State/Location: AL

ITEM #	SAMPLE ID One Character per box. (A-Z, 0-9 /, -) Sample Ids must be unique	Description	Station Name Location Code	Site Name Facility ID	Sample Duplicate	Matrix Spike/Matrix Spike Duplicate	Field Filtered	MATRIX CODE	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED		# OF CONTAINERS	Preservatives			Analyses Test	EPA 9315	EPA 9320	Total Radium Sum	Total Sulfide	Residual Chlorine (Y/N)
										DATE	TIME		Unpreserved	NaOH+ZnAcetate	HNO3						
1	BCC3269	MW-28H	APCO-GS-AP-MW-28H	APCO Gorgas AshPond				GW	G	2/14/2022	12:42	1	X								
2	BCC3260	MW-28H DUP	APCO-GS-AP-MW-28H	APCO Gorgas AshPond	X			GW	G	2/14/2022	12:42	1	X								
3	BCC3261	MW-29H	APCO-GS-AP-MW-29H	APCO Gorgas AshPond				GW	G	2/14/2022	14:30	1	X								
4	BCC3262	FB-3	APCO-GS-AP-FB-03	APCO Gorgas AshPond				GW	G	2/14/2022	15:10	1	X								
5	BCC3263	MW-32H	APCO-GS-AP-MW-32H	APCO Gorgas AshPond				GW	G	2/14/2022	15:45	1	X								
6																					
7																					
8																					
9																					
10																					
11																					
12																					

RELINQUISHED BY / AFFILIATION: Laura Midkiff APC GTL  
 DATE: 2/15/2022  
 TIME: 13:40

ACCEPTED BY / AFFILIATION: FedEx  
 DATE: 2/16/22  
 TIME: 9:40

SAMPLER NAME AND SIGNATURE: Anthony Goggins  
 PRINT NAME OF SAMPLER: Anthony Goggins  
 SIGNATURE OF SAMPLER: [Signature]  
 DATE SIGNED: [blank]

TEMP in C: 1.8  
 Received on Ice (Y/N): Y  
 Custody Sealed Cooler (Y/N): Y  
 Samples Intact (Y/N): Y

**MO#: 20234691**

PM: KHB Due Date: 02/24/22  
 CLIENT: 20-Alabama

Page: 6 Of

**CHAIN-OF-CUSTODY / Analytical Request Document**  
 The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be c

<b>Section A</b>	<b>Section B</b>	<b>Section C</b>
Required Client Information: Company: Alabama Power Company Address: 744 Highway 87 GSC Bldg #8 Calera, AL 35040 Email To: lbmickit@southtenco.com Phone: 205-664-6197 Fax Requested Due Date: Normal	Required Project Information: Report To: Laura Mickitt Copy To: Brooke Catton & Renee Jernigan Purchase Order #: APC10755638 Project Name: Plant Gorgas Ash Pond Project Number: WANN/GORAP_1350	Invoice Information: Attention: Laura Mickitt Company Name: Alabama Power Co. Address: 744 Highway 87 GSC Bldg #8 Pace Quote: CCR Pace Project Manager: Karen Brown Pace Profile #: 17210
		Regulatory Agency: AL State/Location: AL

ITEM #	SAMPLE ID One Character per box. (A-Z, 0-9 / , -) Sample IDs must be unique	Description	Station Name Location Code	Site Name Facility ID	Sample Duplicate	Matrix Spike/Matrix Spike Duplicate	Field Filtered	MATRIX CODE	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED		# OF CONTAINERS	Preservatives			Analyses Test	EPA 9315	EPA 9320	Total Radium Sum	Total Sulfide	Residual Chlorine (Y/N)
										DATE	TIME		Unpreserved	NaOH+ZnAcetate	HNO3						
1	BC03639	PZ-16	APCO-GS-AP-PZ-16	APCO Gorgas AshPond						2/15/2022	11:08	1									
2	BC03640	MM-16D	APCO-GS-AP-MM-16D	APCO Gorgas AshPond						2/15/2022	12:48	1	X								
3	BC03641	MM-16S-QUIP S	APCO-GS-AP-MM-16S	APCO Gorgas AshPond	X					2/15/2022	13:52	1	X								
4	BC03642	FB-2	APCO-GS-AP-FB-02	APCO Gorgas AshPond						2/15/2022	14:45	1	X								
5	BC03643	MM-15	APCO-GS-AP-MM-15	APCO Gorgas AshPond						2/16/2022	10:39	1	X								
6	BC03644	MM-15V	APCO-GS-AP-MM-15V	APCO Gorgas AshPond						2/16/2022	11:45	1	X								
7	BC03645	MM-29HA	APCO-GS-AP-MM-29HA	APCO Gorgas AshPond						2/16/2022	13:22	1	X								
8																					
9																					
10																					
11																					
12																					

Note: Chart consulted  
 Sample ID 3/2/22  
 LKH

RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
Laura Mickitt/ APC GTL	2/15/2022	10:55	GH	2/15/22	10:00	Received on Ice (Y/N) Custody Sealed Cooler (Y/N) Samples Intact (Y/N)
			APCO Pace	2/15/22	10:00	

SAMPLER NAME AND SIGNATURE	DATE Signed:
PRINT Name of SAMPLER:	
SIGNATURE of SAMPLER:	

# CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Section A Required Client Information: Alabama Power Company  
 744 Highway 87 GSC Bldg #8  
 Calera, AL 35040  
 Email To: ljmickiff@southernco.com  
 Phone: 205-664-6197 Fax: Normal  
 Requested Due Date: Normal

Section B Required Project Information: Report To: Laura Mickiff  
 Copy To: Brooke Catton & Renee Jernigan  
 Purchase Order #: APC10755638  
 Project Name: Plant Gorgas Ash Pond  
 Project Number: MANNGORAP-1350

Section C Invoice Information: Attention: Laura Mickiff  
 Company Name: Alabama Power Co.  
 Address: 744 Highway 87 GSC Bldg #8  
 Pace Quote: CCR  
 Pace Project Manager: Karen Brown  
 Pace Profile #: 17210

ITEM #	SAMPLE ID One Character per box (A-Z, 0-9 / , -) Sample Ids must be unique	Description	Station Name Location, Code	Site Name Facility ID	Sample Duplicate	Matrix Spike/Matrix Spike Duplicate	Field Filtered	MATRIX CODE	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED		# OF CONTAINERS	Preservatives			Analyses Test	EPA 9315	EPA 9320	Total Radium Sum	Total Sulfide	Residual Chlorine (Y/N)
										DATE	TIME		Unpreserved	NaOH+ZnAcetate	HNO3						
1	BC03646	MW-41HD	APCO-GS-AP-MW-41HD	APCO Gorgas AshPond				GW	G	2/19/2022	9:25	1	X								
2	BC03647	MW-24H	APCO-GS-AP-MW-24H	APCO Gorgas AshPond				GW	G	2/19/2022	10:37	1	X								
3	BC03648	MW-24H DUP	APCO-GS-AP-MW-24H	APCO Gorgas AshPond	X			GW	G	2/19/2022	10:37	1	X								
4	BC03649	MW-40H	APCO-GS-AP-MW-40H	APCO Gorgas AshPond				GW	G	2/19/2022	12:25	1	X								
5	BC03650	MW-26H	APCO-GS-AP-MW-26H	APCO Gorgas AshPond				GW	G	2/19/2022	14:13	1	X								
6	BC03651	MW-42H	APCO-GS-AP-MW-42H	APCO Gorgas AshPond				GW	G	2/19/2022	10:43	1	X								
7	BC03652	MW-8	APCO-GS-AP-MW-8	APCO Gorgas AshPond				GW	G	2/19/2022	12:14	1	X								
8	BC03653	MW-3	APCO-GS-AP-MW-3	APCO Gorgas AshPond				GW	G	2/19/2022	14:57	1	X								
9	BC03654	FB-2	APCO-GS-AP-FB-02	APCO Gorgas AshPond				GW	G	2/19/2022	15:50	1	X								
10																					
11																					
12																					

ADDITIONAL COMMENTS	RELINQUISHED BY/AFFILIATION	DATE	TIME	ACCEPTED BY/AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
	Laura Mickiff APC GTL	2/16/2022	10:55	GH	2/18/22	10:00	1.0 4 4 4

SAMPLER NAME AND SIGNATURE: \_\_\_\_\_  
 PRINT NAME OF SAMPLER: T.J DAUGHERTY  
 SIGNATURE OF SAMPLER: \_\_\_\_\_  
 DATE SIGNED: \_\_\_\_\_

**MO#: 20234691**

**Due Date: 03/03/22**

**PH: KHB CLIENT: 20-Alabama**

**CHAIN-OF-CUSTODY / Analytical Request Docu**  
 The Chain-Of-Custody is a LEGAL DOCUMENT. All relevant fields must be

Section A Required Client Information: **Alabama Power Company**  
 744 Highway 87 GSC Bldg #8  
 Calera, AL 35040  
 Email To: ldmicki@scouthernco.com  
 Phone: 205-664-6197 Fax  
 Requested Due Date: Normal

Section B Required Project Information: **Report To: Laura Mickiff**  
 Copy To: Brooke Caton & Renee Jernigan  
 Purchase Order #: **APC10755638**  
 Project Name: **Plant Gorgas Ash Pond**  
 Project Number: **WAWWGORAP 1350**

Section C Invoice Information: **Attention: Laura Mickiff**  
 Company Name: **Alabama Power Co.**  
 Address: **744 Highway 87 GSC Bldg #8**  
 City: **CCR**  
 State: **Alabama**  
 Page Project Manager: **Karen Brown**  
 Page Profile #: **17210**

ITEM #	SAMPLE ID One Character per box. (A-Z, 0-9 /, -) Sample IDs must be unique	Description	Station Name Location Code	Site Name Facility ID	Sample Duplicate	Matrix Spike/Matrix Spike Duplicate	Field Filtered	MATRIX CODE	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED		# OF CONTAINERS	Preservatives			Analyses Test	EPA 9315	EPA 9320	Total Radium Sum	Total Sulfide	Residual Chlorine (Y/N)
										DATE	TIME		Unpreserved	NaOH+ZnAcetate	HNO3						
1	BC03974	MW-43H	APCO-GS-AP-MW-43H	APCO Gorgas AshPond				GW G	G	2/21/2022	11:43	1									
2	BC03975	PZ-18R	APCO-GS-AP-PZ-18R	APCO Gorgas AshPond				GW G	G	2/21/2022	14:40	1	X								
3	BC03976	MW-38V	APCO-GS-AP-MW-38V	APCO Gorgas AshPond				GW G	G	2/22/2022	10:06	1	X								
4	BC03977	MW-27HR	APCO-GS-AP-MW-27HR	APCO Gorgas AshPond				GW G	G	2/22/2022	12:03	1	X								
5	BC03978	FB-6	APCO-GS-AP-FB-06	APCO Gorgas AshPond				GW G	G	2/22/2022	12:40	1	X								
6	BC03979	MW-18R	APCO-GS-AP-MW-18R	APCO Gorgas AshPond				GW G	G	2/22/2022	13:42	1	X								
7	BC03980	MW-18R DUP	APCO-GS-AP-MW-18R	APCO Gorgas AshPond				GW G	G	2/22/2022	13:42	1	X								
8	BC03981	MW-18VR	APCO-GS-AP-MW-18VR	APCO Gorgas AshPond				GW G	G	2/22/2022	15:15	1	X								
9	BC03982	MW-45V	APCO-GS-AP-MW-45V	APCO Gorgas AshPond				GW G	G	2/23/2022	11:29	1	X								
10	BC03983	MW-03V	APCO-GS-AP-MW-03V	APCO Gorgas AshPond				GW G	G	2/23/2022	12:48	1	X								
11																					
12																					

ADDITIONAL COMMENTS: **RELINQUISHED BY / AFFILIATION**  
 Laura Mickiff / APC GTL  
**DATE** 2/23/2022 **TIME** 17:20  
**ACCEPTED BY / AFFILIATION**  
 FedEx Rec  
**DATE** 2/21/22 **TIME** 16:30  
**DATE SIGNED:**  
 DALLAS GENTRY  
 DATE Signed: \_\_\_\_\_

TEMP in C \_\_\_\_\_  
 Received on Ice (Y/N) \_\_\_\_\_  
 Custody Sealed Cooler (Y/N) \_\_\_\_\_  
 Samples Intact (Y/N) \_\_\_\_\_

# CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Section A  
 Required Client Information:  
 Company: Alabama Power Company  
 Address: 744 Highway 87 GSC Bldg #8  
 Email To: lbmickliff@southernco.com  
 Phone: 205-664-6197  
 Requested Due Date: Normal

Section B  
 Required Project Information:  
 Report To: Laura Mickliff  
 Copy To: Brooke Calton & Renee Jernigan  
 Purchase Order #: APC10755638  
 Project Name: Plant Gorgas Ash Pond  
 Project Number: WMMWGORAP\_1350

Section C  
 Invoice Information:  
 Attention: Laura Mickliff  
 Company Name: Alabama Power Co.  
 Address: 744 Highway 87 GSC Bldg #8  
 Address: CCR  
 Pace Quote: Karen Brown  
 Pace Project Manager: Karen Brown  
 Pace Profile #: 17210

Page : 9 Of

ITEM #	SAMPLE ID <small>One Character per box. (A-Z, 0-9 /, -) Sample IDs must be unique</small>	Description	Station Name Location Code	Site Name Facility ID	Sample Duplicate	Matrix Spike/Matrix Spike Duplicate	Field Filtered	MATRIX CODE	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED		# OF CONTAINERS	Preservatives			Analyses Test	Requester Analytic Filtered (Y/N)	Regulatory Agency	State / Location
										DATE	TIME		Unpreserved	NaOH+ZnAcetate	HNO3				
1	BC03984	MW-9V	APCO-GS-AP-MW-9V	APCO_Gorgas_AshPond				GW	G	2/21/2022	12:08	1							
2	BC03985	MW-38H	APCO-GS-AP-MW-38H	APCO_Gorgas_AshPond				GW	G	2/22/2022	9:35	1	X						
3	BC03986	MW-19	APCO-GS-AP-MW-19	APCO_Gorgas_AshPond				GW	G	2/22/2022	11:18	1	X						
4	BC03987	MW-19 DUP	APCO-GS-AP-MW-19	APCO_Gorgas_AshPond	X			GW	G	2/22/2022	11:18	1	X						
5	BC03988	MW-2	APCO-GS-AP-MW-2	APCO_Gorgas_AshPond				GW	G	2/22/2022	13:17	1	X						
6	BC03989	MW-12V	APCO-GS-AP-MW-12V	APCO_Gorgas_AshPond				GW	G	2/23/2022	12:33	1	X						
7	BC03990	FB-5	APCO-GS-AP-FB-05	APCO_Gorgas_AshPond				GW	G	2/23/2022	13:30	1	X						
8																			
9																			
10																			
11																			
12																			

RELINQUISHED BY / AFFILIATION		DATE	TIME	ACCEPTED BY / AFFILIATION		DATE	TIME	SAMPLE CONDITIONS	
Laura Mickliff / APC GTL		2/23/2022	17:20	FedEx		2/24/22	10:30	TEMP in C	
FedEx				Amy R		2/24/22	10:30	Received on Ice (Y/N)	
				Ren				Custody Sealed Cooler (Y/N)	
								Samples Intact (Y/N)	

TEMP in C  
 Received on Ice (Y/N)  
 Custody Sealed Cooler (Y/N)  
 Samples Intact (Y/N)

SAMPLER NAME AND SIGNATURE  
 PRINT Name of SAMPLER:  
 SIGNATURE of SAMPLER:

TJ DAUGHERTY  
 DATE Signed:

# CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Section A Required Client Information:      Section B Required Project Information:      Section C Invoice Information:

Company: Alabama Power Company	Report To: Laura Mickliff	Attention: Laura Mickliff
Address: 744 Highway 87 GSC Bldg #8 Cataula, AL 35040	Copy To: Brooke Caton & Renee Jernigan	Company Name: Alabama Power Co.
Email To: lbmickli@southernco.com	Purchase Order #: APC10755638	Address: 744 Highway 87 GSC Bldg #8 CCR
Phone: 205-664-6197 Fax	Project Name: Plant Gorgas Ash Pond	Pace Project Manager: Karen Brown
Requested Due Date: Normal	Project Number: WMMWGGRAP_1350	Pace Profile #: 17210

ITEM #	SAMPLE ID <small>One Character per box. (A-Z, 0-9 /, -) Sample IDs must be unique</small>	Description	Station Name Location Code	Site Name Facility ID	Sample Duplicate	Matrix Spike/Matrix Spike Duplicate	Field Filtered	MATRIX CODE	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED		# OF CONTAINERS	Preservatives			Analyses Test	Regulatory Agency	State / Location
										DATE	TIME		Unpreserved	NaOH+ZnAcetate	HNO3			
1	BC03991	MM-31V	APCO-GS-AP-MM-31V	APCO_Gorgas AshPond				GW	G	2/22/2022	13:07	1	X					
2	BC03992	MM-46	APCO-GS-AP-MM-46	APCO_Gorgas AshPond				GW	G	2/23/2022	10:30	1	X					
3	BC03993	FB-4	APCO-GS-AP-FB-04	APCO_Gorgas AshPond				GW	G	2/23/2022	11:00	1	X					
4	BC03994	MM-23V	APCO-GS-AP-MM-23V	APCO_Gorgas AshPond				GW	G	2/23/2022	13:33	1	X					
5																		
6																		
7																		
8																		
9																		
10																		
11																		
12																		

Additional Comments: Laura Mickliff APC GTL	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
		2/23/2022	17:20	FedEx	2/24/22	10:30	IG 4 4 4

SAMPLER NAME AND SIGNATURE: PRINT Name of SAMPLER: SIGNATURE of SAMPLER:	ANTHONY GOGGINS DATE Signed:
--	---------------------------------

**MO#: 20234691**

PM: KHB Due Date: 03/10/22

CLIENT: 20-ALabama

CHAIN-OF-CUSTODY / Analytical Request Document  
The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be complete

Section A Required Client Information: Alabama Power Company, 744 Highway 87 GSC Bldg #8, Calera, AL 35040  
Section B Required Project Information: Report To: Laura Mickitt  
Section C Invoice Information: Attention: Laura Mickitt, Alabama Power Co., 744 Highway 87 GSC Bldg #8, CCR, Karen Brown

Address: 744 Highway 87 GSC Bldg #8, Calera, AL 35040  
Copy To: Brooke Caton & Renee Jernigan  
Purchase Order #: APC10755638  
Project Name: Plant Gorgas Ash Pond  
Project Number: WMMWGORAP-1350  
Company Name: Alabama Power Co.  
Address: 744 Highway 87 GSC Bldg #8  
Pace Project Manager: Karen Brown  
Pace Profile #: 17210  
Requester: AL

ITEM #	SAMPLE ID One Character per box. (A-Z, 0-9 /, -) Sample IDs must be unique	Description	Station Name Location Code	Site Name Facility ID	Sample Duplicate	Matrix Spike/Matrix Spike Duplicate	Field Filtered	MATRIX CODE	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED		# OF CONTAINERS	Preservatives	Analyses Test	EPA 9315	EPA 9320	Total Radium Sum	Total Sulfide	Residual Chlorine (Y/N)
										DATE	TIME								
1	BC04387	MW-37HR	APCO-GS-AP-MW-37HR	APCO_Gorgas_AshPond				GW	G	2/28/2022	12:20	1	X						
2	BC04388	MW-47	APCO-GS-AP-MW-47	APCO_Gorgas_AshPond				GW	G	2/28/2022	14:12	1	X						
3	BC04389	MW-14R	APCO-GS-AP-MW-14R	APCO_Gorgas_AshPond				GW	G	2/28/2022	15:33	1	X						
4	BC04390	MW-13R	APCO-GS-AP-MW-13R	APCO_Gorgas_AshPond				GW	G	3/1/2022	8:34	1	X						
5	BC04391	MW-10R	APCO-GS-AP-MW-10R	APCO_Gorgas_AshPond				GW	G	3/1/2022	12:07	1	X						
6																			
7																			
8																			
9																			
10																			
11																			
12																			

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
	Laura Mickitt APC GTL	3/1/2022	15:45:00 PM	FedEx	3/2/22	8:45	TEMP in C Received on Ice (Y/N) Custody Sealed Cooler (Y/N) Samples Intact (Y/N)

SAMPLER NAME AND SIGNATURE: PRINT Name of SAMPLER: SIGNATURE of SAMPLER: DALLAS GENTRY DATE Signed:



# CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Section A Requested Client Information: Alabama Power Company  
 Section B Requested Project Information: Report To: Laura Midkiff  
 Section C Invoice Information: Attention: Laura Midkiff

Company: Alabama Power Company  
 Address: 744 Highway 87 GSC Bldg #8  
 City: Calera, AL 35040  
 Email To: lmidkiff@southernco.com  
 Phone: 205-664-6197  
 Requested Due Date: Normal  
 Copy To: Brooke Calton & Renee Jernigan  
 Purchase Order #: APC107558638  
 Project Name: Plant Gorgas Ash Pond  
 Project Number: WMMWGORAP\_1350  
 Company Name: Alabama Power Co.  
 Address: 744 Highway 87 GSC Bldg #8  
 Pace Quote: CCR  
 Pace Project Manager: Karen Brown  
 Pace Profile #: 17210  
 Regulatory Agency: AL  
 State / Location: AL

ITEM #	SAMPLE ID One Character per box. (A-Z, 0-9 /, -) Sample Ids must be unique	Description	Station Name Location Code	Site Name Facility ID	Sample Duplicate	Matrix Spike/Matrix Spike Duplicate	Field Filtered	MATRIX CODE	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED		# OF CONTAINERS	Preservatives			Analyses Test	Y/N	EPA 9315	EPA 9320	Total Radium Sum	Total Sulfide	Residual Chlorine (Y/N)
										DATE	TIME		Unpreserved	NaOH+ZnAcetate	HNO3							
1	BC04392	MW-12	APCO-GS-AP-MW-12	APCO_Gorgas_AshPond				G	G	2/29/2022	14:40	1	X									
2	BC04393	MW-09R	APCO-GS-AP-MW-09R	APCO_Gorgas_AshPond				G	G	3/1/2022	12:04	1	X									
3	BC04394	EB-1	APCO-GS-AP-EB-1	APCO_Gorgas_AshPond				G	G	3/1/2022	12:05	1	X									
4																						
5																						
6																						
7																						
8																						
9																						
10																						
11																						
12																						

RELEASING BY / AFFILIATION: Laura Midkiff / APC GTL  
 DATE: 3/1/2022  
 TIME: 15:45:00 PM  
 ACCEPTED BY / AFFILIATION: Andy Pace  
 DATE: 3/1/2022  
 TIME: 8:45 2.1  
 SIGNATURE OF SAMPLER: TJ DAUGHERTY  
 DATE SIGNED: 3/1/2022



WO#: 20234691



Sample Condition Upon Receipt

PM: KHB

Due Date: 02/22/22

1000 Riverbend Blvd., Suite F  
St. Rose, LA 70087

CLIENT: 20-Alabama

Project #

Courier:  Pace Courier  Hired Courier  Fed X  UPS  DHL  USPS  Customer  Other

Custody Seal on Cooler/Box Present: [see COC]

Custody Seals intact:  Yes  No

Thermometer Used:  Therm Fisher IR 7  Therm Fisher IR 10

Type of Ice: Wet Blue None

Samples on ice: [see COC]

Cooler Temperature: [see COC]

Temp should be above freezing to 6°C

Date and Initials of person examining contents: 2/10/22 AR

Temp must be measured from Temperature blank when present

Comments:

Temperature Blank Present?"	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	1	
Chain of Custody Present:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	2	
Chain of Custody Complete:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	3	
Chain of Custody Relinquished:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	4	
Sampler Name & Signature on COC:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	5	
Samples Arrived within Hold Time:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	6	
Sufficient Volume:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	7	
Correct Containers Used:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	8	
Filtered vol. Rec. for Diss. tests	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	9	
Sample Labels match COC:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	10	
All containers received within manufacture's precautionary and/or expiration dates.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	11	
All containers needing chemical preservation have been checked (except VOA, coliform, & O&G).	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	12	
All containers preservation checked found to be in compliance with EPA recommendation.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	13	If No, was preservative added? <input type="checkbox"/> Yes <input type="checkbox"/> No If added record lot no.: HNO3 _____ H2SO4 _____
Headspace in VOA Vials (>6mm):	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	14	
Trip Blank Present:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	15	

Client Notification/ Resolution:

Person Contacted: Samples 001-008 arrived 02/10/22 Date/Time: \_\_\_\_\_

Comments/ Resolution: Samples 009-022 arrived 02/16/22

Samples 023-038 arrived 02/18/22

Samples 039-059 arrived 02/24/22

Samples 060-070 arrived 03/02/22

April 20, 2022

Brooke Caton  
Alabama Power  
744 Highway 87  
Calera, AL 35040

RE: Project: WMWGORAP\_1350  
Pace Project No.: 30470864

Dear Brooke Caton:

Enclosed are the analytical results for sample(s) received by the laboratory on March 04, 2022. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Services - Greensburg

#PM

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

Sincerely,



Skyler C. Richmond  
skyler.richmond@pacelabs.com  
(724)850-5600  
Project Manager

Enclosures

cc: Blaine Denton, Alabama Power  
Renee Jernigan, Alabama Power  
Laura Midkiff, Alabama Power



## REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,  
without the written consent of Pace Analytical Services, LLC.

## CERTIFICATIONS

Project: WMWGORAP\_1350  
Pace Project No.: 30470864

---

### **Pace Analytical Services Pennsylvania**

1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601  
ANAB DOD-ELAP Rad Accreditation #: L2417  
Alabama Certification #: 41590  
Arizona Certification #: AZ0734  
Arkansas Certification  
California Certification #: 04222CA  
Colorado Certification #: PA01547  
Connecticut Certification #: PH-0694  
Delaware Certification  
EPA Region 4 DW Rad  
Florida/TNI Certification #: E87683  
Georgia Certification #: C040  
Florida: Cert E871149 SEKS WET  
Guam Certification  
Hawaii Certification  
Idaho Certification  
Illinois Certification  
Indiana Certification  
Iowa Certification #: 391  
Kansas/TNI Certification #: E-10358  
Kentucky Certification #: KY90133  
KY WW Permit #: KY0098221  
KY WW Permit #: KY0000221  
Louisiana DHH/TNI Certification #: LA180012  
Louisiana DEQ/TNI Certification #: 4086  
Maine Certification #: 2017020  
Maryland Certification #: 308  
Massachusetts Certification #: M-PA1457  
Michigan/PADEP Certification #: 9991

Missouri Certification #: 235  
Montana Certification #: Cert0082  
Nebraska Certification #: NE-OS-29-14  
Nevada Certification #: PA014572018-1  
New Hampshire/TNI Certification #: 297617  
New Jersey/TNI Certification #: PA051  
New Mexico Certification #: PA01457  
New York/TNI Certification #: 10888  
North Carolina Certification #: 42706  
North Dakota Certification #: R-190  
Ohio EPA Rad Approval: #41249  
Oregon/TNI Certification #: PA200002-010  
Pennsylvania/TNI Certification #: 65-00282  
Puerto Rico Certification #: PA01457  
Rhode Island Certification #: 65-00282  
South Dakota Certification  
Tennessee Certification #: 02867  
Texas/TNI Certification #: T104704188-17-3  
Utah/TNI Certification #: PA014572017-9  
USDA Soil Permit #: P330-17-00091  
Vermont Dept. of Health: ID# VT-0282  
Virgin Island/PADEP Certification  
Virginia/VELAP Certification #: 460198  
Washington Certification #: C868  
West Virginia DEP Certification #: 143  
West Virginia DHHR Certification #: 9964C  
Wisconsin Approve List for Rad  
Wyoming Certification #: 8TMS-L

---

## REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,  
without the written consent of Pace Analytical Services, LLC.

## SAMPLE SUMMARY

Project: WMWGORAP\_1350

Pace Project No.: 30470864

Lab ID	Sample ID	Matrix	Date Collected	Date Received
30470864001	BC02839 MW-7	Water	02/08/22 11:20	03/04/22 09:45
30470864002	BC02840 MW-7 Diss	Water	02/08/22 11:20	03/04/22 09:45
30470864003	BC02841 MW-41HS	Water	02/08/22 14:43	03/04/22 09:45
30470864004	BC02842 MW-6V	Water	02/09/22 12:00	03/04/22 09:45
30470864005	BC02843 MW-30HA	Water	02/08/22 09:36	03/04/22 09:45
30470864006	BC02844 MW-21	Water	02/08/22 11:11	03/04/22 09:45
30470864007	BC02845 MW-21V	Water	02/08/22 13:38	03/04/22 09:45
30470864008	BC02846 MW-31H	Water	02/08/22 16:04	03/04/22 09:45
30470864009	BC03250 PZ-22	Water	02/14/22 10:21	03/04/22 09:45
30470864010	BC03251 MW-17	Water	02/14/22 11:42	03/04/22 09:45
30470864011	BC03252 MW-17V	Water	02/14/22 12:54	03/04/22 09:45
30470864012	BC03253 MW-36H	Water	02/14/22 15:28	03/04/22 09:45
30470864013	BC03254 MW-6S	Water	02/14/22 11:18	03/04/22 09:45
30470864014	BC03255 MW-6S DUP	Water	02/14/22 11:18	03/04/22 09:45
30470864015	BC03256 MW-6D	Water	02/14/22 12:34	03/04/22 09:45
30470864016	BC03257 MW-23H	Water	02/14/22 13:47	03/04/22 09:45
30470864017	BC03258 MW-23H DUP	Water	02/14/22 13:47	03/04/22 09:45
30470864018	BC03259 MW-28H	Water	02/14/22 12:42	03/04/22 09:45
30470864019	BC03260 MW-28H DUP	Water	02/14/22 12:42	03/04/22 09:45
30470864020	BC03261 MW-29H	Water	02/14/22 14:30	03/04/22 09:45
30470864021	BC03262 FB-3	Water	02/14/22 15:10	03/04/22 09:45
30470864022	BC03263 MW-32H	Water	02/14/22 15:45	03/04/22 09:45
30470864023	BC03539 PZ-16	Water	02/15/22 11:08	03/04/22 09:45
30470864024	BC03540 MW-16D	Water	02/15/22 12:48	03/04/22 09:45
30470864025	BC03541 MW-16S	Water	02/15/22 13:52	03/04/22 09:45
30470864026	BC03542 FB-2	Water	02/15/22 14:45	03/04/22 09:45
30470864027	BC03543 MW-15	Water	02/16/22 10:39	03/04/22 09:45
30470864028	BC03544 MW-15V	Water	02/16/22 11:45	03/04/22 09:45
30470864029	BC03545 MW-25HA	Water	02/16/22 13:22	03/04/22 09:45
30470864030	BC03546 MW-41HD	Water	02/15/22 09:25	03/04/22 09:45
30470864031	BC03547 MW-24H	Water	02/15/22 10:37	03/04/22 09:45
30470864032	BC03548 MW-24H DUP	Water	02/15/22 10:37	03/04/22 09:45
30470864033	BC03549 MW-40H	Water	02/15/22 12:25	03/04/22 09:45
30470864034	BC03550 MW-26H	Water	02/15/22 14:13	03/04/22 09:45
30470864035	BC03551 MW-42H	Water	02/16/22 10:43	03/04/22 09:45
30470864036	BC03552 MW-8	Water	02/16/22 12:14	03/04/22 09:45
30470864037	BC03553 MW-3	Water	02/16/22 14:57	03/04/22 09:45

## REPORT OF LABORATORY ANALYSIS

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## SAMPLE SUMMARY

Project: WMWGORAP\_1350

Pace Project No.: 30470864

Lab ID	Sample ID	Matrix	Date Collected	Date Received
30470864038	BC03554 FB-1	Water	02/16/22 15:50	03/04/22 09:45
30470864039	BC03974 MW-43H	Water	02/21/22 11:43	03/04/22 09:45
30470864040	BC03975 PZ-18R	Water	02/21/22 14:40	03/04/22 09:45
30470864041	BC03976 MW-36V	Water	02/22/22 10:06	03/04/22 09:45
30470864042	BC03977 MW-27HR	Water	02/22/22 12:03	03/04/22 09:45
30470864043	BC03978 FB-6	Water	02/22/22 12:40	03/04/22 09:45
30470864044	BC03979 MW-18R	Water	02/22/22 13:42	03/04/22 09:45
30470864045	BC03980 MW-18R DUP	Water	02/22/22 13:42	03/04/22 09:45
30470864046	BC03981 MW-18VR	Water	02/22/22 15:15	03/04/22 09:45
30470864047	BC03982 MW-45V	Water	02/23/22 11:29	03/04/22 09:45
30470864048	BC03983 MW-03V	Water	02/23/22 12:49	03/04/22 09:45
30470864049	BC03984 MW-9V	Water	02/21/22 12:08	03/04/22 09:45
30470864050	BC03985 MW-38H	Water	02/22/22 09:35	03/04/22 09:45
30470864051	BC03986 MW-19	Water	02/22/22 11:18	03/04/22 09:45
30470864052	BC03987 MW-19 DUP	Water	02/22/22 11:18	03/04/22 09:45
30470864053	BC03988 MW-2	Water	02/22/22 13:17	03/04/22 09:45
30470864054	BC03989 MW-12V	Water	02/23/22 12:33	03/04/22 09:45
30470864055	BC03990 FB-5	Water	02/23/22 13:30	03/04/22 09:45
30470864056	BC03991 MW-31V	Water	02/22/22 13:07	03/04/22 09:45
30470864057	BC03992 MW-46	Water	02/23/22 10:30	03/04/22 09:45
30470864058	BC03993 FB-4	Water	02/23/22 11:00	03/04/22 09:45
30470864059	BC03994 MW-23V	Water	02/23/22 13:33	03/04/22 09:45
30470864060	BC04387 MW-37HR	Water	02/28/22 12:20	03/04/22 09:45
30470864061	BC04388 MW-47	Water	02/28/22 14:12	03/04/22 09:45
30470864062	BC04389 MW-14R	Water	02/28/22 15:33	03/04/22 09:45
30470864063	BC04390 MW-13R	Water	03/01/22 08:34	03/04/22 09:45
30470864064	BC04391 MW-10R	Water	03/01/22 12:07	03/04/22 09:45
30470864065	BC04392 MW-12	Water	02/28/22 14:40	03/04/22 09:45
30470864066	BC04393 MW-09R	Water	03/01/22 12:04	03/04/22 09:45
30470864067	BC04394 EB-1	Water	03/01/22 12:30	03/04/22 09:45
30470864068	BC04395 MW-01R	Water	03/01/22 08:54	03/04/22 09:45
30470864069	BC04396 MW-11R	Water	03/01/22 11:20	03/04/22 09:45
30470864070	BC04397 MW-05R	Water	03/01/22 13:34	03/04/22 09:45
30470864071	BC03250 MS	Water	02/14/22 10:21	03/04/22 09:45
30470864072	BC03250 MSD	Water	02/14/22 10:21	03/04/22 09:45
30470864073	BC03256 MS	Water	02/14/22 12:34	03/04/22 09:45
30470864074	BC03256 MSD	Water	02/14/22 12:34	03/04/22 09:45

## REPORT OF LABORATORY ANALYSIS

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## SAMPLE SUMMARY

Project: WMWGORAP\_1350

Pace Project No.: 30470864

Lab ID	Sample ID	Matrix	Date Collected	Date Received
30470864075	BC03539 MS	Water	02/15/22 11:08	03/04/22 09:45
30470864076	BC03539 MSD	Water	02/15/22 11:08	03/04/22 09:45
30470864077	BC03551 MS	Water	02/16/22 10:43	03/04/22 09:45
30470864078	BC03551 MSD	Water	02/16/22 10:43	03/04/22 09:45

## REPORT OF LABORATORY ANALYSIS

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### SAMPLE ANALYTE COUNT

Project: WMWGORAP\_1350

Pace Project No.: 30470864

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
30470864001	BC02839 MW-7	EPA 9315	JC2	1	PASI-PA
		EPA 9320	JSM	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
30470864002	BC02840 MW-7 Diss	EPA 9315	JC2	1	PASI-PA
		EPA 9320	JSM	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
30470864003	BC02841 MW-41HS	EPA 9315	JC2	1	PASI-PA
		EPA 9320	JSM	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
30470864004	BC02842 MW-6V	EPA 9315	JC2	1	PASI-PA
		EPA 9320	JSM	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
30470864005	BC02843 MW-30HA	EPA 9315	JC2	1	PASI-PA
		EPA 9320	JSM	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
30470864006	BC02844 MW-21	EPA 9315	JC2	1	PASI-PA
		EPA 9320	JSM	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
30470864007	BC02845 MW-21V	EPA 9315	JC2	1	PASI-PA
		EPA 9320	JSM	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
30470864008	BC02846 MW-31H	EPA 9315	JC2	1	PASI-PA
		EPA 9320	JSM	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
30470864009	BC03250 PZ-22	EPA 9315	JC2	1	PASI-PA
		EPA 9320	JSM	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
30470864010	BC03251 MW-17	EPA 9315	JC2	1	PASI-PA
		EPA 9320	JSM	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
30470864011	BC03252 MW-17V	EPA 9315	JC2	1	PASI-PA
		EPA 9320	JSM	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
30470864012	BC03253 MW-36H	EPA 9315	JC2	1	PASI-PA
		EPA 9320	JSM	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
30470864013	BC03254 MW-6S	EPA 9315	JC2	1	PASI-PA

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### SAMPLE ANALYTE COUNT

Project: WMWGORAP\_1350  
Pace Project No.: 30470864

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
30470864014	BC03255 MW-6S DUP	EPA 9320	JSM	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		EPA 9315	JC2	1	PASI-PA
30470864015	BC03256 MW-6D	EPA 9320	JSM	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		EPA 9315	JC2	1	PASI-PA
30470864016	BC03257 MW-23H	EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		EPA 9315	JC2	1	PASI-PA
30470864017	BC03258 MW-23H DUP	EPA 9320	JSM	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		EPA 9315	JC2	1	PASI-PA
30470864018	BC03259 MW-28H	EPA 9320	JSM	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		EPA 9315	JC2	1	PASI-PA
30470864019	BC03260 MW-28H DUP	EPA 9320	JSM	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		EPA 9315	JC2	1	PASI-PA
30470864020	BC03261 MW-29H	EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		EPA 9315	JC2	1	PASI-PA
30470864021	BC03262 FB-3	EPA 9320	JSM	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		EPA 9315	JC2	1	PASI-PA
30470864022	BC03263 MW-32H	EPA 9320	JSM	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		EPA 9315	JC2	1	PASI-PA
30470864023	BC03539 PZ-16	EPA 9320	JSM	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		EPA 9315	JC2	1	PASI-PA
30470864024	BC03540 MW-16D	EPA 9320	JSM	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		EPA 9315	JC2	1	PASI-PA
30470864025	BC03541 MW-16S	EPA 9320	JSM	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		EPA 9315	JC2	1	PASI-PA

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### SAMPLE ANALYTE COUNT

Project: WMWGORAP\_1350

Pace Project No.: 30470864

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
30470864026	BC03542 FB-2	Total Radium Calculation	JAL	1	PASI-PA
		EPA 9315	JC2	1	PASI-PA
		EPA 9320	JSM	1	PASI-PA
30470864027	BC03543 MW-15	Total Radium Calculation	JAL	1	PASI-PA
		EPA 9315	JC2	1	PASI-PA
		EPA 9320	JSM	1	PASI-PA
30470864028	BC03544 MW-15V	Total Radium Calculation	JAL	1	PASI-PA
		EPA 9315	JC2	1	PASI-PA
		EPA 9320	JSM	1	PASI-PA
30470864029	BC03545 MW-25HA	Total Radium Calculation	JAL	1	PASI-PA
		EPA 9315	JC2	1	PASI-PA
		EPA 9320	JSM	1	PASI-PA
30470864030	BC03546 MW-41HD	Total Radium Calculation	JAL	1	PASI-PA
		EPA 9315	JC2	1	PASI-PA
		EPA 9320	JSM	1	PASI-PA
30470864031	BC03547 MW-24H	Total Radium Calculation	JAL	1	PASI-PA
		EPA 9315	JC2	1	PASI-PA
		EPA 9320	JSM	1	PASI-PA
30470864032	BC03548 MW-24H DUP	Total Radium Calculation	JAL	1	PASI-PA
		EPA 9315	JC2	1	PASI-PA
		EPA 9320	JSM	1	PASI-PA
30470864033	BC03549 MW-40H	Total Radium Calculation	JAL	1	PASI-PA
		EPA 9315	JC2	1	PASI-PA
		EPA 9320	JSM	1	PASI-PA
30470864034	BC03550 MW-26H	Total Radium Calculation	JAL	1	PASI-PA
		EPA 9315	JC2	1	PASI-PA
		EPA 9320	JSM	1	PASI-PA
30470864035	BC03551 MW-42H	Total Radium Calculation	JAL	1	PASI-PA
		EPA 9315	JC2	1	PASI-PA
		EPA 9320	JSM	1	PASI-PA
30470864036	BC03552 MW-8	Total Radium Calculation	JAL	1	PASI-PA
		EPA 9315	JC2	1	PASI-PA
		EPA 9320	JSM	1	PASI-PA
30470864037	BC03553 MW-3	Total Radium Calculation	JAL	1	PASI-PA
		EPA 9315	JC2	1	PASI-PA
		EPA 9320	JSM	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA

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### SAMPLE ANALYTE COUNT

Project: WMWGORAP\_1350  
Pace Project No.: 30470864

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
30470864038	BC03554 FB-1	EPA 9315	JC2	1	PASI-PA
		EPA 9320	JSM	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
30470864039	BC03974 MW-43H	EPA 9315	JC2	1	PASI-PA
		EPA 9320	JSM	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
30470864040	BC03975 PZ-18R	EPA 9315	JC2	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
30470864041	BC03976 MW-36V	EPA 9315	JC2	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
30470864042	BC03977 MW-27HR	EPA 9315	JC2	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
30470864043	BC03978 FB-6	EPA 9315	JC2	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
30470864044	BC03979 MW-18R	EPA 9315	JC2	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
30470864045	BC03980 MW-18R DUP	EPA 9315	JC2	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
30470864046	BC03981 MW-18VR	EPA 9315	JC2	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
30470864047	BC03982 MW-45V	EPA 9315	JC2	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
30470864048	BC03983 MW-03V	EPA 9315	JC2	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
30470864049	BC03984 MW-9V	EPA 9315	JC2	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
30470864050	BC03985 MW-38H	EPA 9315	JC2	1	PASI-PA

### REPORT OF LABORATORY ANALYSIS

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### SAMPLE ANALYTE COUNT

Project: WMWGORAP\_1350  
Pace Project No.: 30470864

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
30470864051	BC03986 MW-19	EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		EPA 9315	JC2	1	PASI-PA
30470864052	BC03987 MW-19 DUP	EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		EPA 9315	JC2	1	PASI-PA
30470864053	BC03988 MW-2	EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		EPA 9315	JC2	1	PASI-PA
30470864054	BC03989 MW-12V	EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		EPA 9315	JC2	1	PASI-PA
30470864055	BC03990 FB-5	EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		EPA 9315	JC2	1	PASI-PA
30470864056	BC03991 MW-31V	EPA 9320	JSM	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		EPA 9315	JC2	1	PASI-PA
30470864057	BC03992 MW-46	EPA 9320	JSM	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		EPA 9315	JC2	1	PASI-PA
30470864058	BC03993 FB-4	EPA 9320	JSM	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		EPA 9315	JC2	1	PASI-PA
30470864059	BC03994 MW-23V	EPA 9320	JSM	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		EPA 9315	JC2	1	PASI-PA
30470864060	BC04387 MW-37HR	EPA 9320	JSM	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		EPA 9315	JC2	1	PASI-PA
30470864061	BC04388 MW-47	EPA 9320	JSM	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		EPA 9315	JC2	1	PASI-PA
30470864062	BC04389 MW-14R	EPA 9320	JSM	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		EPA 9315	JC2	1	PASI-PA

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### SAMPLE ANALYTE COUNT

Project: WMWGORAP\_1350  
Pace Project No.: 30470864

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
30470864063	BC04390 MW-13R	Total Radium Calculation	JAL	1	PASI-PA
		EPA 9315	JC2	1	PASI-PA
		EPA 9320	JSM	1	PASI-PA
30470864064	BC04391 MW-10R	Total Radium Calculation	JAL	1	PASI-PA
		EPA 9315	JC2	1	PASI-PA
		EPA 9320	JSM	1	PASI-PA
30470864065	BC04392 MW-12	Total Radium Calculation	JAL	1	PASI-PA
		EPA 9315	JC2	1	PASI-PA
		EPA 9320	JSM	1	PASI-PA
30470864066	BC04393 MW-09R	Total Radium Calculation	JAL	1	PASI-PA
		EPA 9315	JC2	1	PASI-PA
		EPA 9320	JSM	1	PASI-PA
30470864067	BC04394 EB-1	Total Radium Calculation	JAL	1	PASI-PA
		EPA 9315	JC2	1	PASI-PA
		EPA 9320	JSM	1	PASI-PA
30470864068	BC04395 MW-01R	Total Radium Calculation	JAL	1	PASI-PA
		EPA 9315	JC2	1	PASI-PA
		EPA 9320	JSM	1	PASI-PA
30470864069	BC04396 MW-11R	Total Radium Calculation	JAL	1	PASI-PA
		EPA 9315	JC2	1	PASI-PA
		EPA 9320	JSM	1	PASI-PA
30470864070	BC04397 MW-05R	Total Radium Calculation	JAL	1	PASI-PA
		EPA 9315	JC2	1	PASI-PA
		EPA 9320	JSM	1	PASI-PA
30470864071	BC03250 MS	Total Radium Calculation	JAL	1	PASI-PA
		EPA 9315	JC2	1	PASI-PA
30470864072	BC03250 MSD	EPA 9320	JSM	1	PASI-PA
		EPA 9315	JC2	1	PASI-PA
30470864073	BC03256 MS	EPA 9320	JSM	1	PASI-PA
		EPA 9315	JC2	1	PASI-PA
30470864074	BC03256 MSD	EPA 9320	VAL	1	PASI-PA
		EPA 9315	JC2	1	PASI-PA
30470864075	BC03539 MS	EPA 9320	VAL	1	PASI-PA
		EPA 9315	JC2	1	PASI-PA
30470864076	BC03539 MSD	EPA 9320	JSM	1	PASI-PA
		EPA 9315	JC2	1	PASI-PA

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### SAMPLE ANALYTE COUNT

Project: WMWGORAP\_1350

Pace Project No.: 30470864

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
30470864077	BC03551 MS	EPA 9315	JC2	1	PASI-PA
		EPA 9320	JSM	1	PASI-PA
30470864078	BC03551 MSD	EPA 9315	JC2	1	PASI-PA
		EPA 9320	JSM	1	PASI-PA

PASI-PA = Pace Analytical Services - Greensburg

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## PROJECT NARRATIVE

Project: WMWGORAP\_1350

Pace Project No.: 30470864

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**Method:** EPA 9315

**Description:** 9315 Total Radium

**Client:** Alabama Power

**Date:** April 20, 2022

**General Information:**

78 samples were analyzed for EPA 9315 by Pace Analytical Services Greensburg. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

**Hold Time:**

The samples were analyzed within the method required hold times with any exceptions noted below.

**Method Blank:**

All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

**Laboratory Control Spike:**

All laboratory control spike compounds were within QC limits with any exceptions noted below.

**Matrix Spikes:**

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

**Additional Comments:**

## REPORT OF LABORATORY ANALYSIS

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## PROJECT NARRATIVE

Project: WMWGORAP\_1350

Pace Project No.: 30470864

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**Method:** EPA 9320

**Description:** 9320 Radium 228

**Client:** Alabama Power

**Date:** April 20, 2022

**General Information:**

78 samples were analyzed for EPA 9320 by Pace Analytical Services Greensburg. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

**Hold Time:**

The samples were analyzed within the method required hold times with any exceptions noted below.

**Method Blank:**

All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

**Laboratory Control Spike:**

All laboratory control spike compounds were within QC limits with any exceptions noted below.

**Matrix Spikes:**

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

**Additional Comments:**

## REPORT OF LABORATORY ANALYSIS

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## PROJECT NARRATIVE

Project: WMWGORAP\_1350

Pace Project No.: 30470864

---

**Method:** Total Radium Calculation

**Description:** Total Radium 228+226

**Client:** Alabama Power

**Date:** April 20, 2022

**General Information:**

70 samples were analyzed for Total Radium Calculation by Pace Analytical Services Greensburg. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

**Hold Time:**

The samples were analyzed within the method required hold times with any exceptions noted below.

**Method Blank:**

All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

**Laboratory Control Spike:**

All laboratory control spike compounds were within QC limits with any exceptions noted below.

**Matrix Spikes:**

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

**Additional Comments:**

This data package has been reviewed for quality and completeness and is approved for release.

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: WMWGORAP\_1350

Pace Project No.: 30470864

**Sample: BC02839 MW-7**      **Lab ID: 30470864001**      Collected: 02/08/22 11:20      Received: 03/04/22 09:45      Matrix: Water  
PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	<b>0.347 ± 0.193 (0.240)</b> <b>C:104% T:NA</b>	pCi/L	04/07/22 08:51	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	<b>0.472U ± 0.363 (0.705)</b> <b>C:71% T:89%</b>	pCi/L	03/31/22 14:30	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	<b>0.819U ± 0.556 (0.945)</b>	pCi/L	04/12/22 12:23	7440-14-4	

### REPORT OF LABORATORY ANALYSIS

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: WMWGORAP\_1350

Pace Project No.: 30470864

**Sample: BC02840 MW-7 Diss**      **Lab ID: 30470864002**      Collected: 02/08/22 11:20      Received: 03/04/22 09:45      Matrix: Water  
PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	<b>0.0292U ± 0.0738 (0.183)</b> <b>C:106% T:NA</b>	pCi/L	04/07/22 08:51	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	<b>0.326U ± 0.360 (0.752)</b> <b>C:77% T:89%</b>	pCi/L	03/31/22 14:30	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	<b>0.355U ± 0.434 (0.935)</b>	pCi/L	04/12/22 12:23	7440-14-4	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: WMWGORAP\_1350

Pace Project No.: 30470864

**Sample: BC02841 MW-41HS**      **Lab ID: 30470864003**      Collected: 02/08/22 14:43      Received: 03/04/22 09:45      Matrix: Water  
PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	<b>0.267 ± 0.172 (0.229)</b> <b>C:101% T:NA</b>	pCi/L	04/07/22 08:52	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	<b>-0.0815U ± 0.339 (0.808)</b> <b>C:81% T:80%</b>	pCi/L	03/31/22 14:30	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	<b>0.267U ± 0.511 (1.04)</b>	pCi/L	04/12/22 12:23	7440-14-4	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: WMWGORAP\_1350

Pace Project No.: 30470864

**Sample: BC02842 MW-6V**      **Lab ID: 30470864004**      Collected: 02/09/22 12:00      Received: 03/04/22 09:45      Matrix: Water  
PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 9315	<b>0.209U ± 0.168 (0.276)</b> <b>C:91% T:NA</b>	pCi/L	04/07/22 08:52	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	<b>-0.0285U ± 0.315 (0.743)</b> <b>C:77% T:87%</b>	pCi/L	03/31/22 14:30	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	<b>0.209U ± 0.483 (1.02)</b>	pCi/L	04/12/22 12:23	7440-14-4	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: WMWGORAP\_1350

Pace Project No.: 30470864

**Sample: BC02843 MW-30HA**      **Lab ID: 30470864005**      Collected: 02/08/22 09:36      Received: 03/04/22 09:45      Matrix: Water  
PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	<b>0.709 ± 0.288 (0.295)</b> <b>C:105% T:NA</b>	pCi/L	04/07/22 08:52	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	<b>0.0969U ± 0.298 (0.673)</b> <b>C:76% T:85%</b>	pCi/L	03/31/22 14:31	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	<b>0.806U ± 0.586 (0.968)</b>	pCi/L	04/12/22 12:23	7440-14-4	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: WMWGORAP\_1350

Pace Project No.: 30470864

**Sample: BC02844 MW-21**      **Lab ID: 30470864006**      Collected: 02/08/22 11:11      Received: 03/04/22 09:45      Matrix: Water  
PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 9315	<b>0.278U ± 0.185 (0.282)</b> <b>C:103% T:NA</b>	pCi/L	04/07/22 08:52	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	<b>0.251U ± 0.360 (0.773)</b> <b>C:77% T:86%</b>	pCi/L	03/31/22 14:30	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	<b>0.529U ± 0.545 (1.06)</b>	pCi/L	04/12/22 12:23	7440-14-4	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: WMWGORAP\_1350

Pace Project No.: 30470864

**Sample: BC02845 MW-21V**      **Lab ID: 30470864007**      Collected: 02/08/22 13:38      Received: 03/04/22 09:45      Matrix: Water  
PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 9315	<b>0.161U ± 0.147 (0.256)</b> <b>C:98% T:NA</b>	pCi/L	04/07/22 08:52	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	<b>0.306U ± 0.336 (0.698)</b> <b>C:72% T:89%</b>	pCi/L	03/31/22 14:31	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	<b>0.467U ± 0.483 (0.954)</b>	pCi/L	04/12/22 12:23	7440-14-4	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: WMWGORAP\_1350

Pace Project No.: 30470864

**Sample: BC02846 MW-31H**      **Lab ID: 30470864008**      Collected: 02/08/22 16:04      Received: 03/04/22 09:45      Matrix: Water  
PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 9315	<b>0.0779U ± 0.127 (0.280)</b> <b>C:98% T:NA</b>	pCi/L	04/07/22 08:52	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	<b>0.111U ± 0.375 (0.849)</b> <b>C:75% T:76%</b>	pCi/L	03/31/22 14:31	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	<b>0.189U ± 0.502 (1.13)</b>	pCi/L	04/12/22 12:23	7440-14-4	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: WMWGORAP\_1350

Pace Project No.: 30470864

**Sample: BC03250 PZ-22**      **Lab ID: 30470864009**      Collected: 02/14/22 10:21      Received: 03/04/22 09:45      Matrix: Water  
PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 9315	<b>0.262U ± 0.180 (0.265)</b> <b>C:96% T:NA</b>	pCi/L	04/07/22 08:52	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	<b>0.408U ± 0.355 (0.713)</b> <b>C:74% T:86%</b>	pCi/L	03/31/22 14:31	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	<b>0.670U ± 0.535 (0.978)</b>	pCi/L	04/12/22 12:23	7440-14-4	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: WMWGORAP\_1350

Pace Project No.: 30470864

**Sample: BC03251 MW-17**      **Lab ID: 30470864010**      Collected: 02/14/22 11:42      Received: 03/04/22 09:45      Matrix: Water  
PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	<b>0.167U ± 0.152 (0.269)</b> <b>C:97% T:NA</b>	pCi/L	04/07/22 08:55	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	<b>0.356U ± 0.342 (0.701)</b> <b>C:74% T:93%</b>	pCi/L	03/31/22 14:31	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	<b>0.523U ± 0.494 (0.970)</b>	pCi/L	04/12/22 12:23	7440-14-4	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: WMWGORAP\_1350

Pace Project No.: 30470864

**Sample: BC03252 MW-17V**      **Lab ID: 30470864011**      Collected: 02/14/22 12:54      Received: 03/04/22 09:45      Matrix: Water  
PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	<b>7.72 ± 1.39 (0.320)</b> <b>C:99% T:NA</b>	pCi/L	04/07/22 08:55	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	<b>0.0398U ± 0.340 (0.791)</b> <b>C:56% T:93%</b>	pCi/L	03/31/22 14:31	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	<b>7.76 ± 1.73 (1.11)</b>	pCi/L	04/12/22 12:23	7440-14-4	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: WMWGORAP\_1350

Pace Project No.: 30470864

**Sample: BC03253 MW-36H**      **Lab ID: 30470864012**      Collected: 02/14/22 15:28      Received: 03/04/22 09:45      Matrix: Water  
PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	<b>7.37 ± 1.33 (0.285)</b> <b>C:98% T:NA</b>	pCi/L	04/07/22 08:55	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	<b>-0.0419U ± 0.289 (0.691)</b> <b>C:75% T:86%</b>	pCi/L	03/31/22 14:31	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	<b>7.37 ± 1.62 (0.976)</b>	pCi/L	04/12/22 12:23	7440-14-4	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: WMWGORAP\_1350

Pace Project No.: 30470864

**Sample: BC03254 MW-6S**      **Lab ID: 30470864013**      Collected: 02/14/22 11:18      Received: 03/04/22 09:45      Matrix: Water  
PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 9315	<b>0.140U ± 0.157 (0.309)</b> <b>C:95% T:NA</b>	pCi/L	04/07/22 09:00	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	<b>-0.0466U ± 0.306 (0.728)</b> <b>C:73% T:90%</b>	pCi/L	03/31/22 14:31	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	<b>0.140U ± 0.463 (1.04)</b>	pCi/L	04/12/22 12:23	7440-14-4	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: WMWGORAP\_1350

Pace Project No.: 30470864

**Sample: BC03255 MW-6S DUP**      **Lab ID: 30470864014**      Collected: 02/14/22 11:18      Received: 03/04/22 09:45      Matrix: Water  
PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 9315	<b>0.272U ± 0.186 (0.280)</b> <b>C:97% T:NA</b>	pCi/L	04/07/22 09:01	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	<b>0.426U ± 0.365 (0.733)</b> <b>C:78% T:86%</b>	pCi/L	03/31/22 14:32	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	<b>0.698U ± 0.551 (1.01)</b>	pCi/L	04/12/22 12:23	7440-14-4	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: WMWGORAP\_1350

Pace Project No.: 30470864

**Sample: BC03256 MW-6D**      **Lab ID: 30470864015**      Collected: 02/14/22 12:34      Received: 03/04/22 09:45      Matrix: Water  
PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	<b>0.208U ± 0.168 (0.281)</b> <b>C:96% T:NA</b>	pCi/L	04/07/22 09:04	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	<b>1.03 ± 0.456 (0.726)</b> <b>C:76% T:76%</b>	pCi/L	04/05/22 14:30	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	<b>1.24 ± 0.624 (1.01)</b>	pCi/L	04/12/22 12:21	7440-14-4	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: WMWGORAP\_1350

Pace Project No.: 30470864

**Sample: BC03257 MW-23H**      **Lab ID: 30470864016**      Collected: 02/14/22 13:47      Received: 03/04/22 09:45      Matrix: Water  
PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	<b>0.0893U ± 0.120 (0.246)</b> <b>C:103% T:NA</b>	pCi/L	04/07/22 09:01	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	<b>0.0641U ± 0.298 (0.685)</b> <b>C:71% T:86%</b>	pCi/L	03/31/22 14:32	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	<b>0.153U ± 0.418 (0.931)</b>	pCi/L	04/12/22 12:23	7440-14-4	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: WMWGORAP\_1350

Pace Project No.: 30470864

**Sample: BC03258 MW-23H DUP**      **Lab ID: 30470864017**      Collected: 02/14/22 13:47      Received: 03/04/22 09:45      Matrix: Water  
PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 9315	<b>0.170U ± 0.171 (0.332)</b> <b>C:104% T:NA</b>	pCi/L	04/07/22 09:01	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	<b>-0.0491U ± 0.322 (0.771)</b> <b>C:73% T:85%</b>	pCi/L	03/31/22 14:32	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	<b>0.170U ± 0.493 (1.10)</b>	pCi/L	04/12/22 12:23	7440-14-4	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: WMWGORAP\_1350

Pace Project No.: 30470864

**Sample: BC03259 MW-28H**      **Lab ID: 30470864018**      Collected: 02/14/22 12:42      Received: 03/04/22 09:45      Matrix: Water  
PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	<b>0.140U ± 0.141 (0.258)</b> <b>C:95% T:NA</b>	pCi/L	04/07/22 09:04	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	<b>0.170U ± 0.318 (0.700)</b> <b>C:73% T:90%</b>	pCi/L	03/31/22 14:32	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	<b>0.310U ± 0.459 (0.958)</b>	pCi/L	04/12/22 12:21	7440-14-4	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: WMWGORAP\_1350

Pace Project No.: 30470864

**Sample: BC03260 MW-28H DUP**      **Lab ID: 30470864019**      Collected: 02/14/22 12:42      Received: 03/04/22 09:45      Matrix: Water  
PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	<b>0.0608U ± 0.137 (0.324)</b> <b>C:98% T:NA</b>	pCi/L	04/07/22 09:01	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	<b>0.265U ± 0.314 (0.656)</b> <b>C:73% T:91%</b>	pCi/L	04/05/22 14:31	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	<b>0.326U ± 0.451 (0.980)</b>	pCi/L	04/12/22 12:23	7440-14-4	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: WMWGORAP\_1350

Pace Project No.: 30470864

**Sample: BC03261 MW-29H**      **Lab ID: 30470864020**      Collected: 02/14/22 14:30      Received: 03/04/22 09:45      Matrix: Water  
PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 9315	<b>0.269U ± 0.215 (0.394)</b> <b>C:97% T:NA</b>	pCi/L	04/07/22 09:01	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	<b>0.456U ± 0.433 (0.882)</b> <b>C:73% T:74%</b>	pCi/L	04/05/22 14:31	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	<b>0.725U ± 0.648 (1.28)</b>	pCi/L	04/12/22 12:23	7440-14-4	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: WMWGORAP\_1350

Pace Project No.: 30470864

**Sample: BC03262 FB-3**      **Lab ID: 30470864021**      Collected: 02/14/22 15:10      Received: 03/04/22 09:45      Matrix: Water  
PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	<b>0.104U ± 0.122 (0.235)</b> <b>C:99% T:NA</b>	pCi/L	04/07/22 09:04	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	<b>0.234U ± 0.360 (0.778)</b> <b>C:72% T:80%</b>	pCi/L	04/04/22 12:17	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	<b>0.338U ± 0.482 (1.01)</b>	pCi/L	04/12/22 12:21	7440-14-4	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: WMWGORAP\_1350

Pace Project No.: 30470864

**Sample: BC03263 MW-32H**      **Lab ID: 30470864022**      Collected: 02/14/22 15:45      Received: 03/04/22 09:45      Matrix: Water  
PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	<b>0.145U ± 0.164 (0.330)</b> <b>C:96% T:NA</b>	pCi/L	04/07/22 09:04	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	<b>0.226U ± 0.282 (0.594)</b> <b>C:75% T:86%</b>	pCi/L	04/04/22 12:18	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	<b>0.371U ± 0.446 (0.924)</b>	pCi/L	04/12/22 12:21	7440-14-4	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: WMWGORAP\_1350

Pace Project No.: 30470864

**Sample: BC03539 PZ-16**      **Lab ID: 30470864023**      Collected: 02/15/22 11:08      Received: 03/04/22 09:45      Matrix: Water  
PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	<b>0.457 ± 0.216 (0.229)</b> <b>C:102% T:NA</b>	pCi/L	04/08/22 09:08	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	<b>0.666U ± 0.500 (0.963)</b> <b>C:71% T:56%</b>	pCi/L	04/04/22 12:18	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	<b>1.12U ± 0.716 (1.19)</b>	pCi/L	04/12/22 12:23	7440-14-4	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: WMWGORAP\_1350

Pace Project No.: 30470864

**Sample: BC03540 MW-16D**      **Lab ID: 30470864024**      Collected: 02/15/22 12:48      Received: 03/04/22 09:45      Matrix: Water  
PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	<b>0.0632U ± 0.106 (0.233)</b> <b>C:97% T:NA</b>	pCi/L	04/07/22 09:04	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	<b>0.494U ± 0.361 (0.700)</b> <b>C:74% T:82%</b>	pCi/L	04/04/22 12:18	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	<b>0.557U ± 0.467 (0.933)</b>	pCi/L	04/12/22 12:21	7440-14-4	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: WMWGORAP\_1350  
Pace Project No.: 30470864

**Sample: BC03541 MW-16S**      **Lab ID: 30470864025**      Collected: 02/15/22 13:52      Received: 03/04/22 09:45      Matrix: Water  
PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	<b>0.839 ± 0.304 (0.255)</b> <b>C:98% T:NA</b>	pCi/L	04/07/22 09:04	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	<b>0.391U ± 0.318 (0.632)</b> <b>C:77% T:93%</b>	pCi/L	04/04/22 12:18	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	<b>1.23 ± 0.622 (0.887)</b>	pCi/L	04/12/22 12:21	7440-14-4	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: WMWGORAP\_1350

Pace Project No.: 30470864

**Sample: BC03542 FB-2**      **Lab ID: 30470864026**      Collected: 02/15/22 14:45      Received: 03/04/22 09:45      Matrix: Water  
PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 9315	<b>0.116U ± 0.141 (0.285)</b> <b>C:96% T:NA</b>	pCi/L	04/07/22 09:04	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	<b>0.401U ± 0.319 (0.624)</b> <b>C:71% T:86%</b>	pCi/L	04/04/22 12:18	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	<b>0.517U ± 0.460 (0.909)</b>	pCi/L	04/12/22 12:21	7440-14-4	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: WMWGORAP\_1350

Pace Project No.: 30470864

**Sample: BC03543 MW-15**      **Lab ID: 30470864027**      Collected: 02/16/22 10:39      Received: 03/04/22 09:45      Matrix: Water  
PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 9315	<b>0.180U ± 0.153 (0.258)</b> <b>C:98% T:NA</b>	pCi/L	04/07/22 09:04	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	<b>0.0539U ± 0.275 (0.631)</b> <b>C:77% T:84%</b>	pCi/L	04/04/22 12:18	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	<b>0.234U ± 0.428 (0.889)</b>	pCi/L	04/12/22 12:21	7440-14-4	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: WMWGORAP\_1350

Pace Project No.: 30470864

**Sample: BC03544 MW-15V**      **Lab ID: 30470864028**      Collected: 02/16/22 11:45      Received: 03/04/22 09:45      Matrix: Water  
PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	<b>0.182U ± 0.167 (0.301)</b> <b>C:100% T:NA</b>	pCi/L	04/08/22 08:59	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	<b>0.659 ± 0.364 (0.655)</b> <b>C:72% T:96%</b>	pCi/L	04/04/22 12:18	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	<b>0.841U ± 0.531 (0.956)</b>	pCi/L	04/12/22 12:21	7440-14-4	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: WMWGORAP\_1350

Pace Project No.: 30470864

**Sample: BC03545 MW-25HA**      **Lab ID: 30470864029**      Collected: 02/16/22 13:22      Received: 03/04/22 09:45      Matrix: Water  
PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	<b>0.299 ± 0.186 (0.262)</b> <b>C:104% T:NA</b>	pCi/L	04/08/22 08:59	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	<b>0.464U ± 0.348 (0.675)</b> <b>C:66% T:89%</b>	pCi/L	04/04/22 12:18	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	<b>0.763U ± 0.534 (0.937)</b>	pCi/L	04/12/22 12:21	7440-14-4	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: WMWGORAP\_1350

Pace Project No.: 30470864

**Sample: BC03546 MW-41HD**      **Lab ID: 30470864030**      Collected: 02/15/22 09:25      Received: 03/04/22 09:45      Matrix: Water  
PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	<b>0.132U ± 0.134 (0.240)</b> <b>C:104% T:NA</b>	pCi/L	04/08/22 08:59	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	<b>0.124U ± 0.247 (0.547)</b> <b>C:77% T:90%</b>	pCi/L	04/04/22 15:27	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	<b>0.256U ± 0.381 (0.787)</b>	pCi/L	04/12/22 12:21	7440-14-4	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: WMWGORAP\_1350

Pace Project No.: 30470864

**Sample: BC03547 MW-24H**      **Lab ID: 30470864031**      Collected: 02/15/22 10:37      Received: 03/04/22 09:45      Matrix: Water  
PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 9315	<b>0.484 ± 0.254 (0.353)</b> <b>C:97% T:NA</b>	pCi/L	04/08/22 08:59	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	<b>0.673 ± 0.364 (0.632)</b> <b>C:71% T:90%</b>	pCi/L	04/04/22 15:27	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	<b>1.16 ± 0.618 (0.985)</b>	pCi/L	04/12/22 12:21	7440-14-4	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: WMWGORAP\_1350

Pace Project No.: 30470864

**Sample: BC03548 MW-24H DUP**      **Lab ID: 30470864032**      Collected: 02/15/22 10:37      Received: 03/04/22 09:45      Matrix: Water  
PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 9315	<b>0.428 ± 0.235 (0.330)</b> <b>C:96% T:NA</b>	pCi/L	04/08/22 08:59	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	<b>0.282U ± 0.302 (0.626)</b> <b>C:76% T:94%</b>	pCi/L	04/04/22 15:27	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	<b>0.710U ± 0.537 (0.956)</b>	pCi/L	04/12/22 12:21	7440-14-4	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: WMWGORAP\_1350

Pace Project No.: 30470864

**Sample: BC03549 MW-40H**      **Lab ID: 30470864033**      Collected: 02/15/22 12:25      Received: 03/04/22 09:45      Matrix: Water  
PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 9315	<b>0.313U ± 0.225 (0.393)</b> <b>C:101% T:NA</b>	pCi/L	04/08/22 08:59	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	<b>0.327U ± 0.349 (0.726)</b> <b>C:71% T:92%</b>	pCi/L	04/04/22 15:27	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	<b>0.640U ± 0.574 (1.12)</b>	pCi/L	04/12/22 12:21	7440-14-4	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: WMWGORAP\_1350

Pace Project No.: 30470864

**Sample: BC03550 MW-26H**      **Lab ID: 30470864034**      Collected: 02/15/22 14:13      Received: 03/04/22 09:45      Matrix: Water  
PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	<b>0.354 ± 0.200 (0.266)</b> <b>C:103% T:NA</b>	pCi/L	04/08/22 08:59	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	<b>0.840 ± 0.384 (0.619)</b> <b>C:73% T:90%</b>	pCi/L	04/04/22 15:27	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	<b>1.19 ± 0.584 (0.885)</b>	pCi/L	04/12/22 12:21	7440-14-4	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: WMWGORAP\_1350

Pace Project No.: 30470864

**Sample: BC03551 MW-42H**      **Lab ID: 30470864035**      Collected: 02/16/22 10:43      Received: 03/04/22 09:45      Matrix: Water  
PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 9315	<b>0.124U ± 0.162 (0.341)</b> <b>C:96% T:NA</b>	pCi/L	04/10/22 13:58	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	<b>0.151U ± 0.233 (0.504)</b> <b>C:79% T:85%</b>	pCi/L	04/04/22 11:42	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	<b>0.275U ± 0.395 (0.845)</b>	pCi/L	04/12/22 12:29	7440-14-4	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: WMWGORAP\_1350

Pace Project No.: 30470864

**Sample: BC03552 MW-8**      **Lab ID: 30470864036**      Collected: 02/16/22 12:14      Received: 03/04/22 09:45      Matrix: Water  
PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	<b>0.178U ± 0.160 (0.282)</b> <b>C:97% T:NA</b>	pCi/L	04/08/22 08:59	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	<b>0.383U ± 0.313 (0.618)</b> <b>C:74% T:92%</b>	pCi/L	04/04/22 15:27	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	<b>0.561U ± 0.473 (0.900)</b>	pCi/L	04/12/22 12:21	7440-14-4	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: WMWGORAP\_1350

Pace Project No.: 30470864

**Sample: BC03553 MW-3**      **Lab ID: 30470864037**      Collected: 02/16/22 14:57      Received: 03/04/22 09:45      Matrix: Water  
PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 9315	<b>0.443 ± 0.236 (0.301)</b> <b>C:94% T:NA</b>	pCi/L	04/08/22 08:59	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	<b>0.158U ± 0.340 (0.753)</b> <b>C:71% T:90%</b>	pCi/L	04/04/22 15:27	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	<b>0.601U ± 0.576 (1.05)</b>	pCi/L	04/12/22 12:21	7440-14-4	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: WMWGORAP\_1350

Pace Project No.: 30470864

**Sample: BC03554 FB-1**      **Lab ID: 30470864038**      Collected: 02/16/22 15:50      Received: 03/04/22 09:45      Matrix: Water  
PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 9315	<b>0.172U ± 0.176 (0.345)</b> <b>C:100% T:NA</b>	pCi/L	04/08/22 08:59	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	<b>0.349U ± 0.314 (0.631)</b> <b>C:72% T:93%</b>	pCi/L	04/04/22 15:28	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	<b>0.521U ± 0.490 (0.976)</b>	pCi/L	04/12/22 12:21	7440-14-4	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: WMWGORAP\_1350

Pace Project No.: 30470864

**Sample: BC03974 MW-43H**      **Lab ID: 30470864039**      Collected: 02/21/22 11:43      Received: 03/04/22 09:45      Matrix: Water  
PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	<b>0.251U ± 0.189 (0.321)</b> <b>C:100% T:NA</b>	pCi/L	04/08/22 09:08	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	<b>0.258U ± 0.329 (0.696)</b> <b>C:69% T:85%</b>	pCi/L	04/04/22 15:28	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	<b>0.509U ± 0.518 (1.02)</b>	pCi/L	04/12/22 12:23	7440-14-4	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: WMWGORAP\_1350

Pace Project No.: 30470864

**Sample: BC03975 PZ-18R**      **Lab ID: 30470864040**      Collected: 02/21/22 14:40      Received: 03/04/22 09:45      Matrix: Water  
PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 9315	<b>0.169U ± 0.144 (0.228)</b> <b>C:95% T:NA</b>	pCi/L	04/08/22 09:08	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	<b>0.606U ± 0.545 (1.10)</b> <b>C:70% T:64%</b>	pCi/L	04/05/22 14:31	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	<b>0.775U ± 0.689 (1.33)</b>	pCi/L	04/12/22 12:23	7440-14-4	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: WMWGORAP\_1350

Pace Project No.: 30470864

**Sample: BC03976 MW-36V**      **Lab ID: 30470864041**      Collected: 02/22/22 10:06      Received: 03/04/22 09:45      Matrix: Water  
PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 9315	<b>0.271 ± 0.179 (0.247)</b> <b>C:95% T:NA</b>	pCi/L	04/08/22 09:08	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	<b>0.224U ± 0.370 (0.804)</b> <b>C:79% T:70%</b>	pCi/L	04/05/22 14:31	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	<b>0.495U ± 0.549 (1.05)</b>	pCi/L	04/12/22 12:23	7440-14-4	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: WMWGORAP\_1350

Pace Project No.: 30470864

**Sample: BC03977 MW-27HR**      **Lab ID: 30470864042**      Collected: 02/22/22 12:03      Received: 03/04/22 09:45      Matrix: Water  
PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	<b>0.253U ± 0.175 (0.260)</b> <b>C:97% T:NA</b>	pCi/L	04/08/22 09:08	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	<b>0.392U ± 0.402 (0.831)</b> <b>C:75% T:78%</b>	pCi/L	04/05/22 14:31	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	<b>0.645U ± 0.577 (1.09)</b>	pCi/L	04/12/22 12:23	7440-14-4	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: WMWGORAP\_1350

Pace Project No.: 30470864

**Sample: BC03978 FB-6**      **Lab ID: 30470864043**      Collected: 02/22/22 12:40      Received: 03/04/22 09:45      Matrix: Water  
PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 9315	<b>0.0537U ± 0.103 (0.235)</b> <b>C:100% T:NA</b>	pCi/L	04/08/22 09:08	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	<b>0.328U ± 0.303 (0.613)</b> <b>C:77% T:92%</b>	pCi/L	04/05/22 14:31	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	<b>0.382U ± 0.406 (0.848)</b>	pCi/L	04/12/22 12:23	7440-14-4	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: WMWGORAP\_1350

Pace Project No.: 30470864

**Sample: BC03979 MW-18R**      **Lab ID: 30470864044**      Collected: 02/22/22 13:42      Received: 03/04/22 09:45      Matrix: Water  
PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	<b>0.211U ± 0.173 (0.294)</b> <b>C:91% T:NA</b>	pCi/L	04/08/22 09:08	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	<b>0.750U ± 0.432 (0.776)</b> <b>C:68% T:84%</b>	pCi/L	04/05/22 14:31	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	<b>0.961U ± 0.605 (1.07)</b>	pCi/L	04/12/22 12:23	7440-14-4	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: WMWGORAP\_1350

Pace Project No.: 30470864

**Sample: BC03980 MW-18R DUP**      **Lab ID: 30470864045**      Collected: 02/22/22 13:42      Received: 03/04/22 09:45      Matrix: Water  
PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	<b>0.0743U ± 0.123 (0.271)</b> <b>C:93% T:NA</b>	pCi/L	04/08/22 09:08	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	<b>0.209U ± 0.321 (0.695)</b> <b>C:79% T:82%</b>	pCi/L	04/05/22 14:31	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	<b>0.283U ± 0.444 (0.966)</b>	pCi/L	04/12/22 12:23	7440-14-4	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: WMWGORAP\_1350

Pace Project No.: 30470864

**Sample: BC03981 MW-18VR**      **Lab ID: 30470864046**      Collected: 02/22/22 15:15      Received: 03/04/22 09:45      Matrix: Water  
PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	<b>0.174U ± 0.176 (0.345)</b> <b>C:96% T:NA</b>	pCi/L	04/08/22 09:08	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	<b>0.0126U ± 0.267 (0.623)</b> <b>C:76% T:94%</b>	pCi/L	04/05/22 14:31	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	<b>0.187U ± 0.443 (0.968)</b>	pCi/L	04/12/22 12:23	7440-14-4	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: WMWGORAP\_1350

Pace Project No.: 30470864

**Sample: BC03982 MW-45V**      **Lab ID: 30470864047**      Collected: 02/23/22 11:29      Received: 03/04/22 09:45      Matrix: Water  
PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 9315	<b>0.0841U ± 0.165 (0.380)</b> <b>C:97% T:NA</b>	pCi/L	04/08/22 09:09	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	<b>0.358U ± 0.413 (0.867)</b> <b>C:73% T:78%</b>	pCi/L	04/05/22 14:31	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	<b>0.442U ± 0.578 (1.25)</b>	pCi/L	04/12/22 12:23	7440-14-4	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: WMWGORAP\_1350

Pace Project No.: 30470864

**Sample: BC03983 MW-03V**      **Lab ID: 30470864048**      Collected: 02/23/22 12:49      Received: 03/04/22 09:45      Matrix: Water  
PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 9315	<b>0.102U ± 0.132 (0.269)</b> <b>C:95% T:NA</b>	pCi/L	04/08/22 09:05	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	<b>0.468U ± 0.328 (0.624)</b> <b>C:75% T:89%</b>	pCi/L	04/05/22 14:31	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	<b>0.570U ± 0.460 (0.893)</b>	pCi/L	04/12/22 12:23	7440-14-4	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: WMWGORAP\_1350

Pace Project No.: 30470864

**Sample: BC03984 MW-9V**      **Lab ID: 30470864049**      Collected: 02/21/22 12:08      Received: 03/04/22 09:45      Matrix: Water  
PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	<b>0.0977U ± 0.150 (0.329)</b> <b>C:95% T:NA</b>	pCi/L	04/08/22 09:06	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	<b>0.0362U ± 0.353 (0.820)</b> <b>C:74% T:74%</b>	pCi/L	04/05/22 14:32	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	<b>0.134U ± 0.503 (1.15)</b>	pCi/L	04/12/22 12:23	7440-14-4	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: WMWGORAP\_1350

Pace Project No.: 30470864

**Sample: BC03985 MW-38H**      **Lab ID: 30470864050**      Collected: 02/22/22 09:35      Received: 03/04/22 09:45      Matrix: Water  
PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	<b>0.102U ± 0.146 (0.311)</b> <b>C:93% T:NA</b>	pCi/L	04/08/22 09:06	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	<b>0.239U ± 0.353 (0.760)</b> <b>C:76% T:76%</b>	pCi/L	04/05/22 14:32	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	<b>0.341U ± 0.499 (1.07)</b>	pCi/L	04/12/22 12:23	7440-14-4	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: WMWGORAP\_1350

Pace Project No.: 30470864

**Sample: BC03986 MW-19**      **Lab ID: 30470864051**      Collected: 02/22/22 11:18      Received: 03/04/22 09:45      Matrix: Water  
PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	<b>0.0394U ± 0.126 (0.314)</b> <b>C:101% T:NA</b>	pCi/L	04/08/22 09:11	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	<b>0.600U ± 0.380 (0.708)</b> <b>C:75% T:85%</b>	pCi/L	04/05/22 14:32	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	<b>0.639U ± 0.506 (1.02)</b>	pCi/L	04/12/22 12:23	7440-14-4	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: WMWGORAP\_1350

Pace Project No.: 30470864

**Sample: BC03987 MW-19 DUP**      **Lab ID: 30470864052**      Collected: 02/22/22 11:18      Received: 03/04/22 09:45      Matrix: Water  
PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 9315	<b>0.233U ± 0.168 (0.254)</b> <b>C:99% T:NA</b>	pCi/L	04/08/22 09:11	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	<b>0.336U ± 0.345 (0.713)</b> <b>C:77% T:88%</b>	pCi/L	04/05/22 14:32	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	<b>0.569U ± 0.513 (0.967)</b>	pCi/L	04/12/22 12:23	7440-14-4	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: WMWGORAP\_1350

Pace Project No.: 30470864

**Sample: BC03988 MW-2**      **Lab ID: 30470864053**      Collected: 02/22/22 13:17      Received: 03/04/22 09:45      Matrix: Water  
PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	<b>0.0750U ± 0.0992 (0.191)</b> <b>C:100% T:NA</b>	pCi/L	04/08/22 09:11	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	<b>0.135U ± 0.288 (0.638)</b> <b>C:76% T:87%</b>	pCi/L	04/05/22 14:32	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	<b>0.210U ± 0.387 (0.829)</b>	pCi/L	04/12/22 12:23	7440-14-4	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: WMWGORAP\_1350

Pace Project No.: 30470864

**Sample: BC03989 MW-12V**      **Lab ID: 30470864054**      Collected: 02/23/22 12:33      Received: 03/04/22 09:45      Matrix: Water  
PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	<b>0.471 ± 0.220 (0.222)</b> <b>C:103% T:NA</b>	pCi/L	04/08/22 09:11	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	<b>0.831 ± 0.391 (0.655)</b> <b>C:80% T:89%</b>	pCi/L	04/05/22 14:32	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	<b>1.30 ± 0.611 (0.877)</b>	pCi/L	04/12/22 12:23	7440-14-4	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: WMWGORAP\_1350

Pace Project No.: 30470864

**Sample: BC03990 FB-5**      **Lab ID: 30470864055**      Collected: 02/23/22 13:30      Received: 03/04/22 09:45      Matrix: Water  
PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 9315	<b>0.231U ± 0.174 (0.275)</b> <b>C:99% T:NA</b>	pCi/L	04/08/22 09:11	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	<b>0.177U ± 0.290 (0.630)</b> <b>C:79% T:92%</b>	pCi/L	04/04/22 11:42	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	<b>0.408U ± 0.464 (0.905)</b>	pCi/L	04/12/22 12:23	7440-14-4	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: WMWGORAP\_1350

Pace Project No.: 30470864

**Sample: BC03991 MW-31V**      **Lab ID: 30470864056**      Collected: 02/22/22 13:07      Received: 03/04/22 09:45      Matrix: Water  
PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 9315	<b>0.142U ± 0.152 (0.293)</b> <b>C:94% T:NA</b>	pCi/L	04/10/22 13:58	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	<b>0.344U ± 0.299 (0.600)</b> <b>C:81% T:85%</b>	pCi/L	04/04/22 11:42	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	<b>0.486U ± 0.451 (0.893)</b>	pCi/L	04/12/22 12:29	7440-14-4	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: WMWGORAP\_1350

Pace Project No.: 30470864

**Sample: BC03992 MW-46**      **Lab ID: 30470864057**      Collected: 02/23/22 10:30      Received: 03/04/22 09:45      Matrix: Water  
PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	<b>0.0802U ± 0.118 (0.253)</b> <b>C:96% T:NA</b>	pCi/L	04/10/22 13:59	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	<b>0.0172U ± 0.247 (0.582)</b> <b>C:73% T:84%</b>	pCi/L	04/04/22 11:42	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	<b>0.0974U ± 0.365 (0.835)</b>	pCi/L	04/12/22 12:29	7440-14-4	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: WMWGORAP\_1350

Pace Project No.: 30470864

**Sample: BC03993 FB-4**      **Lab ID: 30470864058**      Collected: 02/23/22 11:00      Received: 03/04/22 09:45      Matrix: Water  
PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 9315	<b>0.0113U ± 0.123 (0.328)</b> <b>C:98% T:NA</b>	pCi/L	04/10/22 13:59	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	<b>0.240U ± 0.272 (0.569)</b> <b>C:85% T:90%</b>	pCi/L	04/04/22 11:42	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	<b>0.251U ± 0.395 (0.897)</b>	pCi/L	04/12/22 12:29	7440-14-4	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: WMWGORAP\_1350

Pace Project No.: 30470864

**Sample: BC03994 MW-23V**      **Lab ID: 30470864059**      Collected: 02/23/22 13:33      Received: 03/04/22 09:45      Matrix: Water  
PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	<b>0.0618U ± 0.130 (0.305)</b> <b>C:99% T:NA</b>	pCi/L	04/10/22 13:59	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	<b>0.196U ± 0.318 (0.691)</b> <b>C:72% T:74%</b>	pCi/L	04/04/22 14:45	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	<b>0.258U ± 0.448 (0.996)</b>	pCi/L	04/12/22 12:29	7440-14-4	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: WMWGORAP\_1350

Pace Project No.: 30470864

**Sample: BC04387 MW-37HR**      **Lab ID: 30470864060**      Collected: 02/28/22 12:20      Received: 03/04/22 09:45      Matrix: Water  
PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	<b>0.0396U ± 0.141 (0.353)</b> <b>C:92% T:NA</b>	pCi/L	04/10/22 13:59	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	<b>0.699 ± 0.379 (0.650)</b> <b>C:71% T:78%</b>	pCi/L	04/04/22 14:46	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	<b>0.739U ± 0.520 (1.00)</b>	pCi/L	04/12/22 12:29	7440-14-4	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: WMWGORAP\_1350

Pace Project No.: 30470864

**Sample: BC04388 MW-47**      **Lab ID: 30470864061**      Collected: 02/28/22 14:12      Received: 03/04/22 09:45      Matrix: Water  
PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 9315	<b>0.0650U ± 0.118 (0.266)</b> <b>C:96% T:NA</b>	pCi/L	04/10/22 13:59	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	<b>0.109U ± 0.340 (0.766)</b> <b>C:70% T:91%</b>	pCi/L	04/04/22 14:46	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	<b>0.174U ± 0.458 (1.03)</b>	pCi/L	04/12/22 12:29	7440-14-4	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: WMWGORAP\_1350

Pace Project No.: 30470864

**Sample: BC04389 MW-14R**      **Lab ID: 30470864062**      Collected: 02/28/22 15:33      Received: 03/04/22 09:45      Matrix: Water  
PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 9315	<b>0.219U ± 0.176 (0.295)</b> <b>C:99% T:NA</b>	pCi/L	04/10/22 13:59	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	<b>0.582U ± 0.471 (0.932)</b> <b>C:69% T:68%</b>	pCi/L	04/04/22 14:46	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	<b>0.801U ± 0.647 (1.23)</b>	pCi/L	04/12/22 12:29	7440-14-4	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: WMWGORAP\_1350

Pace Project No.: 30470864

**Sample: BC04390 MW-13R**      **Lab ID: 30470864063**      Collected: 03/01/22 08:34      Received: 03/04/22 09:45      Matrix: Water  
PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	<b>0.0392U ± 0.125 (0.312)</b> <b>C:97% T:NA</b>	pCi/L	04/10/22 13:59	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	<b>0.617U ± 0.365 (0.648)</b> <b>C:75% T:75%</b>	pCi/L	04/04/22 14:46	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	<b>0.656U ± 0.490 (0.960)</b>	pCi/L	04/12/22 12:29	7440-14-4	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: WMWGORAP\_1350

Pace Project No.: 30470864

**Sample: BC04391 MW-10R**      **Lab ID: 30470864064**      Collected: 03/01/22 12:07      Received: 03/04/22 09:45      Matrix: Water  
PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	<b>0.378U ± 0.237 (0.379)</b> <b>C:97% T:NA</b>	pCi/L	04/11/22 07:43	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	<b>0.670U ± 0.391 (0.709)</b> <b>C:70% T:84%</b>	pCi/L	04/04/22 14:46	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	<b>1.05U ± 0.628 (1.09)</b>	pCi/L	04/12/22 12:29	7440-14-4	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: WMWGORAP\_1350

Pace Project No.: 30470864

**Sample: BC04392 MW-12**      **Lab ID: 30470864065**      Collected: 02/28/22 14:40      Received: 03/04/22 09:45      Matrix: Water  
PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 9315	<b>0.211U ± 0.183 (0.333)</b> <b>C:99% T:NA</b>	pCi/L	04/11/22 08:14	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	<b>0.514U ± 0.400 (0.791)</b> <b>C:69% T:85%</b>	pCi/L	04/04/22 14:46	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	<b>0.725U ± 0.583 (1.12)</b>	pCi/L	04/12/22 12:29	7440-14-4	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: WMWGORAP\_1350

Pace Project No.: 30470864

**Sample: BC04393 MW-09R**      **Lab ID: 30470864066**      Collected: 03/01/22 12:04      Received: 03/04/22 09:45      Matrix: Water  
PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	<b>0.367 ± 0.212 (0.291)</b> <b>C:92% T:NA</b>	pCi/L	04/11/22 07:46	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	<b>0.296U ± 0.379 (0.804)</b> <b>C:68% T:81%</b>	pCi/L	04/04/22 14:46	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	<b>0.663U ± 0.591 (1.10)</b>	pCi/L	04/12/22 12:29	7440-14-4	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: WMWGORAP\_1350

Pace Project No.: 30470864

**Sample: BC04394 EB-1**      **Lab ID: 30470864067**      Collected: 03/01/22 12:30      Received: 03/04/22 09:45      Matrix: Water  
PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	<b>0.0180U ± 0.0951 (0.255)</b> <b>C:99% T:NA</b>	pCi/L	04/11/22 07:49	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	<b>0.355U ± 0.355 (0.730)</b> <b>C:73% T:86%</b>	pCi/L	04/04/22 14:49	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	<b>0.373U ± 0.450 (0.985)</b>	pCi/L	04/12/22 12:29	7440-14-4	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: WMWGORAP\_1350

Pace Project No.: 30470864

**Sample: BC04395 MW-01R**      **Lab ID: 30470864068**      Collected: 03/01/22 08:54      Received: 03/04/22 09:45      Matrix: Water  
PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	<b>0.0757U ± 0.144 (0.331)</b> <b>C:96% T:NA</b>	pCi/L	04/11/22 07:49	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	<b>0.760U ± 0.470 (0.880)</b> <b>C:68% T:83%</b>	pCi/L	04/04/22 14:49	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	<b>0.836U ± 0.614 (1.21)</b>	pCi/L	04/12/22 12:29	7440-14-4	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: WMWGORAP\_1350

Pace Project No.: 30470864

**Sample: BC04396 MW-11R**      **Lab ID: 30470864069**      Collected: 03/01/22 11:20      Received: 03/04/22 09:45      Matrix: Water  
PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	<b>0.525 ± 0.250 (0.313)</b> <b>C:93% T:NA</b>	pCi/L	04/11/22 07:49	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	<b>0.232U ± 0.382 (0.831)</b> <b>C:70% T:83%</b>	pCi/L	04/04/22 14:49	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	<b>0.757U ± 0.632 (1.14)</b>	pCi/L	04/12/22 12:29	7440-14-4	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: WMWGORAP\_1350  
Pace Project No.: 30470864

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
<b>Sample: BC04397 MW-05R</b> <b>Lab ID: 30470864070</b> Collected: 03/01/22 13:34      Received: 03/04/22 09:45      Matrix: Water PWS:      Site ID:      Sample Type:						
Pace Analytical Services - Greensburg						
Radium-226	EPA 9315	<b>0.276U ± 0.197 (0.331)</b> <b>C:99% T:NA</b>	pCi/L	04/11/22 07:49	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	<b>0.523U ± 0.474 (0.965)</b> <b>C:68% T:75%</b>	pCi/L	04/04/22 14:51	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	<b>0.799U ± 0.671 (1.30)</b>	pCi/L	04/12/22 12:29	7440-14-4	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: WMWGORAP\_1350

Pace Project No.: 30470864

**Sample: BC03250 MS**      **Lab ID: 30470864071**      Collected: 02/14/22 10:21      Received: 03/04/22 09:45      Matrix: Water  
PWS:      Site ID:      Sample Type:  
Comments: • Sample is an MS of 30470864 009.

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 9315	<b>107.55 %REC ± NA (NA)</b> <b>C:NA T:NA</b>	pCi/L	04/07/22 09:01	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	<b>77.80 %REC ± NA (NA)</b> <b>C:NA T:NA</b>	pCi/L	03/31/22 14:32	15262-20-1	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: WMWGORAP\_1350

Pace Project No.: 30470864

**Sample: BC03250 MSD**      **Lab ID: 30470864072**      Collected: 02/14/22 10:21      Received: 03/04/22 09:45      Matrix: Water  
PWS:      Site ID:      Sample Type:  
Comments: • Sample is an MSD of 30470864 009.

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 9315	<b>114.10 %REC 5.91RPD ±</b> <b>NA (NA)</b> <b>C:NA T:NA</b>	pCi/L	04/07/22 09:01	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	<b>69.61 %REC 11.11 RPD ±</b> <b>NA (NA)</b> <b>C:NA T:NA</b>	pCi/L	03/31/22 14:32	15262-20-1	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: WMWGORAP\_1350

Pace Project No.: 30470864

**Sample: BC03256 MS**      **Lab ID: 30470864073**      Collected: 02/14/22 12:34      Received: 03/04/22 09:45      Matrix: Water  
PWS:      Site ID:      Sample Type:  
Comments: • Sample is an MS of 30470864 015.

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	<b>107.67 %REC ± NA (NA)</b> <b>C:NA T:NA</b>	pCi/L	04/08/22 08:59	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	<b>98.00 %REC ± NA (NA)</b> <b>C:NA T:NA</b>	pCi/L	04/05/22 14:32	15262-20-1	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: WMWGORAP\_1350

Pace Project No.: 30470864

**Sample: BC03256 MSD**      **Lab ID: 30470864074**      Collected: 02/14/22 12:34      Received: 03/04/22 09:45      Matrix: Water  
PWS:      Site ID:      Sample Type:

Comments: • Sample is an MSD of 30470864 015.

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 9315	<b>102.37 %REC</b> <b>5.05RPD ±</b> <b>NA (NA)</b> <b>C:NA T:NA</b>	pCi/L	04/08/22 09:00	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	<b>72.49 %REC</b> <b>29.92 RPD ±</b> <b>NA (NA)</b> <b>C:NA T:NA</b>	pCi/L	04/05/22 14:32	15262-20-1	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: WMWGORAP\_1350

Pace Project No.: 30470864

**Sample: BC03539 MS**      **Lab ID: 30470864075**      Collected: 02/15/22 11:08      Received: 03/04/22 09:45      Matrix: Water  
PWS:      Site ID:      Sample Type:  
Comments: • Sample is an MS of 30470864 023.

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	<b>84.65 %REC ± NA (NA)</b> <b>C:NA T:NA</b>	pCi/L	04/08/22 09:11	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	<b>90.24 %REC ± NA (NA)</b> <b>C:NA T:NA</b>	pCi/L	04/04/22 15:28	15262-20-1	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: WMWGORAP\_1350

Pace Project No.: 30470864

**Sample: BC03539 MSD**      **Lab ID: 30470864076**      Collected: 02/15/22 11:08      Received: 03/04/22 09:45      Matrix: Water  
PWS:      Site ID:      Sample Type:  
Comments: • Sample is an MSD of 30470864 023.

Parameters	Method	Act ± Unc (MDC)	Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg							
Radium-226	EPA 9315	<b>90.02 %REC</b>	<b>6.15RPD ± NA</b>	pCi/L	04/08/22 09:12	13982-63-3	
		<b>(NA)</b>					
		<b>C:NA T:NA</b>					
Pace Analytical Services - Greensburg							
Radium-228	EPA 9320	<b>94.32 %REC</b>	<b>4.42 RPD ± NA</b>	pCi/L	04/04/22 12:18	15262-20-1	
		<b>(NA)</b>					
		<b>C:NA T:NA</b>					

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: WMWGORAP\_1350

Pace Project No.: 30470864

**Sample: BC03551 MS**      **Lab ID: 30470864077**      Collected: 02/16/22 10:43      Received: 03/04/22 09:45      Matrix: Water  
PWS:      Site ID:      Sample Type:  
Comments: • Sample is an MS of 30470864 035.

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	<b>108.71 %REC ± NA (NA)</b> <b>C:NA T:NA</b>	pCi/L	04/11/22 08:05	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	<b>104.58 %REC ± NA (NA)</b> <b>C:NA T:NA</b>	pCi/L	04/04/22 14:49	15262-20-1	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: WMWGORAP\_1350

Pace Project No.: 30470864

**Sample: BC03551 MSD**      **Lab ID: 30470864078**      Collected: 02/16/22 10:43      Received: 03/04/22 09:45      Matrix: Water  
PWS:      Site ID:      Sample Type:  
Comments: • Sample is an MSD of 30470864 035.

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 9315	<b>105.87%REC 2.64RPD ±</b> <b>NA (NA)</b> <b>C:NA T:NA</b>	pCi/L	04/11/22 08:05	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	<b>125.68 %REC 18.32 RPD ±</b> <b>NA (NA)</b> <b>C:NA T:NA</b>	pCi/L	04/04/22 14:49	15262-20-1	

### REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL - RADIOCHEMISTRY

Project: WMWGORAP\_1350

Pace Project No.: 30470864

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QC Batch:	491661	Analysis Method:	EPA 9320
QC Batch Method:	EPA 9320	Analysis Description:	9320 Radium 228
		Laboratory:	Pace Analytical Services - Greensburg

Associated Lab Samples: 30470864021, 30470864022, 30470864023, 30470864024, 30470864025, 30470864026, 30470864027, 30470864028, 30470864029, 30470864030, 30470864031, 30470864032, 30470864033, 30470864034, 30470864036, 30470864037, 30470864038, 30470864039, 30470864075, 30470864076

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METHOD BLANK:	2378710	Matrix:	Water
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Associated Lab Samples: 30470864021, 30470864022, 30470864023, 30470864024, 30470864025, 30470864026, 30470864027, 30470864028, 30470864029, 30470864030, 30470864031, 30470864032, 30470864033, 30470864034, 30470864036, 30470864037, 30470864038, 30470864039, 30470864075, 30470864076

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.553 ± 0.376 (0.709) C:77% T:77%	pCi/L	04/04/22 12:18	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

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## QUALIFIERS

Project: WMWGORAP\_1350

Pace Project No.: 30470864

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### DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Reported results are not rounded until the final step prior to reporting. Therefore, calculated parameters that are typically reported as "Total" may vary slightly from the sum of the reported component parameters.

Act - Activity

Unc - Uncertainty: For Safe Drinking Water Act (SDWA) analyses, the reported Unc. is the calculated Count Uncertainty (95% confidence interval) using a coverage factor of 1.96. For all other matrices (non-SDWA), the reported Unc. is the calculated Expanded Uncertainty (aka Combined Standard Uncertainty, CSU), reported at the 95% confidence interval using a coverage factor of 1.96.

Gamma Spec: The Unc. reported for all gamma-spectroscopy analyses (EPA 901.1), is the calculated Expanded Uncertainty (CSU) at the 95.4% confidence interval, using a coverage factor of 2.0.

(MDC) - Minimum Detectable Concentration

Trac - Tracer Recovery (%)

Carr - Carrier Recovery (%)

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

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### QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: WMWGORAP\_1350  
Pace Project No.: 30470864

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
30470864001	BC02839 MW-7	EPA 9315	490016		
30470864002	BC02840 MW-7 Diss	EPA 9315	490016		
30470864003	BC02841 MW-41HS	EPA 9315	490016		
30470864004	BC02842 MW-6V	EPA 9315	490016		
30470864005	BC02843 MW-30HA	EPA 9315	490016		
30470864006	BC02844 MW-21	EPA 9315	490016		
30470864007	BC02845 MW-21V	EPA 9315	490016		
30470864008	BC02846 MW-31H	EPA 9315	490016		
30470864009	BC03250 PZ-22	EPA 9315	490016		
30470864010	BC03251 MW-17	EPA 9315	490016		
30470864011	BC03252 MW-17V	EPA 9315	490016		
30470864012	BC03253 MW-36H	EPA 9315	490016		
30470864013	BC03254 MW-6S	EPA 9315	490016		
30470864014	BC03255 MW-6S DUP	EPA 9315	490016		
30470864015	BC03256 MW-6D	EPA 9315	490017		
30470864016	BC03257 MW-23H	EPA 9315	490016		
30470864017	BC03258 MW-23H DUP	EPA 9315	490016		
30470864018	BC03259 MW-28H	EPA 9315	490017		
30470864019	BC03260 MW-28H DUP	EPA 9315	490016		
30470864020	BC03261 MW-29H	EPA 9315	490016		
30470864021	BC03262 FB-3	EPA 9315	490017		
30470864022	BC03263 MW-32H	EPA 9315	490017		
30470864023	BC03539 PZ-16	EPA 9315	490018		
30470864024	BC03540 MW-16D	EPA 9315	490017		
30470864025	BC03541 MW-16S	EPA 9315	490017		
30470864026	BC03542 FB-2	EPA 9315	490017		
30470864027	BC03543 MW-15	EPA 9315	490017		
30470864028	BC03544 MW-15V	EPA 9315	490017		
30470864029	BC03545 MW-25HA	EPA 9315	490017		
30470864030	BC03546 MW-41HD	EPA 9315	490017		
30470864031	BC03547 MW-24H	EPA 9315	490017		
30470864032	BC03548 MW-24H DUP	EPA 9315	490017		
30470864033	BC03549 MW-40H	EPA 9315	490017		
30470864034	BC03550 MW-26H	EPA 9315	490017		
30470864035	BC03551 MW-42H	EPA 9315	490020		
30470864036	BC03552 MW-8	EPA 9315	490017		
30470864037	BC03553 MW-3	EPA 9315	490017		
30470864038	BC03554 FB-1	EPA 9315	490017		
30470864039	BC03974 MW-43H	EPA 9315	490018		
30470864040	BC03975 PZ-18R	EPA 9315	490018		
30470864041	BC03976 MW-36V	EPA 9315	490018		
30470864042	BC03977 MW-27HR	EPA 9315	490018		
30470864043	BC03978 FB-6	EPA 9315	490018		
30470864044	BC03979 MW-18R	EPA 9315	490018		

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## QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: WMWGORAP\_1350

Pace Project No.: 30470864

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
30470864045	BC03980 MW-18R DUP	EPA 9315	490018		
30470864046	BC03981 MW-18VR	EPA 9315	490018		
30470864047	BC03982 MW-45V	EPA 9315	490018		
30470864048	BC03983 MW-03V	EPA 9315	490018		
30470864049	BC03984 MW-9V	EPA 9315	490018		
30470864050	BC03985 MW-38H	EPA 9315	490018		
30470864051	BC03986 MW-19	EPA 9315	490018		
30470864052	BC03987 MW-19 DUP	EPA 9315	490018		
30470864053	BC03988 MW-2	EPA 9315	490018		
30470864054	BC03989 MW-12V	EPA 9315	490018		
30470864055	BC03990 FB-5	EPA 9315	490018		
30470864056	BC03991 MW-31V	EPA 9315	490020		
30470864057	BC03992 MW-46	EPA 9315	490020		
30470864058	BC03993 FB-4	EPA 9315	490020		
30470864059	BC03994 MW-23V	EPA 9315	490020		
30470864060	BC04387 MW-37HR	EPA 9315	490020		
30470864061	BC04388 MW-47	EPA 9315	490020		
30470864062	BC04389 MW-14R	EPA 9315	490020		
30470864063	BC04390 MW-13R	EPA 9315	490020		
30470864064	BC04391 MW-10R	EPA 9315	490020		
30470864065	BC04392 MW-12	EPA 9315	490020		
30470864066	BC04393 MW-09R	EPA 9315	490020		
30470864067	BC04394 EB-1	EPA 9315	490020		
30470864068	BC04395 MW-01R	EPA 9315	490020		
30470864069	BC04396 MW-11R	EPA 9315	490020		
30470864070	BC04397 MW-05R	EPA 9315	490020		
30470864071	BC03250 MS	EPA 9315	490016		
30470864072	BC03250 MSD	EPA 9315	490016		
30470864073	BC03256 MS	EPA 9315	490017		
30470864074	BC03256 MSD	EPA 9315	490017		
30470864075	BC03539 MS	EPA 9315	490018		
30470864076	BC03539 MSD	EPA 9315	490018		
30470864077	BC03551 MS	EPA 9315	490020		
30470864078	BC03551 MSD	EPA 9315	490020		
30470864001	BC02839 MW-7	EPA 9320	491659		
30470864002	BC02840 MW-7 Diss	EPA 9320	491659		
30470864003	BC02841 MW-41HS	EPA 9320	491659		
30470864004	BC02842 MW-6V	EPA 9320	491659		
30470864005	BC02843 MW-30HA	EPA 9320	491659		
30470864006	BC02844 MW-21	EPA 9320	491659		
30470864007	BC02845 MW-21V	EPA 9320	491659		
30470864008	BC02846 MW-31H	EPA 9320	491659		
30470864009	BC03250 PZ-22	EPA 9320	491659		
30470864010	BC03251 MW-17	EPA 9320	491659		
30470864011	BC03252 MW-17V	EPA 9320	491659		
30470864012	BC03253 MW-36H	EPA 9320	491659		

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### QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: WMWGORAP\_1350

Pace Project No.: 30470864

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
30470864013	BC03254 MW-6S	EPA 9320	491659		
30470864014	BC03255 MW-6S DUP	EPA 9320	491659		
30470864015	BC03256 MW-6D	EPA 9320	491670		
30470864016	BC03257 MW-23H	EPA 9320	491659		
30470864017	BC03258 MW-23H DUP	EPA 9320	491659		
30470864018	BC03259 MW-28H	EPA 9320	491659		
30470864019	BC03260 MW-28H DUP	EPA 9320	491670		
30470864020	BC03261 MW-29H	EPA 9320	491670		
30470864021	BC03262 FB-3	EPA 9320	491661		
30470864022	BC03263 MW-32H	EPA 9320	491661		
30470864023	BC03539 PZ-16	EPA 9320	491661		
30470864024	BC03540 MW-16D	EPA 9320	491661		
30470864025	BC03541 MW-16S	EPA 9320	491661		
30470864026	BC03542 FB-2	EPA 9320	491661		
30470864027	BC03543 MW-15	EPA 9320	491661		
30470864028	BC03544 MW-15V	EPA 9320	491661		
30470864029	BC03545 MW-25HA	EPA 9320	491661		
30470864030	BC03546 MW-41HD	EPA 9320	491661		
30470864031	BC03547 MW-24H	EPA 9320	491661		
30470864032	BC03548 MW-24H DUP	EPA 9320	491661		
30470864033	BC03549 MW-40H	EPA 9320	491661		
30470864034	BC03550 MW-26H	EPA 9320	491661		
30470864035	BC03551 MW-42H	EPA 9320	491672		
30470864036	BC03552 MW-8	EPA 9320	491661		
30470864037	BC03553 MW-3	EPA 9320	491661		
30470864038	BC03554 FB-1	EPA 9320	491661		
30470864039	BC03974 MW-43H	EPA 9320	491661		
30470864040	BC03975 PZ-18R	EPA 9320	491670		
30470864041	BC03976 MW-36V	EPA 9320	491670		
30470864042	BC03977 MW-27HR	EPA 9320	491670		
30470864043	BC03978 FB-6	EPA 9320	491670		
30470864044	BC03979 MW-18R	EPA 9320	491670		
30470864045	BC03980 MW-18R DUP	EPA 9320	491670		
30470864046	BC03981 MW-18VR	EPA 9320	491670		
30470864047	BC03982 MW-45V	EPA 9320	491670		
30470864048	BC03983 MW-03V	EPA 9320	491670		
30470864049	BC03984 MW-9V	EPA 9320	491670		
30470864050	BC03985 MW-38H	EPA 9320	491670		
30470864051	BC03986 MW-19	EPA 9320	491670		
30470864052	BC03987 MW-19 DUP	EPA 9320	491670		
30470864053	BC03988 MW-2	EPA 9320	491670		
30470864054	BC03989 MW-12V	EPA 9320	491670		
30470864055	BC03990 FB-5	EPA 9320	491672		
30470864056	BC03991 MW-31V	EPA 9320	491672		
30470864057	BC03992 MW-46	EPA 9320	491672		

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### QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: WMWGORAP\_1350

Pace Project No.: 30470864

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
30470864058	BC03993 FB-4	EPA 9320	491672		
30470864059	BC03994 MW-23V	EPA 9320	491672		
30470864060	BC04387 MW-37HR	EPA 9320	491672		
30470864061	BC04388 MW-47	EPA 9320	491672		
30470864062	BC04389 MW-14R	EPA 9320	491672		
30470864063	BC04390 MW-13R	EPA 9320	491672		
30470864064	BC04391 MW-10R	EPA 9320	491672		
30470864065	BC04392 MW-12	EPA 9320	491672		
30470864066	BC04393 MW-09R	EPA 9320	491672		
30470864067	BC04394 EB-1	EPA 9320	491672		
30470864068	BC04395 MW-01R	EPA 9320	491672		
30470864069	BC04396 MW-11R	EPA 9320	491672		
30470864070	BC04397 MW-05R	EPA 9320	491672		
30470864071	BC03250 MS	EPA 9320	491659		
30470864072	BC03250 MSD	EPA 9320	491659		
30470864073	BC03256 MS	EPA 9320	491670		
30470864074	BC03256 MSD	EPA 9320	491670		
30470864075	BC03539 MS	EPA 9320	491661		
30470864076	BC03539 MSD	EPA 9320	491661		
30470864077	BC03551 MS	EPA 9320	491672		
30470864078	BC03551 MSD	EPA 9320	491672		
30470864001	BC02839 MW-7	Total Radium Calculation	496836		
30470864002	BC02840 MW-7 Diss	Total Radium Calculation	496836		
30470864003	BC02841 MW-41HS	Total Radium Calculation	496836		
30470864004	BC02842 MW-6V	Total Radium Calculation	496836		
30470864005	BC02843 MW-30HA	Total Radium Calculation	496836		
30470864006	BC02844 MW-21	Total Radium Calculation	496836		
30470864007	BC02845 MW-21V	Total Radium Calculation	496836		
30470864008	BC02846 MW-31H	Total Radium Calculation	496836		
30470864009	BC03250 PZ-22	Total Radium Calculation	496836		
30470864010	BC03251 MW-17	Total Radium Calculation	496836		
30470864011	BC03252 MW-17V	Total Radium Calculation	496836		
30470864012	BC03253 MW-36H	Total Radium Calculation	496836		
30470864013	BC03254 MW-6S	Total Radium Calculation	496836		
30470864014	BC03255 MW-6S DUP	Total Radium Calculation	496836		
30470864015	BC03256 MW-6D	Total Radium Calculation	496834		
30470864016	BC03257 MW-23H	Total Radium Calculation	496836		
30470864017	BC03258 MW-23H DUP	Total Radium Calculation	496836		
30470864018	BC03259 MW-28H	Total Radium Calculation	496834		
30470864019	BC03260 MW-28H DUP	Total Radium Calculation	496836		
30470864020	BC03261 MW-29H	Total Radium Calculation	496836		
30470864021	BC03262 FB-3	Total Radium Calculation	496834		
30470864022	BC03263 MW-32H	Total Radium Calculation	496834		

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## QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: WMWGORAP\_1350  
Pace Project No.: 30470864

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
30470864023	BC03539 PZ-16	Total Radium Calculation	496835		
30470864024	BC03540 MW-16D	Total Radium Calculation	496834		
30470864025	BC03541 MW-16S	Total Radium Calculation	496834		
30470864026	BC03542 FB-2	Total Radium Calculation	496834		
30470864027	BC03543 MW-15	Total Radium Calculation	496834		
30470864028	BC03544 MW-15V	Total Radium Calculation	496834		
30470864029	BC03545 MW-25HA	Total Radium Calculation	496834		
30470864030	BC03546 MW-41HD	Total Radium Calculation	496834		
30470864031	BC03547 MW-24H	Total Radium Calculation	496834		
30470864032	BC03548 MW-24H DUP	Total Radium Calculation	496834		
30470864033	BC03549 MW-40H	Total Radium Calculation	496834		
30470864034	BC03550 MW-26H	Total Radium Calculation	496834		
30470864035	BC03551 MW-42H	Total Radium Calculation	496837		
30470864036	BC03552 MW-8	Total Radium Calculation	496834		
30470864037	BC03553 MW-3	Total Radium Calculation	496834		
30470864038	BC03554 FB-1	Total Radium Calculation	496834		
30470864039	BC03974 MW-43H	Total Radium Calculation	496835		
30470864040	BC03975 PZ-18R	Total Radium Calculation	496835		
30470864041	BC03976 MW-36V	Total Radium Calculation	496835		
30470864042	BC03977 MW-27HR	Total Radium Calculation	496835		
30470864043	BC03978 FB-6	Total Radium Calculation	496835		
30470864044	BC03979 MW-18R	Total Radium Calculation	496835		
30470864045	BC03980 MW-18R DUP	Total Radium Calculation	496835		
30470864046	BC03981 MW-18VR	Total Radium Calculation	496835		
30470864047	BC03982 MW-45V	Total Radium Calculation	496835		
30470864048	BC03983 MW-03V	Total Radium Calculation	496835		
30470864049	BC03984 MW-9V	Total Radium Calculation	496835		
30470864050	BC03985 MW-38H	Total Radium Calculation	496835		
30470864051	BC03986 MW-19	Total Radium Calculation	496835		
30470864052	BC03987 MW-19 DUP	Total Radium Calculation	496835		
30470864053	BC03988 MW-2	Total Radium Calculation	496835		
30470864054	BC03989 MW-12V	Total Radium Calculation	496835		
30470864055	BC03990 FB-5	Total Radium Calculation	496835		
30470864056	BC03991 MW-31V	Total Radium Calculation	496837		
30470864057	BC03992 MW-46	Total Radium Calculation	496837		
30470864058	BC03993 FB-4	Total Radium Calculation	496837		
30470864059	BC03994 MW-23V	Total Radium Calculation	496837		
30470864060	BC04387 MW-37HR	Total Radium Calculation	496837		
30470864061	BC04388 MW-47	Total Radium Calculation	496837		
30470864062	BC04389 MW-14R	Total Radium Calculation	496837		
30470864063	BC04390 MW-13R	Total Radium Calculation	496837		
30470864064	BC04391 MW-10R	Total Radium Calculation	496837		
30470864065	BC04392 MW-12	Total Radium Calculation	496837		
30470864066	BC04393 MW-09R	Total Radium Calculation	496837		
30470864067	BC04394 EB-1	Total Radium Calculation	496837		
30470864068	BC04395 MW-01R	Total Radium Calculation	496837		

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**QUALITY CONTROL DATA CROSS REFERENCE TABLE**

Project: WMWGORAP\_1350  
Pace Project No.: 30470864

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
30470864069	BC04396 MW-11R	Total Radium Calculation	496837		
30470864070	BC04397 MW-05R	Total Radium Calculation	496837		

**REPORT OF LABORATORY ANALYSIS**

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**CHAIN-OF-CUSTODY / Analytical Request Document**  
 The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed at

**Section A**  
 Required Client Information:  
 Company: Alabama Power Company  
 Address: 744 Highway 87 GSC Bldg #8  
 Calera, AL 35040  
 Email To: lmidkiff@southernco.com  
 Phone: 205-664-6197 Fax:  
 Requested Due Date: Normal

**Section B**  
 Required Project Information:  
 Report To: Laura Midkiff  
 Copy To: Brooke Caton & Renee Jernigan  
 Purchase Order #: APC10755638  
 Project Name: Plant Gorgas Ash Pond  
 Project Number: WNWGORAP\_1350

**Section C**  
 Invoice Information:  
 Attention: Laura Midkiff  
 Company Name: Alabama Power Co.  
 Address: 744 Highway 87 GSC Bldg #8  
 CCR  
 Alexis Ozoroski  
 Pace Project Manager  
 Pace Profile #: 13805

Regulatory Agency: AL  
 State / Location: AL

ITEM #	Description	Station Name Location_Code	Site Name Facility_ID	COLLECTED		Matrix Spiked/Duplicate	Field Filtered	Matrix Spiked/Duplicate	Sample Duplicate	# OF CONTAINERS	Preservatives		Analyses Test	EPA 9315	EPA 9320	Total Radium Sum	Total Sulfide	Residual Chlorine (Y/N)
				START DATE	TIME						HNO3	NaOH/ZnAcetate						
1	BC02839	MW-7	APCO-GS-AP-MW-7	APCO_Gorgas_AshPond	2/8/2022	11:20				1			X	X	X			001
2	BC02840	MW-7 DIS	APCO-GS-AP-MW-7	APCO_Gorgas_AshPond	2/8/2022	11:20	X			1			X	X	X			002
3	BC02841	MW-41HS	APCO-GS-AP-MW-41HS	APCO_Gorgas_AshPond	2/8/2022	14:43				1			X	X	X			003
4	BC02842	MW-6V	APCO-GS-AP-MW-6V	APCO_Gorgas_AshPond	2/8/2022	12:00				1			X	X	X			004
5																		
6																		
7																		
8																		
9																		
10																		
11																		
12																		

**ADDITIONAL COMMENTS**

RELINQUISHED BY / AFFILIATION: Laura Midkiff, APC GTL  
 DATE: 3/2/2022  
 TIME: 8:40

ACCEPTED BY / AFFILIATION: *[Signature]*  
 DATE: 3-1-22  
 TIME: 9:45

SAMPLE CONDITIONS: N Y Y

**SAMPLER NAME AND SIGNATURE**  
 PRINT Name of SAMPLER: TJ DAUGHERTY  
 SIGNATURE of SAMPLER: *[Signature]*  
 DATE Signed:

Received on: \_\_\_\_\_  
 Ice (Y/N): \_\_\_\_\_  
 Custody (Y/N): \_\_\_\_\_  
 Sealed Cooler (Y/N): \_\_\_\_\_  
 Inlet Samples (Y/N): \_\_\_\_\_



**CHAIN-OF-CUSTODY / Analytical Request Document**  
 The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

**Section A**  
 Required Client Information:  
 Company: Alabama Power Company  
 Address: 744 Highway 87 GSC Bldg #8  
 Callera, AL 35040  
 Email To: lbmidkiff@southernco.com  
 Phone: 205-664-6197 | Fax:  
 Requested Due Date: Normal

**Section B**  
 Required Project Information:  
 Report To: Laura Midkiff  
 Copy To: Brooke Caton & Renee Jernigan  
 Purchase Order #: APC10755638  
 Project Name: Plant Gorgas Ash Pond  
 Project Number: VMWGORAP\_1350

**Section C**  
 Invoice Information:  
 Attention: Laura Midkiff  
 Company Name: Alabama Power Co.  
 Address: 744 Highway 87 GSC Bldg #8  
 CCR  
 Pace Quote: Alexis.Ozoroski@apcelabs.com  
 Pace Project Manager:  
 Pace Profile #: 13805

Regulatory Agency: AL  
 State / Location: AL

ITEM #	DESCRIPTION	STATION NAME LOCATION_CODE	SITE NAME FACILITY_ID	COLLECTED		SAMPLE TYPE (G=GRAB C=COMP)	MATRIX CODE	FIELD FILTERED	MATRIX SPIKE/MATRIX SPIKE DUPLICATE	SAMPLE DUPLICATE	# OF CONTAINERS	PRESERVATIVES	ANALYSES TEST	Y/N	REQUESTED ANALYSIS FILTERED (Y/N)	RESIDUAL CHROME (Y/N)	TEMP IN C
				START DATE	TIME												
1	BC02843	MW-30HA	APCO-GS-AP-MW-30HA	APCO_Gorgas_AshPond	2/8/2022	9:36	GW	G			1						
2	BC02844	MW-21	APCO-GS-AP-MW-21	APCO_Gorgas_AshPond	2/8/2022	11:11	GW	G			1						
3	BC02845	MW-21V	APCO-GS-AP-MW-21V	APCO_Gorgas_AshPond	2/8/2022	13:38	GW	G			1						
4	BC02846	MW-31H	APCO-GS-AP-MW-31H	APCO_Gorgas_AshPond	2/8/2022	16:04	GW	G			1						
5																	
6																	
7																	
8																	
9																	
10																	
11																	
12																	

**ADDITIONAL COMMENTS**  
 RELINQUISHED BY / AFFILIATION: Laura Midkiff/ APC GTL  
 DATE: 3/2/2022  
 TIME: 8:40

ACCEPTED BY / AFFILIATION: *[Signature]*  
 DATE: 3-4-22  
 TIME: 9:45

SAMPLE CONDITIONS:  
 Received on: \_\_\_\_\_  
 Ice (Y/N): \_\_\_\_\_  
 Custody (Y/N): \_\_\_\_\_  
 Sealed (Y/N): \_\_\_\_\_  
 Cooler (Y/N): \_\_\_\_\_  
 Samples (Y/N): \_\_\_\_\_

SAMPLER NAME AND SIGNATURE:  
 PRINT Name of SAMPLER: DALLAS GENTRY  
 SIGNATURE OF SAMPLER: \_\_\_\_\_  
 DATE Signed: \_\_\_\_\_

**WO#: 30470864**  
 PM: AES Due Date: 03/25/22  
 CLIENT: ALABAMA PWR



# CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

<b>Section A</b>		<b>Section B</b>	
<b>Required Client Information:</b>		<b>Required Project Information:</b>	
Company: Alabama Power Company	Report To: Laura Midkiff	Invoice Information:	Attention: Laura Midkiff
Address: 744 Highway 87 GSC Bldg #8 Calera, AL 35040	Copy To: Brooke Caton & Renee Jernigan	Company Name: Alabama Power Co.	Address: 744 Highway 87 GSC Bldg #8 CCR
Email To: lbmidkiff@southenergy.com	Purchase Order #: APC10755638	State / Location: AL	Regulatory Agency:
Phone: 205-664-6197 Fax:	Project Name: Plant Gorgas Ash Pond	State / Location: AL	Regulatory Agency:
Requested Due Date: Normal	Project Number: WMWGORAP_1350	State / Location: AL	Regulatory Agency:
	Pace Profile #: 13805	State / Location: AL	Regulatory Agency:
	Pace Project Manager: Alexis Ozoroski	State / Location: AL	Regulatory Agency:

ITEM #	Description	Station Name Location_Code	Site Name Facility_ID	COLLECTED		Requested Analysis Filtered (Y/N)	Preservatives		Analyses Test	Y/N	EPA 9315	EPA 9320	Total Radium Sum	Total Sulfide	Residual Chlorine (Y/N)	Received on	Ice (Y/N)	Custody (Y/N)	Sealed (Y/N)	Cooler (Y/N)	Samples (Y/N)	Intact (Y/N)	
				START DATE	TIME		Unpreserved	NaOH+ZnAcetate															HNO3
1	MW-6S	APCO-GS-AP-MW-6S	APCO_Gorgas_AshPond	2/14/2022	11:18						X	X	X										
2	MW-6S DUP	APCO-GS-AP-MW-6S	APCO_Gorgas_AshPond	2/14/2022	11:18						X	X	X										
3	MW-6D	APCO-GS-AP-MW-6D	APCO_Gorgas_AshPond	2/14/2022	12:34						X	X	X										
4	MW-23H	APCO-GS-AP-MW-23H	APCO_Gorgas_AshPond	2/14/2022	13:47						X	X	X										
5	MW-23H DUP	APCO-GS-AP-MW-23H	APCO_Gorgas_AshPond	2/14/2022	13:47						X	X	X										
6																							
7																							
8																							
9																							
10																							
11																							
12																							

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION		ACCEPTED BY / AFFILIATION		DATE	TIME	SAMPLE CONDITIONS
	DATE	TIME	DATE	TIME			
					3-1-22	9:45	N F Y

SAMPLER NAME AND SIGNATURE	
PRINT Name of SAMPLER:	TJ DAUGHERTY
SIGNATURE of SAMPLER:	DATE Signed:

**WO#: 30470864**  
 PM: AES Due Date: 03/25/22  
 CLIENT: ALABAMA PWR



# CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

<b>Section A</b>		<b>Section B</b>		<b>Section C</b>	
<b>Required Client Information:</b>		<b>Required Project Information:</b>		<b>Invoice Information:</b>	
Company: Alabama Power Company	Report To: Laura Midkiff	Copy To: Brooke Caton & Renee Jernigan	Attention: Laura Midkiff	Company Name: Alabama Power Co.	Regulatory Agency:
Address: 744 Highway 87 GSC Bldg #8	Calera, AL 35040	Purchase Order #: APC10755638	Address: 744 Highway 87 GSC Bldg #8	Address: 744 Highway 87 GSC Bldg #8	State / Location: AL
Email To: lbmidkiff@southernco.com	Project Name: Plant Gorgas Ash Pond	Project Number: VMWGORAP_1350	Face Quote: CCR	Face Project Manager: Alexis Ozoroski	
Phone: 205-664-6197	Requested Due Date: Normal		Face Profile #: 13805		

ITEM #	Description	Station Name Location_Code	Site Name Facility_ID	Sample Duplicate	Matrix Spike/Matrix Spike Duplicate	Field Filtered	MATRIX CODE	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED		# OF CONTAINERS	Unpreserved	NaOH+ZnAcetate	HNO3	Preservatives	Analyses Test	Y/N	Requested Analysis Filtered (Y/N)	Residual Chlorine (Y/N)
									START DATE	TIME									
1	BC03539	PZ-16	APCO_Gorgas_AshPond	X			GW	G	2/15/2022	11:08	3								
2	BC03540	MW-16D	APCO_Gorgas_AshPond				GW	G	2/15/2022	12:48	1								
3	BC03541	MW-16S	APCO_Gorgas_AshPond				GW	G	2/15/2022	13:52	1								
4	BC03542	FB-2	APCO_Gorgas_AshPond				GW	G	2/15/2022	14:45	1								
5	BC03543	MW-15	APCO_Gorgas_AshPond				GW	G	2/16/2022	10:39	1								
6	BC03544	MW-15V	APCO_Gorgas_AshPond				GW	G	2/16/2022	11:45	1								
7	BC03545	MW-25HA	APCO_Gorgas_AshPond				GW	G	2/16/2022	13:22	1								
8																			
9																			
10																			
11																			
12																			

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION		ACCEPTED BY / AFFILIATION		DATE	TIME	DATE	TIME	SAMPLE CONDITIONS
	Signature	Company	Signature	Company					
		Laura Midkiff/ APC GTL			3-4-22	9:45			N Y Y

SAMPLER NAME AND SIGNATURE		Dallas Gentry	
PRINT Name of SAMPLER:		DATE Signed:	
SIGNATURE of SAMPLER:			

**WO#: 30470864**

PM: AES Due Date: 03/25/22  
CLIENT: ALABAMA PWR

# CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

**Section A**  
**Required Client Information:**  
 Company: Alabama Power Company  
 Address: 744 Highway 87 GSC Bldg #8  
 Calera, AL 35040  
 Email To: lbmidkiff@southernco.com  
 Phone: 205-664-6197 Fax:  
 Requested Due Date: Normal

**Section B**  
**Required Project Information:**  
 Report To: Laura Midkiff  
 Copy To: Brooke Caton & Renee Jernigan  
 Purchase Order #: APC10755638  
 Project Name: Plant Gorgas Ash Pond  
 Project Number: WMWGORAP\_1350

**Section C**  
**Invoice Information:**  
 Attention: Laura Midkiff  
 Company Name: Alabama Power Co.  
 Address: 744 Highway 87 GSC Bldg #8  
 Pace Quote: CCR  
 Pace Project Manager: Alexis Ozoroski  
 Pace Profile #: 13805

**Regulatory Agency:**  
**State / Location:** AL

ITEM #	Description	Station Name Location Code	Site Name Facility ID	COLLECTED		SAMPLE TYPE (G=GRAB C=COMP)	Matrix Code	Field Filtered	Mark Spike/Matrix Spike Duplicate	Sample Duplicate	# OF CONTAINERS	Preservatives			Analyses Test Y/N	EPA 930	EPA 935	Total Radium Sum	Total Sulfide	Residual Chlorine (Y/N)	
				START DATE	TIME							HNO3	NaOH+ZnAcetate	Unpreserved							
1	BC03546	MW-41HD	APCO-GS-AP-MW-41HD	APCO_Gorgas_AshPond	2/15/2022	8:25	GW	G			1				X	X	X				030
2	BC03547	MW-24H	APCO-GS-AP-MW-24H	APCO_Gorgas_AshPond	2/15/2022	10:37	GW	G			1				X	X	X				031
3	BC03548	MW-24H DUP	APCO-GS-AP-MW-24H	APCO_Gorgas_AshPond	2/15/2022	10:37	GW	G	X		1				X	X	X				032
4	BC03549	MW-40H	APCO-GS-AP-MW-40H	APCO_Gorgas_AshPond	2/15/2022	12:25	GW	G			1				X	X	X				033
5	BC03550	MW-26H	APCO-GS-AP-MW-26H	APCO_Gorgas_AshPond	2/15/2022	14:13	GW	G			1				X	X	X				034
6	BC03551	MW-42H	APCO-GS-AP-MW-42H	APCO_Gorgas_AshPond	2/15/2022	10:43	GW	G	X		3				X	X	X				035
7	BC03552	MW-8	APCO-GS-AP-MW-8	APCO_Gorgas_AshPond	2/16/2022	12:14	GW	G			1				X	X	X				036
8	BC03553	MW-3	APCO-GS-AP-MW-3	APCO_Gorgas_AshPond	2/16/2022	14:57	GW	G			1				X	X	X				037
9	BC03554	FB-2	APCO-GS-AP-FB-02	APCO_Gorgas_AshPond	2/16/2022	15:50	GW	G			1				X	X	X				038
10																					
11																					
12																					

**ADDITIONAL COMMENTS**

RELINQUISHED BY / AFFILIATION: Laura Midkiff/ APC GTL DATE: 3/2/2022 TIME: 8:40

ACCEPTED BY / AFFILIATION: J. Adreya DATE: 3-4-22 9:15 TIME: 3-4-22 9:15

TEMP in C: \_\_\_\_\_

Received on: \_\_\_\_\_

Ice (Y/N): \_\_\_\_\_

Custody Sealed (Y/N): \_\_\_\_\_

Cooler (Y/N): \_\_\_\_\_

Intact Samples (Y/N): \_\_\_\_\_

SAMPLER NAME AND SIGNATURE: \_\_\_\_\_

PRINT Name of SAMPLER: TJ DAUGHERTY

SIGNATURE of SAMPLER: \_\_\_\_\_

DATE Signed: \_\_\_\_\_

**WO#: 30470864**

PM: AES Due Date: 03/25/22

CLIENT: ALABAMA PMR







**CHAIN-OF-CUSTODY / Analytical Request Document**  
 The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

<b>Section A</b>		<b>Section B</b>		<b>Section C</b>	
<b>Required Client Information:</b>		<b>Required Project Information:</b>		<b>Invoice Information:</b>	
Company: Alabama Power Company	Report To: Laura Mickliff	Attention: Laura Mickliff	Alabama Power Co.		
Address: 744 Highway 87 GSC Bldg #8	Copy To: Brooke Caton & Renee Jernigan	Company Name: Alabama Power Co.	744 Highway 87 GSC Bldg #8		
Calera, AL 35040		Address: 744 Highway 87 GSC Bldg #8	CCR		
Email To: lbmickliff@southernco.com	Purchase Order #: APC10755638	Address: Alexis Ozoroski	Regulatory Agency		
Phone: 205-664-6197 Fax: Normal	Project Name: Plant Gorgas Ash Pond	Address: 13805	State / Location AL		
Requested Due Date: Normal	Project Number: WNWGORAP_1350	Address: 13805	State / Location AL		

ITEM #	Description	Station Name Location_Code	Site Name Facility_ID	COLLECTED		Matrix Spike/Matrix Spike Duplicate	Field Filtered	Matrix Code	SAMPLE TYPE (G=GRAB C=COMP)	# OF CONTAINERS	Requested Analysis Filtered (Y/N)			Residual Chlorine (Y/N)	
				START DATE	TIME						Preservatives	Analyses Test	Y/N		
1	BC03991 MW-31V	APCO-GS-AP-MW-31V	APCO_Gorgas_AshPond	2/22/2022	13:07			GW	G	1	Unpreserved				
2	BC03992 MW-46	APCO-GS-AP-MW-46	APCO_Gorgas_AshPond	2/23/2022	10:30			GW	G	1	NaOH+ZnAcetate				056
3	BC03993 FB-4	APCO-GS-AP-FB-04	APCO_Gorgas_AshPond	2/23/2022	11:00			GW	G	1	Unpreserved				057
4	BC03994 MW-23V	APCO-GS-AP-MW-23V	APCO_Gorgas_AshPond	2/23/2022	13:33			GW	G	1	Unpreserved				058
5															059
6															
7															
8															
9															
10															
11															
12															

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
	Laura Mickliff / APC STL	3/2/2022	8:40	<i>L. Mickliff</i>	3-4-22	9:45	N Y Y

**SAMPLER NAME AND SIGNATURE**

PRINT Name of SAMPLER: ANTHONY GOGGINS

SIGNATURE of SAMPLER: \_\_\_\_\_ DATE Signed: \_\_\_\_\_

**WO#: 30470864**

PM: AES Due Date: 03/25/22

CLIENT: ALABAMA PWR

**CHAIN-OF-CUSTODY / Analytical Request Document**  
 The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

**Section A**  
 Required Client Information:  
 Company: Alabama Power Company  
 Address: 744 Highway 87 GSC Bldg #8  
 Calera, AL 35040  
 Email To: lbmidkiff@southernco.com  
 Phone: 205-664-6197 Fax:  
 Requested Due Date: Normal

**Section B**  
 Required Project Information:  
 Report To: Laura Midkiff  
 Copy To: Brooke Caton & Renee Jernigan  
 Purchase Order #: APC10755638  
 Project Name: Plant Gorgas Ash Pond  
 Project Number: WNWGORAP\_1350

**Section C**  
 Invoice Information:  
 Attention: Laura Midkiff  
 Company Name: Alabama Power Co.  
 Address: 744 Highway 87 GSC Bldg #8  
 CCR  
 Alexis Ozoroski  
 Pace Project Manager:  
 Pace Profile #: 13805

Regulatory Agency  
 State / Location  
 AL

ITEM #	SAMPLE ID One Character per box. (A-Z, 0-9, -, ) Sample ids must be unique	Description	Station Name Location_Code	Site Name Facility_ID	COLLECTED		Matrix Spike/Matrix Spike Duplicate	Field Filtered	Matrix Code	Sample Type (S=GRAB C=COMP)	# OF CONTAINERS	Requested Analysis Filtered (Y/N)				Residual Chlorine (Y/N)	
					START DATE	TIME						Preservatives	Analyses Test	Y/N	EPA 9320		EPA 9315
1	BC04387	MW-37HR	APCO-GS-AP-MW-37HR	APCO_Gorgas_AshPond	2/28/2022	12:20			GW	G	1	X	X	X	X		
2	BC04388	MW-47	APCO-GS-AP-MW-47	APCO_Gorgas_AshPond	2/28/2022	14:12			GW	G	1	X	X	X	X		
3	BC04389	MW-14R	APCO-GS-AP-MW-14R	APCO_Gorgas_AshPond	2/28/2022	15:33			GW	G	1	X	X	X	X		
4	BC04390	MW-13R	APCO-GS-AP-MW-13R	APCO_Gorgas_AshPond	3/1/2022	8:34			GW	G	1	X	X	X	X		
5	BC04391	MW-10R	APCO-GS-AP-MW-10R	APCO_Gorgas_AshPond	3/1/2022	12:07			GW	G	1	X	X	X	X		
6																	
7																	
8																	
9																	
10																	
11																	
12																	

**ADDITIONAL COMMENTS**  
 RELINQUISHED BY / AFFILIATION: Laura Midkiff / APC GTL  
 DATE: 3/2/2022  
 TIME: 8:40

ACCEPTED BY / AFFILIATION: *[Signature]*  
 DATE: 3-4-22  
 TIME: 7:45

SAMPLE CONDITIONS  
 Received on: [ ]  
 Custody (Y/N): [ ]  
 Sealed (Y/N): [ ]  
 Cooler (Y/N): [ ]  
 Intact (Y/N): [ ]

TEMP in C: [ ]

SAMPLER NAME AND SIGNATURE: [ ]  
 PRINT Name of SAMPLER: [ ]  
 SIGNATURE of SAMPLER: [ ]

DALLAS GENTRY  
 DATE Signed: [ ]

**WO#: 30470864**  
 PM: AES Due Date: 03/25/22  
 CLIENT: ALABAMA PWR

# CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

<b>Section A</b>		<b>Section B</b>		<b>Section C</b>	
<b>Required Client Information:</b>		<b>Required Project Information:</b>		<b>Invoice Information:</b>	
Company: Alabama Power Company	Report To: Laura Midkiff	Attention: Laura Midkiff	Company Name: Alabama Power Co.	Regulatory Agency	
Address: 744 Highway 87 GSC Bldg #8	Copy To: Brooke Caton & Renee Jernigan	Address: 744 Highway 87 GSC Bldg #8	Address: CCR	State / Location	
Calera, AL 35040	Purchase Order #: APC10755638	Pace Project Manager: Alexis Ozoroski	Pace Profile #: 13805	AL	
Email To: lbmidkiff@southernco.com	Project Name: Plant Gorgas Ash Pond				
Phone: 205-664-6197   Fax: Normal	Project Number: WNWGORAP_1350				

ITEM #	Description	Station Name Location_Code	Site Name Facility_ID	COLLECTED		# OF CONTAINERS	Preservatives	Requested Analysis Filtered (Y/N)	EPA 9315	EPA 9320	Total Radium Sum	Total Sulfide	Residual Chlorine (Y/N)
				DATE	TIME								
1	MW-12	APCO-GS-AP-MW-12	APCO_Gorgas_AshPond	2/28/2022	14:40	1	HNO3	X	X	X			
2	MW-09R	APCO-GS-AP-MW-09R	APCO_Gorgas_AshPond	3/1/2022	12:04	1	NaOH+ZnAcetate	X	X	X			
3	EB-1	APCO-GS-AP-EB-1	APCO_Gorgas_AshPond	3/1/2022	12:30	1	Unpreserved	X	X	X			
4													
5													
6													
7													
8													
9													
10													
11													
12													

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
	Laura Midkiff/ APC GTL	3/2/2022	8:40	<i>[Signature]</i>	3-4-22	9:45	N Y Y

**SAMPLER NAME AND SIGNATURE**

PRINT Name of SAMPLER: TJ DAUGHERTY

SIGNATURE of SAMPLER: *[Signature]*

DATE Signed: 03/25/22

**WO# : 30470864**

PM: AES Due Date: 03/25/22

CLIENT: ALABAMA PWR



Pittsburgh Lab Sample Condition Upon Receipt



Client Name: Alabama Power Company Project # \_\_\_\_\_

Courier:  Fed Ex  UPS  USPS  Client  Commercial  Pace Other \_\_\_\_\_

Tracking #: 5557 2008 9852

Label <u>JA</u>
LIMS Login <u>VPJoc</u>

Custody Seal on Cooler/Box Present:  yes  no Seals intact:  yes  no

Thermometer Used \_\_\_\_\_ Type of Ice: Wet Blue None

Cooler Temperature Observed Temp \_\_\_\_\_ °C Correction Factor: \_\_\_\_\_ °C Final Temp: \_\_\_\_\_ °C  
Temp should be above freezing to 6°C

Comments:	pH paper Lot# <u>1002811</u>			Date and Initials of person examining contents: <u>3-8-22 JA</u>
	Yes	No	N/A	
Chain of Custody Present:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1.
Chain of Custody Filled Out:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	2.
Chain of Custody Relinquished:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	3.
Sampler Name & Signature on COC:	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	4.
Sample Labels match COC: -Includes date/time/ID Matrix: <u>WT</u>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	5. <u>038 - description - PB - 1 on sample</u>
Samples Arrived within Hold Time:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	6.
Short Hold Time Analysis (<72hr remaining):	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	7.
Rush Turn Around Time Requested:	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8.
Sufficient Volume:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	9.
Correct Containers Used: -Pace Containers Used:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	10.
Containers Intact:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	11.
Orthophosphate field filtered	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	12.
Hex Cr Aqueous sample field filtered	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	13.
Organic Samples checked for dechlorination: <u>3-8-22</u>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	14.
Filtered volume received for Dissolved tests	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	15.
All containers have been checked for preservation. exceptions: VOA, coliform, TOC, O&G, Phenolics, Radon, Non-aqueous matrix	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	16. <u>pH 4.2</u>
All containers meet method preservation requirements.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Initial when completed: <u>JA</u> Date/time of preservation: _____ Lot # of added preservative: _____
Headspace in VOA Vials (>6mm):	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	17.
Trip Blank Present:	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	18.
Trip Blank Custody Seals Present	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Rad Samples Screened < 0.5 mrem/hr	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Initial when completed: <u>JA</u> Date: <u>3-8-22</u> Survey Meter SN: <u>1563</u>

Client Notification/ Resolution:  
Person Contacted: \_\_\_\_\_ Date/Time: \_\_\_\_\_ Contacted By: \_\_\_\_\_  
Comments/ Resolution: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

A check in this box indicates that additional information has been stored in ereports.

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office ( i.e. out of hold, incorrect preservative, out of temp, incorrect containers)  
\*PM review is documented electronically in LIMS. When the Project Manager closes the SRF Review schedule in LIMS. The review is in the Status section of the Workorder Edit Screen.

MO#: 30470864  
 PM: AES Due Date: 03/25/22  
 CLIENT: ALABAMA PWR



Pace

WO#: 30470864

Count

PM: AES Due Date: 03/25/22

CLIENT: ALABAMA PWR

Profile Number 16788

Notes 009 0.15, 0.23, 0.35 have 3 BPIN

Client Alabama Power Company  
Site Plant Gargas Ash Pond

Sample Line Item	Matrix	AG1H	AG1S	AG1T	AG2U	AG3S	AG3U	AG5U	AG5T	BG1U	BG2U	BP1N	BP1U	BP2S	BP2U	BP3C	BP3N	BP3S	BP3U	DG9S	GCUB	VG9H	VG9T	VG9U	VOAK	WGFU	WGKU	ZPLC
1	WT																											
2																												
3																												
4																												
5																												
6																												
7																												
8																												
9																												
10																												
11																												
12	WT																											

Container Codes

Glass	
GJN	1 Gallon Jug with HNO3
AG5U	100mL amber glass unpreserved
AG5T	100mL amber glass Na Thiosulfate
GJN	1 Gallon Jug
AG1S	1L amber glass H2SO4
AG1H	1L amber glass HCl
AG1T	1L amber glass Na Thiosulfate
BG1U	1L clear glass unpreserved
AG3S	250mL amber glass H2SO4
AG3U	250mL amber glass unpreserved
DG9S	40mL amber VOA vial H2SO4
VG9U	40mL clear VOA vial
VG9T	40mL clear VOA vial Na Thiosul
VG9H	40mL clear VOA vial HCl
JGFU	4oz amber wide jar
WGFU	4oz wide jar unpreserved
BG2U	500mL clear glass unpreserved
AG2U	500mL amber glass unpreserved
WGKU	8oz wide jar unpreserved

Plastic / Misc.	
GCUB	1 Gallon Cubitainer
12GN	1/2 Gallon Cubitainer
SP5T	120mL Coliform Na Thiosulfate
BP1N	1L plastic HNO3
BP1U	1L plastic unpreserved
BP3S	250mL plastic H2SO4
BP3N	250mL plastic HNO3
BP3U	250mL plastic unpreserved
BP3C	250mL plastic NAOH
BP2S	500mL plastic H2SO4
BP2U	500mL plastic unpreserved
EZI	5g Encore
VOAK	Kit for Volatile Solid
I	Wipe/Swab
ZPLC	Ziploc Bag
WT	Water
SL	Solid
OL	Non-aqueous liquid
WP	Wipe

# CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

<b>Section A</b>	<b>Section B</b>	<b>Section C</b>	
<b>Required Client Information:</b>	<b>Required Project Information:</b>	<b>Invoice Information:</b>	Page : 1 Of 13
Company: Alabama Power Company	Report To: Laura Midkiff	Attention: Laura Midkiff	
Address: 744 Highway 87 GSC Bldg #8 Calera, AL 35040	Copy To: Brooke Caton & Renee Jernigan	Company Name: Alabama Power Co.	
Email To: <a href="mailto:lbmidkif@southernco.com">lbmidkif@southernco.com</a>	Purchase Order #: <b>APC10755638</b>	Address: 744 Highway 87 GSC Bldg #8	<b>Regulatory Agency</b>
Phone: 205-664-6197 Fax:	Project Name: <b>Plant Gorgas Ash Pond</b>	Pace Quote: CCR	<b>State / Location</b>
Requested Due Date: Normal	Project Number: <b>WMWGORAP_1350</b>	Pace Project Manager: <a href="#">Alexis Ozoroski</a>	<b>AL</b>
		Pace Profile #: 13805	

ITEM #	SAMPLE ID One Character per box. (A-Z, 0-9 / , -) Sample Ids must be unique	Description	Station Name Location_Code	Site Name Facility_ID	Sample Duplicate	Matrix Spike/Matrix Spike Duplicate	Field Filtered	MATRIX CODE	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED		Requested Analysis Filtered (Y/N)											
										DATE	TIME	# OF CONTAINERS	Preservatives			Analyses Test	Y/N	EPA 9315	EPA 9320	Total Radium Sum	Total Sulfide	Residual Chlorine (Y/N)	
													Unpreserved	NaOH+ZnAcetate	HNO3								
1	BC02839	MW-7	APCO-GS-AP-MW-7	APCO_Gorgas_AshPond				GW	G	2/8/2022	11:20	1		X			X	X	X				
2	BC02840	MW-7 DIS	APCO-GS-AP-MW-7	APCO_Gorgas_AshPond			X	GW	G	2/8/2022	11:20	1		X			X	X	X				
3	BC02841	MW-41HS	APCO-GS-AP-MW-41HS	APCO_Gorgas_AshPond				GW	G	2/8/2022	14:43	1		X			X	X	X				
4	BC02842	MW-6V	APCO-GS-AP-MW-6V	APCO_Gorgas_AshPond				GW	G	2/9/2022	12:00	1		X			X	X	X				
5																							
6																							
7																							
8																							
9																							
10																							
11																							
12																							

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
	Laura Midkiff/ APC GTL	3/2/2022	8:40				

<b>SAMPLER NAME AND SIGNATURE</b>		TEMP in C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
PRINT Name of SAMPLER:					
TJ DAUGHERTY					
SIGNATURE of SAMPLER:		DATE Signed:			

# CHAIN-OF-CUSTODY / Analytical Request Document

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**Section A**

**Section B**

**Section C**

<b>Required Client Information:</b>		<b>Required Project Information:</b>		<b>Invoice Information:</b>	
Company: Alabama Power Company		Report To: Laura Midkiff		Attention: Laura Midkiff	
Address: 744 Highway 87 GSC Bldg #8 Calera, AL 35040		Copy To: Brooke Caton & Renee Jernigan		Company Name: Alabama Power Co.	
Email To: <a href="mailto:lbmidkif@southernco.com">lbmidkif@southernco.com</a>		Purchase Order #: APC10755638		Address: 744 Highway 87 GSC Bldg #8	
Phone: 205-664-6197 Fax:		Project Name: Plant Gorgas Ash Pond		Pace Quote: CCR	
Requested Due Date: Normal		Project Number: WMWGORAP_1350		Pace Project Manager: <a href="mailto:Alexis.Ozoroski@pacelabs.com">Alexis.Ozoroski@pacelabs.com</a>	
				Pace Profile #: 13805	

Regulatory Agency
State / Location
AL

ITEM #	SAMPLE ID One Character per box. (A-Z, 0-9 / , -) Sample Ids must be unique	Description	Station Name Location_Code	Site Name Facility_ID	Sample Duplicate	Matrix Spike/Matrix Spike Duplicate	Field Filtered	MATRIX CODE	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED		Requested Analysis Filtered (Y/N)											
										DATE	TIME	# OF CONTAINERS	Preservatives			Analyses Test	EPA 9315	EPA 9320	Total Radium Sum	Total Sulfide	Residual Chlorine (Y/N)		
													Unpreserved	NaOH+ZnAcetate	HNO3								
1	BC02843	MW-30HA	APCO-GS-AP-MW-30HA	APCO_Gorgas_AshPond				GW	G	2/8/2022	9:36	1		X			X	X	X				
2	BC02844	MW-21	APCO-GS-AP-MW-21	APCO_Gorgas_AshPond				GW	G	2/8/2022	11:11	1		X			X	X	X				
3	BC02845	MW-21V	APCO-GS-AP-MW-21V	APCO_Gorgas_AshPond				GW	G	2/8/2022	13:38	1		X			X	X	X				
4	BC02846	MW-31H	APCO-GS-AP-MW-31H	APCO_Gorgas_AshPond				GW	G	2/8/2022	16:04	1		X			X	X	X				
5																							
6																							
7																							
8																							
9																							
10																							
11																							
12																							

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
	Laura Midkiff/ APC GTL	3/2/2022	8:40				

<b>SAMPLER NAME AND SIGNATURE</b>		TEMP in C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
PRINT Name of SAMPLER:					
SIGNATURE of SAMPLER:					

DALLAS GENTRY  
DATE Signed:



# CHAIN-OF-CUSTODY / Analytical Request Document

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<b>Section A</b>	<b>Section B</b>	<b>Section C</b>	
<b>Required Client Information:</b>	<b>Required Project Information:</b>	<b>Invoice Information:</b>	Page : 3 Of 13
Company: Alabama Power Company	Report To: Laura Midkiff	Attention: Laura Midkiff	
Address: 744 Highway 87 GSC Bldg #8 Calera, AL 35040	Copy To: Brooke Caton & Renee Jernigan	Company Name: Alabama Power Co.	
Email To: <a href="mailto:lbmidkif@southernco.com">lbmidkif@southernco.com</a>	Purchase Order #: APC10755638	Address: 744 Highway 87 GSC Bldg #8	Regulatory Agency
Phone: 205-664-6197 Fax:	Project Name: Plant Gorgas Ash Pond	Pace Quote: CCR	State / Location
Requested Due Date: Normal	Project Number: WMWGORAP_1350	Pace Project Manager: Alexis Ozoroski	AL
		Pace Profile #: 13805	

ITEM #	SAMPLE ID One Character per box. (A-Z, 0-9 / , -) Sample Ids must be unique	Description	Station Name Location_Code	Site Name Facility_ID	Sample Duplicate	Matrix Spike/Matrix Spike Duplicate	Field Filtered	MATRIX CODE	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED		Requested Analysis Filtered (Y/N)												
										DATE	TIME	# OF CONTAINERS	Preservatives			Analyses Test	Y/N	EPA 9315	EPA 9320	Total Radium Sum	Total Sulfide	Residual Chlorine (Y/N)		
													Unpreserved	NaOH+ZnAcetate	HNO3									
1	BC03250	PZ-22	APCO-GS-AP-PZ-22	APCO_Gorgas_AshPond		X		GW	G	2/14/2022	10:21	3		X			X	X	X					
2	BC03251	MW-17	APCO-GS-AP-MW-17	APCO_Gorgas_AshPond				GW	G	2/14/2022	11:42	1		X			X	X	X					
3	BC03252	MW-17V	APCO-GS-AP-MW-17V	APCO_Gorgas_AshPond				GW	G	2/14/2022	12:54	1		X			X	X	X					
4	BC03253	MW-36H	APCO-GS-AP-MW-36H	APCO_Gorgas_AshPond				GW	G	2/14/2022	15:28	1		X			X	X	X					
5																								
6																								
7																								
8																								
9																								
10																								
11																								
12																								

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
	Laura Midkiff/ APC GTL	3/2/2022	8:40				

<b>SAMPLER NAME AND SIGNATURE</b>		TEMP in C Received on Ice (Y/N) Custody Sealed Cooler (Y/N) Samples Intact (Y/N)
PRINT Name of SAMPLER: DALLAS GENTRY		
SIGNATURE of SAMPLER:	DATE Signed:	

# CHAIN-OF-CUSTODY / Analytical Request Document

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**Section A**

**Section B**

**Section C**

<b>Required Client Information:</b>		<b>Required Project Information:</b>		<b>Invoice Information:</b>	
Company: Alabama Power Company		Report To: Laura Midkiff		Attention: Laura Midkiff	
Address: 744 Highway 87 GSC Bldg #8 Calera, AL 35040		Copy To: Brooke Caton & Renee Jernigan		Company Name: Alabama Power Co.	
Email To: <a href="mailto:lbmidkif@southernco.com">lbmidkif@southernco.com</a>		Purchase Order #: APC10755638		Address: 744 Highway 87 GSC Bldg #8	
Phone: 205-664-6197 Fax:		Project Name: Plant Gorgas Ash Pond		Pace Quote: CCR	
Requested Due Date: Normal		Project Number: WMWGORAP_1350		Pace Project Manager: Alexis Ozoroski	
				Pace Profile #: 13805	

Regulatory Agency
State / Location
AL

ITEM #	SAMPLE ID One Character per box. (A-Z, 0-9 /, -) Sample Ids must be unique	Description	Station Name Location_Code	Site Name Facility_ID	Sample Duplicate	Matrix Spike/Matrix Spike Duplicate	Field Filtered	MATRIX CODE	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED		Requested Analysis Filtered (Y/N)											
										DATE	TIME	# OF CONTAINERS	Preservatives			Analyses Test	EPA 9315	EPA 9320	Total Radium Sum	Total Sulfide	Residual Chlorine (Y/N)		
													Unpreserved	NaOH+ZnAcetate	HNO3								
1	BC03254	MW-6S	APCO-GS-AP-MW-6S	APCO_Gorgas_AshPond				GW	G	2/14/2022	11:18	1		X			X	X	X				
2	BC03255	MW-6S DUP	APCO-GS-AP-MW-6S	APCO_Gorgas_AshPond	X			GW	G	2/14/2022	11:18	1		X			X	X	X				
3	BC03256	MW-6D	APCO-GS-AP-MW-6D	APCO_Gorgas_AshPond		X		GW	G	2/14/2022	12:34	3		X			X	X	X				
4	BC03257	MW-23H	APCO-GS-AP-MW-23H	APCO_Gorgas_AshPond				GW	G	2/14/2022	13:47	1		X			X	X	X				
5	BC03258	MW-23H DUP	APCO-GS-AP-MW-23H	APCO_Gorgas_AshPond	X			GW	G	2/14/2022	13:47	1		X			X	X	X				
6																							
7																							
8																							
9																							
10																							
11																							
12																							

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
	Laura Midkiff/ APC GTL	3/2/2022	8:40				

<b>SAMPLER NAME AND SIGNATURE</b>		TEMP in C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
PRINT Name of SAMPLER:					
SIGNATURE of SAMPLER:					

TJ DAUGHERTY  
DATE Signed:

# CHAIN-OF-CUSTODY / Analytical Request Document

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**Section A**

**Section B**

**Section C**

<b>Required Client Information:</b>		<b>Required Project Information:</b>		<b>Invoice Information:</b>	
Company: Alabama Power Company	Report To: Laura Midkiff	Attention: Laura Midkiff		Company Name: Alabama Power Co.	
Address: 744 Highway 87 GSC Bldg #8 Calera, AL 35040		Copy To: Brooke Caton & Renee Jernigan		Address: 744 Highway 87 GSC Bldg #8	
Email To: <a href="mailto:lbmidkif@southernco.com">lbmidkif@southernco.com</a>	Purchase Order #: APC10755638	Pace Quote: CCR		Pace Project Manager: Alexis Ozoroski	
Phone: 205-664-6197   Fax:	Project Name: Plant Gorgas Ash Pond	Pace Profile #: 13805		Regulatory Agency	
Requested Due Date: Normal	Project Number: WMWGORAP_1350			State / Location	
				AL	

ITEM #	SAMPLE ID One Character per box. (A-Z, 0-9 / , -) Sample Ids must be unique	Description	Station Name Location_Code	Site Name Facility_ID	Sample Duplicate	Matrix Spike/Matrix Spike Duplicate	Field Filtered	MATRIX CODE	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED		Requested Analysis Filtered (Y/N)												
										DATE	TIME	# OF CONTAINERS	Preservatives			Analyses Test	Y/N	EPA 9315	EPA 9320	Total Radium Sum	Total Sulfide	Residual Chlorine (Y/N)		
													UNPRESERVED	NaOH+ZnAcetate	HNO3									
1	BC03259	MW-28H	APCO-GS-AP-MW-28H	APCO_Gorgas_AshPond				GW	G	2/14/2022	12:42	1		X			X	X	X					
2	BC03260	MW-28H DUP	APCO-GS-AP-MW-28H	APCO_Gorgas_AshPond	X			GW	G	2/14/2022	12:42	1		X			X	X	X					
3	BC03261	MW-29H	APCO-GS-AP-MW-29H	APCO_Gorgas_AshPond				GW	G	2/14/2022	14:30	1		X			X	X	X					
4	BC03262	FB-3	APCO-GS-AP-FB-03	APCO_Gorgas_AshPond				GW	G	2/14/2022	15:10	1		X			X	X	X					
5	BC03263	MW-32H	APCO-GS-AP-MW-32H	APCO_Gorgas_AshPond				GW	G	2/14/2022	15:45	1		X			X	X	X					
6																								
7																								
8																								
9																								
10																								
11																								
12																								

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
	Laura Midkiff/ APC GTL	3/2/2022	8:40				

<b>SAMPLER NAME AND SIGNATURE</b>		TEMP in C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
PRINT Name of SAMPLER:					
SIGNATURE of SAMPLER: Anthony Goggins					
DATE Signed:					

# CHAIN-OF-CUSTODY / Analytical Request Document

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**Section A**

**Section B**

**Section C**

<b>Required Client Information:</b>		<b>Required Project Information:</b>		<b>Invoice Information:</b>	
Company: Alabama Power Company		Report To: Laura Midkiff		Attention: Laura Midkiff	
Address: 744 Highway 87 GSC Bldg #8 Calera, AL 35040		Copy To: Brooke Caton & Renee Jernigan		Company Name: Alabama Power Co.	
Email To: <a href="mailto:lbmidkif@southernco.com">lbmidkif@southernco.com</a>		Purchase Order #: APC10755638		Address: 744 Highway 87 GSC Bldg #8	
Phone: 205-664-6197 Fax:		Project Name: Plant Gorgas Ash Pond		Pace Quote: CCR	
Requested Due Date: Normal		Project Number: WMWGORAP_1350		Pace Project Manager: Alexis Ozoroski	
				Pace Profile #: 13805	

Regulatory Agency
State / Location
AL

ITEM #	SAMPLE ID One Character per box. (A-Z, 0-9 / , -) Sample Ids must be unique	Description	Station Name Location_Code	Site Name Facility_ID	Sample Duplicate	Matrix Spike/Matrix Spike Duplicate	Field Filtered	MATRIX CODE	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED		Requested Analysis Filtered (Y/N)												
										DATE	TIME	# OF CONTAINERS	Preservatives			Analyses Test	Y/N	EPA 9315	EPA 9320	Total Radium Sum	Total Sulfide	Residual Chlorine (Y/N)		
													UNPRESERVED	NaOH+ZnAcetate	HNO3									
1	BC03539	PZ-16	APCO-GS-AP-PZ-16	APCO_Gorgas_AshPond		X		GW	G	2/15/2022	11:08	3		X			X	X	X					
2	BC03540	MW-16D	APCO-GS-AP-MW-16D	APCO_Gorgas_AshPond				GW	G	2/15/2022	12:48	1		X			X	X	X					
3	BC03541	MW-16S	APCO-GS-AP-MW-16S	APCO_Gorgas_AshPond				GW	G	2/15/2022	13:52	1		X			X	X	X					
4	BC03542	FB-2	APCO-GS-AP-FB-02	APCO_Gorgas_AshPond				GW	G	2/15/2022	14:45	1		X			X	X	X					
5	BC03543	MW-15	APCO-GS-AP-MW-15	APCO_Gorgas_AshPond				GW	G	2/16/2022	10:39	1		X			X	X	X					
6	BC03544	MW-15V	APCO-GS-AP-MW-15V	APCO_Gorgas_AshPond				GW	G	2/16/2022	11:45	1		X			X	X	X					
7	BC03545	MW-25HA	APCO-GS-AP-MW-25HA	APCO_Gorgas_AshPond				GW	G	2/16/2022	13:22	1		X			X	X	X					
8																								
9																								
10																								
11																								
12																								

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
	Laura Midkiff/ APC GTL	3/2/2022	8:40				

<b>SAMPLER NAME AND SIGNATURE</b>		TEMP in C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
PRINT Name of SAMPLER:					
SIGNATURE of SAMPLER:					

Dallas Gentry

DATE Signed:

# CHAIN-OF-CUSTODY / Analytical Request Document

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<b>Section A</b>	<b>Section B</b>	<b>Section C</b>	
<b>Required Client Information:</b>	<b>Required Project Information:</b>	<b>Invoice Information:</b>	Page : 7 Of 13
Company: Alabama Power Company	Report To: Laura Midkiff	Attention: Laura Midkiff	
Address: 744 Highway 87 GSC Bldg #8 Calera, AL 35040	Copy To: Brooke Caton & Renee Jernigan	Company Name: Alabama Power Co.	
Email To: <a href="mailto:lbmidkif@southernco.com">lbmidkif@southernco.com</a>	Purchase Order #: APC10755638	Address: 744 Highway 87 GSC Bldg #8	Regulatory Agency
Phone: 205-664-6197 Fax:	Project Name: Plant Gorgas Ash Pond	Pace Quote: CCR	State / Location
Requested Due Date: Normal	Project Number: WMWGORAP_1350	Pace Project Manager: Alexis Ozoroski	AL
		Pace Profile #: 13805	

ITEM #	SAMPLE ID One Character per box. (A-Z, 0-9 / , -) Sample Ids must be unique	Description	Station Name Location_Code	Site Name Facility_ID	Sample Duplicate	Matrix Spike/Matrix Spike Duplicate	Field Filtered	MATRIX CODE	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED		Requested Analysis Filtered (Y/N)												
										DATE	TIME	# OF CONTAINERS	Preservatives			Analyses Test	Y/N	EPA 9315	EPA 9320	Total Radium Sum	Total Sulfide	Residual Chlorine (Y/N)		
													Unpreserved	NaOH+ZnAcetate	HNO3									
1	BC03546	MW-41HD	APCO-GS-AP-MW-41HD	APCO_Gorgas_AshPond				GW	G	2/15/2022	9:25	1		X			X	X	X					
2	BC03547	MW-24H	APCO-GS-AP-MW-24H	APCO_Gorgas_AshPond				GW	G	2/15/2022	10:37	1		X			X	X	X					
3	BC03548	MW-24H DUP	APCO-GS-AP-MW-24H	APCO_Gorgas_AshPond	X			GW	G	2/15/2022	10:37	1		X			X	X	X					
4	BC03549	MW-40H	APCO-GS-AP-MW-40H	APCO_Gorgas_AshPond				GW	G	2/15/2022	12:25	1		X			X	X	X					
5	BC03550	MW-26H	APCO-GS-AP-MW-26H	APCO_Gorgas_AshPond				GW	G	2/15/2022	14:13	1		X			X	X	X					
6	BC03551	MW-42H	APCO-GS-AP-MW-42H	APCO_Gorgas_AshPond		X		GW	G	2/16/2022	10:43	3		X			X	X	X					
7	BC03552	MW-8	APCO-GS-AP-MW-8	APCO_Gorgas_AshPond				GW	G	2/16/2022	12:14	1		X			X	X	X					
8	BC03553	MW-3	APCO-GS-AP-MW-3	APCO_Gorgas_AshPond				GW	G	2/16/2022	14:57	1		X			X	X	X					
9	BC03554	FB-1	APCO-GS-AP-FB-01	APCO_Gorgas_AshPond				GW	G	2/16/2022	15:50	1		X			X	X	X					
10																								
11																								
12																								

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
	Laura Midkiff/ APC GTL	3/2/2022	8:40				

<b>SAMPLER NAME AND SIGNATURE</b>		TEMP in C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
PRINT Name of SAMPLER:					
SIGNATURE of SAMPLER:					
TJ DAUGHERTY					
		DATE Signed:			

# CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

**Section A**

**Section B**

**Section C**

<b>Required Client Information:</b>		<b>Required Project Information:</b>		<b>Invoice Information:</b>	
Company: Alabama Power Company		Report To: Laura Midkiff		Attention: Laura Midkiff	
Address: 744 Highway 87 GSC Bldg #8 Calera, AL 35040		Copy To: Brooke Caton & Renee Jernigan		Company Name: Alabama Power Co.	
Email To: <a href="mailto:lbmidkif@southernco.com">lbmidkif@southernco.com</a>		Purchase Order #: APC10755638		Address: 744 Highway 87 GSC Bldg #8	
Phone: 205-664-6197 Fax:		Project Name: Plant Gorgas Ash Pond		Pace Quote: CCR	
Requested Due Date: Normal		Project Number: WMWGORAP_1350		Pace Project Manager: Alexis Ozoroski	
				Pace Profile #: 13805	

Regulatory Agency
State / Location
AL

ITEM #	SAMPLE ID One Character per box. (A-Z, 0-9 /, -) Sample Ids must be unique	Description	Station Name Location_Code	Site Name Facility_ID	Sample Duplicate	Matrix Spike/Matrix Spike Duplicate	Field Filtered	MATRIX CODE	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED		Requested Analysis Filtered (Y/N)												
										DATE	TIME	# OF CONTAINERS	Preservatives			Analyses Test	Y/N	EPA 9315	EPA 9320	Total Radium Sum	Total Sulfide	Residual Chlorine (Y/N)		
													Unpreserved	NaOH+ZnAcetate	HNO3									
1	BC03974	MW-43H	APCO-GS-AP-MW-43H	APCO_Gorgas_AshPond				GW	G	2/21/2022	11:43	1		X			X	X	X					
2	BC03975	PZ-18R	APCO-GS-AP-PZ-18R	APCO_Gorgas_AshPond				GW	G	2/21/2022	14:40	1		X			X	X	X					
3	BC03976	MW-36V	APCO-GS-AP-MW-36V	APCO_Gorgas_AshPond				GW	G	2/22/2022	10:06	1		X			X	X	X					
4	BC03977	MW-27HR	APCO-GS-AP-MW-27HR	APCO_Gorgas_AshPond				GW	G	2/22/2022	12:03	1		X			X	X	X					
5	BC03978	FB-6	APCO-GS-AP-FB-06	APCO_Gorgas_AshPond				GW	G	2/22/2022	12:40	1		X			X	X	X					
6	BC03979	MW-18R	APCO-GS-AP-MW-18R	APCO_Gorgas_AshPond				GW	G	2/22/2022	13:42	1		X			X	X	X					
7	BC03980	MW-18R DUP	APCO-GS-AP-MW-18R	APCO_Gorgas_AshPond	X			GW	G	2/22/2022	13:42	1		X			X	X	X					
8	BC03981	MW-18VR	APCO-GS-AP-MW-18VR	APCO_Gorgas_AshPond				GW	G	2/22/2022	15:15	1		X			X	X	X					
9	BC03982	MW-45V	APCO-GS-AP-MW-45V	APCO_Gorgas_AshPond				GW	G	2/23/2022	11:29	1		X			X	X	X					
10	BC03983	MW-03V	APCO-GS-AP-MW-3V	APCO_Gorgas_AshPond				GW	G	2/23/2022	12:49	1		X			X	X	X					
11																								
12																								

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
	Laura Midkiff/ APC GTL	3/2/2022	8:40				

<b>SAMPLER NAME AND SIGNATURE</b>		TEMP in C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
PRINT Name of SAMPLER:					
SIGNATURE of SAMPLER:					

DALLAS GENTRY  
DATE Signed:

# CHAIN-OF-CUSTODY / Analytical Request Document

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**Section A**

**Section B**

**Section C**

<b>Required Client Information:</b>		<b>Required Project Information:</b>		<b>Invoice Information:</b>	
Company: Alabama Power Company		Report To: Laura Midkiff		Attention: Laura Midkiff	
Address: 744 Highway 87 GSC Bldg #8 Calera, AL 35040		Copy To: Brooke Caton & Renee Jernigan		Company Name: Alabama Power Co.	
Email To: <a href="mailto:lbmidkif@southernco.com">lbmidkif@southernco.com</a>		Purchase Order #: APC10755638		Address: 744 Highway 87 GSC Bldg #8	
Phone: 205-664-6197 Fax:		Project Name: Plant Gorgas Ash Pond		Pace Quote: CCR	
Requested Due Date: Normal		Project Number: WMWGORAP_1350		Pace Project Manager: Alexis Orozski	
				Pace Profile #: 13805	

Regulatory Agency
State / Location
AL

ITEM #	SAMPLE ID One Character per box. (A-Z, 0-9 / , -) Sample Ids must be unique	Description	Station Name Location_Code	Site Name Facility_ID	Sample Duplicate	Matrix Spike/Matrix Spike Duplicate	Field Filtered	MATRIX CODE	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED		Requested Analysis Filtered (Y/N)											
										DATE	TIME	# OF CONTAINERS	Preservatives			Analyses Test	EPA 9315	EPA 9320	Total Radium Sum	Total Sulfide	Residual Chlorine (Y/N)		
													Unpreserved	NaOH+ZnAcetate	HNO3								
1	BC03984	MW-9V	APCO-GS-AP-MW-9V	APCO_Gorgas_AshPond				GW	G	2/21/2022	12:08	1		X			X	X	X				
2	BC03985	MW-38H	APCO-GS-AP-MW-38H	APCO_Gorgas_AshPond				GW	G	2/22/2022	9:35	1		X			X	X	X				
3	BC03986	MW-19	APCO-GS-AP-MW-19	APCO_Gorgas_AshPond				GW	G	2/22/2022	11:18	1		X			X	X	X				
4	BC03987	MW-19 DUP	APCO-GS-AP-MW-19	APCO_Gorgas_AshPond	X			GW	G	2/22/2022	11:18	1		X			X	X	X				
5	BC03988	MW-2	APCO-GS-AP-MW-2	APCO_Gorgas_AshPond				GW	G	2/22/2022	13:17	1		X			X	X	X				
6	BC03989	MW-12V	APCO-GS-AP-MW-12V	APCO_Gorgas_AshPond				GW	G	2/23/2022	12:33	1		X			X	X	X				
7	BC03990	FB-5	APCO-GS-AP-FB-05	APCO_Gorgas_AshPond				GW	G	2/23/2022	13:30	1		X			X	X	X				
8																							
9																							
10																							
11																							
12																							

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
	Laura Midkiff/ APC GTL	3/2/2022	8:40				

<b>SAMPLER NAME AND SIGNATURE</b>		TEMP in C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
PRINT Name of SAMPLER:					
SIGNATURE of SAMPLER:					
TJ DAUGHERTY					
		DATE Signed:			

# CHAIN-OF-CUSTODY / Analytical Request Document

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**Section A**

**Section B**

**Section C**

<b>Required Client Information:</b>		<b>Required Project Information:</b>		<b>Invoice Information:</b>	
Company: Alabama Power Company	Report To: Laura Midkiff	Attention: Laura Midkiff		Company Name: Alabama Power Co.	
Address: 744 Highway 87 GSC Bldg #8 Calera, AL 35040	Copy To: Brooke Caton & Renee Jernigan		Address: 744 Highway 87 GSC Bldg #8		
Email To: <a href="mailto:lbmidkif@southernco.com">lbmidkif@southernco.com</a>	Purchase Order #: <b>APC10755638</b>		Pace Quote: CCR		
Phone: 205-664-6197 Fax:	Project Name: <b>Plant Gorgas Ash Pond</b>		Pace Project Manager: <a href="#">Alexis Ozoroski</a>		
Requested Due Date: Normal	Project Number: <b>WMWGORAP_1350</b>		Pace Profile #: 13805		

<b>Regulatory Agency</b>
<b>State / Location</b>
AL

ITEM #	SAMPLE ID One Character per box. (A-Z, 0-9 /, -) Sample Ids must be unique	Description	Station Name Location_Code	Site Name Facility_ID	Sample Duplicate	Matrix Spike/Matrix Spike Duplicate	Field Filtered	MATRIX CODE	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED		Requested Analysis Filtered (Y/N)												
										DATE	TIME	# OF CONTAINERS	Preservatives			Analyses Test	Y/N	EPA 9315	EPA 9320	Total Radium Sum	Total Sulfide	Residual Chlorine (Y/N)		
													UNPRESERVED	NaOH+ZnAcetate	HNO3									
1	BC03991	MW-31V	APCO-GS-AP-MW-31V	APCO_Gorgas_AshPond				GW	G	2/22/2022	13:07	1		X			X	X	X					
2	BC03992	MW-46	APCO-GS-AP-MW-46	APCO_Gorgas_AshPond				GW	G	2/23/2022	10:30	1		X			X	X	X					
3	BC03993	FB-4	APCO-GS-AP-FB-04	APCO_Gorgas_AshPond				GW	G	2/23/2022	11:00	1		X			X	X	X					
4	BC03994	MW-23V	APCO-GS-AP-MW-23V	APCO_Gorgas_AshPond				GW	G	2/23/2022	13:33	1		X			X	X	X					
5																								
6																								
7																								
8																								
9																								
10																								
11																								
12																								

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
	Laura Midkiff/ APC GTL	3/2/2022	8:40				

<b>SAMPLER NAME AND SIGNATURE</b>		TEMP in C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
PRINT Name of SAMPLER:					
ANTHONY GOGGINS					
SIGNATURE of SAMPLER:		DATE Signed:			



# CHAIN-OF-CUSTODY / Analytical Request Document

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<b>Section A</b>	<b>Section B</b>	<b>Section C</b>	
<b>Required Client Information:</b>	<b>Required Project Information:</b>	<b>Invoice Information:</b>	Page : 11 Of 13
Company: Alabama Power Company	Report To: Laura Midkiff	Attention: Laura Midkiff	
Address: 744 Highway 87 GSC Bldg #8 Calera, AL 35040	Copy To: Brooke Caton & Renee Jernigan	Company Name: Alabama Power Co.	
Email To: <a href="mailto:lbmidkif@southernco.com">lbmidkif@southernco.com</a>	Purchase Order #: <b>APC10755638</b>	Address: 744 Highway 87 GSC Bldg #8	<b>Regulatory Agency</b>
Phone: 205-664-6197 Fax:	Project Name: <b>Plant Gorgas Ash Pond</b>	Pace Quote: CCR	
Requested Due Date: Normal	Project Number: <b>WMWGORAP_1350</b>	Pace Project Manager: <a href="#">Alexis Ozoroski</a>	<b>State / Location</b>
		Pace Profile #: 13805	AL

ITEM #	SAMPLE ID One Character per box. (A-Z, 0-9 /, -) Sample Ids must be unique	Description	Station Name Location_Code	Site Name Facility_ID	Sample Duplicate	Matrix Spike/Matrix Spike Duplicate	Field Filtered	MATRIX CODE	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED		Requested Analysis Filtered (Y/N)												
										DATE	TIME	# OF CONTAINERS	Preservatives			Analyses Test	Y/N	EPA 9315	EPA 9320	Total Radium Sum	Total Sulfide	Residual Chlorine (Y/N)		
													Unpreserved	NaOH+ZnAcetate	HNO3									
1	BC04387	MW-37HR	APCO-GS-AP-MW-37HR	APCO_Gorgas_AshPond				GW	G	2/28/2022	12:20	1		X			X	X	X					
2	BC04388	MW-47	APCO-GS-AP-MW-47	APCO_Gorgas_AshPond				GW	G	2/28/2022	14:12	1		X			X	X	X					
3	BC04389	MW-14R	APCO-GS-AP-MW-14R	APCO_Gorgas_AshPond				GW	G	2/28/2022	15:33	1		X			X	X	X					
4	BC04390	MW-13R	APCO-GS-AP-MW-13R	APCO_Gorgas_AshPond				GW	G	3/1/2022	8:34	1		X			X	X	X					
5	BC04391	MW-10R	APCO-GS-AP-MW-10R	APCO_Gorgas_AshPond				GW	G	3/1/2022	12:07	1		X			X	X	X					
6																								
7																								
8																								
9																								
10																								
11																								
12																								

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
	Laura Midkiff/ APC GTL	3/2/2022	8:40				

<b>SAMPLER NAME AND SIGNATURE</b>		TEMP in C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
PRINT Name of SAMPLER:					
DALLAS GENTRY					
SIGNATURE of SAMPLER:		DATE Signed:			

# CHAIN-OF-CUSTODY / Analytical Request Document

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**Section A**

**Section B**

**Section C**

<b>Required Client Information:</b>		<b>Required Project Information:</b>		<b>Invoice Information:</b>	
Company: Alabama Power Company		Report To: Laura Midkiff		Attention: Laura Midkiff	
Address: 744 Highway 87 GSC Bldg #8 Calera, AL 35040		Copy To: Brooke Caton & Renee Jernigan		Company Name: Alabama Power Co.	
Email To: <a href="mailto:lbmidkif@southernco.com">lbmidkif@southernco.com</a>		Purchase Order #: APC10755638		Address: 744 Highway 87 GSC Bldg #8	
Phone: 205-664-6197 Fax:		Project Name: Plant Gorgas Ash Pond		Pace Quote: CCR	
Requested Due Date: Normal		Project Number: WMWGORAP_1350		Pace Project Manager: Alexis Ozoroski	
				Pace Profile #: 13805	

<b>Regulatory Agency</b>
<b>State / Location</b>
AL

ITEM #	SAMPLE ID One Character per box. (A-Z, 0-9 /, -) Sample Ids must be unique	Description	Station Name Location_Code	Site Name Facility_ID	Sample Duplicate	Matrix Spike/Matrix Spike Duplicate	Field Filtered	MATRIX CODE	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED		Requested Analysis Filtered (Y/N)												
										DATE	TIME	# OF CONTAINERS	Preservatives			Analyses Test	Y/N	EPA 9315	EPA 9320	Total Radium Sum	Total Sulfide	Residual Chlorine (Y/N)		
													UNPRESERVED	NaOH+ZnAcetate	HNO3									
1	BC04392	MW-12	APCO-GS-AP-MW-12	APCO_Gorgas_AshPond				GW	G	2/28/2022	14:40	1		X			X	X	X					
2	BC04393	MW-09R	APCO-GS-AP-MW-09R	APCO_Gorgas_AshPond				GW	G	3/1/2022	12:04	1		X			X	X	X					
3	BC04394	EB-1	APCO-GS-AP-EB-1	APCO_Gorgas_AshPond				GW	G	3/1/2022	12:30	1		X			X	X	X					
4																								
5																								
6																								
7																								
8																								
9																								
10																								
11																								
12																								

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
	Laura Midkiff/ APC GTL	3/2/2022	8:40				

<b>SAMPLER NAME AND SIGNATURE</b>		TEMP in C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
PRINT Name of SAMPLER:					
SIGNATURE of SAMPLER:					
TJ DAUGHERTY					
		DATE Signed:			

# CHAIN-OF-CUSTODY / Analytical Request Document

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Company: Alabama Power Company	Report To: Laura Midkiff	Attention: Laura Midkiff		Company Name: Alabama Power Co.	
Address: 744 Highway 87 GSC Bldg #8 Calera, AL 35040	Copy To: Brooke Caton & Renee Jernigan		Address: 744 Highway 87 GSC Bldg #8		
Email To: <a href="mailto:lmidkif@southernco.com">lmidkif@southernco.com</a>	Purchase Order #: APC10755638		Pace Quote: CCR		
Phone: 205-664-6197 Fax:	Project Name: Plant Gorgas Ash Pond		Pace Project Manager: Alexis Ozoroski		
Requested Due Date: Normal	Project Number: WMWGORAP_1350		Pace Profile #: 13805		

<b>Regulatory Agency</b>
<b>State / Location</b>
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ITEM #	SAMPLE ID One Character per box. (A-Z, 0-9 /, -) Sample Ids must be unique	Description	Station Name Location_Code	Site Name Facility_ID	Sample Duplicate	Matrix Spike/Matrix Spike Duplicate	Field Filtered	MATRIX CODE	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED		# OF CONTAINERS	Preservatives			Analyses Test Y/N	EPA 9315	EPA 9320	Total Radium Sum	Total Sulfide	Residual Chlorine (Y/N)	
										DATE	TIME		Unpreserved	NaOH+ZnAcetate	HNO3							
										START												
1	BC04395	MW-01R	APCO-GS-AP-MW-01R	APCO_Gorgas_AshPond					GW	G	3/1/2022	8:54	1		X			X	X	X		
2	BC04396	MW-11R	APCO-GS-AP-MW-11R	APCO_Gorgas_AshPond					GW	G	3/1/2022	11:20	1		X			X	X	X		
3	BC04397	MW-05R	APCO-GS-AP-MW-05R	APCO_Gorgas_AshPond					GW	G	3/1/2022	13:34	1		X			X	X	X		
4																						
5																						
6																						
7																						
8																						
9																						
10																						
11																						
12																						

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
	Laura Midkiff/ APC GTL	3/2/2022	8:40				

<b>SAMPLER NAME AND SIGNATURE</b>		TEMP in C Received on Ice (Y/N) Custody Sealed Cooler (Y/N) Samples Intact (Y/N)
PRINT Name of SAMPLER: ANTHONY GOGGINS		
SIGNATURE of SAMPLER:	DATE Signed:	



## Quality Control Sample Performance Assessment

Test: Ra-228  
Analyst: JSM  
Date: 3/29/2022  
Worklist: 65664  
Matrix: WT

**Analyst Must Manually Enter All Fields Highlighted in Yellow.**

Method Blank Assessment		
MB Sample ID	2378699	
MB concentration:	0.492	
M/B 2 Sigma CSU:	0.352	
MB MDC:	0.677	
MB Numerical Performance Indicator:	2.74	
MB Status vs Numerical Indicator:	Warning	
MB Status vs. MDC:	Pass	

Laboratory Control Sample Assessment	LCSD (Y or N)?	N
		<b>LCS65664</b>
Count Date:	3/31/2022	
Spike I.D.:	22-016	
Decay Corrected Spike Concentration (pCi/mL):	36.277	
Volume Used (mL):	0.10	
Aliquot Volume (L, g, F):	0.808	
Target Conc. (pCi/L, g, F):	4.489	
Uncertainty (Calculated):	0.220	
Result (pCi/L, g, F):	3.707	
LCS/LCSD 2 Sigma CSU (pCi/L, g, F):	0.903	
Numerical Performance Indicator:	-1.65	
Percent Recovery:	82.58%	
Status vs Numerical Indicator:	N/A	
Status vs Recovery:	Pass	
Upper % Recovery Limits:	135%	
Lower % Recovery Limits:	60%	

Sample Matrix Spike Control Assessment	MS/MSD 1	MS/MSD 2
Sample Collection Date:	2/14/2022	
Sample I.D.:	30470864009	
Sample MS I.D.:	30470864071	
Sample MSD I.D.:	30470864072	
Spike I.D.:	22-016	
MS/MSD Decay Corrected Spike Concentration (pCi/mL):	36.822	
Spike Volume Used in MS (mL):	0.20	
Spike Volume Used in MSD (mL):	0.20	
MS Aliquot (L, g, F):	0.817	
MS Target Conc.(pCi/L, g, F):	9.015	
MSD Aliquot (L, g, F):	0.813	
MSD Target Conc. (pCi/L, g, F):	9.063	
MS Spike Uncertainty (calculated):	0.442	
MSD Spike Uncertainty (calculated):	0.444	
Sample Result:	0.408	
Sample Result 2 Sigma CSU (pCi/L, g, F):	0.355	
Sample Matrix Spike Result:	7.422	
Matrix Spike Result 2 Sigma CSU (pCi/L, g, F):	1.539	
Sample Matrix Spike Duplicate Result:	6.717	
Matrix Spike Duplicate Result 2 Sigma CSU (pCi/L, g, F):	1.446	
MS Numerical Performance Indicator:	-2.392	
MSD Numerical Performance Indicator:	-3.475	
MS Percent Recovery:	77.80%	
MSD Percent Recovery:	69.61%	
MS Status vs Numerical Indicator:	Warning	
MSD Status vs Numerical Indicator:	Fail****	
MS Status vs Recovery:	Pass	
MSD Status vs Recovery:	Pass	
MS/MSD Upper % Recovery Limits:	135%	
MS/MSD Lower % Recovery Limits:	60%	

Duplicate Sample Assessment		
Sample I.D.:		Enter Duplicate sample IDs if other than LCS/LCSD in the space below.
Duplicate Sample I.D.:		
Sample Result (pCi/L, g, F):		
Sample Result 2 Sigma CSU (pCi/L, g, F):		
Sample Duplicate Result (pCi/L, g, F):		
Sample Duplicate Result 2 Sigma CSU (pCi/L, g, F):		
Are sample and/or duplicate results below RL?	See Below ##	
Duplicate Numerical Performance Indicator:		
Duplicate RPD:		
Duplicate Status vs Numerical Indicator:		
Duplicate Status vs RPD:		
% RPD Limit:		

Matrix Spike/Matrix Spike Duplicate Sample Assessment		
Sample I.D.:	30470864009	
Sample MS I.D.:	30470864071	
Sample MSD I.D.:	30470864072	
Sample Matrix Spike Result:	7.422	
Matrix Spike Result 2 Sigma CSU (pCi/L, g, F):	1.539	
Sample Matrix Spike Duplicate Result:	6.717	
Matrix Spike Duplicate Result 2 Sigma CSU (pCi/L, g, F):	1.446	
Duplicate Numerical Performance Indicator:	0.654	
(Based on the Percent Recoveries) MS/MSD Duplicate RPD:	11.11%	
MS/MSD Duplicate Status vs Numerical Indicator:	Pass	
MS/MSD Duplicate Status vs RPD:	Pass	
% RPD Limit:	36%	

## Evaluation of duplicate precision is not applicable if either the sample or duplicate results are below the MDC.

Comments:

# Quality Control Sample Performance Assessment

**Analyst Must Manually Enter All Fields Highlighted in Yellow.**



Test: Ra-228  
Analyst: VAL  
Date: 3/31/2022  
Worklist: 65666  
Matrix: W1

**Method Blank Assessment**

MB Sample ID: 2378751  
 MB concentration: 0.103  
 MB 2 Sigma CSU: 0.303  
 MB MDC: 0.681  
 MB Numerical Performance Indicator: 0.67  
 MB Status vs Numerical Indicator: Pass  
 MB Status vs. MDC: Pass

**Laboratory Control Sample Assessment**

LCS (Y or N)?	N
LCS65666	LCS065666

Count Date: 4/5/2022  
 Spike I.D.: 22-016  
 Decay Corrected Spike Concentration (pCi/mL): 36.217  
 Volume Used (mL): 0.10  
 Aliquot Volume (L, g, F): 0.820  
 Target Conc. (pCi/L, g, F): 4.415  
 Uncertainty (Calculated): 0.216  
 Result (pCi/L, g, F): 3.641  
 LCS/LCSD 2 Sigma CSU (pCi/L, g, F): 0.870  
 Numerical Performance Indicator: -1.69  
 Percent Recovery: 82.47%  
 Status vs Numerical Indicator: N/A  
 Status vs Recovery: Pass  
 Upper % Recovery Limits: 135%  
 Lower % Recovery Limits: 60%

**Duplicate Sample Assessment**

Sample I.D.:  
 Duplicate Sample I.D.:  
 Duplicate Result (pCi/L, g, F):  
 Sample Result 2 Sigma CSU (pCi/L, g, F):  
 Sample Duplicate Result (pCi/L, g, F):  
 Sample Duplicate Result 2 Sigma CSU (pCi/L, g, F):  
 Are sample and/or duplicate results below RL?  
 Duplicate Numerical Performance Indicator:  
 Duplicate RPD:  
 Duplicate Status vs Numerical Indicator:  
 Duplicate Status vs RPD:  
 % RPD Limit:

Enter Duplicate sample IDs if other than LCS/LCSD in the space below.

See Below ##

**Sample Matrix Spike Control Assessment**

Sample Collection Date:  
 Sample I.D.:  
 Sample MS I.D.:  
 Sample MSD I.D.:

MS/MSD 1  
 2/14/2022  
 30470864015  
 30470864073  
 30470864074

Spike I.D.:  
 22-016  
 36.821

MS/MSD Decay Corrected Spike Concentration (pCi/mL):  
 Spike Volume Used in MS (mL):  
 Spike Volume Used in MSD (mL):  
 MS Aliquot (L, g, F):  
 MS Target Conc. (pCi/L, g, F):  
 MSD Aliquot (L, g, F):  
 MSD Target Conc. (pCi/L, g, F):  
 MS Spike Uncertainty (calculated):  
 MSD Spike Uncertainty (calculated):

MS/MSD 2  
 214/2022  
 0864015  
 0864073  
 0864074

0.20  
 0.20  
 0.829  
 8.888  
 0.819  
 8.987  
 0.435  
 0.440

Sample Result:  
 Sample Result 2 Sigma CSU (pCi/L, g, F):  
 Sample Matrix Spike Result:  
 Matrix Spike Result 2 Sigma CSU (pCi/L, g, F):  
 Sample Matrix Spike Duplicate Result:  
 Matrix Spike Duplicate Result 2 Sigma CSU (pCi/L, g, F):  
 MS Numerical Performance Indicator:  
 MSD Numerical Performance Indicator:  
 MS Percent Recovery:  
 MSD Percent Recovery:  
 MS Status vs Numerical Indicator:  
 MSD Status vs Numerical Indicator:  
 MS Status vs Recovery:  
 MSD Status vs Recovery:  
 MS/MSD Upper % Recovery Limits:  
 MS/MSD Lower % Recovery Limits:

1.028  
 0.456  
 9.738  
 2.179  
 7.543  
 1.611  
 -0.154  
 -2.799  
 98.00%  
 72.49%  
 Pass  
 Warning  
 Pass  
 Pass  
 135%  
 60%

**Matrix Spike/Matrix Spike Duplicate Sample Assessment**

Sample I.D.:  
 Sample MS I.D.:  
 Sample MSD I.D.:

MS/MSD Duplicate Status vs RPD:  
 % RPD Limit:

30470864015  
 30470864073  
 30470864074

8.738  
 2.179  
 7.543  
 1.611  
 1.588  
 29.92%  
 Pass  
 Pass  
 36%

Matrix Spike Result 2 Sigma CSU (pCi/L, g, F):  
 Sample Matrix Spike Duplicate Result:  
 Matrix Spike Duplicate Result 2 Sigma CSU (pCi/L, g, F):  
 Duplicate Numerical Performance Indicator:  
 Duplicate RPD:  
 Duplicate Status vs Numerical Indicator:  
 Duplicate Status vs RPD:  
 % RPD Limit:

8.738  
 2.179  
 7.543  
 1.611  
 1.588  
 29.92%  
 Pass  
 Pass  
 36%

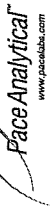
## Evaluation of duplicate precision is not applicable if either the sample or duplicate results are below the MDC.

Comments:

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# Quality Control Sample Performance Assessment



**Analyst Must Manually Enter All Fields Highlighted in Yellow.**

Test: Ra-228  
Analyst: JSM  
Date: 3/31/2022  
Worklist: 65667  
Matrix: WT

Method Blank Assessment	
MB Sample ID	2378754
MB concentration:	0.034
M/B 2 Sigma CSU:	0.180
MB MDC:	0.415
MB Numerical Performance Indicator:	0.37
MB Status vs Numerical Indicator:	Pass
MB Status vs. MDC:	Pass

Laboratory Control Sample Assessment		LCS2 (Y or N)?	N
Count Date:		LCS265667	LCS265667
Spike I.D.:		4/4/2022	
Decay Corrected Spike Concentration (pCi/mL):		22-016	
Volume Used (mL):		36.230	
Aliquot Volume (L, g, F):		0.10	
Target Conc. (pCi/L, g, F):		0.818	
Uncertainty (Calculated):		4.429	
LCS/LCS2 2 Sigma CSU (pCi/L, g, F):		0.217	
Numerical Performance Indicator:		4.679	
Percent Recovery:		1.002	
Status vs Numerical Indicator:		0.48	
Upper % Recovery Limits:		105.65%	
Lower % Recovery Limits:		N/A	
		Pass	
		135%	
		60%	

Duplicate Sample Assessment		Enter Duplicate sample IDs if other than LCS/LCS2 in the space below.
Sample I.D.:		
Duplicate Sample I.D.:		
Sample Result (pCi/L, g, F):		
Sample Result 2 Sigma CSU (pCi/L, g, F):		
Sample Duplicate Result (pCi/L, g, F):		
Sample Duplicate Result 2 Sigma CSU (pCi/L, g, F):		
Are sample and/or duplicate results below RL?		
Duplicate Numerical Performance Indicator:		
Duplicate RPD:		
Duplicate Status vs Numerical Indicator:		
Duplicate Status vs RPD:		
% RPD Limit:		

Sample Matrix Spike Control Assessment		MS/MSD 1	MS/MSD 2
Sample Collection Date:		2/16/2022	
Sample I.D.:		30470864035	
Sample MS I.D.:		30470864077	
Sample MSD I.D.:		30470864078	
Spike I.D.:		22-016	
MS/MSD Decay Corrected Spike Concentration (pCi/mL):		36.797	
Spike Volume Used in MS (mL):		0.20	
Spike Volume Used in MSD (mL):		0.20	
MS Aliquot (L, g, F):		0.812	
MS Target Conc. (pCi/L, g, F):		9.060	
MSD Aliquot (L, g, F):		0.809	
MSD Target Conc. (pCi/L, g, F):		9.098	
MS Spike Uncertainty (calculated):		0.444	
MSD Spike Uncertainty (calculated):		0.446	
Sample Result:		0.151	
Sample Result 2 Sigma CSU (pCi/L, g, F):		0.233	
Sample Matrix Spike Result:		9.627	
Matrix Spike Result 2 Sigma CSU (pCi/L, g, F):		1.950	
Sample Matrix Spike Duplicate Result:		11.585	
Sample Duplicate Result 2 Sigma CSU (pCi/L, g, F):		2.281	
MS Numerical Performance Indicator:		0.404	
MSD Numerical Performance Indicator:		1.961	
MSD Percent Recovery:		104.58%	
MS Status vs Numerical Indicator:		125.68%	
MSD Status vs Numerical Indicator:		Pass	
MS Status vs Recovery:		Pass	
MSD Status vs Recovery:		Pass	
MS/MSD Upper % Recovery Limits:		135%	
MS/MSD Lower % Recovery Limits:		60%	

Matrix Spike/Matrix Spike Duplicate Sample Assessment	
Sample I.D.:	30470864035
Sample MS I.D.:	30470864077
Sample MSD I.D.:	30470864078
Matrix Spike Result:	9.627
Matrix Spike Result 2 Sigma CSU (pCi/L, g, F):	1.950
Sample Matrix Spike Duplicate Result:	11.585
Sample Duplicate Result 2 Sigma CSU (pCi/L, g, F):	2.281
Duplicate Numerical Performance Indicator:	-1.279
Duplicate Numerical Performance Indicator (Based on the Percent Recoveries) MS/MSD Duplicate RPD:	18.32%
MS/MSD Duplicate Status vs Numerical Indicator:	Pass
MS/MSD Duplicate Status vs RPD:	Pass
% RPD Limit:	36%

## Evaluation of duplicate precision is not applicable if either the sample or duplicate results are below the MDC.

Comments:

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*Handwritten date: 4/13/22*

# Quality Control Sample Performance Assessment



**Analyst Must Manually Enter All Fields Highlighted in Yellow.**

Test: Ra-226  
Analyst: JJC2  
Date: 3/18/2022  
Worklist: 65579  
Matrix: DW

Method Blank Assessment	
MB Sample ID	2370684
MB concentration:	0.027
MB Counting Uncertainty:	0.055
MB MDC:	0.129
MB Numerical Performance Indicator:	0.95
MB Status vs Numerical Indicator:	N/A
MB Status vs. MDC:	Pass

Laboratory Control Sample Assessment	LCSD (Y or N)?	
	LCSD65579	LCSD65579
Count Date:	4/7/2022	Y
Spike I.D.:	19-033	4/7/2022
Decay Corrected Spike Concentration (pCi/mL):	24.028	24.028
Volume Used (mL):	0.10	0.10
Aliquot Volume (L, g, F):	0.503	0.505
Target Conc. (pCi/L, g, F):	4.778	4.760
Uncertainty (Calculated):	0.057	0.057
Result (pCi/L, g, F):	4.717	5.342
LCSD Counting Uncertainty (pCi/L, g, F):	0.448	0.488
Numerical Performance Indicator:	-0.26	2.32
Percent Recovery:	98.73%	112.23%
Status vs Numerical Indicator:	N/A	N/A
Upper % Recovery Limits:	Pass	Pass
Lower % Recovery Limits:	125%	125%
	75%	75%

Duplicate Sample Assessment	
Sample I.D.:	LCSD65579
Duplicate Sample I.D.:	LCSD65579
Sample Result (pCi/L, g, F):	4.717
Sample Duplicate Result (pCi/L, g, F):	0.448
Sample Duplicate Result (pCi/L, g, F):	5.342
Sample Duplicate Result Counting Uncertainty (pCi/L, g, F):	0.488
Are sample and/or duplicate results below RL?	NO
Duplicate Numerical Performance Indicator:	-1.851
(Based on the LCSD/LCSD Percent Recoveries) Duplicate RPD:	12.80%
Duplicate Status vs Numerical Indicator:	N/A
Duplicate Status vs RPD:	Pass
% RPD Limit:	25%

Sample Matrix Spike Control Assessment	MS/MSD 1	MS/MSD 2
Sample Collection Date:	2/14/2022	
Sample I.D.:	30470864015	
Sample MS I.D.:	30470864073	
Sample MSD I.D.:	30470864074	
Spike I.D.:	19-033	
MS/MSD Decay Corrected Spike Concentration (pCi/mL):	24.030	
Spike Volume Used in MS (mL):	0.20	
Spike Volume Used in MSD (mL):	0.20	
MS Aliquot (L, g, F):	0.252	
MS Target Conc. (pCi/L, g, F):	19.089	
MSD Aliquot (L, g, F):	0.250	
MSD Target Conc. (pCi/L, g, F):	19.188	
MS Spike Uncertainty (calculated):	0.229	
MSD Spike Uncertainty (calculated):	0.230	
Sample Result:	0.208	
Sample Result Counting Uncertainty (pCi/L, g, F):	0.165	
Sample Matrix Spike Result:	20.762	
Matrix Spike Result Counting Uncertainty (pCi/L, g, F):	1.350	
Sample Matrix Spike Duplicate Result:	19.852	
Matrix Spike Duplicate Result Counting Uncertainty (pCi/L, g, F):	1.281	
MS Numerical Performance Indicator:	2.081	
MSD Numerical Performance Indicator:	0.880	
MS Percent Recovery:	107.67%	
MSD Percent Recovery:	102.37%	
MS Status vs Numerical Indicator:	N/A	
MSD Status vs Numerical Indicator:	N/A	
MS Status vs Recovery:	Pass	
MSD Status vs Recovery:	Pass	
MS/MSD Upper % Recovery Limits:	125%	
MS/MSD Lower % Recovery Limits:	75%	

Matrix Spike/Matrix Spike Duplicate Sample Assessment	
Sample I.D.:	30470864015
Sample MS I.D.:	30470864073
Sample MSD I.D.:	30470864074
Sample Matrix Spike Result:	20.762
Matrix Spike Result Counting Uncertainty (pCi/L, g, F):	1.350
Sample Matrix Spike Duplicate Result:	19.852
Sample Matrix Spike Duplicate Result Counting Uncertainty (pCi/L, g, F):	1.281
Duplicate Numerical Performance Indicator:	0.958
(Based on the Percent Recoveries) MS/MSD Duplicate RPD:	5.05%
MS/MSD Duplicate Status vs Numerical Indicator:	N/A
MS/MSD Duplicate Status vs RPD:	Pass
% RPD Limit:	25%

## Evaluation of duplicate precision is not applicable if either the sample or duplicate results are below the MDC.

Comments:

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*Handwritten date: 3/11/22*

# Quality Control Sample Performance Assessment

*Analyst Must Manually Enter All Fields Highlighted in Yellow.*



Test: Ra-226  
Analyst: JC2  
Date: 3/18/2022  
Worklist: 65578  
Matrix: DW

Method Blank Assessment	
MB Sample ID	2370683
MB concentration:	0.009
M/B Counting Uncertainty:	0.058
MB MDC:	0.155
MB Numerical Performance Indicator:	0.29
MB Status vs Numerical Indicator:	N/A
MB Status vs. MDC:	Pass

Laboratory Control Sample Assessment	LCS (Y or N)?	
	LCS65578	LCS065578
Count Date:	4/7/2022	4/7/2022
Spike I.D.:	19-033	19-033
Decay Corrected Spike Concentration (pCi/mL):	24.028	24.028
Volume Used (mL):	0.10	0.10
Aliquot Volume (L, g, F):	0.514	0.503
Target Conc. (pCi/L, g, F):	4.670	4.780
Uncertainty (Calculated):	0.056	0.057
Result (pCi/L, g, F):	5.147	5.118
LCS/LCSD Counting Uncertainty (pCi/L, g, F):	0.483	0.487
Numerical Performance Indicator:	1.92	1.35
Percent Recovery:	110.20%	107.06%
Status vs Numerical Indicator:	N/A	N/A
Status vs Recovery:	Pass	Pass
Upper % Recovery Limits:	125%	125%
Lower % Recovery Limits:	75%	75%

Duplicate Sample Assessment	
Sample I.D.:	LCS65578
Duplicate Sample I.D.:	LCS065578
Sample Result (pCi/L, g, F):	5.147
Sample Duplicate Result (pCi/L, g, F):	0.483
Sample Duplicate Counting Uncertainty (pCi/L, g, F):	5.118
Sample Duplicate Result Counting Uncertainty (pCi/L, g, F):	0.487
Are sample and/or duplicate results below RL?	NO
Duplicate Numerical Performance Indicator:	0.063
(Based on the LCS/LCSD Percent Recoveries) Duplicate RPD:	2.89%
Duplicate Status vs Numerical Indicator:	N/A
Duplicate Status vs RPD:	Pass
% RPD Limit:	25%

Sample Matrix Spike Control Assessment	MS/MSD 1	MS/MSD 2
Sample Collection Date:	2/14/2022	
Sample I.D.:	30470864009	
Sample MS I.D.:	30470864071	
Sample MSD I.D.:	30470864072	
Spike I.D.:	19-033	
MS/MSD Decay Corrected Spike Concentration (pCi/mL):	24.030	
Spike Volume Used in MS (mL):	0.20	
MS Aliquot (L, g, F):	0.257	
MS Target Conc. (pCi/L, g, F):	18.736	
MSD Aliquot (L, g, F):	0.253	
MSD Target Conc. (pCi/L, g, F):	19.003	
MS Spike Uncertainty (calculated):	0.225	
MSD Spike Uncertainty (calculated):	0.228	
Sample Result:	0.262	
Sample Result Counting Uncertainty (pCi/L, g, F):	0.176	
Sample Matrix Spike Result:	20.412	
Matrix Spike Result Counting Uncertainty (pCi/L, g, F):	1.326	
Sample Matrix Spike Duplicate Result:	21.945	
Matrix Spike Duplicate Result Counting Uncertainty (pCi/L, g, F):	1.416	
MS Numerical Performance Indicator:	2.043	
MSD Numerical Performance Indicator:	3.635	
MS Percent Recovery:	107.55%	
MSD Percent Recovery:	114.10%	
MS Status vs Numerical Indicator:	N/A	
MSD Status vs Numerical Indicator:	N/A	
MS Status vs Recovery:	Pass	
MSD Status vs Recovery:	Pass	
MS/MSD Upper % Recovery Limits:	125%	
MS/MSD Lower % Recovery Limits:	75%	

Matrix Spike/Matrix Spike Duplicate Sample Assessment	
Sample I.D.:	30470864009
Sample MS I.D.:	30470864071
Sample MSD I.D.:	30470864072
Sample Matrix Spike Result:	20.412
Sample Matrix Spike Duplicate Result:	1.326
Sample Matrix Spike Duplicate Result:	21.945
Sample Matrix Spike Duplicate Counting Uncertainty (pCi/L, g, F):	1.416
Duplicate Numerical Performance Indicator:	-1.549
(Based on the Percent Recoveries) MS/MSD Duplicate RPD:	5.91%
MS/MSD Duplicate Status vs Numerical Indicator:	N/A
MS/MSD Duplicate Status vs RPD:	Pass
% RPD Limit:	25%

## Evaluation of duplicate precision is not applicable if either the sample or duplicate results are below the MDC.

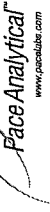
Comments:

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# Quality Control Sample Performance Assessment



**Analyst Must Manually Enter All Fields Highlighted in Yellow.**

Test: Ra-226  
Analyst: JC2  
Date: 3/18/2022  
Worklist: 65580  
Matrix: DW

Method Blank Assessment	
MB Sample ID	2370685
MB concentration:	-0.019
MB Counting Uncertainty:	0.033
MB MDC:	0.127
MB Numerical Performance Indicator:	-1.11
MB Status vs Numerical Indicator:	N/A
MB Status vs. MDC:	Pass

Laboratory Control Sample Assessment		LCSID (Y or N)?	Y
Count Date:	4/8/2022	LCSID65580	4/8/2022
Spike I.D.:	19-033		19-033
Decay Corrected Spike Concentration (pCi/mL):	24.028		24.028
Volume Used (mL):	0.10		0.10
Aliquot Volume (L, g, F):	0.501		0.512
Target Conc. (pCi/L, g, F):	4.800		4.691
Uncertainty (Calculated):	0.058		0.056
Result (pCi/L, g, F):	5.429		4.560
Uncertainty (pCi/L, g, F):	0.502		0.435
Numerical Performance Indicator:	2.44		-0.59
Percent Recovery:	113.10%		97.21%
Status vs Numerical Indicator:	N/A		N/A
Status vs Recovery:	Pass		Pass
Upper % Recovery Limits:	125%		125%
Lower % Recovery Limits:	75%		75%

Duplicate Sample Assessment	
Sample I.D.:	LCS65580
Duplicate Sample I.D.:	LCSID65580
Sample Result (pCi/L, g, F):	5.429
Sample Duplicate Result (pCi/L, g, F):	0.502
Sample Result Counting Uncertainty (pCi/L, g, F):	4.560
Sample Duplicate Result Counting Uncertainty (pCi/L, g, F):	0.435
Are sample and/or duplicate results below RL?	NO
Duplicate Numerical Performance Indicator:	2.564
(Based on the LCS/LCSD Percent Recoveries) Duplicate RPD:	15.12%
Duplicate Status vs Numerical Indicator:	N/A
Duplicate Status vs RPD:	Pass
% RPD Limit:	25%

Sample Matrix Spike Control Assessment		MS/MSD 1	MS/MSD 2
Sample Collection Date:	2/15/2022		
Sample I.D.:	30470864023		
Sample MS I.D.:	30470864075		
Sample MSD I.D.:	30470864076		
Spike I.D.:	19-033		
MS/MSD Decay Corrected Spike Concentration (pCi/mL):	24.030		
Spike Volume Used in MS (mL):	0.20		
Spike Volume Used in MSD (mL):	0.20		
MS Aliquot (L, g, F):	0.256		
MS Target Conc. (pCi/L, g, F):	18.759		
MSD Aliquot (L, g, F):	0.255		
MSD Target Conc. (pCi/L, g, F):	18.884		
MS Spike Uncertainty (calculated):	0.225		
MSD Spike Uncertainty (calculated):	0.227		
Sample Result Counting Uncertainty (pCi/L, g, F):	0.457		
Sample Matrix Spike Result:	0.206		
Matrix Spike Result Counting Uncertainty (pCi/L, g, F):	16.336		
Sample Matrix Spike Duplicate Result:	1.190		
Sample Matrix Spike Duplicate Counting Uncertainty (pCi/L, g, F):	17.455		
Matrix Spike Duplicate Result Counting Uncertainty (pCi/L, g, F):	1.241		
MS Numerical Performance Indicator:	-4.595		
MSD Numerical Performance Indicator:	-2.892		
MS Percent Recovery:	84.65%		
MSD Percent Recovery:	90.02%		
MS Status vs Numerical Indicator:	N/A		
MSD Status vs Numerical Indicator:	N/A		
MS Status vs Recovery:	Pass		
MSD Status vs Recovery:	Pass		
MS/MSD Upper % Recovery Limits:	125%		
MS/MSD Lower % Recovery Limits:	75%		

Matrix Spike/Matrix Spike Duplicate Sample Assessment	
Sample I.D.:	30470864023
Sample MS I.D.:	30470864075
Sample MSD I.D.:	30470864076
Sample Matrix Spike Result:	16.336
Matrix Spike Result Counting Uncertainty (pCi/L, g, F):	1.190
Sample Matrix Spike Duplicate Result:	17.455
Sample Matrix Spike Duplicate Counting Uncertainty (pCi/L, g, F):	1.241
Duplicate Numerical Performance Indicator:	-1.277
(Based on the Percent Recoveries) MS/MSD Duplicate RPD:	6.15%
MS/MSD Duplicate Status vs Numerical Indicator:	N/A
MS/MSD Duplicate Status vs RPD:	Pass
% RPD Limit:	25%

## Evaluation of duplicate precision is not applicable if either the sample or duplicate results are below the MDC.

Comments:

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# Quality Control Sample Performance Assessment



**Analyst: Must Manually Enter All Fields Highlighted in Yellow.**

Test: Ra-226  
Analyst: JC2  
Date: 3/18/2022  
Worklist: 65581  
Matrix: DW

Method Blank Assessment	
MB Sample ID	2370892
MB Concentration:	0.015
M/B Counting Uncertainty:	0.073
MB MDC:	0.186
MB Numerical Performance Indicator:	0.41
MB Status vs Numerical Indicator:	N/A
MB Status vs. MDC:	Pass

Laboratory Control Sample Assessment	LCS/D (Y or N)?	
	LCS/D65581	Y
Count Date:	4/11/2022	LCS/D65581
Spike I.D.:	19-033	4/11/2022
Decay Corrected Spike Concentration (pCi/mL):	24.028	19-033
Volume Used (mL):	0.10	24.028
Aliquot Volume (L, g, F):	0.500	0.10
Target Conc. (pCi/L, g, F):	4.805	0.504
Uncertainty (Calculated):	0.058	4.772
Result (pCi/L, g, F):	5.174	0.057
LCS/LCSD Counting Uncertainty (pCi/L, g, F):	0.469	4.831
Numerical Performance Indicator:	1.53	0.442
Percent Recovery:	107.68%	0.26
Status vs Numerical Indicator:	N/A	101.23%
Status vs Recovery:	Pass	N/A
Upper % Recovery Limits:	125%	Pass
Lower % Recovery Limits:	75%	125%
		75%

Duplicate Sample Assessment	
Sample I.D.:	LCS/D65581
Duplicate Sample I.D.:	LCS/D65581
Sample Result (pCi/L, g, F):	5.174
Sample Duplicate Result (pCi/L, g, F):	0.469
Sample Duplicate Counting Uncertainty (pCi/L, g, F):	4.831
Sample Duplicate Result Counting Uncertainty (pCi/L, g, F):	0.442
Are sample and/or duplicate results below RL?	NO
Duplicate Numerical Performance Indicator:	1.042
Duplicate (Based on the LCS/LCSD Percent Recoveries) Duplicate RPD:	6.17%
Duplicate Status vs Numerical Indicator:	N/A
Duplicate Status vs RPD:	Pass
% RPD Limit:	25%

## Evaluation of duplicate precision is not applicable if either the sample or duplicate results are below the MDC.

Comments:

Sample Matrix Spike Control Assessment	MS/MSD 1	MS/MSD 2
Sample Collection Date:	2/16/2022	
Sample I.D.:	30470864035	
Sample MS I.D.:	30470864077	
Sample MSD I.D.:	30470864078	
Spike I.D.:	19-033	
MS/MSD Decay Corrected Spike Concentration (pCi/mL):	24.030	
Spike Volume Used in MS (mL):	0.20	
Spike Volume Used in MSD (mL):	0.20	
MS Aliquot (L, g, F):	0.258	
MS Target Conc. (pCi/L, g, F):	18.650	
MSD Aliquot (L, g, F):	0.256	
MSD Target Conc. (pCi/L, g, F):	18.775	
MS Spike Uncertainty (calculated):	0.224	
MSD Spike Uncertainty (calculated):	0.225	
Sample Result:	0.124	
Sample Result Counting Uncertainty (pCi/L, g, F):	0.161	
Sample Matrix Spike Result:	20.398	
Sample Result Counting Uncertainty (pCi/L, g, F):	1.333	
Matrix Spike Duplicate Result:	20.001	
Sample Matrix Spike Duplicate Result:	1.331	
MS Numerical Performance Indicator:	2.338	
MSD Numerical Performance Indicator:	1.589	
MS Percent Recovery:	105.87%	
MSD Percent Recovery:	N/A	
MS Status vs Numerical Indicator:	N/A	
MSD Status vs Numerical Indicator:	Pass	
MS Status vs Recovery:	Pass	
MSD Status vs Recovery:	Pass	
MS/MSD Upper % Recovery Limits:	125%	
MS/MSD Lower % Recovery Limits:	75%	

Matrix Spike/Matrix Spike Duplicate Sample Assessment	
Sample I.D.:	30470864035
Sample MS I.D.:	30470864077
Sample MSD I.D.:	30470864078
Sample Result:	20.398
Sample Matrix Spike Result:	1.333
Sample Result Counting Uncertainty (pCi/L, g, F):	1.333
Sample Matrix Spike Duplicate Result:	20.001
Sample Matrix Spike Duplicate Result:	1.331
Duplicate Numerical Performance Indicator:	0.413
Duplicate (Based on the Percent Recoveries) MS/MSD Duplicate RPD:	2.64%
Duplicate Status vs Numerical Indicator:	N/A
MS/MSD Duplicate Status vs RPD:	Pass
% RPD Limit:	25%

LAM411122

RECEIVED  
3/21/22

# Quality Control Sample Performance Assessment

**Analyst Must Manually Enter All Fields Highlighted in Yellow.**



Test: Ra-228  
Analyst: JSM  
Date: 3/30/2022  
Worklist: 65665  
Matrix: W1

Method Blank Assessment	
MB Sample ID	2378710
MB concentration:	0.553
M/B 2 Sigma CSU:	0.376
MB MDC:	0.709
MB Numerical Performance Indicator:	2.89
MB Status vs Numerical Indicator:	Warning
MB Status vs. MDC:	Pass

Laboratory Control Sample Assessment	LCS (Y or N)?		N
	LCS65665	LCS065665	
Count Date:	4/4/2022		LCS065665
Spike I.D.:	22-016		
Decay Corrected Spike Concentration (pCi/mL):	36.230		
Volume Used (mL):	0.10		
Aliquot Volume (L, g, F):	0.806		
Target Conc. (pCi/L, g, F):	4.496		
Uncertainty (Calculated):	0.220		
Result (pCi/L, g, F):	4.200		
LCS/LCSD 2 Sigma CSU (pCi/L, g, F):	0.965		
Numerical Performance Indicator:	-0.58		
Percent Recovery:	93.43%		
Status vs Numerical Indicator:	N/A		
Status vs Recovery:	Pass		
Upper % Recovery Limits:	135%		
Lower % Recovery Limits:	60%		

Duplicate Sample Assessment	Enter Duplicate sample IDs if other than LCS/LCSD in the space below.
Sample I.D.:	
Duplicate Sample I.D.:	
Sample Result (pCi/L, g, F):	
Sample Result 2 Sigma CSU (pCi/L, g, F):	
Sample Duplicate Result (pCi/L, g, F):	
Sample Duplicate Result 2 Sigma CSU (pCi/L, g, F):	
Are sample and/or duplicate results below RL?	
Duplicate Numerical Performance Indicator:	
Duplicate RPD:	
Duplicate Status vs Numerical Indicator:	
Duplicate Status vs RPD:	
% RPD Limit:	

## Evaluation of duplicate precision is not applicable if either the sample or duplicate results are below the MDC.

Comments:

*Handwritten signature/initials*

Sample Matrix Spike Control Assessment	MS/MSD 1	MS/MSD 2
Sample Collection Date:	2/15/2022	
Sample I.D.:	30470864023	
Sample MS I.D.:	30470864075	
Sample MSD I.D.:	30470864076	
Spike I.D.:	22-016	
MS/MSD Decay Corrected Spike Concentration (pCi/mL):	36.809	
Spike Volume Used in MS (mL):	0.20	
MS Aliquot (L, g, F):	0.803	
MS Target Conc. (pCi/L, g, F):	9.164	
MSD Aliquot (L, g, F):	0.804	
MSD Target Conc. (pCi/L, g, F):	9.155	
MS Spike Uncertainty (calculated):	0.449	
MSD Spike Uncertainty (calculated):	0.449	
Sample Result:	0.666	
Sample Result 2 Sigma CSU (pCi/L, g, F):	0.500	
Sample Matrix Spike Result:	8.936	
Matrix Spike Result 2 Sigma CSU (pCi/L, g, F):	1.909	
Sample Matrix Spike Duplicate Result:	9.301	
Matrix Spike Duplicate Result 2 Sigma CSU (pCi/L, g, F):	1.903	
MS Numerical Performance Indicator:	-0.866	
MSD Numerical Performance Indicator:	-0.505	
MS Percent Recovery:	90.24%	
MSD Percent Recovery:	94.32%	
MS Status vs Numerical Indicator:	Pass	
MSD Status vs Numerical Indicator:	Pass	
MS Status vs Recovery:	Pass	
MSD Status vs Recovery:	Pass	
MS/MSD Upper % Recovery Limits:	135%	
MS/MSD Lower % Recovery Limits:	60%	

Matrix Spike/Matrix Spike Duplicate Sample Assessment	
Sample I.D.:	30470864023
Sample MS I.D.:	30470864075
Sample MSD I.D.:	30470864076
Sample Matrix Spike Result:	8.936
Matrix Spike Result 2 Sigma CSU (pCi/L, g, F):	1.909
Sample Matrix Spike Duplicate Result:	9.301
Matrix Spike Duplicate Result 2 Sigma CSU (pCi/L, g, F):	1.903
Duplicate Numerical Performance Indicator:	-0.265
(Based on the Percent Recoveries) MS/MSD Duplicate RPD:	4.42%
MS/MSD Duplicate Status vs Numerical Indicator:	Pass
MS/MSD Duplicate Status vs RPD:	Pass
% RPD Limit:	36%

*Handwritten signature/initials*

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***



# **Gorgas Ash Pond**

## **MW-44HO (Salter Well) 2022 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 verifications 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  
205-664-6001

# ***Analytical Report***



**Sample Group :** WMWGORAP\_1352

**Project/Site :** Gorgas Ash Pond  
Parrish, AL 35580

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

**Attention :** Dustin Brooks & Greg Dyer

**Released By :** Laura Midkiff  
lbmidkif@southernco.com  
(205) 664-6197

March 23, 2022

Dear Dustin Brooks,

Enclosed are the analytical results for sample(s) received by the laboratory on February 09, 2022. 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, 2022

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: 2022.03.23 10:41:23 -05'00'

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: 2022.03.29 14:16:44 -05'00'



### 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

Gorgas Ash Pond

WMWGORAP\_1352

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 meet NELAP traceability requirements and were used within their recommended shelf life.

<u>Sample ID</u>	<u>Batch ID</u>	<u>Project ID</u>
BC02859	718188	WMWGORAP_1352
BC02860	718188	WMWGORAP_1352
BC02861	718188	WMWGORAP_1352
BC02862	718188	WMWGORAP_1352

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 all criteria were met.
- All continued calibration verification (CCV) were within the acceptance criteria for the requested analytes.
- All continued calibration blanks (CCB) were analyzed, and all criteria were met.
- 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.
- All calibration curve requirements were within acceptance criteria.
- All sample internal standard criteria were met.
- The spectral interference check associated with EPA 200.7 was analyzed, and all acceptance criteria were met.
- 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>
BC02860	Sodium	10.15
BC02861	Sodium	10.15

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



## Case Narrative

Dissolved Metals ICP

Gorgas Ash Pond

WMWGORAP\_1352

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 meet NELAP traceability requirements and were used within their recommended shelf life.

<u>Sample ID</u>	<u>Batch ID</u>	<u>Project ID</u>
BC02860	718149	WMWGORAP_1352
BC02861	718149	WMWGORAP_1352

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 all criteria were met.
- All continued calibration verification (CCV) were within the acceptance criteria for the requested analytes.
- All continued calibration blanks (CCB) were analyzed, and all criteria were met.
- 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.
- All calibration curve requirements were within acceptance criteria.
- All sample internal standard criteria were met.
- The spectral interference check associated with EPA 200.7 was analyzed and all acceptance criteria were met.
- 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, except for the following:
    - BC02861 Sodium MS/MSD spike level was <30% of the sample concentration.
  - A matrix spike and matrix spike duplicate were 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>
BC02860	Sodium	10.15
BC02861	Sodium	10.15

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

Total Metals ICPMS

Gorgas Ash Pond

WMWGORAP\_1352

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 meet NELAP traceability requirements and were used within their recommended shelf life.

<u>Sample ID</u>	<u>Batch ID</u>	<u>Project ID</u>
BC02859	718923	WMWGORAP_1352
BC02860	718923	WMWGORAP_1352
BC02861	718923	WMWGORAP_1352
BC02862	718923	WMWGORAP_1352

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.
- 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 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.

Dissolved Metals ICPMS

Gorgas Ash Pond

WMWGORAP\_1352

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 meet NELAP traceability requirements and were used within their recommended shelf life.

<u>Sample ID</u>	<u>Batch ID</u>	<u>Project ID</u>
BC02860	718615	WMWGORAP_1352
BC02861	718615	WMWGORAP_1352

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.
- 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 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.

Mercury

Gorgas Ash Pond

WMWGORAP\_1352

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 meet NELAP traceability requirements and were used within their recommended shelf life.

<u>Sample ID</u>	<u>Batch ID</u>	<u>Project ID</u>
BC02859	718433	WMWGORAP_1352
BC02860	718433	WMWGORAP_1352
BC02861	718433	WMWGORAP_1352
BC02862	718433	WMWGORAP_1352

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



TDS

Gorgas Ash Pond

WMWGORAP\_1352

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 meet NELAP traceability requirements and were used within their recommended shelf life.

<u>Sample ID</u>	<u>Batch ID</u>	<u>Project ID</u>
BC02859	717996	WMWGORAP_1352
BC02860	717996	WMWGORAP_1352
BC02861	717996	WMWGORAP_1352
BC02862	717996	WMWGORAP_1352

4. All of the above samples were prepared and analyzed by Standard Method 2540C.
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:

- 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, and RPD was  $\leq 10\%$ .
- 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  $< 2.5\text{mg}$  had the maximum volume of 150mL filtered. Affected samples are as follows:
  - BC02859
  - BC02862

Anions

Gorgas Ash Pond

WMWGORAP\_1352

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 meet NELAP traceability requirements and were used within their recommended shelf life.

<u>Sample ID</u>	<u>Batch ID</u>	<u>Project ID</u>
BC02859	718481, 718050, 718273	WMWGORAP_1352
BC02860	718481, 718050, 718273	WMWGORAP_1352
BC02861	718481, 718050, 718273	WMWGORAP_1352
BC02862	718481, 718050, 718273	WMWGORAP_1352

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 limit of quantitation 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>
BC02860	Chloride	2
BC02861	Chloride	2

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

## Case Narrative

Alkalinity

Gorgas Ash Pond

WMWGORAP\_1352

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 meet NELAP traceability requirements and were used within their recommended shelf life.

<u>Sample ID</u>	<u>Batch ID</u>	<u>Project ID</u>
BC02860	719026 & 719027	WMWGORAP_1352
BC02861	719026 & 719027	WMWGORAP_1352

4. All of the above samples were prepared and analyzed by Standard Method 2320B.
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:

- 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.

Nitrate-Nitrite

Gorgas Ash Pond

WMWGORAP\_1351

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 meet NELAP traceability requirements and were used within their recommended shelf life.

<u>Sample ID</u>	<u>Batch ID</u>	<u>Project ID</u>
BC02859	718736	WMWGORAP_1352
BC02860	718736	WMWGORAP_1352
BC02861	718736	WMWGORAP_1352
BC02862	718736	WMWGORAP_1352

4. All of the above samples were prepared and analyzed for NO<sub>x</sub> by EPA 353.2.
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:

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

#### EPA 353.2 Specific QC:

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

Total Organic Carbon

Gorgas Ash Pond

WMWGORAP\_1352

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 meet NELAP traceability requirements and were used within their recommended shelf life.

<u>Sample ID</u>	<u>Batch ID</u>	<u>Project ID</u>
BC02859	718462	WMWGORAP_1352
BC02860	718462	WMWGORAP_1352
BC02861	718462	WMWGORAP_1352
BC02862	718462	WMWGORAP_1352

4. All of the above samples were prepared and analyzed by Standard Method 5310B.
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 criteria were met.
- Prior to sample analysis, an initial calibration verification (ICV) was analyzed and met all criteria.
- Prior to sample analysis, an initial calibration blank (ICB) was analyzed and was <1/2RL.
- All continued calibration verifications (CCVs) were within the acceptance range.
- All continued calibration blanks (CCBs) were <1/2RL.

#### Matrix Specific Quality Control Procedures:

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

# Certificate Of Analysis

**Description:** Gorgas Ash Pond Field Blank-1

**Location Code:** WMWGORAPFB  
**Collected:** 2/9/22 10:00  
**Customer ID:**  
**Submittal Date:** 2/9/22 16:59

**Laboratory ID Number:** BC02859

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q	
<b>Analytical Method: EPA 200.7</b>		<b>Analyst: RDA</b>			<b>Preparation Method: EPA 1638</b>					
* Boron, Total	2/14/22 12:00	2/17/22 12:22		1.015	Not Detected	mg/L	0.030000	0.1015	U	
* Calcium, Total	2/14/22 12:00	2/17/22 12:22		1.015	Not Detected	mg/L	0.070035	0.406	U	
* Iron, Total	2/14/22 12:00	2/17/22 12:22		1.015	Not Detected	mg/L	0.008120	0.0406	U	
* Lithium, Total	2/14/22 12:00	2/17/22 12:22		1.015	Not Detected	mg/L	0.007105	0.01999956	U	
* Magnesium, Total	2/14/22 12:00	2/17/22 12:22		1.015	Not Detected	mg/L	0.021315	0.406	U	
Silica, Total (calc.)	2/14/22 12:00	2/17/22 12:22		1	Not Detected	mg/L				
Silicon, Total	2/14/22 12:00	2/17/22 12:22		1.015	Not Detected	mg/L	0.02030	0.25375	U	
* Sodium, Total	2/14/22 12:00	2/17/22 12:22		1.015	Not Detected	mg/L	0.03045	0.406	U	
<b>Analytical Method: EPA 200.8</b>		<b>Analyst: ABB</b>			<b>Preparation Method: EPA 1638</b>					
* Antimony, Total	2/16/22 10:25	2/18/22 11:38		1.015	Not Detected	mg/L	0.000508	0.001015	U	
* Aluminum, Total	2/16/22 10:25	2/18/22 11:38		1.015	Not Detected	mg/L	0.004060	0.01015	U	
* Arsenic, Total	2/16/22 10:25	2/18/22 11:38		1.015	Not Detected	mg/L	0.000068	0.000203	U	
* Barium, Total	2/16/22 10:25	2/18/22 11:38		1.015	Not Detected	mg/L	0.000102	0.000203	U	
* Beryllium, Total	2/16/22 10:25	2/18/22 11:38		1.015	Not Detected	mg/L	0.000406	0.001015	U	
* Cadmium, Total	2/16/22 10:25	2/18/22 11:38		1.015	Not Detected	mg/L	0.000068	0.000203	U	
* Chromium, Total	2/16/22 10:25	2/18/22 11:38		1.015	0.000262	mg/L	0.000203	0.001015	J	
* Cobalt, Total	2/16/22 10:25	2/18/22 11:38		1.015	Not Detected	mg/L	0.000068	0.000203	U	
* Lead, Total	2/16/22 10:25	2/18/22 11:38		1.015	Not Detected	mg/L	0.000068	0.000203	U	
* Manganese, Total	2/16/22 10:25	2/18/22 11:38		1.015	Not Detected	mg/L	0.000068	0.000203	U	
* Molybdenum, Total	2/16/22 10:25	2/18/22 11:38		1.015	Not Detected	mg/L	0.000068	0.000203	U	
* Potassium, Total	2/16/22 10:25	2/18/22 11:38		1.015	Not Detected	mg/L	0.169505	0.5075	U	
* Selenium, Total	2/16/22 10:25	2/18/22 11:38		1.015	Not Detected	mg/L	0.000508	0.001015	U	
* Thallium, Total	2/16/22 10:25	2/18/22 11:38		1.015	Not Detected	mg/L	0.000068	0.000203	U	
<b>Analytical Method: EPA 245.1</b>		<b>Analyst: CRB</b>								
* Mercury, Total by CVAA	2/15/22 17:19	2/15/22 22:09		1	Not Detected	mg/L	0.0003	0.0005	U	
<b>Analytical Method: EPA 353.2</b>		<b>Analyst: ELH</b>								
* Nitrogen, Nitrate/Nitrite	2/17/22 12:59	2/17/22 12:59		1	Not Detected	mg/L as N	0.20	0.3	U	
<b>Analytical Method: SM 2540C</b>		<b>Analyst: CNJ</b>								
* Solids, Dissolved	2/11/22 12:35	2/14/22 13:44		1	Not Detected	mg/L		25	U	

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

**Comments:**

# Certificate Of Analysis

**Description:** Gorgas Ash Pond Field Blank-1

**Location Code:** WMWGORAPFB

**Collected:** 2/9/22 10:00

**Customer ID:**

**Submittal Date:** 2/9/22 16:59

**Laboratory ID Number:** BC02859

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
<b>Analytical Method: SM 5310 B</b>		<b>Analyst: ELH</b>							
* Total Organic Carbon	2/15/22 14:06	2/15/22 14:06		1	Not Detected	mg/L	1.00	2	U
<b>Analytical Method: SM4500Cl E</b>		<b>Analyst: JCC</b>							
* Chloride	2/16/22 09:20	2/16/22 09:20		1	Not Detected	mg/L	0.50	1	U
<b>Analytical Method: SM4500F G 2017</b>		<b>Analyst: JCC</b>							
* Fluoride	2/10/22 17:00	2/10/22 17:00		1	Not Detected	mg/L	0.06	0.1	U
<b>Analytical Method: SM4500SO4 E 2011</b>		<b>Analyst: JCC</b>							
* Sulfate	2/14/22 16:00	2/14/22 16:00		1	Not Detected	mg/L	0.50	1	U

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

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**Comments:**



# Batch QC Summary

**Customer Account:** WMWGORAPFB

**Sample Date:** 2/9/22 10:00

**Customer ID:**

**Delivery Date:** 2/9/22 16:59

**Description:** Gorgas Ash Pond Field Blank-1

**Laboratory ID Number:** BC02859

Sample	Analysis	Units	MB	MB				Standard		Rec		Prec	Limit
				Limit	Spike	MS	MSD	Standard	Limit	Rec	Limit		
BC02862	Aluminum, Total	mg/L	0.000733	0.010	0.100	0.0998	0.0983	0.102	0.0850 to 0.115	99.8	70.0 to 130	1.51	20.0
BC02862	Antimony, Total	mg/L	0.000272	0.00100	0.100	0.0972	0.0965	0.0940	0.0850 to 0.115	97.2	70.0 to 130	0.723	20.0
BC02862	Arsenic, Total	mg/L	0.0000123	0.000176	0.100	0.102	0.102	0.103	0.0850 to 0.115	102	70.0 to 130	0.00	20.0
BC02862	Barium, Total	mg/L	-0.0000508	0.000200	0.100	0.100	0.102	0.0964	0.0850 to 0.115	100	70.0 to 130	1.98	20.0
BC02862	Beryllium, Total	mg/L	0.000156	0.000880	0.100	0.0965	0.101	0.103	0.0850 to 0.115	96.5	70.0 to 130	4.56	20.0
BC02862	Boron, Total	mg/L	-0.000505	0.0650	1.00	0.999	1.02	1.02	0.850 to 1.15	99.9	70.0 to 130	2.08	20.0
BC02862	Cadmium, Total	mg/L	0.0000050	0.000147	0.100	0.103	0.103	0.105	0.0850 to 0.115	103	70.0 to 130	0.00	20.0
BC02862	Calcium, Total	mg/L	0.00159	0.152	5.00	4.59	4.66	4.85	4.25 to 5.75	91.8	70.0 to 130	1.51	20.0
BC02862	Chromium, Total	mg/L	0.0000205	0.000440	0.100	0.101	0.102	0.104	0.0850 to 0.115	101	70.0 to 130	0.985	20.0
BC02862	Cobalt, Total	mg/L	0.0000100	0.000147	0.100	0.104	0.106	0.106	0.0850 to 0.115	104	70.0 to 130	1.90	20.0
BC02862	Iron, Total	mg/L	-0.000195	0.0176	0.2	0.197	0.201	0.199	0.170 to 0.230	98.5	70.0 to 130	2.01	20.0
BC02862	Lead, Total	mg/L	0.0000070	0.000147	0.100	0.107	0.110	0.107	0.0850 to 0.115	107	70.0 to 130	2.76	20.0
BC02862	Lithium, Total	mg/L	-0.000069	0.0154	0.200	0.208	0.210	0.197	0.170 to 0.230	104	70.0 to 130	0.957	20.0
BC02862	Magnesium, Total	mg/L	0.00626	0.0462	5.00	5.08	5.16	5.02	4.25 to 5.75	102	70.0 to 130	1.56	20.0
BC02862	Manganese, Total	mg/L	0.0000193	0.0002	0.100	0.103	0.105	0.105	0.0850 to 0.115	103	70.0 to 130	1.92	20.0
BC02862	Mercury, Total by CVAA	mg/L	3.000E-05	0.000500	0.004	0.004	0.004	0.00391	0.00340 to 0.00460	100	70.0 to 130	0.00	20.0
BC02862	Molybdenum, Total	mg/L	0.0000249	0.0002	0.100	0.103	0.103	0.102	0.0850 to 0.115	103	70.0 to 130	0.00	20.0
BC02862	Potassium, Total	mg/L	0.00781	0.367	10.0	10.2	10.3	10.6	8.50 to 11.5	102	70.0 to 130	0.976	20.0
BC02862	Selenium, Total	mg/L	0.0000021	0.00100	0.100	0.104	0.103	0.108	0.0850 to 0.115	104	70.0 to 130	0.966	20.0
BC02862	Silicon, Total	mg/L	0.000099	0.0440	1.00	1.01	1.03	1.02	0.850 to 1.15	101	70.0 to 130	1.96	20.0
BC02862	Sodium, Total	mg/L	0.00888	0.0660	5.00	5.06	5.14	4.85	4.25 to 5.75	101	70.0 to 130	1.57	20.0
BC02862	Thallium, Total	mg/L	0.0000061	0.000147	0.100	0.107	0.113	0.113	0.0850 to 0.115	107	70.0 to 130	5.45	20.0
BC02862	Total Organic Carbon	mg/L	0.300	1.00	10.0	10.4	10.2	25.0		104	80.0 to 120	1.94	20.0

**Comments:**

## Batch QC Summary

**Customer Account:** WMWGORAPFB

**Sample Date:** 2/9/22 10:00

**Customer ID:**

**Delivery Date:** 2/9/22 16:59

**Description:** Gorgas Ash Pond Field Blank-1

**Laboratory ID Number:** BC02859

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Limit	Prec	Prec Limit
BC02862	Chloride	mg/L	-0.051	1.00	10.0	9.91	0.0093	10.1	9.00 to 11.0	99.1	80.0 to 120	0.00	20.0
BC02862	Fluoride	mg/L	-0.0144	0.125	2.50	2.59	-0.00663	2.63	2.25 to 2.75	104	80.0 to 120	0.00	20.0
BC02862	Nitrogen, Nitrate/Nitrite	mg/L as N	0.05	0.200	2.00	2.12	0.021	1.92	1.80 to 2.20	106	90.0 to 110	0.00	15.0
BC02861	Solids, Dissolved	mg/L	1.00	25.0			482	46.0	40.0 to 60.0			0.833	10.0
BC02862	Sulfate	mg/L	-0.282	2.0	20.0	19.2	-0.0585	19.9	18.0 to 22.0	96.0	80.0 to 120	0.00	20.0

**Comments:**

# Certificate Of Analysis

**Description:** Gorgas Ash Pond - MW-44HO

**Location Code:** WMWGORAP  
**Collected:** 2/9/22 10:50  
**Customer ID:**  
**Submittal Date:** 2/9/22 16:59

**Laboratory ID Number:** BC02860

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q	
<b>Analytical Method: EPA 200.7</b>		<b>Analyst: RDA</b>			<b>Preparation Method: EPA 1638</b>					
* Boron, Total	2/14/22 12:00	2/17/22 12:24		1.015	0.0429	mg/L	0.030000	0.1015	J	
* Calcium, Total	2/14/22 12:00	2/17/22 12:24		1.015	1.16	mg/L	0.070035	0.406		
* Iron, Total	2/14/22 12:00	2/17/22 12:24		1.015	0.0180	mg/L	0.008120	0.0406	J	
* Lithium, Total	2/14/22 12:00	2/17/22 12:24		1.015	0.0478	mg/L	0.007105	0.01999956		
* Magnesium, Total	2/14/22 12:00	2/17/22 12:24		1.015	0.320	mg/L	0.021315	0.406	J	
Silica, Total (calc.)	2/14/22 12:00	2/17/22 12:24		1	10.8	mg/L				
Silicon, Total	2/14/22 12:00	2/17/22 12:24		1.015	5.06	mg/L	0.02030	0.25375		
* Sodium, Total	2/14/22 12:00	2/17/22 13:56		10.15	201	mg/L	0.3045	4.06		
<b>Analytical Method: EPA 200.7</b>		<b>Analyst: RDA</b>			<b>Preparation Method: EPA 1638</b>					
* Boron, Dissolved	2/14/22 12:00	2/17/22 10:54		1.015	0.0423	mg/L	0.030000	0.1015	J	
* Calcium, Dissolved	2/14/22 12:00	2/17/22 10:54		1.015	1.22	mg/L	0.070035	0.406		
* Iron, Dissolved	2/14/22 12:00	2/17/22 10:54		1.015	Not Detected	mg/L	0.008120	0.0406	U	
* Lithium, Dissolved	2/14/22 12:00	2/17/22 10:54		1.015	0.0450	mg/L	0.007105	0.01999956		
* Magnesium, Dissolved	2/14/22 12:00	2/17/22 10:54		1.015	0.304	mg/L	0.021315	0.406	J	
Silica, Dissolved (calc.)	2/14/22 12:00	2/17/22 10:54		1	10.8	mg/L				
Silicon, Dissolved	2/14/22 12:00	2/17/22 10:54		1.015	5.06	mg/L	0.02030	0.25375		
* Sodium, Dissolved	2/14/22 12:00	2/17/22 13:08		10.15	211	mg/L	0.3045	4.06		
<b>Analytical Method: EPA 200.8</b>		<b>Analyst: ABB</b>			<b>Preparation Method: EPA 1638</b>					
* Antimony, Total	2/16/22 10:25	2/18/22 11:42		1.015	Not Detected	mg/L	0.000508	0.001015	U	
* Aluminum, Total	2/16/22 10:25	2/18/22 11:42		1.015	0.0262	mg/L	0.004060	0.01015		
* Arsenic, Total	2/16/22 10:25	2/18/22 11:42		1.015	0.000353	mg/L	0.000068	0.000203		
* Barium, Total	2/16/22 10:25	2/18/22 11:42		1.015	0.0711	mg/L	0.000102	0.000203		
* Beryllium, Total	2/16/22 10:25	2/18/22 11:42		1.015	Not Detected	mg/L	0.000406	0.001015	U	
* Cadmium, Total	2/16/22 10:25	2/18/22 11:42		1.015	Not Detected	mg/L	0.000068	0.000203	U	
* Chromium, Total	2/16/22 10:25	2/18/22 11:42		1.015	0.000233	mg/L	0.000203	0.001015	J	
* Cobalt, Total	2/16/22 10:25	2/18/22 11:42		1.015	Not Detected	mg/L	0.000068	0.000203	U	
* Lead, Total	2/16/22 10:25	2/18/22 11:42		1.015	Not Detected	mg/L	0.000068	0.000203	U	
* Manganese, Total	2/16/22 10:25	2/18/22 11:42		1.015	0.00149	mg/L	0.000068	0.000203		
* Molybdenum, Total	2/16/22 10:25	2/18/22 11:42		1.015	0.00348	mg/L	0.000068	0.000203		
* Potassium, Total	2/16/22 10:25	2/18/22 11:42		1.015	0.746	mg/L	0.169505	0.5075		

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.

# Certificate Of Analysis

**Description:** Gorgas Ash Pond - MW-44HO

**Location Code:** WMWGORAP  
**Collected:** 2/9/22 10:50  
**Customer ID:**  
**Submittal Date:** 2/9/22 16:59

**Laboratory ID Number:** BC02860

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
* Selenium, Total	2/16/22 10:25	2/18/22 11:42		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Total	2/16/22 10:25	2/18/22 11:42		1.015	Not Detected	mg/L	0.000068	0.000203	U
<b>Analytical Method: EPA 200.8</b>		<b>Analyst: ABB</b>							
* Antimony, Dissolved	2/16/22 12:10	2/16/22 13:36		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Aluminum, Dissolved	2/16/22 12:10	2/16/22 13:36		1.015	0.0106	mg/L	0.004060	0.01015	
* Arsenic, Dissolved	2/16/22 12:10	2/16/22 13:36		1.015	0.000213	mg/L	0.000068	0.000203	
* Barium, Dissolved	2/16/22 12:10	2/16/22 13:36		1.015	0.0731	mg/L	0.000102	0.000203	
* Beryllium, Dissolved	2/16/22 12:10	2/16/22 13:36		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Dissolved	2/16/22 12:10	2/16/22 13:36		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Dissolved	2/16/22 12:10	2/16/22 13:36		1.015	0.000286	mg/L	0.000203	0.001015	J
* Cobalt, Dissolved	2/16/22 12:10	2/16/22 13:36		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Lead, Dissolved	2/16/22 12:10	2/16/22 13:36		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Dissolved	2/16/22 12:10	2/16/22 13:36		1.015	0.00122	mg/L	0.000068	0.000203	
* Molybdenum, Dissolved	2/16/22 12:10	2/16/22 13:36		1.015	0.00338	mg/L	0.000068	0.000203	
* Potassium, Dissolved	2/16/22 12:10	2/16/22 13:36		1.015	0.673	mg/L	0.169505	0.5075	
* Selenium, Dissolved	2/16/22 12:10	2/16/22 13:36		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Dissolved	2/16/22 12:10	2/16/22 13:36		1.015	Not Detected	mg/L	0.000068	0.000203	U
<b>Analytical Method: EPA 245.1</b>		<b>Analyst: CRB</b>							
* Mercury, Total by CVAA	2/15/22 17:19	2/15/22 22:13		1	Not Detected	mg/L	0.0003	0.0005	U
<b>Analytical Method: EPA 353.2</b>		<b>Analyst: ELH</b>							
* Nitrogen, Nitrate/Nitrite	2/17/22 13:00	2/17/22 13:00		1	Not Detected	mg/L as N	0.20	0.3	U
<b>Analytical Method: SM 2320 B</b>		<b>Analyst: ALH</b>							
Alkalinity, Total as CaCO3	2/21/22 10:42	2/21/22 11:07		1	400	mg/L		0.1	
<b>Analytical Method: SM 2540C</b>		<b>Analyst: CNJ</b>							
* Solids, Dissolved	2/11/22 12:35	2/14/22 13:44		1	480	mg/L		25	
<b>Analytical Method: SM 4500CO2 D</b>		<b>Analyst: ALH</b>							
Bicarbonate Alkalinity, (calc.)	2/21/22 10:42	2/21/22 11:07		1	374	mg/L			
Carbonate Alkalinity, (calc.)	2/21/22 10:42	2/21/22 11:07		1	26.0	mg/L			
<b>Analytical Method: SM 5310 B</b>		<b>Analyst: ELH</b>							
* Total Organic Carbon	2/15/22 14:20	2/15/22 14:20		1	1.49	mg/L	1.00	2	J

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.

# Certificate Of Analysis

**Description:** Gorgas Ash Pond - MW-44HO

**Location Code:** WMWGORAP

**Collected:** 2/9/22 10:50

**Customer ID:**

**Submittal Date:** 2/9/22 16:59

**Laboratory ID Number:** BC02860

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
<b>Analytical Method: SM4500Cl E</b>		<b>Analyst: JCC</b>							
* Chloride	2/16/22 09:21	2/16/22 09:21		2	28.5	mg/L	1.00	2	
<b>Analytical Method: SM4500F G 2017</b>		<b>Analyst: JCC</b>							
* Fluoride	2/10/22 17:01	2/10/22 17:01		1	0.142	mg/L	0.06	0.1	
<b>Analytical Method: SM4500SO4 E 2011</b>		<b>Analyst: JCC</b>							
* Sulfate	2/14/22 16:01	2/14/22 16:01		1	27.7	mg/L	0.50	1	
<b>Analytical Method: Field Measurements</b>		<b>Analyst: AWG</b>							
Conductivity	2/9/22 10:47	2/9/22 10:47			690.93	uS/cm			FA
pH	2/9/22 10:47	2/9/22 10:47			8.94	SU			FA
Temperature	2/9/22 10:47	2/9/22 10:47			16.84	C			FA
Turbidity	2/9/22 10:47	2/9/22 10:47			0.76	NTU			FA

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.

# Batch QC Summary

**Customer Account:** WMWGORAP

**Sample Date:** 2/9/22 10:50

**Customer ID:**

**Delivery Date:** 2/9/22 16:59

**Description:** Gorgas Ash Pond - MW-44HO

**Laboratory ID Number:** BC02860

Sample	Analysis	Units	MB	MB				Standard		Rec			Prec Limit
				Limit	Spike	MS	MSD	Standard	Limit	Rec	Limit	Prec	
BC02861	Aluminum, Dissolved	mg/L	0.0000661	0.010	0.100	0.108	0.105	0.0993	0.0850 to 0.115	97.3	70.0 to 130	2.82	20.0
BC02862	Aluminum, Total	mg/L	0.000733	0.010	0.100	0.0998	0.0983	0.102	0.0850 to 0.115	99.8	70.0 to 130	1.51	20.0
BC02861	Antimony, Dissolved	mg/L	0.000302	0.00100	0.100	0.0908	0.0900	0.0897	0.0850 to 0.115	90.8	70.0 to 130	0.885	20.0
BC02862	Antimony, Total	mg/L	0.000272	0.00100	0.100	0.0972	0.0965	0.0940	0.0850 to 0.115	97.2	70.0 to 130	0.723	20.0
BC02861	Arsenic, Dissolved	mg/L	0.0000119	0.000176	0.100	0.0992	0.0987	0.0986	0.0850 to 0.115	99.0	70.0 to 130	0.505	20.0
BC02862	Arsenic, Total	mg/L	0.0000123	0.000176	0.100	0.102	0.102	0.103	0.0850 to 0.115	102	70.0 to 130	0.00	20.0
BC02861	Barium, Dissolved	mg/L	0.0000771	0.000200	0.100	0.169	0.167	0.0955	0.0850 to 0.115	95.5	70.0 to 130	1.19	20.0
BC02862	Barium, Total	mg/L	-0.0000508	0.000200	0.100	0.100	0.102	0.0964	0.0850 to 0.115	100	70.0 to 130	1.98	20.0
BC02861	Beryllium, Dissolved	mg/L	0.000188	0.000880	0.100	0.101	0.105	0.101	0.0850 to 0.115	101	70.0 to 130	3.88	20.0
BC02862	Beryllium, Total	mg/L	0.000156	0.000880	0.100	0.0965	0.101	0.103	0.0850 to 0.115	96.5	70.0 to 130	4.56	20.0
BC02861	Boron, Dissolved	mg/L	-0.000566	0.0650	1.00	1.08	1.06	1.03	0.850 to 1.15	104	70.0 to 130	1.87	20.0
BC02862	Boron, Total	mg/L	-0.000505	0.0650	1.00	0.999	1.02	1.02	0.850 to 1.15	99.9	70.0 to 130	2.08	20.0
BC02861	Cadmium, Dissolved	mg/L	0.0000051	0.000147	0.100	0.0994	0.0960	0.0977	0.0850 to 0.115	99.4	70.0 to 130	3.48	20.0
BC02862	Cadmium, Total	mg/L	0.0000050	0.000147	0.100	0.103	0.103	0.105	0.0850 to 0.115	103	70.0 to 130	0.00	20.0
BC02861	Calcium, Dissolved	mg/L	-0.0177	0.152	5.00	6.06	5.84	4.85	4.25 to 5.75	97.8	70.0 to 130	3.70	20.0
BC02862	Calcium, Total	mg/L	0.00159	0.152	5.00	4.59	4.66	4.85	4.25 to 5.75	91.8	70.0 to 130	1.51	20.0
BC02861	Chromium, Dissolved	mg/L	-0.0000048	0.000440	0.100	0.0987	0.0968	0.100	0.0850 to 0.115	98.7	70.0 to 130	1.94	20.0
BC02862	Chromium, Total	mg/L	0.0000205	0.000440	0.100	0.101	0.102	0.104	0.0850 to 0.115	101	70.0 to 130	0.985	20.0
BC02861	Cobalt, Dissolved	mg/L	0.0000138	0.000147	0.100	0.103	0.101	0.104	0.0850 to 0.115	103	70.0 to 130	1.96	20.0
BC02862	Cobalt, Total	mg/L	0.0000100	0.000147	0.100	0.104	0.106	0.106	0.0850 to 0.115	104	70.0 to 130	1.90	20.0
BC02861	Iron, Dissolved	mg/L	-0.000454	0.0176	0.2	0.201	0.196	0.202	0.170 to 0.230	100	70.0 to 130	2.52	20.0
BC02862	Iron, Total	mg/L	-0.000195	0.0176	0.2	0.197	0.201	0.199	0.170 to 0.230	98.5	70.0 to 130	2.01	20.0
BC02861	Lead, Dissolved	mg/L	0.0000182	0.000147	0.100	0.101	0.104	0.101	0.0850 to 0.115	101	70.0 to 130	2.93	20.0
BC02862	Lead, Total	mg/L	0.0000070	0.000147	0.100	0.107	0.110	0.107	0.0850 to 0.115	107	70.0 to 130	2.76	20.0

**Comments:** The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.

# Batch QC Summary

**Customer Account:** WMWGORAP

**Sample Date:** 2/9/22 10:50

**Customer ID:**

**Delivery Date:** 2/9/22 16:59

**Description:** Gorgas Ash Pond - MW-44HO

**Laboratory ID Number:** BC02860

Sample	Analysis	Units	MB	MB				Standard		Rec		Prec	Limit
				Limit	Spike	MS	MSD	Standard	Limit	Rec	Limit		
BC02861	Lithium, Dissolved	mg/L	-0.000064	0.0154	0.200	0.251	0.248	0.202	0.170 to 0.230	103	70.0 to 130	1.20	20.0
BC02862	Lithium, Total	mg/L	-0.000069	0.0154	0.200	0.208	0.210	0.197	0.170 to 0.230	104	70.0 to 130	0.957	20.0
BC02861	Magnesium, Dissolved	mg/L	0.000534	0.0462	5.00	5.36	5.28	5.13	4.25 to 5.75	101	70.0 to 130	1.50	20.0
BC02862	Magnesium, Total	mg/L	0.00626	0.0462	5.00	5.08	5.16	5.02	4.25 to 5.75	102	70.0 to 130	1.56	20.0
BC02861	Manganese, Dissolved	mg/L	-0.000134	0.0002	0.100	0.101	0.0992	0.102	0.0850 to 0.115	99.9	70.0 to 130	1.80	20.0
BC02862	Manganese, Total	mg/L	0.0000193	0.0002	0.100	0.103	0.105	0.105	0.0850 to 0.115	103	70.0 to 130	1.92	20.0
BC02862	Mercury, Total by CVAA	mg/L	3.000E-05	0.000500	0.004	0.004	0.004	0.00391	0.00340 to 0.00460	100	70.0 to 130	0.00	20.0
BC02861	Molybdenum, Dissolved	mg/L	0.0000055	0.0002	0.100	0.101	0.0985	0.0954	0.0850 to 0.115	97.6	70.0 to 130	2.51	20.0
BC02862	Molybdenum, Total	mg/L	0.0000249	0.0002	0.100	0.103	0.103	0.102	0.0850 to 0.115	103	70.0 to 130	0.00	20.0
BC02861	Potassium, Dissolved	mg/L	0.00457	0.367	10.0	10.0	9.90	9.71	8.50 to 11.5	93.3	70.0 to 130	1.01	20.0
BC02862	Potassium, Total	mg/L	0.00781	0.367	10.0	10.2	10.3	10.6	8.50 to 11.5	102	70.0 to 130	0.976	20.0
BC02861	Selenium, Dissolved	mg/L	0.0000593	0.00100	0.100	0.103	0.0988	0.0977	0.0850 to 0.115	103	70.0 to 130	4.16	20.0
BC02862	Selenium, Total	mg/L	0.0000021	0.00100	0.100	0.104	0.103	0.108	0.0850 to 0.115	104	70.0 to 130	0.966	20.0
BC02861	Silicon, Dissolved	mg/L	-0.00084	0.0440	1.00	6.14	6.07	1.04	0.850 to 1.15	108	70.0 to 130	1.15	20.0
BC02862	Silicon, Total	mg/L	0.000099	0.0440	1.00	1.01	1.03	1.02	0.850 to 1.15	101	70.0 to 130	1.96	20.0
BC02861	Sodium, Dissolved	mg/L	0.000535	0.0660	5.00	213	239	5.06	4.25 to 5.75	60.0	70.0 to 130	11.5	20.0
BC02862	Sodium, Total	mg/L	0.00888	0.0660	5.00	5.06	5.14	4.85	4.25 to 5.75	101	70.0 to 130	1.57	20.0
BC02861	Thallium, Dissolved	mg/L	0.0000060	0.000147	0.100	0.0977	0.0997	0.101	0.0850 to 0.115	97.7	70.0 to 130	2.03	20.0
BC02862	Thallium, Total	mg/L	0.0000061	0.000147	0.100	0.107	0.113	0.113	0.0850 to 0.115	107	70.0 to 130	5.45	20.0
BC02862	Total Organic Carbon	mg/L	0.300	1.00	10.0	10.4	10.2	25.0		104	80.0 to 120	1.94	20.0

**Comments:** The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.

## Batch QC Summary

**Customer Account:** WMWGORAP

**Sample Date:** 2/9/22 10:50

**Customer ID:**

**Delivery Date:** 2/9/22 16:59

**Description:** Gorgas Ash Pond - MW-44HO

**Laboratory ID Number:** BC02860

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Limit	Prec	Prec Limit
BC02861	Alkalinity, Total as CaCO3	mg/L					420	50.7	45.0 to 55.0			1.44	10.0
BC02862	Chloride	mg/L	-0.051	1.00	10.0	9.91	0.0093	10.1	9.00 to 11.0	99.1	80.0 to 120	0.00	20.0
BC02862	Fluoride	mg/L	-0.0144	0.125	2.50	2.59	-0.00663	2.63	2.25 to 2.75	104	80.0 to 120	0.00	20.0
BC02862	Nitrogen, Nitrate/Nitrite	mg/L as N	0.05	0.200	2.00	2.12	0.021	1.92	1.80 to 2.20	106	90.0 to 110	0.00	15.0
BC02861	Solids, Dissolved	mg/L	1.00	25.0			482	46.0	40.0 to 60.0			0.833	10.0
BC02862	Sulfate	mg/L	-0.282	2.0	20.0	19.2	-0.0585	19.9	18.0 to 22.0	96.0	80.0 to 120	0.00	20.0

**Comments:** The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.



# Certificate Of Analysis

**Description:** Gorgas Ash Pond - MW-44HO DUP

**Location Code:** WMWGORAP  
**Collected:** 2/9/22 10:50  
**Customer ID:**  
**Submittal Date:** 2/9/22 16:59

**Laboratory ID Number:** BC02861

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
<b>Analytical Method: EPA 200.7</b>		<b>Analyst: RDA</b>			<b>Preparation Method: EPA 1638</b>				
* Boron, Total	2/14/22 12:00	2/17/22 12:25		1.015	0.0430	mg/L	0.030000	0.1015	J
* Calcium, Total	2/14/22 12:00	2/17/22 12:25		1.015	1.21	mg/L	0.070035	0.406	
* Iron, Total	2/14/22 12:00	2/17/22 12:25		1.015	0.0181	mg/L	0.008120	0.0406	J
* Lithium, Total	2/14/22 12:00	2/17/22 12:25		1.015	0.0459	mg/L	0.007105	0.01999956	
* Magnesium, Total	2/14/22 12:00	2/17/22 12:25		1.015	0.315	mg/L	0.021315	0.406	J
Silica, Total (calc.)	2/14/22 12:00	2/17/22 12:25		1	10.8	mg/L			
Silicon, Total	2/14/22 12:00	2/17/22 12:25		1.015	5.06	mg/L	0.02030	0.25375	
* Sodium, Total	2/14/22 12:00	2/17/22 13:57		10.15	204	mg/L	0.3045	4.06	
<b>Analytical Method: EPA 200.7</b>		<b>Analyst: RDA</b>			<b>Preparation Method: EPA 1638</b>				
* Boron, Dissolved	2/14/22 12:00	2/17/22 10:56		1.015	0.0427	mg/L	0.030000	0.1015	J
* Calcium, Dissolved	2/14/22 12:00	2/17/22 10:56		1.015	1.17	mg/L	0.070035	0.406	
* Iron, Dissolved	2/14/22 12:00	2/17/22 10:56		1.015	Not Detected	mg/L	0.008120	0.0406	U
* Lithium, Dissolved	2/14/22 12:00	2/17/22 10:56		1.015	0.0452	mg/L	0.007105	0.01999956	
* Magnesium, Dissolved	2/14/22 12:00	2/17/22 10:56		1.015	0.302	mg/L	0.021315	0.406	J
Silica, Dissolved (calc.)	2/14/22 12:00	2/17/22 10:56		1	10.8	mg/L			
Silicon, Dissolved	2/14/22 12:00	2/17/22 10:56		1.015	5.06	mg/L	0.02030	0.25375	
* Sodium, Dissolved	2/14/22 12:00	2/17/22 13:10		10.15	210	mg/L	0.3045	4.06	RA
<b>Analytical Method: EPA 200.8</b>		<b>Analyst: ABB</b>			<b>Preparation Method: EPA 1638</b>				
* Antimony, Total	2/16/22 10:25	2/18/22 11:45		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Aluminum, Total	2/16/22 10:25	2/18/22 11:45		1.015	0.0256	mg/L	0.004060	0.01015	
* Arsenic, Total	2/16/22 10:25	2/18/22 11:45		1.015	0.000328	mg/L	0.000068	0.000203	
* Barium, Total	2/16/22 10:25	2/18/22 11:45		1.015	0.0750	mg/L	0.000102	0.000203	
* Beryllium, Total	2/16/22 10:25	2/18/22 11:45		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Total	2/16/22 10:25	2/18/22 11:45		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Total	2/16/22 10:25	2/18/22 11:45		1.015	0.000291	mg/L	0.000203	0.001015	J
* Cobalt, Total	2/16/22 10:25	2/18/22 11:45		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Lead, Total	2/16/22 10:25	2/18/22 11:45		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Total	2/16/22 10:25	2/18/22 11:45		1.015	0.00159	mg/L	0.000068	0.000203	
* Molybdenum, Total	2/16/22 10:25	2/18/22 11:45		1.015	0.00379	mg/L	0.000068	0.000203	
* Potassium, Total	2/16/22 10:25	2/18/22 11:45		1.015	0.795	mg/L	0.169505	0.5075	

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.

# Certificate Of Analysis

**Description:** Gorgas Ash Pond - MW-44HO DUP

**Location Code:** WMWGORAP  
**Collected:** 2/9/22 10:50  
**Customer ID:**  
**Submittal Date:** 2/9/22 16:59

**Laboratory ID Number:** BC02861

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
* Selenium, Total	2/16/22 10:25	2/18/22 11:45		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Total	2/16/22 10:25	2/18/22 11:45		1.015	Not Detected	mg/L	0.000068	0.000203	U
<b>Analytical Method: EPA 200.8</b>		<b>Analyst: ABB</b>							
* Antimony, Dissolved	2/16/22 12:10	2/16/22 13:39		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Aluminum, Dissolved	2/16/22 12:10	2/16/22 13:39		1.015	0.0107	mg/L	0.004060	0.01015	
* Arsenic, Dissolved	2/16/22 12:10	2/16/22 13:39		1.015	0.000250	mg/L	0.000068	0.000203	
* Barium, Dissolved	2/16/22 12:10	2/16/22 13:39		1.015	0.0735	mg/L	0.000102	0.000203	
* Beryllium, Dissolved	2/16/22 12:10	2/16/22 13:39		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Dissolved	2/16/22 12:10	2/16/22 13:39		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Dissolved	2/16/22 12:10	2/16/22 13:39		1.015	Not Detected	mg/L	0.000203	0.001015	U
* Cobalt, Dissolved	2/16/22 12:10	2/16/22 13:39		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Lead, Dissolved	2/16/22 12:10	2/16/22 13:39		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Dissolved	2/16/22 12:10	2/16/22 13:39		1.015	0.00113	mg/L	0.000068	0.000203	
* Molybdenum, Dissolved	2/16/22 12:10	2/16/22 13:39		1.015	0.00335	mg/L	0.000068	0.000203	
* Potassium, Dissolved	2/16/22 12:10	2/16/22 13:39		1.015	0.669	mg/L	0.169505	0.5075	
* Selenium, Dissolved	2/16/22 12:10	2/16/22 13:39		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Dissolved	2/16/22 12:10	2/16/22 13:39		1.015	Not Detected	mg/L	0.000068	0.000203	U
<b>Analytical Method: EPA 245.1</b>		<b>Analyst: CRB</b>							
* Mercury, Total by CVAA	2/15/22 17:19	2/15/22 22:17		1	Not Detected	mg/L	0.0003	0.0005	U
<b>Analytical Method: EPA 353.2</b>		<b>Analyst: ELH</b>							
* Nitrogen, Nitrate/Nitrite	2/17/22 13:01	2/17/22 13:01		1	Not Detected	mg/L as N	0.20	0.3	U
<b>Analytical Method: SM 2320 B</b>		<b>Analyst: ALH</b>							
Alkalinity, Total as CaCO3	2/21/22 10:42	2/21/22 11:07		1	414	mg/L		0.1	
<b>Analytical Method: SM 2540C</b>		<b>Analyst: CNJ</b>							
* Solids, Dissolved	2/11/22 12:35	2/14/22 13:44		1	478	mg/L		25	
<b>Analytical Method: SM 4500CO2 D</b>		<b>Analyst: ALH</b>							
Bicarbonate Alkalinity, (calc.)	2/21/22 10:42	2/21/22 11:07		1	389	mg/L			
Carbonate Alkalinity, (calc.)	2/21/22 10:42	2/21/22 11:07		1	24.7	mg/L			
<b>Analytical Method: SM 5310 B</b>		<b>Analyst: ELH</b>							
* Total Organic Carbon	2/15/22 14:36	2/15/22 14:36		1	1.62	mg/L	1.00	2	J

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.

# Certificate Of Analysis

**Description:** Gorgas Ash Pond - MW-44HO DUP

**Location Code:** WMWGORAP

**Collected:** 2/9/22 10:50

**Customer ID:**

**Submittal Date:** 2/9/22 16:59

**Laboratory ID Number:** BC02861

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
<b>Analytical Method: SM4500Cl E</b>		<b>Analyst: JCC</b>							
* Chloride	2/16/22 09:22	2/16/22 09:22		2	28.9	mg/L	1.00	2	
<b>Analytical Method: SM4500F G 2017</b>		<b>Analyst: JCC</b>							
* Fluoride	2/10/22 17:03	2/10/22 17:03		1	0.138	mg/L	0.06	0.1	
<b>Analytical Method: SM4500SO4 E 2011</b>		<b>Analyst: JCC</b>							
* Sulfate	2/14/22 16:03	2/14/22 16:03		1	30.3	mg/L	0.50	1	
<b>Analytical Method: Field Measurements</b>		<b>Analyst: AWG</b>							
Conductivity	2/9/22 10:47	2/9/22 10:47			690.93	uS/cm			FA
pH	2/9/22 10:47	2/9/22 10:47			8.94	SU			FA
Temperature	2/9/22 10:47	2/9/22 10:47			16.84	C			FA
Turbidity	2/9/22 10:47	2/9/22 10:47			0.76	NTU			FA

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.

# Batch QC Summary

**Customer Account:** WMWGORAP

**Sample Date:** 2/9/22 10:50

**Customer ID:**

**Delivery Date:** 2/9/22 16:59

**Description:** Gorgas Ash Pond - MW-44HO DUP

**Laboratory ID Number:** BC02861

Sample	Analysis	Units	MB	MB		MS	MSD	Standard		Rec		Prec	Limit
				Limit	Spike			Standard	Limit	Rec	Limit		
BC02861	Aluminum, Dissolved	mg/L	0.0000661	0.010	0.100	0.108	0.105	0.0993	0.0850 to 0.115	97.3	70.0 to 130	2.82	20.0
BC02862	Aluminum, Total	mg/L	0.000733	0.010	0.100	0.0998	0.0983	0.102	0.0850 to 0.115	99.8	70.0 to 130	1.51	20.0
BC02861	Antimony, Dissolved	mg/L	0.000302	0.00100	0.100	0.0908	0.0900	0.0897	0.0850 to 0.115	90.8	70.0 to 130	0.885	20.0
BC02862	Antimony, Total	mg/L	0.000272	0.00100	0.100	0.0972	0.0965	0.0940	0.0850 to 0.115	97.2	70.0 to 130	0.723	20.0
BC02861	Arsenic, Dissolved	mg/L	0.0000119	0.000176	0.100	0.0992	0.0987	0.0986	0.0850 to 0.115	99.0	70.0 to 130	0.505	20.0
BC02862	Arsenic, Total	mg/L	0.0000123	0.000176	0.100	0.102	0.102	0.103	0.0850 to 0.115	102	70.0 to 130	0.00	20.0
BC02861	Barium, Dissolved	mg/L	0.0000771	0.000200	0.100	0.169	0.167	0.0955	0.0850 to 0.115	95.5	70.0 to 130	1.19	20.0
BC02862	Barium, Total	mg/L	-0.0000508	0.000200	0.100	0.100	0.102	0.0964	0.0850 to 0.115	100	70.0 to 130	1.98	20.0
BC02861	Beryllium, Dissolved	mg/L	0.000188	0.000880	0.100	0.101	0.105	0.101	0.0850 to 0.115	101	70.0 to 130	3.88	20.0
BC02862	Beryllium, Total	mg/L	0.000156	0.000880	0.100	0.0965	0.101	0.103	0.0850 to 0.115	96.5	70.0 to 130	4.56	20.0
BC02861	Boron, Dissolved	mg/L	-0.000566	0.0650	1.00	1.08	1.06	1.03	0.850 to 1.15	104	70.0 to 130	1.87	20.0
BC02862	Boron, Total	mg/L	-0.000505	0.0650	1.00	0.999	1.02	1.02	0.850 to 1.15	99.9	70.0 to 130	2.08	20.0
BC02861	Cadmium, Dissolved	mg/L	0.0000051	0.000147	0.100	0.0994	0.0960	0.0977	0.0850 to 0.115	99.4	70.0 to 130	3.48	20.0
BC02862	Cadmium, Total	mg/L	0.0000050	0.000147	0.100	0.103	0.103	0.105	0.0850 to 0.115	103	70.0 to 130	0.00	20.0
BC02861	Calcium, Dissolved	mg/L	-0.0177	0.152	5.00	6.06	5.84	4.85	4.25 to 5.75	97.8	70.0 to 130	3.70	20.0
BC02862	Calcium, Total	mg/L	0.00159	0.152	5.00	4.59	4.66	4.85	4.25 to 5.75	91.8	70.0 to 130	1.51	20.0
BC02861	Chromium, Dissolved	mg/L	-0.0000048	0.000440	0.100	0.0987	0.0968	0.100	0.0850 to 0.115	98.7	70.0 to 130	1.94	20.0
BC02862	Chromium, Total	mg/L	0.0000205	0.000440	0.100	0.101	0.102	0.104	0.0850 to 0.115	101	70.0 to 130	0.985	20.0
BC02861	Cobalt, Dissolved	mg/L	0.0000138	0.000147	0.100	0.103	0.101	0.104	0.0850 to 0.115	103	70.0 to 130	1.96	20.0
BC02862	Cobalt, Total	mg/L	0.0000100	0.000147	0.100	0.104	0.106	0.106	0.0850 to 0.115	104	70.0 to 130	1.90	20.0
BC02861	Iron, Dissolved	mg/L	-0.000454	0.0176	0.2	0.201	0.196	0.202	0.170 to 0.230	100	70.0 to 130	2.52	20.0
BC02862	Iron, Total	mg/L	-0.000195	0.0176	0.2	0.197	0.201	0.199	0.170 to 0.230	98.5	70.0 to 130	2.01	20.0
BC02861	Lead, Dissolved	mg/L	0.0000182	0.000147	0.100	0.101	0.104	0.101	0.0850 to 0.115	101	70.0 to 130	2.93	20.0
BC02862	Lead, Total	mg/L	0.0000070	0.000147	0.100	0.107	0.110	0.107	0.0850 to 0.115	107	70.0 to 130	2.76	20.0

**Comments:** The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.

# Batch QC Summary

**Customer Account:** WMWGORAP

**Sample Date:** 2/9/22 10:50

**Customer ID:**

**Delivery Date:** 2/9/22 16:59

**Description:** Gorgas Ash Pond - MW-44HO DUP

**Laboratory ID Number:** BC02861

Sample	Analysis	Units	MB	MB				Standard		Rec		Prec	Limit
				Limit	Spike	MS	MSD	Standard	Limit	Rec	Limit		
BC02861	Lithium, Dissolved	mg/L	-0.000064	0.0154	0.200	0.251	0.248	0.202	0.170 to 0.230	103	70.0 to 130	1.20	20.0
BC02862	Lithium, Total	mg/L	-0.000069	0.0154	0.200	0.208	0.210	0.197	0.170 to 0.230	104	70.0 to 130	0.957	20.0
BC02861	Magnesium, Dissolved	mg/L	0.000534	0.0462	5.00	5.36	5.28	5.13	4.25 to 5.75	101	70.0 to 130	1.50	20.0
BC02862	Magnesium, Total	mg/L	0.00626	0.0462	5.00	5.08	5.16	5.02	4.25 to 5.75	102	70.0 to 130	1.56	20.0
BC02861	Manganese, Dissolved	mg/L	-0.000134	0.0002	0.100	0.101	0.0992	0.102	0.0850 to 0.115	99.9	70.0 to 130	1.80	20.0
BC02862	Manganese, Total	mg/L	0.0000193	0.0002	0.100	0.103	0.105	0.105	0.0850 to 0.115	103	70.0 to 130	1.92	20.0
BC02862	Mercury, Total by CVAA	mg/L	3.000E-05	0.000500	0.004	0.004	0.004	0.00391	0.00340 to 0.00460	100	70.0 to 130	0.00	20.0
BC02861	Molybdenum, Dissolved	mg/L	0.0000055	0.0002	0.100	0.101	0.0985	0.0954	0.0850 to 0.115	97.6	70.0 to 130	2.51	20.0
BC02862	Molybdenum, Total	mg/L	0.0000249	0.0002	0.100	0.103	0.103	0.102	0.0850 to 0.115	103	70.0 to 130	0.00	20.0
BC02861	Potassium, Dissolved	mg/L	0.00457	0.367	10.0	10.0	9.90	9.71	8.50 to 11.5	93.3	70.0 to 130	1.01	20.0
BC02862	Potassium, Total	mg/L	0.00781	0.367	10.0	10.2	10.3	10.6	8.50 to 11.5	102	70.0 to 130	0.976	20.0
BC02861	Selenium, Dissolved	mg/L	0.0000593	0.00100	0.100	0.103	0.0988	0.0977	0.0850 to 0.115	103	70.0 to 130	4.16	20.0
BC02862	Selenium, Total	mg/L	0.0000021	0.00100	0.100	0.104	0.103	0.108	0.0850 to 0.115	104	70.0 to 130	0.966	20.0
BC02861	Silicon, Dissolved	mg/L	-0.00084	0.0440	1.00	6.14	6.07	1.04	0.850 to 1.15	108	70.0 to 130	1.15	20.0
BC02862	Silicon, Total	mg/L	0.000099	0.0440	1.00	1.01	1.03	1.02	0.850 to 1.15	101	70.0 to 130	1.96	20.0
BC02861	Sodium, Dissolved	mg/L	0.000535	0.0660	5.00	213	239	5.06	4.25 to 5.75	60.0	70.0 to 130	11.5	20.0
BC02862	Sodium, Total	mg/L	0.00888	0.0660	5.00	5.06	5.14	4.85	4.25 to 5.75	101	70.0 to 130	1.57	20.0
BC02861	Thallium, Dissolved	mg/L	0.0000060	0.000147	0.100	0.0977	0.0997	0.101	0.0850 to 0.115	97.7	70.0 to 130	2.03	20.0
BC02862	Thallium, Total	mg/L	0.0000061	0.000147	0.100	0.107	0.113	0.113	0.0850 to 0.115	107	70.0 to 130	5.45	20.0
BC02862	Total Organic Carbon	mg/L	0.300	1.00	10.0	10.4	10.2	25.0		104	80.0 to 120	1.94	20.0

**Comments:** The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.

## Batch QC Summary

**Customer Account:** WMWGORAP

**Sample Date:** 2/9/22 10:50

**Customer ID:**

**Delivery Date:** 2/9/22 16:59

**Description:** Gorgas Ash Pond - MW-44HO DUP

**Laboratory ID Number:** BC02861

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BC02861	Alkalinity, Total as CaCO3	mg/L					420	50.7	45.0 to 55.0			1.44	10.0
BC02862	Chloride	mg/L	-0.051	1.00	10.0	9.91	0.0093	10.1	9.00 to 11.0	99.1	80.0 to 120	0.00	20.0
BC02862	Fluoride	mg/L	-0.0144	0.125	2.50	2.59	-0.00663	2.63	2.25 to 2.75	104	80.0 to 120	0.00	20.0
BC02862	Nitrogen, Nitrate/Nitrite	mg/L as N	0.05	0.200	2.00	2.12	0.021	1.92	1.80 to 2.20	106	90.0 to 110	0.00	15.0
BC02861	Solids, Dissolved	mg/L	1.00	25.0			482	46.0	40.0 to 60.0			0.833	10.0
BC02862	Sulfate	mg/L	-0.282	2.0	20.0	19.2	-0.0585	19.9	18.0 to 22.0	96.0	80.0 to 120	0.00	20.0

**Comments:** The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.

# Certificate Of Analysis

**Description:** Gorgas Ash Pond Equipment Blank-1

**Location Code:** WMWGORAPEB  
**Collected:** 2/9/22 11:45  
**Customer ID:**  
**Submittal Date:** 2/9/22 16:59

**Laboratory ID Number:** BC02862

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q	
<b>Analytical Method: EPA 200.7</b>		<b>Analyst: RDA</b>			<b>Preparation Method: EPA 1638</b>					
* Boron, Total	2/14/22 12:00	2/17/22 12:27		1.015	Not Detected	mg/L	0.030000	0.1015	U	
* Calcium, Total	2/14/22 12:00	2/17/22 12:27		1.015	Not Detected	mg/L	0.070035	0.406	U	
* Iron, Total	2/14/22 12:00	2/17/22 12:27		1.015	Not Detected	mg/L	0.008120	0.0406	U	
* Lithium, Total	2/14/22 12:00	2/17/22 12:27		1.015	Not Detected	mg/L	0.007105	0.01999956	U	
* Magnesium, Total	2/14/22 12:00	2/17/22 12:27		1.015	Not Detected	mg/L	0.021315	0.406	U	
Silica, Total (calc.)	2/14/22 12:00	2/17/22 12:27		1	Not Detected	mg/L				
Silicon, Total	2/14/22 12:00	2/17/22 12:27		1.015	Not Detected	mg/L	0.02030	0.25375	U	
* Sodium, Total	2/14/22 12:00	2/17/22 12:27		1.015	0.0340	mg/L	0.03045	0.406	J	
<b>Analytical Method: EPA 200.8</b>		<b>Analyst: ABB</b>			<b>Preparation Method: EPA 1638</b>					
* Antimony, Total	2/16/22 10:25	2/18/22 11:49		1.015	Not Detected	mg/L	0.000508	0.001015	U	
* Aluminum, Total	2/16/22 10:25	2/18/22 11:49		1.015	Not Detected	mg/L	0.004060	0.01015	U	
* Arsenic, Total	2/16/22 10:25	2/18/22 11:49		1.015	Not Detected	mg/L	0.000068	0.000203	U	
* Barium, Total	2/16/22 10:25	2/18/22 11:49		1.015	Not Detected	mg/L	0.000102	0.000203	U	
* Beryllium, Total	2/16/22 10:25	2/18/22 11:49		1.015	Not Detected	mg/L	0.000406	0.001015	U	
* Cadmium, Total	2/16/22 10:25	2/18/22 11:49		1.015	Not Detected	mg/L	0.000068	0.000203	U	
* Chromium, Total	2/16/22 10:25	2/18/22 11:49		1.015	0.000234	mg/L	0.000203	0.001015	J	
* Cobalt, Total	2/16/22 10:25	2/18/22 11:49		1.015	Not Detected	mg/L	0.000068	0.000203	U	
* Lead, Total	2/16/22 10:25	2/18/22 11:49		1.015	Not Detected	mg/L	0.000068	0.000203	U	
* Manganese, Total	2/16/22 10:25	2/18/22 11:49		1.015	Not Detected	mg/L	0.000068	0.000203	U	
* Molybdenum, Total	2/16/22 10:25	2/18/22 11:49		1.015	Not Detected	mg/L	0.000068	0.000203	U	
* Potassium, Total	2/16/22 10:25	2/18/22 11:49		1.015	Not Detected	mg/L	0.169505	0.5075	U	
* Selenium, Total	2/16/22 10:25	2/18/22 11:49		1.015	Not Detected	mg/L	0.000508	0.001015	U	
* Thallium, Total	2/16/22 10:25	2/18/22 11:49		1.015	Not Detected	mg/L	0.000068	0.000203	U	
<b>Analytical Method: EPA 245.1</b>		<b>Analyst: CRB</b>								
* Mercury, Total by CVAA	2/15/22 17:19	2/15/22 22:21		1	Not Detected	mg/L	0.0003	0.0005	U	
<b>Analytical Method: EPA 353.2</b>		<b>Analyst: ELH</b>								
* Nitrogen, Nitrate/Nitrite	2/17/22 13:02	2/17/22 13:02		1	Not Detected	mg/L as N	0.20	0.3	U	
<b>Analytical Method: SM 2540C</b>		<b>Analyst: CNJ</b>								
* Solids, Dissolved	2/11/22 12:35	2/14/22 13:44		1	Not Detected	mg/L		25	U	

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

**Comments:**

# Certificate Of Analysis

**Description:** Gorgas Ash Pond Equipment Blank-1

**Location Code:** WMWGORAPEB

**Collected:** 2/9/22 11:45

**Customer ID:**

**Submittal Date:** 2/9/22 16:59

**Laboratory ID Number:** BC02862

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
<b>Analytical Method: SM 5310 B</b>		<b>Analyst: ELH</b>							
* Total Organic Carbon	2/15/22 14:53	2/15/22 14:53		1	Not Detected	mg/L	1.00	2	U
<b>Analytical Method: SM4500Cl E</b>		<b>Analyst: JCC</b>							
* Chloride	2/16/22 09:23	2/16/22 09:23		1	Not Detected	mg/L	0.50	1	U
<b>Analytical Method: SM4500F G 2017</b>		<b>Analyst: JCC</b>							
* Fluoride	2/10/22 17:04	2/10/22 17:04		1	Not Detected	mg/L	0.06	0.1	U
<b>Analytical Method: SM4500SO4 E 2011</b>		<b>Analyst: JCC</b>							
* Sulfate	2/14/22 16:04	2/14/22 16:04		1	Not Detected	mg/L	0.50	1	U

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

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**Comments:**



# Batch QC Summary

**Customer Account:** WMWGORAPEB

**Sample Date:** 2/9/22 11:45

**Customer ID:**

**Delivery Date:** 2/9/22 16:59

**Description:** Gorgas Ash Pond Equipment Blank-1

**Laboratory ID Number:** BC02862

Sample	Analysis	Units	MB	MB				Standard		Rec		Prec	Limit
				Limit	Spike	MS	MSD	Standard	Limit	Rec	Limit		
BC02862	Aluminum, Total	mg/L	0.000733	0.010	0.100	0.0998	0.0983	0.102	0.0850 to 0.115	99.8	70.0 to 130	1.51	20.0
BC02862	Antimony, Total	mg/L	0.000272	0.00100	0.100	0.0972	0.0965	0.0940	0.0850 to 0.115	97.2	70.0 to 130	0.723	20.0
BC02862	Arsenic, Total	mg/L	0.0000123	0.000176	0.100	0.102	0.102	0.103	0.0850 to 0.115	102	70.0 to 130	0.00	20.0
BC02862	Barium, Total	mg/L	-0.0000508	0.000200	0.100	0.100	0.102	0.0964	0.0850 to 0.115	100	70.0 to 130	1.98	20.0
BC02862	Beryllium, Total	mg/L	0.000156	0.000880	0.100	0.0965	0.101	0.103	0.0850 to 0.115	96.5	70.0 to 130	4.56	20.0
BC02862	Boron, Total	mg/L	-0.000505	0.0650	1.00	0.999	1.02	1.02	0.850 to 1.15	99.9	70.0 to 130	2.08	20.0
BC02862	Cadmium, Total	mg/L	0.0000050	0.000147	0.100	0.103	0.103	0.105	0.0850 to 0.115	103	70.0 to 130	0.00	20.0
BC02862	Calcium, Total	mg/L	0.00159	0.152	5.00	4.59	4.66	4.85	4.25 to 5.75	91.8	70.0 to 130	1.51	20.0
BC02862	Chromium, Total	mg/L	0.0000205	0.000440	0.100	0.101	0.102	0.104	0.0850 to 0.115	101	70.0 to 130	0.985	20.0
BC02862	Cobalt, Total	mg/L	0.0000100	0.000147	0.100	0.104	0.106	0.106	0.0850 to 0.115	104	70.0 to 130	1.90	20.0
BC02862	Iron, Total	mg/L	-0.000195	0.0176	0.2	0.197	0.201	0.199	0.170 to 0.230	98.5	70.0 to 130	2.01	20.0
BC02862	Lead, Total	mg/L	0.0000070	0.000147	0.100	0.107	0.110	0.107	0.0850 to 0.115	107	70.0 to 130	2.76	20.0
BC02862	Lithium, Total	mg/L	-0.000069	0.0154	0.200	0.208	0.210	0.197	0.170 to 0.230	104	70.0 to 130	0.957	20.0
BC02862	Magnesium, Total	mg/L	0.00626	0.0462	5.00	5.08	5.16	5.02	4.25 to 5.75	102	70.0 to 130	1.56	20.0
BC02862	Manganese, Total	mg/L	0.0000193	0.0002	0.100	0.103	0.105	0.105	0.0850 to 0.115	103	70.0 to 130	1.92	20.0
BC02862	Mercury, Total by CVAA	mg/L	3.000E-05	0.000500	0.004	0.004	0.004	0.00391	0.00340 to 0.00460	100	70.0 to 130	0.00	20.0
BC02862	Molybdenum, Total	mg/L	0.0000249	0.0002	0.100	0.103	0.103	0.102	0.0850 to 0.115	103	70.0 to 130	0.00	20.0
BC02862	Potassium, Total	mg/L	0.00781	0.367	10.0	10.2	10.3	10.6	8.50 to 11.5	102	70.0 to 130	0.976	20.0
BC02862	Selenium, Total	mg/L	0.0000021	0.00100	0.100	0.104	0.103	0.108	0.0850 to 0.115	104	70.0 to 130	0.966	20.0
BC02862	Silicon, Total	mg/L	0.000099	0.0440	1.00	1.01	1.03	1.02	0.850 to 1.15	101	70.0 to 130	1.96	20.0
BC02862	Sodium, Total	mg/L	0.00888	0.0660	5.00	5.06	5.14	4.85	4.25 to 5.75	101	70.0 to 130	1.57	20.0
BC02862	Thallium, Total	mg/L	0.0000061	0.000147	0.100	0.107	0.113	0.113	0.0850 to 0.115	107	70.0 to 130	5.45	20.0
BC02862	Total Organic Carbon	mg/L	0.300	1.00	10.0	10.4	10.2	25.0		104	80.0 to 120	1.94	20.0

**Comments:**

## Batch QC Summary

**Customer Account:** WMWGORAPEB

**Sample Date:** 2/9/22 11:45

**Customer ID:**

**Delivery Date:** 2/9/22 16:59

**Description:** Gorgas Ash Pond Equipment Blank-1

**Laboratory ID Number:** BC02862

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Limit	Prec	Prec Limit
BC02862	Chloride	mg/L	-0.051	1.00	10.0	9.91	0.0093	10.1	9.00 to 11.0	99.1	80.0 to 120	0.00	20.0
BC02862	Fluoride	mg/L	-0.0144	0.125	2.50	2.59	-0.00663	2.63	2.25 to 2.75	104	80.0 to 120	0.00	20.0
BC02862	Nitrogen, Nitrate/Nitrite	mg/L as N	0.05	0.200	2.00	2.12	0.021	1.92	1.80 to 2.20	106	90.0 to 110	0.00	15.0
BC02861	Solids, Dissolved	mg/L	1.00	25.0			482	46.0	40.0 to 60.0			0.833	10.0
BC02862	Sulfate	mg/L	-0.282	2.0	20.0	19.2	-0.0585	19.9	18.0 to 22.0	96.0	80.0 to 120	0.00	20.0

**Comments:**

# Definitions

**Project Number:** WMWGORAP\_1352

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. Refer to APC Field Case Narrative.
J	Reported value is an estimate because concentration is less than reporting limit.
RA	Matrix spike is invalid due to sample concentration.
U	Compound was analyzed, but not detected.





February 15, 2022

Laura Midkiff  
Alabama Power  
744 Highway 87  
GSC 8  
Calera, AL 35040

RE: Project: WMWGORAP\_1352  
Pace Project No.: 20234696

Dear Laura Midkiff:

Enclosed are the analytical results for sample(s) received by the laboratory on February 10, 2022. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Services - New Orleans

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

Sincerely,



Karen Brown  
karen.brown@pacelabs.com  
(504)469-0333  
Project Manager

Enclosures

cc: Renee Jernigan, Alabama Power  
Trinity B. Williams, Alabama Power



## REPORT OF LABORATORY ANALYSIS

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## CERTIFICATIONS

Project: WMWGORAP\_1352

Pace Project No.: 20234696

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### **Pace Analytical Services New Orleans**

Florida Department of Health (NELAC): E87595

Illinois Environmental Protection Agency: 0025721

Kansas Department of Health and Environment (NELAC):

E-10266

Louisiana Dept. of Environmental Quality (NELAC/LELAP):  
02006

Texas Commission on Env. Quality (NELAC):

T104704405-09-TX

U.S. Dept. of Agriculture Foreign Soil Import: P330-10-  
00119

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## REPORT OF LABORATORY ANALYSIS

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## SAMPLE SUMMARY

Project: WMWGORAP\_1352

Pace Project No.: 20234696

Lab ID	Sample ID	Matrix	Date Collected	Date Received
20234696001	BC02863 FB-1	Water	02/09/22 10:00	02/10/22 14:55
20234696002	BC02864 MW-44HO	Water	02/09/22 10:50	02/10/22 14:55
20234696003	BC02865 MW-44HO DUP	Water	02/09/22 10:50	02/10/22 14:55
20234696004	BC02866 EB-1	Water	02/09/22 11:45	02/10/22 14:55

## REPORT OF LABORATORY ANALYSIS

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### SAMPLE ANALYTE COUNT

Project: WMWGORAP\_1352

Pace Project No.: 20234696

Lab ID	Sample ID	Method	Analysts	Analytes Reported
20234696001	BC02863 FB-1	SM 4500-S-2 D	RVJ	1
20234696002	BC02864 MW-44HO	SM 4500-S-2 D	RVJ	1
20234696003	BC02865 MW-44HO DUP	SM 4500-S-2 D	RVJ	1
20234696004	BC02866 EB-1	SM 4500-S-2 D	RVJ	1

PASI-N = Pace Analytical Services - New Orleans

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## PROJECT NARRATIVE

Project: WMWGORAP\_1352

Pace Project No.: 20234696

---

**Method:** SM 4500-S-2 D

**Description:** 4500S2D Sulfide, Total

**Client:** Alabama Power

**Date:** February 15, 2022

### General Information:

4 samples were analyzed for SM 4500-S-2 D by Pace Analytical Services New Orleans. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

### Hold Time:

The samples were analyzed within the method required hold times with any exceptions noted below.

### Method Blank:

All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

### Laboratory Control Spike:

All laboratory control spike compounds were within QC limits with any exceptions noted below.

### Matrix Spikes:

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

QC Batch: 247736

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 20234712003

M1: Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

- MS (Lab ID: 1176454)
- Sulfide, Total

### Duplicate Sample:

All duplicate sample results were within method acceptance criteria with any exceptions noted below.

### Additional Comments:

This data package has been reviewed for quality and completeness and is approved for release.

## REPORT OF LABORATORY ANALYSIS

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### ANALYTICAL RESULTS

Project: WMWGORAP\_1352

Pace Project No.: 20234696

---

**Sample: BC02863 FB-1**      **Lab ID: 20234696001**      Collected: 02/09/22 10:00      Received: 02/10/22 14:55      Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>4500S2D Sulfide, Total</b>									
Analytical Method: SM 4500-S-2 D									
Pace Analytical Services - New Orleans									
Sulfide, Total	ND	mg/L	0.020	0.012	1		02/14/22 15:32	18496-25-8	

### REPORT OF LABORATORY ANALYSIS

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### ANALYTICAL RESULTS

Project: WMWGORAP\_1352

Pace Project No.: 20234696

**Sample: BC02864 MW-44HO**      **Lab ID: 20234696002**      Collected: 02/09/22 10:50      Received: 02/10/22 14:55      Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>4500S2D Sulfide, Total</b>									
Analytical Method: SM 4500-S-2 D									
Pace Analytical Services - New Orleans									
Sulfide, Total	6.1	mg/L	0.50	0.30	25		02/15/22 14:58	18496-25-8	

### REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: WMWGORAP\_1352

Pace Project No.: 20234696

---

**Sample: BC02865 MW-44HO DUP**      **Lab ID: 20234696003**      Collected: 02/09/22 10:50      Received: 02/10/22 14:55      Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>4500S2D Sulfide, Total</b>									
Analytical Method: SM 4500-S-2 D									
Pace Analytical Services - New Orleans									
Sulfide, Total	<b>6.6</b>	mg/L	2.5	1.5	125		02/15/22 15:05	18496-25-8	

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### ANALYTICAL RESULTS

Project: WMWGORAP\_1352

Pace Project No.: 20234696

**Sample: BC02866 EB-1**      **Lab ID: 20234696004**      Collected: 02/09/22 11:45      Received: 02/10/22 14:55      Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>4500S2D Sulfide, Total</b>									
Analytical Method: SM 4500-S-2 D									
Pace Analytical Services - New Orleans									
Sulfide, Total	ND	mg/L	0.020	0.012	1		02/15/22 15:00	18496-25-8	

### REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA

Project: WMWGORAP\_1352  
Pace Project No.: 20234696

QC Batch: 247615	Analysis Method: SM 4500-S-2 D
QC Batch Method: SM 4500-S-2 D	Analysis Description: 4500S2D Sulfide, Total
	Laboratory: Pace Analytical Services - New Orleans

Associated Lab Samples: 20234696001

METHOD BLANK: 1175910 Matrix: Water  
Associated Lab Samples: 20234696001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Sulfide, Total	mg/L	ND	0.020	0.012	02/14/22 14:22	

LABORATORY CONTROL SAMPLE: 1175911

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Sulfide, Total	mg/L	0.2	0.18	90	90-110	

MATRIX SPIKE SAMPLE: 1175913

Parameter	Units	20234694001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Sulfide, Total	mg/L	1.5	1	2.3	79	75-125	

SAMPLE DUPLICATE: 1175912

Parameter	Units	20234694001 Result	Dup Result	RPD	Max RPD	Qualifiers
Sulfide, Total	mg/L	1.5	1.5	0	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

### REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA

Project: WMWGORAP\_1352  
Pace Project No.: 20234696

QC Batch: 247736	Analysis Method: SM 4500-S-2 D
QC Batch Method: SM 4500-S-2 D	Analysis Description: 4500S2D Sulfide, Total
	Laboratory: Pace Analytical Services - New Orleans

Associated Lab Samples: 20234696002, 20234696003, 20234696004

METHOD BLANK: 1176451 Matrix: Water  
Associated Lab Samples: 20234696002, 20234696003, 20234696004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Sulfide, Total	mg/L	ND	0.020	0.012	02/15/22 14:28	

LABORATORY CONTROL SAMPLE: 1176452

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Sulfide, Total	mg/L	0.2	0.19	93	90-110	

MATRIX SPIKE SAMPLE: 1176454

Parameter	Units	20234712003 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Sulfide, Total	mg/L	ND	0.2	0.14	70	75-125	M1

SAMPLE DUPLICATE: 1176453

Parameter	Units	20234712003 Result	Dup Result	RPD	Max RPD	Qualifiers
Sulfide, Total	mg/L	ND	ND		20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

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## QUALIFIERS

Project: WMWGORAP\_1352

Pace Project No.: 20234696

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### DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Reported results are not rounded until the final step prior to reporting. Therefore, calculated parameters that are typically reported as "Total" may vary slightly from the sum of the reported component parameters.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The Nelac Institute

### ANALYTE QUALIFIERS

M1 Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

## REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: WMWGORAP\_1352

Pace Project No.: 20234696

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
20234696001	BC02863 FB-1	SM 4500-S-2 D	247615		
20234696002	BC02864 MW-44HO	SM 4500-S-2 D	247736		
20234696003	BC02865 MW-44HO DUP	SM 4500-S-2 D	247736		
20234696004	BC02866 EB-1	SM 4500-S-2 D	247736		

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1000 Riverbend Blvd., Suite F  
St. Rose, LA 70087

Sample Condition Upon Receipt

WO#: 20234696

PM: KHB

Due Date: 02/22/22

CLIENT: 20-Alabama

Project

Courier:  Pace Courier  Hired Courier  Fed X  UPS  DHL  USPS  Customer  Other

Custody Seal on Cooler/Box Present: [see COC]

Custody Seals intact:  Yes  No

Thermometer Used:  Therm Fisher IR 7  Therm Fisher IR 10

Type of Ice: Wet Blue None

Samples on ice: [see COC]

Cooler Temperature: [see COC]

Temp should be above freezing to 6°C

Date and Initials of person examining contents: 2/10/22 AR

Temp must be measured from Temperature blank when present

Comments:

Temperature Blank Present?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	1
Chain of Custody Present:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	2
Chain of Custody Complete:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	3
Chain of Custody Relinquished:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	4
Sampler Name & Signature on COC:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	5
Samples Arrived within Hold Time:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	6
Sufficient Volume:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	7
Correct Containers Used:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	8
Filtered vol. Rec. for Diss. tests	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	9
Sample Labels match COC:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	10
All containers received within manufacture's precautionary and/or expiration dates.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	11
All containers needing chemical preservation have been checked (except VOA, coliform, & O&G).	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	12
All containers preservation checked found to be in compliance with EPA recommendation.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	13
		If No, was preservative added? <input type="checkbox"/> Yes <input type="checkbox"/> No If added record lot no.: HNO3 _____ H2SO4 _____
Headspace in VOA Vials (>6mm):	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	14
Trip Blank Present:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	15

Client Notification/ Resolution:

Person Contacted: \_\_\_\_\_

Date/Time: \_\_\_\_\_

Comments/ Resolution: \_\_\_\_\_

April 15, 2022

Laura Midkiff  
Alabama Power  
744 Highway 87  
Calera, AL 35040

RE: Project: WMWGORAP\_1352  
Pace Project No.: 30467365

Dear Laura Midkiff:

Enclosed are the analytical results for sample(s) received by the laboratory between February 15, 2022 and February 16, 2022. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Services - Greensburg

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

Sincerely,



Skyler C. Richmond  
skyler.richmond@pacelabs.com  
(724)850-5600  
Project Manager

Enclosures

cc: Brooke Caton, Alabama Power  
Renee Jernigan, Alabama Power



## REPORT OF LABORATORY ANALYSIS

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## CERTIFICATIONS

Project: WMWGORAP\_1352  
Pace Project No.: 30467365

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### **Pace Analytical Services Pennsylvania**

1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601  
ANAB DOD-ELAP Rad Accreditation #: L2417  
Alabama Certification #: 41590  
Arizona Certification #: AZ0734  
Arkansas Certification  
California Certification #: 04222CA  
Colorado Certification #: PA01547  
Connecticut Certification #: PH-0694  
Delaware Certification  
EPA Region 4 DW Rad  
Florida/TNI Certification #: E87683  
Georgia Certification #: C040  
Guam Certification  
Florida: Cert E871149 SEKS WET  
Hawaii Certification  
Idaho Certification  
Illinois Certification  
Indiana Certification  
Iowa Certification #: 391  
Kansas/TNI Certification #: E-10358  
Kentucky Certification #: KY90133  
KY WW Permit #: KY0098221  
KY WW Permit #: KY0000221  
Louisiana DHH/TNI Certification #: LA180012  
Louisiana DEQ/TNI Certification #: 4086  
Maine Certification #: 2017020  
Maryland Certification #: 308  
Massachusetts Certification #: M-PA1457  
Michigan/PADEP Certification #: 9991

Missouri Certification #: 235  
Montana Certification #: Cert0082  
Nebraska Certification #: NE-OS-29-14  
Nevada Certification #: PA014572018-1  
New Hampshire/TNI Certification #: 297617  
New Jersey/TNI Certification #: PA051  
New Mexico Certification #: PA01457  
New York/TNI Certification #: 10888  
North Carolina Certification #: 42706  
North Dakota Certification #: R-190  
Ohio EPA Rad Approval: #41249  
Oregon/TNI Certification #: PA200002-010  
Pennsylvania/TNI Certification #: 65-00282  
Puerto Rico Certification #: PA01457  
Rhode Island Certification #: 65-00282  
South Dakota Certification  
Tennessee Certification #: 02867  
Texas/TNI Certification #: T104704188-17-3  
Utah/TNI Certification #: PA014572017-9  
USDA Soil Permit #: P330-17-00091  
Vermont Dept. of Health: ID# VT-0282  
Virgin Island/PADEP Certification  
Virginia/VELAP Certification #: 460198  
Washington Certification #: C868  
West Virginia DEP Certification #: 143  
West Virginia DHHR Certification #: 9964C  
Wisconsin Approve List for Rad  
Wyoming Certification #: 8TMS-L

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## REPORT OF LABORATORY ANALYSIS

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## SAMPLE SUMMARY

Project: WMWGORAP\_1352

Pace Project No.: 30467365

Lab ID	Sample ID	Matrix	Date Collected	Date Received
30467365001	BC02863 FB-1	Water	02/09/22 10:00	02/15/22 09:55
30467365002	BC02864 MW-44HO	Water	02/09/22 10:50	02/15/22 09:55
30467365003	BC02865 MW-44HO DUP	Water	02/09/22 10:50	02/15/22 09:55
30467365004	BC02866 EB-1	Water	02/09/22 11:45	02/15/22 09:55
30467365005	BC02864 MW-44HO MS	Water	02/09/22 10:50	02/16/22 09:35
30467365006	BC02864 MW-44HO MSD	Water	02/09/22 10:50	02/16/22 09:35

## REPORT OF LABORATORY ANALYSIS

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### SAMPLE ANALYTE COUNT

Project: WMWGORAP\_1352  
Pace Project No.: 30467365

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
30467365001	BC02863 FB-1	EPA 9315	JC2	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
30467365002	BC02864 MW-44HO	EPA 9315	JC2	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
30467365003	BC02865 MW-44HO DUP	EPA 9315	JC2	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
30467365004	BC02866 EB-1	EPA 9315	JC2	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
30467365005	BC02864 MW-44HO MS	EPA 9315	JC2	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
30467365006	BC02864 MW-44HO MSD	EPA 9315	JC2	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA

PASI-PA = Pace Analytical Services - Greensburg

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## PROJECT NARRATIVE

Project: WMWGORAP\_1352

Pace Project No.: 30467365

---

**Method:** EPA 9315

**Description:** 9315 Total Radium

**Client:** Alabama Power

**Date:** April 15, 2022

**General Information:**

6 samples were analyzed for EPA 9315 by Pace Analytical Services Greensburg. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

**Hold Time:**

The samples were analyzed within the method required hold times with any exceptions noted below.

**Method Blank:**

All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

**Laboratory Control Spike:**

All laboratory control spike compounds were within QC limits with any exceptions noted below.

**Matrix Spikes:**

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

**Additional Comments:**

## REPORT OF LABORATORY ANALYSIS

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## PROJECT NARRATIVE

Project: WMWGORAP\_1352  
Pace Project No.: 30467365

---

**Method:** EPA 9320  
**Description:** 9320 Radium 228  
**Client:** Alabama Power  
**Date:** April 15, 2022

**General Information:**

6 samples were analyzed for EPA 9320 by Pace Analytical Services Greensburg. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

**Hold Time:**

The samples were analyzed within the method required hold times with any exceptions noted below.

**Method Blank:**

All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

**Laboratory Control Spike:**

All laboratory control spike compounds were within QC limits with any exceptions noted below.

**Matrix Spikes:**

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

**Additional Comments:**

## REPORT OF LABORATORY ANALYSIS

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## PROJECT NARRATIVE

Project: WMWGORAP\_1352

Pace Project No.: 30467365

---

**Method:** Total Radium Calculation

**Description:** Total Radium 228+226

**Client:** Alabama Power

**Date:** April 15, 2022

**General Information:**

4 samples were analyzed for Total Radium Calculation by Pace Analytical Services Greensburg. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

**Hold Time:**

The samples were analyzed within the method required hold times with any exceptions noted below.

**Method Blank:**

All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

**Laboratory Control Spike:**

All laboratory control spike compounds were within QC limits with any exceptions noted below.

**Matrix Spikes:**

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

**Additional Comments:**

This data package has been reviewed for quality and completeness and is approved for release.

## REPORT OF LABORATORY ANALYSIS

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: WMWGORAP\_1352

Pace Project No.: 30467365

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
<b>Sample: BC02863 FB-1</b> <b>Lab ID: 30467365001</b> Collected: 02/09/22 10:00      Received: 02/15/22 09:55      Matrix: Water PWS:      Site ID:      Sample Type:						
Pace Analytical Services - Greensburg						
Radium-226	EPA 9315	<b>0.171U ± 0.159 (0.286)</b> <b>C:97% T:NA</b>	pCi/L	03/11/22 14:19	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	<b>0.436U ± 0.315 (0.602)</b> <b>C:78% T:88%</b>	pCi/L	03/04/22 10:50	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	<b>0.607U ± 0.474 (0.888)</b>	pCi/L	03/14/22 21:57	7440-14-4	

### REPORT OF LABORATORY ANALYSIS

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: WMWGORAP\_1352

Pace Project No.: 30467365

**Sample: BC02864 MW-44HO**      **Lab ID: 30467365002**      Collected: 02/09/22 10:50      Received: 02/15/22 09:55      Matrix: Water  
PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 9315	<b>0.139U ± 0.155 (0.303)</b> <b>C:92% T:NA</b>	pCi/L	03/11/22 14:19	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	<b>0.654U ± 0.404 (0.737)</b> <b>C:72% T:76%</b>	pCi/L	03/04/22 10:50	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	<b>0.793U ± 0.559 (1.04)</b>	pCi/L	03/14/22 21:57	7440-14-4	

### REPORT OF LABORATORY ANALYSIS

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: WMWGORAP\_1352

Pace Project No.: 30467365

**Sample: BC02865 MW-44HO DUP**    **Lab ID: 30467365003**    Collected: 02/09/22 10:50    Received: 02/15/22 09:55    Matrix: Water  
PWS:    Site ID:    Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 9315	<b>0.152U ± 0.158 (0.297)</b> <b>C:91% T:NA</b>	pCi/L	03/11/22 14:19	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	<b>0.00377U ± 0.323 (0.756)</b> <b>C:73% T:81%</b>	pCi/L	03/04/22 10:50	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	<b>0.156U ± 0.481 (1.05)</b>	pCi/L	03/14/22 21:57	7440-14-4	

### REPORT OF LABORATORY ANALYSIS

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: WMWGORAP\_1352

Pace Project No.: 30467365

**Sample: BC02866 EB-1**      **Lab ID: 30467365004**      Collected: 02/09/22 11:45      Received: 02/15/22 09:55      Matrix: Water  
PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 9315	<b>0.138U ± 0.153 (0.302)</b> <b>C:101% T:NA</b>	pCi/L	03/11/22 14:19	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	<b>0.230U ± 0.353 (0.764)</b> <b>C:76% T:86%</b>	pCi/L	03/04/22 10:50	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	<b>0.368U ± 0.506 (1.07)</b>	pCi/L	03/14/22 21:57	7440-14-4	

### REPORT OF LABORATORY ANALYSIS

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: WMWGORAP\_1352

Pace Project No.: 30467365

**Sample: BC02864 MW-44HO MS**      **Lab ID: 30467365005**      Collected: 02/09/22 10:50      Received: 02/16/22 09:35      Matrix: Water  
PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	<b>107.87 %REC ± NA (NA)</b> <b>C:NA T:NA</b>	pCi/L	03/11/22 14:19	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	<b>67.57 %REC ± NA (NA)</b> <b>C:NA T:NA</b>	pCi/L	03/04/22 10:50	15262-20-1	

### REPORT OF LABORATORY ANALYSIS

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: WMWGORAP\_1352

Pace Project No.: 30467365

**Sample: BC02864 MW-44HO MSD**    **Lab ID: 30467365006**    Collected: 02/09/22 10:50    Received: 02/16/22 09:35    Matrix: Water  
PWS:    Site ID:    Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 9315	<b>91.98 %REC 15.90RPD ±</b> <b>NA (NA)</b> <b>C:NA T:NA</b>	pCi/L	03/11/22 14:19	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	<b>77.41 %REC 13.56 RPD ±</b> <b>NA (NA)</b> <b>C:NA T:NA</b>	pCi/L	03/04/22 10:50	15262-20-1	

### REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL - RADIOCHEMISTRY

Project: WMWGORAP\_1352

Pace Project No.: 30467365

QC Batch: 486655

Analysis Method: EPA 9320

QC Batch Method: EPA 9320

Analysis Description: 9320 Radium 228

Laboratory: Pace Analytical Services - Greensburg

Associated Lab Samples: 30467365001, 30467365002, 30467365003, 30467365004, 30467365005, 30467365006

METHOD BLANK: 2353489

Matrix: Water

Associated Lab Samples: 30467365001, 30467365002, 30467365003, 30467365004, 30467365005, 30467365006

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.511 ± 0.307 (0.554) C:83% T:86%	pCi/L	03/04/22 10:48	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

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### QUALITY CONTROL - RADIOCHEMISTRY

Project: WMWGORAP\_1352

Pace Project No.: 30467365

QC Batch: 485927

Analysis Method: EPA 9315

QC Batch Method: EPA 9315

Analysis Description: 9315 Total Radium

Laboratory: Pace Analytical Services - Greensburg

Associated Lab Samples: 30467365001, 30467365002, 30467365003, 30467365004, 30467365005, 30467365006

METHOD BLANK: 2349793

Matrix: Water

Associated Lab Samples: 30467365001, 30467365002, 30467365003, 30467365004, 30467365005, 30467365006

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.0728 ± 0.0744 (0.139) C:99% T:NA	pCi/L	03/11/22 12:27	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

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## QUALIFIERS

Project: WMWGORAP\_1352

Pace Project No.: 30467365

---

### DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Reported results are not rounded until the final step prior to reporting. Therefore, calculated parameters that are typically reported as "Total" may vary slightly from the sum of the reported component parameters.

Act - Activity

Unc - Uncertainty: For Safe Drinking Water Act (SDWA) analyses, the reported Unc. is the calculated Count Uncertainty (95% confidence interval) using a coverage factor of 1.96. For all other matrices (non-SDWA), the reported Unc. is the calculated Expanded Uncertainty (aka Combined Standard Uncertainty, CSU), reported at the 95% confidence interval using a coverage factor of 1.96.

Gamma Spec: The Unc. reported for all gamma-spectroscopy analyses (EPA 901.1), is the calculated Expanded Uncertainty (CSU) at the 95.4% confidence interval, using a coverage factor of 2.0.

(MDC) - Minimum Detectable Concentration

Trac - Tracer Recovery (%)

Carr - Carrier Recovery (%)

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

## REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: WMWGORAP\_1352  
Pace Project No.: 30467365

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
30467365001	BC02863 FB-1	EPA 9315	485927		
30467365002	BC02864 MW-44HO	EPA 9315	485927		
30467365003	BC02865 MW-44HO DUP	EPA 9315	485927		
30467365004	BC02866 EB-1	EPA 9315	485927		
30467365005	BC02864 MW-44HO MS	EPA 9315	485927		
30467365006	BC02864 MW-44HO MSD	EPA 9315	485927		
30467365001	BC02863 FB-1	EPA 9320	486655		
30467365002	BC02864 MW-44HO	EPA 9320	486655		
30467365003	BC02865 MW-44HO DUP	EPA 9320	486655		
30467365004	BC02866 EB-1	EPA 9320	486655		
30467365005	BC02864 MW-44HO MS	EPA 9320	486655		
30467365006	BC02864 MW-44HO MSD	EPA 9320	486655		
30467365001	BC02863 FB-1	Total Radium Calculation	490238		
30467365002	BC02864 MW-44HO	Total Radium Calculation	490238		
30467365003	BC02865 MW-44HO DUP	Total Radium Calculation	490238		
30467365004	BC02866 EB-1	Total Radium Calculation	490238		

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**CHAIN-OF-CUSTODY / Analytical Request Docum**  
 The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be cor...

<b>Section A</b>		<b>Section B</b>		<b>Section C</b>	
<b>Required Client Information:</b>		<b>Required Project Information:</b>		<b>Invoice Information:</b>	
Company: Alabama Power Company	Report To: Laura Midkiff	Attention: Laura Midkiff	Company Name: Alabama Power Co.	Regulatory Agency:	
Address: 744 Highway 87 GSC Bldg #8	Copy To: Brooke Caton & Renee Jernigan	Address: 744 Highway 87 GSC Bldg #8	Address: 744 Highway 87 GSC Bldg #8	State / Location:	
Calera, AL 35040			CCR	AL	
Email To: lbmidkiff@southalpower.com	Purchase Order #: APC10755638	Place Order #: APC10755638	Place Project Manager: Alexis.Ozoroski@apacelabs.com		
Phone: 205-664-6197 Fax:	Project Name: Plant Gorgas Ash Pond	Project Name: Plant Gorgas Ash Pond	Place Profile #: 13805		
Requested Due Date: 28 days	Project Number: WMMWGORAP_1352	Project Number: WMMWGORAP_1352			

ITEM #	SAMPLE ID	Description	Station Name Location_Code	Site Name Facility_ID	Matrix Spike/Matrix Duplicate	Sample Duplicate	Field Filled	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED		# OF CONTAINERS	Preservatives	Analyzes Test	EPA 9315	EPA 9320	Total Radium Sum	Residual Chlorine (Y/N)
										DATE	TIME							
1	BC02863	FB-1	APCO-GS-AP-FB-01	APCO_Gorgas_AshPond				GW	G	2/9/2022	10:00	1			X	X		
2	BC02864	MW-44HO	APCO-GS-AP-MW-44HO	APCO_Gorgas_AshPond	X			GW	G	2/9/2022	10:50	3	HNO3		X	X		
3	BC02865	MW-44HO DUP	APCO-GS-AP-MW-44HO	APCO_Gorgas_AshPond	X			GW	G	2/9/2022	10:50	1	Unpreserved		X	X		
4	BC02866	EB-1	APCO-GS-AP-EB-01	APCO_Gorgas_AshPond				GW	G	2/9/2022	11:45	1			X	X		
5																		
6																		
7																		
8																		
9																		
10																		
11																		
12																		

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
	Laura Midkiff APC GTL	2/10/2022	8:30	<i>[Signature]</i>	2-16-22	9:55	- N Y Y

<b>SAMPLER NAME AND SIGNATURE</b>	
PRINT Name of SAMPLER:	Anthony Goggins
SIGNATURE of SAMPLER:	DATE Signed:

Pittsburgh Lab Sample Condition Upon Receipt



Client Name: Alabama Power Co Project # \_\_\_\_\_

Courier:  Fed Ex  UPS  USPS  Client  Commercial  Pace Other \_\_\_\_\_

Tracking #: 5551 2008 1941

Label	<u>JA</u>
LIMS Login	<u>VPTinc</u>

Custody Seal on Cooler/Box Present:  yes  no Seals intact:  yes  no

Thermometer Used \_\_\_\_\_ Type of Ice: Wet Blue None

Cooler Temperature \_\_\_\_\_ Observed Temp \_\_\_\_\_ °C Correction Factor: \_\_\_\_\_ °C Final Temp: \_\_\_\_\_ °C

Temp should be above freezing to 6°C

Comments:	pH paper Lot#			Date and Initials of person examining contents: <u>2-23-22 JA</u>
	Yes	No	N/A	
Chain of Custody Present:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1.
Chain of Custody Filled Out:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	2.
Chain of Custody Relinquished:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	3.
Sampler Name & Signature on COC:	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	4.
Sample Labels match COC:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	5.
-Includes date/time/ID Matrix: <u>WT</u>				
Samples Arrived within Hold Time:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	6.
Short Hold Time Analysis (<72hr remaining):	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	7.
Rush Turn Around Time Requested:	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8.
Sufficient Volume:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	9.
Correct Containers Used:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	10.
-Pace Containers Used:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Containers Intact:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	11.
Orthophosphate field filtered	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	12.
Hex Cr Aqueous sample field filtered	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	13.
Organic Samples checked for dechlorination:	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	14.
Filtered volume received for Dissolved tests	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	15.
All containers have been checked for preservation.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	16.
exceptions: VOA, coliform, TOC, O&G, Phenolics, Radon, Non-aqueous matrix				<u>pH &lt; 2</u>
All containers meet method preservation requirements.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Initial when completed: <u>JA</u> Date/time of preservation: _____
				Lot # of added preservative: _____
Headspace in VOA Vials (>6mm):	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	17.
Trip Blank Present:	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	18.
Trip Blank Custody Seals Present	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Rad Samples Screened < 0.5 mrem/hr	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Initial when completed: <u>JA</u> Date: <u>2-23-22</u> Survey Meter SN: <u>1563</u>

Client Notification/ Resolution:

Person Contacted: \_\_\_\_\_ Date/Time: \_\_\_\_\_ Contacted By: \_\_\_\_\_

Comments/ Resolution: \_\_\_\_\_

A check in this box indicates that additional information has been stored in ereports.

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office ( i.e. out of hold, incorrect preservative, out of temp, incorrect containers)

\*PM review is documented electronically in LIMS. When the Project Manager closes the SRF Review schedule in LIMS. The review is in the Status section of the Workorder Edit Screen.

MO#: 30467365  
 PM: AES  
 Due Date: 03/08/22  
 CLIENT: ALABAMA PWR



Pace Greensburg Lab -Sample Container Count

WO#: 30467365

Client: Alabama Power Co  
Site: Plant Gorgas Ash Pond

PM: AES Due Date: 03/08/22  
CLIENT: ALABAMA POWER

Profile Number: 11788

Notes

Sample Line Item	Matrix	AG1H	AG1S	AG1T	AG2U	AG3S	AG3U	AG5U	AG5T	BG1L	BG2U	BP1N	BP1U	BP2S	BP2U	BP3C	BP3N	BP3S	BP3U	DG9S	GCUB	VG9H	VG9T	VG9U	VOAK	WGFU	WGKU	ZPLC	
1	WT											1																	
2	WT											3																	
3	WT											1																	
4	WT											1																	
5																													
6																													
7																													
8																													
9																													
10																													
11																													
12																													

Container Codes

Glass	
AG1S	1L amber glass H2SO4
AG1H	1L amber glass HCl
AG1T	1L amber glass Na Thiosulfate
BG1U	1L clear glass unpreserved
AG3S	250mL amber glass H2SO4
AG3U	250mL amber glass unpreserved
DG9S	40mL amber VOA vial H2SO4
VG9U	40mL clear VOA vial
VG9T	40mL clear VOA vial Na Thiosul
VG9H	40mL clear VOA vial HCl
JGFU	4oz amber wide jar
WGFU	4oz wide jar unpreserved
BG2U	500mL clear glass unpreserved
AG2U	500mL amber glass unpreserved
WGKU	8oz wide jar unpreserved

Plastic / Misc.	
GCUB	1 Gallon Cubitainer
12GN	1/2 Gallon Cubitainer
SP5T	120mL Coliform Na Thiosulfate
BP1N	1L plastic HNO3
BP1U	1L plastic unpreserved
BP3S	250mL plastic H2SO4
BP3N	250mL plastic HNO3
BP3U	250mL plastic unpreserved
BP3C	250ml plastic NaOH
BP2S	500mL plastic H2SO4
BP2U	500mL plastic unpreserved
EZI	5g Encoife
VOAK	Kit for Vialfile Solid
I	Wipe/Swab
ZPLC	Ziploc Bag
WT	Water
SL	Solid
OL	Non-aqueous liquid
WP	Wipe



# Quality Control Sample Performance Assessment



Test: Ra-226  
Analyst: JJC2  
Date: 2/24/2022  
Worklist: 65252  
Matrix: DW

**Analyst Must Manually Enter All Fields Highlighted in Yellow.**

Method Blank Assessment	
MB Sample ID	2349793
MB Concentration:	0.073
MB Counting Uncertainty:	0.074
MB MDC:	0.139
MB Numerical Performance Indicator:	1.94
MB Status vs Numerical Indicator:	N/A
MB Status vs. MDC:	Pass

Laboratory Control Sample Assessment		LCS (Y or N)?	LCS DP65252
Count Date:	3/17/2022		
Spike I.D.:	19-033		
Decay Corrected Spike Concentration (pCi/mL):	24.029		
Volume Used (mL):	0.10		
Aliquot Volume (L, g, F):	0.508		
Target Conc. (pCi/L, g, F):	4.729		
Uncertainty (Calculated):	0.057		
Result (pCi/L, g, F):	4.852		
LCS/LCSD Counting Uncertainty (pCi/L, g, F):	0.464		
Numerical Performance Indicator:	0.52		
Percent Recovery:	102.60%		
Status vs Numerical Indicator:	N/A		
Status vs Recovery:	Pass		
Upper % Recovery Limits:	125%		
Lower % Recovery Limits:	75%		

Duplicate Sample Assessment	
Sample I.D.:	Duplicate Sample I.D.:
Sample Result (pCi/L, g, F):	Sample Result (pCi/L, g, F):
Sample Result Counting Uncertainty (pCi/L, g, F):	Sample Duplicate Result (pCi/L, g, F):
Sample Duplicate Result Counting Uncertainty (pCi/L, g, F):	Sample Duplicate Result Counting Uncertainty (pCi/L, g, F):
Are sample and/or duplicate results below RL?	Are sample and/or duplicate results below RL?
Duplicate Numerical Performance Indicator:	Duplicate RPD:
Duplicate Status vs Numerical Indicator:	Duplicate Status vs Numerical Indicator:
Duplicate Status vs RPD:	Duplicate Status vs RPD:
% RPD Limit:	% RPD Limit:

Sample Matrix Spike Control Assessment		MS/MSD 1	MS/MSD 2
Sample Collection Date:	2/1/2022		
Sample I.D.:	30465804010		
Sample MS I.D.:	30465804024		
Sample MSD I.D.:	30465804025		
Spike I.D.:	19-033		
MS/MSD Decay Corrected Spike Concentration (pCi/mL):	24.030		
Spike Volume Used in MS (mL):	0.20		
Spike Volume Used in MSD (mL):	0.20		
MS Aliquot (L, g, F):	0.251		
MS Target Conc. (pCi/L, g, F):	19.115		
MSD Aliquot (L, g, F):	0.255		
MSD Target Conc. (pCi/L, g, F):	18.846		
MSD Spike Uncertainty (calculated):	0.229		
MSD Spike Uncertainty (calculated):	0.226		
Sample Result:	0.117		
Sample Result Counting Uncertainty (pCi/L, g, F):	0.168		
Sample Matrix Spike Result:	19.262		
Matrix Spike Result Counting Uncertainty (pCi/L, g, F):	1.304		
Sample Matrix Spike Duplicate Result:	17.231		
Matrix Spike Duplicate Result Counting Uncertainty (pCi/L, g, F):	1.289		
MS Numerical Performance Indicator:	-0.115		
MSD Numerical Performance Indicator:	-2.734		
MS Percent Recovery:	99.58%		
MSD Percent Recovery:	90.23%		
MS Status vs Numerical Indicator:	N/A		
MSD Status vs Numerical Indicator:	N/A		
MS Status vs Recovery:	Pass		
MSD Status vs Recovery:	Pass		
MS/MSD Upper % Recovery Limits:	125%		
MS/MSD Lower % Recovery Limits:	75%		

Matrix Spike/Matrix Spike Duplicate Sample Assessment	
Sample I.D.:	30465804010
Sample MS I.D.:	30465804024
Sample MSD I.D.:	30465804025
Sample Matrix Spike Result:	19.262
Matrix Spike Result Counting Uncertainty (pCi/L, g, F):	1.304
Sample Matrix Spike Duplicate Result:	17.231
Matrix Spike Duplicate Result Counting Uncertainty (pCi/L, g, F):	1.289
Duplicate Numerical Performance Indicator:	2.172
(Based on the Percent Recoveries) MS/MSD Duplicate RPD:	9.98%
MS/MSD Duplicate Status vs Numerical Indicator:	N/A
MS/MSD Duplicate Status vs RPD:	Pass
% RPD Limit:	25%

## Evaluation of duplicate precision is not applicable if either the sample or duplicate results are below the MDC.

Comments:

See Below ##

*02/24/2022*

*WAM 3/14/22*

# Quality Control Sample Performance Assessment



Test: Ra-226  
 Analyst: JIC2  
 Date: 2/24/2022  
 Worklist: 65252  
 Matrix: DW

**Analyst Must Manually Enter All Fields Highlighted in Yellow.**

Method Blank Assessment	
MB Sample ID	2349793
MB Concentration:	0.073
MB Counting Uncertainty:	0.074
MB MDC:	0.139
MB Numerical Performance Indicator:	1.94
MB Status vs Numerical Indicator:	N/A
MB Status vs MDC:	Pass

Laboratory Control Sample Assessment		LCSD (Y or N)?	LCSD65252
Count Date:	3/11/2022		
Spike I.D.:	19-033		
Decay Corrected Spike Concentration (pCi/mL):	24.029		
Volume Used (mL):	0.10		
Aliquot Volume (L, g, F):	0.508		
Target Conc. (pCi/L, g, F):	4.729		
Uncertainty (Calculated):	0.057		
Result (pCi/L, g, F):	4.852		
LCSD Counting Uncertainty (pCi/L, g, F):	0.464		
Numerical Performance Indicator:	0.52		
Percent Recovery:	102.60%		
Status vs Numerical Indicator:	N/A		
Status vs Recovery:	Pass		
Upper % Recovery Limits:	125%		
Lower % Recovery Limits:	75%		

Duplicate Sample Assessment		LCSD (Y or N)?	LCSD65252
Sample I.D.:	Duplicate Sample I.D.:		
Sample Result (pCi/L, g, F):	Sample Result (pCi/L, g, F):		
Sample Result Counting Uncertainty (pCi/L, g, F):	Sample Result Counting Uncertainty (pCi/L, g, F):		
Sample Duplicate Result (pCi/L, g, F):	Sample Duplicate Result (pCi/L, g, F):		
Sample Duplicate Counting Uncertainty (pCi/L, g, F):	Sample Duplicate Counting Uncertainty (pCi/L, g, F):		
Are sample and/or duplicate results below RL?	See Below ##		
Duplicate Numerical Performance Indicator:			
Duplicate RPD:			
Duplicate Status vs Numerical Indicator:			
Duplicate Status vs RPD:			
% RPD Limit:			

Sample Matrix Spike Control Assessment		MS/MSD 1	MS/MSD 2
Sample Collection Date:	2/9/2022		
Sample I.D.:	30467365002		
Sample MS I.D.:	30467365005		
Sample MSD I.D.:	30467365006		
Spike I.D.:	19-033		
MS/MSD Decay Corrected Spike Concentration (pCi/mL):	24.030		
Spike Volume Used in MS (mL):	0.20		
Spike Volume Used in MSD (mL):	0.20		
MS Aliquot (L, g, F):	0.253		
MS Target Conc.(pCi/L, g, F):	19.016		
MSD Aliquot (L, g, F):	0.251		
MSD Target Conc. (pCi/L, g, F):	19.134		
MS Spike Uncertainty (calculated):	0.228		
MSD Spike Uncertainty (calculated):	0.230		
Sample Result:	0.139		
Sample Matrix Spike Result:	0.153		
Sample Result Counting Uncertainty (pCi/L, g, F):	20.651		
Sample Matrix Spike Result:	1.359		
Sample Matrix Spike Duplicate Result:	17.738		
Matrix Spike Duplicate Result Counting Uncertainty (pCi/L, g, F):	1.289		
MS Numerical Performance Indicator:	2.114		
MS Percent Recovery:	-2.317		
MS Percent Recovery:	107.87%		
MS Status vs Numerical Indicator:	91.98%		
MS Status vs Numerical Indicator:	N/A		
MSD Status vs Numerical Indicator:	N/A		
MS Status vs Recovery:	Pass		
MSD Status vs Recovery:	Pass		
MS/MSD Upper % Recovery Limits:	125%		
MS/MSD Lower % Recovery Limits:	75%		

Matrix Spike/Matrix Spike Duplicate Sample Assessment		MS/MSD 1	MS/MSD 2
Sample I.D.:	30467365002		
Sample MS I.D.:	30467365005		
Sample MSD I.D.:	30467365006		
Sample Matrix Spike Result:	20.651		
Matrix Spike Result Counting Uncertainty (pCi/L, g, F):	1.359		
Sample Matrix Spike Duplicate Result:	17.738		
Matrix Spike Duplicate Result Counting Uncertainty (pCi/L, g, F):	1.269		
Duplicate Numerical Performance Indicator:	3.071		
(Based on the Percent Recoveries) MS/MSD Duplicate RPD:	15.90%		
MS/MSD Duplicate Status vs Numerical Indicator:	N/A		
MS/MSD Duplicate Status vs RPD:	Pass		
% RPD Limit:	25%		

## Evaluation of duplicate precision is not applicable if either the sample or duplicate results are below the MDC.  
 Comments:

*3/11/22*

*AM 3/11/22*



# Quality Control Sample Performance Assessment

*Analyst Must Manually Enter All Fields Highlighted in Yellow.*

Test: Ra-228  
Analyst: VAL  
Date: 3/2/2022  
Worklist: 65308  
Matrix: W1

Method Blank Assessment	
MB Sample ID	2353489
MB concentration:	0.511
MB 2 Sigma CSU:	0.307
MB MDC:	0.554
MB Numerical Performance Indicator:	3.27
MB Status vs Numerical Indicator:	Fail
MB Status vs. MDC:	Pass

Laboratory Control Sample Assessment		LCSD (Y or N)?	N
Count Date:	3/4/2022	LCSD65308	LCSD65308
Spike ID:	21-029		
Decay Corrected Spike Concentration (pCi/mL):	36.128		
Volume Used (mL):	0.10		
Aliquot Volume (L, g, F):	0.817		
Target Conc. (pCi/L, g, F):	4.421		
Uncertainty (Calculated):	0.217		
Result (pCi/L, g, F):	3.377		
LCSD/CSU 2 Sigma CSU (pCi/L, g, F):	0.855		
Numerical Performance Indicator:	-2.32		
Percent Recovery:	76.38%		
Status vs Numerical Indicator:	N/A		
Status vs Recovery:	Pass		
Upper % Recovery Limits:	135%		
Lower % Recovery Limits:	60%		

Duplicate Sample Assessment		Sample I.D.:	Enter Duplicate Sample IDs if other than LCSD/CSU in the space below:
Duplicate Sample I.D.:			
Sample Result (pCi/L, g, F):			
Sample Result 2 Sigma CSU (pCi/L, g, F):			
Sample Duplicate Result (pCi/L, g, F):			
Sample Duplicate Result 2 Sigma CSU (pCi/L, g, F):			
Are sample and/or duplicate results below RL?			
Duplicate Numerical Performance Indicator:			
Duplicate RPD:			
Duplicate Status vs Numerical Indicator:			
Duplicate Status vs RPD:			
% RPD Limit:			

Sample Matrix Spike Control Assessment		MS/MSD 1	MS/MSD 2
Sample Collection Date:	2/1/2022		
Sample I.D.:	30465804010		
Sample MS I.D.:	30465804024		
Sample MSD I.D.:	30465804025		
Spike I.D.:	21-029		
MS/MSD Decay Corrected Spike Concentration (pCi/mL):	36.499		
Spike Volume Used in MS (mL):	0.20		
Spike Volume Used in MSD (mL):	0.20		
MS Aliquot (L, g, F):	0.803		
MS Target Conc. (pCi/L, g, F):	9.095		
MSD Aliquot (L, g, F):	0.816		
MSD Target Conc. (pCi/L, g, F):	8.951		
MS Spike Uncertainty (calculated):	0.446		
MSD Spike Uncertainty (calculated):	0.439		
MS/MSD Upper % Recovery Limits:	0.524		
MS/MSD Lower % Recovery Limits:	60%		
Sample Result:	0.338		
Sample Result 2 Sigma CSU (pCi/L, g, F):	7.740		
Sample Matrix Spike Result:	1.677		
Sample Matrix Spike Duplicate Result:	8.256		
Matrix Spike Duplicate Result 2 Sigma CSU (pCi/L, g, F):	1.682		
MS Numerical Performance Indicator:	-2.083		
MSD Numerical Performance Indicator:	-1.348		
MS Percent Recovery:	79.39%		
MSD Percent Recovery:	86.39%		
MS Status vs Numerical Indicator:	Warning		
MSD Status vs Numerical Indicator:	Pass		
MS Status vs Recovery:	Pass		
MSD Status vs Recovery:	Pass		
Upper % Recovery Limits:	135%		
Lower % Recovery Limits:	60%		

Matrix Spike/Matrix Spike Duplicate Sample Assessment		Sample I.D.	Sample MS I.D.	Sample MSD I.D.
Sample I.D.:		30465804010		
Sample MS I.D.:		30465804024		
Sample MSD I.D.:		30465804025		
Matrix Spike Result:		7.740		
Matrix Spike Result 2 Sigma CSU (pCi/L, g, F):		1.677		
Sample Matrix Spike Duplicate Result:		8.256		
Matrix Spike Duplicate Result 2 Sigma CSU (pCi/L, g, F):		1.682		
Duplicate Numerical Performance Indicator:		-0.426		
Duplicate RPD:		8.50%		
Duplicate Status vs Numerical Indicator:		Pass		
Duplicate Status vs RPD:		Pass		
% RPD Limit:		36%		

# Evaluation of duplicate precision is not applicable if either the sample or duplicate results are below the MDC.

Comments: If the lowest activity sample in this batch is greater than ten times the blank value, the blank is acceptable, otherwise this batch must be re-prepped.

*243/8/22*

*30465804024*

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***



# **Gorgas Ash Pond**

## **MW-33HO, MW-34HO & MW-35HO 2022 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).

High winds resulted in dusty conditions when pumping and sampling well MW-34HO.

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  
205-664-6001

# *Analytical Report*



**Sample Group :** WMWGORAP\_1351

**Project/Site :** Gorgas Ash Pond  
Parrish, AL 35580

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

**Attention :** Dustin Brooks & Greg Dyer

**Released By :** Laura Midkiff  
lbmidkif@southernco.com  
(205) 664-6197

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



March 23, 2022

Dear Dustin Brooks,

Enclosed are the analytical results for sample(s) received by the laboratory on February 09, 2022. 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, 2022

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: 2022.03.23 09:34:36 -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: 2022.03.29 12:42:47 -0500



### 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

Gorgas Ash Pond

WMWGORAP\_1351

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 meet NELAP traceability requirements and were used within their recommended shelf life.

<u>Sample ID</u>	<u>Batch ID</u>	<u>Project ID</u>
BC02847	718179	WMWGORAP_1351
BC02848	718179	WMWGORAP_1351
BC02849	718179	WMWGORAP_1351
BC02850	718179	WMWGORAP_1351
BC02851	718179	WMWGORAP_1351
BC02852	718179	WMWGORAP_1351

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 all criteria were met.
- All continued calibration verification (CCV) were within the acceptance criteria for the requested analytes.
- All continued calibration blanks (CCB) were analyzed, and all criteria were met.
- 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.
- All calibration curve requirements were within acceptance criteria.
- All sample internal standard criteria were met.
- The spectral interference check associated with EPA 200.7 was analyzed, and all acceptance criteria were met.
- 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, except for the following:
    - BC02852 Calcium & Sodium MS/MSD spike levels were <30% of the sample concentrations.
  - 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>
BC02847	Sodium	10.15
BC02849	Sodium	10.15
BC02850	Sodium	10.15
BC02852	Sodium & Calcium	101.5

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



Dissolved Metals ICP

Gorgas Ash Pond

WMWGORAP\_1351

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 meet NELAP traceability requirements and were used within their recommended shelf life.

<u>Sample ID</u>	<u>Batch ID</u>	<u>Project ID</u>
BC02847	718140	WMWGORAP_1351
BC02849	718140	WMWGORAP_1351
BC02850	718140	WMWGORAP_1351
BC02852	718140	WMWGORAP_1351

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 all criteria were met.
- All continued calibration verification (CCV) were within the acceptance criteria for the requested analytes.
- All continued calibration blanks (CCB) were analyzed, and all criteria were met.
- 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.
- All calibration curve requirements were within acceptance criteria.
- All sample internal standard criteria were met.
- The spectral interference check associated with EPA 200.7 was analyzed and all acceptance criteria were met.
- 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, except for the following:
    - BC02852 Sodium & Calcium MS/MSD spike levels were <30% of the sample concentrations.
  - A matrix spike and matrix spike duplicate were 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>
BC02847	Sodium	10.15
BC02849	Sodium	10.15
BC02850	Sodium	10.15
BC02852	Sodium, Calcium	101.5

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

Total Metals ICPMS

Gorgas Ash Pond

WMWGORAP\_1351

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 meet NELAP traceability requirements and were used within their recommended shelf life.

<u>Sample ID</u>	<u>Batch ID</u>	<u>Project ID</u>
BC02847	718942	WMWGORAP_1351
BC02848	718942	WMWGORAP_1351
BC02849	718942	WMWGORAP_1351
BC02850	718942	WMWGORAP_1351
BC02851	718942	WMWGORAP_1351
BC02852	718942	WMWGORAP_1351

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.
- 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 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.

Dissolved Metals ICPMS

Gorgas Ash Pond

WMWGORAP\_1351

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 meet NELAP traceability requirements and were used within their recommended shelf life.

<u>Sample ID</u>	<u>Batch ID</u>	<u>Project ID</u>
BC02847	718600	WMWGORAP_1351
BC02849	718600	WMWGORAP_1351
BC02850	718600	WMWGORAP_1351
BC02852	718600	WMWGORAP_1351

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.
- 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 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.

Mercury

Gorgas Ash Pond

WMWGORAP\_1351

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 meet NELAP traceability requirements and were used within their recommended shelf life.

<u>Sample ID</u>	<u>Batch ID</u>	<u>Project ID</u>
BC02847	718432	WMWGORAP_1351
BC02848	718432	WMWGORAP_1351
BC02849	718432	WMWGORAP_1351
BC02850	718432	WMWGORAP_1351
BC02851	718432	WMWGORAP_1351
BC02852	718432	WMWGORAP_1351

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



TDS

Gorgas Ash Pond

WMWGORAP\_1351

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 meet NELAP traceability requirements and were used within their recommended shelf life.

<u>Sample ID</u>	<u>Batch ID</u>	<u>Project ID</u>
BC02847	717995	WMWGORAP_1351
BC02848	717995	WMWGORAP_1351
BC02849	717995	WMWGORAP_1351
BC02850	717995	WMWGORAP_1351
BC02851	717995	WMWGORAP_1351
BC02852	717995	WMWGORAP_1351

4. All of the above samples were prepared and analyzed by Standard Method 2540C.
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:

- 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, and RPD was  $\leq 10\%$ .
- 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  $< 2.5\text{mg}$  had the maximum volume of 150mL filtered. Affected samples are as follows:
  - BC02848
  - BC02851

Anions

Gorgas Ash Pond

WMWGORAP\_1351

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 meet NELAP traceability requirements and were used within their recommended shelf life.

<u>Sample ID</u>	<u>Batch ID</u>	<u>Project ID</u>
BC02847	718480, 718049, 718272	WMWGORAP_1351
BC02848	718480, 718049, 718272	WMWGORAP_1351
BC02849	718480, 718049, 718272	WMWGORAP_1351
BC02850	718480, 718049, 718272	WMWGORAP_1351
BC02851	718480, 718049, 718272	WMWGORAP_1351
BC02852	718480, 718049, 718272	WMWGORAP_1351

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 limit of quantitation 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>
BC02847	Chloride & Sulfate	5 & 4
BC02852	Chloride & Sulfate	100 & 80

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

## Case Narrative

Alkalinity

Gorgas Ash Pond

WMWGORAP\_1351

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 meet NELAP traceability requirements and were used within their recommended shelf life.

<u>Sample ID</u>	<u>Batch ID</u>	<u>Project ID</u>
BC02847	719022 & 719023	WMWGORAP_1351
BC02849	719022 & 719023	WMWGORAP_1351
BC02850	719022 & 719023	WMWGORAP_1351
BC02852	719022 & 719023	WMWGORAP_1351

4. All of the above samples were prepared and analyzed by Standard Method 2320B.
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:

- 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.

Nitrate-Nitrite

Gorgas Ash Pond

WMWGORAP\_1351

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 meet NELAP traceability requirements and were used within their recommended shelf life.

<u>Sample ID</u>	<u>Batch ID</u>	<u>Project ID</u>
BC02847	718731	WMWGORAP_1351
BC02848	718731	WMWGORAP_1351
BC02849	718731	WMWGORAP_1351
BC02850	718731	WMWGORAP_1351
BC02851	718731	WMWGORAP_1351
BC02852	718731	WMWGORAP_1351

4. All of the above samples were prepared and analyzed for NO<sub>x</sub> by EPA 353.2.
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:

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

#### EPA 353.2 Specific QC:

- Prior to sample analysis, Cadmium coil reduction efficiency check met criteria.
- Matrix Specific QC:
  - A sample duplicate was run and criteria for precision was met.
  - A matrix spike was run and criteria for accuracy was met.

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

Total Organic Carbon

Gorgas Ash Pond

WMWGORAP\_1351

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 meet NELAP traceability requirements and were used within their recommended shelf life.

<u>Sample ID</u>	<u>Batch ID</u>	<u>Project ID</u>
BC02847	718461	WMWGORAP_1351
BC02848	718461	WMWGORAP_1351
BC02849	718461	WMWGORAP_1351
BC02850	718461	WMWGORAP_1351
BC02851	718461	WMWGORAP_1351
BC02852	718461	WMWGORAP_1351

4. All of the above samples were prepared and analyzed by Standard Method 5310B.
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 criteria were met.
- Prior to sample analysis, an initial calibration verification (ICV) was analyzed and met all criteria.
- Prior to sample analysis, an initial calibration blank (ICB) was analyzed and was  $<1/2RL$ .
- All continued calibration verifications (CCVs) were within the acceptance range.
- All continued calibration blanks (CCBs) were  $<1/2RL$ .

#### Matrix Specific Quality Control Procedures:

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

# Certificate Of Analysis

**Description:** Gorgas Ash Pond - MW-33HO

**Location Code:** WMWGORAP  
**Collected:** 2/9/22 09:45  
**Customer ID:**  
**Submittal Date:** 2/9/22 16:51

**Laboratory ID Number:** BC02847

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q	
<b>Analytical Method: EPA 200.7</b>		<b>Analyst: RDA</b>			<b>Preparation Method: EPA 1638</b>					
* Boron, Total	2/14/22 12:00	2/17/22 12:03		1.015	0.0416	mg/L	0.030000	0.1015	J	
* Calcium, Total	2/14/22 12:00	2/17/22 12:03		1.015	25.2	mg/L	0.070035	0.406		
* Iron, Total	2/14/22 12:00	2/17/22 12:03		1.015	0.0853	mg/L	0.008120	0.0406		
* Lithium, Total	2/14/22 12:00	2/17/22 12:03		1.015	0.0517	mg/L	0.007105	0.01999956		
* Magnesium, Total	2/14/22 12:00	2/17/22 12:03		1.015	10.4	mg/L	0.021315	0.406		
Silica, Total (calc.)	2/14/22 12:00	2/17/22 12:03		1	18.9	mg/L				
Silicon, Total	2/14/22 12:00	2/17/22 12:03		1.015	8.83	mg/L	0.02030	0.25375		
* Sodium, Total	2/14/22 12:00	2/17/22 13:44		10.15	124	mg/L	0.3045	4.06		
<b>Analytical Method: EPA 200.7</b>		<b>Analyst: RDA</b>			<b>Preparation Method: EPA 1638</b>					
* Boron, Dissolved	2/14/22 12:00	2/17/22 10:43		1.015	0.0411	mg/L	0.030000	0.1015	J	
* Calcium, Dissolved	2/14/22 12:00	2/17/22 10:43		1.015	26.5	mg/L	0.070035	0.406		
* Iron, Dissolved	2/14/22 12:00	2/17/22 10:43		1.015	0.0754	mg/L	0.008120	0.0406		
* Lithium, Dissolved	2/14/22 12:00	2/17/22 10:43		1.015	0.0489	mg/L	0.007105	0.01999956		
* Magnesium, Dissolved	2/14/22 12:00	2/17/22 10:43		1.015	10.1	mg/L	0.021315	0.406		
Silica, Dissolved (calc.)	2/14/22 12:00	2/17/22 10:43		1	18.8	mg/L				
Silicon, Dissolved	2/14/22 12:00	2/17/22 10:43		1.015	8.80	mg/L	0.02030	0.25375		
* Sodium, Dissolved	2/14/22 12:00	2/17/22 12:57		10.15	119	mg/L	0.3045	4.06		
<b>Analytical Method: EPA 200.8</b>		<b>Analyst: ABB</b>			<b>Preparation Method: EPA 1638</b>					
* Antimony, Total	2/16/22 10:25	2/18/22 12:03		1.015	Not Detected	mg/L	0.000508	0.001015	U	
* Aluminum, Total	2/16/22 10:25	2/18/22 12:03		1.015	0.00561	mg/L	0.004060	0.01015	J	
* Arsenic, Total	2/16/22 10:25	2/18/22 12:03		1.015	0.000871	mg/L	0.000068	0.000203		
* Barium, Total	2/16/22 10:25	2/18/22 12:03		1.015	0.483	mg/L	0.000102	0.000203		
* Beryllium, Total	2/16/22 10:25	2/18/22 12:03		1.015	Not Detected	mg/L	0.000406	0.001015	U	
* Cadmium, Total	2/16/22 10:25	2/18/22 12:03		1.015	Not Detected	mg/L	0.000068	0.000203	U	
* Chromium, Total	2/16/22 10:25	2/18/22 12:03		1.015	0.000263	mg/L	0.000203	0.001015	J	
* Cobalt, Total	2/16/22 10:25	2/18/22 12:03		1.015	Not Detected	mg/L	0.000068	0.000203	U	
* Lead, Total	2/16/22 10:25	2/18/22 12:03		1.015	Not Detected	mg/L	0.000068	0.000203	U	
* Manganese, Total	2/16/22 10:25	2/18/22 12:03		1.015	0.0502	mg/L	0.000068	0.000203		
* Molybdenum, Total	2/16/22 10:25	2/18/22 12:03		1.015	0.00513	mg/L	0.000068	0.000203		
* Potassium, Total	2/16/22 10:25	2/18/22 12:03		1.015	7.40	mg/L	0.169505	0.5075		

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.

# Certificate Of Analysis

**Description:** Gorgas Ash Pond - MW-33HO

**Location Code:** WMWGORAP  
**Collected:** 2/9/22 09:45  
**Customer ID:**  
**Submittal Date:** 2/9/22 16:51

**Laboratory ID Number:** BC02847

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
* Selenium, Total	2/16/22 10:25	2/18/22 12:03		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Total	2/16/22 10:25	2/18/22 12:03		1.015	Not Detected	mg/L	0.000068	0.000203	U
<b>Analytical Method: EPA 200.8</b>		<b>Analyst: ABB</b>							
* Antimony, Dissolved	2/16/22 12:00	2/16/22 13:04		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Aluminum, Dissolved	2/16/22 12:00	2/16/22 13:04		1.015	0.00431	mg/L	0.004060	0.01015	J
* Arsenic, Dissolved	2/16/22 12:00	2/16/22 13:04		1.015	0.000694	mg/L	0.000068	0.000203	
* Barium, Dissolved	2/16/22 12:00	2/16/22 13:04		1.015	0.449	mg/L	0.000102	0.000203	
* Beryllium, Dissolved	2/16/22 12:00	2/16/22 13:04		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Dissolved	2/16/22 12:00	2/16/22 13:04		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Dissolved	2/16/22 12:00	2/16/22 13:04		1.015	0.000222	mg/L	0.000203	0.001015	J
* Cobalt, Dissolved	2/16/22 12:00	2/16/22 13:04		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Lead, Dissolved	2/16/22 12:00	2/16/22 13:04		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Dissolved	2/16/22 12:00	2/16/22 13:04		1.015	0.0471	mg/L	0.000068	0.000203	
* Molybdenum, Dissolved	2/16/22 12:00	2/16/22 13:04		1.015	0.00414	mg/L	0.000068	0.000203	
* Potassium, Dissolved	2/16/22 12:00	2/16/22 13:04		1.015	7.07	mg/L	0.169505	0.5075	
* Selenium, Dissolved	2/16/22 12:00	2/16/22 13:04		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Dissolved	2/16/22 12:00	2/16/22 13:04		1.015	Not Detected	mg/L	0.000068	0.000203	U
<b>Analytical Method: EPA 245.1</b>		<b>Analyst: CRB</b>							
* Mercury, Total by CVAA	2/15/22 17:19	2/15/22 21:29		1	Not Detected	mg/L	0.0003	0.0005	U
<b>Analytical Method: EPA 353.2</b>		<b>Analyst: ELH</b>							
* Nitrogen, Nitrate/Nitrite	2/17/22 11:45	2/17/22 11:45		1	Not Detected	mg/L as N	0.20	0.3	U
<b>Analytical Method: SM 2320 B</b>		<b>Analyst: ALH</b>							
Alkalinity, Total as CaCO3	2/21/22 10:00	2/21/22 10:40		1	247	mg/L		0.1	
<b>Analytical Method: SM 2540C</b>		<b>Analyst: CNJ</b>							
* Solids, Dissolved	2/11/22 12:35	2/14/22 13:44		1	471	mg/L		25	
<b>Analytical Method: SM 4500CO2 D</b>		<b>Analyst: ALH</b>							
Bicarbonate Alkalinity, (calc.)	2/21/22 10:00	2/21/22 10:40		1	246	mg/L			
Carbonate Alkalinity, (calc.)	2/21/22 10:00	2/21/22 10:40		1	1.06	mg/L			
<b>Analytical Method: SM 5310 B</b>		<b>Analyst: ELH</b>							
* Total Organic Carbon	2/15/22 11:18	2/15/22 11:18		1	3.74	mg/L	1.00	2	

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.



# Certificate Of Analysis

**Description:** Gorgas Ash Pond - MW-33HO

**Location Code:** WMWGORAP

**Collected:** 2/9/22 09:45

**Customer ID:**

**Submittal Date:** 2/9/22 16:51

**Laboratory ID Number:** BC02847

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
<b>Analytical Method: SM4500Cl E</b>		<b>Analyst: JCC</b>							
* Chloride	2/16/22 08:58	2/16/22 08:58		5	68.9	mg/L	2.50	5	
<b>Analytical Method: SM4500F G 2017</b>		<b>Analyst: JCC</b>							
* Fluoride	2/10/22 16:42	2/10/22 16:42		1	0.131	mg/L	0.06	0.1	
<b>Analytical Method: SM4500SO4 E 2011</b>		<b>Analyst: JCC</b>							
* Sulfate	2/14/22 15:41	2/14/22 15:41		4	77.8	mg/L	2.00	4	
<b>Analytical Method: Field Measurements</b>		<b>Analyst: DKG</b>							
Conductivity	2/9/22 09:42	2/9/22 09:42			832.18	uS/cm			FA
pH	2/9/22 09:42	2/9/22 09:42			7.64	SU			FA
Temperature	2/9/22 09:42	2/9/22 09:42			15.19	C			FA
Turbidity	2/9/22 09:42	2/9/22 09:42			1.92	NTU			FA

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.

# Batch QC Summary

**Customer Account:** WMWGORAP

**Sample Date:** 2/9/22 09:45

**Customer ID:**

**Delivery Date:** 2/9/22 16:51

**Description:** Gorgas Ash Pond - MW-33HO

**Laboratory ID Number:** BC02847

Sample	Analysis	Units	MB	MB		MS	MSD	Standard		Rec		Prec	Limit
				Limit	Spike			Standard	Limit	Rec	Limit		
BC02852	Aluminum, Dissolved	mg/L	-0.000374	0.010	0.100	0.100	0.101	0.102	0.0850 to 0.115	100	70.0 to 130	0.995	20.0
BC02852	Aluminum, Total	mg/L	0.000733	0.010	0.100	0.104	0.108	0.102	0.0850 to 0.115	96.8	70.0 to 130	3.77	20.0
BC02852	Antimony, Dissolved	mg/L	0.000203	0.00100	0.100	0.101	0.0998	0.0924	0.0850 to 0.115	101	70.0 to 130	1.20	20.0
BC02852	Antimony, Total	mg/L	0.000272	0.00100	0.100	0.104	0.106	0.0940	0.0850 to 0.115	104	70.0 to 130	1.90	20.0
BC02852	Arsenic, Dissolved	mg/L	0.000042	0.000176	0.100	0.0997	0.0989	0.101	0.0850 to 0.115	98.9	70.0 to 130	0.806	20.0
BC02852	Arsenic, Total	mg/L	0.0000123	0.000176	0.100	0.103	0.103	0.103	0.0850 to 0.115	102	70.0 to 130	0.00	20.0
BC02852	Barium, Dissolved	mg/L	0.00000	0.000200	0.100	0.162	0.156	0.0970	0.0850 to 0.115	105	70.0 to 130	3.77	20.0
BC02852	Barium, Total	mg/L	-0.0000515	0.000200	0.100	0.166	0.171	0.0977	0.0850 to 0.115	104	70.0 to 130	2.97	20.0
BC02852	Beryllium, Dissolved	mg/L	0.000201	0.000880	0.100	0.102	0.100	0.105	0.0850 to 0.115	102	70.0 to 130	1.98	20.0
BC02852	Beryllium, Total	mg/L	0.000156	0.000880	0.100	0.103	0.104	0.103	0.0850 to 0.115	103	70.0 to 130	0.966	20.0
BC02852	Boron, Dissolved	mg/L	-0.000566	0.0650	1.00	1.16	1.16	1.03	0.850 to 1.15	106	70.0 to 130	0.00	20.0
BC02852	Boron, Total	mg/L	-0.000505	0.0650	1.00	1.17	1.17	1.02	0.850 to 1.15	106	70.0 to 130	0.00	20.0
BC02852	Cadmium, Dissolved	mg/L	0.0000108	0.000147	0.100	0.101	0.0971	0.102	0.0850 to 0.115	101	70.0 to 130	3.94	20.0
BC02852	Cadmium, Total	mg/L	0.000005	0.000147	0.100	0.0987	0.103	0.105	0.0850 to 0.115	98.7	70.0 to 130	4.26	20.0
BC02852	Calcium, Dissolved	mg/L	-0.0177	0.152	5.00	105	116	4.85	4.25 to 5.75	146	70.0 to 130	9.95	20.0
BC02852	Calcium, Total	mg/L	0.00159	0.152	5.00	113	113	4.85	4.25 to 5.75	160	70.0 to 130	0.00	20.0
BC02852	Chromium, Dissolved	mg/L	-0.0000228	0.000440	0.100	0.0981	0.0981	0.102	0.0850 to 0.115	97.8	70.0 to 130	0.00	20.0
BC02852	Chromium, Total	mg/L	0.0000205	0.000440	0.100	0.0999	0.103	0.104	0.0850 to 0.115	99.5	70.0 to 130	3.06	20.0
BC02852	Cobalt, Dissolved	mg/L	0.0000091	0.000147	0.100	0.100	0.102	0.104	0.0850 to 0.115	100	70.0 to 130	1.98	20.0
BC02852	Cobalt, Total	mg/L	0.00001	0.000147	0.100	0.103	0.105	0.106	0.0850 to 0.115	103	70.0 to 130	1.92	20.0
BC02852	Iron, Dissolved	mg/L	-0.000454	0.0176	0.2	0.843	0.839	0.202	0.170 to 0.230	94.0	70.0 to 130	0.476	20.0
BC02852	Iron, Total	mg/L	-0.000195	0.0176	0.2	0.956	0.961	0.199	0.170 to 0.230	91.0	70.0 to 130	0.522	20.0
BC02852	Lead, Dissolved	mg/L	0.0000127	0.000147	0.100	0.105	0.104	0.108	0.0850 to 0.115	105	70.0 to 130	0.957	20.0
BC02852	Lead, Total	mg/L	0.000007	0.000147	0.100	0.108	0.109	0.107	0.0850 to 0.115	108	70.0 to 130	0.922	20.0

**Comments:** The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.

# Batch QC Summary

**Customer Account:** WMWGORAP

**Sample Date:** 2/9/22 09:45

**Customer ID:**

**Delivery Date:** 2/9/22 16:51

**Description:** Gorgas Ash Pond - MW-33HO

**Laboratory ID Number:** BC02847

Sample	Analysis	Units	MB	MB				Standard		Rec		Prec	Limit
				Limit	Spike	MS	MSD	Standard	Limit	Rec	Limit		
BC02852	Lithium, Dissolved	mg/L	-0.000064	0.0154	0.200	0.382	0.390	0.202	0.170 to 0.230	104	70.0 to 130	2.07	20.0
BC02852	Lithium, Total	mg/L	-0.000069	0.0154	0.200	0.410	0.408	0.197	0.170 to 0.230	112	70.0 to 130	0.489	20.0
BC02852	Magnesium, Dissolved	mg/L	0.000534	0.0462	5.00	35.6	36.0	5.13	4.25 to 5.75	96.0	70.0 to 130	1.12	20.0
BC02852	Magnesium, Total	mg/L	0.00626	0.0462	5.00	37.2	37.3	5.02	4.25 to 5.75	98.0	70.0 to 130	0.268	20.0
BC02852	Manganese, Dissolved	mg/L	-0.0000656	0.0002	0.100	0.356	0.362	0.103	0.0850 to 0.115	97.0	70.0 to 130	1.67	20.0
BC02852	Manganese, Total	mg/L	0.0000193	0.0002	0.100	0.376	0.387	0.105	0.0850 to 0.115	102	70.0 to 130	2.88	20.0
BC02852	Mercury, Total by CVAA	mg/L	3.000E-05	0.000500	0.004	0.00393	0.00395	0.00391	0.00340 to 0.00460	98.2	70.0 to 130	0.508	20.0
BC02852	Molybdenum, Dissolved	mg/L	0.0000141	0.0002	0.100	0.0990	0.0987	0.100	0.0850 to 0.115	96.8	70.0 to 130	0.303	20.0
BC02852	Molybdenum, Total	mg/L	0.0000249	0.0002	0.100	0.113	0.111	0.102	0.0850 to 0.115	103	70.0 to 130	1.79	20.0
BC02852	Potassium, Dissolved	mg/L	0.00869	0.367	10.0	75.9	77.5	10.1	8.50 to 11.5	84.0	70.0 to 130	2.09	20.0
BC02852	Potassium, Total	mg/L	0.00769	0.367	10.0	78.5	81.3	10.5	8.50 to 11.5	84.0	70.0 to 130	3.50	20.0
BC02852	Selenium, Dissolved	mg/L	0.0000444	0.00100	0.100	0.0963	0.0948	0.104	0.0850 to 0.115	96.3	70.0 to 130	1.57	20.0
BC02852	Selenium, Total	mg/L	0.0000021	0.00100	0.100	0.101	0.100	0.108	0.0850 to 0.115	101	70.0 to 130	0.995	20.0
BC02852	Silicon, Dissolved	mg/L	-0.00084	0.0440	1.00	6.44	6.42	1.04	0.850 to 1.15	97.0	70.0 to 130	0.311	20.0
BC02852	Silicon, Total	mg/L	0.000099	0.0440	1.00	6.48	6.51	1.02	0.850 to 1.15	91.0	70.0 to 130	0.462	20.0
BC02852	Sodium, Dissolved	mg/L	0.000535	0.0660	5.00	837	882	5.06	4.25 to 5.75	-240	70.0 to 130	5.24	20.0
BC02852	Sodium, Total	mg/L	0.00888	0.0660	5.00	921	918	4.85	4.25 to 5.75	700	70.0 to 130	0.326	20.0
BC02852	Thallium, Dissolved	mg/L	0.0000024	0.000147	0.100	0.100	0.100	0.104	0.0850 to 0.115	100	70.0 to 130	0.00	20.0
BC02852	Thallium, Total	mg/L	0.0000061	0.000147	0.100	0.113	0.112	0.113	0.0850 to 0.115	113	70.0 to 130	0.889	20.0
BC02852	Total Organic Carbon	mg/L	0.330	1.00	10.0	19.6	20.3	24.4		104	80.0 to 120	3.51	20.0

**Comments:** The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.

## Batch QC Summary

**Customer Account:** WMWGORAP

**Sample Date:** 2/9/22 09:45

**Customer ID:**

**Delivery Date:** 2/9/22 16:51

**Description:** Gorgas Ash Pond - MW-33HO

**Laboratory ID Number:** BC02847

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BC02852	Alkalinity, Total as CaCO3	mg/L					194	50.7	45.0 to 55.0			0.514	10.0
BC02852	Chloride	mg/L	-0.0516	1.00	1000	1370	385	10.2	9.00 to 11.0	97.8	80.0 to 120	1.80	20.0
BC02852	Fluoride	mg/L	-0.00752	0.125	2.50	2.86	0.242	2.66	2.25 to 2.75	103	80.0 to 120	18.4	20.0
BC02852	Nitrogen, Nitrate/Nitrite	mg/L as N	0.07	0.200	2.00	2.06	0.072	1.94	1.80 to 2.20	103	90.0 to 110	0.00	15.0
BC02852	Solids, Dissolved	mg/L	1.00	25.0			3120	46.0	40.0 to 60.0			0.320	10.0
BC02852	Sulfate	mg/L	-0.206	2.0	1600	3170	1560	19.8	18.0 to 22.0	100	80.0 to 120	0.639	20.0

**Comments:** The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.

# Certificate Of Analysis

**Description:** Gorgas Ash Pond Field Blank-1

**Location Code:** WMWGORAPFB  
**Collected:** 2/9/22 10:50  
**Customer ID:**  
**Submittal Date:** 2/9/22 16:51

**Laboratory ID Number:** BC02848

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
<b>Analytical Method: EPA 200.7</b>		<b>Analyst: RDA</b>			<b>Preparation Method: EPA 1638</b>				
* Boron, Total	2/14/22 12:00	2/17/22 12:05		1.015	Not Detected	mg/L	0.030000	0.1015	U
* Calcium, Total	2/14/22 12:00	2/17/22 12:05		1.015	Not Detected	mg/L	0.070035	0.406	U
* Iron, Total	2/14/22 12:00	2/17/22 12:05		1.015	Not Detected	mg/L	0.008120	0.0406	U
* Lithium, Total	2/14/22 12:00	2/17/22 12:05		1.015	Not Detected	mg/L	0.007105	0.01999956	U
* Magnesium, Total	2/14/22 12:00	2/17/22 12:05		1.015	Not Detected	mg/L	0.021315	0.406	U
Silica, Total (calc.)	2/14/22 12:00	2/17/22 12:05		1	Not Detected	mg/L			
Silicon, Total	2/14/22 12:00	2/17/22 12:05		1.015	Not Detected	mg/L	0.02030	0.25375	U
* Sodium, Total	2/14/22 12:00	2/17/22 12:05		1.015	Not Detected	mg/L	0.03045	0.406	U
<b>Analytical Method: EPA 200.8</b>		<b>Analyst: ABB</b>			<b>Preparation Method: EPA 1638</b>				
* Antimony, Total	2/16/22 10:25	2/18/22 12:06		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Aluminum, Total	2/16/22 10:25	2/18/22 12:06		1.015	Not Detected	mg/L	0.004060	0.01015	U
* Arsenic, Total	2/16/22 10:25	2/18/22 12:06		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Barium, Total	2/16/22 10:25	2/18/22 12:06		1.015	Not Detected	mg/L	0.000102	0.000203	U
* Beryllium, Total	2/16/22 10:25	2/18/22 12:06		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Total	2/16/22 10:25	2/18/22 12:06		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Total	2/16/22 10:25	2/18/22 12:06		1.015	0.000304	mg/L	0.000203	0.001015	J
* Cobalt, Total	2/16/22 10:25	2/18/22 12:06		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Lead, Total	2/16/22 10:25	2/18/22 12:06		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Total	2/16/22 10:25	2/18/22 12:06		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Molybdenum, Total	2/16/22 10:25	2/18/22 12:06		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Potassium, Total	2/16/22 10:25	2/18/22 12:06		1.015	Not Detected	mg/L	0.169505	0.5075	U
* Selenium, Total	2/16/22 10:25	2/18/22 12:06		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Total	2/16/22 10:25	2/18/22 12:06		1.015	Not Detected	mg/L	0.000068	0.000203	U
<b>Analytical Method: EPA 245.1</b>		<b>Analyst: CRB</b>							
* Mercury, Total by CVAA	2/15/22 17:19	2/15/22 21:33		1	Not Detected	mg/L	0.0003	0.0005	U
<b>Analytical Method: EPA 353.2</b>		<b>Analyst: ELH</b>							
* Nitrogen, Nitrate/Nitrite	2/17/22 11:47	2/17/22 11:47		1	Not Detected	mg/L as N	0.20	0.3	U
<b>Analytical Method: SM 2540C</b>		<b>Analyst: CNJ</b>							
* Solids, Dissolved	2/11/22 12:35	2/14/22 13:44		1	Not Detected	mg/L		25	U

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

**Comments:**

# Certificate Of Analysis

**Description:** Gorgas Ash Pond Field Blank-1

**Location Code:** WMWGORAPFB

**Collected:** 2/9/22 10:50

**Customer ID:**

**Submittal Date:** 2/9/22 16:51

**Laboratory ID Number:** BC02848

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
<b>Analytical Method: SM 5310 B</b>		<b>Analyst: ELH</b>							
* Total Organic Carbon	2/15/22 11:35	2/15/22 11:35		1	Not Detected	mg/L	1.00	2	U
<b>Analytical Method: SM4500Cl E</b>		<b>Analyst: JCC</b>							
* Chloride	2/16/22 08:59	2/16/22 08:59		1	Not Detected	mg/L	0.50	1	U
<b>Analytical Method: SM4500F G 2017</b>		<b>Analyst: JCC</b>							
* Fluoride	2/10/22 16:44	2/10/22 16:44		1	Not Detected	mg/L	0.06	0.1	U
<b>Analytical Method: SM4500SO4 E 2011</b>		<b>Analyst: JCC</b>							
* Sulfate	2/14/22 15:42	2/14/22 15:42		1	Not Detected	mg/L	0.50	1	U

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

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**Comments:**

# Batch QC Summary

**Customer Account:** WMWGORAPFB

**Sample Date:** 2/9/22 10:50

**Customer ID:**

**Delivery Date:** 2/9/22 16:51

**Description:** Gorgas Ash Pond Field Blank-1

**Laboratory ID Number:** BC02848

Sample	Analysis	Units	MB		Spike	MS	MSD	Standard		Rec		Prec	Limit
			MB	Limit				Standard	Limit	Rec	Limit		
BC02852	Aluminum, Total	mg/L	0.000733	0.010	0.100	0.104	0.108	0.102	0.0850 to 0.115	96.8	70.0 to 130	3.77	20.0
BC02852	Antimony, Total	mg/L	0.000272	0.00100	0.100	0.104	0.106	0.0940	0.0850 to 0.115	104	70.0 to 130	1.90	20.0
BC02852	Arsenic, Total	mg/L	0.0000123	0.000176	0.100	0.103	0.103	0.103	0.0850 to 0.115	102	70.0 to 130	0.00	20.0
BC02852	Barium, Total	mg/L	-0.0000515	0.000200	0.100	0.166	0.171	0.0977	0.0850 to 0.115	104	70.0 to 130	2.97	20.0
BC02852	Beryllium, Total	mg/L	0.000156	0.000880	0.100	0.103	0.104	0.103	0.0850 to 0.115	103	70.0 to 130	0.966	20.0
BC02852	Boron, Total	mg/L	-0.000505	0.0650	1.00	1.17	1.17	1.02	0.850 to 1.15	106	70.0 to 130	0.00	20.0
BC02852	Cadmium, Total	mg/L	0.000005	0.000147	0.100	0.0987	0.103	0.105	0.0850 to 0.115	98.7	70.0 to 130	4.26	20.0
BC02852	Calcium, Total	mg/L	0.00159	0.152	5.00	113	113	4.85	4.25 to 5.75	160	70.0 to 130	0.00	20.0
BC02852	Chromium, Total	mg/L	0.0000205	0.000440	0.100	0.0999	0.103	0.104	0.0850 to 0.115	99.5	70.0 to 130	3.06	20.0
BC02852	Cobalt, Total	mg/L	0.00001	0.000147	0.100	0.103	0.105	0.106	0.0850 to 0.115	103	70.0 to 130	1.92	20.0
BC02852	Iron, Total	mg/L	-0.000195	0.0176	0.2	0.956	0.961	0.199	0.170 to 0.230	91.0	70.0 to 130	0.522	20.0
BC02852	Lead, Total	mg/L	0.000007	0.000147	0.100	0.108	0.109	0.107	0.0850 to 0.115	108	70.0 to 130	0.922	20.0
BC02852	Lithium, Total	mg/L	-0.000069	0.0154	0.200	0.410	0.408	0.197	0.170 to 0.230	112	70.0 to 130	0.489	20.0
BC02852	Magnesium, Total	mg/L	0.00626	0.0462	5.00	37.2	37.3	5.02	4.25 to 5.75	98.0	70.0 to 130	0.268	20.0
BC02852	Manganese, Total	mg/L	0.0000193	0.0002	0.100	0.376	0.387	0.105	0.0850 to 0.115	102	70.0 to 130	2.88	20.0
BC02852	Mercury, Total by CVAA	mg/L	3.000E-05	0.000500	0.004	0.00393	0.00395	0.00391	0.00340 to 0.00460	98.2	70.0 to 130	0.508	20.0
BC02852	Molybdenum, Total	mg/L	0.0000249	0.0002	0.100	0.113	0.111	0.102	0.0850 to 0.115	103	70.0 to 130	1.79	20.0
BC02852	Potassium, Total	mg/L	0.00769	0.367	10.0	78.5	81.3	10.5	8.50 to 11.5	84.0	70.0 to 130	3.50	20.0
BC02852	Selenium, Total	mg/L	0.0000021	0.00100	0.100	0.101	0.100	0.108	0.0850 to 0.115	101	70.0 to 130	0.995	20.0
BC02852	Silicon, Total	mg/L	0.000099	0.0440	1.00	6.48	6.51	1.02	0.850 to 1.15	91.0	70.0 to 130	0.462	20.0
BC02852	Sodium, Total	mg/L	0.00888	0.0660	5.00	921	918	4.85	4.25 to 5.75	700	70.0 to 130	0.326	20.0
BC02852	Thallium, Total	mg/L	0.0000061	0.000147	0.100	0.113	0.112	0.113	0.0850 to 0.115	113	70.0 to 130	0.889	20.0
BC02852	Total Organic Carbon	mg/L	0.330	1.00	10.0	19.6	20.3	24.4		104	80.0 to 120	3.51	20.0

**Comments:**

## Batch QC Summary

**Customer Account:** WMWGORAPFB

**Sample Date:** 2/9/22 10:50

**Customer ID:**

**Delivery Date:** 2/9/22 16:51

**Description:** Gorgas Ash Pond Field Blank-1

**Laboratory ID Number:** BC02848

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BC02852	Chloride	mg/L	-0.0516	1.00	1000	1370	385	10.2	9.00 to 11.0	97.8	80.0 to 120	1.80	20.0
BC02852	Fluoride	mg/L	-0.00752	0.125	2.50	2.86	0.242	2.66	2.25 to 2.75	103	80.0 to 120	18.4	20.0
BC02852	Nitrogen, Nitrate/Nitrite	mg/L as N	0.07	0.200	2.00	2.06	0.072	1.94	1.80 to 2.20	103	90.0 to 110	0.00	15.0
BC02852	Solids, Dissolved	mg/L	1.00	25.0			3120	46.0	40.0 to 60.0			0.320	10.0
BC02852	Sulfate	mg/L	-0.206	2.0	1600	3170	1560	19.8	18.0 to 22.0	100	80.0 to 120	0.639	20.0

**Comments:**



# Certificate Of Analysis

**Description:** Gorgas Ash Pond - MW-35HO

**Location Code:** WMWGORAP  
**Collected:** 2/9/22 11:46  
**Customer ID:**  
**Submittal Date:** 2/9/22 16:51

**Laboratory ID Number:** BC02849

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q	
<b>Analytical Method: EPA 200.7</b>		<b>Analyst: RDA</b>			<b>Preparation Method: EPA 1638</b>					
* Boron, Total	2/14/22 12:00	2/17/22 12:07		1.015	Not Detected	mg/L	0.030000	0.1015	U	
* Calcium, Total	2/14/22 12:00	2/17/22 12:07		1.015	2.11	mg/L	0.070035	0.406		
* Iron, Total	2/14/22 12:00	2/17/22 12:07		1.015	0.0283	mg/L	0.008120	0.0406	J	
* Lithium, Total	2/14/22 12:00	2/17/22 12:07		1.015	0.0673	mg/L	0.007105	0.01999956		
* Magnesium, Total	2/14/22 12:00	2/17/22 12:07		1.015	0.519	mg/L	0.021315	0.406		
Silica, Total (calc.)	2/14/22 12:00	2/17/22 12:07		1	18.9	mg/L				
Silicon, Total	2/14/22 12:00	2/17/22 12:07		1.015	8.84	mg/L	0.02030	0.25375		
* Sodium, Total	2/14/22 12:00	2/17/22 13:46		10.15	119	mg/L	0.3045	4.06		
<b>Analytical Method: EPA 200.7</b>		<b>Analyst: RDA</b>			<b>Preparation Method: EPA 1638</b>					
* Boron, Dissolved	2/14/22 12:00	2/17/22 10:45		1.015	Not Detected	mg/L	0.030000	0.1015	U	
* Calcium, Dissolved	2/14/22 12:00	2/17/22 10:45		1.015	2.16	mg/L	0.070035	0.406		
* Iron, Dissolved	2/14/22 12:00	2/17/22 10:45		1.015	0.0145	mg/L	0.008120	0.0406	J	
* Lithium, Dissolved	2/14/22 12:00	2/17/22 10:45		1.015	0.0622	mg/L	0.007105	0.01999956		
* Magnesium, Dissolved	2/14/22 12:00	2/17/22 10:45		1.015	0.479	mg/L	0.021315	0.406		
Silica, Dissolved (calc.)	2/14/22 12:00	2/17/22 10:45		1	19.0	mg/L				
Silicon, Dissolved	2/14/22 12:00	2/17/22 10:45		1.015	8.90	mg/L	0.02030	0.25375		
* Sodium, Dissolved	2/14/22 12:00	2/17/22 12:59		10.15	119	mg/L	0.3045	4.06		
<b>Analytical Method: EPA 200.8</b>		<b>Analyst: ABB</b>			<b>Preparation Method: EPA 1638</b>					
* Antimony, Total	2/16/22 10:25	2/18/22 12:10		1.015	Not Detected	mg/L	0.000508	0.001015	U	
* Aluminum, Total	2/16/22 10:25	2/18/22 12:10		1.015	0.0210	mg/L	0.004060	0.01015		
* Arsenic, Total	2/16/22 10:25	2/18/22 12:10		1.015	0.000192	mg/L	0.000068	0.000203	J	
* Barium, Total	2/16/22 10:25	2/18/22 12:10		1.015	0.0516	mg/L	0.000102	0.000203		
* Beryllium, Total	2/16/22 10:25	2/18/22 12:10		1.015	Not Detected	mg/L	0.000406	0.001015	U	
* Cadmium, Total	2/16/22 10:25	2/18/22 12:10		1.015	Not Detected	mg/L	0.000068	0.000203	U	
* Chromium, Total	2/16/22 10:25	2/18/22 12:10		1.015	0.000286	mg/L	0.000203	0.001015	J	
* Cobalt, Total	2/16/22 10:25	2/18/22 12:10		1.015	Not Detected	mg/L	0.000068	0.000203	U	
* Lead, Total	2/16/22 10:25	2/18/22 12:10		1.015	Not Detected	mg/L	0.000068	0.000203	U	
* Manganese, Total	2/16/22 10:25	2/18/22 12:10		1.015	0.00618	mg/L	0.000068	0.000203		
* Molybdenum, Total	2/16/22 10:25	2/18/22 12:10		1.015	0.00175	mg/L	0.000068	0.000203		
* Potassium, Total	2/16/22 10:25	2/18/22 12:10		1.015	2.15	mg/L	0.169505	0.5075		

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.

# Certificate Of Analysis

**Description:** Gorgas Ash Pond - MW-35HO

**Location Code:** WMWGORAP  
**Collected:** 2/9/22 11:46  
**Customer ID:**  
**Submittal Date:** 2/9/22 16:51

**Laboratory ID Number:** BC02849

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
* Selenium, Total	2/16/22 10:25	2/18/22 12:10		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Total	2/16/22 10:25	2/18/22 12:10		1.015	Not Detected	mg/L	0.000068	0.000203	U
<b>Analytical Method: EPA 200.8</b>		<b>Analyst: ABB</b>							
* Antimony, Dissolved	2/16/22 12:00	2/16/22 13:07		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Aluminum, Dissolved	2/16/22 12:00	2/16/22 13:07		1.015	0.00729	mg/L	0.004060	0.01015	J
* Arsenic, Dissolved	2/16/22 12:00	2/16/22 13:07		1.015	0.000200	mg/L	0.000068	0.000203	J
* Barium, Dissolved	2/16/22 12:00	2/16/22 13:07		1.015	0.0499	mg/L	0.000102	0.000203	
* Beryllium, Dissolved	2/16/22 12:00	2/16/22 13:07		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Dissolved	2/16/22 12:00	2/16/22 13:07		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Dissolved	2/16/22 12:00	2/16/22 13:07		1.015	Not Detected	mg/L	0.000203	0.001015	U
* Cobalt, Dissolved	2/16/22 12:00	2/16/22 13:07		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Lead, Dissolved	2/16/22 12:00	2/16/22 13:07		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Dissolved	2/16/22 12:00	2/16/22 13:07		1.015	0.00588	mg/L	0.000068	0.000203	
* Molybdenum, Dissolved	2/16/22 12:00	2/16/22 13:07		1.015	0.00178	mg/L	0.000068	0.000203	
* Potassium, Dissolved	2/16/22 12:00	2/16/22 13:07		1.015	2.06	mg/L	0.169505	0.5075	
* Selenium, Dissolved	2/16/22 12:00	2/16/22 13:07		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Dissolved	2/16/22 12:00	2/16/22 13:07		1.015	Not Detected	mg/L	0.000068	0.000203	U
<b>Analytical Method: EPA 245.1</b>		<b>Analyst: CRB</b>							
* Mercury, Total by CVAA	2/15/22 17:19	2/15/22 21:37		1	Not Detected	mg/L	0.0003	0.0005	U
<b>Analytical Method: EPA 353.2</b>		<b>Analyst: ELH</b>							
* Nitrogen, Nitrate/Nitrite	2/17/22 11:47	2/17/22 11:47		1	Not Detected	mg/L as N	0.20	0.3	U
<b>Analytical Method: SM 2320 B</b>		<b>Analyst: ALH</b>							
Alkalinity, Total as CaCO3	2/21/22 10:00	2/21/22 10:40		1	241	mg/L		0.1	
<b>Analytical Method: SM 2540C</b>		<b>Analyst: CNJ</b>							
* Solids, Dissolved	2/11/22 12:35	2/14/22 13:44		1	322	mg/L		25	
<b>Analytical Method: SM 4500CO2 D</b>		<b>Analyst: ALH</b>							
Bicarbonate Alkalinity, (calc.)	2/21/22 10:00	2/21/22 10:40		1	235	mg/L			
Carbonate Alkalinity, (calc.)	2/21/22 10:00	2/21/22 10:40		1	5.68	mg/L			
<b>Analytical Method: SM 5310 B</b>		<b>Analyst: ELH</b>							
* Total Organic Carbon	2/15/22 11:54	2/15/22 11:54		1	1.02	mg/L	1.00	2	J

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.

# Certificate Of Analysis

**Description:** Gorgas Ash Pond - MW-35HO

**Location Code:** WMWGORAP

**Collected:** 2/9/22 11:46

**Customer ID:**

**Submittal Date:** 2/9/22 16:51

**Laboratory ID Number:** BC02849

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
<b>Analytical Method: SM4500Cl E</b>		<b>Analyst: JCC</b>							
* Chloride	2/16/22 09:00	2/16/22 09:00		1	17.5	mg/L	0.50	1	
<b>Analytical Method: SM4500F G 2017</b>		<b>Analyst: JCC</b>							
* Fluoride	2/10/22 16:45	2/10/22 16:45		1	0.119	mg/L	0.06	0.1	
<b>Analytical Method: SM4500SO4 E 2011</b>		<b>Analyst: JCC</b>							
* Sulfate	2/14/22 15:43	2/14/22 15:43		1	21.7	mg/L	0.50	1	
<b>Analytical Method: Field Measurements</b>		<b>Analyst: DKG</b>							
Conductivity	2/9/22 11:43	2/9/22 11:43			545.36	uS/cm			FA
pH	2/9/22 11:43	2/9/22 11:43			8.55	SU			FA
Temperature	2/9/22 11:43	2/9/22 11:43			17.16	C			FA
Turbidity	2/9/22 11:43	2/9/22 11:43			1.98	NTU			FA

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.

# Batch QC Summary

**Customer Account:** WMWGORAP

**Sample Date:** 2/9/22 11:46

**Customer ID:**

**Delivery Date:** 2/9/22 16:51

**Description:** Gorgas Ash Pond - MW-35HO

**Laboratory ID Number:** BC02849

Sample	Analysis	Units	MB	MB		MS	MSD	Standard		Rec		Prec	Limit
				Limit	Spike			Standard	Limit	Rec	Limit		
BC02852	Aluminum, Dissolved	mg/L	-0.000374	0.010	0.100	0.100	0.101	0.102	0.0850 to 0.115	100	70.0 to 130	0.995	20.0
BC02852	Aluminum, Total	mg/L	0.000733	0.010	0.100	0.104	0.108	0.102	0.0850 to 0.115	96.8	70.0 to 130	3.77	20.0
BC02852	Antimony, Dissolved	mg/L	0.000203	0.00100	0.100	0.101	0.0998	0.0924	0.0850 to 0.115	101	70.0 to 130	1.20	20.0
BC02852	Antimony, Total	mg/L	0.000272	0.00100	0.100	0.104	0.106	0.0940	0.0850 to 0.115	104	70.0 to 130	1.90	20.0
BC02852	Arsenic, Dissolved	mg/L	0.000042	0.000176	0.100	0.0997	0.0989	0.101	0.0850 to 0.115	98.9	70.0 to 130	0.806	20.0
BC02852	Arsenic, Total	mg/L	0.0000123	0.000176	0.100	0.103	0.103	0.103	0.0850 to 0.115	102	70.0 to 130	0.00	20.0
BC02852	Barium, Dissolved	mg/L	0.00000	0.000200	0.100	0.162	0.156	0.0970	0.0850 to 0.115	105	70.0 to 130	3.77	20.0
BC02852	Barium, Total	mg/L	-0.0000515	0.000200	0.100	0.166	0.171	0.0977	0.0850 to 0.115	104	70.0 to 130	2.97	20.0
BC02852	Beryllium, Dissolved	mg/L	0.000201	0.000880	0.100	0.102	0.100	0.105	0.0850 to 0.115	102	70.0 to 130	1.98	20.0
BC02852	Beryllium, Total	mg/L	0.000156	0.000880	0.100	0.103	0.104	0.103	0.0850 to 0.115	103	70.0 to 130	0.966	20.0
BC02852	Boron, Dissolved	mg/L	-0.000566	0.0650	1.00	1.16	1.16	1.03	0.850 to 1.15	106	70.0 to 130	0.00	20.0
BC02852	Boron, Total	mg/L	-0.000505	0.0650	1.00	1.17	1.17	1.02	0.850 to 1.15	106	70.0 to 130	0.00	20.0
BC02852	Cadmium, Dissolved	mg/L	0.0000108	0.000147	0.100	0.101	0.0971	0.102	0.0850 to 0.115	101	70.0 to 130	3.94	20.0
BC02852	Cadmium, Total	mg/L	0.000005	0.000147	0.100	0.0987	0.103	0.105	0.0850 to 0.115	98.7	70.0 to 130	4.26	20.0
BC02852	Calcium, Dissolved	mg/L	-0.0177	0.152	5.00	105	116	4.85	4.25 to 5.75	146	70.0 to 130	9.95	20.0
BC02852	Calcium, Total	mg/L	0.00159	0.152	5.00	113	113	4.85	4.25 to 5.75	160	70.0 to 130	0.00	20.0
BC02852	Chromium, Dissolved	mg/L	-0.0000228	0.000440	0.100	0.0981	0.0981	0.102	0.0850 to 0.115	97.8	70.0 to 130	0.00	20.0
BC02852	Chromium, Total	mg/L	0.0000205	0.000440	0.100	0.0999	0.103	0.104	0.0850 to 0.115	99.5	70.0 to 130	3.06	20.0
BC02852	Cobalt, Dissolved	mg/L	0.0000091	0.000147	0.100	0.100	0.102	0.104	0.0850 to 0.115	100	70.0 to 130	1.98	20.0
BC02852	Cobalt, Total	mg/L	0.00001	0.000147	0.100	0.103	0.105	0.106	0.0850 to 0.115	103	70.0 to 130	1.92	20.0
BC02852	Iron, Dissolved	mg/L	-0.000454	0.0176	0.2	0.843	0.839	0.202	0.170 to 0.230	94.0	70.0 to 130	0.476	20.0
BC02852	Iron, Total	mg/L	-0.000195	0.0176	0.2	0.956	0.961	0.199	0.170 to 0.230	91.0	70.0 to 130	0.522	20.0
BC02852	Lead, Dissolved	mg/L	0.0000127	0.000147	0.100	0.105	0.104	0.108	0.0850 to 0.115	105	70.0 to 130	0.957	20.0
BC02852	Lead, Total	mg/L	0.000007	0.000147	0.100	0.108	0.109	0.107	0.0850 to 0.115	108	70.0 to 130	0.922	20.0

**Comments:** The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.

# Batch QC Summary

**Customer Account:** WMWGORAP

**Sample Date:** 2/9/22 11:46

**Customer ID:**

**Delivery Date:** 2/9/22 16:51

**Description:** Gorgas Ash Pond - MW-35HO

**Laboratory ID Number:** BC02849

Sample	Analysis	Units	MB	MB				Standard		Rec		Prec	Limit
				Limit	Spike	MS	MSD	Standard	Limit	Rec	Limit		
BC02852	Lithium, Dissolved	mg/L	-0.000064	0.0154	0.200	0.382	0.390	0.202	0.170 to 0.230	104	70.0 to 130	2.07	20.0
BC02852	Lithium, Total	mg/L	-0.000069	0.0154	0.200	0.410	0.408	0.197	0.170 to 0.230	112	70.0 to 130	0.489	20.0
BC02852	Magnesium, Dissolved	mg/L	0.000534	0.0462	5.00	35.6	36.0	5.13	4.25 to 5.75	96.0	70.0 to 130	1.12	20.0
BC02852	Magnesium, Total	mg/L	0.00626	0.0462	5.00	37.2	37.3	5.02	4.25 to 5.75	98.0	70.0 to 130	0.268	20.0
BC02852	Manganese, Dissolved	mg/L	-0.0000656	0.0002	0.100	0.356	0.362	0.103	0.0850 to 0.115	97.0	70.0 to 130	1.67	20.0
BC02852	Manganese, Total	mg/L	0.0000193	0.0002	0.100	0.376	0.387	0.105	0.0850 to 0.115	102	70.0 to 130	2.88	20.0
BC02852	Mercury, Total by CVAA	mg/L	3.000E-05	0.000500	0.004	0.00393	0.00395	0.00391	0.00340 to 0.00460	98.2	70.0 to 130	0.508	20.0
BC02852	Molybdenum, Dissolved	mg/L	0.0000141	0.0002	0.100	0.0990	0.0987	0.100	0.0850 to 0.115	96.8	70.0 to 130	0.303	20.0
BC02852	Molybdenum, Total	mg/L	0.0000249	0.0002	0.100	0.113	0.111	0.102	0.0850 to 0.115	103	70.0 to 130	1.79	20.0
BC02852	Potassium, Dissolved	mg/L	0.00869	0.367	10.0	75.9	77.5	10.1	8.50 to 11.5	84.0	70.0 to 130	2.09	20.0
BC02852	Potassium, Total	mg/L	0.00769	0.367	10.0	78.5	81.3	10.5	8.50 to 11.5	84.0	70.0 to 130	3.50	20.0
BC02852	Selenium, Dissolved	mg/L	0.0000444	0.00100	0.100	0.0963	0.0948	0.104	0.0850 to 0.115	96.3	70.0 to 130	1.57	20.0
BC02852	Selenium, Total	mg/L	0.0000021	0.00100	0.100	0.101	0.100	0.108	0.0850 to 0.115	101	70.0 to 130	0.995	20.0
BC02852	Silicon, Dissolved	mg/L	-0.00084	0.0440	1.00	6.44	6.42	1.04	0.850 to 1.15	97.0	70.0 to 130	0.311	20.0
BC02852	Silicon, Total	mg/L	0.000099	0.0440	1.00	6.48	6.51	1.02	0.850 to 1.15	91.0	70.0 to 130	0.462	20.0
BC02852	Sodium, Dissolved	mg/L	0.000535	0.0660	5.00	837	882	5.06	4.25 to 5.75	-240	70.0 to 130	5.24	20.0
BC02852	Sodium, Total	mg/L	0.00888	0.0660	5.00	921	918	4.85	4.25 to 5.75	700	70.0 to 130	0.326	20.0
BC02852	Thallium, Dissolved	mg/L	0.0000024	0.000147	0.100	0.100	0.100	0.104	0.0850 to 0.115	100	70.0 to 130	0.00	20.0
BC02852	Thallium, Total	mg/L	0.0000061	0.000147	0.100	0.113	0.112	0.113	0.0850 to 0.115	113	70.0 to 130	0.889	20.0
BC02852	Total Organic Carbon	mg/L	0.330	1.00	10.0	19.6	20.3	24.4		104	80.0 to 120	3.51	20.0

**Comments:** The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.

## Batch QC Summary

**Customer Account:** WMWGORAP

**Sample Date:** 2/9/22 11:46

**Customer ID:**

**Delivery Date:** 2/9/22 16:51

**Description:** Gorgas Ash Pond - MW-35HO

**Laboratory ID Number:** BC02849

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Limit	Prec	Prec Limit
BC02852	Alkalinity, Total as CaCO3	mg/L					194	50.7	45.0 to 55.0			0.514	10.0
BC02852	Chloride	mg/L	-0.0516	1.00	1000	1370	385	10.2	9.00 to 11.0	97.8	80.0 to 120	1.80	20.0
BC02852	Fluoride	mg/L	-0.00752	0.125	2.50	2.86	0.242	2.66	2.25 to 2.75	103	80.0 to 120	18.4	20.0
BC02852	Nitrogen, Nitrate/Nitrite	mg/L as N	0.07	0.200	2.00	2.06	0.072	1.94	1.80 to 2.20	103	90.0 to 110	0.00	15.0
BC02852	Solids, Dissolved	mg/L	1.00	25.0			3120	46.0	40.0 to 60.0			0.320	10.0
BC02852	Sulfate	mg/L	-0.206	2.0	1600	3170	1560	19.8	18.0 to 22.0	100	80.0 to 120	0.639	20.0

**Comments:** The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.

# Certificate Of Analysis

**Description:** Gorgas Ash Pond - MW-35HO DUP

**Location Code:** WMWGORAP  
**Collected:** 2/9/22 11:46  
**Customer ID:**  
**Submittal Date:** 2/9/22 16:51

**Laboratory ID Number:** BC02850

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q	
<b>Analytical Method: EPA 200.7</b>		<b>Analyst: RDA</b>			<b>Preparation Method: EPA 1638</b>					
* Boron, Total	2/14/22 12:00	2/17/22 12:09		1.015	Not Detected	mg/L	0.030000	0.1015	U	
* Calcium, Total	2/14/22 12:00	2/17/22 12:09		1.015	2.19	mg/L	0.070035	0.406		
* Iron, Total	2/14/22 12:00	2/17/22 12:09		1.015	0.0297	mg/L	0.008120	0.0406	J	
* Lithium, Total	2/14/22 12:00	2/17/22 12:09		1.015	0.0632	mg/L	0.007105	0.01999956		
* Magnesium, Total	2/14/22 12:00	2/17/22 12:09		1.015	0.493	mg/L	0.021315	0.406		
Silica, Total (calc.)	2/14/22 12:00	2/17/22 12:09		1	19.1	mg/L				
Silicon, Total	2/14/22 12:00	2/17/22 12:09		1.015	8.94	mg/L	0.02030	0.25375		
* Sodium, Total	2/14/22 12:00	2/17/22 13:48		10.15	116	mg/L	0.3045	4.06		
<b>Analytical Method: EPA 200.7</b>		<b>Analyst: RDA</b>			<b>Preparation Method: EPA 1638</b>					
* Boron, Dissolved	2/14/22 12:00	2/17/22 10:46		1.015	Not Detected	mg/L	0.030000	0.1015	U	
* Calcium, Dissolved	2/14/22 12:00	2/17/22 10:46		1.015	2.20	mg/L	0.070035	0.406		
* Iron, Dissolved	2/14/22 12:00	2/17/22 10:46		1.015	0.0151	mg/L	0.008120	0.0406	J	
* Lithium, Dissolved	2/14/22 12:00	2/17/22 10:46		1.015	0.0661	mg/L	0.007105	0.01999956		
* Magnesium, Dissolved	2/14/22 12:00	2/17/22 10:46		1.015	0.491	mg/L	0.021315	0.406		
Silica, Dissolved (calc.)	2/14/22 12:00	2/17/22 10:46		1	18.9	mg/L				
Silicon, Dissolved	2/14/22 12:00	2/17/22 10:46		1.015	8.83	mg/L	0.02030	0.25375		
* Sodium, Dissolved	2/14/22 12:00	2/17/22 13:01		10.15	117	mg/L	0.3045	4.06		
<b>Analytical Method: EPA 200.8</b>		<b>Analyst: ABB</b>			<b>Preparation Method: EPA 1638</b>					
* Antimony, Total	2/16/22 10:25	2/18/22 12:14		1.015	Not Detected	mg/L	0.000508	0.001015	U	
* Aluminum, Total	2/16/22 10:25	2/18/22 12:14		1.015	0.0206	mg/L	0.004060	0.01015		
* Arsenic, Total	2/16/22 10:25	2/18/22 12:14		1.015	0.000184	mg/L	0.000068	0.000203	J	
* Barium, Total	2/16/22 10:25	2/18/22 12:14		1.015	0.0520	mg/L	0.000102	0.000203		
* Beryllium, Total	2/16/22 10:25	2/18/22 12:14		1.015	Not Detected	mg/L	0.000406	0.001015	U	
* Cadmium, Total	2/16/22 10:25	2/18/22 12:14		1.015	Not Detected	mg/L	0.000068	0.000203	U	
* Chromium, Total	2/16/22 10:25	2/18/22 12:14		1.015	0.000270	mg/L	0.000203	0.001015	J	
* Cobalt, Total	2/16/22 10:25	2/18/22 12:14		1.015	Not Detected	mg/L	0.000068	0.000203	U	
* Lead, Total	2/16/22 10:25	2/18/22 12:14		1.015	Not Detected	mg/L	0.000068	0.000203	U	
* Manganese, Total	2/16/22 10:25	2/18/22 12:14		1.015	0.00617	mg/L	0.000068	0.000203		
* Molybdenum, Total	2/16/22 10:25	2/18/22 12:14		1.015	0.00182	mg/L	0.000068	0.000203		
* Potassium, Total	2/16/22 10:25	2/18/22 12:14		1.015	2.07	mg/L	0.169505	0.5075		

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.

# Certificate Of Analysis

**Description:** Gorgas Ash Pond - MW-35HO DUP

**Location Code:** WMWGORAP  
**Collected:** 2/9/22 11:46  
**Customer ID:**  
**Submittal Date:** 2/9/22 16:51

**Laboratory ID Number:** BC02850

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
* Selenium, Total	2/16/22 10:25	2/18/22 12:14		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Total	2/16/22 10:25	2/18/22 12:14		1.015	Not Detected	mg/L	0.000068	0.000203	U
<b>Analytical Method: EPA 200.8</b>		<b>Analyst: ABB</b>							
* Antimony, Dissolved	2/16/22 12:00	2/16/22 13:11		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Aluminum, Dissolved	2/16/22 12:00	2/16/22 13:11		1.015	0.00712	mg/L	0.004060	0.01015	J
* Arsenic, Dissolved	2/16/22 12:00	2/16/22 13:11		1.015	0.000140	mg/L	0.000068	0.000203	J
* Barium, Dissolved	2/16/22 12:00	2/16/22 13:11		1.015	0.0498	mg/L	0.000102	0.000203	
* Beryllium, Dissolved	2/16/22 12:00	2/16/22 13:11		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Dissolved	2/16/22 12:00	2/16/22 13:11		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Dissolved	2/16/22 12:00	2/16/22 13:11		1.015	0.000330	mg/L	0.000203	0.001015	J
* Cobalt, Dissolved	2/16/22 12:00	2/16/22 13:11		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Lead, Dissolved	2/16/22 12:00	2/16/22 13:11		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Dissolved	2/16/22 12:00	2/16/22 13:11		1.015	0.00586	mg/L	0.000068	0.000203	
* Molybdenum, Dissolved	2/16/22 12:00	2/16/22 13:11		1.015	0.00150	mg/L	0.000068	0.000203	
* Potassium, Dissolved	2/16/22 12:00	2/16/22 13:11		1.015	1.96	mg/L	0.169505	0.5075	
* Selenium, Dissolved	2/16/22 12:00	2/16/22 13:11		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Dissolved	2/16/22 12:00	2/16/22 13:11		1.015	Not Detected	mg/L	0.000068	0.000203	U
<b>Analytical Method: EPA 245.1</b>		<b>Analyst: CRB</b>							
* Mercury, Total by CVAA	2/15/22 17:19	2/15/22 21:41		1	Not Detected	mg/L	0.0003	0.0005	U
<b>Analytical Method: EPA 353.2</b>		<b>Analyst: ELH</b>							
* Nitrogen, Nitrate/Nitrite	2/17/22 11:48	2/17/22 11:48		1	Not Detected	mg/L as N	0.20	0.3	U
<b>Analytical Method: SM 2320 B</b>		<b>Analyst: ALH</b>							
Alkalinity, Total as CaCO3	2/21/22 10:00	2/21/22 10:40		1	232	mg/L		0.1	
<b>Analytical Method: SM 2540C</b>		<b>Analyst: CNJ</b>							
* Solids, Dissolved	2/11/22 12:35	2/14/22 13:44		1	323	mg/L		25	
<b>Analytical Method: SM 4500CO2 D</b>		<b>Analyst: ALH</b>							
Bicarbonate Alkalinity, (calc.)	2/21/22 10:00	2/21/22 10:40		1	225	mg/L			
Carbonate Alkalinity, (calc.)	2/21/22 10:00	2/21/22 10:40		1	6.54	mg/L			
<b>Analytical Method: SM 5310 B</b>		<b>Analyst: ELH</b>							
* Total Organic Carbon	2/15/22 12:13	2/15/22 12:13		1	1.02	mg/L	1.00	2	J

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.



# Certificate Of Analysis

**Description:** Gorgas Ash Pond - MW-35HO DUP

**Location Code:** WMWGORAP

**Collected:** 2/9/22 11:46

**Customer ID:**

**Submittal Date:** 2/9/22 16:51

**Laboratory ID Number:** BC02850

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
<b>Analytical Method: SM4500Cl E</b>		<b>Analyst: JCC</b>							
* Chloride	2/16/22 09:01	2/16/22 09:01		1	18.0	mg/L	0.50	1	
<b>Analytical Method: SM4500F G 2017</b>		<b>Analyst: JCC</b>							
* Fluoride	2/10/22 16:46	2/10/22 16:46		1	0.122	mg/L	0.06	0.1	
<b>Analytical Method: SM4500SO4 E 2011</b>		<b>Analyst: JCC</b>							
* Sulfate	2/14/22 15:44	2/14/22 15:44		1	22.3	mg/L	0.50	1	
<b>Analytical Method: Field Measurements</b>		<b>Analyst: DKG</b>							
Conductivity	2/9/22 11:43	2/9/22 11:43			545.36	uS/cm			FA
pH	2/9/22 11:43	2/9/22 11:43			8.55	SU			FA
Temperature	2/9/22 11:43	2/9/22 11:43			17.16	C			FA
Turbidity	2/9/22 11:43	2/9/22 11:43			1.98	NTU			FA

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.

# Batch QC Summary

**Customer Account:** WMWGORAP

**Sample Date:** 2/9/22 11:46

**Customer ID:**

**Delivery Date:** 2/9/22 16:51

**Description:** Gorgas Ash Pond - MW-35HO DUP

**Laboratory ID Number:** BC02850

Sample	Analysis	Units	MB	MB		MS	MSD	Standard		Rec		Prec	Limit
				Limit	Spike			Standard	Limit	Rec	Limit		
BC02852	Aluminum, Dissolved	mg/L	-0.000374	0.010	0.100	0.100	0.101	0.102	0.0850 to 0.115	100	70.0 to 130	0.995	20.0
BC02852	Aluminum, Total	mg/L	0.000733	0.010	0.100	0.104	0.108	0.102	0.0850 to 0.115	96.8	70.0 to 130	3.77	20.0
BC02852	Antimony, Dissolved	mg/L	0.000203	0.00100	0.100	0.101	0.0998	0.0924	0.0850 to 0.115	101	70.0 to 130	1.20	20.0
BC02852	Antimony, Total	mg/L	0.000272	0.00100	0.100	0.104	0.106	0.0940	0.0850 to 0.115	104	70.0 to 130	1.90	20.0
BC02852	Arsenic, Dissolved	mg/L	0.000042	0.000176	0.100	0.0997	0.0989	0.101	0.0850 to 0.115	98.9	70.0 to 130	0.806	20.0
BC02852	Arsenic, Total	mg/L	0.0000123	0.000176	0.100	0.103	0.103	0.103	0.0850 to 0.115	102	70.0 to 130	0.00	20.0
BC02852	Barium, Dissolved	mg/L	0.00000	0.000200	0.100	0.162	0.156	0.0970	0.0850 to 0.115	105	70.0 to 130	3.77	20.0
BC02852	Barium, Total	mg/L	-0.0000515	0.000200	0.100	0.166	0.171	0.0977	0.0850 to 0.115	104	70.0 to 130	2.97	20.0
BC02852	Beryllium, Dissolved	mg/L	0.000201	0.000880	0.100	0.102	0.100	0.105	0.0850 to 0.115	102	70.0 to 130	1.98	20.0
BC02852	Beryllium, Total	mg/L	0.000156	0.000880	0.100	0.103	0.104	0.103	0.0850 to 0.115	103	70.0 to 130	0.966	20.0
BC02852	Boron, Dissolved	mg/L	-0.000566	0.0650	1.00	1.16	1.16	1.03	0.850 to 1.15	106	70.0 to 130	0.00	20.0
BC02852	Boron, Total	mg/L	-0.000505	0.0650	1.00	1.17	1.17	1.02	0.850 to 1.15	106	70.0 to 130	0.00	20.0
BC02852	Cadmium, Dissolved	mg/L	0.0000108	0.000147	0.100	0.101	0.0971	0.102	0.0850 to 0.115	101	70.0 to 130	3.94	20.0
BC02852	Cadmium, Total	mg/L	0.000005	0.000147	0.100	0.0987	0.103	0.105	0.0850 to 0.115	98.7	70.0 to 130	4.26	20.0
BC02852	Calcium, Dissolved	mg/L	-0.0177	0.152	5.00	105	116	4.85	4.25 to 5.75	146	70.0 to 130	9.95	20.0
BC02852	Calcium, Total	mg/L	0.00159	0.152	5.00	113	113	4.85	4.25 to 5.75	160	70.0 to 130	0.00	20.0
BC02852	Chromium, Dissolved	mg/L	-0.0000228	0.000440	0.100	0.0981	0.0981	0.102	0.0850 to 0.115	97.8	70.0 to 130	0.00	20.0
BC02852	Chromium, Total	mg/L	0.0000205	0.000440	0.100	0.0999	0.103	0.104	0.0850 to 0.115	99.5	70.0 to 130	3.06	20.0
BC02852	Cobalt, Dissolved	mg/L	0.0000091	0.000147	0.100	0.100	0.102	0.104	0.0850 to 0.115	100	70.0 to 130	1.98	20.0
BC02852	Cobalt, Total	mg/L	0.00001	0.000147	0.100	0.103	0.105	0.106	0.0850 to 0.115	103	70.0 to 130	1.92	20.0
BC02852	Iron, Dissolved	mg/L	-0.000454	0.0176	0.2	0.843	0.839	0.202	0.170 to 0.230	94.0	70.0 to 130	0.476	20.0
BC02852	Iron, Total	mg/L	-0.000195	0.0176	0.2	0.956	0.961	0.199	0.170 to 0.230	91.0	70.0 to 130	0.522	20.0
BC02852	Lead, Dissolved	mg/L	0.0000127	0.000147	0.100	0.105	0.104	0.108	0.0850 to 0.115	105	70.0 to 130	0.957	20.0
BC02852	Lead, Total	mg/L	0.000007	0.000147	0.100	0.108	0.109	0.107	0.0850 to 0.115	108	70.0 to 130	0.922	20.0

**Comments:** The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.

# Batch QC Summary

**Customer Account:** WMWGORAP  
**Sample Date:** 2/9/22 11:46  
**Customer ID:**  
**Delivery Date:** 2/9/22 16:51

**Description:** Gorgas Ash Pond - MW-35HO DUP

**Laboratory ID Number:** BC02850

Sample	Analysis	Units	MB	MB				Standard		Rec		Prec	Limit
				Limit	Spike	MS	MSD	Standard	Limit	Rec	Limit		
BC02852	Lithium, Dissolved	mg/L	-0.000064	0.0154	0.200	0.382	0.390	0.202	0.170 to 0.230	104	70.0 to 130	2.07	20.0
BC02852	Lithium, Total	mg/L	-0.000069	0.0154	0.200	0.410	0.408	0.197	0.170 to 0.230	112	70.0 to 130	0.489	20.0
BC02852	Magnesium, Dissolved	mg/L	0.000534	0.0462	5.00	35.6	36.0	5.13	4.25 to 5.75	96.0	70.0 to 130	1.12	20.0
BC02852	Magnesium, Total	mg/L	0.00626	0.0462	5.00	37.2	37.3	5.02	4.25 to 5.75	98.0	70.0 to 130	0.268	20.0
BC02852	Manganese, Dissolved	mg/L	-0.0000656	0.0002	0.100	0.356	0.362	0.103	0.0850 to 0.115	97.0	70.0 to 130	1.67	20.0
BC02852	Manganese, Total	mg/L	0.0000193	0.0002	0.100	0.376	0.387	0.105	0.0850 to 0.115	102	70.0 to 130	2.88	20.0
BC02852	Mercury, Total by CVAA	mg/L	3.000E-05	0.000500	0.004	0.00393	0.00395	0.00391	0.00340 to 0.00460	98.2	70.0 to 130	0.508	20.0
BC02852	Molybdenum, Dissolved	mg/L	0.0000141	0.0002	0.100	0.0990	0.0987	0.100	0.0850 to 0.115	96.8	70.0 to 130	0.303	20.0
BC02852	Molybdenum, Total	mg/L	0.0000249	0.0002	0.100	0.113	0.111	0.102	0.0850 to 0.115	103	70.0 to 130	1.79	20.0
BC02852	Potassium, Dissolved	mg/L	0.00869	0.367	10.0	75.9	77.5	10.1	8.50 to 11.5	84.0	70.0 to 130	2.09	20.0
BC02852	Potassium, Total	mg/L	0.00769	0.367	10.0	78.5	81.3	10.5	8.50 to 11.5	84.0	70.0 to 130	3.50	20.0
BC02852	Selenium, Dissolved	mg/L	0.0000444	0.00100	0.100	0.0963	0.0948	0.104	0.0850 to 0.115	96.3	70.0 to 130	1.57	20.0
BC02852	Selenium, Total	mg/L	0.0000021	0.00100	0.100	0.101	0.100	0.108	0.0850 to 0.115	101	70.0 to 130	0.995	20.0
BC02852	Silicon, Dissolved	mg/L	-0.00084	0.0440	1.00	6.44	6.42	1.04	0.850 to 1.15	97.0	70.0 to 130	0.311	20.0
BC02852	Silicon, Total	mg/L	0.000099	0.0440	1.00	6.48	6.51	1.02	0.850 to 1.15	91.0	70.0 to 130	0.462	20.0
BC02852	Sodium, Dissolved	mg/L	0.000535	0.0660	5.00	837	882	5.06	4.25 to 5.75	-240	70.0 to 130	5.24	20.0
BC02852	Sodium, Total	mg/L	0.00888	0.0660	5.00	921	918	4.85	4.25 to 5.75	700	70.0 to 130	0.326	20.0
BC02852	Thallium, Dissolved	mg/L	0.0000024	0.000147	0.100	0.100	0.100	0.104	0.0850 to 0.115	100	70.0 to 130	0.00	20.0
BC02852	Thallium, Total	mg/L	0.0000061	0.000147	0.100	0.113	0.112	0.113	0.0850 to 0.115	113	70.0 to 130	0.889	20.0
BC02852	Total Organic Carbon	mg/L	0.330	1.00	10.0	19.6	20.3	24.4		104	80.0 to 120	3.51	20.0

**Comments:** The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.

## Batch QC Summary

**Customer Account:** WMWGORAP

**Sample Date:** 2/9/22 11:46

**Customer ID:**

**Delivery Date:** 2/9/22 16:51

**Description:** Gorgas Ash Pond - MW-35HO DUP

**Laboratory ID Number:** BC02850

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Limit	Prec	Prec Limit
BC02852	Alkalinity, Total as CaCO3	mg/L					194	50.7	45.0 to 55.0			0.514	10.0
BC02852	Chloride	mg/L	-0.0516	1.00	1000	1370	385	10.2	9.00 to 11.0	97.8	80.0 to 120	1.80	20.0
BC02852	Fluoride	mg/L	-0.00752	0.125	2.50	2.86	0.242	2.66	2.25 to 2.75	103	80.0 to 120	18.4	20.0
BC02852	Nitrogen, Nitrate/Nitrite	mg/L as N	0.07	0.200	2.00	2.06	0.072	1.94	1.80 to 2.20	103	90.0 to 110	0.00	15.0
BC02852	Solids, Dissolved	mg/L	1.00	25.0			3120	46.0	40.0 to 60.0			0.320	10.0
BC02852	Sulfate	mg/L	-0.206	2.0	1600	3170	1560	19.8	18.0 to 22.0	100	80.0 to 120	0.639	20.0

**Comments:** The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.

# Certificate Of Analysis

**Description:** Gorgas Ash Pond Equipment Blank-1

**Location Code:** WMWGORAPEB  
**Collected:** 2/9/22 12:52  
**Customer ID:**  
**Submittal Date:** 2/9/22 16:51

**Laboratory ID Number:** BC02851

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
<b>Analytical Method: EPA 200.7</b>		<b>Analyst: RDA</b>			<b>Preparation Method: EPA 1638</b>				
* Boron, Total	2/14/22 12:00	2/17/22 12:10		1.015	Not Detected	mg/L	0.030000	0.1015	U
* Calcium, Total	2/14/22 12:00	2/17/22 12:10		1.015	Not Detected	mg/L	0.070035	0.406	U
* Iron, Total	2/14/22 12:00	2/17/22 12:10		1.015	Not Detected	mg/L	0.008120	0.0406	U
* Lithium, Total	2/14/22 12:00	2/17/22 12:10		1.015	Not Detected	mg/L	0.007105	0.01999956	U
* Magnesium, Total	2/14/22 12:00	2/17/22 12:10		1.015	Not Detected	mg/L	0.021315	0.406	U
Silica, Total (calc.)	2/14/22 12:00	2/17/22 12:10		1	Not Detected	mg/L			
Silicon, Total	2/14/22 12:00	2/17/22 12:10		1.015	Not Detected	mg/L	0.02030	0.25375	U
* Sodium, Total	2/14/22 12:00	2/17/22 12:10		1.015	Not Detected	mg/L	0.03045	0.406	U
<b>Analytical Method: EPA 200.8</b>		<b>Analyst: ABB</b>			<b>Preparation Method: EPA 1638</b>				
* Antimony, Total	2/16/22 10:25	2/18/22 12:17		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Aluminum, Total	2/16/22 10:25	2/18/22 12:17		1.015	Not Detected	mg/L	0.004060	0.01015	U
* Arsenic, Total	2/16/22 10:25	2/18/22 12:17		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Barium, Total	2/16/22 10:25	2/18/22 12:17		1.015	Not Detected	mg/L	0.000102	0.000203	U
* Beryllium, Total	2/16/22 10:25	2/18/22 12:17		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Total	2/16/22 10:25	2/18/22 12:17		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Total	2/16/22 10:25	2/18/22 12:17		1.015	0.000218	mg/L	0.000203	0.001015	J
* Cobalt, Total	2/16/22 10:25	2/18/22 12:17		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Lead, Total	2/16/22 10:25	2/18/22 12:17		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Total	2/16/22 10:25	2/18/22 12:17		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Molybdenum, Total	2/16/22 10:25	2/18/22 12:17		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Potassium, Total	2/16/22 10:25	2/18/22 12:17		1.015	Not Detected	mg/L	0.169505	0.5075	U
* Selenium, Total	2/16/22 10:25	2/18/22 12:17		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Total	2/16/22 10:25	2/18/22 12:17		1.015	Not Detected	mg/L	0.000068	0.000203	U
<b>Analytical Method: EPA 245.1</b>		<b>Analyst: CRB</b>							
* Mercury, Total by CVAA	2/15/22 17:19	2/15/22 21:45		1	Not Detected	mg/L	0.0003	0.0005	U
<b>Analytical Method: EPA 353.2</b>		<b>Analyst: ELH</b>							
* Nitrogen, Nitrate/Nitrite	2/17/22 11:49	2/17/22 11:49		1	Not Detected	mg/L as N	0.20	0.3	U
<b>Analytical Method: SM 2540C</b>		<b>Analyst: CNJ</b>							
* Solids, Dissolved	2/11/22 12:35	2/14/22 13:44		1	Not Detected	mg/L		25	U

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

**Comments:**

# Certificate Of Analysis

**Description:** Gorgas Ash Pond Equipment Blank-1

**Location Code:** WMWGORAPEB

**Collected:** 2/9/22 12:52

**Customer ID:**

**Submittal Date:** 2/9/22 16:51

**Laboratory ID Number:** BC02851

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
<b>Analytical Method: SM 5310 B</b>		<b>Analyst: ELH</b>							
* Total Organic Carbon	2/15/22 12:30	2/15/22 12:30		1	Not Detected	mg/L	1.00	2	U
<b>Analytical Method: SM4500CI E</b>		<b>Analyst: JCC</b>							
* Chloride	2/16/22 09:02	2/16/22 09:02		1	Not Detected	mg/L	0.50	1	U
<b>Analytical Method: SM4500F G 2017</b>		<b>Analyst: JCC</b>							
* Fluoride	2/10/22 16:47	2/10/22 16:47		1	Not Detected	mg/L	0.06	0.1	U
<b>Analytical Method: SM4500SO4 E 2011</b>		<b>Analyst: JCC</b>							
* Sulfate	2/14/22 15:46	2/14/22 15:46		1	Not Detected	mg/L	0.50	1	U

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

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**Comments:**

# Batch QC Summary

**Customer Account:** WMWGORAPEB

**Sample Date:** 2/9/22 12:52

**Customer ID:**

**Delivery Date:** 2/9/22 16:51

**Description:** Gorgas Ash Pond Equipment Blank-1

**Laboratory ID Number:** BC02851

Sample	Analysis	Units	MB	MB				Standard		Rec		Prec	Limit
				Limit	Spike	MS	MSD	Standard	Limit	Rec	Limit		
BC02852	Aluminum, Total	mg/L	0.000733	0.010	0.100	0.104	0.108	0.102	0.0850 to 0.115	96.8	70.0 to 130	3.77	20.0
BC02852	Antimony, Total	mg/L	0.000272	0.00100	0.100	0.104	0.106	0.0940	0.0850 to 0.115	104	70.0 to 130	1.90	20.0
BC02852	Arsenic, Total	mg/L	0.0000123	0.000176	0.100	0.103	0.103	0.103	0.0850 to 0.115	102	70.0 to 130	0.00	20.0
BC02852	Barium, Total	mg/L	-0.0000515	0.000200	0.100	0.166	0.171	0.0977	0.0850 to 0.115	104	70.0 to 130	2.97	20.0
BC02852	Beryllium, Total	mg/L	0.000156	0.000880	0.100	0.103	0.104	0.103	0.0850 to 0.115	103	70.0 to 130	0.966	20.0
BC02852	Boron, Total	mg/L	-0.000505	0.0650	1.00	1.17	1.17	1.02	0.850 to 1.15	106	70.0 to 130	0.00	20.0
BC02852	Cadmium, Total	mg/L	0.000005	0.000147	0.100	0.0987	0.103	0.105	0.0850 to 0.115	98.7	70.0 to 130	4.26	20.0
BC02852	Calcium, Total	mg/L	0.00159	0.152	5.00	113	113	4.85	4.25 to 5.75	160	70.0 to 130	0.00	20.0
BC02852	Chromium, Total	mg/L	0.0000205	0.000440	0.100	0.0999	0.103	0.104	0.0850 to 0.115	99.5	70.0 to 130	3.06	20.0
BC02852	Cobalt, Total	mg/L	0.00001	0.000147	0.100	0.103	0.105	0.106	0.0850 to 0.115	103	70.0 to 130	1.92	20.0
BC02852	Iron, Total	mg/L	-0.000195	0.0176	0.2	0.956	0.961	0.199	0.170 to 0.230	91.0	70.0 to 130	0.522	20.0
BC02852	Lead, Total	mg/L	0.000007	0.000147	0.100	0.108	0.109	0.107	0.0850 to 0.115	108	70.0 to 130	0.922	20.0
BC02852	Lithium, Total	mg/L	-0.000069	0.0154	0.200	0.410	0.408	0.197	0.170 to 0.230	112	70.0 to 130	0.489	20.0
BC02852	Magnesium, Total	mg/L	0.00626	0.0462	5.00	37.2	37.3	5.02	4.25 to 5.75	98.0	70.0 to 130	0.268	20.0
BC02852	Manganese, Total	mg/L	0.0000193	0.0002	0.100	0.376	0.387	0.105	0.0850 to 0.115	102	70.0 to 130	2.88	20.0
BC02852	Mercury, Total by CVAA	mg/L	3.000E-05	0.000500	0.004	0.00393	0.00395	0.00391	0.00340 to 0.00460	98.2	70.0 to 130	0.508	20.0
BC02852	Molybdenum, Total	mg/L	0.0000249	0.0002	0.100	0.113	0.111	0.102	0.0850 to 0.115	103	70.0 to 130	1.79	20.0
BC02852	Potassium, Total	mg/L	0.00769	0.367	10.0	78.5	81.3	10.5	8.50 to 11.5	84.0	70.0 to 130	3.50	20.0
BC02852	Selenium, Total	mg/L	0.0000021	0.00100	0.100	0.101	0.100	0.108	0.0850 to 0.115	101	70.0 to 130	0.995	20.0
BC02852	Silicon, Total	mg/L	0.000099	0.0440	1.00	6.48	6.51	1.02	0.850 to 1.15	91.0	70.0 to 130	0.462	20.0
BC02852	Sodium, Total	mg/L	0.00888	0.0660	5.00	921	918	4.85	4.25 to 5.75	700	70.0 to 130	0.326	20.0
BC02852	Thallium, Total	mg/L	0.0000061	0.000147	0.100	0.113	0.112	0.113	0.0850 to 0.115	113	70.0 to 130	0.889	20.0
BC02852	Total Organic Carbon	mg/L	0.330	1.00	10.0	19.6	20.3	24.4		104	80.0 to 120	3.51	20.0

**Comments:**

## Batch QC Summary

**Customer Account:** WMWGORAPEB

**Sample Date:** 2/9/22 12:52

**Customer ID:**

**Delivery Date:** 2/9/22 16:51

**Description:** Gorgas Ash Pond Equipment Blank-1

**Laboratory ID Number:** BC02851

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BC02852	Chloride	mg/L	-0.0516	1.00	1000	1370	385	10.2	9.00 to 11.0	97.8	80.0 to 120	1.80	20.0
BC02852	Fluoride	mg/L	-0.00752	0.125	2.50	2.86	0.242	2.66	2.25 to 2.75	103	80.0 to 120	18.4	20.0
BC02852	Nitrogen, Nitrate/Nitrite	mg/L as N	0.07	0.200	2.00	2.06	0.072	1.94	1.80 to 2.20	103	90.0 to 110	0.00	15.0
BC02852	Solids, Dissolved	mg/L	1.00	25.0			3120	46.0	40.0 to 60.0			0.320	10.0
BC02852	Sulfate	mg/L	-0.206	2.0	1600	3170	1560	19.8	18.0 to 22.0	100	80.0 to 120	0.639	20.0

**Comments:**



# Certificate Of Analysis

**Description:** Gorgas Ash Pond - MW-34HO

**Location Code:** WMWGORAP  
**Collected:** 2/9/22 13:54  
**Customer ID:**  
**Submittal Date:** 2/9/22 16:51

**Laboratory ID Number:** BC02852

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q	
<b>Analytical Method: EPA 200.7</b>		<b>Analyst: RDA</b>			<b>Preparation Method: EPA 1638</b>					
* Boron, Total	2/14/22 12:00	2/17/22 12:12		1.015	0.106	mg/L	0.030000	0.1015		
* Calcium, Total	2/14/22 12:00	2/17/22 13:50		101.5	105	mg/L	7.0035	40.6	RA	
* Iron, Total	2/14/22 12:00	2/17/22 12:12		1.015	0.774	mg/L	0.008120	0.0406		
* Lithium, Total	2/14/22 12:00	2/17/22 12:12		1.015	0.185	mg/L	0.007105	0.01999956		
* Magnesium, Total	2/14/22 12:00	2/17/22 12:12		1.015	32.3	mg/L	0.021315	0.406		
Silica, Total (calc.)	2/14/22 12:00	2/17/22 12:12		1	11.9	mg/L				
Silicon, Total	2/14/22 12:00	2/17/22 12:12		1.015	5.57	mg/L	0.02030	0.25375		
* Sodium, Total	2/14/22 12:00	2/17/22 13:50		101.5	886	mg/L	3.045	40.6	RA	
<b>Analytical Method: EPA 200.7</b>		<b>Analyst: RDA</b>			<b>Preparation Method: EPA 1638</b>					
* Boron, Dissolved	2/14/22 12:00	2/17/22 10:48		1.015	0.104	mg/L	0.030000	0.1015		
* Calcium, Dissolved	2/14/22 12:00	2/17/22 13:03		101.5	97.7	mg/L	7.0035	40.6	RA	
* Iron, Dissolved	2/14/22 12:00	2/17/22 10:48		1.015	0.655	mg/L	0.008120	0.0406		
* Lithium, Dissolved	2/14/22 12:00	2/17/22 10:48		1.015	0.173	mg/L	0.007105	0.01999956		
* Magnesium, Dissolved	2/14/22 12:00	2/17/22 10:48		1.015	30.8	mg/L	0.021315	0.406		
Silica, Dissolved (calc.)	2/14/22 12:00	2/17/22 10:48		1	11.7	mg/L				
Silicon, Dissolved	2/14/22 12:00	2/17/22 10:48		1.015	5.47	mg/L	0.02030	0.25375		
* Sodium, Dissolved	2/14/22 12:00	2/17/22 13:03		101.5	849	mg/L	3.045	40.6	RA	
<b>Analytical Method: EPA 200.8</b>		<b>Analyst: ABB</b>			<b>Preparation Method: EPA 1638</b>					
* Antimony, Total	2/16/22 10:25	2/18/22 12:21		1.015	Not Detected	mg/L	0.000508	0.001015	U	
* Aluminum, Total	2/16/22 10:25	2/18/22 12:21		1.015	0.00715	mg/L	0.004060	0.01015	J	
* Arsenic, Total	2/16/22 10:25	2/18/22 12:21		1.015	0.00112	mg/L	0.000068	0.000203		
* Barium, Total	2/16/22 10:25	2/18/22 12:21		1.015	0.0615	mg/L	0.000102	0.000203		
* Beryllium, Total	2/16/22 10:25	2/18/22 12:21		1.015	Not Detected	mg/L	0.000406	0.001015	U	
* Cadmium, Total	2/16/22 10:25	2/18/22 12:21		1.015	Not Detected	mg/L	0.000068	0.000203	U	
* Chromium, Total	2/16/22 10:25	2/18/22 12:21		1.015	0.000412	mg/L	0.000203	0.001015	J	
* Cobalt, Total	2/16/22 10:25	2/18/22 12:21		1.015	0.0000834	mg/L	0.000068	0.000203	J	
* Lead, Total	2/16/22 10:25	2/18/22 12:21		1.015	Not Detected	mg/L	0.000068	0.000203	U	
* Manganese, Total	2/16/22 10:25	2/18/22 12:21		1.015	0.274	mg/L	0.000068	0.000203		
* Molybdenum, Total	2/16/22 10:25	2/18/22 12:21		1.015	0.00959	mg/L	0.000068	0.000203		
* Potassium, Total	2/16/22 10:25	2/18/22 12:21		1.015	70.1	mg/L	0.169505	0.5075		

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.

# Certificate Of Analysis

**Description:** Gorgas Ash Pond - MW-34HO

**Location Code:** WMWGORAP  
**Collected:** 2/9/22 13:54  
**Customer ID:**  
**Submittal Date:** 2/9/22 16:51

**Laboratory ID Number:** BC02852

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
* Selenium, Total	2/16/22 10:25	2/18/22 12:21		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Total	2/16/22 10:25	2/18/22 12:21		1.015	Not Detected	mg/L	0.000068	0.000203	U
<b>Analytical Method: EPA 200.8</b>		<b>Analyst: ABB</b>							
* Antimony, Dissolved	2/16/22 12:00	2/16/22 13:15		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Aluminum, Dissolved	2/16/22 12:00	2/16/22 13:15		1.015	Not Detected	mg/L	0.004060	0.01015	U
* Arsenic, Dissolved	2/16/22 12:00	2/16/22 13:15		1.015	0.000823	mg/L	0.000068	0.000203	
* Barium, Dissolved	2/16/22 12:00	2/16/22 13:15		1.015	0.0568	mg/L	0.000102	0.000203	
* Beryllium, Dissolved	2/16/22 12:00	2/16/22 13:15		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Dissolved	2/16/22 12:00	2/16/22 13:15		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Dissolved	2/16/22 12:00	2/16/22 13:15		1.015	0.000275	mg/L	0.000203	0.001015	J
* Cobalt, Dissolved	2/16/22 12:00	2/16/22 13:15		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Lead, Dissolved	2/16/22 12:00	2/16/22 13:15		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Dissolved	2/16/22 12:00	2/16/22 13:15		1.015	0.259	mg/L	0.000068	0.000203	
* Molybdenum, Dissolved	2/16/22 12:00	2/16/22 13:15		1.015	0.00223	mg/L	0.000068	0.000203	
* Potassium, Dissolved	2/16/22 12:00	2/16/22 13:15		1.015	67.5	mg/L	0.169505	0.5075	
* Selenium, Dissolved	2/16/22 12:00	2/16/22 13:15		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Dissolved	2/16/22 12:00	2/16/22 13:15		1.015	Not Detected	mg/L	0.000068	0.000203	U
<b>Analytical Method: EPA 245.1</b>		<b>Analyst: CRB</b>							
* Mercury, Total by CVAA	2/23/22 15:05	2/23/22 19:37		1	Not Detected	mg/L	0.0003	0.0005	U
<b>Analytical Method: EPA 353.2</b>		<b>Analyst: ELH</b>							
* Nitrogen, Nitrate/Nitrite	2/17/22 11:50	2/17/22 11:50		1	Not Detected	mg/L as N	0.20	0.3	U
<b>Analytical Method: SM 2320 B</b>		<b>Analyst: ALH</b>							
Alkalinity, Total as CaCO3	2/21/22 10:00	2/21/22 10:40		1	195	mg/L		0.1	
<b>Analytical Method: SM 2540C</b>		<b>Analyst: CNJ</b>							
* Solids, Dissolved	2/11/22 12:35	2/14/22 13:44		1	3130	mg/L		227.3	
<b>Analytical Method: SM 4500CO2 D</b>		<b>Analyst: ALH</b>							
Bicarbonate Alkalinity, (calc.)	2/21/22 10:00	2/21/22 10:40		1	195	mg/L			
Carbonate Alkalinity, (calc.)	2/21/22 10:00	2/21/22 10:40		1	0.34	mg/L			
<b>Analytical Method: SM 5310 B</b>		<b>Analyst: ELH</b>							
* Total Organic Carbon	2/15/22 12:45	2/15/22 12:45		1	9.19	mg/L	1.00	2	

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.

# Certificate Of Analysis

**Description:** Gorgas Ash Pond - MW-34HO

**Location Code:** WMWGORAP

**Collected:** 2/9/22 13:54

**Customer ID:**

**Submittal Date:** 2/9/22 16:51

**Laboratory ID Number:** BC02852

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
<b>Analytical Method: SM4500Cl E</b>		<b>Analyst: JCC</b>							
* Chloride	2/16/22 09:04	2/16/22 09:04		100	392	mg/L	50.00	100	
<b>Analytical Method: SM4500F G 2017</b>		<b>Analyst: JCC</b>							
* Fluoride	2/10/22 16:48	2/10/22 16:48		1	0.291	mg/L	0.06	0.1	
<b>Analytical Method: SM4500SO4 E 2011</b>		<b>Analyst: JCC</b>							
* Sulfate	2/14/22 15:47	2/14/22 15:47		80	1570	mg/L	40.00	80	
<b>Analytical Method: Field Measurements</b>		<b>Analyst: DKG</b>							
Conductivity	2/9/22 13:51	2/9/22 13:51			4534.67	uS/cm			FA
pH	2/9/22 13:51	2/9/22 13:51			7.40	SU			FA
Temperature	2/9/22 13:51	2/9/22 13:51			18.05	C			FA
Turbidity	2/9/22 13:51	2/9/22 13:51			3.96	NTU			FA

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.

# Batch QC Summary

**Customer Account:** WMWGORAP

**Sample Date:** 2/9/22 13:54

**Customer ID:**

**Delivery Date:** 2/9/22 16:51

**Description:** Gorgas Ash Pond - MW-34HO

**Laboratory ID Number:** BC02852

Sample	Analysis	Units	MB	MB		MS	MSD	Standard		Rec		Prec	Limit
				Limit	Spike			Standard	Limit	Rec	Limit		
BC02852	Aluminum, Dissolved	mg/L	-0.000374	0.010	0.100	0.100	0.101	0.102	0.0850 to 0.115	100	70.0 to 130	0.995	20.0
BC02852	Aluminum, Total	mg/L	0.000733	0.010	0.100	0.104	0.108	0.102	0.0850 to 0.115	96.8	70.0 to 130	3.77	20.0
BC02852	Antimony, Dissolved	mg/L	0.000203	0.00100	0.100	0.101	0.0998	0.0924	0.0850 to 0.115	101	70.0 to 130	1.20	20.0
BC02852	Antimony, Total	mg/L	0.000272	0.00100	0.100	0.104	0.106	0.0940	0.0850 to 0.115	104	70.0 to 130	1.90	20.0
BC02852	Arsenic, Dissolved	mg/L	0.000042	0.000176	0.100	0.0997	0.0989	0.101	0.0850 to 0.115	98.9	70.0 to 130	0.806	20.0
BC02852	Arsenic, Total	mg/L	0.0000123	0.000176	0.100	0.103	0.103	0.103	0.0850 to 0.115	102	70.0 to 130	0.00	20.0
BC02852	Barium, Dissolved	mg/L	0.00000	0.000200	0.100	0.162	0.156	0.0970	0.0850 to 0.115	105	70.0 to 130	3.77	20.0
BC02852	Barium, Total	mg/L	-0.0000515	0.000200	0.100	0.166	0.171	0.0977	0.0850 to 0.115	104	70.0 to 130	2.97	20.0
BC02852	Beryllium, Dissolved	mg/L	0.000201	0.000880	0.100	0.102	0.100	0.105	0.0850 to 0.115	102	70.0 to 130	1.98	20.0
BC02852	Beryllium, Total	mg/L	0.000156	0.000880	0.100	0.103	0.104	0.103	0.0850 to 0.115	103	70.0 to 130	0.966	20.0
BC02852	Boron, Dissolved	mg/L	-0.000566	0.0650	1.00	1.16	1.16	1.03	0.850 to 1.15	106	70.0 to 130	0.00	20.0
BC02852	Boron, Total	mg/L	-0.000505	0.0650	1.00	1.17	1.17	1.02	0.850 to 1.15	106	70.0 to 130	0.00	20.0
BC02852	Cadmium, Dissolved	mg/L	0.0000108	0.000147	0.100	0.101	0.0971	0.102	0.0850 to 0.115	101	70.0 to 130	3.94	20.0
BC02852	Cadmium, Total	mg/L	0.000005	0.000147	0.100	0.0987	0.103	0.105	0.0850 to 0.115	98.7	70.0 to 130	4.26	20.0
BC02852	Calcium, Dissolved	mg/L	-0.0177	0.152	5.00	105	116	4.85	4.25 to 5.75	146	70.0 to 130	9.95	20.0
BC02852	Calcium, Total	mg/L	0.00159	0.152	5.00	113	113	4.85	4.25 to 5.75	160	70.0 to 130	0.00	20.0
BC02852	Chromium, Dissolved	mg/L	-0.0000228	0.000440	0.100	0.0981	0.0981	0.102	0.0850 to 0.115	97.8	70.0 to 130	0.00	20.0
BC02852	Chromium, Total	mg/L	0.0000205	0.000440	0.100	0.0999	0.103	0.104	0.0850 to 0.115	99.5	70.0 to 130	3.06	20.0
BC02852	Cobalt, Dissolved	mg/L	0.0000091	0.000147	0.100	0.100	0.102	0.104	0.0850 to 0.115	100	70.0 to 130	1.98	20.0
BC02852	Cobalt, Total	mg/L	0.00001	0.000147	0.100	0.103	0.105	0.106	0.0850 to 0.115	103	70.0 to 130	1.92	20.0
BC02852	Iron, Dissolved	mg/L	-0.000454	0.0176	0.2	0.843	0.839	0.202	0.170 to 0.230	94.0	70.0 to 130	0.476	20.0
BC02852	Iron, Total	mg/L	-0.000195	0.0176	0.2	0.956	0.961	0.199	0.170 to 0.230	91.0	70.0 to 130	0.522	20.0
BC02852	Lead, Dissolved	mg/L	0.0000127	0.000147	0.100	0.105	0.104	0.108	0.0850 to 0.115	105	70.0 to 130	0.957	20.0
BC02852	Lead, Total	mg/L	0.000007	0.000147	0.100	0.108	0.109	0.107	0.0850 to 0.115	108	70.0 to 130	0.922	20.0

**Comments:** The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.

# Batch QC Summary

**Customer Account:** WMWGORAP  
**Sample Date:** 2/9/22 13:54  
**Customer ID:**  
**Delivery Date:** 2/9/22 16:51

**Description:** Gorgas Ash Pond - MW-34HO

**Laboratory ID Number:** BC02852

Sample	Analysis	Units	MB	MB				Standard		Rec		Prec	Limit
				Limit	Spike	MS	MSD	Standard	Limit	Rec	Limit		
BC02852	Lithium, Dissolved	mg/L	-0.000064	0.0154	0.200	0.382	0.390	0.202	0.170 to 0.230	104	70.0 to 130	2.07	20.0
BC02852	Lithium, Total	mg/L	-0.000069	0.0154	0.200	0.410	0.408	0.197	0.170 to 0.230	112	70.0 to 130	0.489	20.0
BC02852	Magnesium, Dissolved	mg/L	0.000534	0.0462	5.00	35.6	36.0	5.13	4.25 to 5.75	96.0	70.0 to 130	1.12	20.0
BC02852	Magnesium, Total	mg/L	0.00626	0.0462	5.00	37.2	37.3	5.02	4.25 to 5.75	98.0	70.0 to 130	0.268	20.0
BC02852	Manganese, Dissolved	mg/L	-0.0000656	0.0002	0.100	0.356	0.362	0.103	0.0850 to 0.115	97.0	70.0 to 130	1.67	20.0
BC02852	Manganese, Total	mg/L	0.0000193	0.0002	0.100	0.376	0.387	0.105	0.0850 to 0.115	102	70.0 to 130	2.88	20.0
BC02852	Mercury, Total by CVAA	mg/L	3.000E-05	0.000500	0.004	0.00393	0.00395	0.00391	0.00340 to 0.00460	98.2	70.0 to 130	0.508	20.0
BC02852	Molybdenum, Dissolved	mg/L	0.0000141	0.0002	0.100	0.0990	0.0987	0.100	0.0850 to 0.115	96.8	70.0 to 130	0.303	20.0
BC02852	Molybdenum, Total	mg/L	0.0000249	0.0002	0.100	0.113	0.111	0.102	0.0850 to 0.115	103	70.0 to 130	1.79	20.0
BC02852	Potassium, Dissolved	mg/L	0.00869	0.367	10.0	75.9	77.5	10.1	8.50 to 11.5	84.0	70.0 to 130	2.09	20.0
BC02852	Potassium, Total	mg/L	0.00769	0.367	10.0	78.5	81.3	10.5	8.50 to 11.5	84.0	70.0 to 130	3.50	20.0
BC02852	Selenium, Dissolved	mg/L	0.0000444	0.00100	0.100	0.0963	0.0948	0.104	0.0850 to 0.115	96.3	70.0 to 130	1.57	20.0
BC02852	Selenium, Total	mg/L	0.0000021	0.00100	0.100	0.101	0.100	0.108	0.0850 to 0.115	101	70.0 to 130	0.995	20.0
BC02852	Silicon, Dissolved	mg/L	-0.00084	0.0440	1.00	6.44	6.42	1.04	0.850 to 1.15	97.0	70.0 to 130	0.311	20.0
BC02852	Silicon, Total	mg/L	0.000099	0.0440	1.00	6.48	6.51	1.02	0.850 to 1.15	91.0	70.0 to 130	0.462	20.0
BC02852	Sodium, Dissolved	mg/L	0.000535	0.0660	5.00	837	882	5.06	4.25 to 5.75	-240	70.0 to 130	5.24	20.0
BC02852	Sodium, Total	mg/L	0.00888	0.0660	5.00	921	918	4.85	4.25 to 5.75	700	70.0 to 130	0.326	20.0
BC02852	Thallium, Dissolved	mg/L	0.0000024	0.000147	0.100	0.100	0.100	0.104	0.0850 to 0.115	100	70.0 to 130	0.00	20.0
BC02852	Thallium, Total	mg/L	0.0000061	0.000147	0.100	0.113	0.112	0.113	0.0850 to 0.115	113	70.0 to 130	0.889	20.0
BC02852	Total Organic Carbon	mg/L	0.330	1.00	10.0	19.6	20.3	24.4		104	80.0 to 120	3.51	20.0

**Comments:** The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.

## Batch QC Summary

**Customer Account:** WMWGORAP

**Sample Date:** 2/9/22 13:54

**Customer ID:**

**Delivery Date:** 2/9/22 16:51

**Description:** Gorgas Ash Pond - MW-34HO

**Laboratory ID Number:** BC02852

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BC02852	Alkalinity, Total as CaCO3	mg/L					194	50.7	45.0 to 55.0			0.514	10.0
BC02852	Chloride	mg/L	-0.0516	1.00	1000	1370	385	10.2	9.00 to 11.0	97.8	80.0 to 120	1.80	20.0
BC02852	Fluoride	mg/L	-0.00752	0.125	2.50	2.86	0.242	2.66	2.25 to 2.75	103	80.0 to 120	18.4	20.0
BC02852	Nitrogen, Nitrate/Nitrite	mg/L as N	0.07	0.200	2.00	2.06	0.072	1.94	1.80 to 2.20	103	90.0 to 110	0.00	15.0
BC02852	Solids, Dissolved	mg/L	1.00	25.0			3120	46.0	40.0 to 60.0			0.320	10.0
BC02852	Sulfate	mg/L	-0.206	2.0	1600	3170	1560	19.8	18.0 to 22.0	100	80.0 to 120	0.639	20.0

**Comments:** The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.

# Definitions

**Project Number:** WMWGORAP\_1351

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. Refer to APC Field Case Narrative.
J	Reported value is an estimate because concentration is less than reporting limit.
RA	Matrix spike is invalid due to sample concentration.
U	Compound was analyzed, but not detected.







February 16, 2022

Laura Midkiff  
Alabama Power  
744 Highway 87  
GSC 8  
Calera, AL 35040

RE: Project: WMWGORAP\_1351  
Pace Project No.: 20234694

Dear Laura Midkiff:

Enclosed are the analytical results for sample(s) received by the laboratory on February 10, 2022. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Services - New Orleans

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

Sincerely,



Karen Brown  
karen.brown@pacelabs.com  
(504)469-0333  
Project Manager

Enclosures

cc: Renee Jernigan, Alabama Power  
Trinity B. Williams, Alabama Power



## REPORT OF LABORATORY ANALYSIS

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## CERTIFICATIONS

Project: WMWGORAP\_1351  
Pace Project No.: 20234694

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### **Pace Analytical Services New Orleans**

Florida Department of Health (NELAC): E87595  
Illinois Environmental Protection Agency: 0025721  
Kansas Department of Health and Environment (NELAC):  
E-10266  
Louisiana Dept. of Environmental Quality (NELAC/LELAP):  
02006

Texas Commission on Env. Quality (NELAC):  
T104704405-09-TX  
U.S. Dept. of Agriculture Foreign Soil Import: P330-10-  
00119

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## REPORT OF LABORATORY ANALYSIS

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## SAMPLE SUMMARY

Project: WMWGORAP\_1351

Pace Project No.: 20234694

Lab ID	Sample ID	Matrix	Date Collected	Date Received
20234694001	BC02853 MW-33HO	Water	02/09/22 09:45	02/10/22 14:55
20234694002	BC02854 FB-1	Water	02/09/22 10:50	02/10/22 14:55
20234694003	BC02855 MW-35HO	Water	02/09/22 11:46	02/10/22 14:55
20234694004	BC02856 MW-35HO DUP	Water	02/09/22 11:46	02/10/22 14:55
20234694005	BC02857 EB-1	Water	02/09/22 12:52	02/10/22 14:55
20234694006	BC02858 MW-34HO	Water	02/09/22 13:54	02/10/22 14:55

## REPORT OF LABORATORY ANALYSIS

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### SAMPLE ANALYTE COUNT

Project: WMWGORAP\_1351

Pace Project No.: 20234694

Lab ID	Sample ID	Method	Analysts	Analytes Reported
20234694001	BC02853 MW-33HO	SM 4500-S-2 D	RVJ	1
20234694002	BC02854 FB-1	SM 4500-S-2 D	RVJ	1
20234694003	BC02855 MW-35HO	SM 4500-S-2 D	RVJ	1
20234694004	BC02856 MW-35HO DUP	SM 4500-S-2 D	RVJ	1
20234694005	BC02857 EB-1	SM 4500-S-2 D	RVJ	1
20234694006	BC02858 MW-34HO	SM 4500-S-2 D	RVJ	1

PASI-N = Pace Analytical Services - New Orleans

### REPORT OF LABORATORY ANALYSIS

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## PROJECT NARRATIVE

Project: WMWGORAP\_1351

Pace Project No.: 20234694

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**Method:** SM 4500-S-2 D

**Description:** 4500S2D Sulfide, Total

**Client:** Alabama Power

**Date:** February 16, 2022

### General Information:

6 samples were analyzed for SM 4500-S-2 D by Pace Analytical Services New Orleans. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

### Hold Time:

The samples were analyzed within the method required hold times with any exceptions noted below.

### Method Blank:

All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

### Laboratory Control Spike:

All laboratory control spike compounds were within QC limits with any exceptions noted below.

### Matrix Spikes:

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

QC Batch: 247736

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 20234712003

M1: Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

- MS (Lab ID: 1176454)
- Sulfide, Total

### Duplicate Sample:

All duplicate sample results were within method acceptance criteria with any exceptions noted below.

### Additional Comments:

This data package has been reviewed for quality and completeness and is approved for release.

## REPORT OF LABORATORY ANALYSIS

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### ANALYTICAL RESULTS

Project: WMWGORAP\_1351  
Pace Project No.: 20234694

Sample: BC02853 MW-33HO      Lab ID: 20234694001      Collected: 02/09/22 09:45      Received: 02/10/22 14:55      Matrix: Water									
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>4500S2D Sulfide, Total</b>									
Analytical Method: SM 4500-S-2 D Pace Analytical Services - New Orleans									
Sulfide, Total	1.5	mg/L	0.10	0.059	5		02/14/22 15:03	18496-25-8	

### REPORT OF LABORATORY ANALYSIS

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### ANALYTICAL RESULTS

Project: WMWGORAP\_1351

Pace Project No.: 20234694

---

**Sample: BC02854 FB-1**      **Lab ID: 20234694002**      Collected: 02/09/22 10:50      Received: 02/10/22 14:55      Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>4500S2D Sulfide, Total</b>									
Analytical Method: SM 4500-S-2 D									
Pace Analytical Services - New Orleans									
Sulfide, Total	ND	mg/L	0.020	0.012	1		02/14/22 15:05	18496-25-8	

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### ANALYTICAL RESULTS

Project: WMWGORAP\_1351

Pace Project No.: 20234694

**Sample: BC02855 MW-35HO**      **Lab ID: 20234694003**      Collected: 02/09/22 11:46      Received: 02/10/22 14:55      Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>4500S2D Sulfide, Total</b>									
Analytical Method: SM 4500-S-2 D									
Pace Analytical Services - New Orleans									
Sulfide, Total	<b>0.57</b>	mg/L	0.10	0.059	5		02/15/22 15:41	18496-25-8	

### REPORT OF LABORATORY ANALYSIS

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### ANALYTICAL RESULTS

Project: WMWGORAP\_1351  
Pace Project No.: 20234694

Sample: BC02856 MW-35HO DUP      Lab ID: 20234694004      Collected: 02/09/22 11:46      Received: 02/10/22 14:55      Matrix: Water									
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>4500S2D Sulfide, Total</b>									
Analytical Method: SM 4500-S-2 D Pace Analytical Services - New Orleans									
Sulfide, Total	<b>0.58</b>	mg/L	0.10	0.059	5		02/15/22 15:42	18496-25-8	

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## ANALYTICAL RESULTS

Project: WMWGORAP\_1351  
Pace Project No.: 20234694

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>Sample: BC02857 EB-1</b>									
<b>Lab ID: 20234694005</b>									
Collected: 02/09/22 12:52									
Received: 02/10/22 14:55									
Matrix: Water									
Analytical Method: SM 4500-S-2 D									
Pace Analytical Services - New Orleans									
Sulfide, Total	ND	mg/L	0.020	0.012	1		02/14/22 15:29	18496-25-8	

## REPORT OF LABORATORY ANALYSIS

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### ANALYTICAL RESULTS

Project: WMWGORAP\_1351  
Pace Project No.: 20234694

Sample: <b>BC02858 MW-34HO</b> Lab ID: <b>20234694006</b> Collected: 02/09/22 13:54      Received: 02/10/22 14:55      Matrix: Water									
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>4500S2D Sulfide, Total</b>									
Analytical Method: SM 4500-S-2 D Pace Analytical Services - New Orleans									
Sulfide, Total	1.5	mg/L	0.10	0.059	5		02/15/22 14:57	18496-25-8	

### REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA

Project: WMWGORAP\_1351  
Pace Project No.: 20234694

QC Batch: 247615	Analysis Method: SM 4500-S-2 D
QC Batch Method: SM 4500-S-2 D	Analysis Description: 4500S2D Sulfide, Total
	Laboratory: Pace Analytical Services - New Orleans

Associated Lab Samples: 20234694001, 20234694002, 20234694005

METHOD BLANK: 1175910 Matrix: Water  
Associated Lab Samples: 20234694001, 20234694002, 20234694005

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Sulfide, Total	mg/L	ND	0.020	0.012	02/14/22 14:22	

LABORATORY CONTROL SAMPLE: 1175911

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Sulfide, Total	mg/L	0.2	0.18	90	90-110	

MATRIX SPIKE SAMPLE: 1175913

Parameter	Units	20234694001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Sulfide, Total	mg/L	1.5	1	2.3	79	75-125	

SAMPLE DUPLICATE: 1175912

Parameter	Units	20234694001 Result	Dup Result	RPD	Max RPD	Qualifiers
Sulfide, Total	mg/L	1.5	1.5	0	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

### REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA

Project: WMWGORAP\_1351  
Pace Project No.: 20234694

QC Batch: 247736	Analysis Method: SM 4500-S-2 D
QC Batch Method: SM 4500-S-2 D	Analysis Description: 4500S2D Sulfide, Total
	Laboratory: Pace Analytical Services - New Orleans

Associated Lab Samples: 20234694003, 20234694004, 20234694006

METHOD BLANK: 1176451 Matrix: Water  
Associated Lab Samples: 20234694003, 20234694004, 20234694006

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Sulfide, Total	mg/L	ND	0.020	0.012	02/15/22 14:28	

LABORATORY CONTROL SAMPLE: 1176452

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Sulfide, Total	mg/L	0.2	0.19	93	90-110	

MATRIX SPIKE SAMPLE: 1176454

Parameter	Units	20234712003 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Sulfide, Total	mg/L	ND	0.2	0.14	70	75-125	M1

SAMPLE DUPLICATE: 1176453

Parameter	Units	20234712003 Result	Dup Result	RPD	Max RPD	Qualifiers
Sulfide, Total	mg/L	ND	ND		20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

### REPORT OF LABORATORY ANALYSIS

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## QUALIFIERS

Project: WMWGORAP\_1351

Pace Project No.: 20234694

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### DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Reported results are not rounded until the final step prior to reporting. Therefore, calculated parameters that are typically reported as "Total" may vary slightly from the sum of the reported component parameters.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The Nelac Institute

### ANALYTE QUALIFIERS

M1 Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

## REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: WMWGORAP\_1351

Pace Project No.: 20234694

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
20234694001	BC02853 MW-33HO	SM 4500-S-2 D	247615		
20234694002	BC02854 FB-1	SM 4500-S-2 D	247615		
20234694003	BC02855 MW-35HO	SM 4500-S-2 D	247736		
20234694004	BC02856 MW-35HO DUP	SM 4500-S-2 D	247736		
20234694005	BC02857 EB-1	SM 4500-S-2 D	247615		
20234694006	BC02858 MW-34HO	SM 4500-S-2 D	247736		

### REPORT OF LABORATORY ANALYSIS

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**CHAIN-OF-CUSTODY / Analytical Request Docu**  
 The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be

<b>Section A</b>		<b>Section B</b>		<b>Section C</b>	
<b>Required Client Information:</b>		<b>Required Project Information:</b>		<b>Invoice Information:</b>	
Company: Alabama Power Company	Report To: Laura Midkiff	Report To: Laura Midkiff	Attention: Laura Midkiff	Company Name: Alabama Power Co.	Regulatory Agency:
Address: 744 Highway 87 GSC Bldg #8 Catera, AL 35040	Copy To: Brooke Caton & Renee Jernigan	Address: 744 Highway 87 GSC Bldg #8 CCR	Face Quote: Karen Brown	744 Highway 87 GSC Bldg #8	State / Location: AL
Email To: lmidkiff@southernco.com	Purchase Order #: APC10756638	Project Name: Plant Gorgas Ash Pond	Face Project Manager: Karen Brown	CCR	
Phone: 205-664-6197   Fax:	Project Number: VMWGORAP_1351	Face Profile #: 17210			
Requested Due Date: Normal					

#	ITEM	Description	Station Name Location_Code	Site Name Facility_ID	Sample Duplicate	Matrix Spike/Matrix Spike Duplicate	Field Filtered	MATRIX CODE	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED		# OF CONTAINERS	Unpreserved	NaOH/ZnAcetate	HNO3	Preservatives	Y/N	Requested Analysis Filtered (Y/N)	Residual Chlorine (Y/N)
										DATE	TIME								
1	BC02853	MW-39HO	APCO-GS-AP-MW-33HO	APCO_Gorgas_AshPond				GW	G	2/9/2022	9:45	1							
2	BC02854	FB-1	APCO-GS-AP-FB-01	APCO_Gorgas_AshPond				GW	G	2/9/2022	10:50	1							
3	BC02855	MW-39HO	APCO-GS-AP-MW-35HO	APCO_Gorgas_AshPond				GW	G	2/9/2022	11:46	1							
4	BC02856	MW-35HO DUP	APCO-GS-AP-MW-35HO	APCO_Gorgas_AshPond	X			GW	G	2/9/2022	11:46	1							
5	BC02857	EB-1	APCO-GS-AP-EB-01	APCO_Gorgas_AshPond				GW	G	2/9/2022	12:52	1							
6	BC02858	MW-34HO	APCO-GS-AP-MW-34HO	APCO_Gorgas_AshPond				GW	G	2/9/2022	13:54	1							
7																			
8																			
9																			
10																			
11																			
12																			

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
	Laura Midkiff/ APC GTL	2/9/2022	17:25	<i>FedEx</i>	2/10/22	14:55	Received on (Y/N) Custody (Y/N) Sealed (Y/N) Cooler (Y/N) Intact (Y/N)
				<i>FedEx</i>	2/10/22	14:55	

**SAMPLER NAME AND SIGNATURE**  
 PRINT Name of SAMPLER: DALLAS GENTRY  
 SIGNATURE of SAMPLER: \_\_\_\_\_  
 DATE Signed: \_\_\_\_\_



1000 Riverbend Blvd., Suite F  
St. Rose, LA 70087

### Sample Condition Upon Receipt

# WO# : 20234694

PM: KHB Due Date: 02/22/22

CLIENT: 20-Alabama

## Project #

Courier:  Pace Courier  Hired Courier  Fed X  UPS  DHL  USPS  Customer  Other

Custody Seal on Cooler/Box Present: [see COC]

Custody Seals intact:  Yes  No

Thermometer Used:  Therm Fisher IR 7  
 Therm Fisher IR 10

Type of Ice: Wet Blue None

Samples on ice: [see COC]

Cooler Temperature: [see COC]

Temp should be above freezing to 6°C

Date and Initials of person examining contents: 2/10/22 AC

Temp must be measured from Temperature blank when present

Comments:

Temperature Blank Present?"	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	1
Chain of Custody Present:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	2
Chain of Custody Complete:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	3
Chain of Custody Relinquished:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	4
Sampler Name & Signature on COC:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	5
Samples Arrived within Hold Time:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	6
Sufficient Volume:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	7
Correct Containers Used:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	8
Filtered vol. Rec. for Diss. tests	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	9
Sample Labels match COC:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	10
All containers received within manufacture's precautionary and/or expiration dates.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	11
All containers needing chemical preservation have been checked (except VOA, coliform, & O&G).	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	12
All containers preservation checked found to be in compliance with EPA recommendation.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	13
Headspace in VOA Vials (>6mm):	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	14
Trip Blank Present:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	15

If No, was preservative added?  Yes  No  
If added record lot no.: HNO3 \_\_\_\_\_ H2SO4 \_\_\_\_\_

Client Notification/ Resolution:

Person Contacted: \_\_\_\_\_ Date/Time: \_\_\_\_\_

Comments/ Resolution: \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

April 18, 2022

Laura Midkiff  
Alabama Power  
744 Highway 87  
Calera, AL 35040

RE: Project: WMWGORAP\_1351  
Pace Project No.: 30467358

Dear Laura Midkiff:

Enclosed are the analytical results for sample(s) received by the laboratory between February 15, 2022 and February 16, 2022. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Services - Greensburg

(Greensburg, WV) - Revision 1 - This report replaces the 4/15/2022 report. This project was revised on 4/18/2022 to revise a collection time.

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

Sincerely,



Skyler C. Richmond  
skyler.richmond@pacelabs.com  
(724)850-5600  
Project Manager

Enclosures

cc: Brooke Caton, Alabama Power  
Renee Jernigan, Alabama Power



## REPORT OF LABORATORY ANALYSIS

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## CERTIFICATIONS

Project: WMWGORAP\_1351

Pace Project No.: 30467358

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### **Pace Analytical Services Pennsylvania**

1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601

ANAB DOD-ELAP Rad Accreditation #: L2417

Alabama Certification #: 41590

Arizona Certification #: AZ0734

Arkansas Certification

California Certification #: 04222CA

Colorado Certification #: PA01547

Connecticut Certification #: PH-0694

Delaware Certification

EPA Region 4 DW Rad

Florida/TNI Certification #: E87683

Georgia Certification #: C040

Florida: Cert E871149 SEKS WET

Guam Certification

Hawaii Certification

Idaho Certification

Illinois Certification

Indiana Certification

Iowa Certification #: 391

Kansas/TNI Certification #: E-10358

Kentucky Certification #: KY90133

KY WW Permit #: KY0098221

KY WW Permit #: KY0000221

Louisiana DHH/TNI Certification #: LA180012

Louisiana DEQ/TNI Certification #: 4086

Maine Certification #: 2017020

Maryland Certification #: 308

Massachusetts Certification #: M-PA1457

Michigan/PADEP Certification #: 9991

Missouri Certification #: 235

Montana Certification #: Cert0082

Nebraska Certification #: NE-OS-29-14

Nevada Certification #: PA014572018-1

New Hampshire/TNI Certification #: 297617

New Jersey/TNI Certification #: PA051

New Mexico Certification #: PA01457

New York/TNI Certification #: 10888

North Carolina Certification #: 42706

North Dakota Certification #: R-190

Ohio EPA Rad Approval: #41249

Oregon/TNI Certification #: PA200002-010

Pennsylvania/TNI Certification #: 65-00282

Puerto Rico Certification #: PA01457

Rhode Island Certification #: 65-00282

South Dakota Certification

Tennessee Certification #: 02867

Texas/TNI Certification #: T104704188-17-3

Utah/TNI Certification #: PA014572017-9

USDA Soil Permit #: P330-17-00091

Vermont Dept. of Health: ID# VT-0282

Virgin Island/PADEP Certification

Virginia/VELAP Certification #: 460198

Washington Certification #: C868

West Virginia DEP Certification #: 143

West Virginia DHHR Certification #: 9964C

Wisconsin Approve List for Rad

Wyoming Certification #: 8TMS-L

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## REPORT OF LABORATORY ANALYSIS

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## SAMPLE SUMMARY

Project: WMWGORAP\_1351

Pace Project No.: 30467358

Lab ID	Sample ID	Matrix	Date Collected	Date Received
30467358001	BC02853 MW-33HO	Water	02/09/22 09:45	02/15/22 09:55
30467358002	BC02854 FB-1	Water	02/09/22 10:50	02/15/22 09:55
30467358003	BC02855 MW-35HO	Water	02/09/22 11:46	02/15/22 09:55
30467358004	BC02856 MW-35HO DUP	Water	02/09/22 11:46	02/15/22 09:55
30467358005	BC02857 EB-1	Water	02/09/22 12:52	02/15/22 09:55
30467358006	BC02858 MW-34HO	Water	02/09/22 13:54	02/15/22 09:55
30467358007	BC02853 MS	Water	02/09/22 09:45	02/16/22 09:35
30467358008	BC02853 MSD	Water	02/09/22 09:45	02/16/22 09:35

## REPORT OF LABORATORY ANALYSIS

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### SAMPLE ANALYTE COUNT

Project: WMWGORAP\_1351  
Pace Project No.: 30467358

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
30467358001	BC02853 MW-33HO	EPA 9315	JC2	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
30467358002	BC02854 FB-1	EPA 9315	JC2	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
30467358003	BC02855 MW-35HO	EPA 9315	JC2	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
30467358004	BC02856 MW-35HO DUP	EPA 9315	JC2	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
30467358005	BC02857 EB-1	EPA 9315	JC2	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
30467358006	BC02858 MW-34HO	EPA 9315	JC2	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
30467358007	BC02853 MS	EPA 9315	JC2	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
30467358008	BC02853 MSD	EPA 9315	JC2	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA

PASI-PA = Pace Analytical Services - Greensburg

### REPORT OF LABORATORY ANALYSIS

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## PROJECT NARRATIVE

Project: WMWGORAP\_1351

Pace Project No.: 30467358

---

**Method:** EPA 9315

**Description:** 9315 Total Radium

**Client:** Alabama Power

**Date:** April 18, 2022

**General Information:**

8 samples were analyzed for EPA 9315 by Pace Analytical Services Greensburg. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

**Hold Time:**

The samples were analyzed within the method required hold times with any exceptions noted below.

**Method Blank:**

All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

**Laboratory Control Spike:**

All laboratory control spike compounds were within QC limits with any exceptions noted below.

**Matrix Spikes:**

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

**Additional Comments:**

## REPORT OF LABORATORY ANALYSIS

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## PROJECT NARRATIVE

Project: WMWGORAP\_1351

Pace Project No.: 30467358

---

**Method:** EPA 9320

**Description:** 9320 Radium 228

**Client:** Alabama Power

**Date:** April 18, 2022

**General Information:**

8 samples were analyzed for EPA 9320 by Pace Analytical Services Greensburg. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

**Hold Time:**

The samples were analyzed within the method required hold times with any exceptions noted below.

**Method Blank:**

All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

**Laboratory Control Spike:**

All laboratory control spike compounds were within QC limits with any exceptions noted below.

**Matrix Spikes:**

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

**Additional Comments:**

## REPORT OF LABORATORY ANALYSIS

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## PROJECT NARRATIVE

Project: WMWGORAP\_1351  
Pace Project No.: 30467358

---

**Method:** Total Radium Calculation  
**Description:** Total Radium 228+226  
**Client:** Alabama Power  
**Date:** April 18, 2022

**General Information:**

6 samples were analyzed for Total Radium Calculation by Pace Analytical Services Greensburg. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

**Hold Time:**

The samples were analyzed within the method required hold times with any exceptions noted below.

**Method Blank:**

All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

**Laboratory Control Spike:**

All laboratory control spike compounds were within QC limits with any exceptions noted below.

**Matrix Spikes:**

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

**Additional Comments:**

This data package has been reviewed for quality and completeness and is approved for release.

## REPORT OF LABORATORY ANALYSIS

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: WMWGORAP\_1351

Pace Project No.: 30467358

**Sample: BC02853 MW-33HO**      **Lab ID: 30467358001**      Collected: 02/09/22 09:45      Received: 02/15/22 09:55      Matrix: Water  
PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 9315	<b>0.117U ± 0.186 (0.415)</b> <b>C:97% T:NA</b>	pCi/L	03/11/22 12:27	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	<b>0.650U ± 0.394 (0.720)</b> <b>C:78% T:74%</b>	pCi/L	03/04/22 10:49	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	<b>0.767U ± 0.580 (1.14)</b>	pCi/L	03/14/22 21:56	7440-14-4	

### REPORT OF LABORATORY ANALYSIS

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: WMWGORAP\_1351

Pace Project No.: 30467358

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
<b>Sample: BC02854 FB-1</b> <b>Lab ID: 30467358002</b> Collected: 02/09/22 10:50      Received: 02/15/22 09:55      Matrix: Water PWS:      Site ID:      Sample Type:						
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	<b>0.0426U ± 0.129 (0.320)</b> <b>C:101% T:NA</b>	pCi/L	03/11/22 12:27	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	<b>0.0745U ± 0.292 (0.664)</b> <b>C:78% T:89%</b>	pCi/L	03/04/22 10:49	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	<b>0.117U ± 0.421 (0.984)</b>	pCi/L	03/14/22 21:56	7440-14-4	

### REPORT OF LABORATORY ANALYSIS

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: WMWGORAP\_1351

Pace Project No.: 30467358

**Sample: BC02855 MW-35HO**      **Lab ID: 30467358003**      Collected: 02/09/22 11:46      Received: 02/15/22 09:55      Matrix: Water  
PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	<b>0.0413U ± 0.123 (0.306)</b> <b>C:94% T:NA</b>	pCi/L	03/11/22 12:27	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	<b>0.189U ± 0.283 (0.609)</b> <b>C:76% T:89%</b>	pCi/L	03/04/22 10:49	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	<b>0.230U ± 0.406 (0.915)</b>	pCi/L	03/14/22 21:57	7440-14-4	

### REPORT OF LABORATORY ANALYSIS

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: WMWGORAP\_1351

Pace Project No.: 30467358

**Sample: BC02856 MW-35HO DUP**    **Lab ID: 30467358004**    Collected: 02/09/22 11:46    Received: 02/15/22 09:55    Matrix: Water  
PWS:    Site ID:    Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 9315	<b>0.0880U ± 0.148 (0.330)</b> <b>C:89% T:NA</b>	pCi/L	03/11/22 12:27	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	<b>0.719 ± 0.363 (0.620)</b> <b>C:75% T:91%</b>	pCi/L	03/04/22 10:49	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	<b>0.807U ± 0.511 (0.950)</b>	pCi/L	03/14/22 21:57	7440-14-4	

### REPORT OF LABORATORY ANALYSIS

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: WMWGORAP\_1351

Pace Project No.: 30467358

**Sample: BC02857 EB-1**      **Lab ID: 30467358005**      Collected: 02/09/22 12:52      Received: 02/15/22 09:55      Matrix: Water  
PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 9315	<b>0.140U ± 0.146 (0.276)</b> <b>C:100% T:NA</b>	pCi/L	03/11/22 12:30	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	<b>0.205U ± 0.299 (0.643)</b> <b>C:81% T:87%</b>	pCi/L	03/04/22 10:49	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	<b>0.345U ± 0.445 (0.919)</b>	pCi/L	03/14/22 21:57	7440-14-4	

### REPORT OF LABORATORY ANALYSIS

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: WMWGORAP\_1351

Pace Project No.: 30467358

**Sample: BC02858 MW-34HO**      **Lab ID: 30467358006**      Collected: 02/09/22 13:54      Received: 02/15/22 09:55      Matrix: Water  
PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 9315	<b>0.213U ± 0.169 (0.285)</b> <b>C:103% T:NA</b>	pCi/L	03/11/22 12:31	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	<b>-0.222U ± 0.346 (0.864)</b> <b>C:78% T:68%</b>	pCi/L	03/04/22 10:50	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	<b>0.213U ± 0.515 (1.15)</b>	pCi/L	03/14/22 21:57	7440-14-4	

### REPORT OF LABORATORY ANALYSIS

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: WMWGORAP\_1351

Pace Project No.: 30467358

**Sample: BC02853 MS**      **Lab ID: 30467358007**      Collected: 02/09/22 09:45      Received: 02/16/22 09:35      Matrix: Water  
PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	<b>105.64 %REC ± NA (NA)</b> <b>C:NA T:NA</b>	pCi/L	03/11/22 12:31	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	<b>77.53 %REC ± NA (NA)</b> <b>C:NA T:NA</b>	pCi/L	03/04/22 10:50	15262-20-1	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: WMWGORAP\_1351

Pace Project No.: 30467358

**Sample: BC02853 MSD**      **Lab ID: 30467358008**      Collected: 02/09/22 09:45      Received: 02/16/22 09:35      Matrix: Water  
PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 9315	<b>110.65 %REC 4.63RPD ±</b> <b>NA (NA)</b> <b>C:NA T:NA</b>	pCi/L	03/11/22 12:31	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	<b>63.75 %REC 19.50 RPD ±</b> <b>NA (NA)</b> <b>C:NA T:NA</b>	pCi/L	03/04/22 10:50	15262-20-1	

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### QUALITY CONTROL - RADIOCHEMISTRY

Project: WMWGORAP\_1351

Pace Project No.: 30467358

QC Batch: 485927

Analysis Method: EPA 9315

QC Batch Method: EPA 9315

Analysis Description: 9315 Total Radium

Laboratory: Pace Analytical Services - Greensburg

Associated Lab Samples: 30467358001, 30467358002, 30467358003, 30467358004, 30467358005, 30467358006, 30467358007, 30467358008

METHOD BLANK: 2349793

Matrix: Water

Associated Lab Samples: 30467358001, 30467358002, 30467358003, 30467358004, 30467358005, 30467358006, 30467358007, 30467358008

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.0728 ± 0.0744 (0.139) C:99% T:NA	pCi/L	03/11/22 12:27	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

### REPORT OF LABORATORY ANALYSIS

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## QUALIFIERS

Project: WMWGORAP\_1351  
Pace Project No.: 30467358

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### DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Reported results are not rounded until the final step prior to reporting. Therefore, calculated parameters that are typically reported as "Total" may vary slightly from the sum of the reported component parameters.

Act - Activity

Unc - Uncertainty: For Safe Drinking Water Act (SDWA) analyses, the reported Unc. is the calculated Count Uncertainty (95% confidence interval) using a coverage factor of 1.96. For all other matrices (non-SDWA), the reported Unc. is the calculated Expanded Uncertainty (aka Combined Standard Uncertainty, CSU), reported at the 95% confidence interval using a coverage factor of 1.96.

Gamma Spec: The Unc. reported for all gamma-spectroscopy analyses (EPA 901.1), is the calculated Expanded Uncertainty (CSU) at the 95.4% confidence interval, using a coverage factor of 2.0.

(MDC) - Minimum Detectable Concentration

Trac - Tracer Recovery (%)

Carr - Carrier Recovery (%)

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

## REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: WMWGORAP\_1351

Pace Project No.: 30467358

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
30467358001	BC02853 MW-33HO	EPA 9315	485927		
30467358002	BC02854 FB-1	EPA 9315	485927		
30467358003	BC02855 MW-35HO	EPA 9315	485927		
30467358004	BC02856 MW-35HO DUP	EPA 9315	485927		
30467358005	BC02857 EB-1	EPA 9315	485927		
30467358006	BC02858 MW-34HO	EPA 9315	485927		
30467358007	BC02853 MS	EPA 9315	485927		
30467358008	BC02853 MSD	EPA 9315	485927		
30467358001	BC02853 MW-33HO	EPA 9320	486655		
30467358002	BC02854 FB-1	EPA 9320	486655		
30467358003	BC02855 MW-35HO	EPA 9320	486655		
30467358004	BC02856 MW-35HO DUP	EPA 9320	486655		
30467358005	BC02857 EB-1	EPA 9320	486655		
30467358006	BC02858 MW-34HO	EPA 9320	486655		
30467358007	BC02853 MS	EPA 9320	486655		
30467358008	BC02853 MSD	EPA 9320	486655		
30467358001	BC02853 MW-33HO	Total Radium Calculation	490238		
30467358002	BC02854 FB-1	Total Radium Calculation	490238		
30467358003	BC02855 MW-35HO	Total Radium Calculation	490238		
30467358004	BC02856 MW-35HO DUP	Total Radium Calculation	490238		
30467358005	BC02857 EB-1	Total Radium Calculation	490238		
30467358006	BC02858 MW-34HO	Total Radium Calculation	490238		

### REPORT OF LABORATORY ANALYSIS

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Pittsburgh Lab Sample Condition Upon Receipt



Client Name: Alabama Power Company Project # \_\_\_\_\_

Courier:  Fed Ex  UPS  USPS  Client  Commercial  Pace Other \_\_\_\_\_

Tracking #: 5557 2008 7941

Label	<u>2A</u>
LIMS Login	<u>VPTJL</u>

Custody Seal on Cooler/Box Present:  yes  no Seals intact:  yes  no

Thermometer Used \_\_\_\_\_ Type of Ice: Wet Blue None

Cooler Temperature \_\_\_\_\_ Observed Temp \_\_\_\_\_ °C Correction Factor: \_\_\_\_\_ °C Final Temp: \_\_\_\_\_ °C  
Temp should be above freezing to 6°C

Comments:	pH paper Lot#			Date and Initials of person examining contents:	
	Yes	No	N/A	<u>2-23-22 JA</u>	
Chain of Custody Present:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1.	
Chain of Custody Filled Out:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	2.	
Chain of Custody Relinquished:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	3.	
Sampler Name & Signature on COC:	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	4.	
Sample Labels match COC:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	5.	
-Includes date/time/ID Matrix: <u>WT</u>					
Samples Arrived within Hold Time:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	6.	
Short Hold Time Analysis (<72hr remaining):	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	7.	
Rush Turn Around Time Requested:	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8.	
Sufficient Volume:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	9.	
Correct Containers Used:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	10.	
-Pace Containers Used:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
Containers Intact:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	11.	
Orthophosphate field filtered	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	12.	
Hex Cr Aqueous sample field filtered	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	13.	
Organic Samples checked for dechlorination:	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	14.	
Filtered volume received for Dissolved tests	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	15.	
All containers have been checked for preservation.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	16.	
exceptions: VOA, coliform, TOC, O&G, Phenolics, Radon, Non-aqueous matrix				<u>pH &lt; 2</u>	
All containers meet method preservation requirements.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Initial when completed: <u>JA</u>	Date/time of preservation
				Lot # of added preservative	
Headspace in VOA Vials (>6mm):	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	17.	
Trip Blank Present:	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	18.	
Trip Blank Custody Seals Present	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>		
Rad Samples Screened < 0.5 mrem/hr	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Initial when completed: <u>JA</u>	Date: <u>2-23-22</u> Survey Meter SN: <u>1563</u>

W0#: 30467358  
 PM: AES Due Date: 03/08/22  
 CLIENT: ALABAMA PMR

Client Notification/ Resolution:

Person Contacted: \_\_\_\_\_ Date/Time: \_\_\_\_\_ Contacted By: \_\_\_\_\_

Comments/ Resolution: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

A check in this box indicates that additional information has been stored in ereports.

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office ( i.e. out of hold, incorrect preservative, out of temp, incorrect containers)

\*PM review is documented electronically in LIMS. When the Project Manager closes the SRF Review schedule in LIMS. The review is in the Status section of the Workorder Edit Screen.



Par

WO#: 30467358

er Count

PM: AES Due Date: 03/08/22

CLIENT: ALABAMA PWR

Profile Number 16788

Notes

Client Alabama Power Company  
Site Plant Gorgas Ash Pond

Sample Line Item	Matrix	AG1H	AG1S	AG1T	AG2U	AG3S	AG3U	AG5U	AG5T	BG1U	BG2U	BP1N	BP1U	BP2S	BP2U	BP3C	BP3N	BP3S	BP3U	DG9S	GCUB	VG9H	VG9T	VG9U	VOAK	WGFU	WGKU	ZPLC
1	WT											3																
2	WT											1																
3	WT											1																
4	WT											1																
5	WT											1																
6	WT											1																
7																												
8																												
9																												
10																												
11																												
12																												

Container Codes

Glass	
GJN	1 Gallon Jug with HNO3
AG5U	100mL amber glass unpreserved
AG5T	100mL amber glass Na Thiosulfate
GJN	1 Gallon Jug
AG1S	1L amber glass H2SO4
AG1H	1L amber glass HCl
AG1T	1L amber glass Na Thiosulfate
BG1U	1L clear glass unpreserved
AG3S	250mL amber glass H2SO4
AG3U	250mL amber glass unpreserved
DG9S	40mL amber VOA via H2SO4
VG9U	40mL clear VOA vial
VG9T	40mL clear VOA vial Na Thiosulfate
VG9H	40mL clear VOA vial HCl
JGFU	4oz amber wide jar
WGFU	4oz wide jar unpreserved
BG2U	500mL clear glass unpreserved
AG2U	500mL amber glass unpreserved
WGKU	8oz wide jar unpreserved

Plastic / Misc.	
GCUB	1 Gallon Cubitainer
12GN	1/2 Gallon Cubitainer
SP5T	120mL Coliform Na Thiosulfate
BP1N	1L plastic HNO3
BP1U	1L plastic unpreserved
BP3S	250mL plastic H2SO4
BP3N	250mL plastic HNO3
BP3U	250mL plastic unpreserved
BP3C	250ml plastic NaOH
BP2S	500mL plastic H2SO4
BP2U	500mL plastic unpreserved

EZI	5g Encofe
VOAK	Kit for Volatile Solid
I	Wipe/Swab
ZPLC	Ziploc Bag

WT	Water
SL	Solid
OL	Non-aqueous liquid
WP	Wipe





# Quality Control Sample Performance Assessment

*Analyst Must Manually Enter All Fields Highlighted in Yellow.*

Test: Ra-228  
 Analyst: VAL  
 Date: 3/2/2022  
 Worklist: 65308  
 Matrix: W1

Method Blank Assessment	
MB Sample ID	2353489
MB concentration:	0.511
MB 2 Sigma CSU:	0.307
MB MDC:	0.554
MB Numerical Performance Indicator:	3.27
MB Status vs Numerical Indicator:	Fail
MB Status vs. MDC:	Pass

Laboratory Control Sample Assessment		LCSD (Y or N)?	N
Count Date:	3/4/2022	LCSD65308	LCSD65308
Spike ID:	21-029		
Decay Corrected Spike Concentration (pCi/mL):	36.128		
Volume Used (mL):	0.10		
Aliquot Volume (L, g, F):	0.817		
Target Conc. (pCi/L, g, F):	4.421		
Uncertainty (Calculated):	0.217		
Result (pCi/L, g, F):	3.377		
LCSD/CSU 2 Sigma CSU (pCi/L, g, F):	0.855		
Numerical Performance Indicator:	-2.32		
Percent Recovery:	76.38%		
Status vs Numerical Indicator:	N/A		
Status vs Recovery:	Pass		
Upper % Recovery Limits:	135%		
Lower % Recovery Limits:	60%		

Duplicate Sample Assessment	
Sample I.D.:	Enter Duplicate Sample IDs if other than LCSD/CSU in the space below.
Duplicate Sample I.D.:	
Sample Result (pCi/L, g, F):	
Sample Result 2 Sigma CSU (pCi/L, g, F):	
Sample Duplicate Result (pCi/L, g, F):	
Sample Duplicate Result 2 Sigma CSU (pCi/L, g, F):	
Are sample and/or duplicate results below RL?	
Duplicate Numerical Performance Indicator:	
Duplicate RPD:	
Duplicate Status vs Numerical Indicator:	
Duplicate Status vs RPD:	
% RPD Limit:	

Sample Matrix Spike Control Assessment		MS/MSD 1	MS/MSD 2
Sample Collection Date:	2/1/2022		
Sample I.D.:	30465804010		
Sample MS I.D.:	30465804024		
Sample MSD I.D.:	30465804025		
Spike I.D.:	21-029		
MS/MSD Decay Corrected Spike Concentration (pCi/mL):	36.499		
Spike Volume Used in MS (mL):	0.20		
Spike Volume Used in MSD (mL):	0.20		
MS Aliquot (L, g, F):	0.803		
MS Target Conc. (pCi/L, g, F):	9.095		
MSD Aliquot (L, g, F):	0.816		
MSD Target Conc. (pCi/L, g, F):	8.951		
MS Spike Uncertainty (calculated):	0.446		
MSD Spike Uncertainty (calculated):	0.439		
MS/MSD Lower % Recovery Limits:	0.524		
MS/MSD Upper % Recovery Limits:	0.338		
Sample Result:	7.740		
Sample Result 2 Sigma CSU (pCi/L, g, F):	1.677		
Sample Matrix Spike Result:	8.256		
Sample Matrix Spike Duplicate Result:	1.682		
MS Numerical Performance Indicator:	-2.083		
MSD Numerical Performance Indicator:	-1.348		
MS Percent Recovery:	79.39%		
MSD Percent Recovery:	86.39%		
MS Status vs Numerical Indicator:	Warning		
MSD Status vs Numerical Indicator:	Pass		
MS Status vs Recovery:	Pass		
MSD Status vs Recovery:	Pass		
MS/MSD Lower % Recovery Limits:	135%		
MS/MSD Upper % Recovery Limits:	60%		

Matrix Spike/Matrix Spike Duplicate Sample Assessment	
Sample I.D.:	30465804010
Sample MS I.D.:	30465804024
Sample MSD I.D.:	30465804025
Sample Matrix Spike Result:	7.740
Matrix Spike Result 2 Sigma CSU (pCi/L, g, F):	1.677
Sample Matrix Spike Duplicate Result:	8.256
Matrix Spike Duplicate Result 2 Sigma CSU (pCi/L, g, F):	1.682
Duplicate Numerical Performance Indicator:	-0.426
Duplicate Percent Recovery:	8.50%
Duplicate Status vs Numerical Indicator:	Pass
Duplicate Status vs RPD:	Pass
% RPD Limit:	36%

# Evaluation of duplicate precision is not applicable if either the sample or duplicate results are below the MDC.

Comments: If the lowest activity sample in this batch is greater than ten times the blank value, the blank is acceptable, otherwise this batch must be re-prepped.

*243/8/22*

*3/1/22*

# Quality Control Sample Performance Assessment



Test: Ra-226  
 Analyst: JC2  
 Date: 2/24/2022  
 Worklist: 65252  
 Matrix: DW

**Analyst Must Manually Enter All Fields Highlighted in Yellow.**

Method Blank Assessment	
MB Sample ID	2349793
MB Concentration:	0.073
MB Counting Uncertainty:	0.074
MB MDC:	0.139
MB Numerical Performance Indicator:	1.94
MB Status vs Numerical Indicator:	N/A
MB Status vs. MDC:	Pass

Laboratory Control Sample Assessment		LCS (Y or N)?	LCS DP65252
Count Date:	3/17/2022		
Spike I.D.:	19-033		
Decay Corrected Spike Concentration (pCi/mL):	24.029		
Volume Used (mL):	0.10		
Aliquot Volume (L, g, F):	0.508		
Target Conc. (pCi/L, g, F):	4.729		
Uncertainty (Calculated):	0.057		
Result (pCi/L, g, F):	4.852		
LCS/LCSD Counting Uncertainty (pCi/L, g, F):	0.464		
Numerical Performance Indicator:	0.52		
Percent Recovery:	102.60%		
Status vs Numerical Indicator:	N/A		
Status vs Recovery:	Pass		
Upper % Recovery Limits:	125%		
Lower % Recovery Limits:	75%		

Duplicate Sample Assessment	
Sample I.D.:	Duplicate Sample I.D.:
Sample Result (pCi/L, g, F):	Sample Result (pCi/L, g, F):
Sample Result Counting Uncertainty (pCi/L, g, F):	Sample Duplicate Result (pCi/L, g, F):
Sample Duplicate Result (pCi/L, g, F):	Sample Duplicate Counting Uncertainty (pCi/L, g, F):
Are sample and/or duplicate results below RL?	Duplicate Numerical Performance Indicator:
Duplicate Numerical Performance Indicator:	Duplicate RPD:
Duplicate Status vs Numerical Indicator:	Duplicate Status vs Numerical Indicator:
Duplicate Status vs RPD:	Duplicate Status vs RPD:
% RPD Limit:	% RPD Limit:

Sample Matrix Spike Control Assessment		MS/MSD 1	MS/MSD 2
Sample Collection Date:	2/1/2022		
Sample I.D.:	30465804010		
Sample MS I.D.:	30465804024		
Sample MSD I.D.:	30465804025		
Spike I.D.:	19-033		
MS/MSD Decay Corrected Spike Concentration (pCi/mL):	24.030		
Spike Volume Used in MS (mL):	0.20		
Spike Volume Used in MSD (mL):	0.20		
MS Aliquot (L, g, F):	0.251		
MS Target Conc. (pCi/L, g, F):	19.115		
MSD Aliquot (L, g, F):	0.255		
MSD Target Conc. (pCi/L, g, F):	18.846		
MSD Spike Uncertainty (calculated):	0.229		
MSD Spike Uncertainty (calculated):	0.226		
Sample Result:	0.117		
Sample Result Counting Uncertainty (pCi/L, g, F):	0.168		
Sample Matrix Spike Result:	19.262		
Matrix Spike Result Counting Uncertainty (pCi/L, g, F):	1.304		
Matrix Spike Duplicate Result:	17.231		
Matrix Spike Duplicate Counting Uncertainty (pCi/L, g, F):	1.289		
MS Numerical Performance Indicator:	-0.115		
MSD Numerical Performance Indicator:	-2.734		
MS Percent Recovery:	99.58%		
MSD Percent Recovery:	90.23%		
MS Status vs Numerical Indicator:	N/A		
MSD Status vs Numerical Indicator:	N/A		
MS Status vs Recovery:	Pass		
MSD Status vs Recovery:	Pass		
MS/MSD Upper % Recovery Limits:	125%		
MS/MSD Lower % Recovery Limits:	75%		

Matrix Spike/Matrix Spike Duplicate Sample Assessment	
Sample I.D.:	30465804010
Sample MS I.D.:	30465804024
Sample MSD I.D.:	30465804025
Sample Matrix Spike Result:	19.262
Matrix Spike Result Counting Uncertainty (pCi/L, g, F):	1.304
Matrix Spike Duplicate Result:	17.231
Matrix Spike Duplicate Counting Uncertainty (pCi/L, g, F):	1.289
Duplicate Numerical Performance Indicator:	2.172
(Based on the Percent Recoveries) MS/MSD Duplicate RPD:	9.98%
MS/MSD Duplicate Status vs Numerical Indicator:	N/A
MS/MSD Duplicate Status vs RPD:	Pass
% RPD Limit:	25%

## Evaluation of duplicate precision is not applicable if either the sample or duplicate results are below the MDC.

Comments:

See Below ##

*QC 3/14/22*

*WAM 3/14/22*

# Quality Control Sample Performance Assessment



Test: Ra-226  
 Analyst: JIC2  
 Date: 2/24/2022  
 Worklist: 65252  
 Matrix: DW

**Analyst Must Manually Enter All Fields Highlighted in Yellow.**

Method Blank Assessment	
MB Sample ID	2349793
MB Concentration:	0.073
MB Counting Uncertainty:	0.074
MB MDC:	0.139
MB Numerical Performance Indicator:	1.94
MB Status vs Numerical Indicator:	N/A
MB Status vs MDC:	Pass

Laboratory Control Sample Assessment		LCSD (Y or N)?	LCSD65252
Count Date:	3/11/2022		
Spike I.D.:	19-033		
Decay Corrected Spike Concentration (pCi/mL):	24.029		
Volume Used (mL):	0.10		
Aliquot Volume (L, g, F):	0.508		
Target Conc. (pCi/L, g, F):	4.729		
Uncertainty (Calculated):	0.057		
Result (pCi/L, g, F):	4.852		
LCSD Counting Uncertainty (pCi/L, g, F):	0.464		
Numerical Performance Indicator:	0.52		
Percent Recovery:	102.60%		
Status vs Numerical Indicator:	N/A		
Status vs Recovery:	Pass		
Upper % Recovery Limits:	125%		
Lower % Recovery Limits:	75%		

Duplicate Sample Assessment		LCSD (Y or N)?	LCSD65252
Sample I.D.:	Duplicate Sample I.D.:		
Sample Result (pCi/L, g, F):	Sample Result (pCi/L, g, F):		
Sample Result Counting Uncertainty (pCi/L, g, F):	Sample Result Counting Uncertainty (pCi/L, g, F):		
Sample Duplicate Result (pCi/L, g, F):	Sample Duplicate Result (pCi/L, g, F):		
Sample Duplicate Counting Uncertainty (pCi/L, g, F):	Sample Duplicate Counting Uncertainty (pCi/L, g, F):		
Are sample and/or duplicate results below RL?	See Below ##		
Duplicate Numerical Performance Indicator:			
Duplicate RPD:			
Duplicate Status vs Numerical Indicator:			
Duplicate Status vs RPD:			
% RPD Limit:			

Sample Matrix Spike Control Assessment		MS/MSD 1	MS/MSD 2
Sample Collection Date:	2/9/2022		
Sample I.D.:	30467365002		
Sample MS I.D.:	30467365005		
Sample MSD I.D.:	30467365006		
Spike I.D.:	19-033		
MS/MSD Decay Corrected Spike Concentration (pCi/mL):	24.030		
Spike Volume Used in MS (mL):	0.20		
Spike Volume Used in MSD (mL):	0.20		
MS Aliquot (L, g, F):	0.253		
MS Target Conc. (pCi/L, g, F):	19.016		
MSD Aliquot (L, g, F):	0.251		
MSD Target Conc. (pCi/L, g, F):	19.134		
MS Spike Uncertainty (calculated):	0.228		
MSD Spike Uncertainty (calculated):	0.230		
Sample Result:	0.139		
Sample Matrix Spike Result:	0.153		
Sample Result Counting Uncertainty (pCi/L, g, F):	20.651		
Sample Matrix Spike Result:	1.359		
Sample Matrix Spike Duplicate Result:	17.738		
Matrix Spike Duplicate Result Counting Uncertainty (pCi/L, g, F):	1.289		
MS Numerical Performance Indicator:	2.114		
MS Percent Recovery:	-2.317		
MSD Percent Recovery:	107.87%		
MS Status vs Numerical Indicator:	91.98%		
MSD Status vs Numerical Indicator:	N/A		
MS Status vs Recovery:	N/A		
MSD Status vs Recovery:	Pass		
MS/MSD Upper % Recovery Limits:	Pass		
MS/MSD Lower % Recovery Limits:	125%		
	75%		

Matrix Spike/Matrix Spike Duplicate Sample Assessment		MS/MSD 1	MS/MSD 2
Sample I.D.:	30467365002		
Sample MS I.D.:	30467365005		
Sample MSD I.D.:	30467365006		
Sample Matrix Spike Result:	20.651		
Matrix Spike Result Counting Uncertainty (pCi/L, g, F):	1.359		
Sample Matrix Spike Duplicate Result:	17.738		
Matrix Spike Duplicate Result Counting Uncertainty (pCi/L, g, F):	1.269		
Duplicate Numerical Performance Indicator:	3.071		
(Based on the Percent Recoveries) MS/MSD Duplicate RPD:	15.90%		
MS/MSD Duplicate Status vs Numerical Indicator:	N/A		
MS/MSD Duplicate Status vs RPD:	Pass		
% RPD Limit:	25%		

## Evaluation of duplicate precision is not applicable if either the sample or duplicate results are below the MDC.

Comments:

*3/11/22*

*3/11/22*

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***



# **Gorgas Ash Pond**

## **Radium Resample Request 2022 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).

All pH field readings for well MW-16S were qualified due to pH readings falling outside of the bracketed calibration range. The below qualifier was used:

- E – Estimated reported value exceeded calibration range

Field quality control procedures were performed as follows:

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

July 12, 2022

Brooke Caton  
Alabama Power  
744 Highway 87  
Calera, AL 35040

RE: Project: WMWGORAP\_1364  
Pace Project No.: 30489569

Dear Brooke Caton:

Enclosed are the analytical results for sample(s) received by the laboratory on May 17, 2022. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Services - Greensburg

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

Sincerely,



Skyler C. Richmond  
skyler.richmond@pacelabs.com  
(724)850-5600  
Project Manager

Enclosures

cc: Blaine Denton, Alabama Power  
Renee Jernigan, Alabama Power



## REPORT OF LABORATORY ANALYSIS

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## CERTIFICATIONS

Project: WMWGORAP\_1364  
Pace Project No.: 30489569

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### **Pace Analytical Services Pennsylvania**

1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601  
ANAB DOD-ELAP Rad Accreditation #: L2417  
Alabama Certification #: 41590  
Arizona Certification #: AZ0734  
Arkansas Certification  
California Certification #: 04222CA  
Colorado Certification #: PA01547  
Connecticut Certification #: PH-0694  
Delaware Certification  
EPA Region 4 DW Rad  
Florida/TNI Certification #: E87683  
Georgia Certification #: C040  
Florida: Cert E871149 SEKS WET  
Guam Certification  
Hawaii Certification  
Idaho Certification  
Illinois Certification  
Indiana Certification  
Iowa Certification #: 391  
Kansas/TNI Certification #: E-10358  
Kentucky Certification #: KY90133  
KY WW Permit #: KY0098221  
KY WW Permit #: KY0000221  
Louisiana DHH/TNI Certification #: LA180012  
Louisiana DEQ/TNI Certification #: 4086  
Maine Certification #: 2017020  
Maryland Certification #: 308  
Massachusetts Certification #: M-PA1457  
Michigan/PADEP Certification #: 9991

Missouri Certification #: 235  
Montana Certification #: Cert0082  
Nebraska Certification #: NE-OS-29-14  
Nevada Certification #: PA014572018-1  
New Hampshire/TNI Certification #: 297617  
New Jersey/TNI Certification #: PA051  
New Mexico Certification #: PA01457  
New York/TNI Certification #: 10888  
North Carolina Certification #: 42706  
North Dakota Certification #: R-190  
Ohio EPA Rad Approval: #41249  
Oregon/TNI Certification #: PA200002-010  
Pennsylvania/TNI Certification #: 65-00282  
Puerto Rico Certification #: PA01457  
Rhode Island Certification #: 65-00282  
South Dakota Certification  
Tennessee Certification #: 02867  
Texas/TNI Certification #: T104704188-17-3  
Utah/TNI Certification #: PA014572017-9  
USDA Soil Permit #: P330-17-00091  
Vermont Dept. of Health: ID# VT-0282  
Virgin Island/PADEP Certification  
Virginia/VELAP Certification #: 460198  
Washington Certification #: C868  
West Virginia DEP Certification #: 143  
West Virginia DHHR Certification #: 9964C  
Wisconsin Approve List for Rad  
Wyoming Certification #: 8TMS-L

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## REPORT OF LABORATORY ANALYSIS

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## SAMPLE SUMMARY

Project: WMWGORAP\_1364  
Pace Project No.: 30489569

Lab ID	Sample ID	Matrix	Date Collected	Date Received
30489569001	BC09151 FB-1	Water	05/10/22 11:10	05/17/22 10:05
30489569002	BC09152 MW-25HA	Water	05/10/22 12:15	05/17/22 10:05
30489569003	BC09153 MW-36H	Water	05/10/22 15:23	05/17/22 10:05
30489569004	BC09153 MW-36H MS	Water	05/10/22 15:23	05/17/22 10:05
30489569005	BC09153 MW-36H MSD	Water	05/10/22 15:23	05/17/22 10:05
30489569006	BC09154 MW-16S	Water	05/11/22 08:37	05/17/22 10:05
30489569007	BC09155 MW-16S Dup	Water	05/11/22 08:37	05/17/22 10:05
30489569008	BC09156 MW-17V	Water	05/11/22 10:00	05/17/22 10:05
30489569009	BC09157 EB-1	Water	05/11/22 10:05	05/17/22 10:05

## REPORT OF LABORATORY ANALYSIS

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### SAMPLE ANALYTE COUNT

Project: WMWGORAP\_1364  
Pace Project No.: 30489569

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
30489569001	BC09151 FB-1	EPA 9315	JC2	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
30489569002	BC09152 MW-25HA	EPA 9315	JC2	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
30489569003	BC09153 MW-36H	EPA 9315	JC2	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
30489569004	BC09153 MW-36H MS	EPA 9315	JC2	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
30489569005	BC09153 MW-36H MSD	EPA 9315	JC2	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
30489569006	BC09154 MW-16S	EPA 9315	JC2	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
30489569007	BC09155 MW-16S Dup	EPA 9315	JC2	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
30489569008	BC09156 MW-17V	EPA 9315	JC2	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
30489569009	BC09157 EB-1	EPA 9315	JC2	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA

PASI-PA = Pace Analytical Services - Greensburg

### REPORT OF LABORATORY ANALYSIS

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## PROJECT NARRATIVE

Project: WMWGORAP\_1364

Pace Project No.: 30489569

---

**Method:** EPA 9315

**Description:** 9315 Total Radium

**Client:** Alabama Power

**Date:** July 12, 2022

**General Information:**

9 samples were analyzed for EPA 9315 by Pace Analytical Services Greensburg. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

**Hold Time:**

The samples were analyzed within the method required hold times with any exceptions noted below.

**Method Blank:**

All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

**Laboratory Control Spike:**

All laboratory control spike compounds were within QC limits with any exceptions noted below.

**Matrix Spikes:**

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

**Additional Comments:**

## REPORT OF LABORATORY ANALYSIS

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## PROJECT NARRATIVE

Project: WMWGORAP\_1364

Pace Project No.: 30489569

---

**Method:** EPA 9320

**Description:** 9320 Radium 228

**Client:** Alabama Power

**Date:** July 12, 2022

**General Information:**

9 samples were analyzed for EPA 9320 by Pace Analytical Services Greensburg. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

**Hold Time:**

The samples were analyzed within the method required hold times with any exceptions noted below.

**Method Blank:**

All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

**Laboratory Control Spike:**

All laboratory control spike compounds were within QC limits with any exceptions noted below.

**Matrix Spikes:**

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

**Additional Comments:**

## REPORT OF LABORATORY ANALYSIS

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## PROJECT NARRATIVE

Project: WMWGORAP\_1364

Pace Project No.: 30489569

---

**Method:** Total Radium Calculation

**Description:** Total Radium 228+226

**Client:** Alabama Power

**Date:** July 12, 2022

**General Information:**

7 samples were analyzed for Total Radium Calculation by Pace Analytical Services Greensburg. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

**Hold Time:**

The samples were analyzed within the method required hold times with any exceptions noted below.

**Method Blank:**

All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

**Laboratory Control Spike:**

All laboratory control spike compounds were within QC limits with any exceptions noted below.

**Matrix Spikes:**

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

**Additional Comments:**

This data package has been reviewed for quality and completeness and is approved for release.

## REPORT OF LABORATORY ANALYSIS

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: WMWGORAP\_1364

Pace Project No.: 30489569

**Sample: BC09151 FB-1**      **Lab ID: 30489569001**      Collected: 05/10/22 11:10      Received: 05/17/22 10:05      Matrix: Water  
PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 9315	<b>0.289U ± 0.197 (0.316)</b> <b>C:92% T:NA</b>	pCi/L	07/08/22 09:00	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	<b>0.660U ± 0.408 (0.770)</b> <b>C:74% T:95%</b>	pCi/L	06/29/22 11:47	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	<b>0.949U ± 0.605 (1.09)</b>	pCi/L	07/11/22 22:41	7440-14-4	

### REPORT OF LABORATORY ANALYSIS

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: WMWGORAP\_1364

Pace Project No.: 30489569

**Sample: BC09152 MW-25HA**      **Lab ID: 30489569002**      Collected: 05/10/22 12:15      Received: 05/17/22 10:05      Matrix: Water  
PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	<b>0.0963U ± 0.148 (0.324)</b> <b>C:92% T:NA</b>	pCi/L	07/08/22 09:00	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	<b>0.469U ± 0.362 (0.714)</b> <b>C:72% T:96%</b>	pCi/L	06/29/22 11:47	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	<b>0.565U ± 0.510 (1.04)</b>	pCi/L	07/11/22 22:41	7440-14-4	

### REPORT OF LABORATORY ANALYSIS

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: WMWGORAP\_1364

Pace Project No.: 30489569

**Sample: BC09153 MW-36H**      **Lab ID: 30489569003**      Collected: 05/10/22 15:23      Received: 05/17/22 10:05      Matrix: Water  
PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 9315	<b>0.187U ± 0.173 (0.321)</b> <b>C:81% T:NA</b>	pCi/L	07/08/22 09:00	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	<b>0.838 ± 0.443 (0.787)</b> <b>C:71% T:87%</b>	pCi/L	06/29/22 11:47	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	<b>1.03U ± 0.616 (1.11)</b>	pCi/L	07/11/22 22:41	7440-14-4	

### REPORT OF LABORATORY ANALYSIS

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: WMWGORAP\_1364

Pace Project No.: 30489569

**Sample: BC09153 MW-36H MS**      **Lab ID: 30489569004**      Collected: 05/10/22 15:23      Received: 05/17/22 10:05      Matrix: Water  
PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	<b>95.09 %REC ± NA (NA)</b> <b>C:NA T:NA</b>	pCi/L	07/08/22 12:37	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	<b>109.64 %REC ± NA (NA)</b> <b>C:NA T:NA</b>	pCi/L	06/29/22 11:47	15262-20-1	

### REPORT OF LABORATORY ANALYSIS

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: WMWGORAP\_1364

Pace Project No.: 30489569

**Sample: BC09153 MW-36H MSD**      **Lab ID: 30489569005**      Collected: 05/10/22 15:23      Received: 05/17/22 10:05      Matrix: Water  
PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 9315	<b>92.60 %REC 2.66 RPD ±</b> <b>NA (NA)</b> <b>C:NA T:NA</b>	pCi/L	07/08/22 12:37	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	<b>90.75 %REC 18.85 RPD ±</b> <b>NA (NA)</b> <b>C:NA T:NA</b>	pCi/L	06/29/22 11:47	15262-20-1	

### REPORT OF LABORATORY ANALYSIS

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: WMWGORAP\_1364

Pace Project No.: 30489569

**Sample: BC09154 MW-16S**      **Lab ID: 30489569006**      Collected: 05/11/22 08:37      Received: 05/17/22 10:05      Matrix: Water  
PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	<b>0.215 ± 0.123 (0.193)</b> <b>C:92% T:NA</b>	pCi/L	07/08/22 12:37	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	<b>0.531U ± 0.377 (0.726)</b> <b>C:68% T:94%</b>	pCi/L	06/29/22 11:47	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	<b>0.746U ± 0.500 (0.919)</b>	pCi/L	07/11/22 22:41	7440-14-4	

### REPORT OF LABORATORY ANALYSIS

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: WMWGORAP\_1364

Pace Project No.: 30489569

**Sample: BC09155 MW-16S Dup**      **Lab ID: 30489569007**      Collected: 05/11/22 08:37      Received: 05/17/22 10:05      Matrix: Water  
PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 9315	<b>0.145U ± 0.114 (0.204)</b> <b>C:90% T:NA</b>	pCi/L	07/08/22 12:37	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	<b>0.113U ± 0.303 (0.680)</b> <b>C:72% T:89%</b>	pCi/L	06/29/22 11:48	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	<b>0.258U ± 0.417 (0.884)</b>	pCi/L	07/11/22 22:41	7440-14-4	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: WMWGORAP\_1364

Pace Project No.: 30489569

**Sample: BC09156 MW-17V**      **Lab ID: 30489569008**      Collected: 05/11/22 10:00      Received: 05/17/22 10:05      Matrix: Water  
PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 9315	<b>0.160U ± 0.114 (0.202)</b> <b>C:93% T:NA</b>	pCi/L	07/08/22 12:37	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	<b>0.393U ± 0.355 (0.716)</b> <b>C:73% T:87%</b>	pCi/L	06/29/22 11:48	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	<b>0.553U ± 0.469 (0.918)</b>	pCi/L	07/11/22 22:41	7440-14-4	

### REPORT OF LABORATORY ANALYSIS

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: WMWGORAP\_1364

Pace Project No.: 30489569

**Sample: BC09157 EB-1**      **Lab ID: 30489569009**      Collected: 05/11/22 10:05      Received: 05/17/22 10:05      Matrix: Water  
PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	<b>-0.0196U ± 0.104 (0.265)</b> <b>C:89% T:NA</b>	pCi/L	07/08/22 12:37	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	<b>0.879 ± 0.415 (0.701)</b> <b>C:72% T:94%</b>	pCi/L	06/29/22 11:48	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	<b>0.879U ± 0.519 (0.966)</b>	pCi/L	07/11/22 22:41	7440-14-4	

### REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL - RADIOCHEMISTRY

Project: WMWGORAP\_1364

Pace Project No.: 30489569

QC Batch: 510503

Analysis Method: EPA 9315

QC Batch Method: EPA 9315

Analysis Description: 9315 Total Radium

Laboratory: Pace Analytical Services - Greensburg

Associated Lab Samples: 30489569001, 30489569002, 30489569003, 30489569004, 30489569005, 30489569006, 30489569007, 30489569008, 30489569009

METHOD BLANK: 2474493

Matrix: Water

Associated Lab Samples: 30489569001, 30489569002, 30489569003, 30489569004, 30489569005, 30489569006, 30489569007, 30489569008, 30489569009

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.000 ± 0.0853 (0.228) C:80% T:NA	pCi/L	07/08/22 09:00	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

### REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL - RADIOCHEMISTRY

Project: WMWGORAP\_1364

Pace Project No.: 30489569

QC Batch: 510502

Analysis Method: EPA 9320

QC Batch Method: EPA 9320

Analysis Description: 9320 Radium 228

Laboratory: Pace Analytical Services - Greensburg

Associated Lab Samples: 30489569001, 30489569002, 30489569003, 30489569004, 30489569005, 30489569006, 30489569007, 30489569008, 30489569009

METHOD BLANK: 2474491

Matrix: Water

Associated Lab Samples: 30489569001, 30489569002, 30489569003, 30489569004, 30489569005, 30489569006, 30489569007, 30489569008, 30489569009

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.619 ± 0.362 (0.653) C:73% T:89%	pCi/L	06/29/22 11:47	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

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## QUALIFIERS

Project: WMWGORAP\_1364  
Pace Project No.: 30489569

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### DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Reported results are not rounded until the final step prior to reporting. Therefore, calculated parameters that are typically reported as "Total" may vary slightly from the sum of the reported component parameters.

Act - Activity

Unc - Uncertainty: For Safe Drinking Water Act (SDWA) analyses, the reported Unc. is the calculated Count Uncertainty (95% confidence interval) using a coverage factor of 1.96. For all other matrices (non-SDWA), the reported Unc. is the calculated Expanded Uncertainty (aka Combined Standard Uncertainty, CSU), reported at the 95% confidence interval using a coverage factor of 1.96.

Gamma Spec: The Unc. reported for all gamma-spectroscopy analyses (EPA 901.1), is the calculated Expanded Uncertainty (CSU) at the 95.4% confidence interval, using a coverage factor of 2.0.

(MDC) - Minimum Detectable Concentration

Trac - Tracer Recovery (%)

Carr - Carrier Recovery (%)

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

## REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: WMWGORAP\_1364  
Pace Project No.: 30489569

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
30489569001	BC09151 FB-1	EPA 9315	510503		
30489569002	BC09152 MW-25HA	EPA 9315	510503		
30489569003	BC09153 MW-36H	EPA 9315	510503		
30489569004	BC09153 MW-36H MS	EPA 9315	510503		
30489569005	BC09153 MW-36H MSD	EPA 9315	510503		
30489569006	BC09154 MW-16S	EPA 9315	510503		
30489569007	BC09155 MW-16S Dup	EPA 9315	510503		
30489569008	BC09156 MW-17V	EPA 9315	510503		
30489569009	BC09157 EB-1	EPA 9315	510503		
30489569001	BC09151 FB-1	EPA 9320	510502		
30489569002	BC09152 MW-25HA	EPA 9320	510502		
30489569003	BC09153 MW-36H	EPA 9320	510502		
30489569004	BC09153 MW-36H MS	EPA 9320	510502		
30489569005	BC09153 MW-36H MSD	EPA 9320	510502		
30489569006	BC09154 MW-16S	EPA 9320	510502		
30489569007	BC09155 MW-16S Dup	EPA 9320	510502		
30489569008	BC09156 MW-17V	EPA 9320	510502		
30489569009	BC09157 EB-1	EPA 9320	510502		
30489569001	BC09151 FB-1	Total Radium Calculation	517870		
30489569002	BC09152 MW-25HA	Total Radium Calculation	517870		
30489569003	BC09153 MW-36H	Total Radium Calculation	517870		
30489569006	BC09154 MW-16S	Total Radium Calculation	517870		
30489569007	BC09155 MW-16S Dup	Total Radium Calculation	517870		
30489569008	BC09156 MW-17V	Total Radium Calculation	517870		
30489569009	BC09157 EB-1	Total Radium Calculation	517870		

### REPORT OF LABORATORY ANALYSIS

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WO#: 30489569



CHAIN-OF-1  
The Chain-of-Cust

it  
sted accurately.

**Section B**  
**Required Project Information:**  
 Report To: Brooke Catton  
 Copy To: Renee Jernigan & Blaine Denton  
 Purchase Order #: APC1075638  
 Project Name: Plant Gorgas Ash Pond  
 Project Number: WMWGORAP\_1364  
 Requested Due Date: 28 days

**Section A**  
**Required Client Information:**  
 Company: Alabama Power Company  
 Address: 744 Highway 87 GSC Bldg #8  
 Calera, AL 35040  
 Email To: tbwill@alpower.com  
 Phone: 205-664-6101 | Fax  
 Requested Due Date: 28 days

**Invoice Information:**  
 Attention: Brooke Catton  
 Company Name: Alabama Power Co.  
 Address: 744 Highway 87 GSC Bldg #8  
 Address: CCR  
 Pace Quote: Skyler Richmond  
 Pace Project Manager: 16788  
 Pace Profile #:

**Regulatory Agency:**  
 State / Location: AL

ITEM #	Description	Station Name Location_ID	Site Name Facility_ID	Matrix Spike/Matrix Spike Duplicate	Field Filtered	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB G-COMP)	COLLECTED		# OF CONTAINERS	Preservatives	Y/N	Requested Analysis Filtered (Y/N)				Residual Chlorine (Y/N)
								DATE	TIME				EPA 9315	EPA 9320	Total Radium Sum		
1	BC09151 FB-1	APCO-GS-AP-FB-01	APCO_Gorgas_AshPond			GW G		4/26/2022	11:30	1		X	X	X	X	001	
2	BC09152 MW-25HA	APCO-GS-AP-MW-25HA	APCO_Gorgas_AshPond			GW G		4/26/2022	13:22	1		X	X	X	X	002	
3	BC09153 MW-36H	APCO-GS-AP-MW-36H	APCO_Gorgas_AshPond	X		GW G		4/26/2022	15:30	3		X	X	X	X	003, 004, 005	
4	BC09154 MW-16S	APCO-GS-AP-MW-16S	APCO_Gorgas_AshPond			GW G		4/27/2022	10:25	1		X	X	X	X	006	
5	BC09155 MW-16S Dup	APCO-GS-AP-MW-16S	APCO_Gorgas_AshPond	X		GW G		4/27/2022	12:05	1		X	X	X	X	007	
6	BC09156 MW-17V	APCO-GS-AP-MW-17V	APCO_Gorgas_AshPond			GW G		4/27/2022	13:25	1		X	X	X	X	008	
7	BC09157 EB-1	APCO-GS-AP-EB-01	APCO_Gorgas_AshPond			GW G		4/27/2022	13:25	1		X	X	X	X	009	
8																	
9																	
10																	
11																	
12																	

**ADDITIONAL COMMENTS**

RELINQUISHED BY / AFFILIATION: Brooke Catton / APC GTL  
 DATE: 5/1/2022  
 TIME: 15:08

ACCEPTED BY / AFFILIATION: *[Signature]*  
 DATE: 5-7-22  
 TIME: 10:05

TEMP in C: \_\_\_\_\_  
 Received on: \_\_\_\_\_  
 Sealed: \_\_\_\_\_  
 Custody: \_\_\_\_\_  
 Cooler: \_\_\_\_\_  
 Samples: \_\_\_\_\_  
 Interact: \_\_\_\_\_

**SAMPLER NAME AND SIGNATURE**  
 PRINT Name of SAMPLER: Anthony Goggins  
 SIGNATURE of SAMPLER: *[Signature]*  
 DATE Signed: \_\_\_\_\_

Pittsburgh Lab Sample Condition Upon Receipt



Client Name: Alabama Power Company Project # \_\_\_\_\_

Courier:  Fed Ex  UPS  USPS  Client  Commercial  Pace Other \_\_\_\_\_

Tracking #: 5701 6585 2797

Label JA  
LIMS Login: APInt

Custody Seal on Cooler/Box Present:  yes  no Seals intact:  yes  no

Thermometer Used \_\_\_\_\_ Type of Ice: Wet Blue None

Cooler Temperature \_\_\_\_\_ Observed Temp \_\_\_\_\_ °C Correction Factor: \_\_\_\_\_ °C Final Temp: \_\_\_\_\_ °C  
Temp should be above freezing to 6°C

MS  
JA  
5-17-22

Comments:	pH paper Lot#			Date and Initials of person examining contents: <u>5-17-22 JA</u>
	Yes	No	N/A	
Chain of Custody Present:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1.
Chain of Custody Filled Out:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	2.
Chain of Custody Relinquished:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	3.
Sampler Name & Signature on COC:	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	4.
Sample Labels match COC: -Includes date/time/ID Matrix: <u>WT</u>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	5. <u>Date + Time on 001 5-10-22 11:10</u> <u>Date + Time on 002 5-10-22 12:15</u> <u>Date + Time on 003, 004, 005 5-10-22 15:23</u>
Samples Arrived within Hold Time:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	6.
Short Hold Time Analysis (<72hr remaining):	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	7.
Rush Turn Around Time Requested:	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8.
Sufficient Volume:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	9.
Correct Containers Used: -Pace Containers Used:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	10.
Containers Intact:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	11.
Orthophosphate field filtered	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	12.
Hex Cr Aqueous sample field filtered	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	13.
Organic Samples checked for dechlorination:	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	14.
Filtered volume received for Dissolved tests	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	15.
All containers have been checked for preservation. exceptions: VOA, coliform, TOC, O&G, Phenolics, Radon, Non-aqueous matrix	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	16. <u>Added 2.5 mL HNO3 to 002</u>
All containers meet method preservation requirements.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Initial when completed: <u>JA</u> Date/time of preservation: <u>5-17-22 14:47</u> Lot # of added preservative: <u>DL22-0473</u>
Headspace in VOA Vials (>6mm):	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	17.
Trip Blank Present:	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	18.
Trip Blank Custody Seals Present	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Rad Samples Screened < 0.5 mrem/hr	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Initial when completed: <u>JA</u> Date: <u>5-17-22</u> Survey Meter SN: <u>1563</u>

IO#: 30489569  
 PM: SCR  
 CLIENT: ALABAMA PWR  
 Due Date: 06/08/22

Client Notification/ Resolution:

Person Contacted: \_\_\_\_\_ Date/Time: \_\_\_\_\_ Contacted By: \_\_\_\_\_

Comments/ Resolution:  
Date + Time on 006 5-11-22 8:37  
Date + Time on 007 5-11-22 8:37  
Date + Time on 008 5-11-22 10:00  
Date + Time on 009 5-11-22 10:05

A check in this box indicates that additional information has been stored in ereports.

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office ( i.e. out of hold, incorrect preservative, out of temp, incorrect containers)  
 \*PM review is documented electronically in LIMS. When the Project Manager closes the SRF Review schedule in LIMS. The review is in the Status section of the Workorder Edit Screen.

# Quality Control Sample Performance Assessment



**Analyst Must Manually Enter All Fields Highlighted in Yellow.**

Test: Ra-228  
Analyst: VAL  
Date: 6/16/2022  
Worklist: 67109  
Matrix: WT

Method Blank Assessment	
MB Sample ID	2474491
MB concentration:	0.619
MB 2 Sigma CSU:	0.362
MB MDC:	0.653
MB Numerical Performance Indicator:	3.35
MB Status vs Numerical Indicator:	Fail*
MB Status vs MDC:	Pass

Laboratory Control Sample Assessment	
Count Date:	N
LCS67109	LCS67109
6/29/2022	
Decay Corrected Spike Concentration (pCi/mL):	35.215
Volume Used (mL):	0.10
Aliquot Volume (L, g, F):	0.803
Target Conc. (pCi/L, g, F):	4.385
Uncertainty (Calculated):	0.215
Result (pCi/L, g, F):	4.082
LCS/LCSD 2 Sigma CSU (pCi/L, g, F):	0.968
Numerical Performance Indicator:	-0.60
Percent Recovery:	93.11%
Status vs Numerical Indicator:	N/A
Upper % Recovery Limits:	Pass
Lower % Recovery Limits:	135%
	60%

Duplicate Sample Assessment	
Sample I.D.:	Enter Duplicate sample IDs if other than LCS/LCSD in the space below.
Duplicate Sample I.D.:	
Sample Result 2 Sigma CSU (pCi/L, g, F):	
Sample Duplicate Result (pCi/L, g, F):	
Sample Duplicate Result 2 Sigma CSU (pCi/L, g, F):	
Are sample and/or duplicate results below RL?:	
Duplicate Numerical Performance Indicator:	
Duplicate RPD:	
Duplicate Status vs Numerical Indicator:	
Duplicate Status vs RPD:	
% RPD Limit:	

# Evaluation of duplicate precision is not applicable if either the sample or duplicate results are below the MDC.

Comments: \*If the lowest activity sample in this batch is greater than ten times the blank value, the blank is acceptable; otherwise this batch must be re-prepped.  
*MS activity < MDC, Pass* (M 6/30/22)

Sample Matrix Spike Control Assessment	MS/MSD 1	MS/MSD 2
Sample Collection Date:	5/10/2022	5/9/2022
Sample I.D.:	30489569003	30493174001
Sample MS I.D.:	30489569004	30493174002
Sample MSD I.D.:	30489569005	30493174003
Spike I.D.:	22-016	22-016
MS/MSD Decay Corrected Spike Concentration (pCi/mL):	35.801	35.801
Spike Volume Used in MS (mL):	0.20	0.20
Spike Volume Used in MSD (mL):	0.20	0.20
MS Aliquot (L, g, F):	0.801	0.803
MS Target Conc. (pCi/L, g, F):	8.938	8.921
MSD Aliquot (L, g, F):	0.804	0.801
MSD Target Conc. (pCi/L, g, F):	8.907	8.938
MS Spike Uncertainty (calculated):	0.438	0.437
MSD Spike Uncertainty (calculated):	0.436	0.438
Sample Result 2 Sigma CSU (pCi/L, g, F):	0.838	0.715
Sample Matrix Spike Result:	0.443	0.379
Matrix Spike Result 2 Sigma CSU (pCi/L, g, F):	10.638	8.937
Sample Matrix Spike Duplicate Result:	2.123	1.805
Matrix Spike Duplicate Result 2 Sigma CSU (pCi/L, g, F):	8.922	9.793
MS Numerical Performance Indicator:	1.823	1.967
MSD Numerical Performance Indicator:	0.763	-0.722
MS Percent Recovery:	109.64%	92.17%
MSD Percent Recovery:	90.75%	101.58%
MS Status vs Numerical Indicator:	Pass	Pass
MSD Status vs Numerical Indicator:	Pass	Pass
MS Status vs Recovery:	Pass	Pass
MSD Status vs Recovery:	Pass	Pass
MS/MSD Upper % Recovery Limits:	135%	135%
MS/MSD Lower % Recovery Limits:	60%	60%

Matrix Spike/Matrix Spike Duplicate Sample Assessment	
Sample I.D.:	30489569003
Sample MS I.D.:	30489569004
Sample MSD I.D.:	30489569005
Sample Matrix Spike Result:	10.638
Sample Matrix Spike Duplicate Result:	2.123
Matrix Spike Result 2 Sigma CSU (pCi/L, g, F):	8.922
Sample Matrix Spike Duplicate Result:	1.823
Matrix Spike Duplicate Result 2 Sigma CSU (pCi/L, g, F):	1.202
Duplicate Numerical Performance Indicator:	18.85%
Duplicate RPD:	Pass
Duplicate Status vs Numerical Indicator:	Pass
Duplicate Status vs RPD:	Pass
% RPD Limit:	36%

# Quality Control Sample Performance Assessment



Analyst **Must Manually Enter All Fields Highlighted in Yellow.**

Test: Ra-226  
Analyst: JC2  
Date: 6/18/2022  
Worklist: 67110  
Matrix: DW

Method Blank Assessment	
MB Sample ID	2474493
MB concentration:	0.000
M/B Counting Uncertainty:	0.085
MB MDC:	0.228
MB Numerical Performance Indicator:	0.00
MB Status vs Numerical Indicator:	N/A
MB Status vs. MDC:	Pass

Laboratory Control Sample Assessment	LCSD (Y or N)?	
	LCS67110	Y
Count Date:	7/8/2022	LCS067110
Spike I.D.:	19-033	7/8/2022
Decay Corrected Spike Concentration (pCi/mL):	24.026	19-033
Volume Used (mL):	0.10	24.026
Aliquot Volume (L, g, F):	0.503	0.10
Target Conc. (pCi/L, g, F):	4.773	0.509
Uncertainty (Calculated):	0.057	4.717
Result (pCi/L, g, F):	5.036	0.057
LCS/LCSD Counting Uncertainty (pCi/L, g, F):	0.337	4.446
Numerical Performance Indicator:	1.50	0.309
Percent Recovery:	105.50%	-1.69
Status vs Numerical Indicator:	N/A	94.24%
Status vs Recovery:	Pass	N/A
Upper % Recovery Limits:	125%	Pass
Lower % Recovery Limits:	75%	125%
		75%

Duplicate Sample Assessment	
Sample I.D.:	LCS67110
Duplicate Sample I.D.:	LCS067110
Sample Result (pCi/L, g, F):	5.036
Duplicate Result (pCi/L, g, F):	0.337
Sample Result Counting Uncertainty (pCi/L, g, F):	4.446
Sample Duplicate Result (pCi/L, g, F):	0.309
Sample Duplicate Counting Uncertainty (pCi/L, g, F):	NO
Are sample and/or duplicate results below RL?	2.527
Duplicate Numerical Performance Indicator:	11.27%
(Based on the LCS/LCSD Percent Recoveries) Duplicate RPD:	N/A
Duplicate Status vs Numerical Indicator:	Pass
Duplicate Status vs RPD:	Pass
% RPD Limit:	25%

## Evaluation of duplicate precision is not applicable if either the sample or duplicate results are below the MDC.

Comments:

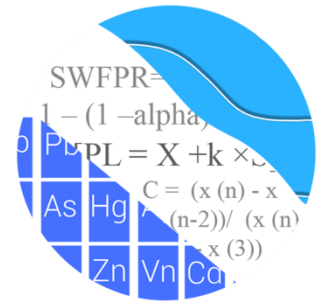
*Handwritten signature and date: 7/11/22*

Sample Matrix Spike Control Assessment	MS/MSD 1	MS/MSD 2
Sample Collection Date:	5/10/2022	5/9/2022
Sample I.D.:	30489569003	30493174001
Sample MS I.D.:	30489569004	30493174002
Sample MSD I.D.:	30489569005	30493174003
Spike I.D.:	19-033	19-033
MS/MSD Decay Corrected Spike Concentration (pCi/mL):	24.027	24.027
Spike Volume Used in MS (mL):	0.20	0.20
Spike Volume Used in MSD (mL):	0.20	0.20
MS Aliquot (L, g, F):	0.304	0.306
MS Target Conc. (pCi/L, g, F):	15.814	15.699
MSD Aliquot (L, g, F):	0.323	0.292
MSD Target Conc. (pCi/L, g, F):	14.865	16.451
MS Numerical Performance Indicator:	0.190	0.188
MSD Spike Uncertainty (calculated):	0.178	0.197
Sample Result:	0.187	0.069
Sample Matrix Spike Result:	0.171	0.121
Sample Matrix Spike Duplicate Result:	15.225	15.841
Sample Matrix Spike Counting Uncertainty (pCi/L, g, F):	0.765	1.102
Sample Matrix Spike Duplicate Counting Uncertainty (pCi/L, g, F):	13.951	17.415
MS Numerical Performance Indicator:	0.712	1.181
MS Percent Recovery:	-1.885	0.127
MSD Percent Recovery:	95.09%	100.46%
MSD Status vs Numerical Indicator:	N/A	N/A
MSD Status vs Recovery:	Pass	Pass
MS/MSD Upper % Recovery Limits:	125%	125%
MS/MSD Lower % Recovery Limits:	75%	75%

Matrix Spike/Matrix Spike Duplicate Sample Assessment	
Sample I.D.:	30489569003
Sample MS I.D.:	30489569004
Sample Matrix Spike Result:	15.225
Matrix Spike Result Counting Uncertainty (pCi/L, g, F):	0.765
Sample Matrix Spike Duplicate Result:	13.951
Sample Matrix Spike Duplicate Counting Uncertainty (pCi/L, g, F):	0.712
Duplicate Numerical Performance Indicator:	2.388
(Based on the Percent Recoveries) MS/MSD Duplicate RPD:	2.66%
MS/MSD Duplicate Status vs Numerical Indicator:	N/A
MS/MSD Duplicate Status vs RPD:	Pass
% RPD Limit:	25%

# Appendix D

# GROUNDWATER STATS CONSULTING



May 18, 2022

Southern Company Services  
Attn: Mr. Greg Dyer  
3535 Colonnade Parkway  
Birmingham, AL 35243

Re: Plant Gorgas Ash Pond  
1<sup>st</sup> Semi-Annual Statistical Analysis – February/March 2022 Sampling Event

Dear Mr. Dyer,

Groundwater Stats Consulting, formerly the statistical consulting division of Sanitas Technologies, is pleased to provide the statistical analysis of groundwater data for the 1<sup>st</sup> Semi-Annual February/March 2022 sample event for Alabama Power Company's Plant Gorgas Ash Pond. The analysis complies with the federal rule for the Disposal of Coal Combustion Residuals (CCR) from Electric Utilities (CCR Rule, 2015) as well as with the United States Environmental Protection Agency Unified Guidance (2009).

Sampling began at site for the CCR program in 2016. The monitoring well network, as provided by Southern Company Services, consists of the following:

- **Upgradient wells:** GS-AP-MW-8, GS-AP-MW-13, and GS-AP-MW-17V
  - **Proposed Upgradient:** GS-AP-MW-16S
- **Downgradient wells:** GS-AP-MW-1R, GS-AP-MW-2, GS-AP-MW-3, GS-AP-MW-3V, GS-AP-MW-5R, GS-AP-MW-6, GS-AP-MW-6D, GS-AP-MW-7, GSA-AP-MW-9V, GS-AP-MW-9R, GS-AP-MW-10R, GS-AP-MW-11R, GS-AP-MW-12, GS-AP-MW-12V, GS-AP-MW-13R, GS-AP-MW-14R, GS-AP-MW-15, GS-AP-MW-15V, GS-AP-MW-16D, GS-AP-MW-17, GS-AP-MW-18R, GS-AP-MW-18VR, GS-AP-MW-19, GS-AP-MW-21, GS-AP-MW-21V, GS-AP-MW-45V, GS-AP-MW-46, and GS-AP-MW-47
- **Delineation wells:** GS-AP-PZ-16, GS-AP-PZ-18R, GS-AP-PZ-22, GS-AP-MW-23H, GS-AP-MW-23V, GS-AP-MW-24H, GS-AP-MW-25HA, GS-AP-MW-26H, GS-AP-MW-27HR, GS-AP-MW-28H, GS-AP-MW-29H, GS-AP-MW-30HA,

GS-AP-MW-31H, GS-AP-MW-31V, GS-AP-MW-32H, GS-AP-MW-33HO, GS-AP-MW-34HO, GS-AP-MW-35HO, GS-AP-MW-36H, GS-AP-MW-36V, GS-AP-MW-37HR, GS-AP-MW-38H, GS-AP-MW-40HO, GS-AP-MW-41HD, GS-AP-MW-41HS, GS-AP-MW-42H, GS-AP-MW-43HO, GS-AP-MW-44HO, and GS-AP-MW-6V

- **Piezometers:** GS-AP-MW-1, GS-AP-MW-4, GS-AP-MW-7V, GS-AP-MW-7VR, GS-AP-MW-20, GS-AP-MW-25H, GS-AP-MW-27H, GS-AP-MW-30H, and GS-AP-MW-30HS

Note that data from delineation wells were plotted on time series graphs and box plots, but do not require formal statistics. Additionally, the list of piezometers is included above for recordkeeping purposes, but data are not analyzed in this analysis.

New downgradient wells GS-AP-MW-1R, GS-AP-MW-3V, GS-AP-MW-5R, GS-AP-MW-9R, GS-AP-MW-10R, GS-AP-MW-11R, GS-AP-MW-13R, GS-AP-MW-18R, GS-AP-MW-18VR, GS-AP-MW-45V, GS-AP-MW-46, and GS-AP-MW-47 and new delineation wells GS-AP-PZ-18R, GS-AP-MW-23V, GS-AP-MW-27HR, GS-AP-MW-31V, GS-AP-MW-36V, and GS-AP-MW-37HR were installed in late 2021 after the Fall analysis. Data from these wells, along with well GS-AP-MW-3 are plotted on the time series graphs and box plots and will be included in the statistical analyses when sufficient data are available.

Upgradient well GS-AP-MW-13 was abandoned in April 2019; however, data from this well is used for constructing interwell statistical limits as historical concentrations represent the groundwater quality upgradient of the facility. Proposed upgradient well GS-AP-MW-16S is being evaluated for inclusion into the monitoring well network. Data from this well are plotted on the time series graphs and box plots, but are not yet used for the purpose of constructing statistical limits.

Data were sent electronically to Groundwater Stats Consulting, and the statistical analysis was prepared according to the Statistical Analysis Plan approved by Dr. Kirk Cameron, PhD Statistician with MacStat Consulting, primary author of the USEPA Unified Guidance, and Senior Advisor to Groundwater Stats Consulting. The analysis was reviewed by Kristina Rayner, Founder and Senior Statistician to Groundwater Stats Consulting.

The CCR program consists of the following constituents:

**Appendix III** (Detection Monitoring) - boron, calcium, chloride, fluoride, pH, sulfate, and TDS

**Appendix IV** (Assessment Monitoring) - antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, combined radium 226 + 228, fluoride, lead, lithium, mercury, molybdenum, selenium, and thallium

Note that when there are no detections present in downgradient wells for a given constituent, statistical analyses are not required. A list of Appendix IV downgradient well/constituent pairs containing 100% non-detects follows this letter.

Time series plots for Appendix III and IV parameters at all wells are provided for the purpose of screening data at these wells (Figure A). A substitution of the most recent reporting limit is used for non-detect data. Additionally, a separate section of box plots is included for all constituents at upgradient and downgradient wells (Figure B). The time series plots are used to initially screen for suspected outliers and trends, while the box plots provide visual representation of variation within individual wells and between all wells.

In earlier analyses, data at all wells were evaluated for the following: 1) outliers; 2) trends; 3) most appropriate statistical method for Appendix III parameters based on analysis of the spatial variability of groundwater quality data among wells upgradient of the facility; and 4) eligibility of downgradient wells when intrawell statistical methods are recommended. Power curves are provided in this report to demonstrate that the selected statistical methods for Appendix III parameters comply with the USEPA Unified Guidance. The EPA suggests that the selected statistical method should provide at least 55% power at 3 standard deviations or at least 80% power at 4 standard deviations. Power curves are based on the following statistical methods and site/data characteristics:

- Semi-Annual Sampling
- Interwell Prediction Limits with 1-of-2 resample plan
- # Background Samples: 37
- # Constituents: 7
- # Downgradient wells: 11

### **Summary of Statistical Methods – Appendix III Parameters**

Based on the earlier evaluation described above, the following statistical methods were selected:

- Interwell prediction limits, combined with a 1-of-2 resample plan for boron, calcium, chloride, fluoride, pH, sulfate, and TDS



Parametric prediction limits are utilized when the screened historical data follow a normal or transformed-normal distribution. When data cannot be normalized or the majority of data are non-detects, a nonparametric test is utilized. While the annual false positive rate associated with parametric limits is fixed at 10% as recommended by the EPA Unified Guidance (2009), the false positive rate associated with nonparametric limits is not fixed and depends upon the available background sample size, number of future comparisons, and verification resample plan. The distribution of data is tested using the Shapiro-Wilk/Shapiro-Francia test for normality. After testing for normality and performing any adjustments as discussed below (US EPA, 2009), data are analyzed using either parametric or non-parametric prediction limits as appropriate.

- No statistical analyses are required on wells and analytes containing 100% non-detects (USEPA Unified Guidance, 2009, Chapter 6).
- When data contain <15% non-detects in background, simple substitution of one-half the reporting limit is utilized in the statistical analysis. The reporting limit utilized for non-detects is the most recent practical quantification 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. This technique adjusts the mean and standard deviation of the historical concentrations to account for concentrations below the reporting limit.
- Nonparametric prediction limits are used on data containing greater than 50% non-detects.

Natural systems continuously evolve due to physical changes made to the environment. Examples include capping a landfill, paving areas near a well, or lining a drainage channel to prevent erosion. Periodic updating of background statistical limits is necessary to accommodate these types of changes. In the interwell case, prediction limits are updated with upgradient well data following each sampling event after careful screening for any new outliers. While not required for this report, in some cases, deselecting the earlier portion of data may be necessary prior to construction of limits so that resulting statistical limits are conservative (lower) from a regulatory perspective and capable of rapidly detecting changes in groundwater quality. Even though the data are excluded from the calculation, the values will continue to be reported and shown in tables and graphs.

### **Background Update Summary – Conducted in September 2019**

Interwell prediction limits, which compare the most recent sample from each downgradient well to statistical limits constructed from pooled upgradient well data, are updated during each sample event. Data from upgradient wells are periodically re-

screened for newly developing trends, which may require adjustment of the background period to eliminate the trend, as well as for outliers over the entire record. As discussed in the Statistical Analysis Plan (August 2020), interwell prediction limits are used to evaluate boron, calcium, chloride, fluoride, sulfate, pH, and TDS.

Prior to performing prediction limits, proposed background data through April 2019 were reviewed to identify any newly suspected outliers at upgradient wells for boron, calcium, chloride, fluoride, pH, sulfate, and TDS. Both Tukey's Test and visual screening are used to identify potential outliers. When identified, values were flagged with "o" and excluded to reduce variation, better represent background conditions, and provide limits that are conservative from a regulatory perspective. Potential outliers that were identified by Tukey's test but are not greatly different from the rest of the data were not flagged. Also, outliers that are not identified as important by Tukey's test may be identified visually. As mentioned above, flagged data are displayed in a lighter font and as a disconnected symbol on the time series reports, as well as in a lighter font on the accompanying data pages. A summary of Tukey's test results was included with the September 2019 screening.

The Sen's Slope/Mann Kendall trend test was used to evaluate the entire record of data from upgradient wells for all parameters which utilize interwell prediction limits. When statistically significant increasing trends are identified in upgradient wells, the earlier portion of data is deselected prior to construction of interwell statistical limits if the trending data would result in statistical limits that are not conservative from a regulatory perspective. Statistically significant trends were noted in upgradient wells. No adjustments were required, however, because the period of record was short and the magnitudes of the trends were low relative to the average concentrations in background. A summary of the results was included with the September 2019 screening.

### **Evaluation of Appendix III Parameters – February/March 2022**

Background (upgradient) well data were re-assessed for potential outliers during this analysis and no new values were flagged. Values in background which have been flagged as outliers may be seen in a lighter font and as a disconnected symbol on the graphs. A summary of previously flagged outliers follows this report (Figure C).

#### Interwell Prediction Limits

Interwell prediction limits combined with a 1-of-2 verification strategy were constructed for boron, calcium, chloride, fluoride, sulfate, pH, and TDS (Figure D). Interwell prediction limits pool upgradient well data through March 2022 to establish a background limit for

an individual constituent. The February/March 2022 sample from each downgradient well is compared to the background limits to determine whether initial exceedances are present.

In the event of an initial exceedance of compliance well data, the 1-of-2 resample plan allows for collection of one additional sample to determine whether the initial exceedance is confirmed. When the resample confirms the initial exceedance, a statistically significant increase (SSI) is identified, and further research is required to identify the cause of the exceedance (i.e., impact from the site, natural variation, or an off-site source). If a resample falls within the statistical limit, the initial exceedance is considered to be a false positive result; therefore, no further action is necessary. Exceedances for interwell prediction limits were identified for several well/constituent pairs and a summary of the prediction limit results may be found in the Prediction Limit Summary tables following this letter.

### Trend Test Evaluation

When prediction limit exceedances are identified in downgradient wells, data are further evaluated using the Sen's Slope/Mann Kendall trend test to determine whether concentrations are statistically increasing, decreasing, or stable (Figure E). Upgradient wells are included in the trend analyses for all parameters found to exceed their prediction limit in downgradient wells to identify whether similar patterns exist upgradient of the site. The existence of similar trends in both upgradient and downgradient wells is an indication of natural variability in groundwater that is unrelated to practices at the site. A summary of the trend test results follows this letter. Statistically significant trends were identified for the following well/constituent pairs:

#### Increasing:

- Boron: GS-AP-MW-6D and GS-AP-MW-7
- Calcium: GS-AP-MW-6D and GS-AP-MW-19
- Chloride: GS-AP-MW-6D, GS-AP-MW-7, GS-AP-MW-8 (upgradient) and GS-AP-MW-21
- Fluoride: GS-AP-MW-13 (upgradient)
- pH: GS-AP-MW-2, GS-AP-MW-12, GS-AP-MW-15
- Sulfate: GS-AP-MW-12 and GS-AP-MW-21
- TDS: GS-AP-MW-17 and GS-AP-MW-21

#### Decreasing:

- Boron: GS-AP-MW-6
- Fluoride: GS-AP-MW-2
- Sulfate: GS-AP-MW-6

## **Evaluation of Appendix IV Parameters – February 2022/March 2022**

Data from upgradient wells for Appendix IV parameters were assessed for outliers during previous analyses. A summary of flagged outliers follows this report (Figure C).

In accordance with Alabama Department of Environmental Management (ADEM), the Groundwater Protections Standards (GWPS) were updated during the 2021 2<sup>nd</sup> semi-annual statistical analysis. The GWPS will be updated again during the 2023 2<sup>nd</sup> semi-annual statistical analysis. The methodology used to create these GWPS is described below.

### Interwell Upper Tolerance Limits

First, background limits were determined using upper tolerance limits (UTLs) constructed from pooled upgradient well data through August 2021. The tolerance limits contain a known fraction (coverage) of the background population with a known level of confidence. The tolerance limits contain a known fraction (coverage) of the background population with a known level of confidence. As requested by ADEM to eliminate variation among upgradient well data, nonparametric tolerance limits, which use the highest value in background as the statistical limit, were constructed (Figure F). The confidence and coverage levels for nonparametric tolerance limits are dependent upon the number of background samples.

### Groundwater Protection Standards

These background limits were then compared to the Maximum Contaminant Levels (MCLs) for each parameter, and the higher of the two was used as the GWPS (Figure G) in the confidence interval comparisons described below.

### Confidence Intervals

Confidence intervals were then constructed on downgradient wells using a maximum of the most recent 8 samples through March 2022 for each of the Appendix IV parameters. These intervals were constructed as either parametric or nonparametric confidence intervals depending on the data distribution and percentage of non-detects. When data followed a normal or transformed-normal distribution, parametric confidence intervals were used for Appendix IV parameters. Nonparametric confidence intervals, which use the highest and lowest values in background as interval limits, were constructed when data did not follow a normal or transformed-normal distribution or when there were greater than 50% non-detects.

As mentioned above, well/constituent pairs containing 100% non-detects for the most recent 8 samples did not require statistics; therefore, they were deselected prior to construction of confidence intervals. A list of those deselected well/constituent pairs follows this report. Each confidence interval was compared with the corresponding GWPS. Only when the entire confidence interval is above the GWPS is the well/constituent pair considered to exceed its respective standard. Both a tabular summary and graphical presentation of the confidence interval results follow this letter. Exceedances were noted for the following well/constituent pairs:

- Arsenic: GS-AP-MW-6D and GS-AP-MW-7
- Lithium: GS-AP-MW-6D, GS-AP-MW-7, GS-AP-MW-15, and GS-AP-MW-21
- Molybdenum: GS-AP-MW-7

Thank you for the opportunity to assist you in the statistical analysis of groundwater quality for Gorgas Ash Pond. If you have any questions or comments, please feel free to contact us.

For Groundwater Stats Consulting,

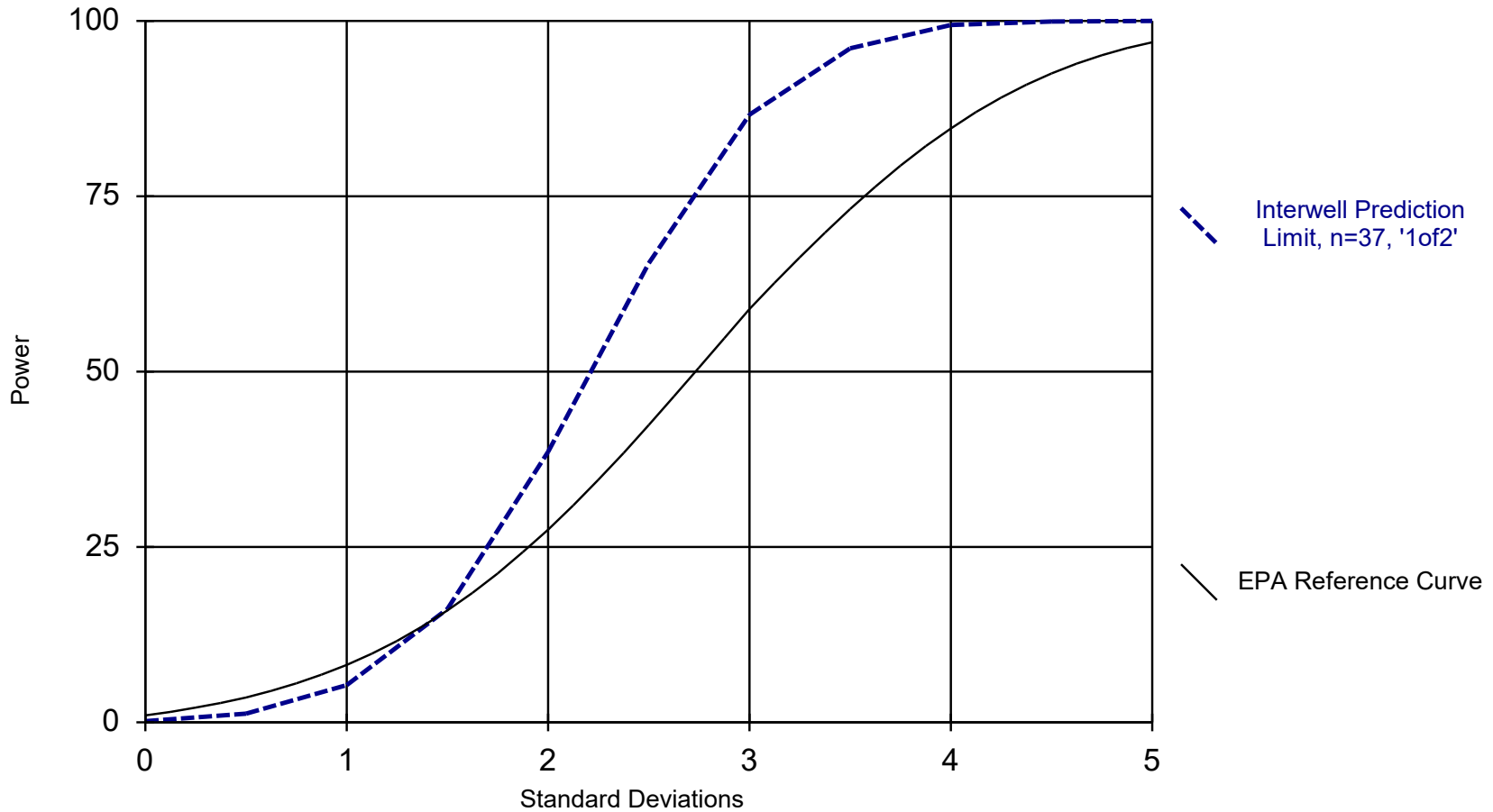


Andrew Collins  
Project Manager



Kristina Rayner  
Senior Statistician

### Interwell Power Curve



Kappa = 2.109, based on 11 compliance wells and 7 constituents, evaluated semi-annually (this report reflects annual total).

Analysis Run 5/18/2022 4:08 PM

Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

# 100% Non-Detects: Appendix IV Downgradient

Analysis Run 5/16/2022 4:47 PM View: Appendix IV - Confidence Intervals  
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

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**Antimony (mg/L)**

GS-AP-MW-16D, GS-AP-MW-17, GS-AP-MW-19, GS-AP-MW-2, GS-AP-MW-21, GS-AP-MW-3, GS-AP-MW-9V

**Arsenic (mg/L)**

GS-AP-MW-2

**Beryllium (mg/L)**

GS-AP-MW-12, GS-AP-MW-12V, GS-AP-MW-15, GS-AP-MW-15V, GS-AP-MW-17, GS-AP-MW-19, GS-AP-MW-21, GS-AP-MW-21V, GS-AP-MW-3, GS-AP-MW-6D, GS-AP-MW-7, GS-AP-MW-9V

**Cadmium (mg/L)**

GS-AP-MW-12, GS-AP-MW-12V, GS-AP-MW-15, GS-AP-MW-15V, GS-AP-MW-16D, GS-AP-MW-17, GS-AP-MW-19, GS-AP-MW-2, GS-AP-MW-21, GS-AP-MW-21V, GS-AP-MW-3, GS-AP-MW-6D, GS-AP-MW-6, GS-AP-MW-7, GS-AP-MW-9V

**Cobalt (mg/L)**

GS-AP-MW-12, GS-AP-MW-15V, GS-AP-MW-19, GS-AP-MW-2, GS-AP-MW-21, GS-AP-MW-21V, GS-AP-MW-3, GS-AP-MW-6D, GS-AP-MW-9V

**Lead (mg/L)**

GS-AP-MW-12, GS-AP-MW-15V, GS-AP-MW-19, GS-AP-MW-2, GS-AP-MW-21, GS-AP-MW-21V, GS-AP-MW-3, GS-AP-MW-6D, GS-AP-MW-9V

**Mercury (mg/L)**

GS-AP-MW-12, GS-AP-MW-12V, GS-AP-MW-15, GS-AP-MW-15V, GS-AP-MW-16D, GS-AP-MW-17, GS-AP-MW-19, GS-AP-MW-2, GS-AP-MW-21, GS-AP-MW-21V, GS-AP-MW-3, GS-AP-MW-6D, GS-AP-MW-6, GS-AP-MW-7, GS-AP-MW-9V

**Selenium (mg/L)**

GS-AP-MW-12, GS-AP-MW-12V, GS-AP-MW-15, GS-AP-MW-15V, GS-AP-MW-16D, GS-AP-MW-17, GS-AP-MW-19, GS-AP-MW-2, GS-AP-MW-21, GS-AP-MW-21V, GS-AP-MW-3, GS-AP-MW-6D, GS-AP-MW-7, GS-AP-MW-9V

**Thallium (mg/L)**

GS-AP-MW-12, GS-AP-MW-12V, GS-AP-MW-15, GS-AP-MW-15V, GS-AP-MW-16D, GS-AP-MW-17, GS-AP-MW-19, GS-AP-MW-2, GS-AP-MW-21, GS-AP-MW-21V, GS-AP-MW-3, GS-AP-MW-6D, GS-AP-MW-6, GS-AP-MW-7, GS-AP-MW-9V

# Interwell Prediction Limits - Significant Results

Plant Gorgas    Client: Southern Company    Data: Gorgas Ash Pond    Printed 5/16/2022, 4:02 PM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	Bg Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Boron (mg/L)	GS-AP-MW-2	0.1015	n/a	2/22/2022	0.112	Yes	37	n/a	n/a	78.38	n/a	n/a	0.001285	NP Inter (NDs) 1 of 2
Boron (mg/L)	GS-AP-MW-21	0.1015	n/a	2/8/2022	0.111	Yes	37	n/a	n/a	78.38	n/a	n/a	0.001285	NP Inter (NDs) 1 of 2
Boron (mg/L)	GS-AP-MW-3	0.1015	n/a	2/16/2022	0.311	Yes	37	n/a	n/a	78.38	n/a	n/a	0.001285	NP Inter (NDs) 1 of 2
Boron (mg/L)	GS-AP-MW-6D	0.1015	n/a	2/14/2022	1.29	Yes	37	n/a	n/a	78.38	n/a	n/a	0.001285	NP Inter (NDs) 1 of 2
Boron (mg/L)	GS-AP-MW-6	0.1015	n/a	2/14/2022	0.978	Yes	37	n/a	n/a	78.38	n/a	n/a	0.001285	NP Inter (NDs) 1 of 2
Boron (mg/L)	GS-AP-MW-7	0.1015	n/a	2/8/2022	1.69	Yes	37	n/a	n/a	78.38	n/a	n/a	0.001285	NP Inter (NDs) 1 of 2
Calcium (mg/L)	GS-AP-MW-19	48.1	n/a	2/22/2022	54.6	Yes	37	n/a	n/a	0	n/a	n/a	0.001285	NP Inter (normality) 1 of 2
Calcium (mg/L)	GS-AP-MW-23H	48.1	n/a	2/14/2022	74.4	Yes	37	n/a	n/a	0	n/a	n/a	0.001285	NP Inter (normality) 1 of 2
Calcium (mg/L)	GS-AP-MW-6D	48.1	n/a	2/14/2022	55.7	Yes	37	n/a	n/a	0	n/a	n/a	0.001285	NP Inter (normality) 1 of 2
Calcium (mg/L)	GS-AP-MW-6	48.1	n/a	2/14/2022	60.1	Yes	37	n/a	n/a	0	n/a	n/a	0.001285	NP Inter (normality) 1 of 2
Chloride (mg/L)	GS-AP-MW-15	4.264	n/a	2/16/2022	5.86	Yes	37	3.369	0.4244	0	None	No	0.0006839	Param Inter 1 of 2
Chloride (mg/L)	GS-AP-MW-15V	4.264	n/a	2/16/2022	129	Yes	37	3.369	0.4244	0	None	No	0.0006839	Param Inter 1 of 2
Chloride (mg/L)	GS-AP-MW-17	4.264	n/a	2/14/2022	7.15	Yes	37	3.369	0.4244	0	None	No	0.0006839	Param Inter 1 of 2
Chloride (mg/L)	GS-AP-MW-19	4.264	n/a	2/22/2022	4.59	Yes	37	3.369	0.4244	0	None	No	0.0006839	Param Inter 1 of 2
Chloride (mg/L)	GS-AP-MW-2	4.264	n/a	2/22/2022	6.05	Yes	37	3.369	0.4244	0	None	No	0.0006839	Param Inter 1 of 2
Chloride (mg/L)	GS-AP-MW-21	4.264	n/a	2/8/2022	41.4	Yes	37	3.369	0.4244	0	None	No	0.0006839	Param Inter 1 of 2
Chloride (mg/L)	GS-AP-MW-23H	4.264	n/a	2/14/2022	12.8	Yes	37	3.369	0.4244	0	None	No	0.0006839	Param Inter 1 of 2
Chloride (mg/L)	GS-AP-MW-3	4.264	n/a	2/16/2022	14	Yes	37	3.369	0.4244	0	None	No	0.0006839	Param Inter 1 of 2
Chloride (mg/L)	GS-AP-MW-6D	4.264	n/a	2/14/2022	11.7	Yes	37	3.369	0.4244	0	None	No	0.0006839	Param Inter 1 of 2
Chloride (mg/L)	GS-AP-MW-6	4.264	n/a	2/14/2022	20.6	Yes	37	3.369	0.4244	0	None	No	0.0006839	Param Inter 1 of 2
Chloride (mg/L)	GS-AP-MW-7	4.264	n/a	2/8/2022	7.475	Yes	37	3.369	0.4244	0	None	No	0.0006839	Param Inter 1 of 2
Chloride (mg/L)	GS-AP-MW-9V	4.264	n/a	2/21/2022	18.4	Yes	37	3.369	0.4244	0	None	No	0.0006839	Param Inter 1 of 2
Fluoride (mg/L)	GS-AP-MW-15	0.2798	n/a	2/16/2022	0.349	Yes	39	0.1399	0.06663	0	None	No	0.0006839	Param Inter 1 of 2
Fluoride (mg/L)	GS-AP-MW-2	0.2798	n/a	2/22/2022	0.819	Yes	39	0.1399	0.06663	0	None	No	0.0006839	Param Inter 1 of 2
pH (SU)	GS-AP-MW-12	7.76	5.02	2/28/2022	8.12	Yes	39	n/a	n/a	0	n/a	n/a	0.002327	NP Inter (normality) 1 of 2
pH (SU)	GS-AP-MW-15	7.76	5.02	2/16/2022	11.57	Yes	39	n/a	n/a	0	n/a	n/a	0.002327	NP Inter (normality) 1 of 2
pH (SU)	GS-AP-MW-15V	7.76	5.02	2/16/2022	8.65	Yes	39	n/a	n/a	0	n/a	n/a	0.002327	NP Inter (normality) 1 of 2
pH (SU)	GS-AP-MW-17	7.76	5.02	2/14/2022	8.32	Yes	39	n/a	n/a	0	n/a	n/a	0.002327	NP Inter (normality) 1 of 2
pH (SU)	GS-AP-MW-2	7.76	5.02	2/22/2022	9.42	Yes	39	n/a	n/a	0	n/a	n/a	0.002327	NP Inter (normality) 1 of 2
pH (SU)	GS-AP-MW-21	7.76	5.02	2/8/2022	10.26	Yes	39	n/a	n/a	0	n/a	n/a	0.002327	NP Inter (normality) 1 of 2
pH (SU)	GS-AP-MW-3	7.76	5.02	2/16/2022	7.78	Yes	39	n/a	n/a	0	n/a	n/a	0.002327	NP Inter (normality) 1 of 2
Sulfate (mg/L)	GS-AP-MW-12	15.2	n/a	2/28/2022	17.9	Yes	37	n/a	n/a	0	n/a	n/a	0.001285	NP Inter (normality) 1 of 2
Sulfate (mg/L)	GS-AP-MW-15V	15.2	n/a	2/16/2022	224	Yes	37	n/a	n/a	0	n/a	n/a	0.001285	NP Inter (normality) 1 of 2
Sulfate (mg/L)	GS-AP-MW-2	15.2	n/a	2/22/2022	17.1	Yes	37	n/a	n/a	0	n/a	n/a	0.001285	NP Inter (normality) 1 of 2
Sulfate (mg/L)	GS-AP-MW-21	15.2	n/a	2/8/2022	241	Yes	37	n/a	n/a	0	n/a	n/a	0.001285	NP Inter (normality) 1 of 2
Sulfate (mg/L)	GS-AP-MW-23H	15.2	n/a	2/14/2022	356	Yes	37	n/a	n/a	0	n/a	n/a	0.001285	NP Inter (normality) 1 of 2
Sulfate (mg/L)	GS-AP-MW-3	15.2	n/a	2/16/2022	91.2	Yes	37	n/a	n/a	0	n/a	n/a	0.001285	NP Inter (normality) 1 of 2
Sulfate (mg/L)	GS-AP-MW-6D	15.2	n/a	2/14/2022	58.3	Yes	37	n/a	n/a	0	n/a	n/a	0.001285	NP Inter (normality) 1 of 2
Sulfate (mg/L)	GS-AP-MW-6	15.2	n/a	2/14/2022	115	Yes	37	n/a	n/a	0	n/a	n/a	0.001285	NP Inter (normality) 1 of 2
Sulfate (mg/L)	GS-AP-MW-7	15.2	n/a	2/8/2022	137	Yes	37	n/a	n/a	0	n/a	n/a	0.001285	NP Inter (normality) 1 of 2
Sulfate (mg/L)	GS-AP-MW-9V	15.2	n/a	2/21/2022	32.4	Yes	37	n/a	n/a	0	n/a	n/a	0.001285	NP Inter (normality) 1 of 2
TDS (mg/L)	GS-AP-MW-15	368	n/a	2/16/2022	426	Yes	37	n/a	n/a	0	n/a	n/a	0.001285	NP Inter (normality) 1 of 2
TDS (mg/L)	GS-AP-MW-15V	368	n/a	2/16/2022	782	Yes	37	n/a	n/a	0	n/a	n/a	0.001285	NP Inter (normality) 1 of 2
TDS (mg/L)	GS-AP-MW-17	368	n/a	2/14/2022	448	Yes	37	n/a	n/a	0	n/a	n/a	0.001285	NP Inter (normality) 1 of 2
TDS (mg/L)	GS-AP-MW-21	368	n/a	2/8/2022	570	Yes	37	n/a	n/a	0	n/a	n/a	0.001285	NP Inter (normality) 1 of 2
TDS (mg/L)	GS-AP-MW-23H	368	n/a	2/14/2022	592	Yes	37	n/a	n/a	0	n/a	n/a	0.001285	NP Inter (normality) 1 of 2



# Interwell Prediction Limits - All Results

Plant Gorgas    Client: Southern Company    Data: Gorgas Ash Pond    Printed 5/16/2022, 4:02 PM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	Bg Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Boron (mg/L)	GS-AP-MW-12	0.1015	n/a	2/28/2022	0.0305J	No	37	n/a	n/a	78.38	n/a	n/a	0.001285	NP Inter (NDs) 1 of 2
Boron (mg/L)	GS-AP-MW-12V	0.1015	n/a	2/23/2022	0.1015ND	No	37	n/a	n/a	78.38	n/a	n/a	0.001285	NP Inter (NDs) 1 of 2
Boron (mg/L)	GS-AP-MW-15	0.1015	n/a	2/16/2022	0.0323J	No	37	n/a	n/a	78.38	n/a	n/a	0.001285	NP Inter (NDs) 1 of 2
Boron (mg/L)	GS-AP-MW-15V	0.1015	n/a	2/16/2022	0.0594J	No	37	n/a	n/a	78.38	n/a	n/a	0.001285	NP Inter (NDs) 1 of 2
Boron (mg/L)	GS-AP-MW-16D	0.1015	n/a	2/15/2022	0.1015ND	No	37	n/a	n/a	78.38	n/a	n/a	0.001285	NP Inter (NDs) 1 of 2
Boron (mg/L)	GS-AP-MW-17	0.1015	n/a	2/14/2022	0.073J	No	37	n/a	n/a	78.38	n/a	n/a	0.001285	NP Inter (NDs) 1 of 2
Boron (mg/L)	GS-AP-MW-19	0.1015	n/a	2/22/2022	0.1015ND	No	37	n/a	n/a	78.38	n/a	n/a	0.001285	NP Inter (NDs) 1 of 2
<b>Boron (mg/L)</b>	<b>GS-AP-MW-2</b>	<b>0.1015</b>	<b>n/a</b>	<b>2/22/2022</b>	<b>0.112</b>	<b>Yes</b>	<b>37</b>	<b>n/a</b>	<b>n/a</b>	<b>78.38</b>	<b>n/a</b>	<b>n/a</b>	<b>0.001285</b>	<b>NP Inter (NDs) 1 of 2</b>
<b>Boron (mg/L)</b>	<b>GS-AP-MW-21</b>	<b>0.1015</b>	<b>n/a</b>	<b>2/8/2022</b>	<b>0.111</b>	<b>Yes</b>	<b>37</b>	<b>n/a</b>	<b>n/a</b>	<b>78.38</b>	<b>n/a</b>	<b>n/a</b>	<b>0.001285</b>	<b>NP Inter (NDs) 1 of 2</b>
Boron (mg/L)	GS-AP-MW-23H	0.1015	n/a	2/14/2022	0.035J	No	37	n/a	n/a	78.38	n/a	n/a	0.001285	NP Inter (NDs) 1 of 2
<b>Boron (mg/L)</b>	<b>GS-AP-MW-3</b>	<b>0.1015</b>	<b>n/a</b>	<b>2/16/2022</b>	<b>0.311</b>	<b>Yes</b>	<b>37</b>	<b>n/a</b>	<b>n/a</b>	<b>78.38</b>	<b>n/a</b>	<b>n/a</b>	<b>0.001285</b>	<b>NP Inter (NDs) 1 of 2</b>
<b>Boron (mg/L)</b>	<b>GS-AP-MW-6D</b>	<b>0.1015</b>	<b>n/a</b>	<b>2/14/2022</b>	<b>1.29</b>	<b>Yes</b>	<b>37</b>	<b>n/a</b>	<b>n/a</b>	<b>78.38</b>	<b>n/a</b>	<b>n/a</b>	<b>0.001285</b>	<b>NP Inter (NDs) 1 of 2</b>
<b>Boron (mg/L)</b>	<b>GS-AP-MW-6</b>	<b>0.1015</b>	<b>n/a</b>	<b>2/14/2022</b>	<b>0.978</b>	<b>Yes</b>	<b>37</b>	<b>n/a</b>	<b>n/a</b>	<b>78.38</b>	<b>n/a</b>	<b>n/a</b>	<b>0.001285</b>	<b>NP Inter (NDs) 1 of 2</b>
<b>Boron (mg/L)</b>	<b>GS-AP-MW-7</b>	<b>0.1015</b>	<b>n/a</b>	<b>2/8/2022</b>	<b>1.69</b>	<b>Yes</b>	<b>37</b>	<b>n/a</b>	<b>n/a</b>	<b>78.38</b>	<b>n/a</b>	<b>n/a</b>	<b>0.001285</b>	<b>NP Inter (NDs) 1 of 2</b>
Boron (mg/L)	GS-AP-MW-9V	0.1015	n/a	2/21/2022	0.0349J	No	37	n/a	n/a	78.38	n/a	n/a	0.001285	NP Inter (NDs) 1 of 2
Calcium (mg/L)	GS-AP-MW-12	48.1	n/a	2/28/2022	37.9	No	37	n/a	n/a	0	n/a	n/a	0.001285	NP Inter (normality) 1 of 2
Calcium (mg/L)	GS-AP-MW-12V	48.1	n/a	2/23/2022	46.3	No	37	n/a	n/a	0	n/a	n/a	0.001285	NP Inter (normality) 1 of 2
Calcium (mg/L)	GS-AP-MW-15	48.1	n/a	2/16/2022	6.76	No	37	n/a	n/a	0	n/a	n/a	0.001285	NP Inter (normality) 1 of 2
Calcium (mg/L)	GS-AP-MW-15V	48.1	n/a	2/16/2022	14.3	No	37	n/a	n/a	0	n/a	n/a	0.001285	NP Inter (normality) 1 of 2
Calcium (mg/L)	GS-AP-MW-16D	48.1	n/a	2/15/2022	31.5	No	37	n/a	n/a	0	n/a	n/a	0.001285	NP Inter (normality) 1 of 2
Calcium (mg/L)	GS-AP-MW-17	48.1	n/a	2/14/2022	2.17	No	37	n/a	n/a	0	n/a	n/a	0.001285	NP Inter (normality) 1 of 2
<b>Calcium (mg/L)</b>	<b>GS-AP-MW-19</b>	<b>48.1</b>	<b>n/a</b>	<b>2/22/2022</b>	<b>54.6</b>	<b>Yes</b>	<b>37</b>	<b>n/a</b>	<b>n/a</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.001285</b>	<b>NP Inter (normality) 1 of 2</b>
Calcium (mg/L)	GS-AP-MW-2	48.1	n/a	2/22/2022	0.413	No	37	n/a	n/a	0	n/a	n/a	0.001285	NP Inter (normality) 1 of 2
Calcium (mg/L)	GS-AP-MW-21	48.1	n/a	2/8/2022	1.98	No	37	n/a	n/a	0	n/a	n/a	0.001285	NP Inter (normality) 1 of 2
<b>Calcium (mg/L)</b>	<b>GS-AP-MW-23H</b>	<b>48.1</b>	<b>n/a</b>	<b>2/14/2022</b>	<b>74.4</b>	<b>Yes</b>	<b>37</b>	<b>n/a</b>	<b>n/a</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.001285</b>	<b>NP Inter (normality) 1 of 2</b>
Calcium (mg/L)	GS-AP-MW-3	48.1	n/a	2/16/2022	18.6	No	37	n/a	n/a	0	n/a	n/a	0.001285	NP Inter (normality) 1 of 2
<b>Calcium (mg/L)</b>	<b>GS-AP-MW-6D</b>	<b>48.1</b>	<b>n/a</b>	<b>2/14/2022</b>	<b>55.7</b>	<b>Yes</b>	<b>37</b>	<b>n/a</b>	<b>n/a</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.001285</b>	<b>NP Inter (normality) 1 of 2</b>
<b>Calcium (mg/L)</b>	<b>GS-AP-MW-6</b>	<b>48.1</b>	<b>n/a</b>	<b>2/14/2022</b>	<b>60.1</b>	<b>Yes</b>	<b>37</b>	<b>n/a</b>	<b>n/a</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.001285</b>	<b>NP Inter (normality) 1 of 2</b>
Calcium (mg/L)	GS-AP-MW-7	48.1	n/a	2/8/2022	10.7	No	37	n/a	n/a	0	n/a	n/a	0.001285	NP Inter (normality) 1 of 2
Calcium (mg/L)	GS-AP-MW-9V	48.1	n/a	2/21/2022	47.7	No	37	n/a	n/a	0	n/a	n/a	0.001285	NP Inter (normality) 1 of 2
Chloride (mg/L)	GS-AP-MW-12	4.264	n/a	2/28/2022	3.34	No	37	3.369	0.4244	0	None	No	0.0006839	Param Inter 1 of 2
Chloride (mg/L)	GS-AP-MW-12V	4.264	n/a	2/23/2022	3.83	No	37	3.369	0.4244	0	None	No	0.0006839	Param Inter 1 of 2
<b>Chloride (mg/L)</b>	<b>GS-AP-MW-15</b>	<b>4.264</b>	<b>n/a</b>	<b>2/16/2022</b>	<b>5.86</b>	<b>Yes</b>	<b>37</b>	<b>3.369</b>	<b>0.4244</b>	<b>0</b>	<b>None</b>	<b>No</b>	<b>0.0006839</b>	<b>Param Inter 1 of 2</b>
<b>Chloride (mg/L)</b>	<b>GS-AP-MW-15V</b>	<b>4.264</b>	<b>n/a</b>	<b>2/16/2022</b>	<b>129</b>	<b>Yes</b>	<b>37</b>	<b>3.369</b>	<b>0.4244</b>	<b>0</b>	<b>None</b>	<b>No</b>	<b>0.0006839</b>	<b>Param Inter 1 of 2</b>
Chloride (mg/L)	GS-AP-MW-16D	4.264	n/a	2/15/2022	3.58	No	37	3.369	0.4244	0	None	No	0.0006839	Param Inter 1 of 2
<b>Chloride (mg/L)</b>	<b>GS-AP-MW-17</b>	<b>4.264</b>	<b>n/a</b>	<b>2/14/2022</b>	<b>7.15</b>	<b>Yes</b>	<b>37</b>	<b>3.369</b>	<b>0.4244</b>	<b>0</b>	<b>None</b>	<b>No</b>	<b>0.0006839</b>	<b>Param Inter 1 of 2</b>
<b>Chloride (mg/L)</b>	<b>GS-AP-MW-19</b>	<b>4.264</b>	<b>n/a</b>	<b>2/22/2022</b>	<b>4.59</b>	<b>Yes</b>	<b>37</b>	<b>3.369</b>	<b>0.4244</b>	<b>0</b>	<b>None</b>	<b>No</b>	<b>0.0006839</b>	<b>Param Inter 1 of 2</b>
<b>Chloride (mg/L)</b>	<b>GS-AP-MW-2</b>	<b>4.264</b>	<b>n/a</b>	<b>2/22/2022</b>	<b>6.05</b>	<b>Yes</b>	<b>37</b>	<b>3.369</b>	<b>0.4244</b>	<b>0</b>	<b>None</b>	<b>No</b>	<b>0.0006839</b>	<b>Param Inter 1 of 2</b>
<b>Chloride (mg/L)</b>	<b>GS-AP-MW-21</b>	<b>4.264</b>	<b>n/a</b>	<b>2/8/2022</b>	<b>41.4</b>	<b>Yes</b>	<b>37</b>	<b>3.369</b>	<b>0.4244</b>	<b>0</b>	<b>None</b>	<b>No</b>	<b>0.0006839</b>	<b>Param Inter 1 of 2</b>
<b>Chloride (mg/L)</b>	<b>GS-AP-MW-23H</b>	<b>4.264</b>	<b>n/a</b>	<b>2/14/2022</b>	<b>12.8</b>	<b>Yes</b>	<b>37</b>	<b>3.369</b>	<b>0.4244</b>	<b>0</b>	<b>None</b>	<b>No</b>	<b>0.0006839</b>	<b>Param Inter 1 of 2</b>
<b>Chloride (mg/L)</b>	<b>GS-AP-MW-3</b>	<b>4.264</b>	<b>n/a</b>	<b>2/16/2022</b>	<b>14</b>	<b>Yes</b>	<b>37</b>	<b>3.369</b>	<b>0.4244</b>	<b>0</b>	<b>None</b>	<b>No</b>	<b>0.0006839</b>	<b>Param Inter 1 of 2</b>
<b>Chloride (mg/L)</b>	<b>GS-AP-MW-6D</b>	<b>4.264</b>	<b>n/a</b>	<b>2/14/2022</b>	<b>11.7</b>	<b>Yes</b>	<b>37</b>	<b>3.369</b>	<b>0.4244</b>	<b>0</b>	<b>None</b>	<b>No</b>	<b>0.0006839</b>	<b>Param Inter 1 of 2</b>
<b>Chloride (mg/L)</b>	<b>GS-AP-MW-6</b>	<b>4.264</b>	<b>n/a</b>	<b>2/14/2022</b>	<b>20.6</b>	<b>Yes</b>	<b>37</b>	<b>3.369</b>	<b>0.4244</b>	<b>0</b>	<b>None</b>	<b>No</b>	<b>0.0006839</b>	<b>Param Inter 1 of 2</b>
<b>Chloride (mg/L)</b>	<b>GS-AP-MW-7</b>	<b>4.264</b>	<b>n/a</b>	<b>2/8/2022</b>	<b>7.475</b>	<b>Yes</b>	<b>37</b>	<b>3.369</b>	<b>0.4244</b>	<b>0</b>	<b>None</b>	<b>No</b>	<b>0.0006839</b>	<b>Param Inter 1 of 2</b>
<b>Chloride (mg/L)</b>	<b>GS-AP-MW-9V</b>	<b>4.264</b>	<b>n/a</b>	<b>2/21/2022</b>	<b>18.4</b>	<b>Yes</b>	<b>37</b>	<b>3.369</b>	<b>0.4244</b>	<b>0</b>	<b>None</b>	<b>No</b>	<b>0.0006839</b>	<b>Param Inter 1 of 2</b>
Fluoride (mg/L)	GS-AP-MW-12	0.2798	n/a	2/28/2022	0.12	No	39	0.1399	0.06663	0	None	No	0.0006839	Param Inter 1 of 2
Fluoride (mg/L)	GS-AP-MW-12V	0.2798	n/a	2/23/2022	0.153	No	39	0.1399	0.06663	0	None	No	0.0006839	Param Inter 1 of 2
<b>Fluoride (mg/L)</b>	<b>GS-AP-MW-15</b>	<b>0.2798</b>	<b>n/a</b>	<b>2/16/2022</b>	<b>0.349</b>	<b>Yes</b>	<b>39</b>	<b>0.1399</b>	<b>0.06663</b>	<b>0</b>	<b>None</b>	<b>No</b>	<b>0.0006839</b>	<b>Param Inter 1 of 2</b>
Fluoride (mg/L)	GS-AP-MW-15V	0.2798	n/a	2/16/2022	0.208	No	39	0.1399	0.06663	0	None	No	0.0006839	Param Inter 1 of 2
Fluoride (mg/L)	GS-AP-MW-16D	0.2798	n/a	2/15/2022	0.114	No	39	0.1399	0.06663	0	None	No	0.0006839	Param Inter 1 of 2
Fluoride (mg/L)	GS-AP-MW-17	0.2798	n/a	2/14/2022	0.206	No	39	0.1399	0.06663	0	None	No	0.0006839	Param Inter 1 of 2
Fluoride (mg/L)	GS-AP-MW-19	0.2798	n/a	2/22/2022	0.259	No	39	0.1399	0.06663	0	None	No	0.0006839	Param Inter 1 of 2
<b>Fluoride (mg/L)</b>	<b>GS-AP-MW-2</b>	<b>0.2798</b>	<b>n/a</b>	<b>2/22/2022</b>	<b>0.819</b>	<b>Yes</b>	<b>39</b>	<b>0.1399</b>	<b>0.06663</b>	<b>0</b>	<b>None</b>	<b>No</b>	<b>0.0006839</b>	<b>Param Inter 1 of 2</b>
Fluoride (mg/L)	GS-AP-MW-21	0.2798	n/a	2/8/2022	0.175	No	39	0.1399	0.06663	0	None	No	0.0006839	Param Inter 1 of 2
Fluoride (mg/L)	GS-AP-MW-23H	0.2798	n/a	2/14/2022	0.14	No	39	0.1399	0.06663	0	None	No	0.0006839	Param Inter 1 of 2

# Interwell Prediction Limits - All Results

Plant Gorgas    Client: Southern Company    Data: Gorgas Ash Pond    Printed 5/16/2022, 4:02 PM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	Bg Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Fluoride (mg/L)	GS-AP-MW-3	0.2798	n/a	2/16/2022	0.05ND	No	39	0.1399	0.06663	0	None	No	0.0006839	Param Inter 1 of 2
Fluoride (mg/L)	GS-AP-MW-6D	0.2798	n/a	2/14/2022	0.108	No	39	0.1399	0.06663	0	None	No	0.0006839	Param Inter 1 of 2
Fluoride (mg/L)	GS-AP-MW-6	0.2798	n/a	2/14/2022	0.164	No	39	0.1399	0.06663	0	None	No	0.0006839	Param Inter 1 of 2
Fluoride (mg/L)	GS-AP-MW-7	0.2798	n/a	2/8/2022	0.0872J	No	39	0.1399	0.06663	0	None	No	0.0006839	Param Inter 1 of 2
Fluoride (mg/L)	GS-AP-MW-9V	0.2798	n/a	2/21/2022	0.177	No	39	0.1399	0.06663	0	None	No	0.0006839	Param Inter 1 of 2
<b>pH (SU)</b>	<b>GS-AP-MW-12</b>	<b>7.76</b>	<b>5.02</b>	<b>2/28/2022</b>	<b>8.12</b>	<b>Yes</b>	<b>39</b>	<b>n/a</b>	<b>n/a</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.002327</b>	<b>NP Inter (normality) 1 of 2</b>
pH (SU)	GS-AP-MW-12V	7.76	5.02	2/23/2022	7.73	No	39	n/a	n/a	0	n/a	n/a	0.002327	NP Inter (normality) 1 of 2
<b>pH (SU)</b>	<b>GS-AP-MW-15</b>	<b>7.76</b>	<b>5.02</b>	<b>2/16/2022</b>	<b>11.57</b>	<b>Yes</b>	<b>39</b>	<b>n/a</b>	<b>n/a</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.002327</b>	<b>NP Inter (normality) 1 of 2</b>
<b>pH (SU)</b>	<b>GS-AP-MW-15V</b>	<b>7.76</b>	<b>5.02</b>	<b>2/16/2022</b>	<b>8.65</b>	<b>Yes</b>	<b>39</b>	<b>n/a</b>	<b>n/a</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.002327</b>	<b>NP Inter (normality) 1 of 2</b>
pH (SU)	GS-AP-MW-16D	7.76	5.02	2/15/2022	7.48	No	39	n/a	n/a	0	n/a	n/a	0.002327	NP Inter (normality) 1 of 2
<b>pH (SU)</b>	<b>GS-AP-MW-17</b>	<b>7.76</b>	<b>5.02</b>	<b>2/14/2022</b>	<b>8.32</b>	<b>Yes</b>	<b>39</b>	<b>n/a</b>	<b>n/a</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.002327</b>	<b>NP Inter (normality) 1 of 2</b>
pH (SU)	GS-AP-MW-19	7.76	5.02	2/22/2022	7.71	No	39	n/a	n/a	0	n/a	n/a	0.002327	NP Inter (normality) 1 of 2
<b>pH (SU)</b>	<b>GS-AP-MW-2</b>	<b>7.76</b>	<b>5.02</b>	<b>2/22/2022</b>	<b>9.42</b>	<b>Yes</b>	<b>39</b>	<b>n/a</b>	<b>n/a</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.002327</b>	<b>NP Inter (normality) 1 of 2</b>
<b>pH (SU)</b>	<b>GS-AP-MW-21</b>	<b>7.76</b>	<b>5.02</b>	<b>2/8/2022</b>	<b>10.26</b>	<b>Yes</b>	<b>39</b>	<b>n/a</b>	<b>n/a</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.002327</b>	<b>NP Inter (normality) 1 of 2</b>
pH (SU)	GS-AP-MW-23H	7.76	5.02	2/14/2022	5.8	No	39	n/a	n/a	0	n/a	n/a	0.002327	NP Inter (normality) 1 of 2
<b>pH (SU)</b>	<b>GS-AP-MW-3</b>	<b>7.76</b>	<b>5.02</b>	<b>2/16/2022</b>	<b>7.78</b>	<b>Yes</b>	<b>39</b>	<b>n/a</b>	<b>n/a</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.002327</b>	<b>NP Inter (normality) 1 of 2</b>
pH (SU)	GS-AP-MW-6D	7.76	5.02	2/14/2022	7.43	No	39	n/a	n/a	0	n/a	n/a	0.002327	NP Inter (normality) 1 of 2
pH (SU)	GS-AP-MW-6	7.76	5.02	2/14/2022	6.99	No	39	n/a	n/a	0	n/a	n/a	0.002327	NP Inter (normality) 1 of 2
pH (SU)	GS-AP-MW-7	7.76	5.02	2/8/2022	7.71	No	39	n/a	n/a	0	n/a	n/a	0.002327	NP Inter (normality) 1 of 2
pH (SU)	GS-AP-MW-9V	7.76	5.02	2/21/2022	7	No	39	n/a	n/a	0	n/a	n/a	0.002327	NP Inter (normality) 1 of 2
<b>Sulfate (mg/L)</b>	<b>GS-AP-MW-12</b>	<b>15.2</b>	<b>n/a</b>	<b>2/28/2022</b>	<b>17.9</b>	<b>Yes</b>	<b>37</b>	<b>n/a</b>	<b>n/a</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.001285</b>	<b>NP Inter (normality) 1 of 2</b>
Sulfate (mg/L)	GS-AP-MW-12V	15.2	n/a	2/23/2022	0.741J	No	37	n/a	n/a	0	n/a	n/a	0.001285	NP Inter (normality) 1 of 2
Sulfate (mg/L)	GS-AP-MW-15	15.2	n/a	2/16/2022	7.37	No	37	n/a	n/a	0	n/a	n/a	0.001285	NP Inter (normality) 1 of 2
<b>Sulfate (mg/L)</b>	<b>GS-AP-MW-15V</b>	<b>15.2</b>	<b>n/a</b>	<b>2/16/2022</b>	<b>224</b>	<b>Yes</b>	<b>37</b>	<b>n/a</b>	<b>n/a</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.001285</b>	<b>NP Inter (normality) 1 of 2</b>
Sulfate (mg/L)	GS-AP-MW-16D	15.2	n/a	2/15/2022	14.7	No	37	n/a	n/a	0	n/a	n/a	0.001285	NP Inter (normality) 1 of 2
Sulfate (mg/L)	GS-AP-MW-17	15.2	n/a	2/14/2022	14.4	No	37	n/a	n/a	0	n/a	n/a	0.001285	NP Inter (normality) 1 of 2
Sulfate (mg/L)	GS-AP-MW-19	15.2	n/a	2/22/2022	13.7	No	37	n/a	n/a	0	n/a	n/a	0.001285	NP Inter (normality) 1 of 2
<b>Sulfate (mg/L)</b>	<b>GS-AP-MW-2</b>	<b>15.2</b>	<b>n/a</b>	<b>2/22/2022</b>	<b>17.1</b>	<b>Yes</b>	<b>37</b>	<b>n/a</b>	<b>n/a</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.001285</b>	<b>NP Inter (normality) 1 of 2</b>
<b>Sulfate (mg/L)</b>	<b>GS-AP-MW-21</b>	<b>15.2</b>	<b>n/a</b>	<b>2/8/2022</b>	<b>241</b>	<b>Yes</b>	<b>37</b>	<b>n/a</b>	<b>n/a</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.001285</b>	<b>NP Inter (normality) 1 of 2</b>
<b>Sulfate (mg/L)</b>	<b>GS-AP-MW-23H</b>	<b>15.2</b>	<b>n/a</b>	<b>2/14/2022</b>	<b>356</b>	<b>Yes</b>	<b>37</b>	<b>n/a</b>	<b>n/a</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.001285</b>	<b>NP Inter (normality) 1 of 2</b>
<b>Sulfate (mg/L)</b>	<b>GS-AP-MW-3</b>	<b>15.2</b>	<b>n/a</b>	<b>2/16/2022</b>	<b>91.2</b>	<b>Yes</b>	<b>37</b>	<b>n/a</b>	<b>n/a</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.001285</b>	<b>NP Inter (normality) 1 of 2</b>
<b>Sulfate (mg/L)</b>	<b>GS-AP-MW-6D</b>	<b>15.2</b>	<b>n/a</b>	<b>2/14/2022</b>	<b>58.3</b>	<b>Yes</b>	<b>37</b>	<b>n/a</b>	<b>n/a</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.001285</b>	<b>NP Inter (normality) 1 of 2</b>
<b>Sulfate (mg/L)</b>	<b>GS-AP-MW-6</b>	<b>15.2</b>	<b>n/a</b>	<b>2/14/2022</b>	<b>115</b>	<b>Yes</b>	<b>37</b>	<b>n/a</b>	<b>n/a</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.001285</b>	<b>NP Inter (normality) 1 of 2</b>
<b>Sulfate (mg/L)</b>	<b>GS-AP-MW-7</b>	<b>15.2</b>	<b>n/a</b>	<b>2/8/2022</b>	<b>137</b>	<b>Yes</b>	<b>37</b>	<b>n/a</b>	<b>n/a</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.001285</b>	<b>NP Inter (normality) 1 of 2</b>
<b>Sulfate (mg/L)</b>	<b>GS-AP-MW-9V</b>	<b>15.2</b>	<b>n/a</b>	<b>2/21/2022</b>	<b>32.4</b>	<b>Yes</b>	<b>37</b>	<b>n/a</b>	<b>n/a</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.001285</b>	<b>NP Inter (normality) 1 of 2</b>
TDS (mg/L)	GS-AP-MW-12	368	n/a	2/28/2022	195	No	37	n/a	n/a	0	n/a	n/a	0.001285	NP Inter (normality) 1 of 2
TDS (mg/L)	GS-AP-MW-12V	368	n/a	2/23/2022	209	No	37	n/a	n/a	0	n/a	n/a	0.001285	NP Inter (normality) 1 of 2
<b>TDS (mg/L)</b>	<b>GS-AP-MW-15</b>	<b>368</b>	<b>n/a</b>	<b>2/16/2022</b>	<b>426</b>	<b>Yes</b>	<b>37</b>	<b>n/a</b>	<b>n/a</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.001285</b>	<b>NP Inter (normality) 1 of 2</b>
<b>TDS (mg/L)</b>	<b>GS-AP-MW-15V</b>	<b>368</b>	<b>n/a</b>	<b>2/16/2022</b>	<b>782</b>	<b>Yes</b>	<b>37</b>	<b>n/a</b>	<b>n/a</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.001285</b>	<b>NP Inter (normality) 1 of 2</b>
TDS (mg/L)	GS-AP-MW-16D	368	n/a	2/15/2022	214	No	37	n/a	n/a	0	n/a	n/a	0.001285	NP Inter (normality) 1 of 2
<b>TDS (mg/L)</b>	<b>GS-AP-MW-17</b>	<b>368</b>	<b>n/a</b>	<b>2/14/2022</b>	<b>448</b>	<b>Yes</b>	<b>37</b>	<b>n/a</b>	<b>n/a</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.001285</b>	<b>NP Inter (normality) 1 of 2</b>
TDS (mg/L)	GS-AP-MW-19	368	n/a	2/22/2022	304	No	37	n/a	n/a	0	n/a	n/a	0.001285	NP Inter (normality) 1 of 2
TDS (mg/L)	GS-AP-MW-2	368	n/a	2/22/2022	295	No	37	n/a	n/a	0	n/a	n/a	0.001285	NP Inter (normality) 1 of 2
<b>TDS (mg/L)</b>	<b>GS-AP-MW-21</b>	<b>368</b>	<b>n/a</b>	<b>2/8/2022</b>	<b>570</b>	<b>Yes</b>	<b>37</b>	<b>n/a</b>	<b>n/a</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.001285</b>	<b>NP Inter (normality) 1 of 2</b>
<b>TDS (mg/L)</b>	<b>GS-AP-MW-23H</b>	<b>368</b>	<b>n/a</b>	<b>2/14/2022</b>	<b>592</b>	<b>Yes</b>	<b>37</b>	<b>n/a</b>	<b>n/a</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.001285</b>	<b>NP Inter (normality) 1 of 2</b>
TDS (mg/L)	GS-AP-MW-3	368	n/a	2/16/2022	307	No	37	n/a	n/a	0	n/a	n/a	0.001285	NP Inter (normality) 1 of 2
TDS (mg/L)	GS-AP-MW-6D	368	n/a	2/14/2022	297	No	37	n/a	n/a	0	n/a	n/a	0.001285	NP Inter (normality) 1 of 2
TDS (mg/L)	GS-AP-MW-6	368	n/a	2/14/2022	299	No	37	n/a	n/a	0	n/a	n/a	0.001285	NP Inter (normality) 1 of 2
TDS (mg/L)	GS-AP-MW-7	368	n/a	2/8/2022	325	No	37	n/a	n/a	0	n/a	n/a	0.001285	NP Inter (normality) 1 of 2
TDS (mg/L)	GS-AP-MW-9V	368	n/a	2/21/2022	299	No	37	n/a	n/a	0	n/a	n/a	0.001285	NP Inter (normality) 1 of 2

# Appendix III Trend Tests - Significant Results

Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond Printed 5/16/2022, 4:08 PM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
Boron (mg/L)	GS-AP-MW-6D	0.04438	97	68	Yes	18	0	n/a	n/a	0.01	NP
Boron (mg/L)	GS-AP-MW-6	-0.0634	-94	-68	Yes	18	0	n/a	n/a	0.01	NP
Boron (mg/L)	GS-AP-MW-7	0.04679	96	68	Yes	18	0	n/a	n/a	0.01	NP
Calcium (mg/L)	GS-AP-MW-19	2.493	77	68	Yes	18	0	n/a	n/a	0.01	NP
Calcium (mg/L)	GS-AP-MW-6D	1.303	93	68	Yes	18	0	n/a	n/a	0.01	NP
Chloride (mg/L)	GS-AP-MW-21	3.259	103	68	Yes	18	0	n/a	n/a	0.01	NP
Chloride (mg/L)	GS-AP-MW-6D	1.242	119	68	Yes	18	0	n/a	n/a	0.01	NP
Chloride (mg/L)	GS-AP-MW-7	0.6767	140	68	Yes	18	0	n/a	n/a	0.01	NP
Chloride (mg/L)	GS-AP-MW-8 (bg)	0.1896	85	68	Yes	18	0	n/a	n/a	0.01	NP
Fluoride (mg/L)	GS-AP-MW-13 (bg)	0.02914	48	43	Yes	13	0	n/a	n/a	0.01	NP
Fluoride (mg/L)	GS-AP-MW-2	-0.1524	-136	-81	Yes	20	0	n/a	n/a	0.01	NP
pH (SU)	GS-AP-MW-12	0.1096	92	74	Yes	19	0	n/a	n/a	0.01	NP
pH (SU)	GS-AP-MW-15	0.3442	91	74	Yes	19	0	n/a	n/a	0.01	NP
pH (SU)	GS-AP-MW-2	0.04403	87	81	Yes	20	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	GS-AP-MW-12	3.424	75	68	Yes	18	5.556	n/a	n/a	0.01	NP
Sulfate (mg/L)	GS-AP-MW-21	47.59	139	68	Yes	18	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	GS-AP-MW-6	-27.41	-80	-68	Yes	18	0	n/a	n/a	0.01	NP
TDS (mg/L)	GS-AP-MW-17	24.46	78	74	Yes	19	0	n/a	n/a	0.01	NP
TDS (mg/L)	GS-AP-MW-21	63.17	105	68	Yes	18	0	n/a	n/a	0.01	NP

# Appendix III Trend Tests - All Results

Plant Gorgas    Client: Southern Company    Data: Gorgas Ash Pond    Printed 5/16/2022, 4:08 PM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
Boron (mg/L)	GS-AP-MW-13 (bg)	0	0	38	No	12	100	n/a	n/a	0.01	NP
Boron (mg/L)	GS-AP-MW-17V (bg)	-0.0054	-7	-18	No	7	0	n/a	n/a	0.01	NP
Boron (mg/L)	GS-AP-MW-2	0.004414	21	74	No	19	0	n/a	n/a	0.01	NP
Boron (mg/L)	GS-AP-MW-21	0.002318	39	63	No	17	0	n/a	n/a	0.01	NP
Boron (mg/L)	GS-AP-MW-3	-0.1153	NaN	NaN	No	3	0	n/a	n/a	NaN	NP
<b>Boron (mg/L)</b>	<b>GS-AP-MW-6D</b>	<b>0.04438</b>	<b>97</b>	<b>68</b>	<b>Yes</b>	<b>18</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
<b>Boron (mg/L)</b>	<b>GS-AP-MW-6</b>	<b>-0.0634</b>	<b>-94</b>	<b>-68</b>	<b>Yes</b>	<b>18</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
<b>Boron (mg/L)</b>	<b>GS-AP-MW-7</b>	<b>0.04679</b>	<b>96</b>	<b>68</b>	<b>Yes</b>	<b>18</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
Boron (mg/L)	GS-AP-MW-8 (bg)	0	17	68	No	18	94.44	n/a	n/a	0.01	NP
Calcium (mg/L)	GS-AP-MW-13 (bg)	-2.607	-32	-38	No	12	0	n/a	n/a	0.01	NP
Calcium (mg/L)	GS-AP-MW-17V (bg)	0.5737	5	18	No	7	0	n/a	n/a	0.01	NP
<b>Calcium (mg/L)</b>	<b>GS-AP-MW-19</b>	<b>2.493</b>	<b>77</b>	<b>68</b>	<b>Yes</b>	<b>18</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
Calcium (mg/L)	GS-AP-MW-23H	-1.659	-5	-18	No	7	0	n/a	n/a	0.01	NP
<b>Calcium (mg/L)</b>	<b>GS-AP-MW-6D</b>	<b>1.303</b>	<b>93</b>	<b>68</b>	<b>Yes</b>	<b>18</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
Calcium (mg/L)	GS-AP-MW-6	-2.413	-35	-68	No	18	0	n/a	n/a	0.01	NP
Calcium (mg/L)	GS-AP-MW-8 (bg)	-0.6456	-57	-68	No	18	0	n/a	n/a	0.01	NP
Chloride (mg/L)	GS-AP-MW-13 (bg)	0.1178	10	38	No	12	0	n/a	n/a	0.01	NP
Chloride (mg/L)	GS-AP-MW-15	-0.1972	-23	-68	No	18	0	n/a	n/a	0.01	NP
Chloride (mg/L)	GS-AP-MW-15V	8.363	2	12	No	5	0	n/a	n/a	0.01	NP
Chloride (mg/L)	GS-AP-MW-17	0.5267	32	74	No	19	0	n/a	n/a	0.01	NP
Chloride (mg/L)	GS-AP-MW-17V (bg)	-0.1796	-7	-18	No	7	0	n/a	n/a	0.01	NP
Chloride (mg/L)	GS-AP-MW-19	-0.2607	-59	-68	No	18	0	n/a	n/a	0.01	NP
Chloride (mg/L)	GS-AP-MW-2	0.03568	8	74	No	19	0	n/a	n/a	0.01	NP
<b>Chloride (mg/L)</b>	<b>GS-AP-MW-21</b>	<b>3.259</b>	<b>103</b>	<b>68</b>	<b>Yes</b>	<b>18</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
Chloride (mg/L)	GS-AP-MW-23H	0.1193	3	18	No	7	0	n/a	n/a	0.01	NP
Chloride (mg/L)	GS-AP-MW-3	-3.409	NaN	NaN	No	3	0	n/a	n/a	NaN	NP
<b>Chloride (mg/L)</b>	<b>GS-AP-MW-6D</b>	<b>1.242</b>	<b>119</b>	<b>68</b>	<b>Yes</b>	<b>18</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
Chloride (mg/L)	GS-AP-MW-6	-0.8866	-54	-68	No	18	0	n/a	n/a	0.01	NP
<b>Chloride (mg/L)</b>	<b>GS-AP-MW-7</b>	<b>0.6767</b>	<b>140</b>	<b>68</b>	<b>Yes</b>	<b>18</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
<b>Chloride (mg/L)</b>	<b>GS-AP-MW-8 (bg)</b>	<b>0.1896</b>	<b>85</b>	<b>68</b>	<b>Yes</b>	<b>18</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
Chloride (mg/L)	GS-AP-MW-9V	7.435	8	12	No	5	0	n/a	n/a	0.01	NP
<b>Fluoride (mg/L)</b>	<b>GS-AP-MW-13 (bg)</b>	<b>0.02914</b>	<b>48</b>	<b>43</b>	<b>Yes</b>	<b>13</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
Fluoride (mg/L)	GS-AP-MW-15	-0.02521	-35	-74	No	19	0	n/a	n/a	0.01	NP
Fluoride (mg/L)	GS-AP-MW-17V (bg)	0.001162	1	18	No	7	0	n/a	n/a	0.01	NP
<b>Fluoride (mg/L)</b>	<b>GS-AP-MW-2</b>	<b>-0.1524</b>	<b>-136</b>	<b>-81</b>	<b>Yes</b>	<b>20</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
Fluoride (mg/L)	GS-AP-MW-8 (bg)	0.003661	34	74	No	19	0	n/a	n/a	0.01	NP
<b>pH (SU)</b>	<b>GS-AP-MW-12</b>	<b>0.1096</b>	<b>92</b>	<b>74</b>	<b>Yes</b>	<b>19</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
pH (SU)	GS-AP-MW-13 (bg)	-0.05825	-34	-43	No	13	0	n/a	n/a	0.01	NP
<b>pH (SU)</b>	<b>GS-AP-MW-15</b>	<b>0.3442</b>	<b>91</b>	<b>74</b>	<b>Yes</b>	<b>19</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
pH (SU)	GS-AP-MW-15V	-1.24	-10	-12	No	5	0	n/a	n/a	0.01	NP
pH (SU)	GS-AP-MW-17	-0.004866	-19	-81	No	20	0	n/a	n/a	0.01	NP
pH (SU)	GS-AP-MW-17V (bg)	-0.09188	-12	-18	No	7	0	n/a	n/a	0.01	NP
<b>pH (SU)</b>	<b>GS-AP-MW-2</b>	<b>0.04403</b>	<b>87</b>	<b>81</b>	<b>Yes</b>	<b>20</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
pH (SU)	GS-AP-MW-21	0.1186	47	74	No	19	0	n/a	n/a	0.01	NP
pH (SU)	GS-AP-MW-3	0.07019	NaN	NaN	No	3	0	n/a	n/a	NaN	NP
pH (SU)	GS-AP-MW-8 (bg)	-0.04138	-73	-74	No	19	0	n/a	n/a	0.01	NP
<b>Sulfate (mg/L)</b>	<b>GS-AP-MW-12</b>	<b>3.424</b>	<b>75</b>	<b>68</b>	<b>Yes</b>	<b>18</b>	<b>5.556</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
Sulfate (mg/L)	GS-AP-MW-13 (bg)	0.01849	11	38	No	12	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	GS-AP-MW-15V	-25.4	-4	-12	No	5	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	GS-AP-MW-17V (bg)	-1.441	-13	-18	No	7	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	GS-AP-MW-2	3.194	28	74	No	19	10.53	n/a	n/a	0.01	NP
<b>Sulfate (mg/L)</b>	<b>GS-AP-MW-21</b>	<b>47.59</b>	<b>139</b>	<b>68</b>	<b>Yes</b>	<b>18</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
Sulfate (mg/L)	GS-AP-MW-23H	-5.343	-5	-18	No	7	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	GS-AP-MW-3	-66.98	NaN	NaN	No	3	0	n/a	n/a	NaN	NP
Sulfate (mg/L)	GS-AP-MW-6D	1.138	29	68	No	18	0	n/a	n/a	0.01	NP

# Appendix III Trend Tests - All Results

Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond Printed 5/16/2022, 4:08 PM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
<b>Sulfate (mg/L)</b>	<b>GS-AP-MW-6</b>	<b>-27.41</b>	<b>-80</b>	<b>-68</b>	<b>Yes</b>	<b>18</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
Sulfate (mg/L)	GS-AP-MW-7	-1.448	-30	-68	No	18	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	GS-AP-MW-8 (bg)	0.1821	34	68	No	18	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	GS-AP-MW-9V	7.525	8	12	No	5	0	n/a	n/a	0.01	NP
TDS (mg/L)	GS-AP-MW-13 (bg)	-7.182	-29	-38	No	12	0	n/a	n/a	0.01	NP
TDS (mg/L)	GS-AP-MW-15	33.37	49	68	No	18	0	n/a	n/a	0.01	NP
TDS (mg/L)	GS-AP-MW-15V	-97.73	-5	-12	No	5	0	n/a	n/a	0.01	NP
<b>TDS (mg/L)</b>	<b>GS-AP-MW-17</b>	<b>24.46</b>	<b>78</b>	<b>74</b>	<b>Yes</b>	<b>19</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
TDS (mg/L)	GS-AP-MW-17V (bg)	0	0	18	No	7	0	n/a	n/a	0.01	NP
<b>TDS (mg/L)</b>	<b>GS-AP-MW-21</b>	<b>63.17</b>	<b>105</b>	<b>68</b>	<b>Yes</b>	<b>18</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
TDS (mg/L)	GS-AP-MW-23H	8.221	1	18	No	7	0	n/a	n/a	0.01	NP
TDS (mg/L)	GS-AP-MW-8 (bg)	-3.157	-39	-68	No	18	0	n/a	n/a	0.01	NP

<b>GORGAS ASH POND GWPS</b>			
<b>Analyte</b>	<b>Units</b>	<b>Background</b>	<b>GWPS</b>
Antimony	mg/L	0.00115	0.006
Arsenic	mg/L	0.005	0.01
Barium	mg/L	0.353	2
Beryllium	mg/L	0.00102	0.004
Cadmium	mg/L	0.0002	0.005
Chromium	mg/L	0.01	0.1
Cobalt	mg/L	0.00362	0.006
Combined Radium-226/228	pCi/L	1.25	5
Fluoride	mg/L	0.278	4
Lead	mg/L	0.00189	0.015
Lithium	mg/L	0.0809	0.0809
Mercury	mg/L	0.0005	0.002
Molybdenum	mg/L	0.00906	0.1
Selenium	mg/L	0.00102	0.05
Thallium	mg/L	0.0002	0.002

Notes:

1. mg/L - Milligrams per liter
2. pCi/L - Picocuries per liter
3. The background limits were used as the groundwater protection standard (GWPS) when appropriate under 40 CFR §257.95(h), ADEM Rule 335-13-15-.06(h), and the ADEM Variance.
4. GWPS established during second semi-annual sampling event in 2021.

# Confidence Intervals - Significant Results

Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond Printed 5/16/2022, 4:49 PM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Arsenic (mg/L)	GS-AP-MW-6D	0.1124	0.08272	0.01	Yes	8	0.09756	0.01401	0	None	No	0.01	Param.
Arsenic (mg/L)	GS-AP-MW-7	0.285	0.207	0.01	Yes	8	0.2578	0.03296	0	None	No	0.004	NP (normality)
Lithium (mg/L)	GS-AP-MW-15	0.5085	0.2515	0.0809	Yes	8	0.38	0.1212	0	None	No	0.01	Param.
Lithium (mg/L)	GS-AP-MW-21	0.3295	0.1496	0.0809	Yes	8	0.2396	0.08486	0	None	No	0.01	Param.
Lithium (mg/L)	GS-AP-MW-6D	0.3185	0.256	0.0809	Yes	8	0.2873	0.02945	0	None	No	0.01	Param.
Lithium (mg/L)	GS-AP-MW-7	0.1954	0.1463	0.0809	Yes	8	0.1709	0.02316	0	None	No	0.01	Param.
Molybdenum (mg/L)	GS-AP-MW-7	0.2157	0.1766	0.1	Yes	8	0.1961	0.01844	0	None	No	0.01	Param.

# Confidence Intervals - All Results

Plant Gorgas    Client: Southern Company    Data: Gorgas Ash Pond    Printed 5/16/2022, 4:49 PM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Antimony (mg/L)	GS-AP-MW-12	0.003069	0.000862	0.006	No	8	0.001717	0.001143	37.5	Kaplan-Meier	sqrt(x)	0.01	Param.
Antimony (mg/L)	GS-AP-MW-12V	0.001982	0.00043	0.006	No	7	0.001206	0.0006533	0	None	No	0.01	Param.
Antimony (mg/L)	GS-AP-MW-15	0.0009145	0.0006855	0.006	No	8	0.0008825	0.0001459	37.5	Kaplan-Meier	No	0.01	Param.
Antimony (mg/L)	GS-AP-MW-15V	0.003521	0.0005073	0.006	No	5	0.002014	0.0008991	0	None	No	0.01	Param.
Antimony (mg/L)	GS-AP-MW-21V	0.00102	0.000661	0.006	No	5	0.0009104	0.0001617	60	None	No	0.031	NP (NDs)
Antimony (mg/L)	GS-AP-MW-6D	0.00102	0.000828	0.006	No	8	0.000996	0.00006788	87.5	None	No	0.004	NP (NDs)
Antimony (mg/L)	GS-AP-MW-6	0.001131	0.0005876	0.006	No	8	0.0009397	0.0002121	50	Kaplan-Meier	No	0.01	Param.
Antimony (mg/L)	GS-AP-MW-7	0.00105	0.00102	0.006	No	8	0.001024	0.00001061	87.5	Kaplan-Meier	No	0.004	NP (NDs)
Arsenic (mg/L)	GS-AP-MW-12	0.01573	0.002991	0.01	No	8	0.009359	0.006008	0	None	No	0.01	Param.
Arsenic (mg/L)	GS-AP-MW-12V	0.002474	0.000923	0.01	No	7	0.001699	0.0006529	14.29	None	No	0.01	Param.
Arsenic (mg/L)	GS-AP-MW-15	0.01829	0.007251	0.01	No	8	0.01277	0.005205	0	None	No	0.01	Param.
Arsenic (mg/L)	GS-AP-MW-15V	0.01901	0.006112	0.01	No	5	0.01256	0.003848	0	None	No	0.01	Param.
Arsenic (mg/L)	GS-AP-MW-16D	0.0025	0.0001	0.01	No	8	0.001651	0.001177	62.5	None	No	0.004	NP (NDs)
Arsenic (mg/L)	GS-AP-MW-17	0.00557	0.001415	0.01	No	8	0.003493	0.00196	0	None	No	0.01	Param.
Arsenic (mg/L)	GS-AP-MW-19	0.003218	0.001387	0.01	No	8	0.002303	0.0008633	0	None	No	0.01	Param.
Arsenic (mg/L)	GS-AP-MW-21	0.0025	0.00046	0.01	No	8	0.001765	0.001015	62.5	None	No	0.004	NP (NDs)
Arsenic (mg/L)	GS-AP-MW-21V	0.0169	-0.001169	0.01	No	5	0.007864	0.005391	0	None	No	0.01	Param.
<b>Arsenic (mg/L)</b>	<b>GS-AP-MW-6D</b>	<b>0.1124</b>	<b>0.08272</b>	<b>0.01</b>	<b>Yes</b>	<b>8</b>	<b>0.09756</b>	<b>0.01401</b>	<b>0</b>	<b>None</b>	<b>No</b>	<b>0.01</b>	<b>Param.</b>
Arsenic (mg/L)	GS-AP-MW-6	0.01251	0.005911	0.01	No	8	0.009144	0.003389	0	None	sqrt(x)	0.01	Param.
<b>Arsenic (mg/L)</b>	<b>GS-AP-MW-7</b>	<b>0.285</b>	<b>0.207</b>	<b>0.01</b>	<b>Yes</b>	<b>8</b>	<b>0.2578</b>	<b>0.03296</b>	<b>0</b>	<b>None</b>	<b>No</b>	<b>0.004</b>	<b>NP (normality)</b>
Arsenic (mg/L)	GS-AP-MW-9V	0.0003914	0.00008019	0.01	No	5	0.001126	0.001256	40	Kaplan-Meier	x^(1/3)	0.01	Param.
Barium (mg/L)	GS-AP-MW-12	0.2016	0.1671	2	No	8	0.1848	0.01767	0	None	x*5	0.01	Param.
Barium (mg/L)	GS-AP-MW-12V	1.532	1.074	2	No	7	1.303	0.1925	0	None	No	0.01	Param.
Barium (mg/L)	GS-AP-MW-15	0.271	0.0913	2	No	8	0.1599	0.06805	0	None	No	0.004	NP (normality)
Barium (mg/L)	GS-AP-MW-15V	0.2141	0.1455	2	No	5	0.1798	0.0205	0	None	No	0.01	Param.
Barium (mg/L)	GS-AP-MW-16D	0.3469	0.3211	2	No	8	0.334	0.01213	0	None	No	0.01	Param.
Barium (mg/L)	GS-AP-MW-17	0.135	0.0883	2	No	8	0.1038	0.01811	0	None	No	0.004	NP (normality)
Barium (mg/L)	GS-AP-MW-19	0.3562	0.3238	2	No	8	0.34	0.01532	0	None	No	0.01	Param.
Barium (mg/L)	GS-AP-MW-2	0.06558	0.05192	2	No	8	0.05875	0.006444	0	None	No	0.01	Param.
Barium (mg/L)	GS-AP-MW-21	0.1544	0.09569	2	No	8	0.125	0.02769	0	None	No	0.01	Param.
Barium (mg/L)	GS-AP-MW-21V	0.07222	0.0261	2	No	5	0.04916	0.01376	0	None	No	0.01	Param.
Barium (mg/L)	GS-AP-MW-6D	0.8806	0.4254	2	No	8	0.653	0.2147	0	None	No	0.01	Param.
Barium (mg/L)	GS-AP-MW-6	0.1208	0.07153	2	No	8	0.09615	0.02323	0	None	No	0.01	Param.
Barium (mg/L)	GS-AP-MW-7	0.1429	0.06267	2	No	8	0.1028	0.03783	0	None	No	0.01	Param.
Barium (mg/L)	GS-AP-MW-9V	0.2167	0.1425	2	No	5	0.1796	0.02213	0	None	No	0.01	Param.
Beryllium (mg/L)	GS-AP-MW-16D	0.00109	0.00102	0.004	No	8	0.001029	0.00002475	87.5	None	No	0.004	NP (NDs)
Beryllium (mg/L)	GS-AP-MW-2	0.00102	0.00102	0.004	No	8	0.00102	0	100	None	No	0.004	NP (NDs)
Beryllium (mg/L)	GS-AP-MW-6	0.00102	0.000794	0.004	No	8	0.0009917	0.0000799	87.5	None	No	0.004	NP (NDs)
Chromium (mg/L)	GS-AP-MW-12	0.00102	0.00031	0.1	No	8	0.0009312	0.000251	87.5	None	No	0.004	NP (NDs)
Chromium (mg/L)	GS-AP-MW-12V	0.005688	-0.00009377	0.1	No	7	0.002797	0.002434	14.29	None	No	0.01	Param.
Chromium (mg/L)	GS-AP-MW-15	0.00102	0.00048	0.1	No	8	0.0008875	0.0002034	62.5	None	No	0.004	NP (NDs)
Chromium (mg/L)	GS-AP-MW-15V	0.007384	0.00002359	0.1	No	5	0.00242	0.002755	0	None	sqrt(x)	0.01	Param.
Chromium (mg/L)	GS-AP-MW-16D	0.00107	0.00025	0.1	No	8	0.0008875	0.0002855	62.5	None	No	0.004	NP (NDs)
Chromium (mg/L)	GS-AP-MW-17	0.00255	0.00034	0.1	No	8	0.00105	0.0006728	62.5	None	No	0.004	NP (NDs)
Chromium (mg/L)	GS-AP-MW-19	0.00102	0.000258	0.1	No	8	0.0008372	0.0003388	75	None	No	0.004	NP (NDs)
Chromium (mg/L)	GS-AP-MW-2	0.00102	0.00044	0.1	No	8	0.0008619	0.000248	62.5	None	No	0.004	NP (NDs)
Chromium (mg/L)	GS-AP-MW-21	0.00102	0.0004	0.1	No	8	0.0008281	0.0002801	62.5	None	No	0.004	NP (NDs)
Chromium (mg/L)	GS-AP-MW-21V	0.001222	-0.0001834	0.1	No	5	0.0008016	0.0004688	40	Kaplan-Meier	No	0.01	Param.
Chromium (mg/L)	GS-AP-MW-6D	0.00102	0.00024	0.1	No	8	0.0007305	0.0003996	62.5	Kaplan-Meier	No	0.004	NP (NDs)
Chromium (mg/L)	GS-AP-MW-6	0.00102	0.00024	0.1	No	8	0.0007335	0.0003955	62.5	Kaplan-Meier	No	0.004	NP (NDs)
Chromium (mg/L)	GS-AP-MW-7	0.005355	0.0005285	0.1	No	8	0.003316	0.002375	25	Kaplan-Meier	No	0.01	Param.
Chromium (mg/L)	GS-AP-MW-9V	0.00102	0.000228	0.1	No	5	0.0007156	0.0004174	60	Kaplan-Meier	No	0.031	NP (NDs)
Cobalt (mg/L)	GS-AP-MW-12V	0.001363	0.00008055	0.006	No	7	0.0007457	0.0009803	42.86	Kaplan-Meier	ln(x)	0.01	Param.
Cobalt (mg/L)	GS-AP-MW-15	0.0002	0.00009	0.006	No	8	0.0001862	0.00003889	87.5	Kaplan-Meier	No	0.004	NP (NDs)
Cobalt (mg/L)	GS-AP-MW-16D	0.000252	0.00009	0.006	No	8	0.0001927	0.00004533	75	Kaplan-Meier	No	0.004	NP (NDs)
Cobalt (mg/L)	GS-AP-MW-17	0.0002	0.000102	0.006	No	8	0.0001877	0.00003465	87.5	Kaplan-Meier	No	0.004	NP (NDs)
Cobalt (mg/L)	GS-AP-MW-6	0.000663	0.0002	0.006	No	8	0.0003691	0.0002335	62.5	Kaplan-Meier	No	0.004	NP (NDs)
Cobalt (mg/L)	GS-AP-MW-7	0.00381	0.0009129	0.006	No	8	0.001821	0.001613	25	Kaplan-Meier	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	GS-AP-MW-12	0.9125	0.3477	5	No	8	0.6301	0.2664	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	GS-AP-MW-12V	1.41	0.5664	5	No	7	0.9881	0.355	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	GS-AP-MW-15	0.9239	0.1663	5	No	8	0.5451	0.3574	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	GS-AP-MW-15V	1.165	0.2678	5	No	5	0.7162	0.2676	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	GS-AP-MW-16D	0.8132	0.08525	5	No	8	0.4493	0.3434	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	GS-AP-MW-17	1.471	0.03889	5	No	8	0.6978	0.815	0	None	sqrt(x)	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	GS-AP-MW-19	1.573	0.4756	5	No	8	1.024	0.5175	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	GS-AP-MW-2	1.484	0.1457	5	No	8	0.8573	1.286	0	None	ln(x)	0.01	Param.



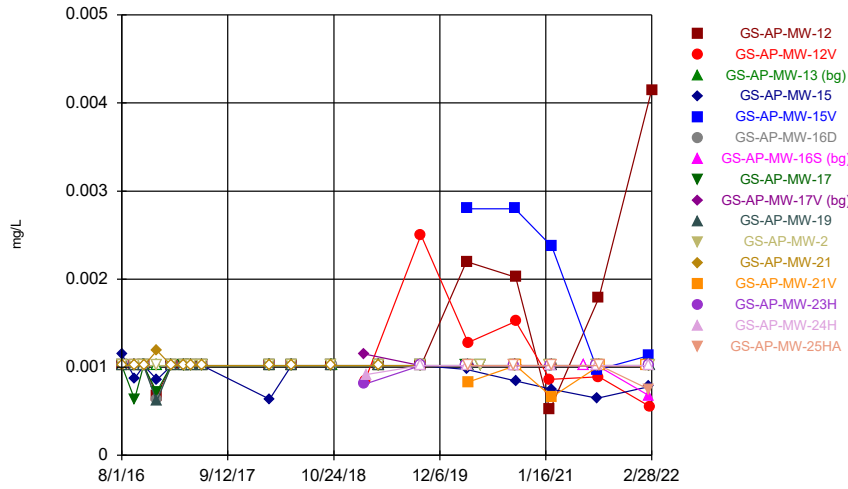
# Confidence Intervals - All Results

Plant Gorgas    Client: Southern Company    Data: Gorgas Ash Pond    Printed 5/16/2022, 4:49 PM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Combined Radium 226 + 228 (pCi/L)	GS-AP-MW-21	0.8491	0.3681	5	No	8	0.6086	0.2269	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	GS-AP-MW-21V	1.09	0.3748	5	No	5	0.7322	0.2133	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	GS-AP-MW-6D	0.992	0.412	5	No	8	0.702	0.2736	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	GS-AP-MW-6	1.119	0.3466	5	No	8	0.7328	0.3643	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	GS-AP-MW-7	1.404	0.3467	5	No	8	0.8751	0.4985	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	GS-AP-MW-9V	1.045	0.036	5	No	5	0.375	0.3359	0	None	x <sup>(1/3)</sup>	0.01	Param.
Fluoride (mg/L)	GS-AP-MW-12	0.23	0.12	4	No	8	0.1516	0.0404	0	None	No	0.004	NP (normality)
Fluoride (mg/L)	GS-AP-MW-12V	0.1977	0.1537	4	No	7	0.1757	0.01854	0	None	No	0.01	Param.
Fluoride (mg/L)	GS-AP-MW-15	0.7064	0.4223	4	No	8	0.5644	0.134	0	None	No	0.01	Param.
Fluoride (mg/L)	GS-AP-MW-15V	0.396	0.176	4	No	5	0.286	0.06565	0	None	No	0.01	Param.
Fluoride (mg/L)	GS-AP-MW-16D	0.1477	0.1035	4	No	8	0.1256	0.02084	0	None	No	0.01	Param.
Fluoride (mg/L)	GS-AP-MW-17	0.3583	0.2372	4	No	8	0.2978	0.0571	0	None	No	0.01	Param.
Fluoride (mg/L)	GS-AP-MW-19	0.3488	0.2697	4	No	8	0.3093	0.03731	0	None	No	0.01	Param.
Fluoride (mg/L)	GS-AP-MW-2	0.9152	0.809	4	No	8	0.8621	0.05008	0	None	No	0.01	Param.
Fluoride (mg/L)	GS-AP-MW-21	0.2566	0.1912	4	No	8	0.2239	0.03084	0	None	No	0.01	Param.
Fluoride (mg/L)	GS-AP-MW-21V	0.6664	0.3292	4	No	5	0.4978	0.1006	0	None	No	0.01	Param.
Fluoride (mg/L)	GS-AP-MW-6D	0.1527	0.118	4	No	8	0.1354	0.01639	0	None	No	0.01	Param.
Fluoride (mg/L)	GS-AP-MW-6	0.2517	0.13	4	No	8	0.1909	0.05739	0	None	No	0.01	Param.
Fluoride (mg/L)	GS-AP-MW-7	0.1228	0.0975	4	No	8	0.1102	0.01194	0	None	No	0.01	Param.
Fluoride (mg/L)	GS-AP-MW-9V	0.191	0.1638	4	No	5	0.1774	0.008142	0	None	No	0.01	Param.
Lead (mg/L)	GS-AP-MW-12V	0.001929	0.0001048	0.015	No	7	0.0009371	0.0009689	28.57	Kaplan-Meier	sqrt(x)	0.01	Param.
Lead (mg/L)	GS-AP-MW-15	0.0002	0.00008	0.015	No	8	0.0001709	0.00005387	75	Kaplan-Meier	No	0.004	NP (NDs)
Lead (mg/L)	GS-AP-MW-16D	0.000873	0.00016	0.015	No	8	0.0002791	0.0002404	75	Kaplan-Meier	No	0.004	NP (NDs)
Lead (mg/L)	GS-AP-MW-17	0.0002	0.000175	0.015	No	8	0.0001969	0.00008839	87.5	Kaplan-Meier	No	0.004	NP (NDs)
Lead (mg/L)	GS-AP-MW-6	0.0002	0.00008	0.015	No	8	0.000185	0.00004243	87.5	Kaplan-Meier	No	0.004	NP (NDs)
Lead (mg/L)	GS-AP-MW-7	0.003308	0.001125	0.015	No	8	0.001712	0.001335	25	Kaplan-Meier	No	0.01	Param.
Lithium (mg/L)	GS-AP-MW-12	0.04049	0.0244	0.0809	No	8	0.0323	0.008869	0	None	ln(x)	0.01	Param.
Lithium (mg/L)	GS-AP-MW-12V	0.05505	0.03098	0.0809	No	7	0.04301	0.01013	0	None	No	0.01	Param.
<b>Lithium (mg/L)</b>	<b>GS-AP-MW-15</b>	<b>0.5085</b>	<b>0.2515</b>	<b>0.0809</b>	<b>Yes</b>	<b>8</b>	<b>0.38</b>	<b>0.1212</b>	<b>0</b>	<b>None</b>	<b>No</b>	<b>0.01</b>	<b>Param.</b>
Lithium (mg/L)	GS-AP-MW-15V	0.2077	0.0417	0.0809	No	5	0.1247	0.04952	0	None	No	0.01	Param.
Lithium (mg/L)	GS-AP-MW-16D	0.03642	0.03288	0.0809	No	8	0.03465	0.001666	0	None	No	0.01	Param.
Lithium (mg/L)	GS-AP-MW-17	0.068	0.0572	0.0809	No	8	0.06111	0.004307	0	None	No	0.004	NP (normality)
Lithium (mg/L)	GS-AP-MW-19	0.04422	0.03123	0.0809	No	8	0.03773	0.006132	0	None	No	0.01	Param.
Lithium (mg/L)	GS-AP-MW-2	0.04552	0.03843	0.0809	No	8	0.04198	0.003343	0	None	No	0.01	Param.
<b>Lithium (mg/L)</b>	<b>GS-AP-MW-21</b>	<b>0.3295</b>	<b>0.1496</b>	<b>0.0809</b>	<b>Yes</b>	<b>8</b>	<b>0.2396</b>	<b>0.08486</b>	<b>0</b>	<b>None</b>	<b>No</b>	<b>0.01</b>	<b>Param.</b>
Lithium (mg/L)	GS-AP-MW-21V	0.1765	0.03891	0.0809	No	5	0.1077	0.04105	0	None	No	0.01	Param.
<b>Lithium (mg/L)</b>	<b>GS-AP-MW-6D</b>	<b>0.3185</b>	<b>0.256</b>	<b>0.0809</b>	<b>Yes</b>	<b>8</b>	<b>0.2873</b>	<b>0.02945</b>	<b>0</b>	<b>None</b>	<b>No</b>	<b>0.01</b>	<b>Param.</b>
Lithium (mg/L)	GS-AP-MW-6	0.06972	0.01818	0.0809	No	8	0.04395	0.02431	12.5	None	No	0.01	Param.
<b>Lithium (mg/L)</b>	<b>GS-AP-MW-7</b>	<b>0.1954</b>	<b>0.1463</b>	<b>0.0809</b>	<b>Yes</b>	<b>8</b>	<b>0.1709</b>	<b>0.02316</b>	<b>0</b>	<b>None</b>	<b>No</b>	<b>0.01</b>	<b>Param.</b>
Lithium (mg/L)	GS-AP-MW-9V	0.03147	0.02869	0.0809	No	5	0.03008	0.0008319	0	None	No	0.01	Param.
Molybdenum (mg/L)	GS-AP-MW-12	0.00903	0.00444	0.1	No	8	0.005835	0.001704	37.5	None	No	0.004	NP (normality)
Molybdenum (mg/L)	GS-AP-MW-12V	0.00715	0.0006276	0.1	No	7	0.003889	0.002745	0	None	No	0.01	Param.
Molybdenum (mg/L)	GS-AP-MW-15	0.07362	0.03743	0.1	No	8	0.05553	0.01708	0	None	No	0.01	Param.
Molybdenum (mg/L)	GS-AP-MW-15V	0.06049	0.01831	0.1	No	5	0.0394	0.01259	0	None	No	0.01	Param.
Molybdenum (mg/L)	GS-AP-MW-16D	0.005	0.00014	0.1	No	8	0.003269	0.002394	62.5	None	No	0.004	NP (NDs)
Molybdenum (mg/L)	GS-AP-MW-17	0.008695	0.002365	0.1	No	8	0.00553	0.002986	0	None	No	0.01	Param.
Molybdenum (mg/L)	GS-AP-MW-19	0.006817	0.00317	0.1	No	8	0.004994	0.001721	0	None	No	0.01	Param.
Molybdenum (mg/L)	GS-AP-MW-2	0.005472	0.001865	0.1	No	8	0.003616	0.001944	0	None	sqrt(x)	0.01	Param.
Molybdenum (mg/L)	GS-AP-MW-21	0.08602	0.02518	0.1	No	8	0.0556	0.0287	0	None	No	0.01	Param.
Molybdenum (mg/L)	GS-AP-MW-21V	0.1464	0.03628	0.1	No	5	0.09132	0.03284	0	None	No	0.01	Param.
Molybdenum (mg/L)	GS-AP-MW-6D	0.01081	0.006782	0.1	No	8	0.008795	0.001899	0	None	No	0.01	Param.
Molybdenum (mg/L)	GS-AP-MW-6	0.04298	0.004773	0.1	No	8	0.02388	0.01802	0	None	No	0.01	Param.
<b>Molybdenum (mg/L)</b>	<b>GS-AP-MW-7</b>	<b>0.2157</b>	<b>0.1766</b>	<b>0.1</b>	<b>Yes</b>	<b>8</b>	<b>0.1961</b>	<b>0.01844</b>	<b>0</b>	<b>None</b>	<b>No</b>	<b>0.01</b>	<b>Param.</b>
Molybdenum (mg/L)	GS-AP-MW-9V	0.003353	0.0002661	0.1	No	5	0.003086	0.001921	40	Kaplan-Meier	No	0.01	Param.
Selenium (mg/L)	GS-AP-MW-6	0.01	0.000794	0.05	No	8	0.00661	0.00468	62.5	None	No	0.004	NP (NDs)

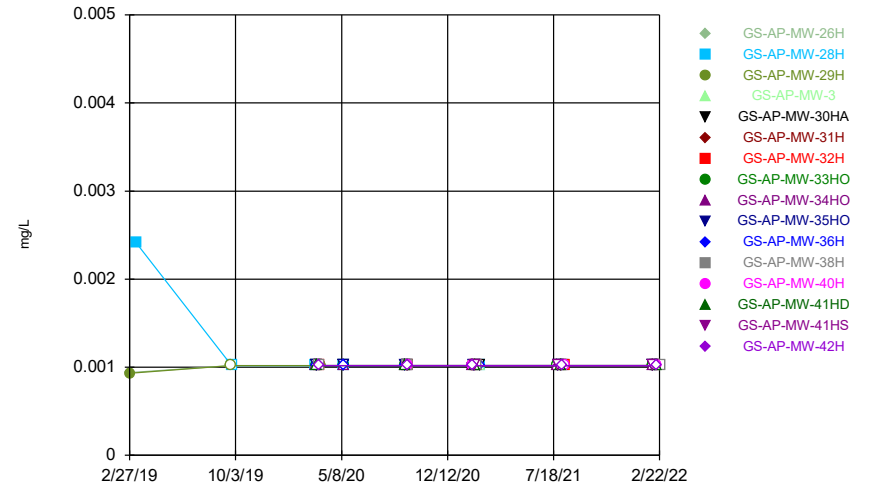
FIGURE A.

### Time Series



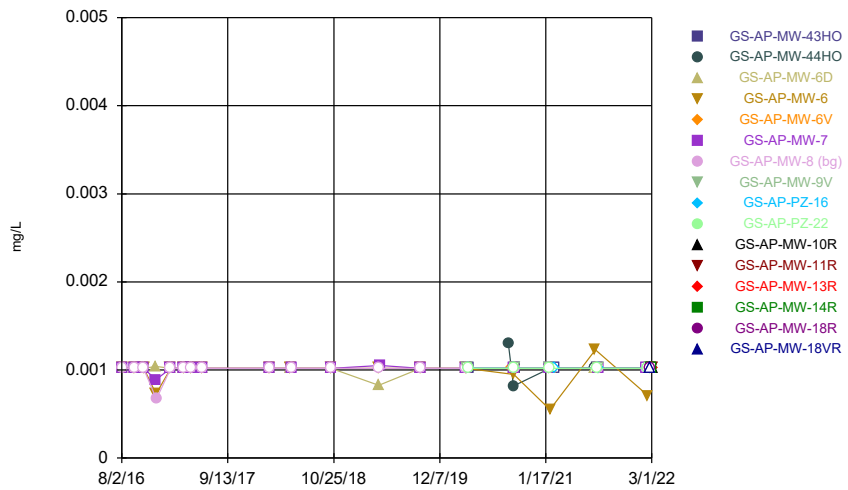
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### Time Series



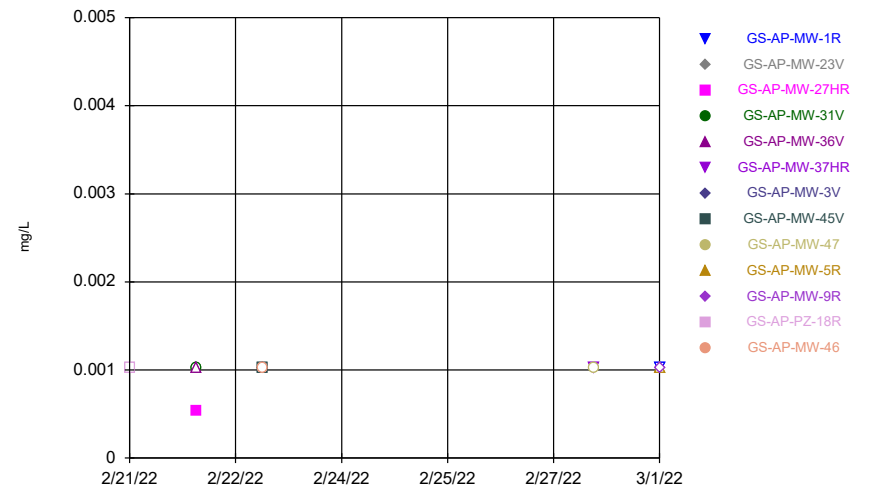
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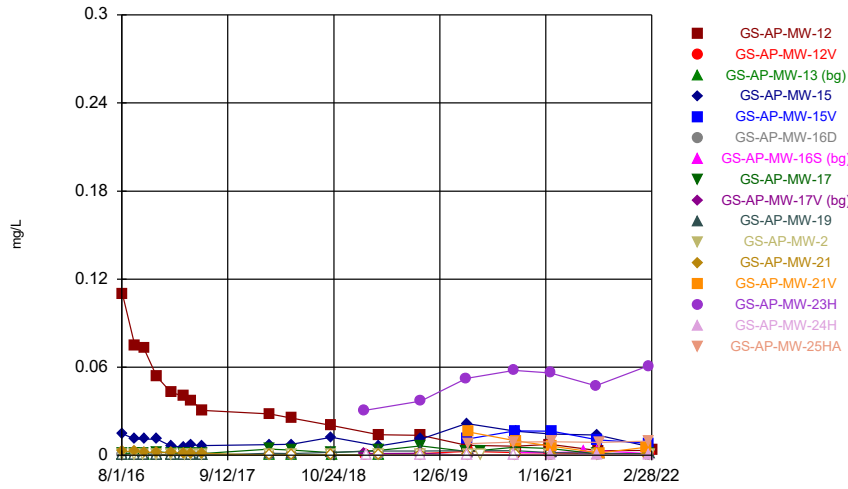
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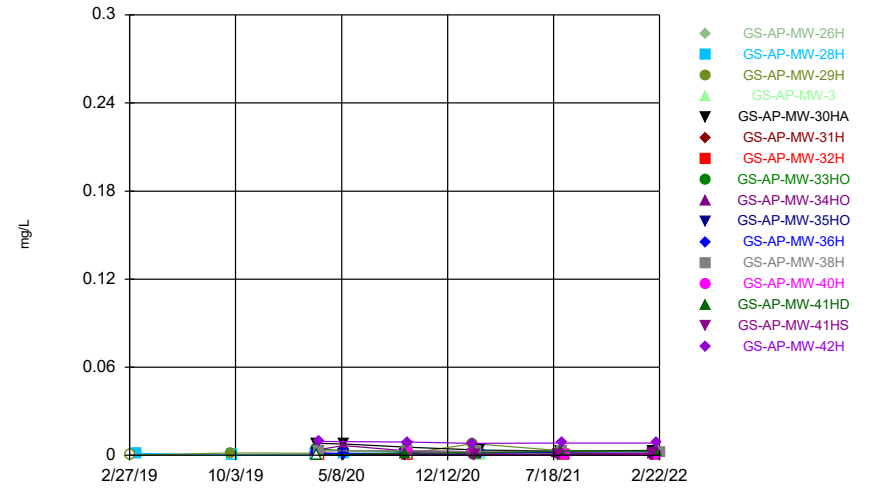
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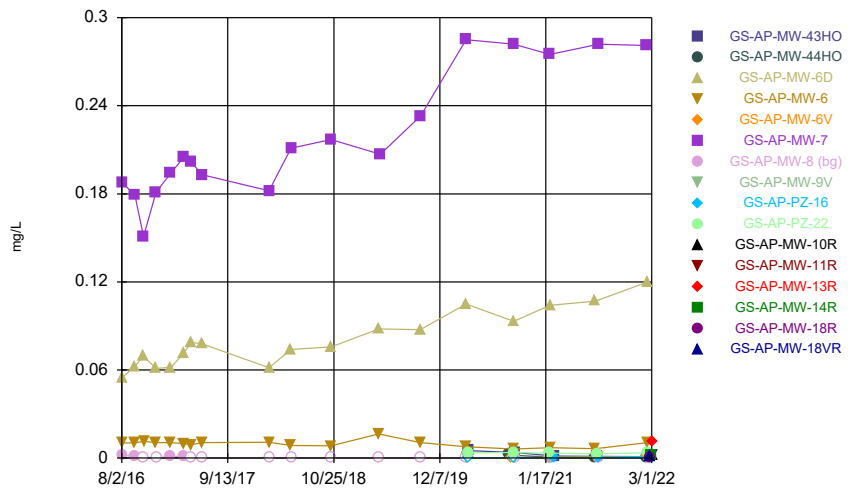
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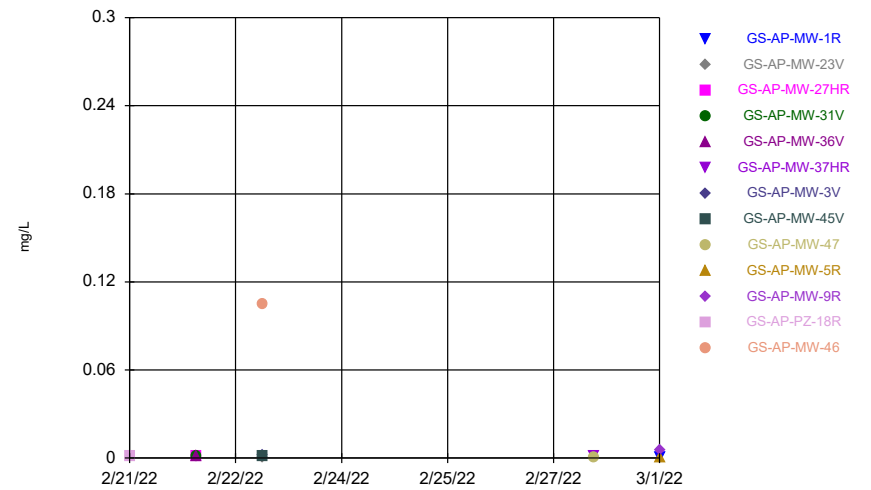
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### Time Series



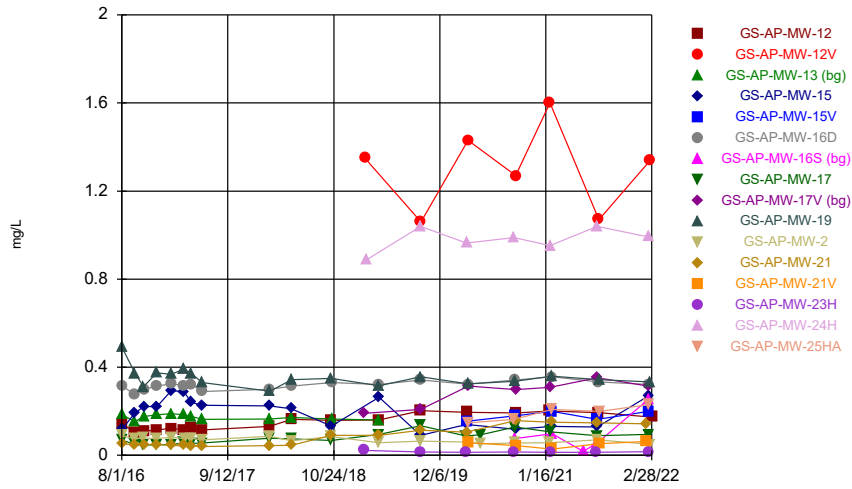
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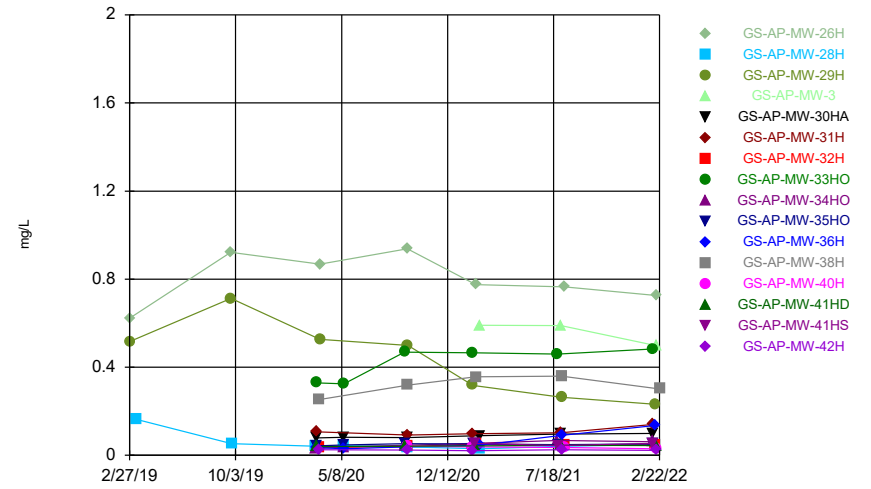
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Time Series



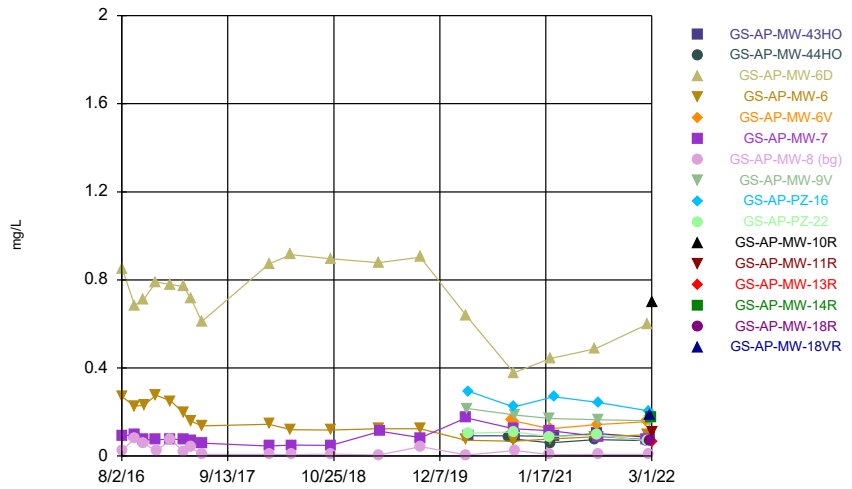
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Time Series



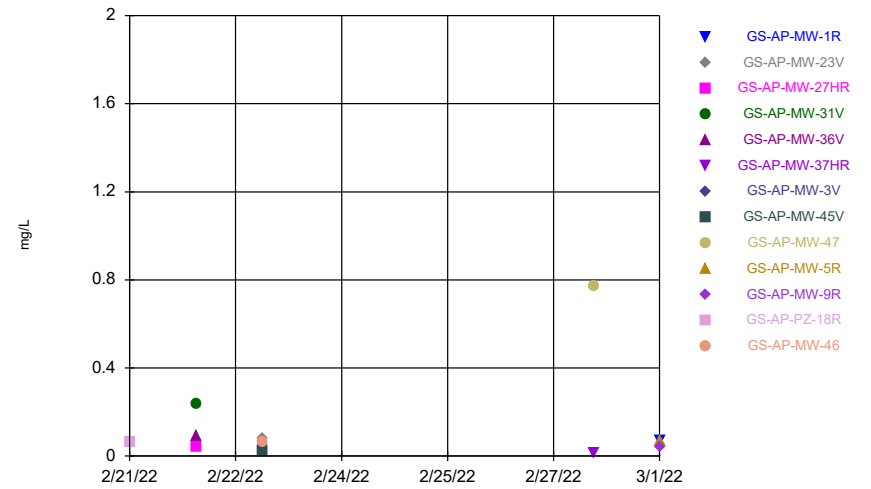
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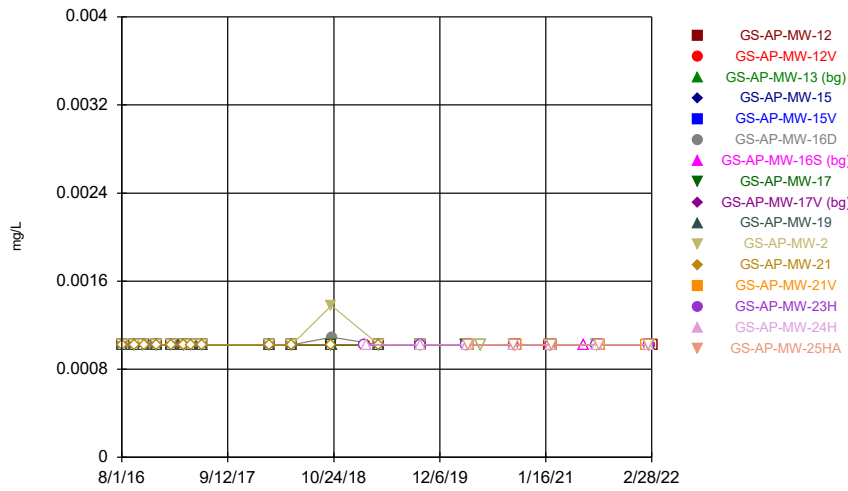
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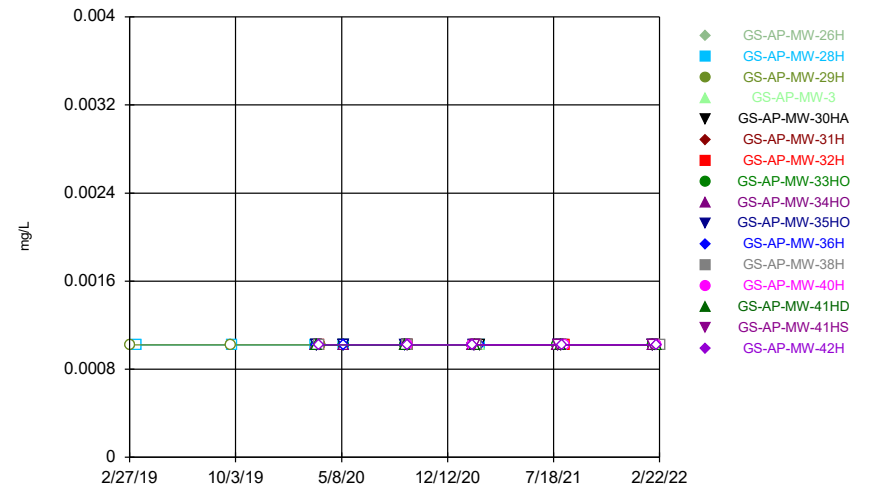
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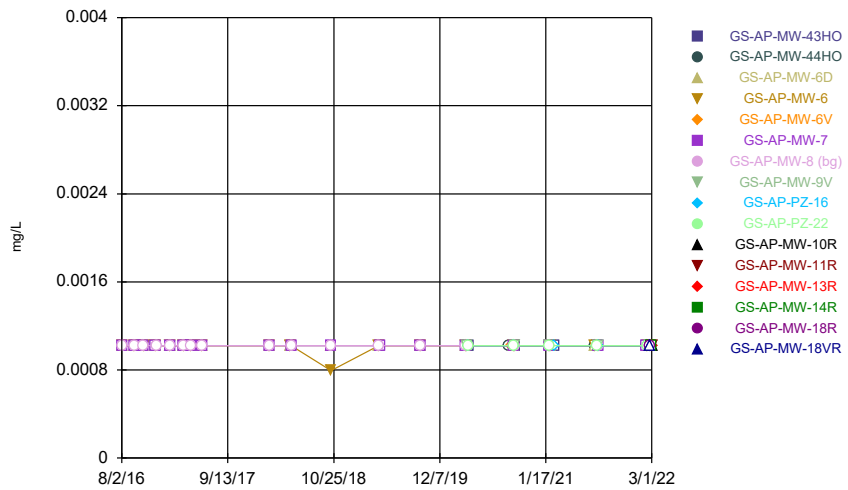
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### Time Series



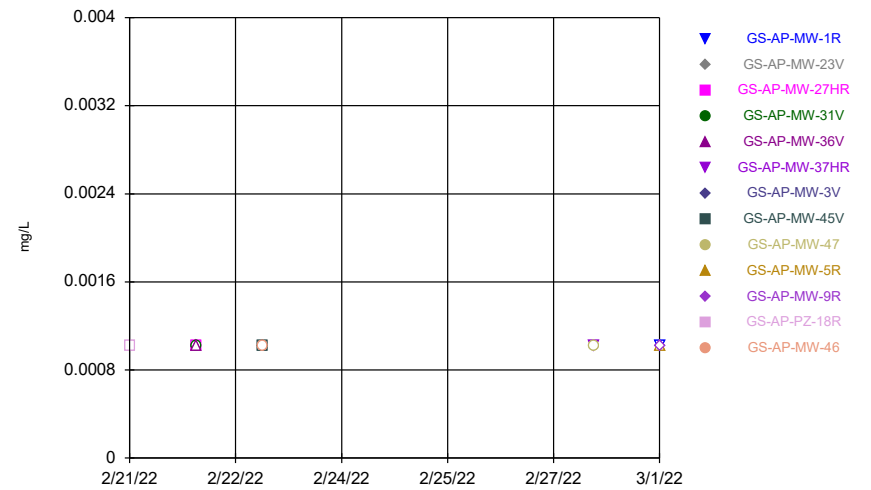
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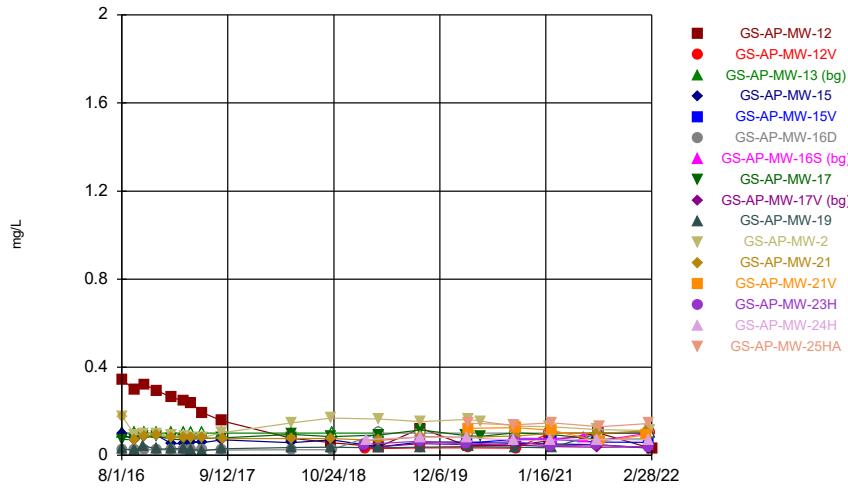
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### Time Series



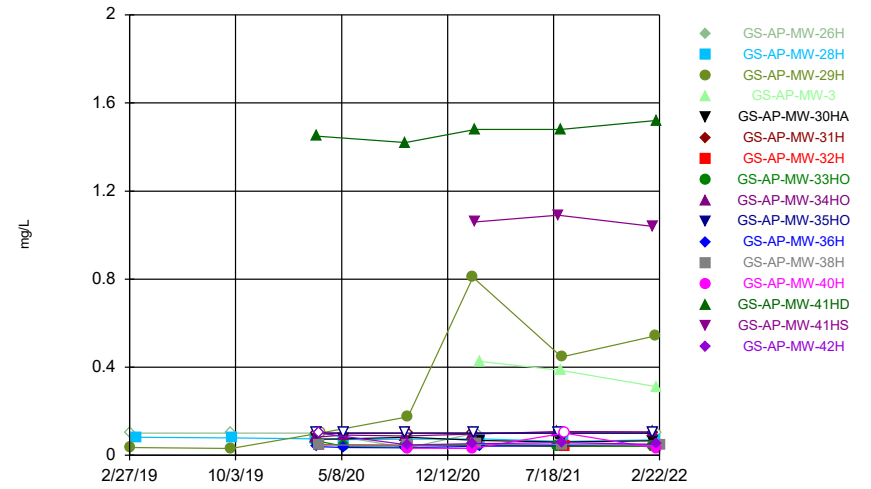
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### Time Series



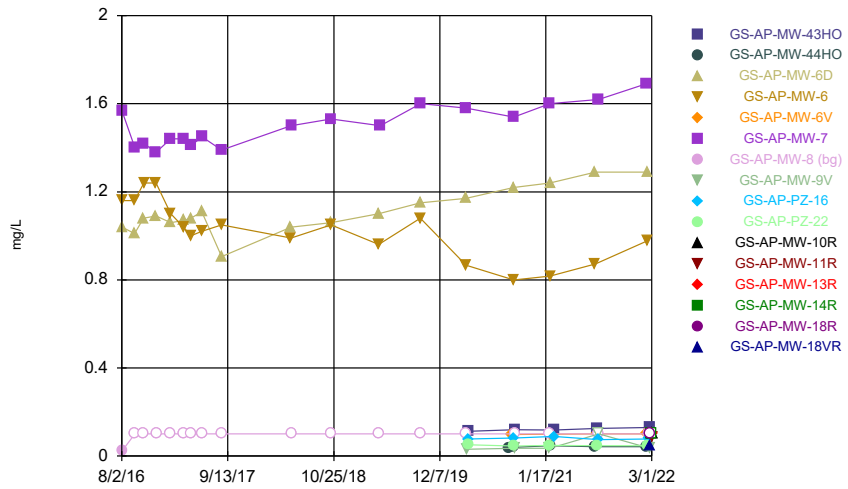
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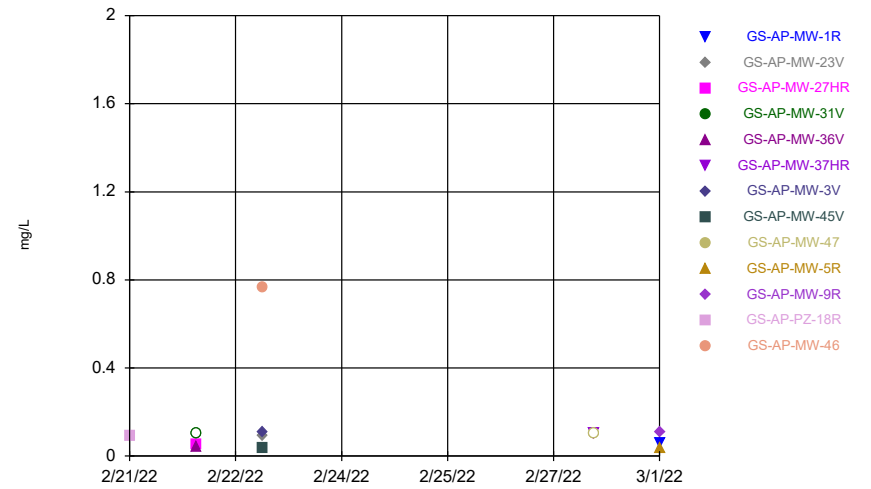
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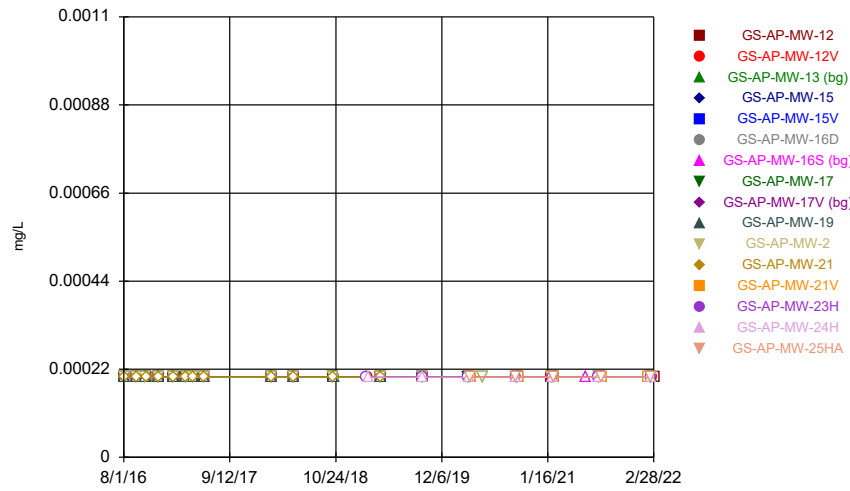
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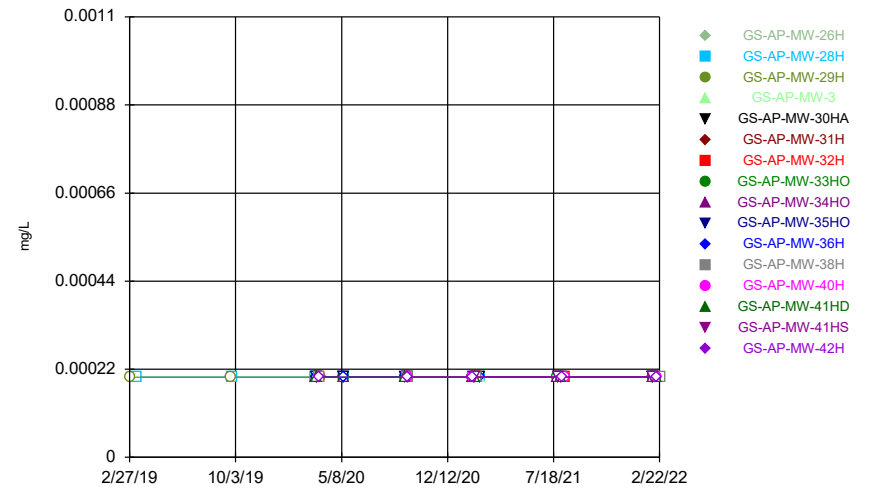
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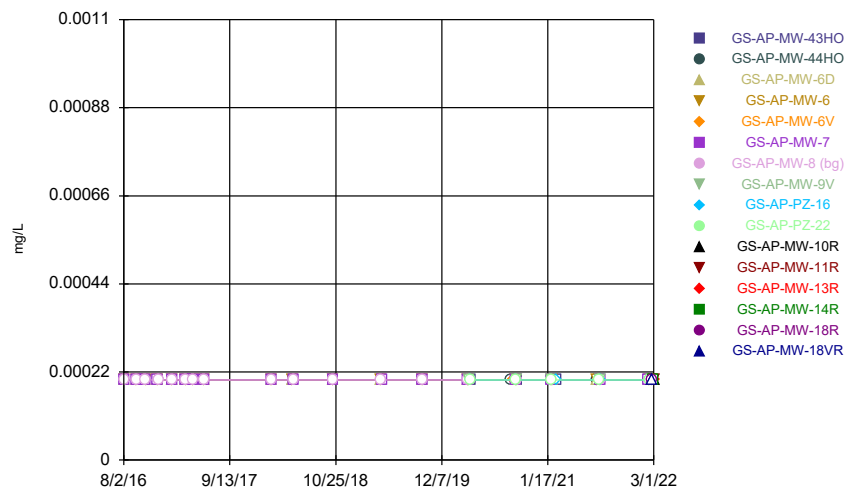
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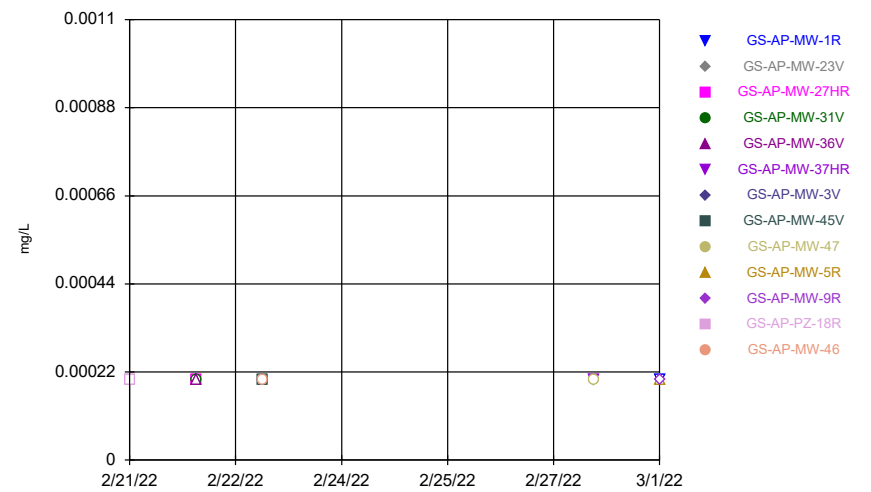
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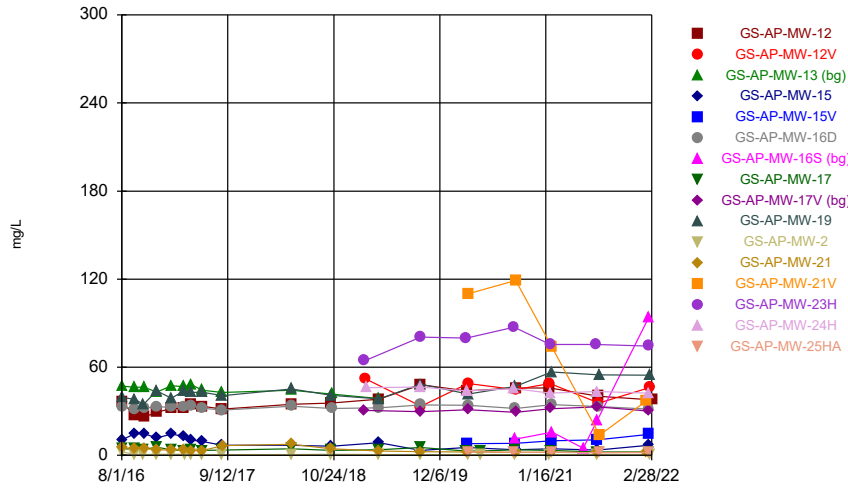
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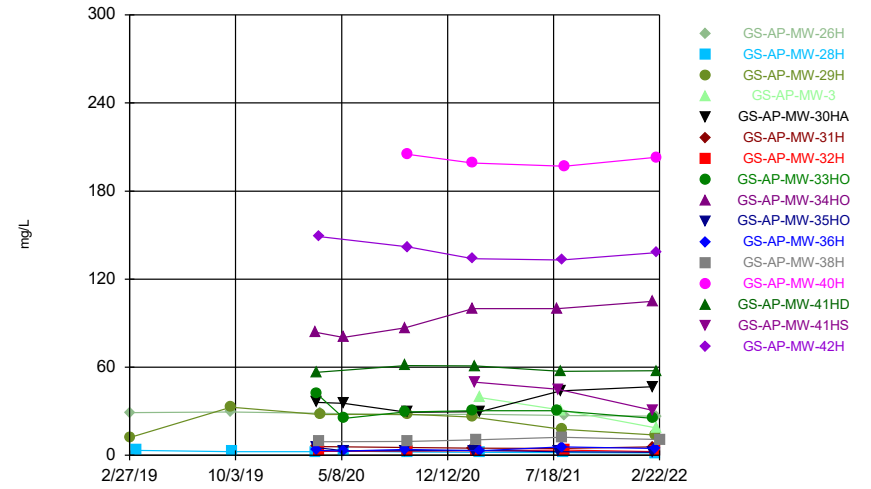


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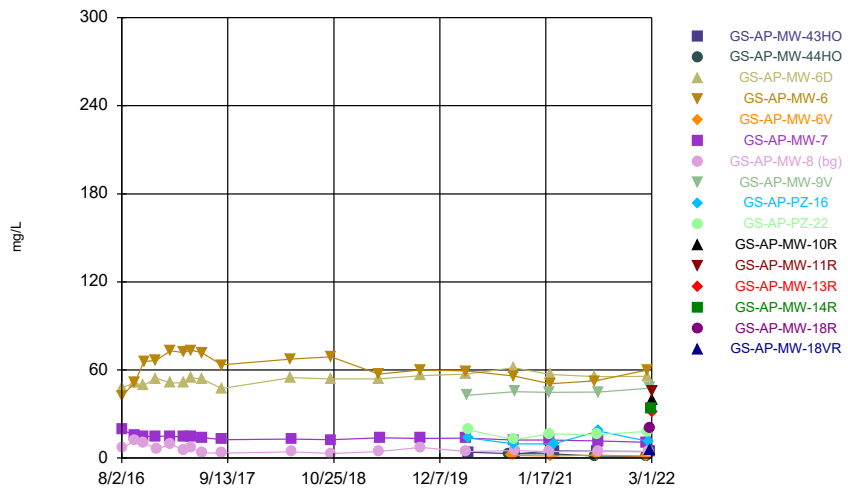
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Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

Time Series



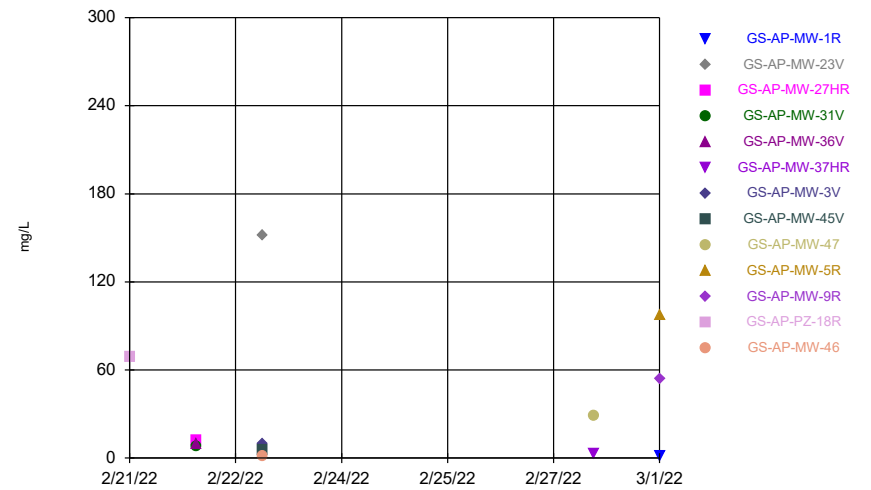
Constituent: Calcium Analysis Run 5/16/2022 2:06 PM  
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

Time Series



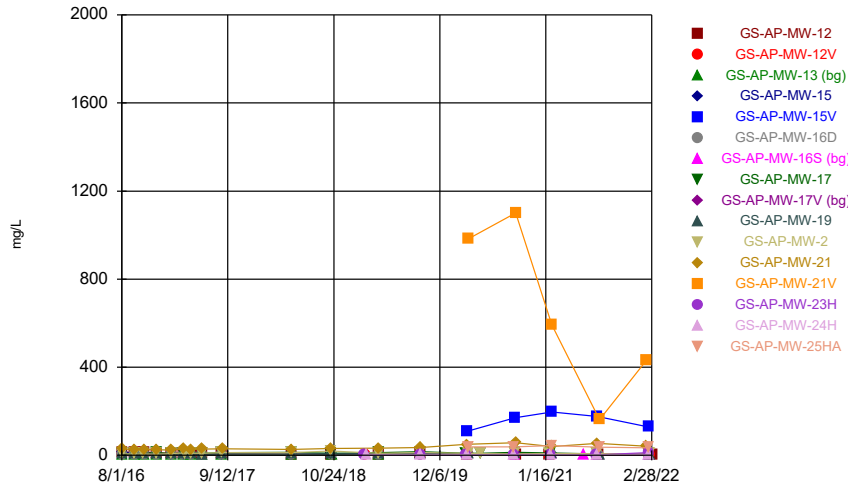
Constituent: Calcium Analysis Run 5/16/2022 2:06 PM  
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

Time Series



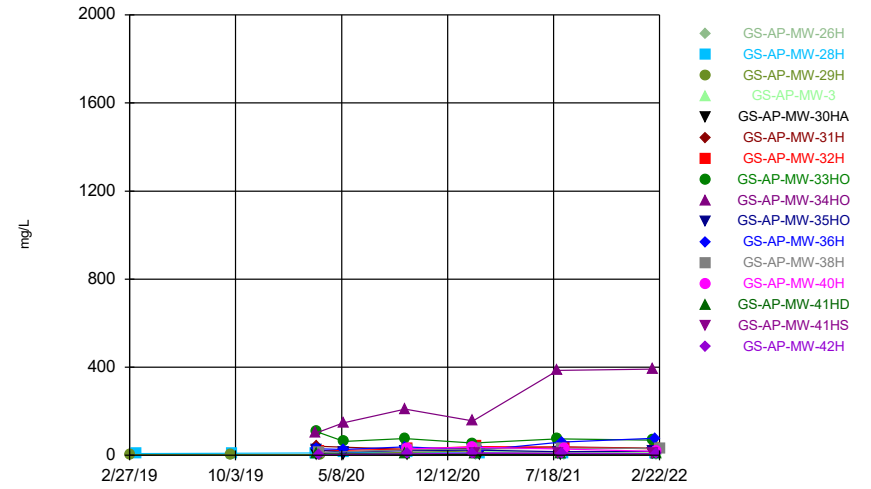
Constituent: Calcium Analysis Run 5/16/2022 2:06 PM  
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

### Time Series



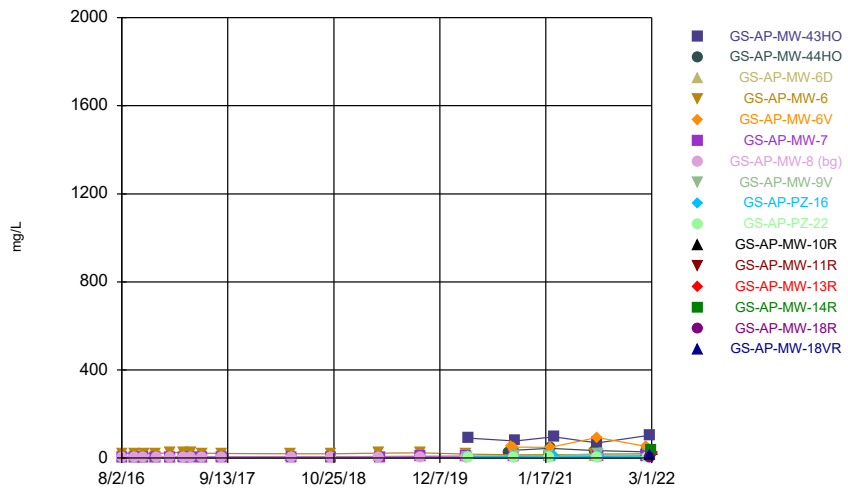
Constituent: Chloride Analysis Run 5/16/2022 2:06 PM  
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

### Time Series



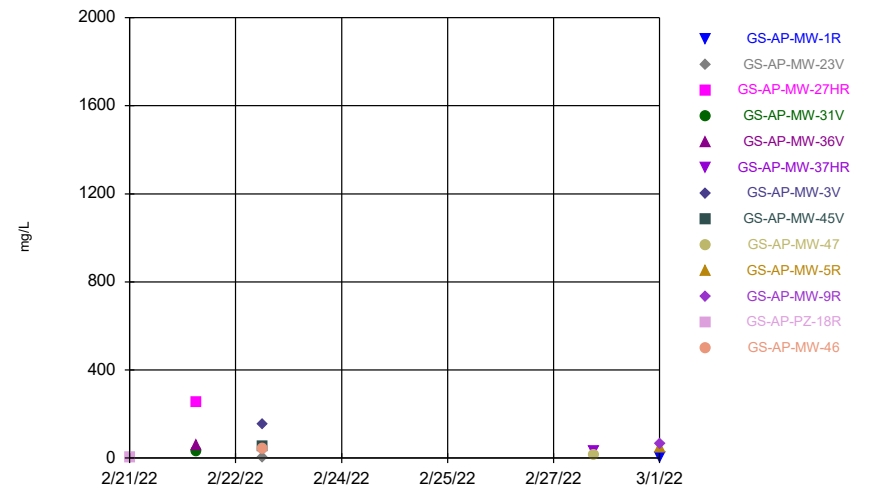
Constituent: Chloride Analysis Run 5/16/2022 2:06 PM  
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

### Time Series



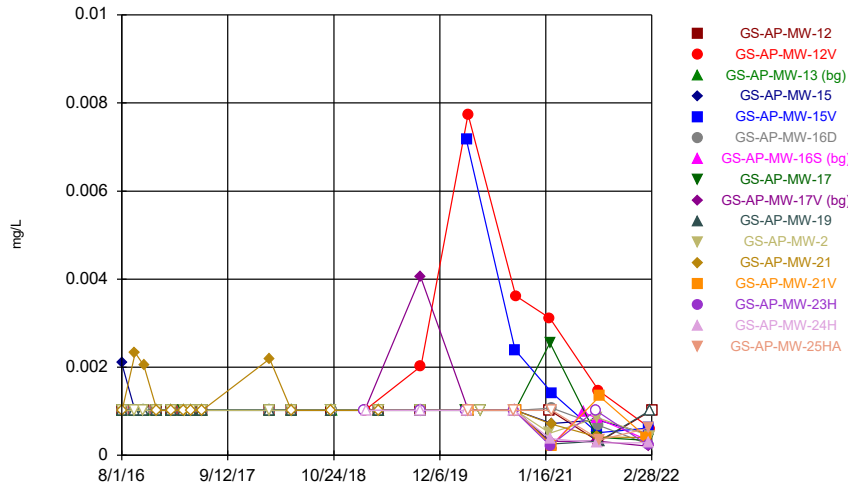
Constituent: Chloride Analysis Run 5/16/2022 2:06 PM  
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

### Time Series

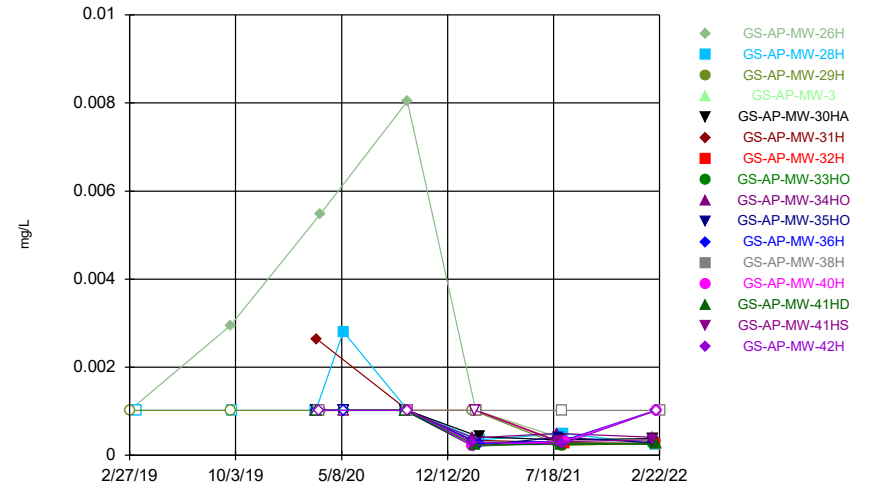


Constituent: Chloride Analysis Run 5/16/2022 2:06 PM  
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

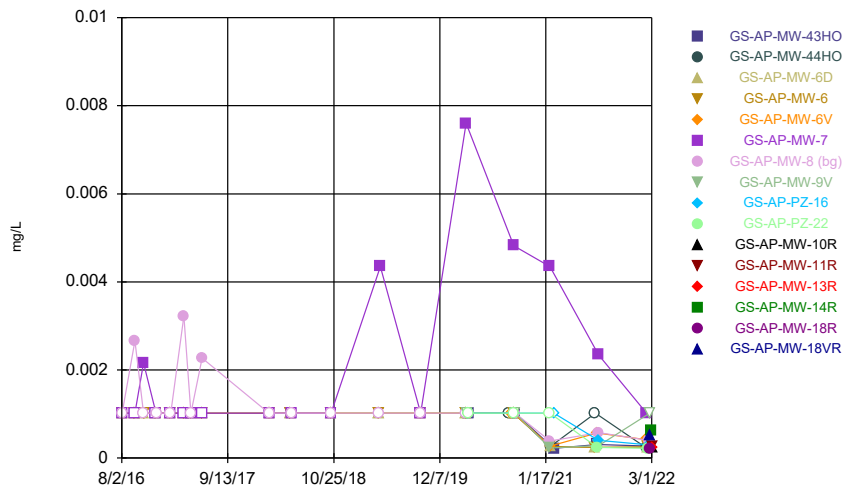
### Time Series



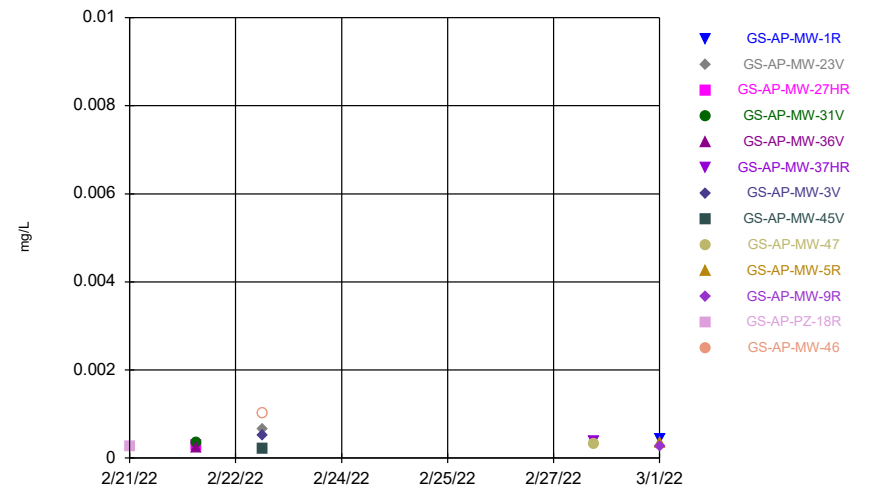
### Time Series



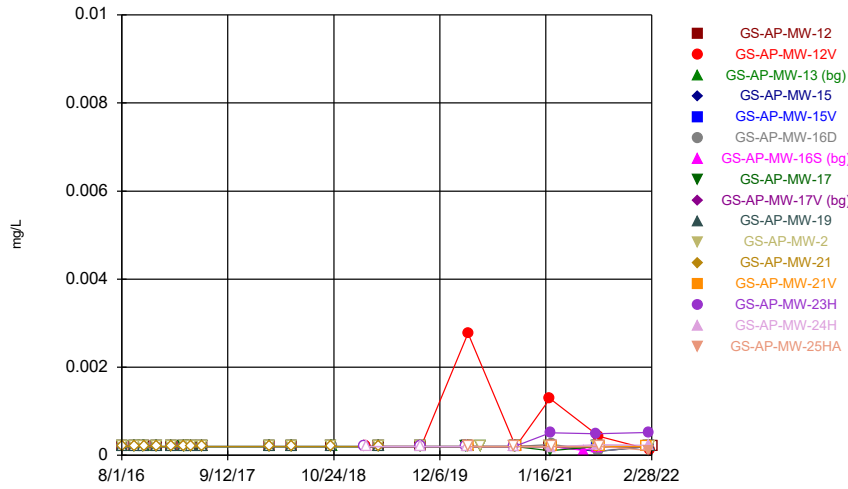
### Time Series



### Time Series

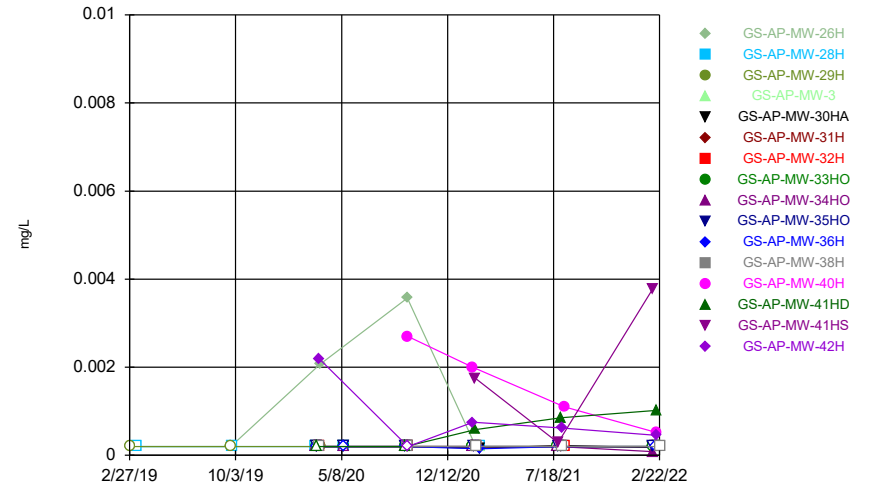


Time Series



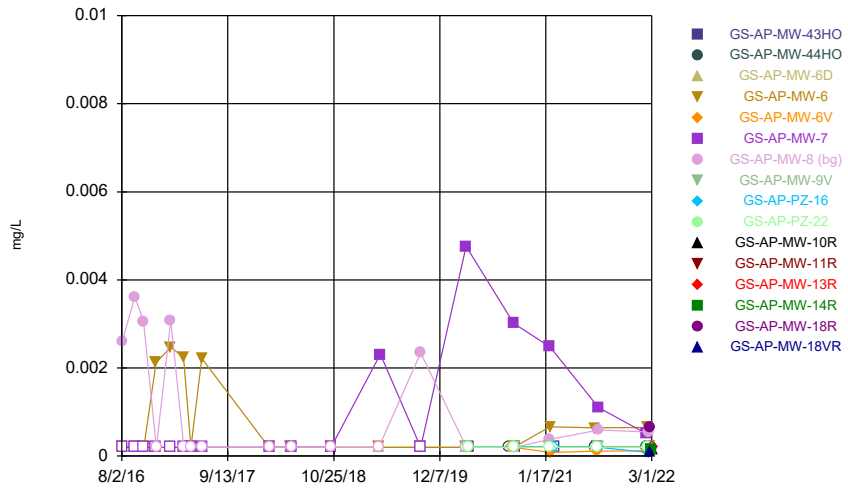
Constituent: Cobalt Analysis Run 5/16/2022 2:06 PM  
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

Time Series



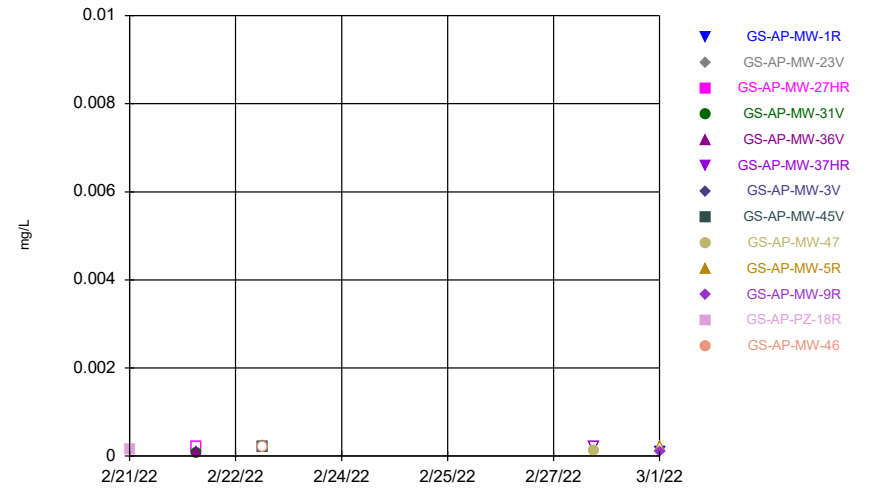
Constituent: Cobalt Analysis Run 5/16/2022 2:06 PM  
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

Time Series



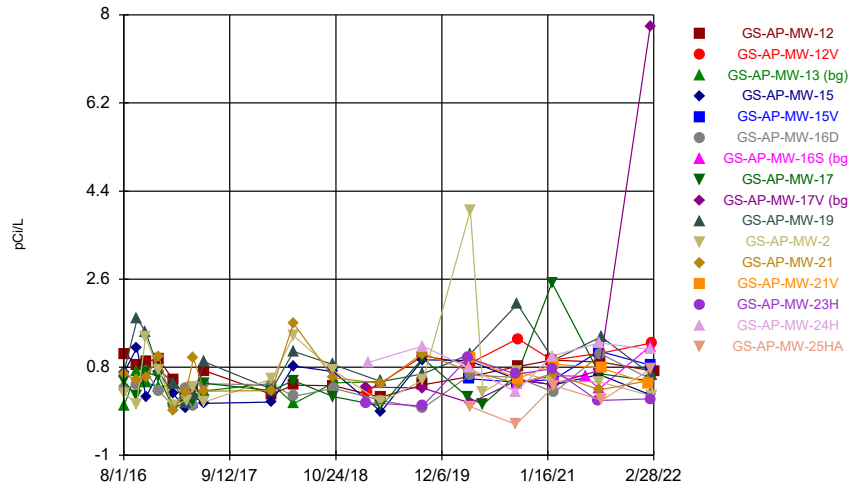
Constituent: Cobalt Analysis Run 5/16/2022 2:06 PM  
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

Time Series



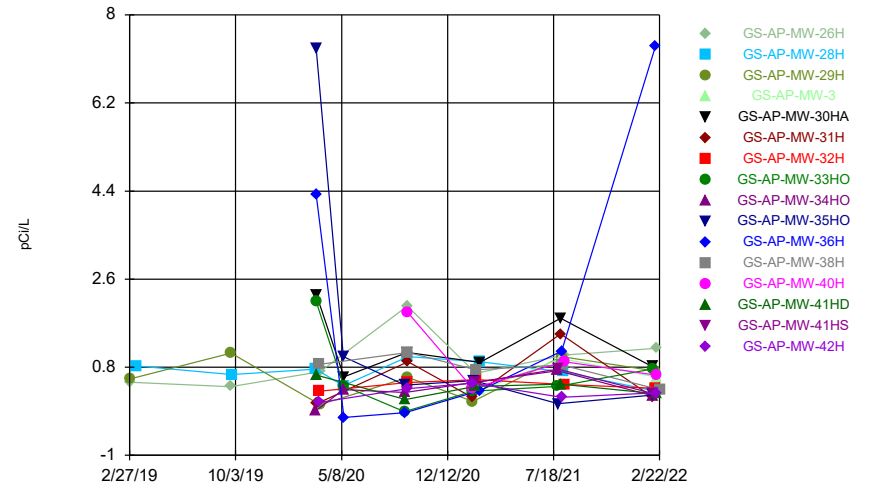
Constituent: Cobalt Analysis Run 5/16/2022 2:06 PM  
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

### Time Series



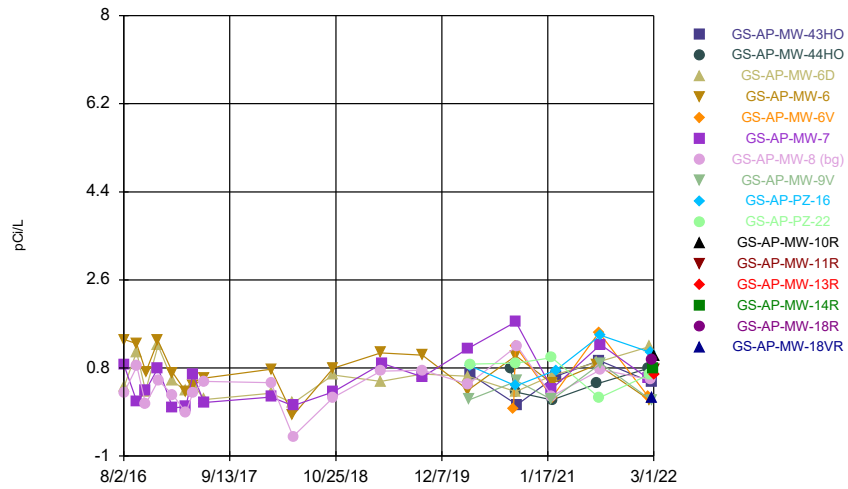
Constituent: Combined Radium 226 + 228 Analysis Run 5/16/2022 2:06 PM  
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

### Time Series



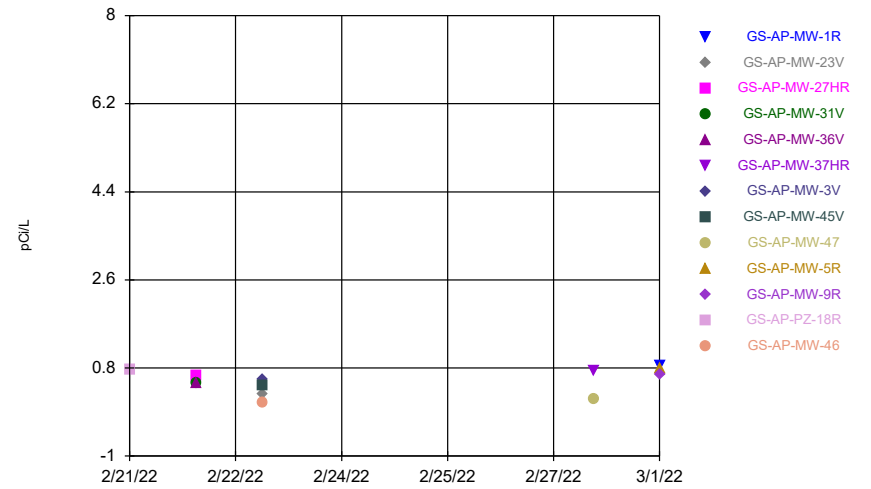
Constituent: Combined Radium 226 + 228 Analysis Run 5/16/2022 2:06 PM  
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

### Time Series



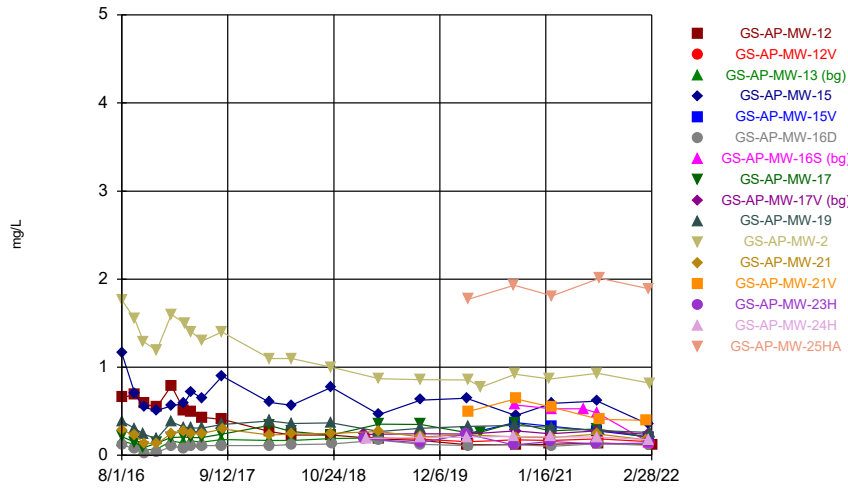
Constituent: Combined Radium 226 + 228 Analysis Run 5/16/2022 2:06 PM  
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

### Time Series



Constituent: Combined Radium 226 + 228 Analysis Run 5/16/2022 2:06 PM  
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

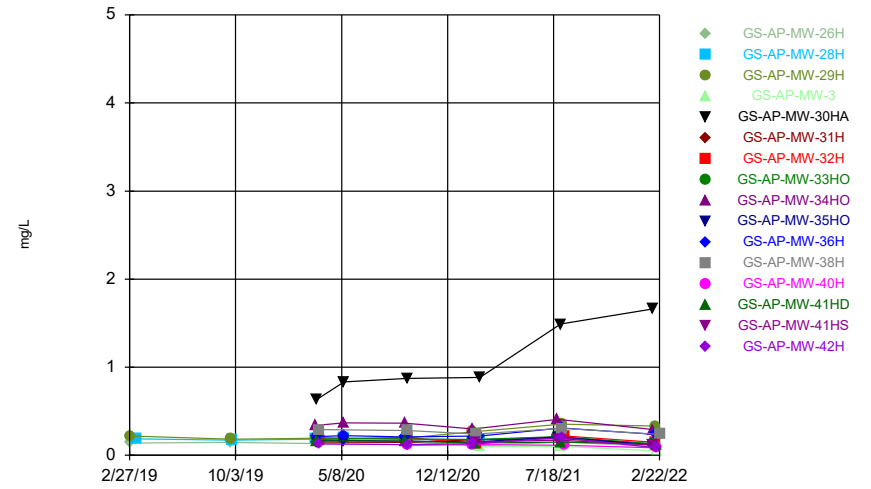
Time Series



Constituent: Fluoride Analysis Run 5/16/2022 2:06 PM  
 Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

Hollow symbols indicate censored values.

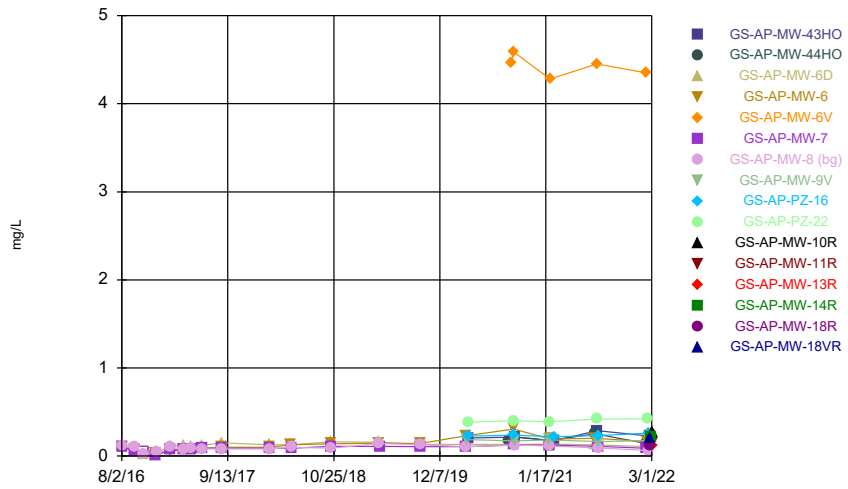
Time Series



Constituent: Fluoride Analysis Run 5/16/2022 2:06 PM  
 Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

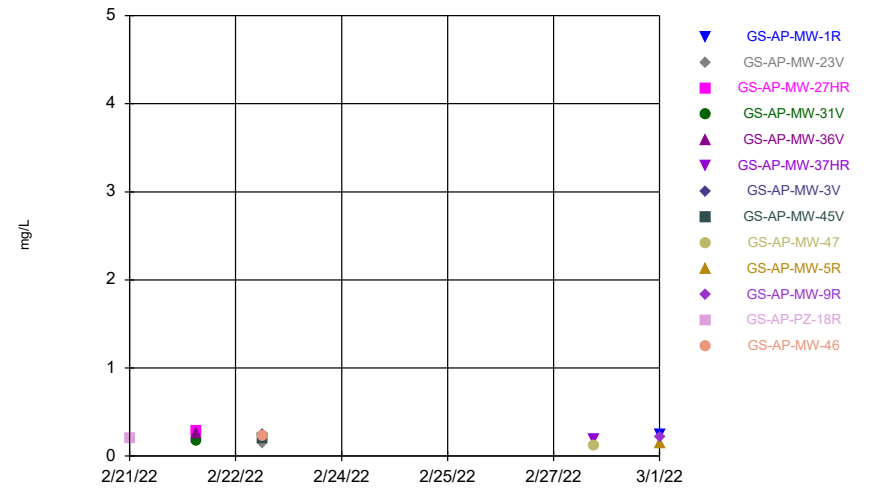
Hollow symbols indicate censored values.

Time Series



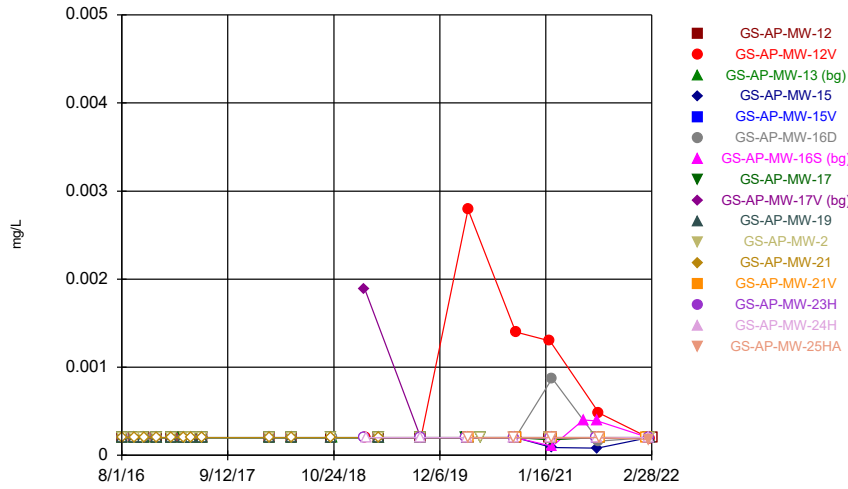
Constituent: Fluoride Analysis Run 5/16/2022 2:06 PM  
 Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

Time Series



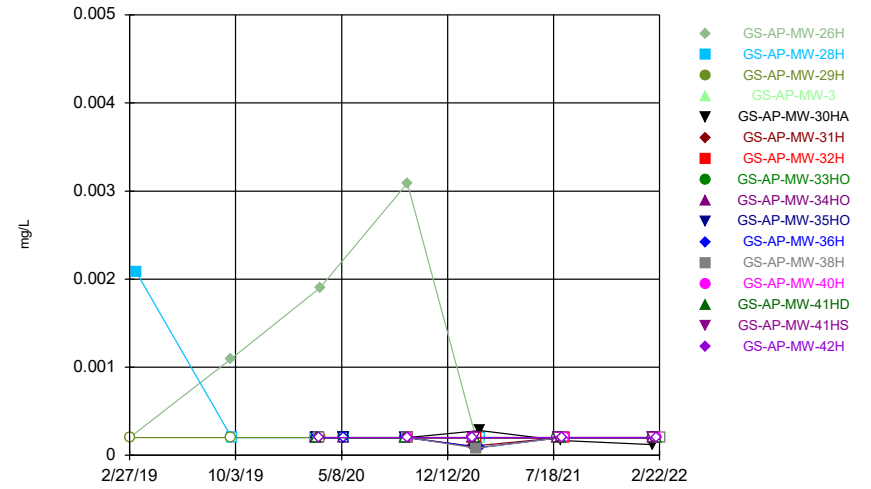
Constituent: Fluoride Analysis Run 5/16/2022 2:06 PM  
 Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

Time Series



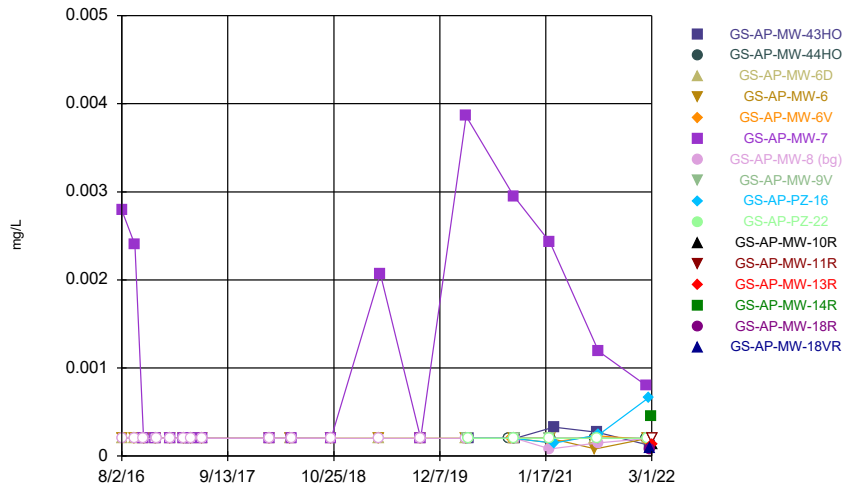
Constituent: Lead Analysis Run 5/16/2022 2:06 PM  
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

Time Series



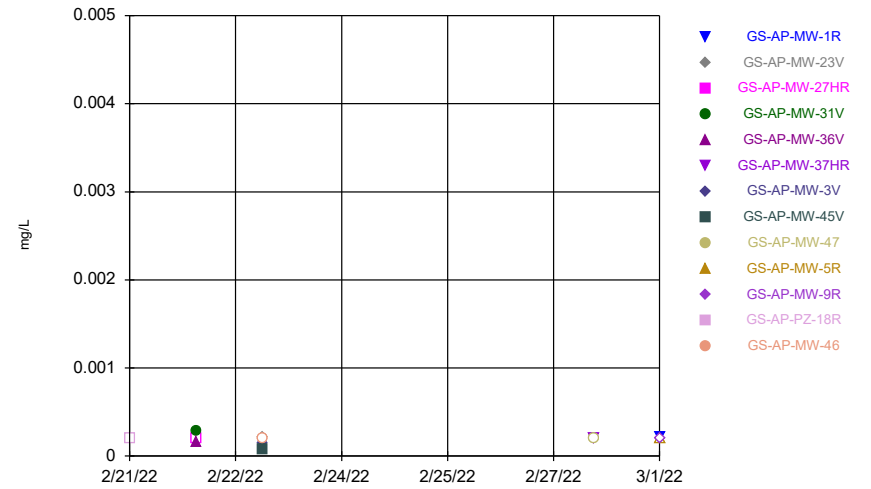
Constituent: Lead Analysis Run 5/16/2022 2:06 PM  
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

Time Series



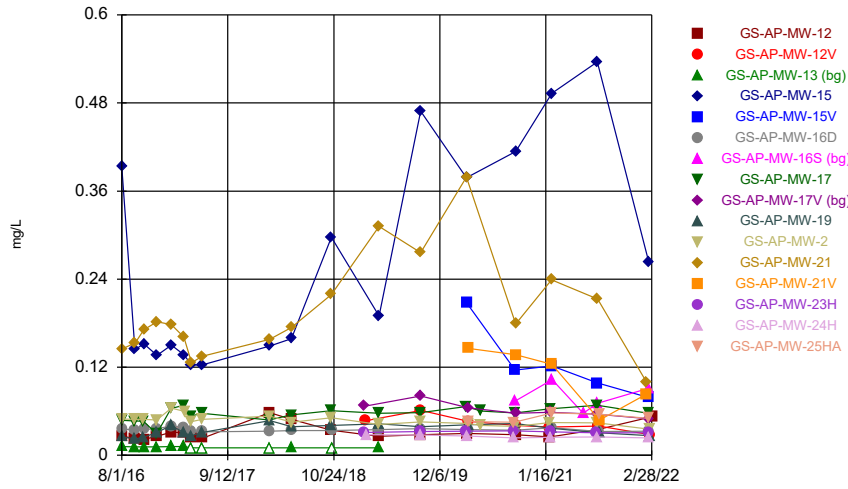
Constituent: Lead Analysis Run 5/16/2022 2:06 PM  
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

Time Series



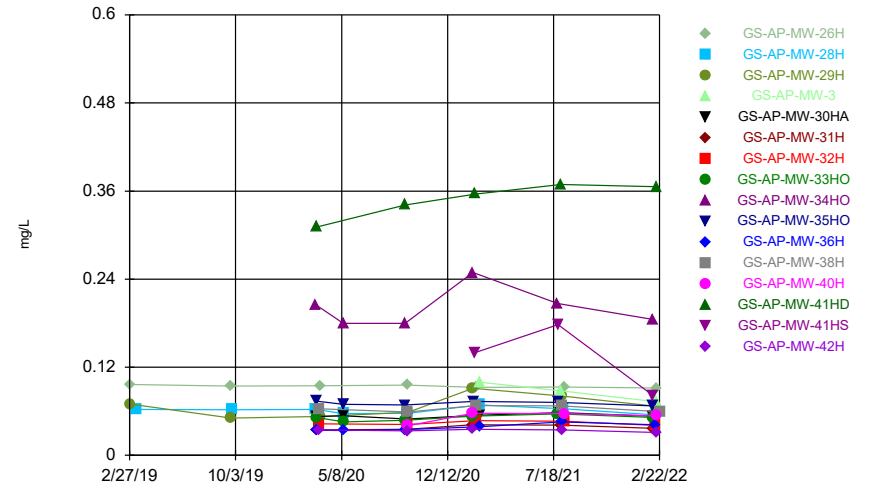
Constituent: Lead Analysis Run 5/16/2022 2:06 PM  
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

Time Series



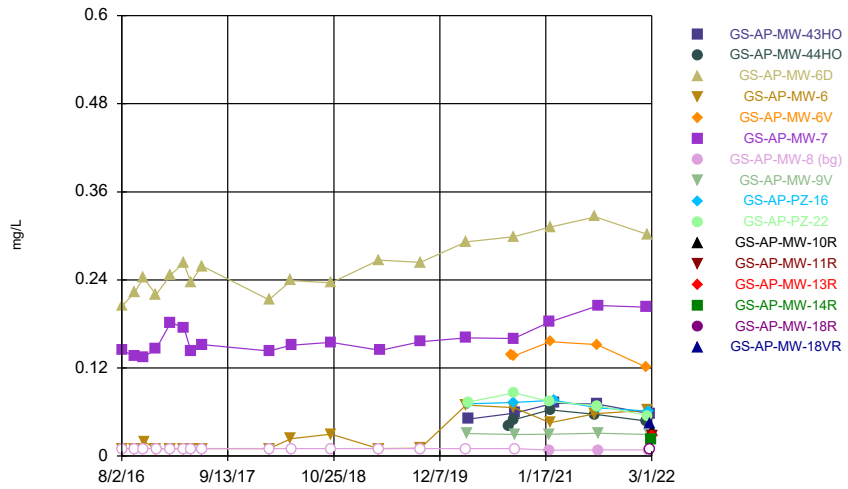
Constituent: Lithium Analysis Run 5/16/2022 2:06 PM  
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

Time Series



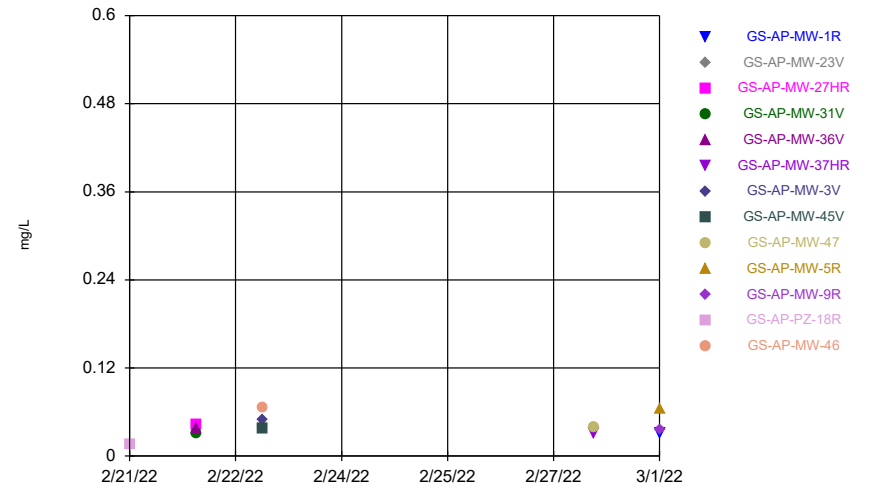
Constituent: Lithium Analysis Run 5/16/2022 2:06 PM  
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

Time Series



Constituent: Lithium Analysis Run 5/16/2022 2:06 PM  
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

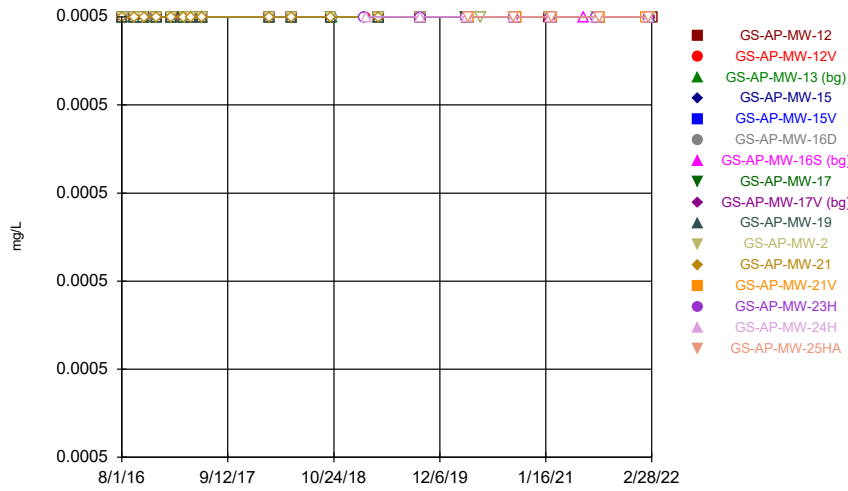
Time Series



Constituent: Lithium Analysis Run 5/16/2022 2:06 PM  
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

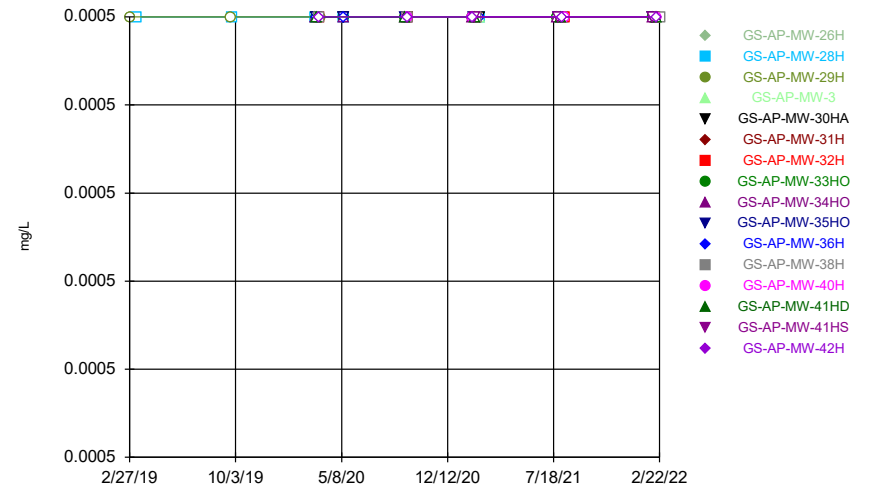


### Time Series



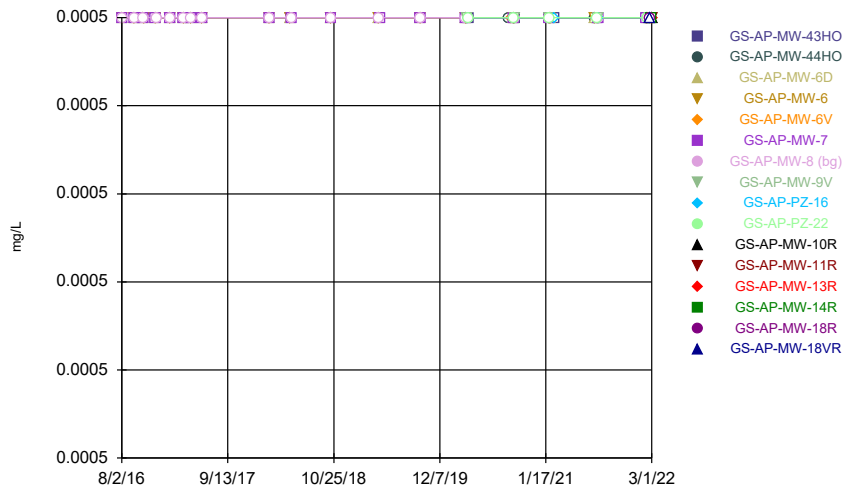
Constituent: Mercury Analysis Run 5/16/2022 2:06 PM  
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

### Time Series



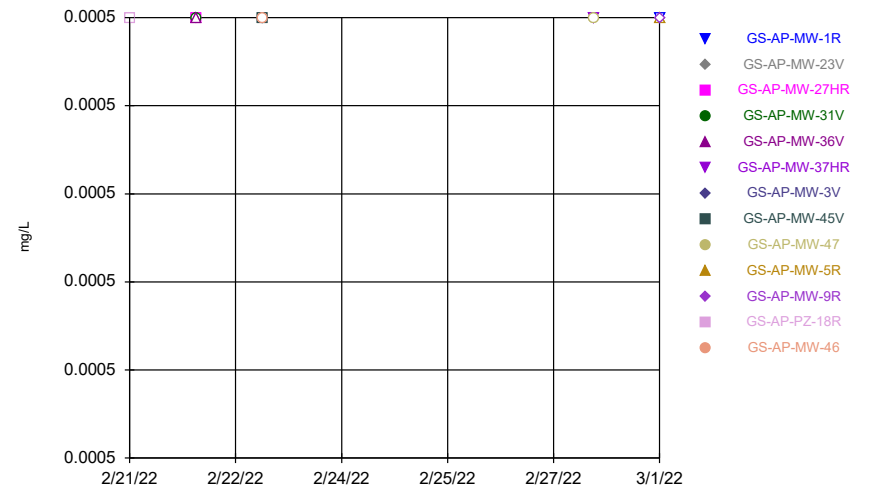
Constituent: Mercury Analysis Run 5/16/2022 2:06 PM  
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

### Time Series



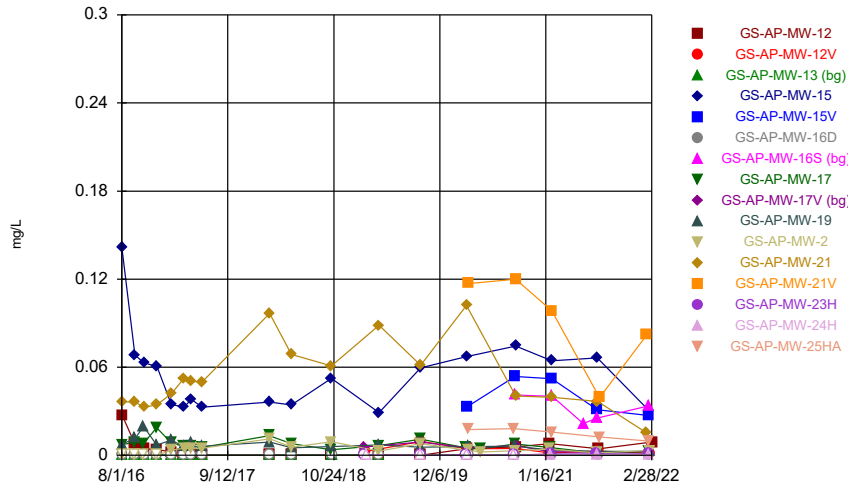
Constituent: Mercury Analysis Run 5/16/2022 2:07 PM  
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

### Time Series



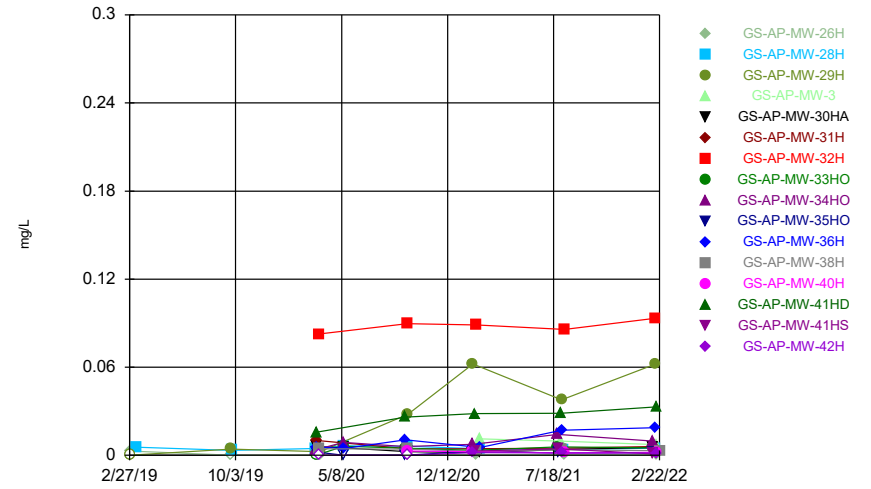
Constituent: Mercury Analysis Run 5/16/2022 2:07 PM  
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

### Time Series



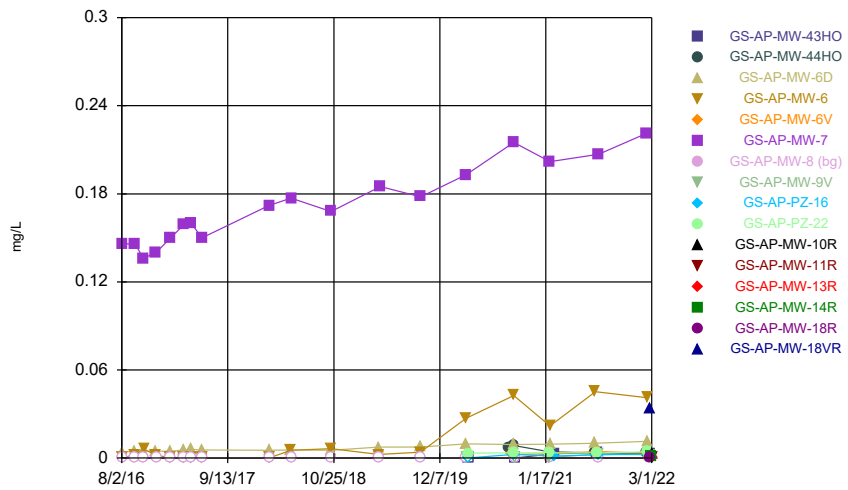
Constituent: Molybdenum Analysis Run 5/16/2022 2:07 PM  
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

### Time Series



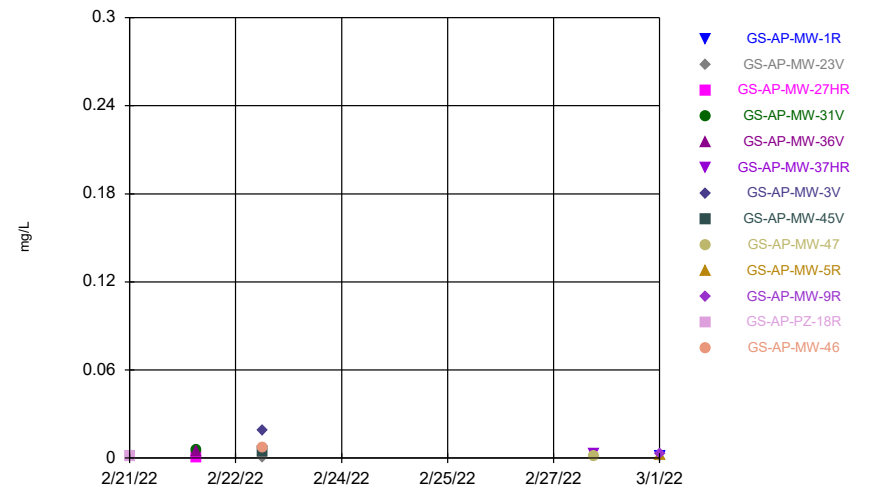
Constituent: Molybdenum Analysis Run 5/16/2022 2:07 PM  
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

### Time Series



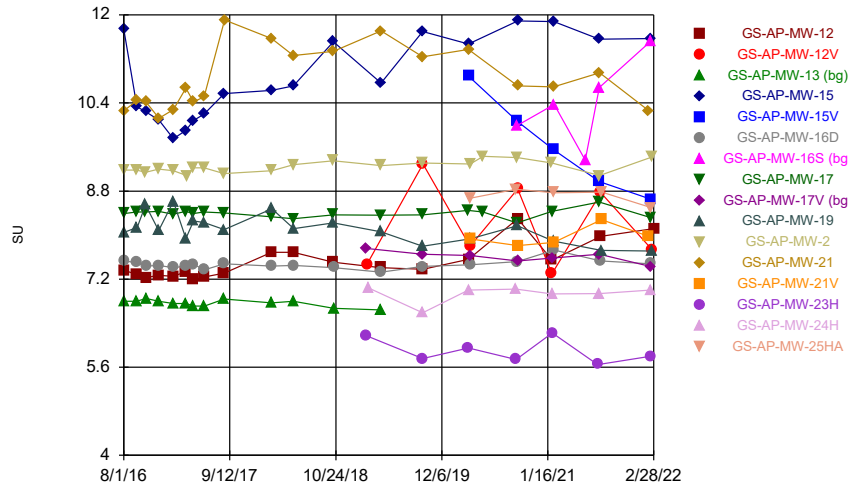
Constituent: Molybdenum Analysis Run 5/16/2022 2:07 PM  
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

### Time Series



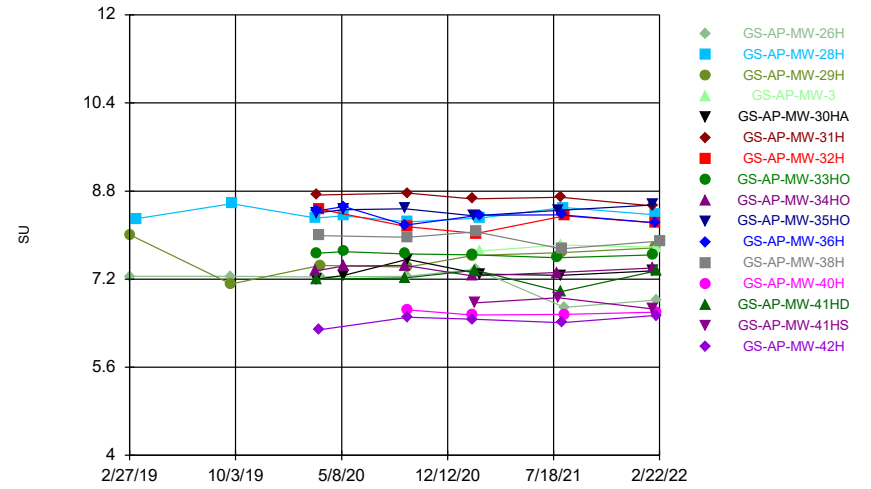
Constituent: Molybdenum Analysis Run 5/16/2022 2:07 PM  
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

Time Series



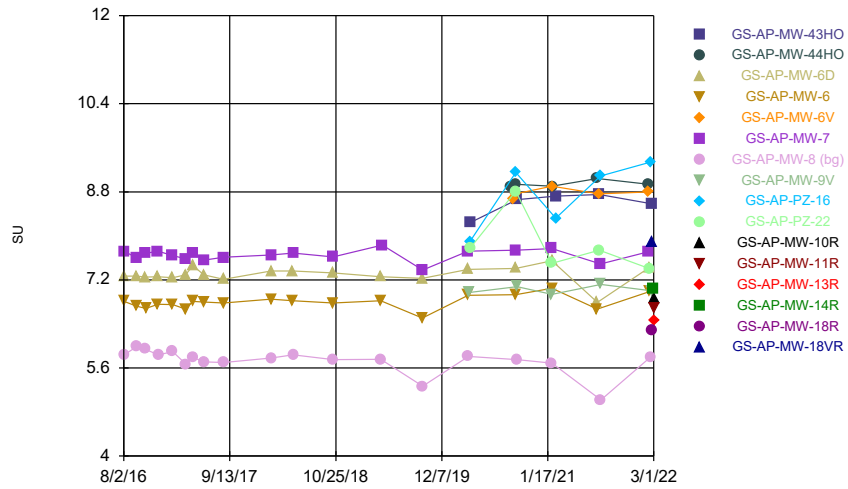
Constituent: pH Analysis Run 5/16/2022 2:07 PM  
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

Time Series



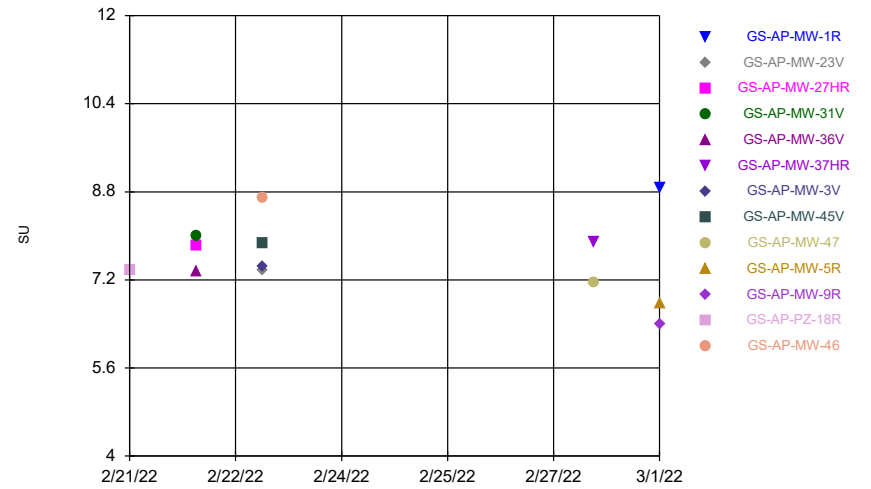
Constituent: pH Analysis Run 5/16/2022 2:07 PM  
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

Time Series



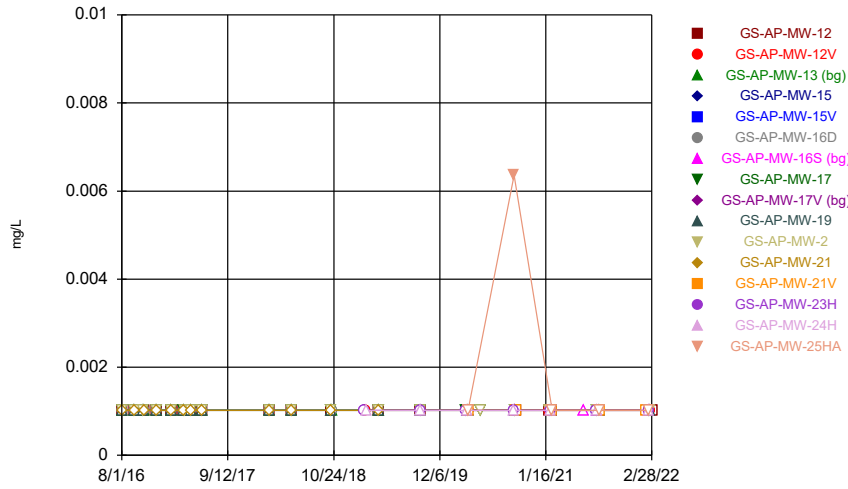
Constituent: pH Analysis Run 5/16/2022 2:07 PM  
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

Time Series

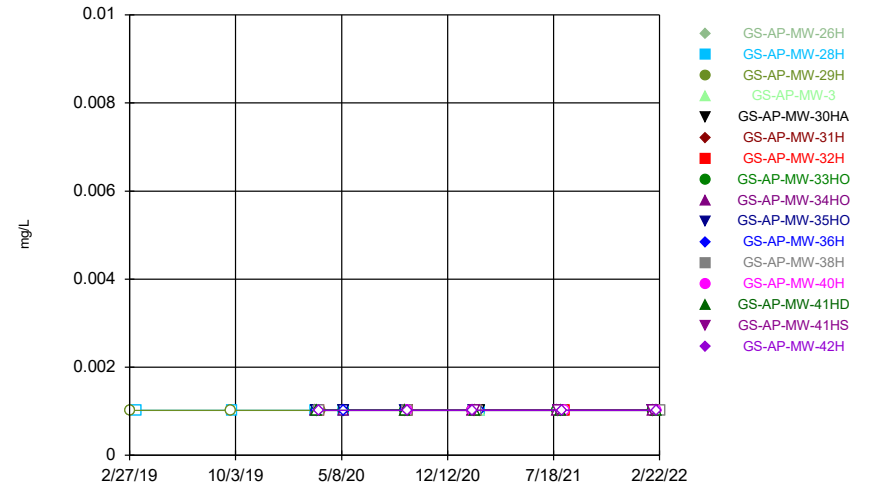


Constituent: pH Analysis Run 5/16/2022 2:07 PM  
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

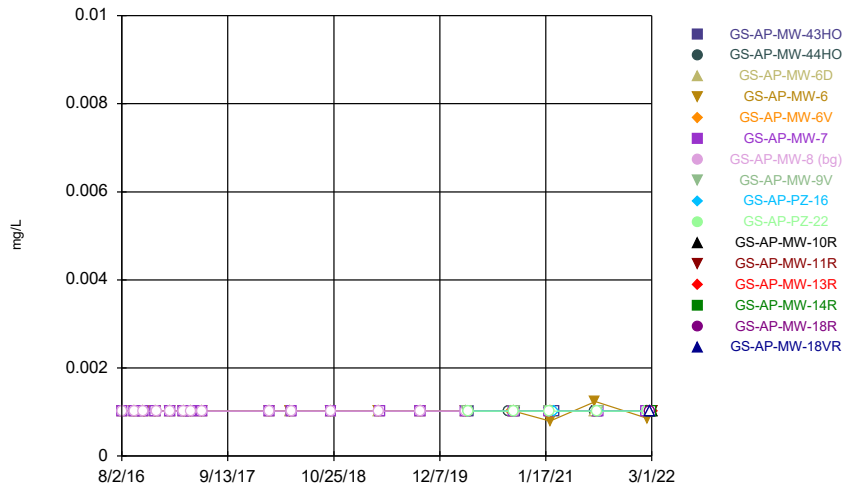
Time Series



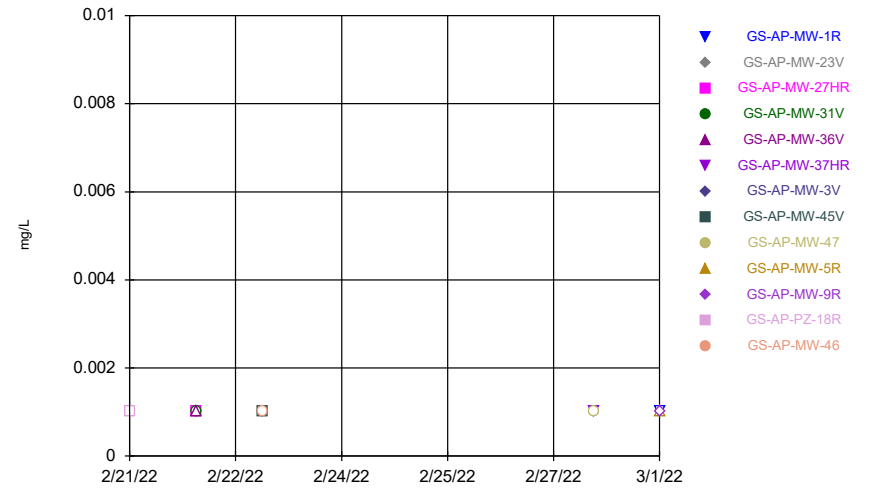
Time Series



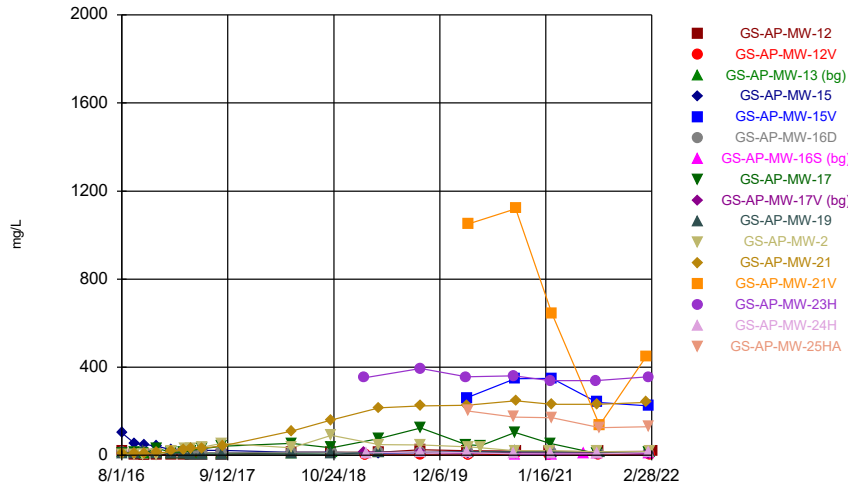
Time Series



Time Series

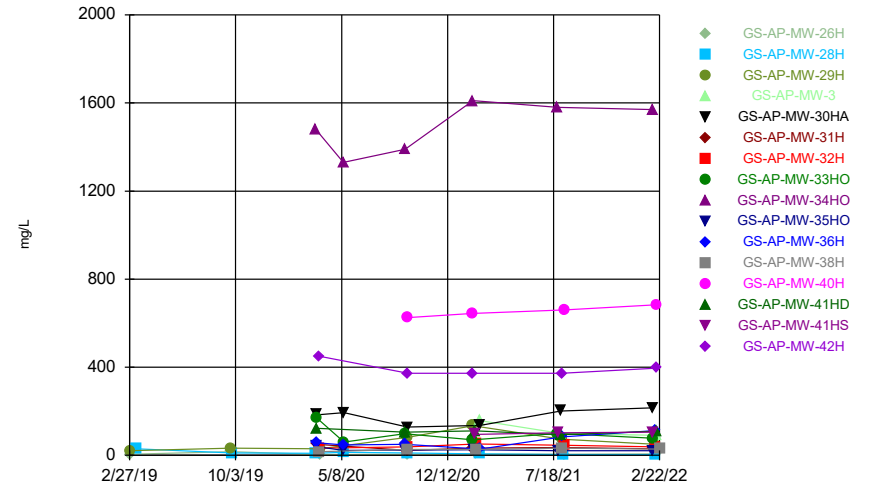


### Time Series



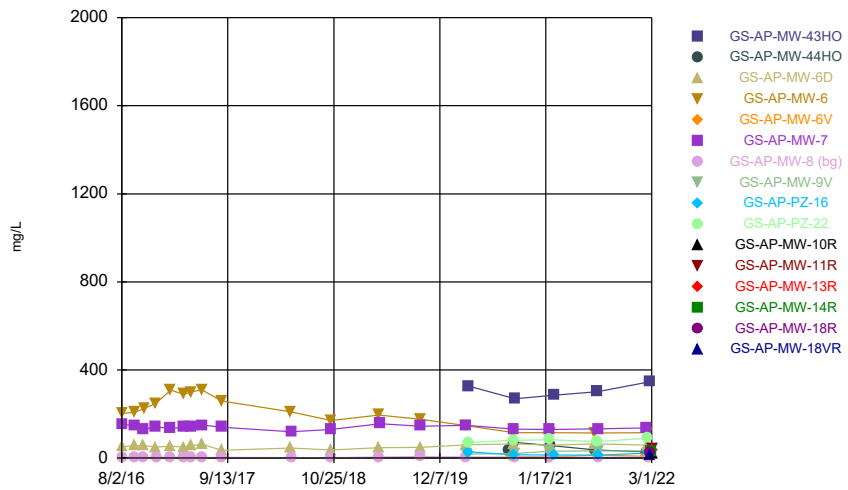
Constituent: Sulfate Analysis Run 5/16/2022 2:07 PM  
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

### Time Series



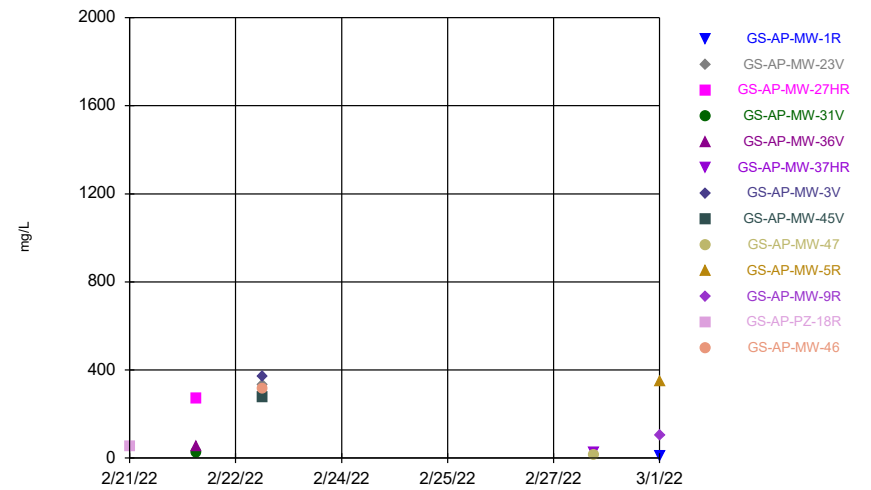
Constituent: Sulfate Analysis Run 5/16/2022 2:07 PM  
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

### Time Series



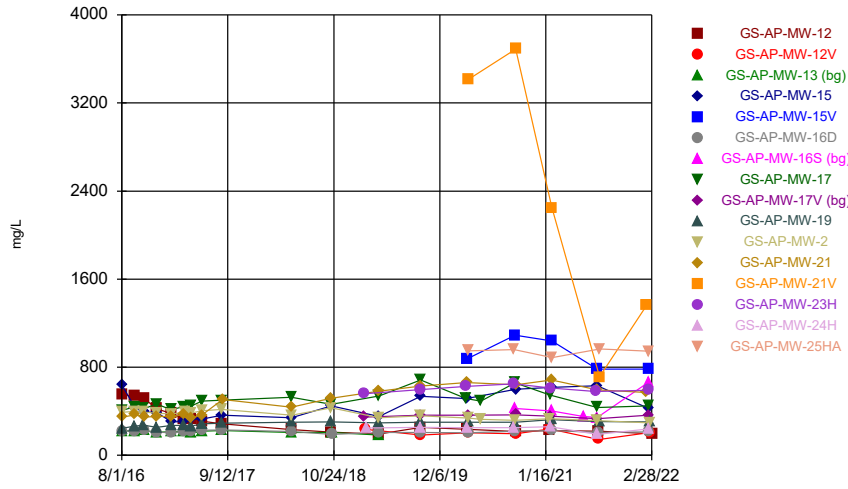
Constituent: Sulfate Analysis Run 5/16/2022 2:07 PM  
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

### Time Series



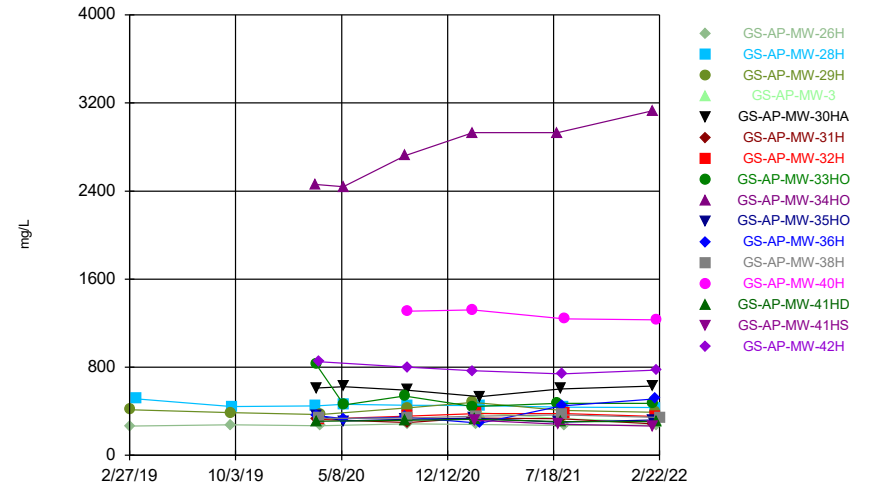
Constituent: Sulfate Analysis Run 5/16/2022 2:07 PM  
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

Time Series



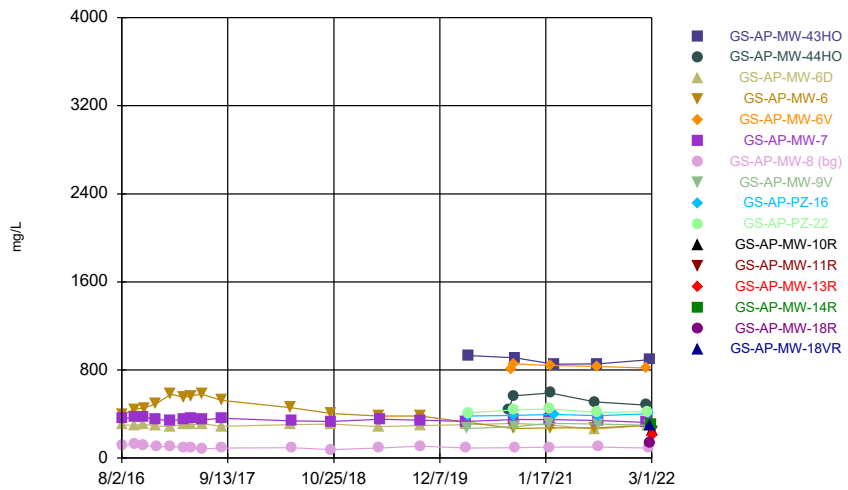
Constituent: TDS Analysis Run 5/16/2022 2:07 PM  
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

Time Series



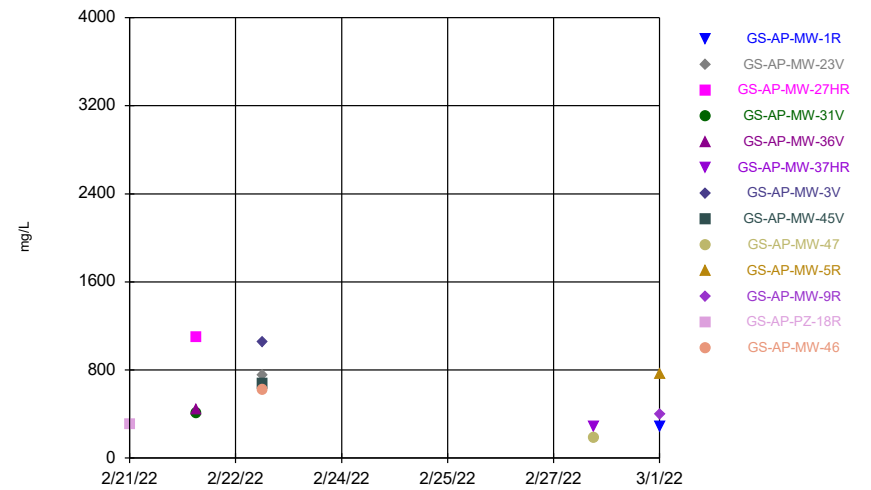
Constituent: TDS Analysis Run 5/16/2022 2:07 PM  
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

Time Series



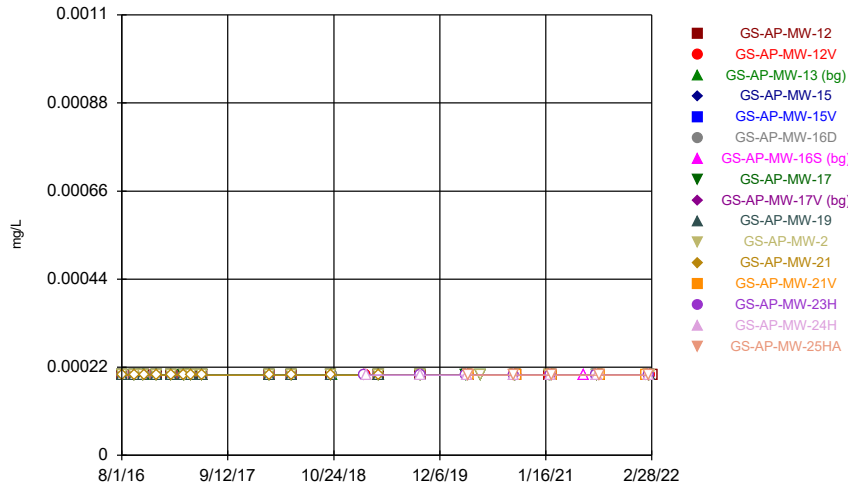
Constituent: TDS Analysis Run 5/16/2022 2:07 PM  
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

Time Series



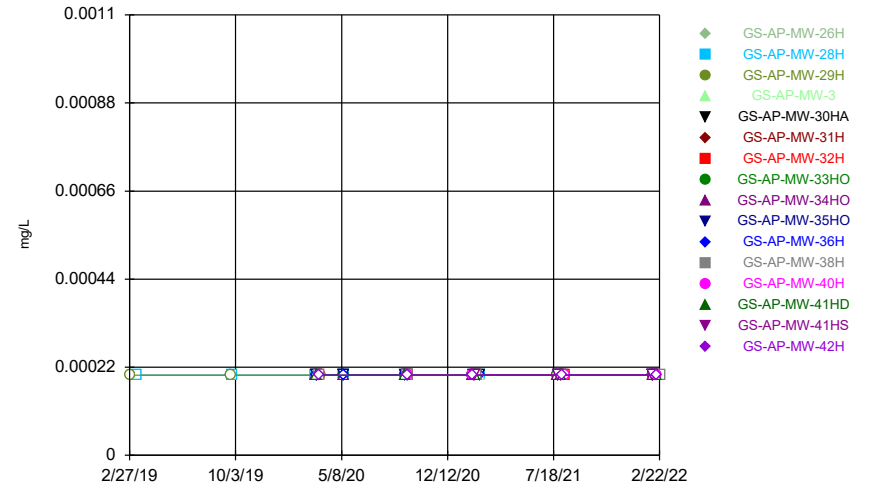
Constituent: TDS Analysis Run 5/16/2022 2:07 PM  
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

### Time Series



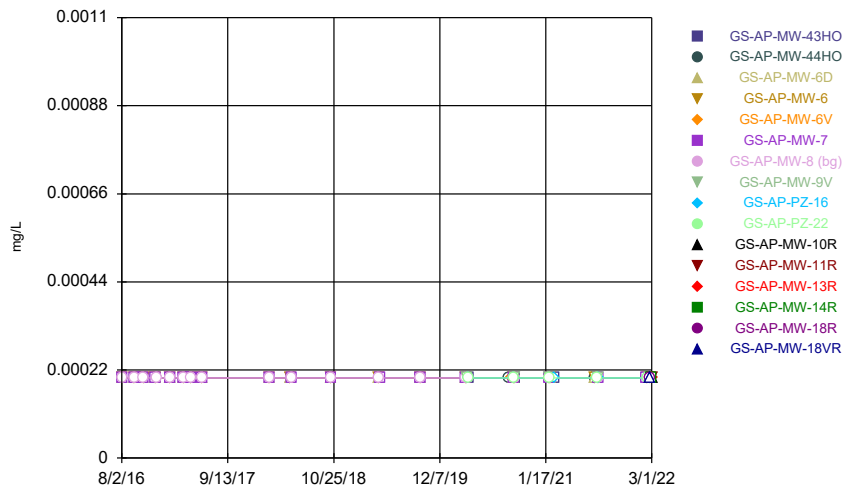
Constituent: Thallium Analysis Run 5/16/2022 2:07 PM  
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

### Time Series



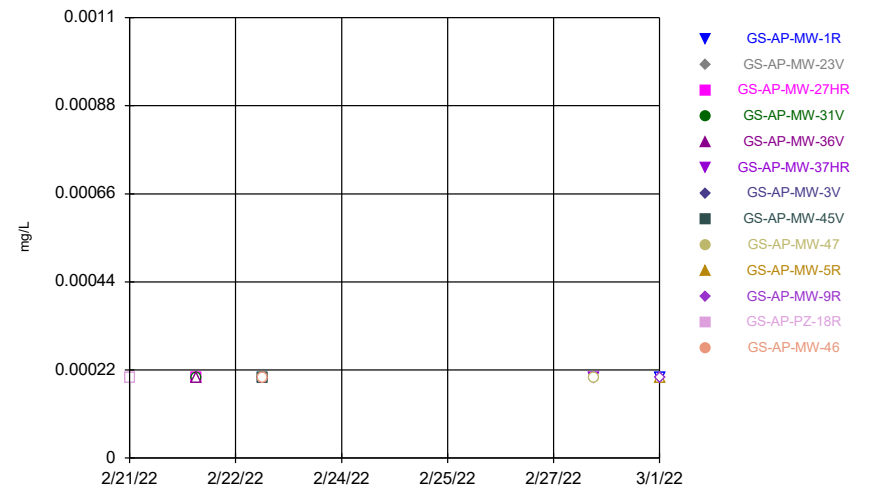
Constituent: Thallium Analysis Run 5/16/2022 2:07 PM  
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

### Time Series



Constituent: Thallium Analysis Run 5/16/2022 2:07 PM  
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

### Time Series



Constituent: Thallium Analysis Run 5/16/2022 2:07 PM  
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

# Time Series

Constituent: Antimony (mg/L) Analysis Run 5/16/2022 2:08 PM  
 Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-12	GS-AP-MW-12V	GS-AP-MW-13 (bg)	GS-AP-MW-15	GS-AP-MW-15V	GS-AP-MW-16D	GS-AP-MW-16S ...	GS-AP-MW-17	GS-AP-MW-17V ...
8/1/2016				0.00115 (J)		<0.00102		<0.00102	
8/2/2016			<0.00102						
8/3/2016	<0.00102								
9/19/2016						<0.00102		0.000636 (J)	
9/20/2016	<0.00102		<0.00102	0.000876 (J)					
9/21/2016									
10/24/2016								<0.00102	
10/25/2016	<0.00102		<0.00102	<0.00102		<0.00102			
12/13/2016	0.000681 (J)		<0.00102			0.000633 (J)		0.00072 (J)	
12/14/2016				0.000858 (J)					
2/6/2017								<0.00102	
2/7/2017									
2/8/2017	<0.00102		<0.00102	<0.00102		<0.00102			
3/27/2017								<0.00102	
3/28/2017				<0.00102					
3/29/2017	<0.00102		<0.00102			<0.00102			
3/30/2017									
4/24/2017								<0.00102	
4/26/2017	<0.00102		<0.00102	<0.00102		<0.00102			
6/5/2017								<0.00102	
6/6/2017				<0.00102		<0.00102			
6/7/2017	<0.00102		<0.00102						
2/19/2018								<0.00102	
2/20/2018	<0.00102		<0.00102	0.000636 (J)					
2/21/2018						<0.00102			
5/15/2018	<0.00102		<0.00102	<0.00102				<0.00102	
5/16/2018						<0.00102			
10/15/2018				<0.00102				<0.00102	
10/16/2018	<0.00102								
10/17/2018			<0.00102			<0.00102			
2/20/2019									0.00115 (J)
2/21/2019		0.000841 (J)							
2/26/2019									
4/16/2019	<0.00102		<0.00102						
4/17/2019				<0.00102		<0.00102		<0.00102	
9/23/2019								<0.00102	
9/24/2019				<0.00102		<0.00102			<0.00102
9/25/2019	<0.00102	0.0025 (J)							
3/16/2020								<0.00102	
3/17/2020									
3/18/2020	0.0022 (J)			0.000976 (J)	0.0028 (J)				
3/23/2020									
3/24/2020		0.00128 (J)				<0.00102			
3/25/2020									<0.00102
5/12/2020								<0.00102	
5/13/2020									
9/17/2020									
9/21/2020					0.0028 (J)		<0.00102	<0.00102	
9/22/2020						<0.00102			
9/23/2020	0.00202 (J)	0.00152 (J)		0.000844 (J)					<0.00102
2/1/2021	0.000518 (J)	0.000861 (J)							
2/2/2021								<0.00102	<0.00102





# Time Series

Constituent: Antimony (mg/L) Analysis Run 5/16/2022 2:08 PM  
 Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-19	GS-AP-MW-2	GS-AP-MW-21	GS-AP-MW-21V	GS-AP-MW-23H	GS-AP-MW-24H	GS-AP-MW-25HA
8/1/2016	<0.00102						
8/2/2016		<0.00102	<0.00102				
8/3/2016							
9/19/2016		<0.00102					
9/20/2016							
9/21/2016	<0.00102		<0.00102				
10/24/2016	<0.00102	<0.00102					
10/25/2016			<0.00102				
12/13/2016	0.000613 (J)	<0.00102					
12/14/2016			0.00119 (J)				
2/6/2017							
2/7/2017	<0.00102						
2/8/2017		<0.00102	<0.00102				
3/27/2017							
3/28/2017	<0.00102		<0.00102				
3/29/2017							
3/30/2017		<0.00102					
4/24/2017							
4/26/2017	<0.00102	<0.00102	<0.00102				
6/5/2017							
6/6/2017	<0.00102	<0.00102	<0.00102				
6/7/2017							
2/19/2018							
2/20/2018			<0.00102				
2/21/2018	<0.00102	<0.00102					
5/15/2018			<0.00102				
5/16/2018	<0.00102	<0.00102					
10/15/2018							
10/16/2018	<0.00102	<0.00102	<0.00102				
10/17/2018							
2/20/2019				0.000809 (J)			
2/21/2019							
2/26/2019						0.000918 (J)	
4/16/2019							
4/17/2019	<0.00102	<0.00102	<0.00102				
9/23/2019				<0.00102			
9/24/2019	<0.00102		<0.00102			<0.00102	
9/25/2019		<0.00102					
3/16/2020							
3/17/2020				<0.00102			
3/18/2020			<0.00102			<0.00102	
3/23/2020				0.000831 (J)			
3/24/2020	<0.00102						<0.00102
3/25/2020		<0.00102					
5/12/2020							
5/13/2020		<0.00102					
9/17/2020				<0.00102	<0.00102	<0.00102	
9/21/2020							
9/22/2020	<0.00102	<0.00102					
9/23/2020			<0.00102	<0.00102			
2/1/2021		<0.00102					
2/2/2021						<0.00102	

# Time Series

Constituent: Antimony (mg/L) Analysis Run 5/16/2022 2:08 PM  
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-19	GS-AP-MW-2	GS-AP-MW-21	GS-AP-MW-21V	GS-AP-MW-23H	GS-AP-MW-24H	GS-AP-MW-25HA
2/3/2021					<0.00102		
2/8/2021	<0.00102		<0.00102				
2/9/2021				0.000661 (J)			
2/10/2021							<0.00102
6/9/2021							
7/27/2021					<0.00102		
8/2/2021							
8/3/2021						<0.00102	
8/4/2021		<0.00102	<0.00102				
8/9/2021							
8/10/2021	<0.00102						
8/11/2021				<0.00102			
8/12/2021							<0.00102
2/8/2022			<0.00102	<0.00102			
2/14/2022					<0.00102		
2/15/2022						<0.00102	
2/16/2022							0.00075 (J)
2/22/2022	<0.00102	<0.00102					
2/23/2022							
2/28/2022							



# Time Series

Constituent: Antimony (mg/L) Analysis Run 5/16/2022 2:08 PM  
 Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-35HO	GS-AP-MW-36H	GS-AP-MW-38H	GS-AP-MW-40H	GS-AP-MW-41HD	GS-AP-MW-41HS	GS-AP-MW-42H
2/27/2019							
3/13/2019							
9/23/2019							
9/24/2019							
9/25/2019							
3/16/2020							
3/17/2020	<0.00102	<0.00102					
3/18/2020					<0.00102		
3/24/2020			<0.00102				<0.00102
3/25/2020							
5/12/2020	<0.00102						
5/13/2020		<0.00102					
9/15/2020							
9/16/2020	<0.00102						
9/17/2020		<0.00102			<0.00102		
9/21/2020							
9/22/2020			<0.00102	<0.00102			<0.00102
2/1/2021							
2/2/2021				<0.00102			
2/3/2021							<0.00102
2/4/2021	<0.00102						
2/8/2021					<0.00102	<0.00102	
2/9/2021			<0.00102				
2/10/2021							
2/17/2021		<0.00102					
7/27/2021							
7/28/2021	<0.00102					<0.00102	
8/2/2021							
8/3/2021					<0.00102		
8/4/2021		<0.00102	<0.00102				<0.00102
8/9/2021							
8/10/2021				<0.00102			
2/8/2022						<0.00102	
2/9/2022	<0.00102						
2/14/2022		<0.00102					
2/15/2022				<0.00102	<0.00102		
2/16/2022							<0.00102
2/22/2022			<0.00102				



# Time Series

Constituent: Antimony (mg/L) Analysis Run 5/16/2022 2:08 PM  
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

GS-AP-MW-43HO GS-AP-MW-44HO GS-AP-MW-6D GS-AP-MW-6 GS-AP-MW-6V GS-AP-MW-7 GS-AP-MW-8 (bg) GS-AP-MW-9V GS-AP-PZ-16

2/28/2022

3/1/2022

# Time Series

Constituent: Antimony (mg/L) Analysis Run 5/16/2022 2:08 PM  
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-PZ-22	GS-AP-MW-10R	GS-AP-MW-11R	GS-AP-MW-13R	GS-AP-MW-14R	GS-AP-MW-18R	GS-AP-MW-18VR
8/2/2016							
8/3/2016							
9/20/2016							
9/21/2016							
10/24/2016							
10/25/2016							
10/26/2016							
12/12/2016							
12/13/2016							
2/6/2017							
3/27/2017							
3/28/2017							
4/24/2017							
6/6/2017							
6/7/2017							
2/19/2018							
5/14/2018							
5/15/2018							
10/15/2018							
10/16/2018							
4/16/2019							
4/23/2019							
9/23/2019							
9/24/2019							
3/17/2020							
3/18/2020							
3/23/2020							
3/24/2020	<0.00102						
3/25/2020							
8/27/2020							
9/8/2020							
9/15/2020							
9/16/2020							
9/17/2020	<0.00102						
9/21/2020							
9/22/2020							
2/2/2021	<0.00102						
2/3/2021							
2/17/2021							
7/27/2021							
8/2/2021							
8/3/2021	<0.00102						
8/4/2021							
8/9/2021							
8/10/2021							
2/8/2022							
2/9/2022							
2/14/2022	<0.00102						
2/15/2022							
2/16/2022							
2/21/2022							
2/22/2022					<0.00102	<0.00102	



# Time Series

Constituent: Antimony (mg/L) Analysis Run 5/16/2022 2:08 PM  
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-PZ-22	GS-AP-MW-10R	GS-AP-MW-11R	GS-AP-MW-13R	GS-AP-MW-14R	GS-AP-MW-18R	GS-AP-MW-18VR
2/28/2022					<0.00102		
3/1/2022		<0.00102	<0.00102	<0.00102			



# Time Series

Constituent: Antimony (mg/L) Analysis Run 5/16/2022 2:08 PM  
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-5R	GS-AP-MW-9R	GS-AP-PZ-18R	GS-AP-MW-46
2/21/2022			<0.00102	
2/22/2022				
2/23/2022				<0.00102
2/28/2022				
3/1/2022	<0.00102	<0.00102		

# Time Series

Constituent: Arsenic (mg/L) Analysis Run 5/16/2022 2:08 PM  
 Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-12	GS-AP-MW-12V	GS-AP-MW-13 (bg)	GS-AP-MW-15	GS-AP-MW-15V	GS-AP-MW-16D	GS-AP-MW-16S ...	GS-AP-MW-17	GS-AP-MW-17V ...
8/1/2016				0.015		<0.0002		0.00138 (J)	
8/2/2016			<0.0002						
8/3/2016	0.11								
9/19/2016						<0.0002		0.00137 (J)	
9/20/2016	0.0746		<0.0002	0.0111					
9/21/2016									
10/24/2016								0.00122 (J)	
10/25/2016	0.0728		<0.0002	0.0109		<0.0002			
12/13/2016	0.0538		<0.0002			<0.0002		0.00243 (J)	
12/14/2016				0.011					
2/6/2017								0.00158 (J)	
2/7/2017									
2/8/2017	0.0427		<0.0002	0.00625		<0.0002			
3/27/2017								0.0011 (J)	
3/28/2017				0.00558					
3/29/2017	0.0404		<0.0002			<0.0002			
3/30/2017									
4/24/2017								0.00133 (J)	
4/26/2017	0.0372		<0.0002	0.007		<0.0002			
6/5/2017								0.00115 (J)	
6/6/2017				0.00663		<0.0002			
6/7/2017	0.0307		<0.0002						
2/19/2018								0.00424 (J)	
2/20/2018	0.0282		<0.0002	0.00724					
2/21/2018						<0.0002			
5/15/2018	0.0253		<0.0002	0.00749				0.00352 (J)	
5/16/2018						<0.0002			
10/15/2018				0.0123				0.0018 (J)	
10/16/2018	0.0203								
10/17/2018			<0.0002			<0.0002			
2/20/2019									0.0011 (J)
2/21/2019		<0.0002							
2/26/2019									
4/16/2019	0.014		<0.0002						
4/17/2019				0.00633		<0.0002		0.00343 (J)	
9/23/2019								0.00631	
9/24/2019				0.011		<0.0002			0.00149 (J)
9/25/2019	0.0135	0.00129 (J)							
3/16/2020								0.00268 (J)	
3/17/2020									
3/18/2020	0.00693			0.0217	0.011				
3/23/2020									
3/24/2020		0.00266 (J)				<0.0002			
3/25/2020									<0.0002
5/12/2020								0.00326 (J)	
5/13/2020									
9/17/2020									
9/21/2020					0.0167		0.00174 (J)	0.0055	
9/22/2020						<0.0002			
9/23/2020	0.00616	0.00176 (J)		0.0165					<0.0002
2/1/2021	0.00747	0.00154							
2/2/2021							0.00478		0.000243



# Time Series

Constituent: Arsenic (mg/L) Analysis Run 5/16/2022 2:08 PM  
 Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-19	GS-AP-MW-2	GS-AP-MW-21	GS-AP-MW-21V	GS-AP-MW-23H	GS-AP-MW-24H	GS-AP-MW-25HA
8/1/2016	<0.0002						
8/2/2016		<0.0002	0.0027 (J)				
8/3/2016							
9/19/2016		<0.0002					
9/20/2016							
9/21/2016	<0.0002		0.00258 (J)				
10/24/2016	<0.0002	<0.0002					
10/25/2016			0.00214 (J)				
12/13/2016	<0.0002	<0.0002					
12/14/2016			0.00193 (J)				
2/6/2017							
2/7/2017	<0.0002						
2/8/2017		<0.0002	0.00188 (J)				
3/27/2017							
3/28/2017	<0.0002		0.00153 (J)				
3/29/2017							
3/30/2017		<0.0002					
4/24/2017							
4/26/2017	<0.0002	<0.0002	0.00135 (J)				
6/5/2017							
6/6/2017	<0.0002	<0.0002	0.00131 (J)				
6/7/2017							
2/19/2018							
2/20/2018			<0.0002				
2/21/2018	0.00138 (J)	<0.0002					
5/15/2018			<0.0002				
5/16/2018	0.00114 (J)	<0.0002					
10/15/2018							
10/16/2018	0.00216 (J)	<0.0002	<0.0002				
10/17/2018							
2/20/2019				0.0306			
2/21/2019							
2/26/2019						<0.0002	
4/16/2019							
4/17/2019	0.00302 (J)	<0.0002	<0.0002				
9/23/2019				0.0369			
9/24/2019	0.00289 (J)		<0.0002			<0.0002	
9/25/2019		<0.0002					
3/16/2020							
3/17/2020				0.0524			
3/18/2020			<0.0002			<0.0002	
3/23/2020				0.0159			
3/24/2020	0.00313 (J)						0.00798
3/25/2020		<0.0002					
5/12/2020							
5/13/2020		<0.0002					
9/17/2020				0.0579		<0.0002	0.00904
9/21/2020							
9/22/2020	0.00313 (J)	<0.0002					
9/23/2020			<0.0002	0.01			
2/1/2021		<0.0002					
2/2/2021						0.000341	

# Time Series

Constituent: Arsenic (mg/L) Analysis Run 5/16/2022 2:08 PM  
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-19	GS-AP-MW-2	GS-AP-MW-21	GS-AP-MW-21V	GS-AP-MW-23H	GS-AP-MW-24H	GS-AP-MW-25HA
2/3/2021					0.0562		
2/8/2021	0.00178		0.000624				
2/9/2021				0.0063			
2/10/2021							0.00923
6/9/2021							
7/27/2021					0.0474		
8/2/2021							
8/3/2021						0.00033	
8/4/2021		<0.0002	0.00054				
8/9/2021							
8/10/2021	0.00133						
8/11/2021				0.00161			
8/12/2021							0.00888
2/8/2022			0.00046	0.00551			
2/14/2022					0.061		
2/15/2022						0.00029	
2/16/2022							0.00968
2/22/2022	0.00098	<0.0002					
2/23/2022							
2/28/2022							





# Time Series

Constituent: Arsenic (mg/L) Analysis Run 5/16/2022 2:08 PM  
 Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-35HO	GS-AP-MW-36H	GS-AP-MW-38H	GS-AP-MW-40H	GS-AP-MW-41HD	GS-AP-MW-41HS	GS-AP-MW-42H
2/27/2019							
3/13/2019							
9/23/2019							
9/24/2019							
9/25/2019							
3/16/2020							
3/17/2020	0.00105 (J)	0.00171 (J)					
3/18/2020					<0.0002		
3/24/2020			0.00302 (J)				0.00944
3/25/2020							
5/12/2020	<0.0002						
5/13/2020		0.00122 (J)					
9/15/2020							
9/16/2020	<0.0002						
9/17/2020		0.0013 (J)			0.0016 (J)		
9/21/2020							
9/22/2020			0.00304 (J)	0.00193 (J)			0.00912
2/1/2021							
2/2/2021				0.000958			
2/3/2021							0.00806
2/4/2021	0.000442						
2/8/2021					0.00148	0.000551	
2/9/2021			0.0026				
2/10/2021							
2/17/2021		0.00102					
7/27/2021							
7/28/2021	0.00024					0.00038	
8/2/2021							
8/3/2021					0.00289		
8/4/2021		0.00246	0.00287				0.00846
8/9/2021							
8/10/2021				0.00046			
2/8/2022						0.00144	
2/9/2022	0.00019 (J)						
2/14/2022		0.00235					
2/15/2022				0.0004	0.00284		
2/16/2022							0.00846
2/22/2022			0.00221				



# Time Series

Constituent: Arsenic (mg/L) Analysis Run 5/16/2022 2:08 PM  
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

GS-AP-MW-43HO GS-AP-MW-44HO GS-AP-MW-6D GS-AP-MW-6 GS-AP-MW-6V GS-AP-MW-7 GS-AP-MW-8 (bg) GS-AP-MW-9V GS-AP-PZ-16

2/28/2022

3/1/2022

# Time Series

Constituent: Arsenic (mg/L) Analysis Run 5/16/2022 2:08 PM  
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-PZ-22	GS-AP-MW-10R	GS-AP-MW-11R	GS-AP-MW-13R	GS-AP-MW-14R	GS-AP-MW-18R	GS-AP-MW-18VR
8/2/2016							
8/3/2016							
9/20/2016							
9/21/2016							
10/24/2016							
10/25/2016							
10/26/2016							
12/12/2016							
12/13/2016							
2/6/2017							
3/27/2017							
3/28/2017							
4/24/2017							
6/6/2017							
6/7/2017							
2/19/2018							
5/14/2018							
5/15/2018							
10/15/2018							
10/16/2018							
4/16/2019							
4/23/2019							
9/23/2019							
9/24/2019							
3/17/2020							
3/18/2020							
3/23/2020							
3/24/2020	0.00367 (J)						
3/25/2020							
8/27/2020							
9/8/2020							
9/15/2020							
9/16/2020							
9/17/2020	0.00387 (J)						
9/21/2020							
9/22/2020							
2/2/2021	0.00338						
2/3/2021							
2/17/2021							
7/27/2021							
8/2/2021							
8/3/2021	0.00296						
8/4/2021							
8/9/2021							
8/10/2021							
2/8/2022							
2/9/2022							
2/14/2022	0.00358						
2/15/2022							
2/16/2022							
2/21/2022							
2/22/2022					0.00037	0.00164	

# Time Series

Constituent: Arsenic (mg/L) Analysis Run 5/16/2022 2:08 PM  
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-PZ-22	GS-AP-MW-10R	GS-AP-MW-11R	GS-AP-MW-13R	GS-AP-MW-14R	GS-AP-MW-18R	GS-AP-MW-18VR
2/28/2022					0.00231		
3/1/2022		0.00209	0.00235	0.011			



# Time Series

Constituent: Arsenic (mg/L) Analysis Run 5/16/2022 2:08 PM  
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-5R	GS-AP-MW-9R	GS-AP-PZ-18R	GS-AP-MW-46
2/21/2022			0.00167	
2/22/2022				
2/23/2022				0.105
2/28/2022				
3/1/2022	0.00048	0.00529		

# Time Series

Constituent: Barium (mg/L) Analysis Run 5/16/2022 2:08 PM  
 Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-12	GS-AP-MW-12V	GS-AP-MW-13 (bg)	GS-AP-MW-15	GS-AP-MW-15V	GS-AP-MW-16D	GS-AP-MW-16S ...	GS-AP-MW-17	GS-AP-MW-17V ...
8/1/2016				0.117		0.316		0.0696	
8/2/2016			0.184						
8/3/2016	0.144								
9/19/2016						0.276		0.0503	
9/20/2016	0.102		0.153	0.193					
9/21/2016									
10/24/2016								0.0468	
10/25/2016	0.109		0.176	0.222		0.3			
12/13/2016	0.115		0.184			0.314		0.0472	
12/14/2016				0.222					
2/6/2017								0.0498	
2/7/2017									
2/8/2017	0.122		0.189	0.294		0.324			
3/27/2017								0.0559	
3/28/2017				0.288					
3/29/2017	0.116		0.184			0.316			
3/30/2017									
4/24/2017								0.055	
4/26/2017	0.127		0.177	0.24		0.323			
6/5/2017								0.0552	
6/6/2017				0.228		0.29			
6/7/2017	0.115		0.164						
2/19/2018								0.077	
2/20/2018	0.132		0.165	0.224					
2/21/2018						0.3			
5/15/2018	0.163		0.172	0.212				0.0751	
5/16/2018						0.315			
10/15/2018				0.133				0.0682	
10/16/2018	0.159								
10/17/2018			0.165			0.331			
2/20/2019									0.191
2/21/2019		1.35							
2/26/2019									
4/16/2019	0.161		0.16						
4/17/2019				0.264		0.322		0.0946	
9/23/2019								0.135	
9/24/2019				0.0913		0.342			0.208
9/25/2019	0.202	1.06							
3/16/2020								0.0883	
3/17/2020									
3/18/2020	0.195			0.14	0.155				
3/23/2020									
3/24/2020		1.43				0.323			
3/25/2020									0.314
5/12/2020								0.0941	
5/13/2020									
9/17/2020									
9/21/2020					0.18		0.0766	0.128	
9/22/2020						0.342			
9/23/2020	0.193	1.27		0.119					0.299
2/1/2021	0.201	1.6							
2/2/2021								0.107	0.308





# Time Series

Constituent: Barium (mg/L) Analysis Run 5/16/2022 2:08 PM  
 Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-19	GS-AP-MW-2	GS-AP-MW-21	GS-AP-MW-21V	GS-AP-MW-23H	GS-AP-MW-24H	GS-AP-MW-25HA
8/1/2016	0.492						
8/2/2016		0.0895	0.0535				
8/3/2016							
9/19/2016		0.0744					
9/20/2016							
9/21/2016	0.371		0.0458				
10/24/2016	0.311	0.0787					
10/25/2016			0.0489				
12/13/2016	0.374	0.0758					
12/14/2016			0.0494				
2/6/2017							
2/7/2017	0.368						
2/8/2017		0.0823	0.0449				
3/27/2017							
3/28/2017	0.391		0.0446				
3/29/2017							
3/30/2017		0.0768					
4/24/2017							
4/26/2017	0.371	0.077	0.0424				
6/5/2017							
6/6/2017	0.33	0.0711	0.0402				
6/7/2017							
2/19/2018							
2/20/2018			0.0441				
2/21/2018	0.291	0.0864					
5/15/2018			0.0456				
5/16/2018	0.343	0.0658					
10/15/2018							
10/16/2018	0.35	0.0846	0.0909				
10/17/2018							
2/20/2019				0.0227			
2/21/2019							
2/26/2019						0.887	
4/16/2019							
4/17/2019	0.316	0.0576	0.0914				
9/23/2019				0.0148			
9/24/2019	0.356		0.114			1.04	
9/25/2019		0.065					
3/16/2020							
3/17/2020				0.0143			
3/18/2020			0.105			0.964	
3/23/2020				0.0574			
3/24/2020	0.324						0.147
3/25/2020		0.0602					
5/12/2020							
5/13/2020		0.0528					
9/17/2020				0.0146		0.988	0.164
9/21/2020							
9/22/2020	0.337	0.0563					
9/23/2020			0.157	0.0438			
2/1/2021		0.0578					
2/2/2021						0.952	

# Time Series

Constituent: Barium (mg/L) Analysis Run 5/16/2022 2:08 PM  
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-19	GS-AP-MW-2	GS-AP-MW-21	GS-AP-MW-21V	GS-AP-MW-23H	GS-AP-MW-24H	GS-AP-MW-25HA
2/3/2021					0.0138		
2/8/2021	0.36		0.151				
2/9/2021				0.028			
2/10/2021							0.208
6/9/2021							
7/27/2021					0.0133		
8/2/2021							
8/3/2021						1.04	
8/4/2021		0.0702	0.148				
8/9/2021							
8/10/2021	0.343						
8/11/2021				0.0535			
8/12/2021							0.2
2/8/2022			0.143	0.0631			
2/14/2022					0.0166		
2/15/2022						0.992	
2/16/2022							0.23
2/22/2022	0.334	0.0501					
2/23/2022							
2/28/2022							



# Time Series

Constituent: Barium (mg/L) Analysis Run 5/16/2022 2:08 PM  
 Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-35HO	GS-AP-MW-36H	GS-AP-MW-38H	GS-AP-MW-40H	GS-AP-MW-41HD	GS-AP-MW-41HS	GS-AP-MW-42H
2/27/2019							
3/13/2019							
9/23/2019							
9/24/2019							
9/25/2019							
3/16/2020							
3/17/2020	0.0426	0.0353					
3/18/2020					0.0393		
3/24/2020			0.253				0.0253
3/25/2020							
5/12/2020	0.0472						
5/13/2020		0.03					
9/15/2020							
9/16/2020	0.0532						
9/17/2020		0.0378			0.0414		
9/21/2020							
9/22/2020			0.319	0.0417			0.0237
2/1/2021							
2/2/2021				0.0384			
2/3/2021							0.0216
2/4/2021	0.052						
2/8/2021					0.0434	0.0544	
2/9/2021			0.356				
2/10/2021							
2/17/2021		0.0463					
7/27/2021							
7/28/2021	0.0492					0.0445	
8/2/2021							
8/3/2021					0.045		
8/4/2021		0.0905	0.359				0.0256
8/9/2021							
8/10/2021				0.0358			
2/8/2022						0.0542	
2/9/2022	0.0516						
2/14/2022		0.136					
2/15/2022				0.0298	0.0441		
2/16/2022							0.0226
2/22/2022			0.301				



# Time Series

Constituent: Barium (mg/L) Analysis Run 5/16/2022 2:08 PM  
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

GS-AP-MW-43HO GS-AP-MW-44HO GS-AP-MW-6D GS-AP-MW-6 GS-AP-MW-6V GS-AP-MW-7 GS-AP-MW-8 (bg) GS-AP-MW-9V GS-AP-PZ-16

2/28/2022

3/1/2022

# Time Series

Constituent: Barium (mg/L) Analysis Run 5/16/2022 2:08 PM  
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-PZ-22	GS-AP-MW-10R	GS-AP-MW-11R	GS-AP-MW-13R	GS-AP-MW-14R	GS-AP-MW-18R	GS-AP-MW-18VR
8/2/2016							
8/3/2016							
9/20/2016							
9/21/2016							
10/24/2016							
10/25/2016							
10/26/2016							
12/12/2016							
12/13/2016							
2/6/2017							
3/27/2017							
3/28/2017							
4/24/2017							
6/6/2017							
6/7/2017							
2/19/2018							
5/14/2018							
5/15/2018							
10/15/2018							
10/16/2018							
4/16/2019							
4/23/2019							
9/23/2019							
9/24/2019							
3/17/2020							
3/18/2020							
3/23/2020							
3/24/2020	0.104						
3/25/2020							
8/27/2020							
9/8/2020							
9/15/2020							
9/16/2020							
9/17/2020	0.109						
9/21/2020							
9/22/2020							
2/2/2021	0.0891						
2/3/2021							
2/17/2021							
7/27/2021							
8/2/2021							
8/3/2021	0.0953						
8/4/2021							
8/9/2021							
8/10/2021							
2/8/2022							
2/9/2022							
2/14/2022	0.0695						
2/15/2022							
2/16/2022							
2/21/2022							
2/22/2022					0.0716	0.187	



# Time Series

Constituent: Barium (mg/L) Analysis Run 5/16/2022 2:08 PM  
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-PZ-22	GS-AP-MW-10R	GS-AP-MW-11R	GS-AP-MW-13R	GS-AP-MW-14R	GS-AP-MW-18R	GS-AP-MW-18VR
2/28/2022					0.174		
3/1/2022		0.701	0.107	0.0617			



# Time Series

Constituent: Barium (mg/L) Analysis Run 5/16/2022 2:08 PM  
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-5R	GS-AP-MW-9R	GS-AP-PZ-18R	GS-AP-MW-46
2/21/2022			0.0662	
2/22/2022				
2/23/2022				0.0652
2/28/2022				
3/1/2022	0.0695	0.0425		

# Time Series

Constituent: Beryllium (mg/L) Analysis Run 5/16/2022 2:08 PM  
 Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-12	GS-AP-MW-12V	GS-AP-MW-13 (bg)	GS-AP-MW-15	GS-AP-MW-15V	GS-AP-MW-16D	GS-AP-MW-16S ...	GS-AP-MW-17	GS-AP-MW-17V ...
8/1/2016				<0.00102		<0.00102		<0.00102	
8/2/2016			<0.00102						
8/3/2016	<0.00102								
9/19/2016						<0.00102		<0.00102	
9/20/2016	<0.00102		<0.00102	<0.00102					
9/21/2016									
10/24/2016								<0.00102	
10/25/2016	<0.00102		<0.00102	<0.00102		<0.00102			
12/13/2016	<0.00102		<0.00102			<0.00102		<0.00102	
12/14/2016				<0.00102					
2/6/2017								<0.00102	
2/7/2017									
2/8/2017	<0.00102		<0.00102	<0.00102		<0.00102			
3/27/2017								<0.00102	
3/28/2017				<0.00102					
3/29/2017	<0.00102		<0.00102			<0.00102			
3/30/2017									
4/24/2017								<0.00102	
4/26/2017	<0.00102		<0.00102	<0.00102		<0.00102			
6/5/2017								<0.00102	
6/6/2017				<0.00102		<0.00102			
6/7/2017	<0.00102		<0.00102						
2/19/2018								<0.00102	
2/20/2018	<0.00102		<0.00102	<0.00102					
2/21/2018						<0.00102			
5/15/2018	<0.00102		<0.00102	<0.00102				<0.00102	
5/16/2018						<0.00102			
10/15/2018				<0.00102				<0.00102	
10/16/2018	<0.00102								
10/17/2018			<0.00102			0.00109 (J)			
2/20/2019									<0.00102
2/21/2019		<0.00102							
2/26/2019									
4/16/2019	<0.00102		<0.00102						
4/17/2019				<0.00102		<0.00102		<0.00102	
9/23/2019								<0.00102	
9/24/2019				<0.00102		<0.00102			<0.00102
9/25/2019	<0.00102	<0.00102							
3/16/2020								<0.00102	
3/17/2020									
3/18/2020	<0.00102			<0.00102	<0.00102				
3/23/2020									
3/24/2020		<0.00102				<0.00102			
3/25/2020									<0.00102
5/12/2020								<0.00102	
5/13/2020									
9/17/2020									
9/21/2020					<0.00102		<0.00102	<0.00102	
9/22/2020						<0.00102			
9/23/2020	<0.00102	<0.00102		<0.00102					<0.00102
2/1/2021	<0.00102	<0.00102							
2/2/2021								<0.00102	<0.00102



# Time Series

Constituent: Beryllium (mg/L) Analysis Run 5/16/2022 2:08 PM  
 Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-19	GS-AP-MW-2	GS-AP-MW-21	GS-AP-MW-21V	GS-AP-MW-23H	GS-AP-MW-24H	GS-AP-MW-25HA
8/1/2016	<0.00102						
8/2/2016		<0.00102	<0.00102				
8/3/2016							
9/19/2016		<0.00102					
9/20/2016							
9/21/2016	<0.00102		<0.00102				
10/24/2016	<0.00102	<0.00102					
10/25/2016			<0.00102				
12/13/2016	<0.00102	<0.00102					
12/14/2016			<0.00102				
2/6/2017							
2/7/2017	<0.00102						
2/8/2017		<0.00102	<0.00102				
3/27/2017							
3/28/2017	<0.00102		<0.00102				
3/29/2017							
3/30/2017		<0.00102					
4/24/2017							
4/26/2017	<0.00102	<0.00102	<0.00102				
6/5/2017							
6/6/2017	<0.00102	<0.00102	<0.00102				
6/7/2017							
2/19/2018							
2/20/2018			<0.00102				
2/21/2018	<0.00102	<0.00102					
5/15/2018			<0.00102				
5/16/2018	<0.00102	<0.00102					
10/15/2018							
10/16/2018	<0.00102	0.00138 (J)	<0.00102				
10/17/2018							
2/20/2019				<0.00102			
2/21/2019							
2/26/2019						<0.00102	
4/16/2019							
4/17/2019	<0.00102	<0.00102	<0.00102				
9/23/2019				<0.00102			
9/24/2019	<0.00102		<0.00102			<0.00102	
9/25/2019		<0.00102					
3/16/2020							
3/17/2020				<0.00102			
3/18/2020			<0.00102			<0.00102	
3/23/2020				<0.00102			
3/24/2020	<0.00102						<0.00102
3/25/2020		<0.00102					
5/12/2020							
5/13/2020		<0.00102					
9/17/2020				<0.00102	<0.00102	<0.00102	
9/21/2020							
9/22/2020	<0.00102	<0.00102					
9/23/2020			<0.00102	<0.00102			
2/1/2021		<0.00102					
2/2/2021						<0.00102	

# Time Series

Constituent: Beryllium (mg/L) Analysis Run 5/16/2022 2:08 PM  
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-19	GS-AP-MW-2	GS-AP-MW-21	GS-AP-MW-21V	GS-AP-MW-23H	GS-AP-MW-24H	GS-AP-MW-25HA
2/3/2021					<0.00102		
2/8/2021	<0.00102		<0.00102				
2/9/2021				<0.00102			
2/10/2021							<0.00102
6/9/2021							
7/27/2021					<0.00102		
8/2/2021							
8/3/2021						<0.00102	
8/4/2021		<0.00102	<0.00102				
8/9/2021							
8/10/2021	<0.00102						
8/11/2021				<0.00102			
8/12/2021							<0.00102
2/8/2022			<0.00102	<0.00102			
2/14/2022					<0.00102		
2/15/2022						<0.00102	
2/16/2022							<0.00102
2/22/2022	<0.00102	<0.00102					
2/23/2022							
2/28/2022							





# Time Series

Constituent: Beryllium (mg/L) Analysis Run 5/16/2022 2:08 PM  
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-35HO	GS-AP-MW-36H	GS-AP-MW-38H	GS-AP-MW-40H	GS-AP-MW-41HD	GS-AP-MW-41HS	GS-AP-MW-42H
2/27/2019							
3/13/2019							
9/23/2019							
9/24/2019							
9/25/2019							
3/16/2020							
3/17/2020	<0.00102	<0.00102					
3/18/2020					<0.00102		
3/24/2020			<0.00102				<0.00102
3/25/2020							
5/12/2020	<0.00102						
5/13/2020		<0.00102					
9/15/2020							
9/16/2020	<0.00102						
9/17/2020		<0.00102			<0.00102		
9/21/2020							
9/22/2020			<0.00102	<0.00102			<0.00102
2/1/2021							
2/2/2021				<0.00102			
2/3/2021							<0.00102
2/4/2021	<0.00102						
2/8/2021					<0.00102	<0.00102	
2/9/2021			<0.00102				
2/10/2021							
2/17/2021		<0.00102					
7/27/2021							
7/28/2021	<0.00102					<0.00102	
8/2/2021							
8/3/2021					<0.00102		
8/4/2021		<0.00102	<0.00102				<0.00102
8/9/2021							
8/10/2021				<0.00102			
2/8/2022						<0.00102	
2/9/2022	<0.00102						
2/14/2022		<0.00102					
2/15/2022				<0.00102	<0.00102		
2/16/2022							<0.00102
2/22/2022			<0.00102				



# Time Series

Constituent: Beryllium (mg/L) Analysis Run 5/16/2022 2:08 PM  
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

GS-AP-MW-43HO GS-AP-MW-44HO GS-AP-MW-6D GS-AP-MW-6 GS-AP-MW-6V GS-AP-MW-7 GS-AP-MW-8 (bg) GS-AP-MW-9V GS-AP-PZ-16

2/28/2022

3/1/2022

# Time Series

Constituent: Beryllium (mg/L) Analysis Run 5/16/2022 2:08 PM  
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-PZ-22	GS-AP-MW-10R	GS-AP-MW-11R	GS-AP-MW-13R	GS-AP-MW-14R	GS-AP-MW-18R	GS-AP-MW-18VR
8/2/2016							
8/3/2016							
9/20/2016							
9/21/2016							
10/24/2016							
10/25/2016							
10/26/2016							
12/12/2016							
12/13/2016							
2/6/2017							
3/27/2017							
3/28/2017							
4/24/2017							
6/6/2017							
6/7/2017							
2/19/2018							
5/14/2018							
5/15/2018							
10/15/2018							
10/16/2018							
4/16/2019							
4/23/2019							
9/23/2019							
9/24/2019							
3/17/2020							
3/18/2020							
3/23/2020							
3/24/2020	<0.00102						
3/25/2020							
8/27/2020							
9/8/2020							
9/15/2020							
9/16/2020							
9/17/2020	<0.00102						
9/21/2020							
9/22/2020							
2/2/2021	<0.00102						
2/3/2021							
2/17/2021							
7/27/2021							
8/2/2021							
8/3/2021	<0.00102						
8/4/2021							
8/9/2021							
8/10/2021							
2/8/2022							
2/9/2022							
2/14/2022	<0.00102						
2/15/2022							
2/16/2022							
2/21/2022							
2/22/2022						<0.00102	<0.00102

# Time Series

Constituent: Beryllium (mg/L) Analysis Run 5/16/2022 2:08 PM  
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-PZ-22	GS-AP-MW-10R	GS-AP-MW-11R	GS-AP-MW-13R	GS-AP-MW-14R	GS-AP-MW-18R	GS-AP-MW-18VR
2/28/2022					<0.00102		
3/1/2022		<0.00102	<0.00102	<0.00102			



# Time Series

Constituent: Beryllium (mg/L) Analysis Run 5/16/2022 2:08 PM  
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-5R	GS-AP-MW-9R	GS-AP-PZ-18R	GS-AP-MW-46
2/21/2022			<0.00102	
2/22/2022				
2/23/2022				<0.00102
2/28/2022				
3/1/2022	<0.00102	<0.00102		

# Time Series

Constituent: Boron (mg/L) Analysis Run 5/16/2022 2:08 PM  
 Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-12	GS-AP-MW-12V	GS-AP-MW-13 (bg)	GS-AP-MW-15	GS-AP-MW-15V	GS-AP-MW-16D	GS-AP-MW-16S ...	GS-AP-MW-17	GS-AP-MW-17V ...
8/1/2016				0.0955 (J)		0.0266 (J)		0.0712 (J)	
8/2/2016			<0.1015						
8/3/2016	0.34								
9/19/2016						0.0262 (J)		0.0716 (J)	
9/20/2016	0.299		<0.1015	0.0706 (J)					
9/21/2016									
10/24/2016								0.0858 (J)	
10/25/2016	0.323		<0.1015	0.0849 (J)		0.0273 (J)			
12/13/2016	0.294		<0.1015			0.0258 (J)		0.0875 (J)	
12/14/2016				0.0914 (J)					
2/6/2017								0.0729 (J)	
2/7/2017									
2/8/2017	0.264		<0.1015	0.0524 (J)		0.0249 (J)			
3/27/2017								0.0706 (J)	
3/28/2017				0.0532 (J)					
3/29/2017	0.246		<0.1015			0.0247 (J)			
3/30/2017									
4/24/2017								0.0737 (J)	
4/26/2017	0.234		<0.1015	0.0598 (J)		0.0264 (J)			
6/5/2017								0.0767 (J)	
6/6/2017				0.0576 (J)		0.0247 (J)			
6/7/2017	0.194		<0.1015						
8/21/2017									
8/22/2017	0.156		<0.1015	0.0702 (J)		0.0246 (J)		0.0786 (J)	
8/23/2017									
5/15/2018	0.0781 (J)		<0.1015	0.0567 (J)				0.0953 (J)	
5/16/2018						0.0247 (J)			
10/15/2018				0.07 (J)				0.0842 (J)	
10/16/2018	0.057 (J)								
10/17/2018			<0.1015			0.0251 (J)			
2/20/2019									0.0337 (J)
2/21/2019		0.0303 (J)							
2/26/2019									
4/16/2019	0.0385 (J)		<0.1015						
4/17/2019				0.0388 (J)		<0.1015		0.0916 (J)	
9/23/2019								0.116	
9/24/2019				0.0607 (J)		<0.1015			0.0532 (J)
9/25/2019	0.122	0.0347 (J)							
3/16/2020								0.0894 (J)	
3/17/2020									
3/18/2020	0.0449 (J)			0.0596 (J)	0.0565 (J)				
3/23/2020									
3/24/2020		0.0343 (J)				<0.1015			
3/25/2020									0.0482 (J)
5/12/2020								0.0862 (J)	
5/13/2020									
9/17/2020									
9/21/2020					0.0712 (J)		0.0777 (J)	0.102	
9/22/2020						<0.1015			
9/23/2020	0.0446 (J)	0.0322 (J)		0.0537 (J)					0.0478 (J)
2/1/2021	0.0672 (J)	<0.1015							
2/2/2021							0.0946 (J)		0.0396 (J)





# Time Series

Constituent: Boron (mg/L) Analysis Run 5/16/2022 2:08 PM  
 Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-19	GS-AP-MW-2	GS-AP-MW-21	GS-AP-MW-21V	GS-AP-MW-23H	GS-AP-MW-24H	GS-AP-MW-25HA
8/1/2016	0.0279 (J)						
8/2/2016		0.178	0.176 (o)				
8/3/2016							
9/19/2016		0.0937 (J)					
9/20/2016							
9/21/2016	0.0235 (J)		0.0723 (J)				
10/24/2016	0.0444 (J)	0.0986 (J)					
10/25/2016			0.0867 (J)				
12/13/2016	0.0285 (J)	0.0965 (J)					
12/14/2016			0.092 (J)				
2/6/2017							
2/7/2017	0.03 (J)						
2/8/2017		0.0896 (J)	0.0803 (J)				
3/27/2017							
3/28/2017	0.0309 (J)		0.0804 (J)				
3/29/2017							
3/30/2017		0.0871 (J)					
4/24/2017							
4/26/2017	0.0273 (J)	0.0818 (J)	0.0801 (J)				
6/5/2017							
6/6/2017	0.0212 (J)	0.0805 (J)	0.0795 (J)				
6/7/2017							
8/21/2017		0.102					
8/22/2017	0.0294 (J)						
8/23/2017			0.0764 (J)				
5/15/2018			0.0769 (J)				
5/16/2018	0.0356 (J)	0.147					
10/15/2018							
10/16/2018	0.0363 (J)	0.169	0.0764 (J)				
10/17/2018							
2/20/2019				0.0498 (J)			
2/21/2019							
2/26/2019						0.0719 (J)	
4/16/2019							
4/17/2019	0.0336 (J)	0.165	0.0675 (J)				
9/23/2019				0.0641 (J)			
9/24/2019	0.0375 (J)		0.0843 (J)			0.0821 (J)	
9/25/2019		0.153					
3/16/2020							
3/17/2020				0.0504 (J)			
3/18/2020			0.0824 (J)			0.0811 (J)	
3/23/2020				0.122			
3/24/2020	0.0398 (J)						0.146
3/25/2020		0.163					
5/12/2020							
5/13/2020		0.154					
9/17/2020				0.0637 (J)		0.069 (J)	0.138
9/21/2020							
9/22/2020	0.037 (J)	0.133					
9/23/2020			0.0871 (J)	0.126			
2/1/2021		0.13					
2/2/2021						0.0685 (J)	

# Time Series

Constituent: Boron (mg/L) Analysis Run 5/16/2022 2:08 PM  
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-19	GS-AP-MW-2	GS-AP-MW-21	GS-AP-MW-21V	GS-AP-MW-23H	GS-AP-MW-24H	GS-AP-MW-25HA
2/3/2021					0.0425 (J)		
2/8/2021	0.0336 (J)		0.0991 (J)				
2/9/2021				0.114			
2/10/2021							0.147
6/9/2021							
7/27/2021					0.0474 (J)		
8/2/2021							
8/3/2021						0.0721 (J)	
8/4/2021		0.117	0.0993 (J)				
8/9/2021							
8/10/2021	<0.1015						
8/11/2021				0.0631 (J)			
8/12/2021							0.13
2/8/2022			0.111	0.0938 (J)			
2/14/2022					0.035 (J)		
2/15/2022						0.0708 (J)	
2/16/2022							0.145
2/22/2022	<0.1015	0.112					
2/23/2022							
2/28/2022							



# Time Series

Constituent: Boron (mg/L) Analysis Run 5/16/2022 2:08 PM  
 Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-35HO	GS-AP-MW-36H	GS-AP-MW-38H	GS-AP-MW-40H	GS-AP-MW-41HD	GS-AP-MW-41HS	GS-AP-MW-42H
2/27/2019							
3/13/2019							
9/23/2019							
9/24/2019							
9/25/2019							
3/16/2020							
3/17/2020	<0.1015	0.0394 (J)					
3/18/2020				1.45			
3/24/2020			0.0468 (J)				<0.1015
3/25/2020							
5/12/2020	<0.1015						
5/13/2020		0.0359 (J)					
9/15/2020							
9/16/2020	<0.1015						
9/17/2020		0.0345 (J)		1.42			
9/21/2020							
9/22/2020			0.0461 (J)	0.0326 (J)			0.0469 (J)
2/1/2021							
2/2/2021				0.0305 (J)			
2/3/2021							0.053 (J)
2/4/2021	<0.1015						
2/8/2021				1.48		1.06	
2/9/2021			0.0504 (J)				
2/10/2021							
2/17/2021		0.0413 (J)					
7/27/2021							
7/28/2021	<0.1015					1.09	
8/2/2021							
8/3/2021				1.48			
8/4/2021		0.0449 (J)	0.0479 (J)				0.0578 (J)
8/9/2021							
8/10/2021				<0.1015			
2/8/2022						1.04	
2/9/2022	<0.1015						
2/14/2022		0.0467 (J)					
2/15/2022				0.0321 (J)	1.52		
2/16/2022							0.0502 (J)
2/22/2022			0.0452 (J)				



# Time Series

Constituent: Boron (mg/L) Analysis Run 5/16/2022 2:08 PM  
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

GS-AP-MW-43HO GS-AP-MW-44HO GS-AP-MW-6D GS-AP-MW-6 GS-AP-MW-6V GS-AP-MW-7 GS-AP-MW-8 (bg) GS-AP-MW-9V GS-AP-PZ-16

2/28/2022

3/1/2022

# Time Series

Constituent: Boron (mg/L) Analysis Run 5/16/2022 2:08 PM  
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-PZ-22	GS-AP-MW-10R	GS-AP-MW-11R	GS-AP-MW-13R	GS-AP-MW-14R	GS-AP-MW-18R	GS-AP-MW-18VR
8/2/2016							
8/3/2016							
9/20/2016							
9/21/2016							
10/24/2016							
10/25/2016							
10/26/2016							
12/12/2016							
12/13/2016							
2/6/2017							
3/27/2017							
3/28/2017							
4/24/2017							
6/6/2017							
6/7/2017							
8/21/2017							
5/14/2018							
5/15/2018							
10/15/2018							
10/16/2018							
4/16/2019							
4/23/2019							
9/23/2019							
9/24/2019							
3/17/2020							
3/18/2020							
3/23/2020							
3/24/2020	0.0521 (J)						
3/25/2020							
8/27/2020							
9/8/2020							
9/15/2020							
9/16/2020							
9/17/2020	0.0454 (J)						
9/21/2020							
9/22/2020							
2/2/2021	0.0486 (J)						
2/3/2021							
2/17/2021							
7/27/2021							
8/2/2021							
8/3/2021	0.0478 (J)						
8/4/2021							
8/9/2021							
8/10/2021							
2/8/2022							
2/9/2022							
2/14/2022	0.047 (J)						
2/15/2022							
2/16/2022							
2/21/2022							
2/22/2022					<0.1015		0.0488 (J)



# Time Series

Constituent: Boron (mg/L) Analysis Run 5/16/2022 2:08 PM  
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-PZ-22	GS-AP-MW-10R	GS-AP-MW-11R	GS-AP-MW-13R	GS-AP-MW-14R	GS-AP-MW-18R	GS-AP-MW-18VR
2/28/2022					<0.1015		
3/1/2022		<0.1015	0.0844 (J)	<0.1015			



# Time Series

Constituent: Boron (mg/L) Analysis Run 5/16/2022 2:08 PM  
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-5R	GS-AP-MW-9R	GS-AP-PZ-18R	GS-AP-MW-46
2/21/2022			0.0925 (J)	
2/22/2022				
2/23/2022				0.768
2/28/2022				
3/1/2022	0.036 (J)	0.106		

# Time Series

Constituent: Cadmium (mg/L) Analysis Run 5/16/2022 2:08 PM  
 Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-12	GS-AP-MW-12V	GS-AP-MW-13 (bg)	GS-AP-MW-15	GS-AP-MW-15V	GS-AP-MW-16D	GS-AP-MW-16S ...	GS-AP-MW-17	GS-AP-MW-17V ...
8/1/2016				<0.0002		<0.0002		<0.0002	
8/2/2016			<0.0002						
8/3/2016	<0.0002								
9/19/2016						<0.0002		<0.0002	
9/20/2016	<0.0002		<0.0002	<0.0002					
9/21/2016									
10/24/2016								<0.0002	
10/25/2016	<0.0002		<0.0002	<0.0002		<0.0002			
12/13/2016	<0.0002		<0.0002			<0.0002		<0.0002	
12/14/2016				<0.0002					
2/6/2017								<0.0002	
2/7/2017									
2/8/2017	<0.0002		<0.0002	<0.0002		<0.0002			
3/27/2017								<0.0002	
3/28/2017				<0.0002					
3/29/2017	<0.0002		<0.0002			<0.0002			
3/30/2017									
4/24/2017								<0.0002	
4/26/2017	<0.0002		<0.0002	<0.0002		<0.0002			
6/5/2017								<0.0002	
6/6/2017				<0.0002		<0.0002			
6/7/2017	<0.0002		<0.0002						
2/19/2018								<0.0002	
2/20/2018	<0.0002		<0.0002	<0.0002					
2/21/2018						<0.0002			
5/15/2018	<0.0002		<0.0002	<0.0002				<0.0002	
5/16/2018						<0.0002			
10/15/2018				<0.0002				<0.0002	
10/16/2018	<0.0002								
10/17/2018			<0.0002			<0.0002			
2/20/2019									<0.0002
2/21/2019		<0.0002							
2/26/2019									
4/16/2019	<0.0002		<0.0002						
4/17/2019				<0.0002		<0.0002		<0.0002	
9/23/2019								<0.0002	
9/24/2019				<0.0002		<0.0002			<0.0002
9/25/2019	<0.0002	<0.0002							
3/16/2020								<0.0002	
3/17/2020									
3/18/2020	<0.0002			<0.0002	<0.0002				
3/23/2020									
3/24/2020		<0.0002				<0.0002			
3/25/2020									<0.0002
5/12/2020								<0.0002	
5/13/2020									
9/17/2020									
9/21/2020					<0.0002		<0.0002	<0.0002	
9/22/2020						<0.0002			
9/23/2020	<0.0002	<0.0002		<0.0002					<0.0002
2/1/2021	<0.0002	<0.0002							
2/2/2021								<0.0002	<0.0002



# Time Series

Constituent: Cadmium (mg/L) Analysis Run 5/16/2022 2:08 PM  
 Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-19	GS-AP-MW-2	GS-AP-MW-21	GS-AP-MW-21V	GS-AP-MW-23H	GS-AP-MW-24H	GS-AP-MW-25HA
8/1/2016	<0.0002						
8/2/2016		<0.0002	<0.0002				
8/3/2016							
9/19/2016		<0.0002					
9/20/2016							
9/21/2016	<0.0002		<0.0002				
10/24/2016	<0.0002	<0.0002					
10/25/2016			<0.0002				
12/13/2016	<0.0002	<0.0002					
12/14/2016			<0.0002				
2/6/2017							
2/7/2017	<0.0002						
2/8/2017		<0.0002	<0.0002				
3/27/2017							
3/28/2017	<0.0002		<0.0002				
3/29/2017							
3/30/2017		<0.0002					
4/24/2017							
4/26/2017	<0.0002	<0.0002	<0.0002				
6/5/2017							
6/6/2017	<0.0002	<0.0002	<0.0002				
6/7/2017							
2/19/2018							
2/20/2018			<0.0002				
2/21/2018	<0.0002	<0.0002					
5/15/2018			<0.0002				
5/16/2018	<0.0002	<0.0002					
10/15/2018							
10/16/2018	<0.0002	<0.0002	<0.0002				
10/17/2018							
2/20/2019				<0.0002			
2/21/2019							
2/26/2019						<0.0002	
4/16/2019							
4/17/2019	<0.0002	<0.0002	<0.0002				
9/23/2019				<0.0002			
9/24/2019	<0.0002		<0.0002			<0.0002	
9/25/2019		<0.0002					
3/16/2020							
3/17/2020				<0.0002			
3/18/2020			<0.0002			<0.0002	
3/23/2020				<0.0002			
3/24/2020	<0.0002						<0.0002
3/25/2020		<0.0002					
5/12/2020							
5/13/2020		<0.0002					
9/17/2020				<0.0002	<0.0002	<0.0002	
9/21/2020							
9/22/2020	<0.0002	<0.0002					
9/23/2020			<0.0002	<0.0002			
2/1/2021		<0.0002					
2/2/2021						<0.0002	

# Time Series

Constituent: Cadmium (mg/L) Analysis Run 5/16/2022 2:08 PM  
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-19	GS-AP-MW-2	GS-AP-MW-21	GS-AP-MW-21V	GS-AP-MW-23H	GS-AP-MW-24H	GS-AP-MW-25HA
2/3/2021					<0.0002		
2/8/2021	<0.0002		<0.0002				
2/9/2021				<0.0002			
2/10/2021							<0.0002
6/9/2021							
7/27/2021					<0.0002		
8/2/2021							
8/3/2021						<0.0002	
8/4/2021		<0.0002	<0.0002				
8/9/2021							
8/10/2021	<0.0002						
8/11/2021				<0.0002			
8/12/2021							<0.0002
2/8/2022			<0.0002	<0.0002			
2/14/2022					<0.0002		
2/15/2022						<0.0002	
2/16/2022							<0.0002
2/22/2022	<0.0002	<0.0002					
2/23/2022							
2/28/2022							





# Time Series

Constituent: Cadmium (mg/L) Analysis Run 5/16/2022 2:08 PM  
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-35HO	GS-AP-MW-36H	GS-AP-MW-38H	GS-AP-MW-40H	GS-AP-MW-41HD	GS-AP-MW-41HS	GS-AP-MW-42H
2/27/2019							
3/13/2019							
9/23/2019							
9/24/2019							
9/25/2019							
3/16/2020							
3/17/2020	<0.0002	<0.0002					
3/18/2020					<0.0002		
3/24/2020			<0.0002				<0.0002
3/25/2020							
5/12/2020	<0.0002						
5/13/2020		<0.0002					
9/15/2020							
9/16/2020	<0.0002						
9/17/2020		<0.0002			<0.0002		
9/21/2020							
9/22/2020			<0.0002	<0.0002			<0.0002
2/1/2021							
2/2/2021				<0.0002			
2/3/2021							<0.0002
2/4/2021	<0.0002						
2/8/2021					<0.0002	<0.0002	
2/9/2021			<0.0002				
2/10/2021							
2/17/2021		<0.0002					
7/27/2021							
7/28/2021	<0.0002					<0.0002	
8/2/2021							
8/3/2021				<0.0002			
8/4/2021		<0.0002	<0.0002				<0.0002
8/9/2021							
8/10/2021				<0.0002			
2/8/2022						<0.0002	
2/9/2022	<0.0002						
2/14/2022		<0.0002					
2/15/2022				<0.0002	<0.0002		
2/16/2022							<0.0002
2/22/2022			<0.0002				



# Time Series

Constituent: Cadmium (mg/L) Analysis Run 5/16/2022 2:08 PM  
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

GS-AP-MW-43HO GS-AP-MW-44HO GS-AP-MW-6D GS-AP-MW-6 GS-AP-MW-6V GS-AP-MW-7 GS-AP-MW-8 (bg) GS-AP-MW-9V GS-AP-PZ-16

2/28/2022

3/1/2022

# Time Series

Constituent: Cadmium (mg/L) Analysis Run 5/16/2022 2:08 PM  
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-PZ-22	GS-AP-MW-10R	GS-AP-MW-11R	GS-AP-MW-13R	GS-AP-MW-14R	GS-AP-MW-18R	GS-AP-MW-18VR
8/2/2016							
8/3/2016							
9/20/2016							
9/21/2016							
10/24/2016							
10/25/2016							
10/26/2016							
12/12/2016							
12/13/2016							
2/6/2017							
3/27/2017							
3/28/2017							
4/24/2017							
6/6/2017							
6/7/2017							
2/19/2018							
5/14/2018							
5/15/2018							
10/15/2018							
10/16/2018							
4/16/2019							
4/23/2019							
9/23/2019							
9/24/2019							
3/17/2020							
3/18/2020							
3/23/2020							
3/24/2020	<0.0002						
3/25/2020							
8/27/2020							
9/8/2020							
9/15/2020							
9/16/2020							
9/17/2020	<0.0002						
9/21/2020							
9/22/2020							
2/2/2021	<0.0002						
2/3/2021							
2/17/2021							
7/27/2021							
8/2/2021							
8/3/2021	<0.0002						
8/4/2021							
8/9/2021							
8/10/2021							
2/8/2022							
2/9/2022							
2/14/2022	<0.0002						
2/15/2022							
2/16/2022							
2/21/2022							
2/22/2022					<0.0002	<0.0002	

# Time Series

Constituent: Cadmium (mg/L) Analysis Run 5/16/2022 2:08 PM  
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-PZ-22	GS-AP-MW-10R	GS-AP-MW-11R	GS-AP-MW-13R	GS-AP-MW-14R	GS-AP-MW-18R	GS-AP-MW-18VR
2/28/2022					<0.0002		
3/1/2022		<0.0002	<0.0002	<0.0002			



# Time Series

Constituent: Cadmium (mg/L) Analysis Run 5/16/2022 2:08 PM  
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-5R	GS-AP-MW-9R	GS-AP-PZ-18R	GS-AP-MW-46
2/21/2022			<0.0002	
2/22/2022				
2/23/2022				<0.0002
2/28/2022				
3/1/2022	<0.0002	<0.0002		

# Time Series

Constituent: Calcium (mg/L) Analysis Run 5/16/2022 2:08 PM  
 Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-12	GS-AP-MW-12V	GS-AP-MW-13 (bg)	GS-AP-MW-15	GS-AP-MW-15V	GS-AP-MW-16D	GS-AP-MW-16S ...	GS-AP-MW-17	GS-AP-MW-17V ...
8/1/2016				10.5		33		4.52	
8/2/2016			47.2						
8/3/2016	36.1								
9/19/2016						31.7		4.3	
9/20/2016	27		46.3	14.7					
9/21/2016									
10/24/2016								4.02	
10/25/2016	26.1		46.6	14.7		32.2			
12/13/2016	29.4		43.1			33.1		5.5	
12/14/2016				11.9					
2/6/2017								3.79	
2/7/2017									
2/8/2017	31.9		47.5	14.4		32.7			
3/27/2017								3.13	
3/28/2017				12.9					
3/29/2017	31.8		46.8			32.7			
3/30/2017									
4/24/2017								3.41	
4/26/2017	34.6		48.1	10.4		33.8			
6/5/2017								3.32	
6/6/2017				9.41		32.2			
6/7/2017	33.4		44.4						
8/21/2017									
8/22/2017	31.5		42.9	6.89		30.9		3.52	
8/23/2017									
5/15/2018	34.8		44.3	6.86				4.53	
5/16/2018						33.5			
10/15/2018				6.28				3.38	
10/16/2018	35.6								
10/17/2018			41.8			32			
2/20/2019									30.6
2/21/2019		52.3							
2/26/2019									
4/16/2019	38.3		38.6						
4/17/2019				8.53		32.3		3.86	
9/23/2019								5.43	
9/24/2019				3.26		34.3			29.7
9/25/2019	48.1	33.4							
3/16/2020								3	
3/17/2020									
3/18/2020	44			5.25	8.01				
3/23/2020									
3/24/2020		48.9				34.1			
3/25/2020									31.1
5/12/2020								2.95	
5/13/2020									
9/17/2020									
9/21/2020					8.2		10.9	3.73	
9/22/2020						32			
9/23/2020	45.9	44.8		3.83					29.3
2/1/2021	45.8	48.9							
2/2/2021								3.3	31.8







# Time Series

Constituent: Calcium (mg/L) Analysis Run 5/16/2022 2:08 PM  
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-19	GS-AP-MW-2	GS-AP-MW-21	GS-AP-MW-21V	GS-AP-MW-23H	GS-AP-MW-24H	GS-AP-MW-25HA
2/3/2021					75.6		
2/8/2021	56.8		1.95				
2/9/2021				73.8			
2/10/2021							2.11
6/9/2021							
7/27/2021					75.5		
8/2/2021							
8/3/2021						43.4	
8/4/2021		0.564	1.76				
8/9/2021							
8/10/2021	54.8						
8/11/2021				13.8			
8/12/2021							1.79
2/8/2022			1.98	37.2			
2/14/2022					74.4		
2/15/2022						42.4	
2/16/2022							1.82
2/22/2022	54.6	0.413					
2/23/2022							
2/28/2022							



# Time Series

Constituent: Calcium (mg/L) Analysis Run 5/16/2022 2:08 PM  
 Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-35HO	GS-AP-MW-36H	GS-AP-MW-38H	GS-AP-MW-40H	GS-AP-MW-41HD	GS-AP-MW-41HS	GS-AP-MW-42H
2/27/2019							
3/13/2019							
9/23/2019							
9/24/2019							
9/25/2019							
3/16/2020							
3/17/2020	5.27	3.45					
3/18/2020				56.6			
3/24/2020			9.33				149
3/25/2020							
5/12/2020	3.04						
5/13/2020		2.93					
9/15/2020							
9/16/2020	3.04						
9/17/2020		4.12		61.1			
9/21/2020							
9/22/2020			9.56	205			142
2/1/2021							
2/2/2021				199			
2/3/2021							134
2/4/2021	3.3						
2/8/2021				60.8	49.8		
2/9/2021			10.6				
2/10/2021							
2/17/2021		3.16					
7/27/2021							
7/28/2021	2.51				45.1		
8/2/2021							
8/3/2021				57.1			
8/4/2021		5.78	12.2				133
8/9/2021							
8/10/2021				197			
2/8/2022					30.6		
2/9/2022	2.11						
2/14/2022		4.69					
2/15/2022				203	57.6		
2/16/2022							138
2/22/2022			10.8				



# Time Series

Constituent: Calcium (mg/L) Analysis Run 5/16/2022 2:08 PM  
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

GS-AP-MW-43HO GS-AP-MW-44HO GS-AP-MW-6D GS-AP-MW-6 GS-AP-MW-6V GS-AP-MW-7 GS-AP-MW-8 (bg) GS-AP-MW-9V GS-AP-PZ-16

2/28/2022

3/1/2022

# Time Series

Constituent: Calcium (mg/L) Analysis Run 5/16/2022 2:08 PM  
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-PZ-22	GS-AP-MW-10R	GS-AP-MW-11R	GS-AP-MW-13R	GS-AP-MW-14R	GS-AP-MW-18R	GS-AP-MW-18VR
8/2/2016							
8/3/2016							
9/20/2016							
9/21/2016							
10/24/2016							
10/25/2016							
10/26/2016							
12/12/2016							
12/13/2016							
2/6/2017							
3/27/2017							
3/28/2017							
4/24/2017							
6/6/2017							
6/7/2017							
8/21/2017							
5/14/2018							
5/15/2018							
10/15/2018							
10/16/2018							
4/16/2019							
4/23/2019							
9/23/2019							
9/24/2019							
3/17/2020							
3/18/2020							
3/23/2020							
3/24/2020	19.3						
3/25/2020							
8/27/2020							
9/8/2020							
9/15/2020							
9/16/2020							
9/17/2020	12.6						
9/21/2020							
9/22/2020							
2/2/2021	16.5						
2/3/2021							
2/17/2021							
7/27/2021							
8/2/2021							
8/3/2021	16						
8/4/2021							
8/9/2021							
8/10/2021							
2/8/2022							
2/9/2022							
2/14/2022	18.1						
2/15/2022							
2/16/2022							
2/21/2022							
2/22/2022					20.3	5.8	



# Time Series

Constituent: Calcium (mg/L) Analysis Run 5/16/2022 2:08 PM  
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-PZ-22	GS-AP-MW-10R	GS-AP-MW-11R	GS-AP-MW-13R	GS-AP-MW-14R	GS-AP-MW-18R	GS-AP-MW-18VR
2/28/2022					33.7		
3/1/2022		39.8	45.3	31.6			



# Time Series

Constituent: Calcium (mg/L) Analysis Run 5/16/2022 2:08 PM  
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-5R	GS-AP-MW-9R	GS-AP-PZ-18R	GS-AP-MW-46
2/21/2022			69	
2/22/2022				
2/23/2022				1.2
2/28/2022				
3/1/2022	97.3	54		

# Time Series

Constituent: Chloride (mg/L) Analysis Run 5/16/2022 2:08 PM  
 Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-12	GS-AP-MW-12V	GS-AP-MW-13 (bg)	GS-AP-MW-15	GS-AP-MW-15V	GS-AP-MW-16D	GS-AP-MW-16S ...	GS-AP-MW-17	GS-AP-MW-17V ...
8/1/2016				15.6		2.6		6.47	
8/2/2016			2.91						
8/3/2016	14.5								
9/19/2016						2.51		7.78	
9/20/2016	12.9		2.94	8.6					
9/21/2016									
10/24/2016								7.29	
10/25/2016	12.2		2.94	7.96		2.53			
12/13/2016	10.4		2.93			2.53		12.2	
12/14/2016				6.94					
2/6/2017								7.68	
2/7/2017									
2/8/2017	8.77		2.85	4.96		2.5			
3/27/2017								9	
3/28/2017				5.2					
3/29/2017	10		3.4			2.9			
3/30/2017									
4/24/2017								10	
4/26/2017	9.8		3.7	6		3.2			
6/5/2017								10	
6/6/2017				4.9		2.6			
6/7/2017	8		3.3						
8/21/2017									
8/22/2017	6.5		3.4	5.3		2.9		12	
8/23/2017									
5/15/2018	4.4		3.2	3.8				13	
5/16/2018						3			
10/15/2018				6.6				10	
10/16/2018	3.1								
10/17/2018			2.3			2.2			
2/20/2019									3.56
2/21/2019		3.77							
2/26/2019									
4/16/2019	3.22		3.23						
4/17/2019				5.2		2.82		12.7	
9/23/2019								16.2	
9/24/2019				5.96		2.9			3.69
9/25/2019	6.68	3.84							
3/16/2020								9.95	
3/17/2020									
3/18/2020	4.22			8	108				
3/23/2020									
3/24/2020		4.46				2.88			
3/25/2020									3.72
5/12/2020								9.16	
5/13/2020									
9/17/2020									
9/21/2020					171		5.42	13.8	
9/22/2020						2.94			
9/23/2020	3.15	4.63		6					3.74
2/1/2021	3.32	3.86							
2/2/2021								10.2	3.49



# Time Series

Constituent: Chloride (mg/L) Analysis Run 5/16/2022 2:08 PM  
 Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-19	GS-AP-MW-2	GS-AP-MW-21	GS-AP-MW-21V	GS-AP-MW-23H	GS-AP-MW-24H	GS-AP-MW-25HA
8/1/2016	6.67						
8/2/2016		6.15	28.1				
8/3/2016							
9/19/2016		5.98					
9/20/2016							
9/21/2016	6.54		26.8				
10/24/2016	8.77	5.93					
10/25/2016			26				
12/13/2016	6.16	5.7					
12/14/2016			25.3				
2/6/2017							
2/7/2017	7.57						
2/8/2017		8.44	23.8				
3/27/2017							
3/28/2017	5.9		28				
3/29/2017							
3/30/2017		11					
4/24/2017							
4/26/2017	6.5	10	27				
6/5/2017							
6/6/2017	5.5	9.6	28				
6/7/2017							
8/21/2017		12					
8/22/2017	6.5						
8/23/2017			29				
5/15/2018			27				
5/16/2018	6.6	12					
10/15/2018							
10/16/2018	6.2	20	31				
10/17/2018							
2/20/2019				2.58			
2/21/2019							
2/26/2019						3.28	
4/16/2019							
4/17/2019	7.27	9.5	32.3				
9/23/2019				2.26			
9/24/2019	5.83		36			2.89	
9/25/2019		12					
3/16/2020							
3/17/2020				2.62			
3/18/2020			49.5			3.5	
3/23/2020				981			
3/24/2020	6.29						38
3/25/2020		9.7					
5/12/2020							
5/13/2020		8.25					
9/17/2020				1.92		3.19	38.3
9/21/2020							
9/22/2020	6.6	6.33					
9/23/2020			56.9	1100			
2/1/2021		8.42					
2/2/2021						3.06	

# Time Series

Constituent: Chloride (mg/L) Analysis Run 5/16/2022 2:08 PM  
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-19	GS-AP-MW-2	GS-AP-MW-21	GS-AP-MW-21V	GS-AP-MW-23H	GS-AP-MW-24H	GS-AP-MW-25HA
2/3/2021					2.07		
2/8/2021	6		39.8				
2/9/2021				592			
2/10/2021							43.7
6/9/2021							
7/27/2021					2.48		
8/2/2021							
8/3/2021						2.94	
8/4/2021		7.25	54.8				
8/9/2021							
8/10/2021	4.83						
8/11/2021				162			
8/12/2021							36.3
2/8/2022			41.4	432			
2/14/2022					12.8		
2/15/2022						3.18	
2/16/2022							34.3
2/22/2022	4.59	6.05					
2/23/2022							
2/28/2022							





# Time Series

Constituent: Chloride (mg/L) Analysis Run 5/16/2022 2:08 PM  
 Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-35HO	GS-AP-MW-36H	GS-AP-MW-38H	GS-AP-MW-40H	GS-AP-MW-41HD	GS-AP-MW-41HS	GS-AP-MW-42H
2/27/2019							
3/13/2019							
9/23/2019							
9/24/2019							
9/25/2019							
3/16/2020							
3/17/2020	23.9	29.4					
3/18/2020					6.02		
3/24/2020			12.6				3.35
3/25/2020							
5/12/2020	14.5						
5/13/2020		27.2					
9/15/2020							
9/16/2020	20.9						
9/17/2020		38.5			6.63		
9/21/2020							
9/22/2020			24.8	30.4			7.07
2/1/2021							
2/2/2021				36.8			
2/3/2021							10.1
2/4/2021	23.9						
2/8/2021					6.44	9.18	
2/9/2021			28.1				
2/10/2021							
2/17/2021		24.3					
7/27/2021							
7/28/2021	16.7					8.34	
8/2/2021							
8/3/2021					6.07		
8/4/2021		59.8	33.1				9.75
8/9/2021							
8/10/2021				28			
2/8/2022						6.72	
2/9/2022	17.5						
2/14/2022		77.7					
2/15/2022				18	6.67		
2/16/2022							8.61
2/22/2022			31				



# Time Series

Constituent: Chloride (mg/L) Analysis Run 5/16/2022 2:08 PM  
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

GS-AP-MW-43HO GS-AP-MW-44HO GS-AP-MW-6D GS-AP-MW-6 GS-AP-MW-6V GS-AP-MW-7 GS-AP-MW-8 (bg) GS-AP-MW-9V GS-AP-PZ-16

2/28/2022

3/1/2022

# Time Series

Constituent: Chloride (mg/L) Analysis Run 5/16/2022 2:08 PM  
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-PZ-22	GS-AP-MW-10R	GS-AP-MW-11R	GS-AP-MW-13R	GS-AP-MW-14R	GS-AP-MW-18R	GS-AP-MW-18VR
8/2/2016							
8/3/2016							
9/20/2016							
9/21/2016							
10/24/2016							
10/25/2016							
10/26/2016							
12/12/2016							
12/13/2016							
2/6/2017							
3/27/2017							
3/28/2017							
4/24/2017							
6/6/2017							
6/7/2017							
8/21/2017							
5/14/2018							
5/15/2018							
10/15/2018							
10/16/2018							
4/16/2019							
4/23/2019							
9/23/2019							
9/24/2019							
3/17/2020							
3/18/2020							
3/23/2020							
3/24/2020	2.53						
3/25/2020							
8/27/2020							
9/8/2020							
9/15/2020							
9/16/2020							
9/17/2020	2.46						
9/21/2020							
9/22/2020							
2/2/2021	2.99						
2/3/2021							
2/17/2021							
7/27/2021							
8/2/2021							
8/3/2021	2.67						
8/4/2021							
8/9/2021							
8/10/2021							
2/8/2022							
2/9/2022							
2/14/2022	3.1						
2/15/2022							
2/16/2022							
2/21/2022							
2/22/2022					3.52	15.3	

# Time Series

Constituent: Chloride (mg/L) Analysis Run 5/16/2022 2:08 PM  
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-PZ-22	GS-AP-MW-10R	GS-AP-MW-11R	GS-AP-MW-13R	GS-AP-MW-14R	GS-AP-MW-18R	GS-AP-MW-18VR
2/28/2022					38.1		
3/1/2022		37.5	5.08	19.2			



# Time Series

Constituent: Chloride (mg/L) Analysis Run 5/16/2022 2:08 PM  
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-5R	GS-AP-MW-9R	GS-AP-PZ-18R	GS-AP-MW-46
2/21/2022			5.32	
2/22/2022				
2/23/2022				43.9
2/28/2022				
3/1/2022	46.4	65.9		

# Time Series

Constituent: Chromium (mg/L) Analysis Run 5/16/2022 2:08 PM  
 Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-12	GS-AP-MW-12V	GS-AP-MW-13 (bg)	GS-AP-MW-15	GS-AP-MW-15V	GS-AP-MW-16D	GS-AP-MW-16S ...	GS-AP-MW-17	GS-AP-MW-17V ...
8/1/2016				0.00209 (J)		<0.00102		<0.00102	
8/2/2016			<0.00102						
8/3/2016	<0.00102								
9/19/2016						<0.00102		<0.00102	
9/20/2016	<0.00102		<0.00102	<0.00102					
9/21/2016									
10/24/2016								<0.00102	
10/25/2016	<0.00102		<0.00102	<0.00102		<0.00102			
12/13/2016	<0.00102		<0.00102			<0.00102		<0.00102	
12/14/2016				<0.00102					
2/6/2017								<0.00102	
2/7/2017									
2/8/2017	<0.00102		<0.00102	<0.00102		<0.00102			
3/27/2017								<0.00102	
3/28/2017				<0.00102					
3/29/2017	<0.00102		<0.00102			<0.00102			
3/30/2017									
4/24/2017								<0.00102	
4/26/2017	<0.00102		<0.00102	<0.00102		<0.00102			
6/5/2017								<0.00102	
6/6/2017				<0.00102		<0.00102			
6/7/2017	<0.00102		<0.00102						
2/19/2018								<0.00102	
2/20/2018	<0.00102		<0.00102	<0.00102					
2/21/2018						<0.00102			
5/15/2018	<0.00102		<0.00102	<0.00102				<0.00102	
5/16/2018						<0.00102			
10/15/2018				<0.00102				<0.00102	
10/16/2018	<0.00102								
10/17/2018			<0.00102			<0.00102			
2/20/2019									<0.00102
2/21/2019		<0.00102							
2/26/2019									
4/16/2019	<0.00102		<0.00102						
4/17/2019				<0.00102		<0.00102		<0.00102	
9/23/2019								<0.00102	
9/24/2019				<0.00102		<0.00102			0.00405 (J)
9/25/2019	<0.00102	0.00202 (J)							
3/16/2020								<0.00102	
3/17/2020									
3/18/2020	<0.00102			<0.00102	0.00716 (J)				
3/23/2020									
3/24/2020		0.00774 (J)				<0.00102			
3/25/2020									<0.00102
5/12/2020								<0.00102	
5/13/2020									
9/17/2020									
9/21/2020					0.00239 (J)		<0.00102	<0.00102	
9/22/2020						<0.00102			
9/23/2020	<0.00102	0.00362 (J)		<0.00102					<0.00102
2/1/2021	<0.00102	0.00311							
2/2/2021							0.00255		0.000313 (J)





# Time Series

Constituent: Chromium (mg/L) Analysis Run 5/16/2022 2:08 PM  
 Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-19	GS-AP-MW-2	GS-AP-MW-21	GS-AP-MW-21V	GS-AP-MW-23H	GS-AP-MW-24H	GS-AP-MW-25HA
8/1/2016	<0.00102						
8/2/2016		<0.00102	<0.00102				
8/3/2016							
9/19/2016		<0.00102					
9/20/2016							
9/21/2016	<0.00102				0.00233 (J)		
10/24/2016	<0.00102	<0.00102					
10/25/2016					0.00204 (J)		
12/13/2016	<0.00102	<0.00102					
12/14/2016					<0.00102		
2/6/2017							
2/7/2017	<0.00102						
2/8/2017		<0.00102	<0.00102				
3/27/2017							
3/28/2017	<0.00102				<0.00102		
3/29/2017							
3/30/2017		<0.00102					
4/24/2017							
4/26/2017	<0.00102	<0.00102	<0.00102				
6/5/2017							
6/6/2017	<0.00102	<0.00102	<0.00102				
6/7/2017							
2/19/2018							
2/20/2018					0.00219 (J)		
2/21/2018	<0.00102	<0.00102					
5/15/2018					<0.00102		
5/16/2018	<0.00102	<0.00102					
10/15/2018							
10/16/2018	<0.00102	<0.00102	<0.00102				
10/17/2018							
2/20/2019					<0.00102		
2/21/2019							
2/26/2019						<0.00102	
4/16/2019							
4/17/2019	<0.00102	<0.00102	<0.00102				
9/23/2019					<0.00102		
9/24/2019	<0.00102		<0.00102			<0.00102	
9/25/2019		<0.00102					
3/16/2020							
3/17/2020					<0.00102		
3/18/2020			<0.00102			<0.00102	
3/23/2020				<0.00102			
3/24/2020	<0.00102						<0.00102
3/25/2020		<0.00102					
5/12/2020							
5/13/2020		<0.00102					
9/17/2020					<0.00102	<0.00102	<0.00102
9/21/2020							
9/22/2020	<0.00102	<0.00102					
9/23/2020			<0.00102	<0.00102			
2/1/2021		0.000505 (J)					
2/2/2021						0.000382 (J)	

# Time Series

Constituent: Chromium (mg/L) Analysis Run 5/16/2022 2:08 PM  
 Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-19	GS-AP-MW-2	GS-AP-MW-21	GS-AP-MW-21V	GS-AP-MW-23H	GS-AP-MW-24H	GS-AP-MW-25HA
2/3/2021					0.000222 (J)		
2/8/2021	0.000258 (J)		0.000705 (J)				
2/9/2021				0.000218 (J)			
2/10/2021							<0.00102
6/9/2021							
7/27/2021					<0.00102		
8/2/2021							
8/3/2021						0.00028 (J)	
8/4/2021		0.00085 (J)	0.00042 (J)				
8/9/2021							
8/10/2021	0.00032 (J)						
8/11/2021				0.00134			
8/12/2021							0.00035 (J)
2/8/2022			0.0004 (J)	0.00041 (J)			
2/14/2022					0.00023 (J)		
2/15/2022						0.00029 (J)	
2/16/2022							0.00062 (J)
2/22/2022	<0.00102	0.00044 (J)					
2/23/2022							
2/28/2022							



# Time Series

Constituent: Chromium (mg/L) Analysis Run 5/16/2022 2:08 PM  
 Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-35HO	GS-AP-MW-36H	GS-AP-MW-38H	GS-AP-MW-40H	GS-AP-MW-41HD	GS-AP-MW-41HS	GS-AP-MW-42H
2/27/2019							
3/13/2019							
9/23/2019							
9/24/2019							
9/25/2019							
3/16/2020							
3/17/2020	<0.00102	<0.00102					
3/18/2020					<0.00102		
3/24/2020			<0.00102				<0.00102
3/25/2020							
5/12/2020	<0.00102						
5/13/2020		<0.00102					
9/15/2020							
9/16/2020	<0.00102						
9/17/2020		<0.00102			<0.00102		
9/21/2020							
9/22/2020			<0.00102	<0.00102			<0.00102
2/1/2021							
2/2/2021				0.000222 (J)			
2/3/2021							0.000298 (J)
2/4/2021	0.000211 (J)						
2/8/2021					0.000235 (J)	<0.00102	
2/9/2021			<0.00102				
2/10/2021							
2/17/2021		0.000271 (J)					
7/27/2021							
7/28/2021	0.00041 (J)					0.00031 (J)	
8/2/2021							
8/3/2021					0.00025 (J)		
8/4/2021		0.00032 (J)	<0.00102				0.00026 (J)
8/9/2021							
8/10/2021				0.00032 (J)			
2/8/2022						0.00035 (J)	
2/9/2022	0.00029 (J)						
2/14/2022		<0.00102					
2/15/2022				<0.00102	0.00026 (J)		
2/16/2022							<0.00102
2/22/2022			<0.00102				



# Time Series

Constituent: Chromium (mg/L) Analysis Run 5/16/2022 2:08 PM  
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

GS-AP-MW-43HO GS-AP-MW-44HO GS-AP-MW-6D GS-AP-MW-6 GS-AP-MW-6V GS-AP-MW-7 GS-AP-MW-8 (bg) GS-AP-MW-9V GS-AP-PZ-16

2/28/2022

3/1/2022

# Time Series

Constituent: Chromium (mg/L) Analysis Run 5/16/2022 2:08 PM  
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-PZ-22	GS-AP-MW-10R	GS-AP-MW-11R	GS-AP-MW-13R	GS-AP-MW-14R	GS-AP-MW-18R	GS-AP-MW-18VR
8/2/2016							
8/3/2016							
9/20/2016							
9/21/2016							
10/24/2016							
10/25/2016							
10/26/2016							
12/12/2016							
12/13/2016							
2/6/2017							
3/27/2017							
3/28/2017							
4/24/2017							
6/6/2017							
6/7/2017							
2/19/2018							
5/14/2018							
5/15/2018							
10/15/2018							
10/16/2018							
4/16/2019							
4/23/2019							
9/23/2019							
9/24/2019							
3/17/2020							
3/18/2020							
3/23/2020							
3/24/2020	<0.00102						
3/25/2020							
8/27/2020							
9/8/2020							
9/15/2020							
9/16/2020							
9/17/2020	<0.00102						
9/21/2020							
9/22/2020							
2/2/2021	<0.00102						
2/3/2021							
2/17/2021							
7/27/2021							
8/2/2021							
8/3/2021	0.00024 (J)						
8/4/2021							
8/9/2021							
8/10/2021							
2/8/2022							
2/9/2022							
2/14/2022	0.00022 (J)						
2/15/2022							
2/16/2022							
2/21/2022							
2/22/2022					0.00022 (J)	0.00052 (J)	



# Time Series

Constituent: Chromium (mg/L) Analysis Run 5/16/2022 2:08 PM  
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-PZ-22	GS-AP-MW-10R	GS-AP-MW-11R	GS-AP-MW-13R	GS-AP-MW-14R	GS-AP-MW-18R	GS-AP-MW-18VR
2/28/2022					0.00062 (J)		
3/1/2022		0.00024 (J)	0.00026 (J)	0.00023 (J)			



# Time Series

Constituent: Chromium (mg/L) Analysis Run 5/16/2022 2:08 PM  
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-5R	GS-AP-MW-9R	GS-AP-PZ-18R	GS-AP-MW-46
2/21/2022			0.00026 (J)	
2/22/2022				
2/23/2022				<0.00102
2/28/2022				
3/1/2022	0.00035 (J)	0.00027 (J)		

# Time Series

Constituent: Cobalt (mg/L) Analysis Run 5/16/2022 2:08 PM  
 Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-12	GS-AP-MW-12V	GS-AP-MW-13 (bg)	GS-AP-MW-15	GS-AP-MW-15V	GS-AP-MW-16D	GS-AP-MW-16S ...	GS-AP-MW-17	GS-AP-MW-17V ...
8/1/2016				<0.0002		<0.0002		<0.0002	
8/2/2016			<0.0002						
8/3/2016	<0.0002								
9/19/2016						<0.0002		<0.0002	
9/20/2016	<0.0002		<0.0002	<0.0002					
9/21/2016									
10/24/2016								<0.0002	
10/25/2016	<0.0002		<0.0002	<0.0002		<0.0002			
12/13/2016	<0.0002		<0.0002			<0.0002		<0.0002	
12/14/2016				<0.0002					
2/6/2017								<0.0002	
2/7/2017									
2/8/2017	<0.0002		<0.0002	<0.0002		<0.0002			
3/27/2017								<0.0002	
3/28/2017				<0.0002					
3/29/2017	<0.0002		<0.0002			<0.0002			
3/30/2017									
4/24/2017								<0.0002	
4/26/2017	<0.0002		<0.0002	<0.0002		<0.0002			
6/5/2017								<0.0002	
6/6/2017				<0.0002		<0.0002			
6/7/2017	<0.0002		<0.0002						
2/19/2018								<0.0002	
2/20/2018	<0.0002		<0.0002	<0.0002					
2/21/2018						<0.0002			
5/15/2018	<0.0002		<0.0002	<0.0002				<0.0002	
5/16/2018						<0.0002			
10/15/2018				<0.0002				<0.0002	
10/16/2018	<0.0002								
10/17/2018			<0.0002			<0.0002			
2/20/2019									<0.0002
2/21/2019		<0.0002							
2/26/2019									
4/16/2019	<0.0002		<0.0002						
4/17/2019				<0.0002		<0.0002		<0.0002	
9/23/2019								<0.0002	
9/24/2019				<0.0002		<0.0002			<0.0002
9/25/2019	<0.0002	<0.0002							
3/16/2020								<0.0002	
3/17/2020									
3/18/2020	<0.0002			<0.0002	<0.0002				
3/23/2020									
3/24/2020		0.00277 (J)				<0.0002			
3/25/2020									<0.0002
5/12/2020								<0.0002	
5/13/2020									
9/17/2020									
9/21/2020					<0.0002		<0.0002	<0.0002	
9/22/2020						<0.0002			
9/23/2020	<0.0002	<0.0002		<0.0002					<0.0002
2/1/2021	<0.0002	0.00129							
2/2/2021							0.000102 (J)		<0.0002



# Time Series

Constituent: Cobalt (mg/L) Analysis Run 5/16/2022 2:08 PM  
 Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-19	GS-AP-MW-2	GS-AP-MW-21	GS-AP-MW-21V	GS-AP-MW-23H	GS-AP-MW-24H	GS-AP-MW-25HA
8/1/2016	<0.0002						
8/2/2016		<0.0002	<0.0002				
8/3/2016							
9/19/2016		<0.0002					
9/20/2016							
9/21/2016	<0.0002		<0.0002				
10/24/2016	<0.0002	<0.0002					
10/25/2016			<0.0002				
12/13/2016	<0.0002	<0.0002					
12/14/2016			<0.0002				
2/6/2017							
2/7/2017	<0.0002						
2/8/2017		<0.0002	<0.0002				
3/27/2017							
3/28/2017	<0.0002		<0.0002				
3/29/2017							
3/30/2017		<0.0002					
4/24/2017							
4/26/2017	<0.0002	<0.0002	<0.0002				
6/5/2017							
6/6/2017	<0.0002	<0.0002	<0.0002				
6/7/2017							
2/19/2018							
2/20/2018			<0.0002				
2/21/2018	<0.0002	<0.0002					
5/15/2018			<0.0002				
5/16/2018	<0.0002	<0.0002					
10/15/2018							
10/16/2018	<0.0002	<0.0002	<0.0002				
10/17/2018							
2/20/2019				<0.0002			
2/21/2019							
2/26/2019						<0.0002	
4/16/2019							
4/17/2019	<0.0002	<0.0002	<0.0002				
9/23/2019				<0.0002			
9/24/2019	<0.0002		<0.0002			<0.0002	
9/25/2019		<0.0002					
3/16/2020							
3/17/2020				<0.0002			
3/18/2020			<0.0002			<0.0002	
3/23/2020				<0.0002			
3/24/2020	<0.0002						<0.0002
3/25/2020		<0.0002					
5/12/2020							
5/13/2020		<0.0002					
9/17/2020				<0.0002	<0.0002	<0.0002	
9/21/2020							
9/22/2020	<0.0002	<0.0002					
9/23/2020			<0.0002	<0.0002			
2/1/2021		<0.0002					
2/2/2021						0.000192 (J)	

# Time Series

Constituent: Cobalt (mg/L) Analysis Run 5/16/2022 2:08 PM  
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-19	GS-AP-MW-2	GS-AP-MW-21	GS-AP-MW-21V	GS-AP-MW-23H	GS-AP-MW-24H	GS-AP-MW-25HA
2/3/2021					0.000512		
2/8/2021	<0.0002		<0.0002				
2/9/2021				<0.0002			
2/10/2021							<0.0002
6/9/2021							
7/27/2021					0.00049		
8/2/2021							
8/3/2021						0.00024	
8/4/2021		<0.0002	<0.0002				
8/9/2021							
8/10/2021	<0.0002						
8/11/2021				<0.0002			
8/12/2021							<0.0002
2/8/2022			<0.0002	<0.0002			
2/14/2022					0.00052		
2/15/2022						0.00023	
2/16/2022							0.00011 (J)
2/22/2022	<0.0002	<0.0002					
2/23/2022							
2/28/2022							





# Time Series

Constituent: Cobalt (mg/L) Analysis Run 5/16/2022 2:08 PM  
 Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-35HO	GS-AP-MW-36H	GS-AP-MW-38H	GS-AP-MW-40H	GS-AP-MW-41HD	GS-AP-MW-41HS	GS-AP-MW-42H
2/27/2019							
3/13/2019							
9/23/2019							
9/24/2019							
9/25/2019							
3/16/2020							
3/17/2020	<0.0002	<0.0002					
3/18/2020					<0.0002		
3/24/2020			<0.0002				0.00218 (J)
3/25/2020							
5/12/2020	<0.0002						
5/13/2020		<0.0002					
9/15/2020							
9/16/2020	<0.0002						
9/17/2020		<0.0002			<0.0002		
9/21/2020							
9/22/2020			<0.0002	0.0027 (J)			<0.0002
2/1/2021							
2/2/2021				0.002			
2/3/2021							0.000752
2/4/2021	<0.0002						
2/8/2021					0.000585	0.00175	
2/9/2021			<0.0002				
2/10/2021							
2/17/2021		0.000148 (J)					
7/27/2021							
7/28/2021	<0.0002					0.00029	
8/2/2021							
8/3/2021					0.00085		
8/4/2021		<0.0002	<0.0002				0.00062
8/9/2021							
8/10/2021				0.0011			
2/8/2022						0.00378	
2/9/2022	<0.0002						
2/14/2022		<0.0002					
2/15/2022				0.00052	0.00102		
2/16/2022							0.00045
2/22/2022			<0.0002				



# Time Series

Constituent: Cobalt (mg/L) Analysis Run 5/16/2022 2:08 PM  
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

GS-AP-MW-43HO GS-AP-MW-44HO GS-AP-MW-6D GS-AP-MW-6 GS-AP-MW-6V GS-AP-MW-7 GS-AP-MW-8 (bg) GS-AP-MW-9V GS-AP-PZ-16

2/28/2022

3/1/2022

# Time Series

Constituent: Cobalt (mg/L) Analysis Run 5/16/2022 2:08 PM  
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-PZ-22	GS-AP-MW-10R	GS-AP-MW-11R	GS-AP-MW-13R	GS-AP-MW-14R	GS-AP-MW-18R	GS-AP-MW-18VR
8/2/2016							
8/3/2016							
9/20/2016							
9/21/2016							
10/24/2016							
10/25/2016							
10/26/2016							
12/12/2016							
12/13/2016							
2/6/2017							
3/27/2017							
3/28/2017							
4/24/2017							
6/6/2017							
6/7/2017							
2/19/2018							
5/14/2018							
5/15/2018							
10/15/2018							
10/16/2018							
4/16/2019							
4/23/2019							
9/23/2019							
9/24/2019							
3/17/2020							
3/18/2020							
3/23/2020							
3/24/2020	<0.0002						
3/25/2020							
8/27/2020							
9/8/2020							
9/15/2020							
9/16/2020							
9/17/2020	<0.0002						
9/21/2020							
9/22/2020							
2/2/2021	<0.0002						
2/3/2021							
2/17/2021							
7/27/2021							
8/2/2021							
8/3/2021	<0.0002						
8/4/2021							
8/9/2021							
8/10/2021							
2/8/2022							
2/9/2022							
2/14/2022	<0.0002						
2/15/2022							
2/16/2022							
2/21/2022							
2/22/2022					0.00066	9E-05 (J)	

# Time Series

Constituent: Cobalt (mg/L) Analysis Run 5/16/2022 2:08 PM  
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-PZ-22	GS-AP-MW-10R	GS-AP-MW-11R	GS-AP-MW-13R	GS-AP-MW-14R	GS-AP-MW-18R	GS-AP-MW-18VR
2/28/2022					0.00015 (J)		
3/1/2022		0.00014 (J)	0.00011 (J)	<0.0002			



# Time Series

Constituent: Cobalt (mg/L) Analysis Run 5/16/2022 2:08 PM  
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-5R	GS-AP-MW-9R	GS-AP-PZ-18R	GS-AP-MW-46
2/21/2022			0.00014 (J)	
2/22/2022				
2/23/2022				<0.0002
2/28/2022				
3/1/2022	<0.0002	9E-05 (J)		

# Time Series

Constituent: Combined Radium 226 + 228 (pCi/L) Analysis Run 5/16/2022 2:08 PM

Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-12	GS-AP-MW-12V	GS-AP-MW-13 (bg)	GS-AP-MW-15	GS-AP-MW-15V	GS-AP-MW-16D	GS-AP-MW-16S ...	GS-AP-MW-17	GS-AP-MW-17V ...
8/1/2016				0.682		0.363 (U)		0.508 (U)	
8/2/2016			0.0177 (U)						
8/3/2016	1.08								
9/19/2016						0.435 (U)		0.216 (U)	
9/20/2016	0.848		0.725	1.2					
9/21/2016									
10/24/2016								0.694	
10/25/2016	0.92		0.494 (U)	0.194 (U)		0.725			
12/13/2016	0.974		0.39 (U)			0.309 (U)		0.614	
12/14/2016				0.688					
2/6/2017								-0.0283 (U)	
2/7/2017									
2/8/2017	0.535		0.455 (U)	0.254 (U)		0.00772 (U)			
3/27/2017								0.0736 (U)	
3/28/2017				-0.0411 (U)					
3/29/2017	0.194 (U)		0.251 (U)			0.36 (U)			
3/30/2017									
4/24/2017								0.114 (U)	
4/26/2017	0.384 (U)		0.0762 (U)	0.207 (U)		0.0175 (U)			
6/5/2017								0.476	
6/6/2017				0.0618 (U)		0.464			
6/7/2017	0.729		0.32 (U)						
2/19/2018								0.322 (U)	
2/20/2018	0.242 (U)		0.465	0.0898 (U)					
2/21/2018						0.44			
5/15/2018	0.433 (U)		0.0571 (U)	0.829				0.526	
5/16/2018						0.209 (U)			
10/15/2018				0.708				0.199 (U)	
10/16/2018	0.421 (U)								
10/17/2018			0.482			0.368 (U)			
2/20/2019									0.398 (U)
2/21/2019		0.296 (U)							
2/26/2019									
4/16/2019	0.184 (U)		0.506 (U)						
4/17/2019				-0.11 (U)		0.121 (U)		0.00935 (U)	
9/23/2019								0.983	
9/24/2019				0.951		-0.033 (U)			0.373 (U)
9/25/2019	0.442 (U)	1.03							
3/16/2020								0.185 (U)	
3/17/2020									
3/18/2020	0.605			0.939	0.566 (U)				
3/23/2020									
3/24/2020		0.877 (U)				0.636			
3/25/2020									0.0656 (U)
5/12/2020								0.0339 (U)	
5/13/2020									
9/17/2020									
9/21/2020					0.494 (U)		0.47 (U)	0.651 (U)	
9/22/2020						0.59 (U)			
9/23/2020	0.811 (U)	1.38		0.547 (U)					0.542 (U)
2/1/2021	0.946 (U)	0.944 (U)							
2/2/2021							2.53		0.448 (U)





# Time Series

Constituent: Combined Radium 226 + 228 (pCi/L) Analysis Run 5/16/2022 2:08 PM

Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-19	GS-AP-MW-2	GS-AP-MW-21	GS-AP-MW-21V	GS-AP-MW-23H	GS-AP-MW-24H	GS-AP-MW-25HA
8/1/2016	0.697 (U)						
8/2/2016		0.274 (U)	0.665				
8/3/2016							
9/19/2016		0.0478 (U)					
9/20/2016							
9/21/2016	1.79		0.532 (U)				
10/24/2016	1.53	1.41					
10/25/2016			0.601				
12/13/2016	0.758	0.733					
12/14/2016			1.02				
2/6/2017							
2/7/2017	0.473						
2/8/2017		0.0206 (U)	-0.074 (U)				
3/27/2017							
3/28/2017	0.0705 (U)		0.3 (U)				
3/29/2017							
3/30/2017		0.122 (U)					
4/24/2017							
4/26/2017	0.238 (U)	0.397 (U)	0.982 (U)				
6/5/2017							
6/6/2017	0.909	0.0873 (U)	0.312 (U)				
6/7/2017							
2/19/2018							
2/20/2018			0.321 (U)				
2/21/2018	0.349 (U)	0.562					
5/15/2018			1.7				
5/16/2018	1.12	1.44					
10/15/2018							
10/16/2018	0.856	0.736	0.586				
10/17/2018							
2/20/2019				0.0759 (U)			
2/21/2019							
2/26/2019						0.9	
4/16/2019							
4/17/2019	0.507 (U)	0.0905 (U)	0.47 (U)				
9/23/2019				0.00709 (U)			
9/24/2019	0.664		1.08			1.23	
9/25/2019		0.537 (U)					
3/16/2020							
3/17/2020				0.989			
3/18/2020			0.732			0.788	
3/23/2020				0.982			
3/24/2020	1.07						-0.00194 (U)
3/25/2020		4					
5/12/2020							
5/13/2020		0.289 (U)					
9/17/2020				0.66 (U)		0.298 (U)	-0.369 (U)
9/21/2020							
9/22/2020	2.09	0.712					
9/23/2020			0.468 (U)	0.563 (U)			
2/1/2021		0.518 (U)					
2/2/2021						1.03 (U)	

# Time Series

Constituent: Combined Radium 226 + 228 (pCi/L) Analysis Run 5/16/2022 2:08 PM

Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-19	GS-AP-MW-2	GS-AP-MW-21	GS-AP-MW-21V	GS-AP-MW-23H	GS-AP-MW-24H	GS-AP-MW-25HA
2/3/2021					0.767 (U)		
2/8/2021	0.947 (U)		0.667 (U)				
2/9/2021				0.867 (U)			
2/10/2021							0.422 (U)
6/9/2021							
7/27/2021					0.124 (U)		
8/2/2021							
8/3/2021						1.3 (U)	
8/4/2021		0.502 (U)	0.337 (U)				
8/9/2021							
8/10/2021	1.42 (U)						
8/11/2021				0.782 (U)			
8/12/2021							0.129 (U)
2/8/2022			0.529 (U)	0.467 (U)			
2/14/2022					0.153 (U)		
2/15/2022						1.16	
2/16/2022							0.763 (U)
2/22/2022	0.639 (U)	0.21 (U)					
2/23/2022							
2/28/2022							



# Time Series

Constituent: Combined Radium 226 + 228 (pCi/L) Analysis Run 5/16/2022 2:08 PM

Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-35HO	GS-AP-MW-36H	GS-AP-MW-38H	GS-AP-MW-40H	GS-AP-MW-41HD	GS-AP-MW-41HS	GS-AP-MW-42H
2/27/2019							
3/13/2019							
9/23/2019							
9/24/2019							
9/25/2019							
3/16/2020							
3/17/2020	7.32	4.33					
3/18/2020					0.64		
3/24/2020			0.862				0.0821 (U)
3/25/2020							
5/12/2020	1.02						
5/13/2020		-0.225 (U)					
9/15/2020							
9/16/2020	0.435 (U)						
9/17/2020		-0.125 (U)			0.14 (U)		
9/21/2020							
9/22/2020			1.1	1.91			0.36 (U)
2/1/2021							
2/2/2021				0.369 (U)			
2/3/2021							0.475 (U)
2/4/2021	0.527 (U)						
2/8/2021					0.409 (U)	0.49 (U)	
2/9/2021			0.746 (U)				
2/10/2021							
2/17/2021		0.322 (U)					
7/27/2021							
7/28/2021	0.0525 (U)					0.759 (U)	
8/2/2021							
8/3/2021					0.453 (U)		
8/4/2021		1.13	0.844 (U)				0.186 (U)
8/9/2021							
8/10/2021				0.91 (U)			
2/8/2022						0.267 (U)	
2/9/2022	0.23 (U)						
2/14/2022		7.37					
2/15/2022				0.64 (U)	0.256 (U)		
2/16/2022							0.275 (U)
2/22/2022			0.341 (U)				



# Time Series

Constituent: Combined Radium 226 + 228 (pCi/L) Analysis Run 5/16/2022 2:08 PM

Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

GS-AP-MW-43HO GS-AP-MW-44HO GS-AP-MW-6D GS-AP-MW-6 GS-AP-MW-6V GS-AP-MW-7 GS-AP-MW-8 (bg) GS-AP-MW-9V GS-AP-PZ-16

2/28/2022

3/1/2022

# Time Series

Constituent: Combined Radium 226 + 228 (pCi/L) Analysis Run 5/16/2022 2:08 PM

Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-PZ-22	GS-AP-MW-10R	GS-AP-MW-11R	GS-AP-MW-13R	GS-AP-MW-14R	GS-AP-MW-18R	GS-AP-MW-18VR
8/2/2016							
8/3/2016							
9/20/2016							
9/21/2016							
10/24/2016							
10/25/2016							
10/26/2016							
12/12/2016							
12/13/2016							
2/6/2017							
3/27/2017							
3/28/2017							
4/24/2017							
6/6/2017							
6/7/2017							
2/19/2018							
5/14/2018							
5/15/2018							
10/15/2018							
10/16/2018							
4/16/2019							
4/23/2019							
9/23/2019							
9/24/2019							
3/17/2020							
3/18/2020							
3/23/2020							
3/24/2020	0.878						
3/25/2020							
8/27/2020							
9/8/2020							
9/15/2020							
9/16/2020							
9/17/2020	0.896						
9/21/2020							
9/22/2020							
2/2/2021	1.01 (U)						
2/3/2021							
2/17/2021							
7/27/2021							
8/2/2021							
8/3/2021	0.195 (U)						
8/4/2021							
8/9/2021							
8/10/2021							
2/8/2022							
2/9/2022							
2/14/2022	0.67 (U)						
2/15/2022							
2/16/2022							
2/21/2022							
2/22/2022					0.961 (U)	0.187 (U)	



# Time Series

Constituent: Combined Radium 226 + 228 (pCi/L) Analysis Run 5/16/2022 2:08 PM

Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-PZ-22	GS-AP-MW-10R	GS-AP-MW-11R	GS-AP-MW-13R	GS-AP-MW-14R	GS-AP-MW-18R	GS-AP-MW-18VR
2/28/2022					0.801 (U)		
3/1/2022		1.05 (U)	0.757 (U)	0.656 (U)			



# Time Series

Constituent: Combined Radium 226 + 228 (pCi/L) Analysis Run 5/16/2022 2:08 PM  
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-5R	GS-AP-MW-9R	GS-AP-PZ-18R	GS-AP-MW-46
2/21/2022			0.775 (U)	
2/22/2022				
2/23/2022				0.0974 (U)
2/28/2022				
3/1/2022	0.799 (U)	0.663 (U)		

# Time Series

Constituent: Fluoride (mg/L) Analysis Run 5/16/2022 2:08 PM  
 Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-12	GS-AP-MW-12V	GS-AP-MW-13 (bg)	GS-AP-MW-15	GS-AP-MW-15V	GS-AP-MW-16D	GS-AP-MW-16S ...	GS-AP-MW-17	GS-AP-MW-17V ...
8/1/2016				1.16		0.117 (J)		0.214 (J)	
8/2/2016			0.161 (J)						
8/3/2016	0.656								
9/19/2016						0.078 (J)		0.151 (J)	
9/20/2016	0.691		0.122 (J)	0.7					
9/21/2016									
10/24/2016								0.086 (J)	
10/25/2016	0.588		0.058 (J)	0.544		0.018 (J)			
12/13/2016	0.545		0.072 (J)			0.035 (J)		0.14 (J)	
12/14/2016				0.51					
2/6/2017								0.2	
2/7/2017									
2/8/2017	0.79		0.16	0.56		0.1			
3/27/2017								0.21	
3/28/2017				0.59					
3/29/2017	0.51		0.14			0.08 (J)			
3/30/2017									
4/24/2017								0.2	
4/26/2017	0.49		0.16	0.72		0.11			
6/5/2017								0.2	
6/6/2017				0.65		0.11			
6/7/2017	0.43		0.15						
8/21/2017									
8/22/2017	0.41		0.18	0.9		0.11		0.24	
8/23/2017									
2/19/2018								0.34	
2/20/2018	0.27		0.17	0.6					
2/21/2018						0.11			
5/15/2018	0.23		0.17	0.57				0.27	
5/16/2018						0.12			
10/15/2018				0.77				0.23	
10/16/2018	0.23								
10/17/2018			0.19			0.13			
2/20/2019									0.239
2/21/2019		0.205							
2/26/2019									
4/16/2019	0.188		0.197						
4/17/2019				0.463		0.171		0.354	
9/23/2019								0.351	
9/24/2019				0.628		0.124			0.245
9/25/2019	0.168	0.185							
3/16/2020								0.261	
3/17/2020									
3/18/2020	0.122			0.647	0.243				
3/23/2020									
3/24/2020		0.155				0.109			
3/25/2020									0.243
5/12/2020								0.263	
5/13/2020									
9/17/2020									
9/21/2020					0.372		0.572	0.371	
9/22/2020						0.123			



# Time Series

Constituent: Fluoride (mg/L) Analysis Run 5/16/2022 2:08 PM  
 Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-19	GS-AP-MW-2	GS-AP-MW-21	GS-AP-MW-21V	GS-AP-MW-23H	GS-AP-MW-24H	GS-AP-MW-25HA
8/1/2016	0.385						
8/2/2016		1.76	0.282 (J)				
8/3/2016							
9/19/2016		1.55					
9/20/2016							
9/21/2016	0.303		0.231 (J)				
10/24/2016	0.24 (J)	1.29					
10/25/2016			0.137 (J)				
12/13/2016	0.188 (J)	1.19					
12/14/2016			0.131 (J)				
2/6/2017							
2/7/2017	0.38						
2/8/2017		1.6	0.25				
3/27/2017							
3/28/2017	0.32		0.27				
3/29/2017							
3/30/2017		1.5					
4/24/2017							
4/26/2017	0.31	1.4	0.24				
6/5/2017							
6/6/2017	0.31	1.3	0.25				
6/7/2017							
8/21/2017		1.4					
8/22/2017	0.35						
8/23/2017			0.3				
2/19/2018							
2/20/2018			0.23				
2/21/2018	0.39	1.1					
5/15/2018			0.24				
5/16/2018	0.36	1.1					
10/15/2018							
10/16/2018	0.37	1	0.25				
10/17/2018							
2/20/2019				0.188			
2/21/2019							
2/26/2019						0.19	
4/16/2019							
4/17/2019	0.27	0.868	0.272				
9/23/2019				0.144			
9/24/2019	0.307		0.209			0.201	
9/25/2019		0.86					
3/16/2020							
3/17/2020				0.241			
3/18/2020			0.234			0.206	
3/23/2020				0.494			
3/24/2020	0.327						1.77
3/25/2020		0.855					
5/12/2020							
5/13/2020		0.777					
9/17/2020				0.117		0.217	1.93
9/21/2020							
9/22/2020	0.339	0.921					

# Time Series

Constituent: Fluoride (mg/L) Analysis Run 5/16/2022 2:08 PM  
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-19	GS-AP-MW-2	GS-AP-MW-21	GS-AP-MW-21V	GS-AP-MW-23H	GS-AP-MW-24H	GS-AP-MW-25HA
9/23/2020			0.208	0.641			
2/1/2021		0.865					
2/2/2021						0.209	
2/3/2021				0.156			
2/8/2021	0.319		0.203				
2/9/2021				0.546			
2/10/2021							1.81
6/9/2021							
7/27/2021				0.13			
8/2/2021							
8/3/2021						0.208	
8/4/2021		0.932	0.24				
8/9/2021							
8/10/2021	0.283						
8/11/2021				0.41			
8/12/2021							2.01
2/8/2022			0.175	0.398			
2/14/2022				0.14			
2/15/2022						0.176	
2/16/2022							1.89
2/22/2022	0.259	0.819					
2/23/2022							
2/28/2022							





# Time Series

Constituent: Fluoride (mg/L) Analysis Run 5/16/2022 2:08 PM  
 Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-35HO	GS-AP-MW-36H	GS-AP-MW-38H	GS-AP-MW-40H	GS-AP-MW-41HD	GS-AP-MW-41HS	GS-AP-MW-42H
2/27/2019							
3/13/2019							
9/23/2019							
9/24/2019							
9/25/2019							
3/16/2020							
3/17/2020	0.166	0.214					
3/18/2020					0.165		
3/24/2020			0.291				0.13
3/25/2020							
5/12/2020	0.167						
5/13/2020		0.224					
9/15/2020							
9/16/2020	0.162						
9/17/2020		0.209			0.16		
9/21/2020							
9/22/2020			0.28	0.114			0.121
2/1/2021							
2/2/2021				0.123			
2/3/2021							0.131
2/4/2021	0.152						
2/8/2021					0.138	0.152	
2/9/2021			0.243				
2/10/2021							
2/17/2021		0.22					
7/27/2021							
7/28/2021	0.207					0.172	
8/2/2021							
8/3/2021					0.15		
8/4/2021		0.31	0.305				0.203
8/9/2021							
8/10/2021				0.113			
2/8/2022						0.117	
2/9/2022	0.119						
2/14/2022		0.238					
2/15/2022				0.0854 (J)	0.125		
2/16/2022							0.0837 (J)
2/22/2022			0.239				



# Time Series

Constituent: Fluoride (mg/L) Analysis Run 5/16/2022 2:08 PM  
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

GS-AP-MW-43HO GS-AP-MW-44HO GS-AP-MW-6D GS-AP-MW-6 GS-AP-MW-6V GS-AP-MW-7 GS-AP-MW-8 (bg) GS-AP-MW-9V GS-AP-PZ-16

2/22/2022

2/28/2022

3/1/2022

# Time Series

Constituent: Fluoride (mg/L) Analysis Run 5/16/2022 2:08 PM  
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-PZ-22	GS-AP-MW-10R	GS-AP-MW-11R	GS-AP-MW-13R	GS-AP-MW-14R	GS-AP-MW-18R	GS-AP-MW-18VR
8/2/2016							
8/3/2016							
9/20/2016							
9/21/2016							
10/24/2016							
10/25/2016							
10/26/2016							
12/12/2016							
12/13/2016							
2/6/2017							
3/27/2017							
3/28/2017							
4/24/2017							
6/6/2017							
6/7/2017							
8/21/2017							
2/19/2018							
5/14/2018							
5/15/2018							
10/15/2018							
10/16/2018							
4/16/2019							
4/23/2019							
9/23/2019							
9/24/2019							
3/17/2020							
3/18/2020							
3/23/2020							
3/24/2020	0.387						
3/25/2020							
8/27/2020							
9/8/2020							
9/15/2020							
9/16/2020							
9/17/2020	0.402						
9/21/2020							
9/22/2020							
2/2/2021	0.389						
2/3/2021							
2/17/2021							
7/27/2021							
8/2/2021							
8/3/2021	0.419						
8/4/2021							
8/9/2021							
8/10/2021							
2/8/2022							
2/9/2022							
2/14/2022	0.422						
2/15/2022							
2/16/2022							
2/21/2022							

# Time Series

Constituent: Fluoride (mg/L) Analysis Run 5/16/2022 2:08 PM  
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-PZ-22	GS-AP-MW-10R	GS-AP-MW-11R	GS-AP-MW-13R	GS-AP-MW-14R	GS-AP-MW-18R	GS-AP-MW-18VR
2/22/2022						0.124	0.199
2/28/2022					0.215		
3/1/2022		0.278	0.143	0.122			



# Time Series

Constituent: Fluoride (mg/L) Analysis Run 5/16/2022 2:08 PM  
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-5R	GS-AP-MW-9R	GS-AP-PZ-18R	GS-AP-MW-46
2/21/2022			0.207	
2/22/2022				
2/23/2022				0.226
2/28/2022				
3/1/2022	0.147	0.218		

# Time Series

Constituent: Lead (mg/L) Analysis Run 5/16/2022 2:08 PM  
 Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-12	GS-AP-MW-12V	GS-AP-MW-13 (bg)	GS-AP-MW-15	GS-AP-MW-15V	GS-AP-MW-16D	GS-AP-MW-16S ...	GS-AP-MW-17	GS-AP-MW-17V ...
8/1/2016				<0.0002		<0.0002		<0.0002	
8/2/2016			<0.0002						
8/3/2016	<0.0002								
9/19/2016						<0.0002		<0.0002	
9/20/2016	<0.0002		<0.0002	<0.0002					
9/21/2016									
10/24/2016								<0.0002	
10/25/2016	<0.0002		<0.0002	<0.0002		<0.0002			
12/13/2016	<0.0002		<0.0002			<0.0002		<0.0002	
12/14/2016				<0.0002					
2/6/2017								<0.0002	
2/7/2017									
2/8/2017	<0.0002		<0.0002	<0.0002		<0.0002			
3/27/2017								<0.0002	
3/28/2017				<0.0002					
3/29/2017	<0.0002		<0.0002			<0.0002			
3/30/2017									
4/24/2017								<0.0002	
4/26/2017	<0.0002		<0.0002	<0.0002		<0.0002			
6/5/2017								<0.0002	
6/6/2017				<0.0002		<0.0002			
6/7/2017	<0.0002		<0.0002						
2/19/2018								<0.0002	
2/20/2018	<0.0002		<0.0002	<0.0002					
2/21/2018						<0.0002			
5/15/2018	<0.0002		<0.0002	<0.0002				<0.0002	
5/16/2018						<0.0002			
10/15/2018				<0.0002				<0.0002	
10/16/2018	<0.0002								
10/17/2018			<0.0002			<0.0002			
2/20/2019									0.00189 (J)
2/21/2019		<0.0002							
2/26/2019									
4/16/2019	<0.0002		<0.0002						
4/17/2019				<0.0002		<0.0002		<0.0002	
9/23/2019								<0.0002	
9/24/2019				<0.0002		<0.0002			<0.0002
9/25/2019	<0.0002	<0.0002							
3/16/2020								<0.0002	
3/17/2020									
3/18/2020	<0.0002			<0.0002	<0.0002				
3/23/2020									
3/24/2020		0.00279 (J)				<0.0002			
3/25/2020									<0.0002
5/12/2020								<0.0002	
5/13/2020									
9/17/2020									
9/21/2020					<0.0002		<0.0002	<0.0002	
9/22/2020						<0.0002			
9/23/2020	<0.0002	0.0014 (J)		<0.0002					<0.0002
2/1/2021	<0.0002	0.0013							
2/2/2021							0.000175 (J)	<0.0002	





# Time Series

Constituent: Lead (mg/L) Analysis Run 5/16/2022 2:08 PM  
 Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-19	GS-AP-MW-2	GS-AP-MW-21	GS-AP-MW-21V	GS-AP-MW-23H	GS-AP-MW-24H	GS-AP-MW-25HA
8/1/2016	<0.0002						
8/2/2016		<0.0002	<0.0002				
8/3/2016							
9/19/2016		<0.0002					
9/20/2016							
9/21/2016	<0.0002		<0.0002				
10/24/2016	<0.0002	<0.0002					
10/25/2016			<0.0002				
12/13/2016	<0.0002	<0.0002					
12/14/2016			<0.0002				
2/6/2017							
2/7/2017	<0.0002						
2/8/2017		<0.0002	<0.0002				
3/27/2017							
3/28/2017	<0.0002		<0.0002				
3/29/2017							
3/30/2017		<0.0002					
4/24/2017							
4/26/2017	<0.0002	<0.0002	<0.0002				
6/5/2017							
6/6/2017	<0.0002	<0.0002	<0.0002				
6/7/2017							
2/19/2018							
2/20/2018			<0.0002				
2/21/2018	<0.0002	<0.0002					
5/15/2018			<0.0002				
5/16/2018	<0.0002	<0.0002					
10/15/2018							
10/16/2018	<0.0002	<0.0002	<0.0002				
10/17/2018							
2/20/2019				<0.0002			
2/21/2019							
2/26/2019						<0.0002	
4/16/2019							
4/17/2019	<0.0002	<0.0002	<0.0002				
9/23/2019				<0.0002			
9/24/2019	<0.0002		<0.0002			<0.0002	
9/25/2019		<0.0002					
3/16/2020							
3/17/2020				<0.0002			
3/18/2020			<0.0002			<0.0002	
3/23/2020				<0.0002			
3/24/2020	<0.0002						<0.0002
3/25/2020		<0.0002					
5/12/2020							
5/13/2020		<0.0002					
9/17/2020				<0.0002	<0.0002	<0.0002	
9/21/2020							
9/22/2020	<0.0002	<0.0002					
9/23/2020			<0.0002	<0.0002			
2/1/2021		<0.0002					
2/2/2021						<0.0002	

# Time Series

Constituent: Lead (mg/L) Analysis Run 5/16/2022 2:08 PM  
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-19	GS-AP-MW-2	GS-AP-MW-21	GS-AP-MW-21V	GS-AP-MW-23H	GS-AP-MW-24H	GS-AP-MW-25HA
2/3/2021					<0.0002		
2/8/2021	<0.0002		<0.0002				
2/9/2021				<0.0002			
2/10/2021							<0.0002
6/9/2021							
7/27/2021					<0.0002		
8/2/2021							
8/3/2021						<0.0002	
8/4/2021		<0.0002	<0.0002				
8/9/2021							
8/10/2021	<0.0002						
8/11/2021				<0.0002			
8/12/2021							<0.0002
2/8/2022			<0.0002	<0.0002			
2/14/2022					<0.0002		
2/15/2022						<0.0002	
2/16/2022							0.00018 (J)
2/22/2022	<0.0002	<0.0002					
2/23/2022							
2/28/2022							



# Time Series

Constituent: Lead (mg/L) Analysis Run 5/16/2022 2:08 PM  
 Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-35HO	GS-AP-MW-36H	GS-AP-MW-38H	GS-AP-MW-40H	GS-AP-MW-41HD	GS-AP-MW-41HS	GS-AP-MW-42H
2/27/2019							
3/13/2019							
9/23/2019							
9/24/2019							
9/25/2019							
3/16/2020							
3/17/2020	<0.0002	<0.0002					
3/18/2020					<0.0002		
3/24/2020			<0.0002				<0.0002
3/25/2020							
5/12/2020	<0.0002						
5/13/2020		<0.0002					
9/15/2020							
9/16/2020	<0.0002						
9/17/2020		<0.0002			<0.0002		
9/21/2020							
9/22/2020			<0.0002	<0.0002			<0.0002
2/1/2021							
2/2/2021				<0.0002			
2/3/2021							<0.0002
2/4/2021	<0.0002						
2/8/2021					<0.0002	<0.0002	
2/9/2021			8.23E-05 (J)				
2/10/2021							
2/17/2021		8.8E-05 (J)					
7/27/2021							
7/28/2021	<0.0002					<0.0002	
8/2/2021							
8/3/2021					<0.0002		
8/4/2021		<0.0002	<0.0002				<0.0002
8/9/2021							
8/10/2021				<0.0002			
2/8/2022						<0.0002	
2/9/2022	<0.0002						
2/14/2022		<0.0002					
2/15/2022				<0.0002	<0.0002		
2/16/2022							<0.0002
2/22/2022			<0.0002				



# Time Series

Constituent: Lead (mg/L) Analysis Run 5/16/2022 2:08 PM  
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

GS-AP-MW-43HO GS-AP-MW-44HO GS-AP-MW-6D GS-AP-MW-6 GS-AP-MW-6V GS-AP-MW-7 GS-AP-MW-8 (bg) GS-AP-MW-9V GS-AP-PZ-16

2/28/2022

3/1/2022

# Time Series

Constituent: Lead (mg/L) Analysis Run 5/16/2022 2:08 PM  
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-PZ-22	GS-AP-MW-10R	GS-AP-MW-11R	GS-AP-MW-13R	GS-AP-MW-14R	GS-AP-MW-18R	GS-AP-MW-18VR
8/2/2016							
8/3/2016							
9/20/2016							
9/21/2016							
10/24/2016							
10/25/2016							
10/26/2016							
12/12/2016							
12/13/2016							
2/6/2017							
3/27/2017							
3/28/2017							
4/24/2017							
6/6/2017							
6/7/2017							
2/19/2018							
5/14/2018							
5/15/2018							
10/15/2018							
10/16/2018							
4/16/2019							
4/23/2019							
9/23/2019							
9/24/2019							
3/17/2020							
3/18/2020							
3/23/2020							
3/24/2020	<0.0002						
3/25/2020							
8/27/2020							
9/8/2020							
9/15/2020							
9/16/2020							
9/17/2020	<0.0002						
9/21/2020							
9/22/2020							
2/2/2021	<0.0002						
2/3/2021							
2/17/2021							
7/27/2021							
8/2/2021							
8/3/2021	<0.0002						
8/4/2021							
8/9/2021							
8/10/2021							
2/8/2022							
2/9/2022							
2/14/2022	<0.0002						
2/15/2022							
2/16/2022							
2/21/2022							
2/22/2022						8E-05 (J)	9E-05 (J)



# Time Series

Constituent: Lead (mg/L) Analysis Run 5/16/2022 2:08 PM  
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-PZ-22	GS-AP-MW-10R	GS-AP-MW-11R	GS-AP-MW-13R	GS-AP-MW-14R	GS-AP-MW-18R	GS-AP-MW-18VR
2/28/2022					0.00045		
3/1/2022		0.00013 (J)	<0.0002	0.00013 (J)			



# Time Series

Constituent: Lead (mg/L) Analysis Run 5/16/2022 2:08 PM  
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-5R	GS-AP-MW-9R	GS-AP-PZ-18R	GS-AP-MW-46
2/21/2022			<0.0002	
2/22/2022				
2/23/2022				<0.0002
2/28/2022				
3/1/2022	<0.0002	<0.0002		

# Time Series

Constituent: Lithium (mg/L) Analysis Run 5/16/2022 2:08 PM  
 Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-12	GS-AP-MW-12V	GS-AP-MW-13 (bg)	GS-AP-MW-15	GS-AP-MW-15V	GS-AP-MW-16D	GS-AP-MW-16S ...	GS-AP-MW-17	GS-AP-MW-17V ...
8/1/2016				0.393		0.036 (J)		0.0479 (J)	
8/2/2016			0.0121 (J)						
8/3/2016	0.0265 (J)								
9/19/2016						0.0346 (J)		0.0467 (J)	
9/20/2016	0.0225 (J)		0.0116 (J)	0.144					
9/21/2016									
10/24/2016								0.0462 (J)	
10/25/2016	0.0217 (J)		0.0114 (J)	0.152		0.0353 (J)			
12/13/2016	0.026 (J)		0.0116 (J)			0.0361 (J)		0.0296 (J)	
12/14/2016				0.136					
2/6/2017								0.064	
2/7/2017									
2/8/2017	0.0315 (J)		0.0118 (J)	0.15		0.0401 (J)			
3/27/2017								0.0683	
3/28/2017				0.137					
3/29/2017	0.0308 (J)		0.0118 (J)			0.0379 (J)			
3/30/2017									
4/24/2017								0.0534	
4/26/2017	0.0248 (J)		<0.02	0.123		0.0318 (J)			
6/5/2017								0.0574	
6/6/2017				0.123		0.032 (J)			
6/7/2017	0.0234 (J)		<0.02						
2/19/2018								0.0481 (J)	
2/20/2018	0.058		<0.02	0.149					
2/21/2018						0.0327 (J)			
5/15/2018	0.0489 (J)		0.0101	0.159				0.0551	
5/16/2018						0.0337 (J)			
10/15/2018				0.297				0.0606	
10/16/2018	0.0341								
10/17/2018			<0.02			0.0336			
2/20/2019									0.0671
2/21/2019		0.0468							
2/26/2019									
4/16/2019	0.0261		0.0101 (J)						
4/17/2019				0.19		0.0349		0.0574	
9/23/2019								0.0583	
9/24/2019				0.469		0.0362			0.0809
9/25/2019	0.028	0.0611							
3/16/2020								0.0665	
3/17/2020									
3/18/2020	0.0297			0.378	0.208				
3/23/2020									
3/24/2020		0.0462				0.035			
3/25/2020									0.0646
5/12/2020								0.0602	
5/13/2020									
9/17/2020									
9/21/2020					0.116		0.074	0.0579	
9/22/2020						0.0343			
9/23/2020	0.0279	0.0409		0.414					0.0574
2/1/2021	0.0249	0.0384							
2/2/2021								0.0634	0.0585



# Time Series

Constituent: Lithium (mg/L) Analysis Run 5/16/2022 2:08 PM  
 Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-19	GS-AP-MW-2	GS-AP-MW-21	GS-AP-MW-21V	GS-AP-MW-23H	GS-AP-MW-24H	GS-AP-MW-25HA
8/1/2016	0.0252 (J)						
8/2/2016		0.0495 (J)	0.145				
8/3/2016							
9/19/2016		0.049 (J)					
9/20/2016							
9/21/2016	0.0223 (J)		0.153				
10/24/2016	0.0247 (J)	0.0488 (J)					
10/25/2016			0.171				
12/13/2016	0.0312 (J)	0.0483 (J)					
12/14/2016			0.182				
2/6/2017							
2/7/2017	0.0406 (J)						
2/8/2017		0.0644	0.178				
3/27/2017							
3/28/2017	0.0309 (J)		0.161				
3/29/2017							
3/30/2017		0.0597					
4/24/2017							
4/26/2017	0.0267 (J)	0.0459 (J)	0.126				
6/5/2017							
6/6/2017	0.0311 (J)	0.0491 (J)	0.135				
6/7/2017							
2/19/2018							
2/20/2018			0.158				
2/21/2018	0.0472 (J)	0.0534					
5/15/2018			0.174				
5/16/2018	0.0391 (J)	0.0451 (J)					
10/15/2018							
10/16/2018	0.0406	0.0511	0.219				
10/17/2018							
2/20/2019				0.031			
2/21/2019							
2/26/2019						0.0282	
4/16/2019							
4/17/2019	0.0429	0.0421	0.312				
9/23/2019				0.0324			
9/24/2019	0.0392		0.276			0.0275	
9/25/2019		0.0457					
3/16/2020							
3/17/2020				0.0327			
3/18/2020			0.379			0.0264	
3/23/2020				0.146			
3/24/2020	0.0417						0.0461
3/25/2020		0.0434					
5/12/2020							
5/13/2020		0.0409					
9/17/2020				0.0333	0.0237	0.0449	
9/21/2020							
9/22/2020	0.0435	0.0395					
9/23/2020			0.179	0.137			
2/1/2021		0.0445					
2/2/2021						0.0247	

# Time Series

Constituent: Lithium (mg/L) Analysis Run 5/16/2022 2:08 PM  
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-19	GS-AP-MW-2	GS-AP-MW-21	GS-AP-MW-21V	GS-AP-MW-23H	GS-AP-MW-24H	GS-AP-MW-25HA
2/3/2021					0.0319		
2/8/2021	0.0368		0.239				
2/9/2021				0.124			
2/10/2021							0.0579
6/9/2021							
7/27/2021					0.0309		
8/2/2021							
8/3/2021						0.0249	
8/4/2021		0.0443	0.213				
8/9/2021							
8/10/2021	0.0305						
8/11/2021				0.048			
8/12/2021							0.0558
2/8/2022			0.0996	0.0835			
2/14/2022					0.0306		
2/15/2022						0.0239	
2/16/2022							0.0504
2/22/2022	0.0266	0.0354					
2/23/2022							
2/28/2022							





# Time Series

Constituent: Lithium (mg/L) Analysis Run 5/16/2022 2:08 PM  
 Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-35HO	GS-AP-MW-36H	GS-AP-MW-38H	GS-AP-MW-40H	GS-AP-MW-41HD	GS-AP-MW-41HS	GS-AP-MW-42H
2/27/2019							
3/13/2019							
9/23/2019							
9/24/2019							
9/25/2019							
3/16/2020							
3/17/2020	0.074	0.0342					
3/18/2020					0.311		
3/24/2020			0.0632				0.0346
3/25/2020							
5/12/2020	0.0693						
5/13/2020		0.0337					
9/15/2020							
9/16/2020	0.0685						
9/17/2020		0.035			0.341		
9/21/2020							
9/22/2020			0.0591	0.0405			0.0333
2/1/2021							
2/2/2021				0.0571			
2/3/2021							0.0356
2/4/2021	0.0734						
2/8/2021					0.356	0.14	
2/9/2021			0.0676				
2/10/2021							
2/17/2021		0.039					
7/27/2021							
7/28/2021	0.0722					0.178	
8/2/2021							
8/3/2021					0.369		
8/4/2021		0.0455	0.0672				0.0348
8/9/2021							
8/10/2021				0.0567			
2/8/2022						0.0817	
2/9/2022	0.0673						
2/14/2022		0.0417					
2/15/2022				0.0539	0.366		
2/16/2022							0.0313
2/22/2022			0.0594				



# Time Series

Constituent: Lithium (mg/L) Analysis Run 5/16/2022 2:08 PM  
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

GS-AP-MW-43HO GS-AP-MW-44HO GS-AP-MW-6D GS-AP-MW-6 GS-AP-MW-6V GS-AP-MW-7 GS-AP-MW-8 (bg) GS-AP-MW-9V GS-AP-PZ-16

2/28/2022

3/1/2022

# Time Series

Constituent: Lithium (mg/L) Analysis Run 5/16/2022 2:08 PM  
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-PZ-22	GS-AP-MW-10R	GS-AP-MW-11R	GS-AP-MW-13R	GS-AP-MW-14R	GS-AP-MW-18R	GS-AP-MW-18VR
8/2/2016							
8/3/2016							
9/20/2016							
9/21/2016							
10/24/2016							
10/25/2016							
10/26/2016							
12/12/2016							
12/13/2016							
2/6/2017							
3/27/2017							
3/28/2017							
4/24/2017							
6/6/2017							
6/7/2017							
2/19/2018							
5/14/2018							
5/15/2018							
10/15/2018							
10/16/2018							
4/16/2019							
4/23/2019							
9/23/2019							
9/24/2019							
3/17/2020							
3/18/2020							
3/23/2020							
3/24/2020	0.0734						
3/25/2020							
8/27/2020							
9/8/2020							
9/15/2020							
9/16/2020							
9/17/2020	0.0862						
9/21/2020							
9/22/2020							
2/2/2021	0.0743						
2/3/2021							
2/17/2021							
7/27/2021							
8/2/2021							
8/3/2021	0.0685						
8/4/2021							
8/9/2021							
8/10/2021							
2/8/2022							
2/9/2022							
2/14/2022	0.055						
2/15/2022							
2/16/2022							
2/21/2022							
2/22/2022					<0.02		0.0446

# Time Series

Constituent: Lithium (mg/L) Analysis Run 5/16/2022 2:08 PM  
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-PZ-22	GS-AP-MW-10R	GS-AP-MW-11R	GS-AP-MW-13R	GS-AP-MW-14R	GS-AP-MW-18R	GS-AP-MW-18VR
2/28/2022					0.0228		
3/1/2022		0.0349	0.0281	0.0272			



# Time Series

Constituent: Lithium (mg/L) Analysis Run 5/16/2022 2:08 PM  
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-5R	GS-AP-MW-9R	GS-AP-PZ-18R	GS-AP-MW-46
2/21/2022			0.0157 (J)	
2/22/2022				
2/23/2022				0.0653
2/28/2022				
3/1/2022	0.0644	0.0361		

# Time Series

Constituent: Mercury (mg/L) Analysis Run 5/16/2022 2:08 PM  
 Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-12	GS-AP-MW-12V	GS-AP-MW-13 (bg)	GS-AP-MW-15	GS-AP-MW-15V	GS-AP-MW-16D	GS-AP-MW-16S ...	GS-AP-MW-17	GS-AP-MW-17V ...
8/1/2016				<0.0005		<0.0005		<0.0005	
8/2/2016			<0.0005						
8/3/2016	<0.0005								
9/19/2016						<0.0005		<0.0005	
9/20/2016	<0.0005		<0.0005	<0.0005					
9/21/2016									
10/24/2016								<0.0005	
10/25/2016	<0.0005		<0.0005	<0.0005		<0.0005			
12/13/2016	<0.0005		<0.0005			<0.0005		<0.0005	
12/14/2016				<0.0005					
2/6/2017								<0.0005	
2/7/2017									
2/8/2017	<0.0005		<0.0005	<0.0005		<0.0005			
3/27/2017								<0.0005	
3/28/2017				<0.0005					
3/29/2017	<0.0005		<0.0005			<0.0005			
3/30/2017									
4/24/2017								<0.0005	
4/26/2017	<0.0005		<0.0005	<0.0005		<0.0005			
6/5/2017								<0.0005	
6/6/2017				<0.0005		<0.0005			
6/7/2017	<0.0005		<0.0005						
2/19/2018								<0.0005	
2/20/2018	<0.0005		<0.0005	<0.0005					
2/21/2018						<0.0005			
5/15/2018	<0.0005		<0.0005	<0.0005				<0.0005	
5/16/2018						<0.0005			
10/15/2018				<0.0005				<0.0005	
10/16/2018	<0.0005								
10/17/2018			<0.0005			<0.0005			
2/20/2019									<0.0005
2/21/2019		<0.0005							
2/26/2019									
4/16/2019	<0.0005		<0.0005						
4/17/2019				<0.0005		<0.0005		<0.0005	
9/23/2019								<0.0005	
9/24/2019				<0.0005		<0.0005			<0.0005
9/25/2019	<0.0005	<0.0005							
3/16/2020								<0.0005	
3/17/2020									
3/18/2020	<0.0005			<0.0005	<0.0005				
3/23/2020									
3/24/2020		<0.0005				<0.0005			
3/25/2020									<0.0005
5/12/2020								<0.0005	
5/13/2020									
9/17/2020									
9/21/2020					<0.0005		<0.0005	<0.0005	
9/22/2020						<0.0005			
9/23/2020	<0.0005	<0.0005		<0.0005					<0.0005
2/1/2021	<0.0005	<0.0005							
2/2/2021								<0.0005	<0.0005





# Time Series

Constituent: Mercury (mg/L) Analysis Run 5/16/2022 2:08 PM  
 Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-19	GS-AP-MW-2	GS-AP-MW-21	GS-AP-MW-21V	GS-AP-MW-23H	GS-AP-MW-24H	GS-AP-MW-25HA
8/1/2016	<0.0005						
8/2/2016		<0.0005	<0.0005				
8/3/2016							
9/19/2016		<0.0005					
9/20/2016							
9/21/2016	<0.0005		<0.0005				
10/24/2016	<0.0005	<0.0005					
10/25/2016			<0.0005				
12/13/2016	<0.0005	<0.0005					
12/14/2016			<0.0005				
2/6/2017							
2/7/2017	<0.0005						
2/8/2017		<0.0005	<0.0005				
3/27/2017							
3/28/2017	<0.0005		<0.0005				
3/29/2017							
3/30/2017		<0.0005					
4/24/2017							
4/26/2017	<0.0005	<0.0005	<0.0005				
6/5/2017							
6/6/2017	<0.0005	<0.0005	<0.0005				
6/7/2017							
2/19/2018							
2/20/2018			<0.0005				
2/21/2018	<0.0005	<0.0005					
5/15/2018			<0.0005				
5/16/2018	<0.0005	<0.0005					
10/15/2018							
10/16/2018	<0.0005	<0.0005	<0.0005				
10/17/2018							
2/20/2019				<0.0005			
2/21/2019							
2/26/2019						<0.0005	
4/16/2019							
4/17/2019	<0.0005	<0.0005	<0.0005				
9/23/2019				<0.0005			
9/24/2019	<0.0005		<0.0005			<0.0005	
9/25/2019		<0.0005					
3/16/2020							
3/17/2020				<0.0005			
3/18/2020			<0.0005			<0.0005	
3/23/2020				<0.0005			
3/24/2020	<0.0005						<0.0005
3/25/2020		<0.0005					
5/12/2020							
5/13/2020		<0.0005					
9/17/2020				<0.0005	<0.0005	<0.0005	
9/21/2020							
9/22/2020	<0.0005	<0.0005					
9/23/2020			<0.0005	<0.0005			
2/1/2021		<0.0005					
2/2/2021						<0.0005	

# Time Series

Constituent: Mercury (mg/L) Analysis Run 5/16/2022 2:08 PM  
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-19	GS-AP-MW-2	GS-AP-MW-21	GS-AP-MW-21V	GS-AP-MW-23H	GS-AP-MW-24H	GS-AP-MW-25HA
2/3/2021					<0.0005		
2/8/2021	<0.0005		<0.0005				
2/9/2021				<0.0005			
2/10/2021							<0.0005
6/9/2021							
7/27/2021					<0.0005		
8/2/2021							
8/3/2021						<0.0005	
8/4/2021		<0.0005	<0.0005				
8/9/2021							
8/10/2021	<0.0005						
8/11/2021				<0.0005			
8/12/2021							<0.0005
2/8/2022			<0.0005	<0.0005			
2/14/2022					<0.0005		
2/15/2022						<0.0005	
2/16/2022							<0.0005
2/22/2022	<0.0005	<0.0005					
2/23/2022							
2/28/2022							



# Time Series

Constituent: Mercury (mg/L) Analysis Run 5/16/2022 2:08 PM  
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-35HO	GS-AP-MW-36H	GS-AP-MW-38H	GS-AP-MW-40H	GS-AP-MW-41HD	GS-AP-MW-41HS	GS-AP-MW-42H
2/27/2019							
3/13/2019							
9/23/2019							
9/24/2019							
9/25/2019							
3/16/2020							
3/17/2020	<0.0005	<0.0005					
3/18/2020					<0.0005		
3/24/2020			<0.0005				<0.0005
3/25/2020							
5/12/2020	<0.0005						
5/13/2020		<0.0005					
9/15/2020							
9/16/2020	<0.0005						
9/17/2020		<0.0005			<0.0005		
9/21/2020							
9/22/2020			<0.0005	<0.0005			<0.0005
2/1/2021							
2/2/2021				<0.0005			
2/3/2021							<0.0005
2/4/2021	<0.0005						
2/8/2021					<0.0005	<0.0005	
2/9/2021			<0.0005				
2/10/2021							
2/17/2021		<0.0005					
7/27/2021							
7/28/2021	<0.0005					<0.0005	
8/2/2021							
8/3/2021					<0.0005		
8/4/2021		<0.0005	<0.0005				<0.0005
8/9/2021							
8/10/2021				<0.0005			
2/8/2022						<0.0005	
2/9/2022	<0.0005						
2/14/2022		<0.0005					
2/15/2022				<0.0005	<0.0005		
2/16/2022							<0.0005
2/22/2022			<0.0005				



# Time Series

Constituent: Mercury (mg/L) Analysis Run 5/16/2022 2:08 PM  
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

GS-AP-MW-43HO GS-AP-MW-44HO GS-AP-MW-6D GS-AP-MW-6 GS-AP-MW-6V GS-AP-MW-7 GS-AP-MW-8 (bg) GS-AP-MW-9V GS-AP-PZ-16

2/28/2022

3/1/2022

# Time Series

Constituent: Mercury (mg/L) Analysis Run 5/16/2022 2:08 PM  
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-PZ-22	GS-AP-MW-10R	GS-AP-MW-11R	GS-AP-MW-13R	GS-AP-MW-14R	GS-AP-MW-18R	GS-AP-MW-18VR
8/2/2016							
8/3/2016							
9/20/2016							
9/21/2016							
10/24/2016							
10/25/2016							
10/26/2016							
12/12/2016							
12/13/2016							
2/6/2017							
3/27/2017							
3/28/2017							
4/24/2017							
6/6/2017							
6/7/2017							
2/19/2018							
5/14/2018							
5/15/2018							
10/15/2018							
10/16/2018							
4/16/2019							
4/23/2019							
9/23/2019							
9/24/2019							
3/17/2020							
3/18/2020							
3/23/2020							
3/24/2020	<0.0005						
3/25/2020							
8/27/2020							
9/8/2020							
9/15/2020							
9/16/2020							
9/17/2020	<0.0005						
9/21/2020							
9/22/2020							
2/2/2021	<0.0005						
2/3/2021							
2/17/2021							
7/27/2021							
8/2/2021							
8/3/2021	<0.0005						
8/4/2021							
8/9/2021							
8/10/2021							
2/8/2022							
2/9/2022							
2/14/2022	<0.0005						
2/15/2022							
2/16/2022							
2/21/2022							
2/22/2022					<0.0005	<0.0005	



# Time Series

Constituent: Mercury (mg/L) Analysis Run 5/16/2022 2:08 PM  
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-PZ-22	GS-AP-MW-10R	GS-AP-MW-11R	GS-AP-MW-13R	GS-AP-MW-14R	GS-AP-MW-18R	GS-AP-MW-18VR
2/28/2022					<0.0005		
3/1/2022		<0.0005	<0.0005	<0.0005			



# Time Series

Constituent: Mercury (mg/L) Analysis Run 5/16/2022 2:08 PM  
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-5R	GS-AP-MW-9R	GS-AP-PZ-18R	GS-AP-MW-46
2/21/2022			<0.0005	
2/22/2022				
2/23/2022				<0.0005
2/28/2022				
3/1/2022	<0.0005	<0.0005		

# Time Series

Constituent: Molybdenum (mg/L) Analysis Run 5/16/2022 2:08 PM

Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-12	GS-AP-MW-12V	GS-AP-MW-13 (bg)	GS-AP-MW-15	GS-AP-MW-15V	GS-AP-MW-16D	GS-AP-MW-16S ...	GS-AP-MW-17	GS-AP-MW-17V ...
8/1/2016				0.142		<0.0002		0.00738 (J)	
8/2/2016			<0.0002						
8/3/2016	0.0269								
9/19/2016						<0.0002		0.00889 (J)	
9/20/2016	0.00762 (J)		<0.0002	0.0683					
9/21/2016									
10/24/2016								0.00819 (J)	
10/25/2016	0.00456 (J)		<0.0002	0.063		<0.0002			
12/13/2016	0.00411 (J)		<0.0002			<0.0002		0.0189	
12/14/2016				0.0604					
2/6/2017								0.00852 (J)	
2/7/2017									
2/8/2017	0.00235 (J)		<0.0002	0.0346		<0.0002			
3/27/2017								0.00592 (J)	
3/28/2017				0.0331					
3/29/2017	<0.0002		<0.0002			<0.0002			
3/30/2017									
4/24/2017								0.00644 (J)	
4/26/2017	<0.0002		<0.0002	0.038		<0.0002			
6/5/2017								0.00537 (J)	
6/6/2017				0.0327		<0.0002			
6/7/2017	<0.0002		<0.0002						
2/19/2018								0.0134	
2/20/2018	<0.0002		<0.0002	0.0362					
2/21/2018						<0.0002			
5/15/2018	<0.0002		<0.0002	0.0344				0.00789 (J)	
5/16/2018						<0.0002			
10/15/2018				0.0525				0.00376 (J)	
10/16/2018	<0.0002								
10/17/2018			<0.0002			<0.0002			
2/20/2019									0.00577 (J)
2/21/2019		0.00253 (J)							
2/26/2019									
4/16/2019	<0.0002		<0.0002						
4/17/2019				0.029		<0.0002		0.00661 (J)	
9/23/2019								0.011	
9/24/2019				0.0597		<0.0002			0.00906 (J)
9/25/2019	<0.0002	0.00942 (J)							
3/16/2020								0.00504 (J)	
3/17/2020									
3/18/2020	0.00444 (J)			0.0673	0.0327				
3/23/2020									
3/24/2020		0.00454 (J)				<0.0002			
3/25/2020									0.00508 (J)
5/12/2020								0.00436 (J)	
5/13/2020									
9/17/2020									
9/21/2020					0.0538		0.041	0.00776 (J)	
9/22/2020						<0.0002			
9/23/2020	0.00577 (J)	0.00463 (J)		0.0744					0.00664 (J)
2/1/2021	0.00792	0.00164							
2/2/2021							0.00538		0.00252



# Time Series

Constituent: Molybdenum (mg/L) Analysis Run 5/16/2022 2:08 PM  
 Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-19	GS-AP-MW-2	GS-AP-MW-21	GS-AP-MW-21V	GS-AP-MW-23H	GS-AP-MW-24H	GS-AP-MW-25HA
8/1/2016	0.00752 (J)						
8/2/2016		<0.0002	0.0365				
8/3/2016							
9/19/2016		<0.0002					
9/20/2016							
9/21/2016	0.0117		0.0362				
10/24/2016	0.0198	<0.0002					
10/25/2016			0.0326				
12/13/2016	0.00703 (J)	<0.0002					
12/14/2016			0.0345				
2/6/2017							
2/7/2017	0.0103						
2/8/2017		0.00359 (J)	0.0419				
3/27/2017							
3/28/2017	0.00599 (J)		0.0523				
3/29/2017							
3/30/2017		0.00485 (J)					
4/24/2017							
4/26/2017	0.00845 (J)	0.00444 (J)	0.0502				
6/5/2017							
6/6/2017	0.00624 (J)	0.00489 (J)	0.05				
6/7/2017							
2/19/2018							
2/20/2018			0.0966				
2/21/2018	0.00903 (J)	0.0112					
5/15/2018			0.0687				
5/16/2018	0.00515 (J)	0.00547 (J)					
10/15/2018							
10/16/2018	0.00593 (J)	0.00919 (J)	0.061				
10/17/2018							
2/20/2019				<0.0002			
2/21/2019							
2/26/2019						<0.0002	
4/16/2019							
4/17/2019	0.00703 (J)	0.00293 (J)	0.0885				
9/23/2019				<0.0002			
9/24/2019	0.00562 (J)		0.0613			<0.0002	
9/25/2019		0.00803 (J)					
3/16/2020							
3/17/2020				<0.0002			
3/18/2020			0.102			<0.0002	
3/23/2020				0.117			
3/24/2020	0.00605 (J)						0.0176
3/25/2020		0.00343 (J)					
5/12/2020							
5/13/2020		0.00224 (J)					
9/17/2020				<0.0002	<0.0002		0.0182
9/21/2020							
9/22/2020	0.0063 (J)	0.00308 (J)					
9/23/2020			0.0404	0.12			
2/1/2021		0.00427					
2/2/2021						0.000563	

# Time Series

Constituent: Molybdenum (mg/L) Analysis Run 5/16/2022 2:08 PM  
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-19	GS-AP-MW-2	GS-AP-MW-21	GS-AP-MW-21V	GS-AP-MW-23H	GS-AP-MW-24H	GS-AP-MW-25HA
2/3/2021					0.000902		
2/8/2021	0.00366		0.0396				
2/9/2021				0.0983			
2/10/2021							0.0158
6/9/2021							
7/27/2021					0.0009		
8/2/2021							
8/3/2021						0.00052	
8/4/2021		0.00168	0.0367				
8/9/2021							
8/10/2021	0.00269						
8/11/2021				0.0394			
8/12/2021							0.0125
2/8/2022			0.0153	0.0819			
2/14/2022					0.00097		
2/15/2022						0.00053	
2/16/2022							0.00977
2/22/2022	0.00267	0.00327					
2/23/2022							
2/28/2022							





# Time Series

Constituent: Molybdenum (mg/L) Analysis Run 5/16/2022 2:08 PM  
 Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-35HO	GS-AP-MW-36H	GS-AP-MW-38H	GS-AP-MW-40H	GS-AP-MW-41HD	GS-AP-MW-41HS	GS-AP-MW-42H
2/27/2019							
3/13/2019							
9/23/2019							
9/24/2019							
9/25/2019							
3/16/2020							
3/17/2020	0.00222 (J)	0.00571 (J)					
3/18/2020					0.0158		
3/24/2020			0.00445 (J)				<-0.0002
3/25/2020							
5/12/2020	<-0.0002						
5/13/2020		0.00475 (J)					
9/15/2020							
9/16/2020	<-0.0002						
9/17/2020		0.0105			0.026		
9/21/2020							
9/22/2020			0.00423 (J)	0.00293 (J)			<-0.0002
2/1/2021							
2/2/2021				0.00257			
2/3/2021							0.00174
2/4/2021	0.00273						
2/8/2021					0.0284	0.00288	
2/9/2021			0.00267				
2/10/2021							
2/17/2021		0.0054					
7/27/2021							
7/28/2021	0.0017					0.0044	
8/2/2021							
8/3/2021					0.0286		
8/4/2021		0.017	0.00377				0.00169
8/9/2021							
8/10/2021				0.00171			
2/8/2022						0.00104	
2/9/2022	0.00175						
2/14/2022		0.0189					
2/15/2022				0.002	0.0331		
2/16/2022							0.00155
2/22/2022			0.00322				



# Time Series

Constituent: Molybdenum (mg/L) Analysis Run 5/16/2022 2:08 PM  
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

GS-AP-MW-43HO GS-AP-MW-44HO GS-AP-MW-6D GS-AP-MW-6 GS-AP-MW-6V GS-AP-MW-7 GS-AP-MW-8 (bg) GS-AP-MW-9V GS-AP-PZ-16

2/28/2022

3/1/2022

# Time Series

Constituent: Molybdenum (mg/L) Analysis Run 5/16/2022 2:08 PM  
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-PZ-22	GS-AP-MW-10R	GS-AP-MW-11R	GS-AP-MW-13R	GS-AP-MW-14R	GS-AP-MW-18R	GS-AP-MW-18VR
8/2/2016							
8/3/2016							
9/20/2016							
9/21/2016							
10/24/2016							
10/25/2016							
10/26/2016							
12/12/2016							
12/13/2016							
2/6/2017							
3/27/2017							
3/28/2017							
4/24/2017							
6/6/2017							
6/7/2017							
2/19/2018							
5/14/2018							
5/15/2018							
10/15/2018							
10/16/2018							
4/16/2019							
4/23/2019							
9/23/2019							
9/24/2019							
3/17/2020							
3/18/2020							
3/23/2020							
3/24/2020	0.00333 (J)						
3/25/2020							
8/27/2020							
9/8/2020							
9/15/2020							
9/16/2020							
9/17/2020	0.00357 (J)						
9/21/2020							
9/22/2020							
2/2/2021	0.00367						
2/3/2021							
2/17/2021							
7/27/2021							
8/2/2021							
8/3/2021	0.00352						
8/4/2021							
8/9/2021							
8/10/2021							
2/8/2022							
2/9/2022							
2/14/2022	0.00419						
2/15/2022							
2/16/2022							
2/21/2022							
2/22/2022					0.00028	0.0336	

# Time Series

Constituent: Molybdenum (mg/L) Analysis Run 5/16/2022 2:08 PM  
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-PZ-22	GS-AP-MW-10R	GS-AP-MW-11R	GS-AP-MW-13R	GS-AP-MW-14R	GS-AP-MW-18R	GS-AP-MW-18VR
2/28/2022					0.00097		
3/1/2022		0.00288	0.00014 (J)	0.00061			



# Time Series

Constituent: Molybdenum (mg/L) Analysis Run 5/16/2022 2:08 PM  
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-5R	GS-AP-MW-9R	GS-AP-PZ-18R	GS-AP-MW-46
2/21/2022			0.00091	
2/22/2022				
2/23/2022				0.00678
2/28/2022				
3/1/2022	0.00212	0.00313		

# Time Series

Constituent: pH (SU) Analysis Run 5/16/2022 2:08 PM  
 Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-12	GS-AP-MW-12V	GS-AP-MW-13 (bg)	GS-AP-MW-15	GS-AP-MW-15V	GS-AP-MW-16D	GS-AP-MW-16S ...	GS-AP-MW-17	GS-AP-MW-17V ...
8/1/2016				11.74		7.53		8.39	
8/2/2016			6.8						
8/3/2016	7.36								
9/19/2016						7.5		8.42	
9/20/2016	7.28		6.8	10.33					
9/21/2016									
10/24/2016								8.42	
10/25/2016	7.23		6.85	10.24		7.44			
12/13/2016	7.27		6.8			7.45		8.43	
12/14/2016				10.09					
2/6/2017								8.38	
2/7/2017									
2/8/2017	7.25		6.76	9.75		7.41			
3/27/2017								8.43	
3/28/2017				9.9					
3/29/2017	7.34		6.76			7.44			
3/30/2017									
4/24/2017								8.39	
4/26/2017	7.19		6.71	10.08		7.47			
6/5/2017								8.42	
6/6/2017				10.2		7.37			
6/7/2017	7.24		6.71						
8/21/2017									
8/22/2017	7.31		6.84	10.57		7.48		8.4	
8/23/2017									
2/19/2018								8.33	
2/20/2018	7.69		6.77	10.63					
2/21/2018						7.44			
5/15/2018	7.69		6.8	10.71				8.3	
5/16/2018						7.45			
10/15/2018				11.51				8.37	
10/16/2018	7.51								
10/17/2018			6.67			7.41			
2/20/2019									7.76
2/21/2019		7.46							
2/26/2019									
4/16/2019	7.41		6.64						
4/17/2019				10.76		7.33		8.36	
9/23/2019								8.37	
9/24/2019				11.7		7.43			7.65
9/25/2019	7.38	9.29							
3/16/2020								8.45	
3/17/2020									
3/18/2020	7.56			11.47	10.89				
3/23/2020									
3/24/2020		7.8				7.46			
3/25/2020									7.63
5/12/2020								8.42	
5/13/2020									
9/17/2020									
9/21/2020					10.07		9.99	8.22	
9/22/2020						7.52			





# Time Series

Constituent: pH (SU) Analysis Run 5/16/2022 2:08 PM  
 Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-19	GS-AP-MW-2	GS-AP-MW-21	GS-AP-MW-21V	GS-AP-MW-23H	GS-AP-MW-24H	GS-AP-MW-25HA
8/1/2016	8.05						
8/2/2016		9.18	10.26				
8/3/2016							
9/19/2016		9.18					
9/20/2016							
9/21/2016	8.14		10.45				
10/24/2016	8.55	9.14					
10/25/2016			10.42				
12/13/2016	8.08	9.2					
12/14/2016			10.12				
2/6/2017							
2/7/2017	8.61						
2/8/2017		9.17	10.28				
3/27/2017							
3/28/2017	7.94		10.67				
3/29/2017							
3/30/2017		9.08					
4/24/2017							
4/26/2017	8.26	9.22	10.42				
6/5/2017							
6/6/2017	8.23	9.22	10.51				
6/7/2017							
8/21/2017		9.12					
8/22/2017	8.1						
8/23/2017			11.91				
2/19/2018							
2/20/2018			11.57				
2/21/2018	8.48	9.17					
5/15/2018			11.26				
5/16/2018	8.12	9.28					
10/15/2018							
10/16/2018	8.22	9.35	11.34				
10/17/2018							
2/20/2019				6.17			
2/21/2019							
2/26/2019						7.04	
4/16/2019							
4/17/2019	8.06	9.26	11.71				
9/23/2019				5.76			
9/24/2019	7.8		11.24			6.59	
9/25/2019		9.31					
3/16/2020							
3/17/2020				5.95			
3/18/2020			11.37			7	
3/23/2020				7.93			
3/24/2020	7.93						8.67
3/25/2020		9.29					
5/12/2020							
5/13/2020		9.43					
9/17/2020				5.74		7.02	8.83
9/21/2020							
9/22/2020	8.17	9.41					

# Time Series

Constituent: pH (SU) Analysis Run 5/16/2022 2:08 PM  
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-19	GS-AP-MW-2	GS-AP-MW-21	GS-AP-MW-21V	GS-AP-MW-23H	GS-AP-MW-24H	GS-AP-MW-25HA
9/23/2020			10.71	7.81			
2/1/2021		9.31					
2/2/2021						6.93	
2/3/2021					6.22		
2/8/2021	7.89		10.69				
2/9/2021				7.87			
2/10/2021							8.77
6/9/2021							
7/27/2021					5.65		
8/2/2021							
8/3/2021						6.94	
8/4/2021		9.08	10.95				
8/9/2021							
8/10/2021	7.72						
8/11/2021				8.28			
8/12/2021							8.78
2/8/2022			10.26	7.98			
2/14/2022					5.8		
2/15/2022						7	
2/16/2022							8.5
2/22/2022	7.71	9.42					
2/23/2022							
2/28/2022							



# Time Series

Constituent: pH (SU) Analysis Run 5/16/2022 2:08 PM  
 Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-35HO	GS-AP-MW-36H	GS-AP-MW-38H	GS-AP-MW-40H	GS-AP-MW-41HD	GS-AP-MW-41HS	GS-AP-MW-42H
2/27/2019							
3/13/2019							
9/23/2019							
9/24/2019							
9/25/2019							
3/16/2020							
3/17/2020	8.4	8.44					
3/18/2020				7.2			
3/24/2020			7.99				6.28
3/25/2020							
5/12/2020	8.46						
5/13/2020		8.52					
9/15/2020							
9/16/2020	8.48						
9/17/2020		8.18		7.22			
9/21/2020							
9/22/2020			7.96	6.64			6.51
2/1/2021							
2/2/2021				6.55			
2/3/2021							6.47
2/4/2021	8.35						
2/8/2021				7.36	6.77		
2/9/2021			8.06				
2/10/2021							
2/17/2021		8.36					
7/27/2021							
7/28/2021	8.45					6.86	
8/2/2021							
8/3/2021				6.97			
8/4/2021		8.37	7.75				6.41
8/9/2021							
8/10/2021				6.56			
2/8/2022						6.66	
2/9/2022	8.55						
2/14/2022		8.22					
2/15/2022				6.6	7.35		
2/16/2022							6.54
2/22/2022			7.89				

# Time Series

Constituent: pH (SU) Analysis Run 5/16/2022 2:08 PM  
 Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-43HO	GS-AP-MW-44HO	GS-AP-MW-6D	GS-AP-MW-6	GS-AP-MW-6V	GS-AP-MW-7	GS-AP-MW-8 (bg)	GS-AP-MW-9V	GS-AP-PZ-16
8/2/2016						7.72			
8/3/2016			7.27	6.81			5.84		
9/20/2016			7.27	6.72					
9/21/2016						7.6	5.99		
10/24/2016			7.25			7.68			
10/25/2016							5.94		
10/26/2016				6.68					
12/12/2016			7.26	6.76		7.72			
12/13/2016							5.84		
2/6/2017			7.24	6.75		7.64	5.9		
3/27/2017			7.29	6.67					
3/28/2017						7.58	5.67		
4/24/2017			7.46	6.81		7.68	5.79		
6/6/2017			7.29	6.8					
6/7/2017						7.56	5.71		
8/21/2017			7.21	6.78		7.61	5.7		
2/19/2018			7.36	6.85		7.65	5.78		
5/14/2018			7.36	6.82					
5/15/2018						7.69	5.84		
10/15/2018			7.33	6.78		7.62			
10/16/2018							5.75		
4/16/2019			7.26	6.82			5.76		
4/23/2019						7.83			
9/23/2019			7.23	6.51					
9/24/2019						7.38	5.27		
3/17/2020			7.39	6.92		7.72			
3/18/2020							5.81		
3/23/2020							6.97		
3/24/2020									7.89
3/25/2020	8.24								
8/27/2020		8.9							
9/8/2020					8.67				
9/15/2020		8.94			8.76				
9/16/2020				6.93		7.74			
9/17/2020			7.41						9.15
9/21/2020							5.75		
9/22/2020	8.66						7.08		
2/2/2021						7.77	5.69	6.94	
2/3/2021		8.9	7.55	7.05	8.9				
2/17/2021	8.72								8.32
7/27/2021		9.04	6.79	6.67					
8/2/2021					8.76				
8/3/2021									
8/4/2021	8.75								
8/9/2021						7.49			9.09
8/10/2021							5.02	7.12	
2/8/2022						7.71			
2/9/2022		8.94			8.8				
2/14/2022			7.43	6.99					
2/15/2022									9.34
2/16/2022							5.8		
2/21/2022	8.58						7		

# Time Series

Constituent: pH (SU) Analysis Run 5/16/2022 2:08 PM  
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

GS-AP-MW-43HO GS-AP-MW-44HO GS-AP-MW-6D GS-AP-MW-6 GS-AP-MW-6V GS-AP-MW-7 GS-AP-MW-8 (bg) GS-AP-MW-9V GS-AP-PZ-16

2/22/2022

2/28/2022

3/1/2022

# Time Series

Constituent: pH (SU) Analysis Run 5/16/2022 2:08 PM  
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-PZ-22	GS-AP-MW-10R	GS-AP-MW-11R	GS-AP-MW-13R	GS-AP-MW-14R	GS-AP-MW-18R	GS-AP-MW-18VR
8/2/2016							
8/3/2016							
9/20/2016							
9/21/2016							
10/24/2016							
10/25/2016							
10/26/2016							
12/12/2016							
12/13/2016							
2/6/2017							
3/27/2017							
3/28/2017							
4/24/2017							
6/6/2017							
6/7/2017							
8/21/2017							
2/19/2018							
5/14/2018							
5/15/2018							
10/15/2018							
10/16/2018							
4/16/2019							
4/23/2019							
9/23/2019							
9/24/2019							
3/17/2020							
3/18/2020							
3/23/2020							
3/24/2020	7.77						
3/25/2020							
8/27/2020							
9/8/2020							
9/15/2020							
9/16/2020							
9/17/2020	8.81						
9/21/2020							
9/22/2020							
2/2/2021	7.5						
2/3/2021							
2/17/2021							
7/27/2021							
8/2/2021							
8/3/2021	7.74						
8/4/2021							
8/9/2021							
8/10/2021							
2/8/2022							
2/9/2022							
2/14/2022	7.4						
2/15/2022							
2/16/2022							
2/21/2022							



# Time Series

Constituent: pH (SU) Analysis Run 5/16/2022 2:08 PM  
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-PZ-22	GS-AP-MW-10R	GS-AP-MW-11R	GS-AP-MW-13R	GS-AP-MW-14R	GS-AP-MW-18R	GS-AP-MW-18VR
2/22/2022						6.29	7.88
2/28/2022					7.04		
3/1/2022		6.87	6.68	6.47			



# Time Series

Constituent: pH (SU) Analysis Run 5/16/2022 2:08 PM  
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-5R	GS-AP-MW-9R	GS-AP-PZ-18R	GS-AP-MW-46
2/21/2022			7.37	
2/22/2022				
2/23/2022				8.69
2/28/2022				
3/1/2022	6.77	6.4		

# Time Series

Constituent: Selenium (mg/L) Analysis Run 5/16/2022 2:08 PM  
 Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-12	GS-AP-MW-12V	GS-AP-MW-13 (bg)	GS-AP-MW-15	GS-AP-MW-15V	GS-AP-MW-16D	GS-AP-MW-16S ...	GS-AP-MW-17	GS-AP-MW-17V ...
8/1/2016				<0.00102		<0.00102		<0.00102	
8/2/2016			<0.00102						
8/3/2016	<0.00102								
9/19/2016						<0.00102		<0.00102	
9/20/2016	<0.00102		<0.00102	<0.00102					
9/21/2016									
10/24/2016								<0.00102	
10/25/2016	<0.00102		<0.00102	<0.00102		<0.00102			
12/13/2016	<0.00102		<0.00102			<0.00102		<0.00102	
12/14/2016				<0.00102					
2/6/2017								<0.00102	
2/7/2017									
2/8/2017	<0.00102		<0.00102	<0.00102		<0.00102			
3/27/2017								<0.00102	
3/28/2017				<0.00102					
3/29/2017	<0.00102		<0.00102			<0.00102			
3/30/2017									
4/24/2017								<0.00102	
4/26/2017	<0.00102		<0.00102	<0.00102		<0.00102			
6/5/2017								<0.00102	
6/6/2017				<0.00102		<0.00102			
6/7/2017	<0.00102		<0.00102						
2/19/2018								<0.00102	
2/20/2018	<0.00102		<0.00102	<0.00102					
2/21/2018						<0.00102			
5/15/2018	<0.00102		<0.00102	<0.00102				<0.00102	
5/16/2018						<0.00102			
10/15/2018				<0.00102				<0.00102	
10/16/2018	<0.00102								
10/17/2018			<0.00102			<0.00102			
2/20/2019									<0.00102
2/21/2019		<0.00102							
2/26/2019									
4/16/2019	<0.00102		<0.00102						
4/17/2019				<0.00102		<0.00102		<0.00102	
9/23/2019								<0.00102	
9/24/2019				<0.00102		<0.00102			<0.00102
9/25/2019	<0.00102	<0.00102							
3/16/2020								<0.00102	
3/17/2020									
3/18/2020	<0.00102			<0.00102	<0.00102				
3/23/2020									
3/24/2020		<0.00102				<0.00102			
3/25/2020									<0.00102
5/12/2020								<0.00102	
5/13/2020									
9/17/2020									
9/21/2020					<0.00102		<0.00102	<0.00102	
9/22/2020						<0.00102			
9/23/2020	<0.00102	<0.00102		<0.00102					<0.00102
2/1/2021	<0.00102	<0.00102							
2/2/2021								<0.00102	<0.00102



# Time Series

Constituent: Selenium (mg/L) Analysis Run 5/16/2022 2:08 PM  
 Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-19	GS-AP-MW-2	GS-AP-MW-21	GS-AP-MW-21V	GS-AP-MW-23H	GS-AP-MW-24H	GS-AP-MW-25HA
8/1/2016	<0.00102						
8/2/2016		<0.00102	<0.00102				
8/3/2016							
9/19/2016		<0.00102					
9/20/2016							
9/21/2016	<0.00102		<0.00102				
10/24/2016	<0.00102	<0.00102					
10/25/2016			<0.00102				
12/13/2016	<0.00102	<0.00102					
12/14/2016			<0.00102				
2/6/2017							
2/7/2017	<0.00102						
2/8/2017		<0.00102	<0.00102				
3/27/2017							
3/28/2017	<0.00102		<0.00102				
3/29/2017							
3/30/2017		<0.00102					
4/24/2017							
4/26/2017	<0.00102	<0.00102	<0.00102				
6/5/2017							
6/6/2017	<0.00102	<0.00102	<0.00102				
6/7/2017							
2/19/2018							
2/20/2018			<0.00102				
2/21/2018	<0.00102	<0.00102					
5/15/2018			<0.00102				
5/16/2018	<0.00102	<0.00102					
10/15/2018							
10/16/2018	<0.00102	<0.00102	<0.00102				
10/17/2018							
2/20/2019				<0.00102			
2/21/2019							
2/26/2019						<0.00102	
4/16/2019							
4/17/2019	<0.00102	<0.00102	<0.00102				
9/23/2019				<0.00102			
9/24/2019	<0.00102		<0.00102			<0.00102	
9/25/2019		<0.00102					
3/16/2020							
3/17/2020				<0.00102			
3/18/2020			<0.00102			<0.00102	
3/23/2020				<0.00102			
3/24/2020	<0.00102						<0.00102
3/25/2020		<0.00102					
5/12/2020							
5/13/2020		<0.00102					
9/17/2020				<0.00102	<0.00102		0.00636 (J)
9/21/2020							
9/22/2020	<0.00102	<0.00102					
9/23/2020			<0.00102	<0.00102			
2/1/2021		<0.00102					
2/2/2021						<0.00102	

# Time Series

Constituent: Selenium (mg/L) Analysis Run 5/16/2022 2:08 PM  
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-19	GS-AP-MW-2	GS-AP-MW-21	GS-AP-MW-21V	GS-AP-MW-23H	GS-AP-MW-24H	GS-AP-MW-25HA
2/3/2021					<0.00102		
2/8/2021	<0.00102		<0.00102				
2/9/2021				<0.00102			
2/10/2021							<0.00102
6/9/2021							
7/27/2021					<0.00102		
8/2/2021							
8/3/2021						<0.00102	
8/4/2021		<0.00102	<0.00102				
8/9/2021							
8/10/2021	<0.00102						
8/11/2021				<0.00102			
8/12/2021							<0.00102
2/8/2022			<0.00102	<0.00102			
2/14/2022					<0.00102		
2/15/2022						<0.00102	
2/16/2022							<0.00102
2/22/2022	<0.00102	<0.00102					
2/23/2022							
2/28/2022							





# Time Series

Constituent: Selenium (mg/L) Analysis Run 5/16/2022 2:08 PM  
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-35HO	GS-AP-MW-36H	GS-AP-MW-38H	GS-AP-MW-40H	GS-AP-MW-41HD	GS-AP-MW-41HS	GS-AP-MW-42H
2/27/2019							
3/13/2019							
9/23/2019							
9/24/2019							
9/25/2019							
3/16/2020							
3/17/2020	<0.00102	<0.00102					
3/18/2020					<0.00102		
3/24/2020			<0.00102				<0.00102
3/25/2020							
5/12/2020	<0.00102						
5/13/2020		<0.00102					
9/15/2020							
9/16/2020	<0.00102						
9/17/2020		<0.00102			<0.00102		
9/21/2020							
9/22/2020			<0.00102	<0.00102			<0.00102
2/1/2021							
2/2/2021				<0.00102			
2/3/2021							<0.00102
2/4/2021	<0.00102						
2/8/2021					<0.00102	<0.00102	
2/9/2021			<0.00102				
2/10/2021							
2/17/2021		<0.00102					
7/27/2021							
7/28/2021	<0.00102					<0.00102	
8/2/2021							
8/3/2021					<0.00102		
8/4/2021		<0.00102	<0.00102				<0.00102
8/9/2021							
8/10/2021				<0.00102			
2/8/2022						<0.00102	
2/9/2022	<0.00102						
2/14/2022		<0.00102					
2/15/2022				<0.00102	<0.00102		
2/16/2022							<0.00102
2/22/2022			<0.00102				



# Time Series

Constituent: Selenium (mg/L) Analysis Run 5/16/2022 2:08 PM  
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

GS-AP-MW-43HO GS-AP-MW-44HO GS-AP-MW-6D GS-AP-MW-6 GS-AP-MW-6V GS-AP-MW-7 GS-AP-MW-8 (bg) GS-AP-MW-9V GS-AP-PZ-16

2/28/2022

3/1/2022

# Time Series

Constituent: Selenium (mg/L) Analysis Run 5/16/2022 2:08 PM  
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-PZ-22	GS-AP-MW-10R	GS-AP-MW-11R	GS-AP-MW-13R	GS-AP-MW-14R	GS-AP-MW-18R	GS-AP-MW-18VR
8/2/2016							
8/3/2016							
9/20/2016							
9/21/2016							
10/24/2016							
10/25/2016							
10/26/2016							
12/12/2016							
12/13/2016							
2/6/2017							
3/27/2017							
3/28/2017							
4/24/2017							
6/6/2017							
6/7/2017							
2/19/2018							
5/14/2018							
5/15/2018							
10/15/2018							
10/16/2018							
4/16/2019							
4/23/2019							
9/23/2019							
9/24/2019							
3/17/2020							
3/18/2020							
3/23/2020							
3/24/2020	<0.00102						
3/25/2020							
8/27/2020							
9/8/2020							
9/15/2020							
9/16/2020							
9/17/2020	<0.00102						
9/21/2020							
9/22/2020							
2/2/2021	<0.00102						
2/3/2021							
2/17/2021							
7/27/2021							
8/2/2021							
8/3/2021	<0.00102						
8/4/2021							
8/9/2021							
8/10/2021							
2/8/2022							
2/9/2022							
2/14/2022	<0.00102						
2/15/2022							
2/16/2022							
2/21/2022							
2/22/2022					<0.00102	<0.00102	

# Time Series

Constituent: Selenium (mg/L) Analysis Run 5/16/2022 2:08 PM  
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-PZ-22	GS-AP-MW-10R	GS-AP-MW-11R	GS-AP-MW-13R	GS-AP-MW-14R	GS-AP-MW-18R	GS-AP-MW-18VR
2/28/2022					<0.00102		
3/1/2022		<0.00102	<0.00102	<0.00102			



# Time Series

Constituent: Selenium (mg/L) Analysis Run 5/16/2022 2:08 PM  
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-5R	GS-AP-MW-9R	GS-AP-PZ-18R	GS-AP-MW-46
2/21/2022			<0.00102	
2/22/2022				
2/23/2022				<0.00102
2/28/2022				
3/1/2022	<0.00102	<0.00102		

# Time Series

Constituent: Sulfate (mg/L) Analysis Run 5/16/2022 2:08 PM  
 Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-12	GS-AP-MW-12V	GS-AP-MW-13 (bg)	GS-AP-MW-15	GS-AP-MW-15V	GS-AP-MW-16D	GS-AP-MW-16S ...	GS-AP-MW-17	GS-AP-MW-17V ...
8/1/2016				102		13.4		9.56	
8/2/2016			12						
8/3/2016	19.2								
9/19/2016						12.9		12.7	
9/20/2016	1.42		11.2	53.3					
9/21/2016									
10/24/2016								8.58	
10/25/2016	<1		10.1	49.8		11.6			
12/13/2016	3.21		11.4			12.7		31	
12/14/2016				40.9					
2/6/2017								14.7	
2/7/2017									
2/8/2017	3.3		10.9	25		12.2			
3/27/2017								14	
3/28/2017				27					
3/29/2017	3.8 (J)		11			12			
3/30/2017									
4/24/2017								22	
4/26/2017	1.4 (J)		11	29		13			
6/5/2017								30	
6/6/2017				23		12			
6/7/2017	1.7 (J)		11						
8/21/2017									
8/22/2017	4.2 (J)		11	22		12		42	
8/23/2017									
5/15/2018	14		11	13				54	
5/16/2018						13			
10/15/2018				14				34	
10/16/2018	13								
10/17/2018			12			13			
2/20/2019									15.2
2/21/2019		<1							
2/26/2019									
4/16/2019	13.3		12.1						
4/17/2019				9.02		14.1		76.6	
9/23/2019								124	
9/24/2019				12.4		14.1			11.8
9/25/2019	25.5	1.61							
3/16/2020								48.6	
3/17/2020									
3/18/2020	20.8			15.9	261				
3/23/2020									
3/24/2020		<1				14.1			
3/25/2020									9.69
5/12/2020								44.4	
5/13/2020									
9/17/2020									
9/21/2020					348		2.95	104	
9/22/2020						13.6			
9/23/2020	19.1	6.56		13.2					11.1
2/1/2021	18.7	<1							
2/2/2021								55.1	8.81





# Time Series

Constituent: Sulfate (mg/L) Analysis Run 5/16/2022 2:08 PM  
 Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-19	GS-AP-MW-2	GS-AP-MW-21	GS-AP-MW-21V	GS-AP-MW-23H	GS-AP-MW-24H	GS-AP-MW-25HA
8/1/2016	9.02						
8/2/2016		2.87	9.14				
8/3/2016							
9/19/2016		1.22					
9/20/2016							
9/21/2016	8.38		8.71				
10/24/2016	18.5	<1					
10/25/2016			8.54				
12/13/2016	7.4	<1					
12/14/2016			11.5				
2/6/2017							
2/7/2017	8.16						
2/8/2017		19.4	17				
3/27/2017							
3/28/2017	6.4		25				
3/29/2017							
3/30/2017		31					
4/24/2017							
4/26/2017	4.6 (J)	29	28				
6/5/2017							
6/6/2017	5.2	37	33				
6/7/2017							
8/21/2017		55					
8/22/2017	5.3						
8/23/2017			43				
5/15/2018			110				
5/16/2018	6	34					
10/15/2018							
10/16/2018	5.6	90	160				
10/17/2018							
2/20/2019				352			
2/21/2019							
2/26/2019						10.9	
4/16/2019							
4/17/2019	14.3	48.6	215				
9/23/2019				394			
9/24/2019	13.8		224			15.3	
9/25/2019		47.7					
3/16/2020							
3/17/2020				356			
3/18/2020			228			12.2	
3/23/2020				1050			
3/24/2020	15.2						201
3/25/2020		38.5					
5/12/2020							
5/13/2020		33.6					
9/17/2020				361		6.7	173
9/21/2020							
9/22/2020	16.9	21.5					
9/23/2020			248	1120			
2/1/2021		21.3					
2/2/2021						6.43	

# Time Series

Constituent: Sulfate (mg/L) Analysis Run 5/16/2022 2:08 PM  
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-19	GS-AP-MW-2	GS-AP-MW-21	GS-AP-MW-21V	GS-AP-MW-23H	GS-AP-MW-24H	GS-AP-MW-25HA
2/3/2021					339		
2/8/2021	16.2		232				
2/9/2021				645			
2/10/2021							171
6/9/2021							
7/27/2021					339		
8/2/2021							
8/3/2021						6.21	
8/4/2021		16.8	231				
8/9/2021							
8/10/2021	15.2						
8/11/2021				137			
8/12/2021							125
2/8/2022			241	451			
2/14/2022					356		
2/15/2022						12.1	
2/16/2022							130
2/22/2022	13.7	17.1					
2/23/2022							
2/28/2022							



# Time Series

Constituent: Sulfate (mg/L) Analysis Run 5/16/2022 2:08 PM  
 Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-35HO	GS-AP-MW-36H	GS-AP-MW-38H	GS-AP-MW-40H	GS-AP-MW-41HD	GS-AP-MW-41HS	GS-AP-MW-42H
2/27/2019							
3/13/2019							
9/23/2019							
9/24/2019							
9/25/2019							
3/16/2020							
3/17/2020	40.1	57.1					
3/18/2020					122		
3/24/2020			16.7				449
3/25/2020							
5/12/2020	22.6						
5/13/2020		47.8					
9/15/2020							
9/16/2020	24.6						
9/17/2020		50.2			105		
9/21/2020							
9/22/2020			27	626			372
2/1/2021							
2/2/2021				644			
2/3/2021							373
2/4/2021	25.3						
2/8/2021					111	95.1	
2/9/2021			27				
2/10/2021							
2/17/2021		28.9					
7/27/2021							
7/28/2021	20.7					103	
8/2/2021							
8/3/2021					94.1		
8/4/2021		83.7	32.3				372
8/9/2021							
8/10/2021				661			
2/8/2022						105	
2/9/2022	21.7						
2/14/2022		112					
2/15/2022				684	110		
2/16/2022							396
2/22/2022			27.9				



# Time Series

Constituent: Sulfate (mg/L) Analysis Run 5/16/2022 2:08 PM  
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

GS-AP-MW-43HO GS-AP-MW-44HO GS-AP-MW-6D GS-AP-MW-6 GS-AP-MW-6V GS-AP-MW-7 GS-AP-MW-8 (bg) GS-AP-MW-9V GS-AP-PZ-16

2/28/2022

3/1/2022

# Time Series

Constituent: Sulfate (mg/L) Analysis Run 5/16/2022 2:08 PM  
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-PZ-22	GS-AP-MW-10R	GS-AP-MW-11R	GS-AP-MW-13R	GS-AP-MW-14R	GS-AP-MW-18R	GS-AP-MW-18VR
8/2/2016							
8/3/2016							
9/20/2016							
9/21/2016							
10/24/2016							
10/25/2016							
10/26/2016							
12/12/2016							
12/13/2016							
2/6/2017							
3/27/2017							
3/28/2017							
4/24/2017							
6/6/2017							
6/7/2017							
8/21/2017							
5/14/2018							
5/15/2018							
10/15/2018							
10/16/2018							
4/16/2019							
4/23/2019							
9/23/2019							
9/24/2019							
3/17/2020							
3/18/2020							
3/23/2020							
3/24/2020	70.1						
3/25/2020							
8/27/2020							
9/8/2020							
9/15/2020							
9/16/2020							
9/17/2020	79.9						
9/21/2020							
9/22/2020							
2/2/2021	84.1						
2/3/2021							
2/17/2021							
7/27/2021							
8/2/2021							
8/3/2021	74.7						
8/4/2021							
8/9/2021							
8/10/2021							
2/8/2022							
2/9/2022							
2/14/2022	91.1						
2/15/2022							
2/16/2022							
2/21/2022							
2/22/2022							



# Time Series

Constituent: Sulfate (mg/L) Analysis Run 5/16/2022 2:08 PM  
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-PZ-22	GS-AP-MW-10R	GS-AP-MW-11R	GS-AP-MW-13R	GS-AP-MW-14R	GS-AP-MW-18R	GS-AP-MW-18VR
2/28/2022					33.3		
3/1/2022		21.6	39.4	38			



# Time Series

Constituent: Sulfate (mg/L) Analysis Run 5/16/2022 2:08 PM  
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-5R	GS-AP-MW-9R	GS-AP-PZ-18R	GS-AP-MW-46
2/21/2022			55.5	
2/22/2022				
2/23/2022				317
2/28/2022				
3/1/2022	348	104		





# Time Series

Constituent: TDS (mg/L) Analysis Run 5/16/2022 2:08 PM  
 Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-19	GS-AP-MW-2	GS-AP-MW-21	GS-AP-MW-21V	GS-AP-MW-23H	GS-AP-MW-24H	GS-AP-MW-25HA
8/1/2016	245						
8/2/2016		390	348				
8/3/2016							
9/19/2016		398					
9/20/2016							
9/21/2016	267		368				
10/24/2016	275	395					
10/25/2016			348				
12/13/2016	255	381					
12/14/2016			352				
2/6/2017							
2/7/2017	272						
2/8/2017		376	352				
3/27/2017							
3/28/2017	271		370				
3/29/2017							
3/30/2017		391					
4/24/2017							
4/26/2017	265	384	342				
6/5/2017							
6/6/2017	287	404	367				
6/7/2017							
8/21/2017		416					
8/22/2017	293						
8/23/2017			508				
5/15/2018			438				
5/16/2018	301	365					
10/15/2018							
10/16/2018	303	430	520				
10/17/2018							
2/20/2019				560			
2/21/2019							
2/26/2019						249	
4/16/2019							
4/17/2019	296	341	582				
9/23/2019				598			
9/24/2019	302		630			253	
9/25/2019		358					
3/16/2020							
3/17/2020				626			
3/18/2020			661			250	
3/23/2020				3410			
3/24/2020	302						948
3/25/2020		337					
5/12/2020							
5/13/2020		328					
9/17/2020				648		250	960
9/21/2020							
9/22/2020	300	318					
9/23/2020			642	3690			
2/1/2021		333					
2/2/2021						259	

# Time Series

Constituent: TDS (mg/L) Analysis Run 5/16/2022 2:08 PM  
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-19	GS-AP-MW-2	GS-AP-MW-21	GS-AP-MW-21V	GS-AP-MW-23H	GS-AP-MW-24H	GS-AP-MW-25HA
2/3/2021					612		
2/8/2021	324		684				
2/9/2021				2250			
2/10/2021							887
6/9/2021							
7/27/2021				580			
8/2/2021							
8/3/2021						191	
8/4/2021		316	594				
8/9/2021							
8/10/2021	307						
8/11/2021				712			
8/12/2021							967
2/8/2022			570	1360			
2/14/2022					592		
2/15/2022						241	
2/16/2022							945
2/22/2022	304	295					
2/23/2022							
2/28/2022							





# Time Series

Constituent: TDS (mg/L) Analysis Run 5/16/2022 2:08 PM  
 Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-35HO	GS-AP-MW-36H	GS-AP-MW-38H	GS-AP-MW-40H	GS-AP-MW-41HD	GS-AP-MW-41HS	GS-AP-MW-42H
2/27/2019							
3/13/2019							
9/23/2019							
9/24/2019							
9/25/2019							
3/16/2020							
3/17/2020	365	362					
3/18/2020					309		
3/24/2020			335				850
3/25/2020							
5/12/2020	311						
5/13/2020		333					
9/15/2020							
9/16/2020	326						
9/17/2020		348			318		
9/21/2020							
9/22/2020			339	1310			800
2/1/2021							
2/2/2021				1320			
2/3/2021							768
2/4/2021	339						
2/8/2021					326	317	
2/9/2021			355				
2/10/2021							
2/17/2021		292					
7/27/2021							
7/28/2021	302					283	
8/2/2021							
8/3/2021					307		
8/4/2021		449	368				740
8/9/2021							
8/10/2021				1240			
2/8/2022						265	
2/9/2022	322						
2/14/2022		514					
2/15/2022				1230	307		
2/16/2022							774
2/22/2022			345				



# Time Series

Constituent: TDS (mg/L) Analysis Run 5/16/2022 2:08 PM  
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

GS-AP-MW-43HO GS-AP-MW-44HO GS-AP-MW-6D GS-AP-MW-6 GS-AP-MW-6V GS-AP-MW-7 GS-AP-MW-8 (bg) GS-AP-MW-9V GS-AP-PZ-16

2/28/2022

3/1/2022

# Time Series

Constituent: TDS (mg/L) Analysis Run 5/16/2022 2:08 PM  
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-PZ-22	GS-AP-MW-10R	GS-AP-MW-11R	GS-AP-MW-13R	GS-AP-MW-14R	GS-AP-MW-18R	GS-AP-MW-18VR
8/2/2016							
8/3/2016							
9/20/2016							
9/21/2016							
10/24/2016							
10/25/2016							
10/26/2016							
12/12/2016							
12/13/2016							
2/6/2017							
3/27/2017							
3/28/2017							
4/24/2017							
6/6/2017							
6/7/2017							
8/21/2017							
5/14/2018							
5/15/2018							
10/15/2018							
10/16/2018							
4/16/2019							
4/23/2019							
9/23/2019							
9/24/2019							
3/17/2020							
3/18/2020							
3/23/2020							
3/24/2020	412						
3/25/2020							
8/27/2020							
9/8/2020							
9/15/2020							
9/16/2020							
9/17/2020	438						
9/21/2020							
9/22/2020							
2/2/2021	446						
2/3/2021							
2/17/2021							
7/27/2021							
8/2/2021							
8/3/2021	414						
8/4/2021							
8/9/2021							
8/10/2021							
2/8/2022							
2/9/2022							
2/14/2022	423						
2/15/2022							
2/16/2022							
2/21/2022							
2/22/2022					136	298	

# Time Series

Constituent: TDS (mg/L) Analysis Run 5/16/2022 2:08 PM  
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-PZ-22	GS-AP-MW-10R	GS-AP-MW-11R	GS-AP-MW-13R	GS-AP-MW-14R	GS-AP-MW-18R	GS-AP-MW-18VR
2/28/2022					305		
3/1/2022		250	244	201			



# Time Series

Constituent: TDS (mg/L) Analysis Run 5/16/2022 2:08 PM  
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-5R	GS-AP-MW-9R	GS-AP-PZ-18R	GS-AP-MW-46
2/21/2022			303	
2/22/2022				
2/23/2022				614
2/28/2022				
3/1/2022	762	398		

# Time Series

Constituent: Thallium (mg/L) Analysis Run 5/16/2022 2:08 PM  
 Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-12	GS-AP-MW-12V	GS-AP-MW-13 (bg)	GS-AP-MW-15	GS-AP-MW-15V	GS-AP-MW-16D	GS-AP-MW-16S ...	GS-AP-MW-17	GS-AP-MW-17V ...
8/1/2016				<0.0002		<0.0002		<0.0002	
8/2/2016			<0.0002						
8/3/2016	<0.0002								
9/19/2016						<0.0002		<0.0002	
9/20/2016	<0.0002		<0.0002	<0.0002					
9/21/2016									
10/24/2016								<0.0002	
10/25/2016	<0.0002		<0.0002	<0.0002		<0.0002			
12/13/2016	<0.0002		<0.0002			<0.0002		<0.0002	
12/14/2016				<0.0002					
2/6/2017								<0.0002	
2/7/2017									
2/8/2017	<0.0002		<0.0002	<0.0002		<0.0002			
3/27/2017								<0.0002	
3/28/2017				<0.0002					
3/29/2017	<0.0002		<0.0002			<0.0002			
3/30/2017									
4/24/2017								<0.0002	
4/26/2017	<0.0002		<0.0002	<0.0002		<0.0002			
6/5/2017								<0.0002	
6/6/2017				<0.0002		<0.0002			
6/7/2017	<0.0002		<0.0002						
2/19/2018								<0.0002	
2/20/2018	<0.0002		<0.0002	<0.0002					
2/21/2018						<0.0002			
5/15/2018	<0.0002		<0.0002	<0.0002				<0.0002	
5/16/2018						<0.0002			
10/15/2018				<0.0002				<0.0002	
10/16/2018	<0.0002								
10/17/2018			<0.0002			<0.0002			
2/20/2019									<0.0002
2/21/2019		<0.0002							
2/26/2019									
4/16/2019	<0.0002		<0.0002						
4/17/2019				<0.0002		<0.0002		<0.0002	
9/23/2019								<0.0002	
9/24/2019				<0.0002		<0.0002			<0.0002
9/25/2019	<0.0002	<0.0002							
3/16/2020								<0.0002	
3/17/2020									
3/18/2020	<0.0002			<0.0002	<0.0002				
3/23/2020									
3/24/2020		<0.0002				<0.0002			
3/25/2020									<0.0002
5/12/2020								<0.0002	
5/13/2020									
9/17/2020									
9/21/2020					<0.0002		<0.0002	<0.0002	
9/22/2020						<0.0002			
9/23/2020	<0.0002	<0.0002		<0.0002					<0.0002
2/1/2021	<0.0002	<0.0002							
2/2/2021								<0.0002	<0.0002





# Time Series

Constituent: Thallium (mg/L) Analysis Run 5/16/2022 2:08 PM  
 Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-19	GS-AP-MW-2	GS-AP-MW-21	GS-AP-MW-21V	GS-AP-MW-23H	GS-AP-MW-24H	GS-AP-MW-25HA
8/1/2016	<0.0002						
8/2/2016		<0.0002	<0.0002				
8/3/2016							
9/19/2016		<0.0002					
9/20/2016							
9/21/2016	<0.0002		<0.0002				
10/24/2016	<0.0002	<0.0002					
10/25/2016			<0.0002				
12/13/2016	<0.0002	<0.0002					
12/14/2016			<0.0002				
2/6/2017							
2/7/2017	<0.0002						
2/8/2017		<0.0002	<0.0002				
3/27/2017							
3/28/2017	<0.0002		<0.0002				
3/29/2017							
3/30/2017		<0.0002					
4/24/2017							
4/26/2017	<0.0002	<0.0002	<0.0002				
6/5/2017							
6/6/2017	<0.0002	<0.0002	<0.0002				
6/7/2017							
2/19/2018							
2/20/2018			<0.0002				
2/21/2018	<0.0002	<0.0002					
5/15/2018			<0.0002				
5/16/2018	<0.0002	<0.0002					
10/15/2018							
10/16/2018	<0.0002	<0.0002	<0.0002				
10/17/2018							
2/20/2019				<0.0002			
2/21/2019							
2/26/2019						<0.0002	
4/16/2019							
4/17/2019	<0.0002	<0.0002	<0.0002				
9/23/2019				<0.0002			
9/24/2019	<0.0002		<0.0002			<0.0002	
9/25/2019		<0.0002					
3/16/2020							
3/17/2020				<0.0002			
3/18/2020			<0.0002			<0.0002	
3/23/2020				<0.0002			
3/24/2020	<0.0002						<0.0002
3/25/2020		<0.0002					
5/12/2020							
5/13/2020		<0.0002					
9/17/2020				<0.0002	<0.0002	<0.0002	
9/21/2020							
9/22/2020	<0.0002	<0.0002					
9/23/2020			<0.0002	<0.0002			
2/1/2021		<0.0002					
2/2/2021						<0.0002	

# Time Series

Constituent: Thallium (mg/L) Analysis Run 5/16/2022 2:08 PM  
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-19	GS-AP-MW-2	GS-AP-MW-21	GS-AP-MW-21V	GS-AP-MW-23H	GS-AP-MW-24H	GS-AP-MW-25HA
2/3/2021					<0.0002		
2/8/2021	<0.0002		<0.0002				
2/9/2021				<0.0002			
2/10/2021							<0.0002
6/9/2021							
7/27/2021					<0.0002		
8/2/2021							
8/3/2021						<0.0002	
8/4/2021		<0.0002	<0.0002				
8/9/2021							
8/10/2021	<0.0002						
8/11/2021				<0.0002			
8/12/2021							<0.0002
2/8/2022			<0.0002	<0.0002			
2/14/2022					<0.0002		
2/15/2022						<0.0002	
2/16/2022							<0.0002
2/22/2022	<0.0002	<0.0002					
2/23/2022							
2/28/2022							



# Time Series

Constituent: Thallium (mg/L) Analysis Run 5/16/2022 2:08 PM  
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-35HO	GS-AP-MW-36H	GS-AP-MW-38H	GS-AP-MW-40H	GS-AP-MW-41HD	GS-AP-MW-41HS	GS-AP-MW-42H
2/27/2019							
3/13/2019							
9/23/2019							
9/24/2019							
9/25/2019							
3/16/2020							
3/17/2020	<0.0002	<0.0002					
3/18/2020					<0.0002		
3/24/2020			<0.0002				<0.0002
3/25/2020							
5/12/2020	<0.0002						
5/13/2020		<0.0002					
9/15/2020							
9/16/2020	<0.0002						
9/17/2020		<0.0002			<0.0002		
9/21/2020							
9/22/2020			<0.0002	<0.0002			<0.0002
2/1/2021							
2/2/2021				<0.0002			
2/3/2021							<0.0002
2/4/2021	<0.0002						
2/8/2021					<0.0002	<0.0002	
2/9/2021			<0.0002				
2/10/2021							
2/17/2021		<0.0002					
7/27/2021							
7/28/2021	<0.0002					<0.0002	
8/2/2021							
8/3/2021					<0.0002		
8/4/2021		<0.0002	<0.0002				<0.0002
8/9/2021							
8/10/2021				<0.0002			
2/8/2022						<0.0002	
2/9/2022	<0.0002						
2/14/2022		<0.0002					
2/15/2022				<0.0002	<0.0002		
2/16/2022							<0.0002
2/22/2022			<0.0002				



# Time Series

Constituent: Thallium (mg/L) Analysis Run 5/16/2022 2:08 PM  
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

GS-AP-MW-43HO GS-AP-MW-44HO GS-AP-MW-6D GS-AP-MW-6 GS-AP-MW-6V GS-AP-MW-7 GS-AP-MW-8 (bg) GS-AP-MW-9V GS-AP-PZ-16

2/28/2022

3/1/2022

# Time Series

Constituent: Thallium (mg/L) Analysis Run 5/16/2022 2:08 PM  
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-PZ-22	GS-AP-MW-10R	GS-AP-MW-11R	GS-AP-MW-13R	GS-AP-MW-14R	GS-AP-MW-18R	GS-AP-MW-18VR
8/2/2016							
8/3/2016							
9/20/2016							
9/21/2016							
10/24/2016							
10/25/2016							
10/26/2016							
12/12/2016							
12/13/2016							
2/6/2017							
3/27/2017							
3/28/2017							
4/24/2017							
6/6/2017							
6/7/2017							
2/19/2018							
5/14/2018							
5/15/2018							
10/15/2018							
10/16/2018							
4/16/2019							
4/23/2019							
9/23/2019							
9/24/2019							
3/17/2020							
3/18/2020							
3/23/2020							
3/24/2020	<0.0002						
3/25/2020							
8/27/2020							
9/8/2020							
9/15/2020							
9/16/2020							
9/17/2020	<0.0002						
9/21/2020							
9/22/2020							
2/2/2021	<0.0002						
2/3/2021							
2/17/2021							
7/27/2021							
8/2/2021							
8/3/2021	<0.0002						
8/4/2021							
8/9/2021							
8/10/2021							
2/8/2022							
2/9/2022							
2/14/2022	<0.0002						
2/15/2022							
2/16/2022							
2/21/2022							
2/22/2022						<0.0002	<0.0002



# Time Series

Constituent: Thallium (mg/L) Analysis Run 5/16/2022 2:08 PM  
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-PZ-22	GS-AP-MW-10R	GS-AP-MW-11R	GS-AP-MW-13R	GS-AP-MW-14R	GS-AP-MW-18R	GS-AP-MW-18VR
2/28/2022					<0.0002		
3/1/2022		<0.0002	<0.0002	<0.0002			



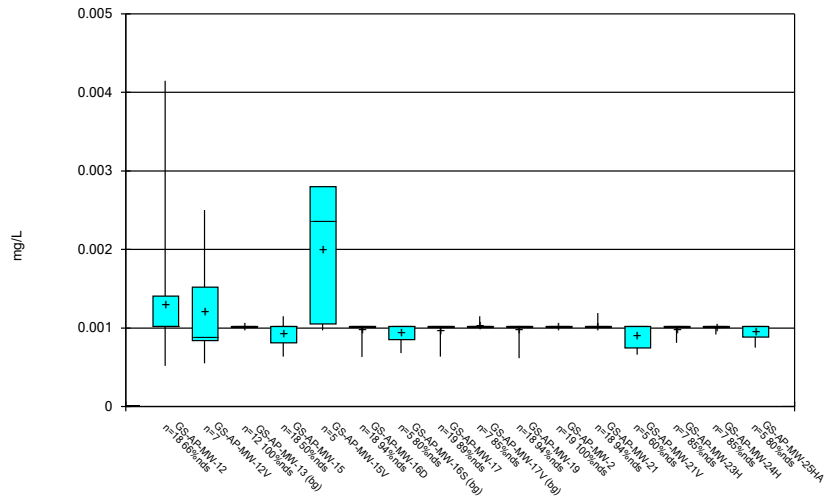
# Time Series

Constituent: Thallium (mg/L) Analysis Run 5/16/2022 2:08 PM  
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-5R	GS-AP-MW-9R	GS-AP-PZ-18R	GS-AP-MW-46
2/21/2022			<0.0002	
2/22/2022				
2/23/2022				<0.0002
2/28/2022				
3/1/2022	<0.0002	<0.0002		

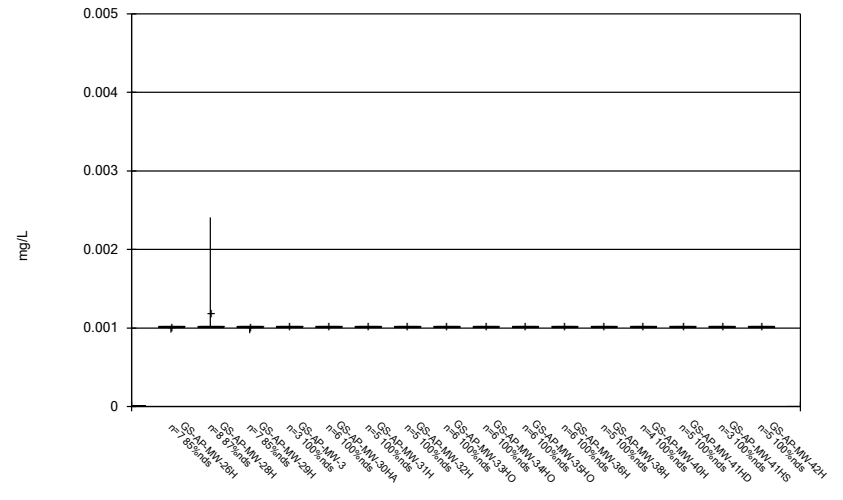
FIGURE B.

### Box & Whiskers Plot



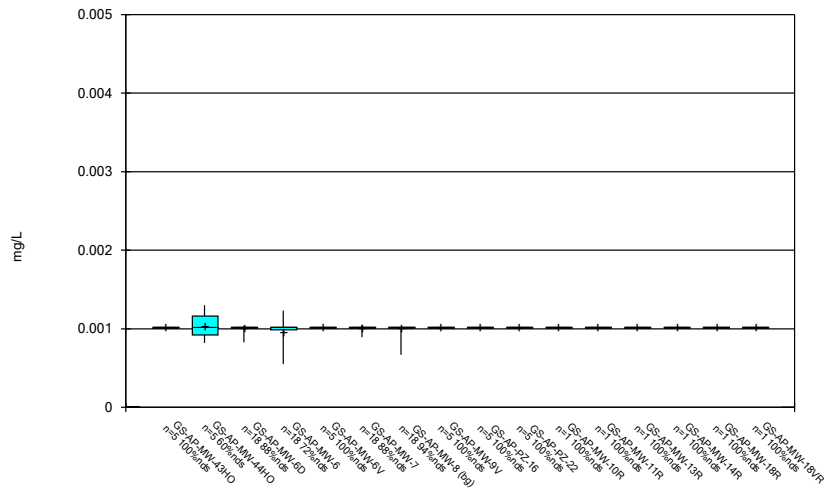
Constituent: Antimony Analysis Run 5/16/2022 2:09 PM  
 Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

### Box & Whiskers Plot



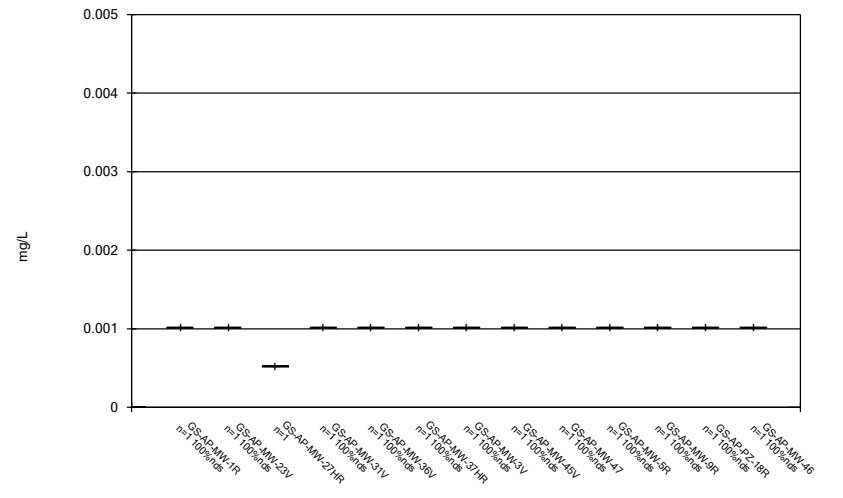
Constituent: Antimony Analysis Run 5/16/2022 2:09 PM  
 Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

### Box & Whiskers Plot



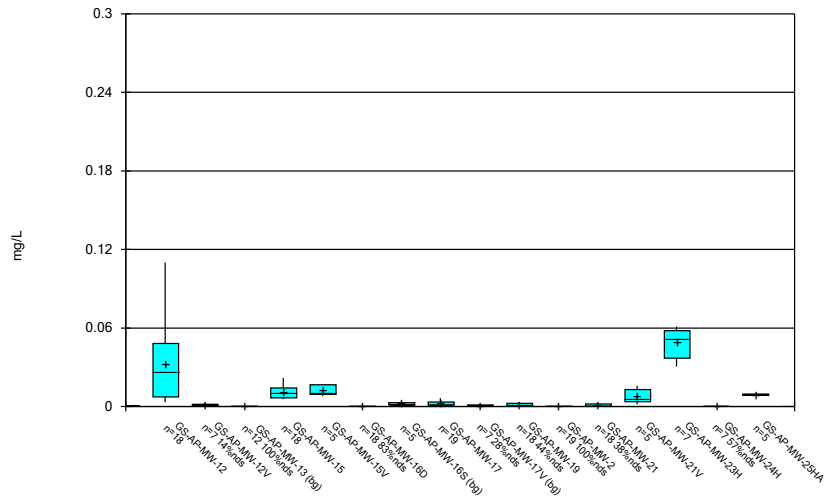
Constituent: Antimony Analysis Run 5/16/2022 2:09 PM  
 Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

### Box & Whiskers Plot



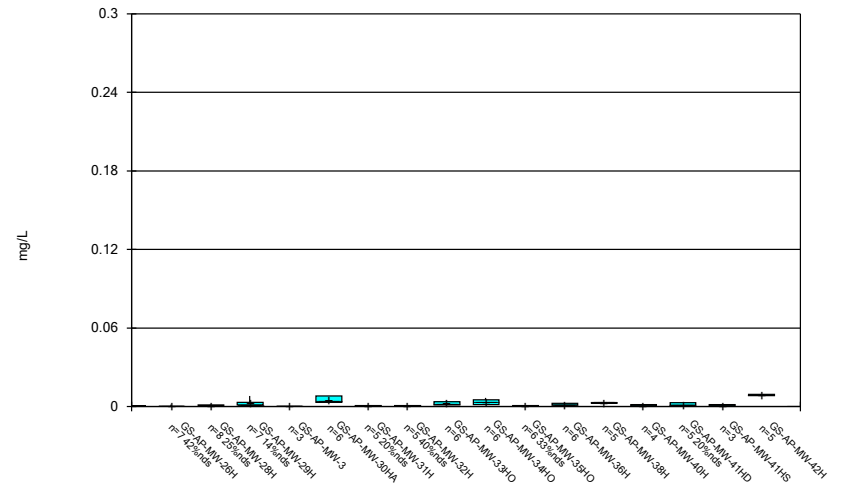
Constituent: Antimony Analysis Run 5/16/2022 2:09 PM  
 Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

### Box & Whiskers Plot



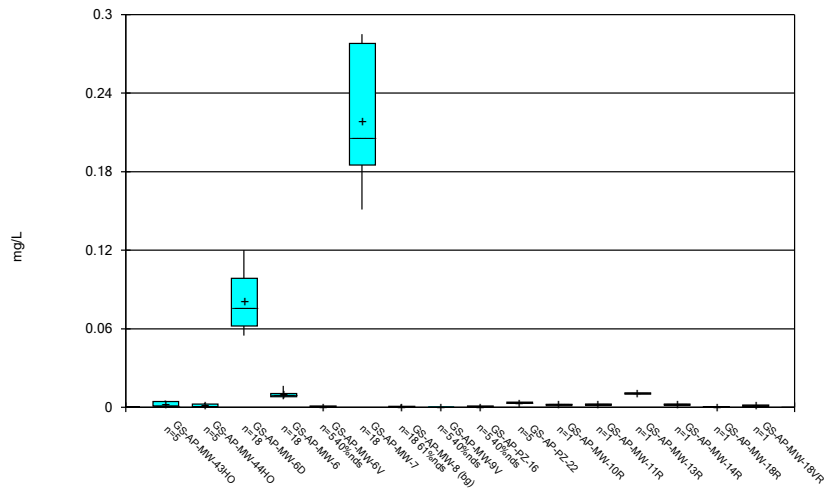
Constituent: Arsenic Analysis Run 5/16/2022 2:09 PM  
 Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

### Box & Whiskers Plot



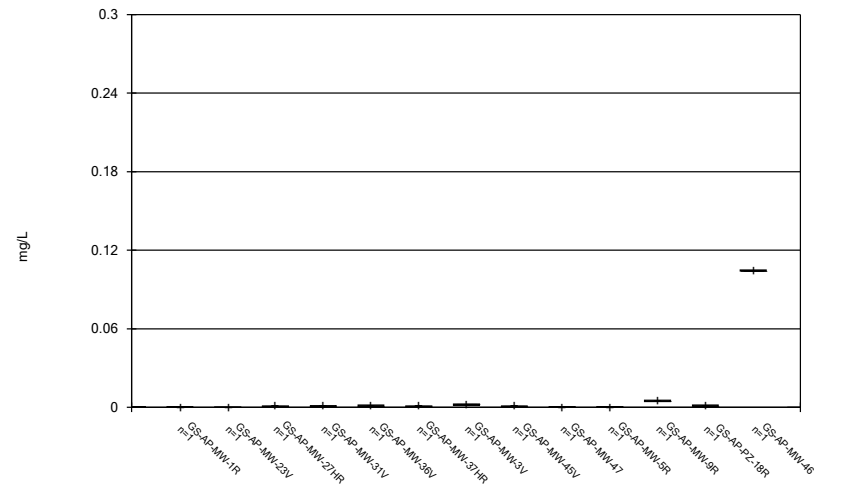
Constituent: Arsenic Analysis Run 5/16/2022 2:09 PM  
 Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

### Box & Whiskers Plot



Constituent: Arsenic Analysis Run 5/16/2022 2:09 PM  
 Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

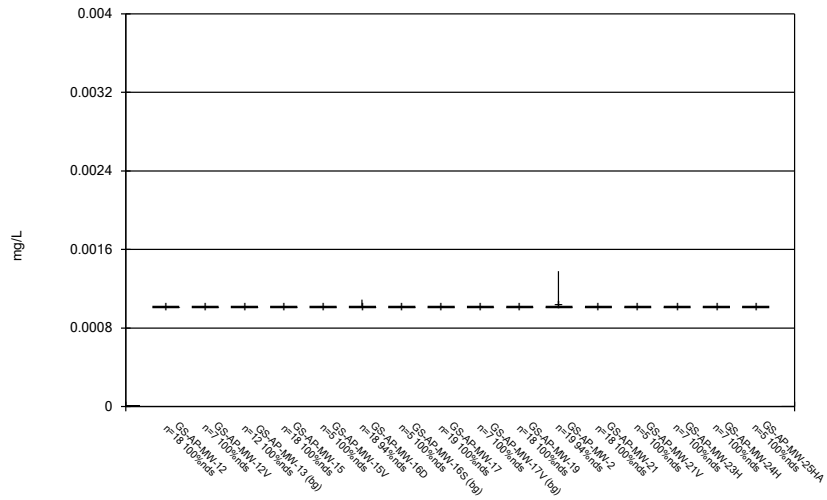
### Box & Whiskers Plot



Constituent: Arsenic Analysis Run 5/16/2022 2:09 PM  
 Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

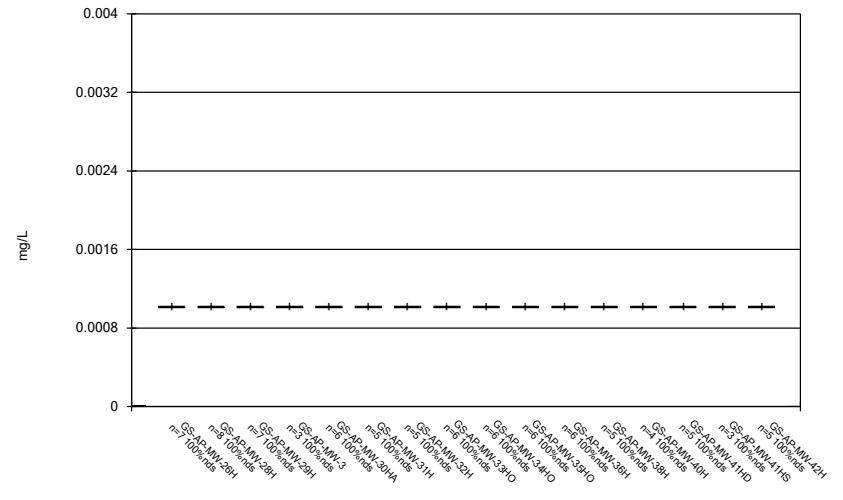


### Box & Whiskers Plot



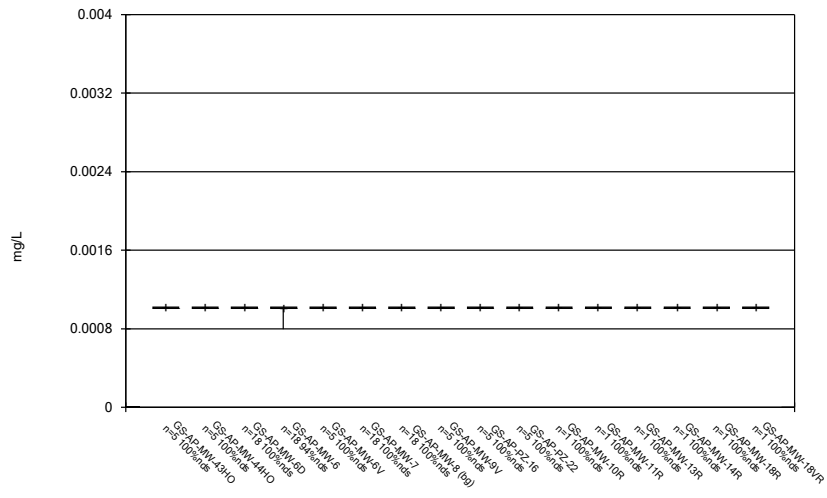
Constituent: Beryllium Analysis Run 5/16/2022 2:09 PM  
 Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

### Box & Whiskers Plot



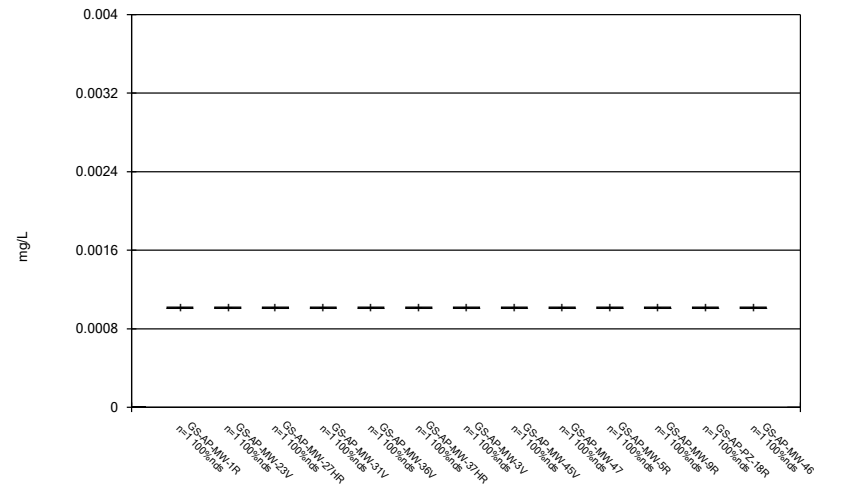
Constituent: Beryllium Analysis Run 5/16/2022 2:09 PM  
 Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

### Box & Whiskers Plot



Constituent: Beryllium Analysis Run 5/16/2022 2:09 PM  
 Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

### Box & Whiskers Plot

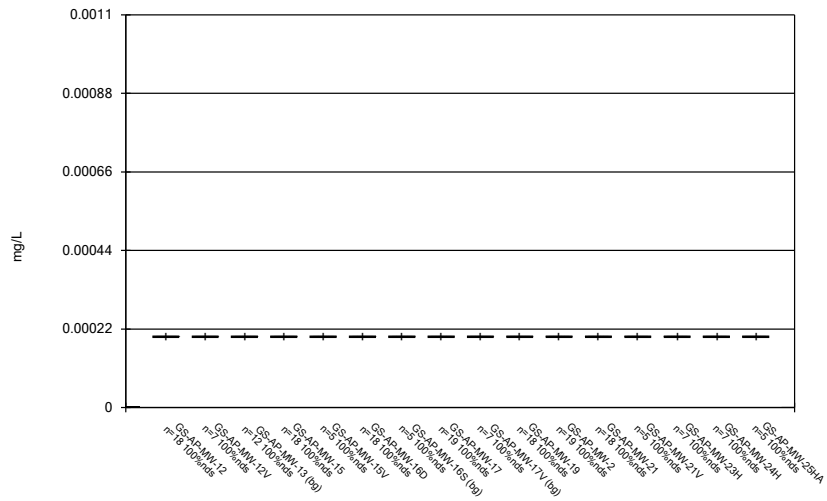


Constituent: Beryllium Analysis Run 5/16/2022 2:09 PM  
 Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond



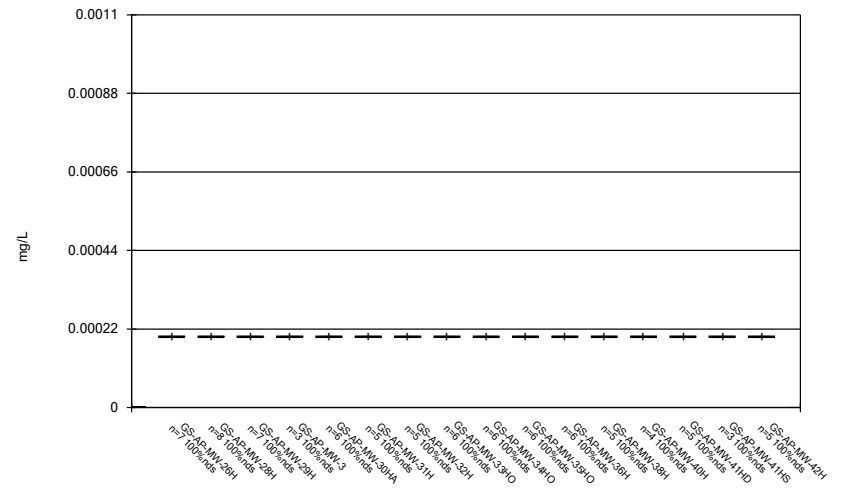


### Box & Whiskers Plot



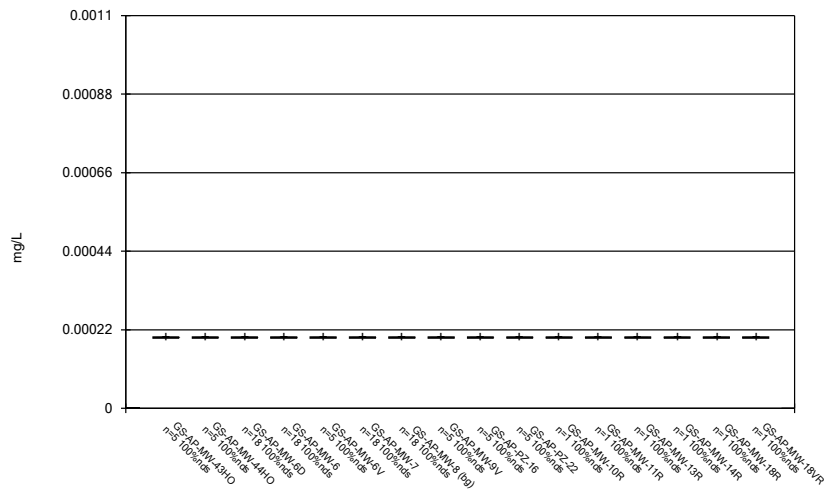
Constituent: Cadmium Analysis Run 5/16/2022 2:09 PM  
 Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

### Box & Whiskers Plot



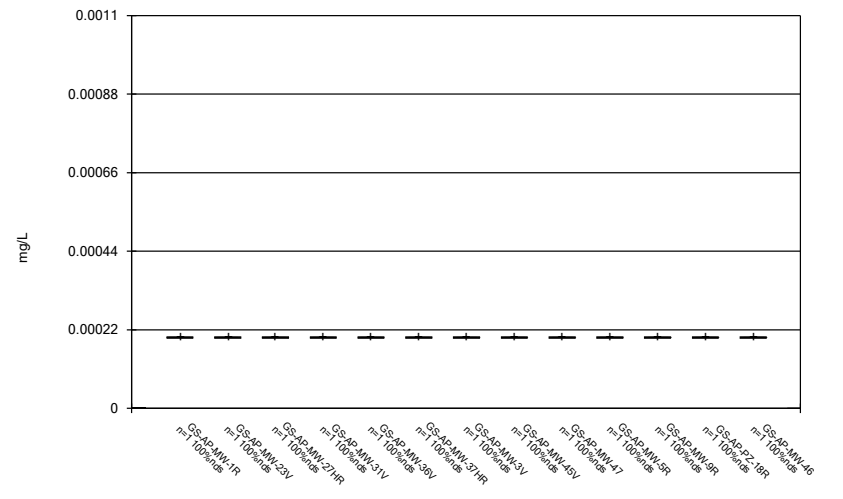
Constituent: Cadmium Analysis Run 5/16/2022 2:09 PM  
 Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

### Box & Whiskers Plot



Constituent: Cadmium Analysis Run 5/16/2022 2:09 PM  
 Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

### Box & Whiskers Plot

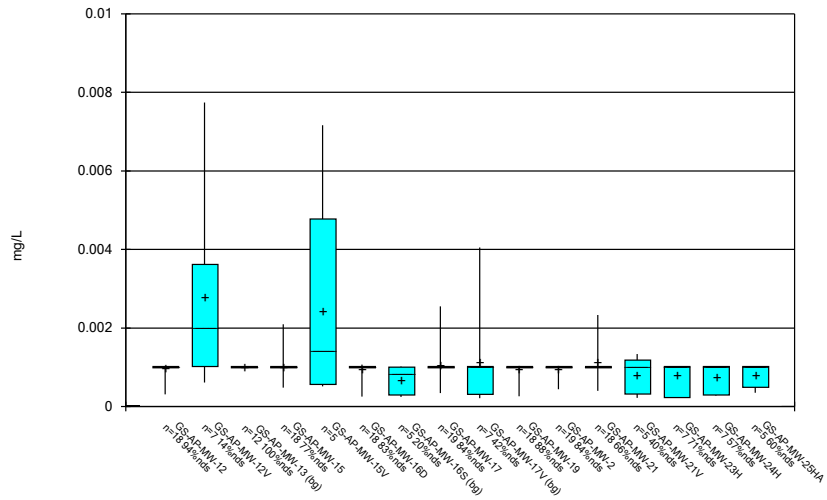


Constituent: Cadmium Analysis Run 5/16/2022 2:09 PM  
 Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond



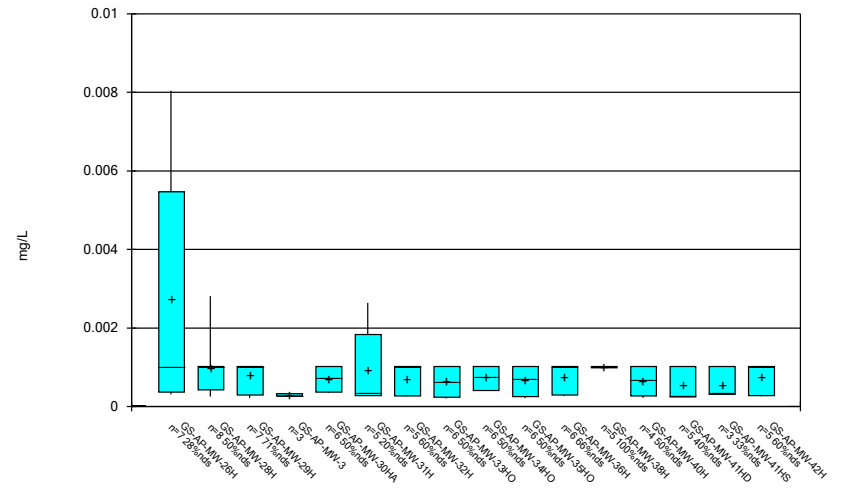


Box & Whiskers Plot



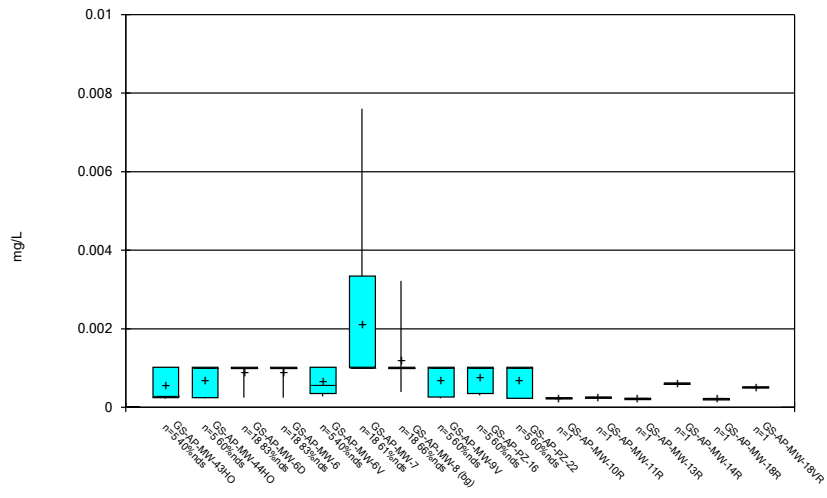
Constituent: Chromium Analysis Run 5/16/2022 2:09 PM  
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

Box & Whiskers Plot



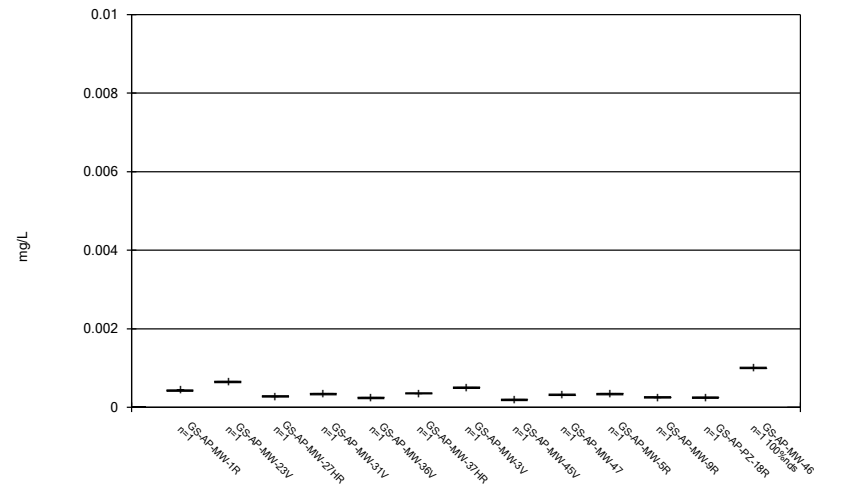
Constituent: Chromium Analysis Run 5/16/2022 2:09 PM  
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

Box & Whiskers Plot



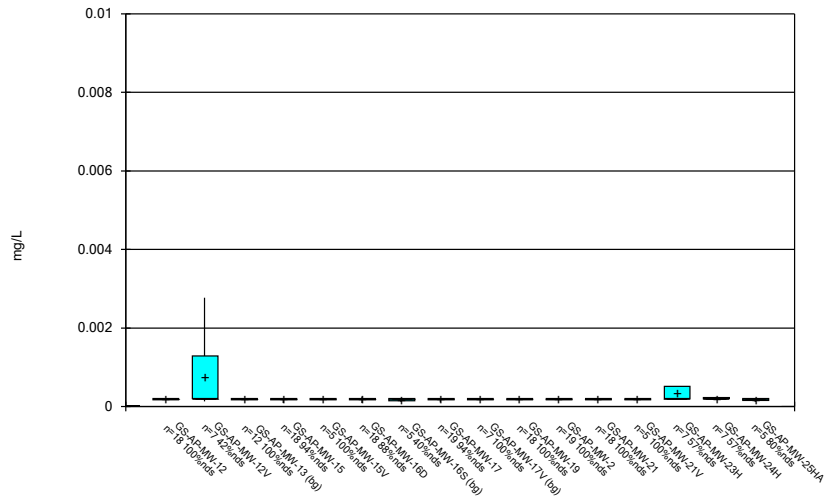
Constituent: Chromium Analysis Run 5/16/2022 2:09 PM  
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

Box & Whiskers Plot



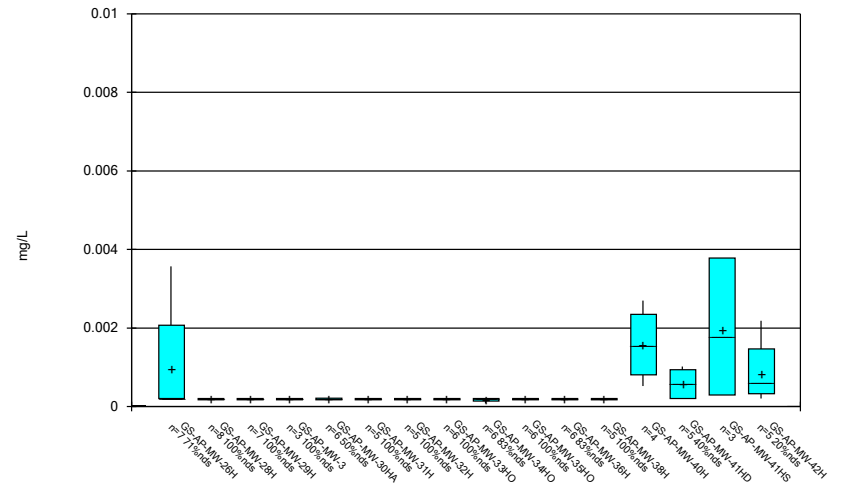
Constituent: Chromium Analysis Run 5/16/2022 2:09 PM  
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

### Box & Whiskers Plot



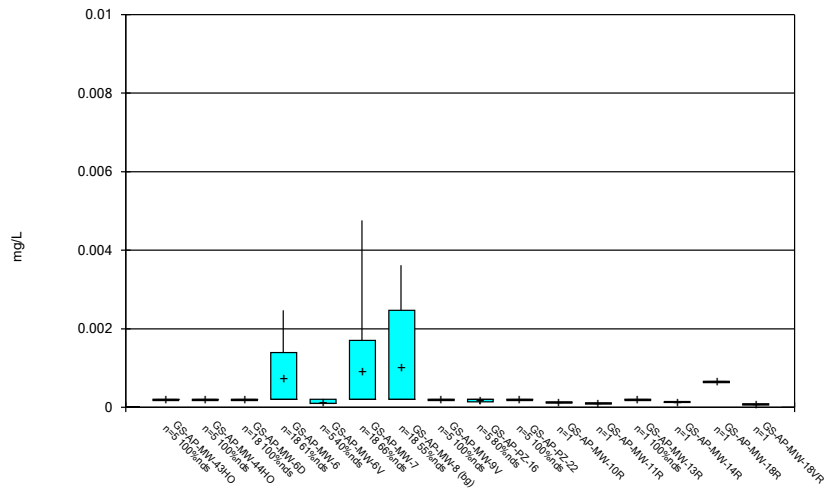
Constituent: Cobalt Analysis Run 5/16/2022 2:09 PM  
 Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

### Box & Whiskers Plot



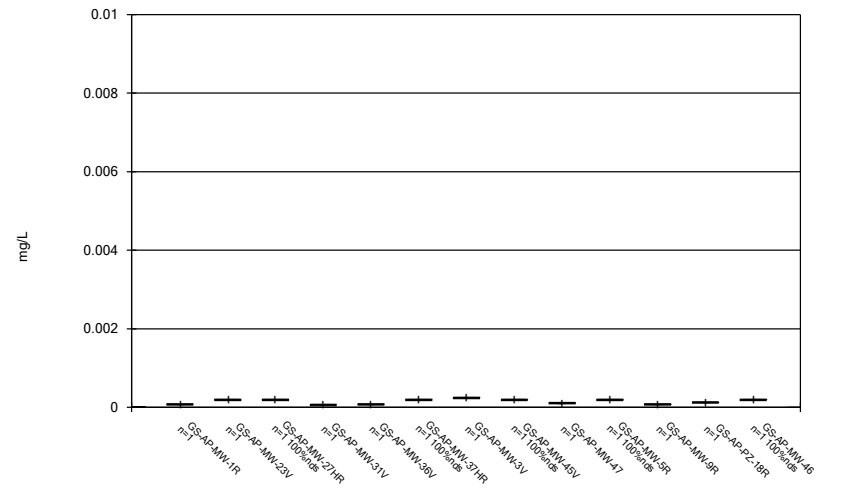
Constituent: Cobalt Analysis Run 5/16/2022 2:09 PM  
 Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

### Box & Whiskers Plot



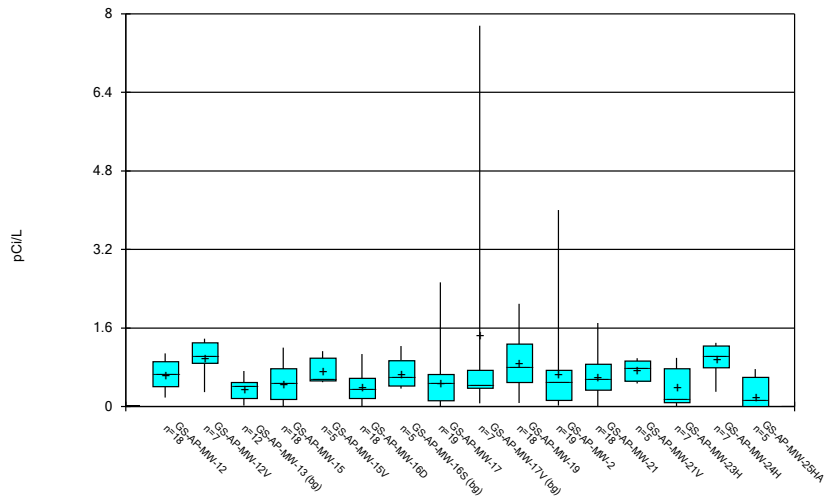
Constituent: Cobalt Analysis Run 5/16/2022 2:09 PM  
 Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

### Box & Whiskers Plot



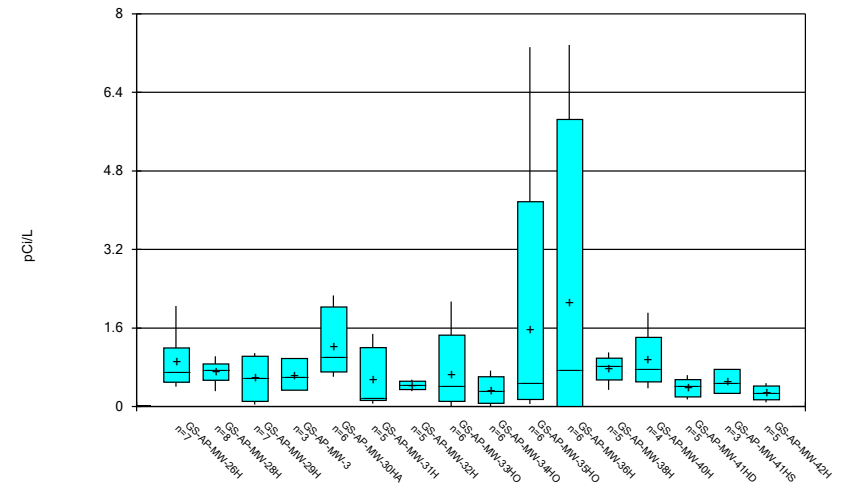
Constituent: Cobalt Analysis Run 5/16/2022 2:09 PM  
 Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

### Box & Whiskers Plot



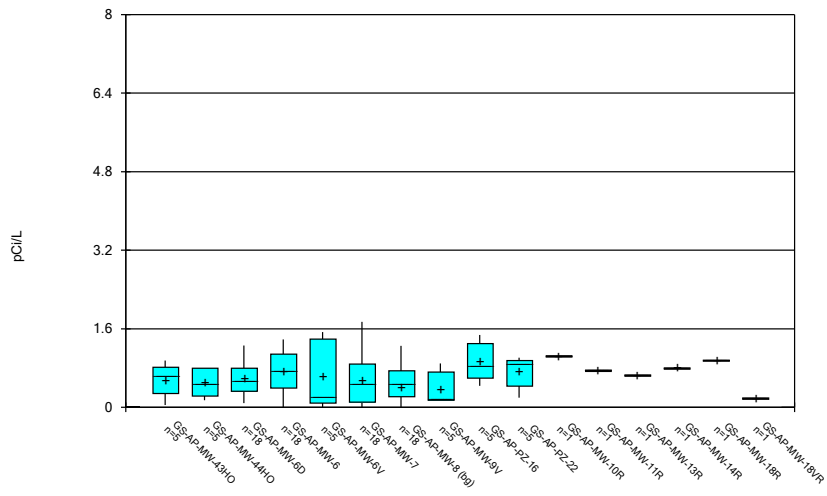
Constituent: Combined Radium 226 + 228 Analysis Run 5/16/2022 2:09 PM  
 Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

### Box & Whiskers Plot



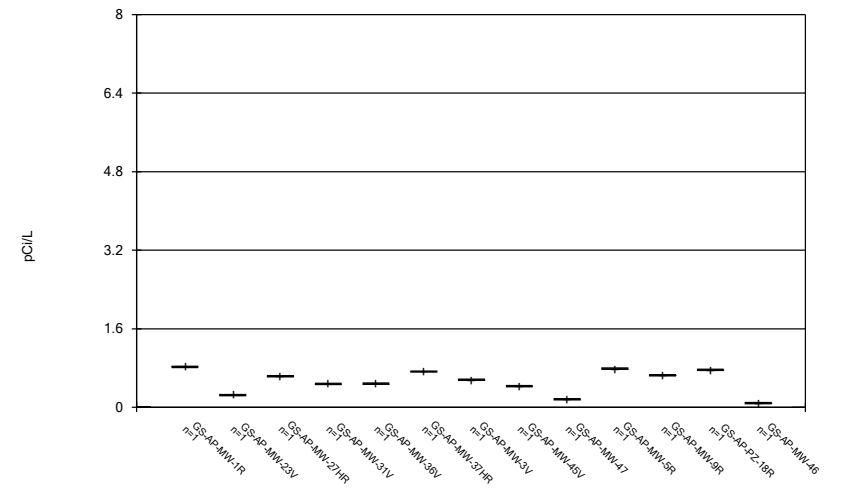
Constituent: Combined Radium 226 + 228 Analysis Run 5/16/2022 2:09 PM  
 Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

### Box & Whiskers Plot



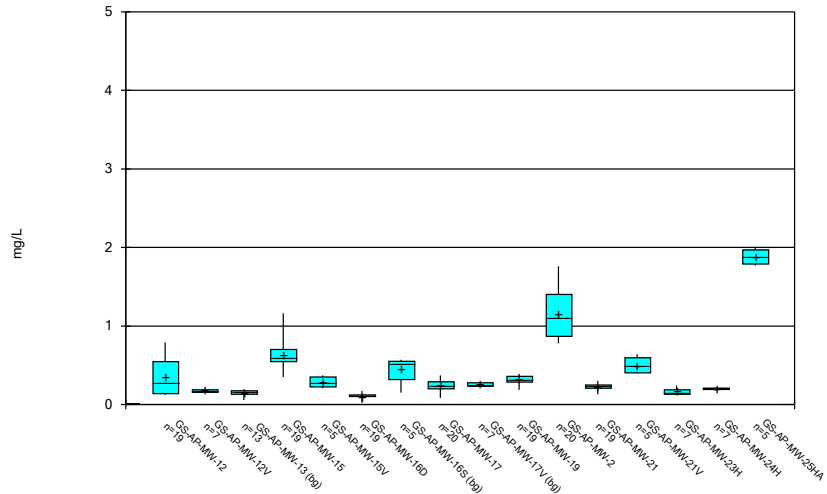
Constituent: Combined Radium 226 + 228 Analysis Run 5/16/2022 2:09 PM  
 Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

### Box & Whiskers Plot



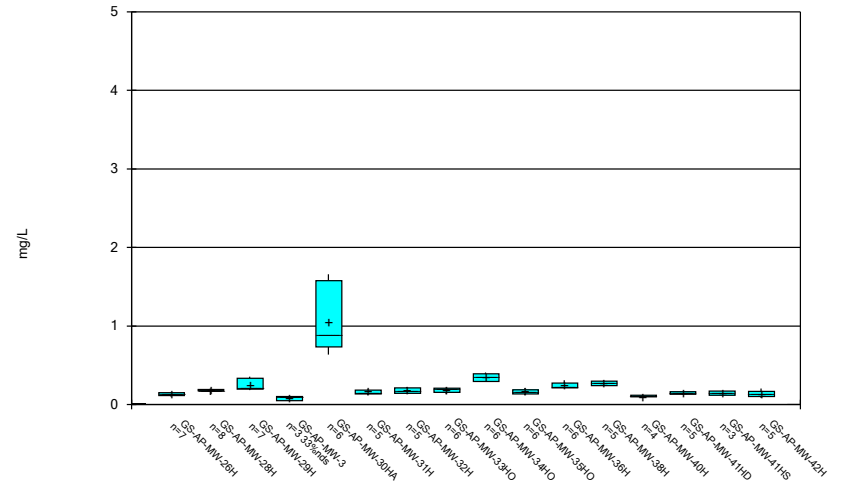
Constituent: Combined Radium 226 + 228 Analysis Run 5/16/2022 2:09 PM  
 Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

Box & Whiskers Plot



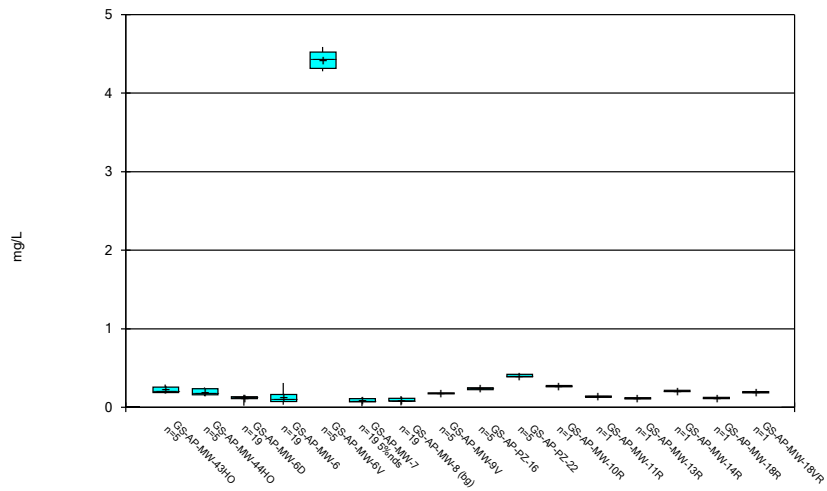
Constituent: Fluoride Analysis Run 5/16/2022 2:09 PM  
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

Box & Whiskers Plot



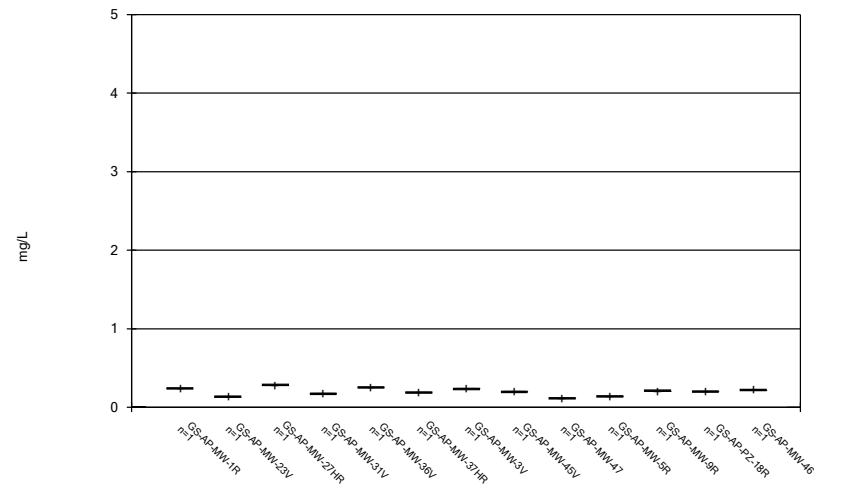
Constituent: Fluoride Analysis Run 5/16/2022 2:09 PM  
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

Box & Whiskers Plot



Constituent: Fluoride Analysis Run 5/16/2022 2:09 PM  
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

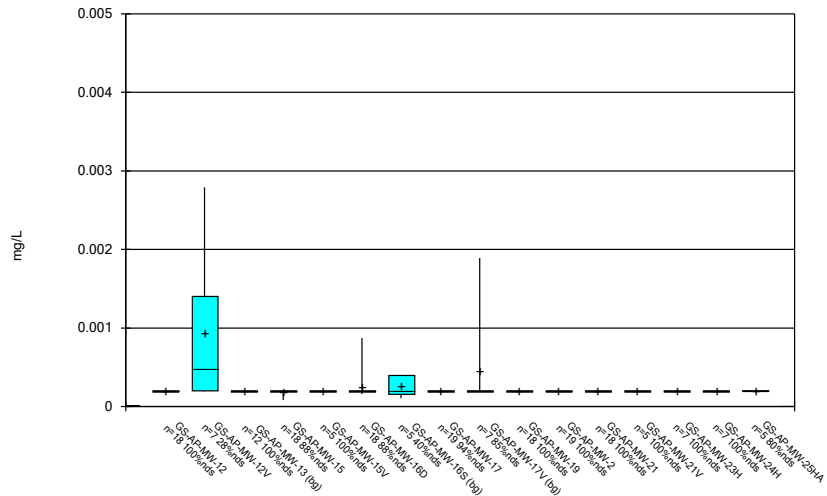
Box & Whiskers Plot



Constituent: Fluoride Analysis Run 5/16/2022 2:09 PM  
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

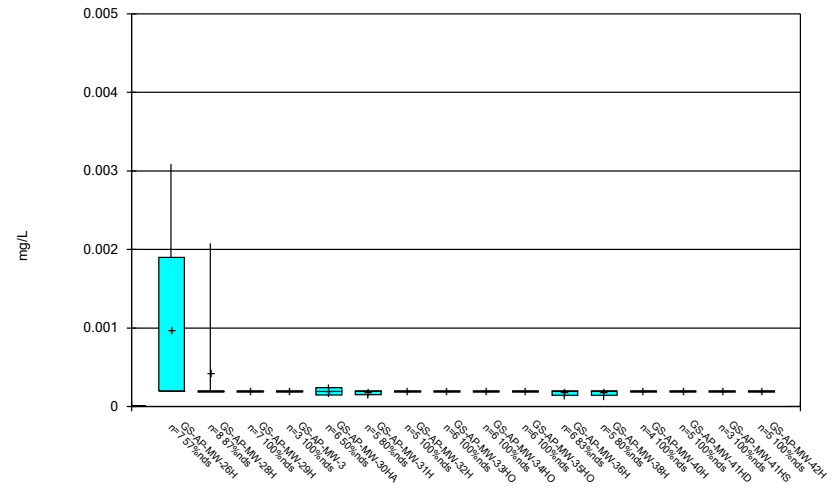


### Box & Whiskers Plot



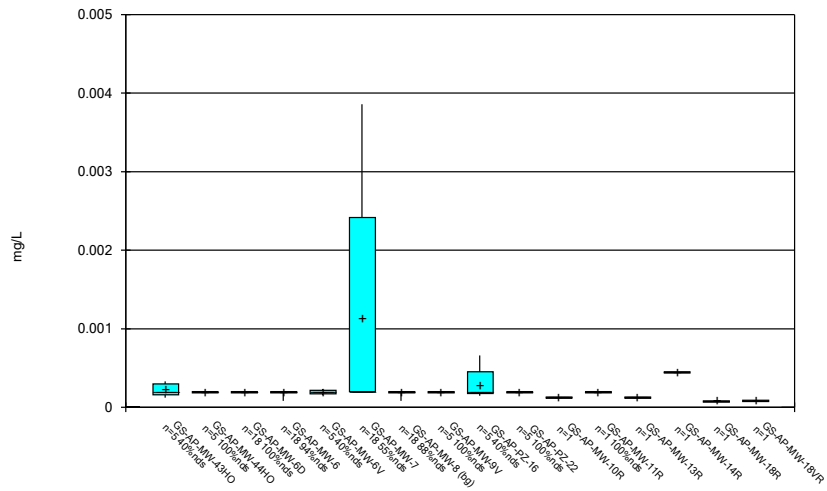
Constituent: Lead Analysis Run 5/16/2022 2:09 PM  
 Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

### Box & Whiskers Plot



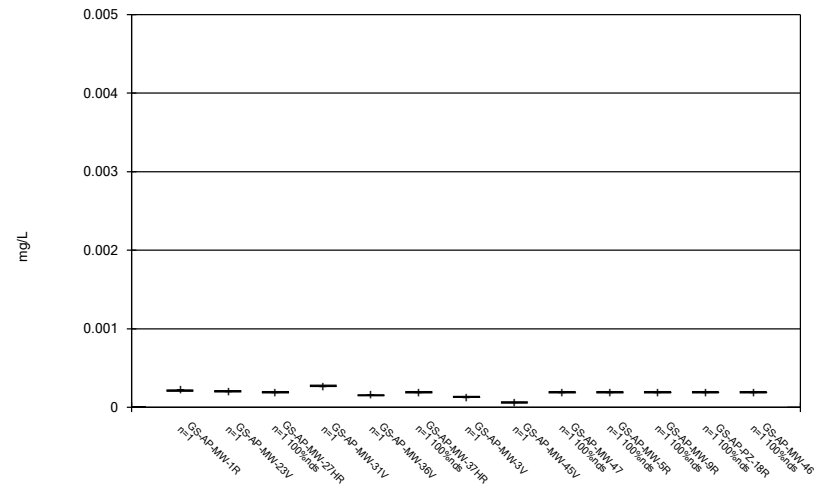
Constituent: Lead Analysis Run 5/16/2022 2:09 PM  
 Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

### Box & Whiskers Plot



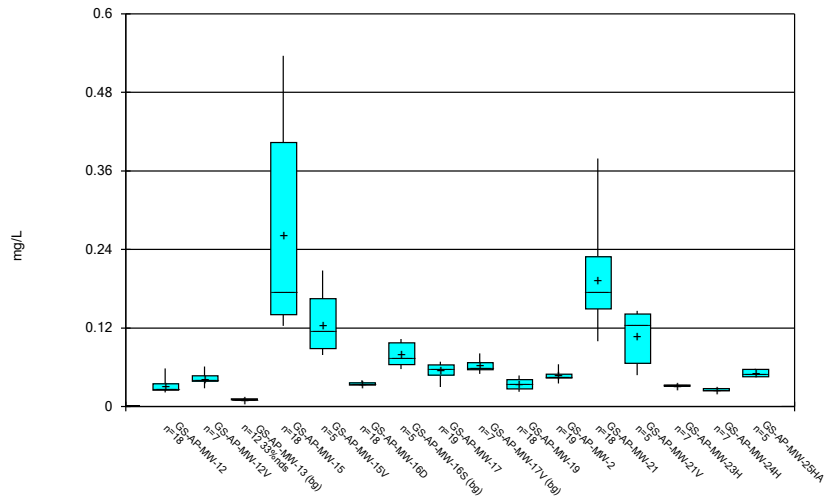
Constituent: Lead Analysis Run 5/16/2022 2:09 PM  
 Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

### Box & Whiskers Plot



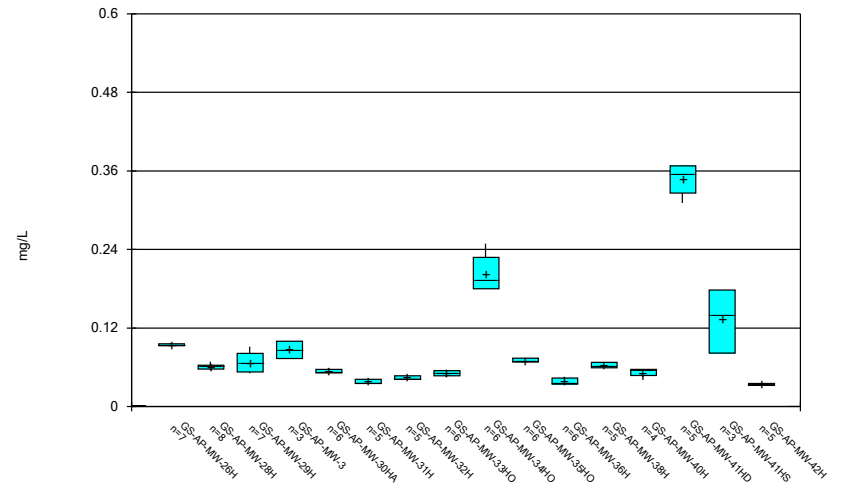
Constituent: Lead Analysis Run 5/16/2022 2:10 PM  
 Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

### Box & Whiskers Plot



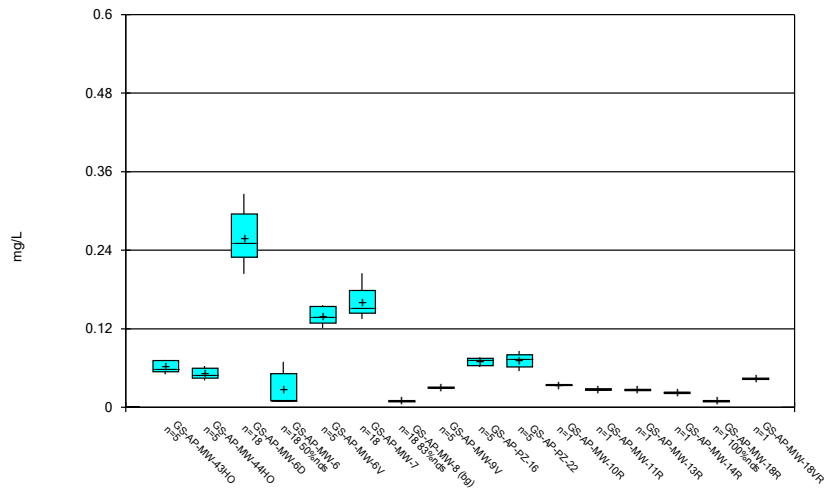
Constituent: Lithium Analysis Run 5/16/2022 2:10 PM  
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

### Box & Whiskers Plot



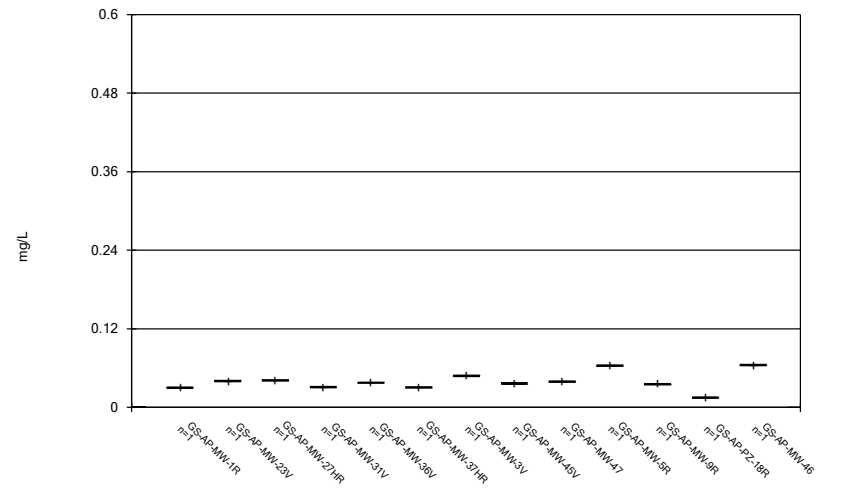
Constituent: Lithium Analysis Run 5/16/2022 2:10 PM  
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

### Box & Whiskers Plot



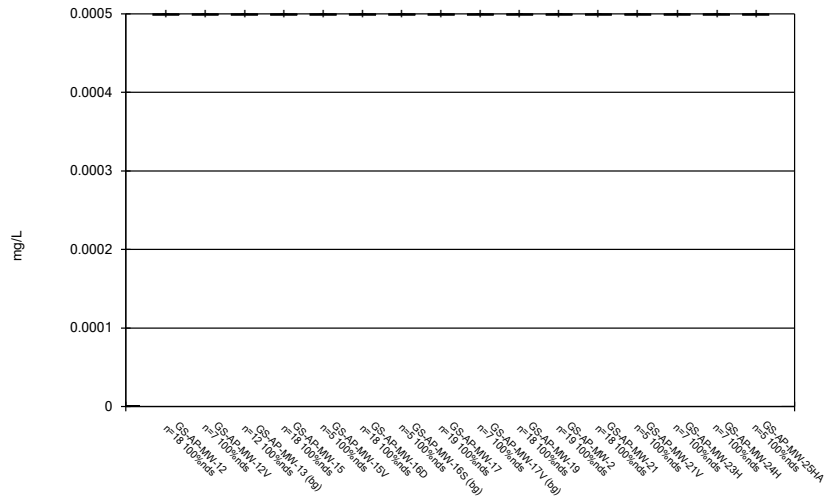
Constituent: Lithium Analysis Run 5/16/2022 2:10 PM  
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

### Box & Whiskers Plot



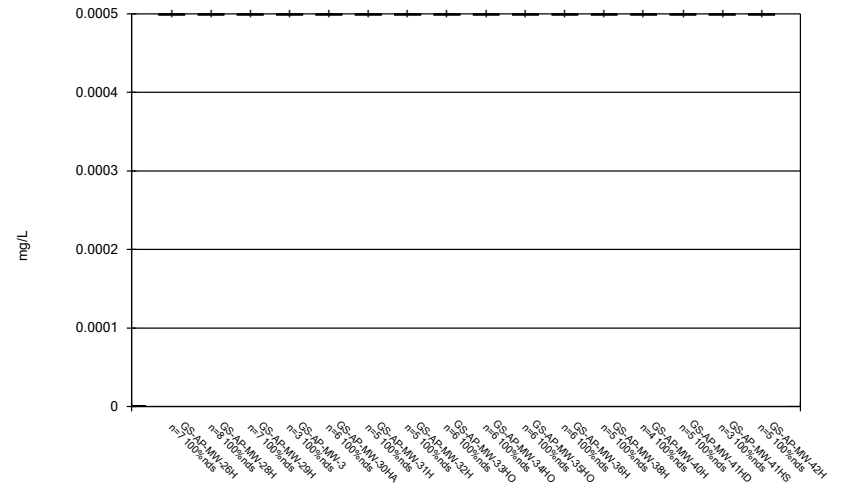
Constituent: Lithium Analysis Run 5/16/2022 2:10 PM  
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

### Box & Whiskers Plot



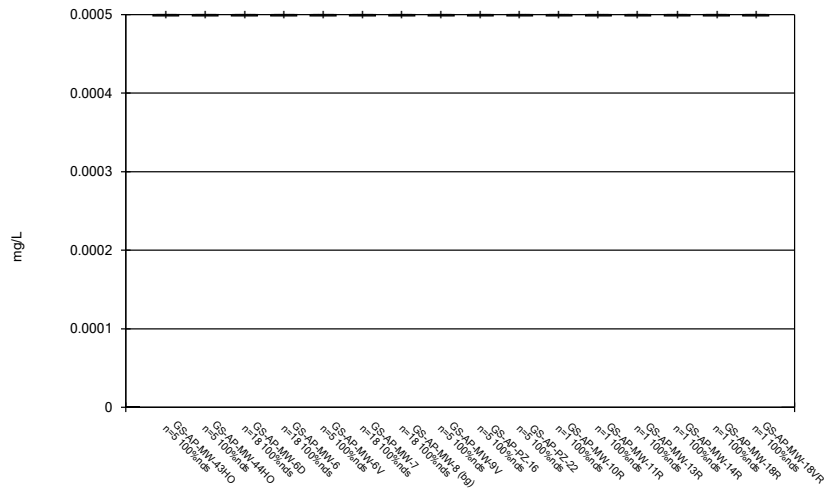
Constituent: Mercury Analysis Run 5/16/2022 2:10 PM  
 Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

### Box & Whiskers Plot



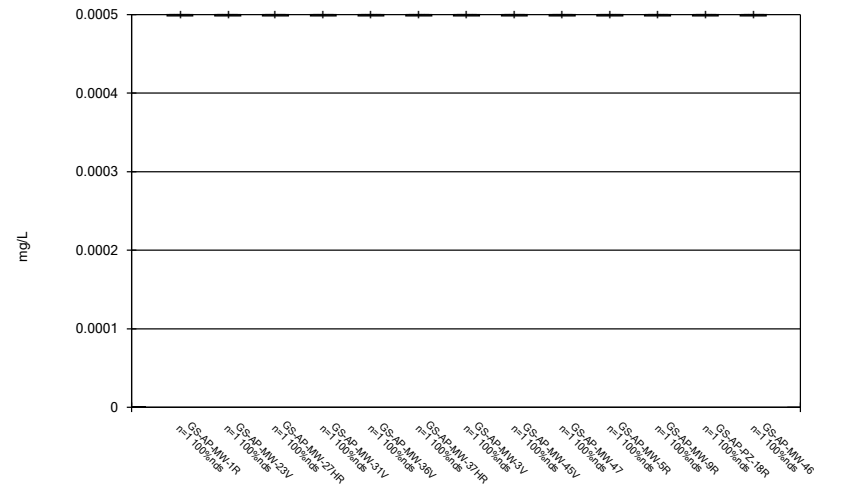
Constituent: Mercury Analysis Run 5/16/2022 2:10 PM  
 Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

### Box & Whiskers Plot



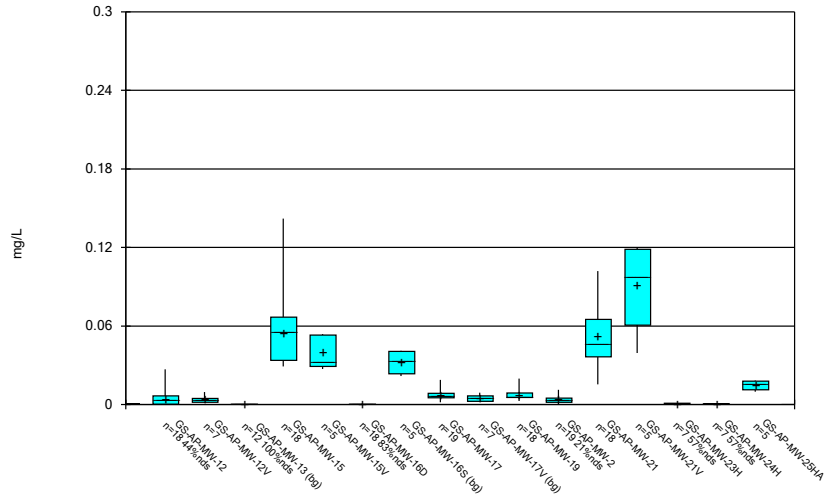
Constituent: Mercury Analysis Run 5/16/2022 2:10 PM  
 Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

### Box & Whiskers Plot



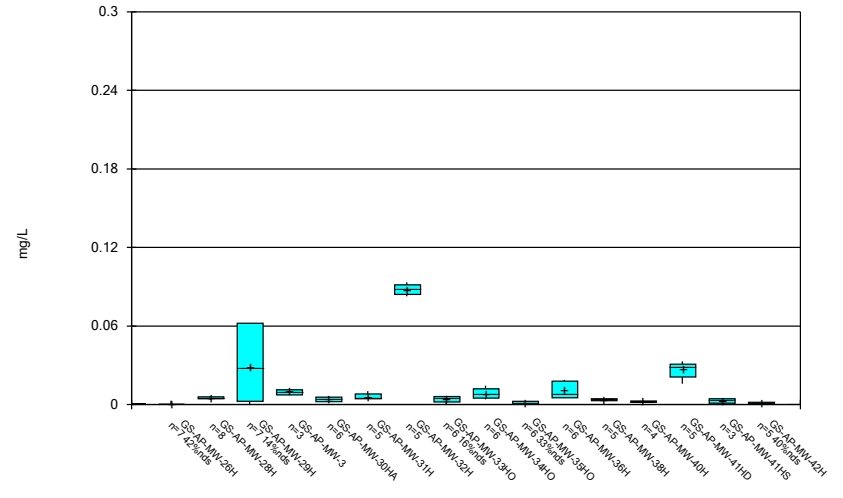
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 Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

### Box & Whiskers Plot



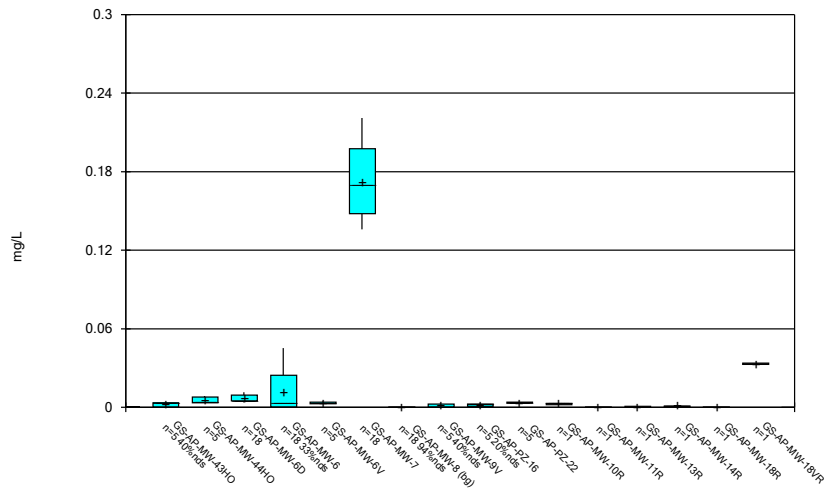
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 Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

### Box & Whiskers Plot



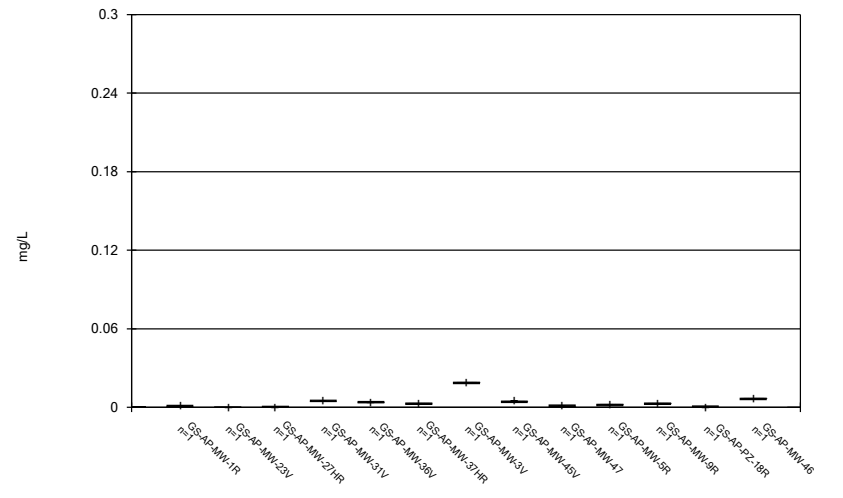
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 Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

### Box & Whiskers Plot



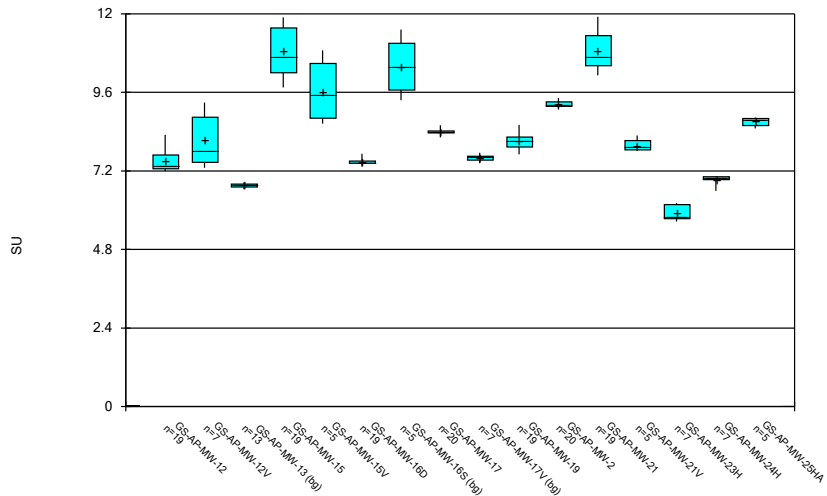
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 Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

### Box & Whiskers Plot



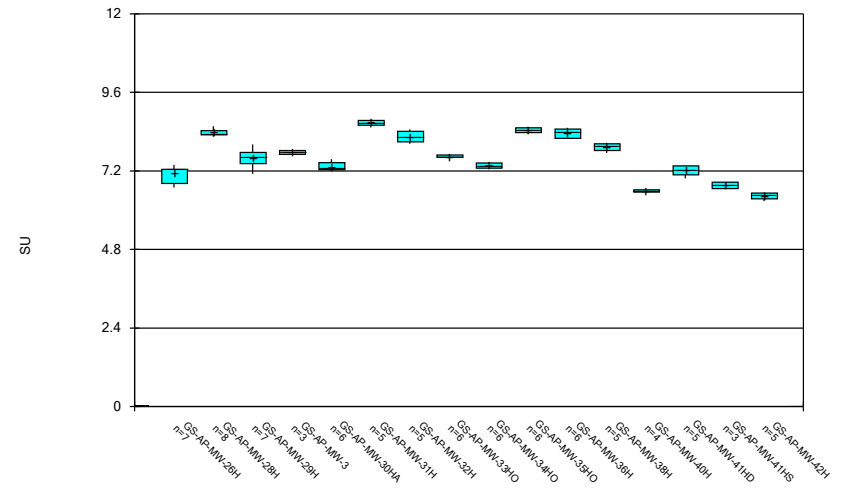
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 Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

Box & Whiskers Plot



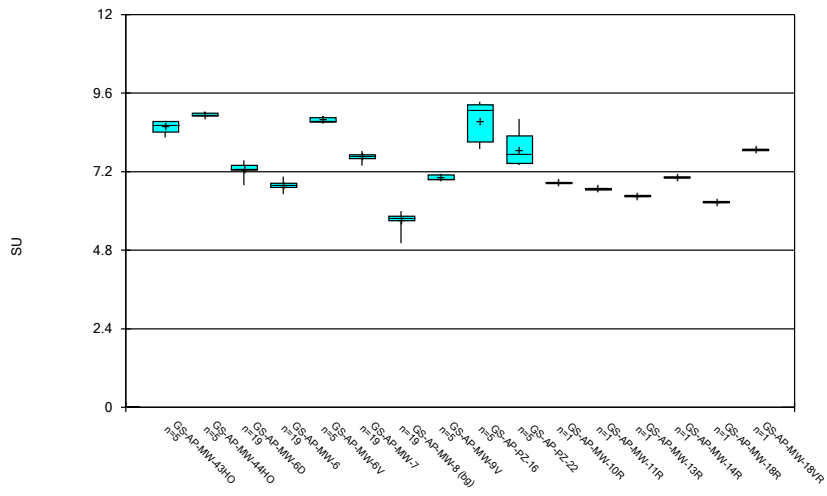
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Box & Whiskers Plot



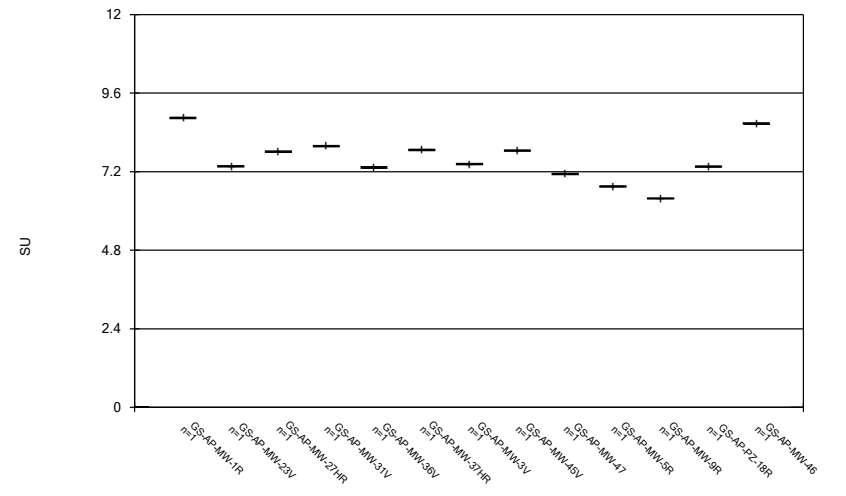
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Box & Whiskers Plot



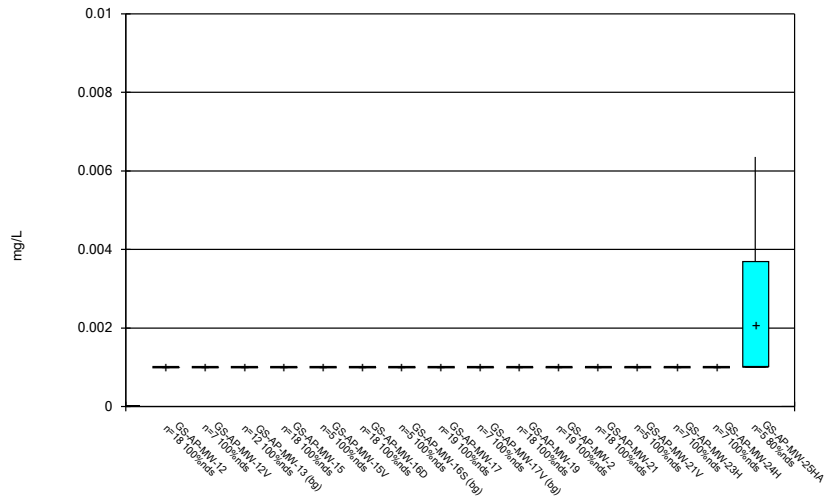
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Box & Whiskers Plot



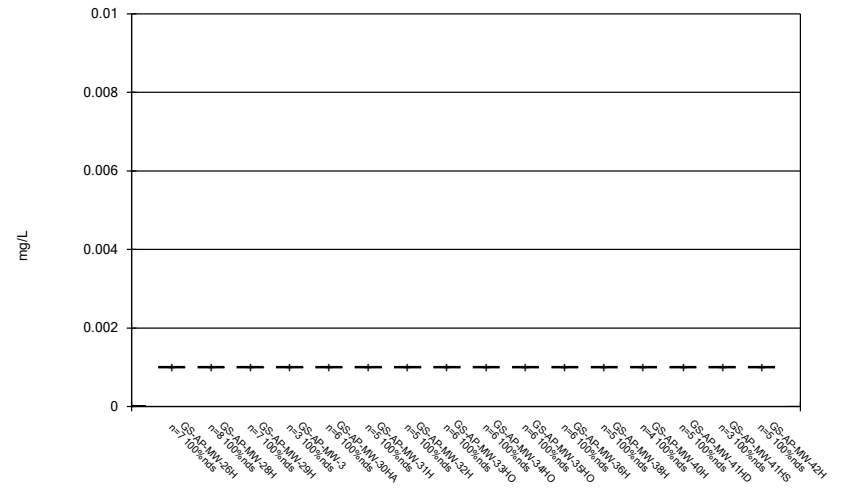
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### Box & Whiskers Plot



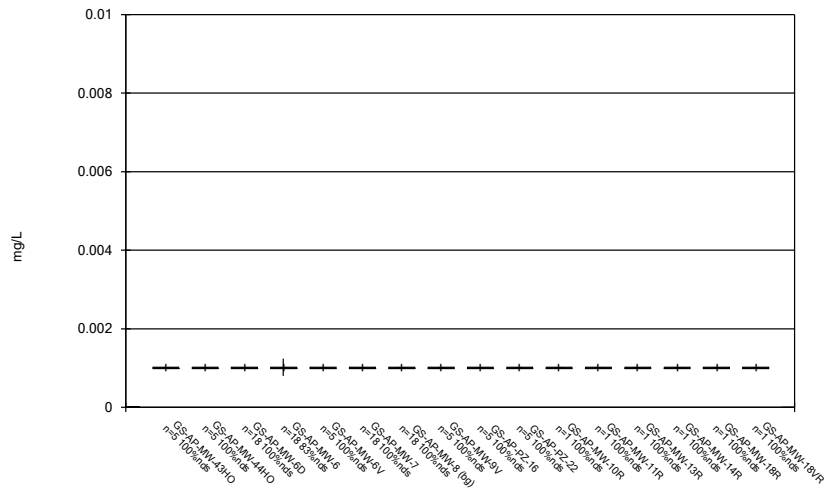
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### Box & Whiskers Plot



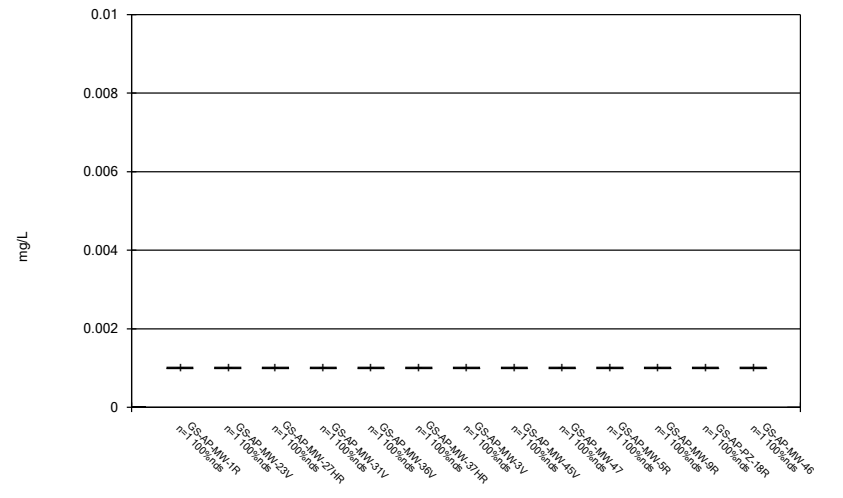
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### Box & Whiskers Plot



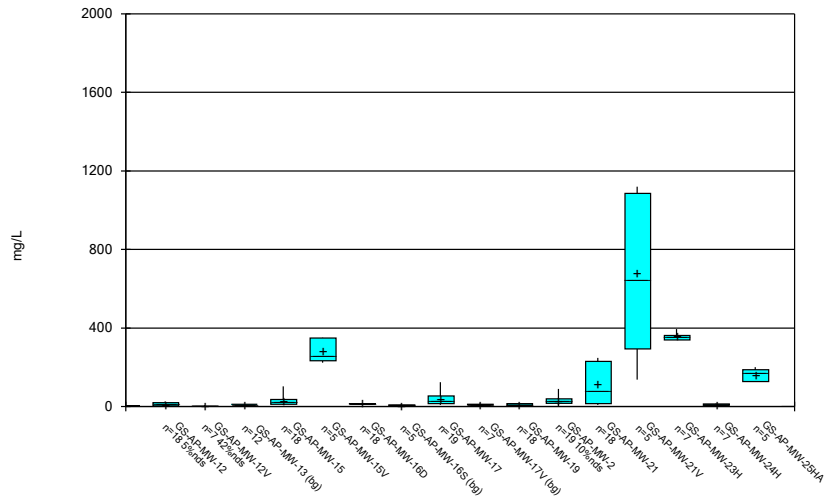
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 Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

### Box & Whiskers Plot



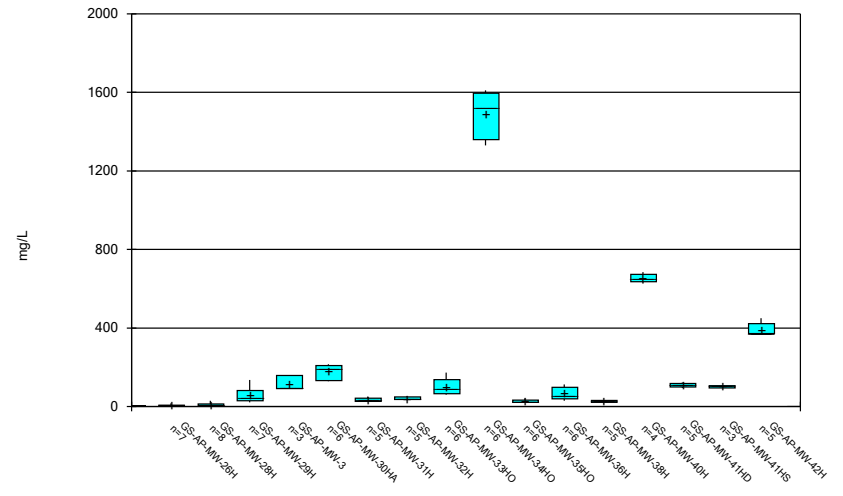
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Box & Whiskers Plot



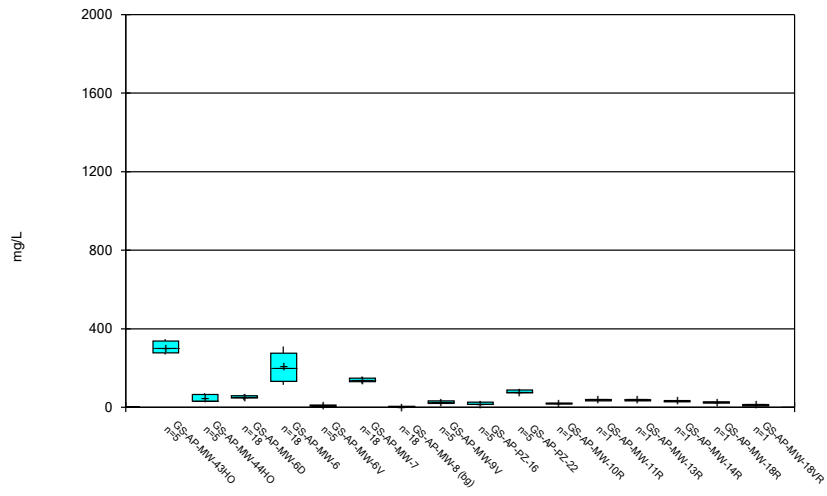
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Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

Box & Whiskers Plot



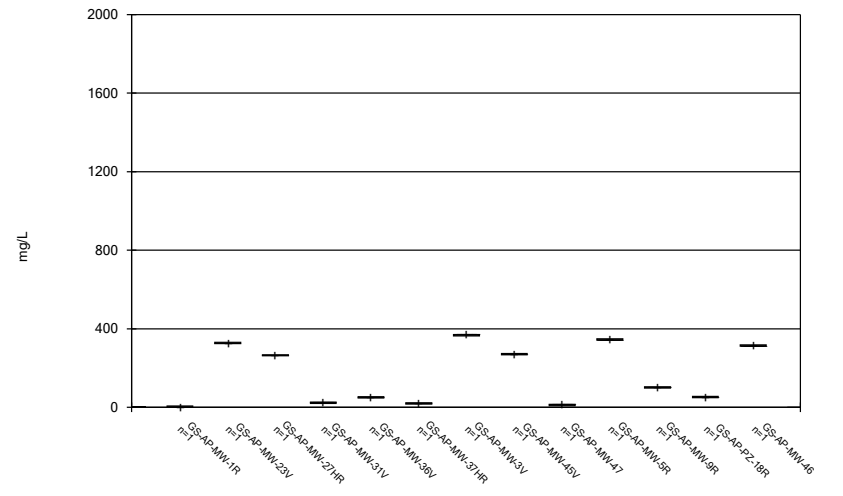
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Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

Box & Whiskers Plot



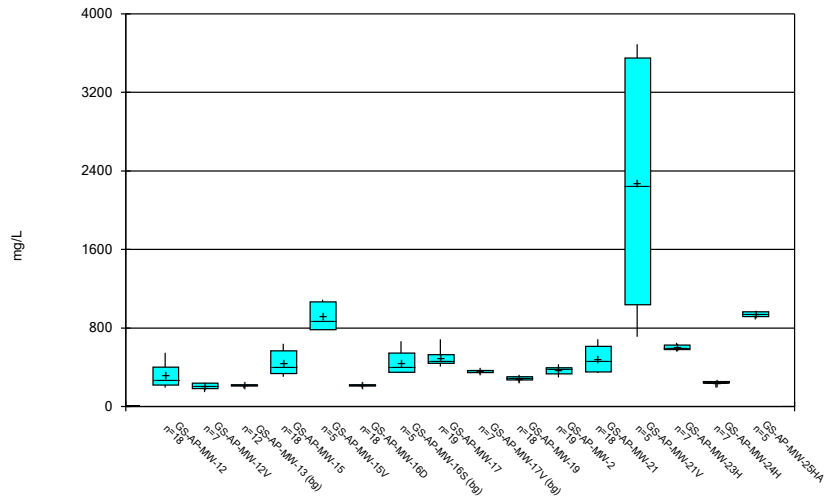
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Box & Whiskers Plot



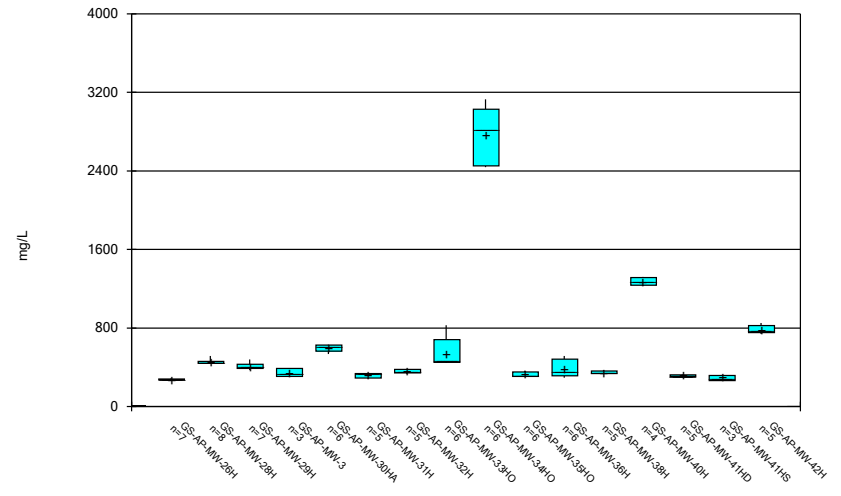
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Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

### Box & Whiskers Plot



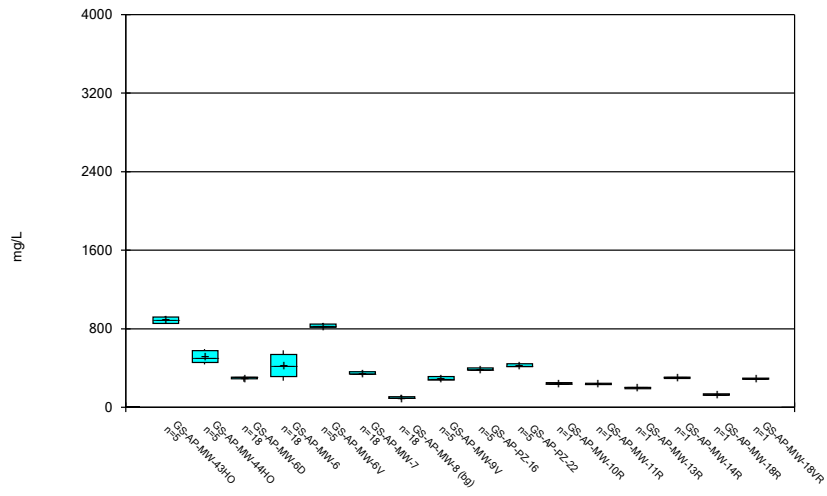
Constituent: TDS Analysis Run 5/16/2022 2:10 PM  
 Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

### Box & Whiskers Plot



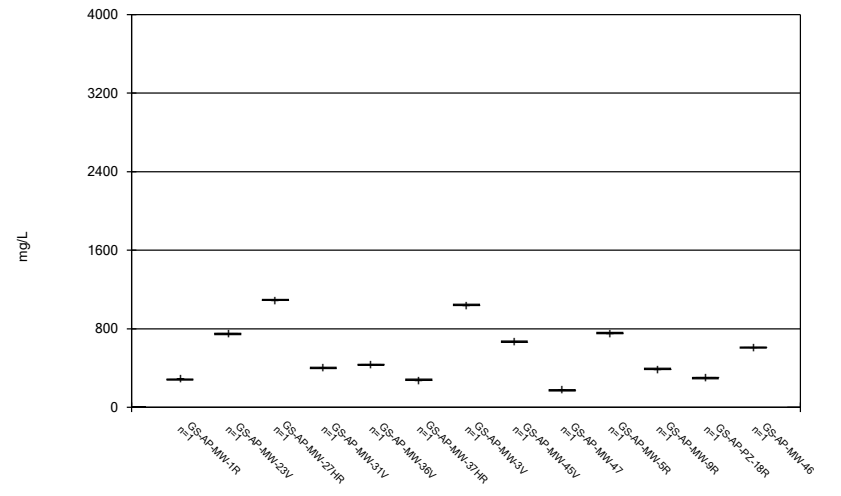
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 Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

### Box & Whiskers Plot



Constituent: TDS Analysis Run 5/16/2022 2:10 PM  
 Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

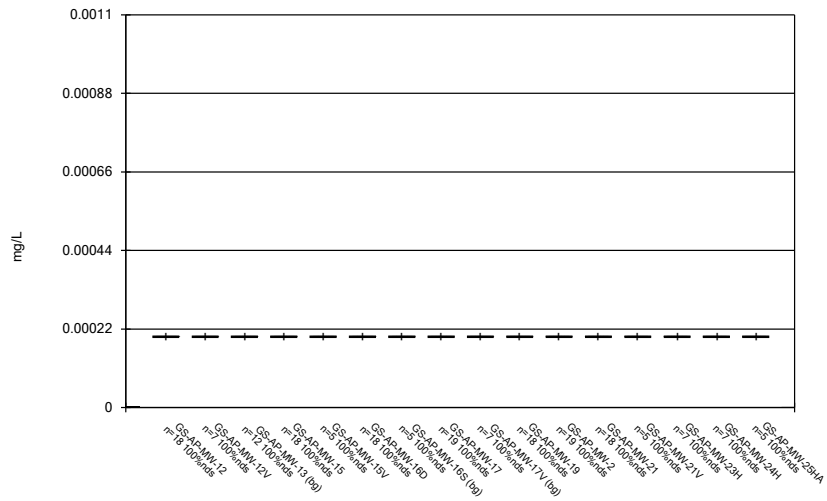
### Box & Whiskers Plot



Constituent: TDS Analysis Run 5/16/2022 2:10 PM  
 Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

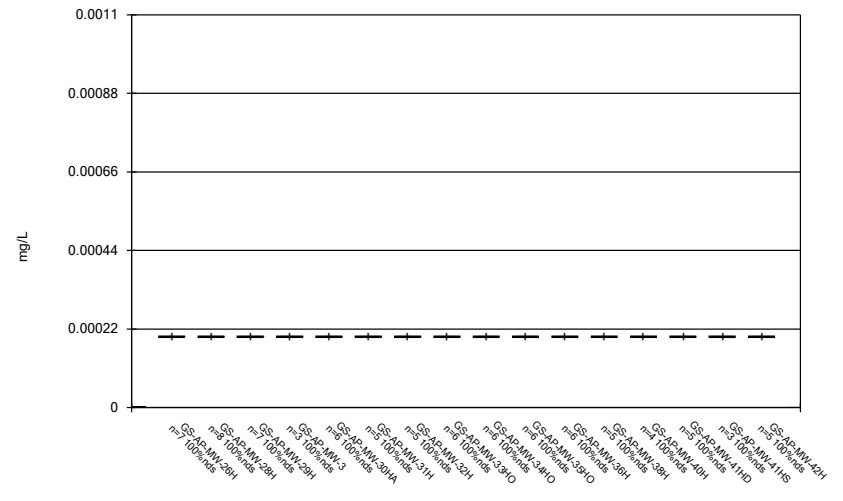


### Box & Whiskers Plot



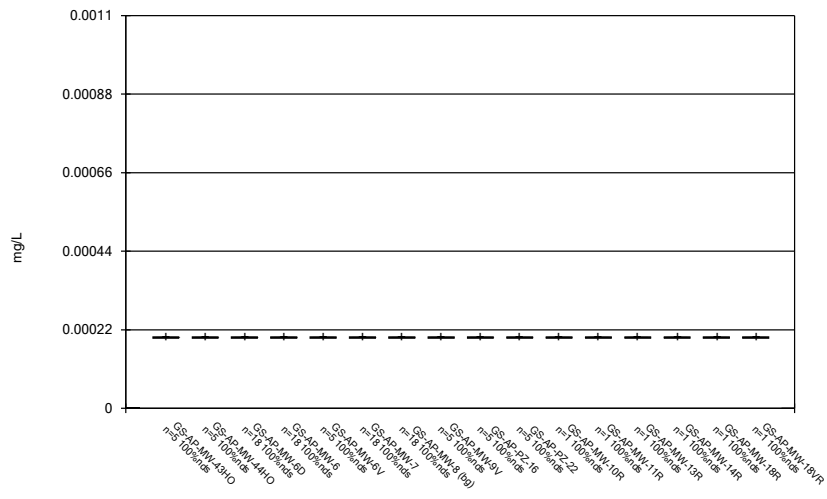
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 Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

### Box & Whiskers Plot



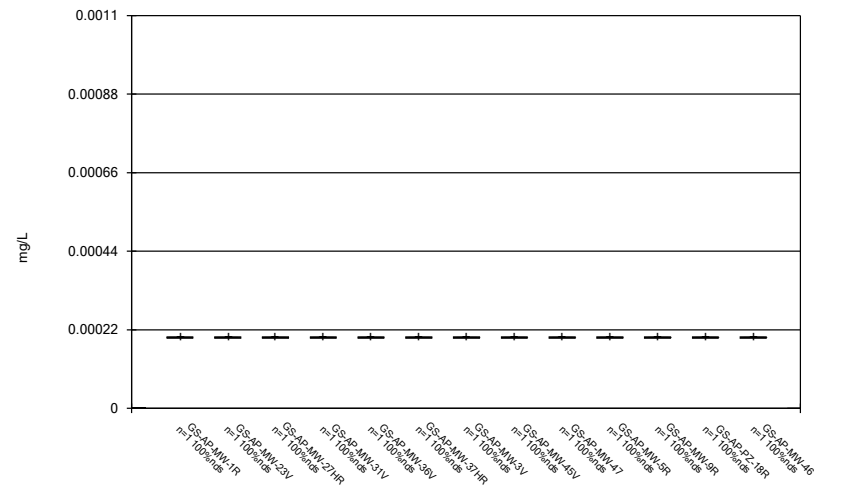
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 Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

### Box & Whiskers Plot



Constituent: Thallium Analysis Run 5/16/2022 2:10 PM  
 Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

### Box & Whiskers Plot



Constituent: Thallium Analysis Run 5/16/2022 2:10 PM  
 Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

FIGURE C.

# Outlier Summary

Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond Printed 5/16/2022, 2:14 PM

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GS-AP-MW-21 Boron (mg/L)

8/2/2016 0.176 (o)

FIGURE D.

# Interwell Prediction Limits - Significant Results

Plant Gorgas    Client: Southern Company    Data: Gorgas Ash Pond    Printed 5/16/2022, 4:02 PM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	Bg Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Boron (mg/L)	GS-AP-MW-2	0.1015	n/a	2/22/2022	0.112	Yes	37	n/a	n/a	78.38	n/a	n/a	0.001285	NP Inter (NDs) 1 of 2
Boron (mg/L)	GS-AP-MW-21	0.1015	n/a	2/8/2022	0.111	Yes	37	n/a	n/a	78.38	n/a	n/a	0.001285	NP Inter (NDs) 1 of 2
Boron (mg/L)	GS-AP-MW-3	0.1015	n/a	2/16/2022	0.311	Yes	37	n/a	n/a	78.38	n/a	n/a	0.001285	NP Inter (NDs) 1 of 2
Boron (mg/L)	GS-AP-MW-6D	0.1015	n/a	2/14/2022	1.29	Yes	37	n/a	n/a	78.38	n/a	n/a	0.001285	NP Inter (NDs) 1 of 2
Boron (mg/L)	GS-AP-MW-6	0.1015	n/a	2/14/2022	0.978	Yes	37	n/a	n/a	78.38	n/a	n/a	0.001285	NP Inter (NDs) 1 of 2
Boron (mg/L)	GS-AP-MW-7	0.1015	n/a	2/8/2022	1.69	Yes	37	n/a	n/a	78.38	n/a	n/a	0.001285	NP Inter (NDs) 1 of 2
Calcium (mg/L)	GS-AP-MW-19	48.1	n/a	2/22/2022	54.6	Yes	37	n/a	n/a	0	n/a	n/a	0.001285	NP Inter (normality) 1 of 2
Calcium (mg/L)	GS-AP-MW-23H	48.1	n/a	2/14/2022	74.4	Yes	37	n/a	n/a	0	n/a	n/a	0.001285	NP Inter (normality) 1 of 2
Calcium (mg/L)	GS-AP-MW-6D	48.1	n/a	2/14/2022	55.7	Yes	37	n/a	n/a	0	n/a	n/a	0.001285	NP Inter (normality) 1 of 2
Calcium (mg/L)	GS-AP-MW-6	48.1	n/a	2/14/2022	60.1	Yes	37	n/a	n/a	0	n/a	n/a	0.001285	NP Inter (normality) 1 of 2
Chloride (mg/L)	GS-AP-MW-15	4.264	n/a	2/16/2022	5.86	Yes	37	3.369	0.4244	0	None	No	0.0006839	Param Inter 1 of 2
Chloride (mg/L)	GS-AP-MW-15V	4.264	n/a	2/16/2022	129	Yes	37	3.369	0.4244	0	None	No	0.0006839	Param Inter 1 of 2
Chloride (mg/L)	GS-AP-MW-17	4.264	n/a	2/14/2022	7.15	Yes	37	3.369	0.4244	0	None	No	0.0006839	Param Inter 1 of 2
Chloride (mg/L)	GS-AP-MW-19	4.264	n/a	2/22/2022	4.59	Yes	37	3.369	0.4244	0	None	No	0.0006839	Param Inter 1 of 2
Chloride (mg/L)	GS-AP-MW-2	4.264	n/a	2/22/2022	6.05	Yes	37	3.369	0.4244	0	None	No	0.0006839	Param Inter 1 of 2
Chloride (mg/L)	GS-AP-MW-21	4.264	n/a	2/8/2022	41.4	Yes	37	3.369	0.4244	0	None	No	0.0006839	Param Inter 1 of 2
Chloride (mg/L)	GS-AP-MW-23H	4.264	n/a	2/14/2022	12.8	Yes	37	3.369	0.4244	0	None	No	0.0006839	Param Inter 1 of 2
Chloride (mg/L)	GS-AP-MW-3	4.264	n/a	2/16/2022	14	Yes	37	3.369	0.4244	0	None	No	0.0006839	Param Inter 1 of 2
Chloride (mg/L)	GS-AP-MW-6D	4.264	n/a	2/14/2022	11.7	Yes	37	3.369	0.4244	0	None	No	0.0006839	Param Inter 1 of 2
Chloride (mg/L)	GS-AP-MW-6	4.264	n/a	2/14/2022	20.6	Yes	37	3.369	0.4244	0	None	No	0.0006839	Param Inter 1 of 2
Chloride (mg/L)	GS-AP-MW-7	4.264	n/a	2/8/2022	7.475	Yes	37	3.369	0.4244	0	None	No	0.0006839	Param Inter 1 of 2
Chloride (mg/L)	GS-AP-MW-9V	4.264	n/a	2/21/2022	18.4	Yes	37	3.369	0.4244	0	None	No	0.0006839	Param Inter 1 of 2
Fluoride (mg/L)	GS-AP-MW-15	0.2798	n/a	2/16/2022	0.349	Yes	39	0.1399	0.06663	0	None	No	0.0006839	Param Inter 1 of 2
Fluoride (mg/L)	GS-AP-MW-2	0.2798	n/a	2/22/2022	0.819	Yes	39	0.1399	0.06663	0	None	No	0.0006839	Param Inter 1 of 2
pH (SU)	GS-AP-MW-12	7.76	5.02	2/28/2022	8.12	Yes	39	n/a	n/a	0	n/a	n/a	0.002327	NP Inter (normality) 1 of 2
pH (SU)	GS-AP-MW-15	7.76	5.02	2/16/2022	11.57	Yes	39	n/a	n/a	0	n/a	n/a	0.002327	NP Inter (normality) 1 of 2
pH (SU)	GS-AP-MW-15V	7.76	5.02	2/16/2022	8.65	Yes	39	n/a	n/a	0	n/a	n/a	0.002327	NP Inter (normality) 1 of 2
pH (SU)	GS-AP-MW-17	7.76	5.02	2/14/2022	8.32	Yes	39	n/a	n/a	0	n/a	n/a	0.002327	NP Inter (normality) 1 of 2
pH (SU)	GS-AP-MW-2	7.76	5.02	2/22/2022	9.42	Yes	39	n/a	n/a	0	n/a	n/a	0.002327	NP Inter (normality) 1 of 2
pH (SU)	GS-AP-MW-21	7.76	5.02	2/8/2022	10.26	Yes	39	n/a	n/a	0	n/a	n/a	0.002327	NP Inter (normality) 1 of 2
pH (SU)	GS-AP-MW-3	7.76	5.02	2/16/2022	7.78	Yes	39	n/a	n/a	0	n/a	n/a	0.002327	NP Inter (normality) 1 of 2
Sulfate (mg/L)	GS-AP-MW-12	15.2	n/a	2/28/2022	17.9	Yes	37	n/a	n/a	0	n/a	n/a	0.001285	NP Inter (normality) 1 of 2
Sulfate (mg/L)	GS-AP-MW-15V	15.2	n/a	2/16/2022	224	Yes	37	n/a	n/a	0	n/a	n/a	0.001285	NP Inter (normality) 1 of 2
Sulfate (mg/L)	GS-AP-MW-2	15.2	n/a	2/22/2022	17.1	Yes	37	n/a	n/a	0	n/a	n/a	0.001285	NP Inter (normality) 1 of 2
Sulfate (mg/L)	GS-AP-MW-21	15.2	n/a	2/8/2022	241	Yes	37	n/a	n/a	0	n/a	n/a	0.001285	NP Inter (normality) 1 of 2
Sulfate (mg/L)	GS-AP-MW-23H	15.2	n/a	2/14/2022	356	Yes	37	n/a	n/a	0	n/a	n/a	0.001285	NP Inter (normality) 1 of 2
Sulfate (mg/L)	GS-AP-MW-3	15.2	n/a	2/16/2022	91.2	Yes	37	n/a	n/a	0	n/a	n/a	0.001285	NP Inter (normality) 1 of 2
Sulfate (mg/L)	GS-AP-MW-6D	15.2	n/a	2/14/2022	58.3	Yes	37	n/a	n/a	0	n/a	n/a	0.001285	NP Inter (normality) 1 of 2
Sulfate (mg/L)	GS-AP-MW-6	15.2	n/a	2/14/2022	115	Yes	37	n/a	n/a	0	n/a	n/a	0.001285	NP Inter (normality) 1 of 2
Sulfate (mg/L)	GS-AP-MW-7	15.2	n/a	2/8/2022	137	Yes	37	n/a	n/a	0	n/a	n/a	0.001285	NP Inter (normality) 1 of 2
Sulfate (mg/L)	GS-AP-MW-9V	15.2	n/a	2/21/2022	32.4	Yes	37	n/a	n/a	0	n/a	n/a	0.001285	NP Inter (normality) 1 of 2
TDS (mg/L)	GS-AP-MW-15	368	n/a	2/16/2022	426	Yes	37	n/a	n/a	0	n/a	n/a	0.001285	NP Inter (normality) 1 of 2
TDS (mg/L)	GS-AP-MW-15V	368	n/a	2/16/2022	782	Yes	37	n/a	n/a	0	n/a	n/a	0.001285	NP Inter (normality) 1 of 2
TDS (mg/L)	GS-AP-MW-17	368	n/a	2/14/2022	448	Yes	37	n/a	n/a	0	n/a	n/a	0.001285	NP Inter (normality) 1 of 2
TDS (mg/L)	GS-AP-MW-21	368	n/a	2/8/2022	570	Yes	37	n/a	n/a	0	n/a	n/a	0.001285	NP Inter (normality) 1 of 2
TDS (mg/L)	GS-AP-MW-23H	368	n/a	2/14/2022	592	Yes	37	n/a	n/a	0	n/a	n/a	0.001285	NP Inter (normality) 1 of 2

# Interwell Prediction Limits - All Results

Plant Gorgas    Client: Southern Company    Data: Gorgas Ash Pond    Printed 5/16/2022, 4:02 PM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	Bg Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Boron (mg/L)	GS-AP-MW-12	0.1015	n/a	2/28/2022	0.0305J	No	37	n/a	n/a	78.38	n/a	n/a	0.001285	NP Inter (NDs) 1 of 2
Boron (mg/L)	GS-AP-MW-12V	0.1015	n/a	2/23/2022	0.1015ND	No	37	n/a	n/a	78.38	n/a	n/a	0.001285	NP Inter (NDs) 1 of 2
Boron (mg/L)	GS-AP-MW-15	0.1015	n/a	2/16/2022	0.0323J	No	37	n/a	n/a	78.38	n/a	n/a	0.001285	NP Inter (NDs) 1 of 2
Boron (mg/L)	GS-AP-MW-15V	0.1015	n/a	2/16/2022	0.0594J	No	37	n/a	n/a	78.38	n/a	n/a	0.001285	NP Inter (NDs) 1 of 2
Boron (mg/L)	GS-AP-MW-16D	0.1015	n/a	2/15/2022	0.1015ND	No	37	n/a	n/a	78.38	n/a	n/a	0.001285	NP Inter (NDs) 1 of 2
Boron (mg/L)	GS-AP-MW-17	0.1015	n/a	2/14/2022	0.073J	No	37	n/a	n/a	78.38	n/a	n/a	0.001285	NP Inter (NDs) 1 of 2
Boron (mg/L)	GS-AP-MW-19	0.1015	n/a	2/22/2022	0.1015ND	No	37	n/a	n/a	78.38	n/a	n/a	0.001285	NP Inter (NDs) 1 of 2
<b>Boron (mg/L)</b>	<b>GS-AP-MW-2</b>	<b>0.1015</b>	<b>n/a</b>	<b>2/22/2022</b>	<b>0.112</b>	<b>Yes</b>	<b>37</b>	<b>n/a</b>	<b>n/a</b>	<b>78.38</b>	<b>n/a</b>	<b>n/a</b>	<b>0.001285</b>	<b>NP Inter (NDs) 1 of 2</b>
<b>Boron (mg/L)</b>	<b>GS-AP-MW-21</b>	<b>0.1015</b>	<b>n/a</b>	<b>2/8/2022</b>	<b>0.111</b>	<b>Yes</b>	<b>37</b>	<b>n/a</b>	<b>n/a</b>	<b>78.38</b>	<b>n/a</b>	<b>n/a</b>	<b>0.001285</b>	<b>NP Inter (NDs) 1 of 2</b>
Boron (mg/L)	GS-AP-MW-23H	0.1015	n/a	2/14/2022	0.035J	No	37	n/a	n/a	78.38	n/a	n/a	0.001285	NP Inter (NDs) 1 of 2
<b>Boron (mg/L)</b>	<b>GS-AP-MW-3</b>	<b>0.1015</b>	<b>n/a</b>	<b>2/16/2022</b>	<b>0.311</b>	<b>Yes</b>	<b>37</b>	<b>n/a</b>	<b>n/a</b>	<b>78.38</b>	<b>n/a</b>	<b>n/a</b>	<b>0.001285</b>	<b>NP Inter (NDs) 1 of 2</b>
<b>Boron (mg/L)</b>	<b>GS-AP-MW-6D</b>	<b>0.1015</b>	<b>n/a</b>	<b>2/14/2022</b>	<b>1.29</b>	<b>Yes</b>	<b>37</b>	<b>n/a</b>	<b>n/a</b>	<b>78.38</b>	<b>n/a</b>	<b>n/a</b>	<b>0.001285</b>	<b>NP Inter (NDs) 1 of 2</b>
<b>Boron (mg/L)</b>	<b>GS-AP-MW-6</b>	<b>0.1015</b>	<b>n/a</b>	<b>2/14/2022</b>	<b>0.978</b>	<b>Yes</b>	<b>37</b>	<b>n/a</b>	<b>n/a</b>	<b>78.38</b>	<b>n/a</b>	<b>n/a</b>	<b>0.001285</b>	<b>NP Inter (NDs) 1 of 2</b>
<b>Boron (mg/L)</b>	<b>GS-AP-MW-7</b>	<b>0.1015</b>	<b>n/a</b>	<b>2/8/2022</b>	<b>1.69</b>	<b>Yes</b>	<b>37</b>	<b>n/a</b>	<b>n/a</b>	<b>78.38</b>	<b>n/a</b>	<b>n/a</b>	<b>0.001285</b>	<b>NP Inter (NDs) 1 of 2</b>
Boron (mg/L)	GS-AP-MW-9V	0.1015	n/a	2/21/2022	0.0349J	No	37	n/a	n/a	78.38	n/a	n/a	0.001285	NP Inter (NDs) 1 of 2
Calcium (mg/L)	GS-AP-MW-12	48.1	n/a	2/28/2022	37.9	No	37	n/a	n/a	0	n/a	n/a	0.001285	NP Inter (normality) 1 of 2
Calcium (mg/L)	GS-AP-MW-12V	48.1	n/a	2/23/2022	46.3	No	37	n/a	n/a	0	n/a	n/a	0.001285	NP Inter (normality) 1 of 2
Calcium (mg/L)	GS-AP-MW-15	48.1	n/a	2/16/2022	6.76	No	37	n/a	n/a	0	n/a	n/a	0.001285	NP Inter (normality) 1 of 2
Calcium (mg/L)	GS-AP-MW-15V	48.1	n/a	2/16/2022	14.3	No	37	n/a	n/a	0	n/a	n/a	0.001285	NP Inter (normality) 1 of 2
Calcium (mg/L)	GS-AP-MW-16D	48.1	n/a	2/15/2022	31.5	No	37	n/a	n/a	0	n/a	n/a	0.001285	NP Inter (normality) 1 of 2
Calcium (mg/L)	GS-AP-MW-17	48.1	n/a	2/14/2022	2.17	No	37	n/a	n/a	0	n/a	n/a	0.001285	NP Inter (normality) 1 of 2
<b>Calcium (mg/L)</b>	<b>GS-AP-MW-19</b>	<b>48.1</b>	<b>n/a</b>	<b>2/22/2022</b>	<b>54.6</b>	<b>Yes</b>	<b>37</b>	<b>n/a</b>	<b>n/a</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.001285</b>	<b>NP Inter (normality) 1 of 2</b>
Calcium (mg/L)	GS-AP-MW-2	48.1	n/a	2/22/2022	0.413	No	37	n/a	n/a	0	n/a	n/a	0.001285	NP Inter (normality) 1 of 2
Calcium (mg/L)	GS-AP-MW-21	48.1	n/a	2/8/2022	1.98	No	37	n/a	n/a	0	n/a	n/a	0.001285	NP Inter (normality) 1 of 2
<b>Calcium (mg/L)</b>	<b>GS-AP-MW-23H</b>	<b>48.1</b>	<b>n/a</b>	<b>2/14/2022</b>	<b>74.4</b>	<b>Yes</b>	<b>37</b>	<b>n/a</b>	<b>n/a</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.001285</b>	<b>NP Inter (normality) 1 of 2</b>
Calcium (mg/L)	GS-AP-MW-3	48.1	n/a	2/16/2022	18.6	No	37	n/a	n/a	0	n/a	n/a	0.001285	NP Inter (normality) 1 of 2
<b>Calcium (mg/L)</b>	<b>GS-AP-MW-6D</b>	<b>48.1</b>	<b>n/a</b>	<b>2/14/2022</b>	<b>55.7</b>	<b>Yes</b>	<b>37</b>	<b>n/a</b>	<b>n/a</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.001285</b>	<b>NP Inter (normality) 1 of 2</b>
<b>Calcium (mg/L)</b>	<b>GS-AP-MW-6</b>	<b>48.1</b>	<b>n/a</b>	<b>2/14/2022</b>	<b>60.1</b>	<b>Yes</b>	<b>37</b>	<b>n/a</b>	<b>n/a</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.001285</b>	<b>NP Inter (normality) 1 of 2</b>
Calcium (mg/L)	GS-AP-MW-7	48.1	n/a	2/8/2022	10.7	No	37	n/a	n/a	0	n/a	n/a	0.001285	NP Inter (normality) 1 of 2
Calcium (mg/L)	GS-AP-MW-9V	48.1	n/a	2/21/2022	47.7	No	37	n/a	n/a	0	n/a	n/a	0.001285	NP Inter (normality) 1 of 2
Chloride (mg/L)	GS-AP-MW-12	4.264	n/a	2/28/2022	3.34	No	37	3.369	0.4244	0	None	No	0.0006839	Param Inter 1 of 2
Chloride (mg/L)	GS-AP-MW-12V	4.264	n/a	2/23/2022	3.83	No	37	3.369	0.4244	0	None	No	0.0006839	Param Inter 1 of 2
<b>Chloride (mg/L)</b>	<b>GS-AP-MW-15</b>	<b>4.264</b>	<b>n/a</b>	<b>2/16/2022</b>	<b>5.86</b>	<b>Yes</b>	<b>37</b>	<b>3.369</b>	<b>0.4244</b>	<b>0</b>	<b>None</b>	<b>No</b>	<b>0.0006839</b>	<b>Param Inter 1 of 2</b>
<b>Chloride (mg/L)</b>	<b>GS-AP-MW-15V</b>	<b>4.264</b>	<b>n/a</b>	<b>2/16/2022</b>	<b>129</b>	<b>Yes</b>	<b>37</b>	<b>3.369</b>	<b>0.4244</b>	<b>0</b>	<b>None</b>	<b>No</b>	<b>0.0006839</b>	<b>Param Inter 1 of 2</b>
Chloride (mg/L)	GS-AP-MW-16D	4.264	n/a	2/15/2022	3.58	No	37	3.369	0.4244	0	None	No	0.0006839	Param Inter 1 of 2
<b>Chloride (mg/L)</b>	<b>GS-AP-MW-17</b>	<b>4.264</b>	<b>n/a</b>	<b>2/14/2022</b>	<b>7.15</b>	<b>Yes</b>	<b>37</b>	<b>3.369</b>	<b>0.4244</b>	<b>0</b>	<b>None</b>	<b>No</b>	<b>0.0006839</b>	<b>Param Inter 1 of 2</b>
<b>Chloride (mg/L)</b>	<b>GS-AP-MW-19</b>	<b>4.264</b>	<b>n/a</b>	<b>2/22/2022</b>	<b>4.59</b>	<b>Yes</b>	<b>37</b>	<b>3.369</b>	<b>0.4244</b>	<b>0</b>	<b>None</b>	<b>No</b>	<b>0.0006839</b>	<b>Param Inter 1 of 2</b>
<b>Chloride (mg/L)</b>	<b>GS-AP-MW-2</b>	<b>4.264</b>	<b>n/a</b>	<b>2/22/2022</b>	<b>6.05</b>	<b>Yes</b>	<b>37</b>	<b>3.369</b>	<b>0.4244</b>	<b>0</b>	<b>None</b>	<b>No</b>	<b>0.0006839</b>	<b>Param Inter 1 of 2</b>
<b>Chloride (mg/L)</b>	<b>GS-AP-MW-21</b>	<b>4.264</b>	<b>n/a</b>	<b>2/8/2022</b>	<b>41.4</b>	<b>Yes</b>	<b>37</b>	<b>3.369</b>	<b>0.4244</b>	<b>0</b>	<b>None</b>	<b>No</b>	<b>0.0006839</b>	<b>Param Inter 1 of 2</b>
<b>Chloride (mg/L)</b>	<b>GS-AP-MW-23H</b>	<b>4.264</b>	<b>n/a</b>	<b>2/14/2022</b>	<b>12.8</b>	<b>Yes</b>	<b>37</b>	<b>3.369</b>	<b>0.4244</b>	<b>0</b>	<b>None</b>	<b>No</b>	<b>0.0006839</b>	<b>Param Inter 1 of 2</b>
<b>Chloride (mg/L)</b>	<b>GS-AP-MW-3</b>	<b>4.264</b>	<b>n/a</b>	<b>2/16/2022</b>	<b>14</b>	<b>Yes</b>	<b>37</b>	<b>3.369</b>	<b>0.4244</b>	<b>0</b>	<b>None</b>	<b>No</b>	<b>0.0006839</b>	<b>Param Inter 1 of 2</b>
<b>Chloride (mg/L)</b>	<b>GS-AP-MW-6D</b>	<b>4.264</b>	<b>n/a</b>	<b>2/14/2022</b>	<b>11.7</b>	<b>Yes</b>	<b>37</b>	<b>3.369</b>	<b>0.4244</b>	<b>0</b>	<b>None</b>	<b>No</b>	<b>0.0006839</b>	<b>Param Inter 1 of 2</b>
<b>Chloride (mg/L)</b>	<b>GS-AP-MW-6</b>	<b>4.264</b>	<b>n/a</b>	<b>2/14/2022</b>	<b>20.6</b>	<b>Yes</b>	<b>37</b>	<b>3.369</b>	<b>0.4244</b>	<b>0</b>	<b>None</b>	<b>No</b>	<b>0.0006839</b>	<b>Param Inter 1 of 2</b>
<b>Chloride (mg/L)</b>	<b>GS-AP-MW-7</b>	<b>4.264</b>	<b>n/a</b>	<b>2/8/2022</b>	<b>7.475</b>	<b>Yes</b>	<b>37</b>	<b>3.369</b>	<b>0.4244</b>	<b>0</b>	<b>None</b>	<b>No</b>	<b>0.0006839</b>	<b>Param Inter 1 of 2</b>
<b>Chloride (mg/L)</b>	<b>GS-AP-MW-9V</b>	<b>4.264</b>	<b>n/a</b>	<b>2/21/2022</b>	<b>18.4</b>	<b>Yes</b>	<b>37</b>	<b>3.369</b>	<b>0.4244</b>	<b>0</b>	<b>None</b>	<b>No</b>	<b>0.0006839</b>	<b>Param Inter 1 of 2</b>
Fluoride (mg/L)	GS-AP-MW-12	0.2798	n/a	2/28/2022	0.12	No	39	0.1399	0.06663	0	None	No	0.0006839	Param Inter 1 of 2
Fluoride (mg/L)	GS-AP-MW-12V	0.2798	n/a	2/23/2022	0.153	No	39	0.1399	0.06663	0	None	No	0.0006839	Param Inter 1 of 2
<b>Fluoride (mg/L)</b>	<b>GS-AP-MW-15</b>	<b>0.2798</b>	<b>n/a</b>	<b>2/16/2022</b>	<b>0.349</b>	<b>Yes</b>	<b>39</b>	<b>0.1399</b>	<b>0.06663</b>	<b>0</b>	<b>None</b>	<b>No</b>	<b>0.0006839</b>	<b>Param Inter 1 of 2</b>
Fluoride (mg/L)	GS-AP-MW-15V	0.2798	n/a	2/16/2022	0.208	No	39	0.1399	0.06663	0	None	No	0.0006839	Param Inter 1 of 2
Fluoride (mg/L)	GS-AP-MW-16D	0.2798	n/a	2/15/2022	0.114	No	39	0.1399	0.06663	0	None	No	0.0006839	Param Inter 1 of 2
Fluoride (mg/L)	GS-AP-MW-17	0.2798	n/a	2/14/2022	0.206	No	39	0.1399	0.06663	0	None	No	0.0006839	Param Inter 1 of 2
Fluoride (mg/L)	GS-AP-MW-19	0.2798	n/a	2/22/2022	0.259	No	39	0.1399	0.06663	0	None	No	0.0006839	Param Inter 1 of 2
<b>Fluoride (mg/L)</b>	<b>GS-AP-MW-2</b>	<b>0.2798</b>	<b>n/a</b>	<b>2/22/2022</b>	<b>0.819</b>	<b>Yes</b>	<b>39</b>	<b>0.1399</b>	<b>0.06663</b>	<b>0</b>	<b>None</b>	<b>No</b>	<b>0.0006839</b>	<b>Param Inter 1 of 2</b>
Fluoride (mg/L)	GS-AP-MW-21	0.2798	n/a	2/8/2022	0.175	No	39	0.1399	0.06663	0	None	No	0.0006839	Param Inter 1 of 2
Fluoride (mg/L)	GS-AP-MW-23H	0.2798	n/a	2/14/2022	0.14	No	39	0.1399	0.06663	0	None	No	0.0006839	Param Inter 1 of 2

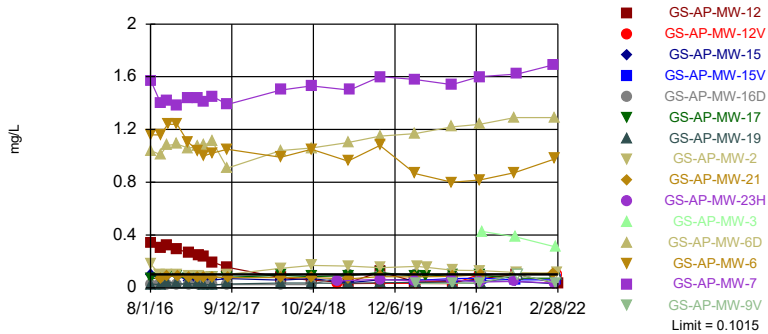
# Interwell Prediction Limits - All Results

Plant Gorgas    Client: Southern Company    Data: Gorgas Ash Pond    Printed 5/16/2022, 4:02 PM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	Bg Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Fluoride (mg/L)	GS-AP-MW-3	0.2798	n/a	2/16/2022	0.05ND	No	39	0.1399	0.06663	0	None	No	0.0006839	Param Inter 1 of 2
Fluoride (mg/L)	GS-AP-MW-6D	0.2798	n/a	2/14/2022	0.108	No	39	0.1399	0.06663	0	None	No	0.0006839	Param Inter 1 of 2
Fluoride (mg/L)	GS-AP-MW-6	0.2798	n/a	2/14/2022	0.164	No	39	0.1399	0.06663	0	None	No	0.0006839	Param Inter 1 of 2
Fluoride (mg/L)	GS-AP-MW-7	0.2798	n/a	2/8/2022	0.0872J	No	39	0.1399	0.06663	0	None	No	0.0006839	Param Inter 1 of 2
Fluoride (mg/L)	GS-AP-MW-9V	0.2798	n/a	2/21/2022	0.177	No	39	0.1399	0.06663	0	None	No	0.0006839	Param Inter 1 of 2
<b>pH (SU)</b>	<b>GS-AP-MW-12</b>	<b>7.76</b>	<b>5.02</b>	<b>2/28/2022</b>	<b>8.12</b>	<b>Yes</b>	<b>39</b>	<b>n/a</b>	<b>n/a</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.002327</b>	<b>NP Inter (normality) 1 of 2</b>
pH (SU)	GS-AP-MW-12V	7.76	5.02	2/23/2022	7.73	No	39	n/a	n/a	0	n/a	n/a	0.002327	NP Inter (normality) 1 of 2
<b>pH (SU)</b>	<b>GS-AP-MW-15</b>	<b>7.76</b>	<b>5.02</b>	<b>2/16/2022</b>	<b>11.57</b>	<b>Yes</b>	<b>39</b>	<b>n/a</b>	<b>n/a</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.002327</b>	<b>NP Inter (normality) 1 of 2</b>
<b>pH (SU)</b>	<b>GS-AP-MW-15V</b>	<b>7.76</b>	<b>5.02</b>	<b>2/16/2022</b>	<b>8.65</b>	<b>Yes</b>	<b>39</b>	<b>n/a</b>	<b>n/a</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.002327</b>	<b>NP Inter (normality) 1 of 2</b>
pH (SU)	GS-AP-MW-16D	7.76	5.02	2/15/2022	7.48	No	39	n/a	n/a	0	n/a	n/a	0.002327	NP Inter (normality) 1 of 2
<b>pH (SU)</b>	<b>GS-AP-MW-17</b>	<b>7.76</b>	<b>5.02</b>	<b>2/14/2022</b>	<b>8.32</b>	<b>Yes</b>	<b>39</b>	<b>n/a</b>	<b>n/a</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.002327</b>	<b>NP Inter (normality) 1 of 2</b>
pH (SU)	GS-AP-MW-19	7.76	5.02	2/22/2022	7.71	No	39	n/a	n/a	0	n/a	n/a	0.002327	NP Inter (normality) 1 of 2
<b>pH (SU)</b>	<b>GS-AP-MW-2</b>	<b>7.76</b>	<b>5.02</b>	<b>2/22/2022</b>	<b>9.42</b>	<b>Yes</b>	<b>39</b>	<b>n/a</b>	<b>n/a</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.002327</b>	<b>NP Inter (normality) 1 of 2</b>
<b>pH (SU)</b>	<b>GS-AP-MW-21</b>	<b>7.76</b>	<b>5.02</b>	<b>2/8/2022</b>	<b>10.26</b>	<b>Yes</b>	<b>39</b>	<b>n/a</b>	<b>n/a</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.002327</b>	<b>NP Inter (normality) 1 of 2</b>
pH (SU)	GS-AP-MW-23H	7.76	5.02	2/14/2022	5.8	No	39	n/a	n/a	0	n/a	n/a	0.002327	NP Inter (normality) 1 of 2
<b>pH (SU)</b>	<b>GS-AP-MW-3</b>	<b>7.76</b>	<b>5.02</b>	<b>2/16/2022</b>	<b>7.78</b>	<b>Yes</b>	<b>39</b>	<b>n/a</b>	<b>n/a</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.002327</b>	<b>NP Inter (normality) 1 of 2</b>
pH (SU)	GS-AP-MW-6D	7.76	5.02	2/14/2022	7.43	No	39	n/a	n/a	0	n/a	n/a	0.002327	NP Inter (normality) 1 of 2
pH (SU)	GS-AP-MW-6	7.76	5.02	2/14/2022	6.99	No	39	n/a	n/a	0	n/a	n/a	0.002327	NP Inter (normality) 1 of 2
pH (SU)	GS-AP-MW-7	7.76	5.02	2/8/2022	7.71	No	39	n/a	n/a	0	n/a	n/a	0.002327	NP Inter (normality) 1 of 2
pH (SU)	GS-AP-MW-9V	7.76	5.02	2/21/2022	7	No	39	n/a	n/a	0	n/a	n/a	0.002327	NP Inter (normality) 1 of 2
<b>Sulfate (mg/L)</b>	<b>GS-AP-MW-12</b>	<b>15.2</b>	<b>n/a</b>	<b>2/28/2022</b>	<b>17.9</b>	<b>Yes</b>	<b>37</b>	<b>n/a</b>	<b>n/a</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.001285</b>	<b>NP Inter (normality) 1 of 2</b>
Sulfate (mg/L)	GS-AP-MW-12V	15.2	n/a	2/23/2022	0.741J	No	37	n/a	n/a	0	n/a	n/a	0.001285	NP Inter (normality) 1 of 2
Sulfate (mg/L)	GS-AP-MW-15	15.2	n/a	2/16/2022	7.37	No	37	n/a	n/a	0	n/a	n/a	0.001285	NP Inter (normality) 1 of 2
<b>Sulfate (mg/L)</b>	<b>GS-AP-MW-15V</b>	<b>15.2</b>	<b>n/a</b>	<b>2/16/2022</b>	<b>224</b>	<b>Yes</b>	<b>37</b>	<b>n/a</b>	<b>n/a</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.001285</b>	<b>NP Inter (normality) 1 of 2</b>
Sulfate (mg/L)	GS-AP-MW-16D	15.2	n/a	2/15/2022	14.7	No	37	n/a	n/a	0	n/a	n/a	0.001285	NP Inter (normality) 1 of 2
Sulfate (mg/L)	GS-AP-MW-17	15.2	n/a	2/14/2022	14.4	No	37	n/a	n/a	0	n/a	n/a	0.001285	NP Inter (normality) 1 of 2
Sulfate (mg/L)	GS-AP-MW-19	15.2	n/a	2/22/2022	13.7	No	37	n/a	n/a	0	n/a	n/a	0.001285	NP Inter (normality) 1 of 2
<b>Sulfate (mg/L)</b>	<b>GS-AP-MW-2</b>	<b>15.2</b>	<b>n/a</b>	<b>2/22/2022</b>	<b>17.1</b>	<b>Yes</b>	<b>37</b>	<b>n/a</b>	<b>n/a</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.001285</b>	<b>NP Inter (normality) 1 of 2</b>
<b>Sulfate (mg/L)</b>	<b>GS-AP-MW-21</b>	<b>15.2</b>	<b>n/a</b>	<b>2/8/2022</b>	<b>241</b>	<b>Yes</b>	<b>37</b>	<b>n/a</b>	<b>n/a</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.001285</b>	<b>NP Inter (normality) 1 of 2</b>
<b>Sulfate (mg/L)</b>	<b>GS-AP-MW-23H</b>	<b>15.2</b>	<b>n/a</b>	<b>2/14/2022</b>	<b>356</b>	<b>Yes</b>	<b>37</b>	<b>n/a</b>	<b>n/a</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.001285</b>	<b>NP Inter (normality) 1 of 2</b>
<b>Sulfate (mg/L)</b>	<b>GS-AP-MW-3</b>	<b>15.2</b>	<b>n/a</b>	<b>2/16/2022</b>	<b>91.2</b>	<b>Yes</b>	<b>37</b>	<b>n/a</b>	<b>n/a</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.001285</b>	<b>NP Inter (normality) 1 of 2</b>
<b>Sulfate (mg/L)</b>	<b>GS-AP-MW-6D</b>	<b>15.2</b>	<b>n/a</b>	<b>2/14/2022</b>	<b>58.3</b>	<b>Yes</b>	<b>37</b>	<b>n/a</b>	<b>n/a</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.001285</b>	<b>NP Inter (normality) 1 of 2</b>
<b>Sulfate (mg/L)</b>	<b>GS-AP-MW-6</b>	<b>15.2</b>	<b>n/a</b>	<b>2/14/2022</b>	<b>115</b>	<b>Yes</b>	<b>37</b>	<b>n/a</b>	<b>n/a</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.001285</b>	<b>NP Inter (normality) 1 of 2</b>
<b>Sulfate (mg/L)</b>	<b>GS-AP-MW-7</b>	<b>15.2</b>	<b>n/a</b>	<b>2/8/2022</b>	<b>137</b>	<b>Yes</b>	<b>37</b>	<b>n/a</b>	<b>n/a</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.001285</b>	<b>NP Inter (normality) 1 of 2</b>
<b>Sulfate (mg/L)</b>	<b>GS-AP-MW-9V</b>	<b>15.2</b>	<b>n/a</b>	<b>2/21/2022</b>	<b>32.4</b>	<b>Yes</b>	<b>37</b>	<b>n/a</b>	<b>n/a</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.001285</b>	<b>NP Inter (normality) 1 of 2</b>
TDS (mg/L)	GS-AP-MW-12	368	n/a	2/28/2022	195	No	37	n/a	n/a	0	n/a	n/a	0.001285	NP Inter (normality) 1 of 2
TDS (mg/L)	GS-AP-MW-12V	368	n/a	2/23/2022	209	No	37	n/a	n/a	0	n/a	n/a	0.001285	NP Inter (normality) 1 of 2
<b>TDS (mg/L)</b>	<b>GS-AP-MW-15</b>	<b>368</b>	<b>n/a</b>	<b>2/16/2022</b>	<b>426</b>	<b>Yes</b>	<b>37</b>	<b>n/a</b>	<b>n/a</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.001285</b>	<b>NP Inter (normality) 1 of 2</b>
<b>TDS (mg/L)</b>	<b>GS-AP-MW-15V</b>	<b>368</b>	<b>n/a</b>	<b>2/16/2022</b>	<b>782</b>	<b>Yes</b>	<b>37</b>	<b>n/a</b>	<b>n/a</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.001285</b>	<b>NP Inter (normality) 1 of 2</b>
TDS (mg/L)	GS-AP-MW-16D	368	n/a	2/15/2022	214	No	37	n/a	n/a	0	n/a	n/a	0.001285	NP Inter (normality) 1 of 2
<b>TDS (mg/L)</b>	<b>GS-AP-MW-17</b>	<b>368</b>	<b>n/a</b>	<b>2/14/2022</b>	<b>448</b>	<b>Yes</b>	<b>37</b>	<b>n/a</b>	<b>n/a</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.001285</b>	<b>NP Inter (normality) 1 of 2</b>
TDS (mg/L)	GS-AP-MW-19	368	n/a	2/22/2022	304	No	37	n/a	n/a	0	n/a	n/a	0.001285	NP Inter (normality) 1 of 2
TDS (mg/L)	GS-AP-MW-2	368	n/a	2/22/2022	295	No	37	n/a	n/a	0	n/a	n/a	0.001285	NP Inter (normality) 1 of 2
<b>TDS (mg/L)</b>	<b>GS-AP-MW-21</b>	<b>368</b>	<b>n/a</b>	<b>2/8/2022</b>	<b>570</b>	<b>Yes</b>	<b>37</b>	<b>n/a</b>	<b>n/a</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.001285</b>	<b>NP Inter (normality) 1 of 2</b>
<b>TDS (mg/L)</b>	<b>GS-AP-MW-23H</b>	<b>368</b>	<b>n/a</b>	<b>2/14/2022</b>	<b>592</b>	<b>Yes</b>	<b>37</b>	<b>n/a</b>	<b>n/a</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.001285</b>	<b>NP Inter (normality) 1 of 2</b>
TDS (mg/L)	GS-AP-MW-3	368	n/a	2/16/2022	307	No	37	n/a	n/a	0	n/a	n/a	0.001285	NP Inter (normality) 1 of 2
TDS (mg/L)	GS-AP-MW-6D	368	n/a	2/14/2022	297	No	37	n/a	n/a	0	n/a	n/a	0.001285	NP Inter (normality) 1 of 2
TDS (mg/L)	GS-AP-MW-6	368	n/a	2/14/2022	299	No	37	n/a	n/a	0	n/a	n/a	0.001285	NP Inter (normality) 1 of 2
TDS (mg/L)	GS-AP-MW-7	368	n/a	2/8/2022	325	No	37	n/a	n/a	0	n/a	n/a	0.001285	NP Inter (normality) 1 of 2
TDS (mg/L)	GS-AP-MW-9V	368	n/a	2/21/2022	299	No	37	n/a	n/a	0	n/a	n/a	0.001285	NP Inter (normality) 1 of 2

Exceeds Limit: GS-AP-MW-2, GS-AP-MW-21, GS-AP-MW-3, GS-AP-MW-6D, GS-AP-MW-6, GS-AP-MW-7

Prediction Limit  
Interwell Non-parametric

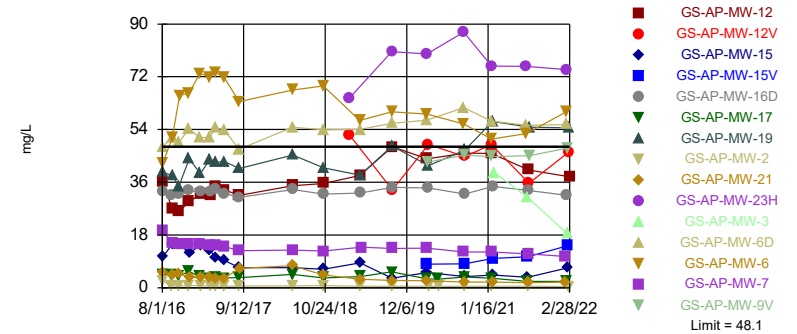


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 37 background values. 78.38% NDs. Annual per-constituent alpha = 0.02789. Individual comparison alpha = 0.001285 (1 of 2). Comparing 15 points to limit.

Constituent: Boron Analysis Run 5/16/2022 3:59 PM View: Appendix III  
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

Exceeds Limit: GS-AP-MW-19, GS-AP-MW-23H, GS-AP-MW-6D, GS-AP-MW-6

Prediction Limit  
Interwell Non-parametric

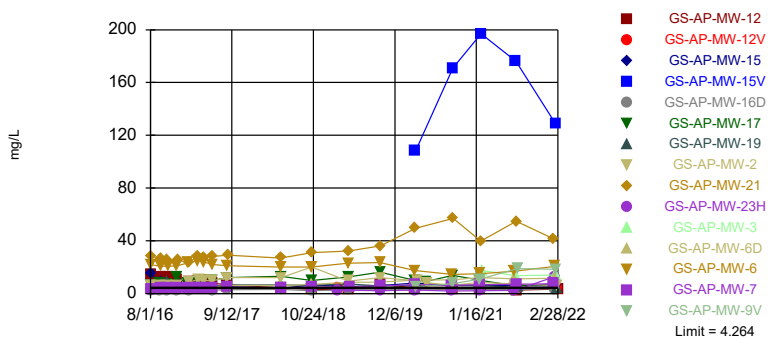


Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 37 background values. Annual per-constituent alpha = 0.02789. Individual comparison alpha = 0.001285 (1 of 2). Comparing 15 points to limit.

Constituent: Calcium Analysis Run 5/16/2022 3:59 PM View: Appendix III  
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

Exceeds Limit: GS-AP-MW-15, GS-AP-MW-15V, GS-AP-MW-17, GS-AP-MW-19, GS-AP-MW-2, GS-AP-MW-21, GS-AP-MW-23H...

Prediction Limit  
Interwell Parametric

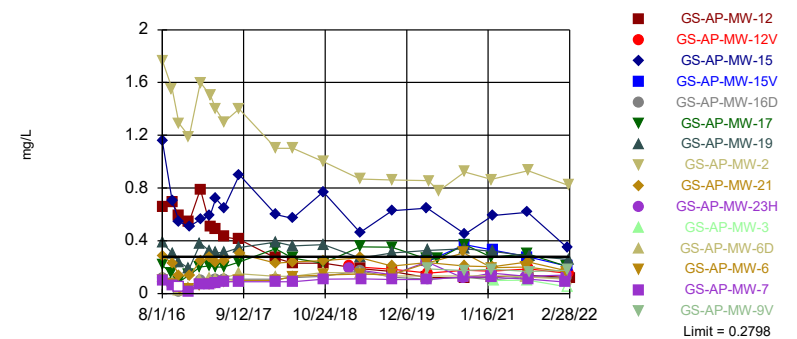


Background Data Summary: Mean=3.369, Std. Dev.=0.4244, n=37. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9656, critical = 0.914. Kappa = 2.109 (c=7, w=11, 1 of 2, event alpha = 0.05132). Report alpha = 0.007498. Individual comparison alpha = 0.0006839. Comparing 15 points to limit.

Constituent: Chloride Analysis Run 5/16/2022 3:59 PM View: Appendix III  
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

Exceeds Limit: GS-AP-MW-15, GS-AP-MW-2

Prediction Limit  
Interwell Parametric



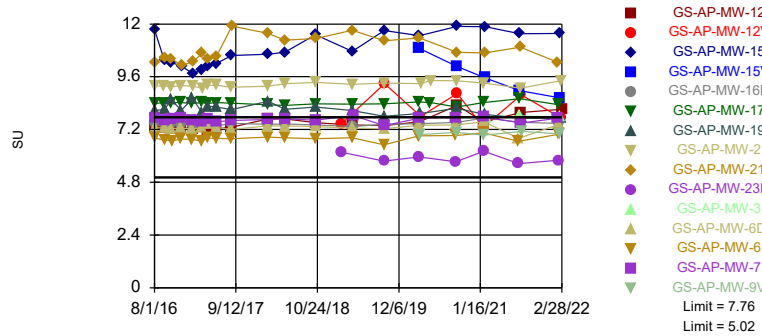
Background Data Summary: Mean=0.1399, Std. Dev.=0.06663, n=39. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9407, critical = 0.917. Kappa = 2.099 (c=7, w=11, 1 of 2, event alpha = 0.05132). Report alpha = 0.007498. Individual comparison alpha = 0.0006839. Comparing 15 points to limit.

Constituent: Fluoride Analysis Run 5/16/2022 3:59 PM View: Appendix III  
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond



Exceeds Limits: GS-AP-MW-12, GS-AP-MW-15, GS-AP-MW-15V, GS-AP-MW-17, GS-AP-MW-2, GS-AP-MW-21, GS-AP-MW-3

Prediction Limit  
Interwell Non-parametric

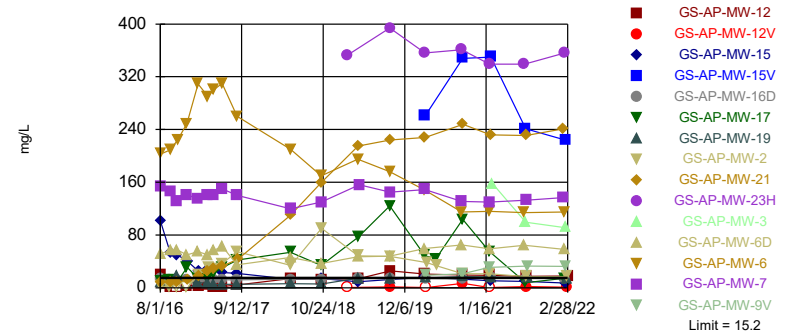


Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limits are highest and lowest of 39 background values. Annual per-constituent alpha = 0.05057. Individual comparison alpha = 0.002327 (1 of 2). Comparing 15 points to limit.

Constituent: pH Analysis Run 5/16/2022 3:59 PM View: Appendix III  
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

Exceeds Limit: GS-AP-MW-12, GS-AP-MW-15V, GS-AP-MW-2, GS-AP-MW-21, GS-AP-MW-23H, GS-AP-MW-3, GS-AP-MW-6D,...

Prediction Limit  
Interwell Non-parametric

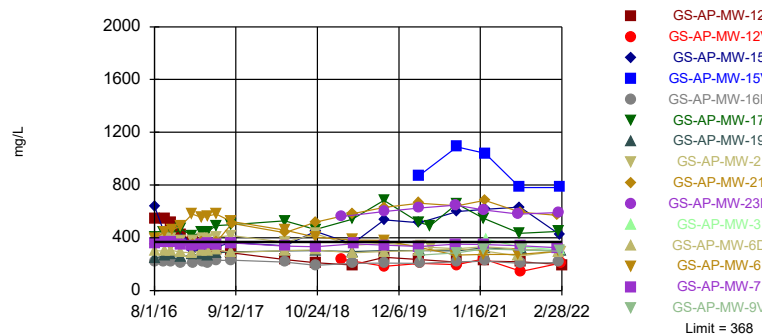


Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 37 background values. Annual per-constituent alpha = 0.02789. Individual comparison alpha = 0.001285 (1 of 2). Comparing 15 points to limit.

Constituent: Sulfate Analysis Run 5/16/2022 3:59 PM View: Appendix III  
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

Exceeds Limit: GS-AP-MW-15, GS-AP-MW-15V, GS-AP-MW-17, GS-AP-MW-21, GS-AP-MW-23H

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 37 background values. Annual per-constituent alpha = 0.02789. Individual comparison alpha = 0.001285 (1 of 2). Comparing 15 points to limit.

Constituent: TDS Analysis Run 5/16/2022 3:59 PM View: Appendix III  
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

# Prediction Limit

Constituent: Boron (mg/L) Analysis Run 5/16/2022 4:02 PM View: Appendix III

Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-19	GS-AP-MW-17	GS-AP-MW-16D	GS-AP-MW-15	GS-AP-MW-2	GS-AP-MW-7	GS-AP-MW-13 (bg)	GS-AP-MW-8 (bg)	GS-AP-MW-6
8/1/2016	0.0279 (J)	0.0712 (J)	0.0266 (J)	0.0955 (J)					
8/2/2016					0.178	1.57	<0.1015		
8/3/2016								0.0239 (J)	1.16
9/19/2016		0.0716 (J)	0.0262 (J)		0.0937 (J)				
9/20/2016				0.0706 (J)			<0.1015		1.16
9/21/2016	0.0235 (J)					1.4		<0.1015	
10/24/2016	0.0444 (J)	0.0858 (J)			0.0986 (J)	1.42			
10/25/2016			0.0273 (J)	0.0849 (J)			<0.1015	<0.1015	
10/26/2016									1.24
12/12/2016						1.38			1.24
12/13/2016	0.0285 (J)	0.0875 (J)	0.0258 (J)		0.0965 (J)		<0.1015	<0.1015	
12/14/2016				0.0914 (J)					
2/6/2017		0.0729 (J)				1.44		<0.1015	1.1
2/7/2017	0.03 (J)								
2/8/2017			0.0249 (J)	0.0524 (J)	0.0896 (J)		<0.1015		
3/27/2017		0.0706 (J)							1.04
3/28/2017	0.0309 (J)			0.0532 (J)		1.44		<0.1015	
3/29/2017			0.0247 (J)				<0.1015		
3/30/2017					0.0871 (J)				
4/24/2017		0.0737 (J)				1.41		<0.1015	1
4/26/2017	0.0273 (J)		0.0264 (J)	0.0598 (J)	0.0818 (J)		<0.1015		
6/5/2017		0.0767 (J)							
6/6/2017	0.0212 (J)		0.0247 (J)	0.0576 (J)	0.0805 (J)				1.02
6/7/2017						1.45	<0.1015	<0.1015	
8/21/2017					0.102	1.39		<0.1015	1.05
8/22/2017	0.0294 (J)	0.0786 (J)	0.0246 (J)	0.0702 (J)			<0.1015		
8/23/2017									
5/14/2018									0.99
5/15/2018		0.0953 (J)		0.0567 (J)		1.5	<0.1015	<0.1015	
5/16/2018	0.0356 (J)		0.0247 (J)		0.147				
10/15/2018		0.0842 (J)		0.07 (J)		1.53			1.05
10/16/2018	0.0363 (J)				0.169			<0.1015	
10/17/2018			0.0251 (J)				<0.1015		
2/20/2019									
2/21/2019									
4/16/2019							<0.1015	<0.1015	0.961
4/17/2019	0.0336 (J)	0.0916 (J)	<0.1015	0.0388 (J)	0.165				
4/23/2019						1.5			
9/23/2019		0.116							1.08
9/24/2019	0.0375 (J)		<0.1015	0.0607 (J)		1.6		<0.1015	
9/25/2019					0.153				
3/16/2020		0.0894 (J)							
3/17/2020						1.58			0.867
3/18/2020				0.0596 (J)				<0.1015	
3/23/2020									
3/24/2020	0.0398 (J)		<0.1015						
3/25/2020					0.163				
5/12/2020		0.0862 (J)							
5/13/2020					0.154				
9/16/2020						1.54			0.8
9/17/2020									
9/21/2020		0.102						<0.1015	



# Prediction Limit

Constituent: Boron (mg/L) Analysis Run 5/16/2022 4:02 PM View: Appendix III

Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-6D	GS-AP-MW-12	GS-AP-MW-21	GS-AP-MW-17V ...	GS-AP-MW-23H	GS-AP-MW-12V	GS-AP-MW-15V	GS-AP-MW-9V	GS-AP-MW-3
8/1/2016									
8/2/2016			0.176 (o)						
8/3/2016	1.04	0.34							
9/19/2016									
9/20/2016	1.01	0.299							
9/21/2016			0.0723 (J)						
10/24/2016	1.08								
10/25/2016		0.323	0.0867 (J)						
10/26/2016									
12/12/2016	1.09								
12/13/2016		0.294							
12/14/2016			0.092 (J)						
2/6/2017	1.06								
2/7/2017									
2/8/2017		0.264	0.0803 (J)						
3/27/2017	1.07								
3/28/2017			0.0804 (J)						
3/29/2017		0.246							
3/30/2017									
4/24/2017	1.08								
4/26/2017		0.234	0.0801 (J)						
6/5/2017									
6/6/2017	1.11		0.0795 (J)						
6/7/2017		0.194							
8/21/2017	0.906								
8/22/2017		0.156							
8/23/2017			0.0764 (J)						
5/14/2018	1.04								
5/15/2018		0.0781 (J)	0.0769 (J)						
5/16/2018									
10/15/2018	1.06								
10/16/2018		0.057 (J)	0.0764 (J)						
10/17/2018									
2/20/2019				0.0337 (J)	0.0498 (J)				
2/21/2019								0.0303 (J)	
4/16/2019	1.1	0.0385 (J)							
4/17/2019			0.0675 (J)						
4/23/2019									
9/23/2019	1.15					0.0641 (J)			
9/24/2019			0.0843 (J)	0.0532 (J)					
9/25/2019		0.122						0.0347 (J)	
3/16/2020									
3/17/2020	1.17					0.0504 (J)			
3/18/2020		0.0449 (J)	0.0824 (J)				0.0565 (J)		
3/23/2020								0.0316 (J)	
3/24/2020						0.0343 (J)			
3/25/2020				0.0482 (J)					
5/12/2020									
5/13/2020									
9/16/2020									
9/17/2020	1.22					0.0637 (J)			
9/21/2020							0.0712 (J)		

# Prediction Limit

Constituent: Boron (mg/L) Analysis Run 5/16/2022 4:02 PM View: Appendix III  
 Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-6D	GS-AP-MW-12	GS-AP-MW-21	GS-AP-MW-17V ...	GS-AP-MW-23H	GS-AP-MW-12V	GS-AP-MW-15V	GS-AP-MW-9V	GS-AP-MW-3
9/22/2020								0.0348 (J)	
9/23/2020		0.0446 (J)	0.0871 (J)	0.0478 (J)		0.0322 (J)			
2/1/2021		0.0672 (J)				<0.1015			
2/2/2021				0.0396 (J)				0.0358 (J)	
2/3/2021	1.24				0.0425 (J)				
2/8/2021			0.0991 (J)						
2/9/2021							0.0722 (J)		
2/10/2021									
2/17/2021									0.426
7/27/2021	1.29				0.0474 (J)				
8/2/2021				0.0368 (J)					
8/3/2021							0.0601 (J)		0.386
8/4/2021			0.0993 (J)						
8/9/2021		<0.1015				<0.1015			
8/10/2021								<0.1015	
2/8/2022			0.111						
2/14/2022	1.29			0.0386 (J)	0.035 (J)				
2/15/2022									
2/16/2022							0.0594 (J)		0.311
2/21/2022								0.0349 (J)	
2/22/2022									
2/23/2022						<0.1015			
2/28/2022		0.0305 (J)							

# Prediction Limit

Constituent: Calcium (mg/L) Analysis Run 5/16/2022 4:02 PM View: Appendix III

Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-19	GS-AP-MW-17	GS-AP-MW-16D	GS-AP-MW-15	GS-AP-MW-2	GS-AP-MW-7	GS-AP-MW-21	GS-AP-MW-13 (bg)	GS-AP-MW-8 (bg)
8/1/2016	39.6	4.52	33	10.5					
8/2/2016					2.25	19.4	5.29	47.2	
8/3/2016									6.85
9/19/2016		4.3	31.7		0.724				
9/20/2016				14.7				46.3	
9/21/2016	38.1					15.4	4.51		11.7
10/24/2016	34.7	4.02			0.635	14.8			
10/25/2016			32.2	14.7			4.92	46.6	10.8
10/26/2016									
12/12/2016						15			
12/13/2016	44	5.5	33.1		0.714			43.1	5.86
12/14/2016				11.9			3.5		
2/6/2017		3.79				14.9			9.76
2/7/2017	39								
2/8/2017			32.7	14.4	0.722		3.75	47.5	
3/27/2017		3.13							
3/28/2017	43.9			12.9		14.3	3.63		5.28
3/29/2017			32.7					46.8	
3/30/2017					0.686				
4/24/2017		3.41				14.5			6.89
4/26/2017	42.8		33.8	10.4	0.646		3.3	48.1	
6/5/2017		3.32							
6/6/2017	43.1		32.2	9.41	0.569		3.24		
6/7/2017						14.1		44.4	3.58
8/21/2017					0.634	12.6			3.38
8/22/2017	40.7	3.52	30.9	6.89				42.9	
8/23/2017							6.6		
5/14/2018									
5/15/2018		4.53		6.86		12.9	7.57	44.3	4.25
5/16/2018	45.3		33.5		0.588				
10/15/2018		3.38		6.28		12.5			
10/16/2018	40.9				0.714		4.4		3.21
10/17/2018			32					41.8	
2/20/2019									
2/21/2019									
4/16/2019								38.6	4.43
4/17/2019	38.4	3.86	32.3	8.53	0.511		2.88		
4/23/2019						13.8			
9/23/2019		5.43							
9/24/2019	48.4		34.3	3.26		13.4	2.47		7.24
9/25/2019					0.581				
3/16/2020		3							
3/17/2020						13.5			
3/18/2020				5.25			2.35		4.51
3/23/2020									
3/24/2020	41.7		34.1						
3/25/2020					0.518				
5/12/2020		2.95							
5/13/2020					0.493 (J)				
9/16/2020						12.2			
9/17/2020									
9/21/2020		3.73							5.19



# Prediction Limit

Constituent: Calcium (mg/L) Analysis Run 5/16/2022 4:02 PM View: Appendix III

Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-6	GS-AP-MW-6D	GS-AP-MW-12	GS-AP-MW-23H	GS-AP-MW-17V ...	GS-AP-MW-12V	GS-AP-MW-15V	GS-AP-MW-9V	GS-AP-MW-3
8/1/2016									
8/2/2016									
8/3/2016	42.5	48.1	36.1						
9/19/2016									
9/20/2016	51.1	51.2	27						
9/21/2016									
10/24/2016		49.5							
10/25/2016			26.1						
10/26/2016	65.6								
12/12/2016	66.5	54.3							
12/13/2016			29.4						
12/14/2016									
2/6/2017	73.1	51.2							
2/7/2017									
2/8/2017			31.9						
3/27/2017	71.9	51.4							
3/28/2017									
3/29/2017			31.8						
3/30/2017									
4/24/2017	73.5	54.7							
4/26/2017			34.6						
6/5/2017									
6/6/2017	71.8	53.9							
6/7/2017			33.4						
8/21/2017	63.5	47.3							
8/22/2017			31.5						
8/23/2017									
5/14/2018	67.5	54.8							
5/15/2018			34.8						
5/16/2018									
10/15/2018	68.9	53.9							
10/16/2018			35.6						
10/17/2018									
2/20/2019				64.5	30.6				
2/21/2019						52.3			
4/16/2019	57.1	54	38.3						
4/17/2019									
4/23/2019									
9/23/2019	60	56.1		80.6					
9/24/2019					29.7				
9/25/2019			48.1			33.4			
3/16/2020									
3/17/2020	59.3	57.2		79.8					
3/18/2020			44				8.01		
3/23/2020								42.9	
3/24/2020						48.9			
3/25/2020					31.1				
5/12/2020									
5/13/2020									
9/16/2020	55.9								
9/17/2020		61.5		87.2					
9/21/2020							8.2		



# Prediction Limit

Constituent: Calcium (mg/L) Analysis Run 5/16/2022 4:02 PM View: Appendix III

Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-6	GS-AP-MW-6D	GS-AP-MW-12	GS-AP-MW-23H	GS-AP-MW-17V ...	GS-AP-MW-12V	GS-AP-MW-15V	GS-AP-MW-9V	GS-AP-MW-3
9/22/2020								45.3	
9/23/2020			45.9		29.3	44.8			
2/1/2021			45.8			48.9			
2/2/2021					31.8			44.8	
2/3/2021	50.7	56.9		75.6					
2/8/2021									
2/9/2021							10		
2/10/2021									
2/17/2021									39.3
7/27/2021	52.6	55.5		75.5					
8/2/2021					33				
8/3/2021							10.6		30.8
8/4/2021									
8/9/2021			40.2			35.7			
8/10/2021								45.1	
2/8/2022									
2/14/2022	60.1	55.7		74.4	30.1				
2/15/2022									
2/16/2022							14.3		18.6
2/21/2022								47.7	
2/22/2022									
2/23/2022									46.3
2/28/2022			37.9						

# Prediction Limit

Constituent: Chloride (mg/L) Analysis Run 5/16/2022 4:02 PM View: Appendix III

Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-19	GS-AP-MW-17	GS-AP-MW-16D	GS-AP-MW-15	GS-AP-MW-2	GS-AP-MW-7	GS-AP-MW-21	GS-AP-MW-13 (bg)	GS-AP-MW-8 (bg)
8/1/2016	6.67	6.47	2.6	15.6					
8/2/2016					6.15	3.7	28.1	2.91	
8/3/2016									3.21
9/19/2016		7.78	2.51		5.98				
9/20/2016				8.6				2.94	
9/21/2016	6.54					3.74	26.8		2.95
10/24/2016	8.77	7.29			5.93	3.75			
10/25/2016			2.53	7.96			26	2.94	3.03
10/26/2016									
12/12/2016						4.06			
12/13/2016	6.16	12.2	2.53		5.7			2.93	3.21
12/14/2016				6.94			25.3		
2/6/2017		7.68				3.92			3
2/7/2017	7.57								
2/8/2017			2.5	4.96	8.44		23.8	2.85	
3/27/2017		9							
3/28/2017	5.9			5.2		4.3	28		3.3
3/29/2017			2.9					3.4	
3/30/2017					11				
4/24/2017		10				4.6			3.8
4/26/2017	6.5		3.2	6	10		27	3.7	
6/5/2017		10							
6/6/2017	5.5		2.6	4.9	9.6		28		
6/7/2017						4.3		3.3	3.5
8/21/2017					12	4.7			3.6
8/22/2017	6.5	12	2.9	5.3				3.4	
8/23/2017							29		
5/14/2018									
5/15/2018		13		3.8		4.3	27	3.2	3.3
5/16/2018	6.6		3		12				
10/15/2018		10		6.6		5.1			
10/16/2018	6.2				20		31		3.3
10/17/2018			2.2					2.3	
2/20/2019									
2/21/2019									
4/16/2019								3.23	3.69
4/17/2019	7.27	12.7	2.82	5.2	9.5		32.3		
4/23/2019						5.16			
9/23/2019		16.2							
9/24/2019	5.83		2.9	5.96		5.76	36		3.21
9/25/2019					12				
3/16/2020		9.95							
3/17/2020						6.65			
3/18/2020				8			49.5		4.35
3/23/2020									
3/24/2020	6.29		2.88						
3/25/2020					9.7				
5/12/2020		9.16							
5/13/2020					8.25				
9/16/2020						6.17			
9/17/2020									
9/21/2020		13.8							3.22



# Prediction Limit

Constituent: Chloride (mg/L) Analysis Run 5/16/2022 4:02 PM View: Appendix III

Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-6	GS-AP-MW-6D	GS-AP-MW-12	GS-AP-MW-23H	GS-AP-MW-17V ...	GS-AP-MW-12V	GS-AP-MW-15V	GS-AP-MW-9V	GS-AP-MW-3
8/1/2016									
8/2/2016									
8/3/2016	21.9	5.2	14.5						
9/19/2016									
9/20/2016	20.9	5.31	12.9						
9/21/2016									
10/24/2016		5.4							
10/25/2016			12.2						
10/26/2016	20.7								
12/12/2016	21.1	5.46							
12/13/2016			10.4						
12/14/2016									
2/6/2017	23.3	5.28							
2/7/2017									
2/8/2017			8.77						
3/27/2017	25	6.4							
3/28/2017									
3/29/2017			10						
3/30/2017									
4/24/2017	24	6.5							
4/26/2017			9.8						
6/5/2017									
6/6/2017	22	4.7							
6/7/2017			8						
8/21/2017	21	6.1							
8/22/2017			6.5						
8/23/2017									
5/14/2018	20	6							
5/15/2018			4.4						
5/16/2018									
10/15/2018	20	7							
10/16/2018			3.1						
10/17/2018									
2/20/2019				2.58	3.56				
2/21/2019						3.77			
4/16/2019	23.1	8.36	3.22						
4/17/2019									
4/23/2019									
9/23/2019	23.4	8.72		2.26					
9/24/2019					3.69				
9/25/2019			6.68			3.84			
3/16/2020									
3/17/2020	17.4	10.1		2.62					
3/18/2020			4.22				108		
3/23/2020								5.13	
3/24/2020						4.46			
3/25/2020					3.72				
5/12/2020									
5/13/2020									
9/16/2020	14.6								
9/17/2020		10.5		1.92					
9/21/2020							171		

# Prediction Limit

Constituent: Chloride (mg/L) Analysis Run 5/16/2022 4:02 PM View: Appendix III

Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-6	GS-AP-MW-6D	GS-AP-MW-12	GS-AP-MW-23H	GS-AP-MW-17V ...	GS-AP-MW-12V	GS-AP-MW-15V	GS-AP-MW-9V	GS-AP-MW-3
9/22/2020								7.57	
9/23/2020			3.15		3.74	4.63			
2/1/2021			3.32			3.86			
2/2/2021					3.49			10.8	
2/3/2021	14.9	12.2		2.07					
2/8/2021									
2/9/2021							197		
2/10/2021									
2/17/2021									17.4
7/27/2021	17	11.1		2.48					
8/2/2021					3.12				
8/3/2021							176		13.6
8/4/2021									
8/9/2021			2.75			4.44			
8/10/2021								18.8	
2/8/2022									
2/14/2022	20.6	11.7		12.8	3.26				
2/15/2022									
2/16/2022							129		14
2/21/2022								18.4	
2/22/2022									
2/23/2022									3.83
2/28/2022			3.34						

# Prediction Limit

Constituent: Fluoride (mg/L) Analysis Run 5/16/2022 4:02 PM View: Appendix III

Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-19	GS-AP-MW-17	GS-AP-MW-16D	GS-AP-MW-15	GS-AP-MW-2	GS-AP-MW-7	GS-AP-MW-21	GS-AP-MW-13 (bg)	GS-AP-MW-8 (bg)
8/1/2016	0.385	0.214 (J)	0.117 (J)	1.16					
8/2/2016					1.76	0.098 (J)	0.282 (J)	0.161 (J)	
8/3/2016									0.125 (J)
9/19/2016		0.151 (J)	0.078 (J)		1.55				
9/20/2016				0.7				0.122 (J)	
9/21/2016	0.303					0.061 (J)	0.231 (J)		0.098 (J)
10/24/2016	0.24 (J)	0.086 (J)			1.29	<0.1			
10/25/2016			0.018 (J)	0.544			0.137 (J)	0.058 (J)	0.025 (J)
10/26/2016									
12/12/2016						0.01 (J)			
12/13/2016	0.188 (J)	0.14 (J)	0.035 (J)		1.19			0.072 (J)	0.045 (J)
12/14/2016				0.51			0.131 (J)		
2/6/2017		0.2				0.07 (J)			0.1
2/7/2017	0.38								
2/8/2017			0.1	0.56	1.6		0.25	0.16	
3/27/2017		0.21							
3/28/2017	0.32			0.59		0.07 (J)	0.27		0.08 (J)
3/29/2017			0.08 (J)					0.14	
3/30/2017					1.5				
4/24/2017		0.2				0.08 (J)			0.09 (J)
4/26/2017	0.31		0.11	0.72	1.4		0.24	0.16	
6/5/2017		0.2							
6/6/2017	0.31		0.11	0.65	1.3		0.25		
6/7/2017						0.09 (J)		0.15	0.08 (J)
8/21/2017					1.4	0.09 (J)			0.08 (J)
8/22/2017	0.35	0.24	0.11	0.9				0.18	
8/23/2017							0.3		
2/19/2018		0.34				0.09 (J)			0.08 (J)
2/20/2018				0.6			0.23	0.17	
2/21/2018	0.39		0.11		1.1				
5/14/2018									
5/15/2018		0.27		0.57		0.09 (J)	0.24	0.17	0.1
5/16/2018	0.36		0.12		1.1				
10/15/2018		0.23		0.77		0.11			
10/16/2018	0.37				1		0.25		0.09 (J)
10/17/2018			0.13					0.19	
2/20/2019									
2/21/2019									
4/16/2019								0.197	0.143
4/17/2019	0.27	0.354	0.171	0.463	0.868		0.272		
4/23/2019						0.111			
9/23/2019		0.351							
9/24/2019	0.307		0.124	0.628		0.106	0.209		0.128
9/25/2019					0.86				
3/16/2020		0.261							
3/17/2020						0.107			
3/18/2020				0.647			0.234		0.108
3/23/2020									
3/24/2020	0.327		0.109						
3/25/2020					0.855				
5/12/2020		0.263							
5/13/2020					0.777				







# Prediction Limit

Constituent: Fluoride (mg/L) Analysis Run 5/16/2022 4:02 PM View: Appendix III

Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-6	GS-AP-MW-6D	GS-AP-MW-12	GS-AP-MW-17V ...	GS-AP-MW-23H	GS-AP-MW-12V	GS-AP-MW-15V	GS-AP-MW-9V	GS-AP-MW-3
9/16/2020	0.308								
9/17/2020		0.133			0.117				
9/21/2020							0.372		
9/22/2020								0.174	
9/23/2020			0.12	0.278		0.176			
2/1/2021			0.126			0.169			
2/2/2021				0.244				0.183	
2/3/2021	0.195	0.135			0.156				
2/8/2021									
2/9/2021							0.329		
2/10/2021									
2/17/2021									0.1
7/27/2021	0.2	0.127			0.13				
8/2/2021				0.276					
8/3/2021							0.278		0.102
8/4/2021									
8/9/2021			0.139			0.187			
8/10/2021								0.166	
2/8/2022									
2/14/2022	0.164	0.108		0.237	0.14				
2/15/2022									
2/16/2022							0.208		<0.1
2/21/2022								0.177	
2/22/2022									
2/23/2022						0.153			
2/28/2022			0.12						

# Prediction Limit

Constituent: pH (SU) Analysis Run 5/16/2022 4:02 PM View: Appendix III

Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-19	GS-AP-MW-17	GS-AP-MW-16D	GS-AP-MW-15	GS-AP-MW-2	GS-AP-MW-7	GS-AP-MW-21	GS-AP-MW-13 (bg)	GS-AP-MW-8 (bg)
8/1/2016	8.05	8.39	7.53	11.74					
8/2/2016					9.18	7.72	10.26	6.8	
8/3/2016									5.84
9/19/2016		8.42	7.5		9.18				
9/20/2016				10.33				6.8	
9/21/2016	8.14					7.6	10.45		5.99
10/24/2016	8.55	8.42			9.14	7.68			
10/25/2016			7.44	10.24			10.42	6.85	5.94
10/26/2016									
12/12/2016						7.72			
12/13/2016	8.08	8.43	7.45		9.2			6.8	5.84
12/14/2016				10.09			10.12		
2/6/2017		8.38				7.64			5.9
2/7/2017	8.61								
2/8/2017			7.41	9.75	9.17		10.28	6.76	
3/27/2017		8.43							
3/28/2017	7.94			9.9		7.58	10.67		5.67
3/29/2017			7.44					6.76	
3/30/2017					9.08				
4/24/2017		8.39				7.68			5.79
4/26/2017	8.26		7.47	10.08	9.22		10.42	6.71	
6/5/2017		8.42							
6/6/2017	8.23		7.37	10.2	9.22		10.51		
6/7/2017						7.56		6.71	5.71
8/21/2017					9.12	7.61			5.7
8/22/2017	8.1	8.4	7.48	10.57				6.84	
8/23/2017							11.91		
2/19/2018		8.33				7.65			5.78
2/20/2018				10.63			11.57	6.77	
2/21/2018	8.48		7.44		9.17				
5/14/2018									
5/15/2018		8.3		10.71		7.69	11.26	6.8	5.84
5/16/2018	8.12		7.45		9.28				
10/15/2018		8.37		11.51		7.62			
10/16/2018	8.22				9.35		11.34		5.75
10/17/2018			7.41					6.67	
2/20/2019									
2/21/2019									
4/16/2019								6.64	5.76
4/17/2019	8.06	8.36	7.33	10.76	9.26		11.71		
4/23/2019						7.83			
9/23/2019		8.37							
9/24/2019	7.8		7.43	11.7		7.38	11.24		5.27
9/25/2019					9.31				
3/16/2020		8.45							
3/17/2020						7.72			
3/18/2020				11.47			11.37		5.81
3/23/2020									
3/24/2020	7.93		7.46						
3/25/2020					9.29				
5/12/2020		8.42							
5/13/2020					9.43				





# Prediction Limit

Constituent: pH (SU) Analysis Run 5/16/2022 4:02 PM View: Appendix III  
 Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-6	GS-AP-MW-6D	GS-AP-MW-12	GS-AP-MW-17V ...	GS-AP-MW-23H	GS-AP-MW-12V	GS-AP-MW-15V	GS-AP-MW-9V	GS-AP-MW-3
9/16/2020	6.93								
9/17/2020		7.41			5.74				
9/21/2020							10.07		
9/22/2020								7.08	
9/23/2020			8.3	7.53		8.84			
2/1/2021			7.55			7.3			
2/2/2021				7.58				6.94	
2/3/2021	7.05	7.55			6.22				
2/8/2021									
2/9/2021							9.55		
2/10/2021									
2/17/2021									7.71
7/27/2021	6.67	6.79			5.65				
8/2/2021				7.65					
8/3/2021							8.97		7.82
8/4/2021									
8/9/2021			7.98			8.77			
8/10/2021								7.12	
2/8/2022									
2/14/2022	6.99	7.43		7.43	5.8				
2/15/2022									
2/16/2022							8.65		7.78
2/21/2022								7	
2/22/2022									
2/23/2022						7.73			
2/28/2022			8.12						

# Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 5/16/2022 4:02 PM View: Appendix III

Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-19	GS-AP-MW-17	GS-AP-MW-16D	GS-AP-MW-15	GS-AP-MW-2	GS-AP-MW-7	GS-AP-MW-21	GS-AP-MW-13 (bg)	GS-AP-MW-8 (bg)
8/1/2016	9.02	9.56	13.4	102					
8/2/2016					2.87	154	9.14	12	
8/3/2016									4.2
9/19/2016		12.7	12.9		1.22				
9/20/2016				53.3				11.2	
9/21/2016	8.38					146	8.71		4.27
10/24/2016	18.5	8.58			<1	131			
10/25/2016			11.6	49.8			8.54	10.1	2.78
10/26/2016									
12/12/2016						141			
12/13/2016	7.4	31	12.7		<1			11.4	3.18
12/14/2016				40.9			11.5		
2/6/2017		14.7				135			3.74
2/7/2017	8.16								
2/8/2017			12.2	25	19.4		17	10.9	
3/27/2017		14							
3/28/2017	6.4			27		140	25		3.4 (J)
3/29/2017			12					11	
3/30/2017					31				
4/24/2017		22				140			2.7 (J)
4/26/2017	4.6 (J)		13	29	29		28	11	
6/5/2017		30							
6/6/2017	5.2		12	23	37		33		
6/7/2017						150		11	2.7 (J)
8/21/2017					55	140			3.9 (J)
8/22/2017	5.3	42	12	22				11	
8/23/2017							43		
5/14/2018									
5/15/2018		54		13		120	110	11	2.5 (J)
5/16/2018	6		13		34				
10/15/2018		34		14		130			
10/16/2018	5.6				90		160		2.4 (J)
10/17/2018			13					12	
2/20/2019									
2/21/2019									
4/16/2019								12.1	4.53
4/17/2019	14.3	76.6	14.1	9.02	48.6		215		
4/23/2019						156			
9/23/2019		124							
9/24/2019	13.8		14.1	12.4		145	224		6.61
9/25/2019					47.7				
3/16/2020		48.6							
3/17/2020						149			
3/18/2020				15.9			228		4.86
3/23/2020									
3/24/2020	15.2		14.1						
3/25/2020					38.5				
5/12/2020		44.4							
5/13/2020					33.6				
9/16/2020						131			
9/17/2020									
9/21/2020		104							4.69



# Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 5/16/2022 4:02 PM View: Appendix III

Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-6	GS-AP-MW-6D	GS-AP-MW-12	GS-AP-MW-23H	GS-AP-MW-17V ...	GS-AP-MW-12V	GS-AP-MW-15V	GS-AP-MW-9V	GS-AP-MW-3
8/1/2016									
8/2/2016									
8/3/2016	203	52	19.2						
9/19/2016									
9/20/2016	209	56	1.42						
9/21/2016									
10/24/2016		57.5							
10/25/2016			<1						
10/26/2016	224								
12/12/2016	249	50							
12/13/2016			3.21						
12/14/2016									
2/6/2017	309	54.9							
2/7/2017									
2/8/2017			3.3						
3/27/2017	290	50							
3/28/2017									
3/29/2017			3.8 (J)						
3/30/2017									
4/24/2017	300	56							
4/26/2017			1.4 (J)						
6/5/2017									
6/6/2017	310	63							
6/7/2017			1.7 (J)						
8/21/2017	260	35							
8/22/2017			4.2 (J)						
8/23/2017									
5/14/2018	210	46							
5/15/2018			14						
5/16/2018									
10/15/2018	170	37							
10/16/2018			13						
10/17/2018									
2/20/2019				352	15.2				
2/21/2019						<1			
4/16/2019	195	46.8	13.3						
4/17/2019									
4/23/2019									
9/23/2019	176	47.9		394					
9/24/2019					11.8				
9/25/2019			25.5			1.61			
3/16/2020									
3/17/2020	148	59.5		356					
3/18/2020			20.8				261		
3/23/2020								18.7	
3/24/2020						<1			
3/25/2020					9.69				
5/12/2020									
5/13/2020									
9/16/2020	115								
9/17/2020		65.1		361					
9/21/2020							348		



# Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 5/16/2022 4:02 PM View: Appendix III  
 Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-6	GS-AP-MW-6D	GS-AP-MW-12	GS-AP-MW-23H	GS-AP-MW-17V ...	GS-AP-MW-12V	GS-AP-MW-15V	GS-AP-MW-9V	GS-AP-MW-3
9/22/2020								21.2	
9/23/2020			19.1		11.1	6.56			
2/1/2021			18.7			<1			
2/2/2021					8.81			31.2	
2/3/2021	116	58.9		339					
2/8/2021									
2/9/2021							350		
2/10/2021									
2/17/2021									158
7/27/2021	114	64.4		339					
8/2/2021					10.2				
8/3/2021							241		99.4
8/4/2021									
8/9/2021			17.3			1.85			
8/10/2021								32.7	
2/8/2022									
2/14/2022	115	58.3		356	9.09				
2/15/2022									
2/16/2022							224		91.2
2/21/2022								32.4	
2/22/2022									
2/23/2022									0.741 (J)
2/28/2022			17.9						

# Prediction Limit

Constituent: TDS (mg/L) Analysis Run 5/16/2022 4:02 PM View: Appendix III

Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-19	GS-AP-MW-17	GS-AP-MW-16D	GS-AP-MW-15	GS-AP-MW-2	GS-AP-MW-7	GS-AP-MW-21	GS-AP-MW-13 (bg)	GS-AP-MW-8 (bg)
8/1/2016	245	408	222	640					
8/2/2016					390	358	348	221	
8/3/2016									113
9/19/2016		441	220		398				
9/20/2016				434				221	
9/21/2016	267					370	368		128
10/24/2016	275	424			395	370			
10/25/2016			223	394			348	226	121
10/26/2016									
12/12/2016						353			
12/13/2016	255	466	211		381			211	101
12/14/2016				387			352		
2/6/2017		414				338			108
2/7/2017	272								
2/8/2017			206	303	376		352	212	
3/27/2017		444							
3/28/2017	271			305		352	370		91
3/29/2017			215					217	
3/30/2017					391				
4/24/2017		446				362			89.3
4/26/2017	265		212	329	384		342	202	
6/5/2017		493							
6/6/2017	287		227	331	404		367		
6/7/2017						348		218	84
8/21/2017					416	362			91.3
8/22/2017	293	500	230	364				224	
8/23/2017							508		
5/14/2018									
5/15/2018		528		340		338	438	209	94.7
5/16/2018	301		216		365				
10/15/2018		462		448		333			
10/16/2018	303				430		520		76.7
10/17/2018			191					208	
2/20/2019									
2/21/2019									
4/16/2019								185	92
4/17/2019	296	540	207	354	341		582		
4/23/2019						354			
9/23/2019		684							
9/24/2019	302		208	536		344	630		109
9/25/2019					358				
3/16/2020		516							
3/17/2020						334			
3/18/2020				515			661		90.7
3/23/2020									
3/24/2020	302		205						
3/25/2020					337				
5/12/2020		493							
5/13/2020					328				
9/16/2020						351			
9/17/2020									
9/21/2020		658							94



# Prediction Limit

Constituent: TDS (mg/L) Analysis Run 5/16/2022 4:02 PM View: Appendix III

Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-6	GS-AP-MW-6D	GS-AP-MW-12	GS-AP-MW-23H	GS-AP-MW-17V ...	GS-AP-MW-12V	GS-AP-MW-15V	GS-AP-MW-9V	GS-AP-MW-3
8/1/2016									
8/2/2016									
8/3/2016	394	302	546						
9/19/2016									
9/20/2016	444	298	542						
9/21/2016									
10/24/2016		306							
10/25/2016			518						
10/26/2016	456								
12/12/2016	491	291							
12/13/2016			424						
12/14/2016									
2/6/2017	580	285							
2/7/2017									
2/8/2017			379						
3/27/2017	554	305							
3/28/2017									
3/29/2017			334						
3/30/2017									
4/24/2017	566	301							
4/26/2017			332						
6/5/2017									
6/6/2017	580	311							
6/7/2017			308						
8/21/2017	524	289							
8/22/2017			286						
8/23/2017									
5/14/2018	458	303							
5/15/2018			235						
5/16/2018									
10/15/2018	404	309							
10/16/2018			211						
10/17/2018									
2/20/2019				560	346				
2/21/2019						237			
4/16/2019	382	285	193						
4/17/2019									
4/23/2019									
9/23/2019	381	296		598					
9/24/2019					365				
9/25/2019			253			183			
3/16/2020									
3/17/2020	328	303		626					
3/18/2020			236				873		
3/23/2020								268	
3/24/2020						206			
3/25/2020					364				
5/12/2020									
5/13/2020									
9/16/2020	269								
9/17/2020		314		648					
9/21/2020							1090		

# Prediction Limit

Constituent: TDS (mg/L) Analysis Run 5/16/2022 4:02 PM View: Appendix III  
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-6	GS-AP-MW-6D	GS-AP-MW-12	GS-AP-MW-23H	GS-AP-MW-17V ...	GS-AP-MW-12V	GS-AP-MW-15V	GS-AP-MW-9V	GS-AP-MW-3
9/22/2020								285	
9/23/2020			216		368	195			
2/1/2021			224			240			
2/2/2021					356			314	
2/3/2021	274	301		612					
2/8/2021									
2/9/2021							1040		
2/10/2021									
2/17/2021									387
7/27/2021	273	262		580					
8/2/2021					333				
8/3/2021							782		333
8/4/2021									
8/9/2021			219			145			
8/10/2021								309	
2/8/2022									
2/14/2022	299	297		592	365				
2/15/2022									
2/16/2022							782		307
2/21/2022								299	
2/22/2022									
2/23/2022						209			
2/28/2022			195						

FIGURE E.

# Appendix III Trend Tests - Significant Results

Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond Printed 5/16/2022, 4:08 PM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
Boron (mg/L)	GS-AP-MW-6D	0.04438	97	68	Yes	18	0	n/a	n/a	0.01	NP
Boron (mg/L)	GS-AP-MW-6	-0.0634	-94	-68	Yes	18	0	n/a	n/a	0.01	NP
Boron (mg/L)	GS-AP-MW-7	0.04679	96	68	Yes	18	0	n/a	n/a	0.01	NP
Calcium (mg/L)	GS-AP-MW-19	2.493	77	68	Yes	18	0	n/a	n/a	0.01	NP
Calcium (mg/L)	GS-AP-MW-6D	1.303	93	68	Yes	18	0	n/a	n/a	0.01	NP
Chloride (mg/L)	GS-AP-MW-21	3.259	103	68	Yes	18	0	n/a	n/a	0.01	NP
Chloride (mg/L)	GS-AP-MW-6D	1.242	119	68	Yes	18	0	n/a	n/a	0.01	NP
Chloride (mg/L)	GS-AP-MW-7	0.6767	140	68	Yes	18	0	n/a	n/a	0.01	NP
Chloride (mg/L)	GS-AP-MW-8 (bg)	0.1896	85	68	Yes	18	0	n/a	n/a	0.01	NP
Fluoride (mg/L)	GS-AP-MW-13 (bg)	0.02914	48	43	Yes	13	0	n/a	n/a	0.01	NP
Fluoride (mg/L)	GS-AP-MW-2	-0.1524	-136	-81	Yes	20	0	n/a	n/a	0.01	NP
pH (SU)	GS-AP-MW-12	0.1096	92	74	Yes	19	0	n/a	n/a	0.01	NP
pH (SU)	GS-AP-MW-15	0.3442	91	74	Yes	19	0	n/a	n/a	0.01	NP
pH (SU)	GS-AP-MW-2	0.04403	87	81	Yes	20	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	GS-AP-MW-12	3.424	75	68	Yes	18	5.556	n/a	n/a	0.01	NP
Sulfate (mg/L)	GS-AP-MW-21	47.59	139	68	Yes	18	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	GS-AP-MW-6	-27.41	-80	-68	Yes	18	0	n/a	n/a	0.01	NP
TDS (mg/L)	GS-AP-MW-17	24.46	78	74	Yes	19	0	n/a	n/a	0.01	NP
TDS (mg/L)	GS-AP-MW-21	63.17	105	68	Yes	18	0	n/a	n/a	0.01	NP

# Appendix III Trend Tests - All Results

Plant Gorgas    Client: Southern Company    Data: Gorgas Ash Pond    Printed 5/16/2022, 4:08 PM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
Boron (mg/L)	GS-AP-MW-13 (bg)	0	0	38	No	12	100	n/a	n/a	0.01	NP
Boron (mg/L)	GS-AP-MW-17V (bg)	-0.0054	-7	-18	No	7	0	n/a	n/a	0.01	NP
Boron (mg/L)	GS-AP-MW-2	0.004414	21	74	No	19	0	n/a	n/a	0.01	NP
Boron (mg/L)	GS-AP-MW-21	0.002318	39	63	No	17	0	n/a	n/a	0.01	NP
Boron (mg/L)	GS-AP-MW-3	-0.1153	NaN	NaN	No	3	0	n/a	n/a	NaN	NP
<b>Boron (mg/L)</b>	<b>GS-AP-MW-6D</b>	<b>0.04438</b>	<b>97</b>	<b>68</b>	<b>Yes</b>	<b>18</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
<b>Boron (mg/L)</b>	<b>GS-AP-MW-6</b>	<b>-0.0634</b>	<b>-94</b>	<b>-68</b>	<b>Yes</b>	<b>18</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
<b>Boron (mg/L)</b>	<b>GS-AP-MW-7</b>	<b>0.04679</b>	<b>96</b>	<b>68</b>	<b>Yes</b>	<b>18</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
Boron (mg/L)	GS-AP-MW-8 (bg)	0	17	68	No	18	94.44	n/a	n/a	0.01	NP
Calcium (mg/L)	GS-AP-MW-13 (bg)	-2.607	-32	-38	No	12	0	n/a	n/a	0.01	NP
Calcium (mg/L)	GS-AP-MW-17V (bg)	0.5737	5	18	No	7	0	n/a	n/a	0.01	NP
<b>Calcium (mg/L)</b>	<b>GS-AP-MW-19</b>	<b>2.493</b>	<b>77</b>	<b>68</b>	<b>Yes</b>	<b>18</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
Calcium (mg/L)	GS-AP-MW-23H	-1.659	-5	-18	No	7	0	n/a	n/a	0.01	NP
<b>Calcium (mg/L)</b>	<b>GS-AP-MW-6D</b>	<b>1.303</b>	<b>93</b>	<b>68</b>	<b>Yes</b>	<b>18</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
Calcium (mg/L)	GS-AP-MW-6	-2.413	-35	-68	No	18	0	n/a	n/a	0.01	NP
Calcium (mg/L)	GS-AP-MW-8 (bg)	-0.6456	-57	-68	No	18	0	n/a	n/a	0.01	NP
Chloride (mg/L)	GS-AP-MW-13 (bg)	0.1178	10	38	No	12	0	n/a	n/a	0.01	NP
Chloride (mg/L)	GS-AP-MW-15	-0.1972	-23	-68	No	18	0	n/a	n/a	0.01	NP
Chloride (mg/L)	GS-AP-MW-15V	8.363	2	12	No	5	0	n/a	n/a	0.01	NP
Chloride (mg/L)	GS-AP-MW-17	0.5267	32	74	No	19	0	n/a	n/a	0.01	NP
Chloride (mg/L)	GS-AP-MW-17V (bg)	-0.1796	-7	-18	No	7	0	n/a	n/a	0.01	NP
Chloride (mg/L)	GS-AP-MW-19	-0.2607	-59	-68	No	18	0	n/a	n/a	0.01	NP
Chloride (mg/L)	GS-AP-MW-2	0.03568	8	74	No	19	0	n/a	n/a	0.01	NP
<b>Chloride (mg/L)</b>	<b>GS-AP-MW-21</b>	<b>3.259</b>	<b>103</b>	<b>68</b>	<b>Yes</b>	<b>18</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
Chloride (mg/L)	GS-AP-MW-23H	0.1193	3	18	No	7	0	n/a	n/a	0.01	NP
Chloride (mg/L)	GS-AP-MW-3	-3.409	NaN	NaN	No	3	0	n/a	n/a	NaN	NP
<b>Chloride (mg/L)</b>	<b>GS-AP-MW-6D</b>	<b>1.242</b>	<b>119</b>	<b>68</b>	<b>Yes</b>	<b>18</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
Chloride (mg/L)	GS-AP-MW-6	-0.8866	-54	-68	No	18	0	n/a	n/a	0.01	NP
<b>Chloride (mg/L)</b>	<b>GS-AP-MW-7</b>	<b>0.6767</b>	<b>140</b>	<b>68</b>	<b>Yes</b>	<b>18</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
<b>Chloride (mg/L)</b>	<b>GS-AP-MW-8 (bg)</b>	<b>0.1896</b>	<b>85</b>	<b>68</b>	<b>Yes</b>	<b>18</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
Chloride (mg/L)	GS-AP-MW-9V	7.435	8	12	No	5	0	n/a	n/a	0.01	NP
<b>Fluoride (mg/L)</b>	<b>GS-AP-MW-13 (bg)</b>	<b>0.02914</b>	<b>48</b>	<b>43</b>	<b>Yes</b>	<b>13</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
Fluoride (mg/L)	GS-AP-MW-15	-0.02521	-35	-74	No	19	0	n/a	n/a	0.01	NP
Fluoride (mg/L)	GS-AP-MW-17V (bg)	0.001162	1	18	No	7	0	n/a	n/a	0.01	NP
<b>Fluoride (mg/L)</b>	<b>GS-AP-MW-2</b>	<b>-0.1524</b>	<b>-136</b>	<b>-81</b>	<b>Yes</b>	<b>20</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
Fluoride (mg/L)	GS-AP-MW-8 (bg)	0.003661	34	74	No	19	0	n/a	n/a	0.01	NP
<b>pH (SU)</b>	<b>GS-AP-MW-12</b>	<b>0.1096</b>	<b>92</b>	<b>74</b>	<b>Yes</b>	<b>19</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
pH (SU)	GS-AP-MW-13 (bg)	-0.05825	-34	-43	No	13	0	n/a	n/a	0.01	NP
<b>pH (SU)</b>	<b>GS-AP-MW-15</b>	<b>0.3442</b>	<b>91</b>	<b>74</b>	<b>Yes</b>	<b>19</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
pH (SU)	GS-AP-MW-15V	-1.24	-10	-12	No	5	0	n/a	n/a	0.01	NP
pH (SU)	GS-AP-MW-17	-0.004866	-19	-81	No	20	0	n/a	n/a	0.01	NP
pH (SU)	GS-AP-MW-17V (bg)	-0.09188	-12	-18	No	7	0	n/a	n/a	0.01	NP
<b>pH (SU)</b>	<b>GS-AP-MW-2</b>	<b>0.04403</b>	<b>87</b>	<b>81</b>	<b>Yes</b>	<b>20</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
pH (SU)	GS-AP-MW-21	0.1186	47	74	No	19	0	n/a	n/a	0.01	NP
pH (SU)	GS-AP-MW-3	0.07019	NaN	NaN	No	3	0	n/a	n/a	NaN	NP
pH (SU)	GS-AP-MW-8 (bg)	-0.04138	-73	-74	No	19	0	n/a	n/a	0.01	NP
<b>Sulfate (mg/L)</b>	<b>GS-AP-MW-12</b>	<b>3.424</b>	<b>75</b>	<b>68</b>	<b>Yes</b>	<b>18</b>	<b>5.556</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
Sulfate (mg/L)	GS-AP-MW-13 (bg)	0.01849	11	38	No	12	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	GS-AP-MW-15V	-25.4	-4	-12	No	5	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	GS-AP-MW-17V (bg)	-1.441	-13	-18	No	7	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	GS-AP-MW-2	3.194	28	74	No	19	10.53	n/a	n/a	0.01	NP
<b>Sulfate (mg/L)</b>	<b>GS-AP-MW-21</b>	<b>47.59</b>	<b>139</b>	<b>68</b>	<b>Yes</b>	<b>18</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
Sulfate (mg/L)	GS-AP-MW-23H	-5.343	-5	-18	No	7	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	GS-AP-MW-3	-66.98	NaN	NaN	No	3	0	n/a	n/a	NaN	NP
Sulfate (mg/L)	GS-AP-MW-6D	1.138	29	68	No	18	0	n/a	n/a	0.01	NP

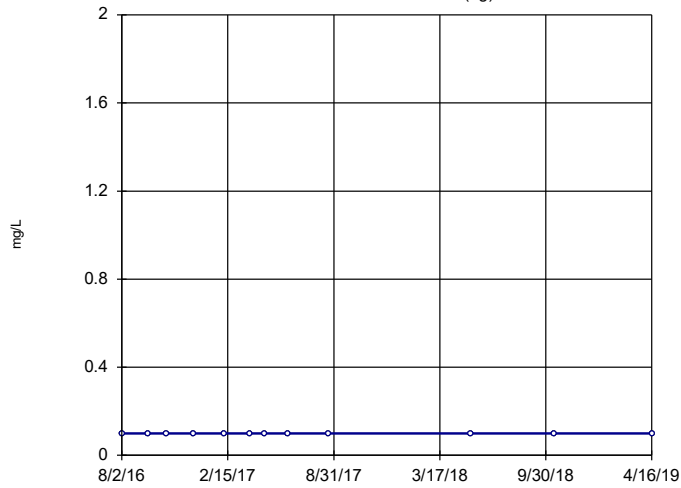


# Appendix III Trend Tests - All Results

Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond Printed 5/16/2022, 4:08 PM

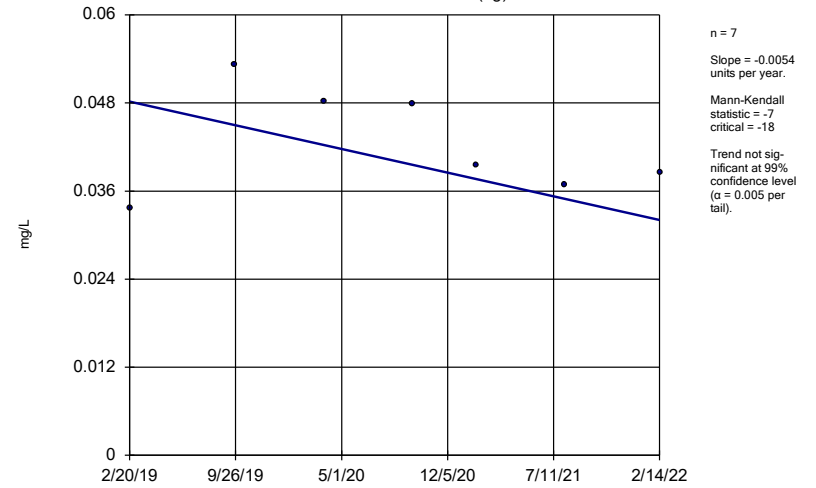
Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
<b>Sulfate (mg/L)</b>	<b>GS-AP-MW-6</b>	<b>-27.41</b>	<b>-80</b>	<b>-68</b>	<b>Yes</b>	<b>18</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
Sulfate (mg/L)	GS-AP-MW-7	-1.448	-30	-68	No	18	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	GS-AP-MW-8 (bg)	0.1821	34	68	No	18	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	GS-AP-MW-9V	7.525	8	12	No	5	0	n/a	n/a	0.01	NP
TDS (mg/L)	GS-AP-MW-13 (bg)	-7.182	-29	-38	No	12	0	n/a	n/a	0.01	NP
TDS (mg/L)	GS-AP-MW-15	33.37	49	68	No	18	0	n/a	n/a	0.01	NP
TDS (mg/L)	GS-AP-MW-15V	-97.73	-5	-12	No	5	0	n/a	n/a	0.01	NP
<b>TDS (mg/L)</b>	<b>GS-AP-MW-17</b>	<b>24.46</b>	<b>78</b>	<b>74</b>	<b>Yes</b>	<b>19</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
TDS (mg/L)	GS-AP-MW-17V (bg)	0	0	18	No	7	0	n/a	n/a	0.01	NP
<b>TDS (mg/L)</b>	<b>GS-AP-MW-21</b>	<b>63.17</b>	<b>105</b>	<b>68</b>	<b>Yes</b>	<b>18</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
TDS (mg/L)	GS-AP-MW-23H	8.221	1	18	No	7	0	n/a	n/a	0.01	NP
TDS (mg/L)	GS-AP-MW-8 (bg)	-3.157	-39	-68	No	18	0	n/a	n/a	0.01	NP

### Sen's Slope Estimator GS-AP-MW-13 (bg)



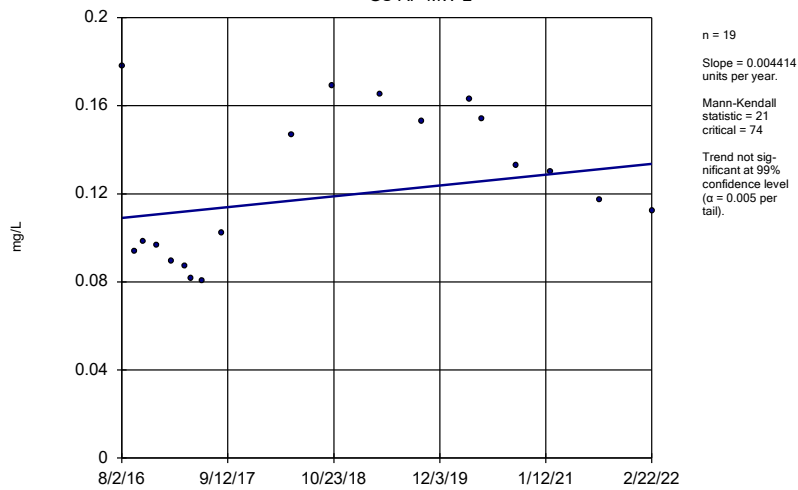
Constituent: Boron Analysis Run 5/16/2022 4:05 PM View: Appendix III - Trend Tests  
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

### Sen's Slope Estimator GS-AP-MW-17V (bg)



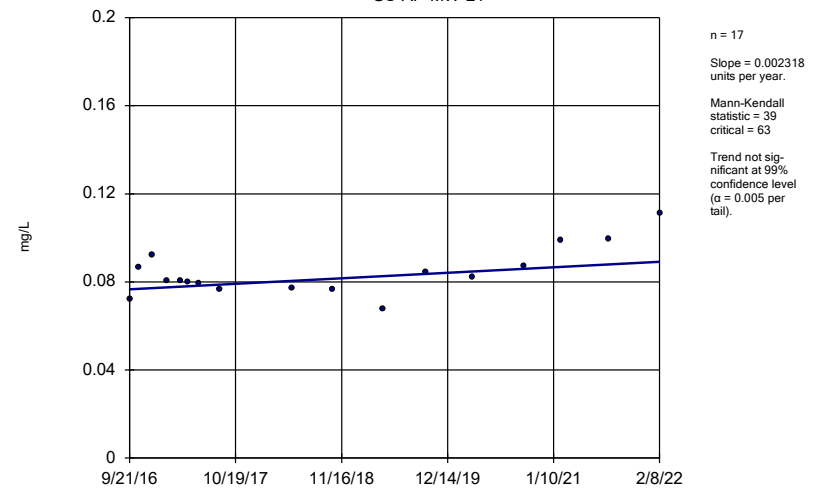
Constituent: Boron Analysis Run 5/16/2022 4:05 PM View: Appendix III - Trend Tests  
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

### Sen's Slope Estimator GS-AP-MW-2



Constituent: Boron Analysis Run 5/16/2022 4:05 PM View: Appendix III - Trend Tests  
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

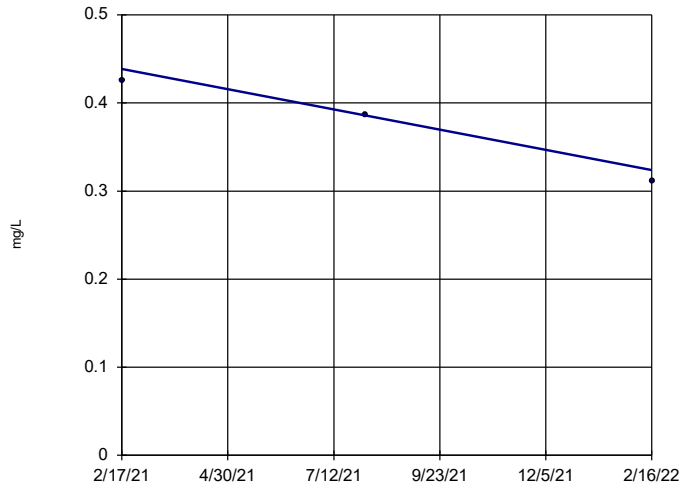
### Sen's Slope Estimator GS-AP-MW-21



Constituent: Boron Analysis Run 5/16/2022 4:05 PM View: Appendix III - Trend Tests  
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

### Sen's Slope Estimator

GS-AP-MW-3

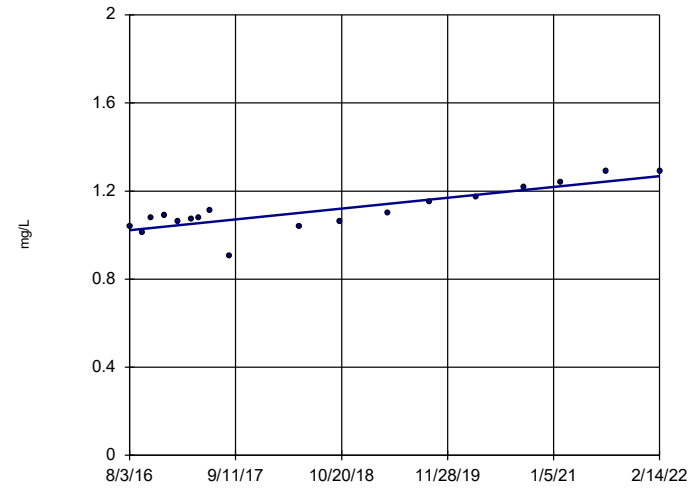


n = 3  
 Slope = -0.1153  
 units per year.  
 Minimum n for  
 Mann-Kendall  
 is 4.

Constituent: Boron Analysis Run 5/16/2022 4:05 PM View: Appendix III - Trend Tests  
 Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

### Sen's Slope Estimator

GS-AP-MW-6D

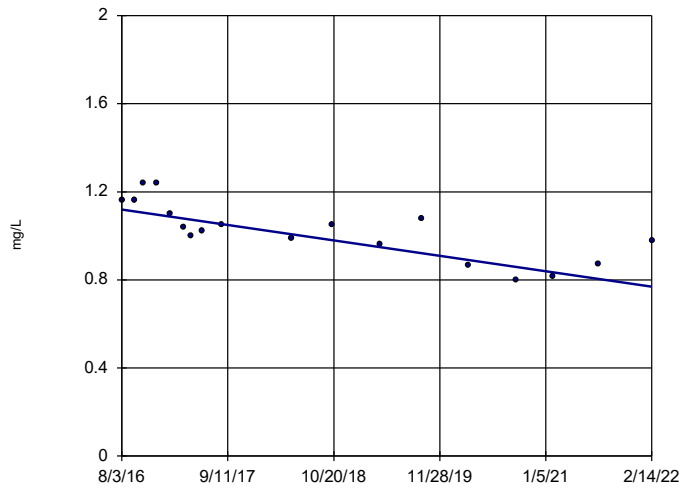


n = 18  
 Slope = 0.04438  
 units per year.  
 Mann-Kendall  
 statistic = 97  
 critical = 68  
 Increasing trend  
 significant at 99%  
 confidence level  
 (α = 0.005 per  
 tail).

Constituent: Boron Analysis Run 5/16/2022 4:05 PM View: Appendix III - Trend Tests  
 Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

### Sen's Slope Estimator

GS-AP-MW-6

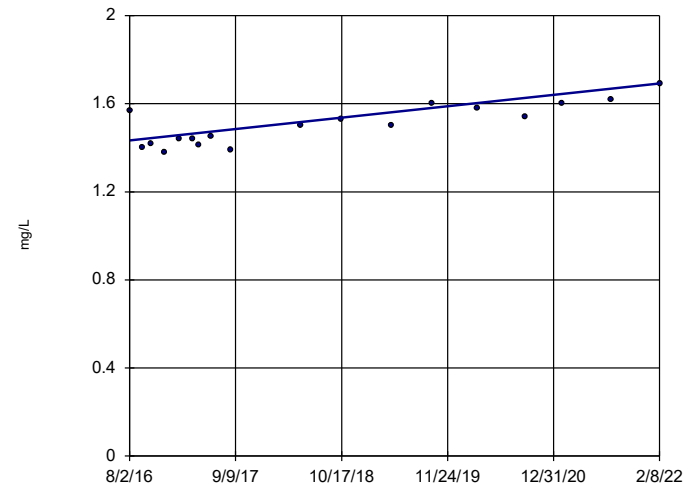


n = 18  
 Slope = -0.0634  
 units per year.  
 Mann-Kendall  
 statistic = -94  
 critical = -68  
 Decreasing trend  
 significant at 99%  
 confidence level  
 (α = 0.005 per  
 tail).

Constituent: Boron Analysis Run 5/16/2022 4:05 PM View: Appendix III - Trend Tests  
 Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

### Sen's Slope Estimator

GS-AP-MW-7

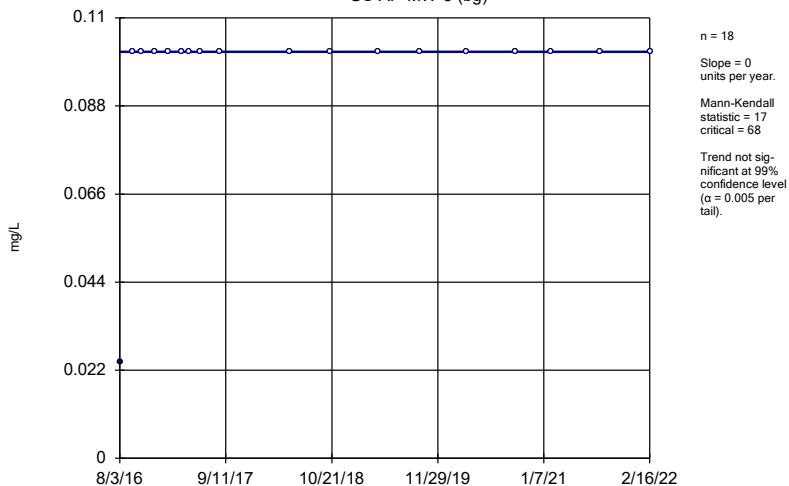


n = 18  
 Slope = 0.04679  
 units per year.  
 Mann-Kendall  
 statistic = 96  
 critical = 68  
 Increasing trend  
 significant at 99%  
 confidence level  
 (α = 0.005 per  
 tail).

Constituent: Boron Analysis Run 5/16/2022 4:05 PM View: Appendix III - Trend Tests  
 Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

### Sen's Slope Estimator

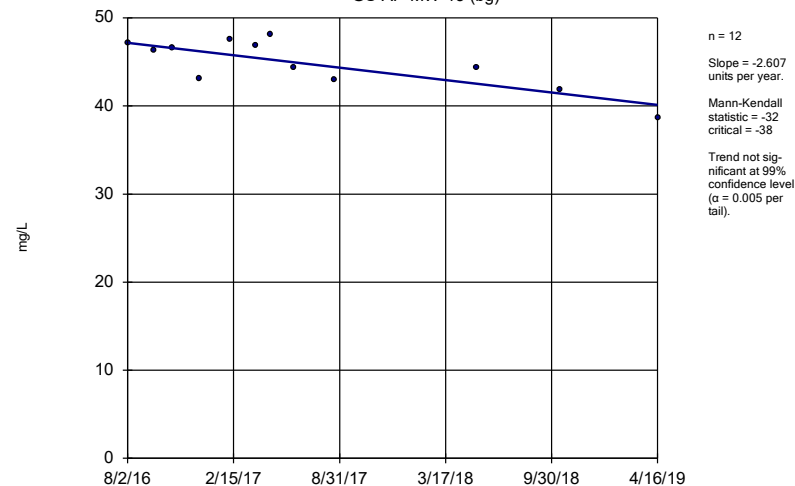
GS-AP-MW-8 (bg)



Constituent: Boron Analysis Run 5/16/2022 4:05 PM View: Appendix III - Trend Tests  
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

### Sen's Slope Estimator

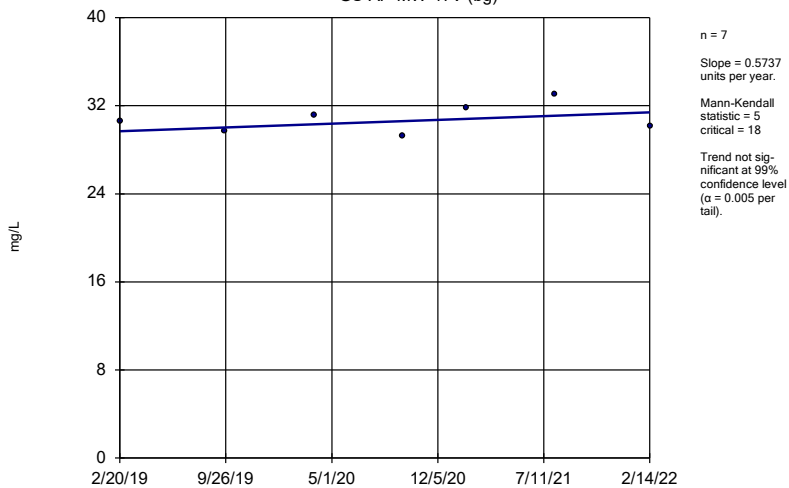
GS-AP-MW-13 (bg)



Constituent: Calcium Analysis Run 5/16/2022 4:05 PM View: Appendix III - Trend Tests  
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

### Sen's Slope Estimator

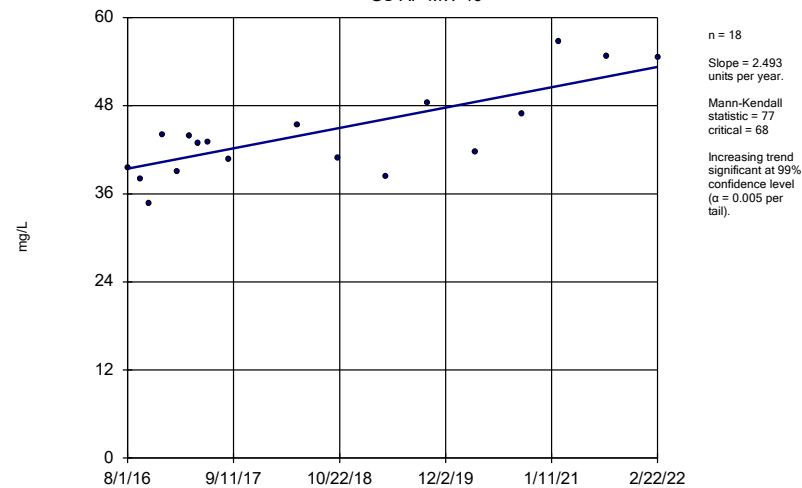
GS-AP-MW-17V (bg)



Constituent: Calcium Analysis Run 5/16/2022 4:05 PM View: Appendix III - Trend Tests  
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

### Sen's Slope Estimator

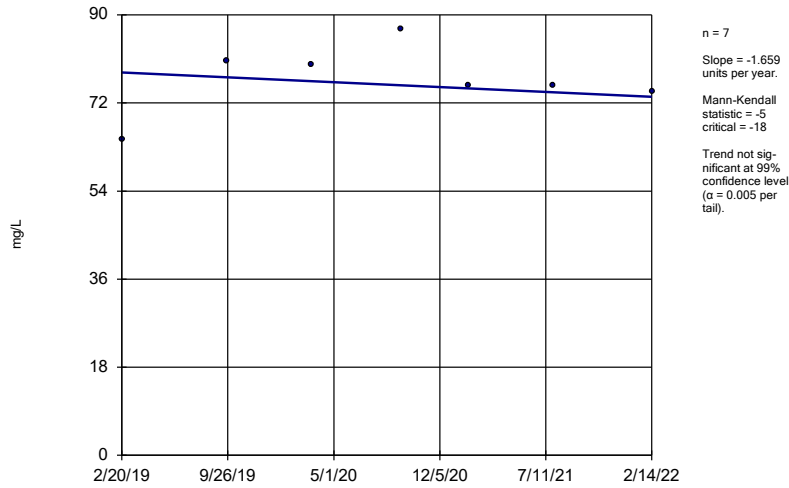
GS-AP-MW-19



Constituent: Calcium Analysis Run 5/16/2022 4:05 PM View: Appendix III - Trend Tests  
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

### Sen's Slope Estimator

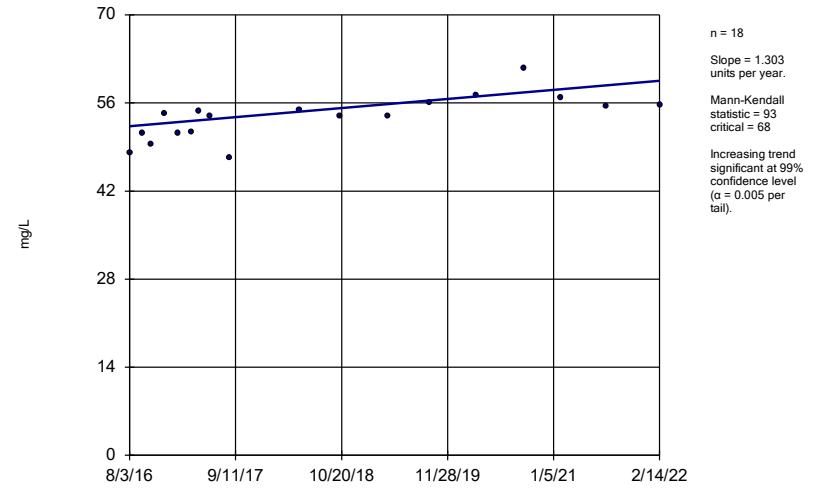
GS-AP-MW-23H



Constituent: Calcium Analysis Run 5/16/2022 4:05 PM View: Appendix III - Trend Tests  
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

### Sen's Slope Estimator

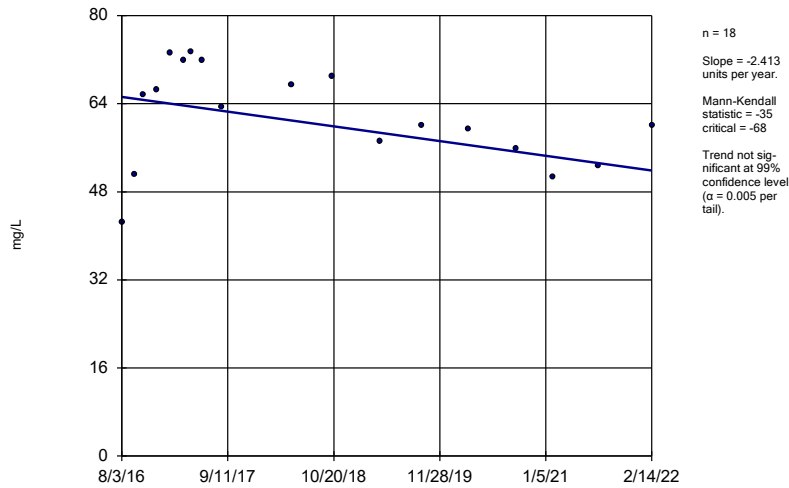
GS-AP-MW-6D



Constituent: Calcium Analysis Run 5/16/2022 4:05 PM View: Appendix III - Trend Tests  
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

### Sen's Slope Estimator

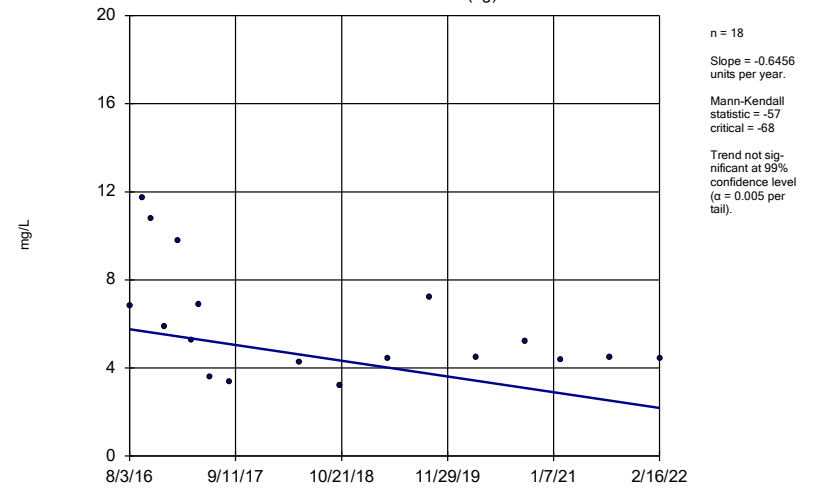
GS-AP-MW-6



Constituent: Calcium Analysis Run 5/16/2022 4:05 PM View: Appendix III - Trend Tests  
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

### Sen's Slope Estimator

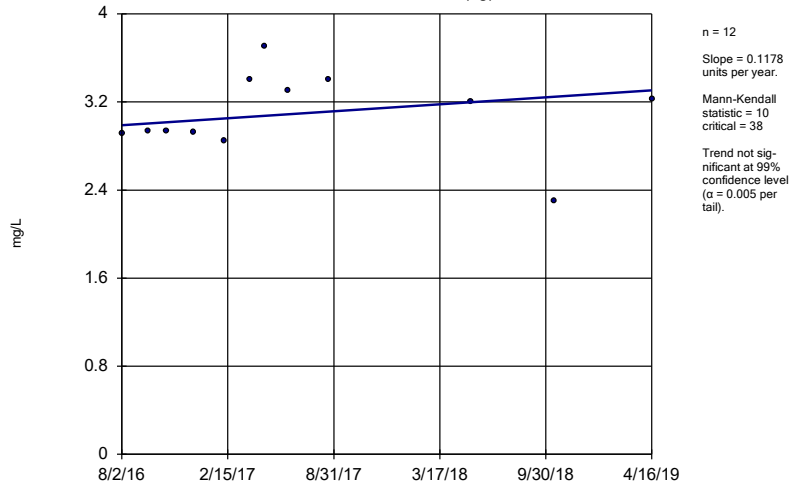
GS-AP-MW-8 (bg)



Constituent: Calcium Analysis Run 5/16/2022 4:05 PM View: Appendix III - Trend Tests  
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

### Sen's Slope Estimator

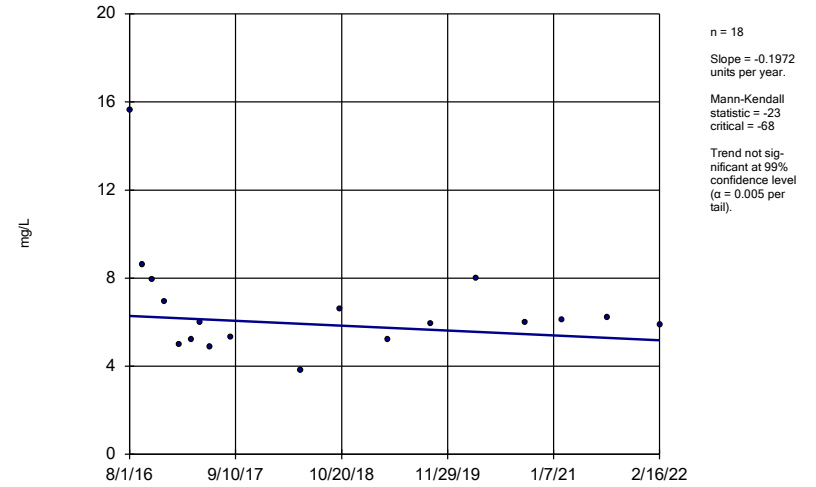
GS-AP-MW-13 (bg)



Constituent: Chloride Analysis Run 5/16/2022 4:05 PM View: Appendix III - Trend Tests  
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

### Sen's Slope Estimator

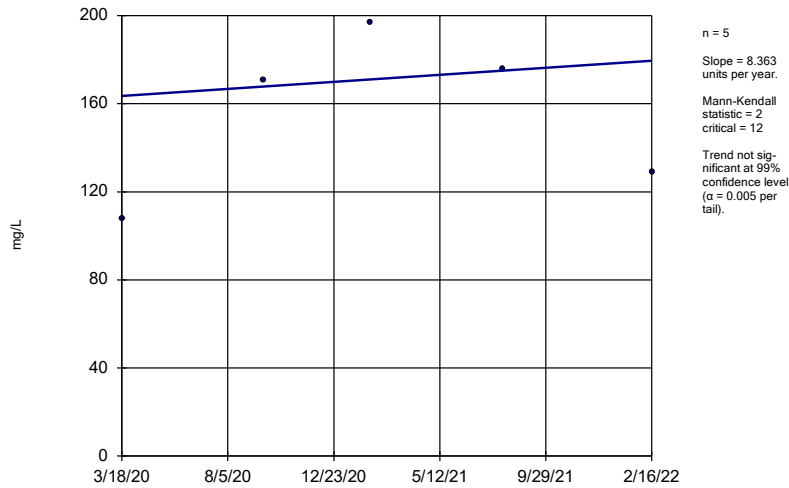
GS-AP-MW-15



Constituent: Chloride Analysis Run 5/16/2022 4:05 PM View: Appendix III - Trend Tests  
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

### Sen's Slope Estimator

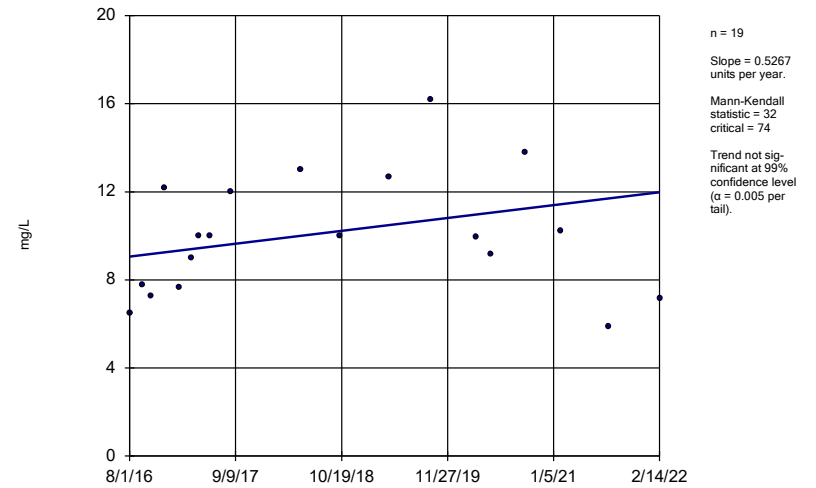
GS-AP-MW-15V



Constituent: Chloride Analysis Run 5/16/2022 4:05 PM View: Appendix III - Trend Tests  
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

### Sen's Slope Estimator

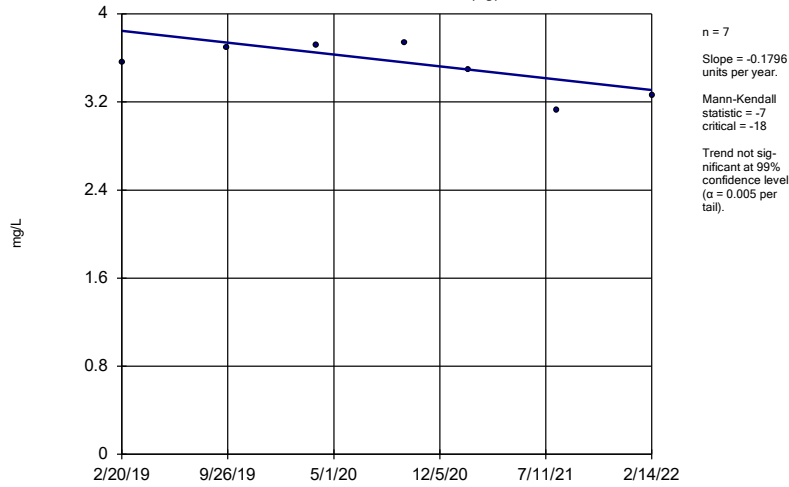
GS-AP-MW-17



Constituent: Chloride Analysis Run 5/16/2022 4:05 PM View: Appendix III - Trend Tests  
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

### Sen's Slope Estimator

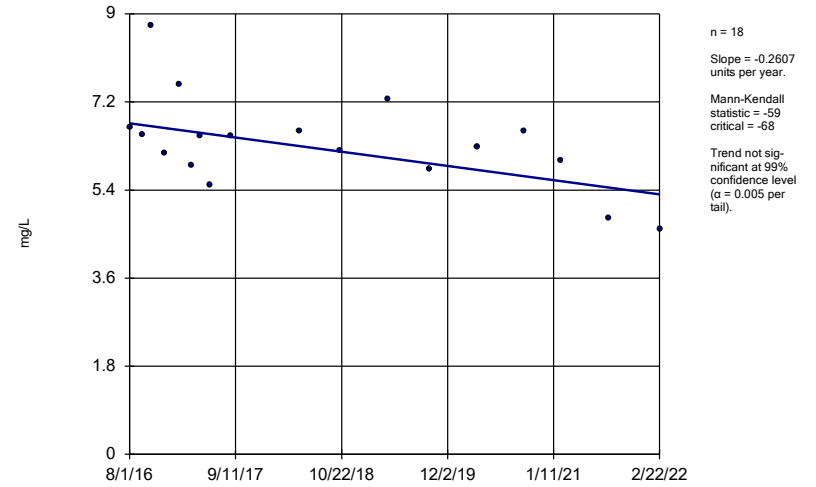
GS-AP-MW-17V (bg)



Constituent: Chloride Analysis Run 5/16/2022 4:05 PM View: Appendix III - Trend Tests  
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

### Sen's Slope Estimator

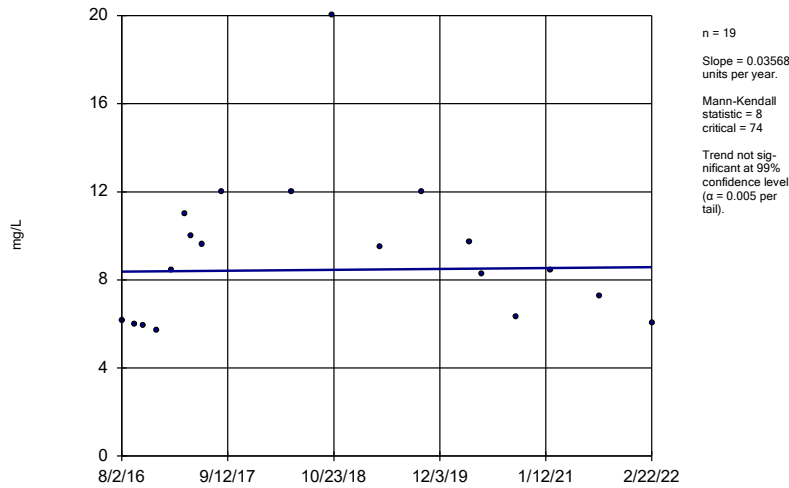
GS-AP-MW-19



Constituent: Chloride Analysis Run 5/16/2022 4:05 PM View: Appendix III - Trend Tests  
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

### Sen's Slope Estimator

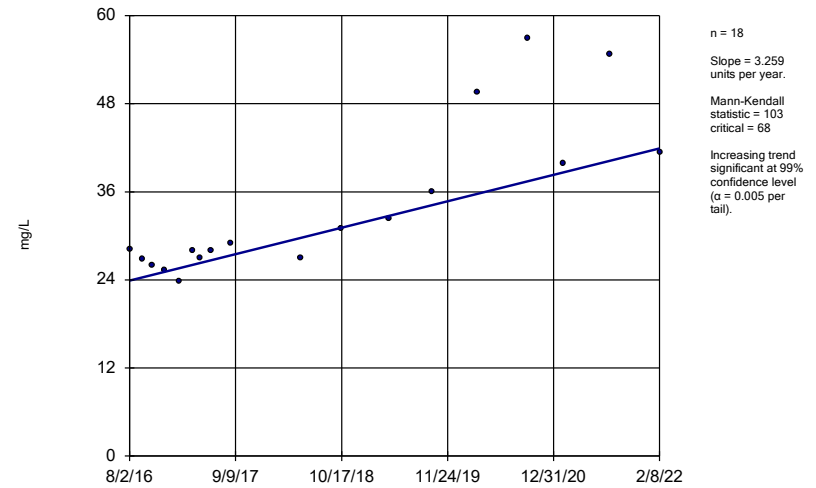
GS-AP-MW-2



Constituent: Chloride Analysis Run 5/16/2022 4:05 PM View: Appendix III - Trend Tests  
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

### Sen's Slope Estimator

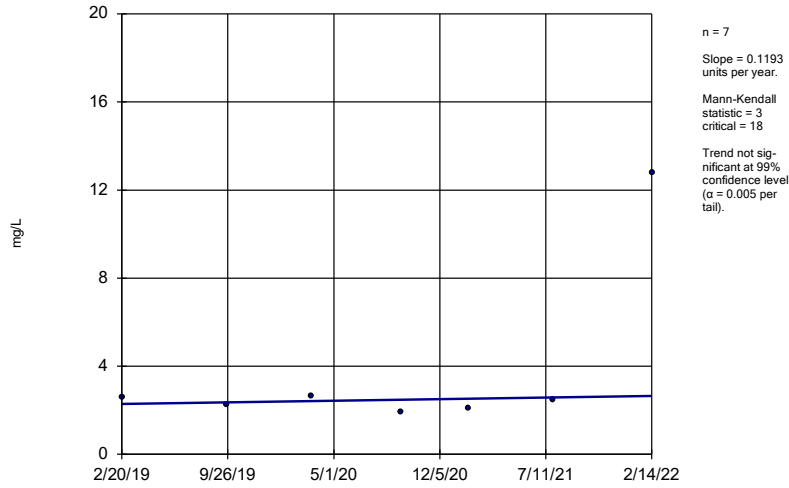
GS-AP-MW-21



Constituent: Chloride Analysis Run 5/16/2022 4:05 PM View: Appendix III - Trend Tests  
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

### Sen's Slope Estimator

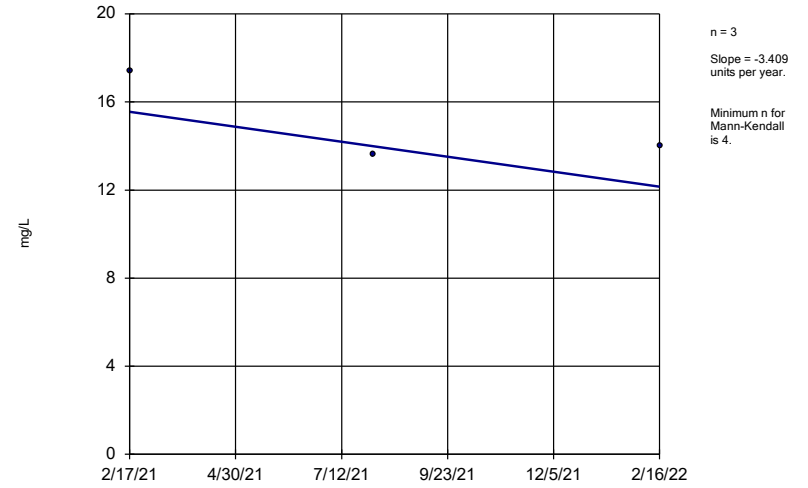
GS-AP-MW-23H



Constituent: Chloride Analysis Run 5/16/2022 4:05 PM View: Appendix III - Trend Tests  
 Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

### Sen's Slope Estimator

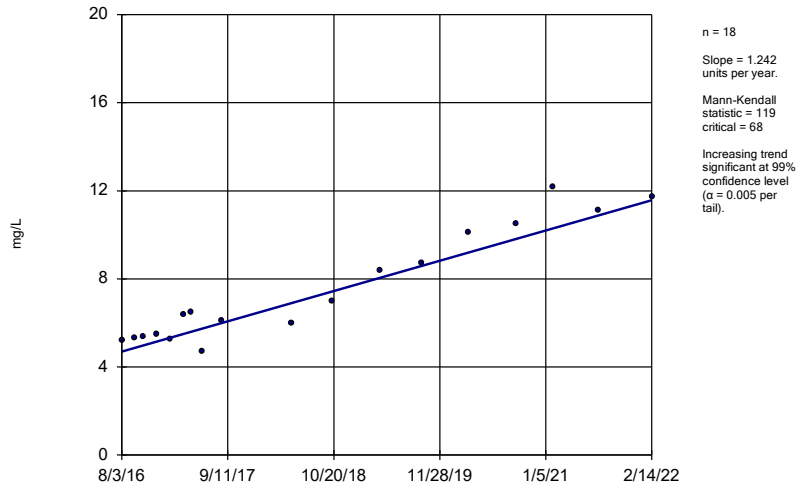
GS-AP-MW-3



Constituent: Chloride Analysis Run 5/16/2022 4:05 PM View: Appendix III - Trend Tests  
 Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

### Sen's Slope Estimator

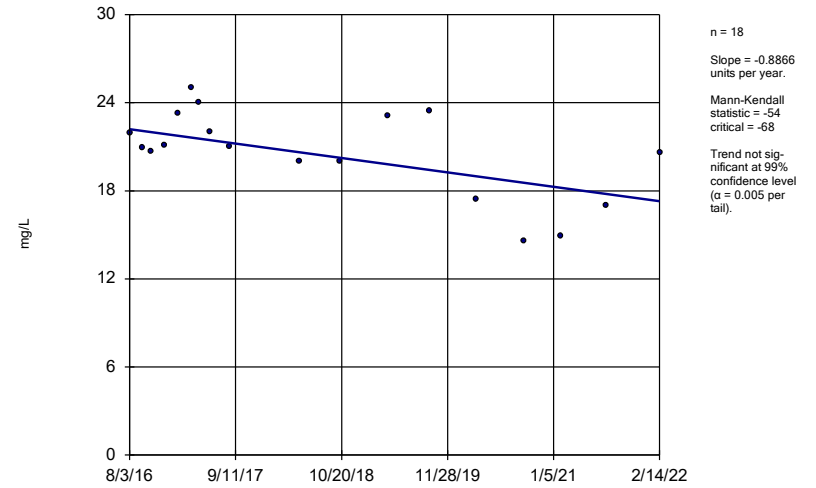
GS-AP-MW-6D



Constituent: Chloride Analysis Run 5/16/2022 4:05 PM View: Appendix III - Trend Tests  
 Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

### Sen's Slope Estimator

GS-AP-MW-6

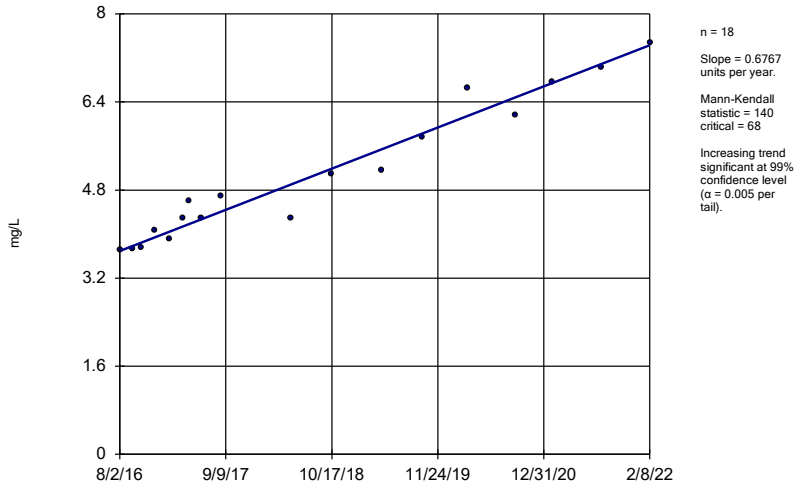


Constituent: Chloride Analysis Run 5/16/2022 4:05 PM View: Appendix III - Trend Tests  
 Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond



### Sen's Slope Estimator

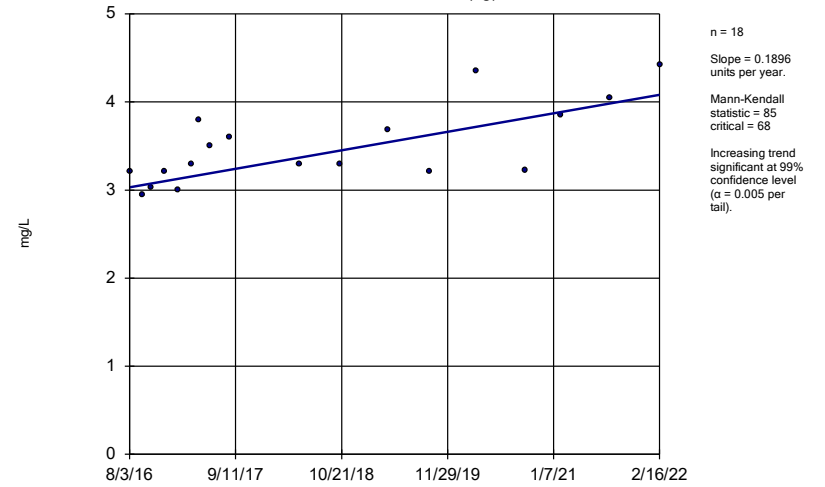
GS-AP-MW-7



Constituent: Chloride Analysis Run 5/16/2022 4:05 PM View: Appendix III - Trend Tests  
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

### Sen's Slope Estimator

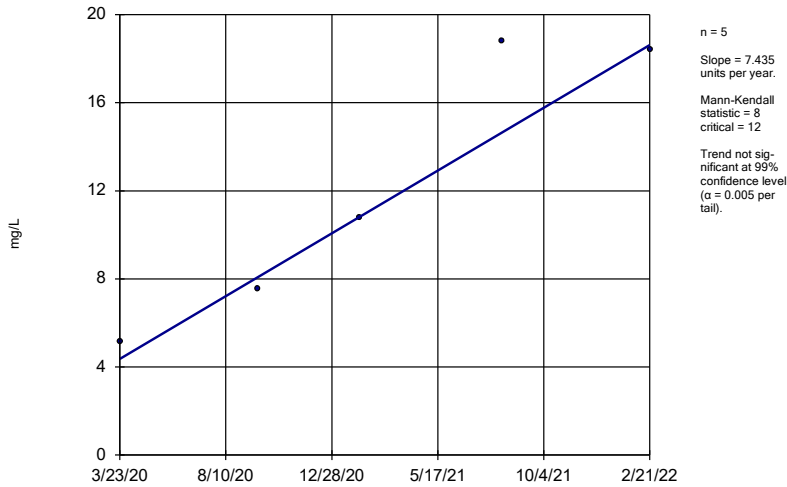
GS-AP-MW-8 (bg)



Constituent: Chloride Analysis Run 5/16/2022 4:05 PM View: Appendix III - Trend Tests  
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

### Sen's Slope Estimator

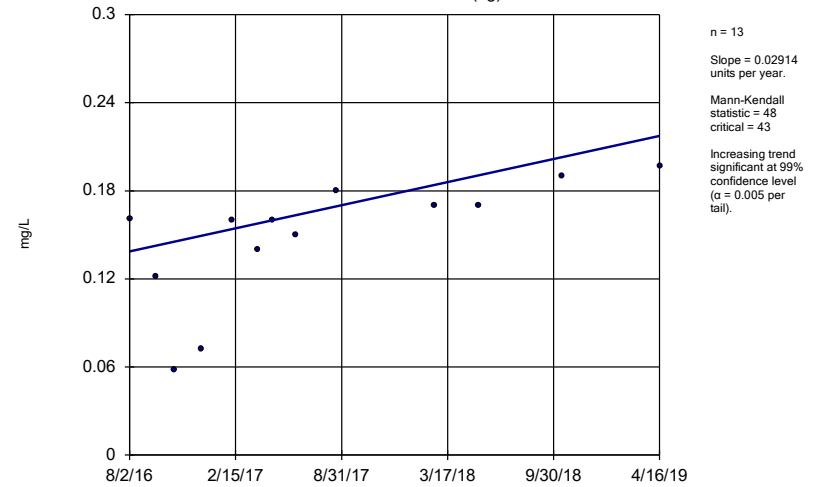
GS-AP-MW-9V



Constituent: Chloride Analysis Run 5/16/2022 4:05 PM View: Appendix III - Trend Tests  
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

### Sen's Slope Estimator

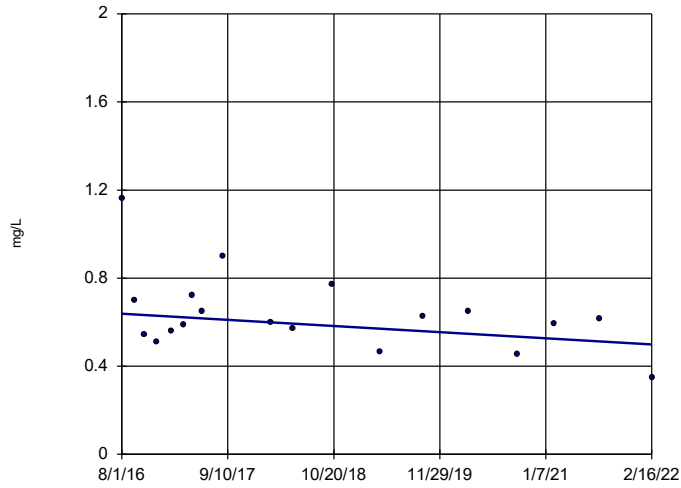
GS-AP-MW-13 (bg)



Constituent: Fluoride Analysis Run 5/16/2022 4:05 PM View: Appendix III - Trend Tests  
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

### Sen's Slope Estimator

GS-AP-MW-15

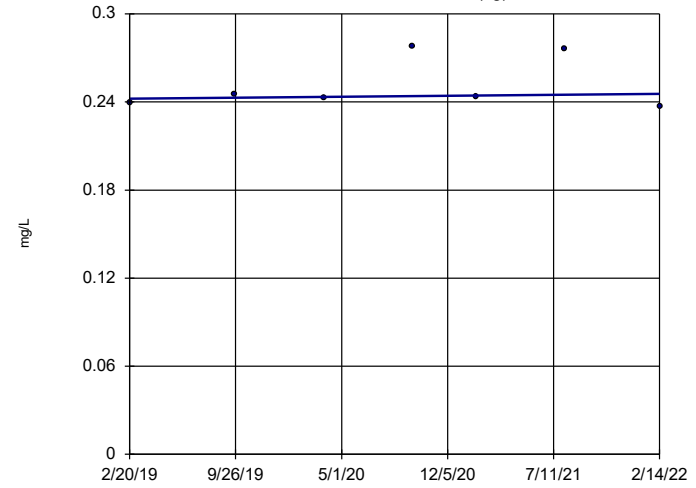


n = 19  
 Slope = -0.02521  
 units per year.  
 Mann-Kendall  
 statistic = -35  
 critical = -74  
 Trend not sig-  
 nificant at 99%  
 confidence level  
 (α = 0.005 per  
 tail).

Constituent: Fluoride Analysis Run 5/16/2022 4:06 PM View: Appendix III - Trend Tests  
 Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

### Sen's Slope Estimator

GS-AP-MW-17V (bg)

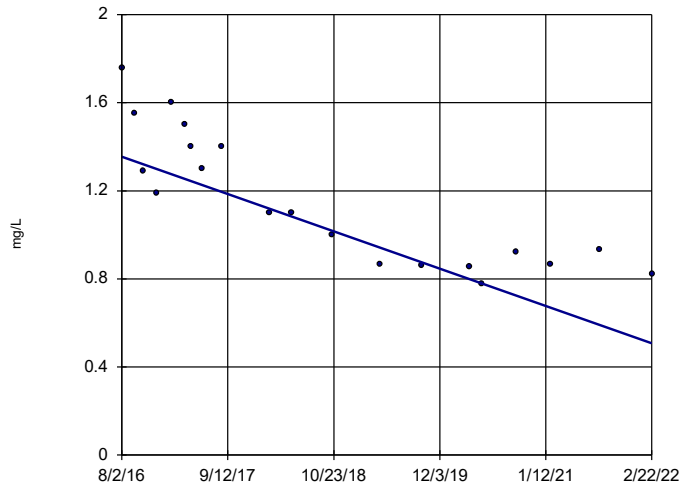


n = 7  
 Slope = 0.001162  
 units per year.  
 Mann-Kendall  
 statistic = 1  
 critical = 18  
 Trend not sig-  
 nificant at 99%  
 confidence level  
 (α = 0.005 per  
 tail).

Constituent: Fluoride Analysis Run 5/16/2022 4:06 PM View: Appendix III - Trend Tests  
 Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

### Sen's Slope Estimator

GS-AP-MW-2

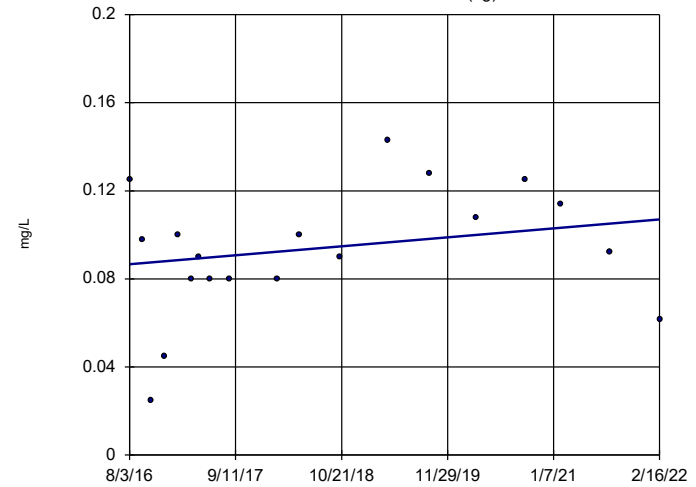


n = 20  
 Slope = -0.1524  
 units per year.  
 Mann-Kendall  
 statistic = -136  
 critical = -81  
 Decreasing trend  
 significant at 99%  
 confidence level  
 (α = 0.005 per  
 tail).

Constituent: Fluoride Analysis Run 5/16/2022 4:06 PM View: Appendix III - Trend Tests  
 Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

### Sen's Slope Estimator

GS-AP-MW-8 (bg)

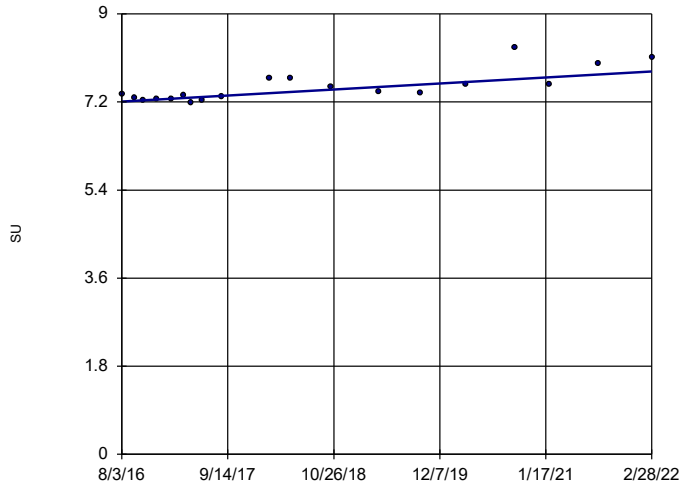


n = 19  
 Slope = 0.003661  
 units per year.  
 Mann-Kendall  
 statistic = 34  
 critical = 74  
 Trend not sig-  
 nificant at 99%  
 confidence level  
 (α = 0.005 per  
 tail).

Constituent: Fluoride Analysis Run 5/16/2022 4:06 PM View: Appendix III - Trend Tests  
 Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

### Sen's Slope Estimator

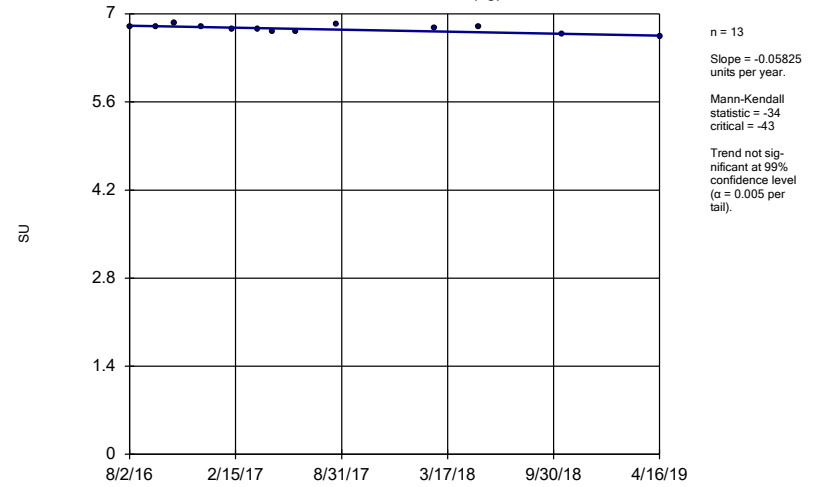
GS-AP-MW-12



Constituent: pH Analysis Run 5/16/2022 4:06 PM View: Appendix III - Trend Tests  
 Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

### Sen's Slope Estimator

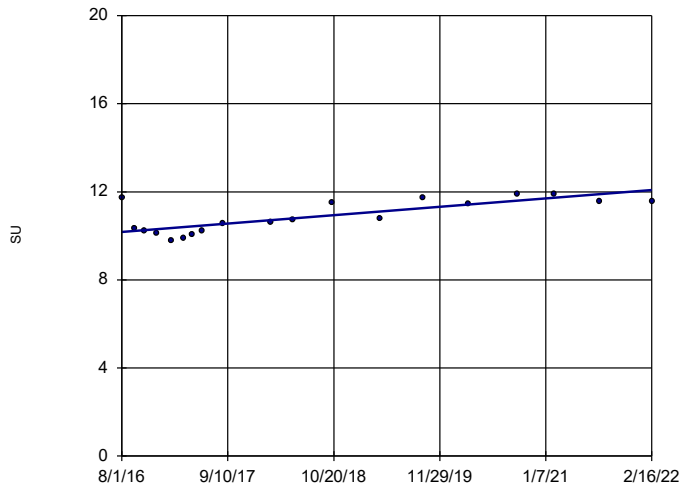
GS-AP-MW-13 (bg)



Constituent: pH Analysis Run 5/16/2022 4:06 PM View: Appendix III - Trend Tests  
 Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

### Sen's Slope Estimator

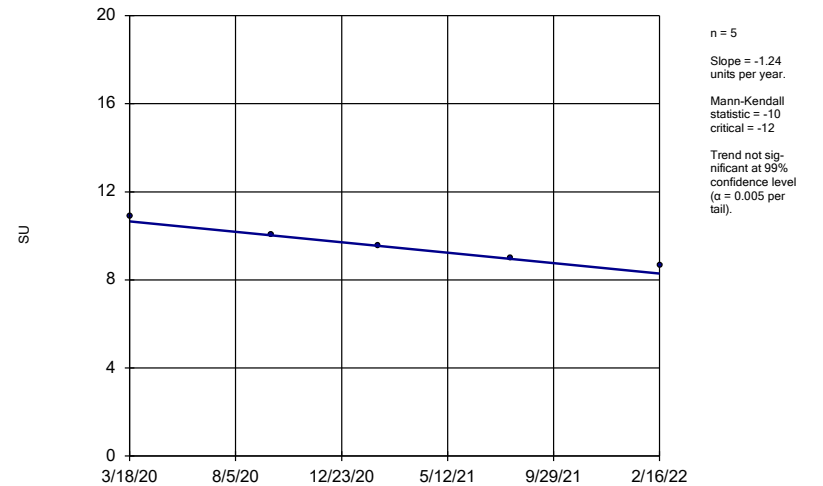
GS-AP-MW-15



Constituent: pH Analysis Run 5/16/2022 4:06 PM View: Appendix III - Trend Tests  
 Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

### Sen's Slope Estimator

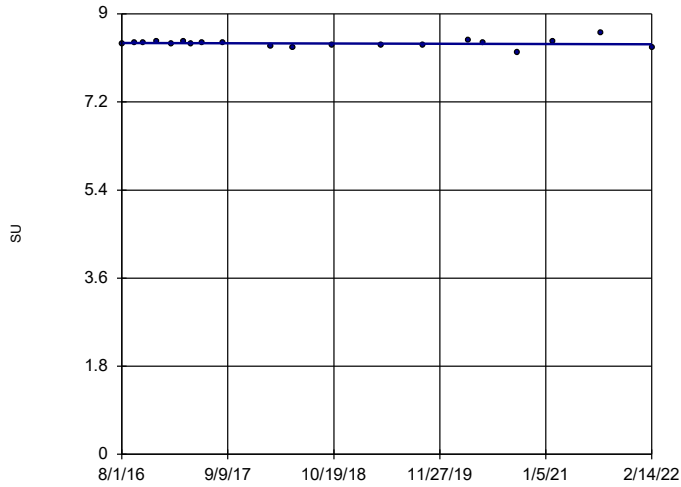
GS-AP-MW-15V



Constituent: pH Analysis Run 5/16/2022 4:06 PM View: Appendix III - Trend Tests  
 Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

### Sen's Slope Estimator

GS-AP-MW-17

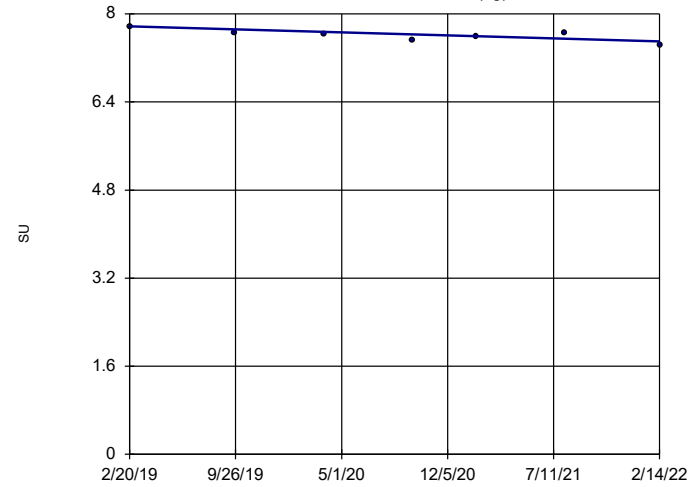


n = 20  
 Slope = -0.004866 units per year.  
 Mann-Kendall statistic = -19  
 critical = -81  
 Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: pH Analysis Run 5/16/2022 4:06 PM View: Appendix III - Trend Tests  
 Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

### Sen's Slope Estimator

GS-AP-MW-17V (bg)

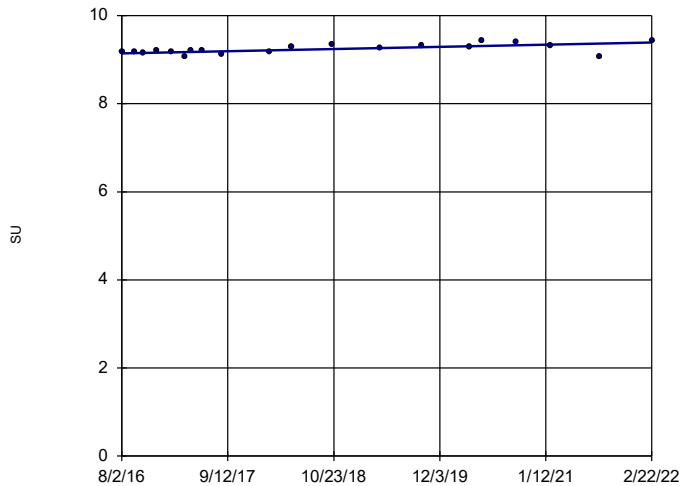


n = 7  
 Slope = -0.09188 units per year.  
 Mann-Kendall statistic = -12  
 critical = -18  
 Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: pH Analysis Run 5/16/2022 4:06 PM View: Appendix III - Trend Tests  
 Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

### Sen's Slope Estimator

GS-AP-MW-2

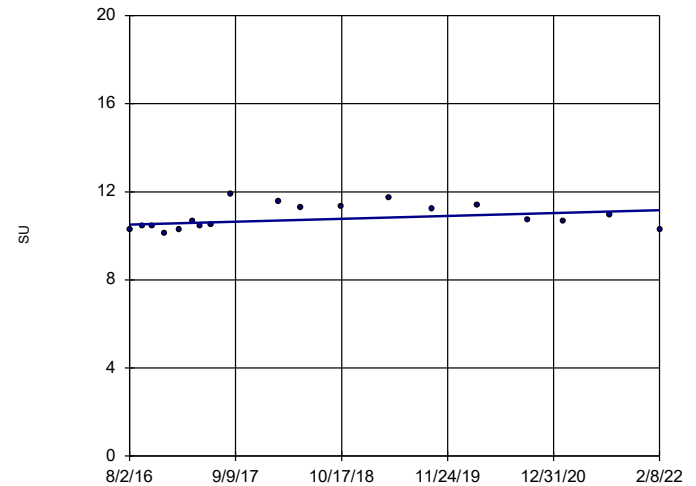


n = 20  
 Slope = 0.04403 units per year.  
 Mann-Kendall statistic = 87  
 critical = 81  
 Increasing trend significant at 99% confidence level (α = 0.005 per tail).

Constituent: pH Analysis Run 5/16/2022 4:06 PM View: Appendix III - Trend Tests  
 Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

### Sen's Slope Estimator

GS-AP-MW-21

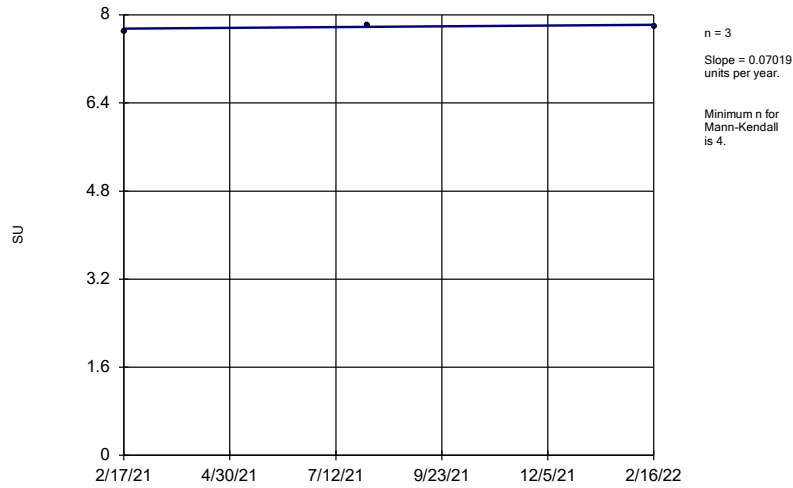


n = 19  
 Slope = 0.1186 units per year.  
 Mann-Kendall statistic = 47  
 critical = 74  
 Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: pH Analysis Run 5/16/2022 4:06 PM View: Appendix III - Trend Tests  
 Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

### Sen's Slope Estimator

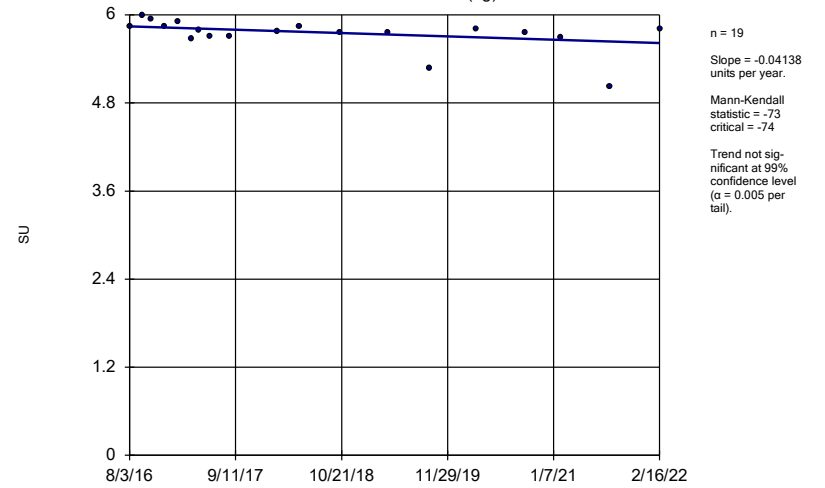
GS-AP-MW-3



Constituent: pH Analysis Run 5/16/2022 4:06 PM View: Appendix III - Trend Tests  
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

### Sen's Slope Estimator

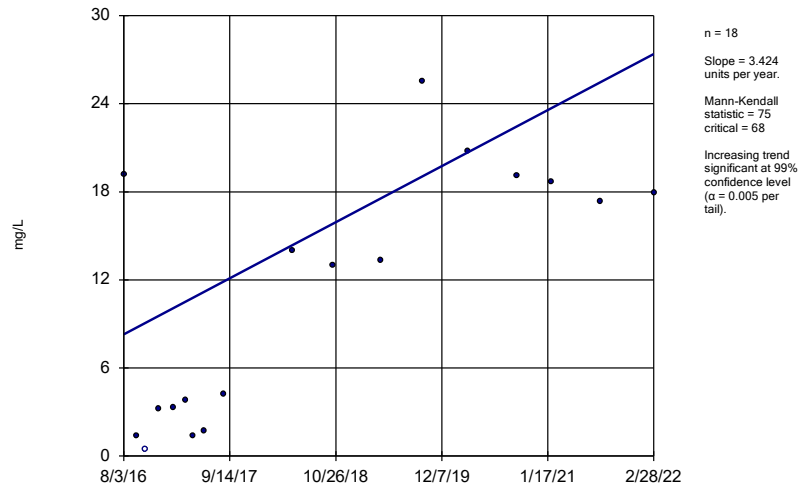
GS-AP-MW-8 (bg)



Constituent: pH Analysis Run 5/16/2022 4:06 PM View: Appendix III - Trend Tests  
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

### Sen's Slope Estimator

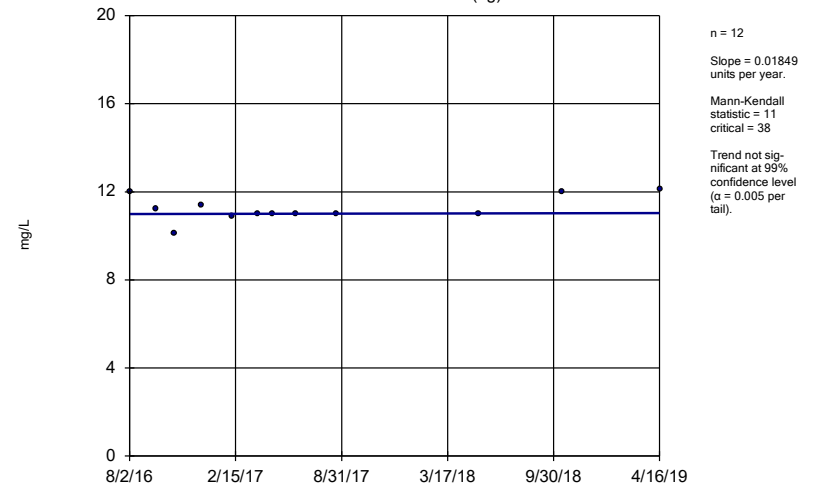
GS-AP-MW-12



Constituent: Sulfate Analysis Run 5/16/2022 4:06 PM View: Appendix III - Trend Tests  
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

### Sen's Slope Estimator

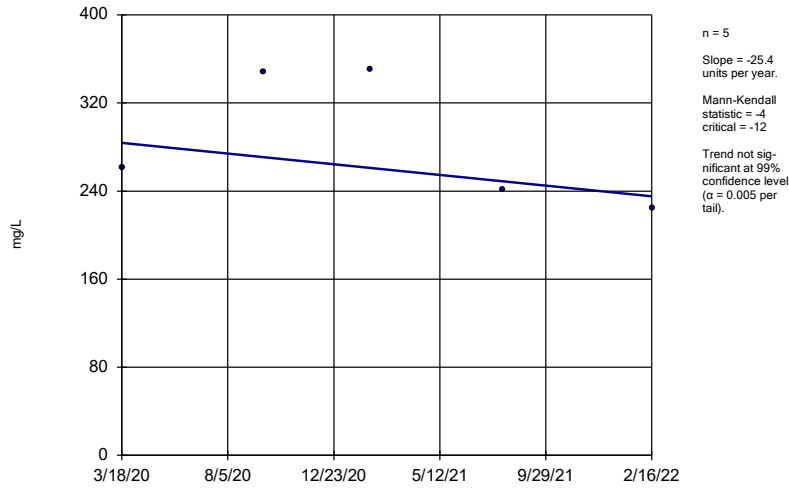
GS-AP-MW-13 (bg)



Constituent: Sulfate Analysis Run 5/16/2022 4:06 PM View: Appendix III - Trend Tests  
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

### Sen's Slope Estimator

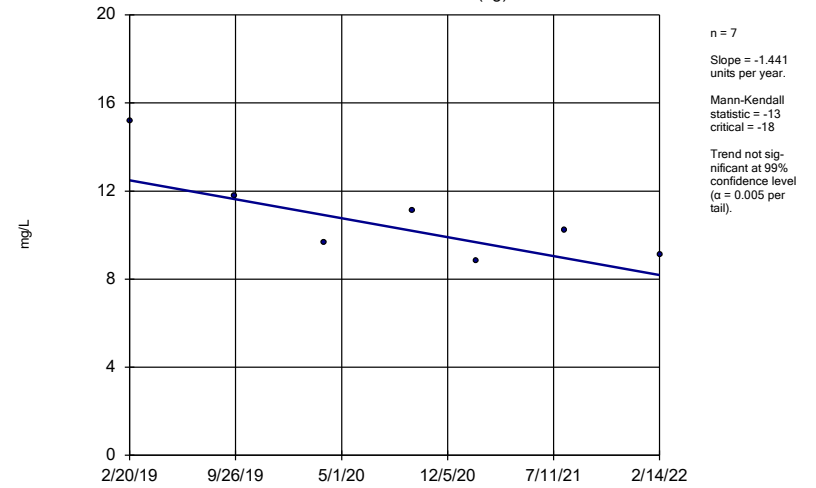
GS-AP-MW-15V



Constituent: Sulfate Analysis Run 5/16/2022 4:06 PM View: Appendix III - Trend Tests  
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

### Sen's Slope Estimator

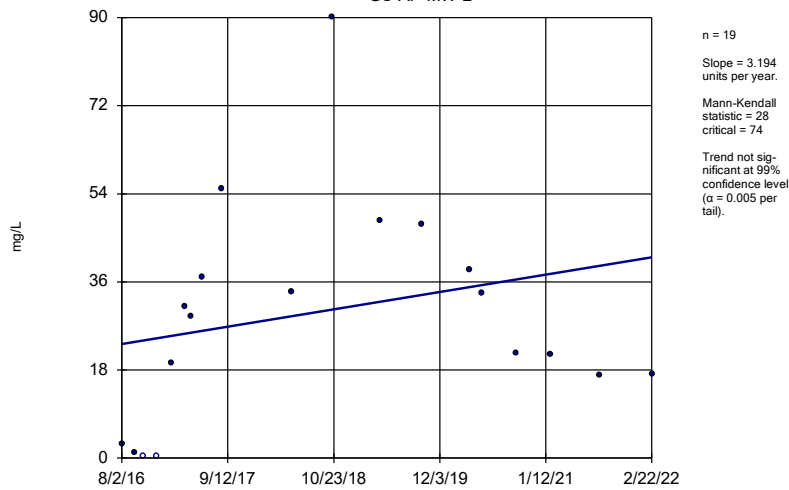
GS-AP-MW-17V (bg)



Constituent: Sulfate Analysis Run 5/16/2022 4:06 PM View: Appendix III - Trend Tests  
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

### Sen's Slope Estimator

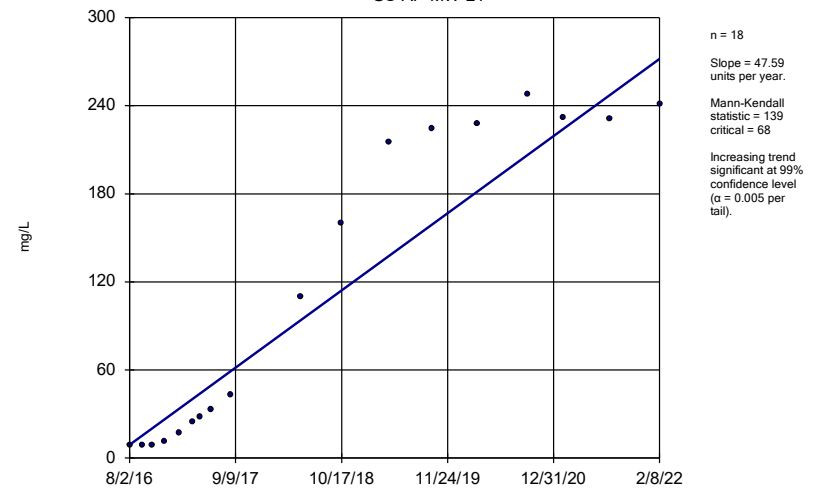
GS-AP-MW-2



Constituent: Sulfate Analysis Run 5/16/2022 4:06 PM View: Appendix III - Trend Tests  
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

### Sen's Slope Estimator

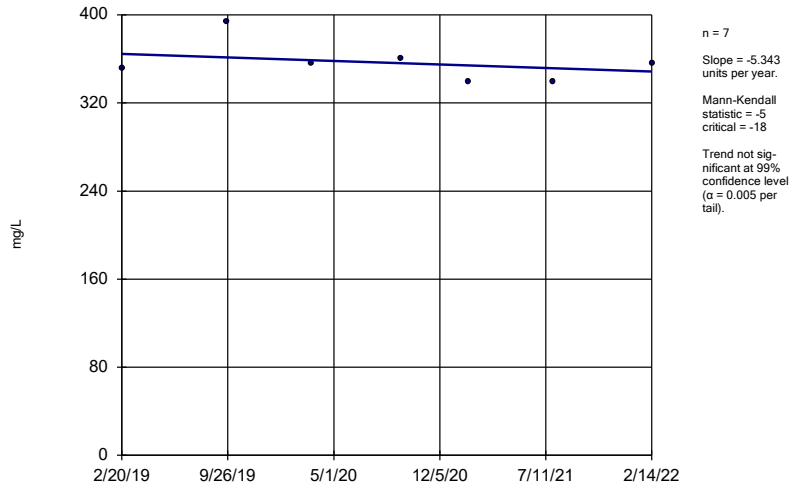
GS-AP-MW-21



Constituent: Sulfate Analysis Run 5/16/2022 4:06 PM View: Appendix III - Trend Tests  
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

### Sen's Slope Estimator

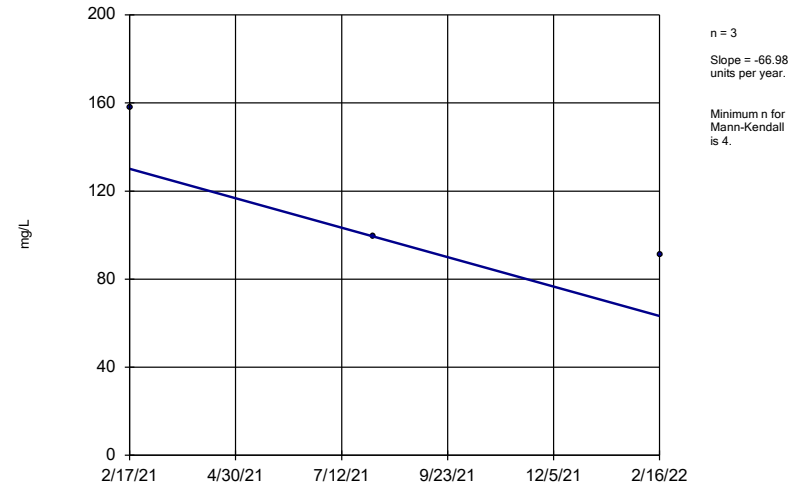
GS-AP-MW-23H



Constituent: Sulfate Analysis Run 5/16/2022 4:06 PM View: Appendix III - Trend Tests  
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

### Sen's Slope Estimator

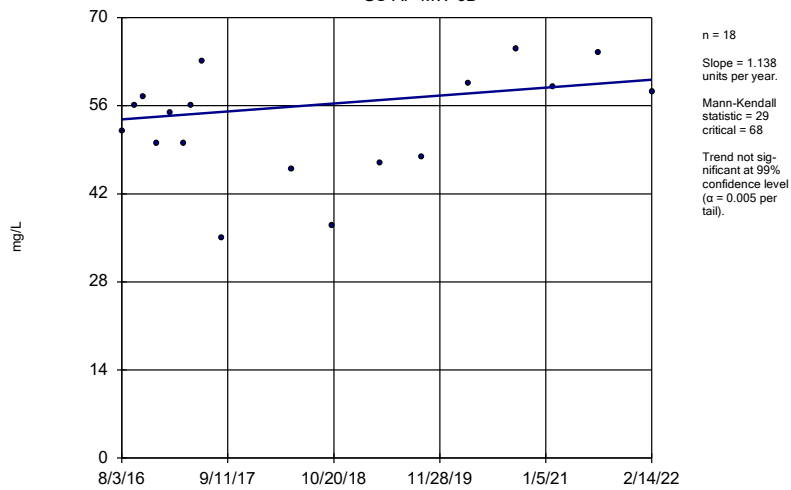
GS-AP-MW-3



Constituent: Sulfate Analysis Run 5/16/2022 4:06 PM View: Appendix III - Trend Tests  
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

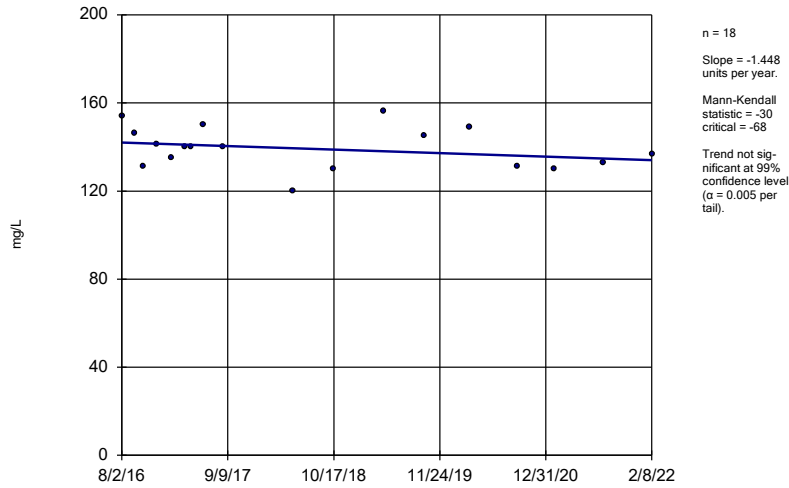
### Sen's Slope Estimator

GS-AP-MW-6D



### Sen's Slope Estimator

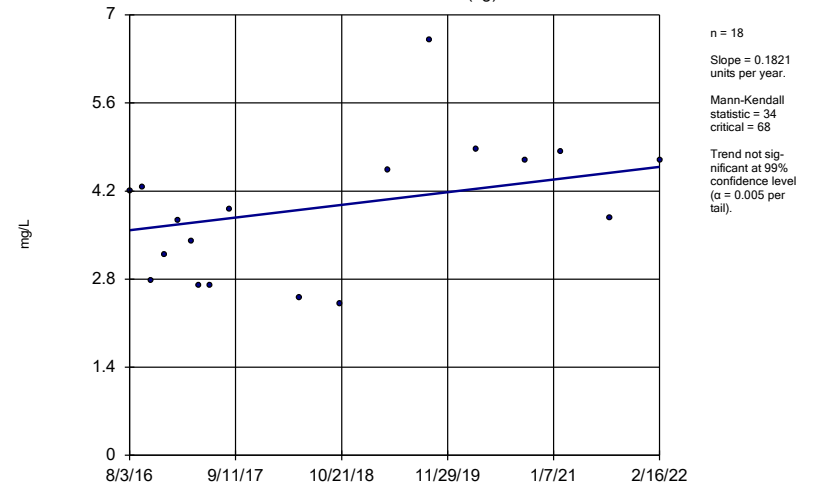
GS-AP-MW-7



Constituent: Sulfate Analysis Run 5/16/2022 4:06 PM View: Appendix III - Trend Tests  
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

### Sen's Slope Estimator

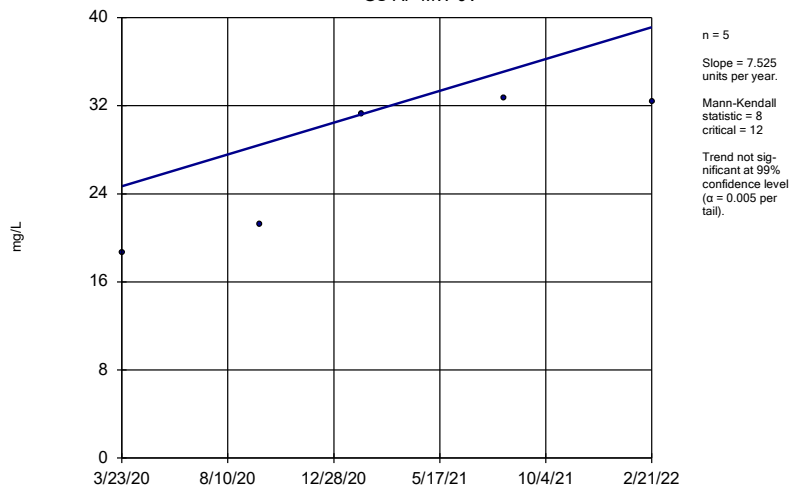
GS-AP-MW-8 (bg)



Constituent: Sulfate Analysis Run 5/16/2022 4:06 PM View: Appendix III - Trend Tests  
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

### Sen's Slope Estimator

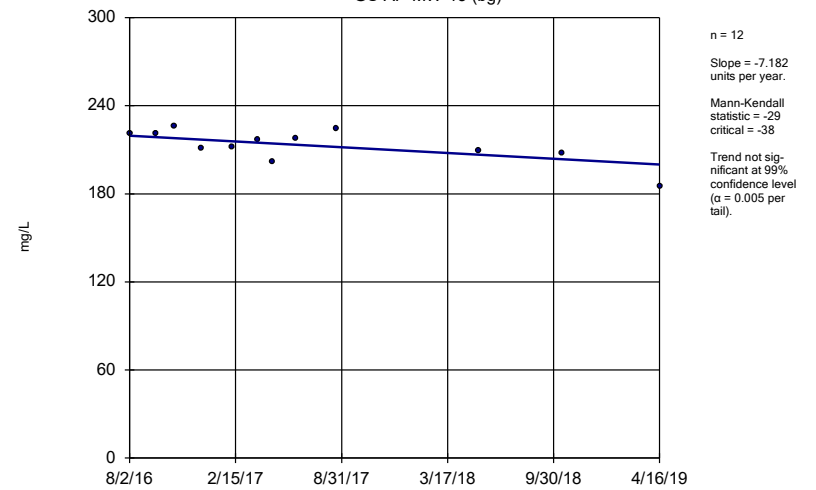
GS-AP-MW-9V



Constituent: Sulfate Analysis Run 5/16/2022 4:06 PM View: Appendix III - Trend Tests  
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

### Sen's Slope Estimator

GS-AP-MW-13 (bg)

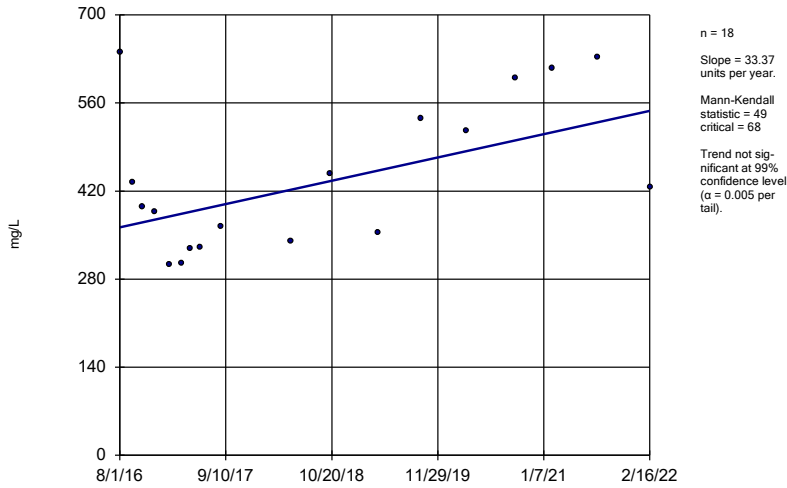


Constituent: TDS Analysis Run 5/16/2022 4:06 PM View: Appendix III - Trend Tests  
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond



### Sen's Slope Estimator

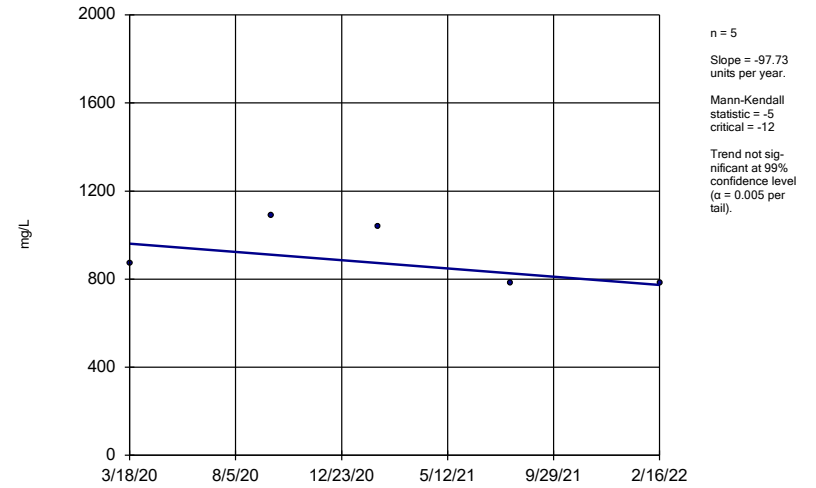
GS-AP-MW-15



Constituent: TDS Analysis Run 5/16/2022 4:06 PM View: Appendix III - Trend Tests  
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

### Sen's Slope Estimator

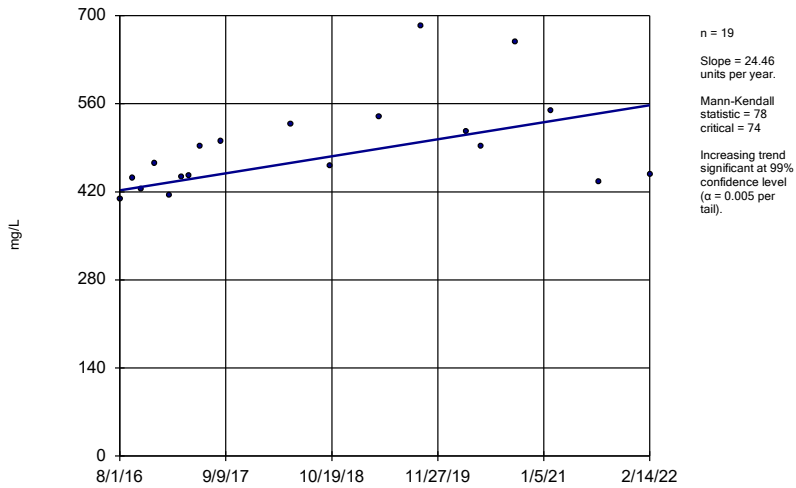
GS-AP-MW-15V



Constituent: TDS Analysis Run 5/16/2022 4:06 PM View: Appendix III - Trend Tests  
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

### Sen's Slope Estimator

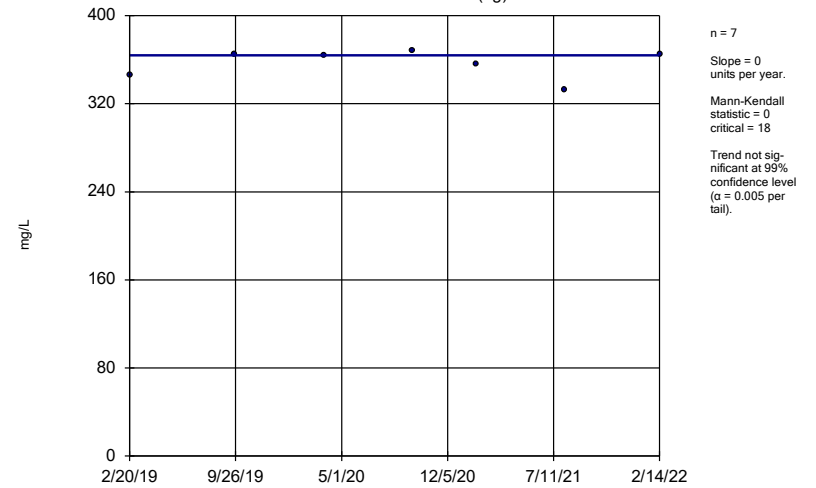
GS-AP-MW-17



Constituent: TDS Analysis Run 5/16/2022 4:06 PM View: Appendix III - Trend Tests  
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

### Sen's Slope Estimator

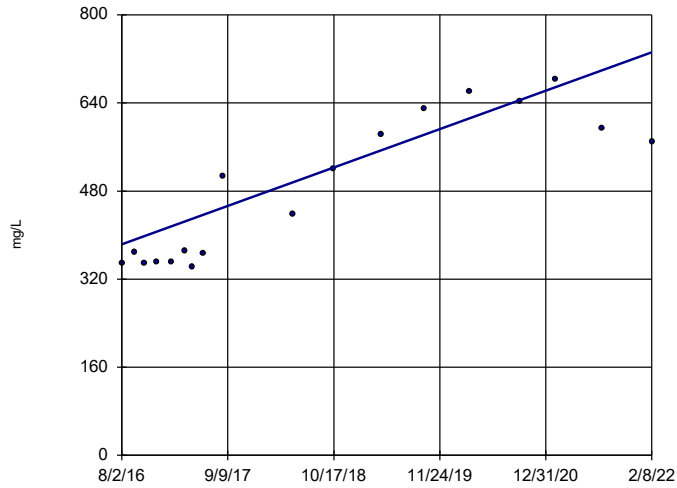
GS-AP-MW-17V (bg)



Constituent: TDS Analysis Run 5/16/2022 4:06 PM View: Appendix III - Trend Tests  
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

### Sen's Slope Estimator

GS-AP-MW-21

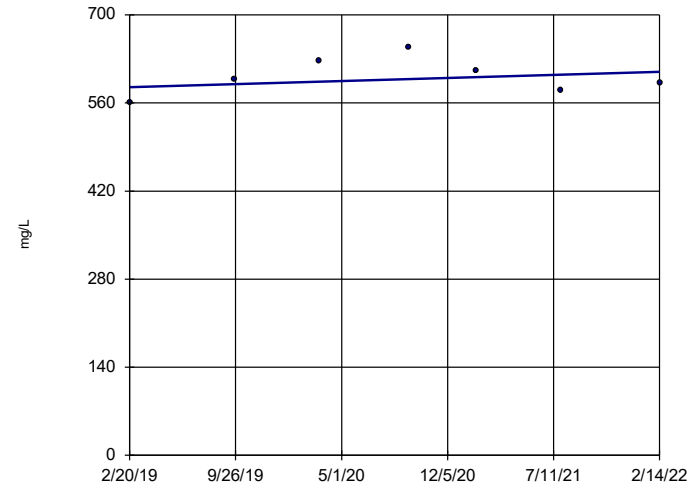


n = 18  
 Slope = 63.17 units per year.  
 Mann-Kendall statistic = 105  
 critical = 68  
 Increasing trend significant at 99% confidence level (α = 0.005 per tail).

Constituent: TDS Analysis Run 5/16/2022 4:06 PM View: Appendix III - Trend Tests  
 Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

### Sen's Slope Estimator

GS-AP-MW-23H

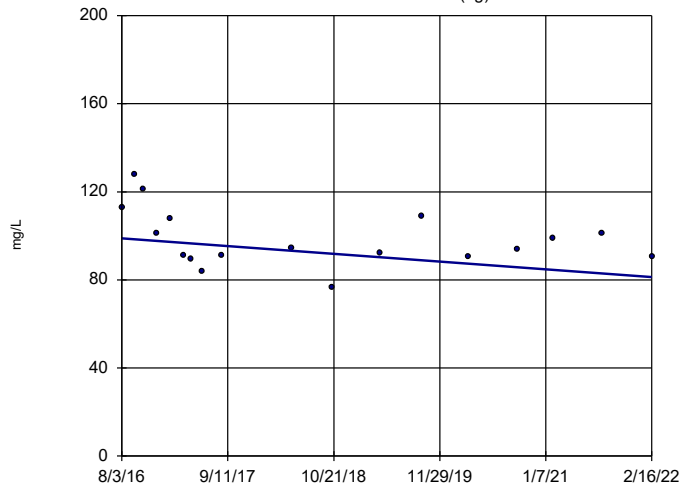


n = 7  
 Slope = 8.221 units per year.  
 Mann-Kendall statistic = 1  
 critical = 18  
 Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: TDS Analysis Run 5/16/2022 4:06 PM View: Appendix III - Trend Tests  
 Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

### Sen's Slope Estimator

GS-AP-MW-8 (bg)



n = 18  
 Slope = -3.157 units per year.  
 Mann-Kendall statistic = -39  
 critical = -68  
 Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: TDS Analysis Run 5/16/2022 4:06 PM View: Appendix III - Trend Tests  
 Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

FIGURE F.

# Upper Tolerance Limits

Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond Printed 1/3/2022, 11:49 PM

<u>Constituent</u>	<u>Well</u>	<u>Upper Lim.</u>	<u>Date</u>	<u>Observ.</u>	<u>Sig.</u>	<u>Bg N</u>	<u>%NDs</u>	<u>Transform</u>	<u>Alpha</u>	<u>Method</u>
Antimony (mg/L)	n/a	0.00115	n/a	n/a	n/a	35	94.29	n/a	0.1661	NP Inter
Arsenic (mg/L)	n/a	0.005	n/a	n/a	n/a	35	71.43	n/a	0.1661	NP Inter
Barium (mg/L)	n/a	0.353	n/a	n/a	n/a	35	0	n/a	0.1661	NP Inter
Beryllium (mg/L)	n/a	0.00102	n/a	n/a	n/a	35	100	n/a	0.1661	NP Inter
Cadmium (mg/L)	n/a	0.0002	n/a	n/a	n/a	35	100	n/a	0.1661	NP Inter
Chromium (mg/L)	n/a	0.01	n/a	n/a	n/a	35	77.14	n/a	0.1661	NP Inter
Cobalt (mg/L)	n/a	0.00362	n/a	n/a	n/a	35	80	n/a	0.1661	NP Inter
Combined Radium 226 + 228 (pCi/L)	n/a	1.25	n/a	n/a	n/a	35	0	n/a	0.1661	NP Inter
Fluoride (mg/L)	n/a	0.278	n/a	n/a	n/a	37	0	n/a	0.1499	NP Inter
Lead (mg/L)	n/a	0.00189	n/a	n/a	n/a	35	91.43	n/a	0.1661	NP Inter
Lithium (mg/L)	n/a	0.0809	n/a	n/a	n/a	35	54.29	n/a	0.1661	NP Inter
Mercury (mg/L)	n/a	0.0005	n/a	n/a	n/a	35	100	n/a	0.1661	NP Inter
Molybdenum (mg/L)	n/a	0.00906	n/a	n/a	n/a	35	82.86	n/a	0.1661	NP Inter
Selenium (mg/L)	n/a	0.00102	n/a	n/a	n/a	35	100	n/a	0.1661	NP Inter
Thallium (mg/L)	n/a	0.0002	n/a	n/a	n/a	35	100	n/a	0.1661	NP Inter

FIGURE G.

<b>GORGAS ASH POND GWPS</b>			
<b>Analyte</b>	<b>Units</b>	<b>Background</b>	<b>GWPS</b>
Antimony	mg/L	0.00115	0.006
Arsenic	mg/L	0.005	0.01
Barium	mg/L	0.353	2
Beryllium	mg/L	0.00102	0.004
Cadmium	mg/L	0.0002	0.005
Chromium	mg/L	0.01	0.1
Cobalt	mg/L	0.00362	0.006
Combined Radium-226/228	pCi/L	1.25	5
Fluoride	mg/L	0.278	4
Lead	mg/L	0.00189	0.015
Lithium	mg/L	0.0809	0.0809
Mercury	mg/L	0.0005	0.002
Molybdenum	mg/L	0.00906	0.1
Selenium	mg/L	0.00102	0.05
Thallium	mg/L	0.0002	0.002

Notes:

1. mg/L - Milligrams per liter
2. pCi/L - Picocuries per liter
3. The background limits were used as the groundwater protection standard (GWPS) when appropriate under 40 CFR §257.95(h), ADEM Rule 335-13-15-.06(h), and the ADEM Variance.
4. GWPS established during second semi-annual sampling event in 2021.

FIGURE H.

# Confidence Intervals - Significant Results

Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond Printed 5/16/2022, 4:49 PM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Arsenic (mg/L)	GS-AP-MW-6D	0.1124	0.08272	0.01	Yes	8	0.09756	0.01401	0	None	No	0.01	Param.
Arsenic (mg/L)	GS-AP-MW-7	0.285	0.207	0.01	Yes	8	0.2578	0.03296	0	None	No	0.004	NP (normality)
Lithium (mg/L)	GS-AP-MW-15	0.5085	0.2515	0.0809	Yes	8	0.38	0.1212	0	None	No	0.01	Param.
Lithium (mg/L)	GS-AP-MW-21	0.3295	0.1496	0.0809	Yes	8	0.2396	0.08486	0	None	No	0.01	Param.
Lithium (mg/L)	GS-AP-MW-6D	0.3185	0.256	0.0809	Yes	8	0.2873	0.02945	0	None	No	0.01	Param.
Lithium (mg/L)	GS-AP-MW-7	0.1954	0.1463	0.0809	Yes	8	0.1709	0.02316	0	None	No	0.01	Param.
Molybdenum (mg/L)	GS-AP-MW-7	0.2157	0.1766	0.1	Yes	8	0.1961	0.01844	0	None	No	0.01	Param.



# Confidence Intervals - All Results

Plant Gorgas    Client: Southern Company    Data: Gorgas Ash Pond    Printed 5/16/2022, 4:49 PM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Antimony (mg/L)	GS-AP-MW-12	0.003069	0.000862	0.006	No	8	0.001717	0.001143	37.5	Kaplan-Meier	sqrt(x)	0.01	Param.
Antimony (mg/L)	GS-AP-MW-12V	0.001982	0.00043	0.006	No	7	0.001206	0.0006533	0	None	No	0.01	Param.
Antimony (mg/L)	GS-AP-MW-15	0.0009145	0.0006855	0.006	No	8	0.0008825	0.0001459	37.5	Kaplan-Meier	No	0.01	Param.
Antimony (mg/L)	GS-AP-MW-15V	0.003521	0.0005073	0.006	No	5	0.002014	0.0008991	0	None	No	0.01	Param.
Antimony (mg/L)	GS-AP-MW-21V	0.00102	0.000661	0.006	No	5	0.0009104	0.0001617	60	None	No	0.031	NP (NDs)
Antimony (mg/L)	GS-AP-MW-6D	0.00102	0.000828	0.006	No	8	0.000996	0.00006788	87.5	None	No	0.004	NP (NDs)
Antimony (mg/L)	GS-AP-MW-6	0.001131	0.0005876	0.006	No	8	0.0009397	0.0002121	50	Kaplan-Meier	No	0.01	Param.
Antimony (mg/L)	GS-AP-MW-7	0.00105	0.00102	0.006	No	8	0.001024	0.00001061	87.5	Kaplan-Meier	No	0.004	NP (NDs)
Arsenic (mg/L)	GS-AP-MW-12	0.01573	0.002991	0.01	No	8	0.009359	0.006008	0	None	No	0.01	Param.
Arsenic (mg/L)	GS-AP-MW-12V	0.002474	0.000923	0.01	No	7	0.001699	0.0006529	14.29	None	No	0.01	Param.
Arsenic (mg/L)	GS-AP-MW-15	0.01829	0.007251	0.01	No	8	0.01277	0.005205	0	None	No	0.01	Param.
Arsenic (mg/L)	GS-AP-MW-15V	0.01901	0.006112	0.01	No	5	0.01256	0.003848	0	None	No	0.01	Param.
Arsenic (mg/L)	GS-AP-MW-16D	0.0025	0.0001	0.01	No	8	0.001651	0.001177	62.5	None	No	0.004	NP (NDs)
Arsenic (mg/L)	GS-AP-MW-17	0.00557	0.001415	0.01	No	8	0.003493	0.00196	0	None	No	0.01	Param.
Arsenic (mg/L)	GS-AP-MW-19	0.003218	0.001387	0.01	No	8	0.002303	0.0008633	0	None	No	0.01	Param.
Arsenic (mg/L)	GS-AP-MW-21	0.0025	0.00046	0.01	No	8	0.001765	0.001015	62.5	None	No	0.004	NP (NDs)
Arsenic (mg/L)	GS-AP-MW-21V	0.0169	-0.001169	0.01	No	5	0.007864	0.005391	0	None	No	0.01	Param.
<b>Arsenic (mg/L)</b>	<b>GS-AP-MW-6D</b>	<b>0.1124</b>	<b>0.08272</b>	<b>0.01</b>	<b>Yes</b>	<b>8</b>	<b>0.09756</b>	<b>0.01401</b>	<b>0</b>	<b>None</b>	<b>No</b>	<b>0.01</b>	<b>Param.</b>
Arsenic (mg/L)	GS-AP-MW-6	0.01251	0.005911	0.01	No	8	0.009144	0.003389	0	None	sqrt(x)	0.01	Param.
<b>Arsenic (mg/L)</b>	<b>GS-AP-MW-7</b>	<b>0.285</b>	<b>0.207</b>	<b>0.01</b>	<b>Yes</b>	<b>8</b>	<b>0.2578</b>	<b>0.03296</b>	<b>0</b>	<b>None</b>	<b>No</b>	<b>0.004</b>	<b>NP (normality)</b>
Arsenic (mg/L)	GS-AP-MW-9V	0.0003914	0.00008019	0.01	No	5	0.001126	0.001256	40	Kaplan-Meier	x^(1/3)	0.01	Param.
Barium (mg/L)	GS-AP-MW-12	0.2016	0.1671	2	No	8	0.1848	0.01767	0	None	x*5	0.01	Param.
Barium (mg/L)	GS-AP-MW-12V	1.532	1.074	2	No	7	1.303	0.1925	0	None	No	0.01	Param.
Barium (mg/L)	GS-AP-MW-15	0.271	0.0913	2	No	8	0.1599	0.06805	0	None	No	0.004	NP (normality)
Barium (mg/L)	GS-AP-MW-15V	0.2141	0.1455	2	No	5	0.1798	0.0205	0	None	No	0.01	Param.
Barium (mg/L)	GS-AP-MW-16D	0.3469	0.3211	2	No	8	0.334	0.01213	0	None	No	0.01	Param.
Barium (mg/L)	GS-AP-MW-17	0.135	0.0883	2	No	8	0.1038	0.01811	0	None	No	0.004	NP (normality)
Barium (mg/L)	GS-AP-MW-19	0.3562	0.3238	2	No	8	0.34	0.01532	0	None	No	0.01	Param.
Barium (mg/L)	GS-AP-MW-2	0.06558	0.05192	2	No	8	0.05875	0.006444	0	None	No	0.01	Param.
Barium (mg/L)	GS-AP-MW-21	0.1544	0.09569	2	No	8	0.125	0.02769	0	None	No	0.01	Param.
Barium (mg/L)	GS-AP-MW-21V	0.07222	0.0261	2	No	5	0.04916	0.01376	0	None	No	0.01	Param.
Barium (mg/L)	GS-AP-MW-6D	0.8806	0.4254	2	No	8	0.653	0.2147	0	None	No	0.01	Param.
Barium (mg/L)	GS-AP-MW-6	0.1208	0.07153	2	No	8	0.09615	0.02323	0	None	No	0.01	Param.
Barium (mg/L)	GS-AP-MW-7	0.1429	0.06267	2	No	8	0.1028	0.03783	0	None	No	0.01	Param.
Barium (mg/L)	GS-AP-MW-9V	0.2167	0.1425	2	No	5	0.1796	0.02213	0	None	No	0.01	Param.
Beryllium (mg/L)	GS-AP-MW-16D	0.00109	0.00102	0.004	No	8	0.001029	0.00002475	87.5	None	No	0.004	NP (NDs)
Beryllium (mg/L)	GS-AP-MW-2	0.00102	0.00102	0.004	No	8	0.00102	0	100	None	No	0.004	NP (NDs)
Beryllium (mg/L)	GS-AP-MW-6	0.00102	0.000794	0.004	No	8	0.0009917	0.0000799	87.5	None	No	0.004	NP (NDs)
Chromium (mg/L)	GS-AP-MW-12	0.00102	0.00031	0.1	No	8	0.0009312	0.000251	87.5	None	No	0.004	NP (NDs)
Chromium (mg/L)	GS-AP-MW-12V	0.005688	-0.00009377	0.1	No	7	0.002797	0.002434	14.29	None	No	0.01	Param.
Chromium (mg/L)	GS-AP-MW-15	0.00102	0.00048	0.1	No	8	0.0008875	0.0002034	62.5	None	No	0.004	NP (NDs)
Chromium (mg/L)	GS-AP-MW-15V	0.007384	0.00002359	0.1	No	5	0.00242	0.002755	0	None	sqrt(x)	0.01	Param.
Chromium (mg/L)	GS-AP-MW-16D	0.00107	0.00025	0.1	No	8	0.0008875	0.0002855	62.5	None	No	0.004	NP (NDs)
Chromium (mg/L)	GS-AP-MW-17	0.00255	0.00034	0.1	No	8	0.00105	0.0006728	62.5	None	No	0.004	NP (NDs)
Chromium (mg/L)	GS-AP-MW-19	0.00102	0.000258	0.1	No	8	0.0008372	0.0003388	75	None	No	0.004	NP (NDs)
Chromium (mg/L)	GS-AP-MW-2	0.00102	0.00044	0.1	No	8	0.0008619	0.000248	62.5	None	No	0.004	NP (NDs)
Chromium (mg/L)	GS-AP-MW-21	0.00102	0.0004	0.1	No	8	0.0008281	0.0002801	62.5	None	No	0.004	NP (NDs)
Chromium (mg/L)	GS-AP-MW-21V	0.001222	-0.0001834	0.1	No	5	0.0008016	0.0004688	40	Kaplan-Meier	No	0.01	Param.
Chromium (mg/L)	GS-AP-MW-6D	0.00102	0.00024	0.1	No	8	0.0007305	0.0003996	62.5	Kaplan-Meier	No	0.004	NP (NDs)
Chromium (mg/L)	GS-AP-MW-6	0.00102	0.00024	0.1	No	8	0.0007335	0.0003955	62.5	Kaplan-Meier	No	0.004	NP (NDs)
Chromium (mg/L)	GS-AP-MW-7	0.005355	0.0005285	0.1	No	8	0.003316	0.002375	25	Kaplan-Meier	No	0.01	Param.
Chromium (mg/L)	GS-AP-MW-9V	0.00102	0.000228	0.1	No	5	0.0007156	0.0004174	60	Kaplan-Meier	No	0.031	NP (NDs)
Cobalt (mg/L)	GS-AP-MW-12V	0.001363	0.00008055	0.006	No	7	0.0007457	0.0009803	42.86	Kaplan-Meier	ln(x)	0.01	Param.
Cobalt (mg/L)	GS-AP-MW-15	0.0002	0.00009	0.006	No	8	0.0001862	0.00003889	87.5	Kaplan-Meier	No	0.004	NP (NDs)
Cobalt (mg/L)	GS-AP-MW-16D	0.000252	0.00009	0.006	No	8	0.0001927	0.00004533	75	Kaplan-Meier	No	0.004	NP (NDs)
Cobalt (mg/L)	GS-AP-MW-17	0.0002	0.000102	0.006	No	8	0.0001877	0.00003465	87.5	Kaplan-Meier	No	0.004	NP (NDs)
Cobalt (mg/L)	GS-AP-MW-6	0.000663	0.0002	0.006	No	8	0.0003691	0.0002335	62.5	Kaplan-Meier	No	0.004	NP (NDs)
Cobalt (mg/L)	GS-AP-MW-7	0.00381	0.0009129	0.006	No	8	0.001821	0.001613	25	Kaplan-Meier	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	GS-AP-MW-12	0.9125	0.3477	5	No	8	0.6301	0.2664	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	GS-AP-MW-12V	1.41	0.5664	5	No	7	0.9881	0.355	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	GS-AP-MW-15	0.9239	0.1663	5	No	8	0.5451	0.3574	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	GS-AP-MW-15V	1.165	0.2678	5	No	5	0.7162	0.2676	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	GS-AP-MW-16D	0.8132	0.08525	5	No	8	0.4493	0.3434	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	GS-AP-MW-17	1.471	0.03889	5	No	8	0.6978	0.815	0	None	sqrt(x)	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	GS-AP-MW-19	1.573	0.4756	5	No	8	1.024	0.5175	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	GS-AP-MW-2	1.484	0.1457	5	No	8	0.8573	1.286	0	None	ln(x)	0.01	Param.

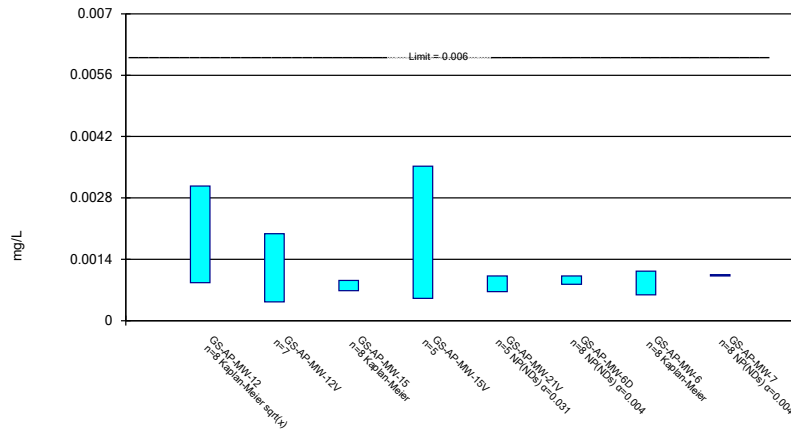
# Confidence Intervals - All Results

Plant Gorgas    Client: Southern Company    Data: Gorgas Ash Pond    Printed 5/16/2022, 4:49 PM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Combined Radium 226 + 228 (pCi/L)	GS-AP-MW-21	0.8491	0.3681	5	No	8	0.6086	0.2269	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	GS-AP-MW-21V	1.09	0.3748	5	No	5	0.7322	0.2133	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	GS-AP-MW-6D	0.992	0.412	5	No	8	0.702	0.2736	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	GS-AP-MW-6	1.119	0.3466	5	No	8	0.7328	0.3643	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	GS-AP-MW-7	1.404	0.3467	5	No	8	0.8751	0.4985	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	GS-AP-MW-9V	1.045	0.036	5	No	5	0.375	0.3359	0	None	x^(1/3)	0.01	Param.
Fluoride (mg/L)	GS-AP-MW-12	0.23	0.12	4	No	8	0.1516	0.0404	0	None	No	0.004	NP (normality)
Fluoride (mg/L)	GS-AP-MW-12V	0.1977	0.1537	4	No	7	0.1757	0.01854	0	None	No	0.01	Param.
Fluoride (mg/L)	GS-AP-MW-15	0.7064	0.4223	4	No	8	0.5644	0.134	0	None	No	0.01	Param.
Fluoride (mg/L)	GS-AP-MW-15V	0.396	0.176	4	No	5	0.286	0.06565	0	None	No	0.01	Param.
Fluoride (mg/L)	GS-AP-MW-16D	0.1477	0.1035	4	No	8	0.1256	0.02084	0	None	No	0.01	Param.
Fluoride (mg/L)	GS-AP-MW-17	0.3583	0.2372	4	No	8	0.2978	0.0571	0	None	No	0.01	Param.
Fluoride (mg/L)	GS-AP-MW-19	0.3488	0.2697	4	No	8	0.3093	0.03731	0	None	No	0.01	Param.
Fluoride (mg/L)	GS-AP-MW-2	0.9152	0.809	4	No	8	0.8621	0.05008	0	None	No	0.01	Param.
Fluoride (mg/L)	GS-AP-MW-21	0.2566	0.1912	4	No	8	0.2239	0.03084	0	None	No	0.01	Param.
Fluoride (mg/L)	GS-AP-MW-21V	0.6664	0.3292	4	No	5	0.4978	0.1006	0	None	No	0.01	Param.
Fluoride (mg/L)	GS-AP-MW-6D	0.1527	0.118	4	No	8	0.1354	0.01639	0	None	No	0.01	Param.
Fluoride (mg/L)	GS-AP-MW-6	0.2517	0.13	4	No	8	0.1909	0.05739	0	None	No	0.01	Param.
Fluoride (mg/L)	GS-AP-MW-7	0.1228	0.0975	4	No	8	0.1102	0.01194	0	None	No	0.01	Param.
Fluoride (mg/L)	GS-AP-MW-9V	0.191	0.1638	4	No	5	0.1774	0.008142	0	None	No	0.01	Param.
Lead (mg/L)	GS-AP-MW-12V	0.001929	0.0001048	0.015	No	7	0.0009371	0.0009689	28.57	Kaplan-Meier	sqrt(x)	0.01	Param.
Lead (mg/L)	GS-AP-MW-15	0.0002	0.00008	0.015	No	8	0.0001709	0.00005387	75	Kaplan-Meier	No	0.004	NP (NDs)
Lead (mg/L)	GS-AP-MW-16D	0.000873	0.00016	0.015	No	8	0.0002791	0.0002404	75	Kaplan-Meier	No	0.004	NP (NDs)
Lead (mg/L)	GS-AP-MW-17	0.0002	0.000175	0.015	No	8	0.0001969	0.00008839	87.5	Kaplan-Meier	No	0.004	NP (NDs)
Lead (mg/L)	GS-AP-MW-6	0.0002	0.00008	0.015	No	8	0.000185	0.00004243	87.5	Kaplan-Meier	No	0.004	NP (NDs)
Lead (mg/L)	GS-AP-MW-7	0.003308	0.001125	0.015	No	8	0.001712	0.001335	25	Kaplan-Meier	No	0.01	Param.
Lithium (mg/L)	GS-AP-MW-12	0.04049	0.0244	0.0809	No	8	0.0323	0.008869	0	None	ln(x)	0.01	Param.
Lithium (mg/L)	GS-AP-MW-12V	0.05505	0.03098	0.0809	No	7	0.04301	0.01013	0	None	No	0.01	Param.
<b>Lithium (mg/L)</b>	<b>GS-AP-MW-15</b>	<b>0.5085</b>	<b>0.2515</b>	<b>0.0809</b>	<b>Yes</b>	<b>8</b>	<b>0.38</b>	<b>0.1212</b>	<b>0</b>	<b>None</b>	<b>No</b>	<b>0.01</b>	<b>Param.</b>
Lithium (mg/L)	GS-AP-MW-15V	0.2077	0.0417	0.0809	No	5	0.1247	0.04952	0	None	No	0.01	Param.
Lithium (mg/L)	GS-AP-MW-16D	0.03642	0.03288	0.0809	No	8	0.03465	0.001666	0	None	No	0.01	Param.
Lithium (mg/L)	GS-AP-MW-17	0.068	0.0572	0.0809	No	8	0.06111	0.004307	0	None	No	0.004	NP (normality)
Lithium (mg/L)	GS-AP-MW-19	0.04422	0.03123	0.0809	No	8	0.03773	0.006132	0	None	No	0.01	Param.
Lithium (mg/L)	GS-AP-MW-2	0.04552	0.03843	0.0809	No	8	0.04198	0.003343	0	None	No	0.01	Param.
<b>Lithium (mg/L)</b>	<b>GS-AP-MW-21</b>	<b>0.3295</b>	<b>0.1496</b>	<b>0.0809</b>	<b>Yes</b>	<b>8</b>	<b>0.2396</b>	<b>0.08486</b>	<b>0</b>	<b>None</b>	<b>No</b>	<b>0.01</b>	<b>Param.</b>
Lithium (mg/L)	GS-AP-MW-21V	0.1765	0.03891	0.0809	No	5	0.1077	0.04105	0	None	No	0.01	Param.
<b>Lithium (mg/L)</b>	<b>GS-AP-MW-6D</b>	<b>0.3185</b>	<b>0.256</b>	<b>0.0809</b>	<b>Yes</b>	<b>8</b>	<b>0.2873</b>	<b>0.02945</b>	<b>0</b>	<b>None</b>	<b>No</b>	<b>0.01</b>	<b>Param.</b>
Lithium (mg/L)	GS-AP-MW-6	0.06972	0.01818	0.0809	No	8	0.04395	0.02431	12.5	None	No	0.01	Param.
<b>Lithium (mg/L)</b>	<b>GS-AP-MW-7</b>	<b>0.1954</b>	<b>0.1463</b>	<b>0.0809</b>	<b>Yes</b>	<b>8</b>	<b>0.1709</b>	<b>0.02316</b>	<b>0</b>	<b>None</b>	<b>No</b>	<b>0.01</b>	<b>Param.</b>
Lithium (mg/L)	GS-AP-MW-9V	0.03147	0.02869	0.0809	No	5	0.03008	0.0008319	0	None	No	0.01	Param.
Molybdenum (mg/L)	GS-AP-MW-12	0.00903	0.00444	0.1	No	8	0.005835	0.001704	37.5	None	No	0.004	NP (normality)
Molybdenum (mg/L)	GS-AP-MW-12V	0.00715	0.0006276	0.1	No	7	0.003889	0.002745	0	None	No	0.01	Param.
Molybdenum (mg/L)	GS-AP-MW-15	0.07362	0.03743	0.1	No	8	0.05553	0.01708	0	None	No	0.01	Param.
Molybdenum (mg/L)	GS-AP-MW-15V	0.06049	0.01831	0.1	No	5	0.0394	0.01259	0	None	No	0.01	Param.
Molybdenum (mg/L)	GS-AP-MW-16D	0.005	0.00014	0.1	No	8	0.003269	0.002394	62.5	None	No	0.004	NP (NDs)
Molybdenum (mg/L)	GS-AP-MW-17	0.008695	0.002365	0.1	No	8	0.00553	0.002986	0	None	No	0.01	Param.
Molybdenum (mg/L)	GS-AP-MW-19	0.006817	0.00317	0.1	No	8	0.004994	0.001721	0	None	No	0.01	Param.
Molybdenum (mg/L)	GS-AP-MW-2	0.005472	0.001865	0.1	No	8	0.003616	0.001944	0	None	sqrt(x)	0.01	Param.
Molybdenum (mg/L)	GS-AP-MW-21	0.08602	0.02518	0.1	No	8	0.0556	0.0287	0	None	No	0.01	Param.
Molybdenum (mg/L)	GS-AP-MW-21V	0.1464	0.03628	0.1	No	5	0.09132	0.03284	0	None	No	0.01	Param.
Molybdenum (mg/L)	GS-AP-MW-6D	0.01081	0.006782	0.1	No	8	0.008795	0.001899	0	None	No	0.01	Param.
Molybdenum (mg/L)	GS-AP-MW-6	0.04298	0.004773	0.1	No	8	0.02388	0.01802	0	None	No	0.01	Param.
<b>Molybdenum (mg/L)</b>	<b>GS-AP-MW-7</b>	<b>0.2157</b>	<b>0.1766</b>	<b>0.1</b>	<b>Yes</b>	<b>8</b>	<b>0.1961</b>	<b>0.01844</b>	<b>0</b>	<b>None</b>	<b>No</b>	<b>0.01</b>	<b>Param.</b>
Molybdenum (mg/L)	GS-AP-MW-9V	0.003353	0.0002661	0.1	No	5	0.003086	0.001921	40	Kaplan-Meier	No	0.01	Param.
Selenium (mg/L)	GS-AP-MW-6	0.01	0.000794	0.05	No	8	0.00661	0.00468	62.5	None	No	0.004	NP (NDs)

### Parametric and Non-Parametric (NP) Confidence Interval

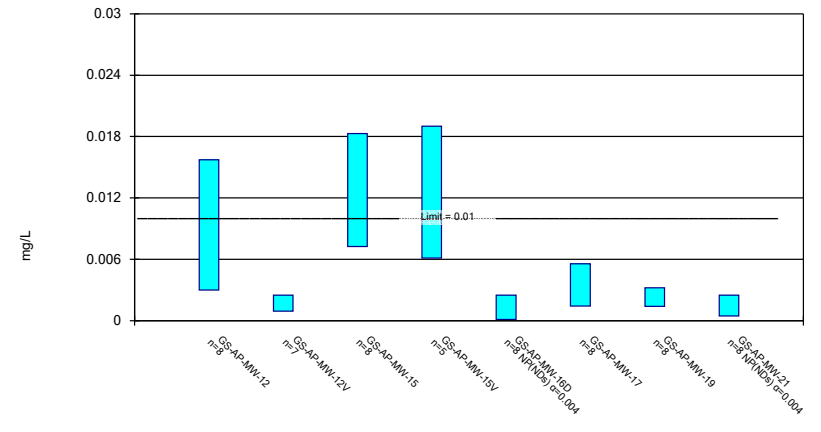
Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Antimony Analysis Run 5/16/2022 4:47 PM View: Appendix IV - Confidence Intervals  
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

### Parametric and Non-Parametric (NP) Confidence Interval

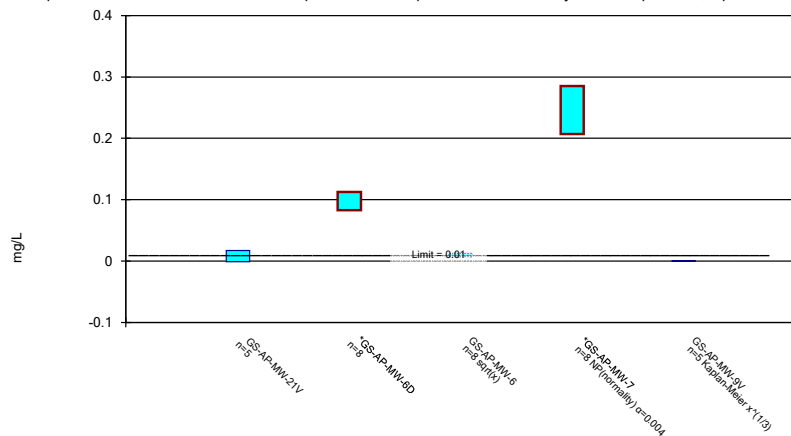
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Constituent: Arsenic Analysis Run 5/16/2022 4:48 PM View: Appendix IV - Confidence Intervals  
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

### Parametric and Non-Parametric (NP) Confidence Interval

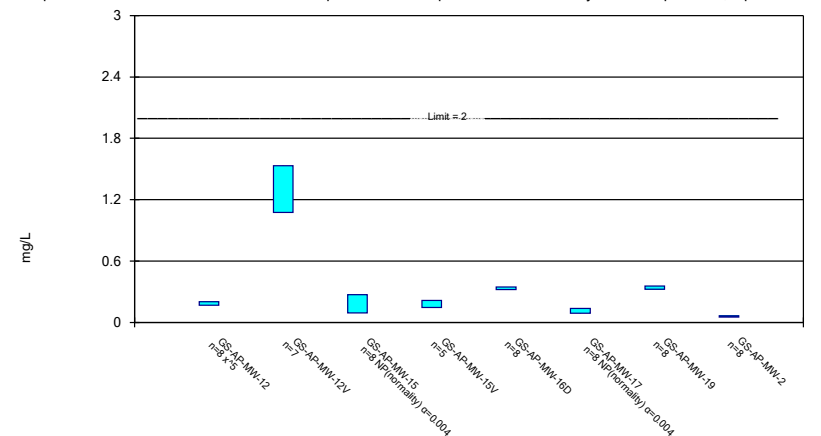
Compliance limit is exceeded.\* Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Arsenic Analysis Run 5/16/2022 4:48 PM View: Appendix IV - Confidence Intervals  
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

### Parametric and Non-Parametric (NP) Confidence Interval

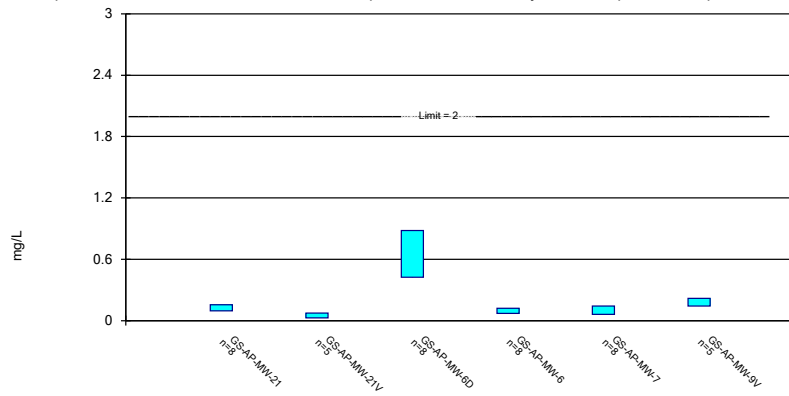
Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Barium Analysis Run 5/16/2022 4:48 PM View: Appendix IV - Confidence Intervals  
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

### Parametric Confidence Interval

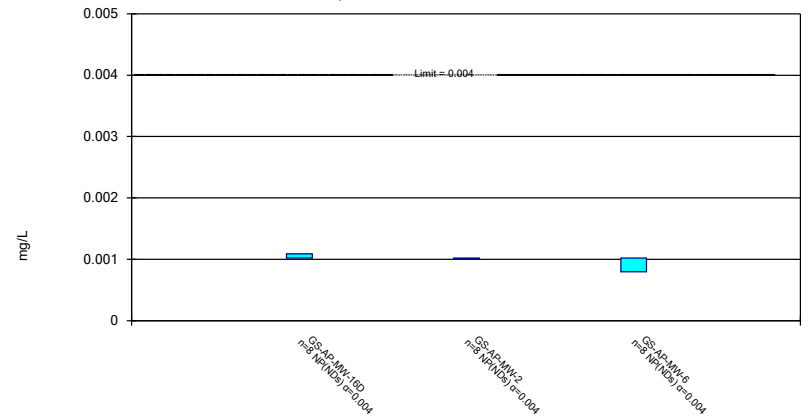
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Constituent: Barium Analysis Run 5/16/2022 4:48 PM View: Appendix IV - Confidence Intervals  
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

### Non-Parametric Confidence Interval

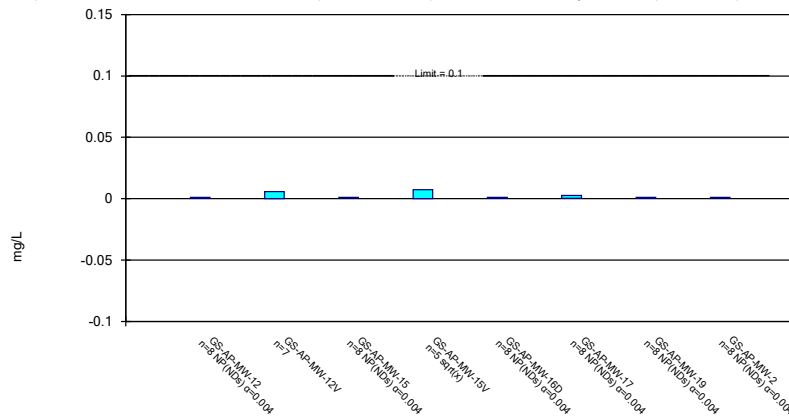
Compliance Limit is not exceeded.



Constituent: Beryllium Analysis Run 5/16/2022 4:48 PM View: Appendix IV - Confidence Intervals  
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

### Parametric and Non-Parametric (NP) Confidence Interval

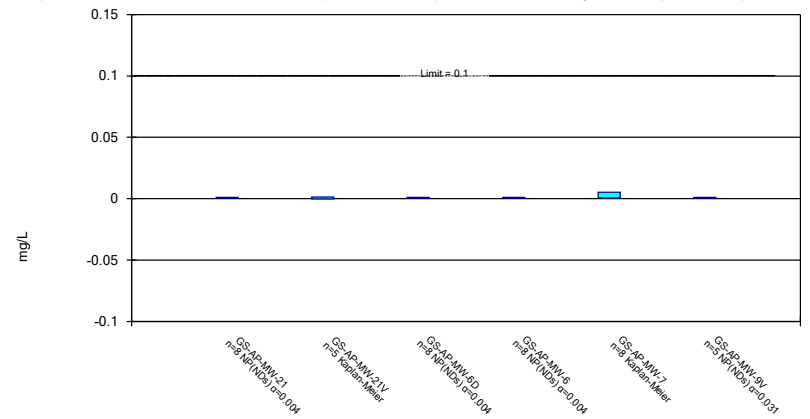
Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Chromium Analysis Run 5/16/2022 4:48 PM View: Appendix IV - Confidence Intervals  
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

### Parametric and Non-Parametric (NP) Confidence Interval

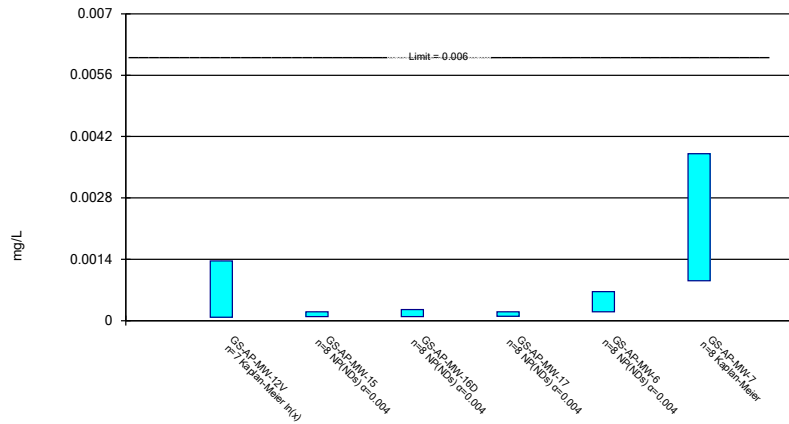
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Constituent: Chromium Analysis Run 5/16/2022 4:48 PM View: Appendix IV - Confidence Intervals  
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

### Parametric and Non-Parametric (NP) Confidence Interval

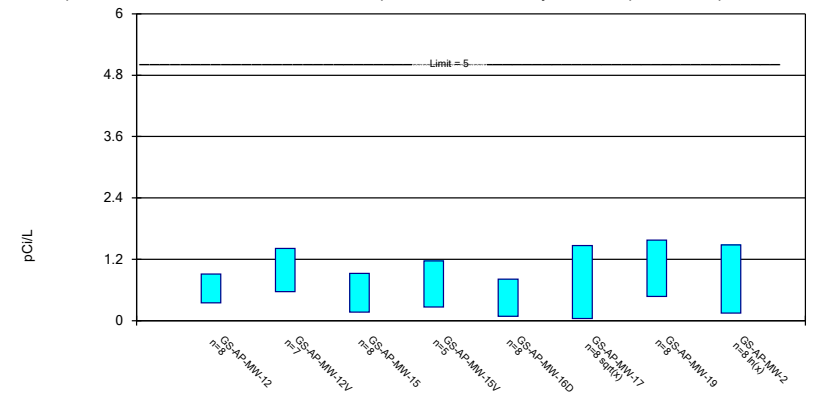
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Constituent: Cobalt Analysis Run 5/16/2022 4:48 PM View: Appendix IV - Confidence Intervals  
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

### Parametric Confidence Interval

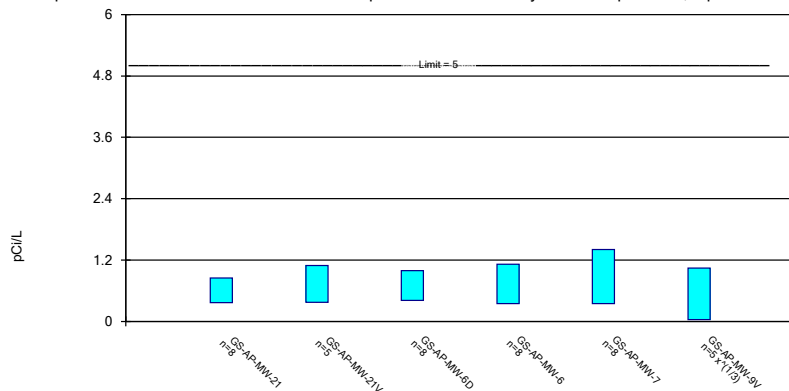
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Combined Radium 226 + 228 Analysis Run 5/16/2022 4:48 PM View: Appendix IV - Confiden  
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

### Parametric Confidence Interval

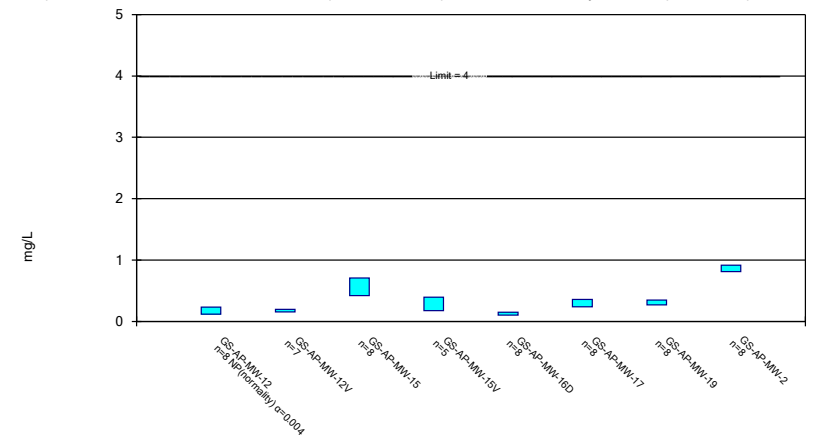
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Combined Radium 226 + 228 Analysis Run 5/16/2022 4:48 PM View: Appendix IV - Confiden  
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

### Parametric and Non-Parametric (NP) Confidence Interval

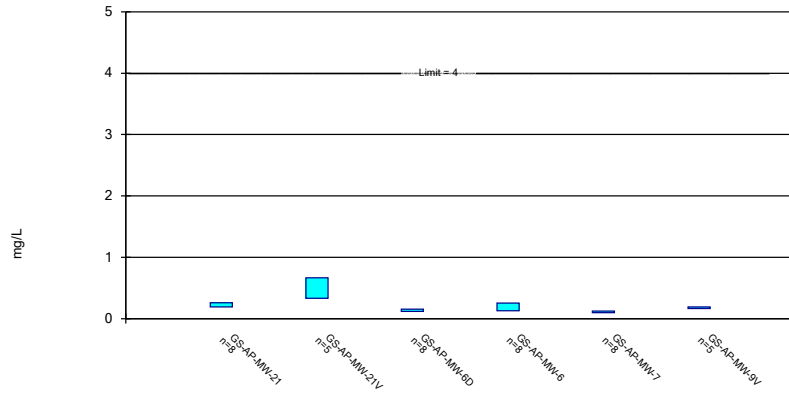
Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Fluoride Analysis Run 5/16/2022 4:48 PM View: Appendix IV - Confidence Intervals  
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

### Parametric Confidence Interval

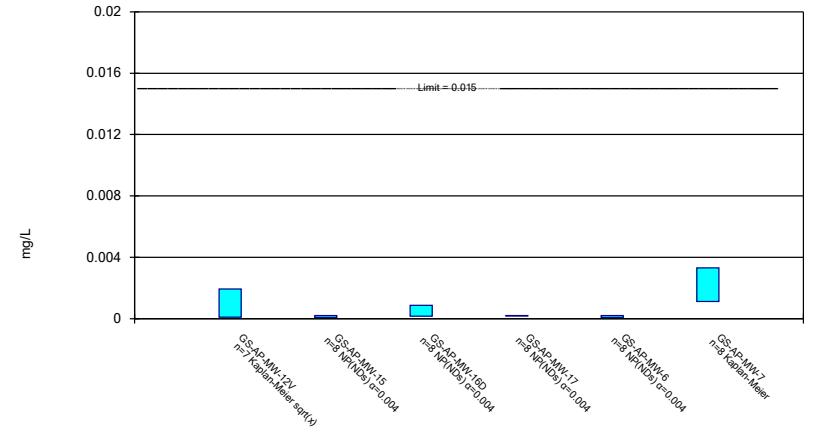
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Fluoride Analysis Run 5/16/2022 4:48 PM View: Appendix IV - Confidence Intervals  
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

### Parametric and Non-Parametric (NP) Confidence Interval

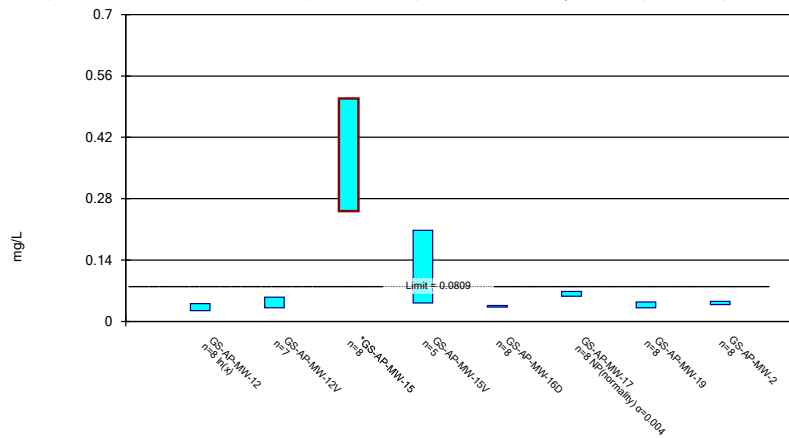
Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Lead Analysis Run 5/16/2022 4:48 PM View: Appendix IV - Confidence Intervals  
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

### Parametric and Non-Parametric (NP) Confidence Interval

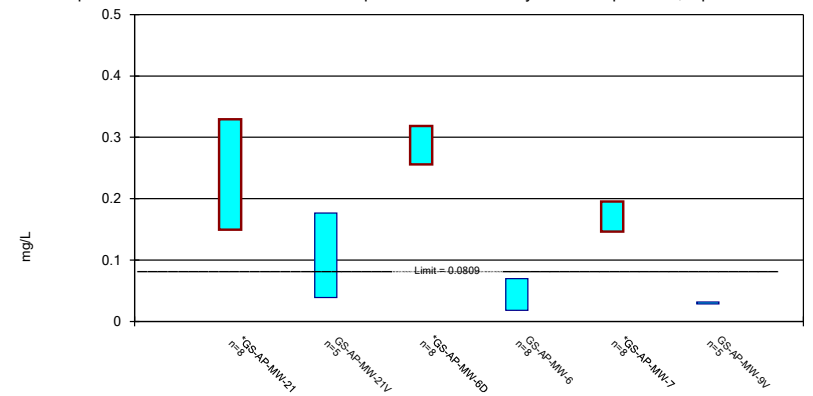
Compliance limit is exceeded.\* Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Lithium Analysis Run 5/16/2022 4:48 PM View: Appendix IV - Confidence Intervals  
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

### Parametric Confidence Interval

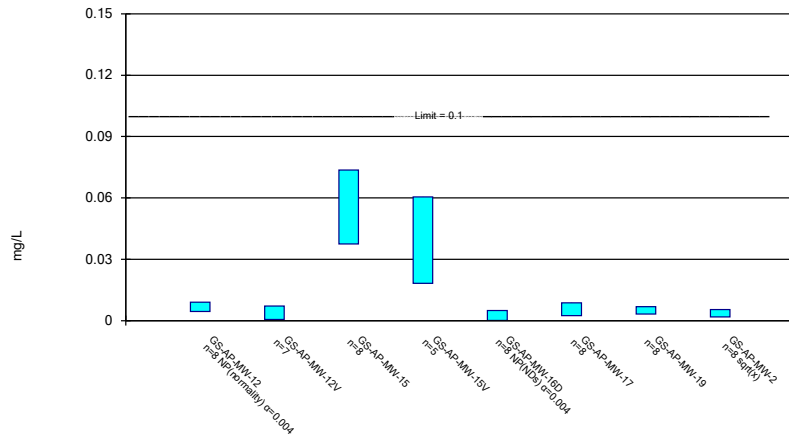
Compliance limit is exceeded.\* Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Lithium Analysis Run 5/16/2022 4:48 PM View: Appendix IV - Confidence Intervals  
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

### Parametric and Non-Parametric (NP) Confidence Interval

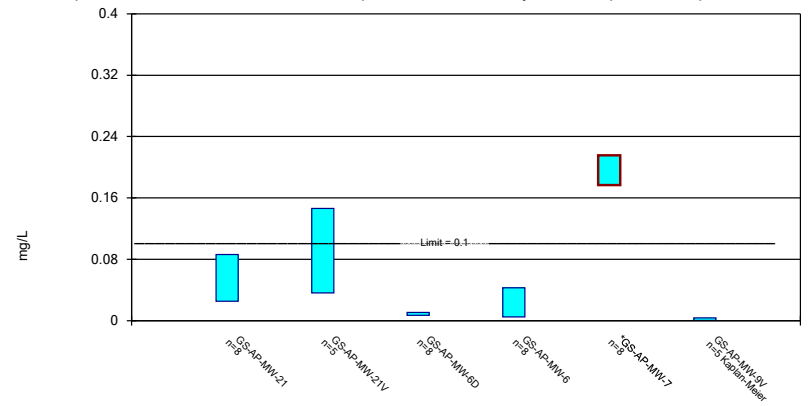
Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Molybdenum Analysis Run 5/16/2022 4:48 PM View: Appendix IV - Confidence Intervals  
 Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

### Parametric Confidence Interval

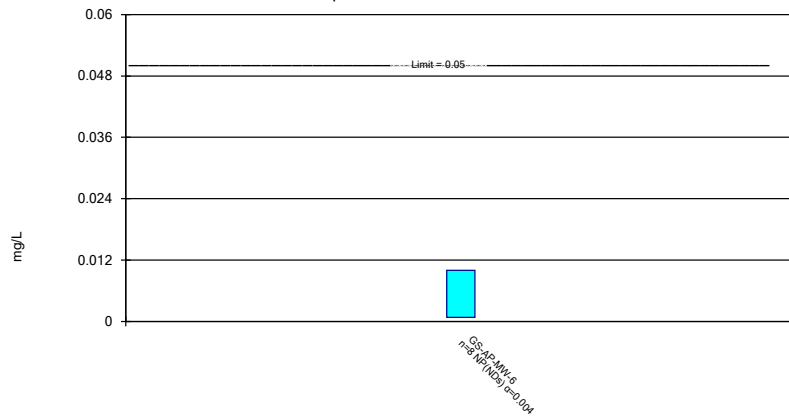
Compliance limit is exceeded.\* Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Molybdenum Analysis Run 5/16/2022 4:48 PM View: Appendix IV - Confidence Intervals  
 Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

### Non-Parametric Confidence Interval

Compliance Limit is not exceeded.



Constituent: Selenium Analysis Run 5/16/2022 4:48 PM View: Appendix IV - Confidence Intervals  
 Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

# Confidence Interval

Constituent: Antimony (mg/L) Analysis Run 5/16/2022 4:49 PM View: Appendix IV - Confidence Intervals

Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-12	GS-AP-MW-12V	GS-AP-MW-15	GS-AP-MW-15V	GS-AP-MW-21V	GS-AP-MW-6D	GS-AP-MW-6	GS-AP-MW-7
10/15/2018			<0.00102			<0.00102	<0.00102	<0.00102
10/16/2018	<0.00102							
2/21/2019		0.000841 (J)						
4/16/2019	<0.00102					0.000828 (J)	<0.00102	
4/17/2019			<0.00102					
4/23/2019								0.00105 (J)
9/23/2019						<0.00102	<0.00102	
9/24/2019			<0.00102					<0.00102
9/25/2019	<0.00102	0.0025 (J)						
3/17/2020						<0.00102	<0.00102	<0.00102
3/18/2020	0.0022 (J)		0.000976 (J)	0.0028 (J)				
3/23/2020					0.000831 (J)			
3/24/2020		0.00128 (J)						
9/16/2020							0.000948 (J)	<0.00102
9/17/2020						<0.00102		
9/21/2020				0.0028 (J)				
9/23/2020	0.00202 (J)	0.00152 (J)	0.000844 (J)		<0.00102			
2/1/2021	0.000518 (J)	0.000861 (J)						
2/2/2021								<0.00102
2/3/2021						<0.00102	0.00055 (J)	
2/9/2021			0.00075 (J)	0.00237	0.000661 (J)			
7/27/2021						<0.00102	0.00123	
8/3/2021			0.00065 (J)	0.00097 (J)				
8/9/2021	0.00179	0.00089 (J)						<0.00102
8/11/2021					<0.00102			
2/8/2022					<0.00102			<0.00102
2/14/2022						<0.00102	0.00071 (J)	
2/16/2022			0.00078 (J)	0.00113				
2/23/2022		0.00055 (J)						
2/28/2022	0.00415							
Mean	0.001717	0.001206	0.0008825	0.002014	0.0009104	0.000996	0.0009397	0.001024
Std. Dev.	0.001143	0.0006533	0.0001459	0.0008991	0.0001617	6.788E-05	0.0002121	1.061E-05
Upper Lim.	0.003069	0.001982	0.0009145	0.003521	0.00102	0.00102	0.001131	0.00105
Lower Lim.	0.000862	0.00043	0.0006855	0.0005073	0.000661	0.000828	0.0005876	0.00102



# Confidence Interval

Constituent: Arsenic (mg/L) Analysis Run 5/16/2022 4:49 PM View: Appendix IV - Confidence Intervals

Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-12	GS-AP-MW-12V	GS-AP-MW-15	GS-AP-MW-15V	GS-AP-MW-16D	GS-AP-MW-17	GS-AP-MW-19	GS-AP-MW-21
10/15/2018			0.0123					
10/16/2018	0.0203						0.00216 (J)	<0.005
10/17/2018					<0.005			
2/21/2019		<0.005						
4/16/2019	0.014							
4/17/2019			0.00633		<0.005	0.00343 (J)	0.00302 (J)	<0.005
9/23/2019						0.00631		
9/24/2019			0.011		<0.005		0.00289 (J)	<0.005
9/25/2019	0.0135	0.00129 (J)						
3/16/2020						0.00268 (J)		
3/18/2020	0.00693		0.0217	0.011				<0.005
3/24/2020		0.00266 (J)			<0.005		0.00313 (J)	
5/12/2020						0.00326 (J)		
9/21/2020				0.0167		0.0055		
9/22/2020					<0.005		0.00313 (J)	
9/23/2020	0.00616	0.00176 (J)	0.0165					<0.005
2/1/2021	0.00747	0.00154						
2/2/2021						0.00478		
2/8/2021							0.00178	0.000624
2/9/2021			0.0145	0.0165				
2/10/2021					0.000491			
8/3/2021			0.0139	0.0105		0.00086		
8/4/2021								0.00054
8/9/2021	0.00308	0.00112			0.0001 (J)			
8/10/2021							0.00133	
2/8/2022								0.00046
2/14/2022						0.00112		
2/15/2022					0.00012 (J)			
2/16/2022			0.00592	0.0081				
2/22/2022							0.00098	
2/23/2022		0.00102						
2/28/2022	0.00343							
Mean	0.009359	0.001699	0.01277	0.01256	0.001651	0.003493	0.002303	0.001765
Std. Dev.	0.006008	0.0006529	0.005205	0.003848	0.001177	0.00196	0.0008633	0.001015
Upper Lim.	0.01573	0.002474	0.01829	0.01901	0.0025	0.00557	0.003218	0.0025
Lower Lim.	0.002991	0.000923	0.007251	0.006112	0.0001	0.001415	0.001387	0.00046

# Confidence Interval

Constituent: Arsenic (mg/L) Analysis Run 5/16/2022 4:49 PM View: Appendix IV - Confidence Intervals

Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-21V	GS-AP-MW-6D	GS-AP-MW-6	GS-AP-MW-7	GS-AP-MW-9V
10/15/2018		0.0758	0.00832	0.217	
4/16/2019		0.088	0.0164		
4/23/2019				0.207	
9/23/2019		0.0876	0.0105		
9/24/2019				0.233	
3/17/2020		0.105	0.00778	0.285	
3/23/2020	0.0159				<0.005
9/16/2020			0.00611	0.282	
9/17/2020		0.0931			
9/22/2020					<0.005
9/23/2020	0.01				
2/2/2021				0.275	0.000101 (J)
2/3/2021		0.104	0.0071		
2/9/2021	0.0063				
7/27/2021		0.107	0.00634		
8/9/2021				0.282	
8/10/2021					0.00032
8/11/2021	0.00161				
2/8/2022	0.00551			0.281	
2/14/2022		0.12	0.0106		
2/21/2022					0.00021
Mean	0.007864	0.09756	0.009144	0.2578	0.001126
Std. Dev.	0.005391	0.01401	0.003389	0.03296	0.001256
Upper Lim.	0.0169	0.1124	0.01251	0.285	0.0003914
Lower Lim.	-0.001169	0.08272	0.005911	0.207	8.019E-05

# Confidence Interval

Constituent: Barium (mg/L) Analysis Run 5/16/2022 4:49 PM View: Appendix IV - Confidence Intervals

Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-12	GS-AP-MW-12V	GS-AP-MW-15	GS-AP-MW-15V	GS-AP-MW-16D	GS-AP-MW-17	GS-AP-MW-19	GS-AP-MW-2
10/15/2018			0.133					
10/16/2018	0.159						0.35	
10/17/2018					0.331			
2/21/2019		1.35						
4/16/2019	0.161							
4/17/2019			0.264		0.322	0.0946	0.316	0.0576
9/23/2019						0.135		
9/24/2019			0.0913		0.342		0.356	
9/25/2019	0.202	1.06						0.065
3/16/2020						0.0883		
3/18/2020	0.195		0.14	0.155				
3/24/2020		1.43			0.323		0.324	
3/25/2020								0.0602
5/12/2020						0.0941		
5/13/2020								0.0528
9/21/2020				0.18		0.128		
9/22/2020					0.342		0.337	0.0563
9/23/2020	0.193	1.27	0.119					
2/1/2021	0.201	1.6						0.0578
2/2/2021						0.107		
2/8/2021							0.36	
2/9/2021			0.132	0.2				
2/10/2021					0.356			
8/3/2021			0.129	0.164		0.0889		
8/4/2021								0.0702
8/9/2021	0.194	1.07			0.334			
8/10/2021							0.343	
2/14/2022						0.0945		
2/15/2022					0.322			
2/16/2022			0.271	0.2				
2/22/2022							0.334	0.0501
2/23/2022		1.34						
2/28/2022	0.173							
Mean	0.1848	1.303	0.1599	0.1798	0.334	0.1038	0.34	0.05875
Std. Dev.	0.01767	0.1925	0.06805	0.0205	0.01213	0.01811	0.01532	0.006444
Upper Lim.	0.2016	1.532	0.271	0.2141	0.3469	0.135	0.3562	0.06558
Lower Lim.	0.1671	1.074	0.0913	0.1455	0.3211	0.0883	0.3238	0.05192

# Confidence Interval

Constituent: Barium (mg/L) Analysis Run 5/16/2022 4:49 PM View: Appendix IV - Confidence Intervals

Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-21	GS-AP-MW-21V	GS-AP-MW-6D	GS-AP-MW-6	GS-AP-MW-7	GS-AP-MW-9V
10/15/2018			0.896	0.118	0.049	
10/16/2018	0.0909					
4/16/2019			0.879	0.124		
4/17/2019	0.0914					
4/23/2019					0.113	
9/23/2019			0.903	0.124		
9/24/2019	0.114				0.0834	
3/17/2020			0.638	0.0725	0.174	
3/18/2020	0.105					
3/23/2020		0.0574				0.215
9/16/2020				0.0682	0.124	
9/17/2020			0.378			
9/22/2020						0.187
9/23/2020	0.157	0.0438				
2/2/2021					0.115	0.17
2/3/2021			0.443	0.0779		
2/8/2021	0.151					
2/9/2021		0.028				
7/27/2021			0.488	0.0876		
8/4/2021	0.148					
8/9/2021					0.0891	
8/10/2021						0.165
8/11/2021		0.0535				
2/8/2022	0.143	0.0631			0.0747	
2/14/2022			0.599	0.097		
2/21/2022						0.161
Mean	0.125	0.04916	0.653	0.09615	0.1028	0.1796
Std. Dev.	0.02769	0.01376	0.2147	0.02323	0.03783	0.02213
Upper Lim.	0.1544	0.07222	0.8806	0.1208	0.1429	0.2167
Lower Lim.	0.09569	0.0261	0.4254	0.07153	0.06267	0.1425

# Confidence Interval

Constituent: Beryllium (mg/L) Analysis Run 5/16/2022 4:49 PM View: Appendix IV - Confidence Intervals

Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-16D	GS-AP-MW-2	GS-AP-MW-6
10/15/2018			0.000794 (J)
10/17/2018	0.00109 (J)		
4/16/2019			<0.00102
4/17/2019	<0.00102	<0.00102	
9/23/2019			<0.00102
9/24/2019	<0.00102		
9/25/2019		<0.00102	
3/17/2020			<0.00102
3/24/2020	<0.00102		
3/25/2020		<0.00102	
5/13/2020		<0.00102	
9/16/2020			<0.00102
9/22/2020	<0.00102	<0.00102	
2/1/2021		<0.00102	
2/3/2021			<0.00102
2/10/2021	<0.00102		
7/27/2021			<0.00102
8/4/2021		<0.00102	
8/9/2021	<0.00102		
2/14/2022			<0.00102
2/15/2022	<0.00102		
2/22/2022		<0.00102	
Mean	0.001029	0.00102	0.0009917
Std. Dev.	2.475E-05	0	7.99E-05
Upper Lim.	0.00109	0.00102	0.00102
Lower Lim.	0.00102	0.00102	0.000794

# Confidence Interval

Constituent: Chromium (mg/L) Analysis Run 5/16/2022 4:49 PM View: Appendix IV - Confidence Intervals

Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-12	GS-AP-MW-12V	GS-AP-MW-15	GS-AP-MW-15V	GS-AP-MW-16D	GS-AP-MW-17	GS-AP-MW-19	GS-AP-MW-2
10/15/2018			<0.00102					
10/16/2018	<0.00102						<0.00102	
10/17/2018					<0.00102			
2/21/2019		<0.00102						
4/16/2019	<0.00102							
4/17/2019			<0.00102		<0.00102	<0.00102	<0.00102	<0.00102
9/23/2019						<0.00102		
9/24/2019			<0.00102		<0.00102		<0.00102	
9/25/2019	<0.00102	0.00202 (J)						<0.00102
3/16/2020						<0.00102		
3/18/2020	<0.00102		<0.00102	0.00716 (J)				
3/24/2020		0.00774 (J)			<0.00102		<0.00102	
3/25/2020								<0.00102
5/12/2020						<0.00102		
5/13/2020								<0.00102
9/21/2020				0.00239 (J)		<0.00102		
9/22/2020					<0.00102		<0.00102	<0.00102
9/23/2020	<0.00102	0.00362 (J)	<0.00102					
2/1/2021	<0.00102	0.00311						0.000505 (J)
2/2/2021						0.00255		
2/8/2021							0.000258 (J)	
2/9/2021			0.00072 (J)	0.00142				
2/10/2021					0.00107			
8/3/2021			0.0008 (J)	0.00051 (J)		0.00041 (J)		
8/4/2021								0.00085 (J)
8/9/2021	0.00031 (J)	0.00146			0.00068 (J)			
8/10/2021							0.00032 (J)	
2/14/2022						0.00034 (J)		
2/15/2022					0.00025 (J)			
2/16/2022			0.00048 (J)	0.00062 (J)				
2/22/2022							<0.00102	0.00044 (J)
2/23/2022		0.00061 (J)						
2/28/2022	<0.00102							
Mean	0.0009312	0.002797	0.0008875	0.00242	0.0008875	0.00105	0.0008372	0.0008619
Std. Dev.	0.000251	0.002434	0.0002034	0.002755	0.0002855	0.0006728	0.0003388	0.000248
Upper Lim.	0.00102	0.005688	0.00102	0.007384	0.00107	0.00255	0.00102	0.00102
Lower Lim.	0.00031	-9.377E-05	0.00048	2.359E-06	0.00025	0.00034	0.000258	0.00044

# Confidence Interval

Constituent: Chromium (mg/L) Analysis Run 5/16/2022 4:49 PM View: Appendix IV - Confidence Intervals

Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-21	GS-AP-MW-21V	GS-AP-MW-6D	GS-AP-MW-6	GS-AP-MW-7	GS-AP-MW-9V
10/15/2018			<0.00102	<0.00102	<0.00102	
10/16/2018	<0.00102					
4/16/2019			<0.00102	<0.00102		
4/17/2019	<0.00102					
4/23/2019					0.00435 (J)	
9/23/2019			<0.00102	<0.00102		
9/24/2019	<0.00102				<0.00102	
3/17/2020			<0.00102	<0.00102	0.0076 (J)	
3/18/2020	<0.00102					
3/23/2020		<0.00102				<0.00102
9/16/2020				<0.00102	0.00482 (J)	
9/17/2020			<0.00102			
9/22/2020						<0.00102
9/23/2020	<0.00102	<0.00102				
2/2/2021					0.00435	0.000228 (J)
2/3/2021			0.000264 (J)	0.000268 (J)		
2/8/2021	0.000705 (J)					
2/9/2021		0.000218 (J)				
7/27/2021			0.00024 (J)	0.00024 (J)		
8/4/2021	0.00042 (J)					
8/9/2021					0.00234	
8/10/2021						0.00029 (J)
8/11/2021		0.00134				
2/8/2022	0.0004 (J)	0.00041 (J)			0.00103	
2/14/2022			0.00024 (J)	0.00026 (J)		
2/21/2022						<0.00102
Mean	0.0008281	0.0008016	0.0007305	0.0007335	0.003316	0.0007156
Std. Dev.	0.0002801	0.0004688	0.0003996	0.0003955	0.002375	0.0004174
Upper Lim.	0.00102	0.001222	0.00102	0.00102	0.005355	0.00102
Lower Lim.	0.0004	-0.0001834	0.00024	0.00024	0.0005285	0.000228

# Confidence Interval

Constituent: Cobalt (mg/L) Analysis Run 5/16/2022 4:49 PM View: Appendix IV - Confidence Intervals

Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-12V	GS-AP-MW-15	GS-AP-MW-16D	GS-AP-MW-17	GS-AP-MW-6	GS-AP-MW-7
10/15/2018		<0.0002			<0.0002	<0.0002
10/17/2018			<0.0002			
2/21/2019	<0.0002					
4/16/2019					<0.0002	
4/17/2019		<0.0002	<0.0002	<0.0002		
4/23/2019						0.00231 (J)
9/23/2019				<0.0002	<0.0002	
9/24/2019		<0.0002	<0.0002			<0.0002
9/25/2019	<0.0002					
3/16/2020				<0.0002		
3/17/2020					<0.0002	0.00476 (J)
3/18/2020		<0.0002				
3/24/2020	0.00277 (J)		<0.0002			
5/12/2020				<0.0002		
9/16/2020					<0.0002	0.00301 (J)
9/21/2020				<0.0002		
9/22/2020			<0.0002			
9/23/2020	<0.0002	<0.0002				
2/1/2021	0.00129					
2/2/2021				0.000102 (J)		0.00248
2/3/2021					0.000663	
2/9/2021		<0.0002				
2/10/2021			0.000252			
7/27/2021					0.00064	
8/3/2021		9E-05 (J)		<0.0002		
8/9/2021	0.00043		9E-05 (J)			0.0011
2/8/2022						0.00051
2/14/2022				<0.0002	0.00065	
2/15/2022			<0.0002			
2/16/2022		<0.0002				
2/23/2022	0.00013 (J)					
Mean	0.0007457	0.0001862	0.0001927	0.0001877	0.0003691	0.001821
Std. Dev.	0.0009803	3.889E-05	4.533E-05	3.465E-05	0.0002335	0.001613
Upper Lim.	0.001363	0.0002	0.000252	0.0002	0.000663	0.00381
Lower Lim.	8.055E-05	9E-05	9E-05	0.000102	0.0002	0.0009129



# Confidence Interval

Constituent: Combined Radium 226 + 228 (pCi/L) Analysis Run 5/16/2022 4:49 PM View: Appendix IV - Confidence Intervals

Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-12	GS-AP-MW-12V	GS-AP-MW-15	GS-AP-MW-15V	GS-AP-MW-16D	GS-AP-MW-17	GS-AP-MW-19	GS-AP-MW-2
10/15/2018			0.708					
10/16/2018	0.421 (U)						0.856	
10/17/2018					0.368 (U)			
2/21/2019		0.296 (U)						
4/16/2019	0.184 (U)							
4/17/2019			-0.11 (U)		0.121 (U)	0.00935 (U)	0.507 (U)	0.0905 (U)
9/23/2019						0.983		
9/24/2019			0.951		-0.033 (U)		0.664	
9/25/2019	0.442 (U)	1.03						0.537 (U)
3/16/2020						0.185 (U)		
3/18/2020	0.605		0.939	0.566 (U)				
3/24/2020		0.877 (U)			0.636		1.07	
3/25/2020								4
5/12/2020						0.0339 (U)		
5/13/2020								0.289 (U)
9/21/2020				0.494 (U)		0.651 (U)		
9/22/2020					0.59 (U)		2.09	0.712
9/23/2020	0.811 (U)	1.38	0.547 (U)					
2/1/2021	0.946 (U)	0.944 (U)						0.518 (U)
2/2/2021						2.53		
2/8/2021							0.947 (U)	
2/9/2021			0.442 (U)	0.55 (U)				
2/10/2021					0.285 (U)			
8/3/2021			0.65 (U)	1.13 (U)		0.667 (U)		
8/4/2021								0.502 (U)
8/9/2021	0.907 (U)	1.0895 (UD)			1.07 (U)			
8/10/2021							1.42 (U)	
2/14/2022						0.523 (U)		
2/15/2022					0.557 (U)			
2/16/2022			0.234 (U)	0.841 (U)				
2/22/2022							0.639 (U)	0.21 (U)
2/23/2022		1.3						
2/28/2022	0.725 (U)							
Mean	0.6301	0.9881	0.5451	0.7162	0.4493	0.6978	1.024	0.8573
Std. Dev.	0.2664	0.355	0.3574	0.2676	0.3434	0.815	0.5175	1.286
Upper Lim.	0.9125	1.41	0.9239	1.165	0.8132	1.471	1.573	1.484
Lower Lim.	0.3477	0.5664	0.1663	0.2678	0.08525	0.03889	0.4756	0.1457

# Confidence Interval

Constituent: Combined Radium 226 + 228 (pCi/L) Analysis Run 5/16/2022 4:49 PM View: Appendix IV - Confidence Intervals

Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-21	GS-AP-MW-21V	GS-AP-MW-6D	GS-AP-MW-6	GS-AP-MW-7	GS-AP-MW-9V
10/15/2018			0.656	0.792	0.309 (U)	
10/16/2018	0.586					
4/16/2019			0.528	1.11		
4/17/2019	0.47 (U)					
4/23/2019					0.894	
9/23/2019			0.677	1.06		
9/24/2019	1.08				0.618 (U)	
3/17/2020			0.629	0.351 (U)	1.2	
3/18/2020	0.732					
3/23/2020		0.982				0.156 (U)
9/16/2020				1.05	1.74	
9/17/2020			0.32 (U)			
9/22/2020						0.536 (U)
9/23/2020	0.468 (U)	0.563 (U)				
2/2/2021					0.373 (U)	0.154 (U)
2/3/2021			0.647 (U)	0.489 (U)		
2/8/2021	0.667 (U)					
2/9/2021		0.867 (U)				
7/27/2021			0.919 (U)	0.87 (U)		
8/4/2021	0.337 (U)					
8/9/2021					1.28 (D)	
8/10/2021						0.895 (U)
8/11/2021		0.782 (U)				
2/8/2022	0.529 (U)	0.467 (U)			0.587 (UD)	
2/14/2022			1.24	0.14 (U)		
2/21/2022						0.134 (U)
Mean	0.6086	0.7322	0.702	0.7328	0.8751	0.375
Std. Dev.	0.2269	0.2133	0.2736	0.3643	0.4985	0.3359
Upper Lim.	0.8491	1.09	0.992	1.119	1.404	1.045
Lower Lim.	0.3681	0.3748	0.412	0.3466	0.3467	0.036

# Confidence Interval

Constituent: Fluoride (mg/L) Analysis Run 5/16/2022 4:49 PM View: Appendix IV - Confidence Intervals

Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-12	GS-AP-MW-12V	GS-AP-MW-15	GS-AP-MW-15V	GS-AP-MW-16D	GS-AP-MW-17	GS-AP-MW-19	GS-AP-MW-2
10/15/2018			0.77					
10/16/2018	0.23						0.37	
10/17/2018					0.13			
2/21/2019		0.205						
4/16/2019	0.188							
4/17/2019			0.463		0.171	0.354	0.27	0.868
9/23/2019						0.351		
9/24/2019			0.628		0.124		0.307	
9/25/2019	0.168	0.185						0.86
3/16/2020						0.261		
3/18/2020	0.122		0.647	0.243				
3/24/2020		0.155			0.109		0.327	
3/25/2020								0.855
5/12/2020						0.263		
5/13/2020								0.777
9/21/2020				0.372		0.371		
9/22/2020					0.123		0.339	0.921
9/23/2020	0.12	0.176	0.452					
2/1/2021	0.126	0.169						0.865
2/2/2021						0.276		
2/8/2021							0.319	
2/9/2021			0.591	0.329				
2/10/2021					0.103			
8/3/2021			0.615	0.278		0.3		
8/4/2021								0.932
8/9/2021	0.139	0.187			0.131			
8/10/2021							0.283	
2/14/2022						0.206		
2/15/2022					0.114			
2/16/2022			0.349	0.208				
2/22/2022							0.259	0.819
2/23/2022		0.153						
2/28/2022	0.12							
Mean	0.1516	0.1757	0.5644	0.286	0.1256	0.2978	0.3093	0.8621
Std. Dev.	0.0404	0.01854	0.134	0.06565	0.02084	0.0571	0.03731	0.05008
Upper Lim.	0.23	0.1977	0.7064	0.396	0.1477	0.3583	0.3488	0.9152
Lower Lim.	0.12	0.1537	0.4223	0.176	0.1035	0.2372	0.2697	0.809

# Confidence Interval

Constituent: Fluoride (mg/L) Analysis Run 5/16/2022 4:49 PM View: Appendix IV - Confidence Intervals

Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-21	GS-AP-MW-21V	GS-AP-MW-6D	GS-AP-MW-6	GS-AP-MW-7	GS-AP-MW-9V
10/15/2018			0.16	0.14	0.11	
10/16/2018	0.25					
4/16/2019			0.156	0.147		
4/17/2019	0.272					
4/23/2019					0.111	
9/23/2019			0.132	0.142		
9/24/2019	0.209				0.106	
3/17/2020			0.132	0.231	0.107	
3/18/2020	0.234					
3/23/2020		0.494				0.187
9/16/2020				0.308	0.126	
9/17/2020			0.133			
9/22/2020						0.174
9/23/2020	0.208	0.641				
2/2/2021					0.124	0.183
2/3/2021			0.135	0.195		
2/8/2021	0.203					
2/9/2021		0.546				
7/27/2021			0.127	0.2		
8/4/2021	0.24					
8/9/2021					0.11	
8/10/2021						0.166
8/11/2021		0.41				
2/8/2022	0.175	0.398			0.0872 (JD)	
2/14/2022			0.108	0.164		
2/21/2022						0.177
Mean	0.2239	0.4978	0.1354	0.1909	0.1102	0.1774
Std. Dev.	0.03084	0.1006	0.01639	0.05739	0.01194	0.008142
Upper Lim.	0.2566	0.6664	0.1527	0.2517	0.1228	0.191
Lower Lim.	0.1912	0.3292	0.118	0.13	0.0975	0.1638

# Confidence Interval

Constituent: Lead (mg/L)    Analysis Run 5/16/2022 4:49 PM    View: Appendix IV - Confidence Intervals  
 Plant Gorgas    Client: Southern Company    Data: Gorgas Ash Pond

	GS-AP-MW-12V	GS-AP-MW-15	GS-AP-MW-16D	GS-AP-MW-17	GS-AP-MW-6	GS-AP-MW-7
10/15/2018		<0.0002			<0.0002	<0.0002
10/17/2018			<0.0002			
2/21/2019	<0.0002					
4/16/2019					<0.0002	
4/17/2019		<0.0002	<0.0002	<0.0002		
4/23/2019						0.00207 (J)
9/23/2019				<0.0002	<0.0002	
9/24/2019		<0.0002	<0.0002			<0.0002
9/25/2019	<0.0002					
3/16/2020				<0.0002		
3/17/2020					<0.0002	0.00386 (J)
3/18/2020		<0.0002				
3/24/2020	0.00279 (J)		<0.0002			
5/12/2020				<0.0002		
9/16/2020					<0.0002	0.00295 (J)
9/21/2020				<0.0002		
9/22/2020			<0.0002			
9/23/2020	0.0014 (J)	<0.0002				
2/1/2021	0.0013					
2/2/2021				0.000175 (J)		0.00243
2/3/2021					<0.0002	
2/9/2021		8.74E-05 (J)				
2/10/2021			0.000873			
7/27/2021					8E-05 (J)	
8/3/2021		8E-05 (J)		<0.0002		
8/9/2021	0.00048		0.00016 (J)			0.00119
2/8/2022						0.0008
2/14/2022				<0.0002	<0.0002	
2/15/2022			<0.0002			
2/16/2022		<0.0002				
2/23/2022	0.00019 (J)					
Mean	0.0009371	0.0001709	0.0002791	0.0001969	0.000185	0.001712
Std. Dev.	0.0009689	5.387E-05	0.0002404	8.839E-06	4.243E-05	0.001335
Upper Lim.	0.001929	0.0002	0.000873	0.0002	0.0002	0.003308
Lower Lim.	0.0001048	8E-05	0.00016	0.000175	8E-05	0.001125

# Confidence Interval

Constituent: Lithium (mg/L) Analysis Run 5/16/2022 4:49 PM View: Appendix IV - Confidence Intervals

Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-12	GS-AP-MW-12V	GS-AP-MW-15	GS-AP-MW-15V	GS-AP-MW-16D	GS-AP-MW-17	GS-AP-MW-19	GS-AP-MW-2
10/15/2018			0.297					
10/16/2018	0.0341						0.0406	
10/17/2018					0.0336			
2/21/2019		0.0468						
4/16/2019	0.0261							
4/17/2019			0.19		0.0349	0.0574	0.0429	0.0421
9/23/2019						0.0583		
9/24/2019			0.469		0.0362		0.0392	
9/25/2019	0.028	0.0611						0.0457
3/16/2020						0.0665		
3/18/2020	0.0297		0.378	0.208				
3/24/2020		0.0462			0.035		0.0417	
3/25/2020								0.0434
5/12/2020						0.0602		
5/13/2020								0.0409
9/21/2020				0.116		0.0579		
9/22/2020					0.0343		0.0435	0.0395
9/23/2020	0.0279	0.0409	0.414					
2/1/2021	0.0249	0.0384						0.0445
2/2/2021						0.0634		
2/8/2021							0.0368	
2/9/2021			0.493	0.122				
2/10/2021					0.0376			
8/3/2021			0.536	0.0986		0.068		
8/4/2021								0.0443
8/9/2021	0.0354	0.0398			0.0326			
8/10/2021							0.0305	
2/14/2022						0.0572		
2/15/2022					0.033			
2/16/2022			0.263	0.0788				
2/22/2022							0.0266	0.0354
2/23/2022		0.0279						
2/28/2022	0.0523							
Mean	0.0323	0.04301	0.38	0.1247	0.03465	0.06111	0.03773	0.04198
Std. Dev.	0.008869	0.01013	0.1212	0.04952	0.001666	0.004307	0.006132	0.003343
Upper Lim.	0.04049	0.05505	0.5085	0.2077	0.03642	0.068	0.04422	0.04552
Lower Lim.	0.0244	0.03098	0.2515	0.0417	0.03288	0.0572	0.03123	0.03843

# Confidence Interval

Constituent: Lithium (mg/L) Analysis Run 5/16/2022 4:49 PM View: Appendix IV - Confidence Intervals

Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-21	GS-AP-MW-21V	GS-AP-MW-6D	GS-AP-MW-6	GS-AP-MW-7	GS-AP-MW-9V
10/15/2018			0.236	0.03	0.155	
10/16/2018	0.219					
4/16/2019			0.267	<0.02		
4/17/2019	0.312					
4/23/2019					0.144	
9/23/2019			0.264	0.0105 (J)		
9/24/2019	0.276				0.156	
3/17/2020			0.292	0.0695	0.161	
3/18/2020	0.379					
3/23/2020		0.146				0.0309
9/16/2020				0.066	0.16	
9/17/2020			0.299			
9/22/2020						0.0293
9/23/2020	0.179	0.137				
2/2/2021					0.183	0.0299
2/3/2021			0.312	0.0455		
2/8/2021	0.239					
2/9/2021		0.124				
7/27/2021			0.326	0.0576		
8/4/2021	0.213					
8/9/2021					0.205	
8/10/2021						0.031
8/11/2021		0.048				
2/8/2022	0.0996	0.0835			0.203	
2/14/2022			0.302	0.0625		
2/21/2022						0.0293
Mean	0.2396	0.1077	0.2873	0.04395	0.1709	0.03008
Std. Dev.	0.08486	0.04105	0.02945	0.02431	0.02316	0.0008319
Upper Lim.	0.3295	0.1765	0.3185	0.06972	0.1954	0.03147
Lower Lim.	0.1496	0.03891	0.256	0.01818	0.1463	0.02869

# Confidence Interval

Constituent: Molybdenum (mg/L) Analysis Run 5/16/2022 4:49 PM View: Appendix IV - Confidence Intervals

Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-12	GS-AP-MW-12V	GS-AP-MW-15	GS-AP-MW-15V	GS-AP-MW-16D	GS-AP-MW-17	GS-AP-MW-19	GS-AP-MW-2
10/15/2018			0.0525					
10/16/2018	<0.01						0.00593 (J)	
10/17/2018					<0.01			
2/21/2019		0.00253 (J)						
4/16/2019	<0.01							
4/17/2019			0.029		<0.01	0.00661 (J)	0.00703 (J)	0.00293 (J)
9/23/2019						0.011		
9/24/2019			0.0597		<0.01		0.00562 (J)	
9/25/2019	<0.01	0.00942 (J)						0.00803 (J)
3/16/2020						0.00504 (J)		
3/18/2020	0.00444 (J)		0.0673	0.0327				
3/24/2020		0.00454 (J)			<0.01		0.00605 (J)	
3/25/2020								0.00343 (J)
5/12/2020						0.00436 (J)		
5/13/2020								0.00224 (J)
9/21/2020				0.0538		0.00776 (J)		
9/22/2020					<0.01		0.0063 (J)	0.00308 (J)
9/23/2020	0.00577 (J)	0.00463 (J)	0.0744					
2/1/2021	0.00792	0.00164						0.00427
2/2/2021						0.00538		
2/8/2021							0.00366	
2/9/2021			0.0644	0.0522				
2/10/2021					0.00014 (J)			
8/3/2021			0.0663	0.0311		0.00157		
8/4/2021								0.00168
8/9/2021	0.00452	0.00302			0.00069			
8/10/2021							0.00269	
2/14/2022						0.00252		
2/15/2022					0.00032			
2/16/2022			0.0306	0.0272				
2/22/2022							0.00267	0.00327
2/23/2022		0.00144						
2/28/2022	0.00903							
Mean	0.005835	0.003889	0.05553	0.0394	0.003269	0.00553	0.004994	0.003616
Std. Dev.	0.001704	0.002745	0.01708	0.01259	0.002394	0.002986	0.001721	0.001944
Upper Lim.	0.00903	0.00715	0.07362	0.06049	0.005	0.008695	0.006817	0.005472
Lower Lim.	0.00444	0.0006276	0.03743	0.01831	0.00014	0.002365	0.00317	0.001865



# Confidence Interval

Constituent: Molybdenum (mg/L) Analysis Run 5/16/2022 4:49 PM View: Appendix IV - Confidence Intervals

Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-21	GS-AP-MW-21V	GS-AP-MW-6D	GS-AP-MW-6	GS-AP-MW-7	GS-AP-MW-9V
10/15/2018			0.00538 (J)	0.00644 (J)	0.168	
10/16/2018	0.061					
4/16/2019			0.00747 (J)	0.00246 (J)		
4/17/2019	0.0885					
4/23/2019					0.185	
9/23/2019			0.00758 (J)	0.00412 (J)		
9/24/2019	0.0613				0.178	
3/17/2020			0.00959 (J)	0.0272	0.193	
3/18/2020	0.102					
3/23/2020		0.117				<0.01
9/16/2020				0.0427	0.215	
9/17/2020			0.00924 (J)			
9/22/2020						<0.01
9/23/2020	0.0404	0.12				
2/2/2021					0.202	0.000538
2/3/2021			0.0095	0.0218		
2/8/2021	0.0396					
2/9/2021		0.0983				
7/27/2021			0.0101	0.0452		
8/4/2021	0.0367					
8/9/2021					0.207	
8/10/2021						0.00269
8/11/2021		0.0394				
2/8/2022	0.0153	0.0819			0.221	
2/14/2022			0.0115	0.0411		
2/21/2022						0.0022
Mean	0.0556	0.09132	0.008795	0.02388	0.1961	0.003086
Std. Dev.	0.0287	0.03284	0.001899	0.01802	0.01844	0.001921
Upper Lim.	0.08602	0.1464	0.01081	0.04298	0.2157	0.003353
Lower Lim.	0.02518	0.03628	0.006782	0.004773	0.1766	0.0002661

# Confidence Interval

Constituent: Selenium (mg/L) Analysis Run 5/16/2022 4:49 PM View: Appendix IV - Confidence Intervals  
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

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	GS-AP-MW-6
10/15/2018	<0.01
4/16/2019	<0.01
9/23/2019	<0.01
3/17/2020	<0.01
9/16/2020	<0.01
2/3/2021	0.000794 (J)
7/27/2021	0.00124
2/14/2022	0.00085 (J)
Mean	0.00661
Std. Dev.	0.00468
Upper Lim.	0.01
Lower Lim.	0.000794